



Full wwPDB X-ray Structure Validation Report ⓘ

May 26, 2020 – 06:32 pm BST

PDB ID : 1W2B
Title : Trigger Factor ribosome binding domain in complex with 50S
Authors : Ferbitz, L.; Maier, T.; Patzelt, H.; Bukau, B.; Deuerling, E.; Ban, N.
Deposited on : 2004-07-01
Resolution : 3.50 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467
Xtriage (Phenix) : **NOT EXECUTED**
EDS : **NOT EXECUTED**
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.11

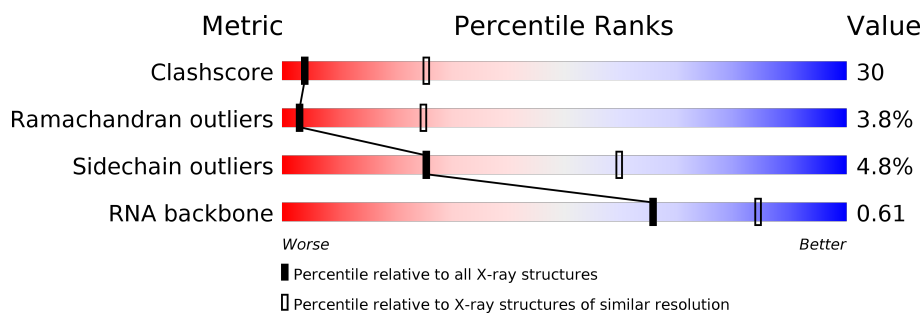
1 Overall quality at a glance ⓘ

The following experimental techniques were used to determine the structure:

X-RAY DIFFRACTION

The reported resolution of this entry is 3.50 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
Clashscore	141614	1036 (3.58-3.42)
Ramachandran outliers	138981	1005 (3.58-3.42)
Sidechain outliers	138945	1006 (3.58-3.42)
RNA backbone	3102	1002 (4.00-3.00)

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

Note EDS was not executed.

Mol	Chain	Length	Quality of chain
1	0	2922	<div> <div>32%</div> <div>43%</div> <div>13%</div> <div>6%</div> <div>6%</div> </div>
2	1	48	<div> <div>38%</div> <div>56%</div> <div>.</div> <div>.</div> </div>
3	2	92	<div> <div>39%</div> <div>57%</div> <div>.</div> </div>
4	5	144	<div> <div>9%</div> <div>14%</div> <div>.</div> <div>76%</div> </div>
5	9	122	<div> <div>26%</div> <div>51%</div> <div>16%</div> <div>7%</div> </div>
6	A	239	<div> <div>41%</div> <div>51%</div> <div>8%</div> </div>
7	B	337	<div> <div>39%</div> <div>55%</div> <div>6%</div> </div>

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
8	C	246	
9	D	176	
10	E	177	
11	F	119	
12	G	348	
13	H	167	
14	I	145	
15	J	132	
16	K	164	
17	L	194	
18	M	186	
19	N	115	
20	O	148	
21	P	95	
22	Q	154	
23	R	84	
24	S	119	
25	T	66	
26	U	70	
27	V	154	
28	W	91	
29	X	240	
30	Y	73	
31	Z	56	

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

ria:

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
35	CL	I	202	-	-	X	-
35	CL	L	202	-	-	X	-
35	CL	P	102	-	-	X	-
35	CL	X	301	-	-	X	-

2 Entry composition

There are 37 unique types of molecules in this entry. The entry contains 98859 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	0	2754	Total	C	N	O	P	0	0	0
			59017	26346	10878	19048	2745			

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L39E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1	46	Total	C	N	O	S	0	0	0
			394	238	86	69	1			

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L44E LA, HLA, RIBOSOMAL PROTEIN L44E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2	92	Total	C	N	O	S	0	0	0
			755	458	153	137	7			

- Molecule 4 is a protein called TRIGGER FACTOR.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	5	35	Total	C	N	O	S	0	0	0
			273	173	52	47	1			

- Molecule 5 is a RNA chain called 5S RRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	9	122	Total	C	N	O	P	0	0	0
			2600	1160	472	847	121			

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L2P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	A	238	Total	C	N	O	S	0	0	1
			1755	1072	353	325	5			

- Molecule 7 is a protein called 50S RIBOSOMAL PROTEIN L3P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	B	337	Total	C	N	O	S	0	0	0
			2625	1616	493	511	5			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	310	ARG	PHE	conflict	UNP P20279

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L4P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	C	246	Total	C	N	O	S	0	0	0
			1859	1131	344	383	1			

- Molecule 9 is a protein called 50S RIBOSOMAL PROTEIN L5P HMAL5, HL13, RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	D	141	Total	C	N	O	S	0	0	1
			1095	685	196	210	4			

- Molecule 10 is a protein called 50S RIBOSOMAL PROTEIN L6P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	E	173	Total	C	N	O	S	0	0	1
			1358	840	225	289	4			

- Molecule 11 is a protein called 50S RIBOSOMAL PROTEIN L7AE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	F	119	Total	C	N	O	S	0	0	0
			886	552	141	192	1			

- Molecule 12 is a protein called 50S RIBOSOMAL PROTEIN L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	G	30	Total	C	N	O	S	0	0	1
			241	149	40	51	1			

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L10E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	H	156	Total	C	N	O	S	0	0	0
			1216	766	233	213	4			

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L13P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	I	142	Total	C	N	O	S	0	0	0
			1120	696	199	222	3			

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L14P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	J	132	Total	C	N	O	S	0	0	0
			994	609	189	192	4			

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L15P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	K	146	Total	C	N	O	S	0	0	1
			1115	668	223	224				

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L15E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	L	194	Total	C	N	O	S	0	0	0
			1606	988	346	267	5			

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L18P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	M	186	Total	C	N	O	S	0	0	0
			1445	895	262	286	2			

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L18E.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
19	N	115	Total	C	N	O	0	0	0
			865	529	161	175			

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L19E.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
20	O	144	Total	C	N	O	0	0	1
			1134	680	231	223			

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L21E.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
21	P	95	Total	C	N	O	0	0	0
			735	450	141	144			

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L22P HMAL22, HL23, RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	Q	151	Total	C	N	O	S	0	0	1
			1150	713	210	223	4			

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L23P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	R	84	Total	C	N	O	S	0	0	0
			664	405	114	142	3			

- Molecule 24 is a protein called RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
24	S	119	Total	C	N	O	0	0	0
			950	568	180	202			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L24P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	T	54	Total	C	N	O	S	0	0	1
			411	244	76	86	5			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L24E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	U	66	Total	C	N	O	S	0	0	1
			500	304	95	100	1			

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L30P.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	V	154	Total	C	N	O	S	0	0	0
			1196	737	209	244	6			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L31E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	W	83	Total	C	N	O	S	0	0	1
			655	402	130	122	1			

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L32E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	X	143	Total	C	N	O	S	0	0	1
			1131	686	229	216				

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L37AE.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	Y	73	Total	C	N	O	S	0	0	0
			564	359	111	87	7			

- Molecule 31 is a protein called RIBOSOMAL PROTEIN L37E.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	Z	56	Total	C	N	O	S	0	0	0
			431	258	86	83	4			

- Molecule 32 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	0	105	Total	Mg	0	0
			105	105		
32	J	1	Total	Mg	0	0
			1	1		
32	B	3	Total	Mg	0	0
			3	3		

Continued on next page...

Continued from previous page...

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	A	3	Total 3	Mg 3	0	0
32	X	1	Total 1	Mg 1	0	0
32	2	1	Total 1	Mg 1	0	0
32	9	2	Total 2	Mg 2	0	0
32	S	1	Total 1	Mg 1	0	0

- Molecule 33 is POTASSIUM ION (three-letter code: K) (formula: K).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
33	0	2	Total 2	K 2	0	0

- Molecule 34 is SODIUM ION (three-letter code: NA) (formula: Na).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
34	0	74	Total 74	Na 74	0	0
34	P	1	Total 1	Na 1	0	0
34	Q	2	Total 2	Na 2	0	0
34	K	1	Total 1	Na 1	0	0
34	I	1	Total 1	Na 1	0	0
34	C	1	Total 1	Na 1	0	0
34	A	1	Total 1	Na 1	0	0
34	R	1	Total 1	Na 1	0	0
34	9	2	Total 2	Na 2	0	0
34	L	1	Total 1	Na 1	0	0
34	S	1	Total 1	Na 1	0	0

- Molecule 35 is CHLORIDE ION (three-letter code: CL) (formula: Cl).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
35	0	7	Total 7	Cl 7	0	0
35	P	1	Total 1	Cl 1	0	0
35	J	1	Total 1	Cl 1	0	0
35	Q	1	Total 1	Cl 1	0	0
35	K	2	Total 2	Cl 2	0	0
35	B	1	Total 1	Cl 1	0	0
35	I	3	Total 3	Cl 3	0	0
35	A	1	Total 1	Cl 1	0	0
35	N	1	Total 1	Cl 1	0	0
35	X	1	Total 1	Cl 1	0	0
35	2	1	Total 1	Cl 1	0	0
35	L	1	Total 1	Cl 1	0	0
35	M	1	Total 1	Cl 1	0	0

- Molecule 36 is CADMIUM ION (three-letter code: CD) (formula: Cd).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
36	2	1	Total 1	Cd 1	0	0
36	Y	1	Total 1	Cd 1	0	0
36	T	1	Total 1	Cd 1	0	0
36	Z	1	Total 1	Cd 1	0	0
36	N	1	Total 1	Cd 1	0	0

- Molecule 37 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	0	5875	Total 5875	O 5875	0	0
37	1	49	Total 49	O 49	0	0
37	2	69	Total 69	O 69	0	0
37	9	153	Total 153	O 153	0	0
37	A	135	Total 135	O 135	0	0
37	B	156	Total 156	O 156	0	0
37	C	169	Total 169	O 169	0	0
37	D	52	Total 52	O 52	0	0
37	E	41	Total 41	O 41	0	0
37	F	30	Total 30	O 30	0	0
37	G	20	Total 20	O 20	0	0
37	H	80	Total 80	O 80	0	0
37	I	52	Total 52	O 52	0	0
37	J	61	Total 61	O 61	0	0
37	K	98	Total 98	O 98	0	0
37	L	155	Total 155	O 155	0	0
37	M	60	Total 60	O 60	0	0
37	N	38	Total 38	O 38	0	0
37	O	67	Total 67	O 67	0	0
37	P	53	Total 53	O 53	0	0
37	Q	83	Total 83	O 83	0	0
37	R	32	Total 32	O 32	0	0

Continued on next page...

Continued from previous page...

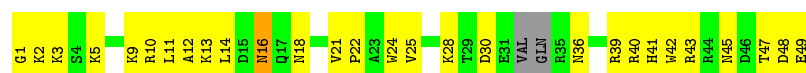
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
37	S	36	Total 36	O 36	0	0
37	T	25	Total 25	O 25	0	0
37	U	11	Total 11	O 11	0	0
37	V	69	Total 69	O 69	0	0
37	W	26	Total 26	O 26	0	0
37	X	107	Total 107	O 107	0	0
37	Y	35	Total 35	O 35	0	0
37	Z	50	Total 50	O 50	0	0

A1845	U1770	U1696	A1630	A1559	A1471	G1401	G1332	G1262	C1186	A1114	G1038	G	U903	U835
A1846	U1771	G1697	A1630	U	C1472	C1404	U1333	G	U1187	U1115	G1039	C	U904	G836
A1847	C1772	C1700	C1633	U1561	U1473	U1405	C1334	G1265	A1188	U1116	U1040	C	C905	U837
A1848	G1773	C1700	C1633	U1561	U1473	U1405	C1334	U1266	A1189	U1117	U1041	U	C906	U840
G1849	G1774	U1702	G1634	G1562	G1475	A1407	C1336	C1267	G1190	A1118	U1042	C	A907	U841
U1850	A1775	G1703	U1635	G1563	A1476	A1406	A1337	C1268	A1191	G1119	C1043	C	A908	A841
G1851	A1776	G1703	G1636	C1564	C1477	U1408	U1338	G1269	A1192	U1120	G1044	G	U909	C842
A1852	G1777	C1565	A1637	G1565	U1478	G1409	G1339	U1270	A1193	U1121	G1045	A	C910	A843
A1853	A1778	C1566	C1637	C1566	A1482	U1412	G1340	A1271	A1194	U1122	G1046	G	G911	A844
C1854	A1779	A1567	A1641	A1567	A1483	U1414	A1341	C1272	G1195	A1123	C1051	A	U919	U845
G1855	U1780	A1710	A1642	A1568	A1483	A1413	C1342	C1273	C1196	A1124	G1052	G	G920	A846
G1856	A1711	A1484	C1643	G1484	G1484	A1414	C1343	A1278	G1197	U1125	G1053	A	G921	C847
A1857	G1713	A1486	G1646	G1415	A1487	G1416	U1346	U1279	C1201	C1127	G1054	G	G922	C848
A1858	A1717	A1487	G1647	G1417	U1488	G1417	U1347	G1283	A1202	U1128	G1055	A	A922	C849
A1859	G1718	A1488	G1648	G1418	U1489	U1418	A1348	G1284	U1205	U1129	U1056	U	G924	U850
U1860	G1719	G1489	G1649	U1419	G1490	U1419	A1348	G1284	U1206	U1130	A1057	C	G925	C853
A1861	G1720	G1490	C1650	C1575	G1491	U1422	G1351	A1287	U1207	G1131	G1058	G	A926	G854
A1862	C1721	G1491	C1651	C1575	G1492	U1423	A1352	A1288	A1208	A1132	G1059	C	U931	U855
G1863	C1722	A1492	C1652	C1580	A1493	C1423	C1353	U1289	C1209	A1133	C1060	A	U932	G856
A1866	G1723	A1493	A1653	A1580	A1494	G1425	G1354	G1290	G1210	G1135	C1061	C	G933	A857
G1867	U1724	A1495	U1654	C1575	A1495	G1426	A1355	A1291	G1211	U1136	C934	C	U934	U858
G1868	G1725	U1583	G1655	C1584	C1496	A1427	A1356	A1291	G1212	U1137	U1066	A	G935	C939
A1869	G1726	C1584	G1656	C1584	G1497	A1427	A1357	G1292	C1213	G1138	A1067	C999	U860	A861
C1870	G1727	C1585	A1657	C1585	G1497	U1427	A1358	U1293	G1214	G1139	C1068	U1001	A862	A861
A1871	C1730	G1589	A1658	G1589	U1500	G1430	U1359	A1294	G1215	C1140	C1069	G1002	G938	A867
C1872	C1731	A1590	A1661	A1590	A1501	C1431	C1360	G1295	A1215	U1149	A1070	U1003	A939	A868
U1873	A1732	A1591	C1662	A1591	A1502	U1432	C1361	G1296	G1216	G1150	C1004	U1004	G940	G869
A1874	G1733	A1592	G1663	A1592	A1503	U1433	A1362	U1297	C1217	A1151	G1072	A1005	G941	G870
A1875	U1734	C1593	C1664	C1593	U1504	U1435	C1366	G1299	C1229	G1152	A1073	A1006	U942	G871
A1876	A1735	A1594	A1665	A1594	U1505	U1436	U1367	G1299	A1230	C1153	G1076	A1007	A943	U872
G1877	G1736	C1595	G1666	C1595	U1506	G1438	U1368	G1299	A1231	G1154	G1077	U1008	U944	A875
A1878	U1737	U1596	C1667	U1596	C1507	C1439	A1369	G1302	A1232	G1155	C1080	C1010	U947	A876
U1879	A1738	A1597	A1668	A1597	G1510	U1441	U1371	U1303	U1233	C1156	C1081	A1013	G948	G877
C1880	G1739	A1598	U1669	A1598	U1511	A1442	A1372	U1305	G1235	G1157	A1082	A1014	C881	G878
A1881	A1740	U1599	C1670	U1599	U1512	G1443	G1373	U1306	A1236	G1158	C1083	C1015	A882	C881
A1882	G1741	G1600	G1671	G1600	C1512	G1444	C1374	A1307	U1237	G1159	C1084	U1016	A953	A883
U1883	U1742	G1601	C1672	G1601	C1513	G1445	A1375	A1309	C1238	G1160	C1085	U1017	A954	U884
G1884	A1743	A1602	C1673	C1602	C1514	U1446	G1376	U1309	G1239	A1161	A1086	C1026	A955	C884
A1885	G1744	G1603	C1674	A1603	A1515	U1447	C1377	G1311	G1241	G1162	G1087	C1019	G956	G885
A1886	U1745	G1604	G1675	G1604	C1516	A1448	G1378	G1312	G1242	G1163	A1088	A1020	A957	G886
G1887	G1746	G1605	C1676	A1605	U1522	G1449	A1379	A1313	C1243	U1164	G1089	G1021	G958	A887
U1888	A1747	A1606	A1678	A1606	G1523	C1450	U1380	G1314	U1244	G1165	C1096	A1022	G959	G887
A1889	G1748	C1609	C1679	C1609	U1524	C1451	A1381	U1315	C1245	A1166	U1097	G1023	U888	U888
G1890	U1749	G1610	G1680	G1610	G1525	G1452	G1382	G1316	A1246	G1167	A1098	C1025	A961	C889
C1891	A1750	A1615	C1681	A1615	G1526	G1453	G1383	A1317	A1247	C1168	C1099	G1027	C962	C890
A1892	G1751	C1616	C1682	C1616	A1527	U1457	G1386	A1318	A1248	U1169	G1100	C1026	G963	G891
U1893	U1752	A1617	C1683	A1617	U1528	A1458	U1388	G1320	U1249	G1172	C1099	U1027	G964	G892
A1894	G1753	G1618	G1684	G1618	A1529	A1459	G1389	A1321	C1250	A1173	C1104	U1028	C893	C893
C1895	A1754	C1619	C1685	C1619	G1532	G1460	U1392	G1325	C1251	G1174	C1105	U1030	A894	A894
G1896	U1755	G1620	C1686	G1620	A1533	U1461	G1383	G1326	A1252	G1175	C1106	G1031	A895	A895
A1897	A1756	C1621	C1687	C1621	C1534	C1462	A1393	G1327	C1253	A1181	A1106	C1032	C969	C969
U1898	G1757	G1622	C1688	G1622	G1535	A1463	C1394	A1328	C1254	U1180	A1107	G1033	A897	A897
A1899	U1758	A1618	C1689	A1618	G1536	A1464	C1395	A1329	G1257	A1182	U1109	C1034	U	G898
C1900	A1759	C1619	C1690	C1619	U1544	C1467	C1397	A1330	C1260	C1183	G1110	G1035	G	C899
U1901	G1760	G1620	C1691	G1620	C1545	G1468	G1398	A1331	A1261	U1185	U1111	C1036	U	G901
A1902	U1761	C1621	C1692	C1621	C1553	G1469	A1399	A1332	G1261	C1184	C1037	C	G902	G902
U1903	C1762	G1623	C1693	G1623	C1553	C1553	C1400	A1331						
G1904	G1763	A1624	C1694	A1624	U1544	C1467								
A1905	U1766	U1625	G1695	U1625	C1545	G1468								
C1906	A1840	A1626	G1696	A1626	C1553	G1469								
U1907	A1842	G1627	G1695	G1627	C1553	A1470								

C2901	G2829	C2760	A2694	A2824	C2549	G2480	A2415	A	G2270	G2075	G1986	A1910
A2902	U2830	A2761		C2625	U2550	G2481	G2416	G2344	G2271	U2076	C1987	
C2903	C2831	C2762	G2698	C2626	C2551	G2482	G2417	A2345	G2272	G	C	A1919
	C2832	G2763	A2699	G2627	C2552	A2483	G2418	C2346	C2273	C	G1995	A1921
A2906	C2833		G2700		C2553	U2484	U2419	U2347	A2274	U1986	U1906	
C2907	G2834	A2766	G2701	G2630	U2554	A2485	G2420	C2348	G2275	C	A1997	A1922
A2908	C2835	C2767	A2702		C2555		G2421	G2349	U2276	A	C	G1923
G2909	G2836	C2768	A2703	A2633		A2488		G2350	U2277	A	C	A1924
A2910	U2837	C2769	G2704	G2634	C2561	G2489	U2424	C2351	U2278	C	A2083	G1925
C2911	G2838		G2705	A2635	C2562		A2425	G2352		A	U	
A2912	C2839	G2770	C2706	C2636	C2563	U2492	G2426	A2353	C2281	U	A2085	G1929
A2913	A2776		C2707	A2637	C2564	C2483	G2427	A2354	U2282	G	G2086	A1930
A2914	G2777	A2778	G2708	G2638	C2565	C2483	G2428	G2355	U2283	U	C2006	A1931
A	G2842	C2779	U2709	U2639	A2566	U2495	A2429	A2356	G2284	C	A2088	G1932
G	A2943	A2778	U2710	U2640	C2567	C2496	A2430	G2357		A	A2089	U2008
C	C2944		U2711	C2641	G2573	A2497	C2431	U2358	U2290	A	G2090	G1936
A	G2845	C2780	G2712	G2642	C2574	C2498	C2432		A2291	C	G2091	U1937
C	C2846	U2761	G2713	G2643	C2575	U2499	A2433	A2361	C2292	A	A2010	U1937
U	G2847	C2782	U2714	C2644	A2576	C2500	A2434	G2362	G2293	C	A2011	G1938
U	G2848	A2783	G2715	U2645	A2577	G2501	U2435	G2363	U2294	U	U2012	U1939
U	U2849	A2784	G2716	C2646	G2578	C2502	A2436	A2364	G2295	C	A	C1940
A	C2850	C2785	C2717	U2648	C2579	A2503	U2437	A2367	C2296	C	G2021	A1942
	G2851	G2786	C2718	A2649	C2580	A2504	A2438	A2368	U2297	C	A2022	C1943
U	C2852	C2787	A2719	U2650	C2581	C2505		A2369	C2298	C		
	U2853		C2720	C2651	U2582	A2506		G2371	G2299	C	A2101	
		C2790	U2721	U2652	C2583		U2441		A2300	C	A2102	C1946
	C2857	U2791	G2722	A2653	C2584	A2509	C2442	U2377	C2301	C	G2103	
	U2858	A2792	G2723	C2654	C2585	C2510	U2443	U2378	A2302	C	C2104	G1950
		A2793		U2655	U2586	A2511	U2444	U2378	A2303	G	U2107	G1951
		C2794	U2726	U2656	U2587		U2445	G2379	G2304	U	U2034	
		G2795	A2727	G2657	U2588		A2380	A2370		C		
		U2796	C2728	G2658	U2589	C2517	G2449	A2381	C2309	C	A2109	C2037
		C2797	U2729	U2659	C2590	C2519	C2450	A2382	G2310	C	U2110	A2039
			G2730	G2660	C2592	G2520	G2451		A2311	U	A2112	C2040
		A2800	C2731	U2661	C2593	A2521	G2452	G2385	G2312	C	G2113	G2041
	A2801		U2732		C2594		G2453	U2386	C2313	C	U2042	U2044
		C2806	U2733	A2864	U2595	C2523		U2387	G2314	C	U2115	C2043
		C2807	G2734	U	C2596	G2524	U2457	C2388	C2315	C	U2116	G2044
		U2807	U2735	A	U2597	G2525	U2458	U2389	G2316	G	U2117	G2045
		C2808	U2736	G2667	U2598	C2526	G2459	U2390	C2317	C	A2118	
	G2809		C2737			U2527	C2391	C2391		U	C2119	U1964
	G2810		G2738	G2670	A2601		U2461	C2392	U2320	A	G2050	
	A2811			U2671	C2602	U2531		C2393	A2321	C	U2120	
	C2812		G2742	C2672	A2532		G2462	C2394	U2322	C	G2122	U1967
	A2813		A2743	U2673	C2607	C2532	A2463	A2394	G2323	C	C2121	A1968
	A2814		G2744	C2674	U2607	C2533	C2464	A2395	G2324	C	A2123	A1969
	G2815			C2675	C2608	C2534	A2465	C2396	G2325	G	G2124	G1970
	C2816			G2676	G2609	U2535	G2466	G2397	C2325	C	U2057	G1971
			C2747	G2679	U2610	C2536	A2467		U2326	C	G2125	
	A2880		G2748	A2880	G2537		A2468	A2402		C	G2128	
	A2881		U2749	A2881	C2538	G2537	A2469	C2403	U2330	C	A2059	A1972
	C2882		G2750	C2614	U2539	C2404	A2470	G2404	C2331	U	A2060	G1974
	C2751		C2751	G2615	U2541		G2472	A2405	G2131	C		
	G2752		G2753	U2616	U2541		G2472	U2406	C2335	C	U2063	U1977
	C2887		G2754	G2617	C2542		U2473	G2407	U2336	G	U2064	A1978
	U2888		G2755	U2618	C2543		A2474	A2408	G2337	C	C2065	G1979
	A2889		G2756	U2619	G2544		C2475		G2338	G	U1980	U1980
	C2890		G2757	U2620	U2545		C2476		A	C	C2071	C1982
	C2821		G2758	U2621	U2546		C2477	C2411	C	C	G2072	C1983
	C2822		G2759	U2622	U2547		C2478	A2412	C	C	G2073	U1984
	G2823		G2760	A2692	C2548		A2479	U2413	C	C	A2074	U1985
	C2824		G2761	U2623					U	C		
	A2891		G2762	C2822					U	C		
	A2892		G2763	C2823					U	C		
	A2893		G2764	C2824					U	C		
	A2894		G2765	C2825					U	C		
	A2895		G2766	C2826					U	C		
	A2896		G2767	C2827					U	C		
	A2897		G2768	C2828					U	C		
	A2898		G2769	C2829					U	C		
	A2899		G2770	C2830					U	C		
	A2900		G2771	C2831					U	C		
	A2901		G2772	C2832					U	C		
	A2902		G2773	C2833					U	C		
	A2903		G2774	C2834					U	C		
	A2904		G2775	C2835					U	C		
	A2905		G2776	C2836					U	C		
	A2906		G2777	C2837					U	C		
	A2907		G2778	C2838					U	C		
	A2908		G2779	C2839					U	C		
	A2909		G2780	C2840					U	C		
	A2910		G2781	C2841					U	C		
	A2911		G2782	C2842					U	C		
	A2912		G2783	C2843					U	C		
	A2913		G2784	C2844					U	C		
	A2914		G2785	C2845					U	C		
	A2915		G2786	C2846					U	C		
	A2916		G2787	C2847					U	C		
	A2917		G2788	C2848					U	C		
	A2918		G2789	C2849					U	C		
	A2919		G2790	C2850					U	C		
	A2920		G2791	C2851					U	C		
	A2921		G2792	C2852					U	C		
	A2922		G2793	C2853					U	C		
	A2923		G2794	C2854					U	C		
	A2924		G2795	C2855					U	C		
	A2925		G2796	C2856					U	C		
	A2926		G2797	C2857					U	C		
	A2927		G2798	C2858					U	C		
	A2928		G2799	C2859					U	C		
	A2929		G2800	C2860					U	C		
	A2930		G2801	C2861					U	C		
	A2931		G2802	C2862					U	C		
	A2932		G2803	C2863					U	C		
	A2933		G2804	C2864					U	C		
	A2934		G2805	C2865					U	C		
	A2935		G2806	C2866					U	C		
	A2936		G2807	C2867					U	C		
	A2937		G2808	C2868					U	C		
	A2938		G2809	C2869					U	C		
	A2939		G2810	C2870					U	C		
	A2940		G2811	C2871					U	C		
	A2941		G2812	C2872					U	C		
	A2942		G2813	C2873					U	C		
	A2943		G2814	C2874					U	C		
	A2944		G2815	C2875					U	C		
	A2945		G2816	C2876					U	C		
	A2946		G2817	C2877					U	C		
	A2947		G2818	C2878					U	C		
	A2948		G2819	C2879					U	C		
	A2949		G2820	C2880					U	C		
	A2950		G2821	C2881					U	C		
	A2951		G2822	C2882					U	C		
	A2952		G2823	C2883					U	C		
	A2953		G2824	C2884					U	C		
	A2954		G2825	C2885					U	C		
	A2955		G2826	C2886					U	C		
	A2956		G2827	C2887					U	C		
	A2957		G2828	C2888					U	C		
	A2958		G2829	C2889					U	C		
	A2959		G2830	C2890					U	C		
	A2960		G2831	C2891					U	C		
	A2961		G2832	C2892					U	C		
	A2962		G2833	C2893					U	C		
	A2963		G2834	C2894					U	C		
	A2964		G2835	C2895					U	C		
	A2965		G2836	C2896					U	C		
	A2966		G2837	C2897					U	C		
	A2967		G2838	C2898					U	C		
	A2968		G2839	C2899					U	C		
	A2969		G2840	C2900		</						

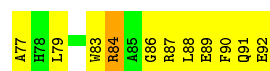
- Molecule 2: 50S RIBOSOMAL PROTEIN L39E

Chain 1:  38% 56% . .



- Molecule 3: 50S RIBOSOMAL PROTEIN L44E LA, HLA, RIBOSOMAL PROTEIN L44E

Chain 2:  39% 57% .



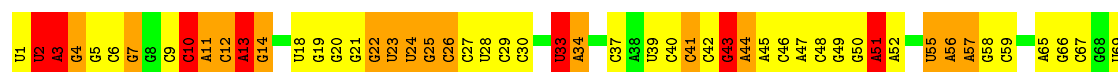
- Molecule 4: TRIGGER FACTOR

Chain 5:  9% 14% . 76%



- Molecule 5: 5S rRNA

Chain 9:



- Molecule 6: 50S RIBOSOMAL PROTEIN L2P

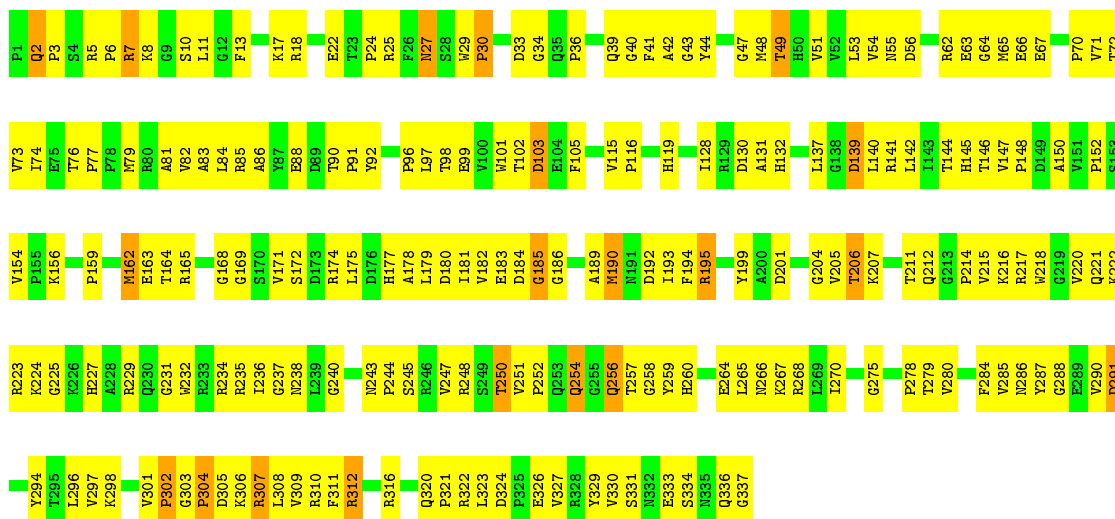
Chain A:  41% 51% 8%





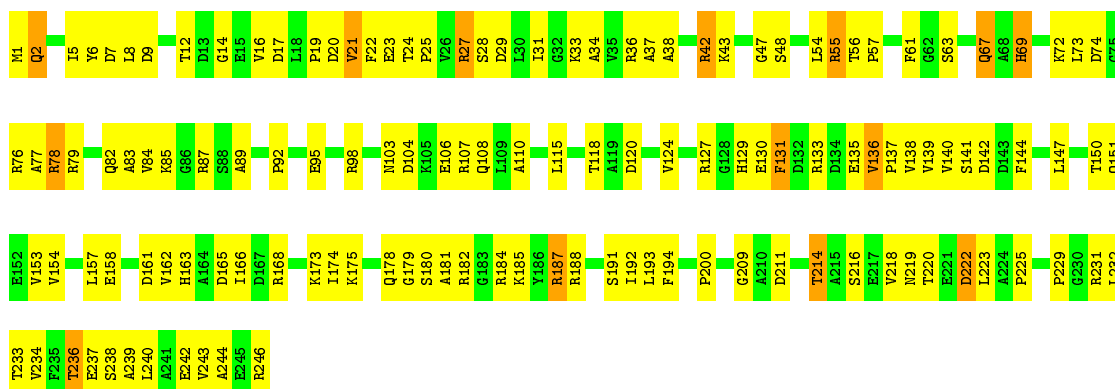
• Molecule 7: 50S RIBOSOMAL PROTEIN L3P

Chain B: 39% 55% 6%



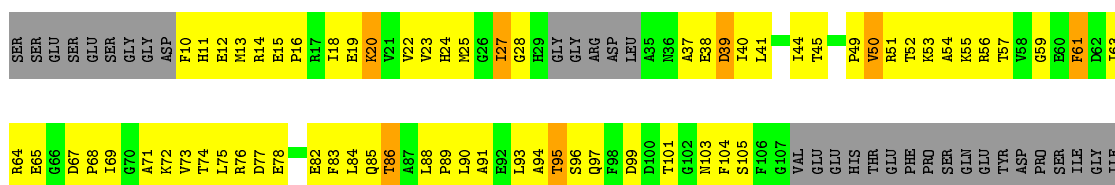
• Molecule 8: 50S RIBOSOMAL PROTEIN L4P

Chain C: 46% 48% 6%



• Molecule 9: 50S RIBOSOMAL PROTEIN L5P HMAL5, HL13, RIBOSOMAL PROTEIN L5

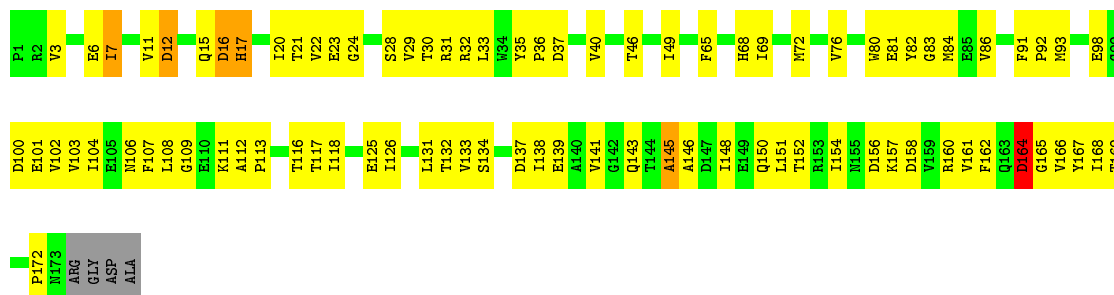
Chain D: 27% 44% 9% 20%





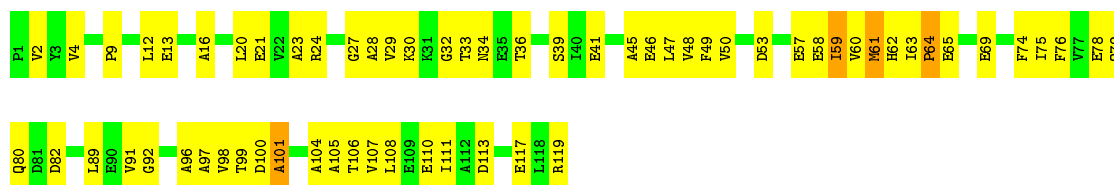
- Molecule 10: 50S RIBOSOMAL PROTEIN L6P

Chain E:  49% 45% ..



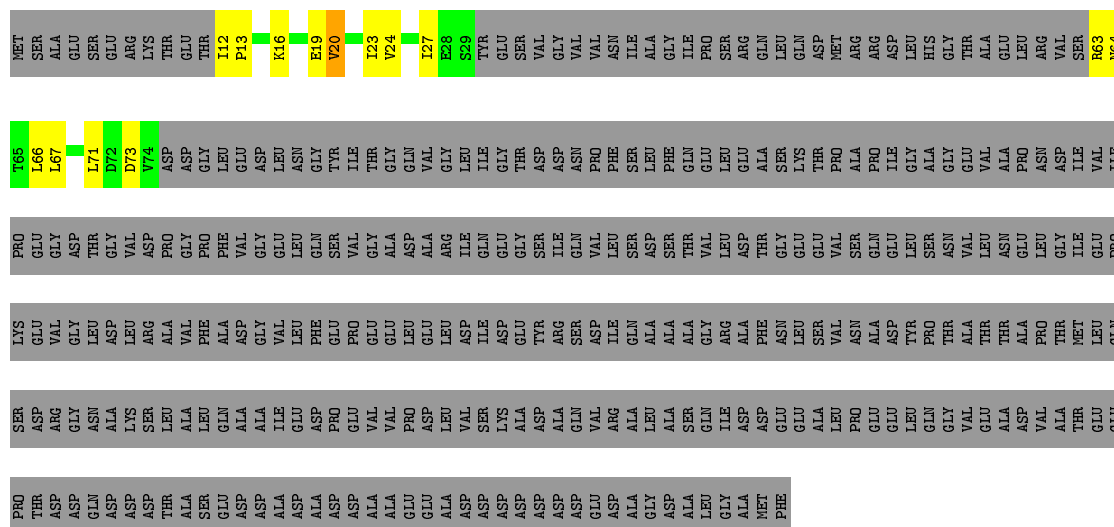
- Molecule 11: 50S RIBOSOMAL PROTEIN L7AE

Chain F:  47% 50%



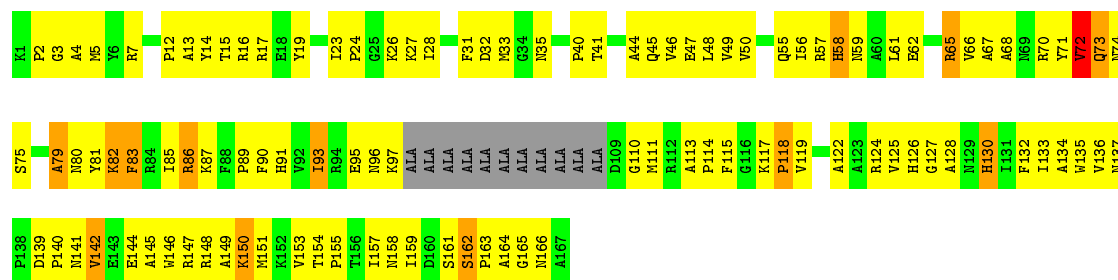
- Molecule 12: 50S RIBOSOMAL PROTEIN L10E

Chain G: 5% . 91%



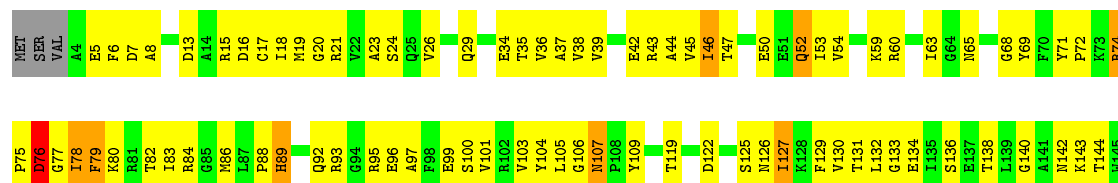
- Molecule 13: 50S RIBOSOMAL PROTEIN L10E

Chain H:  29% 56% 8% 7%



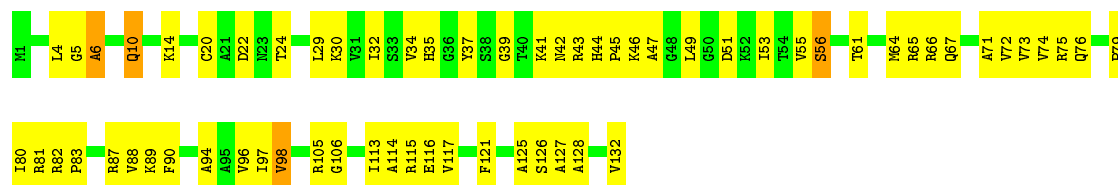
• Molecule 14: 50S RIBOSOMAL PROTEIN L13P

Chain I: 40% 52% 6% ..



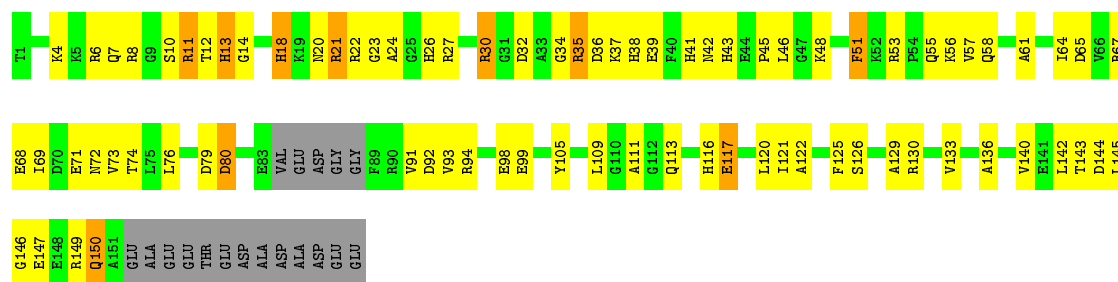
• Molecule 15: 50S RIBOSOMAL PROTEIN L14P

Chain J: 52% 45% .



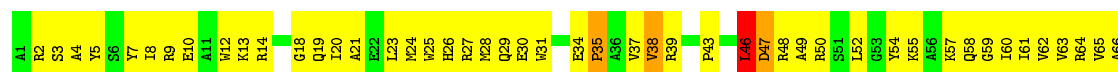
• Molecule 16: 50S RIBOSOMAL PROTEIN L15P

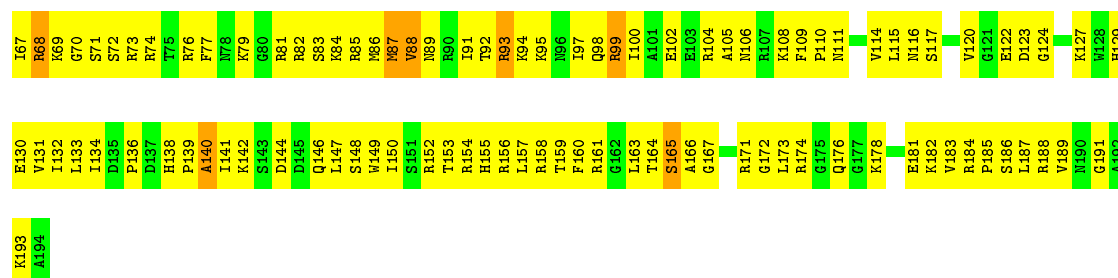
Chain K: 40% 43% 6% 11%



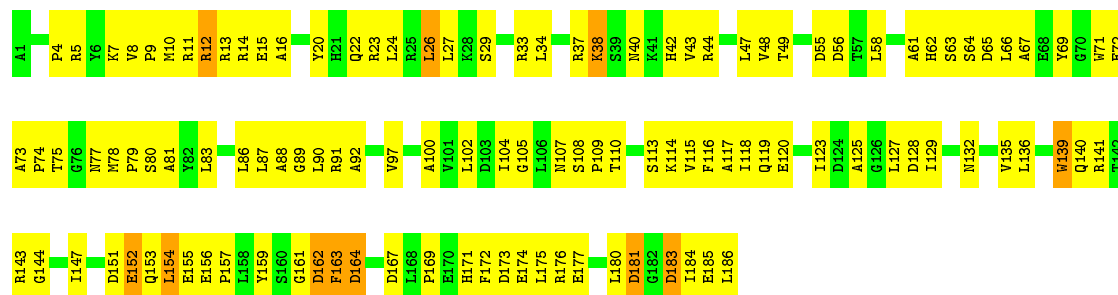
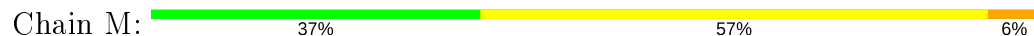
• Molecule 17: 50S RIBOSOMAL PROTEIN L15E

Chain L: 26% 69% 5% .

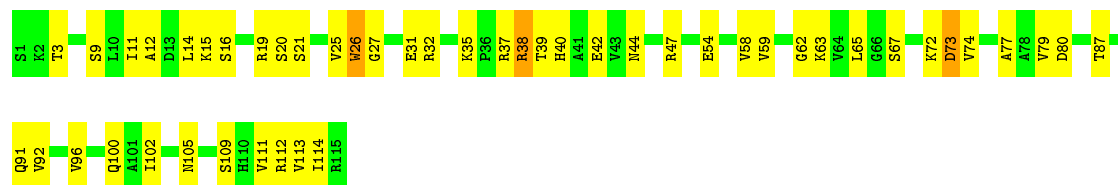




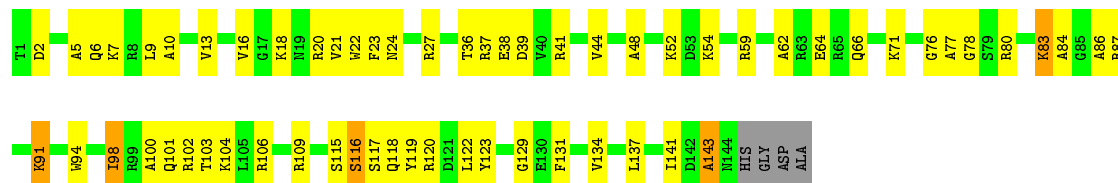
• Molecule 18: 50S RIBOSOMAL PROTEIN L18P



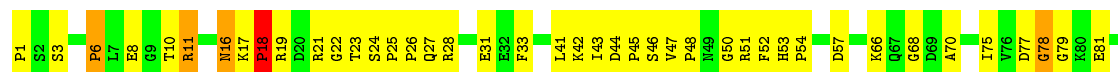
• Molecule 19: 50S RIBOSOMAL PROTEIN L18E



• Molecule 20: 50S RIBOSOMAL PROTEIN L19E



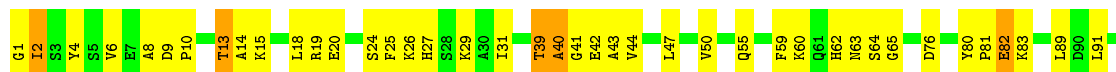
• Molecule 21: 50S RIBOSOMAL PROTEIN L21E





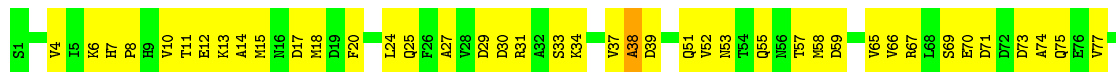
- Molecule 22: 50S RIBOSOMAL PROTEIN L22P HMA122, HL23, RIBOSOMAL PROTEIN L22

Chain Q: 54% 39% 5%



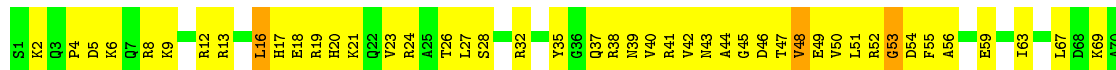
- Molecule 23: 50S RIBOSOMAL PROTEIN L23P

Chain R: 48% 50% 2%



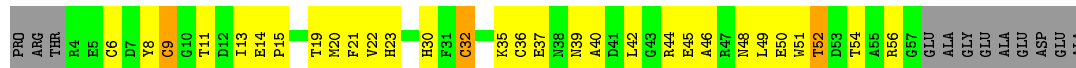
- Molecule 24: RIBOSOMAL PROTEIN L24

Chain S: 42% 55% 3%



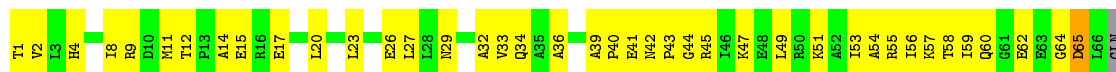
- Molecule 25: 50S RIBOSOMAL PROTEIN L24P

Chain T: 36% 41% 5% 18%

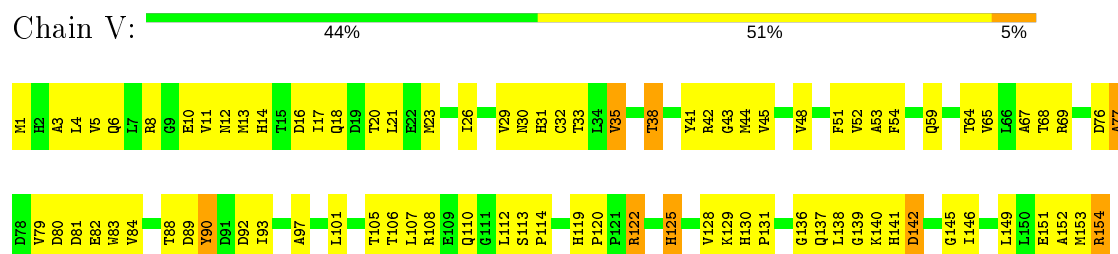


- Molecule 26: 50S RIBOSOMAL PROTEIN L24E

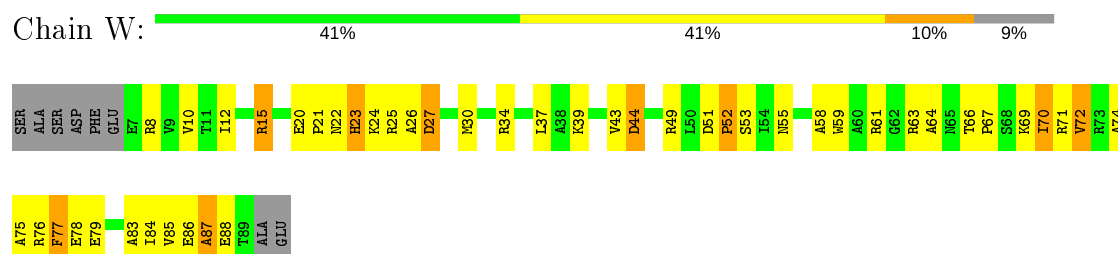
Chain U: 37% 56% 6%



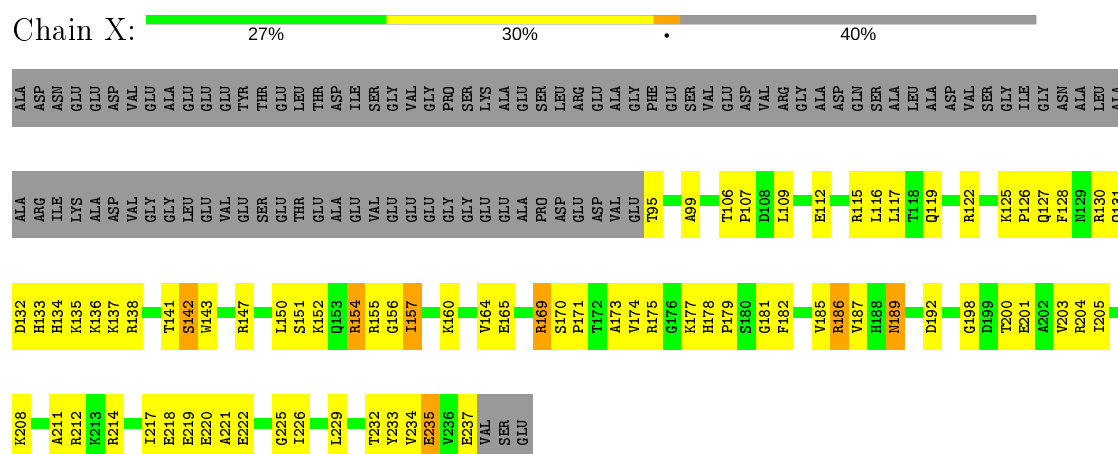
- Molecule 27: 50S RIBOSOMAL PROTEIN L30P



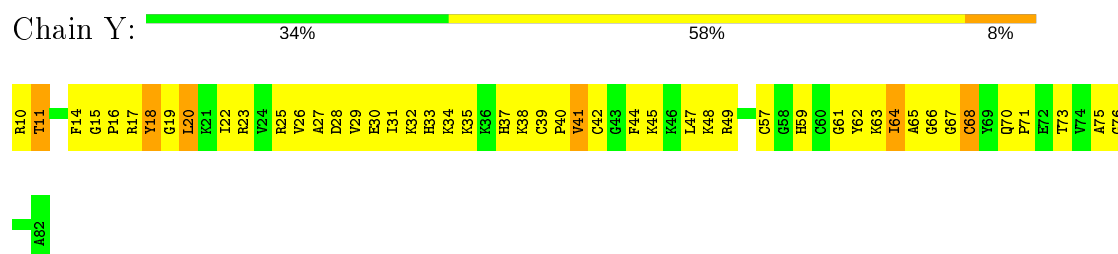
- Molecule 28: 50S RIBOSOMAL PROTEIN L31E



- Molecule 29: 50S RIBOSOMAL PROTEIN L32E

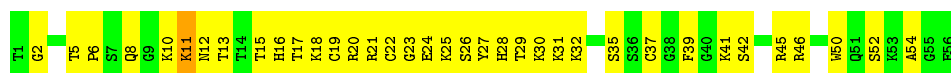


- Molecule 30: 50S RIBOSOMAL PROTEIN L37AE



- Molecule 31: RIBOSOMAL PROTEIN L37E





4 Data and refinement statistics

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

Property	Value	Source
Space group	C 2 2 21	Depositor
Cell constants a, b, c, α , β , γ	210.75Å 298.87Å 574.17Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	30.00 – 3.50	Depositor
% Data completeness (in resolution range)	80.3 (30.00-3.50)	Depositor
R_{merge}	0.26	Depositor
R_{sym}	(Not available)	Depositor
Refinement program	CNS 1.1	Depositor
R, R_{free}	0.192 , 0.268	Depositor
Estimated twinning fraction	No twinning to report.	Xtriage
Total number of atoms	98859	wwPDB-VP
Average B, all atoms (Å ²)	41.0	wwPDB-VP

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: NA, MG, CD, K, CL

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 5$	RMSZ	# $ Z > 5$
1	0	0.49	0/66076	0.85	218/103052 (0.2%)
2	1	0.34	0/399	0.56	0/527
3	2	0.34	0/771	0.55	0/1024
4	5	0.38	0/275	0.77	0/366
5	9	0.44	0/2905	0.84	11/4528 (0.2%)
6	A	0.36	0/1788	0.65	0/2411
7	B	0.36	0/2690	0.65	0/3652
8	C	0.37	0/1884	0.62	0/2551
9	D	0.35	0/1112	0.59	0/1500
10	E	0.38	0/1383	0.63	0/1882
11	F	0.35	0/897	0.59	0/1219
12	G	0.41	0/242	0.53	0/326
13	H	0.38	0/1247	0.68	0/1686
14	I	0.37	0/1136	0.63	0/1530
15	J	0.39	0/1004	0.68	0/1351
16	K	0.34	0/1127	0.64	0/1506
17	L	0.40	0/1634	0.66	0/2180
18	M	0.32	0/1474	0.66	0/1999
19	N	0.35	0/874	0.65	0/1181
20	O	0.37	0/1144	0.55	0/1523
21	P	0.37	0/749	0.67	0/1005
22	Q	0.41	0/1173	0.63	0/1580
23	R	0.53	0/672	0.69	0/906
24	S	0.34	0/958	0.65	0/1289
25	T	0.40	0/418	0.57	0/564
26	U	0.36	0/503	0.59	0/677
27	V	0.37	0/1219	0.64	0/1655
28	W	0.37	0/665	0.61	0/897
29	X	0.38	0/1147	0.65	0/1538
30	Y	0.34	0/576	0.58	0/763
31	Z	0.40	0/438	0.63	0/578
All	All	0.45	0/98580	0.80	229/147446 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	0	0	65
5	9	0	4
27	V	0	1
All	All	0	70

There are no bond length outliers.

