



Full wwPDB X-ray Structure Validation Report ⓘ

Mar 12, 2026 – 02:22 PM UTC

PDB ID : 2OGM / pdb_00002ogm
Title : The crystal structure of the large ribosomal subunit from *Deinococcus radiodurans* complexed with the pleuromutilin derivative SB-571519
Authors : Davidovich, C.; Bashan, A.; Auerbach-Nevo, T.; Yonath, A.
Deposited on : 2007-01-07
Resolution : 3.50 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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

MolProbity	:	4-5-2 with Phenix2.0
Mogul	:	2022.3.0, CSD as543be (2022)
Xtriage (Phenix)	:	2.0
EDS	:	3.0
Buster-report	:	wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
CCP4	:	9.0.010 (Gargrove)
Density-Fitness	:	1.0.12
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.49

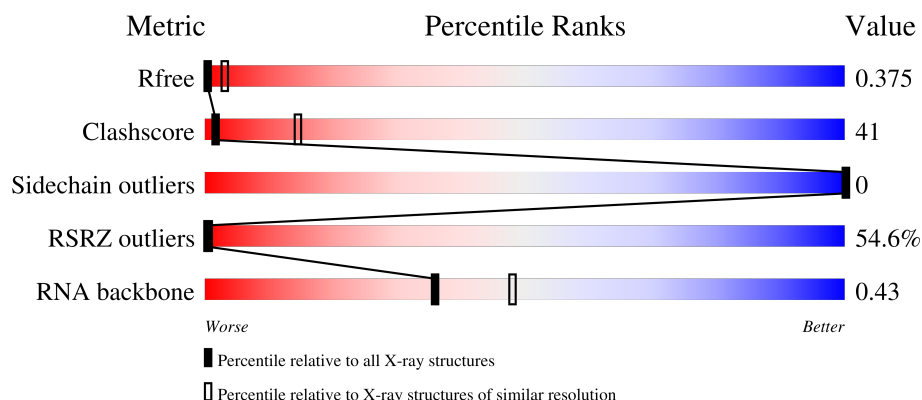
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	180053	1085 (3.54-3.46)
Clashscore	190562	1140 (3.54-3.46)
Sidechain outliers	187428	1114 (3.54-3.46)
RSRZ outliers	180081	1084 (3.54-3.46)
RNA backbone	3983	1010 (3.98-3.02)

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 of the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the 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 59610 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.

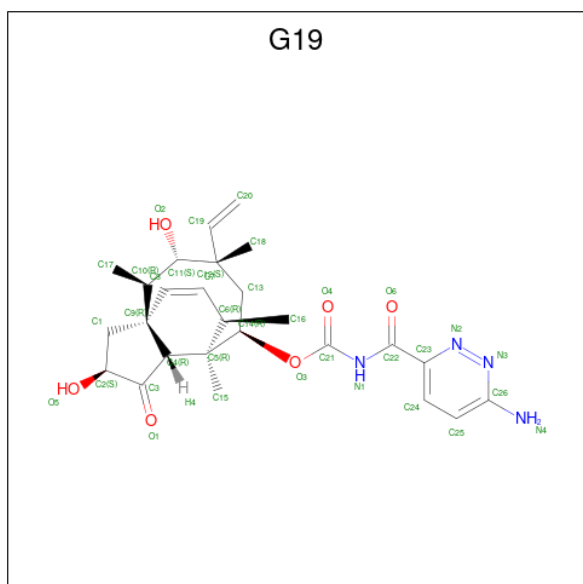
- Molecule 1 is a RNA chain called 23S ribosomal RNA.

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

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

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
			Total	C	N	O			
2	B	205	215	210	4	1	0	0	204

- Molecule 3 is (2S,3AR,4R,5S,6S,8R,9R,9AR,10R)-2,5-DIHYDROXY-4,6,9,10-TETRAMETHYL-1-OXO-6-VINYLDCAHYDRO-3A,9-PROP[1]ENOCYCLOPENTA[8]ANNULEN-8-YL [(6-AMINOPYRIDAZIN-3-YL)CARBONYL]CARBAMATE (CCD ID: G19) (formula: $C_{26}H_{34}N_4O_6$).

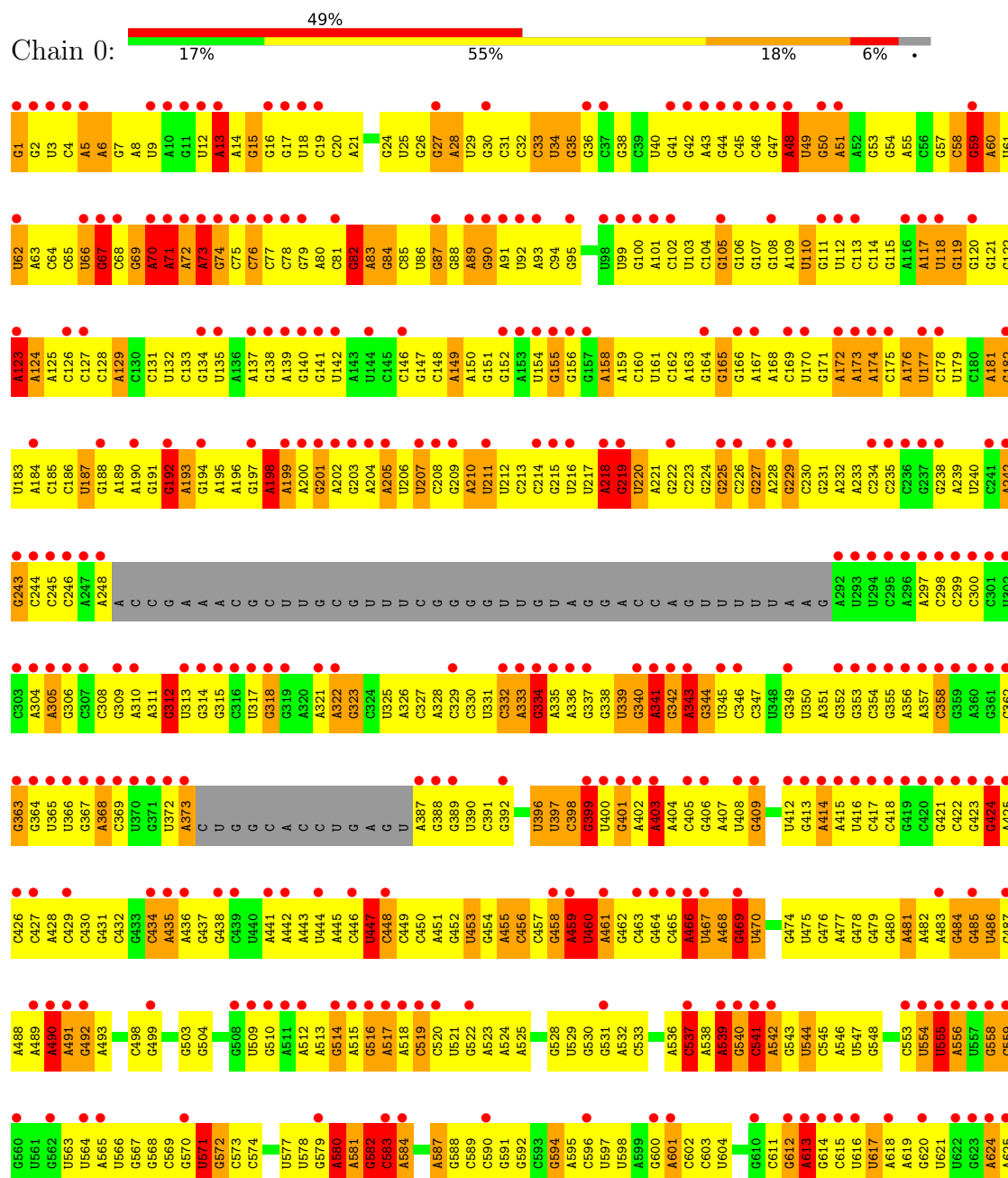


Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
3	0	1	36	26	4	6	0	0

3 Residue-property plots

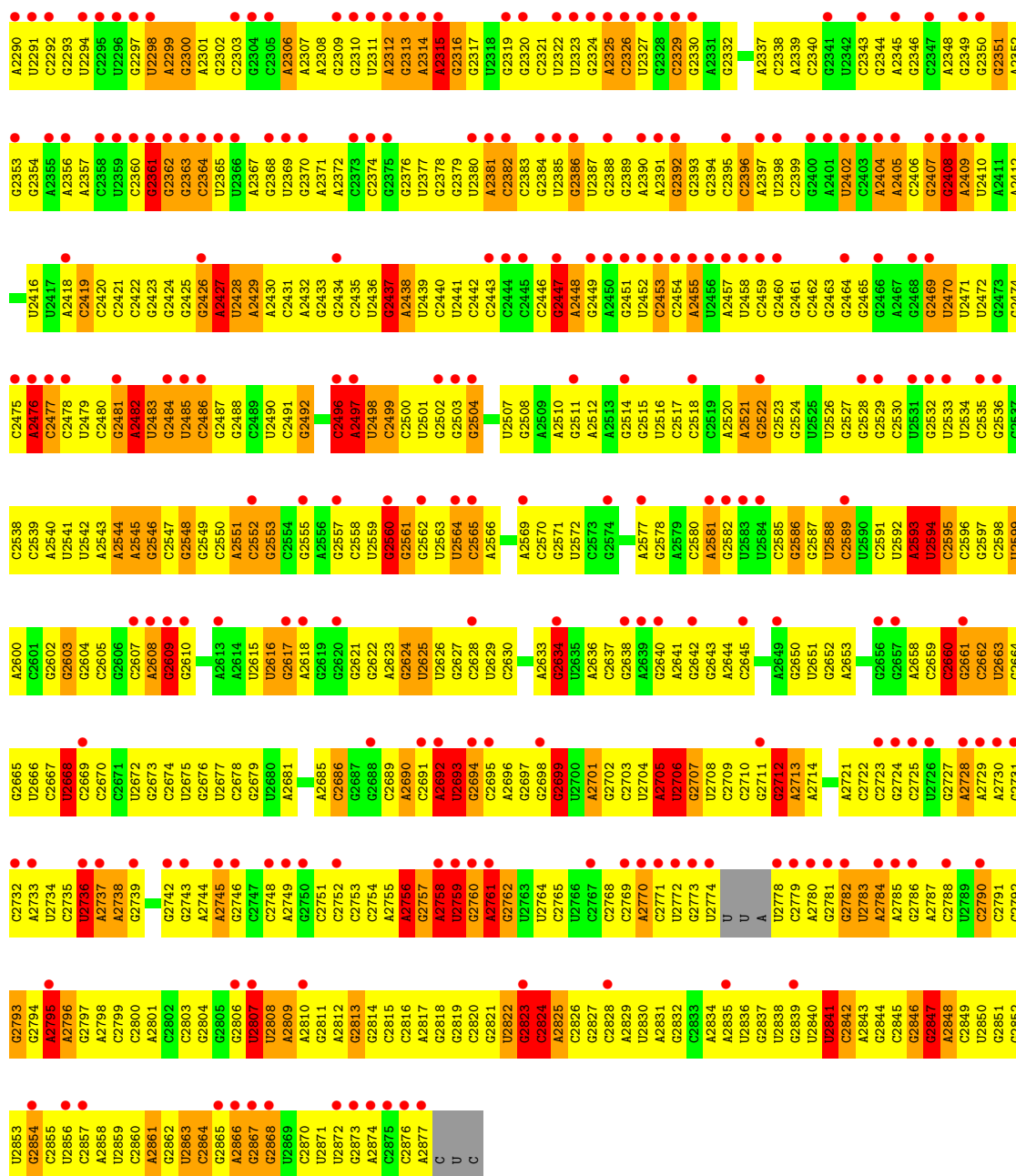
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. 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 ($RSRZ > 2$). 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

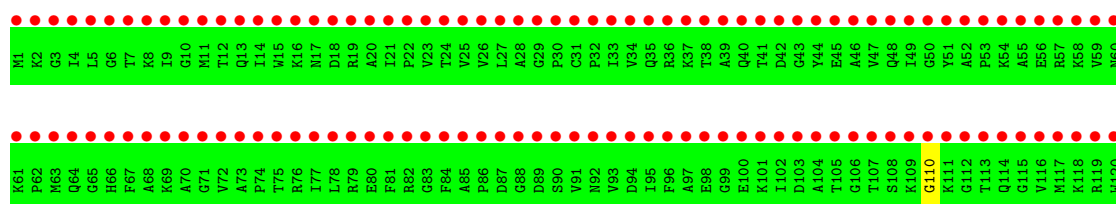


G1436	G1437	A1438	G1439	G1440	A1441	G1442	G1443	G1444	A1445	G1446	G1447	A1448	G1449	G1450	A1451	G1452	A1453	G1454	A1455	G1456	A1457	A1458	A1459	G1460	A1463	A1464	G1465	G1466	A1467	A1468	A1469	G1470	G1471	G1472	G1473	A1474	G1475	G1476	G1477	G1478	G1479	G1480	A1481	U1482	G1483	G1484	U1485	A1486	G1487	G1488	G1489	U1490	C1491	A1492	A1493	G1494	G1495	A1496			
C1376	U1377	A1378	G1379	C1380	G1381	G1382	C1383	G1384	C1385	A1386	G1387	C1388	G1389	G1390	A1391	U1392	G1393	G1394	A1395	G1396	A1397	G1398	C1399	A1400	G1401	G1402	C1403	C1404	A1405	A1406	G1407	A1408	U1409	U1410	C1411	C1412	U1413	G1414	A1415	A1416	G1417	G1418	A1419	A1420	U1421	C1422	G1423	A1424	U1425	G1426	A1427	G1428	A1429	G1430	U1431	G1432	A1433	G1434	U1435		
U1313	A1314	A1315	G1316	A1321	G1322	G1323	G1324	U1325	U1326	C1327	C1328	U1329	U1330	A1331	G1332	G1333	A1334	A1335	G1336	G1337	G1338	U1339	C1340	C1341	U1342	C1343	C1344	G1345	C1346	C1347	C1348	A1349	G1350	C1351	G1352	C1353	A1354	A1355	G1356	U1357	C1358	A1359	G1360	G1361	A1362	C1363	C1364	U1365	U1366	A1367	G1368	G1369	U1370	G1371	A1372	G1373	G1374	C1375			
A1242	G1243	U1244	G1245	G1246	G1249	A1250	G1251	C1252	C1253	G1254	U1257	G1258	A1259	A1260	G1261	U1262	G1263	G1264	C1265	G1266	A1267	U1268	G1269	A1272	G1273	C1274	G1277	A1278	G1279	U1280	A1281	A1282	C1283	G1284	A1285	U1286	A1287	A1288	A1289	G1298	A1299	A1300	U1301	C1302	A1303	U1304	C1305	U1306	C1307	G1308	G1309	C1310	A1311	C1312							
U1182	C1183	G1184	C1185	G1186	A1187	A1188	G1189	C1190	G1191	A1192	G1193	U1194	U1195	G1196	U1197	C1198	U1199	G1200	G1201	U1202	A1203	G1204	G1205	G1206	G1207	A1208	G1209	C1210	G1211	U1212	U1213	C1214	A1215	G1216	U1217	C1218	C1219	G1220	C1221	U1222	G1223	A1224	G1225	A1226	A1227	G1228	C1229	C1230	A1231	U1232	A1233	C1234	C1235	U1236	G1237	A1238	A1239	G1240	C1241		
G1121	A1122	G1123	U1124	G1125	A1126	C1127	G1128	A1129	U1130	G1131	C1132	G1133	C1134	C1135	G1136	A1137	A1138	A1139	A1140	U1141	G1142	C1143	U1144	C1145	G1146	G1147	G1148	G1149	C1150	U1151	C1152	A1153	A1154	G1155	A1158	U1159	C1160	U1161	A1162	C1163	C1164	G1165	A1166	A1167	G1168	C1169	U1170	A1171	U1172	G1173	G1174	A1175	U1176	U1177	C1178	A1179	U1180	C1181			
A1061	G1062	C1063	A1064	A1065	G1066	G1067	A1068	G1069	U1070	U1071	U1072	G1073	G1074	C1075	U1076	U1077	A1078	G1079	A1080	U1081	G1082	C1083	A1084	G1085	C1086	C1087	A1088	G1089	C1090	U1091	U1092	U1093	C1094	A1095	A1096	A1097	G1098	A1099	G1100	U1101	G1102	C1103	G1104	U1105	A1106	U1107	U1108	A1109	G1110	C1111	U1112	C1113	A1114	U1115	U1116	G1117	G1118	U1119	C1120		
A1001	C1002	C1003	A1004	U1005	C1006	A1007	G1008	C1009	U1010	A1011	A1012	G1013	G1014	U1015	U1016	C1017	A1018	U1019	A1020	A1021	A1022	U1023	G1024	A1025	U1026	C1027	G1028	C1029	U1030	C1031	A1032	G1033	U1034	G1035	G1036	U1037	U1038	A1039	U1040	G1041	G1042	A1043	U1044	G1045	U1046	U1047	U1048	U1049	G1050	U1051	C1052	G1053	C1054	U1055	U1056	A1057	G1058	C1059	U1060		
C939	G940	U941	C942	U943	A944	G945	U946	C947	C948	G949	G950	G951	A952	G953	U954	G955	A956	G957	G958	C959	U960	A964	G965	A966	G967	C968	U969	A970	A971	C972	U973	U974	C975	G976	G977	U978	A979	G980	C981	C982	G983	A984	G985	A986	G987	G988	G989	A990	A991	A992	C993	A994	A995	C996	C997	C998	A999	G1000			
G877	C878	A879	C880	U881	C882	A883	C884	A885	A886	G887	G888	C889	U890	A891	G	G	G	G	G	G	C	U	A	C	A	U	U	U	A	C	U	A911	A912	A913	C914	C915	U916	U917	A918	U919	U920	A921	A922	A923	C924	U925	C926	C927	G928	U929	A930	A931	G932	A936	C937	C938	C939				
U810	G811	A812	G813	G814	A815	U816	A817	G818	C819	U820	A821	G822	U823	U824	C825	C830	G831	U832	A833	C834	U835	G836	U837	A838	U839	U840	G841	A842	G843	G844	U845	A846	C847	A848	U852	C853	G854	G855	A856	U857	G858	U859	U860	A861	A862	C863	C864	A865	U866	U867	A868	A869	U870	U871	U872	U873	U874	U875	U876	U877	U878
C749	C750	G751	G752	U753	G754	C755	C756	U757	G758	C759	U760	G761	A762	A763	A764	C765	A766	G767	U768	C769	U770	C771	G772	G773	A774	U775	G776	A777	G778	U779	U780	G781	U784	U785	U786	A787	G788	G789	A790	G791	U792	G793	A794	A795	A796	A797	G798	C799	U800	A801	A802	C803	C804	G805	A806	A807	C808	C809			
A688	A689	A690	C691	C692	A693	C694	C695	U696	C697	A698	C699	G700	U701	G	G	G704	C705	A706	U707	G708	A709	C710	C711	U712	G713	G714	U715	U716	A654	A655	U656	A657	C658	C659	C660	C661	G662	G663	C664	A665	U666	U667	A668	U669	U670	A671	U674	C675	G676	G677	G678	C679	U680	A681	G682	A683	C684	U685	G686	G687	

G2230	C2170	G2110	G2050	C1989	U1926	G1866	G1806	G1744	A1681	G1617	G1557	C1497
G2231	U2171	C	U2051	G1992	U1927	A1867	A1807	C1745	A1682	U1618	C1558	C1498
G2232	G2172	C	G2052	G1993	G1928	A1868	G1808	A1746	A1683	A1619	C1559	A1499
G2233	G2173	U	G2053	G1994	U1929	A1869	G1809	G1747	G1684	C1620	A1560	U1500
G2234	G2174	C	A2054	U1994	C1930	U1870	U1810	U1748	A1685	A1561	C1501	C1501
G2235	A2175	G	G2055	G1995	G1931	G1871	A1811	G1749	A1686	G1622	G1562	G1502
U2236	U2176	G	C2056	A1996	G1932	A1872	U1812	A1750	C1687	C1623	U1563	G1503
G2237	U2177	A2117	U2057	A1997	G1933	A1873	A1813	A1753	U1690	A1624	U1564	G1504
G2238	U2178	A2118	U2058	A1998	U1934	G1874	G1814	G1754	G1691	A1625	G1565	U1505
C2239	C2179	A2119	U2059	A1999	A1935	G1875	G1815	G1755	C1692	C1626	G1566	C1506
C2240	U2180	C2120	A2060	U2000	A1936	G1876	G1816	G1756	G1693	C1627	A1567	C1507
C2241	A2181	U2121	C2061	G2001	G1937	C1877	U1817	G1757	A1694	G1628	A1568	G1508
C2242	A2182	G2122	U2062	A2002	U1938	C1878	G1818	C1757	U1685	G1629	A1569	A1509
C2243	C2183	G2123	A2063	A2003	U1939	G1879	U1819	G1758	U1686	A1630	C1570	A1510
C2244	U2184	C2124	U2064	U2004	C1940	G1880	A1820	A1759	C1695	C1631	G1571	A1511
A2245	U2185	G2125	A2065	U2005	C1941	U1881	A1821	G1760	U1697	A1632	C1572	A1512
A2246	C2186	U	G2066	G2006	G1942	G1882	C1822	G1761	C1698	C1533	A1574	U1513
A2247	A2187	U	U2067	G2007	A1943	A1883	C1823	C1762	A1699	A1634	A1574	C1514
A2248	A2188	U	C2068	C2008	C1944	A1884	C1824	G1763	C1700	G1635	C1575	U1515
U2249	A2189	U	U2069	U2009	C1945	A1885	C1825	A1764	C1701	G1636	G1576	A1516
G2250	A2190	G	G2070	G2010	U1946	G1886	U1826	G1765	C1702	U1637	G1577	C1517
U2251	A2191	G	G2071	A2012	C1947	G1887	G1827	U1766	G1703	C1641	U1578	G1518
A2252	U2192	G2132	C2072	A2012	C1948	C1888	G1828	G1767	U1704	G1642	G1579	C1519
A2253	C2193	U2133	A2073	A2013	A1949	U1768	C1829	U1769	U1705	A1643	C1580	U1520
C2254	U2134	U2134	U2074	A2014	C1950	G1889	C1830	U1770	A1706	G1644	C1581	U1521
G2255	C2135	C2135	U2075	G2015	G1951	C1891	G1831	U1771	A1707	G1645	A1582	C1522
G2256	U2196	G2136	G2076	A2016	A1952	C1892	U1832	C1772	U1708	G1646	A1583	A1523
A2257	U2197	G2137	G2077	U2017	A1953	G1893	U1833	U1773	U1709	G1647	C1584	A1524
G2258	U2198	U2138	G2078	G2018	A1954	A1894	C1834	C1774	U1710	A1585	A1525	U1525
G2259	C2199	U2139	A2079	C2019	G1955	A1895	C1835	A1774	A1586	U1648	A1526	U1526
C2260	G2200	C2140	U2080	G2020	G1956	A1896	C1836	A1775	G1712	U1651	A1587	G1527
G2261	U2201	A	U2081	G2021	C1957	C1897	C1837	A1776	G1713	G1652	A1588	C1528
C2262	G2202	G	C2082	C2022	G1958	U1898	G1838	A1777	A1714	G1653	C1589	C1529
C2263	G2203	C	G2083	G2023	U1959	A1899	A1839	U1778	G1715	A1654	C1590	U1530
C2264	A2204	G	G2084	U2024	A1960	U1900	A1840	C1779	G1716	C1655	U1591	C1531
A2265	C2205	A	G2085	A2025	A1961	A1901	G1841	A1717	A1587	U1656	C1592	A1532
A2266	C2206	A	U2086	C2026	C1962	A1902	G1842	C1781	A1718	A1657	C1593	G1533
A2267	G2207	C	U2087	C2027	G1963	C1903	U1843	A1782	G1722	A1658	U1594	A1534
G2268	U2208	G	U2088	G2028	A1964	G1904	C1844	C1783	G1723	A1659	A1595	C1535
G2269	G2209	G	C2089	G2029	U1965	G1905	A1845	G1784	U1724	G1660	A1596	G1536
U2270	C2210	U	U2090	U2030	C1966	U1906	A1846	A1785	C1724	G1661	A1597	U1537
C2271	U2211	G	C2091	A2031	U1967	C1907	G1847	C1786	C1725	C1662	C1598	A1538
C2272	U2212	A	U2092	G2032	G1968	U1908	U1848	U1787	C1726	G1663	G1599	U1539
G2273	G2213	A	G2093	C2033	G1969	U1909	G1849	C1788	G1727	U1600	U1600	C1540
C2274	G2214	A	C2094	A2034	G1970	A1910	G1850	U1789	A1728	G1664	U1601	G1541
U2275	C2215	U	G2095	G2035	C1973	A1911	A1851	G1790	C1729	C1665	G1602	G1542
C2276	G2216	A	U2096	G2036	G1974	G1912	G1852	C1791	G1730	G1666	A1603	G1543
G2277	G2217	C2157	G	A2037	G1975	G1913	C1853	C1792	C1731	A1667	A1604	A1544
U2278	A2158	A2158	A	G2038	U1976	A1914	G1854	A1793	G1668	A1605	A1605	G1545
G2279	U2219	A2159	G	G2039	C1977	A1915	G1855	A1794	U1733	A1669	C1606	C1546
A2280	A2220	C2160	A	A2040	U1978	C1917	U1856	C1797	C1734	G1670	A1607	U1547
C2281	G2221	C2161	U	A2041	U1979	G1918	G1857	G1798	C1735	A1671	U1608	U1548
G2282	U2222	U2162	A	A2042	C1979	A1919	C1858	A1799	C1736	A1672	G1609	C1549
G2283	U2223	U2163	A	A2043	A1980	A1920	A1859	G1737	G1737	C1673	A1610	C1550
U2284	U2224	G2164	G2104	G2044	A1981	A1921	A1860	U1738	U1738	C1674	U1611	U1551
G2285	G2225	A2165	U2105	A2045	C1982	U1922	G1861	C1801	G1739	C1675	U1612	C1552
G2286	A2226	G2166	G2106	C2046	G1983	U1923	C1862	A1802	G1740	U1676	G1613	G1553
C2287	U2227	A2167	G2107	C2047	C1987	U1924	G1863	A1803	G1741	U1679	C1614	A1554
A2288	U2228	A2168	C2048	C2047	G1987	C1924	G1864	U1804	G1742	G1615	C1615	G1555
A2289	G2229	A2169	A2109	C2049	A1988	C1925	C1865	G1805	C1743	U1680	C1616	A1556



• Molecule 2: 50S ribosomal protein L3



L181	L182	L183	L184	L185	L186	L187	L188	L189	G190	G191	M192	G193	G194	L195	V196	V197	L198	R199	S200	A201	A202	K203	A204	S205	ALA	ALA	LYS	GLY	GLY	LYS	M21	F122	L123	G124	G125	P126	A127	S128	H129	G130	S131	K132	L133	M134	H135	R136	R137	P138	G139	S140	I141	G142	G143	R144	K145	P146	P147	G148	R149	V150	V151	K152	G153	K154	R155	M156	A157	G158	H159	M160	G161	M162	E163	R164	V165	T166	V167	Q168	M169	L170	E171	V172	V173	E174	I175	R176	A177	G178	E179	M180
------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	-----	-----	-----	-----	-----	-----	-----	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------	------

4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	170.40Å 405.83Å 703.80Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	29.93 – 3.50 29.93 – 3.50	Depositor EDS
% Data completeness (in resolution range)	(Not available) (29.93-3.50) 92.6 (29.93-3.50)	Depositor EDS
R_{merge}	0.18	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.92 (at 3.47Å)	Xtriage
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.275 , 0.334 0.356 , 0.375	Depositor DCC
R_{free} test set	14021 reflections (4.97%)	wwPDB-VP
Wilson B-factor (Å ²)	86.3	Xtriage
Anisotropy	0.807	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.21 , 94.4	EDS
L-test for twinning ²	$\langle L \rangle = 0.45$, $\langle L^2 \rangle = 0.28$	Xtriage
Estimated twinning fraction	No twinning to report.	Xtriage
F_o, F_c correlation	0.78	EDS
Total number of atoms	59610	wwPDB-VP
Average B, all atoms (Å ²)	86.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 2.31% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

²Theoretical values of $\langle |L| \rangle$, $\langle L^2 \rangle$ for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 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: G19

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	0.46	0/66467	0.86	217/103673 (0.2%)
2	B	0.14	0/10	0.66	0/11
All	All	0.46	0/66477	0.86	217/103684 (0.2%)

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	121

There are no bond length outliers.

All (217) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
1	0	985	G	N9-C1'-C2'	10.07	129.11	114.00
1	0	788	G	N9-C1'-C2'	10.03	127.04	112.00
1	0	2237	C	C4'-C3'-O3'	-9.67	98.50	113.00
1	0	2660	C	C2'-C3'-O3'	9.09	123.14	109.50
1	0	460	U	N1-C1'-C2'	8.79	127.18	114.00
1	0	1264	C	N1-C1'-C2'	8.72	127.08	114.00
1	0	818	G	C4'-C3'-O3'	-8.36	100.46	113.00
1	0	1749	G	C2'-C3'-O3'	8.18	121.77	109.50
1	0	2408	G	C4'-C3'-O3'	-8.18	100.73	113.00
1	0	984	A	N9-C1'-C2'	7.98	125.98	114.00
1	0	2824	C	C2'-C3'-O3'	7.83	121.25	109.50
1	0	2823	G	N9-C1'-C2'	7.81	125.71	114.00
1	0	2660	C	N1-C1'-C2'	7.68	125.52	114.00
1	0	2795	A	C4'-C3'-O3'	-7.63	101.55	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	813	A	N9-C1'-C2'	7.62	123.43	112.00
1	0	2237	C	N1-C1'-C2'	7.48	123.22	112.00
1	0	399	G	C4'-C3'-O3'	-7.48	101.79	113.00
1	0	840	U	C2'-C3'-O3'	-7.43	102.56	113.70
1	0	177	U	N1-C1'-C2'	7.29	122.94	112.00
1	0	2841	U	C2'-C3'-O3'	7.26	120.39	109.50
1	0	2217	G	C2'-C3'-O3'	-7.25	102.83	113.70
1	0	1634	A	N9-C1'-C2'	7.19	124.78	114.00
1	0	1261	G	N9-C1'-C2'	7.04	122.57	112.00
1	0	841	G	N9-C1'-C2'	6.99	122.48	112.00
1	0	1325	U	C2'-C3'-O3'	-6.95	103.28	113.70
1	0	2254	C	C4'-C3'-O3'	-6.94	102.59	113.00
1	0	938	G	N9-C1'-C2'	6.88	122.31	112.00
1	0	1301	U	C4'-C3'-O3'	6.87	119.71	109.40
1	0	1664	G	N9-C1'-C2'	6.83	124.25	114.00
1	0	1333	G	N9-C1'-C2'	6.79	122.18	112.00
1	0	2496	C	C4'-C3'-O3'	-6.79	102.82	113.00
1	0	2016	A	N9-C1'-C2'	6.76	122.14	112.00
1	0	2447	G	N9-C1'-C2'	6.76	122.14	112.00
1	0	700	C	N1-C1'-C2'	6.75	122.13	112.00
1	0	1777	A	C4'-C3'-O3'	-6.75	102.87	113.00
1	0	2034	A	N9-C1'-C2'	6.75	124.12	114.00
1	0	1670	G	N9-C1'-C2'	6.74	122.11	112.00
1	0	399	G	N9-C1'-C2'	6.71	122.07	112.00
1	0	801	A	C4'-C3'-O3'	-6.70	102.95	113.00
1	0	1975	G	C2'-C3'-O3'	6.70	119.55	109.50
1	0	1357	U	N1-C1'-C2'	6.66	121.99	112.00
1	0	2660	C	C4'-C3'-O3'	-6.65	99.43	109.40
1	0	192	G	C2'-C3'-O3'	6.61	119.42	109.50
1	0	34	U	C4'-C3'-O3'	-6.61	103.09	113.00
1	0	1033	G	C2'-C3'-O3'	6.59	119.39	109.50
1	0	2634	G	N9-C1'-C2'	6.59	121.88	112.00
1	0	71	A	C2'-C3'-O3'	6.58	119.37	109.50
1	0	1261	G	C4'-C3'-O3'	-6.56	103.16	113.00
1	0	1266	G	C2'-C3'-O3'	6.52	119.28	109.50
1	0	1250	A	N9-C1'-C2'	6.51	121.76	112.00
1	0	2699	G	C4'-C3'-O3'	-6.50	103.25	113.00
1	0	777	A	C2'-C3'-O3'	6.50	119.24	109.50
1	0	1807	A	N9-C1'-C2'	6.49	121.74	112.00
1	0	1357	U	C4'-C3'-O3'	-6.45	103.32	113.00
1	0	1036	G	N9-C1'-C2'	6.42	121.64	112.00
1	0	33	C	C4'-C3'-O3'	-6.42	103.37	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	2593	A	N9-C1'-C2'	6.38	123.58	114.00
1	0	490	A	C2'-C3'-O3'	6.36	119.03	109.50
1	0	2427	A	C2'-C3'-O3'	6.35	119.03	109.50
1	0	1711	C	C4'-C3'-O3'	-6.34	99.89	109.40
1	0	2560	G	N9-C1'-C2'	6.33	123.49	114.00
1	0	956	A	C4'-C3'-O3'	-6.31	99.94	109.40
1	0	48	A	C2'-C3'-O3'	-6.30	104.24	113.70
1	0	2004	U	C2'-C3'-O3'	6.30	118.96	109.50
1	0	218	A	N9-C1'-C2'	6.30	123.45	114.00
1	0	804	C	N1-C1'-C2'	6.30	121.44	112.00
1	0	1410	U	N1-C1'-C2'	6.25	121.38	112.00
1	0	459	A	N9-C1'-C2'	6.24	121.36	112.00
1	0	1137	A	C2'-C3'-O3'	-6.22	104.38	113.70
1	0	1473	U	C4'-C3'-O3'	-6.22	103.67	113.00
1	0	2408	G	C2'-C3'-O3'	6.15	122.93	113.70
1	0	1342	U	N1-C1'-C2'	6.14	123.22	114.00
1	0	2693	U	C2'-C3'-O3'	-6.10	100.35	109.50
1	0	2854	G	C4'-C3'-O3'	-6.09	103.86	113.00
1	0	2759	U	C2'-C3'-O3'	-6.09	104.57	113.70
1	0	468	A	C4'-C3'-O3'	-6.06	103.92	113.00
1	0	2254	C	N1-C1'-C2'	6.05	121.07	112.00
1	0	424	G	N9-C1'-C2'	6.04	121.06	112.00
1	0	466	A	C2'-C3'-O3'	6.03	118.55	109.50
1	0	2045	A	C2'-C3'-O3'	-6.02	104.67	113.70
1	0	2624	G	N9-C1'-C2'	6.02	121.03	112.00
1	0	1288	A	N9-C1'-C2'	6.00	121.00	112.00
1	0	1685	A	C4'-C3'-O3'	5.99	118.38	109.40
1	0	59	G	N9-C1'-C2'	5.98	120.97	112.00
1	0	776	G	N9-C1'-C2'	5.98	120.97	112.00
1	0	1716	G	N9-C1'-C2'	5.98	122.96	114.00
1	0	2427	A	N9-C1'-C2'	5.96	122.94	114.00
1	0	968	C	C2'-C3'-O3'	5.95	118.43	109.50
1	0	2014	A	N9-C1'-C2'	5.95	120.92	112.00
1	0	2018	G	C2'-C3'-O3'	5.94	118.41	109.50
1	0	1249	G	C2'-C3'-O3'	5.93	118.39	109.50
1	0	2624	G	C4'-C3'-O3'	-5.89	104.16	113.00
1	0	2437	G	C4'-C3'-O3'	-5.89	104.16	113.00
1	0	2447	G	C4'-C3'-O3'	-5.89	104.17	113.00
1	0	580	A	N9-C1'-C2'	5.88	122.82	114.00
1	0	123	A	N9-C1'-C2'	5.86	120.80	112.00
1	0	596	C	C4'-C3'-O3'	-5.85	104.23	113.00
1	0	1353	A	N9-C1'-C2'	5.84	120.77	112.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	312	G	N9-C1'-C2'	5.84	122.77	114.00
1	0	698	A	N9-C1'-C2'	5.83	120.75	112.00
1	0	2437	G	N9-C1'-C2'	5.81	120.72	112.00
1	0	2795	A	N9-C1'-C2'	5.81	120.72	112.00
1	0	2005	U	C2'-C3'-O3'	-5.80	100.80	109.50
1	0	73	A	C2'-C3'-O3'	5.79	118.18	109.50
1	0	2705	A	C4'-C3'-O3'	-5.75	104.38	113.00
1	0	795	A	C2'-C3'-O3'	-5.74	100.89	109.50
1	0	1947	G	C2'-C3'-O3'	-5.74	105.09	113.70
1	0	541	C	C1'-O4'-C4'	-5.73	104.17	109.90
1	0	2712	G	N9-C1'-C2'	5.71	120.57	112.00
1	0	683	A	C2'-C3'-O3'	-5.71	100.94	109.50
1	0	777	A	N9-C1'-C2'	5.70	122.55	114.00
1	0	2690	A	C4'-C3'-O3'	-5.70	104.46	113.00
1	0	878	C	C4'-C3'-O3'	-5.69	104.47	113.00
1	0	468	A	N9-C1'-C2'	5.69	120.53	112.00
1	0	878	C	N1-C1'-C2'	5.68	120.53	112.00
1	0	2303	C	C4'-C3'-O3'	-5.68	104.48	113.00
1	0	13	A	N9-C1'-C2'	5.67	122.51	114.00
1	0	2756	A	C4'-C3'-O3'	-5.66	104.52	113.00
1	0	1723	U	N1-C1'-C2'	5.64	120.46	112.00
1	0	1749	G	N9-C1'-C2'	5.63	122.45	114.00
1	0	82	G	C4'-C3'-O3'	-5.63	104.55	113.00
1	0	2034	A	C3'-C2'-O2'	-5.63	106.15	114.60
1	0	2496	C	N1-C1'-C2'	5.63	120.44	112.00
1	0	1575	C	C2'-C3'-O3'	-5.63	105.26	113.70
1	0	1774	A	C2'-C3'-O3'	-5.60	105.31	113.70
1	0	2482	A	C1'-C2'-O2'	-5.58	103.43	111.80
1	0	2693	U	C1'-C2'-O2'	-5.58	103.43	111.80
1	0	2044	G	N9-C1'-C2'	5.57	120.36	112.00
1	0	972	C	C2'-C3'-O3'	5.57	117.85	109.50
1	0	198	A	C2'-C3'-O3'	5.56	117.84	109.50
1	0	2408	G	N9-C1'-C2'	5.55	120.32	112.00
1	0	424	G	C4'-C3'-O3'	-5.55	104.68	113.00
1	0	398	C	C4'-C3'-O3'	-5.54	104.69	113.00
1	0	1626	A	C2'-C3'-O3'	-5.53	101.20	109.50
1	0	2016	A	C4'-C3'-O3'	-5.53	104.70	113.00
1	0	1963	G	C2'-C3'-O3'	5.52	117.78	109.50
1	0	1760	G	C2'-C3'-O3'	-5.52	105.42	113.70
1	0	596	C	N1-C1'-C2'	5.51	120.27	112.00
1	0	1684	G	C2'-C3'-O3'	5.49	117.74	109.50
1	0	2014	A	C4'-C3'-O3'	-5.48	104.78	113.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	2756	A	N9-C1'-C2'	5.48	120.23	112.00
1	0	1337	G	N9-C1'-C2'	5.47	122.20	114.00
1	0	1264	C	C3'-C2'-O2'	-5.45	106.42	114.60
1	0	2822	U	C2'-C3'-O3'	-5.45	105.53	113.70
1	0	1	G	O5'-C5'-C4'	5.44	119.67	111.50
1	0	1634	A	C2'-C3'-O3'	5.44	117.66	109.50
1	0	806	A	C4'-C3'-O3'	-5.43	104.85	113.00
1	0	1477	C	C5'-C4'-C3'	-5.43	107.85	116.00
1	0	1033	G	N9-C1'-C2'	5.43	122.15	114.00
1	0	1152	C	N1-C1'-C2'	5.42	120.13	112.00
1	0	459	A	C4'-C3'-O3'	-5.42	104.87	113.00
1	0	447	U	N1-C1'-C2'	5.41	120.11	112.00
1	0	1670	G	C4'-C3'-O3'	-5.39	104.91	113.00
1	0	1474	A	N9-C1'-C2'	5.38	122.08	114.00
1	0	82	G	N9-C1'-C2'	5.38	120.06	112.00
1	0	334	G	C2'-C3'-O3'	5.37	121.76	113.70
1	0	582	G	C2'-C3'-O3'	-5.37	101.45	109.50
1	0	1695	U	C2'-C3'-O3'	-5.37	105.65	113.70
1	0	2059	U	C3'-C2'-O2'	5.37	118.75	110.70
1	0	341	A	C4'-C3'-O3'	-5.35	104.97	113.00
1	0	582	G	N9-C1'-C2'	5.35	122.02	114.00
1	0	2705	A	N9-C1'-C2'	5.34	120.02	112.00
1	0	2050	G	O4'-C1'-C2'	5.34	111.14	105.80
1	0	1263	G	C2'-C3'-O3'	5.33	117.50	109.50
1	0	1667	A	C3'-C2'-O2'	5.33	118.69	110.70
1	0	2617	G	C4'-C3'-O3'	-5.32	105.02	113.00
1	0	776	G	C4'-C3'-O3'	-5.32	105.03	113.00
1	0	2692	A	O4'-C4'-C3'	-5.32	98.68	104.00
1	0	2497	A	C4'-C3'-O3'	5.31	117.37	109.40
1	0	1137	A	N9-C1'-C2'	5.30	119.95	112.00
1	0	1142	G	C1'-C2'-O2'	-5.29	103.86	111.80
1	0	67	G	N9-C1'-C2'	5.29	119.93	112.00
1	0	2315	A	C2'-C3'-O3'	-5.27	105.79	113.70
1	0	2759	U	C4'-C3'-O3'	5.27	120.91	113.00
1	0	2476	A	C4'-C3'-O3'	-5.26	101.51	109.40
1	0	613	A	C2'-C3'-O3'	-5.25	105.83	113.70
1	0	2686	C	C2'-C3'-O3'	-5.25	105.83	113.70
1	0	1250	A	C4'-C3'-O3'	-5.24	105.14	113.00
1	0	1583	A	C4'-C3'-O3'	-5.24	105.14	113.00
1	0	70	A	C4'-C3'-O3'	-5.24	105.14	113.00
1	0	1775	A	C2'-C3'-O3'	-5.22	101.67	109.50
1	0	2482	A	C5'-C4'-C3'	-5.21	107.38	115.20

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	860	U	N1-C1'-C2'	5.21	119.81	112.00
1	0	939	C	N1-C1'-C2'	5.21	119.81	112.00
1	0	995	A	C2'-C3'-O3'	-5.20	105.90	113.70
1	0	2363	G	C4'-C3'-O3'	-5.19	105.21	113.00
1	0	343	A	N9-C1'-C2'	5.19	119.78	112.00
1	0	1686	A	N9-C1'-C2'	5.18	119.77	112.00
1	0	2736	U	N1-C1'-C2'	5.16	119.74	112.00
1	0	1199	U	C4'-C3'-O3'	-5.16	105.27	113.00
1	0	2026	C	C2'-C3'-O3'	-5.14	105.99	113.70
1	0	1685	A	C2'-C3'-O3'	5.14	117.20	109.50
1	0	1264	C	C1'-C2'-O2'	-5.13	104.11	111.80
1	0	1468	A	O4'-C1'-C2'	-5.12	102.48	107.60
1	0	1267	A	C2'-C3'-O3'	-5.12	106.03	113.70
1	0	580	A	C4'-C3'-O3'	-5.11	101.74	109.40
1	0	1777	A	N9-C1'-C2'	5.11	119.66	112.00
1	0	2034	A	C4'-C3'-O3'	-5.11	101.74	109.40
1	0	2758	A	C1'-C2'-O2'	-5.11	104.14	111.80
1	0	2545	A	N9-C1'-C2'	5.10	121.66	114.00
1	0	571	U	N1-C1'-C2'	5.09	121.64	114.00
1	0	2846	G	C4'-C3'-O3'	-5.09	105.37	113.00
1	0	1811	A	N9-C1'-C2'	5.08	119.62	112.00
1	0	539	A	N9-C1'-C2'	5.07	119.61	112.00
1	0	2706	U	C4'-C3'-O3'	5.06	117.00	109.40
1	0	2266	A	C4'-C3'-O3'	-5.06	105.41	113.00
1	0	2361	G	C4'-C3'-O3'	-5.06	105.41	113.00
1	0	2261	G	C2'-C3'-O3'	-5.05	101.92	109.50
1	0	1772	C	C4'-C3'-O3'	-5.04	105.44	113.00
1	0	1167	A	N9-C1'-C2'	5.04	121.56	114.00
1	0	1771	A	C4'-C3'-O3'	-5.03	105.45	113.00
1	0	583	C	C2'-C3'-O3'	5.03	117.04	109.50
1	0	2361	G	N9-C1'-C2'	5.03	119.54	112.00
1	0	469	G	N9-C1'-C2'	5.02	119.54	112.00
1	0	2736	U	C4'-C3'-O3'	-5.02	105.47	113.00
1	0	984	A	O4'-C1'-C2'	5.01	110.81	105.80
1	0	2609	G	N9-C1'-C2'	5.01	119.51	112.00

There are no chirality outliers.

All (121) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1000	G	Sidechain
1	0	1036	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	0	123	A	Sidechain
1	0	1236	G	Sidechain
1	0	1250	A	Sidechain
1	0	1251	G	Sidechain
1	0	1261	G	Sidechain
1	0	1268	U	Sidechain
1	0	1285	A	Sidechain
1	0	1286	U	Sidechain
1	0	1288	A	Sidechain
1	0	13	A	Sidechain
1	0	1313	U	Sidechain
1	0	1325	U	Sidechain
1	0	1332	G	Sidechain
1	0	1333	G	Sidechain
1	0	1365	U	Sidechain
1	0	1408	A	Sidechain
1	0	1410	U	Sidechain
1	0	1458	A	Sidechain
1	0	1466	C	Sidechain
1	0	1469	U	Sidechain
1	0	15	G	Sidechain
1	0	1624	A	Sidechain
1	0	1632	A	Sidechain
1	0	1634	A	Sidechain
1	0	165	G	Sidechain
1	0	1666	G	Sidechain
1	0	1671	A	Sidechain
1	0	1673	C	Sidechain
1	0	1682	A	Sidechain
1	0	1695	U	Sidechain
1	0	1697	U	Sidechain
1	0	1705	U	Sidechain
1	0	1706	A	Sidechain
1	0	1715	A	Sidechain
1	0	172	A	Sidechain
1	0	1791	C	Sidechain
1	0	187	U	Sidechain
1	0	1964	A	Sidechain
1	0	1974	U	Sidechain
1	0	1975	G	Sidechain
1	0	1992	G	Sidechain
1	0	1994	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	0	1999	U	Sidechain
1	0	201	G	Sidechain
1	0	2010	G	Sidechain
1	0	2011	U	Sidechain
1	0	2014	A	Sidechain
1	0	2018	G	Sidechain
1	0	2041	A	Sidechain
1	0	2058	U	Sidechain
1	0	2062	U	Sidechain
1	0	2063	A	Sidechain
1	0	211	U	Sidechain
1	0	218	A	Sidechain
1	0	219	G	Sidechain
1	0	2225	G	Sidechain
1	0	2234	G	Sidechain
1	0	2237	C	Sidechain
1	0	2247	A	Sidechain
1	0	2254	C	Sidechain
1	0	2392	G	Sidechain
1	0	2447	G	Sidechain
1	0	2488	G	Sidechain
1	0	2544	A	Sidechain
1	0	2548	G	Sidechain
1	0	2553	G	Sidechain
1	0	2586	G	Sidechain
1	0	2594	U	Sidechain
1	0	2599	U	Sidechain
1	0	2603	G	Sidechain
1	0	2616	U	Sidechain
1	0	2663	U	Sidechain
1	0	2668	U	Sidechain
1	0	2693	U	Sidechain
1	0	2701	A	Sidechain
1	0	2712	G	Sidechain
1	0	2761	A	Sidechain
1	0	2790	C	Sidechain
1	0	2793	G	Sidechain
1	0	2795	A	Sidechain
1	0	2807	U	Sidechain
1	0	2813	G	Sidechain
1	0	2824	C	Sidechain
1	0	2836	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	0	2847	G	Sidechain
1	0	2863	U	Sidechain
1	0	2865	G	Sidechain
1	0	396	U	Sidechain
1	0	397	U	Sidechain
1	0	403	A	Sidechain
1	0	444	U	Sidechain
1	0	447	U	Sidechain
1	0	469	G	Sidechain
1	0	474	G	Sidechain
1	0	48	A	Sidechain
1	0	481	A	Sidechain
1	0	486	U	Sidechain
1	0	537	C	Sidechain
1	0	541	C	Sidechain
1	0	555	U	Sidechain
1	0	559	C	Sidechain
1	0	594	G	Sidechain
1	0	67	G	Sidechain
1	0	686	C	Sidechain
1	0	689	A	Sidechain
1	0	757	U	Sidechain
1	0	761	G	Sidechain
1	0	804	C	Sidechain
1	0	814	G	Sidechain
1	0	816	U	Sidechain
1	0	818	G	Sidechain
1	0	82	G	Sidechain
1	0	824	U	Sidechain
1	0	845	U	Sidechain
1	0	873	U	Sidechain
1	0	919	U	Sidechain
1	0	954	U	Sidechain
1	0	974	U	Sidechain
1	0	993	C	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	3636	0
2	B	215	0	12	5	0
3	0	36	0	34	2	0
All	All	59610	0	29963	3640	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 41.

