



# Full wwPDB X-ray Structure Validation Report ⓘ

Feb 1, 2016 – 07:13 AM GMT

PDB ID : 2ZJR  
Title : Refined native structure of the large ribosomal subunit (50S) from *Deinococcus radiodurans*  
Authors : Harms, J.M.; Wilson, D.N.; Schlutzen, F.; Connell, S.R.; Stachelhaus, T.; Zaborowska, Z.; Spahn, C.M.T.; Fucini, P.  
Deposited on : 2008-03-08  
Resolution : 2.91 Å(reported)

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

---

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

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

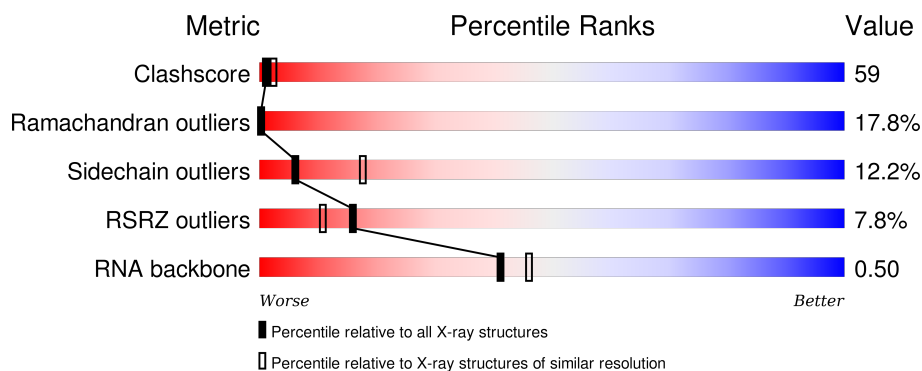
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

## *X-RAY DIFFRACTION*

The reported resolution of this entry is 2.91 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	102246	1871 (2.94-2.90)
Ramachandran outliers	100387	1824 (2.94-2.90)
Sidechain outliers	100360	1826 (2.94-2.90)
RSRZ outliers	91569	1650 (2.94-2.90)
RNA backbone	2183	1004 (3.30-2.54)

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

Mol	Chain	Length	Quality of chain
1	X	2880	 3% 16% 46% 20% 10% 7%
2	Y	123	 2% 23% 59% 15% ..
3	A	274	 8% 16% 54% 16% 12%
4	B	211	 29% 52% 12% ..
5	C	205	 5% 11% 56% 25% ..

*Continued on next page...*

Continued from previous page...

Mol	Chain	Length	Quality of chain
6	D	180	
7	E	185	
8	F	144	
9	G	174	
10	H	134	
11	I	156	
12	J	142	
13	K	116	
14	L	114	
15	M	166	
16	N	118	
17	O	100	
18	P	134	
19	Q	95	
20	R	115	
21	S	237	
22	T	91	
23	U	81	
24	V	67	
25	W	55	
26	Z	60	
27	1	55	
28	2	47	
29	3	66	
30	4	37	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
31	MG	X	2882	-	-	-	X
31	MG	X	2888	-	-	-	X
31	MG	X	2899	-	-	-	X
31	MG	X	2906	-	-	-	X
31	MG	X	2908	-	-	-	X
31	MG	X	2910	-	-	-	X
31	MG	Y	124	-	-	-	X

## 2 Entry composition

There are 31 unique types of molecules in this entry. The entry contains 83819 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 ribosomal 23S RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	X	2686	Total	C	N	O	P	0	0	0
			57651	25718	10642	18606	2685			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	Y	122	Total	C	N	O	P	0	0	0
			2598	1161	476	840	121			

- Molecule 3 is a protein called 50S ribosomal protein L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	A	240	Total	C	N	O	S	0	0	0
			1826	1137	366	321	2			

- Molecule 4 is a protein called 50S ribosomal protein L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	B	205	Total	C	N	O	S	0	0	0
			1539	965	295	271	8			

- Molecule 5 is a protein called 50S ribosomal protein L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	C	197	Total	C	N	O	S	0	0	0
			1506	935	287	282	2			

- Molecule 6 is a protein called 50S ribosomal protein L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	D	177	Total	C	N	O	S	0	0	0
			1400	892	247	254	7			

- Molecule 7 is a protein called 50S ribosomal protein L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	E	171	Total	C	N	O	S	0	0	0
			1286	812	237	236	1			

- Molecule 8 is a protein called 50S ribosomal protein L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	F	71	Total	C	N	O	S	0	0	0
			503	310	91	99	3			

- Molecule 9 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	G	142	Total	C	N	O	S	0	0	0
			1114	704	209	198	3			

- Molecule 10 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	H	134	Total	C	N	O	S	0	0	0
			997	614	198	180	5			

- Molecule 11 is a protein called 50S ribosomal protein L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	I	141	Total	C	N	O		0	0	0
			1067	655	216	196				

- Molecule 12 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	J	136	Total	C	N	O	S	0	0	0
			1090	696	202	185	7			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
J	1	MET	-	INITIATING METHIONINE	UNP Q9RXJ5

- Molecule 13 is a protein called 50S ribosomal protein L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	K	113	Total	C	N	O	S	0	0	0
			878	541	178	157	2			

- Molecule 14 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	L	104	Total	C	N	O		0	0	0
			779	476	161	142				

- Molecule 15 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	M	108	Total	C	N	O		0	0	0
			871	543	172	156				

- Molecule 16 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	N	117	Total	C	N	O	S	0	0	0
			978	608	210	159	1			

- Molecule 17 is a protein called 50S ribosomal protein L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	O	94	Total	C	N	O		0	0	0
			741	465	139	137				

- Molecule 18 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	P	127	Total	C	N	O	S	0	0	0
			1014	639	199	174	2			

- Molecule 19 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	Q	93	Total	C	N	O	S	0	0	0
			726	458	136	130	2			

- Molecule 20 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	R	110	Total	C	N	O	S	0	0	0
			825	513	160	151	1			

- Molecule 21 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	S	175	Total	C	N	O	S	0	0	0
			1345	849	236	254	6			

- Molecule 22 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	T	84	Total	C	N	O	S	0	0	0
			625	393	122	109	1			

- Molecule 23 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	U	72	Total	C	N	O	S	0	0	0
			552	341	116	95				

- Molecule 24 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	V	66	Total	C	N	O	S	0	0	0
			533	327	107	96	3			

- Molecule 25 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	W	55	Total	C	N	O	S	0	0	0
			424	264	82	76	2			

- Molecule 26 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	58	Total	C	N	O	S	0	0	0
			457	281	94	77	5			

- Molecule 27 is a protein called 50S ribosomal protein L33.



Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
27	1	53	Total C 53 53	0	0	53

- Molecule 28 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
28	2	46	Total C 46 46	0	0	46

- Molecule 29 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
29	3	63	Total C 63 63	0	0	63

- Molecule 30 is a protein called 50S ribosomal protein L36.

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf	Trace
30	4	37	Total C N O S 297 179 66 47 5	0	0	0

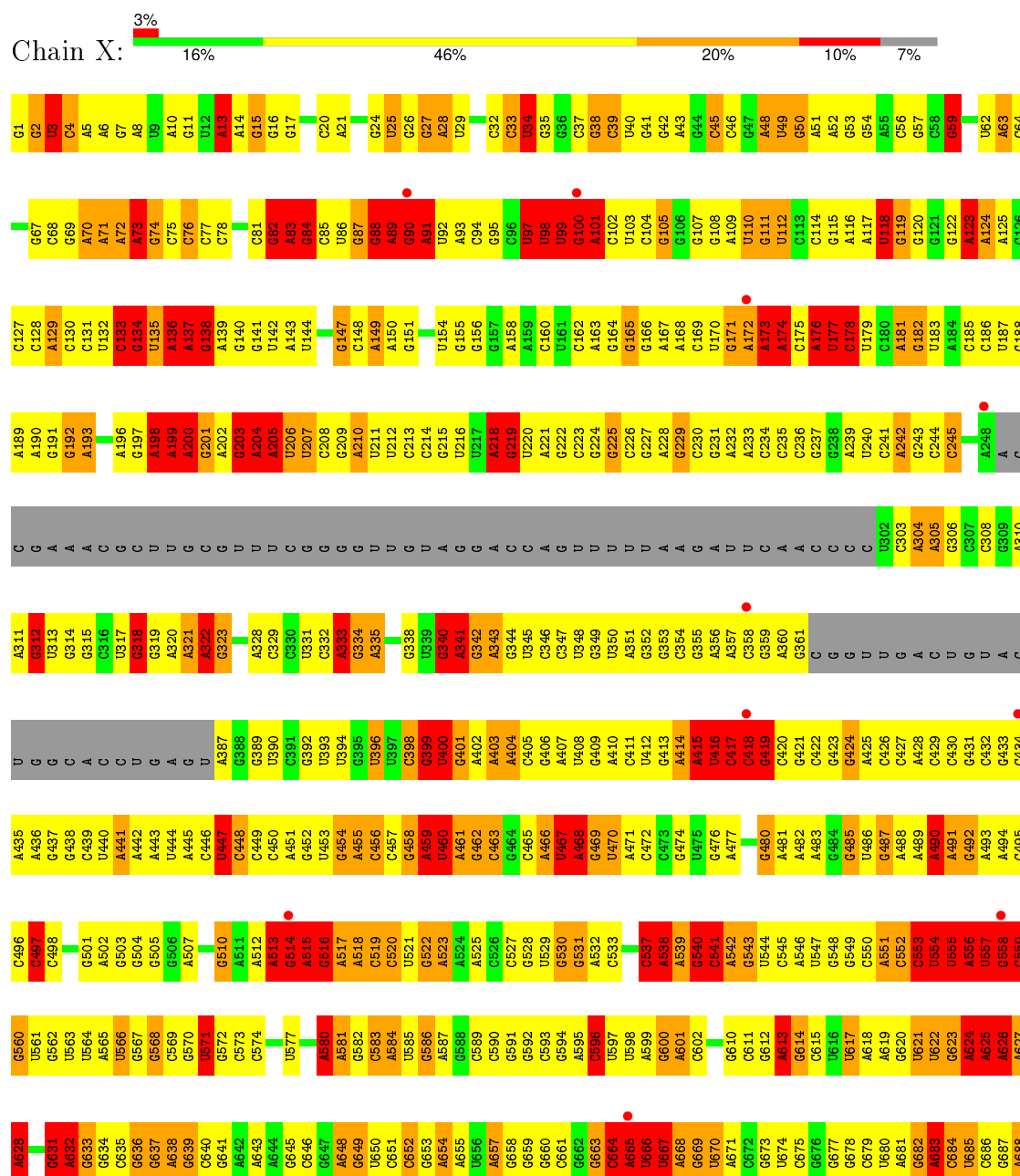
- Molecule 31 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms	ZeroOcc	AltConf
31	X	30	Total Mg 30 30	0	0
31	Y	5	Total Mg 5 5	0	0

### 3 Residue-property plots

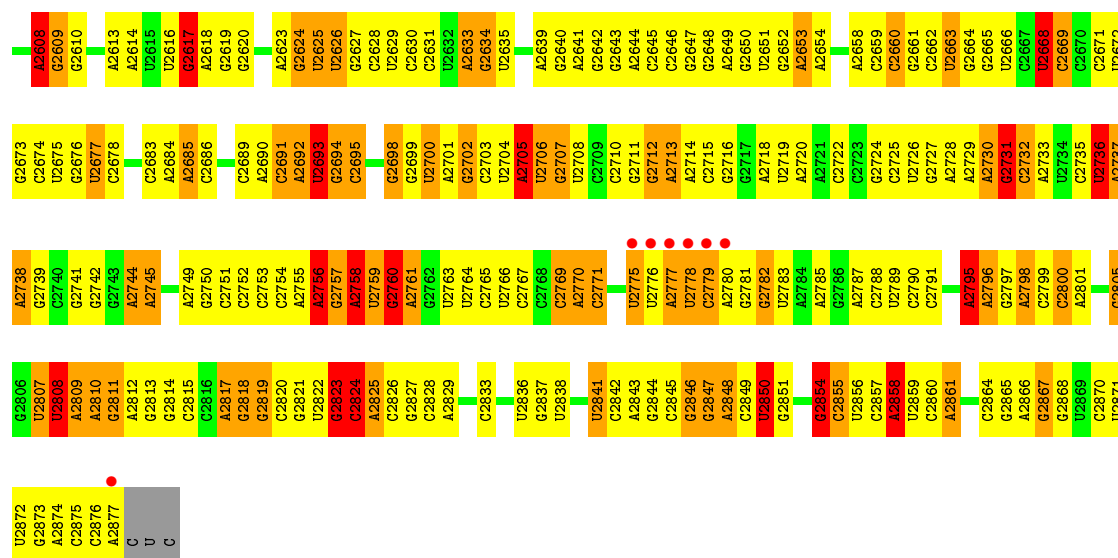
These plots are drawn for all protein, RNA and DNA chains in the entry. The first graphic for a chain summarises the proportions of errors displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and electron density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red dot above a residue indicates a poor fit to the electron density ( $RSRZ > 2$ ). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

- Molecule 1: ribosomal 23S RNA

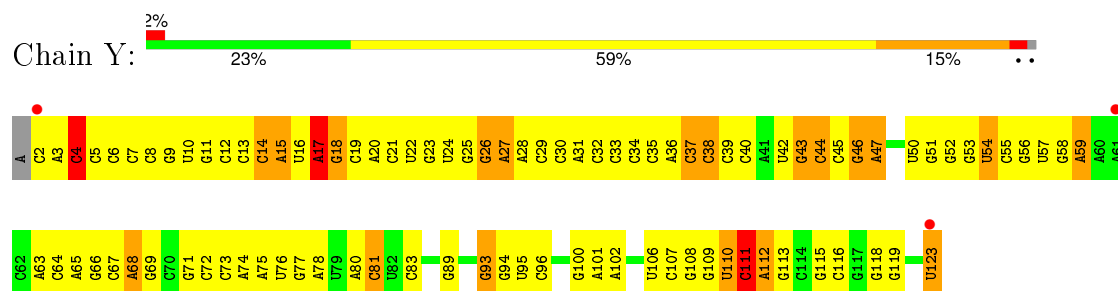


A1585	A1586	A1587	A1588	G1589	C1456	G1390	C1319	G1251	A1187	U1124	C1064	A1004	U941	C880	A815	A689
U1521	U1522	U1523	U1524	A1525	U1459	A1391	A1320	C1253	A1188	G1125	A1065	U1005	U942	U881	U816	A690
A1526	A1527	A1528	A1529	A1530	G1460	A1392	A1321	G1254	A1189	A1126	G1066	C1006	U943	C882	U817	C691
A1531	A1532	A1533	U1461	U1462	G1463	G1397	G1322	G1254	C1190	G1127	G1067	A1007	A944	A883	G818	C692
U1536	U1537	U1538	U1464	U1465	U1466	U1397	G1323	G1258	A1191	G1128	A1068	C1008	G945	C884	C819	A693
U1539	U1540	U1541	U1467	U1468	U1469	U1398	G1324	A1259	A1192	A1129	G1069	C1009	U946	A885	U820	C694
U1542	U1543	U1544	U1469	U1470	U1471	U1399	U1325	A1299	G1193	U1130	U1070	U1010	C947	A886	U757	G695
U1545	U1546	U1547	U1472	U1473	U1474	U1400	U1326	A1299	U1194	G1131	U1071	A1012	C948	A887	U758	G696
U1548	U1549	U1550	U1475	U1476	U1477	U1401	U1327	G1261	U1195	G1132	U1072	G1013	G951	C888	U759	G697
U1551	U1552	U1553	U1478	U1479	U1480	U1402	U1328	U1262	G1196	G1133	G1073	G1014	A952	U890	U760	A698
U1554	U1555	U1556	U1481	U1482	U1483	U1403	U1329	G1263	U1197	C1134	G1074	U1015	A953	C889	U761	A699
U1557	U1558	U1559	U1484	U1485	U1486	U1404	U1330	C1264	C1198	C1135	C1075	U1016	G954	U891	G762	A700
U1560	U1561	U1562	U1487	U1488	U1489	U1405	U1331	G1265	U1199	G1136	U1076	U1017	U954	G	A763	C701
U1563	U1564	U1565	U1490	U1491	U1492	U1406	U1332	G1266	G1200	A1137	A1077	C1018	G955	G	U827	U702
U1566	U1567	U1568	U1493	U1494	U1495	U1407	U1333	U1267	G1201	A1138	U1078	C1019	A956	G	C829	A703
U1569	U1570	U1571	U1496	U1497	U1498	U1408	U1334	U1268	U1202	A1139	G1079	U1019	G957	G	A766	C704
U1572	U1573	U1574	U1499	U1500	U1501	U1409	U1335	G1269	A1203	A1140	A1080	A1020	G958	G	G830	U705
U1575	U1576	U1577	U1502	U1503	U1504	U1410	U1336	C1270	G1204	U1141	A1081	A1021	C959	C	U832	A706
U1578	U1579	U1580	U1505	U1506	U1507	U1411	U1337	G1271	G1205	G1142	C1082	A1022	U960	C	A833	U707
U1581	U1582	U1583	U1508	U1509	U1510	U1412	U1338	G1272	G1206	A1143	C1083	U1023	U961	U	A834	G708
U1584	U1585	U1586	U1511	U1512	U1513	U1413	U1339	C1273	U1207	U1144	A1084	U1024	G963	A	U835	A709
U1587	U1588	U1589	U1514	U1515	U1516	U1414	U1340	A1275	U1208	G1145	G1085	A1025	A964	C	U836	C710
U1590	U1591	U1592	U1517	U1518	U1519	U1415	U1341	U1276	G1211	G1146	C1086	U1026	G965	C	U837	C711
U1593	U1594	U1595	U1520	U1521	U1522	U1416	U1342	G1277	U1212	G1147	C1087	C1027	A966	A	U838	A712
U1596	U1597	U1598	U1523	U1524	U1525	U1417	U1343	G1278	U1213	G1148	A1088	G1028	G967	G	U839	G713
U1599	U1600	U1601	U1526	U1527	U1528	U1418	U1344	U1279	C1214	G1149	C1089	U1029	U968	C	U840	U714
U1602	U1603	U1604	U1529	U1530	U1531	U1419	U1345	U1280	A1215	C1150	C1090	U1030	U969	U	G841	U715
U1605	U1606	U1607	U1532	U1533	U1534	U1420	U1346	U1281	U1216	U1151	C1091	C1031	A970	U	A842	G716
U1608	U1609	U1610	U1535	U1536	U1537	U1421	U1347	U1282	C1218	U1152	U1092	A1032	A971	A	U843	U717
U1611	U1612	U1613	U1538	U1539	U1540	U1422	U1348	C1283	C1219	A1153	U1093	G1033	C972	C	U844	A718
U1614	U1615	U1616	U1541	U1542	U1543	U1423	U1349	U1284	G1220	A1154	C1094	U1034	U973	C	U845	U719
U1617	U1618	U1619	U1544	U1545	U1546	U1424	U1350	U1285	C1221	G1155	A1095	G1035	U974	A911	U846	A720
U1620	U1621	U1622	U1547	U1548	U1549	U1425	U1351	U1286	G1222	U1156	A1096	G1036	U975	A912	U847	C721
U1623	U1624	U1625	U1550	U1551	U1552	U1426	U1352	U1287	G1223	U1157	A1097	U1037	G977	A913	U848	C722
U1626	U1627	U1628	U1553	U1554	U1555	U1427	U1353	U1288	A1224	G1098	A1098	U1038	U978	A914	U849	C723
U1629	U1630	U1631	U1556	U1557	U1558	U1428	U1354	U1289	G1225	A1162	A1099	A1039	U979	C915	U852	C724
U1632	U1633	U1634	U1559	U1560	U1561	U1429	U1355	A1293	A1226	C1163	G1100	U1040	G980	U	U853	C725
U1635	U1636	U1637	U1562	U1563	U1564	U1430	U1356	U1293	A1227	C1164	U1101	G1041	C981	U918	U857	G726
U1638	U1639	U1640	U1565	U1566	U1567	U1431	U1357	G1294	G1228	G1165	G1102	G1042	C982	A919	G858	U727
U1641	U1642	U1643	U1568	U1569	U1570	U1432	U1358	U1295	C1229	A1166	C1103	U1043	G983	G920	U859	G728
U1644	U1645	U1646	U1571	U1572	U1573	U1433	U1359	U1296	C1230	A1167	G1104	U1044	A984	A921	U860	U729
U1647	U1648	U1649	U1574	U1575	U1576	U1434	U1360	A1297	A1231	G1168	U1105	G1045	G985	A922	G861	C730
U1650	U1651	U1652	U1577	U1578	U1579	U1435	U1361	A1298	U1232	C1169	A1106	U1046	A986	A923	A862	A731
U1653	U1654	U1655	U1580	U1581	U1582	U1436	U1362	U1299	A1233	U1170	A1107	U1047	G987	C924	U795	G732
U1656	U1657	U1658	U1583	U1584	U1585	U1437	U1363	U1299	A1234	A1171	C1098	U1048	G988	C925	C864	G733
U1659	U1660	U1661	U1586	U1587	U1588	U1438	U1364	U1300	C1235	U1172	A1109	C1049	G989	C926	A865	G734
U1662	U1663	U1664	U1589	U1590	U1591	U1439	U1365	U1301	G1236	G1173	G1110	U1050	A990	C927	U866	G735
U1665	U1666	U1667	U1592	U1593	U1594	U1440	U1366	U1302	G1237	C1174	C1111	G1051	A991	G928	U867	G736
U1668	U1669	U1670	U1595	U1596	U1597	U1441	U1367	U1303	A1238	U1175	C1112	U1052	A992	A929	A801	C737
U1671	U1672	U1673	U1598	U1599	U1600	U1442	U1368	U1304	A1239	U1176	C1113	C1053	G993	C930	C803	G738
U1674	U1675	U1676	U1601	U1602	U1603	U1443	U1369	G1309	U1240	U1177	A1114	C1054	A994	G931	C804	G739
U1677	U1678	U1679	U1604	U1605	U1606	U1444	C1310	C1310	G1241	C1178	G1115	U1055	A995	G932	A740	A740
U1680	U1681	U1682	U1607	U1608	U1609	U1445	C1311	C1311	G1242	U1179	U1116	U1056	G996	G933	G805	G741
U1683	U1684	U1685	U1610	U1611	U1612	U1446	C1312	C1312	G1243	A1180	G1117	U1057	C997	G934	U873	G742
U1686	U1687	U1688	U1613	U1614	U1615	U1447	C1313	U1313	U1246	C1181	U1118	C1058	A998	A935	A874	G743
U1689	U1690	U1691	U1616	U1617	U1618	U1448	C1314	U1314	G1247	U1182	U1119	A1059	A999	A936	G875	A744
U1692	U1693	U1694	U1619	U1620	U1621	U1449	C1315	A1315	U1247	C1183	U1120	C1060	G1000	G937	A876	C745
U1695	U1696	U1697	U1622	U1623	U1624	U1450	C1316	G1316	G1248	U1184	G1121	A1061	G938	G938	G877	G746
U1698	U1699	U1700	U1625	U1626	U1627	U1451	C1317	G1317	G1249	C1185	G1122	C1062	C939	C939	C878	A747
U1701	U1702	U1703	U1628	U1629	U1630	U1452	C1318	U1318	U1250	C1186	C1123	G1063	C1002	C940	C879	C748
U1704	U1705	U1706	U1631	U1632	U1633	U1453	C1319	U1319	U1251	C1187	C1124	G1064	C1003	C941	C880	A749
U1707	U1708	U1709	U1634	U1635	U1636	U1454	C1320	U1320	U1252	C1188	C1125	G1065	C1004	C942	C881	A750
U1710	U1711	U1712	U1637	U1638	U1639	U1455	C1321	U1321	U1253	C1189	C1126	G1066	C1005	C943	C882	A751
U1713	U1714	U1715	U1640	U1641	U1642	U1456	C1322	U1322	U1254	C1190	C1127	G1067	C1006	C944	C883	C752
U1716	U1717	U1718	U1643	U1644	U1645	U1457	C1323	U1323	U1255	C1191	C1128	G1068	C1007	C945	C884	C753
U1719	U1720	U1721	U1646	U1647	U1648	U1458	C1324	U1324	U1256	C1192	C1129	G1069	C1008	C946	C885	C754
U1722	U1723	U1724	U1649	U1650	U1651	U1459	C1325	U1325	U1257	C1193	C1130	G1070	C1009	C947	C886	C755
U1725	U1726	U1727	U1652	U1653	U1654	U1460	C1326	U1326	U1258	C1194	C1131	G1071	C1010	C948	C887	C756
U1728	U1729	U1730	U1655	U1656	U1657	U1461	C1327	U1327	U1259	C1195	C1132	G1072	C1011	C949	C888	C757
U1731	U1732	U1733	U1658	U1659	U1660	U1462	C1328	U1328	U1260	C1196	C1133	G1073	C1012	C950	C889	C758
U1734	U1735	U1736	U1661	U1662	U1663	U1463	C1329	U1329	U1261	C1197	C1134	G1074	C1013	C951	U890	C759
U1737	U1738	U1739	U1664	U1665	U1666	U1464	C1330	U1330	U1262	C1198	C1135	G1075	C1014	C952	C891	C760
U1740	U1741	U1742	U1667	U1668	U1669	U1465	U1331	U1331	U1263	C1199	C1136	U1076	C1015	C953	U892	C761
U1743	U1744	U1745	U1670	U1671	U1672	U1466	U1332	U1332	U1264	C1200	A1137	A1077	C1016	C954	U893	C762
U1746	U1747	U1748	U1673	U1674	U1675	U1467	U1333	U1333	U1265	G1201	A1138	U1078	C1017	C955	U894	C763
U1749	U1750	U1751	U1676	U1677	U1678	U1468	U1334	U1334	U1266	U1202	A1139	G1079	C1018	C956	U895	C764
U1752	U1753	U1754	U16													

