



Full wwPDB/EMDatabank EM Map/Model Validation Report ⓘ

Jan 31, 2017 – 01:05 PM EST

PDB ID : 5H1S
EMDB ID: : EMD-9572
Title : Structure of the large subunit of the chloro-ribosome
Authors : Ahmed, T.; Yin, Z.; Bhushan, S.
Deposited on : 2016-10-11
Resolution : 3.50 Å(reported)

This is a Full wwPDB/EMDatabank EM Map/Model Validation Report
for a publicly released PDB/EMDB entry.

We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : rb-20028442

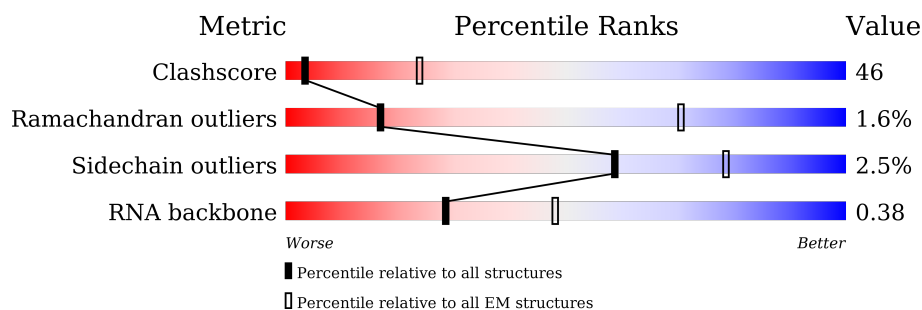
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 3.50 Å.

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



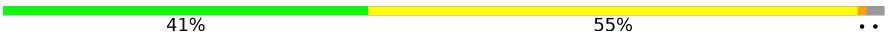
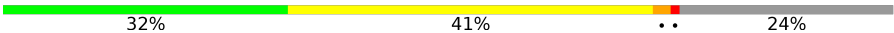

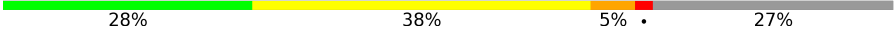
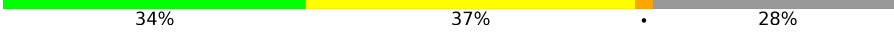
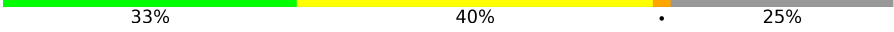


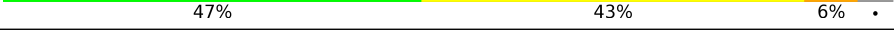



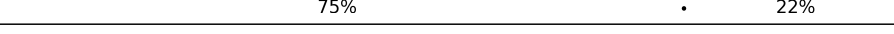
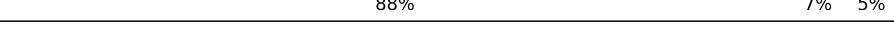

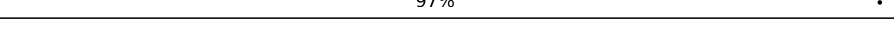



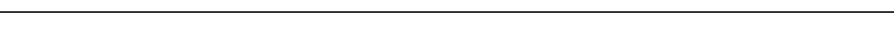




Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

The table below summarises the geometric issues observed across the polymeric chains. The red, orange, yellow and green segments on the 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 $\leq 5\%$.

Mol	Chain	Length	Quality of chain
1	A	2810	29% 43% 27% .
2	C	106	9% 46% 37% . .
3	B	121	12% 43% 40% . .
4	L	191	36% 39% . . 23%
5	M	121	54% 46%
6	N	192	31% 51% 9% . 8%
7	O	135	44% 54% . .
8	P	116	57% 43%

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
9	Q	123	
10	R	156	
11	S	127	
12	T	201	
13	U	199	
14	V	122	
15	W	145	
16	X	137	
17	Y	77	
18	Z	109	
19	E	271	
20	b	56	
21	c	65	
22	d	60	
23	e	73	
24	f	37	
25	F	221	
26	G	243	
27	H	220	
28	I	182	
29	J	155	
30	g	142	
31	a	94	
32	h	116	

2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 90825 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	2799	Total	C	N	O	P	0	0
			60117	26819	11134	19365	2799		

- Molecule 2 is a RNA chain called Spinach chloroplast 4.5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	C	102	Total	C	N	O	P	0	0
			2187	977	403	705	102		

- Molecule 3 is a RNA chain called 5S rRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	B	117	Total	C	N	O	P	0	0
			2500	1116	452	815	117		

- Molecule 4 is a protein called 50S ribosomal protein L13, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	L	147	Total	C	N	O	S	0	0
			1184	754	225	202	3		

- Molecule 5 is a protein called 50S ribosomal protein L14, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	M	121	Total	C	N	O	S	0	0
			942	588	179	170	5		

- Molecule 6 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	N	177	Total	C	N	O	S	0	0
			1342	836	264	236	6		

- Molecule 7 is a protein called 50S ribosomal protein L16, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	O	134	Total	C	N	O	S	0	0
			1067	672	217	173	5		

- Molecule 8 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	P	116	Total	C	N	O	S	0	0
			944	592	193	155	4		

- Molecule 9 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	Q	120	Total	C	N	O	S	0	0
			947	589	183	170	5		

- Molecule 10 is a protein called 50S ribosomal protein L19, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	R	118	Total	C	N	O	S	0	0
			953	610	186	156	1		

- Molecule 11 is a protein called 50S ribosomal protein L20, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	S	115	Total	C	N	O	S	0	0
			996	633	208	153	2		

- Molecule 12 is a protein called 50S ribosomal protein L21, chloroplastic.

Mol	Chain	Residues	Atoms				AltConf	Trace
12	T	147	Total	C	N	O	0	0
			1171	759	202	210		

- Molecule 13 is a protein called 50S ribosomal protein L22, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	U	144	Total	C	N	O	S	0	0
			1149	731	210	200	8		

- Molecule 14 is a protein called 50S ribosomal protein L23, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	V	92	Total	C	N	O	S	0	0
			740	477	129	132	2		

- Molecule 15 is a protein called 50S ribosomal protein L24, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	W	124	Total	C	N	O	S	0	0
			993	624	187	180	2		

- Molecule 16 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	X	100	Total	C	N	O	S	0	0
			810	511	159	140			

- Molecule 17 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	Y	74	Total	C	N	O	S	0	0
			605	385	121	98	1		

- Molecule 18 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	Z	90	Total	C	N	O	S	0	0
			754	470	150	131	3		

- Molecule 19 is a protein called 50S ribosomal protein L2, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	E	247	Total	C	N	O	S	0	0
			1904	1181	390	327	6		

- Molecule 20 is a protein called 50S ribosomal protein L32, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	b	46	Total	C	N	O	S	0	0
			378	250	70	58			

- Molecule 21 is a protein called 50S ribosomal protein L33, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	c	51	Total	C	N	O	S	0	0
			415	258	83	70	4		

- Molecule 22 is a protein called 50S ribosomal protein L34, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	d	57	Total	C	N	O	S	0	0
			445	268	103	71	3		

- Molecule 23 is a protein called 50S ribosomal protein L35, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	e	69	Total	C	N	O	S	0	0
			563	353	119	90	1		

- Molecule 24 is a protein called 50S ribosomal protein L36, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	f	37	Total	C	N	O	S	0	0
			304	186	70	44	4		

- Molecule 25 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	F	212	Total	C	N	O	S	0	0
			1620	1025	295	289	11		

- Molecule 26 is a protein called 50S ribosomal protein L4, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	G	210	Total	C	N	O	S	0	0
			1655	1052	308	292	3		

- Molecule 27 is a protein called 50S ribosomal protein L5, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	H	175	Total	C	N	O	S	0	0
			1351	862	233	248	8		

- Molecule 28 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	I	173	Total	C	N	O	S	0	0
			1353	855	249	245	4		

- Molecule 29 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	J	53	Total	C	N	O	S	0	0
			423	280	74	68	1		

- Molecule 30 is a protein called 50S ribosomal protein 5 alpha, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	g	43	Total	C	N	O	S	0	0
			345	218	65	59	3		

- Molecule 31 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	a	38	Total	C	N	O	S	0	0
			300	187	49	62	2		

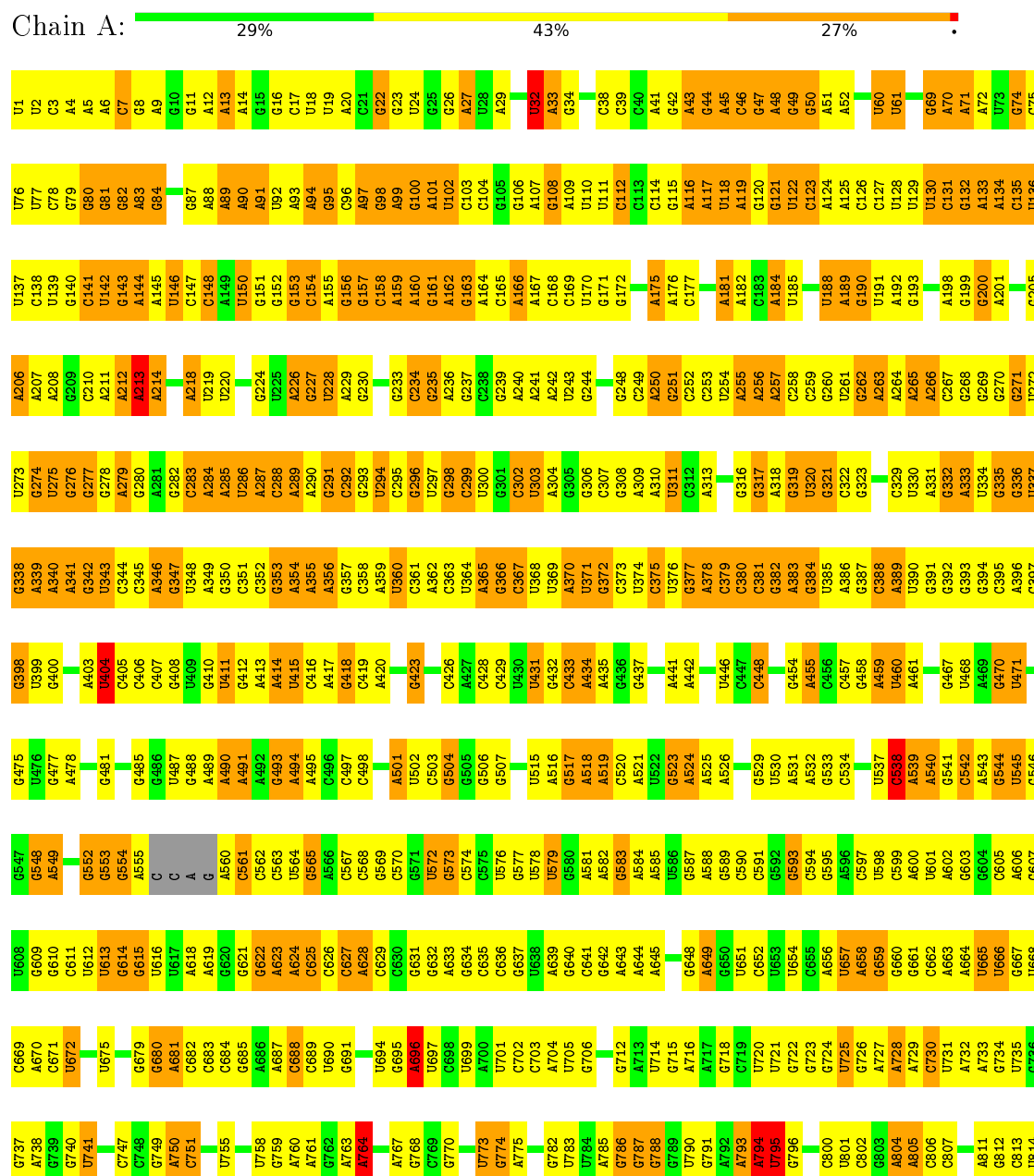
- Molecule 32 is a protein called 50S ribosomal protein 6, chloroplastic.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	h	46	Total	C	N	O	S	0	0
			368	237	71	59	1		

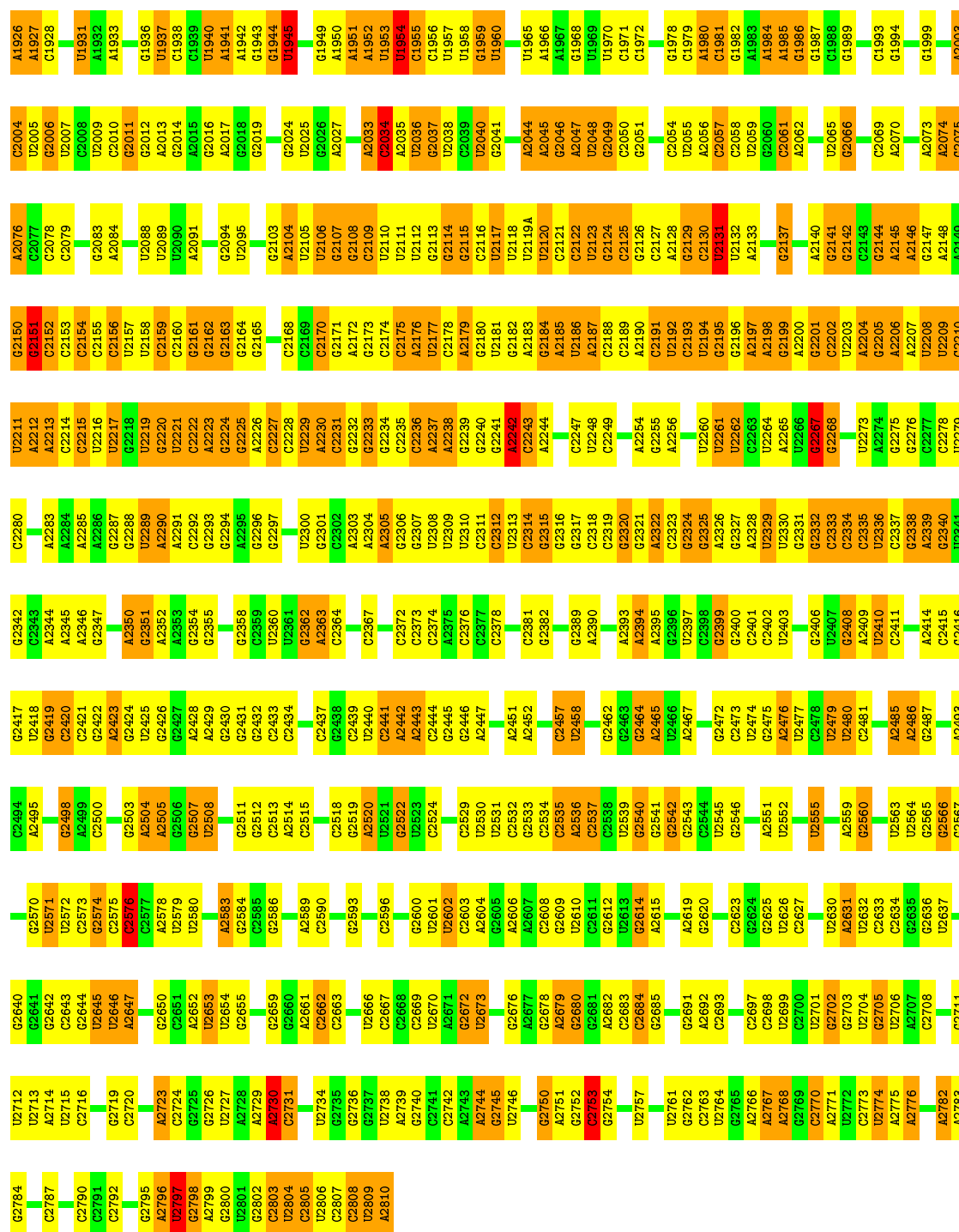
3 Residue-property plots

These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry. 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. Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

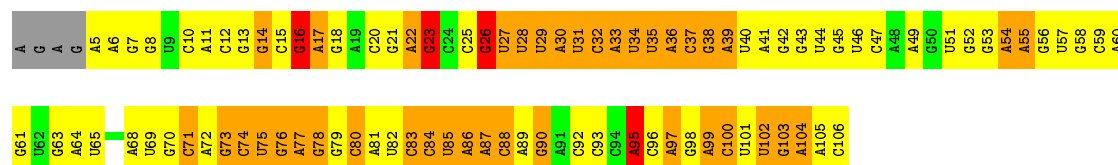
• Molecule 1: 23S rRNA



C1847	C1781	A1705	G1630	C1570	G1507	G1443	U1350	G1277	A1204	C1141	U1069	G1005	U942	U880	A8315
C1848	C1782	C1706	G1631	G1571	U	G1443	C1351	U1278	G1207	G1142	G1070	G1006	C943	U881	G816
A1849	G1783	G1709	U1632	C1572	U	A1444	C1352		U1208	C1143	C1071	A1007	C944	U882	C817
U1851	A1783	G1710	A1633	C1573	U		A1353	G1281	C1208	U1144	A1072	A1008	A945	C883	U18
G1852	G1786	C1711	C1634	G1574	U	A1448	U1361	C1282	A1210	U1145	A1073	A1009	A946	G884	G819
C1853	U1789	A1712	U1636	U1576	C	G1450	G1362	U1283	G1211	U1146	A1074	C1010	A947	G885	G820
		G1713	G1637	G1577	A	G1451	A1363	G1285		U1147	G1075	A1011	U948	U886	U821
A1857		A1714		A1578	G1515	A1452	C1366	U1286	U1219	G1150	A1076	G1012	A949	G887	U822
A1858	A1793	U1715	G1643	A1579	G1516	G1453	G1453	G1287	U1220		A1077	C1013	A950	C888	G823
G1859	A1794	U1716	A1644	G1580	G1517	G1454		U1288		G1153	A1078		C951	G889	U824
G1860	A1795	G1717	A1645	U1581	U1518		U1373	A1289	U1224	A1154	C1080	G1016	A952	G891	C828
U1861	A1796	A1718	A1646	A1582	A1519	G1457	A1374	A1290	G1225	A1155	G1081	A1017	G953	C892	G829
	A1797		C1647	A1583	A1520	C1458	U1376	C1291	U1226	G1156	A1082	U1019	G955	C893	
G1866	G1798	G1723						G1292				G1020	G956	C894	A830
A1867	A1799		G1648	C1584	G1521	U1459	G1377	C1293	U1227	A1157	G1083	A1021	G957	C895	A831
A1868	C1800	G1730	C1649	C1585	A1522	A1460		C1293		U1158	A1084	G1022	C958	G896	A832
G1869	A1801	G1731	A1650	G1586	A1523	G1461	C1379	A1294	G1231	G1159	A1085	C1023	G959	A897	
U1870	G1802	G1732	C1651	A1587	G1524	G1462		A1295	A1232	A1160	G1086	A1024	A960	G898	G836
U1871	G1803	G1733	A1652	U1588	G1525	U1463	G1385	A1296	G1233	A1161	G1087	G1025	A961	A899	U837
G1872	A1804	G1734	C1653	G1589	G1526	U1464	A1386	C1297	A1234	C1162	U1088		G962	G900	U838
G1873	C1805	G1735	A1654	C1591	U1528	U1465	A1387	G1298	A1235	G1163	U963	A1028	G963	C901	A839
U1874	G1806	A1736	G1655	A1592	A1529	C1466	A1388	A1298	A1236	G1164	U1090	G1029	G964	G902	A840
G1875	C1807	G1737		A1593	U1530	C1467	G1389	U1299	G1237	G1165	U1089		G965	G903	G841
A1876	G1808	A1738	A1662	G1594	A1531	G1468	C1391		G1238	G1166	A1097	G1030	G966	U904	G842
C1877	G1809	G1739	G1663	C1595	G1532	A1470		A1305		C1167	A1098	C1032	C967	A905	G843
			U1665	U1596	A1533		G1392	A1306	G1240	U1168	A1099	G1033	C968	C906	
C1878	C1810	G1740	A1666	C1597	A1534	A1471	U1393	A1307	G1241	U1169	G1099	C1034	A969	C907	A845
U1879	A1811		G1667	C1598	A1535	A1472	A1394	U1308	G1242	A1170		G1035	G970	A908	A846
A1880	A1812	G1743	A1668	C1599	A1536	G1473		C1310	U1245	G1171	C1103	U1036	G971	A909	
A1881	A1813	G1744	A1669	G1600	U1537	A1474	C1397	C1311	G1246	G1172	C1104	A1037	G972	A910	G850
U1882	G1814	G1745	G1670	A1601	U1537	U1475	G1398	A1312	A1247	G1173		A1038	G973	U911	U851
G1883	C1815	C1746	A1670	G1601	G1538	G1476	A1399	A1313	G1248	U1174	C1107	A1039	G974	C912	U852
A1884	U1816	C1747	A1671	C1602	C1539	G1477	U1400	G1314		C1175	C1108	U1040	A975	G913	G853
C1885	A1817	U1748	A1672	A1603	C1540	U1478	A1406	C1316	G1251	U1177	U1109	G1041	C976	A914	A854
A1886	C1818	G1749	C1673	A1604	U1541	U1479	A1407	C1317	G1252	G1178	U1110	A1042	G977	G915	C855
G1887	A1819	C1750	C1674	A1605	C1542	U1480	U1415	C1318	G1253	C1179	A1112	G1043	A978	G916	U856
A1888	A1820	A1751	G1675	A1606	G1543	U1481	A1416	C1318	U1254	C1180		C1044	G979	C917	C857
G1889	G1821	C1752	U1676	G1607	A1544	C1482	U1417	C1319		C1181		G1045	G980	A918	G858
				C1608	G1545	G1483		G1320	U1255	A1182	C1107	G1046	G981	A919	A859
G1890	A1822	A1753		U1609	C1546	G1484	A1413	A1321	G1256	G1183	C1108	U1047	G982	A920	C860
A1891	C1823	A1754	G1683	C1610	C1547	U1485	U1414	A1322	G1257	A1184	U1109	G1048	G983	C921	A861
G1892	C1824	G1755	C1684	G1611	A1548	U1486	U1415	A1323	A1258	C1185	G1117	A1049	G984	U922	U862
		G1756		A1612	A1549	C1487	U1416		G1259	U1186	G1118	G1050	A985	C923	C863
G1895	G1827	G1757	G1687	A1613	U1550	A1488	U1417	G1332	G1260	C1187		U1051	U986	U924	U864
U1896	U1828	G1759	A1688	C1614	G1551	A1489	U1418	U1333	A1261	U1188	U1122	A1052	A987	A927	A865
C1897	A1829	G1760	C1689	G1615	U1552			C1334	G1262	G1189		A1053	G989	U928	A866
G1898	U1830		A1690	A1616	U1553	G1493	C1425	C1335	G1263		U1125	U1054		A929	G867
	G1831	G1763	A1691	C1617	C1554	G1494	U1426	C1336	G1264	A1192		A1055			G868
G1902	G1832		C1692	G1618	G1555	C1495	A1427	U1337	G1265	U1193	C1130	A1056	C983	A932	G869
	G1833	G1766	U1693	U1619	A1556	A1496	C1428	C1338	G1266	G1194		A1057	A994		U870
G1910	G1834	U1767	C1694	U1620	G1557	A1497	A1429		A1267	U1195	A1131				
		G1768		C1621	U1558	G1498	C1430	C1341		U1196	C1132	A1060	G997	G933	A871
A1914	G1835	U1769	U1697	A1622	A1559	G1499	C1431	A1342	G1268	U1197	U1133	A1061	G998	A934	A872
A1915	C1836	C1770	C1698	A1623	U1560	U1500	U1432	A1343	C1270	A1198	G1134	G1062	U998	U935	A873
C1916	U1837		U1699	G1624	G1501	U1433	G1433	G1344	G1271	A1199	C999	U1063	G1000	A936	G874
G1917	G1838		A1700	A1625	A1502	G1434	G1434	G1345	A1272	A1200	U1136	A1064	A1001	U937	C875
	A1839	G1774	U1435		C1503	U1435	U1436	U1346	G1273	A1201	C1137	G1065	A1002	G938	A876
G1920	C1840	C1775	C1504	G1566	C1504	U1436	U1437	U1347	A1274	G1138	G1133	G1066	G1003	A939	C877
G1921	G1702	C1776	C1505	C1567	C1504	U1437	U1438	C1348	A1275	A1202	U1139		A1003	C940	U878
	C1842	C1777	U1568	G1437	C1505	G1438	G1438	G1349	U1276	C1203	G1140		G1004	C941	G879

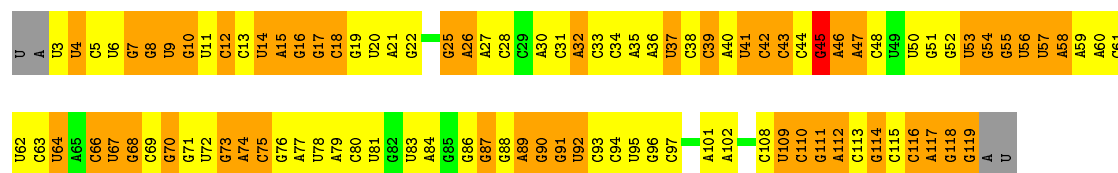


- Molecule 2: Spinach chloroplast 4.5S rRNA



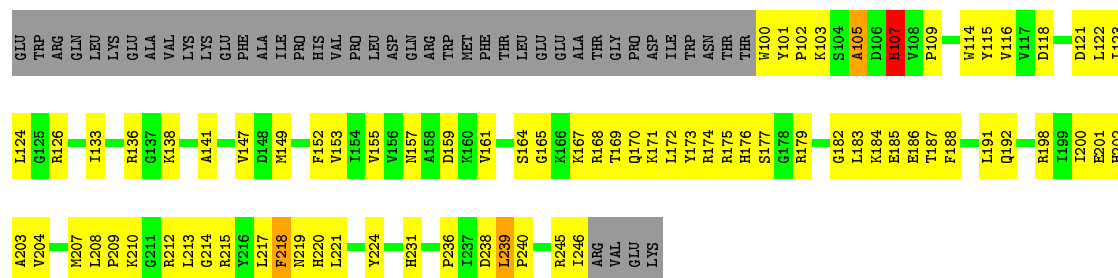
- Molecule 3: 5S rRNA

Chain B:  12% 43% 40% ..



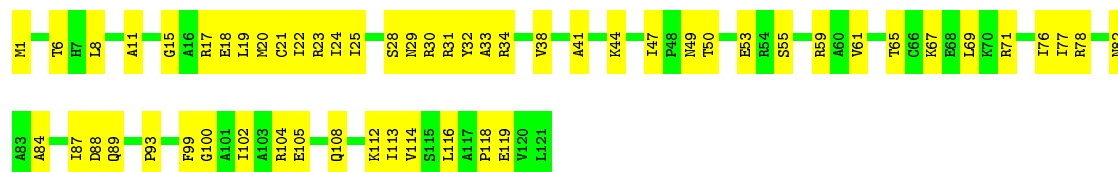
- Molecule 4: 50S ribosomal protein L13, chloroplastic

Chain L: 36% 39% .. 23%



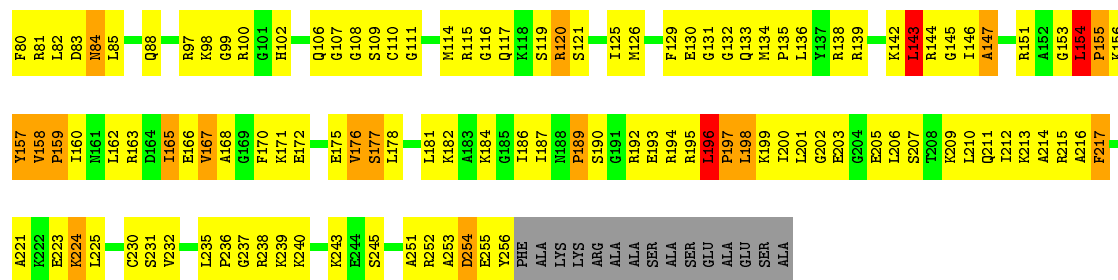
- Molecule 5: 50S ribosomal protein L14, chloroplastic

Chain M:  54% 46%



- Molecule 6: 50S ribosomal protein L15

Chain N:  31% 51% 9% 1% 8%



- Molecule 7: 50S ribosomal protein L16, chloroplastic

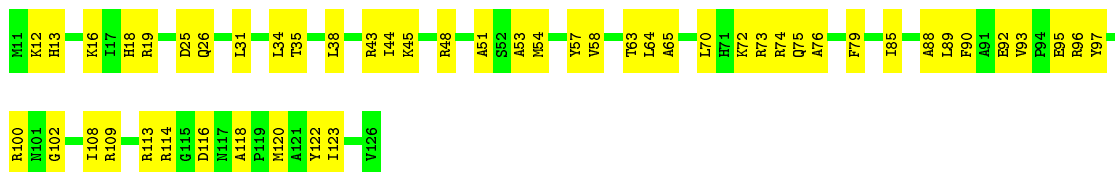
Chain 0:  44% 54% ..





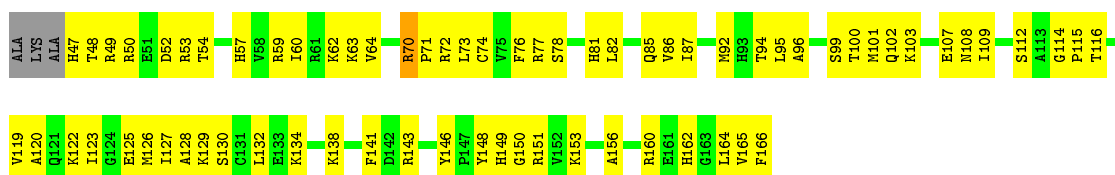
• Molecule 8: 50S ribosomal protein L17

Chain P: 57% 43%



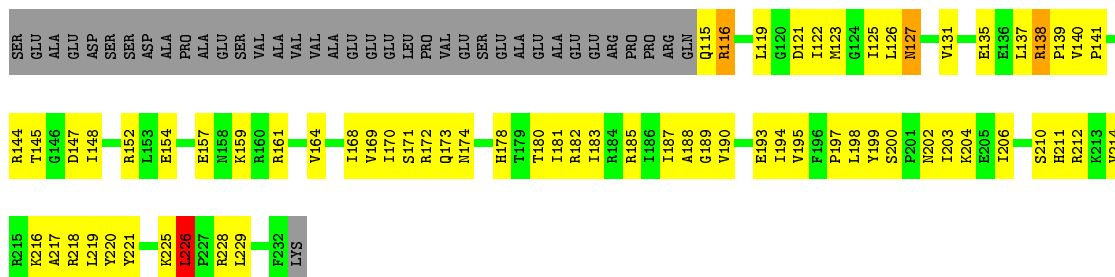
• Molecule 9: 50S ribosomal protein L18

Chain Q: 41% 55% ..



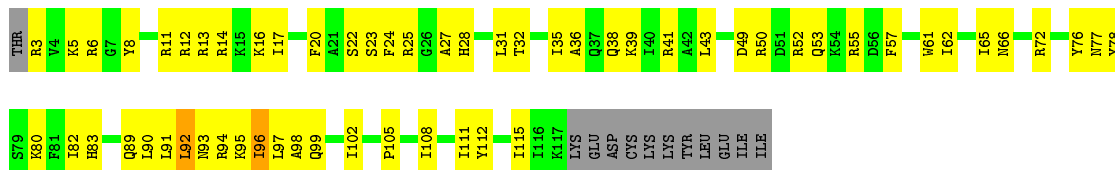
• Molecule 10: 50S ribosomal protein L19, chloroplastic

Chain R: 32% 41% .. 24%



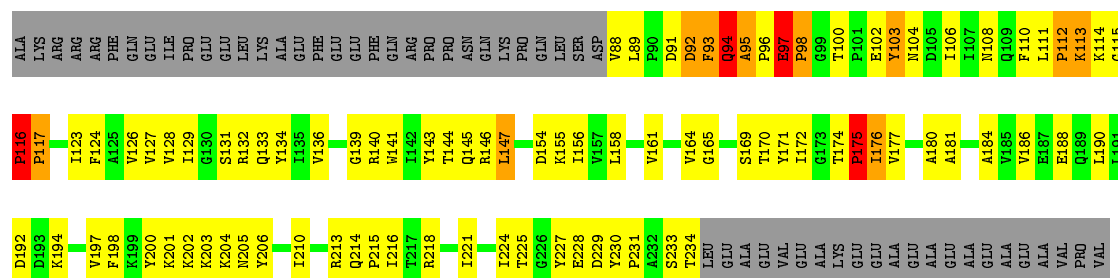
• Molecule 11: 50S ribosomal protein L20, chloroplastic

Chain S: 44% 45% • 9%

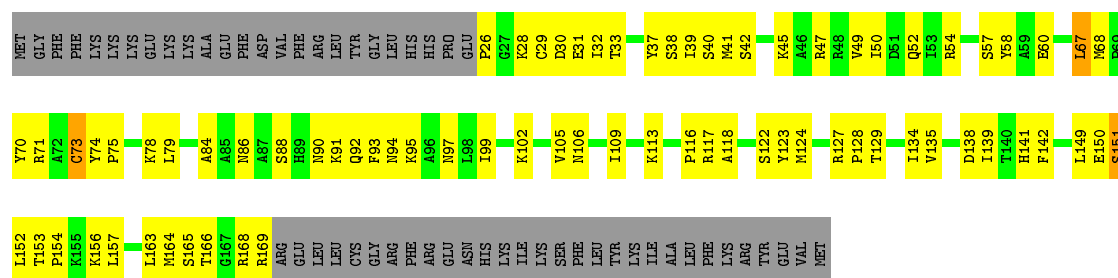


• Molecule 12: 50S ribosomal protein L21, chloroplastic

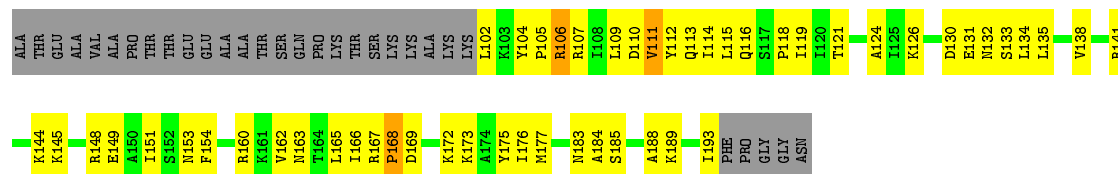
Chain T: 28% 38% 5% • 27%



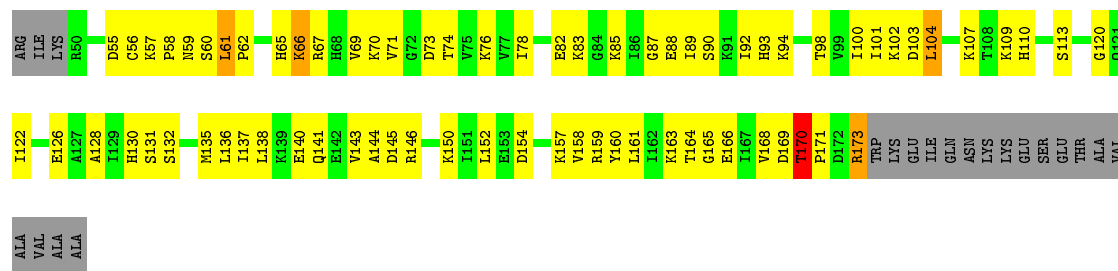
- Molecule 13: 50S ribosomal protein L22, chloroplastic



- Molecule 14: 50S ribosomal protein L23, chloroplastic



- Molecule 15: 50S ribosomal protein L24, chloroplastic



- Molecule 16: 50S ribosomal protein L27

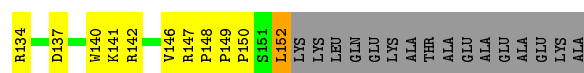
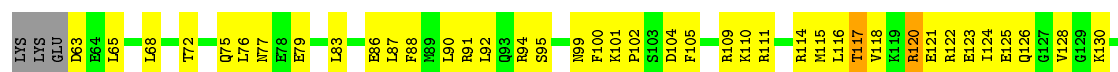




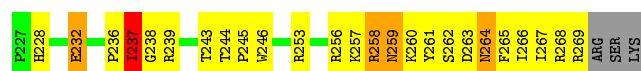
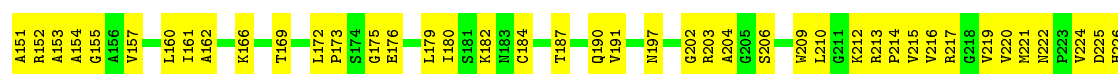
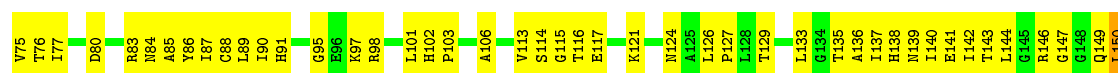
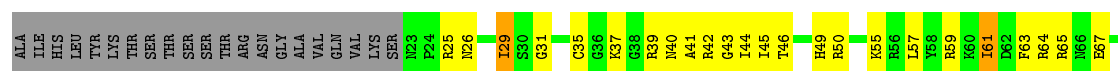
- Molecule 17: 50S ribosomal protein L28



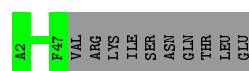
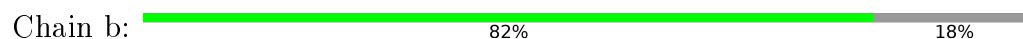
- Molecule 18: 50S ribosomal protein L29



- Molecule 19: 50S ribosomal protein L2, chloroplastic




- Molecule 20: 50S ribosomal protein L32, chloroplastic



- Molecule 21: 50S ribosomal protein L33, chloroplastic




- Molecule 22: 50S ribosomal protein L34, chloroplastic

Chain d: 



- Molecule 23: 50S ribosomal protein L35, chloroplastic

Chain e: 



- Molecule 24: 50S ribosomal protein L36, chloroplastic

Chain f: 



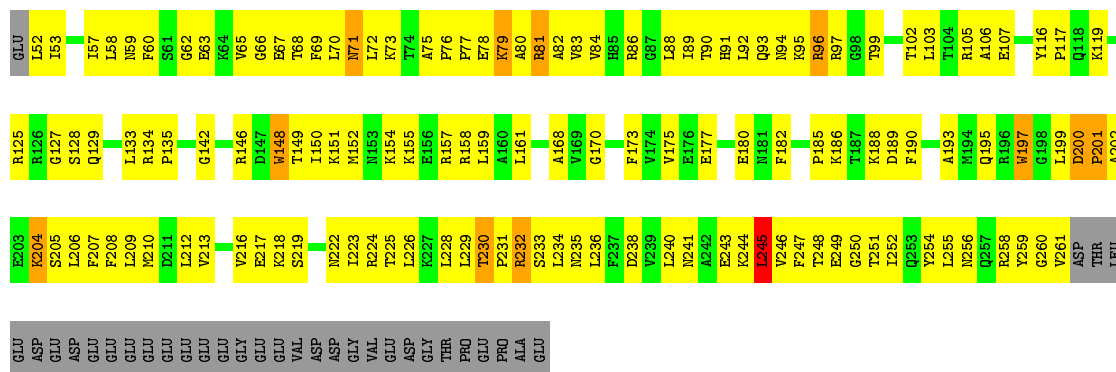
- Molecule 25: 50S ribosomal protein L3

Chain F: 



- Molecule 26: 50S ribosomal protein L4, chloroplastic

Chain G: 

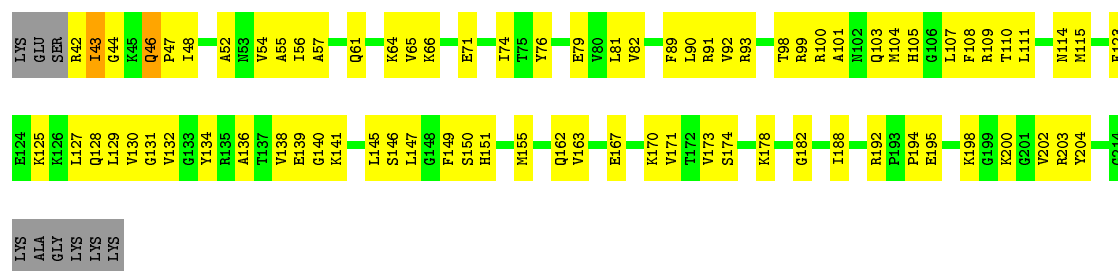


- Molecule 27: 50S ribosomal protein L5, chloroplastic

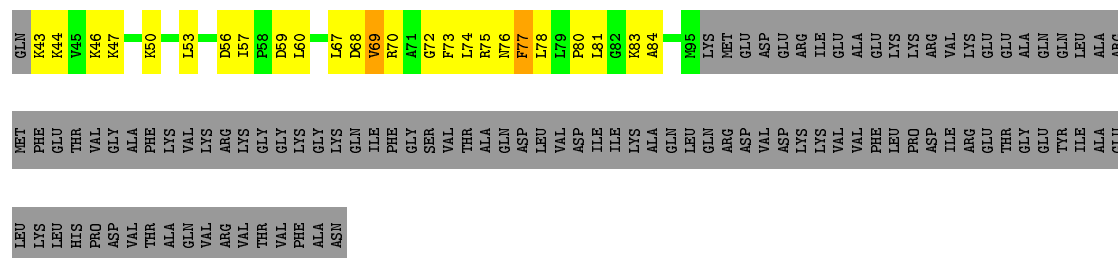
Chain H: 



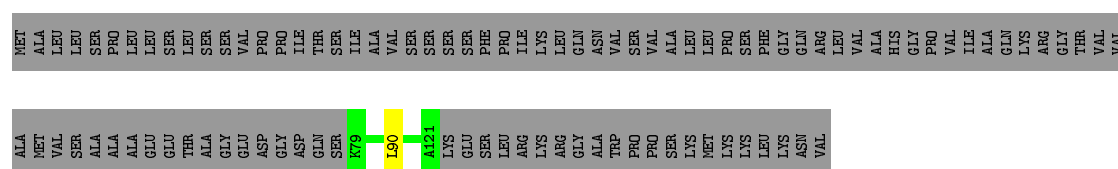
- Molecule 28: 50S ribosomal protein L6



- Molecule 29: 50S ribosomal protein L9



- Molecule 30: 50S ribosomal protein 5 alpha, chloroplastic



- Molecule 31: 50S ribosomal protein L31





LYS
LYS
LYS

- Molecule 32: 50S ribosomal protein 6, chloroplastic



ALA
VAL
ASP
GLU
ASP
ALA
ASP
SER
SER
SER
SER
THR
THR
SER
SER
ALA
GLU
ILE
ALA
GLN
SER
ALA

4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of particles used	174949	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	Not provided	Depositor
Microscope	FEI TECNAI ARCTICA	Depositor
Voltage (kV)	200	Depositor
Electron dose ($e^-/\text{\AA}^2$)	Not provided	Depositor
Minimum defocus (nm)	200	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	109375	Depositor
Image detector	Not provided	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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 >2	RMSZ	# Z >2
1	A	0.80	18/67340 (0.0%)	0.94	109/105056 (0.1%)
10	R	0.61	0/967	0.79	2/1300 (0.2%)
11	S	0.77	0/1013	0.82	1/1351 (0.1%)
12	T	0.73	0/1199	0.88	3/1633 (0.2%)
13	U	0.60	1/1168 (0.1%)	0.69	0/1566
14	V	0.53	0/749	0.65	0/1006
15	W	0.49	0/1006	0.67	2/1343 (0.1%)
16	X	0.66	0/825	0.80	2/1099 (0.2%)
17	Y	0.65	0/615	0.78	2/819 (0.2%)
18	Z	0.52	0/762	0.71	0/1012
19	E	0.60	0/1938	0.78	1/2603 (0.0%)
2	C	3.05	9/2449 (0.4%)	1.30	26/3817 (0.7%)
20	b	0.72	0/387	0.65	0/513
21	c	0.55	0/422	0.85	1/564 (0.2%)
22	d	0.45	0/447	0.63	0/588
23	e	0.72	0/569	0.82	1/752 (0.1%)
24	f	0.57	0/306	0.78	0/403
25	F	0.66	0/1646	0.74	1/2201 (0.0%)
26	G	0.65	2/1687 (0.1%)	0.78	1/2271 (0.0%)
27	H	0.37	0/1372	0.60	0/1848
28	I	0.49	0/1374	0.63	1/1849 (0.1%)
29	J	0.33	0/427	0.65	0/568
3	B	0.78	0/2796	0.87	2/4357 (0.0%)
30	g	0.44	0/345	0.85	1/455 (0.2%)
31	a	0.29	0/306	0.60	0/413
32	h	0.70	1/382 (0.3%)	0.81	2/520 (0.4%)
4	L	0.67	0/1212	0.68	1/1634 (0.1%)
5	M	0.60	0/951	0.69	1/1282 (0.1%)
6	N	0.40	0/1361	0.77	3/1806 (0.2%)
7	O	0.63	1/1089 (0.1%)	0.71	1/1461 (0.1%)
8	P	0.63	0/959	0.76	0/1280
9	Q	0.52	0/963	0.67	0/1293
All	All	0.88	32/99032 (0.0%)	0.90	164/148663 (0.1%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
10	R	0	1
11	S	0	3
13	U	0	1
19	E	0	3
24	f	0	1
25	F	0	1
26	G	0	2
27	H	0	1
32	h	0	2
9	Q	0	1
All	All	0	16

All (32) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	C	95	A	N3-C4	76.76	1.80	1.34
2	C	95	A	C6-N1	71.09	1.85	1.35
2	C	95	A	C5-C4	50.90	1.74	1.38
2	C	95	A	C2-N3	47.29	1.76	1.33
2	C	95	A	N1-C2	47.04	1.76	1.34
2	C	95	A	C5-C6	42.75	1.79	1.41
32	h	70	TRP	CB-CG	-7.30	1.37	1.50
2	C	14	G	N9-C4	-6.91	1.32	1.38
1	A	2168	C	C1'-N1	6.58	1.58	1.48
1	A	2177	U	C1'-N1	6.53	1.58	1.48
1	A	2170	C	C1'-N1	6.40	1.58	1.48
1	A	2155	C	C1'-N1	6.20	1.58	1.48
1	A	2158	U	C1'-N1	6.05	1.57	1.48
1	A	2156	C	C1'-N1	5.95	1.57	1.48
1	A	2131	U	C1'-N1	5.92	1.57	1.48
1	A	2145	A	C1'-N9	-5.88	1.38	1.46
1	A	2179	A	C1'-N9	-5.86	1.38	1.46
1	A	2154	C	C1'-N1	5.77	1.57	1.48
2	C	14	G	N3-C4	-5.71	1.31	1.35
1	A	2152	C	C1'-N1	5.66	1.57	1.48
1	A	2130	C	C1'-N1	5.63	1.57	1.48
1	A	2144	G	C1'-N9	-5.51	1.39	1.46
1	A	794	A	N9-C4	-5.43	1.34	1.37
26	G	197	TRP	CB-CG	-5.40	1.40	1.50

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
26	G	148	TRP	CB-CG	-5.27	1.40	1.50
7	O	76	VAL	C-N	-5.24	1.22	1.34
1	A	2146	A	C1'-N9	-5.17	1.39	1.46
13	U	73	CYS	CB-SG	-5.13	1.73	1.81
1	A	2479	U	N3-C4	-5.10	1.33	1.38
1	A	2151	G	C1'-N9	-5.09	1.39	1.46
2	C	25	C	N1-C2	-5.07	1.35	1.40
1	A	2480	U	N3-C4	-5.05	1.33	1.38

All (164) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	95	A	N1-C2-N3	-28.24	115.18	129.30
2	C	95	A	C2-N3-C4	24.30	122.75	110.60
2	C	95	A	N7-C8-N9	14.45	121.03	113.80
6	N	196	LEU	C-N-CD	-14.44	88.83	120.60
2	C	95	A	C4-C5-N7	-13.30	104.05	110.70
12	T	116	PRO	C-N-CD	-11.72	94.82	120.60
2	C	14	G	N3-C4-N9	-11.20	119.28	126.00
6	N	154	LEU	C-N-CD	-11.17	96.03	120.60
2	C	95	A	N3-C4-N9	10.29	135.63	127.40
1	A	783	U	N1-C2-O2	9.16	129.22	122.80
2	C	95	A	C6-N1-C2	9.05	124.03	118.60
21	c	48	LEU	CA-CB-CG	-8.73	95.22	115.30
1	A	2479	U	C5-C4-O4	8.50	131.00	125.90
1	A	684	C	C2-N3-C4	-8.21	115.79	119.90
1	A	764	A	C5-N7-C8	-8.11	99.84	103.90
2	C	14	G	N3-C4-C5	8.01	132.60	128.60
2	C	95	A	N9-C4-C5	-8.00	102.60	105.80
1	A	1035	C	C2-N3-C4	-7.87	115.97	119.90
1	A	2730	A	N7-C8-N9	7.74	117.67	113.80
1	A	1335	C	C2-N1-C1'	7.63	127.20	118.80
1	A	818	U	C2-N3-C4	-7.62	122.43	127.00
2	C	95	A	N3-C4-C5	-7.51	121.55	126.80
1	A	2480	U	C5-C4-O4	7.45	130.37	125.90
1	A	2504	A	C6-N1-C2	-7.34	114.19	118.60
1	A	2504	A	N1-C2-N3	7.31	132.96	129.30
2	C	14	G	C5-C6-O6	7.26	132.96	128.60
1	A	1035	C	N1-C2-N3	7.16	124.21	119.20
1	A	1609	U	C5-C4-O4	7.12	130.17	125.90
1	A	1585	C	N3-C2-O2	-7.10	116.93	121.90
1	A	2312	C	C2-N3-C4	-7.08	116.36	119.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2753	C	N1-C2-O2	7.07	123.14	118.90
1	A	730	C	N3-C2-O2	-7.00	117.00	121.90
1	A	755	U	C5-C4-O4	-6.96	121.72	125.90
1	A	2034	C	C2-N3-C4	-6.93	116.43	119.90
2	C	95	A	C6-C5-N7	6.92	137.15	132.30
2	C	23	G	C6-C5-N7	-6.89	126.27	130.40
16	X	129	GLY	N-CA-C	-6.88	95.90	113.10
1	A	2480	U	C2-N1-C1'	6.86	125.93	117.70
1	A	2730	A	C8-N9-C4	-6.79	103.08	105.80
12	T	175	PRO	CA-N-CD	-6.76	102.03	111.50
2	C	14	G	N9-C4-C5	6.74	108.09	105.40
1	A	1444	A	N1-C2-N3	6.71	132.65	129.30
26	G	245	LEU	CA-CB-CG	6.58	130.45	115.30
30	g	90	LEU	CB-CG-CD2	-6.55	99.87	111.00
1	A	1035	C	N1-C2-O2	-6.49	115.01	118.90
5	M	49	ASN	C-N-CA	6.46	137.84	121.70
1	A	2505	A	C6-N1-C2	-6.43	114.74	118.60
1	A	1203	C	C2-N1-C1'	6.41	125.85	118.80
1	A	1444	A	C6-N1-C2	-6.39	114.77	118.60
1	A	764	A	N7-C8-N9	6.38	116.99	113.80
2	C	14	G	C2-N3-C4	-6.37	108.71	111.90
2	C	25	C	C2-N1-C1'	-6.26	111.91	118.80
1	A	1035	C	C6-N1-C1'	6.25	128.30	120.80
1	A	2217	U	C5-C4-O4	-6.20	122.18	125.90
2	C	23	G	C4-C5-N7	6.20	113.28	110.80
1	A	783	U	N3-C2-O2	-6.14	117.90	122.20
1	A	2457	C	C2-N1-C1'	6.14	125.55	118.80
3	B	45	G	P-O3'-C3'	6.11	127.03	119.70
1	A	538	C	O4'-C1'-N1	6.11	113.09	108.20
1	A	783	U	C2-N1-C1'	6.09	125.01	117.70
1	A	1335	C	C6-N1-C1'	-6.07	113.52	120.80
1	A	1655	G	C6-C5-N7	-6.06	126.77	130.40
1	A	1239	C	N1-C2-O2	6.04	122.52	118.90
1	A	135	C	N3-C2-O2	-6.04	117.67	121.90
1	A	2311	C	N3-C2-O2	-6.04	117.67	121.90
2	C	14	G	C8-N9-C1'	6.02	134.83	127.00
1	A	2753	C	C2-N1-C1'	6.01	125.41	118.80
2	C	14	G	C4-N9-C1'	-5.99	118.71	126.50
17	Y	73	ARG	NE-CZ-NH2	-5.97	117.31	120.30
1	A	544	G	C6-C5-N7	-5.92	126.85	130.40
1	A	2479	U	N3-C4-O4	-5.92	115.25	119.40
1	A	755	U	C2-N3-C4	-5.88	123.47	127.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	C	23	G	C4-N9-C1'	5.87	134.12	126.50
1	A	2753	C	C6-N1-C1'	-5.86	113.76	120.80
1	A	2480	U	N3-C4-O4	-5.77	115.36	119.40
1	A	2505	A	N1-C2-N3	5.77	132.19	129.30
32	h	70	TRP	CA-CB-CG	-5.76	102.76	113.70
19	E	101	LEU	C-N-CA	-5.72	107.41	121.70
1	A	1035	C	C2-N1-C1'	-5.72	112.51	118.80
1	A	1609	U	C2-N1-C1'	5.71	124.56	117.70
1	A	2034	C	C5-C4-N4	-5.70	116.21	120.20
1	A	1610	C	N1-C2-O2	5.69	122.32	118.90
23	e	101	ARG	NE-CZ-NH2	-5.67	117.47	120.30
2	C	25	C	N1-C2-O2	-5.65	115.51	118.90
2	C	23	G	C8-N9-C1'	-5.64	119.67	127.00
1	A	764	A	C8-N9-C4	-5.62	103.55	105.80
1	A	1347	U	N1-C2-O2	5.61	126.72	122.80
1	A	1960	U	N3-C2-O2	-5.60	118.28	122.20
1	A	1945	U	C2-N1-C1'	5.58	124.40	117.70
1	A	1203	C	N1-C2-O2	5.58	122.25	118.90
1	A	1655	G	C4-C5-N7	5.58	113.03	110.80
4	L	239	LEU	CA-CB-CG	5.56	128.08	115.30
2	C	90	G	C4-C5-N7	5.52	113.01	110.80
1	A	213	A	P-O3'-C3'	5.52	126.32	119.70
2	C	25	C	C6-N1-C1'	5.51	127.42	120.80
17	Y	98	LEU	CA-CB-CG	5.50	127.95	115.30
1	A	1818	U	N3-C2-O2	-5.46	118.38	122.20
1	A	2535	C	N1-C2-O2	5.46	122.17	118.90
1	A	1344	G	N3-C4-N9	5.44	129.26	126.00
1	A	2545	U	N1-C2-O2	5.43	126.60	122.80
1	A	404	U	N1-C2-O2	5.43	126.60	122.80
1	A	544	G	N3-C4-N9	5.42	129.25	126.00
1	A	794	A	C5-N7-C8	-5.40	101.20	103.90
1	A	2332	G	C5-C6-O6	5.38	131.83	128.60
1	A	2267	G	N3-C4-C5	5.35	131.28	128.60
1	A	1416	A	O4'-C1'-N9	5.35	112.48	108.20
1	A	135	C	N1-C2-O2	5.35	122.11	118.90
1	A	2311	C	N1-C2-O2	5.34	122.10	118.90
12	T	97	GLU	C-N-CD	5.34	139.62	128.40
1	A	1462	G	N1-C6-O6	-5.34	116.70	119.90
1	A	2457	C	N1-C2-O2	5.33	122.10	118.90
1	A	1610	C	N3-C2-O2	-5.30	118.19	121.90
1	A	544	G	C4-C5-N7	5.29	112.92	110.80
1	A	2797	U	C5-C4-O4	-5.29	122.72	125.90

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1462	G	C5-C6-O6	5.28	131.77	128.60
1	A	563	C	C2-N1-C1'	5.28	124.60	118.80
10	R	138	ARG	C-N-CD	5.28	139.48	128.40
1	A	2457	C	N3-C2-O2	-5.27	118.21	121.90
25	F	173	LEU	CA-CB-CG	5.27	127.42	115.30
1	A	1801	A	N1-C2-N3	5.26	131.93	129.30
1	A	2410	U	N3-C2-O2	-5.26	118.52	122.20
3	B	45	G	OP2-P-O3'	5.26	116.77	105.20
1	A	1610	C	C2-N1-C1'	5.26	124.58	118.80
2	C	26	G	C4-C5-N7	5.25	112.90	110.80
6	N	158	VAL	C-N-CD	5.24	139.41	128.40
1	A	1428	C	C2-N1-C1'	5.24	124.56	118.80
1	A	112	C	C2-N1-C1'	5.23	124.55	118.80
1	A	1287	G	P-O3'-C3'	5.22	125.97	119.70
2	C	16	G	P-O3'-C3'	5.21	125.96	119.70
1	A	2046	G	C4-N9-C1'	-5.20	119.74	126.50
1	A	2576	C	N3-C2-O2	-5.20	118.26	121.90
28	I	46	GLN	C-N-CD	5.19	139.29	128.40
1	A	1002	G	P-O3'-C3'	5.18	125.92	119.70
1	A	1585	C	N1-C2-N3	5.17	122.82	119.20
16	X	129	GLY	C-N-CD	5.17	139.25	128.40
1	A	1400	U	C2-N1-C1'	5.16	123.89	117.70
1	A	1266	G	N3-C4-N9	-5.15	122.91	126.00
1	A	1585	C	C6-N1-C2	-5.15	118.24	120.30
1	A	2535	C	C2-N1-C1'	5.14	124.46	118.80
1	A	1227	U	N1-C2-O2	5.14	126.40	122.80
32	h	50	ARG	C-N-CD	5.14	139.19	128.40
1	A	32	U	N3-C2-O2	-5.13	118.61	122.20
7	O	76	VAL	C-N-CA	5.13	134.53	121.70
1	A	696	A	N1-C6-N6	-5.12	115.53	118.60
1	A	675	U	N3-C2-O2	-5.11	118.62	122.20
1	A	1683	G	O4'-C1'-N9	5.10	112.28	108.20
15	W	170	THR	C-N-CD	5.10	139.12	128.40
1	A	2354	G	C6-C5-N7	-5.10	127.34	130.40
11	S	92	LEU	C-N-CA	-5.09	108.97	121.70
1	A	542	C	O4'-C1'-N1	5.09	112.27	108.20
1	A	544	G	N9-C4-C5	-5.08	103.37	105.40
10	R	226	LEU	CA-CB-CG	5.08	126.99	115.30
1	A	2354	G	N3-C4-N9	5.07	129.04	126.00
1	A	1334	U	C2-N1-C1'	5.07	123.78	117.70
15	W	61	LEU	C-N-CD	5.06	139.03	128.40
1	A	764	A	C4-C5-N7	5.06	113.23	110.70

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2535	C	N3-C2-O2	-5.06	118.36	121.90
1	A	2242	A	P-O3'-C3'	5.05	125.76	119.70
1	A	2332	G	N1-C6-O6	-5.04	116.87	119.90
1	A	1452	A	C6-C5-N7	-5.04	128.77	132.30
1	A	795	U	P-O3'-C3'	5.04	125.74	119.70
1	A	1203	C	C6-N1-C1'	-5.03	114.76	120.80
1	A	1954	U	P-O3'-C3'	5.03	125.73	119.70
1	A	1400	U	C5-C6-N1	5.01	125.20	122.70

There are no chirality outliers.

All (16) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
19	E	150	LEU	Peptide
19	E	29	ILE	Peptide
19	E	41	ALA	Peptide
25	F	267	MET	Peptide
26	G	200	ASP	Peptide
26	G	204	LYS	Peptide
27	H	167	PHE	Peptide
9	Q	70	ARG	Peptide
10	R	190	VAL	Peptide
11	S	24	PHE	Peptide
11	S	82	ILE	Peptide
11	S	96	ILE	Peptide
13	U	90	ASN	Peptide
24	f	73	GLN	Peptide
32	h	73	LYS	Peptide
32	h	78	VAL	Peptide

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	A	60117	0	30254	3962	0
2	C	2187	0	1099	306	0
3	B	2500	0	1263	331	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
4	L	1184	0	1221	135	0
5	M	942	0	996	51	0
6	N	1342	0	1413	392	0
7	O	1067	0	1120	103	0
8	P	944	0	1004	68	0
9	Q	947	0	966	87	0
10	R	953	0	1044	80	0
11	S	996	0	1060	122	0
12	T	1171	0	1216	216	0
13	U	1149	0	1220	98	0
14	V	740	0	795	103	0
15	W	993	0	1054	127	0
16	X	810	0	847	185	0
17	Y	605	0	652	51	0
18	Z	754	0	804	99	0
19	E	1904	0	1982	219	0
20	b	378	0	413	0	0
21	c	415	0	434	0	0
22	d	445	0	501	0	0
23	e	563	0	621	0	0
24	f	304	0	342	0	0
25	F	1620	0	1699	174	0
26	G	1655	0	1723	238	0
27	H	1351	0	1407	136	0
28	I	1353	0	1416	90	0
29	J	423	0	488	39	0
30	g	345	0	395	0	0
31	a	300	0	279	0	0
32	h	368	0	386	0	0
All	All	90825	0	60114	6418	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 46.

All (6418) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2351:G:C4	9:Q:64:VAL:HG21	1.27	1.61
2:C:95:A:C6	2:C:95:A:C5	1.79	1.59
16:X:128:TYR:CB	16:X:134:LYS:CD	1.78	1.58
11:S:91:LEU:CD1	12:T:175:PRO:HB3	1.30	1.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:G:C6	1:A:433:C:C6	1.94	1.54
16:X:128:TYR:HB3	16:X:134:LYS:CG	1.33	1.52
2:C:95:A:N1	2:C:95:A:C2	1.76	1.51
12:T:171:TYR:CE2	12:T:231:PRO:HB3	1.40	1.51
2:C:95:A:N3	2:C:95:A:C2	1.76	1.51
12:T:170:THR:H	12:T:233:SER:CB	1.20	1.51
16:X:128:TYR:HB2	16:X:134:LYS:CD	1.05	1.50
1:A:2351:G:C4	9:Q:64:VAL:CG2	1.95	1.47
1:A:2213:A:N6	1:A:2241:G:H21	0.98	1.47
2:C:95:A:C4	2:C:95:A:N3	1.80	1.46
2:C:95:A:C6	2:C:95:A:N1	1.85	1.45
1:A:983:G:N2	7:O:82:ARG:CZ	1.80	1.43
10:R:123:MET:CE	25:F:97:LEU:O	1.64	1.43
1:A:983:G:N2	7:O:82:ARG:NH2	1.63	1.42
1:A:330:U:C2	26:G:218:LYS:HE2	1.52	1.42
1:A:133:A:N6	1:A:162:A:C2	1.77	1.41
1:A:2213:A:N6	1:A:2241:G:N2	1.66	1.41
1:A:135:C:C5	1:A:161:G:O6	1.74	1.41
1:A:274:G:O6	1:A:433:C:C3'	1.67	1.40
16:X:128:TYR:CB	16:X:134:LYS:CG	1.93	1.40
1:A:1527:G:N1	1:A:1539:C:N3	1.70	1.40
1:A:2279:U:OP2	16:X:73:LYS:CG	1.67	1.39
1:A:639:A:N6	6:N:201:LEU:HD13	1.34	1.38
14:V:116:GLN:HA	18:Z:91:ARG:NH2	1.31	1.38
1:A:2351:G:N9	9:Q:64:VAL:HG21	1.35	1.38
12:T:170:THR:N	12:T:233:SER:HB3	1.06	1.37
6:N:165:ILE:HG13	6:N:206:LEU:CA	1.45	1.37
2:C:30:A:N6	2:C:83:C:O2'	1.56	1.36
6:N:156:LYS:NZ	6:N:215:ARG:NH1	1.68	1.36
1:A:983:G:C2	7:O:82:ARG:NH2	1.92	1.36
1:A:1263:G:N2	6:N:83:ASP:OD2	1.58	1.35
6:N:81:ARG:NH1	26:G:243:GLU:HB2	1.39	1.35
1:A:2322:A:N3	27:H:186:ARG:NH1	1.74	1.35
1:A:44:G:N7	1:A:200:G:O2'	1.58	1.35
1:A:540:A:P	4:L:212:ARG:HH11	1.48	1.35
28:I:46:GLN:OE1	28:I:109:ARG:CG	1.71	1.35
3:B:41:U:C2'	3:B:46:A:H61	1.39	1.35
1:A:1002:G:H5'	12:T:201:LYS:NZ	1.38	1.35
6:N:159:PRO:HB3	6:N:187:ILE:CD1	1.54	1.34
1:A:1236:A:N6	1:A:1253:G:H1	1.21	1.34
16:X:128:TYR:CB	16:X:134:LYS:HD3	1.44	1.33

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:V:109:LEU:CD1	14:V:141:ARG:O	1.75	1.33
1:A:1528:U:O2	1:A:1538:G:N2	1.61	1.33
12:T:169:SER:HB2	12:T:233:SER:OG	1.27	1.33
1:A:2213:A:C2	1:A:2214:C:C2	2.17	1.32
1:A:329:C:C2'	26:G:222:ASN:ND2	1.92	1.32
12:T:108:ASN:O	12:T:112:PRO:HD3	1.23	1.32
1:A:639:A:C6	6:N:201:LEU:HD13	1.62	1.32
1:A:111:U:OP2	18:Z:134:ARG:NH1	1.62	1.31
1:A:2113:G:H22	1:A:2204:A:N6	1.25	1.31
1:A:330:U:N3	26:G:218:LYS:NZ	1.76	1.31
14:V:109:LEU:HD11	14:V:141:ARG:O	1.23	1.30
1:A:355:A:C8	1:A:356:A:C8	2.19	1.30
3:B:17:G:N2	3:B:70:G:H1'	1.47	1.30
1:A:82:G:OP2	15:W:157:LYS:CE	1.79	1.30
1:A:234:C:C6	6:N:142:LYS:NZ	2.00	1.30
1:A:1751:A:C2	1:A:1753:A:C8	2.20	1.29
25:F:142:GLU:OE2	25:F:167:HIS:CE1	1.84	1.29
1:A:330:U:N3	26:G:218:LYS:CE	1.95	1.29
3:B:16:G:O6	3:B:111:G:C2	1.85	1.29
16:X:128:TYR:CB	16:X:134:LYS:HG3	1.54	1.29
1:A:983:G:N2	7:O:82:ARG:NH1	1.78	1.29
12:T:96:PRO:C	12:T:98:PRO:HD3	1.50	1.29
1:A:2109:C:C5	1:A:2110:U:C2	2.20	1.28
11:S:91:LEU:CD1	12:T:175:PRO:CB	2.11	1.28
1:A:983:G:N3	7:O:82:ARG:NH2	1.81	1.28
1:A:1023:C:O2	4:L:102:PRO:HD3	1.13	1.28
1:A:2154:C:N3	1:A:2165:G:N2	1.82	1.26
1:A:330:U:O2	26:G:218:LYS:HE2	1.30	1.26
1:A:1169:A:OP1	4:L:245:ARG:NH2	1.67	1.26
1:A:2107:G:OP1	29:J:72:GLY:HA3	1.33	1.26
1:A:822:U:C5	1:A:1272:A:C2	2.23	1.26
4:L:175:ARG:HH22	4:L:184:LYS:NZ	1.31	1.25
6:N:160:ILE:HG21	6:N:203:GLU:OE2	1.22	1.25
1:A:2120:U:O4	1:A:2197:A:N1	1.69	1.25
6:N:160:ILE:CG2	6:N:203:GLU:OE2	1.83	1.25
6:N:205:GLU:OE1	6:N:224:LYS:CD	1.82	1.25
1:A:279:A:N7	1:A:379:C:N4	1.83	1.25
28:I:46:GLN:OE1	28:I:109:ARG:HG3	1.13	1.25
1:A:843:C:H4'	6:N:125:ILE:CD1	1.67	1.24
25:F:117:PHE:HA	25:F:141:TYR:OH	1.35	1.24
1:A:2124:G:N2	1:A:2194:U:O2	1.69	1.24

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1830:U:C4	19:E:197:ASN:ND2	2.06	1.24
6:N:205:GLU:OE1	6:N:224:LYS:HD2	1.15	1.24
1:A:330:U:C2	26:G:218:LYS:CE	2.18	1.24
26:G:70:LEU:CD1	26:G:256:ASN:OD1	1.85	1.24
1:A:822:U:H2'	6:N:100:ARG:O	1.27	1.23
1:A:2116:C:N3	1:A:2201:G:N2	1.84	1.23
1:A:932:A:C4'	16:X:85:GLN:HE22	1.51	1.23
1:A:1023:C:O2	4:L:102:PRO:CD	1.87	1.22
2:C:30:A:N1	2:C:83:C:H2'	1.53	1.22
1:A:981:G:OP2	7:O:16:ARG:HD3	1.34	1.22
1:A:274:G:N1	1:A:433:C:C5	2.08	1.22
1:A:540:A:OP1	4:L:212:ARG:NH1	1.71	1.22
1:A:2011:G:O5'	25:F:219:ARG:NH2	1.73	1.22
1:A:329:C:O2	26:G:222:ASN:ND2	1.70	1.22
1:A:279:A:N6	1:A:379:C:H42	1.38	1.22
1:A:2322:A:C4	27:H:186:ARG:NH1	2.07	1.21
26:G:73:LYS:CA	26:G:261:VAL:O	1.88	1.21
16:X:126:GLU:O	16:X:133:LYS:O	1.57	1.21
1:A:1521:G:C8	1:A:1543:G:N2	2.09	1.20
1:A:2322:A:N6	27:H:204:GLY:HA3	1.55	1.20
16:X:128:TYR:CE2	16:X:132:LYS:HB2	1.76	1.20
1:A:1211:G:C5'	6:N:111:GLY:HA2	1.71	1.20
1:A:2804:U:OP1	25:F:159:LYS:HG3	1.39	1.20
1:A:1196:A:N6	1:A:1201:A:H61	1.38	1.20
1:A:1023:C:N3	4:L:102:PRO:HD2	1.57	1.19
1:A:2213:A:C5	1:A:2242:A:N1	2.09	1.19
12:T:171:TYR:HD2	12:T:231:PRO:HA	1.06	1.19
1:A:1224:U:H1'	6:N:83:ASP:OD1	1.38	1.19
1:A:2233:G:H2'	1:A:2234:G:C8	1.76	1.19
1:A:1499:G:N2	1:A:1546:C:N3	1.89	1.19
28:I:48:ILE:HG12	28:I:90:LEU:O	1.37	1.19
1:A:913:G:H2'	1:A:914:A:H8	1.04	1.19
6:N:159:PRO:CD	6:N:199:LYS:O	1.92	1.18
1:A:1751:A:H2	1:A:1753:A:C8	1.57	1.18
1:A:1211:G:H5''	6:N:111:GLY:CA	1.73	1.18
1:A:1532:G:N2	1:A:1611:G:N3	1.90	1.18
1:A:60:U:O2'	18:Z:94:ARG:NH1	1.74	1.18
1:A:881:U:O2	1:A:915:G:N2	1.76	1.18
1:A:384:G:O2'	1:A:412:G:O6	1.60	1.18
1:A:888:C:N4	1:A:908:A:H2	1.42	1.18
1:A:2684:C:H5	28:I:150:SER:HB3	1.06	1.18

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:79:G:O2'	1:A:355:A:C2	1.95	1.17
1:A:2121:C:N4	1:A:2196:G:N2	1.93	1.17
26:G:70:LEU:HD12	26:G:256:ASN:OD1	1.40	1.17
6:N:159:PRO:CB	6:N:187:ILE:HD11	1.74	1.17
26:G:73:LYS:HA	26:G:261:VAL:O	1.41	1.17
1:A:1196:A:H61	1:A:1201:A:N6	1.41	1.16
29:J:76:ASN:O	29:J:80:PRO:HD2	1.42	1.16
1:A:2075:G:OP2	26:G:119:LYS:CE	1.93	1.16
1:A:2684:C:C5	28:I:150:SER:HB3	1.81	1.16
16:X:128:TYR:CD2	16:X:132:LYS:HB2	1.78	1.16
1:A:1159:G:C5	4:L:176:HIS:CE1	2.34	1.16
1:A:2129:G:O2'	1:A:2180:G:N2	1.78	1.16
1:A:2767:A:OP2	28:I:42:ARG:O	1.64	1.16
10:R:123:MET:HE2	25:F:97:LEU:O	1.44	1.15
1:A:1521:G:N2	1:A:1544:A:N1	1.94	1.15
1:A:329:C:H2'	26:G:222:ASN:ND2	1.56	1.15
1:A:609:G:H5''	26:G:79:LYS:HD2	1.23	1.15
1:A:2156:C:O2	1:A:2164:G:N2	1.79	1.15
1:A:279:A:N7	1:A:379:C:C4	2.14	1.15
6:N:165:ILE:HG21	6:N:205:GLU:O	1.46	1.15
1:A:49:G:O2'	18:Z:130:LYS:HD2	1.45	1.15
1:A:93:A:O2'	18:Z:102:PRO:CG	1.93	1.15
1:A:2279:U:OP2	16:X:73:LYS:HG3	0.99	1.15
3:B:6:U:C2	3:B:118:G:N2	2.15	1.15
3:B:91:G:H22	7:O:38:GLU:CG	1.59	1.15
1:A:624:A:C4	1:A:625:C:C5	2.34	1.14
1:A:853:G:O6	1:A:965:G:O6	1.65	1.14
1:A:93:A:O2'	18:Z:102:PRO:HG2	0.99	1.14
3:B:17:G:H22	3:B:70:G:C1'	1.58	1.14
1:A:2351:G:C5	9:Q:64:VAL:CG2	2.27	1.14
3:B:35:A:C2	3:B:51:G:C2	2.35	1.14
2:C:77:A:H1'	8:P:16:LYS:HB2	1.17	1.14
1:A:1596:U:C2'	1:A:1597:C:H5'	1.77	1.14
1:A:290:A:H2'	1:A:291:G:H8	1.11	1.14
1:A:75:C:OP1	18:Z:110:LYS:NZ	1.81	1.14
1:A:1159:G:C4	4:L:176:HIS:CE1	2.36	1.14
1:A:1002:G:C5'	12:T:201:LYS:NZ	2.08	1.14
1:A:384:G:OP2	17:Y:131:LYS:HE3	1.47	1.14
14:V:116:GLN:CA	18:Z:91:ARG:HH22	1.60	1.14
1:A:1159:G:C5	4:L:176:HIS:HE1	1.66	1.14
1:A:135:C:H5	1:A:161:G:O6	1.15	1.14

