



Full wwPDB X-ray Structure Validation Report ⓘ

Feb 15, 2017 – 07:58 am GMT

PDB ID : 1NWY
Title : COMPLEX OF THE LARGE RIBOSOMAL SUBUNIT FROM DEINOCOC-
CUS RADIODURANS WITH AZITHROMYCIN
Authors : Schlutzen, F.; Harms, J.; Franceschi, F.; Hansen, H.A.S.; Bartels, H.; Zari-
vach, R.; Yonath, A.
Deposited on : 2003-02-07
Resolution : 3.30 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

<http://wwpdb.org/validation/2016/XrayValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity	:	4.02b-467
Mogul	:	1.7.2 (RC1), CSD as538be (2017)
Xtriage (Phenix)	:	NOT EXECUTED
EDS	:	NOT EXECUTED
Percentile statistics	:	20161228.v01 (using entries in the PDB archive December 28th 2016)
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	recalc28949

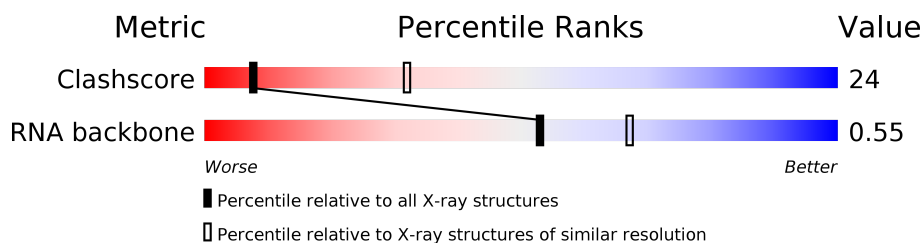
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.30 Å.



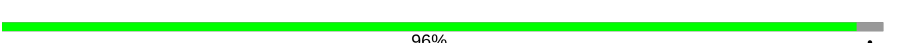
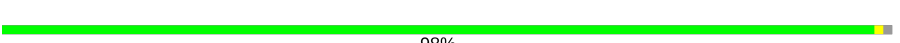
Percentile scores (ranging between 0-100) for global validation metrics of the entry are shown in the following graphic. The table shows the number of entries on which the scores are based.



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	112137	1100 (3.36-3.24)
RNA backbone	2435	1111 (3.80-2.80)

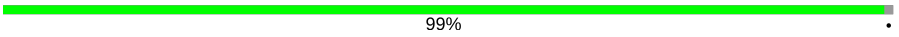

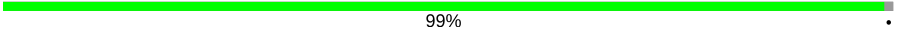


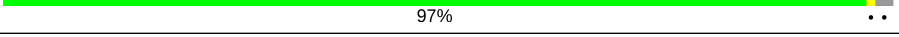
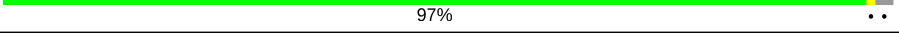

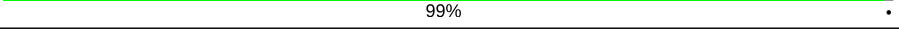
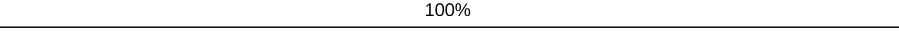
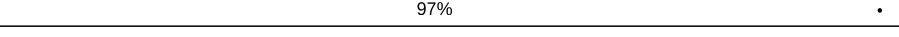
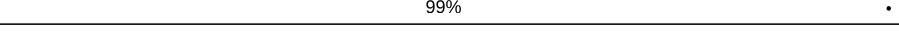
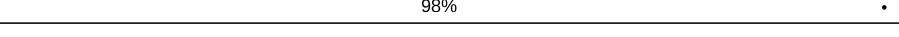
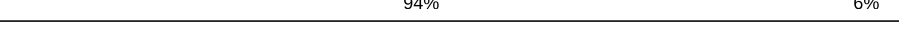
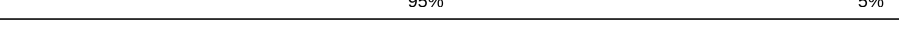
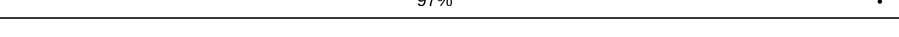
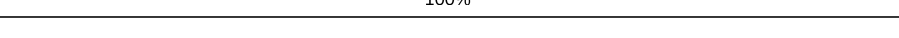
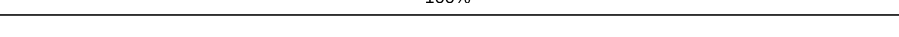
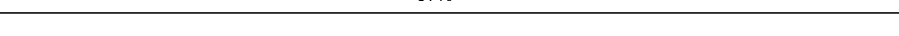
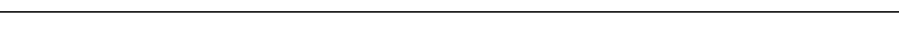

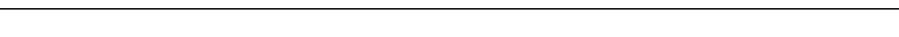
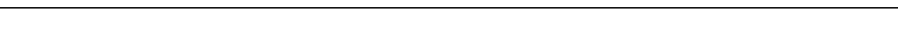
The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. A grey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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	0	2880	 26% 57% 13% .
2	9	124	 19% 60% 17% 5%
3	A	274	 99% .
4	B	211	 96% ..
5	C	204	 96% .
6	D	180	 98% ..
7	E	185	 95% . .
8	F	146	 34% . 64%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
9	G	144	 99% .
10	H	174	 82% 18%
11	I	134	 99% .
12	J	156	 90% 10%
13	K	141	 87% . 12%
14	L	116	 97% ..
15	M	113	 97% ..
16	N	166	 75% . 25%
17	O	118	 99% .
18	P	100	 100%
19	Q	134	 97% .
20	R	94	 99% .
21	S	115	 98% .
22	T	237	 94% 6%
23	U	91	 95% 5%
24	W	67	 97% .
25	X	55	 100%
26	Y	73	 100%
27	Z	59	 97% ..
28	1	55	 96% .
29	2	47	 98% .
30	3	65	 97% .
31	4	37	 95% 5%

The following table lists non-polymeric compounds, carbohydrate monomers and non-standard residues in protein, DNA, RNA chains that are outliers for geometric or electron-density-fit criteria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
32	ZIT	0	2881	-	-	X	-
32	ZIT	0	2882	-	-	X	-

2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 65404 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

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

- Molecule 2 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	9	118	Total	C	N	O	P	0	0	0
			2519	1124	464	813	118			

- Molecule 3 is a protein called ribosomal protein L2.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
3	A	270	Total	C	0	0	270
			270	270			

- Molecule 4 is a protein called ribosomal protein L3.

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

- Molecule 5 is a protein called ribosomal protein L4.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
5	C	197	Total	C	0	0	197
			197	197			

- Molecule 6 is a protein called ribosomal protein L5.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
6	D	178	Total	C	0	0	178
			178	178			

- Molecule 7 is a protein called ribosomal protein L6.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
7	E	177	Total C 177 177	0	0	177

- Molecule 8 is a protein called ribosomal protein L9.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
8	F	52	Total C 52 52	0	0	52

- Molecule 9 is a protein called ribosomal protein L11.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
9	G	143	Total C 143 143	0	0	143

- Molecule 10 is a protein called ribosomal protein L13.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
10	H	143	Total C 143 143	0	0	143

- Molecule 11 is a protein called ribosomal protein L14.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
11	I	132	Total C 132 132	0	0	132

- Molecule 12 is a protein called ribosomal protein L15.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
12	J	141	Total C 141 141	0	0	141

- Molecule 13 is a protein called ribosomal protein L16.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
13	K	124	Total C 124 124	0	0	124

- Molecule 14 is a protein called ribosomal protein L17.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
14	L	114	Total	C	0	0	114
			114	114			

- Molecule 15 is a protein called ribosomal protein L18.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
15	M	111	Total	C	8	0	111
			111	111			

- Molecule 16 is a protein called ribosomal protein L19.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
16	N	125	Total	C	0	0	125
			125	125			

- Molecule 17 is a protein called ribosomal protein L20.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
17	O	117	Total	C	16	0	117
			117	117			

- Molecule 18 is a protein called ribosomal protein L21.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
18	P	100	Total	C	0	0	100
			100	100			

- Molecule 19 is a protein called ribosomal protein L22.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
19	Q	130	Total	C	0	0	130
			130	130			

- Molecule 20 is a protein called ribosomal protein L23.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
20	R	93	Total	C	0	0	93
			93	93			

- Molecule 21 is a protein called ribosomal protein L24.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
21	S	113	Total C 113 113	0	0	113

- Molecule 22 is a protein called general stress protein Ctc.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
22	T	223	Total C 223 223	43	0	223

- Molecule 23 is a protein called ribosomal protein L27.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
23	U	86	Total C 86 86	0	0	86

- Molecule 24 is a protein called ribosomal protein L29.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
24	W	65	Total C 65 65	0	0	65

- Molecule 25 is a protein called ribosomal protein L30.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
25	X	55	Total C 55 55	4	0	55

- Molecule 26 is a protein called ribosomal protein L31.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
26	Y	73	Total C 73 73	0	0	73

- Molecule 27 is a protein called ribosomal protein L32.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
27	Z	58	Total C 58 58	0	0	58

- Molecule 28 is a protein called ribosomal protein L33.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
28	1	53	Total	C	0	0	53
			53	53			

- Molecule 29 is a protein called ribosomal protein L34.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
29	2	46	Total	C	0	0	46
			46	46			

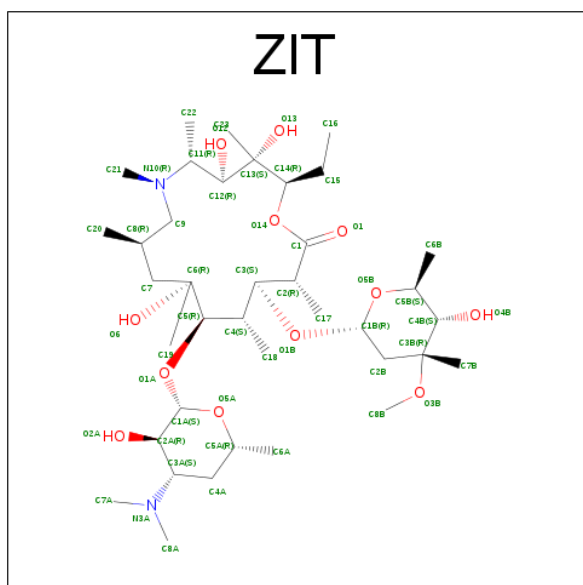
- Molecule 30 is a protein called ribosomal protein L35.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
30	3	63	Total	C	0	0	63
			63	63			

- Molecule 31 is a protein called ribosomal protein L36.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf	Trace
31	4	35	Total	C	0	0	35
			35	35			

- Molecule 32 is AZITHROMYCIN (three-letter code: ZIT) (formula: $C_{38}H_{72}N_2O_{12}$).



Continued from previous page...

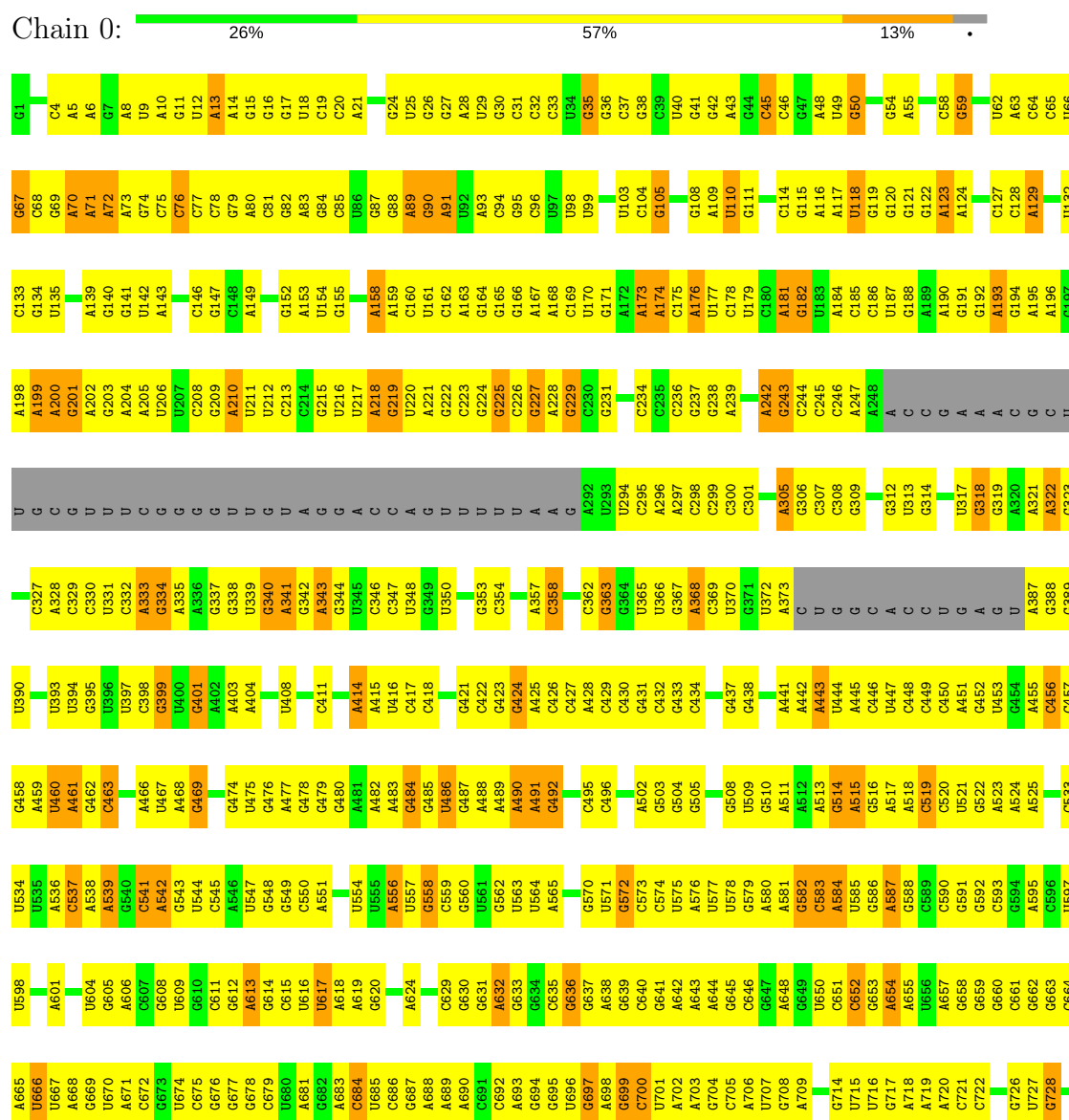
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
			Total	C	N	O		
32	0	1	52	38	2	12	0	0

3 Residue-property plots

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

Note EDS was not executed.

• Molecule 1: 23S RIBOSOMAL RRNA

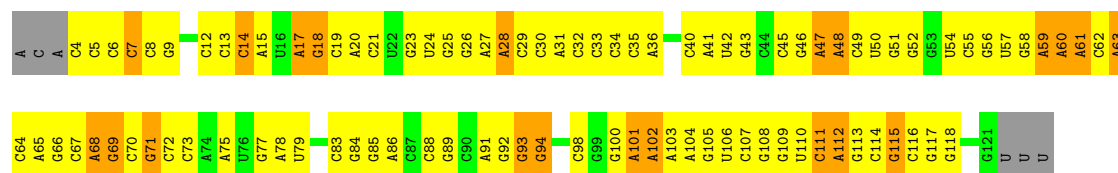


G1760	C1692	A1560	C1623	G1428	C1358	A1297	U1490	C1428	A1233	U1156	G1082	C1002	G933	A794	G732
G1761	A1693	A1561	A1624	A1429	G1359	G1298	C1491	A1429	A1233	A1162	C1083	C1003	C864	A795	G733
G1762	A1694	A1562	A1625	A1492	G1359	A1299	C1492	A1430	C1234	A1162	C1083	A1004	A865	A796	G734
G1763	C1695	G1566	A1626	A1493	C1363	U1300	A1493	U1431	C1235	C1164	C1087	U1005	G866	A797	G735
G1764	C1696	G1567	C1627	G1494	C1364	U1301	G1495	A1432	A1238	G1165	A1088	A1007	G867	C798	G736
G1765	A1697	A1568		A1495	U1365	U1302	G1496	A1433	U1238	A1166	C1089	G1008	C868	C799	G737
G1766	C1698	A1569		G1496	U1366	U1303		A1433	A1238	A1167	C1089	G1008	C869	U800	G738
G1767	A1699	C1569		G1496	U1367	U1304		A1433	G1241	A1167	C1090	C1009	C870	A801	G739
U1768	C1703	C1570		A1497	G1368	U1305	U1500	A1437	A1241	G1168	C1090	A1107	U871	A740	G740
U1769	G1703	G1571	C1633	A1438	G1371	U1306	C1501	A1438	A1242	G1169	U1091	A1010	G872	C803	G741
U1770	G1704	C1572	A1634	A1439	A1372	U1307	G1502	A1439	G1243	C1170	U1092	A1011	G873	C804	G742
U1771	U1705	G1573	G1635	G1440	G1373	C1308	G1503	G1440	G1245	U1171	A1095	A1012	A944	A743	G743
C1772	A1706	A1574		A1441	G1374	G1309	G1504	A1441	G1246	U1172	A1096		G945	G805	A744
A1773	A1707	C1575	G1638	C1442	C1375	C1310	U1505	C1442	U1247			C1016	G951	A874	G745
C1774	G1708	G1576		G1443	G1443	C1311	U1506	G1443	U1248			C1017	A952	A876	G746
A1775	U1709	G1577	C1641	A1444	C1376	A1509		A1444	G1248	A1179	A1099	U1018	A886	C809	
U1776	U1710	U1578	G1642	A1445	A1377	C1312		A1445	G1249	A1180	U1101	A1020	G887	U810	G749
U1777	C1711	G1579	A1643	U1446	A1378	U1313		U1446	A1250	C1181	U1101	A1020	G888	G811	G750
U1778	G1712	C1580	G1644	U1447	A1379	A1314		U1447	G1251	U1182	G1102	A1021	G889	G812	G751
	G1713	C1581	U1645	U1448	C1380	A1315		U1448	C1252	U1183	C1103	A1022	G890	A813	G752
	A1714	A1582		A1449	G1381	G1316		A1449	C1253	G1184		U1023	A891	G753	U753
	A1715	A1583	C1648	C1450	C1383	A1317		C1450	A1255	G1185		A1025	G958	A815	G754
	G1716	G1584		C1451	A1384	C1319		C1451	U1256	G1190	U1112	A1026	G959	A816	G755
	A1717	A1585	U1651	U1452	C1385	A1320		U1452	U1257	A1192	U1113	C1027	G961	U817	C756
	A1718	A1586	G1652		A1386	A1321			G1258	A1197	C1114	G1028	G	G818	U757
	G1719	A1587	C1653		G1387	G1322		C1455	A1259	G1193	C1115	C1029	G	C819	G758
	U1720	A1588	A1654	C1456	C1388	G1323		A1456	U1260	U1194	U1116	U1030	C	U820	G759
	G1721	A1589	C1655	A1457	C1389	G1324		A1457	G1261	U1195	G1117	C1031	C	A821	U760
	U1722	C1590	U1656	A1458	G1390	U1325		A1458	U1262	G1196		A1032	G	U816	G761
	U1723	U1591	A1657	U1459	A1391	U1326		U1459	G1263	U1197		G1033	G	A817	C756
	C1724	U1592		G1460	C1392	C1327		G1460	U1264	C1198	G1121	G1033	A	U824	A762
	C1725	C1593	C1661	C1461	G1393	C1328		C1461	G1265	C1199	A1122	U1034	C	C825	A763
	G1726	U1594	C1662	A1462	C1394	U1329		A1462	U1266	G1200	G1123	G1035	C	U826	A764
	C1727	A1595	C1663	A1463	A1397			A1463	A1267	G1201	U1124	G1036	A	C765	C765
	A1728	A1596	G1664	G1464	C1397			G1464	U1268	U1202	G1125	U1037	G	C829	A766
	C1729	C1665	C1665	C1465	G1398	G1332		C1465	G1269	U1203	A1126	A1038	U	G767	G767
	G1730	C1598	G1666	C1466	A1400	A1333		A1466	C1270	A1204		A1039	U	C830	U768
	U1731	A1599	A1667	U1467	C1401	A1335		U1467	G1271	G1205	U1130	G1041	A	G831	C769
	C1736	U1600	G1668	G1536	G1402	G1336		G1536	C1272	C1206	G1131		C	U837	U770
	A1801	G1601	C1669	U1537	U1469	U1403		U1469	G1273	G1207	C1132	U1044	C	A838	C771
	G1802	G1602	A1538	C1404	C1338	G1338		C1404	G1273		C1133		C	U839	G772
	C1803	A1603	U1539	G1470	U1339	U1339		U1470	G1277	U1212	C1134	C1054	A911	U840	A774
	U1804	C1604	A1604	C1471	A1405	U1339		C1471	A1278	U1213	C1135	A1055	A912	G841	U775
	G1805	G1605	C1672	U1472	A1406	C1340		U1472	A1279	C1214	G1136	U1056	A913	A842	G776
	A1806	U1606	U1473	G1542	G1407	G1341		G1473	C1278	A1215	A1137	A1057	C914	G843	A777
	C1742	U1608	G1543	U1475	A1408	U1342		U1475	A1281	G1216	A1138	A1057	C914	U916	G778
	U1743	G1609	A1544	G1476	C1411	C1344		C1476	A1281	U1217	U1140	G1058	A986	U917	
	C1743	C1610	U1545	C1477	C1412	G1345		C1477	G1284	C1218	U1141	C1064	A918	A847	G781
	G1747	U1611	C1680	U1478	C1346	C1346		U1478	A1285	C1219	G1142	A1065	U919	A848	U782
	U1748	G1612	A1681	G1479	C1347	C1347		G1479	U1286	G1220	C1145	G1066	A922	U852	G783
	C1749	C1613	A1682	U1480	C1417	C1348		U1480	A1287	C1221	C1146	G1067	A990	G784	G783
	A1813	G1683	C1614	U1481	C1418	A1349		U1481	A1288	G1222	G1146	A1068	A923	U853	U785
	U1750	A1684	C1615	U1482	G1419	G1350		U1482	A1289	G1223	G1147	G1069	A994	G854	U786
	C1752	C1685	G1616	G1483	C1351	G1351		U1483	A1290	A1224	G1148	G1073	A995	C855	A787
	A1753	U1686	G1617	U1484	C1352	G1352		U1484	G1291	G1225		C1074	C996	C927	G788
	G1754	U1618	C1687	U1485	A1353	A1353		U1485	A1292	A1226	U1151	G1074	C997	U857	G789
	U1755	C1688	A1619	A1486	A1354	A1354		U1486	A1293	C1152	C1152	C1075	A998	G858	A790
	C1756	U1689	C1620	C1487	G1425	A1355		C1487	A1294	U1153	A1153	U1076	A930	U859	G791
	U1757	G1621	C1621	U1488	G1426	G1356		U1488	U1295	A1154	G1154	G1000	G831	U792	G792
	C1757	C1622	C1622	C1489	C1427	U1357		C1489	U1296	C1229	A1155	A1081	A1001	G861	U793

C2855	G2781	A2653	C2517	U2380	A2307	G2230	G2164	U	G0302	G1963	U1900	G1822
U2856	G2782	A2654	C2518	A2381	A2308	G2231	A2165	A	G2032	A1964	A1901	G1823
C2857	U2783	G2655	A2521	C2382	C2309	G2232	G2166	G2103	G2035	U1965	A1902	C1824
A2858	A2784	G2656	A2522	C2383	G2310	G2233	A2167	G2104	G2036	C1966	C1903	C1825
G2859	G2785	G2657	G2523	U2384	U2311	G2234	A2168	U2105	A2037	G1969	G1904	U1826
C2860	A2786	G2658	G2524	U2385	A2312	G2235	A2169	G2106	C2038	G1970	G1905	U1827
A2861	G2787	C2659	G2525	A2390	G2313	G2236	C2170	G2107	G2039	C1971	U1906	G1830
G2862	U2788	G2660	C2526	A2391	A2314	G2237	U2171			C1972	C1907	G1831
C2863	G2727	G2661	U2530	A2392	A2315	G2238	U2172	G2110	A2043	G1973	C1908	G1832
G2864	A2728	A2593	U2531	C2393	G2316	G2239	G2173	C	G2044	U1974	A1909	G1833
C2865	G2729	G2596	G2532	G2394	G2317	U2241	G2174	C	A2045	G1975	A1910	C1835
A2866	A2730	G2597	U2533	C2395	U2318	G2242	A2175	U	G2046	U1976	G1911	C1836
G2867	G2731	G2598	U2534	C2396	G2319	G2243	U2176	G	C2047	C1977	G1912	C1837
C2868	C2732	C2599	G2535	A2397	G2320	G2244	U2177	C	C2048		G1913	G1838
U2869	A2733	U2599	G2536	C2398	C2321	A2245	U2178	G	U2051	C1978	U1914	A1839
C2870	U2734	C2600	G2537	C2399	U2322	A2246	U2179		U2052	C1979	A1915	A1840
U2871	G2735	A2600	G2538	U2400	G2323	A2247	U2180	A2118	G2053	A1980	G1916	G1841
G2872	C2736	G2604	C2539	U2401	U2324	U2248	A2181	A2119	G2054	A1981	C1917	G1842
U2873	A2737	G2605	U2540	C2403	A2325	G2250	A2182	C2120	G2055	C1982	G1918	U1843
C2874	G2738	G2606	U2541	A2404	C2326	U2251	C2183	U2121	C2056		A1919	C1844
U2875	A2739	U2607	U2542	A2405	U2327	A2252	C2184	C2122	C2057	U1990	A1920	A1845
G2876	G2740	A2608	A2543	C2406	G2328	A2253	U2185	G2123	U2057	C1991	A1921	A1846
C2877	U2741	G2609	A2544	G2407	C2329	C2254	G2186	C2124	U2058	G1992	U1922	A1847
U2878	G2742	U2610	A2545	G2408	G2330	G2255		C2125	U2059	U1993	C1923	U1848
G2879	A2743	G2613	G2546	A2409	A2331		A2191	U	A2060	U1994	C1924	U1849
C2880	G2744	U2614	U2547	U2410		G2261	U2192	U		G1995	C1925	G1850
U2881	A2745	A2615	G2548	A2411	U2335	G2262	C2193	U	U2064	A1996	U1926	A1851
A2882	G2746	U2616	G2549	A2412	C2336	G2263	C2194	U	A2065	A1997	U1927	G1852
G2883	U2747	G2617	C2550	A2413	A2337	G2264	C2195	G	G2066	A1998	G1928	G1853
C2884	A2748	A2551	U2483	A2414		G2265	U2196	C	U2067	U1999		U1854
U2885	G2749	G2552	G2484	U2415	G2341	A2266	U2197		G2070	U2000	G1933	U1855
C2886	U2750	G2553	U2485	A2416	U2342	A2267	U2198		G2071	G2001	U1934	U1856
G2887	G2751	C2554	C2486	C2417	C2343	G2268	C2199		G2072	A2002	A1935	C1857
U2888	A2752	G2555	U2487	C2418	G2344	G2269	G2200		C2073	U2003	A1936	C1858
C2889	G2753	A2556	G2488	C2419	A2345	U2270	G2201		U2074	U2004	G1937	A1859
A2890	U2754	U2557	C2489	C2420	G2346		G2202		U2075	U2005	U1938	A1860
G2891	G2755	U2558	U2490	G2421	C2347	C2273	G2203		G2076	G2006	U1939	G1861
U2892	A2756	G2560	C2491	G2422	A2348	C2274	G2204		G2077	G2007	C1940	C1862
C2893	G2757	G2561	U2492	G2423		U2275	C2205		G2078		C1941	G1863
U2894	U2758	U2562	C2493	A2424	G2351	C2276	C2206		U2079	G2010	G1942	G1864
A2895	G2759	G2563	C2494	U2425	A2352	A2277	G2207		U2080	U2011	A1943	C1865
G2896	U2760	U2564	G2495	A2426	G2353	G2278	U2208		U2081	A2012	C1944	G1866
U2897	A2761	C2565	A2496	A2427	G2354	G2279	G2209		A2013	A2013	C1945	A1867
C2898	G2762	A2566	A2497	C2428		A2280	C2210		C2082	A2014	U1946	A1868
U2899	U2763	G2567	U2498	C2429	G2361		U2211		G2083	G2015	G1947	U1870
A2900	A2764	A2568	C2499	A2430	G2362	U2285	U2212		G2084	A2016	C1948	A1871
G2901	G2765	U2569	C2499	A2431	G2363	G2286	G2213		G2085	A1949	A1872	A1872
U2902	C2766	C2570	U2501	G2432	G2364	G2287	G2214		U2086	G2020	G1951	A1873
A2903	A2767	G2571	G2502	U2433	C2365	A2288	C2215		A	G2021	A1952	U1881
C2904	U2768	U2572	G2503	G2434	U2366	A2289	G2216		C2091	C2022	A1953	G1882
U2905	G2769	C2573	G2504	A2435	U2367	A2290	G2217		U2090	G2023	A1954	A1883
A2906	A2770	G2574	U2505	C2436	G2370	U2298	U2218		C2092	C2024	A1955	A1884
G2907	U2771	U2575	U2506	C2437	A2371	A2299	U2219		G2093	A2025	G1956	C1885
U2908	G2772	G2576	G2507	C2438	A2372	G2300	A2220		C2094	G2026	C1957	C1886
C2909	A2773	U2577	U2508	C2439	G2375	A2301	G2225		U2095	C2027	G1958	G1887
U2910	G2774	G2578	A2509	C2440	G2376	G2302	A2226		A2097	C2028	U1959	C1888
A2911	U2775	U2579	U2510	C2441	U2377	C2303	U2227		G	U2029	A1960	G1889
C2912	G2776	G2580	A2511	C2442	G2378	G2304	U2228		U2030	C2031	U1961	U1890
U2913	A2777	A2581	U2512	A2443	U2379		G2229		A		C1962	G1891
G2914	U2778	G2652	U2516	A2450	G2379							

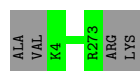
- Molecule 2: 5S RIBOSOMAL RRNA

Chain 9:  19% 60% 17% 5%



- Molecule 3: ribosomal protein L2

Chain A:  99%



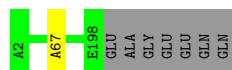
- Molecule 4: ribosomal protein L3

Chain B: 96% 4%



- Molecule 5: ribosomal protein L4

Chain C:  96%



- Molecule 6: ribosomal protein L5

Chain D: 98%



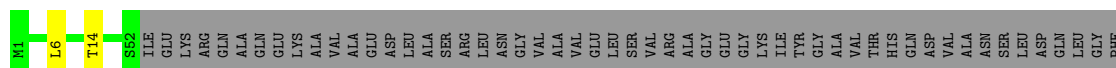
- Molecule 7: ribosomal protein L6

Chain E:  95% 5%



- Molecule 8: ribosomal protein L9

Chain F:  34% . 64%




ASP VAL ASP ARG LYS ILE ASP MET PRO LYS THR VAL LYS GLU VAL GLY TYR ASP ILE ALA TYR ARG ALA HIS PRO GLU VAL THR ILE PRO MET LYS LEU VAL VAL HIS ALA ALA LYS

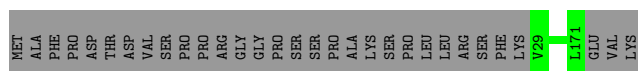
- Molecule 9: ribosomal protein L11

Chain G:  99%



- Molecule 10: ribosomal protein L13

Chain H:  82%



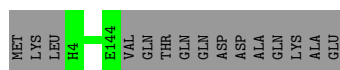
- Molecule 11: ribosomal protein L14

Chain I:  99%




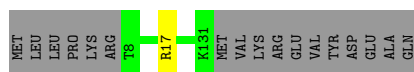
- Molecule 12: ribosomal protein L15

Chain J:  90%



- Molecule 13: ribosomal protein L16

Chain K:  87%



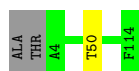
- Molecule 14: ribosomal protein L17

Chain L:  97%



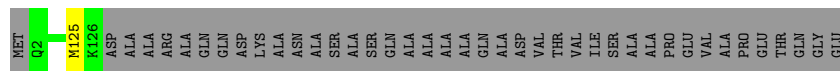
- Molecule 15: ribosomal protein L18

Chain M:  97%



- Molecule 16: ribosomal protein L19

Chain N:  75% 25%



- Molecule 17: ribosomal protein L20

Chain O:  99%



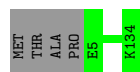
- Molecule 18: ribosomal protein L21

Chain P:  100%

There are no outlier residues recorded for this chain.

