



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 04:52 AM GMT

PDB ID : 2OGN  
Title : The crystal structure of the large ribosomal subunit from *Deinococcus radiodurans* complexed with the pleuromutilin derivative SB-280080  
Authors : Davidovich, C.; Bashan, A.; Auerbach-Nevo, T.; Yonath, A.  
Deposited on : 2007-01-07  
Resolution : 3.56 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.  
We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)  
A user guide is available at  
<http://wwpdb.org/validation/2016/XrayValidationReportHelp>  
with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.7 (RC4), CSD as536be (2015)  
Xtriage (Phenix) : 1.9-1692  
EDS : rb-20026688  
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)  
Refmac : 5.8.0135  
CCP4 : 6.5.0  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : trunk26865

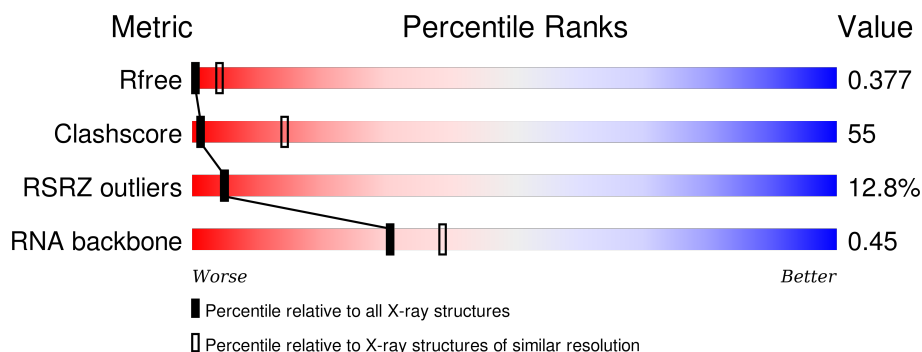
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.56 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)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	91344	1240 (3.72-3.40)
Clashscore	102246	1057 (3.70-3.42)
RSRZ outliers	91569	1247 (3.72-3.40)
RNA backbone	2183	1057 (4.30-2.80)

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

Mol	Chain	Length	Quality of chain
1	0	2880	
2	B	211	

## 2 Entry composition [i](#)

There are 3 unique types of molecules in this entry. The entry contains 59597 atoms, of which 0 are hydrogens and 0 are deuteriums.

In the tables below, the ZeroOcc column contains the number of atoms modelled with zero occupancy, 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.

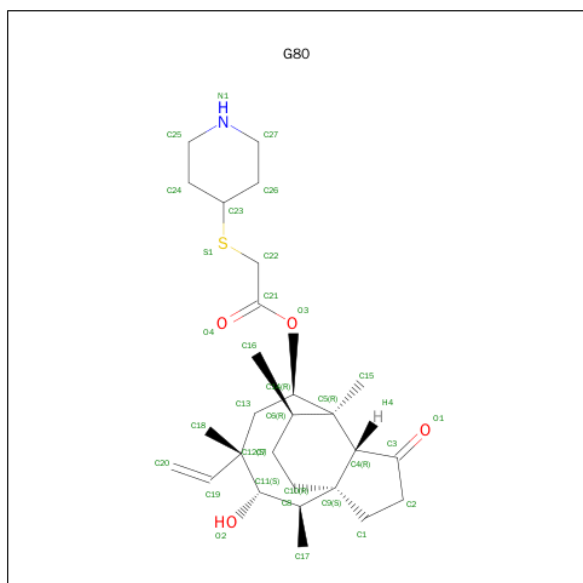
- Molecule 1 is a RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	0	2766	Total	C	N	O	P	0	0	0
			59359	26479	10949	19166	2765			

- Molecule 2 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
2	B	205	Total	C	0	0	205
			205	205			

- Molecule 3 is (3AS,4R,5S,6S,8R,9R,9AR,10R)-5-HYDROXY-4,6,9,10-TETRAMETHYL-1-OXO-6-VINYLDECAHYDRO-3A,9-PROPANOCYCLOPENTA[8]ANNULEN-8-YL (PIPERIDIN-4-YLTHIO)ACETATE (three-letter code: G80) (formula: C<sub>27</sub>H<sub>43</sub>NO<sub>4</sub>S).

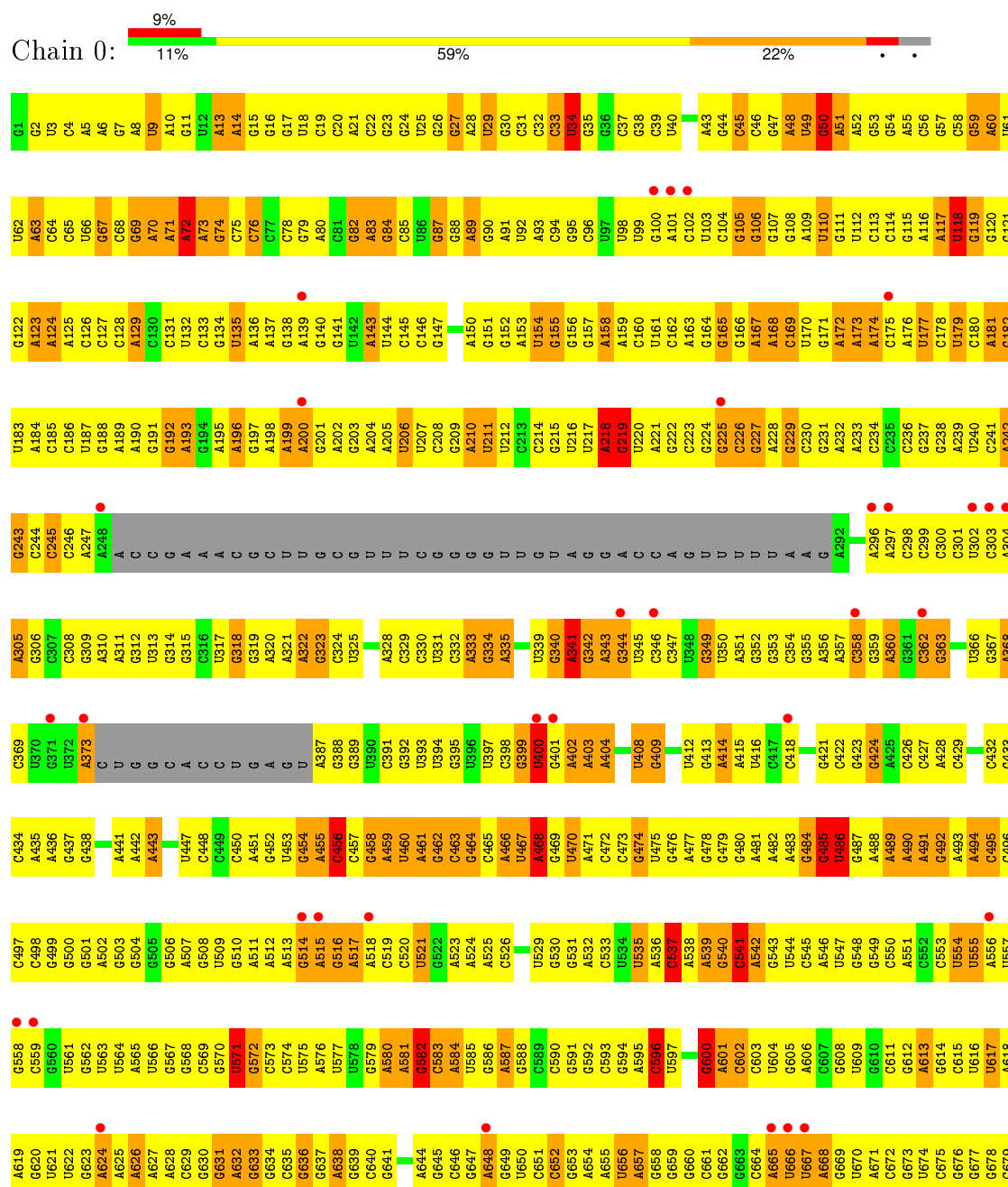


Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
3	0	1	Total	C	N	O	S	0	0
			33	27	1	4	1		

### 3 Residue-property plots

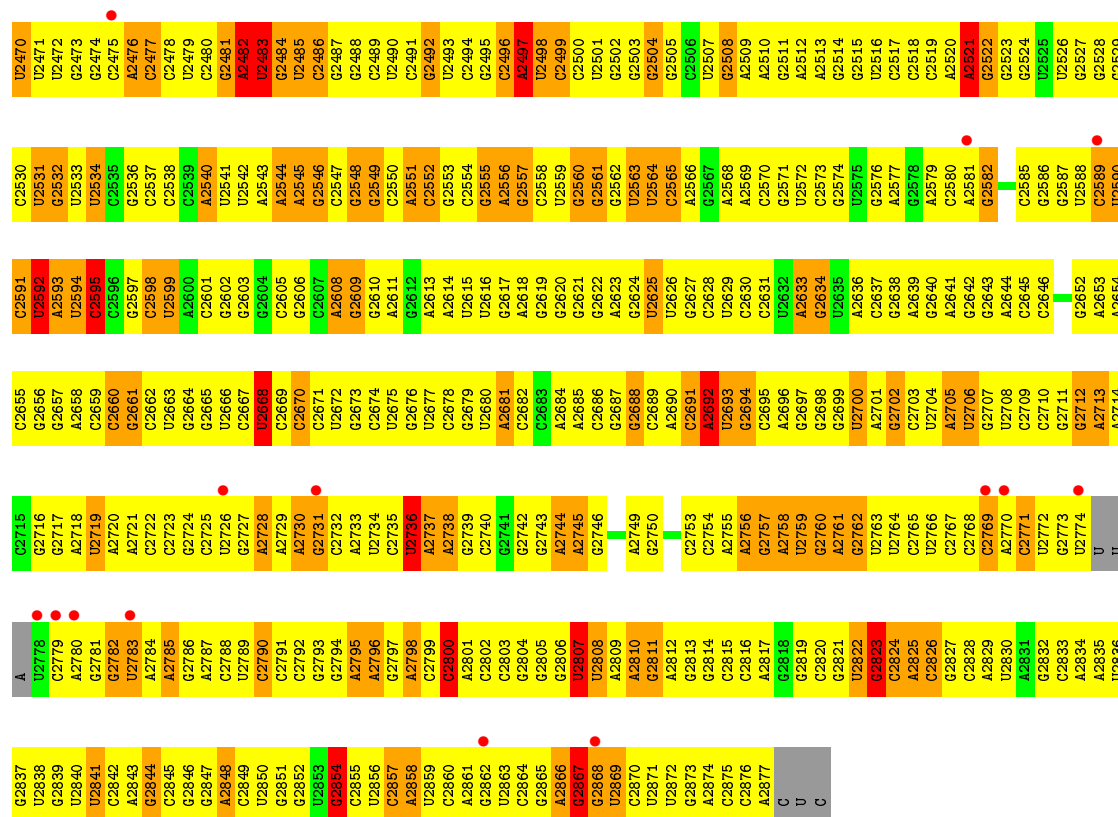
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according 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 dot above a residue indicates a poor fit to the electron density ( $\text{RSRZ} > 2$ ). 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: 23S ribosomal RNA

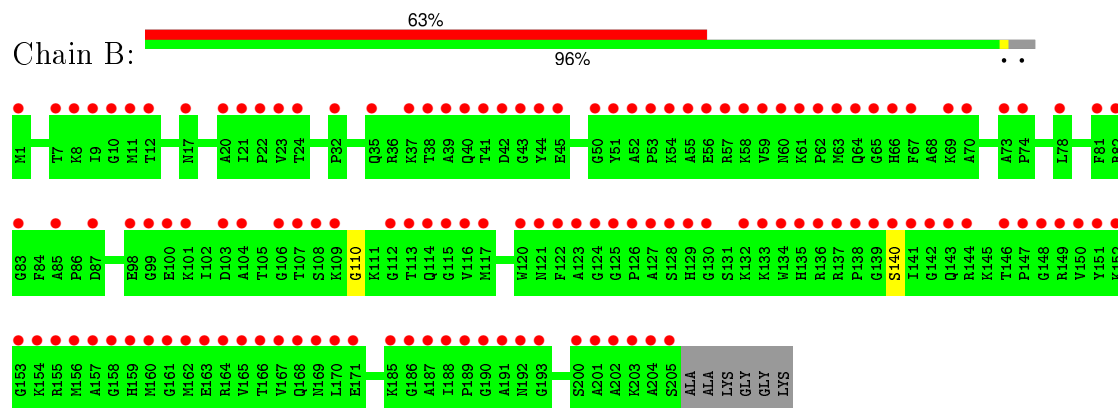




A2405	C2343	G2283	U2222	C2162	C1917	G1853	C1791	G1730	C1670	A1610
C2406	G2344	U2284	U2223	U2163	G1918	G1854	C1792	C1731	A1671	U1611
C2407	A2345	U2285	U2224	A2164	A1919	G1855	A1793	U1732	A1672	U1612
G2408	G2346	G2286	A2225	A2041	A1920	A1856	A1794	U1733	C1673	G1613
A2409	C2347	G2287	A2226	U2105	A1921	G1857	G1797	C1734	C1674	C1614
U2410	A2348	A2288	C2227	G2106	U1922	C1858	U1922	G1735	C1675	C1615
C2411	G2349	A2289	U2228	G2107	U1923	A1859	G1798	U1736	U1676	C1616
A2412	G2350	A2290	G2229	A2169	U1924	A1860	G1799	C1737	C1677	C1617
A2413	G2351	U2291	G2230	A2109	C1925	G1861	A1800	U1738	C1678	U1618
U2417	A2352	C2292	C2231	G2110	U1926	C1862	C1801	U1739	U1679	A1619
A2418	G2353	C2293	C2232	C	U1927	U1863	A1802	G1741	U1680	C1620
C2419	G2354	U2294	C2233	C	G2049	G1864	G1803	G1742	A1681	G1621
A2420	A2355	G2235	G2234	U	U1928	G1865	U1804	C1743	A1682	G1622
U2421	G2356	U2236	G2235	G	C1930	G1866	G1805	G1744	G1683	C1623
U2422	A2357	C2237	U2051	U2051	U1990	A1867	G1806	C1745	G1684	A1624
G2423	C2358	C2238	G2052	G2052	C1991	A1868	A1807	A1746	A1685	A1625
A2424	U2359	C2239	G2053	G2053	G1992	U1869	C1808	G1747	A1686	A1626
G2425	C2360	G2240	U2118	A2118	U1994	U1870	G1809	U1748	C1687	C1627
U2426	G2361	U2241	A2119	A2119	G1995	G1871	U1810	G1749	U1688	C1628
A2427	G2362	C2242	G2120	G2120	A1996	A1872	U1811	A1750	U1689	G1629
U2428	C2363	C2243	U2058	U2058	A1997	A1873	U1812	A1751	U1690	A1630
C2429	G2364	C2244	A2060	A2060	U1998	U1874	A1813	U1752	G1691	C1631
A2430	U2365	A2245	C2061	C2061	U1999	C1878	G1814	U1753	A1692	A1632
C2431	G2366	A2246	U2062	U2062	G2000	G1879	G1815	G1754	A1693	C1633
A2432	A2367	A2247	U2064	U2064	A2002	C1941	G1816	G1755	A1694	A1634
U2433	G2368	A2248	U2065	U2065	U2003	G1942	U1817	C1756	U1695	C1635
C2434	U2369	U2249	U2066	U2066	A2004	C1943	G1818	C1757	C1696	G1636
A2435	A2371	U2251	G2067	U2067	U2005	C1944	U1819	C1758	U1697	U1637
U2436	C2372	A2252	U2068	U2068	G2006	U1946	A1820	G1760	C1698	A1638
C2437	G2373	G2253	U2069	U2069	G2007	G1947	G1822	G1761	U1699	U1639
A2438	C2374	A2254	G2132	G2132	C2008	C1948	G1823	C1762	C1700	C1640
U2439	G2375	G2255	U2133	U2133	U2009	A1949	G1824	C1763	C1701	C1641
C2440	U2376	A2256	C2135	C2135	G2010	G1890	C1825	A1764	G1702	A1642
U2441	U2377	G2257	A2073	A2073	U2011	C1891	C1826	C1765	C1703	A1643
C2442	U2378	G2258	G2137	G2137	A2012	G1892	G1827	U1766	G1704	G1644
U2443	A2381	G2259	U2138	U2138	A2013	G1893	G1827	G1767	U1705	U1645
U2444	C2382	G2260	G2139	G2139	A2014	U1894	G1830	G1768	A1706	G1646
A2445	G2383	G2261	G2140	G2140	G2015	A1895	G1831	U1769	A1707	U1647
C2446	U2384	C2262	A	A	A2016	G1896	G1832	U1770	C1708	C1648
U2447	G2385	C2263	G	G	U2017	C1897	U1833	A1771	U1709	A1649
A2448	C2386	G2264	C	C	G2018	U1898	G1834	C1772	U1710	U1651
U2449	G2387	A2265	A	A	C2019	A1899	C1835	C1773	C1711	A1652
C2450	U2388	A2266	C	C	G2020	U1900	C1836	A1774	G1712	G1653
U2451	G2389	A2267	A	A	G2021	A1901	G1837	A1775	A1714	C1654
A2452	A2390	G2268	C	C	C2022	G1902	G1838	A1776	A1715	C1655
C2453	U2391	C2269	G	G	C2023	C1903	A1839	A1777	G1716	U1656
U2454	G2392	U2270	U	U	U2024	A1904	A1840	U1778	A1717	A1657
A2455	C2393	C2271	G	G	A2025	G1905	A1841	C1779	A1718	A1658
C2456	U2394	A2272	U	U	C2026	U1906	G1842	U1780	G1719	G1659
U2457	G2395	C2273	A	A	U2090	C1907	U1843	C1781	G1720	G1660
A2458	C2396	G2274	A	A	G2029	U1908	C1844	A1782	C1721	G1661
C2459	U2397	U2275	A	A	U2030	G1909	A1845	G1783	G1722	G1662
U2460	G2398	C2276	U	U	A2031	U1910	A1846	C1784	U1723	C1663
C2461	U2399	A2277	A	A	G2032	A1911	G1847	A1785	C1724	G1664
A2462	G2400	G2278	C2157	C2157	C2033	G1912	U1848	C1786	C1725	G1665
U2463	U2401	A2279	U2096	U2096	A2034	C1973	G1849	U1787	C1726	G1666
C2464	A2402	G2280	G	G	G2035	U1974	G1850	C1788	C1727	A1667
U2465	U2403	C2281	A2097	A2097	G2036	U1975	A1851	U1789	A1728	G1668
A2466	G2404	A2282	A	A	A2037	U1976	G1852	G1790	C1729	A1669



• Molecule 2: 50S ribosomal protein L3



## 4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	170.47Å 412.74Å 696.67Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	29.96 – 3.56 29.95 – 3.56	Depositor EDS
% Data completeness (in resolution range)	90.5 (29.96-3.56) 90.6 (29.95-3.56)	Depositor EDS
$R_{merge}$	0.17	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.70 (at 3.56Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, $R_{free}$	0.276 , 0.338 0.360 , 0.377	Depositor DCC
$R_{free}$ test set	13101 reflections (5.24%)	DCC
Wilson B-factor (Å <sup>2</sup> )	97.3	Xtriage
Anisotropy	0.737	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.15 , 79.9	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtriage
Outliers	0 of 263343 reflections	Xtriage
$F_o, F_c$ correlation	0.80	EDS
Total number of atoms	59597	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	92.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.23% of the height of the origin peak. No significant pseudotranslation is detected.*

<sup>1</sup>Intensities estimated from amplitudes.

<sup>2</sup>Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.375 respectively for untwinned datasets, and 0.333, 0.2 for perfectly twinned datasets.

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

Bond lengths and bond angles in the following residue types are not validated in this section: G80

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	0	0.62	9/66467 (0.0%)	0.83	95/103673 (0.1%)

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	0	0	158

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	0	788	G	N9-C4	8.60	1.44	1.38
1	0	700	C	N1-C2	8.52	1.48	1.40
1	0	788	G	C5-C6	6.89	1.49	1.42
1	0	824	U	N1-C2	6.74	1.44	1.38
1	0	788	G	C2-N3	5.96	1.37	1.32
1	0	1972	G	C5-C6	-5.57	1.36	1.42
1	0	2000	U	N1-C2	-5.51	1.33	1.38
1	0	1993	G	C5-C6	-5.17	1.37	1.42
1	0	1681	A	C5-C6	-5.15	1.36	1.41

All (95) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	1342	U	N1-C1'-C2'	10.68	127.89	114.00
1	0	985	G	N9-C1'-C2'	10.52	127.68	114.00
1	0	2497	A	N9-C1'-C2'	10.09	127.12	114.00
1	0	1975	G	N9-C1'-C2'	9.37	126.19	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	2660	C	N1-C1'-C2'	9.30	126.09	114.00
1	0	804	C	N1-C1'-C2'	8.77	125.40	114.00
1	0	813	A	N9-C1'-C2'	8.57	125.15	114.00
1	0	2692	A	N9-C1'-C2'	-8.53	102.61	112.00
1	0	1407	G	N9-C1'-C2'	8.47	125.01	114.00
1	0	788	G	N9-C1'-C2'	8.24	124.71	114.00
1	0	1279	G	N9-C1'-C2'	8.13	124.57	114.00
1	0	571	U	N1-C1'-C2'	8.01	124.41	114.00
1	0	1278	A	N9-C1'-C2'	7.99	124.39	114.00
1	0	2823	G	N9-C1'-C2'	7.83	124.17	114.00
1	0	843	G	N9-C1'-C2'	7.49	123.73	114.00
1	0	1410	U	N1-C1'-C2'	7.48	123.73	114.00
1	0	2034	A	N9-C1'-C2'	7.43	123.67	114.00
1	0	1716	G	N9-C1'-C2'	7.43	123.66	114.00
1	0	1979	C	N1-C1'-C2'	7.29	123.48	114.00
1	0	2497	A	O4'-C1'-N9	7.22	113.98	108.20
1	0	541	C	C1'-O4'-C4'	-7.20	104.14	109.90
1	0	1685	A	OP2-P-O3'	7.19	121.02	105.20
1	0	72	A	O4'-C1'-N9	7.11	113.88	108.20
1	0	541	C	O4'-C1'-N1	7.09	113.87	108.20
1	0	1975	G	C2'-C3'-O3'	7.06	125.03	109.50
1	0	2521	A	N9-C1'-C2'	7.04	123.15	114.00
1	0	1670	G	N9-C1'-C2'	6.83	122.88	114.00
1	0	1337	G	N9-C1'-C2'	6.83	122.88	114.00
1	0	871	U	N1-C1'-C2'	6.75	122.78	114.00
1	0	2668	U	N1-C1'-C2'	6.71	122.72	114.00
1	0	699	G	N9-C1'-C2'	6.70	122.71	114.00
1	0	1410	U	O4'-C1'-N1	6.61	113.49	108.20
1	0	400	U	N1-C1'-C2'	6.60	122.58	114.00
1	0	468	A	N9-C1'-C2'	6.54	122.50	114.00
1	0	34	U	N1-C1'-C2'	6.52	122.48	114.00
1	0	123	A	N9-C1'-C2'	6.51	122.46	114.00
1	0	1266	G	N9-C1'-C2'	6.45	122.39	114.00
1	0	699	G	O4'-C1'-N9	6.45	113.36	108.20
1	0	596	C	N1-C1'-C2'	6.43	122.36	114.00
1	0	1167	A	N9-C1'-C2'	6.40	122.32	114.00
1	0	2497	A	C1'-O4'-C4'	-6.33	104.83	109.90
1	0	1723	U	N1-C1'-C2'	6.30	122.20	114.00
1	0	2314	A	N9-C1'-C2'	6.23	122.10	114.00
1	0	2428	U	N1-C1'-C2'	6.21	122.07	114.00
1	0	177	U	N1-C1'-C2'	6.20	122.06	114.00
1	0	700	C	N1-C2-O2	6.20	122.62	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	219	G	N9-C1'-C2'	6.14	121.98	114.00
1	0	2848	A	N9-C1'-C2'	6.07	121.89	114.00
1	0	1685	A	N9-C1'-C2'	6.04	121.86	114.00
1	0	1771	A	N9-C1'-C2'	6.00	121.80	114.00
1	0	956	A	C2'-C3'-O3'	5.96	123.23	113.70
1	0	993	C	N1-C1'-C2'	5.95	121.74	114.00
1	0	600	G	N9-C1'-C2'	5.93	121.70	114.00
1	0	955	G	N9-C1'-C2'	-5.90	105.50	112.00
1	0	218	A	N9-C1'-C2'	5.87	121.63	114.00
1	0	541	C	C5'-C4'-O4'	5.86	116.13	109.10
1	0	1280	U	N1-C1'-C2'	5.84	121.59	114.00
1	0	582	G	N9-C1'-C2'	5.81	121.55	114.00
1	0	1279	G	OP2-P-O3'	5.81	117.98	105.20
1	0	2016	A	N9-C1'-C2'	5.79	121.53	114.00
1	0	1711	C	N1-C1'-C2'	5.75	121.48	114.00
1	0	1684	G	N9-C1'-C2'	5.64	121.33	114.00
1	0	795	A	C2'-C3'-O3'	-5.62	97.14	109.50
1	0	1670	G	C5'-C4'-O4'	-5.62	102.36	109.10
1	0	1777	A	N9-C1'-C2'	5.60	121.28	114.00
1	0	1921	A	N9-C1'-C2'	5.58	121.26	114.00
1	0	1921	A	C1'-O4'-C4'	-5.55	105.46	109.90
1	0	700	C	N3-C2-O2	-5.52	118.04	121.90
1	0	1749	G	N9-C1'-C2'	5.51	121.16	114.00
1	0	1811	A	N9-C1'-C2'	5.48	121.12	114.00
1	0	2476	A	OP2-P-O3'	5.47	117.23	105.20
1	0	2434	G	N9-C1'-C2'	5.46	121.09	114.00
1	0	2237	C	N1-C1'-C2'	5.45	121.08	114.00
1	0	938	G	N9-C1'-C2'	5.43	121.07	114.00
1	0	1314	A	N9-C1'-C2'	5.42	121.04	114.00
1	0	2469	G	O4'-C1'-N9	5.41	112.53	108.20
1	0	2668	U	C1'-O4'-C4'	-5.34	105.63	109.90
1	0	814	G	C2'-C3'-O3'	5.33	122.22	113.70
1	0	1036	G	N9-C1'-C2'	5.32	120.92	114.00
1	0	1000	G	N9-C1'-C2'	5.32	120.91	114.00
1	0	2800	C	N1-C1'-C2'	-5.31	106.16	112.00
1	0	788	G	N1-C2-N2	-5.30	111.43	116.20
1	0	2598	C	C5'-C4'-C3'	-5.29	107.53	116.00
1	0	2013	A	C2'-C3'-O3'	5.24	122.08	113.70
1	0	1459	U	N1-C1'-C2'	5.18	120.73	114.00
1	0	1260	A	N9-C1'-C2'	5.18	120.73	114.00
1	0	2692	A	O4'-C1'-N9	5.08	112.27	108.20
1	0	699	G	C1'-O4'-C4'	-5.08	105.84	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	700	C	N1-C1'-C2'	5.04	120.55	114.00
1	0	1266	G	C2'-C3'-O3'	5.04	121.76	113.70
1	0	855	G	N9-C1'-C2'	-5.02	106.47	112.00
1	0	984	A	N9-C1'-C2'	5.02	120.52	114.00
1	0	1923	U	N1-C1'-C2'	5.02	120.52	114.00
1	0	2795	A	N9-C1'-C2'	5.01	120.51	114.00
1	0	1714	A	N9-C1'-C2'	-5.00	106.50	112.00

There are no chirality outliers.

All (158) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1000	G	Sidechain
1	0	1030	U	Sidechain
1	0	1033	G	Sidechain
1	0	1141	U	Sidechain
1	0	1142	G	Sidechain
1	0	1167	A	Sidechain
1	0	1177	U	Sidechain
1	0	118	U	Sidechain
1	0	1202	U	Sidechain
1	0	1207	G	Sidechain
1	0	1224	A	Sidechain
1	0	1236	G	Sidechain
1	0	1249	G	Sidechain
1	0	1251	G	Sidechain
1	0	1261	G	Sidechain
1	0	1262	U	Sidechain
1	0	1278	A	Sidechain
1	0	1279	G	Sidechain
1	0	1280	U	Sidechain
1	0	1288	A	Sidechain
1	0	1295	U	Sidechain
1	0	1303	U	Sidechain
1	0	1314	A	Sidechain
1	0	1322	G	Sidechain
1	0	1332	G	Sidechain
1	0	1342	U	Sidechain
1	0	1357	U	Sidechain
1	0	1373	G	Sidechain
1	0	1407	G	Sidechain
1	0	1410	U	Sidechain

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Mol	Chain	Res	Type	Group
1	0	1469	U	Sidechain
1	0	1474	A	Sidechain
1	0	154	U	Sidechain
1	0	1625	A	Sidechain
1	0	1634	A	Sidechain
1	0	1635	G	Sidechain
1	0	165	G	Sidechain
1	0	1666	G	Sidechain
1	0	1671	A	Sidechain
1	0	1673	C	Sidechain
1	0	1676	U	Sidechain
1	0	1679	U	Sidechain
1	0	168	A	Sidechain
1	0	1682	A	Sidechain
1	0	1683	G	Sidechain
1	0	1705	U	Sidechain
1	0	1710	U	Sidechain
1	0	1711	C	Sidechain
1	0	1715	A	Sidechain
1	0	172	A	Sidechain
1	0	1723	U	Sidechain
1	0	1746	A	Sidechain
1	0	1749	G	Sidechain
1	0	1750	A	Sidechain
1	0	1771	A	Sidechain
1	0	1783	G	Sidechain
1	0	179	U	Sidechain
1	0	1814	G	Sidechain
1	0	1922	U	Sidechain
1	0	1945	C	Sidechain
1	0	196	A	Sidechain
1	0	1969	G	Sidechain
1	0	2009	U	Sidechain
1	0	2036	G	Sidechain
1	0	2047	C	Sidechain
1	0	2051	U	Sidechain
1	0	2058	U	Sidechain
1	0	2069	U	Sidechain
1	0	211	U	Sidechain
1	0	219	G	Sidechain
1	0	2199	C	Sidechain
1	0	2208	U	Sidechain

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Mol	Chain	Res	Type	Group
1	0	2223	U	Sidechain
1	0	2237	C	Sidechain
1	0	2251	U	Sidechain
1	0	2255	G	Sidechain
1	0	2258	G	Sidechain
1	0	2270	U	Sidechain
1	0	2315	A	Sidechain
1	0	2363	G	Sidechain
1	0	2366	U	Sidechain
1	0	2428	U	Sidechain
1	0	2429	A	Sidechain
1	0	2434	G	Sidechain
1	0	2436	U	Sidechain
1	0	2482	A	Sidechain
1	0	2483	U	Sidechain
1	0	2496	C	Sidechain
1	0	2497	A	Sidechain
1	0	2508	G	Sidechain
1	0	2521	A	Sidechain
1	0	2531	U	Sidechain
1	0	2534	U	Sidechain
1	0	2540	A	Sidechain
1	0	2544	A	Sidechain
1	0	2592	U	Sidechain
1	0	2595	C	Sidechain
1	0	2599	U	Sidechain
1	0	2682	C	Sidechain
1	0	2700	U	Sidechain
1	0	2719	U	Sidechain
1	0	2728	A	Sidechain
1	0	2736	U	Sidechain
1	0	2785	A	Sidechain
1	0	2790	C	Sidechain
1	0	2800	C	Sidechain
1	0	2807	U	Sidechain
1	0	2822	U	Sidechain
1	0	2823	G	Sidechain
1	0	2826	C	Sidechain
1	0	2844	G	Sidechain
1	0	2854	G	Sidechain
1	0	2867	G	Sidechain
1	0	2869	U	Sidechain

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Mol	Chain	Res	Type	Group
1	0	29	U	Sidechain
1	0	341	A	Sidechain
1	0	349	G	Sidechain
1	0	443	A	Sidechain
1	0	456	C	Sidechain
1	0	470	U	Sidechain
1	0	474	G	Sidechain
1	0	485	G	Sidechain
1	0	486	U	Sidechain
1	0	50	G	Sidechain
1	0	535	U	Sidechain
1	0	537	C	Sidechain
1	0	541	C	Sidechain
1	0	561	U	Sidechain
1	0	571	U	Sidechain
1	0	600	G	Sidechain
1	0	67	G	Sidechain
1	0	683	A	Sidechain
1	0	697	G	Sidechain
1	0	716	U	Sidechain
1	0	757	U	Sidechain
1	0	758	G	Sidechain
1	0	759	C	Sidechain
1	0	765	C	Sidechain
1	0	774	A	Sidechain
1	0	791	G	Sidechain
1	0	794	A	Sidechain
1	0	800	U	Sidechain
1	0	804	C	Sidechain
1	0	813	A	Sidechain
1	0	820	U	Sidechain
1	0	823	U	Sidechain
1	0	824	U	Sidechain
1	0	840	U	Sidechain
1	0	852	U	Sidechain
1	0	873	U	Sidechain
1	0	954	U	Sidechain
1	0	955	G	Sidechain
1	0	972	C	Sidechain
1	0	976	C	Sidechain
1	0	985	G	Sidechain
1	0	991	A	Sidechain

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Mol	Chain	Res	Type	Group
1	0	993	C	Sidechain
1	0	994	A	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	0	59359	0	29917	4825	0
2	B	205	0	0	2	0
3	0	33	0	43	7	0
All	All	59597	0	29960	4828	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 55.