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:104:A:C2	2:C:105:A:C5	2.36	1.13
1:A:355:A:H2'	1:A:356:A:H5'	1.23	1.13
1:A:274:G:C2	1:A:433:C:C5	2.35	1.13
1:A:368:U:C2	1:A:369:U:C5	2.37	1.13
1:A:2798:G:C6	4:L:201:GLU:OE2	2.01	1.13
1:A:2798:G:O6	4:L:201:GLU:OE2	1.66	1.13
6:N:81:ARG:NH1	26:G:243:GLU:CB	2.10	1.13
1:A:2095:U:OP1	17:Y:87:ARG:NH1	1.79	1.13
1:A:83:A:N6	1:A:98:G:N7	1.96	1.13
25:F:144:LEU:HD11	25:F:166:ARG:CZ	1.77	1.12
6:N:162:LEU:CD1	6:N:203:GLU:OE1	1.98	1.12
12:T:108:ASN:O	12:T:112:PRO:CD	1.97	1.12
1:A:2109:C:H5	1:A:2110:U:C2	1.61	1.12
1:A:381:C:O2	1:A:416:C:C5	2.03	1.12
1:A:1507:G:N2	1:A:1515:G:OP2	1.81	1.12
1:A:289:A:H2'	1:A:290:A:H8	1.10	1.12
1:A:1525:G:N2	1:A:1541:U:C2	2.16	1.12
1:A:48:A:N1	1:A:162:A:N7	1.66	1.12
1:A:857:G:N2	1:A:961:G:C4	2.16	1.12
1:A:609:G:H5''	26:G:79:LYS:CD	1.79	1.12
1:A:740:G:O6	19:E:204:ALA:HB3	1.50	1.12
1:A:234:C:C5	6:N:142:LYS:NZ	2.18	1.11
14:V:114:ILE:HG23	14:V:115:LEU:HD12	1.31	1.11
15:W:59:ASN:O	15:W:60:SER:OG	1.66	1.11
6:N:159:PRO:HD2	6:N:199:LYS:O	1.41	1.11
1:A:1475:U:H1'	8:P:70:LEU:CD1	1.81	1.11
28:I:48:ILE:HD11	28:I:109:ARG:NH2	1.65	1.11
6:N:202:GLY:N	6:N:221:ALA:HB2	1.63	1.11
28:I:48:ILE:HD11	28:I:109:ARG:HH21	0.94	1.11
1:A:276:G:N2	1:A:416:C:O2'	1.82	1.11
1:A:1811:A:OP1	19:E:146:ARG:NH2	1.82	1.11
1:A:133:A:N6	1:A:162:A:N1	1.98	1.10
1:A:2279:U:OP2	16:X:73:LYS:CB	1.99	1.10
3:B:92:U:OP2	7:O:16:ARG:NH2	1.84	1.10
1:A:2113:G:N2	1:A:2204:A:N1	1.97	1.10
3:B:16:G:O6	3:B:111:G:N3	1.83	1.10
1:A:1002:G:C5'	12:T:201:LYS:HZ1	1.63	1.10
1:A:313:A:C2	1:A:323:G:N1	2.20	1.10
1:A:356:A:H2'	1:A:357:G:H8	1.16	1.10
3:B:91:G:N1	7:O:38:GLU:OE2	1.84	1.10
1:A:140:G:C6	1:A:155:A:N1	2.18	1.10

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1885:C:N4	6:N:253:ALA:HB2	1.66	1.10
6:N:202:GLY:HA2	6:N:221:ALA:CA	1.81	1.10
1:A:857:G:N2	1:A:961:G:N3	1.98	1.10
1:A:279:A:H62	1:A:379:C:N4	1.50	1.10
26:G:193:ALA:O	26:G:197:TRP:HB2	1.48	1.10
19:E:237:ILE:HD11	19:E:239:ARG:HB2	1.15	1.10
6:N:143:LEU:HG	6:N:146:ILE:HD11	1.13	1.09
1:A:639:A:C5	6:N:201:LEU:CD1	2.35	1.09
1:A:1702:G:O2'	5:M:6:THR:HG22	1.50	1.09
6:N:162:LEU:HD12	6:N:203:GLU:OE1	1.52	1.09
14:V:104:TYR:HD1	18:Z:142:ARG:HD2	1.05	1.09
1:A:2107:G:OP1	29:J:72:GLY:CA	1.99	1.09
12:T:171:TYR:CE2	12:T:231:PRO:CB	2.34	1.09
6:N:200:ILE:HD11	6:N:212:ILE:HG21	1.34	1.09
6:N:202:GLY:CA	6:N:221:ALA:HB2	1.83	1.09
1:A:903:G:H2'	1:A:904:U:H5''	1.31	1.09
6:N:156:LYS:HZ1	6:N:215:ARG:NH1	1.30	1.09
1:A:2211:U:C5	1:A:2241:G:C6	2.39	1.09
1:A:857:G:N3	1:A:961:G:C2	2.21	1.09
1:A:1885:C:C4	6:N:253:ALA:HB2	1.88	1.09
1:A:368:U:C2	1:A:369:U:H5	1.71	1.09
11:S:91:LEU:HD11	12:T:175:PRO:CB	1.75	1.09
2:C:36:A:H2	25:F:274:ARG:CZ	1.65	1.09
3:B:41:U:C2'	3:B:46:A:N6	2.14	1.08
10:R:123:MET:HE1	25:F:97:LEU:O	1.27	1.08
6:N:156:LYS:NZ	6:N:215:ARG:HH11	1.37	1.08
1:A:932:A:C4'	16:X:85:GLN:NE2	2.15	1.08
3:B:8:G:OP2	9:Q:76:PHE:CZ	2.05	1.08
1:A:2279:U:P	16:X:73:LYS:HG3	1.94	1.08
16:X:128:TYR:HB2	16:X:134:LYS:HD2	1.09	1.08
1:A:2157:U:C2	1:A:2163:G:N2	2.21	1.08
1:A:639:A:N7	6:N:201:LEU:CD1	2.15	1.08
1:A:2120:U:O4	1:A:2197:A:C2	2.06	1.08
1:A:356:A:H2'	1:A:357:G:C8	1.89	1.08
16:X:122:LEU:HD11	16:X:140:ARG:CG	1.70	1.08
17:Y:124:LYS:O	17:Y:128:THR:HG23	1.53	1.08
1:A:2320:G:H2'	1:A:2321:G:C8	1.89	1.08
1:A:858:G:H2'	1:A:859:A:H8	1.17	1.08
1:A:504:G:H4'	13:U:37:TYR:HB2	1.35	1.08
16:X:77:LEU:HD11	16:X:97:ARG:NH1	1.66	1.08
2:C:37:C:C2	25:F:143:ARG:NH2	2.22	1.07

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:81:ARG:O	6:N:84:ASN:ND2	1.88	1.07
1:A:274:G:C6	1:A:433:C:H6	1.45	1.07
2:C:104:A:C2	2:C:105:A:C6	2.43	1.07
1:A:330:U:C4	26:G:218:LYS:NZ	2.18	1.07
16:X:122:LEU:CD1	16:X:140:ARG:HG3	1.79	1.07
1:A:2113:G:N2	1:A:2204:A:H61	1.49	1.07
1:A:289:A:H2'	1:A:290:A:C8	1.89	1.07
1:A:290:A:H2'	1:A:291:G:C8	1.89	1.07
15:W:170:THR:HG22	15:W:171:PRO:HD3	1.32	1.07
1:A:274:G:O6	1:A:433:C:H3'	0.89	1.07
1:A:2322:A:C6	27:H:204:GLY:HA3	1.90	1.07
1:A:416:C:O2	1:A:418:G:C5	2.07	1.07
6:N:165:ILE:CG1	6:N:206:LEU:HA	1.71	1.07
1:A:669:C:H2'	1:A:670:A:C8	1.89	1.07
1:A:856:U:C6	1:A:962:G:N2	1.95	1.07
2:C:40:U:C4	2:C:87:A:N6	2.21	1.07
4:L:105:ALA:HB3	4:L:147:VAL:HG21	1.35	1.07
15:W:173:ARG:HH21	15:W:173:ARG:HB3	1.14	1.07
18:Z:76:LEU:CD1	18:Z:115:MET:HE3	1.83	1.07
1:A:2109:C:C5	1:A:2110:U:N3	2.22	1.07
1:A:1521:G:C5	1:A:1543:G:N2	2.23	1.07
1:A:292:C:H2'	1:A:293:G:C8	1.90	1.07
1:A:624:A:C4	1:A:625:C:C6	2.42	1.07
26:G:254:TYR:OH	26:G:258:ARG:NE	1.86	1.07
6:N:102:HIS:NE2	12:T:205:ASN:ND2	2.02	1.07
1:A:853:G:C6	1:A:965:G:C6	2.43	1.06
6:N:165:ILE:CD1	6:N:207:SER:H	1.66	1.06
1:A:1746:C:O2'	1:A:1747:C:H5'	1.53	1.06
1:A:822:U:C2'	6:N:100:ARG:O	2.03	1.06
2:C:104:A:H2'	2:C:105:A:C8	1.90	1.06
16:X:128:TYR:CG	16:X:134:LYS:HG3	1.89	1.06
1:A:1482:C:H2'	1:A:1483:G:C8	1.89	1.06
1:A:1499:G:H1	1:A:1546:C:N4	1.51	1.06
1:A:2186:U:OP2	1:A:2188:C:C5	2.07	1.06
1:A:83:A:N7	1:A:98:G:O6	1.89	1.06
3:B:87:G:O2'	3:B:88:G:H5'	1.55	1.06
1:A:313:A:H2	1:A:323:G:N1	1.50	1.06
1:A:890:G:H2'	1:A:891:G:H8	1.20	1.06
1:A:545:U:O2'	11:S:49:ASP:OD2	1.71	1.06
1:A:1521:G:N7	1:A:1543:G:N2	2.03	1.06
1:A:388:C:N4	1:A:410:G:H1	1.54	1.06

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:G:C6	1:A:433:C:C5	2.40	1.06
1:A:44:G:O2'	1:A:200:G:C8	2.09	1.06
1:A:887:G:N2	1:A:909:A:N1	2.02	1.06
1:A:160:A:C2	1:A:161:G:N7	2.24	1.06
6:N:154:LEU:N	6:N:155:PRO:CD	2.19	1.06
29:J:76:ASN:O	29:J:80:PRO:CD	2.03	1.05
1:A:2500:C:N3	7:O:124:LYS:NZ	2.04	1.05
1:A:913:G:H2'	1:A:914:A:C8	1.91	1.05
19:E:226:HIS:CE1	19:E:228:HIS:HD2	1.74	1.05
1:A:883:C:H2'	1:A:884:G:C8	1.90	1.05
11:S:91:LEU:HG	12:T:175:PRO:CA	1.85	1.05
14:V:104:TYR:CD1	18:Z:142:ARG:HD2	1.90	1.05
4:L:217:LEU:HD12	4:L:218:PHE:N	1.72	1.05
6:N:154:LEU:H	6:N:155:PRO:CD	1.69	1.05
1:A:141:C:N3	1:A:153:G:N1	2.03	1.05
1:A:1479:U:H4'	1:A:1480:A:H5''	1.33	1.05
1:A:1887:G:H2'	1:A:1888:G:C8	1.91	1.05
1:A:82:G:OP2	15:W:157:LYS:HE2	1.54	1.05
2:C:53:G:H22	10:R:144:ARG:NH1	1.55	1.05
1:A:2075:G:OP2	26:G:119:LYS:HE3	1.56	1.04
1:A:2806:U:O2'	2:C:5:A:N3	1.89	1.04
3:B:41:U:O2'	3:B:46:A:N6	1.90	1.04
27:H:188:GLN:HE21	27:H:188:GLN:HA	1.17	1.04
1:A:1269:G:N7	11:S:3:ARG:N	2.03	1.04
1:A:2211:U:H5	1:A:2241:G:C6	1.73	1.04
14:V:106:ARG:O	14:V:107:ARG:HG2	1.55	1.04
1:A:234:C:H6	6:N:142:LYS:NZ	1.43	1.04
1:A:2322:A:C2	27:H:186:ARG:NH1	2.25	1.04
6:N:176:VAL:HG12	6:N:177:SER:H	1.20	1.04
1:A:1159:G:C4	4:L:176:HIS:ND1	2.24	1.04
3:B:41:U:H2'	3:B:46:A:N6	1.73	1.04
1:A:2233:G:H2'	1:A:2234:G:H8	1.09	1.04
1:A:858:G:C2'	1:A:859:A:H5'	1.85	1.04
28:I:48:ILE:CG1	28:I:90:LEU:O	2.03	1.04
16:X:128:TYR:CE2	16:X:132:LYS:CB	2.41	1.04
18:Z:76:LEU:HD12	18:Z:115:MET:CE	1.86	1.04
1:A:1539:C:H2'	1:A:1540:C:C6	1.92	1.04
2:C:40:U:H2'	2:C:41:A:C8	1.92	1.04
1:A:255:A:OP2	1:A:271:G:N2	1.88	1.03
1:A:2809:U:H2'	1:A:2810:A:H4'	1.05	1.03
6:N:158:VAL:HG11	6:N:201:LEU:HD21	1.36	1.03

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:329:C:H2'	26:G:222:ASN:HD22	0.87	1.03
3:B:39:C:N4	3:B:45:G:H1	1.56	1.03
2:C:37:C:N3	25:F:143:ARG:NH2	2.06	1.03
1:A:1596:U:O2'	1:A:1597:C:H5'	1.56	1.03
1:A:912:C:H2'	1:A:913:G:C8	1.92	1.03
1:A:2304:A:N6	1:A:2363:A:H62	1.56	1.03
1:A:1600:A:C2	19:E:209:TRP:CZ3	2.47	1.03
1:A:1529:A:N1	1:A:1537:U:N3	2.06	1.03
10:R:141:PRO:HD2	10:R:206:ILE:HD11	1.40	1.03
1:A:1829:A:H4'	1:A:1830:U:C5'	1.89	1.03
1:A:898:G:C8	1:A:899:A:N7	2.25	1.03
1:A:2213:A:C2	1:A:2242:A:C2	2.47	1.02
1:A:279:A:C5	1:A:379:C:N4	2.27	1.02
1:A:1879:U:O4	6:N:252:ARG:NH2	1.92	1.02
1:A:1083:G:N2	1:A:1132:C:N3	2.06	1.02
1:A:2479:U:O4	1:A:2505:A:N1	1.92	1.02
1:A:1635:C:H4'	14:V:106:ARG:NH2	1.73	1.02
1:A:152:G:C2	1:A:153:G:C8	2.47	1.02
1:A:2351:G:C4	9:Q:64:VAL:HG22	1.95	1.02
1:A:5:A:H2'	1:A:6:A:C8	1.94	1.02
1:A:912:C:H2'	1:A:913:G:H8	1.20	1.02
1:A:96:C:H2'	1:A:97:A:C8	1.95	1.02
3:B:91:G:N2	7:O:38:GLU:HG3	1.74	1.02
1:A:1178:G:C1'	11:S:83:HIS:NE2	2.23	1.02
6:N:202:GLY:HA2	6:N:221:ALA:CB	1.90	1.02
1:A:1361:U:O4	14:V:168:PRO:HB3	1.58	1.02
1:A:1745:C:C4	1:A:1746:C:N4	2.28	1.02
3:B:35:A:C2	3:B:51:G:N3	2.28	1.02
1:A:2075:G:OP2	26:G:119:LYS:HE2	1.56	1.01
1:A:2322:A:C6	27:H:204:GLY:CA	2.43	1.01
1:A:259:C:H2'	1:A:260:G:H8	1.25	1.01
6:N:197:PRO:HB3	6:N:215:ARG:HD2	1.40	1.01
1:A:1808:C:H2'	1:A:1829:A:H61	1.22	1.01
1:A:2154:C:N4	1:A:2165:G:H22	1.58	1.01
6:N:211:GLN:HA	6:N:231:SER:O	1.60	1.01
1:A:1689:C:H41	8:P:19:ARG:NE	1.55	1.01
19:E:213:ARG:HD3	19:E:214:PRO:HD2	1.43	1.01
1:A:139:U:N3	1:A:140:G:N7	2.09	1.01
11:S:91:LEU:HG	12:T:175:PRO:CB	1.90	1.01
1:A:1023:C:C2	4:L:102:PRO:CD	2.44	1.01
1:A:1516:G:H3'	1:A:1517:G:H5'	1.39	1.01

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1751:A:C2	1:A:1753:A:N7	2.27	1.01
1:A:2074:A:H62	26:G:125:ARG:HH22	1.05	1.01
1:A:133:A:N6	1:A:162:A:H2	1.26	1.01
1:A:2731:C:OP1	8:P:25:ASP:OD2	1.79	1.01
1:A:276:G:N2	1:A:416:C:HO2'	1.58	1.01
19:E:258:ARG:C	19:E:259:ASN:HD22	1.64	1.01
1:A:2328:A:O4'	27:H:127:ILE:CD1	2.09	1.01
6:N:205:GLU:CD	6:N:224:LYS:HD2	1.80	1.01
1:A:853:G:C6	1:A:965:G:O6	2.14	1.00
2:C:53:G:H8	2:C:70:G:H21	1.01	1.00
1:A:1830:U:N3	19:E:197:ASN:ND2	2.08	1.00
1:A:1076:A:N1	1:A:1139:A:O2'	1.93	1.00
1:A:2809:U:C2'	1:A:2810:A:H4'	1.90	1.00
6:N:159:PRO:HB3	6:N:187:ILE:HD11	1.04	1.00
1:A:2393:A:H2	9:Q:166:PHE:CZ	1.78	1.00
12:T:96:PRO:C	12:T:98:PRO:CD	2.29	1.00
1:A:60:U:O2'	18:Z:94:ARG:CZ	1.94	1.00
1:A:883:C:O4'	7:O:65:TRP:HZ3	1.45	1.00
1:A:1393:U:O2'	1:A:2230:A:H2'	1.61	1.00
1:A:1529:A:C2	1:A:1537:U:C2	2.50	1.00
1:A:278:G:N2	1:A:380:C:N3	2.10	1.00
2:C:30:A:N1	2:C:83:C:C2'	2.25	1.00
19:E:265:PHE:CD1	19:E:266:ILE:HG13	1.97	1.00
1:A:843:C:H4'	6:N:125:ILE:HD11	1.39	1.00
1:A:1472:A:N6	1:A:1479:U:C4	2.30	1.00
1:A:2480:U:O4	1:A:2504:A:N1	1.95	1.00
1:A:1248:G:OP1	11:S:13:ARG:NH2	1.93	1.00
11:S:91:LEU:CG	12:T:175:PRO:CB	2.40	1.00
1:A:626:C:C6	1:A:627:C:C5	2.49	1.00
16:X:121:GLY:HA3	16:X:138:TYR:O	1.61	1.00
1:A:2798:G:N1	4:L:201:GLU:OE2	1.94	1.00
1:A:295:C:H2'	1:A:296:G:H8	1.23	1.00
10:R:116:ARG:CZ	10:R:116:ARG:HA	1.91	1.00
1:A:648:G:N7	6:N:199:LYS:HE2	1.76	1.00
6:N:172:GLU:HA	6:N:210:LEU:CD2	1.92	0.99
12:T:171:TYR:HD2	12:T:231:PRO:CA	1.76	0.99
1:A:1470:A:C2	1:A:1482:C:N3	2.30	0.99
1:A:1023:C:C2	4:L:102:PRO:HD2	1.96	0.99
15:W:161:LEU:CD1	15:W:168:VAL:CG2	2.40	0.99
1:A:1475:U:H1'	8:P:70:LEU:HD13	1.42	0.99
1:A:1812:A:H2'	1:A:1813:A:C8	1.98	0.99

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:274:G:O6	1:A:433:C:C6	2.15	0.99
1:A:629:C:OP1	26:G:158:ARG:NE	1.95	0.99
13:U:149:LEU:HD23	13:U:149:LEU:H	1.25	0.99
14:V:116:GLN:CA	18:Z:91:ARG:NH2	2.23	0.99
1:A:2189:C:H2'	1:A:2190:A:C8	1.98	0.99
12:T:171:TYR:CD2	12:T:231:PRO:HA	1.97	0.99
1:A:259:C:H2'	1:A:260:G:C8	1.98	0.99
1:A:639:A:N6	6:N:201:LEU:CD1	2.26	0.99
2:C:40:U:N3	2:C:87:A:C6	2.31	0.99
1:A:540:A:P	4:L:212:ARG:NH1	2.32	0.99
1:A:329:C:C2'	26:G:222:ASN:HD22	1.60	0.99
6:N:165:ILE:HG13	6:N:206:LEU:HA	1.00	0.99
1:A:2739:A:C2	2:C:77:A:N6	2.31	0.99
2:C:38:G:OP2	25:F:144:LEU:HD22	1.63	0.99
1:A:102:U:H2'	1:A:103:C:H5'	1.42	0.99
1:A:139:U:C2	1:A:140:G:C8	2.51	0.99
1:A:1211:G:OP1	6:N:109:SER:OG	1.79	0.98
1:A:143:G:H2'	1:A:144:A:H5'	1.42	0.98
1:A:1470:A:C2	1:A:1482:C:O2	2.16	0.98
1:A:2191:C:H2'	1:A:2192:U:H5'	1.45	0.98
2:C:33:A:H1'	2:C:34:U:H5'	1.44	0.98
4:L:175:ARG:NH2	4:L:184:LYS:HD3	1.78	0.98
16:X:131:ASP:OD1	16:X:132:LYS:NZ	1.94	0.98
6:N:205:GLU:OE2	6:N:224:LYS:CE	2.12	0.98
12:T:169:SER:HB2	12:T:233:SER:CB	1.93	0.98
1:A:1886:A:H2'	1:A:1887:G:H5'	1.45	0.98
1:A:2219:U:H3'	1:A:2220:G:C5'	1.92	0.98
6:N:154:LEU:N	6:N:155:PRO:HD3	1.78	0.98
2:C:40:U:O4	2:C:87:A:N6	1.95	0.98
2:C:40:U:H2'	2:C:41:A:H8	1.27	0.98
1:A:932:A:O4'	16:X:85:GLN:NE2	1.93	0.98
1:A:267:C:H2'	1:A:268:G:H8	1.26	0.98
1:A:317:G:H21	1:A:338:G:H21	1.08	0.98
1:A:330:U:H3	26:G:218:LYS:CE	1.67	0.98
1:A:609:G:C5'	26:G:79:LYS:HD2	1.93	0.98
1:A:1444:A:N1	1:A:1609:U:O4	1.97	0.98
1:A:82:G:OP2	15:W:157:LYS:HE3	1.62	0.98
1:A:1479:U:H4'	1:A:1480:A:C5'	1.93	0.98
1:A:1876:A:H3'	1:A:1877:C:H6	1.28	0.98
1:A:582:A:OP2	12:T:203:LYS:NZ	1.96	0.98
1:A:145:A:H3'	1:A:146:U:H5''	1.45	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:639:A:C6	6:N:201:LEU:CD1	2.47	0.98
1:A:934:A:H1'	1:A:935:U:C5'	1.93	0.98
1:A:1522:A:H2'	1:A:1523:A:H8	1.29	0.97
1:A:274:G:N1	1:A:433:C:C6	2.28	0.97
1:A:1083:G:H1	1:A:1132:C:H42	1.11	0.97
1:A:144:A:H62	1:A:150:U:H3	1.10	0.97
1:A:330:U:C2	26:G:218:LYS:NZ	2.26	0.97
11:S:91:LEU:HG	12:T:175:PRO:CG	1.93	0.97
12:T:171:TYR:CD2	12:T:231:PRO:HB3	1.99	0.97
1:A:2213:A:C2	1:A:2242:A:H2	1.80	0.97
1:A:822:U:C5	1:A:1272:A:N1	2.32	0.97
1:A:857:G:N3	1:A:961:G:N2	2.12	0.97
1:A:861:A:N6	1:A:935:U:O4	1.96	0.97
2:C:33:A:H1'	2:C:34:U:C5'	1.93	0.97
1:A:1800:C:O2'	19:E:204:ALA:HB1	1.63	0.97
1:A:2116:C:H2'	1:A:2117:U:H5'	1.46	0.97
1:A:2215:C:O2'	1:A:2216:U:H5'	1.64	0.97
1:A:2304:A:C6	1:A:2363:A:N6	2.33	0.97
1:A:2213:A:H61	1:A:2241:G:H21	1.11	0.97
2:C:36:A:C2	25:F:274:ARG:NH1	2.33	0.97
4:L:175:ARG:HH21	4:L:184:LYS:HD3	1.26	0.97
18:Z:118:VAL:CG1	18:Z:122:ARG:NH2	2.26	0.97
1:A:911:U:H2'	1:A:912:C:C6	1.99	0.97
1:A:1829:A:H4'	1:A:1830:U:H5'	1.46	0.97
1:A:1885:C:C5	6:N:253:ALA:HB2	2.00	0.97
1:A:2129:G:H2'	1:A:2131:U:H5	1.27	0.96
1:A:2205:G:H2'	1:A:2206:A:H8	1.29	0.96
4:L:175:ARG:NH2	4:L:184:LYS:NZ	2.13	0.96
1:A:624:A:N9	1:A:625:C:H5	1.62	0.96
1:A:856:U:H6	1:A:962:G:N2	1.22	0.96
12:T:169:SER:HA	12:T:233:SER:HB2	1.44	0.96
2:C:36:A:C2	25:F:274:ARG:CZ	2.48	0.96
16:X:128:TYR:HB3	16:X:134:LYS:HG3	0.99	0.96
1:A:1526:G:N2	1:A:1540:C:O2	1.97	0.96
1:A:616:U:OP2	26:G:155:LYS:NZ	1.98	0.96
1:A:1691:A:N6	1:A:2019:G:N3	2.14	0.96
1:A:2304:A:C5	1:A:2363:A:N6	2.34	0.96
4:L:105:ALA:CB	4:L:147:VAL:HG21	1.94	0.96
1:A:2432:G:O3'	6:N:145:GLY:HA2	1.65	0.96
1:A:639:A:H62	6:N:201:LEU:HD13	1.22	0.96
1:A:1178:G:H1'	11:S:83:HIS:NE2	1.80	0.96

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2328:A:O4'	27:H:127:ILE:HD11	1.65	0.96
1:A:624:A:C5	1:A:625:C:C5	2.52	0.96
12:T:113:LYS:HA	12:T:113:LYS:HZ3	1.27	0.96
15:W:159:ARG:CB	15:W:168:VAL:HB	1.95	0.96
1:A:44:G:C8	1:A:200:G:H2'	2.00	0.96
1:A:524:A:O2'	11:S:11:ARG:NH2	1.97	0.96
1:A:140:G:N1	1:A:154:C:N3	2.14	0.96
12:T:113:LYS:HA	12:T:113:LYS:NZ	1.79	0.96
1:A:2723:A:O2'	8:P:74:ARG:HD3	1.65	0.96
1:A:159:A:H1'	1:A:160:A:OP1	1.64	0.95
1:A:351:C:H2'	1:A:352:C:C6	2.01	0.95
1:A:888:C:N4	1:A:908:A:C2	2.24	0.95
1:A:639:A:C5	6:N:201:LEU:HD13	1.98	0.95
1:A:1881:A:N7	6:N:255:GLU:OE1	1.99	0.95
1:A:2186:U:P	1:A:2188:C:H41	1.88	0.95
1:A:83:A:N6	1:A:98:G:C5	2.32	0.95
1:A:329:C:C1'	26:G:222:ASN:HD21	1.79	0.95
14:V:109:LEU:HD12	14:V:141:ARG:O	1.66	0.95
1:A:1470:A:C2	1:A:1482:C:C2	2.54	0.95
11:S:91:LEU:CG	12:T:175:PRO:HA	1.95	0.95
1:A:2129:G:H1'	1:A:2180:G:N2	1.80	0.95
1:A:2186:U:OP1	1:A:2188:C:N4	1.97	0.95
3:B:42:C:OP1	3:B:44:C:H5	1.48	0.95
3:B:5:C:O2	3:B:119:G:N1	1.97	0.95
3:B:91:G:H22	7:O:38:GLU:HG3	1.25	0.95
1:A:1879:U:C4	6:N:252:ARG:NH2	2.33	0.95
29:J:76:ASN:O	29:J:80:PRO:CG	2.13	0.95
3:B:10:G:OP1	9:Q:63:LYS:HD2	1.67	0.95
1:A:152:G:N3	1:A:153:G:C8	2.35	0.95
1:A:256:A:H8	1:A:380:C:O2'	1.48	0.95
6:N:202:GLY:HA2	6:N:221:ALA:HB2	1.47	0.95
7:O:26:ARG:HG3	7:O:27:ILE:H	1.31	0.95
1:A:276:G:H22	1:A:416:C:HO2'	0.99	0.95
1:A:822:U:O2'	1:A:1271:G:O2'	1.85	0.95
2:C:54:A:OP2	2:C:70:G:N2	2.00	0.95
1:A:140:G:O6	1:A:154:C:N4	1.99	0.95
1:A:636:C:H2'	1:A:637:G:H8	1.29	0.95
1:A:2698:C:OP1	25:F:285:LYS:CE	2.15	0.94
1:A:1525:G:N2	1:A:1541:U:O2	2.00	0.94
1:A:2579:U:O2'	5:M:23:ARG:NH1	1.99	0.94
1:A:1080:C:H3'	1:A:1081:C:H5''	1.47	0.94

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1041:G:N2	1:A:1177:U:O2	2.00	0.94
28:I:48:ILE:CD1	28:I:109:ARG:HH21	1.80	0.94
6:N:175:GLU:O	6:N:213:LYS:NZ	2.00	0.94
1:A:83:A:C2	1:A:100:G:N2	2.34	0.94
15:W:166:GLU:OE1	15:W:166:GLU:N	2.01	0.94
16:X:128:TYR:HB3	16:X:134:LYS:CB	1.96	0.94
1:A:1532:G:H1'	1:A:1611:G:O2'	1.67	0.94
1:A:1024:A:O2'	11:S:94:ARG:HD2	1.68	0.94
1:A:46:C:H2'	1:A:47:G:H5'	1.46	0.94
1:A:857:G:C2	1:A:961:G:C2	2.56	0.94
12:T:96:PRO:HB2	12:T:98:PRO:HD3	1.45	0.94
1:A:2191:C:C2'	1:A:2192:U:H5'	1.96	0.94
1:A:2113:G:N2	1:A:2204:A:N6	2.08	0.94
1:A:330:U:N3	26:G:218:LYS:HE2	1.72	0.94
1:A:2129:G:H2'	1:A:2131:U:C5	2.03	0.94
1:A:2213:A:N1	1:A:2214:C:C2	2.35	0.94
1:A:2646:U:O2'	1:A:2647:A:O5'	1.85	0.94
16:X:122:LEU:HG	16:X:140:ARG:CB	1.98	0.94
18:Z:118:VAL:CG1	18:Z:122:ARG:HH21	1.81	0.94
1:A:1499:G:N2	1:A:1546:C:C2	2.34	0.94
1:A:250:A:H4'	1:A:251:G:OP1	1.64	0.94
1:A:539:A:OP2	4:L:215:ARG:NH1	2.01	0.94
25:F:142:GLU:OE2	25:F:167:HIS:ND1	2.01	0.94
1:A:1187:G:N3	12:T:131:SER:OG	1.99	0.93
1:A:161:G:O2'	1:A:162:A:O5'	1.85	0.93
1:A:880:U:H2'	1:A:881:U:H5'	1.49	0.93
1:A:213:A:H3'	6:N:239:LYS:O	1.69	0.93
1:A:2351:G:C5	9:Q:64:VAL:HG22	2.00	0.93
12:T:170:THR:N	12:T:233:SER:CB	1.94	0.93
18:Z:76:LEU:HD12	18:Z:115:MET:HE3	1.40	0.93
1:A:158:C:C5	1:A:159:A:N7	2.37	0.93
3:B:30:A:H2'	3:B:31:C:H6	1.29	0.93
1:A:2320:G:H4'	27:H:175:PHE:HA	1.47	0.93
6:N:253:ALA:O	6:N:255:GLU:N	2.02	0.93
12:T:169:SER:CA	12:T:233:SER:HB2	1.98	0.93
1:A:1504:C:H2'	1:A:1505:C:C6	2.03	0.93
1:A:2114:G:C6	1:A:2204:A:N1	2.37	0.93
1:A:2129:G:C2'	1:A:2131:U:H5	1.82	0.93
1:A:2213:A:C2	1:A:2214:C:N1	2.37	0.93
1:A:2213:A:C6	1:A:2242:A:C2	2.57	0.93
1:A:388:C:N4	1:A:410:G:N1	2.15	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:205:GLU:OE2	6:N:224:LYS:HE3	1.66	0.93
15:W:57:LYS:HA	15:W:61:LEU:O	1.69	0.93
6:N:160:ILE:HG12	6:N:201:LEU:HD12	1.50	0.93
16:X:128:TYR:CD2	16:X:132:LYS:CB	2.52	0.93
1:A:1178:G:O4'	11:S:83:HIS:NE2	2.01	0.93
1:A:368:U:H2'	1:A:369:U:H6	1.31	0.93
1:A:279:A:N6	1:A:379:C:N4	2.12	0.93
15:W:141:GLN:CG	15:W:166:GLU:OE2	2.17	0.93
1:A:1471:A:H2	1:A:1481:U:H3	1.16	0.93
1:A:2206:A:H2'	1:A:2207:A:C8	2.03	0.93
1:A:2322:A:C1'	27:H:186:ARG:CD	2.37	0.93
1:A:1876:A:H3'	1:A:1877:C:C6	2.02	0.92
3:B:7:G:N1	3:B:117:A:C2	2.37	0.92
16:X:153:ARG:HH11	16:X:153:ARG:HG2	1.32	0.92
1:A:2213:A:N1	1:A:2214:C:N3	2.17	0.92
1:A:2107:G:C5	1:A:2242:A:C8	2.56	0.92
1:A:416:C:O2	1:A:418:G:C4	2.22	0.92
6:N:143:LEU:CG	6:N:146:ILE:HD11	1.99	0.92
6:N:182:LYS:HE2	6:N:189:PRO:CG	1.99	0.92
12:T:197:VAL:HG23	12:T:210:ILE:HG13	1.50	0.92
1:A:2213:A:H2	1:A:2214:C:C2	1.72	0.92
1:A:890:G:H2'	1:A:891:G:C8	2.04	0.92
13:U:138:ASP:OD1	13:U:139:ILE:N	2.01	0.92
1:A:102:U:C2'	1:A:103:C:H5'	2.00	0.92
1:A:901:C:H2'	1:A:902:G:C4'	1.99	0.92
28:I:48:ILE:HG13	28:I:90:LEU:HB2	1.51	0.92
1:A:1689:C:C5'	8:P:12:LYS:HE2	2.00	0.92
1:A:983:G:N2	7:O:82:ARG:HH12	1.53	0.92
1:A:276:G:O6	1:A:433:C:N4	2.02	0.92
2:C:104:A:H2'	2:C:105:A:H8	1.29	0.92
11:S:91:LEU:HG	12:T:175:PRO:HA	1.47	0.92
11:S:91:LEU:CG	12:T:175:PRO:HB3	2.00	0.92
16:X:133:LYS:HE2	16:X:133:LYS:HA	1.49	0.92
16:X:143:GLN:C	16:X:145:GLU:OE1	2.08	0.92
1:A:1178:G:O4'	11:S:83:HIS:CD2	2.23	0.92
1:A:2316:G:H1	1:A:2334:C:H42	1.14	0.92
1:A:44:G:C8	1:A:200:G:C2'	2.52	0.92
12:T:174:THR:O	12:T:176:ILE:N	2.02	0.92
13:U:151:SER:O	13:U:152:LEU:HD23	1.68	0.92
1:A:2764:U:O4	1:A:2774:U:O4	1.87	0.92
1:A:609:G:H5''	26:G:79:LYS:CE	2.00	0.92

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:860:C:H2'	1:A:861:A:H8	1.35	0.92
12:T:96:PRO:O	12:T:98:PRO:CD	2.17	0.92
1:A:1470:A:N1	1:A:1482:C:N3	2.17	0.92
1:A:2318:C:H2'	1:A:2319:C:C6	2.04	0.92
1:A:858:G:H2'	1:A:859:A:H5'	1.49	0.92
12:T:171:TYR:HE2	12:T:231:PRO:CB	1.73	0.92
1:A:93:A:HO2'	18:Z:102:PRO:HG2	1.13	0.92
1:A:295:C:H2'	1:A:296:G:C8	2.03	0.91
1:A:2247:C:H1'	17:Y:102:ASN:HB3	1.50	0.91
1:A:1833:G:OP1	19:E:50:ARG:NH1	2.03	0.91
12:T:169:SER:CB	12:T:233:SER:OG	2.18	0.91
1:A:2116:C:H42	1:A:2201:G:H1	1.07	0.91
1:A:2219:U:HO2'	1:A:2229:U:H3	1.10	0.91
1:A:44:G:O2'	1:A:200:G:N7	1.99	0.91
25:F:145:ARG:HH21	25:F:145:ARG:HG3	1.33	0.91
1:A:131:C:N4	14:V:104:TYR:CD2	2.38	0.91
1:A:874:G:OP2	7:O:23:ARG:NH2	2.03	0.91
1:A:1482:C:H2'	1:A:1483:G:H8	1.29	0.91
1:A:822:U:C6	1:A:1272:A:C2	2.58	0.91
1:A:2114:G:O6	1:A:2204:A:C6	2.24	0.91
1:A:2322:A:H61	27:H:204:GLY:HA3	1.30	0.91
1:A:96:C:H2'	1:A:97:A:H8	1.31	0.91
25:F:142:GLU:OE2	25:F:167:HIS:HE1	1.42	0.91
1:A:2151:G:C6	1:A:2152:C:N4	2.39	0.91
11:S:14:ARG:HD3	11:S:32:THR:HG21	1.52	0.91
12:T:91:ASP:HB2	13:U:142:PHE:CZ	2.05	0.91
1:A:47:G:N2	1:A:162:A:OP2	2.03	0.91
6:N:154:LEU:H	6:N:155:PRO:HD2	1.33	0.91
1:A:639:A:N7	6:N:201:LEU:HD12	1.86	0.91
13:U:153:THR:O	13:U:157:LEU:HG	1.69	0.91
1:A:2320:G:H2'	1:A:2321:G:H8	1.28	0.91
1:A:387:G:H3'	1:A:388:C:H5''	1.52	0.91
1:A:946:A:N6	1:A:950:A:H61	1.68	0.90
16:X:128:TYR:CA	16:X:134:LYS:HD3	2.01	0.90
1:A:381:C:O2	1:A:416:C:H5	1.45	0.90
1:A:951:C:H2'	1:A:952:A:C8	2.05	0.90
3:B:35:A:C2	3:B:51:G:C4	2.60	0.90
1:A:1278:U:O2'	26:G:135:PRO:HD3	1.71	0.90
1:A:1159:G:N7	4:L:176:HIS:HE1	1.69	0.90
1:A:2236:C:H2'	1:A:2237:A:H5''	1.51	0.90
1:A:2220:G:N2	1:A:2236:C:O2	2.05	0.90

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1002:G:H5'	12:T:201:LYS:HZ1	0.77	0.90
15:W:170:THR:CG2	15:W:171:PRO:HD3	2.01	0.90
1:A:2213:A:C4	1:A:2242:A:N1	2.39	0.90
1:A:243:U:O2	6:N:194:ARG:NH1	2.04	0.90
2:C:40:U:C2	2:C:87:A:N1	2.39	0.90
1:A:377:G:O2'	1:A:378:A:O5'	1.89	0.90
6:N:165:ILE:HD11	6:N:207:SER:H	1.37	0.90
15:W:109:LYS:O	15:W:122:ILE:HG23	1.70	0.90
1:A:135:C:C5	1:A:161:G:C6	2.60	0.90
3:B:36:A:C6	3:B:45:G:C5	2.59	0.90
16:X:122:LEU:HD11	16:X:140:ARG:HG3	0.91	0.90
1:A:919:A:H62	7:O:12:GLN:HA	1.35	0.90
1:A:2809:U:H2'	1:A:2810:A:C4'	2.00	0.90
1:A:44:G:H3'	1:A:45:A:C5'	2.02	0.90
1:A:624:A:C8	1:A:625:C:H5	1.90	0.90
12:T:96:PRO:HB2	12:T:98:PRO:CD	2.01	0.90
1:A:2124:G:N2	1:A:2194:U:C2	2.38	0.90
1:A:2117:U:O2	1:A:2200:A:N1	2.05	0.90
1:A:355:A:C2'	1:A:356:A:H5'	2.00	0.90
1:A:843:C:H4'	6:N:125:ILE:HD13	1.51	0.90
6:N:202:GLY:HA2	6:N:221:ALA:HA	1.52	0.90
15:W:173:ARG:NH2	15:W:173:ARG:HB3	1.86	0.90
1:A:599:C:H2'	1:A:600:A:H8	1.37	0.89
1:A:960:A:N1	16:X:154:LYS:NZ	2.19	0.89
3:B:36:A:N6	3:B:45:G:C8	2.41	0.89
1:A:260:G:C6	1:A:268:G:N1	2.40	0.89
1:A:902:G:H2'	1:A:903:G:H5''	1.51	0.89
2:C:104:A:N1	2:C:105:A:N6	2.20	0.89
1:A:2647:A:H61	1:A:2806:U:H3	1.12	0.89
1:A:416:C:O2	1:A:418:G:C6	2.24	0.89
6:N:159:PRO:HD3	6:N:199:LYS:O	1.69	0.89
12:T:88:VAL:O	12:T:89:LEU:HD23	1.73	0.89
1:A:1522:A:H2'	1:A:1523:A:C8	2.07	0.89
1:A:2213:A:N1	1:A:2242:A:C2	2.40	0.89
4:L:175:ARG:HH22	4:L:184:LYS:HZ1	1.14	0.89
12:T:96:PRO:CB	12:T:98:PRO:HD3	2.01	0.89
1:A:2647:A:N6	1:A:2806:U:H3	1.69	0.89
3:B:36:A:N6	3:B:45:G:C5	2.41	0.89
1:A:1024:A:OP2	12:T:132:ARG:HD2	1.71	0.89
1:A:1534:A:H2'	1:A:1535:A:H5''	1.52	0.89
3:B:16:G:O6	3:B:111:G:N2	2.05	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2330:U:O4'	27:H:90:ASN:ND2	2.06	0.89
11:S:91:LEU:CG	12:T:175:PRO:CA	2.48	0.89
12:T:91:ASP:CB	13:U:142:PHE:CZ	2.56	0.89
1:A:2117:U:H2'	1:A:2118:U:C6	2.06	0.89
1:A:368:U:H2'	1:A:369:U:C6	2.07	0.89
1:A:624:A:N3	1:A:625:C:H6	1.69	0.89
1:A:131:C:H5	14:V:104:TYR:CE2	1.90	0.89
1:A:160:A:N3	1:A:161:G:N7	2.21	0.89
1:A:1690:A:N3	1:A:1690:A:H5''	1.87	0.89
2:C:28:U:H1'	2:C:30:A:C8	2.07	0.89
6:N:106:GLN:O	6:N:110:CYS:HA	1.73	0.89
1:A:1532:G:N3	1:A:1611:G:H1'	1.87	0.89
6:N:195:ARG:O	6:N:197:PRO:HD3	1.73	0.89
1:A:285:A:O2'	1:A:286:U:OP1	1.90	0.88
1:A:981:G:OP2	7:O:16:ARG:CD	2.19	0.88
1:A:1083:G:H1	1:A:1132:C:N4	1.71	0.88
1:A:1756:G:H2'	1:A:1757:G:H8	1.38	0.88
1:A:2114:G:O6	1:A:2204:A:N6	2.07	0.88
1:A:636:C:H2'	1:A:637:G:C8	2.08	0.88
26:G:234:LEU:HD23	26:G:235:ASN:N	1.89	0.88
15:W:67:ARG:HB3	15:W:67:ARG:NH1	1.88	0.88
14:V:115:LEU:O	18:Z:91:ARG:NH2	2.06	0.88
1:A:2121:C:C4	1:A:2196:G:N2	2.41	0.88
1:A:329:C:C1'	26:G:222:ASN:ND2	2.35	0.88
13:U:150:GLU:O	13:U:152:LEU:N	2.06	0.88
1:A:1756:G:H2'	1:A:1757:G:C8	2.08	0.88
1:A:291:G:O2'	1:A:292:C:H5'	1.74	0.88
25:F:122:ILE:CG2	25:F:183:GLN:HA	2.03	0.88
12:T:88:VAL:HG12	12:T:89:LEU:H	1.35	0.88
1:A:2213:A:C6	1:A:2242:A:N1	2.41	0.88
1:A:858:G:H2'	1:A:859:A:C8	2.07	0.88
6:N:156:LYS:HZ3	6:N:215:ARG:HH11	0.91	0.88
1:A:1449:C:N4	1:A:1604:A:OP2	2.06	0.88
6:N:82:LEU:HD23	26:G:240:LEU:CD2	2.03	0.88
16:X:101:PHE:CD1	16:X:133:LYS:HB3	2.08	0.88
1:A:151:G:H2'	1:A:152:G:H8	1.38	0.88
1:A:1545:G:C8	1:A:1546:C:H5	1.92	0.88
1:A:1689:C:N4	8:P:19:ARG:NE	2.20	0.88
1:A:2113:G:H22	1:A:2204:A:H61	0.89	0.88
1:A:274:G:N7	1:A:433:C:H5''	1.87	0.88
3:B:8:G:N2	3:B:116:C:C2	2.41	0.88

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:795:U:H5'	19:E:222:ASN:OD1	1.74	0.88
1:A:2324:G:N2	1:A:2328:A:C8	2.42	0.88
25:F:117:PHE:O	25:F:274:ARG:NH2	2.06	0.88
12:T:174:THR:HG23	12:T:175:PRO:HD2	1.54	0.88
16:X:145:GLU:OE1	16:X:145:GLU:N	2.06	0.88
1:A:1651:C:OP2	1:A:1653:C:N4	2.05	0.88
1:A:265:A:H5''	1:A:266:A:C8	2.09	0.88
1:A:495:A:O4'	15:W:110:HIS:HB3	1.74	0.88
26:G:75:ALA:HB2	26:G:159:LEU:HD21	1.55	0.88
6:N:198:LEU:HD22	6:N:214:ALA:HB1	1.54	0.88
18:Z:118:VAL:HG12	18:Z:122:ARG:NH2	1.89	0.88
1:A:295:C:O2'	1:A:296:G:H5'	1.74	0.88
28:I:46:GLN:OE1	28:I:109:ARG:CD	2.22	0.88
16:X:128:TYR:HB2	16:X:134:LYS:HD3	0.90	0.88
1:A:626:C:C5	1:A:627:C:C4	2.61	0.87
6:N:210:LEU:N	6:N:230:CYS:HB2	1.89	0.87
1:A:2351:G:C8	9:Q:64:VAL:HG21	2.08	0.87
15:W:161:LEU:HD12	15:W:168:VAL:HG23	1.54	0.87
1:A:121:G:H2'	1:A:122:U:H5'	1.53	0.87
1:A:910:A:O2'	1:A:911:U:H5'	1.74	0.87
1:A:1603:A:H5'	19:E:55:LYS:CD	2.02	0.87
1:A:1634:C:H5''	14:V:145:LYS:NZ	1.89	0.87
1:A:2205:G:H2'	1:A:2206:A:C8	2.07	0.87
1:A:2213:A:H62	1:A:2241:G:N2	1.68	0.87
28:I:91:ARG:HA	28:I:109:ARG:HH22	1.38	0.87
1:A:858:G:O2'	1:A:859:A:H5'	1.74	0.87
1:A:891:G:O2'	1:A:892:C:H5'	1.74	0.87
1:A:2322:A:N1	27:H:204:GLY:CA	2.37	0.87
1:A:495:A:H1'	15:W:122:ILE:HG12	1.57	0.87
19:E:226:HIS:CE1	19:E:228:HIS:CD2	2.60	0.87
12:T:103:TYR:CD2	12:T:106:ILE:HD12	2.09	0.87
11:S:91:LEU:CD1	12:T:175:PRO:CA	2.52	0.87
16:X:122:LEU:O	16:X:137:VAL:HA	1.72	0.87
1:A:1472:A:N6	1:A:1479:U:C5	2.42	0.87
1:A:1474:A:O2'	1:A:1475:U:OP1	1.92	0.87
1:A:1689:C:OP1	2:C:18:G:N1	2.06	0.87
1:A:363:C:H2'	1:A:364:U:C6	2.08	0.87
25:F:135:ASN:HD22	25:F:175:SER:HA	1.38	0.87
4:L:175:ARG:HH22	4:L:184:LYS:HZ2	1.23	0.87
1:A:287:A:H2'	1:A:288:C:C6	2.09	0.87
1:A:44:G:H8	1:A:200:G:H2'	1.40	0.87

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:49:G:O2'	18:Z:130:LYS:CD	2.23	0.87
3:B:93:C:O2'	3:B:94:C:H5'	1.74	0.87
1:A:381:C:O2	1:A:416:C:N4	2.08	0.87
1:A:823:C:HO2'	1:A:1247:A:HO2'	1.04	0.87
1:A:2331:G:N2	27:H:182:SER:OG	2.06	0.87
1:A:1219:U:O2	11:S:5:LYS:CE	2.23	0.87
1:A:1755:A:H2'	1:A:1756:G:H8	1.40	0.87
1:A:2322:A:O2'	1:A:2323:C:H5'	1.74	0.87
1:A:292:C:H2'	1:A:293:G:H8	1.34	0.87
1:A:2117:U:O2	1:A:2200:A:C2	2.28	0.86
1:A:279:A:N7	1:A:379:C:C5	2.42	0.86
3:B:34:C:O2	3:B:52:G:C2	2.27	0.86
27:H:106:ALA:HB1	27:H:140:ILE:HG21	1.57	0.86
17:Y:87:ARG:HB3	17:Y:97:ARG:HE	1.40	0.86
1:A:103:C:O2'	1:A:104:C:H5'	1.74	0.86
1:A:143:G:C2'	1:A:144:A:H5'	2.05	0.86
1:A:553:G:H1	1:A:561:C:H42	1.23	0.86
25:F:144:LEU:CD1	25:F:166:ARG:HB2	2.04	0.86
1:A:2121:C:N4	1:A:2196:G:H22	1.72	0.86
28:I:42:ARG:HG3	28:I:44:GLY:H	1.37	0.86
1:A:2109:C:H3'	1:A:2110:U:C5	2.09	0.86
1:A:909:A:H2'	1:A:910:A:C8	2.09	0.86
1:A:913:G:O2'	1:A:914:A:H5'	1.75	0.86
2:C:85:U:O2'	2:C:86:A:H5'	1.76	0.86
26:G:80:ALA:O	26:G:84:VAL:HG12	1.75	0.86
6:N:159:PRO:CB	6:N:187:ILE:CD1	2.43	0.86
15:W:85:LYS:HD3	15:W:104:LEU:HD13	1.57	0.86
1:A:274:G:C2	1:A:433:C:H5	1.84	0.86
1:A:649:A:H5''	6:N:203:GLU:HB2	1.56	0.86
28:I:130:VAL:HG12	28:I:200:LYS:HG3	1.56	0.86
16:X:101:PHE:CE1	16:X:133:LYS:CG	2.59	0.86
16:X:101:PHE:CD1	16:X:133:LYS:CB	2.59	0.86
1:A:1529:A:N1	1:A:1537:U:C4	2.43	0.86
2:C:75:U:H3'	2:C:76:G:H5'	1.55	0.86
19:E:245:PRO:HG2	19:E:246:TRP:CE3	2.10	0.86
25:F:144:LEU:CD1	25:F:166:ARG:CZ	2.52	0.86
15:W:161:LEU:HD12	15:W:168:VAL:CG2	2.04	0.86
2:C:81:A:O2'	2:C:82:U:H5'	1.74	0.86
1:A:1829:A:OP1	19:E:151:ALA:HA	1.76	0.86
1:A:2154:C:C4	1:A:2165:G:N2	2.33	0.86
1:A:883:C:O4'	7:O:65:TRP:CZ3	2.29	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:72:A:H2'	2:C:73:G:H5'	1.57	0.86
6:N:182:LYS:HE2	6:N:189:PRO:HG2	1.57	0.86
12:T:96:PRO:CA	12:T:98:PRO:HD3	2.05	0.86
1:A:1:U:O2'	1:A:2:U:H5'	1.75	0.86
1:A:2708:C:HO2'	2:C:75:U:HO2'	0.94	0.86
1:A:639:A:H62	6:N:201:LEU:CD1	1.87	0.86
1:A:1287:G:O6	13:U:42:SER:OG	1.93	0.85
1:A:1529:A:C2	1:A:1537:U:N3	2.44	0.85
1:A:1751:A:N3	1:A:1753:A:N7	2.24	0.85
1:A:1879:U:C2	1:A:1887:G:N2	2.44	0.85
4:L:177:SER:OG	4:L:182:GLY:HA3	1.76	0.85
1:A:1499:G:H1	1:A:1546:C:H42	0.89	0.85
1:A:671:C:H5''	26:G:150:ILE:HG23	1.57	0.85
1:A:856:U:O2'	1:A:857:G:OP1	1.94	0.85
2:C:103:G:O2'	2:C:104:A:H5'	1.76	0.85
17:Y:87:ARG:HD2	17:Y:97:ARG:HD3	1.57	0.85
1:A:890:G:O2'	1:A:891:G:H5'	1.76	0.85
1:A:898:G:C8	1:A:899:A:C8	2.64	0.85
4:L:100:TRP:CE3	4:L:101:TYR:HB2	2.10	0.85
5:M:15:GLY:HA3	5:M:50:THR:HG21	1.57	0.85
1:A:1811:A:C6	19:E:261:TYR:OH	2.29	0.85
1:A:1887:G:H2'	1:A:1888:G:H8	1.41	0.85
1:A:274:G:N7	1:A:433:C:C5'	2.39	0.85
1:A:83:A:N3	1:A:101:A:N6	2.24	0.85
1:A:855:C:H2'	1:A:856:U:O4'	1.75	0.85
12:T:123:ILE:HD11	12:T:227:TYR:CE1	2.11	0.85
1:A:1039:A:C2	1:A:1178:G:C6	2.64	0.85
1:A:119:A:H5'	1:A:133:A:OP2	1.77	0.85
1:A:1812:A:O2'	1:A:1813:A:H5'	1.77	0.85
1:A:270:G:H2'	1:A:271:G:H5'	1.56	0.85
1:A:670:A:H2'	1:A:671:C:C6	2.12	0.85
1:A:6:A:O2'	1:A:7:C:H5'	1.74	0.85
3:B:34:C:C2	3:B:52:G:C2	2.63	0.85
10:R:127:ASN:O	10:R:131:VAL:HG23	1.75	0.85
1:A:2234:G:O2'	1:A:2235:C:H5'	1.76	0.85
1:A:2647:A:C4	2:C:98:G:C2	2.65	0.85
1:A:2684:C:C5	28:I:150:SER:CB	2.59	0.85
1:A:903:G:H2'	1:A:904:U:C5'	2.07	0.85
2:C:31:U:C2	2:C:38:G:N7	2.44	0.85
1:A:1885:C:N4	6:N:253:ALA:CB	2.39	0.85
1:A:1224:U:C1'	6:N:83:ASP:OD1	2.25	0.85

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:171:TYR:CD2	12:T:231:PRO:CA	2.57	0.85
1:A:1882:U:C5	1:A:1883:G:C5	2.65	0.85
3:B:35:A:H2	3:B:51:G:C4	1.94	0.85
12:T:169:SER:CA	12:T:233:SER:CB	2.54	0.85
1:A:1159:G:C8	4:L:176:HIS:CE1	2.65	0.85
1:A:3:C:O2'	1:A:4:A:H5'	1.76	0.85
1:A:622:G:H1'	1:A:628:A:H61	1.39	0.85
15:W:161:LEU:HD11	15:W:168:VAL:HG22	1.58	0.85
15:W:70:LYS:O	15:W:89:ILE:HD11	1.76	0.85
1:A:152:G:C2	1:A:153:G:N7	2.45	0.85
1:A:345:C:O2'	1:A:346:A:H5'	1.77	0.85
1:A:911:U:O2'	1:A:912:C:H5'	1.77	0.85
6:N:165:ILE:HD11	6:N:207:SER:OG	1.75	0.85
1:A:1516:G:N7	1:A:1517:G:C8	2.45	0.85
1:A:1527:G:O6	1:A:1539:C:N4	2.09	0.85
1:A:2151:G:O6	1:A:2152:C:N4	2.10	0.85
1:A:49:G:HO2'	18:Z:130:LYS:HD2	1.40	0.85
1:A:914:A:C2'	1:A:915:G:H5'	2.06	0.85
2:C:102:U:H2'	2:C:103:G:H5'	1.56	0.85
2:C:49:A:C6	2:C:76:G:N2	2.45	0.85
6:N:158:VAL:CG1	6:N:201:LEU:HG	2.06	0.85
15:W:159:ARG:HB2	15:W:168:VAL:HB	1.58	0.85
1:A:1596:U:H2'	1:A:1597:C:H5'	1.56	0.84
1:A:287:A:C2	1:A:288:C:N3	2.45	0.84
1:A:280:G:H22	1:A:376:U:H3	1.25	0.84
3:B:32:A:C2'	3:B:33:C:H5'	2.06	0.84
2:C:102:U:C2'	2:C:103:G:H5'	2.07	0.84
1:A:1535:A:C8	19:E:95:GLY:HA3	2.12	0.84
1:A:2767:A:O2'	28:I:103:GLN:OE1	1.93	0.84
6:N:210:LEU:H	6:N:230:CYS:HB2	1.42	0.84
4:L:102:PRO:HA	11:S:99:GLN:HE22	1.40	0.84
15:W:58:PRO:HD2	15:W:61:LEU:O	1.75	0.84
1:A:1080:C:H2'	1:A:1081:C:O4'	1.78	0.84
1:A:2121:C:N4	1:A:2197:A:C2	2.45	0.84
1:A:274:G:C5	1:A:433:C:C6	2.65	0.84
1:A:877:C:H2'	1:A:878:U:C6	2.11	0.84
1:A:934:A:H1'	1:A:935:U:H5'	1.57	0.84
3:B:7:G:O6	3:B:117:A:N1	2.09	0.84
1:A:2113:G:N2	1:A:2204:A:C6	2.34	0.84
1:A:2219:U:H3'	1:A:2220:G:H5'	1.57	0.84
1:A:279:A:C6	1:A:379:C:N4	2.45	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2579:U:O2	5:M:23:ARG:NH2	2.10	0.84
1:A:1538:G:O2'	1:A:1539:C:H5'	1.77	0.84
1:A:252:C:O2'	1:A:253:C:H5'	1.76	0.84
3:B:42:C:OP1	3:B:44:C:C5	2.29	0.84
1:A:1809:G:N7	19:E:172:LEU:HD13	1.93	0.84
19:E:226:HIS:ND1	19:E:228:HIS:HD2	1.75	0.84
2:C:38:G:N2	25:F:145:ARG:NH2	2.16	0.84
28:I:46:GLN:HB3	28:I:109:ARG:CD	2.08	0.84
6:N:158:VAL:CG1	6:N:201:LEU:HD21	2.06	0.84
16:X:67:LYS:HZ2	16:X:67:LYS:HA	1.40	0.84
1:A:1039:A:N1	1:A:1178:G:C6	2.45	0.84
1:A:1470:A:H2	1:A:1482:C:O2	1.61	0.84
1:A:2049:G:H5'	1:A:2050:C:H5	1.41	0.84
1:A:313:A:N1	1:A:323:G:O6	2.09	0.84
2:C:32:C:H1'	2:C:33:A:C5'	2.07	0.84
4:L:171:LYS:NZ	4:L:173:TYR:OH	2.11	0.84
1:A:1211:G:H5''	6:N:111:GLY:HA2	0.87	0.84
1:A:1021:A:H1'	12:T:214:GLN:HE21	1.40	0.84
14:V:104:TYR:HD1	18:Z:142:ARG:CD	1.90	0.84
16:X:134:LYS:HB3	16:X:134:LYS:NZ	1.91	0.84
1:A:1471:A:O2'	1:A:1472:A:OP1	1.95	0.84
1:A:2202:C:H2'	1:A:2203:U:C6	2.12	0.84
1:A:267:C:H2'	1:A:268:G:C8	2.12	0.84
3:B:37:U:O2'	3:B:38:C:H5'	1.76	0.84
12:T:116:PRO:HD2	12:T:117:PRO:HD3	1.58	0.84
13:U:79:LEU:HD22	13:U:134:ILE:HD12	1.58	0.84
3:B:30:A:H2'	3:B:31:C:C6	2.12	0.84
5:M:24:ILE:HG21	5:M:33:ALA:HB2	1.58	0.84
16:X:143:GLN:O	16:X:145:GLU:N	2.09	0.84
1:A:1552:U:H2'	1:A:1553:U:C6	2.13	0.84
6:N:197:PRO:CB	6:N:215:ARG:HD2	2.06	0.84
3:B:91:G:C2	7:O:38:GLU:OE2	2.30	0.84
1:A:530:U:H5''	13:U:54:ARG:HH22	1.43	0.84
1:A:1023:C:C2	4:L:102:PRO:HD3	2.09	0.84
11:S:91:LEU:HD12	12:T:175:PRO:CA	2.06	0.84
1:A:75:C:P	18:Z:110:LYS:HZ1	2.00	0.84
1:A:83:A:C5	1:A:98:G:C6	2.66	0.84
1:A:2739:A:N1	2:C:77:A:N6	2.26	0.84
6:N:235:LEU:HD12	6:N:236:PRO:HD2	1.59	0.84
1:A:1080:C:C3'	1:A:1081:C:H5''	2.07	0.83
1:A:1238:G:N2	1:A:1252:C:N3	2.26	0.83