All (3640) 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)
1:0:1280:U:C5	1:0:1995:G:C2	2.04	1.44
1:0:1440:G:H3'	1:0:1441:A:C5'	1.66	1.25
1:0:699:G:N2	1:0:801:A:H2	1.40	1.18
1:0:1440:G:C3'	1:0:1441:A:H5''	1.75	1.16
1:0:2205:C:O2'	1:0:2206:C:H5'	1.42	1.16
1:0:1280:U:H5	1:0:1995:G:N1	1.44	1.13
1:0:1463:A:H1'	1:0:1543:G:N2	1.63	1.11
1:0:788:G:N2	1:0:800:U:H2'	1.65	1.09
1:0:940:G:H3'	1:0:941:U:H5''	1.28	1.09
1:0:88:G:H3'	1:0:89:A:H5''	1.33	1.08
1:0:631:G:H4'	1:0:632:A:H5''	1.28	1.08
1:0:2770:A:H4'	1:0:2867:G:N2	1.68	1.07
1:0:942:U:H2'	1:0:943:U:H4'	1.31	1.07
1:0:1908:C:H2'	1:0:1909:U:H4'	1.34	1.07
1:0:2770:A:H5'	1:0:2867:G:H1	1.19	1.07
1:0:1463:A:C1'	1:0:1543:G:H22	1.67	1.06
1:0:1466:C:H2'	1:0:1467:U:O4'	1.54	1.05
1:0:475:U:H1'	1:0:699:G:H1	1.16	1.04
1:0:2482:A:H5'	1:0:2483:U:OP2	1.58	1.04
1:0:2770:A:H4'	1:0:2867:G:H22	0.90	1.04
1:0:1333:G:N2	1:0:1344:C:H41	1.56	1.03
1:0:699:G:N2	1:0:801:A:C2	2.26	1.03
1:0:357:A:H2'	1:0:358:C:H5'	1.41	1.03
1:0:1430:G:H22	1:0:1599:G:H1'	1.22	1.03
1:0:1153:A:H5''	1:0:1154:A:OP1	1.57	1.03
1:0:788:G:N2	1:0:800:U:C2'	2.22	1.02
1:0:2708:U:H2'	1:0:2709:C:C6	1.94	1.02
1:0:976:C:H5'	1:0:2252:A:H1'	1.42	1.02
1:0:1463:A:H1'	1:0:1543:G:H22	0.88	1.02
1:0:2782:G:H5'	1:0:2783:U:OP2	1.59	1.02
1:0:813:A:O2'	1:0:814:G:H3'	1.60	1.01