All (4828) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2040:A:H2'	1:0:2041:A:C8	1.52	1.42
1:0:2040:A:C2'	1:0:2041:A:H8	1.48	1.27
1:0:2564:U:O2'	1:0:2565:C:H5'	1.34	1.26
1:0:2418:A:H1'	1:0:2565:C:O2'	1.31	1.24
1:0:2810:A:C6	1:0:2854:G:C8	2.27	1.22
1:0:788:G:H22	1:0:801:A:P	1.64	1.21
1:0:813:A:O2'	1:0:814:G:H3'	1.36	1.20
1:0:2558:C:O2'	1:0:2559:U:H5'	1.36	1.19
1:0:940:G:H3'	1:0:941:U:H5''	1.20	1.19
1:0:788:G:H2'	1:0:807:A:N7	1.57	1.18
1:0:2726:U:H2'	1:0:2727:G:H5'	1.25	1.18
1:0:2559:U:H2'	1:0:2560:G:H5'	1.23	1.16
1:0:788:G:C2	1:0:800:U:H2'	1.80	1.16
1:0:1458:A:H3'	1:0:1459:U:C5'	1.72	1.15
1:0:918:A:H2'	1:0:919:U:H5''	1.21	1.14
1:0:2758:A:O2'	1:0:2759:U:OP1	1.65	1.14
1:0:2426:G:H4'	1:0:2427:A:H5''	1.28	1.12
1:0:2565:C:O2'	1:0:2566:A:H5'	1.50	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1458:A:H3'	1:0:1459:U:H5''	1.21	1.12
1:0:2856:U:H2'	1:0:2857:C:H5''	1.33	1.11
1:0:109:A:H2'	1:0:110:U:H5''	1.31	1.11
1:0:2708:U:H2'	1:0:2709:C:H6	1.07	1.11
1:0:1775:A:H4'	1:0:1776:A:O5'	1.50	1.10
1:0:929:A:H3'	1:0:930:A:H5''	1.32	1.10
1:0:1631:C:H2'	1:0:1632:A:H5''	1.29	1.10
1:0:1978:U:C5'	1:0:1979:C:H5''	1.82	1.10
1:0:2559:U:C2'	1:0:2560:G:H5'	1.80	1.09
1:0:2708:U:H2'	1:0:2709:C:C6	1.87	1.09
1:0:1908:C:H2'	1:0:1909:U:H4'	1.23	1.09
1:0:984:A:H1'	1:0:1202:U:C6	1.88	1.08
1:0:1437:A:H2'	1:0:1438:G:H8	1.14	1.08
1:0:693:A:H2'	1:0:694:G:C8	1.88	1.08
1:0:2691:C:C2'	1:0:2692:A:H5''	1.84	1.07
1:0:591:G:H3'	1:0:592:G:H8	1.20	1.07
1:0:509:U:H2'	1:0:510:G:H5'	1.36	1.06
1:0:2811:G:H2'	1:0:2812:A:H8	1.19	1.04
1:0:1202:U:H2'	1:0:1203:A:H8	1.21	1.04
1:0:940:G:H3'	1:0:941:U:C5'	1.88	1.04
1:0:750:C:H2'	1:0:751:G:H8	1.20	1.04
1:0:841:G:H2'	1:0:842:A:C8	1.93	1.03
1:0:788:G:N2	1:0:800:U:C3'	2.22	1.03
1:0:2484:G:C8	1:0:2555:G:N2	2.27	1.03
1:0:958:G:H2'	1:0:959:C:H6	1.24	1.03
1:0:2553:G:O2'	1:0:2554:C:H5'	1.59	1.03
1:0:2737:A:H2'	1:0:2738:A:H5'	1.41	1.03
1:0:2781:G:H2'	1:0:2782:G:C8	1.93	1.03
1:0:2691:C:H2'	1:0:2692:A:H5''	1.04	1.02
1:0:2856:U:C2'	1:0:2857:C:H5''	1.91	1.01
1:0:1464:A:H2'	1:0:1465:G:O4'	1.62	1.00
1:0:2198:U:C3'	1:0:2199:C:H4'	1.92	1.00
1:0:832:A:H2'	1:0:833:A:H8	1.27	1.00
1:0:1621:C:H4'	1:0:1626:A:H62	1.26	0.99
1:0:1787:U:H2'	1:0:1788:C:H6	1.26	0.98
1:0:741:G:C6	1:0:743:A:C5	2.51	0.98
1:0:1918:G:H2'	1:0:1945:C:H42	1.27	0.98
1:0:1978:U:H5'	1:0:1979:C:H5''	1.43	0.98
1:0:2311:U:H5'	1:0:2315:A:H61	1.26	0.98
1:0:109:A:C2'	1:0:110:U:H5''	1.93	0.98
1:0:2040:A:C2'	1:0:2041:A:C8	2.31	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:357:A:H2'	1:0:358:C:H5'	1.43	0.97
1:0:699:G:H21	1:0:801:A:N6	1.60	0.97
1:0:971:A:O2'	1:0:972:C:H5'	1.62	0.97
1:0:1440:G:H1'	1:0:1588:A:N6	1.80	0.97
1:0:2425:G:O2'	1:0:2426:G:H5''	1.64	0.97
1:0:627:A:H2'	1:0:628:A:C8	1.98	0.97
1:0:2553:G:C2'	1:0:2554:C:H5'	1.93	0.97
1:0:172:A:N7	1:0:175:C:H5	1.63	0.96
1:0:2040:A:H2'	1:0:2041:A:H8	0.87	0.96
1:0:2725:C:H2'	1:0:2726:U:C6	2.00	0.96
1:0:1528:C:H3'	1:0:1529:C:H5''	1.45	0.96
1:0:1377:G:HO2'	1:0:1799:A:H2	0.96	0.95
1:0:2418:A:H5''	1:0:2419:C:OP1	1.67	0.95
1:0:624:A:H2'	1:0:625:A:H5'	1.48	0.95
1:0:2041:A:H5''	1:0:2042:A:OP2	1.66	0.95
1:0:2404:A:H5'	1:0:2406:C:O4'	1.67	0.95
1:0:1715:A:O2'	1:0:1716:G:H3'	1.66	0.95
1:0:2589:C:H5'	1:0:2590:U:H5'	1.48	0.94
1:0:1174:G:H2'	1:0:1175:A:H8	1.28	0.94
1:0:1774:A:N1	1:0:2566:A:H2'	1.80	0.94
1:0:579:G:H4'	1:0:994:A:C2	2.02	0.94
1:0:68:C:H2'	1:0:68:C:O2	1.67	0.94
1:0:918:A:C2'	1:0:919:U:H5''	1.96	0.94
1:0:192:G:H1'	1:0:193:A:H4'	1.48	0.94
1:0:788:G:N2	1:0:801:A:P	2.40	0.94
1:0:1438:G:H2'	1:0:1439:G:H5'	1.49	0.94
1:0:2198:U:H3'	1:0:2199:C:H4'	1.50	0.94
1:0:2811:G:H2'	1:0:2812:A:C8	2.03	0.94
1:0:1715:A:H2'	1:0:1716:G:H5''	1.48	0.94
1:0:939:C:H2'	1:0:940:G:C8	2.02	0.93
1:0:321:A:H2'	1:0:323:G:N7	1.83	0.93
1:0:742:G:N2	1:0:1766:U:C6	2.36	0.93
1:0:2329:C:H2'	1:0:2330:G:O4'	1.67	0.93
1:0:1373:G:H22	1:0:2192:U:H3	1.00	0.93
1:0:1673:C:H2'	1:0:1674:C:H6	1.31	0.93
1:0:1764:A:H2'	1:0:1765:C:H5'	1.51	0.93
1:0:2498:U:H4'	1:0:2499:C:OP1	1.63	0.93
1:0:583:C:H1'	1:0:2038:C:C6	2.04	0.93
1:0:2418:A:H1'	1:0:2565:C:HO2'	1.30	0.93
1:0:699:G:N2	1:0:801:A:H61	1.67	0.93
1:0:1437:A:H2'	1:0:1438:G:C8	2.04	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2418:A:C1'	1:0:2565:C:O2'	2.16	0.92
1:0:1438:G:C2'	1:0:1439:G:H5'	1.98	0.92
1:0:627:A:H2'	1:0:628:A:H8	1.29	0.92
1:0:2705:A:O2'	1:0:2706:U:C6	2.23	0.92
1:0:1698:C:H2'	1:0:1753:A:N3	1.84	0.92
1:0:2781:G:H2'	1:0:2782:G:C1'	1.98	0.92
1:0:741:G:C6	1:0:743:A:N7	2.38	0.92
1:0:976:C:H1'	1:0:2252:A:C2	2.05	0.92
1:0:1631:C:C2'	1:0:1632:A:H5''	2.00	0.92
1:0:2427:A:O2'	1:0:2428:U:OP1	1.85	0.92
1:0:983:G:OP2	1:0:985:G:H5''	1.69	0.92
1:0:2680:U:H5''	1:0:2681:A:H5'	1.52	0.92
1:0:2691:C:H2'	1:0:2692:A:C5'	1.98	0.92
1:0:2810:A:C5	1:0:2854:G:N7	2.38	0.91
1:0:1882:G:H21	1:0:1885:C:N4	1.67	0.91
1:0:2810:A:N6	1:0:2854:G:C8	2.38	0.91
1:0:611:C:O2	1:0:614:G:H4'	1.70	0.91
1:0:1354:A:H3'	1:0:1410:U:C2	2.05	0.91
1:0:787:A:O2'	1:0:788:G:H5'	1.71	0.91
1:0:2425:G:H2'	1:0:2426:G:H5'	1.51	0.91
1:0:1359:G:H8	1:0:1359:G:H5'	1.34	0.91
1:0:788:G:N2	1:0:800:U:H2'	1.85	0.91
1:0:1978:U:H5'	1:0:1979:C:C5'	2.00	0.91
1:0:2185:U:H2'	1:0:2186:G:C8	2.05	0.91
1:0:1800:A:N3	1:0:1802:A:N1	2.19	0.90
1:0:958:G:H2'	1:0:959:C:C6	2.05	0.90
1:0:750:C:H2'	1:0:751:G:C8	2.06	0.90
1:0:318:G:H21	1:0:341:A:H62	1.13	0.90
1:0:1150:C:H4'	1:0:1154:A:C2	2.06	0.90
1:0:306:G:N2	1:0:355:G:H1'	1.85	0.90
1:0:813:A:H1'	1:0:815:A:H5'	1.51	0.90
1:0:516:G:HO2'	1:0:517:A:H8	0.92	0.90
1:0:689:A:H8	1:0:2052:G:H21	0.92	0.90
1:0:2376:G:H22	1:0:2399:C:H1'	1.36	0.90
1:0:1198:C:O3'	1:0:1199:U:H4'	1.72	0.89
1:0:616:U:H2'	1:0:617:U:H5''	1.51	0.89
1:0:693:A:H2'	1:0:694:G:H8	1.28	0.89
1:0:631:G:H4'	1:0:632:A:C5'	2.03	0.89
1:0:992:A:H5'	1:0:993:C:OP2	1.72	0.89
1:0:1459:U:OP1	1:0:1459:U:H3'	1.70	0.89
1:0:1882:G:H21	1:0:1885:C:H41	1.12	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2841:U:H1'	1:0:2843:A:O2'	1.73	0.89
1:0:1477:C:H5'	1:0:1478:U:OP2	1.73	0.88
1:0:1089:C:H2'	1:0:1099:A:O4'	1.71	0.88
1:0:538:A:H3'	1:0:538:A:C8	2.07	0.88
1:0:2427:A:O2'	1:0:2428:U:P	2.31	0.88
1:0:837:U:H2'	1:0:838:A:H8	1.38	0.88
1:0:985:G:H1'	1:0:1001:A:N6	1.88	0.88
1:0:1458:A:C3'	1:0:1459:U:H5''	2.03	0.88
3:0:2881:G80:H14	3:0:2881:G80:H10	1.52	0.88
1:0:788:G:N2	1:0:800:U:C2'	2.37	0.88
1:0:2058:U:H3'	1:0:2217:G:H22	1.38	0.88
1:0:1625:A:H3'	1:0:1625:A:N3	1.87	0.87
1:0:742:G:H5''	1:0:776:G:O5'	1.73	0.87
1:0:701:U:O2	1:0:800:U:H4'	1.73	0.87
1:0:2768:C:HO2'	1:0:2784:A:H8	0.89	0.87
1:0:143:A:H2'	1:0:144:U:H6	1.36	0.87
1:0:2043:A:O4'	1:0:2481:G:H1'	1.74	0.87
1:0:1329:U:H2'	1:0:1330:G:H8	1.40	0.87
1:0:2426:G:H4'	1:0:2427:A:C5'	2.05	0.87
1:0:2560:G:O2'	1:0:2561:G:P	2.32	0.87
1:0:1383:C:H2'	1:0:1384:G:H8	1.37	0.87
1:0:1299:A:H2'	1:0:1301:U:OP2	1.73	0.87
1:0:2755:A:O2'	1:0:2756:A:C5'	2.23	0.87
1:0:2426:G:O2'	1:0:2427:A:H5'	1.74	0.86
1:0:2544:A:H2'	1:0:2545:A:H1'	1.55	0.86
1:0:787:A:C5	1:0:788:G:N7	2.44	0.86
1:0:462:G:H2'	1:0:463:C:C5'	2.05	0.86
1:0:1345:G:C4	1:0:1625:A:N1	2.43	0.86
1:0:1991:C:H2'	1:0:1992:G:H8	1.39	0.86
1:0:1361:G:H2'	1:0:1362:A:H8	1.40	0.86
1:0:837:U:H3	1:0:846:A:H61	1.18	0.86
1:0:1073:G:H2'	1:0:1074:G:C4'	2.06	0.86
1:0:2697:G:O2'	1:0:2698:G:H5'	1.76	0.86
1:0:1670:G:H21	1:0:1988:A:H62	1.23	0.86
1:0:2266:A:C2	1:0:2268:G:H1'	2.11	0.86
1:0:2791:C:O2'	1:0:2792:C:H5'	1.76	0.86
1:0:591:G:H3'	1:0:592:G:C8	2.09	0.86
1:0:1373:G:N2	1:0:2192:U:H3	1.71	0.86
1:0:1147:G:H2'	1:0:1148:G:H8	1.38	0.86
1:0:1673:C:H2'	1:0:1674:C:C6	2.10	0.86
1:0:1947:G:H4'	1:0:1948:C:OP2	1.75	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1522:C:H2'	1:0:1523:A:O4'	1.75	0.86
1:0:175:C:N4	1:0:225:G:H1	1.72	0.85
1:0:1826:U:H1'	1:0:1952:A:H2'	1.55	0.85
1:0:941:U:OP1	1:0:941:U:H4'	1.74	0.85
1:0:1586:A:H2'	1:0:1587:A:H8	1.39	0.85
1:0:76:C:H6	1:0:76:C:H5'	1.40	0.85
1:0:2266:A:N6	1:0:2323:U:H1'	1.91	0.85
1:0:2061:C:H42	1:0:2220:A:H61	1.24	0.85
1:0:813:A:O2'	1:0:814:G:C3'	2.24	0.85
1:0:640:C:H4'	1:0:660:G:N3	1.91	0.85
1:0:176:A:H2'	1:0:2412:A:H61	1.41	0.85
1:0:985:G:H1'	1:0:1001:A:H61	1.40	0.85
1:0:590:C:H2'	1:0:591:G:H8	1.42	0.85
1:0:2755:A:O2'	1:0:2756:A:H5'	1.75	0.85
1:0:351:A:H2'	1:0:352:G:O4'	1.77	0.85
1:0:2477:C:H6	1:0:2477:C:H3'	1.41	0.85
1:0:572:G:O2'	1:0:573:C:H5'	1.75	0.85
1:0:2172:U:O2'	1:0:2173:G:H5'	1.75	0.85
1:0:2761:A:H5''	1:0:2762:G:H5'	1.58	0.84
1:0:1787:U:H2'	1:0:1788:C:C6	2.12	0.84
1:0:65:C:H2'	1:0:66:U:O4'	1.74	0.84
1:0:450:C:H2'	1:0:451:A:H8	1.40	0.84
1:0:1199:U:H3'	1:0:1200:G:H5''	1.57	0.84
1:0:682:G:H5''	1:0:683:A:OP2	1.77	0.84
1:0:1978:U:H5''	1:0:1979:C:H5''	1.56	0.84
1:0:1071:U:H3'	1:0:1072:U:H5'	1.60	0.84
1:0:926:C:H2'	1:0:927:C:H5'	1.59	0.84
1:0:2678:C:C2	1:0:2688:G:N2	2.46	0.84
1:0:1407:G:N2	1:0:1408:A:N1	2.25	0.84
1:0:2261:G:H4'	1:0:2262:C:OP2	1.77	0.84
1:0:704:G:H2'	1:0:705:C:H6	1.40	0.84
1:0:1164:C:H2'	1:0:1165:G:O4'	1.78	0.84
1:0:1124:U:H2'	1:0:1125:G:H8	1.42	0.84
1:0:2780:A:H2'	1:0:2781:G:C8	2.13	0.84
1:0:619:A:H61	1:0:629:C:H42	1.23	0.84
1:0:2810:A:C6	1:0:2854:G:N7	2.45	0.84
1:0:2376:G:N2	1:0:2399:C:H1'	1.92	0.84
1:0:1572:C:H2'	1:0:1573:G:H5''	1.60	0.84
1:0:1896:A:H2'	1:0:1899:A:H61	1.42	0.83
1:0:2565:C:C2'	1:0:2566:A:H5'	2.08	0.83
1:0:1625:A:H1'	1:0:1632:A:O2'	1.78	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:318:G:N2	1:0:320:A:H3'	1.93	0.83
1:0:1202:U:H2'	1:0:1203:A:C8	2.12	0.83
1:0:1333:G:H21	1:0:1344:C:H41	1.26	0.83
1:0:2395:C:H2'	1:0:2396:C:H5''	1.60	0.83
1:0:1286:U:H4'	1:0:1288:A:OP1	1.78	0.83
1:0:1666:G:H2'	1:0:1667:A:H8	1.40	0.83
1:0:1440:G:H1'	1:0:1588:A:H61	1.40	0.83
1:0:810:U:H2'	1:0:811:G:O4'	1.78	0.83
1:0:2812:A:H2'	1:0:2813:G:H8	1.43	0.83
1:0:741:G:O6	1:0:743:A:C6	2.30	0.83
1:0:612:G:O3'	1:0:613:A:H4'	1.77	0.83
1:0:1685:A:H61	1:0:1693:A:H61	1.22	0.83
1:0:516:G:O2'	1:0:517:A:H8	1.60	0.83
1:0:2790:C:H2'	1:0:2791:C:C6	2.14	0.83
1:0:67:G:H2'	1:0:68:C:O4'	1.78	0.83
1:0:2387:U:H2'	1:0:2388:G:C8	2.12	0.83
1:0:1479:G:N2	1:0:1543:G:H21	1.75	0.83
1:0:1354:A:H3'	1:0:1410:U:O2	1.78	0.83
1:0:2710:C:O2'	1:0:2711:G:H5'	1.79	0.83
1:0:1552:C:H2'	1:0:1553:G:H5'	1.60	0.83
1:0:1670:G:OP1	1:0:2797:G:N2	2.11	0.82
1:0:2456:U:H1'	1:0:2460:G:H1	1.43	0.82
1:0:2677:U:H3	1:0:2688:G:H1	1.27	0.82
1:0:459:A:H1'	1:0:461:A:N6	1.93	0.82
1:0:825:C:H1'	1:0:1263:G:C2	2.14	0.82
1:0:594:G:C4	1:0:1264:C:N4	2.47	0.82
1:0:2726:U:C2'	1:0:2727:G:H5'	2.09	0.82
1:0:1351:G:O2'	1:0:1352:G:H5'	1.80	0.82
1:0:2448:A:H2'	1:0:2449:G:H5'	1.62	0.82
1:0:185:C:H2'	1:0:186:C:H6	1.44	0.82
1:0:1632:A:O2'	1:0:1633:C:P	2.37	0.82
1:0:1301:U:H4'	1:0:1302:C:OP2	1.78	0.82
1:0:1927:U:H2'	1:0:1927:U:O2	1.78	0.82
1:0:822:G:O2'	1:0:823:U:H5'	1.80	0.82
1:0:837:U:H2'	1:0:838:A:C8	2.15	0.82
1:0:1436:G:H21	1:0:1514:C:H1'	1.42	0.82
1:0:637:G:H3'	1:0:637:G:H8	1.45	0.82
1:0:2058:U:H3'	1:0:2217:G:N2	1.94	0.82
1:0:1911:A:H2'	1:0:1912:G:H5'	1.61	0.82
1:0:805:G:H4'	1:0:806:A:OP2	1.79	0.82
1:0:330:C:H2'	1:0:331:U:H5'	1.60	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1020:A:N7	1:0:1021:A:C6	2.48	0.82
1:0:138:G:H2'	1:0:139:A:H8	1.44	0.82
1:0:2624:G:H4'	1:0:2712:G:O2'	1.78	0.82
1:0:1312:G:H5''	1:0:1313:U:H5''	1.62	0.81
1:0:2871:U:H2'	1:0:2872:U:C6	2.15	0.81
1:0:171:G:C2'	1:0:172:A:H5'	2.09	0.81
1:0:2424:G:O2'	1:0:2425:G:H5'	1.79	0.81
1:0:2426:G:C4'	1:0:2427:A:H5''	2.09	0.81
1:0:192:G:C1'	1:0:193:A:H4'	2.10	0.81
1:0:689:A:H8	1:0:2052:G:N2	1.77	0.81
1:0:832:A:H2'	1:0:833:A:C8	2.15	0.81
1:0:2692:A:H5'	1:0:2693:U:H5'	1.62	0.81
1:0:557:U:H3'	1:0:559:C:N4	1.95	0.81
1:0:83:A:H62	1:0:98:U:H1'	1.44	0.81
1:0:788:G:N2	1:0:800:U:H3'	1.94	0.81
1:0:2431:C:O2'	1:0:2432:A:H5'	1.80	0.81
1:0:1361:G:H2'	1:0:1362:A:C8	2.15	0.81
1:0:116:A:N3	1:0:155:G:H1'	1.96	0.81
1:0:2044:G:O2'	1:0:2045:A:H5'	1.80	0.81
1:0:2306:A:H2'	1:0:2307:A:C8	2.14	0.81
1:0:2014:A:N7	1:0:2477:C:H1'	1.95	0.81
1:0:1648:C:H5'	1:0:1648:C:H6	1.45	0.81
1:0:2352:A:H2'	1:0:2353:G:C8	2.15	0.81
1:0:27:G:H1'	1:0:523:A:N6	1.96	0.81
1:0:2492:G:H2'	1:0:2493:U:C6	2.16	0.81
1:0:1337:G:H1'	1:0:1632:A:N6	1.94	0.81
1:0:632:A:H3'	1:0:632:A:N3	1.96	0.81
1:0:2266:A:H62	1:0:2323:U:H1'	1.46	0.81
1:0:742:G:N3	1:0:742:G:H2'	1.96	0.81
1:0:2471:U:H2'	1:0:2472:U:C6	2.15	0.81
1:0:1108:U:H2'	1:0:1109:A:H5'	1.62	0.81
1:0:1159:U:O2'	1:0:1160:C:H5'	1.80	0.81
1:0:622:U:H2'	1:0:623:G:H5'	1.60	0.81
1:0:2382:C:H2'	1:0:2382:C:O2	1.80	0.81
1:0:653:G:H21	1:0:657:A:N6	1.79	0.81
1:0:2839:G:H2'	1:0:2840:U:C6	2.15	0.81
1:0:2556:A:C2	1:0:2593:A:H2	2.00	0.80
1:0:699:G:H5'	1:0:700:C:OP2	1.81	0.80
1:0:539:A:H62	1:0:2024:U:H3	1.27	0.80
1:0:741:G:C5	1:0:743:A:N7	2.49	0.80
1:0:2825:A:H2'	1:0:2826:C:C6	2.16	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:594:G:N1	1:0:1264:C:H5	1.79	0.80
1:0:1301:U:O2'	1:0:1664:G:N2	2.14	0.80
1:0:1906:U:H2'	1:0:1907:C:C5	2.16	0.80
1:0:2053:G:H2'	1:0:2054:A:C8	2.15	0.80
1:0:2081:U:H2'	1:0:2082:C:H5''	1.61	0.80
1:0:741:G:O6	1:0:743:A:C5	2.33	0.80
1:0:143:A:H2'	1:0:144:U:C6	2.15	0.80
1:0:2369:U:H6	1:0:2369:U:H3'	1.46	0.80
1:0:104:C:H2'	1:0:105:G:H5''	1.64	0.80
1:0:204:A:H61	1:0:423:G:H21	1.28	0.80
1:0:1900:U:H2'	1:0:1901:A:O4'	1.81	0.80
1:0:873:U:H1'	1:0:2246:A:H5''	1.62	0.80
1:0:1514:C:H5'	1:0:1593:C:H5'	1.64	0.80
1:0:2387:U:H2'	1:0:2388:G:H8	1.46	0.80
1:0:2426:G:O2'	1:0:2427:A:C5'	2.30	0.80
1:0:2205:C:H2'	1:0:2206:C:H5'	1.64	0.80
1:0:1365:U:H1'	1:0:1586:A:H2	1.45	0.80
1:0:1918:G:H2'	1:0:1945:C:N4	1.96	0.79
1:0:367:G:H2'	1:0:368:A:H5''	1.63	0.79
1:0:2133:G:H2'	1:0:2134:U:C6	2.17	0.79
1:0:2563:U:C2'	1:0:2564:U:H5'	2.12	0.79
1:0:1333:G:H22	1:0:1344:C:H5	1.29	0.79
1:0:1675:C:H2'	1:0:1676:U:C6	2.17	0.79
1:0:306:G:H22	1:0:355:G:H1'	1.48	0.79
1:0:2194:A:H2'	1:0:2195:C:H5''	1.64	0.79
1:0:2040:A:N9	1:0:2041:A:C8	2.50	0.79
1:0:1443:G:H2'	1:0:1444:C:H6	1.47	0.79
1:0:1586:A:H2'	1:0:1587:A:C8	2.18	0.79
1:0:2713:A:H2'	1:0:2714:A:H8	1.45	0.79
1:0:1255:A:H2'	1:0:1256:C:H6	1.48	0.79
1:0:368:A:H2'	1:0:369:C:O4'	1.82	0.79
1:0:1958:G:H2'	1:0:1959:U:C6	2.17	0.79
1:0:2565:C:O2	1:0:2565:C:H2'	1.81	0.79
1:0:929:A:C3'	1:0:930:A:H5''	2.12	0.79
1:0:2312:A:H2'	1:0:2312:A:N3	1.98	0.79
1:0:1686:A:H2'	1:0:1687:C:H5'	1.64	0.79
1:0:637:G:C8	1:0:637:G:H3'	2.17	0.79
1:0:1941:C:O2'	1:0:1942:G:H5'	1.83	0.79
1:0:2424:G:C2'	1:0:2425:G:H5'	2.14	0.78
1:0:2553:G:H2'	1:0:2554:C:H5'	1.64	0.78
1:0:699:G:H21	1:0:801:A:H61	0.82	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2856:U:H2'	1:0:2857:C:C5'	2.12	0.78
1:0:1439:G:H3'	1:0:1439:G:OP2	1.84	0.78
1:0:2782:G:H3'	1:0:2783:U:H5''	1.63	0.78
1:0:716:U:H2'	1:0:717:G:O4'	1.82	0.78
1:0:579:G:H4'	1:0:994:A:H2	1.47	0.78
1:0:1345:G:C8	1:0:1625:A:N6	2.48	0.78
1:0:173:A:N3	1:0:173:A:H2'	1.95	0.78
1:0:67:G:C6	1:0:72:A:C2	2.71	0.78
1:0:2071:G:O2'	1:0:2072:C:H5'	1.83	0.78
1:0:462:G:H2'	1:0:463:C:H5'	1.64	0.78
1:0:808:C:O2'	1:0:809:C:H5'	1.83	0.78
1:0:227:G:H2'	1:0:228:A:C8	2.18	0.78
1:0:1624:A:O2'	1:0:1625:A:H5'	1.83	0.78
1:0:1073:G:H2'	1:0:1074:G:H4'	1.64	0.78
1:0:2109:A:H2'	1:0:2110:G:O4'	1.84	0.78
1:0:1770:U:O4	1:0:1774:A:H2'	1.84	0.78
1:0:912:A:H2'	1:0:913:A:H8	1.48	0.78
1:0:2047:C:H1'	1:0:2429:A:C6	2.18	0.78
1:0:881:U:H2'	1:0:882:C:C6	2.19	0.78
1:0:1800:A:H1'	1:0:1802:A:C2	2.19	0.78
1:0:1714:A:H5'	1:0:1715:A:C5'	2.13	0.78
1:0:1923:U:H5'	1:0:1924:C:OP1	1.84	0.78
1:0:631:G:H4'	1:0:632:A:H5'	1.66	0.78
1:0:2555:G:H2'	1:0:2555:G:N3	1.97	0.78
1:0:954:U:C4	1:0:955:G:N2	2.52	0.78
1:0:1325:U:O2'	1:0:1326:U:OP2	2.02	0.78
1:0:2185:U:H2'	1:0:2186:G:H8	1.45	0.78
1:0:116:A:C2	1:0:155:G:H1'	2.17	0.78
1:0:366:U:H2'	1:0:367:G:H8	1.47	0.78
1:0:314:G:H2'	1:0:315:G:H8	1.47	0.78
1:0:1210:C:H1'	1:0:1239:A:C4	2.19	0.77
1:0:2737:A:H2'	1:0:2738:A:C5'	2.14	0.77
1:0:742:G:H4'	1:0:776:G:H4'	1.64	0.77
1:0:1690:U:H2'	1:0:1691:G:H5'	1.66	0.77
1:0:1911:A:N7	1:0:1912:G:H8	1.83	0.77
1:0:936:A:H2'	1:0:937:C:O4'	1.85	0.77
1:0:1898:U:H3'	1:0:1899:A:C8	2.19	0.77
1:0:2222:U:H2'	1:0:2223:U:H6	1.48	0.77
1:0:1898:U:H3'	1:0:1899:A:H8	1.49	0.77
1:0:788:G:H2'	1:0:807:A:C8	2.18	0.77
1:0:1399:C:O2'	1:0:1400:A:H5'	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2425:G:C2'	1:0:2426:G:H5'	2.13	0.77
1:0:1675:C:H2'	1:0:1676:U:H6	1.49	0.77
1:0:1286:U:H5''	1:0:1663:C:N4	1.99	0.77
1:0:2726:U:N3	1:0:2736:U:O4	2.18	0.77
1:0:2768:C:O2'	1:0:2784:A:H8	1.67	0.77
1:0:1699:A:H61	1:0:1723:U:H3	1.33	0.77
1:0:66:U:H2'	1:0:67:G:C8	2.19	0.77
1:0:2324:G:N3	1:0:2326:C:H5	1.81	0.77
1:0:2040:A:C8	1:0:2041:A:N7	2.53	0.77
1:0:1783:G:N2	1:0:1820:G:O2'	2.16	0.77
1:0:451:A:H2'	1:0:452:G:C8	2.20	0.77
1:0:691:C:O2'	1:0:692:C:H5'	1.85	0.77
1:0:2690:A:OP1	1:0:2692:A:OP2	2.03	0.77
1:0:1343:C:O2'	1:0:1344:C:H5'	1.85	0.77
1:0:2198:U:H3'	1:0:2199:C:C4'	2.13	0.77
1:0:741:G:C5	1:0:743:A:C8	2.73	0.77
1:0:1181:C:H2'	1:0:1182:U:O4'	1.84	0.77
1:0:175:C:H42	1:0:225:G:H1	1.30	0.77
1:0:2425:G:O2'	1:0:2426:G:C5'	2.32	0.77
1:0:983:G:C6	1:0:984:A:N6	2.53	0.77
1:0:1625:A:H4'	1:0:1625:A:OP2	1.85	0.77
1:0:2222:U:H2'	1:0:2223:U:C6	2.20	0.77
1:0:58:C:H42	1:0:73:A:N6	1.83	0.76
1:0:314:G:H2'	1:0:315:G:C8	2.20	0.76
1:0:698:A:H1'	1:0:701:U:O4	1.85	0.76
1:0:861:G:H1	1:0:942:U:H3	1.32	0.76
1:0:465:C:H2'	1:0:467:U:O2	1.85	0.76
1:0:1993:G:O2'	1:0:1994:U:H5'	1.83	0.76
1:0:1401:G:O2'	1:0:1402:G:H5'	1.83	0.76
1:0:403:A:H5''	1:0:404:A:OP1	1.86	0.76
1:0:20:C:O2'	1:0:21:A:H5'	1.85	0.76
1:0:1514:C:H5'	1:0:1593:C:C5'	2.15	0.76
1:0:624:A:C2'	1:0:625:A:H5'	2.16	0.76
1:0:58:C:H5'	1:0:59:G:OP2	1.86	0.76
1:0:1026:U:H2'	1:0:1027:C:C6	2.21	0.76
1:0:2565:C:HO2'	1:0:2566:A:H5'	1.48	0.76
1:0:2047:C:H5''	1:0:2047:C:H6	1.50	0.76
1:0:330:C:C2'	1:0:331:U:H5'	2.14	0.76
1:0:2560:G:N1	1:0:2589:C:C5	2.53	0.76
1:0:1920:A:C6	1:0:1922:U:H5	2.04	0.76
1:0:16:G:O2'	1:0:17:G:H5'	1.85	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:530:G:H2'	1:0:531:G:H8	1.49	0.76
1:0:2560:G:O4'	1:0:2561:G:N7	2.19	0.76
1:0:788:G:C2'	1:0:807:A:N7	2.43	0.76
1:0:1486:A:H2'	1:0:1487:C:C6	2.20	0.76
1:0:1440:G:H3'	1:0:1441:A:C5'	2.15	0.76
1:0:857:U:H2'	1:0:858:G:H5'	1.67	0.76
1:0:1685:A:H4'	1:0:1686:A:H5'	1.68	0.76
1:0:2781:G:H2'	1:0:2782:G:N9	2.00	0.76
1:0:2516:U:H2'	1:0:2517:C:H6	1.50	0.76
1:0:166:G:O2'	1:0:167:A:H5''	1.85	0.76
1:0:2492:G:H2'	1:0:2493:U:H6	1.50	0.76
1:0:2516:U:H2'	1:0:2517:C:C6	2.21	0.76
1:0:929:A:H8	1:0:2247:A:H61	1.34	0.76
1:0:1681:A:H61	1:0:1979:C:N4	1.84	0.76
1:0:1714:A:O2'	1:0:1961:A:OP1	2.03	0.76
1:0:1279:G:O2'	1:0:1280:U:OP2	2.04	0.76
1:0:2560:G:O2'	1:0:2561:G:OP2	2.03	0.75
1:0:2812:A:H2'	1:0:2813:G:C8	2.20	0.75
1:0:879:A:N1	1:0:926:C:N4	2.34	0.75
1:0:1714:A:H5'	1:0:1715:A:O5'	1.85	0.75
1:0:1443:G:H2'	1:0:1444:C:C6	2.22	0.75
1:0:318:G:H21	1:0:341:A:N6	1.84	0.75
1:0:839:U:OP1	1:0:2408:G:OP2	2.04	0.75
1:0:1621:C:C4'	1:0:1626:A:H62	1.99	0.75
1:0:1507:A:H4'	1:0:1510:A:OP1	1.86	0.75
1:0:1674:C:H2'	1:0:1675:C:H6	1.51	0.75
1:0:1310:C:H2'	1:0:1311:C:H6	1.50	0.75
1:0:2033:C:C4	1:0:2034:A:N7	2.55	0.75
1:0:1653:C:H2'	1:0:1654:A:C8	2.21	0.75
1:0:459:A:H1'	1:0:461:A:H62	1.52	0.75
1:0:759:C:H5''	1:0:761:G:H1'	1.68	0.75
1:0:2162:C:H2'	1:0:2163:U:C6	2.22	0.75
1:0:764:A:C4	1:0:802:A:C2	2.74	0.75
1:0:686:C:H2'	1:0:687:G:H5'	1.69	0.75
1:0:955:G:H3'	1:0:955:G:C8	2.21	0.75
1:0:2771:C:H1'	1:0:2782:G:H22	1.51	0.75
1:0:2796:A:H2'	1:0:2797:G:H8	1.50	0.75
1:0:1151:U:H5''	1:0:1153:A:O5'	1.87	0.75
1:0:308:C:O2'	1:0:309:G:H5'	1.85	0.75
1:0:2059:U:OP2	1:0:2217:G:N2	2.19	0.75
1:0:1666:G:H2'	1:0:1667:A:C8	2.21	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2564:U:HO2'	1:0:2565:C:H5'	1.52	0.75
1:0:929:A:N7	1:0:930:A:N3	2.35	0.75
1:0:459:A:H4'	1:0:461:A:N7	2.01	0.75
1:0:1377:G:O2'	1:0:1799:A:H2	1.66	0.75
1:0:2447:G:O2'	1:0:2448:A:H5'	1.85	0.75
1:0:778:G:H2'	1:0:779:U:H6	1.51	0.75
1:0:2280:A:H2'	1:0:2281:C:C6	2.22	0.75
1:0:1349:A:H2'	1:0:1350:G:H8	1.49	0.75
1:0:1827:G:H1'	1:0:1914:U:C2	2.21	0.75
1:0:1979:C:OP1	1:0:1979:C:O4'	2.05	0.75
1:0:1354:A:O5'	1:0:1410:U:N3	2.19	0.75
1:0:84:G:H2'	1:0:85:C:O4'	1.86	0.75
1:0:171:G:H2'	1:0:172:A:H5'	1.69	0.75
1:0:1174:G:H2'	1:0:1175:A:C8	2.17	0.75
1:0:547:U:H2'	1:0:548:G:H8	1.51	0.75
1:0:1761:G:H2'	1:0:1762:C:H6	1.51	0.75
1:0:2675:U:H2'	1:0:2676:G:C8	2.22	0.75
1:0:874:A:C2	1:0:875:G:H1'	2.22	0.74
1:0:1674:C:H2'	1:0:1675:C:C6	2.22	0.74
1:0:824:U:H4'	1:0:1264:C:O2	1.87	0.74
1:0:579:G:C4'	1:0:994:A:H2	2.00	0.74
1:0:68:C:C2	1:0:72:A:C2	2.75	0.74
1:0:138:G:H2'	1:0:139:A:C8	2.22	0.74
1:0:133:C:H2'	1:0:134:G:O4'	1.87	0.74
1:0:317:U:H3'	1:0:318:G:H5''	1.69	0.74
1:0:1744:G:N2	1:0:1746:A:H3'	2.01	0.74
1:0:2343:C:H2'	1:0:2344:G:O4'	1.87	0.74
1:0:772:G:H2'	1:0:773:G:H8	1.52	0.74
1:0:2425:G:C2'	1:0:2426:G:C5'	2.65	0.74
1:0:2323:U:H5''	1:0:2324:G:OP1	1.87	0.74
1:0:2503:G:H2'	1:0:2504:G:H5''	1.67	0.74
1:0:790:A:N3	1:0:790:A:H2'	2.01	0.74
1:0:2796:A:H2'	1:0:2797:G:C8	2.22	0.74
1:0:1086:C:H2'	1:0:1087:C:H5''	1.68	0.74
1:0:450:C:H2'	1:0:451:A:C8	2.22	0.74
1:0:1483:G:H2'	1:0:1484:G:H8	1.53	0.74
1:0:1468:A:O5'	1:0:1468:A:H8	1.70	0.74
1:0:813:A:O2'	1:0:814:G:O5'	2.04	0.74
1:0:2760:G:O2'	1:0:2761:A:OP1	2.03	0.74
1:0:509:U:C2'	1:0:510:G:H5'	2.15	0.74
1:0:181:A:H4'	1:0:182:G:OP1	1.88	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:845:U:OP2	1:0:955:G:O6	2.05	0.74
1:0:2756:A:C2'	1:0:2757:G:OP2	2.35	0.74
1:0:879:A:H2'	1:0:879:A:N3	2.01	0.74
1:0:2396:C:H6	1:0:2396:C:H5'	1.52	0.74
1:0:1255:A:H2'	1:0:1256:C:C6	2.22	0.74
1:0:805:G:H2'	1:0:2419:C:N3	2.03	0.74
1:0:2526:U:C5	1:0:2545:A:N7	2.56	0.74
1:0:2705:A:HO2'	1:0:2706:U:H6	1.30	0.74
1:0:2039:G:N2	1:0:2040:A:N9	2.36	0.73
1:0:172:A:N1	1:0:178:C:N3	2.35	0.73
1:0:466:A:O2'	1:0:467:U:OP2	2.06	0.73
1:0:1963:G:O2'	1:0:1964:A:OP1	2.06	0.73
1:0:1837:G:O2'	1:0:1838:G:H5'	1.87	0.73
1:0:567:G:O2'	1:0:568:G:H5'	1.88	0.73
1:0:2841:U:O2	1:0:2843:A:O2'	2.06	0.73
1:0:2217:G:H5''	1:0:2218:G:OP1	1.88	0.73
1:0:2652:G:H2'	1:0:2653:A:H8	1.51	0.73
1:0:2871:U:H2'	1:0:2872:U:H6	1.53	0.73
1:0:422:C:H2'	1:0:423:G:H8	1.53	0.73
1:0:1457:A:H2'	1:0:1458:A:O4'	1.88	0.73
1:0:2672:U:H2'	1:0:2673:G:H8	1.53	0.73
1:0:2626:U:H3	1:0:2653:A:N6	1.86	0.73
1:0:982:C:H2'	1:0:983:G:O4'	1.88	0.73
1:0:929:A:C8	1:0:2247:A:N6	2.54	0.73
1:0:1631:C:H2'	1:0:1632:A:C5'	2.16	0.73
1:0:2781:G:C2'	1:0:2782:G:C8	2.71	0.73
1:0:2044:G:O2'	1:0:2045:A:C5'	2.36	0.73
1:0:1181:C:H2'	1:0:1182:U:C4'	2.17	0.73
1:0:1608:U:H2'	1:0:1609:G:C8	2.23	0.73
1:0:1002:C:N4	1:0:1003:C:H41	1.86	0.73
1:0:2234:G:H2'	1:0:2235:G:O4'	1.88	0.73
1:0:973:U:H2'	1:0:974:U:H6	1.52	0.73
1:0:538:A:H3'	1:0:538:A:H8	1.48	0.73
1:0:2484:G:N7	1:0:2555:G:N2	2.36	0.73
1:0:2810:A:C5	1:0:2854:G:C8	2.76	0.73
1:0:59:G:H1'	1:0:73:A:N1	2.03	0.73
1:0:1259:A:C2'	1:0:1260:A:H5'	2.19	0.73
1:0:2663:U:H2'	1:0:2664:G:O4'	1.89	0.73
1:0:2274:C:H2'	1:0:2275:U:C5'	2.18	0.73
1:0:1140:A:C8	1:0:2549:G:H1'	2.23	0.73
1:0:2407:G:H5''	1:0:2408:G:OP1	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1459:U:H2'	1:0:1475:U:O2'	1.89	0.73
1:0:634:G:H2'	1:0:635:C:C6	2.24	0.73
1:0:451:A:H2'	1:0:452:G:H8	1.54	0.73
1:0:697:G:O2'	1:0:801:A:N6	2.20	0.73
1:0:1980:A:C2	1:0:1981:A:C5	2.76	0.73
1:0:1223:G:C6	1:0:1250:A:N6	2.55	0.73
1:0:641:G:H4'	1:0:651:C:O2'	1.89	0.73
1:0:719:A:H2'	1:0:720:A:O4'	1.89	0.73
1:0:111:G:H5'	1:0:112:U:OP1	1.89	0.72
1:0:1622:G:H4'	1:0:1624:A:C2	2.24	0.72
1:0:317:U:C3'	1:0:318:G:H5''	2.18	0.72
1:0:1807:A:H1'	1:0:1809:G:C8	2.24	0.72
1:0:1715:A:C2'	1:0:1716:G:H3'	2.18	0.72
1:0:66:U:N3	1:0:67:G:O6	2.22	0.72
1:0:1034:U:H2'	1:0:1035:G:O4'	1.89	0.72
1:0:105:G:H2'	1:0:106:G:H5'	1.70	0.72
1:0:224:G:C8	1:0:226:C:O2	2.42	0.72
1:0:359:G:H2'	1:0:360:A:H8	1.53	0.72
1:0:1177:U:N3	1:0:1197:U:O2	2.21	0.72
1:0:579:G:C4'	1:0:994:A:C2	2.72	0.72
1:0:837:U:H3	1:0:846:A:N6	1.86	0.72
1:0:1386:A:H5''	1:0:2191:A:N6	2.05	0.72
1:0:1314:A:H2	1:0:1642:G:N3	1.87	0.72
1:0:91:A:H2'	1:0:92:U:C6	2.23	0.72
1:0:1938:U:O2'	1:0:1939:U:OP1	2.05	0.72
1:0:1563:U:H2'	1:0:1564:U:C6	2.24	0.72
1:0:1764:A:C2'	1:0:1765:C:H5'	2.19	0.72
1:0:1713:G:C2	1:0:1714:A:H1'	2.25	0.72
1:0:2470:U:O2	1:0:2470:U:H2'	1.89	0.72
1:0:2175:A:H2'	1:0:2176:U:C6	2.24	0.72
1:0:2560:G:H1	1:0:2589:C:H5	1.35	0.72
1:0:594:G:C6	1:0:1264:C:H5	2.08	0.72
1:0:162:C:H2'	1:0:163:A:H8	1.55	0.72
1:0:1763:G:H2'	1:0:1764:A:H4'	1.71	0.72
1:0:616:U:C2'	1:0:617:U:H5''	2.20	0.72
1:0:2560:G:N3	1:0:2560:G:H2'	2.05	0.72
1:0:1199:U:H5	1:0:1201:G:N7	1.87	0.72
1:0:851:C:H2'	1:0:852:U:C6	2.24	0.72
1:0:1030:U:H5'	1:0:1031:C:OP2	1.89	0.72
1:0:788:G:C2	1:0:800:U:C2'	2.68	0.72
1:0:788:G:H5''	1:0:790:A:H1'	1.70	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2228:U:H4'	1:0:2229:G:OP1	1.90	0.72
1:0:321:A:C2	1:0:323:G:H1'	2.24	0.72
1:0:2324:G:N7	1:0:2360:C:C2	2.58	0.72
1:0:857:U:C2'	1:0:858:G:H5'	2.20	0.72
1:0:2579:A:H2'	1:0:2580:C:C6	2.25	0.71
1:0:2473:G:N2	1:0:2474:G:C4	2.57	0.71
1:0:594:G:C6	1:0:1264:C:C5	2.78	0.71
1:0:842:A:H5''	1:0:843:G:OP1	1.89	0.71
1:0:490:A:O2'	1:0:491:A:H5'	1.88	0.71
1:0:768:U:H2'	1:0:769:C:H6	1.53	0.71
1:0:1430:G:N2	1:0:1599:G:H1'	2.05	0.71
1:0:2645:C:H2'	1:0:2646:C:O4'	1.90	0.71
1:0:1265:G:O2'	1:0:1266:G:O4'	2.07	0.71
1:0:2158:C:H2'	1:0:2159:A:H8	1.52	0.71
1:0:2549:G:O2'	1:0:2550:C:H5'	1.90	0.71
1:0:825:C:H1'	1:0:1263:G:N2	2.04	0.71
1:0:1631:C:C2'	1:0:1632:A:C5'	2.68	0.71
1:0:1329:U:H2'	1:0:1330:G:C8	2.24	0.71
1:0:2713:A:O2'	1:0:2714:A:H5'	1.89	0.71
1:0:1057:A:H3'	1:0:1058:G:H5''	1.72	0.71
1:0:2560:G:C2'	1:0:2561:G:OP2	2.39	0.71
1:0:1474:A:N1	1:0:1476:G:C5	2.57	0.71
1:0:109:A:C3'	1:0:110:U:H5''	2.20	0.71
1:0:2204:A:O2'	1:0:2205:C:OP2	2.08	0.71
1:0:2205:C:C2'	1:0:2206:C:H5'	2.20	0.71
1:0:812:G:H3'	1:0:813:A:C5'	2.20	0.71
1:0:664:C:H5	1:0:666:U:H4'	1.54	0.71
1:0:1359:G:C8	1:0:1359:G:H5'	2.23	0.71
1:0:2824:C:O2	1:0:2843:A:N9	2.24	0.71
1:0:498:C:C5	1:0:499:G:N7	2.58	0.71
1:0:501:G:H2'	1:0:502:A:C8	2.26	0.71
1:0:2015:G:N2	1:0:2038:C:C2	2.58	0.71
1:0:2477:C:C6	1:0:2477:C:H3'	2.24	0.71
1:0:812:G:H3'	1:0:813:A:H5''	1.72	0.71
1:0:1337:G:N2	1:0:1344:C:C2	2.59	0.71
1:0:1627:C:N4	1:0:1628:C:H41	1.89	0.71
1:0:1337:G:H4'	1:0:1632:A:H62	1.54	0.71
1:0:2825:A:H2'	1:0:2826:C:H6	1.55	0.71
1:0:427:C:H1'	1:0:1856:U:H1'	1.71	0.71
1:0:2448:A:C2'	1:0:2449:G:H5'	2.21	0.71
1:0:2503:G:C2'	1:0:2504:G:H5''	2.21	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2503:G:C3'	1:0:2504:G:H5''	2.20	0.71
1:0:167:A:C4	1:0:184:A:C2	2.79	0.71
1:0:688:A:O2'	1:0:689:A:H5'	1.90	0.71
1:0:872:G:O2'	1:0:873:U:H5''	1.89	0.71
1:0:71:A:O2'	1:0:72:A:OP1	2.07	0.71
1:0:1329:U:O2'	1:0:1330:G:H5'	1.90	0.71
1:0:2563:U:H2'	1:0:2564:U:H5'	1.73	0.71
1:0:224:G:C6	1:0:229:G:O6	2.44	0.71
1:0:2728:A:H2'	1:0:2729:A:H8	1.55	0.71
1:0:112:U:H2'	1:0:112:U:O2	1.89	0.71
1:0:1147:G:O2'	1:0:1148:G:H5'	1.91	0.71
1:0:2762:G:N2	1:0:2763:U:H1'	2.06	0.71
1:0:540:G:N3	1:0:2004:U:O2'	2.23	0.71
1:0:2666:U:H2'	1:0:2667:C:O4'	1.90	0.71
1:0:861:G:N7	1:0:862:A:N7	2.38	0.71
1:0:2728:A:H2'	1:0:2729:A:C8	2.26	0.71
1:0:929:A:H5''	1:0:2247:A:H62	1.56	0.71
1:0:1611:U:H2'	1:0:1612:U:O4'	1.91	0.71
1:0:483:A:H2'	1:0:484:G:H5'	1.71	0.70
1:0:1806:G:N7	1:0:1807:A:N7	2.39	0.70
1:0:1715:A:H1'	1:0:1717:A:C4'	2.21	0.70
1:0:402:A:C8	1:0:2392:G:H4'	2.26	0.70
1:0:1918:G:N2	1:0:1947:G:C8	2.59	0.70
1:0:764:A:C2	1:0:802:A:C4	2.80	0.70
1:0:692:C:H2'	1:0:693:A:H8	1.55	0.70
1:0:221:A:C2	1:0:222:G:H1'	2.27	0.70
1:0:746:G:N7	1:0:774:A:C6	2.60	0.70
1:0:1685:A:N6	1:0:1693:A:H61	1.90	0.70
1:0:357:A:C2	1:0:358:C:H4'	2.26	0.70
1:0:236:C:H1'	1:0:632:A:O2'	1.92	0.70
1:0:1355:A:C8	1:0:1410:U:H1'	2.26	0.70
1:0:1285:A:C2	1:0:1634:A:C5	2.80	0.70
1:0:422:C:H2'	1:0:423:G:C8	2.26	0.70
1:0:957:G:H2'	1:0:958:G:H8	1.56	0.70
1:0:2198:U:C2'	1:0:2199:C:H4'	2.20	0.70
1:0:2765:C:H2'	1:0:2766:U:C6	2.26	0.70
1:0:187:U:H2'	1:0:188:G:H8	1.55	0.70
1:0:2672:U:O2'	1:0:2673:G:H5'	1.90	0.70
1:0:2448:A:H2'	1:0:2449:G:C5'	2.21	0.70
1:0:1904:G:H2'	1:0:1905:G:O4'	1.90	0.70
1:0:545:C:O2'	1:0:546:A:H5'	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1949:A:H1'	1:0:2572:U:H5'	1.73	0.70
1:0:1715:A:C2'	1:0:1716:G:H5''	2.21	0.70
1:0:105:G:H2'	1:0:106:G:C5'	2.21	0.70
1:0:2634:G:N3	1:0:2643:G:O6	2.25	0.70
1:0:1068:A:H2'	1:0:1069:G:C8	2.26	0.70
1:0:58:C:H3'	1:0:59:G:H5''	1.72	0.70
1:0:68:C:C2'	1:0:68:C:O2	2.39	0.70
1:0:69:G:H4'	1:0:70:A:OP1	1.91	0.70
1:0:38:G:H1	1:0:453:U:H3	1.37	0.70
1:0:1931:G:O2'	1:0:1932:G:H5'	1.92	0.70
1:0:2161:C:H2'	1:0:2162:C:C6	2.27	0.70
1:0:2832:G:N2	1:0:2835:A:OP2	2.23	0.70
1:0:946:U:O2'	1:0:947:C:H5'	1.91	0.70
1:0:682:G:H2'	1:0:682:G:N3	2.07	0.70
1:0:2197:U:H2'	1:0:2198:U:C6	2.27	0.70
1:0:48:A:N3	1:0:50:G:N2	2.40	0.70
1:0:2543:A:C6	1:0:2626:U:H4'	2.27	0.70
1:0:1894:U:O5'	1:0:1894:U:H6	1.75	0.70
1:0:1278:A:O2'	1:0:1279:G:O5'	2.08	0.70
1:0:10:A:H2'	1:0:11:G:C8	2.26	0.70
1:0:2040:A:C5	1:0:2041:A:N7	2.59	0.70
1:0:171:G:O2'	1:0:172:A:H5'	1.91	0.70
1:0:2522:G:H8	1:0:2522:G:H5'	1.55	0.70
1:0:994:A:H62	1:0:995:A:H2	1.40	0.70
1:0:459:A:C2	1:0:466:A:N7	2.60	0.70
1:0:470:U:C5	1:0:480:G:N2	2.60	0.70
1:0:2769:C:C5	1:0:2770:A:H1'	2.27	0.70
1:0:2104:G:O2'	1:0:2105:U:H5'	1.91	0.70
1:0:1452:U:H5'	1:0:1532:A:O2'	1.91	0.70
1:0:568:G:H2'	1:0:569:C:O4'	1.92	0.69
1:0:2633:A:N1	1:0:2644:A:H5''	2.07	0.69
1:0:1736:C:H2'	1:0:1737:G:H8	1.56	0.69
1:0:1179:A:H2'	1:0:1180:A:O4'	1.92	0.69
1:0:929:A:H8	1:0:2247:A:N6	1.90	0.69
1:0:1438:G:N2	1:0:1590:C:H2'	2.07	0.69
1:0:427:C:H2'	1:0:428:A:C8	2.27	0.69
1:0:1865:C:H2'	1:0:1866:G:H5'	1.73	0.69
1:0:1260:A:C6	1:0:1262:U:H1'	2.27	0.69
1:0:862:A:H2'	1:0:863:C:H6	1.57	0.69
1:0:2705:A:H8	1:0:2705:A:H5''	1.57	0.69
1:0:322:A:O4'	1:0:343:A:N3	2.25	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:665:A:H3'	1:0:666:U:C5'	2.22	0.69
1:0:2040:A:C4	1:0:2041:A:C8	2.80	0.69
1:0:2014:A:H62	1:0:2477:C:C1'	2.05	0.69
1:0:691:C:H2'	1:0:692:C:H6	1.57	0.69
1:0:1463:A:H1'	1:0:1543:G:N2	2.07	0.69
1:0:173:A:C4	1:0:818:G:N2	2.61	0.69
1:0:30:G:O2'	1:0:31:C:H5'	1.92	0.69
1:0:441:A:C2'	1:0:442:A:H5'	2.22	0.69
1:0:1242:A:O2'	1:0:1243:G:H5'	1.92	0.69
1:0:2007:G:O2'	1:0:2008:C:H5'	1.92	0.69
1:0:1257:U:H2'	1:0:1258:G:H8	1.58	0.69
1:0:403:A:H1'	1:0:424:G:N2	2.08	0.69
1:0:177:U:C5	1:0:225:G:N3	2.61	0.69
1:0:929:A:H5''	1:0:2247:A:N6	2.08	0.69
1:0:37:C:H4'	1:0:463:C:OP1	1.93	0.69
1:0:621:U:H2'	1:0:622:U:H6	1.57	0.69
1:0:1299:A:C6	1:0:1302:C:N3	2.61	0.69
1:0:2320:G:H2'	1:0:2321:C:O4'	1.92	0.69
1:0:1856:U:H2'	1:0:1857:G:O4'	1.93	0.69
1:0:2285:U:O2	1:0:2285:U:H2'	1.93	0.69
1:0:1260:A:N6	1:0:1262:U:H1'	2.07	0.69
1:0:2404:A:O2'	1:0:2405:A:OP2	2.10	0.69
1:0:2468:G:H1'	1:0:2497:A:H61	1.57	0.69
1:0:2756:A:H4'	1:0:2758:A:OP1	1.93	0.69
1:0:1004:A:C5	1:0:1005:U:C5	2.80	0.69
1:0:1501:C:O2'	1:0:1502:G:H5'	1.92	0.69
1:0:704:G:H2'	1:0:705:C:C6	2.25	0.69
1:0:83:A:H2	1:0:101:A:C5	2.10	0.69
1:0:1349:A:H2'	1:0:1350:G:C8	2.27	0.69
1:0:2634:G:H2'	1:0:2643:G:O6	1.91	0.69
1:0:1057:A:H3'	1:0:1058:G:C5'	2.22	0.69
1:0:1797:C:H2'	1:0:1798:G:O4'	1.92	0.69
1:0:587:A:H2'	1:0:588:G:H5''	1.75	0.69
1:0:2634:G:H2'	1:0:2634:G:N3	2.08	0.69
1:0:2468:G:H2'	1:0:2469:G:O4'	1.92	0.69
1:0:1479:G:H21	1:0:1543:G:H21	1.38	0.69
1:0:424:G:H4'	1:0:424:G:OP1	1.92	0.69
1:0:788:G:H22	1:0:800:U:C3'	1.96	0.68
1:0:1310:C:H2'	1:0:1311:C:C6	2.27	0.68
1:0:1958:G:H2'	1:0:1959:U:H6	1.55	0.68
1:0:503:G:H2'	1:0:504:G:O4'	1.93	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:600:G:H3'	1:0:601:A:C5'	2.22	0.68
1:0:793:G:C2	1:0:795:A:C2	2.81	0.68
1:0:1608:U:H2'	1:0:1609:G:H8	1.56	0.68
1:0:1002:C:H5'	1:0:1199:U:OP1	1.94	0.68
1:0:166:G:N2	1:0:183:U:H5	1.92	0.68
1:0:2705:A:O2'	1:0:2706:U:OP1	2.12	0.68
1:0:591:G:C3'	1:0:592:G:H8	2.01	0.68
1:0:83:A:H4'	1:0:84:G:O5'	1.91	0.68
1:0:313:U:O2'	1:0:314:G:H5'	1.94	0.68
1:0:1886:G:H2'	1:0:1887:G:H8	1.58	0.68
1:0:2564:U:C2'	1:0:2564:U:O2	2.42	0.68
1:0:1139:A:O2'	1:0:1140:A:O4'	2.08	0.68
1:0:2523:G:O2'	1:0:2524:G:H5'	1.92	0.68
1:0:573:C:H2'	1:0:574:C:O4'	1.92	0.68
1:0:1693:A:C2	1:0:1976:U:H5'	2.28	0.68
1:0:1404:C:N3	1:0:1407:G:C6	2.61	0.68
1:0:2040:A:C4	1:0:2041:A:N7	2.62	0.68
1:0:1466:C:H2'	1:0:1467:U:O4'	1.92	0.68
1:0:757:U:O2	1:0:767:G:C2	2.46	0.68
1:0:26:G:C2	1:0:27:G:N2	2.61	0.68
1:0:531:G:H2'	1:0:532:A:H8	1.57	0.68
1:0:2030:U:O2'	1:0:2031:A:H5'	1.94	0.68
1:0:836:G:H2'	1:0:837:U:C6	2.29	0.68
1:0:754:G:C4	1:0:755:C:H5	2.11	0.68
1:0:2398:U:H2'	1:0:2399:C:C6	2.29	0.68
1:0:1404:C:O2	1:0:1406:A:N7	2.27	0.68
1:0:1040:A:C8	1:0:1041:G:C8	2.81	0.68
1:0:1729:C:H2'	1:0:1730:G:C8	2.28	0.68
1:0:2809:A:N7	1:0:2854:G:C6	2.61	0.68
1:0:2756:A:H2'	1:0:2757:G:OP2	1.93	0.68
1:0:319:G:H1'	1:0:511:A:O4'	1.94	0.68
1:0:787:A:C4	1:0:788:G:N7	2.61	0.68
1:0:674:U:H2'	1:0:675:C:O4'	1.93	0.68
1:0:1430:G:H22	1:0:1599:G:H1'	1.58	0.68
1:0:2029:G:H2'	1:0:2030:U:C6	2.29	0.68
1:0:2746:G:H2'	1:0:2746:G:N3	2.08	0.68
1:0:2557:G:H2'	1:0:2558:C:C6	2.28	0.68
1:0:972:C:C5	1:0:2014:A:H2	2.11	0.68
1:0:66:U:H2'	1:0:67:G:N7	2.09	0.68
1:0:2043:A:O2'	1:0:2481:G:O4'	2.08	0.68
1:0:1572:C:C2'	1:0:1573:G:H5''	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2158:C:H2'	1:0:2159:A:C8	2.28	0.68
1:0:2074:U:O4	1:0:2075:U:H5	1.77	0.68
1:0:2482:A:H5''	1:0:2483:U:OP2	1.94	0.68
1:0:861:G:H1'	1:0:944:A:N3	2.08	0.68
1:0:708:G:OP1	1:0:1393:G:O2'	2.12	0.68
1:0:2352:A:H2'	1:0:2353:G:H8	1.58	0.68
1:0:2178:U:O2'	1:0:2179:C:H5'	1.94	0.68
1:0:813:A:HO2'	1:0:814:G:P	2.16	0.67
1:0:357:A:C2'	1:0:358:C:H5'	2.20	0.67
1:0:1745:C:H2'	1:0:1746:A:H8	1.57	0.67
1:0:501:G:H2'	1:0:502:A:H8	1.58	0.67
1:0:441:A:O2'	1:0:442:A:H5'	1.94	0.67
1:0:1743:C:H5'	1:0:2836:U:O2'	1.93	0.67
1:0:2484:G:OP2	3:0:2881:G80:H11A	1.94	0.67
1:0:976:C:H5'	1:0:2252:A:H1'	1.75	0.67
1:0:1819:U:OP1	1:0:1954:A:H4'	1.93	0.67
1:0:1912:G:H2'	1:0:1912:G:N3	2.09	0.67
1:0:1920:A:N1	1:0:1922:U:H5	1.92	0.67
1:0:816:U:O2'	1:0:817:A:H5'	1.93	0.67
1:0:972:C:C4	1:0:2014:A:H2	2.12	0.67
1:0:2754:C:N4	1:0:2755:A:N6	2.43	0.67
1:0:2698:G:H2'	1:0:2699:G:C8	2.30	0.67
1:0:2699:G:O2'	1:0:2700:U:O5'	2.12	0.67
1:0:466:A:O2'	1:0:467:U:P	2.53	0.67
1:0:329:C:O2'	1:0:330:C:H5'	1.95	0.67
1:0:222:G:N2	1:0:231:G:H1'	2.10	0.67
1:0:1451:C:H2'	1:0:1452:U:H6	1.58	0.67
1:0:2482:A:H4'	1:0:2483:U:OP1	1.93	0.67
1:0:362:C:H2'	1:0:363:G:H4'	1.75	0.67
1:0:594:G:N1	1:0:1264:C:C5	2.60	0.67
1:0:1588:A:H2'	1:0:1589:G:H8	1.59	0.67
1:0:340:G:OP2	1:0:340:G:H8	1.76	0.67
1:0:2395:C:C2'	1:0:2396:C:H5''	2.23	0.67
1:0:202:A:C2	1:0:203:G:H1'	2.29	0.67
1:0:455:A:H2	1:0:1258:G:N3	1.93	0.67
1:0:807:A:C2	1:0:808:C:C2	2.83	0.67
1:0:1621:C:H4'	1:0:1626:A:N6	2.05	0.67
1:0:1911:A:C2'	1:0:1912:G:H5'	2.24	0.67
1:0:105:G:C2'	1:0:106:G:H5'	2.25	0.67
1:0:2755:A:O2'	1:0:2756:A:H5''	1.94	0.67
1:0:1439:G:O5'	1:0:1440:G:OP1	2.12	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2094:C:H2'	1:0:2094:C:O2	1.95	0.67
1:0:1791:C:O2'	1:0:1792:C:OP2	2.12	0.67
1:0:2402:U:H4'	1:0:2404:A:N7	2.10	0.67
1:0:1365:U:H1'	1:0:1586:A:C2	2.29	0.67
1:0:664:C:H2'	1:0:665:A:C8	2.30	0.67
1:0:1781:C:H2'	1:0:1782:A:C8	2.28	0.67
1:0:2565:C:H2'	1:0:2566:A:C5'	2.25	0.67
1:0:572:G:H1	1:0:2001:G:H1'	1.58	0.67
1:0:2694:G:O2'	1:0:2695:C:H5'	1.95	0.67
1:0:1724:C:N3	1:0:1747:G:C6	2.63	0.67
1:0:1882:G:N2	1:0:1885:C:N4	2.43	0.67
1:0:93:A:O2'	1:0:94:C:H5'	1.94	0.67
1:0:2432:A:O2'	1:0:2433:G:H5'	1.95	0.67
1:0:572:G:N1	1:0:2001:G:H1'	2.10	0.67
1:0:1142:G:O2'	1:0:1143:A:O5'	2.12	0.67
1:0:976:C:O2'	1:0:977:G:H5'	1.94	0.67
1:0:2533:U:H2'	1:0:2534:U:C6	2.30	0.67
1:0:1654:A:H4'	1:0:2690:A:O2'	1.94	0.67
1:0:616:U:H2'	1:0:617:U:C5'	2.24	0.67
1:0:2825:A:N3	1:0:2826:C:C6	2.63	0.67
1:0:777:A:O2'	1:0:778:G:OP1	2.12	0.67
1:0:1468:A:C8	1:0:1468:A:OP2	2.48	0.67
1:0:2808:U:O2	1:0:2808:U:H2'	1.95	0.67
1:0:1896:A:H2'	1:0:1899:A:N6	2.08	0.66
1:0:541:C:N4	1:0:572:G:C8	2.63	0.66
1:0:27:G:H1'	1:0:523:A:H62	1.56	0.66
1:0:2471:U:H2'	1:0:2472:U:C5	2.30	0.66
1:0:2573:C:H2'	1:0:2574:G:H5'	1.77	0.66
1:0:2498:U:C4'	1:0:2499:C:OP1	2.42	0.66
1:0:2544:A:H2'	1:0:2545:A:C1'	2.23	0.66
1:0:836:G:H2'	1:0:837:U:H6	1.61	0.66
1:0:1474:A:O2'	1:0:1475:U:H5'	1.95	0.66
1:0:2532:G:C2	1:0:2533:U:H1'	2.30	0.66
1:0:2311:U:C5'	1:0:2315:A:H61	2.06	0.66
1:0:68:C:C2	1:0:72:A:N3	2.63	0.66
1:0:428:A:H2'	1:0:429:C:C6	2.30	0.66
1:0:136:A:H2'	1:0:137:A:O4'	1.95	0.66
1:0:2594:U:C2	1:0:2595:C:C5	2.83	0.66
1:0:1139:A:O2'	1:0:1140:A:O5'	2.13	0.66
1:0:2437:G:O2'	1:0:2438:A:N7	2.26	0.66
1:0:687:G:H2'	1:0:817:A:H61	1.59	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:956:A:C2	1:0:2427:A:N3	2.63	0.66
1:0:1287:A:N1	1:0:1315:A:H2	1.92	0.66
1:0:1566:G:O2'	1:0:1567:A:H5'	1.94	0.66
1:0:1871:G:H3'	1:0:1871:G:N3	2.10	0.66
1:0:362:C:C4	1:0:363:G:H1'	2.30	0.66
1:0:1921:A:C2'	1:0:1922:U:H5''	2.25	0.66
1:0:2621:G:O2'	1:0:2622:G:H5'	1.95	0.66
1:0:442:A:H2'	1:0:443:A:C8	2.30	0.66
1:0:1305:C:H2'	1:0:1306:U:H6	1.59	0.66
1:0:2418:A:C1'	1:0:2565:C:HO2'	2.03	0.66
1:0:1337:G:C4'	1:0:1632:A:H62	2.09	0.66
1:0:671:A:H2'	1:0:672:C:C6	2.31	0.66
1:0:1745:C:C4	1:0:1746:A:N7	2.64	0.66
1:0:68:C:H2'	1:0:72:A:H1'	1.78	0.66
1:0:2824:C:O2	1:0:2843:A:C4	2.48	0.66
1:0:1288:A:N6	1:0:1309:G:O4'	2.29	0.66
1:0:581:A:C2	1:0:2016:A:C2	2.83	0.66
1:0:833:A:N3	1:0:954:U:O2'	2.28	0.66
1:0:994:A:N7	1:0:995:A:C2	2.64	0.66
1:0:2756:A:N6	1:0:2762:G:C4	2.64	0.66
1:0:2630:C:H2'	1:0:2631:C:H6	1.60	0.66
1:0:216:U:H2'	1:0:217:U:C6	2.31	0.66
1:0:163:A:H2'	1:0:164:G:H8	1.61	0.66
1:0:2015:G:H5''	1:0:2016:A:OP2	1.96	0.66
1:0:885:A:H2'	1:0:886:A:H8	1.60	0.66
1:0:540:G:C6	1:0:2006:G:OP1	2.49	0.66
1:0:1629:G:C5	1:0:1633:C:C4	2.84	0.66
1:0:1287:A:C6	1:0:1315:A:H2	2.14	0.66
1:0:428:A:H2'	1:0:429:C:O4'	1.95	0.66
1:0:2194:A:C2'	1:0:2195:C:H5''	2.26	0.66
1:0:1656:U:C2'	1:0:1657:A:H5''	2.26	0.66
1:0:914:C:O2'	1:0:915:C:H5'	1.95	0.66
1:0:186:C:H2'	1:0:187:U:O4'	1.95	0.66
1:0:224:G:H4'	1:0:399:G:C6	2.31	0.66
1:0:581:A:N6	1:0:582:G:C6	2.64	0.66
1:0:18:U:H2'	1:0:19:C:H6	1.60	0.66
1:0:1690:U:H2'	1:0:1691:G:C5'	2.26	0.66
1:0:1451:C:H2'	1:0:1452:U:C6	2.31	0.66
1:0:1445:A:H2'	1:0:1446:U:O4'	1.95	0.66
1:0:2565:C:C2'	1:0:2566:A:C5'	2.73	0.66
1:0:169:C:C5	1:0:170:U:O2	2.48	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:175:C:N4	1:0:225:G:N1	2.44	0.66
1:0:754:G:C4	1:0:755:C:C5	2.83	0.66
1:0:1745:C:C2	1:0:1746:A:C8	2.84	0.66
1:0:1818:G:H2'	1:0:1819:U:H6	1.60	0.66
1:0:914:C:H2'	1:0:915:C:H6	1.61	0.66
1:0:2345:A:O5'	1:0:2345:A:H8	1.77	0.66
1:0:2026:C:OP2	1:0:2759:U:O4	2.12	0.66
1:0:631:G:O5'	1:0:631:G:H8	1.78	0.66
1:0:665:A:H3'	1:0:666:U:H5''	1.77	0.66
1:0:1373:G:H2'	1:0:1374:G:H5'	1.78	0.66
1:0:68:C:O2'	1:0:72:A:H1'	1.96	0.66
1:0:1338:G:H4'	1:0:1339:U:OP1	1.95	0.66
1:0:564:U:H2'	1:0:565:A:C8	2.31	0.66
1:0:2594:U:H2'	1:0:2595:C:C6	2.31	0.66
1:0:1734:C:C5	1:0:1735:G:H1'	2.31	0.66
1:0:179:U:H2'	1:0:180:C:H6	1.60	0.65
1:0:227:G:H2'	1:0:228:A:H8	1.58	0.65
1:0:859:U:H1'	1:0:860:U:N3	2.10	0.65
1:0:1686:A:C2'	1:0:1687:C:H5'	2.25	0.65
1:0:68:C:C2'	1:0:72:A:H1'	2.26	0.65
1:0:1036:G:OP1	1:0:1036:G:H8	1.79	0.65
1:0:1110:G:H2'	1:0:1111:C:C6	2.31	0.65
1:0:2080:U:H2'	1:0:2081:U:C6	2.31	0.65
1:0:531:G:H2'	1:0:532:A:C8	2.30	0.65
1:0:587:A:C2'	1:0:588:G:H5''	2.25	0.65
1:0:2621:G:N2	1:0:2622:G:C4	2.63	0.65
1:0:2757:G:OP2	1:0:2761:A:O2'	2.12	0.65
1:0:1151:U:H5''	1:0:1153:A:P	2.36	0.65
1:0:1153:A:O2'	1:0:1154:A:H3'	1.97	0.65
1:0:1966:C:O2	1:0:1966:C:H2'	1.96	0.65
1:0:1736:C:H2'	1:0:1737:G:C8	2.31	0.65
1:0:1305:C:H2'	1:0:1306:U:C6	2.30	0.65
1:0:2372:A:O2'	1:0:2373:C:H5'	1.96	0.65
1:0:1191:G:H2'	1:0:1192:A:C8	2.30	0.65
1:0:1773:C:OP1	1:0:1774:A:OP2	2.13	0.65
1:0:2573:C:C2'	1:0:2574:G:H5'	2.26	0.65
1:0:2807:U:O2'	1:0:2809:A:C4	2.49	0.65