- Molecule 19: ribosomal protein L22

Chain Q:  97%



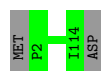
- Molecule 20: ribosomal protein L23

Chain R:  99%



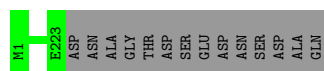
- Molecule 21: ribosomal protein L24

Chain S:  98%



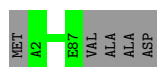
- Molecule 22: general stress protein Ctc

Chain T:  94% 6%



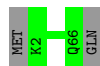
- Molecule 23: ribosomal protein L27

Chain U:  95% 5%



- Molecule 24: ribosomal protein L29

Chain W: 97%



- Molecule 25: ribosomal protein L30

Chain X: 100%

There are no outlier residues recorded for this chain.

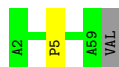
- Molecule 26: ribosomal protein L31

Chain Y: 100%

There are no outlier residues recorded for this chain.

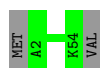
- Molecule 27: ribosomal protein L32

Chain Z: 97%



- Molecule 28: ribosomal protein L33

Chain 1: 96%



- Molecule 29: ribosomal protein L34

Chain 2: 98%



- Molecule 30: ribosomal protein L35

Chain 3: 97%



- Molecule 31: ribosomal protein L36



4 Data and refinement statistics

Xtriage (Phenix) and EDS were not executed - this section is therefore incomplete.

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, α , β , γ	170.80 Å 409.50 Å 695.70 Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	15.00 – 3.30	Depositor
% Data completeness (in resolution range)	(Not available) (15.00-3.30)	Depositor
R_{merge}	(Not available)	Depositor
R_{sym}	0.11	Depositor
Refinement program	CNS 1.0	Depositor
R, R_{free}	0.279 , 0.304	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	65404	wwPDB-VP
Average B, all atoms (Å ²)	46.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

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

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	0.23	0/66467	0.67	0/103673
2	9	0.59	0/2816	0.81	1/4388 (0.0%)
All	All	0.26	0/69283	0.67	1/108061 (0.0%)

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	1

There are no bond length outliers.

All (1) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed($^{\circ}$)	Ideal($^{\circ}$)
2	9	94	G	N9-C1'-C2'	-6.58	104.76	112.00

There are no chirality outliers.

All (1) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1342	U	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	2160	0
2	9	2519	0	1285	147	0
3	A	270	0	0	0	0
4	B	205	0	0	3	0
5	C	197	0	0	1	0
6	D	178	0	0	1	0
7	E	177	0	0	1	0
8	F	52	0	0	1	0
9	G	143	0	0	0	0
10	H	143	0	0	0	0
11	I	132	0	0	0	0
12	J	141	0	0	0	0
13	K	124	0	0	1	0
14	L	114	0	0	1	0
15	M	111	0	0	1	0
16	N	125	0	0	1	0
17	O	117	0	0	0	0
18	P	100	0	0	0	0
19	Q	130	0	0	0	0
20	R	93	0	0	0	0
21	S	113	0	0	0	0
22	T	223	0	0	0	0
23	U	86	0	0	0	0
24	W	65	0	0	0	0
25	X	55	0	0	0	0
26	Y	73	0	0	0	0
27	Z	58	0	0	1	0
28	1	53	0	0	0	0
29	2	46	0	0	0	0
30	3	63	0	0	0	0
31	4	35	0	0	0	0
32	0	104	0	144	47	0
All	All	65404	0	31346	2342	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 24.