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2770:A:C4'	1:0:2867:G:H22	1.73	1.01
1:0:841:G:H2'	1:0:842:A:C8	1.95	1.00
1:0:2564:U:H4'	1:0:2565:C:OP1	1.58	1.00
1:0:2569:A:H2'	1:0:2570:C:H6	1.28	0.99
1:0:1680:U:H6	1:0:1680:U:H5'	1.25	0.98
1:0:1073:G:H2'	1:0:1074:G:H4'	1.45	0.98
1:0:66:U:H2'	1:0:67:G:C8	2.00	0.97
1:0:929:A:H3'	1:0:930:A:H5''	1.47	0.96
1:0:1918:G:H1'	1:0:1947:G:N2	1.80	0.96
1:0:51:A:C2	1:0:155:G:H1'	1.99	0.96
1:0:940:G:H3'	1:0:941:U:C5'	1.94	0.96
1:0:1764:A:H2'	1:0:1765:C:H5'	1.48	0.96
1:0:2484:G:O2'	1:0:2485:U:H5''	1.66	0.95
1:0:225:G:C2	1:0:2410:U:H4'	2.02	0.95
1:0:813:A:H1'	1:0:815:A:H5'	1.48	0.95
1:0:1158:A:H2'	1:0:1159:U:O4'	1.65	0.95
1:0:788:G:H22	1:0:801:A:P	1.90	0.95
1:0:2306:A:H2'	1:0:2307:A:C8	2.02	0.95
1:0:538:A:C2	1:0:2025:A:H2'	2.02	0.94
1:0:788:G:C5'	1:0:790:A:H1'	1.97	0.94
1:0:1373:G:H22	1:0:2192:U:H3	1.04	0.94
1:0:2811:G:H2'	1:0:2812:A:H8	1.32	0.94
1:0:918:A:H2'	1:0:919:U:H5''	1.47	0.94
1:0:2560:G:H1	1:0:2589:C:H6	0.98	0.94
1:0:668:A:H2'	1:0:669:G:O4'	1.67	0.94
1:0:1354:A:H3'	1:0:1410:U:C2	2.02	0.94
1:0:1223:G:H5'	1:0:1225:G:O4'	1.65	0.94
1:0:5:A:H2'	1:0:6:A:C8	2.01	0.94
1:0:1459:U:H5''	1:0:1460:G:OP1	1.68	0.94
1:0:1465:G:OP1	1:0:1465:G:H4'	1.67	0.94
1:0:1685:A:H61	1:0:1693:A:H61	0.99	0.94
1:0:2370:G:N3	1:0:2408:G:N2	2.16	0.94
1:0:2759:U:O5'	1:0:2759:U:H6	1.51	0.94
1:0:1876:C:H2'	1:0:1877:C:H5'	1.49	0.94
1:0:1280:U:C5	1:0:1995:G:N2	2.35	0.93
1:0:1949:A:H1'	1:0:2572:U:H4'	1.49	0.93
1:0:539:A:H62	1:0:2024:U:H3	1.07	0.92
1:0:1280:U:H5	1:0:1995:G:C2	1.58	0.92
1:0:1679:U:H2'	1:0:1680:U:H5''	1.50	0.92
1:0:2672:U:H2'	1:0:2673:G:H8	1.31	0.92
1:0:58:C:H1'	1:0:72:A:C8	2.05	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:941:U:H2'	1:0:942:U:O4'	1.69	0.92
1:0:2569:A:H2'	1:0:2570:C:C6	2.04	0.91
2:B:144:ARG:C	2:B:145:LYS:CA	2.43	0.91
1:0:109:A:H2'	1:0:110:U:H5''	1.50	0.91
1:0:541:C:N4	1:0:2001:G:H22	1.69	0.91
1:0:1430:G:N2	1:0:1599:G:H1'	1.85	0.91
1:0:2811:G:H2'	1:0:2812:A:C8	2.04	0.91
1:0:788:G:N2	1:0:801:A:P	2.44	0.91
1:0:5:A:H2'	1:0:6:A:H8	1.32	0.90
1:0:2691:C:H2'	1:0:2692:A:H5''	1.53	0.90
1:0:2871:U:H2'	1:0:2872:U:C6	2.05	0.90
1:0:1177:U:H3	1:0:1196:G:H1	1.14	0.90
1:0:155:G:O2'	1:0:156:G:H5'	1.70	0.90
1:0:1685:A:N6	1:0:1693:A:H61	1.69	0.90
1:0:4:C:C2'	1:0:5:A:H5'	2.03	0.89
1:0:1438:G:H2'	1:0:1439:G:O4'	1.73	0.89
1:0:1685:A:H61	1:0:1693:A:N6	1.70	0.89
1:0:532:A:H2'	1:0:533:C:C6	2.08	0.89
1:0:168:A:H2'	1:0:169:C:C6	2.08	0.89
1:0:1252:C:O2'	1:0:1253:C:H5''	1.73	0.89
1:0:699:G:H5'	1:0:700:C:OP2	1.73	0.88
1:0:2261:G:H4'	1:0:2262:C:OP2	1.71	0.88
1:0:538:A:C2	1:0:2026:C:H5''	2.07	0.88
1:0:619:A:H2'	1:0:620:G:C8	2.08	0.88
1:0:1191:G:H2'	1:0:1192:A:H8	1.37	0.88
1:0:2273:C:H2'	1:0:2274:C:H6	1.38	0.88
1:0:4:C:H2'	1:0:5:A:O4'	1.74	0.88
1:0:746:G:N7	1:0:774:A:C5	2.41	0.88
1:0:631:G:H4'	1:0:632:A:C5'	2.03	0.88
1:0:2696:A:O2'	1:0:2697:G:H5'	1.74	0.88
1:0:2866:A:H2'	1:0:2867:G:C8	2.08	0.88
1:0:29:U:O5'	1:0:29:U:H6	1.57	0.87
1:0:2523:G:H2'	1:0:2524:G:H8	1.39	0.87
1:0:1685:A:H4'	1:0:1686:A:C5'	2.05	0.86
1:0:2708:U:H2'	1:0:2709:C:H6	1.28	0.86
1:0:211:U:O2	1:0:211:U:H2'	1.75	0.86
1:0:616:U:H2'	1:0:617:U:H5''	1.54	0.86
1:0:2810:A:HO2'	1:0:2811:G:H8	0.90	0.86
1:0:1199:U:H3'	1:0:1200:G:H5''	1.55	0.86
1:0:460:U:O4	1:0:592:G:H1'	1.75	0.86
1:0:1351:G:O2'	1:0:1352:G:H5'	1.74	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1595:A:H2'	1:0:1596:A:H8	1.40	0.86
1:0:814:G:O2'	1:0:815:A:OP1	1.92	0.85
1:0:2781:G:H2'	1:0:2782:G:H1'	1.58	0.85
1:0:2691:C:C2'	1:0:2692:A:H5''	2.06	0.85
1:0:1978:U:H5''	1:0:1979:C:H5''	1.58	0.85
1:0:2096:U:H2'	1:0:2097:A:H5''	1.58	0.85
1:0:2496:C:O2'	1:0:2497:A:H3'	1.74	0.85
1:0:1921:A:H2'	1:0:1922:U:H5''	1.59	0.85
1:0:1625:A:H1'	1:0:1632:A:O2'	1.76	0.85
1:0:1683:G:H2'	1:0:1684:G:H5'	1.57	0.85
1:0:139:A:H2'	1:0:140:G:H8	1.38	0.85
1:0:1313:U:H4'	1:0:1314:A:O5'	1.76	0.85
1:0:2311:U:H4'	1:0:2315:A:H61	1.41	0.85
1:0:1458:A:H3'	1:0:1459:U:O4'	1.77	0.84
1:0:2870:C:H2'	1:0:2871:U:H6	1.42	0.84
1:0:931:G:N2	1:0:2247:A:H5'	1.93	0.84
1:0:239:A:H5''	1:0:620:G:H5'	1.59	0.84
1:0:689:A:H8	1:0:2422:C:H1'	1.41	0.84
1:0:833:A:H1'	1:0:954:U:H1'	1.60	0.84
1:0:2205:C:O2'	1:0:2206:C:C5'	2.25	0.84
1:0:1174:G:H2'	1:0:1175:A:H8	1.42	0.84
1:0:2198:U:H3'	1:0:2199:C:H5''	1.60	0.84
1:0:475:U:H1'	1:0:699:G:N1	1.91	0.84
1:0:455:A:H2	1:0:1258:G:N3	1.74	0.84
1:0:1563:U:H2'	1:0:1564:U:H6	1.42	0.84
1:0:2077:G:H22	1:0:2179:C:H1'	1.40	0.84
1:0:2810:A:H3'	1:0:2810:A:H8	1.42	0.84
1:0:77:C:H2'	1:0:78:C:H6	1.41	0.84
1:0:2404:A:H5'	1:0:2406:C:O4'	1.78	0.84
1:0:2712:G:H3'	1:0:2713:A:H5'	1.59	0.84
1:0:536:A:N6	1:0:2605:C:H4'	1.92	0.83
1:0:940:G:H2'	1:0:941:U:H4'	1.58	0.83
1:0:1280:U:C5	1:0:1995:G:N1	2.30	0.83
1:0:1685:A:H4'	1:0:1686:A:H5'	1.60	0.83
1:0:51:A:H2	1:0:155:G:H1'	1.41	0.83
1:0:788:G:H5'	1:0:790:A:H1'	1.59	0.83
1:0:2562:G:N2	1:0:2563:U:H1'	1.93	0.83
1:0:2803:C:O2'	1:0:2804:G:H5'	1.79	0.83
1:0:1055:A:N1	1:0:1122:A:H5'	1.92	0.83
1:0:1563:U:H2'	1:0:1564:U:C6	2.14	0.83
1:0:2198:U:H3'	1:0:2199:C:C5'	2.09	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2051:U:H3	1:0:2409:A:H2	1.23	0.82
1:0:2560:G:N1	1:0:2589:C:C6	2.46	0.82
1:0:2761:A:H5''	1:0:2762:G:H5'	1.61	0.82
1:0:1468:A:H5'	1:0:1472:C:N4	1.93	0.82
2:B:143:GLN:CA	2:B:144:ARG:N	2.42	0.82
1:0:1279:G:H1'	1:0:1280:U:C5	2.14	0.82
1:0:1624:A:O2'	1:0:1625:A:H5'	1.78	0.82
1:0:619:A:H61	1:0:629:C:H42	1.27	0.82
1:0:1345:G:N3	1:0:1625:A:N1	2.27	0.82
1:0:2311:U:H4'	1:0:2315:A:N6	1.95	0.82
1:0:984:A:H1'	1:0:1202:U:C5	2.14	0.82
1:0:1623:C:H5'	1:0:1624:A:H5''	1.62	0.82
1:0:1625:A:H3'	1:0:1625:A:N3	1.95	0.82
1:0:1807:A:H1'	1:0:1809:G:C8	2.13	0.82
1:0:2729:A:H62	1:0:2733:A:H61	1.23	0.82
1:0:689:A:C8	1:0:2422:C:H1'	2.15	0.82
1:0:388:G:H2'	1:0:389:G:H8	1.43	0.82
1:0:788:G:H5''	1:0:790:A:H1'	1.62	0.82
1:0:930:A:H5'	1:0:931:G:C8	2.15	0.82
1:0:577:U:C5'	1:0:956:A:H62	1.92	0.82
1:0:2769:C:H3'	1:0:2770:A:O4'	1.79	0.82
1:0:12:U:O2	1:0:12:U:H2'	1.80	0.81
1:0:173:A:H61	1:0:844:G:H21	1.24	0.81
1:0:839:U:OP1	1:0:2408:G:OP2	1.98	0.81
1:0:1073:G:H2'	1:0:1074:G:C4'	2.09	0.81
1:0:1888:C:H5''	1:0:1889:G:H5''	1.62	0.81
1:0:2370:G:H21	1:0:2408:G:H21	1.26	0.81
1:0:2780:A:H2'	1:0:2781:G:H8	1.42	0.81
1:0:942:U:C2'	1:0:943:U:H4'	2.11	0.81
1:0:1572:C:C2'	1:0:1573:G:H5''	2.10	0.81
1:0:1922:U:H1'	1:0:2570:C:O2'	1.79	0.81
1:0:2672:U:H2'	1:0:2673:G:C8	2.15	0.81
1:0:2691:C:C3'	1:0:2692:A:H5''	2.10	0.81
1:0:109:A:C2'	1:0:110:U:H5''	2.10	0.81
1:0:577:U:H5'	1:0:956:A:H62	1.42	0.81
1:0:1190:C:H2'	1:0:1191:G:H8	1.43	0.81
1:0:1715:A:N3	1:0:1717:A:O4'	2.14	0.81
1:0:2624:G:H4'	1:0:2712:G:O2'	1.81	0.81
1:0:541:C:H41	1:0:2001:G:H22	1.22	0.81
1:0:66:U:H2'	1:0:67:G:N7	1.96	0.81
1:0:878:C:H4'	1:0:879:A:N7	1.95	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1595:A:H2'	1:0:1596:A:C8	2.16	0.81
1:0:1679:U:C2'	1:0:1680:U:H5''	2.09	0.81
1:0:957:G:O2'	1:0:958:G:H5'	1.80	0.81
1:0:2469:G:H4'	1:0:2470:U:OP1	1.78	0.81
1:0:1923:U:HO2'	1:0:1924:C:H5	1.27	0.81
1:0:1997:A:H2'	1:0:1998:A:C8	2.15	0.80
1:0:665:A:H3'	1:0:666:U:H5''	1.62	0.80
1:0:1058:G:H2'	1:0:1121:G:H1	1.45	0.80
1:0:1572:C:H2'	1:0:1573:G:H5''	1.62	0.80
1:0:719:A:H2'	1:0:720:A:O4'	1.81	0.80
1:0:922:A:H2'	1:0:923:A:C8	2.17	0.80
1:0:1714:A:H5'	1:0:1715:A:H5''	1.63	0.80
1:0:2311:U:C4'	1:0:2315:A:H61	1.94	0.80
1:0:732:G:H2'	1:0:733:G:H8	1.46	0.80
1:0:1373:G:N2	1:0:2192:U:H3	1.80	0.80
1:0:2785:A:H2'	1:0:2786:G:H5'	1.60	0.80
1:0:836:G:H2'	1:0:837:U:C6	2.16	0.80
1:0:1826:U:H1'	1:0:1955:G:N2	1.96	0.80
1:0:317:U:H2'	1:0:318:G:H5''	1.61	0.80
1:0:633:G:H2'	1:0:634:G:C8	2.17	0.79
1:0:1260:A:N6	1:0:1262:U:H1'	1.97	0.79
1:0:1748:U:H5'	1:0:1749:G:H5''	1.63	0.79
1:0:441:A:H2'	1:0:442:A:O4'	1.82	0.79
1:0:482:A:H2'	1:0:483:A:O4'	1.83	0.79
1:0:799:C:H2'	1:0:800:U:H6	1.47	0.79
1:0:1194:U:H2'	1:0:1195:U:C6	2.17	0.79
1:0:1280:U:C4	1:0:1995:G:C2	2.70	0.79
1:0:805:G:H2'	1:0:2419:C:O2	1.82	0.79
1:0:1582:A:C2'	1:0:1583:A:OP1	2.31	0.79
1:0:2014:A:C6	1:0:2477:C:H1'	2.16	0.79
1:0:1922:U:O2	1:0:2571:G:H5'	1.81	0.79
1:0:1978:U:H5''	1:0:1979:C:C5'	2.13	0.79
1:0:38:G:H1	1:0:453:U:H3	1.31	0.79
1:0:532:A:H2'	1:0:533:C:H6	1.45	0.79
1:0:987:G:H5'	1:0:1167:A:N6	1.97	0.78
1:0:1442:C:N4	1:0:1585:A:C8	2.51	0.78
1:0:2447:G:H22	1:0:2460:G:H2'	1.46	0.78
1:0:813:A:H1'	1:0:815:A:C5'	2.13	0.78
1:0:861:G:H2'	1:0:862:A:C8	2.16	0.78
1:0:1337:G:H1'	1:0:1632:A:N6	1.99	0.78
1:0:2117:A:N6	1:0:2139:G:H21	1.82	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2661:G:O2'	1:0:2662:C:H5'	1.84	0.78
1:0:487:G:H4'	1:0:512:A:N1	1.98	0.78
1:0:1949:A:O2'	1:0:2572:U:H5'	1.83	0.78
1:0:2199:C:H2'	1:0:2200:G:C8	2.19	0.78
1:0:71:A:O2'	1:0:72:A:OP1	2.01	0.78
1:0:1404:C:N4	1:0:1407:G:C8	2.52	0.78
1:0:2484:G:O2'	1:0:2485:U:C5'	2.30	0.78
1:0:1983:G:N2	1:0:2668:U:O4	2.12	0.78
1:0:2498:U:H4'	1:0:2499:C:OP1	1.82	0.78
1:0:62:U:O2'	1:0:63:A:C8	2.36	0.78
1:0:2563:U:O2	1:0:2564:U:C6	2.37	0.78
1:0:1591:U:H2'	1:0:1592:U:O4'	1.84	0.78
1:0:1871:G:H3'	1:0:1871:G:N3	1.99	0.78
1:0:1996:A:O2'	1:0:1997:A:H5'	1.83	0.78
1:0:2810:A:H3'	1:0:2810:A:C8	2.19	0.78
1:0:541:C:N4	1:0:2001:G:H1	1.81	0.77
1:0:619:A:H61	1:0:629:C:N4	1.82	0.77
1:0:1054:C:H2'	1:0:1055:A:H5'	1.65	0.77
1:0:2782:G:H3'	1:0:2783:U:H5''	1.66	0.77
1:0:2810:A:O2'	1:0:2811:G:H8	1.68	0.77
1:0:1337:G:H1'	1:0:1632:A:H62	1.49	0.77
1:0:2761:A:C5'	1:0:2762:G:H5'	2.15	0.77
1:0:27:G:N2	1:0:522:G:O2'	2.17	0.77
1:0:1174:G:H2'	1:0:1175:A:C8	2.20	0.77
1:0:1443:G:H2'	1:0:1444:C:C6	2.19	0.77
1:0:1844:C:O2'	1:0:1845:A:H5'	1.85	0.77
1:0:225:G:O5'	1:0:226:C:H5'	1.85	0.77
1:0:788:G:C2	1:0:800:U:H2'	2.20	0.77
1:0:1260:A:H62	1:0:1262:U:H1'	1.50	0.77
1:0:2133:G:H2'	1:0:2134:U:C6	2.20	0.77
1:0:2564:U:C4'	1:0:2565:C:OP1	2.31	0.77
1:0:665:A:H3'	1:0:666:U:C5'	2.14	0.77
1:0:804:C:O2	1:0:804:C:H2'	1.85	0.77
1:0:1714:A:H5'	1:0:1715:A:C5'	2.14	0.77
1:0:1774:A:N1	1:0:2566:A:H2'	2.00	0.77
1:0:163:A:H2'	1:0:164:G:H8	1.50	0.76
1:0:542:A:H62	1:0:570:G:H21	1.33	0.76
1:0:83:A:H4'	1:0:84:G:O5'	1.84	0.76
1:0:659:G:H2'	1:0:660:G:C8	2.20	0.76
1:0:2758:A:O2'	1:0:2759:U:OP1	2.03	0.76
1:0:68:C:O2	1:0:68:C:H2'	1.84	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:475:U:C1'	1:0:699:G:H1	1.95	0.76
1:0:1754:G:OP1	1:0:1754:G:H4'	1.86	0.76
1:0:787:A:C4	1:0:788:G:N7	2.53	0.76
1:0:1440:G:H3'	1:0:1441:A:H5''	0.83	0.76
1:0:995:A:H5''	1:0:996:C:H5	1.50	0.76
1:0:1190:C:H2'	1:0:1191:G:C8	2.21	0.76
1:0:1454:U:H2'	1:0:1455:C:H6	1.50	0.76
1:0:2791:C:O2'	1:0:2792:C:H5'	1.86	0.76
1:0:2185:U:H2'	1:0:2186:G:H8	1.50	0.76
1:0:2523:G:H2'	1:0:2524:G:C8	2.20	0.75
1:0:239:A:H2	1:0:443:A:N3	1.83	0.75
1:0:541:C:H42	1:0:2001:G:H1	1.33	0.75
1:0:1900:U:O2'	1:0:1946:U:H5'	1.87	0.75
1:0:2742:G:O2'	1:0:2743:G:H5'	1.85	0.75
1:0:541:C:N4	1:0:572:G:C8	2.54	0.75
1:0:890:U:H2'	1:0:891:A:C8	2.21	0.75
1:0:1279:G:H4'	1:0:1280:U:O5'	1.85	0.75
1:0:968:C:H4'	1:0:969:U:OP1	1.86	0.75
1:0:976:C:H5'	1:0:2252:A:C1'	2.16	0.75
1:0:1354:A:O5'	1:0:1410:U:C4	2.39	0.75
1:0:2563:U:H2'	1:0:2564:U:H6	1.50	0.75
1:0:1830:C:N4	1:0:1881:U:H3'	2.01	0.75
1:0:1963:G:O2'	1:0:1964:A:OP1	2.03	0.75
1:0:2194:A:C3'	1:0:2195:C:H5''	2.16	0.75
1:0:2625:U:O5'	1:0:2625:U:H6	1.69	0.75
1:0:181:A:H4'	1:0:182:G:OP1	1.84	0.75
1:0:634:G:H2'	1:0:635:C:C6	2.21	0.75
1:0:1333:G:N2	1:0:1344:C:N4	2.33	0.75
1:0:1845:A:H2'	1:0:1846:A:C8	2.21	0.75
1:0:2397:A:H2'	1:0:2398:U:O4'	1.86	0.75
1:0:2770:A:H5'	1:0:2867:G:N1	1.98	0.75
1:0:428:A:H2'	1:0:429:C:C6	2.22	0.75
1:0:699:G:C2	1:0:801:A:H2	2.05	0.75
1:0:1341:G:H2'	1:0:1343:C:C5	2.21	0.75
1:0:2053:G:H2'	1:0:2054:A:C8	2.21	0.75
1:0:2309:G:H2'	1:0:2310:G:O4'	1.86	0.75
1:0:216:U:H5''	1:0:601:A:N6	2.02	0.75
1:0:514:G:N3	1:0:514:G:H2'	2.02	0.75
1:0:603:C:H2'	1:0:604:U:C6	2.21	0.75
1:0:1198:C:O3'	1:0:1199:U:H4'	1.87	0.75
1:0:1278:A:H4'	1:0:1279:G:O5'	1.86	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1673:C:H2'	1:0:1674:C:H6	1.52	0.75
1:0:1938:U:O2'	1:0:1939:U:OP1	2.03	0.74
1:0:246:C:OP2	1:0:372:U:O2'	2.03	0.74
1:0:537:C:O2'	1:0:538:A:C4	2.37	0.74
1:0:833:A:N3	1:0:954:U:O2'	2.18	0.74
1:0:879:A:H2'	1:0:879:A:N3	2.02	0.74
1:0:1016:C:C5	1:0:1154:A:H1'	2.21	0.74
1:0:1420:A:H2'	1:0:1421:U:C6	2.22	0.74
1:0:1582:A:H2'	1:0:1583:A:OP1	1.87	0.74
1:0:940:G:H2'	1:0:941:U:C4'	2.16	0.74
1:0:2727:G:H2'	1:0:2728:A:H5''	1.70	0.74
1:0:1386:A:H5''	1:0:2191:A:H62	1.52	0.74
1:0:542:A:H62	1:0:570:G:N2	1.86	0.74
1:0:2563:U:O2	1:0:2564:U:C5	2.41	0.74
1:0:645:G:H2'	1:0:646:C:C6	2.22	0.74
1:0:1764:A:C2'	1:0:1765:C:H5'	2.16	0.74
1:0:1004:A:C5	1:0:1005:U:H5	2.06	0.74
1:0:2004:U:O2'	1:0:2005:U:OP1	2.05	0.74
1:0:837:U:H3	1:0:846:A:H61	1.36	0.74
1:0:1918:G:H1'	1:0:1947:G:C2	2.23	0.74
1:0:2074:U:O4	1:0:2075:U:H5	1.71	0.74
1:0:2769:C:O2'	1:0:2866:A:N1	2.20	0.74
1:0:699:G:H2'	1:0:699:G:N3	2.02	0.74
1:0:2370:G:N2	1:0:2408:G:H21	1.86	0.74
1:0:2713:A:O2'	1:0:2714:A:H5'	1.88	0.74
1:0:2425:G:C2'	1:0:2426:G:H5'	2.18	0.73
1:0:942:U:H2'	1:0:943:U:C4'	2.13	0.73
1:0:48:A:N6	1:0:154:U:C5	2.56	0.73
1:0:219:G:N2	1:0:231:G:H2'	2.03	0.73
1:0:987:G:H4'	1:0:1167:A:N7	2.02	0.73
1:0:2286:G:H2'	1:0:2286:G:N3	2.03	0.73
1:0:2526:U:H2'	1:0:2527:G:H8	1.53	0.73
1:0:538:A:H2	1:0:2026:C:H5''	1.50	0.73
1:0:541:C:H41	1:0:2001:G:N2	1.86	0.73
1:0:871:U:O2	1:0:2248:A:H5'	1.89	0.73
1:0:890:U:H2'	1:0:891:A:H8	1.53	0.73
1:0:2199:C:H2'	1:0:2200:G:H8	1.52	0.73
1:0:1979:C:H2'	1:0:1980:A:O5'	1.89	0.73
1:0:2070:G:O2'	1:0:2071:G:H5'	1.88	0.73
1:0:34:U:H5	1:0:466:A:N3	1.86	0.73
1:0:830:C:O2'	1:0:852:U:H5''	1.86	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2447:G:N2	1:0:2460:G:H2'	2.02	0.73
1:0:788:G:N2	1:0:800:U:C3'	2.51	0.73
1:0:1606:C:H2'	1:0:1607:A:H8	1.54	0.73
3:0:2881:G19:H10	3:0:2881:G19:H14	1.71	0.73
1:0:818:G:O6	1:0:2051:U:H5''	1.89	0.73
1:0:1710:U:H3	1:0:1821:A:H61	1.35	0.73
1:0:1923:U:O2'	1:0:1924:C:H5	1.71	0.73
1:0:542:A:H8	1:0:542:A:H3'	1.53	0.73
1:0:619:A:N6	1:0:629:C:H42	1.85	0.73
1:0:2269:G:H22	1:0:2322:U:H1'	1.53	0.73
1:0:171:G:H2'	1:0:172:A:O4'	1.89	0.73
1:0:836:G:H2'	1:0:837:U:H6	1.52	0.73
1:0:955:G:H8	1:0:955:G:H3'	1.53	0.73
1:0:1528:C:H3'	1:0:1529:C:H5''	1.70	0.73
1:0:2077:G:N2	1:0:2179:C:H1'	2.02	0.73
1:0:1818:G:H2'	1:0:1819:U:H6	1.53	0.72
1:0:149:A:H2'	1:0:150:A:C8	2.24	0.72
1:0:205:A:C6	1:0:207:U:H1'	2.24	0.72
1:0:858:G:H2'	1:0:858:G:N3	2.03	0.72
1:0:1253:C:H5'	1:0:1253:C:H6	1.54	0.72
1:0:1510:A:H2'	1:0:1511:A:H5'	1.68	0.72
1:0:2313:G:O2'	1:0:2314:A:OP1	2.07	0.72
1:0:840:U:H4'	1:0:841:G:N2	2.04	0.72
1:0:1509:A:H2'	1:0:1510:A:H8	1.53	0.72
1:0:362:C:H2'	1:0:363:G:H4'	1.70	0.72
1:0:2778:U:H2'	1:0:2779:C:H5'	1.71	0.72
1:0:169:C:H2'	1:0:170:U:H5'	1.72	0.72
1:0:537:C:O2'	1:0:538:A:C5	2.40	0.72
1:0:1029:C:H2'	1:0:1030:U:H5''	1.71	0.72
1:0:1791:C:N3	1:0:1810:U:O2	2.22	0.72
1:0:213:C:H2'	1:0:214:C:H6	1.55	0.72
1:0:1187:A:H2'	1:0:1188:A:C8	2.23	0.72
1:0:1407:G:H2'	1:0:1408:A:C8	2.24	0.72
1:0:239:A:C2	1:0:443:A:N3	2.57	0.72
1:0:313:U:O2'	1:0:314:G:H5'	1.89	0.72
1:0:668:A:O2'	1:0:669:G:H4'	1.90	0.72
1:0:1826:U:O2	1:0:1953:A:N7	2.22	0.72
1:0:816:U:C2'	1:0:817:A:H5'	2.20	0.72
1:0:1435:G:H22	1:0:1512:A:H2	1.37	0.72
1:0:619:A:H2'	1:0:620:G:H8	1.53	0.72
1:0:2205:C:HO2'	1:0:2206:C:H5'	1.54	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:652:C:H42	1:0:657:A:H61	1.36	0.71
1:0:2563:U:H2'	1:0:2564:U:H5''	1.72	0.71
1:0:88:G:H3'	1:0:89:A:C5'	2.16	0.71
1:0:1804:U:H2'	1:0:1805:G:H8	1.55	0.71
1:0:861:G:O6	1:0:941:U:O4	2.07	0.71
1:0:1361:G:H2'	1:0:1362:A:C8	2.26	0.71
1:0:1410:U:O2	1:0:1410:U:H2'	1.89	0.71
1:0:2780:A:O2'	1:0:2781:G:H5'	1.90	0.71
1:0:1337:G:O3'	1:0:1632:A:N7	2.23	0.71
1:0:1355:A:H1'	1:0:1410:U:H4'	1.71	0.71
1:0:2781:G:H2'	1:0:2782:G:C1'	2.19	0.71
1:0:12:U:C2'	1:0:13:A:H5'	2.21	0.71
1:0:603:C:H2'	1:0:604:U:H6	1.56	0.71
1:0:789:G:O2'	1:0:790:A:OP2	2.08	0.71
1:0:994:A:N7	1:0:995:A:C6	2.58	0.71
1:0:1187:A:H2'	1:0:1188:A:H8	1.56	0.71
1:0:2426:G:H4'	1:0:2427:A:C5'	2.20	0.71
1:0:946:U:O2'	1:0:947:C:H5'	1.90	0.71
1:0:1422:C:H2'	1:0:1423:A:H8	1.55	0.71
1:0:1532:A:H2'	1:0:1533:G:H8	1.54	0.71
1:0:357:A:C2	1:0:358:C:H4'	2.26	0.71
1:0:537:C:O2	1:0:2759:U:N3	2.24	0.71
1:0:541:C:N4	1:0:2001:G:N2	2.37	0.71
1:0:698:A:O4'	1:0:700:C:N4	2.22	0.71
1:0:1383:C:H2'	1:0:1384:G:H8	1.56	0.71
1:0:1900:U:H3'	1:0:1901:A:C8	2.25	0.71
1:0:2407:G:H5''	1:0:2408:G:OP1	1.91	0.71
1:0:2691:C:H3'	1:0:2692:A:H5''	1.71	0.71
1:0:428:A:H2'	1:0:429:C:H6	1.53	0.70
1:0:459:A:H1'	1:0:461:A:N6	2.06	0.70
1:0:1089:C:H2'	1:0:1099:A:O4'	1.91	0.70
1:0:388:G:H2'	1:0:389:G:C8	2.25	0.70
1:0:636:G:H2'	1:0:637:G:O4'	1.91	0.70
1:0:1499:A:H2'	1:0:1500:U:C6	2.26	0.70
1:0:1541:G:N2	1:0:1562:G:H1	1.87	0.70
1:0:1826:U:H1'	1:0:1955:G:H22	1.57	0.70
1:0:2264:C:C4'	1:0:2267:A:H62	2.04	0.70
1:0:2185:U:H2'	1:0:2186:G:C8	2.25	0.70
1:0:65:C:C2'	1:0:66:U:H5'	2.21	0.70
1:0:965:G:N3	1:0:2253:A:C2	2.60	0.70
1:0:583:C:O2'	1:0:584:A:OP2	2.10	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:788:G:H21	1:0:800:U:H2'	1.56	0.70
1:0:2106:G:H2'	1:0:2107:G:C8	2.27	0.70
1:0:2526:U:H2'	1:0:2527:G:C8	2.26	0.70
1:0:34:U:O4	1:0:459:A:N6	2.23	0.70
1:0:48:A:H2	1:0:118:U:H3	1.39	0.70
1:0:185:C:H2'	1:0:186:C:H6	1.57	0.70
1:0:1043:A:H2	1:0:1133:G:H22	1.37	0.70
1:0:2439:U:O2'	1:0:2440:C:H5'	1.91	0.70
1:0:1459:U:C5	1:0:1459:U:OP2	2.45	0.70
1:0:1499:A:H2'	1:0:1500:U:H6	1.57	0.70
1:0:1572:C:H2'	1:0:1573:G:C5'	2.20	0.70
1:0:1279:G:H1'	1:0:1280:U:C6	2.26	0.70
1:0:1280:U:C4	1:0:1995:G:N3	2.60	0.70
1:0:1409:U:H5''	1:0:1410:U:OP2	1.90	0.70
1:0:1509:A:H2'	1:0:1510:A:C8	2.27	0.70
1:0:1655:C:H4'	1:0:2689:C:O2	1.91	0.70
1:0:1865:C:H2'	1:0:1866:G:O4'	1.91	0.70
1:0:76:C:H5'	1:0:76:C:C6	2.27	0.70
1:0:1443:G:H2'	1:0:1444:C:H6	1.57	0.70
1:0:65:C:H2'	1:0:66:U:C4'	2.22	0.69
1:0:819:C:O2'	1:0:820:U:H5'	1.92	0.69
1:0:1380:C:H2'	1:0:1381:G:H5'	1.74	0.69
1:0:1383:C:H2'	1:0:1384:G:C8	2.27	0.69
1:0:2490:U:H2'	1:0:2491:C:O4'	1.92	0.69
1:0:2827:G:H2'	1:0:2828:C:O4'	1.92	0.69
1:0:816:U:O2'	1:0:817:A:H5'	1.92	0.69
1:0:1699:A:H61	1:0:1723:U:H3	1.39	0.69
1:0:2427:A:O2'	1:0:2428:U:OP1	2.10	0.69
1:0:91:A:H2'	1:0:92:U:C6	2.28	0.69
1:0:357:A:C2'	1:0:358:C:H5'	2.20	0.69
1:0:638:A:O2'	1:0:639:G:H5'	1.92	0.69
1:0:1544:A:H2'	1:0:1545:G:O4'	1.91	0.69
1:0:2447:G:O2'	1:0:2448:A:H5'	1.92	0.69
1:0:426:C:H4'	1:0:1863:U:O2'	1.91	0.69
1:0:712:A:H2'	1:0:713:G:O4'	1.92	0.69
1:0:822:G:C2'	1:0:823:U:H5'	2.22	0.69
1:0:1016:C:H2'	1:0:1017:C:C6	2.28	0.69
1:0:2312:A:O2'	1:0:2313:G:O5'	2.07	0.69
1:0:5:A:H4'	1:0:6:A:OP1	1.92	0.69
1:0:57:G:N2	1:0:69:G:C4	2.61	0.69
1:0:224:G:N2	1:0:227:G:H3'	2.07	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1240:G:O2'	1:0:1241:G:H5'	1.92	0.69
1:0:1259:A:O2'	1:0:1260:A:H5'	1.92	0.69
1:0:2053:G:H2'	1:0:2054:A:H8	1.55	0.69
1:0:2080:U:H2'	1:0:2081:U:C6	2.27	0.69
1:0:48:A:H4'	1:0:49:U:O5'	1.92	0.69
1:0:503:G:H2'	1:0:504:G:O4'	1.92	0.69
1:0:697:G:O2'	1:0:801:A:N6	2.25	0.69
1:0:727:U:H2'	1:0:728:G:H5''	1.73	0.69
1:0:1354:A:O5'	1:0:1410:U:O4	2.11	0.69
1:0:1680:U:H5'	1:0:1680:U:C6	2.18	0.69
1:0:1825:C:O2'	1:0:1826:U:H5'	1.92	0.69
1:0:2778:U:C2'	1:0:2779:C:H5'	2.23	0.69
1:0:246:C:H5	1:0:373:A:N3	1.90	0.69
1:0:521:U:H5''	1:0:522:G:OP2	1.92	0.69
1:0:538:A:H3'	1:0:538:A:C8	2.28	0.69
1:0:571:U:O2'	1:0:581:A:O4'	2.11	0.69
1:0:699:G:N3	1:0:699:G:C2'	2.55	0.69
1:0:1301:U:H4'	1:0:1302:C:OP2	1.92	0.69
1:0:1333:G:H21	1:0:1344:C:H41	1.35	0.69
1:0:1979:C:H3'	1:0:1979:C:H6	1.58	0.69
1:0:2094:C:C5	1:0:2103:G:H1'	2.28	0.69
1:0:2602:G:O2'	1:0:2603:G:H5'	1.93	0.69
1:0:2783:U:H2'	1:0:2784:A:O5'	1.93	0.69
1:0:4:C:O2'	1:0:5:A:H5'	1.92	0.69
1:0:169:C:C2'	1:0:170:U:H5'	2.23	0.69
1:0:317:U:H3	1:0:321:A:H62	1.40	0.69
1:0:2634:G:H2'	1:0:2643:G:O6	1.93	0.69
1:0:1073:G:C2	1:0:1074:G:H1'	2.28	0.69
1:0:2311:U:C4'	1:0:2315:A:N6	2.54	0.68
1:0:732:G:H2'	1:0:733:G:C8	2.29	0.68
1:0:1052:C:H2'	1:0:1053:G:C8	2.27	0.68
1:0:1277:G:H8	1:0:1277:G:O5'	1.75	0.68
1:0:1629:G:H1	1:0:1633:C:H2'	1.57	0.68
1:0:2503:G:H2'	1:0:2504:G:H5''	1.75	0.68
1:0:2623:A:H2'	1:0:2624:G:O4'	1.92	0.68
1:0:139:A:H2'	1:0:140:G:C8	2.25	0.68
1:0:545:C:O2'	1:0:546:A:H5'	1.93	0.68
1:0:2422:C:O2'	1:0:2423:G:H5'	1.93	0.68
1:0:67:G:H2'	1:0:68:C:H6	1.58	0.68
1:0:1787:U:H2'	1:0:1788:C:H6	1.58	0.68
1:0:1789:U:C4	1:0:1811:A:H2	2.10	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1807:A:O2'	1:0:1808:C:H4'	1.93	0.68
1:0:455:A:C2	1:0:1258:G:N3	2.60	0.68
1:0:1459:U:OP2	1:0:1459:U:C6	2.47	0.68
1:0:2821:G:H2'	1:0:2822:U:C6	2.29	0.68
1:0:367:G:H2'	1:0:368:A:H5''	1.74	0.68
1:0:594:G:C4	1:0:1264:C:N4	2.61	0.68
1:0:689:A:H1'	1:0:2422:C:O4'	1.94	0.68
1:0:1210:C:O4'	1:0:1239:A:C2	2.47	0.68
1:0:1741:G:O2'	1:0:1742:G:H5'	1.94	0.68
1:0:1763:G:N2	1:0:1765:C:H5''	2.07	0.68
1:0:212:U:O2'	1:0:213:C:H5'	1.93	0.68
1:0:955:G:H3'	1:0:955:G:C8	2.27	0.68
1:0:1399:C:O2'	1:0:1400:A:H5'	1.93	0.68
1:0:50:G:O2'	1:0:117:A:N1	2.24	0.68
1:0:67:G:C6	1:0:72:A:C2	2.82	0.68
1:0:76:C:H5'	1:0:76:C:H6	1.58	0.68
1:0:1301:U:O2'	1:0:1664:G:N2	2.27	0.68
1:0:1502:G:O2'	1:0:1503:G:H5'	1.93	0.68
1:0:1928:G:H2'	1:0:1929:U:C6	2.29	0.68
1:0:1005:U:O2	1:0:1007:A:N7	2.27	0.68
1:0:2678:C:O2'	1:0:2679:G:H5'	1.94	0.68
1:0:89:A:H5'	1:0:90:G:OP1	1.94	0.68
1:0:158:A:H5'	1:0:158:A:H8	1.59	0.68
1:0:1087:C:H2'	1:0:1088:A:O4'	1.93	0.68
1:0:1887:G:O2'	1:0:1911:A:N1	2.25	0.68
1:0:2245:A:O2'	1:0:2246:A:OP2	2.11	0.68
1:0:2607:C:H1'	1:0:2761:A:H2'	1.76	0.68
1:0:2769:C:H6	1:0:2770:A:O4'	1.77	0.68
1:0:1707:A:H2'	1:0:1708:C:H5'	1.76	0.67
1:0:2431:C:O2'	1:0:2432:A:H5'	1.95	0.67
1:0:2824:C:H4'	1:0:2825:A:H5'	1.76	0.67
1:0:368:A:H2'	1:0:369:C:O4'	1.94	0.67
1:0:1286:U:H4'	1:0:1288:A:OP2	1.94	0.67
1:0:2198:U:H3'	1:0:2199:C:C4'	2.24	0.67
1:0:2323:U:H5''	1:0:2324:G:OP1	1.93	0.67
1:0:26:G:C6	1:0:27:G:N1	2.62	0.67
1:0:807:A:C2	1:0:808:C:C2	2.82	0.67
1:0:845:U:OP2	1:0:955:G:O6	2.12	0.67
1:0:1002:C:OP2	1:0:1200:G:OP2	2.13	0.67
1:0:2780:A:H2'	1:0:2781:G:C8	2.29	0.67
1:0:1280:U:O4	1:0:1995:G:N3	2.28	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1346:C:N4	1:0:1347:C:N4	2.41	0.67
1:0:2469:G:C4'	1:0:2470:U:OP1	2.42	0.67
1:0:104:C:H2'	1:0:105:G:H5'	1.75	0.67
1:0:109:A:C3'	1:0:110:U:H5''	2.24	0.67
1:0:148:C:H4'	1:0:149:A:N7	2.09	0.67
1:0:1692:C:O2'	1:0:1693:A:H5'	1.93	0.67
1:0:1715:A:O2'	1:0:1716:G:H3'	1.93	0.67
1:0:2396:C:H6	1:0:2396:C:H5'	1.59	0.67
1:0:404:A:C5	1:0:424:G:N2	2.63	0.67
1:0:651:C:H2'	1:0:652:C:H5''	1.75	0.67
1:0:837:U:H2'	1:0:838:A:H8	1.60	0.67
1:0:860:U:H2'	1:0:860:U:O2	1.93	0.67
1:0:1408:A:H2	1:0:1411:C:N3	1.92	0.67
1:0:2081:U:H2'	1:0:2082:C:H5''	1.77	0.67
1:0:34:U:C5	1:0:466:A:N3	2.63	0.67
1:0:1441:A:H3'	1:0:1441:A:N3	2.10	0.67
1:0:1826:U:O2'	1:0:1952:A:H2'	1.95	0.67
1:0:1510:A:C2'	1:0:1511:A:H5'	2.24	0.67
1:0:1917:C:H2'	1:0:1918:G:O4'	1.95	0.67
1:0:2226:A:H2'	1:0:2227:C:H6	1.59	0.67
1:0:2434:G:H2'	1:0:2435:C:C6	2.30	0.67
1:0:631:G:H8	1:0:631:G:O5'	1.76	0.67
1:0:634:G:H2'	1:0:635:C:H6	1.59	0.67
1:0:831:G:O2'	1:0:832:A:O4'	2.13	0.67
1:0:1623:C:C5'	1:0:1624:A:H5''	2.25	0.67
1:0:2015:G:N3	1:0:2015:G:H2'	2.10	0.67
1:0:2122:G:H2'	1:0:2123:G:C8	2.30	0.67
1:0:2841:U:O2'	1:0:2842:C:P	2.53	0.67
1:0:1018:C:H5''	1:0:1019:U:OP2	1.95	0.67
1:0:1684:G:O2'	1:0:1685:A:P	2.53	0.67
1:0:2045:A:H5''	1:0:2046:C:OP2	1.94	0.67
1:0:584:A:OP2	1:0:2038:C:C5	2.48	0.66
1:0:639:G:H2'	1:0:640:C:C6	2.30	0.66
1:0:1265:G:O2'	1:0:1266:G:OP1	2.13	0.66
1:0:1429:A:N6	1:0:1602:G:H5'	2.09	0.66
1:0:1598:C:H2'	1:0:1599:G:O4'	1.95	0.66
1:0:1680:U:H6	1:0:1680:U:C5'	2.04	0.66
1:0:2293:G:H2'	1:0:2294:U:C6	2.29	0.66
1:0:2507:U:H3	1:0:2514:G:H1	1.41	0.66
1:0:693:A:H2'	1:0:694:G:C8	2.30	0.66
1:0:1017:C:H2'	1:0:1018:C:H6	1.60	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1760:G:O2'	1:0:1941:C:OP1	2.12	0.66
1:0:538:A:H3'	1:0:538:A:H8	1.61	0.66
1:0:1770:U:O2	1:0:1774:A:C5	2.48	0.66
1:0:1860:A:H2'	1:0:1861:G:O4'	1.95	0.66
1:0:2056:C:O2'	1:0:2057:U:H5'	1.95	0.66
1:0:1876:C:C2'	1:0:1877:C:H5'	2.23	0.66
1:0:2876:C:O2'	1:0:2877:A:H5'	1.95	0.66
1:0:1055:A:C2	1:0:1121:G:H2'	2.30	0.66
1:0:1625:A:N6	1:0:1632:A:H2	1.92	0.66
1:0:1715:A:C2'	1:0:1716:G:H3'	2.26	0.66
1:0:2507:U:O2'	1:0:2508:G:H3'	1.96	0.66
1:0:2692:A:OP1	1:0:2692:A:O4'	2.14	0.66
1:0:2737:A:H2'	1:0:2738:A:C5'	2.25	0.66
1:0:537:C:C6	1:0:2759:U:H2'	2.31	0.66
1:0:597:U:H2'	1:0:598:U:H6	1.60	0.66
1:0:813:A:O2'	1:0:814:G:C3'	2.42	0.66
1:0:1045:G:N2	1:0:1133:G:H1'	2.11	0.66
1:0:1213:U:H3	1:0:1260:A:H2	1.41	0.66
1:0:2806:G:H1'	1:0:2858:A:C2	2.29	0.66
1:0:765:C:HO2'	1:0:766:A:H8	1.44	0.66
1:0:822:G:H2'	1:0:823:U:H5'	1.76	0.66
1:0:1004:A:C5	1:0:1005:U:C5	2.84	0.66
1:0:810:U:H2'	1:0:811:G:H8	1.60	0.66
1:0:1068:A:H2'	1:0:1069:G:O4'	1.94	0.66
1:0:2485:U:H5''	1:0:2485:U:H6	1.59	0.66
1:0:2782:G:C3'	1:0:2783:U:H5''	2.25	0.66
1:0:204:A:N7	1:0:2386:G:O4'	2.28	0.66
1:0:2785:A:C2'	1:0:2786:G:H5'	2.26	0.66
1:0:219:G:H22	1:0:232:A:P	2.19	0.66
1:0:691:C:H2'	1:0:692:C:H6	1.61	0.66
1:0:1459:U:O5'	1:0:1459:U:H6	1.79	0.66
1:0:2482:A:H4'	1:0:2483:U:OP1	1.95	0.66
1:0:2563:U:H3'	1:0:2564:U:H5'	1.78	0.66
1:0:611:C:H6	1:0:611:C:H5''	1.61	0.65
1:0:852:U:H2'	1:0:853:C:C6	2.30	0.65
1:0:1512:A:H2'	1:0:1514:C:C5	2.31	0.65
1:0:1953:A:H1'	1:0:1955:G:C1'	2.25	0.65
1:0:2586:G:H2'	1:0:2587:G:O4'	1.96	0.65
1:0:308:C:O2'	1:0:309:G:H5'	1.95	0.65
1:0:457:C:C2'	1:0:458:G:H5'	2.26	0.65
1:0:668:A:H2'	1:0:669:G:C4'	2.26	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1192:A:C2	1:0:1193:G:N7	2.64	0.65
1:0:161:U:H2'	1:0:162:C:C6	2.32	0.65
1:0:540:G:H5''	1:0:541:C:OP2	1.96	0.65
1:0:936:A:H2'	1:0:937:C:O4'	1.96	0.65
1:0:1429:A:O2'	1:0:1430:G:H4'	1.96	0.65
1:0:1656:U:O2'	1:0:2678:C:H4'	1.96	0.65
1:0:1728:A:N1	1:0:1739:G:C6	2.65	0.65
1:0:1818:G:H2'	1:0:1819:U:C6	2.32	0.65
1:0:2629:U:O2'	1:0:2630:C:H5'	1.96	0.65
1:0:2783:U:C2'	1:0:2784:A:O5'	2.44	0.65
1:0:48:A:N1	1:0:154:U:O4	2.29	0.65
1:0:177:U:O4	1:0:225:G:N1	2.30	0.65
1:0:230:C:H2'	1:0:231:G:H8	1.61	0.65
1:0:732:G:H8	1:0:732:G:O5'	1.79	0.65
1:0:1280:U:O4	1:0:1995:G:C4	2.50	0.65
1:0:1277:G:H2'	1:0:1997:A:N6	2.11	0.65
1:0:1436:G:H2'	1:0:1437:A:H8	1.61	0.65
1:0:1673:C:H2'	1:0:1674:C:C6	2.30	0.65
1:0:1194:U:H2'	1:0:1195:U:H6	1.61	0.65
1:0:1979:C:C2'	1:0:1980:A:O5'	2.45	0.65
1:0:2267:A:H2'	1:0:2268:G:OP1	1.96	0.65
1:0:2322:U:O2'	1:0:2323:U:H5'	1.96	0.65
1:0:2516:U:H2'	1:0:2517:C:C6	2.31	0.65
1:0:541:C:H41	1:0:572:G:Cl'	2.09	0.65
1:0:1715:A:H1'	1:0:1717:A:H4'	1.79	0.65
1:0:2195:C:H2'	1:0:2196:U:O4'	1.96	0.65
1:0:2782:G:H3'	1:0:2783:U:C5'	2.26	0.65
1:0:624:A:H2'	1:0:625:A:O4'	1.96	0.65
1:0:1900:U:H3'	1:0:1901:A:H8	1.61	0.65
1:0:1948:C:O5'	1:0:1948:C:H6	1.79	0.65
1:0:2410:U:O2	1:0:2412:A:C8	2.50	0.65
1:0:2563:U:C3'	1:0:2564:U:C5'	2.74	0.65
1:0:2563:U:C2'	1:0:2564:U:H5''	2.27	0.65
1:0:33:C:N4	1:0:458:G:O2'	2.30	0.65
1:0:317:U:C2'	1:0:318:G:H5''	2.27	0.65
1:0:542:A:H3'	1:0:542:A:C8	2.32	0.65
1:0:597:U:O4	1:0:683:A:O2'	2.15	0.65
1:0:984:A:H2	1:0:1200:G:H1	1.44	0.65
1:0:1790:G:H4'	1:0:1791:C:H6	1.62	0.65
1:0:2759:U:O5'	1:0:2759:U:C6	2.42	0.65
1:0:2810:A:C8	1:0:2810:A:C3'	2.77	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:177:U:O4	1:0:225:G:C2	2.50	0.65
1:0:1474:A:O2'	1:0:1475:U:H5'	1.97	0.65
1:0:2019:C:H5'	1:0:2019:C:H6	1.61	0.65
1:0:2266:A:N6	1:0:2323:U:H1'	2.12	0.65
1:0:2810:A:N6	1:0:2853:U:C5	2.65	0.65
1:0:538:A:H2	1:0:2025:A:H2'	1.57	0.64
1:0:825:C:H1'	1:0:1263:G:N2	2.13	0.64
1:0:1010:U:O2'	1:0:1011:A:H5'	1.97	0.64
1:0:1016:C:N3	1:0:1154:A:N3	2.44	0.64
1:0:1069:G:O2'	1:0:1070:G:H5'	1.97	0.64
1:0:1528:C:C3'	1:0:1529:C:H5''	2.25	0.64
1:0:1735:G:H2'	1:0:1736:C:O4'	1.96	0.64
1:0:1894:U:H3	1:0:1902:A:N6	1.94	0.64
1:0:1941:C:O2'	1:0:1942:G:H5'	1.97	0.64
1:0:1947:G:H2'	1:0:1950:C:OP1	1.97	0.64
1:0:441:A:C2'	1:0:442:A:H5'	2.27	0.64
1:0:704:G:O2'	1:0:705:C:H5'	1.97	0.64
1:0:818:G:C5	1:0:2051:U:OP1	2.50	0.64
1:0:1361:G:H2'	1:0:1362:A:H8	1.61	0.64
1:0:2226:A:H2'	1:0:2227:C:C6	2.31	0.64
1:0:2395:C:H2'	1:0:2396:C:H5''	1.78	0.64
1:0:30:G:H2'	1:0:31:C:H6	1.62	0.64
1:0:105:G:O2'	1:0:106:G:H5'	1.97	0.64
1:0:163:A:H2'	1:0:164:G:C8	2.32	0.64
1:0:219:G:HO2'	1:0:220:U:P	2.20	0.64
1:0:322:A:O2'	1:0:323:G:P	2.56	0.64
1:0:430:C:H1'	1:0:2386:G:N2	2.11	0.64
1:0:1422:C:H2'	1:0:1423:A:C8	2.32	0.64
1:0:1715:A:N3	1:0:1717:A:C1'	2.59	0.64
1:0:2269:G:N2	1:0:2322:U:H1'	2.12	0.64
1:0:2796:A:H2'	1:0:2797:G:C8	2.32	0.64
1:0:172:A:N1	1:0:178:C:N3	2.45	0.64
1:0:314:G:H2'	1:0:315:G:C8	2.32	0.64
1:0:1628:C:N4	1:0:1629:G:N7	2.46	0.64
1:0:1685:A:H4'	1:0:1686:A:O5'	1.97	0.64
1:0:1821:A:H3'	1:0:1822:C:H6	1.63	0.64
1:0:171:G:O2'	1:0:172:A:H5'	1.98	0.64
1:0:1346:C:N4	1:0:1347:C:H41	1.95	0.64
1:0:1448:A:H61	1:0:1574:A:H61	1.45	0.64
1:0:2074:U:O4	1:0:2075:U:C5	2.50	0.64
1:0:2626:U:O2'	1:0:2627:G:H5'	1.98	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:340:G:H5'	1:0:341:A:OP2	1.97	0.64
1:0:547:U:H2'	1:0:548:G:H8	1.62	0.64
1:0:682:G:C5	1:0:814:G:O6	2.50	0.64
1:0:1199:U:C3'	1:0:1200:G:H5''	2.27	0.64
1:0:1901:A:H2'	1:0:1902:A:H8	1.62	0.64
1:0:366:U:H2'	1:0:367:G:H8	1.63	0.64
1:0:1017:C:C2	1:0:1018:C:C5	2.86	0.64
1:0:1345:G:C4	1:0:1625:A:N1	2.66	0.64
1:0:2270:U:O5'	1:0:2270:U:H6	1.80	0.64
1:0:2724:G:O2'	1:0:2725:C:H5'	1.97	0.64
1:0:2866:A:H2'	1:0:2867:G:H8	1.61	0.64
1:0:577:U:H4'	1:0:956:A:N6	2.13	0.64
1:0:929:A:C3'	1:0:930:A:H5''	2.25	0.64
1:0:957:G:H2'	1:0:958:G:H8	1.62	0.64
1:0:1705:U:O4'	1:0:1718:A:N6	2.31	0.64
1:0:2871:U:C4	1:0:2872:U:O4	2.50	0.64
1:0:322:A:H1'	1:0:343:A:O4'	1.98	0.64
1:0:700:C:O2	1:0:800:U:O3'	2.16	0.64
1:0:958:G:H2'	1:0:959:C:C6	2.33	0.64
1:0:1374:G:O2'	1:0:1375:C:H5'	1.98	0.64
1:0:1715:A:H1'	1:0:1717:A:C4'	2.27	0.64
1:0:2266:A:N6	1:0:2323:U:O2	2.30	0.64
1:0:755:C:H2'	1:0:756:C:C6	2.33	0.64
1:0:1057:A:H3'	1:0:1058:G:H5''	1.79	0.64
1:0:1264:C:H3'	1:0:1265:G:H5''	1.80	0.64
1:0:2198:U:H6	1:0:2198:U:O5'	1.81	0.64
1:0:2325:A:H5'	1:0:2362:G:O4'	1.98	0.64
1:0:2427:A:O2'	1:0:2428:U:P	2.56	0.64
1:0:718:A:H62	1:0:739:G:H1'	1.62	0.63
1:0:1468:A:H5'	1:0:1472:C:H41	1.63	0.63
1:0:2425:G:O2'	1:0:2426:G:H5'	1.99	0.63
1:0:2496:C:HO2'	1:0:2497:A:H3'	1.63	0.63
1:0:59:G:H1'	1:0:73:A:N1	2.12	0.63
1:0:1391:A:O2'	1:0:1392:U:P	2.56	0.63
1:0:2240:C:H2'	1:0:2241:U:H5'	1.81	0.63
1:0:2343:C:H2'	1:0:2344:G:O4'	1.97	0.63
1:0:2710:C:O2'	1:0:2711:G:H5'	1.97	0.63
1:0:2870:C:H2'	1:0:2871:U:C6	2.28	0.63
1:0:541:C:N4	1:0:572:G:O4'	2.31	0.63
1:0:1137:A:H4'	1:0:1138:A:O5'	1.99	0.63
1:0:1404:C:N4	1:0:1407:G:N7	2.47	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2316:G:OP2	1:0:2317:G:OP2	2.16	0.63
1:0:2497:A:H5''	1:0:2498:U:OP2	1.98	0.63
1:0:69:G:H5''	1:0:70:A:OP1	1.99	0.63
1:0:177:U:C4	1:0:225:G:C2	2.87	0.63
1:0:342:G:O2'	1:0:343:A:H5'	1.98	0.63
1:0:651:C:C2'	1:0:652:C:H5''	2.28	0.63
1:0:1683:G:O6	1:0:1684:G:N2	2.32	0.63
1:0:1895:A:H2'	1:0:1896:A:O4'	1.97	0.63
1:0:2063:A:H2'	1:0:2064:U:O4'	1.97	0.63
1:0:62:U:O2'	1:0:63:A:N7	2.28	0.63
1:0:329:C:O2'	1:0:330:C:H5'	1.98	0.63
1:0:343:A:H2'	1:0:345:U:OP2	1.98	0.63
1:0:1279:G:O2'	1:0:1280:U:H6	1.81	0.63
1:0:2668:U:O2	1:0:2693:U:O4'	2.16	0.63
1:0:633:G:H2'	1:0:634:G:H8	1.62	0.63
1:0:1104:G:H21	1:0:1109:A:H62	1.45	0.63
1:0:66:U:O2	1:0:67:G:O6	2.17	0.63
1:0:421:G:H2'	1:0:422:C:H6	1.63	0.63
1:0:941:U:C2'	1:0:942:U:H5'	2.28	0.63
1:0:955:G:H5''	1:0:956:A:H5''	1.80	0.63
1:0:1457:A:H2'	1:0:1458:A:O4'	1.98	0.63
1:0:1793:A:H2'	1:0:1794:A:C8	2.34	0.63
1:0:1937:G:H1'	1:0:2530:C:H4'	1.79	0.63
1:0:2197:U:H2'	1:0:2198:U:C5	2.34	0.63
1:0:2727:G:C2'	1:0:2728:A:H5''	2.29	0.63
1:0:68:C:C2	1:0:72:A:N3	2.67	0.63
1:0:611:C:O2	1:0:614:G:H4'	1.99	0.63
1:0:620:G:H22	1:0:628:A:H2	1.46	0.63
1:0:1581:C:O2'	1:0:1582:A:C8	2.51	0.63
1:0:1714:A:C5'	1:0:1715:A:O5'	2.47	0.63
1:0:985:G:C4	1:0:1200:G:N2	2.67	0.63
1:0:1086:C:H2'	1:0:1087:C:H5''	1.79	0.63
1:0:1532:A:H2'	1:0:1533:G:C8	2.34	0.63
1:0:2181:A:N3	1:0:2181:A:H2'	2.12	0.63
1:0:715:U:H2'	1:0:715:U:O2	1.99	0.62
1:0:1057:A:H3'	1:0:1058:G:C5'	2.27	0.62
1:0:1177:U:H6	1:0:1177:U:O5'	1.82	0.62
1:0:1359:G:H5'	1:0:1359:G:H8	1.64	0.62
1:0:1920:A:C2	1:0:1922:U:H5	2.16	0.62
1:0:2324:G:N2	1:0:2326:C:H41	1.96	0.62
1:0:1154:A:O2'	1:0:1155:G:P	2.55	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1278:A:O2'	1:0:1279:G:O5'	2.17	0.62
1:0:1435:G:N2	1:0:1512:A:H2	1.96	0.62
1:0:2194:A:C2'	1:0:2195:C:H5''	2.28	0.62
1:0:77:C:H2'	1:0:78:C:C6	2.30	0.62
1:0:616:U:C2'	1:0:617:U:H5''	2.26	0.62
1:0:1128:G:O2'	1:0:1129:A:H5'	1.99	0.62
1:0:2476:A:H1'	1:0:2477:C:H5	1.63	0.62
1:0:2532:G:C2	1:0:2533:U:H1'	2.35	0.62
1:0:218:A:N6	1:0:232:A:H5''	2.14	0.62
1:0:1198:C:OP1	1:0:1199:U:O2'	2.14	0.62
1:0:2262:C:H2'	1:0:2263:C:O4'	1.98	0.62
1:0:2324:G:N2	1:0:2326:C:H5	1.97	0.62
1:0:2794:G:N2	1:0:2803:C:C2	2.67	0.62
1:0:69:G:H2'	1:0:111:G:O2'	1.98	0.62
1:0:167:A:C2	1:0:184:A:N3	2.68	0.62
1:0:1407:G:C2	1:0:1408:A:C2	2.87	0.62
1:0:1549:C:H2'	1:0:1550:C:O4'	2.00	0.62
1:0:6:A:C6	1:0:7:G:C5	2.87	0.62
1:0:510:G:H8	1:0:510:G:O5'	1.82	0.62
1:0:1142:G:O2'	1:0:1143:A:O5'	2.16	0.62
1:0:1280:U:H2'	1:0:1281:A:H8	1.63	0.62
1:0:2210:C:H2'	1:0:2211:U:O4'	1.99	0.62
1:0:2299:A:H5'	1:0:2300:G:O4'	1.99	0.62
1:0:67:G:N1	1:0:72:A:C2	2.68	0.62
1:0:1279:G:O2'	1:0:1280:U:P	2.58	0.62
1:0:1407:G:C6	1:0:1408:A:C6	2.87	0.62
1:0:1479:G:H21	1:0:1543:G:N2	1.98	0.62
1:0:1927:U:H4'	1:0:1938:U:H1'	1.82	0.62
1:0:59:G:C5	1:0:62:U:C5	2.88	0.62
1:0:216:U:H5''	1:0:601:A:H62	1.64	0.62
1:0:697:G:O2'	1:0:801:A:C6	2.51	0.62
1:0:2608:A:HO2'	1:0:2609:G:P	2.23	0.62
1:0:2796:A:O2'	1:0:2801:A:N1	2.32	0.62
1:0:149:A:H2'	1:0:150:A:H8	1.60	0.62
1:0:649:G:N1	1:0:660:G:N1	2.48	0.62
1:0:787:A:O2'	1:0:788:G:H5'	1.99	0.62
1:0:1012:A:H2'	1:0:1013:G:O4'	2.00	0.62
1:0:1223:G:O2'	1:0:1224:A:OP2	2.18	0.62
1:0:2316:G:C6	1:0:2317:G:N7	2.67	0.62
1:0:468:A:O2'	1:0:469:G:H4'	1.99	0.62
1:0:644:A:N7	1:0:645:G:H1'	2.15	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1208:A:H2'	1:0:1209:G:O5'	2.00	0.62
1:0:1304:U:O2'	1:0:1305:C:H5'	1.99	0.62
1:0:1777:A:H62	1:0:2585:C:H1'	1.65	0.62
1:0:2266:A:H62	1:0:2323:U:H1'	1.63	0.62
1:0:91:A:H2'	1:0:92:U:H6	1.65	0.61
1:0:332:C:O2'	1:0:333:A:OP1	2.16	0.61
1:0:528:G:C6	1:0:529:U:O4	2.53	0.61
1:0:954:U:C4	1:0:955:G:N2	2.68	0.61
1:0:1167:A:OP1	1:0:1167:A:O4'	2.16	0.61
1:0:1358:C:O2	1:0:1358:C:H2'	1.99	0.61
1:0:1458:A:H2'	1:0:1459:U:C4'	2.30	0.61
1:0:1704:G:H21	1:0:1718:A:H62	1.46	0.61
1:0:1966:C:O2'	1:0:1967:U:H5'	2.00	0.61
1:0:2059:U:H5''	1:0:2217:G:H1	1.63	0.61
1:0:2757:G:OP2	1:0:2761:A:O2'	2.18	0.61
1:0:1253:C:C2	1:0:1254:G:C8	2.89	0.61
1:0:1690:U:H2'	1:0:1691:G:H5'	1.81	0.61
1:0:1794:A:H61	1:0:1806:G:H2'	1.65	0.61
1:0:984:A:H1'	1:0:1202:U:C6	2.36	0.61
1:0:1102:G:O2'	1:0:1103:C:H5'	1.99	0.61
1:0:2475:C:H2'	1:0:2476:A:O4'	2.01	0.61
1:0:2690:A:OP1	1:0:2692:A:P	2.58	0.61
1:0:66:U:C2	1:0:67:G:N7	2.69	0.61
1:0:840:U:H4'	1:0:841:G:C2	2.36	0.61
1:0:1452:U:O2'	1:0:1453:A:H5'	2.01	0.61
1:0:1671:A:H2'	1:0:1672:A:H5'	1.82	0.61
1:0:1977:C:C2	1:0:1978:U:C5	2.89	0.61
1:0:2796:A:H2'	1:0:2797:G:H8	1.65	0.61
1:0:865:A:H2'	1:0:866:U:C6	2.35	0.61
1:0:1253:C:H5'	1:0:1253:C:C6	2.35	0.61
1:0:1279:G:H2'	1:0:1995:G:O6	1.99	0.61
1:0:1982:C:O2	1:0:2666:U:O2'	2.17	0.61
1:0:427:C:H2'	1:0:428:A:C8	2.35	0.61
1:0:509:U:H2'	1:0:510:G:H5'	1.82	0.61
1:0:918:A:C2'	1:0:919:U:H5''	2.26	0.61
1:0:1337:G:C1'	1:0:1632:A:H62	2.14	0.61
1:0:1468:A:C8	1:0:1468:A:OP2	2.54	0.61
1:0:1614:C:O2	1:0:1614:C:H2'	1.99	0.61
1:0:1838:G:H2'	1:0:1839:A:H5'	1.81	0.61
1:0:2195:C:O2'	1:0:2196:U:H5'	2.00	0.61
1:0:2660:C:O2'	1:0:2661:G:OP2	2.14	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2764:U:H2'	1:0:2765:C:H6	1.65	0.61
1:0:2866:A:O2'	1:0:2867:G:O4'	2.09	0.61
1:0:26:G:N1	1:0:27:G:N2	2.49	0.61
1:0:1439:G:H2'	1:0:1440:G:C8	2.36	0.61
1:0:2867:G:H8	1:0:2867:G:OP2	1.83	0.61
1:0:2876:C:H2'	1:0:2877:A:O4'	2.00	0.61
1:0:30:G:O2'	1:0:31:C:H5'	2.01	0.61
1:0:202:A:H2'	1:0:203:G:O4'	2.01	0.61
1:0:540:G:C2	1:0:2005:U:OP1	2.54	0.61
1:0:611:C:H2'	1:0:612:G:H5'	1.81	0.61
1:0:1058:G:H2'	1:0:1121:G:N1	2.16	0.61
1:0:1777:A:H62	1:0:2585:C:C1'	2.13	0.61
1:0:2040:A:H2'	1:0:2041:A:C8	2.35	0.61
1:0:441:A:O2'	1:0:442:A:H5'	2.01	0.61
1:0:825:C:H1'	1:0:1263:G:C2	2.36	0.61
1:0:1016:C:N3	1:0:1154:A:C2	2.69	0.61
1:0:1515:U:H2'	1:0:1516:A:C8	2.36	0.61
1:0:2026:C:C4	1:0:2757:G:C2	2.89	0.61
1:0:2442:C:H2'	1:0:2443:C:H6	1.65	0.61
1:0:995:A:H5''	1:0:996:C:C5	2.35	0.61
1:0:1161:U:H2'	1:0:1162:A:C8	2.35	0.61
1:0:2437:G:O2'	1:0:2439:U:O4	2.11	0.61
1:0:2810:A:N6	1:0:2853:U:C6	2.69	0.61
1:0:173:A:H2'	1:0:173:A:N3	2.14	0.60
1:0:391:C:O2'	1:0:392:G:H5'	2.01	0.60
1:0:653:G:H2'	1:0:654:A:H4'	1.83	0.60
1:0:1778:U:O2'	1:0:1779:C:H5'	2.01	0.60
1:0:1830:C:H41	1:0:1881:U:H3'	1.63	0.60
1:0:1890:G:H2'	1:0:1891:C:C6	2.35	0.60
1:0:2225:G:C2	1:0:2405:A:H1'	2.35	0.60
1:0:2404:A:O2'	1:0:2405:A:OP2	2.16	0.60
1:0:8:A:H2'	1:0:9:U:O4'	2.00	0.60
1:0:233:A:H2'	1:0:234:C:H6	1.65	0.60
1:0:2546:G:H2'	1:0:2547:C:C6	2.36	0.60
1:0:4:C:H2'	1:0:5:A:H5'	1.80	0.60
1:0:342:G:O2'	1:0:343:A:OP1	2.17	0.60
1:0:577:U:C5'	1:0:956:A:N6	2.62	0.60