1:0:587:A:OP1	1:0:1268:U:O2'	2.09	0.65
1:0:2733:A:C2'	1:0:2734:U:H5'	2.26	0.65
1:0:1621:C:C1'	1:0:1626:A:N7	2.59	0.65
1:0:1802:A:H2'	1:0:1803:G:H5'	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1987:G:C5	1:0:1988:A:C8	2.85	0.65
1:0:1154:A:H4'	1:0:1155:G:OP2	1.97	0.65
1:0:2059:U:O2'	1:0:2060:A:OP1	2.13	0.65
1:0:2372:A:H2'	1:0:2373:C:O4'	1.97	0.65
1:0:171:G:H2'	1:0:172:A:C5'	2.26	0.65
1:0:224:G:N2	1:0:227:G:H3'	2.12	0.65
1:0:2491:C:H2'	1:0:2492:G:O4'	1.96	0.65
1:0:1473:U:H4'	1:0:1474:A:C8	2.32	0.65
1:0:1171:A:H2'	1:0:1172:U:H6	1.61	0.65
1:0:134:G:H2'	1:0:135:U:H5''	1.79	0.65
1:0:1432:G:H2'	1:0:1594:U:O4	1.95	0.65
1:0:2585:C:H2'	1:0:2586:G:H5'	1.78	0.65
1:0:788:G:N2	1:0:801:A:OP2	2.29	0.65
1:0:225:G:C2	1:0:2410:U:H4'	2.32	0.65
1:0:984:A:H1'	1:0:1202:U:C5	2.31	0.65
1:0:926:C:H2'	1:0:927:C:C5'	2.27	0.65
1:0:1383:C:H2'	1:0:1384:G:C8	2.27	0.65
1:0:501:G:H2'	1:0:502:A:O4'	1.96	0.65
1:0:2229:G:N2	1:0:2475:C:H5''	2.12	0.65
1:0:2324:G:N3	1:0:2326:C:C5	2.64	0.65
1:0:2645:C:H3'	1:0:2646:C:H6	1.62	0.65
1:0:1488:G:C4	1:0:1536:G:N2	2.64	0.65
1:0:2076:G:H2'	1:0:2077:G:H8	1.62	0.65
1:0:2859:U:H2'	1:0:2860:C:H5'	1.78	0.65
1:0:594:G:C2	1:0:1264:C:N4	2.65	0.65
1:0:1463:A:O2'	1:0:1464:A:H5'	1.97	0.65
1:0:1223:G:O2'	1:0:1224:A:OP2	2.10	0.65
1:0:1222:G:O2'	1:0:1225:G:H4'	1.97	0.65
1:0:1714:A:H62	1:0:1715:A:N6	1.95	0.65
1:0:57:G:N2	1:0:69:G:C4	2.64	0.65
1:0:987:G:H2'	1:0:988:G:H8	1.61	0.65
1:0:1378:A:H2'	1:0:1379:A:C8	2.32	0.65
1:0:2034:A:C6	1:0:2593:A:C5	2.85	0.65
1:0:2048:C:H1'	1:0:2428:U:H3	1.62	0.65
1:0:2076:G:H2'	1:0:2077:G:C8	2.32	0.65
1:0:177:U:O2	1:0:178:C:C1'	2.45	0.65
1:0:583:C:H1'	1:0:2038:C:H6	1.59	0.65
1:0:846:A:N7	1:0:847:C:C5	2.65	0.65
1:0:973:U:H2'	1:0:974:U:O4'	1.96	0.65
1:0:1789:U:O2'	1:0:1793:A:H1'	1.97	0.65
1:0:2330:G:C2	1:0:2344:G:C6	2.84	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:653:G:N2	1:0:657:A:N6	2.44	0.65
1:0:2558:C:C2'	1:0:2559:U:H5'	2.26	0.65
1:0:2560:G:HO2'	1:0:2561:G:P	2.19	0.65
1:0:582:G:N1	1:0:2014:A:OP2	2.22	0.65
1:0:2226:A:H2'	1:0:2227:C:H6	1.62	0.65
1:0:976:C:C1'	1:0:2252:A:C2	2.78	0.65
1:0:1830:C:N4	1:0:1881:U:H3'	2.12	0.65
1:0:1409:U:H5''	1:0:1410:U:OP2	1.96	0.65
1:0:1147:G:H2'	1:0:1148:G:C8	2.27	0.65
1:0:1282:A:H2'	1:0:1283:C:H6	1.62	0.65
1:0:2204:A:H4'	1:0:2205:C:O5'	1.97	0.65
1:0:1265:G:C2	1:0:1266:G:N2	2.64	0.65
1:0:2849:C:O2'	1:0:2850:U:H5'	1.97	0.65
1:0:2574:G:N2	1:0:2577:A:OP2	2.26	0.64
1:0:2369:U:H3'	1:0:2369:U:C6	2.29	0.64
1:0:366:U:H2'	1:0:367:G:C8	2.31	0.64
1:0:198:A:N7	1:0:243:G:C5	2.65	0.64
1:0:1734:C:C4	1:0:1735:G:H1'	2.31	0.64
1:0:787:A:O2'	1:0:788:G:C5'	2.45	0.64
1:0:1002:C:C4	1:0:1003:C:H5	2.14	0.64
1:0:1393:G:H21	1:0:1586:A:H61	1.45	0.64
1:0:318:G:N2	1:0:341:A:H62	1.92	0.64
1:0:664:C:H2'	1:0:665:A:H8	1.61	0.64
1:0:1384:G:N2	1:0:1385:C:H41	1.94	0.64
1:0:1535:C:N3	1:0:1536:G:C2	2.64	0.64
1:0:2557:G:H2'	1:0:2558:C:H6	1.60	0.64
1:0:588:G:O2'	1:0:2002:A:OP1	2.15	0.64
1:0:873:U:O2	1:0:2246:A:H5''	1.98	0.64
1:0:1685:A:N7	1:0:1691:G:C6	2.64	0.64
1:0:2838:U:H2'	1:0:2839:G:H8	1.62	0.64
1:0:706:A:O2'	1:0:707:U:H5'	1.97	0.64
1:0:514:G:H3'	1:0:514:G:N3	2.13	0.64
1:0:2705:A:O2'	1:0:2706:U:H6	1.75	0.64
1:0:651:C:H42	1:0:658:G:H1	1.44	0.64
1:0:2205:C:H2'	1:0:2206:C:C5'	2.28	0.64
1:0:1191:G:H2'	1:0:1192:A:H8	1.62	0.64
1:0:1774:A:C2	1:0:2566:A:C4	2.86	0.64
1:0:788:G:C2'	1:0:807:A:C8	2.80	0.64
1:0:824:U:H3'	1:0:824:U:H6	1.63	0.64
1:0:1621:C:H1'	1:0:1626:A:C8	2.33	0.64
1:0:487:G:H4'	1:0:512:A:N1	2.13	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:637:G:C8	1:0:637:G:C3'	2.81	0.64
1:0:1675:C:C2	1:0:1676:U:C5	2.85	0.64
1:0:1406:A:H2'	1:0:1407:G:H8	1.61	0.64
1:0:1058:G:H2'	1:0:1121:G:C2	2.32	0.64
1:0:1869:A:H2'	1:0:1870:U:O4'	1.96	0.64
1:0:814:G:O2'	1:0:815:A:OP1	2.11	0.64
1:0:465:C:O2'	1:0:467:U:H1'	1.98	0.64
1:0:482:A:C2'	1:0:483:A:H5'	2.27	0.64
1:0:1523:A:O5'	1:0:1523:A:H8	1.79	0.64
1:0:27:G:HO2'	1:0:28:A:H8	1.43	0.64
1:0:2845:C:C4	1:0:2846:G:N7	2.65	0.64
1:0:1019:U:O2	1:0:1019:U:H2'	1.96	0.64
1:0:1770:U:C4	1:0:1774:A:H2'	2.31	0.64
1:0:1976:U:H2'	1:0:1976:U:O2	1.96	0.64
1:0:1088:A:H2'	1:0:1089:C:O4'	1.98	0.64
1:0:1288:A:N6	1:0:1309:G:H5'	2.13	0.64
1:0:83:A:C2	1:0:101:A:C5	2.86	0.64
1:0:26:G:C6	1:0:27:G:N1	2.65	0.64
1:0:2015:G:N3	1:0:2015:G:H2'	2.11	0.64
1:0:2662:C:C2'	1:0:2663:U:H5'	2.28	0.64
1:0:2824:C:H4'	1:0:2825:A:H5'	1.80	0.64
1:0:2270:U:O2'	1:0:2353:G:N3	2.31	0.64
1:0:2873:G:H2'	1:0:2874:A:H8	1.63	0.64
1:0:2240:C:H2'	1:0:2241:U:H5'	1.79	0.64
1:0:1468:A:P	1:0:1468:A:H8	2.21	0.64
1:0:1055:A:N6	1:0:1123:G:H1'	2.12	0.64
1:0:1757:C:O2	1:0:1970:G:C2	2.51	0.64
1:0:2229:G:H21	1:0:2476:A:P	2.21	0.64
1:0:930:A:N7	1:0:931:G:H1'	2.12	0.64
1:0:1333:G:N2	1:0:1344:C:H41	1.93	0.64
1:0:1973:C:N3	1:0:1974:U:C4	2.66	0.64
1:0:1281:A:N6	1:0:1995:G:H1'	2.13	0.64
1:0:1055:A:N1	1:0:1122:A:H5'	2.13	0.64
1:0:1096:A:O2'	1:0:1115:C:H1'	1.97	0.64
1:0:2039:G:N2	1:0:2040:A:C8	2.65	0.64
1:0:1683:G:O6	1:0:1684:G:C2	2.51	0.64
1:0:2529:G:N2	1:0:2530:C:C2	2.66	0.64
1:0:741:G:O6	1:0:743:A:N6	2.31	0.64
1:0:1664:G:H5''	1:0:1665:C:OP1	1.98	0.64
1:0:2608:A:O2'	1:0:2609:G:O5'	2.16	0.64
1:0:1923:U:C5'	1:0:1924:C:OP1	2.46	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:877:G:O2'	1:0:878:C:H5'	1.98	0.63
1:0:1333:G:N7	1:0:1342:U:H5'	2.13	0.63
1:0:1345:G:N7	1:0:1625:A:N6	2.46	0.63
1:0:1982:C:O2'	1:0:1983:G:H5'	1.97	0.63
1:0:1055:A:C2	1:0:1121:G:H2'	2.33	0.63
1:0:2039:G:N2	1:0:2040:A:C4	2.66	0.63
1:0:2418:A:H5''	1:0:2419:C:P	2.38	0.63
1:0:2424:G:H2'	1:0:2425:G:H5'	1.78	0.63
1:0:751:G:O2'	1:0:752:G:O5'	2.07	0.63
1:0:741:G:O2'	1:0:742:G:P	2.55	0.63
1:0:717:G:H2'	1:0:739:G:H22	1.62	0.63
1:0:2834:A:H2'	1:0:2835:A:C8	2.33	0.63
1:0:2037:A:C2	1:0:2595:C:N3	2.67	0.63
1:0:2164:G:H2'	1:0:2165:A:O4'	1.98	0.63
1:0:1177:U:H2'	1:0:1178:C:C6	2.34	0.63
1:0:177:U:O2	1:0:177:U:H2'	1.98	0.63
1:0:838:A:H2'	1:0:839:U:O4'	1.98	0.63
1:0:539:A:N6	1:0:2024:U:H3	1.96	0.63
1:0:878:C:H4'	1:0:879:A:N7	2.14	0.63
1:0:1749:G:O2'	1:0:1750:A:OP1	2.15	0.63
1:0:2311:U:H5'	1:0:2315:A:N6	2.06	0.63
1:0:2543:A:H8	1:0:2543:A:O5'	1.81	0.63
1:0:2433:G:O2'	1:0:2434:G:H5'	1.98	0.63
1:0:955:G:C3'	1:0:955:G:C8	2.80	0.63
1:0:1465:G:O6	1:0:1476:G:O6	2.16	0.63
1:0:1625:A:N3	1:0:1625:A:C3'	2.61	0.63
1:0:1394:G:H2'	1:0:1395:A:H8	1.62	0.63
1:0:115:G:C6	1:0:117:A:N6	2.67	0.63
1:0:1571:G:O2'	1:0:1572:C:H5'	1.98	0.63
1:0:736:G:H2'	1:0:737:C:O4'	1.98	0.63
1:0:2564:U:H2'	1:0:2564:U:O2	1.97	0.63
1:0:1314:A:O2'	1:0:1315:A:H3'	1.99	0.63
1:0:246:C:H42	1:0:247:A:H62	1.46	0.63
1:0:1947:G:H2'	1:0:1950:C:OP1	1.98	0.63
1:0:1622:G:H4'	1:0:1624:A:N3	2.14	0.63
1:0:1435:G:N2	1:0:1508:G:H21	1.96	0.63
1:0:2796:A:OP2	2:B:110:GLY:CA	2.47	0.63
1:0:648:A:H5'	1:0:649:G:O5'	1.99	0.63
1:0:367:G:C2'	1:0:368:A:H5''	2.29	0.63
1:0:20:C:H2'	1:0:21:A:H8	1.63	0.63
1:0:1422:C:H2'	1:0:1423:A:C8	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:797:A:H5'	1:0:798:G:OP1	1.98	0.63
1:0:1233:A:O2'	1:0:1234:C:OP1	2.13	0.63
1:0:2014:A:C5	1:0:2477:C:H1'	2.33	0.63
1:0:862:A:H2'	1:0:863:C:C6	2.32	0.63
1:0:1624:A:N6	1:0:1627:C:C2	2.67	0.63
1:0:428:A:H2'	1:0:429:C:H6	1.62	0.63
1:0:2557:G:OP1	1:0:2593:A:N6	2.32	0.63
1:0:2810:A:N6	1:0:2854:G:C5	2.67	0.63
1:0:1212:U:H2'	1:0:1213:U:C6	2.34	0.63
1:0:2225:G:H2'	1:0:2226:A:H8	1.62	0.63
1:0:2427:A:H4'	1:0:2428:U:OP2	1.99	0.63
1:0:2489:C:C4	1:0:2490:U:C5	2.87	0.63
1:0:1288:A:H2'	1:0:1289:A:O4'	1.98	0.63
1:0:25:U:N3	1:0:26:G:C2	2.67	0.63
1:0:2613:A:H2'	1:0:2614:A:H8	1.64	0.63
1:0:1380:C:H2'	1:0:1381:G:H5'	1.80	0.63
1:0:2562:G:H2'	1:0:2563:U:H5'	1.80	0.63
1:0:566:U:H2'	1:0:567:G:H8	1.64	0.63
1:0:1458:A:C3'	1:0:1459:U:C5'	2.64	0.63
1:0:2758:A:H4'	1:0:2759:U:OP2	1.98	0.63
1:0:1682:A:C2'	1:0:1683:G:H5'	2.29	0.63
1:0:2198:U:H3'	1:0:2199:C:C5'	2.28	0.63
1:0:1753:A:O5'	1:0:1753:A:H8	1.80	0.63
1:0:1928:G:C2	1:0:1929:U:C2	2.87	0.63
1:0:1969:G:N2	1:0:1970:G:C4	2.67	0.63
1:0:1766:U:C2'	1:0:1767:G:H5'	2.29	0.62
1:0:1766:U:H2'	1:0:1767:G:O4'	1.99	0.62
1:0:639:G:H2'	1:0:640:C:C6	2.33	0.62
1:0:1404:C:H2'	1:0:1404:C:O2	1.98	0.62
1:0:2627:G:O2'	1:0:2628:C:H5'	1.98	0.62
1:0:2585:C:C2'	1:0:2586:G:H5'	2.29	0.62
1:0:391:C:C2'	1:0:392:G:H5'	2.29	0.62
1:0:2563:U:O2'	1:0:2564:U:H5'	1.98	0.62
1:0:541:C:H3'	1:0:542:A:O4'	1.99	0.62
1:0:677:G:C4'	1:0:951:G:H5''	2.29	0.62
1:0:672:C:O2'	1:0:673:G:H5'	2.00	0.62
1:0:1377:G:O2'	1:0:1799:A:C2	2.47	0.62
1:0:2359:U:O4	1:0:2360:C:N4	2.32	0.62
1:0:1819:U:O2	1:0:1820:G:H1'	1.98	0.62
1:0:474:G:C6	1:0:478:G:O6	2.51	0.62
1:0:2790:C:H2'	1:0:2791:C:H6	1.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:840:U:H4'	1:0:841:G:N2	2.14	0.62
1:0:939:C:H2'	1:0:940:G:N7	2.14	0.62
1:0:13:A:H5''	1:0:14:A:OP1	1.99	0.62
1:0:2007:G:H2'	1:0:2008:C:H6	1.64	0.62
1:0:2665:G:C2	1:0:2666:U:O2	2.52	0.62
1:0:1391:A:O2'	1:0:1392:U:P	2.57	0.62
1:0:490:A:O2'	1:0:491:A:C5'	2.47	0.62
1:0:1071:U:H3'	1:0:1072:U:C5'	2.28	0.62
1:0:1210:C:H2'	1:0:1211:G:C8	2.35	0.62
1:0:1631:C:O2'	1:0:1632:A:P	2.57	0.62
1:0:1766:U:H2'	1:0:1767:G:C5'	2.29	0.62
1:0:1406:A:C8	1:0:1407:G:N7	2.67	0.62
1:0:1215:A:C2	1:0:1258:G:C4	2.87	0.62
1:0:2463:G:O2'	1:0:2464:G:H5'	1.98	0.62
1:0:1920:A:C6	1:0:1922:U:C5	2.87	0.62
1:0:2565:C:H2'	1:0:2566:A:H5'	1.81	0.62
1:0:2810:A:N7	1:0:2854:G:N7	2.47	0.62
1:0:541:C:H41	1:0:572:G:C1'	2.12	0.62
1:0:2673:G:N2	1:0:2674:C:C2	2.67	0.62
1:0:1908:C:H2'	1:0:1909:U:C4'	2.14	0.62
1:0:754:G:N3	1:0:755:C:C5	2.67	0.62
1:0:2198:U:C2	1:0:2199:C:H1'	2.34	0.62
1:0:775:U:H5'	1:0:776:G:OP1	1.99	0.62
1:0:1281:A:H61	1:0:1995:G:H1'	1.63	0.62
1:0:2756:A:O2'	1:0:2757:G:P	2.56	0.62
1:0:976:C:O4'	1:0:2252:A:N3	2.33	0.62
1:0:1621:C:O2'	1:0:1626:A:N7	2.28	0.62
1:0:493:A:OP2	1:0:517:A:N6	2.32	0.62
1:0:2222:U:C2	1:0:2223:U:C5	2.88	0.62
1:0:498:C:H2'	1:0:499:G:H8	1.65	0.62
1:0:1439:G:H2'	1:0:1440:G:C4	2.34	0.62
1:0:1376:C:H2'	1:0:1377:G:H8	1.64	0.62
1:0:1573:G:O6	1:0:1574:A:N6	2.32	0.62
1:0:1659:G:O2'	1:0:1660:G:H5'	1.98	0.62
1:0:2346:G:O2'	1:0:2347:C:H5'	1.99	0.62
1:0:541:C:N4	1:0:572:G:O4'	2.33	0.62
1:0:468:A:O2'	1:0:469:G:H4'	2.00	0.62
1:0:510:G:N3	1:0:512:A:OP2	2.33	0.62
1:0:1830:C:H42	1:0:1881:U:H2'	1.65	0.62
1:0:2729:A:N6	1:0:2730:A:H62	1.98	0.62
1:0:1440:G:C3'	1:0:1441:A:C5'	2.78	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:765:C:HO2'	1:0:766:A:H8	1.42	0.62
1:0:359:G:H2'	1:0:360:A:C8	2.34	0.62
1:0:1714:A:N6	1:0:1715:A:N1	2.48	0.62
1:0:1669:A:N6	1:0:1670:G:N1	2.48	0.62
1:0:638:A:O2'	1:0:639:G:H5'	2.00	0.62
1:0:2656:G:O2'	1:0:2657:G:H5'	1.99	0.62
1:0:208:C:H2'	1:0:209:G:O4'	2.00	0.62
1:0:2553:G:H2'	1:0:2554:C:C5'	2.30	0.62
1:0:861:G:N7	1:0:862:A:C5	2.68	0.62
1:0:1793:A:H2'	1:0:1794:A:C8	2.34	0.62
1:0:473:C:C4	1:0:474:G:N7	2.68	0.61
1:0:173:A:N3	1:0:173:A:C2'	2.63	0.61
1:0:846:A:C8	1:0:847:C:C5	2.88	0.61
1:0:971:A:C2'	1:0:972:C:H5'	2.29	0.61
1:0:2781:G:H2'	1:0:2782:G:H1'	1.81	0.61
1:0:2787:A:H2'	1:0:2788:C:H6	1.64	0.61
1:0:1376:C:H2'	1:0:1377:G:C8	2.35	0.61
1:0:1287:A:N3	1:0:1310:C:H1'	2.14	0.61
1:0:649:G:H2'	1:0:650:U:H6	1.63	0.61
1:0:987:G:H4'	1:0:1167:A:N7	2.15	0.61
1:0:1594:U:H2'	1:0:1595:A:C8	2.34	0.61
1:0:603:C:H2'	1:0:604:U:C6	2.35	0.61
1:0:2526:U:C4	1:0:2545:A:N7	2.69	0.61
1:0:955:G:H8	1:0:955:G:H3'	1.62	0.61
1:0:777:A:HO2'	1:0:778:G:P	2.23	0.61
1:0:2720:A:C8	1:0:2743:G:N2	2.68	0.61
1:0:2040:A:C3'	1:0:2041:A:H8	2.12	0.61
1:0:2810:A:N6	1:0:2854:G:N7	2.48	0.61
1:0:2477:C:C6	1:0:2477:C:C3'	2.82	0.61
1:0:2733:A:H2'	1:0:2734:U:H5'	1.81	0.61
1:0:1466:C:C2'	1:0:1467:U:H5'	2.31	0.61
1:0:2753:C:H2'	1:0:2754:C:H6	1.65	0.61
1:0:538:A:C3'	1:0:538:A:C8	2.71	0.61
1:0:1982:C:OP1	1:0:2704:U:H5'	1.99	0.61
1:0:342:G:O2'	1:0:343:A:OP1	2.17	0.61
1:0:765:C:O2'	1:0:766:A:C8	2.52	0.61
1:0:1714:A:H2'	1:0:1714:A:N3	2.15	0.61
1:0:1005:U:O2	1:0:1007:A:N7	2.33	0.61
1:0:1287:A:N1	1:0:1661:C:O2'	2.30	0.61
1:0:2240:C:H2'	1:0:2241:U:C5'	2.30	0.61
1:0:2074:U:H3'	1:0:2075:U:C5'	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2558:C:O2'	1:0:2559:U:C5'	2.30	0.61
1:0:1234:C:O2	1:0:1242:A:N1	2.33	0.61
1:0:2405:A:H2'	1:0:2406:C:OP1	2.01	0.61
1:0:957:G:O2'	1:0:958:G:H5'	2.01	0.61
1:0:752:G:H5'	1:0:753:U:OP1	2.01	0.61
1:0:2274:C:H2'	1:0:2275:U:H5'	1.81	0.61
1:0:774:A:O5'	1:0:774:A:H8	1.82	0.61
1:0:1431:U:H2'	1:0:1432:G:O4'	2.00	0.61
1:0:2377:U:H6	1:0:2377:U:O5'	1.83	0.61
1:0:2040:A:C1'	1:0:2041:A:C8	2.84	0.61
1:0:831:G:C2'	1:0:832:A:H5''	2.30	0.61
1:0:1460:G:OP2	1:0:1475:U:O2	2.19	0.61
1:0:2023:C:O2'	1:0:2024:U:H5'	1.99	0.61
1:0:1327:C:H6	1:0:1327:C:O5'	1.83	0.61
1:0:1341:G:H2'	1:0:1343:C:C5	2.36	0.61
1:0:483:A:C2'	1:0:484:G:H5'	2.29	0.61
1:0:2197:U:H2'	1:0:2198:U:C5	2.35	0.61
1:0:1287:A:C6	1:0:1315:A:C2	2.88	0.61
1:0:2326:C:O2'	1:0:2327:U:H5'	2.00	0.61
1:0:788:G:C5'	1:0:790:A:H1'	2.31	0.61
1:0:2426:G:O2'	1:0:2427:A:P	2.58	0.61
1:0:1991:C:H2'	1:0:1992:G:C8	2.29	0.61
1:0:2277:A:H2'	1:0:2278:A:O4'	2.00	0.61
1:0:2382:C:C2'	1:0:2382:C:O2	2.49	0.61
1:0:202:A:N6	1:0:203:G:C2	2.68	0.61
1:0:131:C:O2'	1:0:132:U:H5'	2.01	0.61
1:0:2039:G:N3	1:0:2039:G:H2'	2.14	0.61
1:0:791:G:N2	1:0:800:U:C2	2.68	0.61
1:0:1245:G:O2'	1:0:1246:G:H5'	2.01	0.61
1:0:1259:A:H2'	1:0:1260:A:H5'	1.81	0.61
1:0:2254:C:O2'	1:0:2255:G:OP2	2.17	0.61
1:0:330:C:H2'	1:0:331:U:C5'	2.30	0.61
1:0:24:G:N2	1:0:25:U:H1'	2.15	0.61
1:0:1554:G:H2'	1:0:1555:A:C8	2.36	0.61
1:0:180:C:C2	1:0:181:A:N7	2.69	0.61
1:0:1391:A:O2'	1:0:1392:U:C6	2.53	0.61
1:0:1706:A:C6	1:0:1714:A:C2	2.88	0.61
1:0:1656:U:O2'	1:0:1657:A:H5''	2.00	0.61
1:0:2418:A:C4	1:0:2565:C:H4'	2.35	0.61
1:0:930:A:N7	1:0:931:G:C1'	2.64	0.61
1:0:2674:C:C2	1:0:2675:U:C5	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:67:G:N1	1:0:72:A:C2	2.69	0.61
1:0:58:C:H1'	1:0:72:A:C8	2.35	0.61
1:0:1087:C:H2'	1:0:1088:A:O4'	2.00	0.61
1:0:95:G:H2'	1:0:96:C:C6	2.36	0.61
1:0:1248:G:C2	1:0:1249:G:N2	2.69	0.61
1:0:671:A:H2'	1:0:672:C:H6	1.66	0.61
1:0:1723:U:C5	1:0:1748:U:OP2	2.54	0.61
1:0:2343:C:O2'	1:0:2344:G:H5'	2.01	0.61
1:0:1552:C:C2'	1:0:1553:G:H5'	2.28	0.61
1:0:2450:A:N6	1:0:2451:G:C2	2.68	0.61
1:0:1932:G:C2	1:0:1941:C:N3	2.69	0.61
1:0:1137:A:H5''	1:0:1138:A:OP1	2.01	0.61
1:0:1469:U:H5'	1:0:1470:G:OP2	2.01	0.61
1:0:2040:A:H2'	1:0:2041:A:O4'	2.01	0.60
1:0:789:G:H4'	1:0:790:A:O4'	2.01	0.60
1:0:172:A:N7	1:0:175:C:C5	2.55	0.60
1:0:2522:G:H2'	1:0:2523:G:H8	1.66	0.60
1:0:819:C:O3'	1:0:843:G:N2	2.33	0.60
1:0:2662:C:H2'	1:0:2663:U:H5'	1.81	0.60
1:0:1618:U:H3'	1:0:1618:U:H6	1.66	0.60
1:0:1992:G:O2'	1:0:1993:G:H5'	2.01	0.60
1:0:2029:G:H2'	1:0:2030:U:H6	1.64	0.60
1:0:2083:G:H2'	1:0:2084:G:O4'	2.00	0.60
1:0:1711:C:O2'	1:0:1712:G:H5''	2.01	0.60
1:0:2050:G:H5''	1:0:2051:U:OP2	2.00	0.60
1:0:225:G:O5'	1:0:226:C:H5''	2.01	0.60
1:0:843:G:H1'	1:0:2427:A:N1	2.16	0.60
1:0:66:U:C2	1:0:67:G:O6	2.54	0.60
1:0:762:A:C6	1:0:1634:A:C2	2.89	0.60
1:0:199:A:N7	1:0:201:G:C8	2.69	0.60
1:0:1399:C:H2'	1:0:1400:A:H8	1.66	0.60
1:0:2514:G:N2	1:0:2515:G:H1'	2.16	0.60
1:0:942:U:H2'	1:0:943:U:O5'	2.00	0.60
1:0:536:A:N1	1:0:2605:C:H4'	2.17	0.60
1:0:1629:G:C6	1:0:1635:G:C6	2.89	0.60
1:0:2674:C:H2'	1:0:2675:U:H6	1.65	0.60
1:0:490:A:N7	1:0:492:G:C4	2.70	0.60
1:0:754:G:C2	1:0:755:C:C5	2.88	0.60
1:0:758:G:N2	1:0:766:A:C5	2.70	0.60
1:0:1715:A:N3	1:0:1717:A:C1'	2.64	0.60
1:0:1359:G:C6	1:0:1617:G:C6	2.89	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1838:G:H2'	1:0:1839:A:O4'	2.00	0.60
1:0:1834:G:H2'	1:0:1835:C:C6	2.36	0.60
1:0:1211:G:H2'	1:0:1212:U:H6	1.65	0.60
1:0:2522:G:H2'	1:0:2523:G:C8	2.36	0.60
1:0:2198:U:H2'	1:0:2199:C:H4'	1.82	0.60
1:0:1370:U:H2'	1:0:1371:G:O4'	2.02	0.60
1:0:2630:C:O2'	1:0:2631:C:H5'	2.02	0.60
1:0:2839:G:C5	1:0:2840:U:C4	2.89	0.60
1:0:2318:U:H2'	1:0:2319:G:C8	2.36	0.60
1:0:1263:G:H4'	1:0:1264:C:OP1	2.00	0.60
1:0:686:C:C2'	1:0:687:G:H5'	2.31	0.60
1:0:959:C:H2'	1:0:960:U:C6	2.35	0.60
1:0:859:U:O2	1:0:944:A:N6	2.34	0.60
1:0:2705:A:C5	1:0:2707:G:C8	2.90	0.60
1:0:1629:G:C8	1:0:1633:C:N4	2.69	0.60
1:0:1975:G:O2'	1:0:1976:U:OP2	2.16	0.60
1:0:1220:G:O2'	1:0:1221:C:H5'	2.01	0.60
1:0:318:G:N1	1:0:321:A:OP2	2.32	0.60
1:0:623:G:H5'	1:0:626:A:N6	2.16	0.60
1:0:1715:A:H1'	1:0:1717:A:H4'	1.84	0.60
1:0:1079:G:O2'	1:0:1080:A:H5'	2.01	0.60
1:0:2047:C:H1'	1:0:2429:A:N1	2.16	0.60
1:0:2261:G:N2	1:0:2404:A:C8	2.69	0.60
1:0:2760:G:O2'	1:0:2761:A:P	2.59	0.60
1:0:873:U:N3	1:0:2246:A:O3'	2.35	0.60
1:0:1631:C:H3'	1:0:1631:C:H6	1.64	0.60
1:0:214:C:O2	1:0:618:A:O2'	2.17	0.60
1:0:1763:G:H2'	1:0:1764:A:C4'	2.30	0.60
1:0:638:A:C5	1:0:647:G:N2	2.70	0.60
1:0:987:G:H2'	1:0:988:G:C8	2.36	0.60
1:0:2560:G:O2'	1:0:2561:G:O5'	2.15	0.60
1:0:1777:A:HO2'	1:0:1778:U:P	2.25	0.60
1:0:2474:G:O2'	1:0:2475:C:H5'	2.02	0.60
1:0:2694:G:C2'	1:0:2695:C:H5'	2.32	0.60
1:0:1435:G:O2'	1:0:1436:G:H5'	2.01	0.60
1:0:2396:C:H2'	1:0:2397:A:H5'	1.83	0.60
1:0:1313:U:O2'	1:0:1314:A:P	2.59	0.60
1:0:649:G:N2	1:0:660:G:N2	2.49	0.60
1:0:640:C:H5''	1:0:660:G:O2'	2.02	0.60
1:0:415:A:H2'	1:0:416:U:H5'	1.83	0.60
1:0:1947:G:H2'	1:0:1950:C:P	2.41	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:177:U:O2	1:0:178:C:C6	2.55	0.60
1:0:2522:G:H2'	1:0:2523:G:O4'	2.02	0.60
1:0:677:G:H4'	1:0:951:G:H5''	1.83	0.60
1:0:539:A:O2'	1:0:540:G:O5'	2.19	0.60
1:0:1624:A:N7	1:0:1627:C:C4	2.70	0.60
1:0:459:A:H4'	1:0:461:A:C8	2.37	0.60
1:0:768:U:H2'	1:0:769:C:C6	2.36	0.60
1:0:741:G:HO2'	1:0:742:G:P	2.25	0.60
1:0:648:A:H4'	1:0:649:G:O4'	2.01	0.60
1:0:704:G:O2'	1:0:705:C:H5'	2.02	0.60
1:0:105:G:O2'	1:0:106:G:H5'	2.02	0.60
1:0:2645:C:H3'	1:0:2646:C:C6	2.36	0.60
1:0:2338:C:N4	1:0:2339:A:N6	2.50	0.60
1:0:2014:A:OP1	1:0:2014:A:H4'	2.02	0.60
1:0:2616:U:O2	1:0:2762:G:C2	2.55	0.60
1:0:2692:A:C5'	1:0:2693:U:H5'	2.32	0.60
1:0:1249:G:OP2	1:0:1249:G:C8	2.55	0.60
1:0:1745:C:H2'	1:0:1746:A:C8	2.36	0.60
1:0:2398:U:H2'	1:0:2399:C:H6	1.64	0.60
1:0:659:G:H2'	1:0:660:G:H8	1.66	0.60
1:0:659:G:H2'	1:0:660:G:C8	2.37	0.60
1:0:1019:U:O2	1:0:1019:U:C2'	2.50	0.60
1:0:1948:C:C6	1:0:1949:A:N7	2.70	0.60
1:0:65:C:C2'	1:0:66:U:H5'	2.32	0.60
1:0:1035:G:H5''	1:0:1037:U:OP1	2.02	0.60
1:0:2043:A:H1'	1:0:2481:G:C1'	2.32	0.60
1:0:2309:G:H2'	1:0:2310:G:O4'	2.01	0.60
1:0:222:G:H22	1:0:231:G:H1'	1.66	0.60
1:0:1997:A:H2'	1:0:1998:A:C8	2.37	0.60
1:0:698:A:C4	1:0:702:A:N6	2.70	0.59
1:0:2405:A:OP1	1:0:2405:A:C8	2.55	0.59
1:0:2737:A:C2'	1:0:2738:A:H5'	2.23	0.59
1:0:1285:A:C2	1:0:1634:A:C6	2.90	0.59
1:0:415:A:C2'	1:0:416:U:H5'	2.32	0.59
1:0:571:U:O2	1:0:581:A:C1'	2.50	0.59
1:0:1463:A:C1'	1:0:1543:G:N2	2.66	0.59
1:0:2697:G:O2'	1:0:2698:G:C5'	2.50	0.59
1:0:1393:G:N3	1:0:1393:G:H2'	2.16	0.59
1:0:617:U:C6	1:0:632:A:N6	2.70	0.59
1:0:1528:C:C3'	1:0:1529:C:H5''	2.26	0.59
1:0:73:A:N3	1:0:73:A:H5''	2.17	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1384:G:N2	1:0:1385:C:N4	2.50	0.59
1:0:2324:G:C2	1:0:2326:C:N4	2.66	0.59
1:0:1181:C:H3'	1:0:1182:U:H5''	1.83	0.59
1:0:530:G:O2'	1:0:531:G:H5'	2.01	0.59
1:0:1845:A:N6	1:0:1872:A:N7	2.50	0.59
1:0:2040:A:H2'	1:0:2041:A:N9	2.11	0.59
1:0:1332:G:O2'	1:0:1333:G:H5'	2.02	0.59
1:0:1690:U:C2'	1:0:1691:G:H5'	2.32	0.59
1:0:2667:C:N4	1:0:2699:G:H2'	2.18	0.59
1:0:1435:G:N1	1:0:1436:G:C2	2.71	0.59
1:0:2271:C:H4'	1:0:2354:G:O4'	2.02	0.59
1:0:697:G:C6	1:0:788:G:C5	2.91	0.59
1:0:828:C:H2'	1:0:829:C:C6	2.37	0.59
1:0:317:U:C2'	1:0:318:G:H5''	2.32	0.59
1:0:1670:G:H21	1:0:1988:A:N6	1.99	0.59
1:0:1016:C:H4'	1:0:1023:U:C2	2.37	0.59
1:0:1073:G:C2'	1:0:1074:G:H4'	2.32	0.59
1:0:104:C:C2'	1:0:105:G:H5''	2.30	0.59
1:0:199:A:N6	1:0:201:G:C6	2.71	0.59
1:0:1254:G:H2'	1:0:1255:A:H8	1.65	0.59
1:0:1737:G:H2'	1:0:1738:U:H6	1.67	0.59
1:0:441:A:H2'	1:0:442:A:O4'	2.02	0.59
1:0:1774:A:C2	1:0:2566:A:C8	2.90	0.59
1:0:699:G:C5'	1:0:700:C:OP2	2.49	0.59
1:0:585:U:H2'	1:0:586:G:C8	2.37	0.59
1:0:931:G:O2'	1:0:932:G:H5'	2.03	0.59
1:0:2397:A:H2'	1:0:2398:U:C6	2.38	0.59
1:0:2043:A:O2'	1:0:2481:G:O5'	2.19	0.59
1:0:1159:U:H2'	1:0:1160:C:H6	1.67	0.59
1:0:146:C:H2'	1:0:147:G:C8	2.37	0.59
1:0:162:C:H2'	1:0:163:A:C8	2.36	0.59
1:0:172:A:C2	1:0:227:G:N2	2.57	0.59
1:0:66:U:C2	1:0:67:G:N7	2.70	0.59
1:0:2654:A:N1	1:0:2712:G:O6	2.35	0.59
1:0:2803:C:O2'	1:0:2804:G:H5'	2.03	0.59
1:0:1635:G:N1	1:0:1636:G:C5	2.71	0.59
1:0:508:G:O2'	1:0:509:U:H5'	2.03	0.59
1:0:1283:C:O2'	1:0:1665:C:OP2	2.14	0.59
1:0:1783:G:N2	1:0:1820:G:HO2'	2.01	0.59
1:0:211:U:O2	1:0:211:U:H2'	2.01	0.59
1:0:1872:A:N3	1:0:2069:U:O2'	2.34	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:246:C:H42	1:0:247:A:N6	2.00	0.59
1:0:2293:G:H2'	1:0:2294:U:C6	2.38	0.59
1:0:2558:C:HO2'	1:0:2559:U:H5'	1.61	0.59
1:0:2787:A:O2'	1:0:2788:C:H5'	2.02	0.59
1:0:2274:C:H2'	1:0:2275:U:H5''	1.85	0.59
1:0:2309:G:N2	1:0:2365:U:C2	2.70	0.59
1:0:1485:U:H2'	1:0:1486:A:C8	2.38	0.59
1:0:2372:A:H2'	1:0:2373:C:C6	2.38	0.59
1:0:1638:G:N2	1:0:1639:U:C2	2.70	0.59
1:0:475:U:C6	1:0:801:A:C2	2.90	0.59
1:0:2053:G:H2'	1:0:2054:A:H8	1.63	0.59
1:0:2761:A:H5''	1:0:2762:G:C5'	2.30	0.59
1:0:1686:A:C2	1:0:1977:C:H1'	2.36	0.59
1:0:343:A:N7	1:0:346:C:C4	2.70	0.59
1:0:2060:A:OP2	1:0:2217:G:O6	2.20	0.59
1:0:2270:U:O2'	1:0:2353:G:H1'	2.02	0.59
1:0:441:A:H2'	1:0:442:A:H5'	1.83	0.59
1:0:2372:A:H2'	1:0:2373:C:H6	1.68	0.59
1:0:2586:G:H2'	1:0:2587:G:O4'	2.02	0.59
1:0:2441:U:O2'	1:0:2442:C:H5'	2.02	0.59
1:0:2443:C:C2	1:0:2466:G:N2	2.71	0.59
1:0:1778:U:H5'	1:0:2568:A:O2'	2.03	0.59
1:0:764:A:N3	1:0:802:A:N3	2.50	0.59
1:0:1199:U:C3'	1:0:1200:G:H5''	2.31	0.59
1:0:2229:G:N2	1:0:2475:C:O3'	2.36	0.59
1:0:490:A:O2'	1:0:491:A:H3'	2.03	0.59
1:0:510:G:O5'	1:0:510:G:H8	1.86	0.59
1:0:1074:G:H2'	1:0:1074:G:N3	2.16	0.59
1:0:1649:A:H8	1:0:1649:A:O5'	1.85	0.59
1:0:789:G:N2	1:0:2220:A:OP1	2.36	0.58
1:0:1203:A:N3	1:0:1203:A:H2'	2.16	0.58
1:0:685:U:O2'	1:0:686:C:H5'	2.03	0.58
1:0:2726:U:H6	1:0:2726:U:O5'	1.86	0.58
1:0:2738:A:H2'	1:0:2738:A:N3	2.18	0.58
1:0:2606:G:C4	1:0:2757:G:N2	2.71	0.58
1:0:2705:A:H8	1:0:2705:A:C5'	2.15	0.58
1:0:322:A:H3'	1:0:323:G:H8	1.68	0.58
1:0:1495:G:H2'	1:0:1496:G:C8	2.38	0.58
1:0:1669:A:N6	1:0:1670:G:C6	2.71	0.58
1:0:1036:G:N3	1:0:1145:C:O4'	2.36	0.58
1:0:199:A:N6	1:0:201:G:C5	2.71	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2161:C:H2'	1:0:2162:C:C5	2.38	0.58
1:0:1066:G:H3'	1:0:1067:G:C5'	2.33	0.58
1:0:2486:C:H6	1:0:2486:C:O5'	1.86	0.58
1:0:166:G:N2	1:0:183:U:C5	2.71	0.58
1:0:832:A:N7	1:0:1202:U:N3	2.51	0.58
1:0:317:U:H3'	1:0:318:G:C5'	2.34	0.58
1:0:2332:G:C6	1:0:2344:G:N2	2.71	0.58
1:0:2369:U:C3'	1:0:2369:U:C6	2.86	0.58
1:0:2713:A:H2'	1:0:2714:A:C8	2.34	0.58
1:0:1834:G:H2'	1:0:1835:C:H6	1.69	0.58
1:0:2565:C:O2'	1:0:2566:A:C5'	2.39	0.58
1:0:169:C:H2'	1:0:170:U:H5'	1.83	0.58
1:0:1327:C:C2	1:0:1352:G:N2	2.71	0.58
1:0:322:A:O2'	1:0:323:G:P	2.61	0.58
1:0:2786:G:H2'	1:0:2787:A:H8	1.67	0.58
1:0:1800:A:H5''	1:0:1801:C:OP1	2.04	0.58
1:0:1715:A:H1'	1:0:1717:A:O4'	2.03	0.58
1:0:58:C:H3'	1:0:59:G:C5'	2.33	0.58
1:0:2827:G:C6	1:0:2828:C:N3	2.72	0.58
1:0:204:A:N6	1:0:2386:G:C8	2.71	0.58
1:0:947:C:H2'	1:0:948:C:C6	2.38	0.58
1:0:10:A:C6	1:0:2608:A:C2	2.90	0.58
1:0:2457:A:H1'	1:0:2508:G:C8	2.37	0.58
1:0:940:G:N7	1:0:941:U:H6	2.00	0.58
1:0:1793:A:H2'	1:0:1794:A:H8	1.68	0.58
1:0:1174:G:N3	1:0:1175:A:C8	2.71	0.58
1:0:1953:A:C2'	1:0:1954:A:OP2	2.51	0.58
1:0:2594:U:H2'	1:0:2595:C:H6	1.66	0.58
1:0:789:G:O2'	1:0:790:A:P	2.62	0.58
1:0:829:C:C2	1:0:1206:G:C2	2.90	0.58
1:0:173:A:O2'	1:0:174:A:OP1	2.19	0.58
1:0:972:C:C6	1:0:2014:A:H2	2.20	0.58
1:0:226:C:O2'	1:0:227:G:H5''	2.03	0.58
1:0:594:G:N3	1:0:1264:C:N4	2.48	0.58
1:0:2754:C:H2'	1:0:2755:A:H8	1.68	0.58
1:0:1973:C:H2'	1:0:1974:U:C6	2.38	0.58
1:0:318:G:N2	1:0:341:A:N6	2.50	0.58
1:0:58:C:N4	1:0:73:A:N6	2.50	0.58
1:0:2266:A:H2'	1:0:2268:G:C8	2.38	0.58
1:0:2177:U:H2'	1:0:2178:U:H6	1.67	0.58
1:0:2513:A:C2	1:0:2514:G:H1'	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:772:G:C5	1:0:773:G:N7	2.72	0.58
1:0:1055:A:H62	1:0:1123:G:H1'	1.68	0.58
1:0:1921:A:O2'	1:0:1922:U:H5''	2.03	0.58
1:0:789:G:O6	1:0:2055:G:OP1	2.22	0.58
1:0:2526:U:H2'	1:0:2527:G:H8	1.68	0.58
1:0:673:G:H2'	1:0:674:U:C6	2.39	0.58
1:0:2043:A:C1'	1:0:2481:G:C1'	2.81	0.58
1:0:1330:G:C2'	1:0:1331:G:O5'	2.50	0.58
1:0:739:G:HO2'	1:0:740:A:P	2.26	0.58
1:0:773:G:C2'	1:0:774:A:H5'	2.33	0.58
1:0:2507:U:HO2'	1:0:2508:G:H8	1.49	0.58
1:0:1199:U:C5	1:0:1200:G:N7	2.71	0.58
1:0:180:C:N3	1:0:181:A:N6	2.44	0.58
1:0:2547:C:H2'	1:0:2548:G:O4'	2.03	0.58
1:0:2026:C:C5	1:0:2757:G:H1'	2.38	0.58
1:0:2754:C:H2'	1:0:2755:A:C8	2.38	0.58
1:0:16:G:C6	1:0:535:U:N3	2.72	0.58
1:0:1436:G:N7	1:0:1437:A:C5	2.72	0.58
1:0:343:A:N6	1:0:346:C:C2	2.71	0.58
1:0:742:G:H4'	1:0:776:G:O5'	2.04	0.58
1:0:1358:C:H6	1:0:1358:C:OP2	1.87	0.58
1:0:1340:C:H42	1:0:1664:G:N2	2.02	0.58
1:0:2873:G:H2'	1:0:2874:A:C8	2.38	0.58
1:0:1542:G:H21	1:0:1561:A:H62	1.52	0.58
1:0:2487:G:C2	1:0:2561:G:C6	2.91	0.58
1:0:2576:G:C6	1:0:2577:A:N6	2.72	0.58
1:0:2809:A:N7	1:0:2854:G:O6	2.35	0.58
1:0:2011:U:H2'	1:0:2012:A:O4'	2.02	0.58
1:0:2407:G:H5'	1:0:2408:G:C2	2.38	0.58
1:0:2411:A:C5	1:0:2412:A:N7	2.72	0.58
1:0:828:C:H2'	1:0:829:C:H6	1.69	0.58
1:0:830:C:H2'	1:0:831:G:H8	1.68	0.58
1:0:1141:U:O2	1:0:2008:C:H5''	2.04	0.58
1:0:236:C:H2'	1:0:237:G:H8	1.67	0.58
1:0:1859:A:H2'	1:0:1860:A:H8	1.69	0.58
1:0:104:C:H2'	1:0:105:G:C5'	2.33	0.58
1:0:442:A:C6	1:0:443:A:N6	2.72	0.58
1:0:839:U:H5''	1:0:2408:G:P	2.44	0.58
1:0:1860:A:H2'	1:0:1861:G:H5'	1.85	0.58
1:0:173:A:H2'	1:0:2051:U:H5	1.68	0.58
1:0:818:G:C5	1:0:2051:U:OP1	2.57	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:567:G:N2	1:0:568:G:C4	2.72	0.58
1:0:1465:G:C2	1:0:1466:C:C2	2.92	0.58
1:0:1354:A:O5'	1:0:1410:U:C4	2.56	0.58
1:0:1501:C:H2'	1:0:1502:G:O4'	2.03	0.58
1:0:2839:G:H2'	1:0:2840:U:H6	1.63	0.58
1:0:1931:G:C2'	1:0:1932:G:H5'	2.34	0.58
1:0:2085:G:H2'	1:0:2086:U:C6	2.39	0.58
1:0:2565:C:HO2'	1:0:2566:A:C5'	2.16	0.57
1:0:2497:A:H5''	1:0:2498:U:OP2	2.04	0.57
1:0:874:A:H2'	1:0:875:G:O4'	2.04	0.57
1:0:1514:C:OP2	1:0:1593:C:H5''	2.04	0.57
1:0:469:G:N2	1:0:481:A:OP2	2.37	0.57
1:0:1953:A:H1'	1:0:1955:G:C1'	2.34	0.57
1:0:1859:A:H2'	1:0:1860:A:C8	2.39	0.57
1:0:421:G:H2'	1:0:422:C:H6	1.68	0.57
1:0:1854:G:H1	1:0:1863:U:H3	1.52	0.57
1:0:2010:G:H2'	1:0:2011:U:C6	2.38	0.57
1:0:2405:A:C2'	1:0:2406:C:OP1	2.52	0.57
1:0:2493:U:H2'	1:0:2493:U:O2	2.03	0.57
1:0:2499:C:C6	1:0:2546:G:H1'	2.39	0.57
1:0:399:G:H4'	1:0:400:U:C5	2.39	0.57
1:0:582:G:O6	1:0:2013:A:H3'	2.03	0.57
1:0:813:A:C2	1:0:815:A:H8	2.23	0.57
1:0:1437:A:C8	1:0:1438:G:N7	2.73	0.57
1:0:1226:A:C1'	1:0:1250:A:C2	2.87	0.57
1:0:340:G:H1'	1:0:488:A:H1'	1.87	0.57
1:0:742:G:C5'	1:0:776:G:O5'	2.51	0.57
1:0:1802:A:C2'	1:0:1803:G:H5'	2.34	0.57
1:0:2329:C:O2'	1:0:2330:G:H5'	2.05	0.57
1:0:2825:A:C8	1:0:2844:G:O4'	2.57	0.57
1:0:2309:G:N2	1:0:2365:U:O2	2.37	0.57
1:0:1406:A:H2'	1:0:1407:G:C8	2.40	0.57
1:0:421:G:O2'	1:0:422:C:H5'	2.04	0.57
1:0:1304:U:O2'	1:0:1305:C:H5'	2.05	0.57
1:0:805:G:N7	1:0:2419:C:C1'	2.68	0.57
1:0:2815:C:O2'	1:0:2816:C:H5'	2.03	0.57
1:0:1981:A:C6	1:0:1982:C:N4	2.72	0.57
1:0:2699:G:H8	1:0:2699:G:O5'	1.87	0.57
1:0:622:U:C2'	1:0:623:G:H5'	2.34	0.57
1:0:1698:C:H4'	1:0:1699:A:OP1	2.04	0.57
1:0:1714:A:H5'	1:0:1715:A:H5''	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1826:U:O4'	1:0:1952:A:C2	2.57	0.57
1:0:653:G:H21	1:0:657:A:H61	1.52	0.57
1:0:26:G:N1	1:0:27:G:N2	2.52	0.57
1:0:201:G:O2'	1:0:202:A:H5'	2.04	0.57
1:0:212:U:O2	1:0:443:A:C2	2.57	0.57
1:0:2286:G:N3	1:0:2286:G:H2'	2.18	0.57
1:0:2589:C:H5'	1:0:2590:U:C5'	2.29	0.57
1:0:2565:C:O2	1:0:2565:C:C2'	2.53	0.57
1:0:1002:C:C4	1:0:1003:C:C5	2.93	0.57
1:0:56:C:H2'	1:0:57:G:O4'	2.04	0.57
1:0:1033:G:O2'	1:0:1034:U:P	2.61	0.57
1:0:649:G:H2'	1:0:650:U:C6	2.39	0.57
1:0:1110:G:H2'	1:0:1111:C:O4'	2.05	0.57
1:0:2509:A:H2'	1:0:2510:A:H5''	1.86	0.57
1:0:569:C:N4	1:0:570:G:C6	2.73	0.57
1:0:929:A:N7	1:0:930:A:C2	2.72	0.57
1:0:2689:C:N4	1:0:2690:A:N6	2.53	0.57
1:0:1440:G:O6	1:0:1441:A:N6	2.37	0.57
1:0:1151:U:H5''	1:0:1153:A:OP1	2.05	0.57
1:0:76:C:C6	1:0:76:C:H5'	2.31	0.57
1:0:653:G:N2	1:0:657:A:H61	2.02	0.57
1:0:25:U:H2'	1:0:26:G:O4'	2.03	0.57
1:0:195:A:N1	1:0:212:U:H4'	2.19	0.57
1:0:2372:A:H62	1:0:2401:A:N6	2.02	0.57
1:0:1898:U:C3'	1:0:1899:A:H8	2.17	0.57
1:0:2564:U:H3'	1:0:2564:U:O2	2.05	0.57
1:0:1230:C:C6	1:0:1246:G:N2	2.73	0.57
1:0:1975:G:C8	1:0:1980:A:N6	2.73	0.57
1:0:343:A:H2'	1:0:345:U:OP2	2.04	0.57
1:0:1766:U:H2'	1:0:1767:G:H5'	1.87	0.57
1:0:741:G:C6	1:0:743:A:C8	2.93	0.57
1:0:614:G:O2'	1:0:615:C:H5'	2.05	0.57
1:0:543:G:OP2	1:0:543:G:H8	1.88	0.57
1:0:544:U:O2'	1:0:545:C:H5'	2.04	0.57
1:0:1598:C:H2'	1:0:1599:G:O4'	2.04	0.57
1:0:29:U:H2'	1:0:30:G:H8	1.70	0.57
1:0:1625:A:N7	1:0:1632:A:N3	2.53	0.57
1:0:2673:G:C2	1:0:2674:C:C6	2.93	0.57
1:0:2396:C:C6	1:0:2396:C:H5'	2.38	0.57
1:0:1282:A:H2'	1:0:1283:C:C6	2.38	0.57
1:0:2383:C:H2'	1:0:2384:G:O4'	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2628:C:H2'	1:0:2629:U:H6	1.69	0.57
1:0:404:A:H1'	1:0:424:G:O2'	2.04	0.57
1:0:208:C:O2'	1:0:209:G:H5'	2.05	0.57
1:0:2592:U:H4'	1:0:2593:A:OP1	2.02	0.57
1:0:799:C:O2'	1:0:800:U:H5'	2.04	0.57
1:0:192:G:O2'	1:0:193:A:C5'	2.53	0.57
1:0:972:C:H4'	1:0:973:U:OP2	2.04	0.57
1:0:1621:C:H2'	1:0:1622:G:O4'	2.05	0.57
1:0:2692:A:H5'	1:0:2693:U:C5'	2.31	0.57
1:0:1033:G:HO2'	1:0:1034:U:P	2.27	0.57
1:0:1301:U:C4'	1:0:1302:C:OP2	2.51	0.57
1:0:652:C:H6	1:0:652:C:H5'	1.70	0.57
1:0:310:A:O2'	1:0:311:A:H5'	2.04	0.57
1:0:2636:A:C2	1:0:2644:A:C4	2.92	0.57
1:0:9:U:O2	1:0:9:U:H2'	2.05	0.57
1:0:1493:A:H2'	1:0:1494:G:C8	2.40	0.57
1:0:2484:G:H1'	3:0:2881:G80:H182	1.87	0.57
1:0:2007:G:H2'	1:0:2008:C:C6	2.40	0.57
1:0:1141:U:C2	1:0:2008:C:H5''	2.40	0.57
1:0:2758:A:O2'	1:0:2759:U:P	2.63	0.57
1:0:2688:G:H5''	1:0:2689:C:OP2	2.04	0.57
1:0:1435:G:C2'	1:0:1436:G:H5'	2.34	0.57
1:0:1436:G:N1	1:0:1592:U:O2	2.38	0.57
1:0:317:U:H2'	1:0:318:G:H5''	1.85	0.57
1:0:616:U:C4	1:0:617:U:H5	2.23	0.57
1:0:1746:A:H2'	1:0:1746:A:N3	2.19	0.57
1:0:51:A:H2'	1:0:52:A:O4'	2.04	0.57
1:0:1385:C:H2'	1:0:1386:A:O4'	2.04	0.57
1:0:198:A:N7	1:0:243:G:C6	2.72	0.57
1:0:833:A:O2'	1:0:834:A:H5'	2.04	0.57
1:0:859:U:H1'	1:0:860:U:C2	2.40	0.57
1:0:2728:A:C8	1:0:2729:A:N7	2.72	0.57
1:0:873:U:H1'	1:0:2246:A:C5'	2.32	0.57
1:0:1687:C:O2'	1:0:1977:C:H4'	2.05	0.57
1:0:1979:C:H2'	1:0:1980:A:O4'	2.05	0.57
1:0:667:U:H2'	1:0:668:A:H5''	1.86	0.57
1:0:155:G:O2'	1:0:156:G:H5'	2.03	0.57
1:0:23:G:C2	1:0:24:G:C8	2.93	0.57
1:0:739:G:O2'	1:0:740:A:O5'	2.23	0.57
1:0:1737:G:H2'	1:0:1738:U:C6	2.40	0.57
1:0:1710:U:O4	1:0:1960:A:C8	2.58	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:846:A:H62	1:0:847:C:N4	2.01	0.56
1:0:852:U:H2'	1:0:853:C:C6	2.39	0.56
1:0:1685:A:O2'	1:0:1686:A:P	2.63	0.56
1:0:1689:U:H2'	1:0:1690:U:H5'	1.87	0.56
1:0:1514:C:H5'	1:0:1593:C:H5''	1.87	0.56
1:0:1716:G:C4	1:0:1754:G:N2	2.73	0.56
1:0:1355:A:H4'	1:0:1356:G:OP1	2.05	0.56
1:0:1034:U:H2'	1:0:1035:G:C5'	2.35	0.56
1:0:2396:C:C2'	1:0:2397:A:H5'	2.35	0.56
1:0:2059:U:O2'	1:0:2060:A:H5''	2.04	0.56
1:0:118:U:O2'	1:0:119:G:OP2	2.23	0.56
1:0:1815:G:O2'	1:0:1816:G:H5'	2.05	0.56
1:0:640:C:C4'	1:0:660:G:H21	2.18	0.56
1:0:1609:G:H2'	1:0:1610:A:H8	1.69	0.56
1:0:1872:A:H1'	1:0:2070:G:H5'	1.87	0.56
1:0:2355:A:H2'	1:0:2356:A:O4'	2.05	0.56
1:0:1918:G:H1'	1:0:1947:G:C2	2.40	0.56
1:0:1463:A:C1'	1:0:1543:G:H22	2.19	0.56
1:0:2529:G:C2	1:0:2530:C:C2	2.93	0.56
1:0:471:A:N7	1:0:472:C:C4	2.73	0.56
1:0:632:A:C2	1:0:633:G:C8	2.94	0.56
1:0:1029:C:H2'	1:0:1030:U:O4'	2.04	0.56
1:0:1150:C:C4'	1:0:1154:A:C2	2.85	0.56
1:0:2043:A:C1'	1:0:2481:G:H1'	2.35	0.56
1:0:1278:A:O2'	1:0:1279:G:P	2.63	0.56
1:0:2450:A:C2'	1:0:2451:G:H5'	2.35	0.56
1:0:2177:U:H2'	1:0:2178:U:C6	2.41	0.56
1:0:1761:G:H2'	1:0:1762:C:C6	2.39	0.56
1:0:153:A:H2'	1:0:154:U:H6	1.70	0.56
1:0:1726:C:C2	1:0:1741:G:N2	2.73	0.56
1:0:1895:A:N7	1:0:1900:U:O4	2.38	0.56
1:0:1950:C:C4	1:0:1951:G:C5	2.94	0.56
1:0:789:G:O2'	1:0:790:A:OP2	2.21	0.56
1:0:2791:C:C2	1:0:2806:G:N2	2.73	0.56
1:0:1262:U:H6	1:0:1262:U:H5'	1.70	0.56
1:0:168:A:H2'	1:0:169:C:H6	1.70	0.56
1:0:2553:G:C2'	1:0:2554:C:C5'	2.76	0.56
1:0:691:C:H2'	1:0:692:C:C6	2.40	0.56
1:0:991:A:C6	1:0:992:A:N1	2.74	0.56
1:0:537:C:O2'	1:0:538:A:C4	2.58	0.56
1:0:2705:A:O2'	1:0:2706:U:P	2.63	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1323:G:H1'	1:0:1627:C:H5'	1.86	0.56
1:0:2700:U:O2'	1:0:2701:A:H5'	2.05	0.56
1:0:1934:U:H1'	1:0:1937:G:N7	2.20	0.56
1:0:1438:G:O2'	1:0:1439:G:H5'	2.05	0.56
1:0:346:C:N3	1:0:347:C:C5	2.73	0.56
1:0:1791:C:C4	1:0:1810:U:O2	2.58	0.56
1:0:1723:U:O2'	1:0:1724:C:OP1	2.23	0.56
1:0:1090:C:O2'	1:0:1091:C:H5'	2.06	0.56
1:0:1641:C:H2'	1:0:1642:G:H5'	1.88	0.56
1:0:2268:G:H5''	1:0:2363:G:O2'	2.05	0.56
1:0:2172:U:HO2'	1:0:2173:G:H5'	1.69	0.56
1:0:2629:U:O2'	1:0:2630:C:H5'	2.05	0.56
1:0:1058:G:H2'	1:0:1121:G:N1	2.19	0.56
1:0:2859:U:O2	1:0:2859:U:H2'	2.06	0.56
1:0:1038:U:N3	1:0:1137:A:C5	2.73	0.56
1:0:1347:C:N3	1:0:1348:C:C5	2.72	0.56
1:0:1925:C:H3'	1:0:1926:U:C5	2.40	0.56
1:0:551:A:N6	1:0:562:G:C6	2.72	0.56
1:0:2589:C:H4'	1:0:2590:U:O5'	2.04	0.56
1:0:803:C:H5'	1:0:804:C:OP2	2.05	0.56
1:0:1171:A:H2'	1:0:1172:U:C6	2.41	0.56
1:0:1086:C:C2'	1:0:1087:C:H5''	2.34	0.56
1:0:158:A:H2	1:0:447:U:O2'	1.87	0.56
1:0:1309:G:H2'	1:0:1310:C:O5'	2.06	0.56
1:0:1072:U:O5'	1:0:1072:U:H6	1.87	0.56
1:0:403:A:H1'	1:0:424:G:H22	1.71	0.56
1:0:2722:C:O2'	1:0:2723:C:H5'	2.06	0.56
1:0:441:A:H2'	1:0:442:A:C5'	2.35	0.56
1:0:2211:U:O2'	1:0:2212:U:H5'	2.06	0.56
1:0:736:G:O2'	1:0:737:C:H5'	2.06	0.56
1:0:2638:G:H1'	1:0:2641:A:N6	2.20	0.56
1:0:2348:A:O2'	1:0:2349:G:H5'	2.05	0.56
1:0:2091:C:H3'	1:0:2092:U:C6	2.40	0.56
1:0:1840:A:H2'	1:0:1841:G:O4'	2.05	0.56
1:0:698:A:N7	1:0:786:U:C4	2.73	0.56
1:0:787:A:C4	1:0:788:G:C8	2.94	0.56
1:0:2014:A:H62	1:0:2477:C:H1'	1.69	0.56
1:0:843:G:H1'	1:0:2427:A:C2	2.40	0.56
1:0:885:A:H2'	1:0:886:A:C8	2.40	0.56
1:0:14:A:N1	1:0:536:A:C2	2.74	0.56
1:0:1394:G:H2'	1:0:1395:A:C8	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1151:U:H5'	1:0:1153:A:O4'	2.06	0.56
1:0:1300:A:C2	1:0:1301:U:C2	2.94	0.56
1:0:987:G:N2	1:0:988:G:C4	2.74	0.56
1:0:1756:C:C2'	1:0:1757:C:O5'	2.53	0.56
1:0:391:C:H2'	1:0:392:G:H5'	1.86	0.56
1:0:1833:U:H2'	1:0:1834:G:H8	1.71	0.56
1:0:1896:A:C2'	1:0:1899:A:H61	2.17	0.56
1:0:695:G:O2'	1:0:696:U:H5'	2.06	0.56
1:0:2014:A:N6	1:0:2477:C:H1'	2.21	0.56
1:0:1142:G:O2'	1:0:1143:A:C5'	2.54	0.56
1:0:492:G:H1	1:0:519:C:H42	1.53	0.56
1:0:237:G:H1'	1:0:632:A:C8	2.40	0.56
1:0:1288:A:N6	1:0:1309:G:C5'	2.68	0.56
1:0:1452:U:O2'	1:0:1453:A:H5'	2.04	0.56
1:0:1733:U:OP1	1:0:1734:C:H5	1.89	0.56
1:0:1950:C:H2'	1:0:1951:G:O5'	2.06	0.56
1:0:2569:A:O2'	1:0:2570:C:H5'	2.05	0.56
1:0:1209:G:N3	1:0:1239:A:C2	2.74	0.56
1:0:972:C:C5	1:0:2014:A:C2	2.93	0.56
1:0:2426:G:C2'	1:0:2427:A:OP2	2.53	0.56
1:0:1644:G:O2'	1:0:1645:U:H5'	2.05	0.56
1:0:465:C:O2'	1:0:483:A:N6	2.37	0.56
1:0:759:C:OP1	1:0:761:G:O2'	2.23	0.56
1:0:2199:C:H2'	1:0:2200:G:C8	2.41	0.56
1:0:309:G:C2	1:0:350:U:C5	2.94	0.56
1:0:2829:A:H2'	1:0:2830:U:O4'	2.05	0.56
1:0:644:A:H2'	1:0:645:G:H5'	1.86	0.56
1:0:2515:G:H2'	1:0:2516:U:O4'	2.05	0.56
1:0:2670:C:H5'	1:0:2670:C:H6	1.70	0.56
1:0:2035:G:O2'	1:0:2036:G:H5'	2.06	0.56
1:0:2572:U:H2'	1:0:2573:C:H6	1.70	0.56
1:0:957:G:H22	1:0:983:G:H1'	1.71	0.56
1:0:2729:A:C6	1:0:2730:A:N6	2.68	0.56
1:0:2698:G:H2'	1:0:2699:G:H8	1.69	0.56
1:0:120:G:O2'	1:0:121:G:H5'	2.05	0.56
1:0:498:C:N4	1:0:499:G:C6	2.74	0.56
1:0:783:G:C6	1:0:784:U:N3	2.74	0.56
1:0:2822:U:H5	1:0:2823:G:C6	2.23	0.56
1:0:840:U:C4	1:0:2409:A:C6	2.93	0.56
1:0:2476:A:O2'	1:0:2477:C:H5'	2.06	0.56
1:0:2725:C:H2'	1:0:2726:U:H6	1.63	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1466:C:H2'	1:0:1467:U:C5'	2.36	0.56
1:0:873:U:C2	1:0:2246:A:H5''	2.41	0.56
1:0:875:G:C2	1:0:876:A:H1'	2.41	0.56
1:0:7:G:H2'	1:0:8:A:O4'	2.06	0.56
1:0:808:C:C2'	1:0:809:C:H5'	2.36	0.56
1:0:2810:A:N6	1:0:2854:G:N9	2.54	0.56
1:0:571:U:O4	1:0:2016:A:N1	2.38	0.56
1:0:13:A:H61	1:0:535:U:H3'	1.70	0.56
1:0:1327:C:C6	1:0:1327:C:O5'	2.59	0.56
1:0:2674:C:H2'	1:0:2675:U:C6	2.40	0.56
1:0:58:C:N3	1:0:73:A:N1	2.54	0.56
1:0:1302:C:H2'	1:0:1303:U:H6	1.71	0.56
1:0:545:C:O2'	1:0:546:A:C5'	2.54	0.56
1:0:2639:A:H2'	1:0:2640:G:O4'	2.06	0.56
1:0:2817:A:C2	1:0:2851:G:C2	2.94	0.56
1:0:732:G:H2'	1:0:733:G:C8	2.41	0.56
1:0:457:C:H2'	1:0:458:G:H5'	1.87	0.56
1:0:805:G:C5	1:0:2419:C:C6	2.94	0.55
1:0:1139:A:C5	1:0:1140:A:C2	2.94	0.55
1:0:185:C:H2'	1:0:186:C:C6	2.33	0.55
1:0:597:U:O4	1:0:683:A:O2'	2.23	0.55
1:0:2007:G:C2	1:0:2023:C:O2	2.59	0.55
1:0:540:G:O6	1:0:2006:G:OP1	2.24	0.55
1:0:1645:U:H2'	1:0:1646:G:C8	2.41	0.55
1:0:2312:A:C2'	1:0:2312:A:N3	2.67	0.55
1:0:1715:A:H2'	1:0:1716:G:H3'	1.86	0.55
1:0:1287:A:C2	1:0:1315:A:H2	2.24	0.55
1:0:1256:C:H2'	1:0:1257:U:O4'	2.06	0.55
1:0:547:U:H2'	1:0:548:G:C8	2.39	0.55
1:0:212:U:H3	1:0:443:A:H2	1.54	0.55
1:0:600:G:H3'	1:0:601:A:H5''	1.87	0.55
1:0:1080:A:C6	1:0:1084:A:N6	2.74	0.55
1:0:2555:G:H5''	1:0:2556:A:OP1	2.06	0.55
1:0:1268:U:H5'	1:0:1269:G:H5''	1.87	0.55
1:0:187:U:H2'	1:0:188:G:C8	2.41	0.55
1:0:879:A:N1	1:0:926:C:C4	2.73	0.55
1:0:1514:C:C5'	1:0:1593:C:H5'	2.34	0.55
1:0:2782:G:N3	1:0:2782:G:H2'	2.21	0.55
1:0:1073:G:H2'	1:0:1074:G:O4'	2.06	0.55
1:0:2837:G:C2	1:0:2838:U:C2	2.94	0.55
1:0:223:C:H1'	1:0:397:U:O2'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:603:C:H2'	1:0:604:U:H6	1.71	0.55
1:0:1133:G:O2'	1:0:1134:C:H5'	2.06	0.55
1:0:1774:A:H2	1:0:2566:A:C8	2.25	0.55
1:0:1261:G:O2'	1:0:1262:U:OP1	2.23	0.55
1:0:1694:A:O2'	1:0:1695:U:H5'	2.06	0.55
1:0:58:C:N3	1:0:73:A:C6	2.74	0.55
1:0:68:C:N1	1:0:72:A:C2	2.75	0.55
1:0:118:U:C2'	1:0:119:G:OP2	2.54	0.55
1:0:218:A:HO2'	1:0:219:G:P	2.29	0.55
1:0:2091:C:H2'	1:0:2092:U:O4'	2.05	0.55
1:0:792:U:O2'	1:0:793:G:H5'	2.06	0.55
1:0:1938:U:C5	1:0:2536:G:N2	2.74	0.55
1:0:1750:A:C8	1:0:2675:U:H1'	2.41	0.55
1:0:2678:C:O2'	1:0:2679:G:H5'	2.06	0.55
1:0:1365:U:O2'	1:0:1366:A:H5'	2.06	0.55
1:0:2769:C:H3'	1:0:2770:A:O4'	2.06	0.55
1:0:1150:C:H4'	1:0:1154:A:N1	2.21	0.55
1:0:1302:C:O2'	1:0:1303:U:H5'	2.06	0.55
1:0:1279:G:N2	1:0:1995:G:C4	2.74	0.55
1:0:2081:U:C2'	1:0:2082:C:H5''	2.34	0.55
1:0:2720:A:C6	1:0:2744:A:C8	2.94	0.55
1:0:2210:C:H2'	1:0:2211:U:O4'	2.07	0.55
1:0:2338:C:H2'	1:0:2339:A:H8	1.71	0.55
1:0:729:A:H2'	1:0:730:C:H6	1.71	0.55
1:0:298:C:O2'	1:0:299:C:H5'	2.06	0.55
1:0:185:C:O2'	1:0:186:C:H5'	2.06	0.55
1:0:883:A:N3	1:0:883:A:H2'	2.21	0.55
1:0:1645:U:H2'	1:0:1646:G:O4'	2.07	0.55
1:0:1683:G:N2	1:0:1978:U:C4	2.74	0.55
1:0:1437:A:C5	1:0:1438:G:N7	2.74	0.55
1:0:121:G:C2'	1:0:122:G:H5'	2.35	0.55
1:0:143:A:O2'	1:0:144:U:H5'	2.06	0.55
1:0:1965:U:C5	1:0:1966:C:H5	2.24	0.55
1:0:1067:G:HO2'	1:0:1097:A:H2	1.54	0.55
1:0:2041:A:H2'	1:0:2041:A:N3	2.20	0.55
1:0:1774:A:N1	1:0:2566:A:C4	2.75	0.55
1:0:700:C:H2'	1:0:701:U:N1	2.22	0.55
1:0:1974:U:H2'	1:0:1975:G:H5''	1.88	0.55
1:0:1440:G:H8	1:0:1440:G:OP2	1.90	0.55
1:0:1175:A:C2	1:0:1176:U:C2	2.94	0.55
1:0:69:G:C4'	1:0:70:A:OP1	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:240:U:H2'	1:0:241:C:O4'	2.06	0.55
1:0:1970:G:O2'	1:0:1971:C:H5'	2.07	0.55
1:0:1916:G:O2'	1:0:1957:C:H4'	2.05	0.55
1:0:2876:C:H2'	1:0:2877:A:O4'	2.05	0.55
1:0:1948:C:C5	1:0:1949:A:N7	2.75	0.55
1:0:1213:U:N3	1:0:1260:A:H2	2.05	0.55
1:0:970:A:N7	1:0:971:A:C6	2.75	0.55
1:0:942:U:C2'	1:0:943:U:O5'	2.54	0.55
1:0:921:A:C6	1:0:924:C:C2	2.95	0.55
1:0:1685:A:N7	1:0:1691:G:C5	2.75	0.55
1:0:1686:A:O2'	1:0:2528:G:OP1	2.23	0.55
1:0:482:A:O2'	1:0:483:A:H5'	2.06	0.55
1:0:2768:C:O2'	1:0:2784:A:H2'	2.07	0.55
1:0:1793:A:H2'	1:0:1794:A:O4'	2.06	0.55
1:0:1706:A:C5	1:0:1714:A:N1	2.75	0.55
1:0:65:C:H2'	1:0:66:U:C4'	2.36	0.55