All (2342) 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)
32:0:2882:ZIT:H6A1	32:0:2882:ZIT:C6B	1.61	1.30
32:0:2881:ZIT:H6A1	32:0:2881:ZIT:C6B	1.61	1.29
1:0:1679:U:H2'	1:0:1680:U:H5''	1.27	1.16
1:0:2058:U:H1'	1:0:2576:G:H21	1.10	1.14
1:0:2548:G:H2'	1:0:2549:G:H5''	1.26	1.14
32:0:2881:ZIT:C6A	32:0:2881:ZIT:C6B	2.28	1.11
32:0:2882:ZIT:C6A	32:0:2882:ZIT:C6B	2.28	1.11
32:0:2882:ZIT:H6B1	32:0:2882:ZIT:C6A	1.82	1.10
1:0:1908:C:H2'	1:0:1909:U:H4'	1.30	1.09
1:0:1966:C:H4'	1:0:2585:C:H4'	1.22	1.09
32:0:2881:ZIT:H6B1	32:0:2881:ZIT:C6A	1.82	1.08
1:0:940:G:H3'	1:0:941:U:H5''	1.08	1.08
1:0:764:A:N1	32:0:2882:ZIT:H201	1.67	1.07
1:0:764:A:C2	32:0:2882:ZIT:H201	1.89	1.07
1:0:1747:G:H4'	1:0:1749:G:H1'	1.34	1.05
1:0:362:C:H2'	1:0:363:G:H4'	1.39	1.05
1:0:104:C:H2'	1:0:105:G:H5''	1.35	1.03
1:0:940:G:H3'	1:0:941:U:C5'	1.89	1.03
32:0:2882:ZIT:C19	32:0:2882:ZIT:O5A	2.06	1.03
32:0:2881:ZIT:O5A	32:0:2881:ZIT:C19	2.06	1.02
1:0:918:A:H2'	1:0:919:U:H5''	1.35	1.02
1:0:1458:A:H3'	1:0:1459:U:C5'	1.91	1.01
1:0:1976:U:H2'	1:0:1977:C:H5'	1.37	1.00
1:0:929:A:H3'	1:0:930:A:H5''	1.44	0.99
1:0:1280:U:H3	1:0:1996:A:H62	1.06	0.99
1:0:1073:G:H2'	1:0:1074:G:H4'	1.43	0.98
1:0:1182:U:H2'	1:0:1183:C:H5''	1.43	0.97
1:0:1900:U:O2'	1:0:1946:U:H5'	1.64	0.97
1:0:2081:U:H2'	1:0:2082:C:H5''	1.44	0.96
1:0:2299:A:H5'	1:0:2300:G:C4	2.00	0.96
1:0:688:A:H62	1:0:816:U:H3	1.13	0.96
1:0:2266:A:N6	1:0:2323:U:H1'	1.81	0.95
1:0:1679:U:C2'	1:0:1680:U:H5''	1.96	0.94
1:0:75:C:H2'	1:0:76:C:H5''	1.49	0.94
1:0:1432:G:H21	1:0:1596:A:H62	1.13	0.94
2:9:54:U:H2'	2:9:55:C:C6	2.03	0.94
1:0:2599:U:H2'	1:0:2600:A:H5''	1.47	0.94
1:0:1656:U:H2'	1:0:1657:A:H5''	1.50	0.94
1:0:2476:A:HO2'	1:0:2477:C:H5	0.95	0.93
1:0:941:U:H2'	1:0:942:U:O4'	1.69	0.93
1:0:2548:G:C2'	1:0:2549:G:H5''	1.98	0.93
1:0:2380:U:H2'	1:0:2381:A:H5'	1.49	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:58:C:H3'	1:0:59:G:H5''	1.50	0.92
2:9:25:G:H2'	2:9:26:G:O4'	1.69	0.92
32:0:2881:ZIT:C6A	32:0:2881:ZIT:H6B2	1.98	0.92
2:9:84:G:H2'	2:9:85:G:H8	1.34	0.92
1:0:508:G:H1	1:0:516:G:H22	1.18	0.91
32:0:2882:ZIT:C6A	32:0:2882:ZIT:H6B2	1.98	0.91
1:0:317:U:H2'	1:0:318:G:H5''	1.51	0.91
1:0:847:C:H41	1:0:955:G:H21	1.17	0.90
1:0:2266:A:H61	1:0:2323:U:H1'	1.32	0.90
1:0:2198:U:H3'	1:0:2199:C:H5''	1.53	0.90
1:0:716:U:H2'	1:0:717:G:O4'	1.71	0.90
32:0:2881:ZIT:H192	32:0:2881:ZIT:O5A	1.72	0.89
1:0:28:A:H61	1:0:522:G:H4'	1.37	0.89
32:0:2882:ZIT:H6B1	32:0:2882:ZIT:H6A1	0.91	0.89
2:9:100:G:H2'	2:9:101:A:O4'	1.72	0.89
32:0:2881:ZIT:H6B1	32:0:2881:ZIT:H6A1	0.90	0.89
32:0:2882:ZIT:H192	32:0:2882:ZIT:O5A	1.72	0.89
1:0:752:G:H5'	1:0:1775:A:H61	1.38	0.89
1:0:763:A:H2	1:0:765:C:H1'	1.37	0.89
2:9:67:C:H2'	2:9:68:A:H5'	1.54	0.88
2:9:42:U:H2'	2:9:45:C:H41	1.35	0.88
1:0:1791:C:H2'	1:0:1792:C:H5''	1.54	0.88
1:0:317:U:H3	1:0:321:A:H62	1.20	0.88
2:9:4:C:H2'	2:9:5:C:C6	2.08	0.88
1:0:2059:U:H2'	1:0:2060:A:H5''	1.54	0.87
1:0:2096:U:H2'	1:0:2097:A:H5''	1.54	0.87
1:0:2014:A:H62	1:0:2477:C:H1'	1.36	0.87
1:0:367:G:H2'	1:0:368:A:H5''	1.57	0.87
1:0:651:C:H2'	1:0:652:C:H5''	1.57	0.87
1:0:1312:G:H5'	1:0:1314:A:H1'	1.56	0.87
1:0:2691:C:H3'	1:0:2692:A:H5''	1.57	0.86
1:0:1748:U:H3	1:0:1753:A:H2	1.23	0.86
1:0:2636:A:H62	1:0:2643:G:H21	1.23	0.86
1:0:857:U:H2'	1:0:858:G:H5'	1.57	0.86
1:0:818:G:H22	1:0:2051:U:H5''	1.39	0.86
1:0:2014:A:N6	1:0:2477:C:H1'	1.90	0.85
1:0:2737:A:H61	7:E:60:LYS:CA	1.88	0.85
2:9:102:A:C2'	2:9:103:A:H5'	2.06	0.85
1:0:1252:C:C2'	1:0:1253:C:H5''	2.06	0.85
1:0:1621:C:H4'	1:0:1626:A:C6	2.12	0.85
1:0:1252:C:H2'	1:0:1253:C:H5''	1.59	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2510:A:H61	1:0:2641:A:H61	1.24	0.85
1:0:1900:U:H2'	1:0:1901:A:O4'	1.77	0.85
1:0:2509:A:H2'	1:0:2510:A:H5''	1.59	0.85
1:0:2598:C:H4'	4:B:152:LYS:CA	2.07	0.84
1:0:976:C:H5'	1:0:2252:A:H1'	1.57	0.84
1:0:658:G:H4'	1:0:2331:A:H5'	1.60	0.84
2:9:67:C:C2'	2:9:68:A:H5'	2.07	0.84
1:0:2324:G:H4'	1:0:2326:C:H5''	1.60	0.84
1:0:616:U:H2'	1:0:617:U:H5''	1.58	0.83
1:0:762:A:H2'	1:0:763:A:H8	1.41	0.83
1:0:1922:U:H1'	1:0:2570:C:O2'	1.79	0.83
1:0:2623:A:H2'	1:0:2624:G:O4'	1.76	0.83
1:0:1463:A:H1'	1:0:1543:G:H22	1.40	0.83
1:0:1458:A:H3'	1:0:1459:U:H5''	1.60	0.83
1:0:755:C:H5'	1:0:1692:C:O2'	1.78	0.83
1:0:1976:U:C2'	1:0:1977:C:H5'	2.07	0.83
2:9:102:A:O2'	2:9:103:A:H5'	1.77	0.83
1:0:88:G:H3'	1:0:89:A:H5''	1.61	0.83
1:0:2599:U:C2'	1:0:2600:A:H5''	2.09	0.82
2:9:93:G:H2'	2:9:94:G:H8	1.42	0.82
1:0:641:G:H4'	1:0:651:C:O2'	1.79	0.82
1:0:1922:U:O2	1:0:2571:G:H5'	1.79	0.82
1:0:929:A:H2'	1:0:930:A:H4'	1.62	0.81
1:0:2058:U:H1'	1:0:2576:G:N2	1.94	0.81
1:0:2498:U:H5''	1:0:2499:C:OP1	1.80	0.81
1:0:1181:C:H3'	1:0:1182:U:H5''	1.59	0.81
1:0:1438:G:H2'	1:0:1439:G:O4'	1.81	0.81
1:0:1900:U:H3'	1:0:1901:A:H8	1.43	0.81
1:0:1974:U:H2'	1:0:1975:G:H5''	1.62	0.81
2:9:92:G:H2'	2:9:93:G:H5'	1.62	0.81
2:9:12:C:H2'	2:9:13:C:O4'	1.81	0.81
1:0:542:A:H2'	1:0:543:G:H5'	1.63	0.81
2:9:7:C:O2'	2:9:8:C:H5'	1.80	0.81
1:0:1463:A:H1'	1:0:1543:G:N2	1.95	0.81
1:0:922:A:H2'	1:0:923:A:H8	1.46	0.81
1:0:556:A:H2'	1:0:557:U:H5'	1.62	0.80
1:0:681:A:H2'	1:0:683:A:N7	1.95	0.80
1:0:762:A:H2'	1:0:763:A:C8	2.16	0.80
1:0:798:G:H2'	1:0:799:C:H5'	1.62	0.80
1:0:70:A:O3'	1:0:71:A:H3'	1.80	0.80
1:0:2755:A:O2'	1:0:2756:A:H5'	1.80	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1804:U:H2'	1:0:1805:G:H8	1.46	0.80
1:0:1791:C:H1'	1:0:1793:A:H5'	1.64	0.80
1:0:1182:U:C2'	1:0:1183:C:H5''	2.12	0.80
1:0:1223:G:H21	1:0:1225:G:H21	1.30	0.80
1:0:1715:A:O2'	1:0:1716:G:H3'	1.82	0.80
1:0:2499:C:H41	1:0:2521:A:H2	1.26	0.80
1:0:168:A:H2'	1:0:169:C:C6	2.17	0.80
1:0:764:A:C6	32:0:2882:ZIT:H201	2.16	0.80
1:0:558:G:H5''	1:0:559:C:C5	2.16	0.79
1:0:930:A:H3'	1:0:931:G:H8	1.46	0.79
2:9:28:A:C2	2:9:29:C:H1'	2.18	0.79
1:0:1656:U:C2'	1:0:1657:A:H5''	2.12	0.79
1:0:547:U:H2'	1:0:548:G:C8	2.17	0.79
2:9:65:A:H2'	2:9:66:G:C8	2.17	0.79
1:0:873:U:C2	1:0:2246:A:H5''	2.17	0.79
1:0:2872:U:H2'	1:0:2873:G:C8	2.18	0.79
1:0:1886:G:H2'	1:0:1887:G:H8	1.46	0.79
1:0:1811:A:H1'	1:0:1813:A:C5	2.18	0.79
1:0:590:C:H2'	1:0:591:G:C8	2.17	0.79
1:0:652:C:H42	1:0:657:A:H61	1.27	0.79
1:0:873:U:H1'	1:0:2246:A:OP1	1.83	0.79
1:0:792:U:H2'	1:0:793:G:H5'	1.64	0.78
1:0:635:C:H2'	1:0:636:G:H5''	1.64	0.78
1:0:2672:U:H2'	1:0:2673:G:H8	1.47	0.78
1:0:689:A:H8	1:0:2052:G:H21	1.28	0.78
1:0:1088:A:H2'	1:0:1089:C:O4'	1.83	0.78
1:0:1900:U:H3'	1:0:1901:A:C8	2.19	0.78
1:0:416:U:H5''	1:0:417:C:H5'	1.65	0.78
2:9:78:A:H2'	2:9:79:U:C6	2.19	0.78
1:0:1807:A:O2'	1:0:1808:C:H4'	1.83	0.78
1:0:357:A:H2'	1:0:358:C:H5'	1.63	0.78
1:0:1299:A:H2'	1:0:1301:U:OP2	1.82	0.78
1:0:187:U:H2'	1:0:188:G:H8	1.49	0.78
2:9:92:G:C2'	2:9:93:G:H5'	2.14	0.78
1:0:1195:U:H2'	1:0:1196:G:C8	2.19	0.78
1:0:1319:C:H2'	1:0:1320:A:H8	1.47	0.78
1:0:2474:G:H2'	1:0:2475:C:O4'	1.84	0.78
2:9:58:G:H4'	2:9:59:A:H5'	1.64	0.78
1:0:764:A:C2	32:0:2882:ZIT:C20	2.65	0.77
1:0:1086:C:H2'	1:0:1087:C:H5''	1.64	0.77
1:0:218:A:O2'	1:0:219:G:H4'	1.84	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1697:U:H2'	1:0:1698:C:O4'	1.84	0.77
1:0:2861:A:H2'	1:0:2862:G:H8	1.49	0.77
1:0:2447:G:H22	1:0:2460:G:H2'	1.49	0.77
2:9:69:G:H2'	2:9:70:C:O4'	1.84	0.77
1:0:1032:A:H2'	1:0:1033:G:H4'	1.63	0.77
1:0:613:A:H2'	1:0:614:G:H8	1.49	0.77
1:0:1825:C:O2'	1:0:1826:U:H5'	1.85	0.77
1:0:2437:G:N1	1:0:2469:G:H2'	2.00	0.77
1:0:2559:U:H5'	4:B:130:GLY:CA	2.15	0.77
2:9:65:A:H2'	2:9:66:G:H8	1.50	0.77
1:0:918:A:C2'	1:0:919:U:H5''	2.11	0.77
1:0:1066:G:H2'	1:0:1067:G:H4'	1.67	0.77
1:0:2262:C:H2'	1:0:2263:C:O4'	1.85	0.77
1:0:75:C:C2'	1:0:76:C:H5''	2.15	0.77
1:0:1459:U:H2'	1:0:1475:U:O2'	1.84	0.76
1:0:951:G:H2'	1:0:952:A:H5''	1.65	0.76
1:0:1911:A:H2'	1:0:1912:G:H5'	1.67	0.76
1:0:2770:A:H4'	1:0:2867:G:H22	1.49	0.76
1:0:1608:U:H2'	1:0:1609:G:H8	1.51	0.76
1:0:2320:G:H2'	1:0:2321:C:O4'	1.85	0.76
1:0:103:U:H2'	1:0:104:C:C6	2.20	0.76
1:0:1242:A:H2'	1:0:1243:G:C8	2.21	0.76
1:0:2006:G:H4'	1:0:2596:C:O2'	1.86	0.76
2:9:77:G:H2'	2:9:78:A:O4'	1.84	0.76
32:0:2882:ZIT:H193	32:0:2882:ZIT:O5A	1.85	0.76
1:0:37:C:H2'	1:0:38:G:C8	2.20	0.76
1:0:169:C:H2'	1:0:170:U:H5'	1.68	0.76
1:0:2633:A:H61	1:0:2646:C:N4	1.83	0.75
1:0:215:G:H21	1:0:632:A:H8	1.31	0.75
1:0:37:C:H2'	1:0:38:G:H8	1.52	0.75
1:0:2436:U:H2'	1:0:2437:G:O4'	1.86	0.75
1:0:468:A:O2'	1:0:469:G:H4'	1.86	0.75
1:0:1763:G:H2'	1:0:1764:A:H4'	1.68	0.75
1:0:585:U:H2'	1:0:586:G:C8	2.20	0.75
1:0:1036:G:H1'	1:0:1145:C:C4'	2.16	0.75
1:0:404:A:H1'	1:0:424:G:O2'	1.85	0.75
1:0:1036:G:H1'	1:0:1145:C:H4'	1.68	0.75
1:0:2861:A:H2'	1:0:2862:G:C8	2.22	0.75
1:0:930:A:H3'	1:0:931:G:C8	2.22	0.75
1:0:1440:G:H1'	1:0:1588:A:N6	2.01	0.75
1:0:1587:A:H2'	1:0:1588:A:C8	2.22	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:547:U:H2'	1:0:548:G:H8	1.51	0.75
1:0:1035:G:H21	1:0:1155:G:H4'	1.50	0.75
1:0:1055:A:C2	1:0:1121:G:H2'	2.22	0.74
1:0:2652:G:H2'	1:0:2653:A:H8	1.50	0.74
1:0:2426:G:H22	1:0:2431:C:N4	1.85	0.74
1:0:104:C:C2'	1:0:105:G:H5''	2.13	0.74
32:0:2881:ZIT:O5A	32:0:2881:ZIT:H193	1.85	0.74
1:0:727:U:H2'	1:0:728:G:H5''	1.70	0.74
1:0:797:A:C5	1:0:805:G:H1'	2.22	0.74
1:0:2498:U:OP1	1:0:2498:U:H3'	1.87	0.74
1:0:2616:U:H2'	1:0:2617:G:O4'	1.87	0.74
1:0:1223:G:N2	1:0:1225:G:H21	1.85	0.74
1:0:114:C:H4'	1:0:124:A:O2'	1.88	0.74
1:0:2270:U:O2'	1:0:2353:G:H1'	1.88	0.74
1:0:1463:A:C1'	1:0:1543:G:H22	2.01	0.74
1:0:2329:C:H2'	1:0:2330:G:O4'	1.87	0.74
1:0:28:A:N6	1:0:522:G:H4'	2.02	0.74
1:0:922:A:H2'	1:0:923:A:C8	2.22	0.74
1:0:1348:C:H2'	1:0:1349:A:C8	2.22	0.73
1:0:1750:A:H1'	1:0:2690:A:C2	2.23	0.73
1:0:2532:G:C2	1:0:2533:U:H1'	2.23	0.73
1:0:1681:A:C2	1:0:2706:U:H1'	2.23	0.73
1:0:1608:U:H2'	1:0:1609:G:C8	2.24	0.73
1:0:1284:G:C4	1:0:1633:C:H5'	2.23	0.73
1:0:2299:A:H5'	1:0:2300:G:C5	2.23	0.73
2:9:31:A:H2'	2:9:32:C:O4'	1.89	0.73
1:0:2318:U:H2'	1:0:2319:G:H8	1.51	0.73
1:0:821:A:O2'	1:0:1267:A:H4'	1.89	0.73
1:0:940:G:C3'	1:0:941:U:H5''	2.04	0.73
1:0:1747:G:H4'	1:0:1749:G:C1'	2.18	0.73
32:0:2882:ZIT:H162	32:0:2882:ZIT:O13	1.86	0.73
1:0:612:G:O3'	1:0:613:A:H4'	1.89	0.73
1:0:2268:G:H5''	1:0:2363:G:O2'	1.89	0.73
1:0:1471:G:H1	1:0:2682:C:H42	1.35	0.73
1:0:763:A:C2	1:0:765:C:H1'	2.23	0.72
2:9:48:A:O2'	2:9:49:C:H5'	1.88	0.72
1:0:1202:U:H2'	1:0:1203:A:H8	1.53	0.72
1:0:2492:G:H1	1:0:2550:C:H42	1.36	0.72
1:0:1982:C:H4'	1:0:2703:C:O2	1.88	0.72
1:0:841:G:H2'	1:0:842:A:C8	2.25	0.72
1:0:792:U:C2'	1:0:793:G:H5'	2.19	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2669:C:H41	14:L:15:SER:CA	2.03	0.72
1:0:162:C:H2'	1:0:163:A:C8	2.23	0.72
1:0:2456:U:H1'	1:0:2460:G:H22	1.54	0.72
1:0:81:C:H2'	1:0:82:G:O4'	1.90	0.72
1:0:1295:U:H2'	1:0:1296:G:H5'	1.71	0.71
1:0:1267:A:H5''	1:0:1268:U:O5'	1.88	0.71
1:0:208:C:H2'	1:0:209:G:H5'	1.69	0.71
1:0:1445:A:H2'	1:0:1446:U:O4'	1.90	0.71
1:0:2674:C:H2'	1:0:2675:U:H6	1.54	0.71
2:9:61:A:O5'	2:9:61:A:H8	1.73	0.71
1:0:1654:A:H4'	1:0:2690:A:O2'	1.89	0.71
1:0:2503:G:H2'	1:0:2504:G:H5''	1.70	0.71
1:0:2559:U:C5'	4:B:130:GLY:CA	2.68	0.71
1:0:2670:C:H4'	1:0:2846:G:O2'	1.91	0.71
1:0:1040:A:H2'	1:0:1041:G:H5'	1.70	0.71
1:0:1225:G:H2'	1:0:1249:G:H22	1.53	0.71
1:0:1429:A:H62	1:0:1601:U:H5''	1.55	0.71
1:0:1976:U:H2'	1:0:1977:C:C5'	2.17	0.71
1:0:19:C:H5'	1:0:563:U:OP1	1.90	0.71
1:0:2324:G:O2'	1:0:2325:A:H5''	1.90	0.71
1:0:2431:C:O2'	1:0:2485:U:H4'	1.91	0.71
1:0:58:C:H3'	1:0:59:G:C5'	2.19	0.71
1:0:651:C:C2'	1:0:652:C:H5''	2.20	0.71
1:0:331:U:H2'	1:0:332:C:H5''	1.72	0.71
2:9:28:A:H3'	2:9:29:C:H6	1.55	0.71
2:9:36:A:H2'	2:9:46:G:O6	1.90	0.71
1:0:2176:U:H2'	1:0:2177:U:O4'	1.91	0.71
1:0:1466:C:H2'	1:0:1467:U:O4'	1.89	0.71
1:0:2185:U:H2'	1:0:2186:G:C8	2.26	0.71
1:0:2198:U:C3'	1:0:2199:C:H5''	2.21	0.71
1:0:2565:C:H4'	1:0:2566:A:H5'	1.71	0.71
32:0:2882:ZIT:C6B	32:0:2882:ZIT:C5A	2.69	0.71
1:0:2321:C:H2'	1:0:2322:U:O4'	1.91	0.70
1:0:618:A:H2'	1:0:619:A:O4'	1.89	0.70
1:0:1479:G:H2'	1:0:1480:G:H8	1.55	0.70
1:0:460:U:N3	1:0:592:G:H1'	2.06	0.70
1:0:2315:A:O2'	1:0:2364:C:H5''	1.91	0.70
1:0:613:A:H2'	1:0:614:G:C8	2.26	0.70
1:0:162:C:H4'	1:0:195:A:H4'	1.71	0.70
1:0:760:U:O2	1:0:1997:A:H1'	1.91	0.70
1:0:953:G:H1'	1:0:1203:A:H2	1.55	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1854:G:H1	1:0:1863:U:H3	1.37	0.70
2:9:71:G:N2	2:9:72:C:H1'	2.07	0.70
1:0:1068:A:H2'	1:0:1069:G:C8	2.27	0.70
1:0:1617:G:H2'	1:0:1618:U:H5'	1.72	0.70
1:0:1284:G:N3	1:0:1633:C:H5'	2.07	0.70
32:0:2881:ZIT:C5A	32:0:2881:ZIT:C6B	2.69	0.70
1:0:523:A:H4'	1:0:1230:C:H5'	1.74	0.70
1:0:1479:G:H2'	1:0:1480:G:C8	2.27	0.70
1:0:1436:G:H21	1:0:1514:C:H1'	1.57	0.70
1:0:1598:C:H2'	1:0:1599:G:O4'	1.91	0.70
1:0:1689:U:C2	1:0:2561:G:H5'	2.27	0.70
1:0:2599:U:C3'	1:0:2600:A:H5''	2.22	0.70
2:9:84:G:O2'	2:9:85:G:H5'	1.91	0.70
1:0:1789:U:H2'	1:0:1790:G:H5'	1.74	0.70
1:0:2202:G:H2'	1:0:2203:G:O4'	1.92	0.70
1:0:236:C:H2'	1:0:237:G:H8	1.57	0.70
1:0:2469:G:H5''	1:0:2470:U:OP1	1.91	0.70
1:0:2841:U:H1'	1:0:2843:A:H1'	1.72	0.70
1:0:245:C:H5'	1:0:372:U:O2'	1.91	0.70
1:0:734:G:H2'	1:0:735:G:H8	1.57	0.69
1:0:788:G:N2	1:0:800:U:H2'	2.07	0.69
1:0:109:A:C3'	1:0:110:U:H5''	2.22	0.69
1:0:2836:U:H2'	1:0:2837:G:C8	2.26	0.69
2:9:4:C:H2'	2:9:5:C:H6	1.57	0.69
1:0:109:A:H2'	1:0:110:U:H5''	1.72	0.69
1:0:486:U:H4'	1:0:520:C:H5'	1.74	0.69
1:0:541:C:H42	1:0:572:G:H8	1.40	0.69
1:0:652:C:H42	1:0:657:A:N6	1.89	0.69
1:0:1091:C:H2'	1:0:1092:U:C6	2.27	0.69
1:0:1869:A:H2'	1:0:1870:U:O4'	1.92	0.69
1:0:2510:A:N6	1:0:2641:A:H61	1.89	0.69
1:0:964:A:H2'	1:0:965:G:H8	1.57	0.69
1:0:1280:U:H3	1:0:1996:A:N6	1.85	0.69
1:0:814:G:H3'	1:0:815:A:H5'	1.73	0.69
1:0:2836:U:H2'	1:0:2837:G:H8	1.57	0.69
1:0:616:U:C2'	1:0:617:U:H5''	2.22	0.69
2:9:6:C:H2'	2:9:7:C:C6	2.26	0.69
1:0:1653:C:H2'	1:0:1654:A:C8	2.28	0.69
1:0:1695:U:H2'	1:0:1696:C:O4'	1.93	0.69
1:0:688:A:N6	1:0:816:U:H3	1.88	0.69
1:0:931:G:N2	1:0:2247:A:H5''	2.08	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2432:A:H4'	1:0:2551:A:O2'	1.93	0.69
1:0:50:G:H2'	1:0:117:A:C2	2.28	0.69
1:0:939:C:H2'	1:0:940:G:C8	2.28	0.69
1:0:462:G:H2'	1:0:463:C:C5'	2.22	0.69
1:0:69:G:H5''	1:0:70:A:OP1	1.93	0.69
1:0:1194:U:H2'	1:0:1195:U:C6	2.28	0.68
1:0:2308:A:H2'	1:0:2309:G:C8	2.28	0.68
1:0:2466:G:H2'	1:0:2467:A:C8	2.28	0.68
1:0:1672:A:C2	1:0:2032:G:H4'	2.28	0.68
2:9:84:G:H2'	2:9:85:G:C8	2.22	0.68
1:0:216:U:H5''	1:0:601:A:N6	2.08	0.68
1:0:187:U:H2'	1:0:188:G:C8	2.28	0.68
1:0:1325:U:H4'	1:0:1326:U:C6	2.28	0.68
1:0:1467:U:H3'	1:0:1468:A:C5'	2.23	0.68
1:0:317:U:C2'	1:0:318:G:H5''	2.24	0.68
1:0:2757:G:H5'	1:0:2761:A:H1'	1.75	0.68
1:0:77:C:H2'	1:0:78:C:C6	2.29	0.68
1:0:1953:A:H1'	1:0:1955:G:C1'	2.23	0.68
1:0:459:A:H1'	1:0:461:A:N6	2.08	0.68
1:0:490:A:O2'	1:0:491:A:H5'	1.93	0.68
1:0:1474:A:N3	1:0:1474:A:H3'	2.09	0.68
1:0:71:A:N6	1:0:110:U:H4'	2.09	0.68
1:0:1727:C:H4'	1:0:2833:C:N3	2.09	0.67
1:0:2761:A:H5''	1:0:2762:G:H5'	1.77	0.67
1:0:1197:U:H2'	1:0:1198:C:O4'	1.94	0.67
1:0:1791:C:O2'	1:0:1793:A:H5'	1.94	0.67
1:0:1966:C:H4'	1:0:2585:C:C4'	2.14	0.67
1:0:2199:C:H2'	1:0:2200:G:C8	2.29	0.67
1:0:2491:C:H3'	1:0:2492:G:H5''	1.77	0.67
1:0:239:A:H4'	1:0:620:G:H5'	1.75	0.67
1:0:13:A:H1'	1:0:536:A:N6	2.08	0.67
1:0:2469:G:H4'	1:0:2470:U:C5	2.30	0.67
1:0:1949:A:O2'	1:0:2572:U:H5'	1.95	0.67
1:0:2829:A:H2'	1:0:2830:U:O4'	1.95	0.67
1:0:1312:G:H5''	1:0:1313:U:C5'	2.25	0.67
1:0:1762:C:O2'	1:0:1777:A:H1'	1.95	0.67
1:0:652:C:N4	1:0:657:A:H61	1.92	0.67
1:0:951:G:C2'	1:0:952:A:H5''	2.24	0.67
1:0:1271:C:H2'	1:0:1272:G:C8	2.30	0.67
1:0:1588:A:H2'	1:0:1589:G:H8	1.59	0.67
1:0:2708:U:H2'	1:0:2709:C:C6	2.30	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2781:G:H2'	1:0:2782:G:O4'	1.94	0.67
1:0:2691:C:H3'	1:0:2692:A:C5'	2.24	0.67
1:0:1302:C:O2'	1:0:1343:C:H4'	1.94	0.66
1:0:170:U:H2'	1:0:171:G:H8	1.60	0.66
1:0:313:U:H2'	1:0:314:G:C8	2.29	0.66
1:0:820:U:H1'	1:0:2424:G:OP1	1.95	0.66
1:0:1763:G:N2	1:0:1765:C:H5''	2.10	0.66
32:0:2882:ZIT:O13	32:0:2882:ZIT:C16	2.43	0.66
1:0:1547:U:H2'	1:0:1548:U:C6	2.30	0.66
2:9:29:C:H2'	2:9:30:C:C6	2.31	0.66
1:0:1029:C:H3'	1:0:1030:U:H5''	1.76	0.66
1:0:999:A:H4'	1:0:1166:A:N1	2.11	0.66
1:0:1325:U:H4'	1:0:1326:U:C5	2.30	0.66
1:0:118:U:H1'	1:0:143:A:C8	2.31	0.66
1:0:2274:C:H2'	1:0:2275:U:H5''	1.75	0.66
1:0:2785:A:H2'	1:0:2786:G:O4'	1.96	0.66
1:0:427:C:H2'	1:0:428:A:H8	1.59	0.66
1:0:951:G:C3'	1:0:952:A:H5''	2.25	0.66
1:0:1371:G:H1'	1:0:1386:A:N6	2.10	0.66
1:0:1440:G:H1'	1:0:1588:A:H61	1.59	0.66
1:0:2674:C:H2'	1:0:2675:U:C6	2.31	0.66
2:9:40:C:H2'	2:9:41:A:O4'	1.96	0.66
1:0:1452:U:H5''	1:0:1533:G:H5'	1.78	0.66
1:0:2390:A:H2'	1:0:2391:A:H8	1.60	0.66
1:0:2523:G:H1'	1:0:2625:U:H5'	1.77	0.66
1:0:699:G:H21	1:0:700:C:H5''	1.60	0.66
1:0:734:G:H2'	1:0:735:G:C8	2.30	0.66
1:0:88:G:H3'	1:0:89:A:C5'	2.24	0.66
1:0:930:A:H5'	1:0:931:G:N7	2.10	0.66
1:0:9:U:H3	1:0:2608:A:N6	1.93	0.66
1:0:109:A:C2'	1:0:110:U:H5''	2.26	0.66
1:0:2308:A:H2'	1:0:2309:G:H8	1.59	0.66
1:0:2476:A:O2'	1:0:2477:C:H5	1.73	0.66
1:0:705:C:H2'	1:0:706:A:C8	2.31	0.66
1:0:2783:U:O2'	1:0:2784:A:H4'	1.95	0.66
1:0:797:A:H2'	1:0:805:G:O4'	1.95	0.66
1:0:1851:A:H61	1:0:1867:A:H1'	1.60	0.66
1:0:2081:U:C2'	1:0:2082:C:H5''	2.21	0.66
1:0:2811:G:H2'	1:0:2812:A:C8	2.31	0.66
1:0:564:U:H2'	1:0:565:A:C8	2.31	0.66
1:0:942:U:C2'	1:0:943:U:H5'	2.26	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:62:C:N4	2:9:63:A:H62	1.93	0.66
1:0:1301:U:H2'	1:0:1664:G:H21	1.61	0.65
1:0:2375:G:H2'	1:0:2376:G:H8	1.60	0.65
1:0:367:G:C2'	1:0:368:A:H5''	2.26	0.65
1:0:1055:A:H2	1:0:1121:G:H2'	1.60	0.65
1:0:2158:C:H2'	1:0:2159:A:H8	1.61	0.65
1:0:2605:C:H2'	1:0:2606:G:O4'	1.95	0.65
1:0:632:A:H2'	1:0:633:G:O4'	1.96	0.65
1:0:694:G:H2'	1:0:695:G:H8	1.61	0.65
1:0:2491:C:H2'	1:0:2492:G:C4'	2.26	0.65
1:0:2522:G:H21	1:0:2625:U:H5''	1.61	0.65
1:0:1811:A:H1'	1:0:1813:A:C4	2.31	0.65
1:0:1480:G:H2'	1:0:1481:U:H5'	1.78	0.65
1:0:1958:G:H2'	1:0:1959:U:C6	2.31	0.65
1:0:2510:A:H61	1:0:2641:A:N6	1.95	0.65