1:0:1137:A:H4'	1:0:1138:A:C5'	2.30	0.60
1:0:1656:U:H2'	1:0:1657:A:H5''	1.84	0.60
1:0:1671:A:C2'	1:0:1672:A:H5'	2.31	0.60
1:0:58:C:C1'	1:0:72:A:C8	2.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:171:G:C2'	1:0:172:A:H5'	2.32	0.60
1:0:322:A:O2'	1:0:343:A:O4'	2.18	0.60
1:0:573:C:O2'	1:0:574:C:H5'	2.02	0.60
1:0:587:A:OP2	1:0:587:A:H8	1.84	0.60
1:0:644:A:H2'	1:0:645:G:H5'	1.84	0.60
1:0:700:C:H2'	1:0:701:U:N1	2.16	0.60
1:0:843:G:C5	1:0:2427:A:N7	2.70	0.60
1:0:940:G:C2'	1:0:941:U:H4'	2.30	0.60
1:0:1588:A:H2'	1:0:1589:G:H8	1.66	0.60
1:0:1632:A:O2'	1:0:1633:C:P	2.59	0.60
1:0:2329:C:H2'	1:0:2330:G:O4'	2.00	0.60
1:0:2498:U:C4'	1:0:2499:C:OP1	2.49	0.60
1:0:469:G:O2'	1:0:470:U:OP2	2.19	0.60
1:0:1017:C:H2'	1:0:1018:C:C6	2.36	0.60
1:0:2043:A:H4'	1:0:2481:G:O4'	2.02	0.60
1:0:2134:U:H2'	1:0:2135:C:C6	2.36	0.60
1:0:2231:G:H2'	1:0:2232:G:H8	1.66	0.60
1:0:2849:C:O2'	1:0:2850:U:H5'	2.00	0.60
1:0:554:U:OP2	1:0:554:U:H4'	2.00	0.60
1:0:594:G:H2'	1:0:1264:C:N4	2.17	0.60
1:0:684:C:C2'	1:0:685:U:O5'	2.49	0.60
1:0:1061:A:H2'	1:0:1062:G:H5'	1.82	0.60
1:0:1075:C:H2'	1:0:1076:U:O4'	2.01	0.60
1:0:1233:A:O2'	1:0:1234:C:OP1	2.20	0.60
1:0:1698:C:H1'	1:0:1754:G:H5'	1.81	0.60
1:0:1849:G:H2'	1:0:1850:G:C8	2.37	0.60
1:0:67:G:H2'	1:0:68:C:C6	2.37	0.60
1:0:941:U:O2'	1:0:942:U:H5'	2.02	0.60
1:0:1288:A:N6	1:0:1309:G:H4'	2.17	0.60
1:0:1385:C:H2'	1:0:1386:A:C8	2.37	0.60
1:0:1790:G:C2	1:0:1811:A:N7	2.69	0.60
1:0:2690:A:H5''	1:0:2691:C:H5'	1.82	0.60
1:0:201:G:H2'	1:0:202:A:H8	1.66	0.60
1:0:482:A:O2'	1:0:483:A:H5'	2.02	0.60
1:0:490:A:O2'	1:0:491:A:O5'	2.15	0.60
1:0:1354:A:O5'	1:0:1410:U:N3	2.35	0.60
1:0:2320:G:H2'	1:0:2321:C:O4'	2.02	0.60
1:0:2324:G:N7	1:0:2360:C:C2	2.69	0.60
1:0:2856:U:O2'	1:0:2857:C:H5'	2.01	0.60
1:0:141:G:O2'	1:0:142:U:H5'	2.02	0.60
1:0:541:C:N4	1:0:2001:G:N1	2.48	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:594:G:N1	1:0:1266:G:OP2	2.33	0.60
1:0:746:G:O6	1:0:774:A:C8	2.55	0.60
1:0:818:G:C6	1:0:2051:U:H5''	2.36	0.60
1:0:1147:G:H2'	1:0:1148:G:C8	2.36	0.60
1:0:1351:G:H2'	1:0:1352:G:O4'	2.01	0.60
1:0:1779:C:O2'	1:0:1780:A:H5'	2.01	0.60
1:0:1948:C:H2'	1:0:1949:A:C8	2.36	0.60
1:0:1987:G:C5	1:0:1988:A:C8	2.89	0.60
1:0:2018:G:O2'	1:0:2019:C:OP1	2.18	0.60
1:0:2607:C:H4'	1:0:2761:A:N7	2.17	0.60
1:0:788:G:C5'	1:0:789:G:OP1	2.50	0.60
1:0:880:C:P	1:0:880:C:H3'	2.41	0.60
1:0:1191:G:H2'	1:0:1192:A:C8	2.29	0.60
1:0:1226:A:H1'	1:0:1250:A:C2	2.36	0.60
1:0:2094:C:C4	1:0:2103:G:H1'	2.37	0.60
1:0:2119:A:H2'	1:0:2120:C:C6	2.37	0.60
1:0:2194:A:H2'	1:0:2195:C:H5''	1.84	0.60
1:0:2499:C:H2'	1:0:2500:C:H6	1.67	0.60
1:0:219:G:O2'	1:0:220:U:P	2.59	0.59
1:0:577:U:O2	1:0:579:G:H8	1.85	0.59
1:0:926:C:H2'	1:0:927:C:H5'	1.84	0.59
1:0:1016:C:H2'	1:0:1017:C:H6	1.67	0.59
1:0:1354:A:O2'	1:0:1355:A:OP1	2.18	0.59
1:0:1922:U:C1'	1:0:2570:C:O2'	2.49	0.59
1:0:2425:G:H2'	1:0:2426:G:H5'	1.84	0.59
1:0:2425:G:N2	1:0:2480:C:N4	2.50	0.59
1:0:239:A:H5'	1:0:619:A:O2'	2.02	0.59
1:0:614:G:N2	1:0:634:G:N2	2.49	0.59
1:0:941:U:H4'	1:0:941:U:OP1	2.00	0.59
1:0:1016:C:H5'	1:0:1023:U:H5'	1.84	0.59
1:0:1242:A:O2'	1:0:1243:G:H5'	2.01	0.59
1:0:1436:G:H2'	1:0:1437:A:C8	2.37	0.59
1:0:2426:G:H4'	1:0:2427:A:O5'	2.02	0.59
1:0:2691:C:H2'	1:0:2692:A:C5'	2.30	0.59
1:0:2757:G:C8	1:0:2757:G:H3'	2.37	0.59
1:0:93:A:O2'	1:0:94:C:H5'	2.03	0.59
1:0:843:G:N3	1:0:2427:A:N6	2.51	0.59
1:0:1280:U:C6	1:0:1995:G:N2	2.70	0.59
1:0:2713:A:H2'	1:0:2714:A:H8	1.66	0.59
1:0:322:A:H1'	1:0:343:A:C1'	2.32	0.59
1:0:1947:G:H5''	1:0:1948:C:OP2	2.03	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2298:U:H4'	1:0:2299:A:N7	2.16	0.59
1:0:2500:C:O2'	1:0:2543:A:H1'	2.03	0.59
1:0:34:U:H5	1:0:466:A:C4	2.20	0.59
1:0:450:C:C2	1:0:451:A:C8	2.90	0.59
1:0:1266:G:O2'	1:0:1267:A:OP1	2.17	0.59
1:0:1465:G:H2'	1:0:1466:C:O4'	2.02	0.59
1:0:2050:G:C2	1:0:2052:G:C8	2.91	0.59
1:0:2159:A:H2'	1:0:2160:C:C6	2.38	0.59
1:0:2424:G:O2'	1:0:2425:G:H5'	2.02	0.59
1:0:1073:G:H3'	1:0:1074:G:H5''	1.85	0.59
1:0:1503:G:O2'	1:0:1504:G:H5'	2.03	0.59
1:0:2485:U:H5''	1:0:2485:U:C6	2.37	0.59
1:0:2768:C:O2'	1:0:2784:A:H8	1.86	0.59
1:0:67:G:N2	1:0:73:A:O4'	2.36	0.59
1:0:167:A:N1	1:0:184:A:H1'	2.17	0.59
1:0:1104:G:N2	1:0:1109:A:H62	1.99	0.59
1:0:1229:C:H2'	1:0:1230:C:H6	1.68	0.59
1:0:1911:A:H2'	1:0:1912:G:H5'	1.84	0.59
1:0:2528:G:H2'	1:0:2529:G:H8	1.68	0.59
1:0:2736:U:HO2'	1:0:2737:A:C5'	2.15	0.59
1:0:2837:G:H2'	1:0:2838:U:H6	1.67	0.59
1:0:48:A:H2	1:0:118:U:N3	2.00	0.59
1:0:401:G:H2'	1:0:403:A:N7	2.17	0.59
1:0:939:C:N4	1:0:940:G:O6	2.35	0.59
1:0:1213:U:H2'	1:0:1214:C:O4'	2.03	0.59
1:0:2324:G:C2	1:0:2326:C:H5	2.20	0.59
1:0:2691:C:H3'	1:0:2692:A:C5'	2.33	0.59
1:0:2737:A:H2'	1:0:2738:A:H5''	1.85	0.59
1:0:2872:U:H2'	1:0:2873:G:H8	1.68	0.59
1:0:4:C:C4	1:0:5:A:N7	2.71	0.59
1:0:208:C:N4	1:0:209:G:N2	2.50	0.59
1:0:421:G:H2'	1:0:422:C:C6	2.37	0.59
1:0:614:G:C5	1:0:615:C:C5	2.91	0.59
1:0:864:C:O2'	1:0:865:A:H5'	2.02	0.59
1:0:2793:G:N2	1:0:2794:G:H1'	2.18	0.59
1:0:196:A:O2'	1:0:197:G:H5'	2.03	0.59
1:0:1523:A:H8	1:0:1523:A:O5'	1.86	0.59
1:0:2660:C:N3	1:0:2704:U:C4	2.71	0.59
1:0:69:G:H3'	1:0:69:G:P	2.43	0.58
1:0:75:C:H2'	1:0:76:C:H5''	1.85	0.58
1:0:540:G:H1'	1:0:2004:U:O2'	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:597:U:H2'	1:0:598:U:C6	2.37	0.58
1:0:661:C:H2'	1:0:662:G:H8	1.68	0.58
1:0:965:G:O2'	1:0:2253:A:N1	2.27	0.58
1:0:981:C:H2'	1:0:982:C:H6	1.68	0.58
1:0:987:G:C2	1:0:988:G:C8	2.91	0.58
1:0:1514:C:H5'	1:0:1593:C:C5'	2.33	0.58
1:0:2160:C:H2'	1:0:2161:C:C6	2.37	0.58
1:0:161:U:H1'	1:0:194:G:O2'	2.03	0.58
1:0:387:A:C4	1:0:388:G:C8	2.91	0.58
1:0:640:C:H4'	1:0:660:G:N3	2.18	0.58
1:0:1781:C:H2'	1:0:1782:A:N7	2.18	0.58
1:0:2174:G:H2'	1:0:2175:A:H8	1.68	0.58
1:0:1849:G:H8	1:0:1849:G:O5'	1.86	0.58
1:0:2050:G:C4	1:0:2423:G:N2	2.71	0.58
1:0:30:G:H2'	1:0:31:C:C6	2.38	0.58
1:0:298:C:O2'	1:0:299:C:H5'	2.03	0.58
1:0:466:A:H4'	1:0:467:U:O5'	2.03	0.58
1:0:661:C:H2'	1:0:662:G:C8	2.38	0.58
1:0:716:U:H2'	1:0:717:G:O4'	2.02	0.58
1:0:248:A:N6	1:0:373:A:N7	2.51	0.58
1:0:341:A:H2	1:0:1223:G:H2'	1.68	0.58
1:0:644:A:C2'	1:0:645:G:H5'	2.34	0.58
1:0:698:A:N7	1:0:786:U:C4	2.72	0.58
1:0:1110:G:H2'	1:0:1111:C:C6	2.38	0.58
1:0:1147:G:H2'	1:0:1148:G:H8	1.68	0.58
1:0:1402:G:H2'	1:0:1403:U:O4'	2.03	0.58
1:0:1785:A:H2'	1:0:1786:C:H6	1.67	0.58
1:0:2204:A:H8	1:0:2204:A:OP2	1.87	0.58
1:0:2827:G:C6	1:0:2828:C:N3	2.72	0.58
1:0:719:A:H8	1:0:719:A:O5'	1.85	0.58
1:0:1016:C:C6	1:0:1154:A:H1'	2.38	0.58
1:0:1772:C:HO2'	1:0:1773:C:P	2.27	0.58
1:0:2539:C:C4	1:0:2540:A:N7	2.72	0.58
1:0:2742:G:C2'	1:0:2743:G:H5'	2.33	0.58
1:0:2858:A:H5''	1:0:2859:U:H5'	1.86	0.58
1:0:325:U:O2'	1:0:326:A:H5'	2.02	0.58
1:0:516:G:O2'	1:0:517:A:P	2.62	0.58
1:0:667:U:C2	1:0:669:G:OP2	2.56	0.58
1:0:799:C:H2'	1:0:800:U:C6	2.34	0.58
1:0:992:A:C2	1:0:2011:U:O4'	2.57	0.58
1:0:1541:G:N2	1:0:1562:G:N1	2.48	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1846:A:H61	1:0:1871:G:H1'	1.69	0.58
1:0:2090:U:H2'	1:0:2091:C:C6	2.39	0.58
1:0:2352:A:H2'	1:0:2353:G:C8	2.38	0.58
1:0:2496:C:O2'	1:0:2497:A:O5'	2.16	0.58
1:0:133:C:H2'	1:0:134:G:O4'	2.04	0.58
1:0:554:U:H2'	1:0:555:U:O4'	2.03	0.58
1:0:594:G:N2	1:0:1266:G:OP2	2.36	0.58
1:0:798:G:C6	1:0:799:C:C4	2.90	0.58
1:0:861:G:H2'	1:0:862:A:H8	1.63	0.58
1:0:1442:C:C2'	1:0:1443:G:OP1	2.51	0.58
1:0:1624:A:N6	1:0:1627:C:C2	2.72	0.58
1:0:1625:A:C5	1:0:1632:A:N3	2.72	0.58
1:0:1686:A:H2'	1:0:1687:C:H5'	1.86	0.58
1:0:2117:A:H62	1:0:2139:G:H21	1.51	0.58
1:0:2426:G:H4'	1:0:2427:A:H5''	1.84	0.58
1:0:2756:A:O2'	1:0:2757:G:H5''	2.04	0.58
1:0:113:C:O2'	1:0:114:C:H5'	2.03	0.58
1:0:422:C:H2'	1:0:423:G:C8	2.39	0.58
1:0:690:A:O2'	1:0:691:C:H5'	2.04	0.58
1:0:765:C:O2	1:0:766:A:N7	2.36	0.58
1:0:788:G:H5''	1:0:789:G:OP1	2.04	0.58
1:0:1458:A:C2'	1:0:1459:U:H5'	2.33	0.58
1:0:2217:G:H5'	1:0:2218:G:N7	2.19	0.58
1:0:2651:U:O2'	1:0:2652:G:H5'	2.04	0.58
1:0:2759:U:O4'	1:0:2761:A:C2	2.57	0.58
1:0:2768:C:O2'	1:0:2784:A:C8	2.55	0.58
1:0:243:G:H2'	1:0:244:C:O4'	2.04	0.58
1:0:614:G:C2	1:0:634:G:N2	2.72	0.58
1:0:1055:A:O2'	1:0:1058:G:H1'	2.04	0.58
1:0:1781:C:H2'	1:0:1782:A:C5	2.38	0.58
1:0:2066:G:O6	1:0:2216:G:N2	2.36	0.58
1:0:2324:G:N2	1:0:2326:C:C5	2.71	0.58
1:0:212:U:C2'	1:0:213:C:H5'	2.34	0.57
1:0:510:G:N3	1:0:512:A:OP2	2.37	0.57
1:0:1303:U:H2'	1:0:1304:U:H6	1.68	0.57
1:0:2832:G:C5	1:0:2834:A:OP2	2.57	0.57
1:0:460:U:C4	1:0:592:G:H1'	2.39	0.57
1:0:796:A:C8	1:0:796:A:H3'	2.39	0.57
1:0:1707:A:C2'	1:0:1708:C:H5'	2.34	0.57
1:0:1996:A:C2'	1:0:1997:A:H5'	2.34	0.57
1:0:2059:U:OP2	1:0:2217:G:N2	2.37	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2315:A:H1'	1:0:2364:C:H5''	1.86	0.57
1:0:2607:C:O2'	1:0:2761:A:H3'	2.04	0.57
1:0:48:A:N6	1:0:154:U:H5	1.99	0.57
1:0:59:G:H1'	1:0:73:A:C2	2.38	0.57
1:0:177:U:C5	1:0:225:G:C2	2.91	0.57
1:0:441:A:H2'	1:0:442:A:C5'	2.34	0.57
1:0:466:A:O2'	1:0:467:U:OP2	2.22	0.57
1:0:1025:A:O2'	1:0:1026:U:H5'	2.04	0.57
1:0:1953:A:H1'	1:0:1955:G:H1'	1.84	0.57
1:0:1979:C:O4'	1:0:1979:C:OP1	2.20	0.57
1:0:12:U:H2'	1:0:13:A:H5'	1.85	0.57
1:0:26:G:C2	1:0:27:G:N2	2.72	0.57
1:0:1303:U:H2'	1:0:1304:U:C6	2.39	0.57
1:0:1785:A:H2'	1:0:1786:C:C6	2.39	0.57
1:0:1787:U:O2'	1:0:1788:C:H5'	2.04	0.57
1:0:2026:C:N3	1:0:2757:G:C2	2.73	0.57
1:0:2759:U:H5''	1:0:2760:G:O5'	2.04	0.57
1:0:421:G:O2'	1:0:422:C:H5'	2.05	0.57
1:0:540:G:N3	1:0:2005:U:OP1	2.38	0.57
1:0:542:A:C8	1:0:542:A:C3'	2.87	0.57
1:0:581:A:N1	1:0:2012:A:H2	2.03	0.57
1:0:771:C:O2	1:0:1964:A:H2	1.87	0.57
1:0:1139:A:O2'	1:0:1140:A:O4'	2.21	0.57
1:0:1140:A:N6	1:0:2470:U:OP1	2.37	0.57
1:0:2225:G:C4	1:0:2405:A:N3	2.72	0.57
1:0:2690:A:OP1	1:0:2692:A:OP2	2.23	0.57
1:0:128:C:H2'	1:0:129:A:H5''	1.86	0.57
1:0:219:G:C2'	1:0:220:U:OP2	2.53	0.57
1:0:1208:A:C2'	1:0:1209:G:O5'	2.53	0.57
1:0:1407:G:N1	1:0:1408:A:C2	2.73	0.57
1:0:1624:A:C2'	1:0:1625:A:H5'	2.35	0.57
1:0:2015:G:O2'	1:0:2016:A:OP1	2.18	0.57
1:0:2452:U:O2	1:0:2452:U:H2'	2.04	0.57
1:0:2661:G:H2'	1:0:2662:C:O5'	2.05	0.57
1:0:2665:G:C2	1:0:2666:U:O2	2.58	0.57
1:0:2862:G:O2'	1:0:2863:U:H5'	2.05	0.57
1:0:574:C:H4'	1:0:1266:G:O6	2.04	0.57
1:0:1896:A:H2	1:0:1899:A:C5	2.22	0.57
1:0:2081:U:O5'	1:0:2081:U:H6	1.88	0.57
1:0:2539:C:N4	1:0:2540:A:N6	2.52	0.57
1:0:24:G:N2	1:0:25:U:H1'	2.19	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:190:A:H2'	1:0:191:G:C8	2.40	0.57
1:0:195:A:C2	1:0:212:U:H4'	2.40	0.57
1:0:510:G:O5'	1:0:510:G:C8	2.57	0.57
1:0:554:U:HO2'	1:0:555:U:HO2'	1.46	0.57
1:0:1060:C:O5'	1:0:1060:C:H6	1.87	0.57
1:0:1188:A:H2'	1:0:1189:G:H5'	1.87	0.57
1:0:1568:A:O2'	1:0:1569:A:H5'	2.05	0.57
1:0:1714:A:H5'	1:0:1715:A:O5'	2.05	0.57
1:0:1973:C:H3'	1:0:1973:C:C6	2.40	0.57
1:0:2195:C:C2'	1:0:2196:U:H5'	2.35	0.57
1:0:5:A:C6	1:0:6:A:C6	2.92	0.57
1:0:488:A:H8	1:0:488:A:OP1	1.86	0.57
1:0:573:C:H2'	1:0:574:C:C6	2.40	0.57
1:0:695:G:O2'	1:0:696:U:H5'	2.05	0.57
1:0:824:U:O2'	1:0:1264:C:C1'	2.53	0.57
1:0:1821:A:H3'	1:0:1822:C:C6	2.40	0.57
1:0:1900:U:H2'	1:0:1901:A:O4'	2.03	0.57
1:0:1919:A:N6	1:0:1928:G:N3	2.53	0.57
1:0:1921:A:H2'	1:0:1922:U:C5'	2.32	0.57
1:0:2395:C:C2'	1:0:2396:C:H5''	2.35	0.57
1:0:12:U:O2	1:0:12:U:C2'	2.53	0.57
1:0:169:C:C3'	1:0:170:U:H5'	2.34	0.57
1:0:222:G:O2'	1:0:223:C:H5'	2.05	0.57
1:0:224:G:C6	1:0:229:G:O6	2.58	0.57
1:0:230:C:H2'	1:0:231:G:C8	2.39	0.57
1:0:416:U:H5''	1:0:417:C:H5'	1.87	0.57
1:0:652:C:N4	1:0:657:A:H61	2.01	0.57
1:0:2020:G:H2'	1:0:2021:G:C8	2.40	0.57
1:0:2197:U:H2'	1:0:2198:U:C6	2.40	0.57
1:0:2204:A:H4'	1:0:2205:C:O5'	2.04	0.57
1:0:2338:C:H2'	1:0:2339:A:C8	2.39	0.57
1:0:2364:C:H2'	1:0:2365:U:C6	2.40	0.57
1:0:2496:C:N4	1:0:2521:A:C2	2.73	0.57
1:0:2698:G:H2'	1:0:2699:G:C8	2.39	0.57
1:0:520:C:C4	1:0:521:U:C4	2.93	0.56
1:0:580:A:N7	1:0:584:A:C6	2.73	0.56
1:0:1250:A:O2'	1:0:1251:G:O4'	2.22	0.56
1:0:1975:G:H22	1:0:1979:C:H5	1.48	0.56
1:0:2337:A:H2'	1:0:2338:C:O4'	2.05	0.56
1:0:2442:C:O2'	1:0:2443:C:H5'	2.05	0.56
1:0:2565:C:H2'	1:0:2565:C:O2	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2712:G:OP2	1:0:2712:G:O4'	2.22	0.56
1:0:2815:C:H2'	1:0:2816:C:H6	1.70	0.56
1:0:178:C:O2'	1:0:179:U:H5'	2.05	0.56
1:0:461:A:C4	1:0:462:G:C8	2.94	0.56
1:0:531:G:H2'	1:0:532:A:H8	1.70	0.56
1:0:859:U:H2'	1:0:860:U:OP2	2.05	0.56
1:0:921:A:H2'	1:0:924:C:H5	1.70	0.56
1:0:973:U:O2'	1:0:2475:C:H4'	2.06	0.56
1:0:1137:A:H4'	1:0:1138:A:H5''	1.87	0.56
1:0:1437:A:O2'	1:0:1515:U:H4'	2.05	0.56
1:0:2219:U:O2	1:0:2220:A:C8	2.58	0.56
1:0:51:A:N1	1:0:155:G:H1'	2.21	0.56
1:0:58:C:C2	1:0:72:A:C5	2.93	0.56
1:0:788:G:N2	1:0:801:A:OP2	2.37	0.56
1:0:804:C:O2	1:0:804:C:C2'	2.52	0.56
1:0:1507:A:O2'	1:0:1509:A:O3'	2.23	0.56
1:0:1534:A:O2'	1:0:1535:C:H5'	2.05	0.56
1:0:1625:A:N3	1:0:1625:A:C3'	2.67	0.56
1:0:1845:A:N3	1:0:2212:U:O2'	2.35	0.56
1:0:1978:U:N3	1:0:1979:C:N4	2.52	0.56
1:0:2090:U:H2'	1:0:2091:C:H6	1.70	0.56
1:0:2117:A:H62	1:0:2139:G:N2	2.03	0.56
1:0:2368:G:H5''	1:0:2369:U:H5'	1.87	0.56
1:0:2555:G:H3'	1:0:2555:G:OP1	2.04	0.56
1:0:2562:G:N2	1:0:2563:U:C1'	2.67	0.56
1:0:2628:C:H2'	1:0:2629:U:C6	2.40	0.56
1:0:2691:C:C3'	1:0:2692:A:C5'	2.82	0.56
1:0:540:G:O6	1:0:2006:G:OP1	2.23	0.56
1:0:1286:U:O3'	1:0:1288:A:OP2	2.24	0.56
1:0:1391:A:O2'	1:0:1392:U:H3'	2.06	0.56
1:0:1415:C:O2'	1:0:1416:A:H5'	2.05	0.56
1:0:1485:U:H2'	1:0:1486:A:C8	2.40	0.56
1:0:1583:A:O2'	1:0:1584:G:OP2	2.23	0.56
1:0:1820:G:O2'	1:0:1821:A:P	2.63	0.56
1:0:2433:G:O2'	1:0:2434:G:H5'	2.05	0.56
1:0:2484:G:C2'	1:0:2485:U:C5'	2.84	0.56
1:0:201:G:H2'	1:0:202:A:C8	2.40	0.56
1:0:422:C:H2'	1:0:423:G:H8	1.71	0.56
1:0:633:G:C6	1:0:634:G:C6	2.94	0.56
1:0:1454:U:H2'	1:0:1455:C:C6	2.37	0.56
1:0:865:A:N6	1:0:937:C:N3	2.46	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1160:C:O2	1:0:1161:U:H1'	2.05	0.56
1:0:1628:C:C4	1:0:1629:G:N7	2.74	0.56
1:0:1657:A:H5'	1:0:1657:A:H8	1.71	0.56
1:0:2035:G:O2'	1:0:2036:G:H5'	2.05	0.56
1:0:2246:A:H3'	1:0:2246:A:N3	2.21	0.56
1:0:57:G:C2	1:0:72:A:C5	2.93	0.56
1:0:173:A:O2'	1:0:174:A:OP1	2.22	0.56
1:0:1235:C:C2	1:0:1241:G:C2	2.94	0.56
1:0:1235:C:C2	1:0:1241:G:N2	2.74	0.56
1:0:1465:G:OP1	1:0:1465:G:C4'	2.46	0.56
1:0:1757:C:O2	1:0:1970:G:C2	2.59	0.56
1:0:1949:A:H1'	1:0:2572:U:C4'	2.32	0.56
1:0:2198:U:C3'	1:0:2199:C:H4'	2.36	0.56
1:0:2267:A:C2'	1:0:2268:G:OP1	2.54	0.56
1:0:27:G:HO2'	1:0:28:A:H8	1.53	0.56
1:0:57:G:C6	1:0:72:A:N6	2.73	0.56
1:0:185:C:H2'	1:0:186:C:C6	2.40	0.56
1:0:238:G:O4'	1:0:618:A:H2	1.89	0.56
1:0:651:C:H2'	1:0:652:C:C5'	2.34	0.56
1:0:700:C:C6	1:0:701:U:C4	2.94	0.56
1:0:794:A:H2	1:0:1767:G:N3	2.04	0.56
1:0:1310:C:H2'	1:0:1311:C:H6	1.69	0.56
1:0:1438:G:C2'	1:0:1439:G:H5'	2.36	0.56
1:0:1514:C:H5'	1:0:1593:C:H5''	1.87	0.56
1:0:2138:U:H2'	1:0:2139:G:H5'	1.88	0.56
1:0:5:A:C2	1:0:6:A:C4	2.93	0.56
1:0:327:C:H2'	1:0:328:A:H5'	1.87	0.56
1:0:514:G:N3	1:0:514:G:C2'	2.68	0.56
1:0:530:G:H2'	1:0:531:G:H8	1.71	0.56
1:0:580:A:O2'	1:0:581:A:OP2	2.24	0.56
1:0:584:A:OP2	1:0:2038:C:H5	1.88	0.56
1:0:1118:G:H2'	1:0:1119:U:C6	2.40	0.56
1:0:1355:A:N6	1:0:1358:C:C2	2.74	0.56
1:0:1479:G:N2	1:0:1543:G:N2	2.54	0.56
1:0:1774:A:H5'	1:0:2587:G:H4'	1.88	0.56
1:0:1869:A:H2'	1:0:1870:U:C6	2.40	0.56
1:0:1926:U:OP1	1:0:1926:U:H6	1.89	0.56
1:0:1975:G:N2	1:0:1979:C:C5	2.68	0.56
1:0:2608:A:O2'	1:0:2609:G:O5'	2.23	0.56
1:0:2796:A:OP2	2:B:110:GLY:CA	2.53	0.56
1:0:2871:U:C2	1:0:2872:U:C4	2.93	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:435:A:N1	1:0:436:A:C2	2.74	0.56
1:0:1429:A:H1'	1:0:1603:A:C6	2.41	0.56
1:0:1861:G:O2'	1:0:1862:C:H5'	2.05	0.56
1:0:2040:A:O2'	1:0:2041:A:H5'	2.06	0.56
1:0:2059:U:C5'	1:0:2217:G:H1	2.19	0.56
1:0:318:G:N2	1:0:321:A:O4'	2.39	0.55
1:0:459:A:C2	1:0:466:A:C8	2.94	0.55
1:0:745:C:H2'	1:0:746:G:O4'	2.06	0.55
1:0:830:C:H2'	1:0:831:G:H8	1.71	0.55
1:0:1117:G:O2'	1:0:1118:G:H5'	2.06	0.55
1:0:1141:U:O2'	1:0:1142:G:P	2.64	0.55
1:0:2791:C:C2'	1:0:2792:C:H5'	2.36	0.55
1:0:457:C:O2'	1:0:458:G:H5'	2.06	0.55
1:0:759:C:OP1	1:0:761:G:H4'	2.06	0.55
1:0:940:G:C3'	1:0:941:U:C5'	2.77	0.55
1:0:2182:A:H61	1:0:2205:C:N4	2.05	0.55
1:0:2561:G:C2	1:0:2562:G:C8	2.94	0.55
1:0:2770:A:C5'	1:0:2867:G:H22	2.17	0.55
1:0:88:G:OP2	1:0:90:G:OP1	2.24	0.55
1:0:127:C:O2'	1:0:128:C:H5'	2.07	0.55
1:0:201:G:C2	1:0:202:A:C5	2.95	0.55
1:0:638:A:OP2	1:0:638:A:H4'	2.05	0.55
1:0:810:U:H2'	1:0:811:G:C8	2.40	0.55
1:0:1233:A:H4'	1:0:1234:C:OP2	2.04	0.55
1:0:1714:A:O2'	1:0:1961:A:OP1	2.25	0.55
1:0:1777:A:N6	1:0:2585:C:O4'	2.39	0.55
1:0:2117:A:N6	1:0:2139:G:N2	2.52	0.55
1:0:2484:G:C2'	1:0:2485:U:H5''	2.37	0.55
1:0:2810:A:N6	1:0:2853:U:OP2	2.39	0.55
1:0:2837:G:O2'	1:0:2838:U:H5'	2.04	0.55
1:0:4:C:H2'	1:0:5:A:C5'	2.37	0.55
1:0:155:G:C2'	1:0:156:G:H5'	2.36	0.55
1:0:367:G:C2'	1:0:368:A:H5''	2.36	0.55
1:0:538:A:C8	1:0:538:A:C3'	2.89	0.55
1:0:1016:C:C2	1:0:1154:A:C4	2.94	0.55
1:0:1310:C:H2'	1:0:1311:C:C6	2.42	0.55
1:0:1407:G:N1	1:0:1408:A:N1	2.55	0.55
1:0:1522:C:H2'	1:0:1523:A:H5'	1.88	0.55
1:0:2070:G:H2'	1:0:2071:G:H8	1.71	0.55
1:0:2610:G:H5'	1:0:2866:A:O4'	2.06	0.55
1:0:2841:U:O2'	1:0:2842:C:OP2	2.25	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:21:A:C6	1:0:530:G:C6	2.95	0.55
1:0:219:G:N2	1:0:232:A:OP2	2.30	0.55
1:0:538:A:C6	1:0:2025:A:C5	2.95	0.55
1:0:789:G:C5	1:0:806:A:C8	2.94	0.55
1:0:1882:G:H21	1:0:1885:C:N4	2.03	0.55
1:0:2176:U:C2'	1:0:2177:U:H5'	2.36	0.55
1:0:2235:G:N2	1:0:2254:C:C5	2.74	0.55
1:0:2758:A:C2'	1:0:2759:U:OP1	2.54	0.55
1:0:2824:C:O2'	1:0:2825:A:OP2	2.20	0.55
1:0:68:C:O2	1:0:68:C:C2'	2.53	0.55
1:0:537:C:C2	1:0:2759:U:C2	2.95	0.55
1:0:693:A:H2'	1:0:694:G:H8	1.70	0.55
1:0:728:G:C2	1:0:729:A:H1'	2.42	0.55
1:0:765:C:C6	1:0:1772:C:O2	2.60	0.55
1:0:1345:G:C5	1:0:1625:A:N6	2.74	0.55
1:0:1390:G:H8	1:0:1390:G:O5'	1.89	0.55
1:0:1703:C:H2'	1:0:1704:G:O4'	2.06	0.55
1:0:1952:A:O2'	1:0:1955:G:N3	2.40	0.55
1:0:7:G:O2'	1:0:8:A:H5'	2.07	0.55
1:0:322:A:O2'	1:0:343:A:C4'	2.54	0.55
1:0:577:U:C4'	1:0:956:A:N6	2.69	0.55
1:0:699:G:C5'	1:0:700:C:OP2	2.53	0.55
1:0:774:A:C8	1:0:774:A:H3'	2.42	0.55
1:0:1010:U:H3'	1:0:1165:G:O6	2.07	0.55
1:0:1468:A:H5''	1:0:1468:A:H8	1.72	0.55
1:0:1482:U:H2'	1:0:1483:G:C8	2.41	0.55
1:0:2015:G:N2	1:0:2038:C:C2	2.75	0.55
1:0:2345:A:H2'	1:0:2346:G:O4'	2.07	0.55
1:0:2438:A:N3	1:0:2438:A:H2'	2.22	0.55
1:0:73:A:O2'	1:0:74:G:OP2	2.21	0.55
1:0:441:A:H2'	1:0:442:A:H5'	1.89	0.55
1:0:1164:C:H2'	1:0:1165:G:O4'	2.04	0.55
1:0:1180:A:O2'	1:0:1181:C:H5'	2.07	0.55
1:0:1345:G:C4	1:0:1625:A:C6	2.95	0.55
1:0:1386:A:H5'	1:0:2191:A:N7	2.22	0.55
1:0:1683:G:C2'	1:0:1684:G:H5'	2.34	0.55
1:0:1715:A:O2'	1:0:1716:G:C3'	2.55	0.55
1:0:2486:C:C5	1:0:2487:G:N7	2.75	0.55
1:0:2871:U:N3	1:0:2872:U:C4	2.74	0.55
1:0:778:G:H5'	1:0:778:G:H8	1.72	0.55
1:0:837:U:C2	1:0:838:A:C8	2.94	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1221:C:C4	1:0:1222:G:N7	2.75	0.55
1:0:1226:A:C1'	1:0:1250:A:C2	2.90	0.55
1:0:1301:U:C4'	1:0:1302:C:OP2	2.54	0.55
1:0:1313:U:O2'	1:0:1314:A:P	2.64	0.55
1:0:1850:G:O6	1:0:1867:A:N3	2.40	0.55
1:0:1901:A:H2'	1:0:1902:A:C8	2.42	0.55
1:0:2264:C:C4'	1:0:2267:A:N6	2.69	0.55
1:0:2847:G:C2	1:0:2848:A:N6	2.74	0.55
1:0:631:G:H5''	1:0:632:A:OP1	2.07	0.55
1:0:759:C:H5'	1:0:761:G:H1'	1.88	0.55
1:0:774:A:H3'	1:0:774:A:H8	1.72	0.55
1:0:1004:A:C6	1:0:1005:U:C5	2.95	0.55
1:0:1414:G:H2'	1:0:1415:C:O4'	2.07	0.55
1:0:1845:A:H2'	1:0:1846:A:H8	1.71	0.55
1:0:1975:G:N2	1:0:1979:C:H5	2.03	0.55
1:0:2106:G:H2'	1:0:2107:G:H8	1.70	0.55
1:0:2243:C:O2'	1:0:2244:C:H5'	2.07	0.55
1:0:2563:U:H3'	1:0:2564:U:C5'	2.37	0.55
1:0:2602:G:C2'	1:0:2603:G:H5'	2.37	0.55
1:0:2666:U:C5	1:0:2667:C:C4	2.95	0.55
1:0:2675:U:H2'	1:0:2676:G:C8	2.41	0.55
1:0:697:G:C1'	1:0:801:A:H62	2.19	0.54
1:0:1154:A:C2'	1:0:1155:G:OP1	2.54	0.54
1:0:1288:A:N6	1:0:1309:G:C4'	2.70	0.54
1:0:1336:G:O6	1:0:1337:G:C6	2.60	0.54
1:0:1813:A:H2'	1:0:1814:G:C8	2.41	0.54
1:0:1813:A:H2'	1:0:1814:G:H8	1.72	0.54
1:0:2379:G:N1	1:0:2380:U:O2	2.40	0.54
1:0:2482:A:H5'	1:0:2483:U:P	2.45	0.54
1:0:581:A:H2'	1:0:582:G:O4'	2.07	0.54
1:0:664:C:C2	1:0:665:A:N7	2.75	0.54
1:0:921:A:H2'	1:0:924:C:C5	2.42	0.54
1:0:1083:C:H42	1:0:1103:C:H41	1.55	0.54
1:0:1225:G:O2'	1:0:1226:A:H8	1.90	0.54
1:0:1243:G:C6	1:0:1244:U:N3	2.75	0.54
1:0:1634:A:O2'	1:0:1635:G:OP1	2.22	0.54
1:0:1791:C:O2	1:0:1791:C:H2'	2.06	0.54
1:0:1908:C:C2'	1:0:1909:U:H4'	2.22	0.54
1:0:305:A:H2'	1:0:306:G:H5'	1.89	0.54
1:0:684:C:H2'	1:0:685:U:H6	1.73	0.54
1:0:947:C:H2'	1:0:948:C:C6	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1067:G:N1	1:0:1113:C:OP2	2.33	0.54
1:0:1466:C:H4'	1:0:1466:C:OP1	2.07	0.54
1:0:1778:U:H2'	1:0:1779:C:H6	1.72	0.54
1:0:1926:U:O2'	1:0:1927:U:O5'	2.25	0.54
1:0:2507:U:O2'	1:0:2508:G:H8	1.90	0.54
1:0:2588:U:H5'	1:0:2589:C:OP2	2.07	0.54
1:0:211:U:O2	1:0:211:U:C2'	2.46	0.54
1:0:538:A:N1	1:0:2025:A:H2'	2.22	0.54
1:0:965:G:N3	1:0:2253:A:H2	2.04	0.54
1:0:2324:G:C2	1:0:2326:C:C5	2.95	0.54
1:0:2511:G:N7	1:0:2512:A:N7	2.55	0.54
1:0:2665:G:C6	1:0:2666:U:N3	2.76	0.54
1:0:2694:G:C6	1:0:2695:C:C4	2.95	0.54
1:0:7:G:C2	1:0:8:A:C4	2.96	0.54
1:0:57:G:C6	1:0:72:A:C6	2.96	0.54
1:0:66:U:C2	1:0:67:G:O6	2.60	0.54
1:0:529:U:H2'	1:0:530:G:H8	1.71	0.54
1:0:1363:C:O2'	1:0:1364:C:H5'	2.07	0.54
1:0:1442:C:O2'	1:0:1443:G:OP1	2.22	0.54
1:0:1594:U:H2'	1:0:1595:A:C8	2.42	0.54
1:0:1675:C:H2'	1:0:1676:U:C6	2.43	0.54
1:0:2119:A:H2'	1:0:2120:C:H6	1.72	0.54
1:0:2314:A:N1	1:0:2316:G:H1'	2.23	0.54
1:0:2703:C:HO2'	1:0:2704:U:H5'	1.73	0.54
1:0:67:G:H2'	1:0:68:C:O4'	2.07	0.54
1:0:168:A:C6	1:0:169:C:N4	2.75	0.54
1:0:202:A:C2	1:0:203:G:H1'	2.43	0.54
1:0:357:A:N3	1:0:358:C:H4'	2.22	0.54
1:0:521:U:OP2	1:0:522:G:C5	2.61	0.54
1:0:799:C:H2'	1:0:800:U:O4'	2.06	0.54
1:0:945:G:H2'	1:0:946:U:H6	1.72	0.54
1:0:1299:A:H2'	1:0:1301:U:OP2	2.07	0.54
1:0:1859:A:H2'	1:0:1860:A:C8	2.42	0.54
1:0:2484:G:H2'	1:0:2485:U:OP2	2.06	0.54
1:0:146:C:H2'	1:0:147:G:C8	2.42	0.54
1:0:159:A:O5'	1:0:159:A:H8	1.90	0.54
1:0:571:U:O2'	1:0:572:G:OP2	2.25	0.54
1:0:765:C:O2'	1:0:766:A:H8	1.89	0.54
1:0:913:A:C2	1:0:914:C:C2	2.96	0.54
1:0:1262:U:H3'	1:0:1262:U:C6	2.42	0.54
1:0:2181:A:N3	1:0:2181:A:C2'	2.71	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2262:C:N3	1:0:2368:G:C2	2.76	0.54
1:0:2446:C:H2'	1:0:2447:G:O4'	2.08	0.54
1:0:2721:A:H2'	1:0:2722:C:O4'	2.07	0.54
1:0:65:C:H2'	1:0:66:U:H5'	1.90	0.54
1:0:76:C:H6	1:0:76:C:C5'	2.20	0.54
1:0:177:U:O2	1:0:177:U:H2'	2.08	0.54
1:0:530:G:H2'	1:0:531:G:C8	2.43	0.54
1:0:1265:G:H2'	1:0:1266:G:O5'	2.07	0.54
1:0:1451:C:H2'	1:0:1452:U:H6	1.73	0.54
1:0:1573:G:O6	1:0:1574:A:N6	2.41	0.54
1:0:1621:C:O4'	1:0:1626:A:C6	2.61	0.54
1:0:1699:A:C2	1:0:1748:U:H1'	2.42	0.54
1:0:1790:G:O2'	1:0:1791:C:P	2.66	0.54
1:0:2522:G:H2'	1:0:2523:G:O4'	2.08	0.54
1:0:204:A:N6	1:0:2386:G:C8	2.76	0.54
1:0:215:G:H2'	1:0:216:U:H6	1.72	0.54
1:0:338:G:C2'	1:0:339:U:O5'	2.56	0.54
1:0:684:C:H2'	1:0:685:U:O5'	2.08	0.54
1:0:1496:G:N2	1:0:1528:C:H1'	2.23	0.54
1:0:1679:U:H2'	1:0:1680:U:C5'	2.32	0.54
1:0:1683:G:N1	1:0:1978:U:C4	2.76	0.54
1:0:1807:A:N3	1:0:1809:G:N7	2.56	0.54
1:0:58:C:C5	1:0:72:A:N6	2.76	0.54
1:0:208:C:H2'	1:0:209:G:O4'	2.08	0.54
1:0:367:G:C3'	1:0:368:A:H5''	2.38	0.54
1:0:687:G:H2'	1:0:817:A:H61	1.73	0.54
1:0:1181:C:H2'	1:0:1182:U:H5''	1.89	0.54
1:0:1966:C:O2	1:0:1966:C:H2'	2.08	0.54
1:0:1966:C:O2	1:0:1967:U:C6	2.61	0.54
1:0:2178:U:O2'	1:0:2179:C:H5'	2.08	0.54
1:0:2299:A:H5''	1:0:2300:G:OP1	2.08	0.54
1:0:2778:U:H2'	1:0:2779:C:C5'	2.37	0.54
1:0:2778:U:O2'	1:0:2779:C:H5'	2.08	0.54
1:0:362:C:C4	1:0:363:G:H1'	2.42	0.53
1:0:1141:U:O2'	1:0:1142:G:O5'	2.26	0.53
1:0:1169:C:C2'	1:0:1170:U:H5'	2.38	0.53
1:0:1259:A:C2'	1:0:1260:A:H5'	2.38	0.53
1:0:1364:C:H2'	1:0:1365:U:C6	2.43	0.53
1:0:1448:A:N6	1:0:1574:A:H61	2.06	0.53
1:0:1468:A:H5'	1:0:1472:C:H42	1.72	0.53
1:0:1656:U:C2'	1:0:1657:A:H5''	2.37	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1753:A:O5'	1:0:1753:A:H8	1.91	0.53
1:0:1783:G:O2'	1:0:1822:C:OP1	2.25	0.53
1:0:1789:U:C4	1:0:1811:A:C2	2.95	0.53
1:0:2650:G:O2'	1:0:2651:U:H5'	2.08	0.53
1:0:2772:U:O2'	1:0:2773:G:H5'	2.08	0.53
1:0:688:A:C2	1:0:689:A:N7	2.76	0.53
1:0:1280:U:H5	1:0:1995:G:C6	2.21	0.53
1:0:1459:U:H3'	1:0:1475:U:O2'	2.08	0.53
1:0:1767:G:N2	1:0:1768:U:H1'	2.23	0.53
1:0:1975:G:O2'	1:0:1976:U:P	2.66	0.53
1:0:2040:A:H2'	1:0:2041:A:H8	1.72	0.53
1:0:2198:U:H5''	1:0:2199:C:OP2	2.08	0.53
1:0:2332:G:C6	1:0:2344:G:N2	2.77	0.53
1:0:2389:G:H2'	1:0:2390:A:O4'	2.08	0.53
1:0:2852:G:O2'	1:0:2853:U:H5'	2.08	0.53
1:0:27:G:N2	1:0:522:G:HO2'	2.05	0.53
1:0:310:A:H2'	1:0:311:A:C8	2.44	0.53
1:0:459:A:N1	1:0:466:A:C8	2.76	0.53
1:0:698:A:O2'	1:0:699:G:OP2	2.26	0.53
1:0:1486:A:H2'	1:0:1487:C:H6	1.72	0.53
1:0:1697:U:O2	1:0:1754:G:C8	2.61	0.53
1:0:2019:C:O2'	1:0:2020:G:H5'	2.07	0.53
1:0:310:A:H2	1:0:330:C:O2	1.89	0.53
1:0:555:U:H5'	1:0:556:A:OP1	2.08	0.53
1:0:1098:G:O2'	1:0:1100:G:OP1	2.27	0.53
1:0:1278:A:C4'	1:0:1279:G:O5'	2.54	0.53
1:0:1287:A:C2	1:0:1662:G:O4'	2.61	0.53
1:0:1522:C:C2'	1:0:1523:A:H5'	2.39	0.53
1:0:1736:C:O2'	1:0:1737:G:H5'	2.09	0.53
1:0:1761:G:N2	1:0:1966:C:H1'	2.23	0.53
1:0:1978:U:H3'	1:0:1979:C:H5''	1.90	0.53
1:0:2270:U:O2'	1:0:2353:G:N3	2.41	0.53
1:0:2637:C:N4	1:0:2643:G:N2	2.56	0.53
1:0:2753:C:O2'	1:0:2754:C:H5'	2.08	0.53
1:0:2807:U:H1'	1:0:2809:A:C6	2.43	0.53
1:0:2820:C:H2'	1:0:2821:G:H8	1.74	0.53
1:0:459:A:O2'	1:0:461:A:N7	2.41	0.53
1:0:539:A:H1'	1:0:540:G:C6	2.43	0.53
1:0:717:G:H2'	1:0:739:G:H22	1.73	0.53
1:0:741:G:C4	1:0:743:A:C8	2.97	0.53
1:0:816:U:H2'	1:0:817:A:H5'	1.89	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1594:U:H2'	1:0:1595:A:H8	1.74	0.53
1:0:1772:C:O2'	1:0:1773:C:O5'	2.24	0.53
1:0:2026:C:C4	1:0:2757:G:N3	2.76	0.53
1:0:2310:G:N2	1:0:2364:C:C4	2.77	0.53
1:0:2371:A:H3'	1:0:2372:A:H8	1.73	0.53
1:0:2755:A:O2'	1:0:2756:A:H5'	2.07	0.53
1:0:5:A:O2'	1:0:6:A:O5'	2.22	0.53
1:0:493:A:OP2	1:0:517:A:N6	2.41	0.53
1:0:590:C:H2'	1:0:591:G:C8	2.44	0.53
1:0:687:G:C2'	1:0:688:A:H5'	2.39	0.53
1:0:746:G:N7	1:0:774:A:C6	2.76	0.53
1:0:805:G:H2'	1:0:2419:C:C2	2.43	0.53
1:0:847:C:O2'	1:0:848:A:H5'	2.09	0.53
1:0:1091:C:H2'	1:0:1092:U:H6	1.72	0.53
1:0:1806:G:H5''	1:0:1807:A:O5'	2.09	0.53
1:0:1901:A:C2	1:0:1902:A:N7	2.76	0.53
1:0:2425:G:N2	1:0:2480:C:C4	2.77	0.53
1:0:2510:A:H61	1:0:2641:A:H61	1.53	0.53
1:0:2736:U:O2'	1:0:2737:A:O5'	2.24	0.53
1:0:5:A:C4	1:0:6:A:C8	2.97	0.53
1:0:577:U:O2	1:0:579:G:C8	2.62	0.53
1:0:591:G:H2'	1:0:592:G:C8	2.43	0.53
1:0:698:A:C1'	1:0:700:C:H5	2.21	0.53
1:0:788:G:H4'	1:0:790:A:C4	2.43	0.53
1:0:1429:A:C6	1:0:1602:G:H5'	2.44	0.53
1:0:1604:A:H2'	1:0:1605:A:O4'	2.09	0.53
1:0:1690:U:C2'	1:0:1691:G:H5'	2.38	0.53
1:0:1749:G:O2'	1:0:1750:A:P	2.67	0.53
1:0:2860:C:H2'	1:0:2861:A:O4'	2.09	0.53
1:0:187:U:H2'	1:0:188:G:H8	1.74	0.53
1:0:353:G:H2'	1:0:354:C:H6	1.74	0.53
1:0:611:C:H5''	1:0:611:C:C6	2.43	0.53
1:0:697:G:C6	1:0:788:G:C8	2.96	0.53
1:0:698:A:C1'	1:0:700:C:H41	2.20	0.53
1:0:982:C:O2'	1:0:983:G:H5'	2.09	0.53
1:0:1151:U:OP1	1:0:1153:A:OP1	2.25	0.53
1:0:1351:G:N2	1:0:1352:G:H1'	2.24	0.53
1:0:68:C:C2	1:0:72:A:C2	2.96	0.53
1:0:309:G:C2	1:0:350:U:H5	2.26	0.53
1:0:578:U:O2'	1:0:994:A:N1	2.35	0.53
1:0:789:G:O2'	1:0:790:A:P	2.67	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1071:U:H5''	1:0:1072:U:C5	2.44	0.53
1:0:1200:G:H2'	1:0:1201:G:O4'	2.07	0.53
1:0:1278:A:O2'	1:0:1279:G:P	2.66	0.53
1:0:1585:A:H2'	1:0:1586:A:O4'	2.09	0.53
1:0:1744:G:H2'	1:0:1746:A:OP2	2.09	0.53
1:0:1886:G:O2'	1:0:1887:G:H5'	2.09	0.53
1:0:2312:A:H1'	1:0:2314:A:C8	2.44	0.53
1:0:222:G:H2'	1:0:223:C:H6	1.74	0.53
1:0:333:A:C2'	1:0:334:G:OP1	2.57	0.53
1:0:698:A:H1'	1:0:701:U:O4	2.09	0.53
1:0:955:G:C8	1:0:955:G:C3'	2.86	0.53
1:0:1280:U:H2'	1:0:1281:A:C8	2.41	0.53
1:0:1391:A:O2'	1:0:1392:U:O5'	2.26	0.53
1:0:1460:G:N3	1:0:1563:U:C2	2.78	0.53
1:0:1572:C:O2'	1:0:1573:G:H5''	2.09	0.53
1:0:2273:C:H2'	1:0:2274:C:C6	2.29	0.53
1:0:2387:U:H2'	1:0:2388:G:H8	1.74	0.53
1:0:2551:A:HO2'	1:0:2552:C:P	2.32	0.53
1:0:2623:A:O2'	1:0:2624:G:H5'	2.09	0.53
1:0:600:G:C2'	1:0:601:A:OP1	2.58	0.52
1:0:638:A:H2'	1:0:639:G:O4'	2.09	0.52
1:0:706:A:O2'	1:0:707:U:H5'	2.09	0.52
1:0:764:A:C2	1:0:802:A:C4	2.97	0.52
1:0:1288:A:N6	1:0:1309:G:H5'	2.23	0.52
1:0:1587:A:H2'	1:0:1588:A:C8	2.44	0.52
1:0:2069:U:H2'	1:0:2070:G:C8	2.44	0.52
1:0:2299:A:H5'	1:0:2300:G:N9	2.24	0.52
1:0:2405:A:H2'	1:0:2406:C:OP1	2.10	0.52
1:0:2539:C:H42	1:0:2540:A:N6	2.06	0.52
1:0:2703:C:C2'	1:0:2704:U:H5'	2.40	0.52
1:0:33:C:O2	1:0:34:U:C4	2.62	0.52
1:0:220:U:H2'	1:0:221:A:H8	1.73	0.52
1:0:332:C:HO2'	1:0:333:A:P	2.32	0.52
1:0:580:A:O2'	1:0:582:G:OP2	2.24	0.52
1:0:820:U:H2'	1:0:821:A:C8	2.44	0.52
1:0:1002:C:H5'	1:0:1199:U:OP1	2.09	0.52
1:0:1014:G:O2'	1:0:1021:A:N1	2.37	0.52
1:0:1017:C:C2	1:0:1148:G:N2	2.78	0.52
1:0:1450:G:O2'	1:0:1451:C:H5'	2.10	0.52
1:0:1749:G:O2'	1:0:1750:A:OP1	2.24	0.52
1:0:1836:C:C2	1:0:1880:G:N2	2.77	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2005:U:H4'	1:0:2006:G:OP1	2.08	0.52
1:0:2384:G:N2	1:0:2390:A:N7	2.58	0.52
1:0:2396:C:H6	1:0:2396:C:C5'	2.21	0.52
1:0:2604:G:C2	1:0:2605:C:C2	2.97	0.52
1:0:2736:U:O2'	1:0:2737:A:C5'	2.56	0.52
1:0:476:G:C6	1:0:477:A:N6	2.77	0.52
1:0:485:G:C6	1:0:520:C:N4	2.77	0.52
1:0:797:A:H5'	1:0:798:G:OP1	2.09	0.52
1:0:812:G:C6	1:0:813:A:N6	2.78	0.52
1:0:1582:A:O2'	1:0:1583:A:P	2.67	0.52
1:0:1588:A:H2'	1:0:1589:G:C8	2.43	0.52
1:0:2425:G:C2	1:0:2480:C:C4	2.97	0.52
1:0:2806:G:H1'	1:0:2858:A:N3	2.24	0.52
1:0:2825:A:C8	1:0:2844:G:O4'	2.63	0.52
1:0:414:A:H2'	1:0:415:A:O4'	2.10	0.52
1:0:625:A:O5'	1:0:625:A:H8	1.93	0.52
1:0:926:C:C2'	1:0:927:C:H5'	2.40	0.52
1:0:967:G:O2'	1:0:970:A:N7	2.41	0.52
1:0:1451:C:H2'	1:0:1452:U:C6	2.44	0.52
1:0:1654:A:H4'	1:0:2690:A:O2'	2.09	0.52
1:0:2312:A:H2'	1:0:2312:A:N3	2.24	0.52
1:0:2378:G:O2'	1:0:2379:G:H5'	2.09	0.52
1:0:2511:G:N2	1:0:2642:G:H1'	2.25	0.52
1:0:65:C:H2'	1:0:66:U:C5'	2.40	0.52
1:0:158:A:H5'	1:0:158:A:C8	2.41	0.52
1:0:173:A:C4	1:0:818:G:N2	2.78	0.52
1:0:336:A:H2'	1:0:337:G:C8	2.44	0.52
1:0:638:A:N6	1:0:647:G:H2'	2.25	0.52
1:0:764:A:C2	1:0:802:A:C8	2.97	0.52
1:0:815:A:C5	1:0:816:U:C4	2.97	0.52
1:0:914:C:O2'	1:0:915:C:H5'	2.10	0.52
1:0:1216:G:N2	1:0:1257:U:O2	2.43	0.52
1:0:1250:A:O2'	1:0:1251:G:C4'	2.57	0.52
1:0:1262:U:H3'	1:0:1262:U:H6	1.74	0.52
1:0:1279:G:HO2'	1:0:1280:U:H6	1.57	0.52
1:0:1486:A:H2'	1:0:1487:C:C6	2.44	0.52
1:0:1644:G:H2'	1:0:1645:U:H6	1.74	0.52
1:0:1979:C:H3'	1:0:1979:C:C6	2.41	0.52
1:0:2034:A:H2	1:0:2035:G:O6	1.92	0.52
1:0:2483:U:O5'	1:0:2483:U:H6	1.93	0.52
1:0:2634:G:N3	1:0:2643:G:O6	2.43	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2806:G:C1'	1:0:2858:A:C2	2.92	0.52
1:0:216:U:OP1	1:0:601:A:N7	2.43	0.52
1:0:310:A:N3	1:0:330:C:O2'	2.33	0.52
1:0:556:A:H2'	1:0:556:A:N3	2.25	0.52
1:0:1250:A:HO2'	1:0:1251:G:C4'	2.21	0.52
1:0:1666:G:H2'	1:0:1667:A:C8	2.45	0.52
1:0:1713:G:C2	1:0:1714:A:H1'	2.45	0.52
1:0:2703:C:O2'	1:0:2704:U:H5'	2.10	0.52
1:0:541:C:C2'	1:0:542:A:OP1	2.58	0.52
1:0:678:G:O2'	1:0:679:C:H5'	2.10	0.52
1:0:697:G:H1'	1:0:801:A:H62	1.74	0.52
1:0:1038:U:O2'	1:0:1039:A:H5'	2.10	0.52
1:0:1177:U:O4	1:0:1196:G:O6	2.28	0.52
1:0:1265:G:O2'	1:0:1266:G:P	2.67	0.52
1:0:1675:C:H2'	1:0:1676:U:H6	1.74	0.52
1:0:1769:U:H3	1:0:1776:A:H62	1.55	0.52
1:0:1927:U:O2	1:0:1927:U:H2'	2.09	0.52
1:0:2066:G:N2	1:0:2216:G:H1'	2.24	0.52
1:0:310:A:H1'	1:0:333:A:N6	2.25	0.52
1:0:492:G:C2'	1:0:493:A:OP2	2.57	0.52
1:0:652:C:H42	1:0:657:A:N6	2.05	0.52
1:0:683:A:H4'	1:0:684:C:O5'	2.10	0.52
1:0:837:U:H3	1:0:846:A:N6	2.06	0.52
1:0:1000:G:O2'	1:0:1001:A:P	2.68	0.52
1:0:1002:C:C2	1:0:1198:C:N3	2.78	0.52
1:0:1039:A:N3	1:0:2465:G:O2'	2.40	0.52
1:0:1611:U:O2'	1:0:1612:U:H5'	2.09	0.52
1:0:1674:C:H2'	1:0:1675:C:C6	2.44	0.52
1:0:1726:C:O2'	1:0:2834:A:N3	2.39	0.52
1:0:1746:A:H2'	1:0:1747:G:O5'	2.09	0.52
1:0:1785:A:H4'	1:0:1883:A:C6	2.45	0.52
1:0:1896:A:C2	1:0:1899:A:N7	2.78	0.52
1:0:1916:G:O2'	1:0:1957:C:H4'	2.09	0.52
1:0:2240:C:O2'	1:0:2241:U:H5''	2.09	0.52
1:0:2692:A:H2'	1:0:2693:U:OP1	2.09	0.52
1:0:2736:U:O2'	1:0:2737:A:H5'	2.09	0.52
1:0:2829:A:H2'	1:0:2830:U:O4'	2.09	0.52
1:0:1139:A:O2'	1:0:1140:A:P	2.68	0.52
1:0:2250:G:H8	1:0:2250:G:O5'	1.92	0.52
1:0:2441:U:H2'	1:0:2442:C:C6	2.45	0.52
1:0:2484:G:H2'	1:0:2485:U:C5'	2.39	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2757:G:H3'	1:0:2757:G:H8	1.75	0.52
1:0:2758:A:O3'	1:0:2759:U:H5	1.93	0.52
1:0:469:G:O2'	1:0:470:U:C5	2.62	0.52
1:0:664:C:H2'	1:0:665:A:C8	2.44	0.52
1:0:834:A:H5''	1:0:835:U:C6	2.45	0.52
1:0:1091:C:H2'	1:0:1092:U:C6	2.44	0.52
1:0:1223:G:H4'	1:0:1224:A:H5''	1.92	0.52
1:0:1404:C:C2	1:0:1406:A:N7	2.78	0.52
1:0:1436:G:C5	1:0:1437:A:N7	2.78	0.52
1:0:1979:C:C6	1:0:1979:C:C3'	2.92	0.52
1:0:2533:U:H2'	1:0:2534:U:C6	2.45	0.52
1:0:239:A:H2'	1:0:240:U:O4'	2.09	0.51
1:0:566:U:H2'	1:0:567:G:H8	1.75	0.51
1:0:787:A:C8	1:0:787:A:H3'	2.45	0.51
1:0:834:A:H5''	1:0:835:U:H6	1.75	0.51
1:0:840:U:C4'	1:0:841:G:N2	2.73	0.51
1:0:873:U:O2	1:0:2246:A:H5''	2.09	0.51
1:0:1273:G:H2'	1:0:1274:C:O4'	2.10	0.51
1:0:1279:G:O2'	1:0:1280:U:C6	2.63	0.51
1:0:1328:C:H2'	1:0:1329:U:H6	1.74	0.51
1:0:1921:A:C2'	1:0:1922:U:H5''	2.36	0.51
1:0:2543:A:H2'	1:0:2544:A:O4'	2.10	0.51
1:0:12:U:O2'	1:0:13:A:H5'	2.10	0.51
1:0:120:G:O2'	1:0:121:G:H5'	2.10	0.51
1:0:173:A:N6	1:0:844:G:H21	2.01	0.51
1:0:469:G:O2'	1:0:480:G:N1	2.43	0.51
1:0:664:C:N3	1:0:665:A:N6	2.55	0.51
1:0:681:A:H2'	1:0:683:A:N7	2.26	0.51
1:0:873:U:O2	1:0:2247:A:P	2.68	0.51
1:0:1181:C:C3'	1:0:1182:U:H5''	2.41	0.51
1:0:1771:A:C2'	1:0:1772:C:OP1	2.58	0.51
1:0:2138:U:C2'	1:0:2139:G:H5'	2.40	0.51
1:0:2239:C:H2'	1:0:2240:C:H6	1.75	0.51
1:0:2326:C:H2'	1:0:2327:U:H6	1.75	0.51
1:0:2383:C:O2	1:0:2383:C:H2'	2.09	0.51
1:0:516:G:O2'	1:0:517:A:H8	1.93	0.51
1:0:727:U:O5'	1:0:727:U:H6	1.93	0.51
1:0:873:U:O2	1:0:2247:A:O5'	2.29	0.51
1:0:1014:G:N3	1:0:1021:A:H2	2.08	0.51
1:0:1401:G:O2'	1:0:1541:G:H5'	2.11	0.51
1:0:1483:G:N2	1:0:1540:C:H1'	2.24	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1582:A:O2'	1:0:1583:A:OP1	2.28	0.51
1:0:1769:U:O4	1:0:1775:A:H1'	2.10	0.51
1:0:2308:A:H2'	1:0:2309:G:C8	2.45	0.51
1:0:2485:U:OP2	1:0:2555:G:N1	2.28	0.51
1:0:2866:A:HO2'	1:0:2867:G:C4'	2.23	0.51
1:0:488:A:C6	1:0:489:A:C6	2.99	0.51
1:0:541:C:C4	1:0:572:G:O4'	2.63	0.51
1:0:573:C:H2'	1:0:574:C:H6	1.76	0.51
1:0:620:G:N2	1:0:628:A:C2	2.77	0.51
1:0:735:G:O2'	1:0:736:G:H5'	2.10	0.51
1:0:765:C:H6	1:0:1772:C:O2	1.94	0.51
1:0:1253:C:H6	1:0:1253:C:C5'	2.21	0.51
1:0:1440:G:C3'	1:0:1441:A:C5'	2.57	0.51
1:0:1715:A:H2'	1:0:1716:G:H3'	1.91	0.51
1:0:1771:A:O2'	1:0:1772:C:OP1	2.24	0.51
1:0:1873:A:C2	1:0:2214:G:H1'	2.46	0.51
1:0:1880:G:H2'	1:0:1881:U:C6	2.46	0.51
1:0:1977:C:H2'	1:0:1978:U:H6	1.76	0.51
1:0:2498:U:C5	1:0:2520:A:C6	2.98	0.51
1:0:2580:C:H5''	1:0:2581:A:OP2	2.10	0.51
1:0:2713:A:O2'	1:0:2714:A:C5'	2.58	0.51
1:0:2790:C:H2'	1:0:2791:C:H6	1.75	0.51
1:0:2837:G:C4	1:0:2838:U:C5	2.99	0.51
1:0:104:C:H2'	1:0:105:G:C5'	2.41	0.51
1:0:204:A:H61	1:0:423:G:H21	1.58	0.51
1:0:485:G:O6	1:0:520:C:N4	2.44	0.51
1:0:757:U:H2'	1:0:758:G:O4'	2.10	0.51
1:0:1167:A:O4'	1:0:1167:A:P	2.69	0.51
1:0:1242:A:H2'	1:0:1243:G:H8	1.76	0.51
1:0:1815:G:O2'	1:0:1816:G:H5'	2.11	0.51
1:0:1947:G:C5'	1:0:1948:C:OP2	2.58	0.51
1:0:2177:U:H2'	1:0:2178:U:H6	1.73	0.51
1:0:2540:A:C2'	1:0:2541:U:O5'	2.57	0.51
1:0:2565:C:O2'	1:0:2566:A:H5'	2.09	0.51
1:0:2705:A:O2'	1:0:2706:U:C6	2.63	0.51
1:0:2795:A:H3'	1:0:2795:A:N3	2.26	0.51
1:0:19:C:H2'	1:0:20:C:H6	1.75	0.51
1:0:27:G:H1'	1:0:523:A:H62	1.76	0.51
1:0:75:C:C2'	1:0:76:C:H5''	2.40	0.51
1:0:305:A:C2'	1:0:306:G:H5'	2.39	0.51
1:0:317:U:C3'	1:0:318:G:H5''	2.41	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:365:U:O2'	1:0:366:U:H5'	2.11	0.51
1:0:1033:G:C6	1:0:1151:U:C5	2.99	0.51
1:0:1154:A:H2'	1:0:1155:G:OP1	2.10	0.51
1:0:1288:A:H61	1:0:1309:G:H5'	1.75	0.51
1:0:1385:C:H2'	1:0:1386:A:O4'	2.11	0.51
1:0:1674:C:H2'	1:0:1675:C:H6	1.75	0.51
1:0:2758:A:O2'	1:0:2759:U:P	2.68	0.51
1:0:234:C:O2'	1:0:235:C:H5'	2.10	0.51
1:0:442:A:C6	1:0:443:A:N6	2.79	0.51
1:0:1553:G:H8	1:0:1553:G:O5'	1.94	0.51
1:0:1872:A:H1'	1:0:2069:U:O2'	2.10	0.51
1:0:123:A:O2'	1:0:124:A:OP1	2.28	0.51
1:0:219:G:O2'	1:0:220:U:OP2	2.27	0.51
1:0:224:G:H4'	1:0:399:G:C6	2.46	0.51
1:0:304:A:H2'	1:0:305:A:H5''	1.92	0.51
1:0:649:G:C5	1:0:650:U:C5	2.99	0.51
1:0:1312:G:H5''	1:0:1313:U:H5''	1.93	0.51
1:0:1512:A:H2'	1:0:1514:C:H5	1.75	0.51
1:0:2057:U:H4'	1:0:2577:A:O4'	2.11	0.51
1:0:2447:G:C8	1:0:2455:A:N1	2.79	0.51
1:0:2551:A:O2'	1:0:2552:C:P	2.69	0.51
1:0:58:C:H3'	1:0:59:G:H5''	1.91	0.51
1:0:87:G:H2'	1:0:87:G:N3	2.24	0.51
1:0:246:C:P	1:0:372:U:O2'	2.68	0.51
1:0:328:A:H2'	1:0:329:C:H6	1.75	0.51
1:0:403:A:H5''	1:0:404:A:OP1	2.11	0.51
1:0:404:A:C5	1:0:405:C:C4	2.99	0.51
1:0:465:C:O2'	1:0:483:A:N6	2.43	0.51
1:0:537:C:C5	1:0:2759:U:H2'	2.45	0.51
1:0:687:G:O2'	1:0:688:A:H5'	2.11	0.51
1:0:1314:A:C2'	1:0:1315:A:H3'	2.41	0.51
1:0:1586:A:N6	1:0:1587:A:N6	2.59	0.51
1:0:1816:G:H2'	1:0:1817:U:H6	1.76	0.51
1:0:1958:G:H2'	1:0:1959:U:C6	2.45	0.51
1:0:2736:U:O4	1:0:2739:G:C6	2.64	0.51
1:0:82:G:O2'	1:0:83:A:C8	2.58	0.51
1:0:538:A:C2	1:0:2026:C:C5'	2.87	0.51
1:0:568:G:H2'	1:0:569:C:O4'	2.11	0.51