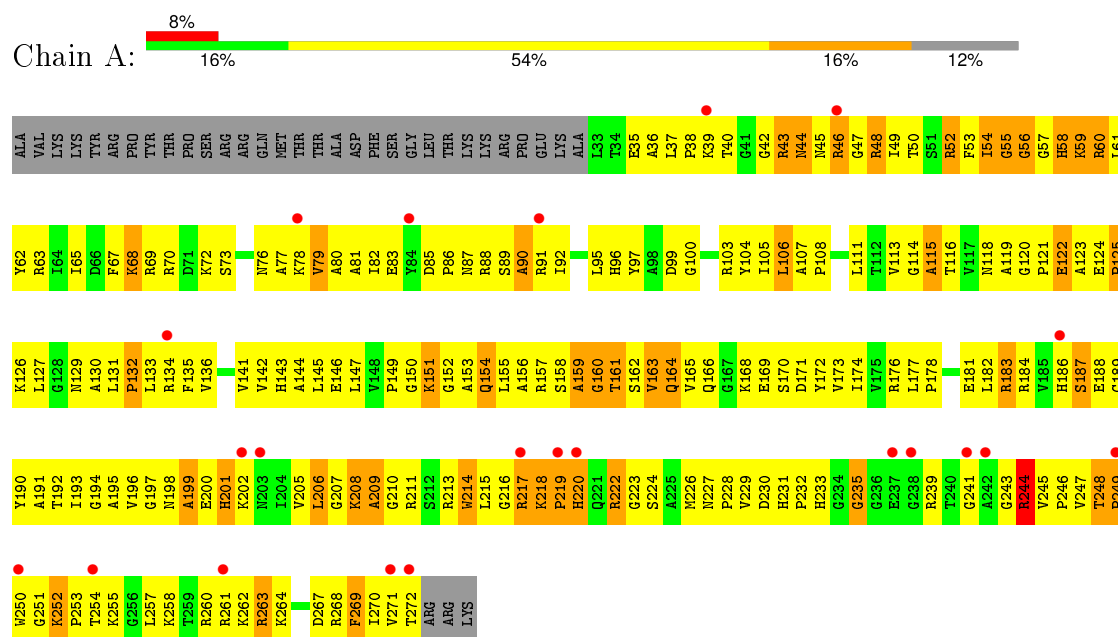
G2536	G2473	G2408	U2342	A2278	G2217	C	A	G2035	G1975	A1910	G1849	A1785	G1719	C1655
G2474	G2474	A2409	C2343	G2279	G2218	C	G	G2036	U1976	A1911	G1850	C1786	G1719	U1656
C2539	C2475	A2410	G2344	A2280	U2219	A	A	A2037	C1977	G1912	A1851	C1787	G1722	A1657
A2540	A2476	A2411	A2345	C2281	G2221	C	A	C2038	U1978	G1913	G1852	U1788	G1722	A1658
U2541	C2477	A2412	G2350	G2282	G2222	C	U	G2039	C1979	U1914	G1853	U1789	U1723	G1659
A2542	C2478		G2351	G2283	U2223	C	A	A2040	A1980	A1915	G1854	U1790	C1724	G1660
A2543	U2479	U2417	G2352	U2284	U2224	U	G	A2041	A1981	G1916	G1855	C1791	C1725	C1661
A2544	G2480	A2418	A2353	U2285	G2225	G	G	A2042	C1982	G1917	U1856	C1792	C1726	G1662
A2545	G2481	G2419	G2354	G2286	U2226	A2165	A	A2043	G1983	G1918	A1857	A1793	G1727	G1663
G2546	U2482	C2420	G2355	G2287	C2227	G2166	G	G2044	A1984	A1919	C1858	A1794	A1728	G1664
G2547	U2483	C2421	A2356	A2288	C2227	A2167	G	A2045	G1985	A1920	A1859	C1729	C1729	C1665
G2548	C2484	C2422	G2357	A2289	G2228	A2168	G	C2046	G1986	A1921	A1860	G1730	G1730	G1666
G2549	U2485	G2423	A2357	A2290	G2229	A2169	A	C2047	G1987	U1922	G1861	C1731	G1731	A1667
C2550	C2486	G2424	C2358	U2291	G2230	C2170	G	C2048	A1988	U1923	C1862	A1800	G1732	G1668
A2551	G2487	G2425	U2359	C2292	G2231	U2171	C	C2049	C1989	C1924	U1863	C1801	U1732	G1669
C2552		G2426	C2360	G2293	G2232	U2172	C	G2050	U1990	C1925	G1864	A1802	U1733	G1670
G2553	U2490	A2427	G2361	U2294	C2233	G2173	U	U2051	C1991	U1926	G1865	G1803	G1734	A1671
C2554	C2491	U2428	G2362	G2297	G2234	G2174	G	G2052	C1992	U1927	G1866	U1804	G1735	A1672
G2555	A2429	A2430	G2363	U2298	G2235	A2175	C	G2053	G1993	G1928	A1867	G1805	G1736	G1673
A2556	U2493	A2431	C2364	U2298	U2236	U2176	G	A2054	U1994	U1929	A1868	C1807	G1737	C1674
G2557	C2494	A2432	U2365	U2299	G2237	U2177	A	G2055	G1995	C1930	A1869	C1808	U1738	C1675
C2558	U2495	A2433	U2366	G2300	G2238	U2178	A	C2056	A1996	G1933	U1870	U1810	G1741	U1676
U2559	G2496	G2432	A2367	A2301	C2239	C2179	A	U2057	A1997	U1938	G1871	U1811	G1742	C1677
G2560	A2497	G2434	G2368	G2302	C2240	U2180	C	U2058	A1998	U1939	A1872	U1812	C1743	G1678
C2561	U2498	C2435	U2369	C2303	U2241	A2181	U		U1999	A1940	G1873	U1813	G1744	U1679
G2562	U2436	U2436	G2370	G2304	C2242	A2182	G	C2061	G2000	C1944	C1881	G1818	A1750	U1680
U2563	G2437	A2371	A2372	C2305	G2243	C2183	G	U2062	G2001	U1946	G1882	G1820	A1753	A1686
U2564	A2372	A2306	C2373	U2306	C2244	C2184	G	G2063	C2002	U1947	A1883	A1821	G1754	U1688
C2565	U2439	U2439	C2374	A2307	A2245	U2185	C	G2064	U2009	G1948	G1755	C1822	G1756	U1689
A2569	C2440	A2308	C2374	A2308	A2246	G2186	C	A2065	U2004	A1949	C1885	G1823	C1757	U1690
C2570	U2441	G2309	G2375	G2310	A2247	A2187	U	G2066	U2005	C1950	G1886	C1824	G1757	G1691
G2571	G2505	C2442	G2376	G2311	A2248	A2188	U	U2067	G2006	G1951	C1887	U1825	C1762	C1692
U2572	U2507	C2443	G2377	U2312		A2189	U	C2068	G2007	A1952	G1888	U1826	C1762	A1693
G2576	A2508	C2444	U2380	G2313	U2251	A2190	G	U2069	C2015	A1953	G1889	G1827	G1763	U1697
A2577	C2445	C2445	A2381	A2314	A2252	A2191	G	G2070	G2016	A1954	C1765	C1830	A1764	C1698
	U2510	G2447	C2382	A2315	G2263	U2192	G	G2071	U2009	G1955	U1766	G1831	U1766	A1699
C2580	G2511	A2448	C2383	G2316	G2265	A2193	U	A2073	A2012	C1956	G1767	G1832	C1767	C1700
A2581		G2449	U2384		G2266	A2194	C	U2074	A2013	G1957	C1767	U1833	C1767	C1701
G2582	U2512	A2450	U2385	G2319	G2267	C2195	G	G2075	A2014	A1952	C1762	U1834	U1770	G1704
C2585	U2516	U2451	G2386	G2320	A2257	U2196	G	G2076	G2015	A1954	A1764	C1830	A1771	U1705
G2586	C2517	U2452	U2387	C2321	G2258	U2197	U		A2016	G1954	C1765	G1831	C1773	A1706
U2588	G2518	C2453	G2388	U2322	G2259	U2198	G	U2080	U2017	G1955	C1766	G1832	C1773	A1707
C2589	C2519	U2454	G2389	G2323	G2260	C2199	G	G2081	G2018	C1956	C1767	U1833	A1774	C1708
U2590	G2520	A2455	G2390	G2324	C2262	G2201	A	U2082	C2019	G1957	C1767	U1834	A1775	U1709
C2591	U2521	U2456	G2391	G2325	C2263	G2202	G	U2083	G2020	U1958	C1767	U1835	A1776	U1710
U2592	G2522		G2392	C2326	C2264	A2204	C	G2084	G2021	U1967	C1767	C1836	A1777	C1711
C2593	G2523	G2460	C2393	U2327	A2265	C2205	A	G2085	C2022	G1969	C1767	G1837	C1773	G1712
U2594	U2524	C2461	C2394	G2328	A2266	C2206	A	U2086	C2023	G1970	C1767	U1838	C1774	G1713
A2595	U2525	C2462	C2395	C2329	A2267	G2207	C	U2087	U2024	A1964	C1767	U1839	A1775	A1714
U2596	U2526	G2463	U2396	G2330	G2268	G2208	G	U2088	A2025	U1965	C1767	A1840	A1776	U1709
C2597	G2527	C2464	C2397	A2331	G2269	U2208	A	C2026	C2026	U1966	C1767	A1841	A1777	U1710
U2598	U2528	G2465	G2400	G2332	U2270	G2209	G	U2089	C2027	U1967	C1767	G1842	A1778	C1711
G2599	G2529	A2401	A2401	A2333	C2271	C2210	U	C	C2028	G1969	C1767	G1843	C1779	G1712
C2599	U2530	A2402	U2402	U2334	A2272	U2211	G	U2090	G2029	G1970	C1767	C1844	A1780	G1713
U2599	U2531	C2403	C2403	U2335	C2273	U2212	A	C	U2030	G1971	C1767	A1845	C1781	A1714
G2600	G2532	A2404	A2404	G2336	C2274	G2213	A	U	A2031	C1971	C1767	A1846	A1782	G1716
C2604	U2533	A2405	C2405	U2275	U2275	G2214	A	G	C2032	G1972	C1767	U1909	C1783	C1716
G2605	U2534	U2471	C2406	U2276	C2276	G2215	U	C	C2033	U1974	C1767	U1909	C1784	A1717
	C2535	U2472	G2407	A2277	A2277	G2216	A		A2034					



### • Molecule 2: ribosomal 5S RNA

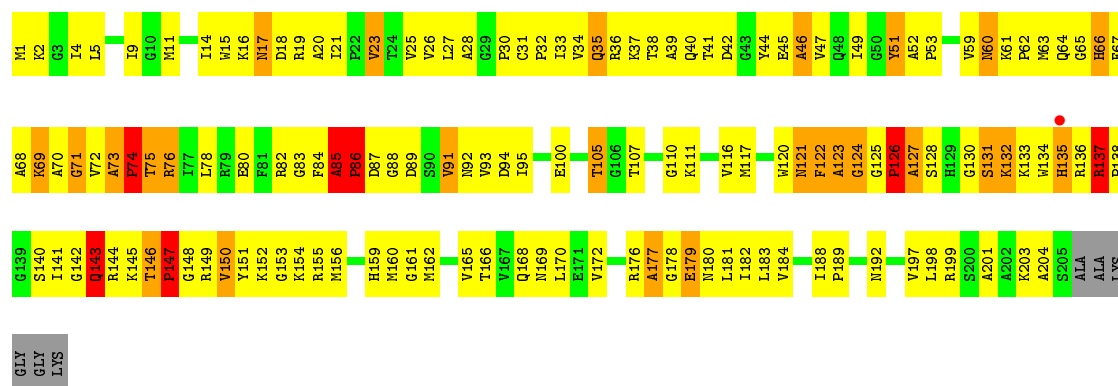


### • Molecule 3: 50S ribosomal protein L2

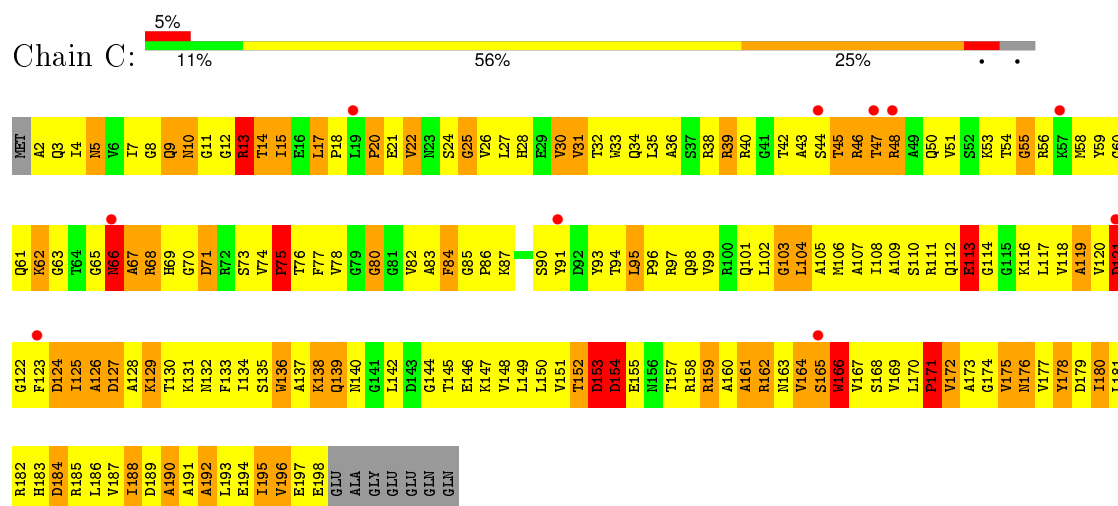


### • Molecule 4: 50S ribosomal protein L3

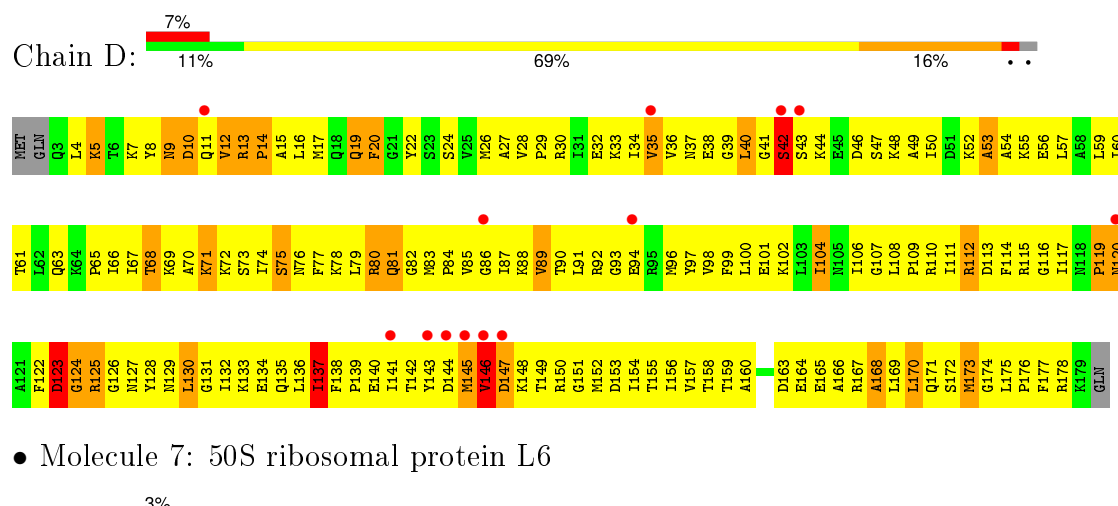




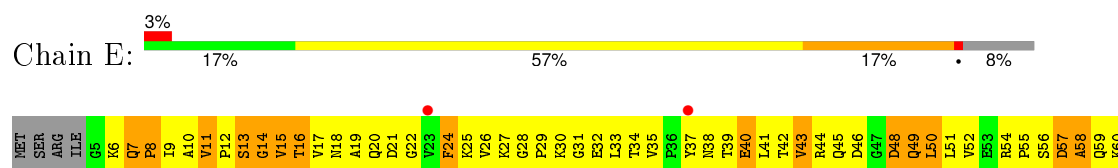
• Molecule 5: 50S ribosomal protein L4

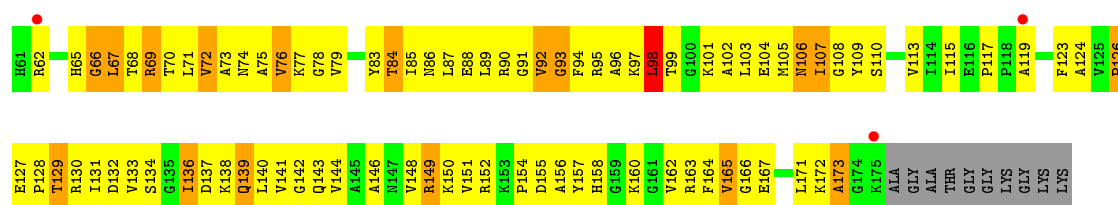


• Molecule 6: 50S ribosomal protein L5

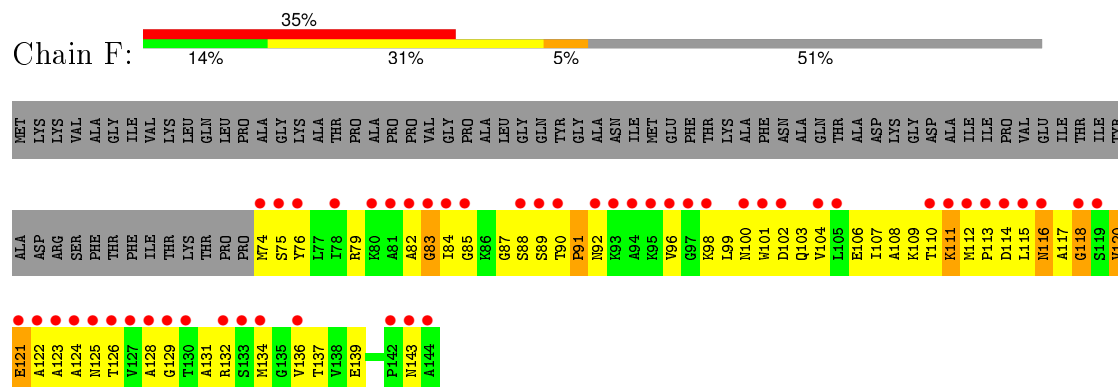


• Molecule 7: 50S ribosomal protein L6

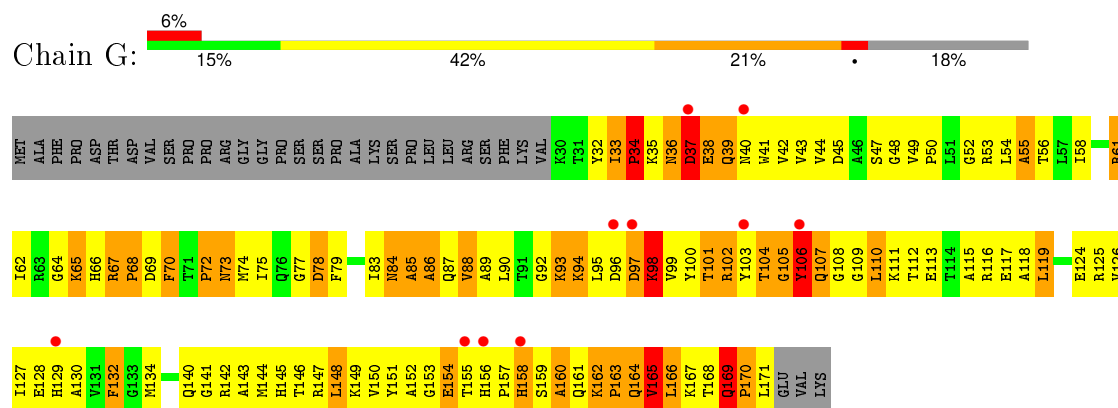




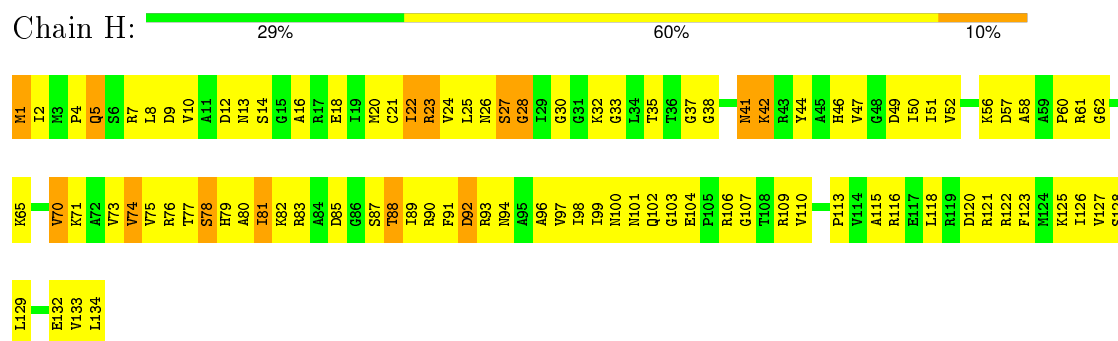
• Molecule 8: 50S ribosomal protein L11



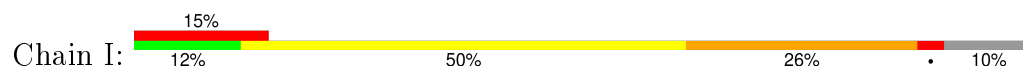
• Molecule 9: 50S ribosomal protein L13

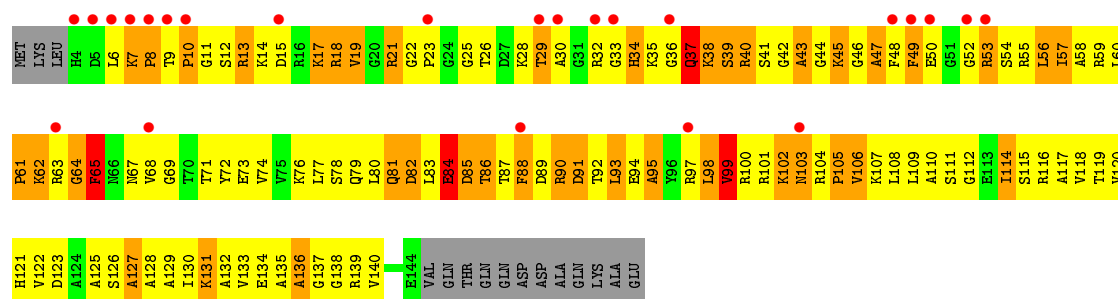


• Molecule 10: 50S ribosomal protein L14

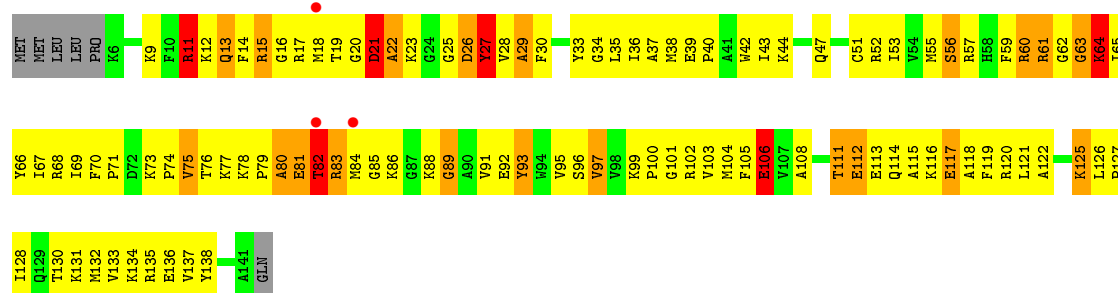


• Molecule 11: 50S ribosomal protein L15

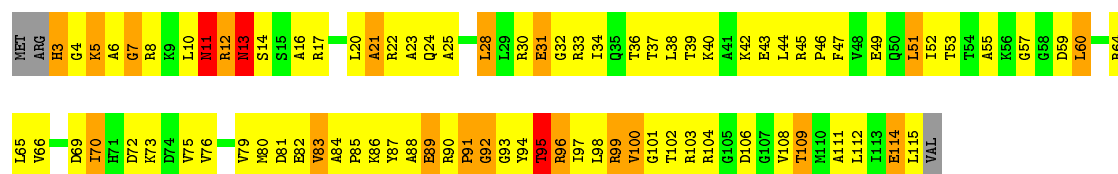




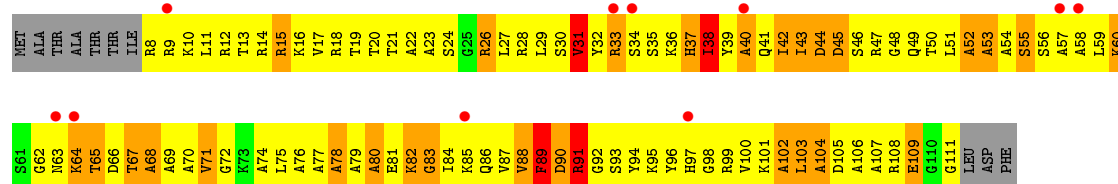
• Molecule 12: 50S ribosomal protein L16