1:0:818:G:N2	1:0:2051:U:H5''	2.09	0.65
1:0:2199:C:H2'	1:0:2200:G:H8	1.61	0.65
1:0:2279:G:H2'	1:0:2280:A:H8	1.61	0.65
1:0:2579:A:H2'	1:0:2580:C:C6	2.30	0.65
1:0:2240:C:H2'	1:0:2241:U:H5'	1.78	0.65
1:0:2491:C:H2'	1:0:2492:G:O4'	1.97	0.65
1:0:1529:C:H2'	1:0:1530:U:O4'	1.97	0.65
1:0:509:U:H2'	1:0:510:G:H5'	1.77	0.65
1:0:190:A:H2'	1:0:191:G:C8	2.32	0.65
1:0:2122:G:H2'	1:0:2123:G:C8	2.32	0.65
2:9:115:G:O2'	2:9:116:C:H5'	1.97	0.65
1:0:1388:C:H2'	1:0:1389:C:H6	1.62	0.64
1:0:492:G:H22	1:0:519:C:H42	1.43	0.64
1:0:669:G:H2'	1:0:670:U:C6	2.32	0.64
1:0:17:G:H2'	1:0:18:U:C6	2.33	0.64
1:0:459:A:N6	1:0:484:G:H1'	2.12	0.64
1:0:995:A:H5''	1:0:996:C:H5	1.62	0.64
1:0:2609:G:H21	1:0:2866:A:H2	1.46	0.64
1:0:1181:C:C3'	1:0:1182:U:H5''	2.28	0.64
1:0:1561:A:H2'	1:0:1562:G:O4'	1.98	0.64
1:0:1804:U:H2'	1:0:1805:G:C8	2.31	0.64
1:0:2437:G:H2'	1:0:2469:G:N1	2.12	0.64
1:0:1838:G:H2'	1:0:1839:A:H5'	1.80	0.64
1:0:2261:G:H4'	1:0:2262:C:OP2	1.95	0.64
1:0:1680:U:O2'	1:0:2665:G:H4'	1.97	0.64
1:0:414:A:H2'	1:0:415:A:O4'	1.97	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:42:U:C2'	2:9:45:C:H41	2.08	0.64
1:0:2273:C:H2'	1:0:2274:C:C6	2.32	0.64
1:0:840:U:H4'	1:0:841:G:C2	2.33	0.64
1:0:114:C:O2'	1:0:124:A:H1'	1.97	0.64
1:0:509:U:H3	1:0:513:A:H62	1.44	0.64
1:0:890:U:H2'	1:0:891:A:C8	2.32	0.64
1:0:929:A:C3'	1:0:930:A:H5''	2.26	0.64
2:9:63:A:H2'	2:9:64:C:H6	1.63	0.64
1:0:1591:U:H2'	1:0:1592:U:O4'	1.98	0.64
1:0:2158:C:H2'	1:0:2159:A:C8	2.33	0.64
1:0:820:U:H2'	1:0:821:A:H8	1.62	0.64
1:0:109:A:H3'	1:0:110:U:H5''	1.78	0.64
1:0:1495:G:H2'	1:0:1496:G:C8	2.32	0.64
1:0:1502:G:O2'	1:0:1503:G:H5'	1.98	0.64
1:0:987:G:H5'	1:0:1167:A:N6	2.13	0.64
1:0:1029:C:C3'	1:0:1030:U:H5''	2.28	0.63
1:0:2082:C:H2'	1:0:2083:G:O4'	1.98	0.63
1:0:2395:C:H2'	1:0:2396:C:H5''	1.80	0.63
1:0:2478:C:H2'	1:0:2479:U:H5'	1.80	0.63
1:0:968:C:H41	1:0:970:A:H1'	1.63	0.63
1:0:520:C:O2'	1:0:1249:G:H5'	1.99	0.63
1:0:1073:G:H3'	1:0:1074:G:H5''	1.81	0.63
1:0:208:C:C2'	1:0:209:G:H5'	2.28	0.63
1:0:2480:C:H4'	1:0:2482:A:C4'	2.29	0.63
1:0:2507:U:O2'	1:0:2508:G:H3'	1.98	0.63
1:0:168:A:H2'	1:0:169:C:H6	1.63	0.63
1:0:1139:A:O2'	1:0:2495:G:H4'	1.98	0.63
1:0:2770:A:C4'	1:0:2867:G:H22	2.12	0.63
1:0:2866:A:H2'	1:0:2867:G:O4'	1.99	0.63
1:0:427:C:H2'	1:0:428:A:C8	2.33	0.63
1:0:824:U:H4'	1:0:1264:C:H1'	1.80	0.63
1:0:1587:A:H2'	1:0:1588:A:H8	1.63	0.63
1:0:792:U:H2'	1:0:793:G:C5'	2.26	0.63
1:0:1004:A:H2'	1:0:1005:U:H5''	1.80	0.63
1:0:139:A:H2'	1:0:140:G:H8	1.64	0.63
1:0:1911:A:C2'	1:0:1912:G:H5'	2.29	0.63
1:0:1974:U:C2'	1:0:1975:G:H5''	2.29	0.63
1:0:2380:U:C2'	1:0:2381:A:H5'	2.26	0.63
1:0:163:A:H2'	1:0:164:G:H8	1.64	0.63
1:0:165:G:H2'	1:0:166:G:O4'	1.99	0.63
1:0:1918:G:H1'	1:0:1947:G:C2	2.33	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:174:A:C4'	1:0:2051:U:H2'	2.29	0.63
1:0:2057:U:H2'	1:0:2058:U:C6	2.34	0.63
1:0:2787:A:O2'	1:0:2788:C:H5'	1.99	0.63
1:0:1268:U:H5'	1:0:1269:G:H5''	1.81	0.63
1:0:1376:C:H2'	1:0:1377:G:O4'	1.99	0.63
1:0:1641:C:H2'	1:0:1642:G:O4'	1.99	0.63
1:0:2456:U:H1'	1:0:2460:G:N2	2.13	0.63
1:0:2781:G:H2'	1:0:2782:G:C1'	2.29	0.63
1:0:441:A:H2'	1:0:442:A:O4'	1.99	0.63
1:0:2633:A:H2	1:0:2644:A:H5''	1.64	0.62
1:0:401:G:H2'	1:0:403:A:N7	2.14	0.62
1:0:1473:U:H4'	1:0:1474:A:C5	2.34	0.62
1:0:1972:G:H2'	1:0:1973:C:O4'	1.99	0.62
1:0:2012:A:C5	1:0:2014:A:H5'	2.35	0.62
1:0:2085:G:H2'	1:0:2086:U:C6	2.34	0.62
1:0:184:A:H4'	1:0:812:G:H4'	1.81	0.62
2:9:18:G:H2'	2:9:19:C:H6	1.63	0.62
2:9:30:C:O5'	2:9:30:C:H6	1.80	0.62
1:0:1789:U:O2'	1:0:1793:A:H1'	2.00	0.62
1:0:2521:A:H5'	1:0:2522:G:OP1	1.98	0.62
1:0:2839:G:H2'	1:0:2840:U:C6	2.33	0.62
1:0:1054:C:H2'	1:0:1055:A:H5'	1.81	0.62
1:0:1329:U:H5'	1:0:1405:A:H1'	1.80	0.62
1:0:2495:G:H2'	1:0:2496:C:C6	2.35	0.62
1:0:1743:C:H41	16:N:125:MET:CA	2.11	0.62
1:0:1204:G:H2'	1:0:1205:G:C8	2.34	0.62
1:0:1313:U:H1'	1:0:1642:G:N2	2.14	0.62
1:0:2273:C:H2'	1:0:2274:C:H6	1.65	0.62
1:0:2475:C:H2'	1:0:2476:A:O4'	1.99	0.62
1:0:644:A:H2'	1:0:645:G:H5'	1.81	0.62
1:0:5:A:H2'	1:0:6:A:H8	1.63	0.62
1:0:1257:U:H2'	1:0:1258:G:C8	2.35	0.62
1:0:1319:C:H2'	1:0:1320:A:C8	2.32	0.62
1:0:1707:A:N7	1:0:1714:A:H2	1.98	0.62
1:0:2672:U:H2'	1:0:2673:G:C8	2.33	0.62
1:0:338:G:C2'	1:0:339:U:H5'	2.29	0.62
1:0:223:C:H4'	1:0:398:C:H1'	1.81	0.62
1:0:2770:A:C5'	1:0:2867:G:H1	2.13	0.62
1:0:1560:A:H2'	1:0:1561:A:O4'	2.00	0.62
1:0:2011:U:H2'	1:0:2012:A:C8	2.35	0.62
1:0:2377:U:H2'	1:0:2378:G:C8	2.34	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:782:U:H2'	1:0:783:G:C8	2.35	0.62
1:0:927:C:H2'	1:0:928:G:O4'	1.99	0.62
2:9:114:C:O5'	2:9:114:C:H6	1.82	0.62
1:0:1191:G:H2'	1:0:1192:A:H8	1.65	0.61
1:0:1528:C:H2'	1:0:1529:C:H5''	1.82	0.61
1:0:1429:A:N6	1:0:1602:G:H5'	2.15	0.61
1:0:2001:G:H2'	1:0:2002:A:C8	2.35	0.61
1:0:210:A:N6	1:0:442:A:H61	1.97	0.61
1:0:888:G:H2'	1:0:889:C:O4'	2.00	0.61
1:0:942:U:O2'	1:0:943:U:H5'	2.00	0.61
1:0:2598:C:H2'	1:0:2599:U:C6	2.35	0.61
32:0:2881:ZIT:C6A	32:0:2881:ZIT:H193	2.30	0.61
1:0:460:U:H3	1:0:592:G:H1'	1.64	0.61
1:0:1352:G:H2'	1:0:1353:A:C8	2.35	0.61
1:0:550:C:H2'	1:0:551:A:C8	2.36	0.61
2:9:56:G:H2'	2:9:57:U:O4'	1.99	0.61
1:0:1690:U:H2'	1:0:1691:G:H5'	1.81	0.61
1:0:1730:G:H2'	1:0:1731:C:C6	2.35	0.61
1:0:1760:G:O2'	1:0:1761:G:H5'	2.01	0.61
1:0:321:A:H2'	1:0:323:G:N7	2.15	0.61
1:0:483:A:H2'	1:0:484:G:H5'	1.82	0.61
1:0:614:G:H2'	1:0:615:C:H6	1.64	0.61
1:0:1057:A:H3'	1:0:1058:G:C5'	2.31	0.61
1:0:2764:U:H2'	1:0:2765:C:C6	2.36	0.61
32:0:2881:ZIT:C5A	32:0:2881:ZIT:H6B2	2.30	0.61
32:0:2882:ZIT:H6B2	32:0:2882:ZIT:C5A	2.30	0.61
1:0:683:A:H5''	1:0:684:C:OP1	2.01	0.61
1:0:929:A:H2'	1:0:930:A:C4'	2.31	0.61
1:0:141:G:H2'	1:0:142:U:C6	2.36	0.61
1:0:1717:A:H2'	1:0:1718:A:H5'	1.81	0.61
1:0:1921:A:H2'	1:0:1922:U:H5''	1.81	0.61
1:0:2686:C:H2'	1:0:2687:G:C8	2.35	0.61
1:0:857:U:C2'	1:0:858:G:H5'	2.31	0.61
1:0:1196:G:C2'	1:0:1197:U:H5'	2.30	0.61
1:0:1937:G:N3	1:0:2530:C:H5'	2.16	0.61
1:0:2721:A:H2'	1:0:2722:C:O4'	2.01	0.61
1:0:697:G:H1	1:0:807:A:H2	1.47	0.61
1:0:870:C:H2'	1:0:871:U:C6	2.36	0.61
2:9:14:C:H4'	2:9:17:A:H61	1.65	0.61
2:9:62:C:N4	2:9:63:A:N6	2.48	0.61
1:0:1194:U:H2'	1:0:1195:U:C5	2.35	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:775:U:O2	1:0:1445:A:H5''	2.00	0.61
1:0:1588:A:H2'	1:0:1589:G:C8	2.36	0.61
1:0:202:A:H2'	1:0:203:G:O4'	2.01	0.61
1:0:2713:A:H2'	1:0:2714:A:C8	2.36	0.61
1:0:574:C:H4'	1:0:1266:G:O6	2.01	0.61
1:0:657:A:H2'	1:0:658:G:C8	2.36	0.61
1:0:1225:G:H2'	1:0:1249:G:N2	2.16	0.60
1:0:146:C:H2'	1:0:147:G:C8	2.36	0.60
1:0:1514:C:H5'	1:0:1593:C:C5'	2.31	0.60
1:0:1710:U:H3	1:0:1821:A:H61	1.48	0.60
1:0:2437:G:H1	1:0:2469:G:H2'	1.64	0.60
1:0:2872:U:H2'	1:0:2873:G:H8	1.63	0.60
2:9:58:G:H4'	2:9:59:A:C5'	2.29	0.60
1:0:2633:A:H5''	1:0:2634:G:OP1	2.02	0.60
1:0:639:G:H2'	1:0:640:C:C6	2.36	0.60
1:0:798:G:C2'	1:0:799:C:H5'	2.30	0.60
1:0:2463:G:O2'	1:0:2464:G:H5'	2.01	0.60
1:0:62:U:H2'	1:0:63:A:C8	2.36	0.60
1:0:976:C:H5'	1:0:2252:A:C1'	2.31	0.60
1:0:2177:U:H2'	1:0:2178:U:C6	2.35	0.60
32:0:2881:ZIT:H5A1	32:0:2881:ZIT:H6B2	1.83	0.60
32:0:2882:ZIT:C6A	32:0:2882:ZIT:H193	2.30	0.60
2:9:113:G:H2'	2:9:114:C:C6	2.36	0.60
1:0:1889:G:H2'	1:0:1890:G:C8	2.37	0.60
1:0:2617:G:H21	1:0:2758:A:H62	1.48	0.60
1:0:2770:A:H5'	1:0:2867:G:H1	1.66	0.60
1:0:330:C:O2'	1:0:331:U:H5'	2.00	0.60
1:0:973:U:H4'	1:0:2475:C:O2'	2.01	0.60
1:0:2713:A:H2'	1:0:2714:A:H8	1.67	0.60
1:0:542:A:C2'	1:0:543:G:H5'	2.32	0.60
1:0:1295:U:C2'	1:0:1296:G:H5'	2.31	0.60
1:0:2194:A:C2'	1:0:2195:C:H5''	2.32	0.60
1:0:538:A:H2'	1:0:539:A:H5''	1.82	0.60
2:9:42:U:O5'	2:9:42:U:H6	1.83	0.60
1:0:1086:C:C2'	1:0:1087:C:H5''	2.29	0.60
1:0:1782:A:H62	1:0:1820:G:H2'	1.67	0.60
1:0:2398:U:H2'	1:0:2399:C:C6	2.36	0.60
1:0:2754:C:H2'	1:0:2755:A:C8	2.36	0.60
1:0:108:G:H2'	1:0:109:A:C8	2.37	0.60
1:0:1184:G:H2'	1:0:1185:C:H5''	1.83	0.60
1:0:2173:G:H2'	1:0:2174:G:O4'	2.01	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2768:C:H1'	1:0:2784:A:N7	2.17	0.60
1:0:797:A:C4	1:0:805:G:H1'	2.36	0.60
1:0:174:A:O4'	1:0:2051:U:H2'	2.01	0.59
1:0:2096:U:C2'	1:0:2097:A:H5''	2.28	0.59
1:0:2307:A:H2'	1:0:2308:A:C8	2.36	0.59
1:0:2691:C:C3'	1:0:2692:A:H5''	2.31	0.59
1:0:2736:U:O2'	1:0:2737:A:H5'	2.02	0.59
1:0:411:C:OP1	1:0:2073:A:H1'	2.02	0.59
1:0:1540:C:H2'	1:0:1541:G:O4'	2.02	0.59
1:0:2240:C:H2'	1:0:2241:U:C5'	2.31	0.59
1:0:761:G:O6	1:0:764:A:H4'	2.03	0.59
2:9:102:A:H2'	2:9:103:A:H5'	1.84	0.59
1:0:1517:C:H2'	1:0:1518:C:C6	2.37	0.59
32:0:2882:ZIT:H5A1	32:0:2882:ZIT:H6B2	1.83	0.59
1:0:1067:G:H21	1:0:1115:C:N4	2.00	0.59
1:0:1312:G:H4'	1:0:1314:A:C4	2.37	0.59
1:0:2119:A:O2'	1:0:2120:C:H5'	2.01	0.59
1:0:2800:C:H2'	1:0:2801:A:O4'	2.02	0.59
1:0:1672:A:C2	1:0:1673:C:H1'	2.38	0.59
1:0:1790:G:H4'	1:0:1791:C:C5	2.38	0.59
1:0:2083:G:H2'	1:0:2084:G:C8	2.37	0.59
1:0:837:U:H1'	1:0:2337:A:N7	2.17	0.59
1:0:1604:A:H2'	1:0:1605:A:O4'	2.02	0.59
1:0:694:G:H2'	1:0:695:G:C8	2.37	0.59
1:0:1055:A:OP1	1:0:1057:A:H5'	2.03	0.59
1:0:2274:C:H2'	1:0:2275:U:C5'	2.32	0.59
1:0:1259:A:O2'	1:0:1260:A:H5'	2.03	0.59
1:0:1707:A:H2'	1:0:1708:C:H5'	1.84	0.59
1:0:1837:G:H2'	1:0:1838:G:H8	1.67	0.59
1:0:451:A:H2'	1:0:452:G:C8	2.38	0.59
1:0:843:G:O2'	1:0:844:G:OP1	2.21	0.59
2:9:55:C:O5'	2:9:55:C:H6	1.85	0.59
1:0:2163:U:H2'	1:0:2164:G:C8	2.38	0.59
1:0:2299:A:H5''	1:0:2300:G:O5'	2.03	0.59
1:0:2678:C:H2'	1:0:2679:G:C8	2.38	0.59
1:0:340:G:H1'	1:0:488:A:H1'	1.84	0.59
1:0:581:A:C2	1:0:582:G:H1'	2.38	0.59
2:9:78:A:H2'	2:9:79:U:C5	2.38	0.59
1:0:1245:G:H2'	1:0:1246:G:H8	1.67	0.59
1:0:1259:A:C2'	1:0:1260:A:H5'	2.32	0.59
1:0:2422:C:H2'	1:0:2423:G:H8	1.68	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:770:U:O2'	1:0:771:C:H5'	2.02	0.59
1:0:775:U:H4'	1:0:776:G:C8	2.38	0.59
1:0:1312:G:C5'	1:0:1314:A:H1'	2.30	0.58
1:0:313:U:H2'	1:0:314:G:H8	1.68	0.58
1:0:646:C:O2	1:0:650:U:H4'	2.03	0.58
1:0:979:A:H2'	1:0:980:G:O4'	2.03	0.58
1:0:982:C:H4'	1:0:994:A:O2'	2.02	0.58
1:0:1065:A:H2'	1:0:1066:G:H8	1.67	0.58
1:0:1644:G:O2'	1:0:1645:U:H5'	2.04	0.58
1:0:1679:U:C3'	1:0:1680:U:H5''	2.33	0.58
1:0:2466:G:H2'	1:0:2467:A:H8	1.67	0.58
1:0:66:U:H2'	1:0:67:G:C8	2.38	0.58
1:0:681:A:C6	1:0:683:A:H2'	2.39	0.58
1:0:752:G:H5'	1:0:1775:A:N6	2.16	0.58
2:9:111:C:H5''	2:9:112:A:O5'	2.03	0.58
1:0:1252:C:O2'	1:0:1253:C:H5''	2.03	0.58
1:0:1691:G:H21	1:0:1694:A:H61	1.51	0.58
1:0:1004:A:H2'	1:0:1005:U:C5'	2.32	0.58
1:0:2478:C:C2'	1:0:2479:U:H5'	2.34	0.58
1:0:1949:A:H1'	1:0:2572:U:H4'	1.86	0.58
1:0:705:C:H2'	1:0:706:A:H8	1.68	0.58
1:0:76:C:H6	1:0:76:C:H5'	1.68	0.58
1:0:1217:U:H2'	1:0:1218:C:C6	2.37	0.58
1:0:1304:U:O2'	1:0:1305:C:H5'	2.02	0.58
1:0:2437:G:H2'	1:0:2469:G:H1	1.67	0.58
1:0:2660:C:O2'	1:0:2661:G:H5'	2.04	0.58
1:0:425:A:H2'	1:0:426:C:O4'	2.02	0.58
2:9:20:A:O2'	2:9:21:C:H5'	2.03	0.58
1:0:1436:G:N2	1:0:1514:C:H1'	2.19	0.58
1:0:2779:C:H2'	1:0:2780:A:C8	2.39	0.58
2:9:18:G:H2'	2:9:19:C:C6	2.38	0.58
1:0:114:C:H2'	1:0:115:G:C8	2.39	0.58
1:0:1253:C:H2'	1:0:1254:G:O4'	2.03	0.58
1:0:1336:G:H2'	1:0:1337:G:H5'	1.86	0.58
1:0:1537:U:H2'	1:0:1538:A:C8	2.39	0.58
1:0:1975:G:N2	1:0:1978:U:H5	2.00	0.58
1:0:357:A:H3'	1:0:358:C:O4'	2.04	0.58
1:0:445:A:O2'	1:0:446:C:H5'	2.04	0.58
1:0:595:A:H62	1:0:1264:C:H42	1.52	0.58
1:0:133:C:H2'	1:0:134:G:O4'	2.03	0.58
1:0:1699:A:N6	1:0:1723:U:H3	2.02	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1991:C:H2'	1:0:1992:G:H8	1.68	0.58
1:0:2164:G:H2'	1:0:2165:A:H8	1.69	0.58
1:0:2318:U:H2'	1:0:2319:G:C8	2.36	0.58
1:0:616:U:C3'	1:0:617:U:H5''	2.34	0.58
1:0:754:G:N2	1:0:770:U:H1'	2.18	0.58
1:0:1196:G:H2'	1:0:1197:U:O4'	2.03	0.58
1:0:462:G:H2'	1:0:463:C:H5''	1.84	0.58
1:0:764:A:H2'	1:0:764:A:N3	2.19	0.58
1:0:1057:A:H3'	1:0:1058:G:H5''	1.86	0.58
1:0:226:C:H4'	1:0:227:G:C8	2.38	0.58
1:0:2470:U:H2'	1:0:2471:U:H6	1.68	0.58
32:0:2882:ZIT:H5A1	32:0:2882:ZIT:C6B	2.34	0.58
1:0:312:G:OP1	1:0:312:G:H4'	2.03	0.58
1:0:459:A:H1'	1:0:461:A:H62	1.67	0.58
1:0:871:U:H1'	1:0:2248:A:H5''	1.85	0.58
1:0:1346:C:P	1:0:1346:C:H6	2.27	0.57
1:0:1791:C:H1'	1:0:1793:A:C5'	2.33	0.57
1:0:1830:C:H42	1:0:1881:U:H3'	1.69	0.57
1:0:1994:U:H2'	1:0:1995:G:H5'	1.86	0.57
1:0:2194:A:H2'	1:0:2195:C:H5''	1.86	0.57
32:0:2881:ZIT:H5A1	32:0:2881:ZIT:C6B	2.34	0.57
1:0:487:G:H1'	1:0:515:A:C2	2.39	0.57
1:0:663:G:H2'	1:0:664:C:O4'	2.03	0.57
1:0:944:A:H2'	1:0:945:G:O4'	2.04	0.57
1:0:1333:G:C6	1:0:1342:U:H5'	2.38	0.57
1:0:1480:G:C2'	1:0:1481:U:H5'	2.34	0.57
1:0:175:C:H1'	1:0:2413:A:H61	1.69	0.57
1:0:2020:G:H2'	1:0:2021:G:C8	2.39	0.57
1:0:2737:A:H2'	1:0:2738:A:H5'	1.85	0.57
1:0:2782:G:H3'	1:0:2783:U:H5''	1.86	0.57
1:0:2788:C:O2'	1:0:2789:U:H5'	2.04	0.57
1:0:1195:U:H2'	1:0:1196:G:H8	1.69	0.57
1:0:1278:A:H4'	1:0:1279:G:O5'	2.04	0.57
1:0:1763:G:H2'	1:0:1764:A:C4'	2.34	0.57
1:0:2390:A:H2'	1:0:2391:A:C8	2.39	0.57
1:0:2727:G:C2'	1:0:2728:A:H5''	2.34	0.57
1:0:369:C:H2'	1:0:370:U:O4'	2.04	0.57
1:0:1418:C:H2'	1:0:1419:G:H8	1.69	0.57
1:0:1558:C:C2'	1:0:1559:G:H5'	2.34	0.57
1:0:1583:A:H8	1:0:1583:A:O5'	1.87	0.57
1:0:1621:C:H2'	1:0:1622:G:O4'	2.05	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1785:A:H2'	1:0:1786:C:C6	2.39	0.57
1:0:2488:G:H2'	1:0:2489:C:C6	2.39	0.57
1:0:2799:C:H2'	1:0:2800:C:O4'	2.04	0.57
1:0:1313:U:C4	1:0:1651:U:H5'	2.40	0.57
1:0:1816:G:O2'	1:0:1817:U:H5'	2.05	0.57
1:0:2044:G:H21	1:0:2045:A:H62	1.52	0.57
1:0:2589:C:H1'	32:0:2881:ZIT:H7B2	1.86	0.57
1:0:777:A:H62	1:0:1767:G:H1'	1.69	0.57
1:0:1290:A:H2'	1:0:1291:G:C8	2.40	0.57
1:0:203:G:O2'	1:0:204:A:H5'	2.04	0.57
1:0:2243:C:H2'	1:0:2244:C:O4'	2.04	0.57
1:0:941:U:H4'	1:0:941:U:OP1	2.04	0.57
1:0:165:G:H4'	1:0:1378:A:C2	2.39	0.57
1:0:1664:G:O5'	1:0:1665:C:OP1	2.22	0.57
1:0:2005:U:H5''	1:0:2006:G:OP1	2.03	0.57
1:0:54:G:H2'	1:0:55:A:H8	1.70	0.57
1:0:936:A:H2'	1:0:937:C:C6	2.40	0.57
1:0:1271:C:H2'	1:0:1272:G:H8	1.68	0.57
1:0:1736:C:H2'	1:0:1737:G:C8	2.39	0.57
1:0:185:C:O2'	1:0:186:C:H5'	2.04	0.57
1:0:2492:G:H2'	1:0:2493:U:H6	1.70	0.57
1:0:2633:A:C2	1:0:2644:A:H5''	2.39	0.57
1:0:2841:U:H1'	1:0:2843:A:C1'	2.35	0.57
1:0:659:G:H2'	1:0:660:G:C8	2.40	0.57
1:0:1312:G:H4'	1:0:1314:A:N3	2.20	0.57
1:0:1392:U:H2'	1:0:1393:G:H5'	1.87	0.57
1:0:1729:C:H2'	1:0:1730:G:C8	2.40	0.57
1:0:2503:G:C2'	1:0:2504:G:H5''	2.34	0.57
1:0:2607:C:H3'	1:0:2608:A:H5'	1.86	0.57
1:0:2756:A:C6	1:0:2762:G:H1'	2.39	0.57
1:0:334:G:N3	1:0:344:G:H1'	2.20	0.57
1:0:36:G:H1'	1:0:462:G:H21	1.69	0.57
1:0:958:G:H2'	1:0:959:C:C6	2.40	0.57
1:0:1311:C:H5'	1:0:1315:A:N6	2.20	0.57
1:0:1336:G:C2'	1:0:1337:G:H5'	2.35	0.57
1:0:1958:G:H2'	1:0:1959:U:H6	1.70	0.57
2:9:102:A:OP2	2:9:102:A:H8	1.88	0.57
1:0:1182:U:C3'	1:0:1183:C:H5''	2.34	0.56
1:0:1825:C:C2'	1:0:1826:U:H5'	2.35	0.56
1:0:1727:C:H4'	1:0:2833:C:C2	2.40	0.56
1:0:758:G:N2	1:0:765:C:O2	2.38	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:128:C:H2'	1:0:129:A:C4'	2.35	0.56
1:0:195:A:N1	1:0:212:U:H4'	2.20	0.56
1:0:2261:G:H5''	1:0:2262:C:O5'	2.04	0.56
1:0:2422:C:H2'	1:0:2423:G:C8	2.40	0.56
1:0:2769:C:H2'	1:0:2770:A:H5'	1.86	0.56
1:0:929:A:O2'	2:9:101:A:H4'	2.05	0.56
2:9:34:C:C2'	2:9:35:C:H5'	2.35	0.56
1:0:1039:A:H61	1:0:1136:G:H2'	1.70	0.56
1:0:1322:G:H21	1:0:1627:C:H5'	1.70	0.56
1:0:1698:C:O2'	1:0:1753:A:H2'	2.06	0.56
1:0:2266:A:C2	1:0:2268:G:H1'	2.40	0.56
1:0:475:U:H2'	1:0:476:G:O4'	2.05	0.56
1:0:577:U:H2'	1:0:579:G:OP2	2.05	0.56
1:0:831:G:C2'	1:0:832:A:H5''	2.36	0.56
1:0:978:U:H2'	1:0:979:A:C8	2.40	0.56
1:0:1677:C:O2'	1:0:1678:G:H5'	2.04	0.56
1:0:604:U:H2'	1:0:605:G:C8	2.40	0.56
2:9:93:G:H2'	2:9:94:G:C8	2.32	0.56
1:0:1196:G:H2'	1:0:1197:U:H5'	1.87	0.56
1:0:1313:U:H4'	1:0:1314:A:O5'	2.05	0.56
1:0:1441:A:N3	1:0:1441:A:H2'	2.21	0.56
1:0:1374:G:O2'	1:0:2193:C:H1'	2.06	0.56
1:0:2642:G:O2'	1:0:2643:G:H5'	2.06	0.56
1:0:2686:C:H2'	1:0:2687:G:H8	1.70	0.56
1:0:572:G:OP2	1:0:581:A:H5'	2.06	0.56
1:0:703:A:O2'	1:0:704:G:H5'	2.05	0.56
1:0:178:C:H2'	1:0:179:U:C6	2.40	0.56
1:0:2490:U:H2'	1:0:2491:C:C6	2.40	0.56
1:0:2495:G:H2'	1:0:2496:C:O4'	2.06	0.56
1:0:2538:C:O2'	1:0:2539:C:H5'	2.06	0.56
1:0:452:G:H2'	1:0:453:U:O4'	2.06	0.56
2:9:34:C:H2'	2:9:35:C:O4'	2.05	0.56
1:0:1095:A:H2'	1:0:1096:A:O4'	2.05	0.56
1:0:12:U:H2'	1:0:13:A:O4'	2.05	0.56
1:0:1333:G:N2	1:0:1344:C:H41	2.04	0.56
1:0:1430:G:H22	1:0:1599:G:H1'	1.71	0.56
1:0:1790:G:HO2'	1:0:1791:C:H5	1.52	0.56
1:0:1826:U:O2'	1:0:1952:A:H2'	2.05	0.56
1:0:2489:C:H41	1:0:2554:C:H42	1.54	0.56
1:0:2633:A:N6	1:0:2646:C:H42	2.04	0.56
1:0:308:C:H2'	1:0:309:G:O4'	2.06	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:653:G:H2'	1:0:654:A:H4'	1.86	0.56
1:0:1288:A:H62	1:0:1309:G:C4'	2.19	0.56
1:0:1300:A:C2	1:0:1666:G:H4'	2.41	0.56
1:0:1312:G:H5''	1:0:1313:U:H5'	1.86	0.56
1:0:1356:G:H5''	1:0:1614:C:OP2	2.05	0.56
1:0:2105:U:H2'	1:0:2106:G:C8	2.41	0.56
1:0:2549:G:N2	1:0:2550:C:H1'	2.21	0.56
1:0:746:G:O6	1:0:774:A:H2'	2.05	0.56
1:0:847:C:H2'	1:0:848:A:C8	2.40	0.56
2:9:59:A:H2'	2:9:60:A:H5'	1.87	0.56
2:9:62:C:C4	2:9:63:A:N7	2.74	0.56
1:0:1683:G:C2'	1:0:1684:G:H5'	2.35	0.56
1:0:753:U:H5'	1:0:1775:A:H62	1.69	0.56
1:0:191:G:O2'	1:0:192:G:H5'	2.06	0.56
1:0:2162:C:H2'	1:0:2163:U:C6	2.41	0.56
1:0:2425:G:H2'	1:0:2480:C:N4	2.20	0.56
1:0:24:G:H2'	1:0:25:U:C6	2.40	0.56
1:0:692:C:H2'	1:0:693:A:H8	1.71	0.56
1:0:692:C:H2'	1:0:693:A:C8	2.40	0.56
1:0:719:A:H2'	1:0:720:A:O4'	2.06	0.56
1:0:931:G:O2'	1:0:932:G:H5'	2.06	0.56
1:0:1323:G:H1'	1:0:1627:C:H5''	1.87	0.56
1:0:1764:A:C2'	1:0:1765:C:H5'	2.35	0.56
1:0:1843:U:H2'	1:0:1844:C:C6	2.41	0.56
1:0:2080:U:H2'	1:0:2081:U:C6	2.41	0.56
1:0:346:C:O2'	1:0:347:C:H5'	2.05	0.56
1:0:223:C:O2'	1:0:398:C:H4'	2.06	0.56
1:0:871:U:H1'	1:0:2248:A:C5'	2.36	0.56
1:0:953:G:H2'	1:0:954:U:C6	2.41	0.56
1:0:1162:A:H2'	1:0:1163:C:O4'	2.06	0.56
1:0:1245:G:H2'	1:0:1246:G:C8	2.40	0.56
1:0:1333:G:HO2'	1:0:1334:A:H8	1.52	0.56
1:0:1594:U:H2'	1:0:1595:A:H8	1.71	0.56
1:0:1763:G:H21	1:0:1765:C:H5''	1.71	0.56
1:0:1953:A:H1'	1:0:1955:G:H1'	1.87	0.56