1:0:697:G:C6	1:0:788:G:C5	2.99	0.51
1:0:830:C:H2'	1:0:831:G:C8	2.46	0.51
1:0:861:G:N3	1:0:944:A:H1'	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:921:A:N1	1:0:924:C:H1'	2.26	0.51
1:0:994:A:N6	1:0:995:A:C2	2.79	0.51
1:0:1383:C:C2	1:0:1384:G:C8	2.99	0.51
1:0:1866:G:H8	1:0:1866:G:O5'	1.94	0.51
1:0:2109:A:H2'	1:0:2110:G:O4'	2.11	0.51
1:0:2238:G:H1'	1:0:2406:C:C2	2.46	0.51
1:0:2503:G:C2'	1:0:2504:G:H5''	2.39	0.51
1:0:67:G:C4	1:0:68:C:C6	2.99	0.50
1:0:813:A:HO2'	1:0:814:G:H8	1.58	0.50
1:0:976:C:O4'	1:0:2252:A:N3	2.44	0.50
1:0:1016:C:C4	1:0:1154:A:N3	2.79	0.50
1:0:1029:C:C2'	1:0:1030:U:H5''	2.40	0.50
1:0:1164:C:N3	1:0:1165:G:C4	2.79	0.50
1:0:1265:G:C2'	1:0:1266:G:O5'	2.59	0.50
1:0:1345:G:C4	1:0:1625:A:N6	2.78	0.50
1:0:1530:U:HO2'	1:0:1531:C:C5'	2.23	0.50
1:0:1574:A:HO2'	1:0:1575:C:P	2.33	0.50
1:0:1759:A:O2'	1:0:1760:G:H5'	2.11	0.50
1:0:1776:A:H4'	1:0:1965:U:O2'	2.11	0.50
1:0:2026:C:H2'	1:0:2027:C:H6	1.76	0.50
1:0:2228:U:H4'	1:0:2229:G:OP1	2.11	0.50
1:0:2290:A:O2'	1:0:2291:U:H5'	2.11	0.50
1:0:2701:A:H2'	1:0:2702:G:O4'	2.10	0.50
1:0:192:G:C1'	1:0:193:A:H4'	2.41	0.50
1:0:314:G:H2'	1:0:315:G:H8	1.75	0.50
1:0:1001:A:H1'	1:0:1167:A:C2	2.46	0.50
1:0:1445:A:H2'	1:0:1446:U:O4'	2.11	0.50
1:0:1698:C:O2'	1:0:1753:A:C2'	2.59	0.50
1:0:1779:C:H2'	1:0:1780:A:C8	2.47	0.50
1:0:1844:C:C2'	1:0:1845:A:H5'	2.41	0.50
1:0:2094:C:N4	1:0:2162:C:N3	2.59	0.50
1:0:2652:G:C4	1:0:2653:A:C8	2.98	0.50
1:0:327:C:C2'	1:0:328:A:H5'	2.42	0.50
1:0:583:C:O2'	1:0:584:A:P	2.68	0.50
1:0:874:A:H2'	1:0:875:G:O4'	2.11	0.50
1:0:1014:G:N3	1:0:1021:A:C2	2.79	0.50
1:0:1223:G:H4'	1:0:1224:A:C5'	2.41	0.50
1:0:1313:U:C4'	1:0:1314:A:O5'	2.53	0.50
1:0:1973:C:C6	1:0:1973:C:C3'	2.94	0.50
1:0:2278:A:H2'	1:0:2279:G:C8	2.47	0.50
1:0:2350:G:C6	1:0:2351:G:N7	2.79	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2496:C:HO2'	1:0:2497:A:P	2.31	0.50
1:0:2661:G:C2'	1:0:2662:C:O5'	2.59	0.50
1:0:333:A:H4'	1:0:351:A:O4'	2.11	0.50
1:0:342:G:O2'	1:0:343:A:C5'	2.59	0.50
1:0:861:G:C2	1:0:944:A:H1'	2.47	0.50
1:0:1033:G:O2'	1:0:1034:U:P	2.70	0.50
1:0:1435:G:N2	1:0:1512:A:C2	2.79	0.50
1:0:1746:A:C2'	1:0:1747:G:O5'	2.60	0.50
1:0:1918:G:H4'	1:0:1920:A:C2	2.47	0.50
1:0:2241:U:C2	1:0:2242:C:C5	3.00	0.50
1:0:2652:G:O2'	1:0:2653:A:H5'	2.11	0.50
1:0:2818:G:O2'	1:0:2819:G:H5'	2.12	0.50
1:0:68:C:H2'	1:0:69:G:O5'	2.11	0.50
1:0:137:A:H2'	1:0:138:G:H5'	1.94	0.50
1:0:203:G:N2	1:0:204:A:C2	2.80	0.50
1:0:225:G:N2	1:0:2410:U:H4'	2.25	0.50
1:0:625:A:O5'	1:0:625:A:C8	2.64	0.50
1:0:1000:G:HO2'	1:0:1001:A:P	2.34	0.50
1:0:1141:U:HO2'	1:0:1142:G:P	2.34	0.50
1:0:1257:U:O2'	1:0:1258:G:H5'	2.12	0.50
1:0:1548:U:H2'	1:0:1549:C:C5	2.47	0.50
1:0:1730:G:H2'	1:0:1731:C:C6	2.47	0.50
1:0:1869:A:H2'	1:0:1870:U:O4'	2.12	0.50
1:0:94:C:H2'	1:0:95:G:O4'	2.11	0.50
1:0:647:G:H4'	1:0:649:G:O3'	2.11	0.50
1:0:697:G:HO2'	1:0:801:A:N6	2.08	0.50
1:0:700:C:H2'	1:0:701:U:C6	2.46	0.50
1:0:846:A:H2'	1:0:847:C:C6	2.47	0.50
1:0:1089:C:C2	1:0:1099:A:H4'	2.46	0.50
1:0:1242:A:H2'	1:0:1243:G:C8	2.47	0.50
1:0:1436:G:H8	1:0:1436:G:O5'	1.95	0.50
1:0:1772:C:O2'	1:0:1773:C:C5'	2.60	0.50
1:0:2464:G:O2'	1:0:2465:G:H5'	2.10	0.50
1:0:2563:U:O5'	1:0:2563:U:H6	1.94	0.50
1:0:67:G:C2	1:0:72:A:C2	2.99	0.50
1:0:85:C:H2'	1:0:86:U:O4'	2.11	0.50
1:0:402:A:H5''	1:0:403:A:OP2	2.12	0.50
1:0:1016:C:OP2	1:0:1023:U:H5'	2.11	0.50
1:0:1055:A:H2	1:0:1121:G:H2'	1.77	0.50
1:0:1089:C:H2'	1:0:1099:A:H5'	1.94	0.50
1:0:1134:C:O2'	1:0:1135:C:H5'	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1225:G:H1'	1:0:1250:A:H61	1.77	0.50
1:0:1314:A:O2'	1:0:1315:A:H3'	2.12	0.50
1:0:1337:G:N2	1:0:1344:C:C2	2.80	0.50
1:0:1416:A:O2'	1:0:1417:C:H5'	2.11	0.50
1:0:1861:G:C2'	1:0:1862:C:H5'	2.41	0.50
1:0:2498:U:C5	1:0:2520:A:C5	3.00	0.50
1:0:2748:C:N4	1:0:2749:A:N6	2.59	0.50
1:0:63:A:C5	1:0:64:C:C5	3.00	0.50
1:0:115:G:C6	1:0:117:A:N6	2.79	0.50
1:0:298:C:H2'	1:0:299:C:H6	1.76	0.50
1:0:978:U:H2'	1:0:979:A:H8	1.77	0.50
1:0:1080:A:H5''	1:0:1081:A:N7	2.26	0.50
1:0:1485:U:H2'	1:0:1486:A:H8	1.74	0.50
1:0:1572:C:C2'	1:0:1573:G:C5'	2.84	0.50
1:0:1624:A:N7	1:0:1627:C:C4	2.80	0.50
1:0:1755:G:N2	1:0:1756:C:C2	2.80	0.50
1:0:1912:G:H3'	1:0:1912:G:N3	2.27	0.50
1:0:2176:U:H2'	1:0:2177:U:H5'	1.94	0.50
1:0:2231:G:H2'	1:0:2232:G:C8	2.46	0.50
1:0:2264:C:H4'	1:0:2267:A:H62	1.77	0.50
1:0:1:G:O2'	1:0:2:G:H5'	2.12	0.50
1:0:29:U:O5'	1:0:29:U:C6	2.50	0.50
1:0:51:A:H2	1:0:155:G:N3	2.10	0.50
1:0:161:U:H5'	1:0:193:A:N1	2.27	0.50
1:0:299:C:H2'	1:0:300:C:C5	2.47	0.50
1:0:594:G:C5	1:0:1264:C:C4	3.00	0.50
1:0:1064:C:H2'	1:0:1065:A:C8	2.47	0.50
1:0:1106:A:N3	1:0:1106:A:H2'	2.27	0.50
1:0:1279:G:N2	1:0:1995:G:C8	2.80	0.50
1:0:2063:A:C6	1:0:2220:A:C6	3.00	0.50
1:0:2274:C:H2'	1:0:2275:U:H5'	1.94	0.50
1:0:2381:A:H5'	1:0:2382:C:OP1	2.11	0.50
1:0:123:A:C2'	1:0:124:A:OP1	2.59	0.49
1:0:305:A:H2'	1:0:306:G:C5'	2.42	0.49
1:0:787:A:H2'	1:0:788:G:O4'	2.11	0.49
1:0:1279:G:O2'	1:0:1280:U:OP2	2.30	0.49
1:0:1373:G:H2'	1:0:1374:G:H5'	1.94	0.49
1:0:1397:A:O5'	1:0:1397:A:H8	1.95	0.49
1:0:1407:G:C2	1:0:1408:A:C4	2.99	0.49
1:0:1463:A:H1'	1:0:1543:G:C2	2.43	0.49
1:0:1474:A:C2	1:0:1476:G:C6	2.99	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1927:U:H5'	1:0:1938:U:O2	2.11	0.49
1:0:1938:U:O2'	1:0:1939:U:P	2.70	0.49
1:0:2176:U:H2'	1:0:2177:U:O4'	2.11	0.49
1:0:2306:A:O2'	1:0:2307:A:O4'	2.18	0.49
1:0:2548:G:O2'	1:0:2549:G:H5'	2.12	0.49
1:0:2826:C:H2'	1:0:2827:G:H5'	1.93	0.49
1:0:61:U:C4	1:0:62:U:C4	3.00	0.49
1:0:358:C:O5'	1:0:358:C:H6	1.95	0.49
1:0:520:C:N4	1:0:521:U:C4	2.81	0.49
1:0:788:G:H5''	1:0:790:A:C1'	2.38	0.49
1:0:876:A:H2'	1:0:877:G:C8	2.48	0.49
1:0:921:A:O2'	1:0:923:A:OP2	2.20	0.49
1:0:1179:A:H2'	1:0:1180:A:C8	2.47	0.49
1:0:1429:A:H61	1:0:1600:U:H4'	1.77	0.49
1:0:1715:A:H2'	1:0:1716:G:H5''	1.93	0.49
1:0:2751:C:H2'	1:0:2752:C:C6	2.46	0.49
1:0:2871:U:N3	1:0:2872:U:O4	2.45	0.49
1:0:649:G:H2'	1:0:650:U:H6	1.77	0.49
1:0:968:C:N4	1:0:970:A:C2	2.80	0.49
1:0:1197:U:H2'	1:0:1198:C:O4'	2.12	0.49
1:0:1345:G:N3	1:0:1625:A:C2	2.80	0.49
1:0:1481:U:O5'	1:0:1481:U:H6	1.95	0.49
1:0:1738:U:H2'	1:0:1739:G:H8	1.77	0.49
1:0:1762:C:C2	1:0:1763:G:C8	3.00	0.49
1:0:1825:C:C2'	1:0:1826:U:H5'	2.41	0.49
1:0:2204:A:O2'	1:0:2205:C:OP2	2.30	0.49
1:0:2324:G:N3	1:0:2326:C:H5	2.11	0.49
1:0:2661:G:H2'	1:0:2662:C:C5'	2.42	0.49
1:0:2696:A:C2'	1:0:2697:G:H5'	2.41	0.49
1:0:2779:C:H2'	1:0:2780:A:C8	2.47	0.49
1:0:537:C:C2	1:0:2759:U:N3	2.80	0.49
1:0:541:C:N4	1:0:572:G:C1'	2.75	0.49
1:0:577:U:H4'	1:0:956:A:H61	1.77	0.49
1:0:581:A:N3	1:0:582:G:H1'	2.28	0.49
1:0:670:U:H2'	1:0:671:A:C8	2.47	0.49
1:0:689:A:H8	1:0:2052:G:H21	1.56	0.49
1:0:959:C:H2'	1:0:960:U:C6	2.47	0.49
1:0:1440:G:O6	1:0:1441:A:N7	2.45	0.49
1:0:1459:U:H6	1:0:1459:U:P	2.36	0.49
1:0:1823:G:C6	1:0:1824:C:N4	2.80	0.49
1:0:1922:U:O2'	1:0:2571:G:C1'	2.60	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2104:G:H2'	1:0:2105:U:H6	1.77	0.49
1:0:2371:A:H2'	1:0:2372:A:O4'	2.12	0.49
1:0:2543:A:C2	1:0:2626:U:H4'	2.47	0.49
1:0:2674:C:H2'	1:0:2675:U:H6	1.77	0.49
1:0:2832:G:N2	1:0:2835:A:OP2	2.42	0.49
1:0:69:G:C5'	1:0:70:A:OP1	2.59	0.49
1:0:192:G:C4'	1:0:193:A:H4'	2.43	0.49
1:0:353:G:O2'	1:0:354:C:H5'	2.11	0.49
1:0:541:C:O2'	1:0:542:A:P	2.71	0.49
1:0:564:U:H2'	1:0:565:A:C8	2.47	0.49
1:0:1354:A:OP1	1:0:1354:A:O4'	2.31	0.49
1:0:1407:G:N2	1:0:1408:A:N3	2.61	0.49
1:0:1424:U:C4	1:0:1425:G:N7	2.80	0.49
1:0:1761:G:N7	1:0:1762:C:C5	2.81	0.49
1:0:1920:A:C4	1:0:1922:U:H5	2.31	0.49
1:0:2597:G:O2'	1:0:2598:C:H5'	2.13	0.49
1:0:2785:A:H2'	1:0:2786:G:C5'	2.38	0.49
1:0:147:G:O5'	1:0:147:G:H8	1.95	0.49
1:0:299:C:H2'	1:0:300:C:C6	2.47	0.49
1:0:469:G:H2'	1:0:480:G:O6	2.12	0.49
1:0:635:C:H2'	1:0:636:G:H5''	1.95	0.49
1:0:796:A:C8	1:0:796:A:C3'	2.93	0.49
1:0:1355:A:O2'	1:0:1356:G:OP1	2.29	0.49
1:0:1698:C:H1'	1:0:1754:G:C5'	2.42	0.49
1:0:1761:G:H2'	1:0:1762:C:H6	1.78	0.49
1:0:2104:G:H2'	1:0:2105:U:C6	2.48	0.49
1:0:2183:C:O2'	1:0:2184:C:H5'	2.13	0.49
1:0:2685:A:C2	1:0:2686:C:C2	2.99	0.49
1:0:79:G:O2'	1:0:80:A:H5'	2.12	0.49
1:0:402:A:C8	1:0:2392:G:H4'	2.47	0.49
1:0:455:A:H1'	1:0:1215:A:O4'	2.13	0.49
1:0:491:A:H5'	1:0:491:A:H8	1.77	0.49
1:0:1030:U:C5	1:0:1153:A:N6	2.72	0.49
1:0:1344:C:N4	1:0:1346:C:O2	2.46	0.49
1:0:1418:C:H2'	1:0:1419:G:C8	2.47	0.49
1:0:1464:A:H2'	1:0:1465:G:O4'	2.13	0.49
1:0:1742:G:H2'	1:0:1743:C:C6	2.48	0.49
1:0:2280:A:H2'	1:0:2281:C:C6	2.48	0.49
1:0:2563:U:C3'	1:0:2564:U:H5''	2.42	0.49
1:0:82:G:H22	1:0:100:G:H2'	1.78	0.49
1:0:131:C:H2'	1:0:132:U:O4'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:177:U:O4	1:0:225:G:C6	2.66	0.49
1:0:437:G:N2	1:0:438:G:C4	2.81	0.49
1:0:459:A:N7	1:0:484:G:C5	2.81	0.49
1:0:547:U:H2'	1:0:548:G:C8	2.45	0.49
1:0:682:G:H5''	1:0:683:A:OP2	2.13	0.49
1:0:819:C:O3'	1:0:843:G:N2	2.45	0.49
1:0:1066:G:H2'	1:0:1067:G:H4'	1.93	0.49
1:0:1313:U:HO2'	1:0:1314:A:P	2.35	0.49
1:0:1385:C:H2'	1:0:1386:A:H8	1.76	0.49
1:0:1488:G:C4	1:0:1536:G:N2	2.80	0.49
1:0:1684:G:HO2'	1:0:1685:A:P	2.30	0.49
1:0:1975:G:C5	1:0:1980:A:N6	2.80	0.49
1:0:2563:U:H2'	1:0:2564:U:C5'	2.40	0.49
1:0:2761:A:H5'	1:0:2762:G:H5'	1.91	0.49
1:0:7:G:N2	1:0:8:A:N3	2.61	0.49
1:0:53:G:H2'	1:0:54:G:O5'	2.13	0.49
1:0:389:G:H2'	1:0:390:U:C6	2.47	0.49
1:0:735:G:H2'	1:0:736:G:O4'	2.13	0.49
1:0:929:A:H5''	1:0:2247:A:N6	2.28	0.49
1:0:1629:G:N1	1:0:1633:C:H2'	2.24	0.49
1:0:1695:U:O2	1:0:1974:U:H1'	2.12	0.49
1:0:1977:C:N3	1:0:1978:U:C5	2.81	0.49
1:0:2457:A:H2'	1:0:2458:U:O4'	2.12	0.49
1:0:5:A:C2	1:0:2873:G:C2	3.00	0.49
1:0:163:A:O2'	1:0:164:G:H5'	2.13	0.49
1:0:498:C:C5	1:0:499:G:N7	2.81	0.49
1:0:539:A:N6	1:0:2024:U:C2	2.80	0.49
1:0:992:A:H5''	1:0:993:C:OP2	2.13	0.49
1:0:1153:A:C5'	1:0:1154:A:OP1	2.46	0.49
1:0:1249:G:O2'	1:0:1250:A:P	2.70	0.49
1:0:1280:U:C5	1:0:1995:G:N3	2.65	0.49
1:0:1353:A:N3	1:0:1618:U:C5	2.80	0.49
1:0:1541:G:O2'	1:0:1542:G:H5'	2.12	0.49
1:0:1762:C:N3	1:0:1763:G:N7	2.61	0.49
1:0:1859:A:H2'	1:0:1860:A:H8	1.78	0.49
1:0:2161:C:O2'	1:0:2162:C:P	2.71	0.49
1:0:2204:A:H4'	1:0:2205:C:C6	2.48	0.49
1:0:2325:A:O2'	1:0:2326:C:P	2.70	0.49
1:0:2746:G:H2'	1:0:2746:G:N3	2.28	0.49
1:0:431:G:H2'	1:0:432:C:H6	1.76	0.48
1:0:540:G:C6	1:0:2006:G:OP1	2.66	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:631:G:O5'	1:0:631:G:C8	2.61	0.48
1:0:704:G:H2'	1:0:705:C:C6	2.48	0.48
1:0:832:A:OP2	1:0:1201:G:N1	2.43	0.48
1:0:988:G:C2	1:0:998:C:C2	3.01	0.48
1:0:1332:G:C2	1:0:1333:G:C2	3.01	0.48
1:0:1628:C:C4	1:0:1629:G:C8	3.01	0.48
1:0:1710:U:H5''	1:0:1711:C:OP2	2.13	0.48
1:0:1871:G:N3	1:0:1871:G:C3'	2.74	0.48
1:0:2471:U:N3	1:0:2472:U:C4	2.81	0.48
1:0:2610:G:H5'	1:0:2866:A:C4'	2.43	0.48
1:0:242:A:N6	1:0:441:A:C8	2.81	0.48
1:0:617:U:N1	1:0:632:A:N6	2.60	0.48
1:0:678:G:H2'	1:0:679:C:H6	1.77	0.48
1:0:734:G:H2'	1:0:735:G:H8	1.77	0.48
1:0:787:A:H3'	1:0:787:A:H8	1.77	0.48
1:0:1036:G:N3	1:0:1145:C:O4'	2.46	0.48
1:0:1386:A:H2'	1:0:1387:G:O4'	2.14	0.48
1:0:2329:C:H3'	1:0:2330:G:H8	1.78	0.48
1:0:2394:G:C5	1:0:2395:C:C5	3.01	0.48
1:0:2761:A:H5''	1:0:2762:G:C5'	2.37	0.48
1:0:2824:C:H1'	1:0:2843:A:C4	2.48	0.48
1:0:2867:G:C8	1:0:2867:G:OP2	2.66	0.48
1:0:69:G:C4'	1:0:70:A:OP1	2.61	0.48
1:0:363:G:C6	1:0:364:G:N7	2.81	0.48
1:0:470:U:O4	1:0:481:A:C8	2.66	0.48
1:0:475:U:N3	1:0:801:A:C6	2.82	0.48
1:0:620:G:O2'	1:0:621:U:H5'	2.13	0.48
1:0:755:C:H2'	1:0:756:C:H6	1.78	0.48
1:0:768:U:C5	1:0:769:C:C5	3.01	0.48
1:0:793:G:C6	1:0:795:A:C2	3.01	0.48
1:0:808:C:O2'	1:0:809:C:H5'	2.13	0.48
1:0:822:G:O2'	1:0:823:U:H5'	2.13	0.48
1:0:863:C:H2'	1:0:864:C:C6	2.49	0.48
1:0:1408:A:H2	1:0:1411:C:C2	2.31	0.48
1:0:1682:A:N6	1:0:1683:G:C6	2.81	0.48
1:0:1793:A:C6	1:0:1794:A:C6	3.01	0.48
1:0:1833:U:H2'	1:0:1834:G:C8	2.47	0.48
1:0:1908:C:H2'	1:0:1909:U:C4'	2.25	0.48
1:0:2073:A:C6	1:0:2074:U:O4	2.66	0.48
1:0:2540:A:H2'	1:0:2541:U:O5'	2.13	0.48
1:0:2595:C:O2'	1:0:2596:C:H5'	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2738:A:OP2	1:0:2739:G:OP2	2.31	0.48
1:0:2784:A:C5	1:0:2866:A:N6	2.81	0.48
1:0:13:A:O2'	1:0:15:G:N7	2.45	0.48
1:0:21:A:N6	1:0:530:G:O6	2.46	0.48
1:0:24:G:C2	1:0:25:U:C2	3.01	0.48
1:0:344:G:C2	1:0:345:U:C6	3.01	0.48
1:0:524:A:O2'	1:0:525:A:H5'	2.13	0.48
1:0:1089:C:O2	1:0:1099:A:H4'	2.13	0.48
1:0:1169:C:H2'	1:0:1170:U:H5'	1.95	0.48
1:0:1669:A:H5'	1:0:1670:G:OP2	2.13	0.48
1:0:1772:C:O2'	1:0:1773:C:H5'	2.13	0.48
1:0:2047:C:N4	1:0:2425:G:N1	2.55	0.48
1:0:2204:A:OP2	1:0:2204:A:C8	2.64	0.48
1:0:2790:C:H2'	1:0:2791:C:C6	2.47	0.48
1:0:110:U:H6	1:0:110:U:H5'	1.78	0.48
1:0:118:U:C2'	1:0:119:G:OP2	2.61	0.48
1:0:396:U:O4	1:0:398:C:C2	2.67	0.48
1:0:441:A:H2'	1:0:442:A:C4'	2.43	0.48
1:0:787:A:C2'	1:0:788:G:O4'	2.61	0.48
1:0:994:A:N7	1:0:995:A:C5	2.82	0.48
1:0:1181:C:H3'	1:0:1182:U:H5''	1.95	0.48
1:0:1225:G:H1'	1:0:1250:A:N6	2.29	0.48
1:0:1585:A:H2'	1:0:1586:A:C8	2.48	0.48
1:0:1782:A:H2'	1:0:1783:G:O4'	2.13	0.48
1:0:2066:G:H2'	1:0:2067:U:O4'	2.12	0.48
1:0:2281:C:H2'	1:0:2282:G:H8	1.79	0.48
1:0:2484:G:C2'	1:0:2485:U:OP2	2.62	0.48
1:0:2517:C:H2'	1:0:2518:C:H6	1.79	0.48
1:0:2823:G:O2'	1:0:2824:C:C6	2.66	0.48
1:0:41:G:O2'	1:0:42:G:H5'	2.14	0.48
1:0:65:C:H2'	1:0:66:U:O4'	2.13	0.48
1:0:176:A:N6	1:0:2410:U:C2	2.81	0.48
1:0:554:U:O3'	1:0:555:U:H4'	2.13	0.48
1:0:668:A:C2'	1:0:669:G:C4'	2.91	0.48
1:0:778:G:H2'	1:0:779:U:H6	1.79	0.48
1:0:836:G:H1	1:0:847:C:H42	1.61	0.48
1:0:837:U:O2'	1:0:838:A:H5'	2.14	0.48
1:0:929:A:C2	1:0:930:A:H1'	2.48	0.48
1:0:953:G:H1'	1:0:1203:A:C2	2.49	0.48
1:0:955:G:H5''	1:0:956:A:C5'	2.43	0.48
1:0:959:C:H2'	1:0:960:U:H6	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1166:A:C3'	1:0:1167:A:H5''	2.43	0.48
1:0:1226:A:H1'	1:0:1250:A:H2	1.76	0.48
1:0:1226:A:C8	1:0:1250:A:C2	3.02	0.48
1:0:1311:C:O2'	1:0:1312:G:H5'	2.14	0.48
1:0:1534:A:C2'	1:0:1535:C:H5'	2.44	0.48
1:0:1692:C:C2'	1:0:1693:A:H5'	2.43	0.48
1:0:1791:C:O2'	1:0:1792:C:P	2.71	0.48
1:0:2594:U:H5'	1:0:2594:U:C6	2.47	0.48
1:0:5:A:H2'	1:0:6:A:O4'	2.13	0.48
1:0:541:C:N4	1:0:572:G:N9	2.62	0.48
1:0:986:A:H1'	1:0:1001:A:C2	2.49	0.48
1:0:1349:A:H2'	1:0:1350:G:H8	1.79	0.48
1:0:1548:U:H2'	1:0:1549:C:C6	2.48	0.48
1:0:1570:C:O2'	1:0:1571:G:OP1	2.28	0.48
1:0:1658:A:H2'	1:0:1659:G:O4'	2.14	0.48
1:0:1816:G:H2'	1:0:1817:U:C6	2.49	0.48
1:0:1870:U:O5'	1:0:1870:U:H6	1.96	0.48
1:0:2071:G:O2'	1:0:2072:C:H5'	2.14	0.48
1:0:2660:C:C2	1:0:2704:U:C4	3.01	0.48
1:0:2690:A:OP1	1:0:2691:C:O3'	2.32	0.48
1:0:2825:A:H2'	1:0:2826:C:C6	2.48	0.48
1:0:2876:C:C2'	1:0:2877:A:H5'	2.43	0.48
1:0:4:C:C2	1:0:5:A:C8	3.01	0.48
1:0:58:C:C4	1:0:72:A:C6	3.02	0.48
1:0:487:G:H4'	1:0:512:A:H61	1.78	0.48
1:0:649:G:N2	1:0:660:G:N2	2.62	0.48
1:0:698:A:H1'	1:0:700:C:H5	1.79	0.48
1:0:763:A:C2	1:0:766:A:H1'	2.49	0.48
1:0:1158:A:C2'	1:0:1159:U:O4'	2.51	0.48
1:0:1344:C:C4	1:0:1346:C:C2	3.01	0.48
1:0:1349:A:C4	1:0:1350:G:C8	3.00	0.48
1:0:1536:G:N7	1:0:1537:U:C5	2.81	0.48
1:0:1680:U:HO2'	1:0:1681:A:C5'	2.27	0.48
1:0:1834:G:H2'	1:0:1835:C:H6	1.78	0.48
1:0:1975:G:O2'	1:0:1976:U:OP2	2.32	0.48
1:0:2324:G:O2'	1:0:2325:A:OP2	2.28	0.48
1:0:2459:C:H2'	1:0:2460:G:H5'	1.94	0.48
1:0:2627:G:H2'	1:0:2628:C:O4'	2.14	0.48
1:0:173:A:H61	1:0:844:G:N2	2.02	0.48
1:0:194:G:O6	1:0:195:A:N6	2.47	0.48
1:0:336:A:H2'	1:0:337:G:H8	1.79	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:490:A:N6	1:0:492:G:C2	2.81	0.48
1:0:541:C:N4	1:0:2001:G:C2	2.82	0.48
1:0:544:U:OP2	1:0:544:U:H6	1.97	0.48
1:0:674:U:H2'	1:0:675:C:O4'	2.14	0.48
1:0:1351:G:C2	1:0:1352:G:H1'	2.49	0.48
1:0:1448:A:C5	1:0:1576:G:N2	2.81	0.48
1:0:1469:U:P	1:0:1471:G:OP2	2.72	0.48
1:0:1625:A:H4'	1:0:1625:A:OP2	2.14	0.48
1:0:1804:U:H2'	1:0:1805:G:C8	2.42	0.48
1:0:1982:C:H4'	1:0:2703:C:O2	2.13	0.48
1:0:2324:G:N2	1:0:2361:G:C4	2.82	0.48
1:0:2421:C:N3	1:0:2422:C:C5	2.82	0.48
1:0:2431:C:O2	1:0:2431:C:H2'	2.12	0.48
1:0:706:A:H2'	1:0:707:U:O4'	2.14	0.48
1:0:728:G:H3'	1:0:729:A:H8	1.78	0.48
1:0:954:U:O4	1:0:955:G:N2	2.47	0.48
1:0:1225:G:HO2'	1:0:1226:A:H8	1.62	0.48
1:0:1241:G:C2	1:0:1242:A:C8	3.02	0.48
1:0:1325:U:H5''	1:0:1326:U:OP1	2.13	0.48
1:0:1333:G:H22	1:0:1344:C:H5	1.62	0.48
1:0:1623:C:H4'	1:0:1624:A:H5'	1.96	0.48
1:0:1973:C:H3'	1:0:1973:C:H6	1.76	0.48
1:0:2075:U:C2	1:0:2204:A:O2'	2.64	0.48
1:0:2134:U:H2'	1:0:2135:C:H6	1.79	0.48
1:0:2216:G:O5'	1:0:2216:G:H8	1.96	0.48
1:0:2238:G:C2	1:0:2261:G:C6	3.02	0.48
1:0:4:C:H2'	1:0:5:A:C4'	2.44	0.47
1:0:18:U:H2'	1:0:19:C:H6	1.78	0.47
1:0:357:A:H2'	1:0:357:A:N3	2.29	0.47
1:0:392:G:C2	1:0:409:G:C6	3.02	0.47
1:0:617:U:C6	1:0:632:A:N6	2.82	0.47
1:0:788:G:H2'	1:0:807:A:N7	2.29	0.47
1:0:1089:C:H2'	1:0:1099:A:C4'	2.44	0.47
1:0:1104:G:H21	1:0:1109:A:N6	2.09	0.47
1:0:1277:G:C6	1:0:1278:A:N6	2.82	0.47
1:0:1283:C:H5''	1:0:1284:G:O5'	2.14	0.47
1:0:1435:G:N1	1:0:1436:G:C2	2.82	0.47
1:0:1978:U:C4	1:0:1979:C:N4	2.78	0.47
1:0:2217:G:H5''	1:0:2218:G:OP1	2.14	0.47
1:0:2225:G:N9	1:0:2405:A:H2	2.12	0.47
1:0:2235:G:N2	1:0:2254:C:C4	2.82	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2348:A:O2'	1:0:2349:G:H5'	2.14	0.47
1:0:2499:C:H2'	1:0:2500:C:C6	2.47	0.47
1:0:155:G:C4	1:0:156:G:C8	3.02	0.47
1:0:317:U:O2'	1:0:1224:A:N7	2.47	0.47
1:0:470:U:C5	1:0:480:G:N2	2.82	0.47
1:0:554:U:C2'	1:0:555:U:O4'	2.62	0.47
1:0:793:G:H21	1:0:796:A:H62	1.62	0.47
1:0:1074:G:H2'	1:0:1074:G:N3	2.29	0.47
1:0:1175:A:C2	1:0:1176:U:C2	3.02	0.47
1:0:1704:G:C2	1:0:1705:U:C6	3.03	0.47
1:0:1797:C:O2'	1:0:1798:G:H5'	2.14	0.47
1:0:1922:U:O2'	1:0:2571:G:H1'	2.14	0.47
1:0:2018:G:O2'	1:0:2019:C:P	2.72	0.47
1:0:2286:G:N3	1:0:2286:G:C2'	2.76	0.47
1:0:2388:G:C6	1:0:2389:G:N7	2.81	0.47
1:0:2394:G:C4	1:0:2395:C:C6	3.02	0.47
1:0:2436:U:O2	1:0:2474:G:C2	2.66	0.47
1:0:2550:C:N4	1:0:2553:G:C8	2.81	0.47
1:0:2779:C:N4	1:0:2780:A:N6	2.63	0.47
1:0:2791:C:C2	1:0:2806:G:N2	2.83	0.47
1:0:172:A:C2	1:0:178:C:N3	2.82	0.47
1:0:356:A:O2'	1:0:357:A:H5'	2.14	0.47
1:0:697:G:N1	1:0:807:A:C2	2.82	0.47
1:0:813:A:C4	1:0:815:A:O4'	2.66	0.47
1:0:1171:A:H2'	1:0:1172:U:H6	1.80	0.47
1:0:1214:C:O2	1:0:1259:A:C2	2.68	0.47
1:0:1277:G:O5'	1:0:1277:G:C8	2.63	0.47
1:0:1682:A:C2'	1:0:1683:G:H5'	2.45	0.47
1:0:1790:G:HO2'	1:0:1791:C:P	2.37	0.47
1:0:1791:C:C4	1:0:1810:U:O2	2.67	0.47
1:0:1919:A:C6	1:0:1928:G:C4	3.01	0.47
1:0:2193:C:H2'	1:0:2194:A:O4'	2.14	0.47
1:0:2274:C:H2'	1:0:2274:C:O2	2.13	0.47
1:0:2324:G:H21	1:0:2326:C:H5	1.60	0.47
1:0:2426:G:O2'	1:0:2427:A:OP2	2.29	0.47
1:0:2663:U:C4	1:0:2664:G:N7	2.83	0.47
1:0:2757:G:C8	1:0:2757:G:C3'	2.94	0.47
1:0:48:A:N6	1:0:154:U:C4	2.73	0.47
1:0:434:C:C2'	1:0:435:A:OP2	2.62	0.47
1:0:573:C:H2'	1:0:574:C:O4'	2.14	0.47
1:0:627:A:H2'	1:0:628:A:H8	1.80	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:697:G:N1	1:0:788:G:C4	2.82	0.47
1:0:698:A:H1'	1:0:700:C:C5	2.50	0.47
1:0:1002:C:N4	1:0:1198:C:H42	2.13	0.47
1:0:1458:A:C3'	1:0:1459:U:H5'	2.44	0.47
1:0:1780:A:C5	1:0:1781:C:C5	3.03	0.47
1:0:1791:C:C2'	1:0:1792:C:OP2	2.63	0.47
1:0:1801:C:H3'	1:0:1802:A:C5'	2.44	0.47
1:0:1894:U:N3	1:0:1902:A:N6	2.61	0.47
1:0:1911:A:C2'	1:0:1912:G:H5'	2.44	0.47
1:0:2389:G:C2	1:0:2390:A:H1'	2.50	0.47
1:0:2392:G:H2'	1:0:2393:G:O4'	2.14	0.47
1:0:2674:C:H2'	1:0:2675:U:C6	2.50	0.47
1:0:43:A:H61	1:0:446:C:H42	1.61	0.47
1:0:198:A:N7	1:0:243:G:C6	2.82	0.47
1:0:337:G:H2'	1:0:338:G:H8	1.78	0.47
1:0:412:U:H2'	1:0:413:G:H5'	1.97	0.47
1:0:841:G:N7	1:0:842:A:N6	2.62	0.47
1:0:984:A:HO2'	1:0:1201:G:HO2'	1.57	0.47
1:0:1173:G:O2'	1:0:1174:G:H5'	2.14	0.47
1:0:1537:U:H2'	1:0:1538:A:C8	2.50	0.47
1:0:1621:C:H1'	1:0:1626:A:C4	2.50	0.47
1:0:2471:U:O2	1:0:2471:U:H2'	2.14	0.47
1:0:2510:A:N3	1:0:2637:C:O2'	2.46	0.47
1:0:2522:G:C6	1:0:2523:G:C6	3.03	0.47
1:0:2628:C:H2'	1:0:2629:U:H6	1.78	0.47
1:0:2652:G:N3	1:0:2653:A:C8	2.82	0.47
1:0:2660:C:N3	1:0:2704:U:C5	2.83	0.47
1:0:173:A:H2'	1:0:2051:U:H5	1.80	0.47
1:0:481:A:N1	1:0:482:A:C6	2.83	0.47
1:0:653:G:H8	1:0:653:G:H3'	1.78	0.47
1:0:859:U:H3'	1:0:859:U:H6	1.79	0.47
1:0:1433:A:N6	1:0:1434:U:N3	2.62	0.47
1:0:1900:U:O2'	1:0:1946:U:C5'	2.62	0.47
1:0:1982:C:O3'	1:0:2702:G:N2	2.48	0.47
1:0:2299:A:H2'	1:0:2299:A:N3	2.29	0.47
1:0:2389:G:N2	1:0:2390:A:H1'	2.30	0.47
1:0:2407:G:C5'	1:0:2408:G:OP1	2.61	0.47
1:0:2550:C:H2'	1:0:2551:A:OP1	2.13	0.47
1:0:5:A:C6	1:0:6:A:C5	3.02	0.47
1:0:25:U:H2'	1:0:26:G:O4'	2.14	0.47
1:0:30:G:N2	1:0:521:U:H1'	2.30	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:66:U:N3	1:0:67:G:O6	2.48	0.47
1:0:225:G:N3	1:0:2410:U:H4'	2.27	0.47
1:0:387:A:C5	1:0:388:G:C8	3.03	0.47
1:0:700:C:O2	1:0:801:A:H5'	2.14	0.47
1:0:824:U:O2'	1:0:1264:C:H1'	2.14	0.47
1:0:852:U:H2'	1:0:853:C:H6	1.77	0.47
1:0:862:A:O2'	1:0:863:C:H5'	2.15	0.47
1:0:865:A:H2'	1:0:866:U:H6	1.80	0.47
1:0:978:U:H2'	1:0:979:A:C8	2.50	0.47
1:0:1052:C:H2'	1:0:1053:G:H8	1.75	0.47
1:0:1125:G:O2'	1:0:1126:A:H5'	2.15	0.47
1:0:1181:C:H2'	1:0:1182:U:C5'	2.45	0.47
1:0:1218:C:H2'	1:0:1219:C:C6	2.50	0.47
1:0:1236:G:H2'	1:0:1238:A:OP2	2.15	0.47
1:0:1404:C:H42	1:0:1407:G:H8	1.61	0.47
1:0:1536:G:C8	1:0:1537:U:C5	3.03	0.47
1:0:1858:C:O2'	1:0:1859:A:H5'	2.14	0.47
1:0:2361:G:H8	1:0:2361:G:OP2	1.97	0.47
1:0:2437:G:O2'	1:0:2439:U:C4	2.66	0.47
1:0:2486:C:H2'	1:0:2487:G:C8	2.50	0.47
1:0:2837:G:H2'	1:0:2838:U:C6	2.49	0.47
1:0:30:G:C6	1:0:31:C:C4	3.03	0.47
1:0:48:A:C6	1:0:154:U:O4	2.68	0.47
1:0:68:C:C2'	1:0:69:G:O5'	2.63	0.47
1:0:224:G:H22	1:0:227:G:H3'	1.80	0.47
1:0:469:G:O2'	1:0:470:U:H5	1.98	0.47
1:0:638:A:C2'	1:0:639:G:H5'	2.45	0.47
1:0:698:A:C2'	1:0:699:G:OP2	2.62	0.47
1:0:704:G:H2'	1:0:705:C:H6	1.80	0.47
1:0:957:G:H2'	1:0:958:G:C8	2.46	0.47
1:0:1007:A:C6	1:0:1171:A:N1	2.83	0.47
1:0:1058:G:O2'	1:0:1121:G:N2	2.47	0.47
1:0:1195:U:H2'	1:0:1196:G:O4'	2.15	0.47
1:0:1849:G:N2	1:0:1869:A:N6	2.63	0.47
1:0:2050:G:N2	1:0:2052:G:C4	2.83	0.47
1:0:2225:G:C8	1:0:2405:A:H2	2.33	0.47
1:0:2428:U:HO2'	1:0:2429:A:H8	1.53	0.47
1:0:2685:A:N1	1:0:2686:C:C2	2.82	0.47
1:0:2858:A:C5'	1:0:2859:U:H5'	2.44	0.47
1:0:73:A:O2'	1:0:74:G:P	2.72	0.47
1:0:160:C:O2'	1:0:445:A:N3	2.35	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:406:G:C6	1:0:407:A:C6	3.03	0.47
1:0:708:G:C2	1:0:781:G:C5	3.03	0.47
1:0:710:C:O2'	1:0:711:C:H5'	2.15	0.47
1:0:1574:A:O2'	1:0:1575:C:H3'	2.15	0.47
1:0:1722:G:H2'	1:0:1723:U:O4'	2.15	0.47
1:0:1947:G:C6	1:0:1950:C:C4	3.03	0.47
1:0:2256:G:C6	1:0:2257:A:N7	2.83	0.47
1:0:2324:G:N3	1:0:2326:C:C5	2.83	0.47
1:0:2625:U:O5'	1:0:2625:U:C6	2.59	0.47
1:0:238:G:O4'	1:0:618:A:C2	2.68	0.47
1:0:697:G:C1'	1:0:801:A:N6	2.78	0.47
1:0:866:U:O2'	1:0:867:G:H5'	2.14	0.47
1:0:1160:C:O2	1:0:1161:U:C1'	2.63	0.47
1:0:1261:G:O2'	1:0:1262:U:OP1	2.18	0.47
1:0:1654:A:H4'	1:0:2690:A:HO2'	1.79	0.47
1:0:1811:A:N3	1:0:1813:A:N1	2.63	0.47
1:0:1856:U:H2'	1:0:1857:G:O4'	2.15	0.47
1:0:2265:A:O3'	1:0:2266:A:O4'	2.32	0.47
1:0:2394:G:N2	1:0:2395:C:H1'	2.30	0.47
1:0:27:G:O2'	1:0:28:A:P	2.74	0.46
1:0:30:G:C5	1:0:31:C:C5	3.03	0.46
1:0:83:A:C2	1:0:101:A:C5	3.03	0.46
1:0:341:A:C2	1:0:1223:G:H2'	2.47	0.46
1:0:591:G:H3'	1:0:592:G:H8	1.80	0.46
1:0:653:G:H3'	1:0:653:G:C8	2.50	0.46
1:0:787:A:O2'	1:0:790:A:N3	2.48	0.46
1:0:875:G:H8	1:0:875:G:O5'	1.98	0.46
1:0:1458:A:H2'	1:0:1459:U:H5'	1.97	0.46
1:0:1573:G:H5'	1:0:1573:G:H8	1.80	0.46
1:0:1825:C:H2'	1:0:1826:U:O4'	2.15	0.46
1:0:1845:A:C2	1:0:2212:U:H1'	2.50	0.46
1:0:1976:U:C2'	1:0:1977:C:H5'	2.45	0.46
1:0:2240:C:H2'	1:0:2241:U:C5'	2.45	0.46
1:0:2405:A:C2'	1:0:2406:C:OP1	2.62	0.46
1:0:2484:G:O2'	1:0:2485:U:O5'	2.30	0.46
1:0:2728:A:N7	1:0:2729:A:C6	2.83	0.46
1:0:65:C:O2'	1:0:66:U:H5'	2.15	0.46
1:0:398:C:O2'	1:0:399:G:OP2	2.23	0.46
1:0:539:A:H1'	1:0:540:G:C5	2.50	0.46
1:0:539:A:O2'	1:0:540:G:C8	2.63	0.46
1:0:541:C:H2'	1:0:542:A:OP1	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:931:G:H22	1:0:2247:A:H5'	1.78	0.46
1:0:972:C:O2'	1:0:973:U:OP1	2.32	0.46
1:0:1005:U:O2	1:0:1007:A:C8	2.68	0.46
1:0:1161:U:H2'	1:0:1162:A:H8	1.78	0.46
1:0:1737:G:H2'	1:0:1738:U:O4'	2.14	0.46
1:0:1886:G:H2'	1:0:1887:G:H8	1.80	0.46
1:0:1955:G:C2'	1:0:1956:G:H5'	2.44	0.46
1:0:2542:U:O2	1:0:2544:A:H8	1.98	0.46
1:0:12:U:O2	1:0:13:A:O4'	2.33	0.46
1:0:308:C:C2'	1:0:309:G:H5'	2.44	0.46
1:0:330:C:H2'	1:0:331:U:O4'	2.16	0.46
1:0:333:A:H5'	1:0:351:A:C1'	2.45	0.46
1:0:638:A:H61	1:0:647:G:H2'	1.81	0.46
1:0:698:A:C1'	1:0:700:C:C5	2.98	0.46
1:0:1002:C:C4	1:0:1198:C:N4	2.83	0.46
1:0:1032:A:C2	1:0:1034:U:C2	3.03	0.46
1:0:1033:G:N2	1:0:1035:G:N2	2.62	0.46
1:0:1508:G:C6	1:0:1512:A:N6	2.83	0.46
1:0:1791:C:O2	1:0:1791:C:C2'	2.62	0.46
1:0:1791:C:HO2'	1:0:1792:C:P	2.38	0.46
1:0:1904:G:H2'	1:0:1905:G:H8	1.81	0.46
1:0:2082:C:H2'	1:0:2083:G:C8	2.50	0.46
1:0:2180:U:O2'	1:0:2181:A:C6	2.68	0.46
1:0:2196:U:H2'	1:0:2197:U:O4'	2.14	0.46
1:0:2491:C:H3'	1:0:2492:G:H5''	1.96	0.46
1:0:18:U:O5'	1:0:18:U:H6	1.99	0.46
1:0:310:A:C1'	1:0:333:A:N6	2.78	0.46
1:0:328:A:H2'	1:0:329:C:C6	2.50	0.46
1:0:728:G:H2'	1:0:729:A:O4'	2.15	0.46
1:0:794:A:C2	1:0:1767:G:N3	2.82	0.46
1:0:1075:C:H2'	1:0:1076:U:C6	2.51	0.46
1:0:1285:A:H2	1:0:1634:A:C4	2.34	0.46
1:0:1514:C:O4'	1:0:1593:C:H4'	2.16	0.46
1:0:1611:U:H2'	1:0:1612:U:O4'	2.15	0.46
1:0:1791:C:O2'	1:0:1792:C:O5'	2.33	0.46
1:0:1955:G:H2'	1:0:1956:G:H5'	1.96	0.46
1:0:2241:U:C2	1:0:2242:C:C6	3.03	0.46
1:0:2322:U:C2'	1:0:2323:U:H5'	2.46	0.46
1:0:2529:G:C6	1:0:2530:C:C4	3.03	0.46
1:0:2769:C:H5	1:0:2770:A:HO2'	1.59	0.46
1:0:29:U:H2'	1:0:30:G:C8	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:59:G:C6	1:0:62:U:C4	3.04	0.46
1:0:173:A:N3	1:0:173:A:C2'	2.78	0.46
1:0:349:G:N2	1:0:350:U:H1'	2.31	0.46
1:0:620:G:H8	1:0:620:G:O5'	1.97	0.46
1:0:705:C:O2'	1:0:706:A:H5'	2.15	0.46
1:0:1354:A:OP1	1:0:1354:A:C8	2.69	0.46
1:0:1362:A:N1	1:0:1614:C:N4	2.64	0.46
1:0:1522:C:H2'	1:0:1523:A:O4'	2.16	0.46
1:0:1698:C:O2'	1:0:1753:A:O2'	2.23	0.46
1:0:1742:G:H2'	1:0:1743:C:H6	1.79	0.46
1:0:1965:U:O5'	1:0:1965:U:H6	1.97	0.46
1:0:2020:G:H2'	1:0:2021:G:H8	1.79	0.46
1:0:51:A:H2	1:0:155:G:C1'	2.22	0.46
1:0:523:A:H2'	1:0:523:A:N3	2.31	0.46
1:0:539:A:C6	1:0:2006:G:C4	3.04	0.46
1:0:559:C:H3'	1:0:559:C:C6	2.51	0.46
1:0:583:C:H1'	1:0:2038:C:C6	2.51	0.46
1:0:737:C:H2'	1:0:738:G:O4'	2.16	0.46
1:0:741:G:H2'	1:0:743:A:H8	1.81	0.46
1:0:764:A:N1	1:0:802:A:C5	2.83	0.46
1:0:836:G:C4	1:0:837:U:C5	3.03	0.46
1:0:1059:A:C2	1:0:1123:G:N2	2.83	0.46
1:0:1073:G:C2'	1:0:1074:G:H4'	2.33	0.46
1:0:1230:C:O2'	1:0:1231:A:H5'	2.15	0.46
1:0:1309:G:C2'	1:0:1310:C:O5'	2.64	0.46
1:0:1558:C:O2'	1:0:1559:G:H5'	2.15	0.46
1:0:1780:A:C6	1:0:1781:C:C4	3.03	0.46
1:0:1925:C:C2	1:0:1926:U:C4	3.04	0.46
1:0:2039:G:O5'	1:0:2040:A:OP2	2.32	0.46
1:0:2059:U:H5''	1:0:2217:G:N1	2.30	0.46
1:0:2075:U:O2	1:0:2075:U:H2'	2.15	0.46
1:0:2205:C:C2'	1:0:2206:C:C5'	2.94	0.46
1:0:2438:A:N1	1:0:2439:U:C2	2.83	0.46
1:0:2541:U:O2'	1:0:2542:U:H5'	2.16	0.46
1:0:2666:U:H2'	1:0:2667:C:O4'	2.16	0.46
1:0:68:C:O2	1:0:69:G:C8	2.69	0.46
1:0:182:G:O2'	1:0:183:U:H5	1.98	0.46
1:0:322:A:C2'	1:0:323:G:OP1	2.64	0.46
1:0:406:G:O6	1:0:407:A:N6	2.48	0.46
1:0:590:C:H2'	1:0:591:G:H8	1.78	0.46
1:0:684:C:O2'	1:0:685:U:H5'	2.15	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:816:U:H2'	1:0:817:A:C5'	2.45	0.46
1:0:1017:C:N3	1:0:1018:C:C5	2.84	0.46
1:0:1030:U:C4	1:0:1153:A:N6	2.84	0.46
1:0:1174:G:C2	1:0:1175:A:C5	3.04	0.46
1:0:1272:G:O2'	1:0:1273:G:H5'	2.16	0.46
1:0:1407:G:C6	1:0:1408:A:N1	2.84	0.46
1:0:1410:U:O2	1:0:1410:U:C2'	2.58	0.46
1:0:1567:A:H2'	1:0:1568:A:H8	1.81	0.46
1:0:1595:A:C2'	1:0:1596:A:H8	2.21	0.46
1:0:2204:A:H4'	1:0:2205:C:OP2	2.14	0.46
1:0:2225:G:C4	1:0:2405:A:C2	3.04	0.46
1:0:2236:U:H2'	1:0:2237:C:O4'	2.15	0.46
1:0:2245:A:H4'	1:0:2246:A:O5'	2.15	0.46
1:0:2557:G:C2	1:0:2558:C:C6	3.04	0.46
1:0:2563:U:C3'	1:0:2564:U:H5'	2.42	0.46
1:0:2735:C:H6	1:0:2735:C:O5'	1.98	0.46
1:0:27:G:O2'	1:0:28:A:O5'	2.34	0.46
1:0:318:G:N1	1:0:321:A:OP2	2.48	0.46
1:0:539:A:N3	1:0:540:G:C6	2.84	0.46
1:0:563:U:H2'	1:0:564:U:O4'	2.16	0.46
1:0:581:A:H2'	1:0:582:G:C4'	2.45	0.46
1:0:636:G:H5'	1:0:636:G:H8	1.80	0.46
1:0:889:C:O2'	1:0:890:U:H5'	2.15	0.46
1:0:1059:A:H2'	1:0:1059:A:N3	2.31	0.46
1:0:1360:G:C2	1:0:1616:C:C2	3.03	0.46
1:0:2428:U:O2'	1:0:2429:A:H8	1.99	0.46
1:0:2538:C:O2'	1:0:2539:C:H5'	2.15	0.46
1:0:2660:C:C4	1:0:2704:U:C5	3.04	0.46
1:0:2796:A:C2	1:0:2797:G:C4	3.03	0.46
1:0:19:C:H2'	1:0:20:C:C6	2.51	0.46
1:0:81:C:H2'	1:0:82:G:O4'	2.16	0.46
1:0:198:A:C5	1:0:243:G:C5	3.03	0.46
1:0:988:G:O2'	1:0:989:G:H5'	2.15	0.46
1:0:989:G:C2'	1:0:990:A:H5'	2.45	0.46
1:0:1160:C:H2'	1:0:1161:U:O4'	2.16	0.46
1:0:1279:G:C4'	1:0:1280:U:O5'	2.62	0.46
1:0:1592:U:O5'	1:0:1592:U:H6	1.99	0.46
1:0:1658:A:N6	1:0:1659:G:C2	2.84	0.46
1:0:1738:U:H2'	1:0:1739:G:C8	2.50	0.46
1:0:1895:A:N6	1:0:1900:U:C5	2.84	0.46
1:0:1901:A:N3	1:0:1902:A:N7	2.63	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1980:A:C2	1:0:1981:A:C5	3.03	0.46
1:0:2136:G:H2'	1:0:2137:G:C8	2.50	0.46
1:0:2241:U:H5'	1:0:2241:U:H6	1.80	0.46
1:0:2759:U:C1'	1:0:2761:A:C2	2.99	0.46
1:0:2794:G:C2	1:0:2803:C:N3	2.84	0.46
1:0:14:A:C2	1:0:536:A:N1	2.84	0.46
1:0:26:G:C6	1:0:27:G:C2	3.04	0.46
1:0:192:G:O2'	1:0:193:A:C4'	2.64	0.46
1:0:558:G:N3	1:0:558:G:H2'	2.31	0.46
1:0:669:G:H3'	1:0:670:U:H6	1.81	0.46
1:0:678:G:N2	1:0:679:C:C2	2.84	0.46
1:0:958:G:C6	1:0:959:C:N4	2.84	0.46
1:0:989:G:H2'	1:0:990:A:H5'	1.98	0.46
1:0:1408:A:H2	1:0:1411:C:C4	2.34	0.46
1:0:1458:A:C3'	1:0:1459:U:O4'	2.56	0.46
1:0:1568:A:O2'	1:0:1569:A:C5'	2.64	0.46
1:0:1708:C:H2'	1:0:1709:U:O4'	2.15	0.46
1:0:1750:A:C8	1:0:2675:U:H1'	2.51	0.46
1:0:1834:G:O2'	1:0:1835:C:H5'	2.16	0.46
1:0:2043:A:N6	1:0:2424:G:OP1	2.49	0.46
1:0:2047:C:H42	1:0:2425:G:H1	1.56	0.46
1:0:2264:C:H4'	1:0:2267:A:N6	2.31	0.46
1:0:2434:G:N1	1:0:2477:C:N4	2.64	0.46
1:0:2436:U:H2'	1:0:2437:G:O4'	2.16	0.46
1:0:2502:G:O6	1:0:2520:A:C2	2.69	0.46
1:0:311:A:C2	1:0:345:U:O4'	2.69	0.45
1:0:333:A:O2'	1:0:334:G:P	2.74	0.45
1:0:554:U:O2'	1:0:555:U:C4'	2.65	0.45
1:0:638:A:OP2	1:0:638:A:C4'	2.63	0.45
1:0:716:U:O4	1:0:717:G:C2	2.70	0.45
1:0:787:A:C2	1:0:788:G:O6	2.69	0.45
1:0:837:U:H2'	1:0:838:A:C8	2.45	0.45
1:0:923:A:H5''	1:0:924:C:H5''	1.98	0.45
1:0:1226:A:N3	1:0:1226:A:H2'	2.31	0.45
1:0:1226:A:N9	1:0:1250:A:C2	2.84	0.45
1:0:1349:A:H2'	1:0:1350:G:O4'	2.16	0.45
1:0:1428:G:O5'	1:0:1428:G:H8	1.99	0.45
1:0:1493:A:H2'	1:0:1494:G:C8	2.51	0.45
1:0:2191:A:H2'	1:0:2192:U:OP1	2.16	0.45
1:0:2215:C:H2'	1:0:2216:G:O4'	2.15	0.45
1:0:2320:G:H2'	1:0:2321:C:C6	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2387:U:H2'	1:0:2388:G:C8	2.51	0.45
1:0:539:A:N3	1:0:540:G:O6	2.49	0.45
1:0:612:G:O2'	1:0:613:A:H4'	2.15	0.45
1:0:682:G:C4	1:0:814:G:C6	3.05	0.45
1:0:940:G:C2'	1:0:941:U:C4'	2.89	0.45
1:0:1033:G:O2'	1:0:1034:U:OP2	2.34	0.45
1:0:1242:A:C2	1:0:1243:G:C4	3.04	0.45
1:0:1285:A:C2	1:0:1634:A:C4	3.04	0.45
1:0:1288:A:N6	1:0:1309:G:C5'	2.79	0.45
1:0:1493:A:H2'	1:0:1494:G:H8	1.80	0.45
1:0:1761:G:C8	1:0:1762:C:C5	3.05	0.45
1:0:1774:A:C6	1:0:2566:A:N3	2.84	0.45
1:0:2320:G:H2'	1:0:2321:C:H6	1.81	0.45
1:0:2322:U:H2'	1:0:2323:U:O4'	2.16	0.45
1:0:2661:G:O6	1:0:2708:U:H1'	2.16	0.45
1:0:2728:A:C8	1:0:2729:A:C5	3.05	0.45
1:0:69:G:H4'	1:0:70:A:O5'	2.13	0.45
1:0:112:U:H2'	1:0:112:U:O2	2.15	0.45
1:0:132:U:O2	1:0:140:G:C2	2.69	0.45
1:0:177:U:C5	1:0:225:G:N3	2.84	0.45
1:0:308:C:O2	1:0:308:C:H2'	2.15	0.45
1:0:521:U:OP2	1:0:522:G:N7	2.49	0.45
1:0:877:G:C6	1:0:878:C:N4	2.85	0.45
1:0:1008:G:O2'	1:0:1009:C:H5'	2.16	0.45
1:0:1213:U:H2'	1:0:1214:C:C6	2.51	0.45
1:0:1422:C:O2'	1:0:1423:A:H5'	2.17	0.45
1:0:1466:C:H2'	1:0:1467:U:C4'	2.45	0.45
1:0:1773:C:OP1	1:0:1774:A:OP2	2.34	0.45
1:0:1992:G:O2'	1:0:1993:G:H5'	2.16	0.45
1:0:2198:U:C3'	1:0:2199:C:C4'	2.90	0.45
1:0:2245:A:C4	1:0:2251:U:H5	2.35	0.45
1:0:2374:C:O5'	1:0:2374:C:H6	1.99	0.45
1:0:2428:U:O2'	1:0:2429:A:C8	2.66	0.45
1:0:2429:A:O2'	1:0:2430:A:H5'	2.17	0.45
1:0:2486:C:O5'	1:0:2486:C:H6	1.99	0.45
1:0:2520:A:H4'	1:0:2744:A:N1	2.31	0.45
1:0:2559:U:C2'	1:0:2560:G:H5'	2.46	0.45
1:0:2690:A:C5'	1:0:2691:C:H5'	2.47	0.45
1:0:27:G:H1'	1:0:523:A:N6	2.32	0.45
1:0:76:C:C6	1:0:76:C:C5'	2.98	0.45
1:0:217:U:H1'	1:0:235:C:N4	2.32	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:528:G:H2'	1:0:529:U:C6	2.51	0.45
1:0:571:U:O2	1:0:581:A:C8	2.69	0.45
1:0:877:G:O2'	1:0:878:C:H5'	2.16	0.45
1:0:1082:G:C6	1:0:1083:C:N4	2.85	0.45
1:0:1164:C:O2'	1:0:1165:G:H5'	2.15	0.45
1:0:1171:A:H2'	1:0:1172:U:C6	2.52	0.45
1:0:1199:U:H3'	1:0:1200:G:C5'	2.37	0.45
1:0:1820:G:O2'	1:0:1821:A:O5'	2.29	0.45
1:0:1937:G:H1'	1:0:2530:C:C4'	2.45	0.45
1:0:2182:A:H61	1:0:2205:C:H42	1.64	0.45
1:0:2469:G:C5'	1:0:2470:U:OP1	2.64	0.45
1:0:2511:G:H1'	1:0:2642:G:N2	2.31	0.45
1:0:226:C:C5	1:0:2374:C:OP1	2.70	0.45
1:0:424:G:H4'	1:0:424:G:OP1	2.17	0.45
1:0:571:U:O2	1:0:581:A:N9	2.50	0.45
1:0:687:G:C5	1:0:817:A:C6	3.04	0.45
1:0:740:A:OP1	1:0:1445:A:O2'	2.31	0.45
1:0:817:A:H5''	1:0:818:G:OP1	2.17	0.45
1:0:958:G:O2'	1:0:994:A:N6	2.50	0.45
1:0:1458:A:H2'	1:0:1459:U:H4'	1.97	0.45
1:0:1618:U:H3'	1:0:1618:U:H6	1.82	0.45
1:0:1845:A:H2	1:0:2212:U:H1'	1.80	0.45
1:0:2240:C:C2'	1:0:2241:U:C5'	2.95	0.45
1:0:2276:C:O5'	1:0:2276:C:H6	2.00	0.45
1:0:2428:U:O2	1:0:2428:U:C2'	2.65	0.45
1:0:2594:U:C2	1:0:2595:C:C5	3.05	0.45
1:0:2624:G:C4'	1:0:2712:G:O2'	2.59	0.45
1:0:2811:G:C6	1:0:2812:A:N6	2.85	0.45
1:0:2866:A:C2'	1:0:2867:G:O4'	2.64	0.45
1:0:521:U:OP2	1:0:522:G:C6	2.69	0.45
1:0:626:A:O2'	1:0:627:A:H5'	2.17	0.45
1:0:778:G:O2'	1:0:779:U:H5'	2.16	0.45
1:0:836:G:O2'	1:0:837:U:H5'	2.17	0.45
1:0:844:G:H2'	1:0:844:G:N3	2.32	0.45
1:0:971:A:H4'	1:0:2436:U:H5'	1.98	0.45
1:0:999:A:H4'	1:0:1166:A:N1	2.30	0.45
1:0:1019:U:HO2'	1:0:1020:A:H8	1.59	0.45
1:0:1105:U:O2	1:0:1107:A:N7	2.49	0.45
1:0:1326:U:O3'	1:0:1345:G:H5'	2.17	0.45
1:0:1540:C:H2'	1:0:1541:G:C8	2.51	0.45
1:0:1576:G:O2'	1:0:1577:G:H5'	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1780:A:H8	1:0:1780:A:O5'	1.99	0.45
1:0:1914:U:O4	1:0:1952:A:N7	2.50	0.45
1:0:2039:G:H2'	1:0:2039:G:N3	2.31	0.45
1:0:2222:U:O2	1:0:2222:U:H2'	2.15	0.45
1:0:2371:A:H2'	1:0:2372:A:C8	2.52	0.45
1:0:2663:U:O4	1:0:2664:G:N7	2.50	0.45
1:0:2665:G:C2	1:0:2704:U:O2	2.70	0.45
1:0:218:A:O2'	1:0:219:G:P	2.75	0.45
1:0:227:G:H2'	1:0:228:A:C8	2.52	0.45
1:0:322:A:HO2'	1:0:343:A:C4'	2.29	0.45
1:0:587:A:H2'	1:0:588:G:H5''	1.98	0.45
1:0:668:A:C2'	1:0:669:G:H4'	2.45	0.45
1:0:814:G:C2'	1:0:815:A:OP1	2.65	0.45
1:0:857:U:H2'	1:0:858:G:H5'	1.99	0.45
1:0:947:C:H2'	1:0:948:C:H6	1.81	0.45
1:0:956:A:C4	1:0:2427:A:H2	2.34	0.45
1:0:1149:G:H21	1:0:1154:A:H2	1.65	0.45
1:0:1210:C:H1'	1:0:1239:A:C4	2.52	0.45
1:0:1288:A:H62	1:0:1309:G:H4'	1.82	0.45
1:0:1313:U:H1'	1:0:1642:G:N2	2.32	0.45
1:0:1672:A:C6	1:0:1673:C:C2	3.05	0.45
1:0:1704:G:C6	1:0:1705:U:C5	3.05	0.45
1:0:2027:C:N3	1:0:2604:G:C2	2.85	0.45
1:0:2047:C:N4	1:0:2425:G:H1	2.14	0.45
1:0:2086:U:H6	1:0:2086:U:O5'	1.99	0.45
1:0:2093:G:O2'	1:0:2094:C:P	2.74	0.45
1:0:2123:G:C2'	1:0:2124:C:H5'	2.46	0.45
1:0:2438:A:C2	1:0:2439:U:C2	3.04	0.45
1:0:2541:U:C2'	1:0:2542:U:H5'	2.47	0.45
1:0:3:U:H2'	1:0:4:C:O4'	2.17	0.45
1:0:428:A:O2'	1:0:429:C:H5'	2.16	0.45
1:0:697:G:O6	1:0:788:G:C8	2.69	0.45
1:0:981:C:O2'	1:0:995:A:H4'	2.16	0.45
1:0:1089:C:C2'	1:0:1099:A:H5'	2.47	0.45
1:0:1198:C:H5''	1:0:1199:U:H4'	1.98	0.45
1:0:1713:G:C6	1:0:1714:A:C4	3.05	0.45
1:0:1741:G:C2'	1:0:1742:G:H5'	2.46	0.45
1:0:1850:G:N1	1:0:1868:A:N7	2.64	0.45
1:0:2026:C:C2	1:0:2027:C:C5	3.05	0.45
1:0:2180:U:O2'	1:0:2181:A:C5	2.70	0.45
1:0:2262:C:C2	1:0:2368:G:N2	2.85	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2476:A:O2'	1:0:2477:C:C5	2.67	0.45
1:0:2550:C:O5'	1:0:2550:C:H6	2.00	0.45
1:0:2844:G:H2'	1:0:2845:C:O4'	2.17	0.45
1:0:14:A:N1	1:0:536:A:C2	2.84	0.45
1:0:478:G:C6	1:0:479:G:C5	3.05	0.45
1:0:805:G:C4	1:0:2419:C:C2	3.05	0.45
1:0:987:G:N2	1:0:988:G:C4	2.85	0.45
1:0:990:A:H2'	1:0:993:C:N4	2.31	0.45
1:0:1128:G:C2'	1:0:1129:A:H5'	2.46	0.45
1:0:1215:A:C2	1:0:1258:G:C4	3.05	0.45
1:0:2054:A:H2	1:0:2419:C:N4	2.14	0.45
1:0:2437:G:H2'	1:0:2469:G:H1	1.82	0.45
1:0:2499:C:C2	1:0:2500:C:C5	3.05	0.45
1:0:2548:G:C2'	1:0:2549:G:H5'	2.47	0.45
1:0:192:G:O2'	1:0:193:A:C5'	2.64	0.45
1:0:195:A:H2	1:0:212:U:H4'	1.82	0.45
1:0:342:G:O2'	1:0:343:A:P	2.75	0.45
1:0:404:A:H2'	1:0:405:C:C6	2.52	0.45
1:0:536:A:N6	1:0:2605:C:C4'	2.75	0.45
1:0:654:A:O2'	1:0:655:A:N3	2.49	0.45
1:0:1018:C:N3	1:0:1019:U:O4	2.50	0.45
1:0:1370:U:H2'	1:0:1371:G:O4'	2.16	0.45
1:0:1632:A:C2'	1:0:1633:C:OP1	2.64	0.45
1:0:1707:A:N7	1:0:1714:A:H2	2.15	0.45
1:0:2319:G:O2'	1:0:2320:G:H5'	2.17	0.45
1:0:2561:G:N2	1:0:2562:G:H1'	2.32	0.45
1:0:2634:G:C2'	1:0:2643:G:O6	2.63	0.45
1:0:2850:U:H2'	1:0:2851:G:O5'	2.17	0.45
1:0:174:A:C2	1:0:175:C:H1'	2.52	0.44
1:0:203:G:N2	1:0:204:A:N3	2.65	0.44
1:0:248:A:N6	1:0:373:A:C8	2.85	0.44
1:0:536:A:H61	1:0:2605:C:H4'	1.80	0.44
1:0:1016:C:H5'	1:0:1023:U:C5'	2.45	0.44
1:0:1279:G:O2'	1:0:1280:U:O5'	2.30	0.44
1:0:1458:A:C3'	1:0:1459:U:C5'	2.95	0.44
1:0:1646:G:C5	1:0:1647:U:C4	3.05	0.44
1:0:1662:G:H5''	1:0:1663:C:H5'	1.99	0.44
1:0:1681:A:OP1	1:0:1682:A:OP2	2.34	0.44
1:0:1698:C:O2'	1:0:1753:A:H2'	2.17	0.44
1:0:1889:G:N7	1:0:1912:G:N7	2.64	0.44
1:0:2048:C:N4	1:0:2049:C:N4	2.65	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2634:G:O2'	1:0:2643:G:C6	2.58	0.44