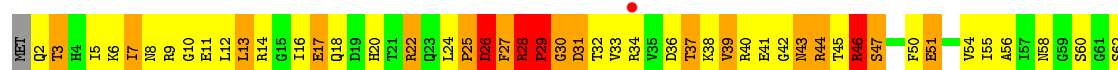
• Molecule 13: 50S ribosomal protein L17



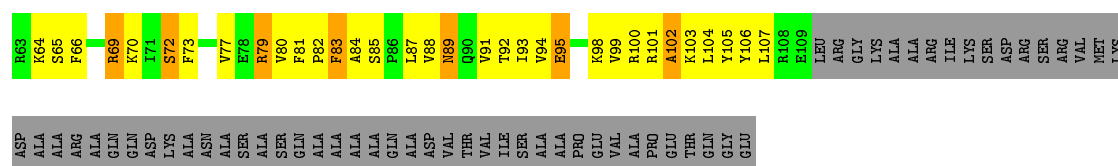
• Molecule 14: 50S ribosomal protein L18



• Molecule 15: 50S ribosomal protein L19







• Molecule 16: 50S ribosomal protein L20



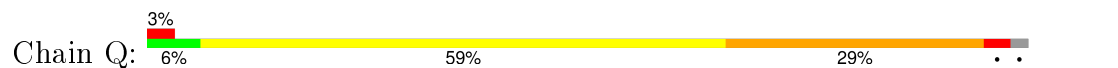
• Molecule 17: 50S ribosomal protein L21



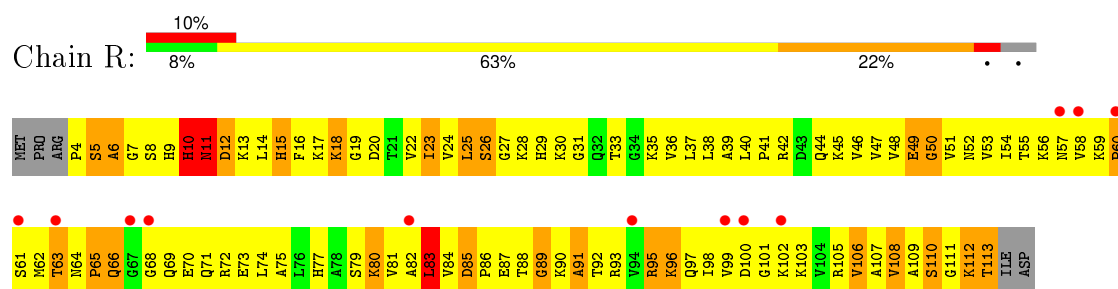
• Molecule 18: 50S ribosomal protein L22



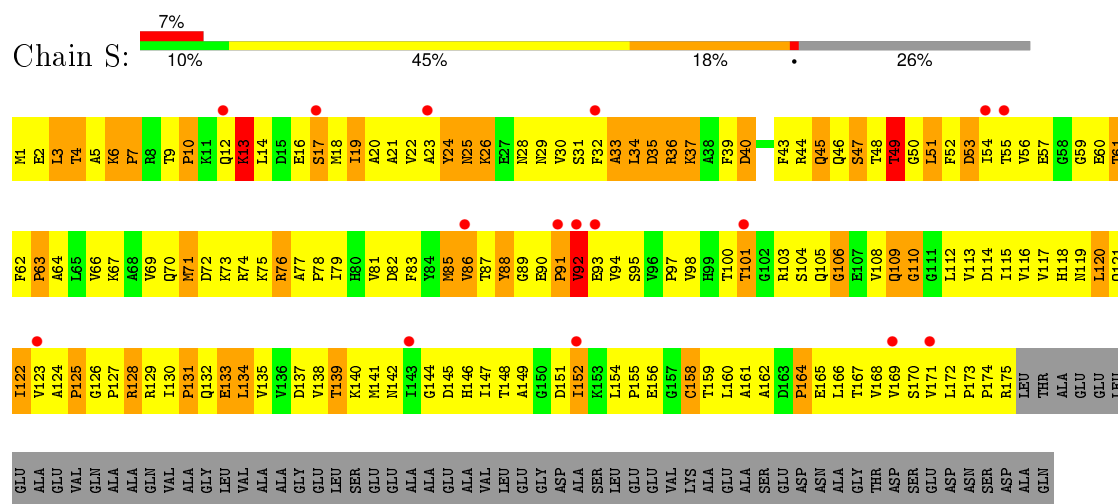
• Molecule 19: 50S ribosomal protein L23

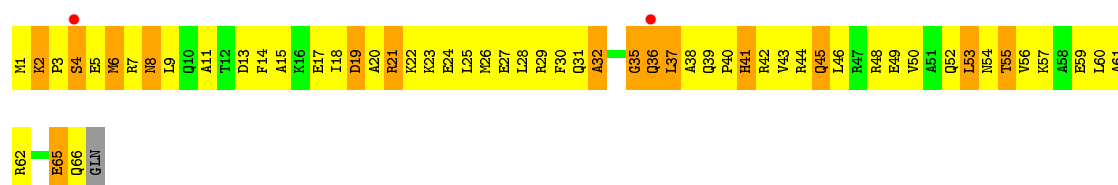


• Molecule 20: 50S ribosomal protein L24



• Molecule 21: 50S ribosomal protein L25





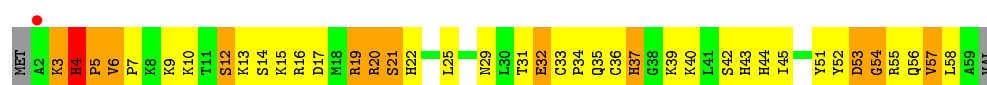
- Molecule 25: 50S ribosomal protein L30

Chain W: 25% 62% 13%



- Molecule 26: 50S ribosomal protein L32

Chain Z: 2% 30% 45% 20%



## 4 Data and refinement statistics

Property	Value	Source
Space group	I 2 2 2	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	169.90 Å   408.90 Å   694.50 Å 90.00°   90.00°   90.00°	Depositor
Resolution (Å)	29.90 – 2.91 29.92 – 2.91	Depositor EDS
% Data completeness (in resolution range)	94.1 (29.90-2.91) 94.1 (29.92-2.91)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.56 (at 2.90 Å)	Xtriage
Refinement program	CNS	Depositor
R, $R_{free}$	0.277   ,   0.311 0.267   ,   (Not available)	Depositor DCC
$R_{free}$ test set	No test flags present.	DCC
Wilson B-factor (Å <sup>2</sup> )	52.9	Xtriage
Anisotropy	0.101	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.17 , 46.0	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.43$ , $\langle L^2 \rangle = 0.26$	Xtriage
Outliers	0 of 493787 reflections	Xtriage
$F_o, F_c$ correlation	0.87	EDS
Total number of atoms	83819	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	43.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.87% of the height of the origin peak. No significant pseudotranslation is detected.*

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

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

## 5 Model quality ⓘ

### 5.1 Standard geometry ⓘ

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

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	X	0.90	156/64561 (0.2%)	1.15	809/100708 (0.8%)
2	Y	0.50	0/2904	0.73	0/4525
3	A	0.50	0/1862	0.82	0/2510
4	B	0.70	0/1567	0.99	6/2105 (0.3%)
5	C	0.60	0/1529	0.87	0/2070
6	D	0.47	0/1419	0.70	0/1903
7	E	0.46	0/1308	0.76	0/1771
8	F	0.65	0/508	1.11	2/683 (0.3%)
9	G	0.59	0/1138	0.92	2/1539 (0.1%)
10	H	0.72	0/1007	0.93	1/1352 (0.1%)
11	I	0.60	0/1081	0.89	0/1448
12	J	0.59	0/1113	0.86	1/1486 (0.1%)
13	K	0.83	0/886	1.04	1/1188 (0.1%)
14	L	0.48	0/785	0.82	1/1048 (0.1%)
15	M	0.72	0/884	1.15	6/1186 (0.5%)
16	N	0.54	0/994	0.80	0/1323
17	O	0.54	0/750	0.83	0/1000
18	P	0.73	0/1027	0.90	0/1373
19	Q	0.58	0/737	0.88	3/988 (0.3%)
20	R	0.48	0/835	0.84	0/1121
21	S	0.48	0/1370	0.71	0/1862
22	T	0.52	0/633	0.77	0/838
23	U	0.51	0/556	0.87	0/741
24	V	0.44	0/537	0.67	0/714
25	W	0.51	0/426	0.83	0/568
26	Z	0.68	0/469	0.95	1/629 (0.2%)
30	4	0.45	0/298	0.65	0/390
All	All	0.82	156/91184 (0.2%)	1.08	833/137069 (0.6%)

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	X	0	225
2	Y	0	4
9	G	0	1
16	N	0	1
19	Q	0	1
All	All	0	232

All (156) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	1123	G	C3'-O3'	14.43	1.62	1.42
1	X	1123	G	C4'-C3'	13.55	1.68	1.53
1	X	2322	U	C3'-O3'	12.22	1.59	1.42
1	X	1187	A	C2'-C1'	11.44	1.66	1.53
1	X	100	G	C3'-O3'	10.61	1.57	1.42
1	X	1187	A	C3'-C2'	10.05	1.64	1.52
1	X	417	C	C3'-O3'	9.87	1.55	1.42
1	X	2189	A	C2'-C1'	9.71	1.64	1.53
1	X	100	G	C2'-C1'	9.68	1.64	1.53
1	X	1187	A	C3'-O3'	9.54	1.55	1.42
1	X	1856	U	C4'-C3'	-9.30	1.43	1.53
1	X	82	G	C2'-C1'	9.15	1.63	1.53
1	X	2297	G	C3'-O3'	8.98	1.54	1.42
1	X	2190	A	P-O5'	8.86	1.68	1.59
1	X	667	U	C3'-O3'	-8.83	1.29	1.42
1	X	1056	U	C4'-C3'	8.79	1.62	1.53
1	X	890	U	C3'-O3'	8.71	1.54	1.42
1	X	2189	A	O3'-P	8.65	1.71	1.61
1	X	1856	U	O3'-P	-8.64	1.50	1.61
1	X	1278	A	C8-N7	-8.62	1.25	1.31
1	X	1056	U	P-O5'	8.52	1.68	1.59
1	X	2297	G	C2'-C1'	8.49	1.62	1.53
1	X	89	A	C3'-O3'	8.47	1.54	1.42
1	X	1278	A	C3'-O3'	8.44	1.53	1.42
1	X	1123	G	O3'-P	8.32	1.71	1.61
1	X	415	A	C2'-C1'	8.17	1.62	1.53
1	X	1855	G	O3'-P	-8.11	1.51	1.61
1	X	2298	U	C2'-C1'	8.10	1.62	1.53
1	X	666	U	C3'-O3'	8.06	1.53	1.42
1	X	2322	U	C4'-C3'	7.94	1.61	1.53
1	X	1036	G	C3'-O3'	7.89	1.53	1.42

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	2189	A	C3'-O3'	7.82	1.53	1.42
1	X	667	U	O3'-P	-7.79	1.51	1.61
1	X	2402	U	O3'-P	-7.71	1.51	1.61
1	X	1124	U	C4'-C3'	-7.71	1.44	1.53
1	X	725	C	C3'-O3'	-7.64	1.31	1.42
1	X	100	G	C3'-C2'	7.60	1.61	1.52
1	X	2322	U	O3'-P	7.56	1.70	1.61
1	X	1860	A	O3'-P	-7.56	1.52	1.61
1	X	1070	G	O3'-P	-7.44	1.52	1.61
1	X	2189	A	N9-C4	7.31	1.42	1.37
1	X	417	C	C3'-C2'	7.26	1.60	1.52
1	X	2190	A	C4'-C3'	7.24	1.61	1.53
1	X	1871	G	O3'-P	-7.21	1.52	1.61
1	X	415	A	C3'-O3'	7.17	1.52	1.42
1	X	101	A	C5'-C4'	7.17	1.59	1.51
1	X	2591	C	C3'-O3'	7.12	1.52	1.42
1	X	725	C	O3'-P	-7.09	1.52	1.61
1	X	1849	G	C2'-C1'	7.09	1.61	1.53
1	X	82	G	C3'-O3'	6.98	1.51	1.42
1	X	1187	A	N7-C5	-6.97	1.35	1.39
1	X	81	C	O3'-P	-6.96	1.52	1.61
1	X	1859	A	O3'-P	-6.91	1.52	1.61
1	X	2323	U	P-O5'	6.86	1.66	1.59
1	X	890	U	C2'-C1'	6.84	1.60	1.53
1	X	204	A	C3'-O3'	6.83	1.51	1.42
1	X	1056	U	C5'-C4'	6.82	1.59	1.51
1	X	82	G	C3'-C2'	6.82	1.60	1.52
1	X	796	A	C5-C6	-6.78	1.34	1.41
1	X	666	U	O3'-P	6.74	1.69	1.61
1	X	1858	C	C4'-C3'	-6.73	1.45	1.53
1	X	723	C	N1-C2	-6.71	1.33	1.40
1	X	417	C	C2'-C1'	6.69	1.60	1.53
1	X	1063	C	N1-C2	-6.65	1.33	1.40
1	X	2322	U	P-O5'	6.55	1.66	1.59
1	X	725	C	N1-C2	-6.55	1.33	1.40
1	X	84	G	O3'-P	-6.54	1.53	1.61
1	X	1849	G	C3'-O3'	6.53	1.51	1.42
1	X	2409	A	O3'-P	-6.48	1.53	1.61
1	X	2322	U	O5'-C5'	6.46	1.54	1.44
1	X	625	A	C4'-C3'	6.43	1.60	1.53
1	X	513	A	C2'-C1'	6.40	1.60	1.53
1	X	1849	G	C3'-C2'	6.40	1.59	1.52

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	891	A	P-O5'	-6.39	1.53	1.59
1	X	664	C	N1-C2	-6.37	1.33	1.40
1	X	1187	A	C1'-N9	6.35	1.58	1.48
1	X	1121	G	O3'-P	-6.33	1.53	1.61
1	X	2298	U	C3'-O3'	6.31	1.50	1.42
1	X	2403	C	N1-C2	-6.26	1.33	1.40
1	X	1858	C	N1-C2	-6.25	1.33	1.40
1	X	2297	G	C1'-N9	6.24	1.58	1.48
1	X	1664	G	C2-N2	-6.22	1.28	1.34
1	X	462	G	C6-O6	6.21	1.29	1.24
1	X	664	C	C2'-C1'	-6.16	1.46	1.53
1	X	2199	C	N1-C2	-6.10	1.34	1.40
1	X	1375	C	N1-C2	-6.08	1.34	1.40
1	X	514	G	C4'-C3'	-6.03	1.46	1.53
1	X	1031	C	N1-C2	-5.99	1.34	1.40
1	X	513	A	C3'-O3'	5.98	1.50	1.42
1	X	88	G	C4'-C3'	-5.97	1.46	1.52
1	X	557	U	C2'-C1'	5.97	1.59	1.53
1	X	1688	U	C4-O4	5.96	1.28	1.23
1	X	1052	C	N1-C2	-5.93	1.34	1.40
1	X	1190	C	N1-C2	-5.91	1.34	1.40
1	X	1123	G	O5'-C5'	5.90	1.53	1.44
1	X	1857	G	O3'-P	-5.90	1.54	1.61
1	X	1734	C	N1-C2	-5.87	1.34	1.40
1	X	1190	C	O3'-P	-5.87	1.54	1.61
1	X	1123	G	C2'-C1'	5.86	1.59	1.53
1	X	89	A	C2'-C1'	5.80	1.59	1.53
1	X	101	A	O5'-C5'	5.79	1.53	1.44
1	X	1853	C	N1-C2	-5.79	1.34	1.40
1	X	1119	U	P-O5'	5.78	1.65	1.59
1	X	556	A	N7-C5	-5.75	1.35	1.39
1	X	1018	C	C4'-C3'	-5.74	1.46	1.52
1	X	515	A	O3'-P	-5.74	1.54	1.61
1	X	2322	U	C2'-C1'	5.72	1.59	1.53
1	X	724	C	N1-C2	-5.72	1.34	1.40
1	X	1847	G	O3'-P	-5.72	1.54	1.61
1	X	100	G	P-O5'	5.71	1.65	1.59
1	X	134	G	C3'-O3'	5.68	1.50	1.42
1	X	1869	A	C5'-C4'	-5.68	1.44	1.51
1	X	1280	U	O3'-P	-5.60	1.54	1.61
1	X	666	U	C2'-C1'	5.59	1.59	1.53
1	X	1862	C	C2'-C1'	-5.54	1.47	1.53

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	X	728	G	C2'-C1'	5.45	1.59	1.53
1	X	728	G	P-O5'	5.43	1.65	1.59
1	X	2195	C	N1-C2	-5.43	1.34	1.40
1	X	2190	A	O5'-C5'	5.43	1.53	1.44
1	X	557	U	C1'-N1	5.42	1.56	1.48
1	X	1120	C	N1-C2	-5.42	1.34	1.40
1	X	552	C	N1-C2	-5.39	1.34	1.40
1	X	2190	A	C5'-C4'	5.38	1.57	1.51
1	X	1680	U	N1-C2	-5.36	1.33	1.38
1	X	137	A	O3'-P	-5.36	1.54	1.61
1	X	1860	A	C4'-C3'	-5.34	1.47	1.52
1	X	1288	A	C5-C6	-5.33	1.36	1.41
1	X	1124	U	O3'-P	-5.32	1.54	1.61
1	X	725	C	C2'-C1'	-5.29	1.47	1.53
1	X	1118	G	C2'-C1'	-5.29	1.47	1.53
1	X	175	C	N1-C2	-5.29	1.34	1.40
1	X	1859	A	C3'-C2'	-5.29	1.47	1.52
1	X	586	G	C5-C6	-5.28	1.37	1.42
1	X	204	A	O3'-P	5.27	1.67	1.61
1	X	890	U	P-O5'	5.27	1.65	1.59
1	X	497	C	N1-C2	-5.27	1.34	1.40
1	X	2592	U	C4-C5	5.26	1.48	1.43
1	X	82	G	O3'-P	5.25	1.67	1.61
1	X	1865	C	O3'-P	-5.24	1.54	1.61
1	X	1750	A	C5-C6	-5.21	1.36	1.41
1	X	557	U	C3'-O3'	5.18	1.49	1.42
1	X	664	C	C3'-C2'	-5.17	1.47	1.52
1	X	2553	G	C5-C6	-5.16	1.37	1.42
1	X	133	C	N1-C2	-5.13	1.35	1.40
1	X	730	C	N1-C2	-5.12	1.35	1.40
1	X	176	A	C4'-C3'	-5.07	1.47	1.52
1	X	1868	A	O3'-P	-5.07	1.55	1.61
1	X	171	G	C3'-O3'	5.06	1.49	1.42
1	X	723	C	C3'-O3'	5.05	1.49	1.42
1	X	1851	A	C3'-O3'	5.04	1.49	1.42
1	X	1869	A	P-O5'	-5.04	1.54	1.59
1	X	1373	G	C3'-C2'	5.02	1.58	1.52
1	X	2406	C	N1-C2	-5.01	1.35	1.40
1	X	2297	G	N9-C4	5.01	1.42	1.38
1	X	2604	G	C5-C6	-5.00	1.37	1.42
1	X	2197	U	C4'-C3'	-5.00	1.47	1.52

All (833) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1055	A	N9-C1'-C2'	-29.46	75.70	114.00
1	X	513	A	N9-C1'-C2'	24.54	145.90	114.00
1	X	2297	G	N9-C1'-C2'	21.75	142.27	114.00
1	X	557	U	N1-C1'-C2'	19.63	139.52	114.00
1	X	2298	U	N1-C1'-C2'	19.50	139.35	114.00
1	X	204	A	N9-C1'-C2'	19.36	139.17	114.00
1	X	1187	A	C8-N9-C4	-19.12	98.15	105.80
1	X	2297	G	C8-N9-C4	-18.92	98.83	106.40
1	X	82	G	N9-C1'-C2'	18.51	138.06	114.00
15	M	28	ARG	C-N-CD	-17.97	81.06	120.60
1	X	417	C	N1-C1'-C2'	17.64	136.93	114.00
1	X	2401	A	N9-C1'-C2'	17.43	136.66	114.00
1	X	2592	U	O4'-C1'-N1	17.30	122.04	108.20
1	X	176	A	N9-C1'-C2'	16.94	136.03	114.00
1	X	2418	A	N9-C1'-C2'	16.78	135.81	114.00
1	X	890	U	P-O3'-C3'	16.62	139.65	119.70
1	X	1123	G	P-O3'-C3'	16.43	139.42	119.70
1	X	83	A	N9-C1'-C2'	16.23	135.10	114.00
1	X	1856	U	P-O3'-C3'	-15.68	100.89	119.70
1	X	2189	A	P-O3'-C3'	15.48	138.28	119.70
1	X	2322	U	P-O3'-C3'	15.29	138.05	119.70
1	X	1854	G	P-O3'-C3'	-15.22	101.44	119.70
1	X	664	C	C6-N1-C2	15.10	126.34	120.30
1	X	1861	G	P-O3'-C3'	-15.03	101.66	119.70
1	X	1278	A	N9-C1'-C2'	14.75	133.18	114.00
1	X	1187	A	N9-C4-C5	14.32	111.53	105.80
1	X	100	G	O3'-P-O5'	14.19	130.97	104.00
1	X	1056	U	O4'-C4'-C3'	-14.04	89.96	104.00
1	X	558	G	C3'-C2'-C1'	-13.91	90.37	101.50
1	X	2195	C	N1-C1'-C2'	-13.67	96.23	114.00
1	X	626	A	P-O3'-C3'	13.55	135.96	119.70
1	X	1187	A	N9-C1'-C2'	13.44	131.48	114.00
1	X	1872	A	P-O3'-C3'	-13.33	103.70	119.70
1	X	514	G	N9-C1'-C2'	13.30	131.29	114.00
1	X	173	A	N9-C1'-C2'	12.98	130.88	114.00
1	X	2402	U	O4'-C1'-N1	-12.94	97.85	108.20
1	X	667	U	C3'-C2'-C1'	-12.91	91.17	101.50
1	X	417	C	P-O3'-C3'	12.81	135.07	119.70
1	X	204	A	P-O3'-C3'	12.69	134.93	119.70
1	X	556	A	N9-C1'-C2'	12.68	130.48	114.00
1	X	2324	G	O4'-C1'-N9	-12.60	98.12	108.20
1	X	2297	G	C3'-C2'-C1'	12.57	111.55	101.50
1	X	1869	A	P-O5'-C5'	-12.55	100.82	120.90