1:0:1077:U:H2'	1:0:1079:G:OP2	2.06	0.55
1:0:127:C:H2'	1:0:128:C:C6	2.42	0.55
1:0:849:G:C8	1:0:850:C:C5	2.95	0.55
1:0:1922:U:O2'	1:0:2571:G:C1'	2.55	0.55
1:0:13:A:O2'	1:0:15:G:N7	2.38	0.55
1:0:1682:A:H2'	1:0:1683:G:H5'	1.87	0.55
1:0:1507:A:H2'	1:0:1507:A:N3	2.21	0.55
1:0:1581:C:C2'	1:0:1582:A:O5'	2.55	0.55
1:0:1151:U:OP1	1:0:1153:A:P	2.65	0.55
1:0:2327:U:O2'	1:0:2328:G:H5'	2.06	0.55
1:0:810:U:C6	1:0:810:U:H3'	2.42	0.55
1:0:2862:G:O2'	1:0:2863:U:H5'	2.07	0.55
1:0:1092:U:H2'	1:0:1093:U:C6	2.41	0.55
1:0:588:G:N2	1:0:1275:A:C4	2.75	0.55
1:0:592:G:C6	1:0:593:C:N4	2.75	0.55
1:0:2769:C:O2'	1:0:2866:A:N1	2.31	0.55
1:0:638:A:H4'	1:0:638:A:OP2	2.05	0.55
1:0:1574:A:OP1	1:0:1574:A:O4'	2.23	0.55
1:0:1041:G:N2	1:0:1042:G:H1'	2.22	0.55
1:0:2560:G:C1'	1:0:2561:G:N7	2.70	0.55
1:0:1778:U:H2'	1:0:1778:U:O2	2.06	0.55
1:0:2574:G:N2	1:0:2576:G:H3'	2.22	0.55
1:0:939:C:C5	1:0:941:U:H5	2.25	0.55
1:0:2770:A:O5'	1:0:2770:A:H8	1.88	0.55
1:0:2781:G:C2'	1:0:2782:G:C1'	2.80	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1008:G:C2	1:0:1170:U:O2	2.60	0.55
1:0:1830:C:H4'	1:0:1831:G:C8	2.42	0.55
1:0:656:U:OP1	1:0:657:A:N7	2.39	0.55
1:0:1858:C:O2'	1:0:1859:A:H5'	2.07	0.55
1:0:83:A:H62	1:0:98:U:C1'	2.18	0.55
1:0:2838:U:O2'	1:0:2839:G:H5'	2.06	0.55
1:0:421:G:H2'	1:0:422:C:C6	2.41	0.55
1:0:210:A:H61	1:0:442:A:H61	1.53	0.55
1:0:2640:G:H2'	1:0:2641:A:O4'	2.06	0.55
1:0:2232:G:H2'	1:0:2233:C:C6	2.42	0.55
1:0:2225:G:N3	1:0:2226:A:C8	2.75	0.54
1:0:2542:U:O2	1:0:2545:A:C5	2.60	0.54
1:0:2542:U:H2'	1:0:2544:A:OP2	2.07	0.54
1:0:2549:G:H2'	1:0:2550:C:O4'	2.07	0.54
1:0:840:U:H4'	1:0:841:G:C2	2.41	0.54
1:0:1004:A:H2'	1:0:1005:U:H5'	1.88	0.54
1:0:2450:A:H2'	1:0:2451:G:H5'	1.88	0.54
1:0:1904:G:O2'	1:0:1905:G:H5'	2.07	0.54
1:0:30:G:C2'	1:0:31:C:H5'	2.37	0.54
1:0:2040:A:H2'	1:0:2041:A:C1'	2.37	0.54
1:0:1177:U:O4	1:0:1196:G:C6	2.60	0.54
1:0:2736:U:O2'	1:0:2737:A:H5'	2.07	0.54
1:0:881:U:C4	1:0:882:C:N4	2.75	0.54
1:0:2026:C:OP1	1:0:2757:G:O2'	2.25	0.54
1:0:1628:C:C4	1:0:1629:G:N7	2.76	0.54
1:0:1685:A:H61	1:0:1693:A:N6	1.99	0.54
1:0:667:U:H2'	1:0:668:A:C5'	2.36	0.54
1:0:1715:A:O2'	1:0:1716:G:C3'	2.47	0.54
1:0:2266:A:N6	1:0:2323:U:C1'	2.67	0.54
1:0:2266:A:N7	1:0:2323:U:O2	2.40	0.54
1:0:646:C:H2'	1:0:647:G:O4'	2.08	0.54
1:0:2389:G:H2'	1:0:2390:A:C8	2.42	0.54
1:0:530:G:H2'	1:0:531:G:C8	2.38	0.54
1:0:545:C:H2'	1:0:546:A:H8	1.71	0.54
1:0:2334:C:O5'	1:0:2334:C:H6	1.89	0.54
1:0:1777:A:O2'	1:0:1778:U:OP1	2.26	0.54
1:0:2418:A:H4'	1:0:2419:C:O5'	2.07	0.54
1:0:1210:C:C1'	1:0:1239:A:C4	2.90	0.54
1:0:692:C:C2	1:0:812:G:N2	2.76	0.54
1:0:816:U:C2'	1:0:817:A:H5'	2.37	0.54
1:0:816:U:H2'	1:0:817:A:O4'	2.06	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2675:U:H2'	1:0:2676:G:H8	1.70	0.54
1:0:1366:A:C6	1:0:1367:A:C6	2.95	0.54
1:0:481:A:H3'	1:0:482:A:C8	2.42	0.54
1:0:1744:G:O6	1:0:1747:G:C6	2.60	0.54
1:0:1594:U:O2	1:0:1595:A:N7	2.41	0.54
1:0:2810:A:N6	1:0:2854:G:OP2	2.41	0.54
1:0:2496:C:O2'	1:0:2497:A:O5'	2.22	0.54
1:0:1333:G:O6	1:0:1343:C:OP2	2.24	0.54
1:0:1683:G:O6	1:0:1684:G:N1	2.40	0.54
1:0:1750:A:C2	1:0:1751:A:C8	2.94	0.54
1:0:320:A:N3	1:0:340:G:O2'	2.38	0.54
1:0:1714:A:C5'	1:0:1715:A:O5'	2.54	0.54
1:0:1004:A:C5	1:0:1005:U:H5	2.25	0.54
1:0:1036:G:C8	1:0:1036:G:OP1	2.60	0.54
1:0:1368:G:C4	1:0:1369:G:C8	2.94	0.54
1:0:1407:G:C2	1:0:1408:A:N1	2.75	0.54
1:0:2653:A:H2'	1:0:2654:A:C8	2.42	0.54
1:0:529:U:H2'	1:0:530:G:C8	2.42	0.54
1:0:2181:A:H2'	1:0:2181:A:N3	2.21	0.54
1:0:890:U:H6	1:0:890:U:O5'	1.90	0.54
1:0:1189:G:O2'	1:0:1190:C:H5'	2.08	0.54
1:0:2579:A:H2'	1:0:2580:C:H6	1.69	0.54
1:0:2806:G:H1'	1:0:2858:A:H2'	1.89	0.54
1:0:2226:A:H2'	1:0:2227:C:O4'	2.08	0.54
1:0:2424:G:N2	1:0:2425:G:C4	2.75	0.54
1:0:820:U:H2'	1:0:821:A:C8	2.43	0.54
1:0:1790:G:O4'	1:0:1811:A:N6	2.31	0.54
1:0:1170:U:O2'	1:0:1171:A:H5'	2.08	0.54
1:0:1090:C:H2'	1:0:1091:C:C6	2.43	0.54
1:0:1299:A:C6	1:0:1302:C:C2	2.96	0.54
1:0:1299:A:C6	1:0:1302:C:C4	2.96	0.54
1:0:1404:C:N3	1:0:1407:G:C5	2.76	0.54
1:0:427:C:N4	1:0:2389:G:O6	2.41	0.54
1:0:138:G:O2'	1:0:139:A:H5'	2.08	0.54
1:0:2543:A:N1	1:0:2626:U:H4'	2.22	0.54
1:0:1266:G:O2'	1:0:1267:A:OP1	2.23	0.54
1:0:246:C:N4	1:0:247:A:H62	2.04	0.54
1:0:1469:U:H5''	1:0:1470:G:N7	2.23	0.54
1:0:2610:G:N2	1:0:2611:A:H1'	2.23	0.54
1:0:871:U:H2'	1:0:871:U:O2	2.05	0.54
1:0:2014:A:N6	1:0:2477:C:C1'	2.71	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:225:G:N7	1:0:227:G:N3	2.56	0.54
1:0:2540:A:N6	1:0:2541:U:C4	2.76	0.54
1:0:2736:U:C2'	1:0:2737:A:OP2	2.55	0.54
1:0:2689:C:O2'	1:0:2690:A:H5'	2.08	0.54
1:0:1588:A:H2'	1:0:1589:G:C8	2.41	0.54
1:0:1249:G:O2'	1:0:1250:A:P	2.66	0.54
1:0:1716:G:C2	1:0:1754:G:C2	2.96	0.54
1:0:1329:U:H5'	1:0:1405:A:H1'	1.90	0.54
1:0:1964:A:OP1	1:0:1965:U:OP2	2.26	0.54
1:0:2562:G:C2'	1:0:2563:U:H5'	2.37	0.54
1:0:190:A:O2'	1:0:191:G:O4'	2.21	0.54
1:0:225:G:N3	1:0:2410:U:H4'	2.23	0.54
1:0:173:A:C5	1:0:818:G:N2	2.76	0.54
1:0:1337:G:C1'	1:0:1632:A:N6	2.68	0.54
1:0:1375:C:HO2'	1:0:1802:A:HO2'	1.51	0.54
1:0:1032:A:C2	1:0:1034:U:C2	2.96	0.54
1:0:2825:A:C2	1:0:2826:C:C2	2.96	0.54
1:0:1310:C:O2	1:0:1661:C:O2	2.25	0.54
1:0:772:G:C6	1:0:773:G:N7	2.76	0.54
1:0:1452:U:H5''	1:0:1533:G:H5'	1.90	0.54
1:0:1947:G:C4'	1:0:1948:C:OP2	2.54	0.54
1:0:1631:C:N4	1:0:1633:C:O2	2.37	0.54
1:0:466:A:H4'	1:0:467:U:O4'	2.08	0.54
1:0:1174:G:C2	1:0:1175:A:C5	2.95	0.54
1:0:1990:U:H2'	1:0:1991:C:C6	2.42	0.54
1:0:1066:G:N7	1:0:1067:G:H1'	2.23	0.54
1:0:2298:U:H4'	1:0:2299:A:C8	2.43	0.54
1:0:788:G:O2'	1:0:807:A:C8	2.60	0.54
1:0:2526:U:H2'	1:0:2527:G:C8	2.43	0.54
1:0:1440:G:H3'	1:0:1441:A:H5'	1.90	0.54
1:0:1226:A:O4'	1:0:1250:A:H2	1.91	0.54
1:0:1250:A:O2'	1:0:1251:G:O4'	2.26	0.54
1:0:1804:U:H2'	1:0:1805:G:H8	1.72	0.54
1:0:2376:G:N1	1:0:2399:C:C2	2.76	0.54
1:0:2825:A:N3	1:0:2826:C:C5	2.76	0.54
1:0:2066:G:C6	1:0:2216:G:N2	2.76	0.54
1:0:1279:G:O2'	1:0:1995:G:N1	2.30	0.54
1:0:2628:C:H2'	1:0:2629:U:C6	2.43	0.54
1:0:1941:C:HO2'	1:0:1942:G:H5'	1.72	0.54
1:0:502:A:H2'	1:0:503:G:O4'	2.07	0.54
1:0:1643:A:H1'	1:0:1657:A:C2	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1482:U:H4'	1:0:1482:U:OP1	2.08	0.54
1:0:437:G:H2'	1:0:438:G:C8	2.42	0.54
1:0:1161:U:H2'	1:0:1162:A:H8	1.73	0.54
1:0:1935:A:C6	1:0:1936:A:N1	2.76	0.54
1:0:1578:U:O2'	1:0:1579:G:H5'	2.08	0.54
1:0:2063:A:H2'	1:0:2064:U:O4'	2.08	0.54
1:0:700:C:O2	1:0:800:U:O3'	2.25	0.54
1:0:788:G:H21	1:0:800:U:H3'	1.69	0.54
1:0:1177:U:O4	1:0:1196:G:O6	2.25	0.54
1:0:176:A:C2	1:0:2413:A:C2	2.96	0.54
1:0:2051:U:H3	1:0:2409:A:H2	1.55	0.54
1:0:1394:G:O2'	1:0:1395:A:H5'	2.08	0.54
1:0:498:C:C4	1:0:499:G:N7	2.75	0.54
1:0:1865:C:H2'	1:0:1866:G:C5'	2.38	0.54
1:0:2074:U:H3'	1:0:2075:U:H5''	1.90	0.54
1:0:2820:C:H2'	1:0:2821:G:H8	1.73	0.54
1:0:299:C:H2'	1:0:300:C:C6	2.43	0.54
1:0:1503:G:H2'	1:0:1504:G:C8	2.43	0.54
1:0:1518:C:H2'	1:0:1519:G:H8	1.73	0.54
1:0:1770:U:C2	1:0:1774:A:N7	2.77	0.53
1:0:1778:U:H4'	1:0:2568:A:H4'	1.91	0.53
1:0:584:A:OP2	1:0:2038:C:H5	1.91	0.53
1:0:984:A:H1'	1:0:1202:U:N1	2.22	0.53
1:0:944:A:C2	1:0:945:G:C1'	2.91	0.53
1:0:761:G:N7	1:0:763:A:C8	2.75	0.53
1:0:2782:G:C3'	1:0:2783:U:H5''	2.36	0.53
1:0:1572:C:C3'	1:0:1573:G:H5''	2.38	0.53
1:0:210:A:H61	1:0:442:A:N6	2.05	0.53
1:0:212:U:C2	1:0:443:A:C2	2.96	0.53
1:0:1710:U:H4'	1:0:1711:C:OP2	2.06	0.53
1:0:1922:U:O2'	1:0:2571:G:H1'	2.07	0.53
1:0:170:U:O4	1:0:179:U:N3	2.39	0.53
1:0:844:G:N3	1:0:844:G:H2'	2.22	0.53
1:0:676:G:N2	1:0:950:G:O3'	2.41	0.53
1:0:861:G:H2'	1:0:862:A:H5'	1.90	0.53
1:0:1141:U:O2'	1:0:1142:G:OP1	2.26	0.53
1:0:462:G:O5'	1:0:462:G:H8	1.90	0.53
1:0:590:C:H2'	1:0:591:G:C8	2.33	0.53
1:0:2266:A:H62	1:0:2323:U:C1'	2.19	0.53
1:0:1404:C:C2	1:0:1407:G:O6	2.61	0.53
1:0:1013:G:H22	1:0:1165:G:H1'	1.71	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:529:U:H2'	1:0:530:G:H8	1.73	0.53
1:0:2482:A:C5'	1:0:2483:U:P	2.96	0.53
1:0:1077:U:H6	1:0:1077:U:O5'	1.91	0.53
1:0:2555:G:C2'	1:0:2555:G:N3	2.70	0.53
1:0:1774:A:C2	1:0:2566:A:C5	2.96	0.53
1:0:2811:G:C4	1:0:2812:A:N7	2.76	0.53
1:0:169:C:C2'	1:0:170:U:H5'	2.38	0.53
1:0:843:G:C2	1:0:2427:A:N6	2.76	0.53
1:0:2753:C:N4	1:0:2754:C:H41	2.07	0.53
1:0:2705:A:C8	1:0:2705:A:H5''	2.40	0.53
1:0:1938:U:H5	1:0:2536:G:N2	2.07	0.53
1:0:758:G:H2'	1:0:759:C:H5'	1.89	0.53
1:0:742:G:N2	1:0:1766:U:N1	2.56	0.53
1:0:987:G:C2	1:0:988:G:C5	2.96	0.53
1:0:499:G:H1'	1:0:502:A:H62	1.74	0.53
1:0:11:G:H8	1:0:11:G:O5'	1.92	0.53
1:0:238:G:O2'	1:0:239:A:H5'	2.09	0.53
1:0:127:C:H2'	1:0:128:C:H6	1.73	0.53
1:0:2107:G:H2'	1:0:2108:G:H8	1.73	0.53
1:0:1198:C:OP1	1:0:1199:U:O2'	2.24	0.53
1:0:2235:G:N2	1:0:2254:C:C4	2.77	0.53
1:0:2404:A:H4'	1:0:2405:A:O5'	2.07	0.53
1:0:824:U:C4'	1:0:1264:C:O2	2.55	0.53
1:0:1514:C:H4'	1:0:1592:U:O2'	2.08	0.53
1:0:1581:C:N4	1:0:1583:A:N3	2.55	0.53
1:0:322:A:H3'	1:0:323:G:C8	2.44	0.53
1:0:340:G:H4'	1:0:341:A:OP2	2.09	0.53
1:0:493:A:H5''	1:0:494:A:OP1	2.09	0.53
1:0:1699:A:C2	1:0:1700:C:C2	2.97	0.53
1:0:1724:C:C4	1:0:1747:G:C6	2.95	0.53
1:0:351:A:N6	1:0:352:G:C2	2.77	0.53
1:0:1288:A:N6	1:0:1308:C:H2'	2.24	0.53
1:0:651:C:C3'	1:0:652:C:H5''	2.38	0.53
1:0:2837:G:C6	1:0:2838:U:C4	2.96	0.53
1:0:2133:G:H2'	1:0:2134:U:O4'	2.08	0.53
1:0:1334:A:N6	1:0:1347:C:O4'	2.40	0.53
1:0:888:G:O2'	1:0:889:C:H5'	2.08	0.53
1:0:2040:A:C8	1:0:2041:A:C8	2.96	0.53
1:0:191:G:O2'	1:0:192:G:H5'	2.09	0.53
1:0:2048:C:H1'	1:0:2428:U:N3	2.23	0.53
1:0:2427:A:OP2	1:0:2478:C:OP1	2.27	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2707:G:N2	1:0:2708:U:C2	2.77	0.53
1:0:1978:U:N3	1:0:1979:C:N4	2.56	0.53
1:0:35:G:O4'	1:0:466:A:N3	2.41	0.53
1:0:1766:U:O2'	1:0:1767:G:H5'	2.08	0.53
1:0:2625:U:O4	1:0:2712:G:C6	2.62	0.53
1:0:24:G:O2'	1:0:25:U:H5'	2.08	0.53
1:0:2299:A:N3	1:0:2299:A:H2'	2.22	0.53
1:0:388:G:H2'	1:0:389:G:H8	1.74	0.53
1:0:1185:C:O2	1:0:1187:A:N7	2.41	0.53
1:0:2811:G:C6	1:0:2858:A:C6	2.97	0.53
1:0:1635:G:C2	1:0:1636:G:C8	2.96	0.53
1:0:1438:G:C8	1:0:1439:G:C8	2.97	0.53
1:0:708:G:C6	1:0:781:G:C6	2.97	0.53
1:0:669:G:H2'	1:0:670:U:O4'	2.08	0.53
1:0:2824:C:O2'	1:0:2825:A:P	2.66	0.53
1:0:987:G:N3	1:0:988:G:C8	2.77	0.53
1:0:2636:A:H2'	1:0:2637:C:H5'	1.89	0.53
1:0:434:C:C2'	1:0:435:A:OP2	2.56	0.53
1:0:200:A:N7	1:0:435:A:H1'	2.24	0.53
1:0:2817:A:N1	1:0:2851:G:C6	2.77	0.53
1:0:1772:C:O2'	1:0:1773:C:C5'	2.56	0.53
1:0:2061:C:N4	1:0:2220:A:H61	2.02	0.53
1:0:697:G:O6	1:0:807:A:C6	2.62	0.53
1:0:171:G:C2	1:0:179:U:C2	2.97	0.53
1:0:2047:C:O2	1:0:2429:A:N6	2.42	0.53
1:0:583:C:O2'	1:0:584:A:OP2	2.25	0.53
1:0:882:C:C2	1:0:883:A:C8	2.96	0.53
1:0:481:A:C6	1:0:482:A:C6	2.97	0.53
1:0:624:A:OP1	1:0:625:A:OP2	2.26	0.53
1:0:1369:G:N2	1:0:1370:U:H1'	2.24	0.53
1:0:1073:G:H3'	1:0:1074:G:H5''	1.90	0.53
1:0:2276:C:H2'	1:0:2277:A:H5'	1.91	0.53
1:0:2623:A:H2'	1:0:2624:G:O4'	2.09	0.53
1:0:2623:A:N6	1:0:2624:G:N1	2.56	0.53
1:0:404:A:O5'	1:0:404:A:H8	1.91	0.53
1:0:402:A:N3	1:0:402:A:H2'	2.24	0.53
1:0:1456:C:C4	1:0:1566:G:N1	2.77	0.53
1:0:706:A:H2'	1:0:707:U:O4'	2.09	0.53
1:0:1199:U:C5	1:0:1201:G:N7	2.74	0.53
1:0:991:A:OP1	1:0:993:C:N4	2.41	0.53
1:0:2728:A:N1	1:0:2737:A:N7	2.57	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:872:G:H22	1:0:929:A:P	2.31	0.53
1:0:1684:G:O2'	1:0:1685:A:OP2	2.16	0.53
1:0:2197:U:C4	1:0:2198:U:O4	2.62	0.53
1:0:614:G:O4'	1:0:669:G:N2	2.42	0.53
1:0:1172:U:C2	1:0:1173:G:C8	2.97	0.53
1:0:1016:C:H2'	1:0:1017:C:C6	2.44	0.53
1:0:1385:C:H2'	1:0:1386:A:C8	2.44	0.53
1:0:1819:U:O2	1:0:1820:G:C1'	2.56	0.53
1:0:26:G:C5	1:0:27:G:N1	2.77	0.53
1:0:2713:A:O2'	1:0:2714:A:C5'	2.57	0.53
1:0:548:G:N2	1:0:549:G:C4	2.77	0.53
1:0:600:G:C3'	1:0:601:A:C5'	2.86	0.53
1:0:1178:C:C2	1:0:1196:G:N2	2.77	0.53
1:0:2734:U:C2'	1:0:2736:U:OP1	2.57	0.53
1:0:1476:G:C6	1:0:1477:C:C4	2.97	0.53
1:0:2616:U:C5	1:0:2617:G:C4	2.97	0.53
1:0:459:A:N7	1:0:484:G:C6	2.77	0.53
1:0:742:G:H4'	1:0:776:G:C5'	2.39	0.53
1:0:625:A:H2'	1:0:625:A:N3	2.23	0.53
1:0:2796:A:C4	1:0:2797:G:N7	2.76	0.53
1:0:1355:A:C8	1:0:1410:U:C1'	2.92	0.53
1:0:309:G:N1	1:0:350:U:H5	2.07	0.53
1:0:2827:G:H2'	1:0:2828:C:O4'	2.08	0.53
1:0:2301:A:H2'	1:0:2302:G:H8	1.74	0.53
1:0:2630:C:H2'	1:0:2631:C:C6	2.41	0.53
1:0:25:U:C4	1:0:26:G:N1	2.77	0.53
1:0:2096:U:H2'	1:0:2097:A:H5''	1.91	0.53
1:0:2213:G:H8	1:0:2213:G:H5''	1.74	0.53
1:0:2821:G:C6	1:0:2846:G:C6	2.97	0.53
1:0:2560:G:N3	1:0:2560:G:C2'	2.71	0.53
1:0:2571:G:C2	1:0:2582:G:N1	2.77	0.53
1:0:1209:G:N3	1:0:1239:A:H2	2.07	0.53
1:0:399:G:H4'	1:0:400:U:H5	1.74	0.53
1:0:843:G:N3	1:0:2427:A:N6	2.57	0.53
1:0:577:U:C5'	1:0:956:A:H62	2.22	0.53
1:0:861:G:O6	1:0:942:U:N3	2.42	0.53
1:0:941:U:H2'	1:0:941:U:O2	2.09	0.53
1:0:1459:U:C2	1:0:1459:U:P	3.02	0.53
1:0:1632:A:HO2'	1:0:1633:C:P	2.28	0.53
1:0:461:A:N3	1:0:462:G:C8	2.77	0.53
1:0:471:A:C2	1:0:481:A:C4	2.96	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:751:G:H2'	1:0:752:G:O4'	2.08	0.53
1:0:2770:A:H4'	1:0:2867:G:N2	2.25	0.53
1:0:1791:C:O2'	1:0:1792:C:P	2.66	0.53
1:0:1807:A:N3	1:0:1809:G:N7	2.57	0.53
1:0:1174:G:C4	1:0:1175:A:C8	2.97	0.53
1:0:1017:C:O2	1:0:1018:C:C6	2.62	0.53
1:0:116:A:N3	1:0:155:G:C1'	2.71	0.53
1:0:1055:A:H4'	1:0:1058:G:H4'	1.91	0.53
1:0:475:U:O2	1:0:699:G:N2	2.42	0.52
1:0:859:U:O2	1:0:944:A:C6	2.62	0.52
1:0:1688:U:O2	1:0:1690:U:H3'	2.08	0.52
1:0:113:C:O2'	1:0:114:C:H5'	2.09	0.52
1:0:1288:A:H62	1:0:1308:C:H2'	1.74	0.52
1:0:1663:C:H5''	1:0:1664:G:OP2	2.09	0.52
1:0:1826:U:H2'	1:0:1826:U:O2	2.10	0.52
1:0:2391:A:H8	1:0:2391:A:O5'	1.91	0.52
1:0:2470:U:C2'	1:0:2470:U:O2	2.55	0.52
1:0:1838:G:C2	1:0:1878:C:C2	2.97	0.52
1:0:1177:U:C2	1:0:1197:U:O2	2.62	0.52
1:0:2014:A:OP1	1:0:2014:A:C4'	2.58	0.52
1:0:2544:A:H5''	1:0:2545:A:OP2	2.10	0.52
1:0:588:G:C8	1:0:2000:U:C4	2.96	0.52
1:0:832:A:C4	1:0:833:A:C8	2.97	0.52
1:0:1459:U:C2'	1:0:1475:U:O2'	2.56	0.52
1:0:2691:C:H5''	1:0:2694:G:H4'	1.90	0.52
1:0:2665:G:C2	1:0:2704:U:O2	2.63	0.52
1:0:462:G:C2'	1:0:463:C:C5'	2.82	0.52
1:0:2376:G:C2	1:0:2399:C:O2	2.62	0.52
1:0:158:A:C2	1:0:447:U:O2'	2.63	0.52
1:0:1328:C:C2	1:0:1329:U:C5	2.97	0.52
1:0:2645:C:C2'	1:0:2646:C:H5'	2.39	0.52
1:0:2484:G:C5	1:0:2555:G:N2	2.78	0.52
1:0:474:G:N2	1:0:476:G:H3'	2.23	0.52
1:0:2014:A:N6	1:0:2477:C:O2	2.43	0.52
1:0:2498:U:C4	1:0:2520:A:C2	2.97	0.52
1:0:583:C:H1'	1:0:2038:C:C5	2.43	0.52
1:0:594:G:C5	1:0:1264:C:N4	2.76	0.52
1:0:692:C:H2'	1:0:693:A:C8	2.40	0.52
1:0:2724:G:O2'	1:0:2725:C:H5'	2.09	0.52
1:0:763:A:C2	1:0:766:A:H1'	2.44	0.52
1:0:1008:G:C2	1:0:1170:U:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:354:C:H2'	1:0:355:G:O4'	2.09	0.52
1:0:2206:C:H2'	1:0:2207:G:O4'	2.09	0.52
1:0:2223:U:H2'	1:0:2224:U:O4'	2.09	0.52
1:0:2418:A:H1'	1:0:2565:C:C2'	2.35	0.52
1:0:1243:G:C6	1:0:1244:U:N3	2.77	0.52
1:0:2012:A:N6	1:0:2016:A:OP2	2.42	0.52
1:0:2552:C:O5'	1:0:2552:C:H6	1.91	0.52
1:0:2753:C:H2'	1:0:2754:C:C6	2.44	0.52
1:0:1627:C:N4	1:0:1628:C:N4	2.56	0.52
1:0:466:A:C2'	1:0:467:U:OP2	2.57	0.52
1:0:1807:A:O2'	1:0:1808:C:H4'	2.10	0.52
1:0:635:C:H2'	1:0:636:G:H5''	1.91	0.52
1:0:1373:G:C2'	1:0:1374:G:H5'	2.39	0.52
1:0:1145:C:C6	1:0:1147:G:OP2	2.63	0.52
1:0:2396:C:H2'	1:0:2397:A:C5'	2.39	0.52
1:0:2623:A:N6	1:0:2624:G:C2	2.77	0.52
1:0:2511:G:N7	1:0:2512:A:N7	2.58	0.52
1:0:2208:U:O2'	1:0:2209:G:H5'	2.09	0.52
1:0:475:U:C2	1:0:801:A:C6	2.98	0.52
1:0:1233:A:O2'	1:0:1234:C:P	2.68	0.52
1:0:2013:A:O2'	1:0:2014:A:O5'	2.17	0.52
1:0:825:C:C1'	1:0:1263:G:C2	2.88	0.52
1:0:1044:U:H5'	1:0:1045:G:OP1	2.08	0.52
1:0:2661:G:O6	1:0:2708:U:H1'	2.10	0.52
1:0:1695:U:N3	1:0:1696:C:O2	2.42	0.52
1:0:447:U:HO2'	1:0:448:C:H5	1.53	0.52
1:0:242:A:C2'	1:0:243:G:OP2	2.58	0.52
1:0:1845:A:C6	1:0:1872:A:N6	2.78	0.52
1:0:1518:C:H2'	1:0:1519:G:C8	2.44	0.52
1:0:2856:U:C5	1:0:2857:C:H5	2.27	0.52
1:0:830:C:C2	1:0:1205:G:C2	2.97	0.52
1:0:2726:U:C4	1:0:2736:U:O4	2.62	0.52
1:0:2005:U:H5''	1:0:2006:G:OP1	2.10	0.52
1:0:872:G:H8	1:0:872:G:OP2	1.92	0.52
1:0:2783:U:C6	1:0:2783:U:H3'	2.44	0.52
1:0:636:G:O6	1:0:637:G:N2	2.42	0.52
1:0:646:C:O2'	1:0:650:U:OP1	2.27	0.52
1:0:774:A:O5'	1:0:774:A:C8	2.63	0.52
1:0:216:U:H5''	1:0:601:A:N6	2.24	0.52
1:0:1420:A:H2'	1:0:1421:U:C6	2.45	0.52
1:0:2040:A:C5	1:0:2041:A:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2810:A:N6	1:0:2854:G:C4	2.78	0.52
1:0:2010:G:H2'	1:0:2011:U:H6	1.75	0.52
1:0:1465:G:N2	1:0:1466:C:C2	2.78	0.52
1:0:1007:A:C6	1:0:1171:A:C2	2.98	0.52
1:0:1151:U:H5''	1:0:1153:A:C5'	2.39	0.52
1:0:2067:U:O2'	1:0:2068:C:H5'	2.10	0.52
1:0:451:A:O2'	1:0:452:G:H5'	2.09	0.52
1:0:737:C:H2'	1:0:738:G:O4'	2.10	0.52
1:0:153:A:H2'	1:0:154:U:C6	2.45	0.52
1:0:1900:U:H2'	1:0:1901:A:H8	1.74	0.52
1:0:2418:A:O2'	1:0:2566:A:H5''	2.09	0.52
1:0:2420:C:OP1	1:0:2420:C:H4'	2.10	0.52
1:0:1197:U:H2'	1:0:1198:C:O4'	2.09	0.52
1:0:165:G:H2'	1:0:166:G:O4'	2.10	0.52
1:0:2016:A:C6	1:0:2019:C:C6	2.98	0.52
1:0:226:C:C2'	1:0:227:G:OP2	2.58	0.52
1:0:826:U:H2'	1:0:827:C:C6	2.44	0.52
1:0:1618:U:H3'	1:0:1618:U:C6	2.45	0.52
1:0:1641:C:C2'	1:0:1642:G:H5'	2.40	0.52
1:0:2270:U:O2'	1:0:2271:C:H5'	2.10	0.52
1:0:600:G:H3'	1:0:601:A:H5'	1.92	0.52
1:0:45:C:H2'	1:0:46:C:C6	2.45	0.52
1:0:1103:C:O5'	1:0:1103:C:H6	1.92	0.52
1:0:2857:C:H2'	1:0:2858:A:O5'	2.10	0.52
1:0:1261:G:O2'	1:0:1262:U:P	2.67	0.52
1:0:851:C:C2	1:0:952:A:C6	2.98	0.52
1:0:953:G:H2'	1:0:954:U:O4'	2.09	0.52
1:0:1627:C:N3	1:0:1628:C:C5	2.78	0.52
1:0:1981:A:C6	1:0:1982:C:C4	2.98	0.52
1:0:2677:U:H2'	1:0:2678:C:H6	1.75	0.52
1:0:1007:A:H2'	1:0:1008:G:H8	1.73	0.52
1:0:2058:U:H3'	1:0:2217:G:C2	2.44	0.52
1:0:1820:G:O2'	1:0:1821:A:P	2.68	0.52
1:0:76:C:H6	1:0:76:C:C5'	2.18	0.52
1:0:1166:A:C3'	1:0:1167:A:H5''	2.40	0.52
1:0:140:G:H2'	1:0:141:G:C8	2.45	0.52
1:0:244:C:H5'	1:0:245:C:OP2	2.10	0.52
1:0:1774:A:N1	1:0:2566:A:C2'	2.65	0.52
1:0:1918:G:C2'	1:0:1945:C:H42	2.12	0.52
1:0:2571:G:C6	1:0:2572:U:N3	2.78	0.52
1:0:861:G:C8	1:0:862:A:C8	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2727:G:O6	1:0:2735:C:H5''	2.10	0.52
1:0:591:G:C2	1:0:592:G:C4	2.97	0.52
1:0:1151:U:C5'	1:0:1153:A:OP1	2.58	0.52
1:0:1928:G:N2	1:0:1929:U:C2	2.78	0.52
1:0:2306:A:C5	1:0:2367:A:N1	2.78	0.52
1:0:135:U:H2'	1:0:136:A:C8	2.44	0.52
1:0:1872:A:H2'	1:0:1873:A:C8	2.44	0.52
1:0:2183:C:O2'	1:0:2184:C:H5'	2.10	0.52
1:0:2739:G:C2'	1:0:2740:C:H5'	2.40	0.52
1:0:2571:G:H8	1:0:2571:G:O5'	1.93	0.51
1:0:1260:A:N6	1:0:1262:U:O2	2.42	0.51
1:0:577:U:O2	1:0:579:G:C8	2.63	0.51
1:0:2663:U:C4	1:0:2664:G:N7	2.78	0.51
1:0:1226:A:N9	1:0:1250:A:N3	2.57	0.51
1:0:59:G:C5	1:0:62:U:C5	2.99	0.51
1:0:1830:C:H41	1:0:1881:U:H3'	1.72	0.51
1:0:1034:U:C4	1:0:1035:G:N3	2.77	0.51
1:0:1953:A:C2	1:0:1955:G:N7	2.77	0.51
1:0:83:A:H2	1:0:101:A:C4	2.27	0.51
1:0:2175:A:H2'	1:0:2176:U:H6	1.70	0.51
1:0:1216:G:C2	1:0:1257:U:O2	2.63	0.51
1:0:2505:G:N1	1:0:2517:C:C2	2.78	0.51
1:0:947:C:H2'	1:0:948:C:H6	1.74	0.51
1:0:6:A:O2'	1:0:7:G:H5'	2.10	0.51
1:0:713:G:H2'	1:0:714:G:O4'	2.10	0.51
1:0:1923:U:C4'	1:0:1924:C:OP1	2.58	0.51
1:0:2569:A:H2'	1:0:2570:C:H6	1.74	0.51
1:0:1177:U:H2'	1:0:1178:C:H6	1.74	0.51
1:0:163:A:H2'	1:0:164:G:C8	2.45	0.51
1:0:2225:G:C5	1:0:2405:A:N3	2.78	0.51
1:0:824:U:C6	1:0:824:U:H3'	2.45	0.51
1:0:1439:G:P	1:0:1439:G:H3'	2.51	0.51
1:0:1440:G:OP2	1:0:1440:G:C8	2.63	0.51
1:0:461:A:C2	1:0:462:G:C4	2.97	0.51
1:0:794:A:H2	1:0:1767:G:N3	2.07	0.51
1:0:58:C:C5	1:0:72:A:N6	2.78	0.51
1:0:66:U:O2	1:0:67:G:O6	2.27	0.51
1:0:1037:U:H3'	1:0:1037:U:H6	1.75	0.51
1:0:1153:A:O2'	1:0:1154:A:C3'	2.58	0.51
1:0:1086:C:H6	1:0:1086:C:H3'	1.75	0.51
1:0:157:G:H5'	1:0:158:A:OP1	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:202:A:N6	1:0:203:G:N3	2.58	0.51
1:0:855:G:N2	1:0:948:C:C2	2.78	0.51
1:0:456:C:O2'	1:0:457:C:H5'	2.11	0.51
1:0:1950:C:N4	1:0:1951:G:C6	2.78	0.51
1:0:2759:U:H6	1:0:2759:U:H3'	1.75	0.51
1:0:2691:C:C3'	1:0:2692:A:H5''	2.41	0.51
1:0:1251:G:H21	1:0:1252:C:H1'	1.76	0.51
1:0:490:A:C2	1:0:491:A:C6	2.98	0.51
1:0:494:A:C8	1:0:495:C:C5	2.98	0.51
1:0:749:C:N4	1:0:750:C:N4	2.58	0.51
1:0:2514:G:N2	1:0:2515:G:C1'	2.73	0.51
1:0:1128:G:O2'	1:0:1129:A:H5'	2.11	0.51
1:0:324:C:H2'	1:0:325:U:O4'	2.11	0.51
1:0:830:C:H2'	1:0:831:G:C8	2.44	0.51
1:0:1436:G:H22	1:0:1593:C:C1'	2.23	0.51
1:0:1987:G:H2'	1:0:1988:A:H5'	1.93	0.51
1:0:1013:G:N2	1:0:1165:G:H1'	2.26	0.51
1:0:1455:C:H2'	1:0:1456:C:H6	1.75	0.51
1:0:500:G:H8	1:0:500:G:P	2.33	0.51
1:0:4:C:H2'	1:0:5:A:O4'	2.11	0.51
1:0:2050:G:C6	1:0:2052:G:C5	2.98	0.51
1:0:2256:G:C6	1:0:2257:A:N7	2.78	0.51
1:0:109:A:H2'	1:0:110:U:C5'	2.22	0.51
1:0:2678:C:O2	1:0:2688:G:N2	2.44	0.51
1:0:464:G:H2'	1:0:465:C:C6	2.46	0.51
1:0:491:A:H2	1:0:509:U:O2	1.93	0.51
1:0:1706:A:N7	1:0:1715:A:C2	2.78	0.51
1:0:2394:G:C6	1:0:2395:C:C4	2.99	0.51
1:0:1368:G:C6	1:0:1369:G:N7	2.79	0.51
1:0:1286:U:H5''	1:0:1663:C:H41	1.72	0.51
1:0:1838:G:C2'	1:0:1839:A:H5'	2.40	0.51
1:0:2373:C:H2'	1:0:2374:C:C6	2.45	0.51
1:0:723:C:N3	1:0:735:G:C6	2.78	0.51
1:0:2487:G:H2'	1:0:2488:G:O4'	2.11	0.51
1:0:177:U:O4	1:0:225:G:C2	2.63	0.51
1:0:2262:C:C4	1:0:2368:G:C4	2.98	0.51
1:0:2434:G:H2'	1:0:2435:C:C6	2.46	0.51
1:0:580:A:O2'	1:0:582:G:OP2	2.24	0.51
1:0:836:G:C4	1:0:837:U:C5	2.99	0.51
1:0:2728:A:C2	1:0:2737:A:N7	2.79	0.51
1:0:2667:C:H42	1:0:2699:G:H3'	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1438:G:H22	1:0:1590:C:H2'	1.74	0.51
1:0:342:G:O2'	1:0:343:A:P	2.69	0.51
1:0:2200:G:H2'	1:0:2201:G:H8	1.74	0.51
1:0:742:G:H4'	1:0:776:G:C4'	2.37	0.51
1:0:1764:A:C8	1:0:1764:A:H3'	2.46	0.51
1:0:1355:A:N7	1:0:1410:U:C6	2.79	0.51
1:0:2825:A:C4	1:0:2826:C:C5	2.99	0.51
1:0:2310:G:N2	1:0:2364:C:N3	2.59	0.51
1:0:1499:A:H2'	1:0:1500:U:C6	2.45	0.51
1:0:2204:A:H4'	1:0:2205:C:H6	1.74	0.51
1:0:548:G:C2	1:0:549:G:C8	2.98	0.51
1:0:551:A:C2	1:0:562:G:N3	2.78	0.51
1:0:1271:C:H2'	1:0:1272:G:O4'	2.11	0.51
1:0:981:C:C4	1:0:982:C:C5	2.99	0.51
1:0:1141:U:O2'	1:0:1142:G:P	2.69	0.51
1:0:2617:G:C5	1:0:2755:A:N1	2.79	0.51
1:0:930:A:C8	1:0:931:G:O4'	2.64	0.51
1:0:1908:C:N3	1:0:1909:U:H1'	2.26	0.51
1:0:1281:A:C2	1:0:1996:A:C4	2.98	0.51
1:0:2079:A:N1	1:0:2177:U:O2	2.44	0.51
1:0:1255:A:C4	1:0:1256:C:C5	2.98	0.51
1:0:1963:G:C2	1:0:1965:U:N3	2.79	0.51
3:0:2881:G80:H14	3:0:2881:G80:C10	2.33	0.51
1:0:697:G:C6	1:0:788:G:N7	2.78	0.51
1:0:179:U:H2'	1:0:180:C:C6	2.44	0.51
1:0:2523:G:H2'	1:0:2524:G:O4'	2.11	0.51
1:0:571:U:O2	1:0:581:A:N9	2.42	0.51
1:0:1474:A:C2	1:0:1476:G:N7	2.79	0.51
1:0:1693:A:N1	1:0:1694:A:C2	2.78	0.51
1:0:2677:U:H2'	1:0:2678:C:C6	2.46	0.51
1:0:459:A:N1	1:0:466:A:N7	2.58	0.51
1:0:1707:A:N7	1:0:1714:A:H2	2.09	0.51
1:0:1990:U:C4	1:0:1991:C:N4	2.78	0.51
1:0:1070:G:H2'	1:0:1071:U:O4'	2.10	0.51
1:0:2470:U:H3'	1:0:2471:U:C5	2.45	0.51
1:0:2594:U:C6	1:0:2594:U:H5'	2.46	0.51
1:0:2014:A:N7	1:0:2477:C:O2	2.44	0.51
1:0:876:A:C2	1:0:877:G:C4	2.99	0.51
1:0:976:C:H1'	1:0:2252:A:H2	1.72	0.51
1:0:460:U:H4'	1:0:461:A:OP2	2.11	0.51
1:0:635:C:C3'	1:0:636:G:H5''	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:664:C:C2	1:0:665:A:N7	2.79	0.51
1:0:1717:A:C8	1:0:1718:A:C8	2.99	0.51
1:0:1763:G:C2'	1:0:1764:A:H5'	2.41	0.51
1:0:1017:C:O2'	1:0:1018:C:H5'	2.11	0.51
1:0:2217:G:C2'	1:0:2217:G:N3	2.73	0.51
1:0:1383:C:C2	1:0:1384:G:C8	2.99	0.51
1:0:1010:U:H3'	1:0:1165:G:O6	2.10	0.51
1:0:2449:G:N2	1:0:2450:A:C4	2.79	0.51
1:0:297:A:N6	1:0:366:U:N3	2.59	0.51
1:0:2716:G:O2'	1:0:2717:G:H5'	2.10	0.51
1:0:496:C:C2	1:0:506:G:N2	2.79	0.51
1:0:1198:C:H5''	1:0:1199:U:O2'	2.10	0.51
1:0:956:A:C6	1:0:2427:A:C2	2.98	0.51
1:0:830:C:C2	1:0:1205:G:N2	2.78	0.51
1:0:832:A:N7	1:0:1202:U:C4	2.79	0.51
1:0:1459:U:O2	1:0:1459:U:H2'	2.10	0.51
1:0:465:C:O3'	1:0:483:A:N6	2.44	0.51
1:0:67:G:C5	1:0:72:A:H2	2.28	0.51
1:0:1018:C:OP2	1:0:1020:A:OP2	2.28	0.51
1:0:1797:C:O2'	1:0:1798:G:H5'	2.11	0.51
1:0:1759:A:C6	1:0:1968:G:C6	2.98	0.51
1:0:173:A:H61	1:0:844:G:H21	1.59	0.50
1:0:2254:C:O2'	1:0:2255:G:P	2.70	0.50
1:0:177:U:H5	1:0:225:G:N3	2.07	0.50
1:0:2519:C:C4	1:0:2520:A:N7	2.79	0.50
1:0:583:C:H4'	1:0:584:A:O5'	2.11	0.50
1:0:873:U:H3	1:0:2247:A:P	2.34	0.50
1:0:459:A:N6	1:0:484:G:C4	2.79	0.50
1:0:2787:A:O2'	1:0:2788:C:C5'	2.60	0.50
1:0:333:A:C2	1:0:351:A:C6	2.99	0.50
1:0:447:U:O2'	1:0:448:C:C6	2.64	0.50
1:0:1288:A:N7	1:0:1309:G:H1'	2.26	0.50
1:0:2264:C:O4'	1:0:2267:A:N6	2.43	0.50
1:0:524:A:O2'	1:0:525:A:H5'	2.11	0.50
1:0:312:G:C4	1:0:313:U:C5	2.99	0.50
1:0:778:G:H5'	1:0:778:G:H8	1.76	0.50
1:0:1430:G:H2'	1:0:1431:U:C6	2.46	0.50
1:0:2457:A:H1'	1:0:2508:G:N7	2.25	0.50
1:0:2564:U:O2	1:0:2564:U:C3'	2.59	0.50
1:0:1201:G:N2	1:0:1202:U:C5	2.79	0.50
1:0:2425:G:C2'	1:0:2426:G:H5''	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:832:A:C5	1:0:833:A:N7	2.79	0.50
1:0:834:A:N7	1:0:957:G:C5	2.79	0.50
1:0:14:A:C2	1:0:536:A:N1	2.79	0.50
1:0:1624:A:C8	1:0:1627:C:N4	2.79	0.50
1:0:1621:C:C4'	1:0:1626:A:N6	2.71	0.50
1:0:1653:C:O2'	1:0:1751:A:N3	2.36	0.50
1:0:634:G:H2'	1:0:635:C:H6	1.71	0.50
1:0:666:U:OP1	1:0:667:U:OP2	2.30	0.50
1:0:1151:U:OP1	1:0:1153:A:OP1	2.29	0.50
1:0:1288:A:H61	1:0:1309:G:H5'	1.76	0.50
1:0:232:A:N6	1:0:233:A:N1	2.59	0.50
1:0:1254:G:H2'	1:0:1255:A:C8	2.45	0.50
1:0:1734:C:H3'	1:0:1735:G:O4'	2.10	0.50
1:0:2061:C:H42	1:0:2220:A:N6	2.01	0.50
1:0:788:G:H5''	1:0:790:A:C1'	2.41	0.50
1:0:2490:U:N3	1:0:2491:C:C4	2.80	0.50
1:0:972:C:C4	1:0:2014:A:C2	2.95	0.50
1:0:972:C:C6	1:0:2014:A:C2	2.99	0.50
1:0:1465:G:N2	1:0:1466:C:O2	2.44	0.50
1:0:13:A:C5'	1:0:14:A:OP1	2.59	0.50
1:0:536:A:C6	1:0:2605:C:H4'	2.46	0.50
1:0:876:A:H61	1:0:924:C:N4	2.09	0.50
1:0:1631:C:N4	1:0:1633:C:C2	2.78	0.50
1:0:765:C:C2'	1:0:766:A:OP2	2.58	0.50
1:0:1956:G:H8	1:0:1956:G:H5'	1.76	0.50
1:0:651:C:H2'	1:0:652:C:H5''	1.92	0.50
1:0:1911:A:C3'	1:0:1912:G:H5'	2.42	0.50
1:0:222:G:H2'	1:0:223:C:C6	2.46	0.50
1:0:2765:C:H2'	1:0:2766:U:H6	1.71	0.50
1:0:1452:U:H5'	1:0:1532:A:HO2'	1.77	0.50
1:0:1541:G:H22	1:0:1561:A:N6	2.09	0.50
1:0:1727:C:H4'	1:0:2833:C:N3	2.26	0.50
1:0:2040:A:N7	1:0:2041:A:N7	2.59	0.50
1:0:2061:C:H2'	1:0:2061:C:O2	2.12	0.50
1:0:1196:G:O2'	1:0:1197:U:H5'	2.11	0.50
1:0:2226:A:H2'	1:0:2227:C:C6	2.45	0.50
1:0:684:C:C2'	1:0:685:U:O5'	2.60	0.50
1:0:1627:C:H42	1:0:1628:C:N4	2.09	0.50
1:0:1684:G:HO2'	1:0:1685:A:P	2.30	0.50
1:0:1976:U:O2	1:0:1976:U:C2'	2.59	0.50
1:0:459:A:N7	1:0:484:G:C5	2.79	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2771:C:H1'	1:0:2782:G:N2	2.23	0.50
1:0:1767:G:O2'	1:0:1768:U:H5'	2.11	0.50
1:0:67:G:C2	1:0:73:A:C4	3.00	0.50
1:0:2301:A:C4	1:0:2302:G:C8	3.00	0.50
1:0:2324:G:N2	1:0:2361:G:N3	2.59	0.50
1:0:23:G:C6	1:0:24:G:N7	2.79	0.50
1:0:24:G:C2	1:0:25:U:C2	3.00	0.50
1:0:529:U:C2	1:0:530:G:N7	2.80	0.50
1:0:1609:G:H2'	1:0:1610:A:C8	2.47	0.50
1:0:196:A:O2'	1:0:197:G:H5'	2.11	0.50
1:0:126:C:H2'	1:0:127:C:C6	2.47	0.50
1:0:500:G:O5'	1:0:500:G:C8	2.65	0.50
1:0:1061:A:N1	1:0:2731:G:O6	2.44	0.50
1:0:1900:U:H2'	1:0:1901:A:C8	2.47	0.50
1:0:177:U:O2	1:0:178:C:N1	2.45	0.50
1:0:812:G:C6	1:0:813:A:N6	2.80	0.50
1:0:859:U:O2'	1:0:860:U:O5'	2.30	0.50
1:0:976:C:C1'	1:0:2252:A:N3	2.75	0.50
1:0:1624:A:C2'	1:0:1625:A:OP2	2.59	0.50
1:0:322:A:OP1	1:0:343:A:H2	1.95	0.50
1:0:1035:G:OP1	1:0:1037:U:OP1	2.29	0.50
1:0:1309:G:C2'	1:0:1310:C:O5'	2.59	0.50
1:0:649:G:N1	1:0:660:G:N1	2.59	0.50
1:0:2241:U:C4	1:0:2258:G:N1	2.79	0.50
1:0:199:A:N6	1:0:201:G:C4	2.80	0.50
1:0:204:A:H61	1:0:423:G:N2	2.03	0.50
1:0:2426:G:O2'	1:0:2427:A:O5'	2.30	0.50
1:0:2433:G:C6	1:0:2478:C:N4	2.79	0.50
1:0:972:C:H5''	1:0:972:C:C6	2.47	0.50
1:0:941:U:H2'	1:0:942:U:O4'	2.11	0.50
1:0:15:G:H2'	1:0:16:G:H8	1.77	0.50
1:0:2758:A:HO2'	1:0:2759:U:P	2.31	0.50
1:0:2245:A:O2'	1:0:2246:A:OP2	2.22	0.50
1:0:1621:C:H1'	1:0:1626:A:N7	2.26	0.50
1:0:1631:C:O2'	1:0:1632:A:O5'	2.30	0.50
1:0:1696:C:H6	1:0:1697:U:C6	2.29	0.50
1:0:1937:G:O4'	1:0:1937:G:OP2	2.30	0.50
1:0:515:A:C2'	1:0:516:G:H5'	2.41	0.50
1:0:635:C:O2'	1:0:670:U:H5''	2.11	0.50
1:0:1672:A:N7	1:0:1988:A:H2	2.10	0.50
1:0:1882:G:N2	1:0:1885:C:H41	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:54:G:N2	1:0:114:C:C2	2.80	0.50
1:0:762:A:N3	1:0:1634:A:H2'	2.27	0.50
1:0:2363:G:H5''	1:0:2365:U:OP1	2.12	0.50
1:0:1453:A:H2'	1:0:1454:U:H5'	1.93	0.50
1:0:210:A:N6	1:0:442:A:H61	2.09	0.50
1:0:1084:A:H2'	1:0:1085:G:H8	1.76	0.50
1:0:2033:C:C5	1:0:2034:A:N7	2.80	0.50
1:0:2484:G:C1'	3:0:2881:G80:H182	2.42	0.50
1:0:1770:U:H5	1:0:1775:A:N7	2.10	0.50
1:0:1774:A:C2	1:0:2566:A:H2'	2.45	0.50
1:0:2262:C:N3	1:0:2368:G:C2	2.80	0.50
1:0:541:C:C5	1:0:572:G:O4'	2.65	0.50
1:0:18:U:C6	1:0:19:C:C5	2.99	0.50
1:0:538:A:N6	1:0:2025:A:N7	2.60	0.50
1:0:2700:U:H2'	1:0:2701:A:H8	1.77	0.50
1:0:750:C:O2'	1:0:751:G:H5'	2.12	0.50
1:0:73:A:O2'	1:0:74:G:P	2.70	0.50
1:0:1763:G:H2'	1:0:1764:A:C5'	2.41	0.50
1:0:1016:C:H4'	1:0:1023:U:N1	2.26	0.50
1:0:499:G:H1'	1:0:502:A:N6	2.26	0.50
1:0:1137:A:H2'	1:0:1137:A:N3	2.27	0.50
1:0:2338:C:H2'	1:0:2339:A:C8	2.46	0.50
1:0:394:U:H2'	1:0:395:G:C8	2.47	0.50
1:0:1950:C:C2	1:0:1951:G:C8	2.99	0.50
1:0:697:G:C6	1:0:788:G:C8	3.00	0.50
1:0:793:G:N1	1:0:795:A:C2	2.80	0.50
1:0:2814:G:H2'	1:0:2815:C:H6	1.77	0.50
1:0:170:U:H5	1:0:171:G:N7	2.09	0.50
1:0:2038:C:N4	1:0:2479:U:H1'	2.27	0.50
1:0:2542:U:O2	1:0:2545:A:N7	2.44	0.50
1:0:833:A:H2	1:0:834:A:C4	2.30	0.50
1:0:859:U:O2'	1:0:860:U:O4'	2.29	0.50
1:0:18:U:H2'	1:0:19:C:C6	2.43	0.50
1:0:1333:G:N2	1:0:1344:C:H5	2.06	0.50
1:0:1585:A:H2'	1:0:1586:A:C8	2.46	0.50
1:0:459:A:C5	1:0:484:G:C5	3.00	0.50
1:0:321:A:H2'	1:0:323:G:C5	2.45	0.50
1:0:1410:U:H2'	1:0:1410:U:O2	2.11	0.50
1:0:1020:A:N7	1:0:1021:A:N1	2.60	0.50
1:0:1033:G:N2	1:0:1035:G:N2	2.60	0.50
1:0:2397:A:H2'	1:0:2398:U:O4'	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2301:A:H2'	1:0:2302:G:O4'	2.12	0.50
1:0:746:G:C8	1:0:774:A:N1	2.80	0.50
1:0:1541:G:O2'	1:0:1542:G:H5'	2.12	0.50
1:0:388:G:H2'	1:0:389:G:C8	2.47	0.50
1:0:1917:C:H2'	1:0:1918:G:C5'	2.42	0.50
1:0:1917:C:H2'	1:0:1918:G:H5'	1.94	0.50
1:0:1918:G:H4'	1:0:1920:A:C2	2.47	0.50
1:0:2816:C:C2	1:0:2852:G:N2	2.79	0.50
1:0:175:C:H6	1:0:175:C:H3'	1.77	0.50
1:0:2016:A:C6	1:0:2019:C:C5	3.00	0.50
1:0:2262:C:C2	1:0:2368:G:C2	2.99	0.50
1:0:2409:A:H2'	1:0:2410:U:H5'	1.94	0.50
1:0:1479:G:N2	1:0:1543:G:N2	2.52	0.50
1:0:1544:A:C2	1:0:1559:G:N2	2.79	0.50
1:0:1333:G:N2	1:0:1344:C:C5	2.80	0.50
1:0:1981:A:N6	1:0:1982:C:N4	2.60	0.50
1:0:1438:G:H3'	1:0:1439:G:H8	1.76	0.50
1:0:1510:A:O2'	1:0:1511:A:H5'	2.12	0.50
1:0:2782:G:H5''	1:0:2783:U:H5''	1.94	0.50
1:0:1594:U:H2'	1:0:1595:A:H8	1.77	0.50
1:0:2031:A:C2	1:0:2032:G:H1'	2.46	0.50
1:0:2482:A:C5'	1:0:2483:U:OP2	2.60	0.50
1:0:1469:U:OP1	1:0:1470:G:OP2	2.30	0.50
1:0:1188:A:OP2	1:0:1189:G:C6	2.65	0.50
1:0:1578:U:H2'	1:0:1579:G:H8	1.77	0.50
1:0:2658:A:O2'	1:0:2659:C:H5'	2.11	0.50
1:0:206:U:H6	1:0:206:U:OP2	1.94	0.50
1:0:2438:A:N6	1:0:2473:G:C5	2.80	0.49
1:0:971:A:N6	1:0:973:U:C2	2.80	0.49
1:0:1655:C:H5''	1:0:2689:C:O2'	2.11	0.49
1:0:1436:G:N2	1:0:1514:C:H1'	2.19	0.49
1:0:608:G:H2'	1:0:609:U:C6	2.46	0.49
1:0:1801:C:H3'	1:0:1802:A:H5''	1.93	0.49
1:0:1356:G:H1'	1:0:1613:G:C2	2.47	0.49
1:0:403:A:H4'	1:0:404:A:O5'	2.11	0.49
1:0:548:G:C2'	1:0:549:G:H5'	2.42	0.49
1:0:604:U:H2'	1:0:605:G:H8	1.77	0.49
1:0:1845:A:O2'	1:0:1846:A:H5'	2.11	0.49
1:0:1711:C:O2'	1:0:1712:G:OP2	2.27	0.49
1:0:127:C:O2'	1:0:128:C:H5'	2.12	0.49
1:0:1769:U:O2'	1:0:1770:U:H5'	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1772:C:HO2'	1:0:1773:C:P	2.35	0.49
1:0:1918:G:C2'	1:0:1945:C:N4	2.72	0.49
1:0:697:G:O6	1:0:788:G:C8	2.65	0.49
1:0:168:A:H2'	1:0:169:C:C6	2.47	0.49
1:0:171:G:N2	1:0:179:U:H1'	2.27	0.49
1:0:2502:G:C8	1:0:2745:A:N7	2.80	0.49
1:0:1351:G:HO2'	1:0:1352:G:H5'	1.77	0.49
1:0:1645:U:O2	1:0:2677:U:H4'	2.13	0.49
1:0:344:G:C2	1:0:345:U:C6	3.00	0.49
1:0:670:U:H2'	1:0:671:A:C8	2.47	0.49
1:0:1748:U:O4	1:0:1753:A:C2	2.65	0.49
1:0:2066:G:O6	1:0:2216:G:N2	2.45	0.49
1:0:1386:A:H2'	1:0:1387:G:O4'	2.12	0.49
1:0:2296:U:H2'	1:0:2297:G:C8	2.47	0.49
1:0:1904:G:C2'	1:0:1905:G:O4'	2.59	0.49
1:0:216:U:O2'	1:0:217:U:H5'	2.11	0.49
1:0:1969:G:N3	1:0:1970:G:C8	2.80	0.49
1:0:2655:C:H2'	1:0:2656:G:C8	2.46	0.49
1:0:388:G:O2'	1:0:389:G:H5'	2.12	0.49
1:0:1918:G:H1'	1:0:1947:G:N2	2.27	0.49
1:0:171:G:C2'	1:0:172:A:C5'	2.85	0.49
1:0:176:A:N3	1:0:2412:A:C2	2.79	0.49
1:0:2522:G:C8	1:0:2522:G:H5'	2.43	0.49
1:0:541:C:C4	1:0:572:G:O4'	2.66	0.49
1:0:577:U:H5'	1:0:956:A:H62	1.77	0.49
1:0:2761:A:C5'	1:0:2762:G:H5'	2.36	0.49
1:0:537:C:O2'	1:0:538:A:C2	2.65	0.49
1:0:2705:A:C5	1:0:2707:G:N7	2.80	0.49
1:0:2668:U:H5'	1:0:2669:C:H5'	1.94	0.49
1:0:2673:G:O2'	1:0:2674:C:H5'	2.12	0.49
1:0:1221:C:H2'	1:0:1222:G:H8	1.77	0.49
1:0:317:U:H3	1:0:321:A:H62	1.60	0.49
1:0:765:C:O2'	1:0:766:A:H8	1.94	0.49
1:0:1708:C:O2	1:0:1708:C:H2'	2.12	0.49
1:0:83:A:N6	1:0:98:U:H1'	2.22	0.49
1:0:2307:A:H2'	1:0:2308:A:C8	2.46	0.49
1:0:25:U:C4	1:0:26:G:C2	3.01	0.49
1:0:1400:A:C2	1:0:1401:G:C4	3.00	0.49
1:0:1483:G:H2'	1:0:1484:G:C8	2.42	0.49
1:0:1598:C:O2'	1:0:1599:G:H5'	2.12	0.49
1:0:1659:G:H2'	1:0:1660:G:O5'	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:434:C:H2'	1:0:435:A:OP2	2.12	0.49
1:0:2559:U:O2'	1:0:2560:G:H5'	2.12	0.49
1:0:2426:G:C4'	1:0:2427:A:C5'	2.81	0.49
1:0:991:A:C6	1:0:992:A:C2	3.01	0.49
1:0:992:A:C5'	1:0:993:C:OP2	2.54	0.49
1:0:1684:G:O2'	1:0:1685:A:P	2.71	0.49
1:0:2685:A:C2	1:0:2686:C:C2	3.00	0.49
1:0:492:G:C2'	1:0:493:A:OP2	2.59	0.49
1:0:2866:A:H2'	1:0:2867:G:C8	2.47	0.49
1:0:631:G:H4'	1:0:632:A:H5''	1.90	0.49
1:0:672:C:C2'	1:0:673:G:H5'	2.42	0.49
1:0:1007:A:N6	1:0:1171:A:C6	2.79	0.49
1:0:1671:A:C6	1:0:1672:A:N7	2.80	0.49
1:0:352:G:C6	1:0:353:G:N7	2.81	0.49
1:0:2217:G:H2'	1:0:2217:G:N3	2.27	0.49
1:0:155:G:C2'	1:0:156:G:H5'	2.43	0.49
1:0:1312:G:H4'	1:0:1313:U:H5'	1.94	0.49
1:0:1953:A:H2'	1:0:1954:A:OP2	2.12	0.49
1:0:1953:A:N3	1:0:1955:G:C8	2.80	0.49
1:0:2455:A:C2	1:0:2460:G:N2	2.80	0.49
1:0:2030:U:C2'	1:0:2031:A:H5'	2.42	0.49
1:0:2242:C:N4	1:0:2243:C:N4	2.60	0.49
1:0:2557:G:N3	1:0:2558:C:C6	2.81	0.49
1:0:1140:A:C5	1:0:2549:G:O4'	2.65	0.49
1:0:1234:C:H2'	1:0:1235:C:C6	2.47	0.49
1:0:2016:A:N1	1:0:2019:C:C6	2.80	0.49
1:0:2540:A:C2'	1:0:2541:U:O5'	2.60	0.49
1:0:822:G:H2'	1:0:823:U:C6	2.47	0.49
1:0:1681:A:C2	1:0:1682:A:C4	3.00	0.49
1:0:1937:G:H2'	1:0:1939:U:C4	2.47	0.49
1:0:1979:C:H2'	1:0:1980:A:O5'	2.13	0.49
1:0:323:G:H2'	1:0:323:G:N3	2.28	0.49
1:0:1995:G:O5'	1:0:1995:G:H8	1.96	0.49
1:0:1010:U:O2'	1:0:1011:A:H5'	2.13	0.49
1:0:772:G:C4	1:0:773:G:C8	3.01	0.49
1:0:441:A:C8	1:0:442:A:C8	3.00	0.49
1:0:2462:C:C5	1:0:2463:G:C8	3.00	0.49
1:0:500:G:H8	1:0:500:G:OP1	1.95	0.49
1:0:2039:G:H2'	1:0:2040:A:H5'	1.94	0.49
1:0:2041:A:C5'	1:0:2042:A:OP2	2.52	0.49
1:0:790:A:N1	1:0:791:G:C5	2.81	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:824:U:H4'	1:0:1264:C:H1'	1.95	0.49
1:0:174:A:C6	1:0:2409:A:C5	3.01	0.49
1:0:2493:U:O2	1:0:2493:U:C2'	2.59	0.49
1:0:820:U:H2'	1:0:821:A:H8	1.76	0.49
1:0:2725:C:H2'	1:0:2726:U:C5	2.46	0.49
1:0:918:A:H2'	1:0:919:U:C5'	2.14	0.49
1:0:13:A:N3	1:0:15:G:O6	2.46	0.49
1:0:1621:C:C5'	1:0:1626:A:H62	2.25	0.49
1:0:632:A:C3'	1:0:632:A:N3	2.72	0.49
1:0:65:C:O2'	1:0:66:U:H5'	2.12	0.49
1:0:640:C:C4	1:0:641:G:N7	2.80	0.49
1:0:2307:A:N1	1:0:2308:A:C6	2.80	0.49
1:0:1643:A:H1'	1:0:1657:A:H2	1.78	0.49
1:0:2298:U:H4'	1:0:2299:A:N7	2.27	0.49
1:0:2739:G:H2'	1:0:2740:C:H5'	1.94	0.49
1:0:107:G:N2	1:0:108:G:H1'	2.28	0.49
1:0:1139:A:C2'	1:0:1140:A:O5'	2.61	0.49
1:0:177:U:O2	1:0:178:C:O4'	2.30	0.49
1:0:2238:G:H8	1:0:2238:G:H5''	1.78	0.49
1:0:685:U:C4	1:0:822:G:N1	2.80	0.49
1:0:944:A:C2	1:0:945:G:H1'	2.47	0.49
1:0:1466:C:H2'	1:0:1467:U:H5'	1.95	0.49
1:0:2756:A:H8	1:0:2756:A:H3'	1.77	0.49
1:0:2756:A:O2'	1:0:2757:G:OP2	2.30	0.49
1:0:2762:G:H21	1:0:2763:U:H1'	1.78	0.49
1:0:1436:G:C6	1:0:1592:U:O2	2.66	0.49
1:0:2785:A:H61	1:0:2865:G:H1'	1.77	0.49
1:0:2311:U:O2'	1:0:2312:A:OP2	2.29	0.49
1:0:1289:A:N7	1:0:1662:G:N2	2.61	0.49
1:0:2325:A:O2'	1:0:2326:C:P	2.71	0.49
1:0:1815:G:C2'	1:0:1816:G:H5'	2.43	0.49
1:0:986:A:C5	1:0:987:G:C8	3.00	0.49
1:0:810:U:C3'	1:0:810:U:C6	2.96	0.49
1:0:82:G:HO2'	1:0:83:A:P	2.35	0.49
1:0:2594:U:C2	1:0:2595:C:C6	3.01	0.49
1:0:2372:A:H62	1:0:2401:A:H61	1.58	0.49
1:0:2507:U:O2'	1:0:2508:G:H8	1.96	0.49
1:0:2638:G:H8	1:0:2638:G:O5'	1.95	0.49
1:0:2108:G:C2	1:0:2157:C:C4	3.01	0.49
1:0:102:C:H6	1:0:102:C:O5'	1.95	0.49
1:0:2009:U:H6	1:0:2009:U:H5''	1.78	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1922:U:O2'	1:0:2571:G:O4'	2.30	0.49
1:0:2475:C:H2'	1:0:2476:A:O4'	2.12	0.49
1:0:958:G:C4	1:0:959:C:C5	3.00	0.49
1:0:985:G:O4'	1:0:1200:G:N2	2.44	0.49
1:0:940:G:H8	1:0:940:G:O5'	1.95	0.49
1:0:1466:C:O2'	1:0:1467:U:H5'	2.12	0.49
1:0:1476:G:H3'	1:0:1477:C:H6	1.78	0.49
1:0:881:U:H2'	1:0:882:C:H6	1.77	0.49
1:0:2756:A:O2'	1:0:2757:G:O5'	2.30	0.49
1:0:1442:C:C2'	1:0:1443:G:OP1	2.61	0.49
1:0:608:G:O2'	1:0:609:U:H5'	2.13	0.49
1:0:630:G:H5''	1:0:631:G:OP2	2.13	0.49
1:0:633:G:C6	1:0:634:G:C6	3.00	0.49
1:0:335:A:N6	1:0:349:G:O2'	2.46	0.49
1:0:2059:U:OP2	1:0:2217:G:C2	2.65	0.49
1:0:1299:A:N6	1:0:1302:C:N3	2.61	0.49
1:0:1313:U:O2'	1:0:1314:A:OP2	2.28	0.49
1:0:1279:G:N2	1:0:1995:G:H2'	2.28	0.49
1:0:2652:G:N3	1:0:2653:A:C8	2.81	0.49
1:0:24:G:H2'	1:0:25:U:C6	2.47	0.49
1:0:1025:A:C2	1:0:1160:C:C2	3.00	0.49
1:0:2082:C:N4	1:0:2174:G:N1	2.61	0.49
1:0:2721:A:H2'	1:0:2722:C:H5'	1.95	0.49
1:0:212:U:N3	1:0:443:A:H2	2.10	0.49
1:0:1112:U:O5'	1:0:1112:U:H6	1.95	0.49
1:0:2123:G:O2'	1:0:2124:C:H5'	2.12	0.49
1:0:2602:G:O2'	1:0:2603:G:H5'	2.12	0.49
1:0:1205:G:O2'	1:0:1206:G:H5'	2.12	0.49
1:0:227:G:C6	1:0:228:A:C6	3.01	0.49
1:0:2434:G:C5	1:0:2435:C:N4	2.81	0.49
1:0:2435:C:H2'	1:0:2436:U:C6	2.48	0.49
1:0:830:C:HO2'	1:0:831:G:H5'	1.78	0.49
1:0:853:C:C2	1:0:950:G:N1	2.81	0.49
1:0:953:G:C5	1:0:954:U:C4	3.01	0.49
1:0:1631:C:H3'	1:0:1631:C:C6	2.45	0.49
1:0:1979:C:C2'	1:0:1980:A:O5'	2.60	0.49
1:0:2781:G:H2'	1:0:2782:G:O4'	2.12	0.49
1:0:2867:G:H8	1:0:2867:G:OP2	1.95	0.49
1:0:1698:C:H1'	1:0:1754:G:H5''	1.95	0.49
1:0:2824:C:H4'	1:0:2825:A:C5'	2.42	0.49
1:0:1089:C:H5''	1:0:1090:C:OP1	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2354:G:O5'	1:0:2354:G:H8	1.96	0.49
1:0:1648:C:H5'	1:0:1648:C:C6	2.36	0.49
1:0:233:A:O2'	1:0:234:C:H5'	2.13	0.49
1:0:721:C:H2'	1:0:722:C:C6	2.48	0.49
1:0:1177:U:C4	1:0:1196:G:C6	3.00	0.49
1:0:1201:G:N2	1:0:1202:U:H5	2.10	0.49
1:0:169:C:C3'	1:0:170:U:H5'	2.43	0.49
1:0:172:A:C2	1:0:178:C:C2	3.01	0.49
1:0:831:G:H2'	1:0:832:A:H5''	1.95	0.49
1:0:1337:G:C1'	1:0:1632:A:H62	2.25	0.49
1:0:1221:C:C2	1:0:1222:G:C8	3.01	0.49
1:0:1715:A:N3	1:0:1717:A:O4'	2.45	0.49
1:0:143:A:H2'	1:0:144:U:O4'	2.13	0.49
1:0:1301:U:C2	1:0:1340:C:C2	3.00	0.49
1:0:715:U:O2'	1:0:716:U:H5'	2.13	0.49
1:0:545:C:H2'	1:0:546:A:C8	2.48	0.49
1:0:1488:G:HO2'	1:0:1489:C:P	2.36	0.49
1:0:1077:U:N3	1:0:1080:A:OP2	2.43	0.49
1:0:709:A:H2'	1:0:710:C:H6	1.78	0.49
1:0:60:A:C6	1:0:61:U:C4	3.01	0.49
1:0:2565:C:O2	1:0:2566:A:O4'	2.30	0.48
1:0:790:A:N3	1:0:790:A:C2'	2.75	0.48
1:0:764:A:N3	1:0:802:A:C2	2.80	0.48
1:0:1244:U:H2'	1:0:1245:G:H8	1.77	0.48
1:0:2402:U:C4'	1:0:2404:A:N7	2.74	0.48
1:0:2038:C:H42	1:0:2479:U:H1'	1.76	0.48
1:0:2550:C:N4	1:0:2553:G:C8	2.81	0.48
1:0:2726:U:O4	1:0:2736:U:C5	2.66	0.48
1:0:931:G:C2'	1:0:932:G:H5'	2.43	0.48
1:0:761:G:C5	1:0:763:A:C5	3.01	0.48
1:0:237:G:H1'	1:0:632:A:H8	1.77	0.48
1:0:1004:A:C8	1:0:1005:U:H5	2.31	0.48
1:0:2046:C:O2	1:0:2430:A:C2	2.66	0.48
1:0:1664:G:C5'	1:0:1665:C:OP1	2.60	0.48
1:0:1816:G:O2'	1:0:1817:U:H5'	2.12	0.48
1:0:1821:A:H3'	1:0:1822:C:C6	2.48	0.48
1:0:233:A:H2'	1:0:234:C:H6	1.77	0.48
1:0:2134:U:O5'	1:0:2134:U:H6	1.96	0.48
1:0:1401:G:C2'	1:0:1402:G:H5'	2.42	0.48
1:0:11:G:C8	1:0:11:G:O5'	2.66	0.48