1:0:2689:C:H2'	1:0:2690:A:C8	2.52	0.44
1:0:2728:A:N7	1:0:2729:A:C5	2.85	0.44
1:0:2839:G:C5	1:0:2840:U:C4	3.04	0.44
1:0:14:A:C6	1:0:536:A:C2	3.05	0.44
1:0:28:A:C2	1:0:523:A:H1'	2.53	0.44
1:0:46:C:C4	1:0:47:G:N7	2.85	0.44
1:0:51:A:C2	1:0:155:G:N3	2.85	0.44
1:0:57:G:C2	1:0:72:A:N7	2.86	0.44
1:0:61:U:C5	1:0:62:U:C4	3.05	0.44
1:0:114:C:H2'	1:0:115:G:C8	2.52	0.44
1:0:215:G:O2'	1:0:216:U:H5'	2.18	0.44
1:0:317:U:H3	1:0:321:A:N6	2.12	0.44
1:0:516:G:O2'	1:0:517:A:O5'	2.36	0.44
1:0:566:U:H2'	1:0:567:G:C8	2.51	0.44
1:0:644:A:C3'	1:0:645:G:H5'	2.47	0.44
1:0:741:G:C6	1:0:743:A:C5	3.05	0.44
1:0:840:U:H4'	1:0:841:G:H21	1.80	0.44
1:0:859:U:C2'	1:0:860:U:OP2	2.66	0.44
1:0:953:G:O2'	1:0:1203:A:N3	2.41	0.44
1:0:1227:A:H2'	1:0:1228:G:O4'	2.17	0.44
1:0:1386:A:H5''	1:0:2191:A:N6	2.27	0.44
1:0:1407:G:C5	1:0:1408:A:C6	3.05	0.44
1:0:1441:A:N3	1:0:1441:A:C3'	2.80	0.44
1:0:1820:G:HO2'	1:0:1821:A:P	2.39	0.44
1:0:1896:A:C2	1:0:1899:A:C5	3.04	0.44
1:0:1975:G:C5	1:0:1980:A:C6	3.05	0.44
1:0:2247:A:OP1	1:0:2247:A:H4'	2.18	0.44
1:0:2402:U:H5'	1:0:2404:A:N7	2.32	0.44
1:0:2595:C:N3	1:0:2596:C:C5	2.85	0.44
1:0:2867:G:O2'	1:0:2868:G:O5'	2.35	0.44
1:0:76:C:O2'	1:0:77:C:H5'	2.18	0.44
1:0:699:G:N3	1:0:699:G:H3'	2.32	0.44
1:0:1315:A:O2'	1:0:1316:G:OP1	2.32	0.44
1:0:1466:C:H3'	1:0:1466:C:H6	1.82	0.44
1:0:1636:G:O2'	1:0:1637:U:H5'	2.18	0.44
1:0:1699:A:C4	1:0:1748:U:C2	3.05	0.44
1:0:1930:C:C4	1:0:1931:G:N7	2.86	0.44
1:0:2135:C:O2'	1:0:2136:G:H5'	2.16	0.44
1:0:2434:G:C2	1:0:2477:C:C4	3.05	0.44
1:0:2599:U:H2'	1:0:2600:A:O4'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2734:U:O2'	1:0:2736:U:OP2	2.28	0.44
1:0:27:G:H1	1:0:522:G:HO2'	1.59	0.44
1:0:57:G:C2	1:0:69:G:C5	3.05	0.44
1:0:311:A:H2	1:0:344:G:N3	2.16	0.44
1:0:427:C:H2'	1:0:428:A:H8	1.81	0.44
1:0:487:G:H4'	1:0:512:A:C6	2.52	0.44
1:0:594:G:C5	1:0:1264:C:C5	3.05	0.44
1:0:699:G:N3	1:0:699:G:C3'	2.80	0.44
1:0:765:C:H4'	1:0:765:C:OP1	2.17	0.44
1:0:839:U:H5''	1:0:2407:G:O3'	2.18	0.44
1:0:1265:G:HO2'	1:0:1266:G:P	2.39	0.44
1:0:1653:C:H2'	1:0:1654:A:C8	2.53	0.44
1:0:1774:A:C6	1:0:2566:A:C2	3.05	0.44
1:0:1917:C:O2'	1:0:1918:G:H5'	2.18	0.44
1:0:1974:U:H2'	1:0:1975:G:C5'	2.47	0.44
1:0:2007:G:C2	1:0:2023:C:C2	3.06	0.44
1:0:2527:G:C6	1:0:2540:A:N1	2.85	0.44
1:0:2698:G:C2'	1:0:2699:G:O5'	2.65	0.44
1:0:2872:U:H2'	1:0:2873:G:C8	2.49	0.44
1:0:75:C:O2	1:0:109:A:C2	2.70	0.44
1:0:76:C:N4	1:0:108:G:C6	2.85	0.44
1:0:224:G:O2'	1:0:225:G:C5'	2.66	0.44
1:0:297:A:H2'	1:0:298:C:C6	2.53	0.44
1:0:754:G:C6	1:0:770:U:O2	2.71	0.44
1:0:787:A:C5	1:0:788:G:N7	2.85	0.44
1:0:814:G:H3'	1:0:814:G:H8	1.82	0.44
1:0:958:G:H2'	1:0:959:C:H6	1.79	0.44
1:0:1181:C:C2'	1:0:1182:U:H5''	2.47	0.44
1:0:1453:A:H2'	1:0:1454:U:H5'	1.99	0.44
1:0:1501:C:O2'	1:0:1502:G:H5'	2.18	0.44
1:0:1606:C:H2'	1:0:1607:A:C8	2.42	0.44
1:0:1764:A:H2'	1:0:1765:C:C5'	2.35	0.44
1:0:1777:A:HO2'	1:0:1778:U:P	2.40	0.44
1:0:1827:G:H2'	1:0:1828:C:C6	2.52	0.44
1:0:1976:U:H2'	1:0:1977:C:H5'	1.99	0.44
1:0:2050:G:H5''	1:0:2051:U:OP2	2.17	0.44
1:0:2379:G:O2'	1:0:2380:U:H5'	2.17	0.44
1:0:2617:G:O2'	1:0:2618:A:O5'	2.34	0.44
1:0:2622:G:O2'	1:0:2623:A:H5'	2.18	0.44
1:0:2640:G:H2'	1:0:2641:A:C8	2.53	0.44
1:0:2695:C:O2'	1:0:2696:A:H5'	2.17	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2831:A:N6	1:0:2832:G:C6	2.85	0.44
1:0:2864:C:O2	1:0:2864:C:H2'	2.17	0.44
1:0:6:A:C6	1:0:7:G:N7	2.85	0.44
1:0:340:G:OP2	1:0:340:G:H8	2.00	0.44
1:0:388:G:N3	1:0:389:G:C8	2.85	0.44
1:0:701:U:C6	1:0:701:U:H3'	2.53	0.44
1:0:741:G:H4'	1:0:742:G:OP2	2.17	0.44
1:0:818:G:C8	1:0:2051:U:OP1	2.71	0.44
1:0:1021:A:H2'	1:0:1022:A:H5''	1.99	0.44
1:0:1164:C:N4	1:0:1165:G:N1	2.66	0.44
1:0:1407:G:C2	1:0:1408:A:N3	2.86	0.44
1:0:1672:A:H3'	1:0:1673:C:C5	2.52	0.44
1:0:2194:A:C3'	1:0:2195:C:C5'	2.92	0.44
1:0:2219:U:C2	1:0:2220:A:C8	3.05	0.44
1:0:2315:A:C2'	1:0:2316:G:OP1	2.66	0.44
1:0:2390:A:H2'	1:0:2391:A:H8	1.82	0.44
1:0:2438:A:C2	1:0:2439:U:N1	2.86	0.44
1:0:537:C:C2'	1:0:538:A:C5	3.01	0.44
1:0:677:G:O2'	1:0:678:G:H5'	2.18	0.44
1:0:707:U:C2'	1:0:708:G:O5'	2.66	0.44
1:0:777:A:O2'	1:0:778:G:OP1	2.31	0.44
1:0:788:G:O5'	1:0:789:G:OP1	2.35	0.44
1:0:1015:U:H1'	1:0:1021:A:C4	2.53	0.44
1:0:1554:G:H2'	1:0:1555:A:C8	2.52	0.44
1:0:1618:U:H3'	1:0:1618:U:C6	2.52	0.44
1:0:2217:G:H3'	1:0:2217:G:N3	2.33	0.44
1:0:2225:G:C8	1:0:2405:A:C2	3.06	0.44
1:0:2258:G:C2'	1:0:2259:G:O5'	2.66	0.44
1:0:2276:C:N4	1:0:2297:G:N2	2.65	0.44
1:0:2352:A:H2'	1:0:2353:G:H8	1.81	0.44
1:0:2362:G:H2'	1:0:2363:G:O4'	2.17	0.44
1:0:2661:G:C2'	1:0:2662:C:C5'	2.95	0.44
1:0:2701:A:C2'	1:0:2702:G:H5'	2.47	0.44
1:0:2784:A:C6	1:0:2866:A:N6	2.86	0.44
1:0:2826:C:H2'	1:0:2827:G:C5'	2.48	0.44
1:0:34:U:O2'	1:0:35:G:OP1	2.30	0.44
1:0:118:U:O2'	1:0:119:G:H5''	2.17	0.44
1:0:210:A:C5	1:0:211:U:H5	2.36	0.44
1:0:813:A:O2'	1:0:814:G:H8	2.00	0.44
1:0:1193:G:H2'	1:0:1194:U:C6	2.52	0.44
1:0:1262:U:C6	1:0:1262:U:C3'	3.00	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1279:G:C1'	1:0:1280:U:C6	3.00	0.44
1:0:1789:U:N3	1:0:1811:A:C2	2.85	0.44
1:0:1846:A:N6	1:0:1871:G:H1'	2.33	0.44
1:0:1974:U:H2'	1:0:1975:G:H5''	2.00	0.44
1:0:2034:A:N6	1:0:2593:A:C4	2.86	0.44
1:0:2176:U:H2'	1:0:2177:U:C5'	2.48	0.44
1:0:2248:A:OP1	1:0:2248:A:C8	2.70	0.44
1:0:2312:A:HO2'	1:0:2313:G:P	2.35	0.44
1:0:2478:C:C4	1:0:2479:U:C4	3.06	0.44
1:0:2500:C:H2'	1:0:2501:U:C6	2.53	0.44
1:0:2541:U:C2	1:0:2542:U:C6	3.06	0.44
1:0:2565:C:O2	1:0:2566:A:C8	2.71	0.44
1:0:2660:C:C2	1:0:2704:U:O4	2.71	0.44
1:0:337:G:C5	1:0:338:G:N7	2.85	0.44
1:0:457:C:H2'	1:0:458:G:H5'	1.98	0.44
1:0:700:C:C5	1:0:701:U:O4	2.71	0.44
1:0:746:G:C8	1:0:774:A:C6	3.05	0.44
1:0:789:G:C5	1:0:806:A:N7	2.86	0.44
1:0:931:G:C2	1:0:932:G:C1'	3.00	0.44
1:0:990:A:H2'	1:0:993:C:H42	1.83	0.44
1:0:1015:U:O4'	1:0:1021:A:C6	2.71	0.44
1:0:1110:G:H2'	1:0:1111:C:H6	1.82	0.44
1:0:1123:G:H2'	1:0:1124:U:H6	1.82	0.44
1:0:1231:A:H2'	1:0:1232:U:C6	2.53	0.44
1:0:1437:A:H2'	1:0:1438:G:O5'	2.17	0.44
1:0:1466:C:C6	1:0:1466:C:C3'	3.01	0.44
1:0:1655:C:O2	1:0:2677:U:O2'	2.30	0.44
1:0:1764:A:N7	1:0:1821:A:H1'	2.33	0.44
1:0:1798:G:O2'	1:0:1800:A:N7	2.49	0.44
1:0:1906:U:H2'	1:0:1907:C:C5	2.53	0.44
1:0:1931:G:O2'	1:0:1932:G:H5'	2.18	0.44
1:0:1979:C:H2'	1:0:1980:A:O4'	2.18	0.44
1:0:2384:G:N2	1:0:2390:A:C8	2.86	0.44
1:0:2824:C:H4'	1:0:2825:A:C5'	2.47	0.44
1:0:149:A:O2'	1:0:150:A:H5'	2.18	0.43
1:0:322:A:H2'	1:0:322:A:N3	2.32	0.43
1:0:799:C:C4	1:0:800:U:C5	3.05	0.43
1:0:838:A:C2	1:0:839:U:C2	3.06	0.43
1:0:859:U:H3'	1:0:859:U:C6	2.52	0.43
1:0:1288:A:H2'	1:0:1288:A:N3	2.33	0.43
1:0:1437:A:C6	1:0:1438:G:N7	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1469:U:C5'	1:0:1470:G:OP2	2.66	0.43
1:0:1989:C:O2'	1:0:2798:A:N3	2.51	0.43
1:0:2015:G:N3	1:0:2015:G:C2'	2.80	0.43
1:0:2071:G:H2'	1:0:2072:C:H6	1.83	0.43
1:0:2283:G:H1	1:0:2291:U:H3	1.66	0.43
1:0:2402:U:H4'	1:0:2404:A:C8	2.53	0.43
1:0:2496:C:C5	1:0:2521:A:C5	3.06	0.43
1:0:2621:G:O2'	1:0:2622:G:H5'	2.18	0.43
1:0:2641:A:C2'	1:0:2642:G:H5'	2.48	0.43
1:0:2652:G:H2'	1:0:2653:A:H8	1.83	0.43
1:0:2827:G:C5	1:0:2828:C:C4	3.06	0.43
1:0:2871:U:C2'	1:0:2872:U:C6	2.91	0.43
1:0:155:G:C2'	1:0:156:G:C5'	2.96	0.43
1:0:187:U:O2'	1:0:188:G:H5'	2.18	0.43
1:0:337:G:C4	1:0:338:G:N7	2.85	0.43
1:0:441:A:C2'	1:0:442:A:C5'	2.94	0.43
1:0:627:A:H2'	1:0:628:A:C8	2.53	0.43
1:0:1204:G:H2'	1:0:1205:G:C8	2.54	0.43
1:0:1330:G:C4	1:0:1331:G:C8	3.07	0.43
1:0:1437:A:O2'	1:0:1438:G:H5'	2.17	0.43
1:0:1459:U:C6	1:0:1459:U:P	3.11	0.43
1:0:1625:A:C6	1:0:1632:A:C2	3.05	0.43
1:0:1633:C:O5'	1:0:1633:C:H6	2.00	0.43
1:0:1697:U:O2	1:0:1755:G:H4'	2.18	0.43
1:0:2253:A:C6	1:0:2255:G:H1'	2.53	0.43
1:0:2501:U:O2	1:0:2745:A:C8	2.71	0.43
1:0:2560:G:N3	1:0:2560:G:H2'	2.34	0.43
1:0:2783:U:H6	1:0:2783:U:H5'	1.82	0.43
1:0:2799:C:H2'	1:0:2800:C:O4'	2.17	0.43
1:0:43:A:C6	1:0:44:G:C6	3.06	0.43
1:0:321:A:H2'	1:0:323:G:N7	2.33	0.43
1:0:459:A:C6	1:0:466:A:C8	3.05	0.43
1:0:468:A:H1'	1:0:470:U:C2	2.53	0.43
1:0:788:G:N2	1:0:800:U:O3'	2.39	0.43
1:0:886:A:C2	1:0:887:G:H1'	2.53	0.43
1:0:931:G:H2'	1:0:932:G:H5'	2.00	0.43
1:0:1080:A:H5''	1:0:1081:A:C8	2.52	0.43
1:0:1193:G:H2'	1:0:1194:U:H6	1.81	0.43
1:0:1253:C:O2'	1:0:1254:G:H5'	2.18	0.43
1:0:1309:G:H2'	1:0:1310:C:O5'	2.18	0.43
1:0:1408:A:C2	1:0:1411:C:C4	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1468:A:H8	1:0:1468:A:C5'	2.31	0.43
1:0:1555:A:H8	1:0:1555:A:O5'	2.01	0.43
1:0:1627:C:N3	1:0:1628:C:C5	2.86	0.43
1:0:1645:U:H2'	1:0:1646:G:O4'	2.19	0.43
1:0:1714:A:C5'	1:0:1715:A:C5'	2.91	0.43
1:0:1790:G:H4'	1:0:1791:C:C6	2.49	0.43
1:0:2005:U:H2'	1:0:2595:C:O2'	2.18	0.43
1:0:2026:C:H2'	1:0:2027:C:C6	2.53	0.43
1:0:2288:A:C8	1:0:2289:A:N7	2.86	0.43
1:0:2377:U:H2'	1:0:2378:G:H8	1.83	0.43
1:0:2485:U:OP1	2:B:144:ARG:NH2	2.50	0.43
1:0:2500:C:H2'	1:0:2501:U:H6	1.84	0.43
1:0:2551:A:H5''	1:0:2553:G:H4'	2.00	0.43
1:0:2820:C:H2'	1:0:2821:G:C8	2.52	0.43
1:0:16:G:O2'	1:0:17:G:H5'	2.18	0.43
1:0:227:G:C6	1:0:228:A:C6	3.07	0.43
1:0:309:G:N2	1:0:352:G:C6	2.87	0.43
1:0:475:U:C2	1:0:801:A:C6	3.06	0.43
1:0:764:A:C2	1:0:802:A:C5	3.07	0.43
1:0:931:G:N2	1:0:932:G:H1'	2.33	0.43
1:0:1075:C:C4	1:0:1076:U:C4	3.06	0.43
1:0:1216:G:O2'	1:0:1217:U:H5'	2.17	0.43
1:0:1629:G:C5	1:0:1633:C:N3	2.86	0.43
1:0:1682:A:N6	1:0:1683:G:C5	2.86	0.43
1:0:1791:C:H1'	1:0:1793:A:H5'	2.01	0.43
1:0:1807:A:P	1:0:1814:G:H4'	2.58	0.43
1:0:1920:A:C2	1:0:1922:U:C5	3.01	0.43
1:0:1979:C:H2'	1:0:1980:A:C4'	2.48	0.43
1:0:2065:A:N6	1:0:2216:G:O2'	2.51	0.43
1:0:2076:G:C2	1:0:2204:A:N6	2.86	0.43
1:0:2217:G:N3	1:0:2217:G:O5'	2.51	0.43
1:0:2439:U:C2'	1:0:2440:C:H5'	2.47	0.43
1:0:2550:C:C2'	1:0:2551:A:OP1	2.66	0.43
1:0:2609:G:N2	1:0:2866:A:C2	2.86	0.43
1:0:2758:A:O3'	1:0:2759:U:C5	2.70	0.43
1:0:2803:C:C2'	1:0:2804:G:H5'	2.48	0.43
1:0:2828:C:H2'	1:0:2829:A:C8	2.53	0.43
1:0:48:A:N3	1:0:50:G:N2	2.66	0.43
1:0:182:G:HO2'	1:0:183:U:H5	1.61	0.43
1:0:327:C:H2'	1:0:328:A:C5'	2.47	0.43
1:0:677:G:C2	1:0:678:G:C8	3.06	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:814:G:H3'	1:0:814:G:C8	2.54	0.43
1:0:817:A:C5'	1:0:818:G:OP1	2.66	0.43
1:0:819:C:O2	1:0:2423:G:O2'	2.37	0.43
1:0:1018:C:C2	1:0:1147:G:N2	2.87	0.43
1:0:1019:U:O2'	1:0:1020:A:H8	2.02	0.43
1:0:1123:G:O2'	1:0:1124:U:H5'	2.19	0.43
1:0:1193:G:O2'	1:0:1194:U:P	2.76	0.43
1:0:1194:U:H4'	1:0:1195:U:OP1	2.17	0.43
1:0:1391:A:N7	1:0:1393:G:C5	2.86	0.43
1:0:1517:C:O2'	1:0:1518:C:H5'	2.19	0.43
1:0:1610:A:H2'	1:0:1611:U:C6	2.52	0.43
1:0:1644:G:H2'	1:0:1645:U:C6	2.52	0.43
1:0:1813:A:N6	1:0:1814:G:O6	2.51	0.43
1:0:2175:A:H2'	1:0:2176:U:C6	2.53	0.43
1:0:2371:A:C2	1:0:2408:G:C6	3.07	0.43
1:0:158:A:N1	1:0:159:A:C2	2.87	0.43
1:0:228:A:H8	1:0:228:A:O5'	2.02	0.43
1:0:481:A:C2	1:0:482:A:C4	3.06	0.43
1:0:636:G:H2'	1:0:637:G:H5'	2.01	0.43
1:0:648:A:H5'	1:0:649:G:O5'	2.18	0.43
1:0:762:A:C6	1:0:1634:A:C2	3.06	0.43
1:0:773:G:C2'	1:0:774:A:H5'	2.49	0.43
1:0:818:G:N7	1:0:2051:U:OP1	2.52	0.43
1:0:860:U:O2	1:0:860:U:C2'	2.60	0.43
1:0:1000:G:O2'	1:0:1001:A:O5'	2.36	0.43
1:0:1000:G:C2'	1:0:1001:A:OP2	2.67	0.43
1:0:1031:C:C2'	1:0:1032:A:OP2	2.67	0.43
1:0:1352:G:N1	1:0:1353:A:N6	2.66	0.43
1:0:1355:A:H1'	1:0:1410:U:C4'	2.47	0.43
1:0:1571:G:C2	1:0:1572:C:C2	3.07	0.43
1:0:2033:C:H2'	1:0:2034:A:O4'	2.19	0.43
1:0:2409:A:C2'	1:0:2410:U:O5'	2.67	0.43
1:0:2486:C:H2'	1:0:2487:G:H8	1.84	0.43
1:0:2539:C:N3	1:0:2540:A:C5	2.86	0.43
1:0:2562:G:C2	1:0:2563:U:N1	2.86	0.43
1:0:2768:C:H2'	1:0:2769:C:H4'	2.01	0.43
1:0:2792:C:H2'	1:0:2793:G:O5'	2.18	0.43
1:0:103:U:H2'	1:0:104:C:C6	2.54	0.43
1:0:155:G:C6	1:0:156:G:N7	2.87	0.43
1:0:346:C:N3	1:0:347:C:C5	2.86	0.43
1:0:748:A:C8	1:0:749:C:C5	3.07	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1017:C:N4	1:0:1018:C:N4	2.67	0.43
1:0:1112:U:H2'	1:0:1113:C:C5	2.54	0.43
1:0:1169:C:O2'	1:0:1170:U:H5'	2.19	0.43
1:0:2191:A:C2'	1:0:2192:U:OP1	2.67	0.43
1:0:2206:C:H2'	1:0:2207:G:O4'	2.18	0.43
1:0:2792:C:C2'	1:0:2793:G:O5'	2.66	0.43
1:0:2:G:N2	1:0:2876:C:C2	2.87	0.43
1:0:2:G:O2'	1:0:3:U:H5'	2.19	0.43
1:0:448:C:H2'	1:0:449:C:H5'	2.01	0.43
1:0:579:G:H4'	1:0:994:A:C2	2.53	0.43
1:0:581:A:C2'	1:0:582:G:O5'	2.67	0.43
1:0:635:C:C2'	1:0:636:G:H5''	2.49	0.43
1:0:638:A:P	1:0:638:A:O4'	2.76	0.43
1:0:646:C:O2	1:0:650:U:C5'	2.66	0.43
1:0:879:A:N3	1:0:879:A:C2'	2.76	0.43
1:0:994:A:N7	1:0:995:A:N1	2.67	0.43
1:0:1199:U:O4	1:0:1201:G:O6	2.37	0.43
1:0:1285:A:O2'	1:0:1286:U:OP1	2.27	0.43
1:0:1340:C:H2'	1:0:1341:G:O4'	2.19	0.43
1:0:1572:C:H2'	1:0:1573:G:H5'	1.99	0.43
1:0:1919:A:O4'	1:0:1923:U:C5	2.72	0.43
1:0:2082:C:H2'	1:0:2083:G:O4'	2.19	0.43
1:0:2225:G:C5	1:0:2405:A:N3	2.86	0.43
1:0:2268:G:C6	1:0:2269:G:C6	3.07	0.43
1:0:2563:U:C2'	1:0:2564:U:C5'	2.95	0.43
1:0:2595:C:C2	1:0:2596:C:C6	3.07	0.43
1:0:82:G:N2	1:0:100:G:O2'	2.52	0.43
1:0:190:A:O2'	1:0:191:G:H5'	2.18	0.43
1:0:349:G:N2	1:0:350:U:C1'	2.82	0.43
1:0:461:A:C5	1:0:462:G:N7	2.87	0.43
1:0:469:G:C2'	1:0:470:U:OP2	2.66	0.43
1:0:509:U:H3'	1:0:510:G:H8	1.83	0.43
1:0:677:G:H4'	1:0:952:A:OP1	2.19	0.43
1:0:698:A:O4'	1:0:700:C:C5	2.72	0.43
1:0:741:G:C5	1:0:743:A:N7	2.87	0.43
1:0:889:C:H2'	1:0:890:U:C6	2.53	0.43
1:0:945:G:H2'	1:0:946:U:C6	2.51	0.43
1:0:982:C:OP2	1:0:985:G:C2	2.72	0.43
1:0:1135:C:O2'	1:0:1136:G:H5'	2.18	0.43
1:0:1336:G:N2	1:0:1346:C:H1'	2.33	0.43
1:0:1359:G:C5	1:0:1360:G:N7	2.86	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1466:C:H3'	1:0:1466:C:C6	2.54	0.43
1:0:1511:A:N7	1:0:1512:A:C4	2.87	0.43
1:0:1624:A:H2'	1:0:1626:A:OP1	2.19	0.43
1:0:1631:C:C5	1:0:1633:C:C2	3.07	0.43
1:0:1918:G:H3'	1:0:1945:C:H42	1.83	0.43
1:0:2043:A:H1'	1:0:2481:G:C4	2.53	0.43
1:0:2119:A:O2'	1:0:2120:C:H5'	2.18	0.43
1:0:2225:G:H2'	1:0:2226:A:C8	2.54	0.43
1:0:2759:U:C4'	1:0:2760:G:O5'	2.67	0.43
1:0:2841:U:O2'	1:0:2842:C:O5'	2.37	0.43
1:0:5:A:N1	1:0:2873:G:C6	2.87	0.43
1:0:222:G:H1'	1:0:397:U:O2	2.19	0.43
1:0:225:G:C2	1:0:2410:U:C4'	2.89	0.43
1:0:225:G:C5'	1:0:226:C:H5'	2.49	0.43
1:0:456:C:O2'	1:0:457:C:H5'	2.18	0.43
1:0:569:C:N4	1:0:570:G:C6	2.86	0.43
1:0:641:G:N2	1:0:644:A:OP2	2.44	0.43
1:0:815:A:C5	1:0:816:U:O4	2.72	0.43
1:0:854:G:C2	1:0:855:G:C4	3.07	0.43
1:0:939:C:C4	1:0:940:G:O6	2.71	0.43
1:0:1199:U:C5	1:0:1201:G:O6	2.72	0.43
1:0:1211:G:H2'	1:0:1212:U:H6	1.84	0.43
1:0:1337:G:O2'	1:0:1338:G:OP1	2.30	0.43
1:0:1365:U:H1'	1:0:1586:A:H2	1.84	0.43
1:0:1400:A:C2	1:0:1414:G:C2	3.07	0.43
1:0:1424:U:O2'	1:0:1425:G:H5'	2.18	0.43
1:0:1491:C:H2'	1:0:1492:A:O5'	2.19	0.43
1:0:1540:C:H2'	1:0:1541:G:O4'	2.19	0.43
1:0:2161:C:O5'	1:0:2161:C:H6	2.02	0.43
1:0:2226:A:C4	1:0:2227:C:C5	3.07	0.43
1:0:2409:A:H2'	1:0:2410:U:O5'	2.19	0.43
1:0:2597:G:C2'	1:0:2598:C:H5'	2.48	0.43
1:0:2817:A:C4	1:0:2851:G:N2	2.87	0.43
1:0:618:A:H2'	1:0:619:A:O4'	2.19	0.42
1:0:926:C:C3'	1:0:927:C:H5'	2.49	0.42
1:0:984:A:C1'	1:0:1202:U:C5	2.95	0.42
1:0:1393:G:N2	1:0:1586:A:N1	2.61	0.42
1:0:1438:G:H2'	1:0:1439:G:C4'	2.49	0.42
1:0:1577:G:N2	1:0:1578:U:H1'	2.34	0.42
1:0:1627:C:O2	1:0:1627:C:H2'	2.19	0.42
1:0:1713:G:C6	1:0:1714:A:C5	3.07	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1849:G:H2'	1:0:1850:G:H8	1.82	0.42
1:0:2031:A:C2	1:0:2600:A:C2	3.07	0.42
1:0:2177:U:H2'	1:0:2178:U:C6	2.53	0.42
1:0:2277:A:C2	1:0:2278:A:H1'	2.53	0.42
1:0:2324:G:N7	1:0:2360:C:O2	2.52	0.42
1:0:2455:A:N3	1:0:2460:G:N2	2.67	0.42
1:0:2503:G:C3'	1:0:2504:G:H5''	2.49	0.42
1:0:2713:A:H2'	1:0:2714:A:C8	2.51	0.42
1:0:2824:C:O2'	1:0:2825:A:P	2.77	0.42
1:0:65:C:C2	1:0:88:G:N2	2.88	0.42
1:0:106:G:C2	1:0:107:G:C5	3.07	0.42
1:0:338:G:H2'	1:0:339:U:O5'	2.19	0.42
1:0:343:A:N7	1:0:346:C:C4	2.87	0.42
1:0:715:U:O2	1:0:715:U:C2'	2.61	0.42
1:0:732:G:O5'	1:0:732:G:C8	2.67	0.42
1:0:774:A:C8	1:0:774:A:C3'	3.01	0.42
1:0:1194:U:O2'	1:0:1195:U:P	2.77	0.42
1:0:1223:G:C2	1:0:1250:A:N7	2.87	0.42
1:0:1287:A:C6	1:0:1315:A:C2	3.07	0.42
1:0:1426:U:H2'	1:0:1427:G:O4'	2.19	0.42
1:0:1438:G:N2	1:0:1591:U:C6	2.87	0.42
1:0:1624:A:C5	1:0:1627:C:C4	3.07	0.42
1:0:1698:C:H4'	1:0:1699:A:OP1	2.15	0.42
1:0:1766:U:OP1	1:0:1962:C:O2'	2.35	0.42
1:0:1813:A:C5	1:0:1814:G:N7	2.87	0.42
1:0:2262:C:C2	1:0:2368:G:C2	3.08	0.42
1:0:2452:U:H2'	1:0:2453:C:O5'	2.20	0.42
1:0:2558:C:H2'	1:0:2559:U:O4'	2.20	0.42
1:0:2615:U:H2'	1:0:2616:U:C6	2.54	0.42
1:0:2:G:N2	1:0:2876:C:O2	2.52	0.42
1:0:6:A:N6	1:0:7:G:C6	2.87	0.42
1:0:54:G:N2	1:0:114:C:C2	2.87	0.42
1:0:55:A:N6	1:0:69:G:N1	2.67	0.42
1:0:71:A:N6	1:0:110:U:H4'	2.33	0.42
1:0:242:A:N6	1:0:441:A:N7	2.66	0.42
1:0:450:C:N3	1:0:451:A:N7	2.67	0.42
1:0:452:G:C2	1:0:453:U:C2	3.08	0.42
1:0:516:G:H4'	1:0:519:C:O2	2.19	0.42
1:0:697:G:C2	1:0:788:G:C2	3.07	0.42
1:0:751:G:H2'	1:0:752:G:O4'	2.18	0.42
1:0:987:G:C5'	1:0:1167:A:N6	2.74	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1011:A:N6	1:0:1166:A:C8	2.87	0.42
1:0:1040:A:H2'	1:0:1041:G:H5'	2.02	0.42
1:0:1264:C:C3'	1:0:1265:G:H5''	2.49	0.42
1:0:1331:G:H2'	1:0:1331:G:N3	2.33	0.42
1:0:1332:G:N1	1:0:1333:G:N2	2.67	0.42
1:0:1624:A:C6	1:0:1627:C:C2	3.07	0.42
1:0:1723:U:C2'	1:0:1724:C:OP1	2.68	0.42
1:0:2161:C:O2'	1:0:2162:C:OP1	2.35	0.42
1:0:2187:A:O2'	1:0:2188:A:H5'	2.18	0.42
1:0:2195:C:H2'	1:0:2196:U:C5'	2.49	0.42
1:0:2357:A:H8	1:0:2357:A:O5'	2.01	0.42
1:0:2410:U:O2	1:0:2412:A:N7	2.52	0.42
1:0:2551:A:C8	2:B:144:ARG:HG2	2.54	0.42
1:0:2736:U:C5	1:0:2739:G:O6	2.72	0.42
1:0:309:G:C2	1:0:350:U:C5	3.07	0.42
1:0:430:C:C2	1:0:431:G:C8	3.08	0.42
1:0:611:C:C2'	1:0:612:G:H5'	2.47	0.42
1:0:762:A:N3	1:0:762:A:H2'	2.34	0.42
1:0:953:G:H1'	1:0:1203:A:H2	1.83	0.42
1:0:1220:G:N2	1:0:1221:C:C2	2.87	0.42
1:0:1322:G:O2'	1:0:1323:G:H5'	2.18	0.42
1:0:1469:U:H3'	1:0:1470:G:C8	2.54	0.42
1:0:1851:A:O2'	1:0:1852:G:H5'	2.19	0.42
1:0:1960:A:C2'	1:0:1961:A:H5'	2.50	0.42
1:0:2043:A:C2	1:0:2481:G:C6	3.08	0.42
1:0:2069:U:H2'	1:0:2070:G:H8	1.84	0.42
1:0:2511:G:N2	1:0:2642:G:O2'	2.52	0.42
1:0:2661:G:C2'	1:0:2662:C:H5'	2.48	0.42
1:0:2821:G:C6	1:0:2846:G:N1	2.87	0.42
1:0:2828:C:H2'	1:0:2829:A:H8	1.84	0.42
1:0:40:U:C4	1:0:41:G:N7	2.88	0.42
1:0:788:G:H5'	1:0:790:A:C1'	2.41	0.42
1:0:814:G:C3'	1:0:814:G:C8	3.03	0.42
1:0:863:C:C2	1:0:940:G:N2	2.87	0.42
1:0:958:G:O2'	1:0:995:A:H2	2.03	0.42
1:0:977:G:C6	1:0:978:U:N3	2.88	0.42
1:0:1002:C:O5'	1:0:1002:C:H6	2.01	0.42
1:0:1032:A:C8	1:0:1032:A:H3'	2.55	0.42
1:0:1175:A:N1	1:0:1176:U:C4	2.87	0.42
1:0:1281:A:H2'	1:0:1282:A:H8	1.84	0.42
1:0:1299:A:N6	1:0:1302:C:C2	2.88	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1466:C:H6	1:0:1466:C:H5''	1.83	0.42
1:0:1540:C:C2	1:0:1541:G:C8	3.08	0.42
1:0:1552:C:C2'	1:0:1553:G:H5'	2.49	0.42
1:0:1618:U:C6	1:0:1618:U:C3'	3.02	0.42
1:0:1628:C:N3	1:0:1629:G:C8	2.87	0.42
1:0:1791:C:H2'	1:0:1792:C:OP2	2.20	0.42
1:0:1941:C:C2'	1:0:1942:G:H5'	2.50	0.42
1:0:2007:G:H2'	1:0:2008:C:O4'	2.20	0.42
1:0:2123:G:O2'	1:0:2124:C:H5'	2.20	0.42
1:0:2241:U:N3	1:0:2242:C:C5	2.88	0.42
1:0:2242:C:N4	1:0:2257:A:N6	2.67	0.42
1:0:2327:U:C4	1:0:2361:G:N2	2.88	0.42
1:0:2352:A:C2	1:0:2353:G:C5	3.07	0.42
1:0:2486:C:C6	1:0:2487:G:N7	2.87	0.42
1:0:5:A:C4	1:0:6:A:N7	2.88	0.42
1:0:48:A:C4'	1:0:49:U:O5'	2.66	0.42
1:0:121:G:H2'	1:0:122:G:O4'	2.19	0.42
1:0:520:C:O2	1:0:520:C:H2'	2.20	0.42
1:0:524:A:H1'	1:0:590:C:O2'	2.20	0.42
1:0:820:U:H2'	1:0:821:A:H8	1.84	0.42
1:0:1332:G:C2	1:0:1347:C:C2	3.08	0.42
1:0:1548:U:N3	1:0:1549:C:N4	2.67	0.42
1:0:1614:C:O2	1:0:1614:C:C2'	2.66	0.42
1:0:1684:G:O2'	1:0:1685:A:O5'	2.37	0.42
1:0:1977:C:C2	1:0:1978:U:H5	2.38	0.42
1:0:2376:G:C2	1:0:2399:C:O2	2.73	0.42
1:0:2658:A:C2'	1:0:2659:C:H5'	2.49	0.42
1:0:2703:C:H2'	1:0:2704:U:H5'	2.02	0.42
1:0:2736:U:C4	1:0:2739:G:C6	3.07	0.42
1:0:2845:C:C4	1:0:2846:G:N7	2.88	0.42
1:0:2867:G:H2'	1:0:2867:G:N3	2.34	0.42
1:0:182:G:O2'	1:0:183:U:C5	2.73	0.42
1:0:225:G:N7	1:0:227:G:N3	2.66	0.42
1:0:481:A:C6	1:0:482:A:C6	3.07	0.42
1:0:653:G:C8	1:0:653:G:C3'	3.03	0.42
1:0:927:C:H3'	1:0:928:G:C8	2.54	0.42
1:0:940:G:C5	1:0:941:U:C6	3.07	0.42
1:0:984:A:C1'	1:0:1202:U:C6	3.02	0.42
1:0:1005:U:H3	1:0:1007:A:H62	1.67	0.42
1:0:1005:U:O2'	1:0:1007:A:OP1	2.33	0.42
1:0:1438:G:O2'	1:0:1439:G:H5'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1536:G:O2'	1:0:1537:U:H5'	2.20	0.42
1:0:1750:A:H5'	1:0:2695:C:H1'	2.02	0.42
1:0:2119:A:H8	1:0:2119:A:O5'	2.03	0.42
1:0:4:C:C2'	1:0:5:A:C5'	2.85	0.42
1:0:69:G:C2'	1:0:111:G:O2'	2.66	0.42
1:0:174:A:C2	1:0:175:C:C1'	3.02	0.42
1:0:308:C:C2'	1:0:308:C:O2	2.67	0.42
1:0:539:A:N6	1:0:2024:U:H3	1.92	0.42
1:0:614:G:N1	1:0:634:G:C2	2.88	0.42
1:0:787:A:C8	1:0:787:A:C3'	3.01	0.42
1:0:796:A:H2'	1:0:798:G:OP1	2.19	0.42
1:0:872:G:H8	1:0:872:G:OP2	2.03	0.42
1:0:1088:A:H2'	1:0:1089:C:O4'	2.20	0.42
1:0:1175:A:C2	1:0:1176:U:C6	3.08	0.42
1:0:1415:C:C2'	1:0:1416:A:H5'	2.50	0.42
1:0:1704:G:N2	1:0:1718:A:H62	2.16	0.42
1:0:1926:U:HO2'	1:0:1927:U:P	2.43	0.42
1:0:1964:A:OP1	1:0:1965:U:OP2	2.37	0.42
1:0:2326:C:H2'	1:0:2327:U:C6	2.53	0.42
1:0:2383:C:O2	1:0:2383:C:C2'	2.66	0.42
1:0:2510:A:N6	1:0:2641:A:H61	2.18	0.42
1:0:2637:C:N3	1:0:2642:G:O6	2.53	0.42
1:0:2673:G:O2'	1:0:2674:C:H5'	2.20	0.42
1:0:188:G:H2'	1:0:189:A:H8	1.85	0.42
1:0:340:G:C5'	1:0:341:A:OP2	2.68	0.42
1:0:541:C:C5	1:0:572:G:O4'	2.73	0.42
1:0:646:C:O2'	1:0:650:U:OP1	2.22	0.42
1:0:715:U:O2	1:0:716:U:C6	2.73	0.42
1:0:764:A:HO2'	1:0:765:C:P	2.42	0.42
1:0:794:A:C5'	1:0:795:A:OP1	2.68	0.42
1:0:831:G:OP2	1:0:1199:U:C4	2.73	0.42
1:0:859:U:C6	1:0:859:U:C3'	3.03	0.42
1:0:1213:U:N3	1:0:1260:A:H2	2.14	0.42
1:0:1298:G:C5	1:0:1342:U:C4	3.08	0.42
1:0:1332:G:C2	1:0:1333:G:N2	2.88	0.42
1:0:1346:C:C4	1:0:1347:C:N4	2.87	0.42
1:0:1404:C:C4	1:0:1407:G:N7	2.87	0.42
1:0:1407:G:N2	1:0:1408:A:C2	2.88	0.42
1:0:2241:U:C2'	1:0:2242:C:O5'	2.68	0.42
1:0:2367:A:N7	1:0:2368:G:C6	2.88	0.42
1:0:2454:C:H2'	1:0:2455:A:H5'	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2455:A:C2	1:0:2460:G:N2	2.88	0.42
1:0:2641:A:H2'	1:0:2642:G:H5'	2.01	0.42
1:0:2669:C:H2'	1:0:2670:C:OP2	2.20	0.42
1:0:2813:G:H2'	1:0:2814:G:O4'	2.19	0.42
1:0:2871:U:H2'	1:0:2872:U:C5	2.51	0.42
1:0:27:G:C2	1:0:522:G:O2'	2.69	0.42
1:0:357:A:H3'	1:0:358:C:O4'	2.20	0.42
1:0:446:C:H2'	1:0:447:U:O4'	2.20	0.42
1:0:475:U:C6	1:0:801:A:C2	3.07	0.42
1:0:566:U:O2'	1:0:567:G:H5'	2.19	0.42
1:0:603:C:C4	1:0:604:U:C4	3.08	0.42
1:0:614:G:N1	1:0:634:G:N1	2.68	0.42
1:0:707:U:H2'	1:0:708:G:O5'	2.20	0.42
1:0:931:G:C2	1:0:932:G:H1'	2.54	0.42
1:0:1338:G:H4'	1:0:1339:U:OP1	2.20	0.42
1:0:1460:G:N2	1:0:1563:U:C6	2.88	0.42
1:0:1810:U:C2'	1:0:1811:A:OP2	2.67	0.42
1:0:1838:G:N2	1:0:1878:C:C2	2.88	0.42
1:0:1873:A:H2	1:0:2214:G:H1'	1.84	0.42
1:0:2031:A:C2	1:0:2600:A:N3	2.88	0.42
1:0:2434:G:C6	1:0:2435:C:N4	2.88	0.42
1:0:2759:U:C5'	1:0:2760:G:O5'	2.67	0.42
1:0:35:G:C2'	1:0:36:G:O5'	2.68	0.41
1:0:57:G:C2	1:0:69:G:C4	3.08	0.41
1:0:137:A:O5'	1:0:137:A:H8	2.03	0.41
1:0:406:G:C6	1:0:407:A:C5	3.08	0.41
1:0:746:G:O6	1:0:774:A:H2'	2.20	0.41
1:0:836:G:N2	1:0:847:C:C2	2.85	0.41
1:0:1214:C:C2	1:0:1259:A:C2	3.08	0.41
1:0:1235:C:H2'	1:0:1236:G:C8	2.54	0.41
1:0:1283:C:H5''	1:0:1284:G:C5'	2.50	0.41
1:0:1423:A:C2	1:0:1609:G:C2	3.08	0.41
1:0:1442:C:N4	1:0:1585:A:N7	2.68	0.41
1:0:1597:A:H2'	1:0:1598:C:C6	2.55	0.41
1:0:1765:C:H4'	1:0:1962:C:O2	2.19	0.41
1:0:2064:U:C5	1:0:2216:G:N1	2.88	0.41
1:0:2109:A:O2'	1:0:2110:G:H5'	2.19	0.41
1:0:2250:G:N3	1:0:2251:U:O2	2.53	0.41
1:0:2608:A:O2'	1:0:2609:G:P	2.76	0.41
1:0:2870:C:O2'	1:0:2871:U:H5'	2.19	0.41
1:0:27:G:O2'	1:0:28:A:H8	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:158:A:C2	1:0:159:A:N3	2.88	0.41
1:0:233:A:H2'	1:0:234:C:C6	2.51	0.41
1:0:349:G:N1	1:0:350:U:O2	2.53	0.41
1:0:475:U:C4	1:0:801:A:C5	3.08	0.41
1:0:581:A:N1	1:0:2012:A:C2	2.87	0.41
1:0:627:A:O2'	1:0:628:A:O5'	2.39	0.41
1:0:684:C:H6	1:0:684:C:H5'	1.85	0.41
1:0:691:C:H2'	1:0:692:C:C6	2.48	0.41
1:0:753:U:H1'	1:0:1964:A:N3	2.35	0.41
1:0:777:A:C6	1:0:794:A:C2	3.09	0.41
1:0:778:G:N2	1:0:779:U:C2	2.88	0.41
1:0:825:C:C1'	1:0:1263:G:C2	3.02	0.41
1:0:831:G:H3'	1:0:1201:G:O6	2.20	0.41
1:0:880:C:H3'	1:0:880:C:OP2	2.20	0.41
1:0:1168:G:C2	1:0:1169:C:C2	3.09	0.41
1:0:1277:G:H2'	1:0:1997:A:H62	1.83	0.41
1:0:1355:A:H2	1:0:1409:U:H2'	1.85	0.41
1:0:1359:G:C6	1:0:1360:G:C5	3.09	0.41
1:0:1469:U:O5'	1:0:1470:G:OP2	2.38	0.41
1:0:1474:A:O2'	1:0:1475:U:C5'	2.66	0.41
1:0:1497:C:H3'	1:0:1497:C:C6	2.56	0.41
1:0:1544:A:C2'	1:0:1545:G:O4'	2.66	0.41
1:0:1683:G:H2'	1:0:1684:G:C5'	2.40	0.41
1:0:1728:A:H2'	1:0:1729:C:C6	2.55	0.41
1:0:1831:G:H2'	1:0:1832:G:O5'	2.20	0.41
1:0:2163:U:H6	1:0:2163:U:O5'	2.01	0.41
1:0:2198:U:C6	1:0:2199:C:O4'	2.73	0.41
1:0:2361:G:H3'	1:0:2361:G:OP1	2.20	0.41
1:0:2563:U:H2'	1:0:2564:U:C6	2.42	0.41
1:0:2692:A:C2'	1:0:2693:U:OP1	2.66	0.41
1:0:2759:U:O4'	1:0:2761:A:N3	2.53	0.41
1:0:2793:G:C2	1:0:2794:G:H1'	2.54	0.41
1:0:2807:U:C2'	1:0:2808:U:OP2	2.68	0.41
1:0:2823:G:O2'	1:0:2824:C:P	2.79	0.41
1:0:5:A:C2	1:0:2873:G:C4	3.08	0.41
1:0:69:G:H4'	1:0:70:A:OP1	2.17	0.41
1:0:195:A:H2'	1:0:196:A:O4'	2.19	0.41
1:0:306:G:O6	1:0:355:G:N2	2.53	0.41
1:0:978:U:H3'	1:0:978:U:H6	1.85	0.41
1:0:1077:U:O2	1:0:1079:G:C8	2.73	0.41
1:0:1168:G:C8	1:0:1168:G:O5'	2.73	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1263:G:H4'	1:0:1264:C:OP1	2.19	0.41
1:0:1312:G:H4'	1:0:1314:A:N9	2.35	0.41
1:0:1469:U:OP2	1:0:1471:G:OP2	2.38	0.41
1:0:1713:G:N2	1:0:1960:A:O2'	2.52	0.41
1:0:1992:G:C2'	1:0:1993:G:H5'	2.50	0.41
1:0:2050:G:N1	1:0:2052:G:C5	2.88	0.41
1:0:2541:U:C4	1:0:2542:U:C5	3.08	0.41
1:0:2663:U:H2'	1:0:2664:G:O4'	2.20	0.41
1:0:2723:C:C2	1:0:2742:G:C2	3.08	0.41
1:0:118:U:O2'	1:0:119:G:OP2	2.36	0.41
1:0:151:G:O2'	1:0:152:G:H5'	2.21	0.41
1:0:164:G:C2'	1:0:165:G:H5'	2.50	0.41
1:0:192:G:O2'	1:0:193:A:OP2	2.33	0.41
1:0:477:A:H2'	1:0:478:G:H5'	2.02	0.41
1:0:490:A:O2'	1:0:491:A:P	2.79	0.41
1:0:697:G:N2	1:0:788:G:C2	2.89	0.41
1:0:982:C:O2	1:0:983:G:O4'	2.37	0.41
1:0:1241:G:N1	1:0:1242:A:N7	2.68	0.41
1:0:1498:G:O2'	1:0:1499:A:H5'	2.20	0.41
1:0:1586:A:C6	1:0:1587:A:C6	3.09	0.41
1:0:1625:A:H2'	1:0:1632:A:H4'	2.01	0.41
1:0:1683:G:N1	1:0:1978:U:O4	2.53	0.41
1:0:1695:U:H2'	1:0:1696:C:O4'	2.20	0.41
1:0:1790:G:C2'	1:0:1791:C:OP2	2.67	0.41
1:0:1965:U:H2'	1:0:1966:C:H6	1.85	0.41
1:0:2050:G:N2	1:0:2052:G:N9	2.68	0.41
1:0:2171:U:H6	1:0:2171:U:O5'	2.02	0.41
1:0:2345:A:C6	1:0:2346:G:C4	3.08	0.41
1:0:2386:G:H2'	1:0:2387:U:C6	2.56	0.41
1:0:2462:C:C5	1:0:2463:G:C8	3.09	0.41
1:0:2870:C:C2	1:0:2871:U:C6	3.09	0.41
1:0:57:G:N1	1:0:72:A:C6	2.88	0.41
1:0:65:C:O2	1:0:88:G:N2	2.54	0.41
1:0:125:A:H5''	1:0:126:C:C6	2.56	0.41
1:0:166:G:H1	1:0:182:G:H2'	1.86	0.41
1:0:188:G:H2'	1:0:189:A:C8	2.56	0.41
1:0:475:U:C1'	1:0:699:G:N1	2.69	0.41
1:0:483:A:H2'	1:0:484:G:H5'	2.01	0.41
1:0:499:G:C2	1:0:503:G:O6	2.73	0.41
1:0:746:G:N7	1:0:774:A:C4	2.87	0.41
1:0:846:A:H2'	1:0:847:C:H6	1.84	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1007:A:H2'	1:0:1008:G:H8	1.85	0.41
1:0:1538:A:H2'	1:0:1539:U:C6	2.56	0.41
1:0:1707:A:H2'	1:0:1708:C:C5'	2.49	0.41
1:0:1787:U:O2	1:0:1788:C:C6	2.73	0.41
1:0:2170:C:H2'	1:0:2171:U:O4'	2.20	0.41
1:0:2311:U:O4'	1:0:2315:A:N6	2.54	0.41
1:0:2431:C:N3	1:0:2432:A:C5	2.89	0.41
1:0:2634:G:H2'	1:0:2634:G:N3	2.35	0.41
1:0:2748:C:N4	1:0:2749:A:H62	2.19	0.41
1:0:32:C:H5'	1:0:1251:G:OP1	2.21	0.41
1:0:167:A:C8	1:0:168:A:N7	2.89	0.41
1:0:212:U:N3	1:0:443:A:C2	2.89	0.41
1:0:312:G:C6	1:0:313:U:O4	2.74	0.41
1:0:589:C:H2'	1:0:590:C:C6	2.55	0.41
1:0:661:C:C2	1:0:662:G:C8	3.08	0.41
1:0:1031:C:H3'	1:0:1031:C:H6	1.86	0.41
1:0:1158:A:H2'	1:0:1159:U:C1'	2.49	0.41
1:0:1306:U:H2'	1:0:1307:U:O5'	2.21	0.41
1:0:1344:C:O2'	1:0:1345:G:C8	2.74	0.41
1:0:1404:C:O2	1:0:1406:A:N7	2.54	0.41
1:0:1426:U:C2'	1:0:1427:G:H5'	2.51	0.41
1:0:1655:C:H2'	1:0:1656:U:O5'	2.21	0.41
1:0:2073:A:C6	1:0:2209:G:C6	3.08	0.41
1:0:2083:G:H2'	1:0:2084:G:C8	2.55	0.41
1:0:2136:G:H2'	1:0:2137:G:H8	1.86	0.41
1:0:2241:U:O2'	1:0:2242:C:O5'	2.37	0.41
1:0:2842:C:H2'	1:0:2842:C:O2	2.20	0.41
1:0:192:G:H4'	1:0:193:A:H4'	2.01	0.41
1:0:213:C:H2'	1:0:214:C:C6	2.45	0.41
1:0:225:G:N2	1:0:2410:U:C4'	2.84	0.41
1:0:492:G:O2'	1:0:493:A:OP2	2.38	0.41
1:0:589:C:O2'	1:0:590:C:H5'	2.20	0.41
1:0:613:A:O2'	1:0:614:G:H5'	2.20	0.41
1:0:785:U:O2'	1:0:786:U:H5'	2.20	0.41
1:0:830:C:O2'	1:0:852:U:C5'	2.64	0.41
1:0:1104:G:O5'	1:0:1104:G:H8	2.03	0.41
1:0:1177:U:N3	1:0:1197:U:O2	2.54	0.41
1:0:1289:A:N7	1:0:1662:G:C2	2.88	0.41
1:0:1563:U:C2	1:0:1564:U:C5	3.09	0.41
1:0:1602:G:H4'	1:0:1603:A:C8	2.56	0.41
1:0:1937:G:N3	1:0:2530:C:H5''	2.35	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2038:C:H4'	1:0:2039:G:H5''	2.02	0.41
1:0:2245:A:H1'	1:0:2251:U:O4	2.20	0.41
1:0:2515:G:H2'	1:0:2516:U:O4'	2.20	0.41
1:0:2636:A:H2'	1:0:2637:C:H5'	2.03	0.41
1:0:2668:U:C2	1:0:2693:U:C6	3.08	0.41
1:0:2673:G:N2	1:0:2674:C:C2	2.89	0.41
1:0:2823:G:O2'	1:0:2824:C:H6	2.03	0.41
1:0:158:A:H2'	1:0:159:A:O4'	2.21	0.41
1:0:195:A:H2'	1:0:196:A:C8	2.56	0.41
1:0:216:U:H2'	1:0:217:U:O4'	2.21	0.41
1:0:425:A:H2'	1:0:426:C:O4'	2.21	0.41
1:0:620:G:N2	1:0:628:A:H2	2.13	0.41
1:0:944:A:C6	1:0:945:G:C5	3.08	0.41
1:0:1030:U:N3	1:0:1031:C:C2	2.88	0.41
1:0:1045:G:N1	1:0:1133:G:C4	2.89	0.41
1:0:1162:A:C2	1:0:1163:C:C2	3.09	0.41
1:0:1345:G:H8	1:0:1345:G:O5'	2.04	0.41
1:0:1482:U:O4'	1:0:1562:G:N2	2.53	0.41
1:0:1496:G:N1	1:0:1527:G:N1	2.67	0.41
1:0:1500:U:O2'	1:0:1501:C:H5'	2.21	0.41
1:0:1680:U:O2'	1:0:1681:A:O5'	2.33	0.41
1:0:2047:C:H1'	1:0:2429:A:C2	2.56	0.41
1:0:2205:C:C2'	1:0:2206:C:H5'	2.44	0.41
1:0:2782:G:N3	1:0:2782:G:H2'	2.35	0.41
1:0:2866:A:H2'	1:0:2867:G:O4'	2.21	0.41
1:0:67:G:C5	1:0:72:A:H2	2.38	0.41
1:0:132:U:C4	1:0:133:C:N4	2.85	0.41
1:0:181:A:O2'	1:0:182:G:O5'	2.39	0.41
1:0:540:G:O6	1:0:2006:G:P	2.79	0.41
1:0:543:G:OP2	1:0:543:G:H8	2.03	0.41
1:0:697:G:C6	1:0:788:G:N7	2.89	0.41
1:0:717:G:H2'	1:0:739:G:N2	2.36	0.41
1:0:727:U:H2'	1:0:728:G:C5'	2.46	0.41
1:0:789:G:N1	1:0:2055:G:OP1	2.50	0.41
1:0:816:U:C2'	1:0:817:A:C5'	2.95	0.41
1:0:871:U:C2	1:0:2247:A:H8	2.39	0.41
1:0:970:A:H2'	1:0:971:A:C8	2.56	0.41
1:0:987:G:C5'	1:0:1167:A:H62	2.33	0.41
1:0:991:A:N3	1:0:2020:G:O2'	2.46	0.41
1:0:1016:C:C2	1:0:1154:A:N3	2.88	0.41
1:0:1054:C:C2'	1:0:1055:A:C5'	2.99	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1089:C:H2'	1:0:1099:A:C5'	2.51	0.41
1:0:1198:C:P	1:0:1199:U:O2'	2.79	0.41
1:0:1336:G:C2	1:0:1346:C:H1'	2.56	0.41
1:0:1352:G:H1	1:0:1353:A:N6	2.19	0.41
1:0:1493:A:C2	1:0:1494:G:H1'	2.55	0.41
1:0:1574:A:O2'	1:0:1575:C:O5'	2.27	0.41
1:0:1669:A:H3'	1:0:1670:G:O4'	2.20	0.41
1:0:1730:G:H2'	1:0:1731:C:H6	1.85	0.41
1:0:1883:A:C2	1:0:1953:A:N6	2.89	0.41
1:0:1911:A:H2'	1:0:1912:G:C5'	2.49	0.41
1:0:1953:A:C2'	1:0:1954:A:OP2	2.69	0.41
1:0:1960:A:H2'	1:0:1961:A:O4'	2.21	0.41
1:0:2005:U:C4'	1:0:2006:G:OP1	2.69	0.41
1:0:2015:G:H4'	1:0:2016:A:OP2	2.20	0.41
1:0:2054:A:H2	1:0:2419:C:H41	1.69	0.41
1:0:2060:A:H2'	1:0:2061:C:H6	1.85	0.41
1:0:2074:U:H3'	1:0:2075:U:C5'	2.51	0.41
1:0:2097:A:H5'	1:0:2105:U:OP1	2.20	0.41
1:0:2195:C:H2'	1:0:2196:U:H5'	2.03	0.41
1:0:2217:G:C5'	1:0:2218:G:N7	2.82	0.41
1:0:2219:U:O2	1:0:2219:U:H2'	2.20	0.41
1:0:2223:U:H2'	1:0:2224:U:C6	2.56	0.41
1:0:2291:U:O2'	1:0:2292:C:H5'	2.21	0.41
1:0:2354:G:HO2'	1:0:2356:A:H62	1.61	0.41
1:0:2464:G:C2'	1:0:2465:G:H5'	2.51	0.41
1:0:2487:G:N1	1:0:2561:G:O6	2.53	0.41
1:0:2565:C:C2	1:0:2566:A:C8	3.09	0.41
1:0:2565:C:C2'	1:0:2566:A:H5'	2.51	0.41
1:0:2621:G:C2	1:0:2753:C:C2	3.09	0.41
1:0:2662:C:N4	1:0:2707:G:H21	2.19	0.41
1:0:2729:A:H8	1:0:2729:A:O5'	2.04	0.41
1:0:2756:A:C2'	1:0:2757:G:OP2	2.69	0.41
1:0:2756:A:C2	1:0:2758:A:C6	3.09	0.41
1:0:2837:G:C4	1:0:2838:U:C6	3.09	0.41
1:0:67:G:C6	1:0:72:A:H2	2.37	0.41
1:0:115:G:C5	1:0:117:A:N6	2.89	0.41
1:0:314:G:C2	1:0:326:A:N3	2.89	0.41
1:0:333:A:C4'	1:0:351:A:O4'	2.69	0.41
1:0:351:A:H2'	1:0:352:G:C5'	2.51	0.41
1:0:366:U:H2'	1:0:367:G:C8	2.50	0.41
1:0:579:G:C4'	1:0:994:A:C2	3.04	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:754:G:O2'	1:0:755:C:H5'	2.21	0.41
1:0:1036:G:C2	1:0:1145:C:O4'	2.74	0.41
1:0:1045:G:H2'	1:0:1046:U:C6	2.56	0.41
1:0:1360:G:C2	1:0:1616:C:N3	2.89	0.41
1:0:1682:A:H2'	1:0:1683:G:H5'	2.03	0.41
1:0:1764:A:C5	1:0:1821:A:H1'	2.55	0.41
1:0:1851:A:H2'	1:0:1852:G:H8	1.86	0.41
1:0:1915:A:N1	1:0:1956:G:H1'	2.35	0.41
1:0:1925:C:N3	1:0:1926:U:C4	2.89	0.41
1:0:1975:G:HO2'	1:0:1976:U:P	2.44	0.41
1:0:2063:A:N6	1:0:2220:A:N6	2.69	0.41
1:0:2350:G:N1	1:0:2351:G:C5	2.89	0.41
1:0:2478:C:N4	1:0:2479:U:O4	2.53	0.41
1:0:2502:G:C6	1:0:2520:A:C2	3.08	0.41
1:0:2724:G:N7	1:0:2735:C:C2	2.89	0.41
1:0:2873:G:H2'	1:0:2874:A:H8	1.86	0.41
1:0:67:G:N9	1:0:68:C:C6	2.90	0.40
1:0:246:C:C6	1:0:373:A:H1'	2.57	0.40
1:0:487:G:H4'	1:0:512:A:N6	2.36	0.40
1:0:754:G:C4	1:0:755:C:C5	3.09	0.40
1:0:1135:C:H2'	1:0:1136:G:O4'	2.22	0.40
1:0:1327:C:O5'	1:0:1327:C:H6	2.04	0.40
1:0:1433:A:C6	1:0:1434:U:C2	3.08	0.40
1:0:1463:A:O2'	1:0:1464:A:H5'	2.20	0.40
1:0:1531:C:H2'	1:0:1532:A:H5'	2.02	0.40
1:0:1744:G:O6	1:0:1747:G:C6	2.74	0.40
1:0:1772:C:O2'	1:0:1773:C:P	2.79	0.40
1:0:1937:G:HO2'	1:0:1939:U:H5	1.66	0.40
1:0:2555:G:O2'	1:0:2558:C:OP2	2.34	0.40
1:0:2637:C:H2'	1:0:2638:G:C8	2.56	0.40
1:0:2661:G:O6	1:0:2708:U:C1'	2.69	0.40
1:0:2694:G:C6	1:0:2695:C:N4	2.90	0.40
1:0:57:G:O6	1:0:66:U:O4	2.39	0.40
1:0:59:G:N7	1:0:62:U:C6	2.89	0.40
1:0:70:A:OP2	1:0:110:U:H2'	2.21	0.40
1:0:468:A:O2'	1:0:469:G:C4'	2.67	0.40
1:0:524:A:H2'	1:0:525:A:O4'	2.21	0.40
1:0:531:G:H2'	1:0:532:A:C8	2.51	0.40
1:0:572:G:H2'	1:0:573:C:H6	1.86	0.40
1:0:572:G:H2'	1:0:573:C:C6	2.56	0.40
1:0:636:G:C8	1:0:637:G:C8	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:756:C:H6	1:0:756:C:O5'	2.03	0.40
1:0:788:G:C2	1:0:800:U:C2'	2.92	0.40
1:0:831:G:H5'	1:0:852:U:OP1	2.21	0.40
1:0:953:G:C6	1:0:954:U:C4	3.10	0.40
1:0:1054:C:H2'	1:0:1055:A:C5'	2.41	0.40
1:0:2032:G:O2'	1:0:2033:C:H5'	2.20	0.40
1:0:2500:C:H4'	1:0:2543:A:O2'	2.21	0.40
1:0:2644:A:H2'	1:0:2645:C:C6	2.57	0.40
1:0:2712:G:H3'	1:0:2713:A:C5'	2.41	0.40
1:0:60:A:N6	1:0:61:U:C4	2.90	0.40
1:0:195:A:O2'	1:0:196:A:H5'	2.22	0.40
1:0:464:G:C6	1:0:465:C:N4	2.89	0.40
1:0:594:G:C6	1:0:1264:C:C4	3.09	0.40
1:0:614:G:N1	1:0:634:G:N2	2.70	0.40
1:0:646:C:O2	1:0:650:U:H5''	2.22	0.40
1:0:649:G:N2	1:0:660:G:C2	2.90	0.40
1:0:676:G:C6	1:0:677:G:C5	3.09	0.40
1:0:710:C:H2'	1:0:711:C:C6	2.56	0.40
1:0:1016:C:C2	1:0:1154:A:C2	3.09	0.40
1:0:1040:A:H2'	1:0:1041:G:O4'	2.21	0.40
1:0:1299:A:C6	1:0:1302:C:C4	3.10	0.40
1:0:1641:C:C2'	1:0:1642:G:H5'	2.50	0.40
1:0:1831:G:O2'	1:0:1832:G:H5'	2.21	0.40
1:0:1898:U:C5	1:0:1899:A:N7	2.90	0.40
1:0:1904:G:H2'	1:0:1905:G:O4'	2.21	0.40
1:0:2137:G:H2'	1:0:2138:U:C6	2.57	0.40
1:0:2237:C:C2	1:0:2405:A:H4'	2.57	0.40
1:0:2451:G:O2'	1:0:2457:A:N6	2.54	0.40
1:0:2454:C:O5'	1:0:2454:C:H6	2.04	0.40
1:0:2561:G:H5'	1:0:2561:G:C8	2.57	0.40
1:0:2636:A:H1'	1:0:2644:A:N6	2.36	0.40
1:0:2757:G:C2'	1:0:2758:A:OP2	2.69	0.40
1:0:2813:G:C6	1:0:2814:G:C5	3.09	0.40
1:0:58:C:C1'	1:0:72:A:N7	2.84	0.40
1:0:223:C:O2	1:0:223:C:H2'	2.21	0.40
1:0:478:G:C6	1:0:479:G:N7	2.90	0.40
1:0:565:A:O5'	1:0:565:A:H8	2.05	0.40
1:0:573:C:H1'	1:0:1266:G:H22	1.86	0.40
1:0:636:G:H2'	1:0:637:G:C5'	2.50	0.40
1:0:778:G:H5'	1:0:778:G:C8	2.54	0.40
1:0:941:U:OP1	1:0:941:U:O3'	2.40	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1008:G:C2	1:0:1009:C:C6	3.09	0.40
1:0:1211:G:N2	1:0:1263:G:C5	2.89	0.40
1:0:1238:A:O2'	1:0:1239:A:H5'	2.21	0.40
1:0:1405:A:H2'	1:0:1406:A:C8	2.56	0.40
1:0:1578:U:N3	1:0:1579:G:C5	2.89	0.40
1:0:1632:A:O2'	1:0:1633:C:OP1	2.39	0.40
1:0:1715:A:C2	1:0:1717:A:C8	3.09	0.40
1:0:1982:C:OP1	1:0:2703:C:O2'	2.36	0.40
1:0:2301:A:H2'	1:0:2302:G:O4'	2.21	0.40
1:0:2535:C:H2'	1:0:2536:G:O4'	2.21	0.40
1:0:2621:G:N2	1:0:2753:C:C2	2.89	0.40
1:0:2723:C:C2	1:0:2742:G:N2	2.90	0.40
1:0:2787:A:H2'	1:0:2788:C:H6	1.86	0.40
3:0:2881:G19:H14	3:0:2881:G19:C10	2.46	0.40
1:0:115:G:C2	1:0:117:A:N6	2.89	0.40
1:0:198:A:O2'	1:0:199:A:P	2.80	0.40
1:0:219:G:O2'	1:0:231:G:N2	2.55	0.40
1:0:321:A:C2	1:0:323:G:H1'	2.56	0.40
1:0:539:A:N6	1:0:2006:G:C4	2.90	0.40
1:0:554:U:O2'	1:0:555:U:H4'	2.20	0.40
1:0:717:G:C2	1:0:739:G:C2	3.09	0.40
1:0:737:C:O2'	1:0:738:G:H5'	2.20	0.40
1:0:738:G:O5'	1:0:738:G:H8	2.05	0.40
1:0:816:U:H2'	1:0:817:A:O4'	2.22	0.40
1:0:929:A:H5''	1:0:2247:A:H61	1.86	0.40
1:0:940:G:H2'	1:0:941:U:O4'	2.22	0.40
1:0:1314:A:H2'	1:0:1315:A:H3'	2.04	0.40
1:0:1442:C:H2'	1:0:1443:G:OP1	2.22	0.40
1:0:1540:C:H2'	1:0:1541:G:H8	1.87	0.40
1:0:1699:A:H2'	1:0:1700:C:C6	2.56	0.40
1:0:1763:G:H21	1:0:1765:C:H5''	1.84	0.40
1:0:1836:C:H2'	1:0:1837:G:O4'	2.21	0.40
1:0:1975:G:C6	1:0:1980:A:C6	3.09	0.40
1:0:2035:G:N2	1:0:2036:G:C4	2.89	0.40
1:0:2109:A:H2'	1:0:2110:G:H8	1.85	0.40
1:0:2392:G:O5'	1:0:2392:G:H8	2.05	0.40
1:0:2395:C:C3'	1:0:2396:C:H5''	2.51	0.40
1:0:2405:A:C8	1:0:2405:A:O5'	2.74	0.40
1:0:2408:G:C2'	1:0:2409:A:OP1	2.69	0.40
1:0:2416:U:O5'	1:0:2416:U:H6	2.05	0.40
1:0:2448:A:C6	1:0:2461:G:C8	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2857:C:H2'	1:0:2858:A:O5'	2.22	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](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	B	1/157 (1%)	1 (100%)	0	100	100