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	89	A	P-O3'-C3'	12.51	134.72	119.70
1	X	417	C	OP2-P-O3'	12.48	132.65	105.20
1	X	82	G	C3'-C2'-C1'	12.42	111.44	101.50
1	X	1278	A	P-O3'-C3'	12.41	134.60	119.70
1	X	731	A	P-O3'-C3'	12.40	134.58	119.70
1	X	1857	G	P-O3'-C3'	-12.39	104.83	119.70
1	X	2324	G	N9-C1'-C2'	12.27	129.94	114.00
1	X	890	U	N1-C1'-C2'	12.21	129.87	114.00
1	X	2197	U	C3'-C2'-C1'	-12.20	91.74	101.50
1	X	100	G	P-O3'-C3'	-12.01	105.29	119.70
1	X	199	A	C4'-C3'-C2'	11.98	114.58	102.60
1	X	415	A	P-O3'-C3'	11.89	133.97	119.70
1	X	1060	C	C6-N1-C2	11.85	125.04	120.30
1	X	2591	C	N1-C1'-C2'	11.71	129.23	114.00
1	X	82	G	C8-N9-C4	-11.61	101.76	106.40
1	X	557	U	C6-N1-C2	-11.61	114.03	121.00
1	X	1052	C	C6-N1-C2	11.50	124.90	120.30
1	X	1859	A	P-O3'-C3'	-11.34	106.09	119.70
1	X	99	U	P-O3'-C3'	11.25	133.20	119.70
1	X	1288	A	N9-C1'-C2'	11.10	128.43	114.00
1	X	1056	U	O4'-C1'-N1	11.09	117.07	108.20
1	X	1036	G	P-O3'-C3'	11.05	132.96	119.70
1	X	1632	A	N9-C1'-C2'	10.98	128.27	114.00
1	X	417	C	C3'-C2'-C1'	10.98	110.28	101.50
1	X	1142	G	N9-C1'-C2'	10.96	128.25	114.00
1	X	554	U	C6-N1-C2	10.90	127.54	121.00
1	X	556	A	P-O3'-C3'	10.78	132.64	119.70
1	X	666	U	P-O3'-C3'	10.78	132.64	119.70
1	X	2854	G	N9-C1'-C2'	10.77	128.00	114.00
1	X	1853	C	P-O3'-C3'	-10.76	106.79	119.70
1	X	2322	U	N1-C1'-C2'	10.76	127.99	114.00
1	X	132	U	P-O3'-C3'	10.73	132.57	119.70
1	X	2297	G	N7-C8-N9	10.70	118.45	113.10
1	X	1353	A	N9-C1'-C2'	10.66	127.86	114.00
1	X	2592	U	C2-N1-C1'	-10.66	104.91	117.70
1	X	667	U	P-O3'-C3'	10.63	132.45	119.70
1	X	2323	U	P-O3'-C3'	10.61	132.43	119.70
1	X	557	U	C3'-C2'-C1'	10.54	109.93	101.50
1	X	2593	A	N9-C1'-C2'	10.53	127.69	114.00
1	X	2402	U	C4'-C3'-O3'	-10.46	87.43	109.40
1	X	2402	U	C4'-C3'-C2'	10.43	113.03	102.60
1	X	1055	A	P-O3'-C3'	10.17	131.91	119.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1186	G	N9-C1'-C2'	-10.02	100.97	114.00
1	X	134	G	P-O3'-C3'	9.97	131.66	119.70
1	X	89	A	N9-C1'-C2'	9.94	126.92	114.00
1	X	1119	U	O4'-C1'-N1	-9.89	100.28	108.20
1	X	173	A	P-O3'-C3'	9.86	131.53	119.70
1	X	2592	U	C1'-O4'-C4'	-9.86	102.01	109.90
1	X	88	G	P-O3'-C3'	-9.86	107.87	119.70
1	X	1853	C	C6-N1-C2	9.81	124.23	120.30
1	X	731	A	N9-C1'-C2'	9.81	126.75	114.00
1	X	199	A	O4'-C4'-C3'	-9.79	94.21	104.00
1	X	177	U	O4'-C1'-N1	-9.75	100.40	108.20
1	X	667	U	O4'-C4'-C3'	-9.68	94.32	104.00
1	X	172	A	O4'-C1'-N9	9.60	115.88	108.20
1	X	683	A	N9-C1'-C2'	9.57	126.44	114.00
1	X	417	C	OP1-P-O3'	-9.53	84.25	105.20
1	X	1285	A	N9-C1'-C2'	9.47	126.31	114.00
1	X	667	U	O3'-P-O5'	9.32	121.70	104.00
1	X	2297	G	P-O3'-C3'	9.30	130.86	119.70
1	X	82	G	N9-C4-C5	9.27	109.11	105.40
1	X	82	G	P-O3'-C3'	9.22	130.76	119.70
1	X	199	A	C2'-C3'-O3'	-9.20	89.27	109.50
1	X	580	A	N9-C1'-C2'	9.18	125.94	114.00
4	B	85	ALA	C-N-CD	-9.18	100.42	120.60
1	X	2428	U	N1-C1'-C2'	9.17	125.92	114.00
1	X	2298	U	P-O3'-C3'	9.15	130.68	119.70
1	X	2190	A	N9-C1'-C2'	-9.12	101.97	112.00
1	X	136	A	P-O3'-C3'	-9.11	108.77	119.70
1	X	1265	G	N9-C1'-C2'	9.08	125.81	114.00
1	X	890	U	C2'-C3'-O3'	8.87	129.01	109.50
1	X	2409	A	C2'-C3'-O3'	8.87	129.01	109.50
1	X	89	A	C3'-C2'-C1'	8.86	108.58	101.50
1	X	83	A	C3'-C2'-C1'	8.83	108.56	101.50
1	X	1921	A	N9-C1'-C2'	8.73	125.35	114.00
1	X	1852	G	P-O3'-C3'	-8.72	109.24	119.70
1	X	1167	A	N9-C1'-C2'	8.70	125.31	114.00
1	X	1266	G	N9-C1'-C2'	8.69	125.30	114.00
1	X	558	G	C8-N9-C4	-8.68	102.93	106.40
1	X	204	A	O4'-C1'-N9	-8.68	101.26	108.20
1	X	2297	G	N9-C4-C5	8.66	108.86	105.40
1	X	513	A	O4'-C1'-N9	-8.65	101.28	108.20
1	X	1187	A	C3'-C2'-C1'	8.64	108.41	101.50
1	X	87	G	P-O3'-C3'	-8.61	109.37	119.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1862	C	P-O3'-C3'	-8.57	109.42	119.70
1	X	1123	G	C4'-C3'-C2'	-8.56	94.04	102.60
1	X	1121	G	C4'-C3'-C2'	8.55	111.15	102.60
1	X	98	U	O4'-C1'-N1	-8.47	101.42	108.20
1	X	198	A	P-O3'-C3'	8.46	129.86	119.70
1	X	729	A	P-O3'-C3'	-8.46	109.55	119.70
1	X	82	G	O4'-C4'-C3'	8.38	112.81	106.10
1	X	2034	A	N9-C1'-C2'	8.37	124.88	114.00
1	X	204	A	C3'-C2'-C1'	8.35	108.18	101.50
1	X	557	U	C5-C6-N1	8.34	126.87	122.70
1	X	199	A	C4'-C3'-O3'	-8.30	91.98	109.40
1	X	1187	A	C4'-C3'-C2'	-8.26	94.34	102.60
1	X	2418	A	P-O3'-C3'	8.24	129.59	119.70
1	X	2594	U	O5'-P-OP2	-8.23	98.29	105.70
1	X	513	A	C3'-C2'-C1'	8.20	108.06	101.50
8	F	118	GLY	N-CA-C	-8.18	92.65	113.10
1	X	2591	C	P-O3'-C3'	8.18	129.51	119.70
1	X	1120	C	N1-C1'-C2'	8.14	124.58	114.00
1	X	1631	C	N1-C1'-C2'	8.12	124.56	114.00
1	X	728	G	N9-C1'-C2'	8.11	124.55	114.00
1	X	1975	G	C2'-C3'-O3'	8.09	127.30	109.50
1	X	554	U	N1-C2-N3	-8.08	110.05	114.90
1	X	968	C	N1-C1'-C2'	8.01	124.41	114.00
1	X	1734	C	P-O3'-C3'	-8.00	110.10	119.70
1	X	1862	C	O4'-C4'-C3'	-7.96	96.04	104.00
1	X	2592	U	C5-C6-N1	-7.93	118.73	122.70
1	X	2298	U	C3'-C2'-C1'	7.90	107.82	101.50
1	X	664	C	O4'-C4'-C3'	-7.87	96.13	104.00
1	X	667	U	C5'-C4'-O4'	7.87	118.55	109.10
1	X	1849	G	C4'-C3'-C2'	-7.85	94.75	102.60
1	X	1139	A	N9-C1'-C2'	7.85	124.20	114.00
1	X	1264	C	N1-C1'-C2'	7.85	124.20	114.00
1	X	667	U	C2'-C3'-O3'	7.84	126.75	109.50
1	X	490	A	N9-C1'-C2'	7.83	124.19	114.00
1	X	732	G	O4'-C1'-N9	-7.79	101.97	108.20
1	X	1055	A	C3'-C2'-C1'	-7.77	95.28	101.50
1	X	555	U	C3'-C2'-C1'	-7.76	95.29	101.50
1	X	137	A	O4'-C1'-N9	-7.76	101.99	108.20
1	X	2322	U	C5'-C4'-O4'	-7.75	99.80	109.10
1	X	984	A	N9-C1'-C2'	7.73	124.05	114.00
1	X	555	U	O4'-C4'-C3'	-7.72	96.28	104.00
1	X	2313	G	N9-C1'-C2'	7.72	124.04	114.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1867	A	O4'-C1'-N9	-7.71	102.03	108.20
1	X	596	C	N1-C1'-C2'	7.70	124.01	114.00
1	X	1869	A	OP1-P-OP2	-7.67	108.09	119.60
1	X	1342	U	N1-C1'-C2'	7.67	123.97	114.00
1	X	1187	A	P-O3'-C3'	7.64	128.87	119.70
1	X	2323	U	C5'-C4'-O4'	-7.62	99.96	109.10
1	X	1862	C	C4'-C3'-C2'	7.61	110.21	102.60
1	X	1337	G	N9-C1'-C2'	7.58	123.86	114.00
1	X	2297	G	C1'-O4'-C4'	7.58	115.96	109.90
1	X	1664	G	N9-C1'-C2'	7.56	123.83	114.00
1	X	1582	A	N9-C1'-C2'	7.54	123.80	114.00
1	X	554	U	N1-C2-O2	7.53	128.07	122.80
1	X	100	G	C4'-C3'-C2'	-7.53	95.07	102.60
1	X	198	A	O4'-C1'-N9	7.48	114.19	108.20
1	X	2189	A	C2'-C3'-O3'	7.48	125.96	109.50
1	X	171	G	P-O3'-C3'	7.44	128.63	119.70
1	X	1373	G	C4'-C3'-C2'	-7.43	95.17	102.60
1	X	2824	C	N1-C1'-C2'	7.43	123.66	114.00
1	X	2187	A	P-O3'-C3'	7.41	128.59	119.70
1	X	1922	U	O4'-C1'-N1	-7.40	102.28	108.20
15	M	28	ARG	C-N-CA	7.39	153.03	122.00
1	X	2195	C	C6-N1-C2	7.39	123.25	120.30
1	X	400	U	N1-C1'-C2'	7.39	123.60	114.00
1	X	203	G	O4'-C1'-N9	-7.37	102.30	108.20
1	X	1855	G	OP1-P-OP2	-7.36	108.55	119.60
1	X	818	G	N9-C1'-C2'	7.36	123.56	114.00
1	X	667	U	N1-C1'-C2'	-7.34	103.92	112.00
1	X	2795	A	N9-C1'-C2'	7.33	123.53	114.00
1	X	2196	U	P-O3'-C3'	7.32	128.48	119.70
1	X	2198	U	P-O5'-C5'	-7.32	109.19	120.90
1	X	1855	G	P-O3'-C3'	-7.31	110.92	119.70
1	X	459	A	N9-C1'-C2'	7.31	123.50	114.00
1	X	1847	G	P-O3'-C3'	7.30	128.46	119.70
1	X	1185	C	C6-N1-C2	7.29	123.22	120.30
1	X	1854	G	OP1-P-OP2	-7.29	108.67	119.60
1	X	98	U	OP1-P-OP2	-7.27	108.69	119.60
1	X	2297	G	O4'-C1'-C2'	-7.27	98.53	105.80
1	X	724	C	P-O3'-C3'	7.27	128.42	119.70
1	X	626	A	OP1-P-OP2	-7.26	108.71	119.60
1	X	101	A	OP1-P-OP2	-7.24	108.73	119.60
1	X	2323	U	OP1-P-OP2	-7.23	108.75	119.60
1	X	1120	C	C6-N1-C2	7.23	123.19	120.30

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	728	G	C8-N9-C4	-7.21	103.52	106.40
1	X	199	A	N9-C1'-C2'	7.20	123.36	114.00
1	X	1858	C	C6-N1-C2	7.20	123.18	120.30
1	X	415	A	N9-C1'-C2'	7.20	123.36	114.00
1	X	2593	A	P-O3'-C3'	7.20	128.33	119.70
1	X	1374	G	OP1-P-OP2	-7.18	108.83	119.60
1	X	133	C	P-O5'-C5'	-7.18	109.42	120.90
1	X	1865	C	P-O3'-C3'	-7.16	111.10	119.70
1	X	1119	U	OP1-P-OP2	-7.16	108.86	119.60
1	X	1031	C	OP1-P-OP2	-7.16	108.86	119.60
1	X	1061	A	OP1-P-OP2	-7.15	108.87	119.60
1	X	664	C	C1'-O4'-C4'	7.15	115.62	109.90
1	X	1771	A	N9-C1'-C2'	7.15	123.30	114.00
1	X	1734	C	OP1-P-OP2	-7.14	108.89	119.60
1	X	1153	A	C2'-C3'-O3'	7.13	125.19	109.50
1	X	623	G	OP1-P-OP2	-7.13	108.91	119.60
1	X	1117	G	OP1-P-OP2	-7.12	108.93	119.60
1	X	555	U	OP1-P-OP2	-7.11	108.94	119.60
1	X	1126	A	OP1-P-OP2	-7.09	108.97	119.60
1	X	983	G	C2'-C3'-O3'	7.08	125.08	109.50
1	X	2188	A	P-O3'-C3'	-7.08	111.20	119.70
1	X	1850	G	C8-N9-C4	-7.07	103.57	106.40
1	X	1121	G	O4'-C1'-N9	-7.07	102.55	108.20
1	X	1357	U	N1-C1'-C2'	7.07	123.19	114.00
1	X	205	A	OP1-P-OP2	-7.05	109.03	119.60
8	F	83	GLY	C-N-CA	-7.05	104.08	121.70
1	X	2197	U	OP1-P-OP2	-7.04	109.04	119.60
1	X	99	U	C2'-C3'-O3'	7.04	124.98	109.50
1	X	628	A	OP1-P-OP2	-7.04	109.05	119.60
1	X	418	C	C6-N1-C2	7.03	123.11	120.30
1	X	723	C	O4'-C1'-N1	-7.03	102.58	108.20
1	X	89	A	OP1-P-OP2	-7.02	109.07	119.60
1	X	1581	C	N1-C1'-C2'	7.02	123.13	114.00
1	X	2402	U	C6-N1-C2	7.02	125.21	121.00
1	X	667	U	OP1-P-OP2	-7.01	109.08	119.60
1	X	801	A	N9-C1'-C2'	7.01	123.11	114.00
1	X	1142	G	O4'-C1'-N9	7.00	113.80	108.20
1	X	2299	A	O4'-C1'-N9	7.00	113.80	108.20
1	X	419	G	OP1-P-OP2	-7.00	109.11	119.60
1	X	1732	U	OP1-P-OP2	-6.99	109.11	119.60
1	X	1864	G	P-O3'-C3'	-6.99	111.31	119.70
1	X	516	G	N9-C1'-C2'	6.99	123.08	114.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2298	U	C2'-C3'-O3'	6.97	124.86	113.70
1	X	556	A	C3'-C2'-C1'	6.97	107.08	101.50
1	X	2299	A	OP1-P-OP2	-6.97	109.14	119.60
1	X	515	A	OP1-P-OP2	-6.96	109.16	119.60
1	X	805	G	N9-C1'-C2'	6.96	123.05	114.00
1	X	1856	U	C4'-C3'-C2'	6.96	109.56	102.60
1	X	2325	A	OP1-P-OP2	-6.95	109.17	119.60
1	X	1864	G	OP1-P-OP2	-6.95	109.18	119.60
1	X	134	G	OP1-P-OP2	-6.93	109.20	119.60
1	X	2419	C	OP1-P-OP2	-6.93	109.20	119.60
1	X	1279	G	P-O3'-C3'	6.93	128.01	119.70
1	X	417	C	O4'-C4'-C3'	6.92	111.64	106.10
1	X	1921	A	OP1-P-OP2	-6.92	109.22	119.60
1	X	203	G	OP1-P-OP2	-6.92	109.22	119.60
1	X	1278	A	C1'-O4'-C4'	-6.92	104.36	109.90
1	X	2560	G	N9-C1'-C2'	6.91	122.99	114.00
1	X	417	C	O4'-C1'-C2'	-6.91	98.89	105.80
1	X	1281	A	OP1-P-OP2	-6.90	109.25	119.60
1	X	1118	G	O4'-C1'-N9	-6.90	102.68	108.20
1	X	135	U	OP1-P-OP2	-6.89	109.26	119.60
1	X	2189	A	C4'-C3'-C2'	-6.89	95.71	102.60
1	X	2408	G	O4'-C1'-N9	-6.89	102.69	108.20
1	X	99	U	OP1-P-OP2	-6.88	109.28	119.60
1	X	1060	C	OP1-P-OP2	-6.87	109.29	119.60
1	X	1066	G	OP1-P-OP2	-6.86	109.31	119.60
1	X	1189	G	OP1-P-OP2	-6.86	109.32	119.60
1	X	729	A	N9-C4-C5	-6.84	103.06	105.80
1	X	1122	A	OP1-P-OP2	-6.84	109.34	119.60
1	X	780	U	N1-C1'-C2'	-6.84	104.48	112.00
1	X	1583	A	N9-C1'-C2'	6.84	122.89	114.00
1	X	101	A	O5'-C5'-C4'	6.83	124.68	111.70
1	X	734	G	OP1-P-OP2	-6.83	109.36	119.60
1	X	1807	A	N9-C1'-C2'	6.83	122.88	114.00
1	X	82	G	OP1-P-OP2	-6.82	109.36	119.60
1	X	1184	G	P-O3'-C3'	6.82	127.88	119.70
1	X	118	U	N1-C1'-C2'	6.81	122.85	114.00
1	X	1867	A	P-O3'-C3'	6.81	127.87	119.70
1	X	91	A	OP1-P-OP2	-6.80	109.40	119.60
1	X	1864	G	O4'-C1'-N9	-6.80	102.76	108.20
1	X	2323	U	C4'-C3'-O3'	6.77	126.55	113.00
1	X	1314	A	N9-C1'-C2'	6.77	122.80	114.00
1	X	2482	A	O4'-C1'-N9	6.76	113.61	108.20