1:0:128:C:H2'	1:0:129:A:H5''	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1824:C:O5'	1:0:1824:C:H6	1.96	0.48
1:0:2559:U:C2'	1:0:2560:G:C5'	2.73	0.48
1:0:2235:G:N2	1:0:2254:C:N4	2.61	0.48
1:0:839:U:C2	1:0:841:G:H1'	2.48	0.48
1:0:839:U:N3	1:0:841:G:H1'	2.27	0.48
1:0:994:A:N7	1:0:995:A:C4	2.81	0.48
1:0:2734:U:O2'	1:0:2736:U:OP1	2.29	0.48
1:0:883:A:C2	1:0:884:C:C6	3.01	0.48
1:0:1621:C:C4'	1:0:1626:A:N7	2.76	0.48
1:0:1439:G:N2	1:0:1440:G:N2	2.60	0.48
1:0:590:C:C2	1:0:591:G:C8	3.01	0.48
1:0:755:C:O2'	1:0:756:C:H5'	2.13	0.48
1:0:768:U:C6	1:0:769:C:C5	3.01	0.48
1:0:2200:G:H2'	1:0:2201:G:C8	2.48	0.48
1:0:65:C:H2'	1:0:66:U:C5'	2.43	0.48
1:0:1416:A:H2'	1:0:1417:C:C6	2.47	0.48
1:0:1302:C:H2'	1:0:1303:U:C6	2.48	0.48
1:0:152:G:H2'	1:0:153:A:O4'	2.12	0.48
1:0:1601:U:O2'	1:0:1602:G:C4	2.60	0.48
1:0:2095:G:OP2	1:0:2103:G:H4'	2.13	0.48
1:0:63:A:O2'	1:0:64:C:H5'	2.12	0.48
1:0:2857:C:H5'	1:0:2857:C:C6	2.48	0.48
1:0:176:A:C6	1:0:2413:A:C6	3.01	0.48
1:0:838:A:C2	1:0:839:U:C2	3.01	0.48
1:0:1651:U:H5''	1:0:1652:G:OP2	2.13	0.48
1:0:471:A:C2	1:0:481:A:C5	3.01	0.48
1:0:590:C:C2	1:0:591:G:N7	2.82	0.48
1:0:768:U:C5	1:0:769:C:C5	3.02	0.48
1:0:2781:G:H3'	1:0:2782:G:H8	1.78	0.48
1:0:1174:G:C4	1:0:1175:A:N7	2.81	0.48
1:0:2799:C:H2'	1:0:2800:C:O4'	2.14	0.48
1:0:1032:A:H3'	1:0:1032:A:C8	2.48	0.48
1:0:2363:G:H3'	1:0:2365:U:OP1	2.13	0.48
1:0:2307:A:C6	1:0:2308:A:N6	2.81	0.48
1:0:1904:G:H2'	1:0:1905:G:H8	1.77	0.48
1:0:1965:U:C4	1:0:1966:C:H5	2.30	0.48
1:0:2859:U:O2	1:0:2860:C:O4'	2.32	0.48
1:0:7:G:C4	1:0:8:A:C8	3.02	0.48
1:0:551:A:N1	1:0:562:G:C4	2.82	0.48
1:0:849:G:C5	1:0:850:C:C4	3.01	0.48
1:0:2039:G:C8	1:0:2556:A:C6	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2571:G:N2	1:0:2582:G:C6	2.81	0.48
1:0:804:C:O2'	1:0:805:G:P	2.72	0.48
1:0:807:A:C2	1:0:808:C:N1	2.81	0.48
1:0:2811:G:C5	1:0:2858:A:N1	2.82	0.48
1:0:2236:U:H2'	1:0:2237:C:O4'	2.12	0.48
1:0:229:G:C2	1:0:230:C:C6	3.02	0.48
1:0:2734:U:H2'	1:0:2736:U:OP1	2.13	0.48
1:0:1477:C:O2'	1:0:2681:A:N3	2.39	0.48
1:0:1632:A:O2'	1:0:1633:C:OP2	2.30	0.48
1:0:1980:A:C2	1:0:1981:A:C4	3.01	0.48
1:0:1981:A:C5	1:0:1982:C:C5	3.02	0.48
1:0:2528:G:C2	1:0:2529:G:C8	3.00	0.48
1:0:1391:A:O2'	1:0:1392:U:O5'	2.31	0.48
1:0:1391:A:O2'	1:0:1392:U:OP1	2.31	0.48
1:0:1223:G:N1	1:0:1250:A:N7	2.61	0.48
1:0:357:A:N3	1:0:358:C:H4'	2.27	0.48
1:0:1354:A:O2'	1:0:1355:A:OP1	2.23	0.48
1:0:350:U:O5'	1:0:350:U:H6	1.96	0.48
1:0:2824:C:H1'	1:0:2843:A:N3	2.29	0.48
1:0:1994:U:H2'	1:0:1995:G:H5'	1.95	0.48
1:0:644:A:N3	1:0:2382:C:H4'	2.28	0.48
1:0:644:A:C2'	1:0:645:G:H5'	2.43	0.48
1:0:2543:A:C8	1:0:2627:G:H5'	2.48	0.48
1:0:865:A:H2'	1:0:866:U:C6	2.48	0.48
1:0:473:C:C5	1:0:474:G:N7	2.82	0.48
1:0:2047:C:C5'	1:0:2047:C:H6	2.23	0.48
1:0:841:G:N2	1:0:2226:A:H5'	2.29	0.48
1:0:2427:A:HO2'	1:0:2428:U:P	2.19	0.48
1:0:580:A:H1'	1:0:582:G:C8	2.48	0.48
1:0:852:U:O2'	1:0:1205:G:H1'	2.14	0.48
1:0:1975:G:C5	1:0:1980:A:C6	3.01	0.48
1:0:2671:C:H2'	1:0:2672:U:C6	2.48	0.48
1:0:2692:A:H5'	1:0:2693:U:P	2.54	0.48
1:0:1442:C:N4	1:0:1585:A:C8	2.82	0.48
1:0:1810:U:C2'	1:0:1811:A:OP2	2.62	0.48
1:0:1007:A:N6	1:0:1171:A:N1	2.61	0.48
1:0:2627:G:H2'	1:0:2628:C:O4'	2.12	0.48
1:0:203:G:O2'	1:0:204:A:H5'	2.13	0.48
1:0:312:G:O2'	1:0:313:U:O5'	2.28	0.48
1:0:746:G:C8	1:0:774:A:C6	3.00	0.48
1:0:2655:C:H2'	1:0:2656:G:H8	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2339:A:H2'	1:0:2340:C:O5'	2.13	0.48
1:0:1541:G:H22	1:0:1561:A:H61	1.62	0.48
1:0:726:G:H2'	1:0:727:U:H6	1.78	0.48
1:0:787:A:C6	1:0:788:G:N7	2.81	0.48
1:0:1195:U:O2'	1:0:1196:G:H5'	2.12	0.48
1:0:984:A:H2	1:0:1200:G:H1	1.62	0.48
1:0:2225:G:C4	1:0:2405:A:N3	2.81	0.48
1:0:676:G:C6	1:0:677:G:C5	3.01	0.48
1:0:822:G:C2'	1:0:823:U:H5'	2.44	0.48
1:0:846:A:N7	1:0:847:C:C4	2.81	0.48
1:0:918:A:C3'	1:0:919:U:H5''	2.42	0.48
1:0:2617:G:C6	1:0:2755:A:C6	3.01	0.48
1:0:879:A:H61	1:0:926:C:H42	1.61	0.48
1:0:1683:G:C2'	1:0:1684:G:H5'	2.43	0.48
1:0:767:G:O2'	1:0:768:U:H5'	2.14	0.48
1:0:1618:U:C3'	1:0:1618:U:C6	2.97	0.48
1:0:1904:G:H2'	1:0:1905:G:C8	2.48	0.48
1:0:1886:G:N3	1:0:1887:G:C8	2.82	0.48
1:0:435:A:C6	1:0:436:A:C6	3.02	0.48
1:0:550:C:N4	1:0:551:A:H62	2.12	0.48
1:0:1186:G:H2'	1:0:1187:A:O4'	2.13	0.48
1:0:500:G:H8	1:0:500:G:O5'	1.96	0.48
1:0:39:C:H2'	1:0:40:U:C6	2.49	0.48
1:0:554:U:H2'	1:0:554:U:O2	2.13	0.48
1:0:788:G:HO2'	1:0:807:A:H8	1.59	0.48
1:0:790:A:C2	1:0:791:G:C8	3.01	0.48
1:0:1240:G:O2'	1:0:1241:G:H5'	2.13	0.48
1:0:2426:G:O2'	1:0:2427:A:OP2	2.30	0.48
1:0:2437:G:O6	1:0:2469:G:H2'	2.13	0.48
1:0:682:G:C2'	1:0:682:G:N3	2.75	0.48
1:0:1564:U:H2'	1:0:1565:G:H8	1.78	0.48
1:0:2024:U:O4	1:0:2025:A:N6	2.47	0.48
1:0:1440:G:C3'	1:0:1441:A:H5''	2.43	0.48
1:0:1581:C:H2'	1:0:1582:A:O5'	2.13	0.48
1:0:780:U:H2'	1:0:781:G:H8	1.79	0.48
1:0:1417:C:O2'	1:0:1418:C:H5'	2.14	0.48
1:0:49:U:C2'	1:0:50:G:OP1	2.62	0.48
1:0:1309:G:N2	1:0:1662:G:C4	2.82	0.48
1:0:2270:U:O4	1:0:2271:C:N4	2.46	0.48
1:0:2259:G:O2'	1:0:2260:C:H5'	2.12	0.48
1:0:367:G:C3'	1:0:368:A:H5''	2.43	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2513:A:C6	1:0:2514:G:C8	3.01	0.48
1:0:2280:A:H2'	1:0:2281:C:H6	1.76	0.48
1:0:134:G:H2'	1:0:135:U:C5'	2.41	0.48
1:0:1657:A:C2'	1:0:1658:A:H5'	2.44	0.48
1:0:432:C:O2'	1:0:433:G:H5'	2.13	0.48
1:0:1066:G:H2'	1:0:1097:A:N1	2.29	0.48
1:0:1066:G:H3'	1:0:1067:G:H4'	1.96	0.48
1:0:790:A:C2	1:0:791:G:N9	2.81	0.48
1:0:973:U:H2'	1:0:974:U:C6	2.40	0.48
1:0:982:C:OP2	1:0:985:G:C2	2.67	0.48
1:0:941:U:O2'	1:0:942:U:H5'	2.14	0.48
1:0:885:A:C2	1:0:918:A:C4	3.02	0.48
1:0:2762:G:N2	1:0:2763:U:C1'	2.76	0.48
1:0:873:U:C2	1:0:2246:A:O3'	2.67	0.48
1:0:874:A:C2	1:0:875:G:C1'	2.96	0.48
1:0:1337:G:C6	1:0:1341:G:C6	3.02	0.48
1:0:1439:G:O3'	1:0:1440:G:O4'	2.31	0.48
1:0:486:U:O2'	1:0:515:A:N3	2.42	0.48
1:0:1745:C:C5	1:0:1746:A:N7	2.82	0.48
1:0:1007:A:O2'	1:0:1008:G:H5'	2.13	0.48
1:0:1672:A:C6	1:0:1673:C:C2	3.02	0.48
1:0:1358:C:P	1:0:1358:C:H6	2.36	0.48
1:0:2321:C:O2'	1:0:2353:G:H5''	2.13	0.48
1:0:1834:G:C2	1:0:1835:C:C2	3.01	0.48
1:0:1200:G:H2'	1:0:1201:G:O4'	2.14	0.48
1:0:2225:G:C4	1:0:2405:A:C2	3.02	0.48
1:0:14:A:C2	1:0:536:A:C2	3.02	0.48
1:0:929:A:C5	1:0:930:A:N3	2.82	0.48
1:0:760:U:C2'	1:0:761:G:OP2	2.61	0.48
1:0:2782:G:C5'	1:0:2783:U:H5''	2.44	0.48
1:0:618:A:H2'	1:0:619:A:O4'	2.13	0.48
1:0:87:G:H2'	1:0:87:G:N3	2.29	0.48
1:0:352:G:O2'	1:0:353:G:H5'	2.13	0.48
1:0:2059:U:P	1:0:2217:G:H22	2.35	0.48
1:0:651:C:C2'	1:0:652:C:H5''	2.43	0.48
1:0:428:A:N1	1:0:2388:G:C6	2.82	0.48
1:0:525:A:C8	1:0:526:C:C6	3.02	0.48
1:0:202:A:H2'	1:0:203:G:O4'	2.14	0.48
1:0:1836:C:H2'	1:0:1837:G:O4'	2.14	0.48
1:0:1380:C:H2'	1:0:1381:G:C5'	2.44	0.48
1:0:1548:U:C4	1:0:1549:C:N4	2.82	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2318:U:H2'	1:0:2319:G:H8	1.78	0.48
1:0:184:A:N7	1:0:185:C:C4	2.82	0.48
1:0:2016:A:H2'	1:0:2018:G:OP2	2.13	0.48
1:0:224:G:C4'	1:0:399:G:C6	2.96	0.48
1:0:2544:A:C5	1:0:2545:A:C2	3.02	0.48
1:0:1543:G:H2'	1:0:1544:A:H5'	1.95	0.48
1:0:1629:G:C2	1:0:1633:C:C2	3.01	0.48
1:0:1631:C:C6	1:0:1631:C:C3'	2.97	0.48
1:0:2666:U:C5	1:0:2667:C:C4	3.01	0.48
1:0:67:G:N2	1:0:73:A:C4	2.82	0.48
1:0:2082:C:N4	1:0:2174:G:H1	2.12	0.48
1:0:2504:G:C2	1:0:2518:C:C2	3.02	0.48
1:0:2636:A:H62	1:0:2643:G:H21	1.61	0.48
1:0:1454:U:O2'	1:0:1455:C:H5'	2.13	0.48
1:0:2070:G:O5'	1:0:2070:G:H8	1.97	0.48
1:0:1657:A:H2'	1:0:1658:A:H5'	1.96	0.48
1:0:1774:A:C2	1:0:2566:A:N9	2.82	0.47
1:0:700:C:O2	1:0:801:A:O5'	2.32	0.47
1:0:790:A:C2	1:0:791:G:C4	3.02	0.47
1:0:1234:C:H2'	1:0:1235:C:H6	1.77	0.47
1:0:586:G:N2	1:0:587:A:C2	2.82	0.47
1:0:2728:A:C8	1:0:2729:A:C8	3.02	0.47
1:0:1514:C:C4'	1:0:1593:C:H5'	2.44	0.47
1:0:1714:A:N6	1:0:1715:A:C6	2.82	0.47
1:0:1354:A:C2	1:0:1411:C:H4'	2.49	0.47
1:0:1353:A:N3	1:0:1618:U:O4	2.47	0.47
1:0:2276:C:C2'	1:0:2277:A:H5'	2.44	0.47
1:0:1427:G:H2'	1:0:1428:G:O4'	2.14	0.47
1:0:1427:G:OP2	1:0:1428:G:C6	2.67	0.47
1:0:1542:G:N2	1:0:1561:A:H62	2.12	0.47
1:0:2092:U:H6	1:0:2092:U:O5'	1.97	0.47
1:0:2817:A:N1	1:0:2851:G:C5	2.82	0.47
1:0:33:C:O2	1:0:34:U:C6	2.66	0.47
1:0:1505:U:O2	1:0:1505:U:H2'	2.12	0.47
1:0:1060:C:O2	1:0:1060:C:H2'	2.14	0.47
1:0:700:C:C5	1:0:701:U:C4	3.02	0.47
1:0:1214:C:O2	1:0:1259:A:C2	2.67	0.47
1:0:192:G:H1'	1:0:193:A:C4'	2.32	0.47
1:0:2434:G:C6	1:0:2435:C:N4	2.82	0.47
1:0:2494:C:H1'	1:0:2549:G:N2	2.29	0.47
1:0:941:U:O2	1:0:942:U:N1	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2729:A:N6	1:0:2730:A:N6	2.63	0.47
1:0:1631:C:C5	1:0:1633:C:C2	3.01	0.47
1:0:2668:U:O2	1:0:2693:U:O4'	2.32	0.47
1:0:357:A:N3	1:0:357:A:H2'	2.29	0.47
1:0:1011:A:C8	1:0:1165:G:N2	2.82	0.47
1:0:2071:G:H2'	1:0:2072:C:H6	1.79	0.47
1:0:2608:A:O2'	1:0:2609:G:C5'	2.61	0.47
1:0:145:C:N3	1:0:153:A:C2	2.82	0.47
1:0:731:A:H5'	1:0:732:G:OP2	2.14	0.47
1:0:1260:A:C6	1:0:1262:U:C1'	2.95	0.47
1:0:2014:A:C6	1:0:2477:C:H1'	2.49	0.47
1:0:2410:U:P	1:0:2411:A:OP2	2.72	0.47
1:0:832:A:C2'	1:0:833:A:H8	2.12	0.47
1:0:846:A:N6	1:0:847:C:N4	2.62	0.47
1:0:1474:A:O2'	1:0:1475:U:C5'	2.60	0.47
1:0:1937:G:H8	1:0:1937:G:OP2	1.97	0.47
1:0:1226:A:C1'	1:0:1250:A:H2	2.26	0.47
1:0:2781:G:C3'	1:0:2782:G:H8	2.28	0.47
1:0:1004:A:N7	1:0:1005:U:H5	2.12	0.47
1:0:2794:G:H3'	1:0:2796:A:H62	1.79	0.47
1:0:987:G:H5'	1:0:1167:A:N6	2.30	0.47
1:0:328:A:H2'	1:0:329:C:H6	1.79	0.47
1:0:548:G:H2'	1:0:549:G:H5'	1.96	0.47
1:0:778:G:H2'	1:0:779:U:C6	2.41	0.47
1:0:1779:C:H2'	1:0:1779:C:O2	2.14	0.47
1:0:1847:G:O2'	1:0:1848:U:H5'	2.13	0.47
1:0:2557:G:N3	1:0:2558:C:C5	2.83	0.47
1:0:1770:U:O2	1:0:1774:A:C5	2.68	0.47
1:0:764:A:C2	1:0:802:A:N3	2.81	0.47
1:0:1261:G:C2'	1:0:1262:U:OP1	2.62	0.47
1:0:192:G:H4'	1:0:193:A:O5'	2.15	0.47
1:0:571:U:C5	1:0:2019:C:O4'	2.66	0.47
1:0:2234:G:C2'	1:0:2235:G:H5'	2.44	0.47
1:0:2261:G:C4'	1:0:2262:C:OP2	2.57	0.47
1:0:584:A:O2'	1:0:585:U:H5'	2.14	0.47
1:0:836:G:H8	1:0:836:G:O5'	1.97	0.47
1:0:984:A:N3	1:0:984:A:H2'	2.29	0.47
1:0:2529:G:C6	1:0:2530:C:C4	3.03	0.47
1:0:460:U:H3	1:0:591:G:N2	2.13	0.47
1:0:758:G:N2	1:0:766:A:C6	2.82	0.47
1:0:621:U:H2'	1:0:622:U:C6	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1006:C:H5'	1:0:1007:A:OP1	2.14	0.47
1:0:1169:C:H2'	1:0:1170:U:H5'	1.95	0.47
1:0:121:G:H2'	1:0:122:G:H5'	1.96	0.47
1:0:2044:G:O2'	1:0:2045:A:O5'	2.31	0.47
1:0:1927:U:HO2'	1:0:1928:G:P	2.37	0.47
1:0:525:A:C2'	1:0:526:C:H5'	2.45	0.47
1:0:2838:U:H2'	1:0:2839:G:C8	2.45	0.47
1:0:2161:C:O2'	1:0:2162:C:P	2.72	0.47
1:0:1423:A:H8	1:0:1423:A:O5'	1.98	0.47
1:0:2614:A:C2	1:0:2615:U:H1'	2.50	0.47
1:0:1469:U:OP2	1:0:1471:G:OP2	2.32	0.47
1:0:1447:U:H1'	1:0:1577:G:N2	2.30	0.47
1:0:2486:C:C2	1:0:2562:G:C2	3.03	0.47
1:0:1209:G:O2'	1:0:1210:C:H5'	2.14	0.47
1:0:2225:G:C8	1:0:2405:A:C2	3.02	0.47
1:0:819:C:N3	1:0:820:U:C5	2.82	0.47
1:0:2007:G:C2	1:0:2023:C:C2	3.02	0.47
1:0:2616:U:H5	1:0:2617:G:C5	2.32	0.47
1:0:1939:U:H1'	1:0:2531:U:OP1	2.15	0.47
1:0:2684:A:C5	1:0:2685:A:C8	3.02	0.47
1:0:765:C:O2	1:0:766:A:N7	2.47	0.47
1:0:765:C:H2'	1:0:766:A:OP2	2.15	0.47
1:0:668:A:O2'	1:0:669:G:O4'	2.27	0.47
1:0:1830:C:H4'	1:0:1831:G:H8	1.80	0.47
1:0:1353:A:O2'	1:0:1354:A:OP2	2.30	0.47
1:0:1498:G:O2'	1:0:1499:A:H5'	2.14	0.47
1:0:1500:U:O2'	1:0:1501:C:H5'	2.14	0.47
1:0:105:G:C2'	1:0:106:G:C5'	2.88	0.47
1:0:1720:G:O2'	1:0:1721:G:H5'	2.15	0.47
1:0:2248:A:C6	1:0:2249:U:C4	3.03	0.47
1:0:2565:C:H2'	1:0:2566:A:O5'	2.13	0.47
1:0:192:G:O2'	1:0:193:A:H5''	2.14	0.47
1:0:992:A:N3	1:0:2020:G:H1'	2.30	0.47
1:0:2496:C:C5	1:0:2521:A:C5	3.03	0.47
1:0:677:G:H2'	1:0:678:G:H8	1.78	0.47
1:0:831:G:O2'	1:0:832:A:H5''	2.14	0.47
1:0:846:A:C5	1:0:847:C:C4	3.02	0.47
1:0:834:A:C8	1:0:957:G:C8	3.03	0.47
1:0:959:C:H2'	1:0:960:U:H6	1.76	0.47
1:0:2620:G:C2	1:0:2621:G:C8	3.03	0.47
1:0:976:C:H5'	1:0:2252:A:C1'	2.43	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1631:C:O2'	1:0:1632:A:OP1	2.30	0.47
1:0:2686:C:H2'	1:0:2687:G:H8	1.80	0.47
1:0:667:U:H2'	1:0:668:A:O5'	2.15	0.47
1:0:309:G:N2	1:0:352:G:C6	2.82	0.47
1:0:2301:A:C2	1:0:2302:G:H1'	2.50	0.47
1:0:647:G:O2'	1:0:649:G:H4'	2.14	0.47
1:0:2870:C:H2'	1:0:2871:U:C6	2.50	0.47
1:0:746:G:N7	1:0:774:A:C5	2.83	0.47
1:0:2096:U:H5	1:0:2104:G:O3'	1.97	0.47
1:0:2441:U:H2'	1:0:2442:C:O4'	2.15	0.47
1:0:1447:U:H1'	1:0:1577:G:C2	2.50	0.47
1:0:2560:G:H2'	1:0:2561:G:OP2	2.13	0.47
1:0:474:G:N2	1:0:477:A:OP2	2.48	0.47
1:0:843:G:C4	1:0:2427:A:C6	3.03	0.47
1:0:831:G:H1'	1:0:1204:G:N2	2.30	0.47
1:0:168:A:O2'	1:0:169:C:O4'	2.31	0.47
1:0:2021:G:C6	1:0:2022:C:C4	3.02	0.47
1:0:2476:A:O2'	1:0:2477:C:C6	2.64	0.47
1:0:825:C:N3	1:0:826:U:C5	2.83	0.47
1:0:836:G:O2'	1:0:837:U:H5'	2.13	0.47
1:0:940:G:C8	1:0:941:U:O4'	2.68	0.47
1:0:539:A:C6	1:0:2025:A:C2	3.02	0.47
1:0:2756:A:C8	1:0:2756:A:H3'	2.50	0.47
1:0:2026:C:C6	1:0:2757:G:H1'	2.49	0.47
1:0:964:A:H2'	1:0:965:G:H8	1.80	0.47
1:0:922:A:C2	1:0:923:A:C4	3.03	0.47
1:0:1620:C:O2'	1:0:1621:C:H5'	2.14	0.47
1:0:1933:G:C8	1:0:1934:U:C5	3.02	0.47
1:0:2695:C:H2'	1:0:2696:A:O4'	2.14	0.47
1:0:2701:A:O2'	1:0:2702:G:H5'	2.14	0.47
1:0:1810:U:O2'	1:0:1811:A:H8	1.97	0.47
1:0:741:G:O2'	1:0:742:G:OP1	2.32	0.47
1:0:358:C:O2'	1:0:359:G:H8	1.98	0.47
1:0:1005:U:H6	1:0:1005:U:H5'	1.80	0.47
1:0:68:C:O2	1:0:69:G:C8	2.68	0.47
1:0:2794:G:C8	1:0:2796:A:N6	2.83	0.47
1:0:1411:C:O2'	1:0:1412:C:H5'	2.14	0.47
1:0:1030:U:O2	1:0:1155:G:N2	2.47	0.47
1:0:122:G:N2	1:0:124:A:O3'	2.48	0.47
1:0:2044:G:HO2'	1:0:2045:A:H8	1.61	0.47
1:0:1299:A:C5	1:0:1302:C:C4	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:84:G:O2'	1:0:85:C:H5'	2.14	0.47
1:0:2307:A:C6	1:0:2308:A:C6	3.01	0.47
1:0:2839:G:C4	1:0:2840:U:C5	3.03	0.47
1:0:2174:G:O2'	1:0:2175:A:H5'	2.15	0.47
1:0:219:G:HO2'	1:0:220:U:P	2.35	0.47
1:0:2194:A:C3'	1:0:2195:C:H5''	2.44	0.47
1:0:2222:U:O2	1:0:2223:U:C6	2.67	0.47
1:0:1965:U:C4	1:0:1966:C:C5	3.03	0.47
1:0:498:C:C6	1:0:499:G:N7	2.83	0.47
1:0:198:A:C1'	1:0:210:A:H1'	2.44	0.47
1:0:1658:A:N6	1:0:1659:G:C2	2.83	0.47
1:0:300:C:H2'	1:0:301:C:C6	2.48	0.47
1:0:848:A:C6	1:0:849:G:C5	3.03	0.47
1:0:1949:A:N3	1:0:2572:U:O4'	2.48	0.47
1:0:588:G:C2	1:0:1275:A:C5	3.02	0.47
1:0:2476:A:O2'	1:0:2477:C:C5	2.63	0.47
1:0:575:U:H4'	1:0:822:G:OP2	2.15	0.47
1:0:968:C:C4	1:0:2438:A:OP1	2.68	0.47
1:0:939:C:N3	1:0:940:G:O6	2.47	0.47
1:0:1627:C:C2	1:0:1628:C:C5	3.03	0.47
1:0:1438:G:H2'	1:0:1439:G:O4'	2.14	0.47
1:0:1223:G:N1	1:0:1250:A:C5	2.83	0.47
1:0:507:A:H2'	1:0:508:G:O4'	2.14	0.47
1:0:613:A:C6	1:0:636:G:C6	3.02	0.47
1:0:1800:A:H1'	1:0:1802:A:N1	2.30	0.47
1:0:2797:G:H2'	1:0:2798:A:H5''	1.96	0.47
1:0:1330:G:H2'	1:0:1331:G:O5'	2.15	0.47
1:0:1339:U:C4	1:0:1340:C:C5	3.03	0.47
1:0:2265:A:H2'	1:0:2266:A:OP2	2.14	0.47
1:0:2359:U:H6	1:0:2359:U:O5'	1.96	0.47
1:0:1919:A:C2	1:0:1928:G:C8	3.03	0.47
1:0:2307:A:N6	1:0:2308:A:N6	2.63	0.47
1:0:222:G:H2'	1:0:223:C:H6	1.80	0.47
1:0:1216:G:C6	1:0:1217:U:C4	3.03	0.47
1:0:1217:U:H2'	1:0:1218:C:C6	2.50	0.47
1:0:1469:U:H5''	1:0:1470:G:C8	2.50	0.47
1:0:6:A:C2	1:0:7:G:C4	3.02	0.47
1:0:2091:C:H3'	1:0:2092:U:H6	1.79	0.47
1:0:1228:G:C6	1:0:1229:C:N3	2.82	0.47
1:0:1772:C:O2'	1:0:1773:C:H5'	2.14	0.47
1:0:1895:A:H3'	1:0:1896:A:H8	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:697:G:N1	1:0:788:G:C4	2.83	0.47
1:0:2802:C:H2'	1:0:2803:C:H6	1.79	0.47
1:0:539:A:N3	1:0:540:G:C6	2.83	0.47
1:0:2531:U:C6	1:0:2533:U:OP2	2.68	0.47
1:0:2696:A:H2'	1:0:2697:G:H8	1.80	0.47
1:0:759:C:C5	1:0:2591:C:O5'	2.68	0.47
1:0:2198:U:H3'	1:0:2199:C:H5''	1.97	0.47
1:0:2216:G:O5'	1:0:2216:G:H8	1.98	0.47
1:0:1825:C:C4	1:0:1826:U:H5	2.33	0.47
1:0:2204:A:H4'	1:0:2205:C:C6	2.50	0.47
1:0:2713:A:C4	1:0:2714:A:C8	3.02	0.47
1:0:2642:G:H2'	1:0:2643:G:O4'	2.15	0.47
1:0:2104:G:C2'	1:0:2105:U:H5'	2.45	0.47
1:0:600:G:C6	1:0:602:C:C4	3.03	0.47
1:0:2074:U:C4	1:0:2075:U:H5	2.33	0.47
1:0:1067:G:O6	1:0:1112:U:P	2.73	0.47
1:0:188:G:N2	1:0:189:A:C4	2.83	0.47
1:0:2431:C:O2'	1:0:2432:A:C5'	2.60	0.47
1:0:677:G:O3'	1:0:952:A:OP1	2.32	0.47
1:0:2762:G:C2	1:0:2763:U:N1	2.83	0.47
1:0:1337:G:H1'	1:0:1632:A:H61	1.74	0.47
1:0:1685:A:N1	1:0:1976:U:C6	2.83	0.47
1:0:1939:U:H2'	1:0:1939:U:O2	2.15	0.47
1:0:780:U:H2'	1:0:781:G:C8	2.50	0.47
1:0:611:C:H2'	1:0:612:G:H5'	1.96	0.47
1:0:1172:U:O2	1:0:1173:G:C8	2.68	0.47
1:0:1328:C:N4	1:0:1329:U:O4	2.48	0.47
1:0:810:U:H3'	1:0:810:U:H6	1.80	0.47
1:0:2543:A:OP1	1:0:2627:G:H4'	2.15	0.47
1:0:2221:G:C6	1:0:2222:U:C4	3.03	0.47
1:0:2221:G:C5	1:0:2222:U:C5	3.02	0.47
1:0:2516:U:C2	1:0:2517:C:C5	3.03	0.47
1:0:2032:G:N2	1:0:2599:U:N3	2.63	0.47
1:0:1077:U:O2	1:0:1079:G:C8	2.68	0.47
1:0:1530:U:H6	1:0:1530:U:O5'	1.97	0.47
1:0:2793:G:N3	1:0:2804:G:C2	2.83	0.46
1:0:2048:C:O2'	1:0:2049:C:H5'	2.15	0.46
1:0:2494:C:C2	1:0:2549:G:N1	2.84	0.46
1:0:573:C:H6	1:0:573:C:H3'	1.80	0.46
1:0:682:G:C4	1:0:814:G:C6	3.03	0.46
1:0:940:G:N7	1:0:941:U:C6	2.82	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:940:G:N7	1:0:941:U:O4'	2.48	0.46
1:0:15:G:C5	1:0:16:G:N7	2.84	0.46
1:0:2006:G:N2	1:0:2024:U:C2	2.82	0.46
1:0:2616:U:C4	1:0:2617:G:C2	3.03	0.46
1:0:2619:G:C6	1:0:2755:A:C2	3.03	0.46
1:0:110:U:C5	1:0:111:G:C4	3.03	0.46
1:0:2245:A:N3	1:0:2251:U:H5	2.12	0.46
1:0:1629:G:C4	1:0:1633:C:C4	3.03	0.46
1:0:1653:C:H2'	1:0:1654:A:H8	1.79	0.46
1:0:482:A:H2'	1:0:483:A:H5'	1.95	0.46
1:0:332:C:O2'	1:0:333:A:OP1	2.25	0.46
1:0:353:G:O2'	1:0:354:C:H5'	2.15	0.46
1:0:353:G:H2'	1:0:354:C:O4'	2.15	0.46
1:0:53:G:C6	1:0:115:G:N2	2.83	0.46
1:0:2072:C:H2'	1:0:2072:C:O2	2.15	0.46
1:0:195:A:C8	1:0:196:A:N7	2.84	0.46
1:0:441:A:C2'	1:0:442:A:C5'	2.93	0.46
1:0:1656:U:H2'	1:0:1657:A:H5''	1.97	0.46
1:0:2597:G:C6	1:0:2598:C:C4	3.03	0.46
1:0:698:A:H4'	1:0:700:C:H5	1.80	0.46
1:0:1139:A:C5	1:0:1140:A:H2	2.33	0.46
1:0:1202:U:C2'	1:0:1203:A:H8	2.11	0.46
1:0:188:G:C2	1:0:189:A:C5	3.03	0.46
1:0:2225:G:C5	1:0:2405:A:C2	3.04	0.46
1:0:972:C:H5''	1:0:972:C:H6	1.80	0.46
1:0:2705:A:N3	1:0:2706:U:H2'	2.31	0.46
1:0:1327:C:O2	1:0:1352:G:N2	2.48	0.46
1:0:334:G:C2	1:0:344:G:H1'	2.51	0.46
1:0:1032:A:H5'	1:0:1033:G:OP2	2.14	0.46
1:0:1329:U:C2	1:0:1330:G:N7	2.84	0.46
1:0:1299:A:N6	1:0:1302:C:C2	2.82	0.46
1:0:2269:G:H2'	1:0:2270:U:O4'	2.15	0.46
1:0:651:C:N4	1:0:658:G:H1	2.10	0.46
1:0:739:G:O2'	1:0:740:A:P	2.72	0.46
1:0:2636:A:C2'	1:0:2637:C:H5'	2.45	0.46
1:0:239:A:C2	1:0:443:A:N3	2.84	0.46
1:0:242:A:H2'	1:0:243:G:OP2	2.16	0.46
1:0:441:A:H8	1:0:442:A:C8	2.33	0.46
1:0:152:G:O2'	1:0:153:A:H5'	2.15	0.46
1:0:2875:C:H2'	1:0:2876:C:C6	2.49	0.46
1:0:304:A:H2'	1:0:305:A:H5''	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2419:C:C2'	1:0:2420:C:OP1	2.62	0.46
1:0:478:G:C4	1:0:479:G:C8	3.03	0.46
1:0:577:U:C5'	1:0:956:A:N6	2.78	0.46
1:0:851:C:H2'	1:0:852:U:H6	1.77	0.46
1:0:1479:G:H21	1:0:1543:G:N2	2.08	0.46
1:0:2762:G:O2'	1:0:2763:U:H5'	2.16	0.46
1:0:1629:G:C6	1:0:1635:G:O6	2.68	0.46
1:0:1631:C:H5	1:0:1633:C:C2	2.33	0.46
1:0:1683:G:O2'	1:0:1684:G:H5'	2.15	0.46
1:0:1441:A:N3	1:0:1441:A:H2'	2.31	0.46
1:0:615:C:H1'	1:0:634:G:N2	2.31	0.46
1:0:1670:G:P	1:0:2797:G:H22	2.37	0.46
1:0:1020:A:N6	1:0:1021:A:N1	2.63	0.46
1:0:1033:G:O2'	1:0:1034:U:O5'	2.30	0.46
1:0:309:G:C2	1:0:350:U:H5	2.32	0.46
1:0:427:C:H4'	1:0:1861:G:H22	1.80	0.46
1:0:24:G:N1	1:0:25:U:C2	2.84	0.46
1:0:498:C:C4	1:0:499:G:C5	3.04	0.46
1:0:1548:U:H2'	1:0:1549:C:H5	1.80	0.46
1:0:107:G:C2	1:0:108:G:H1'	2.50	0.46
1:0:88:G:C6	1:0:89:A:C8	3.03	0.46
1:0:1515:U:H2'	1:0:1516:A:O4'	2.16	0.46
1:0:2237:C:C5	1:0:2405:A:H5'	2.51	0.46
1:0:826:U:O2	1:0:827:C:C2	2.69	0.46
1:0:931:G:H2'	1:0:932:G:C5'	2.45	0.46
1:0:1678:G:C6	1:0:1983:G:C6	3.04	0.46
1:0:1689:U:O4	1:0:1690:U:O4	2.33	0.46
1:0:1938:U:O3'	1:0:1939:U:H6	1.98	0.46
1:0:1978:U:H3	1:0:1979:C:N4	2.12	0.46
1:0:1434:U:H2'	1:0:1435:G:H8	1.79	0.46
1:0:1763:G:H2'	1:0:1764:A:H5'	1.96	0.46
1:0:49:U:H2'	1:0:50:G:OP1	2.15	0.46
1:0:1301:U:HO2'	1:0:1664:G:H22	1.62	0.46
1:0:1257:U:H2'	1:0:1258:G:C8	2.45	0.46
1:0:2559:U:C3'	1:0:2560:G:H5'	2.44	0.46
1:0:1917:C:C2'	1:0:1918:G:H5'	2.46	0.46
1:0:1213:U:N3	1:0:1260:A:C2	2.83	0.46
1:0:2496:C:C2'	1:0:2497:A:O5'	2.64	0.46
1:0:859:U:H6	1:0:859:U:H3'	1.80	0.46
1:0:1693:A:O2'	1:0:1694:A:H5'	2.16	0.46
1:0:2667:C:N4	1:0:2699:G:H3'	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1225:G:O2'	1:0:1250:A:C2	2.68	0.46
1:0:1789:U:H2'	1:0:1790:G:H5'	1.97	0.46
1:0:1794:A:N6	1:0:1814:G:HO2'	2.14	0.46
1:0:608:G:C6	1:0:673:G:C6	3.04	0.46
1:0:1496:G:N2	1:0:1528:C:C2	2.84	0.46
1:0:644:A:C3'	1:0:645:G:H5'	2.46	0.46
1:0:311:A:C1'	1:0:330:C:H1'	2.46	0.46
1:0:1761:G:C8	1:0:1762:C:C5	3.03	0.46
1:0:946:U:C2	1:0:947:C:C6	3.04	0.46
1:0:197:G:H1'	1:0:210:A:C2	2.50	0.46
1:0:2212:U:H2'	1:0:2213:G:C8	2.50	0.46
1:0:1727:C:H2'	1:0:1728:A:H8	1.80	0.46
1:0:2773:G:H2'	1:0:2774:U:C6	2.51	0.46
1:0:2556:A:C2	1:0:2593:A:C2	2.92	0.46
1:0:2559:U:H6	1:0:2559:U:O5'	1.99	0.46
1:0:1920:A:OP2	1:0:1920:A:H3'	2.16	0.46
1:0:698:A:C2'	1:0:699:G:OP2	2.63	0.46
1:0:188:G:N1	1:0:189:A:C5	2.84	0.46
1:0:2016:A:N6	1:0:2019:C:C2	2.83	0.46
1:0:2422:C:N3	1:0:2423:G:N7	2.64	0.46
1:0:2498:U:O4	1:0:2520:A:H2'	2.16	0.46
1:0:541:C:H5''	1:0:542:A:C8	2.51	0.46
1:0:822:G:H2'	1:0:823:U:H6	1.81	0.46
1:0:956:A:C5	1:0:2427:A:C2	3.03	0.46
1:0:1142:G:C2	1:0:1143:A:C5	3.04	0.46
1:0:2619:G:C6	1:0:2755:A:N1	2.84	0.46
1:0:1683:G:H2'	1:0:1684:G:C5'	2.46	0.46
1:0:1976:U:C2	1:0:1977:C:C6	3.04	0.46
1:0:318:G:C2	1:0:341:A:N6	2.83	0.46
1:0:749:C:O5'	1:0:749:C:H6	1.98	0.46
1:0:1790:G:N3	1:0:1811:A:N7	2.64	0.46
1:0:1374:G:C2	1:0:1375:C:C6	3.04	0.46
1:0:1037:U:H3'	1:0:1037:U:C6	2.50	0.46
1:0:639:G:H2'	1:0:640:C:H6	1.78	0.46
1:0:2628:C:C2	1:0:2629:U:C5	3.03	0.46
1:0:715:U:H2'	1:0:716:U:H6	1.81	0.46
1:0:1950:C:C2'	1:0:1951:G:O5'	2.64	0.46
1:0:2474:G:C2'	1:0:2475:C:H5'	2.46	0.46
1:0:2661:G:O2'	1:0:2662:C:H5'	2.16	0.46
1:0:2537:C:H2'	1:0:2538:C:O4'	2.15	0.46
1:0:2665:G:C6	1:0:2666:U:N3	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2787:A:N3	1:0:2788:C:C6	2.84	0.46
1:0:611:C:H2'	1:0:614:G:H5''	1.98	0.46
1:0:635:C:C2'	1:0:636:G:H5''	2.45	0.46
1:0:2796:A:O2'	1:0:2801:A:N1	2.31	0.46
1:0:2829:A:N1	1:0:2830:U:C2	2.84	0.46
1:0:2178:U:H2'	1:0:2179:C:H6	1.81	0.46
1:0:600:G:O2'	1:0:601:A:OP1	2.30	0.46
1:0:1092:U:H6	1:0:1092:U:O5'	1.99	0.46
1:0:2779:C:O5'	1:0:2779:C:H6	1.99	0.46
1:0:1922:U:H1'	1:0:2571:G:O4'	2.15	0.46
1:0:2235:G:O2'	1:0:2236:U:H5'	2.16	0.46
1:0:2473:G:H21	1:0:2474:G:C1'	2.29	0.46
1:0:572:G:C2'	1:0:573:C:H5'	2.45	0.46
1:0:580:A:C8	1:0:584:A:N6	2.84	0.46
1:0:981:C:C5	1:0:982:C:H5	2.34	0.46
1:0:1438:G:H2'	1:0:1439:G:C5'	2.34	0.46
1:0:1248:G:N1	1:0:1249:G:N2	2.63	0.46
1:0:516:G:O2'	1:0:517:A:P	2.73	0.46
1:0:623:G:C5'	1:0:626:A:N6	2.78	0.46
1:0:1715:A:N3	1:0:1717:A:H1'	2.31	0.46
1:0:1171:A:C5	1:0:1172:U:C5	3.04	0.46
1:0:1671:A:C2	1:0:1672:A:C8	3.04	0.46
1:0:2325:A:C2'	1:0:2326:C:OP1	2.63	0.46
1:0:2240:C:C4	1:0:2259:G:C6	3.04	0.46
1:0:202:A:O2'	1:0:234:C:H4'	2.15	0.46
1:0:312:G:HO2'	1:0:313:U:P	2.38	0.46
1:0:2213:G:H2'	1:0:2214:G:O4'	2.16	0.46
1:0:2093:G:O2'	1:0:2094:C:OP1	2.31	0.46
1:0:2656:G:H2'	1:0:2657:G:H8	1.80	0.46
1:0:1161:U:H2'	1:0:1162:A:C8	2.49	0.46
1:0:1848:U:H2'	1:0:1849:G:O4'	2.15	0.46
1:0:661:C:O2	1:0:662:G:C8	2.68	0.46
1:0:1947:G:C2'	1:0:1950:C:OP2	2.64	0.46
1:0:2565:C:C2'	1:0:2566:A:O5'	2.64	0.46
1:0:2856:U:C6	1:0:2857:C:H5	2.33	0.46
1:0:170:U:C5	1:0:171:G:N7	2.84	0.46
1:0:832:A:C8	1:0:833:A:N7	2.84	0.46
1:0:982:C:C2	1:0:983:G:C8	3.04	0.46
1:0:1645:U:O2	1:0:2677:U:C5'	2.64	0.46
1:0:1443:G:C5	1:0:1584:G:C6	3.04	0.46
1:0:516:G:C2'	1:0:517:A:OP2	2.64	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1787:U:C2	1:0:1788:C:C5	3.03	0.46
1:0:611:C:H5''	1:0:611:C:H6	1.80	0.46
1:0:664:C:C5	1:0:666:U:H4'	2.44	0.46
1:0:1698:C:O2'	1:0:1753:A:C2'	2.64	0.46
1:0:1353:A:C4	1:0:1618:U:O4	2.68	0.46
1:0:1145:C:C6	1:0:1147:G:P	3.09	0.46
1:0:1369:G:H21	1:0:1370:U:H1'	1.80	0.46
1:0:2277:A:H1'	1:0:2300:G:N2	2.31	0.46
1:0:657:A:C2	1:0:658:G:C4	3.04	0.46
1:0:38:G:C2	1:0:454:G:C2	3.04	0.46
1:0:2240:C:C2'	1:0:2241:U:H5''	2.46	0.46
1:0:2241:U:H5'	1:0:2241:U:H6	1.81	0.46
1:0:222:G:C6	1:0:231:G:N2	2.84	0.46
1:0:2608:A:N6	1:0:2869:U:C2	2.83	0.46
1:0:2639:A:N6	1:0:2640:G:C2	2.84	0.46
1:0:2418:A:C5'	1:0:2419:C:P	3.03	0.46
1:0:1002:C:O5'	1:0:1002:C:H6	1.99	0.46
1:0:2262:C:H2'	1:0:2263:C:O4'	2.15	0.46
1:0:2726:U:C6	1:0:2726:U:O5'	2.67	0.46
1:0:2727:G:O6	1:0:2734:U:H3'	2.16	0.46
1:0:872:G:C8	1:0:872:G:OP2	2.69	0.46
1:0:1624:A:O2'	1:0:1625:A:C5'	2.58	0.46
1:0:322:A:H1'	1:0:343:A:C1'	2.45	0.46
1:0:492:G:O2'	1:0:493:A:OP2	2.33	0.46
1:0:1802:A:H8	1:0:1803:G:C8	2.34	0.46
1:0:657:A:O2'	1:0:658:G:H5'	2.15	0.46
1:0:26:G:C5	1:0:27:G:C2	3.03	0.46
1:0:718:A:O4'	1:0:740:A:H2	1.98	0.46
1:0:773:G:C2	1:0:774:A:H1'	2.51	0.46
1:0:604:U:H2'	1:0:605:G:C8	2.51	0.46
1:0:796:A:OP2	1:0:2568:A:OP1	2.35	0.45
1:0:2238:G:H1'	1:0:2406:C:C2	2.51	0.45
1:0:2501:U:C5'	1:0:2502:G:OP2	2.64	0.45
1:0:580:A:N7	1:0:584:A:C6	2.84	0.45
1:0:832:A:OP2	1:0:1201:G:N1	2.46	0.45
1:0:840:U:C4	1:0:2409:A:N6	2.84	0.45
1:0:862:A:N1	1:0:941:U:N3	2.64	0.45
1:0:1476:G:C5	1:0:1477:C:C5	3.04	0.45
1:0:2617:G:O2'	1:0:2618:A:O5'	2.32	0.45
1:0:1333:G:C5	1:0:1342:U:H5'	2.50	0.45
1:0:1326:U:H1'	1:0:1626:A:C2	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1751:A:H2'	1:0:1752:U:C6	2.51	0.45
1:0:2699:G:HO2'	1:0:2700:U:P	2.35	0.45
1:0:1226:A:C8	1:0:1250:A:N3	2.84	0.45
1:0:1249:G:O2'	1:0:1250:A:OP2	2.32	0.45
1:0:340:G:OP2	1:0:340:G:C8	2.64	0.45
1:0:2782:G:H3'	1:0:2783:U:C5'	2.40	0.45
1:0:741:G:C2'	1:0:742:G:O5'	2.64	0.45
1:0:1699:A:N6	1:0:1723:U:H3	2.06	0.45
1:0:1354:A:H4'	1:0:1355:A:OP2	2.16	0.45
1:0:1151:U:P	1:0:1153:A:H5'	2.56	0.45
1:0:2266:A:C6	1:0:2268:G:N3	2.84	0.45
1:0:2275:U:HO2'	1:0:2276:C:H6	1.64	0.45
1:0:2240:C:C4	1:0:2259:G:N1	2.84	0.45
1:0:105:G:H2'	1:0:106:G:O5'	2.16	0.45
1:0:1454:U:H2'	1:0:1455:C:C6	2.51	0.45
1:0:1445:A:C2	1:0:1446:U:C2	3.05	0.45
1:0:2345:A:C5	1:0:2346:G:C8	3.04	0.45
1:0:1469:U:H5'	1:0:1470:G:P	2.57	0.45
1:0:890:U:H2'	1:0:891:A:C8	2.51	0.45
1:0:807:A:N3	1:0:808:C:C6	2.85	0.45
1:0:2814:G:H2'	1:0:2815:C:C6	2.51	0.45
1:0:1140:A:N7	1:0:2549:G:C1'	2.79	0.45
1:0:2020:G:H2'	1:0:2021:G:C8	2.51	0.45
1:0:861:G:H2'	1:0:862:A:C5'	2.46	0.45
1:0:2756:A:N3	1:0:2758:A:C5	2.85	0.45
1:0:965:G:O2'	1:0:2253:A:N1	2.31	0.45
1:0:1647:U:O2	1:0:1652:G:O6	2.35	0.45
1:0:1511:A:N7	1:0:1512:A:C6	2.85	0.45
1:0:2787:A:C2	1:0:2788:C:C6	3.05	0.45
1:0:2065:A:H2'	1:0:2066:G:O4'	2.16	0.45
1:0:1940:C:N4	1:0:1941:C:N4	2.64	0.45
1:0:551:A:C6	1:0:562:G:N1	2.84	0.45
1:0:1849:G:H21	1:0:1868:A:N6	2.14	0.45
1:0:747:A:H2'	1:0:748:A:O4'	2.15	0.45
1:0:1900:U:O2'	1:0:1901:A:H5'	2.15	0.45
1:0:1236:G:C6	1:0:1240:G:C6	3.05	0.45
1:0:2426:G:C3'	1:0:2427:A:H5''	2.44	0.45
1:0:977:G:H5''	1:0:2251:U:O2	2.16	0.45
1:0:1628:C:C4	1:0:1629:G:C8	3.04	0.45
1:0:1628:C:H2'	1:0:1629:G:O5'	2.17	0.45
1:0:1635:G:C2	1:0:1636:G:N9	2.84	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1683:G:H2'	1:0:1684:G:H5'	1.99	0.45
1:0:2536:G:O2'	1:0:2537:C:H5'	2.17	0.45
1:0:464:G:O2'	1:0:465:C:H5'	2.16	0.45
1:0:2652:G:C4	1:0:2653:A:C8	3.05	0.45
1:0:1649:A:C8	1:0:1649:A:O5'	2.67	0.45
1:0:1890:G:N2	1:0:1907:C:C4	2.84	0.45
1:0:220:U:H2'	1:0:221:A:H8	1.82	0.45
1:0:546:A:H2'	1:0:547:U:C6	2.50	0.45
1:0:211:U:O2	1:0:211:U:C2'	2.64	0.45
1:0:2285:U:O2	1:0:2285:U:C2'	2.62	0.45
1:0:1638:G:C2	1:0:1639:U:C2	3.04	0.45
1:0:1066:G:H3'	1:0:1067:G:H5''	1.98	0.45
1:0:697:G:C2	1:0:788:G:C6	3.04	0.45
1:0:475:U:C2	1:0:801:A:N1	2.84	0.45
1:0:174:A:O5'	1:0:174:A:H8	1.98	0.45
1:0:2494:C:O2'	1:0:2495:G:H5'	2.16	0.45
1:0:2605:C:H2'	1:0:2606:G:H8	1.82	0.45
1:0:1627:C:H3'	1:0:1627:C:OP2	2.16	0.45
1:0:1652:G:C5	1:0:1653:C:C5	3.05	0.45
1:0:317:U:C3'	1:0:318:G:C5'	2.91	0.45
1:0:340:G:C1'	1:0:488:A:H1'	2.46	0.45
1:0:633:G:O2'	1:0:634:G:H5'	2.15	0.45
1:0:1373:G:H2'	1:0:1374:G:C5'	2.44	0.45
1:0:59:G:N3	1:0:73:A:C6	2.84	0.45
1:0:2396:C:H6	1:0:2396:C:C5'	2.22	0.45
1:0:2828:C:O2'	1:0:2829:A:H5'	2.15	0.45
1:0:2217:G:H4'	1:0:2218:G:N7	2.31	0.45
1:0:1287:A:C2	1:0:1315:A:C2	3.03	0.45
1:0:2274:C:O2	1:0:2274:C:H2'	2.15	0.45
1:0:704:G:C4	1:0:705:C:C6	3.04	0.45
1:0:559:C:H3'	1:0:559:C:H6	1.82	0.45
1:0:1913:G:C2'	1:0:1914:U:OP2	2.64	0.45
1:0:2863:U:C4	1:0:2864:C:C5	3.04	0.45
1:0:2290:A:O2'	1:0:2291:U:H5'	2.15	0.45
1:0:661:C:H2'	1:0:662:G:H8	1.82	0.45
1:0:2040:A:N9	1:0:2041:A:N7	2.58	0.45
1:0:1002:C:N4	1:0:1003:C:N4	2.61	0.45
1:0:1460:G:N2	1:0:1563:U:C6	2.84	0.45
1:0:1689:U:H2'	1:0:1690:U:C5'	2.46	0.45
1:0:510:G:N2	1:0:512:A:OP1	2.48	0.45
1:0:2784:A:C6	1:0:2866:A:C8	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1724:C:O2	1:0:1747:G:C2	2.70	0.45
1:0:1522:C:N4	1:0:1523:A:C2	2.85	0.45
1:0:2471:U:O2	1:0:2472:U:C5	2.69	0.45
1:0:1906:U:H2'	1:0:1907:C:C6	2.50	0.45
1:0:2164:G:O2'	1:0:2165:A:H5'	2.17	0.45
1:0:8:A:H2'	1:0:9:U:C6	2.52	0.45
1:0:2731:G:H8	1:0:2731:G:O5'	2.00	0.45
1:0:798:G:H2'	1:0:799:C:C6	2.51	0.45
1:0:2791:C:C2'	1:0:2792:C:H5'	2.47	0.45
1:0:181:A:C4'	1:0:182:G:OP1	2.62	0.45
1:0:224:G:N7	1:0:226:C:O2	2.49	0.45
1:0:2424:G:C2'	1:0:2425:G:C5'	2.91	0.45
1:0:815:A:C6	1:0:816:U:C2	3.05	0.45
1:0:844:G:C2	1:0:845:U:C2	3.04	0.45
1:0:881:U:H2'	1:0:882:C:C5	2.52	0.45
1:0:2781:G:C2'	1:0:2782:G:H8	2.25	0.45
1:0:1091:C:H6	1:0:1091:C:O5'	2.00	0.45
1:0:1279:G:O2'	1:0:1280:U:P	2.75	0.45
1:0:2300:G:N3	1:0:2300:G:H3'	2.32	0.45
1:0:645:G:H2'	1:0:646:C:C6	2.52	0.45
1:0:1537:U:O4	1:0:1538:A:N6	2.50	0.45
1:0:2515:G:C6	1:0:2516:U:N3	2.84	0.45
1:0:772:G:C4	1:0:773:G:N7	2.84	0.45
1:0:1040:A:C8	1:0:1041:G:N7	2.84	0.45
1:0:2466:G:H2'	1:0:2467:A:H8	1.82	0.45
1:0:551:A:C2	1:0:562:G:C2	3.05	0.45
1:0:734:G:H2'	1:0:735:G:H8	1.80	0.45
1:0:1480:G:C5	1:0:1481:U:C5	3.04	0.45
1:0:2557:G:O2'	1:0:2558:C:H5'	2.17	0.45
1:0:2487:G:C6	1:0:2561:G:O6	2.70	0.45
1:0:1923:U:C2'	1:0:1923:U:O2	2.65	0.45
1:0:697:G:C6	1:0:807:A:C6	3.04	0.45
1:0:991:A:C4	1:0:1146:G:O4'	2.70	0.45
1:0:1210:C:H1'	1:0:1239:A:N9	2.31	0.45
1:0:2432:A:C5'	1:0:2552:C:OP2	2.65	0.45
1:0:2754:C:C2	1:0:2755:A:N7	2.84	0.45
1:0:926:C:O5'	1:0:926:C:C6	2.69	0.45
1:0:1323:G:H1'	1:0:1627:C:C5'	2.47	0.45
1:0:1750:A:C2	1:0:1751:A:N7	2.85	0.45
1:0:1226:A:H1'	1:0:1250:A:C2	2.51	0.45
1:0:489:A:O2'	1:0:490:A:OP1	2.23	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:624:A:N3	1:0:624:A:H2'	2.31	0.45
1:0:673:G:O2'	1:0:674:U:H5'	2.16	0.45
1:0:48:A:H1'	1:0:50:G:N3	2.32	0.45
1:0:646:C:O2	1:0:650:U:H4'	2.16	0.45
1:0:2503:G:H3'	1:0:2504:G:H5''	1.97	0.45
1:0:1450:G:H2'	1:0:1451:C:O4'	2.17	0.45
1:0:414:A:H2'	1:0:415:A:O4'	2.17	0.45
1:0:1551:U:H6	1:0:1551:U:OP2	1.99	0.45
1:0:1105:U:C2	1:0:1107:A:OP2	2.70	0.45
1:0:2419:C:N3	1:0:2420:C:H1'	2.32	0.45
1:0:813:A:N1	1:0:815:A:C8	2.85	0.45
1:0:18:U:C6	1:0:19:C:H5	2.34	0.45
1:0:875:G:H2'	1:0:876:A:O4'	2.17	0.45
1:0:1344:C:C4	1:0:1346:C:C2	3.05	0.45
1:0:1981:A:O3'	1:0:2704:U:H4'	2.17	0.45
1:0:486:U:O2'	1:0:515:A:H1'	2.16	0.45
1:0:2784:A:C5	1:0:2866:A:C5	3.05	0.45
1:0:1807:A:OP1	1:0:1814:G:H4'	2.17	0.45
1:0:1676:U:C2	1:0:1985:G:N2	2.84	0.45
1:0:1618:U:O5'	1:0:1618:U:C6	2.70	0.45
1:0:1147:G:C4	1:0:1148:G:C8	3.05	0.45
1:0:1385:C:O3'	1:0:2191:A:N7	2.50	0.45
1:0:1386:A:OP1	1:0:2191:A:N6	2.29	0.45
1:0:1310:C:C2	1:0:1311:C:C5	3.05	0.45
1:0:1404:C:O2	1:0:1404:C:C2'	2.62	0.45
1:0:2240:C:N4	1:0:2259:G:O6	2.50	0.45
1:0:2240:C:N3	1:0:2241:U:C5	2.85	0.45
1:0:2642:G:O2'	1:0:2643:G:H5'	2.17	0.45
1:0:2608:A:N6	1:0:2869:U:N3	2.64	0.45
1:0:2594:U:O2	1:0:2595:C:C6	2.69	0.45
1:0:2859:U:H2'	1:0:2860:C:C5'	2.47	0.45
1:0:550:C:H2'	1:0:551:A:H8	1.82	0.45
1:0:412:U:H2'	1:0:413:G:H5'	1.97	0.45
1:0:1727:C:H4'	1:0:2833:C:C2	2.52	0.45
1:0:793:G:H21	1:0:796:A:H62	1.65	0.45
1:0:2857:C:C2'	1:0:2858:A:O5'	2.65	0.45
1:0:1242:A:H2'	1:0:1243:G:H8	1.82	0.45
1:0:2468:G:H1'	1:0:2497:A:N6	2.26	0.45
1:0:2497:A:C5'	1:0:2498:U:OP2	2.65	0.45
1:0:692:C:O2	1:0:693:A:C8	2.70	0.45
1:0:832:A:C6	1:0:1203:A:C4	3.04	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2705:A:C8	1:0:2705:A:C5'	2.98	0.45
1:0:2696:A:O2'	1:0:2697:G:H5'	2.17	0.45
1:0:612:G:H4'	1:0:613:A:O3'	2.17	0.45
1:0:1086:C:C3'	1:0:1087:C:H5''	2.46	0.45
1:0:1086:C:H3'	1:0:1086:C:C6	2.52	0.45
1:0:2264:C:C1'	1:0:2267:A:H62	2.29	0.45
1:0:1819:U:H2'	1:0:1820:G:O4'	2.17	0.45
1:0:1955:G:H2'	1:0:1956:G:H5'	1.99	0.45
1:0:1570:C:O2'	1:0:1571:G:OP1	2.30	0.45
1:0:2240:C:C2'	1:0:2241:U:C5'	2.94	0.45
1:0:1891:C:H2'	1:0:1892:C:C6	2.52	0.45
1:0:2177:U:C2	1:0:2178:U:C5	3.04	0.45
1:0:2514:G:H21	1:0:2515:G:H1'	1.82	0.45
1:0:1657:A:H2'	1:0:1658:A:C5'	2.47	0.45
1:0:1969:G:C2	1:0:1970:G:C5	3.05	0.45
1:0:2083:G:O2'	1:0:2084:G:H5'	2.17	0.45
1:0:550:C:H2'	1:0:551:A:C8	2.52	0.45
1:0:2670:C:H5'	1:0:2670:C:C6	2.51	0.45
1:0:2564:U:O2'	1:0:2565:C:C5'	2.30	0.45
1:0:2804:G:H2'	1:0:2805:G:O4'	2.18	0.45
1:0:2813:G:C2'	1:0:2814:G:H5'	2.47	0.45
1:0:829:C:C4	1:0:1206:G:N1	2.84	0.45
1:0:2225:G:H2'	1:0:2226:A:C8	2.48	0.45
1:0:2015:G:C5	1:0:2551:A:H2	2.35	0.45
1:0:2687:G:N2	1:0:2688:G:N3	2.65	0.45
1:0:1227:A:H61	1:0:1248:G:H1'	1.82	0.45
1:0:629:C:H2'	1:0:630:G:H8	1.81	0.45
1:0:1016:C:C2	1:0:1154:A:N3	2.85	0.45
1:0:1017:C:C2	1:0:1018:C:C5	3.05	0.45
1:0:1147:G:N3	1:0:1148:G:C8	2.85	0.45
1:0:1153:A:C4	1:0:1155:G:N7	2.85	0.45
1:0:296:A:H2'	1:0:297:A:H8	1.82	0.45
1:0:1181:C:N4	1:0:1182:U:C4	2.85	0.45
1:0:554:U:HO2'	1:0:555:U:C1'	2.30	0.45
1:0:1429:A:N6	1:0:1600:U:O3'	2.50	0.45
1:0:699:G:C4'	1:0:700:C:OP2	2.65	0.44
1:0:806:A:C2'	1:0:807:A:OP2	2.64	0.44
1:0:228:A:C5	1:0:229:G:H1'	2.52	0.44
1:0:2402:U:H4'	1:0:2404:A:C8	2.52	0.44
1:0:2474:G:C6	1:0:2475:C:N3	2.85	0.44
1:0:2492:G:C4	1:0:2493:U:C5	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2519:C:C2'	1:0:2520:A:H5'	2.47	0.44
1:0:689:A:C8	1:0:2422:C:H1'	2.51	0.44
1:0:167:A:N1	1:0:812:G:H1'	2.32	0.44
1:0:824:U:C6	1:0:824:U:C3'	3.00	0.44
1:0:972:C:C2	1:0:2014:A:H2	2.35	0.44
1:0:2724:G:N7	1:0:2735:C:H1'	2.33	0.44
1:0:1690:U:O2'	1:0:1691:G:H5'	2.17	0.44
1:0:2529:G:N1	1:0:2530:C:N3	2.65	0.44
1:0:633:G:C6	1:0:634:G:C5	3.05	0.44
1:0:2395:C:N3	1:0:2396:C:C5	2.84	0.44
1:0:1927:U:C2'	1:0:1927:U:O2	2.53	0.44
1:0:2872:U:O2'	1:0:2873:G:H5'	2.17	0.44
1:0:199:A:N6	1:0:201:G:C2	2.84	0.44
1:0:1217:U:O2'	1:0:1218:C:H5'	2.17	0.44
1:0:773:G:H2'	1:0:774:A:O4'	2.17	0.44
1:0:29:U:H2'	1:0:30:G:C8	2.49	0.44
1:0:1872:A:C2	1:0:1873:A:C4	3.05	0.44
1:0:1779:C:O2	1:0:1779:C:C2'	2.64	0.44
1:0:408:U:H2'	1:0:409:G:H8	1.81	0.44
1:0:2454:C:H6	1:0:2454:C:O5'	2.00	0.44
1:0:679:C:H2'	1:0:680:U:H6	1.82	0.44
1:0:2034:A:C5	1:0:2593:A:C5	3.05	0.44
1:0:701:U:H4'	1:0:1771:A:C2	2.51	0.44
1:0:799:C:H2'	1:0:800:U:O4'	2.18	0.44
1:0:2547:C:H6	1:0:2547:C:O5'	2.00	0.44
1:0:676:G:C5	1:0:677:G:C8	3.05	0.44
1:0:833:A:C4	1:0:954:U:O2'	2.70	0.44
1:0:1474:A:C6	1:0:1476:G:C4	3.04	0.44
1:0:883:A:C6	1:0:920:G:C6	3.06	0.44
1:0:1624:A:O2'	1:0:1625:A:OP2	2.34	0.44
1:0:1440:G:C8	1:0:1441:A:H5'	2.53	0.44
1:0:471:A:H61	1:0:480:G:H1'	1.83	0.44
1:0:1251:G:N2	1:0:1252:C:H1'	2.33	0.44
1:0:1788:C:N3	1:0:1789:U:C5	2.85	0.44
1:0:617:U:H2'	1:0:618:A:O4'	2.18	0.44
1:0:50:G:HO2'	1:0:51:A:P	2.40	0.44
1:0:51:A:C2	1:0:52:A:C4	3.05	0.44
1:0:762:A:C5	1:0:1634:A:C2	3.04	0.44
1:0:2302:G:N2	1:0:2303:C:C2	2.86	0.44
1:0:427:C:N4	1:0:428:A:N6	2.65	0.44
1:0:82:G:C2'	1:0:83:A:OP2	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2471:U:C2'	1:0:2472:U:C6	2.94	0.44
1:0:198:A:C2	1:0:210:A:C5	3.05	0.44
1:0:1729:C:H2'	1:0:1730:G:H8	1.77	0.44
1:0:1192:A:C2	1:0:1193:G:N7	2.86	0.44
1:0:2464:G:O2'	1:0:2465:G:H5'	2.16	0.44
1:0:849:G:C5	1:0:850:C:C5	3.05	0.44
1:0:966:A:N7	1:0:967:G:N7	2.66	0.44
1:0:1233:A:HO2'	1:0:1234:C:P	2.35	0.44
1:0:180:C:C4	1:0:181:A:N6	2.85	0.44
1:0:2500:C:H2'	1:0:2501:U:O4'	2.17	0.44
1:0:2521:A:H5'	1:0:2522:G:OP1	2.16	0.44
1:0:692:C:C2	1:0:693:A:N7	2.86	0.44
1:0:2023:C:H2'	1:0:2024:U:O4'	2.17	0.44
1:0:2620:G:N1	1:0:2621:G:C5	2.86	0.44
1:0:2759:U:C6	1:0:2759:U:C3'	3.00	0.44
1:0:878:C:O2'	1:0:879:A:O5'	2.34	0.44
1:0:1629:G:N1	1:0:1635:G:C5	2.86	0.44
1:0:1632:A:H4'	1:0:1633:C:OP2	2.18	0.44
1:0:1438:G:N2	1:0:1590:C:C2	2.85	0.44
1:0:1803:G:O2'	1:0:1804:U:H5'	2.17	0.44
1:0:1173:G:N1	1:0:1174:G:C5	2.85	0.44
1:0:1669:A:C6	1:0:1670:G:C2	3.05	0.44
1:0:1468:A:OP2	1:0:1468:A:N7	2.51	0.44
1:0:1610:A:H2'	1:0:1611:U:C6	2.52	0.44
1:0:1040:A:H2'	1:0:1041:G:H5'	1.99	0.44
1:0:1869:A:H8	1:0:1869:A:O5'	2.00	0.44
1:0:301:C:H2'	1:0:302:U:O5'	2.17	0.44
1:0:2283:G:O6	1:0:2291:U:O4	2.35	0.44
1:0:88:G:C6	1:0:89:A:N7	2.85	0.44
1:0:2558:C:C2'	1:0:2559:U:C5'	2.92	0.44
3:0:2881:G80:C14	3:0:2881:G80:H10	2.35	0.44
1:0:1924:C:O4'	1:0:1948:C:N4	2.50	0.44
1:0:2404:A:O2'	1:0:2405:A:P	2.75	0.44
1:0:2427:A:OP2	1:0:2478:C:P	2.75	0.44
1:0:677:G:O4'	1:0:951:G:H5''	2.17	0.44
1:0:1563:U:H2'	1:0:1564:U:H6	1.79	0.44
1:0:1629:G:H5''	1:0:1630:A:H5''	1.99	0.44
1:0:460:U:C4'	1:0:461:A:OP2	2.65	0.44
1:0:751:G:HO2'	1:0:752:G:P	2.36	0.44
1:0:1790:G:H4'	1:0:1791:C:C6	2.52	0.44
1:0:629:C:H2'	1:0:630:G:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1724:C:C2	1:0:1747:G:C2	3.05	0.44
1:0:1169:C:C6	1:0:1169:C:H3'	2.53	0.44
1:0:53:G:C2	1:0:54:G:H1'	2.52	0.44
1:0:1338:G:O2'	1:0:1339:U:H5'	2.17	0.44
1:0:421:G:H2'	1:0:422:C:O4'	2.17	0.44
1:0:2514:G:N3	1:0:2514:G:H2'	2.31	0.44
1:0:1838:G:N2	1:0:1878:C:C2	2.86	0.44
1:0:2069:U:H1'	1:0:2213:G:N2	2.32	0.44
1:0:2084:G:O5'	1:0:2084:G:H8	2.00	0.44
1:0:304:A:C2'	1:0:305:A:H5''	2.48	0.44
1:0:1491:C:O2	1:0:1491:C:H2'	2.17	0.44
1:0:2039:G:C2	1:0:2040:A:C8	3.05	0.44
1:0:2034:A:N6	1:0:2593:A:C4	2.86	0.44
1:0:181:A:N3	1:0:183:U:O4	2.51	0.44
1:0:2226:A:C2	1:0:2227:C:C2	3.06	0.44
1:0:2523:G:N2	1:0:2524:G:H1'	2.33	0.44
1:0:2705:A:C4	1:0:2707:G:C8	3.06	0.44
1:0:1621:C:H4'	1:0:1626:A:N7	2.33	0.44
1:0:1437:A:N7	1:0:1438:G:N7	2.66	0.44
1:0:631:G:H5''	1:0:632:A:OP1	2.18	0.44
1:0:1673:C:C2	1:0:1674:C:C5	3.05	0.44
1:0:2043:A:O4'	1:0:2481:G:C1'	2.56	0.44
1:0:1940:C:N4	1:0:1941:C:H41	2.15	0.44
1:0:2161:C:O2'	1:0:2162:C:OP1	2.34	0.44
1:0:2835:A:O5'	1:0:2835:A:H8	2.00	0.44
1:0:1893:G:C5	1:0:1894:U:O4	2.70	0.44
1:0:211:U:O2	1:0:212:U:O4'	2.36	0.44
1:0:1638:G:N2	1:0:1639:U:O2	2.51	0.44
1:0:1823:G:H2'	1:0:1824:C:C6	2.52	0.44
1:0:1725:C:O2	1:0:1742:G:C2	2.71	0.44
1:0:2040:A:C2'	1:0:2041:A:O4'	2.66	0.44
1:0:2484:G:O2'	1:0:2485:U:H5''	2.17	0.44
1:0:1776:A:C8	1:0:1778:U:C5	3.05	0.44
1:0:1949:A:H1'	1:0:2572:U:C5'	2.44	0.44
1:0:167:A:H2'	1:0:168:A:C8	2.53	0.44
1:0:179:U:C6	1:0:180:C:C5	3.05	0.44
1:0:2550:C:O5'	1:0:2550:C:H6	2.00	0.44
1:0:580:A:O2'	1:0:581:A:P	2.76	0.44
1:0:684:C:H2'	1:0:685:U:C6	2.53	0.44
1:0:819:C:N3	1:0:820:U:H5	2.15	0.44
1:0:1466:C:C2'	1:0:1467:U:C5'	2.95	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1465:G:C6	1:0:1476:G:O6	2.70	0.44
1:0:1478:U:H2'	1:0:1479:G:H8	1.83	0.44
1:0:885:A:N1	1:0:918:A:C4	2.85	0.44
1:0:18:U:C5	1:0:19:C:C5	3.06	0.44
1:0:2756:A:HO2'	1:0:2757:G:P	2.41	0.44
1:0:1621:C:C2'	1:0:1626:A:N7	2.81	0.44
1:0:2672:U:H2'	1:0:2673:G:C8	2.43	0.44
1:0:1004:A:H2'	1:0:1005:U:C5'	2.47	0.44
1:0:2325:A:C2	1:0:2362:G:C6	3.05	0.44
1:0:1817:U:H2'	1:0:1818:G:C8	2.52	0.44
1:0:1826:U:O4	1:0:1953:A:N6	2.51	0.44
1:0:640:C:H4'	1:0:660:G:C2	2.51	0.44
1:0:2448:A:O2'	1:0:2449:G:H5'	2.17	0.44
1:0:202:A:C6	1:0:203:G:C4	3.06	0.44
1:0:1871:G:N3	1:0:1871:G:C3'	2.81	0.44
1:0:2594:U:N3	1:0:2595:C:C5	2.85	0.44
1:0:1548:U:H2'	1:0:1549:C:C5	2.53	0.44
1:0:730:C:N3	1:0:731:A:C8	2.86	0.44
1:0:32:C:N4	1:0:458:G:O2'	2.50	0.44
1:0:2557:G:N7	2:B:140:SER:CA	2.81	0.44
1:0:1900:U:O2'	1:0:1946:U:H5'	2.17	0.44
1:0:2418:A:C2'	1:0:2565:C:HO2'	2.30	0.44
1:0:178:C:O2'	1:0:179:U:H5'	2.17	0.44
1:0:224:G:O2'	1:0:227:G:N7	2.31	0.44
1:0:968:C:N4	1:0:2437:G:H5''	2.32	0.44
1:0:686:C:H2'	1:0:687:G:C5'	2.44	0.44
1:0:1558:C:O2'	1:0:1559:G:H5'	2.18	0.44