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

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

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2757/2880 (95%)	622 (22%)	184 (6%)

All (622) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	5	A
1	0	6	A
1	0	13	A
1	0	28	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	35	G
1	0	45	C
1	0	48	A
1	0	49	U
1	0	50	G
1	0	51	A
1	0	58	C
1	0	59	G
1	0	60	A
1	0	62	U
1	0	66	U
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	84	G
1	0	87	G
1	0	89	A
1	0	90	G
1	0	99	U
1	0	102	C
1	0	105	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	149	A
1	0	155	G
1	0	158	A
1	0	173	A
1	0	174	A
1	0	176	A
1	0	181	A
1	0	182	G
1	0	193	A
1	0	199	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	220	U
1	0	225	G
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	363	G
1	0	368	A
1	0	373	A
1	0	399	G
1	0	400	U
1	0	401	G
1	0	408	U
1	0	409	G
1	0	414	A
1	0	418	C
1	0	424	G
1	0	435	A
1	0	448	C
1	0	453	U
1	0	455	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	456	C
1	0	458	G
1	0	459	A
1	0	460	U
1	0	461	A
1	0	463	C
1	0	467	U
1	0	470	U
1	0	484	G
1	0	485	G
1	0	486	U
1	0	490	A
1	0	491	A
1	0	492	G
1	0	514	G
1	0	515	A
1	0	517	A
1	0	518	A
1	0	519	C
1	0	537	C
1	0	539	A
1	0	541	C
1	0	542	A
1	0	544	U
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	581	A
1	0	583	C
1	0	584	A
1	0	587	A
1	0	595	A
1	0	601	A
1	0	602	C
1	0	613	A
1	0	617	U
1	0	624	A
1	0	631	G
1	0	632	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	633	G
1	0	636	G
1	0	638	A
1	0	639	G
1	0	648	A
1	0	652	C
1	0	654	A
1	0	655	A
1	0	657	A
1	0	665	A
1	0	666	U
1	0	667	U
1	0	669	G
1	0	683	A
1	0	684	C
1	0	685	U
1	0	699	G
1	0	700	C
1	0	728	G
1	0	742	G
1	0	743	A
1	0	752	G
1	0	760	U
1	0	761	G
1	0	766	A
1	0	774	A
1	0	775	U
1	0	776	G
1	0	778	G
1	0	789	G
1	0	790	A
1	0	794	A
1	0	795	A
1	0	796	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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	813	A
1	0	814	G
1	0	815	A
1	0	818	G
1	0	819	C
1	0	824	U
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	859	U
1	0	872	G
1	0	874	A
1	0	879	A
1	0	880	C
1	0	912	A
1	0	919	U
1	0	922	A
1	0	926	C
1	0	930	A
1	0	931	G
1	0	941	U
1	0	942	U
1	0	943	U
1	0	944	A
1	0	952	A
1	0	955	G
1	0	956	A
1	0	957	G
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	996	C
1	0	1000	G
1	0	1001	A
1	0	1005	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1006	C
1	0	1007	A
1	0	1018	C
1	0	1019	U
1	0	1022	A
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	1060	C
1	0	1067	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	1099	A
1	0	1123	G
1	0	1137	A
1	0	1138	A
1	0	1140	A
1	0	1142	G
1	0	1145	C
1	0	1146	G
1	0	1149	G
1	0	1152	C
1	0	1154	A
1	0	1155	G
1	0	1160	C
1	0	1167	A
1	0	1168	G
1	0	1182	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1185	C
1	0	1187	A
1	0	1189	G
1	0	1194	U
1	0	1195	U
1	0	1199	U
1	0	1200	G
1	0	1220	G
1	0	1224	A
1	0	1225	G
1	0	1233	A
1	0	1234	C
1	0	1240	G
1	0	1250	A
1	0	1251	G
1	0	1253	C
1	0	1260	A
1	0	1261	G
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	1288	A
1	0	1289	A
1	0	1300	A
1	0	1302	C
1	0	1314	A
1	0	1316	G
1	0	1324	G
1	0	1326	U
1	0	1334	A
1	0	1338	G
1	0	1339	U
1	0	1342	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
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	1411	C
1	0	1433	A
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
1	0	1470	G
1	0	1473	U
1	0	1474	A
1	0	1475	U
1	0	1476	G
1	0	1482	U
1	0	1489	C
1	0	1490	U
1	0	1496	G
1	0	1497	C
1	0	1498	G
1	0	1505	U
1	0	1508	G
1	0	1513	U
1	0	1514	C
1	0	1524	C
1	0	1529	C
1	0	1532	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1544	A
1	0	1552	C
1	0	1553	G
1	0	1570	C
1	0	1571	G
1	0	1573	G
1	0	1574	A
1	0	1575	C
1	0	1583	A
1	0	1584	G
1	0	1585	A
1	0	1618	U
1	0	1623	C
1	0	1624	A
1	0	1625	A
1	0	1626	A
1	0	1627	C
1	0	1631	C
1	0	1632	A
1	0	1633	C
1	0	1634	A
1	0	1635	G
1	0	1648	C
1	0	1652	G
1	0	1657	A
1	0	1661	C
1	0	1664	G
1	0	1665	C
1	0	1670	G
1	0	1671	A
1	0	1673	C
1	0	1680	U
1	0	1685	A
1	0	1686	A
1	0	1687	C
1	0	1691	G
1	0	1692	C
1	0	1699	A
1	0	1709	U
1	0	1710	U
1	0	1711	C
1	0	1712	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1715	A
1	0	1716	G
1	0	1717	A
1	0	1724	C
1	0	1733	U
1	0	1734	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	1777	A
1	0	1778	U
1	0	1791	C
1	0	1792	C
1	0	1793	A
1	0	1800	A
1	0	1801	C
1	0	1802	A
1	0	1806	G
1	0	1807	A
1	0	1808	C
1	0	1811	A
1	0	1812	U
1	0	1821	A
1	0	1831	G
1	0	1840	A
1	0	1884	A
1	0	1889	G
1	0	1897	C
1	0	1919	A
1	0	1920	A
1	0	1922	U
1	0	1924	C
1	0	1926	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1927	U
1	0	1928	G
1	0	1938	U
1	0	1939	U
1	0	1947	G
1	0	1948	C
1	0	1949	A
1	0	1950	C
1	0	1953	A
1	0	1954	A
1	0	1955	G
1	0	1956	G
1	0	1957	C
1	0	1964	A
1	0	1976	U
1	0	1978	U
1	0	1979	C
1	0	1980	A
1	0	2003	A
1	0	2004	U
1	0	2005	U
1	0	2006	G
1	0	2014	A
1	0	2015	G
1	0	2016	A
1	0	2019	C
1	0	2029	G
1	0	2034	A
1	0	2035	G
1	0	2038	C
1	0	2039	G
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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2096	U
1	0	2118	A
1	0	2119	A
1	0	2140	G
1	0	2162	C
1	0	2168	A
1	0	2172	U
1	0	2183	C
1	0	2189	A
1	0	2191	A
1	0	2192	U
1	0	2195	C
1	0	2199	C
1	0	2204	A
1	0	2205	C
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	2248	A
1	0	2255	G
1	0	2262	C
1	0	2265	A
1	0	2266	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	2313	G
1	0	2314	A
1	0	2315	A
1	0	2316	G
1	0	2325	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2326	C
1	0	2329	C
1	0	2340	C
1	0	2351	G
1	0	2361	G
1	0	2362	G
1	0	2364	C
1	0	2381	A
1	0	2382	C
1	0	2385	U
1	0	2386	G
1	0	2396	C
1	0	2402	U
1	0	2404	A
1	0	2405	A
1	0	2407	G
1	0	2408	G
1	0	2409	A
1	0	2418	A
1	0	2419	C
1	0	2420	C
1	0	2427	A
1	0	2428	U
1	0	2429	A
1	0	2437	G
1	0	2438	A
1	0	2448	A
1	0	2449	G
1	0	2453	C
1	0	2455	A
1	0	2470	U
1	0	2477	C
1	0	2481	G
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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2521	A
1	0	2522	G
1	0	2545	A
1	0	2546	G
1	0	2551	A
1	0	2552	C
1	0	2561	G
1	0	2564	U
1	0	2565	C
1	0	2578	G
1	0	2581	A
1	0	2582	G
1	0	2588	U
1	0	2589	C
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	2662	C
1	0	2668	U
1	0	2681	A
1	0	2692	A
1	0	2693	U
1	0	2694	G
1	0	2699	G
1	0	2705	A
1	0	2707	G
1	0	2712	G
1	0	2713	A
1	0	2728	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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2745	A
1	0	2756	A
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	2770	A
1	0	2771	C
1	0	2774	U
1	0	2782	G
1	0	2783	U
1	0	2784	A
1	0	2795	A
1	0	2796	A
1	0	2807	U
1	0	2808	U
1	0	2809	A
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	2861	A
1	0	2864	C
1	0	2866	A
1	0	2867	G
1	0	2868	G

All (184) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	0	5	A
1	0	13	A
1	0	27	G
1	0	48	A
1	0	50	G
1	0	69	G
1	0	71	A
1	0	73	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	83	A
1	0	117	A
1	0	118	U
1	0	123	A
1	0	173	A
1	0	176	A
1	0	181	A
1	0	192	G
1	0	198	A
1	0	218	A
1	0	219	G
1	0	312	G
1	0	322	A
1	0	332	C
1	0	333	A
1	0	334	G
1	0	340	G
1	0	342	G
1	0	399	G
1	0	403	A
1	0	434	C
1	0	454	G
1	0	458	G
1	0	460	U
1	0	466	A
1	0	469	G
1	0	485	G
1	0	490	A
1	0	513	A
1	0	516	G
1	0	540	G
1	0	541	C
1	0	571	U
1	0	580	A
1	0	582	G
1	0	583	C
1	0	612	G
1	0	631	G
1	0	682	G
1	0	683	A
1	0	698	A
1	0	699	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	741	G
1	0	760	U
1	0	765	C
1	0	775	U
1	0	777	A
1	0	789	G
1	0	795	A
1	0	797	A
1	0	801	A
1	0	805	G
1	0	814	G
1	0	843	G
1	0	871	U
1	0	956	A
1	0	968	C
1	0	972	C
1	0	984	A
1	0	985	G
1	0	1000	G
1	0	1033	G
1	0	1137	A
1	0	1139	A
1	0	1141	U
1	0	1142	G
1	0	1154	A
1	0	1167	A
1	0	1193	G
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	1264	C
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

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1315	A
1	0	1325	U
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	1442	C
1	0	1474	A
1	0	1495	G
1	0	1582	A
1	0	1626	A
1	0	1632	A
1	0	1633	C
1	0	1634	A
1	0	1651	U
1	0	1664	G
1	0	1684	G
1	0	1685	A
1	0	1686	A
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	1771	A
1	0	1772	C
1	0	1775	A
1	0	1790	G
1	0	1791	C
1	0	1820	G
1	0	1923	U
1	0	1926	U
1	0	1938	U
1	0	1963	G
1	0	1975	G
1	0	2004	U
1	0	2005	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2015	G
1	0	2016	A
1	0	2018	G
1	0	2034	A
1	0	2050	G
1	0	2059	U
1	0	2093	G
1	0	2161	C
1	0	2191	A
1	0	2204	A
1	0	2228	U
1	0	2245	A
1	0	2261	G
1	0	2312	A
1	0	2325	A
1	0	2404	A
1	0	2408	G
1	0	2418	A
1	0	2426	G
1	0	2427	A
1	0	2428	U
1	0	2437	G
1	0	2469	G
1	0	2476	A
1	0	2482	A
1	0	2496	C
1	0	2497	A
1	0	2498	U
1	0	2521	A
1	0	2545	A
1	0	2551	A
1	0	2560	G
1	0	2564	U
1	0	2589	C
1	0	2592	U
1	0	2593	A
1	0	2594	U
1	0	2608	A
1	0	2633	A
1	0	2660	C
1	0	2693	U
1	0	2706	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2758	A
1	0	2759	U
1	0	2760	G
1	0	2823	G
1	0	2824	C
1	0	2841	U
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 oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

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	G19	0	2881	-	35,39,39	4.41	14 (40%)	49,62,62	2.61	19 (38%)

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	G19	0	2881	-	-	0/15/79/79	0/4/4/4

All (14) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
3	0	2881	G19	C7-C8	18.74	1.58	1.32
3	0	2881	G19	C5-C14	9.03	1.63	1.56
3	0	2881	G19	C12-C11	8.62	1.64	1.55
3	0	2881	G19	C10-C11	7.09	1.63	1.56
3	0	2881	G19	O3-C21	5.55	1.45	1.35
3	0	2881	G19	C9-C8	3.98	1.58	1.51
3	0	2881	G19	C26-N3	3.32	1.38	1.33
3	0	2881	G19	C22-N1	-3.05	1.32	1.37
3	0	2881	G19	C5-C6	2.69	1.62	1.56
3	0	2881	G19	C25-C24	2.56	1.43	1.38
3	0	2881	G19	C24-C23	2.34	1.43	1.39
3	0	2881	G19	C13-C12	2.19	1.59	1.55
3	0	2881	G19	C6-C7	2.14	1.55	1.50
3	0	2881	G19	C13-C14	2.07	1.56	1.53

All (19) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
3	0	2881	G19	C18-C12-C11	7.50	113.29	108.16
3	0	2881	G19	O3-C21-N1	6.24	117.46	107.97
3	0	2881	G19	O3-C21-O4	-5.48	116.49	124.55
3	0	2881	G19	C14-O3-C21	4.81	123.79	116.87
3	0	2881	G19	C9-C10-C11	4.71	116.85	112.46
3	0	2881	G19	C6-C7-C8	-4.70	115.16	125.22
3	0	2881	G19	C17-C10-C11	-3.94	109.02	112.20
3	0	2881	G19	O6-C22-N1	3.64	127.58	122.27
3	0	2881	G19	C25-C26-N3	-3.61	118.50	123.82
3	0	2881	G19	C24-C23-C22	3.32	124.95	119.57
3	0	2881	G19	C4-C9-C10	-3.16	111.40	116.08
3	0	2881	G19	O2-C11-C10	2.87	114.66	110.91
3	0	2881	G19	C26-N3-N2	2.63	122.58	119.08
3	0	2881	G19	C1-C2-C3	2.61	106.88	102.92
3	0	2881	G19	O6-C22-C23	-2.40	115.77	121.08
3	0	2881	G19	C9-C1-C2	2.26	108.78	105.73
3	0	2881	G19	C24-C23-N2	-2.25	119.55	122.26
3	0	2881	G19	C16-C6-C7	-2.23	104.77	109.92
3	0	2881	G19	O5-C2-C1	-2.10	107.78	112.81

There are no chirality outliers.