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	625	A	OP1-P-OP2	-6.76	109.46	119.60
1	X	1856	U	OP1-P-OP2	-6.75	109.47	119.60
1	X	172	A	OP1-P-OP2	-6.75	109.48	119.60
1	X	1030	U	OP1-P-OP2	-6.75	109.48	119.60
1	X	558	G	O4'-C1'-N9	6.75	113.60	108.20
1	X	2326	C	OP1-P-OP2	-6.75	109.48	119.60
1	X	557	U	N3-C4-O4	6.73	124.11	119.40
1	X	1020	A	OP1-P-OP2	-6.72	109.52	119.60
1	X	1118	G	C4'-C3'-C2'	6.72	109.32	102.60
1	X	1052	C	N1-C2-O2	6.72	122.93	118.90
1	X	2496	C	N1-C1'-C2'	6.72	122.73	114.00
1	X	1186	G	C8-N9-C4	-6.71	103.71	106.40
1	X	1187	A	C2'-C3'-O3'	6.71	124.44	113.70
1	X	1860	A	OP1-P-OP2	-6.71	109.53	119.60
1	X	890	U	O4'-C1'-N1	-6.71	102.83	108.20
1	X	728	G	OP1-P-OP2	-6.71	109.53	119.60
1	X	804	C	N1-C1'-C2'	6.71	122.72	114.00
1	X	418	C	N1-C1'-C2'	6.70	122.71	114.00
1	X	1863	U	OP1-P-OP2	-6.70	109.54	119.60
1	X	2196	U	OP1-P-OP2	-6.70	109.55	119.60
1	X	2408	G	OP1-P-OP2	-6.70	109.56	119.60
1	X	173	A	OP1-P-OP2	-6.69	109.57	119.60
1	X	2195	C	O4'-C1'-C2'	6.68	113.61	107.60
1	X	514	G	OP1-P-OP2	-6.68	109.58	119.60
1	X	554	U	OP1-P-OP2	-6.68	109.58	119.60
1	X	1848	U	OP1-P-OP2	-6.67	109.59	119.60
1	X	1866	G	OP1-P-OP2	-6.67	109.59	119.60
1	X	2403	C	OP1-P-OP2	-6.67	109.59	119.60
1	X	664	C	OP1-P-OP2	-6.67	109.59	119.60
1	X	891	A	P-O5'-C5'	-6.67	110.22	120.90
1	X	2075	U	N1-C1'-C2'	6.67	122.67	114.00
1	X	731	A	OP1-P-OP2	-6.67	109.60	119.60
1	X	665	A	OP1-P-OP2	-6.66	109.60	119.60
1	X	2617	G	N9-C1'-C2'	6.66	122.66	114.00
1	X	1716	G	N9-C1'-C2'	6.66	122.66	114.00
1	X	1050	G	OP1-P-OP2	-6.66	109.61	119.60
1	X	2322	U	OP1-P-OP2	-6.65	109.62	119.60
1	X	2297	G	OP1-P-OP2	-6.65	109.62	119.60
1	X	2187	A	OP1-P-OP2	-6.65	109.63	119.60
1	X	552	C	OP1-P-OP2	-6.64	109.64	119.60
1	X	1852	G	O4'-C4'-C3'	-6.64	97.36	104.00
1	X	557	U	OP1-P-OP2	-6.64	109.64	119.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1723	U	C2'-C3'-O3'	6.64	124.32	113.70
1	X	2608	A	N9-C1'-C2'	6.63	122.62	114.00
1	X	1123	G	C5'-C4'-C3'	6.63	126.61	116.00
1	X	133	C	C6-N1-C2	6.63	122.95	120.30
1	X	1062	G	OP1-P-OP2	-6.63	109.66	119.60
1	X	201	G	OP1-P-OP2	-6.62	109.66	119.60
1	X	627	A	OP1-P-OP2	-6.62	109.67	119.60
1	X	2482	A	N9-C1'-C2'	6.62	122.61	114.00
1	X	138	G	OP1-P-OP2	-6.62	109.67	119.60
1	X	1190	C	OP1-P-OP2	-6.61	109.69	119.60
1	X	622	U	OP1-P-OP2	-6.60	109.70	119.60
1	X	2229	G	N9-C1'-C2'	6.60	122.58	114.00
1	X	515	A	C4'-C3'-C2'	6.60	109.20	102.60
1	X	174	A	OP1-P-OP2	-6.59	109.71	119.60
1	X	1186	G	C3'-C2'-C1'	-6.59	96.23	101.50
1	X	2591	C	OP1-P-OP2	-6.59	109.72	119.60
1	X	178	C	OP1-P-OP2	-6.59	109.72	119.60
1	X	2418	A	C3'-C2'-C1'	6.58	106.77	101.50
1	X	1049	C	C6-N1-C2	6.58	122.93	120.30
1	X	1186	G	O4'-C4'-C3'	-6.58	97.42	104.00
1	X	1045	G	OP1-P-OP2	-6.58	109.73	119.60
1	X	1737	G	OP1-P-OP2	-6.58	109.74	119.60
1	X	2191	A	OP1-P-OP2	-6.56	109.75	119.60
1	X	2196	U	C3'-C2'-C1'	6.56	106.75	101.50
1	X	2593	A	OP1-P-OP2	-6.56	109.75	119.60
1	X	1056	U	OP1-P-OP2	-6.56	109.76	119.60
1	X	2188	A	OP1-P-OP2	-6.56	109.76	119.60
1	X	666	U	C4'-C3'-C2'	-6.55	96.05	102.60
1	X	199	A	OP1-P-OP2	-6.55	109.78	119.60
1	X	541	C	OP2-P-O3'	6.54	119.60	105.20
1	X	1059	A	OP1-P-OP2	-6.54	109.79	119.60
1	X	2322	U	O4'-C1'-N1	-6.54	102.97	108.20
1	X	416	U	OP1-P-OP2	-6.53	109.81	119.60
1	X	1047	G	OP1-P-OP2	-6.53	109.81	119.60
1	X	171	G	N9-C1'-C2'	6.53	122.48	114.00
1	X	1118	G	O4'-C4'-C3'	-6.52	97.48	104.00
1	X	2322	U	C5'-C4'-C3'	6.52	126.43	116.00
1	X	204	A	OP1-P-OP2	-6.51	109.83	119.60
1	X	1280	U	OP1-P-OP2	-6.51	109.83	119.60
1	X	729	A	OP1-P-OP2	-6.51	109.83	119.60
1	X	199	A	C8-N9-C4	6.51	108.40	105.80
1	X	724	C	OP1-P-OP2	-6.51	109.84	119.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
4	B	147	PRO	N-CA-C	-6.51	95.19	112.10
1	X	624	A	OP1-P-OP2	-6.50	109.84	119.60
1	X	1868	A	OP1-P-OP2	-6.50	109.84	119.60
1	X	1124	U	OP1-P-OP2	-6.49	109.86	119.60
1	X	514	G	C5'-C4'-C3'	-6.49	105.62	116.00
1	X	2401	A	OP1-P-OP2	-6.49	109.87	119.60
1	X	2592	U	C6-N1-C1'	6.48	130.28	121.20
1	X	1064	C	OP1-P-OP2	-6.48	109.88	119.60
1	X	1185	C	OP1-P-OP2	-6.48	109.88	119.60
1	X	1561	A	C2'-C3'-O3'	6.48	124.07	113.70
1	X	1866	G	P-O3'-C3'	6.48	127.48	119.70
1	X	1947	G	N9-C1'-C2'	6.48	122.42	114.00
1	X	727	U	OP1-P-OP2	-6.47	109.89	119.60
1	X	1730	G	OP1-P-OP2	-6.47	109.90	119.60
1	X	1853	C	OP1-P-OP2	-6.47	109.90	119.60
1	X	1872	A	OP1-P-OP2	-6.47	109.90	119.60
1	X	664	C	P-O3'-C3'	6.46	127.46	119.70
1	X	1123	G	OP1-P-OP2	-6.46	109.91	119.60
1	X	2324	G	OP1-P-OP2	-6.46	109.91	119.60
1	X	2323	U	O5'-C5'-C4'	-6.45	99.44	111.70
1	X	1055	A	C4'-C3'-O3'	6.45	125.90	113.00
1	X	84	G	OP1-P-OP2	-6.45	109.93	119.60
1	X	218	A	N9-C1'-C2'	6.44	122.37	114.00
1	X	1250	A	N9-C1'-C2'	6.43	122.36	114.00
1	X	179	U	OP1-P-OP2	-6.43	109.95	119.60
1	X	516	G	OP1-P-OP2	-6.43	109.96	119.60
1	X	557	U	P-O3'-C3'	6.42	127.41	119.70
1	X	1278	A	N9-C4-C5	-6.42	103.23	105.80
1	X	1873	A	OP1-P-OP2	-6.42	109.97	119.60
9	G	119	LEU	CA-CB-CG	-6.41	100.55	115.30
1	X	514	G	O4'-C1'-N9	-6.41	103.08	108.20
1	X	732	G	OP1-P-OP2	-6.41	109.99	119.60
1	X	1185	C	N1-C1'-C2'	-6.41	104.95	112.00
1	X	1849	G	C8-N9-C4	-6.40	103.84	106.40
1	X	1279	G	OP1-P-OP2	-6.40	110.00	119.60
1	X	1467	U	O4'-C1'-N1	-6.40	103.08	108.20
1	X	1120	C	OP1-P-OP2	-6.40	110.00	119.60
1	X	1019	U	O4'-C1'-N1	-6.39	103.09	108.20
1	X	1123	G	C5'-C4'-O4'	-6.39	101.44	109.10
1	X	1051	U	OP1-P-OP2	-6.38	110.03	119.60
1	X	133	C	OP1-P-OP2	-6.38	110.03	119.60
1	X	1063	C	OP1-P-OP2	-6.38	110.03	119.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1874	G	OP1-P-OP2	-6.38	110.04	119.60
1	X	824	U	N1-C1'-C2'	6.37	122.28	114.00
1	X	1851	A	OP1-P-OP2	-6.37	110.04	119.60
1	X	1068	A	OP1-P-OP2	-6.37	110.05	119.60
1	X	1052	C	P-O5'-C5'	-6.36	110.72	120.90
1	X	1057	A	O4'-C1'-N9	6.36	113.29	108.20
1	X	1070	G	OP1-P-OP2	-6.36	110.06	119.60
1	X	1865	C	OP1-P-OP2	-6.36	110.07	119.60
1	X	73	A	N9-C1'-C2'	6.35	122.26	114.00
1	X	176	A	OP1-P-OP2	-6.35	110.07	119.60
1	X	621	U	OP1-P-OP2	-6.35	110.08	119.60
1	X	1052	C	OP1-P-OP2	-6.35	110.08	119.60
1	X	1772	C	N1-C1'-C2'	6.34	122.24	114.00
12	J	85	GLY	N-CA-C	-6.33	97.27	113.10
1	X	175	C	OP1-P-OP2	-6.33	110.11	119.60
1	X	1852	G	OP1-P-OP2	-6.33	110.11	119.60
1	X	1373	G	OP1-P-OP2	-6.32	110.12	119.60
1	X	1188	A	OP1-P-OP2	-6.32	110.13	119.60
1	X	1873	A	N9-C1'-C2'	-6.31	105.06	112.00
1	X	1664	G	O5'-P-OP1	-6.31	100.02	105.70
1	X	2190	A	OP1-P-OP2	-6.31	110.14	119.60
1	X	1859	A	OP1-P-OP2	-6.31	110.14	119.60
1	X	516	G	P-O3'-C3'	6.31	127.27	119.70
1	X	97	U	P-O5'-C5'	-6.30	110.81	120.90
1	X	1043	A	OP1-P-OP2	-6.30	110.15	119.60
1	X	725	C	OP1-P-OP2	-6.30	110.15	119.60
1	X	1862	C	OP1-P-OP2	-6.30	110.15	119.60
1	X	1475	U	N1-C1'-C2'	6.30	122.19	114.00
1	X	1850	G	OP1-P-OP2	-6.30	110.16	119.60
1	X	804	C	C4'-C3'-O3'	-6.29	96.18	109.40
1	X	1046	U	OP1-P-OP2	-6.29	110.16	119.60
1	X	1124	U	C3'-C2'-C1'	-6.29	96.47	101.50
1	X	198	A	OP1-P-OP2	-6.29	110.17	119.60
1	X	1187	A	N7-C8-N9	6.28	116.94	113.80
1	X	1923	U	OP1-P-OP2	-6.28	110.17	119.60
1	X	1861	G	OP1-P-OP2	-6.28	110.18	119.60
1	X	2402	U	C3'-C2'-C1'	-6.28	96.47	101.50
1	X	1979	C	N1-C1'-C2'	6.28	122.16	114.00
1	X	1372	A	OP1-P-OP2	-6.27	110.19	119.60
1	X	628	A	O4'-C1'-N9	-6.27	103.18	108.20
1	X	1057	A	N9-C1'-C2'	-6.27	105.10	112.00
1	X	1121	G	OP1-P-OP2	-6.27	110.19	119.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2326	C	O4'-C1'-N1	6.27	113.22	108.20
1	X	2404	A	OP1-P-OP2	-6.27	110.19	119.60
1	X	1049	C	OP1-P-OP2	-6.26	110.20	119.60
1	X	513	A	C8-N9-C4	-6.26	103.30	105.80
1	X	88	G	OP1-P-OP2	-6.26	110.21	119.60
1	X	1849	G	OP1-P-OP2	-6.26	110.21	119.60
15	M	29	PRO	CA-N-CD	-6.25	102.75	111.50
1	X	417	C	P-O5'-C5'	-6.25	110.90	120.90
1	X	2323	U	N1-C1'-C2'	-6.25	105.12	112.00
1	X	1865	C	O4'-C4'-C3'	-6.25	97.75	104.00
1	X	2195	C	OP1-P-OP2	-6.25	110.23	119.60
1	X	2192	U	OP1-P-OP2	-6.24	110.23	119.60
1	X	1867	A	OP1-P-OP2	-6.24	110.24	119.60
1	X	1032	A	OP1-P-OP2	-6.24	110.25	119.60
1	X	1963	G	N9-C1'-C2'	6.23	122.10	114.00
1	X	1775	A	C2'-C3'-O3'	6.23	123.67	113.70
1	X	1036	G	OP1-P-OP2	-6.23	110.26	119.60
1	X	1187	A	O4'-C1'-C2'	-6.23	99.57	105.80
1	X	1975	G	N9-C1'-C2'	6.21	122.08	114.00
1	X	171	G	OP1-P-OP2	-6.21	110.29	119.60
1	X	1118	G	OP1-P-OP2	-6.20	110.30	119.60
1	X	1125	G	OP1-P-OP2	-6.20	110.30	119.60
1	X	1056	U	N1-C2-N3	6.20	118.62	114.90
1	X	2409	A	OP1-P-OP2	-6.19	110.31	119.60
1	X	1184	G	OP1-P-OP2	-6.19	110.31	119.60
1	X	100	G	OP1-P-OP2	-6.19	110.31	119.60
1	X	1120	C	P-O3'-C3'	6.19	127.13	119.70
1	X	558	G	OP1-P-OP2	-6.19	110.32	119.60
1	X	1849	G	O4'-C4'-C3'	6.19	111.05	106.10
1	X	137	A	OP1-P-OP2	-6.18	110.33	119.60
1	X	1054	C	OP1-P-OP2	-6.18	110.32	119.60
1	X	1044	U	OP1-P-OP2	-6.18	110.33	119.60
1	X	890	U	OP1-P-OP2	-6.18	110.33	119.60
1	X	1070	G	P-O3'-C3'	6.18	127.11	119.70
1	X	2592	U	C6-N1-C2	6.17	124.70	121.00
1	X	97	U	OP1-P-OP2	-6.17	110.34	119.60
1	X	1375	C	OP1-P-OP2	-6.17	110.34	119.60
1	X	2406	C	OP1-P-OP2	-6.17	110.34	119.60
4	B	137	ARG	N-CA-C	-6.17	94.34	111.00
1	X	2592	U	OP1-P-OP2	-6.17	110.34	119.60
1	X	560	G	OP1-P-OP2	-6.17	110.35	119.60
1	X	955	G	N9-C1'-C2'	6.17	122.02	114.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1067	G	OP1-P-OP2	-6.17	110.35	119.60
1	X	2476	A	N9-C1'-C2'	6.16	122.01	114.00
1	X	559	C	OP1-P-OP2	-6.16	110.36	119.60
1	X	2201	G	OP1-P-OP2	-6.16	110.36	119.60
1	X	1037	U	OP1-P-OP2	-6.16	110.37	119.60
1	X	2190	A	C4'-C3'-O3'	6.16	125.31	113.00
1	X	1618	U	N1-C1'-C2'	6.15	122.00	114.00
1	X	83	A	OP1-P-OP2	-6.15	110.38	119.60
1	X	551	A	OP1-P-OP2	-6.14	110.38	119.60
1	X	417	C	OP1-P-OP2	-6.14	110.39	119.60
1	X	1858	C	OP1-P-OP2	-6.14	110.39	119.60
1	X	1123	G	C4'-C3'-O3'	6.14	125.27	113.00
1	X	1872	A	O4'-C4'-C3'	-6.14	97.86	104.00
1	X	2591	C	C3'-C2'-C1'	6.13	106.41	101.50
1	X	90	G	OP1-P-OP2	-6.13	110.40	119.60
1	X	2298	U	OP1-P-OP2	-6.13	110.40	119.60
1	X	580	A	C4'-C3'-O3'	-6.12	96.54	109.40
1	X	468	A	N9-C1'-C2'	6.12	121.96	114.00
1	X	1190	C	P-O3'-C3'	6.12	127.05	119.70
1	X	1057	A	OP1-P-OP2	-6.12	110.42	119.60
1	X	2324	G	P-O3'-C3'	6.12	127.04	119.70
1	X	418	C	OP1-P-OP2	-6.11	110.43	119.60
1	X	1065	A	OP1-P-OP2	-6.11	110.44	119.60
1	X	2592	U	O4'-C4'-C3'	-6.10	97.90	104.00
1	X	1919	A	N9-C1'-C2'	6.09	121.92	114.00
1	X	985	G	N9-C1'-C2'	6.09	121.92	114.00
1	X	1733	U	OP1-P-OP2	-6.09	110.46	119.60
1	X	2015	G	N9-C1'-C2'	6.09	121.91	114.00
1	X	1922	U	OP1-P-OP2	-6.09	110.47	119.60
1	X	69	G	N9-C1'-C2'	6.08	121.91	114.00
1	X	2769	C	O4'-C1'-N1	6.08	113.06	108.20
1	X	723	C	N1-C1'-C2'	6.07	121.90	114.00
1	X	1056	U	C5'-C4'-C3'	6.07	125.72	116.00
1	X	415	A	OP1-P-OP2	-6.07	110.49	119.60
1	X	1735	G	OP1-P-OP2	-6.07	110.50	119.60
1	X	1119	U	C3'-C2'-C1'	-6.06	96.65	101.50
1	X	747	A	C5'-C4'-C3'	6.06	125.70	116.00
1	X	2189	A	OP1-P-OP2	-6.06	110.51	119.60
1	X	219	G	N9-C1'-C2'	6.06	121.88	114.00
1	X	733	G	OP1-P-OP2	-6.06	110.51	119.60
1	X	663	G	OP1-P-OP2	-6.05	110.52	119.60
1	X	1124	U	P-O3'-C3'	-6.05	112.44	119.70

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	728	G	P-O3'-C3'	6.05	126.96	119.70
1	X	557	U	O4'-C1'-N1	-6.05	103.36	108.20
1	X	891	A	OP1-P-OP2	-6.04	110.53	119.60
1	X	1624	A	N9-C1'-C2'	6.04	121.85	114.00
1	X	173	A	O4'-C1'-N9	6.04	113.03	108.20
1	X	1058	G	OP1-P-OP2	-6.03	110.55	119.60
1	X	199	A	P-O3'-C3'	6.03	126.94	119.70
1	X	2194	A	OP1-P-OP2	-6.03	110.56	119.60
1	X	666	U	OP1-P-OP2	-6.03	110.56	119.60
1	X	2418	A	C8-N9-C4	6.03	108.21	105.80
1	X	1863	U	P-O3'-C3'	-6.02	112.47	119.70
1	X	2401	A	P-O3'-C3'	6.02	126.92	119.70
1	X	626	A	N9-C1'-C2'	6.01	121.82	114.00
1	X	1278	A	C4-N9-C1'	6.01	137.12	126.30
1	X	2188	A	C4'-C3'-C2'	6.00	108.61	102.60
1	X	556	A	OP1-P-OP2	-6.00	110.61	119.60
1	X	1288	A	C5'-C4'-C3'	6.00	125.59	116.00
1	X	537	C	N1-C1'-C2'	5.99	121.79	114.00
1	X	202	A	OP1-P-OP2	-5.99	110.61	119.60
1	X	1048	U	OP1-P-OP2	-5.97	110.64	119.60
1	X	1860	A	C4'-C3'-C2'	5.97	108.57	102.60
1	X	2402	U	O4'-C4'-C3'	-5.97	98.03	104.00
1	X	312	G	N9-C1'-C2'	5.96	121.75	114.00
1	X	1398	G	N9-C1'-C2'	5.96	121.75	114.00
1	X	1731	C	OP1-P-OP2	-5.96	110.67	119.60
1	X	1187	A	O4'-C4'-C3'	5.96	110.86	106.10
1	X	2417	U	OP1-P-OP2	-5.96	110.67	119.60
1	X	2823	G	N9-C1'-C2'	5.96	121.74	114.00
1	X	177	U	OP1-P-OP2	-5.95	110.67	119.60
1	X	561	U	OP1-P-OP2	-5.95	110.67	119.60
1	X	2189	A	O3'-P-O5'	5.95	115.31	104.00
1	X	2193	C	OP1-P-OP2	-5.95	110.68	119.60
1	X	100	G	N9-C1'-C2'	5.94	121.73	114.00
1	X	1866	G	C8-N9-C4	-5.93	104.03	106.40
1	X	2186	G	OP1-P-OP2	-5.93	110.70	119.60
1	X	200	A	OP1-P-OP2	-5.93	110.71	119.60
1	X	666	U	N1-C1'-C2'	5.92	121.69	114.00
1	X	2198	U	N1-C1'-C2'	5.92	121.69	114.00
1	X	97	U	P-O3'-C3'	5.91	126.80	119.70
1	X	135	U	C3'-C2'-C1'	-5.91	96.77	101.50
1	X	1121	G	O4'-C4'-C3'	-5.91	98.09	104.00
1	X	2705	A	N9-C1'-C2'	5.91	121.68	114.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2405	A	OP1-P-OP2	-5.91	110.74	119.60
1	X	415	A	O4'-C1'-N9	-5.90	103.48	108.20
1	X	1736	C	OP1-P-OP2	-5.90	110.75	119.60
1	X	2190	A	C3'-C2'-C1'	-5.90	96.78	101.50
1	X	1866	G	O4'-C1'-N9	-5.89	103.49	108.20
1	X	1278	A	C2'-C3'-O3'	5.89	123.12	113.70
1	X	1186	G	N9-C4-C5	5.88	107.75	105.40
19	Q	61	LYS	N-CA-C	5.88	126.89	111.00
1	X	1018	C	OP1-P-OP2	-5.88	110.78	119.60
1	X	2668	U	O4'-C1'-N1	5.88	112.90	108.20
1	X	553	C	OP1-P-OP2	-5.88	110.78	119.60
1	X	1187	A	OP1-P-OP2	-5.88	110.79	119.60
1	X	2198	U	OP1-P-OP2	-5.87	110.79	119.60
1	X	1710	U	N1-C1'-C2'	5.87	121.63	114.00
1	X	730	C	OP1-P-OP2	-5.87	110.80	119.60
1	X	513	A	OP1-P-OP2	-5.87	110.80	119.60
1	X	1053	G	OP1-P-OP2	-5.87	110.80	119.60
1	X	203	G	C3'-C2'-C1'	-5.87	96.81	101.50
1	X	2297	G	N3-C4-C5	-5.86	125.67	128.60
1	X	723	C	C5-C6-N1	5.85	123.93	121.00
1	X	83	A	P-O3'-C3'	5.85	126.72	119.70
1	X	1186	G	OP1-P-OP2	-5.85	110.83	119.60
1	X	1278	A	N7-C8-N9	5.84	116.72	113.80
1	X	200	A	C4'-C3'-C2'	5.83	108.43	102.60
1	X	136	A	O4'-C4'-C3'	-5.83	98.17	104.00
1	X	173	A	O4'-C4'-C3'	-5.82	98.18	104.00
1	X	2418	A	OP1-P-OP2	-5.82	110.87	119.60
1	X	1069	G	OP1-P-OP2	-5.81	110.88	119.60
19	Q	60	GLY	N-CA-C	5.81	127.63	113.10
1	X	1038	U	OP1-P-OP2	-5.81	110.89	119.60
1	X	1055	A	OP1-P-OP2	-5.81	110.89	119.60
1	X	1121	G	C3'-C2'-C1'	-5.80	96.86	101.50
1	X	2551	A	N9-C1'-C2'	5.80	121.54	114.00
13	K	95	THR	N-CA-C	-5.80	95.34	111.00
1	X	1927	U	N1-C1'-C2'	5.79	121.53	114.00
1	X	2199	C	OP1-P-OP2	-5.79	110.92	119.60
1	X	1187	A	C4-C5-N7	-5.78	107.81	110.70
1	X	725	C	O4'-C4'-C3'	-5.78	98.22	104.00
1	X	723	C	OP1-P-OP2	-5.76	110.95	119.60
1	X	1851	A	P-O3'-C3'	5.76	126.61	119.70
1	X	83	A	C1'-O4'-C4'	5.75	114.50	109.90
1	X	731	A	OP2-P-O3'	5.75	117.85	105.20

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1865	C	O4'-C1'-N1	5.75	112.80	108.20
1	X	1019	U	OP1-P-OP2	-5.75	110.98	119.60
1	X	1734	C	C5-C6-N1	5.75	123.87	121.00
1	X	417	C	C4'-C3'-C2'	-5.74	96.86	102.60
1	X	1288	A	O4'-C4'-C3'	-5.72	98.28	104.00
1	X	2322	U	C3'-C2'-C1'	5.72	106.08	101.50
1	X	727	U	P-O3'-C3'	5.72	126.57	119.70
1	X	2854	G	C4'-C3'-O3'	-5.72	97.39	109.40
1	X	555	U	N1-C1'-C2'	-5.72	105.71	112.00
1	X	172	A	N3-C4-N9	-5.71	122.83	127.40
1	X	101	A	P-O5'-C5'	-5.71	111.76	120.90
1	X	1123	G	O4'-C4'-C3'	5.71	110.67	106.10
1	X	664	C	N1-C2-O2	5.70	122.32	118.90
1	X	557	U	O4'-C1'-C2'	-5.69	100.11	105.80
1	X	2322	U	C4'-C3'-O3'	5.69	124.38	113.00
1	X	806	A	N9-C1'-C2'	5.69	121.39	114.00
1	X	399	G	N9-C1'-C2'	5.69	121.39	114.00
10	H	28	GLY	N-CA-C	5.68	127.31	113.10
1	X	838	A	OP1-P-O3'	5.68	117.69	105.20
1	X	1852	G	C4'-C3'-C2'	5.68	108.28	102.60
1	X	728	G	N3-C4-C5	-5.67	125.77	128.60
1	X	1736	C	C6-N1-C2	5.67	122.57	120.30
1	X	2427	A	N9-C1'-C2'	5.66	121.36	114.00
1	X	2756	A	OP2-P-O3'	5.66	117.65	105.20
1	X	2410	U	OP1-P-OP2	-5.65	111.13	119.60
15	M	3	THR	N-CA-C	-5.65	95.75	111.00
1	X	172	A	O4'-C4'-C3'	-5.64	98.36	104.00
1	X	557	U	N3-C4-C5	-5.64	111.21	114.60
1	X	841	G	N9-C1'-C2'	5.64	121.34	114.00
1	X	1853	C	O4'-C4'-C3'	-5.64	98.36	104.00
1	X	1854	G	O3'-P-O5'	5.63	114.70	104.00
1	X	731	A	C2'-C3'-O3'	5.63	122.71	113.70
1	X	1849	G	O4'-C1'-N9	-5.62	103.70	108.20
1	X	1333	G	O4'-C1'-N9	5.62	112.69	108.20
1	X	100	G	O4'-C4'-C3'	5.61	110.59	106.10
1	X	2469	G	N9-C1'-C2'	5.60	121.28	114.00
1	X	123	A	N9-C1'-C2'	5.60	121.28	114.00
1	X	513	A	C1'-O4'-C4'	5.60	114.38	109.90
1	X	728	G	C2'-C3'-O3'	5.59	122.65	113.70
1	X	134	G	P-O5'-C5'	-5.58	111.96	120.90
1	X	417	C	C1'-O4'-C4'	5.58	114.37	109.90
1	X	789	G	N9-C1'-C2'	5.58	121.25	114.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	1854	G	C5'-C4'-C3'	5.57	124.92	116.00
1	X	2693	U	N1-C1'-C2'	5.57	121.24	114.00
1	X	2254	C	N1-C1'-C2'	5.57	121.24	114.00
1	X	2190	A	O5'-C5'-C4'	5.57	122.28	111.70
26	Z	54	GLY	N-CA-C	-5.57	99.18	113.10
1	X	2418	A	N9-C4-C5	-5.57	103.57	105.80
1	X	513	A	O4'-C1'-C2'	-5.56	100.24	105.80
1	X	555	U	P-O3'-C3'	5.56	126.38	119.70
1	X	664	C	C4'-C3'-O3'	5.56	124.13	113.00
1	X	2402	U	OP1-P-OP2	-5.56	111.26	119.60
1	X	1281	A	P-O5'-C5'	-5.55	112.02	120.90
1	X	2200	G	OP1-P-OP2	-5.54	111.29	119.60
1	X	729	A	C4'-C3'-C2'	5.54	108.14	102.60
1	X	1194	U	C2'-C3'-O3'	5.54	122.56	113.70
1	X	1868	A	P-O3'-C3'	5.54	126.34	119.70
1	X	1669	A	C5'-C4'-O4'	-5.53	102.46	109.10
9	G	94	LYS	N-CA-C	-5.53	96.08	111.00
1	X	2663	U	C5'-C4'-C3'	-5.52	107.16	116.00
1	X	2756	A	N9-C1'-C2'	5.51	121.17	114.00
1	X	688	A	C5'-C4'-C3'	5.50	124.79	116.00
1	X	513	A	P-O3'-C3'	5.49	126.29	119.70
1	X	1020	A	O4'-C1'-N9	-5.49	103.81	108.20
1	X	1698	C	C5'-C4'-O4'	-5.49	102.51	109.10
1	X	2403	C	C5-C6-N1	5.49	123.74	121.00
1	X	1280	U	C4'-C3'-C2'	5.47	108.08	102.60
1	X	729	A	O4'-C4'-C3'	-5.47	98.53	104.00
1	X	2190	A	P-O5'-C5'	5.47	129.65	120.90
1	X	613	A	N9-C1'-C2'	5.47	121.11	114.00
1	X	2469	G	C5'-C4'-O4'	-5.47	102.54	109.10
1	X	1410	U	N1-C1'-C2'	5.46	121.10	114.00
14	L	65	THR	N-CA-C	-5.46	96.27	111.00
1	X	1858	C	C4'-C3'-C2'	5.45	108.05	102.60
1	X	3	U	C2'-C3'-O3'	5.44	122.40	113.70
1	X	1278	A	C8-N9-C1'	-5.44	117.92	127.70
1	X	515	A	C3'-C2'-C1'	-5.43	97.16	101.50
1	X	1052	C	O4'-C1'-N1	-5.43	103.86	108.20
1	X	665	A	C5'-C4'-O4'	-5.42	102.60	109.10
1	X	1854	G	C4'-C3'-O3'	5.42	123.84	113.00
1	X	1861	G	P-O5'-C5'	-5.42	112.23	120.90
1	X	723	C	C4-C5-C6	-5.41	114.69	117.40
1	X	2229	G	C4'-C3'-O3'	-5.41	98.03	109.40
1	X	1378	A	C5'-C4'-C3'	5.41	124.65	116.00

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2695	C	OP2-P-O3'	5.41	117.10	105.20
1	X	1862	C	C1'-O4'-C4'	5.40	114.22	109.90
1	X	1333	G	N9-C1'-C2'	5.39	121.00	114.00
1	X	1857	G	OP1-P-OP2	-5.39	111.52	119.60
1	X	724	C	C6-N1-C2	5.38	122.45	120.30
1	X	2363	G	N9-C1'-C2'	5.38	120.99	114.00
1	X	2188	A	N9-C1'-C2'	-5.37	106.09	112.00
1	X	1152	C	N1-C1'-C2'	5.37	120.98	114.00
1	X	101	A	C5'-C4'-O4'	5.36	115.54	109.10
1	X	728	G	N9-C4-C5	5.36	107.55	105.40
1	X	878	C	N1-C1'-C2'	5.36	120.97	114.00
1	X	765	C	OP2-P-O3'	5.36	117.00	105.20
1	X	2480	C	N1-C1'-C2'	5.35	120.96	114.00
1	X	1278	A	OP1-P-OP2	-5.35	111.57	119.60
1	X	2521	A	N9-C1'-C2'	5.35	120.95	114.00
1	X	1060	C	C5-C6-N1	-5.34	118.33	121.00
1	X	2608	A	C2'-C3'-O3'	5.34	122.25	113.70
1	X	1118	G	C3'-C2'-C1'	-5.33	97.23	101.50
1	X	416	U	N1-C1'-C2'	5.33	120.92	114.00
1	X	557	U	N1-C2-N3	5.33	118.09	114.90
4	B	146	THR	C-N-CD	-5.32	108.90	120.60
1	X	1263	G	N9-C1'-C2'	5.32	120.91	114.00
1	X	135	U	O4'-C4'-C3'	-5.31	98.69	104.00
1	X	664	C	C4'-C3'-C2'	5.31	107.91	102.60
1	X	797	A	N9-C1'-C2'	5.31	120.90	114.00
1	X	1301	U	O4'-C1'-N1	5.30	112.44	108.20
1	X	1866	G	N7-C8-N9	5.30	115.75	113.10
1	X	1665	C	O5'-P-OP2	-5.29	100.94	105.70
1	X	171	G	O4'-C1'-N9	-5.28	103.97	108.20
1	X	2196	U	N1-C1'-C2'	-5.28	106.19	112.00
4	B	85	ALA	N-CA-C	5.28	125.26	111.00
1	X	2498	U	OP1-P-O3'	5.28	116.82	105.20
1	X	2297	G	C4'-C3'-C2'	-5.27	97.33	102.60
1	X	136	A	C4'-C3'-O3'	5.27	123.53	113.00
1	X	804	C	C2'-C3'-O3'	5.27	122.13	113.70
1	X	2405	A	P-O3'-C3'	5.27	126.02	119.70
1	X	2848	A	N9-C1'-C2'	5.27	120.85	114.00
1	X	2800	C	C5'-C4'-C3'	-5.26	107.58	116.00
1	X	538	A	C2'-C3'-O3'	5.26	122.12	113.70
1	X	557	U	C1'-O4'-C4'	5.26	114.11	109.90
1	X	1632	A	C4'-C3'-O3'	-5.25	98.37	109.40
1	X	2191	A	O4'-C1'-N9	-5.25	104.00	108.20