1:0:2210:C:H2'	1:0:2211:U:O4'	2.06	0.56
1:0:2429:A:H5''	1:0:2476:A:C6	2.41	0.56
1:0:2678:C:H2'	1:0:2679:G:H8	1.69	0.56
1:0:2811:G:H2'	1:0:2812:A:H8	1.71	0.56
2:9:101:A:H2'	2:9:102:A:C8	2.41	0.56
2:9:17:A:H1'	2:9:112:A:C8	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1021:A:H1'	1:0:1164:C:H1'	1.88	0.55
1:0:1226:A:C2	1:0:1250:A:H1'	2.41	0.55
1:0:1439:G:N2	1:0:1590:C:H42	2.04	0.55
1:0:1467:U:H3'	1:0:1468:A:H5'	1.88	0.55
1:0:1865:C:H2'	1:0:1866:G:O4'	2.06	0.55
1:0:337:G:H2'	1:0:338:G:H8	1.71	0.55
1:0:738:G:H2'	1:0:739:G:O4'	2.06	0.55
1:0:1010:U:H2'	1:0:1011:A:C8	2.41	0.55
1:0:1348:C:H2'	1:0:1349:A:H8	1.68	0.55
1:0:1949:A:H1'	1:0:2572:U:C4'	2.36	0.55
1:0:2426:G:O6	1:0:2479:U:H2'	2.06	0.55
1:0:2870:C:H2'	1:0:2871:U:H6	1.71	0.55
1:0:868:U:H2'	1:0:869:C:C6	2.41	0.55
2:9:32:C:H4'	2:9:60:A:H2	1.70	0.55
1:0:1038:U:H2'	1:0:1039:A:H8	1.70	0.55
1:0:10:A:H2'	1:0:11:G:C8	2.42	0.55
1:0:153:A:H2'	1:0:154:U:C6	2.41	0.55
1:0:1920:A:C4	1:0:1922:U:H5	2.25	0.55
1:0:2618:A:C6	1:0:2619:G:H1'	2.41	0.55
1:0:826:U:O2'	1:0:1238:A:H1'	2.06	0.55
1:0:990:A:H3'	1:0:991:A:C5'	2.36	0.55
1:0:1782:A:N6	1:0:1820:G:H2'	2.21	0.55
1:0:216:U:H2'	1:0:217:U:O4'	2.06	0.55
1:0:2803:C:O2'	1:0:2804:G:H5'	2.06	0.55
1:0:831:G:H2'	1:0:832:A:H5''	1.87	0.55
1:0:839:U:C4	1:0:841:G:H1'	2.41	0.55
1:0:929:A:H3'	1:0:930:A:C5'	2.30	0.55
1:0:1164:C:H2'	1:0:1165:G:O4'	2.07	0.55
1:0:1436:G:H2'	1:0:1437:A:C8	2.42	0.55
1:0:1785:A:H2'	1:0:1786:C:H6	1.71	0.55
1:0:2177:U:H2'	1:0:2178:U:H6	1.71	0.55
1:0:813:A:O2'	1:0:815:A:H5'	2.06	0.55
1:0:2404:A:P	1:0:2406:C:H5'	2.47	0.55
1:0:2636:A:H62	1:0:2643:G:N2	1.99	0.55
1:0:820:U:H2'	1:0:821:A:C8	2.41	0.55
1:0:1789:U:C2'	1:0:1790:G:H5'	2.37	0.55
1:0:1821:A:H3'	1:0:1822:C:H6	1.72	0.55
1:0:677:G:H4'	1:0:952:A:P	2.46	0.55
1:0:2058:U:H4'	1:0:2575:U:O2	2.07	0.55
1:0:2276:C:O2'	1:0:2277:A:H5'	2.05	0.55
1:0:243:G:H2'	1:0:244:C:O4'	2.07	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1943:A:H2'	1:0:1944:C:H5'	1.88	0.55
1:0:2642:G:H2'	1:0:2643:G:O4'	2.05	0.55
1:0:38:G:H1	1:0:453:U:H3	1.53	0.55
1:0:788:G:C2	1:0:800:U:H2'	2.42	0.55
1:0:1500:U:H3	1:0:1520:G:H22	1.55	0.55
1:0:162:C:H2'	1:0:163:A:H8	1.69	0.55
1:0:1861:G:O2'	1:0:1862:C:H5'	2.07	0.55
1:0:192:G:C1'	1:0:193:A:H4'	2.37	0.55
1:0:2770:A:H4'	1:0:2867:G:N2	2.21	0.55
1:0:330:C:C2'	1:0:331:U:H5'	2.36	0.55
1:0:514:G:N3	1:0:514:G:H2'	2.22	0.55
1:0:824:U:H2'	1:0:825:C:H5''	1.89	0.55
2:9:42:U:H2'	2:9:45:C:N4	2.16	0.55
1:0:1101:U:N3	1:0:1113:C:H1'	2.23	0.54
1:0:1251:G:H2'	1:0:1252:C:O4'	2.07	0.54
1:0:785:U:H5'	1:0:1368:G:O2'	2.07	0.54
1:0:2756:A:N6	1:0:2762:G:H1'	2.21	0.54
1:0:591:G:H2'	1:0:592:G:H8	1.71	0.54
1:0:1040:A:C2'	1:0:1041:G:H5'	2.36	0.54
1:0:1116:U:H2'	1:0:1117:G:C8	2.42	0.54
1:0:1312:G:H5''	1:0:1313:U:H5''	1.88	0.54
1:0:1352:G:H2'	1:0:1353:A:H8	1.70	0.54
1:0:2083:G:H2'	1:0:2084:G:H8	1.73	0.54
1:0:2195:C:H2'	1:0:2196:U:H5'	1.87	0.54
1:0:225:G:C5'	1:0:226:C:H5'	2.37	0.54
1:0:2830:U:H2'	1:0:2831:A:H8	1.73	0.54
1:0:2841:U:O2	1:0:2843:A:H1'	2.06	0.54
1:0:2855:C:O2'	1:0:2856:U:H5'	2.07	0.54
1:0:437:G:O2'	1:0:438:G:H5'	2.06	0.54
1:0:932:G:H2'	1:0:933:G:C8	2.42	0.54
1:0:213:C:H42	1:0:238:G:H1	1.54	0.54
1:0:2544:A:H2'	1:0:2545:A:H1'	1.89	0.54
1:0:2633:A:H61	1:0:2646:C:H42	1.55	0.54
1:0:929:A:HO2'	2:9:101:A:H4'	1.73	0.54
1:0:1065:A:H2'	1:0:1066:G:C8	2.42	0.54
1:0:1125:G:O2'	1:0:1126:A:H5'	2.07	0.54
1:0:1250:A:O2'	1:0:1251:G:H4'	2.07	0.54
1:0:1291:G:O2'	1:0:1292:A:H5'	2.07	0.54
1:0:1837:G:H2'	1:0:1838:G:C8	2.42	0.54
1:0:2315:A:HO2'	1:0:2364:C:H5''	1.72	0.54
1:0:2565:C:H4'	1:0:2566:A:C5'	2.38	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:536:A:C2	1:0:2605:C:H1'	2.42	0.54
32:0:2881:ZIT:H6B2	32:0:2881:ZIT:H6A3	1.87	0.54
1:0:477:A:H2'	1:0:478:G:H5'	1.90	0.54
1:0:964:A:H2'	1:0:965:G:C8	2.40	0.54
1:0:1124:U:H2'	1:0:1125:G:H8	1.73	0.54
1:0:1531:C:H2'	1:0:1532:A:H5'	1.89	0.54
1:0:2369:U:H2'	1:0:2370:G:C8	2.43	0.54
2:9:62:C:N3	2:9:63:A:N7	2.55	0.54
2:9:71:G:N2	2:9:72:C:C1'	2.70	0.54
1:0:1242:A:H2'	1:0:1243:G:H8	1.72	0.54
1:0:2535:C:H2'	1:0:2536:G:O4'	2.08	0.54
1:0:2618:A:C2	1:0:2619:G:H1'	2.43	0.54
1:0:36:G:C1'	1:0:462:G:H21	2.20	0.54
1:0:319:G:H1'	1:0:511:A:O4'	2.07	0.54
1:0:575:U:H2'	1:0:576:A:C8	2.43	0.54
1:0:671:A:H2'	1:0:672:C:C6	2.43	0.54
1:0:1451:C:H2'	1:0:1452:U:C6	2.43	0.54
1:0:2447:G:N2	1:0:2460:G:H2'	2.20	0.54
1:0:338:G:O2'	1:0:339:U:H5'	2.08	0.54
1:0:616:U:H2'	1:0:617:U:C5'	2.34	0.54
1:0:1854:G:H2'	1:0:1855:G:H8	1.72	0.54
1:0:1998:A:H2'	1:0:1999:U:H5'	1.88	0.54
1:0:2015:G:N3	1:0:2015:G:H2'	2.21	0.54
1:0:2759:U:H6	1:0:2759:U:O5'	1.90	0.54
1:0:504:G:O2'	1:0:505:G:H5'	2.08	0.54
1:0:659:G:H2'	1:0:660:G:H8	1.72	0.54
1:0:1392:U:C2'	1:0:1393:G:H5'	2.38	0.54
1:0:1440:G:H3'	1:0:1441:A:H5'	1.90	0.54
1:0:1482:U:H2'	1:0:1483:G:H8	1.73	0.54
1:0:1685:A:H1'	1:0:1686:A:C2	2.43	0.54
1:0:2685:A:H4'	1:0:2826:C:H4'	1.90	0.54
1:0:2783:U:H2'	1:0:2784:A:O4'	2.08	0.54
1:0:687:G:O2'	1:0:688:A:H5'	2.07	0.54
1:0:1223:G:H21	1:0:1225:G:N2	2.04	0.54
1:0:1374:G:N2	1:0:1384:G:H1'	2.23	0.54
1:0:586:G:OP1	1:0:2481:G:H2'	2.08	0.54
1:0:328:A:O2'	1:0:329:C:H5'	2.07	0.54
1:0:153:A:H2'	1:0:154:U:C5	2.44	0.53
1:0:1602:G:O3'	1:0:1603:A:H8	1.91	0.53
1:0:2426:G:H22	1:0:2431:C:H41	1.53	0.53
1:0:66:U:H2'	1:0:67:G:H8	1.72	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1075:C:H2'	1:0:1076:U:O4'	2.09	0.53
1:0:1748:U:N3	1:0:1753:A:H2	2.01	0.53
1:0:1962:C:O2'	1:0:1963:G:H5'	2.07	0.53
1:0:2321:C:C2'	1:0:2322:U:H5'	2.38	0.53
1:0:239:A:C2	1:0:443:A:H1'	2.43	0.53
1:0:215:G:N2	1:0:632:A:H8	2.04	0.53
1:0:635:C:C2'	1:0:636:G:H5''	2.36	0.53
1:0:968:C:N4	1:0:970:A:H1'	2.24	0.53
1:0:139:A:H2'	1:0:140:G:C8	2.43	0.53
1:0:1739:G:H2'	1:0:1740:G:H8	1.74	0.53
1:0:1915:A:H2'	1:0:1916:G:O4'	2.09	0.53
1:0:2343:C:H2'	1:0:2344:G:O4'	2.08	0.53
1:0:2395:C:C2'	1:0:2396:C:H5''	2.39	0.53
1:0:242:A:O2'	1:0:243:G:O4'	2.27	0.53
1:0:2640:G:H2'	1:0:2641:A:C8	2.44	0.53
1:0:755:C:H1'	1:0:1693:A:H4'	1.90	0.53
1:0:94:C:H2'	1:0:95:G:O4'	2.09	0.53
1:0:1337:G:H1'	1:0:1632:A:N6	2.24	0.53
1:0:1669:A:N6	1:0:1670:G:H21	2.05	0.53
1:0:1684:G:H2'	1:0:1974:U:O4	2.07	0.53
1:0:15:G:N2	1:0:2027:C:O2'	2.41	0.53
1:0:202:A:O2'	1:0:234:C:H4'	2.09	0.53
1:0:2546:G:H2'	1:0:2547:C:C6	2.43	0.53
1:0:2607:C:H3'	1:0:2608:A:C5'	2.38	0.53
1:0:1196:G:H2'	1:0:1197:U:C4'	2.38	0.53
1:0:1333:G:C5	1:0:1342:U:H5'	2.44	0.53
1:0:159:A:O2'	1:0:160:C:H5'	2.08	0.53
1:0:2026:C:H2'	1:0:2027:C:H6	1.73	0.53
1:0:2461:G:H2'	1:0:2462:C:O4'	2.08	0.53
1:0:2634:G:H2'	1:0:2643:G:O6	2.09	0.53
1:0:1137:A:H5''	1:0:1138:A:OP1	2.09	0.53
1:0:13:A:H1'	1:0:536:A:H62	1.72	0.53
1:0:1683:G:H2'	1:0:1684:G:H5'	1.91	0.53
1:0:1871:G:N3	1:0:1871:G:H2'	2.24	0.53
1:0:2592:U:H2'	1:0:2593:A:H5'	1.90	0.53
1:0:475:U:O4	1:0:801:A:C5	2.62	0.53
1:0:1196:G:H2'	1:0:1197:U:C5'	2.38	0.53
1:0:1323:G:H1'	1:0:1627:C:C5'	2.39	0.53
1:0:1914:U:O2'	1:0:1915:A:H5'	2.09	0.53
1:0:1373:G:H1	1:0:2192:U:H3	1.56	0.53
1:0:651:C:C3'	1:0:652:C:H5''	2.39	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:85:G:C2'	2:9:86:A:H5'	2.38	0.53
1:0:1380:C:C2'	1:0:1381:G:H5'	2.39	0.53
1:0:1418:C:H2'	1:0:1419:G:C8	2.43	0.53
1:0:1514:C:H5'	1:0:1593:C:H5''	1.91	0.53
1:0:1741:G:O2'	1:0:1742:G:H5'	2.09	0.53
1:0:1823:G:H2'	1:0:1824:C:C6	2.44	0.53
1:0:1943:A:C2'	1:0:1944:C:H5'	2.39	0.53
1:0:2324:G:C4'	1:0:2326:C:H5''	2.37	0.53
1:0:2733:A:O2'	1:0:2734:U:H5'	2.09	0.53
1:0:584:A:O2'	1:0:585:U:H5'	2.08	0.53
1:0:1102:G:H2'	1:0:1103:C:H6	1.74	0.53
1:0:1268:U:C5	5:C:67:ALA:CA	2.92	0.53
1:0:1429:A:N6	1:0:1601:U:H5''	2.23	0.53
1:0:1830:C:N4	1:0:1881:U:H3'	2.24	0.53
1:0:1917:C:H2'	1:0:1918:G:O4'	2.09	0.53
1:0:1872:A:H1'	1:0:2070:G:H5'	1.91	0.53
1:0:2383:C:H2'	1:0:2384:G:O4'	2.09	0.53
1:0:2407:G:H5'	1:0:2408:G:C2	2.44	0.53
1:0:586:G:H5'	1:0:2481:G:C2	2.44	0.53
1:0:1459:U:O5'	1:0:1459:U:H6	1.91	0.52
1:0:1571:G:OP2	1:0:1571:G:H3'	2.08	0.52
1:0:1811:A:O2'	1:0:1812:U:H5''	2.09	0.52
1:0:193:A:H2'	1:0:194:G:O4'	2.09	0.52
1:0:1999:U:H2'	1:0:2000:U:O4'	2.09	0.52
1:0:2021:G:H2'	1:0:2022:C:C6	2.43	0.52
1:0:2026:C:H2'	1:0:2027:C:C6	2.44	0.52
1:0:2377:U:H2'	1:0:2378:G:H8	1.74	0.52
1:0:9:U:H3	1:0:2608:A:H62	1.57	0.52
1:0:2627:G:H2'	1:0:2628:C:O4'	2.09	0.52
1:0:2662:C:H42	1:0:2707:G:H21	1.56	0.52
1:0:294:U:H2'	1:0:295:C:C6	2.44	0.52
2:9:23:G:C6	2:9:24:U:C4	2.98	0.52
1:0:1558:C:H2'	1:0:1559:G:H5'	1.90	0.52
1:0:1680:U:O2'	1:0:1681:A:H5''	2.09	0.52
1:0:1814:G:H2'	1:0:1815:G:C8	2.45	0.52
1:0:246:C:H42	1:0:247:A:H62	1.56	0.52
1:0:543:G:H2'	1:0:544:U:C6	2.45	0.52
1:0:726:G:H2'	1:0:727:U:O4'	2.08	0.52
1:0:76:C:H2'	1:0:77:C:C6	2.43	0.52
1:0:852:U:H6	1:0:852:U:O5'	1.92	0.52
1:0:876:A:H4'	2:9:103:A:N3	2.24	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:72:C:H2'	2:9:73:C:O4'	2.10	0.52
1:0:1371:G:H1'	1:0:1386:A:H62	1.74	0.52
1:0:1886:G:H2'	1:0:1887:G:C8	2.36	0.52
1:0:2617:G:HO2'	1:0:2618:A:H8	1.55	0.52
1:0:2825:A:H2'	1:0:2826:C:C6	2.45	0.52
1:0:167:A:N6	1:0:812:G:O2'	2.35	0.52
1:0:932:G:H2'	1:0:933:G:O4'	2.08	0.52
1:0:1166:A:C3'	1:0:1167:A:H5''	2.40	0.52
1:0:1313:U:H5'	1:0:1314:A:N3	2.25	0.52
1:0:1316:G:OP2	1:0:1316:G:H8	1.93	0.52
1:0:2029:G:H2'	1:0:2030:U:C6	2.43	0.52
1:0:2633:A:N6	1:0:2646:C:N4	2.55	0.52
1:0:1661:C:H2'	1:0:1662:G:C8	2.44	0.52
1:0:2327:U:H2'	1:0:2328:G:H8	1.74	0.52
1:0:2424:G:H2'	1:0:2425:G:O4'	2.10	0.52
1:0:837:U:H2'	1:0:838:A:C8	2.45	0.52
1:0:887:G:O2'	1:0:888:G:H5'	2.10	0.52
2:9:41:A:H8	2:9:41:A:O5'	1.93	0.52
1:0:10:A:H2'	1:0:11:G:H8	1.74	0.52
1:0:1204:G:H2'	1:0:1205:G:H8	1.74	0.52
1:0:1835:C:H2'	1:0:1836:C:C6	2.45	0.52
1:0:1994:U:C2'	1:0:1995:G:H5'	2.40	0.52
1:0:2429:A:OP1	1:0:2476:A:H2'	2.09	0.52
1:0:2599:U:H2'	1:0:2600:A:C5'	2.30	0.52
1:0:2633:A:H4'	1:0:2634:G:O5'	2.09	0.52
1:0:482:A:O2'	1:0:483:A:H5'	2.10	0.52
1:0:8:A:H2'	1:0:9:U:C6	2.44	0.52
1:0:2324:G:N2	1:0:2361:G:C4	2.78	0.52
1:0:2375:G:H2'	1:0:2376:G:C8	2.44	0.52
1:0:2487:G:O3'	1:0:2534:U:H5'	2.09	0.52
1:0:2756:A:H4'	1:0:2758:A:OP1	2.09	0.52
1:0:93:A:O2'	1:0:94:C:H5'	2.09	0.52
1:0:152:G:H2'	1:0:153:A:O4'	2.09	0.52
1:0:1556:A:H2'	1:0:1557:G:H8	1.75	0.52
1:0:2169:A:C2'	1:0:2170:C:H5'	2.40	0.52
1:0:2169:A:O2'	1:0:2170:C:H5'	2.10	0.52
1:0:929:A:H8	1:0:2247:A:H61	1.56	0.52
1:0:2363:G:H5''	1:0:2365:U:OP1	2.10	0.52
1:0:2705:A:O2'	1:0:2706:U:C6	2.60	0.52
1:0:5:A:H2'	1:0:6:A:C8	2.43	0.52
1:0:1036:G:H1'	1:0:1145:C:O4'	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2394:G:H2'	1:0:2395:C:C6	2.45	0.52
1:0:2809:A:O2'	1:0:2810:A:H5'	2.10	0.52
1:0:696:U:O5'	1:0:696:U:H6	1.93	0.52
1:0:847:C:H2'	1:0:848:A:H8	1.74	0.52
1:0:1039:A:N6	1:0:1136:G:H2'	2.25	0.52
1:0:1288:A:H62	1:0:1309:G:H4'	1.75	0.52
1:0:174:A:H4'	1:0:2052:G:OP2	2.10	0.52
1:0:1912:G:H3'	1:0:1912:G:N3	2.25	0.52
1:0:202:A:C2	1:0:203:G:H1'	2.45	0.52
1:0:2324:G:N3	1:0:2326:C:H5	2.08	0.52
1:0:362:C:C4	1:0:363:G:H1'	2.45	0.52
1:0:41:G:H2'	1:0:42:G:H8	1.75	0.52
1:0:1083:C:H42	1:0:1103:C:H41	1.56	0.51
1:0:1151:U:H5''	1:0:1153:A:OP1	2.10	0.51
1:0:1416:A:O2'	1:0:1417:C:H5'	2.10	0.51
1:0:1485:U:H2'	1:0:1486:A:C8	2.45	0.51
1:0:1491:C:H2'	1:0:1492:A:H8	1.75	0.51
1:0:1843:U:H2'	1:0:1844:C:H6	1.74	0.51
1:0:1996:A:O2'	1:0:1997:A:H5'	2.09	0.51
1:0:2265:A:H5''	1:0:2266:A:O4'	2.10	0.51
1:0:2492:G:H1	1:0:2550:C:N4	2.04	0.51
1:0:389:G:H2'	1:0:390:U:C6	2.44	0.51
1:0:608:G:H2'	1:0:609:U:C6	2.45	0.51
1:0:1272:G:H2'	1:0:1273:G:H8	1.76	0.51
1:0:2035:G:H2'	1:0:2036:G:C8	2.46	0.51
1:0:2353:G:H2'	1:0:2354:G:C8	2.46	0.51
1:0:35:G:O4'	1:0:466:A:H1'	2.10	0.51
1:0:922:A:H62	13:K:17:ARG:CA	2.24	0.51
1:0:978:U:H2'	1:0:979:A:H8	1.76	0.51
2:9:116:C:H2'	2:9:117:G:O4'	2.10	0.51
1:0:1293:A:O2'	1:0:1294:G:H5'	2.10	0.51
1:0:1621:C:H4'	1:0:1626:A:N6	2.24	0.51
1:0:1944:C:H2'	1:0:1945:C:O4'	2.10	0.51
1:0:174:A:C2	1:0:2413:A:N6	2.78	0.51
1:0:2541:U:H2'	1:0:2542:U:O4'	2.10	0.51
1:0:2560:G:H2'	1:0:2561:G:C8	2.45	0.51
1:0:583:C:O2'	1:0:584:A:OP2	2.27	0.51
1:0:95:G:H2'	1:0:96:C:C6	2.46	0.51
1:0:1662:G:H5''	1:0:1663:C:O4'	2.11	0.51
1:0:2717:G:H2'	1:0:2718:A:H8	1.75	0.51
1:0:430:C:H2'	1:0:431:G:C8	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:604:U:H2'	1:0:605:G:H8	1.74	0.51
1:0:1010:U:H2'	1:0:1011:A:H8	1.76	0.51
1:0:119:G:H1'	1:0:129:A:C2	2.45	0.51
1:0:1692:C:H2'	1:0:1693:A:H5'	1.91	0.51
1:0:2035:G:H2'	1:0:2036:G:H8	1.75	0.51
1:0:2301:A:H2'	1:0:2302:G:O4'	2.11	0.51
1:0:300:C:H2'	1:0:301:C:H5'	1.92	0.51
1:0:484:G:O2'	1:0:485:G:H5'	2.11	0.51
1:0:678:G:O2'	1:0:679:C:H5'	2.11	0.51
1:0:706:A:H2'	1:0:707:U:C6	2.46	0.51
1:0:782:U:H2'	1:0:783:G:H8	1.72	0.51
2:9:78:A:H2'	2:9:79:U:H6	1.73	0.51
1:0:1241:G:O2'	1:0:1242:A:H5'	2.10	0.51
1:0:1714:A:H3'	1:0:1715:A:C8	2.45	0.51
1:0:2503:G:C3'	1:0:2504:G:H5''	2.40	0.51
1:0:2633:A:H5'	1:0:2635:U:O4'	2.11	0.51
1:0:2658:A:O2'	1:0:2659:C:H5'	2.11	0.51
1:0:859:U:H4'	1:0:860:U:C5	2.46	0.51
1:0:931:G:C2'	1:0:932:G:H5'	2.40	0.51
1:0:103:U:H2'	1:0:104:C:H6	1.72	0.51
1:0:984:A:H2	1:0:1200:G:H1	1.57	0.51
1:0:1540:C:O2'	1:0:1541:G:H5'	2.10	0.51
1:0:1579:G:H2'	1:0:1580:C:C6	2.45	0.51
1:0:15:G:H2'	1:0:16:G:H5'	1.93	0.51
1:0:781:G:H5'	1:0:1638:G:H4'	1.93	0.51
1:0:1856:U:H2'	1:0:1857:G:O4'	2.11	0.51
1:0:579:G:H2'	1:0:2013:A:N7	2.25	0.51
1:0:29:U:H2'	1:0:30:G:C8	2.46	0.51
1:0:773:G:C2'	1:0:774:A:H5'	2.41	0.51
1:0:830:C:H2'	1:0:831:G:H8	1.76	0.51
1:0:837:U:H2'	1:0:838:A:O4'	2.10	0.51
1:0:886:A:H2'	1:0:887:G:O4'	2.11	0.51
2:9:42:U:C2	2:9:45:C:C5	2.99	0.51
1:0:1818:G:H2'	1:0:1819:U:C6	2.46	0.51
1:0:2613:A:O2'	1:0:2614:A:H5'	2.10	0.51
1:0:1218:C:H2'	1:0:1219:C:O4'	2.10	0.51
1:0:1227:A:H4'	1:0:1252:C:H4'	1.93	0.51
1:0:1590:C:H6	1:0:1590:C:O5'	1.94	0.51
1:0:1611:U:H2'	1:0:1612:U:O4'	2.10	0.51
1:0:1790:G:C8	1:0:1811:A:N6	2.79	0.51
1:0:2053:G:H2'	1:0:2054:A:C8	2.46	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2076:G:H2'	1:0:2077:G:C8	2.46	0.51
1:0:2408:G:H3'	1:0:2409:A:C5'	2.41	0.51
1:0:2487:G:H2'	1:0:2488:G:C8	2.45	0.51
1:0:952:A:O2'	1:0:1204:G:H4'	2.11	0.51
2:9:26:G:N7	2:9:58:G:C4	2.78	0.51
2:9:6:C:H2'	2:9:7:C:H6	1.72	0.51
2:9:71:G:C2'	2:9:72:C:H5'	2.41	0.51
1:0:1424:U:H2'	1:0:1425:G:C8	2.45	0.51
1:0:1592:U:O5'	1:0:1592:U:H6	1.94	0.51
1:0:1838:G:C2'	1:0:1839:A:H5'	2.39	0.51
1:0:2246:A:H2'	1:0:2246:A:N3	2.26	0.51
1:0:2870:C:H2'	1:0:2871:U:C6	2.46	0.51
1:0:612:G:H4'	1:0:613:A:O2'	2.10	0.51
2:9:4:C:H2'	2:9:5:C:C5	2.43	0.51
1:0:1132:C:H2'	1:0:1133:G:O4'	2.10	0.50
1:0:1000:G:P	1:0:1168:G:H4'	2.51	0.50
1:0:1179:A:H2'	1:0:1180:A:C8	2.45	0.50
1:0:1457:A:O2'	1:0:1458:A:H5'	2.11	0.50
1:0:753:U:H5'	1:0:1775:A:N6	2.26	0.50
1:0:2425:G:HO2'	1:0:2428:U:H5	1.57	0.50
32:0:2882:ZIT:H6B2	32:0:2882:ZIT:H6A3	1.88	0.50
1:0:974:U:H5'	1:0:2476:A:OP1	2.11	0.50
1:0:1066:G:H3'	1:0:1067:G:H5''	1.93	0.50
1:0:1226:A:H2'	1:0:1227:A:C8	2.46	0.50
1:0:520:C:H2'	1:0:521:U:O4'	2.11	0.50
2:9:50:U:H2'	2:9:51:G:C8	2.45	0.50
1:0:1770:U:H2'	1:0:1774:A:H62	1.77	0.50
1:0:2160:C:H2'	1:0:2161:C:C6	2.47	0.50
1:0:2651:U:O2'	1:0:2652:G:H5'	2.12	0.50
1:0:2751:C:H2'	1:0:2752:C:H6	1.75	0.50
1:0:37:C:H4'	1:0:463:C:OP1	2.12	0.50
1:0:534:U:H4'	1:0:564:U:H4'	1.92	0.50
1:0:636:G:H2'	1:0:637:G:H5'	1.94	0.50
1:0:1411:C:H2'	1:0:1412:C:H6	1.75	0.50
1:0:1624:A:H2'	1:0:1625:A:H5'	1.94	0.50
1:0:2772:U:O2'	1:0:2773:G:H5'	2.11	0.50
1:0:2770:A:C5'	1:0:2867:G:H22	2.25	0.50
1:0:322:A:H2'	1:0:322:A:N3	2.26	0.50
1:0:357:A:C2'	1:0:358:C:H5'	2.37	0.50
1:0:502:A:H2'	1:0:503:G:H5'	1.93	0.50
1:0:644:A:C2'	1:0:645:G:H5'	2.41	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:685:U:O2'	1:0:686:C:H5'	2.11	0.50
1:0:790:A:O2'	1:0:791:G:H5'	2.10	0.50
1:0:1101:U:H3	1:0:1113:C:H1'	1.77	0.50
1:0:1572:C:H2'	1:0:1573:G:C5'	2.42	0.50
1:0:1848:U:H2'	1:0:1849:G:O4'	2.12	0.50
1:0:2238:G:H1'	1:0:2406:C:C2	2.47	0.50
1:0:2458:U:OP1	1:0:2516:U:H1'	2.12	0.50
1:0:2546:G:H2'	1:0:2547:C:H6	1.76	0.50
1:0:630:G:H8	1:0:630:G:O5'	1.94	0.50
1:0:923:A:N3	1:0:923:A:H2'	2.26	0.50
2:9:111:C:H5''	2:9:112:A:H4'	1.93	0.50
1:0:1090:C:O2'	1:0:1091:C:H5'	2.11	0.50
1:0:1411:C:H2'	1:0:1412:C:C6	2.47	0.50
1:0:1625:A:C8	1:0:1632:A:H1'	2.46	0.50
1:0:174:A:H4'	1:0:2051:U:H2'	1.93	0.50
1:0:2104:G:H2'	1:0:2105:U:C6	2.47	0.50
1:0:2717:G:H2'	1:0:2718:A:C8	2.46	0.50
1:0:860:U:O2	1:0:860:U:H2'	2.11	0.50
2:9:29:C:H2'	2:9:30:C:C5	2.45	0.50
1:0:1199:U:H3'	1:0:1200:G:H5''	1.93	0.50
1:0:1229:C:H2'	1:0:1230:C:H6	1.77	0.50
1:0:1287:A:N1	1:0:1661:C:O2'	2.40	0.50
1:0:1313:U:H4'	1:0:1314:A:O4'	2.11	0.50
1:0:1430:G:H2'	1:0:1431:U:C6	2.47	0.50
1:0:1514:C:H2'	1:0:1515:U:O4'	2.11	0.50
1:0:1594:U:H2'	1:0:1595:A:C8	2.47	0.50
1:0:2341:G:O2'	1:0:2342:U:H5'	2.12	0.50
1:0:2609:G:N2	1:0:2866:A:H2	2.09	0.50
1:0:41:G:O2'	1:0:42:G:H5'	2.12	0.50
1:0:75:C:H2'	1:0:76:C:C5'	2.33	0.50
1:0:1026:U:H2'	1:0:1027:C:C6	2.47	0.50
1:0:1038:U:N3	1:0:2467:A:H5'	2.25	0.50
1:0:1440:G:H3'	1:0:1441:A:C5'	2.41	0.50
1:0:14:A:C2	1:0:2604:G:O2'	2.65	0.50
1:0:2170:C:H2'	1:0:2171:U:O4'	2.12	0.50
1:0:456:C:H2'	1:0:457:C:H6	1.77	0.50
1:0:509:U:H3	1:0:513:A:N6	2.09	0.50
1:0:597:U:H2'	1:0:598:U:C6	2.46	0.50
1:0:73:A:H5''	1:0:73:A:N3	2.26	0.50
1:0:1333:G:O2'	1:0:1334:A:H8	1.95	0.50
1:0:1399:C:H2'	1:0:1400:A:C8	2.47	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1429:A:H1'	1:0:1603:A:C6	2.46	0.50
1:0:18:U:O2'	1:0:563:U:H5''	2.12	0.50
1:0:1982:C:H5''	1:0:2703:C:O2'	2.12	0.50
1:0:2396:C:C2'	1:0:2397:A:H5'	2.41	0.50
1:0:611:C:O2'	1:0:614:G:H5''	2.12	0.50
2:9:105:G:C2	2:9:106:U:C4	2.99	0.50
1:0:1310:C:OP1	1:0:2689:C:H4'	2.11	0.49
1:0:1315:A:H5''	1:0:1316:G:OP1	2.11	0.49
1:0:1353:A:H5''	1:0:1354:A:N7	2.26	0.49
1:0:221:A:H2'	1:0:222:G:H5'	1.94	0.49
1:0:2709:C:H2'	1:0:2710:C:C6	2.47	0.49
1:0:337:G:H2'	1:0:338:G:C8	2.47	0.49
1:0:765:C:O2'	1:0:766:A:O4'	2.30	0.49
1:0:1058:G:H2'	1:0:1121:G:H1	1.77	0.49
1:0:1872:A:H2'	1:0:1873:A:H8	1.77	0.49
1:0:2052:G:O2'	1:0:2053:G:H5'	2.12	0.49