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:131:C:C5	14:V:104:TYR:CE2	2.65	0.83
1:A:2119(A):U:H3	1:A:2199:G:H1	1.21	0.83
1:A:350:G:O2'	1:A:351:C:H5'	1.77	0.83
1:A:902:G:C2'	1:A:903:G:H5''	2.07	0.83
1:A:946:A:N6	1:A:950:A:N6	2.26	0.83
2:C:38:G:H22	25:F:145:ARG:NH2	1.32	0.83
6:N:201:LEU:C	6:N:221:ALA:HB2	1.99	0.83
1:A:2124:G:C2	1:A:2194:U:O2	2.29	0.83
1:A:342:G:O2'	1:A:343:U:H5'	1.77	0.83
2:C:17:A:OP2	8:P:13:HIS:NE2	2.11	0.83
1:A:151:G:O2'	1:A:152:G:H5'	1.79	0.83
1:A:1219:U:O2	11:S:5:LYS:HE2	1.77	0.83
1:A:2188:C:O2'	1:A:2189:C:H5'	1.79	0.83
1:A:288:C:O2'	1:A:289:A:H5'	1.78	0.83
1:A:1470:A:H2	1:A:1482:C:C2	1.95	0.83
1:A:1504:C:H2'	1:A:1505:C:C5	2.13	0.83
1:A:2236:C:C2'	1:A:2237:A:H5''	2.08	0.83
1:A:2659:G:H5'	4:L:179:ARG:NH2	1.94	0.83
1:A:290:A:O2'	1:A:291:G:H5'	1.77	0.83
1:A:318:A:N6	1:A:339:A:N6	2.26	0.83
1:A:883:C:H2'	1:A:884:G:H8	1.43	0.83
1:A:919:A:N6	7:O:12:GLN:HA	1.92	0.83
3:B:86:G:O2'	3:B:87:G:H5'	1.79	0.83
6:N:129:PHE:CE2	6:N:131:GLY:HA2	2.12	0.83
1:A:1361:U:O4	14:V:168:PRO:CB	2.27	0.83
1:A:344:C:O2'	1:A:345:C:H5'	1.77	0.83
6:N:158:VAL:HG11	6:N:201:LEU:CD2	2.08	0.83
2:C:77:A:C1'	8:P:16:LYS:HB2	2.04	0.83
1:A:2393:A:C2	9:Q:166:PHE:CZ	2.66	0.83
12:T:177:VAL:HA	12:T:230:TYR:OH	1.78	0.83
14:V:109:LEU:HD11	14:V:141:ARG:CB	2.09	0.83
1:A:133:A:H2'	1:A:134:A:C8	2.13	0.83
1:A:1483:G:H2'	1:A:1484:G:H8	1.44	0.83
6:N:175:GLU:HB3	6:N:213:LYS:HZ1	1.43	0.83
10:R:137:LEU:HD12	10:R:137:LEU:O	1.78	0.83
2:C:53:G:N2	10:R:144:ARG:NH1	2.26	0.83
1:A:144:A:N6	1:A:150:U:H3	1.76	0.83
1:A:289:A:O2'	1:A:290:A:H5'	1.78	0.83
1:A:302:C:O2'	1:A:303:U:H5'	1.78	0.83
1:A:914:A:O2'	1:A:915:G:H5'	1.78	0.83
1:A:121:G:C2'	1:A:122:U:H5'	2.08	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2318:C:O2'	1:A:2319:C:H5'	1.79	0.82
1:A:253:C:O2	1:A:437:G:C2	2.31	0.82
1:A:702:C:P	19:E:213:ARG:NH1	2.52	0.82
1:A:880:U:C2'	1:A:881:U:H5'	2.09	0.82
3:B:34:C:O2	3:B:52:G:N3	2.11	0.82
2:C:35:U:O2'	2:C:36:A:OP1	1.96	0.82
4:L:172:LEU:CD2	4:L:185:GLU:OE2	2.27	0.82
1:A:1485:U:HO2'	1:A:1580:G:HO2'	1.25	0.82
1:A:345:C:H2'	1:A:346:A:C8	2.14	0.82
1:A:44:G:N7	1:A:200:G:C2'	2.42	0.82
3:B:15:A:O2'	3:B:16:G:H5''	1.78	0.82
3:B:32:A:O2'	3:B:33:C:H5'	1.78	0.82
1:A:2328:A:C4'	27:H:127:ILE:HD11	2.09	0.82
1:A:181:A:N7	6:N:117:GLN:NE2	2.28	0.82
1:A:1536:A:H5''	1:A:1536:A:N3	1.93	0.82
1:A:160:A:H2	1:A:161:G:N7	1.75	0.82
1:A:1754:A:C8	1:A:1755:A:C8	2.67	0.82
1:A:2108:G:N3	1:A:2108:G:H5'	1.94	0.82
1:A:2154:C:H42	1:A:2165:G:H1	1.28	0.82
1:A:256:A:H8	1:A:380:C:HO2'	0.82	0.82
1:A:390:U:O2'	1:A:391:G:H5'	1.79	0.82
3:B:36:A:N6	3:B:45:G:N7	2.27	0.82
6:N:205:GLU:CD	6:N:224:LYS:CE	2.47	0.82
12:T:171:TYR:CD2	12:T:231:PRO:CB	2.59	0.82
1:A:139:U:C2	1:A:140:G:N7	2.47	0.82
1:A:1573:C:H2'	1:A:1574:G:H8	1.44	0.82
1:A:2764:U:O4	1:A:2774:U:C4	2.32	0.82
1:A:861:A:O2'	1:A:862:U:H5'	1.80	0.82
10:R:122:ILE:O	10:R:125:ILE:HG22	1.78	0.82
1:A:1545:G:C8	1:A:1546:C:C5	2.68	0.82
1:A:329:C:H1'	26:G:222:ASN:HD21	1.42	0.82
1:A:671:C:O2'	1:A:672:U:H5'	1.80	0.82
19:E:232:GLU:OE1	19:E:232:GLU:N	2.12	0.82
10:R:123:MET:HE3	25:F:98:GLY:HA3	1.62	0.82
1:A:329:C:C2	26:G:222:ASN:ND2	2.48	0.82
4:L:173:TYR:HD1	4:L:202:HIS:HD1	1.26	0.82
7:O:70:PRO:HA	7:O:95:ALA:HB2	1.61	0.82
18:Z:76:LEU:HD11	18:Z:115:MET:HE3	1.60	0.82
1:A:1545:G:H2'	1:A:1546:C:H6	1.42	0.82
16:X:101:PHE:HD1	16:X:133:LYS:HB3	1.43	0.82
1:A:2129:G:C1'	1:A:2180:G:H21	1.91	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2804:U:OP1	25:F:159:LYS:CG	2.25	0.82
2:C:30:A:C6	2:C:83:C:O2'	2.33	0.82
15:W:56:CYS:O	15:W:62:PRO:HA	1.79	0.82
15:W:70:LYS:N	15:W:73:ASP:OD2	2.12	0.82
1:A:1536:A:C2	1:A:1537:U:H5	1.98	0.82
1:A:1810:C:H4'	1:A:1811:A:C5'	2.09	0.82
1:A:1886:A:C2'	1:A:1887:G:H5'	2.09	0.82
1:A:2116:C:N4	1:A:2201:G:H22	1.78	0.82
1:A:2202:C:O2'	1:A:2203:U:H5'	1.80	0.82
1:A:3:C:H2'	1:A:4:A:H8	1.42	0.82
1:A:626:C:C5	1:A:627:C:C5	2.68	0.82
1:A:83:A:C6	1:A:98:G:C6	2.67	0.82
12:T:170:THR:HG23	12:T:172:ILE:CD1	2.10	0.82
14:V:109:LEU:HD11	14:V:141:ARG:C	1.99	0.82
1:A:1521:G:C4	1:A:1543:G:N2	2.47	0.82
1:A:2730:A:H8	1:A:2731:C:H5''	1.45	0.82
26:G:73:LYS:N	26:G:261:VAL:O	2.13	0.82
1:A:1809:G:OP1	19:E:256:ARG:NH1	2.11	0.81
1:A:2103:G:C2'	1:A:2104:A:H5'	2.11	0.81
1:A:2234:G:C2'	1:A:2235:C:H5'	2.09	0.81
1:A:912:C:O2'	1:A:913:G:H5'	1.79	0.81
25:F:117:PHE:HA	25:F:141:TYR:HH	1.42	0.81
13:U:154:PRO:HA	13:U:157:LEU:HD12	1.61	0.81
1:A:1135:A:O2'	1:A:1136:U:H5'	1.80	0.81
1:A:2109:C:C6	1:A:2110:U:C6	2.67	0.81
1:A:2114:G:C6	1:A:2204:A:C6	2.68	0.81
1:A:1689:C:H41	8:P:19:ARG:HE	1.26	0.81
1:A:2227:C:O2'	1:A:2228:C:H5'	1.80	0.81
29:J:76:ASN:O	29:J:80:PRO:HG2	1.79	0.81
6:N:81:ARG:CZ	26:G:243:GLU:HB2	2.09	0.81
1:A:2288:G:OP1	16:X:76:ARG:HA	1.79	0.81
1:A:823:C:O2'	1:A:1247:A:O2'	1.86	0.81
1:A:1547:C:C2'	1:A:1548:A:H5'	2.11	0.81
1:A:253:C:O2	1:A:437:G:N2	2.13	0.81
1:A:355:A:N7	1:A:356:A:C8	2.48	0.81
3:B:91:G:H22	7:O:38:GLU:CD	1.83	0.81
1:A:2322:A:C6	27:H:204:GLY:HA2	2.14	0.81
6:N:198:LEU:HD23	6:N:199:LYS:N	1.95	0.81
1:A:2325:G:O6	1:A:2328:A:N6	2.12	0.81
1:A:856:U:O4	1:A:962:G:O6	1.99	0.81
11:S:91:LEU:HD12	12:T:175:PRO:CB	2.09	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1501:G:O3'	1:A:1502:A:H4'	1.80	0.81
1:A:357:G:O2'	1:A:358:C:H5'	1.80	0.81
1:A:2:U:O2'	1:A:3:C:H5'	1.81	0.81
1:A:381:C:O2	1:A:416:C:C4	2.33	0.81
1:A:2698:C:OP1	25:F:285:LYS:HD3	1.81	0.81
27:H:175:PHE:HD1	27:H:183:VAL:HG13	1.45	0.81
1:A:1651:C:C6	13:U:116:PRO:HG3	2.15	0.81
1:A:2150:G:N1	1:A:2151:G:C2	2.49	0.81
1:A:361:C:H2'	1:A:362:A:H8	1.43	0.81
1:A:862:U:O2'	1:A:863:C:H5'	1.79	0.81
1:A:917:C:O2'	1:A:918:A:H5'	1.81	0.81
26:G:208:PHE:CB	26:G:229:LEU:HB2	2.11	0.81
6:N:159:PRO:HB3	6:N:187:ILE:HD13	1.63	0.81
6:N:224:LYS:NZ	6:N:224:LYS:HB2	1.96	0.81
1:A:101:A:C6	1:A:102:U:C4	2.67	0.81
1:A:1516:G:C5	1:A:1517:G:C8	2.69	0.81
1:A:1547:C:O2'	1:A:1548:A:H5'	1.81	0.81
1:A:1650:A:P	1:A:1650:A:H8	2.04	0.81
1:A:861:A:C2'	1:A:862:U:H5'	2.11	0.81
6:N:156:LYS:HZ3	6:N:215:ARG:NH1	1.47	0.81
1:A:829:G:N1	1:A:1209:U:OP2	2.14	0.80
1:A:1472:A:N6	1:A:1479:U:O4	2.14	0.80
1:A:1745:C:H2'	1:A:1746:C:C6	2.15	0.80
1:A:1879:U:H2'	1:A:1880:G:C8	2.16	0.80
1:A:955:G:H2'	1:A:956:G:H5'	1.62	0.80
2:C:103:G:H2'	2:C:104:A:H8	1.43	0.80
2:C:78:G:O2'	2:C:79:G:H5'	1.79	0.80
1:A:1090:U:H3	1:A:1104:C:H42	1.27	0.80
1:A:2107:G:C6	1:A:2242:A:H8	1.99	0.80
1:A:293:G:C2	1:A:294:U:C4	2.69	0.80
19:E:176:GLU:HA	19:E:268:ARG:HB2	1.62	0.80
1:A:629:C:H5'	26:G:258:ARG:HH22	1.46	0.80
1:A:1751:A:C2	1:A:1753:A:H8	1.98	0.80
1:A:1755:A:H2'	1:A:1756:G:C8	2.17	0.80
1:A:1879:U:O2	1:A:1887:G:N2	2.14	0.80
1:A:337:U:O2	1:A:341:A:N6	2.15	0.80
1:A:932:A:H4'	16:X:85:GLN:NE2	1.94	0.80
1:A:262:G:H21	1:A:265:A:P	2.04	0.80
1:A:901:C:H2'	1:A:902:G:O4'	1.82	0.80
6:N:158:VAL:CG1	6:N:201:LEU:CG	2.59	0.80
1:A:111:U:P	18:Z:134:ARG:HH11	2.05	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1483:G:H2'	1:A:1484:G:C8	2.15	0.80
1:A:942:U:H2'	1:A:943:C:O4'	1.81	0.80
1:A:1879:U:C5	6:N:252:ARG:NH1	2.50	0.80
1:A:274:G:O6	1:A:433:C:C4'	2.29	0.80
3:B:35:A:N1	3:B:51:G:N1	2.29	0.80
4:L:175:ARG:NH2	4:L:184:LYS:CE	2.45	0.80
1:A:1526:G:H2'	1:A:1527:G:O4'	1.80	0.80
1:A:2192:U:O2'	1:A:2193:C:O4'	1.99	0.80
1:A:2647:A:C8	2:C:98:G:C4	2.70	0.80
1:A:635:C:O2'	1:A:636:C:H5'	1.82	0.80
14:V:104:TYR:CD1	18:Z:142:ARG:CD	2.65	0.80
1:A:355:A:H2'	1:A:356:A:C5'	2.11	0.80
3:B:67:U:C4	3:B:109:U:C5	2.69	0.80
26:G:193:ALA:O	26:G:197:TRP:CB	2.30	0.80
4:L:175:ARG:NH2	4:L:184:LYS:CD	2.45	0.80
12:T:177:VAL:CA	12:T:230:TYR:OH	2.29	0.80
1:A:1745:C:O2'	1:A:1746:C:H5'	1.82	0.80
1:A:2154:C:N4	1:A:2165:G:N2	2.28	0.80
1:A:329:C:O2'	26:G:222:ASN:ND2	2.13	0.80
25:F:223:THR:HG22	25:F:224:HIS:H	1.45	0.80
6:N:158:VAL:CG1	6:N:201:LEU:CD2	2.60	0.80
15:W:161:LEU:CD1	15:W:168:VAL:HG23	2.08	0.80
16:X:101:PHE:CE1	16:X:133:LYS:HG2	2.17	0.80
1:A:1347:U:O4	1:A:1683:G:O2'	1.99	0.80
1:A:389:A:C6	1:A:410:G:N1	2.50	0.80
1:A:624:A:C8	1:A:625:C:C5	2.69	0.80
2:C:104:A:O2'	2:C:105:A:H5'	1.81	0.80
1:A:2653:U:H5'	25:F:170:GLU:OE2	1.82	0.80
1:A:2074:A:N6	26:G:125:ARG:HH22	1.80	0.80
10:R:123:MET:CE	25:F:97:LEU:C	2.49	0.80
16:X:122:LEU:HG	16:X:140:ARG:HB2	1.64	0.80
1:A:1745:C:N4	1:A:1746:C:N4	2.29	0.79
1:A:2753:C:H42	1:A:2787:C:H42	1.29	0.79
1:A:355:A:C8	1:A:356:A:N9	2.49	0.79
1:A:2156:C:C2	1:A:2164:G:N2	2.46	0.79
1:A:274:G:C5	1:A:433:C:H6	1.99	0.79
6:N:158:VAL:HG12	6:N:201:LEU:HG	1.63	0.79
12:T:169:SER:CB	12:T:233:SER:CB	2.59	0.79
1:A:2116:C:C2'	1:A:2117:U:H5'	2.12	0.79
1:A:2337:C:H5'	1:A:2350:A:N6	1.96	0.79
1:A:310:A:N1	1:A:342:G:O2'	2.14	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:80:G:H2'	1:A:81:G:C8	2.17	0.79
1:A:878:U:O2'	1:A:879:G:H5'	1.81	0.79
3:B:26:A:C2	3:B:27:A:C8	2.71	0.79
2:C:76:G:H3'	2:C:76:G:OP2	1.82	0.79
1:A:1811:A:C5	19:E:261:TYR:OH	2.35	0.79
16:X:159:ARG:O	16:X:162:ARG:HG3	1.81	0.79
1:A:1751:A:H3'	1:A:1752:C:C4'	2.13	0.79
1:A:2157:U:H3	1:A:2162:G:H1	1.30	0.79
1:A:2643:C:O2'	1:A:2644:G:H5'	1.83	0.79
2:C:105:A:O2'	2:C:106:C:H5'	1.82	0.79
6:N:165:ILE:HG13	6:N:206:LEU:C	2.03	0.79
13:U:117:ARG:HD2	13:U:123:TYR:HE2	1.46	0.79
1:A:3:C:H2'	1:A:4:A:C8	2.17	0.79
26:G:67:GLU:OE2	26:G:69:PHE:HB3	1.83	0.79
5:M:17:ARG:HH11	5:M:47:ILE:HG12	1.48	0.79
6:N:165:ILE:CD1	6:N:207:SER:N	2.45	0.79
2:C:38:G:H22	25:F:145:ARG:HH21	1.27	0.79
1:A:702:C:O5'	19:E:213:ARG:NH1	2.16	0.79
1:A:616:U:P	26:G:155:LYS:NZ	2.56	0.79
1:A:2247:C:H1'	17:Y:102:ASN:CB	2.12	0.79
1:A:1885:C:H41	6:N:253:ALA:HB2	1.43	0.79
2:C:26:G:H2'	2:C:27:U:H5'	1.65	0.79
15:W:152:LEU:HD12	15:W:154:ASP:H	1.47	0.79
1:A:853:G:N1	1:A:965:G:C6	2.51	0.79
1:A:1832:G:OP1	19:E:212:LYS:NZ	2.14	0.79
28:I:46:GLN:HB3	28:I:109:ARG:HD2	1.65	0.79
1:A:294:U:H2'	1:A:295:C:C2	2.17	0.79
1:A:369:U:O2'	1:A:370:A:OP1	1.98	0.79
1:A:543:A:N6	1:A:2034:C:O2'	2.16	0.79
25:F:117:PHE:CA	25:F:141:TYR:OH	2.26	0.79
10:R:173:GLN:HB2	10:R:180:THR:HG22	1.64	0.79
1:A:2109:C:H3'	1:A:2110:U:C6	2.17	0.79
1:A:2803:C:O2'	1:A:2804:U:O5'	2.01	0.79
2:C:84:C:O2'	2:C:85:U:H5'	1.82	0.79
6:N:143:LEU:HG	6:N:146:ILE:CD1	2.05	0.79
1:A:639:A:N7	6:N:201:LEU:HD11	1.98	0.79
1:A:822:U:C6	1:A:1272:A:N3	2.51	0.78
25:F:98:GLY:H	25:F:286:PRO:HB3	1.48	0.78
4:L:107:HIS:O	4:L:107:HIS:ND1	2.16	0.78
1:A:1237:C:P	11:S:11:ARG:HH21	2.07	0.78
1:A:1878:C:N4	1:A:1887:G:O6	2.16	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1830:U:C2	19:E:197:ASN:ND2	2.51	0.78
16:X:153:ARG:NH1	16:X:153:ARG:HG2	1.97	0.78
1:A:2196:G:H2'	1:A:2197:A:C8	2.19	0.78
1:A:935:U:O2'	1:A:936:A:O5'	2.01	0.78
26:G:204:LYS:H	26:G:225:THR:HB	1.46	0.78
6:N:106:GLN:OE1	6:N:106:GLN:N	2.17	0.78
1:A:2433:C:OP1	6:N:145:GLY:N	2.17	0.78
6:N:160:ILE:HG22	6:N:203:GLU:OE2	1.82	0.78
6:N:189:PRO:HB3	6:N:196:LEU:HD21	1.65	0.78
1:A:133:A:C6	1:A:162:A:H2	2.00	0.78
1:A:1879:U:N3	1:A:1887:G:N1	2.30	0.78
1:A:2319:C:O2'	1:A:2320:G:H5'	1.84	0.78
3:B:91:G:N2	7:O:38:GLU:OE2	2.17	0.78
1:A:2129:G:C2'	1:A:2131:U:C5	2.63	0.78
1:A:2393:A:H2	9:Q:166:PHE:HZ	1.29	0.78
1:A:2684:C:H5	28:I:150:SER:CB	1.92	0.78
1:A:2752:G:H3'	1:A:2753:C:H4'	1.66	0.78
14:V:114:ILE:HG23	14:V:115:LEU:CD1	2.12	0.78
1:A:1479:U:H5''	1:A:1480:A:OP1	1.83	0.78
1:A:2320:G:O2'	1:A:2321:G:H5'	1.83	0.78
1:A:262:G:N2	1:A:265:A:OP2	2.17	0.78
1:A:296:G:H2'	1:A:297:U:C6	2.18	0.78
1:A:382:G:H3'	1:A:435:A:N7	1.97	0.78
1:A:955:G:C2'	1:A:956:G:H5'	2.13	0.78
3:B:87:G:C2	3:B:93:C:O2	2.36	0.78
1:A:883:C:C4'	7:O:65:TRP:CZ3	2.67	0.78
12:T:113:LYS:HA	12:T:113:LYS:CE	2.14	0.78
16:X:127:LYS:HA	16:X:132:LYS:O	1.83	0.78
1:A:394:G:N2	1:A:405:C:N3	2.31	0.78
3:B:8:G:OP2	9:Q:76:PHE:CE2	2.36	0.78
26:G:226:LEU:O	26:G:226:LEU:HD12	1.84	0.78
15:W:141:GLN:HG2	15:W:166:GLU:OE2	1.80	0.78
1:A:1235:A:N6	1:A:1254:U:O4	2.17	0.78
1:A:1754:A:N7	1:A:1755:A:N7	2.31	0.78
1:A:2219:U:O2'	1:A:2229:U:N3	2.04	0.78
1:A:387:G:H5'	1:A:388:C:OP2	1.84	0.78
1:A:913:G:C4	1:A:914:A:N7	2.52	0.78
1:A:98:G:H4'	1:A:99:A:H5''	1.63	0.78
3:B:68:G:N2	3:B:69:C:O2	2.17	0.78
13:U:33:THR:HG22	13:U:135:VAL:HG22	1.64	0.78
1:A:1153:G:C6	1:A:1154:A:N7	2.51	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1161:A:O2'	1:A:1162:C:OP1	2.01	0.78
1:A:140:G:C6	1:A:155:A:C6	2.71	0.78
1:A:1522:A:N3	1:A:1523:A:C8	2.52	0.78
1:A:330:U:O2	26:G:218:LYS:CE	2.21	0.78
16:X:67:LYS:H	16:X:67:LYS:HD2	1.49	0.78
1:A:1136:U:O2'	1:A:1137:C:H5'	1.84	0.77
1:A:1394:A:H5'	1:A:2230:A:H1'	1.65	0.77
1:A:140:G:H2'	1:A:141:C:H5'	1.65	0.77
1:A:152:G:C4	1:A:153:G:N7	2.52	0.77
1:A:2129:G:H1'	1:A:2180:G:H21	1.44	0.77
1:A:621:G:H2'	1:A:622:G:H5'	1.66	0.77
1:A:634:G:O2'	1:A:635:C:H5'	1.84	0.77
4:L:100:TRP:CZ3	4:L:101:TYR:HB2	2.19	0.77
1:A:60:U:O3'	18:Z:94:ARG:NH1	2.01	0.77
1:A:133:A:N7	1:A:134:A:N6	2.31	0.77
1:A:1472:A:C6	1:A:1479:U:O4	2.37	0.77
1:A:669:C:H2'	1:A:670:A:H8	1.43	0.77
3:B:3:U:O2'	3:B:4:U:O5'	2.02	0.77
1:A:1603:A:H5'	19:E:55:LYS:HD3	1.64	0.77
26:G:254:TYR:CZ	26:G:258:ARG:NE	2.44	0.77
2:C:12:C:H5''	8:P:109:ARG:HH22	1.49	0.77
1:A:1178:G:C4'	11:S:83:HIS:HD2	1.97	0.77
1:A:1164:G:O2'	1:A:1165:G:H5'	1.83	0.77
1:A:137:U:C2	1:A:157:G:N2	2.50	0.77
1:A:1524:G:O2'	1:A:1525:G:H5'	1.85	0.77
1:A:2214:C:O2'	1:A:2215:C:H5'	1.85	0.77
1:A:2317:G:O6	1:A:2333:C:N3	2.18	0.77
1:A:2351:G:N9	9:Q:64:VAL:CG2	2.29	0.77
1:A:2304:A:N6	1:A:2363:A:N6	2.32	0.77
3:B:5:C:O2'	3:B:6:U:H5'	1.84	0.77
27:H:184:GLY:HA2	27:H:207:VAL:O	1.83	0.77
3:B:41:U:C5'	3:B:42:C:H5''	2.15	0.77
2:C:80:C:C5'	10:R:121:ASP:OD1	2.32	0.77
6:N:117:GLN:OE1	6:N:125:ILE:HG12	1.83	0.77
1:A:1162:C:O2'	1:A:1163:G:OP1	2.03	0.77
1:A:1537:U:H2'	1:A:1538:G:C8	2.20	0.77
1:A:1545:G:N7	1:A:1546:C:H5	1.80	0.77
1:A:1551:G:O2'	1:A:1552:U:H5'	1.85	0.77
1:A:1926:A:N6	1:A:1931:U:N3	2.32	0.77
1:A:293:G:O2'	1:A:294:U:H5'	1.84	0.77
2:C:32:C:H1'	2:C:33:A:H5'	1.66	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1519:A:C2	1:A:1520:A:N7	2.53	0.77
1:A:1689:C:O2'	1:A:1690:A:O5'	2.00	0.77
1:A:2103:G:H2'	1:A:2104:A:H5'	1.66	0.77
1:A:2107:G:C5	1:A:2242:A:H8	2.02	0.77
1:A:2112:U:H2'	1:A:2113:G:C8	2.19	0.77
1:A:2210:C:O2'	1:A:2211:U:OP1	2.01	0.77
1:A:2322:A:C4	27:H:186:ARG:CZ	2.67	0.77
1:A:823:C:O2'	1:A:824:U:H5'	1.84	0.77
3:B:41:U:HO2'	3:B:46:A:N6	1.80	0.77
6:N:172:GLU:HA	6:N:210:LEU:HD21	1.67	0.77
1:A:1634:C:H5''	14:V:145:LYS:HZ1	1.50	0.77
1:A:1039:A:OP1	11:S:77:ASN:HB3	1.85	0.77
1:A:140:G:C5	1:A:155:A:N1	2.52	0.77
1:A:2154:C:H42	1:A:2165:G:N2	1.83	0.77
1:A:2320:G:N2	1:A:2330:U:O2	2.17	0.77
1:A:83:A:C6	1:A:98:G:C5	2.72	0.77
12:T:147:LEU:HD13	12:T:215:PRO:HB2	1.67	0.77
1:A:1528:U:H2'	1:A:1529:A:C8	2.20	0.77
1:A:136:U:C2	1:A:160:A:N1	2.53	0.77
1:A:161:G:H4'	1:A:162:A:OP1	1.83	0.77
1:A:2653:U:H4'	25:F:170:GLU:OE2	1.85	0.77
19:E:267:ILE:HG22	19:E:269:ARG:HB2	1.65	0.77
6:N:156:LYS:HZ1	6:N:215:ARG:HH12	0.80	0.77
1:A:2189:C:H2'	1:A:2190:A:H8	1.47	0.77
2:C:22:A:H3'	2:C:23:G:H5''	1.67	0.77
1:A:1689:C:N4	8:P:19:ARG:HE	1.81	0.77
11:S:91:LEU:HD11	12:T:175:PRO:HB3	0.78	0.77
26:G:200:ASP:O	26:G:202:ALA:N	2.13	0.77
7:O:30:GLY:HA2	7:O:107:SER:HB3	1.66	0.77
1:A:1361:U:C4	14:V:168:PRO:HD3	2.20	0.77
1:A:2109:C:C4	1:A:2110:U:N3	2.53	0.76
1:A:648:G:N1	6:N:158:VAL:HG21	2.00	0.76
7:O:43:THR:OG1	7:O:46:GLN:OE1	2.03	0.76
16:X:128:TYR:HD2	16:X:132:LYS:HB2	1.49	0.76
1:A:1751:A:H3'	1:A:1752:C:H4'	1.67	0.76
1:A:7:C:H2'	1:A:8:G:O4'	1.85	0.76
2:C:104:A:N1	2:C:105:A:C6	2.52	0.76
2:C:36:A:H2	25:F:274:ARG:NH1	1.72	0.76
19:E:142:ILE:HA	19:E:180:ILE:HD11	1.66	0.76
4:L:175:ARG:HH22	4:L:184:LYS:CE	1.97	0.76
1:A:1527:G:H3'	1:A:1528:U:C5	2.20	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2393:A:C2	9:Q:166:PHE:CE2	2.73	0.76
1:A:352:C:O2'	1:A:353:G:H5'	1.86	0.76
1:A:283:C:O2	1:A:372:G:N2	2.18	0.76
1:A:639:A:C5	6:N:201:LEU:HD11	2.19	0.76
1:A:903:G:C2'	1:A:904:U:H5''	2.14	0.76
3:B:32:A:N6	3:B:55:G:C6	2.53	0.76
16:X:128:TYR:HE2	16:X:132:LYS:HB2	1.47	0.76
1:A:1808:C:O2'	1:A:1812:A:H1'	1.85	0.76
1:A:2224:G:H5''	1:A:2225:G:C5'	2.16	0.76
1:A:495:A:H1'	15:W:122:ILE:CG1	2.15	0.76
3:B:7:G:C6	3:B:117:A:C2	2.73	0.76
6:N:176:VAL:O	6:N:177:SER:OG	2.02	0.76
9:Q:72:ARG:NH1	9:Q:87:ILE:HD11	2.00	0.76
12:T:96:PRO:O	12:T:98:PRO:N	2.19	0.76
18:Z:94:ARG:HG2	18:Z:101:LYS:HE3	1.66	0.76
1:A:140:G:C6	1:A:155:A:C2	2.72	0.76
1:A:1810:C:H4'	1:A:1811:A:O5'	1.86	0.76
25:F:284:GLY:HA3	25:F:288:ASN:HD21	1.50	0.76
6:N:165:ILE:HD11	6:N:207:SER:N	2.00	0.76
6:N:225:LEU:HG	6:N:230:CYS:SG	2.25	0.76
12:T:181:ALA:HB3	12:T:225:THR:CG2	2.16	0.76
1:A:495:A:O2'	15:W:120:GLY:O	2.02	0.76
1:A:278:G:H2'	1:A:279:A:H5''	1.67	0.76
1:A:317:G:H21	1:A:338:G:N2	1.81	0.76
1:A:1689:C:H5'	8:P:12:LYS:HE2	1.67	0.76
16:X:133:LYS:HE2	16:X:133:LYS:CA	2.15	0.76
1:A:1164:G:C2'	1:A:1165:G:H5'	2.14	0.76
1:A:432:G:H2'	1:A:433:C:O4'	1.84	0.76
1:A:624:A:N3	1:A:625:C:C6	2.48	0.76
1:A:83:A:C5	1:A:98:G:O6	2.38	0.76
3:B:86:G:C2	3:B:87:G:N7	2.54	0.76
6:N:209:LYS:CA	6:N:230:CYS:HB3	2.16	0.76
6:N:243:LYS:HE3	6:N:245:SER:OG	1.85	0.76
7:O:68:ILE:HG21	7:O:101:ARG:HE	1.50	0.76
1:A:2186:U:P	1:A:2188:C:C5	2.78	0.76
1:A:2698:C:OP1	25:F:285:LYS:CD	2.34	0.76
1:A:46:C:C2'	1:A:47:G:H5'	2.16	0.76
6:N:102:HIS:CE1	12:T:205:ASN:HD22	2.02	0.76
6:N:165:ILE:CB	6:N:206:LEU:HA	2.16	0.76
10:R:116:ARG:HA	10:R:116:ARG:NE	2.00	0.76
14:V:132:ASN:HA	14:V:184:ALA:HB2	1.68	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1472:A:C6	1:A:1479:U:C4	2.74	0.76
1:A:2104:A:O2'	1:A:2105:U:H5'	1.85	0.76
1:A:277:G:O6	1:A:381:C:N4	2.18	0.76
1:A:276:G:H4'	1:A:277:G:OP1	1.84	0.76
1:A:280:G:N2	1:A:376:U:H3	1.84	0.76
1:A:969:A:C6	1:A:970:G:C6	2.73	0.76
1:A:2011:G:C5'	25:F:219:ARG:NH2	2.48	0.76
1:A:2322:A:N6	27:H:204:GLY:CA	2.40	0.76
4:L:171:LYS:C	4:L:172:LEU:HD12	2.06	0.76
6:N:210:LEU:H	6:N:230:CYS:CB	1.99	0.76
1:A:1268:A:C2	11:S:5:LYS:NZ	2.53	0.76
1:A:158:C:H41	1:A:159:A:H62	1.32	0.75
1:A:2156:C:O2	1:A:2164:G:C2	2.39	0.75
1:A:2647:A:C4	2:C:98:G:N2	2.54	0.75
1:A:858:G:C4	1:A:859:A:N7	2.53	0.75
26:G:79:LYS:O	26:G:83:VAL:HG23	1.84	0.75
27:H:115:GLY:HA3	27:H:148:LEU:HD23	1.68	0.75
6:N:143:LEU:CD2	6:N:146:ILE:HG12	2.16	0.75
6:N:175:GLU:HB3	6:N:213:LYS:NZ	2.00	0.75
12:T:116:PRO:CD	12:T:117:PRO:HD3	2.16	0.75
1:A:263:A:H5''	1:A:263:A:N3	2.01	0.75
4:L:100:TRP:HE3	4:L:101:TYR:HD2	1.33	0.75
1:A:1178:G:C4'	11:S:83:HIS:CD2	2.69	0.75
17:Y:129:ILE:HD12	17:Y:130:GLU:N	2.01	0.75
1:A:2223:A:H2'	1:A:2224:G:C8	2.20	0.75
1:A:2211:U:O4	1:A:2241:G:C4	2.40	0.75
1:A:869:G:H21	1:A:2285:A:H2	1.34	0.75
1:A:279:A:N3	1:A:279:A:H5'	2.01	0.75
1:A:668:U:H2'	1:A:669:C:C6	2.22	0.75
3:B:35:A:N1	3:B:51:G:C2	2.54	0.75
2:C:77:A:H1'	8:P:16:LYS:CB	2.10	0.75
6:N:81:ARG:HH11	26:G:243:GLU:CB	1.96	0.75
1:A:1586:G:OP2	1:A:1586:G:N2	2.19	0.75
1:A:2337:C:H5'	1:A:2350:A:C6	2.21	0.75
1:A:902:G:C6	1:A:903:G:N7	2.54	0.75
3:B:86:G:C2	3:B:87:G:C8	2.75	0.75
6:N:168:ALA:HB3	6:N:186:ILE:HD11	1.67	0.75
6:N:209:LYS:HA	6:N:230:CYS:HB3	1.66	0.75
11:S:91:LEU:HD12	12:T:175:PRO:C	2.07	0.75
1:A:1745:C:N3	1:A:1746:C:C4	2.54	0.75
1:A:352:C:C2'	1:A:353:G:H5'	2.16	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:35:A:N1	3:B:51:G:C6	2.54	0.75
1:A:1809:G:N7	19:E:172:LEU:CD1	2.50	0.75
1:A:1830:U:C5	19:E:197:ASN:ND2	2.39	0.75
16:X:122:LEU:CD1	16:X:140:ARG:CG	2.42	0.75
1:A:2409:A:C2	1:A:2441:C:N4	2.55	0.75
18:Z:152:LEU:HD22	18:Z:152:LEU:O	1.85	0.75
1:A:1268:A:H2	11:S:5:LYS:NZ	1.84	0.75
1:A:1552:U:O2'	1:A:1553:U:H5'	1.85	0.75
1:A:670:A:O2'	1:A:671:C:H5'	1.87	0.75
3:B:16:G:C6	3:B:111:G:N3	2.53	0.75
8:P:25:ASP:OD1	8:P:26:GLN:N	2.17	0.75
1:A:1475:U:C1'	8:P:70:LEU:HD13	2.14	0.75
1:A:2186:U:P	1:A:2188:C:H5	2.10	0.75
1:A:2237:A:H5'	1:A:2237:A:N3	2.01	0.75
1:A:1530:G:H2'	1:A:1530:G:N3	2.02	0.75
1:A:280:G:N1	1:A:376:U:O4	2.19	0.75
1:A:900:G:O2'	1:A:901:C:H5''	1.86	0.75
25:F:122:ILE:HG22	25:F:183:GLN:HA	1.67	0.75
1:A:670:A:H4'	26:G:151:LYS:O	1.86	0.75
1:A:649:A:OP1	6:N:202:GLY:N	2.20	0.75
6:N:209:LYS:HB2	6:N:230:CYS:HA	1.69	0.75
6:N:197:PRO:CB	6:N:215:ARG:CD	2.65	0.75
1:A:335:G:H2'	1:A:336:G:C8	2.22	0.74
1:A:415:U:H5''	1:A:416:C:OP1	1.87	0.74
1:A:615:G:H1'	1:A:668:U:O2'	1.87	0.74
1:A:1789:U:OP2	1:A:1794:A:N6	2.20	0.74
1:A:2109:C:C5	1:A:2110:U:C4	2.74	0.74
1:A:2186:U:OP2	1:A:2188:C:H5	1.69	0.74
1:A:624:A:C4	1:A:625:C:H5	1.93	0.74
6:N:205:GLU:CD	6:N:224:LYS:CD	2.46	0.74
18:Z:122:ARG:HA	18:Z:125:GLU:OE1	1.87	0.74
1:A:2117:U:O2'	1:A:2118:U:H5'	1.86	0.74
1:A:2129:G:C1'	1:A:2180:G:N2	2.51	0.74
1:A:857:G:H1'	1:A:961:G:H22	1.51	0.74
1:A:902:G:C3'	1:A:903:G:H5''	2.16	0.74
1:A:2186:U:P	1:A:2188:C:N4	2.60	0.74
1:A:208:A:H1'	1:A:433:C:O2'	1.87	0.74
1:A:504:G:H4'	13:U:37:TYR:CB	2.15	0.74
1:A:1178:G:H4'	11:S:83:HIS:HD2	1.51	0.74
1:A:2224:G:H5''	1:A:2225:G:H5''	1.69	0.74
1:A:278:G:C2'	1:A:279:A:H5''	2.18	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:143:LEU:HD21	6:N:146:ILE:HG12	1.69	0.74
16:X:128:TYR:CE2	16:X:132:LYS:HG2	2.22	0.74
1:A:2221:U:H5'	1:A:2222:C:OP2	1.88	0.74
29:J:69:VAL:HG23	29:J:70:ARG:H	1.52	0.74
15:W:161:LEU:CD1	15:W:168:VAL:HG22	2.13	0.74
1:A:2236:C:C3'	1:A:2237:A:H5''	2.17	0.74
1:A:381:C:C2	1:A:416:C:C5	2.76	0.74
1:A:612:U:C2'	1:A:613:U:H5''	2.17	0.74
1:A:1178:G:C1'	11:S:83:HIS:CD2	2.71	0.74
1:A:2129:G:C2'	1:A:2180:G:H21	2.01	0.74
26:G:254:TYR:OH	26:G:258:ARG:CZ	2.35	0.74
1:A:2322:A:C4	27:H:186:ARG:CD	2.49	0.74
29:J:56:ASP:O	29:J:83:LYS:NZ	2.19	0.74
1:A:1667:G:N1	1:A:1670:A:OP2	2.19	0.74
1:A:1809:G:C5	19:E:172:LEU:HD13	2.23	0.74
1:A:2211:U:H5	1:A:2241:G:O6	1.71	0.74
1:A:2764:U:C4	1:A:2774:U:O4	2.41	0.74
2:C:41:A:N6	2:C:86:A:N1	2.36	0.74
2:C:88:C:O2'	2:C:89:A:H5'	1.87	0.74
1:A:2321:G:H5'	27:H:175:PHE:HB3	1.68	0.74
6:N:116:GLY:O	6:N:120:ARG:HG2	1.86	0.74
1:A:1472:A:C5	1:A:1479:U:O4	2.41	0.74
1:A:795:U:C5'	19:E:222:ASN:OD1	2.35	0.74
27:H:170:VAL:H	27:H:230:PHE:HB3	1.53	0.74
1:A:822:U:H5	1:A:1272:A:N1	1.85	0.73
1:A:2137:G:N2	1:A:2190:A:C6	2.56	0.73
1:A:636:C:O2'	1:A:637:G:H5'	1.88	0.73
12:T:123:ILE:CD1	12:T:227:TYR:CE1	2.70	0.73
14:V:110:ASP:O	14:V:111:VAL:HG22	1.88	0.73
1:A:1139:A:N3	1:A:1139:A:H3'	2.03	0.73
1:A:1635:C:H4'	14:V:106:ARG:HH22	1.50	0.73
1:A:2213:A:C2	1:A:2214:C:N3	2.55	0.73
1:A:2798:G:H1	4:L:201:GLU:CD	1.91	0.73
1:A:288:C:H2'	1:A:289:A:H8	1.51	0.73
19:E:137:ILE:HD13	19:E:160:LEU:HD13	1.69	0.73
12:T:88:VAL:HG12	12:T:89:LEU:N	2.03	0.73
1:A:1730:C:O2'	1:A:1731:G:N2	2.21	0.73
1:A:2338:G:O2'	1:A:2339:A:OP1	2.06	0.73
1:A:345:C:H2'	1:A:346:A:H8	1.52	0.73
3:B:67:U:O4	3:B:109:U:C5	2.41	0.73
2:C:30:A:N3	2:C:30:A:H3'	2.03	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1159:G:C8	4:L:176:HIS:HE1	2.05	0.73
6:N:224:LYS:HB2	6:N:224:LYS:HZ2	1.52	0.73
1:A:1533:A:H2'	1:A:1534:A:N3	2.03	0.73
1:A:1588:U:O2	1:A:1670:A:N7	2.21	0.73
1:A:886:U:H2'	1:A:887:G:H1'	1.69	0.73
1:A:1189:G:H21	12:T:214:GLN:HE22	1.32	0.73
1:A:1028:A:OP2	1:A:1181:G:N1	2.18	0.73
1:A:133:A:H2'	1:A:134:A:H8	1.50	0.73
1:A:1379:C:N4	1:A:1393:U:OP2	2.22	0.73
1:A:1534:A:H2'	1:A:1535:A:C5'	2.18	0.73
1:A:2195:G:H2'	1:A:2196:G:C8	2.22	0.73
1:A:292:C:O2'	1:A:293:G:H5'	1.89	0.73
1:A:1023:C:N3	4:L:102:PRO:CD	2.44	0.73
1:A:1690:A:OP1	1:A:1690:A:H4'	1.87	0.73
1:A:2316:G:H1	1:A:2334:C:N4	1.86	0.73
1:A:373:C:H2'	1:A:374:U:C6	2.24	0.73
1:A:860:C:H2'	1:A:861:A:C8	2.21	0.73
2:C:85:U:H2'	2:C:86:A:H8	1.51	0.73
1:A:1836:C:H5''	19:E:219:VAL:HG23	1.69	0.73
1:A:2752:G:O6	25:F:297:ILE:O	2.06	0.73
1:A:609:G:H5''	26:G:79:LYS:HE3	1.69	0.73
10:R:197:PRO:HG2	10:R:200:SER:HB2	1.71	0.73
16:X:66:THR:OG1	16:X:67:LYS:HE2	1.89	0.73
1:A:140:G:N2	1:A:154:C:O2	2.16	0.73
1:A:1444:A:N1	1:A:1609:U:C4	2.56	0.73
1:A:288:C:C2'	1:A:289:A:H5'	2.19	0.73
1:A:1159:G:N9	4:L:176:HIS:CE1	2.56	0.73
12:T:169:SER:C	12:T:233:SER:HB3	2.04	0.73
1:A:1651:C:C6	13:U:116:PRO:CG	2.71	0.73
1:A:1082:A:O2'	1:A:1083:G:H5'	1.89	0.73
1:A:1474:A:H4'	1:A:1475:U:OP2	1.86	0.73
1:A:1754:A:C8	1:A:1755:A:N7	2.57	0.73
1:A:2105:U:OP2	1:A:2106:U:O2'	2.06	0.73
1:A:2646:U:H4'	1:A:2647:A:OP1	1.88	0.73
1:A:612:U:O2'	1:A:613:U:H5''	1.88	0.73
1:A:1833:G:P	19:E:50:ARG:HH12	2.10	0.73
27:H:163:ARG:NH2	27:H:192:PRO:HD3	2.04	0.73
1:A:1082:A:H2'	1:A:1083:G:C8	2.24	0.73
1:A:2647:A:N9	2:C:98:G:C2	2.57	0.73
1:A:234:C:H5	6:N:142:LYS:NZ	1.86	0.73
16:X:101:PHE:CD1	16:X:133:LYS:CG	2.72	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1197:A:OP1	16:X:165:LYS:HB2	1.89	0.73
1:A:888:C:H3'	1:A:889:G:C8	2.23	0.73
13:U:153:THR:HB	13:U:156:LYS:HB2	1.70	0.73
1:A:1550:U:H2'	1:A:1551:G:H5'	1.71	0.72
1:A:1047:U:OP1	1:A:1063:U:O2'	2.05	0.72
1:A:1161:A:C8	1:A:2040:U:O2'	2.42	0.72
1:A:1528:U:H2'	1:A:1529:A:H8	1.52	0.72
1:A:1806:U:H2'	1:A:1807:C:H6	1.53	0.72
1:A:253:C:C2	1:A:437:G:N2	2.56	0.72
1:A:626:C:H3'	1:A:627:C:C6	2.24	0.72
1:A:1501:G:H1'	1:A:1502:A:OP1	1.89	0.72
1:A:270:G:H2'	1:A:271:G:C5'	2.18	0.72
19:E:245:PRO:HG2	19:E:246:TRP:CZ3	2.24	0.72
28:I:198:LYS:HG3	28:I:200:LYS:HB3	1.71	0.72
14:V:116:GLN:HA	18:Z:91:ARG:CZ	2.18	0.72
1:A:139:U:C4	1:A:140:G:N7	2.58	0.72
1:A:936:A:H2'	1:A:937:U:O4'	1.89	0.72
19:E:157:VAL:HG22	19:E:190:GLN:HB2	1.70	0.72
19:E:237:ILE:CD1	19:E:239:ARG:HB2	2.08	0.72
29:J:57:ILE:HG22	29:J:59:ASP:H	1.55	0.72
6:N:81:ARG:HH12	26:G:243:GLU:CG	2.02	0.72
1:A:1002:G:H5''	12:T:201:LYS:NZ	2.04	0.72
17:Y:129:ILE:O	17:Y:133:GLY:N	2.22	0.72
1:A:93:A:C2'	18:Z:102:PRO:HG2	2.16	0.72
1:A:1651:C:O2'	1:A:1652:A:OP1	2.08	0.72
1:A:2117:U:C2	1:A:2200:A:N1	2.56	0.72
1:A:937:U:O2'	1:A:938:G:H5''	1.90	0.72
3:B:36:A:H2	3:B:50:U:O2	1.72	0.72
6:N:175:GLU:C	6:N:213:LYS:HZ3	1.92	0.72
1:A:1090:U:H3	1:A:1104:C:N4	1.88	0.72
1:A:140:G:C5	1:A:155:A:C2	2.77	0.72
1:A:410:G:H5''	1:A:2104:A:O4'	1.89	0.72
1:A:2192:U:O2'	1:A:2193:C:OP1	2.08	0.72
1:A:257:A:H3'	1:A:258:C:C5	2.24	0.72
1:A:627:C:O2'	1:A:628:A:OP1	2.08	0.72
3:B:14:U:H5'	3:B:15:A:C8	2.24	0.72
3:B:6:U:N3	3:B:118:G:N2	2.37	0.72
1:A:1877:C:H2'	1:A:1878:C:H5''	1.72	0.72
1:A:1921:G:O6	1:A:1938:C:N4	2.23	0.72
1:A:317:G:N2	1:A:338:G:H21	1.84	0.72
1:A:884:G:H2'	1:A:885:G:H5'	1.72	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:66:C:C5	3:B:110:C:C4	2.77	0.72
1:A:2321:G:O2'	27:H:186:ARG:HB2	1.90	0.72
6:N:154:LEU:H	6:N:155:PRO:HD3	1.42	0.72
1:A:2216:U:O2'	1:A:2217:U:H5'	1.88	0.72
1:A:2220:G:C5	1:A:2221:U:C5	2.78	0.72
1:A:2579:U:H1'	5:M:23:ARG:NH1	2.03	0.72
19:E:29:ILE:O	19:E:31:GLY:N	2.22	0.72
19:E:39:ARG:HB2	19:E:45:ILE:HD13	1.70	0.72
1:A:702:C:O2'	19:E:39:ARG:HD3	1.88	0.72
1:A:2698:C:OP1	25:F:285:LYS:HE3	1.89	0.72
1:A:2321:G:C5'	27:H:175:PHE:HB3	2.20	0.72
11:S:8:TYR:HE1	11:S:12:ARG:HE	1.37	0.72
12:T:170:THR:HG23	12:T:172:ILE:HD13	1.72	0.72
1:A:704:A:O2'	1:A:1374:A:N3	2.20	0.72
1:A:1516:G:C3'	1:A:1517:G:H5''	2.19	0.72
1:A:363:C:H2'	1:A:364:U:C5	2.23	0.72
1:A:377:G:HO2'	1:A:378:A:P	2.13	0.72
1:A:889:G:H2'	1:A:890:G:C8	2.25	0.72
2:C:103:G:C2'	2:C:104:A:H5'	2.20	0.72
19:E:206:SER:HA	19:E:209:TRP:HD1	1.54	0.72
25:F:209:GLN:HE21	25:F:213:LYS:HE2	1.55	0.72
12:T:116:PRO:N	12:T:117:PRO:CD	2.53	0.72
1:A:277:G:C2	1:A:278:G:N7	2.58	0.72
1:A:284:A:H1'	1:A:285:A:OP1	1.89	0.72
2:C:30:A:N6	2:C:83:C:C2'	2.53	0.72
27:H:171:ASN:HB3	27:H:174:SER:HB2	1.72	0.72
6:N:117:GLN:OE1	6:N:125:ILE:CG1	2.38	0.72
1:A:1039:A:N1	1:A:1178:G:O6	2.23	0.71
1:A:1532:G:O2'	1:A:1611:G:H4'	1.89	0.71
1:A:1603:A:H2'	1:A:1604:A:C8	2.24	0.71
1:A:1746:C:C2'	1:A:1747:C:H5'	2.19	0.71
1:A:1475:U:O2'	8:P:70:LEU:HD13	1.88	0.71
1:A:1496:A:C8	1:A:1497:A:C2	2.78	0.71
1:A:1548:A:O2'	1:A:1591:C:H4'	1.90	0.71
1:A:2192:U:H2'	1:A:2193:C:C6	2.24	0.71
3:B:25:G:H4'	3:B:26:A:N7	2.05	0.71
3:B:70:G:O2'	3:B:71:G:H5'	1.89	0.71
29:J:73:PHE:CE2	29:J:78:LEU:HD21	2.25	0.71
16:X:128:TYR:CE2	16:X:132:LYS:CG	2.73	0.71
1:A:151:G:C4	1:A:152:G:C8	2.78	0.71
1:A:2324:G:C2	1:A:2328:A:C8	2.78	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:290:A:C2	1:A:291:G:C5	2.79	0.71
28:I:48:ILE:HG13	28:I:90:LEU:CB	2.20	0.71
6:N:209:LYS:HB2	6:N:230:CYS:CA	2.19	0.71
1:A:583:G:N1	1:A:2045:A:OP1	2.20	0.71
1:A:2212:A:O2'	1:A:2213:A:OP1	2.07	0.71
1:A:553:G:H1	1:A:561:C:N4	1.87	0.71
1:A:635:C:H2'	1:A:636:C:C6	2.25	0.71
3:B:26:A:C2	3:B:27:A:C5	2.77	0.71
2:C:29:U:H1'	2:C:30:A:OP1	1.88	0.71
6:N:212:ILE:N	6:N:212:ILE:HD12	2.06	0.71
1:A:1021:A:H1'	12:T:214:GLN:NE2	2.06	0.71
1:A:1234:A:H62	1:A:1256:G:H22	1.38	0.71
1:A:1:U:H2'	1:A:2:U:C6	2.25	0.71
1:A:2154:C:N4	1:A:2165:G:H1	1.88	0.71
1:A:234:C:H6	6:N:142:LYS:HZ1	0.74	0.71
1:A:361:C:H2'	1:A:362:A:C8	2.25	0.71
1:A:278:G:N2	1:A:380:C:C2	2.59	0.71
1:A:382:G:H3'	1:A:435:A:C5	2.24	0.71
1:A:858:G:O2'	1:A:859:A:C5'	2.38	0.71
3:B:118:G:O2'	3:B:119:G:OP1	2.08	0.71
3:B:63:C:O2'	3:B:64:U:H5'	1.90	0.71
2:C:72:A:C2'	2:C:73:G:H5'	2.20	0.71
1:A:2107:G:H2'	1:A:2108:G:H5''	1.73	0.71
1:A:2120:U:C4	1:A:2197:A:C2	2.79	0.71
1:A:255:A:OP2	1:A:271:G:C2	2.44	0.71
1:A:609:G:C4'	26:G:79:LYS:HD2	2.19	0.71
2:C:77:A:O2'	8:P:16:LYS:HG3	1.90	0.71
12:T:127:VAL:HG12	12:T:161:VAL:HG22	1.73	0.71
1:A:158:C:C4	1:A:159:A:N7	2.59	0.71
1:A:298:G:H2'	1:A:299:C:H6	1.56	0.71
1:A:313:A:N1	1:A:323:G:C6	2.59	0.71
1:A:318:A:H62	1:A:339:A:N6	1.87	0.71
1:A:621:G:C2'	1:A:622:G:H5'	2.21	0.71
3:B:45:G:O2'	3:B:46:A:OP2	2.08	0.71
3:B:92:U:H2'	3:B:93:C:C6	2.25	0.71
2:C:103:G:N3	2:C:104:A:C8	2.58	0.71
19:E:265:PHE:CE1	19:E:266:ILE:HD11	2.26	0.71
12:T:96:PRO:O	12:T:98:PRO:HD3	1.81	0.71
15:W:161:LEU:HD11	15:W:168:VAL:CG2	2.14	0.71
1:A:1538:G:H2'	1:A:1539:C:C6	2.24	0.71
1:A:2739:A:C6	2:C:77:A:N6	2.59	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2770:C:H2'	1:A:2771:A:H5'	1.71	0.71
1:A:351:C:H2'	1:A:352:C:C5	2.25	0.71
26:G:73:LYS:CB	26:G:261:VAL:O	2.38	0.71
27:H:145:ARG:HG2	27:H:146:GLY:H	1.55	0.71
1:A:843:C:C4'	6:N:125:ILE:CD1	2.59	0.71
18:Z:152:LEU:N	18:Z:152:LEU:HD13	2.05	0.71
1:A:1035:C:O3'	4:L:209:PRO:HB3	1.91	0.71
1:A:1809:G:OP1	19:E:256:ARG:HD3	1.91	0.71
2:C:53:G:H22	10:R:144:ARG:HH12	1.36	0.71
6:N:81:ARG:NH1	26:G:243:GLU:CG	2.53	0.71
14:V:160:ARG:NH2	14:V:177:MET:SD	2.63	0.71
17:Y:92:ASN:OD1	17:Y:94:LYS:NZ	2.23	0.71
1:A:1755:A:N3	1:A:1756:G:C8	2.59	0.71
1:A:2103:G:O2'	1:A:2104:A:H5'	1.91	0.71
1:A:548:G:HO2'	1:A:549:A:P	2.14	0.71
19:E:142:ILE:HG22	19:E:149:GLN:HG3	1.73	0.71
1:A:983:G:H22	7:O:82:ARG:NH1	1.85	0.71
1:A:2273:U:HO2'	16:X:66:THR:N	1.89	0.71
1:A:2137:G:N2	1:A:2190:A:C2	2.59	0.70
1:A:2807:C:C5	2:C:97:A:C2	2.79	0.70
1:A:289:A:N1	1:A:369:U:C2	2.59	0.70
4:L:208:LEU:HD22	4:L:217:LEU:HD11	1.72	0.70
1:A:1521:G:C2	1:A:1544:A:N1	2.58	0.70
16:X:121:GLY:CA	16:X:138:TYR:O	2.37	0.70
1:A:1885:C:N4	6:N:253:ALA:CA	2.54	0.70
1:A:1886:A:H61	6:N:252:ARG:HH22	1.39	0.70
1:A:29:A:OP2	11:S:6:ARG:NH2	2.24	0.70
3:B:32:A:C6	3:B:55:G:N1	2.60	0.70
1:A:2647:A:C8	2:C:98:G:C2	2.78	0.70
4:L:172:LEU:HG	4:L:187:THR:HG22	1.73	0.70
1:A:1082:A:H2'	1:A:1083:G:H8	1.56	0.70
1:A:1755:A:C2	1:A:1756:G:C4	2.79	0.70
1:A:335:G:C6	1:A:346:A:N1	2.59	0.70
1:A:530:U:H5''	13:U:54:ARG:NH2	2.07	0.70
6:N:176:VAL:HG12	6:N:177:SER:N	2.01	0.70
6:N:205:GLU:CD	6:N:224:LYS:HE2	2.11	0.70
6:N:156:LYS:NZ	6:N:215:ARG:HH12	1.56	0.70
3:B:91:G:N2	7:O:38:GLU:CG	2.36	0.70
1:A:2116:C:C4	1:A:2201:G:N2	2.43	0.70
25:F:144:LEU:HD11	25:F:166:ARG:HB2	1.73	0.70
12:T:171:TYR:C	12:T:172:ILE:HD12	2.11	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:W:70:LYS:HB2	15:W:70:LYS:NZ	2.07	0.70
1:A:2770:C:C2'	1:A:2771:A:H5'	2.22	0.70
7:O:97:VAL:HG23	7:O:101:ARG:HD3	1.73	0.70
12:T:136:VAL:HG21	12:T:221:ILE:HG13	1.73	0.70
16:X:162:ARG:CZ	16:X:162:ARG:HB2	2.22	0.70
1:A:886:U:O3'	1:A:887:G:O4'	2.08	0.70
2:C:40:U:C2	2:C:87:A:C2	2.79	0.70
1:A:2107:G:OP1	29:J:72:GLY:N	2.25	0.70
1:A:75:C:O2'	18:Z:117:THR:HG21	1.92	0.70
1:A:2522:G:N2	1:A:2627:C:O2	2.25	0.70
1:A:943:C:OP1	1:A:943:C:H4'	1.90	0.70
3:B:26:A:C2	3:B:27:A:N7	2.60	0.70
2:C:30:A:C6	2:C:83:C:C2'	2.74	0.70
29:J:76:ASN:C	29:J:80:PRO:HD2	2.10	0.70
6:N:177:SER:HB3	6:N:213:LYS:HG3	1.74	0.70
6:N:205:GLU:OE1	6:N:224:LYS:CG	2.40	0.70
1:A:2351:G:C8	9:Q:64:VAL:CG2	2.71	0.70
1:A:127:C:O2'	1:A:128:U:H5'	1.92	0.70
1:A:140:G:O6	1:A:155:A:C6	2.45	0.70
1:A:2409:A:N1	1:A:2441:C:N3	2.40	0.70
1:A:379:C:O2'	1:A:380:C:OP1	2.09	0.70
1:A:89:A:OP1	15:W:55:ASP:OD2	2.09	0.70
25:F:151:MET:SD	25:F:154:ARG:NH1	2.64	0.70
4:L:175:ARG:HH21	4:L:184:LYS:CD	2.01	0.70
6:N:165:ILE:HG23	6:N:166:GLU:CD	2.12	0.70
14:V:167:ARG:HG3	14:V:168:PRO:HD2	1.72	0.70
1:A:2236:C:C5	1:A:2237:A:C2	2.80	0.70
1:A:740:G:OP2	19:E:203:ARG:HD3	1.91	0.70
3:B:40:A:C2	3:B:45:G:C2	2.80	0.70
6:N:151:ARG:HH11	6:N:151:ARG:HA	1.55	0.70
1:A:2644:G:O2'	1:A:2799:A:N1	2.22	0.69
1:A:297:U:C2'	1:A:298:G:H5'	2.20	0.69
1:A:332:G:N2	1:A:342:G:H1'	2.07	0.69
2:C:80:C:H5'	10:R:121:ASP:OD1	1.93	0.69
12:T:174:THR:CG2	12:T:175:PRO:HD2	2.21	0.69
12:T:188:GLU:OE1	12:T:188:GLU:N	2.26	0.69
1:A:1521:G:N9	1:A:1543:G:N2	2.39	0.69
1:A:1926:A:N6	1:A:1931:U:C2	2.60	0.69
1:A:2393:A:H2	9:Q:166:PHE:CE2	2.09	0.69
1:A:382:G:H1'	1:A:383:A:OP1	1.92	0.69
1:A:384:G:OP2	17:Y:131:LYS:CE	2.34	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:910:A:C2'	1:A:911:U:H5'	2.22	0.69
1:A:137:U:N3	1:A:157:G:N1	2.06	0.69
1:A:2109:C:C6	1:A:2110:U:C5	2.80	0.69
1:A:2219:U:H4'	1:A:2229:U:N3	2.07	0.69
1:A:2230:A:H2'	1:A:2230:A:N3	2.05	0.69
1:A:254:U:H2'	1:A:255:A:H5'	1.74	0.69
1:A:286:U:H2'	1:A:287:A:C8	2.27	0.69
1:A:287:A:C2	1:A:288:C:C2	2.80	0.69
1:A:356:A:C2	1:A:357:G:C5	2.80	0.69
1:A:889:G:H2'	1:A:890:G:H8	1.57	0.69
1:A:945:A:N3	1:A:945:A:H2'	2.05	0.69
3:B:86:G:N1	3:B:87:G:C5	2.60	0.69
6:N:81:ARG:HH11	26:G:243:GLU:CA	2.05	0.69
1:A:2227:C:C5	1:A:2228:C:C4	2.81	0.69
1:A:291:G:H2'	1:A:292:C:C6	2.27	0.69
1:A:624:A:H3'	1:A:625:C:C5	2.27	0.69
3:B:86:G:C2	3:B:87:G:C5	2.81	0.69
11:S:52:ARG:HG2	11:S:55:ARG:HH11	1.56	0.69
1:A:2655:G:O2'	1:A:2796:A:N6	2.26	0.69
1:A:296:G:O2'	1:A:297:U:H5'	1.92	0.69
1:A:624:A:C2	1:A:625:C:C6	2.80	0.69
1:A:2215:C:C2'	1:A:2216:U:H5'	2.22	0.69
1:A:2730:A:C8	1:A:2731:C:H5''	2.27	0.69
3:B:12:C:O2	3:B:112:A:H2	1.75	0.69
3:B:34:C:C2	3:B:52:G:N2	2.61	0.69
25:F:229:HIS:O	25:F:231:ALA:N	2.26	0.69
6:N:135:PRO:HD2	6:N:138:ARG:HB2	1.74	0.69
12:T:103:TYR:HD2	12:T:106:ILE:HD12	1.58	0.69
1:A:2203:U:H2'	1:A:2204:A:O4'	1.92	0.69
1:A:32:U:O4	1:A:458:G:O2'	2.07	0.69
3:B:110:C:O2'	3:B:111:G:OP2	2.07	0.69
19:E:264:ASN:O	19:E:264:ASN:ND2	2.26	0.69
26:G:129:GLN:CD	26:G:134:ARG:HH22	1.95	0.69
15:W:71:VAL:HA	15:W:89:ILE:HD11	1.74	0.69
1:A:1159:G:N3	4:L:176:HIS:ND1	2.37	0.69
1:A:1426:U:H2'	1:A:1427:A:H8	1.56	0.69
19:E:176:GLU:HG2	19:E:267:ILE:O	1.92	0.69
6:N:182:LYS:HE2	6:N:189:PRO:HG3	1.75	0.69
10:R:137:LEU:HG	10:R:138:ARG:HG3	1.74	0.69
1:A:2280:C:OP2	16:X:73:LYS:HE3	1.92	0.69
1:A:137:U:O2	1:A:157:G:N2	2.26	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2107:G:C2'	1:A:2108:G:H5''	2.21	0.69
12:T:116:PRO:HD2	12:T:117:PRO:CD	2.22	0.69
1:A:1475:U:C4'	8:P:73:ARG:HH21	2.06	0.69
1:A:279:A:N3	1:A:279:A:H3'	2.08	0.69
1:A:2810:A:N3	1:A:2810:A:H3'	2.08	0.69
1:A:385:U:O2'	1:A:386:A:H5'	1.93	0.69
1:A:898:G:N9	1:A:899:A:N7	2.40	0.69
1:A:2011:G:C5'	25:F:219:ARG:HH21	2.05	0.69
1:A:1532:G:N2	1:A:1611:G:C2	2.61	0.69
1:A:1703:G:N2	1:A:2006:G:OP2	2.18	0.69
1:A:2213:A:N6	1:A:2241:G:C2	2.59	0.69
1:A:899:A:C4	1:A:900:G:C8	2.81	0.69
1:A:793:A:C2	19:E:221:MET:HG2	2.26	0.69
1:A:38:C:O2	26:G:97:ARG:NH1	2.25	0.69
28:I:48:ILE:O	28:I:89:PHE:CD1	2.45	0.69
17:Y:124:LYS:O	17:Y:128:THR:CG2	2.38	0.69
1:A:1535:A:H3'	1:A:1535:A:N3	2.08	0.68
1:A:1951:A:O2'	1:A:1952:A:OP1	2.10	0.68
1:A:2213:A:C5	1:A:2242:A:C2	2.80	0.68
1:A:2213:A:H61	1:A:2241:G:N2	1.69	0.68
1:A:253:C:C2	1:A:437:G:C2	2.81	0.68
1:A:879:G:N2	1:A:880:U:O2	2.26	0.68
1:A:946:A:H62	1:A:950:A:N6	1.88	0.68
25:F:140:GLY:HA3	25:F:165:MET:SD	2.33	0.68
25:F:99:MET:HG2	25:F:113:THR:HG22	1.73	0.68
6:N:143:LEU:HD23	6:N:143:LEU:N	2.06	0.68
1:A:136:U:N3	1:A:160:A:N1	2.14	0.68
1:A:1521:G:N1	1:A:1544:A:C2	2.61	0.68
1:A:2116:C:N4	1:A:2201:G:H1	1.88	0.68
1:A:257:A:N7	1:A:258:C:N4	2.41	0.68
1:A:342:G:C2'	1:A:343:U:H5'	2.22	0.68
1:A:362:A:H2'	1:A:363:C:C6	2.28	0.68
1:A:854:A:N1	1:A:964:C:N3	2.41	0.68
25:F:144:LEU:HD11	25:F:166:ARG:NE	2.08	0.68
27:H:89:VAL:HG22	27:H:207:VAL:HG22	1.75	0.68
12:T:170:THR:O	12:T:233:SER:N	2.26	0.68
1:A:100:G:O2'	1:A:101:A:OP2	2.11	0.68
1:A:1401:G:O2'	1:A:1603:A:N6	2.24	0.68
1:A:1532:G:H2'	1:A:1533:A:H5'	1.76	0.68
1:A:2129:G:HO2'	1:A:2131:U:H5	1.32	0.68
1:A:2292:C:H1'	16:X:67:LYS:HD3	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2655:G:P	25:F:172:ARG:HH22	2.16	0.68
1:A:368:U:N3	1:A:369:U:C5	2.61	0.68
1:A:2652:A:O2'	25:F:170:GLU:OE1	2.09	0.68
6:N:205:GLU:OE1	6:N:224:LYS:CE	2.41	0.68
6:N:102:HIS:CD2	12:T:205:ASN:ND2	2.61	0.68
12:T:169:SER:C	12:T:233:SER:CB	2.61	0.68
16:X:161:GLN:OE1	16:X:161:GLN:HA	1.94	0.68
16:X:162:ARG:HH11	16:X:162:ARG:HG2	1.58	0.68
1:A:1531:A:O2'	1:A:1532:G:OP1	2.08	0.68
1:A:883:C:H4'	7:O:65:TRP:CZ3	2.27	0.68
4:L:168:ARG:NH2	4:L:192:GLN:OE1	2.27	0.68
6:N:198:LEU:HD22	6:N:214:ALA:CB	2.23	0.68
1:A:1167:C:OP2	4:L:167:LYS:NZ	2.26	0.68
1:A:143:G:N2	1:A:2224:G:N1	2.42	0.68
1:A:2331:G:N2	27:H:182:SER:HG	1.90	0.68
1:A:2338:G:N3	1:A:2338:G:H3'	2.08	0.68
1:A:858:G:C4	1:A:859:A:C8	2.82	0.68
3:B:35:A:P	3:B:35:A:H8	2.16	0.68
1:A:1294:A:OP2	1:A:1682:C:N4	2.27	0.68
1:A:1449:C:H5	19:E:25:ARG:HH21	1.41	0.68
1:A:1525:G:O2'	1:A:1526:G:H5'	1.93	0.68
1:A:1499:G:C2	1:A:1546:C:N3	2.61	0.68
1:A:256:A:O2'	1:A:257:A:OP1	2.12	0.68
1:A:263:A:H3'	1:A:263:A:N3	2.08	0.68
1:A:389:A:H2'	1:A:390:U:C6	2.28	0.68
1:A:2653:U:H5'	25:F:170:GLU:CD	2.14	0.68
12:T:170:THR:CG2	12:T:172:ILE:HD11	2.23	0.68
15:W:67:ARG:NH2	15:W:92:ILE:CG1	2.54	0.68
1:A:1531:A:H2'	1:A:1531:A:N3	2.07	0.68
1:A:2074:A:H62	26:G:125:ARG:NH2	1.85	0.68
1:A:854:A:H2'	1:A:855:C:H5'	1.75	0.68
3:B:86:G:N3	3:B:87:G:C8	2.61	0.68
2:C:40:U:C4	2:C:87:A:C6	2.81	0.68
25:F:145:ARG:NH2	25:F:145:ARG:HG3	2.09	0.68
1:A:812:G:C8	26:G:106:ALA:HB2	2.28	0.68
1:A:2322:A:O4'	27:H:186:ARG:CD	2.40	0.68
29:J:75:ARG:O	29:J:80:PRO:HD3	1.93	0.68
4:L:213:LEU:HD13	4:L:213:LEU:C	2.14	0.68
13:U:163:LEU:HD23	13:U:163:LEU:C	2.14	0.68
1:A:1263:G:N2	6:N:83:ASP:CG	2.45	0.68
1:A:1806:U:H2'	1:A:1807:C:C6	2.29	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2213:A:H2	1:A:2214:C:N1	1.79	0.68
1:A:255:A:OP2	1:A:271:G:N1	2.26	0.68
1:A:318:A:N3	1:A:338:G:O2'	2.26	0.68
1:A:902:G:H3'	1:A:903:G:H5''	1.76	0.68
3:B:26:A:N3	3:B:27:A:C8	2.62	0.68
3:B:32:A:C6	3:B:55:G:C6	2.82	0.68
1:A:616:U:P	26:G:155:LYS:HZ3	2.17	0.68
27:H:119:VAL:N	27:H:141:ALA:O	2.26	0.68
28:I:46:GLN:HB3	28:I:109:ARG:NE	2.09	0.68
18:Z:99:ASN:OD1	18:Z:101:LYS:NZ	2.27	0.68
1:A:1539:C:O2'	1:A:1540:C:H5'	1.93	0.68
1:A:2117:U:H3	1:A:2200:A:N6	1.92	0.68
1:A:2322:A:C1'	27:H:186:ARG:HD3	2.21	0.68
1:A:914:A:H2'	1:A:915:G:H5'	1.76	0.68
2:C:102:U:O2'	2:C:103:G:H5'	1.94	0.68
27:H:186:ARG:NH2	27:H:204:GLY:HA2	2.08	0.68
1:A:1362:G:H1'	14:V:163:ASN:HB3	1.74	0.68
15:W:67:ARG:HD3	15:W:131:SER:OG	1.92	0.68
18:Z:101:LYS:O	18:Z:105:PHE:N	2.27	0.68
1:A:1600:A:C2	19:E:209:TRP:CH2	2.82	0.68
1:A:1394:A:C5'	1:A:2230:A:H1'	2.23	0.68
1:A:352:C:H2'	1:A:353:G:H5'	1.75	0.68
1:A:355:A:N7	1:A:356:A:N9	2.40	0.68
1:A:2351:G:N3	9:Q:64:VAL:CG2	2.55	0.68
1:A:60:U:C2'	18:Z:94:ARG:NH1	2.56	0.68
1:A:1497:A:H61	1:A:1547:C:N4	1.91	0.67
1:A:1745:C:C2	1:A:1746:C:C5	2.83	0.67
16:X:67:LYS:HD2	16:X:67:LYS:N	2.09	0.67
1:A:1236:A:N6	1:A:1253:G:N1	2.02	0.67
1:A:1273:G:OP2	11:S:14:ARG:NH2	2.27	0.67
1:A:1528:U:H3	1:A:1538:G:H1	1.42	0.67
1:A:208:A:O2'	1:A:432:G:H1'	1.94	0.67
1:A:2233:G:C2	1:A:2234:G:C5	2.82	0.67
1:A:2237:A:C2'	1:A:2238:A:H5'	2.24	0.67
1:A:2360:U:HO2'	1:A:2390:A:HO2'	1.41	0.67
1:A:362:A:O2'	1:A:363:C:H5'	1.95	0.67
1:A:876:A:H2'	1:A:877:C:H5'	1.76	0.67
1:A:966:G:O2'	1:A:967:C:H5'	1.95	0.67
12:T:177:VAL:HB	12:T:230:TYR:OH	1.93	0.67
14:V:109:LEU:CD1	14:V:141:ARG:C	2.61	0.67
1:A:2119(A):U:H3	1:A:2199:G:H22	1.42	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2324:G:H4'	1:A:2325:G:H5''	1.75	0.67
1:A:2320:G:H1	1:A:2330:U:H3	1.41	0.67
1:A:276:G:C6	1:A:433:C:N4	2.62	0.67
1:A:5:A:O2'	1:A:6:A:O4'	2.09	0.67
3:B:8:G:O6	3:B:115:C:N4	2.28	0.67
3:B:25:G:C5	3:B:57:U:C4	2.82	0.67
2:C:8:G:N1	2:C:92:C:N3	2.34	0.67
1:A:988:A:N6	7:O:82:ARG:HH11	1.92	0.67
11:S:91:LEU:CG	12:T:175:PRO:CG	2.67	0.67
1:A:1545:G:N7	1:A:1546:C:C5	2.61	0.67
1:A:137:U:N3	1:A:157:G:N2	2.41	0.67
1:A:2123:U:O5'	1:A:2123:U:H6	1.77	0.67
1:A:2207:A:H2'	1:A:2208:U:C1'	2.25	0.67
1:A:2108:G:O6	1:A:2210:C:N4	2.28	0.67
1:A:274:G:C5	1:A:433:C:C5	2.82	0.67
25:F:144:LEU:HD12	25:F:166:ARG:HB2	1.76	0.67
28:I:46:GLN:OE1	28:I:109:ARG:HG2	1.90	0.67
1:A:1136:U:C2'	1:A:1137:C:H5'	2.24	0.67
1:A:141:C:N3	1:A:153:G:C2	2.44	0.67
1:A:919:A:H2'	1:A:920:A:H5'	1.75	0.67
1:A:9:A:H1'	2:C:99:A:C6	2.29	0.67
3:B:27:A:O2'	3:B:28:C:H5'	1.95	0.67
3:B:41:U:H5''	3:B:42:C:H5''	1.76	0.67
18:Z:120:ARG:O	18:Z:124:ILE:HG13	1.95	0.67
1:A:1536:A:H3'	1:A:1536:A:N3	2.09	0.67
1:A:161:G:N2	1:A:162:A:N3	2.43	0.67
1:A:1755:A:C2	1:A:1756:G:C5	2.83	0.67
1:A:268:G:C6	1:A:269:G:C6	2.82	0.67
1:A:75:C:N3	1:A:108:G:O6	2.26	0.67
1:A:1535:A:H8	19:E:95:GLY:HA3	1.54	0.67
11:S:91:LEU:CB	12:T:175:PRO:HA	2.23	0.67
1:A:1179:C:H6	1:A:1179:C:O5'	1.78	0.67
1:A:1238:G:H2'	1:A:1239:C:C5	2.30	0.67
1:A:277:G:H3'	1:A:277:G:N3	2.10	0.67
1:A:320:U:H1'	1:A:341:A:N9	2.10	0.67
1:A:644:A:OP1	6:N:151:ARG:NH1	2.28	0.67
1:A:891:G:C2	1:A:892:C:C2	2.82	0.67
19:E:259:ASN:N	19:E:259:ASN:HD22	1.91	0.67
16:X:122:LEU:CG	16:X:140:ARG:CB	2.72	0.67
1:A:1080:C:H2'	1:A:1081:C:C4'	2.24	0.67
1:A:1526:G:C2	1:A:1540:C:O2	2.47	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1830:U:H5'	1:A:1831:G:N7	2.09	0.67
1:A:1878:C:H2'	1:A:1879:U:C6	2.28	0.67
1:A:2231:C:H3'	1:A:2232:G:H8	1.59	0.67
1:A:2345:A:H2'	1:A:2346:A:C8	2.30	0.67
1:A:863:C:H6	1:A:863:C:O5'	1.78	0.67
1:A:879:G:C2	1:A:880:U:C2	2.82	0.67
1:A:857:G:H1'	1:A:961:G:N2	2.10	0.67
3:B:87:G:N1	3:B:93:C:N3	2.42	0.67
28:I:46:GLN:OE1	28:I:109:ARG:HD2	1.94	0.67
1:A:152:G:C5	1:A:153:G:N7	2.63	0.67
1:A:1521:G:OP2	1:A:1541:U:OP2	2.13	0.67
1:A:2433:C:P	6:N:145:GLY:HA2	2.35	0.67
1:A:545:U:C2'	11:S:49:ASP:OD2	2.43	0.67
10:R:148:ILE:HD12	10:R:210:SER:HB2	1.77	0.67
10:R:131:VAL:HG13	10:R:199:TYR:CE2	2.29	0.67
1:A:1522:A:C2	1:A:1523:A:C5	2.83	0.67
1:A:1746:C:HO2'	1:A:1747:C:H5'	1.59	0.67
1:A:2108:G:N3	1:A:2108:G:H3'	2.09	0.67
1:A:2480:U:C4	1:A:2504:A:N1	2.62	0.67
1:A:2322:A:C4	27:H:186:ARG:HD2	1.65	0.67
27:H:186:ARG:O	27:H:187:GLU:HB2	1.94	0.67
28:I:48:ILE:HG13	28:I:90:LEU:C	2.14	0.67
1:A:524:A:H1'	11:S:11:ARG:NH2	2.09	0.66
3:B:68:G:C2	3:B:69:C:C2	2.83	0.66
19:E:237:ILE:HG23	19:E:238:GLY:H	1.59	0.66
6:N:175:GLU:C	6:N:213:LYS:NZ	2.48	0.66
11:S:91:LEU:HG	12:T:175:PRO:CD	2.24	0.66
15:W:67:ARG:NE	15:W:131:SER:OG	2.28	0.66
17:Y:129:ILE:C	17:Y:129:ILE:HD12	2.16	0.66
1:A:1153:G:H3'	1:A:1154:A:H5''	1.77	0.66
1:A:127:C:O5'	1:A:127:C:H6	1.78	0.66
1:A:160:A:OP2	1:A:160:A:H8	1.78	0.66
1:A:1882:U:C5	1:A:1883:G:N7	2.63	0.66
10:R:138:ARG:HH12	10:R:199:TYR:HA	1.60	0.66
1:A:82:G:OP2	15:W:157:LYS:NZ	2.28	0.66
16:X:156:GLU:OE1	16:X:157:ASN:N	2.28	0.66
1:A:2330:U:C4'	27:H:90:ASN:HD22	2.08	0.66
1:A:2393:A:C2	9:Q:166:PHE:HZ	2.10	0.66
1:A:2421:C:H6	1:A:2421:C:O5'	1.78	0.66
1:A:2647:A:C8	2:C:98:G:C5	2.84	0.66
1:A:976:C:O2	1:A:1012:G:O2'	2.13	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:26:A:N1	3:B:27:A:C5	2.63	0.66
1:A:1602:G:H4'	19:E:55:LYS:HB2	1.76	0.66
12:T:170:THR:CA	12:T:233:SER:HB3	2.20	0.66
1:A:1525:G:N2	1:A:1541:U:N3	2.44	0.66
1:A:2764:U:H3	1:A:2776:A:N6	1.92	0.66
1:A:298:G:C2	1:A:299:C:C4	2.83	0.66
1:A:368:U:N1	1:A:369:U:H5	1.91	0.66
1:A:902:G:C6	1:A:903:G:C8	2.84	0.66
1:A:942:U:H6	1:A:942:U:O5'	1.78	0.66
3:B:8:G:O2'	3:B:9:U:O5'	2.13	0.66
2:C:40:U:N3	2:C:87:A:N6	2.40	0.66
26:G:208:PHE:HB3	26:G:229:LEU:HB2	1.76	0.66
6:N:144:ARG:C	6:N:146:ILE:HD12	2.16	0.66
1:A:2740:G:O2'	8:P:13:HIS:O	2.13	0.66
1:A:1361:U:O4	14:V:168:PRO:CG	2.43	0.66
1:A:111:U:P	18:Z:134:ARG:NH1	2.67	0.66
1:A:1361:U:O4	14:V:168:PRO:HD3	1.95	0.66
1:A:2157:U:C2	1:A:2163:G:C2	2.83	0.66
1:A:2312:C:O2	1:A:2355:G:N2	2.29	0.66
1:A:298:G:C2	1:A:299:C:C5	2.84	0.66
2:C:104:A:N3	2:C:105:A:N7	2.42	0.66
25:F:121:ASN:HD22	25:F:121:ASN:N	1.93	0.66
6:N:195:ARG:HA	6:N:195:ARG:NE	2.09	0.66
6:N:197:PRO:HB2	6:N:215:ARG:CD	2.26	0.66
10:R:187:ILE:HG22	10:R:188:ALA:H	1.60	0.66
1:A:524:A:C2'	11:S:11:ARG:HH22	2.09	0.66
12:T:177:VAL:CB	12:T:230:TYR:OH	2.43	0.66
12:T:93:PHE:O	12:T:94:GLN:HB2	1.96	0.66
13:U:32:ILE:HD11	13:U:93:PHE:HE2	1.61	0.66
15:W:159:ARG:HB3	15:W:168:VAL:HB	1.77	0.66
16:X:128:TYR:HE2	16:X:132:LYS:CG	2.08	0.66
1:A:1810:C:H4'	1:A:1811:A:H5'	1.76	0.66
1:A:1815:U:O2	19:E:46:THR:OG1	2.12	0.66
1:A:1878:C:O2'	1:A:1879:U:H5'	1.95	0.66
1:A:2322:A:O4'	27:H:186:ARG:HD3	1.95	0.66
1:A:2336:U:O5'	1:A:2336:U:H6	1.79	0.66
1:A:2479:U:C4	1:A:2505:A:N1	2.63	0.66
1:A:318:A:N6	1:A:339:A:H62	1.90	0.66
3:B:5:C:O5'	3:B:5:C:H6	1.79	0.66
25:F:87:ASP:OD1	25:F:88:ALA:N	2.29	0.66
15:W:89:ILE:HG22	15:W:101:ILE:HG22	1.77	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:W:141:GLN:HG3	15:W:166:GLU:OE2	1.93	0.66
1:A:2220:G:C6	1:A:2221:U:C4	2.84	0.66
1:A:266:A:H2'	1:A:267:C:C6	2.31	0.66
1:A:389:A:N6	1:A:410:G:C6	2.64	0.66
1:A:824:U:H2'	1:A:825:C:H6	1.60	0.66
1:A:2141:G:O2'	1:A:2142:G:O4'	2.13	0.66
1:A:2188:C:O5'	1:A:2188:C:H6	1.79	0.66
1:A:629:C:H6	1:A:629:C:O5'	1.78	0.66
1:A:857:G:C2	1:A:961:G:N3	2.60	0.66
3:B:93:C:O5'	3:B:93:C:H6	1.79	0.66
2:C:101:U:H5'	2:C:102:U:OP2	1.94	0.66
2:C:80:C:H2'	2:C:81:A:C8	2.31	0.66
1:A:1600:A:N3	19:E:209:TRP:CZ3	2.64	0.66
27:H:175:PHE:HD1	27:H:183:VAL:CG1	2.09	0.66
4:L:100:TRP:HE3	4:L:101:TYR:CD2	2.12	0.66
12:T:169:SER:CB	12:T:233:SER:HB2	2.22	0.66
12:T:201:LYS:HG2	12:T:206:TYR:HE2	1.59	0.66
1:A:1220:U:O2	11:S:3:ARG:NH2	2.29	0.66
1:A:1519:A:C2	1:A:1520:A:C5	2.84	0.66
1:A:1582:A:H2'	1:A:1583:A:C8	2.31	0.66
1:A:2320:G:C4'	27:H:175:PHE:HA	2.21	0.66
1:A:2315:G:N2	1:A:2338:G:N7	2.44	0.66
1:A:258:C:H6	1:A:258:C:O5'	1.79	0.66
1:A:294:U:H2'	1:A:295:C:C1'	2.26	0.66
1:A:475:G:N2	1:A:478:A:OP2	2.28	0.66
3:B:25:G:C8	3:B:57:U:C5	2.83	0.66
3:B:87:G:C2	3:B:93:C:C2	2.84	0.66
1:A:60:U:C2'	18:Z:94:ARG:HH12	2.08	0.66
1:A:1393:U:O2'	1:A:2230:A:C2'	2.43	0.66
1:A:2529:C:H5''	25:F:217:PHE:HD1	1.60	0.66
19:E:80:ASP:HB2	19:E:87:ILE:HG12	1.78	0.66
6:N:212:ILE:HG22	6:N:214:ALA:H	1.60	0.66
1:A:1886:A:H61	6:N:252:ARG:NH2	1.94	0.66
7:O:77:ARG:NH1	7:O:78:PRO:O	2.29	0.66
1:A:1538:G:H8	1:A:1538:G:O5'	1.79	0.65
1:A:1544:A:H2'	1:A:1545:G:O4'	1.96	0.65
1:A:2103:G:O6	1:A:2104:A:N6	2.30	0.65
3:B:40:A:O2'	3:B:47:A:N1	2.29	0.65
19:E:226:HIS:ND1	19:E:228:HIS:CD2	2.63	0.65
6:N:88:GLN:HG3	26:G:82:ALA:HB2	1.78	0.65
7:O:39:PRO:HB3	7:O:99:PRO:HD3	1.76	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1160:A:C8	4:L:174:ARG:HD2	2.31	0.65
1:A:1635:C:H4'	14:V:106:ARG:HH21	1.58	0.65
1:A:206:A:H1'	1:A:218:A:H1'	1.77	0.65
28:I:44:GLY:HA2	28:I:105:HIS:ND1	2.11	0.65
6:N:197:PRO:HB2	6:N:215:ARG:HD3	1.78	0.65
1:A:1479:U:C4'	1:A:1480:A:H5''	2.20	0.65
1:A:1505:C:O5'	1:A:1505:C:H6	1.78	0.65
1:A:166:A:H2'	1:A:167:A:C8	2.31	0.65
1:A:2107:G:C6	1:A:2242:A:C8	2.81	0.65
1:A:2337:C:H6	1:A:2337:C:O5'	1.78	0.65
1:A:336:G:C2'	1:A:337:U:H5'	2.26	0.65
1:A:853:G:H1	1:A:964:C:H42	1.44	0.65
1:A:886:U:O5'	1:A:886:U:H6	1.79	0.65
6:N:197:PRO:HB3	6:N:215:ARG:CD	2.18	0.65
14:V:115:LEU:HD21	14:V:151:ILE:HD11	1.79	0.65
1:A:71:A:C2	18:Z:117:THR:HG23	2.30	0.65
1:A:1407:C:H2'	1:A:1408:A:H8	1.62	0.65
1:A:1524:G:N1	1:A:1525:G:C6	2.64	0.65
1:A:1756:G:C2	1:A:1757:G:C5	2.84	0.65
1:A:2157:U:N3	1:A:2163:G:C2	2.64	0.65
1:A:2486:A:O2'	7:O:56:ARG:NE	2.29	0.65
1:A:374:U:H6	1:A:374:U:O5'	1.80	0.65
3:B:36:A:C6	3:B:45:G:C6	2.83	0.65
3:B:38:C:H6	3:B:38:C:O5'	1.79	0.65
1:A:843:C:C4'	6:N:125:ILE:HD11	2.20	0.65
11:S:92:LEU:O	11:S:94:ARG:HG2	1.95	0.65
1:A:1875:G:O5'	1:A:1875:G:H8	1.79	0.65
1:A:2643:C:O5'	1:A:2643:C:H6	1.79	0.65
1:A:2:U:H2'	1:A:3:C:C6	2.32	0.65
1:A:300:U:H6	1:A:300:U:O5'	1.80	0.65
1:A:330:U:H3	26:G:218:LYS:HE3	1.58	0.65
1:A:669:C:O2'	1:A:670:A:H5'	1.97	0.65
1:A:899:A:H1'	1:A:900:G:O5'	1.96	0.65
2:C:12:C:H5''	8:P:109:ARG:NH2	2.10	0.65
2:C:84:C:O5'	2:C:84:C:H6	1.79	0.65
19:E:175:GLY:O	19:E:268:ARG:HB3	1.94	0.65
1:A:2310:U:OP1	9:Q:62:LYS:NZ	2.29	0.65
9:Q:73:LEU:HA	9:Q:85:GLN:O	1.96	0.65
13:U:117:ARG:HD2	13:U:123:TYR:CE2	2.31	0.65
1:A:1540:C:H6	1:A:1540:C:O5'	1.79	0.65
26:G:71:ASN:HD22	26:G:72:LEU:N	1.95	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:58:LYS:O	27:H:62:ILE:HG12	1.96	0.65
4:L:172:LEU:HD12	4:L:172:LEU:N	2.10	0.65
14:V:162:VAL:HG12	14:V:176:ILE:HG22	1.79	0.65
1:A:1495:C:C4	1:A:1548:A:N6	2.64	0.65
1:A:1808:C:H2'	1:A:1829:A:N6	2.05	0.65
1:A:352:C:H6	1:A:352:C:O5'	1.79	0.65
1:A:861:A:H2'	1:A:862:U:H5'	1.77	0.65
1:A:885:G:H2'	1:A:886:U:C6	2.31	0.65
1:A:917:C:H6	1:A:917:C:O5'	1.79	0.65
3:B:8:G:N2	3:B:116:C:O2	2.30	0.65
3:B:43:C:H2'	3:B:44:C:C6	2.32	0.65
2:C:80:C:H2'	2:C:81:A:H8	1.62	0.65
1:A:2807:C:H42	2:C:98:G:H1	1.45	0.65
16:X:128:TYR:HA	16:X:134:LYS:HD3	1.77	0.65
1:A:2109:C:C5	1:A:2110:U:N1	2.64	0.65
1:A:2110:U:H6	1:A:2110:U:O5'	1.80	0.65
1:A:2593:G:O2'	1:A:2596:C:OP2	2.14	0.65
1:A:218:A:H61	1:A:441:A:H61	1.43	0.65
1:A:887:G:H1	1:A:909:A:H61	1.42	0.65
19:E:267:ILE:CG2	19:E:269:ARG:HB2	2.27	0.65
25:F:198:ASP:OD1	25:F:263:LYS:N	2.30	0.65
26:G:59:ASN:OD1	26:G:62:GLY:N	2.26	0.65
6:N:172:GLU:HG2	6:N:172:GLU:O	1.97	0.65
14:V:144:LYS:O	14:V:148:ARG:CB	2.44	0.65
1:A:1307:A:C6	1:A:1350:U:N3	2.64	0.65
1:A:2105:U:O5'	1:A:2105:U:H6	1.79	0.65
1:A:626:C:H3'	1:A:627:C:C5	2.32	0.65
1:A:635:C:H6	1:A:635:C:O5'	1.78	0.65
3:B:35:A:H2'	3:B:36:A:C8	2.32	0.65
3:B:7:G:O6	3:B:117:A:C2	2.49	0.65
2:C:31:U:O2	2:C:38:G:N7	2.30	0.65
25:F:199:ILE:HD11	25:F:282:VAL:HB	1.79	0.65
6:N:146:ILE:HD12	6:N:146:ILE:N	2.12	0.65
3:B:30:A:OP2	9:Q:78:SER:OG	2.14	0.65
14:V:121:THR:HG23	14:V:124:ALA:H	1.61	0.65
1:A:1926:A:N7	1:A:1931:U:O4	2.29	0.65
1:A:2113:G:O2'	1:A:2114:G:H5'	1.97	0.65
1:A:2213:A:C5	1:A:2242:A:C6	2.85	0.65
1:A:2322:A:H2'	1:A:2323:C:C6	2.31	0.65
1:A:287:A:H2'	1:A:288:C:C5	2.32	0.65
3:B:8:G:C2	3:B:116:C:O2	2.50	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:82:U:O5'	2:C:82:U:H6	1.79	0.65
1:A:988:A:H61	7:O:82:ARG:HH11	1.45	0.65
11:S:91:LEU:CD2	12:T:175:PRO:HG3	2.27	0.65
13:U:57:SER:OG	13:U:60:GLU:OE1	2.11	0.65
1:A:1161:A:H1'	1:A:1162:C:P	2.36	0.64
1:A:363:C:H6	1:A:363:C:O5'	1.79	0.64
1:A:382:G:H4'	1:A:383:A:OP2	1.96	0.64
1:A:274:G:C4	1:A:433:C:H5	2.15	0.64
3:B:32:A:H2'	3:B:33:C:H5'	1.77	0.64
2:C:85:U:H2'	2:C:86:A:C8	2.32	0.64
27:H:188:GLN:NE2	27:H:188:GLN:HA	2.00	0.64
28:I:81:LEU:O	28:I:93:ARG:N	2.24	0.64
7:O:91:GLU:CD	7:O:92:TYR:H	1.99	0.64
16:X:101:PHE:CD1	16:X:133:LYS:HG2	2.32	0.64
1:A:102:U:H2'	1:A:103:C:C5'	2.22	0.64
1:A:1528:U:H6	1:A:1528:U:O5'	1.80	0.64
1:A:2141:G:O2'	1:A:2142:G:O5'	2.16	0.64
1:A:2316:G:N2	1:A:2334:C:N3	2.39	0.64
1:A:276:G:C2	1:A:416:C:O2'	2.48	0.64
1:A:648:G:H1	6:N:158:VAL:HG21	1.61	0.64
1:A:98:G:H4'	1:A:99:A:C5'	2.27	0.64
25:F:121:ASN:ND2	25:F:141:TYR:HD1	1.95	0.64
26:G:59:ASN:ND2	26:G:63:GLU:OE2	2.30	0.64
4:L:173:TYR:HD1	4:L:202:HIS:ND1	1.94	0.64
6:N:198:LEU:HD23	6:N:198:LEU:C	2.16	0.64
1:A:1879:U:C4	6:N:252:ARG:NH1	2.64	0.64
1:A:1497:A:H3'	1:A:1498:G:H8	1.60	0.64
1:A:1545:G:C5	1:A:1546:C:C5	2.85	0.64
1:A:1866:G:H5''	29:J:43:LYS:HG3	1.79	0.64
1:A:1879:U:C4	6:N:252:ARG:CZ	2.80	0.64
1:A:1394:A:H5'	1:A:2230:A:C1'	2.27	0.64
1:A:385:U:H6	1:A:385:U:O5'	1.80	0.64
1:A:560:A:O2'	1:A:561:C:OP1	2.13	0.64
1:A:83:A:N6	1:A:98:G:C6	2.65	0.64
1:A:858:G:C5	1:A:859:A:N7	2.65	0.64
1:A:934:A:H1'	1:A:935:U:O5'	1.97	0.64
1:A:937:U:H2'	1:A:938:G:H5'	1.80	0.64
3:B:38:C:H3'	3:B:39:C:O4'	1.97	0.64
28:I:129:LEU:HG	28:I:202:VAL:HG22	1.80	0.64
1:A:1702:G:HO2'	5:M:6:THR:HG22	1.62	0.64
1:A:2393:A:H1'	9:Q:160:ARG:HH12	1.62	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1553:U:O5'	1:A:1553:U:H6	1.81	0.64
1:A:1763:G:N2	1:A:1766:G:OP2	2.31	0.64
1:A:1879:U:O5'	1:A:1879:U:H6	1.80	0.64
1:A:297:U:O2'	1:A:298:G:H5'	1.98	0.64
1:A:853:G:N1	1:A:965:G:C5	2.65	0.64
1:A:854:A:C2'	1:A:855:C:H5'	2.27	0.64
2:C:32:C:H1'	2:C:33:A:O5'	1.97	0.64
2:C:41:A:O2'	2:C:42:G:H5'	1.97	0.64
26:G:81:ARG:HB2	26:G:81:ARG:NH2	2.13	0.64
6:N:171:LYS:O	6:N:172:GLU:HB3	1.97	0.64
6:N:162:LEU:HD11	6:N:203:GLU:OE1	1.96	0.64
15:W:76:LYS:HE2	15:W:137:ILE:HD11	1.79	0.64
18:Z:76:LEU:HD12	18:Z:115:MET:HE1	1.79	0.64
1:A:1345:G:O2'	1:A:1347:U:OP2	2.12	0.64
1:A:1751:A:N6	1:A:1754:A:N7	2.45	0.64
1:A:2186:U:OP2	1:A:2188:C:C4	2.50	0.64
1:A:2319:C:N3	1:A:2332:G:N1	2.45	0.64
1:A:389:A:N6	1:A:410:G:N1	2.45	0.64
3:B:41:U:O2'	3:B:46:A:C6	2.49	0.64
3:B:4:U:C5	3:B:5:C:C4	2.86	0.64
3:B:90:G:C6	3:B:91:G:C6	2.86	0.64
19:E:155:GLY:H	19:E:191:VAL:HG13	1.61	0.64
26:G:234:LEU:HD23	26:G:234:LEU:C	2.17	0.64
17:Y:138:ALA:O	17:Y:142:GLY:N	2.27	0.64
1:A:131:C:C5	14:V:104:TYR:CZ	2.85	0.64
1:A:1618:C:OP1	1:A:1621:C:N4	2.21	0.64
1:A:135:C:C6	1:A:161:G:C6	2.85	0.64
1:A:1634:C:H5"	14:V:145:LYS:HZ3	1.62	0.64
1:A:1811:A:H2'	1:A:1811:A:N3	2.10	0.64
1:A:1828:U:O2'	1:A:1829:A:OP2	2.13	0.64
1:A:318:A:C6	1:A:339:A:C6	2.85	0.64
1:A:89:A:OP1	15:W:55:ASP:CG	2.36	0.64
1:A:911:U:H2'	1:A:912:C:C5	2.33	0.64
1:A:9:A:H1'	2:C:99:A:N1	2.13	0.64
3:B:87:G:H2'	3:B:88:G:C8	2.32	0.64
19:E:61:ILE:HD11	19:E:63:PHE:CZ	2.33	0.64
1:A:616:U:P	26:G:155:LYS:HZ1	2.18	0.64
6:N:82:LEU:HD22	26:G:88:LEU:HD11	1.77	0.64
1:A:1308:A:C8	8:P:113:ARG:NH2	2.65	0.64
1:A:1248:G:N7	11:S:16:LYS:NZ	2.46	0.64
1:A:1385:G:O2'	1:A:1818:U:O4	2.14	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2238:A:N3	1:A:2239:G:C8	2.66	0.64
1:A:267:C:H6	1:A:267:C:O5'	1.79	0.64
1:A:354:A:H2'	1:A:356:A:H62	1.60	0.64
1:A:44:G:H3'	1:A:45:A:H5''	1.77	0.64
1:A:682:C:H5	1:A:820:G:H1	1.46	0.64
1:A:2351:G:H4'	9:Q:57:HIS:CE1	2.33	0.64
12:T:154:ASP:OD1	12:T:155:LYS:N	2.30	0.64
1:A:131:C:N4	14:V:104:TYR:CG	2.65	0.64
1:A:1497:A:H3'	1:A:1498:G:C8	2.33	0.64
1:A:2205:G:O2'	1:A:2206:A:H5'	1.98	0.64
1:A:78:C:O2'	1:A:355:A:H1'	1.98	0.64
1:A:373:C:H6	1:A:373:C:O5'	1.81	0.64
1:A:626:C:O5'	1:A:626:C:H6	1.79	0.64
1:A:822:U:C4	1:A:1272:A:C2	2.85	0.64
1:A:895:C:H3'	1:A:896:G:H8	1.62	0.64
1:A:999:C:OP2	1:A:1002:G:N2	2.30	0.64
3:B:36:A:C2	3:B:50:U:O2	2.50	0.64
5:M:28:SER:HA	5:M:30:ARG:NH2	2.13	0.64
7:O:31:ARG:NH2	7:O:32:TYR:OH	2.30	0.64
1:A:590:C:O2'	11:S:31:LEU:HD11	1.98	0.64
13:U:149:LEU:N	13:U:149:LEU:HD23	2.06	0.64
1:A:152:G:C6	1:A:153:G:N7	2.66	0.64
1:A:1499:G:N1	1:A:1546:C:N4	2.27	0.64
1:A:1747:C:O2'	1:A:1748:C:H5'	1.97	0.64
1:A:1880:G:H8	1:A:1880:G:O5'	1.81	0.64
1:A:2114:G:H2'	1:A:2115:G:C8	2.33	0.64
1:A:2212:A:H8	1:A:2212:A:O5'	1.81	0.64
1:A:2213:A:O2'	17:Y:106:LYS:NZ	2.31	0.64
1:A:2219:U:C3'	1:A:2220:G:C5'	2.75	0.64
1:A:23:G:H2'	1:A:24:U:C6	2.32	0.64
1:A:2411:C:H5''	6:N:142:LYS:HE3	1.78	0.64
6:N:159:PRO:HB2	6:N:187:ILE:HD11	1.78	0.64
1:A:1189:G:N2	12:T:214:GLN:HE22	1.95	0.64
1:A:2213:A:C4	1:A:2242:A:C2	2.85	0.64
1:A:420:A:C4	1:A:432:G:N2	2.66	0.64
1:A:624:A:C2	1:A:625:C:H6	2.16	0.64
1:A:759:G:OP2	13:U:117:ARG:HD3	1.97	0.64
1:A:877:C:O2'	1:A:878:U:H5'	1.98	0.64
1:A:916:G:OP1	1:A:916:G:H4'	1.97	0.64
1:A:1600:A:N1	19:E:209:TRP:CH2	2.66	0.64
26:G:70:LEU:HD13	26:G:256:ASN:OD1	1.94	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:173:TYR:O	4:L:186:GLU:HB3	1.98	0.64
4:L:201:GLU:HG3	4:L:218:PHE:HZ	1.62	0.64
4:L:208:LEU:HD22	4:L:217:LEU:CD1	2.28	0.64
6:N:209:LYS:CB	6:N:230:CYS:HB3	2.28	0.64
6:N:82:LEU:HD23	26:G:240:LEU:HD23	1.79	0.64
1:A:2267:G:H1	7:O:82:ARG:CZ	2.11	0.64
10:R:123:MET:HE3	25:F:98:GLY:CA	2.28	0.64
15:W:67:ARG:CD	15:W:131:SER:OG	2.46	0.64
1:A:1474:A:N3	1:A:1474:A:H2'	2.13	0.63
1:A:2232:G:C2	1:A:2233:G:N7	2.66	0.63
1:A:258:C:O2'	1:A:259:C:H5'	1.98	0.63
1:A:2790:C:H5''	25:F:260:LYS:HG3	1.80	0.63
1:A:543:A:O2'	1:A:2035:A:N6	2.31	0.63
1:A:891:G:C2'	1:A:892:C:H5'	2.28	0.63
1:A:919:A:C2'	1:A:920:A:H5'	2.28	0.63
1:A:2330:U:H4'	27:H:90:ASN:HD22	1.60	0.63
28:I:66:LYS:HA	28:I:71:GLU:HG2	1.80	0.63
6:N:196:LEU:HD12	6:N:196:LEU:O	1.98	0.63
15:W:67:ARG:HH11	15:W:67:ARG:HB3	1.60	0.63
15:W:67:ARG:HD3	15:W:131:SER:CB	2.28	0.63
14:V:116:GLN:HA	18:Z:91:ARG:HH22	0.68	0.63
1:A:114:C:O2'	1:A:124:A:N3	2.24	0.63
1:A:1515:G:H8	1:A:1515:G:P	2.21	0.63
1:A:1532:G:C2'	1:A:1533:A:H5'	2.28	0.63
1:A:261:U:H2'	1:A:262:G:H5'	1.80	0.63
26:G:228:LEU:O	26:G:229:LEU:HD23	1.98	0.63
26:G:79:LYS:NZ	26:G:79:LYS:HB2	2.13	0.63
11:S:49:ASP:OD1	11:S:52:ARG:NH1	2.31	0.63
1:A:1902:G:OP2	1:A:1902:G:N2	2.29	0.63
1:A:287:A:O5'	1:A:287:A:H8	1.81	0.63
2:C:21:G:H3'	2:C:22:A:H5''	1.81	0.63
2:C:41:A:C6	2:C:86:A:N1	2.67	0.63
2:C:71:C:O2'	2:C:72:A:N7	2.30	0.63
19:E:65:ARG:HD3	19:E:114:SER:HB3	1.80	0.63
25:F:132:ASP:OD1	25:F:133:GLY:N	2.30	0.63
14:V:133:SER:HA	14:V:176:ILE:O	1.98	0.63
15:W:67:ARG:HD2	15:W:69:VAL:HB	1.80	0.63
16:X:162:ARG:HH11	16:X:162:ARG:CG	2.12	0.63
1:A:1535:A:H5'	1:A:1535:A:N3	2.13	0.63
1:A:2211:U:C5	1:A:2241:G:N1	2.67	0.63
1:A:260:G:N1	1:A:268:G:C6	2.66	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:74:C:OP1	8:P:72:LYS:NZ	2.24	0.63
10:R:123:MET:HE2	25:F:97:LEU:C	2.14	0.63
1:A:573:G:O3'	11:S:41:ARG:NH2	2.31	0.63
1:A:1828:U:HO2'	1:A:1829:A:P	2.21	0.63
1:A:2224:G:O2'	1:A:2225:G:OP2	2.10	0.63
1:A:888:C:H41	1:A:908:A:H2	0.70	0.63
1:A:909:A:H8	1:A:909:A:O5'	1.81	0.63
2:C:33:A:H1'	2:C:34:U:O5'	1.97	0.63
1:A:643:A:OP1	6:N:144:ARG:HD2	1.98	0.63
3:B:92:U:OP2	7:O:16:ARG:CZ	2.46	0.63
1:A:1450:G:H2'	1:A:1451:G:H8	1.64	0.63
1:A:1472:A:H4'	1:A:1473:G:H5''	1.80	0.63
1:A:1751:A:N7	1:A:1754:A:N6	2.46	0.63
1:A:351:C:O2'	1:A:352:C:H5'	1.98	0.63
1:A:381:C:C2	1:A:416:C:H5	2.15	0.63
25:F:119:GLU:HG3	25:F:143:ARG:HB3	1.80	0.63
28:I:82:VAL:HB	28:I:92:VAL:HG12	1.80	0.63
1:A:1475:U:O2	8:P:70:LEU:HD11	1.98	0.63
10:R:115:GLN:O	10:R:116:ARG:HB2	1.97	0.63
12:T:116:PRO:CD	12:T:117:PRO:CD	2.76	0.63
12:T:170:THR:CG2	12:T:172:ILE:CD1	2.77	0.63
16:X:79:VAL:HG22	16:X:94:ILE:HD12	1.81	0.63
1:A:2190:A:H2'	1:A:2191:C:C1'	2.28	0.63
1:A:2120:U:C4	1:A:2197:A:H2	2.16	0.63
1:A:2275:G:O2'	1:A:2444:C:OP2	2.16	0.63
1:A:716:A:N6	1:A:737:G:H1'	2.14	0.63
4:L:172:LEU:HD23	4:L:185:GLU:OE2	1.97	0.63
16:X:127:LYS:HE3	16:X:133:LYS:HZ1	1.64	0.63
16:X:143:GLN:O	16:X:144:PRO:C	2.34	0.63
1:A:1161:A:C8	1:A:2040:U:H4'	2.34	0.63
1:A:298:G:N3	1:A:299:C:C5	2.67	0.63
1:A:341:A:O5'	1:A:341:A:H8	1.81	0.63
1:A:274:G:O6	1:A:433:C:C5'	2.47	0.63
2:C:37:C:O2	25:F:143:ARG:NH2	2.23	0.63
6:N:165:ILE:HD12	6:N:207:SER:H	1.61	0.63
9:Q:115:PRO:HB2	9:Q:151:ARG:CZ	2.29	0.63
1:A:1603:A:H2'	1:A:1604:A:H8	1.63	0.63
1:A:1699:U:O2	1:A:2011:G:O6	2.17	0.63
1:A:2129:G:O2'	1:A:2131:U:H5	1.81	0.63
1:A:2207:A:C2	1:A:2208:U:N3	2.67	0.63
1:A:2211:U:H2'	1:A:2212:A:C8	2.34	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:278:G:C3'	1:A:279:A:H5''	2.27	0.63
1:A:910:A:C2	1:A:911:U:C2	2.86	0.63
1:A:927:A:N3	3:B:81:U:O2'	2.32	0.63
2:C:49:A:N6	2:C:76:G:N2	2.46	0.63
1:A:2647:A:N9	2:C:98:G:N3	2.46	0.63
2:C:44:U:H5''	8:P:63:THR:HG21	1.79	0.63
13:U:68:MET:HB3	13:U:73:CYS:SG	2.39	0.63
15:W:109:LYS:O	15:W:122:ILE:CG2	2.46	0.63
15:W:60:SER:O	15:W:61:LEU:HD23	1.98	0.63
16:X:67:LYS:HA	16:X:67:LYS:NZ	2.13	0.63
1:A:1002:G:H5'	12:T:201:LYS:HZ2	1.59	0.62
1:A:1881:A:H8	1:A:1881:A:O5'	1.81	0.62
1:A:553:G:H3'	1:A:554:G:H5''	1.80	0.62
1:A:919:A:N3	7:O:13:HIS:CE1	2.67	0.62
4:L:217:LEU:HD12	4:L:217:LEU:C	2.19	0.62
6:N:167:VAL:HG12	6:N:168:ALA:H	1.63	0.62
6:N:195:ARG:HD3	6:N:195:ARG:O	1.99	0.62
7:O:97:VAL:HG21	7:O:103:LEU:HD21	1.81	0.62
9:Q:49:ARG:HB2	9:Q:52:ASP:HB2	1.79	0.62
1:A:2112:U:O5'	1:A:2112:U:H6	1.82	0.62
1:A:2123:U:C2	1:A:2195:G:N2	2.67	0.62
1:A:254:U:H5''	1:A:272:U:O4	1.98	0.62
2:C:33:A:C1'	2:C:34:U:H5'	2.25	0.62
28:I:167:GLU:HB3	28:I:170:LYS:HG2	1.80	0.62
1:A:1391:C:O2'	1:A:1821:G:O2'	2.18	0.62
1:A:2238:A:C2	1:A:2239:G:C5	2.88	0.62
1:A:2409:A:H2	1:A:2441:C:N4	1.95	0.62
1:A:2691:G:O3'	5:M:29:ASN:HB3	1.98	0.62
29:J:78:LEU:HB3	29:J:84:ALA:HB3	1.81	0.62
6:N:97:ARG:NH1	6:N:100:ARG:CD	2.62	0.62
1:A:2197:A:O5'	1:A:2197:A:H8	1.82	0.62
1:A:2351:G:C6	9:Q:64:VAL:HG22	2.35	0.62
1:A:355:A:N7	1:A:356:A:C4	2.67	0.62
1:A:896:G:H2'	1:A:896:G:N3	2.14	0.62
2:C:68:A:O2'	2:C:69:U:H5'	1.99	0.62
19:E:237:ILE:HD11	19:E:239:ARG:CB	2.10	0.62
28:I:127:LEU:HA	28:I:204:TYR:HA	1.80	0.62
10:R:147:ASP:OD1	10:R:211:HIS:ND1	2.27	0.62
14:V:144:LYS:O	14:V:148:ARG:HB2	1.99	0.62
1:A:364:U:H6	1:A:364:U:O5'	1.80	0.62
1:A:983:G:N2	1:A:2267:G:H1	1.97	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:41:U:C5	3:B:44:C:OP2	2.52	0.62
1:A:156:G:N2	1:A:157:G:H1'	2.13	0.62
1:A:1798:C:H5''	19:E:220:VAL:HG11	1.82	0.62
1:A:1809:G:N2	1:A:1829:A:OP2	2.31	0.62
1:A:313:A:H2	1:A:323:G:H1	0.70	0.62
1:A:289:A:C2	1:A:369:U:H1'	2.33	0.62
1:A:901:C:H2'	1:A:902:G:H4'	1.81	0.62
1:A:917:C:C2'	1:A:918:A:H5'	2.28	0.62
1:A:853:G:H1	1:A:964:C:N4	1.97	0.62
3:B:5:C:H2'	3:B:6:U:C6	2.34	0.62
3:B:87:G:H2'	3:B:88:G:H8	1.64	0.62
1:A:2659:G:C5'	4:L:179:ARG:NH2	2.63	0.62
7:O:115:ARG:HG2	7:O:131:PHE:CZ	2.34	0.62
8:P:92:GLU:OE2	8:P:96:ARG:NE	2.22	0.62
13:U:40:SER:OG	13:U:127:ARG:NH1	2.33	0.62
16:X:142:ILE:HG22	16:X:143:GLN:H	1.64	0.62
1:A:1688:A:O5'	1:A:1688:A:H8	1.81	0.62
1:A:415:U:H6	1:A:415:U:O5'	1.82	0.62
1:A:824:U:H2'	1:A:825:C:C6	2.35	0.62
1:A:859:A:O2'	1:A:860:C:H5'	2.00	0.62
1:A:2529:C:H5''	25:F:217:PHE:CD1	2.35	0.62
9:Q:116:THR:H	9:Q:119:VAL:HG22	1.64	0.62
16:X:101:PHE:CE1	16:X:133:LYS:HG3	2.33	0.62
1:A:152:G:C4	1:A:153:G:C8	2.87	0.62
1:A:2227:C:C2'	1:A:2228:C:H5'	2.29	0.62
1:A:2642:G:C5	1:A:2643:C:N3	2.68	0.62
1:A:357:G:C2'	1:A:358:C:H5'	2.29	0.62
1:A:274:G:N7	1:A:433:C:H5'	2.14	0.62
1:A:599:C:H2'	1:A:600:A:C8	2.26	0.62
1:A:909:A:H2'	1:A:910:A:H8	1.64	0.62
6:N:82:LEU:HD23	26:G:240:LEU:HD22	1.78	0.62
9:Q:82:LEU:HD11	9:Q:115:PRO:HB3	1.81	0.62
12:T:116:PRO:O	12:T:117:PRO:O	2.18	0.62
16:X:66:THR:O	16:X:68:ASN:OD1	2.18	0.62
1:A:1496:A:C2	1:A:1497:A:H1'	2.35	0.62
1:A:1498:G:C6	1:A:1499:G:C6	2.88	0.62
1:A:1547:C:H2'	1:A:1548:A:H5'	1.80	0.62
1:A:1950:A:H2	1:A:1957:U:H3	1.48	0.62
1:A:2125:C:N3	1:A:2159:C:O2	2.33	0.62
1:A:226:A:H1'	1:A:228:U:C6	2.35	0.62
1:A:2808:C:OP1	1:A:2808:C:H4'	1.98	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:320:U:O2'	1:A:321:G:OP1	2.17	0.62
1:A:90:A:H2'	1:A:91:A:C8	2.34	0.62
1:A:919:A:O2'	1:A:920:A:H5'	1.99	0.62
1:A:2647:A:C1'	2:C:98:G:N3	2.62	0.62
25:F:237:ALA:HB3	25:F:241:PRO:HG3	1.81	0.62
26:G:204:LYS:N	26:G:225:THR:HB	2.15	0.62
26:G:206:LEU:HD11	26:G:229:LEU:HD12	1.81	0.62
6:N:136:LEU:HD23	6:N:139:ARG:NH1	2.13	0.62
14:V:106:ARG:O	14:V:107:ARG:CG	2.41	0.62
1:A:2234:G:H2'	1:A:2235:C:H5'	1.81	0.62
1:A:390:U:O5'	1:A:390:U:H6	1.80	0.62
1:A:898:G:H2'	1:A:899:A:C8	2.35	0.62
19:E:261:TYR:O	19:E:262:SER:OG	2.14	0.62
28:I:48:ILE:HG13	28:I:90:LEU:CA	2.30	0.62
1:A:1002:G:H5''	12:T:201:LYS:HZ3	1.64	0.62
13:U:30:ASP:OD1	13:U:138:ASP:O	2.18	0.62
1:A:1057:A:OP1	7:O:128:ARG:NH1	2.32	0.61
1:A:1860:G:H2'	1:A:1861:U:C6	2.35	0.61
1:A:2129:G:C2'	1:A:2180:G:N2	2.59	0.61
1:A:329:C:O2	26:G:222:ASN:CG	2.36	0.61
1:A:389:A:O2'	1:A:390:U:H5'	2.00	0.61
1:A:50:G:O2'	1:A:117:A:N6	2.32	0.61
1:A:886:U:H2'	1:A:887:G:C1'	2.29	0.61
1:A:950:A:H5'	1:A:951:C:OP2	2.00	0.61
2:C:61:G:N2	2:C:64:A:OP2	2.32	0.61
28:I:61:GLN:HA	28:I:76:TYR:CD2	2.35	0.61
4:L:213:LEU:HD13	4:L:213:LEU:O	1.99	0.61
1:A:1701:A:H1'	5:M:1:MET:HG2	1.80	0.61
9:Q:108:ASN:OD1	9:Q:109:ILE:N	2.30	0.61
13:U:152:LEU:O	13:U:153:THR:OG1	2.16	0.61
18:Z:125:GLU:HG2	18:Z:126:GLN:N	2.15	0.61
1:A:1479:U:H4'	1:A:1480:A:O5'	1.99	0.61
1:A:2121:C:H42	1:A:2196:G:N2	1.96	0.61
1:A:898:G:C4	1:A:899:A:N7	2.68	0.61
2:C:49:A:N6	2:C:76:G:H22	1.98	0.61
2:C:8:G:N2	2:C:92:C:O2	2.20	0.61
3:B:46:A:H8	27:H:145:ARG:HH11	1.47	0.61
15:W:82:GLU:HG3	15:W:104:LEU:HD11	1.81	0.61
18:Z:120:ARG:CG	18:Z:120:ARG:HH11	2.13	0.61
1:A:1161:A:O5'	1:A:1162:C:N4	2.33	0.61
1:A:1211:G:P	6:N:109:SER:OG	2.58	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:17:C:O2'	1:A:564:U:OP1	2.19	0.61
1:A:1888:G:C6	1:A:1889:G:C5	2.88	0.61
1:A:2279:U:OP2	16:X:73:LYS:HB3	1.99	0.61
1:A:4:A:H2'	1:A:5:A:C8	2.35	0.61
1:A:553:G:N2	1:A:562:C:C2	2.68	0.61
3:B:117:A:H8	3:B:117:A:O5'	1.83	0.61
3:B:93:C:C2'	3:B:94:C:H5'	2.30	0.61
2:C:104:A:N3	2:C:105:A:C5	2.68	0.61
19:E:237:ILE:C	19:E:237:ILE:HD12	2.19	0.61
26:G:255:LEU:CD1	26:G:259:TYR:CE2	2.82	0.61
26:G:79:LYS:HZ3	26:G:79:LYS:HB2	1.66	0.61
4:L:167:LYS:O	4:L:170:GLN:N	2.33	0.61
6:N:144:ARG:O	6:N:146:ILE:HD12	2.00	0.61
8:P:44:ILE:HG22	8:P:123:ILE:HB	1.81	0.61
1:A:1268:A:H2	11:S:5:LYS:HZ2	1.47	0.61
12:T:200:TYR:HB2	12:T:206:TYR:O	2.01	0.61
1:A:1137:C:H3'	1:A:1138:G:C8	2.35	0.61
1:A:1161:A:O2'	1:A:2041:G:H5'	1.99	0.61
1:A:1499:G:O5'	1:A:1499:G:H8	1.83	0.61
1:A:1888:G:H8	1:A:1888:G:O5'	1.83	0.61
1:A:2267:G:O6	7:O:82:ARG:NH2	2.30	0.61
1:A:2331:G:N3	27:H:182:SER:CB	2.64	0.61
1:A:306:G:OP1	15:W:66:LYS:NZ	2.33	0.61
1:A:471:U:OP2	1:A:481:G:N1	2.28	0.61
2:C:85:U:C2'	2:C:86:A:H5'	2.29	0.61
2:C:36:A:N3	25:F:274:ARG:NH1	2.49	0.61
4:L:159:ASP:O	4:L:192:GLN:NE2	2.22	0.61
6:N:151:ARG:NH1	6:N:151:ARG:HA	2.16	0.61
11:S:91:LEU:HG	12:T:175:PRO:HG3	1.78	0.61
12:T:124:PHE:HB3	12:T:165:GLY:O	2.01	0.61
13:U:165:SER:O	13:U:166:THR:OG1	2.16	0.61
1:A:1197:A:OP1	16:X:165:LYS:HD3	2.00	0.61
1:A:2672:G:N2	1:A:2682:A:OP2	2.32	0.61
1:A:2711:G:H2'	1:A:2712:U:O4'	2.00	0.61
1:A:284:A:H1'	1:A:285:A:P	2.41	0.61
1:A:386:A:H2'	1:A:387:G:O4'	2.01	0.61
1:A:966:G:H2'	1:A:967:C:C6	2.35	0.61
1:A:1829:A:O2'	19:E:173:PRO:O	2.16	0.61
26:G:255:LEU:CD1	26:G:259:TYR:HE2	2.14	0.61
26:G:57:ILE:HD13	26:G:66:GLY:HA3	1.81	0.61
28:I:98:THR:HG23	28:I:101:ALA:H	1.65	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:N:153:GLY:O	6:N:154:LEU:HG	2.00	0.61
1:A:564:U:OP1	11:S:23:SER:HB3	2.01	0.61
1:A:1153:G:C5	1:A:1154:A:N7	2.68	0.61
1:A:1168:U:H4'	1:A:1169:A:O4'	2.00	0.61
1:A:1516:G:N7	1:A:1517:G:H8	1.98	0.61
1:A:2206:A:O2'	1:A:2207:A:H5'	1.99	0.61
1:A:2213:A:C2	1:A:2214:C:C6	2.89	0.61
1:A:3:C:HO2'	1:A:4:A:H5'	1.62	0.61
1:A:624:A:C5	1:A:625:C:C6	2.83	0.61
1:A:932:A:C5'	16:X:85:GLN:NE2	2.62	0.61
28:I:195:GLU:HB2	28:I:198:LYS:HB3	1.83	0.61
6:N:209:LYS:HB2	6:N:230:CYS:CB	2.31	0.61
6:N:210:LEU:N	6:N:230:CYS:CB	2.59	0.61
12:T:194:LYS:HG2	12:T:213:ARG:HD3	1.83	0.61
1:A:1137:C:H2'	1:A:1138:G:C8	2.36	0.61
1:A:1501:G:H1'	1:A:1502:A:P	2.41	0.61
1:A:2103:G:C5	1:A:2104:A:N7	2.69	0.61
1:A:920:A:H2	1:A:2294:G:N3	1.98	0.61
1:A:622:G:H22	1:A:627:C:H3'	1.65	0.61
3:B:37:U:HO2'	3:B:38:C:H5'	1.65	0.61
2:C:75:U:C3'	2:C:76:G:H5'	2.30	0.61
2:C:80:C:O2'	2:C:81:A:H5'	2.01	0.61
19:E:141:GLU:HB2	19:E:184:CYS:HB3	1.83	0.61
1:A:2229:U:O4	19:E:64:ARG:NH1	2.33	0.61
5:M:93:PRO:HG3	5:M:113:ILE:HD13	1.82	0.61
1:A:2580:U:H5'	5:M:30:ARG:NH1	2.15	0.61
6:N:192:ARG:HB3	6:N:195:ARG:HB3	1.83	0.61
1:A:1270:C:N4	6:N:97:ARG:HD3	2.16	0.61
15:W:70:LYS:C	15:W:89:ILE:HD11	2.21	0.61
1:A:1688:A:H5''	1:A:1689:C:OP2	2.01	0.61
1:A:1885:C:C4	6:N:253:ALA:CB	2.75	0.61
1:A:888:C:H3'	1:A:889:G:H8	1.66	0.61
3:B:8:G:H2'	3:B:9:U:C6	2.35	0.61
19:E:257:LYS:HE3	19:E:260:LYS:HD2	1.81	0.61
1:A:1376:G:OP1	19:E:35:CYS:SG	2.57	0.61
1:A:1516:G:H2'	1:A:1517:G:O4'	2.01	0.61
1:A:2074:A:N7	26:G:125:ARG:NH2	2.49	0.61
1:A:260:G:N1	1:A:268:G:N1	2.47	0.61
1:A:370:A:H4'	1:A:371:U:OP1	2.01	0.61
1:A:628:A:O2'	1:A:629:C:H5'	1.99	0.61
3:B:34:C:H2'	3:B:35:A:C8	2.36	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:86:G:C2'	3:B:87:G:H5'	2.30	0.61
2:C:26:G:C6	2:C:27:U:C4	2.89	0.61
6:N:126:MET:O	6:N:129:PHE:HB3	2.00	0.61
16:X:134:LYS:HZ3	16:X:134:LYS:HB3	1.63	0.61
16:X:66:THR:C	16:X:67:LYS:HZ3	2.04	0.61
1:A:383:A:HO2'	17:Y:131:LYS:HE3	1.65	0.61
18:Z:152:LEU:HD13	18:Z:152:LEU:H	1.64	0.61
1:A:1522:A:N6	1:A:1544:A:H1'	2.16	0.61
1:A:1873:G:O2'	1:A:1874:U:H5'	2.01	0.61
1:A:892:C:O2'	1:A:893:C:H5'	2.01	0.61
3:B:35:A:H8	3:B:35:A:O5'	1.83	0.61
2:C:28:U:O2'	2:C:30:A:OP2	2.19	0.61
2:C:31:U:O2'	2:C:32:C:H5'	2.01	0.61
2:C:37:C:H3'	2:C:38:G:H5'	1.83	0.61
2:C:73:G:H2'	2:C:74:C:C6	2.35	0.61
9:Q:96:ALA:HB2	9:Q:134:LYS:HE3	1.83	0.61
10:R:170:ILE:HB	10:R:182:ARG:HG3	1.82	0.61
12:T:91:ASP:OD2	13:U:142:PHE:HZ	1.83	0.61
15:W:170:THR:HB	15:W:171:PRO:CD	2.30	0.61
1:A:1194:G:C6	1:A:1204:A:N1	2.68	0.60
1:A:268:G:N1	1:A:269:G:N1	2.49	0.60
1:A:2767:A:H5''	1:A:2768:A:H2'	1.81	0.60
1:A:294:U:H2'	1:A:295:C:N1	2.15	0.60
1:A:248:G:O2'	1:A:441:A:N3	2.31	0.60
1:A:887:G:O6	1:A:908:A:N6	2.31	0.60
3:B:87:G:N1	3:B:93:C:C2	2.69	0.60
2:C:30:A:C6	2:C:83:C:C2	2.89	0.60
2:C:75:U:H2'	2:C:76:G:C5'	2.31	0.60
1:A:2647:A:C5	2:C:98:G:C2	2.89	0.60
26:G:86:ARG:HE	26:G:152:MET:HE1	1.66	0.60
12:T:128:VAL:HG22	12:T:133:GLN:HG2	1.83	0.60
1:A:119:A:H1'	1:A:132:G:C2	2.37	0.60
1:A:1451:G:N2	1:A:1598:C:O2	2.34	0.60
1:A:2103:G:H2'	1:A:2104:A:C5'	2.31	0.60
1:A:2752:G:C6	25:F:297:ILE:O	2.53	0.60
1:A:434:A:N6	1:A:435:A:N6	2.48	0.60
1:A:624:A:N9	1:A:625:C:C5	2.46	0.60
1:A:661:G:C2'	1:A:662:C:H5'	2.32	0.60
1:A:898:G:C5	1:A:899:A:N7	2.69	0.60
3:B:42:C:OP2	3:B:43:C:N4	2.34	0.60
26:G:129:GLN:CD	26:G:134:ARG:NH2	2.53	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:251:THR:O	26:G:255:LEU:HB2	2.01	0.60
2:C:80:C:O5'	10:R:121:ASP:OD1	2.19	0.60
16:X:77:LEU:HD11	16:X:97:ARG:HH11	1.59	0.60
1:A:1078:A:H3'	1:A:1079:G:H8	1.66	0.60
1:A:1091:G:O6	1:A:1103:C:N3	2.34	0.60
1:A:1136:U:H2'	1:A:1137:C:H5'	1.84	0.60
1:A:1476:G:O2'	1:A:1477:G:H5'	2.01	0.60
1:A:2288:G:OP1	16:X:76:ARG:CA	2.49	0.60
1:A:2322:A:N1	27:H:204:GLY:HA3	2.06	0.60
1:A:671:C:C5'	26:G:150:ILE:HG23	2.28	0.60
1:A:2322:A:N1	27:H:204:GLY:HA2	2.11	0.60
6:N:134:MET:HE3	6:N:138:ARG:HB3	1.82	0.60
1:A:1507:G:N2	1:A:1515:G:P	2.74	0.60
1:A:1521:G:C2	1:A:1544:A:C2	2.89	0.60
1:A:156:G:O5'	1:A:156:G:H8	1.84	0.60
1:A:2201:G:H8	1:A:2201:G:O5'	1.85	0.60
1:A:2318:C:H2'	1:A:2319:C:H6	1.63	0.60
1:A:257:A:C8	1:A:258:C:C4	2.90	0.60
1:A:661:G:O2'	1:A:662:C:H5'	2.00	0.60
26:G:146:ARG:HG3	26:G:148:TRP:CE3	2.36	0.60
3:B:43:C:OP2	27:H:117:ARG:NH2	2.34	0.60
6:N:168:ALA:HB1	6:N:184:LYS:HE3	1.84	0.60
6:N:81:ARG:HH11	26:G:243:GLU:HA	1.65	0.60
10:R:182:ARG:HA	10:R:194:ILE:O	2.01	0.60
1:A:1321:A:H4'	1:A:1322:A:H5''	1.84	0.60
1:A:2201:G:O2'	1:A:2202:C:H5'	2.01	0.60
1:A:2393:A:N3	9:Q:166:PHE:HE2	2.00	0.60
1:A:291:G:C2'	1:A:292:C:H5'	2.31	0.60
1:A:322:C:H2'	1:A:323:G:H8	1.66	0.60
1:A:855:C:N3	1:A:856:U:C5	2.70	0.60
1:A:884:G:C2'	1:A:885:G:H5'	2.32	0.60
1:A:1825:A:H5''	19:E:37:LYS:NZ	2.16	0.60
16:X:128:TYR:HB3	16:X:134:LYS:HB2	1.80	0.60
1:A:133:A:C5	1:A:134:A:C5	2.89	0.60
1:A:2137:G:N2	1:A:2190:A:C5	2.69	0.60
1:A:434:A:C6	1:A:435:A:N6	2.70	0.60
1:A:495:A:C4	15:W:122:ILE:HD11	2.36	0.60
2:C:29:U:H1'	2:C:30:A:P	2.41	0.60
26:G:250:GLY:O	26:G:254:TYR:HB3	2.01	0.60
1:A:2330:U:C4'	27:H:90:ASN:ND2	2.63	0.60
6:N:211:GLN:C	6:N:212:ILE:HD12	2.21	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:P:34:LEU:HB3	8:P:54:MET:HE3	1.84	0.60
14:V:109:LEU:HD11	14:V:141:ARG:HB3	1.82	0.60
14:V:126:LYS:O	14:V:130:ASP:HB2	2.02	0.60
1:A:1175:U:O5'	1:A:1175:U:H6	1.84	0.60
1:A:2464:G:H4'	1:A:2465:A:O5'	2.00	0.60
1:A:276:G:H1	1:A:416:C:HO2'	1.47	0.60
3:B:36:A:N6	3:B:45:G:C4	2.68	0.60
6:N:165:ILE:HG13	6:N:207:SER:N	2.16	0.60
8:P:18:HIS:HD2	8:P:53:ALA:HB2	1.66	0.60
9:Q:49:ARG:HG3	9:Q:53:ARG:HG3	1.84	0.60
1:A:82:G:N1	1:A:100:G:C4	2.69	0.60
1:A:127:C:H2'	1:A:128:U:C6	2.36	0.60
1:A:1428:C:H5	1:A:1631:G:H1	1.47	0.60
1:A:1809:G:C6	19:E:172:LEU:HD13	2.37	0.60
1:A:2212:A:H2'	1:A:2213:A:C8	2.37	0.60
1:A:2288:G:OP1	16:X:75:GLN:O	2.19	0.60
1:A:633:A:H2'	1:A:634:G:H5'	1.83	0.60
1:A:579:U:H5''	1:A:832:A:C2	2.37	0.60
1:A:893:C:H2'	1:A:894:G:C1'	2.32	0.60
1:A:898:G:N7	1:A:899:A:N7	2.48	0.60
25:F:174:VAL:O	25:F:176:VAL:N	2.35	0.60
28:I:76:TYR:HD1	28:I:108:PHE:CZ	2.18	0.60
6:N:154:LEU:O	6:N:156:LYS:N	2.34	0.60
13:U:153:THR:C	13:U:157:LEU:HG	2.22	0.60
1:A:152:G:N1	1:A:153:G:N7	2.50	0.60
1:A:2194:U:OP2	1:A:2195:G:OP2	2.19	0.60
1:A:2119(A):U:H3	1:A:2199:G:N2	2.00	0.60
1:A:294:U:C5	1:A:295:C:N3	2.70	0.60
1:A:364:U:H2'	1:A:365:A:C8	2.37	0.60
1:A:614:G:C6	1:A:637:G:N1	2.70	0.60
3:B:70:G:H2'	3:B:71:G:H8	1.65	0.60
29:J:60:LEU:HB2	29:J:67:LEU:HD22	1.81	0.60
7:O:91:GLU:OE1	7:O:92:TYR:N	2.31	0.60
18:Z:137:ASP:O	18:Z:141:LYS:HG2	2.00	0.60
1:A:1164:G:H2'	1:A:1165:G:H5'	1.83	0.60
1:A:1195:U:O2'	1:A:1196:A:O5'	2.20	0.60
1:A:159:A:H4'	1:A:160:A:OP2	2.01	0.60
1:A:161:G:HO2'	1:A:162:A:C5'	2.13	0.60
1:A:1830:U:C6	19:E:197:ASN:ND2	2.69	0.60
1:A:899:A:O2'	1:A:900:G:O5'	2.20	0.60
3:B:7:G:N1	3:B:117:A:H2	2.00	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:M:32:TYR:OH	5:M:34:ARG:HD3	2.02	0.60
1:A:103:C:O5'	1:A:103:C:H6	1.84	0.59
1:A:163:G:C6	1:A:164:A:C6	2.90	0.59
1:A:2229:U:C5	19:E:64:ARG:NH1	2.70	0.59
2:C:37:C:HO2'	2:C:38:G:P	2.24	0.59
1:A:2708:C:O2'	2:C:75:U:O2'	1.85	0.59
26:G:208:PHE:HB2	26:G:229:LEU:HB2	1.83	0.59
27:H:73:PHE:HB3	27:H:75:TYR:CE2	2.37	0.59
16:X:142:ILE:HG22	16:X:143:GLN:N	2.16	0.59
1:A:2115:G:H8	1:A:2115:G:O5'	1.83	0.59
1:A:2224:G:H4'	1:A:2225:G:OP2	2.02	0.59
1:A:48:A:N1	1:A:162:A:C8	2.62	0.59
1:A:570:C:H1'	11:S:52:ARG:CZ	2.32	0.59
1:A:623:A:O2'	1:A:624:A:OP1	2.20	0.59
1:A:857:G:N2	1:A:961:G:C2	2.62	0.59
3:B:8:G:C2	3:B:116:C:C2	2.90	0.59
1:A:702:C:P	19:E:213:ARG:HH12	2.19	0.59
1:A:702:C:O2'	19:E:39:ARG:CD	2.50	0.59
6:N:102:HIS:CE1	12:T:205:ASN:ND2	2.66	0.59
11:S:91:LEU:CG	12:T:175:PRO:HG3	2.31	0.59
1:A:1047:U:H3	1:A:1169:A:H62	1.48	0.59
1:A:1085:A:N1	1:A:1109:U:O4	2.35	0.59
1:A:143:G:C3'	1:A:144:A:H5'	2.31	0.59
1:A:1567:C:O2	1:A:1572:G:N1	2.35	0.59
1:A:2061:C:H2'	1:A:2062:A:H8	1.65	0.59
1:A:2118:U:H6	1:A:2118:U:O5'	1.85	0.59
1:A:2310:U:H5'	9:Q:143:ARG:NH1	2.17	0.59
26:G:77:PRO:O	26:G:78:GLU:HB3	2.00	0.59
15:W:113:SER:HB2	15:W:120:GLY:H	1.67	0.59
1:A:1136:U:O5'	1:A:1136:U:H6	1.86	0.59
1:A:140:G:H2'	1:A:141:C:C5'	2.31	0.59
1:A:141:C:H2'	1:A:142:U:O4'	2.02	0.59
1:A:2075:G:P	26:G:119:LYS:HE2	2.43	0.59
1:A:840:A:N7	1:A:2265:A:H5'	2.17	0.59
1:A:362:A:C2	1:A:363:C:N3	2.71	0.59
1:A:836:G:O2'	6:N:133:GLN:HG2	2.01	0.59
1:A:868:G:N2	1:A:929:A:N1	2.51	0.59
1:A:822:U:C3'	6:N:100:ARG:O	2.49	0.59
6:N:202:GLY:CA	6:N:221:ALA:CB	2.58	0.59
12:T:97:GLU:HG2	12:T:97:GLU:O	2.00	0.59
13:U:149:LEU:H	13:U:149:LEU:CD2	2.06	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:504:G:H5'	13:U:37:TYR:CD1	2.37	0.59
1:A:1179:C:H2'	1:A:1180:C:H6	1.66	0.59
1:A:1448:A:H4'	1:A:1449:C:O4'	2.02	0.59
1:A:1522:A:N3	1:A:1523:A:N7	2.50	0.59
1:A:140:G:C4	1:A:155:A:C2	2.91	0.59
1:A:1745:C:H2'	1:A:1746:C:H6	1.64	0.59
1:A:2713:U:O4	1:A:2714:A:N6	2.36	0.59
1:A:279:A:C8	1:A:379:C:C5	2.91	0.59
1:A:293:G:N1	1:A:294:U:O4	2.34	0.59
1:A:354:A:O5'	1:A:354:A:H8	1.86	0.59
1:A:897:A:N3	1:A:897:A:H2'	2.17	0.59
1:A:920:A:C8	7:O:9:PHE:CE2	2.91	0.59
3:B:14:U:O2'	3:B:15:A:OP1	2.21	0.59
2:C:84:C:H2'	2:C:85:U:C6	2.37	0.59
2:C:41:A:H61	2:C:86:A:N6	2.00	0.59
28:I:134:TYR:HD1	28:I:147:LEU:HA	1.68	0.59
14:V:167:ARG:CG	14:V:168:PRO:HD2	2.33	0.59
1:A:2049:G:H5'	1:A:2050:C:C5	2.31	0.59
1:A:2761:U:OP2	1:A:2773:C:N4	2.35	0.59
1:A:43:A:H8	1:A:43:A:OP2	1.84	0.59
1:A:685:G:OP1	26:G:105:ARG:NH2	2.33	0.59
2:C:52:G:N2	2:C:71:C:O2'	2.34	0.59
19:E:265:PHE:CE1	19:E:266:ILE:CD1	2.85	0.59
26:G:204:LYS:HA	26:G:225:THR:O	2.02	0.59
1:A:1237:C:OP1	11:S:11:ARG:NH2	2.35	0.59
14:V:109:LEU:O	14:V:110:ASP:HB3	2.02	0.59
15:W:113:SER:CB	15:W:120:GLY:H	2.16	0.59
1:A:1750:C:H6	1:A:1750:C:O5'	1.85	0.59
1:A:255:A:P	1:A:271:G:H22	2.21	0.59
1:A:355:A:H8	1:A:356:A:O4'	1.85	0.59
1:A:820:G:C5	1:A:821:U:C4	2.91	0.59
1:A:82:G:C6	1:A:100:G:C5	2.91	0.59
1:A:952:A:H8	1:A:952:A:O5'	1.86	0.59
2:C:37:C:O2'	2:C:38:G:OP1	2.17	0.59
5:M:20:MET:O	5:M:41:ALA:HA	2.03	0.59
6:N:156:LYS:CE	6:N:215:ARG:HH11	2.16	0.59
1:A:1192:A:H2'	1:A:1193:U:C6	2.37	0.59
1:A:1426:U:H2'	1:A:1427:A:C8	2.36	0.59
1:A:1497:A:N6	1:A:1547:C:H42	2.01	0.59
1:A:2230:A:C2	1:A:2231:C:N4	2.71	0.59
1:A:6:A:C2'	1:A:7:C:H5'	2.32	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:E:239:ARG:HH21	19:E:243:THR:HG21	1.68	0.59
19:E:39:ARG:HE	19:E:45:ILE:HD11	1.68	0.59
26:G:254:TYR:OH	26:G:258:ARG:NH1	2.36	0.59
27:H:150:TYR:O	27:H:154:ASP:HB2	2.03	0.59
6:N:97:ARG:HH11	6:N:100:ARG:HE	1.49	0.59
6:N:162:LEU:CG	6:N:203:GLU:OE1	2.50	0.59
13:U:151:SER:C	13:U:152:LEU:HD23	2.23	0.59
14:V:109:LEU:HD11	14:V:141:ARG:HB2	1.84	0.59
1:A:823:C:C2	1:A:1271:G:C2	2.91	0.59
1:A:1361:U:OP1	14:V:175:TYR:OH	2.21	0.59
1:A:1450:G:H2'	1:A:1451:G:C8	2.38	0.59
1:A:1689:C:H41	8:P:19:ARG:CD	2.15	0.59
1:A:2744:A:O2'	1:A:2745:G:OP1	2.21	0.59
1:A:362:A:C2	1:A:363:C:C2	2.90	0.59
3:B:66:C:N4	3:B:110:C:C2	2.71	0.59
19:E:85:ALA:HB2	19:E:154:ALA:HA	1.85	0.59
25:F:86:VAL:N	25:F:172:ARG:HH11	2.00	0.59
25:F:180:THR:H	25:F:184:LYS:HD2	1.68	0.59
29:J:57:ILE:HG21	29:J:60:LEU:HG	1.85	0.59
2:C:79:G:O2'	10:R:121:ASP:OD1	2.21	0.59
11:S:105:PRO:O	11:S:108:ILE:HG22	2.03	0.59
14:V:102:LEU:HB3	18:Z:142:ARG:NH2	2.18	0.59
1:A:1088:U:C4	1:A:1116:A:N7	2.71	0.59
1:A:1516:G:H3'	1:A:1517:G:C5'	2.24	0.59
1:A:294:U:C6	1:A:295:C:N3	2.71	0.59
3:B:67:U:C4	3:B:109:U:H5	2.19	0.59
3:B:25:G:C4	3:B:57:U:C4	2.91	0.59
2:C:36:A:O2'	2:C:37:C:OP1	2.20	0.59
28:I:48:ILE:CG1	28:I:90:LEU:C	2.70	0.59
1:A:1885:C:H41	6:N:253:ALA:CB	2.10	0.59
11:S:28:HIS:HD2	11:S:38:GLN:CD	2.05	0.59
13:U:154:PRO:HA	13:U:157:LEU:CD1	2.32	0.59
16:X:128:TYR:HE2	16:X:132:LYS:HG2	1.64	0.59
16:X:67:LYS:HZ2	16:X:67:LYS:CA	2.13	0.59
1:A:1430:C:H2'	1:A:1431:C:H6	1.68	0.58
1:A:1830:U:H4'	1:A:1831:G:N7	2.17	0.58
1:A:288:C:H2'	1:A:289:A:H5'	1.84	0.58
1:A:46:C:H2'	1:A:47:G:C5'	2.25	0.58
1:A:75:C:P	18:Z:110:LYS:NZ	2.70	0.58
1:A:887:G:H22	1:A:909:A:N6	2.00	0.58
1:A:2565:G:H4'	5:M:31:ARG:NH2	2.18	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2228:C:O5'	1:A:2228:C:H6	1.85	0.58
1:A:2345:A:H2'	1:A:2346:A:H8	1.68	0.58
1:A:2647:A:N6	1:A:2806:U:N3	2.31	0.58
1:A:291:G:C2	1:A:292:C:C2	2.92	0.58
1:A:332:G:O2'	26:G:224:ARG:NH2	2.36	0.58
1:A:371:U:H4'	1:A:372:G:OP1	2.01	0.58
1:A:548:G:O2'	1:A:549:A:O5'	2.15	0.58
1:A:552:G:H8	1:A:552:G:O5'	1.86	0.58
1:A:881:U:H4'	7:O:69:PHE:CD2	2.38	0.58
25:F:121:ASN:ND2	25:F:141:TYR:CD1	2.71	0.58
28:I:44:GLY:CA	28:I:105:HIS:ND1	2.66	0.58
28:I:48:ILE:HB	28:I:90:LEU:H	1.67	0.58
1:A:644:A:OP1	6:N:151:ARG:HA	2.02	0.58
6:N:225:LEU:HD23	6:N:232:VAL:CG2	2.33	0.58
1:A:983:G:C2	7:O:82:ARG:NH1	2.64	0.58
16:X:144:PRO:O	16:X:146:ASN:ND2	2.36	0.58
1:A:94:A:H1'	18:Z:102:PRO:HB2	1.85	0.58
1:A:1573:C:H2'	1:A:1574:G:C8	2.33	0.58
1:A:1584:C:H2'	1:A:1585:C:C6	2.38	0.58
1:A:2196:G:H8	1:A:2196:G:O5'	1.84	0.58
1:A:235:G:O6	1:A:398:G:N2	2.34	0.58
1:A:322:C:H2'	1:A:323:G:C8	2.39	0.58
1:A:332:G:H21	1:A:342:G:H1'	1.67	0.58
1:A:379:C:H4'	1:A:380:C:OP1	2.02	0.58
1:A:902:G:H3'	1:A:903:G:C5'	2.33	0.58
2:C:84:C:H1'	8:P:102:GLY:O	2.03	0.58
1:A:1515:G:C8	1:A:1515:G:P	2.96	0.58
1:A:159:A:C1'	1:A:160:A:OP1	2.48	0.58
1:A:299:C:H2'	1:A:300:U:H5'	1.86	0.58
3:B:36:A:C5	3:B:45:G:C6	2.92	0.58
6:N:197:PRO:O	6:N:198:LEU:HB3	2.02	0.58
1:A:2125:C:O2	1:A:2161:G:N2	2.37	0.58
1:A:2190:A:H2'	1:A:2191:C:H1'	1.85	0.58
1:A:2108:G:N7	1:A:2210:C:N3	2.52	0.58
1:A:2325:G:N3	1:A:2325:G:H2'	2.18	0.58
1:A:2559:A:H4'	1:A:2560:G:H5'	1.85	0.58
1:A:3:C:H6	1:A:3:C:O5'	1.86	0.58
1:A:636:C:C2	1:A:637:G:N7	2.72	0.58
1:A:899:A:N3	1:A:900:G:C8	2.72	0.58
19:E:113:VAL:O	19:E:124:ASN:HB2	2.03	0.58
19:E:40:ASN:ND2	19:E:43:GLY:O	2.36	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:122:LEU:HD22	4:L:246:ILE:HG22	1.86	0.58
12:T:181:ALA:O	12:T:225:THR:HG22	2.04	0.58
14:V:111:VAL:HG23	18:Z:146:VAL:HG22	1.84	0.58
1:A:1507:G:H21	1:A:1515:G:P	2.26	0.58
1:A:1519:A:N1	1:A:1520:A:C5	2.71	0.58
1:A:140:G:O6	1:A:155:A:N6	2.37	0.58
1:A:1751:A:H2'	1:A:1751:A:N3	2.17	0.58
1:A:2137:G:N2	1:A:2190:A:N1	2.51	0.58
1:A:2219:U:H1'	19:E:64:ARG:NH2	2.19	0.58
1:A:274:G:C5	1:A:433:C:H5''	2.39	0.58
1:A:283:C:O2'	1:A:284:A:H5'	2.02	0.58
1:A:79:G:O2'	1:A:355:A:H2	1.77	0.58
1:A:890:G:C2	1:A:891:G:C5	2.91	0.58
3:B:89:A:C6	3:B:90:G:C5	2.92	0.58
26:G:75:ALA:HB2	26:G:159:LEU:CD2	2.29	0.58
27:H:87:ILE:HD11	27:H:144:LEU:HD11	1.84	0.58
29:J:76:ASN:HA	29:J:80:PRO:HG2	1.86	0.58
5:M:61:VAL:O	5:M:84:ALA:HA	2.03	0.58
6:N:97:ARG:NH1	6:N:100:ARG:HD2	2.19	0.58
6:N:158:VAL:HG11	6:N:201:LEU:CG	2.31	0.58
6:N:167:VAL:HG12	6:N:168:ALA:N	2.19	0.58
1:A:2351:G:C1'	9:Q:64:VAL:HG21	2.30	0.58
17:Y:87:ARG:HB3	17:Y:97:ARG:NE	2.16	0.58
1:A:71:A:O4'	18:Z:116:LEU:HD12	2.03	0.58
1:A:110:U:OP2	18:Z:130:LYS:HE2	2.04	0.58
1:A:101:A:H2'	1:A:102:U:H5'	1.86	0.58
1:A:1088:U:O4	1:A:1116:A:N7	2.37	0.58
1:A:1174:G:H2'	1:A:1175:U:C6	2.38	0.58
1:A:1551:G:C2'	1:A:1552:U:H5'	2.33	0.58
1:A:2223:A:C2'	1:A:2224:G:C8	2.87	0.58
1:A:2211:U:C5	1:A:2241:G:O6	2.51	0.58
27:H:172:PRO:HG3	27:H:220:TYR:CZ	2.38	0.58
1:A:1500:U:OP2	1:A:1501:G:H5''	2.04	0.58
1:A:2752:G:H8	1:A:2753:C:H4'	1.68	0.58
1:A:318:A:C5	1:A:339:A:C6	2.92	0.58
1:A:373:C:O2'	1:A:374:U:O4'	2.15	0.58
1:A:389:A:C5	1:A:390:U:C4	2.92	0.58
1:A:49:G:O2'	18:Z:130:LYS:CE	2.51	0.58
1:A:885:G:O2'	1:A:886:U:H5'	2.02	0.58
3:B:8:G:N1	3:B:116:C:N3	2.52	0.58
1:A:740:G:C5	19:E:203:ARG:O	2.57	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:206:LEU:HD11	26:G:229:LEU:CD1	2.33	0.58
26:G:207:PHE:HA	26:G:246:VAL:HG22	1.85	0.58
6:N:80:PHE:CD1	6:N:85:LEU:HD21	2.38	0.58
13:U:74:TYR:HB3	13:U:75:PRO:HD3	1.85	0.58
1:A:1069:U:O2	1:A:1142:G:O6	2.22	0.58
1:A:137:U:N3	1:A:157:G:C2	2.63	0.58
1:A:139:U:H2'	1:A:140:G:H8	1.68	0.58
1:A:2200:A:N3	1:A:2200:A:H2'	2.17	0.58
1:A:2207:A:O3'	1:A:2208:U:O4'	2.22	0.58
1:A:2237:A:H2'	1:A:2238:A:H5'	1.84	0.58
1:A:2317:G:N1	1:A:2333:C:O2	2.34	0.58
1:A:266:A:H2'	1:A:267:C:C5	2.38	0.58
1:A:32:U:O2'	1:A:33:A:N3	2.33	0.58
1:A:381:C:HO2'	1:A:416:C:H41	1.50	0.58
19:E:161:ILE:HB	19:E:169:THR:O	2.04	0.58
25:F:115:ILE:HB	25:F:276:VAL:HB	1.86	0.58
27:H:147:ASN:HA	27:H:150:TYR:HD2	1.68	0.58
1:A:986:U:O4	7:O:17:MET:HE3	2.04	0.58
14:V:113:GLN:HG2	14:V:113:GLN:O	2.04	0.58
1:A:128:U:H2'	1:A:129:U:O4'	2.03	0.58
1:A:1334:U:O2'	1:A:1335:C:OP1	2.21	0.58
1:A:133:A:C2'	1:A:134:A:C8	2.86	0.58
1:A:1502:A:N3	1:A:1502:A:H2'	2.19	0.58
1:A:2340:G:H8	1:A:2340:G:O5'	1.86	0.58
1:A:2643:C:H2'	1:A:2644:G:C8	2.39	0.58
1:A:269:G:O5'	1:A:269:G:H8	1.86	0.58
1:A:611:C:O2'	1:A:612:U:H5'	2.04	0.58
1:A:71:A:C2	18:Z:117:THR:CG2	2.87	0.58
3:B:11:U:H6	3:B:11:U:O5'	1.86	0.58
3:B:89:A:H8	3:B:89:A:O5'	1.87	0.58
3:B:92:U:O2'	3:B:93:C:H5'	2.04	0.58
25:F:159:LYS:HD3	25:F:159:LYS:C	2.24	0.58
25:F:199:ILE:HG12	25:F:261:ILE:HG22	1.85	0.58
1:A:2763:C:O2'	28:I:182:GLY:HA3	2.03	0.58
4:L:155:VAL:HG11	4:L:200:ILE:HD13	1.86	0.58
1:A:1056:A:H2'	1:A:1057:A:C8	2.39	0.57
1:A:1078:A:H3'	1:A:1079:G:C8	2.39	0.57
1:A:1087:G:H1	1:A:1107:C:H42	1.51	0.57
1:A:1472:A:N7	1:A:1479:U:O4	2.37	0.57
1:A:1519:A:C2	1:A:1520:A:C8	2.91	0.57
1:A:1623:A:H2'	1:A:1624:C:C6	2.39	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:47:G:N1	1:A:162:A:OP2	2.37	0.57
1:A:19:U:H2'	1:A:20:A:H8	1.68	0.57
1:A:2129:G:O2'	1:A:2131:U:C5	2.55	0.57
1:A:2192:U:H4'	1:A:2193:C:OP1	2.04	0.57
1:A:267:C:O2'	1:A:268:G:H5'	2.04	0.57
1:A:2662:C:H4'	1:A:2750:G:H2'	1.86	0.57
1:A:554:G:N3	1:A:554:G:H5''	2.19	0.57
2:C:32:C:H1'	2:C:33:A:P	2.44	0.57
2:C:38:G:OP2	25:F:144:LEU:CD2	2.46	0.57
1:A:2647:A:O4'	2:C:98:G:H1'	2.03	0.57
12:T:143:TYR:HD1	12:T:216:ILE:HD12	1.69	0.57
1:A:1159:G:O6	1:A:2038:U:O2'	2.22	0.57
1:A:1236:A:N6	1:A:1253:G:C6	2.69	0.57
1:A:823:C:C2	1:A:1271:G:N1	2.72	0.57
1:A:158:C:H41	1:A:159:A:N6	2.01	0.57
1:A:1810:C:H5'	19:E:142:ILE:CD1	2.34	0.57
1:A:2219:U:C6	1:A:2220:G:H5'	2.39	0.57
25:F:200:SER:HB2	25:F:291:ARG:HB2	1.84	0.57
5:M:65:THR:HA	5:M:82:ASN:HD22	1.68	0.57
6:N:162:LEU:O	6:N:166:GLU:HG2	2.05	0.57
1:A:1361:U:O4	14:V:168:PRO:CD	2.52	0.57
1:A:1267:A:H2'	1:A:1268:A:O4'	2.03	0.57
1:A:137:U:H3	1:A:157:G:H1	0.62	0.57
1:A:143:G:H2'	1:A:144:A:C5'	2.27	0.57
1:A:150:U:H3'	1:A:151:G:C8	2.39	0.57
1:A:1809:G:N2	1:A:1828:U:O2'	2.37	0.57
1:A:2151:G:C5	1:A:2152:C:C5	2.92	0.57
1:A:2206:A:H2'	1:A:2207:A:H8	1.62	0.57
1:A:554:G:H4'	1:A:554:G:OP1	2.03	0.57
9:Q:77:ARG:HG2	9:Q:146:TYR:CE2	2.39	0.57
18:Z:118:VAL:HG11	18:Z:122:ARG:NH2	2.18	0.57
1:A:1233:G:O2'	1:A:1258:A:N1	2.37	0.57
1:A:143:G:H1'	1:A:2224:G:H1'	1.86	0.57
1:A:1516:G:H2'	1:A:1517:G:C4'	2.34	0.57
1:A:1553:U:H2'	1:A:1554:C:C6	2.40	0.57
1:A:2344:A:H2'	1:A:2345:A:C8	2.39	0.57
1:A:320:U:H1'	1:A:341:A:C8	2.39	0.57
1:A:822:U:C6	1:A:1272:A:C4	2.92	0.57
1:A:830:A:OP2	1:A:1208:G:N2	2.23	0.57
1:A:864:U:H2'	1:A:865:A:H8	1.70	0.57
1:A:920:A:N7	7:O:9:PHE:CD2	2.72	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:938:G:C2'	1:A:939:A:H5'	2.34	0.57
3:B:34:C:N3	3:B:52:G:C2	2.72	0.57
1:A:1853:C:OP1	19:E:253:ARG:NH1	2.38	0.57
26:G:129:GLN:CG	26:G:134:ARG:NH2	2.67	0.57
2:C:74:C:H4'	8:P:75:GLN:HE22	1.69	0.57
1:A:2351:G:H4'	9:Q:57:HIS:NE2	2.19	0.57
15:W:67:ARG:HD3	15:W:131:SER:HB3	1.87	0.57
1:A:1017:G:O2'	1:A:1018:A:O5'	2.21	0.57
1:A:130:U:H5''	1:A:130:U:O2	2.04	0.57
1:A:1830:U:C2	19:E:197:ASN:CG	2.78	0.57
1:A:2475:G:H1'	1:A:2476:A:N7	2.19	0.57
1:A:336:G:H2'	1:A:337:U:H5'	1.85	0.57
1:A:274:G:O6	1:A:433:C:H6	1.62	0.57
1:A:893:C:H2'	1:A:894:G:H1'	1.86	0.57
4:L:118:ASP:OD1	4:L:157:ASN:ND2	2.35	0.57
10:R:159:LYS:H	10:R:161:ARG:NH1	2.02	0.57
16:X:75:GLN:CD	16:X:76:ARG:H	2.08	0.57
1:A:1291:C:H5''	1:A:1292:G:H5'	1.87	0.57
1:A:1533:A:H2'	1:A:1534:A:C4	2.39	0.57
1:A:1529:A:C6	1:A:1537:U:N3	2.69	0.57
1:A:1545:G:H2'	1:A:1546:C:C6	2.33	0.57
1:A:2328:A:O4'	27:H:127:ILE:HD12	1.98	0.57
1:A:42:G:O6	1:A:43:A:N6	2.38	0.57
1:A:912:C:C2	1:A:913:G:N7	2.72	0.57
3:B:88:G:N2	3:B:92:U:C2	2.73	0.57
2:C:72:A:H2'	2:C:73:G:C5'	2.32	0.57
6:N:82:LEU:CD2	26:G:240:LEU:CD2	2.81	0.57
28:I:127:LEU:HB2	28:I:171:VAL:HB	1.85	0.57
1:A:1495:C:C5	1:A:1548:A:N6	2.73	0.57
1:A:47:G:C2	1:A:162:A:OP2	2.58	0.57
1:A:1754:A:N7	1:A:1755:A:C5	2.72	0.57
1:A:2201:G:C2	1:A:2202:C:C4	2.93	0.57
1:A:2205:G:C6	1:A:2206:A:N6	2.73	0.57
1:A:2223:A:H2'	1:A:2224:G:N7	2.20	0.57
1:A:297:U:H6	1:A:297:U:O5'	1.87	0.57
1:A:302:C:C2'	1:A:303:U:H5'	2.35	0.57
1:A:308:G:N2	1:A:350:G:O6	2.38	0.57
1:A:611:C:H2'	1:A:612:U:C6	2.40	0.57
1:A:622:G:H1'	1:A:628:A:N6	2.16	0.57
1:A:671:C:C2'	1:A:672:U:H5'	2.33	0.57
3:B:52:G:OP1	9:Q:112:SER:OG	2.20	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:89:A:N6	3:B:90:G:C6	2.73	0.57
6:N:205:GLU:OE2	6:N:224:LYS:CD	2.50	0.57
11:S:91:LEU:HD21	12:T:175:PRO:HG3	1.85	0.57
12:T:228:GLU:O	12:T:231:PRO:HD3	2.04	0.57
1:A:1497:A:H61	1:A:1547:C:H42	1.52	0.57
1:A:1882:U:C6	1:A:1883:G:N7	2.73	0.57
1:A:2150:G:C2	1:A:2151:G:C2	2.93	0.57
1:A:2215:C:H2'	1:A:2216:U:C6	2.40	0.57
1:A:2642:G:H2'	1:A:2643:C:C6	2.40	0.57
1:A:291:G:N2	1:A:292:C:C2	2.73	0.57
1:A:612:U:H2'	1:A:613:U:H5''	1.86	0.57
1:A:629:C:OP1	26:G:158:ARG:CZ	2.52	0.57
3:B:39:C:H42	3:B:45:G:H1	1.46	0.57
3:B:91:G:H8	3:B:91:G:O5'	1.88	0.57
2:C:75:U:H3'	2:C:76:G:C5'	2.33	0.57
19:E:116:THR:HA	19:E:127:PRO:HD2	1.86	0.57
19:E:83:ARG:HG3	19:E:84:ASN:H	1.68	0.57
1:A:1540:C:O2'	1:A:1541:U:H5'	2.04	0.57
1:A:2214:C:H2'	1:A:2215:C:C6	2.39	0.57
1:A:2475:G:N2	1:A:2475:G:OP2	2.36	0.57
1:A:589:G:H2'	1:A:590:C:C6	2.40	0.57
1:A:71:A:C8	18:Z:116:LEU:CD1	2.88	0.57
1:A:860:C:H6	1:A:860:C:O5'	1.88	0.57
1:A:874:G:H2'	1:A:875:C:C6	2.40	0.57
1:A:964:C:C4	1:A:965:G:N7	2.73	0.57
3:B:69:C:C5	3:B:70:G:N7	2.73	0.57
2:C:33:A:H1'	2:C:34:U:P	2.45	0.57
2:C:79:G:HO2'	10:R:121:ASP:CG	2.07	0.57
26:G:206:LEU:O	26:G:245:LEU:HA	2.05	0.57
27:H:120:LYS:HB2	27:H:137:THR:HG21	1.87	0.57
6:N:201:LEU:C	6:N:221:ALA:CB	2.73	0.57
18:Z:150:PRO:O	18:Z:152:LEU:HD12	2.05	0.57
18:Z:72:THR:OG1	18:Z:75:GLN:OE1	2.22	0.57
1:A:1531:A:H4'	1:A:1532:G:OP1	2.05	0.57
1:A:1650:A:P	1:A:1650:A:C8	2.94	0.57
1:A:2078:C:O2'	1:A:2268:G:N2	2.37	0.57
1:A:410:G:C2	1:A:411:U:N3	2.72	0.57
1:A:899:A:HO2'	1:A:900:G:C5'	2.18	0.57
1:A:899:A:H1'	1:A:900:G:P	2.44	0.57
1:A:934:A:H1'	1:A:935:U:P	2.45	0.57
1:A:949:A:N6	1:A:950:A:C2	2.73	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:951:C:C4	1:A:952:A:N6	2.73	0.57
3:B:43:C:H2'	3:B:44:C:H6	1.70	0.57
2:C:104:A:C2	2:C:105:A:N7	2.73	0.57
19:E:237:ILE:CD1	19:E:239:ARG:H	2.18	0.57
19:E:75:VAL:O	19:E:76:THR:OG1	2.21	0.57
6:N:175:GLU:OE2	6:N:175:GLU:HA	2.05	0.57
6:N:237:GLY:O	6:N:238:ARG:HG3	2.05	0.57
12:T:123:ILE:HG12	12:T:224:ILE:HD12	1.87	0.57
17:Y:126:LEU:O	17:Y:129:ILE:HG13	2.05	0.57
18:Z:120:ARG:HG2	18:Z:120:ARG:HH11	1.68	0.57
1:A:1622:A:H2'	1:A:1623:A:C8	2.40	0.56
1:A:2107:G:N2	1:A:2108:G:C5	2.73	0.56
1:A:2119(A):U:OP1	1:A:2119(A):U:H4'	2.05	0.56
1:A:2137:G:C2	1:A:2190:A:N1	2.73	0.56
1:A:2215:C:HO2'	1:A:2216:U:H5'	1.70	0.56
1:A:2261:U:O2'	1:A:2262:U:OP1	2.23	0.56
1:A:253:C:N3	1:A:437:G:N1	2.52	0.56
1:A:257:A:C8	1:A:258:C:N4	2.73	0.56
1:A:882:U:C4	1:A:883:C:N4	2.73	0.56
1:A:897:A:H8	1:A:897:A:OP2	1.88	0.56
3:B:38:C:C5	3:B:39:C:C2	2.93	0.56
26:G:93:GLN:NE2	26:G:150:ILE:HD11	2.20	0.56
1:A:1307:A:C6	1:A:1350:U:C4	2.93	0.56
1:A:2231:C:H3'	1:A:2232:G:C8	2.40	0.56
1:A:356:A:O2'	1:A:357:G:H5'	2.05	0.56
1:A:389:A:C2	1:A:390:U:C2	2.92	0.56
1:A:668:U:H2'	1:A:669:C:C5	2.39	0.56
1:A:725:U:O2'	1:A:727:A:N7	2.34	0.56
1:A:822:U:H5	1:A:1272:A:C6	2.23	0.56
1:A:910:A:H8	1:A:910:A:O5'	1.88	0.56
3:B:6:U:O5'	3:B:6:U:H6	1.88	0.56
5:M:53:GLU:OE1	5:M:53:GLU:N	2.38	0.56
11:S:111:ILE:HD13	12:T:172:ILE:HG12	1.85	0.56
12:T:181:ALA:HB3	12:T:225:THR:HG22	1.85	0.56
1:A:1002:G:C5'	12:T:201:LYS:HZ3	2.09	0.56
1:A:1394:A:H5'	1:A:2230:A:C2'	2.35	0.56
1:A:2194:U:P	1:A:2195:G:OP2	2.63	0.56
1:A:2215:C:N3	1:A:2240:G:C2	2.73	0.56
1:A:332:G:H5'	1:A:333:A:OP1	2.06	0.56
1:A:274:G:N3	1:A:433:C:H5	2.00	0.56
1:A:887:G:H2'	1:A:888:C:C6	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:911:U:H2'	1:A:912:C:H6	1.65	0.56
3:B:4:U:C5	3:B:5:C:N4	2.73	0.56
2:C:32:C:O2'	2:C:33:A:O5'	2.22	0.56
26:G:255:LEU:HD12	26:G:259:TYR:CD2	2.40	0.56
28:I:82:VAL:HA	28:I:92:VAL:HA	1.87	0.56
1:A:60:U:HO2'	18:Z:94:ARG:NH1	2.00	0.56
1:A:1134:G:O5'	1:A:1134:G:H8	1.88	0.56
1:A:1481:U:C4	1:A:1482:C:N4	2.73	0.56
1:A:151:G:N3	1:A:152:G:C8	2.73	0.56
1:A:1524:G:N2	1:A:1525:G:C2	2.74	0.56
1:A:2107:G:N7	1:A:2242:A:C8	2.73	0.56
1:A:2224:G:C5'	1:A:2225:G:H5''	2.34	0.56
1:A:2338:G:N2	1:A:2339:A:C8	2.73	0.56
1:A:2563:U:O2'	1:A:2583:A:O2'	2.19	0.56
1:A:2645:U:H3'	1:A:2646:U:C5'	2.36	0.56
1:A:431:U:C2'	1:A:432:G:H5'	2.35	0.56
1:A:489:A:H2'	1:A:490:A:C8	2.41	0.56
1:A:627:C:H4'	1:A:628:A:OP1	2.05	0.56
1:A:81:G:O2'	1:A:82:G:OP1	2.20	0.56
1:A:840:A:N7	1:A:2264:U:O2'	2.38	0.56
6:N:144:ARG:N	6:N:146:ILE:HD11	2.20	0.56
9:Q:138:LYS:HA	9:Q:165:VAL:O	2.06	0.56
12:T:172:ILE:N	12:T:172:ILE:HD12	2.20	0.56
14:V:144:LYS:NZ	14:V:162:VAL:O	2.36	0.56
16:X:127:LYS:HB3	16:X:129:GLY:O	2.05	0.56
1:A:1238:G:H2'	1:A:1239:C:H5	1.69	0.56
1:A:2227:C:C6	1:A:2228:C:C5	2.94	0.56
1:A:668:U:C4	1:A:669:C:N4	2.73	0.56
28:I:132:VAL:O	28:I:134:TYR:N	2.29	0.56
4:L:239:LEU:HD22	4:L:240:PRO:HD2	1.88	0.56
10:R:138:ARG:NH1	10:R:199:TYR:HA	2.20	0.56
12:T:116:PRO:N	12:T:117:PRO:HD3	2.21	0.56
16:X:125:PHE:CD1	16:X:135:VAL:HG22	2.41	0.56
16:X:163:GLU:HA	16:X:163:GLU:OE1	2.06	0.56
1:A:120:G:H2'	1:A:121:G:C8	2.41	0.56
1:A:1501:G:C1'	1:A:1502:A:P	2.94	0.56
1:A:1504:C:C4	1:A:1505:C:N4	2.73	0.56
1:A:151:G:H2'	1:A:152:G:C8	2.29	0.56
1:A:165:C:H5''	1:A:166:A:OP1	2.05	0.56
1:A:1754:A:N7	1:A:1755:A:C8	2.70	0.56
1:A:1873:G:C2'	1:A:1874:U:H5'	2.36	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:219:U:H5	1:A:442:A:N1	2.04	0.56
1:A:2608:C:H2'	1:A:2609:G:H8	1.68	0.56
1:A:289:A:H2	1:A:369:U:H1'	1.70	0.56
1:A:823:C:O2	1:A:1271:G:C2	2.58	0.56
3:B:14:U:H5'	3:B:15:A:N7	2.21	0.56
3:B:41:U:O2'	3:B:46:A:N1	2.39	0.56
19:E:176:GLU:CG	19:E:267:ILE:O	2.53	0.56
19:E:258:ARG:NE	19:E:258:ARG:HA	2.20	0.56
26:G:95:LYS:O	26:G:96:ARG:O	2.23	0.56
4:L:152:PHE:HE1	4:L:220:HIS:CD2	2.23	0.56
6:N:97:ARG:HH11	6:N:100:ARG:NE	2.04	0.56
6:N:129:PHE:CE2	6:N:131:GLY:CA	2.85	0.56
6:N:210:LEU:O	6:N:230:CYS:HB2	2.05	0.56
6:N:84:ASN:HD22	6:N:85:LEU:H	1.53	0.56
15:W:65:HIS:O	15:W:66:LYS:HB2	2.04	0.56
1:A:1064:A:H3'	1:A:1065:G:H5''	1.86	0.56
1:A:1353:A:H2	1:A:1645:A:HO2'	1.53	0.56
1:A:1475:U:C2'	8:P:70:LEU:HD13	2.35	0.56
1:A:166:A:OP2	1:A:167:A:OP2	2.24	0.56
1:A:2201:G:C2	1:A:2202:C:N4	2.73	0.56
1:A:2318:C:H2'	1:A:2319:C:C5	2.41	0.56
1:A:288:C:H2'	1:A:289:A:C8	2.37	0.56
1:A:548:G:O2'	1:A:549:A:H8	1.88	0.56
1:A:609:G:OP1	26:G:79:LYS:HE3	2.05	0.56
8:P:35:THR:HG21	8:P:79:PHE:HE2	1.70	0.56
12:T:128:VAL:O	12:T:129:ILE:HD13	2.05	0.56
15:W:143:VAL:HG21	15:W:163:LYS:HZ3	1.70	0.56
1:A:1079:G:C6	1:A:1080:C:N4	2.73	0.56
1:A:1522:A:C4	1:A:1523:A:N7	2.74	0.56
1:A:1649:G:H3'	1:A:1650:A:C5'	2.35	0.56
1:A:2109:C:C4	1:A:2110:U:C4	2.93	0.56
1:A:614:G:N1	1:A:637:G:C6	2.73	0.56
1:A:669:C:HO2'	1:A:670:A:H5'	1.71	0.56
1:A:859:A:C6	1:A:860:C:C4	2.94	0.56
3:B:118:G:H4'	3:B:119:G:OP1	2.04	0.56
4:L:100:TRP:CE3	4:L:101:TYR:CB	2.86	0.56
4:L:115:TYR:HB3	4:L:239:LEU:HB2	1.88	0.56
4:L:171:LYS:NZ	4:L:173:TYR:CZ	2.73	0.56
6:N:165:ILE:CD1	6:N:207:SER:OG	2.51	0.56
1:A:986:U:O4	7:O:17:MET:CE	2.54	0.56
1:A:988:A:N6	7:O:82:ARG:NH1	2.53	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:T:154:ASP:HB3	12:T:186:VAL:HB	1.88	0.56
12:T:91:ASP:HB2	13:U:142:PHE:CE1	2.41	0.56
1:A:1287:G:HO2'	1:A:1288:U:P	2.29	0.56
1:A:1336:C:H2'	1:A:1337:U:H6	1.71	0.56
1:A:151:G:C2'	1:A:152:G:H5'	2.36	0.56
1:A:1542:C:H4'	1:A:1543:G:H5'	1.88	0.56
3:B:110:C:H4'	3:B:111:G:OP2	2.06	0.56
3:B:7:G:C1'	3:B:8:G:OP1	2.53	0.56
2:C:13:G:OP1	8:P:48:ARG:NH1	2.39	0.56
2:C:26:G:H8	2:C:87:A:C2	2.24	0.56
2:C:40:U:C2'	2:C:41:A:H8	2.12	0.56
25:F:117:PHE:N	25:F:117:PHE:CD2	2.73	0.56
25:F:272:ASP:OD1	25:F:273:LEU:N	2.38	0.56
29:J:74:LEU:HA	29:J:78:LEU:HB2	1.88	0.56
1:A:2212:A:N3	29:J:76:ASN:HB2	2.20	0.56
6:N:189:PRO:O	6:N:193:GLU:HG2	2.05	0.56
1:A:140:G:C2'	1:A:141:C:H5'	2.36	0.56
1:A:1745:C:C4	1:A:1746:C:C4	2.90	0.56
1:A:1954:U:H5'	1:A:1955:C:OP1	2.05	0.56
3:B:25:G:C6	3:B:57:U:C2	2.94	0.56
2:C:103:G:H2'	2:C:104:A:C8	2.34	0.56
26:G:129:GLN:CG	26:G:134:ARG:HH21	2.19	0.56
26:G:230:THR:HG23	26:G:233:SER:H	1.70	0.56
1:A:643:A:OP1	6:N:144:ARG:CD	2.53	0.56
6:N:154:LEU:O	6:N:155:PRO:C	2.44	0.56
1:A:1475:U:C4'	8:P:73:ARG:NH2	2.69	0.56
1:A:185:U:H4'	17:Y:92:ASN:O	2.06	0.56
1:A:1307:A:N1	1:A:1350:U:C4	2.74	0.56
1:A:133:A:C8	1:A:134:A:N7	2.73	0.56
1:A:2129:G:HO2'	1:A:2180:G:N2	2.02	0.56
1:A:2213:A:H2'	1:A:2213:A:N3	2.20	0.56
1:A:2107:G:C5	1:A:2242:A:N7	2.74	0.56
1:A:2730:A:H2'	1:A:2731:C:H5''	1.86	0.56
1:A:287:A:N3	1:A:288:C:C2	2.74	0.56
1:A:351:C:H6	1:A:351:C:O5'	1.89	0.56
1:A:702:C:OP1	19:E:213:ARG:NH1	2.37	0.56
1:A:823:C:O2	1:A:1271:G:N1	2.39	0.56
1:A:878:U:C2'	1:A:879:G:H5'	2.35	0.56
3:B:7:G:C6	3:B:117:A:H2	2.24	0.56
26:G:146:ARG:HG3	26:G:148:TRP:CZ3	2.41	0.56
26:G:260:GLY:O	26:G:261:VAL:HG22	2.06	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:50:ARG:O	11:S:53:GLN:HG2	2.05	0.56
18:Z:118:VAL:HG13	18:Z:122:ARG:HH21	1.67	0.56
1:A:1161:A:C1'	1:A:1162:C:P	2.94	0.55
1:A:1500:U:H6	1:A:1500:U:H3'	1.72	0.55
1:A:158:C:N4	1:A:159:A:H62	2.02	0.55
1:A:143:G:N2	1:A:2224:G:C6	2.74	0.55
1:A:2238:A:C2	1:A:2239:G:N7	2.74	0.55
1:A:2421:C:C2	1:A:2431:G:N2	2.74	0.55
1:A:913:G:C6	1:A:914:A:N6	2.74	0.55
3:B:7:G:H1'	3:B:8:G:OP1	2.05	0.55
5:M:112:LYS:HE3	5:M:116:LEU:HD11	1.88	0.55
6:N:189:PRO:CB	6:N:196:LEU:HD21	2.36	0.55
13:U:105:VAL:O	13:U:106:ASN:ND2	2.38	0.55
1:A:337:U:H4'	15:W:130:HIS:CD2	2.41	0.55
16:X:73:LYS:HD3	16:X:73:LYS:N	2.21	0.55
1:A:1248:G:OP1	11:S:13:ARG:CZ	2.54	0.55
1:A:1308:A:OP1	8:P:114:ARG:O	2.24	0.55
1:A:137:U:H3	1:A:157:G:N2	2.04	0.55
1:A:160:A:P	1:A:160:A:H8	2.29	0.55
1:A:1673:A:H2'	1:A:1674:C:C6	2.41	0.55
1:A:937:U:H2'	1:A:937:U:O2	2.06	0.55
16:X:159:ARG:HA	16:X:162:ARG:HG2	1.88	0.55
1:A:2199:G:OP2	1:A:2199:G:H8	1.89	0.55
1:A:364:U:H2'	1:A:365:A:H8	1.72	0.55
1:A:682:C:H2'	1:A:683:C:H6	1.71	0.55
1:A:857:G:O6	16:X:154:LYS:HD2	2.07	0.55
3:B:31:C:C2	3:B:32:A:N7	2.74	0.55
2:C:105:A:H2'	2:C:106:C:C6	2.42	0.55
2:C:29:U:C1'	2:C:30:A:P	2.94	0.55
1:A:2653:U:C5'	25:F:170:GLU:OE2	2.52	0.55
1:A:2579:U:O2	5:M:23:ARG:CZ	2.54	0.55
5:M:25:ILE:HB	5:M:38:VAL:HG23	1.88	0.55
7:O:57:ASN:HD22	7:O:120:ILE:HD12	1.69	0.55
10:R:214:VAL:HG11	10:R:219:LEU:HD11	1.87	0.55
14:V:109:LEU:CD1	14:V:141:ARG:HB2	2.37	0.55
1:A:1099:G:H1'	1:A:1117:G:H2'	1.89	0.55
1:A:1318:C:O2'	1:A:1323:A:N1	2.40	0.55
1:A:1521:G:N2	1:A:1544:A:C2	2.73	0.55
1:A:1596:U:H2'	1:A:1597:C:C5'	2.33	0.55
1:A:1745:C:C2'	1:A:1746:C:H5'	2.36	0.55
1:A:1749:U:H3	1:A:1756:G:N2	2.04	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1750:C:H42	1:A:1755:A:N6	2.04	0.55
1:A:2113:G:H1	1:A:2204:A:H61	1.54	0.55
1:A:2123:U:O2	1:A:2195:G:N2	2.39	0.55
1:A:2212:A:H4'	1:A:2213:A:OP1	2.06	0.55
1:A:2233:G:N1	1:A:2234:G:C6	2.75	0.55
1:A:628:A:H2'	1:A:629:C:C6	2.40	0.55
1:A:950:A:C5	1:A:951:C:N3	2.75	0.55
3:B:7:G:H1'	3:B:8:G:P	2.47	0.55
2:C:52:G:H8	10:R:217:ALA:HB2	1.72	0.55
2:C:75:U:O2	2:C:75:U:H2'	2.07	0.55
2:C:80:C:H6	2:C:80:C:O5'	1.90	0.55
10:R:123:MET:CE	25:F:98:GLY:CA	2.84	0.55
26:G:73:LYS:HB2	26:G:261:VAL:O	2.06	0.55
1:A:1886:A:N6	6:N:252:ARG:NH2	2.53	0.55
2:C:52:G:C8	10:R:217:ALA:HB2	2.42	0.55
12:T:188:GLU:OE2	12:T:218:ARG:NH1	2.40	0.55
1:A:101:A:C2'	1:A:102:U:H5'	2.35	0.55
1:A:1036:U:O2'	1:A:1037:A:O5'	2.18	0.55
1:A:150:U:H2'	1:A:150:U:O2	2.07	0.55
1:A:2187:A:O2'	1:A:2188:C:H5'	2.06	0.55
1:A:2227:C:C5	1:A:2228:C:N4	2.74	0.55
1:A:256:A:H4'	1:A:256:A:OP1	2.05	0.55
1:A:259:C:O5'	1:A:259:C:H6	1.89	0.55
1:A:261:U:C2'	1:A:262:G:H5'	2.36	0.55
1:A:2736:G:OP1	10:R:220:TYR:HD2	1.88	0.55
1:A:434:A:C6	1:A:435:A:C6	2.94	0.55
1:A:606:A:H2'	1:A:607:G:H8	1.72	0.55
1:A:806:C:H2'	1:A:807:C:C6	2.42	0.55
1:A:910:A:H2'	1:A:911:U:C6	2.42	0.55
3:B:68:G:N2	3:B:69:C:C2	2.73	0.55
19:E:264:ASN:C	19:E:264:ASN:HD22	2.10	0.55
26:G:249:GLU:N	26:G:249:GLU:OE1	2.39	0.55
27:H:87:ILE:HG22	27:H:209:ILE:HG12	1.89	0.55
28:I:134:TYR:HA	28:I:146:SER:O	2.06	0.55
28:I:48:ILE:O	28:I:89:PHE:HA	2.06	0.55
1:A:816:G:H1'	6:N:117:GLN:HE21	1.70	0.55
6:N:178:LEU:HD11	6:N:196:LEU:HD13	1.88	0.55
7:O:125:MET:HG3	7:O:126:PRO:HD2	1.88	0.55
10:R:154:GLU:HB2	10:R:204:LYS:HD3	1.89	0.55
12:T:156:ILE:HB	12:T:184:ALA:HB3	1.87	0.55
14:V:145:LYS:HD3	14:V:148:ARG:HH11	1.70	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1836:C:H5'	19:E:219:VAL:CG2	2.35	0.55
1:A:2227:C:H2'	1:A:2228:C:C6	2.41	0.55
1:A:2807:C:H4'	1:A:2807:C:OP1	2.07	0.55
1:A:284:A:C1'	1:A:285:A:P	2.94	0.55
1:A:348:U:H2'	1:A:348:U:O2	2.06	0.55
1:A:863:C:O2'	1:A:864:U:H5'	2.07	0.55
1:A:891:G:N2	1:A:892:C:C2	2.75	0.55
10:R:137:LEU:HD12	10:R:137:LEU:C	2.26	0.55
1:A:103:C:H2'	1:A:104:C:C6	2.42	0.55
1:A:1468:C:O2'	1:A:1578:A:N3	2.31	0.55
1:A:1651:C:H4'	1:A:1652:A:OP1	2.04	0.55
1:A:1822:A:C6	1:A:1823:C:N4	2.75	0.55
1:A:2647:A:N7	2:C:98:G:C6	2.75	0.55
1:A:416:C:O2	1:A:418:G:C2	2.59	0.55
1:A:504:G:C5'	13:U:37:TYR:CD1	2.90	0.55
1:A:670:A:H2'	1:A:671:C:C5	2.41	0.55
2:C:103:G:C2	2:C:104:A:C8	2.94	0.55
1:A:2331:G:C2	27:H:182:SER:OG	2.58	0.55
27:H:58:LYS:O	27:H:61:TYR:HB3	2.06	0.55
6:N:225:LEU:HD23	6:N:232:VAL:HG22	1.88	0.55
11:S:89:GLN:O	12:T:174:THR:HA	2.06	0.55
16:X:141:GLU:C	16:X:142:ILE:HG13	2.26	0.55
1:A:1169:A:H5'	4:L:245:ARG:CZ	2.37	0.55
1:A:2806:U:H4'	2:C:6:A:O4'	2.07	0.55
1:A:734:G:H2'	1:A:735:U:C6	2.42	0.55
26:G:129:GLN:HG2	26:G:134:ARG:HH21	1.72	0.55
1:A:2267:G:H1	7:O:82:ARG:NH2	2.04	0.55
7:O:89:SER:N	7:O:90:PRO:HD2	2.21	0.55
12:T:103:TYR:CD2	12:T:106:ILE:CD1	2.85	0.55
18:Z:137:ASP:OD1	18:Z:141:LYS:HG2	2.06	0.55
1:A:1020:C:H2'	1:A:1021:A:H8	1.72	0.55
1:A:1137:C:H3'	1:A:1138:G:H8	1.71	0.55
1:A:129:U:O2	1:A:129:U:H2'	2.07	0.55
1:A:1317:C:OP1	1:A:2726:G:O2'	2.20	0.55
1:A:140:G:C2	1:A:155:A:C2	2.95	0.55
1:A:1651:C:C6	13:U:116:PRO:HG2	2.41	0.55
1:A:1704:A:N3	1:A:1706:C:N4	2.55	0.55
1:A:1799:A:H2'	1:A:1800:C:O4'	2.07	0.55
1:A:2109:C:C6	1:A:2110:U:N1	2.75	0.55
1:A:2207:A:H8	1:A:2207:A:O5'	1.90	0.55
1:A:2267:G:N1	7:O:82:ARG:CZ	2.70	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:335:G:N2	1:A:345:C:O2	2.37	0.55
1:A:967:C:O5'	1:A:967:C:H6	1.90	0.55
19:E:39:ARG:HG3	19:E:40:ASN:CG	2.27	0.55
1:A:2229:U:O4	19:E:64:ARG:NH2	2.40	0.55
25:F:144:LEU:CD1	25:F:166:ARG:NH1	2.70	0.55
4:L:100:TRP:CE3	4:L:101:TYR:N	2.75	0.55
14:V:106:ARG:C	14:V:107:ARG:HG2	2.25	0.55
1:A:1536:A:C2	1:A:1537:U:C5	2.87	0.55
1:A:1650:A:O5'	1:A:1650:A:H8	1.89	0.55
1:A:1876:A:H5''	1:A:1877:C:OP2	2.06	0.55
1:A:1882:U:C6	1:A:1883:G:C8	2.95	0.55
1:A:2310:U:H5'	9:Q:143:ARG:HH11	1.71	0.55
1:A:2799:A:H5''	1:A:2800:G:H5'	1.87	0.55
1:A:274:G:C4	1:A:433:C:C5	2.95	0.55
1:A:458:G:H5''	1:A:459:A:OP1	2.07	0.55
1:A:871:A:H2'	1:A:872:A:O4'	2.07	0.55
2:C:26:G:C6	2:C:27:U:N3	2.75	0.55
2:C:28:U:H2'	2:C:28:U:O2	2.07	0.55
2:C:28:U:C1'	2:C:30:A:C8	2.86	0.55
26:G:152:MET:HB3	26:G:157:ARG:NH2	2.22	0.55
26:G:205:SER:OG	26:G:226:LEU:HB3	2.07	0.55
29:J:69:VAL:HG21	29:J:78:LEU:CD1	2.37	0.55
6:N:160:ILE:HG22	6:N:203:GLU:O	2.07	0.55
16:X:162:ARG:HD3	16:X:163:GLU:OE1	2.07	0.55
1:A:2278:C:N4	16:X:71:ASP:HB3	2.21	0.55
1:A:1443:G:H22	1:A:1610:C:H5	1.54	0.54
1:A:1878:C:N3	1:A:1887:G:N1	2.55	0.54
1:A:2212:A:H2'	1:A:2213:A:H8	1.71	0.54
1:A:42:G:H1	1:A:448:C:H42	1.54	0.54
1:A:208:A:C1'	1:A:433:C:O2'	2.53	0.54
1:A:626:C:C3'	1:A:627:C:H6	2.20	0.54
1:A:626:C:H2'	1:A:627:C:H6	1.72	0.54
2:C:78:G:C2	2:C:79:G:N7	2.75	0.54
4:L:172:LEU:HD23	4:L:185:GLU:CD	2.28	0.54
6:N:143:LEU:CD2	6:N:146:ILE:CG1	2.86	0.54
15:W:164:THR:CB	15:W:166:GLU:OE1	2.55	0.54
1:A:1161:A:N7	1:A:2040:U:H4'	2.21	0.54
1:A:1175:U:O2'	1:A:1176:C:H5'	2.07	0.54
1:A:175:A:OP2	1:A:190:G:N2	2.31	0.54
1:A:2003:A:O2'	1:A:2004:C:OP1	2.24	0.54
1:A:434:A:O5'	1:A:434:A:H8	1.90	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:901:C:H6	1:A:901:C:H3'	1.72	0.54
3:B:27:A:H2'	3:B:28:C:H6	1.72	0.54
3:B:47:A:H5'	3:B:48:C:OP2	2.06	0.54
6:N:97:ARG:NH1	6:N:100:ARG:HG3	2.22	0.54
11:S:43:LEU:HB3	12:T:198:PHE:HB3	1.89	0.54
16:X:143:GLN:C	16:X:145:GLU:N	2.60	0.54
14:V:118:PRO:HD2	18:Z:95:SER:OG	2.08	0.54
1:A:1036:U:HO2'	1:A:1037:A:P	2.30	0.54
1:A:1196:A:H61	1:A:1201:A:H61	0.66	0.54
1:A:1571:G:H5''	1:A:1572:G:C8	2.42	0.54
1:A:48:A:C2	1:A:162:A:N7	2.65	0.54
1:A:1748:C:H6	1:A:1748:C:H3'	1.72	0.54
1:A:1825:A:O2'	1:A:1826:U:H4'	2.08	0.54
1:A:143:G:N2	1:A:2223:A:C2	2.76	0.54
1:A:793:A:H4'	1:A:794:A:O5'	2.07	0.54
1:A:859:A:C5	1:A:860:C:C4	2.95	0.54
1:A:981:G:H2'	1:A:982:G:H5''	1.88	0.54
2:C:81:A:C2'	2:C:82:U:H5'	2.37	0.54
8:P:43:ARG:HA	8:P:123:ILE:O	2.07	0.54
11:S:91:LEU:HB2	12:T:175:PRO:HA	1.88	0.54
12:T:93:PHE:CD2	12:T:93:PHE:N	2.73	0.54
15:W:67:ARG:HB3	15:W:67:ARG:CZ	2.37	0.54
1:A:1361:U:C5	14:V:168:PRO:HD3	2.42	0.54
1:A:137:U:C4	1:A:157:G:N1	2.66	0.54
1:A:2190:A:H2'	1:A:2191:C:O4'	2.07	0.54
1:A:2647:A:C8	2:C:98:G:N3	2.76	0.54
1:A:2676:G:N2	1:A:2678:G:H3'	2.22	0.54
1:A:887:G:H22	1:A:909:A:H61	1.55	0.54
19:E:226:HIS:HE1	19:E:228:HIS:CD2	2.21	0.54
25:F:179:PHE:HA	25:F:184:LYS:NZ	2.23	0.54
26:G:86:ARG:NE	26:G:152:MET:HE1	2.21	0.54
26:G:251:THR:O	26:G:255:LEU:CB	2.56	0.54
6:N:154:LEU:N	6:N:155:PRO:HD2	2.00	0.54
6:N:165:ILE:CG1	6:N:207:SER:N	2.70	0.54
1:A:213:A:C3'	6:N:239:LYS:O	2.51	0.54
8:P:44:ILE:O	8:P:122:TYR:HA	2.08	0.54
13:U:168:ARG:O	13:U:169:ARG:HB2	2.06	0.54
17:Y:125:ALA:O	17:Y:129:ILE:HG23	2.07	0.54
1:A:103:C:HO2'	1:A:104:C:H5'	1.72	0.54
1:A:1504:C:O2'	1:A:1505:C:H5'	2.07	0.54
1:A:1515:G:H2'	1:A:1515:G:N3	2.22	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:153:G:N2	1:A:154:C:C2	2.75	0.54
1:A:1603:A:O2'	1:A:1604:A:O5'	2.23	0.54
1:A:1687:G:C6	1:A:1688:A:C2	2.96	0.54
1:A:2224:G:H5''	1:A:2225:G:H5'	1.86	0.54
1:A:27:A:H61	1:A:523:G:H1'	1.72	0.54
3:B:32:A:C5	3:B:55:G:C2	2.95	0.54
3:B:25:G:C5	3:B:57:U:N3	2.76	0.54
2:C:41:A:HO2'	2:C:42:G:H5'	1.72	0.54
6:N:157:TYR:HB2	6:N:196:LEU:CD2	2.38	0.54
6:N:200:ILE:HD12	6:N:217:PHE:CD1	2.42	0.54
12:T:174:THR:CG2	12:T:175:PRO:CD	2.85	0.54
12:T:156:ILE:HG13	12:T:186:VAL:HG23	1.90	0.54
1:A:504:G:C4'	13:U:37:TYR:HB2	2.23	0.54
13:U:84:ALA:HB1	13:U:95:LYS:HE3	1.88	0.54
15:W:70:LYS:O	15:W:89:ILE:CD1	2.52	0.54
16:X:133:LYS:CE	16:X:133:LYS:HA	2.32	0.54
16:X:123:VAL:HA	16:X:136:SER:O	2.06	0.54
16:X:66:THR:OG1	16:X:67:LYS:CE	2.54	0.54
1:A:1495:C:C4	1:A:1548:A:C6	2.96	0.54
1:A:169:C:H2'	1:A:170:U:H6	1.73	0.54
1:A:171:G:H2'	1:A:172:G:H8	1.72	0.54
1:A:2219:U:H1'	19:E:64:ARG:HH22	1.72	0.54
1:A:2242:A:O2'	1:A:2243:C:OP2	2.24	0.54
1:A:2320:G:H4'	27:H:175:PHE:CA	2.30	0.54
1:A:1980:A:H1'	1:A:2610:U:H5'	1.90	0.54
1:A:317:G:N2	1:A:489:A:N7	2.54	0.54
1:A:817:C:O3'	1:A:841:G:N2	2.40	0.54
1:A:822:U:C5	1:A:1272:A:C6	2.96	0.54
1:A:951:C:C2'	1:A:952:A:C8	2.87	0.54
6:N:82:LEU:CD2	26:G:240:LEU:HD22	2.36	0.54
27:H:123:ALA:HB3	27:H:135:GLY:H	1.73	0.54
27:H:89:VAL:HA	27:H:206:ASP:O	2.07	0.54
28:I:57:ALA:HB3	28:I:64:LYS:O	2.08	0.54
15:W:82:GLU:OE1	15:W:82:GLU:N	2.25	0.54
1:A:1056:A:H2'	1:A:1057:A:H8	1.72	0.54
1:A:1196:A:N6	1:A:1201:A:N6	2.21	0.54
1:A:1522:A:C6	1:A:1544:A:N3	2.73	0.54
1:A:1634:C:C5'	14:V:145:LYS:HZ3	2.21	0.54
1:A:2221:U:O2	1:A:2221:U:H2'	2.07	0.54
1:A:2393:A:C2	9:Q:166:PHE:HE2	2.25	0.54
1:A:2608:C:H2'	1:A:2609:G:C8	2.42	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:99:A:H2'	2:C:100:C:H5'	1.90	0.54
2:C:35:U:H2'	2:C:35:U:O2	2.07	0.54
1:A:2684:C:C6	28:I:150:SER:OG	2.60	0.54
4:L:116:VAL:HG23	4:L:236:PRO:HB2	1.90	0.54
4:L:172:LEU:HD21	4:L:185:GLU:OE2	2.06	0.54
6:N:99:GLY:HA2	6:N:107:GLY:HA2	1.90	0.54
12:T:141:TRP:HE3	12:T:218:ARG:HG2	1.73	0.54
1:A:1634:C:C5'	14:V:145:LYS:NZ	2.68	0.54
16:X:69:GLY:O	16:X:70:ARG:HB3	2.08	0.54
1:A:1534:A:C3'	1:A:1535:A:C5'	2.86	0.54
1:A:1830:U:H5'	1:A:1831:G:C8	2.42	0.54
1:A:1936:G:H2'	1:A:1937:U:C6	2.43	0.54
1:A:2636:G:H5''	25:F:246:LYS:HB3	1.90	0.54
1:A:2644:G:N2	1:A:2795:G:OP2	2.41	0.54
1:A:610:G:OP1	26:G:79:LYS:HG2	2.08	0.54
3:B:34:C:O5'	3:B:34:C:H6	1.91	0.54
2:C:88:C:C2'	2:C:89:A:H5'	2.38	0.54
28:I:43:ILE:HG22	28:I:43:ILE:O	2.07	0.54
4:L:204:VAL:HG21	4:L:221:LEU:HD22	1.89	0.54
6:N:172:GLU:HA	6:N:210:LEU:HD23	1.82	0.54
6:N:168:ALA:HB1	6:N:184:LYS:CE	2.38	0.54
15:W:170:THR:CB	15:W:171:PRO:CD	2.85	0.54
1:A:1432:U:H2'	1:A:1433:U:C6	2.43	0.54
1:A:1885:C:O2'	1:A:1886:A:O4'	2.21	0.54
1:A:2188:C:C2'	1:A:2189:C:H5'	2.38	0.54
1:A:410:G:C6	1:A:411:U:O4	2.61	0.54
1:A:635:C:OP2	6:N:190:SER:OG	2.18	0.54
1:A:910:A:HO2'	1:A:911:U:H5'	1.71	0.54
19:E:245:PRO:CG	19:E:246:TRP:CZ3	2.90	0.54
25:F:212:ILE:HG21	25:F:230:ARG:NH1	2.22	0.54
26:G:209:LEU:HD12	26:G:248:THR:HG21	1.89	0.54
28:I:55:ALA:HB3	28:I:66:LYS:HB2	1.89	0.54
10:R:135:GLU:O	10:R:138:ARG:O	2.25	0.54
11:S:8:TYR:HE1	11:S:12:ARG:NE	2.04	0.54
12:T:91:ASP:O	12:T:92:ASP:HB2	2.08	0.54
15:W:70:LYS:HE3	15:W:159:ARG:NE	2.23	0.54
1:A:152:G:N3	1:A:153:G:N7	2.52	0.54
1:A:1444:A:C2	1:A:1609:U:H5	2.26	0.54
1:A:1847:C:O2'	1:A:1941:A:H1'	2.08	0.54
1:A:242:A:H2	6:N:194:ARG:NH2	2.06	0.54
1:A:2504:A:H2'	1:A:2505:A:C8	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:268:G:N2	1:A:269:G:C2	2.76	0.54
1:A:671:C:O5'	1:A:671:C:H6	1.90	0.54
1:A:856:U:H6	1:A:962:G:H22	0.59	0.54
1:A:890:G:C4	1:A:891:G:N7	2.76	0.54
1:A:896:G:H21	1:A:897:A:H4'	1.71	0.54
3:B:38:C:C4	3:B:39:C:C2	2.96	0.54
2:C:28:U:HO2'	2:C:30:A:P	2.31	0.54
25:F:154:ARG:HG2	25:F:158:ASN:OD1	2.08	0.54
26:G:102:THR:HG21	26:G:142:GLY:HA3	1.90	0.54
1:A:2684:C:H6	28:I:150:SER:H	1.55	0.54
1:A:1160:A:OP1	4:L:183:LEU:HD22	2.08	0.53
1:A:1432:U:H2'	1:A:1433:U:H6	1.74	0.53
1:A:145:A:H3'	1:A:146:U:C5'	2.28	0.53
1:A:1691:A:O5'	1:A:1691:A:H8	1.91	0.53
1:A:16:G:O2'	11:S:25:ARG:HG3	2.07	0.53
1:A:1804:U:H2'	1:A:1805:C:H6	1.73	0.53
1:A:1829:A:C4'	1:A:1830:U:H5'	2.30	0.53
1:A:1876:A:H8	1:A:1876:A:O5'	1.91	0.53
1:A:2209:U:H2'	1:A:2210:C:C6	2.43	0.53
1:A:856:U:C4	1:A:962:G:O6	2.42	0.53
1:A:1827:G:H5"	19:E:83:ARG:HE	1.72	0.53
26:G:175:VAL:HG23	26:G:246:VAL:HG12	1.90	0.53
7:O:10:ARG:NH2	7:O:90:PRO:HD3	2.22	0.53
1:A:1081:C:C2	1:A:1135:A:N1	2.76	0.53
1:A:1534:A:H3'	1:A:1535:A:H5'	1.88	0.53
1:A:1393:U:HO2'	1:A:2230:A:H2'	1.67	0.53
1:A:2236:C:H6	1:A:2236:C:O5'	1.90	0.53
1:A:299:C:H2'	1:A:299:C:O2	2.08	0.53
1:A:367:C:O2	1:A:367:C:H2'	2.08	0.53
1:A:731:U:O4	1:A:732:A:N6	2.40	0.53
1:A:790:U:H2'	1:A:791:G:O4'	2.08	0.53
1:A:804:A:O2'	1:A:805:A:OP2	2.21	0.53
1:A:884:G:N1	1:A:913:G:C6	2.76	0.53
1:A:934:A:C1'	1:A:935:U:H5'	2.34	0.53
3:B:57:U:O2'	3:B:58:A:OP2	2.26	0.53
19:E:142:ILE:HG23	19:E:143:THR:HG22	1.88	0.53
19:E:237:ILE:HG13	19:E:239:ARG:H	1.72	0.53
19:E:67:GLU:O	19:E:114:SER:OG	2.27	0.53
25:F:96:LYS:NZ	25:F:284:GLY:O	2.40	0.53
27:H:122:LYS:HG3	27:H:135:GLY:O	2.08	0.53
27:H:90:ASN:O	27:H:205:MET:HA	2.07	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:I:76:TYR:CD1	28:I:108:PHE:CZ	2.96	0.53
6:N:213:LYS:O	6:N:235:LEU:HB2	2.07	0.53
16:X:122:LEU:CG	16:X:140:ARG:HB2	2.37	0.53
1:A:1003:A:H8	1:A:1003:A:OP2	1.91	0.53
1:A:1161:A:HI'	1:A:1162:C:OP2	2.09	0.53
1:A:1197:A:OP1	16:X:165:LYS:CG	2.57	0.53
1:A:1224:U:H3	1:A:1263:G:H1	1.57	0.53
1:A:1336:C:H2'	1:A:1337:U:C6	2.44	0.53
1:A:1522:A:C2	1:A:1523:A:N7	2.76	0.53
1:A:140:G:N1	1:A:155:A:C2	2.76	0.53
1:A:1603:A:H5'	19:E:55:LYS:HD2	1.88	0.53
1:A:199:G:H2'	1:A:200:G:C8	2.42	0.53
1:A:2205:G:C4	1:A:2206:A:N7	2.76	0.53
1:A:627:C:H2'	1:A:627:C:O2	2.08	0.53
1:A:6:A:O5'	1:A:6:A:H8	1.92	0.53
1:A:903:G:OP1	1:A:903:G:H4'	2.08	0.53
3:B:7:G:HI'	3:B:8:G:C5'	2.37	0.53
25:F:119:GLU:HG3	25:F:143:ARG:CB	2.38	0.53
28:I:48:ILE:O	28:I:89:PHE:HD1	1.86	0.53
4:L:175:ARG:NH2	4:L:184:LYS:HZ2	1.89	0.53
1:A:1200:A:H3'	1:A:1201:A:H8	1.73	0.53
1:A:1399:A:H2'	1:A:1401:G:N7	2.24	0.53
1:A:13:A:O2'	1:A:14:A:O4'	2.26	0.53
1:A:1519:A:N1	1:A:1520:A:N7	2.56	0.53
1:A:1546:C:H2'	1:A:1546:C:O2	2.08	0.53
1:A:2214:C:O5'	1:A:2214:C:H6	1.92	0.53
1:A:2336:U:H3'	1:A:2336:U:P	2.49	0.53
1:A:260:G:C6	1:A:268:G:C6	2.96	0.53
1:A:339:A:H4'	1:A:340:A:OP1	2.08	0.53
1:A:420:A:C2	1:A:432:G:C2	2.96	0.53
1:A:860:C:O2'	1:A:861:A:H5'	2.08	0.53
1:A:888:C:H2'	1:A:888:C:O2	2.08	0.53
3:B:13:C:HI'	3:B:111:G:H22	1.73	0.53
25:F:144:LEU:HD13	25:F:166:ARG:NH1	2.22	0.53
26:G:250:GLY:O	26:G:254:TYR:CB	2.56	0.53
28:I:42:ARG:O	28:I:43:ILE:HB	2.09	0.53
12:T:177:VAL:HG23	12:T:177:VAL:O	2.07	0.53
15:W:138:LEU:HG	15:W:140:GLU:H	1.74	0.53
1:A:2373:C:H4'	16:X:76:ARG:HD2	1.91	0.53
1:A:1066:G:N2	1:A:1146:U:O2	2.41	0.53
1:A:122:U:O2'	1:A:123:C:H5''	2.08	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1481:U:C5	1:A:1482:C:N4	2.76	0.53
1:A:1552:U:H2'	1:A:1553:U:H6	1.72	0.53
1:A:1454:G:H1	1:A:1594:A:H62	1.56	0.53
1:A:1966:A:OP2	5:M:55:SER:OG	2.16	0.53
1:A:2335:C:O3'	1:A:2336:U:H3'	2.09	0.53
1:A:2612:G:N2	1:A:2615:A:OP2	2.42	0.53
1:A:288:C:H6	1:A:288:C:O5'	1.91	0.53
1:A:297:U:H2'	1:A:298:G:H5'	1.89	0.53
1:A:98:G:C2	1:A:100:G:N2	2.77	0.53
10:R:203:ILE:HG13	10:R:203:ILE:O	2.08	0.53
14:V:144:LYS:O	14:V:148:ARG:HB3	2.08	0.53
1:A:411:U:OP2	17:Y:127:LYS:HE3	2.08	0.53
1:A:97:A:OP1	18:Z:63:ASP:HB3	2.08	0.53
18:Z:86:GLU:O	18:Z:90:LEU:HG	2.08	0.53
1:A:1145:C:H2'	1:A:1146:U:C6	2.42	0.53
1:A:121:G:O5'	1:A:121:G:H8	1.91	0.53
1:A:133:A:C5	1:A:134:A:C6	2.96	0.53
1:A:154:C:N4	1:A:155:A:C6	2.77	0.53
1:A:1881:A:N7	6:N:255:GLU:CD	2.62	0.53
1:A:2033:A:H3'	1:A:2034:C:H5''	1.89	0.53
1:A:2106:U:H4'	1:A:2107:G:O5'	2.07	0.53
1:A:2186:U:H4'	1:A:2187:A:H5'	1.90	0.53
1:A:426:C:O2'	1:A:1874:U:H1'	2.08	0.53
1:A:567:C:OP2	4:L:212:ARG:NH2	2.40	0.53
1:A:887:G:N2	1:A:909:A:C6	2.74	0.53
3:B:31:C:H2'	3:B:31:C:O2	2.08	0.53
3:B:66:C:H2'	3:B:66:C:O2	2.08	0.53
2:C:75:U:C3'	2:C:76:G:C5'	2.86	0.53
1:A:2647:A:C8	2:C:98:G:C6	2.97	0.53
25:F:119:GLU:HA	25:F:119:GLU:OE1	2.09	0.53
26:G:148:TRP:O	26:G:149:THR:OG1	2.25	0.53
1:A:843:C:C5'	6:N:125:ILE:HD11	2.38	0.53
10:R:144:ARG:O	10:R:145:THR:C	2.47	0.53
12:T:91:ASP:OD2	13:U:142:PHE:CZ	2.61	0.53
18:Z:123:GLU:HG2	18:Z:128:VAL:HG21	1.91	0.53
1:A:1334:U:OP2	1:A:1335:C:N4	2.38	0.53
1:A:1534:A:C2'	1:A:1535:A:C5'	2.86	0.53
1:A:153:G:H4'	1:A:154:C:OP1	2.09	0.53
1:A:2116:C:N4	1:A:2201:G:N2	2.52	0.53
1:A:2207:A:H2'	1:A:2208:U:N1	2.24	0.53
1:A:2475:G:O2'	1:A:2477:U:O4	2.26	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:44:G:C8	1:A:200:G:N9	2.77	0.53
1:A:613:U:H3'	1:A:613:U:H6	1.73	0.53
1:A:576:U:O2'	1:A:820:G:OP2	2.23	0.53
1:A:2647:A:C5	2:C:98:G:N1	2.77	0.53
4:L:224:TYR:OH	4:L:231:HIS:NE2	2.28	0.53
3:B:11:U:O4'	9:Q:92:MET:SD	2.67	0.53
1:A:1879:U:H2'	1:A:1880:G:N7	2.24	0.53
1:A:2207:A:H2'	1:A:2208:U:C2	2.44	0.53
1:A:2542:G:H1	1:A:2555:U:H3	1.57	0.53
1:A:2650:G:H1	1:A:2803:C:N4	2.05	0.53
1:A:884:G:C2	1:A:913:G:N1	2.77	0.53
1:A:937:U:C2'	1:A:938:G:C5'	2.87	0.53
3:B:118:G:O2'	3:B:119:G:H5'	2.09	0.53
3:B:5:C:N3	3:B:119:G:O6	2.42	0.53
3:B:7:G:N3	3:B:8:G:H5'	2.24	0.53
2:C:103:G:C4	2:C:104:A:C8	2.96	0.53
25:F:213:LYS:HE3	25:F:254:MET:HE3	1.90	0.53
1:A:822:U:H3	6:N:100:ARG:NH2	2.07	0.53
12:T:136:VAL:CG2	12:T:221:ILE:HG13	2.38	0.53
1:A:1197:A:OP1	16:X:165:LYS:CB	2.57	0.53
1:A:1496:A:N7	1:A:1497:A:C2	2.77	0.53
1:A:1596:U:C2'	1:A:1597:C:C5'	2.70	0.53
1:A:160:A:C2	1:A:161:G:C5	2.95	0.53
1:A:885:G:C5	1:A:886:U:C4	2.96	0.53
3:B:25:G:N7	3:B:57:U:C5	2.76	0.53
2:C:75:U:H2'	2:C:76:G:H5''	1.89	0.53
2:C:78:G:C2'	2:C:79:G:H5'	2.38	0.53
19:E:133:LEU:HD22	19:E:162:ALA:HA	1.90	0.53
19:E:64:ARG:HG3	19:E:147:GLY:HA2	1.91	0.53
29:J:77:PHE:O	29:J:81:LEU:HB2	2.09	0.53
1:A:2228:C:H4'	1:A:2230:A:OP1	2.09	0.53
1:A:2233:G:C4	1:A:2234:G:N7	2.77	0.53
1:A:2394:A:H2'	1:A:2395:A:C8	2.44	0.53
1:A:420:A:C5	1:A:432:G:N2	2.77	0.53
1:A:877:C:H2'	1:A:878:U:H6	1.71	0.53
1:A:950:A:C6	1:A:951:C:N3	2.76	0.53
3:B:10:G:OP1	9:Q:63:LYS:CD	2.49	0.53
2:C:103:G:C4	2:C:104:A:N7	2.77	0.53
6:N:88:GLN:HE22	26:G:79:LYS:NZ	2.07	0.53
28:I:104:MET:HA	28:I:107:LEU:HB3	1.91	0.53
1:A:2684:C:C6	28:I:150:SER:CB	2.92	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:5:LYS:O	11:S:5:LYS:HG3	2.09	0.53
11:S:93:ASN:HB2	11:S:97:LEU:HD23	1.90	0.53
14:V:111:VAL:O	14:V:114:ILE:HG22	2.09	0.53
1:A:1413:A:H2'	1:A:1414:A:C8	2.44	0.52
1:A:1541:U:O5'	1:A:1541:U:H6	1.92	0.52
1:A:1877:C:O2	1:A:1877:C:H2'	2.08	0.52
1:A:2036:U:H4'	1:A:2037:G:OP1	2.09	0.52
1:A:2209:U:C4	1:A:2210:C:N4	2.73	0.52
1:A:2211:U:C4	1:A:2241:G:C6	2.97	0.52
1:A:869:G:N2	1:A:2285:A:H2	2.05	0.52
1:A:270:G:C2'	1:A:271:G:H5'	2.34	0.52
1:A:381:C:O2	1:A:381:C:O2'	2.26	0.52
1:A:389:A:N6	1:A:410:G:H1	2.06	0.52
1:A:581:A:O2'	1:A:583:G:H8	1.91	0.52
1:A:602:A:H2'	1:A:603:G:H8	1.72	0.52
1:A:824:U:O4'	1:A:1247:A:H1'	2.09	0.52
2:C:56:G:H2'	2:C:57:U:C6	2.44	0.52
19:E:37:LYS:HE3	19:E:50:ARG:HD3	1.90	0.52
26:G:204:LYS:HA	26:G:225:THR:HB	1.90	0.52
26:G:226:LEU:C	26:G:226:LEU:HD12	2.30	0.52
6:N:146:ILE:O	6:N:147:ALA:HB2	2.09	0.52
1:A:984:G:N7	7:O:14:ARG:NH1	2.57	0.52
10:R:226:LEU:H	10:R:226:LEU:HD13	1.72	0.52
15:W:78:ILE:O	15:W:83:LYS:HG3	2.08	0.52
1:A:1164:G:H8	1:A:1164:G:O5'	1.91	0.52
1:A:2203:U:O5'	1:A:2203:U:H6	1.91	0.52
1:A:2324:G:C2	1:A:2328:A:N7	2.77	0.52
1:A:2631:A:H8	1:A:2631:A:OP1	1.93	0.52
1:A:625:C:H2'	1:A:625:C:O2	2.08	0.52
1:A:740:G:O6	19:E:204:ALA:CB	2.39	0.52
1:A:841:G:N3	1:A:841:G:H2'	2.24	0.52
1:A:906:C:H6	1:A:906:C:O5'	1.91	0.52