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2408	G	C4'-C3'-C2'	5.25	107.85	102.60
1	X	1121	G	C2'-C3'-O3'	-5.24	97.97	109.50
1	X	2193	C	C6-N1-C2	5.24	122.39	120.30
1	X	664	C	C5'-C4'-O4'	-5.22	102.84	109.10
1	X	172	A	N9-C4-C5	5.21	107.88	105.80
1	X	59	G	N9-C1'-C2'	5.21	120.77	114.00
1	X	1064	C	C6-N1-C2	5.21	122.38	120.30
1	X	751	G	C2'-C3'-O3'	5.20	122.03	113.70
1	X	1288	A	C8-N9-C1'	-5.20	118.34	127.70
1	X	969	U	OP2-P-O3'	5.20	116.64	105.20
1	X	1995	G	O5'-P-OP2	-5.20	101.02	105.70
1	X	1963	G	C2'-C3'-O3'	5.19	122.00	113.70
1	X	97	U	O4'-C1'-N1	-5.18	104.06	108.20
1	X	1120	C	C4-C5-C6	-5.18	114.81	117.40
1	X	1684	G	C4'-C3'-O3'	-5.18	98.53	109.40
4	B	51	TYR	N-CA-C	5.18	124.98	111.00
1	X	552	C	C6-N1-C2	5.17	122.37	120.30
1	X	1125	G	N9-C1'-C2'	-5.17	106.31	112.00
1	X	777	A	C2'-C3'-O3'	5.17	121.98	113.70
1	X	1224	A	N9-C1'-C2'	5.17	120.72	114.00
1	X	1121	G	C4'-C3'-O3'	-5.16	98.57	109.40
1	X	82	G	C1'-O4'-C4'	5.16	114.02	109.90
1	X	558	G	C4'-C3'-O3'	5.16	123.31	113.00
1	X	34	U	N1-C1'-C2'	5.15	120.70	114.00
1	X	1187	A	P-O5'-C5'	-5.15	112.66	120.90
1	X	2299	A	P-O3'-C3'	5.15	125.88	119.70
1	X	81	C	P-O3'-C3'	5.15	125.88	119.70
1	X	1278	A	O4'-C1'-N9	5.15	112.32	108.20
1	X	1855	G	O3'-P-O5'	5.14	113.77	104.00
1	X	558	G	N9-C4-C5	5.14	107.46	105.40
1	X	1000	G	N9-C1'-C2'	5.13	120.68	114.00
1	X	1288	A	C4-N9-C1'	5.13	135.53	126.30
1	X	2188	A	O4'-C4'-C3'	-5.13	98.87	104.00
1	X	2758	A	O4'-C1'-N9	5.13	112.30	108.20
1	X	1373	G	C8-N9-C4	-5.11	104.36	106.40
1	X	2191	A	N9-C1'-C2'	5.11	120.65	114.00
1	X	2324	G	P-O5'-C5'	-5.11	112.72	120.90
1	X	2841	U	C2'-C3'-O3'	5.11	121.88	113.70
1	X	135	U	O3'-P-O5'	-5.11	94.30	104.00
1	X	1342	U	C4'-C3'-O3'	-5.11	98.67	109.40
19	Q	32	LYS	N-CA-C	-5.11	97.21	111.00
1	X	1735	G	C4'-C3'-C2'	5.11	107.70	102.60

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	X	2426	G	O4'-C1'-N9	5.11	112.28	108.20
1	X	82	G	N3-C4-C5	-5.10	126.05	128.60
1	X	1684	G	N9-C1'-C2'	5.09	120.62	114.00
1	X	460	U	N1-C1'-C2'	5.09	120.62	114.00
1	X	202	A	P-O3'-C3'	5.09	125.81	119.70
1	X	1679	U	O4'-C4'-C3'	-5.09	98.91	104.00
1	X	1441	A	N9-C1'-C2'	5.09	120.61	114.00
15	M	30	GLY	N-CA-C	-5.08	100.39	113.10
1	X	1071	U	N1-C1'-C2'	5.08	120.60	114.00
1	X	731	A	O4'-C4'-C3'	5.08	110.16	106.10
1	X	729	A	C8-N9-C4	5.07	107.83	105.80
1	X	558	G	N7-C8-N9	5.06	115.63	113.10
1	X	796	A	N9-C1'-C2'	-5.05	106.44	112.00
1	X	2402	U	C2'-C3'-O3'	-5.05	98.40	109.50
1	X	203	G	N9-C1'-C2'	-5.04	106.45	112.00
1	X	1054	C	N3-C4-C5	-5.04	119.88	121.90
1	X	1820	G	N9-C1'-C2'	5.04	120.56	114.00
1	X	1734	C	C4-C5-C6	-5.04	114.88	117.40
1	X	333	A	N9-C1'-C2'	5.04	120.55	114.00
1	X	666	U	O4'-C4'-C3'	5.04	110.13	106.10
1	X	2810	A	OP1-P-O3'	5.04	116.28	105.20
1	X	90	G	P-O3'-C3'	5.03	125.74	119.70
1	X	667	U	OP1-P-O3'	-5.03	94.13	105.20
1	X	2810	A	N9-C1'-C2'	5.03	120.54	114.00
1	X	664	C	N1-C2-N3	-5.03	115.68	119.20
1	X	1141	U	C5'-C4'-C3'	-5.02	107.96	116.00
1	X	419	G	P-O5'-C5'	-5.02	112.87	120.90
1	X	1279	G	C2'-C3'-O3'	5.02	121.73	113.70
1	X	516	G	O4'-C1'-N9	-5.02	104.19	108.20
15	M	13	LEU	CA-CB-CG	-5.02	103.76	115.30
1	X	173	A	C3'-C2'-C1'	5.01	105.51	101.50
1	X	1683	G	N9-C1'-C2'	-5.01	106.49	112.00
1	X	176	A	P-O3'-C3'	5.01	125.71	119.70
1	X	571	U	N1-C1'-C2'	5.00	120.51	114.00

There are no chirality outliers.

All (232) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
9	G	106	TYR	Sidechain
16	N	32	TYR	Sidechain
19	Q	25	TYR	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	100	G	Sidechain
1	X	1000	G	Sidechain
1	X	1012	A	Sidechain
1	X	1030	U	Sidechain
1	X	1054	C	Sidechain
1	X	1056	U	Sidechain
1	X	112	U	Sidechain
1	X	1141	U	Sidechain
1	X	1153	A	Sidechain
1	X	1167	A	Sidechain
1	X	1177	U	Sidechain
1	X	118	U	Sidechain
1	X	1186	G	Sidechain
1	X	1187	A	Sidechain
1	X	1200	G	Sidechain
1	X	1206	G	Sidechain
1	X	1212	U	Sidechain
1	X	1213	U	Sidechain
1	X	1224	A	Sidechain
1	X	123	A	Sidechain
1	X	1237	G	Sidechain
1	X	1250	A	Sidechain
1	X	1251	G	Sidechain
1	X	1265	G	Sidechain
1	X	1267	A	Sidechain
1	X	1276	U	Sidechain
1	X	1278	A	Sidechain
1	X	1282	A	Sidechain
1	X	1284	G	Sidechain
1	X	1285	A	Sidechain
1	X	1296	G	Sidechain
1	X	13	A	Sidechain
1	X	1304	U	Sidechain
1	X	1313	U	Sidechain
1	X	1325	U	Sidechain
1	X	1330	G	Sidechain
1	X	1333	G	Sidechain
1	X	1334	A	Sidechain
1	X	1338	G	Sidechain
1	X	1342	U	Sidechain
1	X	1353	A	Sidechain
1	X	1357	U	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	1373	G	Sidechain
1	X	1408	A	Sidechain
1	X	1429	A	Sidechain
1	X	1467	U	Sidechain
1	X	1482	U	Sidechain
1	X	15	G	Sidechain
1	X	1574	A	Sidechain
1	X	1583	A	Sidechain
1	X	1618	U	Sidechain
1	X	1620	C	Sidechain
1	X	1623	C	Sidechain
1	X	1626	A	Sidechain
1	X	1631	C	Sidechain
1	X	1632	A	Sidechain
1	X	1635	G	Sidechain
1	X	165	G	Sidechain
1	X	1662	G	Sidechain
1	X	1664	G	Sidechain
1	X	1671	A	Sidechain
1	X	1676	U	Sidechain
1	X	1677	C	Sidechain
1	X	1683	G	Sidechain
1	X	1689	U	Sidechain
1	X	1692	C	Sidechain
1	X	1697	U	Sidechain
1	X	1698	C	Sidechain
1	X	1710	U	Sidechain
1	X	1716	G	Sidechain
1	X	1717	A	Sidechain
1	X	173	A	Sidechain
1	X	174	A	Sidechain
1	X	1748	U	Sidechain
1	X	1749	G	Sidechain
1	X	1757	C	Sidechain
1	X	1762	C	Sidechain
1	X	1763	G	Sidechain
1	X	1771	A	Sidechain
1	X	1780	A	Sidechain
1	X	1810	U	Sidechain
1	X	1820	G	Sidechain
1	X	1849	G	Sidechain
1	X	1851	A	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	1938	U	Sidechain
1	X	1947	G	Sidechain
1	X	1968	G	Sidechain
1	X	1973	C	Sidechain
1	X	1979	C	Sidechain
1	X	1994	U	Sidechain
1	X	1996	A	Sidechain
1	X	1998	A	Sidechain
1	X	2001	G	Sidechain
1	X	2016	A	Sidechain
1	X	2017	U	Sidechain
1	X	2024	U	Sidechain
1	X	2028	C	Sidechain
1	X	2034	A	Sidechain
1	X	2038	C	Sidechain
1	X	2057	U	Sidechain
1	X	2189	A	Sidechain
1	X	2192	U	Sidechain
1	X	2195	C	Sidechain
1	X	2196	U	Sidechain
1	X	2223	U	Sidechain
1	X	2243	C	Sidechain
1	X	2258	G	Sidechain
1	X	2297	G	Sidechain
1	X	2310	G	Sidechain
1	X	2315	A	Sidechain
1	X	2323	U	Sidechain
1	X	2324	G	Sidechain
1	X	2363	G	Sidechain
1	X	2402	U	Sidechain
1	X	2411	A	Sidechain
1	X	2419	C	Sidechain
1	X	2427	A	Sidechain
1	X	2428	U	Sidechain
1	X	2433	G	Sidechain
1	X	2469	G	Sidechain
1	X	2472	U	Sidechain
1	X	2482	A	Sidechain
1	X	2487	G	Sidechain
1	X	2498	U	Sidechain
1	X	2502	G	Sidechain
1	X	2504	G	Sidechain

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	2521	A	Sidechain
1	X	2525	U	Sidechain
1	X	2540	A	Sidechain
1	X	2541	U	Sidechain
1	X	2542	U	Sidechain
1	X	2548	G	Sidechain
1	X	2587	G	Sidechain
1	X	2590	U	Sidechain
1	X	2596	C	Sidechain
1	X	2599	U	Sidechain
1	X	2617	G	Sidechain
1	X	2626	U	Sidechain
1	X	2653	A	Sidechain
1	X	2677	U	Sidechain
1	X	2683	C	Sidechain
1	X	2685	A	Sidechain
1	X	2698	G	Sidechain
1	X	2730	A	Sidechain
1	X	2731	G	Sidechain
1	X	2736	U	Sidechain
1	X	2760	G	Sidechain
1	X	2805	G	Sidechain
1	X	2808	U	Sidechain
1	X	2817	A	Sidechain
1	X	2818	G	Sidechain
1	X	2819	G	Sidechain
1	X	2824	C	Sidechain
1	X	2844	G	Sidechain
1	X	2847	G	Sidechain
1	X	2850	U	Sidechain
1	X	2854	G	Sidechain
1	X	2858	A	Sidechain
1	X	2861	A	Sidechain
1	X	318	G	Sidechain
1	X	32	C	Sidechain
1	X	321	A	Sidechain
1	X	322	A	Sidechain
1	X	34	U	Sidechain
1	X	340	G	Sidechain
1	X	341	A	Sidechain
1	X	396	U	Sidechain
1	X	398	C	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	399	G	Sidechain
1	X	400	U	Sidechain
1	X	415	A	Sidechain
1	X	447	U	Sidechain
1	X	459	A	Sidechain
1	X	467	U	Sidechain
1	X	474	G	Sidechain
1	X	480	G	Sidechain
1	X	487	G	Sidechain
1	X	490	A	Sidechain
1	X	498	C	Sidechain
1	X	510	G	Sidechain
1	X	518	A	Sidechain
1	X	530	G	Sidechain
1	X	531	G	Sidechain
1	X	538	A	Sidechain
1	X	540	G	Sidechain
1	X	557	U	Sidechain
1	X	566	U	Sidechain
1	X	568	G	Sidechain
1	X	580	A	Sidechain
1	X	59	G	Sidechain
1	X	596	C	Sidechain
1	X	600	G	Sidechain
1	X	617	U	Sidechain
1	X	631	G	Sidechain
1	X	632	A	Sidechain
1	X	637	G	Sidechain
1	X	666	U	Sidechain
1	X	683	A	Sidechain
1	X	685	U	Sidechain
1	X	712	A	Sidechain
1	X	744	C	Sidechain
1	X	767	G	Sidechain
1	X	780	U	Sidechain
1	X	801	A	Sidechain
1	X	804	C	Sidechain
1	X	805	G	Sidechain
1	X	807	A	Sidechain
1	X	813	A	Sidechain
1	X	814	G	Sidechain
1	X	815	A	Sidechain

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	Group
1	X	824	U	Sidechain
1	X	831	G	Sidechain
1	X	839	U	Sidechain
1	X	873	U	Sidechain
1	X	890	U	Sidechain
1	X	924	C	Sidechain
1	X	951	G	Sidechain
1	X	956	A	Sidechain
1	X	958	G	Sidechain
1	X	968	C	Sidechain
1	X	978	U	Sidechain
1	X	989	G	Sidechain
1	X	991	A	Sidechain
1	X	993	C	Sidechain
1	X	998	C	Sidechain
2	Y	111	C	Sidechain
2	Y	17	A	Sidechain
2	Y	4	C	Sidechain
2	Y	89	G	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	X	57651	0	29047	3656	0
2	Y	2598	0	1328	160	0
3	A	1826	0	1885	387	0
4	B	1539	0	1600	265	0
5	C	1506	0	1525	369	0
6	D	1400	0	1481	377	0
7	E	1286	0	1336	242	0
8	F	503	0	520	94	0
9	G	1114	0	1144	264	0
10	H	997	0	1046	152	0
11	I	1067	0	1103	273	0
12	J	1090	0	1125	254	0
13	K	878	0	930	120	0
14	L	779	0	820	236	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
15	M	871	0	894	198	0
16	N	978	0	1020	216	0
17	O	741	0	756	192	0
18	P	1014	0	1096	152	0
19	Q	726	0	753	183	0
20	R	825	0	881	263	0
21	S	1345	0	1372	294	0
22	T	625	0	655	97	0
23	U	552	0	604	201	0
24	V	533	0	558	107	0
25	W	424	0	470	67	0
26	Z	457	0	464	67	0
27	1	53	0	0	0	0
28	2	46	0	0	0	0
29	3	63	0	0	3	0
30	4	297	0	330	68	0
31	X	30	0	0	0	0
31	Y	5	0	0	0	0
All	All	83819	0	54743	8176	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 59.

All (8176) 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:X:135:U:H2'	1:X:136:A:C8	1.59	1.37
1:X:2195:C:C5	1:X:2196:U:C5	2.22	1.28
1:X:623:G:N2	1:X:626:A:C2	2.01	1.26
1:X:1053:G:H2'	1:X:1054:C:C6	1.71	1.25
1:X:333:A:H3'	5:C:162:ARG:NH2	1.49	1.24
1:X:2409:A:H3'	1:X:2409:A:N3	1.50	1.24
1:X:1188:A:H8	1:X:1188:A:O5'	1.21	1.22
1:X:2736:U:O2'	1:X:2737:A:H5''	1.39	1.21
1:X:1075:C:C5'	8:F:87:GLY:HA3	1.69	1.21
1:X:1186:G:H2'	1:X:1187:A:N3	1.56	1.20
1:X:82:G:N2	1:X:100:G:H2'	1.58	1.18
1:X:2196:U:H2'	1:X:2197:U:C6	1.77	1.18
4:B:38:THR:HG22	4:B:40:GLN:H	1.02	1.17
12:J:78:LYS:HE2	12:J:81:GLU:HA	1.22	1.16
13:K:79:VAL:HA	13:K:83:VAL:HG13	1.19	1.16

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:150:VAL:HG21	4:B:154:LYS:HE2	1.17	1.16
1:X:1508:G:H5'	1:X:1509:A:H5''	1.19	1.15
1:X:2417:U:O2'	1:X:2418:A:H5''	1.45	1.15
1:X:999:A:H5''	25:W:8:SER:HB2	1.26	1.15
23:U:48:LYS:HG2	23:U:49:LYS:H	1.03	1.15
4:B:116:VAL:N	4:B:136:ARG:HE	1.44	1.15
1:X:623:G:N2	1:X:626:A:H2	1.35	1.15
20:R:59:LYS:HD2	20:R:62:MET:HG3	1.29	1.14
1:X:135:U:H5''	1:X:136:A:OP1	1.43	1.14
1:X:98:U:H4'	1:X:99:U:O5'	1.43	1.14
21:S:113:VAL:HA	21:S:171:VAL:HA	1.24	1.14
1:X:135:U:C2'	1:X:136:A:C8	2.31	1.14
1:X:2323:U:H2'	1:X:2323:U:O2	1.45	1.14
3:A:183:ARG:HB3	3:A:183:ARG:HH11	1.05	1.13
6:D:122:PHE:HB3	6:D:129:ASN:HD22	1.03	1.13
20:R:108:VAL:HG12	20:R:109:ALA:H	1.08	1.13
9:G:55:ALA:HB1	9:G:134:MET:HE1	1.22	1.13
1:X:729:A:H2'	1:X:730:C:O4'	1.48	1.13
8:F:112:MET:HG3	8:F:113:PRO:HD3	1.23	1.12
1:X:2194:A:H3'	1:X:2195:C:H5''	1.30	1.12
9:G:61:ARG:NE	9:G:65:LYS:HD2	1.63	1.12
1:X:1854:G:H2'	1:X:1855:G:OP2	1.39	1.12
23:U:32:ARG:NE	23:U:32:ARG:H	1.48	1.12
1:X:135:U:H2'	1:X:136:A:N9	1.65	1.12
7:E:98:LEU:HD12	7:E:99:THR:N	1.63	1.12
1:X:2795:A:H4'	13:K:5:LYS:HE3	1.27	1.12
1:X:98:U:H1'	1:X:100:G:C8	1.84	1.11
10:H:116:ARG:HD2	15:M:38:LYS:HE2	1.28	1.11
12:J:42:TRP:HB3	12:J:95:VAL:HG11	1.33	1.11
21:S:104:SER:HA	21:S:139:THR:HA	1.31	1.11
6:D:12:VAL:HG12	6:D:16:LEU:HD11	1.32	1.10
1:X:1128:G:H3'	1:X:1129:A:H5''	1.19	1.10
1:X:136:A:C5	1:X:137:A:C5	2.39	1.10
1:X:537:C:H1'	1:X:538:A:C6	1.87	1.10
1:X:2581:A:H3'	1:X:2582:G:H5''	1.30	1.10
1:X:128:C:H2'	1:X:129:A:H5''	1.24	1.10
1:X:333:A:H3'	5:C:162:ARG:CZ	1.80	1.10
14:L:15:ARG:HD2	14:L:91:ARG:HH11	1.14	1.10
1:X:558:G:N3	1:X:558:G:H3'	1.67	1.10
19:Q:51:ILE:HD11	19:Q:83:ALA:HA	1.28	1.10
1:X:1466:C:H2'	1:X:1467:U:O4'	1.51	1.09

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2170:C:H3'	1:X:2171:U:H5''	1.34	1.09
3:A:252:LYS:H	3:A:252:LYS:HE3	1.16	1.09
1:X:1075:C:H5''	8:F:87:GLY:HA3	1.27	1.09
1:X:635:C:H2'	1:X:636:G:H5''	1.34	1.09
4:B:14:ILE:HG12	15:M:20:HIS:HD2	1.16	1.09
1:X:1711:C:H4'	1:X:1712:G:H5''	1.19	1.09
1:X:304:A:H2'	1:X:305:A:H5''	1.31	1.09
21:S:10:PRO:HG2	21:S:14:LEU:HD11	1.35	1.09
1:X:104:C:H2'	1:X:105:G:H5''	1.30	1.09
26:Z:4:HIS:HB3	26:Z:5:PRO:CD	1.81	1.09
1:X:542:A:C2	1:X:2004:U:H2'	1.87	1.08
6:D:70:ALA:HB3	6:D:83:MET:H	1.15	1.08
1:X:1188:A:O5'	1:X:1188:A:C8	2.03	1.08
15:M:99:VAL:HG22	15:M:100:ARG:H	0.98	1.08
7:E:58:ALA:H	7:E:62:ARG:HG3	1.14	1.08
1:X:1052:C:C3'	1:X:1053:G:H5''	1.83	1.08
4:B:116:VAL:H	4:B:136:ARG:NE	1.52	1.07
14:L:40:ALA:HB2	14:L:103:LEU:HD11	1.32	1.07
10:H:23:ARG:CB	10:H:23:ARG:HH21	1.66	1.07
1:X:664:C:H2'	1:X:665:A:C2	1.89	1.07
15:M:28:ARG:HB2	15:M:29:PRO:HD3	1.32	1.07
11:I:76:LYS:HG3	11:I:111:SER:HB2	1.37	1.07
1:X:687:G:C2'	1:X:688:A:H5'	1.85	1.07
9:G:33:ILE:HB	9:G:34:PRO:CD	1.85	1.06
1:X:2781:G:H2'	1:X:2782:G:H5''	1.37	1.06
5:C:148:VAL:HB	5:C:167:VAL:HG12	1.30	1.06
3:A:43:ARG:HH11	3:A:43:ARG:N	1.52	1.06
10:H:23:ARG:HB3	10:H:23:ARG:HH21	0.96	1.06
15:M:79:ARG:HH11	15:M:79:ARG:HG3	1.09	1.06
4:B:136:ARG:HG2	4:B:137:ARG:H	1.18	1.05
14:L:33:ARG:CZ	14:L:103:LEU:HB2	1.85	1.05
1:X:1018:C:H3'	1:X:1019:U:C5'	1.86	1.05
1:X:2357:A:H4'	14:L:26:ARG:NH1	1.69	1.05
13:K:3:HIS:ND1	13:K:5:LYS:HD2	1.69	1.05
1:X:2807:U:H5'	1:X:2807:U:H6	1.20	1.05
12:J:15:ARG:HD3	12:J:73:LYS:NZ	1.71	1.04
1:X:2194:A:H2'	1:X:2195:C:O4'	1.56	1.04
14:L:33:ARG:HH11	14:L:100:VAL:HA	1.21	1.04
24:V:50:VAL:HA	24:V:53:LEU:HD12	1.37	1.04
21:S:97:PRO:HA	21:S:119:ASN:HA	1.37	1.04
1:X:2617:G:HO2'	1:X:2618:A:H8	1.05	1.04