All (229) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	535	G	N9-C1'-C2'	10.05	127.07	114.00
1	0	537	G	N9-C1'-C2'	9.91	126.88	114.00
1	0	1235	G	O4'-C1'-N9	8.50	115.00	108.20
1	0	1702	U	N1-C1'-C2'	8.48	125.03	114.00
1	0	337	A	N9-C1'-C2'	8.44	124.97	114.00
1	0	1119	G	N9-C1'-C2'	8.38	124.90	114.00
1	0	317	A	N9-C1'-C2'	8.37	124.88	114.00
1	0	2553	A	N9-C1'-C2'	8.30	124.79	114.00
1	0	1119	G	O4'-C1'-N9	8.28	114.82	108.20
1	0	867	A	N9-C1'-C2'	8.23	124.69	114.00
1	0	819	A	N9-C1'-C2'	8.18	124.63	114.00
1	0	307	G	N9-C1'-C2'	8.09	124.52	114.00
1	0	2102	G	N9-C1'-C2'	8.00	124.40	114.00
1	0	938	G	N9-C1'-C2'	7.96	124.35	114.00
1	0	2073	G	N9-C1'-C2'	7.87	124.23	114.00
1	0	1417	G	N9-C1'-C2'	7.86	124.22	114.00
1	0	2539	U	N1-C1'-C2'	7.81	124.16	114.00
1	0	766	A	N9-C1'-C2'	7.76	124.08	114.00
1	0	1072	G	N9-C1'-C2'	7.75	124.08	114.00
5	9	43	G	N9-C1'-C2'	7.60	123.88	114.00
1	0	1059	G	N9-C1'-C2'	7.59	123.87	114.00
1	0	2866	U	N1-C1'-C2'	7.53	123.79	114.00
1	0	777	U	O4'-C1'-N1	7.52	114.22	108.20
5	9	78	G	N9-C1'-C2'	7.50	123.75	114.00
1	0	1653	A	N9-C1'-C2'	7.48	123.73	114.00
1	0	2074	A	N9-C1'-C2'	7.45	123.69	114.00
1	0	262	A	N9-C1'-C2'	7.43	123.66	114.00
1	0	644	G	N9-C1'-C2'	7.43	123.66	114.00
1	0	1379	A	N9-C1'-C2'	7.32	123.52	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
5	9	78	G	O4'-C1'-N9	7.31	114.05	108.20
1	0	2645	U	N1-C1'-C2'	7.31	123.50	114.00
1	0	212	A	N9-C1'-C2'	7.30	123.49	114.00
1	0	1604	G	N9-C1'-C2'	7.28	123.46	114.00
1	0	1533	A	N9-C1'-C2'	7.18	123.34	114.00
1	0	487	G	N9-C1'-C2'	7.13	123.27	114.00
1	0	1996	U	N1-C1'-C2'	7.12	123.26	114.00
1	0	2007	A	N9-C1'-C2'	7.11	123.24	114.00
1	0	2532	A	N9-C1'-C2'	7.09	123.22	114.00
1	0	886	A	N9-C1'-C2'	7.06	123.17	114.00
1	0	2889	U	N1-C1'-C2'	7.04	123.14	114.00
1	0	2601	A	N9-C1'-C2'	7.01	123.12	114.00
1	0	31	C	N1-C1'-C2'	7.00	123.10	114.00
1	0	141	C	N1-C1'-C2'	6.97	123.06	114.00
1	0	2896	A	N9-C1'-C2'	6.95	123.03	114.00
1	0	2483	A	N9-C1'-C2'	6.95	123.03	114.00
1	0	701	U	N1-C1'-C2'	6.91	122.98	114.00
1	0	1340	G	N9-C1'-C2'	6.91	122.98	114.00
1	0	537	G	O4'-C1'-N9	6.90	113.72	108.20
1	0	512	G	N9-C1'-C2'	6.83	122.89	114.00
1	0	1164	U	OP1-P-O3'	6.83	120.23	105.20
1	0	2786	G	N9-C1'-C2'	6.83	122.88	114.00
1	0	1165	G	O5'-P-OP1	-6.83	99.55	105.70
1	0	203	G	N9-C1'-C2'	6.83	122.87	114.00
1	0	1030	U	N1-C1'-C2'	6.82	122.86	114.00
1	0	776	A	N9-C1'-C2'	6.73	122.74	114.00
1	0	760	G	N9-C1'-C2'	6.72	122.74	114.00
1	0	2577	A	N9-C1'-C2'	6.70	122.70	114.00
1	0	1407	A	N9-C1'-C2'	6.66	122.66	114.00
1	0	220	C	N1-C1'-C2'	6.65	122.65	114.00
1	0	2072	G	N9-C1'-C2'	6.65	122.64	114.00
1	0	2762	C	N1-C1'-C2'	6.62	122.60	114.00
1	0	2607	U	N1-C1'-C2'	6.60	122.58	114.00
1	0	2282	U	N1-C1'-C2'	6.60	122.57	114.00
1	0	1473	U	N1-C1'-C2'	6.58	122.56	114.00
1	0	338	C	O4'-C1'-N1	6.58	113.46	108.20
1	0	1777	G	N9-C1'-C2'	6.57	122.53	114.00
1	0	338	C	N1-C1'-C2'	6.56	122.52	114.00
1	0	2813	A	N9-C1'-C2'	6.54	122.50	114.00
1	0	1971	G	O4'-C1'-N9	6.51	113.41	108.20
1	0	2674	G	N9-C1'-C2'	6.49	122.44	114.00
1	0	453	A	N9-C1'-C2'	6.47	122.42	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	1995	G	N9-C1'-C2'	6.47	122.42	114.00
1	0	1919	A	N9-C1'-C2'	6.47	122.41	114.00
1	0	953	G	N9-C1'-C2'	6.45	122.38	114.00
1	0	1855	G	N9-C1'-C2'	6.43	122.36	114.00
1	0	464	G	O4'-C1'-N9	6.36	113.29	108.20
1	0	1356	A	N9-C1'-C2'	6.34	122.25	114.00
1	0	2681	A	N9-C1'-C2'	6.33	122.22	114.00
1	0	1485	A	N9-C1'-C2'	6.30	122.19	114.00
1	0	45	A	N9-C1'-C2'	6.29	122.18	114.00
1	0	923	A	N9-C1'-C2'	6.29	122.18	114.00
1	0	1232	A	N9-C1'-C2'	6.29	122.18	114.00
1	0	428	G	N9-C1'-C2'	6.28	122.16	114.00
1	0	898	G	N9-C1'-C2'	6.26	122.14	114.00
5	9	10	C	N1-C1'-C2'	6.26	122.14	114.00
1	0	1031	G	N9-C1'-C2'	6.23	122.10	114.00
1	0	1109	U	N1-C1'-C2'	6.23	122.10	114.00
1	0	2718	C	N1-C1'-C2'	6.23	122.10	114.00
1	0	1731	C	N1-C1'-C2'	6.22	122.08	114.00
1	0	868	G	O4'-C1'-N9	6.20	113.16	108.20
1	0	461	C	N1-C1'-C2'	6.19	122.05	114.00
1	0	175	G	O4'-C1'-N9	6.19	113.16	108.20
1	0	1752	G	N9-C1'-C2'	6.19	122.04	114.00
1	0	1235	G	C1'-O4'-C4'	-6.18	104.95	109.90
1	0	1165	G	O5'-P-OP2	-6.18	100.14	105.70
1	0	147	G	N9-C1'-C2'	6.18	122.03	114.00
1	0	1506	U	N1-C1'-C2'	6.17	122.03	114.00
1	0	1730	G	O4'-C1'-N9	6.17	113.13	108.20
1	0	2538	A	N9-C1'-C2'	6.17	122.02	114.00
1	0	1534	C	N1-C1'-C2'	6.16	122.01	114.00
1	0	1234	U	N1-C1'-C2'	6.15	122.00	114.00
1	0	1230	A	N9-C1'-C2'	6.15	122.00	114.00
1	0	1435	U	N1-C1'-C2'	6.13	121.97	114.00
1	0	1664	A	N9-C1'-C2'	6.13	121.97	114.00
1	0	509	A	N9-C1'-C2'	6.12	121.95	114.00
1	0	1438	G	N9-C1'-C2'	6.11	121.94	114.00
1	0	2353	A	N9-C1'-C2'	6.11	121.94	114.00
1	0	86	A	N9-C1'-C2'	6.08	121.90	114.00
1	0	1837	G	N9-C1'-C2'	6.02	121.83	114.00
1	0	2320	U	N1-C1'-C2'	5.95	121.74	114.00
1	0	1504	A	N9-C1'-C2'	5.95	121.73	114.00
1	0	175	G	N9-C1'-C2'	5.94	121.73	114.00
1	0	2552	C	N1-C1'-C2'	5.93	121.71	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	952	G	N9-C1'-C2'	5.91	121.68	114.00
1	0	1044	C	O4'-C1'-N1	5.91	112.92	108.20
1	0	1030	U	C1'-O4'-C4'	-5.91	105.18	109.90
1	0	220	C	O4'-C1'-N1	5.90	112.92	108.20
5	9	113	C	O4'-C1'-N1	5.89	112.91	108.20
1	0	1151	G	N9-C1'-C2'	5.87	121.63	114.00
1	0	166	A	N9-C1'-C2'	5.86	121.62	114.00
1	0	2482	G	N9-C1'-C2'	5.86	121.61	114.00
1	0	1654	U	N1-C1'-C2'	5.85	121.61	114.00
1	0	831	U	N1-C1'-C2'	5.85	121.60	114.00
1	0	1355	A	N9-C1'-C2'	5.85	121.60	114.00
1	0	1407	A	O4'-C1'-N9	5.83	112.86	108.20
1	0	845	U	N1-C1'-C2'	5.81	121.55	114.00
1	0	1009	U	N1-C1'-C2'	5.80	121.54	114.00
1	0	1316	G	N9-C1'-C2'	5.80	121.54	114.00
1	0	95	A	N9-C1'-C2'	5.80	121.53	114.00
5	9	3	A	N9-C1'-C2'	5.79	121.53	114.00
1	0	1941	A	N9-C1'-C2'	5.78	121.51	114.00
1	0	1341	A	N9-C1'-C2'	5.76	121.49	114.00
1	0	817	G	N9-C1'-C2'	5.76	121.49	114.00
1	0	1370	G	O4'-C1'-N9	5.74	112.79	108.20
1	0	673	U	N1-C1'-C2'	5.73	121.45	114.00
1	0	904	U	N1-C1'-C2'	5.72	121.44	114.00
1	0	1979	G	C2'-C3'-O3'	5.72	122.85	113.70
1	0	174	A	N9-C1'-C2'	5.71	121.43	114.00
1	0	2316	G	O4'-C1'-N9	5.71	112.77	108.20
1	0	336	G	N9-C1'-C2'	5.71	121.42	114.00
1	0	604	G	N9-C1'-C2'	5.71	121.42	114.00
1	0	1819	G	C5'-C4'-C3'	5.71	125.13	116.00
1	0	66	G	N9-C1'-C2'	5.69	121.40	114.00
1	0	1237	U	N1-C1'-C2'	5.67	121.38	114.00
1	0	1119	G	C1'-O4'-C4'	-5.65	105.38	109.90
1	0	2242	U	N1-C1'-C2'	5.64	121.33	114.00
1	0	417	G	N9-C1'-C2'	5.63	121.32	114.00
1	0	672	G	N9-C1'-C2'	5.63	121.32	114.00
1	0	713	U	N1-C1'-C2'	5.63	121.32	114.00
1	0	1214	G	N9-C1'-C2'	5.63	121.32	114.00
1	0	1369	A	N9-C1'-C2'	5.60	121.28	114.00
1	0	510	U	N1-C1'-C2'	5.58	121.26	114.00
1	0	56	G	N9-C1'-C2'	5.56	121.23	114.00
1	0	192	A	N9-C1'-C2'	5.54	121.21	114.00
1	0	2443	C	N1-C1'-C2'	5.54	121.21	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	196	G	N9-C1'-C2'	5.54	121.21	114.00
1	0	1684	A	N9-C1'-C2'	5.54	121.20	114.00
1	0	330	C	N1-C1'-C2'	5.53	121.19	114.00
1	0	2394	A	N9-C1'-C2'	5.53	121.19	114.00
1	0	1692	C	O4'-C1'-N1	5.51	112.61	108.20
1	0	2037	C	N1-C1'-C2'	5.51	121.17	114.00
1	0	2761	A	C5'-C4'-O4'	-5.49	102.51	109.10
1	0	330	C	O4'-C1'-N1	5.49	112.59	108.20
1	0	381	G	O4'-C1'-N9	5.48	112.59	108.20
1	0	463	A	N9-C1'-C2'	5.48	121.12	114.00
1	0	1971	G	N9-C1'-C2'	5.46	121.10	114.00
1	0	893	C	N1-C1'-C2'	5.45	121.08	114.00
1	0	2258	A	N9-C1'-C2'	5.43	121.06	114.00
1	0	1722	U	N1-C1'-C2'	5.42	121.05	114.00
1	0	1030	U	O4'-C1'-N1	5.42	112.53	108.20
1	0	1746	A	O4'-C1'-N9	5.42	112.53	108.20
5	9	78	G	C1'-O4'-C4'	-5.41	105.58	109.90
1	0	2644	C	N1-C1'-C2'	5.40	121.03	114.00
1	0	2092	G	N9-C1'-C2'	5.39	121.01	114.00
1	0	2379	G	O4'-C1'-N9	5.38	112.50	108.20
1	0	1971	G	C1'-O4'-C4'	-5.36	105.61	109.90
1	0	411	A	N9-C1'-C2'	5.36	120.97	114.00
1	0	317	A	O4'-C1'-N9	5.36	112.49	108.20
1	0	338	C	C1'-O4'-C4'	-5.34	105.62	109.90
1	0	1235	G	N9-C1'-C2'	5.33	120.93	114.00
1	0	2749	U	N1-C1'-C2'	5.33	120.92	114.00
1	0	2462	G	N9-C1'-C2'	5.32	120.92	114.00
1	0	2292	C	N1-C1'-C2'	5.32	120.92	114.00
1	0	379	G	N9-C1'-C2'	5.31	120.91	114.00
1	0	1978	A	N9-C1'-C2'	5.31	120.90	114.00
1	0	330	C	C1'-O4'-C4'	-5.30	105.66	109.90
1	0	1494	A	N9-C1'-C2'	5.30	120.89	114.00
1	0	2102	G	O4'-C1'-N9	5.28	112.42	108.20
5	9	113	C	N1-C1'-C2'	5.25	120.82	114.00
1	0	97	G	N9-C1'-C2'	5.24	120.82	114.00
1	0	441	A	N9-C1'-C2'	5.22	120.79	114.00
1	0	2692	G	O4'-C1'-N9	5.22	112.38	108.20
1	0	1872	C	N1-C1'-C2'	5.21	120.78	114.00
1	0	2896	A	O4'-C1'-N9	5.21	112.37	108.20
1	0	236	A	N9-C1'-C2'	5.19	120.75	114.00
1	0	317	A	C1'-O4'-C4'	-5.17	105.77	109.90
1	0	1690	C	N1-C1'-C2'	5.16	120.71	114.00

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	0	24	G	N9-C1'-C2'	5.15	120.70	114.00
1	0	1137	G	O4'-C1'-N9	5.15	112.32	108.20
1	0	537	G	C1'-O4'-C4'	-5.15	105.78	109.90
5	9	77	A	N9-C1'-C2'	5.15	120.69	114.00
1	0	1149	U	N1-C1'-C2'	5.14	120.69	114.00
1	0	1029	U	N1-C1'-C2'	5.14	120.68	114.00
1	0	1126	C	N1-C1'-C2'	5.14	120.68	114.00
1	0	264	G	N9-C1'-C2'	5.13	120.68	114.00
1	0	452	G	N9-C1'-C2'	5.13	120.68	114.00
1	0	2902	A	O4'-C1'-N9	5.13	112.30	108.20
1	0	1842	A	N9-C1'-C2'	5.12	120.66	114.00
1	0	1088	A	N9-C1'-C2'	5.12	120.65	114.00
5	9	33	U	N1-C1'-C2'	5.11	120.64	114.00
1	0	1418	U	N1-C1'-C2'	5.11	120.64	114.00
1	0	2553	A	O4'-C1'-N9	5.11	112.28	108.20
1	0	1836	A	N9-C1'-C2'	5.10	120.63	114.00
1	0	1701	A	N9-C1'-C2'	5.10	120.63	114.00
1	0	328	U	N1-C1'-C2'	5.09	120.62	114.00
5	9	87	U	N1-C1'-C2'	5.09	120.62	114.00
1	0	68	U	N1-C1'-C2'	5.08	120.60	114.00
1	0	518	G	N9-C1'-C2'	5.07	120.59	114.00
1	0	1377	C	N1-C1'-C2'	5.07	120.59	114.00
1	0	460	A	N9-C1'-C2'	5.06	120.57	114.00
1	0	2102	G	C1'-O4'-C4'	-5.06	105.86	109.90
1	0	246	G	N9-C1'-C2'	5.05	120.57	114.00
1	0	1407	A	C1'-O4'-C4'	-5.05	105.86	109.90
1	0	688	A	O4'-C1'-N9	5.05	112.24	108.20
1	0	1431	C	O4'-C1'-N1	5.04	112.23	108.20
1	0	660	A	N9-C1'-C2'	5.04	120.55	114.00
1	0	2484	U	N1-C1'-C2'	5.03	120.54	114.00
1	0	2747	C	N1-C1'-C2'	5.03	120.54	114.00
1	0	1473	U	O4'-C1'-N1	5.02	112.22	108.20

There are no chirality outliers.

All (70) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	0	1009	U	Sidechain
1	0	1017	U	Sidechain
1	0	1109	U	Sidechain
1	0	1149	U	Sidechain
1	0	1164	U	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	0	1230	A	Sidechain
1	0	1234	U	Sidechain
1	0	1260	G	Sidechain
1	0	1314	U	Sidechain
1	0	1435	U	Sidechain
1	0	1506	U	Sidechain
1	0	1604	G	Sidechain
1	0	1654	U	Sidechain
1	0	1702	U	Sidechain
1	0	1736	A	Sidechain
1	0	1777	G	Sidechain
1	0	1809	G	Sidechain
1	0	1828	G	Sidechain
1	0	1874	U	Sidechain
1	0	1941	A	Sidechain
1	0	1977	U	Sidechain
1	0	1996	U	Sidechain
1	0	203	G	Sidechain
1	0	2072	G	Sidechain
1	0	224	U	Sidechain
1	0	2242	U	Sidechain
1	0	2282	U	Sidechain
1	0	2283	G	Sidechain
1	0	2330	U	Sidechain
1	0	2353	A	Sidechain
1	0	2467	A	Sidechain
1	0	2492	U	Sidechain
1	0	2493	C	Sidechain
1	0	2526	C	Sidechain
1	0	2532	A	Sidechain
1	0	2538	A	Sidechain
1	0	2539	U	Sidechain
1	0	2554	U	Sidechain
1	0	262	A	Sidechain
1	0	2645	U	Sidechain
1	0	2674	G	Sidechain
1	0	2681	A	Sidechain
1	0	2786	G	Sidechain
1	0	2791	U	Sidechain
1	0	2825	C	Sidechain
1	0	2836	G	Sidechain
1	0	2865	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
1	0	2866	U	Sidechain
1	0	30	U	Sidechain
1	0	336	G	Sidechain
1	0	359	U	Sidechain
1	0	428	G	Sidechain
1	0	453	A	Sidechain
1	0	535	G	Sidechain
1	0	68	U	Sidechain
1	0	701	U	Sidechain
1	0	766	A	Sidechain
1	0	819	A	Sidechain
1	0	831	U	Sidechain
1	0	845	U	Sidechain
1	0	86	A	Sidechain
1	0	884	C	Sidechain
1	0	898	G	Sidechain
1	0	904	U	Sidechain
1	0	953	G	Sidechain
5	9	13	A	Sidechain
5	9	2	U	Sidechain
5	9	33	U	Sidechain
5	9	51	A	Sidechain
27	V	90	TYR	Sidechain

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	59017	0	29808	2081	0
2	1	394	0	406	38	0
3	2	755	0	732	81	0
4	5	273	0	296	23	0
5	9	2600	0	1326	119	0
6	A	1755	0	1763	185	0
7	B	2625	0	2533	240	0
8	C	1859	0	1816	166	0
9	D	1095	0	1085	125	0
10	E	1358	0	1266	95	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
11	F	886	0	854	75	0
12	G	241	0	231	20	0
13	H	1216	0	1215	169	0
14	I	1120	0	1098	92	0
15	J	994	0	1027	82	0
16	K	1115	0	1072	91	0
17	L	1606	0	1676	241	0
18	M	1445	0	1401	149	0
19	N	865	0	873	52	0
20	O	1134	0	1127	65	0
21	P	735	0	729	49	0
22	Q	1150	0	1122	76	0
23	R	664	0	626	50	0
24	S	950	0	924	80	0
25	T	411	0	368	35	0
26	U	500	0	511	45	0
27	V	1196	0	1137	120	0
28	W	655	0	653	55	0
29	X	1131	0	1133	100	0
30	Y	564	0	601	85	0
31	Z	431	0	426	45	0
32	0	105	0	0	0	0
32	2	1	0	0	0	0
32	9	2	0	0	0	0
32	A	3	0	0	0	0
32	B	3	0	0	0	0
32	J	1	0	0	0	0
32	S	1	0	0	0	0
32	X	1	0	0	0	0
33	0	2	0	0	0	0
34	0	74	0	0	0	0
34	9	2	0	0	0	0
34	A	1	0	0	0	0
34	C	1	0	0	0	0
34	I	1	0	0	0	0
34	K	1	0	0	0	0
34	L	1	0	0	0	0
34	P	1	0	0	0	0
34	Q	2	0	0	0	0
34	R	1	0	0	0	0
34	S	1	0	0	0	0
35	0	7	0	0	2	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
35	2	1	0	0	0	0
35	A	1	0	0	0	0
35	B	1	0	0	0	0
35	I	3	0	0	3	0
35	J	1	0	0	0	0
35	K	2	0	0	0	0
35	L	1	0	0	2	0
35	M	1	0	0	1	0
35	N	1	0	0	0	0
35	P	1	0	0	2	0
35	Q	1	0	0	0	0
35	X	1	0	0	2	0
36	2	1	0	0	0	0
36	N	1	0	0	0	0
36	T	1	0	0	0	0
36	Y	1	0	0	0	0
36	Z	1	0	0	0	0
37	0	5875	0	0	346	0
37	1	49	0	0	8	0
37	2	69	0	0	7	0
37	9	153	0	0	16	0
37	A	135	0	0	29	0
37	B	156	0	0	31	0
37	C	169	0	0	43	0
37	D	52	0	0	15	0
37	E	41	0	0	8	0
37	F	30	0	0	6	0
37	G	20	0	0	3	0
37	H	80	0	0	19	0
37	I	52	0	0	4	0
37	J	61	0	0	18	0
37	K	98	0	0	23	0
37	L	155	0	0	34	0
37	M	60	0	0	18	0
37	N	38	0	0	5	0
37	O	67	0	0	7	0
37	P	53	0	0	6	0
37	Q	83	0	0	6	0
37	R	32	0	0	6	0
37	S	36	0	0	4	0
37	T	25	0	0	6	0
37	U	11	0	0	2	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
37	V	69	0	0	10	0
37	W	26	0	0	6	0
37	X	107	0	0	13	0
37	Y	35	0	0	10	0
37	Z	50	0	0	2	0
All	All	98859	0	59835	4534	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 30.

All (4534) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:156:C:H5''	17:L:171:ARG:HD3	1.28	1.14
3:2:46:ILE:HG21	17:L:87:MET:HG2	1.24	1.14
26:U:12:THR:HG22	26:U:15:GLU:HG3	1.28	1.14
11:F:91:VAL:HG12	11:F:92:GLY:H	1.09	1.13
5:9:6:C:H5''	18:M:37:ARG:HH12	1.08	1.11
1:0:871:G:H5'	1:0:871:G:H8	1.17	1.08
8:C:127:ARG:NH2	8:C:225:PRO:HG2	1.68	1.07
1:0:870:G:H2'	1:0:871:G:H5''	1.30	1.06
1:0:1160:G:H5'	1:0:1161:A:H5'	1.10	1.04
5:9:6:C:H5''	18:M:37:ARG:NH1	1.72	1.04
15:J:14:LYS:HB2	15:J:45:PRO:HG2	1.39	1.04
27:V:21:LEU:HD22	27:V:26:ILE:HD11	1.34	1.03
8:C:236:THR:HG22	8:C:239:ALA:H	0.91	1.03
1:0:660:A:H4'	1:0:661:G:O5'	1.57	1.03
15:J:29:LEU:HB3	15:J:55:VAL:HG11	1.41	1.03
8:C:136:VAL:HG22	8:C:137:PRO:HA	1.34	1.02
1:0:1840:A:H4'	1:0:1841:C:O5'	1.61	1.01
13:H:162:SER:HB2	13:H:163:PRO:HD3	1.43	1.01
7:B:162:MET:HE3	7:B:308:LEU:HD21	1.43	1.00
9:D:27:ILE:HG22	9:D:28:GLY:H	1.25	0.99
8:C:236:THR:HG22	8:C:239:ALA:N	1.76	0.99
13:H:45:GLN:HB3	13:H:163:PRO:HD2	1.40	0.99
22:Q:18:LEU:HG	22:Q:91:LEU:HD13	1.42	0.99
1:0:2680:A:H4'	1:0:2681:A:OP1	1.62	0.99
9:D:154:LYS:HD2	9:D:154:LYS:H	1.27	0.99
1:0:1381:A:H4'	1:0:1382:G:O5'	1.60	0.99
18:M:144:GLY:O	18:M:147:ILE:HG22	1.63	0.99
17:L:115:LEU:HD23	17:L:150:ILE:HD12	1.45	0.98

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2586:U:H3	1:0:2592:G:H22	1.12	0.97
28:W:15:ARG:HH11	28:W:15:ARG:HB3	1.28	0.97
1:0:1444:G:H5'	4:5:43:GLY:HA2	1.46	0.97
1:0:80:A:H4'	1:0:81:G:O5'	1.63	0.97
27:V:4:LEU:HD22	27:V:52:VAL:HG21	1.47	0.96
1:0:2243:C:HO2'	17:L:25:TRP:HZ2	1.10	0.96
6:A:96:LEU:HD22	6:A:128:LEU:HD22	1.45	0.96
3:2:70:ARG:HG2	3:2:77:ALA:HB2	1.43	0.95
6:A:199:HIS:HD2	6:A:201:PHE:H	1.08	0.95
7:B:264:GLU:HG2	7:B:267:LYS:HE2	1.48	0.95
26:U:1:THR:HG23	26:U:2:VAL:H	1.32	0.95
1:0:1473:U:H1'	31:Z:42:SER:HB2	1.45	0.95
29:X:187:VAL:HG23	29:X:192:ASP:HB2	1.47	0.95
1:0:21:G:H5'	22:Q:2:ILE:HA	1.48	0.95
1:0:2672:C:H1'	37:B:506:HOH:O	1.67	0.95
1:0:870:G:C2'	1:0:871:G:H5''	1.97	0.94
13:H:55:GLN:HE21	13:H:124:ARG:HE	1.04	0.93
15:J:10:GLN:H	15:J:10:GLN:NE2	1.66	0.93
11:F:63:ILE:HB	11:F:64:PRO:HD3	1.51	0.93
27:V:26:ILE:HG13	27:V:26:ILE:O	1.69	0.93
1:0:1242:A:H5'	14:I:82:THR:HG23	1.50	0.93
27:V:137:GLN:HE21	27:V:141:HIS:HE1	1.07	0.92
16:K:79:ASP:HB3	37:K:302:HOH:O	1.67	0.92
1:0:485:A:O2'	1:0:487:G:H5'	1.69	0.92
1:0:631:A:C5	1:0:2074:A:H5'	2.04	0.91
1:0:2716:G:H5''	7:B:206:THR:HG21	1.49	0.91
1:0:871:G:C8	1:0:871:G:H5'	2.05	0.91
1:0:1871:U:H4'	1:0:1872:C:O5'	1.71	0.91
8:C:115:LEU:HD21	8:C:243:VAL:HG13	1.52	0.91
8:C:5:ILE:HD11	8:C:16:VAL:HG23	1.52	0.91
1:0:1886:A:H4'	37:Y:203:HOH:O	1.70	0.91
1:0:1266:U:H4'	29:X:115:ARG:HH21	1.35	0.90
10:E:20:ILE:HD11	10:E:40:VAL:HG11	1.50	0.90
17:L:39:ARG:HA	17:L:63:VAL:HG22	1.51	0.90
1:0:2263:G:H4'	17:L:70:GLY:HA3	1.54	0.90
6:A:211:LYS:HB3	6:A:212:PRO:HD2	1.53	0.90
1:0:271:C:H4'	1:0:272:A:H5''	1.51	0.90
6:A:199:HIS:CD2	6:A:201:PHE:H	1.89	0.90
7:B:238:ASN:HD22	7:B:240:GLY:H	1.19	0.90
1:0:1407:A:O2'	1:0:1408:U:H3'	1.71	0.89
30:Y:37:HIS:HB2	30:Y:47:LEU:HB2	1.54	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:O:7857:HOH:O	7:B:211:THR:HG21	1.73	0.89
7:B:30:PRO:HB2	7:B:39:GLN:NE2	1.86	0.89
17:L:186:SER:O	17:L:189:VAL:HG12	1.71	0.89
1:O:1315:G:H4'	1:O:1316:G:OP2	1.70	0.89
5:9:24:U:O2'	5:9:25:G:H4'	1.73	0.89
27:V:88:THR:HB	37:V:203:HOH:O	1.72	0.89
30:Y:11:THR:OG1	30:Y:23:ARG:HB2	1.73	0.89
1:O:1116:U:HO2'	1:O:1118:A:H2	0.94	0.88
1:O:21:G:C5'	22:Q:2:ILE:HA	2.03	0.88
23:R:33:SER:O	23:R:37:VAL:HG23	1.73	0.88
26:U:42:ASN:HB3	37:U:111:HOH:O	1.74	0.88
37:O:4071:HOH:O	9:D:99:ASP:HA	1.73	0.88
19:N:32:ARG:HD3	19:N:32:ARG:O	1.72	0.88
1:O:1378:G:H4'	1:O:1379:A:O5'	1.73	0.88
3:2:24:LYS:HE3	3:2:90:PHE:HE1	1.38	0.88
18:M:169:PRO:O	18:M:172:PHE:HB3	1.74	0.88
1:O:856:G:H2'	37:O:3682:HOH:O	1.74	0.88
22:Q:8:ALA:HB1	22:Q:13:THR:HG21	1.55	0.88
30:Y:38:LYS:HG2	30:Y:45:LYS:HG2	1.56	0.88
1:O:1835:U:H5	1:O:1840:A:N7	1.71	0.88
37:O:8133:HOH:O	17:L:91:ILE:HG12	1.74	0.87
22:Q:99:ALA:HB1	22:Q:109:MET:HE1	1.53	0.87
5:9:29:C:H2'	5:9:30:C:H5'	1.57	0.87
13:H:75:SER:O	13:H:79:ALA:HB2	1.73	0.87
18:M:37:ARG:HH21	18:M:105:GLY:CA	1.88	0.87
9:D:25:MET:HE2	9:D:41:LEU:HG	1.56	0.87
37:O:3315:HOH:O	8:C:84:VAL:HA	1.74	0.87
15:J:81:ARG:HB2	15:J:87:ARG:HH11	1.38	0.87
28:W:72:VAL:HG22	28:W:85:VAL:HG12	1.56	0.87
13:H:86:ARG:NH1	13:H:133:ILE:HG13	1.89	0.87
13:H:2:PRO:HB2	37:H:215:HOH:O	1.75	0.87
14:I:39:VAL:HG13	14:I:106:GLY:O	1.72	0.87
5:9:92:G:H2'	5:9:93:A:C8	2.09	0.86
37:O:7544:HOH:O	6:A:6:GLY:HA3	1.75	0.86
11:F:91:VAL:HG12	11:F:92:GLY:N	1.90	0.86
1:O:24:G:N2	1:O:518:G:O2'	2.08	0.86
7:B:307:ARG:HB2	7:B:307:ARG:HH11	1.40	0.86
16:K:133:VAL:HA	37:K:343:HOH:O	1.74	0.86
5:9:56:A:H2'	5:9:57:A:H5''	1.57	0.86
1:O:1119:G:H22	1:O:1246:A:H2	1.23	0.86
23:R:77:VAL:HG12	23:R:81:ILE:HD11	1.58	0.86

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:C:236:THR:CG2	8:C:239:ALA:H	1.84	0.86
9:D:27:ILE:HD11	9:D:37:ALA:HB2	1.57	0.86
17:L:37:VAL:HG11	17:L:108:LYS:HG3	1.58	0.86
1:0:188:C:H5'	17:L:163:LEU:HD21	1.58	0.86
17:L:71:SER:HB2	17:L:92:THR:HG22	1.57	0.85
15:J:74:VAL:HG21	15:J:96:VAL:HG23	1.58	0.85
1:0:628:A:O2'	1:0:630:A:OP2	1.95	0.85
1:0:1118:A:H8	1:0:1119:G:H5'	1.42	0.85
23:R:10:VAL:HG11	26:U:36:ALA:HA	1.59	0.85
1:0:893:C:H4'	1:0:894:A:O5'	1.75	0.85
8:C:84:VAL:HG12	8:C:85:LYS:HG2	1.59	0.84
1:0:24:G:H22	1:0:518:G:HO2'	1.22	0.84
3:2:25:VAL:HG22	3:2:68:LYS:HG3	1.58	0.84
1:0:1679:C:H5'	37:0:5066:HOH:O	1.75	0.84
1:0:533:U:H4'	1:0:534:C:O5'	1.75	0.84
1:0:1819:G:H2'	1:0:1820:G:H4'	1.60	0.84
1:0:1884:G:O2'	1:0:1885:A:H5'	1.78	0.84
27:V:122:ARG:HH21	27:V:154:ARG:HD2	1.40	0.84
29:X:235:GLU:CD	29:X:235:GLU:H	1.81	0.84
7:B:321:PRO:HA	37:B:519:HOH:O	1.78	0.84
37:0:4206:HOH:O	17:L:157:LEU:HD11	1.78	0.84
1:0:1590:A:N6	1:0:1605:G:H1'	1.91	0.84
1:0:960:G:H4'	37:0:7054:HOH:O	1.77	0.84
14:I:75:PRO:HG2	14:I:105:LEU:HD21	1.60	0.83
37:0:3532:HOH:O	5:9:103:A:H4'	1.78	0.83
15:J:82:ARG:NH2	15:J:115:ARG:HG2	1.94	0.83
1:0:1118:A:C8	1:0:1119:G:H5'	2.13	0.83
1:0:1835:U:H2'	37:0:5187:HOH:O	1.78	0.83
7:B:27:ASN:H	7:B:27:ASN:HD22	1.24	0.83
1:0:1246:A:O2'	1:0:1247:A:H3'	1.78	0.83
1:0:1506:U:H2'	37:0:5535:HOH:O	1.78	0.83
1:0:2111:G:H1'	37:0:4903:HOH:O	1.78	0.83
8:C:1:MET:HG2	8:C:2:GLN:H	1.41	0.83
7:B:162:MET:HG3	7:B:310:ARG:HD3	1.61	0.83
1:0:2284:G:H5'	37:0:6604:HOH:O	1.78	0.83
2:1:41:HIS:H	2:1:45:ASN:HD22	1.25	0.83
1:0:1884:G:H4'	1:0:1885:A:OP1	1.77	0.82
21:P:75:ILE:HD13	21:P:84:ILE:HD11	1.60	0.82
1:0:2270:G:H4'	6:A:223:ARG:HH12	1.41	0.82
1:0:2825:C:H4'	1:0:2826:G:O5'	1.79	0.82
3:2:3:MET:O	3:2:90:PHE:HA	1.80	0.82

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1652:C:H1'	6:A:164:ARG:HD2	1.59	0.82
1:0:1688:G:H1	1:0:1692:C:H2'	1.43	0.82
37:0:7980:HOH:O	24:S:53:GLY:HA3	1.78	0.82
1:0:2330:U:H4'	1:0:2331:C:OP1	1.79	0.82
1:0:2638:G:H1'	37:0:4934:HOH:O	1.80	0.82
28:W:71:ARG:HB3	28:W:88:GLU:OE1	1.79	0.82
1:0:553:G:P	29:X:204:ARG:HH22	2.02	0.82
1:0:1166:A:H1'	1:0:1192:A:C2	2.14	0.81
1:0:1130:U:H2'	1:0:1131:G:O4'	1.80	0.81
1:0:1340:G:O2'	1:0:1341:A:H8	1.62	0.81
24:S:18:GLU:O	24:S:21:LYS:HG2	1.80	0.81
1:0:1105:C:H4'	1:0:1106:A:OP1	1.77	0.81
1:0:2503:A:HO2'	1:0:2504:A:H8	1.27	0.81
11:F:96:ALA:HA	37:F:201:HOH:O	1.80	0.81
1:0:1097:A:H5''	27:V:125:HIS:NE2	1.96	0.81
1:0:136:C:H2'	1:0:137:U:O4'	1.81	0.81
1:0:185:G:H4'	1:0:186:A:H4'	1.59	0.81
5:9:24:U:H4'	5:9:25:G:OP1	1.80	0.81
9:D:19:GLU:HG3	37:D:239:HOH:O	1.81	0.81
13:H:27:LYS:H	13:H:58:HIS:HD2	1.28	0.81
37:0:3650:HOH:O	17:L:146:GLN:HG2	1.80	0.81
24:S:71:VAL:HG11	24:S:90:PRO:HB3	1.61	0.81
19:N:47:ARG:HG3	19:N:47:ARG:HH11	1.46	0.81
1:0:182:G:H5'	37:0:3751:HOH:O	1.80	0.80
9:D:54:ALA:HB2	9:D:69:ILE:HD12	1.63	0.80
27:V:137:GLN:NE2	27:V:141:HIS:HE1	1.79	0.80
1:0:2321:A:H4'	1:0:2322:U:OP1	1.82	0.80
3:2:11:CYS:SG	3:2:20:HIS:NE2	2.54	0.80
7:B:51:VAL:HG23	7:B:330:VAL:HG22	1.61	0.80
24:S:71:VAL:HG13	24:S:91:LEU:O	1.81	0.80
1:0:1559:A:H1'	37:0:3551:HOH:O	1.79	0.80
1:0:1751:G:H2'	1:0:1752:G:H5''	1.64	0.80
37:0:4770:HOH:O	7:B:254:GLN:HG3	1.82	0.80
27:V:13:MET:HE2	27:V:18:GLN:HA	1.64	0.80
1:0:2312:G:H2'	1:0:2313:C:H5'	1.64	0.80
1:0:1430:G:H1'	1:0:1691:A:N6	1.96	0.80
11:F:34:ASN:HA	17:L:4:ALA:HB2	1.62	0.80
15:J:74:VAL:HG13	15:J:113:ILE:HG23	1.62	0.80
22:Q:119:VAL:HG21	22:Q:142:ASP:CG	2.02	0.80
27:V:130:HIS:O	27:V:136:GLY:HA3	1.82	0.80
27:V:52:VAL:HG22	27:V:53:ALA:N	1.96	0.80

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:65:THR:HG23	3:2:67:LEU:HG	1.62	0.80
13:H:56:ILE:HG22	13:H:61:LEU:HD22	1.63	0.80
1:0:1044:C:H5'	1:0:1045:G:OP2	1.82	0.79
13:H:28:ILE:HA	13:H:62:GLU:OE1	1.83	0.79
14:I:74:ARG:HH11	14:I:74:ARG:HB3	1.48	0.79
1:0:2577:A:H2'	37:0:6131:HOH:O	1.80	0.79
1:0:115:U:H1'	1:0:131:A:N7	1.97	0.79
1:0:2122:C:H3'	37:0:3439:HOH:O	1.80	0.79
1:0:790:A:H1'	1:0:1710:A:H2'	1.64	0.79
1:0:1776:A:H4'	1:0:1777:G:O5'	1.83	0.79
1:0:329:A:H4'	1:0:330:C:OP2	1.81	0.79
14:I:26:VAL:HG13	14:I:36:VAL:HG11	1.65	0.79
1:0:1260:G:H2'	37:0:4989:HOH:O	1.82	0.79
13:H:165:GLY:HA3	37:H:271:HOH:O	1.82	0.79
1:0:1771:U:O2'	30:Y:23:ARG:NH2	2.15	0.79
13:H:55:GLN:NE2	13:H:124:ARG:HE	1.79	0.79
21:P:21:ARG:HG2	21:P:22:GLY:H	1.48	0.79
27:V:52:VAL:HG22	27:V:53:ALA:H	1.48	0.79
1:0:2392:C:H4'	37:0:5308:HOH:O	1.83	0.79
6:A:71:PRO:HD2	6:A:74:VAL:HG21	1.64	0.79
37:9:350:HOH:O	21:P:25:PRO:HB2	1.81	0.79
22:Q:44:VAL:HG13	22:Q:89:LEU:HD22	1.65	0.79
1:0:1108:G:H4'	1:0:1109:U:OP1	1.82	0.79
14:I:131:THR:HG22	14:I:133:GLY:H	1.47	0.79
1:0:884:C:H2'	37:0:5983:HOH:O	1.82	0.79
8:C:115:LEU:HD21	8:C:243:VAL:CG1	2.12	0.79
24:S:19:ARG:HD3	24:S:67:LEU:O	1.83	0.78
1:0:198:A:H4'	1:0:199:A:O5'	1.83	0.78
1:0:2582:G:H4'	37:J:303:HOH:O	1.82	0.78
8:C:104:ASP:HA	8:C:107:ARG:HH12	1.47	0.78
18:M:34:LEU:HD13	18:M:47:LEU:HD21	1.65	0.78
13:H:86:ARG:HH11	13:H:133:ILE:HG13	1.45	0.78
1:0:2554:U:H4'	1:0:2555:C:OP1	1.82	0.78
7:B:55:ASN:HB3	7:B:63:GLU:HA	1.64	0.78
1:0:262:A:O2'	11:F:32:GLY:HA2	1.82	0.78
13:H:162:SER:HB2	13:H:163:PRO:CD	2.13	0.78
1:0:1719:G:H1'	37:0:3208:HOH:O	1.83	0.78
16:K:61:ALA:HA	37:K:309:HOH:O	1.82	0.78
18:M:49:THR:HG22	18:M:56:ASP:HB2	1.64	0.78
25:T:14:GLU:OE1	25:T:15:PRO:HD2	1.83	0.78
37:9:402:HOH:O	27:V:131:PRO:HB2	1.81	0.78

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:D:39:ASP:HB2	37:D:203:HOH:O	1.83	0.78
20:O:59:ARG:NH2	20:O:66:GLN:HE22	1.82	0.78
1:O:1342:C:O2'	1:O:1343:C:H5'	1.83	0.78
14:I:131:THR:HG22	14:I:133:GLY:N	1.99	0.78
1:O:2661:U:H3	1:O:2812:A:H62	1.32	0.78
22:Q:18:LEU:HB2	22:Q:143:VAL:HG13	1.64	0.78
5:9:78:G:N2	5:9:103:A:OP2	2.15	0.78
1:O:1593:C:H5'	20:O:116:SER:O	1.83	0.77
37:O:5010:HOH:O	22:Q:139:PRO:HD2	1.83	0.77
1:O:2610:U:H4'	37:O:3487:HOH:O	1.84	0.77
1:O:193:A:H3'	37:O:4603:HOH:O	1.84	0.77
1:O:2369:A:H3'	37:O:3788:HOH:O	1.83	0.77
7:B:141:ARG:HD2	7:B:163:GLU:OE2	1.84	0.77
12:G:12:ILE:N	12:G:13:PRO:HD3	2.00	0.77
16:K:35:ARG:HH12	16:K:43:HIS:HB3	1.48	0.77
16:K:67:ARG:O	16:K:71:GLU:HG3	1.85	0.77
1:O:2761:A:H4'	1:O:2762:C:OP1	1.83	0.77
7:B:238:ASN:ND2	7:B:240:GLY:H	1.82	0.77
15:J:29:LEU:HB3	15:J:55:VAL:CG1	2.14	0.77
18:M:24:LEU:HD13	21:P:26:PRO:HB3	1.65	0.77
3:2:70:ARG:HB3	37:2:221:HOH:O	1.83	0.77
37:9:347:HOH:O	18:M:147:ILE:HD12	1.84	0.77
1:O:1120:U:H5'	1:O:1121:G:OP2	1.84	0.77
1:O:2554:U:H2'	1:O:2576:A:H61	1.49	0.77
1:O:2555:C:H3'	37:O:3256:HOH:O	1.85	0.77
1:O:1164:U:H4'	1:O:1165:G:OP1	1.83	0.77
7:B:7:ARG:HG2	7:B:7:ARG:HH11	1.50	0.77
27:V:122:ARG:NH2	27:V:154:ARG:HD2	1.99	0.77
1:O:1984:U:H4'	1:O:1985:U:O5'	1.85	0.77
17:L:38:VAL:O	17:L:63:VAL:HG13	1.85	0.77
1:O:2263:G:H4'	17:L:70:GLY:CA	2.15	0.77
20:O:115:SER:OG	20:O:118:GLN:HG3	1.85	0.77
28:W:78:GLU:HG2	28:W:79:GLU:H	1.48	0.77
30:Y:75:ALA:HB3	37:Y:216:HOH:O	1.85	0.77
10:E:137:ASP:OD1	10:E:139:GLU:HB2	1.85	0.76
11:F:57:GLU:O	11:F:61:MET:HG3	1.85	0.76
17:L:67:ILE:HA	37:L:305:HOH:O	1.85	0.76
28:W:66:THR:HG23	28:W:67:PRO:HD2	1.65	0.76
1:O:2310:G:OP2	13:H:114:PRO:HD2	1.84	0.76
5:9:76:G:H3'	5:9:77:A:H5''	1.67	0.76
13:H:139:ASP:N	13:H:140:PRO:HD3	2.00	0.76

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:J:64:MET:HA	15:J:67:GLN:NE2	2.00	0.76
17:L:87:MET:HB2	17:L:91:ILE:HD11	1.67	0.76
7:B:195:ARG:HD2	7:B:324:ASP:OD1	1.85	0.76
7:B:86:ALA:HA	37:B:502:HOH:O	1.85	0.76
13:H:62:GLU:O	13:H:66:VAL:HG23	1.84	0.76
1:O:2815:G:H4'	1:O:2816:A:OP2	1.83	0.76
11:F:21:GLU:O	11:F:24:ARG:HG3	1.86	0.76
13:H:142:VAL:HG13	37:H:236:HOH:O	1.85	0.76
18:M:132:ASN:O	18:M:135:VAL:HG12	1.85	0.76
27:V:137:GLN:HE21	27:V:141:HIS:CE1	1.97	0.76
37:O:4355:HOH:O	6:A:192:VAL:HB	1.84	0.76
17:L:161:ARG:HD2	37:L:391:HOH:O	1.85	0.76
29:X:109:LEU:HA	37:X:440:HOH:O	1.85	0.76
1:O:1059:G:H2'	37:O:6358:HOH:O	1.85	0.76
1:O:1689:A:H62	22:Q:131:GLY:HA2	1.50	0.76
6:A:173:GLY:O	6:A:176:HIS:HB3	1.84	0.76
22:Q:82:GLU:HG3	22:Q:83:LYS:H	1.50	0.76
6:A:71:PRO:HG2	6:A:91:GLY:HA2	1.66	0.75
10:E:68:HIS:O	10:E:72:MET:HG3	1.86	0.75
1:O:2064:U:H2'	1:O:2065:C:H6	1.50	0.75
6:A:179:MET:HG2	6:A:186:TRP:HB2	1.69	0.75
3:2:46:ILE:CG2	17:L:87:MET:HG2	2.12	0.75
18:M:61:ALA:HB3	18:M:88:ALA:HB2	1.67	0.75
29:X:189:ASN:C	29:X:189:ASN:HD22	1.90	0.75
1:O:1137:G:H5''	1:O:1138:G:OP1	1.86	0.75
8:C:104:ASP:HA	8:C:107:ARG:NH1	2.02	0.75
1:O:196:G:O2'	1:O:198:A:N7	2.19	0.75
1:O:2074:A:O2'	1:O:2076:U:OP2	2.05	0.75
1:O:2092:G:O6	1:O:2649:A:H2'	1.86	0.75
1:O:542:A:H5'	1:O:542:A:H8	1.51	0.75
1:O:858:U:H2'	1:O:859:C:C6	2.22	0.75
1:O:1784:U:O2'	20:O:78:GLY:HA3	1.87	0.75
3:2:46:ILE:HG21	17:L:87:MET:CG	2.12	0.75
6:A:153:ARG:HH11	6:A:153:ARG:HB2	1.52	0.75
1:O:2243:C:O2'	17:L:25:TRP:HZ2	1.69	0.75
1:O:2816:A:H5''	1:O:2817:G:H5'	1.67	0.74
7:B:275:GLY:O	7:B:291:ASP:HA	1.87	0.74
17:L:164:THR:HG23	17:L:167:GLY:H	1.51	0.74
1:O:541:C:H2'	1:O:542:A:C5'	2.16	0.74
13:H:55:GLN:HE22	13:H:91:HIS:CD2	2.04	0.74
1:O:192:A:H4'	17:L:176:GLN:HE22	1.52	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:N:87:THR:O	19:N:91:GLN:HG3	1.85	0.74
1:0:1355:A:O2'	1:0:1356:A:H3'	1.88	0.74
20:O:87:ARG:HA	37:O:236:HOH:O	1.86	0.74
1:0:1086:A:N6	27:V:11:VAL:HG11	2.02	0.74
4:5:40:ARG:HG2	4:5:40:ARG:O	1.85	0.74
9:D:99:ASP:HB3	9:D:103:ASN:H	1.53	0.74
18:M:86:LEU:O	18:M:90:LEU:HG	1.87	0.74
1:0:1249:U:H2'	1:0:1250:C:C6	2.23	0.74
1:0:1342:C:C2'	1:0:1343:C:H5'	2.16	0.74
1:0:2300:A:H4'	1:0:2301:A:O5'	1.85	0.74
1:0:282:C:H1'	1:0:368:C:N4	2.02	0.74
8:C:78:ARG:HH11	8:C:78:ARG:HG3	1.51	0.74
1:0:289:G:O2'	1:0:290:C:H5'	1.88	0.74
1:0:2761:A:O2'	1:0:2762:C:H3'	1.88	0.74
18:M:183:ASP:OD2	18:M:186:LEU:HD12	1.87	0.74
1:0:1450:C:O2'	1:0:1494:A:H5'	1.86	0.74
1:0:2115:U:H2'	1:0:2116:U:C6	2.22	0.74
5:9:25:G:H3'	5:9:26:C:C5'	2.18	0.74
1:0:1589:G:H22	1:0:1605:G:H2'	1.51	0.74
1:0:1641:A:H2'	1:0:1642:A:H5'	1.69	0.74
1:0:2546:U:H5'	37:O:6374:HOH:O	1.87	0.74
1:0:271:C:H4'	1:0:272:A:C5'	2.18	0.74
3:2:46:ILE:HB	37:L:302:HOH:O	1.87	0.73
6:A:100:PRO:HG2	6:A:103:VAL:HG21	1.69	0.73
6:A:140:LEU:HB3	6:A:141:PRO:HD2	1.70	0.73
14:I:107:ASN:HD21	14:I:109:TYR:HB2	1.52	0.73
18:M:48:VAL:CG1	18:M:55:ASP:HB3	2.18	0.73
7:B:179:LEU:O	7:B:183:GLU:HG2	1.87	0.73
28:W:37:LEU:HD13	28:W:85:VAL:HG21	1.69	0.73
17:L:172:GLY:O	17:L:183:VAL:HG11	1.89	0.73
5:9:69:U:OP1	18:M:4:PRO:HG3	1.88	0.73
1:0:962:C:H1'	18:M:5:ARG:NH1	2.04	0.73
1:0:1209:C:H2'	1:0:1210:G:H8	1.53	0.73
12:G:12:ILE:HD12	37:G:418:HOH:O	1.88	0.73
15:J:64:MET:HA	15:J:67:GLN:HE21	1.53	0.73
17:L:87:MET:HB2	17:L:91:ILE:CD1	2.18	0.73
1:0:1292:G:H4'	37:O:3628:HOH:O	1.88	0.73
1:0:2790:C:H5'	37:O:7741:HOH:O	1.88	0.73
1:0:2811:A:H4'	1:0:2812:A:O5'	1.87	0.73
1:0:771:G:P	17:L:79:LYS:HG3	2.28	0.73
18:M:87:LEU:HD12	18:M:186:LEU:HD21	1.70	0.73