1:0:1477:C:H1'	1:0:2681:A:C2	2.53	0.44
1:0:2619:G:C2	1:0:2620:G:C8	3.06	0.44
1:0:1685:A:C2	1:0:1976:U:H1'	2.53	0.44
1:0:1440:G:C6	1:0:1441:A:N7	2.85	0.44
1:0:471:A:C8	1:0:472:C:C5	3.05	0.44
1:0:66:U:O2	1:0:67:G:C6	2.71	0.44
1:0:1033:G:N2	1:0:1035:G:H22	2.16	0.44
1:0:50:G:O2'	1:0:51:A:P	2.76	0.44
1:0:1369:G:C2	1:0:1370:U:C2	3.05	0.44
1:0:201:G:C4	1:0:202:A:C8	3.06	0.44
1:0:2645:C:C3'	1:0:2646:C:H6	2.31	0.44
1:0:2:G:N2	1:0:2876:C:C2	2.85	0.44
1:0:2876:C:O2'	1:0:2877:A:H5'	2.17	0.44
1:0:978:U:H2'	1:0:979:A:C8	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1051:U:H2'	1:0:1051:U:O2	2.18	0.44
1:0:1921:A:H2'	1:0:1922:U:H5''	2.00	0.44
1:0:2573:C:C4	1:0:2579:A:N1	2.85	0.44
1:0:2015:G:C2	1:0:2038:C:C2	3.06	0.44
1:0:541:C:N4	1:0:572:G:N9	2.61	0.44
1:0:2728:A:N1	1:0:2737:A:C8	2.86	0.44
1:0:879:A:N3	1:0:879:A:C2'	2.78	0.44
1:0:874:A:C4	1:0:929:A:N6	2.85	0.44
1:0:1696:C:H6	1:0:1697:U:C5	2.36	0.44
1:0:612:G:H4'	1:0:613:A:O2'	2.18	0.44
1:0:1410:U:C2'	1:0:1410:U:O2	2.66	0.44
1:0:121:G:O2'	1:0:122:G:H5'	2.18	0.44
1:0:1387:G:O2'	1:0:1388:C:H5'	2.18	0.44
1:0:1288:A:N7	1:0:1309:G:C1'	2.81	0.44
1:0:2838:U:C2	1:0:2839:G:C8	3.06	0.44
1:0:778:G:O2'	1:0:779:U:H5'	2.17	0.44
1:0:1607:A:O2'	1:0:1608:U:H5'	2.18	0.44
1:0:1596:A:H2'	1:0:1597:A:O4'	2.18	0.44
1:0:2211:U:H2'	1:0:2212:U:O5'	2.18	0.44
1:0:783:G:H2'	1:0:784:U:O4'	2.18	0.44
1:0:126:C:C4	1:0:127:C:N4	2.86	0.44
1:0:485:G:C5	1:0:520:C:C5	3.06	0.44
1:0:2015:G:N1	1:0:2038:C:N3	2.65	0.44
1:0:2724:G:C5	1:0:2735:C:H1'	2.53	0.44
1:0:1459:U:H3'	1:0:1459:U:P	2.56	0.44
1:0:1459:U:O2	1:0:1459:U:C2'	2.66	0.44
1:0:2621:G:HO2'	1:0:2622:G:H5'	1.80	0.44
1:0:1645:U:H2'	1:0:1646:G:H8	1.82	0.44
1:0:488:A:N7	1:0:511:A:N7	2.66	0.44
1:0:1020:A:N7	1:0:1021:A:C5	2.85	0.44
1:0:1037:U:C6	1:0:1037:U:C3'	3.01	0.44
1:0:2276:C:C4	1:0:2297:G:N2	2.86	0.44
1:0:1498:G:H2'	1:0:1499:A:O4'	2.18	0.44
1:0:653:G:H21	1:0:657:A:H62	1.59	0.44
1:0:1890:G:C6	1:0:1891:C:N4	2.86	0.44
1:0:202:A:C6	1:0:203:G:N3	2.86	0.44
1:0:134:G:C2'	1:0:135:U:H5''	2.47	0.44
1:0:2645:C:O2'	1:0:2646:C:H5'	2.18	0.44
1:0:1871:G:HO2'	1:0:1872:A:H8	1.64	0.44
1:0:435:A:N1	1:0:436:A:C2	2.86	0.44
1:0:1561:A:H2'	1:0:1562:G:O4'	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:389:G:N1	1:0:412:U:O2	2.51	0.44
1:0:1770:U:C2	1:0:1774:A:C5	3.06	0.43
1:0:805:G:H2'	1:0:2419:C:C4	2.53	0.43
1:0:2050:G:C6	1:0:2052:G:N7	2.85	0.43
1:0:2542:U:C6	1:0:2544:A:OP2	2.71	0.43
1:0:2550:C:C4	1:0:2553:G:C8	3.06	0.43
1:0:1685:A:N1	1:0:1693:A:N6	2.65	0.43
1:0:1976:U:O2	1:0:1977:C:O4'	2.36	0.43
1:0:2699:G:HO2'	1:0:2700:U:H6	1.64	0.43
1:0:1586:A:O2'	1:0:1587:A:H5'	2.18	0.43
1:0:464:G:H1'	1:0:469:G:N2	2.33	0.43
1:0:2311:U:O2'	1:0:2312:A:P	2.76	0.43
1:0:613:A:C5	1:0:636:G:N1	2.86	0.43
1:0:48:A:N1	1:0:116:A:C4	2.86	0.43
1:0:2270:U:OP1	1:0:2360:C:H5'	2.18	0.43
1:0:1818:G:C4	1:0:1819:U:C5	3.06	0.43
1:0:704:G:C4	1:0:705:C:C5	3.06	0.43
1:0:946:U:H2'	1:0:947:C:H6	1.83	0.43
1:0:46:C:H2'	1:0:47:G:H8	1.81	0.43
1:0:3:U:H2'	1:0:4:C:C6	2.53	0.43
1:0:698:A:O2'	1:0:699:G:OP2	2.32	0.43
1:0:805:G:H2'	1:0:2419:C:C2	2.52	0.43
1:0:2807:U:H3'	1:0:2807:U:C6	2.53	0.43
1:0:584:A:OP2	1:0:2038:C:C5	2.69	0.43
1:0:831:G:O2'	1:0:832:A:O4'	2.33	0.43
1:0:971:A:N6	1:0:973:U:O2	2.51	0.43
1:0:861:G:C8	1:0:862:A:N7	2.86	0.43
1:0:861:G:N2	1:0:943:U:O2'	2.50	0.43
1:0:2621:G:N2	1:0:2622:G:N3	2.65	0.43
1:0:536:A:N1	1:0:2605:C:C4'	2.79	0.43
1:0:340:G:C4'	1:0:341:A:OP2	2.66	0.43
1:0:1799:A:HO2'	1:0:1800:A:P	2.41	0.43
1:0:1173:G:C2	1:0:1174:G:C8	3.05	0.43
1:0:1386:A:N6	1:0:1387:G:C6	2.86	0.43
1:0:1641:C:H2'	1:0:1642:G:C5'	2.47	0.43
1:0:1072:U:O2'	1:0:1073:G:H8	2.01	0.43
1:0:1826:U:H3	1:0:1953:A:H62	1.67	0.43
1:0:1399:C:O2'	1:0:1400:A:C5'	2.61	0.43
1:0:1468:A:C8	1:0:1468:A:O5'	2.60	0.43
1:0:792:U:H2'	1:0:793:G:O4'	2.18	0.43
1:0:801:A:C4'	1:0:802:A:OP1	2.66	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2856:U:H2'	1:0:2857:C:H6	1.83	0.43
1:0:1002:C:N3	1:0:1003:C:C5	2.85	0.43
1:0:1236:G:N1	1:0:1240:G:C6	2.86	0.43
1:0:2050:G:N2	1:0:2052:G:H1'	2.33	0.43
1:0:2050:G:N1	1:0:2052:G:C4	2.86	0.43
1:0:2047:C:C2	1:0:2429:A:N6	2.87	0.43
1:0:580:A:N7	1:0:584:A:N6	2.66	0.43
1:0:584:A:H2'	1:0:585:U:H6	1.84	0.43
1:0:836:G:C2	1:0:837:U:C4	3.06	0.43
1:0:846:A:N7	1:0:847:C:N4	2.66	0.43
1:0:1465:G:H1	1:0:1476:G:H1	1.66	0.43
1:0:2006:G:C2	1:0:2024:U:O2	2.71	0.43
1:0:2756:A:O4'	1:0:2758:A:C8	2.71	0.43
1:0:320:A:N6	1:0:341:A:C2	2.86	0.43
1:0:759:C:H6	1:0:759:C:H3'	1.82	0.43
1:0:2201:G:C2	1:0:2202:G:C8	3.07	0.43
1:0:1359:G:C6	1:0:1617:G:N1	2.87	0.43
1:0:1153:A:N3	1:0:1155:G:N7	2.66	0.43
1:0:1154:A:O2'	1:0:1155:G:OP1	2.29	0.43
1:0:2351:G:C2	1:0:2352:A:C8	3.06	0.43
1:0:865:A:C5	1:0:866:U:C4	3.07	0.43
1:0:402:A:H8	1:0:402:A:OP1	2.01	0.43
1:0:914:C:H2'	1:0:915:C:C6	2.46	0.43
1:0:1756:C:O2'	1:0:1757:C:O5'	2.32	0.43
1:0:1271:C:C2	1:0:1272:G:C8	3.06	0.43
1:0:520:C:C4	1:0:521:U:C4	3.06	0.43
1:0:998:C:C4	1:0:999:A:C8	3.06	0.43
1:0:387:A:H2'	1:0:387:A:N3	2.33	0.43
1:0:2418:A:H2'	1:0:2418:A:N3	2.33	0.43
1:0:1002:C:H5'	1:0:1200:G:OP2	2.18	0.43
1:0:177:U:C4	1:0:225:G:C4	3.06	0.43
1:0:580:A:H1'	1:0:582:G:H8	1.82	0.43
1:0:684:C:H2'	1:0:685:U:H6	1.84	0.43
1:0:1465:G:OP1	1:0:1465:G:H4'	2.19	0.43
1:0:2661:G:C2'	1:0:2662:C:H5'	2.48	0.43
1:0:2529:G:N1	1:0:2530:C:C4	2.86	0.43
1:0:2693:U:H3'	1:0:2694:G:H5''	2.00	0.43
1:0:471:A:N7	1:0:472:C:C5	2.86	0.43
1:0:468:A:H61	1:0:481:A:H5''	1.82	0.43
1:0:591:G:C3'	1:0:592:G:C8	2.89	0.43
1:0:1250:A:HO2'	1:0:1251:G:C4'	2.31	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2783:U:C6	1:0:2783:U:C3'	3.00	0.43
1:0:669:G:O5'	1:0:669:G:H8	2.00	0.43
1:0:1528:C:H3'	1:0:1529:C:C5'	2.32	0.43
1:0:1289:A:C2	1:0:1290:A:C8	3.07	0.43
1:0:1820:G:H5''	1:0:1820:G:H8	1.83	0.43
1:0:543:G:C4	1:0:544:U:C5	3.07	0.43
1:0:215:G:N2	1:0:216:U:H1'	2.34	0.43
1:0:1657:A:H2'	1:0:1658:A:O4'	2.19	0.43
1:0:2845:C:C2'	1:0:2846:G:H5'	2.48	0.43
1:0:246:C:C5	1:0:373:A:H1'	2.53	0.43
1:0:726:G:H2'	1:0:727:U:O4'	2.18	0.43
1:0:2718:A:N1	1:0:2719:U:C2	2.86	0.43
1:0:2313:G:C2'	1:0:2314:A:OP1	2.66	0.43
1:0:1363:C:O2'	1:0:1364:C:H5'	2.19	0.43
1:0:2035:G:C6	1:0:2597:G:C2	3.07	0.43
1:0:2219:U:O2'	1:0:2220:A:H5'	2.19	0.43
1:0:788:G:H4'	1:0:790:A:C4	2.54	0.43
1:0:164:G:C2	1:0:187:U:O2	2.72	0.43
1:0:681:A:H2'	1:0:683:A:N7	2.33	0.43
1:0:940:G:O5'	1:0:941:U:H5''	2.19	0.43
1:0:1326:U:O2'	1:0:1327:C:OP1	2.30	0.43
1:0:1974:U:H2'	1:0:1975:G:C5'	2.48	0.43
1:0:2697:G:C4	1:0:2698:G:C8	3.06	0.43
1:0:2781:G:C2'	1:0:2782:G:O4'	2.66	0.43
1:0:2867:G:H2'	1:0:2868:G:OP2	2.18	0.43
1:0:1145:C:C5	1:0:1147:G:P	3.11	0.43
1:0:1154:A:P	1:0:1154:A:C8	3.11	0.43
1:0:1783:G:C2	1:0:1820:G:O2'	2.71	0.43
1:0:1109:A:C2'	1:0:1110:G:H5'	2.49	0.43
1:0:1837:G:C2	1:0:1879:G:C2	3.06	0.43
1:0:2073:A:C5	1:0:2074:U:O4	2.71	0.43
1:0:2211:U:C2'	1:0:2212:U:O5'	2.66	0.43
1:0:391:C:O2'	1:0:392:G:H5'	2.19	0.43
1:0:2335:U:O2'	1:0:2336:G:H5'	2.18	0.43
1:0:1119:U:N3	1:0:1120:C:C4	2.86	0.43
1:0:2484:G:OP2	3:0:2881:G80:O2	2.34	0.43
1:0:2556:A:C8	1:0:2556:A:H3'	2.53	0.43
1:0:177:U:C4	1:0:225:G:N3	2.87	0.43
1:0:2553:G:H8	1:0:2553:G:O5'	2.02	0.43
1:0:832:A:H2	1:0:953:G:N3	2.15	0.43
1:0:944:A:C2	1:0:945:G:N9	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1474:A:N6	1:0:1476:G:C4	2.87	0.43
1:0:1476:G:H5'	1:0:1477:C:OP2	2.19	0.43
1:0:875:G:C2'	1:0:876:A:H5'	2.49	0.43
1:0:2676:G:C2	1:0:2690:A:C2	3.06	0.43
1:0:2667:C:N4	1:0:2699:G:C2'	2.81	0.43
1:0:1393:G:C2	1:0:1394:G:C8	3.05	0.43
1:0:1438:G:N2	1:0:1590:C:C2'	2.80	0.43
1:0:2781:G:C2'	1:0:2782:G:H1'	2.47	0.43
1:0:741:G:C4	1:0:743:A:C8	3.05	0.43
1:0:617:U:N3	1:0:632:A:N7	2.67	0.43
1:0:1802:A:C8	1:0:1803:G:O4'	2.72	0.43
1:0:2826:C:H2'	1:0:2827:G:O4'	2.19	0.43
1:0:2044:G:N2	1:0:2046:C:N1	2.67	0.43
1:0:2270:U:O5'	1:0:2270:U:H6	2.01	0.43
1:0:638:A:H2'	1:0:639:G:O4'	2.18	0.43
1:0:659:G:O2'	1:0:660:G:H5'	2.19	0.43
1:0:1571:G:N2	1:0:1572:C:C2	2.87	0.43
1:0:532:A:H2'	1:0:533:C:C6	2.53	0.43
1:0:1659:G:C2'	1:0:1660:G:O5'	2.65	0.43
1:0:1427:G:H21	1:0:1604:A:N6	2.17	0.43
1:0:1711:C:C2'	1:0:1712:G:OP2	2.66	0.43
1:0:2863:U:H2'	1:0:2864:C:O4'	2.18	0.43
1:0:1414:G:H2'	1:0:1415:C:C6	2.53	0.43
1:0:2571:G:C5	1:0:2572:U:C4	3.06	0.43
1:0:700:C:H2'	1:0:701:U:C1'	2.48	0.43
1:0:797:A:N7	1:0:805:G:N3	2.66	0.43
1:0:2501:U:H5''	1:0:2502:G:OP2	2.17	0.43
1:0:2756:A:C8	1:0:2756:A:C3'	3.02	0.43
1:0:1436:G:N7	1:0:1437:A:C6	2.86	0.43
1:0:303:C:C2	1:0:360:A:N1	2.87	0.43
1:0:1005:U:H3	1:0:1007:A:H62	1.67	0.43
1:0:2841:U:C2	1:0:2843:A:O2'	2.71	0.43
1:0:1368:G:C5	1:0:1369:G:N7	2.87	0.43
1:0:1386:A:H5''	1:0:2191:A:C6	2.54	0.43
1:0:2838:U:H2'	1:0:2839:G:O4'	2.19	0.43
1:0:1932:G:C2	1:0:1941:C:C2	3.07	0.43
1:0:546:A:H2'	1:0:547:U:H6	1.83	0.43
1:0:1455:C:N4	1:0:1456:C:H41	2.16	0.43
1:0:2076:G:H21	1:0:2181:A:H61	1.65	0.43
1:0:1969:G:C2	1:0:1970:G:C8	3.06	0.43
1:0:1560:A:H2'	1:0:1561:A:C8	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2610:G:C2	1:0:2611:A:N9	2.86	0.43
1:0:1526:U:O4	1:0:1527:G:N2	2.51	0.43
1:0:2573:C:H2'	1:0:2574:G:C5'	2.47	0.43
1:0:2789:U:C5	1:0:2790:C:C4	3.07	0.43
1:0:1194:U:O2'	1:0:1195:U:H5'	2.19	0.43
1:0:2047:C:O2	1:0:2429:A:C6	2.71	0.43
1:0:586:G:C6	1:0:587:A:N6	2.86	0.43
1:0:676:G:C5	1:0:677:G:N7	2.87	0.43
1:0:2755:A:HO2'	1:0:2756:A:H5'	1.76	0.43
1:0:929:A:H3'	1:0:930:A:C5'	2.24	0.43
1:0:2697:G:N1	1:0:2698:G:C5	2.87	0.43
1:0:1583:A:C2'	1:0:1584:G:OP2	2.66	0.43
1:0:754:G:H2'	1:0:755:C:H6	1.83	0.43
1:0:1786:C:C4	1:0:1787:U:C4	3.07	0.43
1:0:67:G:C2	1:0:72:A:C2	3.07	0.43
1:0:48:A:C2	1:0:116:A:C5	3.07	0.43
1:0:1668:G:C2	1:0:1990:U:C2	3.07	0.43
1:0:1666:G:C6	1:0:1992:G:O6	2.72	0.43
1:0:2382:C:O2	1:0:2383:C:C6	2.72	0.43
1:0:1910:A:N1	1:0:1911:A:C2	2.87	0.43
1:0:2240:C:H1'	1:0:2367:A:N3	2.34	0.43
1:0:2080:U:H2'	1:0:2081:U:H6	1.82	0.43
1:0:2369:U:C3'	1:0:2369:U:H6	2.19	0.43
1:0:1597:A:N6	1:0:1598:C:N4	2.67	0.43
1:0:1058:G:O2'	1:0:1059:A:H8	2.01	0.43
1:0:2094:C:O2	1:0:2094:C:C2'	2.63	0.43
1:0:1482:U:H1'	1:0:1562:G:N2	2.34	0.43
1:0:1920:A:N6	1:0:1923:U:C6	2.86	0.43
1:0:801:A:C5'	1:0:802:A:OP1	2.67	0.43
1:0:2791:C:N3	1:0:2806:G:C2	2.87	0.43
1:0:2229:G:C2	1:0:2475:C:H5''	2.53	0.43
1:0:2527:G:C6	1:0:2540:A:N1	2.87	0.43
1:0:886:A:N6	1:0:917:U:N3	2.67	0.43
1:0:2006:G:N2	1:0:2024:U:O2	2.52	0.43
1:0:1685:A:C8	1:0:1691:G:C6	3.07	0.43
1:0:1938:U:H3'	1:0:2530:C:O2'	2.18	0.43
1:0:2690:A:N7	1:0:2694:G:C8	2.87	0.43
1:0:1171:A:C4	1:0:1172:U:C5	3.07	0.43
1:0:68:C:Cl'	1:0:72:A:N3	2.82	0.43
1:0:1015:U:O4'	1:0:1021:A:C5	2.72	0.43
1:0:2827:G:O2'	1:0:2828:C:H5'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1299:A:C2'	1:0:1301:U:OP2	2.57	0.43
1:0:2326:C:H2'	1:0:2327:U:C6	2.54	0.43
1:0:1552:C:C3'	1:0:1553:G:H5'	2.49	0.43
1:0:2306:A:H2'	1:0:2307:A:H8	1.78	0.43
1:0:712:A:C8	1:0:746:G:N2	2.83	0.43
1:0:2608:A:HO2'	1:0:2609:G:P	2.42	0.43
1:0:2371:A:C8	1:0:2372:A:C8	3.07	0.43
1:0:132:U:C2	1:0:140:G:C2	3.07	0.43
1:0:2124:C:H6	1:0:2124:C:O5'	2.01	0.43
1:0:2272:A:C6	1:0:2273:C:C4	3.07	0.43
1:0:801:A:H5''	1:0:802:A:OP1	2.19	0.43
1:0:174:A:N1	1:0:175:C:O2	2.52	0.43
1:0:830:C:O2'	1:0:831:G:H5'	2.19	0.43
1:0:2007:G:O2'	1:0:2008:C:C5'	2.62	0.43
1:0:1345:G:H4'	1:0:1346:C:OP1	2.15	0.43
1:0:1650:A:N6	1:0:1652:G:C6	2.86	0.43
1:0:1435:G:H2'	1:0:1435:G:N3	2.33	0.43
1:0:490:A:N3	1:0:491:A:C5	2.87	0.43
1:0:1810:U:H2'	1:0:1811:A:OP2	2.19	0.43
1:0:1279:G:H22	1:0:1995:G:H2'	1.82	0.43
1:0:1012:A:H2'	1:0:1013:G:O4'	2.19	0.43
1:0:2746:G:N3	1:0:2746:G:C2'	2.80	0.43
1:0:2819:G:H2'	1:0:2820:C:C6	2.54	0.43
1:0:2510:A:C2	1:0:2638:G:O4'	2.71	0.43
1:0:2188:A:C6	1:0:2189:A:N6	2.87	0.43
1:0:2034:A:HO2'	1:0:2035:G:H8	1.57	0.42
1:0:2417:U:O3'	1:0:2419:C:OP1	2.37	0.42
1:0:2813:G:N2	1:0:2856:U:C2	2.87	0.42
1:0:826:U:H5'	1:0:1239:A:H4'	2.00	0.42
1:0:1235:C:C2	1:0:1241:G:C2	3.07	0.42
1:0:580:A:C4	1:0:2013:A:N6	2.87	0.42
1:0:2473:G:N2	1:0:2474:G:N9	2.67	0.42
1:0:2550:C:H2'	1:0:2551:A:OP1	2.18	0.42
1:0:587:A:O2'	1:0:588:G:H5''	2.18	0.42
1:0:1464:A:C2'	1:0:1465:G:O4'	2.50	0.42
1:0:1624:A:C5	1:0:1627:C:C4	3.07	0.42
1:0:1703:C:H2'	1:0:1704:G:H8	1.84	0.42
1:0:73:A:O2'	1:0:74:G:OP2	2.36	0.42
1:0:1674:C:C2	1:0:1675:C:C5	3.07	0.42
1:0:2800:C:C5	1:0:2801:A:C8	3.07	0.42
1:0:2268:G:C5'	1:0:2363:G:O2'	2.66	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1499:A:C6	1:0:1522:C:N4	2.87	0.42
1:0:1522:C:O2'	1:0:1523:A:H5'	2.19	0.42
1:0:26:G:C6	1:0:27:G:C2	3.07	0.42
1:0:20:C:H2'	1:0:21:A:C8	2.50	0.42
1:0:1430:G:H2'	1:0:1431:U:H6	1.83	0.42
1:0:2808:U:O2	1:0:2808:U:C2'	2.65	0.42
1:0:2613:A:O2'	1:0:2614:A:H5'	2.18	0.42
1:0:1834:G:N2	1:0:1835:C:H1'	2.34	0.42
1:0:200:A:H4'	1:0:433:G:O2'	2.19	0.42
1:0:2086:U:H6	1:0:2086:U:O5'	2.02	0.42
1:0:1925:C:C6	1:0:1926:U:H5	2.37	0.42
1:0:2817:A:C6	1:0:2851:G:C6	3.07	0.42
1:0:2039:G:C4	1:0:2556:A:C2	3.07	0.42
1:0:697:G:N1	1:0:788:G:C5	2.88	0.42
1:0:1236:G:C6	1:0:1238:A:OP1	2.72	0.42
1:0:1242:A:O2'	1:0:1243:G:C5'	2.65	0.42
1:0:2255:G:C2	1:0:2256:G:C8	3.07	0.42
1:0:2540:A:H2'	1:0:2541:U:O5'	2.19	0.42
1:0:1543:G:O5'	1:0:1543:G:H8	2.01	0.42
1:0:1651:U:H4'	1:0:1652:G:OP1	2.12	0.42
1:0:1652:G:C4	1:0:1653:C:C5	3.07	0.42
1:0:1681:A:OP1	1:0:1682:A:OP2	2.38	0.42
1:0:1391:A:N7	1:0:1393:G:C5	2.87	0.42
1:0:1436:G:C8	1:0:1436:G:O5'	2.72	0.42
1:0:1714:A:H62	1:0:1715:A:H61	1.65	0.42
1:0:1169:C:C2'	1:0:1170:U:H5'	2.49	0.42
1:0:58:C:O2	1:0:73:A:C2	2.72	0.42
1:0:73:A:H4'	1:0:74:G:O4'	2.19	0.42
1:0:2275:U:H2'	1:0:2276:C:OP2	2.19	0.42
1:0:1407:G:N3	1:0:1408:A:N1	2.67	0.42
1:0:1166:A:C2'	1:0:1167:A:H5''	2.49	0.42
1:0:2624:G:H4'	1:0:2712:G:HO2'	1.82	0.42
1:0:2240:C:H2'	1:0:2241:U:H5''	2.00	0.42
1:0:2645:C:H6	1:0:2645:C:O5'	2.02	0.42
1:0:1428:G:O5'	1:0:1428:G:H8	2.02	0.42
1:0:785:U:H6	1:0:785:U:O5'	2.01	0.42
1:0:2598:C:H6	1:0:2598:C:H5''	1.84	0.42
1:0:476:G:N2	1:0:697:G:H1'	2.34	0.42
1:0:698:A:C4'	1:0:700:C:H41	2.30	0.42
1:0:1194:U:H2'	1:0:1195:U:H6	1.84	0.42
1:0:177:U:O2	1:0:177:U:C2'	2.67	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2018:G:O2'	1:0:2019:C:OP1	2.32	0.42
1:0:2519:C:C5	1:0:2520:A:N7	2.86	0.42
1:0:167:A:N6	1:0:812:G:O2'	2.52	0.42
1:0:939:C:C4	1:0:941:U:C5	3.07	0.42
1:0:2727:G:H1	1:0:2734:U:H2'	1.83	0.42
1:0:538:A:C6	1:0:2025:A:C5	3.08	0.42
1:0:2762:G:O5'	1:0:2762:G:C8	2.72	0.42
1:0:875:G:N2	1:0:876:A:H1'	2.33	0.42
1:0:1750:A:N7	1:0:2675:U:H1'	2.34	0.42
1:0:1391:A:C8	1:0:1393:G:N7	2.87	0.42
1:0:1391:A:H1'	1:0:1392:U:C4	2.54	0.42
1:0:464:G:C4	1:0:469:G:C2	3.07	0.42
1:0:1223:G:N2	1:0:1225:G:N3	2.63	0.42
1:0:2867:G:O2'	1:0:2868:G:O5'	2.36	0.42
1:0:1745:C:H2'	1:0:1746:A:O4'	2.19	0.42
1:0:1089:C:H2'	1:0:1099:A:C1'	2.48	0.42
1:0:447:U:O2'	1:0:448:C:C5	2.70	0.42
1:0:1368:G:C2	1:0:1369:G:C8	3.07	0.42
1:0:1279:G:N2	1:0:1995:G:N9	2.67	0.42
1:0:559:C:C6	1:0:559:C:H3'	2.53	0.42
1:0:1108:U:H2'	1:0:1109:A:C5'	2.42	0.42
1:0:1905:G:C2'	1:0:1906:U:H5'	2.49	0.42
1:0:314:G:H2'	1:0:315:G:O4'	2.19	0.42
1:0:398:C:N3	1:0:424:G:O6	2.52	0.42
1:0:1770:U:H5	1:0:1775:A:C8	2.38	0.42
1:0:697:G:N2	1:0:788:G:C2	2.87	0.42
1:0:192:G:HO2'	1:0:193:A:P	2.43	0.42
1:0:584:A:H2'	1:0:585:U:C6	2.54	0.42
1:0:985:G:O2'	1:0:1001:A:N6	2.52	0.42
1:0:1044:U:C4	1:0:2730:A:C2	3.07	0.42
1:0:916:U:C4	1:0:917:U:C5	3.07	0.42
1:0:1224:A:C8	1:0:1224:A:O5'	2.72	0.42
1:0:1251:G:N2	1:0:1252:C:C2	2.87	0.42
1:0:320:A:O2'	1:0:340:G:H2'	2.19	0.42
1:0:757:U:C2'	1:0:758:G:H5'	2.49	0.42
1:0:1671:A:C4	1:0:1672:A:C8	3.08	0.42
1:0:1151:U:O5'	1:0:1153:A:OP1	2.37	0.42
1:0:2043:A:O2'	1:0:2044:G:OP2	2.37	0.42
1:0:452:G:C2	1:0:453:U:C2	3.07	0.42
1:0:1569:A:N7	1:0:1571:G:C5	2.87	0.42
1:0:2388:G:C6	1:0:2389:G:N7	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2079:A:C2	1:0:2177:U:H1'	2.54	0.42
1:0:219:G:H22	1:0:232:A:P	2.43	0.42
1:0:2221:G:C6	1:0:2222:U:C5	3.08	0.42
1:0:548:G:N2	1:0:549:G:N9	2.67	0.42
1:0:1760:G:C2	1:0:1761:G:C8	3.06	0.42
1:0:1657:A:H5'	1:0:1657:A:H8	1.85	0.42
1:0:2181:A:N3	1:0:2181:A:C2'	2.82	0.42
1:0:2860:C:H2'	1:0:2861:A:O4'	2.20	0.42
1:0:736:G:C2'	1:0:737:C:H5'	2.49	0.42
1:0:1052:C:H2'	1:0:1053:G:C8	2.54	0.42
1:0:79:G:N1	1:0:80:A:C5	2.87	0.42
1:0:795:A:H4'	1:0:796:A:O5'	2.19	0.42
1:0:841:G:H22	1:0:2226:A:H5'	1.84	0.42
1:0:844:G:N1	1:0:845:U:C2	2.88	0.42
1:0:322:A:C2'	1:0:323:G:OP1	2.67	0.42
1:0:2200:G:C4	1:0:2201:G:C8	3.08	0.42
1:0:65:C:H2'	1:0:66:U:H5'	2.00	0.42
1:0:2824:C:O2	1:0:2843:A:C8	2.72	0.42
1:0:1328:C:N3	1:0:1329:U:C5	2.87	0.42
1:0:1285:A:C2	1:0:1634:A:C4	3.07	0.42
1:0:1815:G:H2'	1:0:1816:G:C5'	2.49	0.42
1:0:1012:A:N7	1:0:1013:G:C4	2.87	0.42
1:0:2627:G:H8	1:0:2627:G:O5'	2.01	0.42
1:0:2306:A:C6	1:0:2367:A:C2	3.07	0.42
1:0:369:C:H6	1:0:369:C:O5'	2.02	0.42
1:0:239:A:H2'	1:0:240:U:O4'	2.18	0.42
1:0:602:C:C4	1:0:603:C:C5	3.07	0.42
1:0:551:A:C6	1:0:562:G:C6	3.07	0.42
1:0:1480:G:H2'	1:0:1481:U:O4'	2.19	0.42
1:0:150:A:H2'	1:0:151:G:O4'	2.19	0.42
1:0:2597:G:C6	1:0:2598:C:N4	2.88	0.42
1:0:1922:U:O2	1:0:2570:C:O2'	2.25	0.42
1:0:2019:C:O2'	1:0:2020:G:H5'	2.18	0.42
1:0:2494:C:O2	1:0:2549:G:C2	2.73	0.42
1:0:571:U:O2	1:0:581:A:C4	2.73	0.42
1:0:676:G:O6	1:0:677:G:C6	2.72	0.42
1:0:1544:A:H3'	1:0:1544:A:C8	2.55	0.42
1:0:1559:G:O5'	1:0:1559:G:H8	2.02	0.42
1:0:880:C:N4	1:0:881:U:O4	2.53	0.42
1:0:2621:G:C2	1:0:2622:G:C4	3.07	0.42
1:0:874:A:C4	1:0:929:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1621:C:C5	1:0:1622:G:C5	3.08	0.42
1:0:2771:C:O2	1:0:2771:C:H2'	2.20	0.42
1:0:56:C:H6	1:0:56:C:O5'	2.01	0.42
1:0:67:G:C6	1:0:72:A:N1	2.88	0.42
1:0:71:A:O2'	1:0:72:A:P	2.77	0.42
1:0:2059:U:H6	1:0:2059:U:O5'	2.02	0.42
1:0:1285:A:O2'	1:0:1286:U:O5'	2.30	0.42
1:0:1290:A:H2'	1:0:1291:G:C8	2.54	0.42
1:0:1780:A:C5	1:0:1781:C:C5	3.07	0.42
1:0:222:G:C6	1:0:231:G:C2	3.07	0.42
1:0:1942:G:C6	1:0:1943:A:C6	3.07	0.42
1:0:717:G:H2'	1:0:739:G:N2	2.31	0.42
1:0:865:A:C2	1:0:938:G:C2	3.07	0.42
1:0:498:C:N4	1:0:499:G:O6	2.52	0.42
1:0:2209:G:C6	1:0:2210:C:C4	3.07	0.42
1:0:1066:G:H3'	1:0:1067:G:C4'	2.50	0.42
1:0:1925:C:H2'	1:0:1926:U:C4	2.54	0.42
1:0:298:C:C2'	1:0:299:C:H5'	2.49	0.42
1:0:2118:A:H2'	1:0:2119:A:N7	2.34	0.42
1:0:2601:C:C2'	1:0:2602:G:O5'	2.68	0.42
1:0:679:C:H2'	1:0:680:U:C6	2.53	0.42
1:0:2168:A:H2'	1:0:2169:A:H5'	2.01	0.42
1:0:791:G:C6	1:0:792:U:N3	2.88	0.42
1:0:843:G:C4	1:0:2427:A:N6	2.87	0.42
1:0:830:C:O2'	1:0:852:U:OP1	2.38	0.42
1:0:941:U:O2	1:0:942:U:C6	2.73	0.42
1:0:1545:G:H2'	1:0:1546:C:O4'	2.18	0.42
1:0:2762:G:C2'	1:0:2763:U:H5'	2.50	0.42
1:0:874:A:C2'	1:0:875:G:H5'	2.50	0.42
1:0:1366:A:N6	1:0:1367:A:N6	2.67	0.42
1:0:465:C:HO2'	1:0:467:U:H1'	1.85	0.42
1:0:59:G:H1'	1:0:73:A:C2	2.53	0.42
1:0:333:A:H5'	1:0:351:A:O4'	2.20	0.42
1:0:2396:C:O2'	1:0:2397:A:H5'	2.20	0.42
1:0:50:G:C2'	1:0:51:A:OP2	2.67	0.42
1:0:1287:A:C4	1:0:1315:A:N1	2.88	0.42
1:0:2303:C:O2	1:0:2364:C:C5	2.72	0.42
1:0:1783:G:N1	1:0:1820:G:H1'	2.35	0.42
1:0:75:C:O2'	1:0:76:C:H5''	2.19	0.42
1:0:222:G:N1	1:0:231:G:N3	2.68	0.42
1:0:1736:C:C2	1:0:1737:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2037:A:C2	1:0:2595:C:C2	3.07	0.42
1:0:2232:G:H2'	1:0:2233:C:H6	1.85	0.42
1:0:888:G:H2'	1:0:889:C:C6	2.54	0.42
1:0:1850:G:C2	1:0:1868:A:N7	2.87	0.42
1:0:2557:G:C2	1:0:2558:C:C5	3.08	0.42
1:0:2418:A:O2'	1:0:2566:A:C5'	2.67	0.42
1:0:698:A:H5''	1:0:801:A:N6	2.35	0.42
1:0:2856:U:C4	1:0:2857:C:C5	3.08	0.42
1:0:991:A:C5	1:0:992:A:C2	3.08	0.42
1:0:17:G:C5	1:0:18:U:C4	3.08	0.42
1:0:1631:C:C5	1:0:1633:C:N1	2.87	0.42
1:0:1685:A:C2	1:0:1976:U:N1	2.88	0.42
1:0:1976:U:N3	1:0:1977:C:C6	2.87	0.42
1:0:1512:A:H2'	1:0:1514:C:C5	2.54	0.42
1:0:513:A:C2	1:0:515:A:C5	3.07	0.42
1:0:1357:U:H1'	1:0:1397:A:N3	2.34	0.42
1:0:2277:A:C1'	1:0:2300:G:N2	2.83	0.42
1:0:328:A:H2'	1:0:329:C:C6	2.54	0.42
1:0:221:A:H2'	1:0:221:A:N3	2.33	0.42
1:0:403:A:OP2	1:0:403:A:H3'	2.20	0.42
1:0:1058:G:H2'	1:0:1121:G:N2	2.34	0.42
1:0:1870:U:C4	1:0:1871:G:N7	2.88	0.42
1:0:415:A:H2'	1:0:416:U:C5'	2.49	0.42
1:0:2640:G:OP2	1:0:2640:G:H8	2.02	0.42
1:0:39:C:H2'	1:0:40:U:H6	1.85	0.42
1:0:55:A:O4'	1:0:125:A:C2	2.73	0.42
1:0:2484:G:H2'	1:0:2555:G:H1	1.84	0.42
1:0:797:A:HO2'	1:0:798:G:H8	1.67	0.42
1:0:2792:C:C2	1:0:2805:G:N2	2.88	0.42
1:0:1140:A:N6	1:0:2549:G:H4'	2.35	0.42
1:0:2426:G:HO2'	1:0:2427:A:P	2.40	0.42
1:0:566:U:H2'	1:0:567:G:C8	2.51	0.42
1:0:923:A:H5''	1:0:924:C:H5''	2.02	0.42
1:0:1635:G:C2	1:0:1636:G:C4	3.08	0.42
1:0:1701:C:C2	1:0:1722:G:N2	2.88	0.42
1:0:1169:C:C6	1:0:1169:C:C3'	3.03	0.42
1:0:58:C:C1'	1:0:72:A:C8	3.01	0.42
1:0:1033:G:N1	1:0:1151:U:C5	2.88	0.42
1:0:118:U:C6	1:0:143:A:C2	3.07	0.42
1:0:118:U:H5''	1:0:120:G:OP2	2.20	0.42
1:0:51:A:C6	1:0:52:A:C6	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1313:U:O2	1:0:1642:G:N1	2.52	0.42
1:0:1815:G:H2'	1:0:1816:G:H5'	2.00	0.42
1:0:1825:C:C4	1:0:1826:U:C5	3.07	0.42
1:0:656:U:H5'	1:0:657:A:OP1	2.19	0.42
1:0:1648:C:H2'	1:0:1649:A:O5'	2.20	0.42
1:0:1432:G:H8	1:0:1432:G:O5'	2.02	0.42
1:0:2073:A:N1	1:0:2209:G:C5	2.87	0.42
1:0:2749:A:N1	1:0:2750:G:N3	2.68	0.42
1:0:2034:A:N6	1:0:2593:A:C8	2.88	0.42
1:0:2035:G:O6	1:0:2597:G:C2	2.73	0.42
1:0:787:A:C2'	1:0:788:G:C5'	2.98	0.42
1:0:174:A:N1	1:0:2409:A:N7	2.68	0.42
1:0:2473:G:N2	1:0:2474:G:N3	2.68	0.42
1:0:2229:G:H22	1:0:2475:C:H4'	1.85	0.42
1:0:2499:C:C2'	1:0:2500:C:H5'	2.50	0.42
1:0:827:C:O2'	1:0:828:C:H5'	2.20	0.42
1:0:876:A:O2'	1:0:877:G:H5'	2.20	0.42
1:0:1979:C:C2'	1:0:1979:C:O2	2.67	0.42
1:0:1391:A:N7	1:0:1393:G:C6	2.88	0.42
1:0:1583:A:O2'	1:0:1584:G:OP2	2.32	0.42
1:0:592:G:C2	1:0:593:C:C5	3.07	0.42
1:0:515:A:O2'	1:0:516:G:H5'	2.20	0.42
1:0:2866:A:H5''	1:0:2867:G:OP1	2.19	0.42
1:0:67:G:N1	1:0:73:A:C5	2.87	0.42
1:0:2278:A:H2'	1:0:2279:G:C8	2.55	0.42
1:0:2350:G:C6	1:0:2351:G:N7	2.88	0.42
1:0:946:U:C2	1:0:947:C:C5	3.07	0.42
1:0:2096:U:H3'	1:0:2097:A:C5'	2.50	0.42
1:0:1533:G:C5	1:0:1534:A:N7	2.88	0.42
1:0:200:A:N7	1:0:435:A:C1'	2.83	0.42
1:0:2571:G:N1	1:0:2582:G:C6	2.88	0.41
1:0:1233:A:H8	1:0:1233:A:O5'	2.03	0.41
1:0:1245:G:C2'	1:0:1246:G:H5'	2.50	0.41
1:0:167:A:C4	1:0:184:A:N3	2.88	0.41
1:0:2545:A:C2'	1:0:2546:G:OP2	2.68	0.41
1:0:1464:A:H2'	1:0:1465:G:C1'	2.47	0.41
1:0:1695:U:O2'	1:0:1696:C:H5'	2.20	0.41
1:0:1221:C:H2'	1:0:1222:G:C8	2.55	0.41
1:0:2771:C:C2	1:0:2772:U:C6	3.08	0.41
1:0:633:G:H2'	1:0:634:G:O5'	2.20	0.41
1:0:1035:G:C8	1:0:1036:G:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1086:C:C6	1:0:1086:C:C3'	3.02	0.41
1:0:2838:U:C4	1:0:2839:G:N7	2.88	0.41
1:0:1399:C:C2	1:0:1400:A:C8	3.08	0.41
1:0:2721:A:N6	1:0:2743:G:H1'	2.35	0.41
1:0:2483:U:O5'	1:0:2483:U:H6	2.03	0.41
1:0:1462:C:O2'	1:0:1560:A:H1'	2.19	0.41
1:0:1945:C:O2'	1:0:1946:U:C5	2.73	0.41
1:0:2419:C:O2'	1:0:2420:C:OP1	2.30	0.41
1:0:2573:C:N3	1:0:2574:G:C8	2.88	0.41
1:0:2807:U:O2'	1:0:2809:A:C5	2.73	0.41
1:0:1241:G:C2	1:0:1242:A:C5	3.08	0.41
1:0:192:G:O2'	1:0:193:A:C4'	2.68	0.41
1:0:2226:A:C2'	1:0:2227:C:O4'	2.68	0.41
1:0:586:G:C2	1:0:587:A:C2	3.08	0.41
1:0:1475:U:O2'	1:0:1476:G:P	2.78	0.41
1:0:1141:U:N3	1:0:2008:C:H5''	2.35	0.41
1:0:2616:U:H6	1:0:2616:U:H3'	1.84	0.41
1:0:2756:A:N3	1:0:2758:A:C4	2.88	0.41
1:0:538:A:H2	1:0:2026:C:H4'	1.84	0.41
1:0:494:A:N7	1:0:507:A:H2	2.17	0.41
1:0:2198:U:H5''	1:0:2199:C:OP2	2.20	0.41
1:0:623:G:C5'	1:0:626:A:H62	2.33	0.41
1:0:614:G:N2	1:0:634:G:N2	2.69	0.41
1:0:1706:A:N7	1:0:1715:A:H2	2.17	0.41
1:0:1672:A:C2	1:0:1673:C:H1'	2.54	0.41
1:0:1355:A:N1	1:0:1358:C:C2	2.88	0.41
1:0:1031:C:C2'	1:0:1032:A:OP2	2.68	0.41
1:0:1035:G:H2'	1:0:1036:G:C8	2.55	0.41
1:0:115:G:C5	1:0:117:A:N6	2.88	0.41
1:0:2302:G:N2	1:0:2303:C:C1'	2.83	0.41
1:0:867:G:C2	1:0:936:A:C2	3.08	0.41
1:0:565:A:H8	1:0:565:A:O5'	2.03	0.41
1:0:198:A:O4'	1:0:210:A:H1'	2.20	0.41
1:0:1293:A:C2	1:0:1304:U:N3	2.88	0.41
1:0:415:A:H8	1:0:415:A:O5'	2.03	0.41
1:0:496:C:O2'	1:0:497:C:H5'	2.20	0.41
1:0:1117:G:H2'	1:0:1118:G:H8	1.83	0.41
1:0:698:A:H5'	1:0:801:A:H62	1.84	0.41
1:0:698:A:C5'	1:0:801:A:N6	2.83	0.41
1:0:991:A:N1	1:0:1146:G:H4'	2.35	0.41
1:0:188:G:C2	1:0:189:A:C8	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2409:A:C2'	1:0:2410:U:H5'	2.50	0.41
1:0:956:A:C5	1:0:2427:A:H2	2.38	0.41
1:0:819:C:C2	1:0:820:U:C5	3.08	0.41
1:0:957:G:O2'	1:0:958:G:C5'	2.67	0.41
1:0:956:A:O2'	1:0:957:G:P	2.78	0.41
1:0:886:A:H2'	1:0:887:G:O4'	2.20	0.41
1:0:1629:G:C4	1:0:1633:C:N3	2.88	0.41
1:0:2783:U:H2'	1:0:2784:A:O4'	2.20	0.41
1:0:2788:C:H2'	1:0:2788:C:O2	2.20	0.41
1:0:1707:A:C8	1:0:1708:C:C6	3.08	0.41
1:0:1007:A:N3	1:0:1008:G:C8	2.88	0.41
1:0:1881:U:C2'	1:0:1882:G:H5'	2.50	0.41
1:0:1417:C:H2'	1:0:1418:C:H6	1.85	0.41
1:0:1151:U:P	1:0:1153:A:OP1	2.78	0.41
1:0:2395:C:H2'	1:0:2396:C:C5'	2.42	0.41
1:0:658:G:H2'	1:0:659:G:H8	1.85	0.41
1:0:2078:G:N2	1:0:2178:U:H1'	2.36	0.41
1:0:219:G:C2'	1:0:220:U:OP2	2.68	0.41
1:0:398:C:HO2'	1:0:401:G:H1	1.68	0.41
1:0:136:A:C2'	1:0:137:A:H5'	2.50	0.41
1:0:1610:A:C2	1:0:1611:U:C2	3.08	0.41
1:0:499:G:C2	1:0:503:G:O6	2.74	0.41
1:0:2766:U:H2'	1:0:2767:C:H6	1.84	0.41
1:0:216:U:OP1	1:0:601:A:N7	2.53	0.41
1:0:1040:A:H2'	1:0:1041:G:O4'	2.20	0.41
1:0:1658:A:N7	1:0:1659:G:C5	2.88	0.41
1:0:1077:U:O2	1:0:1079:G:H3'	2.20	0.41
1:0:849:G:N7	1:0:850:C:C5	2.88	0.41
1:0:1923:U:O2'	1:0:1924:C:H5	2.03	0.41
1:0:1194:U:H2'	1:0:1195:U:C6	2.55	0.41
1:0:2052:G:O2'	1:0:2053:G:H5'	2.20	0.41
1:0:2407:G:H5'	1:0:2408:G:N3	2.36	0.41
1:0:2429:A:OP1	1:0:2476:A:C8	2.73	0.41
1:0:1139:A:H1'	1:0:2495:G:O2'	2.21	0.41
1:0:567:G:C2'	1:0:568:G:H5'	2.50	0.41
1:0:813:A:C2	1:0:815:A:C8	3.07	0.41
1:0:968:C:H41	1:0:2437:G:C5'	2.33	0.41
1:0:1045:G:H2'	1:0:1046:U:C6	2.56	0.41
1:0:2733:A:H2'	1:0:2734:U:C5'	2.48	0.41
1:0:1543:G:H2'	1:0:1544:A:C5'	2.50	0.41
1:0:537:C:C1'	1:0:2759:U:C4	3.04	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2252:A:N7	1:0:2253:A:N7	2.69	0.41
1:0:929:A:C3'	1:0:930:A:C5'	2.93	0.41
1:0:1323:G:H2'	1:0:1324:G:O4'	2.20	0.41
1:0:1345:G:N3	1:0:1625:A:N1	2.67	0.41
1:0:1749:G:N3	1:0:1749:G:O4'	2.53	0.41
1:0:2866:A:O3'	1:0:2867:G:O4'	2.38	0.41
1:0:1495:G:HO2'	1:0:1496:G:P	2.43	0.41
1:0:1713:G:N1	1:0:1714:A:H1'	2.34	0.41
1:0:1032:A:C3'	1:0:1032:A:C8	3.04	0.41
1:0:115:G:OP1	1:0:122:G:O6	2.38	0.41
1:0:1825:C:O2'	1:0:1826:U:H5'	2.20	0.41
1:0:1648:C:C5'	1:0:1648:C:H6	2.23	0.41
1:0:1879:G:O2'	1:0:1880:G:H5'	2.21	0.41
1:0:1040:A:N7	1:0:1041:G:N7	2.69	0.41
1:0:2372:A:C2	1:0:2373:C:C2	3.08	0.41
1:0:2106:G:C5	1:0:2107:G:N7	2.89	0.41
1:0:1490:U:H2'	1:0:1491:C:H6	1.86	0.41
1:0:159:A:C8	1:0:160:C:C5	3.08	0.41
1:0:1152:C:H2'	1:0:1152:C:O2	2.19	0.41
1:0:1022:A:C5	1:0:1024:G:C8	3.09	0.41
1:0:2418:A:C4'	1:0:2419:C:O5'	2.68	0.41
1:0:2576:G:C5	1:0:2577:A:N6	2.88	0.41
1:0:764:A:H2'	1:0:802:A:C2	2.56	0.41
1:0:1263:G:O2'	1:0:1264:C:P	2.78	0.41
1:0:173:A:O2'	1:0:174:A:H5'	2.20	0.41
1:0:189:A:O2'	1:0:190:A:H5'	2.20	0.41
1:0:2016:A:C5	1:0:2019:C:C4	3.09	0.41
1:0:2052:G:C2'	1:0:2053:G:H5'	2.51	0.41
1:0:2422:C:H2'	1:0:2423:G:C5'	2.51	0.41
1:0:2422:C:H2'	1:0:2423:G:O5'	2.20	0.41
1:0:2438:A:C2	1:0:2439:U:C2	3.09	0.41
1:0:2489:C:C5	1:0:2490:U:C5	3.09	0.41
1:0:573:C:O2'	1:0:574:C:H5'	2.20	0.41
1:0:575:U:H2'	1:0:576:A:O4'	2.19	0.41
1:0:1474:A:C6	1:0:1476:G:C5	3.09	0.41
1:0:2004:U:O2'	1:0:2005:U:OP1	2.32	0.41
1:0:2616:U:C5	1:0:2617:G:C2	3.08	0.41
1:0:538:A:N7	1:0:2025:A:C6	2.89	0.41
1:0:2252:A:C8	1:0:2253:A:C8	3.09	0.41
1:0:1652:G:C4	1:0:1653:C:C6	3.08	0.41
1:0:471:A:C2	1:0:481:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:488:A:H2'	1:0:489:A:C8	2.56	0.41
1:0:759:C:C6	1:0:759:C:H3'	2.55	0.41
1:0:758:G:C2	1:0:766:A:C6	3.08	0.41
1:0:1713:G:C5	1:0:1714:A:C8	3.08	0.41
1:0:1764:A:C8	1:0:1764:A:C3'	3.04	0.41
1:0:1614:C:H2'	1:0:1615:C:H6	1.85	0.41
1:0:1288:A:N6	1:0:1309:G:C4'	2.83	0.41
1:0:2324:G:N2	1:0:2361:G:C2	2.89	0.41
1:0:986:A:N7	1:0:987:G:N7	2.69	0.41
1:0:2079:A:O2'	1:0:2080:U:H5'	2.20	0.41
1:0:1398:G:O2'	1:0:1399:C:O4'	2.30	0.41
1:0:2742:G:H2'	1:0:2743:G:O5'	2.20	0.41
1:0:2511:G:N2	1:0:2642:G:H1'	2.35	0.41
1:0:1488:G:O2'	1:0:1489:C:P	2.79	0.41
1:0:1421:U:H2'	1:0:1422:C:C6	2.56	0.41
1:0:1427:G:OP2	1:0:1428:G:N1	2.54	0.41
1:0:2169:A:C2'	1:0:2170:C:H5'	2.50	0.41
1:0:2169:A:H2'	1:0:2170:C:H5'	2.03	0.41
1:0:426:C:H6	1:0:426:C:O5'	2.03	0.41
1:0:800:U:C5	1:0:804:C:N3	2.87	0.41
1:0:1242:A:H2'	1:0:1243:G:C8	2.56	0.41
1:0:224:G:H22	1:0:227:G:H3'	1.85	0.41
1:0:2492:G:C6	1:0:2553:G:C6	3.09	0.41
1:0:1467:U:O2	1:0:1476:G:N2	2.54	0.41
1:0:2663:U:C4	1:0:2664:G:C8	3.08	0.41
1:0:2705:A:C6	1:0:2707:G:C8	3.09	0.41
1:0:976:C:H1'	1:0:2252:A:N3	2.32	0.41
1:0:1683:G:N7	1:0:1684:G:C5	2.88	0.41
1:0:2679:G:N2	1:0:2687:G:C4	2.89	0.41
1:0:756:C:H2'	1:0:757:U:O4'	2.21	0.41
1:0:759:C:C6	1:0:759:C:C3'	3.03	0.41
1:0:2785:A:N7	1:0:2786:G:C8	2.89	0.41
1:0:156:G:C6	1:0:157:G:C5	3.09	0.41
1:0:1666:G:N1	1:0:1992:G:C6	2.89	0.41
1:0:1955:G:O2'	1:0:1956:G:H5''	2.21	0.41
1:0:2459:C:H2'	1:0:2460:G:H5'	2.02	0.41
1:0:2079:A:H2'	1:0:2080:U:C6	2.55	0.41
1:0:2721:A:H61	1:0:2743:G:H1'	1.85	0.41
1:0:2608:A:C5	1:0:2869:U:C5	3.09	0.41
1:0:442:A:C3'	1:0:443:A:H8	2.33	0.41
1:0:246:C:N3	1:0:247:A:C6	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:414:A:H61	1:0:435:A:H61	1.69	0.41
1:0:2033:C:C4	1:0:2034:A:C8	3.08	0.41
1:0:175:C:C3'	1:0:175:C:C6	3.03	0.41
1:0:2245:A:C2	1:0:2251:U:H5	2.38	0.41
1:0:1345:G:C5	1:0:1625:A:C6	3.08	0.41
1:0:2688:G:C5'	1:0:2689:C:OP2	2.66	0.41
1:0:1510:A:H2'	1:0:1511:A:O4'	2.21	0.41
1:0:1220:G:C2'	1:0:1221:C:H5'	2.51	0.41
1:0:754:G:H2'	1:0:755:C:C6	2.56	0.41
1:0:2784:A:C2	1:0:2865:G:N2	2.89	0.41
1:0:1766:U:C2'	1:0:1767:G:C5'	2.93	0.41
1:0:1672:A:H3'	1:0:1673:C:C6	2.55	0.41
1:0:1358:C:H2'	1:0:1359:G:H5'	2.02	0.41
1:0:1397:A:H1'	1:0:1418:C:O4'	2.21	0.41
1:0:1368:G:N3	1:0:1369:G:C8	2.89	0.41
1:0:1952:A:O3'	1:0:1953:A:O4'	2.38	0.41
1:0:2624:G:C4'	1:0:2712:G:O2'	2.60	0.41
1:0:533:C:O2	1:0:563:U:O2'	2.37	0.41
1:0:2764:U:H2'	1:0:2765:C:C6	2.55	0.41
1:0:1535:C:O2	1:0:1536:G:N3	2.53	0.41
1:0:1886:G:C2	1:0:1887:G:C8	3.08	0.41
1:0:1759:A:C6	1:0:1968:G:O6	2.74	0.41
1:0:1920:A:C2	1:0:1922:U:C5	3.08	0.41
1:0:1923:U:H4'	1:0:1924:C:OP1	2.19	0.41
1:0:1199:U:H5	1:0:1201:G:C5	2.39	0.41
1:0:1231:A:N6	1:0:1232:U:H3	2.19	0.41
1:0:2229:G:OP1	1:0:2254:C:C5	2.74	0.41
1:0:596:C:C4	1:0:684:C:C2	3.08	0.41
1:0:1473:U:H5'	1:0:1474:A:C8	2.56	0.41
1:0:2619:G:C2	1:0:2620:G:N9	2.89	0.41
1:0:976:C:HO2'	1:0:977:G:H5'	1.84	0.41
1:0:1345:G:C5	1:0:1625:A:N6	2.88	0.41
1:0:1697:U:O5'	1:0:1697:U:H6	2.04	0.41
1:0:1433:A:C6	1:0:1434:U:N3	2.89	0.41
1:0:35:G:C1'	1:0:466:A:N3	2.84	0.41
1:0:667:U:C2'	1:0:668:A:O5'	2.69	0.41
1:0:1153:A:N3	1:0:1155:G:C5	2.89	0.41
1:0:1073:G:C3'	1:0:1074:G:H5''	2.51	0.41
1:0:1783:G:H1	1:0:1820:G:H1'	1.86	0.41
1:0:646:C:C4	1:0:647:G:N7	2.88	0.41
1:0:311:A:H1'	1:0:330:C:H1'	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:296:A:N1	1:0:297:A:N6	2.68	0.41
1:0:2505:G:H22	1:0:2517:C:H1'	1.85	0.41
1:0:2281:C:N3	1:0:2282:G:N7	2.68	0.41
1:0:2283:G:N2	1:0:2292:C:C2	2.89	0.41
1:0:934:G:H2'	1:0:935:C:O4'	2.20	0.41
1:0:787:A:O2'	1:0:790:A:N3	2.54	0.41
1:0:2856:U:C4	1:0:2857:C:H5	2.39	0.41
1:0:1236:G:H5''	1:0:1237:G:OP2	2.21	0.41
1:0:172:A:N1	1:0:178:C:C2	2.88	0.41
1:0:192:G:C2'	1:0:193:A:H4'	2.51	0.41
1:0:972:C:C2	1:0:2014:A:C2	3.09	0.41
1:0:177:U:C5	1:0:225:G:C2	3.09	0.41
1:0:2402:U:H4'	1:0:2404:A:C5	2.56	0.41
1:0:687:G:N1	1:0:820:U:O4	2.53	0.41
1:0:161:U:O4'	1:0:193:A:H2	2.04	0.41
1:0:176:A:H2'	1:0:2412:A:N6	2.20	0.41
1:0:2438:A:N6	1:0:2473:G:C6	2.89	0.41
1:0:2498:U:C5	1:0:2520:A:C6	3.09	0.41
1:0:2554:C:H6	1:0:2554:C:O5'	2.04	0.41
1:0:687:G:C6	1:0:820:U:O4	2.74	0.41
1:0:1544:A:C2	1:0:1545:G:C6	3.09	0.41
1:0:2680:U:H5''	1:0:2681:A:C5'	2.38	0.41
1:0:2619:G:N1	1:0:2620:G:C5	2.89	0.41
1:0:2619:G:C6	1:0:2620:G:N7	2.88	0.41
1:0:2759:U:H6	1:0:2759:U:C3'	2.33	0.41
1:0:1691:G:H22	1:0:1972:G:H1	1.69	0.41
1:0:2701:A:H2'	1:0:2702:G:C5'	2.50	0.41
1:0:753:U:H2'	1:0:754:G:O5'	2.21	0.41
1:0:1790:G:C2'	1:0:1791:C:OP2	2.69	0.41
1:0:611:C:O2	1:0:614:G:C4'	2.55	0.41
1:0:620:G:N2	1:0:629:C:C2	2.89	0.41
1:0:632:A:H2	1:0:633:G:C8	2.38	0.41
1:0:1172:U:N3	1:0:1173:G:N7	2.69	0.41
1:0:1008:G:C2	1:0:1009:C:C5	3.09	0.41
1:0:1356:G:N3	1:0:1397:A:H2	2.18	0.41
1:0:1416:A:C2	1:0:1417:C:C2	3.09	0.41
1:0:1034:U:H2'	1:0:1035:G:H5'	2.01	0.41
1:0:1150:C:O3'	1:0:1153:A:H5'	2.21	0.41
1:0:308:C:H2'	1:0:309:G:O4'	2.21	0.41
1:0:2066:G:C5	1:0:2067:U:C4	3.09	0.41
1:0:1387:G:C5	1:0:1388:C:C5	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1288:A:C6	1:0:1309:G:O4'	2.74	0.41
1:0:2324:G:N2	1:0:2361:G:C4	2.89	0.41
1:0:2300:G:H2'	1:0:2301:A:OP1	2.21	0.41
1:0:2303:C:N3	1:0:2364:C:N4	2.69	0.41
1:0:1782:A:N6	1:0:1820:G:H2'	2.36	0.41
1:0:1164:C:N3	1:0:1165:G:C4	2.89	0.41
1:0:201:G:H2'	1:0:202:A:O4'	2.21	0.41
1:0:564:U:H2'	1:0:565:A:H8	1.79	0.41
1:0:1827:G:H1'	1:0:1914:U:O2	2.20	0.41
1:0:1761:G:C5	1:0:1762:C:C5	3.09	0.41
1:0:2633:A:H5''	1:0:2634:G:OP1	2.21	0.41
1:0:2093:G:H4'	1:0:2094:C:OP1	2.21	0.41
1:0:2845:C:H2'	1:0:2846:G:H5'	2.02	0.41
1:0:246:C:OP2	1:0:373:A:O5'	2.39	0.41
1:0:131:C:C2'	1:0:132:U:H5'	2.50	0.41
1:0:2084:G:O5'	1:0:2084:G:C8	2.73	0.41
1:0:500:G:C5	1:0:1297:A:C2	3.08	0.41
1:0:500:G:P	1:0:500:G:C8	3.13	0.41
1:0:1272:G:H2'	1:0:1273:G:C8	2.56	0.41
1:0:1061:A:O2'	1:0:1062:G:H5'	2.21	0.41
1:0:2658:A:C5	1:0:2659:C:C5	3.09	0.41
1:0:79:G:H2'	1:0:80:A:H8	1.85	0.41
1:0:43:A:O2'	1:0:44:G:H5'	2.20	0.41
1:0:1917:C:O2'	1:0:1918:G:H5'	2.21	0.41
1:0:2571:G:C2	1:0:2582:G:C6	3.09	0.41
1:0:192:G:O2'	1:0:193:A:H4'	2.21	0.41
1:0:2225:G:C8	1:0:2405:A:H2	2.39	0.41
1:0:2547:C:H2'	1:0:2548:G:O5'	2.21	0.41
1:0:683:A:H5''	1:0:684:C:OP1	2.20	0.41
1:0:689:A:C2	1:0:815:A:N6	2.88	0.41
1:0:1465:G:OP1	1:0:1465:G:C4'	2.69	0.41
1:0:885:A:C6	1:0:918:A:C2	3.09	0.41
1:0:926:C:H2'	1:0:926:C:O2	2.21	0.41
1:0:1690:U:HO2'	1:0:1691:G:P	2.43	0.41
1:0:1655:C:H4'	1:0:2689:C:O2	2.21	0.41
1:0:1391:A:C5	1:0:1393:G:C5	3.08	0.41
1:0:1443:G:N3	1:0:1444:C:C6	2.89	0.41
1:0:757:U:O2	1:0:767:G:N2	2.53	0.41
1:0:1373:G:N7	1:0:1374:G:C8	2.89	0.41
1:0:68:C:H1'	1:0:72:A:N3	2.36	0.41
1:0:1359:G:C6	1:0:1360:G:N7	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:333:A:O2'	1:0:350:U:O2	2.37	0.41
1:0:333:A:C2	1:0:351:A:N1	2.89	0.41
1:0:2829:A:C2	1:0:2830:U:H1'	2.55	0.41
1:0:2218:G:O5'	1:0:2218:G:H8	2.04	0.41
1:0:704:G:HO2'	1:0:705:C:H5'	1.85	0.41
1:0:328:A:C6	1:0:329:C:C4	3.10	0.41
1:0:1905:G:H2'	1:0:1906:U:H5'	2.01	0.41
1:0:1711:C:O2'	1:0:1712:G:P	2.78	0.41
1:0:1461:C:N4	1:0:1462:C:N4	2.69	0.41
1:0:304:A:C3'	1:0:305:A:H5''	2.50	0.41
1:0:1605:A:O2'	1:0:1606:C:H5'	2.21	0.41
1:0:1897:C:OP1	1:0:1899:A:N6	2.54	0.40
1:0:698:A:N6	1:0:786:U:C2	2.89	0.40
1:0:2807:U:C3'	1:0:2807:U:C6	3.05	0.40
1:0:832:A:C2	1:0:953:G:N3	2.89	0.40
1:0:1044:U:H5'	1:0:1045:G:P	2.61	0.40
1:0:1466:C:H2'	1:0:1467:U:C4'	2.50	0.40
1:0:2617:G:HO2'	1:0:2618:A:C5'	2.34	0.40
1:0:1325:U:H4'	1:0:1326:U:O5'	2.21	0.40
1:0:1767:G:C2	1:0:1768:U:C6	3.10	0.40
1:0:2065:A:H2	1:0:2218:G:H1'	1.87	0.40
1:0:739:G:C2'	1:0:740:A:OP2	2.70	0.40
1:0:563:U:H2'	1:0:564:U:O4'	2.19	0.40
1:0:773:G:O2'	1:0:774:A:H5'	2.20	0.40
1:0:2503:G:H2'	1:0:2504:G:O4'	2.21	0.40
1:0:2503:G:N3	1:0:2721:A:H2	2.19	0.40
1:0:2096:U:C3'	1:0:2097:A:H5''	2.51	0.40
1:0:604:U:C2	1:0:605:G:C8	3.09	0.40
1:0:605:G:C2	1:0:606:A:C5	3.09	0.40
1:0:2586:G:N1	1:0:2587:G:C2	2.89	0.40
1:0:1112:U:H2'	1:0:1113:C:C6	2.57	0.40
1:0:2457:A:C1'	1:0:2508:G:N7	2.84	0.40
1:0:9:U:O2	1:0:9:U:C2'	2.67	0.40
1:0:891:A:C1'	1:0:911:A:N6	2.84	0.40
1:0:934:G:O2'	1:0:935:C:H5'	2.21	0.40
1:0:2589:C:H6	1:0:2589:C:OP2	2.04	0.40
1:0:2589:C:C5'	1:0:2590:U:H5'	2.34	0.40
1:0:1194:U:O2'	1:0:1195:U:C5'	2.69	0.40
1:0:2554:C:C6	1:0:2554:C:C3'	3.04	0.40
1:0:570:G:H2'	1:0:571:U:H5'	2.04	0.40
1:0:1690:U:C2'	1:0:1691:G:C5'	2.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1435:G:N1	1:0:1436:G:N3	2.70	0.40
1:0:1008:G:N1	1:0:1170:U:C2	2.89	0.40
1:0:59:G:C4	1:0:73:A:N6	2.89	0.40
1:0:68:C:C6	1:0:72:A:C2	3.09	0.40
1:0:1029:C:H2'	1:0:1030:U:C1'	2.52	0.40
1:0:349:G:H2'	1:0:350:U:O4'	2.21	0.40
1:0:1641:C:N4	1:0:1642:G:C2	2.89	0.40
1:0:1011:A:N6	1:0:1166:A:C8	2.89	0.40
1:0:22:C:H2'	1:0:23:G:O5'	2.22	0.40
1:0:218:A:O2'	1:0:219:G:O5'	2.40	0.40
1:0:1537:U:H2'	1:0:1538:A:O4'	2.21	0.40
1:0:1610:A:C6	1:0:1611:U:C4	3.08	0.40
1:0:2511:G:C5	1:0:2512:A:C8	3.09	0.40
1:0:1854:G:H2'	1:0:1855:G:H8	1.86	0.40
1:0:1901:A:O5'	1:0:1901:A:C8	2.74	0.40
1:0:789:G:O2'	1:0:790:A:O5'	2.40	0.40
1:0:808:C:HO2'	1:0:809:C:H5'	1.86	0.40
1:0:2810:A:N1	1:0:2854:G:C8	2.81	0.40
1:0:1140:A:C8	1:0:2549:G:C1'	3.00	0.40
1:0:1231:A:N1	1:0:1245:G:C6	2.89	0.40
1:0:1238:A:C6	1:0:1239:A:N1	2.89	0.40
1:0:1259:A:O2'	1:0:1260:A:H5'	2.22	0.40
1:0:2053:G:C6	1:0:2054:A:C6	3.09	0.40
1:0:2498:U:C4	1:0:2521:A:N7	2.90	0.40
1:0:577:U:O2	1:0:579:G:H8	2.03	0.40
1:0:827:C:N4	1:0:828:C:N4	2.69	0.40
1:0:1436:G:H2'	1:0:1437:A:O4'	2.21	0.40
1:0:489:A:H8	1:0:489:A:O5'	2.05	0.40
1:0:1987:G:C6	1:0:1988:A:C4	3.08	0.40
1:0:53:G:N2	1:0:54:G:H1'	2.36	0.40
1:0:2043:A:H1'	1:0:2481:G:N9	2.37	0.40
1:0:1289:A:O2'	1:0:1290:A:H5'	2.21	0.40
1:0:1299:A:N1	1:0:1302:C:C2	2.90	0.40
1:0:1952:A:O2'	1:0:1955:G:N3	2.40	0.40
1:0:1610:A:H2'	1:0:1611:U:H6	1.87	0.40
1:0:212:U:N3	1:0:443:A:C2	2.89	0.40
1:0:2073:A:C6	1:0:2209:G:C6	3.09	0.40
1:0:1549:C:H2'	1:0:1550:C:C6	2.57	0.40
1:0:304:A:C2	1:0:356:A:N6	2.89	0.40
1:0:78:C:O2'	1:0:79:G:H5'	2.22	0.40
1:0:1101:U:H3'	1:0:1101:U:H6	1.85	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1784:C:O5'	1:0:1784:C:H6	2.04	0.40
1:0:1777:A:C6	1:0:1921:A:C2	3.09	0.40
1:0:1947:G:O2'	1:0:1950:C:OP2	2.31	0.40
1:0:2437:G:O2'	1:0:2439:U:O4	2.38	0.40
1:0:2620:G:N3	1:0:2621:G:C8	2.90	0.40
1:0:1621:C:O4'	1:0:1626:A:N7	2.55	0.40
1:0:1628:C:N3	1:0:1629:G:C8	2.89	0.40
1:0:1693:A:H2	1:0:1976:U:OP1	2.04	0.40
1:0:1696:C:C6	1:0:1697:U:C5	3.10	0.40
1:0:1750:A:C2	1:0:1751:A:C5	3.10	0.40
1:0:1982:C:H5''	1:0:2703:C:O2'	2.21	0.40
1:0:2700:U:H2'	1:0:2701:A:C8	2.56	0.40
1:0:1355:A:O2'	1:0:1357:U:OP2	2.39	0.40
1:0:1360:G:N1	1:0:1361:G:C5	2.90	0.40
1:0:2217:G:H5'	1:0:2218:G:N7	2.36	0.40
1:0:2300:G:C2'	1:0:2301:A:OP1	2.70	0.40
1:0:1499:A:N1	1:0:1522:C:N4	2.69	0.40
1:0:1486:A:C2	1:0:1537:U:C2	3.10	0.40
1:0:1836:C:C2	1:0:1880:G:N2	2.89	0.40
1:0:855:G:O5'	1:0:855:G:H8	2.02	0.40
1:0:2070:G:N2	1:0:2212:U:O4'	2.54	0.40
1:0:1445:A:C4	1:0:1446:U:C6	3.10	0.40
1:0:140:G:H2'	1:0:141:G:H8	1.85	0.40
1:0:79:G:O2'	1:0:80:A:H5'	2.21	0.40
1:0:2137:G:H2'	1:0:2138:U:H6	1.87	0.40
1:0:1211:G:C2	1:0:1212:U:C5	3.09	0.40
1:0:163:A:O2'	1:0:164:G:H5'	2.21	0.40
1:0:2052:G:C6	1:0:2053:G:N7	2.90	0.40
1:0:2226:A:N3	1:0:2227:C:C6	2.90	0.40
1:0:2426:G:H2'	1:0:2427:A:OP2	2.21	0.40
1:0:1621:C:C5'	1:0:1626:A:N6	2.85	0.40
1:0:1933:G:N7	1:0:1934:U:C5	2.90	0.40
1:0:2673:G:N2	1:0:2674:C:N1	2.69	0.40
1:0:2694:G:H2'	1:0:2695:C:H5'	2.03	0.40
1:0:1441:A:O2'	1:0:1442:C:H5''	2.22	0.40
1:0:341:A:N3	1:0:1223:G:N7	2.70	0.40
1:0:625:A:OP1	1:0:626:A:OP2	2.39	0.40
1:0:1172:U:H2'	1:0:1173:G:H8	1.87	0.40
1:0:68:C:N1	1:0:72:A:N3	2.68	0.40
1:0:1289:A:C2	1:0:1290:A:N7	2.90	0.40
1:0:762:A:C2	1:0:1634:A:H2'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1820:G:O2'	1:0:1821:A:OP1	2.34	0.40
1:0:1404:C:C2	1:0:1407:G:C6	3.09	0.40
1:0:1570:C:C2'	1:0:1571:G:OP1	2.69	0.40
1:0:2652:G:C2	1:0:2653:A:C8	3.09	0.40
1:0:559:C:C6	1:0:559:C:C3'	3.04	0.40
1:0:1760:G:O2'	1:0:1761:G:H5'	2.21	0.40
1:0:1838:G:H2'	1:0:1839:A:H5'	2.02	0.40
1:0:2633:A:H62	1:0:2646:C:N4	2.19	0.40
1:0:2345:A:O5'	1:0:2345:A:C8	2.65	0.40
1:0:2655:C:O2'	1:0:2656:G:H5'	2.21	0.40
1:0:2441:U:H2'	1:0:2442:C:H6	1.86	0.40
1:0:1129:A:H2'	1:0:1130:U:H6	1.87	0.40
1:0:103:U:O5'	1:0:103:U:H6	2.04	0.40