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2194:A:C3'	1:X:2195:C:H5''	1.87	1.04
9:G:88:VAL:HG22	9:G:89:ALA:H	1.15	1.04
1:X:1052:C:C2'	1:X:1053:G:H5''	1.88	1.03
1:X:2496:C:O2'	1:X:2497:A:H3'	1.58	1.03
1:X:1056:U:O2	1:X:1056:U:C2'	2.02	1.03
12:J:34:GLY:HA2	12:J:106:GLU:HA	1.40	1.03
25:W:2:LYS:HB3	25:W:54:GLN:HB3	1.40	1.03
1:X:1053:G:H2'	1:X:1054:C:H6	1.02	1.03
9:G:103:TYR:HB3	9:G:107:GLN:HE21	1.22	1.03
21:S:4:THR:HB	21:S:57:GLU:HB2	1.32	1.03
13:K:100:VAL:HG12	13:K:101:GLY:H	0.90	1.03
1:X:2195:C:C4	1:X:2196:U:C4	2.45	1.03
1:X:1057:A:N3	1:X:1057:A:H2'	1.69	1.03
23:U:51:ILE:HG12	23:U:59:THR:HG22	1.37	1.03
3:A:67:PHE:HB3	3:A:153:ALA:H	1.24	1.03
15:M:33:VAL:HG22	15:M:51:GLU:HB2	1.40	1.03
1:X:100:G:H4'	1:X:101:A:OP2	1.57	1.03
1:X:2198:U:H2'	1:X:2199:C:O4'	1.58	1.02
1:X:1550:C:H2'	1:X:1553:G:N2	1.73	1.02
12:J:62:GLY:HA3	12:J:64:LYS:HE3	1.40	1.02
1:X:198:A:H5''	1:X:199:A:C5'	1.88	1.02
9:G:132:PHE:CZ	9:G:145:HIS:HB2	1.95	1.02
1:X:2617:G:P	4:B:82:ARG:HH22	1.81	1.02
1:X:1386:A:H5''	1:X:2191:A:N6	1.73	1.02
1:X:347:C:H4'	20:R:15:HIS:CD2	1.95	1.02
9:G:110:LEU:N	9:G:110:LEU:HD23	1.75	1.02
2:Y:43:G:H5'	2:Y:44:C:H5'	1.41	1.02
1:X:2332:G:H1'	22:T:34:GLY:HA3	1.38	1.02
14:L:55:SER:O	14:L:71:VAL:HB	1.59	1.01
1:X:623:G:H3'	1:X:624:A:H5''	1.43	1.01
6:D:150:ARG:HG2	6:D:151:GLY:H	1.18	1.01
12:J:15:ARG:HD3	12:J:73:LYS:HZ2	1.24	1.01
19:Q:12:ILE:HG12	19:Q:13:SER:H	1.23	1.01
5:C:48:ARG:HB2	5:C:51:VAL:HG22	1.41	1.01
1:X:1052:C:H3'	1:X:1053:G:H5''	1.39	1.01
1:X:134:G:N2	1:X:136:A:H5''	1.74	1.01
1:X:98:U:H4'	1:X:99:U:C5'	1.90	1.01
13:K:100:VAL:HG12	13:K:101:GLY:N	1.68	1.01
11:I:94:GLU:HA	11:I:97:ARG:NE	1.75	1.01
1:X:2447:G:O2'	1:X:2448:A:H5'	1.61	1.01
1:X:2769:C:H2'	1:X:2770:A:H8	1.24	1.01

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:127:PRO:HA	21:S:130:ILE:HD11	1.38	1.00
1:X:517:A:H5''	1:X:518:A:H5'	1.39	1.00
17:O:65:ARG:HG2	17:O:87:ARG:HD2	1.43	1.00
23:U:29:GLY:C	23:U:31:GLY:H	1.59	1.00
21:S:117:VAL:HG22	21:S:168:VAL:HA	1.42	1.00
8:F:104:VAL:HA	8:F:107:ILE:HD12	1.39	1.00
1:X:198:A:C5'	1:X:199:A:H5'	1.90	1.00
1:X:135:U:H2'	1:X:136:A:C4	1.96	1.00
23:U:41:VAL:HG23	23:U:42:GLN:H	1.27	1.00
17:O:5:ILE:HD11	17:O:8:GLY:O	1.62	1.00
1:X:667:U:H3'	1:X:667:U:C6	1.94	1.00
1:X:1107:A:H3'	1:X:1108:U:H5''	1.42	0.99
21:S:122:ILE:HG22	21:S:160:LEU:HD23	1.43	0.99
17:O:57:GLN:H	17:O:97:GLY:HA3	1.27	0.99
1:X:2769:C:H2'	1:X:2770:A:C8	1.98	0.99
2:Y:59:A:H1'	6:D:27:ALA:HB2	1.44	0.99
10:H:13:ASN:ND2	10:H:109:ARG:HG2	1.77	0.99
9:G:100:TYR:HB2	9:G:116:ARG:NH1	1.76	0.99
2:Y:16:U:H1'	2:Y:109:G:H21	1.27	0.99
7:E:57:ASP:HB3	7:E:62:ARG:HE	1.21	0.99
1:X:317:U:H2'	1:X:318:G:H5''	1.44	0.99
17:O:57:GLN:H	17:O:97:GLY:CA	1.75	0.99
1:X:104:C:C2'	1:X:105:G:H5''	1.93	0.99
1:X:1850:G:N2	1:X:1867:A:N7	2.08	0.99
11:I:108:LEU:HB2	11:I:122:VAL:HG11	1.44	0.98
11:I:45:LYS:HE2	11:I:47:ALA:HB3	1.41	0.98
1:X:663:G:H3'	1:X:664:C:H5''	1.43	0.98
13:K:13:ASN:HD21	13:K:16:ALA:H	1.00	0.98
1:X:1978:U:H3'	1:X:1979:C:H5''	1.42	0.98
6:D:29:PRO:HG2	6:D:165:GLU:HB3	1.46	0.98
1:X:1919:A:H2	1:X:1926:U:N3	1.62	0.98
1:X:731:A:H2'	1:X:732:G:O4'	1.63	0.98
17:O:36:LYS:HZ2	17:O:54:TYR:HB3	1.28	0.98
1:X:663:G:C3'	1:X:664:C:H5''	1.93	0.98
1:X:2083:G:H1	1:X:2172:U:H3	1.10	0.98
19:Q:10:PRO:HA	19:Q:27:PHE:HB3	1.45	0.98
10:H:83:ARG:HH11	15:M:40:ARG:NE	1.61	0.98
1:X:1075:C:H5''	8:F:87:GLY:CA	1.94	0.98
1:X:34:U:HO2'	20:R:4:PRO:N	1.61	0.98
26:Z:51:TYR:CE1	26:Z:55:ARG:HB2	1.99	0.98
6:D:13:ARG:NH1	6:D:14:PRO:HG3	1.79	0.97

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:23:ARG:HB3	10:H:23:ARG:NH2	1.78	0.97
4:B:31:CYS:HB3	4:B:49:ILE:HG12	1.45	0.97
9:G:104:THR:OG1	9:G:110:LEU:HB3	1.63	0.97
5:C:28:HIS:CE1	11:I:21:ARG:HH11	1.82	0.97
1:X:666:U:H2'	1:X:667:U:O4'	1.65	0.97
4:B:14:ILE:HG12	15:M:20:HIS:CD2	1.98	0.97
12:J:44:LYS:HB2	12:J:47:GLN:HG3	1.45	0.97
1:X:2075:U:O2'	1:X:2076:G:H5''	1.64	0.97
7:E:87:LEU:HB2	7:E:131:ILE:HB	1.46	0.96
13:K:98:LEU:HD21	26:Z:56:GLN:HG2	1.47	0.96
1:X:136:A:C6	1:X:137:A:C5	2.52	0.96
1:X:1056:U:H2'	1:X:1056:U:O2	1.17	0.96
25:W:4:LYS:CG	25:W:52:GLU:HB3	1.95	0.96
30:4:19:ARG:NH1	30:4:24:LEU:HD22	1.78	0.96
16:N:93:LYS:HD3	17:O:5:ILE:HG22	1.44	0.96
23:U:32:ARG:N	23:U:32:ARG:HE	1.63	0.96
16:N:72:HIS:HD2	16:N:110:VAL:HG21	1.30	0.96
24:V:7:ARG:HD2	24:V:8:ASN:N	1.80	0.96
1:X:2261:G:H4'	1:X:2262:C:OP2	1.64	0.96
6:D:13:ARG:HB3	6:D:14:PRO:HD3	1.45	0.96
19:Q:62:ARG:HH12	19:Q:73:ASN:ND2	1.63	0.96
1:X:2563:U:H2'	1:X:2564:U:H5''	1.46	0.96
6:D:4:LEU:HD12	6:D:5:LYS:H	1.30	0.96
1:X:623:G:C2	1:X:626:A:H2	1.84	0.96
1:X:666:U:H3'	1:X:667:U:H5''	1.48	0.96
1:X:1128:G:H3'	1:X:1129:A:C5'	1.92	0.96
1:X:1854:G:O2'	1:X:1855:G:H5'	1.66	0.96
16:N:7:GLY:O	16:N:8:ILE:HG13	1.65	0.96
4:B:38:THR:HG22	4:B:40:GLN:N	1.81	0.95
12:J:12:LYS:O	12:J:13:GLN:HB2	1.66	0.95
1:X:109:A:H2'	1:X:110:U:H5''	1.46	0.95
21:S:103:ARG:HD3	21:S:108:VAL:HG23	1.47	0.95
6:D:35:VAL:HG23	6:D:155:THR:HB	1.48	0.95
1:X:1052:C:H3'	1:X:1053:G:C5'	1.95	0.95
14:L:33:ARG:HG3	14:L:38:ILE:HB	1.46	0.95
1:X:2484:G:O2'	1:X:2485:U:H5'	1.65	0.95
1:X:1507:A:O4'	3:A:99:ASP:HB3	1.67	0.95
1:X:1075:C:H5'	8:F:87:GLY:HA3	1.47	0.95
23:U:51:ILE:HG23	23:U:59:THR:HA	1.45	0.95
1:X:687:G:H2'	1:X:688:A:H5'	1.45	0.95
1:X:1173:G:H4'	17:O:22:VAL:HG22	1.48	0.95

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:38:LYS:HB3	15:M:46:ARG:HB3	1.48	0.95
1:X:1698:C:O2'	1:X:1753:A:H2'	1.67	0.95
18:P:27:VAL:HG23	18:P:125:THR:HG22	1.47	0.95
15:M:79:ARG:NH1	15:M:79:ARG:HG3	1.77	0.95
1:X:1854:G:C2'	1:X:1855:G:OP2	2.10	0.94
2:Y:30:C:OP1	14:L:37:HIS:HB3	1.67	0.94
5:C:3:GLN:HE22	5:C:4:ILE:HG12	1.30	0.94
4:B:131:SER:O	4:B:132:LYS:HG2	1.66	0.94
1:X:623:G:C2	1:X:626:A:C2	2.54	0.94
13:K:98:LEU:CD2	26:Z:56:GLN:HG2	1.96	0.94
1:X:2043:A:H62	5:C:68:ARG:HH12	0.97	0.94
4:B:136:ARG:HG2	4:B:137:ARG:N	1.83	0.94
1:X:2404:A:H4'	1:X:2405:A:C5'	1.95	0.94
1:X:136:A:N6	1:X:137:A:C6	2.36	0.94
1:X:84:G:OP2	20:R:39:ALA:HB3	1.66	0.94
15:M:99:VAL:HG22	15:M:100:ARG:N	1.74	0.94
11:I:86:THR:H	11:I:116:ARG:NH1	1.65	0.94
25:W:4:LYS:HG3	25:W:52:GLU:HB3	1.49	0.94
3:A:270:ILE:HG13	3:A:271:VAL:H	1.30	0.94
1:X:2291:U:OP1	6:D:71:LYS:HB2	1.67	0.94
23:U:31:GLY:HA2	23:U:32:ARG:NH1	1.83	0.94
1:X:95:G:H4'	24:V:41:HIS:ND1	1.82	0.94
1:X:1052:C:H2'	1:X:1053:G:H5''	1.47	0.94
14:L:10:LYS:O	14:L:14:ARG:HG3	1.68	0.94
1:X:2516:U:H2'	1:X:2517:C:C6	2.02	0.94
17:O:10:LYS:HG3	17:O:11:GLN:HG2	1.47	0.94
7:E:98:LEU:HD12	7:E:99:THR:H	1.26	0.94
1:X:3:U:H2'	1:X:4:C:C6	2.03	0.94
2:Y:43:G:H5''	6:D:66:ILE:HD11	1.49	0.93
11:I:76:LYS:HE3	11:I:111:SER:HB3	1.49	0.93
19:Q:61:LYS:H	19:Q:72:ARG:HA	1.31	0.93
1:X:1314:A:O2'	1:X:1315:A:H3'	1.69	0.93
13:K:79:VAL:HA	13:K:83:VAL:CG1	1.98	0.93
14:L:38:ILE:HD12	14:L:39:TYR:H	1.34	0.93
1:X:2712:G:H3'	1:X:2713:A:H5'	1.50	0.93
4:B:150:VAL:HG21	4:B:154:LYS:CE	1.99	0.93
15:M:34:ARG:NH2	15:M:88:VAL:HG11	1.84	0.93
1:X:1631:C:H1'	18:P:108:PRO:HG2	1.48	0.93
16:N:82:GLY:HA3	16:N:113:SER:OG	1.67	0.93
6:D:122:PHE:HB3	6:D:129:ASN:ND2	1.83	0.93
5:C:7:ILE:O	5:C:120:VAL:HB	1.68	0.93

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:64:ALA:HA	21:S:85:MET:HA	1.47	0.93
1:X:1542:G:N2	1:X:1562:G:H1	1.66	0.93
11:I:30:ALA:HB3	11:I:34:HIS:CE1	2.03	0.93
1:X:101:A:OP1	1:X:101:A:H8	1.50	0.93
1:X:558:G:C4	1:X:558:G:H3'	1.98	0.93
10:H:23:ARG:HH12	10:H:25:LEU:HA	1.32	0.93
1:X:2043:A:N6	5:C:68:ARG:HH12	1.66	0.93
6:D:171:GLN:HA	6:D:175:LEU:HB3	1.51	0.93
1:X:1885:C:H5'	3:A:244:ARG:HD2	1.50	0.93
1:X:82:G:C2	1:X:100:G:H2'	2.04	0.92
1:X:2592:U:O2'	1:X:2592:U:O2	1.84	0.92
1:X:969:U:H5''	12:J:17:ARG:NH1	1.84	0.92
1:X:1166:A:H5''	16:N:55:ARG:HD3	1.50	0.92
6:D:74:ILE:HG23	6:D:80:ARG:HA	1.48	0.92
21:S:122:ILE:HA	21:S:161:ALA:H	1.33	0.92
1:X:516:G:O2'	1:X:517:A:H8	1.53	0.92
1:X:1448:A:H61	1:X:1574:A:H61	1.09	0.92
1:X:1850:G:O2'	1:X:1851:A:H8	1.52	0.92
6:D:111:ILE:HB	6:D:114:PHE:HB2	1.51	0.92
4:B:116:VAL:HG22	4:B:136:ARG:CZ	1.99	0.92
1:X:558:G:N3	1:X:558:G:C5'	2.33	0.92
1:X:2691:C:HO2'	1:X:2692:A:H8	0.93	0.92
9:G:116:ARG:HD2	9:G:119:LEU:HD12	1.51	0.92
30:4:1:MET:HE2	30:4:1:MET:HA	1.52	0.92
20:R:18:LYS:HE2	20:R:19:GLY:N	1.85	0.92
24:V:1:MET:HG3	24:V:2:LYS:HG2	1.51	0.92
11:I:9:THR:O	11:I:13:ARG:HD2	1.70	0.92
20:R:90:LYS:HB2	20:R:108:VAL:HG21	1.51	0.92
23:U:48:LYS:HG2	23:U:49:LYS:N	1.83	0.92
16:N:66:ASN:HB2	16:N:70:ARG:HH12	1.34	0.92
8:F:98:LYS:HB2	8:F:137:THR:OG1	1.70	0.92
1:X:2795:A:C4'	13:K:5:LYS:HE3	1.98	0.92
15:M:99:VAL:CG2	15:M:100:ARG:H	1.83	0.92
1:X:2498:U:H4'	1:X:2499:C:OP1	1.69	0.91
6:D:167:ARG:HA	6:D:170:LEU:HD12	1.51	0.91
1:X:1128:G:C3'	1:X:1129:A:H5''	2.00	0.91
21:S:18:MET:HA	21:S:36:ARG:H	1.34	0.91
1:X:624:A:H4'	1:X:626:A:N6	1.84	0.91
1:X:1053:G:C2'	1:X:1054:C:H6	1.83	0.91
1:X:1095:A:H2'	1:X:1096:A:H5''	1.50	0.91
7:E:50:LEU:HD23	7:E:51:LEU:H	1.34	0.91

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1849:G:N3	1:X:1868:A:N6	2.19	0.91
20:R:108:VAL:HG12	20:R:109:ALA:N	1.85	0.91
1:X:347:C:H4'	20:R:15:HIS:HD2	1.32	0.91
3:A:44:ASN:HB3	3:A:49:ILE:HA	1.52	0.91
5:C:7:ILE:HG21	5:C:121:ASP:O	1.71	0.91
1:X:1118:G:H2'	1:X:1119:U:H5'	1.51	0.91
1:X:693:A:H2'	1:X:694:G:H8	1.36	0.91
20:R:23:ILE:HD12	20:R:23:ILE:H	1.34	0.91
14:L:33:ARG:NH1	14:L:103:LEU:HB2	1.85	0.91
11:I:18:ARG:HB2	11:I:21:ARG:HD3	1.52	0.91
23:U:62:LEU:HD23	23:U:67:LEU:HD12	1.51	0.91
1:X:333:A:H5''	5:C:162:ARG:NH1	1.85	0.90
1:X:1091:C:H1'	8:F:126:THR:HA	1.51	0.90
16:N:66:ASN:ND2	16:N:70:ARG:HH12	1.69	0.90
5:C:5:ASN:HA	5:C:118:VAL:HG21	1.52	0.90
1:X:242:A:H61	1:X:440:U:H2'	1.35	0.90
20:R:107:ALA:HB1	20:R:111:GLY:HA2	1.50	0.90
12:J:125:LYS:HZ2	12:J:125:LYS:HB3	1.34	0.90
26:Z:4:HIS:HB3	26:Z:5:PRO:HD3	1.53	0.90
7:E:30:LYS:HG2	7:E:79:VAL:O	1.71	0.90
10:H:116:ARG:HH22	15:M:41:GLU:HG2	1.34	0.90
3:A:252:LYS:N	3:A:252:LYS:HE3	1.85	0.90
8:F:99:LEU:HB2	8:F:103:GLN:NE2	1.86	0.90
8:F:121:GLU:HA	8:F:124:ALA:HB3	1.50	0.90
1:X:652:C:H42	1:X:657:A:H61	0.94	0.90
24:V:42:ARG:NH1	24:V:45:GLN:HE22	1.69	0.90
1:X:2288:A:H2'	1:X:2289:A:H8	1.34	0.90
1:X:1354:A:HO2'	19:Q:54:SER:HB2	1.37	0.90
1:X:1428:G:H22	1:X:1602:G:C5'	1.85	0.90
5:C:95:LEU:HD23	5:C:96:PRO:HD2	1.51	0.90
1:X:84:G:OP2	20:R:18:LYS:HB3	1.71	0.90
1:X:1142:G:H4'	9:G:103:TYR:CE2	2.07	0.90
1:X:2326:C:H2'	1:X:2327:U:C6	2.06	0.90
6:D:108:LEU:HD11	6:D:117:ILE:HD11	1.54	0.90
5:C:176:ASN:HD21	5:C:178:TYR:HB3	1.35	0.90
21:S:95:SER:HB3	21:S:119:ASN:HD21	1.35	0.90
1:X:954:U:OP2	11:I:38:LYS:NZ	2.05	0.90
18:P:87:GLU:HG3	18:P:88:ASP:OD2	1.72	0.90
16:N:66:ASN:HB2	16:N:70:ARG:NH1	1.87	0.90
30:4:25:VAL:HB	30:4:34:GLN:HB2	1.53	0.90
23:U:14:VAL:HB	23:U:47:HIS:NE2	1.87	0.90

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:460:U:O4	1:X:592:G:H1'	1.72	0.90
1:X:143:A:H2'	1:X:144:U:C6	2.06	0.90
1:X:136:A:C5	1:X:137:A:N7	2.39	0.89
21:S:91:PRO:HD3	21:S:127:PRO:HD3	1.52	0.89
13:K:13:ASN:ND2	13:K:16:ALA:H	1.70	0.89
26:Z:12:SER:HB2	26:Z:15:LYS:H	1.35	0.89
1:X:136:A:C4	1:X:137:A:C8	2.60	0.89
23:U:49:LYS:HB2	23:U:61:TRP:HA	1.54	0.89
1:X:1816:G:O2'	3:A:252:LYS:HG2	1.72	0.89
3:A:147:LEU:HD21	3:A:155:LEU:HD11	1.53	0.89
14:L:38:ILE:HD11	14:L:40:ALA:H	1.37	0.89
5:C:47:THR:HG23	5:C:85:GLY:H	1.36	0.89
4:B:9:ILE:HD11	4:B:27:LEU:HB2	1.55	0.89
12:J:36:ILE:HD12	12:J:133:VAL:HG11	1.52	0.89
1:X:667:U:H3'	1:X:667:U:H6	1.38	0.89
3:A:271:VAL:HG12	3:A:272:THR:HG23	1.53	0.89
7:E:84:THR:HA	7:E:134:SER:HA	1.55	0.89
23:U:27:ASP:HA	23:U:32:ARG:NH2	1.88	0.89
1:X:1573:G:H3'	1:X:1574:A:H5''	1.51	0.89
12:J:28:VAL:H	12:J:137:VAL:HG21	1.36	0.89
1:X:759:C:H5'	1:X:759:C:H6	1.34	0.89
9:G:61:ARG:HE	9:G:65:LYS:HD2	1.38	0.89
15:M:28:ARG:CB	15:M:29:PRO:HD3	1.93	0.89
1:X:652:C:N4	1:X:657:A:H61	1.71	0.89
18:P:126:ILE:HD12	18:P:127:ILE:N	1.88	0.89
1:X:1859:A:H2'	1:X:1860:A:C8	2.06	0.89
1:X:2306:A:H2'	1:X:2307:A:C8	2.07	0.89
1:X:1141:U:C4	4:B:147:PRO:HD3	2.08	0.89
1:X:538:A:N3	1:X:538:A:H3'	1.87	0.89
1:X:1018:C:H3'	1:X:1019:U:H5''	1.52	0.89
1:X:623:G:C3'	1:X:624:A:H5''	2.03	0.89
14:L:38:ILE:CD1	14:L:39:TYR:H	1.86	0.89
6:D:5:LYS:O	6:D:8:TYR:HB3	1.71	0.89
15:M:26:ASP:OD1	15:M:27:PHE:N	2.06	0.89
1:X:198:A:H5''	1:X:199:A:H5'	0.95	0.89
20:R:98:ILE:HG22	20:R:99:VAL:H	1.35	0.89
1:X:1770:U:H5	1:X:1775:A:N7	1.70	0.89
1:X:2195:C:C6	1:X:2196:U:C6	2.61	0.89
1:X:758:G:H2'	1:X:759:C:H5''	1.52	0.89
6:D:79:LEU:HA	6:D:80:ARG:CZ	2.03	0.89
1:X:2824:C:OP1	15:M:100:ARG:NH1	2.05	0.89

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:48:ARG:H	5:C:48:ARG:HD2	1.38	0.89
4:B:192:ASN:HD22	15:M:9:ARG:HH12	1.16	0.89
1:X:1441:A:H1'	1:X:1442:C:C5	2.06	0.89
1:X:1275:A:C2	26:Z:10:LYS:HE2	2.07	0.89
1:X:543:G:H5'	16:N:24:PHE:CE1	2.07	0.89
20:R:15:HIS:HD1	20:R:16:PHE:HD2	1.15	0.88
10:H:23:ARG:NH1	10:H:25:LEU:HA	1.88	0.88
9:G:116:ARG:HE	9:G:126:VAL:HG13	1.38	0.88
1:X:788:G:H5'	1:X:790:A:H1'	1.55	0.88
4:B:154:LYS:HE3	4:B:156:MET:SD	2.13	0.88
23:U:31:GLY:HA2	23:U:32:ARG:HH11	1.34	0.88
15:M:46:ARG:HG3	15:M:47:SER:H	1.38	0.88
1:X:516:G:HO2'	1:X:517:A:H8	0.90	0.88
1:X:1218:C:C4'	11:I:13:ARG:HH11	1.87	0.88
20:R:96:LYS:HG3	20:R:97:GLN:H	1.36	0.88
1:X:759:C:H5'	1:X:759:C:C6	2.08	0.88
1:X:2371:A:H2	1:X:2403:C:H42	1.20	0.88
1:X:2043:A:H62	5:C:68:ARG:NH1	1.72	0.88
1:X:514:G:H4'	1:X:515:A:OP2	1.71	0.88
1:X:752:G:H4'	1:X:753:U:OP1	1.73	0.88
4:B:183:LEU:HD21	15:M:16:ILE:HD13	1.54	0.88
8:F:84:ILE:HG12	8:F:96:VAL:CG1	2.03	0.88
1:X:84:G:P	20:R:39:ALA:HB3	2.13	0.88
1:X:2323:U:C2'	1:X:2323:U:O2	2.21	0.88
11:I:104:ARG:HB3	11:I:105:PRO:HD2	1.54	0.88
21:S:154:LEU:HD11	21:S:160:LEU:HG	1.56	0.88
1:X:999:A:C5'	25:W:8:SER:HB2	2.03	0.88
1:X:128:C:C2'	1:X:129:A:H5''	2.04	0.88
14:L:64:LYS:N	14:L:64:LYS:HD3	1.88	0.88
16:N:61:TRP:HZ3	16:N:94:VAL:H	1.15	0.88
11:I:18:ARG:HB2	11:I:21:ARG:HB2	1.56	0.88
9:G:88:VAL:HG22	9:G:89:ALA:N	1.89	0.88
1:X:514:G:N2	18:P:15:LYS:HA	1.89	0.88
14:L:33:ARG:NH2	14:L:103:LEU:HB2	1.88	0.88
4:B:144:ARG:HG2	4:B:145:LYS:H	1.37	0.88
14:L:68:ALA:HB1	14:L:102:ALA:CB	2.04	0.88
17:O:12:TYR:O	17:O:13:ARG:HB2	1.74	0.88
1:X:2672:U:H2'	1:X:2673:G:H8	1.38	0.88
9:G:154:GLU:C	9:G:157:PRO:HD2	1.95	0.88
1:X:1053:G:H1	1:X:1124:U:H3	1.15	0.88
1:X:813:A:H4'	1:X:814:G:O5'	1.73	0.88