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:496:G:H4'	1:0:497:A:OP1	1.86	0.73
1:0:761:A:H4'	1:0:762:C:O5'	1.88	0.73
8:C:72:LYS:HG2	8:C:77:ALA:HA	1.70	0.73
19:N:25:VAL:HG23	19:N:26:TRP:N	2.03	0.73
1:0:1589:G:H4'	37:0:6643:HOH:O	1.88	0.73
1:0:2552:C:O2'	1:0:2553:A:H3'	1.89	0.73
37:0:4378:HOH:O	14:I:65:ASN:HB3	1.87	0.73
37:J:340:HOH:O	25:T:37:GLU:HB3	1.88	0.73
1:0:157:G:H4'	17:L:95:LYS:HE2	1.70	0.73
1:0:675:U:H2'	1:0:676:C:H5'	1.71	0.73
1:0:1293:U:H5'	29:X:154:ARG:HH21	1.54	0.73
5:9:77:A:O2'	5:9:78:G:H4'	1.89	0.73
9:D:135:VAL:HG22	9:D:136:ARG:N	2.02	0.73
18:M:67:ALA:HA	18:M:71:TRP:HB3	1.71	0.72
1:0:2416:G:H2'	1:0:2417:C:C6	2.24	0.72
1:0:882:A:H5''	1:0:883:U:OP2	1.87	0.72
4:5:35:VAL:HG12	4:5:39:VAL:CG1	2.18	0.72
1:0:1853:C:H4'	6:A:217:ARG:NH2	2.03	0.72
37:0:4929:HOH:O	10:E:143:GLN:HG2	1.89	0.72
13:H:71:TYR:C	13:H:73:GLN:H	1.92	0.72
1:0:1603:A:H5'	1:0:1605:G:O4'	1.89	0.72
5:9:56:A:C2'	5:9:57:A:H5''	2.18	0.72
1:0:1446:U:H3'	23:R:55:GLN:OE1	1.89	0.72
1:0:1730:G:H5'	1:0:1731:C:C6	2.25	0.72
1:0:907:A:H2'	1:0:908:A:H8	1.54	0.72
3:2:60:LYS:HG3	3:2:61:PRO:HD2	1.72	0.72
3:2:86:GLY:HA2	37:2:246:HOH:O	1.88	0.72
8:C:127:ARG:HD3	8:C:129:HIS:HE1	1.54	0.72
3:2:24:LYS:HE3	3:2:90:PHE:CE1	2.21	0.72
1:0:2441:U:H4'	16:K:53:ARG:HD2	1.71	0.72
31:Z:21:ARG:HD2	31:Z:37:CYS:SG	2.29	0.72
1:0:1160:G:H5'	1:0:1161:A:C5'	2.05	0.72
1:0:272:A:H3'	37:0:5183:HOH:O	1.89	0.72
10:E:152:THR:HG21	10:E:165:GLY:HA2	1.72	0.72
4:5:35:VAL:HG12	4:5:39:VAL:HG12	1.69	0.72
15:J:81:ARG:HB2	15:J:87:ARG:NH1	2.04	0.72
26:U:27:LEU:HA	26:U:49:LEU:HD13	1.71	0.72
1:0:1450:C:H4'	1:0:1451:C:OP2	1.89	0.72
1:0:2474:A:H4'	1:0:2475:C:O5'	1.90	0.72
7:B:154:VAL:HG12	7:B:156:LYS:HG2	1.71	0.72
8:C:5:ILE:HD11	8:C:16:VAL:CG2	2.20	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:H:31:PHE:CD2	13:H:85:ILE:HG23	2.25	0.72
27:V:35:VAL:HG23	27:V:41:TYR:CD2	2.25	0.72
4:5:29:LYS:O	4:5:33:VAL:HG23	1.90	0.72
6:A:35:GLY:O	6:A:36:ASP:HB3	1.90	0.72
27:V:141:HIS:HB2	27:V:146:ILE:HG12	1.70	0.72
1:0:1730:G:H5'	1:0:1731:C:H6	1.55	0.72
1:0:1819:G:H5'	37:0:5467:HOH:O	1.90	0.72
1:0:1923:G:H4'	3:2:31:THR:O	1.90	0.72
1:0:2483:A:H5'	1:0:2484:U:OP2	1.89	0.72
10:E:23:GLU:HG2	10:E:28:SER:HB3	1.71	0.72
1:0:2072:G:H2'	37:0:5026:HOH:O	1.89	0.71
25:T:9:CYS:SG	25:T:11:THR:HG23	2.29	0.71
26:U:12:THR:HG22	26:U:15:GLU:CG	2.12	0.71
2:1:39:ARG:HG2	37:1:142:HOH:O	1.89	0.71
14:I:74:ARG:O	14:I:78:ILE:HG12	1.90	0.71
24:S:43:ASN:HD22	24:S:108:ARG:NH2	1.88	0.71
1:0:2135:A:O4'	1:0:2243:C:N4	2.23	0.71
1:0:2415:A:H2'	1:0:2416:G:H5'	1.73	0.71
1:0:2469:A:H4'	37:0:3308:HOH:O	1.88	0.71
11:F:91:VAL:CG1	11:F:92:GLY:H	1.94	0.71
13:H:162:SER:CB	13:H:163:PRO:HD3	2.19	0.71
17:L:57:LYS:HG2	17:L:58:GLN:H	1.53	0.71
1:0:1735:C:O2'	1:0:1736:A:H5'	1.90	0.71
1:0:939:A:H4'	1:0:940:G:O5'	1.88	0.71
8:C:25:PRO:HG2	37:C:402:HOH:O	1.90	0.71
9:D:95:THR:C	9:D:97:GLN:H	1.90	0.71
1:0:2755:G:H1'	37:0:4723:HOH:O	1.91	0.71
2:1:36:ASN:HA	37:1:132:HOH:O	1.91	0.71
8:C:61:PHE:HB3	37:C:467:HOH:O	1.90	0.71
17:L:68:ARG:HD3	17:L:68:ARG:O	1.90	0.71
23:R:6:LYS:HB2	23:R:27:ALA:O	1.91	0.71
1:0:1829:A:H61	30:Y:18:TYR:H	1.38	0.71
1:0:2421:G:H1'	37:0:3206:HOH:O	1.90	0.71
5:9:25:G:H3'	5:9:26:C:H5'	1.72	0.71
27:V:68:THR:HG23	27:V:69:ARG:HG2	1.73	0.71
37:0:7115:HOH:O	29:X:165:GLU:HB3	1.89	0.71
1:0:2659:U:H4'	37:Q:334:HOH:O	1.91	0.71
1:0:31:C:OP2	24:S:8:ARG:HD2	1.90	0.71
6:A:9:ARG:HG2	6:A:16:PHE:CD2	2.25	0.71
1:0:1244:U:OP1	14:I:18:ILE:HD13	1.90	0.71
17:L:66:ALA:O	17:L:67:ILE:HD13	1.90	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:S:69:LYS:O	24:S:71:VAL:HG23	1.90	0.71
28:W:20:GLU:HG3	28:W:21:PRO:HD2	1.71	0.71
5:9:3:A:N6	5:9:22:G:H1'	2.06	0.71
6:A:101:GLU:OE2	6:A:131:HIS:HB2	1.91	0.71
7:B:216:LYS:HA	37:B:567:HOH:O	1.91	0.71
8:C:129:HIS:CE1	8:C:231:ARG:HA	2.26	0.71
13:H:58:HIS:HA	13:H:61:LEU:HD23	1.73	0.71
27:V:21:LEU:HD22	27:V:26:ILE:CD1	2.17	0.71
30:Y:31:ILE:O	30:Y:35:LYS:HG3	1.91	0.71
7:B:217:ARG:HG3	7:B:257:THR:HG22	1.73	0.71
8:C:242:GLU:HG3	37:C:439:HOH:O	1.90	0.71
1:0:2081:A:H4'	14:I:69:TYR:CE1	2.26	0.71
1:0:1160:G:C5'	1:0:1161:A:H5'	2.06	0.70
1:0:1417:G:O2'	1:0:1418:U:H6	1.73	0.70
1:0:631:A:N7	1:0:2074:A:H5'	2.05	0.70
37:0:7713:HOH:O	21:P:92:ARG:HG3	1.91	0.70
24:S:48:VAL:HG22	24:S:97:ARG:C	2.11	0.70
1:0:138:U:OP2	1:0:139:C:H5	1.73	0.70
1:0:1505:U:H5''	1:0:1506:U:OP2	1.91	0.70
1:0:328:U:H5''	1:0:329:A:OP2	1.91	0.70
3:2:11:CYS:SG	3:2:71:CYS:HB2	2.30	0.70
1:0:1811:A:C2	1:0:2752:C:H1'	2.25	0.70
18:M:119:GLN:O	18:M:123:ILE:HG13	1.91	0.70
29:X:155:ARG:HD2	37:X:449:HOH:O	1.91	0.70
6:A:162:GLY:HA3	30:Y:73:THR:HG21	1.74	0.70
1:0:105:G:O2'	1:0:106:A:H5'	1.91	0.70
1:0:2419:U:H5''	1:0:2420:G:H5'	1.71	0.70
6:A:88:ILE:HG22	6:A:88:ILE:O	1.92	0.70
10:E:11:VAL:HG12	10:E:12:ASP:N	2.07	0.70
18:M:62:HIS:HB3	18:M:65:ASP:OD1	1.92	0.70
1:0:2783:A:H2'	1:0:2784:A:C8	2.26	0.70
16:K:143:THR:HG22	16:K:144:ASP:N	2.07	0.70
1:0:1417:G:HO2'	1:0:1418:U:H6	1.40	0.70
4:5:35:VAL:O	4:5:39:VAL:HG13	1.91	0.70
37:9:397:HOH:O	18:M:107:ASN:HB3	1.91	0.70
37:0:4875:HOH:O	31:Z:46:ARG:HA	1.91	0.70
1:0:2874:G:H3'	37:0:5041:HOH:O	1.91	0.70
9:D:57:THR:HG23	9:D:63:ILE:HG22	1.74	0.70
10:E:69:ILE:HA	10:E:72:MET:CE	2.22	0.70
13:H:150:LYS:HB2	13:H:157:ILE:HD12	1.74	0.70
27:V:4:LEU:HD23	27:V:54:PHE:HB3	1.73	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1701:A:H4'	1:0:1702:U:O5'	1.91	0.70
1:0:2656:G:O2'	1:0:2657:G:H5'	1.91	0.70
5:9:48:C:H4'	18:M:141:ARG:HH21	1.55	0.70
6:A:199:HIS:HD2	6:A:201:PHE:N	1.86	0.70
8:C:214:THR:HG22	8:C:216:SER:H	1.57	0.70
19:N:105:ASN:HD21	19:N:109:SER:H	1.37	0.70
24:S:41:ARG:HH11	24:S:41:ARG:HG2	1.57	0.70
27:V:151:GLU:O	27:V:154:ARG:HB3	1.91	0.70
27:V:88:THR:HG23	27:V:110:GLN:NE2	2.07	0.69
1:0:569:A:H5''	1:0:587:A:N1	2.06	0.69
7:B:175:LEU:C	7:B:175:LEU:HD23	2.13	0.69
1:0:204:A:H2'	1:0:205:U:H5'	1.74	0.69
1:0:2463:A:H4'	1:0:2464:C:OP2	1.91	0.69
3:2:47:GLY:HA2	17:L:83:SER:HB2	1.74	0.69
8:C:72:LYS:HG2	8:C:77:ALA:CA	2.21	0.69
15:J:10:GLN:H	15:J:10:GLN:HE21	1.37	0.69
9:D:154:LYS:HD2	9:D:154:LYS:N	2.03	0.69
9:D:19:GLU:O	9:D:20:LYS:HG2	1.92	0.69
17:L:87:MET:SD	17:L:91:ILE:HD11	2.32	0.69
18:M:113:SER:HB2	37:M:301:HOH:O	1.92	0.69
27:V:88:THR:HG22	27:V:89:ASP:H	1.57	0.69
1:0:2303:A:H1'	37:0:5754:HOH:O	1.92	0.69
1:0:2493:C:H2'	1:0:2525:G:H1	1.56	0.69
1:0:450:C:H1'	37:0:4255:HOH:O	1.93	0.69
1:0:148:A:O2'	1:0:149:G:H5'	1.93	0.69
1:0:2791:U:O2'	1:0:2792:A:H5''	1.93	0.69
15:J:115:ARG:HG3	15:J:116:GLU:N	2.08	0.69
21:P:75:ILE:CD1	21:P:84:ILE:HD11	2.21	0.69
1:0:281:U:H2'	1:0:282:C:O4'	1.93	0.69
1:0:545:G:H8	1:0:545:G:H5'	1.57	0.69
1:0:2435:U:OP1	3:2:28:GLY:HA3	1.92	0.69
1:0:1104:C:H4'	14:I:88:PRO:HD3	1.75	0.69
27:V:81:ASP:OD1	27:V:92:ASP:HB2	1.90	0.69
1:0:1328:A:OP1	29:X:169:ARG:HD2	1.92	0.69
1:0:2269:C:H2'	1:0:2270:G:O4'	1.92	0.69
13:H:4:ALA:HB3	37:H:215:HOH:O	1.91	0.69
14:I:127:ILE:N	35:I:202:CL:CL	2.57	0.69
17:L:9:ARG:HG3	37:L:417:HOH:O	1.91	0.69
1:0:1697:G:H1'	37:0:3233:HOH:O	1.93	0.69
1:0:2636:C:H3'	37:0:4417:HOH:O	1.92	0.69
37:0:4533:HOH:O	27:V:10:GLU:HG2	1.92	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1116:U:H3	1:0:1246:A:H62	1.41	0.69
1:0:1486:A:H3'	1:0:1486:A:OP1	1.93	0.69
1:0:2453:G:H5''	37:K:306:HOH:O	1.92	0.69
1:0:2654:C:H5'	37:0:7489:HOH:O	1.92	0.69
7:B:162:MET:CE	7:B:308:LEU:HD21	2.21	0.69
1:0:1340:G:O2'	1:0:1341:A:C8	2.45	0.69
1:0:1579:C:H4'	1:0:1580:A:OP1	1.91	0.68
6:A:88:ILE:HD13	6:A:100:PRO:HD3	1.74	0.68
9:D:27:ILE:HG22	9:D:28:GLY:N	2.04	0.68
17:L:155:HIS:CE1	17:L:158:ARG:HE	2.10	0.68
19:N:77:ALA:HA	19:N:96:VAL:O	1.93	0.68
1:0:21:G:H4'	22:Q:2:ILE:HG22	1.74	0.68
1:0:587:A:H5''	1:0:588:G:OP1	1.94	0.68
20:O:10:ALA:HA	20:O:13:VAL:HG12	1.75	0.68
1:0:1525:G:H2'	1:0:1526:A:C8	2.27	0.68
1:0:339:A:H4'	1:0:340:A:OP1	1.93	0.68
1:0:962:C:H5''	37:0:4692:HOH:O	1.93	0.68
37:0:7228:HOH:O	3:2:61:PRO:HD3	1.93	0.68
5:9:55:U:H5''	5:9:56:A:OP1	1.93	0.68
6:A:27:LEU:HD11	6:A:55:VAL:HG21	1.75	0.68
17:L:88:VAL:HG12	37:L:324:HOH:O	1.93	0.68
1:0:2488:A:H1'	37:0:6810:HOH:O	1.91	0.68
1:0:25:A:H5'	37:0:5934:HOH:O	1.93	0.68
16:K:37:LYS:HA	37:K:341:HOH:O	1.94	0.68
1:0:1831:U:H2'	1:0:1832:G:H5'	1.75	0.68
6:A:93:THR:HG23	6:A:154:ALA:O	1.94	0.68
7:B:225:GLY:HA3	37:B:517:HOH:O	1.92	0.68
8:C:104:ASP:O	8:C:108:GLN:HG3	1.93	0.68
8:C:165:ASP:O	8:C:168:ARG:HB3	1.92	0.68
1:0:1596:U:H2'	1:0:1598:A:OP2	1.93	0.68
1:0:870:G:H2'	1:0:871:G:C5'	2.16	0.68
7:B:201:ASP:HB2	7:B:312:ARG:HD2	1.74	0.68
10:E:133:VAL:HG12	10:E:141:VAL:HG13	1.75	0.68
13:H:14:TYR:H	13:H:91:HIS:CE1	2.12	0.68
14:I:36:VAL:HB	14:I:101:VAL:HG13	1.75	0.68
17:L:97:ILE:HD12	17:L:127:LYS:HD2	1.75	0.68
19:N:105:ASN:HD21	19:N:109:SER:N	1.92	0.68
1:0:554:G:H4'	1:0:555:U:O5'	1.93	0.68
5:9:28:U:H2'	5:9:29:C:C6	2.28	0.68
6:A:51:ARG:HB2	37:A:439:HOH:O	1.93	0.68
7:B:215:VAL:HB	7:B:234:ARG:HH12	1.58	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1400:C:O2'	1:0:1401:G:H5'	1.94	0.68
17:L:35:PRO:CG	17:L:38:VAL:HG23	2.24	0.68
21:P:86:VAL:HG13	21:P:91:LEU:HD11	1.76	0.68
1:0:2489:G:H1'	37:0:6038:HOH:O	1.92	0.68
5:9:41:C:O4'	9:D:50:VAL:HG23	1.94	0.68
11:F:13:GLU:OE2	11:F:78:GLU:HG2	1.94	0.68
29:X:189:ASN:HA	29:X:217:ILE:HD11	1.76	0.68
30:Y:38:LYS:HE2	30:Y:45:LYS:HE2	1.75	0.68
1:0:130:C:H2'	37:0:3236:HOH:O	1.94	0.68
1:0:2403:C:H3'	37:0:4823:HOH:O	1.94	0.68
1:0:1834:C:H2'	1:0:1840:A:N6	2.09	0.67
1:0:2751:C:H3'	37:0:3316:HOH:O	1.94	0.67
5:9:12:C:H2'	37:9:361:HOH:O	1.93	0.67
6:A:110:SER:HB2	6:A:117:LYS:HG3	1.76	0.67
7:B:238:ASN:HD22	7:B:240:GLY:N	1.90	0.67
26:U:12:THR:CG2	26:U:15:GLU:HG3	2.18	0.67
1:0:30:U:H4'	1:0:31:C:OP1	1.92	0.67
1:0:485:A:H4'	1:0:486:A:H5'	1.76	0.67
9:D:166:ILE:HD12	37:D:226:HOH:O	1.95	0.67
17:L:20:ILE:HA	17:L:23:LEU:HB2	1.76	0.67
1:0:547:A:H3'	37:0:4319:HOH:O	1.92	0.67
1:0:877:G:H1'	37:0:5343:HOH:O	1.94	0.67
18:M:58:LEU:N	18:M:58:LEU:HD12	2.10	0.67
37:0:4891:HOH:O	24:S:9:LYS:HD2	1.94	0.67
1:0:1771:U:H4'	30:Y:20:LEU:HD21	1.75	0.67
11:F:20:LEU:O	11:F:23:ALA:HB3	1.94	0.67
13:H:118:PRO:HD2	37:H:273:HOH:O	1.94	0.67
37:0:5386:HOH:O	17:L:14:ARG:HG2	1.94	0.67
1:0:506:G:H3'	37:0:3965:HOH:O	1.92	0.67
1:0:2536:C:H3'	37:0:5890:HOH:O	1.94	0.67
1:0:509:A:H4'	1:0:511:A:H5''	1.77	0.67
9:D:23:VAL:HG12	9:D:130:VAL:HG22	1.76	0.67
30:Y:48:LYS:HG2	37:Y:214:HOH:O	1.93	0.67
1:0:1123:A:N1	1:0:1238:C:H5'	2.10	0.67
1:0:2414:A:H2'	1:0:2415:A:C8	2.30	0.67
1:0:2783:A:H3'	37:0:4874:HOH:O	1.93	0.67
1:0:2887:G:H2'	1:0:2888:U:C6	2.30	0.67
1:0:659:A:H5''	37:0:4678:HOH:O	1.94	0.67
27:V:80:ASP:O	27:V:84:VAL:HG23	1.95	0.67
1:0:2114:C:O2'	1:0:2115:U:H5'	1.94	0.67
1:0:631:A:C6	1:0:2074:A:H5'	2.30	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:153:ARG:CB	6:A:153:ARG:HH11	2.07	0.67
8:C:118:THR:HG22	8:C:137:PRO:HB3	1.76	0.67
1:O:12:U:H2'	1:O:13:G:H5'	1.76	0.67
1:O:2578:G:H5'	1:O:2578:G:H8	1.60	0.67
1:O:746:A:H4'	1:O:747:G:H5'	1.77	0.67
5:9:114:G:H2'	5:9:115:C:C6	2.30	0.67
7:B:72:THR:O	37:B:501:HOH:O	2.12	0.67
8:C:218:VAL:HG12	37:C:411:HOH:O	1.94	0.67
22:Q:99:ALA:HB1	22:Q:109:MET:CE	2.23	0.67
1:O:2379:G:H4'	1:O:2380:A:C5'	2.24	0.67
1:O:2769:C:C2'	1:O:2770:G:H5'	2.25	0.67
1:O:31:C:H2'	37:O:4680:HOH:O	1.95	0.67
7:B:168:GLY:H	7:B:174:ARG:HD3	1.60	0.67
9:D:99:ASP:CB	9:D:103:ASN:H	2.08	0.67
13:H:150:LYS:O	13:H:150:LYS:HG2	1.94	0.67
17:L:43:PRO:HG3	17:L:62:VAL:HG21	1.77	0.67
1:O:1051:C:H2'	1:O:1052:G:O4'	1.95	0.66
1:O:1151:G:O2'	1:O:1214:G:N2	2.28	0.66
1:O:1579:C:O2'	1:O:1580:A:C8	2.49	0.66
1:O:185:G:H4'	1:O:186:A:OP1	1.95	0.66
1:O:541:C:C2'	1:O:542:A:H5"	2.24	0.66
9:D:64:ARG:HB3	9:D:67:ASP:OD2	1.95	0.66
13:H:47:GLU:HB3	13:H:133:ILE:CD1	2.24	0.66
24:S:43:ASN:ND2	24:S:108:ARG:CZ	2.58	0.66
24:S:48:VAL:HG22	24:S:97:ARG:O	1.94	0.66
29:X:95:THR:N	29:X:237:GLU:N	2.43	0.66
1:O:1316:G:O2'	1:O:1340:G:N2	2.28	0.66
1:O:544:G:H2'	1:O:545:G:H5"	1.77	0.66
10:E:31:ARG:NH1	37:E:201:HOH:O	2.28	0.66
15:J:39:GLY:HA2	37:J:301:HOH:O	1.96	0.66
1:O:339:A:O2'	1:O:341:C:OP2	2.13	0.66
20:O:101:GLN:NE2	20:O:131:PHE:HB2	2.09	0.66
27:V:13:MET:HE1	27:V:17:ILE:HG22	1.77	0.66
29:X:222:GLU:HB2	37:X:429:HOH:O	1.95	0.66
1:O:1386:G:H1'	37:O:3331:HOH:O	1.95	0.66
1:O:1590:A:H61	1:O:1605:G:H1'	1.60	0.66
1:O:1855:G:H5'	1:O:1858:A:H1'	1.78	0.66
1:O:1189:A:H1'	1:O:1209:C:H1'	1.78	0.66
1:O:639:A:H2'	1:O:640:G:C8	2.31	0.66
9:D:134:LEU:HD11	9:D:166:ILE:HD11	1.78	0.66
15:J:22:ASP:HB2	37:J:307:HOH:O	1.95	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:T:45:GLU:HB2	25:T:48:ASN:ND2	2.11	0.66
1:O:1308:A:H4'	8:C:225:PRO:O	1.95	0.66
1:O:2278:U:H5'	37:O:3474:HOH:O	1.95	0.66
1:O:2670:G:O2'	1:O:2671:U:H5'	1.96	0.66
1:O:70:A:H4'	37:O:6278:HOH:O	1.94	0.66
1:O:817:G:O2'	1:O:818:A:H8	1.78	0.66
22:Q:39:THR:HB	22:Q:42:GLU:HG3	1.77	0.66
24:S:38:ARG:HG3	24:S:38:ARG:HH11	1.61	0.66
27:V:122:ARG:HH11	27:V:122:ARG:HG2	1.60	0.66
1:O:1691:A:H5''	1:O:1692:C:OP2	1.95	0.66
1:O:1878:G:H1'	37:O:5266:HOH:O	1.95	0.66
13:H:48:LEU:HG	13:H:157:ILE:HG21	1.77	0.66
16:K:142:LEU:HG	16:K:146:GLY:HA3	1.78	0.66
18:M:89:GLY:O	18:M:92:ALA:HB3	1.96	0.66
27:V:48:VAL:HG12	27:V:52:VAL:CG1	2.25	0.66
1:O:1115:U:H2'	1:O:1116:U:H6	1.60	0.66
1:O:1118:A:H2'	1:O:1119:G:H5''	1.78	0.66
1:O:558:C:H5'	37:O:3550:HOH:O	1.94	0.66
1:O:1187:U:H2'	37:O:4127:HOH:O	1.96	0.66
7:B:304:PRO:HD2	7:B:307:ARG:NH1	2.11	0.66
10:E:93:MET:CE	10:E:165:GLY:H	2.09	0.66
10:E:93:MET:HE1	10:E:165:GLY:N	2.11	0.66
17:L:172:GLY:O	17:L:183:VAL:HG21	1.96	0.66
25:T:45:GLU:HB2	25:T:48:ASN:HD22	1.61	0.66
27:V:52:VAL:CG2	27:V:53:ALA:H	2.08	0.66
2:1:41:HIS:N	2:1:45:ASN:HD22	1.94	0.66
6:A:65:ARG:O	6:A:66:ARG:HG3	1.94	0.66
20:O:13:VAL:HG21	20:O:41:ARG:HG2	1.78	0.66
1:O:1215:A:O2'	1:O:1216:G:O4'	2.13	0.65
1:O:1341:A:O2'	1:O:1342:C:O4'	2.13	0.65
1:O:1438:G:H5''	1:O:1439:C:OP2	1.96	0.65
1:O:2472:C:O2'	1:O:2634:G:H4'	1.96	0.65
1:O:541:C:H2'	1:O:542:A:H5'	1.78	0.65
1:O:938:G:H2'	37:O:5935:HOH:O	1.95	0.65
6:A:217:ARG:HG2	6:A:229:ALA:HB2	1.77	0.65
17:L:38:VAL:C	17:L:63:VAL:HG13	2.17	0.65
27:V:64:THR:O	27:V:68:THR:HG22	1.95	0.65
1:O:541:C:H2'	1:O:542:A:H5''	1.75	0.65
1:O:1886:A:N3	37:O:3227:HOH:O	2.28	0.65
13:H:149:ALA:C	13:H:151:MET:H	2.00	0.65
1:O:236:A:H4'	1:O:237:G:OP1	1.96	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:450:C:OP1	8:C:184:ARG:NH2	2.25	0.65
1:O:816:G:C6	1:O:817:G:N1	2.64	0.65
8:C:115:LEU:HD13	8:C:223:LEU:HD21	1.78	0.65
8:C:233:THR:HG22	8:C:234:VAL:H	1.62	0.65
11:F:48:VAL:HA	11:F:97:ALA:HA	1.79	0.65
28:W:21:PRO:HG2	28:W:24:LYS:HD3	1.79	0.65
1:O:2292:C:O2'	1:O:2464:C:OP2	2.15	0.65
1:O:338:C:H4'	8:C:174:ILE:HD11	1.78	0.65
6:A:168:PRO:O	6:A:170:VAL:HG23	1.97	0.65
7:B:305:ASP:O	7:B:306:LYS:HB2	1.96	0.65
11:F:99:THR:HA	37:F:202:HOH:O	1.95	0.65
16:K:130:ARG:HA	37:K:367:HOH:O	1.95	0.65
24:S:43:ASN:HD22	24:S:108:ARG:CZ	2.10	0.65
31:Z:28:HIS:CD2	31:Z:30:LYS:HB2	2.31	0.65
1:O:1741:U:H5'	1:O:1742:A:OP1	1.97	0.65
1:O:2353:A:H5''	1:O:2354:A:OP1	1.96	0.65
1:O:674:A:H2'	37:O:6653:HOH:O	1.96	0.65
1:O:711:G:H1'	37:O:5442:HOH:O	1.96	0.65
5:9:78:G:HO2'	5:9:79:U:P	2.19	0.65
8:C:246:ARG:HB3	8:C:246:ARG:HH11	1.61	0.65
10:E:154:ILE:HD11	10:E:157:LYS:HE2	1.79	0.65
13:H:148:ARG:O	13:H:151:MET:HB3	1.97	0.65
16:K:136:ALA:HB3	37:K:343:HOH:O	1.95	0.65
1:O:1777:G:H2'	37:O:3942:HOH:O	1.96	0.65
17:L:97:ILE:CD1	17:L:127:LYS:HD2	2.27	0.65
18:M:12:ARG:HB2	18:M:20:TYR:OH	1.96	0.65
1:O:1784:U:O2'	20:O:78:GLY:CA	2.45	0.65
1:O:1855:G:N2	1:O:1874:U:O2'	2.30	0.65
1:O:1978:A:N7	1:O:1980:U:H2'	2.11	0.65
1:O:2241:C:H2'	1:O:2242:U:C6	2.31	0.65
1:O:920:C:H5''	1:O:921:G:O5'	1.97	0.65
7:B:304:PRO:CD	7:B:307:ARG:NH1	2.60	0.65
12:G:20:VAL:O	12:G:24:VAL:HG23	1.96	0.65
13:H:44:ALA:HA	13:H:163:PRO:O	1.97	0.65
17:L:133:LEU:HD12	17:L:133:LEU:N	2.11	0.65
21:P:21:ARG:HG2	21:P:22:GLY:N	2.11	0.65
1:O:1447:U:O4	23:R:13:LYS:HE2	1.96	0.65
23:R:77:VAL:O	23:R:81:ILE:HG13	1.96	0.65
37:O:7272:HOH:O	31:Z:46:ARG:HB2	1.97	0.65
1:O:1134:G:H4'	13:H:151:MET:HE1	1.78	0.65
1:O:1615:A:H4'	37:O:3989:HOH:O	1.97	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1829:A:H61	30:Y:18:TYR:N	1.95	0.65
1:0:459:A:H5''	37:0:4693:HOH:O	1.97	0.65
7:B:140:LEU:HA	37:B:502:HOH:O	1.95	0.65
8:C:193:LEU:HD22	8:C:222:ASP:O	1.96	0.65
9:D:19:GLU:O	9:D:133:ASN:HB3	1.97	0.65
25:T:46:ALA:HB1	25:T:52:THR:HG21	1.79	0.65
1:0:1372:A:H3'	37:0:4518:HOH:O	1.96	0.65
1:0:2379:G:H4'	1:0:2380:A:O5'	1.96	0.65
1:0:485:A:H4'	1:0:486:A:C5'	2.27	0.65
1:0:639:A:H2'	1:0:640:G:H8	1.61	0.65
4:5:39:VAL:O	4:5:40:ARG:HD3	1.96	0.65
5:9:14:G:H5'	5:9:14:G:H8	1.61	0.65
7:B:190:MET:HB3	37:B:582:HOH:O	1.96	0.65
13:H:137:ASN:O	13:H:139:ASP:N	2.30	0.65
13:H:26:LYS:HD2	13:H:28:ILE:HB	1.78	0.65
28:W:74:ALA:HB2	28:W:85:VAL:HG13	1.79	0.65
1:0:183:A:H5'	17:L:157:LEU:HD12	1.79	0.64
1:0:330:C:H5''	1:0:331:A:H5'	1.78	0.64
1:0:453:A:N1	1:0:460:A:H2'	2.11	0.64
18:M:43:VAL:HG13	18:M:118:ILE:HD11	1.78	0.64
22:Q:111:ILE:HG23	22:Q:145:LEU:HD11	1.79	0.64
1:0:1087:G:O2'	1:0:1088:A:H8	1.80	0.64
1:0:1173:A:H4'	1:0:1174:A:C8	2.31	0.64
1:0:256:C:H2'	1:0:257:G:O4'	1.98	0.64
1:0:2735:U:H2'	1:0:2736:U:C6	2.33	0.64
1:0:564:G:H1'	37:0:3637:HOH:O	1.97	0.64
6:A:170:VAL:HG22	30:Y:22:ILE:HG23	1.79	0.64
8:C:140:VAL:HB	37:C:424:HOH:O	1.97	0.64
18:M:38:LYS:HD2	18:M:114:LYS:HE3	1.79	0.64
27:V:48:VAL:HG12	27:V:52:VAL:HG11	1.79	0.64
1:0:1967:U:O2'	1:0:1968:A:C8	2.51	0.64
1:0:2637:A:H5'	37:0:8371:HOH:O	1.98	0.64
1:0:907:A:H2'	1:0:908:A:C8	2.32	0.64
7:B:248:ARG:O	7:B:251:VAL:HG12	1.98	0.64
8:C:33:LYS:HA	8:C:36:ARG:NH1	2.13	0.64
13:H:50:VAL:HG21	13:H:125:VAL:HG11	1.79	0.64
14:I:13:ASP:OD1	14:I:15:ARG:HB3	1.97	0.64
15:J:72:VAL:HG11	15:J:121:PHE:CD1	2.33	0.64
18:M:61:ALA:CB	18:M:88:ALA:HB2	2.27	0.64
28:W:15:ARG:NH1	28:W:15:ARG:HB3	2.08	0.64
1:0:1234:U:C2	7:B:244:PRO:HB3	2.33	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:855:U:H4'	1:0:856:G:O5'	1.97	0.64
1:0:1444:G:C5'	4:5:43:GLY:HA2	2.25	0.64
5:9:1:U:H5''	5:9:3:A:OP1	1.97	0.64
7:B:248:ARG:NH2	37:B:504:HOH:O	2.31	0.64
8:C:236:THR:HG21	37:C:426:HOH:O	1.96	0.64
13:H:71:TYR:O	13:H:73:GLN:N	2.31	0.64
16:K:92:ASP:OD1	16:K:94:ARG:HB2	1.98	0.64
17:L:64:ARG:HD2	37:L:335:HOH:O	1.97	0.64
22:Q:9:ASP:O	22:Q:13:THR:HB	1.97	0.64
29:X:187:VAL:HG23	29:X:192:ASP:CB	2.24	0.64
29:X:198:GLY:HA3	29:X:225:GLY:O	1.97	0.64
1:0:1316:G:H1'	1:0:1341:A:N6	2.12	0.64
1:0:1398:G:H2'	1:0:1399:A:C8	2.32	0.64
1:0:1447:U:O2'	23:R:53:ASN:HB3	1.97	0.64
1:0:1685:A:H5''	1:0:1686:C:OP2	1.97	0.64
1:0:1984:U:H1'	1:0:1986:G:OP2	1.98	0.64
1:0:2379:G:H4'	1:0:2380:A:H5''	1.79	0.64
1:0:2896:A:H5'	1:0:2897:C:OP2	1.98	0.64
1:0:330:C:H5''	1:0:331:A:C5'	2.27	0.64
1:0:92:G:H4'	26:U:44:GLY:HA3	1.79	0.64
26:U:56:ILE:O	26:U:60:GLN:HG3	1.97	0.64
27:V:125:HIS:HE1	37:V:229:HOH:O	1.80	0.64
37:C:506:HOH:O	24:S:2:LYS:HE2	1.97	0.64
29:X:135:LYS:HB3	37:X:460:HOH:O	1.98	0.64
29:X:152:LYS:HB3	29:X:160:LYS:HG3	1.80	0.64
1:0:115:U:H1'	1:0:131:A:C8	2.33	0.64
1:0:1758:U:H2'	1:0:1759:A:O4'	1.98	0.64
1:0:2823:G:O2'	1:0:2824:C:H5'	1.98	0.64
1:0:2902:A:H5'	1:0:2903:C:OP1	1.97	0.64
1:0:603:A:H4'	1:0:604:G:O5'	1.98	0.64
1:0:731:U:H2'	1:0:732:C:C6	2.33	0.64
9:D:45:THR:HB	9:D:75:LEU:HD21	1.80	0.64
15:J:74:VAL:HG11	15:J:113:ILE:HG12	1.79	0.64
22:Q:82:GLU:HG3	22:Q:83:LYS:N	2.13	0.64
1:0:813:C:H3'	37:0:5686:HOH:O	1.97	0.64
6:A:43:VAL:HG21	6:A:59:GLU:HG3	1.79	0.64
8:C:233:THR:HG22	8:C:234:VAL:N	2.12	0.64
9:D:135:VAL:HG22	9:D:136:ARG:H	1.61	0.64
1:0:259:G:H21	17:L:58:GLN:NE2	1.95	0.64
20:O:129:GLY:HA2	37:O:222:HOH:O	1.96	0.64
30:Y:30:GLU:HA	30:Y:33:HIS:HB3	1.79	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:383:A:H2'	1:0:384:G:O4'	1.97	0.64
9:D:20:LYS:HA	9:D:75:LEU:O	1.97	0.64
13:H:27:LYS:H	13:H:58:HIS:CD2	2.14	0.64
17:L:12:TRP:CE2	17:L:20:ILE:HD11	2.33	0.64
20:O:10:ALA:HA	20:O:13:VAL:CG1	2.28	0.64
27:V:110:GLN:NE2	27:V:110:GLN:HA	2.13	0.64
1:0:1502:A:H2'	37:0:4448:HOH:O	1.97	0.64
1:0:2282:U:H3'	37:0:6544:HOH:O	1.97	0.64
1:0:2388:C:O2'	1:0:2389:U:H5'	1.98	0.64
1:0:2488:A:H61	1:0:2534:C:H42	1.45	0.64
8:C:246:ARG:NH1	8:C:246:ARG:HB3	2.13	0.64
10:E:49:ILE:HD11	10:E:69:ILE:HD12	1.80	0.64
13:H:5:MET:HG3	37:H:215:HOH:O	1.98	0.64
1:0:746:A:C6	19:N:65:LEU:HD13	2.33	0.64
1:0:1930:A:H2'	1:0:1931:A:C8	2.34	0.63
5:9:23:U:H4'	5:9:24:U:OP2	1.98	0.63
9:D:95:THR:O	9:D:97:GLN:N	2.31	0.63
14:I:17:CYS:HA	14:I:119:THR:O	1.98	0.63
37:0:4149:HOH:O	17:L:86:MET:HE3	1.98	0.63
18:M:139:TRP:HA	18:M:139:TRP:CE3	2.31	0.63
1:0:1044:C:H5''	37:0:5167:HOH:O	1.99	0.63
1:0:766:A:O2'	1:0:767:A:O4'	2.16	0.63
8:C:175:LYS:HD3	8:C:184:ARG:O	1.98	0.63
10:E:69:ILE:HA	10:E:72:MET:HE2	1.80	0.63
13:H:14:TYR:N	13:H:91:HIS:CE1	2.67	0.63
15:J:14:LYS:CB	15:J:45:PRO:HG2	2.23	0.63
17:L:84:LYS:HD3	37:L:302:HOH:O	1.97	0.63
27:V:6:GLN:HB2	27:V:26:ILE:HD12	1.80	0.63
6:A:186:TRP:CG	6:A:187:PRO:HA	2.34	0.63
1:0:2780:C:H1'	10:E:143:GLN:HE21	1.62	0.63
1:0:558:C:H2'	1:0:559:U:C5'	2.29	0.63
37:0:4026:HOH:O	7:B:211:THR:HG23	1.98	0.63
1:0:657:G:OP1	8:C:27:ARG:NH2	2.31	0.63
10:E:93:MET:HE1	10:E:165:GLY:H	1.62	0.63
15:J:34:VAL:HB	37:J:345:HOH:O	1.99	0.63
1:0:2649:A:H5''	1:0:2650:U:OP1	1.99	0.63
13:H:17:ARG:HD3	13:H:23:ILE:HD12	1.81	0.63
13:H:3:GLY:HA2	13:H:57:ARG:HH12	1.62	0.63
17:L:37:VAL:CG1	17:L:108:LYS:HG3	2.26	0.63
22:Q:106:GLY:HA2	22:Q:109:MET:HE3	1.80	0.63
28:W:30:MET:HE1	28:W:55:ASN:HA	1.81	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:X:226:ILE:HA	37:X:428:HOH:O	1.97	0.63
1:0:797:A:C4'	30:Y:10:ARG:N	2.60	0.63
1:0:2462:G:O6	3:2:61:PRO:HG3	1.98	0.63
6:A:179:MET:HG2	6:A:186:TRP:CB	2.27	0.63
6:A:19:PRO:HD3	37:A:401:HOH:O	1.99	0.63
7:B:70:PRO:O	7:B:71:VAL:HG23	1.99	0.63
9:D:99:ASP:HB2	9:D:103:ASN:HB2	1.80	0.63
18:M:180:LEU:O	18:M:181:ASP:HB3	1.96	0.63
1:0:1115:U:H2'	1:0:1116:U:C6	2.34	0.63
1:0:1835:U:C5	1:0:1840:A:N7	2.62	0.63
1:0:2479:A:H3'	37:0:3302:HOH:O	1.98	0.63
1:0:2581:U:O2'	1:0:2601:A:O2'	2.17	0.63
1:0:885:G:H5''	1:0:886:A:H5'	1.80	0.63
7:B:215:VAL:HB	7:B:234:ARG:NH1	2.13	0.63
26:U:39:ALA:N	26:U:40:PRO:CD	2.61	0.63
1:0:1827:G:H2'	1:0:1828:G:C8	2.34	0.63
1:0:619:U:H3'	37:0:5146:HOH:O	1.99	0.63
8:C:78:ARG:HG3	8:C:78:ARG:NH1	2.11	0.63
10:E:81:GLU:HG2	10:E:134:SER:HB3	1.80	0.63
13:H:26:LYS:HG2	13:H:28:ILE:H	1.63	0.63
15:J:75:ARG:HE	15:J:94:ALA:HB3	1.61	0.63
25:T:44:ARG:HB3	37:T:201:HOH:O	1.99	0.63
1:0:2834:G:OP1	28:W:39:LYS:HE2	1.99	0.63
22:Q:44:VAL:HG13	22:Q:89:LEU:CD2	2.28	0.63
23:R:34:LYS:O	23:R:37:VAL:HB	1.99	0.63
26:U:39:ALA:N	26:U:40:PRO:HD2	2.13	0.63
30:Y:49:ARG:HD2	37:Y:201:HOH:O	1.98	0.63
1:0:2837:U:O2'	7:B:307:ARG:NH1	2.31	0.62
11:F:39:SER:HB3	11:F:45:ALA:HB2	1.80	0.62
12:G:12:ILE:HG22	12:G:12:ILE:O	1.99	0.62
1:0:1151:G:HO2'	1:0:1214:G:N2	1.97	0.62
1:0:1242:A:OP2	14:I:60:ARG:NH2	2.29	0.62
1:0:2769:C:H2'	1:0:2770:G:O4'	1.98	0.62
1:0:398:U:H2'	1:0:399:C:C6	2.34	0.62
1:0:858:U:H2'	1:0:859:C:H6	1.64	0.62
1:0:2468:A:H61	3:2:48:ASN:HD21	1.46	0.62
6:A:192:VAL:CG1	6:A:207:GLN:HB3	2.30	0.62
7:B:214:PRO:HD2	37:B:551:HOH:O	1.99	0.62
7:B:199:TYR:CE2	7:B:268:ARG:HB2	2.33	0.62
7:B:56:ASP:OD1	7:B:322:ARG:HB3	1.98	0.62
8:C:107:ARG:NE	37:C:405:HOH:O	2.32	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:G:12:ILE:HA	37:G:408:HOH:O	1.99	0.62
14:I:59:LYS:O	14:I:63:ILE:HG13	2.00	0.62
17:L:104:ARG:O	17:L:108:LYS:HG2	1.99	0.62
22:Q:40:ALA:O	22:Q:44:VAL:HG23	1.99	0.62
23:R:73:ASP:OD1	23:R:75:GLN:HB2	2.00	0.62
1:0:1185:U:H2'	1:0:1186:C:C6	2.33	0.62
1:0:1666:C:C2'	1:0:1667:A:H5'	2.30	0.62
1:0:1946:C:O2'	1:0:1970:G:H1'	1.99	0.62
1:0:2362:A:H2'	1:0:2363:G:C8	2.33	0.62
1:0:2681:A:H4'	1:0:2682:C:O5'	1.98	0.62
5:9:13:A:H3'	5:9:14:G:C5'	2.29	0.62
5:9:41:C:C6	9:D:50:VAL:HG21	2.33	0.62
17:L:108:LYS:HD2	37:L:448:HOH:O	1.99	0.62
17:L:139:PRO:O	17:L:140:ALA:CB	2.46	0.62
21:P:41:LEU:HB3	21:P:52:PHE:CZ	2.33	0.62
1:0:1589:G:H22	1:0:1605:G:C2'	2.13	0.62
1:0:1641:A:C8	1:0:1702:U:O4	2.52	0.62
1:0:1760:G:H5'	1:0:1818:C:O2'	1.99	0.62
6:A:125:ASN:HB3	6:A:158:VAL:HG12	1.80	0.62
11:F:32:GLY:N	37:F:201:HOH:O	2.29	0.62
17:L:164:THR:CG2	17:L:167:GLY:H	2.11	0.62
27:V:48:VAL:O	27:V:52:VAL:HG12	2.00	0.62
1:0:1400:C:H1'	37:0:3870:HOH:O	2.00	0.62
1:0:2119:C:O2'	1:0:2120:U:H5'	2.00	0.62
1:0:2316:G:O2'	1:0:2427:C:N4	2.32	0.62
1:0:2680:A:C4'	1:0:2681:A:OP1	2.44	0.62
23:R:25:GLN:HG2	23:R:65:VAL:HG22	1.81	0.62
27:V:88:THR:HG22	27:V:89:ASP:N	2.14	0.62
28:W:25:ARG:HD3	28:W:64:ALA:O	1.99	0.62
1:0:1053:G:OP1	13:H:12:PRO:HG3	1.99	0.62
1:0:2312:G:C2'	1:0:2313:C:H5'	2.28	0.62
1:0:2106:C:H1'	1:0:2484:U:O2	2.00	0.62
1:0:2850:C:H5''	1:0:2851:G:OP2	1.99	0.62
1:0:449:A:C8	8:C:43:LYS:HG2	2.34	0.62
1:0:934:C:H2'	1:0:935:G:C8	2.34	0.62
9:D:140:ARG:N	37:D:202:HOH:O	2.32	0.62
24:S:48:VAL:CG2	24:S:98:VAL:HA	2.30	0.62
28:W:72:VAL:HG22	28:W:85:VAL:CG1	2.28	0.62
30:Y:18:TYR:HB3	30:Y:22:ILE:HG21	1.80	0.62
1:0:2493:C:H3'	37:0:4049:HOH:O	2.00	0.62
8:C:16:VAL:HG12	8:C:17:ASP:N	2.15	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:J:34:VAL:HG22	15:J:47:ALA:HB2	1.82	0.62
16:K:72:ASN:O	16:K:76:LEU:HG	1.99	0.62
24:S:20:HIS:O	24:S:23:VAL:HG22	2.00	0.62
1:O:2866:U:C5	25:T:50:GLU:HB2	2.35	0.62
1:O:2071:C:H5'	37:O:3854:HOH:O	2.00	0.62
1:O:820:G:H5'	1:O:821:U:H5'	1.81	0.62
7:B:84:LEU:HD23	7:B:142:LEU:HD23	1.81	0.62
37:O:5601:HOH:O	8:C:187:ARG:HD3	1.99	0.62
37:O:4901:HOH:O	17:L:172:GLY:HA2	1.98	0.62
27:V:110:GLN:HE21	27:V:110:GLN:HA	1.63	0.62
1:O:1123:A:C6	1:O:1238:C:H5'	2.35	0.62
1:O:1652:C:H5''	1:O:1653:A:OP2	2.00	0.62
1:O:2820:A:H2'	1:O:2821:C:O4'	2.00	0.62
8:C:1:MET:HG2	8:C:2:GLN:N	2.13	0.62
13:H:35:ASN:ND2	13:H:79:ALA:O	2.32	0.62
22:Q:119:VAL:O	22:Q:119:VAL:HG12	1.99	0.62
27:V:52:VAL:CG2	27:V:53:ALA:N	2.62	0.62
28:W:25:ARG:HD2	37:W:105:HOH:O	2.00	0.62
1:O:2424:U:H4'	21:P:6:PRO:HD2	1.82	0.62
1:O:766:A:H2'	37:O:6602:HOH:O	2.00	0.62
1:O:779:U:H5'	1:O:1836:A:N1	2.15	0.62
1:O:926:A:H1'	16:K:38:HIS:O	1.99	0.62
5:9:57:A:O2'	9:D:152:PRO:HD2	2.00	0.62
6:A:190:ARG:NH1	6:A:190:ARG:HB2	2.14	0.62
8:C:130:GLU:HG2	8:C:168:ARG:HD3	1.82	0.62
13:H:127:GLY:O	13:H:128:ALA:HB3	2.00	0.62
17:L:61:ILE:HA	37:L:338:HOH:O	1.98	0.62
18:M:151:ASP:HB3	37:M:311:HOH:O	2.00	0.62
1:O:115:U:H1'	1:O:131:A:C5	2.35	0.61
6:A:125:ASN:CB	6:A:158:VAL:HG12	2.29	0.61
7:B:258:GLY:H	7:B:260:HIS:CE1	2.17	0.61
16:K:68:GLU:HA	37:K:334:HOH:O	1.99	0.61
29:X:187:VAL:HB	37:X:413:HOH:O	1.98	0.61
1:O:2004:U:H5''	1:O:2005:G:C8	2.34	0.61
1:O:402:U:H2'	1:O:403:C:C6	2.35	0.61
1:O:2718:C:H4'	7:B:48:MET:SD	2.40	0.61
19:N:25:VAL:HG23	19:N:26:TRP:H	1.65	0.61
28:W:15:ARG:HH11	28:W:15:ARG:CB	2.08	0.61
31:Z:22:CYS:SG	31:Z:24:GLU:HB2	2.40	0.61
1:O:938:G:N2	1:O:1031:G:O2'	2.32	0.61
1:O:1209:C:H2'	1:O:1210:G:C8	2.34	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2506:A:H1'	37:0:6106:HOH:O	1.99	0.61
1:0:2714:U:H2'	1:0:2715:G:C8	2.35	0.61
1:0:894:A:H2'	37:0:8622:HOH:O	2.00	0.61
1:0:1878:G:H2'	1:0:1879:U:C6	2.35	0.61
2:1:21:VAL:HG23	2:1:36:ASN:HB2	1.81	0.61
37:0:8606:HOH:O	7:B:18:ARG:HD3	2.00	0.61
8:C:136:VAL:CG2	8:C:137:PRO:HA	2.21	0.61
9:D:97:GLN:O	9:D:97:GLN:HG2	2.00	0.61
1:0:1593:C:O2'	1:0:1594:C:H5'	2.01	0.61
1:0:1831:U:C2'	1:0:1832:G:H5'	2.29	0.61
1:0:1876:C:H4'	1:0:1877:G:OP2	2.01	0.61
1:0:393:G:H5''	37:0:3602:HOH:O	2.01	0.61
5:9:9:C:OP2	5:9:10:C:H5	1.83	0.61
7:B:71:VAL:HG11	7:B:296:LEU:HB3	1.82	0.61
9:D:64:ARG:CD	9:D:67:ASP:HB3	2.30	0.61
11:F:27:GLY:HA3	11:F:101:ALA:O	2.01	0.61
37:0:7543:HOH:O	17:L:174:ARG:HD3	1.99	0.61
20:O:9:LEU:O	20:O:13:VAL:HG12	2.00	0.61
23:R:57:THR:HG22	23:R:58:MET:N	2.15	0.61
26:U:64:GLY:O	26:U:65:ASP:HB2	2.00	0.61
2:1:40:ARG:HG3	2:1:45:ASN:CB	2.30	0.61
7:B:27:ASN:N	7:B:27:ASN:HD22	1.98	0.61
1:0:1299:G:O6	16:K:6:ARG:HD3	2.01	0.61
18:M:23:ARG:HA	18:M:26:LEU:HD23	1.83	0.61
1:0:1148:C:O3'	1:0:1151:G:H5'	2.00	0.61
1:0:1189:A:H1'	1:0:1209:C:C1'	2.31	0.61
1:0:432:G:O2'	1:0:433:C:H5'	2.00	0.61
1:0:1683:G:H4'	37:0:6003:HOH:O	2.00	0.61
10:E:23:GLU:HG2	10:E:28:SER:CB	2.31	0.61
14:I:126:ASN:HA	35:I:202:CL:CL	2.38	0.61
17:L:184:ARG:HB2	17:L:184:ARG:CZ	2.29	0.61
17:L:98:GLN:O	17:L:102:GLU:HG3	2.00	0.61
1:0:1594:C:OP2	20:O:120:ARG:HD2	2.01	0.61
1:0:1066:U:H2'	1:0:1067:A:C8	2.35	0.61
1:0:1370:G:O2'	1:0:1371:U:OP2	2.19	0.61
1:0:544:G:H2'	1:0:545:G:C5'	2.31	0.61
1:0:596:C:H2'	1:0:597:A:H8	1.66	0.61
6:A:200:PRO:HG2	6:A:225:VAL:HG21	1.81	0.61
37:0:6245:HOH:O	7:B:3:PRO:HG2	2.00	0.61
1:0:1105:C:C4'	1:0:1106:A:OP1	2.48	0.61
13:H:83:PHE:HZ	13:H:146:TRP:HE1	1.49	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:X:152:LYS:CB	29:X:160:LYS:HG3	2.31	0.61
1:0:777:U:H1'	31:Z:13:THR:HB	1.83	0.61
1:0:625:U:H5''	1:0:1044:C:N4	2.15	0.60
1:0:1497:G:H4'	1:0:1627:G:O2'	2.01	0.60
1:0:1504:A:O2'	1:0:1506:U:OP2	2.16	0.60
1:0:213:G:N2	1:0:225:G:H2'	2.16	0.60
1:0:2754:G:O2'	1:0:2755:G:H5'	2.01	0.60
8:C:154:VAL:O	8:C:158:GLU:HG3	2.01	0.60
10:E:7:ILE:HD11	10:E:11:VAL:C	2.21	0.60
12:G:67:LEU:O	12:G:71:LEU:HG	2.01	0.60
17:L:83:SER:HB3	37:L:412:HOH:O	2.00	0.60
37:0:5724:HOH:O	29:X:150:LEU:HB2	2.01	0.60
1:0:1118:A:H3'	1:0:1118:A:C8	2.36	0.60
1:0:2134:G:C6	1:0:2258:A:C8	2.89	0.60
1:0:2300:A:H2'	37:0:5869:HOH:O	2.01	0.60
1:0:284:C:H4'	1:0:285:A:OP2	2.01	0.60
7:B:144:THR:HG22	7:B:145:HIS:N	2.16	0.60
37:0:8112:HOH:O	7:B:216:LYS:HE2	2.00	0.60
17:L:155:HIS:ND1	17:L:158:ARG:NE	2.46	0.60
17:L:68:ARG:HB3	37:L:436:HOH:O	2.00	0.60
6:A:72:GLU:CD	30:Y:76:GLY:HA3	2.22	0.60
1:0:1333:U:H2'	1:0:1334:C:H6	1.66	0.60
1:0:1919:A:H4'	37:0:5811:HOH:O	2.01	0.60
1:0:2625:C:H4'	37:0:4858:HOH:O	2.00	0.60
11:F:117:GLU:C	11:F:119:ARG:H	2.03	0.60
17:L:57:LYS:CG	17:L:58:GLN:H	2.14	0.60
1:0:1080:C:H4'	1:0:1081:A:OP1	2.00	0.60
1:0:2811:A:H4'	1:0:2812:A:C5'	2.30	0.60
15:J:74:VAL:CG2	15:J:96:VAL:HG23	2.31	0.60
1:0:2890:A:H1'	25:T:56:ARG:NH2	2.16	0.60
1:0:1087:G:H4'	1:0:1088:A:OP1	2.00	0.60
1:0:1488:U:H4'	1:0:1489:G:OP1	2.00	0.60
5:9:25:G:C3'	5:9:26:C:H5'	2.32	0.60
37:0:6703:HOH:O	17:L:94:LYS:HE3	2.01	0.60
25:T:8:TYR:CD2	25:T:36:CYS:HB3	2.36	0.60
27:V:4:LEU:O	27:V:32:CYS:HA	2.02	0.60
1:0:1448:A:O2'	1:0:1450:C:OP2	2.14	0.60
1:0:1748:U:O2	1:0:2034:U:H1'	2.01	0.60
1:0:2064:U:H2'	1:0:2065:C:C6	2.34	0.60
1:0:2906:A:H5'	1:0:2907:C:O4'	2.01	0.60
1:0:871:G:C5'	1:0:871:G:H8	2.05	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:22:VAL:HG11	3:2:67:LEU:HD13	1.82	0.60
10:E:83:GLY:O	10:E:169:THR:N	2.31	0.60
11:F:63:ILE:HB	11:F:64:PRO:CD	2.28	0.60
17:L:140:ALA:O	17:L:144:ASP:HB2	2.01	0.60
1:0:2072:G:C6	1:0:2533:C:H1'	2.36	0.60
7:B:189:ALA:HB1	37:B:597:HOH:O	2.00	0.60
18:M:139:TRP:HE3	18:M:139:TRP:HA	1.64	0.60
18:M:37:ARG:HG3	18:M:37:ARG:HH11	1.66	0.60
5:9:6:C:C5'	18:M:37:ARG:NH1	2.58	0.60
22:Q:111:ILE:HG23	22:Q:145:LEU:CD1	2.32	0.60
23:R:51:GLN:HE21	23:R:53:ASN:HD21	1.47	0.60
1:0:1132:A:H3'	37:0:3323:HOH:O	2.00	0.60
1:0:2437:A:H2'	1:0:2438:G:C8	2.37	0.60
1:0:86:A:C2	2:1:25:VAL:HG13	2.37	0.60
2:1:40:ARG:HA	2:1:45:ASN:ND2	2.16	0.60
2:1:49:GLU:HB2	37:1:101:HOH:O	2.01	0.60
6:A:8:ARG:NH1	37:A:405:HOH:O	2.35	0.60
8:C:127:ARG:HD3	8:C:129:HIS:CE1	2.36	0.60
9:D:25:MET:CE	9:D:41:LEU:HG	2.31	0.60
25:T:9:CYS:HA	25:T:52:THR:HG23	1.83	0.60
30:Y:37:HIS:HB2	30:Y:47:LEU:CB	2.29	0.60
1:0:1132:A:N6	1:0:1229:C:H2'	2.16	0.60
1:0:2089:A:O2'	1:0:2090:G:H5'	2.01	0.60
1:0:2760:C:H2'	37:0:4326:HOH:O	2.02	0.60
1:0:464:G:O2'	1:0:465:U:OP2	2.19	0.60
1:0:837:U:H5'	1:0:1737:A:OP1	2.01	0.60
1:0:79:G:N2	1:0:97:G:O2'	2.34	0.60
37:0:6187:HOH:O	3:2:79:LEU:HB2	2.02	0.60
4:5:26:THR:O	4:5:30:SER:HB3	2.01	0.60
6:A:27:LEU:HD11	6:A:55:VAL:CG2	2.31	0.60
7:B:30:PRO:HB2	7:B:39:GLN:HE22	1.63	0.60
28:W:79:GLU:HG3	37:W:123:HOH:O	2.02	0.60
1:0:1315:G:O2'	29:X:211:ALA:HB3	2.02	0.60
1:0:1058:A:H2'	1:0:1060:C:H5'	1.84	0.60
1:0:1862:C:H1'	37:0:6635:HOH:O	2.01	0.60
1:0:2361:A:H2'	1:0:2362:A:C8	2.37	0.60
1:0:2505:G:O2'	1:0:2506:A:H5'	2.02	0.60
5:9:42:C:H2'	37:9:366:HOH:O	2.00	0.60
7:B:217:ARG:HG3	7:B:257:THR:CG2	2.31	0.60
14:I:131:THR:HB	14:I:134:GLU:HG3	1.82	0.60
1:0:1877:G:H5''	37:A:503:HOH:O	2.01	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:458:G:N2	1:0:463:A:O2'	2.35	0.59
37:0:4441:HOH:O	3:2:84:ARG:HB3	2.02	0.59
7:B:139:ASP:HB2	7:B:165:ARG:HE	1.67	0.59
13:H:46:VAL:HG12	13:H:146:TRP:HZ3	1.66	0.59
1:0:2064:U:H5'	1:0:2652:U:O3'	2.01	0.59
1:0:290:C:H1'	37:0:4581:HOH:O	2.02	0.59
1:0:631:A:C5	1:0:2074:A:C5'	2.83	0.59
1:0:650:C:O2'	1:0:651:U:H5'	2.02	0.59
5:9:57:A:H2'	5:9:58:G:H5'	1.84	0.59
37:0:3923:HOH:O	7:B:267:LYS:HD3	2.00	0.59
16:K:93:VAL:HG23	16:K:121:ILE:O	2.02	0.59
17:L:9:ARG:HA	37:L:406:HOH:O	2.01	0.59
18:M:43:VAL:HG11	18:M:81:ALA:HA	1.84	0.59
1:0:380:A:H4'	1:0:381:G:OP1	2.00	0.59
1:0:955:A:H2'	1:0:956:G:O4'	2.01	0.59
10:E:20:ILE:CD1	10:E:40:VAL:HG11	2.28	0.59
17:L:114:VAL:HG21	17:L:159:THR:HG21	1.84	0.59
18:M:22:GLN:HG2	18:M:26:LEU:HD22	1.84	0.59
20:O:101:GLN:HE22	20:O:131:PHE:HB2	1.67	0.59
29:X:212:ARG:HB3	37:X:431:HOH:O	2.01	0.59
1:0:637:C:H2'	1:0:638:C:C6	2.36	0.59
16:K:57:VAL:O	16:K:57:VAL:HG12	2.03	0.59
25:T:30:HIS:HB3	37:T:225:HOH:O	2.01	0.59
1:0:797:A:H4'	30:Y:10:ARG:N	2.18	0.59
2:1:49:GLU:H	31:Z:25:LYS:HD2	1.67	0.59
1:0:1426:C:H2'	37:0:6552:HOH:O	2.01	0.59
1:0:1795:G:H2'	1:0:1796:A:O4'	2.01	0.59
1:0:2747:C:H4'	1:0:2748:G:O5'	2.01	0.59
1:0:2748:G:H3'	37:0:4688:HOH:O	2.01	0.59
1:0:2857:C:H2'	1:0:2858:U:C6	2.37	0.59
6:A:192:VAL:HG12	6:A:207:GLN:HB3	1.83	0.59
14:I:36:VAL:HG12	14:I:37:ALA:N	2.16	0.59
20:O:143:ALA:HA	37:O:241:HOH:O	2.03	0.59
1:0:2813:A:H2'	37:0:6389:HOH:O	2.02	0.59
1:0:706:G:HO2'	1:0:707:C:H6	1.49	0.59
37:0:3502:HOH:O	17:L:52:LEU:HD23	2.02	0.59
26:U:29:ASN:O	26:U:33:VAL:HG23	2.02	0.59
28:W:20:GLU:CG	28:W:21:PRO:HD2	2.33	0.59
1:0:17:G:H2'	1:0:18:C:C6	2.37	0.59
1:0:2117:U:OP2	1:0:2271:G:N2	2.34	0.59
1:0:2758:G:H2'	1:0:2759:C:C6	2.38	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:5:39:VAL:C	4:5:40:ARG:HD3	2.23	0.59
7:B:307:ARG:CB	7:B:307:ARG:HH11	2.14	0.59
7:B:85:ARG:NH1	37:B:506:HOH:O	2.35	0.59
24:S:48:VAL:HG23	24:S:98:VAL:HA	1.85	0.59
1:0:131:A:OP2	1:0:141:C:H5	1.84	0.59
1:0:724:G:O2'	1:0:725:C:H5'	2.03	0.59
3:2:34:LYS:HD3	37:2:208:HOH:O	2.01	0.59
13:H:24:PRO:HG2	13:H:119:VAL:O	2.02	0.59
13:H:82:LYS:HB2	13:H:82:LYS:NZ	2.18	0.59
20:O:83:LYS:HG3	20:O:84:ALA:H	1.68	0.59
1:0:2320:U:H5''	1:0:2321:A:O5'	2.02	0.59
1:0:247:A:H2'	1:0:262:A:N6	2.17	0.59
8:C:140:VAL:N	37:C:406:HOH:O	2.34	0.59
9:D:88:LEU:HB2	9:D:89:PRO:HD3	1.84	0.59
13:H:41:THR:HA	37:H:203:HOH:O	2.01	0.59
1:0:771:G:OP2	17:L:79:LYS:HG3	2.03	0.59
18:M:86:LEU:HD12	18:M:125:ALA:HB2	1.85	0.59
1:0:1967:U:O2'	1:0:1968:A:H8	1.83	0.59
1:0:2426:G:H1'	37:0:3872:HOH:O	2.01	0.59
1:0:558:C:C2'	1:0:559:U:H5''	2.33	0.59
1:0:338:C:H4'	8:C:174:ILE:CD1	2.33	0.59
9:D:25:MET:SD	9:D:40:ILE:HD11	2.42	0.59
15:J:14:LYS:HG3	15:J:32:ILE:O	2.03	0.59
1:0:189:A:OP1	17:L:171:ARG:NH2	2.36	0.59
24:S:32:ARG:NH1	24:S:38:ARG:HH12	2.01	0.59
1:0:1118:A:H3'	1:0:1118:A:H8	1.67	0.58
1:0:1946:C:H2'	1:0:1971:G:C8	2.38	0.58
1:0:2275:G:H3'	37:0:6411:HOH:O	2.01	0.58
1:0:2325:C:H2'	1:0:2326:U:C6	2.37	0.58
1:0:366:U:H2'	1:0:367:G:O4'	2.03	0.58
1:0:821:U:H3'	37:0:3786:HOH:O	2.02	0.58
13:H:62:GLU:HA	37:H:209:HOH:O	2.03	0.58
18:M:87:LEU:CD1	18:M:186:LEU:HD21	2.33	0.58
22:Q:76:ASP:HA	37:Q:334:HOH:O	2.03	0.58
29:X:106:THR:HG23	29:X:107:PRO:HD2	1.84	0.58
30:Y:29:VAL:O	30:Y:33:HIS:HB2	2.03	0.58
31:Z:28:HIS:CD2	31:Z:31:LYS:HG3	2.38	0.58
1:0:1369:A:H5'	37:0:5290:HOH:O	2.03	0.58
1:0:1563:G:O2'	1:0:1564:C:O5'	2.21	0.58
1:0:1689:A:P	1:0:1689:A:H8	2.26	0.58
1:0:2251:G:H2'	1:0:2252:A:C8	2.37	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2674:G:H2'	1:0:2810:G:H22	1.68	0.58
3:2:22:VAL:CG1	3:2:67:LEU:HD13	2.33	0.58
5:9:24:U:O2'	5:9:25:G:C4'	2.49	0.58
5:9:96:C:H2'	5:9:97:U:C6	2.37	0.58
9:D:23:VAL:HG21	9:D:45:THR:HG21	1.83	0.58
37:0:5943:HOH:O	24:S:2:LYS:HB3	2.02	0.58
24:S:27:LEU:HD21	24:S:40:VAL:CG1	2.33	0.58
26:U:8:ILE:HG21	26:U:59:ILE:HG13	1.84	0.58