1:0:2195:C:C2'	1:0:2196:U:H5'	2.42	0.49
1:0:956:A:C6	1:0:2427:A:H1'	2.47	0.49
1:0:2680:U:H3'	1:0:2681:A:H5'	1.95	0.49
1:0:541:C:N4	1:0:572:G:H8	2.06	0.49
1:0:681:A:N6	1:0:683:A:H2'	2.27	0.49
1:0:1001:A:C3'	1:0:1002:C:H5''	2.42	0.49
1:0:2544:A:H5''	1:0:2545:A:OP2	2.12	0.49
1:0:2608:A:O2'	1:0:2609:G:H5'	2.11	0.49
1:0:2733:A:H2'	1:0:2734:U:O4'	2.11	0.49
1:0:329:C:O2'	1:0:330:C:H5'	2.11	0.49
2:9:104:A:C2	2:9:105:G:H1'	2.47	0.49
1:0:1345:G:H5''	1:0:1346:C:OP1	2.12	0.49
1:0:212:U:O2'	1:0:213:C:H5'	2.12	0.49
1:0:2212:U:H2'	1:0:2213:G:C8	2.47	0.49
1:0:2395:C:H2'	1:0:2396:C:C5'	2.43	0.49
1:0:2598:C:H2'	1:0:2599:U:H6	1.77	0.49
1:0:2764:U:H2'	1:0:2765:C:H6	1.75	0.49
2:9:111:C:H5''	2:9:112:A:C5'	2.42	0.49
1:0:1073:G:H2'	1:0:1074:G:C4'	2.29	0.49
1:0:1284:G:C2	1:0:1633:C:H5'	2.47	0.49
1:0:1703:C:H2'	1:0:1704:G:O4'	2.12	0.49
1:0:1807:A:H1'	1:0:1809:G:N7	2.27	0.49
1:0:1979:C:H6	1:0:1979:C:OP1	1.95	0.49
1:0:2196:U:H2'	1:0:2197:U:C6	2.47	0.49
1:0:228:A:C5	1:0:229:G:H1'	2.47	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:242:A:N6	1:0:441:A:N7	2.60	0.49
1:0:298:C:H2'	1:0:299:C:H6	1.78	0.49
1:0:474:G:N2	1:0:476:G:H3'	2.27	0.49
1:0:701:U:O2'	1:0:702:A:H5'	2.13	0.49
1:0:1166:A:C2'	1:0:1167:A:H5''	2.42	0.49
1:0:1380:C:H2'	1:0:1381:G:H5'	1.95	0.49
1:0:1534:A:O2'	1:0:1535:C:H5'	2.12	0.49
1:0:1479:G:N2	1:0:1543:G:H21	2.11	0.49
1:0:2431:C:O2'	1:0:2432:A:H5'	2.12	0.49
1:0:2544:A:H2'	1:0:2545:A:C1'	2.42	0.49
1:0:2655:C:O2'	1:0:2656:G:H5'	2.11	0.49
1:0:298:C:H2'	1:0:299:C:C6	2.46	0.49
1:0:338:G:H2'	1:0:339:U:H5'	1.94	0.49
1:0:1212:U:H2'	1:0:1213:U:C6	2.48	0.49
1:0:1730:G:H2'	1:0:1731:C:H6	1.76	0.49
1:0:1821:A:H5''	1:0:1822:C:C5	2.47	0.49
1:0:1980:A:O2'	1:0:1981:A:H5'	2.13	0.49
1:0:956:A:N7	1:0:2427:A:C2	2.81	0.49
1:0:1936:A:O2'	1:0:2538:C:H1'	2.13	0.49
1:0:29:U:O5'	1:0:29:U:H6	1.96	0.49
1:0:443:A:O2'	1:0:444:U:H5'	2.12	0.49
1:0:45:C:H2'	1:0:46:C:C6	2.48	0.49
1:0:749:C:H2'	1:0:750:C:O4'	2.12	0.49
1:0:79:G:H2'	1:0:80:A:C8	2.46	0.49
2:9:59:A:C4	6:D:27:ALA:CA	2.94	0.49
2:9:116:C:O2'	15:M:50:THR:CA	2.60	0.49
1:0:132:U:H2'	1:0:133:C:C6	2.48	0.49
1:0:1687:C:H1'	1:0:1976:U:O2	2.13	0.49
1:0:2122:G:H2'	1:0:2123:G:H8	1.77	0.49
1:0:2754:C:H2'	1:0:2755:A:H8	1.77	0.49
1:0:478:G:O2'	1:0:479:G:H5'	2.13	0.49
1:0:585:U:O2'	1:0:2481:G:C6	2.65	0.49
1:0:782:U:HO2'	1:0:1392:U:H5	1.60	0.49
2:9:28:A:OP2	2:9:29:C:H5	1.95	0.49
1:0:1429:A:H61	1:0:1602:G:H5'	1.78	0.49
1:0:1811:A:N3	1:0:1811:A:H2'	2.27	0.49
1:0:1888:C:H2'	1:0:1913:G:C5	2.48	0.49
1:0:2371:A:H2'	1:0:2372:A:O4'	2.12	0.49
1:0:2523:G:H1'	1:0:2625:U:C5'	2.42	0.49
1:0:2742:G:O2'	1:0:2743:G:H5'	2.13	0.49
1:0:333:A:O2'	1:0:350:U:H2'	2.12	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:583:C:O2'	1:0:584:A:P	2.71	0.49
1:0:605:G:H2'	1:0:606:A:C8	2.48	0.49
2:9:23:G:C2	2:9:24:U:C2	3.01	0.49
2:9:28:A:H3'	2:9:29:C:C6	2.43	0.49
1:0:931:G:C5'	2:9:83:C:H1'	2.43	0.49
1:0:1073:G:C2'	1:0:1074:G:H4'	2.30	0.49
1:0:1288:A:H2'	1:0:1289:A:O4'	2.13	0.49
1:0:1341:G:H2'	1:0:1343:C:C5	2.48	0.49
1:0:2010:G:H2'	1:0:2011:U:C6	2.48	0.49
1:0:446:C:H2'	1:0:447:U:O4'	2.13	0.49
2:9:36:A:H8	2:9:36:A:O5'	1.96	0.49
1:0:1482:U:H2'	1:0:1483:G:C8	2.48	0.48
1:0:1947:G:H2'	1:0:1950:C:OP1	2.13	0.48
1:0:220:U:H2'	1:0:221:A:H8	1.78	0.48
1:0:2565:C:H4'	1:0:2566:A:OP1	2.12	0.48
2:9:67:C:C3'	2:9:68:A:H5'	2.43	0.48
2:9:92:G:C3'	2:9:93:G:H5'	2.42	0.48
1:0:1347:C:O2'	1:0:1348:C:H5'	2.12	0.48
1:0:2572:U:H2'	1:0:2573:C:H6	1.78	0.48
1:0:2761:A:C5'	1:0:2762:G:H5'	2.44	0.48
1:0:764:A:N6	32:0:2882:ZIT:H92	2.28	0.48
1:0:870:C:H2'	1:0:871:U:H6	1.77	0.48
2:9:71:G:H2'	2:9:72:C:H5'	1.95	0.48
2:9:89:G:N2	2:9:91:A:C8	2.81	0.48
1:0:1686:A:H2'	1:0:1687:C:H5'	1.96	0.48
1:0:1940:C:H2'	1:0:1941:C:C6	2.48	0.48
1:0:612:G:H4'	1:0:613:A:H4'	1.94	0.48
1:0:65:C:H2'	1:0:66:U:O4'	2.13	0.48
1:0:956:A:C5	1:0:2427:A:N3	2.82	0.48
1:0:1087:C:H2'	1:0:1088:A:O4'	2.13	0.48
1:0:1622:G:H4'	1:0:1624:A:N3	2.29	0.48
1:0:1791:C:H2'	1:0:1792:C:C5'	2.37	0.48
1:0:2059:U:H2'	1:0:2060:A:C5'	2.36	0.48
1:0:2117:A:H62	1:0:2139:G:H21	1.61	0.48
1:0:2225:G:H2'	1:0:2226:A:H8	1.79	0.48
1:0:2671:C:O2'	1:0:2672:U:H5'	2.13	0.48
1:0:388:G:O2'	1:0:389:G:H5'	2.13	0.48
1:0:777:A:N6	1:0:1767:G:H1'	2.27	0.48
1:0:80:A:H2'	1:0:81:C:C6	2.48	0.48
1:0:974:U:H2'	1:0:975:C:C6	2.47	0.48
2:9:107:C:C6	2:9:107:C:H3'	2.47	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:63:A:H2'	2:9:64:C:C6	2.47	0.48
1:0:1424:U:H2'	1:0:1425:G:H8	1.78	0.48
1:0:2217:G:H3'	1:0:2217:G:N3	2.28	0.48
1:0:2459:C:H2'	1:0:2460:G:H5'	1.95	0.48
1:0:2508:G:H5''	1:0:2509:A:H5''	1.95	0.48
1:0:805:G:N7	1:0:2419:C:H1'	2.29	0.48
1:0:814:G:H3'	1:0:815:A:C5'	2.43	0.48
1:0:837:U:H2'	1:0:838:A:H8	1.77	0.48
1:0:1038:U:H2'	1:0:1039:A:C8	2.47	0.48
1:0:1023:U:H1'	1:0:1154:A:C8	2.48	0.48
1:0:117:A:H5'	1:0:118:U:O5'	2.14	0.48
1:0:1339:U:O4	1:0:1664:G:H1'	2.14	0.48
1:0:1402:G:H2'	1:0:1403:U:O4'	2.13	0.48
1:0:1432:G:N2	1:0:1596:A:H62	1.95	0.48
1:0:1626:A:OP2	1:0:1626:A:C8	2.66	0.48
1:0:1955:G:H2'	1:0:1956:G:H5'	1.94	0.48
1:0:2469:G:H4'	1:0:2470:U:H5	1.77	0.48
1:0:2468:G:H2'	1:0:2469:G:O4'	2.14	0.48
1:0:2712:G:H5'	1:0:2713:A:C8	2.49	0.48
1:0:2795:A:H2'	1:0:2795:A:N3	2.28	0.48
1:0:322:A:H1'	1:0:343:A:C5	2.49	0.48
1:0:347:C:H2'	1:0:348:U:O4'	2.14	0.48
1:0:702:A:N3	1:0:792:U:H1'	2.28	0.48
1:0:843:G:H8	1:0:843:G:OP1	1.96	0.48
1:0:990:A:H3'	1:0:991:A:H5''	1.96	0.48
2:9:85:G:O2'	2:9:86:A:H5'	2.13	0.48
1:0:1001:A:H62	1:0:1200:G:H1'	1.79	0.48
1:0:1307:U:H2'	1:0:1308:C:O4'	2.13	0.48
1:0:1442:C:N4	1:0:1585:A:C8	2.82	0.48
1:0:195:A:H2'	1:0:196:A:O4'	2.14	0.48
1:0:2011:U:H2'	1:0:2012:A:H8	1.79	0.48
1:0:539:A:H62	1:0:2024:U:H3	1.61	0.48
1:0:2093:G:H2'	1:0:2094:C:C6	2.49	0.48
1:0:2447:G:O5'	1:0:2447:G:H8	1.96	0.48
1:0:2820:C:H2'	1:0:2821:G:H8	1.78	0.48
1:0:717:G:H1'	1:0:740:A:H61	1.79	0.48
2:9:32:C:H4'	2:9:60:A:C2	2.47	0.48
2:9:91:A:O5'	2:9:91:A:H8	1.97	0.48
1:0:1327:C:OP1	1:0:1345:G:H5'	2.14	0.48
1:0:1458:A:C3'	1:0:1459:U:H5''	2.38	0.48
1:0:1461:C:H2'	1:0:1462:C:C6	2.49	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1541:G:H22	1:0:1561:A:N6	2.11	0.48
1:0:1756:C:H2'	1:0:1757:C:C6	2.49	0.48
1:0:242:A:O2'	1:0:243:G:P	2.72	0.48
1:0:486:U:C4'	1:0:520:C:H5'	2.43	0.48
1:0:581:A:N3	1:0:582:G:H1'	2.28	0.48
1:0:657:A:H8	1:0:657:A:O5'	1.96	0.48
1:0:781:G:H2'	1:0:782:U:O4'	2.13	0.48
1:0:860:U:H2'	1:0:861:G:H5'	1.95	0.48
1:0:942:U:H2'	1:0:943:U:O4'	2.14	0.48
1:0:1226:A:N1	1:0:1250:A:H1'	2.29	0.48
1:0:13:A:O2'	1:0:14:A:C2	2.67	0.48
1:0:1740:G:O2'	1:0:1741:G:H5'	2.14	0.48
1:0:1969:G:O2'	1:0:1970:G:H5'	2.14	0.48
1:0:2117:A:N6	1:0:2139:G:H21	2.11	0.48
1:0:2311:U:HO2'	1:0:2312:A:H8	1.60	0.48
1:0:2426:G:N2	1:0:2431:C:H41	2.11	0.48
1:0:2810:A:H2	1:0:2853:U:C5	2.31	0.48
1:0:614:G:H2'	1:0:615:C:C6	2.47	0.48
1:0:788:G:H5'	1:0:790:A:N3	2.29	0.48
1:0:788:G:H5''	1:0:790:A:H1'	1.95	0.48
1:0:995:A:H5''	1:0:996:C:C5	2.47	0.48
1:0:1066:G:H3'	1:0:1067:G:C5'	2.44	0.48
1:0:1162:A:O2'	1:0:1163:C:H5'	2.13	0.48
1:0:1425:G:H2'	1:0:1426:U:C6	2.49	0.48
1:0:15:G:C2'	1:0:16:G:H5'	2.44	0.48
1:0:1721:G:O2'	1:0:1722:G:H5'	2.13	0.48
1:0:1858:C:H2'	1:0:1859:A:H8	1.79	0.48
1:0:1906:U:H2'	1:0:1907:C:C6	2.49	0.48
1:0:2038:C:H5'	1:0:2039:G:H5''	1.96	0.48
1:0:2480:C:H4'	1:0:2482:A:H4'	1.94	0.48
1:0:1139:A:H1'	1:0:2496:C:H5'	1.96	0.48
1:0:2665:G:H2'	1:0:2666:U:O4'	2.14	0.48
1:0:353:G:H2'	1:0:354:C:C6	2.48	0.48
1:0:562:G:H2'	1:0:563:U:O4'	2.14	0.48
1:0:585:U:H2'	1:0:586:G:H8	1.76	0.48
1:0:915:C:H2'	1:0:916:U:C6	2.49	0.48
1:0:953:G:H1'	1:0:1203:A:C2	2.42	0.48
2:9:42:U:H3'	2:9:43:G:H5''	1.96	0.48
1:0:1630:A:H8	1:0:1630:A:OP2	1.97	0.47
1:0:2070:G:H2'	1:0:2071:G:O4'	2.14	0.47
1:0:839:U:H5'	1:0:2407:G:H2'	1.96	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:537:C:C6	1:0:2759:U:H2'	2.48	0.47
1:0:2800:C:O2'	1:0:2801:A:H5'	2.14	0.47
1:0:521:U:H5''	1:0:1248:G:H4'	1.96	0.47
1:0:633:G:H8	1:0:633:G:O5'	1.97	0.47
1:0:735:G:O2'	1:0:736:G:H5'	2.14	0.47
1:0:736:G:H2'	1:0:737:C:C6	2.49	0.47
1:0:824:U:H2'	1:0:825:C:C5'	2.43	0.47
1:0:968:C:C2	1:0:2438:A:H5'	2.49	0.47
1:0:1007:A:H2'	1:0:1008:G:H8	1.79	0.47
1:0:1257:U:H2'	1:0:1258:G:H8	1.77	0.47
1:0:1764:A:H2'	1:0:1765:C:H5'	1.94	0.47
1:0:1783:G:O6	1:0:1820:G:H1'	2.14	0.47
1:0:2396:C:O2'	1:0:2397:A:H5'	2.14	0.47
1:0:1750:A:H4'	1:0:2695:C:O4'	2.14	0.47
1:0:297:A:H2'	1:0:298:C:C6	2.49	0.47
1:0:365:U:H2'	1:0:366:U:C6	2.49	0.47
1:0:1032:A:C2'	1:0:1033:G:H4'	2.39	0.47
1:0:1301:U:H5''	1:0:1302:C:OP1	2.14	0.47
1:0:147:G:O5'	1:0:147:G:H8	1.97	0.47
1:0:1666:G:H2'	1:0:1667:A:H8	1.77	0.47
1:0:1959:U:H2'	1:0:1960:A:C8	2.49	0.47
1:0:2182:A:H2'	1:0:2183:C:O4'	2.14	0.47
1:0:964:A:H1'	1:0:2245:A:OP2	2.14	0.47
1:0:2396:C:H2'	1:0:2397:A:H5'	1.96	0.47
1:0:2658:A:H2'	1:0:2659:C:O4'	2.14	0.47
1:0:524:A:O2'	1:0:525:A:H5'	2.13	0.47
1:0:587:A:OP2	1:0:587:A:H8	1.98	0.47
1:0:592:G:H2'	1:0:593:C:C6	2.49	0.47
1:0:926:C:H2'	1:0:927:C:H5'	1.96	0.47
2:9:35:C:H2'	2:9:36:A:O4'	2.14	0.47
1:0:1141:U:O5'	1:0:1141:U:H6	1.98	0.47
1:0:1166:A:H2'	1:0:1167:A:H5''	1.95	0.47
1:0:1456:C:O2'	1:0:1457:A:H5'	2.14	0.47
1:0:1956:G:H2'	1:0:1957:C:C6	2.49	0.47
1:0:195:A:C2'	1:0:196:A:H5'	2.44	0.47
1:0:236:C:H2'	1:0:237:G:C8	2.43	0.47
1:0:2459:C:C2'	1:0:2460:G:H5'	2.45	0.47
1:0:2814:G:H1	1:0:2853:U:H3	1.62	0.47
1:0:305:A:H2'	1:0:306:G:O4'	2.14	0.47
2:9:117:G:O2'	2:9:118:G:H5'	2.14	0.47
2:9:8:C:O2'	2:9:9:G:H5'	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:192:G:H4'	1:0:193:A:O5'	2.14	0.47
1:0:2094:C:C4	1:0:2103:G:H1'	2.50	0.47
2:9:34:C:O5'	2:9:34:C:H6	1.98	0.47
1:0:1102:G:H2'	1:0:1103:C:C6	2.48	0.47
1:0:1141:U:O2'	1:0:1142:G:OP1	2.28	0.47
1:0:1184:G:C2'	1:0:1185:C:H5''	2.44	0.47
1:0:1407:G:H2'	1:0:1408:A:C8	2.49	0.47
1:0:1719:G:O2'	1:0:1720:G:H5'	2.14	0.47
1:0:1857:G:H2'	1:0:1859:A:OP2	2.14	0.47
1:0:1915:A:N1	1:0:1956:G:H1'	2.29	0.47
1:0:1141:U:OP2	1:0:2549:G:N2	2.47	0.47
1:0:457:C:O2'	1:0:458:G:H5'	2.13	0.47
1:0:482:A:C2'	1:0:483:A:H5'	2.45	0.47
1:0:1437:A:O2'	1:0:1438:G:H5'	2.14	0.47
1:0:1487:C:H2'	1:0:1488:G:H8	1.80	0.47
1:0:1365:U:H1'	1:0:1586:A:H2	1.79	0.47
1:0:2384:G:H2'	1:0:2390:A:H62	1.80	0.47
1:0:2433:G:H2'	1:0:2434:G:H8	1.80	0.47
1:0:2617:G:O2'	1:0:2618:A:H8	1.97	0.47
1:0:2727:G:H2'	1:0:2728:A:H5''	1.96	0.47
1:0:657:A:H2'	1:0:658:G:H8	1.78	0.47
1:0:578:U:OP1	1:0:956:A:N6	2.48	0.47
2:9:108:G:H2'	2:9:109:G:H8	1.79	0.47
1:0:1253:C:H2'	1:0:1254:G:H5'	1.96	0.47
1:0:1322:G:N2	1:0:1627:C:H5'	2.28	0.47
1:0:1787:U:H2'	1:0:1788:C:C6	2.50	0.47
1:0:1957:C:O2'	1:0:1958:G:H5'	2.14	0.47
1:0:2245:A:C2'	1:0:2246:A:OP2	2.62	0.47
1:0:2739:G:H2'	1:0:2740:C:O4'	2.15	0.47
1:0:2862:G:O2'	1:0:2863:U:H5'	2.15	0.47
1:0:428:A:H2'	1:0:429:C:H6	1.79	0.47
1:0:605:G:H2'	1:0:606:A:H8	1.80	0.47
1:0:640:C:H5''	1:0:660:G:O2'	2.13	0.47
2:9:88:C:H2'	2:9:89:G:O4'	2.15	0.47
1:0:1253:C:C2'	1:0:1254:G:H5'	2.44	0.47
1:0:1317:G:O2'	1:0:1318:A:H5'	2.14	0.47
1:0:1668:G:O2'	1:0:1669:A:H5'	2.15	0.47
1:0:2204:A:H1'	1:0:2205:C:C5	2.49	0.47
1:0:2560:G:H2'	1:0:2561:G:H8	1.80	0.47
1:0:305:A:C2'	1:0:306:G:H5'	2.45	0.47
1:0:397:U:H2'	1:0:398:C:H6	1.79	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:785:U:O2'	1:0:786:U:H5'	2.15	0.47
1:0:805:G:N2	1:0:2056:C:H4'	2.29	0.47
2:9:24:U:H2'	2:9:25:G:O5'	2.14	0.47
1:0:1373:G:H2'	1:0:1374:G:H5'	1.97	0.47
1:0:4:C:H2'	1:0:5:A:C8	2.50	0.47
1:0:538:A:C2'	1:0:539:A:H5''	2.43	0.47
1:0:1066:G:C2'	1:0:1067:G:H4'	2.43	0.47
1:0:1802:A:H2'	1:0:1803:G:O4'	2.15	0.47
1:0:181:A:H5''	1:0:182:G:OP1	2.14	0.47
1:0:1940:C:H2'	1:0:1941:C:H6	1.80	0.47
1:0:2404:A:O2'	1:0:2405:A:OP2	2.28	0.47
1:0:2446:C:H2'	1:0:2447:G:C8	2.50	0.47
1:0:2470:U:H2'	1:0:2471:U:C6	2.50	0.47
1:0:422:C:H2'	1:0:423:G:O4'	2.15	0.47
1:0:550:C:H2'	1:0:551:A:H8	1.80	0.47
1:0:912:A:H2'	1:0:913:A:H8	1.80	0.47
2:9:42:U:O4	2:9:45:C:OP2	2.33	0.47
1:0:1680:U:H6	1:0:1680:U:H5'	1.80	0.46
1:0:1871:G:C2'	1:0:1871:G:N3	2.78	0.46
1:0:1970:G:O2'	1:0:1971:C:H5'	2.15	0.46
1:0:211:U:O2'	1:0:212:U:H5'	2.15	0.46
1:0:2204:A:O2'	1:0:2205:C:OP2	2.30	0.46
1:0:2286:G:H21	1:0:2290:A:H62	1.63	0.46
1:0:2484:G:C6	32:0:2881:ZIT:H7B1	2.50	0.46
1:0:2490:U:H2'	1:0:2491:C:H6	1.79	0.46
1:0:2483:U:H1'	1:0:2551:A:C2	2.50	0.46
1:0:2624:G:H4'	1:0:2712:G:O2'	2.15	0.46
1:0:2617:G:N2	1:0:2755:A:H2'	2.30	0.46
1:0:450:C:H2'	1:0:451:A:C8	2.51	0.46
1:0:461:A:N3	1:0:461:A:H2'	2.30	0.46
1:0:786:U:H2'	1:0:787:A:H5'	1.96	0.46
2:9:68:A:C2	2:9:110:U:C4	3.03	0.46
1:0:1442:C:N4	1:0:1585:A:H8	2.13	0.46
1:0:1621:C:O2'	1:0:1626:A:N7	2.45	0.46
1:0:1793:A:H2'	1:0:1794:A:C8	2.50	0.46
1:0:2227:C:H2'	1:0:2228:U:H5'	1.97	0.46
1:0:2396:C:H6	1:0:2396:C:H5'	1.80	0.46
1:0:246:C:N4	1:0:247:A:H62	2.13	0.46
1:0:2488:G:H2'	1:0:2489:C:H6	1.79	0.46
1:0:2588:U:O2'	1:0:2589:C:OP1	2.32	0.46
1:0:2785:A:H62	1:0:2865:G:H21	1.63	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2830:U:H2'	1:0:2831:A:C8	2.51	0.46
1:0:429:C:H2'	1:0:430:C:O4'	2.15	0.46
1:0:433:G:N2	1:0:434:C:H1'	2.30	0.46
1:0:538:A:C3'	1:0:539:A:H5''	2.45	0.46
1:0:83:A:N1	1:0:98:U:H1'	2.31	0.46
2:9:45:C:H42	2:9:47:A:H62	1.63	0.46
1:0:1139:A:H1'	1:0:2495:G:O2'	2.15	0.46
1:0:2566:A:H2'	1:0:2567:G:H5'	1.96	0.46
1:0:31:C:H5''	1:0:1252:C:OP1	2.14	0.46
1:0:487:G:H1'	1:0:515:A:H2	1.79	0.46
1:0:612:G:O3'	1:0:613:A:C4'	2.59	0.46
1:0:631:G:H5''	1:0:632:A:OP1	2.16	0.46
1:0:815:A:H2'	1:0:816:U:O4'	2.14	0.46
1:0:1715:A:H1'	1:0:1717:A:O4'	2.15	0.46
1:0:225:G:H5'	1:0:226:C:H5'	1.97	0.46
1:0:2402:U:H5'	1:0:2404:A:C5	2.51	0.46
1:0:2225:G:C2	1:0:2405:A:H1'	2.50	0.46
1:0:2425:G:H2'	1:0:2480:C:H41	1.80	0.46
1:0:2858:A:H3'	1:0:2859:U:H5'	1.97	0.46
1:0:514:G:N3	1:0:514:G:C2'	2.78	0.46
1:0:732:G:O5'	1:0:732:G:H8	1.99	0.46
2:9:30:C:O5'	2:9:30:C:C6	2.64	0.46
2:9:5:C:H2'	2:9:6:C:O4'	2.15	0.46
1:0:1206:G:H2'	1:0:1207:G:H8	1.80	0.46
1:0:1337:G:H4'	1:0:1632:A:N7	2.31	0.46
1:0:2015:G:O2'	1:0:2016:A:OP1	2.27	0.46
1:0:2523:G:H2'	1:0:2524:G:O4'	2.16	0.46
1:0:2533:U:H2'	1:0:2534:U:C6	2.51	0.46
1:0:393:U:H2'	1:0:394:U:H6	1.80	0.46
1:0:488:A:H2'	1:0:489:A:C8	2.51	0.46
1:0:619:A:H2'	1:0:620:G:C8	2.50	0.46
1:0:65:C:C2'	1:0:66:U:H5'	2.45	0.46
1:0:69:G:H4'	1:0:70:A:O5'	2.16	0.46
1:0:1472:C:HO2'	1:0:1474:A:H8	1.62	0.46
1:0:1496:G:H1	1:0:1527:G:H1	1.64	0.46
1:0:1669:A:H2'	1:0:1670:G:H4'	1.97	0.46
1:0:1671:A:O4'	1:0:2798:A:H5'	2.16	0.46
1:0:170:U:H2'	1:0:171:G:C8	2.45	0.46
1:0:1964:A:OP1	1:0:1965:U:OP2	2.33	0.46
1:0:2407:G:H5''	1:0:2408:G:OP1	2.15	0.46
1:0:2599:U:H3'	1:0:2600:A:H5''	1.95	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:515:A:C2'	1:0:516:G:H5'	2.46	0.46
1:0:591:G:H2'	1:0:592:G:C8	2.49	0.46
1:0:646:C:O2'	1:0:650:U:H5''	2.16	0.46
1:0:788:G:N2	1:0:800:U:C2'	2.78	0.46
1:0:84:G:O2'	1:0:85:C:H5'	2.15	0.46
1:0:1002:C:O5'	1:0:1002:C:H6	1.99	0.46
1:0:984:A:H1'	1:0:1202:U:C5	2.51	0.46
1:0:1216:G:H2'	1:0:1217:U:O4'	2.16	0.46
1:0:1221:C:H6	1:0:1221:C:O5'	1.99	0.46
1:0:1624:A:C2'	1:0:1625:A:H5'	2.44	0.46
1:0:221:A:N6	1:0:231:G:H21	2.14	0.46
1:0:2559:U:H5	1:0:2560:G:H21	1.63	0.46
1:0:299:C:H2'	1:0:300:C:C5	2.51	0.46
1:0:482:A:H2'	1:0:483:A:O4'	2.16	0.46
1:0:931:G:H2'	1:0:932:G:C5'	2.46	0.46
2:9:23:G:H2'	2:9:24:U:C6	2.51	0.46
2:9:51:G:O2'	2:9:52:G:H5'	2.15	0.46
1:0:1034:U:H4'	1:0:1134:C:OP1	2.15	0.46
1:0:1277:G:H2'	1:0:1997:A:N6	2.31	0.46
1:0:1447:U:H1'	1:0:1577:G:H22	1.79	0.46
1:0:1478:U:H2'	1:0:1479:G:C8	2.51	0.46
1:0:1714:A:C5	1:0:1715:A:N6	2.79	0.46
1:0:872:G:O2'	1:0:2247:A:C4	2.69	0.46
1:0:394:U:O2'	1:0:395:G:H5'	2.16	0.46
1:0:40:U:H2'	1:0:41:G:C8	2.51	0.46
1:0:635:C:O2	1:0:670:U:H4'	2.16	0.46
1:0:643:A:O2'	1:0:644:A:H5'	2.15	0.46
1:0:764:A:N3	1:0:764:A:C2'	2.79	0.46
1:0:788:G:H5''	1:0:789:G:OP1	2.15	0.46
1:0:839:U:H5''	1:0:2408:G:P	2.55	0.46
1:0:1001:A:H3'	1:0:1002:C:H5''	1.98	0.46
1:0:115:G:C6	1:0:117:A:N6	2.84	0.46
1:0:1494:G:H2'	1:0:1495:G:O4'	2.16	0.46
1:0:1356:G:H1'	1:0:1613:G:C2	2.51	0.46
1:0:1715:A:HO2'	1:0:1716:G:H8	1.64	0.46
1:0:1827:G:H1'	1:0:1914:U:N3	2.31	0.46
1:0:1918:G:H4'	1:0:1920:A:C2	2.51	0.46
1:0:2093:G:H2'	1:0:2094:C:H6	1.80	0.46
1:0:2245:A:H2'	1:0:2246:A:OP2	2.16	0.46
1:0:2397:A:H2'	1:0:2398:U:O4'	2.16	0.46
1:0:2511:G:N2	1:0:2642:G:O2'	2.49	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2687:G:O2'	1:0:2688:G:H5'	2.16	0.46
1:0:2751:C:H2'	1:0:2752:C:C6	2.50	0.46
1:0:458:G:H4'	1:0:461:A:C4	2.51	0.46
1:0:490:A:N7	1:0:492:G:H1'	2.31	0.46
1:0:642:A:H2'	1:0:643:A:C8	2.51	0.46
1:0:745:C:C2'	1:0:746:G:H5'	2.46	0.46
1:0:750:C:H2'	1:0:751:G:C8	2.49	0.46
1:0:974:U:H2'	1:0:975:C:O4'	2.16	0.46
1:0:1226:A:H2'	1:0:1227:A:H8	1.80	0.46
1:0:1322:G:O2'	1:0:1323:G:H5'	2.16	0.46
1:0:1356:G:H4'	1:0:1613:G:H2'	1.98	0.46
1:0:1784:C:O2'	1:0:1785:A:H5'	2.16	0.46
1:0:2225:G:O2'	1:0:2226:A:H5'	2.16	0.46
1:0:2264:C:H2'	1:0:2265:A:H5'	1.98	0.46
1:0:2321:C:O2'	1:0:2353:G:H5''	2.16	0.46
1:0:2417:U:H1'	1:0:2419:C:N4	2.31	0.46
1:0:2047:C:H42	1:0:2425:G:H22	1.63	0.46
1:0:2592:U:C2'	1:0:2593:A:H5'	2.45	0.46
1:0:367:G:C3'	1:0:368:A:H5''	2.46	0.46
1:0:544:U:H2'	1:0:545:C:O4'	2.16	0.46
1:0:840:U:H4'	1:0:841:G:N2	2.30	0.46
2:9:94:G:H2'	2:9:94:G:N3	2.30	0.46
1:0:455:A:H4'	1:0:1214:C:O2'	2.15	0.45
1:0:141:G:H2'	1:0:142:U:H6	1.81	0.45
1:0:1685:A:N6	1:0:1691:G:N3	2.64	0.45
1:0:1790:G:O3'	1:0:1791:C:H6	1.99	0.45
1:0:1952:A:O2'	1:0:1955:G:N2	2.49	0.45
1:0:20:C:H2'	1:0:21:A:H8	1.81	0.45
1:0:2753:C:H2'	1:0:2754:C:H6	1.79	0.45
1:0:2045:A:H61	32:0:2881:ZIT:H6A2	1.82	0.45
1:0:1001:A:H5'	1:0:1168:G:OP1	2.17	0.45
1:0:1333:G:N2	1:0:1344:C:N4	2.64	0.45
1:0:1787:U:H2'	1:0:1788:C:H6	1.81	0.45
1:0:1855:G:H4'	1:0:2390:A:H4'	1.98	0.45
1:0:239:A:C5'	1:0:620:G:H5'	2.46	0.45
1:0:462:G:H2'	1:0:463:C:H5'	1.98	0.45
1:0:942:U:H2'	1:0:943:U:C4'	2.46	0.45
1:0:677:G:H4'	1:0:951:G:O3'	2.16	0.45
1:0:981:C:H2'	1:0:982:C:C6	2.51	0.45
1:0:1147:G:O2'	1:0:1148:G:H5'	2.16	0.45
1:0:1739:G:H2'	1:0:1740:G:C8	2.51	0.45