2:C:31:U:O2	2:C:31:U:H2'	2.08	0.52
1:A:2647:A:H1'	2:C:98:G:N3	2.24	0.52
25:F:135:ASN:HD21	25:F:177:ASP:H	1.57	0.52
1:A:2654:U:H5''	25:F:172:ARG:NH2	2.24	0.52
26:G:230:THR:OG1	26:G:231:PRO:HD2	2.09	0.52
27:H:189:SER:HB2	27:H:205:MET:HE1	1.90	0.52
28:I:61:GLN:HA	28:I:76:TYR:HD2	1.74	0.52
6:N:165:ILE:CG1	6:N:207:SER:H	2.19	0.52
1:A:1344:G:H5''	13:U:113:LYS:HE2	1.90	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:W:70:LYS:HE3	15:W:159:ARG:HE	1.74	0.52
15:W:67:ARG:CB	15:W:67:ARG:CZ	2.87	0.52
1:A:1080:C:C3'	1:A:1081:C:C5'	2.86	0.52
1:A:1176:C:H2'	1:A:1177:U:O4'	2.09	0.52
1:A:1407:C:H2'	1:A:1408:A:C8	2.41	0.52
1:A:1534:A:H3'	1:A:1535:A:C5'	2.39	0.52
1:A:1633:A:H5''	1:A:1634:C:OP1	2.10	0.52
1:A:116:A:O2'	1:A:163:G:OP1	2.26	0.52
1:A:1691:A:C6	1:A:1692:C:C2	2.97	0.52
1:A:1800:C:H2'	1:A:1801:A:C8	2.44	0.52
1:A:2116:C:H2'	1:A:2116:C:O2	2.08	0.52
1:A:2339:A:H2'	1:A:2340:G:O4'	2.08	0.52
1:A:2420:C:O2	1:A:2420:C:H2'	2.08	0.52
1:A:2475:G:H8	1:A:2476:A:H62	1.56	0.52
1:A:545:U:H2'	1:A:546:G:C8	2.44	0.52
1:A:597:C:O2'	6:N:98:LYS:HD2	2.10	0.52
1:A:690:U:H2'	1:A:691:G:H8	1.74	0.52
1:A:71:A:C8	18:Z:116:LEU:HD12	2.44	0.52
1:A:902:G:H2'	1:A:903:G:C5'	2.32	0.52
3:B:45:G:H1'	3:B:48:C:H42	1.74	0.52
2:C:85:U:HO2'	2:C:86:A:H5'	1.72	0.52
1:A:2229:U:C4	19:E:64:ARG:NH1	2.78	0.52
6:N:176:VAL:CG1	6:N:177:SER:H	2.03	0.52
10:R:212:ARG:NH2	10:R:229:LEU:O	2.29	0.52
1:A:1527:G:C2	1:A:1539:C:N3	2.40	0.52
1:A:1651:C:C5	13:U:116:PRO:CG	2.92	0.52
1:A:1801:A:O2'	19:E:202:GLY:HA2	2.08	0.52
1:A:2113:G:O5'	1:A:2113:G:H8	1.92	0.52
1:A:2137:G:N2	1:A:2190:A:C4	2.77	0.52
1:A:276:G:C5	1:A:433:C:N4	2.78	0.52
1:A:77:U:H2'	1:A:78:C:C6	2.45	0.52
1:A:997:G:H2'	1:A:998:U:C6	2.43	0.52
1:A:2807:C:N4	2:C:98:G:H1	2.06	0.52
6:N:157:TYR:HD1	6:N:158:VAL:N	2.08	0.52
9:Q:47:HIS:ND1	9:Q:48:THR:HG23	2.24	0.52
11:S:76:TYR:O	11:S:77:ASN:ND2	2.43	0.52
12:T:113:LYS:HE2	12:T:113:LYS:HA	1.91	0.52
12:T:145:GLN:O	12:T:147:LEU:N	2.42	0.52
12:T:177:VAL:HG23	12:T:180:ALA:HB2	1.91	0.52
12:T:96:PRO:C	12:T:98:PRO:N	2.63	0.52
16:X:101:PHE:HB3	16:X:135:VAL:HG23	1.92	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:67:LYS:CD	16:X:67:LYS:N	2.73	0.52
1:A:101:A:C4	1:A:102:U:C5	2.97	0.52
1:A:2338:G:N3	1:A:2338:G:C2'	2.73	0.52
1:A:2672:G:O2'	1:A:2673:U:O5'	2.26	0.52
1:A:319:G:C4	1:A:339:A:C2	2.98	0.52
1:A:358:C:H2'	1:A:359:A:H8	1.74	0.52
1:A:256:A:C8	1:A:380:C:O2'	2.39	0.52
1:A:858:G:N3	1:A:859:A:C8	2.77	0.52
1:A:98:G:H5'	1:A:99:A:O5'	2.09	0.52
3:B:86:G:C4	3:B:87:G:N7	2.78	0.52
27:H:175:PHE:CD1	27:H:183:VAL:CG1	2.91	0.52
6:N:143:LEU:CD2	6:N:143:LEU:N	2.73	0.52
6:N:144:ARG:N	6:N:146:ILE:CD1	2.73	0.52
17:Y:101:VAL:HG23	17:Y:103:LEU:HD12	1.90	0.52
17:Y:129:ILE:CD1	17:Y:130:GLU:N	2.73	0.52
1:A:1530:G:N3	1:A:1530:G:C2'	2.73	0.52
1:A:1534:A:H5''	1:A:1534:A:N3	2.25	0.52
1:A:1801:A:H2	1:A:1839:A:HO2'	1.55	0.52
1:A:1866:G:C5'	29:J:43:LYS:HG3	2.39	0.52
1:A:2238:A:C4	1:A:2239:G:C8	2.97	0.52
1:A:2319:C:C2'	1:A:2320:G:H5'	2.39	0.52
1:A:2652:A:H2'	1:A:2653:U:O4'	2.10	0.52
1:A:902:G:C3'	1:A:903:G:C5'	2.86	0.52
1:A:922:U:O5'	1:A:922:U:H6	1.93	0.52
3:B:17:G:H22	3:B:70:G:H1'	0.62	0.52
19:E:140:ILE:HD11	19:E:150:LEU:HB2	1.91	0.52
1:A:1829:A:OP1	19:E:152:ARG:N	2.42	0.52
26:G:206:LEU:HD13	26:G:207:PHE:N	2.24	0.52
29:J:77:PHE:CD1	29:J:81:LEU:HD12	2.44	0.52
9:Q:49:ARG:CG	9:Q:53:ARG:HG3	2.39	0.52
13:U:141:HIS:ND1	13:U:141:HIS:O	2.43	0.52
1:A:1056:A:N3	1:A:2503:G:O2'	2.32	0.52
1:A:1180:C:H5'	11:S:78:TYR:HE2	1.74	0.52
1:A:1444:A:C2	1:A:1609:U:C5	2.97	0.52
1:A:2204:A:H2'	1:A:2205:G:H5'	1.92	0.52
1:A:2320:G:C6	1:A:2331:G:C6	2.98	0.52
1:A:268:G:N1	1:A:269:G:C6	2.78	0.52
1:A:298:G:C4	1:A:299:C:C5	2.97	0.52
1:A:355:A:H3'	1:A:356:A:H8	1.74	0.52
1:A:890:G:N3	1:A:891:G:N7	2.58	0.52
1:A:891:G:H2'	1:A:892:C:C6	2.44	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:895:C:O5'	1:A:895:C:H6	1.93	0.52
3:B:13:C:O2	3:B:111:G:N1	2.41	0.52
19:E:258:ARG:NE	19:E:258:ARG:CA	2.73	0.52
1:A:2329:U:O3'	27:H:121:THR:HG21	2.09	0.52
1:A:874:G:P	7:O:23:ARG:HH22	2.29	0.52
8:P:88:ALA:O	8:P:92:GLU:HB2	2.10	0.52
12:T:172:ILE:CD1	12:T:172:ILE:N	2.73	0.52
1:A:82:G:P	15:W:157:LYS:NZ	2.82	0.52
15:W:164:THR:HB	15:W:166:GLU:OE1	2.09	0.52
16:X:101:PHE:HA	16:X:133:LYS:HB2	1.91	0.52
16:X:162:ARG:CB	16:X:162:ARG:NH1	2.73	0.52
16:X:67:LYS:NZ	16:X:67:LYS:CA	2.73	0.52
1:A:1624:C:H2'	1:A:1625:A:C8	2.45	0.52
1:A:1651:C:O2	1:A:1651:C:H2'	2.09	0.52
1:A:1810:C:H1'	1:A:1811:A:OP2	2.09	0.52
1:A:1926:A:O2'	1:A:1927:A:H5'	2.10	0.52
1:A:2207:A:H5''	1:A:2208:U:OP2	2.10	0.52
1:A:2210:C:O2	1:A:2210:C:H2'	2.08	0.52
1:A:2319:C:HO2'	1:A:2320:G:H5'	1.71	0.52
1:A:624:A:N7	1:A:625:C:C5	2.78	0.52
1:A:626:C:C2'	1:A:627:C:H6	2.23	0.52
19:E:175:GLY:O	19:E:268:ARG:O	2.27	0.52
27:H:61:TYR:HE1	27:H:222:LEU:HD11	1.75	0.52
4:L:208:LEU:HD13	4:L:217:LEU:HD11	1.90	0.52
10:R:202:ASN:HD21	25:F:107:GLY:HA3	1.73	0.52
13:U:42:SER:HA	13:U:128:PRO:HG2	1.92	0.52
16:X:153:ARG:CG	16:X:153:ARG:HH11	2.12	0.52
16:X:73:LYS:HD3	16:X:73:LYS:H	1.74	0.52
1:A:1139:A:N3	1:A:1139:A:C3'	2.73	0.52
1:A:1311:C:H2'	1:A:1312:A:H8	1.74	0.52
1:A:1536:A:C3'	1:A:1536:A:N3	2.73	0.52
1:A:1877:C:C2'	1:A:1878:C:H5''	2.40	0.52
1:A:2347:G:H21	16:X:98:GLY:CA	2.22	0.52
1:A:333:A:C6	1:A:334:U:C2	2.98	0.52
1:A:289:A:N1	1:A:369:U:O2	2.43	0.52
1:A:279:A:H62	1:A:379:C:H42	0.65	0.52
1:A:822:U:N3	6:N:100:ARG:NH2	2.58	0.52
1:A:823:C:N3	1:A:1271:G:C6	2.78	0.52
1:A:836:G:H2'	1:A:837:U:O4'	2.10	0.52
1:A:855:C:C4	1:A:856:U:C4	2.98	0.52
3:B:53:U:C2	3:B:54:G:H1'	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:66:C:C4	3:B:110:C:N3	2.78	0.52
26:G:57:ILE:HB	26:G:65:VAL:O	2.10	0.52
6:N:212:ILE:N	6:N:212:ILE:CD1	2.73	0.52
1:A:529:G:O5'	13:U:47:ARG:NH2	2.43	0.52
15:W:70:LYS:HZ2	15:W:70:LYS:HB2	1.75	0.52
16:X:145:GLU:H	16:X:145:GLU:CD	1.95	0.52
1:A:932:A:H5'	16:X:85:GLN:NE2	2.25	0.52
1:A:1112:A:N3	1:A:1133:U:O2'	2.40	0.52
1:A:128:U:O5'	1:A:128:U:H6	1.93	0.52
1:A:19:U:H2'	1:A:20:A:C8	2.44	0.52
1:A:279:A:N3	1:A:279:A:C3'	2.73	0.52
1:A:27:A:N6	1:A:523:G:H1'	2.25	0.52
1:A:457:C:H2'	1:A:458:G:O4'	2.10	0.52
3:B:87:G:O2'	3:B:88:G:C5'	2.43	0.52
2:C:30:A:N3	2:C:30:A:C3'	2.73	0.52
1:A:2736:G:H1'	2:C:51:U:H5''	1.92	0.52
1:A:2739:A:C2	2:C:77:A:C6	2.98	0.52
1:A:670:A:H5''	26:G:151:LYS:HE3	1.90	0.52
9:Q:50:ARG:O	9:Q:54:THR:CB	2.58	0.52
1:A:1650:A:N1	13:U:116:PRO:HB3	2.25	0.52
1:A:1635:C:C4'	14:V:106:ARG:NH2	2.62	0.52
1:A:1064:A:H3'	1:A:1065:G:C5'	2.41	0.51
1:A:1488:A:H2'	1:A:1489:A:C8	2.44	0.51
1:A:1848:C:H4'	1:A:1849:A:O5'	2.09	0.51
1:A:2198:A:O5'	1:A:2198:A:H8	1.93	0.51
1:A:263:A:C3'	1:A:263:A:N3	2.73	0.51
1:A:277:G:N3	1:A:277:G:C5'	2.73	0.51
1:A:2753:C:N4	1:A:2787:C:H42	2.03	0.51
1:A:2810:A:N3	1:A:2810:A:C3'	2.73	0.51
1:A:350:G:C2'	1:A:351:C:H5'	2.41	0.51
1:A:61:U:O4	1:A:92:U:O2	2.28	0.51
3:B:19:G:H2'	3:B:20:U:C6	2.45	0.51
3:B:36:A:C5	3:B:45:G:C5	2.98	0.51
3:B:86:G:H2'	3:B:87:G:H8	1.74	0.51
2:C:102:U:H2'	2:C:103:G:C5'	2.34	0.51
26:G:202:ALA:C	26:G:225:THR:HG21	2.30	0.51
27:H:221:LYS:HD2	27:H:224:SER:HB2	1.92	0.51
29:J:43:LYS:HG2	29:J:44:LYS:HG2	1.92	0.51
13:U:47:ARG:HA	13:U:50:ILE:HG22	1.90	0.51
16:X:143:GLN:O	16:X:145:GLU:OE1	2.28	0.51
1:A:1179:C:H2'	1:A:1180:C:C6	2.45	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1501:G:OP1	1:A:1501:G:H4'	2.10	0.51
1:A:1835:G:H2'	1:A:1836:C:C6	2.44	0.51
1:A:539:A:C6	1:A:2056:A:C5	2.99	0.51
1:A:2108:G:N3	1:A:2108:G:C3'	2.73	0.51
1:A:2211:U:O2'	1:A:2212:A:OP1	2.28	0.51
1:A:2423:A:OP2	1:A:2428:A:N6	2.41	0.51
1:A:320:U:H1'	1:A:341:A:C4	2.45	0.51
1:A:350:G:H2'	1:A:351:C:C6	2.45	0.51
1:A:554:G:C5'	1:A:554:G:N3	2.73	0.51
1:A:614:G:C2	1:A:615:G:C5	2.99	0.51
1:A:941:C:O2	1:A:956:G:C2	2.63	0.51
25:F:124:THR:O	25:F:125:GLN:HB2	2.09	0.51
3:B:46:A:P	27:H:145:ARG:HH12	2.33	0.51
4:L:172:LEU:N	4:L:172:LEU:CD1	2.73	0.51
9:Q:120:ALA:HA	9:Q:123:ILE:HG22	1.91	0.51
16:X:132:LYS:CD	16:X:132:LYS:N	2.73	0.51
1:A:1021:A:OP1	11:S:50:ARG:NH1	2.33	0.51
1:A:1162:C:H2'	1:A:1162:C:O2	2.08	0.51
1:A:1189:G:H1'	12:T:145:GLN:NE2	2.25	0.51
1:A:133:A:H61	1:A:162:A:H2	0.53	0.51
1:A:1535:A:C5'	1:A:1535:A:N3	2.73	0.51
1:A:1562:A:C4	1:A:1578:A:N6	2.79	0.51
1:A:2061:C:H2'	1:A:2062:A:C8	2.44	0.51
1:A:274:G:C5	1:A:433:C:C5'	2.94	0.51
1:A:560:A:C6	1:A:561:C:C4	2.99	0.51
1:A:634:G:H2'	1:A:635:C:C6	2.45	0.51
1:A:858:G:C6	1:A:859:A:C6	2.98	0.51
1:A:884:G:N1	1:A:913:G:N1	2.58	0.51
3:B:70:G:H2'	3:B:71:G:C8	2.43	0.51
2:C:104:A:C6	2:C:105:A:N6	2.78	0.51
2:C:26:G:H8	2:C:87:A:H2	1.57	0.51
19:E:228:HIS:CE1	19:E:237:ILE:HD13	2.45	0.51
26:G:236:LEU:HD21	26:G:240:LEU:HD13	1.92	0.51
26:G:243:GLU:OE1	26:G:244:LYS:N	2.43	0.51
27:H:87:ILE:HA	27:H:208:CYS:O	2.10	0.51
5:M:88:ASP:OD1	5:M:89:GLN:N	2.43	0.51
1:A:2393:A:N3	9:Q:166:PHE:CE2	2.79	0.51
16:X:133:LYS:HE2	16:X:133:LYS:N	2.25	0.51
1:A:101:A:C2	1:A:102:U:C2	2.99	0.51
1:A:1137:C:C3'	1:A:1138:G:H8	2.24	0.51
1:A:1444:A:N1	1:A:1609:U:C5	2.78	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1575:C:H2'	1:A:1576:U:C6	2.45	0.51
1:A:1810:C:C4'	1:A:1811:A:H5'	2.40	0.51
1:A:1847:C:O2'	1:A:1941:A:N3	2.35	0.51
1:A:2416:G:H2'	1:A:2417:G:C8	2.46	0.51
1:A:383:A:O2'	1:A:384:G:OP2	2.26	0.51
1:A:919:A:H2'	1:A:920:A:C5'	2.38	0.51
3:B:90:G:H4'	3:B:90:G:OP1	2.10	0.51
2:C:99:A:C3'	2:C:100:C:H5'	2.40	0.51
27:H:178:HIS:CD2	27:H:181:TYR:HA	2.45	0.51
6:N:130:GLU:OE2	6:N:139:ARG:NH2	2.43	0.51
1:A:2433:C:OP1	6:N:145:GLY:CA	2.58	0.51
7:O:110:ALA:HB3	7:O:113:ILE:HD13	1.91	0.51
10:R:171:SER:HB3	10:R:218:ARG:HG3	1.92	0.51
11:S:65:ILE:HB	11:S:98:ALA:HB2	1.93	0.51
1:A:1635:C:OP1	14:V:144:LYS:HG3	2.09	0.51
15:W:67:ARG:HH22	15:W:94:LYS:HA	1.76	0.51
1:A:1307:A:N6	1:A:1310:C:O2	2.43	0.51
1:A:1694:C:OP1	25:F:229:HIS:HE1	1.94	0.51
1:A:1886:A:C2'	1:A:1887:G:C5'	2.86	0.51
1:A:2322:A:H5''	27:H:186:ARG:CB	2.40	0.51
1:A:626:C:H3'	1:A:627:C:H6	1.69	0.51
1:A:740:G:C6	19:E:203:ARG:O	2.64	0.51
25:F:144:LEU:HD11	25:F:166:ARG:NH2	2.21	0.51
26:G:79:LYS:CB	26:G:79:LYS:NZ	2.73	0.51
6:N:115:ARG:O	6:N:119:SER:HB3	2.10	0.51
1:A:2445:G:H21	6:N:139:ARG:CZ	2.23	0.51
6:N:136:LEU:CD2	6:N:139:ARG:NH1	2.73	0.51
1:A:569:G:H21	11:S:52:ARG:HH22	1.59	0.51
1:A:1522:A:C2	1:A:1523:A:C8	2.98	0.51
1:A:2123:U:N3	1:A:2194:U:N3	2.59	0.51
1:A:2322:A:H5''	27:H:186:ARG:HG3	1.93	0.51
1:A:2645:U:O5'	1:A:2645:U:H6	1.94	0.51
1:A:2810:A:N3	1:A:2810:A:C5'	2.73	0.51
1:A:347:G:C4	1:A:348:U:C5	2.98	0.51
1:A:820:G:C6	1:A:821:U:C4	2.98	0.51
1:A:957:U:C5	1:A:958:C:N4	2.79	0.51
3:B:37:U:C2'	3:B:38:C:H5'	2.40	0.51
3:B:92:U:H6	3:B:92:U:O5'	1.93	0.51
2:C:38:G:N2	25:F:145:ARG:HH21	1.95	0.51
6:N:202:GLY:HA2	6:N:221:ALA:N	2.24	0.51
6:N:165:ILE:HG21	6:N:206:LEU:HA	1.93	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1002:G:H4'	1:A:1003:A:O5'	2.11	0.51
1:A:1159:G:N7	4:L:176:HIS:CE1	2.58	0.51
1:A:124:A:O2'	1:A:125:A:H5'	2.11	0.51
1:A:1477:G:H8	1:A:1477:G:O5'	1.94	0.51
1:A:1457:G:O2'	1:A:1496:A:N1	2.44	0.51
1:A:144:A:N7	1:A:150:U:O4	2.44	0.51
1:A:1760:G:N3	2:C:64:A:H2	2.09	0.51
1:A:2157:U:N3	1:A:2163:G:N2	2.57	0.51
1:A:2362:G:H4'	1:A:2363:A:O5'	2.11	0.51
1:A:2692:A:H2'	1:A:2693:C:O4'	2.10	0.51
1:A:355:A:N9	1:A:356:A:C8	2.76	0.51
1:A:218:A:H61	1:A:441:A:N6	2.08	0.51
1:A:670:A:O5'	1:A:670:A:H8	1.92	0.51
1:A:728:A:H2'	1:A:729:A:O4'	2.11	0.51
1:A:90:A:O2'	1:A:91:A:O5'	2.28	0.51
4:L:100:TRP:CG	4:L:101:TYR:N	2.75	0.51
16:X:133:LYS:HD2	16:X:133:LYS:N	2.26	0.51
1:A:1083:G:N2	1:A:1132:C:C2	2.78	0.51
1:A:1194:G:C2	1:A:1204:A:C2	2.99	0.51
1:A:1199:A:H2'	1:A:1200:A:O4'	2.10	0.51
1:A:2047:A:O2'	1:A:2048:U:OP1	2.28	0.51
1:A:320:U:C1'	1:A:341:A:C4	2.94	0.51
1:A:416:C:O2	1:A:418:G:N1	2.43	0.51
27:H:107:ILE:O	27:H:111:ALA:CB	2.59	0.51
4:L:133:ILE:HD11	4:L:138:LYS:HD3	1.92	0.51
1:A:1263:G:N2	6:N:83:ASP:HB3	2.26	0.51
1:A:1187:G:H21	12:T:131:SER:HB2	1.74	0.51
14:V:154:PHE:CZ	18:Z:149:PRO:HD3	2.46	0.51
15:W:145:ASP:OD1	15:W:146:ARG:N	2.41	0.51
18:Z:118:VAL:HG12	18:Z:122:ARG:HH21	1.56	0.51
1:A:102:U:O2'	1:A:103:C:H5'	2.10	0.51
1:A:1076:A:H61	1:A:1139:A:C1'	2.23	0.51
1:A:71:A:N6	1:A:109:A:O2'	2.41	0.51
1:A:1488:A:H2'	1:A:1489:A:H8	1.75	0.51
1:A:1597:C:H2'	1:A:1598:C:O4'	2.11	0.51
1:A:1879:U:C2	1:A:1887:G:C2	2.99	0.51
1:A:2109:C:H3'	1:A:2110:U:H5	1.70	0.51
1:A:2198:A:H2'	1:A:2199:G:C8	2.46	0.51
1:A:2338:G:N3	1:A:2338:G:C3'	2.73	0.51
1:A:274:G:C2'	1:A:275:U:OP2	2.58	0.51
1:A:277:G:C3'	1:A:277:G:N3	2.73	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:355:A:H3'	1:A:356:A:C8	2.46	0.51
1:A:388:C:H42	1:A:411:U:H3	1.58	0.51
1:A:84:G:P	15:W:71:VAL:HG22	2.51	0.51
1:A:863:C:H2'	1:A:864:U:C6	2.46	0.51
27:H:186:ARG:CZ	27:H:204:GLY:HA2	2.41	0.51
10:R:127:ASN:HD22	10:R:127:ASN:C	2.15	0.51
12:T:180:ALA:HA	12:T:225:THR:O	2.11	0.51
12:T:88:VAL:CG1	12:T:89:LEU:H	2.14	0.51
1:A:1387:A:OP1	17:Y:72:ARG:HG2	2.10	0.51
1:A:1272:A:O2'	1:A:1274:A:OP2	2.20	0.51
1:A:161:G:O2'	1:A:162:A:O4'	2.29	0.51
1:A:2095:U:H5''	17:Y:87:ARG:HH11	1.76	0.51
1:A:2288:G:H2'	1:A:2289:U:C6	2.46	0.51
1:A:2290:A:H2'	1:A:2291:A:C8	2.46	0.51
1:A:345:C:O5'	1:A:345:C:H6	1.94	0.51
1:A:525:A:H2'	1:A:526:A:C8	2.46	0.51
3:B:46:A:C4	3:B:47:A:C8	2.99	0.51
2:C:88:C:H6	2:C:88:C:O5'	1.93	0.51
19:E:172:LEU:HD11	19:E:176:GLU:OE1	2.11	0.51
19:E:49:HIS:HB2	19:E:213:ARG:HB3	1.92	0.51
25:F:174:VAL:O	25:F:176:VAL:HG22	2.11	0.51
12:T:170:THR:HG21	12:T:172:ILE:HD11	1.93	0.51
15:W:57:LYS:HZ2	15:W:62:PRO:N	2.09	0.51
1:A:1081:C:O2	1:A:1135:A:C2	2.64	0.50
1:A:1197:A:H1'	1:A:1198:A:N7	2.25	0.50
1:A:1535:A:N3	1:A:1535:A:C3'	2.73	0.50
1:A:2213:A:N3	1:A:2242:A:C2	2.79	0.50
1:A:2578:A:H2'	1:A:2579:U:O4'	2.11	0.50
1:A:420:A:C6	1:A:432:G:N1	2.79	0.50
1:A:504:G:H4'	13:U:37:TYR:CG	2.45	0.50
3:B:33:C:C4	3:B:34:C:N4	2.79	0.50
26:G:129:GLN:NE2	26:G:134:ARG:HH22	2.09	0.50
1:A:2410:U:H5'	6:N:139:ARG:O	2.10	0.50
6:N:175:GLU:HB3	6:N:213:LYS:CE	2.41	0.50
1:A:1263:G:C2	6:N:83:ASP:OD2	2.51	0.50
12:T:100:THR:HG21	13:U:150:GLU:OE2	2.10	0.50
15:W:58:PRO:CD	15:W:61:LEU:O	2.55	0.50
1:A:1590:C:N3	1:A:1591:C:N4	2.59	0.50
1:A:1971:C:H2'	1:A:1972:C:C6	2.47	0.50
1:A:2764:U:O4	1:A:2774:U:C5	2.64	0.50
1:A:343:U:OP1	1:A:344:C:N4	2.44	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4:A:C6	1:A:5:A:N6	2.78	0.50
1:A:937:U:C2'	1:A:938:G:H5''	2.40	0.50
26:G:73:LYS:HA	26:G:261:VAL:C	2.25	0.50
7:O:27:ILE:HD13	7:O:134:SER:HA	1.93	0.50
13:U:153:THR:O	13:U:157:LEU:N	2.34	0.50
14:V:185:SER:O	14:V:189:LYS:HG3	2.11	0.50
15:W:67:ARG:NH2	15:W:94:LYS:HA	2.26	0.50
16:X:102:HIS:CE1	16:X:132:LYS:HG3	2.46	0.50
16:X:68:ASN:N	16:X:68:ASN:OD1	2.45	0.50
1:A:1178:G:O2'	11:S:83:HIS:CD2	2.65	0.50
1:A:1256:G:H3'	1:A:1257:G:C8	2.46	0.50
1:A:1287:G:N2	1:A:2027:A:OP2	2.41	0.50
1:A:276:G:N1	1:A:416:C:O2'	2.42	0.50
1:A:626:C:C6	1:A:627:C:C6	2.99	0.50
26:G:83:VAL:HG11	26:G:159:LEU:CD2	2.41	0.50
4:L:186:GLU:HG3	4:L:191:LEU:HD11	1.94	0.50
1:A:1211:G:P	6:N:109:SER:HG	2.17	0.50
13:U:50:ILE:HG21	13:U:105:VAL:HG23	1.93	0.50
13:U:32:ILE:HD11	13:U:93:PHE:CE2	2.42	0.50
18:Z:152:LEU:N	18:Z:152:LEU:CD1	2.73	0.50
1:A:2107:G:N2	1:A:2108:G:N7	2.59	0.50
1:A:2417:G:H8	1:A:2417:G:O5'	1.94	0.50
1:A:348:U:O2'	1:A:349:A:H5'	2.11	0.50
1:A:42:G:C6	1:A:43:A:N6	2.79	0.50
1:A:855:C:N4	1:A:856:U:C4	2.79	0.50
3:B:87:G:C6	3:B:93:C:N3	2.80	0.50
28:I:110:THR:O	28:I:114:ASN:ND2	2.45	0.50
4:L:115:TYR:HB2	4:L:153:VAL:HG12	1.93	0.50
6:N:144:ARG:H	6:N:146:ILE:HD11	1.77	0.50
6:N:194:ARG:HG3	6:N:195:ARG:N	2.26	0.50
14:V:167:ARG:O	14:V:169:ASP:N	2.45	0.50
16:X:93:ILE:HD12	16:X:123:VAL:HG11	1.93	0.50
16:X:140:ARG:HG2	16:X:140:ARG:O	2.12	0.50
16:X:82:TYR:O	16:X:85:GLN:HG2	2.11	0.50
1:A:1158:U:O4	25:F:240:THR:O	2.30	0.50
1:A:1876:A:H62	1:A:1889:G:H21	1.59	0.50
1:A:2066:G:N3	25:F:243:HIS:HA	2.27	0.50
1:A:2075:G:O2'	1:A:2076:A:O5'	2.28	0.50
1:A:205:G:N3	1:A:218:A:H2	2.10	0.50
1:A:291:G:C2	1:A:292:C:N3	2.80	0.50
1:A:389:A:N6	1:A:410:G:O6	2.45	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:626:C:H2'	1:A:627:C:C6	2.46	0.50
27:H:166:ASP:OD1	27:H:167:PHE:N	2.45	0.50
4:L:172:LEU:HA	4:L:186:GLU:O	2.11	0.50
5:M:1:MET:HA	5:M:32:TYR:CD1	2.47	0.50
1:A:648:G:C6	6:N:158:VAL:HG21	2.46	0.50
6:N:165:ILE:CG2	6:N:206:LEU:HA	2.41	0.50
6:N:84:ASN:HD22	6:N:85:LEU:N	2.09	0.50
12:T:126:VAL:HA	12:T:134:TYR:O	2.12	0.50
17:Y:103:LEU:HD23	17:Y:120:ARG:HG2	1.93	0.50
1:A:1081:C:N3	1:A:1135:A:N6	2.60	0.50
1:A:152:G:N3	1:A:153:G:H8	2.06	0.50
1:A:1651:C:C5	13:U:116:PRO:HG2	2.47	0.50
1:A:169:C:H2'	1:A:170:U:C6	2.47	0.50
1:A:1926:A:N6	1:A:1931:U:H3	2.08	0.50
1:A:2213:A:H2'	1:A:2214:C:O5'	2.11	0.50
1:A:2374:C:O2'	1:A:2376:C:OP2	2.15	0.50
1:A:279:A:C5'	1:A:279:A:N3	2.73	0.50
1:A:287:A:N3	1:A:288:C:N3	2.59	0.50
1:A:919:A:N3	7:O:13:HIS:HE1	2.09	0.50
3:B:36:A:C6	3:B:45:G:N7	2.74	0.50
2:C:32:C:C1'	2:C:33:A:P	3.00	0.50
2:C:41:A:H61	2:C:86:A:H61	1.60	0.50
19:E:139:ASN:OD1	19:E:140:ILE:N	2.45	0.50
19:E:63:PHE:CE1	19:E:152:ARG:HD2	2.46	0.50
26:G:90:THR:O	26:G:94:ASN:HB2	2.12	0.50
6:N:205:GLU:OE2	6:N:224:LYS:HD2	2.12	0.50
1:A:1879:U:C6	6:N:252:ARG:NH1	2.79	0.50
15:W:71:VAL:CA	15:W:89:ILE:HD11	2.40	0.50
1:A:1745:C:N3	1:A:1746:C:N4	2.51	0.50
1:A:1881:A:O2'	1:A:1882:U:OP1	2.17	0.50
1:A:2103:G:C2'	1:A:2104:A:C5'	2.85	0.50
1:A:2513:C:H2'	1:A:2514:A:O4'	2.12	0.50
1:A:606:A:H2'	1:A:607:G:C8	2.47	0.50
1:A:854:A:C2	1:A:964:C:N3	2.80	0.50
1:A:913:G:N3	1:A:914:A:C8	2.79	0.50
3:B:110:C:H6	3:B:110:C:H3'	1.77	0.50
3:B:32:A:N6	3:B:55:G:O6	2.44	0.50
3:B:7:G:H1'	3:B:8:G:H5'	1.93	0.50
2:C:37:C:H3'	2:C:38:G:C5'	2.41	0.50
2:C:40:U:O2	2:C:87:A:C2	2.64	0.50
26:G:255:LEU:HD12	26:G:259:TYR:CE2	2.46	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:223:LEU:HB3	27:H:228:MET:HB2	1.92	0.50
12:T:192:ASP:HB3	12:T:216:ILE:HD13	1.93	0.50
12:T:96:PRO:O	12:T:98:PRO:CG	2.60	0.50
1:A:1194:G:N1	1:A:1204:A:C2	2.80	0.50
1:A:1245:U:O2'	12:T:210:ILE:HG22	2.11	0.50
1:A:1748:C:O2'	1:A:1749:U:O5'	2.28	0.50
1:A:1801:A:C2	1:A:1839:A:H4'	2.47	0.50
1:A:2238:A:H2'	1:A:2239:G:H8	1.77	0.50
1:A:2088:U:HO2'	1:A:2614:G:HO2'	1.51	0.50
1:A:414:A:H2'	1:A:415:U:O4'	2.12	0.50
1:A:878:U:H2'	1:A:879:G:H8	1.77	0.50
1:A:913:G:N3	1:A:914:A:N7	2.59	0.50
1:A:944:C:H6	1:A:944:C:H3'	1.76	0.50
1:A:945:A:N3	1:A:945:A:C2'	2.74	0.50
3:B:5:C:O2	3:B:119:G:C6	2.64	0.50
12:T:129:ILE:HD11	12:T:158:LEU:HD22	1.94	0.50
13:U:102:LYS:HG2	13:U:135:VAL:HB	1.94	0.50
14:V:105:PRO:O	14:V:107:ARG:N	2.45	0.50
1:A:2109:C:C6	1:A:2110:U:C4	3.00	0.50
1:A:642:G:N2	1:A:645:A:OP2	2.43	0.50
1:A:685:G:H4'	26:G:125:ARG:O	2.12	0.50
1:A:957:U:C4	1:A:958:C:N4	2.80	0.50
2:C:53:G:H8	2:C:70:G:N2	1.87	0.50
1:A:2322:A:C5	27:H:186:ARG:CZ	2.95	0.50
27:H:211:THR:HG22	27:H:213:ALA:H	1.76	0.50
7:O:56:ARG:O	7:O:59:ARG:HB2	2.12	0.50
15:W:113:SER:OG	15:W:120:GLY:HA2	2.11	0.50
1:A:1532:G:O2'	1:A:1611:G:C4'	2.60	0.49
1:A:1566:G:H2'	1:A:1567:C:H6	1.77	0.49
1:A:1980:A:O2'	1:A:1981:C:O5'	2.29	0.49
1:A:2318:C:H6	1:A:2318:C:O5'	1.94	0.49
1:A:311:U:OP2	15:W:146:ARG:NH1	2.44	0.49
1:A:525:A:H2'	1:A:526:A:H8	1.77	0.49
1:A:540:A:OP2	4:L:212:ARG:NE	2.40	0.49
1:A:907:C:O5'	1:A:907:C:H6	1.94	0.49
3:B:72:U:H2'	3:B:73:G:C8	2.47	0.49
3:B:88:G:O5'	3:B:88:G:H8	1.95	0.49
29:J:53:LEU:HD22	29:J:57:ILE:HD11	1.94	0.49
7:O:69:PHE:CD1	7:O:70:PRO:HD2	2.47	0.49
9:Q:103:LYS:NZ	9:Q:107:GLU:HB3	2.27	0.49
12:T:91:ASP:CB	13:U:142:PHE:HZ	2.21	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2401:C:OP1	16:X:111:LYS:HE3	2.12	0.49
16:X:143:GLN:HA	16:X:145:GLU:OE1	2.12	0.49
1:A:1268:A:H2	11:S:5:LYS:HZ1	1.56	0.49
1:A:1650:A:C2	13:U:116:PRO:HB3	2.46	0.49
1:A:2006:G:N2	1:A:2009:U:H5	2.10	0.49
1:A:688:C:O2'	1:A:2084:A:O2'	2.20	0.49
1:A:2570:G:C2	1:A:2571:U:H1'	2.47	0.49
1:A:355:A:C8	1:A:356:A:C1'	2.95	0.49
1:A:374:U:H2'	1:A:375:C:C2	2.46	0.49
1:A:705:U:OP1	19:E:55:LYS:HE2	2.12	0.49
26:G:186:LYS:O	26:G:188:LYS:N	2.46	0.49
28:I:74:ILE:HD12	28:I:115:MET:SD	2.52	0.49
11:S:52:ARG:CG	11:S:55:ARG:HH11	2.24	0.49
12:T:95:ALA:H	12:T:96:PRO:CD	2.25	0.49
15:W:101:ILE:HD11	15:W:104:LEU:HB2	1.94	0.49
15:W:113:SER:H	15:W:120:GLY:HA2	1.76	0.49
1:A:71:A:C8	18:Z:116:LEU:HD13	2.46	0.49
1:A:1469:G:C6	1:A:1483:G:N1	2.81	0.49
1:A:1496:A:N6	1:A:1549:A:C6	2.80	0.49
1:A:1885:C:C5	6:N:253:ALA:CB	2.85	0.49
1:A:278:G:C3'	1:A:279:A:C5'	2.89	0.49
1:A:377:G:O2'	1:A:378:A:O4'	2.29	0.49
1:A:934:A:C1'	1:A:935:U:P	3.00	0.49
1:A:956:G:H2'	1:A:957:U:H5''	1.93	0.49
1:A:854:A:C2	1:A:964:C:C2	3.00	0.49
1:A:977:G:O6	1:A:978:A:N6	2.46	0.49
3:B:3:U:C2	3:B:4:U:C4	3.01	0.49
2:C:10:C:C2	2:C:11:A:C8	3.01	0.49
25:F:119:GLU:CD	25:F:120:GLY:H	2.15	0.49
28:I:134:TYR:CD1	28:I:147:LEU:HA	2.47	0.49
6:N:84:ASN:ND2	6:N:85:LEU:N	2.60	0.49
7:O:26:ARG:HG3	7:O:27:ILE:N	2.12	0.49
12:T:102:GLU:OE1	12:T:102:GLU:HA	2.12	0.49
12:T:110:PHE:C	12:T:110:PHE:CD1	2.85	0.49
1:A:83:A:C2	1:A:101:A:N6	2.80	0.49
1:A:1136:U:C4	1:A:1137:C:N4	2.81	0.49
1:A:145:A:H8	1:A:145:A:O5'	1.96	0.49
1:A:154:C:N4	1:A:155:A:N6	2.60	0.49
1:A:1550:U:C2'	1:A:1551:G:H5'	2.40	0.49
1:A:158:C:N4	1:A:159:A:N6	2.60	0.49
1:A:1693:U:H2'	1:A:1694:C:H6	1.77	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1745:C:C2	1:A:1746:C:C4	3.00	0.49
1:A:1781:C:O2'	1:A:1796:A:H1'	2.12	0.49
1:A:1810:C:O2'	19:E:149:GLN:NE2	2.45	0.49
1:A:2151:G:C5	1:A:2152:C:N4	2.80	0.49
1:A:2318:C:C4	1:A:2319:C:N4	2.80	0.49
1:A:2771:A:H8	1:A:2771:A:O5'	1.95	0.49
1:A:329:C:C5	26:G:188:LYS:HD3	2.47	0.49
1:A:368:U:H6	1:A:368:U:O5'	1.94	0.49
1:A:375:C:O5'	1:A:375:C:H6	1.96	0.49
1:A:77:U:H2'	1:A:78:C:H6	1.77	0.49
1:A:918:A:C6	1:A:921:C:C2	3.00	0.49
1:A:941:C:C5	1:A:942:U:C4	3.00	0.49
2:C:31:U:O2'	2:C:32:C:H2'	2.12	0.49
1:A:1834:G:O2'	19:E:244:THR:HG22	2.13	0.49
29:J:77:PHE:CE1	29:J:81:LEU:CD1	2.95	0.49
13:U:37:TYR:CG	13:U:38:SER:N	2.80	0.49
15:W:100:ILE:HG13	15:W:100:ILE:O	2.11	0.49
1:A:1287:G:O2'	1:A:1288:U:OP2	2.23	0.49
1:A:160:A:P	1:A:160:A:C8	3.05	0.49
1:A:162:A:O2'	1:A:163:G:OP2	2.27	0.49
1:A:2123:U:H5''	1:A:2124:G:OP2	2.12	0.49
1:A:2150:G:C6	1:A:2151:G:N1	2.80	0.49
1:A:2220:G:C6	1:A:2221:U:C5	3.01	0.49
1:A:2237:A:C5'	1:A:2237:A:N3	2.73	0.49
1:A:2322:A:C4	27:H:186:ARG:NE	2.80	0.49
1:A:533:G:HO2'	1:A:552:G:HO2'	1.61	0.49
1:A:560:A:C2	1:A:561:C:C2	3.00	0.49
1:A:958:C:O5'	1:A:958:C:H6	1.95	0.49
2:C:97:A:OP1	2:C:97:A:H4'	2.12	0.49
19:E:39:ARG:HG3	19:E:40:ASN:ND2	2.27	0.49
19:E:89:LEU:HD23	19:E:90:ILE:N	2.28	0.49
28:I:98:THR:CG2	28:I:101:ALA:H	2.24	0.49
12:T:97:GLU:N	12:T:98:PRO:HD3	2.20	0.49
14:V:106:ARG:C	14:V:107:ARG:CG	2.79	0.49
15:W:89:ILE:HA	15:W:101:ILE:HA	1.94	0.49
1:A:1527:G:C6	1:A:1539:C:N4	2.76	0.49
1:A:1874:U:O2'	1:A:1875:G:H5'	2.12	0.49
1:A:2238:A:C2	1:A:2239:G:C8	3.00	0.49
1:A:335:G:N1	1:A:346:A:C6	2.81	0.49
1:A:41:A:N6	1:A:42:G:C6	2.81	0.49
1:A:493:G:HO2'	1:A:494:A:P	2.36	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:589:G:H2'	1:A:590:C:H6	1.78	0.49
1:A:696:A:O2'	1:A:699:U:O4	2.25	0.49
1:A:953:G:H2'	1:A:954:G:C8	2.46	0.49
2:C:58:G:H2'	2:C:59:C:H6	1.78	0.49
4:L:209:PRO:O	4:L:214:GLY:HA3	2.12	0.49
1:A:1966:A:H5'	5:M:55:SER:HB3	1.95	0.49
6:N:97:ARG:HH11	6:N:100:ARG:CD	2.24	0.49
6:N:209:LYS:HB2	6:N:230:CYS:HB3	1.90	0.49
1:A:1176:C:H6	1:A:1176:C:O5'	1.96	0.49
1:A:2016:G:O6	1:A:2017:A:N6	2.46	0.49
1:A:388:C:N4	1:A:410:G:C6	2.80	0.49
1:A:651:U:H2'	1:A:652:C:C6	2.47	0.49
19:E:113:VAL:HG22	19:E:114:SER:O	2.13	0.49
19:E:29:ILE:HG22	19:E:57:LEU:HD23	1.94	0.49
5:M:105:GLU:O	5:M:108:GLN:HG2	2.13	0.49
1:A:1263:G:N2	6:N:83:ASP:CB	2.75	0.49
12:T:103:TYR:O	12:T:104:ASN:HB2	2.13	0.49
12:T:201:LYS:HG2	12:T:206:TYR:CE2	2.42	0.49
13:U:38:SER:HB3	13:U:129:THR:HB	1.95	0.49
1:A:1259:C:H2'	1:A:1260:G:O4'	2.13	0.49
1:A:1879:U:N3	1:A:1887:G:C2	2.80	0.49
1:A:1778:G:C6	1:A:1999:G:C6	3.01	0.49
1:A:2088:U:O2'	1:A:2614:G:O2'	2.22	0.49
1:A:2279:U:OP2	16:X:73:LYS:HB2	2.04	0.49
1:A:2308:U:H3	1:A:2358:G:H1	1.61	0.49
1:A:2389:G:H2'	1:A:2390:A:H8	1.76	0.49
1:A:313:A:H2	1:A:323:G:C2	2.23	0.49
1:A:344:C:H2'	1:A:345:C:C6	2.47	0.49
1:A:543:A:H61	1:A:2034:C:H1'	1.76	0.49
1:A:899:A:C1'	1:A:900:G:P	3.00	0.49
3:B:35:A:C8	3:B:35:A:P	3.04	0.49
2:C:103:G:H2'	2:C:104:A:H5'	1.94	0.49
2:C:33:A:C1'	2:C:34:U:P	3.00	0.49
2:C:36:A:HO2'	2:C:37:C:P	2.35	0.49
2:C:41:A:N6	2:C:86:A:C6	2.81	0.49
1:A:2647:A:N7	2:C:98:G:N1	2.60	0.49
19:E:75:VAL:HG21	19:E:91:HIS:CE1	2.48	0.49
25:F:138:GLN:HE21	25:F:168:LEU:HG	1.78	0.49
27:H:60:ASN:O	27:H:64:LYS:HG2	2.13	0.49
6:N:251:ALA:O	6:N:254:ASP:HB2	2.13	0.49
9:Q:129:LYS:HA	9:Q:132:LEU:HB3	1.94	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:Q:70:ARG:HB3	9:Q:71:PRO:CD	2.42	0.49
12:T:230:TYR:HD1	12:T:230:TYR:O	1.95	0.49
16:X:162:ARG:NH1	16:X:162:ARG:CG	2.72	0.49
16:X:67:LYS:N	16:X:67:LYS:NZ	2.60	0.49
1:A:1091:G:N1	1:A:1103:C:O2	2.37	0.49
1:A:150:U:C4	1:A:151:G:C6	3.01	0.49
1:A:152:G:N1	1:A:153:G:C5	2.81	0.49
1:A:1629:G:H2'	1:A:1630:G:C8	2.48	0.49
1:A:1965:U:N3	1:A:1968:G:OP2	2.33	0.49
1:A:2055:U:O4	1:A:2056:A:N6	2.46	0.49
1:A:2150:G:H1	1:A:2151:G:N2	2.11	0.49
1:A:2650:G:H1	1:A:2803:C:H42	1.60	0.49
1:A:824:U:H4'	1:A:1246:G:O2'	2.12	0.49
19:E:140:ILE:CG1	19:E:150:LEU:HB2	2.42	0.49
25:F:195:ASP:HA	25:F:266:ILE:HG22	1.94	0.49
26:G:195:GLN:HA	26:G:200:ASP:HB2	1.93	0.49
26:G:254:TYR:HH	26:G:258:ARG:NE	2.04	0.49
6:N:82:LEU:HD22	26:G:88:LEU:CD1	2.42	0.49
1:A:1689:C:H5''	8:P:12:LYS:HE2	1.91	0.49
11:S:61:TRP:O	11:S:65:ILE:HG22	2.12	0.49
14:V:109:LEU:HD21	14:V:141:ARG:HD2	1.95	0.49
14:V:167:ARG:NH2	14:V:173:LYS:HB2	2.28	0.49
1:A:1237:C:H42	1:A:1238:G:N2	2.09	0.49
1:A:140:G:C2'	1:A:141:C:C5'	2.91	0.49
1:A:1498:G:H2'	1:A:1499:G:C8	2.48	0.49
1:A:270:G:H8	1:A:270:G:O5'	1.96	0.49
1:A:290:A:N3	1:A:291:G:N7	2.60	0.49
1:A:689:C:H2'	1:A:690:U:C6	2.48	0.49
3:B:40:A:H8	3:B:40:A:O5'	1.96	0.49
15:W:103:ASP:HA	15:W:126:GLU:OE2	2.12	0.49
1:A:1070:G:C2	1:A:1142:G:C5	3.01	0.48
1:A:1099:G:O6	1:A:1119:G:O6	2.31	0.48
1:A:11:G:H2'	1:A:12:A:O4'	2.13	0.48
1:A:1504:C:H2'	1:A:1505:C:H6	1.71	0.48
1:A:1747:C:N3	1:A:1758:G:N1	2.61	0.48
1:A:1891:A:H2'	1:A:1892:G:O4'	2.13	0.48
1:A:2137:G:C2	1:A:2190:A:C6	3.00	0.48
1:A:214:A:H1'	6:N:238:ARG:HH21	1.78	0.48
1:A:335:G:H2'	1:A:336:G:H8	1.71	0.48
1:A:381:C:H3'	1:A:381:C:OP2	2.12	0.48
1:A:898:G:N1	1:A:899:A:N6	2.61	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:6:U:N3	3:B:118:G:C2	2.81	0.48
25:F:121:ASN:N	25:F:121:ASN:ND2	2.60	0.48
26:G:207:PHE:HD2	26:G:228:LEU:HD23	1.78	0.48
28:I:99:ARG:O	28:I:103:GLN:HG2	2.13	0.48
1:A:1362:G:H4'	14:V:165:LEU:HB3	1.94	0.48
17:Y:107:ARG:HG2	17:Y:116:PHE:HB3	1.94	0.48
18:Z:88:PHE:C	18:Z:88:PHE:CD2	2.85	0.48
1:A:1163:G:H2'	1:A:1164:G:C8	2.49	0.48
1:A:1438:G:H22	1:A:1616:A:H62	1.61	0.48
1:A:1718:G:P	1:A:1735:G:H22	2.35	0.48
1:A:2210:C:H4'	1:A:2211:U:OP1	2.13	0.48
1:A:2215:C:N3	1:A:2240:G:N2	2.61	0.48
1:A:2211:U:O4	1:A:2241:G:C5	2.66	0.48
1:A:2575:C:O2'	1:A:2576:C:N3	2.46	0.48
1:A:291:G:HO2'	1:A:292:C:H5'	1.73	0.48
1:A:366:G:OP2	1:A:366:G:H8	1.96	0.48
1:A:533:G:H2'	1:A:534:C:C6	2.48	0.48
1:A:70:A:N3	1:A:72:A:N6	2.61	0.48
3:B:112:A:C2'	3:B:113:C:O5'	2.61	0.48
2:C:16:G:H4'	8:P:13:HIS:CD2	2.48	0.48
4:L:164:SER:OG	4:L:165:GLY:N	2.47	0.48
6:N:158:VAL:HG13	6:N:201:LEU:CD2	2.43	0.48
10:R:221:TYR:O	10:R:225:LYS:HG2	2.13	0.48
1:A:101:A:N1	1:A:102:U:C4	2.81	0.48
1:A:1575:C:H2'	1:A:1576:U:H6	1.78	0.48
1:A:1592:A:H4'	1:A:1593:U:O5'	2.13	0.48
1:A:1600:A:C2	19:E:209:TRP:HZ3	2.22	0.48
1:A:2192:U:H2'	1:A:2193:C:N1	2.28	0.48
1:A:2260:U:H2'	1:A:2261:U:C6	2.48	0.48
1:A:265:A:C5'	1:A:266:A:C8	2.92	0.48
1:A:2723:A:O2'	8:P:74:ARG:CD	2.50	0.48
1:A:277:G:N3	1:A:277:G:H5''	2.28	0.48
1:A:296:G:H2'	1:A:297:U:C5	2.48	0.48
1:A:459:A:O2'	1:A:485:G:N7	2.31	0.48
1:A:560:A:N6	1:A:561:C:N4	2.60	0.48
1:A:635:C:H2'	1:A:636:C:H6	1.78	0.48
3:B:8:G:O2'	3:B:9:U:O4'	2.31	0.48
2:C:106:C:H6	2:C:106:C:O5'	1.95	0.48
2:C:34:U:O2	2:C:34:U:O2'	2.28	0.48
28:I:128:GLN:HA	28:I:170:LYS:HA	1.94	0.48
1:A:1386:A:OP2	17:Y:73:ARG:HG3	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:143:G:C2	1:A:2224:G:C2	3.02	0.48
1:A:1757:G:O5'	1:A:1757:G:H8	1.97	0.48
1:A:1810:C:H5'	19:E:142:ILE:HD12	1.94	0.48
1:A:2213:A:C2	1:A:2214:C:C4	3.00	0.48
1:A:2320:G:O6	1:A:2331:G:O6	2.31	0.48
1:A:268:G:C2	1:A:269:G:C2	3.01	0.48
1:A:358:C:O2'	1:A:359:A:O5'	2.30	0.48
1:A:663:A:H2'	1:A:664:A:H5'	1.94	0.48
1:A:477:G:O2'	1:A:694:U:O2'	2.27	0.48
1:A:895:C:H3'	1:A:896:G:C8	2.46	0.48
1:A:962:G:OP1	1:A:962:G:H4'	2.13	0.48
26:G:60:PHE:CZ	26:G:180:GLU:HA	2.49	0.48
1:A:837:U:O2'	6:N:132:GLY:HA3	2.13	0.48
15:W:164:THR:OG1	15:W:166:GLU:OE1	2.28	0.48
16:X:143:GLN:CA	16:X:145:GLU:OE1	2.61	0.48
1:A:932:A:C5'	16:X:85:GLN:HE22	2.20	0.48
1:A:101:A:C6	1:A:102:U:O4	2.66	0.48
1:A:1268:A:O2'	1:A:1269:G:H5'	2.13	0.48
1:A:133:A:N7	1:A:134:A:C6	2.81	0.48
1:A:1548:A:O2'	1:A:1591:C:C4'	2.60	0.48
1:A:1558:U:H2'	1:A:1559:A:O4'	2.12	0.48
1:A:1971:C:H2'	1:A:1972:C:H6	1.77	0.48
1:A:2176:A:H5''	1:A:2185:A:H2'	1.95	0.48
1:A:2227:C:HO2'	1:A:2228:C:H5'	1.73	0.48
1:A:226:A:O2'	1:A:227:G:O5'	2.28	0.48
1:A:2606:A:N1	1:A:2623:C:N4	2.62	0.48
1:A:2715:U:H2'	1:A:2716:C:C6	2.48	0.48
1:A:42:G:C6	1:A:43:A:C6	3.02	0.48
1:A:598:U:H2'	1:A:599:C:C6	2.48	0.48
1:A:71:A:H61	1:A:109:A:HO2'	1.58	0.48
1:A:93:A:HO2'	18:Z:102:PRO:CG	2.02	0.48
3:B:60:A:H2'	3:B:61:C:H6	1.78	0.48
2:C:101:U:C5'	2:C:102:U:OP2	2.61	0.48
19:E:135:THR:HG22	19:E:136:ALA:H	1.79	0.48
19:E:65:ARG:CD	19:E:114:SER:HB3	2.43	0.48
1:A:2321:G:H5''	27:H:175:PHE:HB3	1.93	0.48
5:M:69:LEU:H	5:M:76:ILE:HG23	1.79	0.48
15:W:87:GLY:HA3	15:W:101:ILE:HD13	1.95	0.48
17:Y:82:SER:HB3	17:Y:100:PHE:HB3	1.96	0.48
17:Y:87:ARG:HG2	17:Y:95:THR:OG1	2.13	0.48
1:A:1122:U:N3	1:A:1125:U:OP2	2.41	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1809:G:N7	19:E:172:LEU:HD11	2.29	0.48
1:A:1914:A:H1'	1:A:1984:A:H2'	1.96	0.48
1:A:2267:G:C6	7:O:82:ARG:NH2	2.81	0.48
1:A:2301:G:O2'	1:A:2305:A:N6	2.47	0.48
1:A:423:G:O2'	1:A:2423:A:N7	2.41	0.48
1:A:318:A:C6	1:A:339:A:N6	2.81	0.48
1:A:605:C:H2'	1:A:606:A:C8	2.48	0.48
1:A:656:A:HO2'	1:A:657:U:H5	1.61	0.48
1:A:680:G:N3	1:A:680:G:H2'	2.28	0.48
1:A:715:G:H1'	1:A:738:A:N6	2.28	0.48
2:C:58:G:C6	2:C:68:A:C6	3.02	0.48
2:C:79:G:O2'	10:R:121:ASP:CG	2.52	0.48
1:A:793:A:N3	19:E:221:MET:HG2	2.29	0.48
1:A:2320:G:O2'	27:H:175:PHE:CB	2.62	0.48
1:A:1169:A:H5'	4:L:245:ARG:NH2	2.27	0.48
1:A:531:A:P	13:U:54:ARG:HH12	2.36	0.48
16:X:87:ALA:O	16:X:120:ASP:HA	2.14	0.48
16:X:127:LYS:HE3	16:X:133:LYS:NZ	2.27	0.48
18:Z:79:GLU:OE2	18:Z:111:ARG:NH1	2.46	0.48
1:A:1085:A:H2'	1:A:1086:G:H8	1.79	0.48
1:A:1524:G:C6	1:A:1525:G:C6	3.01	0.48
1:A:1885:C:H41	6:N:253:ALA:N	2.12	0.48
1:A:583:G:C6	1:A:2044:A:H3'	2.48	0.48
1:A:2199:G:C5	1:A:2200:A:C8	3.01	0.48
1:A:2304:A:C5	1:A:2306:G:C8	3.01	0.48
1:A:2507:G:O2'	1:A:2508:U:O5'	2.27	0.48
1:A:626:C:C5	1:A:627:C:N4	2.81	0.48
1:A:994:A:H4'	1:A:2288:G:H22	1.77	0.48
3:B:12:C:N3	3:B:112:A:N1	2.62	0.48
3:B:60:A:H2'	3:B:61:C:C6	2.49	0.48
2:C:13:G:H21	2:C:40:U:C1'	2.26	0.48
26:G:96:ARG:HB2	26:G:148:TRP:NE1	2.29	0.48
26:G:60:PHE:HZ	26:G:180:GLU:HA	1.77	0.48
5:M:19:LEU:HD13	5:M:41:ALA:CB	2.44	0.48
6:N:175:GLU:CB	6:N:213:LYS:HZ1	2.19	0.48
11:S:72:ARG:HG3	11:S:112:TYR:CE2	2.48	0.48
14:V:167:ARG:HH21	14:V:173:LYS:HB2	1.78	0.48
1:A:88:A:H5'	15:W:57:LYS:HZ3	1.78	0.48
18:Z:120:ARG:NH1	18:Z:120:ARG:CG	2.72	0.48
1:A:1287:G:O2'	1:A:1288:U:P	2.72	0.48
1:A:1469:G:C6	1:A:1483:G:C6	3.02	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1605:A:H2'	1:A:1606:A:H8	1.79	0.48
1:A:2324:G:N2	1:A:2328:A:C2'	2.77	0.48
1:A:2330:U:C1'	27:H:90:ASN:HD21	2.27	0.48
1:A:2335:C:H6	1:A:2335:C:H3'	1.78	0.48
1:A:2486:A:H2'	1:A:2487:G:O4'	2.13	0.48
1:A:2479:U:H5	1:A:2505:A:H2	1.60	0.48
1:A:913:G:C2	1:A:914:A:C5	3.02	0.48
1:A:857:G:C2	1:A:961:G:C4	3.00	0.48
26:G:57:ILE:HD11	26:G:68:THR:HG23	1.96	0.48
7:O:28:CYS:HB2	7:O:67:ARG:NH1	2.29	0.48
10:R:226:LEU:HD23	10:R:228:ARG:HB2	1.96	0.48
16:X:134:LYS:HB3	16:X:134:LYS:HZ2	1.73	0.48
16:X:157:ASN:O	16:X:158:PHE:C	2.51	0.48
1:A:1012:G:H5''	1:A:1013:C:OP2	2.14	0.48
1:A:1437:G:H2'	1:A:1438:G:H5''	1.96	0.48
1:A:1482:C:H3'	1:A:1482:C:H6	1.79	0.48
1:A:1524:G:O5'	1:A:1524:G:H8	1.96	0.48
1:A:1799:A:H5''	19:E:216:VAL:HA	1.96	0.48
1:A:454:G:N3	26:G:99:THR:OG1	2.45	0.48
1:A:853:G:O2'	1:A:854:A:O5'	2.25	0.48
1:A:863:C:H2'	1:A:864:U:H6	1.79	0.48
1:A:950:A:C5	1:A:951:C:C2	3.01	0.48
3:B:7:G:C1'	3:B:8:G:P	3.01	0.48
3:B:7:G:C4'	3:B:8:G:OP1	2.61	0.48
3:B:94:C:H2'	3:B:95:U:H6	1.79	0.48
2:C:40:U:H6	2:C:40:U:O5'	1.97	0.48
2:C:68:A:H2'	2:C:69:U:C6	2.49	0.48
26:G:199:LEU:C	26:G:201:PRO:HD3	2.34	0.48
1:A:2433:C:OP1	6:N:145:GLY:HA2	2.14	0.48
10:R:172:ARG:NH2	10:R:174:ASN:HB3	2.29	0.48
11:S:72:ARG:HG3	11:S:112:TYR:CZ	2.49	0.48
15:W:85:LYS:HD3	15:W:104:LEU:CD1	2.38	0.48
1:A:1307:A:C2	1:A:1350:U:C4	3.02	0.48
1:A:1576:U:H2'	1:A:1577:G:O4'	2.14	0.48
1:A:320:U:O2	1:A:340:A:H2'	2.14	0.48
1:A:884:G:O5'	1:A:884:G:H8	1.97	0.48
1:A:938:G:H2'	1:A:939:A:H5'	1.94	0.48
2:C:33:A:C2'	2:C:33:A:N3	2.76	0.48
27:H:175:PHE:CD1	27:H:183:VAL:HG13	2.37	0.48
6:N:205:GLU:HA	6:N:205:GLU:OE1	2.14	0.48
15:W:113:SER:HB2	15:W:120:GLY:N	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:W:170:THR:CG2	15:W:171:PRO:CD	2.85	0.48
1:A:1674:C:O2	1:A:2715:U:O2'	2.30	0.47
1:A:2187:A:H2'	1:A:2188:C:O4'	2.15	0.47
1:A:2247:C:H5''	17:Y:100:PHE:CE1	2.49	0.47
1:A:389:A:C6	1:A:390:U:N3	2.81	0.47
1:A:431:U:H2'	1:A:432:G:H5'	1.95	0.47
1:A:614:G:H2'	1:A:615:G:C8	2.49	0.47
1:A:616:U:H3	1:A:634:G:H1	1.62	0.47
1:A:76:U:H2'	1:A:77:U:H6	1.79	0.47
1:A:878:U:H2'	1:A:879:G:C8	2.49	0.47
3:B:26:A:H2'	3:B:26:A:N3	2.28	0.47
3:B:86:G:N1	3:B:87:G:C6	2.82	0.47
2:C:102:U:C2'	2:C:103:G:C5'	2.88	0.47
26:G:182:PHE:HE2	26:G:190:PHE:HD1	1.61	0.47
6:N:81:ARG:HH11	26:G:243:GLU:HB2	1.51	0.47
9:Q:125:GLU:OE1	9:Q:162:HIS:NE2	2.43	0.47
9:Q:115:PRO:HB2	9:Q:151:ARG:NE	2.29	0.47
9:Q:156:ALA:O	9:Q:160:ARG:HG3	2.14	0.47
16:X:128:TYR:CD2	16:X:132:LYS:HB3	2.46	0.47
1:A:1196:A:H4'	1:A:1197:A:OP1	2.13	0.47
1:A:1497:A:N6	1:A:1547:C:N4	2.57	0.47
1:A:16:G:H2'	1:A:17:C:C6	2.49	0.47
1:A:1752:C:H6	1:A:1752:C:H3'	1.79	0.47
1:A:2107:G:C4	1:A:2242:A:N7	2.81	0.47
1:A:2191:C:O2'	1:A:2192:U:H5'	2.13	0.47
1:A:182:A:H2	1:A:2451:A:H62	1.61	0.47
1:A:2559:A:H5''	1:A:2560:G:OP1	2.15	0.47
1:A:293:G:N1	1:A:294:U:C4	2.82	0.47
1:A:384:G:O2'	1:A:412:G:C6	2.51	0.47
1:A:649:A:OP1	6:N:202:GLY:CA	2.61	0.47
1:A:659:G:H2'	1:A:660:G:O4'	2.13	0.47
2:C:88:C:H6	2:C:88:C:P	2.37	0.47
2:C:92:C:H2'	2:C:93:C:H6	1.79	0.47
19:E:267:ILE:HG22	19:E:269:ARG:CB	2.39	0.47
26:G:133:LEU:N	26:G:133:LEU:HD12	2.29	0.47
5:M:100:GLY:HA2	10:R:188:ALA:HB3	1.97	0.47
14:V:138:VAL:HG23	14:V:172:LYS:HB3	1.96	0.47
16:X:122:LEU:HG	16:X:140:ARG:HB3	1.88	0.47
16:X:77:LEU:HD11	16:X:97:ARG:CZ	2.41	0.47
1:A:1234:A:N6	1:A:1256:G:H22	2.07	0.47
1:A:1524:G:C2'	1:A:1525:G:H5'	2.44	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2213:A:N3	1:A:2242:A:H2	2.09	0.47
1:A:1055:A:C2	1:A:2505:A:H5'	2.50	0.47
1:A:76:U:H2'	1:A:77:U:C6	2.49	0.47
3:B:10:G:OP1	9:Q:59:ARG:NE	2.40	0.47
3:B:43:C:O2	27:H:143:THR:HB	2.14	0.47
3:B:86:G:N1	3:B:87:G:N7	2.61	0.47
19:E:61:ILE:HD11	19:E:63:PHE:CE1	2.49	0.47
25:F:229:HIS:C	25:F:231:ALA:H	2.18	0.47
3:B:46:A:O5'	27:H:145:ARG:NH1	2.48	0.47
5:M:78:ARG:O	10:R:193:GLU:HB3	2.13	0.47
13:U:113:LYS:O	13:U:124:MET:HA	2.14	0.47
16:X:128:TYR:CG	16:X:134:LYS:CG	2.66	0.47
1:A:593:G:O6	1:A:1278:U:O2	2.33	0.47
1:A:164:A:O5'	1:A:164:A:H8	1.97	0.47
1:A:1662:A:O2'	1:A:1663:G:OP2	2.28	0.47
1:A:1755:A:C2	1:A:1756:G:C8	3.02	0.47
1:A:1841:G:C6	1:A:1989:G:N1	2.82	0.47
1:A:2117:U:H3	1:A:2200:A:H61	1.61	0.47
1:A:2191:C:C4	1:A:2192:U:C4	3.03	0.47
1:A:2193:C:N4	1:A:2194:U:O4	2.48	0.47
1:A:2230:A:C2'	1:A:2230:A:N3	2.77	0.47
1:A:2531:U:H2'	1:A:2532:C:C6	2.49	0.47
1:A:295:C:C2'	1:A:296:G:H5'	2.43	0.47
1:A:455:A:N6	26:G:92:LEU:O	2.48	0.47
1:A:761:A:OP2	13:U:118:ALA:HB2	2.14	0.47
25:F:223:THR:HG22	25:F:224:HIS:N	2.22	0.47
27:H:85:VAL:HB	27:H:210:THR:OG1	2.15	0.47
29:J:73:PHE:CD2	29:J:78:LEU:HD11	2.50	0.47
1:A:1168:U:OP1	4:L:123:ILE:HD12	2.14	0.47
6:N:195:ARG:O	6:N:197:PRO:CD	2.56	0.47
7:O:25:ASN:HD22	7:O:101:ARG:HG3	1.79	0.47
3:B:91:G:N2	7:O:38:GLU:CD	2.59	0.47
7:O:72:LYS:HG2	7:O:94:VAL:O	2.14	0.47
14:V:111:VAL:CG2	14:V:112:TYR:N	2.78	0.47
15:W:71:VAL:HA	15:W:89:ILE:CD1	2.42	0.47
1:A:1135:A:H2'	1:A:1136:U:C6	2.49	0.47
1:A:1144:U:H2'	1:A:1145:C:C6	2.49	0.47
1:A:115:G:OP2	1:A:117:A:O2'	2.23	0.47
1:A:119:A:C8	1:A:132:G:C6	3.02	0.47
1:A:1546:C:H2'	1:A:1547:C:H5'	1.97	0.47
1:A:1496:A:H62	1:A:1549:A:N6	2.12	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2186:U:P	1:A:2188:C:C4	3.07	0.47
1:A:2315:G:N2	1:A:2338:G:C5	2.81	0.47
1:A:241:A:H2'	1:A:242:A:C8	2.49	0.47
1:A:295:C:H6	1:A:295:C:O5'	1.97	0.47
1:A:369:U:O2	1:A:369:U:O2'	2.28	0.47
1:A:938:G:O2'	1:A:939:A:H5'	2.14	0.47
26:G:75:ALA:CB	26:G:159:LEU:HD21	2.37	0.47
6:N:240:LYS:O	6:N:240:LYS:HG3	2.13	0.47
15:W:158:VAL:CG1	15:W:169:ASP:OD1	2.63	0.47
1:A:101:A:N1	1:A:102:U:N3	2.62	0.47
1:A:1520:A:C2	1:A:1521:G:H1'	2.50	0.47
1:A:1723:G:N2	1:A:1738:G:C6	2.83	0.47
1:A:2003:A:HO2'	1:A:2004:C:P	2.36	0.47
1:A:2602:U:O2'	1:A:2603:C:H5'	2.14	0.47
1:A:2672:G:HO2'	1:A:2673:U:P	2.37	0.47
1:A:318:A:C6	1:A:339:A:C5	3.02	0.47
1:A:420:A:C6	1:A:432:G:C2	3.03	0.47
1:A:506:G:H1'	13:U:86:ASN:OD1	2.14	0.47
1:A:560:A:N1	1:A:561:C:N3	2.62	0.47
1:A:614:G:H2'	1:A:615:G:H8	1.79	0.47
1:A:623:A:OP2	1:A:623:A:H3'	2.13	0.47
1:A:679:G:H5'	1:A:680:G:OP2	2.14	0.47
1:A:934:A:O2'	1:A:935:U:O5'	2.20	0.47
19:E:179:LEU:HG	19:E:263:ASP:O	2.14	0.47
1:A:1603:A:C5'	19:E:55:LYS:CD	2.86	0.47
28:I:163:VAL:HG12	28:I:173:VAL:HG22	1.95	0.47
7:O:33:ALA:HB1	7:O:102:ILE:HG23	1.96	0.47
11:S:36:ALA:O	11:S:39:LYS:HB3	2.15	0.47
11:S:91:LEU:HD12	12:T:175:PRO:O	2.13	0.47
15:W:158:VAL:HG12	15:W:169:ASP:OD1	2.15	0.47
15:W:74:THR:HG22	15:W:88:GLU:OE1	2.15	0.47
1:A:1039:A:C2	1:A:1178:G:C5	3.01	0.47
1:A:1237:C:N4	1:A:1238:G:C2	2.83	0.47
1:A:1483:G:O2'	1:A:1484:G:H5'	2.15	0.47
1:A:1750:C:H42	1:A:1755:A:H61	1.61	0.47
1:A:1882:U:C5	1:A:1883:G:C6	3.02	0.47
1:A:344:C:H6	1:A:344:C:O5'	1.98	0.47
1:A:43:A:C2	1:A:44:G:C2	3.02	0.47
1:A:554:G:O6	1:A:560:A:N1	2.48	0.47
1:A:937:U:H2'	1:A:938:G:C5'	2.44	0.47
1:A:97:A:H8	1:A:97:A:O5'	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:B:25:G:C8	3:B:57:U:C4	3.02	0.47
3:B:69:C:H2'	3:B:70:G:H5'	1.97	0.47
2:C:58:G:H2'	2:C:59:C:C6	2.50	0.47
2:C:39:A:C5	2:C:83:C:C5	3.03	0.47
6:N:129:PHE:CZ	6:N:131:GLY:HA2	2.47	0.47
6:N:202:GLY:CA	6:N:221:ALA:CA	2.73	0.47
9:Q:50:ARG:O	9:Q:54:THR:HB	2.14	0.47
14:V:134:LEU:O	14:V:176:ILE:HG12	2.15	0.47
15:W:59:ASN:C	15:W:60:SER:OG	2.45	0.47
16:X:133:LYS:CD	16:X:133:LYS:N	2.77	0.47
1:A:1137:C:C3'	1:A:1138:G:C8	2.98	0.47
1:A:1437:G:C2	1:A:1618:C:H1'	2.50	0.47
1:A:1506:U:H3'	1:A:1507:G:O4'	2.14	0.47
1:A:1841:G:H2'	1:A:1842:C:C6	2.49	0.47
1:A:2114:G:C5	1:A:2204:A:N1	2.83	0.47
1:A:228:U:OP2	1:A:239:G:N1	2.47	0.47
1:A:2330:U:C1'	27:H:90:ASN:ND2	2.77	0.47
1:A:2473:C:N4	1:A:2474:U:O4	2.47	0.47
1:A:270:G:C2'	1:A:271:G:C5'	2.91	0.47
1:A:2705:G:N1	1:A:2738:U:OP2	2.24	0.47
1:A:428:C:H2'	1:A:429:C:C6	2.49	0.47
1:A:723:G:H2'	1:A:724:G:N9	2.29	0.47
1:A:866:G:H2'	1:A:867:G:C8	2.50	0.47
1:A:902:G:C5	1:A:903:G:C8	3.02	0.47
2:C:30:A:C2	2:C:83:C:C6	3.03	0.47
26:G:212:LEU:HD11	26:G:217:GLU:HB2	1.97	0.47
28:I:138:VAL:HG12	28:I:140:GLY:H	1.79	0.47
29:J:46:LYS:HG2	29:J:47:LYS:H	1.79	0.47
1:A:983:G:C2	7:O:82:ARG:CZ	2.64	0.47
9:Q:57:HIS:HD2	9:Q:60:ILE:HB	1.80	0.47
1:A:825:C:O2'	1:A:1245:U:O2	2.32	0.47
1:A:1429:C:C2'	1:A:1430:C:H5'	2.44	0.47
1:A:155:A:H2'	1:A:156:G:C8	2.50	0.47
1:A:2118:U:H2'	1:A:2119(A):U:O4'	2.14	0.47
1:A:2472:G:H2'	1:A:2473:C:H6	1.78	0.47
1:A:2666:U:H2'	1:A:2667:C:H6	1.80	0.47
1:A:287:A:C4	1:A:288:C:C4	3.02	0.47
1:A:334:U:H2'	1:A:335:G:H8	1.80	0.47
1:A:274:G:C6	1:A:433:C:C5'	2.97	0.47
1:A:434:A:H2'	1:A:435:A:C8	2.50	0.47
1:A:626:C:C3'	1:A:627:C:C6	2.93	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:852:U:C2	1:A:853:G:N7	2.83	0.47
1:A:856:U:O2	1:A:856:U:H5''	2.14	0.47
1:A:869:G:C8	1:A:869:G:OP2	2.68	0.47
3:B:14:U:OP2	3:B:15:A:N6	2.48	0.47
3:B:8:G:OP2	9:Q:76:PHE:CE1	2.64	0.47
19:E:172:LEU:HB2	19:E:173:PRO:HD2	1.97	0.47
28:I:136:ALA:HB2	28:I:145:LEU:HD23	1.96	0.47
4:L:147:VAL:HG23	4:L:149:MET:HG2	1.96	0.47
9:Q:128:ALA:O	9:Q:132:LEU:N	2.43	0.47
15:W:113:SER:N	15:W:120:GLY:HA2	2.30	0.47
16:X:162:ARG:HG3	16:X:163:GLU:N	2.30	0.47
1:A:1080:C:C2'	1:A:1081:C:H5''	2.44	0.47
1:A:1474:A:HO2'	1:A:1475:U:P	2.34	0.47
1:A:1482:C:O2'	1:A:1483:G:H5'	2.15	0.47
1:A:1496:A:H62	1:A:1548:A:H2	1.63	0.47
1:A:1532:G:O6	1:A:1612:A:H8	1.98	0.47
1:A:1650:A:OP2	1:A:1650:A:H8	1.98	0.47
1:A:2170:C:N4	1:A:2171:G:O6	2.48	0.47
1:A:2075:G:C8	1:A:2520:A:H1'	2.49	0.47
1:A:2579:U:H1'	5:M:23:ARG:CZ	2.44	0.47
1:A:262:G:C2	1:A:266:A:N6	2.83	0.47
1:A:2672:G:O2'	1:A:2673:U:P	2.72	0.47
1:A:2691:G:H2'	1:A:2692:A:C8	2.50	0.47
1:A:410:G:C6	1:A:411:U:C4	3.03	0.47
1:A:26:G:H1'	1:A:524:A:N6	2.30	0.47
1:A:87:G:O2'	15:W:57:LYS:NZ	2.24	0.47
1:A:9:A:C1'	2:C:99:A:C6	2.96	0.47
3:B:35:A:H2'	3:B:36:A:N9	2.29	0.47
3:B:73:G:O2'	3:B:74:A:O4'	2.22	0.47
19:E:224:VAL:HG13	19:E:225:ASP:OD1	2.15	0.47
26:G:103:LEU:HD13	26:G:107:GLU:OE1	2.15	0.47
26:G:70:LEU:HD11	26:G:256:ASN:OD1	2.01	0.47
27:H:157:ILE:HG23	27:H:227:GLY:HA3	1.96	0.47
27:H:189:SER:HB2	27:H:205:MET:CE	2.44	0.47
7:O:57:ASN:ND2	7:O:120:ILE:HD12	2.29	0.47
1:A:2351:G:C2	9:Q:64:VAL:HG22	2.49	0.47
12:T:91:ASP:HB3	13:U:142:PHE:CZ	2.46	0.47
1:A:1039:A:C2	1:A:1178:G:N1	2.83	0.47
1:A:1081:C:O2	1:A:1135:A:N1	2.47	0.47
1:A:143:G:C2'	1:A:144:A:C5'	2.86	0.47
1:A:1718:G:OP2	1:A:1735:G:N2	2.40	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2117:U:HO2'	1:A:2118:U:H5'	1.78	0.47
1:A:2233:G:C2'	1:A:2234:G:H8	2.01	0.47
1:A:290:A:N3	1:A:291:G:C8	2.83	0.47
1:A:881:U:O2	1:A:916:G:C6	2.68	0.47
1:A:969:A:N6	1:A:970:G:O6	2.48	0.47
25:F:179:PHE:HA	25:F:184:LYS:HZ3	1.80	0.47
27:H:188:GLN:HE21	27:H:188:GLN:CA	2.00	0.47
6:N:143:LEU:HD21	6:N:146:ILE:CG1	2.41	0.47
6:N:162:LEU:HG	6:N:203:GLU:OE1	2.15	0.47
6:N:197:PRO:CB	6:N:215:ARG:HD3	2.38	0.47
12:T:123:ILE:CD1	12:T:227:TYR:HE1	2.24	0.47
1:A:109:A:O3'	18:Z:120:ARG:NH1	2.48	0.46
1:A:1318:C:OP1	1:A:2727:U:H4'	2.14	0.46
1:A:1472:A:C4'	1:A:1473:G:H5''	2.46	0.46
1:A:1739:G:H2'	1:A:1740:G:H8	1.80	0.46
1:A:1986:G:C2	1:A:1987:G:N7	2.82	0.46
1:A:2336:U:O3'	1:A:2337:C:H5	1.98	0.46
1:A:836:G:N3	6:N:133:GLN:HG3	2.30	0.46
1:A:87:G:O6	1:A:88:A:N6	2.47	0.46
1:A:946:A:O2'	1:A:947:A:N7	2.48	0.46
19:E:166:LYS:HA	19:E:182:LYS:HD3	1.97	0.46
19:E:265:PHE:CE1	19:E:266:ILE:HG13	2.44	0.46
19:E:26:ASN:ND2	19:E:89:LEU:HD11	2.29	0.46
26:G:207:PHE:O	26:G:228:LEU:HA	2.14	0.46
9:Q:47:HIS:HB2	9:Q:53:ARG:NH2	2.29	0.46
14:V:102:LEU:HB3	18:Z:142:ARG:HH21	1.78	0.46
15:W:67:ARG:HH22	15:W:92:ILE:CG1	2.28	0.46
18:Z:87:LEU:O	18:Z:91:ARG:HG3	2.15	0.46
1:A:1194:G:O2'	1:A:1195:U:H2'	2.15	0.46
1:A:1284:U:H2'	1:A:1285:G:C8	2.50	0.46
1:A:1341:C:O2'	1:A:1342:A:O5'	2.31	0.46
1:A:1516:G:C3'	1:A:1517:G:C5'	2.88	0.46
1:A:176:A:H2'	1:A:177:C:C6	2.50	0.46
1:A:2248:U:H2'	1:A:2249:C:H6	1.80	0.46
1:A:1156:G:N2	1:A:2533:G:H21	2.13	0.46
1:A:2540:G:N2	1:A:2782:A:N3	2.63	0.46
1:A:350:G:O5'	1:A:350:G:H8	1.98	0.46
1:A:491:A:HO2'	1:A:493:G:H8	1.63	0.46
1:A:525:A:N3	1:A:591:C:O2'	2.46	0.46
1:A:538:C:O2'	1:A:539:A:C4	2.66	0.46
1:A:636:C:O5'	1:A:636:C:H6	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:874:G:O2'	1:A:875:C:H5'	2.15	0.46
2:C:72:A:O2'	2:C:73:G:H5'	2.15	0.46
19:E:265:PHE:CD1	19:E:266:ILE:CG1	2.86	0.46
25:F:193:GLU:OE1	25:F:193:GLU:N	2.48	0.46
26:G:75:ALA:HB1	26:G:76:PRO:HD2	1.96	0.46
14:V:131:GLU:O	14:V:131:GLU:HG2	2.14	0.46
16:X:67:LYS:N	16:X:67:LYS:HZ3	2.14	0.46
1:A:1081:C:H2'	1:A:1082:A:C8	2.50	0.46
1:A:1254:U:H4'	1:A:1255:U:OP1	2.14	0.46
1:A:1234:A:C8	1:A:1258:A:H2	2.33	0.46
1:A:1336:C:O2'	1:A:1413:A:N3	2.39	0.46
1:A:1427:A:H2'	1:A:1428:C:O2	2.16	0.46
1:A:146:U:H3	1:A:148:C:H41	1.64	0.46
1:A:1596:U:O2'	1:A:1597:C:C5'	2.45	0.46
1:A:1836:C:C5'	19:E:219:VAL:HG23	2.40	0.46
1:A:2108:G:N3	1:A:2108:G:C5'	2.73	0.46
1:A:2195:G:O2'	1:A:2196:G:H5'	2.15	0.46
1:A:2479:U:H5	1:A:2505:A:C2	2.33	0.46
1:A:2507:G:HO2'	1:A:2508:U:P	2.38	0.46
1:A:252:C:C2'	1:A:253:C:H5'	2.45	0.46
1:A:523:G:HO2'	1:A:524:A:P	2.38	0.46
1:A:682:C:C2	6:N:121:SER:HB3	2.51	0.46
1:A:854:A:C2	1:A:964:C:O2	2.69	0.46
3:B:36:A:H2	3:B:50:U:C2	2.33	0.46
25:F:97:LEU:O	25:F:114:VAL:HB	2.16	0.46
25:F:135:ASN:ND2	25:F:175:SER:HA	2.18	0.46
1:A:2637:U:H1'	25:F:250:MET:HB2	1.97	0.46
26:G:79:LYS:HZ2	26:G:79:LYS:HA	1.80	0.46
28:I:48:ILE:CD1	28:I:109:ARG:NH2	2.54	0.46
5:M:102:ILE:HD11	5:M:114:VAL:HA	1.96	0.46
1:A:821:U:H2'	6:N:108:GLY:CA	2.44	0.46
6:N:195:ARG:CA	6:N:195:ARG:NE	2.73	0.46
11:S:22:SER:O	11:S:23:SER:OG	2.21	0.46
15:W:170:THR:CB	15:W:171:PRO:HD3	2.43	0.46
1:A:2220:G:P	1:A:2221:U:OP2	2.73	0.46
1:A:2106:U:N3	1:A:2243:C:OP2	2.45	0.46
1:A:288:C:N4	1:A:289:A:N6	2.63	0.46
1:A:618:A:H2'	1:A:619:A:C8	2.51	0.46
1:A:956:G:H2'	1:A:957:U:C5'	2.45	0.46
1:A:968:C:C3'	1:A:969:A:H5''	2.45	0.46
3:B:17:G:N1	3:B:70:G:C4	2.77	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:30:A:N1	2:C:83:C:O2'	2.45	0.46
1:A:2806:U:O2'	2:C:5:A:C2	2.44	0.46
19:E:121:LYS:HB3	19:E:124:ASN:HD21	1.80	0.46
26:G:154:LYS:O	26:G:158:ARG:HG2	2.15	0.46
26:G:185:PRO:HB2	26:G:219:SER:OG	2.15	0.46
7:O:2:LEU:HD12	7:O:48:GLU:OE2	2.15	0.46
12:T:204:LYS:N	12:T:204:LYS:HD2	2.31	0.46
16:X:143:GLN:N	16:X:144:PRO:HD2	2.30	0.46
16:X:73:LYS:CD	16:X:73:LYS:H	2.27	0.46
16:X:81:ILE:CG2	16:X:85:GLN:HB2	2.45	0.46
18:Z:65:LEU:HB3	18:Z:68:LEU:HD13	1.97	0.46
1:A:1162:C:H4'	1:A:1163:G:OP1	2.12	0.46
1:A:118:U:H4'	1:A:119:A:O5'	2.15	0.46
1:A:1596:U:HO2'	1:A:1597:C:H5'	1.73	0.46
1:A:1756:G:N3	1:A:1757:G:C8	2.84	0.46
1:A:44:G:C8	1:A:200:G:C4	3.03	0.46
1:A:2114:G:C6	1:A:2204:A:C2	3.02	0.46
1:A:2213:A:C2'	1:A:2214:C:O5'	2.64	0.46
1:A:2236:C:C5	1:A:2237:A:H2	2.31	0.46
1:A:224:G:N2	1:A:244:G:O6	2.49	0.46
1:A:2457:C:C5	1:A:2458:U:H1'	2.50	0.46
1:A:2541:G:H2'	1:A:2542:G:H5''	1.98	0.46
1:A:334:U:H2'	1:A:335:G:C8	2.50	0.46
1:A:504:G:H4'	13:U:37:TYR:CD1	2.50	0.46
1:A:614:G:C6	1:A:637:G:C6	3.03	0.46
1:A:749:G:N2	1:A:770:G:C4	2.83	0.46
1:A:898:G:C6	1:A:899:A:N6	2.73	0.46
25:F:119:GLU:CG	25:F:143:ARG:HB3	2.43	0.46
26:G:81:ARG:HH21	26:G:81:ARG:HB2	1.79	0.46
7:O:26:ARG:CG	7:O:27:ILE:H	2.15	0.46
7:O:31:ARG:HG3	7:O:134:SER:OG	2.16	0.46
13:U:139:ILE:HG23	13:U:139:ILE:O	2.15	0.46
1:A:2024:G:H5''	13:U:71:ARG:CB	2.45	0.46
17:Y:98:LEU:CD1	17:Y:100:PHE:HD2	2.28	0.46
1:A:1009:A:N1	1:A:2041:G:O2'	2.40	0.46
1:A:1333:U:H5'	1:A:1334:U:H5	1.81	0.46
1:A:1592:A:H5'	1:A:1594:A:H5''	1.95	0.46
1:A:159:A:C4'	1:A:160:A:OP2	2.64	0.46
1:A:1835:G:H2'	1:A:1836:C:H6	1.80	0.46
1:A:192:A:H2'	1:A:193:G:O4'	2.16	0.46
1:A:227:G:N2	1:A:239:G:H2'	2.31	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2292:C:O2'	7:O:83:MET:HG3	2.14	0.46
1:A:2419:G:H4'	1:A:2420:C:OP1	2.15	0.46
1:A:553:G:H3'	1:A:554:G:C5'	2.44	0.46
1:A:919:A:C2'	1:A:920:A:C5'	2.92	0.46
19:E:117:GLU:OE1	19:E:117:GLU:N	2.48	0.46
19:E:144:LEU:HD12	19:E:184:CYS:SG	2.56	0.46
10:R:123:MET:HE1	25:F:98:GLY:C	2.36	0.46
26:G:78:GLU:O	26:G:78:GLU:HG2	2.16	0.46
1:A:1187:G:N2	12:T:131:SER:HB2	2.30	0.46
12:T:96:PRO:O	12:T:97:GLU:C	2.54	0.46
13:U:49:VAL:O	13:U:52:GLN:HB3	2.15	0.46
16:X:162:ARG:CB	16:X:162:ARG:CZ	2.89	0.46
1:A:1475:U:O2	8:P:70:LEU:CD1	2.64	0.46
1:A:1567:C:N3	1:A:1572:G:O6	2.49	0.46
1:A:1629:G:H2'	1:A:1630:G:H8	1.81	0.46
1:A:1884:A:H2'	1:A:1885:C:O5'	2.16	0.46
1:A:1:U:O5'	1:A:1:U:H6	1.99	0.46
1:A:2114:G:H2'	1:A:2115:G:H8	1.81	0.46
1:A:211:A:H2'	1:A:214:A:H61	1.81	0.46
1:A:2122:C:N4	1:A:2195:G:N2	2.64	0.46
1:A:320:U:O4'	1:A:341:A:C4	2.69	0.46
1:A:380:C:H2'	1:A:381:C:O5'	2.16	0.46
1:A:46:C:C2'	1:A:47:G:C5'	2.88	0.46
1:A:623:A:HO2'	1:A:624:A:P	2.39	0.46
1:A:786:G:H4'	1:A:787:G:O5'	2.16	0.46
3:B:36:A:C5	3:B:45:G:O6	2.68	0.46
19:E:245:PRO:HG2	19:E:246:TRP:CD2	2.49	0.46
19:E:26:ASN:HD21	19:E:89:LEU:HD11	1.78	0.46
25:F:173:LEU:HD23	25:F:174:VAL:O	2.15	0.46
26:G:182:PHE:CE2	26:G:190:PHE:HD1	2.34	0.46
26:G:208:PHE:HB2	26:G:229:LEU:O	2.16	0.46
27:H:217:LYS:O	27:H:221:LYS:N	2.28	0.46
6:N:160:ILE:HA	6:N:201:LEU:HB2	1.98	0.46
11:S:89:GLN:O	12:T:175:PRO:HD2	2.16	0.46
12:T:91:ASP:CB	13:U:142:PHE:CE1	2.96	0.46
1:A:2273:U:O2'	16:X:66:THR:N	2.47	0.46
17:Y:144:ASP:OD1	17:Y:145:LEU:HG	2.16	0.46
1:A:1219:U:O2	11:S:5:LYS:NZ	2.49	0.46
1:A:1516:G:C8	1:A:1517:G:H8	2.33	0.46
1:A:1536:A:C5'	1:A:1536:A:N3	2.73	0.46
1:A:1525:G:C2	1:A:1541:U:O2	2.68	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1570:C:H5'	1:A:1571:G:C2	2.51	0.46
1:A:159:A:C1'	1:A:160:A:P	3.04	0.46
1:A:188:U:H5''	1:A:189:A:H5''	1.96	0.46
1:A:2480:U:O4	1:A:2504:A:C6	2.65	0.46
1:A:253:C:O5'	1:A:253:C:H6	1.99	0.46
1:A:254:U:C2'	1:A:255:A:H5'	2.44	0.46
1:A:270:G:H2'	1:A:271:G:O5'	2.16	0.46
1:A:532:A:N6	1:A:533:G:O6	2.49	0.46
1:A:773:U:H4'	1:A:774:G:O5'	2.16	0.46
1:A:873:A:H2'	1:A:874:G:H5'	1.98	0.46
1:A:919:A:C4	7:O:13:HIS:CE1	3.04	0.46
3:B:38:C:H42	3:B:50:U:H1'	1.81	0.46
2:C:31:U:N3	2:C:38:G:N7	2.63	0.46
2:C:42:G:C2	2:C:85:U:N3	2.83	0.46
26:G:70:LEU:HD22	26:G:252:ILE:HD11	1.98	0.46
26:G:57:ILE:HD11	26:G:68:THR:CG2	2.46	0.46
27:H:151:SER:O	27:H:154:ASP:HB3	2.15	0.46
27:H:188:GLN:O	27:H:188:GLN:HG3	2.15	0.46
28:I:65:VAL:O	28:I:71:GLU:HA	2.16	0.46
4:L:123:ILE:HD11	4:L:126:ARG:HD2	1.98	0.46
4:L:152:PHE:CE1	4:L:220:HIS:CD2	3.04	0.46
8:P:88:ALA:O	8:P:92:GLU:CB	2.64	0.46
10:R:168:ILE:O	10:R:183:ILE:HA	2.16	0.46
1:A:574:C:OP1	11:S:41:ARG:NH2	2.49	0.46
14:V:109:LEU:HD21	14:V:141:ARG:CD	2.46	0.46
15:W:150:LYS:HE3	15:W:160:TYR:CD2	2.51	0.46
16:X:142:ILE:O	16:X:143:GLN:HB2	2.15	0.46
1:A:1110:U:O2	1:A:1114:A:N1	2.49	0.46
1:A:1341:C:HO2'	1:A:1342:A:P	2.39	0.46
1:A:1479:U:H3'	1:A:1479:U:H6	1.81	0.46
1:A:1665:U:O4	1:A:1666:A:N6	2.49	0.46
1:A:1702:G:H2'	1:A:1703:G:H5'	1.98	0.46
1:A:212:A:O2'	1:A:213:A:O5'	2.33	0.46
1:A:2209:U:C6	1:A:2210:C:H5	2.33	0.46
1:A:2213:A:C6	1:A:2242:A:C6	3.03	0.46
1:A:2324:G:N2	1:A:2328:A:O2'	2.49	0.46
1:A:2669:C:H2'	1:A:2670:U:O4'	2.16	0.46
1:A:367:C:H3'	1:A:368:U:C6	2.50	0.46
3:B:35:A:C6	3:B:51:G:N1	2.84	0.46
19:E:57:LEU:O	19:E:59:ARG:NH2	2.49	0.46
26:G:168:ALA:O	26:G:173:PHE:HB2	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:G:177:GLU:HG3	26:G:248:THR:HG22	1.98	0.46
9:Q:60:ILE:O	9:Q:64:VAL:HG23	2.16	0.46
13:U:31:GLU:N	13:U:31:GLU:OE1	2.48	0.46
17:Y:98:LEU:HD12	17:Y:100:PHE:HD2	1.81	0.46
1:A:1385:G:H5''	17:Y:73:ARG:HD2	1.97	0.46
1:A:1888:G:C4	1:A:1889:G:C8	3.04	0.46
1:A:2326:A:C6	1:A:2327:G:C6	3.04	0.46
1:A:2422:G:O2'	1:A:2429:A:N6	2.49	0.46
1:A:268:G:C6	1:A:269:G:O6	2.69	0.46
1:A:306:G:N1	1:A:352:C:N3	2.63	0.46
1:A:493:G:O2'	1:A:518:A:N6	2.49	0.46
1:A:622:G:N2	1:A:627:C:H3'	2.31	0.46
2:C:21:G:H3'	2:C:22:A:C5'	2.44	0.46
19:E:258:ARG:O	19:E:259:ASN:ND2	2.47	0.46
25:F:147:ARG:C	25:F:149:LEU:H	2.19	0.46
26:G:161:LEU:HD23	26:G:161:LEU:HA	1.76	0.46
27:H:189:SER:CB	27:H:205:MET:CE	2.94	0.46
1:A:1305:A:H2'	1:A:1306:G:O4'	2.16	0.45
1:A:133:A:C2'	1:A:134:A:H8	2.23	0.45
1:A:1769:A:H2'	1:A:1770:C:H6	1.81	0.45
1:A:2123:U:C2	1:A:2194:U:N3	2.84	0.45
1:A:2211:U:H2'	1:A:2212:A:H8	1.78	0.45
1:A:2237:A:O2'	1:A:2238:A:H5'	2.15	0.45
1:A:2319:C:HO2'	27:H:177:GLY:C	2.19	0.45
1:A:2542:G:H2'	1:A:2543:G:H8	1.81	0.45
1:A:293:G:C6	1:A:294:U:O4	2.69	0.45
1:A:493:G:O2'	1:A:494:A:P	2.74	0.45
1:A:526:A:H2	1:A:1282:C:H1'	1.81	0.45
1:A:70:A:H4'	1:A:71:A:H5''	1.97	0.45
1:A:83:A:C2	1:A:100:G:C2	3.04	0.45
1:A:908:A:H2'	1:A:909:A:C8	2.50	0.45
1:A:90:A:O2'	1:A:91:A:O4'	2.27	0.45
3:B:31:C:H1'	3:B:58:A:H61	1.81	0.45
3:B:31:C:O2	3:B:32:A:C8	2.70	0.45
3:B:38:C:N4	3:B:39:C:N3	2.64	0.45
3:B:34:C:N3	3:B:52:G:N1	2.64	0.45
3:B:6:U:C2	3:B:118:G:C2	2.99	0.45
3:B:92:U:H2'	3:B:93:C:C5	2.50	0.45
2:C:92:C:H2'	2:C:93:C:C6	2.51	0.45
2:C:99:A:C2'	2:C:100:C:H5'	2.45	0.45
19:E:137:ILE:HG23	19:E:187:THR:O	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:F:145:ARG:NH2	25:F:145:ARG:CG	2.73	0.45
26:G:230:THR:CG2	26:G:233:SER:HB3	2.45	0.45
26:G:76:PRO:HG2	26:G:79:LYS:HB3	1.98	0.45
29:J:56:ASP:OD1	29:J:57:ILE:N	2.50	0.45
4:L:136:ARG:NH1	4:L:209:PRO:HG3	2.32	0.45
4:L:114:TRP:HB3	4:L:236:PRO:HB3	1.98	0.45
6:N:156:LYS:CE	6:N:215:ARG:NH1	2.69	0.45
10:R:187:ILE:O	10:R:189:GLY:N	2.49	0.45
1:A:100:G:HO2'	1:A:101:A:P	2.38	0.45
1:A:1004:G:O6	1:A:1016:G:N2	2.49	0.45
1:A:1060:A:N1	1:A:1150:G:O6	2.50	0.45
1:A:1598:C:C5	1:A:1599:C:N4	2.84	0.45
1:A:2112:U:C2'	1:A:2113:G:C8	2.96	0.45
1:A:224:G:N2	1:A:244:G:C6	2.84	0.45
1:A:2752:G:C8	1:A:2753:C:H4'	2.50	0.45
1:A:280:G:H2'	1:A:280:G:N3	2.31	0.45
1:A:292:C:C2'	1:A:293:G:H8	2.19	0.45
1:A:332:G:N2	1:A:342:G:C1'	2.78	0.45
1:A:651:U:H2'	1:A:652:C:H6	1.82	0.45
1:A:669:C:HO2'	1:A:670:A:C5'	2.29	0.45
1:A:939:A:H2'	1:A:940:C:O4'	2.16	0.45
3:B:108:C:H6	3:B:108:C:O5'	1.99	0.45
3:B:31:C:N3	3:B:32:A:N7	2.64	0.45
2:C:103:G:C2	2:C:104:A:C5	3.04	0.45
2:C:17:A:OP1	25:F:205:GLY:N	2.48	0.45
19:E:77:ILE:O	19:E:77:ILE:HG13	2.16	0.45
25:F:96:LYS:O	25:F:97:LEU:HD12	2.16	0.45
6:N:129:PHE:CE2	6:N:131:GLY:N	2.83	0.45
6:N:223:GLU:OE2	6:N:223:GLU:HA	2.16	0.45
2:C:17:A:P	8:P:13:HIS:HE2	2.38	0.45
13:U:29:CYS:HB3	13:U:91:LYS:HE2	1.98	0.45
16:X:143:GLN:N	16:X:144:PRO:CD	2.80	0.45
17:Y:129:ILE:HD12	17:Y:130:GLU:CA	2.46	0.45
1:A:61:U:H5'	18:Z:94:ARG:HH12	1.81	0.45
1:A:1002:G:H8	1:A:1018:A:H62	1.62	0.45
1:A:1075:G:N2	1:A:1139:A:N7	2.64	0.45
1:A:1197:A:OP1	16:X:165:LYS:CD	2.65	0.45
1:A:1467:C:H2'	1:A:1468:C:C6	2.52	0.45
1:A:1497:A:H2'	1:A:1498:G:OP1	2.17	0.45
1:A:1504:C:O5'	1:A:1504:C:H6	1.99	0.45
1:A:151:G:H8	1:A:151:G:O5'	2.00	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1540:C:H2'	1:A:1541:U:C6	2.51	0.45
1:A:1320:G:N1	1:A:1676:U:OP2	2.38	0.45
1:A:2205:G:C6	1:A:2206:A:C6	3.04	0.45
1:A:2389:G:H2'	1:A:2390:A:C8	2.50	0.45
1:A:252:C:HO2'	1:A:253:C:H5'	1.80	0.45
1:A:263:A:N3	1:A:263:A:C5'	2.73	0.45
1:A:2745:G:H2'	1:A:2746:U:O4'	2.16	0.45
1:A:386:A:O5'	1:A:386:A:H8	1.99	0.45
1:A:859:A:H2'	1:A:860:C:C6	2.51	0.45
25:F:136:ALA:HB2	25:F:172:ARG:HA	1.97	0.45
26:G:189:ASP:OD1	26:G:190:PHE:N	2.48	0.45
1:A:2579:U:C2'	5:M:23:ARG:NH1	2.78	0.45
6:N:162:LEU:O	6:N:166:GLU:HB2	2.16	0.45
10:R:122:ILE:N	10:R:122:ILE:HD13	2.31	0.45
15:W:74:THR:OG1	15:W:137:ILE:O	2.33	0.45
16:X:93:ILE:O	16:X:94:ILE:HD13	2.16	0.45
14:V:154:PHE:CE1	18:Z:149:PRO:HD3	2.51	0.45
1:A:131:C:H4'	1:A:132:G:C4	2.51	0.45
1:A:120:G:OP1	1:A:133:A:O2'	2.35	0.45
1:A:1522:A:N6	1:A:1544:A:N3	2.64	0.45
1:A:1532:G:H1'	1:A:1611:G:HO2'	1.77	0.45
1:A:1553:U:H2'	1:A:1554:C:H6	1.78	0.45
1:A:161:G:HO2'	1:A:162:A:C4'	2.28	0.45
1:A:2322:A:C2'	1:A:2323:C:H5'	2.46	0.45
1:A:248:G:H2'	1:A:249:C:O4'	2.17	0.45
1:A:2536:A:H4'	1:A:2537:C:O5'	2.16	0.45
1:A:2633:C:H2'	1:A:2634:C:H6	1.82	0.45
1:A:293:G:H22	1:A:365:A:H2	1.63	0.45
1:A:626:C:C2'	1:A:627:C:C6	2.99	0.45
1:A:690:U:H2'	1:A:691:G:C8	2.51	0.45
1:A:740:G:H5'	1:A:741:U:H5''	1.98	0.45
1:A:888:C:H2'	1:A:889:G:OP1	2.16	0.45
3:B:43:C:O2'	3:B:44:C:O4'	2.29	0.45
2:C:33:A:O2'	2:C:34:U:O5'	2.20	0.45
2:C:86:A:H2'	2:C:87:A:O5'	2.16	0.45
26:G:116:TYR:HB2	26:G:117:PRO:HD2	1.97	0.45
27:H:172:PRO:O	27:H:176:ASP:HB2	2.17	0.45
27:H:175:PHE:O	27:H:183:VAL:HG13	2.17	0.45
6:N:143:LEU:HD23	6:N:146:ILE:HG12	1.97	0.45
7:O:112:ASN:OD1	7:O:113:ILE:N	2.49	0.45
11:S:31:LEU:HA	11:S:31:LEU:HD12	1.72	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1650:A:N1	13:U:122:SER:OG	2.49	0.45
13:U:149:LEU:N	13:U:149:LEU:CD2	2.73	0.45
18:Z:79:GLU:O	18:Z:83:LEU:HG	2.15	0.45
1:A:1496:A:C5	1:A:1497:A:N3	2.84	0.45
1:A:1556:A:H5''	1:A:1557:G:OP1	2.16	0.45
1:A:171:G:H2'	1:A:172:G:C8	2.51	0.45
1:A:2047:A:O2'	1:A:2048:U:P	2.75	0.45
1:A:361:C:H6	1:A:361:C:H5''	1.82	0.45
1:A:374:U:H2'	1:A:375:C:N1	2.32	0.45
1:A:553:G:H5'	1:A:554:G:OP2	2.17	0.45
1:A:69:G:HO2'	1:A:70:A:P	2.40	0.45
1:A:83:A:H2'	1:A:84:G:H4'	1.98	0.45
1:A:887:G:H2'	1:A:888:C:H6	1.79	0.45
3:B:26:A:C2	3:B:27:A:C4	3.04	0.45
3:B:32:A:C6	3:B:55:G:C2	3.04	0.45
3:B:63:C:H2'	3:B:64:U:C6	2.51	0.45
1:A:2653:U:C4'	25:F:170:GLU:OE2	2.58	0.45
28:I:162:GLN:HG3	28:I:174:SER:HB2	1.97	0.45
1:A:836:G:O2'	6:N:133:GLN:CD	2.55	0.45
1:A:234:C:H5	6:N:142:LYS:HZ2	1.56	0.45
12:T:116:PRO:HD2	12:T:117:PRO:N	2.31	0.45
16:X:128:TYR:HE2	16:X:132:LYS:CB	2.04	0.45
17:Y:144:ASP:OD1	17:Y:145:LEU:N	2.49	0.45
1:A:1363:A:H2	1:A:1417:U:HO2'	1.65	0.45
1:A:1459:U:C2	1:A:1460:A:C8	3.05	0.45
1:A:1590:C:C4	1:A:1591:C:N4	2.84	0.45
1:A:1808:C:C2	1:A:1829:A:C6	3.05	0.45
1:A:2190:A:H8	1:A:2190:A:O5'	1.98	0.45
1:A:2227:C:C5	1:A:2228:C:C5	3.05	0.45
1:A:2307:G:H2'	1:A:2308:U:C6	2.51	0.45
1:A:2480:U:H5	1:A:2504:A:C2	2.35	0.45
1:A:261:U:H3	1:A:266:A:N6	2.15	0.45
1:A:863:C:O2	1:A:934:A:C2	2.70	0.45
1:A:951:C:H6	1:A:951:C:H5''	1.81	0.45
1:A:957:U:C4	1:A:958:C:C4	3.05	0.45
3:B:43:C:C6	27:H:119:VAL:HG22	2.51	0.45
2:C:7:G:H2'	2:C:8:G:O4'	2.17	0.45
2:C:80:C:H4'	10:R:119:LEU:HD13	1.99	0.45
25:F:266:ILE:HG13	25:F:267:MET:H	1.81	0.45
26:G:146:ARG:NH2	26:G:148:TRP:CE3	2.84	0.45
26:G:89:ILE:O	26:G:93:GLN:HB3	2.17	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:147:ASN:O	27:H:150:TYR:N	2.49	0.45
4:L:136:ARG:HD3	4:L:209:PRO:HD3	1.98	0.45
7:O:32:TYR:OH	7:O:111:GLU:OE2	2.33	0.45
12:T:214:GLN:OE1	12:T:215:PRO:HD2	2.17	0.45
13:U:58:TYR:CE2	13:U:95:LYS:HD3	2.52	0.45
14:V:126:LYS:O	14:V:130:ASP:CB	2.65	0.45
1:A:1137:C:C6	1:A:1138:G:N7	2.85	0.45
1:A:1299:U:H3	1:A:1313:A:H61	1.65	0.45
1:A:1337:U:H2'	1:A:1338:C:H6	1.81	0.45
1:A:1494:G:N2	1:A:1551:G:O6	2.50	0.45
1:A:1549:A:C6	1:A:1550:U:C2	3.05	0.45
1:A:1749:U:H6	1:A:1749:U:H5''	1.82	0.45
1:A:1868:A:H2'	1:A:1869:G:O4'	2.17	0.45
1:A:2480:U:H5	1:A:2504:A:H2	1.65	0.45
1:A:342:G:H2'	1:A:343:U:H5'	1.97	0.45
1:A:612:U:O5'	1:A:612:U:H6	1.99	0.45
1:A:890:G:C2	1:A:891:G:N7	2.85	0.45
1:A:913:G:C2'	1:A:914:A:H5'	2.46	0.45
1:A:920:A:N7	7:O:9:PHE:CE2	2.85	0.45
3:B:27:A:H2'	3:B:28:C:O4'	2.17	0.45
19:E:76:THR:O	19:E:88:CYS:HA	2.17	0.45
26:G:71:ASN:ND2	26:G:72:LEU:N	2.63	0.45
27:H:68:LEU:O	27:H:72:GLU:HB2	2.17	0.45
28:I:155:MET:HG2	28:I:188:ILE:HD11	1.99	0.45
8:P:45:LYS:HG2	8:P:122:TYR:HD1	1.80	0.45
10:R:169:VAL:HG23	10:R:181:ILE:HG23	1.99	0.45
12:T:177:VAL:HB	12:T:230:TYR:HH	1.82	0.45
13:U:113:LYS:HE3	13:U:113:LYS:HB2	1.76	0.45
16:X:156:GLU:O	16:X:160:LEU:HG	2.17	0.45
1:A:101:A:C5	1:A:102:U:C4	3.04	0.45
1:A:103:C:C2'	1:A:104:C:H5'	2.46	0.45
1:A:1178:G:H4'	11:S:83:HIS:CD2	2.37	0.45
1:A:1197:A:H1'	1:A:1198:A:C8	2.52	0.45
1:A:1219:U:H2'	1:A:1220:U:C6	2.52	0.45
1:A:1502:A:H3'	1:A:1503:C:C5'	2.47	0.45
1:A:1533:A:C2'	1:A:1534:A:N3	2.78	0.45
1:A:1534:A:C2'	1:A:1535:A:H5''	2.36	0.45
1:A:1795:A:HO2'	1:A:1796:A:H8	1.63	0.45
1:A:18:U:H2'	1:A:19:U:C6	2.52	0.45
1:A:2201:G:C2'	1:A:2202:C:H5'	2.46	0.45
1:A:2201:G:N1	1:A:2202:C:N4	2.65	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2329:U:H6	1:A:2329:U:O5'	1.99	0.45
1:A:2373:C:H2'	1:A:2374:C:O4'	2.17	0.45
1:A:2684:C:H2'	1:A:2685:G:O4'	2.16	0.45
1:A:658:A:H5''	1:A:659:G:OP2	2.16	0.45
1:A:767:A:H2'	1:A:768:G:O4'	2.17	0.45
1:A:82:G:N1	1:A:100:G:C5	2.85	0.45
3:B:41:U:C3'	3:B:42:C:H5''	2.47	0.45
3:B:7:G:H1'	3:B:8:G:O5'	2.16	0.45
19:E:175:GLY:O	19:E:268:ARG:CB	2.62	0.45
26:G:204:LYS:CA	26:G:225:THR:HB	2.47	0.45
27:H:147:ASN:HA	27:H:150:TYR:CD2	2.52	0.45
27:H:164:THR:HB	27:H:167:PHE:CZ	2.52	0.45
8:P:93:VAL:O	8:P:96:ARG:N	2.50	0.45
1:A:2701:U:OP1	10:R:173:GLN:HG3	2.17	0.45
12:T:113:LYS:HE2	12:T:113:LYS:CA	2.46	0.45
12:T:230:TYR:CD1	12:T:230:TYR:O	2.70	0.45
1:A:1137:C:C2'	1:A:1138:G:C8	2.99	0.45
1:A:126:C:H6	1:A:126:C:H5''	1.82	0.45
1:A:161:G:N3	1:A:161:G:H2'	2.32	0.45
1:A:2209:U:H2'	1:A:2210:C:C5	2.52	0.45
1:A:2313:U:H5'	1:A:2314:C:OP1	2.16	0.45
1:A:262:G:O2'	1:A:263:A:H5''	2.17	0.45
1:A:2698:C:OP1	25:F:285:LYS:HE2	2.08	0.45
1:A:2744:A:N3	5:M:67:LYS:NZ	2.52	0.45
1:A:489:A:H2'	1:A:490:A:H8	1.79	0.45
1:A:611:C:C2'	1:A:612:U:H5'	2.47	0.45
1:A:636:C:HO2'	1:A:637:G:H5'	1.81	0.45
1:A:882:U:H6	1:A:882:U:H5''	1.82	0.45
25:F:279:LYS:HG2	25:F:280:GLY:N	2.32	0.45
25:F:90:ILE:HD12	25:F:137:VAL:HG21	1.97	0.45
13:U:70:TYR:O	13:U:73:CYS:HB3	2.17	0.45
1:A:1751:A:C2	1:A:1753:A:O5'	2.70	0.45
1:A:1885:C:N4	6:N:253:ALA:N	2.65	0.45
1:A:1888:G:C5	1:A:1889:G:N7	2.85	0.45
1:A:2024:G:H5''	13:U:71:ARG:HB3	1.99	0.45
1:A:2111:U:H6	1:A:2111:U:H5''	1.82	0.45
1:A:2142:G:O2'	1:A:2188:C:O4'	2.34	0.45
1:A:2322:A:HO2'	1:A:2323:C:H5'	1.77	0.45
1:A:2472:G:H2'	1:A:2473:C:C6	2.52	0.45
1:A:2645:U:C6	1:A:2645:U:O5'	2.70	0.45
1:A:376:U:O2'	1:A:377:G:OP2	2.27	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:380:C:N4	1:A:381:C:N4	2.64	0.45
1:A:394:G:H2'	1:A:395:C:O4'	2.17	0.45
1:A:6:A:H2'	1:A:7:C:C6	2.52	0.45
1:A:950:A:C6	1:A:951:C:C2	3.05	0.45
3:B:110:C:HO2'	3:B:111:G:P	2.36	0.45
3:B:66:C:C5	3:B:110:C:N3	2.84	0.45
19:E:135:THR:HB	19:E:137:ILE:HD11	1.99	0.45
19:E:49:HIS:CE1	19:E:215:VAL:HG12	2.51	0.45
19:E:75:VAL:HG21	19:E:91:HIS:HE1	1.81	0.45
27:H:163:ARG:CZ	27:H:192:PRO:HD3	2.46	0.45
10:R:147:ASP:O	10:R:169:VAL:HG12	2.17	0.45
11:S:111:ILE:O	11:S:115:ILE:HG12	2.16	0.45
11:S:27:ALA:HB1	11:S:31:LEU:HD23	1.98	0.45
14:V:105:PRO:C	14:V:107:ARG:N	2.71	0.45
18:Z:130:LYS:HD3	18:Z:134:ARG:NH2	2.32	0.45
14:V:104:TYR:CD1	18:Z:142:ARG:NE	2.85	0.45
1:A:1020:C:H2'	1:A:1021:A:C8	2.50	0.44
1:A:1207:G:H2'	1:A:1208:G:O4'	2.17	0.44
1:A:1475:U:O4'	8:P:73:ARG:HD2	2.16	0.44
1:A:1515:G:H2'	1:A:1516:G:OP1	2.17	0.44
1:A:1495:C:N4	1:A:1548:A:C5	2.86	0.44
1:A:160:A:C2	1:A:161:G:O6	2.71	0.44
1:A:1804:U:H2'	1:A:1805:C:C6	2.52	0.44
1:A:210:C:H2'	1:A:211:A:O4'	2.17	0.44
1:A:2109:C:H5'	1:A:2110:U:H5	1.82	0.44
1:A:2214:C:O5'	1:A:2214:C:C6	2.70	0.44
1:A:2267:G:N1	7:O:82:ARG:NH2	2.65	0.44
1:A:276:G:C8	1:A:276:G:OP2	2.71	0.44
1:A:367:C:C6	1:A:367:C:OP2	2.70	0.44
1:A:371:U:OP2	1:A:371:U:C5	2.71	0.44
1:A:413:A:H2'	1:A:414:A:C8	2.52	0.44
1:A:640:G:H2'	1:A:641:C:C6	2.53	0.44
1:A:858:G:C6	1:A:859:A:C5	3.05	0.44
3:B:118:G:C2	3:B:119:G:O6	2.70	0.44
2:C:79:G:C2	2:C:80:C:C2	3.05	0.44
2:C:80:C:C6	2:C:80:C:O5'	2.70	0.44
25:F:143:ARG:HA	25:F:165:MET:HA	1.99	0.44
25:F:188:GLU:N	25:F:188:GLU:OE1	2.50	0.44
1:A:2011:G:H5''	25:F:219:ARG:NH2	2.28	0.44
4:L:177:SER:OG	4:L:182:GLY:CA	2.58	0.44
1:A:1264:C:O2	6:N:83:ASP:O	2.35	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:34:LEU:HD13	7:O:118:VAL:CG1	2.46	0.44
8:P:65:ALA:HB1	8:P:90:PHE:HA	1.99	0.44
14:V:114:ILE:CG2	14:V:115:LEU:HD12	2.23	0.44
18:Z:137:ASP:OD1	18:Z:141:LYS:CG	2.65	0.44
1:A:1155:A:N7	1:A:2505:A:O2'	2.47	0.44
1:A:1193:U:C2'	1:A:1194:G:H5'	2.47	0.44
1:A:1337:U:H2'	1:A:1338:C:C6	2.52	0.44
1:A:145:A:C8	1:A:145:A:O5'	2.70	0.44
1:A:1472:A:O4'	1:A:1473:G:C8	2.71	0.44
1:A:1754:A:H2'	1:A:1755:A:O5'	2.16	0.44
1:A:2009:U:H5	1:A:2010:C:HO2'	1.64	0.44
1:A:2156:C:C2	1:A:2164:G:C2	3.03	0.44
1:A:2224:G:O3'	1:A:2225:G:C8	2.70	0.44
1:A:2236:C:C6	1:A:2236:C:O5'	2.70	0.44
1:A:2319:C:N3	1:A:2332:G:C6	2.85	0.44
1:A:2420:C:OP2	1:A:2420:C:C6	2.71	0.44
1:A:2:U:H6	1:A:2:U:O5'	2.00	0.44
1:A:319:G:O2'	1:A:320:U:H3'	2.16	0.44
1:A:368:U:C4	1:A:369:U:O4	2.70	0.44
1:A:375:C:C6	1:A:375:C:O5'	2.70	0.44
1:A:416:C:C2	1:A:418:G:C4	3.02	0.44
1:A:428:C:H2'	1:A:429:C:H6	1.82	0.44
1:A:622:G:C8	1:A:622:G:OP2	2.70	0.44
1:A:640:G:H2'	1:A:641:C:H6	1.82	0.44
1:A:824:U:O2'	1:A:825:C:C5'	2.65	0.44
1:A:84:G:OP2	15:W:71:VAL:HG22	2.17	0.44
1:A:852:U:O2'	1:A:853:G:H5'	2.17	0.44
1:A:862:U:H2'	1:A:863:C:C6	2.52	0.44
1:A:944:C:OP2	1:A:944:C:C5	2.70	0.44
3:B:18:C:C5	3:B:19:G:N7	2.85	0.44
3:B:88:G:N2	3:B:92:U:N3	2.65	0.44
2:C:88:C:H2'	2:C:89:A:C8	2.53	0.44
19:E:260:LYS:O	19:E:261:TYR:CD2	2.70	0.44
25:F:202:THR:HA	25:F:258:LYS:HA	1.99	0.44
27:H:107:ILE:O	27:H:111:ALA:HB3	2.18	0.44
29:J:46:LYS:HG2	29:J:47:LYS:N	2.32	0.44
6:N:255:GLU:C	6:N:256:TYR:CG	2.91	0.44
7:O:80:GLU:O	7:O:81:THR:OG1	2.24	0.44
9:Q:99:SER:C	9:Q:101:MET:H	2.19	0.44
12:T:106:ILE:H	12:T:106:ILE:HG13	1.61	0.44
12:T:95:ALA:N	12:T:96:PRO:CD	2.79	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:W:82:GLU:O	15:W:82:GLU:HG2	2.17	0.44
18:Z:123:GLU:HG2	18:Z:128:VAL:CG2	2.47	0.44
1:A:1008:A:N3	1:A:2051:G:O2'	2.40	0.44
1:A:1870:U:H2'	1:A:1871:U:H6	1.82	0.44
1:A:2113:G:O5'	1:A:2113:G:C8	2.70	0.44
1:A:2278:C:C2	1:A:2297:G:N2	2.86	0.44
1:A:355:A:C8	1:A:356:A:H8	2.16	0.44
1:A:390:U:H2'	1:A:391:G:C8	2.53	0.44
1:A:386:A:C2	1:A:413:A:C4	3.06	0.44
1:A:32:U:O4	1:A:459:A:N7	2.50	0.44
1:A:760:A:H61	1:A:764:A:H8	1.63	0.44
1:A:917:C:H2'	1:A:918:A:H5'	1.99	0.44
1:A:922:U:C6	1:A:922:U:O5'	2.70	0.44
1:A:95:G:C6	1:A:96:C:C4	3.06	0.44
2:C:80:C:C2'	2:C:81:A:H5'	2.48	0.44
29:J:77:PHE:CE1	29:J:81:LEU:HD11	2.51	0.44
4:L:217:LEU:HD12	4:L:218:PHE:CA	2.46	0.44
6:N:165:ILE:CG2	6:N:166:GLU:N	2.79	0.44
6:N:200:ILE:HB	6:N:217:PHE:HB3	1.99	0.44
6:N:255:GLU:O	6:N:256:TYR:CG	2.70	0.44
1:A:2394:A:O2'	9:Q:166:PHE:O	2.36	0.44
12:T:229:ASP:O	12:T:230:TYR:CG	2.70	0.44
17:Y:129:ILE:O	17:Y:133:GLY:O	2.35	0.44
1:A:2103:G:C4	1:A:2104:A:N7	2.86	0.44
1:A:2103:G:H2'	1:A:2104:A:H8	1.83	0.44
1:A:2205:G:C2'	1:A:2206:A:H5'	2.47	0.44
1:A:2421:C:H2'	1:A:2422:G:O4'	2.18	0.44
1:A:253:C:C2	1:A:254:U:O2	2.70	0.44
1:A:253:C:N3	1:A:437:G:C2	2.86	0.44
1:A:2808:C:H3'	1:A:2808:C:H6	1.82	0.44
1:A:44:G:C3'	1:A:45:A:C5'	2.86	0.44
1:A:715:G:HO2'	1:A:716:A:P	2.40	0.44
2:C:80:C:P	10:R:121:ASP:OD1	2.75	0.44
25:F:207:GLY:O	25:F:253:ARG:HA	2.18	0.44
25:F:96:LYS:HD3	25:F:282:VAL:HG23	1.99	0.44
26:G:152:MET:HB3	26:G:157:ARG:HH21	1.82	0.44
26:G:207:PHE:CD1	26:G:246:VAL:HG21	2.52	0.44
26:G:52:LEU:HD13	26:G:71:ASN:ND2	2.32	0.44
26:G:79:LYS:HG3	26:G:83:VAL:HG23	1.99	0.44
28:I:125:LYS:HB3	28:I:173:VAL:HB	1.98	0.44
29:J:43:LYS:HG2	29:J:44:LYS:HE2	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:102:PRO:HA	11:S:99:GLN:NE2	2.21	0.44
1:A:1050:G:O6	4:L:167:LYS:HE3	2.16	0.44
5:M:59:ARG:O	5:M:87:ILE:HG22	2.18	0.44
1:A:919:A:N6	7:O:11:LYS:O	2.50	0.44
8:P:51:ALA:HA	8:P:123:ILE:HD11	1.98	0.44
9:Q:123:ILE:O	9:Q:127:ILE:HG22	2.18	0.44
12:T:116:PRO:CD	12:T:117:PRO:N	2.81	0.44
13:U:154:PRO:HA	13:U:157:LEU:CG	2.47	0.44
1:A:131:C:C4	14:V:104:TYR:CD2	3.04	0.44
15:W:70:LYS:HB2	15:W:70:LYS:HZ3	1.80	0.44
1:A:1264:C:H1'	6:N:83:ASP:O	2.17	0.44
1:A:139:U:O2	1:A:140:G:C8	2.67	0.44
1:A:145:A:OP2	1:A:145:A:C8	2.70	0.44
1:A:1504:C:O5'	1:A:1504:C:C6	2.70	0.44
1:A:1694:C:OP1	25:F:229:HIS:CE1	2.70	0.44
1:A:1831:G:H5'	19:E:84:ASN:HD22	1.82	0.44
1:A:1874:U:O5'	1:A:1874:U:H6	2.01	0.44
1:A:2280:C:OP2	16:X:73:LYS:CE	2.63	0.44
1:A:2338:G:N3	1:A:2338:G:H2'	2.33	0.44
1:A:294:U:C2	1:A:295:C:O2	2.71	0.44
1:A:318:A:N6	1:A:339:A:C6	2.85	0.44
1:A:540:A:OP2	4:L:212:ARG:NH1	2.42	0.44
1:A:658:A:H2'	1:A:658:A:N3	2.32	0.44
1:A:703:C:H2'	1:A:704:A:H8	1.82	0.44
1:A:901:C:H2'	1:A:902:G:C5'	2.46	0.44
1:A:887:G:N2	1:A:909:A:H61	2.16	0.44
1:A:909:A:OP2	1:A:909:A:C8	2.70	0.44
1:A:948:U:C6	1:A:948:U:OP1	2.70	0.44
3:B:14:U:C5'	3:B:15:A:N7	2.81	0.44
2:C:36:A:C2	25:F:274:ARG:NE	2.84	0.44
2:C:75:U:C2'	2:C:76:G:C5'	2.95	0.44
19:E:29:ILE:HG23	19:E:59:ARG:HG2	1.99	0.44
1:A:1376:G:P	19:E:35:CYS:HG	2.41	0.44
11:S:89:GLN:HB2	12:T:174:THR:HG23	1.99	0.44
11:S:91:LEU:CD1	12:T:175:PRO:HA	2.35	0.44
12:T:139:GLY:N	12:T:221:ILE:O	2.50	0.44
16:X:132:LYS:HD2	16:X:132:LYS:N	2.32	0.44
17:Y:103:LEU:HA	17:Y:122:SER:HA	1.99	0.44
1:A:1084:G:N1	1:A:1130:C:OP2	2.37	0.44
1:A:1164:G:C8	1:A:1164:G:O5'	2.71	0.44
1:A:1170:A:N6	4:L:126:ARG:HA	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1459:U:H2'	1:A:1460:A:H8	1.82	0.44
1:A:1748:C:C3'	1:A:1748:C:C6	3.01	0.44
1:A:2150:G:N1	1:A:2151:G:N2	2.66	0.44
1:A:2324:G:N2	1:A:2328:A:N9	2.66	0.44
1:A:2324:G:O4'	1:A:2325:G:C4	2.70	0.44
1:A:2485:A:N7	1:A:2498:G:C6	2.85	0.44
1:A:329:C:H4'	1:A:331:A:N7	2.32	0.44
1:A:393:G:C6	1:A:394:G:N2	2.85	0.44
1:A:389:A:C6	1:A:410:G:C6	3.03	0.44
1:A:433:C:H2'	1:A:434:A:OP2	2.17	0.44
1:A:631:G:H3'	1:A:632:G:H21	1.81	0.44
1:A:74:G:H22	1:A:109:A:H2	1.65	0.44
1:A:824:U:O2'	1:A:825:C:O4'	2.33	0.44
3:B:14:U:HO2'	3:B:15:A:P	2.39	0.44
3:B:87:G:C2'	3:B:88:G:H5'	2.45	0.44
2:C:20:C:O5'	2:C:20:C:H6	2.01	0.44
2:C:30:A:C6	2:C:83:C:N1	2.86	0.44
19:E:237:ILE:CG1	19:E:239:ARG:H	2.30	0.44
25:F:127:LYS:HD2	25:F:132:ASP:OD2	2.16	0.44
26:G:127:GLY:O	26:G:128:SER:OG	2.26	0.44
4:L:167:LYS:O	4:L:169:THR:N	2.50	0.44
6:N:170:PHE:HZ	6:N:181:LEU:HD23	1.83	0.44
10:R:172:ARG:NH1	10:R:174:ASN:HD22	2.16	0.44
15:W:165:GLY:N	15:W:166:GLU:OE1	2.50	0.44
1:A:1022:C:OP1	11:S:50:ARG:HD2	2.17	0.44
1:A:1475:U:HO2'	1:A:1476:G:C5'	2.31	0.44
1:A:1479:U:OP2	1:A:1479:U:C5	2.71	0.44
1:A:1524:G:N2	1:A:1525:G:N3	2.65	0.44
1:A:165:C:O5'	1:A:165:C:C6	2.70	0.44
1:A:16:G:H2'	1:A:17:C:H6	1.83	0.44
1:A:1882:U:O5'	1:A:1882:U:C6	2.71	0.44
1:A:2123:U:H5''	1:A:2124:G:P	2.57	0.44
1:A:2205:G:O6	1:A:2206:A:N6	2.50	0.44
1:A:2209:U:H3'	1:A:2210:C:C5	2.53	0.44
1:A:2216:U:O5'	1:A:2216:U:H6	2.00	0.44
1:A:2764:U:H3	1:A:2776:A:H62	1.64	0.44
1:A:861:A:C6	1:A:935:U:O4	2.69	0.44
1:A:941:C:C5	1:A:942:U:O4	2.70	0.44
3:B:25:G:C6	3:B:57:U:N3	2.85	0.44
3:B:36:A:C5	3:B:45:G:N7	2.85	0.44
3:B:96:G:H2'	3:B:97:C:C6	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:88:C:OP2	2:C:88:C:C6	2.70	0.44
1:A:2647:A:O4'	2:C:98:G:C1'	2.65	0.44
26:G:83:VAL:HG11	26:G:159:LEU:HD22	1.99	0.44
6:N:168:ALA:HB3	6:N:186:ILE:CD1	2.42	0.44
7:O:125:MET:CG	7:O:126:PRO:HD2	2.48	0.44
9:Q:86:VAL:O	9:Q:95:LEU:N	2.51	0.44
1:A:1062:G:H2'	1:A:1063:U:O4'	2.18	0.44
1:A:1073:G:H5''	1:A:1075:G:N3	2.33	0.44
1:A:1651:C:OP2	1:A:1653:C:C4	2.70	0.44
1:A:184:A:H5'	1:A:185:U:OP2	2.18	0.44
1:A:1954:U:O2'	1:A:1956:C:N4	2.46	0.44
1:A:2058:C:H2'	1:A:2059:U:O4'	2.18	0.44
1:A:2248:U:H2'	1:A:2249:C:C6	2.53	0.44
1:A:2336:U:O3'	1:A:2337:C:C5	2.71	0.44
1:A:2534:C:C4	1:A:2559:A:C6	3.06	0.44
1:A:2565:G:H2'	1:A:2566:G:O4'	2.18	0.44
1:A:262:G:O2'	1:A:263:A:C2	2.71	0.44
1:A:295:C:C6	1:A:295:C:O5'	2.70	0.44
1:A:347:G:H2'	1:A:348:U:H6	1.83	0.44
1:A:383:A:O2'	17:Y:131:LYS:CE	2.66	0.44
1:A:415:U:O3'	1:A:416:C:C6	2.71	0.44
1:A:733:A:H2'	1:A:734:G:C8	2.53	0.44
1:A:716:A:H62	1:A:737:G:H1'	1.81	0.44
1:A:740:G:O2'	1:A:774:G:H4'	2.17	0.44
1:A:980:G:H1	1:A:993:C:H5	1.65	0.44
3:B:61:C:C2	3:B:62:U:C5	3.05	0.44
2:C:79:G:N2	2:C:80:C:O2	2.50	0.44
2:C:39:A:C4	2:C:83:C:C4	3.05	0.44
25:F:122:ILE:HG12	25:F:185:LEU:HG	1.99	0.44
26:G:53:ILE:HG21	26:G:170:GLY:HA3	2.00	0.44
28:I:92:VAL:HG22	28:I:109:ARG:CZ	2.47	0.44
6:N:162:LEU:O	6:N:166:GLU:CG	2.65	0.44
6:N:255:GLU:O	6:N:256:TYR:CD2	2.70	0.44
1:A:883:C:H4'	7:O:65:TRP:CH2	2.53	0.44
9:Q:164:LEU:HD23	9:Q:164:LEU:HA	1.77	0.44
9:Q:50:ARG:O	9:Q:54:THR:OG1	2.31	0.44
12:T:114:LYS:HG2	12:T:115:GLY:N	2.31	0.44
12:T:227:TYR:CD2	12:T:228:GLU:OE2	2.70	0.44
15:W:113:SER:OG	15:W:120:GLY:CA	2.66	0.44
15:W:93:HIS:HB2	15:W:98:THR:OG1	2.17	0.44
16:X:128:TYR:C	16:X:128:TYR:CD2	2.91	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:134:LYS:CB	16:X:134:LYS:NZ	2.73	0.44
1:A:1289:A:H2'	1:A:1290:A:O4'	2.18	0.44
1:A:1476:G:H2'	1:A:1477:G:C8	2.53	0.44
1:A:1541:U:OP2	1:A:1541:U:C5	2.71	0.44
1:A:1582:A:H2'	1:A:1583:A:H8	1.76	0.44
1:A:1700:A:N3	1:A:1700:A:H2'	2.32	0.44
1:A:1837:U:OP2	19:E:217:ARG:HD2	2.18	0.44
1:A:2157:U:O2	1:A:2163:G:N2	2.46	0.44
1:A:2222:C:H2'	1:A:2223:A:C8	2.53	0.44
1:A:2320:G:C6	1:A:2331:G:O6	2.71	0.44
1:A:354:A:H2'	1:A:355:A:OP2	2.18	0.44
1:A:404:U:H2'	1:A:404:U:O2	2.18	0.44
1:A:416:C:O4'	1:A:418:G:C8	2.71	0.44
1:A:495:A:N3	15:W:122:ILE:HD11	2.33	0.44
1:A:577:G:O6	12:T:203:LYS:HB3	2.18	0.44
1:A:851:U:H2'	1:A:852:U:C6	2.53	0.44
1:A:951:C:N4	1:A:952:A:N6	2.66	0.44
3:B:111:G:C2'	3:B:112:A:H5'	2.48	0.44
3:B:35:A:C3'	3:B:36:A:C8	3.01	0.44
2:C:42:G:C4	2:C:43:G:C8	3.05	0.44
2:C:89:A:H8	2:C:89:A:O5'	2.01	0.44
19:E:266:ILE:HG22	19:E:268:ARG:H	1.83	0.44
26:G:185:PRO:CG	26:G:218:LYS:HZ2	2.31	0.44
26:G:79:LYS:HZ2	26:G:79:LYS:CA	2.31	0.44
26:G:88:LEU:O	26:G:91:HIS:HB3	2.17	0.44
27:H:61:TYR:HA	27:H:65:MET:HG2	1.99	0.44
5:M:24:ILE:HD13	5:M:33:ALA:HB2	2.00	0.44
1:A:1025:G:OP1	11:S:95:LYS:HD3	2.18	0.43
1:A:1307:A:N6	1:A:1310:C:C2	2.86	0.43
1:A:133:A:H3'	1:A:134:A:N7	2.33	0.43
1:A:1480:A:H2	1:A:2720:C:HO2'	1.62	0.43
1:A:1714:A:C4	1:A:1715:A:C8	3.05	0.43
1:A:1959:G:H2'	1:A:1960:U:O2	2.18	0.43
1:A:198:A:H2'	1:A:199:G:C8	2.53	0.43
1:A:2006:G:C6	1:A:2011:G:C6	3.06	0.43
1:A:2189:C:O2'	1:A:2190:A:H5'	2.18	0.43
1:A:2190:A:C2	1:A:2191:C:O2	2.71	0.43
1:A:2213:A:H2	1:A:2214:C:C1'	2.30	0.43
1:A:2324:G:H4'	1:A:2325:G:O4'	2.17	0.43
1:A:2347:G:H21	16:X:98:GLY:HA2	1.81	0.43
1:A:877:C:C4	1:A:878:U:O4	2.71	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:887:G:C8	1:A:887:G:OP2	2.70	0.43
1:A:863:C:O2	1:A:934:A:N1	2.51	0.43
3:B:92:U:C6	3:B:92:U:O5'	2.71	0.43
2:C:104:A:N3	2:C:105:A:C8	2.86	0.43
2:C:73:G:C2	2:C:74:C:O2	2.71	0.43
19:E:161:ILE:HG22	19:E:162:ALA:H	1.83	0.43
19:E:265:PHE:CE1	19:E:266:ILE:CG1	3.01	0.43
25:F:135:ASN:HD21	25:F:177:ASP:HB3	1.83	0.43
25:F:261:ILE:HA	25:F:261:ILE:HD12	1.89	0.43
5:M:71:ARG:HH12	5:M:104:ARG:HH21	1.64	0.43
5:M:19:LEU:HD13	5:M:41:ALA:HB1	2.00	0.43
5:M:18:GLU:HG3	5:M:44:LYS:HB3	1.99	0.43
8:P:72:LYS:O	8:P:75:GLN:HB2	2.18	0.43
11:S:94:ARG:O	11:S:96:ILE:HG12	2.18	0.43
12:T:108:ASN:O	12:T:112:PRO:HD2	2.04	0.43
12:T:188:GLU:HG2	12:T:190:LEU:HD12	2.00	0.43
15:W:67:ARG:NH2	15:W:92:ILE:HG13	2.31	0.43
15:W:69:VAL:CG1	15:W:89:ILE:HD13	2.48	0.43
1:A:1187:G:N3	12:T:131:SER:CB	2.81	0.43
1:A:1200:A:H2'	1:A:1201:A:O4'	2.18	0.43
1:A:823:C:C2	1:A:1271:G:C6	3.06	0.43
1:A:136:U:C2	1:A:160:A:C2	3.06	0.43
1:A:1451:G:C2	1:A:1598:C:O2	2.71	0.43
1:A:160:A:C8	1:A:160:A:OP1	2.70	0.43
1:A:163:G:C6	1:A:164:A:C5	3.06	0.43
1:A:1812:A:H2'	1:A:1813:A:H8	1.72	0.43
1:A:1879:U:C5	6:N:252:ARG:CZ	2.98	0.43
1:A:2151:G:C5	1:A:2152:C:H5	2.36	0.43
1:A:2175:C:H4'	1:A:2187:A:P	2.58	0.43
1:A:2219:U:C2'	1:A:2229:U:H3	2.26	0.43
1:A:2416:G:H2'	1:A:2417:G:H8	1.83	0.43
1:A:252:C:H5''	1:A:252:C:H6	1.82	0.43
1:A:256:A:C8	1:A:381:C:OP1	2.71	0.43
1:A:265:A:H3'	1:A:266:A:C5'	2.48	0.43
1:A:318:A:H62	1:A:339:A:H62	1.57	0.43
1:A:723:G:H2'	1:A:724:G:C8	2.53	0.43
1:A:901:C:C6	1:A:901:C:C3'	3.01	0.43
3:B:26:A:N1	3:B:27:A:C6	2.86	0.43
1:A:1603:A:C5'	19:E:55:LYS:HD3	2.41	0.43
26:G:69:PHE:O	26:G:69:PHE:CD1	2.70	0.43
27:H:160:ALA:N	27:H:162:PRO:HD2	2.32	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:L:210:LYS:HE2	4:L:210:LYS:HB2	1.87	0.43
1:A:2579:U:C1'	5:M:23:ARG:NH1	2.78	0.43
7:O:77:ARG:HG2	7:O:78:PRO:O	2.18	0.43
9:Q:103:LYS:HB2	9:Q:126:MET:SD	2.58	0.43
10:R:216:LYS:HG3	10:R:217:ALA:H	1.84	0.43
15:W:130:HIS:CD2	15:W:132:SER:H	2.36	0.43
1:A:133:A:H3'	1:A:134:A:C8	2.53	0.43
1:A:1480:A:C2'	1:A:1480:A:N3	2.82	0.43
1:A:1522:A:H62	1:A:1544:A:H1'	1.84	0.43
1:A:1603:A:O2'	1:A:1604:A:O4'	2.31	0.43
1:A:1444:A:C6	1:A:1609:U:O4	2.67	0.43
1:A:1812:A:C6	1:A:1813:A:N6	2.86	0.43
1:A:2291:A:O2'	1:A:2293:G:OP1	2.27	0.43
1:A:333:A:H62	1:A:347:G:H21	1.65	0.43
1:A:355:A:C2'	1:A:356:A:C5'	2.85	0.43
1:A:357:G:H2'	1:A:358:C:H5'	2.01	0.43
1:A:614:G:N1	1:A:615:G:C6	2.86	0.43
1:A:888:C:H5'	1:A:889:G:C8	2.54	0.43
3:B:14:U:O2'	3:B:16:G:N2	2.50	0.43
3:B:30:A:C4	3:B:31:C:C5	3.06	0.43
2:C:43:G:H2'	2:C:44:U:H6	1.82	0.43
1:A:2647:A:N3	2:C:98:G:N2	2.66	0.43
25:F:118:LYS:N	25:F:141:TYR:OH	2.51	0.43
26:G:70:LEU:HD22	26:G:252:ILE:CD1	2.49	0.43
4:L:141:ALA:O	11:S:102:ILE:HD12	2.18	0.43
1:A:649:A:OP1	6:N:202:GLY:HA3	2.19	0.43
7:O:62:GLY:HA3	7:O:109:VAL:HG23	1.99	0.43
7:O:29:PHE:H	7:O:67:ARG:NH1	2.16	0.43
9:Q:127:ILE:O	9:Q:130:SER:OG	2.25	0.43
9:Q:149:HIS:CG	9:Q:150:GLY:N	2.86	0.43
12:T:229:ASP:O	12:T:230:TYR:CD1	2.71	0.43
14:V:111:VAL:HG23	14:V:112:TYR:N	2.33	0.43
15:W:135:MET:SD	15:W:144:ALA:HB1	2.58	0.43
17:Y:75:CYS:HB3	17:Y:78:THR:O	2.18	0.43
1:A:119:A:H2'	1:A:120:G:C8	2.53	0.43
1:A:1523:A:H3'	1:A:1524:G:C8	2.54	0.43
1:A:1538:G:H2'	1:A:1539:C:C5	2.53	0.43
1:A:1532:G:C6	1:A:1612:A:H8	2.36	0.43
1:A:1751:A:N1	1:A:1753:A:P	2.91	0.43
1:A:1851:U:C2	1:A:1852:G:C8	3.06	0.43
1:A:1876:A:N6	1:A:1889:G:H21	2.16	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:213:A:O2'	1:A:214:A:OP2	2.28	0.43
1:A:2187:A:C2'	1:A:2188:C:H5'	2.48	0.43
1:A:2193:C:C4	1:A:2194:U:O4	2.71	0.43
1:A:2644:G:H8	1:A:2644:G:O5'	2.01	0.43
1:A:278:G:H8	1:A:278:G:O5'	2.01	0.43
1:A:374:U:C5	1:A:374:U:OP2	2.71	0.43
1:A:488:G:N1	1:A:491:A:OP2	2.48	0.43
1:A:668:U:C6	1:A:668:U:O5'	2.71	0.43
1:A:791:G:H21	1:A:794:A:H62	1.65	0.43
3:B:13:C:O2	3:B:111:G:C2	2.71	0.43
3:B:62:U:H2'	3:B:63:C:H6	1.84	0.43
2:C:10:C:H2'	2:C:11:A:O4'	2.17	0.43
2:C:44:U:O2'	2:C:45:G:H5'	2.17	0.43
25:F:209:GLN:NE2	25:F:213:LYS:HE2	2.28	0.43
1:A:2075:G:P	26:G:119:LYS:CE	3.01	0.43
26:G:230:THR:HG23	26:G:233:SER:HB3	2.01	0.43
28:I:79:GLU:OE2	28:I:100:ARG:NH2	2.51	0.43
10:R:185:ARG:HE	10:R:187:ILE:HD11	1.83	0.43
1:A:71:A:N6	1:A:109:A:HO2'	2.17	0.43
1:A:1172:C:O2'	1:A:1173:G:H8	2.00	0.43
1:A:1496:A:N6	1:A:1549:A:N6	2.65	0.43
1:A:1822:A:N1	1:A:1823:C:C4	2.87	0.43
1:A:1940:U:O3'	1:A:1941:A:H8	2.02	0.43
1:A:2103:G:C6	1:A:2104:A:C5	3.05	0.43
1:A:2287:G:C4	1:A:2288:G:C8	3.06	0.43
1:A:2642:G:C6	1:A:2643:C:N3	2.86	0.43
1:A:2647:A:C8	2:C:98:G:N1	2.87	0.43
1:A:273:U:O5'	1:A:273:U:C6	2.71	0.43
1:A:273:U:H2'	1:A:274:G:O4'	2.19	0.43
1:A:949:A:C2	1:A:950:A:H1'	2.53	0.43
1:A:969:A:N6	1:A:970:G:C6	2.87	0.43
3:B:35:A:H2'	3:B:36:A:C1'	2.48	0.43
25:F:114:VAL:HG13	25:F:275:VAL:CG1	2.48	0.43
25:F:144:LEU:CD1	25:F:166:ARG:NE	2.76	0.43
4:L:107:HIS:CG	4:L:107:HIS:O	2.70	0.43
5:M:21:CYS:O	5:M:22:ILE:HD13	2.19	0.43
6:N:120:ARG:HG2	6:N:120:ARG:H	1.64	0.43
6:N:129:PHE:HE2	6:N:131:GLY:HA2	1.77	0.43
8:P:12:LYS:O	8:P:13:HIS:C	2.57	0.43
8:P:85:ILE:O	8:P:89:LEU:HB2	2.18	0.43
15:W:100:ILE:HG22	15:W:128:ALA:HA	1.99	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:X:141:GLU:C	16:X:142:ILE:CG1	2.85	0.43
16:X:73:LYS:HG2	16:X:75:GLN:H	1.84	0.43
17:Y:129:ILE:HG22	17:Y:137:VAL:HG21	2.01	0.43
1:A:1136:U:H2'	1:A:1137:C:C5'	2.47	0.43
1:A:1225:G:H22	1:A:1262:A:H61	1.65	0.43
1:A:1500:U:H2'	1:A:1501:G:OP1	2.18	0.43
1:A:1611:G:O2'	1:A:1612:A:O5'	2.37	0.43
1:A:1875:G:OP1	6:N:243:LYS:NZ	2.51	0.43
1:A:2123:U:H4'	1:A:2124:G:OP1	2.18	0.43
1:A:2215:C:H2'	1:A:2216:U:H5'	1.99	0.43
1:A:2315:G:C2	1:A:2338:G:C6	3.06	0.43
1:A:2479:U:H2'	1:A:2480:U:O4'	2.18	0.43
1:A:218:A:N6	1:A:441:A:H61	2.12	0.43
1:A:538:C:C2	1:A:2797:U:C5	3.07	0.43
1:A:577:G:H8	1:A:577:G:O5'	2.01	0.43
1:A:671:C:H2'	1:A:672:U:C6	2.54	0.43
1:A:890:G:N3	1:A:891:G:C8	2.86	0.43
1:A:907:C:C6	1:A:907:C:O5'	2.70	0.43
3:B:15:A:H2'	3:B:16:G:OP2	2.19	0.43
3:B:77:A:H2'	3:B:78:U:C6	2.54	0.43
25:F:125:GLN:HB3	25:F:138:GLN:HB3	2.00	0.43
27:H:59:THR:O	27:H:62:ILE:N	2.46	0.43
28:I:48:ILE:HB	28:I:90:LEU:N	2.31	0.43
6:N:225:LEU:HD23	6:N:232:VAL:HG21	2.00	0.43
7:O:36:ALA:HA	7:O:129:THR:HG22	2.00	0.43
8:P:93:VAL:O	8:P:95:GLU:N	2.52	0.43
9:Q:125:GLU:HG3	9:Q:129:LYS:HE3	2.01	0.43
14:V:149:GLU:OE2	14:V:153:ASN:ND2	2.51	0.43
1:A:1211:G:OP1	6:N:111:GLY:N	2.50	0.43
1:A:1461:G:H2'	1:A:1462:G:C8	2.54	0.43
1:A:1598:C:C4	1:A:1599:C:N4	2.87	0.43
1:A:165:C:O5'	1:A:165:C:H6	2.02	0.43
1:A:1819:A:H2'	1:A:1820:A:C8	2.54	0.43
1:A:1825:A:H5''	19:E:37:LYS:HZ2	1.83	0.43
1:A:1849:A:H2'	1:A:1849:A:N3	2.34	0.43
1:A:1887:G:O2'	1:A:1888:G:H5'	2.18	0.43
1:A:2088:U:H2'	1:A:2089:U:C6	2.53	0.43
1:A:2120:U:C4	1:A:2198:A:H2	2.37	0.43
1:A:2228:C:H5''	1:A:2229:U:H5'	2.01	0.43
1:A:2536:A:H3'	1:A:2536:A:OP2	2.18	0.43
1:A:1793:A:N1	1:A:2604:A:H2'	2.34	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:389:A:H2'	1:A:390:U:H6	1.79	0.43
1:A:624:A:H2'	1:A:624:A:N3	2.33	0.43
1:A:869:G:O2'	1:A:870:U:P	2.75	0.43
1:A:950:A:C2	1:A:951:C:O2	2.71	0.43
1:A:965:G:C2	1:A:966:G:C8	3.07	0.43
3:B:32:A:C5	3:B:55:G:N1	2.86	0.43
1:A:2752:G:C6	25:F:297:ILE:C	2.92	0.43
4:L:175:ARG:NH2	4:L:184:LYS:HZ1	1.96	0.43
1:A:836:G:O2'	6:N:133:GLN:CG	2.65	0.43
8:P:31:LEU:HD13	8:P:57:TYR:CE2	2.52	0.43
8:P:93:VAL:C	8:P:95:GLU:N	2.72	0.43
1:A:2025:U:OP2	13:U:45:LYS:HE3	2.18	0.43
14:V:109:LEU:HD11	14:V:141:ARG:CA	2.49	0.43
14:V:119:ILE:HD12	14:V:135:LEU:HB3	2.01	0.43
16:X:123:VAL:O	16:X:124:LYS:HD2	2.19	0.43
1:A:1134:G:C8	1:A:1134:G:O5'	2.70	0.43
1:A:1547:C:H6	1:A:1547:C:O5'	2.01	0.43
1:A:158:C:H6	1:A:158:C:H5"	1.83	0.43
1:A:1650:A:C8	1:A:1650:A:OP2	2.71	0.43
1:A:2103:G:C6	1:A:2104:A:C6	3.07	0.43
1:A:2213:A:N1	1:A:2214:C:C4	2.86	0.43
1:A:2213:A:N7	1:A:2242:A:N6	2.67	0.43
1:A:2339:A:H8	1:A:2339:A:O5'	2.02	0.43
1:A:2682:A:H2'	1:A:2682:A:N3	2.34	0.43
3:B:32:A:HO2'	3:B:33:C:H5'	1.83	0.43
3:B:34:C:C2'	3:B:35:A:C8	3.01	0.43
3:B:42:C:H2'	3:B:43:C:OP1	2.19	0.43
3:B:62:U:C2	3:B:63:C:C5	3.07	0.43
3:B:71:G:H2'	3:B:72:U:H6	1.83	0.43
3:B:80:C:H2'	3:B:81:U:O4'	2.19	0.43
2:C:37:C:O2'	2:C:38:G:H5"	2.18	0.43
2:C:71:C:C2	10:R:144:ARG:NH2	2.87	0.43
2:C:84:C:H2'	2:C:85:U:H6	1.80	0.43
25:F:266:ILE:HA	25:F:278:ILE:HD12	2.01	0.43
26:G:177:GLU:HB3	26:G:197:TRP:HZ2	1.84	0.43
27:H:90:ASN:ND2	27:H:206:ASP:HB2	2.33	0.43
6:N:165:ILE:O	6:N:165:ILE:HD13	2.18	0.43
13:U:163:LEU:CD2	13:U:163:LEU:C	2.85	0.43
16:X:81:ILE:HG23	16:X:85:GLN:HB2	2.00	0.43
18:Z:88:PHE:CE2	18:Z:92:LEU:HD13	2.54	0.43
1:A:83:A:C2	1:A:101:A:N7	2.87	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1047:U:O2'	1:A:1049:A:H2	2.02	0.43
1:A:1524:G:C2	1:A:1525:G:C5	3.07	0.43
1:A:159:A:H1'	1:A:160:A:P	2.58	0.43
1:A:1671:A:H2'	1:A:1672:U:O4'	2.18	0.43
1:A:1739:G:H2'	1:A:1740:G:C8	2.54	0.43
1:A:1827:G:H5''	19:E:83:ARG:NE	2.34	0.43
1:A:2075:G:C8	1:A:2518:C:O2'	2.72	0.43
1:A:2180:G:O6	1:A:2184:G:O6	2.36	0.43
1:A:2202:C:C4	1:A:2203:U:O4	2.71	0.43
1:A:2242:A:O2'	1:A:2243:C:P	2.77	0.43
1:A:2654:U:C2	1:A:2800:G:C2	3.07	0.43
1:A:355:A:N7	1:A:356:A:C5	2.87	0.43
1:A:459:A:H4'	1:A:460:U:O5'	2.18	0.43
1:A:5:A:H2'	1:A:6:A:H8	1.68	0.43
1:A:749:G:N2	1:A:770:G:C5	2.87	0.43
1:A:946:A:O2'	1:A:947:A:C8	2.70	0.43
3:B:33:C:H6	3:B:33:C:O5'	2.01	0.43
19:E:40:ASN:HA	19:E:44:ILE:O	2.19	0.43
25:F:92:VAL:HG22	25:F:191:PHE:HE2	1.83	0.43
28:I:194:PRO:HG3	28:I:203:ARG:HB3	2.00	0.43
4:L:201:GLU:HG3	4:L:218:PHE:CZ	2.48	0.43
4:L:213:LEU:C	4:L:213:LEU:CD1	2.85	0.43
4:L:217:LEU:CD1	4:L:217:LEU:C	2.85	0.43
4:L:238:ASP:OD1	4:L:238:ASP:N	2.50	0.43
6:N:162:LEU:HG	6:N:203:GLU:CD	2.39	0.43
7:O:58:ALA:O	7:O:60:ARG:N	2.52	0.43
8:P:116:ASP:HB2	8:P:118:ALA:HB2	2.00	0.43
8:P:45:LYS:HD3	8:P:120:MET:HE2	2.00	0.43
8:P:64:LEU:HD23	8:P:76:ALA:HB2	2.01	0.43
8:P:97:TYR:HD1	8:P:100:ARG:HG3	1.84	0.43
10:R:123:MET:SD	25:F:114:VAL:HG21	2.59	0.43
1:A:1269:G:C8	11:S:3:ARG:C	2.92	0.43
1:A:1483:G:O5'	1:A:1483:G:H8	2.01	0.43
1:A:1841:G:C6	1:A:1842:C:N4	2.86	0.43
1:A:2035:A:C5	11:S:25:ARG:NH2	2.82	0.43
1:A:2233:G:C6	1:A:2234:G:O6	2.72	0.43
1:A:2414:A:H2'	1:A:2415:C:C6	2.53	0.43
1:A:2433:C:H2'	1:A:2434:C:C6	2.53	0.43
1:A:2472:G:C4	1:A:2473:C:C5	3.07	0.43
1:A:341:A:N6	1:A:344:C:N3	2.67	0.43
1:A:470:G:O2'	1:A:481:G:O6	2.33	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:501:A:H2'	1:A:501:A:N3	2.34	0.43
1:A:517:G:O2'	1:A:518:A:P	2.77	0.43
1:A:572:U:H5''	1:A:573:G:OP2	2.18	0.43
1:A:821:U:H2'	6:N:108:GLY:HA2	2.00	0.43
3:B:16:G:O3'	3:B:17:G:O4'	2.37	0.43
3:B:18:C:H5''	3:B:18:C:H6	1.83	0.43
2:C:51:U:H2'	2:C:52:G:O4'	2.18	0.43
2:C:73:G:C2	2:C:74:C:C2	3.07	0.43
19:E:103:PRO:HG2	19:E:106:ALA:HB2	2.00	0.43
25:F:199:ILE:HB	25:F:291:ARG:O	2.18	0.43
25:F:114:VAL:HA	25:F:276:VAL:O	2.19	0.43
26:G:79:LYS:O	26:G:83:VAL:CG2	2.63	0.43
27:H:99:ASN:OD1	27:H:102:GLY:N	2.52	0.43
27:H:132:VAL:HG22	27:H:138:LEU:HD11	2.01	0.43
28:I:82:VAL:HA	28:I:91:ARG:O	2.18	0.43
1:A:2212:A:C2	29:J:77:PHE:HB2	2.54	0.43
6:N:165:ILE:HG23	6:N:166:GLU:N	2.34	0.43
12:T:204:LYS:H	12:T:204:LYS:HD2	1.84	0.43
13:U:26:PRO:C	13:U:28:LYS:H	2.22	0.43
1:A:1009:A:H8	1:A:1010:C:C5	2.36	0.42
1:A:1307:A:N6	1:A:1350:U:N3	2.67	0.42
1:A:1478:U:H5''	1:A:1478:U:H6	1.84	0.42
1:A:1527:G:H3'	1:A:1528:U:C6	2.54	0.42
1:A:1527:G:H3'	1:A:1528:U:H5	1.76	0.42
1:A:1757:G:C8	1:A:1757:G:O5'	2.72	0.42
1:A:1852:G:H2'	1:A:1853:C:C6	2.54	0.42
1:A:1897:C:H2'	1:A:1898:G:O4'	2.19	0.42
1:A:2120:U:N3	1:A:2198:A:C2	2.87	0.42
1:A:2198:A:O5'	1:A:2198:A:C8	2.73	0.42
1:A:2229:U:O4	19:E:64:ARG:CZ	2.67	0.42
1:A:2308:U:H5'	1:A:2397:U:H1'	2.01	0.42
1:A:391:G:C6	1:A:408:G:O6	2.72	0.42
1:A:859:A:C4	1:A:860:C:C5	3.07	0.42
3:B:36:A:P	3:B:36:A:H8	2.42	0.42
25:F:159:LYS:CD	25:F:159:LYS:C	2.86	0.42
1:A:609:G:C5'	26:G:79:LYS:CD	2.67	0.42
6:N:143:LEU:HG	6:N:144:ARG:H	1.84	0.42
9:Q:74:CYS:SG	9:Q:85:GLN:HB2	2.59	0.42
11:S:90:LEU:O	11:S:92:LEU:N	2.48	0.42
15:W:140:GLU:OE1	15:W:141:GLN:HG2	2.19	0.42
1:A:1086:G:O6	1:A:1108:C:N3	2.52	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1142:G:H2'	1:A:1143:C:O4'	2.20	0.42
1:A:1469:G:N1	1:A:1483:G:C6	2.87	0.42
1:A:1541:U:OP2	1:A:1541:U:H5	2.00	0.42
1:A:1603:A:H5'	19:E:55:LYS:CE	2.49	0.42
1:A:1850:G:C5	1:A:1851:U:C5	3.07	0.42
1:A:1870:U:H2'	1:A:1871:U:C6	2.54	0.42
1:A:1879:U:O2	1:A:1887:G:C2	2.71	0.42
1:A:2229:U:O2	1:A:2229:U:H5''	2.19	0.42
1:A:2381:C:H2'	1:A:2382:G:O4'	2.19	0.42
1:A:297:U:H2'	1:A:298:G:C8	2.54	0.42
1:A:366:G:C8	1:A:366:G:OP2	2.72	0.42
1:A:387:G:C3'	1:A:388:C:H5''	2.38	0.42
1:A:881:U:C2	1:A:916:G:O6	2.71	0.42
1:A:903:G:C2'	1:A:904:U:C5'	2.86	0.42
3:B:10:G:C2	3:B:114:G:C2	3.07	0.42
3:B:118:G:OP1	9:Q:102:GLN:OE1	2.37	0.42
2:C:88:C:O5'	2:C:88:C:C6	2.70	0.42
19:E:29:ILE:C	19:E:31:GLY:H	2.15	0.42
25:F:199:ILE:CD1	25:F:282:VAL:HB	2.48	0.42
26:G:234:LEU:CD2	26:G:234:LEU:C	2.85	0.42
1:A:609:G:H4'	26:G:79:LYS:HD2	1.99	0.42
1:A:610:G:P	26:G:79:LYS:HG2	2.59	0.42
26:G:89:ILE:HA	26:G:89:ILE:HD12	1.72	0.42
3:B:56:U:H1'	27:H:79:LEU:HD21	2.01	0.42
29:J:50:LYS:HG2	29:J:68:ASP:OD1	2.18	0.42
4:L:191:LEU:HD12	4:L:191:LEU:N	2.34	0.42
4:L:198:ARG:HA	4:L:201:GLU:HB3	2.01	0.42
4:L:204:VAL:O	4:L:208:LEU:HG	2.18	0.42
6:N:175:GLU:O	6:N:176:VAL:HB	2.19	0.42
7:O:91:GLU:OE1	7:O:92:TYR:CD2	2.72	0.42
8:P:43:ARG:HD2	8:P:122:TYR:CE2	2.53	0.42
9:Q:114:GLY:O	9:Q:119:VAL:HG21	2.18	0.42
1:A:524:A:C1'	11:S:11:ARG:HH22	2.31	0.42
12:T:144:THR:HG23	12:T:146:ARG:H	1.84	0.42
6:N:102:HIS:CD2	12:T:205:ASN:HD21	2.35	0.42
12:T:143:TYR:CD1	12:T:216:ILE:HD12	2.51	0.42
15:W:82:GLU:H	15:W:82:GLU:CD	2.12	0.42
15:W:90:SER:CB	15:W:102:LYS:HD3	2.49	0.42
1:A:2278:C:H41	16:X:71:ASP:HB3	1.82	0.42
1:A:1081:C:N3	1:A:1135:A:C6	2.88	0.42
1:A:1533:A:H2'	1:A:1534:A:O4'	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:138:C:C2	1:A:157:G:N2	2.88	0.42
1:A:1821:G:H2'	1:A:1822:A:H8	1.84	0.42
1:A:2006:G:N1	1:A:2009:U:O4	2.52	0.42
1:A:2078:C:H2'	1:A:2079:C:H6	1.84	0.42
1:A:2215:C:C2'	1:A:2216:U:C5'	2.97	0.42
1:A:226:A:HO2'	1:A:227:G:P	2.42	0.42
1:A:2321:G:O2'	27:H:186:ARG:CB	2.65	0.42
1:A:2697:C:H2'	1:A:2698:C:C6	2.54	0.42
1:A:320:U:O2'	1:A:340:A:O2'	2.36	0.42
1:A:387:G:C6	1:A:388:C:N3	2.88	0.42
1:A:682:C:H2'	1:A:683:C:C6	2.54	0.42
1:A:787:G:O2'	1:A:788:G:P	2.77	0.42
1:A:856:U:O2	1:A:856:U:H3'	2.20	0.42
1:A:898:G:C2	1:A:899:A:N6	2.87	0.42
1:A:957:U:C2'	1:A:958:C:H5'	2.49	0.42
1:A:980:G:H2'	1:A:981:G:O4'	2.18	0.42
3:B:119:G:OP1	9:Q:101:MET:HE2	2.20	0.42
3:B:33:C:H2'	3:B:34:C:C6	2.54	0.42
2:C:104:A:C4	2:C:105:A:N7	2.86	0.42
2:C:33:A:N3	2:C:33:A:H2'	2.34	0.42
3:B:56:U:O2'	27:H:77:ASN:OD1	2.26	0.42
29:J:69:VAL:HG21	29:J:78:LEU:HD12	2.00	0.42
4:L:124:LEU:HD13	4:L:161:VAL:HG11	2.01	0.42
6:N:135:PRO:O	6:N:139:ARG:HG3	2.18	0.42
9:Q:148:TYR:HE2	9:Q:153:LYS:HZ2	1.67	0.42
13:U:94:ASN:HB2	13:U:97:ASN:OD1	2.19	0.42
14:V:105:PRO:O	14:V:106:ARG:C	2.58	0.42
14:V:119:ILE:HG22	14:V:121:THR:HG22	2.00	0.42
14:V:115:LEU:C	18:Z:91:ARG:HH22	2.22	0.42
1:A:101:A:C5	1:A:102:U:C5	3.07	0.42
1:A:1028:A:N6	1:A:1182:A:C8	2.87	0.42
1:A:121:G:O2'	1:A:122:U:H5'	2.19	0.42
1:A:1876:A:O5'	1:A:1876:A:C8	2.70	0.42
1:A:2055:U:H2'	1:A:2056:A:C8	2.54	0.42
1:A:2103:G:C6	1:A:2104:A:N6	2.87	0.42
1:A:2243:C:H2'	1:A:2244:A:O4'	2.20	0.42
1:A:379:C:H3'	1:A:379:C:O2	2.19	0.42
1:A:549:A:N6	1:A:565:G:O2'	2.52	0.42
1:A:81:G:HO2'	1:A:82:G:P	2.38	0.42
1:A:913:G:C4	1:A:914:A:C8	3.07	0.42
3:B:86:G:C6	3:B:87:G:N7	2.87	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:E:206:SER:HA	19:E:209:TRP:CD1	2.43	0.42
19:E:266:ILE:HG22	19:E:268:ARG:N	2.34	0.42
25:F:264:LEU:HD11	25:F:280:GLY:HA3	2.00	0.42
26:G:238:ASP:N	26:G:238:ASP:OD1	2.52	0.42
26:G:58:LEU:HA	26:G:63:GLU:O	2.19	0.42
27:H:101:LYS:HA	27:H:104:ASP:HB2	2.02	0.42
7:O:34:LEU:HD11	7:O:129:THR:OG1	2.19	0.42
13:U:57:SER:HA	13:U:99:ILE:HA	2.02	0.42
13:U:67:LEU:HD23	13:U:67:LEU:O	2.20	0.42
16:X:76:ARG:O	16:X:77:LEU:HD23	2.19	0.42
1:A:130:U:H3'	1:A:130:U:O2	2.19	0.42
1:A:1524:G:HO2'	1:A:1525:G:H5'	1.82	0.42
1:A:1444:A:O2'	1:A:1534:A:H1'	2.20	0.42
1:A:1537:U:C4	1:A:1538:G:O6	2.72	0.42
1:A:176:A:H2'	1:A:177:C:H6	1.85	0.42
1:A:2236:C:C3'	1:A:2237:A:C5'	2.93	0.42
1:A:274:G:O6	1:A:433:C:C2'	2.58	0.42
1:A:288:C:C6	1:A:288:C:O5'	2.70	0.42
1:A:337:U:H3	1:A:341:A:H62	1.67	0.42
1:A:605:C:H2'	1:A:606:A:H8	1.84	0.42
1:A:6:A:O5'	1:A:6:A:C8	2.70	0.42
1:A:906:C:C6	1:A:906:C:O5'	2.70	0.42
2:C:37:C:C3'	2:C:38:G:C5'	2.98	0.42
19:E:42:ARG:HG2	19:E:43:GLY:H	1.84	0.42
25:F:119:GLU:OE1	25:F:120:GLY:N	2.42	0.42
1:A:1168:U:OP1	4:L:123:ILE:CD1	2.68	0.42
9:Q:87:ILE:HG22	9:Q:94:THR:HG22	2.01	0.42
10:R:157:GLU:OE1	10:R:161:ARG:NH1	2.53	0.42
11:S:62:ILE:O	11:S:66:ASN:HB2	2.19	0.42
13:U:150:GLU:O	13:U:152:LEU:HG	2.19	0.42
1:A:591:C:C2	1:A:1281:G:N2	2.88	0.42
1:A:1429:C:H2'	1:A:1430:C:H5'	2.00	0.42
1:A:144:A:O3'	1:A:145:A:O4'	2.36	0.42
1:A:1500:U:C6	1:A:1500:U:C3'	3.02	0.42
1:A:1528:U:O2'	1:A:1529:A:H5'	2.19	0.42
1:A:1588:U:C2	1:A:1670:A:N7	2.85	0.42
1:A:1812:A:C2'	1:A:1813:A:H5'	2.48	0.42
1:A:1828:U:O5'	1:A:1828:U:H6	2.03	0.42
1:A:1697:U:C2	1:A:2014:G:N2	2.88	0.42
1:A:319:G:C5	1:A:321:G:C6	3.07	0.42
1:A:420:A:N1	1:A:432:G:C2	2.88	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:633:A:C2'	1:A:634:G:H5'	2.49	0.42
1:A:880:U:O2'	1:A:881:U:H5'	2.20	0.42
1:A:891:G:N2	1:A:892:C:O2	2.53	0.42
3:B:42:C:P	3:B:43:C:C5	3.13	0.42
3:B:17:G:C2	3:B:70:G:H1'	2.40	0.42
19:E:140:ILE:HD13	19:E:180:ILE:HD13	2.02	0.42
19:E:42:ARG:NH2	19:E:44:ILE:HD13	2.34	0.42
25:F:119:GLU:CD	25:F:120:GLY:N	2.73	0.42
26:G:190:PHE:O	26:G:193:ALA:HB3	2.19	0.42
4:L:121:ASP:O	4:L:122:LEU:HD23	2.20	0.42
4:L:203:ALA:O	4:L:207:MET:HG2	2.19	0.42
10:R:194:ILE:HG22	10:R:195:VAL:N	2.34	0.42
11:S:91:LEU:HD23	11:S:91:LEU:HA	1.86	0.42
12:T:233:SER:O	12:T:234:THR:HG23	2.18	0.42
16:X:67:LYS:O	16:X:69:GLY:N	2.47	0.42
16:X:75:GLN:OE1	16:X:76:ARG:N	2.47	0.42
18:Z:77:ASN:HD21	18:Z:140:TRP:HE1	1.66	0.42
1:A:1017:G:HO2'	1:A:1018:A:P	2.43	0.42
1:A:1070:G:C2	1:A:1071:C:C2	3.08	0.42
1:A:133:A:C6	1:A:162:A:C2	2.80	0.42
1:A:1637:G:OP1	14:V:166:ILE:HG21	2.19	0.42
1:A:1691:A:H62	1:A:2019:G:N2	2.16	0.42
1:A:1804:U:C2	1:A:1805:C:C5	3.08	0.42
1:A:1882:U:O5'	1:A:1882:U:H6	2.03	0.42
1:A:2211:U:O4	1:A:2241:G:N3	2.53	0.42
1:A:2233:G:C2	1:A:2234:G:C6	3.07	0.42
1:A:2485:A:N6	1:A:2498:G:C5	2.88	0.42
1:A:2565:G:H4'	5:M:31:ARG:HH22	1.84	0.42
1:A:2804:U:C4	1:A:2805:C:C5	3.08	0.42
1:A:307:C:H2'	1:A:308:G:O4'	2.20	0.42
1:A:356:A:N3	1:A:357:G:C8	2.87	0.42
1:A:394:G:N2	1:A:405:C:C4	2.87	0.42
1:A:582:A:H5'	12:T:202:LYS:NZ	2.35	0.42
1:A:823:C:HO2'	1:A:824:U:H5'	1.80	0.42
1:A:845:C:C2	1:A:846:A:C8	3.07	0.42
1:A:878:U:O5'	1:A:878:U:H6	2.03	0.42
1:A:881:U:C2	1:A:916:G:C6	3.08	0.42
1:A:943:C:H6	1:A:943:C:H5''	1.85	0.42
1:A:964:C:C4	1:A:965:G:C8	3.07	0.42
3:B:75:C:H2'	3:B:76:G:O4'	2.20	0.42
2:C:63:G:O5'	2:C:63:G:H8	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:78:G:C2	2:C:79:G:C8	3.08	0.42
27:H:107:ILE:HA	27:H:118:PRO:HG3	2.00	0.42
6:N:97:ARG:NH1	6:N:100:ARG:CG	2.82	0.42
13:U:88:SER:O	13:U:92:GLN:HA	2.20	0.42
1:A:1192:A:H2'	1:A:1193:U:H6	1.83	0.42
1:A:131:C:C5	14:V:104:TYR:CD2	3.06	0.42
1:A:1526:G:O5'	1:A:1526:G:H8	2.01	0.42
1:A:154:C:H5'	1:A:154:C:H6	1.85	0.42
1:A:167:A:H2'	1:A:168:C:H6	1.84	0.42
1:A:1691:A:C8	1:A:1691:A:O5'	2.70	0.42
1:A:1805:C:H2'	1:A:1806:U:C6	2.53	0.42
1:A:2033:A:OP2	1:A:2033:A:H8	2.03	0.42
1:A:2425:U:N3	1:A:2426:G:N7	2.68	0.42
1:A:2600:G:H2'	1:A:2601:U:O4'	2.20	0.42
1:A:2678:G:OP2	1:A:2678:G:H8	2.03	0.42
1:A:419:C:H2'	1:A:420:A:H8	1.84	0.42
3:B:79:A:H4'	7:O:21:SER:CB	2.50	0.42
2:C:74:C:H4'	8:P:75:GLN:NE2	2.34	0.42
25:F:142:GLU:O	25:F:144:LEU:HG	2.20	0.42
26:G:58:LEU:HD13	26:G:58:LEU:HA	1.93	0.42
27:H:181:TYR:CE1	27:H:219:ALA:HB3	2.55	0.42
28:I:52:ALA:O	28:I:54:VAL:HG23	2.20	0.42
5:M:11:ALA:O	5:M:99:PHE:N	2.34	0.42
5:M:8:LEU:HD12	5:M:8:LEU:N	2.34	0.42
6:N:157:TYR:HB2	6:N:196:LEU:HD22	2.01	0.42
8:P:38:LEU:HD22	8:P:58:VAL:HG21	2.02	0.42
1:A:524:A:C1'	11:S:11:ARG:NH2	2.80	0.42
16:X:120:ASP:N	16:X:120:ASP:OD1	2.53	0.42
1:A:1006:G:HO2'	1:A:1030:G:HO2'	1.64	0.42
1:A:106:G:H2'	1:A:107:A:O4'	2.20	0.42
1:A:1477:G:C2	1:A:1478:U:O2	2.73	0.42
1:A:1625:A:H3'	1:A:1626:A:C8	2.55	0.42
1:A:1852:G:H2'	1:A:1853:C:H6	1.85	0.42
1:A:2116:C:H42	1:A:2201:G:N2	2.17	0.42
1:A:2424:G:H2'	1:A:2425:U:C6	2.55	0.42
1:A:2442:A:H4'	1:A:2443:A:O5'	2.19	0.42
1:A:253:C:H2'	1:A:254:U:O2	2.20	0.42
1:A:2574:G:O2'	1:A:2575:C:H5'	2.19	0.42
1:A:354:A:O2'	1:A:355:A:O5'	2.37	0.42
1:A:523:G:HO2'	1:A:524:A:H8	1.68	0.42
1:A:632:G:C8	1:A:634:G:O6	2.73	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:679:G:H2'	1:A:681:A:H62	1.84	0.42
3:B:110:C:C3'	3:B:110:C:C6	3.03	0.42
29:J:76:ASN:O	29:J:80:PRO:CB	2.65	0.42
12:T:110:PHE:HD1	12:T:111:LEU:HD23	1.84	0.42
1:A:1531:A:N3	1:A:1531:A:C2'	2.79	0.42
1:A:1736:A:H2'	1:A:1737:A:H5'	2.02	0.42
1:A:1803:G:H2'	1:A:1804:U:C6	2.55	0.42
1:A:1885:C:N4	6:N:253:ALA:HA	2.32	0.42
1:A:208:A:H4'	1:A:432:G:O2'	2.20	0.42
1:A:2220:G:C4	1:A:2221:U:C6	3.08	0.42
1:A:2308:U:H2'	1:A:2309:U:C6	2.55	0.42
1:A:275:U:O2	1:A:275:U:H3'	2.19	0.42
1:A:289:A:HO2'	1:A:290:A:H5'	1.81	0.42
1:A:306:G:H2'	1:A:307:C:C6	2.55	0.42
1:A:613:U:C6	1:A:613:U:C3'	3.02	0.42
1:A:689:C:H2'	1:A:690:U:H6	1.85	0.42
19:E:172:LEU:HD12	19:E:172:LEU:C	2.40	0.42
19:E:258:ARG:HA	19:E:258:ARG:CZ	2.50	0.42
25:F:147:ARG:O	25:F:149:LEU:N	2.53	0.42
26:G:204:LYS:HZ1	26:G:241:ASN:HB3	1.85	0.42
1:A:2322:A:C5	27:H:186:ARG:CD	2.88	0.42
28:I:123:PHE:CE1	28:I:178:LYS:HE3	2.55	0.42
4:L:168:ARG:HH22	4:L:192:GLN:CD	2.22	0.42
9:Q:122:LYS:O	9:Q:125:GLU:HB3	2.19	0.42
16:X:122:LEU:CD1	16:X:140:ARG:CB	2.98	0.42
1:A:1065:G:O2'	1:A:1066:G:H8	2.03	0.41
1:A:127:C:H2'	1:A:128:U:H6	1.82	0.41
1:A:1506:U:H2'	1:A:1507:G:O4'	2.20	0.41
1:A:1524:G:C8	1:A:1524:G:O5'	2.73	0.41
1:A:1877:C:N3	1:A:1878:C:C5	2.88	0.41
1:A:1878:C:C4	1:A:1879:U:O4	2.72	0.41
1:A:2142:G:O2'	1:A:2188:C:C4'	2.68	0.41
1:A:298:G:H2'	1:A:299:C:C6	2.46	0.41
1:A:497:C:H2'	1:A:498:C:C6	2.55	0.41
1:A:545:U:O2'	11:S:49:ASP:CG	2.53	0.41
1:A:944:C:C6	1:A:944:C:C3'	3.02	0.41
1:A:963:U:O5'	1:A:963:U:H6	2.03	0.41
3:B:14:U:H3'	3:B:15:A:C8	2.54	0.41
1:A:1985:A:H1'	19:E:236:PRO:HB3	2.02	0.41
19:E:259:ASN:N	19:E:259:ASN:ND2	2.60	0.41
1:A:1693:U:OP1	25:F:229:HIS:O	2.38	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:O:17:MET:SD	7:O:96:VAL:HG13	2.59	0.41
12:T:181:ALA:HB3	12:T:225:THR:HG21	1.99	0.41
16:X:145:GLU:C	16:X:146:ASN:ND2	2.73	0.41
1:A:1134:G:O2'	1:A:1135:A:H5'	2.20	0.41
1:A:1482:C:C3'	1:A:1482:C:C6	3.03	0.41
1:A:1650:A:O5'	1:A:1650:A:C8	2.71	0.41
1:A:1651:C:OP2	1:A:1653:C:C5	2.73	0.41
1:A:1693:U:H2'	1:A:1694:C:C6	2.56	0.41
1:A:2109:C:C5	1:A:2110:U:C6	3.05	0.41
1:A:2120:U:N3	1:A:2198:A:H2	2.18	0.41
1:A:226:A:H1'	1:A:228:U:C5	2.54	0.41
1:A:2479:U:C5	1:A:2505:A:C2	3.08	0.41
1:A:2524:C:C2	1:A:2600:G:C2	3.08	0.41
1:A:278:G:C8	1:A:278:G:O5'	2.73	0.41
1:A:671:C:C4	1:A:672:U:O4	2.73	0.41
1:A:879:G:C2	1:A:880:U:O2	2.73	0.41
1:A:919:A:N6	1:A:920:A:N6	2.68	0.41
2:C:78:G:H2'	2:C:79:G:H8	1.84	0.41
19:E:115:GLY:O	19:E:127:PRO:HD3	2.20	0.41
26:G:97:ARG:O	26:G:99:THR:HG22	2.20	0.41
27:H:109:GLU:O	27:H:113:ILE:HD12	2.20	0.41
1:A:2798:G:N1	4:L:201:GLU:CD	2.61	0.41
6:N:158:VAL:HG11	6:N:201:LEU:HD11	2.02	0.41
7:O:72:LYS:HB2	7:O:72:LYS:HE3	1.87	0.41
9:Q:100:THR:HG22	9:Q:100:THR:O	2.21	0.41
1:A:2351:G:N3	9:Q:64:VAL:HG22	2.31	0.41
11:S:80:LYS:HG3	11:S:83:HIS:ND1	2.35	0.41
13:U:168:ARG:HA	13:U:168:ARG:HD3	1.62	0.41
14:V:131:GLU:O	14:V:132:ASN:HB2	2.20	0.41
1:A:82:G:C6	1:A:100:G:C6	3.08	0.41
1:A:133:A:C4	1:A:134:A:N7	2.88	0.41
1:A:1471:A:HO2'	1:A:1472:A:P	2.30	0.41
1:A:1539:C:H2'	1:A:1540:C:H6	1.70	0.41
1:A:1600:A:H5''	19:E:210:LEU:CD2	2.50	0.41
1:A:1698:C:O2'	1:A:2704:U:H5''	2.20	0.41
1:A:1993:C:O2'	1:A:1994:G:H5'	2.20	0.41
1:A:2211:U:C4	1:A:2241:G:N1	2.88	0.41
1:A:2324:G:H4'	1:A:2325:G:C5'	2.46	0.41
1:A:2422:G:HO2'	1:A:2423:A:P	2.42	0.41
1:A:704:A:H2'	1:A:705:U:O4'	2.21	0.41
1:A:720:U:H2'	1:A:721:U:C6	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:885:G:C2	1:A:886:U:C2	3.08	0.41
3:B:35:A:C2'	3:B:36:A:C8	3.01	0.41
3:B:57:U:H4'	3:B:58:A:O5'	2.19	0.41
3:B:89:A:O5'	3:B:89:A:C8	2.70	0.41
19:E:153:ALA:O	19:E:191:VAL:HG11	2.20	0.41
26:G:52:LEU:HD22	26:G:71:ASN:HA	2.02	0.41
29:J:74:LEU:HA	29:J:78:LEU:HD12	2.03	0.41
5:M:1:MET:SD	5:M:32:TYR:HD1	2.42	0.41
6:N:153:GLY:O	6:N:154:LEU:CB	2.68	0.41
6:N:80:PHE:CD1	6:N:85:LEU:CD2	3.03	0.41
1:A:822:U:O2	6:N:99:GLY:O	2.37	0.41
9:Q:81:HIS:O	9:Q:82:LEU:HD12	2.21	0.41
10:R:152:ARG:HH21	10:R:164:VAL:HG22	1.85	0.41
11:S:32:THR:HA	11:S:35:ILE:CG1	2.50	0.41
11:S:52:ARG:CD	11:S:55:ARG:HH11	2.32	0.41
14:V:132:ASN:OD1	14:V:183:ASN:HA	2.20	0.41
1:A:1031:G:N2	1:A:1180:C:C2	2.89	0.41
1:A:1269:G:C8	11:S:3:ARG:HB3	2.54	0.41
1:A:1783:A:N7	1:A:1839:A:H1'	2.35	0.41
1:A:1830:U:C5'	1:A:1831:G:N7	2.82	0.41
1:A:1857:A:H4'	1:A:1858:A:C8	2.56	0.41
1:A:2335:C:C3'	1:A:2335:C:C6	3.03	0.41
1:A:2702:G:C2	1:A:2703:G:N7	2.89	0.41
1:A:320:U:O4'	1:A:341:A:N3	2.53	0.41
1:A:393:G:N2	1:A:406:C:C2	2.88	0.41
1:A:381:C:N3	1:A:416:C:C5	2.88	0.41
1:A:873:A:C2'	1:A:874:G:H5'	2.50	0.41
1:A:891:G:C2	1:A:892:C:N3	2.88	0.41
1:A:95:G:OP1	18:Z:100:PHE:HE1	2.04	0.41
3:B:111:G:H2'	3:B:112:A:H5'	2.02	0.41
3:B:45:G:H1'	3:B:48:C:N4	2.35	0.41
2:C:53:G:H2'	2:C:70:G:N2	2.35	0.41
19:E:144:LEU:H	19:E:144:LEU:HD12	1.85	0.41
19:E:129:THR:HG22	19:E:182:LYS:HB2	2.02	0.41
19:E:155:GLY:N	19:E:191:VAL:HG13	2.32	0.41
1:A:795:U:H5''	19:E:222:ASN:OD1	2.17	0.41
19:E:83:ARG:HG3	19:E:84:ASN:N	2.34	0.41
26:G:146:ARG:CZ	26:G:148:TRP:CE3	3.03	0.41
28:I:56:ILE:HG21	28:I:90:LEU:HD21	2.02	0.41
6:N:162:LEU:O	6:N:166:GLU:CB	2.69	0.41
10:R:187:ILE:HD12	10:R:187:ILE:HG23	1.79	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:S:17:ILE:O	11:S:20:PHE:N	2.54	0.41
13:U:163:LEU:O	13:U:164:MET:SD	2.79	0.41
18:Z:120:ARG:HA	18:Z:120:ARG:HD2	1.58	0.41
1:A:1036:U:HO2'	1:A:1037:A:H8	1.69	0.41
1:A:1076:A:H2'	1:A:1077:C:C6	2.54	0.41
1:A:1153:G:C5	1:A:1154:A:C8	3.08	0.41
1:A:1669:G:C6	1:A:1671:A:C6	3.09	0.41
1:A:1808:C:C2	1:A:1829:A:N6	2.88	0.41
1:A:1949:G:H1'	1:A:1978:G:N2	2.36	0.41
1:A:2292:C:OP2	16:X:70:ARG:NE	2.53	0.41
1:A:229:A:H2'	1:A:230:G:O4'	2.20	0.41
1:A:236:A:O5'	1:A:236:A:H8	2.03	0.41
1:A:23:G:H2'	1:A:24:U:H6	1.83	0.41
1:A:2742:C:OP1	25:F:206:LYS:NZ	2.37	0.41
1:A:2804:U:OP1	25:F:159:LYS:CB	2.68	0.41
1:A:383:A:O2'	17:Y:131:LYS:NZ	2.52	0.41
1:A:622:G:OP2	1:A:622:G:H8	2.02	0.41
1:A:634:G:OP1	6:N:190:SER:O	2.39	0.41
1:A:668:U:H6	1:A:668:U:H3'	1.85	0.41
1:A:856:U:O4	1:A:962:G:C6	2.61	0.41
1:A:964:C:H5''	1:A:964:C:H6	1.85	0.41
3:B:118:G:O2'	3:B:119:G:P	2.79	0.41
3:B:11:U:C6	3:B:11:U:O5'	2.71	0.41
3:B:19:G:H2'	3:B:20:U:H6	1.85	0.41
3:B:36:A:C2	3:B:50:U:C2	3.09	0.41
3:B:39:C:H3'	3:B:40:A:C8	2.54	0.41
3:B:86:G:H2'	3:B:87:G:H5'	2.02	0.41
2:C:32:C:H1'	2:C:33:A:OP1	2.20	0.41
2:C:69:U:O5'	2:C:69:U:H6	2.03	0.41
2:C:84:C:C2'	2:C:85:U:H5'	2.50	0.41
19:E:126:LEU:HD12	19:E:126:LEU:O	2.20	0.41
25:F:136:ALA:CB	25:F:172:ARG:HA	2.51	0.41
4:L:168:ARG:HA	4:L:188:PHE:HD2	1.86	0.41
1:A:539:A:H5'	4:L:212:ARG:NE	2.34	0.41
5:M:69:LEU:O	5:M:76:ILE:HA	2.20	0.41
11:S:92:LEU:HD13	11:S:94:ARG:NH1	2.34	0.41
1:A:1189:G:H1'	12:T:145:GLN:HE21	1.85	0.41
12:T:228:GLU:N	12:T:228:GLU:CD	2.73	0.41
13:U:39:ILE:O	13:U:41:MET:N	2.52	0.41
1:A:1201:A:H2'	1:A:1202:A:H8	1.85	0.41
1:A:1311:C:H2'	1:A:1312:A:C8	2.53	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1425:C:C2	1:A:1426:U:C5	3.08	0.41
1:A:2176:A:OP1	1:A:2185:A:H2'	2.20	0.41
1:A:2223:A:N6	1:A:2233:G:N1	2.69	0.41
1:A:2247:C:H5''	17:Y:100:PHE:CD1	2.55	0.41
1:A:2430:G:H2'	1:A:2431:G:O4'	2.21	0.41
1:A:2654:U:C2	1:A:2800:G:N2	2.88	0.41
1:A:2806:U:H1'	2:C:5:A:H2	1.86	0.41
1:A:22:G:C4	1:A:529:G:N2	2.88	0.41
1:A:751:C:H5'	1:A:1794:A:H2'	2.01	0.41
1:A:858:G:C6	1:A:859:A:N6	2.89	0.41
1:A:861:A:C2	1:A:862:U:C2	3.08	0.41
1:A:899:A:C2	1:A:900:G:C8	3.09	0.41
1:A:910:A:O5'	1:A:910:A:C8	2.70	0.41
1:A:99:A:C8	1:A:99:A:O5'	2.73	0.41
2:C:78:G:N3	2:C:79:G:C8	2.89	0.41
1:A:1692:C:OP1	25:F:230:ARG:HD3	2.20	0.41
26:G:210:MET:HG2	26:G:251:THR:HG23	2.02	0.41
28:I:198:LYS:HE2	28:I:200:LYS:HB3	2.03	0.41
5:M:118:PRO:HG2	5:M:119:GLU:OE1	2.20	0.41
9:Q:128:ALA:HB1	9:Q:162:HIS:HB2	2.01	0.41
10:R:140:VAL:HG23	10:R:206:ILE:HG12	2.02	0.41
11:S:108:ILE:HD12	11:S:108:ILE:HA	1.85	0.41
1:A:490:A:N3	15:W:107:LYS:HE3	2.35	0.41
15:W:67:ARG:HH22	15:W:92:ILE:HG12	1.86	0.41
16:X:162:ARG:HG3	16:X:163:GLU:H	1.86	0.41
1:A:1087:G:H1	1:A:1107:C:N4	2.15	0.41
1:A:143:G:N3	1:A:2224:G:C2	2.89	0.41
1:A:1464:U:H2'	1:A:1465:A:O4'	2.20	0.41
1:A:1479:U:O2	1:A:2719:G:N2	2.54	0.41
1:A:166:A:C2	1:A:446:U:H1'	2.55	0.41
1:A:2204:A:C2'	1:A:2205:G:H5'	2.50	0.41
1:A:2207:A:N3	1:A:2208:U:C2	2.89	0.41
1:A:2211:U:H6	1:A:2211:U:H5''	1.84	0.41
1:A:493:G:O2'	1:A:494:A:OP2	2.39	0.41
1:A:501:A:H62	13:U:78:LYS:HZ2	1.68	0.41
1:A:899:A:H1'	1:A:900:G:OP1	2.21	0.41
3:B:35:A:H3'	3:B:36:A:C8	2.55	0.41
3:B:90:G:H2'	3:B:91:G:O5'	2.21	0.41
2:C:33:A:H1'	2:C:34:U:OP1	2.21	0.41
2:C:60:A:H2'	2:C:61:G:O4'	2.21	0.41
25:F:126:VAL:HG12	25:F:181:PRO:HB3	2.03	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:F:203:THR:OG1	25:F:204:ILE:N	2.53	0.41
26:G:71:ASN:ND2	26:G:71:ASN:C	2.73	0.41
10:R:126:LEU:HD23	10:R:126:LEU:HA	1.90	0.41
12:T:171:TYR:HE2	12:T:231:PRO:HB3	0.78	0.41
1:A:2403:U:H4'	16:X:112:ASP:HA	2.01	0.41
17:Y:129:ILE:CG1	17:Y:130:GLU:N	2.84	0.41
18:Z:68:LEU:HG	18:Z:115:MET:SD	2.61	0.41
1:A:1082:A:C6	1:A:1134:G:C6	3.09	0.41
1:A:1307:A:N6	1:A:1350:U:C2	2.88	0.41
1:A:1750:C:C6	1:A:1750:C:O5'	2.71	0.41
1:A:1886:A:C3'	1:A:1887:G:H5'	2.49	0.41
1:A:1888:G:O6	1:A:1889:G:C6	2.73	0.41
1:A:2012:G:H2'	1:A:2013:A:C8	2.55	0.41
1:A:2107:G:N2	1:A:2108:G:C8	2.89	0.41
1:A:2150:G:H22	1:A:2151:G:N2	2.19	0.41
1:A:2120:U:C4	1:A:2198:A:C2	3.09	0.41
1:A:2199:G:C6	1:A:2200:A:C8	3.08	0.41
1:A:2212:A:O2'	1:A:2213:A:P	2.79	0.41
1:A:2223:A:O3'	1:A:2224:G:H8	2.04	0.41
1:A:2227:C:H2'	1:A:2228:C:H5'	2.02	0.41
1:A:2242:A:H1'	1:A:2243:C:H5	1.86	0.41
1:A:2642:G:C4	1:A:2643:C:C2	3.09	0.41
1:A:665:U:H2'	1:A:666:U:C5'	2.51	0.41
1:A:722:G:O6	1:A:732:A:C6	2.74	0.41
1:A:859:A:C6	1:A:860:C:N4	2.89	0.41
1:A:867:G:H2'	1:A:868:G:O4'	2.21	0.41
1:A:885:G:C6	1:A:886:U:N3	2.88	0.41
3:B:35:A:C8	3:B:35:A:O5'	2.70	0.41
2:C:13:G:H21	2:C:40:U:H1'	1.85	0.41
19:E:135:THR:HG22	19:E:136:ALA:N	2.35	0.41
1:A:1809:G:P	19:E:256:ARG:HD3	2.61	0.41
19:E:61:ILE:HG12	19:E:83:ARG:HH22	1.86	0.41
27:H:157:ILE:HD13	27:H:227:GLY:H	1.86	0.41
28:I:139:GLU:O	28:I:141:LYS:N	2.52	0.41
28:I:74:ILE:HD12	28:I:115:MET:CG	2.51	0.41
6:N:198:LEU:HD23	6:N:199:LYS:CA	2.50	0.41
10:R:218:ARG:HD3	10:R:220:TYR:OH	2.20	0.41
11:S:57:PHE:HD1	11:S:57:PHE:HA	1.70	0.41
12:T:116:PRO:N	12:T:117:PRO:HD2	2.32	0.41
17:Y:82:SER:CB	17:Y:100:PHE:HB3	2.51	0.41
1:A:1257:G:H5''	1:A:1258:A:OP1	2.21	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1474:A:O2'	1:A:1475:U:P	2.79	0.41
1:A:1461:G:N1	1:A:1586:G:N7	2.69	0.41
1:A:1607:G:N3	1:A:1607:G:H2'	2.36	0.41
1:A:1752:C:C6	1:A:1752:C:C3'	3.03	0.41
1:A:1756:G:O5'	1:A:1756:G:C8	2.74	0.41
1:A:1876:A:H62	1:A:1889:G:N2	2.19	0.41
1:A:44:G:C8	1:A:200:G:O2'	2.41	0.41
1:A:2150:G:N1	1:A:2151:G:N1	2.69	0.41
1:A:2222:C:H2'	1:A:2223:A:N9	2.35	0.41
1:A:261:U:N3	1:A:266:A:N6	2.68	0.41
1:A:2808:C:C6	1:A:2808:C:C3'	3.04	0.41
1:A:290:A:C2	1:A:291:G:N7	2.88	0.41
1:A:355:A:C5	1:A:356:A:C5	3.09	0.41
1:A:367:C:H6	1:A:367:C:OP2	2.03	0.41
1:A:627:C:O2'	1:A:628:A:P	2.79	0.41
1:A:897:A:C8	1:A:897:A:OP2	2.70	0.41
3:B:13:C:H1'	3:B:111:G:N2	2.36	0.41
3:B:14:U:O2'	3:B:15:A:P	2.79	0.41
3:B:36:A:N6	3:B:45:G:N9	2.68	0.41
3:B:38:C:C5	3:B:39:C:N3	2.89	0.41
3:B:7:G:O4'	3:B:8:G:OP1	2.38	0.41
1:A:2229:U:H5	19:E:64:ARG:NH1	2.16	0.41
26:G:177:GLU:HB3	26:G:197:TRP:CZ2	2.56	0.41
26:G:213:VAL:O	26:G:216:VAL:HG22	2.21	0.41
27:H:217:LYS:HE3	27:H:217:LYS:HB3	1.86	0.41
29:J:70:ARG:HD3	29:J:70:ARG:HA	1.69	0.41
4:L:103:LYS:HD3	11:S:102:ILE:HD13	2.01	0.41
1:A:501:A:H62	13:U:78:LYS:NZ	2.19	0.41
17:Y:107:ARG:HA	17:Y:117:VAL:O	2.20	0.41
18:Z:105:PHE:HE2	18:Z:109:ARG:HE	1.67	0.41
1:A:1049:A:H62	1:A:1168:U:H3	1.67	0.41
1:A:1337:U:C2	1:A:1338:C:C5	3.09	0.41
1:A:1495:C:N4	1:A:1548:A:C6	2.88	0.41
1:A:151:G:C4	1:A:152:G:N7	2.88	0.41
1:A:1756:G:N2	1:A:1757:G:C4	2.88	0.41
1:A:1829:A:H1'	1:A:1830:U:OP2	2.21	0.41
1:A:1944:G:O2'	1:A:1945:U:O5'	2.36	0.41
1:A:1966:A:N6	5:M:22:ILE:HD12	2.36	0.41
1:A:2113:G:H1	1:A:2204:A:N6	2.17	0.41
1:A:2210:C:O2'	1:A:2211:U:P	2.79	0.41
1:A:274:G:N3	1:A:276:G:C8	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:341:A:C6	1:A:344:C:C4	3.08	0.41
1:A:359:A:C6	1:A:360:U:O4	2.74	0.41
1:A:384:G:O3'	1:A:385:U:C6	2.73	0.41
1:A:434:A:O5'	1:A:434:A:C8	2.70	0.41
1:A:537:U:O2'	1:A:2057:C:O2'	2.30	0.41
2:C:75:U:O4	2:C:76:G:C6	2.74	0.41
2:C:88:C:H6	2:C:88:C:OP2	2.03	0.41
19:E:42:ARG:O	19:E:44:ILE:N	2.54	0.41
25:F:154:ARG:O	25:F:158:ASN:CG	2.58	0.41
1:A:2320:G:C3'	27:H:175:PHE:HA	2.51	0.41
27:H:199:VAL:HG12	27:H:201:LYS:H	1.86	0.41
4:L:176:HIS:CD2	4:L:177:SER:O	2.73	0.41
6:N:154:LEU:HD23	6:N:154:LEU:HA	1.94	0.41
9:Q:49:ARG:O	9:Q:53:ARG:N	2.52	0.41
1:A:17:C:C5'	11:S:25:ARG:HA	2.51	0.41
16:X:133:LYS:CE	16:X:133:LYS:N	2.84	0.41
16:X:75:GLN:CD	16:X:76:ARG:N	2.73	0.41
1:A:130:U:H2'	1:A:131:C:OP1	2.21	0.41
1:A:118:U:C5	1:A:133:A:C2	3.09	0.41
1:A:1453:G:N2	1:A:1596:U:C2	2.89	0.41
1:A:151:G:C8	1:A:151:G:O5'	2.73	0.41
1:A:1549:A:C6	1:A:1550:U:O2	2.74	0.41
1:A:1558:U:H2'	1:A:1559:A:C8	2.56	0.41
1:A:1603:A:OP1	19:E:25:ARG:NH2	2.52	0.41
1:A:165:C:H6	1:A:165:C:H3'	1.86	0.41
1:A:1829:A:OP1	19:E:151:ALA:CA	2.59	0.41
1:A:1848:C:H5'	1:A:1849:A:OP1	2.21	0.41
1:A:2363:A:OP2	1:A:2399:G:H5'	2.21	0.41
1:A:2433:C:H2'	1:A:2434:C:H6	1.85	0.41
1:A:290:A:C2	1:A:291:G:C6	3.09	0.41
1:A:355:A:C8	1:A:356:A:O4'	2.70	0.41
1:A:293:G:C2	1:A:366:G:C2	3.09	0.41
1:A:389:A:C6	1:A:410:G:C2	3.09	0.41
1:A:668:U:H6	1:A:668:U:O5'	2.04	0.41
1:A:828:C:O2'	1:A:850:G:OP1	2.35	0.41
3:B:35:A:N1	3:B:51:G:C5	2.89	0.41
3:B:88:G:C2	3:B:90:G:H5'	2.56	0.41
3:B:94:C:H2'	3:B:95:U:C6	2.56	0.41
10:R:178:HIS:CD2	25:F:101:SER:HG	2.31	0.41
26:G:81:ARG:HD3	26:G:81:ARG:H	1.86	0.41
27:H:126:SER:OG	27:H:132:VAL:O	2.10	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:145:ARG:HG2	27:H:146:GLY:N	2.30	0.41
1:A:2320:G:O2'	27:H:175:PHE:HB2	2.21	0.41
4:L:136:ARG:HD3	4:L:209:PRO:CD	2.51	0.41
6:N:146:ILE:CD1	6:N:146:ILE:N	2.81	0.41
6:N:157:TYR:CD1	6:N:158:VAL:N	2.88	0.41
10:R:219:LEU:HD22	10:R:221:TYR:CE2	2.56	0.41
1:A:1269:G:H8	11:S:3:ARG:HB3	1.84	0.41
11:S:62:ILE:HD12	11:S:78:TYR:CZ	2.56	0.41
12:T:123:ILE:HG23	12:T:224:ILE:HD12	2.02	0.41
12:T:97:GLU:N	12:T:98:PRO:CD	2.81	0.41
15:W:136:LEU:O	15:W:144:ALA:HA	2.21	0.41
16:X:128:TYR:CD1	16:X:134:LYS:HD2	2.55	0.41
17:Y:82:SER:HA	17:Y:100:PHE:HA	2.02	0.41
17:Y:115:ARG:NH1	17:Y:145:LEU:HD21	2.36	0.41
18:Z:117:THR:O	18:Z:121:GLU:HG3	2.21	0.41
18:Z:118:VAL:HG11	18:Z:122:ARG:HH22	1.84	0.41
1:A:1270:C:N4	6:N:97:ARG:CD	2.84	0.40
1:A:1389:G:H2'	1:A:1390:G:H8	1.86	0.40
1:A:1497:A:N6	1:A:1547:C:C4	2.89	0.40
1:A:150:U:C4	1:A:151:G:O6	2.74	0.40
1:A:1646:A:H5'	1:A:1647:C:H5	1.86	0.40
1:A:1817:G:O2'	1:A:1819:A:N6	2.32	0.40
1:A:2128:A:OP2	1:A:2129:G:C6	2.73	0.40
1:A:2153:C:C2	1:A:2154:C:C5	3.08	0.40
1:A:2679:A:H3'	1:A:2680:G:O4'	2.22	0.40
1:A:2685:G:H1'	28:I:151:HIS:CE1	2.56	0.40
1:A:274:G:H2'	1:A:275:U:OP2	2.22	0.40
1:A:288:C:N4	1:A:289:A:H62	2.19	0.40
1:A:291:G:C6	1:A:292:C:N4	2.89	0.40
1:A:600:A:H2'	1:A:601:U:C6	2.56	0.40
1:A:628:A:N7	1:A:629:C:C4	2.89	0.40
1:A:669:C:O5'	1:A:669:C:H6	2.04	0.40
1:A:715:G:H1'	1:A:738:A:H61	1.85	0.40
1:A:821:U:O2'	6:N:99:GLY:O	2.39	0.40
1:A:934:A:H1'	1:A:935:U:OP1	2.21	0.40
1:A:957:U:H2'	1:A:958:C:H5'	2.04	0.40
1:A:99:A:H8	1:A:99:A:O5'	2.04	0.40
3:B:59:A:C6	3:B:60:A:C5	3.10	0.40
2:C:26:G:P	25:F:148:LYS:HD2	2.61	0.40
19:E:138:HIS:ND1	19:E:139:ASN:N	2.68	0.40
25:F:127:LYS:O	25:F:135:ASN:HA	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:H:164:THR:HG22	27:H:165:ARG:N	2.36	0.40
4:L:217:LEU:O	4:L:219:ASN:N	2.54	0.40
5:M:24:ILE:HG12	5:M:30:ARG:HG2	2.02	0.40
8:P:108:ILE:O	8:P:122:TYR:HB3	2.20	0.40
9:Q:57:HIS:O	9:Q:60:ILE:N	2.53	0.40
14:V:188:ALA:HB1	14:V:193:ILE:HB	2.02	0.40
17:Y:83:ASN:N	17:Y:99:GLN:O	2.25	0.40
18:Z:147:ARG:HG2	18:Z:148:PRO:O	2.21	0.40
1:A:1085:A:N1	1:A:1109:U:C4	2.88	0.40
1:A:1238:G:H2'	1:A:1239:C:C6	2.57	0.40
1:A:1519:A:N1	1:A:1520:A:C6	2.89	0.40
1:A:1524:G:C2	1:A:1525:G:C4	3.09	0.40
1:A:156:G:C8	1:A:156:G:O5'	2.71	0.40
1:A:1689:C:C5'	8:P:12:LYS:CE	2.86	0.40
1:A:169:C:C2	1:A:170:U:C5	3.09	0.40
1:A:1798:C:H2'	1:A:1799:A:O4'	2.21	0.40
1:A:2121:C:H6	1:A:2121:C:H5''	1.86	0.40
1:A:2192:U:O2'	1:A:2193:C:P	2.79	0.40
1:A:2408:G:H4'	1:A:2408:G:OP1	2.22	0.40
1:A:2567:G:C6	1:A:2576:C:H5	2.40	0.40
1:A:294:U:P	1:A:295:C:OP2	2.79	0.40
1:A:410:G:H2'	1:A:411:U:C6	2.55	0.40
1:A:51:A:H2'	1:A:52:A:H8	1.86	0.40
1:A:568:C:H2'	1:A:569:G:H8	1.86	0.40
1:A:665:U:O2'	1:A:666:U:O5'	2.30	0.40
1:A:909:A:H8	1:A:909:A:P	2.43	0.40
3:B:17:G:N1	3:B:70:G:N3	2.69	0.40
2:C:104:A:H2	2:C:105:A:C5	2.25	0.40
2:C:32:C:O2	2:C:33:A:H2'	2.20	0.40
19:E:39:ARG:NH1	19:E:40:ASN:HD21	2.19	0.40
19:E:97:LYS:O	19:E:98:ARG:HD3	2.21	0.40
25:F:200:SER:HB2	25:F:291:ARG:HD3	2.02	0.40
26:G:81:ARG:HH21	26:G:81:ARG:H	1.68	0.40
28:I:108:PHE:HA	28:I:111:LEU:HD12	2.02	0.40
7:O:15:GLY:O	7:O:16:ARG:HB3	2.21	0.40
10:R:198:LEU:HA	10:R:198:LEU:HD23	1.88	0.40
12:T:140:ARG:HD3	12:T:141:TRP:H	1.85	0.40
12:T:91:ASP:CG	13:U:142:PHE:CZ	2.94	0.40
13:U:41:MET:CE	13:U:75:PRO:HG2	2.52	0.40
15:W:170:THR:HG22	15:W:171:PRO:CD	2.25	0.40
15:W:78:ILE:HG12	15:W:135:MET:HG3	2.03	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:Z:100:PHE:CE2	18:Z:104:ASP:HB2	2.56	0.40
1:A:1408:A:H5'	1:A:1488:A:H1'	2.02	0.40
1:A:142:U:O2	1:A:153:G:O6	2.38	0.40
1:A:1556:A:H4'	1:A:1558:U:H1'	2.03	0.40
1:A:1625:A:H3'	1:A:1626:A:H8	1.86	0.40
1:A:1649:G:C3'	1:A:1650:A:C5'	2.99	0.40
1:A:1651:C:O2'	1:A:1652:A:P	2.79	0.40
1:A:1700:A:C2	1:A:1701:A:C4	3.10	0.40
1:A:2058:C:H6	1:A:2058:C:O5'	2.04	0.40
1:A:2322:A:H5''	27:H:186:ARG:CG	2.51	0.40
1:A:2317:G:C6	1:A:2333:C:N3	2.87	0.40
1:A:308:G:H5''	1:A:309:A:OP1	2.21	0.40
1:A:319:G:O2'	1:A:320:U:O5'	2.22	0.40
1:A:415:U:O2'	1:A:416:C:C4	2.70	0.40
1:A:570:C:H1'	11:S:52:ARG:NH1	2.35	0.40
1:A:624:A:H2'	1:A:625:C:O5'	2.21	0.40
1:A:624:A:O2'	1:A:625:C:OP1	2.39	0.40
1:A:714:U:H2'	1:A:715:G:O4'	2.22	0.40
1:A:793:A:H2	19:E:225:ASP:OD2	2.04	0.40
1:A:94:A:H2'	1:A:95:G:O4'	2.21	0.40
1:A:946:A:H61	1:A:950:A:H61	1.58	0.40
3:B:15:A:O2'	3:B:16:G:C8	2.70	0.40
2:C:14:G:H2'	2:C:15:C:C6	2.57	0.40
2:C:26:G:C2'	2:C:27:U:H5'	2.43	0.40
2:C:72:A:C2'	2:C:73:G:C5'	2.94	0.40
25:F:159:LYS:HD3	25:F:159:LYS:O	2.22	0.40
26:G:252:ILE:HD12	26:G:252:ILE:HA	1.98	0.40
26:G:58:LEU:HD13	26:G:63:GLU:O	2.21	0.40
27:H:148:LEU:HD12	27:H:148:LEU:H	1.87	0.40
5:M:69:LEU:HB3	5:M:77:ILE:O	2.22	0.40
6:N:114:MET:O	6:N:115:ARG:HB2	2.21	0.40
6:N:117:GLN:OE1	6:N:125:ILE:HG13	2.18	0.40
6:N:157:TYR:HD2	6:N:196:LEU:HD23	1.86	0.40
7:O:17:MET:HE1	7:O:96:VAL:HG13	2.02	0.40
10:R:116:ARG:CA	10:R:116:ARG:NE	2.73	0.40
1:A:1635:C:C4'	14:V:106:ARG:HH21	2.32	0.40
15:W:65:HIS:O	15:W:66:LYS:CB	2.69	0.40
1:A:101:A:O2'	1:A:102:U:H5'	2.22	0.40
1:A:1064:A:N6	1:A:1147:U:H3	2.19	0.40
1:A:1240:G:H2'	1:A:1242:G:H8	1.86	0.40
1:A:1298:A:C2	1:A:1315:G:C2	3.10	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1320:G:H4'	1:A:1321:A:H5''	2.03	0.40
1:A:1322:A:O2'	1:A:1323:A:H2'	2.21	0.40
1:A:1465:A:C6	1:A:1466:G:C5	3.10	0.40
1:A:153:G:H21	1:A:154:C:C1'	2.34	0.40
1:A:1547:C:HO2'	1:A:1548:A:H5'	1.83	0.40
1:A:1746:C:H2'	1:A:1747:C:C6	2.57	0.40
1:A:1766:G:H4'	1:A:1768:G:H1'	2.04	0.40
1:A:1953:U:H3'	1:A:1954:U:H5''	2.03	0.40
1:A:2103:G:C4	1:A:2104:A:C8	3.10	0.40
1:A:2170:C:C4	1:A:2171:G:C6	3.10	0.40
1:A:2219:U:H1'	1:A:2229:U:O4	2.22	0.40
1:A:2393:A:N1	9:Q:141:PHE:CD2	2.90	0.40
1:A:2698:C:N3	1:A:2745:G:N2	2.69	0.40
1:A:594:C:N4	1:A:595:G:C6	2.89	0.40
1:A:627:C:O2	26:G:232:ARG:NH1	2.49	0.40
3:B:5:C:H2'	3:B:6:U:H6	1.85	0.40
2:C:12:C:H5''	8:P:109:ARG:CZ	2.52	0.40
19:E:86:TYR:O	19:E:102:HIS:HD2	2.04	0.40
28:I:149:PHE:CE1	28:I:192:ARG:HD3	2.57	0.40
28:I:91:ARG:HA	28:I:109:ARG:NH2	2.19	0.40
7:O:68:ILE:HG22	7:O:101:ARG:HH11	1.86	0.40
17:Y:106:LYS:HE3	17:Y:106:LYS:HB3	1.81	0.40
1:A:1162:C:O2'	1:A:1163:G:P	2.79	0.40
1:A:1574:G:H2'	1:A:1575:C:C6	2.56	0.40
1:A:1624:C:H2'	1:A:1625:A:N7	2.36	0.40
1:A:1756:G:H8	1:A:1756:G:O5'	2.04	0.40
1:A:2207:A:C2'	1:A:2208:U:C1'	2.97	0.40
1:A:2211:U:C4	1:A:2241:G:C2	3.09	0.40
1:A:2211:U:O4	1:A:2241:G:C2	2.75	0.40
1:A:285:A:O2'	1:A:286:U:P	2.79	0.40
1:A:286:U:H3'	1:A:286:U:H6	1.86	0.40
1:A:288:C:C2'	1:A:289:A:C5'	2.97	0.40
1:A:294:U:C2'	1:A:295:C:C2	2.97	0.40
1:A:354:A:O2'	1:A:355:A:H5'	2.22	0.40
1:A:519:A:C8	13:U:109:ILE:HG13	2.57	0.40
1:A:661:G:H2'	1:A:662:C:H5'	2.03	0.40
1:A:749:G:C6	1:A:750:A:C2	3.09	0.40
1:A:854:A:H2	1:A:964:C:O2	2.04	0.40
1:A:97:A:C8	1:A:97:A:O5'	2.74	0.40
3:B:36:A:N7	3:B:45:G:N7	2.69	0.40
2:C:35:U:O2'	2:C:36:A:P	2.79	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:45:G:H2'	2:C:46:U:C6	2.56	0.40
2:C:55:A:C6	2:C:56:G:C6	3.10	0.40
1:A:2637:U:C1'	25:F:250:MET:HB2	2.52	0.40
25:F:199:ILE:HG22	25:F:292:LEU:HD12	2.03	0.40
1:A:670:A:C5'	26:G:151:LYS:HE3	2.52	0.40
26:G:204:LYS:HZ1	26:G:241:ASN:CB	2.35	0.40
26:G:206:LEU:HD22	26:G:207:PHE:H	1.86	0.40
26:G:247:PHE:HB3	26:G:251:THR:OG1	2.21	0.40
27:H:111:ALA:HB2	27:H:118:PRO:HD3	2.04	0.40
27:H:66:VAL:HB	27:H:67:PRO:HD3	2.04	0.40
28:I:131:GLY:HA2	28:I:200:LYS:HD2	2.02	0.40
6:N:109:SER:O	6:N:110:CYS:CB	2.70	0.40
6:N:165:ILE:HA	6:N:206:LEU:HD11	1.56	0.40
6:N:166:GLU:HA	6:N:166:GLU:OE1	2.22	0.40
6:N:202:GLY:CA	6:N:221:ALA:N	2.85	0.40
12:T:174:THR:HG22	12:T:175:PRO:CD	2.52	0.40
12:T:164:VAL:HG21	12:T:227:TYR:HB3	2.04	0.40
16:X:67:LYS:O	16:X:68:ASN:HB2	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	L	145/191 (76%)	120 (83%)	21 (14%)	4 (3%)	6	43
5	M	119/121 (98%)	97 (82%)	22 (18%)	0	100	100
6	N	175/192 (91%)	156 (89%)	6 (3%)	13 (7%)	1	16
7	O	132/135 (98%)	107 (81%)	23 (17%)	2 (2%)	13	56
8	P	114/116 (98%)	96 (84%)	18 (16%)	0	100	100
9	Q	118/123 (96%)	99 (84%)	19 (16%)	0	100	100