1:0:1187:U:O2'	1:0:1189:A:H2	1.86	0.58
1:0:1316:G:H1'	1:0:1341:A:H62	1.67	0.58
1:0:221:G:H2'	1:0:222:A:C8	2.38	0.58
1:0:1329:A:N1	35:0:3122:CL:CL	2.73	0.58
1:0:638:C:H2'	1:0:639:A:C8	2.38	0.58
1:0:895:A:H4'	37:0:4383:HOH:O	2.04	0.58
6:A:66:ARG:HH11	6:A:66:ARG:HB2	1.67	0.58
7:B:212:GLN:HB2	7:B:257:THR:HG21	1.86	0.58
1:0:30:U:OP2	8:C:181:ALA:HB2	2.02	0.58
17:L:133:LEU:O	17:L:134:ILE:HD13	2.03	0.58
21:P:86:VAL:HG11	21:P:91:LEU:HD21	1.86	0.58
26:U:1:THR:HG23	26:U:2:VAL:N	2.12	0.58
1:0:1446:U:H4'	1:0:1447:U:OP2	2.03	0.58
1:0:1666:C:H2'	1:0:1667:A:H5'	1.86	0.58
1:0:2118:A:H1'	37:0:3820:HOH:O	2.02	0.58
1:0:2620:U:H4'	1:0:2621:U:OP1	2.03	0.58
1:0:2721:U:H4'	15:J:87:ARG:HG3	1.84	0.58
1:0:2811:A:O2'	1:0:2812:A:H5'	2.03	0.58
37:0:4441:HOH:O	3:2:62:THR:HB	2.03	0.58
18:M:20:TYR:N	37:M:304:HOH:O	2.36	0.58
20:O:7:LYS:HD3	20:O:23:PHE:CZ	2.37	0.58
1:0:1097:A:H2'	1:0:1098:A:C8	2.38	0.58
1:0:2445:U:H2'	1:0:2446:G:H8	1.67	0.58
1:0:660:A:C4'	1:0:661:G:O5'	2.41	0.58
6:A:42:VAL:HG23	6:A:78:ASP:O	2.04	0.58
10:E:125:GLU:O	10:E:132:THR:HG22	2.03	0.58
15:J:41:LYS:HG2	15:J:42:ASN:ND2	2.18	0.58
1:0:247:A:H2'	1:0:262:A:H61	1.68	0.58
1:0:2780:C:H2'	1:0:2781:U:C6	2.38	0.58
6:A:13:THR:HA	37:A:483:HOH:O	2.04	0.58
1:0:262:A:HO2'	11:F:32:GLY:HA2	1.67	0.58
27:V:31:HIS:HB3	37:V:235:HOH:O	2.02	0.58
1:0:1249:U:H2'	1:0:1250:C:H6	1.67	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1328:A:C8	29:X:169:ARG:HD3	2.39	0.58
1:0:1406:A:H2'	1:0:1701:A:H61	1.68	0.58
1:0:2271:G:H5''	1:0:2272:G:OP1	2.03	0.58
1:0:2445:U:H2'	1:0:2446:G:C8	2.38	0.58
1:0:263:U:H4'	1:0:264:G:OP2	2.04	0.58
1:0:37:A:H2'	1:0:38:G:C8	2.38	0.58
1:0:775:G:HO2'	1:0:881:C:H5	1.51	0.58
2:1:41:HIS:H	2:1:45:ASN:ND2	1.99	0.58
37:0:4079:HOH:O	6:A:22:ARG:HD3	2.04	0.58
7:B:11:LEU:HD21	7:B:250:THR:HG22	1.85	0.58
13:H:163:PRO:HG2	37:H:266:HOH:O	2.04	0.58
37:0:3289:HOH:O	17:L:82:ARG:HD2	2.02	0.58
18:M:78:MET:HB2	18:M:79:PRO:HD3	1.86	0.58
28:W:43:VAL:HG12	28:W:44:ASP:N	2.19	0.58
1:0:1080:C:H5'	37:0:6316:HOH:O	2.02	0.58
37:0:4773:HOH:O	7:B:206:THR:HB	2.02	0.58
10:E:116:THR:HG22	10:E:151:LEU:HD22	1.85	0.58
11:F:48:VAL:HG12	11:F:97:ALA:CB	2.33	0.58
16:K:117:GLU:HG3	37:K:363:HOH:O	2.02	0.58
29:X:189:ASN:CA	29:X:217:ILE:HD11	2.33	0.58
1:0:1701:A:C4'	1:0:1702:U:O5'	2.51	0.58
1:0:2043:U:O2'	1:0:2044:G:H5'	2.04	0.58
1:0:523:C:H2'	1:0:524:A:C8	2.39	0.58
1:0:833:G:H4'	37:0:5383:HOH:O	2.02	0.58
7:B:102:THR:HG21	37:B:566:HOH:O	2.02	0.58
8:C:162:VAL:HG12	8:C:192:ILE:HD11	1.86	0.58
13:H:65:ARG:HB3	37:H:209:HOH:O	2.03	0.58
1:0:221:G:O5'	16:K:46:LEU:HD22	2.04	0.58
18:M:67:ALA:HA	18:M:71:TRP:CB	2.32	0.58
19:N:42:GLU:N	37:N:301:HOH:O	2.32	0.58
1:0:1689:A:N6	22:Q:131:GLY:HA2	2.19	0.58
1:0:2354:A:H2'	1:0:2354:A:N3	2.18	0.58
1:0:2526:C:H5'	1:0:2526:C:H6	1.68	0.58
1:0:25:A:O2'	1:0:26:U:H5'	2.04	0.58
1:0:2712:G:H5'	37:J:301:HOH:O	2.04	0.58
1:0:368:C:H6	1:0:368:C:O5'	1.87	0.58
1:0:408:A:H2'	1:0:409:U:O4'	2.04	0.58
1:0:544:G:C2'	1:0:545:G:H5''	2.33	0.58
1:0:710:G:O2'	1:0:711:G:H5'	2.04	0.58
7:B:268:ARG:HH12	7:B:322:ARG:NH2	2.02	0.58
10:E:84:MET:HG2	10:E:168:ILE:HD13	1.86	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:J:41:LYS:N	37:J:303:HOH:O	2.36	0.58
17:L:55:LYS:HB2	17:L:60:ILE:CD1	2.34	0.58
18:M:47:LEU:HD11	18:M:127:LEU:HD21	1.85	0.58
1:0:1023:C:O2'	1:0:1024:G:H5'	2.05	0.57
1:0:1235:G:H5''	1:0:1236:A:OP1	2.04	0.57
1:0:1117:A:N1	1:0:1244:U:H2'	2.18	0.57
1:0:213:G:O2'	1:0:214:U:OP2	2.22	0.57
1:0:868:G:H4'	1:0:869:G:O5'	2.03	0.57
2:1:42:TRP:CH2	2:1:43:ARG:HD2	2.39	0.57
5:9:43:G:O2'	5:9:44:A:OP2	2.19	0.57
7:B:132:HIS:HB2	7:B:137:LEU:HD22	1.86	0.57
7:B:51:VAL:HG13	7:B:53:LEU:HD13	1.86	0.57
9:D:86:THR:C	9:D:89:PRO:HD2	2.25	0.57
29:X:116:LEU:HD12	29:X:173:ALA:HB3	1.85	0.57
7:B:51:VAL:CG2	7:B:330:VAL:HG22	2.32	0.57
7:B:329:TYR:CE2	25:T:15:PRO:HG2	2.39	0.57
1:0:1342:C:H2'	1:0:1343:C:H5'	1.85	0.57
1:0:542:A:H5'	1:0:542:A:C8	2.37	0.57
37:0:6240:HOH:O	3:2:42:ARG:HD2	2.03	0.57
5:9:22:G:O2'	5:9:24:U:H5'	2.04	0.57
10:E:81:GLU:HA	10:E:133:VAL:O	2.03	0.57
13:H:3:GLY:HA2	13:H:57:ARG:NH1	2.19	0.57
29:X:185:VAL:HG12	37:X:413:HOH:O	2.03	0.57
1:0:1315:G:H2'	29:X:212:ARG:HB2	1.85	0.57
1:0:1351:G:H4'	1:0:1352:A:OP1	2.04	0.57
1:0:1657:A:H2'	1:0:1658:A:C8	2.39	0.57
1:0:2321:A:C4'	1:0:2322:U:OP1	2.53	0.57
1:0:2326:U:H4'	1:0:2412:G:H4'	1.85	0.57
1:0:699:C:C2	1:0:744:G:C2	2.91	0.57
1:0:876:A:C2'	1:0:877:G:H5'	2.34	0.57
3:2:65:THR:CG2	3:2:67:LEU:HG	2.33	0.57
9:D:23:VAL:O	9:D:23:VAL:HG23	2.05	0.57
37:0:4583:HOH:O	14:I:47:THR:HG21	2.03	0.57
17:L:74:ARG:NH1	17:L:74:ARG:HG3	2.19	0.57
24:S:43:ASN:C	24:S:45:GLY:H	2.07	0.57
26:U:12:THR:HG23	26:U:14:ALA:H	1.68	0.57
1:0:1408:U:H4'	1:0:1409:G:OP1	2.04	0.57
1:0:2387:U:H2'	1:0:2388:C:C6	2.39	0.57
1:0:2900:G:H2'	1:0:2901:C:O4'	2.04	0.57
1:0:821:U:H5''	37:0:3533:HOH:O	2.03	0.57
1:0:844:A:H2'	37:0:5217:HOH:O	2.02	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:898:G:H5''	1:0:899:C:OP2	2.04	0.57
2:1:40:ARG:HG3	2:1:45:ASN:HB2	1.86	0.57
5:9:29:C:C2'	5:9:30:C:H5'	2.29	0.57
13:H:130:HIS:CD2	13:H:133:ILE:HD11	2.39	0.57
16:K:7:GLN:HB3	16:K:13:HIS:ND1	2.19	0.57
17:L:24:MET:HE1	17:L:120:VAL:O	2.03	0.57
17:L:37:VAL:HG11	17:L:108:LYS:CG	2.32	0.57
1:0:157:G:H4'	17:L:95:LYS:CE	2.33	0.57
19:N:12:ALA:O	19:N:15:LYS:HB2	2.04	0.57
1:0:1522:A:H2'	1:0:1523:G:H5'	1.87	0.57
1:0:1579:C:O2'	1:0:1580:A:N7	2.37	0.57
1:0:262:A:H5''	1:0:264:G:O4'	2.05	0.57
1:0:2679:G:O3'	1:0:2680:A:H3'	2.04	0.57
1:0:2878:U:H2'	1:0:2879:A:O4'	2.05	0.57
1:0:2910:A:H5''	37:0:5076:HOH:O	2.05	0.57
6:A:211:LYS:HB3	6:A:212:PRO:CD	2.30	0.57
1:0:675:U:H4'	8:C:42:ARG:HB3	1.86	0.57
27:V:21:LEU:HD21	27:V:48:VAL:CG1	2.34	0.57
27:V:79:VAL:HG13	27:V:83:TRP:CE3	2.40	0.57
1:0:1972:U:H2'	1:0:1973:A:H5'	1.87	0.57
1:0:2033:G:H5''	1:0:2034:U:OP1	2.05	0.57
1:0:2584:G:H4'	37:0:5279:HOH:O	2.03	0.57
1:0:604:G:H5'	1:0:605:C:OP1	2.04	0.57
1:0:1684:A:O2'	2:1:43:ARG:NH2	2.38	0.57
1:0:2091:G:O3'	7:B:235:ARG:HD3	2.04	0.57
7:B:320:GLN:HG3	7:B:321:PRO:HD2	1.86	0.57
28:W:49:ARG:HG2	28:W:84:ILE:HG23	1.85	0.57
1:0:1060:C:H5''	37:0:4898:HOH:O	2.03	0.57
1:0:1242:A:H5'	14:I:82:THR:CG2	2.27	0.57
1:0:1417:G:O2'	1:0:1418:U:C6	2.53	0.57
6:A:123:GLY:HA2	6:A:159:VAL:O	2.04	0.57
1:0:1306:U:H5''	8:C:184:ARG:HD3	1.87	0.57
10:E:16:ASP:O	10:E:17:HIS:HB2	2.04	0.57
13:H:166:ASN:HD22	13:H:166:ASN:N	2.03	0.57
14:I:42:GLU:O	14:I:131:THR:HG23	2.05	0.57
17:L:74:ARG:HG3	17:L:74:ARG:HH11	1.69	0.57
17:L:76:ARG:HA	37:L:329:HOH:O	2.04	0.57
18:M:23:ARG:O	18:M:26:LEU:HB2	2.04	0.57
22:Q:18:LEU:HB2	22:Q:143:VAL:CG1	2.33	0.57
22:Q:40:ALA:O	22:Q:43:ALA:HB3	2.04	0.57
1:0:1305:C:H5'	37:0:6640:HOH:O	2.04	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1392:A:HO2'	1:0:1394:C:P	2.28	0.57
1:0:2083:A:H3'	37:0:3964:HOH:O	2.04	0.57
1:0:2782:G:O6	1:0:2790:C:H5''	2.04	0.57
1:0:596:C:H2'	1:0:597:A:C8	2.39	0.57
6:A:184:THR:N	37:A:408:HOH:O	2.37	0.57
7:B:280:VAL:HG23	7:B:284:PHE:CZ	2.39	0.57
8:C:236:THR:H	8:C:239:ALA:HB3	1.68	0.57
9:D:140:ARG:HG3	9:D:140:ARG:HH11	1.69	0.57
15:J:49:LEU:HD21	15:J:74:VAL:O	2.04	0.57
17:L:46:LEU:O	17:L:49:ALA:N	2.38	0.57
37:0:4155:HOH:O	24:S:82:THR:HA	2.04	0.57
27:V:122:ARG:HH11	27:V:122:ARG:CG	2.17	0.57
1:0:1193:A:O2'	1:0:1194:A:N7	2.38	0.57
1:0:1488:U:H5''	1:0:1489:G:OP1	2.05	0.57
1:0:1641:A:C2'	1:0:1642:A:H5'	2.35	0.57
1:0:2065:C:O2'	1:0:2066:C:H5'	2.05	0.57
1:0:2503:A:O2'	1:0:2504:A:H8	1.86	0.57
8:C:138:VAL:O	8:C:234:VAL:HA	2.05	0.57
16:K:10:SER:O	16:K:12:THR:N	2.38	0.57
5:9:114:G:O6	18:M:11:ARG:HD3	2.03	0.57
1:0:1407:A:HO2'	1:0:1408:U:H3'	1.70	0.56
1:0:1634:G:H3'	37:0:7433:HOH:O	2.05	0.56
1:0:2237:G:O2'	1:0:2238:A:O4'	2.23	0.56
1:0:2624:A:O2'	1:0:2625:C:H5'	2.04	0.56
1:0:2851:G:H2'	1:0:2902:A:H61	1.68	0.56
1:0:675:U:C2'	1:0:676:C:H5'	2.35	0.56
4:5:37:LYS:O	4:5:38:LYS:HD3	2.05	0.56
6:A:162:GLY:O	30:Y:68:CYS:HB2	2.05	0.56
7:B:7:ARG:HG2	7:B:7:ARG:NH1	2.18	0.56
9:D:65:GLU:HG3	37:D:219:HOH:O	2.03	0.56
1:0:656:G:OP2	19:N:37:ARG:HD2	2.05	0.56
24:S:9:LYS:HE3	24:S:13:ARG:NH1	2.20	0.56
27:V:129:LYS:HB2	37:V:244:HOH:O	2.04	0.56
31:Z:25:LYS:O	31:Z:25:LYS:HG2	2.05	0.56
31:Z:37:CYS:SG	31:Z:39:PHE:HB2	2.45	0.56
1:0:1379:A:H1'	1:0:1408:U:O4	2.06	0.56
1:0:1392:A:O2'	1:0:1394:C:P	2.63	0.56
1:0:192:A:H4'	17:L:176:GLN:NE2	2.20	0.56
1:0:195:C:H2'	1:0:196:G:H5'	1.87	0.56
1:0:2325:C:H1'	37:0:4935:HOH:O	2.04	0.56
1:0:1378:G:H1'	1:0:2747:C:N4	2.21	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2852:A:H5''	1:0:2853:U:OP1	2.05	0.56
1:0:821:U:O2'	1:0:822:C:H5'	2.04	0.56
1:0:960:G:N3	1:0:960:G:H2'	2.19	0.56
7:B:128:ILE:O	7:B:131:ALA:HB3	2.05	0.56
7:B:251:VAL:HG13	37:B:535:HOH:O	2.05	0.56
7:B:264:GLU:HG2	7:B:267:LYS:CE	2.29	0.56
18:M:67:ALA:CA	18:M:71:TRP:HB3	2.36	0.56
22:Q:106:GLY:HA2	22:Q:109:MET:CE	2.35	0.56
30:Y:32:LYS:HA	30:Y:35:LYS:CD	2.35	0.56
1:0:1460:G:H1'	37:0:3267:HOH:O	2.06	0.56
1:0:1819:G:H2'	1:0:1820:G:C4'	2.32	0.56
1:0:1829:A:N6	30:Y:18:TYR:H	2.02	0.56
1:0:2124:G:H2'	1:0:2125:G:C8	2.41	0.56
1:0:461:C:H3'	37:0:6241:HOH:O	2.05	0.56
8:C:127:ARG:HH22	8:C:225:PRO:HG2	1.63	0.56
9:D:84:LEU:C	9:D:86:THR:H	2.08	0.56
10:E:108:LEU:HD11	10:E:164:ASP:HB2	1.87	0.56
14:I:107:ASN:ND2	14:I:109:TYR:H	2.03	0.56
17:L:30:GLU:O	17:L:34:GLU:HG3	2.05	0.56
26:U:27:LEU:CA	26:U:49:LEU:HD13	2.34	0.56
27:V:84:VAL:HG12	37:V:203:HOH:O	2.06	0.56
1:0:1477:C:O2'	1:0:1478:U:H5'	2.03	0.56
1:0:755:G:O2'	1:0:756:A:H5'	2.06	0.56
5:9:9:C:OP2	5:9:10:C:C5	2.58	0.56
7:B:223:ARG:HG3	7:B:232:TRP:O	2.05	0.56
12:G:12:ILE:N	12:G:13:PRO:CD	2.68	0.56
17:L:111:ASN:HB2	37:L:364:HOH:O	2.05	0.56
18:M:37:ARG:HH21	18:M:105:GLY:HA3	1.68	0.56
18:M:49:THR:CG2	18:M:56:ASP:HB2	2.34	0.56
21:P:50:GLY:HA3	21:P:87:THR:OG1	2.05	0.56
29:X:170:SER:OG	29:X:175:ARG:HG3	2.05	0.56
1:0:1634:G:H2'	1:0:1635:U:C6	2.40	0.56
1:0:2711:U:H6	1:0:2711:U:O5'	1.88	0.56
1:0:473:A:O2'	1:0:890:C:H5'	2.06	0.56
5:9:92:G:C6	5:9:93:A:C6	2.93	0.56
7:B:215:VAL:HG22	7:B:220:VAL:O	2.06	0.56
19:N:105:ASN:ND2	19:N:109:SER:H	2.04	0.56
37:0:7636:HOH:O	30:Y:31:ILE:HG13	2.04	0.56
1:0:1172:G:H1'	37:0:6554:HOH:O	2.05	0.56
1:0:45:A:H61	1:0:147:G:H2'	1.70	0.56
1:0:169:A:O2'	3:2:48:ASN:HB3	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1890:U:H1'	1:0:2013:G:N2	2.20	0.56
6:A:230:SER:HB2	6:A:232:ARG:O	2.05	0.56
37:0:3814:HOH:O	13:H:151:MET:HE2	2.05	0.56
17:L:115:LEU:HD23	17:L:150:ILE:CD1	2.29	0.56
17:L:61:ILE:N	17:L:61:ILE:HD12	2.21	0.56
18:M:71:TRP:CE3	18:M:175:LEU:HD22	2.40	0.56
20:O:7:LYS:HD2	20:O:21:VAL:HG21	1.87	0.56
29:X:235:GLU:CD	29:X:235:GLU:N	2.56	0.56
1:0:1073:A:H1'	1:0:1088:A:C2	2.41	0.56
1:0:1333:U:H2'	1:0:1334:C:C6	2.40	0.56
1:0:2065:C:H4'	37:0:4539:HOH:O	2.05	0.56
1:0:2493:C:H1'	1:0:2494:G:N7	2.21	0.56
1:0:2722:G:O2'	1:0:2723:G:H5'	2.05	0.56
1:0:2908:A:H2'	1:0:2909:G:O4'	2.05	0.56
6:A:68:ILE:HD11	37:A:406:HOH:O	2.06	0.56
11:F:101:ALA:HA	37:F:207:HOH:O	2.04	0.56
17:L:65:VAL:HG21	17:L:105:ALA:HB2	1.86	0.56
37:C:461:HOH:O	19:N:3:THR:HG21	2.04	0.56
31:Z:22:CYS:HB2	37:Z:228:HOH:O	2.05	0.56
1:0:1681:G:H4'	1:0:1682:A:N3	2.21	0.56
1:0:1842:A:H2'	37:0:6895:HOH:O	2.05	0.56
1:0:2890:A:H2'	37:0:7465:HOH:O	2.04	0.56
1:0:604:G:H4'	1:0:605:C:O5'	2.05	0.56
3:2:46:ILE:HD13	17:L:87:MET:CG	2.35	0.56
11:F:34:ASN:HA	17:L:4:ALA:CB	2.33	0.56
18:M:91:ARG:HG3	18:M:186:LEU:HD23	1.87	0.56
27:V:21:LEU:CD2	27:V:26:ILE:HD11	2.22	0.56
27:V:38:THR:O	27:V:42:ARG:HB2	2.06	0.56
1:0:1882:C:OP1	6:A:192:VAL:HG23	2.06	0.56
1:0:2638:G:H5'	37:0:8371:HOH:O	2.05	0.56
1:0:371:U:H2'	1:0:372:A:C8	2.41	0.56
2:1:48:ASP:O	2:1:49:GLU:HB2	2.05	0.56
1:0:169:A:HO2'	3:2:48:ASN:HB3	1.71	0.56
6:A:84:VAL:HG13	6:A:98:GLU:HG3	1.88	0.56
7:B:305:ASP:O	7:B:306:LYS:CB	2.54	0.56
8:C:2:GLN:HB3	37:C:451:HOH:O	2.04	0.56
9:D:105:SER:HB2	9:D:131:THR:HG23	1.88	0.56
20:O:10:ALA:CA	20:O:13:VAL:HG12	2.35	0.56
24:S:47:THR:HG22	24:S:99:THR:OG1	2.06	0.56
26:U:4:HIS:HB3	37:U:107:HOH:O	2.05	0.56
1:0:170:U:H2'	1:0:171:C:H5'	1.88	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2781:U:H2'	1:0:2782:G:H5'	1.88	0.56
1:0:2837:U:H2'	37:0:7905:HOH:O	2.06	0.56
1:0:2849:U:O4	1:0:2906:A:H5''	2.06	0.56
1:0:357:A:H5''	1:0:358:G:OP1	2.06	0.56
1:0:558:C:H2'	1:0:559:U:H5''	1.87	0.56
7:B:86:ALA:O	7:B:97:LEU:N	2.36	0.56
8:C:133:ARG:HG3	8:C:133:ARG:HH11	1.71	0.56
10:E:104:ILE:HD12	10:E:151:LEU:HD23	1.88	0.56
1:0:1150:A:C2	12:G:20:VAL:HG21	2.40	0.56
15:J:81:ARG:HD3	15:J:87:ARG:NH1	2.20	0.56
18:M:48:VAL:HG11	18:M:55:ASP:HB3	1.88	0.56
1:0:1015:C:H2'	1:0:1016:U:H6	1.71	0.56
1:0:1032:A:N3	1:0:1032:A:H2'	2.21	0.56
1:0:1086:A:C6	27:V:11:VAL:HG11	2.40	0.56
1:0:1418:U:H2'	37:0:5165:HOH:O	2.06	0.56
1:0:1467:C:O2'	1:0:1468:G:H5'	2.06	0.56
1:0:2039:A:H4'	1:0:2760:C:O2'	2.06	0.56
1:0:902:G:N7	16:K:18:HIS:HD2	2.04	0.56
1:0:2101:A:H5''	8:C:63:SER:HB3	1.88	0.56
13:H:73:GLN:OE1	13:H:73:GLN:HA	2.06	0.56
16:K:143:THR:CG2	16:K:144:ASP:N	2.69	0.56
18:M:47:LEU:HD12	18:M:92:ALA:CB	2.35	0.56
19:N:25:VAL:CG2	19:N:26:TRP:N	2.69	0.56
37:K:320:HOH:O	29:X:147:ARG:HG3	2.04	0.56
1:0:2320:U:H4'	1:0:2321:A:O4'	2.07	0.55
1:0:2791:U:H4'	1:0:2792:A:O5'	2.05	0.55
1:0:2812:A:H2	1:0:2814:A:H62	1.53	0.55
1:0:31:C:H4'	37:0:6207:HOH:O	2.06	0.55
6:A:153:ARG:NH1	6:A:153:ARG:HB2	2.18	0.55
6:A:97:ALA:HA	6:A:131:HIS:HE2	1.71	0.55
7:B:168:GLY:N	7:B:174:ARG:HD3	2.20	0.55
1:0:675:U:C4'	8:C:42:ARG:HB3	2.35	0.55
11:F:4:VAL:HG13	11:F:76:PHE:CE1	2.42	0.55
13:H:46:VAL:HA	13:H:161:SER:HA	1.87	0.55
37:0:3633:HOH:O	14:I:47:THR:HB	2.06	0.55
17:L:37:VAL:CB	17:L:108:LYS:HG3	2.36	0.55
18:M:37:ARG:NH2	18:M:105:GLY:CA	2.64	0.55
18:M:47:LEU:HD12	18:M:92:ALA:HB1	1.88	0.55
23:R:24:LEU:HD21	23:R:74:ALA:HB1	1.88	0.55
37:0:7671:HOH:O	23:R:55:GLN:HG3	2.05	0.55
28:W:78:GLU:HG2	28:W:79:GLU:N	2.19	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1773:G:H4'	37:0:3817:HOH:O	2.07	0.55
9:D:163:VAL:HA	37:D:226:HOH:O	2.06	0.55
16:K:125:PHE:CZ	16:K:140:VAL:HG13	2.41	0.55
16:K:145:LEU:HB2	37:K:375:HOH:O	2.07	0.55
24:S:71:VAL:HG11	24:S:90:PRO:CB	2.33	0.55
27:V:3:ALA:O	27:V:54:PHE:HA	2.07	0.55
1:0:1625:U:H4'	37:0:3604:HOH:O	2.05	0.55
1:0:2842:G:H2'	1:0:2843:A:H5'	1.88	0.55
1:0:934:C:H2'	1:0:935:G:H8	1.69	0.55
8:C:219:ASN:HB2	37:C:440:HOH:O	2.06	0.55
9:D:37:ALA:O	9:D:40:ILE:HG12	2.06	0.55
9:D:99:ASP:CB	9:D:103:ASN:HB2	2.37	0.55
1:0:1201:C:H5''	37:0:3924:HOH:O	2.05	0.55
1:0:1342:C:H2'	1:0:1343:C:C5'	2.37	0.55
1:0:1833:U:O2'	1:0:1834:C:H5'	2.06	0.55
1:0:2290:U:H4'	1:0:2291:A:OP1	2.06	0.55
1:0:830:G:H2'	1:0:831:U:O4'	2.06	0.55
7:B:175:LEU:O	7:B:175:LEU:HD23	2.07	0.55
7:B:304:PRO:CG	7:B:307:ARG:NH1	2.70	0.55
9:D:94:ALA:O	9:D:95:THR:O	2.24	0.55
11:F:46:GLU:N	37:F:202:HOH:O	2.40	0.55
16:K:113:GLN:HA	37:K:356:HOH:O	2.06	0.55
18:M:33:ARG:HG3	37:M:325:HOH:O	2.05	0.55
27:V:20:THR:O	27:V:23:MET:N	2.39	0.55
1:0:1127:C:C5	1:0:1128:U:C5	2.94	0.55
1:0:1189:A:H3'	37:0:3297:HOH:O	2.06	0.55
1:0:1837:G:H2'	37:0:7630:HOH:O	2.06	0.55
1:0:371:U:H2'	1:0:372:A:H8	1.71	0.55
1:0:37:A:H2'	1:0:38:G:H8	1.72	0.55
1:0:470:U:H2'	1:0:471:G:O4'	2.07	0.55
1:0:790:A:H4'	1:0:1710:A:N7	2.22	0.55
1:0:87:C:H5''	1:0:88:G:OP2	2.07	0.55
3:2:18:GLN:O	3:2:20:HIS:ND1	2.38	0.55
7:B:205:VAL:O	7:B:307:ARG:NE	2.39	0.55
11:F:78:GLU:HB3	37:F:230:HOH:O	2.06	0.55
14:I:45:VAL:HG23	14:I:130:VAL:O	2.06	0.55
16:K:36:ASP:HB2	37:K:386:HOH:O	2.07	0.55
17:L:139:PRO:O	17:L:140:ALA:HB3	2.05	0.55
22:Q:145:LEU:HD12	22:Q:146:ILE:H	1.71	0.55
24:S:40:VAL:HG22	24:S:41:ARG:N	2.22	0.55
1:0:1340:G:H2'	37:0:6445:HOH:O	2.07	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2460:A:O2'	1:0:2461:U:O5'	2.24	0.55
1:0:694:A:H2'	1:0:695:C:H5'	1.88	0.55
10:E:166:VAL:HG12	37:E:225:HOH:O	2.06	0.55
13:H:17:ARG:HD3	13:H:23:ILE:CD1	2.36	0.55
14:I:44:ALA:HB3	14:I:132:LEU:HG	1.89	0.55
15:J:76:GLN:HB2	37:J:330:HOH:O	2.06	0.55
1:0:392:U:C5'	17:L:193:LYS:HB3	2.36	0.55
23:R:83:VAL:HG12	23:R:84:PHE:N	2.21	0.55
25:T:52:THR:HA	37:T:206:HOH:O	2.06	0.55
1:0:1595:G:O2'	1:0:1596:U:H5'	2.06	0.55
1:0:1942:A:H3'	37:0:3845:HOH:O	2.07	0.55
1:0:2082:G:O2'	1:0:2083:A:H5'	2.06	0.55
1:0:2460:A:O2'	1:0:2461:U:O4'	2.25	0.55
1:0:308:U:C4	1:0:342:C:H1'	2.42	0.55
6:A:167:LYS:HE3	30:Y:26:VAL:HG13	1.89	0.55
8:C:180:SER:N	37:C:412:HOH:O	2.40	0.55
22:Q:59:PHE:O	22:Q:63:ASN:HB3	2.07	0.55
29:X:217:ILE:O	29:X:221:ALA:HB2	2.07	0.55
1:0:2464:C:H5"	1:0:2465:A:OP1	2.06	0.55
1:0:381:G:O2'	1:0:382:U:OP2	2.25	0.55
18:M:157:PRO:HA	37:M:312:HOH:O	2.05	0.55
18:M:174:GLU:O	18:M:177:GLU:HB3	2.07	0.55
1:0:1331:A:OP2	29:X:142:SER:OG	2.24	0.55
1:0:1267:C:O2'	29:X:171:PRO:HG3	2.07	0.55
29:X:117:LEU:HA	29:X:174:VAL:HG11	1.89	0.55
29:X:219:GLU:HG3	29:X:220:GLU:N	2.21	0.55
30:Y:10:ARG:HG3	30:Y:11:THR:N	2.21	0.55
6:A:76:VAL:HG23	30:Y:63:LYS:HB3	1.87	0.55
1:0:1702:U:O2'	1:0:1703:G:H5"	2.07	0.55
1:0:1790:C:H2'	1:0:1791:U:H6	1.71	0.55
1:0:2432:C:O2'	1:0:2433:A:H5'	2.07	0.55
1:0:771:G:OP1	17:L:79:LYS:HG3	2.07	0.55
37:0:3763:HOH:O	6:A:11:ARG:HD3	2.05	0.55
8:C:8:LEU:HD13	8:C:147:LEU:HD21	1.89	0.55
11:F:47:LEU:O	11:F:98:VAL:N	2.26	0.55
1:0:1150:A:O2'	12:G:16:LYS:HD3	2.07	0.55
14:I:29:GLN:O	14:I:34:GLU:HB2	2.06	0.55
15:J:106:GLY:HA3	37:J:307:HOH:O	2.07	0.55
17:L:34:GLU:HB3	17:L:35:PRO:HD2	1.88	0.55
17:L:35:PRO:HG3	17:L:38:VAL:HG23	1.86	0.55
18:M:14:ARG:O	18:M:16:ALA:N	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:M:72:GLU:H	18:M:171:HIS:CE1	2.25	0.55
22:Q:6:VAL:HG21	22:Q:113:HIS:CD2	2.42	0.55
24:S:20:HIS:HB3	24:S:41:ARG:HD2	1.89	0.55
26:U:39:ALA:C	26:U:41:GLU:H	2.10	0.55
28:W:63:ARG:O	28:W:63:ARG:HG2	2.06	0.55
29:X:126:PRO:HG2	29:X:128:PHE:CD1	2.42	0.55
1:0:1474:C:H6	1:0:1474:C:H5'	1.72	0.55
1:0:1741:U:O2'	1:0:2723:G:H4'	2.07	0.55
1:0:204:A:C2'	1:0:205:U:H5'	2.37	0.55
1:0:2576:A:N6	37:0:3376:HOH:O	2.39	0.55
1:0:264:G:O2'	1:0:265:U:C5	2.59	0.55
1:0:2827:A:H2'	1:0:2828:G:O4'	2.06	0.55
1:0:346:U:H4'	37:0:3863:HOH:O	2.06	0.55
1:0:561:G:H2'	1:0:562:A:H8	1.73	0.55
37:0:5153:HOH:O	3:2:31:THR:HG22	2.06	0.55
7:B:177:HIS:O	7:B:180:ASP:HB2	2.07	0.55
7:B:18:ARG:HG3	7:B:256:GLN:HG3	1.88	0.55
15:J:115:ARG:HG3	15:J:116:GLU:H	1.72	0.55
27:V:142:ASP:HB3	27:V:145:GLY:H	1.71	0.55
1:0:1270:U:H2'	1:0:1271:A:C8	2.42	0.54
1:0:2037:C:H4'	1:0:2038:A:O5'	2.06	0.54
1:0:2321:A:O2'	1:0:2322:U:H3'	2.08	0.54
5:9:12:C:H5''	5:9:13:A:OP2	2.07	0.54
5:9:56:A:C3'	5:9:57:A:H5''	2.37	0.54
8:C:34:ALA:HB3	8:C:220:THR:HG21	1.89	0.54
12:G:64:ASN:N	12:G:64:ASN:HD22	2.04	0.54
21:P:66:LYS:HB2	21:P:70:ALA:O	2.07	0.54
29:X:126:PRO:HG2	29:X:128:PHE:CE1	2.42	0.54
1:0:2499:U:H2'	1:0:2500:C:C6	2.42	0.54
1:0:2587:U:H2'	1:0:2589:U:H5''	1.88	0.54
1:0:2714:U:H2'	1:0:2715:G:H8	1.70	0.54
1:0:2819:C:O4'	7:B:96:PRO:HB2	2.08	0.54
1:0:473:A:H1'	37:0:3358:HOH:O	2.07	0.54
1:0:753:U:H3'	37:0:3966:HOH:O	2.07	0.54
11:F:107:VAL:O	11:F:111:ILE:HG13	2.07	0.54
15:J:75:ARG:CZ	37:J:320:HOH:O	2.55	0.54
18:M:77:ASN:OD1	18:M:80:SER:HB2	2.06	0.54
18:M:83:LEU:HD13	18:M:175:LEU:HD23	1.89	0.54
20:O:103:THR:O	20:O:106:ARG:HB3	2.06	0.54
29:X:186:ARG:HG2	29:X:186:ARG:HH11	1.71	0.54
1:0:1477:C:H5'	1:0:1868:G:C5'	2.37	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1971:G:O2'	1:0:1972:U:OP2	2.22	0.54
1:0:2133:U:H4'	1:0:2134:G:O5'	2.07	0.54
1:0:2354:A:H5''	1:0:2355:G:OP1	2.07	0.54
1:0:2468:A:H61	3:2:48:ASN:ND2	2.04	0.54
1:0:2499:U:H2'	1:0:2500:C:H6	1.72	0.54
1:0:2769:C:H2'	1:0:2770:G:H5'	1.89	0.54
1:0:2791:U:H1'	1:0:2792:A:H5''	1.88	0.54
1:0:463:A:N1	1:0:476:A:H5''	2.23	0.54
1:0:628:A:H2	37:0:5070:HOH:O	1.90	0.54
1:0:62:C:H2'	1:0:63:U:C6	2.42	0.54
1:0:896:C:O2'	1:0:897:A:H5'	2.08	0.54
3:2:87:ARG:HG3	37:2:268:HOH:O	2.06	0.54
7:B:62:ARG:HG2	7:B:62:ARG:HH11	1.72	0.54
11:F:117:GLU:C	11:F:119:ARG:N	2.61	0.54
12:G:23:ILE:O	12:G:27:ILE:HG13	2.07	0.54
13:H:132:PHE:O	13:H:133:ILE:HD13	2.07	0.54
20:O:6:GLN:N	20:O:6:GLN:OE1	2.37	0.54
24:S:38:ARG:HG3	24:S:38:ARG:NH1	2.21	0.54
1:0:1942:A:H4'	6:A:213:LYS:HE2	1.89	0.54
6:A:54:PRO:HG2	37:A:407:HOH:O	2.07	0.54
7:B:243:ASN:HA	7:B:244:PRO:C	2.26	0.54
8:C:200:PRO:HA	37:C:470:HOH:O	2.07	0.54
13:H:136:VAL:HG21	13:H:139:ASP:O	2.08	0.54
18:M:80:SER:HB2	37:M:306:HOH:O	2.06	0.54
23:R:6:LYS:O	23:R:7:HIS:HB3	2.07	0.54
26:U:49:LEU:O	26:U:53:ILE:HG13	2.07	0.54
1:0:1755:A:H4'	37:0:4699:HOH:O	2.08	0.54
1:0:2416:G:H2'	1:0:2417:C:H6	1.72	0.54
1:0:2661:U:H3	1:0:2812:A:N6	2.02	0.54
1:0:293:A:O2'	1:0:294:C:H5'	2.08	0.54
1:0:1853:C:OP1	6:A:231:LYS:HG3	2.07	0.54
6:A:82:VAL:HG22	6:A:93:THR:HB	1.88	0.54
13:H:26:LYS:CG	13:H:28:ILE:H	2.21	0.54
13:H:72:VAL:HG13	13:H:72:VAL:O	2.07	0.54
17:L:139:PRO:HA	17:L:142:LYS:HB2	1.90	0.54
19:N:44:ASN:OD1	19:N:65:LEU:HB2	2.07	0.54
24:S:24:ARG:O	24:S:93:THR:HB	2.07	0.54
1:0:264:G:O2'	1:0:265:U:H5	1.89	0.54
1:0:2781:U:C2'	1:0:2782:G:H5'	2.37	0.54
7:B:279:THR:HA	7:B:284:PHE:HE1	1.73	0.54
7:B:41:PHE:HA	7:B:79:MET:HE2	1.89	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:C:188:ARG:HD3	37:C:445:HOH:O	2.07	0.54
8:C:72:LYS:HA	8:C:77:ALA:HA	1.89	0.54
9:D:65:GLU:HA	37:D:219:HOH:O	2.08	0.54
10:E:84:MET:HG2	10:E:168:ILE:HA	1.90	0.54
1:0:1098:A:H2'	1:0:1099:G:O4'	2.08	0.54
1:0:1311:G:O2'	1:0:1312:G:H5'	2.07	0.54
1:0:2028:U:H2'	1:0:2029:C:C6	2.43	0.54
1:0:2769:C:O2'	1:0:2770:G:H5'	2.08	0.54
1:0:60:A:C2	1:0:61:G:C8	2.96	0.54
6:A:94:LEU:N	6:A:94:LEU:HD23	2.23	0.54
7:B:74:ILE:HD13	7:B:309:VAL:HG21	1.90	0.54
9:D:37:ALA:O	9:D:38:GLU:C	2.46	0.54
13:H:136:VAL:HG22	13:H:137:ASN:O	2.07	0.54
13:H:57:ARG:C	13:H:59:ASN:H	2.11	0.54
14:I:77:GLY:O	14:I:78:ILE:C	2.46	0.54
25:T:49:LEU:HD13	25:T:51:TRP:NE1	2.22	0.54
1:0:1165:G:H4'	1:0:1174:A:O2'	2.07	0.54
1:0:2124:G:H2'	1:0:2125:G:H8	1.72	0.54
1:0:2909:G:O2'	1:0:2910:A:H5'	2.07	0.54
1:0:846:A:O2'	1:0:847:C:H5'	2.08	0.54
4:5:53:ILE:C	4:5:55:ALA:H	2.11	0.54
6:A:190:ARG:HH11	6:A:190:ARG:HB2	1.72	0.54
1:0:2295:G:N2	1:0:2314:G:H1'	2.22	0.54
1:0:2656:G:C2'	1:0:2657:G:H5'	2.37	0.54
1:0:2761:A:H3'	37:0:7026:HOH:O	2.07	0.54
1:0:428:G:H5'	37:0:4341:HOH:O	2.07	0.54
1:0:88:G:N3	2:1:24:TRP:HB2	2.23	0.54
4:5:29:LYS:HA	4:5:32:LEU:HD23	1.90	0.54
5:9:5:G:O2'	5:9:6:C:H5'	2.07	0.54
8:C:79:ARG:O	8:C:87:ARG:HG2	2.08	0.54
1:0:2346:C:O3'	9:D:52:THR:CG2	2.56	0.54
16:K:65:ASP:HA	16:K:109:LEU:O	2.07	0.54
17:L:74:ARG:O	17:L:88:VAL:HG13	2.07	0.54
19:N:73:ASP:HA	19:N:92:VAL:O	2.08	0.54
27:V:26:ILE:CG1	27:V:26:ILE:O	2.51	0.54
28:W:26:ALA:HB2	28:W:63:ARG:HA	1.90	0.54
29:X:134:HIS:CE1	29:X:135:LYS:HE3	2.42	0.54
1:0:470:U:O2'	31:Z:16:HIS:CD2	2.61	0.54
1:0:1426:C:H3'	37:0:3482:HOH:O	2.06	0.54
1:0:1460:G:N3	37:0:3267:HOH:O	2.33	0.54
1:0:1783:A:H2'	1:0:1784:U:O4'	2.08	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2078:U:O2'	1:0:2079:G:H5'	2.09	0.54
1:0:79:G:N1	1:0:97:G:O2'	2.41	0.54
6:A:211:LYS:HD2	37:A:532:HOH:O	2.06	0.54
7:B:62:ARG:HA	7:B:65:MET:HE3	1.90	0.54
8:C:214:THR:CG2	8:C:216:SER:H	2.20	0.54
9:D:135:VAL:CG2	9:D:136:ARG:N	2.70	0.54
10:E:101:GLU:HA	10:E:118:ILE:HG13	1.89	0.54
14:I:45:VAL:HG21	14:I:129:PHE:CD1	2.43	0.54
15:J:10:GLN:HE21	15:J:10:GLN:N	2.05	0.54
21:P:93:ARG:HG3	21:P:93:ARG:NH1	2.23	0.54
21:P:93:ARG:HG3	21:P:93:ARG:HH11	1.72	0.54
29:X:200:THR:HG22	29:X:201:GLU:CG	2.38	0.54
1:0:2361:A:H5''	37:0:5349:HOH:O	2.08	0.53
1:0:2416:G:H1'	37:0:4703:HOH:O	2.07	0.53
1:0:2594:C:O2'	1:0:2595:U:H5'	2.07	0.53
2:1:3:LYS:HE3	37:1:127:HOH:O	2.07	0.53
3:2:48:ASN:ND2	3:2:50:GLY:H	2.05	0.53
3:2:5:ARG:O	3:2:21:GLU:HA	2.08	0.53
8:C:178:GLN:C	8:C:180:SER:N	2.61	0.53
1:0:450:C:P	8:C:184:ARG:HH22	2.31	0.53
8:C:129:HIS:HE1	8:C:231:ARG:HA	1.73	0.53
13:H:71:TYR:C	13:H:73:GLN:N	2.60	0.53
14:I:15:ARG:O	14:I:16:ASP:HB2	2.08	0.53
16:K:149:ARG:N	37:K:305:HOH:O	2.41	0.53
18:M:154:LEU:O	18:M:155:GLU:HB3	2.07	0.53
20:O:102:ARG:HB2	37:O:201:HOH:O	2.08	0.53
23:R:57:THR:HG23	37:R:227:HOH:O	2.07	0.53
24:S:41:ARG:HG2	24:S:41:ARG:NH1	2.20	0.53
26:U:8:ILE:CG2	26:U:59:ILE:HG13	2.38	0.53
27:V:80:ASP:HB2	37:V:248:HOH:O	2.07	0.53
1:0:621:C:H5'	29:X:132:ASP:OD2	2.08	0.53
1:0:1070:A:H2'	1:0:1071:G:C8	2.43	0.53
1:0:114:A:H4'	1:0:115:U:OP1	2.07	0.53
1:0:2809:G:H2'	1:0:2810:G:O4'	2.08	0.53
1:0:281:U:O2'	1:0:282:C:H5'	2.09	0.53
6:A:2:ARG:NH1	37:A:413:HOH:O	2.41	0.53
7:B:193:ILE:HB	7:B:194:PHE:CD1	2.43	0.53
7:B:205:VAL:HB	7:B:307:ARG:HE	1.74	0.53
9:D:95:THR:C	9:D:97:GLN:N	2.59	0.53
10:E:32:ARG:C	10:E:33:LEU:HD23	2.29	0.53
10:E:69:ILE:HA	10:E:72:MET:HE3	1.88	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:J:87:ARG:NH1	37:J:305:HOH:O	2.40	0.53
20:O:131:PHE:CE2	20:O:137:LEU:HD12	2.43	0.53
21:P:3:SER:HB3	37:P:203:HOH:O	2.07	0.53
31:Z:5:THR:N	31:Z:6:PRO:HD2	2.22	0.53
1:O:1580:A:H8	1:O:1580:A:O5'	1.91	0.53
1:O:1853:C:H4'	6:A:217:ARG:HH22	1.72	0.53
1:O:1968:A:H2'	1:O:1969:A:C8	2.43	0.53
1:O:2754:G:C2'	1:O:2755:G:H5'	2.37	0.53
1:O:170:U:H4'	3:2:48:ASN:O	2.08	0.53
3:2:60:LYS:CG	3:2:61:PRO:HD2	2.36	0.53
7:B:162:MET:HG3	7:B:310:ARG:NH1	2.24	0.53
8:C:120:ASP:O	8:C:124:VAL:HG23	2.07	0.53
8:C:19:PRO:CB	8:C:244:ALA:HB2	2.38	0.53
8:C:95:GLU:HG3	37:C:563:HOH:O	2.07	0.53
15:J:30:LYS:HD3	37:J:350:HOH:O	2.07	0.53
15:J:49:LEU:HD12	15:J:80:ILE:HG21	1.91	0.53
18:M:120:GLU:HG3	18:M:136:LEU:HD13	1.90	0.53
19:N:62:GLY:O	19:N:79:VAL:HB	2.08	0.53
23:R:10:VAL:O	23:R:10:VAL:HG13	2.08	0.53
23:R:57:THR:C	23:R:59:ASP:H	2.12	0.53
23:R:73:ASP:O	23:R:77:VAL:HG23	2.08	0.53
26:U:12:THR:CG2	26:U:15:GLU:H	2.21	0.53
27:V:122:ARG:NH2	27:V:154:ARG:CD	2.71	0.53
1:O:152:A:H1'	1:O:440:C:O2'	2.08	0.53
1:O:169:A:H2'	37:O:6066:HOH:O	2.09	0.53
1:O:2060:A:H4'	37:O:6968:HOH:O	2.07	0.53
1:O:2316:G:H5'	1:O:2317:C:O4'	2.08	0.53
1:O:2326:U:H4'	1:O:2412:G:C4'	2.39	0.53
1:O:2698:G:H2'	1:O:2699:A:C8	2.44	0.53
1:O:2897:C:O2'	1:O:2898:G:H5'	2.09	0.53
7:B:229:ARG:HA	37:B:548:HOH:O	2.08	0.53
13:H:56:ILE:HG22	13:H:61:LEU:CD2	2.37	0.53
17:L:26:HIS:O	17:L:29:GLN:HB2	2.08	0.53
37:9:349:HOH:O	18:M:113:SER:HB3	2.08	0.53
18:M:7:LYS:HB2	37:P:207:HOH:O	2.09	0.53
27:V:21:LEU:HD21	27:V:48:VAL:HG13	1.91	0.53
1:O:119:A:H2'	1:O:120:A:H5''	1.90	0.53
1:O:1131:G:O6	1:O:1230:A:H1'	2.09	0.53
1:O:2362:A:H8	1:O:2362:A:O5'	1.92	0.53
1:O:2442:G:H3'	37:O:3862:HOH:O	2.06	0.53
1:O:2497:A:C2	1:O:2524:G:C2	2.95	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2686:C:O2'	1:0:2687:G:H5'	2.08	0.53
3:2:30:GLN:NE2	37:2:204:HOH:O	2.41	0.53
6:A:131:HIS:O	6:A:132:ASP:HB2	2.07	0.53
9:D:159:PRO:O	9:D:163:VAL:HG23	2.09	0.53
10:E:11:VAL:HG11	10:E:22:VAL:CG1	2.38	0.53
10:E:126:ILE:HB	10:E:131:LEU:HD21	1.91	0.53
17:L:52:LEU:HD21	37:L:301:HOH:O	2.09	0.53
19:N:26:TRP:CE3	19:N:26:TRP:HA	2.44	0.53
20:O:98:ILE:HD12	20:O:102:ARG:NE	2.23	0.53
27:V:14:HIS:HB2	27:V:17:ILE:HG13	1.90	0.53
28:W:75:ALA:O	28:W:83:ALA:HA	2.08	0.53
30:Y:39:CYS:HB2	30:Y:47:LEU:HG	1.90	0.53
1:0:1044:C:O3'	1:0:1045:G:H4'	2.09	0.53
1:0:1735:C:H2'	1:0:1736:A:H8	1.73	0.53
1:0:2256:G:H2'	1:0:2257:G:H5'	1.90	0.53
1:0:2897:C:H2'	1:0:2898:G:H8	1.72	0.53
5:9:44:A:O4'	9:D:76:ARG:NE	2.41	0.53
9:D:173:GLU:HG3	9:D:174:VAL:N	2.24	0.53
1:0:2346:C:O2'	9:D:52:THR:HG21	2.08	0.53
1:0:2432:C:H2'	1:0:2433:A:H8	1.73	0.53
1:0:2761:A:H2'	1:0:2763:G:N7	2.24	0.53
1:0:1884:G:O6	6:A:190:ARG:HD3	2.08	0.53
7:B:162:MET:CE	7:B:310:ARG:HD3	2.39	0.53
8:C:246:ARG:NE	37:C:411:HOH:O	2.40	0.53
9:D:55:LYS:HA	37:D:219:HOH:O	2.07	0.53
11:F:58:GLU:HB3	17:L:8:ILE:HG23	1.91	0.53
14:I:95:ARG:O	14:I:99:GLU:HB2	2.09	0.53
17:L:99:ARG:HD2	17:L:167:GLY:HA2	1.89	0.53
24:S:41:ARG:NH1	24:S:42:VAL:O	2.42	0.53
29:X:106:THR:CG2	29:X:107:PRO:HD2	2.39	0.53
1:0:1527:A:O2'	1:0:1528:A:O4'	2.27	0.53
1:0:1574:C:H2'	1:0:1575:C:H6	1.72	0.53
1:0:538:C:H4'	1:0:539:G:OP2	2.08	0.53
6:A:9:ARG:HG2	6:A:16:PHE:CE2	2.43	0.53
7:B:98:THR:HG22	7:B:99:GLU:H	1.74	0.53
9:D:55:LYS:O	9:D:56:ARG:HB2	2.08	0.53
1:0:2443:C:O2'	16:K:56:LYS:CE	2.56	0.53
20:O:80:ARG:HG2	20:O:87:ARG:CZ	2.39	0.53
21:P:24:SER:HB3	21:P:28:ARG:HH21	1.73	0.53
1:0:1132:A:H2'	1:0:1133:A:C8	2.44	0.53
1:0:1803:C:H2'	1:0:1804:A:C8	2.43	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1850:U:O4'	1:0:1941:A:C2	2.62	0.53
1:0:210:U:H2'	1:0:211:U:C6	2.44	0.53
1:0:2473:U:H1'	37:0:5468:HOH:O	2.08	0.53
1:0:2537:G:H5''	1:0:2538:A:H5''	1.91	0.53
1:0:558:C:H2'	1:0:559:U:H5'	1.89	0.53
1:0:945:U:O2'	27:V:43:GLY:HA3	2.09	0.53
6:A:13:THR:O	6:A:14:SER:C	2.47	0.53
6:A:30:ARG:HG3	6:A:66:ARG:NH1	2.23	0.53
17:L:48:ARG:NH1	17:L:52:LEU:HD21	2.24	0.53
19:N:42:GLU:HB2	37:N:308:HOH:O	2.09	0.53
23:R:57:THR:HG22	23:R:59:ASP:N	2.24	0.53
1:0:110:C:H2'	1:0:111:C:H6	1.74	0.53
1:0:1356:A:O2'	1:0:1357:A:O4'	2.27	0.53
1:0:2842:G:C2'	1:0:2843:A:H5'	2.39	0.53
1:0:941:G:H2'	1:0:942:U:O4'	2.09	0.53
9:D:94:ALA:HB3	9:D:174:VAL:HA	1.91	0.53
11:F:53:ASP:OD1	11:F:80:GLN:HB2	2.09	0.53
14:I:68:GLY:HA2	35:I:204:CL:CL	2.46	0.53
17:L:69:LYS:HD3	17:L:124:GLY:O	2.08	0.53
19:N:72:LYS:O	19:N:74:VAL:HG22	2.09	0.53
23:R:11:THR:O	23:R:12:GLU:C	2.44	0.53
1:0:67:A:OP2	1:0:108:U:H5'	2.08	0.52
1:0:1293:U:O2'	1:0:1294:A:H5'	2.09	0.52
1:0:1766:U:O2	1:0:1778:A:H5'	2.09	0.52
1:0:1941:A:H4'	37:0:5758:HOH:O	2.09	0.52
1:0:249:G:H1'	1:0:265:U:O2	2.08	0.52
1:0:2889:U:H1'	1:0:2891:A:H1'	1.90	0.52
11:F:65:GLU:O	11:F:69:GLU:HG2	2.10	0.52
1:0:145:A:H2'	1:0:146:U:C6	2.44	0.52
1:0:1636:G:O2'	1:0:1637:A:H5'	2.08	0.52
1:0:1875:A:H1'	1:0:1877:G:C5	2.44	0.52
5:9:56:A:C4	9:D:13:MET:HB3	2.43	0.52
6:A:192:VAL:HG12	6:A:192:VAL:O	2.08	0.52
7:B:81:ALA:O	7:B:186:GLY:HA3	2.08	0.52
8:C:130:GLU:O	8:C:131:PHE:HB3	2.09	0.52
18:M:67:ALA:HA	18:M:71:TRP:H	1.74	0.52
18:M:73:ALA:N	37:M:308:HOH:O	2.42	0.52
21:P:11:ARG:HD3	37:P:211:HOH:O	2.08	0.52
25:T:9:CYS:HA	25:T:52:THR:CG2	2.40	0.52
26:U:51:LYS:O	26:U:54:ALA:HB3	2.08	0.52
27:V:8:ARG:HD3	27:V:51:PHE:HA	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:W:27:ASP:OD2	28:W:27:ASP:N	2.42	0.52
29:X:133:HIS:HD2	37:X:435:HOH:O	1.92	0.52
29:X:189:ASN:HB2	37:X:415:HOH:O	2.10	0.52
31:Z:50:TRP:C	31:Z:52:SER:H	2.10	0.52
1:0:1325:G:O2'	1:0:1326:U:H5'	2.08	0.52
1:0:1471:A:H2'	1:0:1472:C:C6	2.44	0.52
1:0:1886:A:H5''	37:0:8274:HOH:O	2.09	0.52
1:0:2703:A:H2'	1:0:2704:C:H6	1.75	0.52
1:0:333:G:O2'	1:0:334:G:H5'	2.08	0.52
1:0:746:A:O2'	1:0:747:G:C8	2.61	0.52
1:0:921:G:H4'	1:0:924:G:C6	2.44	0.52
37:0:5559:HOH:O	16:K:8:ARG:HD3	2.08	0.52
23:R:29:ASP:OD1	23:R:31:ARG:NH1	2.43	0.52
26:U:55:ARG:O	26:U:58:THR:HB	2.09	0.52
30:Y:10:ARG:HA	37:Y:218:HOH:O	2.09	0.52
1:0:2478:U:O2'	1:0:2479:A:H5'	2.08	0.52
1:0:2550:U:H2'	1:0:2551:C:H6	1.73	0.52
1:0:2597:U:H2'	1:0:2598:U:H5'	1.91	0.52
1:0:2659:U:H4'	22:Q:76:ASP:HB3	1.91	0.52
1:0:280:C:H2'	1:0:281:U:O4'	2.09	0.52
1:0:541:C:C2'	1:0:542:A:C5'	2.84	0.52
7:B:83:ALA:HB2	7:B:101:TRP:CD2	2.44	0.52
9:D:59:GLY:C	9:D:61:PHE:H	2.13	0.52
14:I:38:VAL:HB	14:I:103:VAL:HG13	1.91	0.52
15:J:71:ALA:HB2	15:J:97:ILE:HA	1.91	0.52
16:K:26:HIS:HB2	37:K:336:HOH:O	2.09	0.52
16:K:35:ARG:C	16:K:35:ARG:HD3	2.30	0.52
19:N:11:ILE:HG22	19:N:12:ALA:N	2.25	0.52
1:0:1469:C:N3	1:0:1472:C:OP2	2.43	0.52
1:0:1488:U:C4'	1:0:1489:G:OP1	2.57	0.52
1:0:1785:G:H8	1:0:1785:G:O5'	1.91	0.52
1:0:1852:A:C2	1:0:1880:C:C2	2.98	0.52
1:0:1894:C:H5''	1:0:1895:A:OP1	2.09	0.52
1:0:229:G:O2'	1:0:230:C:H5'	2.09	0.52
1:0:485:A:C4'	1:0:486:A:H5'	2.39	0.52
1:0:625:U:H2'	1:0:627:G:OP2	2.10	0.52
1:0:761:A:H4'	1:0:762:C:C5'	2.39	0.52
4:5:54:VAL:HG12	4:5:54:VAL:O	2.09	0.52
9:D:154:LYS:CD	9:D:154:LYS:H	2.08	0.52
9:D:23:VAL:HG21	9:D:45:THR:CG2	2.40	0.52
10:E:166:VAL:HG12	10:E:167:TYR:N	2.23	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:T:36:CYS:HG	25:T:51:TRP:HH2	1.57	0.52
28:W:70:ILE:O	28:W:70:ILE:HG23	2.08	0.52
37:0:5824:HOH:O	29:X:136:LYS:HB2	2.10	0.52
1:0:1829:A:N6	30:Y:18:TYR:HA	2.25	0.52
30:Y:19:GLY:O	30:Y:23:ARG:HG2	2.09	0.52
1:0:1296:A:H8	1:0:1296:A:O5'	1.91	0.52
1:0:1526:A:H5''	1:0:1527:A:OP1	2.10	0.52
1:0:1574:C:H2'	1:0:1575:C:C6	2.44	0.52
1:0:1746:A:N6	1:0:1754:A:H61	2.08	0.52
1:0:2419:U:H5''	1:0:2420:G:C5'	2.39	0.52
1:0:2620:U:C4'	1:0:2621:U:OP1	2.58	0.52
1:0:395:A:N1	1:0:2443:C:N4	2.56	0.52
3:2:91:GLN:O	3:2:92:GLU:HB2	2.09	0.52
5:9:119:C:H2'	5:9:120:A:H8	1.75	0.52
8:C:133:ARG:NH1	37:C:413:HOH:O	2.42	0.52
10:E:11:VAL:CG1	10:E:12:ASP:N	2.72	0.52
15:J:125:ALA:C	15:J:127:ALA:H	2.13	0.52
15:J:82:ARG:HH21	15:J:115:ARG:HG2	1.71	0.52
17:L:85:ARG:NE	37:L:311:HOH:O	2.43	0.52
18:M:37:ARG:HE	18:M:105:GLY:HA3	1.75	0.52
18:M:37:ARG:HH21	18:M:105:GLY:N	2.08	0.52
22:Q:113:HIS:HE1	22:Q:144:GLU:CD	2.13	0.52
25:T:8:TYR:CE1	25:T:40:ALA:HB2	2.44	0.52
1:0:1589:G:N2	1:0:1605:G:O2'	2.43	0.52
1:0:321:A:O2'	1:0:322:G:H5'	2.09	0.52
1:0:42:C:H1'	37:0:6413:HOH:O	2.10	0.52
1:0:88:G:H2'	1:0:89:G:C8	2.44	0.52
5:9:119:C:H1'	37:9:321:HOH:O	2.09	0.52
5:9:77:A:H1'	5:9:79:U:C6	2.44	0.52
7:B:304:PRO:HD2	7:B:307:ARG:HH11	1.75	0.52
13:H:149:ALA:C	13:H:151:MET:N	2.63	0.52
17:L:115:LEU:CD2	17:L:150:ILE:HD12	2.29	0.52
19:N:113:VAL:O	19:N:114:ILE:HD13	2.08	0.52
22:Q:132:ARG:HG2	22:Q:133:ALA:N	2.25	0.52
27:V:4:LEU:HB2	27:V:33:THR:HG22	1.91	0.52
29:X:125:LYS:HB2	29:X:126:PRO:HD2	1.91	0.52
30:Y:39:CYS:HA	30:Y:47:LEU:HD11	1.92	0.52
6:A:73:GLY:N	30:Y:65:ALA:O	2.35	0.52
1:0:1126:C:N4	1:0:1129:C:H1'	2.25	0.52
1:0:2419:U:OP1	1:0:2420:G:H5''	2.09	0.52
1:0:2587:U:C2	1:0:2589:U:H5'	2.45	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2691:A:H5''	1:0:2692:G:OP1	2.10	0.52
1:0:2911:C:H2'	1:0:2912:C:C6	2.45	0.52
2:1:22:PRO:HG2	2:1:25:VAL:HG23	1.91	0.52
8:C:118:THR:O	8:C:136:VAL:HG13	2.10	0.52
1:0:692:A:HO2'	16:K:51:PHE:HD2	1.58	0.52
18:M:37:ARG:NH2	18:M:105:GLY:HA3	2.24	0.52
24:S:23:VAL:HG23	24:S:41:ARG:HG3	1.92	0.52
27:V:13:MET:HE2	27:V:18:GLN:CA	2.38	0.52
1:0:1015:C:C2	1:0:1016:U:C5	2.98	0.52
1:0:1941:A:O2'	1:0:1942:A:OP2	2.25	0.52
1:0:2642:G:H2'	1:0:2643:G:O4'	2.09	0.52
1:0:2670:G:N2	7:B:85:ARG:HH22	2.08	0.52
1:0:402:U:H1'	37:0:3378:HOH:O	2.08	0.52
10:E:158:ASP:OD1	10:E:160:ARG:N	2.36	0.52
1:0:1235:G:H1'	14:I:63:ILE:HG23	1.91	0.52
17:L:159:THR:HA	37:L:360:HOH:O	2.10	0.52
27:V:14:HIS:HB3	27:V:16:ASP:OD1	2.10	0.52
1:0:1338:U:H2'	1:0:1339:G:O4'	2.10	0.52
1:0:1406:A:H2'	1:0:1701:A:N6	2.24	0.52
1:0:1840:A:H4'	1:0:1841:C:C5'	2.38	0.52
1:0:184:G:O2'	1:0:185:G:H5'	2.09	0.52
1:0:2295:G:O2'	1:0:2296:C:H5'	2.09	0.52
1:0:2524:G:H21	1:0:2526:C:N4	2.07	0.52
1:0:2781:U:H1'	10:E:139:GLU:OE2	2.10	0.52
1:0:460:A:H5''	1:0:461:C:OP2	2.10	0.52
1:0:820:G:H5'	1:0:821:U:C5'	2.40	0.52
5:9:10:C:H4'	5:9:13:A:N6	2.25	0.52
7:B:41:PHE:HB2	7:B:193:ILE:HD12	1.91	0.52
1:0:1008:C:H5''	13:H:16:ARG:HH12	1.75	0.52
1:0:1109:U:O4	14:I:21:ARG:HA	2.10	0.52
1:0:1085:C:H2'	1:0:1086:A:H5'	1.91	0.51
1:0:1298:U:H2'	1:0:1299:G:C8	2.44	0.51
1:0:2310:G:H2'	1:0:2311:A:H8	1.74	0.51
1:0:523:C:H2'	1:0:524:A:H8	1.75	0.51
6:A:53:ALA:HB3	37:A:439:HOH:O	2.09	0.51
11:F:48:VAL:HG12	11:F:97:ALA:HB1	1.92	0.51
13:H:26:LYS:HD2	13:H:28:ILE:HD12	1.91	0.51
13:H:75:SER:HB3	13:H:79:ALA:CB	2.40	0.51
15:J:79:PRO:HA	15:J:88:VAL:O	2.10	0.51
20:O:22:TRP:C	20:O:23:PHE:HD1	2.13	0.51
30:Y:30:GLU:HB3	30:Y:34:LYS:HE3	1.92	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1114:A:O2'	1:0:1115:U:H5'	2.10	0.51
1:0:1288:U:H5''	37:0:5537:HOH:O	2.09	0.51
1:0:1883:U:H2'	1:0:1884:G:O4'	2.10	0.51
1:0:1909:A:N1	1:0:2128:G:H1'	2.26	0.51
1:0:380:A:C4'	1:0:381:G:OP1	2.57	0.51
1:0:485:A:N3	1:0:487:G:H5''	2.25	0.51
1:0:899:C:OP1	1:0:923:A:O2'	2.29	0.51
5:9:34:A:H1'	18:M:153:GLN:HE22	1.75	0.51
5:9:57:A:H2'	5:9:58:G:C5'	2.40	0.51
7:B:175:LEU:C	7:B:175:LEU:CD2	2.78	0.51
10:E:84:MET:HE1	10:E:133:VAL:CG2	2.40	0.51
18:M:100:ALA:O	18:M:129:ILE:HG23	2.10	0.51
22:Q:83:LYS:HB3	37:Q:306:HOH:O	2.08	0.51
30:Y:14:PHE:HB3	30:Y:18:TYR:HD1	1.74	0.51
1:0:1235:G:C1'	14:I:63:ILE:HG23	2.40	0.51
1:0:1641:A:H2'	1:0:1642:A:C5'	2.39	0.51
1:0:1874:U:HO2'	1:0:1875:A:P	2.34	0.51
1:0:2795:C:O2'	1:0:2796:U:H5'	2.10	0.51
1:0:2909:G:H2'	1:0:2910:A:H8	1.76	0.51
1:0:30:U:O4	1:0:452:G:O2'	2.27	0.51
1:0:420:U:H2'	1:0:421:C:C6	2.45	0.51
1:0:595:U:O2'	1:0:596:C:H5'	2.11	0.51
1:0:68:U:C5	1:0:107:U:H4'	2.46	0.51