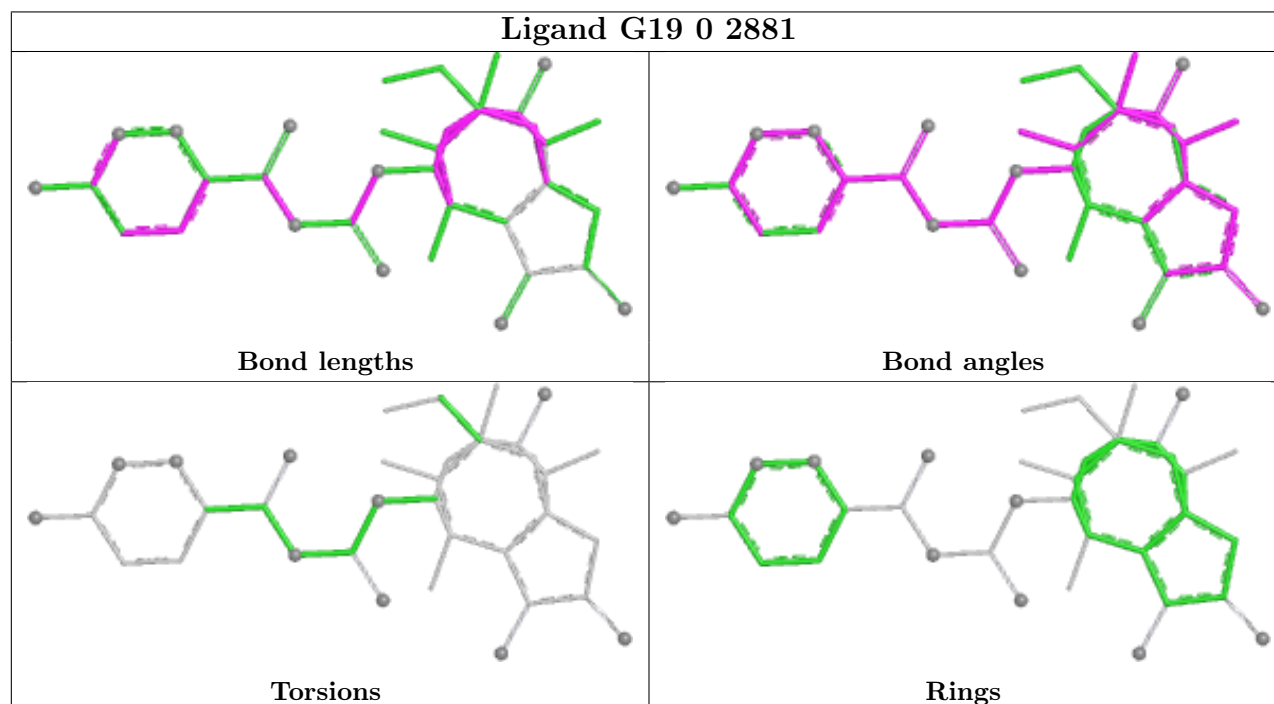
There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 2 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	0	2881	G19	2	0

The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



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, 95th 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 ²)	Q<0.9
1	0	2766/2880 (96%)	2.67	1419 (51%)  	9, 69, 200, 200	0
2	B	205/211 (97%)	10.76	204 (99%)  	4, 52, 147, 201	0
All	All	2971/3091 (96%)	3.22	1623 (54%)  	4, 67, 200, 201	0

All (1623) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	B	87	ASP	29.9
2	B	15	TRP	25.8
2	B	2	LYS	23.9
2	B	89	ASP	23.8
2	B	93	VAL	23.6
1	0	558	G	22.6
2	B	193	GLY	21.5
2	B	159	HIS	20.8
2	B	86	PRO	20.5
2	B	85	ALA	20.4
2	B	64	GLN	20.3
2	B	10	GLY	20.2
2	B	60	ASN	19.6
2	B	44	TYR	19.4
2	B	59	VAL	19.3
2	B	163	GLU	19.3
2	B	202	ALA	18.8
2	B	120	TRP	18.5
2	B	83	GLY	18.4
2	B	179	GLU	17.9
2	B	34	VAL	17.8
2	B	119	ARG	17.7
2	B	94	ASP	17.4
2	B	153	GLY	17.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	B	84	PHE	17.0
2	B	69	LYS	16.9
2	B	129	HIS	16.6
2	B	134	TRP	16.3
2	B	99	GLY	16.2
2	B	201	ALA	16.2
2	B	35	GLN	16.0
2	B	131	SER	15.9
2	B	138	PRO	15.8
2	B	204	ALA	15.8
1	0	1083	C	15.7
2	B	158	GLY	15.4
2	B	151	TYR	15.4
1	0	1090	C	15.3
2	B	125	GLY	15.2
2	B	11	MET	15.1
2	B	62	PRO	14.9
1	0	1085	G	14.9
2	B	49	ILE	14.8
2	B	111	LYS	14.8
2	B	112	GLY	14.8
2	B	121	ASN	14.8
2	B	33	ILE	14.7
2	B	205	SER	14.7
2	B	72	VAL	14.6
2	B	135	HIS	14.6
1	0	1812	U	14.4
2	B	67	PHE	14.3
2	B	124	GLY	14.2
2	B	147	PRO	14.1
1	0	624	A	14.1
2	B	53	PRO	14.1
1	0	1734	C	14.0
2	B	186	GLY	14.0
1	0	943	U	13.9
2	B	1	MET	13.9
2	B	12	THR	13.9
1	0	926	C	13.8
2	B	166	THR	13.8
1	0	1936	A	13.8
1	0	2135	C	13.8
2	B	63	MET	13.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	B	42	ASP	13.6
2	B	97	ALA	13.6
2	B	167	VAL	13.6
2	B	46	ALA	13.5
2	B	168	GLN	13.3
2	B	128	SER	13.2
2	B	45	GLU	13.2
2	B	56	GLU	13.0
2	B	70	ALA	12.9
2	B	65	GLY	12.8
2	B	40	GLN	12.8
2	B	100	GLU	12.8
2	B	82	ARG	12.7
1	0	1954	A	12.7
2	B	160	MET	12.6
2	B	113	THR	12.5
2	B	126	PRO	12.5
2	B	106	GLY	12.5
2	B	162	MET	12.5
2	B	74	PRO	12.5
2	B	140	SER	12.4
2	B	37	LYS	12.4
2	B	161	GLY	12.4
1	0	1921	A	12.3
2	B	51	TYR	12.3
2	B	96	PHE	12.2
2	B	61	LYS	12.2
2	B	122	PHE	12.1
2	B	171	GLU	12.0
2	B	73	ALA	12.0
2	B	13	GLN	12.0
2	B	77	ILE	12.0
2	B	203	LYS	12.0
2	B	16	LYS	11.7
2	B	115	GLY	11.6
2	B	114	GLN	11.6
1	0	1935	A	11.6
1	0	514	G	11.6
2	B	32	PRO	11.6
1	0	1153	A	11.5
2	B	98	GLU	11.5
2	B	109	LYS	11.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	B	43	GLY	11.3
1	0	1920	A	11.3
2	B	123	ALA	11.3
1	0	1953	A	11.2
2	B	54	LYS	11.1
2	B	139	GLY	11.1
2	B	178	GLY	11.1
1	0	1199	U	11.1
2	B	107	THR	11.1
2	B	146	THR	11.0
1	0	2589	C	11.0
2	B	136	ARG	11.0
1	0	1435	G	11.0
2	B	152	LYS	10.9
1	0	1120	C	10.9
1	0	2167	A	10.9
1	0	1069	G	10.8
2	B	127	ALA	10.8
2	B	137	ARG	10.7
2	B	55	ALA	10.7
2	B	78	LEU	10.6
2	B	142	GLY	10.6
1	0	1082	G	10.6
2	B	19	ARG	10.5
2	B	66	HIS	10.5
2	B	79	ARG	10.5
1	0	1061	A	10.5
2	B	187	ALA	10.4
1	0	100	G	10.3
1	0	2737	A	10.3
1	0	2731	G	10.3
2	B	81	PHE	10.3
1	0	4	C	10.3
2	B	68	ALA	10.2
1	0	1121	G	10.2
2	B	41	THR	10.2
1	0	1100	G	10.2
2	B	144	ARG	10.2
1	0	1091	C	10.1
1	0	1893	G	9.8
1	0	2140	G	9.8
2	B	199	ARG	9.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1913	G	9.7
1	0	1923	U	9.6
1	0	1926	U	9.6
1	0	2290	A	9.6
1	0	2780	A	9.6
2	B	164	ARG	9.5
2	B	108	SER	9.5
1	0	1835	C	9.5
1	0	668	A	9.5
2	B	28	ALA	9.5
2	B	36	ARG	9.5
2	B	118	LYS	9.4
1	0	1188	A	9.4
1	0	2168	A	9.4
1	0	1084	A	9.3
2	B	80	GLU	9.2
1	0	2169	A	9.2
1	0	2160	C	9.1
1	0	1934	U	9.1
2	B	194	GLY	9.1
2	B	200	SER	9.1
1	0	371	G	9.1
1	0	2139	G	9.1
1	0	1932	G	9.1
1	0	765	C	9.1
1	0	1088	A	9.1
1	0	699	G	9.0
1	0	1436	G	9.0
1	0	1600	U	9.0
1	0	728	G	9.0
2	B	3	GLY	8.9
1	0	1556	A	8.8
1	0	1191	G	8.8
1	0	1557	G	8.8
1	0	1922	U	8.8
1	0	2286	G	8.8
1	0	1516	A	8.8
2	B	150	VAL	8.8
2	B	58	LYS	8.8
1	0	200	A	8.8
2	B	110	GLY	8.7
2	B	39	ALA	8.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	803	C	8.6
1	0	655	A	8.6
1	0	1089	C	8.6
1	0	1907	C	8.6
1	0	2134	U	8.6
2	B	7	THR	8.6
1	0	730	C	8.5
1	0	1955	G	8.5
1	0	2868	G	8.5
2	B	47	VAL	8.5
1	0	1072	U	8.5
1	0	1514	C	8.4
2	B	57	ARG	8.4
1	0	2564	U	8.4
1	0	729	A	8.3
1	0	1847	G	8.3
1	0	1874	G	8.3
1	0	788	G	8.3
2	B	170	LEU	8.3
1	0	361	G	8.2
2	B	169	ASN	8.2
1	0	2096	U	8.2
1	0	1062	G	8.2
1	0	70	A	8.2
1	0	1068	A	8.2
1	0	2117	A	8.2
1	0	1908	C	8.1
1	0	248	A	8.0
2	B	157	ALA	8.0
2	B	195	LEU	8.0
1	0	871	U	8.0
1	0	357	A	8.0
1	0	358	C	7.9
1	0	2285	U	7.9
2	B	14	ILE	7.9
1	0	2867	G	7.9
1	0	891	A	7.9
1	0	1906	U	7.9
1	0	1554	G	7.9
1	0	1946	U	7.9
1	0	667	U	7.8
1	0	1854	G	7.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1522	C	7.7
2	B	38	THR	7.7
1	0	2778	U	7.6
1	0	1189	G	7.6
1	0	1081	A	7.6
1	0	3	U	7.6
1	0	2105	U	7.6
2	B	133	LYS	7.6
1	0	1097	A	7.5
2	B	143	GLN	7.5
1	0	1834	G	7.5
2	B	176	ARG	7.4
1	0	1948	C	7.4
1	0	648	A	7.4
1	0	1916	G	7.4
1	0	2385	U	7.4
2	B	188	ILE	7.4
1	0	1104	G	7.3
1	0	1546	C	7.3
2	B	27	LEU	7.3
1	0	2189	A	7.3
1	0	1434	U	7.3
1	0	1437	A	7.3
1	0	1525	A	7.3
1	0	362	C	7.3
1	0	2	G	7.3
1	0	296	A	7.2
2	B	198	LEU	7.2
1	0	225	G	7.2
2	B	148	GLY	7.2
1	0	1093	U	7.2
1	0	2125	C	7.2
1	0	2769	C	7.2
1	0	2284	U	7.2
1	0	304	A	7.2
1	0	2195	C	7.1
1	0	1086	C	7.1
2	B	52	ALA	7.1
1	0	2136	G	7.1
1	0	625	A	7.1
1	0	1115	C	7.1
1	0	752	G	7.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2106	G	7.1
1	0	2460	G	7.1
1	0	1950	C	7.1
1	0	872	G	7.0
1	0	2190	A	7.0
1	0	1618	U	7.0
1	0	1873	A	7.0
1	0	1883	A	7.0
1	0	1098	G	7.0
1	0	1951	G	7.0
1	0	2560	G	7.0
1	0	656	U	7.0
1	0	2581	A	7.0
1	0	2174	G	7.0
1	0	1073	G	6.9
1	0	2287	G	6.9
1	0	2089	C	6.9
2	B	141	ILE	6.9
1	0	1910	A	6.9
1	0	1101	U	6.9
1	0	1058	G	6.9
1	0	2779	C	6.9
1	0	373	A	6.9
1	0	1459	U	6.9
1	0	226	C	6.9
1	0	1599	G	6.9
1	0	2291	U	6.8
1	0	654	A	6.8
1	0	1909	U	6.8
2	B	17	ASN	6.8
1	0	1	G	6.8
1	0	1067	G	6.8
1	0	1285	A	6.8
1	0	1901	A	6.8
1	0	2370	G	6.8
1	0	2075	U	6.8
1	0	1552	C	6.7
1	0	1917	C	6.7
1	0	2170	C	6.7
1	0	1902	A	6.7
1	0	1125	G	6.7
1	0	1128	G	6.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2163	U	6.7
2	B	155	ARG	6.7
1	0	1113	C	6.7
2	B	190	GLY	6.7
1	0	1031	C	6.7
1	0	1099	A	6.7
1	0	1553	G	6.7
1	0	725	C	6.7
2	B	174	GLU	6.7
2	B	149	ARG	6.6
2	B	116	VAL	6.6
1	0	2248	A	6.6
1	0	1900	U	6.6
1	0	2080	U	6.6
1	0	2304	G	6.6
2	B	177	ALA	6.6
1	0	1949	A	6.6
1	0	2110	G	6.6
1	0	2173	G	6.6
1	0	927	C	6.5
1	0	2771	C	6.5
2	B	165	VAL	6.5
1	0	1602	G	6.5
1	0	1842	G	6.5
1	0	2295	C	6.5
1	0	2265	A	6.5
1	0	2730	A	6.5
2	B	50	GLY	6.5
2	B	22	PRO	6.4
1	0	1205	G	6.4
2	B	103	ASP	6.4
1	0	1030	U	6.4
1	0	401	G	6.4
1	0	623	G	6.4
1	0	1116	U	6.4
1	0	2090	U	6.3
1	0	300	C	6.3
2	B	184	VAL	6.3
1	0	2104	G	6.3
1	0	510	G	6.3
2	B	5	LEU	6.3
1	0	434	C	6.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1023	U	6.2
1	0	556	A	6.2
1	0	400	U	6.2
2	B	21	ILE	6.2
1	0	2267	A	6.2
1	0	1117	G	6.2
1	0	1186	G	6.2
1	0	1498	G	6.2
1	0	1065	A	6.1
1	0	2079	A	6.1
1	0	2634	G	6.1
1	0	1183	C	6.1
1	0	1836	C	6.1
1	0	1467	U	6.1
1	0	1022	A	6.1
1	0	1863	U	6.0
1	0	518	A	6.0
1	0	2729	A	6.0
1	0	1060	C	6.0
1	0	1438	G	6.0
1	0	1947	G	6.0
1	0	2138	U	6.0
1	0	2094	C	6.0
2	B	102	ILE	6.0
1	0	560	G	6.0
1	0	1193	G	6.0
1	0	1837	G	6.0
1	0	1841	G	6.0
2	B	185	LYS	6.0
2	B	91	VAL	6.0
1	0	1087	C	5.9
1	0	1865	C	5.9
1	0	1801	C	5.9
1	0	984	A	5.9
1	0	2381	A	5.9
1	0	2784	A	5.9
2	B	189	PRO	5.9
1	0	90	G	5.9
1	0	111	G	5.9
1	0	372	U	5.9
1	0	2451	G	5.9
1	0	1071	U	5.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2172	U	5.9
1	0	726	G	5.8
1	0	1905	G	5.8
2	B	101	LYS	5.8
2	B	23	VAL	5.8
1	0	1830	C	5.8
1	0	1919	A	5.8
2	B	191	ALA	5.8
1	0	1527	G	5.8
1	0	559	C	5.8
1	0	1844	C	5.8
1	0	1864	G	5.8
1	0	2781	G	5.8
2	B	104	ALA	5.8
1	0	1938	U	5.7
1	0	2015	G	5.7
1	0	2565	C	5.7
1	0	360	A	5.7
1	0	87	G	5.7
1	0	630	G	5.7
1	0	1114	A	5.7
1	0	1899	A	5.7
1	0	303	C	5.7
1	0	913	A	5.7
1	0	1003	C	5.7
1	0	1888	C	5.7
1	0	2157	C	5.7
1	0	858	G	5.7
1	0	1123	G	5.7
1	0	1165	G	5.7
1	0	1044	U	5.7
1	0	1500	U	5.7
1	0	1506	C	5.6
1	0	1945	C	5.6
1	0	2124	C	5.6
1	0	1108	U	5.6
1	0	2093	G	5.6
1	0	1877	C	5.6
1	0	1404	C	5.6
1	0	1733	U	5.6
1	0	2171	U	5.6
1	0	342	G	5.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1324	G	5.6
1	0	1055	A	5.5
2	B	173	VAL	5.5
1	0	1897	C	5.5
1	0	1879	G	5.5
1	0	2095	G	5.5
1	0	2268	G	5.5
1	0	1515	U	5.5
1	0	1833	U	5.5
1	0	2194	A	5.5
1	0	2289	A	5.5
1	0	295	C	5.5
1	0	2313	G	5.5
1	0	1507	A	5.5
1	0	1892	C	5.5
1	0	541	C	5.4
1	0	1732	U	5.4
1	0	172	A	5.4
1	0	2247	A	5.4
1	0	2532	G	5.4
1	0	441	A	5.4
1	0	483	A	5.4
1	0	731	A	5.4
1	0	2324	G	5.4
1	0	2004	U	5.3
1	0	2086	U	5.3
1	0	2728	A	5.3
1	0	789	G	5.3
1	0	1933	G	5.3
1	0	1570	C	5.3
2	B	105	THR	5.3
1	0	2181	A	5.3
1	0	1070	G	5.3
1	0	1937	G	5.3
1	0	2164	G	5.3
1	0	1054	C	5.3
1	0	1497	C	5.3
1	0	942	U	5.3
1	0	91	A	5.3
2	B	18	ASP	5.3
1	0	2137	G	5.3
1	0	1095	A	5.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	369	C	5.2
1	0	1925	C	5.2
1	0	2875	C	5.2
1	0	1118	G	5.2
1	0	1155	G	5.2
1	0	2185	U	5.2
1	0	2275	U	5.2
2	B	172	VAL	5.2
2	B	31	CYS	5.2
1	0	1092	U	5.2
1	0	1112	U	5.2
1	0	192	G	5.2
1	0	247	A	5.2
1	0	1021	A	5.2
1	0	1550	C	5.2
1	0	66	U	5.2
1	0	925	U	5.2
1	0	237	G	5.2
1	0	2854	G	5.2
1	0	2402	U	5.1
1	0	911	A	5.1
1	0	1432	G	5.1
1	0	1832	G	5.1
1	0	2196	U	5.1
1	0	1126	A	5.1
1	0	940	G	5.1
1	0	1345	G	5.1
1	0	2361	G	5.1
1	0	2582	G	5.1
1	0	1601	U	5.1
1	0	1524	C	5.1
1	0	1122	A	5.1
1	0	1299	A	5.1
1	0	1952	A	5.1
1	0	182	G	5.1
2	B	192	ASN	5.1
1	0	1124	U	5.1
1	0	1881	U	5.1
1	0	1187	A	5.0
1	0	363	G	5.0
1	0	938	G	5.0
1	0	1488	G	5.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2269	G	5.0
1	0	2400	G	5.0
1	0	1279	G	5.0
1	0	1425	G	5.0
1	0	1594	U	5.0
1	0	2166	G	5.0
1	0	2282	G	5.0
1	0	356	A	5.0
1	0	293	U	5.0
1	0	2298	U	5.0
1	0	355	G	5.0
1	0	818	G	5.0
1	0	1184	G	5.0
1	0	1430	G	5.0
1	0	1857	G	5.0
1	0	2078	G	5.0
1	0	2103	G	5.0
1	0	2384	G	5.0
1	0	435	A	5.0
1	0	1839	A	5.0
1	0	2270	U	4.9
2	B	175	ILE	4.9
1	0	424	G	4.9
1	0	1504	G	4.9
1	0	1442	C	4.9
1	0	1593	C	4.9
1	0	1772	C	4.9
1	0	1903	C	4.9
1	0	1532	A	4.9
1	0	1889	G	4.9
1	0	1904	G	4.9
1	0	2459	C	4.9
1	0	292	A	4.9
1	0	408	U	4.9
2	B	95	ILE	4.9
1	0	309	G	4.9
1	0	402	A	4.9
1	0	1562	G	4.9
1	0	1505	U	4.9
1	0	1924	C	4.8
1	0	2184	C	4.8
1	0	2770	A	4.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2449	G	4.8
2	B	24	THR	4.8
1	0	1107	A	4.8
1	0	1429	A	4.8
1	0	1053	G	4.8
1	0	1508	G	4.8
2	B	75	THR	4.8
1	0	1059	A	4.8
1	0	724	C	4.8
1	0	2475	C	4.8
1	0	1057	A	4.7
1	0	2081	U	4.7
1	0	203	G	4.7
1	0	1928	G	4.7
1	0	539	A	4.7
1	0	1154	A	4.7
1	0	118	U	4.7
1	0	873	U	4.7
1	0	660	G	4.7
1	0	2873	G	4.7
1	0	1441	A	4.7
1	0	1037	U	4.7
1	0	1064	C	4.7
1	0	613	A	4.7
1	0	2118	A	4.7
1	0	2795	A	4.7
1	0	1019	U	4.7
1	0	2531	U	4.7
1	0	1111	C	4.7
1	0	1543	G	4.6
2	B	30	PRO	4.6
1	0	366	U	4.6
1	0	1354	A	4.6
1	0	1499	A	4.6
1	0	1886	G	4.6
1	0	2692	A	4.6
1	0	1551	U	4.6
1	0	101	A	4.6
1	0	2772	U	4.6
1	0	139	A	4.5
1	0	912	A	4.5
1	0	1799	A	4.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1845	A	4.5
1	0	92	U	4.5
1	0	154	U	4.5
1	0	1056	U	4.5
1	0	1521	U	4.5
2	B	26	VAL	4.5
1	0	1106	A	4.5
1	0	1548	U	4.5
1	0	2476	A	4.5
1	0	2866	A	4.5
1	0	1196	G	4.5
1	0	1882	G	4.5
1	0	2161	C	4.5
2	B	154	LYS	4.5
1	0	1424	U	4.5
1	0	238	G	4.5
1	0	1045	G	4.5
1	0	1871	G	4.5
1	0	2330	G	4.5
1	0	317	U	4.5
1	0	2759	U	4.5
1	0	1509	A	4.5
1	0	1531	C	4.4
1	0	2364	C	4.4
1	0	2760	G	4.4
1	0	1511	A	4.4
1	0	1884	A	4.4
1	0	1896	A	4.4
1	0	2162	C	4.4
1	0	697	G	4.4
1	0	776	G	4.4
1	0	1074	G	4.4
1	0	2076	G	4.4
1	0	222	G	4.4
1	0	1024	G	4.4
1	0	1360	G	4.4
1	0	1838	G	4.4
1	0	2288	A	4.4
2	B	6	GLY	4.4
1	0	553	C	4.3
1	0	1160	C	4.3
1	0	555	U	4.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	666	U	4.3
1	0	1475	U	4.3
1	0	1481	U	4.3
1	0	2380	U	4.3
1	0	17	G	4.3
1	0	209	G	4.3
1	0	1102	G	4.3
1	0	2392	G	4.3
1	0	914	C	4.3
1	0	2454	C	4.3
1	0	2645	C	4.3
1	0	1513	U	4.3
1	0	1510	A	4.3
1	0	2409	A	4.3
1	0	340	G	4.3
1	0	700	C	4.3
1	0	370	U	4.3
1	0	601	A	4.3
1	0	50	G	4.3
1	0	1428	G	4.3
2	B	88	GLY	4.3
1	0	427	C	4.3
1	0	1894	U	4.3
1	0	341	A	4.2
1	0	638	A	4.2
1	0	392	G	4.2
1	0	2133	G	4.2
1	0	142	U	4.2
1	0	307	C	4.2
1	0	1176	U	4.2
1	0	1898	U	4.2
1	0	879	A	4.2
1	0	2159	A	4.2
1	0	2175	A	4.2
2	B	71	GLY	4.2
1	0	140	G	4.2
1	0	201	G	4.2
1	0	516	G	4.2
1	0	540	G	4.2
1	0	1545	G	4.2
1	0	1963	G	4.2
2	B	182	ILE	4.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1325	U	4.2
1	0	2197	U	4.2
1	0	1396	C	4.2
1	0	1000	G	4.2
1	0	1927	U	4.2
1	0	2323	U	4.2
1	0	813	A	4.2
1	0	1872	A	4.2
1	0	2391	A	4.2
1	0	1051	U	4.1
1	0	1182	U	4.1
1	0	2774	U	4.1
1	0	1536	G	4.1
1	0	1890	G	4.1
1	0	2084	G	4.1
1	0	2283	G	4.1
1	0	1489	C	4.1
1	0	297	A	4.1
1	0	579	G	4.1
1	0	887	G	4.1
1	0	1613	G	4.1
1	0	1818	G	4.1
1	0	1866	G	4.1
1	0	2071	G	4.1
1	0	2484	G	4.1
1	0	442	A	4.1
1	0	1588	A	4.1
1	0	1915	A	4.1
1	0	2109	A	4.1
2	B	20	ALA	4.1
1	0	1075	C	4.1
1	0	1103	C	4.1
1	0	1487	C	4.1
1	0	2237	C	4.1
1	0	1573	G	4.1
1	0	208	C	4.0
1	0	1127	C	4.0
1	0	2158	C	4.0
1	0	2326	C	4.0
1	0	1078	A	4.0
1	0	1595	A	4.0
1	0	1855	G	4.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1473	U	4.0
2	B	145	LYS	4.0
1	0	774	A	4.0
1	0	1137	A	4.0
1	0	1846	A	4.0
1	0	2091	C	4.0
1	0	1066	G	4.0
1	0	1079	G	4.0
1	0	2122	G	4.0
1	0	2123	G	4.0
1	0	205	A	4.0
1	0	795	A	4.0
1	0	2443	C	4.0
1	0	741	G	4.0
1	0	2609	G	4.0
1	0	2773	G	4.0
1	0	467	U	4.0
1	0	2198	U	4.0
2	B	180	ASN	4.0
1	0	73	A	3.9
1	0	333	A	3.9
1	0	515	A	3.9
1	0	2097	A	3.9
1	0	423	G	3.9
1	0	969	U	3.9
1	0	1048	U	3.9
1	0	1439	G	3.9
1	0	1820	G	3.9
1	0	1138	A	3.9
1	0	1364	C	3.9
1	0	1858	C	3.9
1	0	1930	C	3.9
1	0	294	U	3.9
1	0	1409	U	3.9
1	0	2583	U	3.9
1	0	2353	G	3.9
1	0	1094	C	3.9
1	0	1190	C	3.9
1	0	1623	C	3.9
1	0	1130	U	3.9
1	0	1730	G	3.9
1	0	199	A	3.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2810	A	3.9
1	0	915	C	3.9
1	0	1598	C	3.9
2	B	8	LYS	3.9
1	0	98	U	3.8
1	0	59	G	3.8
1	0	1827	G	3.8
1	0	2214	G	3.8
1	0	2642	G	3.8
1	0	1523	A	3.8
1	0	1538	A	3.8
1	0	1614	C	3.8
1	0	2444	C	3.8
1	0	2732	C	3.8
1	0	2077	G	3.8
1	0	2640	G	3.8
1	0	2315	A	3.8
1	0	127	C	3.8
1	0	1581	C	3.8
2	B	76	ARG	3.8
2	B	29	GLY	3.8
1	0	1574	A	3.8
1	0	2191	A	3.8
1	0	11	G	3.8
1	0	306	G	3.8
1	0	814	G	3.8
1	0	1251	G	3.8
1	0	2310	G	3.8
1	0	301	C	3.8
1	0	422	C	3.8
1	0	1185	C	3.8
1	0	1876	C	3.8
1	0	1979	C	3.8
1	0	2088	U	3.8
2	B	90	SER	3.7
1	0	1179	A	3.7
2	B	130	GLY	3.7
1	0	1201	G	3.7
1	0	1559	G	3.7
1	0	1912	G	3.7
1	0	1365	U	3.7
1	0	1469	U	3.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	519	C	3.7
1	0	1620	C	3.7
1	0	2014	A	3.7
1	0	2325	A	3.7
1	0	1049	C	3.7
1	0	1549	C	3.7
1	0	2788	C	3.7
1	0	2455	A	3.7
2	B	48	GLN	3.7
1	0	144	U	3.7
1	0	1119	U	3.7
1	0	1403	U	3.7
1	0	120	G	3.7
1	0	1852	G	3.7
1	0	2694	G	3.7
1	0	2806	G	3.7
1	0	1192	A	3.6
1	0	1492	A	3.6
1	0	2187	A	3.6
1	0	417	C	3.6
1	0	1419	G	3.6
1	0	1664	G	3.6
1	0	2362	G	3.6
1	0	929	A	3.6
1	0	1129	A	3.6
1	0	1848	U	3.6
2	B	132	LYS	3.6
1	0	1002	C	3.6
1	0	1633	C	3.6
1	0	1792	C	3.6
1	0	2206	C	3.6
1	0	105	G	3.6
1	0	653	G	3.6
1	0	1715	A	3.6
2	B	181	LEU	3.6
1	0	2120	C	3.6
1	0	319	G	3.6
1	0	1131	G	3.6
1	0	1266	G	3.6
1	0	2255	G	3.6
1	0	2450	A	3.6
1	0	664	C	3.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	830	C	3.5
1	0	937	C	3.5
1	0	1017	C	3.5
1	0	359	G	3.5
1	0	2018	G	3.5
1	0	2407	G	3.5
1	0	2468	G	3.5
1	0	744	C	3.5
1	0	2748	C	3.5
1	0	117	A	3.5
1	0	242	A	3.5
1	0	698	A	3.5
1	0	1486	A	3.5
1	0	1843	U	3.5
1	0	2165	A	3.5
1	0	2311	U	3.5
1	0	2877	A	3.5
1	0	367	G	3.5
1	0	1163	C	3.5
1	0	1501	C	3.5
1	0	387	A	3.5
1	0	787	A	3.5
1	0	1534	A	3.5
1	0	1547	U	3.5
1	0	1800	A	3.5
1	0	2365	U	3.5
1	0	732	G	3.5
1	0	985	G	3.5
1	0	1415	C	3.5
1	0	1940	C	3.5
1	0	2305	C	3.5
1	0	412	U	3.4
1	0	1080	A	3.4
1	0	1605	A	3.4
1	0	2418	A	3.4
1	0	108	G	3.4
1	0	1394	G	3.4
1	0	1790	G	3.4
1	0	1931	G	3.4
1	0	2085	G	3.4
1	0	2309	G	3.4
1	0	1606	C	3.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2477	C	3.4
1	0	1929	U	3.4
1	0	1047	G	3.4
1	0	1133	G	3.4
1	0	1402	G	3.4
1	0	1520	G	3.4
1	0	1918	G	3.4
1	0	2386	G	3.4
1	0	2610	G	3.4
2	B	9	ILE	3.4
1	0	2292	C	3.4
1	0	1105	U	3.4
1	0	1161	U	3.4
1	0	1804	U	3.4
1	0	1914	U	3.4
1	0	2251	U	3.4
1	0	930	A	3.4
1	0	243	G	3.4
1	0	364	G	3.4
1	0	614	G	3.4
1	0	751	G	3.4
1	0	1036	G	3.4
1	0	1440	G	3.4
1	0	1880	G	3.4
1	0	2408	G	3.4
1	0	2373	C	3.4
1	0	2876	C	3.4
1	0	517	A	3.4
1	0	1569	A	3.4
1	0	1607	A	3.4
1	0	388	G	3.3
1	0	421	G	3.3
1	0	2865	G	3.3
1	0	170	U	3.3
1	0	1076	U	3.3
1	0	1456	C	3.3
1	0	310	A	3.3
1	0	1408	A	3.3
1	0	2405	A	3.3
1	0	141	G	3.3
1	0	194	G	3.3
1	0	658	G	3.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1483	G	3.3
1	0	1870	U	3.3
1	0	102	C	3.3
1	0	332	C	3.3
1	0	1575	C	3.3
1	0	2048	C	3.3
1	0	368	A	3.3
1	0	1410	U	3.3
1	0	1535	C	3.3
1	0	1862	C	3.3
1	0	1891	C	3.3
1	0	2767	C	3.3
1	0	74	G	3.3
1	0	469	G	3.3
1	0	610	G	3.3
1	0	1806	G	3.3
1	0	2724	G	3.3
1	0	2739	G	3.3
1	0	2312	A	3.3
1	0	177	U	3.2
1	0	416	U	3.2
1	0	1656	U	3.2
1	0	491	A	3.2
1	0	836	G	3.2
1	0	1223	G	3.2
1	0	1684	G	3.2
2	B	92	ASN	3.2
1	0	1526	U	3.2
1	0	2067	U	3.2
1	0	2725	C	3.2
1	0	71	A	3.2
1	0	305	A	3.2
1	0	1032	A	3.2
1	0	1281	A	3.2
1	0	1391	A	3.2
1	0	1895	A	3.2
1	0	1670	G	3.2
1	0	1735	G	3.2
1	0	2083	G	3.2
1	0	2087	U	3.2
1	0	175	C	3.2
1	0	981	C	3.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1625	A	3.2
1	0	2072	C	3.2
1	0	2199	C	3.2
1	0	334	G	3.2
1	0	2238	G	3.2
1	0	2746	G	3.2
1	0	1426	U	3.2
1	0	1431	U	3.2
1	0	1939	U	3.2
1	0	123	A	3.1
1	0	298	C	3.1
1	0	537	C	3.1
1	0	1233	A	3.1
1	0	1791	C	3.1
1	0	2280	A	3.1
1	0	2403	C	3.1
1	0	197	G	3.1
1	0	508	G	3.1
1	0	1206	G	3.1
1	0	859	U	3.1
1	0	1840	A	3.1
1	0	2397	A	3.1
1	0	1572	C	3.1
1	0	2486	C	3.1
1	0	138	G	3.1
1	0	155	G	3.1
1	0	164	G	3.1
1	0	1110	G	3.1
1	0	1495	G	3.1
1	0	2229	G	3.1
1	0	2297	G	3.1
1	0	1232	U	3.1
1	0	5	A	3.1
1	0	10	A	3.1
1	0	167	A	3.1
1	0	1358	C	3.1
1	0	1363	C	3.1
1	0	1875	C	3.1
1	0	509	U	3.1
1	0	1482	U	3.1
1	0	1723	U	3.1
1	0	522	G	3.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	805	G	3.1
1	0	1204	G	3.1
1	0	1368	G	3.1
1	0	1382	G	3.1
1	0	1470	G	3.1
1	0	2555	G	3.1
1	0	542	A	3.1
1	0	584	A	3.1
1	0	999	A	3.1
1	0	1512	A	3.1
1	0	1604	A	3.1
1	0	1807	A	3.1
2	B	156	MET	3.1
1	0	1198	C	3.1
1	0	2239	C	3.1
1	0	2262	C	3.1
2	B	4	ILE	3.0
1	0	95	G	3.0
1	0	413	G	3.0
1	0	562	G	3.0
1	0	631	G	3.0
1	0	1284	G	3.0
1	0	403	A	3.0
1	0	1267	A	3.0
1	0	1582	A	3.0
1	0	2277	A	3.0
1	0	1885	C	3.0
1	0	2281	C	3.0
1	0	135	U	3.0
1	0	557	U	3.0
1	0	2192	U	3.0
1	0	36	G	3.0
1	0	41	G	3.0
1	0	42	G	3.0
1	0	1576	G	3.0
1	0	2328	G	3.0
1	0	2363	G	3.0
1	0	1288	A	3.0
1	0	18	U	3.0
1	0	1212	U	3.0
1	0	228	A	3.0
1	0	415	A	3.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	662	G	3.0
1	0	733	G	3.0
1	0	1371	G	3.0
1	0	1911	A	3.0
1	0	2608	A	3.0
1	0	2688	G	3.0
1	0	37	C	3.0
1	0	418	C	3.0
1	0	759	C	3.0
1	0	1009	C	3.0
1	0	1052	C	3.0
1	0	1853	C	3.0
1	0	2092	U	3.0
1	0	1250	A	2.9
1	0	2758	A	2.9
1	0	499	G	2.9
1	0	677	G	2.9
1	0	977	G	2.9
1	0	1228	G	2.9
1	0	1958	G	2.9
1	0	2217	G	2.9
1	0	2388	G	2.9
1	0	2215	C	2.9
1	0	1280	U	2.9
1	0	1485	U	2.9
1	0	116	A	2.9
1	0	665	A	2.9
1	0	821	A	2.9
1	0	1109	A	2.9
1	0	1282	A	2.9
1	0	1468	A	2.9
1	0	2745	A	2.9
1	0	399	G	2.9
1	0	649	G	2.9
1	0	931	G	2.9
1	0	2481	G	2.9
1	0	2528	G	2.9
1	0	1252	C	2.9
1	0	1466	C	2.9
1	0	1941	C	2.9
1	0	1944	C	2.9
1	0	2374	C	2.9

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2535	C	2.9
1	0	2628	C	2.9
1	0	775	U	2.9
1	0	1141	U	2.9
1	0	490	A	2.9
1	0	806	A	2.9
1	0	1423	A	2.9
1	0	2457	A	2.9
1	0	146	C	2.9
1	0	207	U	2.9
1	0	236	C	2.9
1	0	1517	C	2.9
1	0	570	G	2.9
1	0	734	G	2.9
1	0	2261	G	2.9
1	0	2807	U	2.9
1	0	93	A	2.8
1	0	173	A	2.8
1	0	671	A	2.8
1	0	2356	A	2.8
1	0	211	U	2.8
1	0	2369	U	2.8
1	0	2790	C	2.8
1	0	218	A	2.8
1	0	885	A	2.8
1	0	1597	A	2.8
1	0	112	U	2.8
1	0	810	U	2.8
1	0	1530	U	2.8
1	0	2074	U	2.8
1	0	1234	C	2.8
1	0	1615	C	2.8
1	0	2260	C	2.8
1	0	600	G	2.8
1	0	1393	G	2.8
1	0	1887	G	2.8
1	0	1995	G	2.8
1	0	2202	G	2.8
1	0	2698	G	2.8
1	0	204	A	2.8
1	0	511	A	2.8
1	0	1753	A	2.8

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2874	A	2.8
2	B	183	LEU	2.8
1	0	446	C	2.8
1	0	1135	C	2.8
1	0	1797	C	2.8
1	0	634	G	2.8
1	0	791	G	2.8
1	0	2213	G	2.8
1	0	2314	A	2.8
1	0	2749	A	2.8
2	B	25	VAL	2.8
1	0	2211	U	2.8
1	0	2294	U	2.8
1	0	2485	U	2.8
1	0	2872	U	2.8
1	0	583	C	2.7
1	0	972	C	2.7
1	0	1663	C	2.7
1	0	2329	C	2.7
1	0	2382	C	2.7
1	0	353	G	2.7
1	0	1390	G	2.7
1	0	2108	G	2.7
1	0	2186	G	2.7
1	0	2743	G	2.7
1	0	425	A	2.7
1	0	1020	A	2.7
1	0	1227	A	2.7
1	0	1321	A	2.7
1	0	1555	A	2.7
1	0	554	U	2.7
1	0	723	C	2.7
1	0	1063	C	2.7
1	0	2478	C	2.7
1	0	202	A	2.7
1	0	389	G	2.7
1	0	419	G	2.7
1	0	778	G	2.7
1	0	865	A	2.7
1	0	874	A	2.7
1	0	1619	A	2.7
1	0	2497	A	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1046	U	2.7
1	0	1537	U	2.7
1	0	214	C	2.7
1	0	722	C	2.7
1	0	1587	A	2.7
1	0	2188	A	2.7
1	0	302	U	2.7
1	0	824	U	2.7
1	0	843	G	2.7
1	0	852	U	2.7
1	0	1578	U	2.7
1	0	1956	G	2.7
1	0	2456	U	2.7
1	0	2502	G	2.7
1	0	2638	G	2.7
1	0	1389	C	2.7
1	0	2360	C	2.7
1	0	964	A	2.6
1	0	2618	A	2.6
1	0	1197	U	2.6
1	0	2736	U	2.6
1	0	157	G	2.6
1	0	406	G	2.6
1	0	612	G	2.6
1	0	888	G	2.6
1	0	1013	G	2.6
1	0	113	C	2.6
1	0	178	C	2.6
1	0	246	C	2.6
1	0	405	C	2.6
1	0	1134	C	2.6
1	0	1181	C	2.6
1	0	1825	C	2.6
1	0	1043	A	2.6
1	0	1624	A	2.6
1	0	62	U	2.6
1	0	622	U	2.6
1	0	464	G	2.6
1	0	793	G	2.6
1	0	841	G	2.6
1	0	19	C	2.6
1	0	299	C	2.6

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	750	C	2.6
1	0	982	C	2.6
1	0	1375	C	2.6
1	0	2271	C	2.6
1	0	2552	C	2.6
1	0	48	A	2.6
1	0	184	A	2.6
1	0	842	A	2.6
1	0	1139	A	2.6
1	0	2252	A	2.6
1	0	2272	A	2.6
1	0	2639	A	2.6
1	0	2410	U	2.6
1	0	215	G	2.6
1	0	219	G	2.6
1	0	458	G	2.6
1	0	1254	G	2.6
1	0	1450	G	2.6
1	0	1861	G	2.6
1	0	2350	G	2.6
1	0	2839	G	2.6
1	0	1348	C	2.6
1	0	1491	C	2.6
1	0	2343	C	2.6
1	0	2453	C	2.6
1	0	2691	C	2.6
1	0	322	A	2.6
1	0	1096	A	2.6
1	0	1802	A	2.6
1	0	1867	A	2.6
1	0	2322	U	2.6
1	0	2327	U	2.6
1	0	2366	U	2.6
1	0	30	G	2.5
1	0	156	G	2.5
1	0	352	G	2.5
1	0	2657	G	2.5
1	0	2750	G	2.5
1	0	234	C	2.5
1	0	329	C	2.5
1	0	429	C	2.5
1	0	463	C	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1016	C	2.5
1	0	1221	C	2.5
1	0	1621	C	2.5
1	0	1957	C	2.5
1	0	2008	C	2.5
1	0	2243	C	2.5
1	0	2669	C	2.5
1	0	13	A	2.5
1	0	99	U	2.5
1	0	512	A	2.5
1	0	1077	U	2.5
1	0	2246	A	2.5
1	0	79	G	2.5
1	0	318	G	2.5
1	0	438	G	2.5
1	0	957	G	2.5
1	0	1014	G	2.5
1	0	1265	G	2.5
1	0	1571	G	2.5
1	0	2207	G	2.5
1	0	2447	G	2.5
1	0	1528	C	2.5
1	0	1596	A	2.5
1	0	81	C	2.5
1	0	651	C	2.5
1	0	1399	C	2.5
1	0	1422	C	2.5
1	0	1529	C	2.5
1	0	2082	C	2.5
1	0	2445	C	2.5
1	0	44	G	2.5
1	0	134	G	2.5
1	0	188	G	2.5
1	0	735	G	2.5
1	0	1374	G	2.5
1	0	1496	G	2.5
1	0	1798	G	2.5
1	0	2039	G	2.5
1	0	2107	G	2.5
1	0	2511	G	2.5
1	0	2557	G	2.5
1	0	12	U	2.5

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	1447	U	2.5
1	0	1817	U	2.5
1	0	459	A	2.5
1	0	1378	A	2.5
1	0	1943	A	2.5
1	0	2785	A	2.5
1	0	126	C	2.4
1	0	1164	C	2.4
1	0	1829	C	2.4
1	0	2518	C	2.4
1	0	784	U	2.4
1	0	835	U	2.4
1	0	2177	U	2.4
1	0	47	G	2.4
1	0	485	G	2.4
1	0	620	G	2.4
1	0	712	A	2.4
1	0	1964	A	2.4
1	0	2320	G	2.4
1	0	2345	A	2.4
1	0	2368	G	2.4
1	0	2529	G	2.4
1	0	2562	G	2.4
1	0	244	C	2.4
1	0	365	U	2.4
1	0	1132	C	2.4
1	0	2056	C	2.4
1	0	336	A	2.4
1	0	466	A	2.4
1	0	657	A	2.4
1	0	862	A	2.4
1	0	487	G	2.4
1	0	492	G	2.4
1	0	989	G	2.4
1	0	1484	G	2.4
1	0	1831	G	2.4
1	0	1969	G	2.4
1	0	2279	G	2.4
1	0	2341	G	2.4
1	0	866	U	2.4
1	0	2452	U	2.4
1	0	45	C	2.4

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	169	C	2.4
1	0	737	C	2.4
1	0	947	C	2.4
1	0	1253	C	2.4
1	0	1372	A	2.4
1	0	337	G	2.4
1	0	950	G	2.4
1	0	1050	G	2.4
1	0	1146	G	2.4
1	0	1407	G	2.4
1	0	2132	G	2.4
1	0	2319	G	2.4
1	0	1967	U	2.3
1	0	72	A	2.3
1	0	137	A	2.3
1	0	596	C	2.3
1	0	618	A	2.3
1	0	863	C	2.3
1	0	1039	A	2.3
1	0	1366	A	2.3
1	0	1718	A	2.3
1	0	1878	C	2.3
1	0	2358	C	2.3
1	0	2577	A	2.3
1	0	2695	C	2.3
1	0	16	G	2.3
1	0	166	G	2.3
1	0	229	G	2.3
1	0	409	G	2.3
1	0	742	G	2.3
1	0	1622	G	2.3
1	0	2203	G	2.3
1	0	2469	G	2.3
1	0	216	U	2.3
1	0	701	U	2.3
1	0	1826	U	2.3
1	0	1978	U	2.3
1	0	2359	U	2.3
1	0	51	A	2.3
1	0	675	C	2.3
1	0	886	A	2.3
1	0	939	C	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	956	A	2.3
1	0	968	C	2.3
1	0	976	C	2.3
1	0	2733	A	2.3
1	0	1035	G	2.3
1	0	1237	G	2.3
1	0	1427	G	2.3
1	0	1566	G	2.3
1	0	1987	G	2.3
1	0	2426	G	2.3
1	0	2522	G	2.3
1	0	2536	G	2.3
1	0	2711	G	2.3
1	0	1262	U	2.3
1	0	1856	U	2.3
1	0	2296	U	2.3
1	0	2533	U	2.3
1	0	89	A	2.3
1	0	1166	A	2.3
1	0	1224	A	2.3
1	0	2182	A	2.3
1	0	2355	A	2.3
1	0	2569	A	2.3
1	0	420	C	2.3
1	0	1027	C	2.3
1	0	1376	C	2.3
1	0	1388	C	2.3
1	0	2347	C	2.3
1	0	2723	C	2.3
1	0	2857	C	2.3
1	0	27	G	2.3
1	0	349	G	2.3
1	0	636	G	2.3
1	0	1008	G	2.3
1	0	1975	G	2.3
1	0	2466	G	2.3
1	0	616	U	2.3
1	0	1392	U	2.3
1	0	2398	U	2.3
1	0	2584	U	2.3
1	0	68	C	2.3
1	0	2068	C	2.3

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
2	B	117	MET	2.3
1	0	9	U	2.2
1	0	314	G	2.2
1	0	345	U	2.2
1	0	792	U	2.2
1	0	867	G	2.2
1	0	987	G	2.2
1	0	1246	G	2.2
1	0	1298	G	2.2
1	0	1465	G	2.2
1	0	1617	G	2.2
1	0	1737	G	2.2
1	0	2434	G	2.2
1	0	2504	G	2.2
1	0	2661	G	2.2
1	0	2726	U	2.2
1	0	2786	G	2.2
1	0	321	A	2.2
1	0	1260	A	2.2
1	0	2613	A	2.2
1	0	77	C	2.2
1	0	235	C	2.2
1	0	1451	C	2.2
1	0	1665	C	2.2
1	0	2395	C	2.2
1	0	780	U	2.2
1	0	823	U	2.2
1	0	890	U	2.2
1	0	2856	U	2.2
1	0	663	G	2.2
1	0	875	G	2.2
1	0	1174	G	2.2
1	0	1338	G	2.2
1	0	1803	G	2.2
1	0	2001	G	2.2
1	0	153	A	2.2
1	0	174	A	2.2
1	0	461	A	2.2
1	0	706	A	2.2
1	0	834	A	2.2
1	0	1226	A	2.2
1	0	1544	A	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2034	A	2.2
1	0	2404	A	2.2
1	0	46	C	2.2
1	0	75	C	2.2
1	0	76	C	2.2
1	0	245	C	2.2
1	0	346	C	2.2
1	0	520	C	2.2
1	0	948	C	2.2
1	0	1006	C	2.2
1	0	1229	C	2.2
1	0	1736	C	2.2
1	0	313	U	2.2
1	0	1015	U	2.2
1	0	436	A	2.2
1	0	876	A	2.2
1	0	1211	G	2.2
1	0	1381	G	2.2
1	0	1395	A	2.2
1	0	1457	A	2.2
1	0	1561	A	2.2
1	0	1739	G	2.2
1	0	2617	G	2.2
1	0	2656	G	2.2
1	0	2742	G	2.2
1	0	884	C	2.2
1	0	1701	C	2.2
1	0	444	U	2.1
1	0	779	U	2.1
1	0	974	U	2.1
1	0	1490	U	2.1
1	0	343	A	2.1
1	0	414	A	2.1
1	0	801	A	2.1
1	0	1420	A	2.1
1	0	1671	A	2.1
1	0	1859	A	2.1
1	0	2045	A	2.1
1	0	965	G	2.1
1	0	983	G	2.1
1	0	1361	G	2.1
1	0	1471	G	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2209	G	2.1
1	0	2503	G	2.1
1	0	686	C	2.1
1	0	878	C	2.1
1	0	1824	C	2.1
1	0	1828	C	2.1
1	0	2607	C	2.1
2	B	197	VAL	2.1
1	0	916	U	2.1
1	0	2121	U	2.1
1	0	2176	U	2.1
1	0	2458	U	2.1
1	0	2649	A	2.1
1	0	2761	A	2.1
1	0	152	G	2.1
1	0	736	G	2.1
1	0	739	G	2.1
1	0	1646	G	2.1
1	0	1713	G	2.1
1	0	2070	G	2.1
1	0	2232	G	2.1
1	0	2349	G	2.1
1	0	2375	G	2.1
1	0	2464	G	2.1
1	0	2514	G	2.1
1	0	2823	G	2.1
1	0	426	C	2.1
1	0	439	C	2.1
1	0	615	C	2.1
1	0	2183	C	2.1
1	0	2303	C	2.1
1	0	2496	C	2.1
1	0	43	A	2.1
1	0	190	A	2.1
1	0	565	A	2.1
1	0	936	A	2.1
1	0	1714	A	2.1
1	0	1302	C	2.1
1	0	2019	C	2.1
1	0	67	G	2.1
1	0	315	G	2.1
1	0	1168	G	2.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2259	G	2.1
1	0	2574	G	2.1
1	0	881	U	2.1
1	0	941	U	2.1
1	0	2178	U	2.1
1	0	2249	U	2.1
1	0	1004	A	2.0
1	0	1025	A	2.0
1	0	1464	A	2.0
1	0	1658	A	2.0
1	0	2220	A	2.0
1	0	2401	A	2.0
1	0	78	C	2.0
1	0	448	C	2.0
1	0	465	C	2.0
1	0	531	G	2.0
1	0	1341	G	2.0
1	0	1356	G	2.0
1	0	1494	G	2.0
1	0	2620	G	2.0
1	0	2782	G	2.0
1	0	564	U	2.0
1	0	727	U	2.0
1	0	820	U	2.0
1	0	857	U	2.0
1	0	335	A	2.0
1	0	489	A	2.0
1	0	883	A	2.0
1	0	1603	A	2.0
1	0	1851	A	2.0
1	0	2266	A	2.0
1	0	2390	A	2.0
1	0	2835	A	2.0
1	0	241	C	2.0
1	0	316	C	2.0
1	0	354	C	2.0
1	0	590	C	2.0
1	0	1152	C	2.0
1	0	1264	C	2.0
1	0	1412	C	2.0
1	0	2061	C	2.0
1	0	2752	C	2.0

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
1	0	2828	C	2.0
1	0	1539	U	2.0
1	0	1592	U	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](#)

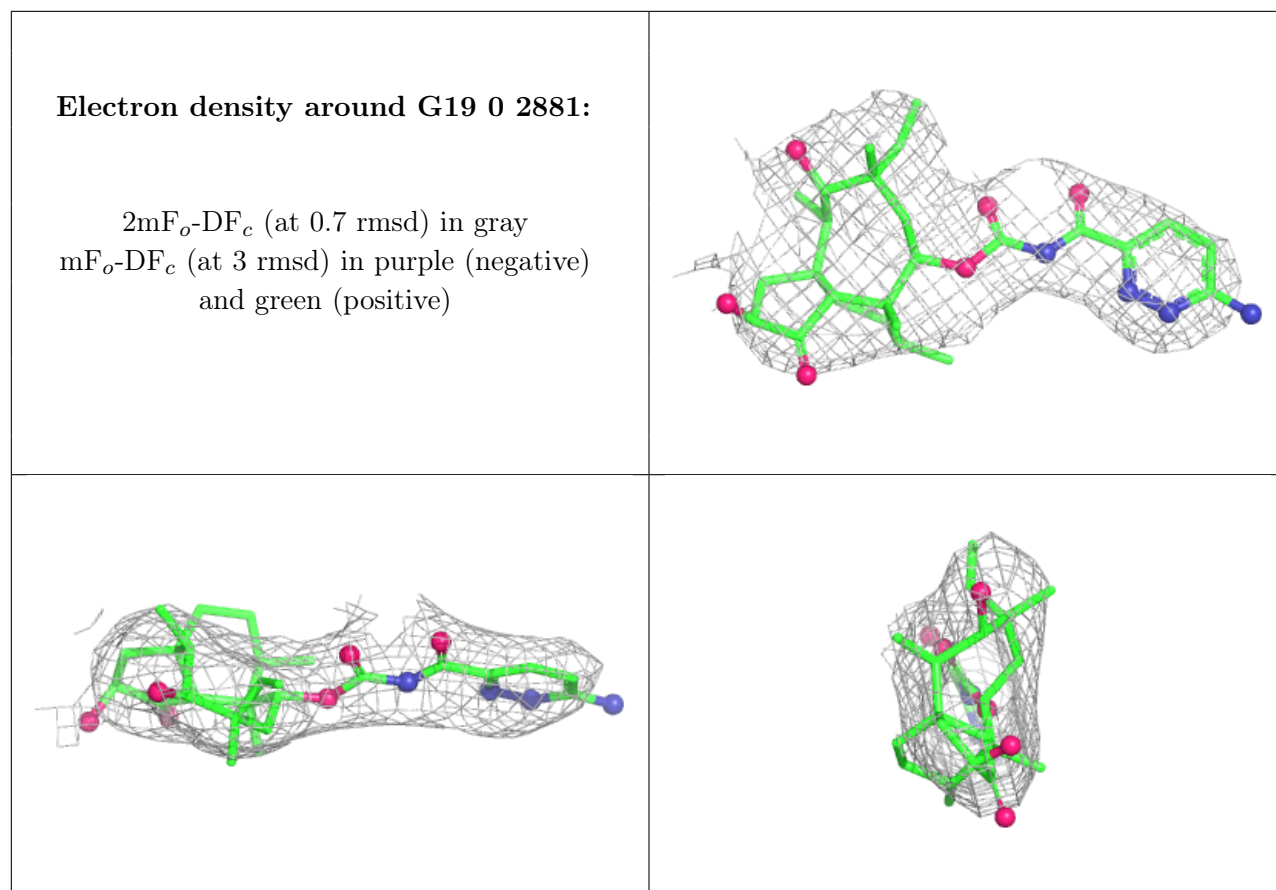
There are no oligosaccharides in this entry.

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. The B-factors column lists the minimum, median, 95th 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	B-factors($\text{\AA}^2$)	Q<0.9
3	G19	0	2881	36/36	0.90	0.23	70,70,70,70	0

The following is a graphical depiction of the model fit to experimental electron density of all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the geometry validation Tables will also be included. Each fit is shown from different orientation to approximate a three-dimensional view.



6.5 Other polymers ⓘ

There are no such residues in this entry.