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:H8	1.81	0.45
1:0:1923:U:H2'	1:0:1923:U:O2	2.17	0.45
1:0:583:C:C4	1:0:2016:A:H4'	2.52	0.45
1:0:2028:C:O2'	1:0:2029:G:H5'	2.16	0.45
1:0:2053:G:H2'	1:0:2054:A:H8	1.81	0.45
1:0:871:U:O2	1:0:2247:A:H2'	2.16	0.45
1:0:2307:A:H2'	1:0:2308:A:H8	1.79	0.45
1:0:2324:G:HO2'	1:0:2325:A:H5''	1.81	0.45
1:0:2511:G:H2'	1:0:2512:A:O4'	2.17	0.45
1:0:2617:G:H22	1:0:2755:A:H2'	1.82	0.45
1:0:674:U:H2'	1:0:675:C:C6	2.52	0.45
1:0:718:A:O2'	1:0:719:A:H5'	2.14	0.45
1:0:733:G:O2'	1:0:734:G:H5'	2.17	0.45
1:0:745:C:H2'	1:0:746:G:H5'	1.99	0.45
1:0:810:U:H2'	1:0:811:G:C8	2.51	0.45
2:9:112:A:H2'	2:9:113:G:C8	2.51	0.45
2:9:92:G:H2'	2:9:93:G:C5'	2.39	0.45
1:0:1171:A:H2'	1:0:1172:U:C6	2.52	0.45
1:0:50:G:H2'	1:0:117:A:N1	2.30	0.45
1:0:1715:A:HO2'	1:0:1716:G:H3'	1.81	0.45
1:0:2396:C:H2'	1:0:2397:A:C5'	2.46	0.45
1:0:2652:G:H2'	1:0:2653:A:C8	2.40	0.45
1:0:305:A:H2'	1:0:306:G:H5'	1.97	0.45
1:0:669:G:H2'	1:0:670:U:H6	1.80	0.45
1:0:986:A:H2'	1:0:987:G:H5'	1.98	0.45
1:0:195:A:H2'	1:0:196:A:H5'	1.98	0.45
1:0:2019:C:H5'	1:0:2019:C:H6	1.82	0.45
1:0:2039:G:N2	27:Z:5:PRO:CA	2.79	0.45
1:0:2459:C:H2'	1:0:2460:G:O4'	2.17	0.45
1:0:2504:G:O4'	1:0:2721:A:H2	1.99	0.45
1:0:2713:A:O2'	1:0:2714:A:H5'	2.16	0.45
1:0:745:C:H2'	1:0:746:G:C5'	2.47	0.45
1:0:1278:A:O2'	1:0:1279:G:P	2.75	0.45
1:0:1473:U:H4'	1:0:1474:A:C8	2.52	0.45
1:0:1482:U:H1'	1:0:1562:G:N2	2.31	0.45
1:0:1538:A:O2'	1:0:1539:U:H5'	2.17	0.45
1:0:1479:G:N2	1:0:1543:G:N2	2.64	0.45
1:0:1821:A:H3'	1:0:1822:C:C6	2.52	0.45
1:0:1947:G:H5''	1:0:1948:C:OP1	2.16	0.45
1:0:20:C:O2'	1:0:21:A:H5'	2.15	0.45
1:0:675:C:H2'	1:0:676:G:H8	1.82	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:721:C:H2'	1:0:722:C:C6	2.52	0.45
1:0:757:U:O2'	1:0:758:G:H5'	2.16	0.45
1:0:1388:C:H2'	1:0:1389:C:C6	2.47	0.45
1:0:1766:U:H2'	1:0:1767:G:O4'	2.17	0.45
1:0:1789:U:O2	1:0:1793:A:H2	1.99	0.45
1:0:1854:G:O2'	1:0:1855:G:H5'	2.16	0.45
1:0:1950:C:H2'	1:0:1951:G:O4'	2.16	0.45
1:0:2249:U:H2'	1:0:2250:G:H5'	1.99	0.45
1:0:2274:C:C2'	1:0:2275:U:H5''	2.46	0.45
1:0:2407:G:H4'	1:0:2408:G:C5	2.52	0.45
1:0:362:C:C2'	1:0:363:G:H4'	2.27	0.45
1:0:70:A:OP2	1:0:111:G:O5'	2.34	0.45
1:0:930:A:H4'	1:0:930:A:OP1	2.15	0.45
1:0:931:G:H2'	1:0:932:G:H5'	1.99	0.45
2:9:114:C:O5'	2:9:114:C:C6	2.67	0.45
1:0:341:A:H1'	1:0:1223:G:O6	2.17	0.45
1:0:1227:A:C4'	1:0:1252:C:H4'	2.47	0.45
1:0:824:U:O2'	1:0:1264:C:O4'	2.34	0.45
1:0:1429:A:C6	1:0:1602:G:H5'	2.50	0.45
1:0:1356:G:C4'	1:0:1613:G:H2'	2.47	0.45
1:0:1666:G:H2'	1:0:1667:A:C8	2.52	0.45
1:0:1849:G:O5'	1:0:1849:G:H8	2.00	0.45
1:0:2523:G:H2'	1:0:2524:G:H8	1.82	0.45
1:0:322:A:H2	1:0:342:G:OP2	2.00	0.45
1:0:393:U:O2'	1:0:394:U:H5'	2.17	0.45
1:0:665:A:H3'	1:0:666:U:H5''	1.97	0.45
1:0:889:C:O2'	1:0:890:U:H5'	2.17	0.45
1:0:957:G:N2	1:0:983:G:H1'	2.32	0.45
1:0:1699:A:C6	1:0:1748:U:H1'	2.52	0.45
1:0:1706:A:N6	1:0:1714:A:H2'	2.32	0.45
1:0:1846:A:H2'	1:0:1847:G:O4'	2.17	0.45
1:0:1933:G:H8	1:0:1933:G:O5'	2.00	0.45
1:0:2046:C:O2'	1:0:2564:U:H1'	2.16	0.45
1:0:2104:G:H2'	1:0:2105:U:H6	1.81	0.45
1:0:403:A:H5''	1:0:404:A:OP1	2.17	0.45
1:0:486:U:H2'	1:0:487:G:H5'	1.99	0.45
1:0:560:G:H21	1:0:1233:A:H2	1.65	0.45
1:0:843:G:HO2'	1:0:844:G:P	2.39	0.45
2:9:104:A:C8	2:9:105:G:N7	2.85	0.45
1:0:1449:C:O2'	1:0:1450:G:H5'	2.17	0.45
1:0:2044:G:H21	1:0:2045:A:N6	2.14	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2410:U:H6	1:0:2410:U:O5'	2.00	0.45
1:0:2478:C:H2'	1:0:2479:U:C5'	2.47	0.45
1:0:2841:U:O2'	1:0:2842:C:H5'	2.17	0.45
1:0:807:A:H2'	1:0:808:C:C6	2.52	0.45
1:0:1008:G:O2'	1:0:1009:C:H5'	2.17	0.44
1:0:115:G:H8	1:0:115:G:O5'	2.00	0.44
1:0:127:C:H5''	1:0:1615:C:O2'	2.16	0.44
1:0:1363:C:H2'	1:0:1364:C:O4'	2.17	0.44
1:0:1884:A:O2'	1:0:1885:C:H5'	2.17	0.44
1:0:2024:U:H2'	1:0:2025:A:C8	2.52	0.44
1:0:2163:U:H2'	1:0:2164:G:H8	1.82	0.44
1:0:2347:C:H2'	1:0:2348:A:C8	2.52	0.44
1:0:2454:C:H42	1:0:2508:G:H22	1.65	0.44
1:0:2633:A:H4'	1:0:2634:G:H4'	1.98	0.44
1:0:343:A:N6	1:0:346:C:C5	2.85	0.44
1:0:750:C:H2'	1:0:751:G:H8	1.82	0.44
1:0:930:A:H5'	1:0:931:G:C8	2.52	0.44
1:0:1064:C:H2'	1:0:1065:A:C8	2.52	0.44
1:0:1512:A:O5'	1:0:1512:A:H8	1.99	0.44
1:0:1540:C:H2'	1:0:1541:G:H8	1.83	0.44
1:0:1685:A:H2	1:0:1687:C:C2	2.35	0.44
1:0:1802:A:O2'	1:0:1803:G:H5'	2.16	0.44
1:0:225:G:H3'	1:0:226:C:H5'	2.00	0.44
1:0:2480:C:H5''	1:0:2482:A:H5'	1.98	0.44
1:0:2483:U:H2'	1:0:2484:G:H5'	1.98	0.44
1:0:2487:G:H2'	1:0:2488:G:H8	1.82	0.44
1:0:2748:C:H2'	1:0:2749:A:O4'	2.18	0.44
1:0:1132:C:O2'	1:0:1133:G:H5'	2.18	0.44
1:0:1426:U:H2'	1:0:1427:G:O4'	2.17	0.44
1:0:1459:U:H2'	1:0:1475:U:HO2'	1.80	0.44
1:0:2002:A:C2	1:0:2003:A:H1'	2.53	0.44
1:0:2039:G:C2	1:0:2556:A:H1'	2.52	0.44
1:0:2784:A:H3'	1:0:2785:A:H8	1.82	0.44
1:0:416:U:C5'	1:0:417:C:H5'	2.42	0.44
1:0:424:G:N7	1:0:2385:U:N3	2.65	0.44
1:0:81:C:H4'	1:0:307:C:H5'	1.98	0.44
1:0:839:U:OP1	1:0:2408:G:OP2	2.35	0.44
1:0:83:A:H8	1:0:83:A:O5'	2.00	0.44
2:9:73:C:O2	2:9:109:G:C2	2.70	0.44
2:9:33:C:H2'	2:9:34:C:C6	2.52	0.44
2:9:64:C:N4	2:9:65:A:C6	2.86	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1541:G:N2	1:0:1562:G:N2	2.65	0.44
1:0:1462:C:O2'	1:0:1560:A:H1'	2.17	0.44
1:0:1840:A:H2'	1:0:1841:G:H5'	1.99	0.44
1:0:538:A:N1	1:0:2026:C:H5''	2.32	0.44
1:0:1672:A:C2	1:0:2032:G:H5''	2.53	0.44
1:0:1937:G:H21	1:0:2530:C:H5''	1.82	0.44
1:0:2569:A:H2'	1:0:2570:C:O4'	2.18	0.44
1:0:758:G:O2'	1:0:761:G:O2'	2.34	0.44
1:0:859:U:H4'	1:0:860:U:H5	1.82	0.44
1:0:960:U:H2'	1:0:961:G:C8	2.52	0.44
1:0:118:U:H5''	1:0:120:G:OP2	2.17	0.44
1:0:1223:G:N1	1:0:1250:A:N7	2.66	0.44
1:0:187:U:H1'	1:0:1379:A:C2	2.53	0.44
1:0:161:U:H5'	1:0:193:A:N1	2.33	0.44
1:0:1750:A:C8	1:0:2675:U:H1'	2.53	0.44
1:0:1748:U:N3	1:0:1753:A:C2	2.75	0.44
1:0:1872:A:H2'	1:0:1873:A:C8	2.52	0.44
1:0:2136:G:H2'	1:0:2137:G:C8	2.53	0.44
1:0:2177:U:O2'	1:0:2178:U:H5'	2.18	0.44
1:0:2202:G:H3'	1:0:2203:G:C8	2.53	0.44
1:0:2215:C:H2'	1:0:2216:G:O4'	2.18	0.44
1:0:2770:A:H5''	1:0:2867:G:H1	1.81	0.44
1:0:570:G:C2'	1:0:571:U:H5''	2.48	0.44
1:0:608:G:O2'	1:0:609:U:H5'	2.18	0.44
2:9:61:A:O5'	2:9:61:A:C8	2.60	0.44
1:0:128:C:H2'	1:0:129:A:H5''	2.00	0.44
1:0:1295:U:H2'	1:0:1296:G:C5'	2.43	0.44
1:0:1707:A:C2'	1:0:1708:C:H5'	2.48	0.44
1:0:1792:C:H6	1:0:1792:C:O5'	2.00	0.44
1:0:1849:G:H21	1:0:1868:A:H62	1.65	0.44
1:0:2569:A:H2'	1:0:2570:C:C6	2.52	0.44
1:0:323:G:OP2	1:0:343:A:H5'	2.18	0.44
1:0:533:C:H2'	1:0:534:U:O4'	2.18	0.44
1:0:768:U:H5'	1:0:1285:A:N1	2.33	0.44
2:9:104:A:C4	2:9:105:G:C8	3.06	0.44
1:0:1040:A:H2'	1:0:1041:G:C5'	2.43	0.44
1:0:1363:C:H2'	1:0:1364:C:C6	2.53	0.44
1:0:1669:A:H61	1:0:1670:G:H21	1.66	0.44
1:0:1938:U:O2'	1:0:1939:U:H5'	2.18	0.44
1:0:2166:G:O2'	1:0:2167:A:H5'	2.17	0.44
1:0:2182:A:H3'	1:0:2183:C:C6	2.53	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:221:A:C2'	1:0:222:G:H5'	2.47	0.44
1:0:2535:C:C2'	1:0:2536:G:H5'	2.47	0.44
1:0:2685:A:H5''	1:0:2826:C:H5''	2.00	0.44
1:0:2695:C:H2'	1:0:2696:A:C8	2.52	0.44
1:0:2725:C:H2'	1:0:2726:U:C6	2.53	0.44
1:0:2783:U:H2'	1:0:2784:A:C4'	2.47	0.44
1:0:32:C:H2'	1:0:33:C:C6	2.53	0.44
1:0:484:G:H2'	1:0:485:G:O4'	2.17	0.44
1:0:789:G:H4'	1:0:790:A:C8	2.52	0.44
1:0:957:G:O2'	1:0:958:G:H5'	2.17	0.44
1:0:1135:C:H2'	1:0:1136:G:H8	1.83	0.44
1:0:1229:C:H2'	1:0:1230:C:C6	2.53	0.44
1:0:1947:G:P	1:0:1947:G:H8	2.40	0.44
1:0:2054:A:H2'	1:0:2055:G:H8	1.81	0.44
1:0:2064:U:H2'	1:0:2065:A:H8	1.83	0.44
1:0:2070:G:H2'	1:0:2071:G:C8	2.52	0.44
1:0:2090:U:H2'	1:0:2091:C:H6	1.83	0.44
1:0:2321:C:H2'	1:0:2322:U:H5'	1.99	0.44
1:0:940:G:C3'	1:0:941:U:C5'	2.79	0.44
1:0:1310:C:P	1:0:2689:C:H4'	2.58	0.44
1:0:158:A:H2'	1:0:159:A:C8	2.52	0.44
1:0:1654:A:H4'	1:0:2690:A:HO2'	1.80	0.44
1:0:1710:U:O5'	1:0:1710:U:H6	2.00	0.44
1:0:1724:C:H1'	1:0:1747:G:C4	2.53	0.44
1:0:1962:C:C2'	1:0:1963:G:H5'	2.47	0.44
1:0:222:G:O2'	1:0:223:C:H5'	2.18	0.44
1:0:2327:U:H2'	1:0:2328:G:C8	2.53	0.44
1:0:2474:G:O5'	1:0:2474:G:H8	2.01	0.44
1:0:1680:U:HO2'	1:0:2665:G:H4'	1.82	0.44
1:0:2610:G:H5'	1:0:2866:A:H4'	1.99	0.44
1:0:486:U:C2'	1:0:487:G:H5'	2.48	0.44
1:0:26:G:H1'	1:0:525:A:H61	1.83	0.44
1:0:1012:A:H61	1:0:1165:G:H1'	1.82	0.43
1:0:1000:G:OP1	1:0:1168:G:H4'	2.18	0.43
1:0:1485:U:H2'	1:0:1486:A:H8	1.82	0.43
1:0:1622:G:H5''	1:0:1624:A:O4'	2.18	0.43
1:0:1685:A:C2	1:0:1976:U:C2	3.06	0.43
1:0:2070:G:H2'	1:0:2071:G:H8	1.83	0.43
1:0:2712:G:H3'	1:0:2713:A:H5'	1.99	0.43
1:0:27:G:HO2'	1:0:28:A:H8	1.65	0.43
32:0:2881:ZIT:H6A2	32:0:2881:ZIT:H193	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:508:G:H22	1:0:516:G:N2	2.16	0.43
1:0:541:C:H2'	1:0:541:C:O2	2.18	0.43
1:0:697:G:O2'	1:0:698:A:H5'	2.17	0.43
1:0:1263:G:O2'	1:0:1264:C:P	2.76	0.43
1:0:1781:C:H2'	1:0:1782:A:C8	2.53	0.43
1:0:2079:A:H2'	1:0:2080:U:C6	2.53	0.43
1:0:2633:A:OP1	1:0:2635:U:H1'	2.18	0.43
1:0:2695:C:H2'	1:0:2696:A:H8	1.83	0.43
1:0:630:G:H5''	1:0:631:G:OP2	2.18	0.43
1:0:632:A:H3'	1:0:632:A:N3	2.33	0.43
1:0:758:G:N2	1:0:766:A:C5	2.86	0.43
1:0:83:A:H5''	1:0:84:G:OP1	2.18	0.43
1:0:929:A:C3'	1:0:930:A:C5'	2.95	0.43
1:0:968:C:H41	1:0:970:A:C1'	2.30	0.43
1:0:1011:A:N6	1:0:1165:G:H2'	2.33	0.43
1:0:1528:C:C2'	1:0:1529:C:H5''	2.47	0.43
1:0:1572:C:H2'	1:0:1573:G:H5''	1.99	0.43
1:0:1685:A:H61	1:0:1693:A:N6	2.16	0.43
1:0:1801:C:H1'	1:0:2207:G:O2'	2.17	0.43
1:0:1908:C:H2'	1:0:1909:U:C4'	2.22	0.43
1:0:1974:U:H2'	1:0:1975:G:C5'	2.42	0.43
1:0:2106:G:H2'	1:0:2107:G:C8	2.53	0.43
1:0:2219:U:O2'	1:0:2220:A:H5'	2.19	0.43
32:0:2882:ZIT:H192	32:0:2882:ZIT:C1A	2.49	0.43
1:0:629:C:C2'	1:0:630:G:H5'	2.48	0.43
1:0:951:G:H3'	1:0:952:A:H5''	1.99	0.43
1:0:1226:A:C4	1:0:1250:A:N3	2.86	0.43
1:0:1300:A:H2	1:0:1666:G:H4'	1.80	0.43
1:0:163:A:H2'	1:0:164:G:C8	2.50	0.43
1:0:1783:G:H1'	1:0:1822:C:P	2.59	0.43
1:0:2214:G:O2'	1:0:2215:C:H5'	2.19	0.43
1:0:2324:G:N7	1:0:2351:G:C2	2.86	0.43
1:0:2433:G:O2'	1:0:2434:G:H5'	2.19	0.43
1:0:698:A:C1'	1:0:700:C:H41	2.30	0.43
2:9:48:A:C5	2:9:49:C:C5	3.06	0.43
1:0:1572:C:C2'	1:0:1573:G:H5''	2.48	0.43
1:0:1764:A:H62	1:0:1821:A:H1'	1.83	0.43
1:0:192:G:O2'	1:0:193:A:OP2	2.33	0.43
1:0:2055:G:O2'	1:0:2056:C:H5'	2.18	0.43
1:0:2095:G:H2'	1:0:2096:U:H5''	2.01	0.43
1:0:2252:A:H2'	1:0:2253:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2319:G:H2'	1:0:2320:G:C8	2.54	0.43
1:0:2335:U:H2'	1:0:2336:G:O4'	2.19	0.43
1:0:737:C:H2'	1:0:738:G:O4'	2.18	0.43
1:0:784:U:H2'	1:0:785:U:C6	2.54	0.43
2:9:88:C:H2'	2:9:89:G:C8	2.53	0.43
1:0:1155:G:H2'	1:0:1156:U:O4'	2.19	0.43
1:0:1256:C:H2'	1:0:1257:U:C6	2.54	0.43
1:0:1422:C:H2'	1:0:1423:A:C8	2.54	0.43
1:0:1554:G:H2'	1:0:1555:A:C8	2.53	0.43
1:0:1558:C:H2'	1:0:1559:G:C5'	2.49	0.43
1:0:1558:C:H2'	1:0:1559:G:O4'	2.19	0.43
1:0:158:A:H2'	1:0:159:A:O4'	2.19	0.43
1:0:1625:A:H2'	1:0:1625:A:N3	2.33	0.43
1:0:1699:A:H61	1:0:1723:U:H3	1.65	0.43
1:0:1981:A:H4'	1:0:2704:U:O2'	2.18	0.43
1:0:873:U:N3	1:0:2246:A:H5''	2.34	0.43
1:0:2448:A:H2'	1:0:2449:G:O4'	2.19	0.43
1:0:295:C:N4	1:0:296:A:N6	2.67	0.43
1:0:305:A:H2'	1:0:306:G:C5'	2.48	0.43
1:0:431:G:H2'	1:0:432:C:C6	2.54	0.43
1:0:714:G:O2'	1:0:715:U:H5'	2.18	0.43
1:0:746:G:N7	1:0:774:A:C5	2.86	0.43
2:9:59:A:H2'	2:9:60:A:C5'	2.48	0.43
1:0:1296:G:H2'	1:0:1298:G:OP2	2.19	0.43
1:0:1820:G:H4'	1:0:1821:A:OP1	2.18	0.43
1:0:203:G:H4'	1:0:234:C:O2'	2.18	0.43
1:0:2066:G:H2'	1:0:2067:U:O4'	2.19	0.43
1:0:2345:A:H2'	1:0:2346:G:H5'	2.01	0.43
1:0:2621:G:O2'	1:0:2622:G:H5'	2.19	0.43
1:0:2863:U:H2'	1:0:2864:C:H6	1.84	0.43
1:0:2876:C:H2'	1:0:2877:A:O4'	2.19	0.43
1:0:580:A:N3	1:0:582:G:N7	2.66	0.43
1:0:65:C:O2'	1:0:66:U:H5'	2.19	0.43
1:0:1086:C:C3'	1:0:1087:C:H5''	2.48	0.43
1:0:1448:A:H2'	1:0:1449:C:C6	2.54	0.43
1:0:1455:C:H2'	1:0:1456:C:C6	2.54	0.43
1:0:1776:A:N6	1:0:1778:U:H1'	2.33	0.43
1:0:2205:C:O2'	1:0:2206:C:H5'	2.18	0.43
1:0:2618:A:N1	1:0:2619:G:H1'	2.34	0.43
1:0:2655:C:H2'	1:0:2656:G:O4'	2.19	0.43
1:0:2727:G:O2'	1:0:2728:A:H5''	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:353:G:H2'	1:0:354:C:H6	1.83	0.43
1:0:41:G:H2'	1:0:42:G:C8	2.53	0.43
1:0:456:C:O2'	1:0:457:C:H5'	2.18	0.43
1:0:1020:A:H2'	1:0:1021:A:C8	2.54	0.43
1:0:1350:G:H2'	1:0:1351:G:H8	1.84	0.43
1:0:2306:A:H2'	1:0:2307:A:C8	2.54	0.43
1:0:2449:G:H2'	1:0:2450:A:H8	1.83	0.43
1:0:2800:C:O5'	1:0:2800:C:H6	2.02	0.43
1:0:426:C:H6	1:0:426:C:O5'	2.01	0.43
1:0:952:A:H2'	1:0:953:G:O4'	2.19	0.43
1:0:1021:A:O5'	1:0:1021:A:H8	2.02	0.43
1:0:1091:C:H2'	1:0:1092:U:H6	1.79	0.43
1:0:192:G:O2'	1:0:193:A:C5'	2.67	0.43
1:0:2124:C:O2'	1:0:2125:C:H5'	2.18	0.43
1:0:2491:C:H2'	1:0:2492:G:H4'	1.98	0.43
1:0:2651:U:H2'	1:0:2652:G:O4'	2.19	0.43
1:0:2783:U:OP1	1:0:2783:U:O4'	2.37	0.43
1:0:708:G:H2'	1:0:709:A:H8	1.84	0.43
1:0:757:U:H3	1:0:766:A:H61	1.67	0.43
2:9:108:G:H8	2:9:108:G:O5'	2.01	0.43
1:0:1302:C:C6	1:0:1302:C:OP1	2.71	0.42
1:0:1474:A:H2'	1:0:1476:G:OP1	2.19	0.42
1:0:1543:G:H2'	1:0:1544:A:C5'	2.49	0.42
1:0:14:A:N6	1:0:15:G:C2	2.86	0.42
1:0:763:A:C5'	1:0:1631:C:H42	2.32	0.42
1:0:2302:G:N2	1:0:2314:A:H2	2.16	0.42
1:0:81:C:H4'	1:0:307:C:C5'	2.48	0.42
1:0:428:A:H2'	1:0:429:C:C6	2.54	0.42
1:0:556:A:C2'	1:0:557:U:H5'	2.40	0.42
1:0:699:G:H5'	1:0:700:C:OP2	2.18	0.42
1:0:798:G:OP2	1:0:805:G:H5''	2.19	0.42
2:9:72:C:O2'	2:9:73:C:H5'	2.19	0.42
2:9:7:C:H2'	2:9:8:C:C6	2.54	0.42
1:0:781:G:H5'	1:0:1638:G:C4'	2.49	0.42
1:0:1725:C:O2'	1:0:1726:C:H5'	2.20	0.42
1:0:2585:C:H2'	1:0:2586:G:C8	2.54	0.42
1:0:708:G:H2'	1:0:709:A:C8	2.54	0.42
1:0:812:G:H2'	1:0:813:A:C8	2.54	0.42
1:0:864:C:O2'	1:0:865:A:H5'	2.20	0.42
1:0:975:C:O5'	1:0:975:C:H6	2.02	0.42
1:0:977:G:H5''	1:0:2251:U:O2	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:108:G:H2'	2:9:109:G:C8	2.55	0.42
1:0:1168:G:H2'	1:0:1169:C:C6	2.54	0.42
1:0:1258:G:H2'	1:0:1259:A:C8	2.54	0.42
1:0:26:G:O3'	1:0:1273:G:H4'	2.19	0.42
1:0:1302:C:P	1:0:1302:C:H6	2.41	0.42
1:0:1552:C:H2'	1:0:1553:G:O4'	2.20	0.42
1:0:1769:U:H3	1:0:1778:U:H3	1.65	0.42
1:0:1790:G:O2'	1:0:1791:C:H5	2.00	0.42
1:0:1801:C:H1'	1:0:2208:U:H5'	2.01	0.42
1:0:1859:A:H2'	1:0:1860:A:C8	2.53	0.42
1:0:1934:U:O2	1:0:1936:A:H8	2.01	0.42
1:0:2205:C:C2'	1:0:2206:C:H5'	2.50	0.42
1:0:2501:U:O2'	1:0:2626:U:H5''	2.19	0.42
1:0:2677:U:O2'	1:0:2678:C:H5'	2.20	0.42
1:0:2759:U:H4'	1:0:2760:G:O5'	2.19	0.42
1:0:2770:A:H5'	1:0:2867:G:H22	1.84	0.42
1:0:2788:C:H2'	1:0:2789:U:H6	1.84	0.42
1:0:548:G:O2'	1:0:549:G:H5'	2.19	0.42
1:0:1028:G:H2'	1:0:1029:C:O4'	2.19	0.42
1:0:1123:G:O2'	1:0:1124:U:H5'	2.20	0.42
1:0:1398:G:O2'	1:0:1399:C:H5'	2.19	0.42
1:0:2233:C:O2'	1:0:2234:G:H5'	2.19	0.42
1:0:2517:C:O2'	1:0:2518:C:H5'	2.19	0.42
1:0:2562:G:H2'	1:0:2563:U:O4'	2.19	0.42
1:0:27:G:O2'	1:0:28:A:O4'	2.35	0.42
1:0:421:G:O2'	1:0:422:C:H5'	2.20	0.42
1:0:515:A:H2'	1:0:516:G:H5'	2.01	0.42
1:0:661:C:O2'	1:0:662:G:H5'	2.20	0.42
1:0:689:A:C2'	1:0:690:A:H5'	2.50	0.42
1:0:759:C:C1'	1:0:761:G:H21	2.33	0.42
1:0:825:C:O2'	1:0:826:U:H5'	2.20	0.42
1:0:1110:G:H2'	1:0:1111:C:C6	2.53	0.42
1:0:1135:C:H2'	1:0:1136:G:C8	2.54	0.42
1:0:1001:A:N6	1:0:1200:G:H1'	2.34	0.42
1:0:1455:C:H2'	1:0:1456:C:H6	1.85	0.42
1:0:1566:G:O2'	1:0:1567:A:H5'	2.20	0.42
1:0:1679:U:H2'	1:0:1680:U:C5'	2.20	0.42
1:0:1972:G:O2'	1:0:1973:C:H5'	2.19	0.42
1:0:2059:U:C2'	1:0:2060:A:H5''	2.38	0.42
1:0:2475:C:H2'	1:0:2476:A:C4'	2.50	0.42
1:0:2662:C:N4	1:0:2707:G:H21	2.16	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:537:C:N1	1:0:2759:U:H2'	2.35	0.42
32:0:2881:ZIT:H192	32:0:2881:ZIT:C1A	2.48	0.42
1:0:460:U:H5'	1:0:461:A:OP2	2.19	0.42
2:9:107:C:C6	2:9:107:C:C3'	3.03	0.42
1:0:1259:A:H2'	1:0:1260:A:H5'	2.00	0.42
1:0:1310:C:O2'	1:0:1315:A:N1	2.49	0.42
1:0:173:A:N3	1:0:173:A:H2'	2.35	0.42
1:0:1821:A:H5''	1:0:1822:C:H5	1.82	0.42
1:0:186:C:H2'	1:0:187:U:O4'	2.20	0.42
1:0:1920:A:N6	1:0:1923:U:C6	2.87	0.42
1:0:1921:A:C2'	1:0:1922:U:H5''	2.46	0.42
1:0:1938:U:O2'	1:0:1939:U:OP1	2.31	0.42
1:0:2075:U:H1'	1:0:2204:A:C2	2.55	0.42
1:0:2710:C:O2'	1:0:2711:G:H5'	2.20	0.42
1:0:2724:G:O2'	1:0:2725:C:H5'	2.20	0.42
32:0:2882:ZIT:H6A2	32:0:2882:ZIT:H193	2.00	0.42
32:0:2882:ZIT:H5B1	32:0:2882:ZIT:H5A1	2.02	0.42
1:0:421:G:H2'	1:0:422:C:C6	2.55	0.42
1:0:63:A:O2'	1:0:64:C:H5'	2.19	0.42
1:0:798:G:H2'	1:0:799:C:C5'	2.41	0.42
2:9:104:A:C8	2:9:105:G:C8	3.07	0.42
8:F:6:LEU:CA	8:F:14:THR:CA	2.98	0.42
1:0:1223:G:O2'	1:0:1224:A:OP2	2.35	0.42
1:0:1308:C:H2'	1:0:1309:G:C8	2.54	0.42
1:0:1806:G:C5	1:0:1807:A:N7	2.88	0.42
1:0:192:G:C4'	1:0:193:A:H4'	2.49	0.42
1:0:2630:C:H2'	1:0:2631:C:C6	2.55	0.42
1:0:333:A:HO2'	1:0:350:U:H2'	1.83	0.42
1:0:445:A:C2'	1:0:446:C:H5'	2.49	0.42
1:0:459:A:C4	1:0:466:A:N7	2.88	0.42
1:0:759:C:H1'	1:0:761:G:H21	1.85	0.42
1:0:1619:A:N3	1:0:1619:A:O5'	2.52	0.42
1:0:1653:C:O2	1:0:1751:A:H2	2.03	0.42
1:0:1714:A:H5''	1:0:1715:A:H8	1.85	0.42
1:0:226:C:H4'	1:0:227:G:H8	1.83	0.42
1:0:2321:C:H2'	1:0:2322:U:C5'	2.50	0.42
1:0:2402:U:H5'	1:0:2404:A:N7	2.34	0.42
1:0:1937:G:N3	1:0:2530:C:C5'	2.81	0.42
1:0:597:U:H2'	1:0:598:U:H6	1.82	0.42
1:0:670:U:O2'	1:0:671:A:H5'	2.20	0.42
1:0:1851:A:N6	1:0:1867:A:H1'	2.31	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1870:U:O5'	1:0:1870:U:H6	2.02	0.42
1:0:2048:C:H1'	1:0:2428:U:C2	2.55	0.42
1:0:2302:G:C2'	1:0:2303:C:H5'	2.50	0.42
1:0:90:G:H3'	1:0:91:A:C5'	2.50	0.42
2:9:88:C:H2'	2:9:89:G:H8	1.84	0.42
1:0:1029:C:H2'	1:0:1030:U:H5''	2.02	0.42
1:0:1167:A:H5'	1:0:1168:G:N7	2.34	0.42
1:0:1332:G:O2'	1:0:1333:G:H5'	2.20	0.42
1:0:1491:C:H2'	1:0:1492:A:C8	2.53	0.42
1:0:1545:G:O2'	1:0:1546:C:H5'	2.19	0.42
1:0:161:U:H2'	1:0:162:C:C6	2.54	0.42
1:0:176:A:H3'	1:0:177:U:C5	2.55	0.42
1:0:1791:C:C1'	1:0:1793:A:H5'	2.43	0.42
1:0:1814:G:H2'	1:0:1815:G:H8	1.84	0.42
1:0:690:A:H4'	1:0:2053:G:O2'	2.20	0.42
1:0:2561:G:H2'	1:0:2562:G:C8	2.55	0.42
1:0:570:G:H2'	1:0:571:U:H5''	2.02	0.42
1:0:573:C:O2'	1:0:574:C:H5'	2.20	0.42
1:0:651:C:C3'	1:0:652:C:C5'	2.98	0.42
1:0:688:A:O2'	1:0:689:A:H5'	2.20	0.42
1:0:698:A:H1'	1:0:700:C:H41	1.85	0.42
1:0:777:A:N6	1:0:1766:U:N3	2.68	0.42
2:9:42:U:H3'	2:9:43:G:C5'	2.50	0.42
1:0:1023:U:H1'	1:0:1154:A:N7	2.35	0.41
1:0:1253:C:H2'	1:0:1254:G:C5'	2.50	0.41
1:0:1459:U:H3'	1:0:1459:U:OP1	2.19	0.41
1:0:167:A:H2'	1:0:168:A:O4'	2.19	0.41
1:0:1725:C:H2'	1:0:1726:C:H6	1.85	0.41
1:0:1921:A:C3'	1:0:1922:U:H5''	2.50	0.41
1:0:2565:C:O5'	1:0:2566:A:OP1	2.38	0.41
1:0:2627:G:O2'	1:0:2628:C:H5'	2.20	0.41
32:0:2882:ZIT:C5B	32:0:2882:ZIT:H5A1	2.50	0.41
1:0:393:U:H2'	1:0:394:U:O4'	2.19	0.41
1:0:224:G:H4'	1:0:399:G:C5	2.55	0.41
1:0:495:C:H2'	1:0:496:C:C6	2.55	0.41
1:0:658:G:H4'	1:0:2331:A:C5'	2.39	0.41
1:0:717:G:H1'	1:0:740:A:N6	2.35	0.41
1:0:792:U:O2'	1:0:793:G:H5'	2.20	0.41
1:0:1025:A:O2'	1:0:1026:U:H5'	2.20	0.41
1:0:1904:G:O2'	1:0:1905:G:H5'	2.19	0.41
1:0:1991:C:H2'	1:0:1992:G:C8	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:198:A:O2'	1:0:199:A:OP2	2.36	0.41
1:0:2245:A:C4	1:0:2251:U:O4	2.73	0.41
1:0:2425:G:O2'	1:0:2426:G:H5'	2.20	0.41
1:0:430:C:H2'	1:0:431:G:O4'	2.20	0.41
1:0:480:G:O5'	1:0:480:G:H8	2.03	0.41
1:0:66:U:C2	1:0:67:G:N7	2.89	0.41
1:0:58:C:H1'	1:0:72:A:C8	2.55	0.41
1:0:953:G:H2'	1:0:954:U:H6	1.85	0.41
1:0:1003:C:O2'	1:0:1004:A:H5'	2.20	0.41
1:0:1487:C:H2'	1:0:1488:G:C8	2.54	0.41
1:0:1581:C:N4	1:0:1583:A:H1'	2.36	0.41
1:0:1727:C:H4'	1:0:2833:C:O2	2.20	0.41
1:0:1797:C:H2'	1:0:1798:G:O4'	2.20	0.41
1:0:181:A:H4'	1:0:182:G:OP1	2.18	0.41
1:0:1960:A:H2'	1:0:1961:A:C8	2.55	0.41
1:0:2054:A:H61	1:0:2417:U:H3	1.67	0.41
1:0:2178:U:H2'	1:0:2179:C:C6	2.55	0.41
1:0:2230:G:H2'	1:0:2231:G:C8	2.56	0.41
1:0:2574:G:N2	1:0:2577:A:OP2	2.53	0.41
1:0:2630:C:H2'	1:0:2631:C:H6	1.85	0.41
1:0:2700:U:H2'	1:0:2701:A:H8	1.85	0.41
1:0:327:C:O2'	1:0:328:A:H5'	2.20	0.41
1:0:758:G:H2'	1:0:759:C:H5'	2.02	0.41
1:0:1009:C:O5'	1:0:1009:C:H6	2.02	0.41
1:0:1721:G:H2'	1:0:1722:G:O4'	2.21	0.41
1:0:2162:C:H2'	1:0:2163:U:H6	1.85	0.41
1:0:2362:G:C2'	1:0:2363:G:O5'	2.69	0.41
1:0:2572:U:H2'	1:0:2573:C:C6	2.56	0.41
1:0:573:C:H2'	1:0:574:C:O4'	2.20	0.41
1:0:646:C:HO2'	1:0:650:U:H5''	1.84	0.41
1:0:666:U:H2'	1:0:668:A:P	2.60	0.41
1:0:854:G:H2'	1:0:855:G:C8	2.55	0.41
1:0:128:C:H2'	1:0:129:A:C5'	2.50	0.41
1:0:1612:U:H2'	1:0:1613:G:C8	2.55	0.41
1:0:1699:A:C5	1:0:1748:U:H1'	2.55	0.41
1:0:1976:U:H2'	1:0:1976:U:O2	2.19	0.41
1:0:2490:U:O4	1:0:2553:G:O6	2.39	0.41
1:0:2778:U:O2'	1:0:2779:C:H5'	2.21	0.41
1:0:2824:C:C2'	1:0:2825:A:OP2	2.68	0.41
1:0:365:U:H2'	1:0:366:U:H6	1.85	0.41
1:0:612:G:C4'	1:0:613:A:H4'	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:9:63:A:O2'	2:9:64:C:H5'	2.19	0.41
1:0:1016:C:H2'	1:0:1017:C:C6	2.56	0.41
1:0:1471:G:H1	1:0:2682:C:N4	2.10	0.41
1:0:1664:G:OP2	1:0:1664:G:H3'	2.20	0.41
1:0:1783:G:C6	1:0:1820:G:H1'	2.56	0.41
1:0:2447:G:C8	1:0:2455:A:N6	2.81	0.41
1:0:2636:A:N6	1:0:2643:G:H21	2.03	0.41
32:0:2881:ZIT:H5A1	32:0:2881:ZIT:C5B	2.50	0.41
1:0:357:A:H2'	1:0:357:A:N3	2.34	0.41
1:0:541:C:HO2'	1:0:542:A:P	2.44	0.41
1:0:929:A:C2	1:0:930:A:H1'	2.56	0.41
2:9:100:G:C2'	2:9:101:A:H5'	2.51	0.41
2:9:28:A:N3	2:9:28:A:H2'	2.35	0.41
2:9:8:C:OP1	2:9:63:A:H5'	2.21	0.41
1:0:1034:U:H2'	1:0:1035:G:O4'	2.20	0.41
1:0:1572:C:H2'	1:0:1573:G:H5'	2.03	0.41
1:0:1714:A:H5'	1:0:1715:A:O5'	2.21	0.41
1:0:1756:C:H2'	1:0:1757:C:H6	1.85	0.41
1:0:1923:U:H4'	1:0:1948:C:N4	2.36	0.41
1:0:2229:G:H2'	1:0:2475:C:OP1	2.21	0.41
1:0:2443:C:H2'	1:0:2444:C:C6	2.56	0.41
1:0:2592:U:H5''	1:0:2593:A:C2	2.55	0.41
1:0:762:A:O2'	1:0:1633:C:H1'	2.21	0.41
2:9:75:A:N6	2:9:106:U:C4	2.88	0.41
2:9:6:C:C4	2:9:7:C:N4	2.88	0.41
1:0:1328:C:O2'	1:0:1329:U:H5'	2.21	0.41
1:0:1556:A:H2'	1:0:1557:G:C8	2.54	0.41
1:0:1751:A:H2'	1:0:1752:U:O4'	2.21	0.41
1:0:1883:A:C2	1:0:1953:A:N6	2.89	0.41
1:0:2024:U:H6	1:0:2024:U:O5'	2.04	0.41
1:0:2204:A:O2'	1:0:2205:C:P	2.79	0.41
1:0:221:A:H2'	1:0:222:G:C5'	2.50	0.41
1:0:2249:U:C2'	1:0:2250:G:H5'	2.51	0.41
1:0:2279:G:H2'	1:0:2280:A:C8	2.48	0.41
32:0:2881:ZIT:H5A1	32:0:2881:ZIT:H5B1	2.02	0.41
1:0:35:G:O4'	1:0:466:A:C1'	2.69	0.41
1:0:42:G:H2'	1:0:43:A:O4'	2.20	0.41
1:0:492:G:H2'	1:0:517:A:C2	2.56	0.41
1:0:4:C:O2'	1:0:5:A:H5'	2.20	0.41
1:0:639:G:H2'	1:0:640:C:H6	1.82	0.41
1:0:996:C:H2'	1:0:997:C:C6	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1661:C:H2'	1:0:1662:G:H8	1.86	0.41
1:0:1665:C:H2'	1:0:1666:G:O4'	2.21	0.41
1:0:16:G:O2'	1:0:17:G:H5'	2.21	0.41
1:0:1903:C:H2'	1:0:1904:G:C8	2.55	0.41
1:0:2302:G:H2'	1:0:2303:C:H5'	2.02	0.41
1:0:2784:A:H3'	1:0:2785:A:C8	2.56	0.41
1:0:448:C:H2'	1:0:449:C:H5'	2.02	0.41
1:0:80:A:O2'	1:0:81:C:H5'	2.21	0.41
2:9:103:A:N7	2:9:104:A:N7	2.69	0.41
1:0:1234:C:O2'	1:0:1235:C:H5'	2.20	0.41
1:0:1440:G:C3'	1:0:1441:A:C5'	2.99	0.41
1:0:1471:G:O2'	1:0:1472:C:H5'	2.21	0.41
1:0:1486:A:H2'	1:0:1487:C:C6	2.55	0.41
1:0:763:A:H5'	1:0:1631:C:H42	1.86	0.41
1:0:218:A:O2'	1:0:219:G:C4'	2.64	0.41
1:0:2455:A:C2'	1:0:2456:U:H5'	2.50	0.41
1:0:2058:U:H5'	1:0:2576:G:H1'	2.03	0.41
1:0:2622:G:O2'	1:0:2623:A:H5'	2.20	0.41
1:0:2728:A:C2	1:0:2736:U:H1'	2.56	0.41
1:0:1990:U:H4'	1:0:2799:C:H4'	2.02	0.41
1:0:353:G:O2'	1:0:354:C:H5'	2.21	0.41
1:0:629:C:O2'	1:0:630:G:H5'	2.21	0.41
1:0:676:G:O2'	1:0:951:G:H4'	2.20	0.41
2:9:23:G:H2'	2:9:24:U:O4'	2.21	0.41
1:0:1625:A:C2'	1:0:1625:A:N3	2.84	0.41
1:0:1714:A:H3'	1:0:1715:A:N7	2.36	0.41
1:0:2006:G:H2'	1:0:2007:G:H8	1.86	0.41
1:0:2313:G:H2'	1:0:2314:A:H5'	2.03	0.41
1:0:2449:G:O6	1:0:2455:A:H2	2.04	0.41
1:0:1645:U:O2	1:0:2677:U:H4'	2.21	0.41
1:0:2813:G:O2'	1:0:2814:G:H5'	2.21	0.41
1:0:744:C:N4	1:0:745:C:H41	2.19	0.41
1:0:1459:U:P	1:0:1459:U:H6	2.44	0.40
1:0:2227:C:C2'	1:0:2228:U:H5'	2.51	0.40
1:0:2394:G:H2'	1:0:2395:C:H6	1.84	0.40
1:0:2668:U:H5'	1:0:2669:C:H5'	2.02	0.40
1:0:2841:U:O2'	1:0:2842:C:C5'	2.69	0.40
1:0:2869:U:O5'	1:0:2869:U:H6	2.05	0.40
1:0:474:G:H22	1:0:476:G:H3'	1.85	0.40
1:0:727:U:C2'	1:0:728:G:H5''	2.46	0.40
1:0:67:G:C6	1:0:72:A:C2	3.08	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1221:C:H2'	1:0:1222:G:C8	2.56	0.40
1:0:121:G:O3'	1:0:1389:C:H4'	2.21	0.40
1:0:1576:G:H2'	1:0:1577:G:O4'	2.22	0.40
1:0:1789:U:HO2'	1:0:1793:A:H1'	1.84	0.40
1:0:2181:A:H2'	1:0:2182:A:H5'	2.02	0.40
1:0:2542:U:H2'	1:0:2544:A:OP2	2.22	0.40
1:0:509:U:C2'	1:0:510:G:H5'	2.50	0.40
1:0:771:C:O2'	1:0:772:G:H5'	2.21	0.40
1:0:867:G:H2'	1:0:868:U:C6	2.56	0.40
1:0:1073:G:H3'	1:0:1074:G:C5'	2.51	0.40
1:0:1383:C:O2'	1:0:1384:G:H5'	2.21	0.40
1:0:1528:C:C3'	1:0:1529:C:H5''	2.51	0.40
1:0:1569:A:C6	1:0:1571:G:H1'	2.57	0.40
1:0:1715:A:C2	1:0:1717:A:C8	3.09	0.40
1:0:1791:C:H1'	1:0:1793:A:O4'	2.21	0.40
1:0:2204:A:H4'	1:0:2205:C:O4'	2.21	0.40
1:0:317:U:C3'	1:0:318:G:H5''	2.51	0.40
1:0:340:G:C1'	1:0:488:A:H1'	2.51	0.40
1:0:68:C:C2	1:0:72:A:N3	2.89	0.40
1:0:68:C:O2	1:0:68:C:H2'	2.21	0.40
1:0:73:A:H4'	1:0:74:G:C1'	2.51	0.40
1:0:861:G:N2	1:0:943:U:O2'	2.54	0.40
1:0:1190:C:H2'	1:0:1191:G:C8	2.57	0.40
1:0:122:G:C2'	1:0:123:A:H5''	2.52	0.40
1:0:1358:C:H2'	1:0:1359:G:H5'	2.03	0.40
1:0:1519:G:O2'	1:0:1520:G:H5'	2.21	0.40
1:0:1323:G:C1'	1:0:1627:C:H5''	2.52	0.40
1:0:1791:C:C2'	1:0:1792:C:H5''	2.39	0.40
1:0:201:G:C2	1:0:202:A:C4	3.10	0.40
1:0:1281:A:H4'	1:0:2592:U:O2	2.21	0.40
32:0:2882:ZIT:H162	32:0:2882:ZIT:HO13	1.83	0.40
1:0:200:A:N6	1:0:387:A:O2'	2.54	0.40
1:0:398:C:O2'	1:0:401:G:N2	2.54	0.40
1:0:451:A:H2'	1:0:452:G:H8	1.83	0.40
1:0:616:U:H3'	1:0:617:U:H5''	2.03	0.40
1:0:829:C:O2'	1:0:830:C:H5'	2.21	0.40
1:0:831:G:H5'	1:0:852:U:OP1	2.21	0.40
1:0:931:G:H5'	2:9:83:C:H1'	2.03	0.40
1:0:1403:U:O2	1:0:1408:A:N6	2.54	0.40
1:0:1473:U:H4'	1:0:1474:A:C4	2.56	0.40
1:0:2138:U:H2'	1:0:2139:G:H5'	2.04	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:215:G:H2'	1:0:216:U:C6	2.57	0.40
1:0:2240:C:C2'	1:0:2241:U:C5'	2.97	0.40
1:0:2570:C:H2'	1:0:2571:G:C8	2.57	0.40
2:9:12:C:H3'	2:9:13:C:H6	1.85	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