1:0:2408:A:H1'	3:2:10:TYR:CD1	2.45	0.51
5:9:23:U:C4'	5:9:24:U:OP2	2.58	0.51
6:A:220:PRO:HD2	6:A:223:ARG:HD3	1.92	0.51
10:E:152:THR:HG21	10:E:165:GLY:CA	2.40	0.51
13:H:87:LYS:HE2	37:H:240:HOH:O	2.11	0.51
17:L:82:ARG:O	17:L:86:MET:HG3	2.11	0.51
1:0:1829:A:H61	30:Y:18:TYR:HA	1.74	0.51
30:Y:39:CYS:SG	30:Y:40:PRO:HD2	2.50	0.51
1:0:1238:C:H5''	1:0:1239:G:OP2	2.09	0.51
1:0:1894:C:C2	1:0:1939:U:C4	2.99	0.51
1:0:653:C:H5''	37:N:304:HOH:O	2.10	0.51
4:5:44:PHE:HB3	4:5:49:VAL:HG22	1.92	0.51
6:A:20:SER:O	6:A:22:ARG:N	2.43	0.51
6:A:211:LYS:NZ	37:A:416:HOH:O	2.42	0.51
8:C:76:ARG:HD2	37:C:528:HOH:O	2.09	0.51
9:D:135:VAL:CG2	9:D:136:ARG:H	2.24	0.51
22:Q:27:HIS:ND1	22:Q:81:PRO:HB3	2.25	0.51
25:T:49:LEU:HD13	25:T:51:TRP:HE1	1.75	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1088:A:O2'	1:0:1089:G:H5''	2.11	0.51
1:0:1118:A:H3'	1:0:1119:G:H5'	1.93	0.51
1:0:145:A:H2'	1:0:146:U:H6	1.75	0.51
1:0:2712:G:OP1	15:J:43:ARG:NH1	2.44	0.51
1:0:590:A:H2'	1:0:591:A:H5'	1.92	0.51
1:0:629:A:H4'	37:0:4917:HOH:O	2.11	0.51
6:A:72:GLU:HG3	30:Y:66:GLY:HA2	1.93	0.51
7:B:268:ARG:NH1	7:B:322:ARG:NH2	2.59	0.51
8:C:67:GLN:HA	37:C:518:HOH:O	2.10	0.51
11:F:63:ILE:CB	11:F:64:PRO:HD3	2.31	0.51
13:H:161:SER:HB3	37:H:237:HOH:O	2.11	0.51
16:K:41:HIS:O	16:K:42:ASN:HB2	2.10	0.51
1:0:1674:C:P	23:R:34:LYS:HG3	2.50	0.51
26:U:55:ARG:O	26:U:58:THR:N	2.43	0.51
29:X:119:GLN:O	29:X:122:ARG:N	2.43	0.51
30:Y:14:PHE:HB3	30:Y:18:TYR:CD1	2.45	0.51
1:0:106:A:H1'	37:0:4331:HOH:O	2.09	0.51
1:0:1165:G:H1'	1:0:1174:A:H1'	1.92	0.51
1:0:1701:A:C2	1:0:1710:A:H1'	2.46	0.51
1:0:2534:C:OP2	37:0:3201:HOH:O	2.19	0.51
1:0:485:A:HO2'	1:0:486:A:P	2.33	0.51
6:A:51:ARG:HH11	6:A:51:ARG:HB3	1.75	0.51
37:0:3608:HOH:O	8:C:77:ALA:HB3	2.10	0.51
11:F:106:THR:O	11:F:110:GLU:HG3	2.11	0.51
13:H:45:GLN:HB2	13:H:135:TRP:CD1	2.46	0.51
19:N:25:VAL:CG2	19:N:26:TRP:H	2.24	0.51
27:V:1:MET:HE3	27:V:101:LEU:HA	1.92	0.51
29:X:134:HIS:HE1	29:X:135:LYS:HE3	1.74	0.51
1:0:1001:U:O2'	1:0:1002:G:H5'	2.11	0.51
1:0:1307:A:H2'	1:0:1308:A:C8	2.45	0.51
1:0:1315:G:O2'	29:X:212:ARG:N	2.44	0.51
1:0:1589:G:O2'	1:0:1590:A:C8	2.64	0.51
1:0:1859:A:N7	1:0:1860:U:C5	2.79	0.51
1:0:623:U:O2'	1:0:624:U:H5'	2.11	0.51
1:0:2504:A:H4'	13:H:70:ARG:HH11	1.75	0.51
14:I:42:GLU:HG2	14:I:43:ARG:N	2.26	0.51
15:J:10:GLN:N	15:J:10:GLN:NE2	2.48	0.51
17:L:185:PRO:HG2	37:L:381:HOH:O	2.10	0.51
1:0:74:A:H5'	26:U:9:ARG:HH22	1.75	0.51
31:Z:28:HIS:CD2	31:Z:31:LYS:HE2	2.46	0.51
31:Z:5:THR:HB	31:Z:6:PRO:CD	2.39	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1118:A:H2'	1:0:1119:G:C5'	2.40	0.51
1:0:1186:C:H42	1:0:1190:G:H22	1.58	0.51
1:0:1563:G:O2'	1:0:1564:C:P	2.69	0.51
1:0:2106:C:H6	1:0:2106:C:O5'	1.94	0.51
1:0:2239:C:H2'	1:0:2240:U:C6	2.46	0.51
1:0:2263:G:O2'	17:L:70:GLY:HA2	2.10	0.51
1:0:2761:A:O2'	1:0:2762:C:C3'	2.59	0.51
1:0:496:G:C6	1:0:498:A:C6	2.98	0.51
1:0:631:A:C2	1:0:2073:G:O2'	2.64	0.51
1:0:657:G:H2'	1:0:658:C:C6	2.46	0.51
1:0:938:G:OP2	1:0:938:G:C8	2.63	0.51
7:B:221:GLN:HE22	15:J:42:ASN:HD22	1.57	0.51
7:B:206:THR:O	7:B:259:TYR:HA	2.11	0.51
13:H:83:PHE:CD1	13:H:134:ALA:HB2	2.46	0.51
14:I:131:THR:CG2	14:I:133:GLY:H	2.19	0.51
14:I:74:ARG:NH1	14:I:76:ASP:HB2	2.25	0.51
20:O:64:GLU:HG2	37:O:247:HOH:O	2.11	0.51
1:0:1085:C:C2'	1:0:1086:A:H5'	2.40	0.51
1:0:2330:U:H2'	37:O:6868:HOH:O	2.10	0.51
1:0:271:C:H4'	1:0:272:A:OP1	2.11	0.51
1:0:48:A:H2'	1:0:49:A:C8	2.46	0.51
1:0:631:A:N3	1:0:2073:G:O2'	2.43	0.51
7:B:154:VAL:CG1	7:B:156:LYS:HG2	2.38	0.51
8:C:103:ASN:HA	37:C:484:HOH:O	2.11	0.51
13:H:15:THR:HG22	13:H:90:PHE:O	2.11	0.51
15:J:20:CYS:HB2	15:J:29:LEU:HG	1.92	0.51
28:W:61:ARG:N	37:W:102:HOH:O	2.44	0.51
29:X:200:THR:HG22	29:X:201:GLU:HG3	1.93	0.51
1:0:1034:G:O2'	1:0:1035:C:H5'	2.10	0.51
1:0:1069:C:O2'	1:0:1070:A:H5'	2.11	0.51
1:0:1486:A:C4	2:1:2:LYS:HG3	2.46	0.51
1:0:1496:G:H2'	1:0:1497:G:H8	1.75	0.51
1:0:1579:C:C4'	1:0:1580:A:OP1	2.56	0.51
1:0:1527:A:N6	1:0:1663:G:H2'	2.26	0.51
1:0:2457:U:H2'	1:0:2458:U:H6	1.75	0.51
1:0:486:A:H4'	24:S:81:LYS:HG2	1.93	0.51
1:0:538:C:O2	1:0:538:C:H2'	2.11	0.51
3:2:2:GLN:OE1	3:2:89:GLU:HB2	2.10	0.51
6:A:186:TRP:CD1	6:A:187:PRO:HA	2.46	0.51
6:A:217:ARG:HG2	6:A:229:ALA:CB	2.41	0.51
7:B:162:MET:HG3	7:B:310:ARG:CD	2.35	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:F:21:GLU:O	11:F:24:ARG:CG	2.58	0.51
16:K:122:ALA:HB3	16:K:125:PHE:CZ	2.46	0.51
17:L:37:VAL:HG21	17:L:108:LYS:HG3	1.92	0.51
1:O:187:A:OP1	17:L:154:ARG:NE	2.44	0.51
23:R:15:MET:O	23:R:18:MET:N	2.44	0.51
24:S:50:VAL:HG12	24:S:56:ALA:HA	1.91	0.51
26:U:58:THR:O	26:U:62:GLU:HG3	2.11	0.51
29:X:187:VAL:HG13	29:X:205:ILE:HA	1.93	0.51
1:O:1057:A:H1'	1:O:2492:U:O2'	2.12	0.50
1:O:1515:A:H2'	1:O:1516:C:C6	2.46	0.50
1:O:1609:C:H2'	1:O:1610:G:C8	2.46	0.50
1:O:1759:A:H5''	37:O:7566:HOH:O	2.10	0.50
1:O:2064:U:O2'	1:O:2065:C:H5'	2.11	0.50
1:O:2757:A:O3'	7:B:285:VAL:HG11	2.11	0.50
1:O:151:A:C2	1:O:442:A:C8	2.99	0.50
1:O:697:G:H5''	37:O:3693:HOH:O	2.11	0.50
9:D:170:TYR:O	9:D:171:ASP:HB3	2.12	0.50
9:D:27:ILE:CD1	9:D:37:ALA:HB2	2.37	0.50
10:E:80:TRP:O	10:E:134:SER:HA	2.11	0.50
13:H:86:ARG:HH11	13:H:133:ILE:CG1	2.21	0.50
17:L:149:TRP:CD2	17:L:150:ILE:N	2.79	0.50
17:L:71:SER:CB	17:L:92:THR:HG22	2.35	0.50
18:M:139:TRP:N	37:M:309:HOH:O	2.43	0.50
19:N:26:TRP:HE3	19:N:26:TRP:HA	1.76	0.50
25:T:39:ASN:HD22	25:T:49:LEU:HD11	1.76	0.50
29:X:132:ASP:OD1	29:X:135:LYS:NZ	2.44	0.50
1:O:1118:A:C3'	1:O:1118:A:C8	2.94	0.50
1:O:1185:U:H2'	1:O:1186:C:H6	1.74	0.50
1:O:1378:G:H1'	1:O:2747:C:C4	2.46	0.50
1:O:1449:G:H2'	1:O:1493:A:C2	2.47	0.50
1:O:1875:A:H1'	1:O:1877:G:C6	2.46	0.50
1:O:316:A:N3	1:O:336:G:O2'	2.42	0.50
1:O:675:U:H2'	1:O:676:C:C5'	2.39	0.50
1:O:868:G:H3'	37:O:8544:HOH:O	2.09	0.50
1:O:962:C:H1'	18:M:5:ARG:HH12	1.75	0.50
8:C:21:VAL:HG13	37:C:494:HOH:O	2.09	0.50
9:D:51:ARG:HD3	37:D:228:HOH:O	2.11	0.50
11:F:104:ALA:O	11:F:106:THR:N	2.45	0.50
17:L:147:LEU:O	17:L:150:ILE:HG22	2.12	0.50
37:O:3724:HOH:O	19:N:39:THR:HB	2.10	0.50
20:O:115:SER:C	20:O:117:SER:H	2.12	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:O:76:GLY:C	20:O:78:GLY:H	2.15	0.50
1:O:2053:G:H4'	22:Q:136:TRP:CE2	2.46	0.50
1:O:1719:G:O2'	1:O:1720:C:H5'	2.10	0.50
1:O:1736:A:C2	1:O:1737:A:C4	2.99	0.50
1:O:1745:G:H2'	37:O:8659:HOH:O	2.11	0.50
1:O:2073:G:C6	1:O:2607:U:C2	2.99	0.50
1:O:2577:A:OP2	37:O:3202:HOH:O	2.19	0.50
1:O:2586:U:H3	1:O:2592:G:N2	1.95	0.50
1:O:2700:G:H2'	1:O:2701:G:C5'	2.42	0.50
1:O:2769:C:H2'	1:O:2770:G:C5'	2.42	0.50
1:O:226:A:H1'	1:O:393:G:C5	2.46	0.50
1:O:560:C:H42	1:O:597:A:H61	1.59	0.50
1:O:892:G:H5''	31:Z:54:ALA:HB2	1.92	0.50
1:O:98:A:C2'	1:O:99:A:H5'	2.41	0.50
7:B:150:ALA:O	7:B:152:PRO:HD3	2.11	0.50
9:D:153:THR:HG22	37:D:242:HOH:O	2.11	0.50
13:H:31:PHE:HA	13:H:85:ILE:CG2	2.41	0.50
13:H:68:ALA:HB2	13:H:149:ALA:HB2	1.94	0.50
26:U:34:GLN:HG3	26:U:41:GLU:OE2	2.12	0.50
27:V:128:VAL:O	27:V:138:LEU:HD11	2.11	0.50
28:W:74:ALA:CB	28:W:85:VAL:HG22	2.42	0.50
29:X:178:HIS:CG	29:X:179:PRO:HD2	2.46	0.50
1:O:1392:A:N1	1:O:1435:U:H2'	2.27	0.50
1:O:1400:C:C2'	1:O:1401:G:H5'	2.41	0.50
1:O:1762:C:H2'	1:O:1763:C:C6	2.46	0.50
1:O:1787:C:O2'	1:O:1788:U:H5'	2.11	0.50
1:O:2367:A:H5''	1:O:2368:A:OP1	2.11	0.50
1:O:2520:G:O2'	1:O:2521:A:H5'	2.12	0.50
1:O:2768:A:H2'	1:O:2769:C:O4'	2.12	0.50
1:O:637:C:H2'	1:O:638:C:H6	1.76	0.50
1:O:772:G:H2'	1:O:773:A:O4'	2.12	0.50
5:9:20:G:O2'	5:9:21:G:H5'	2.12	0.50
5:9:37:C:O2	5:9:47:A:H1'	2.11	0.50
7:B:44:TYR:OH	7:B:148:PRO:HG3	2.12	0.50
9:D:135:VAL:HG21	9:D:139:TYR:HB2	1.92	0.50
9:D:22:VAL:HG22	9:D:74:THR:HG22	1.92	0.50
10:E:145:ALA:O	10:E:148:ILE:HB	2.12	0.50
17:L:104:ARG:HD3	37:L:379:HOH:O	2.10	0.50
18:M:34:LEU:HA	18:M:47:LEU:HD23	1.93	0.50
22:Q:114:VAL:HA	22:Q:144:GLU:O	2.10	0.50
1:O:1196:C:H2'	1:O:1197:G:H5'	1.93	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1708:C:O2'	1:0:1709:G:H5'	2.12	0.50
1:0:1925:G:H5'	3:2:29:ARG:NH1	2.27	0.50
1:0:2071:C:H4'	1:0:2072:G:C8	2.47	0.50
1:0:2688:U:H2'	1:0:2689:A:C8	2.46	0.50
1:0:588:G:O2'	1:0:589:U:OP 2	2.30	0.50
5:9:29:C:H2'	5:9:30:C:C5'	2.36	0.50
7:B:171:VAL:HG23	7:B:172:SER:H	1.75	0.50
8:C:144:PHE:CD1	8:C:147:LEU:HD12	2.46	0.50
13:H:97:LYS:HD3	13:H:117:LYS:HE2	1.94	0.50
13:H:26:LYS:CD	13:H:28:ILE:HB	2.41	0.50
15:J:132:VAL:HG11	25:T:22:VAL:HG22	1.93	0.50
15:J:90:PHE:HB3	37:J:336:HOH:O	2.11	0.50
16:K:73:VAL:HG23	16:K:74:THR:N	2.26	0.50
17:L:84:LYS:HD3	17:L:84:LYS:O	2.12	0.50
18:M:184:ILE:HG22	18:M:185:GLU:N	2.25	0.50
24:S:4:PRO:O	24:S:8:ARG:HG3	2.12	0.50
24:S:81:LYS:HD2	24:S:87:VAL:HG11	1.93	0.50
30:Y:39:CYS:O	30:Y:42:CYS:O	2.28	0.50
1:0:1473:U:C1'	31:Z:42:SER:HB2	2.32	0.50
1:0:1087:G:HO2'	1:0:1088:A:H8	1.50	0.50
1:0:1272:C:O2'	1:0:1273:C:H5'	2.12	0.50
1:0:1674:C:OP1	23:R:34:LYS:HG3	2.12	0.50
1:0:2614:C:H3'	37:0:3333:HOH:O	2.10	0.50
1:0:284:C:N4	37:0:3526:HOH:O	2.44	0.50
1:0:440:C:H2'	1:0:441:A:O4'	2.12	0.50
1:0:584:U:H3'	37:0:3695:HOH:O	2.12	0.50
1:0:163:U:O3'	1:0:896:C:H4'	2.11	0.50
9:D:27:ILE:CG2	9:D:28:GLY:H	2.09	0.50
10:E:3:VAL:CG2	10:E:49:ILE:HB	2.41	0.50
11:F:36:THR:HG23	11:F:97:ALA:HB2	1.93	0.50
13:H:24:PRO:HG2	13:H:119:VAL:C	2.32	0.50
14:I:75:PRO:HD3	14:I:136:SER:OG	2.11	0.50
15:J:89:LYS:HA	37:J:312:HOH:O	2.12	0.50
16:K:143:THR:HG22	16:K:145:LEU:H	1.77	0.50
17:L:49:ALA:HB1	17:L:54:TYR:CB	2.42	0.50
24:S:37:GLN:HB3	37:S:308:HOH:O	2.11	0.50
1:0:1674:C:OP1	23:R:34:LYS:N	2.40	0.50
1:0:1942:A:O2'	1:0:1943:C:H5'	2.11	0.50
1:0:1942:A:H2'	1:0:1943:C:H6	1.77	0.50
1:0:2313:C:H1'	37:0:3598:HOH:O	2.12	0.50
1:0:589:U:H2'	1:0:590:A:H8	1.77	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:899:C:H5'	37:0:4913:HOH:O	2.10	0.50
6:A:51:ARG:C	6:A:53:ALA:H	2.15	0.50
9:D:128:LEU:HB2	37:D:224:HOH:O	2.11	0.50
16:K:105:TYR:N	37:K:309:HOH:O	2.44	0.50
1:0:182:G:H4'	17:L:157:LEU:HD13	1.93	0.50
18:M:102:LEU:HG	18:M:104:ILE:HG23	1.93	0.50
1:0:952:G:OP1	21:P:42:LYS:HE2	2.11	0.50
23:R:52:VAL:HG22	23:R:66:VAL:HG13	1.93	0.50
24:S:35:TYR:CD2	24:S:112:LEU:HD22	2.47	0.50
30:Y:67:GLY:CA	30:Y:70:GLN:O	2.60	0.50
1:0:102:A:H1'	37:0:6057:HOH:O	2.11	0.50
1:0:1316:G:C2'	1:0:1340:G:H22	2.25	0.50
1:0:1746:A:H61	1:0:1754:A:H61	1.58	0.50
1:0:1773:G:N7	37:0:3284:HOH:O	2.35	0.50
1:0:536:A:C6	1:0:2076:U:H5'	2.47	0.50
1:0:2321:A:O2'	1:0:2322:U:C3'	2.60	0.50
1:0:2543:G:H2'	1:0:2544:G:O4'	2.11	0.50
13:H:157:ILE:HG22	13:H:158:ASN:N	2.27	0.50
13:H:159:ILE:HG22	13:H:159:ILE:O	2.11	0.50
14:I:15:ARG:NH1	14:I:43:ARG:NH1	2.60	0.50
17:L:152:ARG:HA	37:L:380:HOH:O	2.10	0.50
27:V:122:ARG:HG3	27:V:152:ALA:O	2.12	0.50
27:V:5:VAL:C	27:V:52:VAL:HG23	2.32	0.50
29:X:169:ARG:NH2	35:X:301:CL:CL	2.81	0.50
30:Y:22:ILE:O	30:Y:26:VAL:HG23	2.12	0.50
1:0:1422:U:H2'	1:0:1423:C:C6	2.47	0.50
1:0:2335:C:H2'	1:0:2336:G:C8	2.47	0.50
1:0:2324:G:N2	1:0:2377:U:H1'	2.27	0.50
1:0:466:A:H2'	1:0:467:G:O4'	2.12	0.50
8:C:7:ASP:OD2	8:C:9:ASP:HB2	2.12	0.50
13:H:127:GLY:O	13:H:128:ALA:CB	2.59	0.50
27:V:122:ARG:HH21	27:V:154:ARG:CD	2.18	0.50
1:0:1007:A:H2'	13:H:19:TYR:CZ	2.47	0.49
1:0:1512:G:O2'	1:0:1513:C:H5'	2.11	0.49
1:0:1701:A:H5''	1:0:1702:U:O5'	2.12	0.49
1:0:1856:C:N4	1:0:1877:G:H21	2.10	0.49
1:0:1898:G:O2'	1:0:1899:C:H5'	2.12	0.49
1:0:2110:G:H4'	37:0:5461:HOH:O	2.12	0.49
1:0:561:G:O2'	1:0:562:A:H5'	2.11	0.49
1:0:796:A:C2	1:0:797:A:C4	2.99	0.49
1:0:807:A:H2'	1:0:808:A:C8	2.46	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:817:G:O2'	1:0:818:A:C8	2.60	0.49
9:D:11:HIS:C	9:D:13:MET:H	2.14	0.49
15:J:74:VAL:CG1	15:J:113:ILE:HG23	2.39	0.49
17:L:46:LEU:HG	37:L:312:HOH:O	2.11	0.49
22:Q:25:PHE:CE2	22:Q:29:LYS:HE2	2.47	0.49
1:0:1181:A:O2'	1:0:1182:C:H5'	2.12	0.49
1:0:1302:G:O2'	1:0:1303:C:H5'	2.12	0.49
1:0:1326:U:H1'	37:0:6912:HOH:O	2.12	0.49
1:0:138:U:H5''	1:0:139:C:OP2	2.12	0.49
1:0:1688:G:H4'	31:Z:8:GLN:HG3	1.94	0.49
1:0:631:A:N7	1:0:2074:A:C5'	2.75	0.49
1:0:265:U:C2	1:0:266:G:C8	3.00	0.49
1:0:892:G:C6	1:0:893:C:C4	3.01	0.49
6:A:132:ASP:OD1	6:A:133:ARG:N	2.44	0.49
11:F:108:LEU:O	11:F:108:LEU:HD12	2.11	0.49
11:F:60:VAL:O	11:F:62:HIS:N	2.46	0.49
11:F:48:VAL:CG2	11:F:74:PHE:HB3	2.42	0.49
13:H:57:ARG:O	13:H:59:ASN:N	2.45	0.49
13:H:15:THR:HG22	13:H:91:HIS:HA	1.92	0.49
37:0:4174:HOH:O	19:N:37:ARG:HG3	2.12	0.49
1:0:21:G:H5''	22:Q:1:GLY:O	2.11	0.49
1:0:1031:G:O2'	1:0:1032:A:OP2	2.29	0.49
1:0:1393:A:H2'	1:0:1394:C:C6	2.46	0.49
1:0:1790:C:H2'	1:0:1791:U:C6	2.47	0.49
1:0:2378:U:H4'	1:0:2379:G:OP1	2.12	0.49
1:0:2415:A:N3	18:M:26:LEU:HD13	2.27	0.49
1:0:2766:A:O2'	1:0:2767:C:H5'	2.13	0.49
1:0:285:A:H2'	1:0:286:U:O4'	2.11	0.49
1:0:645:U:H2'	1:0:646:G:C8	2.47	0.49
1:0:923:A:H8	37:0:4683:HOH:O	1.95	0.49
5:9:70:U:H2'	5:9:71:C:O4'	2.12	0.49
8:C:84:VAL:O	8:C:85:LYS:HB2	2.12	0.49
10:E:103:VAL:HG12	10:E:104:ILE:N	2.26	0.49
10:E:126:ILE:HB	10:E:131:LEU:CD2	2.42	0.49
1:0:2694:A:H4'	10:E:91:PHE:CE1	2.48	0.49
14:I:74:ARG:NH1	14:I:76:ASP:OD2	2.42	0.49
15:J:5:GLY:O	15:J:6:ALA:HB2	2.12	0.49
17:L:27:ARG:O	17:L:28:MET:C	2.50	0.49
28:W:20:GLU:HG3	28:W:21:PRO:CD	2.41	0.49
28:W:26:ALA:HB3	28:W:63:ARG:HG3	1.94	0.49
1:0:1009:U:HO2'	1:0:1010:C:H5	1.60	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1748:U:C5	1:0:1749:U:C4	3.00	0.49
1:0:1987:C:O5'	1:0:1987:C:H6	1.94	0.49
1:0:2757:A:H2'	1:0:2758:G:O4'	2.12	0.49
1:0:840:U:H2'	1:0:2648:U:O4	2.12	0.49
1:0:952:G:O2'	1:0:2302:A:O2'	2.23	0.49
1:0:1486:A:C5	2:1:2:LYS:HG3	2.48	0.49
1:0:2408:A:H1'	3:2:10:TYR:CE1	2.47	0.49
7:B:195:ARG:HG2	7:B:323:LEU:HD22	1.94	0.49
7:B:279:THR:CG2	7:B:280:VAL:N	2.75	0.49
18:M:29:SER:HA	37:M:319:HOH:O	2.11	0.49
19:N:47:ARG:NH1	19:N:47:ARG:HG3	2.18	0.49
20:O:120:ARG:NH2	20:O:123:TYR:CD2	2.79	0.49
29:X:186:ARG:NH1	29:X:186:ARG:HG2	2.27	0.49
1:0:1543:G:N1	1:0:1641:A:OP2	2.42	0.49
1:0:2010:A:H2'	37:0:3377:HOH:O	2.12	0.49
1:0:2713:G:O2'	1:0:2714:U:H5'	2.12	0.49
1:0:418:C:H2'	1:0:419:A:H8	1.77	0.49
1:0:505:C:N3	1:0:509:A:N7	2.61	0.49
1:0:737:A:H2'	1:0:738:G:O4'	2.12	0.49
1:0:869:G:H1'	1:0:886:A:C2	2.48	0.49
2:1:36:ASN:O	2:1:39:ARG:HG3	2.12	0.49
9:D:101:THR:HG22	9:D:101:THR:O	2.12	0.49
13:H:57:ARG:C	13:H:59:ASN:N	2.64	0.49
16:K:20:ASN:HB2	37:K:314:HOH:O	2.11	0.49
1:0:164:G:O3'	16:K:30:ARG:HB2	2.13	0.49
17:L:97:ILE:O	17:L:100:ILE:N	2.46	0.49
18:M:37:ARG:CG	18:M:37:ARG:HH11	2.25	0.49
20:O:41:ARG:O	20:O:44:VAL:HB	2.12	0.49
24:S:55:PHE:CD2	24:S:77:VAL:HG13	2.47	0.49
29:X:141:THR:HG23	29:X:142:SER:H	1.77	0.49
1:0:797:A:O4'	30:Y:10:ARG:N	2.46	0.49
30:Y:10:ARG:HB2	30:Y:27:ALA:CB	2.42	0.49
1:0:1060:C:O2'	1:0:1061:C:H5'	2.13	0.49
1:0:1278:A:H4'	1:0:1279:U:C4	2.47	0.49
1:0:1753:C:O2	7:B:229:ARG:NH2	2.45	0.49
1:0:1759:A:O2'	1:0:1818:C:H2'	2.13	0.49
1:0:2502:C:C2'	1:0:2503:A:H5'	2.42	0.49
1:0:2587:U:O2	1:0:2589:U:H5'	2.13	0.49
5:9:91:C:H2'	5:9:92:G:O4'	2.12	0.49
1:0:1855:G:O6	6:A:141:PRO:HG2	2.12	0.49
7:B:142:LEU:HD22	7:B:182:VAL:CG2	2.41	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:66:GLU:HG2	37:B:641:HOH:O	2.12	0.49
16:K:4:LYS:HA	16:K:7:GLN:HG2	1.92	0.49
17:L:172:GLY:C	17:L:183:VAL:HG11	2.32	0.49
19:N:25:VAL:HG23	19:N:26:TRP:CE3	2.48	0.49
20:O:59:ARG:O	20:O:62:ALA:HB3	2.12	0.49
22:Q:43:ALA:O	22:Q:47:LEU:HG	2.13	0.49
27:V:139:GLY:O	27:V:141:HIS:HD2	1.96	0.49
27:V:38:THR:HG22	37:V:217:HOH:O	2.12	0.49
28:W:71:ARG:N	37:W:101:HOH:O	2.43	0.49
31:Z:21:ARG:NH1	31:Z:45:ARG:HD3	2.27	0.49
1:0:1015:C:H2'	1:0:1016:U:C6	2.47	0.49
1:0:1076:G:O2'	1:0:1077:G:H5'	2.11	0.49
1:0:1117:A:N6	1:0:1244:U:HO2'	2.11	0.49
1:0:1450:C:C4'	1:0:1451:C:OP2	2.58	0.49
1:0:1503:U:H2'	1:0:1504:A:O4'	2.12	0.49
1:0:1446:U:O2'	1:0:1677:U:H2'	2.13	0.49
1:0:1684:A:H1'	1:0:1691:A:H1'	1.94	0.49
1:0:1773:G:C2'	1:0:1774:G:H5'	2.42	0.49
1:0:1867:G:N2	1:0:1868:G:H1'	2.28	0.49
1:0:2411:C:O2'	1:0:2412:G:H5'	2.13	0.49
1:0:363:A:H1'	37:0:3877:HOH:O	2.12	0.49
6:A:179:MET:HA	6:A:179:MET:CE	2.43	0.49
6:A:215:ILE:HD11	6:A:219:ALA:HB2	1.94	0.49
1:0:2819:C:H4'	7:B:97:LEU:O	2.13	0.49
9:D:91:ALA:HB1	37:D:223:HOH:O	2.11	0.49
11:F:53:ASP:OD2	11:F:80:GLN:HB3	2.12	0.49
1:0:1150:A:H2	12:G:20:VAL:HG21	1.77	0.49
13:H:113:ALA:N	13:H:114:PRO:CD	2.75	0.49
27:V:42:ARG:O	27:V:45:VAL:HG22	2.13	0.49
1:0:1128:U:H5''	1:0:1129:C:OP2	2.13	0.49
1:0:1134:G:H4'	13:H:151:MET:CE	2.43	0.49
1:0:1135:G:P	37:H:204:HOH:O	2.71	0.49
1:0:11:A:O3'	22:Q:60:LYS:NZ	2.45	0.49
1:0:45:A:N6	1:0:147:G:H2'	2.28	0.49
1:0:1859:A:H8	1:0:1859:A:O5'	1.95	0.49
1:0:2004:U:H2'	1:0:2005:G:OP1	2.13	0.49
1:0:299:U:H5'	37:0:3445:HOH:O	2.11	0.49
1:0:332:G:O5'	1:0:332:G:H8	1.96	0.49
1:0:603:A:H5''	1:0:604:G:OP1	2.12	0.49
1:0:699:C:H2'	1:0:744:G:N3	2.27	0.49
1:0:792:G:O2'	1:0:793:A:H5'	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:61:G:C6	1:0:86:A:N6	2.81	0.49
8:C:19:PRO:HB3	8:C:244:ALA:HB2	1.94	0.49
13:H:49:VAL:O	13:H:157:ILE:HG23	2.12	0.49
14:I:15:ARG:HA	14:I:43:ARG:O	2.12	0.49
14:I:6:PHE:HB3	14:I:109:TYR:OH	2.13	0.49
17:L:5:TYR:CE2	17:L:46:LEU:HD13	2.48	0.49
17:L:61:ILE:HG22	17:L:62:VAL:N	2.27	0.49
29:X:112:GLU:OE1	29:X:115:ARG:NH1	2.45	0.49
29:X:141:THR:O	29:X:142:SER:C	2.51	0.49
1:0:1237:U:H3	1:0:1241:G:P	2.36	0.49
1:0:1477:C:C5'	1:0:1868:G:H5''	2.43	0.49
1:0:2533:C:H5'	1:0:2533:C:H6	1.78	0.49
1:0:2839:C:H2'	1:0:2840:A:H5''	1.95	0.49
1:0:513:A:N3	37:0:3283:HOH:O	2.35	0.49
1:0:821:U:H2'	1:0:822:C:H6	1.78	0.49
1:0:848:C:H5'	37:0:3412:HOH:O	2.11	0.49
37:0:5689:HOH:O	3:2:66:ASP:HB2	2.11	0.49
5:9:20:G:H3'	37:9:316:HOH:O	2.12	0.49
7:B:103:ASP:HB2	37:B:575:HOH:O	2.12	0.49
7:B:195:ARG:NE	7:B:323:LEU:HD13	2.28	0.49
7:B:258:GLY:N	7:B:260:HIS:CE1	2.80	0.49
37:0:3543:HOH:O	7:B:337:GLY:N	2.46	0.49
10:E:81:GLU:HG2	10:E:134:SER:CB	2.43	0.49
1:0:2309:C:O2'	13:H:113:ALA:N	2.46	0.49
13:H:12:PRO:O	13:H:91:HIS:HE1	1.96	0.49
14:I:142:ASN:O	14:I:144:THR:N	2.46	0.49
14:I:89:HIS:O	14:I:95:ARG:HB2	2.12	0.49
15:J:105:ARG:O	15:J:105:ARG:HG2	2.13	0.49
15:J:35:HIS:HB2	37:J:346:HOH:O	2.13	0.49
17:L:48:ARG:NH1	37:L:301:HOH:O	2.45	0.49
21:P:8:GLU:O	21:P:10:THR:HG23	2.12	0.49
37:0:3699:HOH:O	27:V:119:HIS:HE1	1.94	0.49
1:0:1137:G:C5'	1:0:1138:G:OP1	2.59	0.49
1:0:1351:G:H3'	37:0:7814:HOH:O	2.12	0.49
1:0:1388:U:H2'	1:0:1389:G:O4'	2.13	0.49
1:0:1474:C:O2'	1:0:1475:G:H5'	2.13	0.49
1:0:1657:A:N6	37:0:3503:HOH:O	2.44	0.49
1:0:216:A:H2'	1:0:217:C:H6	1.78	0.49
1:0:2466:G:H5''	37:0:6588:HOH:O	2.12	0.49
1:0:306:A:H2'	1:0:341:C:O2'	2.13	0.49
10:E:107:PHE:CE2	10:E:108:LEU:HD13	2.48	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:I:77:GLY:O	14:I:79:PHE:N	2.46	0.49
16:K:149:ARG:O	16:K:150:GLN:HB2	2.12	0.49
20:O:7:LYS:HD2	20:O:21:VAL:CG2	2.43	0.49
27:V:1:MET:CE	27:V:101:LEU:HD23	2.42	0.49
30:Y:39:CYS:SG	30:Y:62:TYR:HD2	2.36	0.49
1:O:1019:C:O2'	1:O:1020:A:H5'	2.13	0.48
1:O:1081:A:H5''	37:O:7179:HOH:O	2.12	0.48
1:O:1313:A:H5'	29:X:208:LYS:O	2.12	0.48
1:O:1380:U:H2'	37:O:8155:HOH:O	2.13	0.48
1:O:1462:C:H2'	1:O:1463:A:C8	2.48	0.48
1:O:1829:A:H61	30:Y:18:TYR:CA	2.26	0.48
1:O:183:A:C5'	17:L:157:LEU:HD12	2.43	0.48
1:O:2300:A:C4'	1:O:2301:A:O5'	2.60	0.48
1:O:2480:G:O2'	1:O:2481:G:H5'	2.13	0.48
1:O:240:C:H5''	1:O:270:U:O4	2.13	0.48
1:O:2727:A:C6	1:O:2756:U:C2	3.01	0.48
37:O:3546:HOH:O	7:B:48:MET:N	2.46	0.48
7:B:41:PHE:CE1	7:B:79:MET:HG3	2.47	0.48
8:C:31:ILE:HD13	8:C:229:PRO:HB3	1.94	0.48
9:D:18:ILE:HG12	9:D:134:LEU:CD2	2.43	0.48
9:D:139:TYR:HB3	37:D:202:HOH:O	2.12	0.48
9:D:64:ARG:HD3	9:D:67:ASP:HB3	1.93	0.48
17:L:37:VAL:HG21	17:L:108:LYS:HE3	1.94	0.48
37:2:227:HOH:O	17:L:84:LYS:HE2	2.13	0.48
21:P:45:PRO:O	21:P:51:ARG:NH2	2.46	0.48
22:Q:39:THR:O	22:Q:41:GLY:N	2.46	0.48
24:S:43:ASN:ND2	24:S:108:ARG:NE	2.60	0.48
25:T:45:GLU:HB3	37:T:215:HOH:O	2.13	0.48
1:O:1689:A:OP2	1:O:1689:A:H8	1.96	0.48
1:O:2059:U:H2'	1:O:2060:A:C8	2.48	0.48
1:O:2325:C:H2'	1:O:2326:U:H6	1.78	0.48
1:O:2588:G:H3'	1:O:2589:U:H5''	1.94	0.48
1:O:2657:G:O2'	1:O:2842:G:N7	2.42	0.48
1:O:358:G:H3'	37:O:7912:HOH:O	2.13	0.48
1:O:764:C:C2'	1:O:765:G:H5'	2.43	0.48
5:9:119:C:H2'	5:9:120:A:C8	2.48	0.48
8:C:193:LEU:HA	8:C:211:ASP:O	2.13	0.48
17:L:12:TRP:HB2	37:L:406:HOH:O	2.12	0.48
20:O:80:ARG:HG2	20:O:87:ARG:NE	2.28	0.48
24:S:27:LEU:HD21	24:S:40:VAL:HB	1.95	0.48
29:X:112:GLU:HA	29:X:112:GLU:OE1	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1266:U:O3'	29:X:115:ARG:NH2	2.46	0.48
1:0:1088:A:C6	1:0:1291:A:H1'	2.48	0.48
1:0:1527:A:O2'	1:0:1528:A:O5'	2.31	0.48
1:0:1711:A:O2'	1:0:1712:A:H5'	2.12	0.48
1:0:1941:A:HO2'	1:0:1942:A:P	2.35	0.48
1:0:2415:A:C2'	1:0:2416:G:H5'	2.40	0.48
1:0:2729:C:H1'	1:0:2864:U:O2'	2.13	0.48
1:0:2732:U:O2'	1:0:2733:U:H5'	2.13	0.48
1:0:2747:C:H4'	1:0:2748:G:H4'	1.94	0.48
1:0:2754:G:H4'	37:0:6082:HOH:O	2.12	0.48
1:0:849:C:O2'	1:0:850:U:H5'	2.12	0.48
7:B:24:PRO:HG2	7:B:204:GLY:HA2	1.96	0.48
37:0:5920:HOH:O	7:B:236:ILE:HA	2.13	0.48
10:E:11:VAL:HG12	10:E:12:ASP:H	1.78	0.48
10:E:81:GLU:O	10:E:172:PRO:HD3	2.12	0.48
13:H:27:LYS:N	13:H:58:HIS:HD2	2.05	0.48
1:0:1003:U:O2	13:H:90:PHE:HZ	1.96	0.48
3:2:46:ILE:HD13	17:L:87:MET:HB3	1.96	0.48
18:M:175:LEU:O	18:M:176:ARG:C	2.49	0.48
23:R:10:VAL:CG1	26:U:36:ALA:HA	2.38	0.48
27:V:35:VAL:CG2	27:V:41:TYR:CD2	2.96	0.48
30:Y:33:HIS:NE2	37:Y:201:HOH:O	2.35	0.48
1:0:202:U:H2'	1:0:203:G:O4'	2.13	0.48
1:0:559:U:H6	1:0:559:U:H5'	1.78	0.48
1:0:585:C:H5''	37:0:7364:HOH:O	2.12	0.48
1:0:88:G:C2	2:1:24:TRP:HB2	2.48	0.48
1:0:87:C:H2'	2:1:30:ASP:OD2	2.14	0.48
7:B:223:ARG:NH1	7:B:232:TRP:CB	2.76	0.48
7:B:258:GLY:H	7:B:260:HIS:HE1	1.61	0.48
7:B:53:LEU:HD21	7:B:270:ILE:HG23	1.94	0.48
12:G:27:ILE:HD13	12:G:71:LEU:HD23	1.95	0.48
13:H:136:VAL:HG22	13:H:137:ASN:N	2.27	0.48
14:I:46:ILE:HA	37:I:304:HOH:O	2.13	0.48
17:L:87:MET:H	17:L:87:MET:HG3	1.41	0.48
18:M:58:LEU:N	18:M:58:LEU:CD1	2.76	0.48
23:R:57:THR:HG22	23:R:59:ASP:H	1.78	0.48
26:U:64:GLY:O	26:U:65:ASP:CB	2.62	0.48
27:V:48:VAL:O	27:V:48:VAL:HG12	2.14	0.48
30:Y:30:GLU:HA	30:Y:33:HIS:CB	2.43	0.48
1:0:1617:C:H5''	1:0:1618:G:OP2	2.13	0.48
1:0:198:A:C5	1:0:2444:U:O4'	2.66	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:220:C:C2	16:K:48:LYS:HE2	2.49	0.48
1:0:2483:A:H4'	37:0:5975:HOH:O	2.14	0.48
1:0:2715:G:N2	7:B:264:GLU:OE1	2.46	0.48
1:0:2768:A:O2'	1:0:2769:C:H5'	2.13	0.48
1:0:485:A:H4'	1:0:486:A:OP1	2.12	0.48
1:0:881:C:H2'	37:0:5626:HOH:O	2.11	0.48
8:C:161:ASP:HA	37:C:545:HOH:O	2.12	0.48
8:C:5:ILE:HG22	8:C:6:TYR:N	2.28	0.48
13:H:46:VAL:O	13:H:146:TRP:HH2	1.97	0.48
16:K:143:THR:HG22	16:K:144:ASP:H	1.77	0.48
17:L:184:ARG:HG3	17:L:185:PRO:HA	1.95	0.48
17:L:85:ARG:HA	17:L:87:MET:CE	2.43	0.48
18:M:163:PHE:O	18:M:164:ASP:O	2.32	0.48
19:N:96:VAL:CG1	19:N:100:GLN:HB2	2.43	0.48
21:P:53:HIS:N	35:P:102:CL:CL	2.76	0.48
22:Q:50:VAL:HA	22:Q:55:GLN:O	2.14	0.48
25:T:13:ILE:HG12	25:T:32:CYS:HB2	1.94	0.48
1:0:2034:U:H5''	37:0:7528:HOH:O	2.13	0.48
1:0:2379:G:H8	37:0:4249:HOH:O	1.97	0.48
1:0:2674:G:H1'	1:0:2813:A:N6	2.28	0.48
1:0:2842:G:H2'	1:0:2843:A:C5'	2.43	0.48
8:C:136:VAL:HA	8:C:137:PRO:O	2.14	0.48
11:F:16:ALA:HA	11:F:111:ILE:HD13	1.96	0.48
13:H:157:ILE:CG2	13:H:158:ASN:N	2.77	0.48
24:S:71:VAL:HG12	24:S:72:ILE:N	2.28	0.48
27:V:149:LEU:HG	27:V:153:MET:CE	2.42	0.48
29:X:127:GLN:HB2	37:X:409:HOH:O	2.13	0.48
1:0:1009:U:O2'	1:0:1010:C:C5	2.66	0.48
1:0:1020:A:H2'	1:0:1021:G:C8	2.48	0.48
1:0:907:A:H4'	1:0:1328:A:C2	2.48	0.48
1:0:155:C:OP2	17:L:188:ARG:NH1	2.35	0.48
1:0:1594:C:O2'	1:0:1595:G:H5'	2.13	0.48
1:0:228:C:C2'	1:0:229:G:H5'	2.43	0.48
1:0:2322:U:H4'	1:0:2323:G:OP1	2.14	0.48
1:0:2429:A:H2'	1:0:2430:A:C8	2.49	0.48
1:0:2573:G:O2'	1:0:2574:G:H5'	2.14	0.48
1:0:24:G:O2'	1:0:25:A:P	2.71	0.48
1:0:2735:U:H2'	1:0:2736:U:H6	1.79	0.48
1:0:297:U:H2'	1:0:298:C:C6	2.49	0.48
1:0:764:C:H2'	1:0:765:G:O4'	2.14	0.48
1:0:824:G:H2'	1:0:826:U:OP1	2.13	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:40:ARG:HD2	2:1:47:THR:HG22	1.95	0.48
3:2:16:GLU:HG3	3:2:18:GLN:HE21	1.78	0.48
37:B:523:HOH:O	14:I:104:TYR:HA	2.13	0.48
16:K:98:GLU:O	16:K:99:GLU:HB2	2.14	0.48
17:L:47:ASP:CG	17:L:48:ARG:N	2.67	0.48
18:M:97:VAL:HG12	18:M:127:LEU:HD11	1.96	0.48
18:M:152:GLU:C	18:M:154:LEU:H	2.17	0.48
27:V:54:PHE:CZ	27:V:140:LYS:HB2	2.49	0.48
1:0:1589:G:N2	1:0:1605:G:C2'	2.77	0.48
1:0:2463:A:C4'	1:0:2464:C:OP2	2.59	0.48
1:0:477:A:C2	1:0:478:C:C2	3.02	0.48
1:0:877:G:H5'	1:0:878:G:OP1	2.14	0.48
1:0:1736:A:OP1	7:B:231:GLY:HA2	2.14	0.48
8:C:20:ASP:O	8:C:23:GLU:N	2.46	0.48
1:0:2780:C:C1'	10:E:143:GLN:HE21	2.26	0.48
10:E:32:ARG:O	10:E:33:LEU:HD23	2.14	0.48
1:0:1003:U:H4'	13:H:86:ARG:O	2.13	0.48
17:L:123:ASP:OD1	17:L:123:ASP:C	2.52	0.48
21:P:41:LEU:N	21:P:41:LEU:HD12	2.28	0.48
26:U:27:LEU:HD13	26:U:49:LEU:HB3	1.96	0.48
27:V:4:LEU:HB2	27:V:33:THR:CG2	2.43	0.48
28:W:22:ASN:O	28:W:24:LYS:N	2.46	0.48
1:0:1020:A:H2'	1:0:1021:G:H8	1.79	0.48
1:0:1158:G:O2'	1:0:1159:G:H5'	2.14	0.48
1:0:1266:U:H4'	29:X:115:ARG:NH2	2.17	0.48
1:0:1295:G:H5''	16:K:14:GLY:O	2.13	0.48
1:0:1756:G:H1'	37:0:3286:HOH:O	2.12	0.48
1:0:230:C:O2'	1:0:231:G:H5'	2.14	0.48
1:0:761:A:H5'	1:0:763:C:OP2	2.13	0.48
1:0:954:U:H3'	37:0:3457:HOH:O	2.13	0.48
6:A:105:VAL:HG12	6:A:106:CYS:N	2.28	0.48
37:0:6635:HOH:O	6:A:11:ARG:HA	2.13	0.48
6:A:33:GLU:O	6:A:34:ASP:HB2	2.14	0.48
6:A:9:ARG:NE	37:A:424:HOH:O	2.47	0.48
7:B:76:THR:N	7:B:77:PRO:HD3	2.28	0.48
17:L:173:LEU:HD23	17:L:183:VAL:HG12	1.96	0.48
17:L:157:LEU:HA	35:L:202:CL:CL	2.50	0.48
17:L:37:VAL:CG1	17:L:63:VAL:HG11	2.43	0.48
21:P:77:ASP:O	21:P:79:GLY:N	2.47	0.48
1:0:2054:A:N3	22:Q:128:ARG:NH2	2.62	0.48
1:0:1262:C:H1'	27:V:120:PRO:HG3	1.95	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:Z:26:SER:HB3	31:Z:35:SER:OG	2.14	0.48
1:0:1270:U:H2'	1:0:1271:A:H8	1.79	0.48
1:0:1346:U:H2'	1:0:1347:U:C6	2.49	0.48
1:0:1921:A:O2'	1:0:1922:A:H5'	2.14	0.48
1:0:2561:C:O2'	1:0:2562:G:H5'	2.14	0.48
1:0:473:A:O2'	1:0:474:C:H5'	2.14	0.48
3:2:35:TRP:HA	3:2:38:ARG:NH1	2.28	0.48
6:A:105:VAL:O	6:A:126:ALA:N	2.35	0.48
7:B:144:THR:CG2	7:B:145:HIS:N	2.77	0.48
7:B:70:PRO:O	7:B:71:VAL:CG2	2.62	0.48
9:D:27:ILE:HD11	9:D:37:ALA:CB	2.36	0.48
14:I:92:GLN:O	14:I:96:GLU:HB2	2.14	0.48
17:L:48:ARG:O	17:L:52:LEU:HG	2.14	0.48
24:S:26:THR:HG23	24:S:26:THR:O	2.13	0.48
24:S:46:ASP:OD1	24:S:101:LEU:HA	2.14	0.48
26:U:42:ASN:O	26:U:44:GLY:N	2.47	0.48
31:Z:22:CYS:SG	31:Z:24:GLU:N	2.79	0.48
1:0:1085:C:H2'	1:0:1086:A:C5'	2.44	0.47
1:0:114:A:H5'	1:0:115:U:OP1	2.14	0.47
1:0:139:C:H4'	1:0:140:G:C2	2.49	0.47
1:0:1647:G:O2'	1:0:1648:G:H5'	2.14	0.47
1:0:185:G:C4'	1:0:186:A:OP1	2.61	0.47
1:0:1901:G:O2'	1:0:1902:G:H5'	2.14	0.47
1:0:2121:G:H5''	37:0:4557:HOH:O	2.12	0.47
1:0:2691:A:N1	1:0:2702:A:H5''	2.28	0.47
1:0:358:G:C2'	1:0:359:U:OP2	2.62	0.47
1:0:80:A:H1'	1:0:81:G:O4'	2.14	0.47
1:0:868:G:O5'	1:0:870:G:H1'	2.14	0.47
5:9:74:G:H1	5:9:107:C:H42	1.62	0.47
5:9:43:G:C2	5:9:47:A:C2	3.02	0.47
8:C:236:THR:HA	37:C:424:HOH:O	2.14	0.47
1:0:264:G:O6	11:F:32:GLY:HA3	2.14	0.47
22:Q:145:LEU:HD12	22:Q:146:ILE:N	2.28	0.47
24:S:105:ASP:OD1	24:S:107:LYS:N	2.42	0.47
27:V:122:ARG:NH1	27:V:122:ARG:CG	2.76	0.47
29:X:151:SER:HB3	29:X:154:ARG:CB	2.44	0.47
30:Y:10:ARG:HG3	30:Y:11:THR:H	1.78	0.47
1:0:1058:A:H2'	1:0:1060:C:C5'	2.44	0.47
1:0:1309:U:H2'	1:0:1310:U:O4'	2.14	0.47
1:0:1851:G:O2'	1:0:1852:A:H5'	2.14	0.47
1:0:1878:G:H1'	37:0:3893:HOH:O	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2272:G:N2	1:0:2273:C:H1'	2.29	0.47
1:0:746:A:H4'	1:0:747:G:C5'	2.43	0.47
1:0:799:C:O2'	1:0:800:G:H5'	2.15	0.47
1:0:904:U:O2	1:0:1354:G:O5'	2.33	0.47
5:9:98:C:O2'	5:9:99:U:H5'	2.14	0.47
9:D:23:VAL:CG2	9:D:73:VAL:HB	2.44	0.47
12:G:19:GLU:HG3	12:G:23:ILE:HD11	1.96	0.47
13:H:137:ASN:ND2	37:H:206:HOH:O	2.46	0.47
15:J:87:ARG:NE	37:J:315:HOH:O	2.48	0.47
16:K:126:SER:O	16:K:129:ALA:HB3	2.14	0.47
17:L:173:LEU:HA	17:L:183:VAL:HG11	1.96	0.47
18:M:140:GLN:O	18:M:143:ARG:HB2	2.13	0.47
18:M:73:ALA:HB1	18:M:74:PRO:HD2	1.95	0.47
26:U:12:THR:HG23	26:U:14:ALA:N	2.30	0.47
26:U:57:LYS:HA	26:U:60:GLN:HE21	1.80	0.47
1:0:1503:U:H3'	1:0:1503:U:H6	1.80	0.47
1:0:1666:C:O2'	1:0:1667:A:H5'	2.14	0.47
1:0:1862:C:O2'	1:0:1863:G:H5'	2.14	0.47
1:0:2451:G:H8	37:0:3393:HOH:O	1.97	0.47
1:0:2526:C:O2'	1:0:2527:U:H5'	2.14	0.47
1:0:2756:U:H2'	1:0:2757:A:C8	2.50	0.47
1:0:2793:A:H2'	1:0:2794:G:H5'	1.96	0.47
1:0:451:C:H2'	1:0:452:G:O4'	2.15	0.47
1:0:901:G:OP2	16:K:18:HIS:HE1	1.96	0.47
1:0:98:A:H2'	1:0:99:A:H5'	1.96	0.47
3:2:84:ARG:HG3	3:2:84:ARG:HH11	1.78	0.47
5:9:13:A:H1'	5:9:114:G:C5	2.49	0.47
8:C:141:SER:HB2	37:C:551:HOH:O	2.14	0.47
9:D:54:ALA:CB	9:D:69:ILE:HD12	2.40	0.47
16:K:145:LEU:HD23	16:K:145:LEU:O	2.13	0.47
16:K:35:ARG:HB2	16:K:35:ARG:NH1	2.30	0.47
1:0:709:G:O2'	19:N:25:VAL:HG12	2.13	0.47
19:N:35:LYS:O	19:N:40:HIS:NE2	2.48	0.47
1:0:1088:A:OP2	1:0:1261:A:H4'	2.14	0.47
1:0:1253:C:H2'	1:0:1254:C:H6	1.80	0.47
1:0:1798:C:O5'	1:0:1798:C:H6	1.96	0.47
1:0:1847:A:C8	1:0:1848:G:C8	3.03	0.47
1:0:2084:C:N4	37:0:3612:HOH:O	2.46	0.47
1:0:2670:G:N2	37:0:3512:HOH:O	2.44	0.47
1:0:2821:C:H4'	7:B:116:PRO:HG3	1.97	0.47
1:0:380:A:C4	17:L:13:LYS:HG2	2.49	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:217:ARG:HE	7:B:257:THR:HG22	1.78	0.47
8:C:107:ARG:O	8:C:110:ALA:N	2.48	0.47
9:D:173:GLU:OE1	9:D:174:VAL:HG23	2.14	0.47
13:H:154:THR:HB	13:H:155:PRO:HD3	1.97	0.47
17:L:49:ALA:C	17:L:54:TYR:HB3	2.33	0.47
5:9:6:C:OP1	18:M:37:ARG:NH1	2.47	0.47
22:Q:104:PHE:HB2	22:Q:109:MET:HE1	1.95	0.47
22:Q:39:THR:O	22:Q:40:ALA:C	2.53	0.47
26:U:12:THR:HG22	26:U:15:GLU:H	1.79	0.47
1:0:1292:G:O5'	1:0:1292:G:H8	1.97	0.47
1:0:1389:G:H1'	1:0:1435:U:O2	2.15	0.47
1:0:1525:G:H2'	1:0:1526:A:H8	1.74	0.47
1:0:2776:A:H2'	1:0:2777:G:O4'	2.14	0.47
1:0:282:C:H1'	1:0:368:C:H42	1.80	0.47
1:0:2851:G:H2'	1:0:2902:A:N6	2.28	0.47
1:0:2866:U:H5'	37:0:7935:HOH:O	2.13	0.47
1:0:458:G:C2	1:0:464:G:C4	3.02	0.47
1:0:731:U:H2'	1:0:732:C:H6	1.80	0.47
7:B:280:VAL:HG13	7:B:333:GLU:O	2.15	0.47
7:B:40:GLY:HA2	7:B:311:PHE:O	2.15	0.47
8:C:69:HIS:CD2	8:C:69:HIS:N	2.80	0.47
9:D:25:MET:CE	9:D:37:ALA:HB1	2.43	0.47
10:E:98:GLU:OE1	10:E:103:VAL:HG21	2.14	0.47
13:H:47:GLU:HB3	13:H:133:ILE:HD13	1.95	0.47
1:0:392:U:H5''	17:L:193:LYS:HB3	1.96	0.47
20:O:71:LYS:HG2	37:O:267:HOH:O	2.13	0.47
23:R:57:THR:CG2	23:R:58:MET:N	2.77	0.47
24:S:43:ASN:HB2	24:S:46:ASP:OD2	2.14	0.47
28:W:76:ARG:O	28:W:77:PHE:HB3	2.14	0.47
37:0:6032:HOH:O	30:Y:17:ARG:HG2	2.14	0.47
1:0:1023:C:C2'	1:0:1024:G:H5'	2.44	0.47
1:0:1268:C:O2'	1:0:1269:G:H5'	2.14	0.47
1:0:1688:G:N1	1:0:1692:C:H2'	2.21	0.47
1:0:220:C:H1'	37:0:5823:HOH:O	2.14	0.47
1:0:2597:U:H5''	37:0:3268:HOH:O	2.13	0.47
1:0:876:A:O2'	1:0:877:G:H5'	2.14	0.47
5:9:119:C:O2'	5:9:120:A:H5'	2.14	0.47
7:B:147:VAL:O	7:B:147:VAL:HG12	2.14	0.47
15:J:80:ILE:O	15:J:87:ARG:HA	2.15	0.47
17:L:134:ILE:HG23	17:L:141:ILE:HD13	1.96	0.47
18:M:13:ARG:HD3	37:M:358:HOH:O	2.15	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:M:7:LYS:HE3	21:P:21:ARG:O	2.14	0.47
27:V:54:PHE:CE1	27:V:140:LYS:HB2	2.49	0.47
28:W:87:ALA:O	28:W:88:GLU:HG2	2.14	0.47
1:0:1710:A:H5''	1:0:1711:A:OP2	2.15	0.47
1:0:2634:G:H2'	1:0:2635:A:H8	1.80	0.47
1:0:778:C:C2	1:0:881:C:O4'	2.68	0.47
1:0:954:U:O2'	1:0:955:A:H5'	2.14	0.47
5:9:2:U:H4'	37:9:301:HOH:O	2.14	0.47
6:A:127:GLN:HB3	6:A:139:LYS:HB3	1.95	0.47
7:B:43:GLY:O	7:B:309:VAL:HG22	2.15	0.47
7:B:6:PRO:HB3	37:B:613:HOH:O	2.13	0.47
7:B:74:ILE:HG13	37:B:501:HOH:O	2.15	0.47
8:C:107:ARG:CB	8:C:107:ARG:HH11	2.27	0.47
14:I:71:TYR:CD2	14:I:72:PRO:O	2.67	0.47
20:O:36:THR:O	20:O:39:ASP:HB2	2.14	0.47
20:O:76:GLY:C	20:O:78:GLY:N	2.67	0.47
21:P:33:PHE:HE2	21:P:93:ARG:HG3	1.79	0.47
29:X:178:HIS:CD2	29:X:229:LEU:HD13	2.50	0.47
30:Y:27:ALA:HA	37:Y:218:HOH:O	2.14	0.47
30:Y:57:CYS:O	30:Y:61:GLY:N	2.39	0.47
1:0:1619:G:H2'	1:0:1620:C:C6	2.48	0.47
1:0:842:C:O2	1:0:1693:A:H2'	2.14	0.47
1:0:2270:G:H4'	6:A:223:ARG:NH1	2.20	0.47
1:0:2581:U:H5''	1:0:2582:G:H5'	1.96	0.47
1:0:2700:G:H2'	1:0:2701:G:H5'	1.96	0.47
1:0:289:G:N2	1:0:363:A:H2	2.13	0.47
7:B:82:VAL:HG12	7:B:101:TRP:CE3	2.50	0.47
9:D:86:THR:O	9:D:90:LEU:HG	2.14	0.47
10:E:101:GLU:HB3	10:E:117:THR:HA	1.97	0.47
14:I:45:VAL:HG22	14:I:46:ILE:N	2.30	0.47
14:I:71:TYR:CD1	14:I:72:PRO:HD2	2.50	0.47
17:L:134:ILE:O	17:L:136:PRO:HD3	2.15	0.47
37:0:4174:HOH:O	19:N:37:ARG:CG	2.62	0.47
23:R:20:PHE:CD2	23:R:20:PHE:N	2.81	0.47
25:T:36:CYS:SG	25:T:51:TRP:HH2	2.37	0.47
28:W:52:PRO:O	28:W:53:SER:C	2.52	0.47
29:X:107:PRO:HD3	29:X:182:PHE:CE1	2.49	0.47
1:0:1131:G:C6	1:0:1230:A:C4	3.03	0.47
1:0:1544:U:H2'	1:0:1545:C:C6	2.50	0.47
1:0:1566:C:O2'	1:0:1567:A:H5'	2.15	0.47
1:0:1574:C:H6	1:0:1574:C:O5'	1.97	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1882:C:OP1	6:A:192:VAL:N	2.43	0.47
1:0:1925:G:H5'	3:2:29:ARG:HH12	1.79	0.47
1:0:2033:G:C6	1:0:2038:A:C2	3.03	0.47
1:0:922:A:N7	1:0:2281:C:H5'	2.30	0.47
1:0:2474:A:H4'	1:0:2475:C:C5'	2.45	0.47
1:0:2747:C:H4'	1:0:2748:G:C4'	2.45	0.47
1:0:656:G:H2'	1:0:657:G:H8	1.80	0.47
1:0:661:G:C5	1:0:686:A:C2	3.03	0.47
5:9:108:C:O2'	5:9:109:G:H5'	2.15	0.47
6:A:200:PRO:CG	6:A:225:VAL:HG21	2.44	0.47
7:B:139:ASP:HB2	7:B:165:ARG:NE	2.30	0.47
8:C:219:ASN:O	8:C:222:ASP:OD1	2.33	0.47
9:D:84:LEU:HD22	9:D:88:LEU:HD21	1.96	0.47
11:F:101:ALA:HB2	11:F:108:LEU:HD23	1.96	0.47
17:L:106:ASN:HB2	17:L:114:VAL:CG2	2.45	0.47
17:L:174:ARG:NH1	37:L:310:HOH:O	2.42	0.47
17:L:77:PHE:CD1	17:L:77:PHE:O	2.68	0.47
3:2:47:GLY:CA	17:L:83:SER:HB2	2.45	0.47
18:M:154:LEU:O	18:M:155:GLU:CB	2.62	0.47
29:X:156:GLY:O	29:X:157:ILE:C	2.52	0.47
29:X:189:ASN:C	29:X:189:ASN:ND2	2.62	0.47
1:0:1392:A:O2'	1:0:1394:C:OP2	2.31	0.47
1:0:1473:U:O2'	31:Z:41:LYS:HE2	2.15	0.47
1:0:1618:G:O2'	1:0:1619:G:H5'	2.15	0.47
1:0:1930:A:C6	1:0:1931:A:C6	3.03	0.47
1:0:2040:C:H2'	1:0:2041:G:O4'	2.14	0.47
1:0:2681:A:H62	7:B:10:SER:HA	1.80	0.47
6:A:167:LYS:CE	30:Y:26:VAL:HG13	2.44	0.47
7:B:222:LYS:O	7:B:223:ARG:C	2.52	0.47
9:D:11:HIS:O	9:D:12:GLU:HB3	2.15	0.47
11:F:4:VAL:HG13	11:F:76:PHE:CD1	2.49	0.47
13:H:50:VAL:CG2	13:H:125:VAL:HG11	2.44	0.47
16:K:65:ASP:OD1	16:K:109:LEU:HB2	2.15	0.47
18:M:143:ARG:HA	18:M:172:PHE:CD2	2.50	0.47
19:N:113:VAL:C	19:N:114:ILE:HD13	2.36	0.47
21:P:43:ILE:HA	21:P:90:HIS:ND1	2.30	0.47
22:Q:39:THR:HB	22:Q:42:GLU:CG	2.44	0.47
26:U:1:THR:HG23	26:U:2:VAL:HG23	1.96	0.47
1:0:1154:A:H2'	1:0:1155:G:C8	2.50	0.47
1:0:1268:C:H2'	1:0:1269:G:H8	1.80	0.47
1:0:1727:G:H5'	37:O:4763:HOH:O	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2493:C:H5''	1:0:2494:G:OP1	2.14	0.47
1:0:2897:C:H2'	1:0:2898:G:C8	2.50	0.47
1:0:367:G:O2'	1:0:368:C:H5'	2.15	0.47
1:0:487:G:H1'	1:0:512:G:H21	1.80	0.47
1:0:640:G:H1'	37:0:4381:HOH:O	2.15	0.47
1:0:656:G:O2'	1:0:657:G:H5'	2.14	0.47
2:1:13:LYS:O	2:1:16:ASN:N	2.48	0.47
1:0:1845:A:P	6:A:190:ARG:NH1	2.88	0.47
8:C:19:PRO:HG2	8:C:22:PHE:CD1	2.50	0.47
9:D:41:LEU:O	9:D:44:ILE:HG22	2.15	0.47
1:0:2503:A:P	13:H:147:ARG:HH22	2.38	0.47
13:H:50:VAL:HA	13:H:157:ILE:HG12	1.97	0.47
13:H:44:ALA:HB3	13:H:136:VAL:O	2.15	0.47
14:I:46:ILE:HG12	14:I:53:ILE:HD13	1.96	0.47
1:0:380:A:C6	17:L:13:LYS:HD3	2.50	0.47
11:F:61:MET:HB3	17:L:19:GLN:OE1	2.15	0.47
18:M:171:HIS:CE1	37:M:308:HOH:O	2.68	0.47
18:M:37:ARG:NE	18:M:105:GLY:HA3	2.30	0.47
20:O:76:GLY:O	20:O:78:GLY:N	2.47	0.47
21:P:21:ARG:NH2	37:P:207:HOH:O	2.46	0.47
24:S:63:ILE:N	24:S:73:HIS:O	2.46	0.47
24:S:51:LEU:HD11	24:S:97:ARG:HB2	1.97	0.47
28:W:87:ALA:O	28:W:88:GLU:CG	2.63	0.47
1:0:1039:G:H2'	1:0:1040:A:O4'	2.15	0.46
1:0:1096:U:O2'	1:0:1097:A:H5'	2.15	0.46
1:0:1270:U:O2'	1:0:1271:A:H5'	2.15	0.46
1:0:1441:G:H1'	37:0:6651:HOH:O	2.15	0.46
1:0:1496:G:H2'	1:0:1497:G:C8	2.50	0.46
1:0:1776:A:O2'	1:0:1777:G:H5''	2.14	0.46
1:0:2353:A:O2'	18:M:7:LYS:HB3	2.15	0.46
1:0:2726:U:P	1:0:2755:G:H22	2.38	0.46
1:0:2871:G:C6	1:0:2872:U:C4	3.04	0.46
1:0:381:G:OP1	17:L:48:ARG:NH2	2.39	0.46
1:0:404:G:H5''	1:0:2131:G:O4'	2.15	0.46
1:0:452:G:H4'	1:0:455:A:N3	2.30	0.46
1:0:522:U:O2'	1:0:1366:C:H5'	2.16	0.46
1:0:654:A:H2'	1:0:655:U:C6	2.51	0.46
5:9:76:G:C3'	5:9:77:A:H5''	2.41	0.46
6:A:121:ALA:O	6:A:124:VAL:HG22	2.15	0.46
37:0:5476:HOH:O	6:A:182:ARG:HD2	2.15	0.46