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
10	R	116/156 (74%)	89 (77%)	26 (22%)	1 (1%)	21	68
11	S	113/127 (89%)	91 (80%)	22 (20%)	0	100	100
12	T	145/201 (72%)	108 (74%)	28 (19%)	9 (6%)	2	21
13	U	142/199 (71%)	117 (82%)	24 (17%)	1 (1%)	26	72
14	V	90/122 (74%)	79 (88%)	9 (10%)	2 (2%)	8	49
15	W	122/145 (84%)	95 (78%)	25 (20%)	2 (2%)	12	55
16	X	98/137 (72%)	87 (89%)	7 (7%)	4 (4%)	3	33
17	Y	72/77 (94%)	61 (85%)	11 (15%)	0	100	100
18	Z	88/109 (81%)	85 (97%)	3 (3%)	0	100	100
19	E	245/271 (90%)	187 (76%)	57 (23%)	1 (0%)	39	81
20	b	44/56 (79%)	35 (80%)	9 (20%)	0	100	100
21	c	49/65 (75%)	34 (69%)	15 (31%)	0	100	100
22	d	55/60 (92%)	47 (86%)	6 (11%)	2 (4%)	4	37
23	e	67/73 (92%)	50 (75%)	16 (24%)	1 (2%)	13	56
24	f	35/37 (95%)	30 (86%)	5 (14%)	0	100	100
25	F	210/221 (95%)	173 (82%)	37 (18%)	0	100	100
26	G	208/243 (86%)	166 (80%)	40 (19%)	2 (1%)	19	66
27	H	173/220 (79%)	145 (84%)	27 (16%)	1 (1%)	30	75
28	I	171/182 (94%)	142 (83%)	27 (16%)	2 (1%)	16	61
29	J	51/155 (33%)	41 (80%)	9 (18%)	1 (2%)	9	51
30	g	41/142 (29%)	36 (88%)	5 (12%)	0	100	100
31	a	36/94 (38%)	26 (72%)	9 (25%)	1 (3%)	6	43
32	h	44/116 (38%)	31 (70%)	12 (27%)	1 (2%)	8	48
All	All	3218/4086 (79%)	2630 (82%)	538 (17%)	50 (2%)	17	55