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 [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2757/2880 (95%)	664 (24%)	167 (6%)

All (664) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	9	U
1	0	13	A
1	0	14	A
1	0	27	G
1	0	33	C

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Mol	Chain	Res	Type
1	0	34	U
1	0	45	C
1	0	48	A
1	0	49	U
1	0	50	G
1	0	51	A
1	0	59	G
1	0	60	A
1	0	63	A
1	0	69	G
1	0	70	A
1	0	71	A
1	0	72	A
1	0	74	G
1	0	76	C
1	0	82	G
1	0	83	A
1	0	84	G
1	0	87	G
1	0	89	A
1	0	90	G
1	0	99	U
1	0	100	G
1	0	105	G
1	0	106	G
1	0	110	U
1	0	117	A
1	0	118	U
1	0	119	G
1	0	123	A
1	0	124	A
1	0	129	A
1	0	135	U
1	0	143	A
1	0	155	G
1	0	158	A
1	0	167	A
1	0	169	C
1	0	173	A
1	0	174	A
1	0	181	A
1	0	182	G

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Mol	Chain	Res	Type
1	0	193	A
1	0	199	A
1	0	200	A
1	0	205	A
1	0	206	U
1	0	207	U
1	0	210	A
1	0	218	A
1	0	219	G
1	0	225	G
1	0	226	C
1	0	227	G
1	0	229	G
1	0	242	A
1	0	243	G
1	0	245	C
1	0	305	A
1	0	318	G
1	0	323	G
1	0	333	A
1	0	334	G
1	0	335	A
1	0	339	U
1	0	340	G
1	0	341	A
1	0	342	G
1	0	343	A
1	0	344	G
1	0	358	C
1	0	360	A
1	0	362	C
1	0	363	G
1	0	368	A
1	0	373	A
1	0	393	U
1	0	399	G
1	0	400	U
1	0	402	A
1	0	403	A
1	0	404	A
1	0	408	U
1	0	409	G