7:B:51:VAL:HG13	7:B:53:LEU:CD1	2.45	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:C:103:ASN:HB2	8:C:106:GLU:HB2	1.96	0.46
14:I:52:GLN:HG3	14:I:53:ILE:N	2.29	0.46
16:K:32:ASP:O	16:K:35:ARG:HB3	2.15	0.46
17:L:185:PRO:HG2	17:L:189:VAL:HG11	1.97	0.46
17:L:71:SER:O	17:L:73:ARG:NH1	2.48	0.46
5:9:4:G:O2'	18:M:44:ARG:NH2	2.48	0.46
21:P:46:SER:O	21:P:48:PRO:HD3	2.14	0.46
27:V:154:ARG:HB3	27:V:154:ARG:HE	1.45	0.46
29:X:143:TRP:CE2	29:X:164:VAL:HG23	2.50	0.46
1:0:1448:A:H4'	37:0:3565:HOH:O	2.14	0.46
1:0:2050:G:H3'	37:0:3360:HOH:O	2.15	0.46
1:0:2271:G:H5'	1:0:2272:G:N7	2.30	0.46
1:0:263:U:O4	11:F:80:GLN:OE1	2.34	0.46
1:0:492:C:O2'	1:0:493:U:H5'	2.16	0.46
3:2:14:CYS:CB	3:2:18:GLN:HE22	2.28	0.46
6:A:100:PRO:HG2	6:A:103:VAL:CG2	2.41	0.46
7:B:24:PRO:HD3	37:B:524:HOH:O	2.15	0.46
7:B:206:THR:HA	7:B:303:GLY:H	1.80	0.46
7:B:41:PHE:N	37:B:521:HOH:O	2.48	0.46
8:C:185:LYS:N	37:C:410:HOH:O	2.48	0.46
13:H:130:HIS:CG	13:H:133:ILE:HD11	2.50	0.46
16:K:91:VAL:HG13	16:K:120:LEU:HD23	1.96	0.46
16:K:92:ASP:HA	16:K:121:ILE:HB	1.98	0.46
18:M:73:ALA:HB1	18:M:74:PRO:CD	2.46	0.46
26:U:12:THR:HG23	26:U:14:ALA:HB3	1.97	0.46
1:0:1014:A:H2'	1:0:1015:C:H5'	1.97	0.46
1:0:1515:A:C2	1:0:1672:G:C2	3.03	0.46
1:0:1684:A:O2'	1:0:1685:A:H5'	2.15	0.46
1:0:1754:A:H2'	1:0:1755:A:O4'	2.16	0.46
1:0:1762:C:H2'	1:0:1763:C:H6	1.81	0.46
1:0:1769:C:O5'	1:0:1769:C:H6	1.97	0.46
1:0:630:A:H2	1:0:2072:G:OP2	1.99	0.46
1:0:840:U:C2	1:0:2648:U:C4	3.04	0.46
1:0:541:C:O2'	1:0:542:A:H5''	2.14	0.46
1:0:714:U:H6	1:0:714:U:O5'	1.98	0.46
1:0:777:U:H2'	37:0:4817:HOH:O	2.15	0.46
1:0:910:C:O2'	1:0:932:U:OP1	2.28	0.46
1:0:968:G:O2'	1:0:969:G:H5'	2.15	0.46
7:B:27:ASN:H	7:B:27:ASN:ND2	2.03	0.46
7:B:301:VAL:O	7:B:302:PRO:O	2.34	0.46
8:C:219:ASN:N	8:C:222:ASP:OD1	2.47	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:H:139:ASP:HA	37:H:211:HOH:O	2.16	0.46
14:I:24:SER:HA	14:I:86:MET:SD	2.55	0.46
15:J:114:ALA:O	15:J:117:VAL:HG23	2.16	0.46
20:O:27:ARG:HD3	20:O:48:ALA:HB2	1.98	0.46
22:Q:89:LEU:HA	22:Q:89:LEU:HD23	1.78	0.46
37:O:8317:HOH:O	29:X:208:LYS:HD2	2.15	0.46
1:O:1004:C:O2'	1:O:1005:A:H5'	2.16	0.46
1:O:1009:U:O2'	1:O:1010:C:H5	1.98	0.46
1:O:1130:U:H5'	37:O:5078:HOH:O	2.16	0.46
1:O:1700:C:N4	37:O:3691:HOH:O	2.48	0.46
1:O:1730:G:C5'	1:O:1731:C:H6	2.25	0.46
1:O:1998:G:C6	1:O:1999:C:C4	3.04	0.46
1:O:2055:A:H5'	22:Q:134:SER:HB2	1.98	0.46
1:O:2757:A:C2'	1:O:2758:G:H5'	2.45	0.46
1:O:2791:U:C4	1:O:2794:G:C6	3.03	0.46
1:O:2815:G:C4'	1:O:2816:A:OP2	2.59	0.46
1:O:664:U:O2'	1:O:665:A:H5'	2.15	0.46
1:O:894:A:H5''	1:O:895:A:OP2	2.15	0.46
1:O:963:C:H2'	1:O:964:G:C8	2.50	0.46
5:9:1:U:O3'	5:9:3:A:H5'	2.16	0.46
7:B:29:TRP:CH2	7:B:164:THR:HA	2.51	0.46
7:B:51:VAL:CG2	7:B:327:VAL:HG13	2.44	0.46
13:H:31:PHE:HE2	13:H:87:LYS:O	1.97	0.46
16:K:133:VAL:HG13	37:K:311:HOH:O	2.15	0.46
27:V:110:GLN:NE2	27:V:110:GLN:CA	2.78	0.46
27:V:93:ILE:HB	37:V:206:HOH:O	2.14	0.46
1:O:1041:U:H2'	1:O:1042:U:H5'	1.98	0.46
1:O:1159:G:H1	1:O:1208:C:H42	1.64	0.46
1:O:1589:G:O2'	1:O:1590:A:H8	1.99	0.46
1:O:1680:C:H2'	1:O:1681:G:O4'	2.15	0.46
1:O:1832:G:O2'	1:O:1833:U:H5'	2.15	0.46
1:O:1905:U:H2'	1:O:1906:C:C6	2.51	0.46
1:O:1981:A:O2'	1:O:1983:C:N4	2.49	0.46
1:O:2083:A:H2'	1:O:2084:C:H5''	1.98	0.46
1:O:2103:A:H2'	1:O:2104:C:H5'	1.97	0.46
1:O:2626:C:H2'	1:O:2627:G:C8	2.50	0.46
1:O:675:U:H6	1:O:675:U:O5'	1.99	0.46
1:O:708:A:H2'	1:O:709:G:O4'	2.14	0.46
1:O:783:C:O2'	1:O:784:A:H5'	2.16	0.46
1:O:78:G:C6	1:O:79:G:N1	2.83	0.46
1:O:816:G:C6	1:O:817:G:C6	3.04	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:795:G:H2'	1:0:817:G:H22	1.80	0.46
6:A:195:ASN:HB2	6:A:197:VAL:HG12	1.96	0.46
7:B:168:GLY:O	7:B:174:ARG:NH1	2.49	0.46
8:C:180:SER:HB2	37:C:408:HOH:O	2.14	0.46
5:9:57:A:C8	9:D:141:VAL:HG21	2.50	0.46
10:E:100:ASP:HB2	37:E:230:HOH:O	2.15	0.46
10:E:154:ILE:HD11	10:E:157:LYS:CE	2.45	0.46
13:H:57:ARG:HG3	13:H:57:ARG:HH11	1.81	0.46
14:I:107:ASN:ND2	14:I:109:TYR:HB2	2.27	0.46
14:I:77:GLY:O	14:I:80:LYS:N	2.49	0.46
1:0:926:A:O2'	16:K:41:HIS:CD2	2.69	0.46
17:L:61:ILE:CG2	17:L:62:VAL:N	2.77	0.46
19:N:40:HIS:HA	37:N:307:HOH:O	2.14	0.46
1:0:1013:A:C2	1:0:1014:A:H1'	2.49	0.46
1:0:111:C:O2'	31:Z:20:ARG:HG2	2.15	0.46
1:0:2241:C:H2'	1:0:2242:U:H6	1.79	0.46
1:0:2700:G:C2'	1:0:2701:G:H5'	2.45	0.46
1:0:2911:C:H2'	1:0:2912:C:H6	1.80	0.46
1:0:418:C:H2'	1:0:419:A:C8	2.50	0.46
2:1:1:GLY:HA3	37:1:112:HOH:O	2.15	0.46
7:B:162:MET:HE2	7:B:310:ARG:HD3	1.96	0.46
7:B:217:ARG:HD3	7:B:218:TRP:NE1	2.31	0.46
7:B:251:VAL:HG23	7:B:252:PRO:HD2	1.97	0.46
8:C:16:VAL:CG1	8:C:17:ASP:N	2.77	0.46
8:C:236:THR:O	8:C:237:GLU:C	2.53	0.46
13:H:142:VAL:C	13:H:144:GLU:N	2.69	0.46
13:H:68:ALA:CB	13:H:145:ALA:O	2.63	0.46
14:I:93:ARG:HH11	14:I:93:ARG:HB3	1.79	0.46
15:J:53:ILE:HG13	15:J:55:VAL:HG23	1.98	0.46
16:K:144:ASP:O	16:K:147:GLU:HB2	2.15	0.46
16:K:38:HIS:CD2	16:K:39:GLU:HG3	2.51	0.46
17:L:31:TRP:HA	17:L:34:GLU:HG3	1.97	0.46
17:L:69:LYS:O	17:L:73:ARG:NH2	2.49	0.46
17:L:81:ARG:O	17:L:86:MET:HE2	2.16	0.46
18:M:72:GLU:H	18:M:171:HIS:HE1	1.63	0.46
24:S:50:VAL:HG11	24:S:55:PHE:C	2.36	0.46
1:0:1023:C:H2'	1:0:1024:G:O4'	2.15	0.46
1:0:10:U:O4	1:0:532:A:OP2	2.34	0.46
1:0:1175:G:H8	37:0:7234:HOH:O	1.97	0.46
1:0:1211:G:O2'	1:0:1212:C:H5'	2.16	0.46
1:0:1291:A:O2'	1:0:1292:G:H5'	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1488:U:C5'	1:0:1489:G:OP1	2.64	0.46
1:0:1746:A:H61	1:0:1754:A:N6	2.14	0.46
1:0:17:G:H2'	1:0:18:C:H6	1.75	0.46
1:0:1999:C:H2'	1:0:2000:G:H8	1.80	0.46
1:0:2579:G:O2'	1:0:2580:G:H5'	2.16	0.46
1:0:2073:G:H1	1:0:2607:U:H1'	1.81	0.46
1:0:2831:C:H2'	1:0:2832:C:H5'	1.97	0.46
1:0:319:A:H4'	1:0:338:C:C5	2.51	0.46
1:0:25:A:N6	1:0:518:G:H1'	2.30	0.46
1:0:672:G:H1'	37:0:7432:HOH:O	2.15	0.46
1:0:790:A:H4'	1:0:1710:A:C8	2.51	0.46
1:0:818:A:C6	1:0:819:A:C2	3.03	0.46
1:0:871:G:C8	1:0:871:G:C5'	2.88	0.46
4:5:58:TYR:HB3	4:5:59:GLY:H	1.57	0.46
6:A:51:ARG:HB3	6:A:51:ARG:NH1	2.31	0.46
7:B:2:GLN:HG3	37:B:651:HOH:O	2.16	0.46
15:J:32:ILE:HD11	15:J:56:SER:HB3	1.97	0.46
15:J:72:VAL:HG11	15:J:121:PHE:CE1	2.50	0.46
17:L:63:VAL:HG21	17:L:109:PHE:CZ	2.51	0.46
24:S:52:ARG:O	24:S:53:GLY:O	2.34	0.46
24:S:75:GLU:O	24:S:76:ASP:HB2	2.16	0.46
25:T:49:LEU:HD11	37:T:201:HOH:O	2.14	0.46
31:Z:22:CYS:SG	31:Z:23:GLY:N	2.88	0.46
1:0:1184:C:H2'	1:0:1185:U:H6	1.80	0.46
1:0:1186:C:H42	1:0:1190:G:N2	2.14	0.46
1:0:1392:A:O2'	1:0:1394:C:OP1	2.34	0.46
1:0:1444:G:O2'	1:0:1445:G:H5'	2.16	0.46
1:0:1749:U:H3'	37:0:3204:HOH:O	2.16	0.46
1:0:1778:A:H2'	1:0:1779:A:H5'	1.98	0.46
1:0:1872:C:O2'	6:A:26:ASP:HA	2.16	0.46
1:0:198:A:N7	1:0:2444:U:H5'	2.31	0.46
1:0:2348:C:O2'	1:0:2349:G:H5'	2.16	0.46
1:0:2812:A:H4'	1:0:2813:A:O5'	2.15	0.46
1:0:1787:C:H4'	1:0:2883:A:O4'	2.14	0.46
1:0:448:G:H3'	37:C:478:HOH:O	2.15	0.46
1:0:653:C:H2'	1:0:654:A:C8	2.51	0.46
1:0:86:A:O2'	2:1:28:LYS:HE2	2.15	0.46
3:2:13:HIS:CD2	3:2:76:LYS:HB3	2.51	0.46
6:A:128:LEU:HG	37:A:462:HOH:O	2.15	0.46
6:A:172:ALA:O	6:A:173:GLY:C	2.53	0.46
8:C:238:SER:HB3	37:C:439:HOH:O	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:L:46:LEU:O	17:L:47:ASP:C	2.54	0.46
22:Q:4:TYR:N	37:Q:304:HOH:O	2.47	0.46
27:V:13:MET:CE	27:V:17:ILE:HG22	2.45	0.46
1:O:1126:C:O2'	1:O:1128:U:C5	2.68	0.46
1:O:1412:U:O2'	1:O:1413:A:H5'	2.15	0.46
1:O:1570:C:C2'	1:O:1571:G:H5'	2.46	0.46
1:O:175:G:HO2'	1:O:176:U:P	2.36	0.46
1:O:536:A:N6	1:O:2076:U:H5'	2.30	0.46
1:O:2106:C:H2'	1:O:2107:U:C6	2.51	0.46
1:O:2533:C:H3'	37:O:3201:HOH:O	2.16	0.46
1:O:264:G:HO2'	1:O:265:U:H5	1.61	0.46
1:O:2688:U:H2'	1:O:2689:A:H8	1.81	0.46
1:O:2723:G:H1'	37:O:4629:HOH:O	2.15	0.46
1:O:2869:G:H2'	1:O:2870:C:C6	2.51	0.46
1:O:308:U:C2	24:S:52:ARG:NH2	2.84	0.46
1:O:559:U:H2'	1:O:560:C:O4'	2.15	0.46
6:A:199:HIS:CG	6:A:200:PRO:HD2	2.51	0.46
6:A:66:ARG:CB	6:A:66:ARG:NH1	2.78	0.46
7:B:265:LEU:N	7:B:265:LEU:HD12	2.31	0.46
8:C:24:THR:HG23	8:C:25:PRO:HD2	1.97	0.46
9:D:57:THR:HG23	9:D:63:ILE:CG2	2.44	0.46
12:G:19:GLU:O	12:G:20:VAL:C	2.54	0.46
1:O:1007:A:H2'	13:H:19:TYR:CE1	2.51	0.46
37:O:3237:HOH:O	13:H:95:GLU:HA	2.15	0.46
16:K:53:ARG:NH2	16:K:57:VAL:HG12	2.31	0.46
37:O:3460:HOH:O	17:L:104:ARG:HG3	2.14	0.46
17:L:24:MET:HB3	17:L:28:MET:HE3	1.97	0.46
18:M:115:VAL:HG23	18:M:116:PHE:N	2.30	0.46
23:R:25:GLN:CG	23:R:65:VAL:HG22	2.46	0.46
1:O:100:C:H5'	24:S:16:LEU:HD12	1.97	0.46
24:S:78:THR:CB	24:S:86:GLU:HG2	2.45	0.46
28:W:85:VAL:HG12	28:W:86:GLU:N	2.30	0.46
1:O:1335:C:H2'	1:O:1336:U:C6	2.50	0.46
1:O:1441:G:H2'	1:O:1442:A:H8	1.81	0.46
1:O:2087:C:O2'	1:O:2088:C:H5'	2.16	0.46
1:O:2847:G:H4'	37:O:3369:HOH:O	2.15	0.46
1:O:407:A:H3'	37:O:3234:HOH:O	2.15	0.46
1:O:558:C:C2'	1:O:559:U:C5'	2.93	0.46
2:1:10:ARG:O	2:1:11:LEU:C	2.55	0.46
5:9:47:A:C2	5:9:48:C:C2	3.04	0.46
6:A:128:LEU:HD13	6:A:138:VAL:HG22	1.98	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:9:ARG:O	6:A:10:GLY:C	2.54	0.46
7:B:223:ARG:NH1	7:B:232:TRP:HB3	2.31	0.46
7:B:7:ARG:CG	7:B:7:ARG:NH1	2.79	0.46
8:C:21:VAL:C	8:C:23:GLU:H	2.20	0.46
8:C:27:ARG:HG3	8:C:29:ASP:OD1	2.16	0.46
10:E:86:VAL:HA	10:E:166:VAL:HA	1.98	0.46
11:F:100:ASP:O	11:F:101:ALA:O	2.34	0.46
12:G:63:ARG:HB2	12:G:66:LEU:HG	1.97	0.46
15:J:113:ILE:HD12	15:J:128:ALA:HB2	1.98	0.46
17:L:35:PRO:HG2	17:L:38:VAL:HG23	1.97	0.46
20:O:109:ARG:NH1	20:O:119:TYR:CE2	2.84	0.46
23:R:51:GLN:NE2	37:R:203:HOH:O	2.49	0.46
28:W:22:ASN:C	28:W:24:LYS:H	2.18	0.46
28:W:12:ILE:O	28:W:69:LYS:HA	2.16	0.46
30:Y:11:THR:O	30:Y:11:THR:HG23	2.16	0.46
31:Z:19:CYS:HA	31:Z:27:TYR:HB2	1.98	0.46
1:O:1042:U:O2'	1:O:1043:C:H5'	2.16	0.45
1:O:1419:U:H2'	1:O:1685:A:C2	2.51	0.45
1:O:2115:U:H2'	1:O:2116:U:H6	1.79	0.45
1:O:2758:G:H2'	1:O:2759:C:H6	1.81	0.45
1:O:2862:G:H4'	7:B:336:GLN:O	2.17	0.45
1:O:2829:G:N2	1:O:2912:C:C2	2.84	0.45
1:O:289:G:N2	1:O:363:A:C2	2.84	0.45
1:O:370:G:N2	1:O:371:U:C2	2.84	0.45
1:O:381:G:H5''	37:O:3623:HOH:O	2.15	0.45
1:O:458:G:C6	1:O:459:A:C6	3.04	0.45
1:O:559:U:O2'	1:O:560:C:H5'	2.16	0.45
5:9:11:A:C2	5:9:69:U:O4'	2.69	0.45
5:9:14:G:C8	5:9:14:G:H5'	2.45	0.45
5:9:39:U:H1'	5:9:44:A:H61	1.81	0.45
6:A:66:ARG:CB	6:A:66:ARG:HH11	2.29	0.45
7:B:181:ILE:HD11	37:B:587:HOH:O	2.15	0.45
11:F:9:PRO:O	11:F:12:LEU:N	2.48	0.45
13:H:113:ALA:N	13:H:114:PRO:HD3	2.31	0.45
13:H:139:ASP:N	13:H:140:PRO:CD	2.75	0.45
13:H:13:ALA:HA	13:H:91:HIS:CE1	2.51	0.45
14:I:97:ALA:O	14:I:100:SER:N	2.45	0.45
14:I:36:VAL:CG1	14:I:37:ALA:N	2.79	0.45
16:K:143:THR:CG2	16:K:144:ASP:H	2.28	0.45
17:L:134:ILE:CG2	17:L:141:ILE:HD13	2.46	0.45
18:M:14:ARG:C	18:M:16:ALA:N	2.70	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
28:W:8:ARG:NH1	37:W:104:HOH:O	2.49	0.45
30:Y:11:THR:CG2	30:Y:23:ARG:HB2	2.46	0.45
30:Y:40:PRO:CD	30:Y:64:ILE:HD13	2.46	0.45
1:0:1609:C:H2'	1:0:1610:G:H8	1.81	0.45
1:0:1667:A:H2'	1:0:1668:U:C6	2.50	0.45
1:0:1702:U:H1'	37:0:3886:HOH:O	2.16	0.45
1:0:191:A:N1	1:0:236:A:O2'	2.49	0.45
1:0:2033:G:C2	1:0:2038:A:C5	3.04	0.45
1:0:2113:G:O2'	1:0:2114:C:H5'	2.16	0.45
1:0:213:G:O2'	1:0:225:G:N1	2.49	0.45
1:0:2467:A:H3'	37:0:4925:HOH:O	2.16	0.45
1:0:2709:G:O2'	1:0:2710:U:H5'	2.17	0.45
1:0:736:A:H5''	37:0:3521:HOH:O	2.16	0.45
4:5:41:ILE:HD11	4:5:49:VAL:CG1	2.46	0.45
5:9:24:U:O2'	5:9:25:G:C5'	2.64	0.45
7:B:232:TRP:CD1	7:B:235:ARG:HD2	2.52	0.45
7:B:2:GLN:HB2	37:B:591:HOH:O	2.15	0.45
13:H:35:ASN:ND2	13:H:80:ASN:HA	2.31	0.45
17:L:157:LEU:HD23	37:L:430:HOH:O	2.16	0.45
17:L:77:PHE:HE2	17:L:86:MET:HB3	1.80	0.45
18:M:14:ARG:C	18:M:16:ALA:H	2.19	0.45
1:0:841:A:C8	22:Q:129:ALA:HB1	2.51	0.45
25:T:52:THR:HG22	25:T:54:THR:H	1.81	0.45
27:V:110:GLN:HE21	27:V:110:GLN:CA	2.26	0.45
27:V:17:ILE:O	27:V:20:THR:HB	2.17	0.45
1:0:1165:G:O2'	1:0:1174:A:H1'	2.16	0.45
1:0:1278:A:P	19:N:19:ARG:HH22	2.39	0.45
1:0:2311:A:H4'	13:H:115:PHE:CZ	2.51	0.45
1:0:2370:A:H5''	1:0:2371:G:OP2	2.15	0.45
1:0:485:A:H1'	1:0:486:A:C8	2.51	0.45
1:0:51:G:O2'	1:0:52:A:H5'	2.15	0.45
1:0:779:U:H5'	1:0:1836:A:C2	2.51	0.45
3:2:65:THR:HB	3:2:83:TRP:H	1.81	0.45
5:9:92:G:H2'	5:9:93:A:H8	1.71	0.45
6:A:95:PRO:HA	6:A:153:ARG:HA	1.97	0.45
1:0:2898:G:H4'	7:B:288:GLY:HA2	1.98	0.45
7:B:90:THR:C	7:B:92:TYR:H	2.20	0.45
14:I:97:ALA:O	14:I:101:VAL:HG23	2.16	0.45
5:9:28:U:H5''	18:M:40:ASN:ND2	2.32	0.45
21:P:66:LYS:HD3	21:P:68:GLY:O	2.16	0.45
22:Q:120:GLY:O	22:Q:140:GLN:N	2.44	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:Q:141:VAL:HG12	22:Q:142:ASP:N	2.31	0.45
24:S:26:THR:OG1	24:S:32:ARG:NH2	2.47	0.45
1:O:1331:A:O2'	1:O:1332:C:H5'	2.17	0.45
1:O:1514:C:H2'	1:O:1515:A:C8	2.52	0.45
1:O:1642:A:C8	1:O:1643:C:C5	3.04	0.45
1:O:1882:C:H5''	6:A:192:VAL:CG2	2.47	0.45
1:O:2103:A:N3	1:O:2103:A:H2'	2.32	0.45
1:O:2411:C:H4'	37:O:4941:HOH:O	2.17	0.45
1:O:2397:G:C5	1:O:2465:A:C6	3.04	0.45
1:O:2517:A:C2'	1:O:2518:C:H5'	2.46	0.45
1:O:2517:A:O2'	1:O:2518:C:H5'	2.16	0.45
1:O:2554:U:C4'	1:O:2555:C:OP1	2.57	0.45
1:O:381:G:O2'	1:O:382:U:H5	1.98	0.45
1:O:958:G:O2'	1:O:959:C:H5'	2.16	0.45
2:I:22:PRO:HG2	2:I:25:VAL:CG2	2.46	0.45
6:A:211:LYS:HB2	37:A:421:HOH:O	2.16	0.45
7:B:49:THR:HG21	7:B:331:SER:O	2.17	0.45
11:F:101:ALA:HB2	11:F:108:LEU:CD2	2.46	0.45
11:F:62:HIS:O	11:F:63:ILE:C	2.54	0.45
13:H:32:ASP:C	13:H:33:MET:HG3	2.37	0.45
13:H:81:TYR:C	13:H:81:TYR:CD1	2.90	0.45
1:O:197:C:OP2	16:K:56:LYS:HD2	2.16	0.45
18:M:114:LYS:O	18:M:117:ALA:HB3	2.16	0.45
22:Q:39:THR:O	22:Q:42:GLU:N	2.49	0.45
27:V:67:ALA:HB2	27:V:93:ILE:HD13	1.97	0.45
31:Z:17:THR:N	31:Z:27:TYR:O	2.50	0.45
1:O:1572:A:O2'	1:O:1573:A:H5'	2.17	0.45
1:O:1893:C:O2	1:O:1968:A:H2	2.00	0.45
1:O:2125:G:H4'	37:O:8118:HOH:O	2.15	0.45
1:O:786:G:O2'	1:O:787:G:H5'	2.17	0.45
6:A:200:PRO:HA	37:A:471:HOH:O	2.17	0.45
9:D:50:VAL:O	9:D:71:ALA:HA	2.17	0.45
13:H:45:GLN:HE21	13:H:135:TRP:HZ2	1.64	0.45
13:H:86:ARG:HD3	13:H:133:ILE:HG12	1.98	0.45
10:E:36:PRO:CG	14:I:127:ILE:HB	2.47	0.45
14:I:8:ALA:HA	14:I:35:THR:HG22	1.99	0.45
15:J:115:ARG:HD2	15:J:116:GLU:OE2	2.16	0.45
16:K:73:VAL:HG21	16:K:116:HIS:CD2	2.52	0.45
18:M:164:ASP:OD1	18:M:167:ASP:HA	2.16	0.45
27:V:54:PHE:C	27:V:146:ILE:HD11	2.36	0.45
1:O:101:C:H2'	1:O:102:A:C8	2.51	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1119:G:C6	1:0:1243:C:C4	3.05	0.45
1:0:1251:C:H2'	1:0:1252:A:O4'	2.17	0.45
1:0:1423:C:O2'	1:0:1424:A:H5'	2.16	0.45
1:0:1476:A:H8	1:0:1476:A:O5'	2.00	0.45
1:0:1513:C:O2'	1:0:1514:C:H5'	2.16	0.45
1:0:24:G:HO2'	1:0:25:A:H8	1.61	0.45
1:0:2687:G:O2'	1:0:2688:U:H5'	2.17	0.45
1:0:2752:C:O2'	1:0:2753:G:H5'	2.16	0.45
1:0:2873:C:N4	1:0:2874:G:C6	2.85	0.45
1:0:30:U:C4	1:0:452:G:O2'	2.70	0.45
1:0:939:A:N6	1:0:1031:G:H1'	2.31	0.45
5:9:45:A:H2'	5:9:46:C:C6	2.52	0.45
6:A:53:ALA:HB1	6:A:54:PRO:HD2	1.99	0.45
6:A:8:ARG:HG2	37:A:405:HOH:O	2.17	0.45
8:C:73:LEU:N	8:C:76:ARG:O	2.36	0.45
11:F:58:GLU:OE1	17:L:27:ARG:NH2	2.36	0.45
13:H:153:VAL:HG21	13:H:157:ILE:CD1	2.47	0.45
13:H:150:LYS:HB2	13:H:157:ILE:HB	1.99	0.45
15:J:66:ARG:HH11	15:J:66:ARG:HG2	1.80	0.45
16:K:98:GLU:O	16:K:99:GLU:CB	2.63	0.45
17:L:52:LEU:HD13	17:L:116:ASN:OD1	2.16	0.45
17:L:39:ARG:CA	17:L:63:VAL:HG22	2.34	0.45
37:O:3403:HOH:O	20:O:37:ARG:HB2	2.16	0.45
20:O:13:VAL:CG2	20:O:41:ARG:HG2	2.46	0.45
29:X:133:HIS:CD2	37:X:435:HOH:O	2.68	0.45
37:O:6879:HOH:O	31:Z:10:LYS:HB3	2.16	0.45
1:0:1266:U:H2'	1:0:1267:C:O4'	2.17	0.45
1:0:1701:A:C5'	1:0:1702:U:O5'	2.65	0.45
1:0:1866:A:N7	1:0:1867:G:H1'	2.31	0.45
1:0:1905:U:H2'	1:0:1906:C:H6	1.80	0.45
1:0:214:U:H5'	37:O:7574:HOH:O	2.16	0.45
1:0:228:C:H2'	1:0:229:G:H5'	1.98	0.45
1:0:2578:G:C8	1:0:2578:G:H5'	2.46	0.45
1:0:537:G:C6	1:0:620:A:C8	3.04	0.45
1:0:625:U:H5'	37:O:3746:HOH:O	2.16	0.45
1:0:629:A:H2'	1:0:630:A:O4'	2.16	0.45
2:1:43:ARG:HD3	37:1:136:HOH:O	2.17	0.45
6:A:153:ARG:HD3	37:A:526:HOH:O	2.15	0.45
8:C:12:THR:HB	37:C:429:HOH:O	2.16	0.45
8:C:135:GLU:HB3	37:C:450:HOH:O	2.16	0.45
8:C:69:HIS:CD2	8:C:69:HIS:H	2.34	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2443:C:O2'	16:K:56:LYS:HE3	2.17	0.45
18:M:34:LEU:HD22	18:M:129:ILE:HD13	1.99	0.45
24:S:78:THR:HB	24:S:86:GLU:HG2	1.99	0.45
29:X:218:GLU:OE1	29:X:232:THR:OG1	2.25	0.45
30:Y:32:LYS:HA	30:Y:35:LYS:HG3	1.99	0.45
31:Z:28:HIS:NE2	31:Z:31:LYS:HE2	2.31	0.45
1:0:114:A:C4'	1:0:115:U:OP1	2.63	0.45
1:0:1447:U:H3'	1:0:1506:U:O2	2.16	0.45
1:0:1501:A:H4'	37:0:6307:HOH:O	2.16	0.45
1:0:1570:C:O2'	1:0:1571:G:H5'	2.16	0.45
1:0:222:A:H2'	1:0:223:G:O4'	2.17	0.45
1:0:2264:A:OP1	17:L:71:SER:HB3	2.17	0.45
1:0:2317:C:OP2	3:2:62:THR:HB	2.17	0.45
1:0:2630:G:N2	1:0:2633:A:OP2	2.48	0.45
1:0:482:G:N2	1:0:484:A:H3'	2.32	0.45
5:9:42:C:O2	9:D:76:ARG:NH1	2.49	0.45
1:0:894:A:N1	8:C:87:ARG:NH2	2.65	0.45
11:F:41:GLU:OE2	17:L:2:ARG:HB2	2.17	0.45
15:J:87:ARG:HB2	25:T:19:THR:HG23	1.98	0.45
1:0:1708:C:O4'	20:O:86:ALA:HB1	2.16	0.45
22:Q:19:ARG:O	22:Q:20:GLU:C	2.55	0.45
25:T:20:MET:CE	25:T:30:HIS:NE2	2.80	0.45
27:V:113:SER:HA	27:V:114:PRO:HD3	1.81	0.45
29:X:214:ARG:HG2	29:X:214:ARG:HH11	1.82	0.45
30:Y:62:TYR:CE2	30:Y:64:ILE:HG23	2.51	0.45
1:0:1191:A:H3'	1:0:1192:A:H5''	1.99	0.45
1:0:12:U:C2'	1:0:13:G:H5'	2.47	0.45
1:0:1717:A:H5''	20:O:54:LYS:HB2	1.98	0.45
1:0:1875:A:OP1	6:A:120:ARG:N	2.45	0.45
1:0:2784:A:H8	1:0:2784:A:O5'	2.00	0.45
1:0:418:C:C4	1:0:2442:G:N2	2.85	0.45
1:0:450:C:H6	1:0:450:C:O5'	1.99	0.45
1:0:907:A:H4'	1:0:1328:A:N1	2.30	0.45
1:0:99:A:N1	24:S:20:HIS:NE2	2.61	0.45
6:A:36:ASP:OD2	6:A:85:ASP:HB2	2.16	0.45
7:B:185:GLY:HA2	37:B:566:HOH:O	2.16	0.45
7:B:55:ASN:HB3	7:B:64:GLY:H	1.82	0.45
9:D:167:GLU:C	9:D:169:THR:H	2.20	0.45
11:F:49:PHE:HE1	11:F:98:VAL:HG23	1.82	0.45
18:M:47:LEU:HD23	18:M:47:LEU:HA	1.71	0.45
19:N:14:LEU:HD23	19:N:102:ILE:HD11	1.99	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:654:A:OP2	19:N:38:ARG:HD3	2.17	0.45
20:O:2:ASP:C	20:O:2:ASP:OD1	2.54	0.45
1:0:2393:C:H4'	21:P:78:GLY:HA3	1.99	0.45
28:W:34:ARG:HG3	28:W:34:ARG:HH11	1.81	0.45
29:X:211:ALA:HA	29:X:214:ARG:HD3	1.99	0.45
29:X:234:VAL:HG12	29:X:235:GLU:N	2.32	0.45
31:Z:37:CYS:SG	31:Z:39:PHE:CB	3.05	0.45
1:0:1181:A:C2'	1:0:1182:C:H5'	2.47	0.45
1:0:1236:A:H2'	1:0:1237:U:O4'	2.17	0.45
1:0:1318:A:H2'	1:0:1319:G:O4'	2.17	0.45
1:0:1359:U:O5'	1:0:1360:C:H5''	2.17	0.45
1:0:2102:G:C2	1:0:2104:C:C4	3.05	0.45
1:0:2316:G:H2'	1:0:2462:G:O6	2.17	0.45
1:0:2321:A:O2'	1:0:2322:U:O3'	2.35	0.45
1:0:2617:G:C2	1:0:2618:G:C8	3.05	0.45
1:0:2626:C:H2'	1:0:2627:G:H8	1.82	0.45
1:0:2091:G:H22	1:0:2653:A:H2	1.63	0.45
1:0:358:G:O2'	1:0:359:U:OP2	2.34	0.45
3:2:1:MET:SD	3:2:83:TRP:NE1	2.80	0.45
5:9:58:G:H3'	5:9:59:C:C6	2.51	0.45
8:C:78:ARG:HG2	37:C:421:HOH:O	2.16	0.45
13:H:14:TYR:N	13:H:91:HIS:HE1	2.14	0.45
14:I:74:ARG:C	14:I:76:ASP:N	2.70	0.45
16:K:64:ILE:O	16:K:64:ILE:HG23	2.16	0.45
17:L:87:MET:CE	37:L:351:HOH:O	2.66	0.45
18:M:127:LEU:HA	18:M:127:LEU:HD12	1.85	0.45
4:5:50:PRO:HG2	23:R:15:MET:HG3	1.99	0.45
27:V:122:ARG:NH1	27:V:152:ALA:O	2.50	0.45
27:V:21:LEU:HD23	27:V:48:VAL:HG21	1.98	0.45
30:Y:10:ARG:CG	30:Y:11:THR:H	2.28	0.45
30:Y:32:LYS:HA	30:Y:35:LYS:HD2	1.98	0.45
1:0:1507:C:O5'	1:0:1507:C:H6	2.00	0.44
1:0:1510:G:H2'	1:0:1511:U:O4'	2.16	0.44
1:0:1675:C:H5''	2:1:5:LYS:HD2	1.99	0.44
1:0:429:A:C6	1:0:430:A:C6	3.05	0.44
1:0:72:C:H2'	1:0:73:C:H6	1.81	0.44
1:0:821:U:H2'	1:0:822:C:C6	2.52	0.44
1:0:775:G:O2'	1:0:881:C:C5	2.69	0.44
1:0:889:C:H2'	1:0:890:C:C6	2.52	0.44
1:0:2768:A:C8	7:B:316:ARG:HB2	2.52	0.44
9:D:94:ALA:HB3	9:D:174:VAL:CA	2.46	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:E:138:ILE:HG23	10:E:139:GLU:N	2.32	0.44
11:F:104:ALA:C	11:F:106:THR:H	2.21	0.44
1:0:431:G:P	17:L:48:ARG:HH12	2.40	0.44
22:Q:4:TYR:CZ	22:Q:15:LYS:HB3	2.51	0.44
27:V:105:THR:HG23	27:V:106:THR:N	2.31	0.44
28:W:10:VAL:HG13	37:W:115:HOH:O	2.16	0.44
1:0:1131:G:O2'	1:0:1132:A:H5'	2.17	0.44
1:0:1201:C:H2'	1:0:1202:A:H5'	1.99	0.44
1:0:1205:U:H2'	1:0:1206:U:C5'	2.47	0.44
1:0:1532:G:C6	1:0:1533:A:C6	3.05	0.44
1:0:1747:A:H1'	37:0:7019:HOH:O	2.17	0.44
1:0:1754:A:H5''	37:0:3950:HOH:O	2.16	0.44
1:0:2814:A:H4'	1:0:2815:G:H5''	1.98	0.44
1:0:290:C:H2'	1:0:291:C:O4'	2.17	0.44
1:0:703:G:O2'	1:0:704:C:H5'	2.17	0.44
5:9:50:G:C6	5:9:51:A:C6	3.04	0.44
6:A:97:ALA:HA	6:A:131:HIS:NE2	2.32	0.44
6:A:22:ARG:NH1	37:A:426:HOH:O	2.50	0.44
7:B:22:GLU:HA	7:B:205:VAL:HG21	1.99	0.44
7:B:265:LEU:CD2	7:B:316:ARG:HD3	2.47	0.44
8:C:72:LYS:HD2	37:C:536:HOH:O	2.17	0.44
10:E:157:LYS:NZ	37:E:204:HOH:O	2.47	0.44
10:E:37:ASP:OD1	14:I:125:SER:HB3	2.17	0.44
10:E:6:GLU:HA	10:E:46:THR:HG22	1.99	0.44
14:I:19:MET:O	14:I:20:GLY:C	2.55	0.44
17:L:102:GLU:OE2	17:L:117:SER:OG	2.29	0.44
17:L:9:ARG:O	17:L:10:GLU:C	2.55	0.44
17:L:48:ARG:HH11	17:L:52:LEU:HD21	1.80	0.44
37:0:3724:HOH:O	19:N:32:ARG:NH2	2.50	0.44
20:O:134:VAL:O	20:O:137:LEU:HB3	2.17	0.44
20:O:7:LYS:HD3	20:O:23:PHE:CE1	2.53	0.44
23:R:8:PRO:HD2	26:U:32:ALA:HA	1.98	0.44
30:Y:73:THR:HG22	37:Y:213:HOH:O	2.17	0.44
1:0:118:G:N2	1:0:123:U:H1'	2.32	0.44
1:0:159:G:H1	1:0:175:G:HO2'	1.65	0.44
1:0:1971:G:C2'	1:0:1972:U:OP2	2.65	0.44
1:0:207:U:H5'	37:0:7029:HOH:O	2.18	0.44
1:0:2547:C:H2'	1:0:2548:C:H6	1.81	0.44
1:0:2580:G:H1'	37:0:5019:HOH:O	2.16	0.44
1:0:287:C:H6	1:0:287:C:O5'	2.00	0.44
1:0:321:A:H1'	37:0:3740:HOH:O	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:413:G:H2'	1:0:414:C:C6	2.52	0.44
1:0:621:C:H2'	1:0:622:G:C8	2.53	0.44
1:0:876:A:N7	1:0:878:G:H1'	2.31	0.44
1:0:892:G:C6	1:0:893:C:N3	2.86	0.44
4:5:50:PRO:O	4:5:54:VAL:HG23	2.17	0.44
6:A:14:SER:N	6:A:17:ARG:HH21	2.15	0.44
6:A:81:GLN:HG3	6:A:92:ASN:HD21	1.82	0.44
1:0:2846:C:H4'	7:B:156:LYS:HB3	1.99	0.44
9:D:15:GLU:HA	9:D:16:PRO:HD3	1.77	0.44
11:F:28:ALA:HB3	11:F:99:THR:O	2.18	0.44
13:H:55:GLN:HE22	13:H:91:HIS:HD2	1.60	0.44
13:H:73:GLN:OE1	13:H:73:GLN:CA	2.64	0.44
14:I:89:HIS:CE1	37:I:333:HOH:O	2.70	0.44
16:K:21:ARG:N	37:K:308:HOH:O	2.50	0.44
18:M:110:THR:HB	18:M:113:SER:OG	2.18	0.44
21:P:18:PRO:O	21:P:21:ARG:HB2	2.18	0.44
22:Q:39:THR:HG23	22:Q:107:GLU:O	2.17	0.44
1:0:317:A:OP1	24:S:52:ARG:O	2.35	0.44
1:0:1205:U:H2'	1:0:1206:U:H5''	1.98	0.44
1:0:1361:C:H1'	8:C:83:ALA:HA	1.99	0.44
1:0:1450:C:O2'	1:0:1493:A:H2'	2.17	0.44
1:0:1500:U:P	20:O:41:ARG:HH22	2.40	0.44
1:0:1886:A:O2'	30:Y:20:LEU:HB2	2.18	0.44
1:0:2251:G:H2'	1:0:2252:A:H8	1.81	0.44
1:0:2325:C:O2'	1:0:2411:C:H1'	2.18	0.44
1:0:24:G:O2'	1:0:25:A:H8	2.01	0.44
1:0:2806:C:H2'	1:0:2807:U:C6	2.53	0.44
1:0:309:C:OP1	24:S:97:ARG:NH2	2.49	0.44
1:0:454:U:H3'	37:O:8058:HOH:O	2.17	0.44
1:0:841:A:C4	1:0:843:A:C6	3.06	0.44
5:9:104:A:O2'	5:9:105:A:H5'	2.17	0.44
7:B:42:ALA:H	7:B:79:MET:HE2	1.83	0.44
8:C:133:ARG:HG3	8:C:133:ARG:NH1	2.31	0.44
8:C:193:LEU:O	8:C:233:THR:HG23	2.17	0.44
8:C:76:ARG:HG2	8:C:78:ARG:NH1	2.31	0.44
9:D:78:GLU:O	9:D:82:GLU:HG3	2.18	0.44
10:E:103:VAL:CG1	10:E:104:ILE:N	2.81	0.44
17:L:133:LEU:N	17:L:133:LEU:CD1	2.79	0.44
18:M:132:ASN:HA	37:M:345:HOH:O	2.17	0.44
18:M:73:ALA:HB2	18:M:163:PHE:CZ	2.52	0.44
28:W:66:THR:CG2	28:W:67:PRO:HD2	2.40	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
29:X:187:VAL:CG1	29:X:205:ILE:HA	2.47	0.44
1:0:777:U:O2'	31:Z:11:LYS:HA	2.18	0.44
1:0:471:G:H4'	31:Z:16:HIS:CE1	2.52	0.44
1:0:1067:A:C2	1:0:1068:C:C2	3.05	0.44
1:0:1942:A:O3'	6:A:213:LYS:HE2	2.18	0.44
1:0:2102:G:H2'	37:0:5265:HOH:O	2.17	0.44
1:0:400:C:H2'	1:0:401:C:C6	2.53	0.44
1:0:815:U:O2'	1:0:816:G:H5'	2.18	0.44
1:0:938:G:OP2	1:0:938:G:H8	2.01	0.44
1:0:960:G:N3	1:0:960:G:C2'	2.80	0.44
5:9:27:C:H2'	5:9:28:U:O4'	2.17	0.44
7:B:279:THR:OG1	7:B:290:VAL:O	2.32	0.44
8:C:142:ASP:OD1	8:C:236:THR:HG23	2.18	0.44
9:D:69:ILE:HG22	9:D:69:ILE:O	2.18	0.44
10:E:49:ILE:HD11	10:E:69:ILE:CD1	2.46	0.44
16:K:65:ASP:CG	16:K:111:ALA:HB3	2.37	0.44
17:L:52:LEU:HD11	37:L:301:HOH:O	2.16	0.44
19:N:59:VAL:HG23	19:N:111:VAL:HG23	1.99	0.44
21:P:44:ASP:O	21:P:47:VAL:N	2.49	0.44
22:Q:104:PHE:CB	22:Q:109:MET:HE1	2.48	0.44
27:V:65:VAL:HA	27:V:68:THR:HG22	1.99	0.44
37:0:6841:HOH:O	31:Z:12:ASN:HB3	2.17	0.44
31:Z:28:HIS:O	31:Z:30:LYS:N	2.50	0.44
1:0:111:C:H2'	1:0:112:G:O4'	2.18	0.44
1:0:1306:U:OP1	8:C:179:GLY:HA3	2.18	0.44
1:0:1320:U:H2'	1:0:1321:A:C8	2.52	0.44
1:0:1346:U:H2'	1:0:1347:U:H6	1.83	0.44
1:0:1370:G:N7	22:Q:24:SER:OG	2.45	0.44
1:0:1527:A:H61	1:0:1663:G:H2'	1.83	0.44
1:0:1634:G:H2'	1:0:1635:U:H6	1.79	0.44
1:0:2135:A:O2'	1:0:2136:G:H5'	2.18	0.44
1:0:2357:G:O2'	1:0:2358:U:H5'	2.18	0.44
1:0:809:G:O2'	1:0:810:G:H5'	2.18	0.44
6:A:55:VAL:HG12	6:A:55:VAL:O	2.17	0.44
7:B:142:LEU:HD21	7:B:178:ALA:HB1	1.98	0.44
8:C:178:GLN:C	8:C:180:SER:H	2.19	0.44
5:9:41:C:N4	9:D:72:LYS:HE3	2.32	0.44
10:E:82:TYR:CD1	10:E:141:VAL:HG12	2.53	0.44
10:E:20:ILE:O	10:E:30:THR:HA	2.18	0.44
10:E:24:GLY:N	10:E:76:VAL:HB	2.32	0.44
13:H:47:GLU:CB	13:H:133:ILE:CD1	2.95	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2443:C:O2'	16:K:56:LYS:HE2	2.17	0.44
17:L:187:LEU:HD23	17:L:187:LEU:HA	1.80	0.44
18:M:108:SER:HA	18:M:109:PRO:HD3	1.74	0.44
18:M:37:ARG:CZ	37:M:305:HOH:O	2.66	0.44
21:P:25:PRO:HA	21:P:26:PRO:HD3	1.84	0.44
27:V:29:VAL:O	27:V:30:ASN:HB2	2.18	0.44
28:W:74:ALA:HB2	28:W:85:VAL:CG1	2.47	0.44
28:W:86:GLU:O	28:W:87:ALA:O	2.35	0.44
31:Z:15:THR:HB	31:Z:28:HIS:CE1	2.53	0.44
1:0:1024:G:C6	1:0:1025:C:N3	2.86	0.44
1:0:1448:A:N9	1:0:1506:U:H1'	2.33	0.44
1:0:1855:G:N1	1:0:1875:A:C8	2.85	0.44
1:0:1898:G:H2'	1:0:1899:C:C6	2.52	0.44
1:0:840:U:O2	1:0:2055:A:H1'	2.18	0.44
1:0:2531:U:H2'	1:0:2532:A:O4'	2.17	0.44
1:0:2634:G:H2'	1:0:2635:A:C8	2.53	0.44
1:0:2716:G:H5''	7:B:206:THR:CG2	2.34	0.44
1:0:1562:C:H42	1:0:2738:G:H1	1.65	0.44
1:0:2775:A:C6	1:0:2776:A:C6	3.05	0.44
1:0:782:G:N2	37:0:3844:HOH:O	2.51	0.44
5:9:25:G:H4'	37:9:339:HOH:O	2.17	0.44
7:B:278:PRO:HD3	7:B:294:TYR:CE2	2.52	0.44
9:D:10:PHE:CD1	9:D:11:HIS:N	2.86	0.44
13:H:153:VAL:HA	37:H:218:HOH:O	2.17	0.44
13:H:150:LYS:HA	13:H:153:VAL:HG22	1.99	0.44
13:H:2:PRO:HD2	13:H:5:MET:SD	2.57	0.44
14:I:23:ALA:O	14:I:26:VAL:N	2.50	0.44
18:M:159:TYR:HE2	18:M:163:PHE:HE2	1.66	0.44
18:M:23:ARG:O	18:M:27:LEU:HG	2.17	0.44
23:R:18:MET:HG3	23:R:74:ALA:CB	2.48	0.44
24:S:105:ASP:HA	37:S:324:HOH:O	2.17	0.44
29:X:131:GLN:O	29:X:132:ASP:HB2	2.17	0.44
1:0:1109:U:O4	14:I:24:SER:HB3	2.18	0.44
1:0:1189:A:O2'	1:0:1208:C:H2'	2.17	0.44
1:0:1284:G:N2	37:0:3725:HOH:O	2.49	0.44
1:0:1491:G:H4'	1:0:1492:A:OP2	2.17	0.44
1:0:1816:C:H2'	1:0:1817:U:O4'	2.18	0.44
1:0:2057:U:O5'	1:0:2057:U:H6	2.00	0.44
1:0:2644:C:O2'	1:0:2645:U:H5'	2.18	0.44
1:0:2791:U:O2'	1:0:2792:A:C5'	2.62	0.44
1:0:2843:A:H2'	1:0:2844:C:H5'	1.99	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:947:U:O2'	1:0:948:G:H5'	2.18	0.44
6:A:19:PRO:O	6:A:20:SER:C	2.55	0.44
6:A:51:ARG:O	6:A:53:ALA:N	2.50	0.44
6:A:5:GLN:HB2	37:A:445:HOH:O	2.18	0.44
6:A:84:VAL:HG13	6:A:98:GLU:CG	2.47	0.44
8:C:107:ARG:NH1	8:C:107:ARG:HB3	2.32	0.44
8:C:37:ALA:O	8:C:38:ALA:C	2.56	0.44
11:F:29:VAL:HA	11:F:99:THR:HG22	2.00	0.44
11:F:2:VAL:HG22	11:F:57:GLU:OE1	2.17	0.44
14:I:71:TYR:CG	14:I:72:PRO:HD2	2.53	0.44
17:L:106:ASN:ND2	35:L:202:CL:CL	2.87	0.44
17:L:106:ASN:O	17:L:109:PHE:N	2.47	0.44
3:2:46:ILE:HD13	17:L:87:MET:HG2	2.00	0.44
18:M:37:ARG:NE	37:M:305:HOH:O	2.51	0.44
20:O:38:GLU:HA	20:O:41:ARG:HH11	1.82	0.44
26:U:17:GLU:O	26:U:20:LEU:HB3	2.17	0.44
29:X:170:SER:HG	29:X:175:ARG:HG3	1.82	0.44
30:Y:17:ARG:O	30:Y:18:TYR:HB2	2.18	0.44
1:0:1046:G:N3	1:0:1082:A:H2	2.15	0.44
1:0:1109:U:C2	14:I:21:ARG:NH1	2.86	0.44
1:0:1118:A:C3'	1:0:1119:G:H5'	2.48	0.44
1:0:130:C:O2'	1:0:131:A:N7	2.51	0.44
1:0:1370:G:OP2	22:Q:26:LYS:NZ	2.48	0.44
1:0:1598:A:H2'	1:0:1599:U:O4'	2.18	0.44
1:0:1650:C:H6	1:0:1650:C:O5'	2.01	0.44
1:0:1870:C:O5'	1:0:1870:C:H6	2.01	0.44
1:0:2754:G:H2'	1:0:2755:G:C5'	2.47	0.44
1:0:285:A:N6	1:0:367:G:H1'	2.33	0.44
2:1:14:LEU:HD23	2:1:14:LEU:HA	1.83	0.44
7:B:130:ASP:HB2	37:B:640:HOH:O	2.18	0.44
7:B:47:GLY:O	7:B:73:VAL:N	2.50	0.44
9:D:146:LYS:NZ	18:M:107:ASN:ND2	2.65	0.44
11:F:104:ALA:C	11:F:106:THR:N	2.70	0.44
11:F:33:THR:HG21	11:F:59:ILE:O	2.17	0.44
13:H:142:VAL:C	13:H:144:GLU:H	2.21	0.44
13:H:150:LYS:HE2	37:H:204:HOH:O	2.17	0.44
13:H:47:GLU:OE2	13:H:162:SER:OG	2.34	0.44
13:H:72:VAL:C	13:H:74:ASN:H	2.20	0.44
16:K:51:PHE:H	16:K:51:PHE:HD2	1.66	0.44
17:L:57:LYS:HG2	17:L:58:GLN:N	2.29	0.44
9:D:146:LYS:NZ	18:M:107:ASN:HD21	2.16	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:N:72:LYS:O	19:N:74:VAL:N	2.41	0.44
23:R:81:ILE:O	23:R:83:VAL:HG23	2.17	0.44
24:S:43:ASN:C	24:S:45:GLY:N	2.71	0.44
29:X:141:THR:HG23	29:X:142:SER:N	2.32	0.44
30:Y:32:LYS:HG2	30:Y:35:LYS:NZ	2.32	0.44
31:Z:16:HIS:N	37:Z:211:HOH:O	2.51	0.44
1:0:101:C:H2'	1:0:102:A:H8	1.83	0.43
1:0:1283:G:O2'	1:0:1284:G:H5'	2.17	0.43
1:0:1314:U:H1'	1:0:1316:G:C2	2.53	0.43
1:0:1819:G:H2'	1:0:1820:G:C5'	2.48	0.43
1:0:192:A:N6	1:0:194:A:C2	2.86	0.43
1:0:2256:G:H2'	1:0:2257:G:C5'	2.48	0.43
1:0:2379:G:O2'	1:0:2418:G:H2'	2.17	0.43
1:0:2825:C:H4'	1:0:2826:G:O4'	2.18	0.43
1:0:593:A:C2'	1:0:594:C:H5'	2.47	0.43
1:0:710:G:C2'	1:0:711:G:H5'	2.48	0.43
3:2:64:LYS:HE2	3:2:84:ARG:HH12	1.83	0.43
3:2:64:LYS:HE2	3:2:84:ARG:NH1	2.33	0.43
5:9:107:C:O2'	5:9:108:C:H5'	2.18	0.43
7:B:62:ARG:HA	7:B:65:MET:CE	2.47	0.43
8:C:104:ASP:OD1	8:C:107:ARG:NH2	2.51	0.43
8:C:214:THR:HG22	8:C:216:SER:N	2.28	0.43
9:D:10:PHE:CG	9:D:11:HIS:N	2.86	0.43
9:D:173:GLU:CG	9:D:174:VAL:H	2.31	0.43
17:L:165:SER:HB3	37:L:303:HOH:O	2.17	0.43
18:M:141:ARG:N	37:M:309:HOH:O	2.50	0.43
19:N:38:ARG:NH1	37:N:304:HOH:O	2.51	0.43
1:0:1719:G:OP1	20:O:18:LYS:HG3	2.18	0.43
31:Z:28:HIS:O	31:Z:32:LYS:N	2.41	0.43
1:0:1055:G:H5'	13:H:114:PRO:O	2.19	0.43
1:0:106:A:C2	1:0:107:U:C2	3.06	0.43
1:0:1347:U:O2'	1:0:1348:A:H5'	2.18	0.43
1:0:1527:A:O2'	1:0:1528:A:C8	2.68	0.43
1:0:1656:A:H2'	1:0:1657:A:O4'	2.18	0.43
1:0:2276:U:H2'	1:0:2277:U:C6	2.53	0.43
1:0:2754:G:H2'	1:0:2755:G:O4'	2.18	0.43
1:0:538:C:O2	1:0:538:C:C2'	2.65	0.43
1:0:820:G:C5'	1:0:821:U:H5'	2.48	0.43
1:0:919:U:P	37:0:3429:HOH:O	2.76	0.43
5:9:28:U:H5	37:9:435:HOH:O	2.01	0.43
6:A:122:SER:O	6:A:124:VAL:HG13	2.18	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
37:O:6803:HOH:O	17:L:91:ILE:HD13	2.18	0.43
21:P:19:ARG:C	21:P:21:ARG:H	2.21	0.43
27:V:8:ARG:HB2	27:V:51:PHE:HB3	2.00	0.43
29:X:142:SER:HB2	37:X:465:HOH:O	2.18	0.43
1:O:1041:U:C2'	1:O:1042:U:H5'	2.48	0.43
1:O:1859:A:H2'	1:O:1860:U:H5'	1.99	0.43
1:O:1878:G:H2'	1:O:1879:U:H6	1.79	0.43
1:O:2630:G:O6	6:A:206:ARG:NH2	2.51	0.43
1:O:2831:C:C2'	1:O:2832:C:H5'	2.48	0.43
1:O:363:A:H2'	1:O:364:C:C6	2.52	0.43
1:O:480:C:H5''	1:O:481:U:OP2	2.19	0.43
1:O:396:U:H5'	3:2:42:ARG:NH1	2.34	0.43
6:A:112:PRO:N	6:A:152:CYS:SG	2.91	0.43
6:A:51:ARG:CB	6:A:51:ARG:NH1	2.81	0.43
7:B:105:PHE:CD1	7:B:115:VAL:HG13	2.54	0.43
8:C:55:ARG:HB2	37:C:462:HOH:O	2.17	0.43
10:E:112:ALA:HA	10:E:113:PRO:HD3	1.87	0.43
10:E:146:ALA:O	10:E:150:GLN:HG2	2.18	0.43
15:J:61:THR:HB	37:J:348:HOH:O	2.18	0.43
16:K:55:GLN:HA	16:K:58:GLN:HE21	1.83	0.43
37:O:3782:HOH:O	17:L:178:LYS:HB2	2.18	0.43
17:L:54:TYR:HB2	17:L:132:ILE:HD13	1.99	0.43
27:V:76:ASP:O	27:V:77:ALA:C	2.56	0.43
37:O:6727:HOH:O	29:X:137:LYS:HD3	2.18	0.43
30:Y:67:GLY:HA3	30:Y:70:GLN:O	2.18	0.43
31:Z:28:HIS:HD2	31:Z:31:LYS:HG3	1.83	0.43
1:O:2519:C:O2'	1:O:2520:G:H5'	2.19	0.43
1:O:2553:A:H5''	37:O:6999:HOH:O	2.18	0.43
1:O:2616:G:H2'	1:O:2645:U:O4	2.17	0.43
1:O:2791:U:C4	1:O:2794:G:O6	2.70	0.43
1:O:318:C:H41	1:O:336:G:H5''	1.84	0.43
1:O:377:C:H5	37:O:4985:HOH:O	2.01	0.43
1:O:766:A:H1'	1:O:2478:U:O2'	2.19	0.43
5:9:114:G:H2'	5:9:115:C:H6	1.79	0.43
6:A:194:MET:HE3	37:A:499:HOH:O	2.18	0.43
9:D:14:ARG:NH1	37:D:208:HOH:O	2.48	0.43
10:E:15:GLN:HG3	10:E:20:ILE:HG12	2.00	0.43
10:E:21:THR:HA	10:E:29:VAL:O	2.18	0.43
14:I:138:THR:C	14:I:140:GLY:H	2.21	0.43
14:I:46:ILE:O	14:I:46:ILE:HG12	2.18	0.43
17:L:156:ARG:NH1	37:L:322:HOH:O	2.51	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:M:64:SER:C	18:M:66:LEU:H	2.21	0.43
20:O:115:SER:C	20:O:117:SER:N	2.71	0.43
20:O:22:TRP:CZ2	20:O:24:ASN:HA	2.53	0.43
25:T:9:CYS:CA	25:T:52:THR:HG23	2.49	0.43
37:O:8155:HOH:O	28:W:23:HIS:HD2	2.00	0.43
29:X:177:LYS:HD3	29:X:181:GLY:O	2.18	0.43
1:O:1119:G:N2	1:O:1246:A:C2	2.82	0.43
1:O:1682:A:H5''	37:O:4885:HOH:O	2.17	0.43
1:O:1929:G:H1'	37:O:6275:HOH:O	2.18	0.43
1:O:2028:U:H2'	1:O:2029:C:H6	1.83	0.43
1:O:2550:U:O2'	1:O:2551:C:H5'	2.19	0.43
1:O:558:C:O2'	1:O:559:U:H5''	2.19	0.43
1:O:590:A:C2'	1:O:591:A:H5'	2.48	0.43
1:O:747:G:H1'	37:O:3792:HOH:O	2.19	0.43
1:O:796:A:H62	1:O:817:G:H1'	1.82	0.43
1:O:909:U:C2	1:O:910:C:C6	3.06	0.43
3:2:64:LYS:HA	3:2:84:ARG:HA	1.99	0.43
7:B:62:ARG:CB	7:B:65:MET:HE3	2.49	0.43
9:D:49:PRO:HG3	37:D:204:HOH:O	2.18	0.43
9:D:84:LEU:C	9:D:86:THR:N	2.71	0.43
11:F:49:PHE:N	11:F:49:PHE:CD1	2.86	0.43
12:G:64:ASN:ND2	12:G:64:ASN:N	2.66	0.43
17:L:83:SER:N	17:L:86:MET:HE2	2.34	0.43
20:O:120:ARG:NH2	20:O:123:TYR:HD2	2.17	0.43
20:O:16:VAL:HG12	20:O:20:ARG:HB2	2.00	0.43
21:P:11:ARG:NH1	37:P:211:HOH:O	2.51	0.43
26:U:12:THR:CG2	26:U:14:ALA:HB3	2.48	0.43
37:K:360:HOH:O	29:X:147:ARG:HD2	2.18	0.43
1:O:1168:C:H2'	1:O:1169:U:O4'	2.18	0.43
1:O:1189:A:H1'	1:O:1209:C:O4'	2.19	0.43
1:O:1335:C:H2'	1:O:1336:U:H6	1.83	0.43
1:O:1414:A:H2'	1:O:1415:G:O4'	2.18	0.43
1:O:1673:U:P	37:O:3561:HOH:O	2.76	0.43
1:O:175:G:O2'	1:O:176:U:OP2	2.24	0.43
1:O:1839:A:H5'	1:O:2643:G:H4'	2.01	0.43
1:O:1902:G:H2'	1:O:1903:U:O4'	2.19	0.43
1:O:1909:A:H2'	1:O:1910:A:C8	2.53	0.43
1:O:213:G:H22	1:O:225:G:H2'	1.83	0.43
1:O:228:C:H2'	1:O:229:G:O4'	2.19	0.43
1:O:402:U:H2'	1:O:403:C:H6	1.81	0.43
1:O:488:U:O2'	24:S:82:THR:HG21	2.19	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:487:G:O2'	1:0:488:U:OP2	2.37	0.43
1:0:483:C:N4	1:0:506:G:O2'	2.50	0.43
1:0:627:G:H1'	37:0:3703:HOH:O	2.19	0.43
1:0:77:G:C2'	1:0:78:G:H5'	2.49	0.43
1:0:955:A:C2	1:0:1013:A:C4	3.07	0.43
3:2:69:TYR:O	3:2:77:ALA:HA	2.17	0.43
5:9:45:A:OP1	9:D:140:ARG:NH1	2.51	0.43
6:A:15:THR:N	37:A:422:HOH:O	2.46	0.43
6:A:20:SER:C	6:A:22:ARG:N	2.72	0.43
7:B:183:GLU:OE1	7:B:183:GLU:HA	2.18	0.43
7:B:247:VAL:HG13	7:B:251:VAL:HG11	1.99	0.43
7:B:41:PHE:CD1	7:B:79:MET:HE2	2.54	0.43
11:F:108:LEU:C	11:F:108:LEU:HD12	2.39	0.43
13:H:111:MET:O	13:H:114:PRO:HD3	2.17	0.43
15:J:41:LYS:O	15:J:42:ASN:HB2	2.18	0.43
1:0:2413:A:N7	18:M:109:PRO:HB3	2.34	0.43
1:0:100:C:H4'	24:S:16:LEU:HB2	1.99	0.43
30:Y:47:LEU:HD23	30:Y:57:CYS:HB2	2.00	0.43
1:0:112:G:OP1	31:Z:20:ARG:NH1	2.50	0.43
1:0:1299:G:N2	37:0:3868:HOH:O	2.52	0.43
1:0:1318:A:O2'	1:0:1319:G:H5'	2.17	0.43
1:0:1589:G:N2	1:0:1605:G:H2'	2.27	0.43
1:0:1876:C:C4'	1:0:1877:G:OP2	2.66	0.43
1:0:187:A:H3'	1:0:188:C:H6	1.83	0.43
1:0:1943:C:O4'	6:A:212:PRO:HA	2.18	0.43
1:0:2290:U:C4'	1:0:2291:A:OP1	2.67	0.43
1:0:2595:U:H2'	1:0:2596:A:C8	2.54	0.43
1:0:2866:U:H2'	37:T:208:HOH:O	2.18	0.43
3:2:38:ARG:O	3:2:42:ARG:HB2	2.18	0.43
3:2:60:LYS:HG3	3:2:61:PRO:CD	2.47	0.43
4:5:52:ASN:O	4:5:55:ALA:HB2	2.19	0.43
5:9:82:U:H2'	5:9:83:G:C8	2.54	0.43
6:A:199:HIS:CD2	6:A:201:PHE:HB2	2.53	0.43
7:B:212:GLN:HB2	7:B:257:THR:CG2	2.48	0.43
7:B:195:ARG:HE	7:B:323:LEU:HD13	1.84	0.43
8:C:98:ARG:NH1	37:C:403:HOH:O	2.30	0.43
10:E:32:ARG:NH2	37:E:206:HOH:O	2.51	0.43
15:J:14:LYS:HD2	15:J:45:PRO:HG3	1.99	0.43
15:J:65:ARG:O	15:J:66:ARG:HB2	2.18	0.43
16:K:73:VAL:HG23	16:K:74:THR:H	1.84	0.43
17:L:59:GLY:HA3	17:L:141:ILE:HD11	2.00	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:M:120:GLU:O	18:M:123:ILE:HB	2.18	0.43
20:O:5:ALA:HB3	20:O:6:GLN:OE1	2.19	0.43
1:O:1370:G:H5'	22:Q:64:SER:OG	2.18	0.43
23:R:38:ALA:O	23:R:39:ASP:C	2.57	0.43
27:V:59:GLN:NE2	27:V:97:ALA:HB3	2.33	0.43
1:O:1031:G:HO2'	1:O:1032:A:P	2.42	0.43
1:O:1165:G:H8	1:O:1165:G:OP1	2.02	0.43
1:O:1325:G:H2'	1:O:1326:U:H6	1.84	0.43
1:O:1666:C:O2'	1:O:1667:A:C5'	2.67	0.43
1:O:1759:A:O2'	1:O:1818:C:C2'	2.66	0.43
1:O:1846:U:H2'	1:O:1847:A:C5	2.54	0.43
1:O:1477:C:H5'	1:O:1868:G:H5''	2.01	0.43
1:O:1884:G:O2'	1:O:1885:A:C5'	2.57	0.43
1:O:213:G:HO2'	1:O:214:U:H5	1.65	0.43
1:O:388:G:H5''	1:O:2266:A:OP1	2.18	0.43
1:O:2298:C:H2'	1:O:2299:G:O4'	2.19	0.43
1:O:2350:G:H2'	1:O:2351:C:H6	1.82	0.43
1:O:2659:U:C4'	22:Q:76:ASP:HB3	2.49	0.43