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
4	L	107	HIS
6	N	143	LEU
6	N	147	ALA
6	N	154	LEU
6	N	155	PRO
6	N	176	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
6	N	254	ASP
12	T	94	GLN
12	T	97	GLU
12	T	116	PRO
12	T	117	PRO
12	T	175	PRO
13	U	151	SER
15	W	66	LYS
15	W	170	THR
16	X	70	ARG
16	X	143	GLN
16	X	147	PRO
19	E	237	ILE
22	d	94	CYS
23	e	95	HIS
26	G	96	ARG
28	I	43	ILE
4	L	109	PRO
6	N	216	ALA
12	T	95	ALA
16	X	144	PRO
22	d	99	SER
31	a	49	ALA
6	N	159	PRO
6	N	177	SER
6	N	197	PRO
14	V	106	ARG
27	H	187	GLU
4	L	105	ALA
6	N	167	VAL
6	N	189	PRO
7	O	26	ARG
12	T	92	ASP
12	T	98	PRO
26	G	201	PRO
32	h	79	TYR
4	L	218	PHE
6	N	198	LEU
10	R	139	PRO
28	I	47	PRO
12	T	112	PRO
29	J	69	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
7	O	70	PRO
14	V	168	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	L	125/165 (76%)	124 (99%)	1 (1%)	86	95
5	M	101/101 (100%)	101 (100%)	0	100	100
6	N	135/144 (94%)	126 (93%)	9 (7%)	20	61
7	O	107/108 (99%)	107 (100%)	0	100	100
8	P	96/96 (100%)	96 (100%)	0	100	100
9	Q	99/100 (99%)	99 (100%)	0	100	100
10	R	104/135 (77%)	101 (97%)	3 (3%)	50	81
11	S	102/114 (90%)	102 (100%)	0	100	100
12	T	129/174 (74%)	122 (95%)	7 (5%)	27	67
13	U	126/176 (72%)	125 (99%)	1 (1%)	86	95
14	V	81/103 (79%)	80 (99%)	1 (1%)	78	92
15	W	112/129 (87%)	109 (97%)	3 (3%)	52	83
16	X	85/111 (77%)	74 (87%)	11 (13%)	5	27
17	Y	64/67 (96%)	61 (95%)	3 (5%)	32	72
18	Z	83/97 (86%)	79 (95%)	4 (5%)	31	71
19	E	195/216 (90%)	189 (97%)	6 (3%)	47	81
20	b	39/49 (80%)	39 (100%)	0	100	100
21	c	48/59 (81%)	47 (98%)	1 (2%)	61	86
22	d	47/49 (96%)	45 (96%)	2 (4%)	35	74
23	e	59/62 (95%)	58 (98%)	1 (2%)	68	89
24	f	34/34 (100%)	34 (100%)	0	100	100
25	F	174/182 (96%)	170 (98%)	4 (2%)	58	85