5.3.2 Protein sidechains [i](#)

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

5.3.3 RNA [i](#)

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2757/2880 (95%)	485 (17%)	0
2	9	117/124 (94%)	23 (19%)	0
All	All	2874/3004 (95%)	508 (17%)	0

All (508) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	13	A
1	0	35	G
1	0	45	C
1	0	48	A
1	0	49	U
1	0	50	G
1	0	59	G
1	0	67	G
1	0	70	A
1	0	71	A
1	0	72	A
1	0	76	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	87	G
1	0	89	A
1	0	90	G
1	0	91	A
1	0	99	U
1	0	105	G
1	0	110	U
1	0	116	A
1	0	118	U
1	0	123	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
1	0	200	A
1	0	201	G
1	0	205	A
1	0	206	U
1	0	210	A
1	0	218	A
1	0	219	G
1	0	225	G
1	0	227	G
1	0	229	G
1	0	242	A
1	0	243	G
1	0	305	A
1	0	318	G
1	0	322	A
1	0	333	A
1	0	334	G
1	0	335	A
1	0	340	G
1	0	341	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	343	A
1	0	358	C
1	0	363	G
1	0	368	A
1	0	373	A
1	0	399	G
1	0	401	G
1	0	408	U
1	0	414	A
1	0	418	C
1	0	424	G
1	0	443	A
1	0	456	C
1	0	460	U
1	0	461	A
1	0	463	C
1	0	467	U
1	0	469	G
1	0	484	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	518	A
1	0	519	C
1	0	537	C
1	0	539	A
1	0	541	C
1	0	542	A
1	0	554	U
1	0	556	A
1	0	558	G
1	0	572	G
1	0	582	G
1	0	583	C
1	0	584	A
1	0	587	A
1	0	588	G
1	0	613	A
1	0	617	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	624	A
1	0	632	A
1	0	636	G
1	0	638	A
1	0	648	A
1	0	652	C
1	0	654	A
1	0	655	A
1	0	666	U
1	0	667	U
1	0	684	C
1	0	697	G
1	0	699	G
1	0	700	C
1	0	728	G
1	0	740	A
1	0	742	G
1	0	743	A
1	0	760	U
1	0	765	C
1	0	766	A
1	0	776	G
1	0	778	G
1	0	789	G
1	0	790	A
1	0	794	A
1	0	796	A
1	0	797	A
1	0	798	G
1	0	803	C
1	0	804	C
1	0	805	G
1	0	806	A
1	0	807	A
1	0	813	A
1	0	815	A
1	0	818	G
1	0	825	C
1	0	832	A
1	0	840	U
1	0	841	G
1	0	843	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	844	G
1	0	859	U
1	0	873	U
1	0	874	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	943	U
1	0	944	A
1	0	952	A
1	0	957	G
1	0	968	C
1	0	969	U
1	0	970	A
1	0	972	C
1	0	973	U
1	0	984	A
1	0	985	G
1	0	994	A
1	0	996	C
1	0	1002	C
1	0	1005	U
1	0	1006	C
1	0	1019	U
1	0	1022	A
1	0	1023	U
1	0	1024	G
1	0	1030	U
1	0	1032	A
1	0	1033	G
1	0	1036	G
1	0	1037	U
1	0	1044	U
1	0	1055	A
1	0	1056	U
1	0	1057	A
1	0	1067	G
1	0	1073	G
1	0	1074	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1075	C
1	0	1081	A
1	0	1082	G
1	0	1083	C
1	0	1087	C
1	0	1090	C
1	0	1099	A
1	0	1130	U
1	0	1137	A
1	0	1138	A
1	0	1142	G
1	0	1145	C
1	0	1146	G
1	0	1155	G
1	0	1166	A
1	0	1167	A
1	0	1168	G
1	0	1182	U
1	0	1183	C
1	0	1185	C
1	0	1194	U
1	0	1195	U
1	0	1199	U
1	0	1200	G
1	0	1224	A
1	0	1225	G
1	0	1234	C
1	0	1253	C
1	0	1261	G
1	0	1262	U
1	0	1264	C
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	1284	G
1	0	1285	A
1	0	1286	U
1	0	1288	A
1	0	1289	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1302	C
1	0	1314	A
1	0	1316	G
1	0	1324	G
1	0	1327	C
1	0	1334	A
1	0	1338	G
1	0	1339	U
1	0	1342	U
1	0	1343	C
1	0	1346	C
1	0	1354	A
1	0	1355	A
1	0	1356	G
1	0	1359	G
1	0	1391	A
1	0	1392	U
1	0	1397	A
1	0	1398	G
1	0	1411	C
1	0	1430	G
1	0	1433	A
1	0	1441	A
1	0	1442	C
1	0	1443	G
1	0	1459	U
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	1490	U
1	0	1496	G
1	0	1505	U
1	0	1509	A
1	0	1513	U
1	0	1524	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1529	C
1	0	1544	A
1	0	1552	C
1	0	1571	G
1	0	1573	G
1	0	1574	A
1	0	1583	A
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	1631	C
1	0	1635	G
1	0	1648	C
1	0	1652	G
1	0	1657	A
1	0	1664	G
1	0	1665	C
1	0	1670	G
1	0	1671	A
1	0	1680	U
1	0	1681	A
1	0	1685	A
1	0	1686	A
1	0	1691	G
1	0	1692	C
1	0	1699	A
1	0	1710	U
1	0	1712	G
1	0	1713	G
1	0	1715	A
1	0	1717	A
1	0	1718	A
1	0	1724	C
1	0	1748	U
1	0	1749	G
1	0	1750	A
1	0	1754	G
1	0	1755	G
1	0	1764	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1771	A
1	0	1772	C
1	0	1773	C
1	0	1778	U
1	0	1791	C
1	0	1792	C
1	0	1800	A
1	0	1801	C
1	0	1802	A
1	0	1807	A
1	0	1808	C
1	0	1811	A
1	0	1813	A
1	0	1821	A
1	0	1831	G
1	0	1840	A
1	0	1884	A
1	0	1889	G
1	0	1909	U
1	0	1920	A
1	0	1922	U
1	0	1924	C
1	0	1926	U
1	0	1927	U
1	0	1928	G
1	0	1938	U
1	0	1939	U
1	0	1948	C
1	0	1949	A
1	0	1950	C
1	0	1954	A
1	0	1955	G
1	0	1956	G
1	0	1964	A
1	0	1974	U
1	0	1976	U
1	0	1979	C
1	0	2003	A
1	0	2004	U
1	0	2006	G
1	0	2014	A
1	0	2015	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2016	A
1	0	2019	C
1	0	2038	C
1	0	2043	A
1	0	2044	G
1	0	2051	U
1	0	2052	G
1	0	2060	A
1	0	2076	G
1	0	2082	C
1	0	2094	C
1	0	2096	U
1	0	2118	A
1	0	2119	A
1	0	2140	G
1	0	2162	C
1	0	2168	A
1	0	2181	A
1	0	2191	A
1	0	2195	C
1	0	2199	C
1	0	2205	C
1	0	2218	G
1	0	2229	G
1	0	2230	G
1	0	2238	G
1	0	2241	U
1	0	2245	A
1	0	2246	A
1	0	2247	A
1	0	2255	G
1	0	2262	C
1	0	2265	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	2301	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2313	G
1	0	2314	A
1	0	2315	A
1	0	2316	G
1	0	2325	A
1	0	2326	C
1	0	2362	G
1	0	2364	C
1	0	2369	U
1	0	2378	G
1	0	2385	U
1	0	2396	C
1	0	2402	U
1	0	2403	C
1	0	2405	A
1	0	2406	C
1	0	2407	G
1	0	2408	G
1	0	2409	A
1	0	2414	A
1	0	2427	A
1	0	2428	U
1	0	2438	A
1	0	2448	A
1	0	2455	A
1	0	2457	A
1	0	2470	U
1	0	2476	A
1	0	2477	C
1	0	2482	A
1	0	2484	G
1	0	2492	G
1	0	2499	C
1	0	2504	G
1	0	2508	G
1	0	2522	G
1	0	2533	U
1	0	2545	A
1	0	2546	G
1	0	2549	G
1	0	2560	G
1	0	2561	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2565	C
1	0	2566	A
1	0	2578	G
1	0	2581	A
1	0	2582	G
1	0	2588	U
1	0	2589	C
1	0	2590	U
1	0	2591	C
1	0	2600	A
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	2670	C
1	0	2681	A
1	0	2692	A
1	0	2693	U
1	0	2707	G
1	0	2712	G
1	0	2713	A
1	0	2728	A
1	0	2730	A
1	0	2732	C
1	0	2737	A
1	0	2745	A
1	0	2756	A
1	0	2757	G
1	0	2758	A
1	0	2760	G
1	0	2770	A
1	0	2771	C
1	0	2774	U
1	0	2782	G
1	0	2783	U
1	0	2785	A
1	0	2793	G
1	0	2795	A
1	0	2807	U
1	0	2808	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2809	A
1	0	2810	A
1	0	2825	A
1	0	2841	U
1	0	2842	C
1	0	2847	G
1	0	2849	C
1	0	2854	G
1	0	2855	C
1	0	2867	G
1	0	2868	G
2	9	7	C
2	9	14	C
2	9	15	A
2	9	17	A
2	9	18	G
2	9	27	A
2	9	28	A
2	9	47	A
2	9	48	A
2	9	59	A
2	9	60	A
2	9	61	A
2	9	63	A
2	9	68	A
2	9	69	G
2	9	71	G
2	9	93	G
2	9	98	C
2	9	101	A
2	9	102	A
2	9	111	C
2	9	112	A
2	9	115	G

There are no RNA pucker outliers to report.

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

2 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
32	ZIT	0	2881	-	54,54,54	0.83	1 (1%)	81,83,83	1.27	6 (7%)
32	ZIT	0	2882	-	54,54,54	0.83	2 (3%)	81,83,83	1.28	6 (7%)

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
32	ZIT	0	2881	-	-	0/72/107/107	0/3/3/3
32	ZIT	0	2882	-	-	0/72/107/107	0/3/3/3

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
32	0	2881	ZIT	C3A-N3A	-2.27	1.42	1.48
32	0	2882	ZIT	C3A-N3A	-2.18	1.42	1.48
32	0	2882	ZIT	C1A-C2A	2.03	1.58	1.52

All (12) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	0	2882	ZIT	C1A-O1A-C5	-7.02	103.82	116.29
32	0	2881	ZIT	C1A-O1A-C5	-6.96	103.94	116.29
32	0	2881	ZIT	C4A-C3A-C2A	-3.29	105.42	110.07
32	0	2882	ZIT	C4A-C3A-C2A	-3.25	105.47	110.07

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
32	0	2881	ZIT	C5A-C4A-C3A	2.08	114.14	110.42
32	0	2882	ZIT	C2A-C3A-N3A	2.09	116.25	110.54
32	0	2881	ZIT	C2A-C3A-N3A	2.09	116.25	110.54
32	0	2881	ZIT	C17-C2-C3	2.11	117.62	112.86
32	0	2882	ZIT	C17-C2-C3	2.11	117.62	112.86
32	0	2882	ZIT	C5A-C4A-C3A	2.15	114.27	110.42
32	0	2881	ZIT	O1B-C3-C4	2.65	111.34	108.16
32	0	2882	ZIT	O1B-C3-C4	2.75	111.45	108.16

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

2 monomers are involved in 47 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
32	0	2881	ZIT	21	0
32	0	2882	ZIT	26	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

6.2 Non-standard residues in protein, DNA, RNA chains

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.