1:O:545:G:C8	1:O:545:G:H5'	2.46	0.43
1:O:638:C:H2'	1:O:639:A:H8	1.84	0.43
6:A:190:ARG:NH2	6:A:207:GLN:OE1	2.52	0.43
6:A:94:LEU:HG	6:A:99:ILE:CD1	2.49	0.43
10:E:40:VAL:HB	37:E:232:HOH:O	2.18	0.43
12:G:71:LEU:C	12:G:73:ASP:N	2.72	0.43
15:J:34:VAL:O	15:J:35:HIS:C	2.57	0.43
24:S:2:LYS:HE2	37:S:321:HOH:O	2.17	0.43
1:O:1871:U:O4'	1:O:1873:G:C8	2.72	0.43
1:O:2088:C:H1'	1:O:2841:A:N1	2.34	0.43
1:O:2112:A:N1	1:O:2113:G:C6	2.87	0.43
1:O:2488:A:H2'	1:O:2489:G:O4'	2.19	0.43
1:O:2101:A:H1'	1:O:2537:G:C1'	2.49	0.43
1:O:2563:U:H2'	1:O:2565:C:O5'	2.19	0.43
1:O:305:A:N1	1:O:329:A:H2'	2.33	0.43
1:O:816:G:H2'	1:O:817:G:O4'	2.18	0.43
3:2:67:LEU:HD11	3:2:88:LEU:HD21	2.00	0.43
6:A:36:ASP:CG	6:A:36:ASP:O	2.57	0.43
1:O:2657:G:OP1	7:B:17:LYS:HB2	2.18	0.43
7:B:36:PRO:HA	7:B:168:GLY:CA	2.48	0.43
8:C:151:GLN:HB3	37:C:447:HOH:O	2.18	0.43
15:J:113:ILE:HG22	15:J:114:ALA:N	2.33	0.43
16:K:35:ARG:NH1	16:K:43:HIS:HB3	2.25	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:L:102:GLU:OE1	17:L:164:THR:HG21	2.19	0.43
17:L:98:GLN:HB2	17:L:129:HIS:CD2	2.54	0.43
17:L:184:ARG:HB2	17:L:184:ARG:NH1	2.33	0.43
17:L:4:ALA:O	17:L:7:TYR:HB2	2.19	0.43
17:L:8:ILE:HD13	37:L:330:HOH:O	2.18	0.43
18:M:33:ARG:O	18:M:47:LEU:HA	2.19	0.43
19:N:11:ILE:O	19:N:14:LEU:HB2	2.19	0.43
23:R:24:LEU:CD2	23:R:74:ALA:HB1	2.49	0.43
27:V:48:VAL:CG1	27:V:48:VAL:O	2.67	0.43
1:0:110:C:H2'	1:0:111:C:C6	2.51	0.43
1:0:1245:C:O5'	1:0:1245:C:H6	2.02	0.43
1:0:1273:C:C2	1:0:1284:G:C2	3.07	0.43
1:0:1449:G:H5''	1:0:1450:C:OP2	2.18	0.43
1:0:1682:A:O2'	1:0:1683:G:H5''	2.18	0.43
1:0:1829:A:C8	1:0:1885:A:C8	3.06	0.43
1:0:200:U:H5''	1:0:201:G:OP2	2.19	0.43
1:0:2524:G:C6	1:0:2525:G:N1	2.87	0.43
1:0:45:A:C8	1:0:47:G:N2	2.87	0.43
1:0:696:C:O2'	1:0:697:G:H5'	2.18	0.43
1:0:933:C:H2'	1:0:934:C:C6	2.54	0.43
1:0:1925:G:OP1	3:2:29:ARG:NH2	2.52	0.43
1:0:169:A:O2'	3:2:48:ASN:ND2	2.50	0.43
4:5:41:ILE:HD11	4:5:49:VAL:HG13	2.01	0.43
5:9:45:A:H2'	5:9:46:C:H6	1.83	0.43
6:A:130:THR:HB	6:A:137:VAL:HB	2.01	0.43
6:A:3:ARG:H	6:A:3:ARG:HG2	1.62	0.43
6:A:72:GLU:OE2	30:Y:76:GLY:HA3	2.18	0.43
7:B:232:TRP:HD1	7:B:235:ARG:HD2	1.84	0.43
1:0:1311:G:O6	8:C:173:LYS:HE3	2.19	0.43
8:C:194:PHE:HA	8:C:234:VAL:HG13	2.00	0.43
5:9:57:A:H8	9:D:141:VAL:HG21	1.84	0.43
10:E:11:VAL:HG11	10:E:22:VAL:HG13	1.99	0.43
13:H:47:GLU:HG2	13:H:133:ILE:HD12	2.00	0.43
13:H:85:ILE:HG23	13:H:85:ILE:O	2.19	0.43
14:I:39:VAL:HG11	14:I:107:ASN:CB	2.49	0.43
14:I:50:GLU:O	14:I:54:VAL:HG23	2.18	0.43
1:0:2123:A:H5'	17:L:89:ASN:ND2	2.34	0.43
18:M:69:TYR:HE2	18:M:183:ASP:OD2	2.02	0.43
18:M:91:ARG:HG3	18:M:186:LEU:CD2	2.48	0.43
20:O:38:GLU:HA	20:O:41:ARG:NH1	2.34	0.43
24:S:43:ASN:O	24:S:45:GLY:N	2.52	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:V:11:VAL:O	27:V:12:ASN:HB2	2.18	0.43
28:W:78:GLU:OE2	28:W:79:GLU:OE2	2.36	0.43
1:0:638:C:OP2	29:X:138:ARG:HD3	2.18	0.43
1:0:1382:G:O2'	28:W:27:ASP:OD1	2.36	0.42
1:0:2050:G:H5''	22:Q:80:TYR:O	2.19	0.42
1:0:210:U:H2'	1:0:211:U:H6	1.83	0.42
1:0:2110:G:O2'	1:0:2111:G:H5'	2.19	0.42
1:0:2324:G:H4'	1:0:2418:G:O2'	2.18	0.42
1:0:319:A:H4'	1:0:338:C:C4	2.54	0.42
1:0:217:C:H5'	1:0:395:A:H1'	1.99	0.42
1:0:503:G:C2	1:0:504:G:C8	3.07	0.42
1:0:537:G:C4	1:0:538:C:N4	2.87	0.42
1:0:582:C:N4	37:0:3904:HOH:O	2.52	0.42
1:0:645:U:H2'	1:0:646:G:H8	1.84	0.42
1:0:656:G:H5'	19:N:3:THR:HB	2.01	0.42
37:0:8580:HOH:O	3:2:36:ILE:HG21	2.18	0.42
1:0:2717:C:OP1	7:B:207:LYS:HG3	2.18	0.42
9:D:166:ILE:O	9:D:167:GLU:C	2.56	0.42
10:E:132:THR:HB	37:E:220:HOH:O	2.18	0.42
10:E:93:MET:HE2	10:E:93:MET:HB2	1.84	0.42
13:H:59:ASN:HD22	13:H:59:ASN:N	2.17	0.42
13:H:65:ARG:NH2	13:H:66:VAL:HG22	2.34	0.42
17:L:57:LYS:NZ	17:L:144:ASP:OD2	2.47	0.42
18:M:151:ASP:O	18:M:154:LEU:HB2	2.19	0.42
22:Q:27:HIS:O	22:Q:31:ILE:HG13	2.19	0.42
23:R:69:SER:C	23:R:71:ASP:H	2.23	0.42
24:S:48:VAL:HG22	24:S:98:VAL:HA	1.99	0.42
25:T:52:THR:HG22	25:T:54:THR:N	2.34	0.42
26:U:23:LEU:O	26:U:26:GLU:N	2.51	0.42
27:V:149:LEU:HG	27:V:153:MET:HE2	1.99	0.42
27:V:88:THR:HG23	27:V:110:GLN:HE21	1.81	0.42
29:X:200:THR:HG22	29:X:201:GLU:HG2	2.01	0.42
1:0:1153:C:N3	1:0:2786:G:O6	2.52	0.42
1:0:1155:G:H2'	1:0:1156:C:C6	2.53	0.42
1:0:1167:G:O2'	1:0:1168:C:H5'	2.18	0.42
1:0:1664:A:O2'	1:0:1665:G:OP2	2.35	0.42
1:0:1831:U:H2'	1:0:1832:G:C5'	2.46	0.42
1:0:1872:C:H5	6:A:20:SER:HB3	1.84	0.42
1:0:1882:C:O2'	1:0:2012:U:OP2	2.37	0.42
1:0:2239:C:H2'	1:0:2240:U:H6	1.83	0.42
1:0:2301:A:H5''	1:0:2302:A:H5'	2.01	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2387:U:O2	1:0:2402:A:C2	2.72	0.42
1:0:2670:G:C2'	1:0:2671:U:H5'	2.49	0.42
1:0:2700:G:O2'	1:0:2701:G:H5'	2.18	0.42
1:0:51:G:H4'	31:Z:22:CYS:O	2.19	0.42
1:0:652:G:H5''	37:0:4237:HOH:O	2.17	0.42
2:1:9:LYS:O	2:1:12:ALA:HB3	2.18	0.42
5:9:25:G:H5''	5:9:26:C:C6	2.54	0.42
6:A:183:GLY:HA2	37:A:408:HOH:O	2.17	0.42
37:0:5284:HOH:O	6:A:206:ARG:HD3	2.19	0.42
6:A:192:VAL:HG11	6:A:207:GLN:HB3	1.99	0.42
8:C:222:ASP:O	8:C:231:ARG:HD3	2.19	0.42
10:E:106:ASN:ND2	10:E:109:GLY:HA2	2.34	0.42
13:H:75:SER:HB3	13:H:79:ALA:HB1	2.01	0.42
17:L:144:ASP:O	17:L:148:SER:HB3	2.18	0.42
21:P:86:VAL:CG1	21:P:91:LEU:HD11	2.46	0.42
28:W:43:VAL:CG1	28:W:44:ASP:N	2.82	0.42
1:0:1307:A:OP2	8:C:175:LYS:NZ	2.53	0.42
1:0:1374:C:H4'	1:0:1431:C:C4	2.54	0.42
1:0:1619:G:C5	1:0:1620:C:C4	3.07	0.42
1:0:1790:C:H5	20:O:71:LYS:HE3	1.85	0.42
1:0:2417:C:H6	1:0:2417:C:O5'	2.03	0.42
1:0:2597:U:C2'	1:0:2598:U:H5'	2.49	0.42
1:0:2085:A:C2	1:0:2660:G:N3	2.88	0.42
1:0:2706:A:H2'	1:0:2707:C:O4'	2.19	0.42
1:0:2843:A:C2'	1:0:2844:C:H5'	2.49	0.42
1:0:319:A:O2'	1:0:320:G:H5'	2.19	0.42
1:0:47:G:O2'	1:0:114:A:N6	2.52	0.42
3:2:10:TYR:HB2	3:2:17:HIS:CE1	2.54	0.42
3:2:67:LEU:HD21	3:2:88:LEU:CD2	2.49	0.42
8:C:150:THR:O	8:C:153:VAL:N	2.53	0.42
8:C:233:THR:CG2	8:C:234:VAL:N	2.80	0.42
9:D:18:ILE:HG12	9:D:134:LEU:HD21	2.02	0.42
9:D:99:ASP:HB2	9:D:103:ASN:CB	2.48	0.42
10:E:11:VAL:CG1	10:E:12:ASP:H	2.32	0.42
10:E:104:ILE:CD1	10:E:151:LEU:HD23	2.49	0.42
10:E:156:ASP:OD2	10:E:157:LYS:NZ	2.46	0.42
15:J:97:ILE:HG22	15:J:98:VAL:N	2.33	0.42
1:0:901:G:OP2	16:K:18:HIS:CE1	2.72	0.42
1:0:904:U:H2'	16:K:8:ARG:HD2	2.00	0.42
17:L:18:GLY:O	17:L:21:ALA:HB3	2.19	0.42
18:M:13:ARG:HA	18:M:13:ARG:HD2	1.83	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:N:63:LYS:HA	19:N:80:ASP:O	2.19	0.42
22:Q:26:LYS:HD3	22:Q:62:HIS:CG	2.54	0.42
1:0:1810:C:H1'	25:T:42:LEU:HD22	2.01	0.42
1:0:1571:G:C2'	1:0:1626:A:H61	2.32	0.42
1:0:1666:C:H2'	1:0:1667:A:H8	1.85	0.42
1:0:882:A:H4'	1:0:1837:G:O6	2.19	0.42
1:0:2011:A:H4'	1:0:2012:U:O5'	2.19	0.42
1:0:2088:C:OP1	22:Q:65:GLY:N	2.32	0.42
1:0:2281:C:H2'	1:0:2282:U:O4'	2.19	0.42
1:0:2357:G:C2'	1:0:2358:U:H5'	2.50	0.42
1:0:2493:C:H2'	1:0:2525:G:N1	2.29	0.42
1:0:2518:C:C4	1:0:2519:C:C4	3.08	0.42
1:0:2857:C:H2'	1:0:2858:U:H6	1.80	0.42
1:0:581:G:H5'	37:0:6332:HOH:O	2.20	0.42
1:0:955:A:C2'	1:0:956:G:H5'	2.49	0.42
3:2:46:ILE:O	17:L:84:LYS:HG2	2.20	0.42
3:2:84:ARG:HB2	37:2:245:HOH:O	2.19	0.42
4:5:41:ILE:CD1	4:5:49:VAL:HG11	2.49	0.42
5:9:67:C:C6	5:9:67:C:H3'	2.55	0.42
6:A:105:VAL:CG1	6:A:106:CYS:N	2.82	0.42
37:0:4108:HOH:O	8:C:103:ASN:HB3	2.18	0.42
11:F:99:THR:HG23	11:F:99:THR:O	2.19	0.42
13:H:93:ILE:H	13:H:93:ILE:HG12	1.58	0.42
14:I:47:THR:N	37:I:304:HOH:O	2.47	0.42
15:J:51:ASP:HA	37:J:328:HOH:O	2.18	0.42
15:J:49:LEU:HA	15:J:73:VAL:HG12	2.01	0.42
17:L:37:VAL:HG21	17:L:108:LYS:CG	2.49	0.42
17:L:37:VAL:HG13	17:L:63:VAL:HG11	2.00	0.42
37:9:365:HOH:O	18:M:23:ARG:HD3	2.18	0.42
19:N:58:VAL:HG13	19:N:114:ILE:HG12	2.02	0.42
23:R:67:ARG:NH1	37:R:203:HOH:O	2.53	0.42
24:S:77:VAL:HB	37:S:317:HOH:O	2.19	0.42
29:X:152:LYS:HB2	29:X:160:LYS:HG3	2.02	0.42
1:0:1773:G:C8	30:Y:16:PRO:HA	2.55	0.42
31:Z:22:CYS:SG	31:Z:24:GLU:CB	3.07	0.42
1:0:1342:C:C2'	1:0:1343:C:C5'	2.90	0.42
1:0:1761:U:H2'	1:0:1762:C:H6	1.85	0.42
1:0:2045:G:H5''	37:0:7174:HOH:O	2.18	0.42
1:0:2265:U:H2'	1:0:2266:A:C8	2.55	0.42
1:0:2381:C:H2'	1:0:2382:A:H8	1.84	0.42
1:0:2526:C:C6	1:0:2526:C:H5'	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2654:C:O2'	1:0:2655:U:H5'	2.19	0.42
1:0:412:C:O2'	1:0:413:G:H5'	2.18	0.42
1:0:45:A:H5'	1:0:47:G:O4'	2.19	0.42
1:0:786:G:H2'	1:0:787:G:O4'	2.19	0.42
1:0:855:U:H5''	37:0:5079:HOH:O	2.19	0.42
7:B:238:ASN:ND2	7:B:240:GLY:N	2.55	0.42
7:B:62:ARG:CA	7:B:65:MET:HE3	2.48	0.42
7:B:84:LEU:O	7:B:99:GLU:HA	2.19	0.42
8:C:14:GLY:N	37:C:429:HOH:O	2.52	0.42
8:C:191:SER:OG	8:C:209:GLY:C	2.58	0.42
8:C:73:LEU:O	8:C:74:ASP:HB2	2.20	0.42
10:E:132:THR:O	10:E:132:THR:HG23	2.19	0.42
13:H:33:MET:HB2	13:H:83:PHE:HB3	2.01	0.42
1:0:533:U:O2'	14:I:95:ARG:NH1	2.52	0.42
15:J:4:LEU:HA	15:J:4:LEU:HD23	1.84	0.42
16:K:20:ASN:N	37:K:308:HOH:O	2.51	0.42
16:K:94:ARG:NH1	16:K:143:THR:HG21	2.35	0.42
17:L:146:GLN:O	17:L:147:LEU:HD23	2.19	0.42
17:L:165:SER:OG	17:L:166:ALA:N	2.51	0.42
18:M:34:LEU:CD2	18:M:129:ILE:HD13	2.49	0.42
18:M:161:GLY:O	18:M:162:ASP:C	2.58	0.42
20:O:131:PHE:CD2	20:O:137:LEU:HA	2.53	0.42
24:S:12:ARG:O	24:S:19:ARG:NH2	2.53	0.42
31:Z:50:TRP:C	31:Z:52:SER:N	2.73	0.42
1:0:132:A:O2'	1:0:133:U:H5'	2.20	0.42
1:0:1788:U:C2	1:0:1805:G:N2	2.88	0.42
1:0:2406:U:C4	1:0:2407:G:N7	2.88	0.42
1:0:2731:G:H2'	1:0:2732:U:O4'	2.20	0.42
1:0:288:A:H61	1:0:364:C:H42	1.67	0.42
1:0:241:A:C2	1:0:378:A:H4'	2.55	0.42
1:0:433:C:H2'	1:0:434:U:O4'	2.20	0.42
1:0:77:G:H2'	1:0:78:G:H5'	2.01	0.42
1:0:79:G:C2	1:0:97:G:O2'	2.73	0.42
1:0:876:A:H2'	1:0:877:G:H5'	2.01	0.42
5:9:81:C:C2'	5:9:82:U:H5'	2.50	0.42
5:9:89:C:O2'	5:9:90:G:H5'	2.19	0.42
6:A:203:GLY:HA2	37:A:456:HOH:O	2.19	0.42
6:A:85:ASP:HA	37:A:417:HOH:O	2.19	0.42
7:B:171:VAL:HG23	7:B:172:SER:N	2.34	0.42
37:0:3953:HOH:O	7:B:227:HIS:HB3	2.19	0.42
1:0:1234:U:N3	7:B:244:PRO:HB3	2.34	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:B:297:VAL:HB	37:B:501:HOH:O	2.19	0.42
7:B:70:PRO:C	7:B:71:VAL:HG23	2.40	0.42
7:B:5:ARG:HD2	7:B:8:LYS:NZ	2.35	0.42
9:D:25:MET:HE1	9:D:37:ALA:HB1	2.01	0.42
10:E:162:PHE:CD1	10:E:162:PHE:N	2.88	0.42
10:E:145:ALA:HB1	10:E:168:ILE:CD1	2.49	0.42
18:M:47:LEU:HD11	18:M:127:LEU:CD2	2.49	0.42
19:N:112:ARG:HG2	19:N:114:ILE:HD11	2.00	0.42
21:P:52:PHE:HB2	35:P:102:CL:CL	2.57	0.42
27:V:1:MET:HE1	27:V:101:LEU:HD23	2.02	0.42
27:V:90:TYR:N	27:V:90:TYR:CD1	2.87	0.42
28:W:30:MET:HE3	28:W:59:TRP:HE1	1.84	0.42
28:W:85:VAL:HG12	28:W:86:GLU:H	1.84	0.42
29:X:151:SER:HB3	29:X:154:ARG:HB2	2.02	0.42
1:0:106:A:H2'	1:0:107:U:O4'	2.19	0.42
1:0:1118:A:C3'	1:0:1119:G:C5'	2.98	0.42
1:0:47:G:O2'	1:0:114:A:N1	2.35	0.42
1:0:1152:A:C4	1:0:1215:A:C2	3.07	0.42
1:0:1166:A:OP1	1:0:1174:A:H4'	2.20	0.42
1:0:1165:G:O2'	1:0:1174:A:C1'	2.68	0.42
1:0:1268:C:H2'	1:0:1269:G:C8	2.55	0.42
1:0:1761:U:H2'	1:0:1762:C:C6	2.55	0.42
1:0:2059:U:H2'	1:0:2060:A:H8	1.84	0.42
1:0:2462:G:H4'	1:0:2464:C:C6	2.54	0.42
1:0:2546:U:O2'	7:B:237:GLY:N	2.53	0.42
1:0:2643:G:N2	37:0:3902:HOH:O	2.52	0.42
1:0:316:A:H5'	24:S:54:ASP:OD2	2.20	0.42
1:0:632:A:H4'	1:0:2535:U:H4'	2.01	0.42
1:0:939:A:N1	1:0:1027:G:O2'	2.40	0.42
1:0:946:C:H6	1:0:946:C:O5'	2.02	0.42
6:A:93:THR:HA	6:A:154:ALA:O	2.19	0.42
7:B:265:LEU:HD23	7:B:316:ARG:CG	2.49	0.42
8:C:211:ASP:HA	37:C:465:HOH:O	2.19	0.42
37:0:8283:HOH:O	8:C:73:LEU:HD11	2.20	0.42
13:H:162:SER:CB	13:H:163:PRO:CD	2.85	0.42
14:I:45:VAL:HA	14:I:130:VAL:O	2.19	0.42
16:K:11:ARG:NH2	16:K:18:HIS:HB3	2.35	0.42
21:P:31:GLU:HA	21:P:31:GLU:OE1	2.19	0.42
22:Q:132:ARG:NH2	37:Q:310:HOH:O	2.52	0.42
30:Y:25:ARG:O	30:Y:29:VAL:HG23	2.20	0.42
6:A:164:ARG:HB2	30:Y:68:CYS:SG	2.60	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:1135:G:O2'	1:0:1136:U:H5'	2.20	0.42
1:0:1173:A:H4'	1:0:1174:A:H8	1.82	0.42
1:0:1431:C:H5'	1:0:1432:U:OP2	2.19	0.42
1:0:1449:G:N2	1:0:1514:C:C2	2.88	0.42
1:0:1453:G:OP2	1:0:1491:G:N2	2.47	0.42
1:0:168:C:H6	1:0:168:C:O5'	2.02	0.42
1:0:2084:C:O2'	1:0:2085:A:H5'	2.19	0.42
1:0:212:A:N6	1:0:227:A:OP2	2.53	0.42
1:0:2382:A:H1'	3:2:10:TYR:CE2	2.55	0.42
1:0:2635:A:N7	37:0:3300:HOH:O	2.36	0.42
1:0:282:C:H2'	1:0:283:U:O4'	2.20	0.42
1:0:793:A:O2'	1:0:794:U:H5'	2.19	0.42
1:0:861:A:H1'	1:0:1488:U:O4	2.19	0.42
3:2:42:ARG:HB3	3:2:43:ASN:OD1	2.19	0.42
7:B:179:LEU:O	7:B:183:GLU:CG	2.64	0.42
7:B:36:PRO:HA	7:B:168:GLY:HA3	2.02	0.42
8:C:107:ARG:HH11	8:C:107:ARG:HB3	1.84	0.42
8:C:82:GLN:C	37:C:419:HOH:O	2.58	0.42
9:D:44:ILE:HG23	9:D:45:THR:HG23	2.02	0.42
11:F:50:VAL:HG21	11:F:63:ILE:HG21	2.01	0.42
11:F:59:ILE:HG22	11:F:59:ILE:O	2.19	0.42
14:I:76:ASP:HA	37:I:312:HOH:O	2.19	0.42
15:J:74:VAL:CG1	15:J:113:ILE:HG12	2.48	0.42
37:0:7102:HOH:O	15:J:41:LYS:HE3	2.19	0.42
1:0:2430:A:H4'	16:K:46:LEU:O	2.19	0.42
18:M:10:MET:HG3	37:M:327:HOH:O	2.19	0.42
18:M:63:SER:O	18:M:66:LEU:CB	2.68	0.42
19:N:44:ASN:HB3	19:N:67:SER:O	2.19	0.42
21:P:44:ASP:O	21:P:45:PRO:C	2.57	0.42
25:T:52:THR:CG2	25:T:54:THR:HB	2.50	0.42
37:0:5824:HOH:O	29:X:136:LYS:HD3	2.19	0.42
29:X:99:ALA:HA	29:X:232:THR:O	2.20	0.42
1:0:1566:C:H2'	1:0:1567:A:H8	1.85	0.42
1:0:1592:G:O2'	1:0:1593:C:O4'	2.38	0.42
1:0:1602:C:H4'	37:0:4177:HOH:O	2.20	0.42
1:0:1623:C:C4	1:0:1624:A:C6	3.08	0.42
1:0:1636:G:C2'	1:0:1637:A:H5'	2.49	0.42
1:0:1950:G:N2	37:0:3934:HOH:O	2.53	0.42
1:0:2105:C:O2'	1:0:2284:G:N2	2.52	0.42
1:0:1052:G:O2'	1:0:2300:A:OP2	2.32	0.42
1:0:2304:G:H5'	37:P:213:HOH:O	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2657:G:N2	1:0:2658:G:H1'	2.35	0.42
1:0:2670:G:H22	7:B:85:ARG:HH22	1.67	0.42
1:0:2785:C:H5''	1:0:2786:G:OP2	2.19	0.42
1:0:414:C:O2'	1:0:415:A:H5'	2.19	0.42
1:0:509:A:C6	1:0:512:G:C6	3.08	0.42
1:0:56:G:C8	1:0:59:A:C8	3.07	0.42
1:0:795:G:H1'	1:0:818:A:N6	2.34	0.42
1:0:853:C:H2'	1:0:854:G:O4'	2.20	0.42
1:0:902:G:H5''	37:0:4689:HOH:O	2.20	0.42
5:9:18:U:O2'	5:9:19:G:H5'	2.20	0.42
5:9:42:C:O2	9:D:76:ARG:HD2	2.20	0.42
6:A:65:ARG:C	6:A:66:ARG:HG3	2.40	0.42
6:A:75:GLY:HA2	30:Y:63:LYS:O	2.19	0.42
7:B:139:ASP:CB	7:B:165:ARG:HE	2.31	0.42
7:B:279:THR:OG1	7:B:290:VAL:HB	2.20	0.42
7:B:286:ASN:O	7:B:306:LYS:HE3	2.18	0.42
8:C:163:HIS:O	8:C:166:ILE:N	2.53	0.42
14:I:74:ARG:HH11	14:I:74:ARG:CB	2.27	0.42
15:J:34:VAL:HG21	15:J:46:LYS:O	2.19	0.42
17:L:61:ILE:HG13	37:L:338:HOH:O	2.20	0.42
37:0:7621:HOH:O	17:L:68:ARG:CB	2.68	0.42
18:M:113:SER:C	37:M:301:HOH:O	2.57	0.42
20:O:104:LYS:HD2	20:O:104:LYS:HA	1.86	0.42
23:R:11:THR:O	23:R:14:ALA:HB3	2.19	0.42
1:0:944:G:H21	27:V:44:MET:CE	2.33	0.42
28:W:76:ARG:HH11	28:W:76:ARG:HG3	1.85	0.42
29:X:232:THR:HG22	29:X:233:TYR:N	2.34	0.42
30:Y:47:LEU:CD1	30:Y:64:ILE:HD11	2.50	0.42
1:0:580:A:N3	1:0:1111:U:H1'	2.35	0.42
1:0:1117:A:C2	1:0:1244:U:C2	3.08	0.42
1:0:1184:C:O2'	1:0:1185:U:H5'	2.20	0.42
1:0:1184:C:H2'	1:0:1185:U:C6	2.55	0.42
1:0:1329:A:H2	37:0:3868:HOH:O	2.02	0.42
1:0:1630:A:H8	1:0:1630:A:OP1	2.03	0.42
1:0:2323:G:N2	1:0:2378:U:H1'	2.34	0.42
1:0:2503:A:O2'	1:0:2504:A:C8	2.63	0.42
1:0:2523:U:O5'	1:0:2523:U:H6	2.03	0.42
1:0:37:A:C2	1:0:446:G:C2	3.08	0.42
1:0:581:G:O2'	1:0:582:C:H5'	2.20	0.42
1:0:952:G:O2'	1:0:2302:A:C2'	2.68	0.42
5:9:116:C:O2'	5:9:117:G:H5'	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:9:40:C:N4	9:D:53:LYS:HE3	2.34	0.42
6:A:110:SER:N	6:A:114:ASP:OD2	2.52	0.42
6:A:111:SER:N	6:A:114:ASP:OD2	2.49	0.42
7:B:54:VAL:HB	37:B:550:HOH:O	2.18	0.42
9:D:156:ARG:HH11	9:D:156:ARG:HG3	1.85	0.42
13:H:162:SER:O	13:H:164:ALA:N	2.53	0.42
13:H:96:ASN:OD1	13:H:114:PRO:HA	2.19	0.42
14:I:83:ILE:O	14:I:84:ARG:C	2.59	0.42
16:K:125:PHE:CD1	16:K:125:PHE:N	2.87	0.42
1:0:156:C:C5'	17:L:171:ARG:HD3	2.22	0.42
17:L:181:GLU:CD	17:L:181:GLU:H	2.22	0.42
1:0:189:A:O2'	17:L:184:ARG:HD3	2.19	0.42
17:L:5:TYR:HE2	17:L:46:LEU:HD13	1.84	0.42
23:R:13:LYS:NZ	37:R:204:HOH:O	2.53	0.42
27:V:122:ARG:CZ	37:V:216:HOH:O	2.68	0.42
27:V:130:HIS:C	27:V:136:GLY:HA3	2.39	0.42
27:V:128:VAL:C	27:V:138:LEU:HD11	2.40	0.42
29:X:169:ARG:NE	35:X:301:CL:CL	2.89	0.42
1:0:1197:G:N2	37:0:3924:HOH:O	2.53	0.41
1:0:1398:G:H2'	1:0:1399:A:H8	1.81	0.41
1:0:1482:A:O2'	1:0:1483:C:H5'	2.20	0.41
1:0:1920:C:O2'	1:0:1921:A:H5'	2.19	0.41
1:0:204:A:H2'	1:0:205:U:C5'	2.48	0.41
1:0:2495:U:O2'	1:0:2496:C:H5'	2.20	0.41
1:0:2619:U:H2'	1:0:2620:U:C6	2.55	0.41
1:0:295:C:O2'	1:0:296:G:H5'	2.20	0.41
1:0:426:G:C6	1:0:427:C:C4	3.08	0.41
1:0:883:U:O2	1:0:883:U:H3'	2.20	0.41
5:9:12:C:OP2	5:9:69:U:O2'	2.38	0.41
5:9:3:A:H61	5:9:22:G:H1'	1.82	0.41
5:9:39:U:H3'	5:9:40:C:H5''	2.01	0.41
5:9:43:G:C2'	5:9:44:A:OP2	2.68	0.41
6:A:87:GLU:HB3	37:A:452:HOH:O	2.19	0.41
7:B:280:VAL:HG12	7:B:334:SER:HA	2.02	0.41
8:C:85:LYS:HB3	37:C:438:HOH:O	2.20	0.41
8:C:47:GLY:HA2	8:C:92:PRO:HB2	2.02	0.41
1:0:2566:A:H4'	10:E:161:VAL:HG21	2.01	0.41
11:F:53:ASP:OD2	11:F:80:GLN:CB	2.68	0.41
14:I:18:ILE:HA	14:I:45:VAL:O	2.20	0.41
15:J:125:ALA:O	15:J:127:ALA:N	2.53	0.41
17:L:186:SER:OG	17:L:189:VAL:HG12	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:L:3:SER:O	17:L:4:ALA:C	2.57	0.41
17:L:62:VAL:HA	17:L:131:VAL:O	2.20	0.41
21:P:16:ASN:HA	21:P:16:ASN:HD22	1.65	0.41
21:P:90:HIS:O	21:P:91:LEU:HD23	2.19	0.41
22:Q:9:ASP:HA	22:Q:10:PRO:HD2	1.89	0.41
29:X:107:PRO:HB3	29:X:182:PHE:CE2	2.55	0.41
30:Y:30:GLU:HB2	37:Y:218:HOH:O	2.18	0.41
6:A:75:GLY:HA2	30:Y:64:ILE:HA	2.01	0.41
1:0:1246:A:O2'	1:0:1247:A:C3'	2.61	0.41
1:0:1702:U:HO2'	1:0:1703:G:H5''	1.85	0.41
1:0:1813:U:H3'	1:0:1814:G:H5'	2.02	0.41
1:0:2449:G:H2'	1:0:2450:C:C6	2.55	0.41
1:0:2757:A:O2'	1:0:2758:G:H5'	2.20	0.41
1:0:353:G:C6	1:0:354:A:C6	3.08	0.41
1:0:62:C:H2'	1:0:63:U:H6	1.85	0.41
1:0:630:A:H4'	1:0:631:A:OP1	2.18	0.41
1:0:75:U:H2'	1:0:76:G:H8	1.85	0.41
5:9:51:A:H4'	37:9:358:HOH:O	2.20	0.41
1:0:1942:A:H4'	6:A:213:LYS:CE	2.49	0.41
7:B:265:LEU:HD21	7:B:316:ARG:HD3	2.02	0.41
7:B:54:VAL:CG2	7:B:326:GLU:HB3	2.51	0.41
9:D:104:PHE:CE2	9:D:166:ILE:CD1	3.02	0.41
11:F:63:ILE:CB	11:F:64:PRO:CD	2.92	0.41
14:I:72:PRO:HG2	14:I:78:ILE:HD13	2.01	0.41
17:L:59:GLY:HA3	17:L:141:ILE:CD1	2.50	0.41
17:L:157:LEU:HB3	17:L:160:PHE:HD1	1.85	0.41
17:L:46:LEU:HD22	17:L:50:ARG:HG3	2.01	0.41
17:L:46:LEU:HA	17:L:46:LEU:HD23	1.89	0.41
17:L:93:ARG:H	17:L:93:ARG:HG2	1.51	0.41
21:P:45:PRO:HA	21:P:51:ARG:NH2	2.35	0.41
22:Q:119:VAL:CG1	22:Q:119:VAL:O	2.66	0.41
24:S:48:VAL:HG13	24:S:49:GLU:N	2.34	0.41
27:V:20:THR:O	27:V:21:LEU:C	2.56	0.41
29:X:178:HIS:HD2	29:X:229:LEU:HD13	1.85	0.41
1:0:1196:C:C2'	1:0:1197:G:H5'	2.50	0.41
1:0:1213:C:H2'	1:0:1214:G:O4'	2.20	0.41
1:0:1598:A:C2	1:0:1599:U:C2	3.09	0.41
1:0:1476:A:O2'	1:0:1868:G:H5'	2.21	0.41
1:0:1878:G:H5'	37:0:3784:HOH:O	2.19	0.41
1:0:24:G:C2'	1:0:25:A:OP2	2.68	0.41
1:0:292:G:H8	1:0:292:G:O5'	2.02	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:331:A:N6	1:0:345:G:O2'	2.54	0.41
3:2:25:VAL:CG2	3:2:68:LYS:HG3	2.41	0.41
9:D:67:ASP:HA	9:D:68:PRO:HD3	1.96	0.41
17:L:28:MET:HA	17:L:31:TRP:HB2	2.02	0.41
18:M:37:ARG:HD3	35:M:201:CL:CL	2.57	0.41
22:Q:14:ALA:HB3	22:Q:147:LEU:HB2	2.02	0.41
24:S:17:HIS:O	24:S:20:HIS:HD2	2.03	0.41
25:T:6:CYS:SG	25:T:8:TYR:HB3	2.60	0.41
31:Z:21:ARG:HD2	31:Z:39:PHE:HB2	2.01	0.41
1:0:1117:A:N1	1:0:1244:U:C2'	2.82	0.41
1:0:1924:A:H1'	37:0:3547:HOH:O	2.20	0.41
1:0:1932:G:H8	1:0:1932:G:O5'	2.03	0.41
1:0:2039:A:OP2	7:B:234:ARG:NH2	2.53	0.41
1:0:2124:G:H1'	37:0:3442:HOH:O	2.21	0.41
1:0:2387:U:C2	1:0:2402:A:C2	3.08	0.41
1:0:2389:U:H4'	21:P:53:HIS:HD2	1.86	0.41
1:0:2497:A:C2	1:0:2524:G:N3	2.88	0.41
1:0:2653:A:H2'	1:0:2654:C:C6	2.55	0.41
1:0:2690:U:H4'	10:E:111:LYS:HE3	2.03	0.41
5:9:13:A:N3	5:9:114:G:C6	2.88	0.41
7:B:195:ARG:NH1	7:B:324:ASP:OD1	2.49	0.41
13:H:16:ARG:HB2	37:H:224:HOH:O	2.19	0.41
13:H:89:PRO:HA	13:H:122:ALA:O	2.20	0.41
14:I:75:PRO:HD3	14:I:136:SER:CB	2.50	0.41
16:K:91:VAL:CG1	16:K:120:LEU:HD23	2.49	0.41
17:L:57:LYS:CG	17:L:58:GLN:N	2.81	0.41
37:0:4335:HOH:O	20:O:91:LYS:HE3	2.21	0.41
21:P:17:LYS:O	21:P:18:PRO:C	2.58	0.41
24:S:28:SER:O	24:S:32:ARG:HG3	2.19	0.41
25:T:21:PHE:HE2	25:T:23:HIS:ND1	2.19	0.41
1:0:68:U:C4	1:0:107:U:H4'	2.56	0.41
1:0:129:A:O2'	1:0:130:C:H5''	2.20	0.41
1:0:1463:A:O5'	1:0:1463:A:H8	2.03	0.41
1:0:1493:A:O2'	1:0:1494:A:H5''	2.19	0.41
1:0:1507:C:H4'	37:0:3606:HOH:O	2.19	0.41
1:0:1701:A:H4'	1:0:1702:U:C5'	2.50	0.41
1:0:1847:A:C2'	1:0:1848:G:H5'	2.50	0.41
1:0:2071:C:H4'	1:0:2072:G:H8	1.85	0.41
1:0:2554:U:H3'	1:0:2554:U:OP1	2.21	0.41
1:0:2620:U:H5''	1:0:2621:U:OP1	2.20	0.41
1:0:2655:U:C4	1:0:2656:G:N7	2.89	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2718:C:H5	37:0:8135:HOH:O	2.03	0.41
1:0:2735:U:N3	1:0:2736:U:C4	2.89	0.41
1:0:368:C:H2'	1:0:369:G:H5'	2.03	0.41
1:0:445:U:H1'	37:0:3445:HOH:O	2.20	0.41
1:0:605:C:C2	1:0:606:C:C5	3.08	0.41
1:0:2433:A:OP1	3:2:36:ILE:CG2	2.69	0.41
5:9:48:C:H4'	18:M:141:ARG:NH2	2.29	0.41
6:A:195:ASN:O	6:A:196:ALA:C	2.58	0.41
7:B:101:TRP:HB2	7:B:119:HIS:CD2	2.55	0.41
7:B:145:HIS:HD2	7:B:146:THR:O	2.03	0.41
7:B:304:PRO:HD2	7:B:307:ARG:HD2	2.02	0.41
7:B:25:ARG:HA	7:B:310:ARG:HH21	1.84	0.41
8:C:136:VAL:HA	8:C:137:PRO:C	2.40	0.41
8:C:232:LEU:HA	37:C:512:HOH:O	2.20	0.41
13:H:26:LYS:HB2	37:H:256:HOH:O	2.20	0.41
15:J:6:ALA:HB3	15:J:116:GLU:HG2	2.02	0.41
17:L:153:THR:O	17:L:156:ARG:HG3	2.20	0.41
17:L:114:VAL:HB	17:L:159:THR:HG23	2.02	0.41
17:L:186:SER:O	17:L:187:LEU:C	2.57	0.41
20:O:122:LEU:HD11	20:O:141:ILE:HG12	2.02	0.41
37:9:315:HOH:O	21:P:27:GLN:HB2	2.20	0.41
24:S:6:LYS:HA	24:S:9:LYS:HB3	2.02	0.41
1:0:1167:G:N2	1:0:1180:U:C2	2.89	0.41
1:0:1279:U:O2	1:0:1279:U:H2'	2.20	0.41
1:0:1522:A:C2'	1:0:1523:G:H5'	2.51	0.41
1:0:1367:A:C2	1:0:2058:G:C2	3.08	0.41
1:0:2092:G:H5'	37:B:554:HOH:O	2.19	0.41
1:0:2407:G:O2'	1:0:2408:A:H5'	2.21	0.41
1:0:2493:C:O2'	1:0:2495:U:O4	2.22	0.41
1:0:383:A:H2'	1:0:384:G:C5'	2.51	0.41
1:0:512:G:H5''	1:0:515:C:H1'	2.02	0.41
1:0:818:A:N6	1:0:819:A:N1	2.69	0.41
1:0:840:U:C2	1:0:2648:U:O4	2.73	0.41
1:0:911:G:H5'	1:0:932:U:OP1	2.20	0.41
1:0:953:G:H5'	1:0:954:U:OP1	2.21	0.41
5:9:72:C:O2'	5:9:73:G:H5'	2.20	0.41
6:A:130:THR:HG22	6:A:131:HIS:O	2.20	0.41
6:A:44:ASP:OD1	6:A:45:ILE:N	2.54	0.41
7:B:13:PHE:N	7:B:13:PHE:CD1	2.88	0.41
7:B:56:ASP:HB3	7:B:322:ARG:HH21	1.84	0.41
10:E:31:ARG:HH12	10:E:68:HIS:CE1	2.38	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:E:91:PHE:HA	10:E:92:PRO:HD3	1.85	0.41
11:F:30:LYS:HE2	11:F:99:THR:HG21	2.02	0.41
13:H:144:GLU:HA	13:H:144:GLU:OE1	2.20	0.41
13:H:7:ARG:HD2	13:H:154:THR:HG21	2.02	0.41
17:L:182:LYS:HG2	37:L:387:HOH:O	2.19	0.41
17:L:77:PHE:CD1	17:L:79:LYS:O	2.74	0.41
19:N:15:LYS:O	19:N:16:SER:C	2.58	0.41
22:Q:105:ASP:O	22:Q:106:GLY:C	2.59	0.41
24:S:49:GLU:HB3	24:S:59:GLU:HG2	2.03	0.41
30:Y:33:HIS:NE2	30:Y:49:ARG:HD2	2.35	0.41
1:O:1115:U:O2'	1:O:1116:U:H5'	2.20	0.41
1:O:154:C:H2'	1:O:155:C:H6	1.86	0.41
1:O:1599:U:H2'	1:O:1600:G:O4'	2.21	0.41
1:O:1700:C:H5''	1:O:1701:A:OP2	2.21	0.41
1:O:1936:C:O2'	1:O:1937:U:H5'	2.21	0.41
1:O:2037:C:OP1	1:O:2037:C:H6	2.03	0.41
1:O:245:C:C2	1:O:267:G:N1	2.88	0.41
1:O:2691:A:C4'	1:O:2692:G:OP1	2.69	0.41
1:O:197:C:H5	35:O:3121:CL:CL	2.41	0.41
1:O:538:C:C4'	1:O:539:G:OP2	2.68	0.41
1:O:876:A:N3	1:O:876:A:H2'	2.36	0.41
1:O:931:C:H2'	1:O:932:U:H6	1.86	0.41
5:9:33:U:H3'	37:9:410:HOH:O	2.21	0.41
6:A:190:ARG:NH2	37:A:431:HOH:O	2.53	0.41
6:A:210:GLY:HA3	37:A:476:HOH:O	2.19	0.41
6:A:20:SER:C	6:A:22:ARG:H	2.24	0.41
7:B:320:GLN:HG3	7:B:321:PRO:CD	2.50	0.41
13:H:32:ASP:O	13:H:33:MET:HG3	2.20	0.41
15:J:44:HIS:N	15:J:44:HIS:CD2	2.88	0.41
17:L:68:ARG:N	37:L:305:HOH:O	2.36	0.41
18:M:102:LEU:N	37:M:310:HOH:O	2.44	0.41
18:M:115:VAL:O	18:M:118:ILE:HB	2.21	0.41
18:M:143:ARG:NH1	18:M:173:ASP:OD2	2.53	0.41
18:M:175:LEU:HD12	18:M:175:LEU:HA	1.87	0.41
18:M:37:ARG:HH21	18:M:105:GLY:HA2	1.77	0.41
21:P:47:VAL:CG1	21:P:90:HIS:HE2	2.33	0.41
22:Q:113:HIS:O	22:Q:145:LEU:HD12	2.21	0.41
1:O:79:G:H3'	24:S:111:ARG:HH12	1.86	0.41
24:S:88:PRO:O	24:S:90:PRO:HD3	2.21	0.41
27:V:88:THR:HG23	27:V:110:GLN:HB3	2.03	0.41
27:V:154:ARG:NH2	37:V:209:HOH:O	2.54	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:944:G:C8	27:V:23:MET:HE1	2.55	0.41
1:0:1025:C:H2'	1:0:1026:C:C6	2.55	0.41
1:0:1246:A:C4	1:0:1248:A:C8	3.08	0.41
1:0:1666:C:H2'	1:0:1667:A:C8	2.55	0.41
1:0:1695:G:O2'	1:0:1696:U:H5'	2.21	0.41
1:0:834:G:H4'	1:0:1754:A:H5'	2.03	0.41
1:0:1979:G:O2'	1:0:1980:U:OP1	2.37	0.41
1:0:2005:G:H4'	1:0:2006:C:OP2	2.21	0.41
1:0:2691:A:H4'	1:0:2692:G:OP1	2.20	0.41
1:0:2692:G:O2'	1:0:2701:G:N1	2.54	0.41
1:0:486:A:H1'	37:0:3238:HOH:O	2.19	0.41
5:9:49:G:O2'	5:9:50:G:H5'	2.21	0.41
6:A:204:GLY:HA3	37:A:480:HOH:O	2.21	0.41
7:B:148:PRO:HB2	7:B:156:LYS:O	2.20	0.41
1:0:1735:C:H5'	7:B:235:ARG:HH21	1.85	0.41
7:B:316:ARG:O	7:B:316:ARG:HG3	2.20	0.41
8:C:157:LEU:HD11	8:C:194:PHE:HZ	1.86	0.41
8:C:193:LEU:CD2	8:C:223:LEU:HD12	2.50	0.41
11:F:16:ALA:HB2	11:F:75:ILE:HD13	2.03	0.41
11:F:79:GLN:O	11:F:82:ASP:HB2	2.21	0.41
1:0:2502:C:C4'	13:H:151:MET:HG2	2.51	0.41
14:I:122:ASP:HB3	14:I:125:SER:OG	2.21	0.41
15:J:34:VAL:CG2	15:J:47:ALA:HB2	2.48	0.41
15:J:4:LEU:HD22	15:J:116:GLU:HB3	2.02	0.41
15:J:55:VAL:HG12	15:J:56:SER:N	2.34	0.41
16:K:140:VAL:HG12	16:K:140:VAL:O	2.20	0.41
37:0:4580:HOH:O	16:K:34:GLY:HA2	2.21	0.41
17:L:149:TRP:CE3	17:L:150:ILE:HA	2.56	0.41
1:0:175:G:H3'	17:L:191:GLY:O	2.21	0.41
23:R:69:SER:O	23:R:71:ASP:N	2.54	0.41
1:0:308:U:H2'	24:S:52:ARG:HH22	1.84	0.41
26:U:26:GLU:HB3	26:U:49:LEU:HD21	2.02	0.41
26:U:45:ARG:C	26:U:47:LYS:N	2.73	0.41
29:X:178:HIS:CE1	29:X:179:PRO:HG2	2.56	0.41
30:Y:17:ARG:O	30:Y:18:TYR:CB	2.68	0.41
2:1:48:ASP:HA	31:Z:25:LYS:HD2	2.03	0.41
1:0:1015:C:O5'	1:0:1015:C:H6	2.04	0.41
1:0:931:C:C2	1:0:1040:A:C6	3.09	0.41
1:0:1327:G:N1	1:0:1331:A:C6	2.88	0.41
1:0:1730:G:H5'	1:0:1731:C:C5	2.55	0.41
1:0:1902:G:O2'	1:0:1903:U:H5'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2299:G:O6	21:P:1:PRO:HA	2.20	0.41
1:0:2338:G:H1'	9:D:105:SER:OG	2.21	0.41
1:0:2369:A:O2'	1:0:2370:A:C8	2.74	0.41
1:0:2753:G:O2'	1:0:2754:G:H5'	2.20	0.41
1:0:2811:A:H4'	1:0:2812:A:H5''	2.01	0.41
1:0:333:G:C2'	1:0:334:G:H5'	2.51	0.41
1:0:390:G:H2'	1:0:391:U:C6	2.55	0.41
1:0:391:U:OP2	17:L:84:LYS:NZ	2.51	0.41
1:0:451:C:OP2	8:C:182:ARG:NH2	2.53	0.41
1:0:60:A:N6	2:1:25:VAL:HG21	2.36	0.41
5:9:13:A:H3'	5:9:14:G:H5''	2.02	0.41
6:A:94:LEU:HG	6:A:99:ILE:HD11	2.02	0.41
7:B:146:THR:O	7:B:159:PRO:HB3	2.21	0.41
9:D:173:GLU:HG3	9:D:174:VAL:H	1.84	0.41
10:E:33:LEU:HB3	10:E:65:PHE:CE1	2.56	0.41
10:E:72:MET:O	10:E:76:VAL:HG22	2.21	0.41
11:F:48:VAL:HG22	11:F:74:PHE:HB3	2.03	0.41
13:H:48:LEU:HB3	13:H:132:PHE:HB2	2.03	0.41
13:H:46:VAL:HG12	13:H:146:TRP:CZ3	2.52	0.41
14:I:130:VAL:HG12	14:I:131:THR:N	2.36	0.41
18:M:164:ASP:CG	18:M:167:ASP:HA	2.40	0.41
18:M:8:VAL:O	18:M:8:VAL:HG12	2.21	0.41
19:N:44:ASN:HA	19:N:65:LEU:O	2.21	0.41
22:Q:111:ILE:O	22:Q:111:ILE:HG22	2.21	0.41
27:V:108:ARG:CG	27:V:114:PRO:HG3	2.51	0.41
27:V:125:HIS:HB2	27:V:137:GLN:OE1	2.21	0.41
27:V:137:GLN:O	27:V:137:GLN:HG3	2.20	0.41
30:Y:39:CYS:HA	30:Y:47:LEU:CD1	2.50	0.41
1:0:1037:G:O2'	1:0:1038:G:H5'	2.21	0.41
1:0:1089:G:N7	1:0:1290:G:C6	2.89	0.41
1:0:1329:A:OP2	29:X:125:LYS:NZ	2.51	0.41
1:0:1495:C:H1'	1:0:1573:A:H1'	2.03	0.41
1:0:152:A:O2'	1:0:153:C:H5'	2.20	0.41
1:0:1646:G:O2'	1:0:1647:G:H5'	2.20	0.41
1:0:1661:A:H2'	1:0:1662:C:O4'	2.21	0.41
1:0:1447:U:OP1	1:0:1677:U:H2'	2.21	0.41
1:0:2404:G:H1'	37:0:6989:HOH:O	2.20	0.41
1:0:2744:G:H5''	28:W:61:ARG:O	2.21	0.41
1:0:623:U:H2'	1:0:624:U:C6	2.56	0.41
1:0:1852:A:H4'	6:A:230:SER:CB	2.51	0.41
1:0:1874:U:P	6:A:51:ARG:HD2	2.61	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:A:94:LEU:HD12	6:A:98:GLU:HB2	2.02	0.41
7:B:30:PRO:HB2	7:B:39:GLN:HE21	1.79	0.41
8:C:54:LEU:O	8:C:56:THR:N	2.52	0.41
9:D:59:GLY:C	9:D:61:PHE:N	2.73	0.41
5:9:44:A:C1'	9:D:76:ARG:HE	2.33	0.41
10:E:35:TYR:CD2	10:E:36:PRO:HD2	2.56	0.41
17:L:87:MET:CE	17:L:91:ILE:HD11	2.50	0.41
5:9:7:G:OP1	18:M:23:ARG:NE	2.54	0.41
20:O:115:SER:O	20:O:117:SER:N	2.54	0.41
22:Q:41:GLY:O	22:Q:42:GLU:C	2.59	0.41
23:R:55:GLN:NE2	37:R:206:HOH:O	2.54	0.41
23:R:69:SER:C	23:R:71:ASP:N	2.74	0.41
27:V:107:LEU:HD23	27:V:112:LEU:HD12	2.03	0.41
28:W:30:MET:HE1	28:W:58:ALA:HB3	2.03	0.41
29:X:218:GLU:OE2	29:X:232:THR:N	2.54	0.41
1:0:938:G:N1	1:0:1031:G:O2'	2.52	0.41
1:0:1100:G:N3	1:0:1107:A:H2	2.19	0.41
1:0:1205:U:C2'	1:0:1206:U:H5''	2.51	0.41
1:0:1289:C:H3'	37:0:5354:HOH:O	2.20	0.41
1:0:2525:G:H5''	1:0:2526:C:OP1	2.21	0.41
1:0:2616:G:H5''	1:0:2617:G:OP1	2.21	0.41
1:0:2716:G:H1'	37:B:526:HOH:O	2.19	0.41
1:0:2778:A:C2	1:0:2797:C:O2	2.73	0.41
1:0:2831:C:H2'	1:0:2832:C:C5'	2.50	0.41
1:0:298:C:H1'	37:0:4344:HOH:O	2.20	0.41
1:0:411:A:H4'	1:0:412:C:OP2	2.21	0.41
1:0:636:G:H5'	1:0:2059:U:OP2	2.21	0.41
1:0:677:C:H6	1:0:677:C:O5'	2.03	0.41
1:0:962:C:C4	1:0:963:C:C4	3.09	0.41
2:1:1:GLY:CA	37:1:112:HOH:O	2.69	0.41
6:A:125:ASN:HB2	6:A:158:VAL:HG12	2.00	0.41
6:A:38:ILE:HG23	6:A:60:PHE:HD2	1.86	0.41
8:C:139:VAL:HG13	37:C:406:HOH:O	2.21	0.41
13:H:166:ASN:ND2	13:H:166:ASN:N	2.68	0.41
13:H:31:PHE:HD2	13:H:85:ILE:HG23	1.81	0.41
15:J:24:THR:OG1	15:J:97:ILE:HD12	2.21	0.41
16:K:22:ARG:HB3	16:K:23:GLY:H	1.53	0.41
17:L:120:VAL:HG11	17:L:130:GLU:OE2	2.21	0.41
17:L:87:MET:HE1	37:L:351:HOH:O	2.20	0.41
20:O:100:ALA:HA	37:O:209:HOH:O	2.20	0.41
27:V:59:GLN:HE22	27:V:97:ALA:HB3	1.86	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:Y:66:GLY:HA3	30:Y:71:PRO:O	2.21	0.41
1:0:1006:A:N1	1:0:2311:A:H1'	2.35	0.40
1:0:1158:G:C2'	1:0:1159:G:H5'	2.51	0.40
1:0:1244:U:H2'	37:0:4583:HOH:O	2.20	0.40
1:0:128:A:C8	1:0:128:A:H3'	2.56	0.40
1:0:1500:U:OP2	20:O:41:ARG:NH2	2.54	0.40
1:0:1791:U:O2'	1:0:1792:C:H5'	2.21	0.40
1:0:2385:G:H2'	1:0:2386:U:C6	2.56	0.40
1:0:2472:C:O2'	1:0:2473:U:H5'	2.20	0.40
1:0:2640:U:H2'	1:0:2641:C:C6	2.56	0.40
1:0:2742:G:C2	1:0:2743:A:C4	3.09	0.40
1:0:2768:A:N7	7:B:316:ARG:HB2	2.35	0.40
1:0:2898:G:H2'	1:0:2899:A:C8	2.57	0.40
1:0:297:U:H6	1:0:297:U:O5'	2.04	0.40
1:0:297:U:H2'	1:0:298:C:H6	1.85	0.40
1:0:336:G:C2	1:0:483:C:C2	3.09	0.40
1:0:363:A:H2'	1:0:364:C:H6	1.86	0.40
1:0:607:G:H2'	1:0:608:A:O4'	2.21	0.40
1:0:686:A:H1'	1:0:747:G:O2'	2.22	0.40
2:1:11:LEU:HA	2:1:11:LEU:HD23	1.89	0.40
5:9:80:A:H2'	5:9:81:C:O4'	2.21	0.40
37:0:3527:HOH:O	6:A:164:ARG:NH2	2.53	0.40
7:B:243:ASN:HA	7:B:245:SER:N	2.35	0.40
9:D:146:LYS:HZ1	18:M:107:ASN:ND2	2.19	0.40
9:D:172:VAL:HG12	9:D:173:GLU:N	2.35	0.40
13:H:151:MET:CE	13:H:151:MET:HA	2.51	0.40
15:J:37:TYR:CE2	15:J:45:PRO:HA	2.56	0.40
16:K:68:GLU:O	16:K:69:ILE:C	2.60	0.40
17:L:138:HIS:ND1	17:L:139:PRO:O	2.52	0.40
18:M:154:LEU:C	18:M:156:GLU:H	2.24	0.40
25:T:35:LYS:O	25:T:39:ASN:OD1	2.39	0.40
26:U:12:THR:O	26:U:14:ALA:N	2.54	0.40
30:Y:40:PRO:HD3	30:Y:47:LEU:HD11	2.03	0.40
1:0:1019:C:H2'	1:0:1020:A:H8	1.87	0.40
1:0:1180:U:H2'	1:0:1181:A:O4'	2.21	0.40
1:0:1206:U:H2'	1:0:1207:A:O4'	2.20	0.40
1:0:1041:U:H4'	1:0:1295:G:H5'	2.04	0.40
1:0:1327:G:N2	1:0:1331:A:C4	2.89	0.40
1:0:1339:G:C6	1:0:1340:G:N1	2.89	0.40
1:0:1621:G:O2'	1:0:1622:G:H5'	2.21	0.40
1:0:1649:G:O2'	1:0:1650:C:H5'	2.20	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:2005:G:O2'	1:0:2008:U:OP2	2.24	0.40
1:0:2320:U:H5	3:2:1:MET:CE	2.33	0.40
1:0:290:C:N3	1:0:363:A:C2	2.89	0.40
1:0:359:U:H2'	1:0:360:A:H8	1.85	0.40
1:0:477:A:C6	1:0:478:C:C4	3.10	0.40
1:0:535:G:C5	1:0:2063:U:C4	3.09	0.40
1:0:79:G:N2	1:0:98:A:C8	2.89	0.40
3:2:11:CYS:SG	3:2:20:HIS:CE1	3.11	0.40
1:0:2433:A:O3'	3:2:30:GLN:OE1	2.39	0.40
5:9:25:G:H2'	5:9:26:C:H5'	2.03	0.40
6:A:170:VAL:HG13	30:Y:22:ILE:HG21	2.02	0.40
1:0:1942:A:H5''	6:A:213:LYS:CE	2.51	0.40
7:B:88:GLU:O	7:B:88:GLU:HG3	2.21	0.40
8:C:211:ASP:HB2	8:C:231:ARG:NH2	2.37	0.40
9:D:23:VAL:HG11	9:D:83:PHE:CZ	2.56	0.40
11:F:29:VAL:HG12	11:F:98:VAL:HA	2.03	0.40
11:F:20:LEU:HD13	11:F:98:VAL:HG22	2.03	0.40
1:0:1150:A:C2'	12:G:16:LYS:HD3	2.51	0.40
12:G:63:ARG:N	37:G:403:HOH:O	2.54	0.40
1:0:259:G:N2	17:L:58:GLN:NE2	2.66	0.40
18:M:22:GLN:O	18:M:26:LEU:HD22	2.22	0.40
27:V:51:PHE:CD1	27:V:51:PHE:N	2.89	0.40
29:X:130:ARG:HG2	29:X:131:GLN:N	2.36	0.40
1:0:1243:C:H6	1:0:1243:C:O5'	2.03	0.40
1:0:1271:A:O2'	1:0:1272:C:H5'	2.22	0.40
1:0:1404:C:H4'	1:0:1408:U:C5	2.55	0.40
1:0:1457:U:O2'	1:0:1458:A:H5'	2.21	0.40
1:0:1553:C:H6	1:0:1553:C:O5'	2.04	0.40
1:0:1568:G:O2'	1:0:1569:U:H5'	2.21	0.40
1:0:1583:U:O2'	1:0:1584:C:H5'	2.22	0.40
1:0:1713:G:C2'	37:0:3224:HOH:O	2.67	0.40
1:0:1769:C:O2'	1:0:1770:U:H5'	2.22	0.40
1:0:1847:A:H4'	6:A:169:PHE:HB2	2.03	0.40
1:0:1860:U:H2'	1:0:1861:C:O4'	2.21	0.40
1:0:1866:A:C5	1:0:1867:G:H1'	2.56	0.40
1:0:1985:U:H5''	1:0:1986:G:OP2	2.20	0.40
1:0:2525:G:H2'	37:0:8692:HOH:O	2.21	0.40
1:0:2607:U:O5'	1:0:2609:G:H4'	2.21	0.40
1:0:2616:G:C4	1:0:2645:U:C4	3.10	0.40
1:0:2750:G:H2'	1:0:2751:C:O4'	2.22	0.40
1:0:2908:A:H8	1:0:2908:A:O5'	2.05	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:380:A:C2	17:L:13:LYS:HB3	2.55	0.40
1:0:473:A:H8	1:0:473:A:O5'	2.04	0.40
1:0:645:U:OP2	16:K:4:LYS:HE2	2.21	0.40
1:0:688:A:N6	1:0:698:A:O5'	2.51	0.40
7:B:223:ARG:O	7:B:224:LYS:HD3	2.21	0.40
7:B:284:PHE:O	7:B:287:TYR:N	2.52	0.40
37:0:4050:HOH:O	7:B:298:LYS:HD3	2.21	0.40
8:C:57:PRO:HD2	8:C:73:LEU:HD22	2.03	0.40
10:E:84:MET:HE3	10:E:131:LEU:HD13	2.02	0.40
10:E:6:GLU:HG2	10:E:46:THR:HG22	2.03	0.40
11:F:89:LEU:HA	11:F:89:LEU:HD23	1.88	0.40
13:H:141:ASN:O	13:H:144:GLU:HB3	2.21	0.40
14:I:130:VAL:CG1	14:I:131:THR:N	2.84	0.40
16:K:24:ALA:HB2	16:K:27:ARG:NH2	2.36	0.40
17:L:131:VAL:HG12	17:L:133:LEU:HD12	2.03	0.40
18:M:42:HIS:CE1	18:M:75:THR:OG1	2.74	0.40
19:N:27:GLY:O	19:N:31:GLU:HG3	2.22	0.40
21:P:86:VAL:CG2	21:P:90:HIS:HB2	2.51	0.40
27:V:108:ARG:HG3	27:V:114:PRO:HG3	2.04	0.40
27:V:80:ASP:OD1	27:V:82:GLU:HB3	2.21	0.40
28:W:30:MET:CE	28:W:55:ASN:HA	2.49	0.40
30:Y:41:VAL:HG23	30:Y:62:TYR:CD2	2.56	0.40
1:0:1265:G:C6	1:0:1266:U:C4	3.10	0.40
1:0:2038:A:O2'	1:0:2039:A:H5'	2.21	0.40
1:0:2101:A:H1'	1:0:2537:G:O4'	2.21	0.40
1:0:171:C:O2	1:0:222:A:H2	2.05	0.40
1:0:2256:G:C2'	1:0:2257:G:H5'	2.51	0.40
1:0:2110:G:C2	1:0:2478:U:C2	3.09	0.40
1:0:2517:A:H2'	1:0:2518:C:O4'	2.22	0.40
1:0:2692:G:O2'	1:0:2693:U:OP2	2.38	0.40
1:0:623:U:H2'	1:0:624:U:H6	1.87	0.40
1:0:955:A:H2'	1:0:956:G:H5'	2.04	0.40
4:5:53:ILE:CG1	23:R:15:MET:HE2	2.52	0.40
5:9:25:G:C2'	5:9:26:C:H5'	2.51	0.40
6:A:171:LYS:HE3	6:A:174:ASN:OD1	2.21	0.40
7:B:27:ASN:ND2	7:B:27:ASN:N	2.67	0.40
8:C:5:ILE:CD1	8:C:16:VAL:HG23	2.37	0.40
8:C:20:ASP:O	8:C:21:VAL:C	2.60	0.40
8:C:76:ARG:HG2	8:C:78:ARG:HH12	1.86	0.40
9:D:166:ILE:O	9:D:169:THR:N	2.55	0.40
11:F:110:GLU:HA	11:F:113:ASP:OD2	2.21	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:H:45:GLN:HG3	13:H:135:TRP:NE1	2.36	0.40
13:H:153:VAL:HG21	13:H:157:ILE:HD11	2.04	0.40
13:H:57:ARG:HG3	13:H:57:ARG:NH1	2.37	0.40
14:I:39:VAL:HG11	14:I:107:ASN:CG	2.42	0.40
16:K:43:HIS:HE1	37:K:376:HOH:O	2.03	0.40
17:L:122:GLU:OE2	17:L:127:LYS:HE2	2.22	0.40
19:N:47:ARG:NH1	19:N:47:ARG:CG	2.79	0.40
23:R:53:ASN:ND2	37:R:205:HOH:O	2.53	0.40
26:U:11:MET:HB3	26:U:15:GLU:HB2	2.03	0.40
30:Y:14:PHE:HE2	37:Y:206:HOH:O	2.05	0.40
30:Y:47:LEU:HD11	30:Y:64:ILE:HD11	2.02	0.40
1:0:1137:G:C4'	1:0:1138:G:OP1	2.69	0.40
1:0:1153:C:C4	1:0:1154:A:N7	2.90	0.40
1:0:1107:A:N3	1:0:1257:C:H1'	2.37	0.40
1:0:1386:G:C2	1:0:1397:C:N3	2.89	0.40
1:0:1460:G:O2'	1:0:1461:U:H5'	2.21	0.40
1:0:1718:G:OP1	20:O:20:ARG:HD3	2.21	0.40
1:0:1884:G:O6	6:A:190:ARG:CD	2.69	0.40
1:0:1946:C:C5	1:0:1971:G:C6	3.08	0.40
1:0:2246:U:O2'	1:0:2247:C:H5'	2.22	0.40
1:0:260:C:H2'	1:0:261:A:C8	2.57	0.40
1:0:2623:G:C6	1:0:2642:G:N1	2.89	0.40
1:0:40:C:H6	1:0:40:C:O5'	2.05	0.40
1:0:611:U:H2'	1:0:612:U:C6	2.57	0.40
1:0:610:G:O2'	1:0:611:U:H5'	2.21	0.40
1:0:926:A:H5'	16:K:39:GLU:OE2	2.22	0.40
2:1:49:GLU:HB2	37:1:108:HOH:O	2.22	0.40
6:A:170:VAL:HG13	30:Y:22:ILE:CG2	2.51	0.40
8:C:108:GLN:HB3	37:C:513:HOH:O	2.21	0.40
9:D:76:ARG:O	9:D:77:ASP:HB2	2.22	0.40
10:E:166:VAL:HB	37:E:214:HOH:O	2.21	0.40
13:H:130:HIS:HB2	13:H:133:ILE:HD11	2.02	0.40
16:K:72:ASN:HB2	37:K:317:HOH:O	2.20	0.40
17:L:47:ASP:CG	17:L:48:ARG:H	2.24	0.40
22:Q:15:LYS:HE3	37:Q:368:HOH:O	2.21	0.40
24:S:26:THR:O	24:S:97:ARG:HG3	2.22	0.40
29:X:160:LYS:HA	29:X:160:LYS:HD3	1.94	0.40