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
26	G	176/205 (86%)	169 (96%)	7 (4%)	38	75
27	H	148/183 (81%)	146 (99%)	2 (1%)	74	91
28	I	147/154 (96%)	147 (100%)	0	100	100
29	J	47/134 (35%)	46 (98%)	1 (2%)	61	86
30	g	39/121 (32%)	39 (100%)	0	100	100
31	a	33/83 (40%)	32 (97%)	1 (3%)	48	81
32	h	40/96 (42%)	40 (100%)	0	100	100
All	All	2775/3447 (80%)	2707 (98%)	68 (2%)	59	84

All (68) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
4	L	107	HIS
6	N	84	ASN
6	N	120	ARG
6	N	143	LEU
6	N	157	TYR
6	N	163	ARG
6	N	165	ILE
6	N	196	LEU
6	N	217	PHE
6	N	224	LYS
10	R	116	ARG
10	R	127	ASN
10	R	226	LEU
12	T	93	PHE
12	T	94	GLN
12	T	103	TYR
12	T	113	LYS
12	T	147	LEU
12	T	175	PRO
12	T	176	ILE
13	U	67	LEU
14	V	111	VAL
15	W	104	LEU
15	W	170	THR
15	W	173	ARG
16	X	67	LYS
16	X	68	ASN
16	X	73	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	X	128	TYR
16	X	133	LYS
16	X	146	ASN
16	X	150	TYR
16	X	155	ARG
16	X	156	GLU
16	X	162	ARG
16	X	163	GLU
17	Y	103	LEU
17	Y	128	THR
17	Y	131	LYS
18	Z	114	ARG
18	Z	117	THR
18	Z	120	ARG
18	Z	152	LEU
19	E	61	ILE
19	E	232	GLU
19	E	237	ILE
19	E	258	ARG
19	E	259	ASN
19	E	264	ASN
21	c	13	LEU
22	d	112	ARG
22	d	123	LEU
23	e	153	LEU
25	F	117	PHE
25	F	119	GLU
25	F	121	ASN
25	F	143	ARG
26	G	71	ASN
26	G	79	LYS
26	G	81	ARG
26	G	223	ILE
26	G	230	THR
26	G	232	ARG
26	G	245	LEU
27	H	186	ARG
27	H	188	GLN
29	J	77	PHE
31	a	73	TRP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (63) such sidechains are listed below:

Mol	Chain	Res	Type
4	L	176	HIS
4	L	220	HIS
4	L	235	GLN
5	M	49	ASN
5	M	82	ASN
6	N	84	ASN
6	N	88	GLN
7	O	13	HIS
8	P	75	GLN
9	Q	102	GLN
10	R	127	ASN
10	R	174	ASN
10	R	202	ASN
11	S	28	HIS
11	S	38	GLN
11	S	77	ASN
11	S	83	HIS
11	S	99	GLN
12	T	94	GLN
12	T	109	GLN
12	T	145	GLN
12	T	205	ASN
12	T	212	HIS
12	T	214	GLN
13	U	52	GLN
13	U	90	ASN
13	U	106	ASN
14	V	163	ASN
15	W	68	HIS
15	W	121	GLN
15	W	130	HIS
15	W	133	ASN
15	W	149	HIS
16	X	102	HIS
16	X	146	ASN
18	Z	77	ASN
19	E	54	HIS
19	E	124	ASN
19	E	149	GLN
19	E	228	HIS
19	E	259	ASN
20	b	18	ASN
21	c	36	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	c	38	ASN
22	d	140	ASN
23	e	95	HIS
23	e	145	ASN
24	f	69	HIS
25	F	135	ASN
25	F	138	GLN
25	F	167	HIS
25	F	209	GLN
25	F	229	HIS
25	F	288	ASN
26	G	71	ASN
26	G	93	GLN
26	G	153	ASN
26	G	222	ASN
26	G	257	GLN
27	H	90	ASN
28	I	105	HIS
28	I	183	GLN
30	g	88	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	2796/2810 (99%)	962 (34%)	106 (3%)
2	C	101/106 (95%)	45 (44%)	4 (3%)
3	B	116/121 (95%)	54 (46%)	5 (4%)
All	All	3013/3037 (99%)	1061 (35%)	115 (3%)

All (1061) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	7	C
1	A	13	A
1	A	22	G
1	A	27	A
1	A	32	U
1	A	33	A
1	A	34	G
1	A	39	C
1	A	43	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	44	G
1	A	45	A
1	A	46	C
1	A	47	G
1	A	48	A
1	A	49	G
1	A	50	G
1	A	60	U
1	A	61	U
1	A	70	A
1	A	71	A
1	A	74	G
1	A	81	G
1	A	82	G
1	A	83	A
1	A	84	G
1	A	89	A
1	A	90	A
1	A	91	A
1	A	94	A
1	A	95	G
1	A	97	A
1	A	98	G
1	A	99	A
1	A	100	G
1	A	101	A
1	A	102	U
1	A	108	G
1	A	112	C
1	A	116	A
1	A	117	A
1	A	118	U
1	A	119	A
1	A	121	G
1	A	122	U
1	A	123	C
1	A	130	U
1	A	131	C
1	A	132	G
1	A	133	A
1	A	134	A
1	A	136	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	141	C
1	A	142	U
1	A	143	G
1	A	144	A
1	A	146	U
1	A	147	C
1	A	148	C
1	A	150	U
1	A	153	G
1	A	154	C
1	A	156	G
1	A	157	G
1	A	158	C
1	A	160	A
1	A	161	G
1	A	162	A
1	A	163	G
1	A	166	A
1	A	175	A
1	A	181	A
1	A	184	A
1	A	188	U
1	A	189	A
1	A	190	G
1	A	191	U
1	A	200	G
1	A	201	A
1	A	206	A
1	A	207	A
1	A	213	A
1	A	214	A
1	A	218	A
1	A	220	U
1	A	226	A
1	A	227	G
1	A	228	U
1	A	233	G
1	A	234	C
1	A	235	G
1	A	237	G
1	A	240	A
1	A	250	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	251	G
1	A	255	A
1	A	256	A
1	A	257	A
1	A	262	G
1	A	263	A
1	A	264	A
1	A	265	A
1	A	266	A
1	A	271	G
1	A	274	G
1	A	275	U
1	A	276	G
1	A	277	G
1	A	279	A
1	A	282	G
1	A	283	C
1	A	284	A
1	A	285	A
1	A	286	U
1	A	287	A
1	A	288	C
1	A	289	A
1	A	291	G
1	A	292	C
1	A	294	U
1	A	296	G
1	A	298	G
1	A	299	C
1	A	302	C
1	A	303	U
1	A	304	A
1	A	311	U
1	A	316	G
1	A	317	G
1	A	320	U
1	A	321	G
1	A	332	G
1	A	333	A
1	A	335	G
1	A	336	G
1	A	337	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	338	G
1	A	339	A
1	A	340	A
1	A	341	A
1	A	342	G
1	A	343	U
1	A	346	A
1	A	347	G
1	A	353	G
1	A	355	A
1	A	356	A
1	A	360	U
1	A	365	A
1	A	366	G
1	A	367	C
1	A	370	A
1	A	371	U
1	A	372	G
1	A	375	C
1	A	377	G
1	A	378	A
1	A	379	C
1	A	380	C
1	A	381	C
1	A	382	G
1	A	383	A
1	A	384	G
1	A	388	C
1	A	389	A
1	A	392	G
1	A	396	A
1	A	397	C
1	A	398	G
1	A	399	U
1	A	400	G
1	A	403	A
1	A	404	U
1	A	407	C
1	A	411	U
1	A	414	A
1	A	415	U
1	A	417	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	418	G
1	A	423	G
1	A	431	U
1	A	433	C
1	A	434	A
1	A	448	C
1	A	455	A
1	A	460	U
1	A	461	A
1	A	467	G
1	A	468	U
1	A	470	G
1	A	471	U
1	A	487	U
1	A	490	A
1	A	491	A
1	A	493	G
1	A	494	A
1	A	501	A
1	A	502	U
1	A	503	C
1	A	504	G
1	A	507	G
1	A	515	U
1	A	516	A
1	A	518	A
1	A	519	A
1	A	520	C
1	A	521	A
1	A	524	A
1	A	538	C
1	A	539	A
1	A	540	A
1	A	541	G
1	A	542	C
1	A	544	G
1	A	545	U
1	A	549	A
1	A	552	G
1	A	553	G
1	A	554	G
1	A	555	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	561	C
1	A	565	G
1	A	572	U
1	A	573	G
1	A	578	U
1	A	579	U
1	A	583	G
1	A	584	A
1	A	585	A
1	A	587	G
1	A	588	A
1	A	593	G
1	A	613	U
1	A	614	G
1	A	615	G
1	A	622	G
1	A	623	A
1	A	624	A
1	A	625	C
1	A	627	C
1	A	628	A
1	A	649	A
1	A	654	U
1	A	657	U
1	A	658	A
1	A	659	G
1	A	665	U
1	A	666	U
1	A	667	G
1	A	672	U
1	A	680	G
1	A	681	A
1	A	687	A
1	A	688	C
1	A	695	G
1	A	696	A
1	A	697	U
1	A	701	U
1	A	706	G
1	A	712	G
1	A	718	G
1	A	725	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	726	G
1	A	728	A
1	A	730	C
1	A	741	U
1	A	747	C
1	A	750	A
1	A	751	C
1	A	758	U
1	A	763	A
1	A	764	A
1	A	774	G
1	A	775	A
1	A	782	G
1	A	785	A
1	A	787	G
1	A	788	G
1	A	793	A
1	A	794	A
1	A	795	U
1	A	796	G
1	A	800	C
1	A	801	U
1	A	802	C
1	A	805	A
1	A	811	A
1	A	813	C
1	A	814	U
1	A	816	G
1	A	817	C
1	A	822	U
1	A	823	C
1	A	824	U
1	A	830	A
1	A	838	U
1	A	840	A
1	A	842	G
1	A	853	G
1	A	855	C
1	A	856	U
1	A	857	G
1	A	858	G
1	A	859	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	862	U
1	A	866	G
1	A	869	G
1	A	870	U
1	A	874	G
1	A	876	A
1	A	877	C
1	A	881	U
1	A	882	U
1	A	883	C
1	A	884	G
1	A	885	G
1	A	887	G
1	A	888	C
1	A	889	G
1	A	891	G
1	A	893	C
1	A	894	G
1	A	896	G
1	A	898	G
1	A	900	G
1	A	901	C
1	A	902	G
1	A	903	G
1	A	904	U
1	A	905	A
1	A	906	C
1	A	907	C
1	A	909	A
1	A	910	A
1	A	911	U
1	A	912	C
1	A	913	G
1	A	914	A
1	A	916	G
1	A	918	A
1	A	919	A
1	A	920	A
1	A	921	C
1	A	922	U
1	A	924	U
1	A	935	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	936	A
1	A	938	G
1	A	940	C
1	A	941	C
1	A	943	C
1	A	945	A
1	A	946	A
1	A	947	A
1	A	950	A
1	A	951	C
1	A	952	A
1	A	953	G
1	A	954	G
1	A	956	G
1	A	957	U
1	A	960	A
1	A	961	G
1	A	962	G
1	A	965	G
1	A	969	A
1	A	972	G
1	A	973	A
1	A	974	G
1	A	981	G
1	A	982	G
1	A	985	A
1	A	986	U
1	A	987	A
1	A	989	G
1	A	993	C
1	A	1001	A
1	A	1003	A
1	A	1011	A
1	A	1012	G
1	A	1013	C
1	A	1017	G
1	A	1018	A
1	A	1024	A
1	A	1033	C
1	A	1036	U
1	A	1037	A
1	A	1038	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1039	A
1	A	1040	U
1	A	1041	G
1	A	1043	C
1	A	1045	G
1	A	1046	C
1	A	1047	U
1	A	1050	G
1	A	1051	U
1	A	1052	G
1	A	1053	A
1	A	1055	A
1	A	1061	G
1	A	1064	A
1	A	1065	G
1	A	1066	G
1	A	1070	G
1	A	1073	G
1	A	1074	A
1	A	1075	G
1	A	1078	A
1	A	1079	G
1	A	1080	C
1	A	1081	C
1	A	1082	A
1	A	1085	A
1	A	1090	U
1	A	1097	A
1	A	1098	A
1	A	1099	G
1	A	1111	G
1	A	1116	A
1	A	1137	C
1	A	1139	A
1	A	1140	G
1	A	1154	A
1	A	1155	A
1	A	1158	U
1	A	1160	A
1	A	1161	A
1	A	1162	C
1	A	1163	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1165	G
1	A	1169	A
1	A	1173	G
1	A	1175	U
1	A	1177	U
1	A	1182	A
1	A	1184	G
1	A	1186	U
1	A	1194	G
1	A	1195	U
1	A	1196	A
1	A	1197	A
1	A	1198	A
1	A	1199	A
1	A	1203	C
1	A	1204	A
1	A	1207	G
1	A	1220	U
1	A	1225	G
1	A	1227	U
1	A	1231	G
1	A	1232	A
1	A	1233	G
1	A	1234	A
1	A	1235	A
1	A	1236	A
1	A	1237	C
1	A	1238	G
1	A	1239	C
1	A	1241	U
1	A	1242	G
1	A	1251	G
1	A	1254	U
1	A	1255	U
1	A	1256	G
1	A	1257	G
1	A	1259	C
1	A	1268	A
1	A	1271	G
1	A	1274	A
1	A	1276	U
1	A	1277	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1283	U
1	A	1286	A
1	A	1287	G
1	A	1288	U
1	A	1290	A
1	A	1293	C
1	A	1294	A
1	A	1295	A
1	A	1296	A
1	A	1297	C
1	A	1307	A
1	A	1314	U
1	A	1321	A
1	A	1322	A
1	A	1323	A
1	A	1333	U
1	A	1334	U
1	A	1335	C
1	A	1341	C
1	A	1342	A
1	A	1349	G
1	A	1351	C
1	A	1353	A
1	A	1361	U
1	A	1362	G
1	A	1366	C
1	A	1373	U
1	A	1379	C
1	A	1386	A
1	A	1389	G
1	A	1397	C
1	A	1399	A
1	A	1400	U
1	A	1406	A
1	A	1418	U
1	A	1430	C
1	A	1434	G
1	A	1436	U
1	A	1437	G
1	A	1438	G
1	A	1450	G
1	A	1451	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1452	A
1	A	1454	G
1	A	1458	C
1	A	1460	A
1	A	1463	U
1	A	1466	G
1	A	1472	A
1	A	1473	G
1	A	1474	A
1	A	1475	U
1	A	1476	G
1	A	1480	A
1	A	1481	U
1	A	1482	C
1	A	1486	U
1	A	1494	G
1	A	1495	C
1	A	1498	G
1	A	1501	G
1	A	1502	A
1	A	1503	C
1	A	1504	C
1	A	1506	U
1	A	1507	G
1	A	1516	G
1	A	1517	G
1	A	1518	U
1	A	1521	G
1	A	1522	A
1	A	1523	A
1	A	1527	G
1	A	1530	G
1	A	1531	A
1	A	1532	G
1	A	1533	A
1	A	1534	A
1	A	1535	A
1	A	1537	U
1	A	1541	U
1	A	1542	C
1	A	1543	G
1	A	1544	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1548	A
1	A	1551	G
1	A	1552	U
1	A	1556	A
1	A	1557	G
1	A	1559	A
1	A	1569	A
1	A	1570	C
1	A	1571	G
1	A	1572	G
1	A	1574	G
1	A	1583	A
1	A	1589	G
1	A	1592	A
1	A	1593	U
1	A	1594	A
1	A	1597	C
1	A	1598	C
1	A	1600	A
1	A	1602	G
1	A	1603	A
1	A	1604	A
1	A	1607	G
1	A	1613	A
1	A	1615	G
1	A	1616	A
1	A	1617	C
1	A	1618	C
1	A	1619	U
1	A	1624	C
1	A	1627	A
1	A	1628	A
1	A	1629	G
1	A	1634	C
1	A	1635	C
1	A	1643	G
1	A	1645	A
1	A	1646	A
1	A	1647	C
1	A	1649	G
1	A	1651	C
1	A	1652	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1653	C
1	A	1655	G
1	A	1663	G
1	A	1676	U
1	A	1684	C
1	A	1688	A
1	A	1689	C
1	A	1690	A
1	A	1701	A
1	A	1705	A
1	A	1709	G
1	A	1710	G
1	A	1712	A
1	A	1716	U
1	A	1730	C
1	A	1732	G
1	A	1734	A
1	A	1736	A
1	A	1737	A
1	A	1743	G
1	A	1746	C
1	A	1747	C
1	A	1752	C
1	A	1753	A
1	A	1754	A
1	A	1755	A
1	A	1768	G
1	A	1769	A
1	A	1774	G
1	A	1776	C
1	A	1783	A
1	A	1786	G
1	A	1794	A
1	A	1796	A
1	A	1797	A
1	A	1810	C
1	A	1811	A
1	A	1812	A
1	A	1813	A
1	A	1818	U
1	A	1819	A
1	A	1821	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1825	A
1	A	1826	U
1	A	1829	A
1	A	1830	U
1	A	1837	U
1	A	1839	A
1	A	1849	A
1	A	1858	A
1	A	1859	G
1	A	1876	A
1	A	1878	C
1	A	1880	G
1	A	1881	A
1	A	1882	U
1	A	1883	G
1	A	1884	A
1	A	1885	C
1	A	1887	G
1	A	1890	G
1	A	1895	G
1	A	1910	G
1	A	1915	A
1	A	1917	G
1	A	1920	G
1	A	1921	G
1	A	1925	U
1	A	1926	A
1	A	1927	A
1	A	1928	C
1	A	1931	U
1	A	1933	A
1	A	1937	U
1	A	1940	U
1	A	1941	A
1	A	1942	A
1	A	1943	G
1	A	1945	U
1	A	1951	A
1	A	1952	A
1	A	1953	U
1	A	1954	U
1	A	1955	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	1958	U
1	A	1959	G
1	A	1970	U
1	A	1979	C
1	A	1980	A
1	A	1981	C
1	A	1982	G
1	A	1984	A
1	A	1985	A
1	A	1986	G
1	A	2004	C
1	A	2005	U
1	A	2006	G
1	A	2007	U
1	A	2011	G
1	A	2033	A
1	A	2034	C
1	A	2037	G
1	A	2040	U
1	A	2044	A
1	A	2045	A
1	A	2046	G
1	A	2047	A
1	A	2048	U
1	A	2049	G
1	A	2054	C
1	A	2057	C
1	A	2061	C
1	A	2065	U
1	A	2066	G
1	A	2069	C
1	A	2070	A
1	A	2073	A
1	A	2074	A
1	A	2075	G
1	A	2076	A
1	A	2083	G
1	A	2091	A
1	A	2094	G
1	A	2104	A
1	A	2107	G
1	A	2108	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2109	C
1	A	2114	G
1	A	2115	G
1	A	2117	U
1	A	2120	U
1	A	2122	C
1	A	2124	G
1	A	2125	C
1	A	2126	G
1	A	2127	C
1	A	2129	G
1	A	2130	C
1	A	2131	U
1	A	2132	U
1	A	2133	A
1	A	2137	G
1	A	2140	A
1	A	2141	G
1	A	2142	G
1	A	2145	A
1	A	2146	A
1	A	2147	G
1	A	2148	A
1	A	2150	G
1	A	2151	G
1	A	2159	C
1	A	2160	C
1	A	2161	G
1	A	2162	G
1	A	2163	G
1	A	2173	G
1	A	2174	C
1	A	2175	C
1	A	2176	A
1	A	2177	U
1	A	2178	C
1	A	2179	A
1	A	2181	U
1	A	2182	G
1	A	2183	A
1	A	2184	G
1	A	2185	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2186	U
1	A	2187	A
1	A	2191	C
1	A	2192	U
1	A	2193	C
1	A	2194	U
1	A	2195	G
1	A	2197	A
1	A	2198	A
1	A	2199	G
1	A	2201	G
1	A	2202	C
1	A	2204	A
1	A	2205	G
1	A	2206	A
1	A	2208	U
1	A	2209	U
1	A	2210	C
1	A	2211	U
1	A	2212	A
1	A	2213	A
1	A	2215	C
1	A	2219	U
1	A	2220	G
1	A	2221	U
1	A	2222	C
1	A	2223	A
1	A	2225	G
1	A	2226	A
1	A	2227	C
1	A	2229	U
1	A	2230	A
1	A	2231	C
1	A	2233	G
1	A	2236	C
1	A	2237	A
1	A	2238	A
1	A	2243	C
1	A	2254	A
1	A	2255	G
1	A	2256	A
1	A	2262	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2267	G
1	A	2268	G
1	A	2276	G
1	A	2283	A
1	A	2290	A
1	A	2296	G
1	A	2300	U
1	A	2303	A
1	A	2305	A
1	A	2314	C
1	A	2315	G
1	A	2320	G
1	A	2322	A
1	A	2324	G
1	A	2325	G
1	A	2329	U
1	A	2333	C
1	A	2334	C
1	A	2335	C
1	A	2336	U
1	A	2338	G
1	A	2339	A
1	A	2340	G
1	A	2342	G
1	A	2350	A
1	A	2351	G
1	A	2352	A
1	A	2362	G
1	A	2363	A
1	A	2364	C
1	A	2367	C
1	A	2372	C
1	A	2378	C
1	A	2394	A
1	A	2399	G
1	A	2400	G
1	A	2402	C
1	A	2406	G
1	A	2408	G
1	A	2418	U
1	A	2419	G
1	A	2420	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2423	A
1	A	2437	C
1	A	2439	C
1	A	2440	U
1	A	2441	C
1	A	2442	A
1	A	2443	A
1	A	2446	G
1	A	2447	A
1	A	2452	A
1	A	2458	U
1	A	2462	G
1	A	2465	A
1	A	2467	A
1	A	2476	A
1	A	2481	C
1	A	2485	A
1	A	2486	A
1	A	2493	A
1	A	2495	A
1	A	2498	G
1	A	2507	G
1	A	2508	U
1	A	2511	G
1	A	2512	G
1	A	2515	C
1	A	2519	G
1	A	2520	A
1	A	2522	G
1	A	2530	U
1	A	2535	C
1	A	2536	A
1	A	2537	C
1	A	2539	U
1	A	2540	G
1	A	2542	G
1	A	2546	G
1	A	2551	A
1	A	2552	U
1	A	2555	U
1	A	2560	G
1	A	2564	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2566	G
1	A	2571	U
1	A	2572	U
1	A	2573	C
1	A	2574	G
1	A	2576	C
1	A	2583	A
1	A	2584	G
1	A	2586	G
1	A	2589	A
1	A	2590	C
1	A	2602	U
1	A	2614	G
1	A	2619	A
1	A	2620	G
1	A	2625	G
1	A	2626	U
1	A	2630	U
1	A	2631	A
1	A	2632	U
1	A	2640	G
1	A	2645	U
1	A	2646	U
1	A	2647	A
1	A	2653	U
1	A	2661	A
1	A	2662	C
1	A	2663	C
1	A	2672	G
1	A	2673	U
1	A	2679	A
1	A	2680	G
1	A	2683	C
1	A	2684	C
1	A	2699	U
1	A	2702	G
1	A	2705	G
1	A	2706	U
1	A	2723	A
1	A	2724	C
1	A	2729	A
1	A	2730	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2731	C
1	A	2734	U
1	A	2744	A
1	A	2745	G
1	A	2750	G
1	A	2751	A
1	A	2753	C
1	A	2754	G
1	A	2757	U
1	A	2762	G
1	A	2766	A
1	A	2767	A
1	A	2768	A
1	A	2770	C
1	A	2775	A
1	A	2776	A
1	A	2782	A
1	A	2783	A
1	A	2784	G
1	A	2792	C
1	A	2796	A
1	A	2797	U
1	A	2798	G
1	A	2803	C
1	A	2804	U
1	A	2805	C
1	A	2808	C
1	A	2809	U
1	A	2810	A
2	C	16	G
2	C	17	A
2	C	22	A
2	C	23	G
2	C	26	G
2	C	27	U
2	C	28	U
2	C	29	U
2	C	30	A
2	C	31	U
2	C	32	C
2	C	33	A
2	C	34	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	C	35	U
2	C	36	A
2	C	37	C
2	C	38	G
2	C	39	A
2	C	47	C
2	C	54	A
2	C	55	A
2	C	65	U
2	C	71	C
2	C	73	G
2	C	74	C
2	C	75	U
2	C	76	G
2	C	77	A
2	C	78	G
2	C	80	C
2	C	83	C
2	C	84	C
2	C	85	U
2	C	86	A
2	C	87	A
2	C	88	C
2	C	90	G
2	C	95	A
2	C	96	C
2	C	97	A
2	C	99	A
2	C	100	C
2	C	102	U
2	C	103	G
2	C	104	A
3	B	4	U
3	B	7	G
3	B	8	G
3	B	9	U
3	B	10	G
3	B	12	C
3	B	14	U
3	B	15	A
3	B	16	G
3	B	17	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	18	C
3	B	21	A
3	B	22	G
3	B	25	G
3	B	26	A
3	B	32	A
3	B	37	U
3	B	39	C
3	B	41	U
3	B	42	C
3	B	43	C
3	B	46	A
3	B	47	A
3	B	53	U
3	B	54	G
3	B	55	G
3	B	56	U
3	B	58	A
3	B	64	U
3	B	66	C
3	B	67	U
3	B	68	G
3	B	70	G
3	B	73	G
3	B	74	A
3	B	75	C
3	B	83	U
3	B	84	A
3	B	87	G
3	B	89	A
3	B	90	G
3	B	91	G
3	B	92	U
3	B	101	A
3	B	102	A
3	B	109	U
3	B	110	C
3	B	111	G
3	B	112	A
3	B	114	G
3	B	116	C
3	B	117	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	118	G
3	B	119	G

All (115) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	69	G
1	A	80	G
1	A	81	G
1	A	90	A
1	A	118	U
1	A	153	G
1	A	159	A
1	A	161	G
1	A	162	A
1	A	190	G
1	A	212	A
1	A	213	A
1	A	227	G
1	A	256	A
1	A	284	A
1	A	285	A
1	A	319	G
1	A	320	U
1	A	354	A
1	A	371	U
1	A	379	C
1	A	382	G
1	A	459	A
1	A	470	G
1	A	493	G
1	A	517	G
1	A	523	G
1	A	540	A
1	A	542	C
1	A	548	G
1	A	627	C
1	A	696	A
1	A	750	A
1	A	773	U
1	A	786	G
1	A	787	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	793	A
1	A	795	U
1	A	804	A
1	A	856	U
1	A	869	G
1	A	899	A
1	A	934	A
1	A	1002	G
1	A	1017	G
1	A	1036	U
1	A	1050	G
1	A	1161	A
1	A	1162	C
1	A	1194	G
1	A	1219	U
1	A	1236	A
1	A	1254	U
1	A	1256	G
1	A	1287	G
1	A	1332	G
1	A	1333	U
1	A	1334	U
1	A	1341	C
1	A	1471	A
1	A	1474	A
1	A	1479	U
1	A	1493	C
1	A	1501	G
1	A	1531	A
1	A	1592	A
1	A	1651	C
1	A	1662	A
1	A	1689	C
1	A	1810	C
1	A	1818	U
1	A	1828	U
1	A	1829	A
1	A	1848	C
1	A	1944	G
1	A	1951	A
1	A	1954	U
1	A	1980	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	A	2003	A
1	A	2036	U
1	A	2047	A
1	A	2106	U
1	A	2123	U
1	A	2132	U
1	A	2141	G
1	A	2144	G
1	A	2172	A
1	A	2192	U
1	A	2210	C
1	A	2212	A
1	A	2224	G
1	A	2242	A
1	A	2261	U
1	A	2289	U
1	A	2338	G
1	A	2362	G
1	A	2442	A
1	A	2464	G
1	A	2507	G
1	A	2536	A
1	A	2646	U
1	A	2672	G
1	A	2683	C
1	A	2744	A
1	A	2774	U
1	A	2802	G
2	C	29	U
2	C	32	C
2	C	33	A
2	C	35	U
3	B	7	G
3	B	45	G
3	B	57	U
3	B	110	C
3	B	118	G

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](#)

There are no ligands in this entry.

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.