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Mol	Chain	Res	Type
1	0	414	A
1	0	418	C
1	0	424	G
1	0	455	A
1	0	456	C
1	0	459	A
1	0	460	U
1	0	461	A
1	0	462	G
1	0	463	C
1	0	464	G
1	0	467	U
1	0	484	G
1	0	486	U
1	0	490	A
1	0	491	A
1	0	492	G
1	0	494	A
1	0	495	C
1	0	514	G
1	0	515	A
1	0	517	A
1	0	518	A
1	0	521	U
1	0	537	C
1	0	540	G
1	0	541	C
1	0	542	A
1	0	553	C
1	0	554	U
1	0	555	U
1	0	556	A
1	0	558	G
1	0	572	G
1	0	580	A
1	0	581	A
1	0	582	G
1	0	583	C
1	0	584	A
1	0	587	A
1	0	595	A
1	0	601	A

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Mol	Chain	Res	Type
1	0	602	C
1	0	613	A
1	0	617	U
1	0	624	A
1	0	626	A
1	0	631	G
1	0	632	A
1	0	633	G
1	0	636	G
1	0	638	A
1	0	648	A
1	0	652	C
1	0	654	A
1	0	655	A
1	0	656	U
1	0	657	A
1	0	665	A
1	0	666	U
1	0	667	U
1	0	668	A
1	0	683	A
1	0	684	C
1	0	685	U
1	0	690	A
1	0	699	G
1	0	700	C
1	0	717	G
1	0	726	G
1	0	728	G
1	0	740	A
1	0	741	G
1	0	742	G
1	0	743	A
1	0	752	G
1	0	753	U
1	0	760	U
1	0	761	G
1	0	765	C
1	0	766	A
1	0	775	U
1	0	776	G
1	0	777	A

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Mol	Chain	Res	Type
1	0	778	G
1	0	789	G
1	0	790	A
1	0	795	A
1	0	797	A
1	0	798	G
1	0	801	A
1	0	802	A
1	0	803	C
1	0	805	G
1	0	806	A
1	0	807	A
1	0	813	A
1	0	814	G
1	0	815	A
1	0	818	G
1	0	819	C
1	0	825	C
1	0	832	A
1	0	840	U
1	0	841	G
1	0	843	G
1	0	844	G
1	0	858	G
1	0	859	U
1	0	872	G
1	0	873	U
1	0	874	A
1	0	879	A
1	0	919	U
1	0	922	A
1	0	926	C
1	0	927	C
1	0	930	A
1	0	931	G
1	0	938	G
1	0	941	U
1	0	943	U
1	0	944	A
1	0	952	A
1	0	956	A
1	0	957	G

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Mol	Chain	Res	Type
1	0	968	C
1	0	969	U
1	0	970	A
1	0	972	C
1	0	973	U
1	0	984	A
1	0	985	G
1	0	994	A
1	0	995	A
1	0	996	C
1	0	1000	G
1	0	1002	C
1	0	1005	U
1	0	1006	C
1	0	1007	A
1	0	1019	U
1	0	1020	A
1	0	1023	U
1	0	1024	G
1	0	1030	U
1	0	1032	A
1	0	1033	G
1	0	1034	U
1	0	1036	G
1	0	1037	U
1	0	1044	U
1	0	1045	G
1	0	1055	A
1	0	1056	U
1	0	1057	A
1	0	1058	G
1	0	1059	A
1	0	1061	A
1	0	1067	G
1	0	1069	G
1	0	1072	U
1	0	1073	G
1	0	1074	G
1	0	1081	A
1	0	1082	G
1	0	1087	C
1	0	1090	C

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Mol	Chain	Res	Type
1	0	1094	C
1	0	1123	G
1	0	1137	A
1	0	1138	A
1	0	1140	A
1	0	1142	G
1	0	1146	G
1	0	1152	C
1	0	1154	A
1	0	1155	G
1	0	1166	A
1	0	1167	A
1	0	1182	U
1	0	1185	C
1	0	1189	G
1	0	1194	U
1	0	1195	U
1	0	1199	U
1	0	1200	G
1	0	1224	A
1	0	1234	C
1	0	1237	G
1	0	1240	G
1	0	1249	G
1	0	1250	A
1	0	1251	G
1	0	1253	C
1	0	1260	A
1	0	1262	U
1	0	1264	C
1	0	1265	G
1	0	1266	G
1	0	1267	A
1	0	1268	U
1	0	1269	G
1	0	1278	A
1	0	1279	G
1	0	1280	U
1	0	1284	G
1	0	1285	A
1	0	1286	U
1	0	1288	A

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Mol	Chain	Res	Type
1	0	1289	A
1	0	1302	C
1	0	1313	U
1	0	1314	A
1	0	1315	A
1	0	1316	G
1	0	1324	G
1	0	1326	U
1	0	1327	C
1	0	1333	G
1	0	1334	A
1	0	1338	G
1	0	1339	U
1	0	1342	U
1	0	1343	C
1	0	1346	C
1	0	1354	A
1	0	1355	A
1	0	1356	G
1	0	1358	C
1	0	1359	G
1	0	1381	G
1	0	1391	A
1	0	1392	U
1	0	1397	A
1	0	1398	G
1	0	1409	U
1	0	1410	U
1	0	1411	C
1	0	1430	G
1	0	1433	A
1	0	1439	G
1	0	1440	G
1	0	1441	A
1	0	1442	C
1	0	1443	G
1	0	1459	U
1	0	1460	G
1	0	1465	G
1	0	1466	C
1	0	1468	A
1	0	1469	U

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Mol	Chain	Res	Type
1	0	1470	G
1	0	1473	U
1	0	1474	A
1	0	1475	U
1	0	1476	G
1	0	1477	C
1	0	1482	U
1	0	1483	G
1	0	1489	C
1	0	1490	U
1	0	1494	G
1	0	1496	G
1	0	1498	G
1	0	1505	U
1	0	1506	C
1	0	1509	A
1	0	1513	U
1	0	1514	C
1	0	1524	C
1	0	1529	C
1	0	1544	A
1	0	1549	C
1	0	1552	C
1	0	1570	C
1	0	1571	G
1	0	1573	G
1	0	1574	A
1	0	1582	A
1	0	1583	A
1	0	1584	G
1	0	1585	A
1	0	1601	U
1	0	1618	U
1	0	1619	A
1	0	1623	C
1	0	1624	A
1	0	1625	A
1	0	1626	A
1	0	1627	C
1	0	1629	G
1	0	1632	A
1	0	1633	C

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Mol	Chain	Res	Type
1	0	1634	A
1	0	1635	G
1	0	1648	C
1	0	1649	A
1	0	1651	U
1	0	1652	G
1	0	1657	A
1	0	1664	G
1	0	1665	C
1	0	1670	G
1	0	1671	A
1	0	1685	A
1	0	1686	A
1	0	1690	U
1	0	1691	G
1	0	1692	C
1	0	1699	A
1	0	1711	C
1	0	1712	G
1	0	1713	G
1	0	1715	A
1	0	1716	G
1	0	1717	A
1	0	1724	C
1	0	1747	G
1	0	1748	U
1	0	1749	G
1	0	1750	A
1	0	1754	G
1	0	1755	G
1	0	1764	A
1	0	1771	A
1	0	1772	C
1	0	1773	C
1	0	1775	A
1	0	1776	A
1	0	1778	U
1	0	1792	C
1	0	1793	A
1	0	1800	A
1	0	1801	C
1	0	1802	A

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Mol	Chain	Res	Type
1	0	1807	A
1	0	1808	C
1	0	1811	A
1	0	1812	U
1	0	1813	A
1	0	1821	A
1	0	1830	C
1	0	1831	G
1	0	1840	A
1	0	1864	G
1	0	1866	G
1	0	1867	A
1	0	1868	A
1	0	1889	G
1	0	1900	U
1	0	1910	A
1	0	1914	U
1	0	1920	A
1	0	1922	U
1	0	1923	U
1	0	1924	C
1	0	1926	U
1	0	1927	U
1	0	1928	G
1	0	1930	C
1	0	1937	G
1	0	1938	U
1	0	1939	U
1	0	1945	C
1	0	1947	G
1	0	1948	C
1	0	1949	A
1	0	1950	C
1	0	1951	G
1	0	1953	A
1	0	1954	A
1	0	1955	G
1	0	1956	G
1	0	1964	A
1	0	1974	U
1	0	1976	U
1	0	1979	C

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Mol	Chain	Res	Type
1	0	1980	A
1	0	2003	A
1	0	2004	U
1	0	2005	U
1	0	2006	G
1	0	2013	A
1	0	2014	A
1	0	2015	G
1	0	2016	A
1	0	2017	U
1	0	2019	C
1	0	2026	C
1	0	2033	C
1	0	2035	G
1	0	2038	C
1	0	2039	G
1	0	2041	A
1	0	2042	A
1	0	2043	A
1	0	2044	G
1	0	2045	A
1	0	2050	G
1	0	2051	U
1	0	2052	G
1	0	2059	U
1	0	2060	A
1	0	2075	U
1	0	2076	G
1	0	2082	C
1	0	2094	C
1	0	2096	U
1	0	2118	A
1	0	2119	A
1	0	2140	G
1	0	2162	C
1	0	2189	A
1	0	2191	A
1	0	2192	U
1	0	2195	C
1	0	2196	U
1	0	2199	C
1	0	2205	C

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Mol	Chain	Res	Type
1	0	2217	G
1	0	2218	G
1	0	2229	G
1	0	2238	G
1	0	2241	U
1	0	2245	A
1	0	2246	A
1	0	2247	A
1	0	2252	A
1	0	2255	G
1	0	2262	C
1	0	2265	A
1	0	2266	A
1	0	2267	A
1	0	2268	G
1	0	2285	U
1	0	2286	G
1	0	2287	G
1	0	2288	A
1	0	2298	U
1	0	2299	A
1	0	2300	G
1	0	2306	A
1	0	2312	A
1	0	2313	G
1	0	2314	A
1	0	2315	A
1	0	2316	G
1	0	2324	G
1	0	2325	A
1	0	2326	C
1	0	2340	C
1	0	2342	U
1	0	2358	C
1	0	2362	G
1	0	2364	C
1	0	2370	G
1	0	2381	A
1	0	2382	C
1	0	2386	G
1	0	2396	C
1	0	2402	U

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Mol	Chain	Res	Type
1	0	2404	A
1	0	2405	A
1	0	2406	C
1	0	2408	G
1	0	2409	A
1	0	2418	A
1	0	2419	C
1	0	2420	C
1	0	2425	G
1	0	2426	G
1	0	2427	A
1	0	2428	U
1	0	2437	G
1	0	2438	A
1	0	2448	A
1	0	2455	A
1	0	2469	G
1	0	2470	U
1	0	2477	C
1	0	2480	C
1	0	2481	G
1	0	2482	A
1	0	2483	U
1	0	2484	G
1	0	2485	U
1	0	2486	C
1	0	2492	G
1	0	2497	A
1	0	2498	U
1	0	2499	C
1	0	2504	G
1	0	2521	A
1	0	2522	G
1	0	2532	G
1	0	2545	A
1	0	2546	G
1	0	2548	G
1	0	2549	G
1	0	2551	A
1	0	2552	C
1	0	2555	G
1	0	2556	A

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Mol	Chain	Res	Type
1	0	2557	G
1	0	2560	G
1	0	2561	G
1	0	2563	U
1	0	2564	U
1	0	2565	C
1	0	2581	A
1	0	2582	G
1	0	2588	U
1	0	2589	C
1	0	2590	U
1	0	2591	C
1	0	2593	A
1	0	2594	U
1	0	2595	C
1	0	2608	A
1	0	2609	G
1	0	2625	U
1	0	2633	A
1	0	2634	G
1	0	2661	G
1	0	2668	U
1	0	2670	C
1	0	2681	A
1	0	2688	G
1	0	2691	C
1	0	2692	A
1	0	2693	U
1	0	2694	G
1	0	2702	G
1	0	2706	U
1	0	2712	G
1	0	2713	A
1	0	2730	A
1	0	2731	G
1	0	2732	C
1	0	2736	U
1	0	2737	A
1	0	2738	A
1	0	2744	A
1	0	2745	A
1	0	2756	A

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Mol	Chain	Res	Type
1	0	2757	G
1	0	2758	A
1	0	2759	U
1	0	2760	G
1	0	2761	A
1	0	2762	G
1	0	2769	C
1	0	2771	C
1	0	2782	G
1	0	2783	U
1	0	2795	A
1	0	2796	A
1	0	2798	A
1	0	2807	U
1	0	2808	U
1	0	2810	A
1	0	2811	G
1	0	2823	G
1	0	2825	A
1	0	2841	U
1	0	2842	C
1	0	2847	G
1	0	2854	G
1	0	2855	C
1	0	2857	C
1	0	2858	A
1	0	2866	A
1	0	2867	G
1	0	2868	G

All (167) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	0	13	A
1	0	34	U
1	0	50	G
1	0	69	G
1	0	71	A
1	0	73	A
1	0	82	G
1	0	83	A
1	0	117	A

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Mol	Chain	Res	Type
1	0	118	U
1	0	123	A
1	0	173	A
1	0	181	A
1	0	192	G
1	0	218	A
1	0	219	G
1	0	226	C
1	0	242	A
1	0	322	A
1	0	340	G
1	0	342	G
1	0	403	A
1	0	454	G
1	0	458	G
1	0	460	U
1	0	466	A
1	0	468	A
1	0	485	G
1	0	489	A
1	0	516	G
1	0	539	A
1	0	571	U
1	0	580	A
1	0	582	G
1	0	583	C
1	0	596	C
1	0	631	G
1	0	683	A
1	0	699	G
1	0	739	G
1	0	741	G
1	0	764	A
1	0	765	C
1	0	777	A
1	0	789	G
1	0	801	A
1	0	804	C
1	0	805	G
1	0	813	A
1	0	814	G
1	0	843	G

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Mol	Chain	Res	Type
1	0	925	U
1	0	956	A
1	0	972	C
1	0	1000	G
1	0	1019	U
1	0	1033	G
1	0	1141	U
1	0	1154	A
1	0	1194	U
1	0	1223	G
1	0	1233	A
1	0	1249	G
1	0	1260	A
1	0	1261	G
1	0	1263	G
1	0	1265	G
1	0	1266	G
1	0	1278	A
1	0	1279	G
1	0	1301	U
1	0	1313	U
1	0	1314	A
1	0	1315	A
1	0	1325	U
1	0	1326	U
1	0	1333	G
1	0	1337	G
1	0	1338	G
1	0	1342	U
1	0	1345	G
1	0	1354	A
1	0	1355	A
1	0	1391	A
1	0	1407	G
1	0	1459	U
1	0	1475	U
1	0	1488	G
1	0	1495	G
1	0	1626	A
1	0	1631	C
1	0	1632	A
1	0	1633	C

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Mol	Chain	Res	Type
1	0	1634	A
1	0	1651	U
1	0	1664	G
1	0	1670	G
1	0	1684	G
1	0	1685	A
1	0	1686	A
1	0	1690	U
1	0	1691	G
1	0	1698	C
1	0	1710	U
1	0	1711	C
1	0	1716	G
1	0	1723	U
1	0	1749	G
1	0	1772	C
1	0	1775	A
1	0	1777	A
1	0	1791	C
1	0	1820	G
1	0	1913	G
1	0	1919	A
1	0	1921	A
1	0	1923	U
1	0	1938	U
1	0	1947	G
1	0	1963	G
1	0	1975	G
1	0	2004	U
1	0	2005	U
1	0	2013	A
1	0	2015	G
1	0	2016	A
1	0	2018	G
1	0	2050	G
1	0	2059	U
1	0	2093	G
1	0	2161	C
1	0	2204	A
1	0	2217	G
1	0	2228	U
1	0	2245	A

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Mol	Chain	Res	Type
1	0	2254	C
1	0	2261	G
1	0	2311	U
1	0	2314	A
1	0	2404	A
1	0	2418	A
1	0	2426	G
1	0	2427	A
1	0	2428	U
1	0	2469	G
1	0	2482	A
1	0	2497	A
1	0	2498	U
1	0	2521	A
1	0	2560	G
1	0	2589	C
1	0	2592	U
1	0	2594	U
1	0	2633	A
1	0	2660	C
1	0	2668	U
1	0	2693	U
1	0	2705	A
1	0	2706	U
1	0	2756	A
1	0	2758	A
1	0	2760	G
1	0	2810	A
1	0	2823	G
1	0	2824	C
1	0	2848	A
1	0	2867	G

## 5.4 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

1 ligand is 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$
3	G80	0	2881	-	30,36,36	2.66	12 (40%)	29,56,56	2.05	8 (27%)

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
3	G80	0	2881	-	-	0/10/81/81	0/2/4/4

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	0	2881	G80	C24-C25	2.03	1.60	1.52
3	0	2881	G80	C27-N1	2.12	1.55	1.47
3	0	2881	G80	C9-C4	2.45	1.66	1.54
3	0	2881	G80	C10-C11	2.53	1.63	1.57
3	0	2881	G80	C8-C9	3.08	1.63	1.54
3	0	2881	G80	O3-C14	3.45	1.52	1.46
3	0	2881	G80	C22-S1	3.77	1.84	1.81
3	0	2881	G80	C7-C6	3.99	1.59	1.53
3	0	2881	G80	C17-C10	4.26	1.63	1.53
3	0	2881	G80	C5-C4	4.72	1.63	1.56
3	0	2881	G80	C8-C7	4.78	1.64	1.53
3	0	2881	G80	C5-C6	6.84	1.70	1.56

All (8) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	0	2881	G80	C16-C6-C7	-4.59	103.04	110.44
3	0	2881	G80	C13-C12-C19	-2.96	103.81	109.77

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	0	2881	G80	C27-N1-C25	-2.54	101.89	110.33
3	0	2881	G80	C15-C5-C4	2.17	115.87	110.65
3	0	2881	G80	C14-O3-C21	2.41	123.18	118.03
3	0	2881	G80	C22-S1-C23	3.16	107.44	101.42
3	0	2881	G80	O3-C21-C22	3.38	119.95	111.10
3	0	2881	G80	C7-C6-C5	5.68	118.59	111.09

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 7 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	0	2881	G80	7	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

In the following table, the column labelled ‘#RSRZ> 2’ contains the number (and percentage) of RSRZ outliers, followed by percent RSRZ outliers for the chain as percentile scores relative to all X-ray entries and entries of similar resolution. The OWAB column contains the minimum, median, 95<sup>th</sup> percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2		OWAB(Å <sup>2</sup> )	Q<0.9
1	0	2766/2880 (96%)	0.43	246 (8%)	12 10	12, 79, 200, 200	0
2	B	205/211 (97%)	3.03	133 (64%)	0 0	3, 58, 141, 202	0
All	All	2971/3091 (96%)	0.61	379 (12%)	5 5	3, 77, 200, 202	0

All (379) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	146	THR	16.3
1	0	558	G	13.0
2	B	128	SER	11.1
2	B	144	ARG	10.8
1	0	730	C	10.4
1	0	2174	G	8.9
2	B	60	ASN	8.6
2	B	42	ASP	8.4
1	0	2094	C	8.3
1	0	1086	C	8.3
2	B	113	THR	8.2
2	B	129	HIS	8.0
1	0	2135	C	7.9
1	0	1090	C	7.8
1	0	2311	U	7.5
1	0	1099	A	7.4
1	0	1085	G	7.2
2	B	59	VAL	7.0
1	0	1084	A	6.9
1	0	2140	G	6.8
2	B	114	GLN	6.8
2	B	112	GLY	6.8
1	0	2105	U	6.8
1	0	2096	U	6.6

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Mol	Chain	Res	Type	RSRZ
1	0	248	A	6.6
1	0	2173	G	6.5
2	B	204	ALA	6.5
1	0	2133	G	6.5
1	0	1088	A	6.3
1	0	1120	C	6.3
1	0	1926	U	6.3
1	0	2104	G	6.2
1	0	1908	C	6.2
2	B	143	GLN	6.1
2	B	147	PRO	6.1
1	0	729	A	6.1
2	B	134	TRP	6.0
1	0	2290	A	6.0
1	0	1847	G	6.0
2	B	168	GLN	6.0
2	B	125	GLY	6.0
1	0	1089	C	5.9
2	B	62	PRO	5.9
1	0	2095	G	5.9
2	B	120	TRP	5.9
1	0	358	C	5.7
1	0	1907	C	5.7
1	0	1871	G	5.7
1	0	1909	U	5.6
2	B	158	GLY	5.6
1	0	940	G	5.6
2	B	162	MET	5.6
1	0	1812	U	5.5
1	0	2168	A	5.5
1	0	2125	C	5.5
2	B	159	HIS	5.5
1	0	2091	C	5.5
2	B	61	LYS	5.4
1	0	1841	G	5.4
1	0	2134	U	5.4
2	B	44	TYR	5.4
1	0	2169	A	5.4
2	B	166	THR	5.3
2	B	138	PRO	5.3
1	0	2106	G	5.3
2	B	133	LYS	5.3

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Mol	Chain	Res	Type	RSRZ
2	B	148	GLY	5.3
1	0	1897	C	5.3
2	B	201	ALA	5.3
2	B	140	SER	5.2
1	0	2123	G	5.2
2	B	10	GLY	5.2
1	0	1902	A	5.1
1	0	667	U	5.1
2	B	205	SER	5.1
2	B	163	GLU	5.1
1	0	2103	G	5.1
1	0	1896	A	5.1
2	B	38	THR	5.1
1	0	2166	G	5.0
1	0	1104	G	4.9
2	B	202	ALA	4.9
1	0	514	G	4.9
2	B	22	PRO	4.9
1	0	362	C	4.9
1	0	1525	A	4.8
1	0	1506	C	4.8
1	0	1188	A	4.8
2	B	40	GLN	4.8
1	0	1092	U	4.8
1	0	2136	G	4.8
1	0	2770	A	4.8
2	B	157	ALA	4.8
1	0	518	A	4.7
1	0	1044	U	4.7
2	B	126	PRO	4.7
1	0	1103	C	4.7
2	B	151	TYR	4.7
1	0	891	A	4.7
2	B	192	ASN	4.7
2	B	41	THR	4.7
2	B	150	VAL	4.7
2	B	121	ASN	4.6
1	0	1082	G	4.6
1	0	304	A	4.6
1	0	1107	A	4.6
1	0	373	A	4.6
1	0	2109	A	4.6

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Mol	Chain	Res	Type	RSRZ
1	0	2124	C	4.5
1	0	1893	G	4.5
1	0	2779	C	4.5
2	B	57	ARG	4.4
2	B	63	MET	4.3
1	0	1892	C	4.3
1	0	2778	U	4.3
1	0	2093	G	4.3
1	0	2167	A	4.3
2	B	124	GLY	4.3
1	0	401	G	4.2
1	0	1087	C	4.2
1	0	2164	G	4.2
1	0	1905	G	4.2
2	B	99	GLY	4.2
2	B	107	THR	4.2
2	B	160	MET	4.2
1	0	1115	C	4.1
1	0	1906	U	4.1
2	B	169	ASN	4.1
2	B	164	ARG	4.1
1	0	2170	C	4.1
2	B	190	GLY	4.1
1	0	1106	A	4.1
2	B	203	LYS	4.0
2	B	81	PHE	4.0
1	0	1083	C	4.0
1	0	2110	G	3.9
1	0	2137	G	3.9
1	0	1091	C	3.9
1	0	139	A	3.9
1	0	1111	C	3.9
2	B	35	GLN	3.9
1	0	1895	A	3.9
2	B	64	GLN	3.9
2	B	153	GLY	3.9
2	B	67	PHE	3.9
2	B	187	ALA	3.8
1	0	1093	U	3.8
1	0	1062	G	3.8
1	0	2165	A	3.8
2	B	156	MET	3.8

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Mol	Chain	Res	Type	RSRZ
1	0	2172	U	3.8
2	B	141	ILE	3.7
1	0	1734	C	3.7
2	B	161	GLY	3.7
2	B	53	PRO	3.7
1	0	101	A	3.7
1	0	1124	U	3.7
1	0	1061	A	3.7
1	0	1114	A	3.7
1	0	2097	A	3.7
1	0	1733	U	3.7
1	0	296	A	3.6
1	0	1894	U	3.6
2	B	171	GLU	3.6
1	0	1435	G	3.6
2	B	103	ASP	3.6
2	B	127	ALA	3.6
1	0	1072	U	3.6
1	0	2162	C	3.5
2	B	167	VAL	3.5
2	B	11	MET	3.5
1	0	1516	A	3.5
2	B	115	GLY	3.5
1	0	2769	C	3.5
1	0	1515	U	3.4
1	0	1844	C	3.4
2	B	69	LYS	3.4
1	0	2298	U	3.4
2	B	117	MET	3.4
2	B	149	ARG	3.4
1	0	1110	G	3.4
1	0	1189	G	3.4
1	0	969	U	3.4
2	B	39	ALA	3.4
2	B	7	THR	3.4
1	0	1925	C	3.4
1	0	2160	C	3.4
1	0	2475	C	3.3
2	B	108	SER	3.3
2	B	104	ALA	3.3
2	B	165	VAL	3.3
1	0	102	C	3.3

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Mol	Chain	Res	Type	RSRZ
1	0	1187	A	3.3
2	B	55	ALA	3.3
1	0	2291	U	3.3
1	0	1075	C	3.2
1	0	2190	A	3.2
2	B	12	THR	3.2
1	0	1425	G	3.2
1	0	1068	A	3.2
1	0	2381	A	3.2
2	B	58	LYS	3.2
2	B	189	PRO	3.2
1	0	1843	U	3.2
2	B	137	ARG	3.2
1	0	2783	U	3.2
1	0	1100	G	3.2
2	B	193	GLY	3.2
1	0	1095	A	3.2
1	0	2090	U	3.1
1	0	1904	G	3.1
2	B	32	PRO	3.1
1	0	2309	G	3.1
1	0	2081	U	3.1
1	0	2449	G	3.1
2	B	65	GLY	3.1
2	B	123	ALA	3.1
2	B	200	SER	3.0
2	B	135	HIS	3.0
2	B	142	GLY	3.0
1	0	418	C	3.0
1	0	1125	G	3.0
1	0	2780	A	3.0
1	0	559	C	3.0
1	0	1438	G	2.9
2	B	188	ILE	2.9
1	0	2157	C	2.9
1	0	2118	A	2.9
1	0	2323	U	2.9
2	B	122	PHE	2.9
1	0	2327	U	2.9
2	B	74	PRO	2.9
2	B	66	HIS	2.8
1	0	1552	C	2.8

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Mol	Chain	Res	Type	RSRZ
1	0	1866	G	2.8
1	0	803	C	2.8
1	0	927	C	2.8
1	0	1936	A	2.8
2	B	136	ARG	2.8
1	0	2287	G	2.8
2	B	83	GLY	2.8
1	0	648	A	2.8
1	0	1096	A	2.8
1	0	1098	G	2.8
1	0	1852	G	2.8
1	0	2092	U	2.8
1	0	1031	C	2.8
1	0	1057	A	2.8
1	0	2325	A	2.7
2	B	130	GLY	2.7
1	0	1060	C	2.7
1	0	1078	A	2.7
1	0	556	A	2.7
1	0	2284	U	2.7
1	0	1071	U	2.7
1	0	2731	G	2.7
2	B	23	VAL	2.7
1	0	1921	A	2.7
1	0	731	A	2.6
1	0	1051	U	2.6
1	0	1600	U	2.6
1	0	100	G	2.6
1	0	1524	C	2.6
2	B	170	LEU	2.6
2	B	73	ALA	2.6
1	0	1735	G	2.6
1	0	1938	U	2.6
1	0	1074	G	2.6
1	0	1865	C	2.6
1	0	1903	C	2.6
1	0	1432	G	2.6
2	B	82	ARG	2.6
2	B	85	ALA	2.6
1	0	943	U	2.5
1	0	913	A	2.5
2	B	17	ASN	2.5

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Mol	Chain	Res	Type	RSRZ
1	0	1732	U	2.5
2	B	56	GLU	2.5
1	0	2120	C	2.5
2	B	54	LYS	2.5
1	0	1858	C	2.5
1	0	1037	U	2.5
1	0	1618	U	2.5
1	0	2581	A	2.5
1	0	2589	C	2.5
2	B	87	ASP	2.5
1	0	200	A	2.5
1	0	1081	A	2.5
1	0	1123	G	2.5
1	0	666	U	2.5
1	0	1019	U	2.5
1	0	1910	A	2.5
2	B	139	GLY	2.4
2	B	9	ILE	2.4
1	0	400	U	2.4
2	B	109	LYS	2.4
1	0	1523	A	2.4
1	0	1840	A	2.4
2	B	70	ALA	2.4
1	0	968	C	2.4
2	B	43	GLY	2.4
1	0	344	G	2.4
2	B	51	TYR	2.4
1	0	624	A	2.4
2	B	37	LYS	2.4
1	0	1105	U	2.4
1	0	2304	G	2.4
2	B	186	GLY	2.3
2	B	154	LYS	2.3
1	0	1119	U	2.3
2	B	185	LYS	2.3
2	B	21	ILE	2.3
1	0	1913	G	2.3
2	B	132	LYS	2.3
1	0	1126	A	2.3
1	0	1434	U	2.3
1	0	1898	U	2.3
1	0	2868	G	2.3

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Mol	Chain	Res	Type	RSRZ
1	0	1920	A	2.3
1	0	1954	A	2.3
1	0	225	G	2.3
1	0	788	G	2.3
1	0	2774	U	2.3
1	0	1842	G	2.3
1	0	2082	C	2.3
2	B	78	LEU	2.3
1	0	515	A	2.2
1	0	722	C	2.2
2	B	98	GLU	2.2
1	0	1955	G	2.2
1	0	2450	A	2.2
1	0	2726	U	2.2
2	B	106	GLY	2.2
2	B	52	ALA	2.2
2	B	24	THR	2.2
1	0	1153	A	2.2
2	B	152	LYS	2.2
1	0	1052	C	2.2
1	0	1864	G	2.2
1	0	1121	G	2.2
1	0	2451	G	2.2
2	B	45	GLU	2.2
1	0	1953	A	2.2
1	0	2289	A	2.2
1	0	1069	G	2.1
1	0	1118	G	2.1
1	0	371	G	2.1
1	0	297	A	2.1
1	0	752	G	2.1
1	0	1122	A	2.1
1	0	2015	G	2.1
1	0	1003	C	2.1
2	B	116	VAL	2.1
1	0	1533	G	2.1
1	0	2862	G	2.1
1	0	175	C	2.1
1	0	346	C	2.1
2	B	1	MET	2.1
1	0	2267	A	2.1
2	B	20	ALA	2.1

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Mol	Chain	Res	Type	RSRZ
1	0	302	U	2.1
1	0	1917	C	2.1
1	0	2360	C	2.1
2	B	50	GLY	2.1
1	0	2313	G	2.1
1	0	665	A	2.1
1	0	1933	G	2.1
1	0	1922	U	2.1
1	0	303	C	2.0
1	0	1450	G	2.0
1	0	1927	U	2.0
2	B	101	LYS	2.0
1	0	1499	A	2.0
1	0	1845	A	2.0
2	B	8	LYS	2.0
1	0	728	G	2.0
2	B	191	ALA	2.0
2	B	100	GLU	2.0
2	B	155	ARG	2.0

## 6.2 Non-standard residues in protein, DNA, RNA chains [i](#)

There are no non-standard protein/DNA/RNA residues in this entry.

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. LLDF column lists the quality of electron density of the group with respect to its neighbouring residues in protein, DNA or RNA chains. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
3	G80	0	2881	33/33	0.91	0.25	0.73	62,62,62,62	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.