There are no symmetry-related clashes.

5.3 Torsion angles ⓘ

5.3.1 Protein backbone ⓘ

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	1	42/48 (88%)	37 (88%)	5 (12%)	0	100	100
3	2	90/92 (98%)	82 (91%)	5 (6%)	3 (3%)	4	28
4	5	33/144 (23%)	24 (73%)	9 (27%)	0	100	100
6	A	236/239 (99%)	197 (84%)	27 (11%)	12 (5%)	2	19
7	B	335/337 (99%)	281 (84%)	40 (12%)	14 (4%)	3	23
8	C	244/246 (99%)	201 (82%)	37 (15%)	6 (2%)	5	34
9	D	135/176 (77%)	90 (67%)	31 (23%)	14 (10%)	0	7
10	E	171/177 (97%)	147 (86%)	21 (12%)	3 (2%)	8	41
11	F	117/119 (98%)	97 (83%)	16 (14%)	4 (3%)	3	28
12	G	26/348 (8%)	23 (88%)	2 (8%)	1 (4%)	3	25
13	H	152/167 (91%)	123 (81%)	21 (14%)	8 (5%)	2	17
14	I	140/145 (97%)	117 (84%)	17 (12%)	6 (4%)	2	22
15	J	130/132 (98%)	115 (88%)	13 (10%)	2 (2%)	10	45
16	K	142/164 (87%)	116 (82%)	20 (14%)	6 (4%)	3	23
17	L	192/194 (99%)	144 (75%)	40 (21%)	8 (4%)	3	23
18	M	184/186 (99%)	153 (83%)	24 (13%)	7 (4%)	3	25
19	N	113/115 (98%)	92 (81%)	17 (15%)	4 (4%)	3	27
20	O	142/148 (96%)	126 (89%)	12 (8%)	4 (3%)	5	32
21	P	93/95 (98%)	72 (77%)	16 (17%)	5 (5%)	2	17
22	Q	149/154 (97%)	127 (85%)	18 (12%)	4 (3%)	5	33
23	R	82/84 (98%)	68 (83%)	9 (11%)	5 (6%)	1	15
24	S	117/119 (98%)	101 (86%)	13 (11%)	3 (3%)	5	33
25	T	52/66 (79%)	49 (94%)	3 (6%)	0	100	100
26	U	64/70 (91%)	49 (77%)	13 (20%)	2 (3%)	4	30
27	V	152/154 (99%)	132 (87%)	19 (12%)	1 (1%)	22	61

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	W	81/91 (89%)	65 (80%)	11 (14%)	5 (6%)	1	15
29	X	141/240 (59%)	126 (89%)	12 (8%)	3 (2%)	7	38
30	Y	71/73 (97%)	59 (83%)	7 (10%)	5 (7%)	1	12
31	Z	54/56 (96%)	43 (80%)	7 (13%)	4 (7%)	1	11
All	All	3680/4379 (84%)	3056 (83%)	485 (13%)	139 (4%)	3	25

All (139) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
9	D	20	LYS
9	D	93	LEU
9	D	95	THR
9	D	144	ARG
9	D	173	GLU
9	D	174	VAL
11	F	61	MET
11	F	101	ALA
13	H	72	VAL
13	H	162	SER
14	I	143	LYS
16	K	80	ASP
16	K	150	GLN
18	M	154	LEU
18	M	162	ASP
18	M	164	ASP
18	M	183	ASP
21	P	23	THR
23	R	83	VAL
26	U	65	ASP
28	W	87	ALA
3	2	84	ARG
6	A	15	THR
6	A	21	HIS
7	B	139	ASP
7	B	169	GLY
7	B	184	ASP
7	B	266	ASN
10	E	164	ASP
11	F	105	ALA
14	I	76	ASP
14	I	78	ILE

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
14	I	89	HIS
17	L	72	SER
17	L	140	ALA
18	M	15	GLU
18	M	181	ASP
20	O	143	ALA
22	Q	40	ALA
22	Q	106	GLY
23	R	4	VAL
23	R	30	ASP
24	S	16	LEU
24	S	53	GLY
27	V	77	ALA
28	W	23	HIS
28	W	70	ILE
29	X	157	ILE
30	Y	20	LEU
31	Z	2	GLY
31	Z	18	LYS
3	2	56	PRO
6	A	14	SER
6	A	119	ALA
6	A	180	LYS
7	B	192	ASP
7	B	302	PRO
8	C	69	HIS
8	C	131	PHE
9	D	39	ASP
9	D	96	SER
9	D	137	PRO
10	E	17	HIS
10	E	145	ALA
13	H	40	PRO
13	H	79	ALA
14	I	5	GLU
15	J	126	SER
16	K	11	ARG
16	K	21	ARG
17	L	35	PRO
17	L	46	LEU
18	M	9	PRO
19	N	20	SER

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
19	N	21	SER
19	N	73	ASP
20	O	116	SER
24	S	44	ALA
26	U	43	PRO
28	W	77	PHE
29	X	142	SER
30	Y	18	TYR
31	Z	29	THR
3	2	57	GLY
6	A	34	ASP
6	A	55	VAL
6	A	132	ASP
7	B	206	THR
7	B	291	ASP
9	D	85	GLN
9	D	171	ASP
14	I	7	ASP
15	J	6	ALA
17	L	165	SER
19	N	54	GLU
20	O	77	ALA
21	P	54	PRO
21	P	78	GLY
22	Q	107	GLU
29	X	169	ARG
31	Z	11	LYS
6	A	69	LEU
7	B	2	GLN
7	B	34	GLY
7	B	67	GLU
7	B	91	PRO
7	B	185	GLY
8	C	48	SER
8	C	55	ARG
13	H	58	HIS
16	K	45	PRO
17	L	47	ASP
17	L	110	PRO
20	O	83	LYS
21	P	18	PRO
23	R	38	ALA

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	R	70	GLU
30	Y	41	VAL
30	Y	59	HIS
6	A	10	GLY
6	A	211	LYS
8	C	89	ALA
9	D	27	ILE
13	H	67	ALA
16	K	13	HIS
28	W	52	PRO
6	A	170	VAL
21	P	6	PRO
30	Y	15	GLY
9	D	135	VAL
11	F	59	ILE
13	H	110	GLY
13	H	118	PRO
17	L	88	VAL
22	Q	2	ILE
7	B	30	PRO
8	C	21	VAL
12	G	20	VAL
9	D	130	VAL

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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	1	42/44 (96%)	40 (95%)	2 (5%)	25	60
3	2	79/79 (100%)	75 (95%)	4 (5%)	24	57
4	5	29/122 (24%)	26 (90%)	3 (10%)	7	32
6	A	179/181 (99%)	167 (93%)	12 (7%)	16	48
7	B	282/282 (100%)	268 (95%)	14 (5%)	24	58
8	C	193/193 (100%)	181 (94%)	12 (6%)	18	51

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
9	D	117/147 (80%)	109 (93%)	8 (7%)	16	48
10	E	152/155 (98%)	147 (97%)	5 (3%)	38	68
11	F	92/92 (100%)	91 (99%)	1 (1%)	73	88
12	G	27/283 (10%)	27 (100%)	0	100	100
13	H	122/122 (100%)	111 (91%)	11 (9%)	9	37
14	I	118/121 (98%)	111 (94%)	7 (6%)	19	53
15	J	106/106 (100%)	102 (96%)	4 (4%)	33	65
16	K	112/126 (89%)	106 (95%)	6 (5%)	22	55
17	L	166/166 (100%)	160 (96%)	6 (4%)	35	66
18	M	149/149 (100%)	142 (95%)	7 (5%)	26	60
19	N	93/93 (100%)	90 (97%)	3 (3%)	39	69
20	O	113/116 (97%)	109 (96%)	4 (4%)	36	67
21	P	79/79 (100%)	74 (94%)	5 (6%)	18	51
22	Q	117/121 (97%)	113 (97%)	4 (3%)	37	68
23	R	73/73 (100%)	72 (99%)	1 (1%)	67	85
24	S	105/105 (100%)	101 (96%)	4 (4%)	33	65
25	T	44/52 (85%)	41 (93%)	3 (7%)	16	48
26	U	51/56 (91%)	51 (100%)	0	100	100
27	V	130/130 (100%)	124 (95%)	6 (5%)	27	61
28	W	66/73 (90%)	61 (92%)	5 (8%)	13	43
29	X	120/195 (62%)	115 (96%)	5 (4%)	30	63
30	Y	56/56 (100%)	51 (91%)	5 (9%)	9	37
31	Z	46/46 (100%)	46 (100%)	0	100	100
All	All	3058/3563 (86%)	2911 (95%)	147 (5%)	25	60

All (147) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	1	16	ASN
2	1	18	ASN
3	2	11	CYS
3	2	15	ASN
3	2	38	ARG
3	2	56	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	5	26	THR
4	5	40	ARG
4	5	56	GLN
6	A	3	ARG
6	A	30	ARG
6	A	33	GLU
6	A	55	VAL
6	A	69	LEU
6	A	78	ASP
6	A	120	ARG
6	A	131	HIS
6	A	153	ARG
6	A	179	MET
6	A	190	ARG
6	A	217	ARG
7	B	7	ARG
7	B	27	ASN
7	B	33	ASP
7	B	49	THR
7	B	103	ASP
7	B	162	MET
7	B	190	MET
7	B	195	ARG
7	B	250	THR
7	B	254	GLN
7	B	256	GLN
7	B	304	PRO
7	B	307	ARG
7	B	312	ARG
8	C	2	GLN
8	C	27	ARG
8	C	28	SER
8	C	42	ARG
8	C	67	GLN
8	C	78	ARG
8	C	136	VAL
8	C	187	ARG
8	C	214	THR
8	C	222	ASP
8	C	236	THR
8	C	240	LEU
9	D	24	HIS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
9	D	50	VAL
9	D	61	PHE
9	D	86	THR
9	D	131	THR
9	D	133	ASN
9	D	136	ARG
9	D	137	PRO
10	E	7	ILE
10	E	12	ASP
10	E	16	ASP
10	E	102	VAL
10	E	164	ASP
11	F	64	PRO
13	H	65	ARG
13	H	72	VAL
13	H	73	GLN
13	H	82	LYS
13	H	83	PHE
13	H	86	ARG
13	H	93	ILE
13	H	126	HIS
13	H	130	HIS
13	H	142	VAL
13	H	150	LYS
14	I	46	ILE
14	I	52	GLN
14	I	74	ARG
14	I	76	ASP
14	I	79	PHE
14	I	107	ASN
14	I	127	ILE
15	J	10	GLN
15	J	56	SER
15	J	83	PRO
15	J	98	VAL
16	K	18	HIS
16	K	30	ARG
16	K	35	ARG
16	K	51	PHE
16	K	80	ASP
16	K	117	GLU
17	L	38	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
17	L	46	LEU
17	L	68	ARG
17	L	87	MET
17	L	93	ARG
17	L	99	ARG
18	M	12	ARG
18	M	26	LEU
18	M	38	LYS
18	M	128	ASP
18	M	139	TRP
18	M	152	GLU
18	M	163	PHE
19	N	9	SER
19	N	26	TRP
19	N	38	ARG
20	O	52	LYS
20	O	91	LYS
20	O	94	TRP
20	O	98	ILE
21	P	11	ARG
21	P	16	ASN
21	P	18	PRO
21	P	57	ASP
21	P	81	GLU
22	Q	13	THR
22	Q	39	THR
22	Q	82	GLU
22	Q	143	VAL
23	R	17	ASP
24	S	5	ASP
24	S	39	ASN
24	S	48	VAL
24	S	73	HIS
25	T	9	CYS
25	T	32	CYS
25	T	52	THR
27	V	35	VAL
27	V	38	THR
27	V	122	ARG
27	V	125	HIS
27	V	142	ASP
27	V	154	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
28	W	15	ARG
28	W	27	ASP
28	W	44	ASP
28	W	51	ASP
28	W	72	VAL
29	X	154	ARG
29	X	186	ARG
29	X	189	ASN
29	X	203	VAL
29	X	235	GLU
30	Y	11	THR
30	Y	28	ASP
30	Y	44	PHE
30	Y	64	ILE
30	Y	68	CYS

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (87) such sidechains are listed below:

Mol	Chain	Res	Type
2	1	16	ASN
2	1	18	ASN
2	1	41	HIS
2	1	45	ASN
3	2	13	HIS
3	2	17	HIS
3	2	48	ASN
4	5	56	GLN
6	A	92	ASN
6	A	199	HIS
7	B	27	ASN
7	B	39	GLN
7	B	145	HIS
7	B	238	ASN
7	B	260	HIS
7	B	320	GLN
8	C	39	GLN
8	C	41	ASN
8	C	129	HIS
9	D	47	GLN
9	D	103	ASN
9	D	133	ASN
10	E	15	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
10	E	106	ASN
10	E	143	GLN
10	E	150	GLN
11	F	80	GLN
12	G	64	ASN
13	H	8	ASN
13	H	55	GLN
13	H	58	HIS
13	H	59	ASN
13	H	69	ASN
13	H	74	ASN
13	H	80	ASN
13	H	91	HIS
13	H	126	HIS
13	H	137	ASN
13	H	166	ASN
14	I	107	ASN
15	J	10	GLN
15	J	42	ASN
16	K	18	HIS
16	K	41	HIS
16	K	42	ASN
16	K	43	HIS
16	K	58	GLN
17	L	26	HIS
17	L	58	GLN
17	L	78	ASN
17	L	89	ASN
17	L	176	GLN
18	M	40	ASN
18	M	93	GLN
18	M	107	ASN
18	M	119	GLN
18	M	153	GLN
19	N	105	ASN
20	O	50	GLN
20	O	66	GLN
21	P	16	ASN
21	P	40	HIS
22	Q	61	GLN
22	Q	94	ASN
22	Q	98	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	Q	113	HIS
23	R	21	GLN
23	R	51	GLN
24	S	43	ASN
25	T	39	ASN
25	T	48	ASN
26	U	60	GLN
27	V	6	GLN
27	V	59	GLN
27	V	87	HIS
27	V	110	GLN
27	V	119	HIS
27	V	125	HIS
27	V	141	HIS
28	W	23	HIS
29	X	119	GLN
29	X	133	HIS
29	X	134	HIS
29	X	149	GLN
29	X	189	ASN
31	Z	16	HIS
31	Z	28	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	0	2745/2922 (93%)	542 (19%)	360 (13%)
5	9	121/122 (99%)	27 (22%)	14 (11%)
All	All	2866/3044 (94%)	569 (19%)	374 (13%)

All (569) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	0	24	G
1	0	25	A
1	0	31	C
1	0	32	G
1	0	46	U
1	0	47	G
1	0	56	G
1	0	60	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	67	A
1	0	68	U
1	0	69	A
1	0	70	A
1	0	71	G
1	0	81	G
1	0	86	A
1	0	87	C
1	0	88	G
1	0	95	A
1	0	96	A
1	0	97	G
1	0	98	A
1	0	114	A
1	0	115	U
1	0	116	G
1	0	120	A
1	0	130	C
1	0	139	C
1	0	140	G
1	0	141	C
1	0	142	G
1	0	151	A
1	0	166	A
1	0	174	A
1	0	175	G
1	0	186	A
1	0	191	A
1	0	192	A
1	0	193	A
1	0	198	A
1	0	199	A
1	0	212	A
1	0	213	G
1	0	219	G
1	0	220	C
1	0	237	G
1	0	247	A
1	0	248	A
1	0	262	A
1	0	263	U
1	0	264	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	265	U
1	0	271	C
1	0	272	A
1	0	273	G
1	0	283	U
1	0	284	C
1	0	285	A
1	0	307	G
1	0	308	U
1	0	309	C
1	0	317	A
1	0	318	C
1	0	329	A
1	0	330	C
1	0	331	A
1	0	336	G
1	0	337	A
1	0	338	C
1	0	340	A
1	0	345	G
1	0	357	A
1	0	358	G
1	0	359	U
1	0	379	G
1	0	380	A
1	0	381	G
1	0	397	A
1	0	410	A
1	0	411	A
1	0	412	C
1	0	417	G
1	0	418	C
1	0	441	A
1	0	448	G
1	0	449	A
1	0	452	G
1	0	453	A
1	0	454	U
1	0	455	A
1	0	460	A
1	0	461	C
1	0	462	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	463	A
1	0	464	G
1	0	481	U
1	0	485	A
1	0	486	A
1	0	487	G
1	0	488	U
1	0	497	A
1	0	498	A
1	0	511	A
1	0	514	G
1	0	533	U
1	0	534	C
1	0	535	G
1	0	536	A
1	0	537	G
1	0	538	C
1	0	539	G
1	0	542	A
1	0	545	G
1	0	549	A
1	0	553	G
1	0	555	U
1	0	559	U
1	0	587	A
1	0	588	G
1	0	604	G
1	0	605	C
1	0	620	A
1	0	628	A
1	0	629	A
1	0	631	A
1	0	632	A
1	0	661	G
1	0	673	U
1	0	674	A
1	0	675	U
1	0	681	G
1	0	682	A
1	0	688	A
1	0	689	G
1	0	698	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	701	U
1	0	702	G
1	0	713	U
1	0	714	U
1	0	734	U
1	0	746	A
1	0	747	G
1	0	759	C
1	0	761	A
1	0	762	C
1	0	778	C
1	0	809	G
1	0	817	G
1	0	819	A
1	0	820	G
1	0	821	U
1	0	831	U
1	0	832	U
1	0	835	U
1	0	840	U
1	0	845	U
1	0	846	A
1	0	856	G
1	0	868	G
1	0	869	G
1	0	870	G
1	0	871	G
1	0	872	U
1	0	875	A
1	0	876	A
1	0	877	G
1	0	878	G
1	0	882	A
1	0	883	U
1	0	884	C
1	0	885	G
1	0	886	A
1	0	887	G
1	0	893	C
1	0	894	A
1	0	895	A
1	0	898	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	904	U
1	0	905	C
1	0	920	C
1	0	921	G
1	0	923	A
1	0	938	G
1	0	939	A
1	0	940	G
1	0	942	U
1	0	943	A
1	0	953	G
1	0	954	U
1	0	960	G
1	0	961	A
1	0	1006	A
1	0	1008	C
1	0	1009	U
1	0	1010	C
1	0	1029	U
1	0	1030	U
1	0	1032	A
1	0	1044	C
1	0	1045	G
1	0	1059	G
1	0	1060	C
1	0	1071	G
1	0	1072	G
1	0	1081	A
1	0	1083	C
1	0	1087	G
1	0	1088	A
1	0	1105	C
1	0	1106	A
1	0	1108	G
1	0	1109	U
1	0	1110	G
1	0	1117	A
1	0	1118	A
1	0	1119	G
1	0	1120	U
1	0	1124	A
1	0	1126	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1127	C
1	0	1128	U
1	0	1129	C
1	0	1130	U
1	0	1138	G
1	0	1149	U
1	0	1150	A
1	0	1151	G
1	0	1162	G
1	0	1164	U
1	0	1165	G
1	0	1166	A
1	0	1174	A
1	0	1175	G
1	0	1193	A
1	0	1194	A
1	0	1206	U
1	0	1214	G
1	0	1216	G
1	0	1230	A
1	0	1231	A
1	0	1233	A
1	0	1234	U
1	0	1235	G
1	0	1236	A
1	0	1238	C
1	0	1239	G
1	0	1242	A
1	0	1245	C
1	0	1247	A
1	0	1248	A
1	0	1261	A
1	0	1279	U
1	0	1287	A
1	0	1289	C
1	0	1290	G
1	0	1291	A
1	0	1314	U
1	0	1315	G
1	0	1316	G
1	0	1340	G
1	0	1342	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1352	A
1	0	1353	C
1	0	1354	G
1	0	1355	A
1	0	1356	A
1	0	1357	A
1	0	1358	A
1	0	1360	C
1	0	1369	A
1	0	1370	G
1	0	1376	G
1	0	1377	C
1	0	1378	G
1	0	1379	A
1	0	1381	A
1	0	1382	G
1	0	1393	A
1	0	1408	U
1	0	1409	G
1	0	1417	G
1	0	1418	U
1	0	1419	U
1	0	1426	C
1	0	1427	A
1	0	1431	C
1	0	1435	U
1	0	1439	C
1	0	1447	U
1	0	1448	A
1	0	1451	C
1	0	1473	U
1	0	1474	C
1	0	1485	A
1	0	1486	A
1	0	1487	A
1	0	1489	G
1	0	1492	A
1	0	1494	A
1	0	1505	U
1	0	1506	U
1	0	1507	C
1	0	1524	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1525	G
1	0	1526	A
1	0	1527	A
1	0	1533	A
1	0	1534	C
1	0	1562	C
1	0	1564	C
1	0	1580	A
1	0	1589	G
1	0	1592	G
1	0	1604	G
1	0	1605	G
1	0	1606	A
1	0	1617	C
1	0	1618	G
1	0	1624	A
1	0	1625	U
1	0	1626	A
1	0	1633	C
1	0	1634	G
1	0	1653	A
1	0	1654	U
1	0	1656	A
1	0	1664	A
1	0	1667	A
1	0	1677	U
1	0	1678	A
1	0	1682	A
1	0	1684	A
1	0	1686	C
1	0	1691	A
1	0	1692	C
1	0	1693	A
1	0	1701	A
1	0	1702	U
1	0	1711	A
1	0	1722	U
1	0	1723	G
1	0	1725	C
1	0	1731	C
1	0	1745	G
1	0	1746	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1747	A
1	0	1759	A
1	0	1760	G
1	0	1772	C
1	0	1776	A
1	0	1777	G
1	0	1778	A
1	0	1784	U
1	0	1785	G
1	0	1798	C
1	0	1814	G
1	0	1815	A
1	0	1820	G
1	0	1829	A
1	0	1836	A
1	0	1837	G
1	0	1840	A
1	0	1841	C
1	0	1842	A
1	0	1855	G
1	0	1856	C
1	0	1857	A
1	0	1858	A
1	0	1871	U
1	0	1872	C
1	0	1873	G
1	0	1875	A
1	0	1876	C
1	0	1877	G
1	0	1885	A
1	0	1895	A
1	0	1904	A
1	0	1919	A
1	0	1920	C
1	0	1942	A
1	0	1968	A
1	0	1971	G
1	0	1973	A
1	0	1974	G
1	0	1978	A
1	0	1979	G
1	0	1980	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1981	A
1	0	1982	C
1	0	1984	U
1	0	1985	U
1	0	1986	G
1	0	1996	U
1	0	1997	A
1	0	2005	G
1	0	2006	C
1	0	2007	A
1	0	2008	U
1	0	2012	U
1	0	2013	G
1	0	2021	C
1	0	2022	A
1	0	2033	G
1	0	2034	U
1	0	2037	C
1	0	2038	A
1	0	2072	G
1	0	2073	G
1	0	2074	A
1	0	2075	G
1	0	2076	U
1	0	2077	C
1	0	2093	G
1	0	2096	A
1	0	2101	A
1	0	2102	G
1	0	2103	A
1	0	2108	A
1	0	2109	U
1	0	2110	G
1	0	2133	U
1	0	2134	G
1	0	2243	C
1	0	2271	G
1	0	2272	G
1	0	2282	U
1	0	2283	G
1	0	2284	G
1	0	2291	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2293	G
1	0	2300	A
1	0	2301	A
1	0	2317	C
1	0	2321	A
1	0	2322	U
1	0	2323	G
1	0	2331	C
1	0	2354	A
1	0	2355	G
1	0	2361	A
1	0	2368	A
1	0	2369	A
1	0	2370	A
1	0	2371	G
1	0	2378	U
1	0	2379	G
1	0	2380	A
1	0	2381	C
1	0	2391	C
1	0	2392	C
1	0	2394	A
1	0	2395	A
1	0	2444	U
1	0	2462	G
1	0	2463	A
1	0	2464	C
1	0	2465	A
1	0	2466	G
1	0	2467	A
1	0	2469	A
1	0	2470	A
1	0	2474	A
1	0	2475	C
1	0	2476	C
1	0	2480	G
1	0	2482	G
1	0	2483	A
1	0	2484	U
1	0	2485	A
1	0	2493	C
1	0	2494	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2509	A
1	0	2511	A
1	0	2525	G
1	0	2526	C
1	0	2532	A
1	0	2533	C
1	0	2537	G
1	0	2538	A
1	0	2539	U
1	0	2540	G
1	0	2541	U
1	0	2553	A
1	0	2554	U
1	0	2555	C
1	0	2564	G
1	0	2577	A
1	0	2578	G
1	0	2589	U
1	0	2601	A
1	0	2602	G
1	0	2608	C
1	0	2613	G
1	0	2616	G
1	0	2617	G
1	0	2621	U
1	0	2637	A
1	0	2638	G
1	0	2645	U
1	0	2648	U
1	0	2649	A
1	0	2650	U
1	0	2664	A
1	0	2680	A
1	0	2681	A
1	0	2682	C
1	0	2691	A
1	0	2692	G
1	0	2719	A
1	0	2726	U
1	0	2747	C
1	0	2748	G
1	0	2761	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2762	C
1	0	2768	A
1	0	2785	C
1	0	2786	G
1	0	2787	C
1	0	2791	U
1	0	2792	A
1	0	2800	A
1	0	2801	A
1	0	2811	A
1	0	2812	A
1	0	2813	A
1	0	2814	A
1	0	2815	G
1	0	2816	A
1	0	2826	G
1	0	2838	A
1	0	2850	C
1	0	2851	G
1	0	2852	A
1	0	2853	U
1	0	2866	U
1	0	2876	G
1	0	2889	U
1	0	2890	A
1	0	2896	A
1	0	2897	C
1	0	2903	C
1	0	2909	G
1	0	2914	A
5	9	2	U
5	9	4	G
5	9	7	G
5	9	10	C
5	9	11	A
5	9	12	C
5	9	13	A
5	9	14	G
5	9	22	G
5	9	23	U
5	9	24	U
5	9	25	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	9	26	C
5	9	34	A
5	9	41	C
5	9	43	G
5	9	44	A
5	9	51	A
5	9	52	A
5	9	56	A
5	9	57	A
5	9	66	G
5	9	77	A
5	9	78	G
5	9	88	G
5	9	114	G
5	9	122	C

All (374) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	0	24	G
1	0	30	U
1	0	31	C
1	0	45	A
1	0	46	U
1	0	56	G
1	0	59	A
1	0	66	G
1	0	67	A
1	0	68	U
1	0	70	A
1	0	80	A
1	0	86	A
1	0	87	C
1	0	95	A
1	0	96	A
1	0	97	G
1	0	114	A
1	0	115	U
1	0	129	A
1	0	139	C
1	0	141	C
1	0	147	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	166	A
1	0	169	A
1	0	174	A
1	0	175	G
1	0	185	G
1	0	191	A
1	0	192	A
1	0	196	G
1	0	198	A
1	0	200	U
1	0	203	G
1	0	212	A
1	0	220	C
1	0	236	A
1	0	247	A
1	0	262	A
1	0	263	U
1	0	264	G
1	0	271	C
1	0	284	C
1	0	307	G
1	0	317	A
1	0	318	C
1	0	328	U
1	0	329	A
1	0	330	C
1	0	336	G
1	0	337	A
1	0	338	C
1	0	339	A
1	0	357	A
1	0	358	G
1	0	379	G
1	0	380	A
1	0	381	G
1	0	410	A
1	0	411	A
1	0	417	G
1	0	441	A
1	0	448	G
1	0	452	G
1	0	453	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	454	U
1	0	460	A
1	0	461	C
1	0	463	A
1	0	464	G
1	0	480	C
1	0	485	A
1	0	487	G
1	0	496	G
1	0	512	G
1	0	518	G
1	0	533	U
1	0	535	G
1	0	537	G
1	0	538	C
1	0	554	G
1	0	587	A
1	0	603	A
1	0	604	G
1	0	628	A
1	0	630	A
1	0	631	A
1	0	644	G
1	0	660	A
1	0	672	G
1	0	673	U
1	0	674	A
1	0	681	G
1	0	688	A
1	0	701	U
1	0	713	U
1	0	746	A
1	0	760	G
1	0	761	A
1	0	766	A
1	0	776	A
1	0	777	U
1	0	817	G
1	0	819	A
1	0	831	U
1	0	834	G
1	0	845	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	855	U
1	0	857	A
1	0	867	A
1	0	868	G
1	0	869	G
1	0	871	G
1	0	875	A
1	0	877	G
1	0	882	A
1	0	884	C
1	0	885	G
1	0	886	A
1	0	893	C
1	0	894	A
1	0	898	G
1	0	904	U
1	0	923	A
1	0	938	G
1	0	939	A
1	0	942	U
1	0	952	G
1	0	953	G
1	0	1009	U
1	0	1029	U
1	0	1030	U
1	0	1031	G
1	0	1044	C
1	0	1059	G
1	0	1071	G
1	0	1072	G
1	0	1080	C
1	0	1087	G
1	0	1105	C
1	0	1108	G
1	0	1117	A
1	0	1119	G
1	0	1123	A
1	0	1126	C
1	0	1128	U
1	0	1137	G
1	0	1149	U
1	0	1150	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1151	G
1	0	1164	U
1	0	1193	A
1	0	1215	A
1	0	1230	A
1	0	1232	A
1	0	1234	U
1	0	1235	G
1	0	1237	U
1	0	1246	A
1	0	1247	A
1	0	1260	G
1	0	1290	G
1	0	1314	U
1	0	1315	G
1	0	1316	G
1	0	1340	G
1	0	1341	A
1	0	1351	G
1	0	1352	A
1	0	1354	G
1	0	1355	A
1	0	1356	A
1	0	1357	A
1	0	1369	A
1	0	1370	G
1	0	1376	G
1	0	1377	C
1	0	1378	G
1	0	1379	A
1	0	1380	U
1	0	1381	A
1	0	1392	A
1	0	1405	U
1	0	1406	A
1	0	1407	A
1	0	1408	U
1	0	1417	G
1	0	1418	U
1	0	1426	C
1	0	1430	G
1	0	1431	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1435	U
1	0	1438	G
1	0	1446	U
1	0	1447	U
1	0	1448	A
1	0	1450	C
1	0	1473	U
1	0	1485	A
1	0	1486	A
1	0	1488	U
1	0	1491	G
1	0	1494	A
1	0	1505	U
1	0	1506	U
1	0	1524	U
1	0	1526	A
1	0	1533	A
1	0	1534	C
1	0	1563	G
1	0	1579	C
1	0	1591	A
1	0	1603	A
1	0	1604	G
1	0	1605	G
1	0	1617	C
1	0	1652	C
1	0	1653	A
1	0	1654	U
1	0	1664	A
1	0	1677	U
1	0	1683	G
1	0	1684	A
1	0	1685	A
1	0	1690	C
1	0	1691	A
1	0	1692	C
1	0	1693	A
1	0	1701	A
1	0	1702	U
1	0	1710	A
1	0	1722	U
1	0	1730	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	1731	C
1	0	1745	G
1	0	1746	A
1	0	1752	G
1	0	1759	A
1	0	1771	U
1	0	1772	C
1	0	1776	A
1	0	1777	G
1	0	1784	U
1	0	1814	G
1	0	1836	A
1	0	1837	G
1	0	1840	A
1	0	1842	A
1	0	1855	G
1	0	1856	C
1	0	1857	A
1	0	1871	U
1	0	1872	C
1	0	1875	A
1	0	1876	C
1	0	1884	G
1	0	1894	C
1	0	1919	A
1	0	1941	A
1	0	1970	G
1	0	1977	U
1	0	1978	A
1	0	1979	G
1	0	1980	U
1	0	1981	A
1	0	1984	U
1	0	1985	U
1	0	1995	G
1	0	1996	U
1	0	2005	G
1	0	2007	A
1	0	2011	A
1	0	2021	C
1	0	2033	G
1	0	2037	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2072	G
1	0	2073	G
1	0	2074	A
1	0	2076	U
1	0	2092	G
1	0	2102	G
1	0	2108	A
1	0	2133	U
1	0	2243	C
1	0	2258	A
1	0	2271	G
1	0	2282	U
1	0	2283	G
1	0	2290	U
1	0	2292	C
1	0	2300	A
1	0	2309	C
1	0	2316	G
1	0	2320	U
1	0	2321	A
1	0	2322	U
1	0	2330	U
1	0	2353	A
1	0	2354	A
1	0	2367	A
1	0	2370	A
1	0	2378	U
1	0	2379	G
1	0	2380	A
1	0	2391	C
1	0	2394	A
1	0	2443	C
1	0	2462	G
1	0	2463	A
1	0	2465	A
1	0	2469	A
1	0	2474	A
1	0	2482	G
1	0	2483	A
1	0	2484	U
1	0	2493	C
1	0	2525	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2526	C
1	0	2532	A
1	0	2538	A
1	0	2539	U
1	0	2553	A
1	0	2554	U
1	0	2577	A
1	0	2601	A
1	0	2607	U
1	0	2616	G
1	0	2620	U
1	0	2636	C
1	0	2637	A
1	0	2644	C
1	0	2645	U
1	0	2648	U
1	0	2649	A
1	0	2680	A
1	0	2681	A
1	0	2691	A
1	0	2718	C
1	0	2747	C
1	0	2748	G
1	0	2749	U
1	0	2761	A
1	0	2762	C
1	0	2785	C
1	0	2786	G
1	0	2791	U
1	0	2811	A
1	0	2812	A
1	0	2813	A
1	0	2814	A
1	0	2815	G
1	0	2825	C
1	0	2837	U
1	0	2849	U
1	0	2850	C
1	0	2852	A
1	0	2866	U
1	0	2889	U
1	0	2896	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	0	2902	A
5	9	3	A
5	9	10	C
5	9	12	C
5	9	13	A
5	9	23	U
5	9	24	U
5	9	33	U
5	9	43	G
5	9	51	A
5	9	55	U
5	9	65	A
5	9	78	G
5	9	87	U
5	9	113	C

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 ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

Of 232 ligands modelled in this entry, 232 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data

6.1 Protein, DNA and RNA chains

EDS was not executed - this section is therefore empty.

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

EDS was not executed - this section is therefore empty.

6.3 Carbohydrates

EDS was not executed - this section is therefore empty.

6.4 Ligands

EDS was not executed - this section is therefore empty.

6.5 Other polymers

EDS was not executed - this section is therefore empty.