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:48:A:H4'	1:X:49:U:O5'	1.72	0.88
4:B:116:VAL:HG22	4:B:136:ARG:NE	1.88	0.87
1:X:2310:G:H4'	22:T:43:THR:H	1.38	0.87
1:X:135:U:H2'	1:X:136:A:C5	2.08	0.87
12:J:64:LYS:HD2	12:J:64:LYS:H	1.36	0.87
18:P:45:ILE:HD11	18:P:57:LEU:HG	1.55	0.87
1:X:1508:G:H5'	1:X:1509:A:C5'	2.03	0.87
15:M:79:ARG:HH11	15:M:79:ARG:CG	1.88	0.87
24:V:41:HIS:HD2	24:V:42:ARG:H	1.22	0.87
10:H:110:VAL:HG23	10:H:129:LEU:HB2	1.54	0.87
1:X:1508:G:C5'	1:X:1509:A:H5''	2.03	0.87
1:X:730:C:H5''	1:X:731:A:OP2	1.75	0.87
10:H:132:GLU:HB2	15:M:73:PHE:HE1	1.39	0.87
3:A:183:ARG:HB3	3:A:183:ARG:NH1	1.90	0.87
1:X:482:A:H2'	1:X:483:A:O4'	1.74	0.87
6:D:74:ILE:HA	6:D:79:LEU:HB3	1.57	0.87
1:X:2823:G:HO2'	1:X:2824:C:H6	0.91	0.87
9:G:100:TYR:HB2	9:G:116:ARG:HH11	1.38	0.87
9:G:148:LEU:HD12	9:G:149:LYS:N	1.88	0.87
16:N:66:ASN:CB	16:N:70:ARG:HH12	1.88	0.87
1:X:1978:U:H5''	1:X:1979:C:C5'	2.04	0.87
6:D:75:SER:HB2	6:D:79:LEU:HD13	1.56	0.87
1:X:2289:A:H2	6:D:79:LEU:HD21	1.37	0.87
19:Q:90:ALA:C	19:Q:92:ALA:H	1.78	0.87
12:J:77:LYS:HG3	12:J:78:LYS:H	1.40	0.86
25:W:45:LYS:HA	25:W:45:LYS:HE3	1.57	0.86
5:C:176:ASN:ND2	5:C:178:TYR:HB3	1.90	0.86
21:S:116:VAL:HG12	21:S:117:VAL:HG13	1.55	0.86
1:X:174:A:H62	1:X:2409:A:H2'	1.39	0.86
12:J:22:ALA:HB2	12:J:100:PRO:O	1.75	0.86
10:H:116:ARG:HH11	15:M:38:LYS:NZ	1.74	0.86
7:E:44:ARG:HH22	7:E:46:ASP:HB2	1.39	0.86
10:H:4:PRO:O	10:H:5:GLN:HB2	1.74	0.86
1:X:82:G:N2	1:X:100:G:C2'	2.38	0.86
3:A:182:LEU:HD12	3:A:269:PHE:CD2	2.11	0.86
6:D:13:ARG:CZ	6:D:14:PRO:HG3	2.05	0.86
19:Q:7:LEU:HD22	19:Q:7:LEU:C	1.96	0.86
13:K:100:VAL:CG1	13:K:101:GLY:H	1.80	0.86
8:F:129:GLY:HA2	8:F:132:ARG:HB3	1.55	0.86
1:X:2781:G:C2'	1:X:2782:G:H5''	2.04	0.86
9:G:164:GLN:O	9:G:165:VAL:HG13	1.76	0.86

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:34:ARG:NH1	15:M:81:PHE:HB3	1.91	0.86
4:B:136:ARG:CG	4:B:137:ARG:H	1.87	0.86
1:X:2699:G:O2'	1:X:2700:U:H5'	1.75	0.86
1:X:1856:U:C2'	1:X:1857:G:O5'	2.24	0.86
1:X:2074:U:H1'	23:U:48:LYS:HE3	1.56	0.86
1:X:1542:G:H22	1:X:1562:G:H1	0.86	0.86
10:H:75:VAL:HG12	10:H:118:LEU:HD21	1.57	0.86
16:N:66:ASN:HB3	16:N:76:TYR:HB2	1.58	0.85
1:X:1427:G:H2'	1:X:1428:G:H1'	1.58	0.85
1:X:1299:A:H2'	1:X:1301:U:OP2	1.76	0.85
11:I:32:ARG:CZ	17:O:81:ARG:NE	2.39	0.85
12:J:78:LYS:HG2	12:J:80:ALA:H	1.41	0.85
1:X:635:C:C2'	1:X:636:G:H5''	2.06	0.85
1:X:1711:C:H4'	1:X:1712:G:C5'	2.06	0.85
12:J:15:ARG:HD2	12:J:73:LYS:HG3	1.58	0.85
1:X:3:U:H2'	1:X:4:C:H6	1.37	0.85
1:X:497:C:H6	1:X:497:C:H5'	1.41	0.85
6:D:75:SER:H	6:D:79:LEU:HD22	1.40	0.85
21:S:3:LEU:HD12	21:S:4:THR:N	1.92	0.85
1:X:2616:U:H5''	4:B:82:ARG:NH2	1.90	0.85
1:X:1067:G:H21	1:X:1114:A:H62	1.23	0.85
21:S:6:LYS:H	21:S:7:PRO:HD3	1.42	0.85
16:N:81:ASN:O	16:N:84:LYS:HB3	1.75	0.85
11:I:45:LYS:HD3	11:I:46:GLY:N	1.91	0.85
1:X:1574:A:H2'	1:X:1575:C:H5''	1.57	0.85
1:X:136:A:C6	1:X:137:A:C4	2.64	0.85
1:X:2170:C:H2'	1:X:2171:U:H4'	1.59	0.85
1:X:857:U:H3'	1:X:858:G:H8	1.38	0.85
21:S:141:MET:HG2	21:S:145:ASP:HB3	1.57	0.85
6:D:60:ILE:HG22	6:D:140:GLU:HB2	1.57	0.85
1:X:2033:C:O2'	4:B:141:ILE:HD11	1.75	0.85
1:X:1095:A:C2'	1:X:1096:A:H5''	2.06	0.85
22:T:14:ARG:HG3	22:T:15:ASP:OD2	1.76	0.85
1:X:135:U:C3'	1:X:136:A:C8	2.60	0.85
20:R:108:VAL:CG1	20:R:109:ALA:H	1.87	0.85
20:R:18:LYS:HA	20:R:36:VAL:CG1	2.07	0.85
21:S:36:ARG:HG2	21:S:40:ASP:OD1	1.74	0.85
5:C:28:HIS:ND1	11:I:17:LYS:HA	1.92	0.85
6:D:106:ILE:HG21	6:D:139:PRO:HB3	1.58	0.85
14:L:85:LYS:HE3	14:L:86:GLN:HE21	1.42	0.85
5:C:139:GLN:HA	5:C:139:GLN:HE21	1.39	0.85

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:116:VAL:HG13	4:B:136:ARG:HH21	1.41	0.84
9:G:34:PRO:HA	9:G:69:ASP:OD2	1.75	0.84
11:I:98:LEU:O	11:I:99:VAL:HG13	1.76	0.84
9:G:155:THR:HG23	9:G:156:HIS:H	1.42	0.84
1:X:914:C:H2'	1:X:915:C:H6	1.39	0.84
3:A:149:PRO:HD3	3:A:186:HIS:NE2	1.92	0.84
20:R:40:LEU:HB2	20:R:45:LYS:HB2	1.58	0.84
3:A:244:ARG:HB3	3:A:252:LYS:HZ1	1.41	0.84
1:X:939:C:H5''	1:X:940:G:O5'	1.77	0.84
1:X:1623:C:H4'	1:X:1624:A:O5'	1.74	0.84
12:J:62:GLY:HA3	12:J:64:LYS:CE	2.07	0.84
1:X:555:U:H6	1:X:555:U:H3'	1.42	0.84
3:A:164:GLN:HE22	3:A:166:GLN:NE2	1.76	0.84
7:E:126:PRO:HG3	7:E:130:ARG:HD3	1.58	0.84
1:X:553:C:H5'	1:X:554:U:OP1	1.76	0.84
16:N:50:ARG:C	16:N:52:ASN:H	1.81	0.84
17:O:38:LEU:HD13	17:O:39:PHE:N	1.93	0.84
1:X:1268:U:C2	5:C:66:ASN:HA	2.13	0.84
30:4:31:LYS:H	30:4:31:LYS:HD2	1.38	0.84
19:Q:69:ILE:CD1	19:Q:70:GLY:H	1.90	0.84
1:X:493:A:H4'	20:R:56:LYS:HE3	1.59	0.84
7:E:43:VAL:HB	7:E:52:VAL:HG13	1.59	0.84
1:X:2177:U:H2'	1:X:2178:U:C6	2.12	0.84
20:R:93:ARG:HH22	20:R:108:VAL:HG13	1.43	0.84
1:X:729:A:H3'	1:X:729:A:N3	1.93	0.84
1:X:1268:U:H2'	5:C:66:ASN:HB3	1.57	0.84
11:I:11:GLY:H	11:I:14:LYS:HB3	1.41	0.84
16:N:101:ARG:O	16:N:103:PRO:HD3	1.78	0.84
6:D:72:LYS:HA	6:D:81:GLN:C	1.97	0.84
1:X:90:G:OP1	1:X:90:G:H4'	1.77	0.84
12:J:37:ALA:HA	12:J:130:THR:HG22	1.60	0.84
1:X:109:A:C2'	1:X:110:U:H5''	2.08	0.84
6:D:108:LEU:CD1	6:D:117:ILE:HD11	2.08	0.84
5:C:164:VAL:O	5:C:166:TRP:N	2.11	0.84
1:X:542:A:N1	1:X:2004:U:H2'	1.93	0.84
14:L:28:ARG:HD2	14:L:90:ASP:CG	1.98	0.84
30:4:29:ASN:HD21	30:4:31:LYS:HD3	1.42	0.84
20:R:97:GLN:HB2	20:R:101:GLY:HA2	1.59	0.83
2:Y:46:G:H5'	6:D:92:ARG:HH12	1.41	0.83
1:X:2320:G:H2'	1:X:2321:C:H6	1.43	0.83
1:X:1467:U:H3'	1:X:1468:A:H5'	1.60	0.83

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2222:U:H2'	1:X:2223:U:C6	2.13	0.83
1:X:1193:G:H2'	1:X:1194:U:H5''	1.57	0.83
9:G:61:ARG:HB3	9:G:61:ARG:HH21	1.42	0.83
22:T:71:ASN:HD21	22:T:74:LYS:HD3	1.43	0.83
19:Q:63:LYS:HB3	19:Q:69:ILE:O	1.78	0.83
1:X:1448:A:N6	1:X:1574:A:H61	1.75	0.83
1:X:1770:U:C5	1:X:1775:A:N7	2.45	0.83
1:X:1186:G:H5''	1:X:1187:A:OP2	1.76	0.83
21:S:3:LEU:HD11	21:S:5:ALA:O	1.78	0.83
3:A:42:GLY:C	3:A:43:ARG:HH11	1.81	0.83
8:F:84:ILE:HG12	8:F:96:VAL:HG11	1.59	0.83
1:X:2195:C:C6	1:X:2196:U:C5	2.66	0.83
1:X:760:U:O2	1:X:1997:A:H1'	1.77	0.83
1:X:1467:U:H3'	1:X:1467:U:H6	1.42	0.83
19:Q:12:ILE:H	19:Q:12:ILE:HD13	1.43	0.83
17:O:26:GLN:HG2	17:O:27:GLY:H	1.43	0.83
1:X:13:A:O2'	1:X:15:G:N7	2.12	0.83
20:R:25:LEU:CD1	20:R:81:VAL:HG23	2.07	0.83
1:X:1675:C:OP1	4:B:134:TRP:NE1	2.12	0.83
1:X:2581:A:H3'	1:X:2582:G:C5'	2.08	0.83
1:X:1539:U:H2'	1:X:1540:C:H6	1.42	0.83
1:X:653:G:H2'	1:X:654:A:H5''	1.60	0.83
1:X:558:G:C8	1:X:559:C:C5	2.66	0.83
6:D:97:TYR:HD2	6:D:100:LEU:HD23	1.43	0.83
1:X:954:U:OP2	11:I:38:LYS:HG2	1.78	0.83
1:X:999:A:H5''	25:W:8:SER:CB	2.08	0.83
7:E:88:GLU:OE2	7:E:90:ARG:HD2	1.78	0.83
1:X:1922:U:HO2'	1:X:2571:G:C1'	1.92	0.83
1:X:1354:A:O2'	19:Q:54:SER:HB2	1.78	0.83
1:X:664:C:H2'	1:X:665:A:H2	1.36	0.83
16:N:50:ARG:O	16:N:52:ASN:N	2.11	0.83
5:C:132:ASN:O	5:C:135:SER:HB3	1.79	0.83
1:X:76:C:H6	1:X:76:C:H5'	1.42	0.83
1:X:693:A:H2'	1:X:694:G:C8	2.13	0.83
22:T:41:ARG:HH11	22:T:41:ARG:HG3	1.44	0.83
1:X:1683:G:O2'	1:X:1684:G:H5'	1.78	0.83
1:X:135:U:H2'	1:X:136:A:N7	1.94	0.83
16:N:8:ILE:HG22	16:N:11:ARG:NH2	1.94	0.83
1:X:623:G:N3	1:X:626:A:C2	2.47	0.82
1:X:1095:A:C3'	1:X:1096:A:H5''	2.09	0.82
1:X:1193:G:C2'	1:X:1194:U:H5''	2.08	0.82

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:56:ARG:HA	5:C:71:ASP:OD2	1.79	0.82
11:I:13:ARG:HG2	11:I:13:ARG:HH21	1.42	0.82
16:N:66:ASN:HD22	16:N:70:ARG:HH22	1.26	0.82
11:I:32:ARG:NH2	17:O:81:ARG:HE	1.76	0.82
1:X:1113:C:H2'	1:X:1114:A:H8	1.43	0.82
20:R:93:ARG:HH22	20:R:108:VAL:CG1	1.91	0.82
6:D:10:ASP:O	6:D:14:PRO:HD2	1.80	0.82
1:X:1468:A:H5''	1:X:1472:C:N4	1.93	0.82
21:S:3:LEU:HD13	21:S:33:ALA:O	1.80	0.82
1:X:2177:U:H2'	1:X:2178:U:H6	1.44	0.82
12:J:81:GLU:HG2	12:J:82:THR:H	1.43	0.82
1:X:2725:C:H1'	7:E:143:GLN:HG2	1.61	0.82
22:T:45:PHE:HA	22:T:77:ARG:HB2	1.62	0.82
1:X:29:U:H4'	16:N:11:ARG:HH22	1.44	0.82
1:X:1223:G:H4'	1:X:1224:A:H5''	1.59	0.82
1:X:1019:U:O2	1:X:1020:A:N7	2.13	0.82
1:X:2343:C:H4'	22:T:56:ASP:OD1	1.77	0.82
1:X:1142:G:H4'	9:G:103:TYR:HE2	1.43	0.82
6:D:79:LEU:HA	6:D:80:ARG:NH1	1.95	0.82
12:J:60:ARG:O	12:J:61:ARG:HG3	1.79	0.82
12:J:28:VAL:HB	12:J:137:VAL:HB	1.58	0.82
7:E:103:LEU:HD21	7:E:131:ILE:HD13	1.61	0.82
2:Y:16:U:C1'	2:Y:109:G:H21	1.92	0.82
15:M:26:ASP:CG	15:M:27:PHE:N	2.32	0.82
1:X:2015:G:H4'	1:X:2016:A:OP1	1.78	0.82
3:A:95:LEU:HD12	3:A:105:ILE:HD12	1.60	0.82
21:S:69:VAL:HG22	21:S:81:VAL:HG13	1.60	0.82
5:C:148:VAL:O	5:C:167:VAL:HA	1.80	0.82
1:X:34:U:H1'	20:R:4:PRO:N	1.95	0.82
1:X:177:U:O2	1:X:178:C:H1'	1.78	0.82
1:X:1186:G:C5'	1:X:1187:A:OP2	2.27	0.82
1:X:1086:C:H3'	1:X:1087:C:H5''	1.61	0.82
20:R:93:ARG:HH12	20:R:108:VAL:C	1.82	0.82
20:R:59:LYS:CD	20:R:62:MET:HG3	2.08	0.82
14:L:63:ASN:HB3	14:L:66:ASP:HB2	1.62	0.82
8:F:84:ILE:CG2	8:F:96:VAL:HG11	2.10	0.82
6:D:65:PRO:HB3	6:D:89:VAL:HG13	1.59	0.81
10:H:116:ARG:HH11	15:M:38:LYS:HZ3	1.22	0.81
1:X:1468:A:O5'	1:X:1468:A:C8	2.32	0.81
1:X:1468:A:O5'	1:X:1468:A:H8	1.63	0.81
5:C:24:SER:HB2	11:I:15:ASP:OD1	1.79	0.81

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:206:LEU:HA	3:A:211:ARG:HD3	1.60	0.81
1:X:862:A:H2'	1:X:863:C:H6	1.44	0.81
18:P:36:ARG:CZ	26:Z:20:ARG:NH1	2.43	0.81
6:D:142:THR:O	6:D:146:VAL:HG13	1.78	0.81
1:X:1069:G:H2'	1:X:1070:G:H5''	1.62	0.81
19:Q:25:TYR:OH	19:Q:87:SER:HA	1.79	0.81
5:C:5:ASN:HB2	5:C:10:ASN:HA	1.59	0.81
30:4:22:ARG:HG2	30:4:22:ARG:HH11	1.45	0.81
11:I:29:THR:HA	11:I:34:HIS:HB2	1.60	0.81
1:X:1501:C:H2'	1:X:1502:G:O4'	1.81	0.81
1:X:82:G:H22	1:X:100:G:H2'	1.44	0.81
17:O:15:SER:HA	17:O:95:ILE:HB	1.62	0.81
17:O:36:LYS:NZ	17:O:54:TYR:HB3	1.94	0.81
1:X:2170:C:H3'	1:X:2171:U:C5'	2.09	0.81
10:H:23:ARG:NH1	10:H:25:LEU:HD23	1.94	0.81
5:C:187:VAL:HG12	5:C:187:VAL:O	1.79	0.81
3:A:43:ARG:H	3:A:43:ARG:HD2	1.44	0.81
1:X:1919:A:H2	1:X:1926:U:H3	1.27	0.81
1:X:555:U:C6	1:X:555:U:H3'	2.16	0.81
1:X:177:U:C5	1:X:225:G:N2	2.48	0.81
23:U:19:ILE:HG22	23:U:42:GLN:HG3	1.62	0.81
14:L:30:SER:O	14:L:31:VAL:HG12	1.80	0.81
19:Q:68:PHE:O	19:Q:69:ILE:HD12	1.80	0.81
1:X:1252:C:O2'	1:X:1253:C:H5''	1.81	0.81
1:X:1051:U:H2'	1:X:1052:C:C6	2.15	0.81
12:J:44:LYS:HB2	12:J:47:GLN:CG	2.10	0.81
6:D:46:ASP:C	6:D:48:LYS:H	1.82	0.81
1:X:559:C:H2'	1:X:560:G:O4'	1.80	0.81
19:Q:38:ILE:O	19:Q:42:ILE:HG22	1.80	0.81
1:X:2653:A:O2'	10:H:41:ASN:ND2	2.13	0.81
6:D:106:ILE:O	6:D:110:ARG:HB2	1.81	0.81
1:X:2326:C:H2'	1:X:2327:U:H6	1.44	0.81
1:X:947:C:H2'	1:X:948:C:C6	2.16	0.81
2:Y:12:C:H2'	2:Y:13:C:O4'	1.79	0.81
1:X:2394:G:H3'	11:I:63:ARG:HH11	1.44	0.81
6:D:35:VAL:HG13	6:D:90:THR:HA	1.62	0.81
5:C:3:GLN:NE2	5:C:4:ILE:HG12	1.95	0.81
24:V:4:SER:HB3	24:V:7:ARG:HH21	1.44	0.81
1:X:1834:G:H2'	1:X:1835:C:C6	2.16	0.81
8:F:117:ALA:HB1	8:F:122:ALA:HB3	1.59	0.81
16:N:8:ILE:HG22	16:N:11:ARG:HH21	1.45	0.81

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:76:ARG:O	10:H:94:ASN:HA	1.80	0.81
4:B:142:GLY:O	4:B:143:GLN:HG3	1.81	0.81
1:X:624:A:H4'	1:X:626:A:C6	2.16	0.81
21:S:19:ILE:HG12	21:S:36:ARG:HA	1.61	0.81
1:X:717:G:H2'	1:X:739:G:H22	1.43	0.81
21:S:86:VAL:HG12	21:S:87:THR:H	1.45	0.80
7:E:27:LYS:HA	7:E:32:GLU:HA	1.62	0.80
25:W:46:THR:HG22	25:W:47:VAL:HG13	1.63	0.80
1:X:317:U:C2'	1:X:318:G:H5''	2.10	0.80
14:L:16:LYS:HE2	14:L:28:ARG:HH12	1.46	0.80
1:X:2807:U:C6	1:X:2807:U:H5'	2.11	0.80
2:Y:93:G:H5'	12:J:19:THR:HB	1.62	0.80
6:D:111:ILE:CB	6:D:114:PHE:HB2	2.10	0.80
11:I:39:SER:O	11:I:40:ARG:HB2	1.82	0.80
1:X:169:C:H2'	1:X:170:U:H5'	1.61	0.80
8:F:120:VAL:O	8:F:121:GLU:C	2.19	0.80
19:Q:62:ARG:NH1	19:Q:73:ASN:HD21	1.80	0.80
21:S:117:VAL:CG2	21:S:168:VAL:HA	2.10	0.80
1:X:954:U:H2'	1:X:955:G:H5''	1.63	0.80
1:X:1624:A:O2'	1:X:1625:A:H5'	1.80	0.80
1:X:177:U:O2	1:X:178:C:C1'	2.30	0.80
4:B:2:LYS:HA	4:B:84:PHE:CD1	2.16	0.80
6:D:36:VAL:HG22	6:D:154:ILE:HG13	1.62	0.80
23:U:32:ARG:HE	23:U:32:ARG:H	0.83	0.80
21:S:18:MET:SD	21:S:35:ASP:HA	2.22	0.80
23:U:29:GLY:C	23:U:31:GLY:N	2.35	0.80
13:K:3:HIS:ND1	13:K:5:LYS:CD	2.45	0.80
1:X:514:G:C5	18:P:20:LEU:HD22	2.16	0.80
1:X:861:G:H2'	1:X:862:A:H5'	1.64	0.80
2:Y:64:C:H2'	2:Y:65:A:H8	1.46	0.80
23:U:49:LYS:CB	23:U:61:TRP:HA	2.11	0.80
23:U:53:GLU:HB2	23:U:56:GLN:O	1.81	0.80
14:L:54:ALA:HB3	14:L:75:LEU:HB2	1.64	0.80
1:X:2691:C:O2'	1:X:2692:A:H8	1.63	0.80
1:X:691:C:H2'	1:X:692:C:H6	1.46	0.80
1:X:421:G:H2'	1:X:422:C:H6	1.45	0.80
1:X:356:A:H2'	1:X:357:A:C8	2.17	0.80
5:C:39:ARG:HE	5:C:91:TYR:HD2	1.29	0.80
19:Q:62:ARG:NH1	19:Q:73:ASN:ND2	2.30	0.80
1:X:1850:G:HO2'	1:X:1851:A:H8	0.80	0.80
1:X:457:C:O2'	1:X:458:G:H5'	1.82	0.80

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:98:LYS:NZ	8:F:139:GLU:HB2	1.95	0.80
1:X:1428:G:H22	1:X:1602:G:H5'	1.43	0.80
6:D:119:PRO:HG2	6:D:120:ASN:H	1.42	0.80
1:X:135:U:C2'	1:X:136:A:N9	2.40	0.80
14:L:38:ILE:CD1	14:L:40:ALA:H	1.95	0.80
7:E:45:GLN:HG3	7:E:49:GLN:O	1.82	0.80
1:X:1060:C:H2'	1:X:1061:A:H8	1.47	0.80
17:O:13:ARG:HG2	17:O:14:VAL:H	1.45	0.80
3:A:244:ARG:HB3	3:A:252:LYS:NZ	1.96	0.80
1:X:871:U:C2'	1:X:2247:A:H2'	2.12	0.80
12:J:15:ARG:CD	12:J:73:LYS:HG3	2.11	0.80
7:E:30:LYS:HB2	7:E:79:VAL:HA	1.62	0.80
21:S:71:MET:CB	21:S:78:PRO:HA	2.12	0.79
1:X:1625:A:H1'	1:X:1632:A:O2'	1.81	0.79
20:R:105:ARG:HH22	20:R:112:LYS:CA	1.95	0.79
5:C:151:VAL:O	5:C:189:ASP:HB3	1.82	0.79
1:X:2662:C:H2'	1:X:2663:U:H6	1.47	0.79
22:T:32:LYS:HB2	22:T:35:ASN:ND2	1.97	0.79
1:X:136:A:N6	1:X:137:A:N1	2.29	0.79
1:X:2409:A:C3'	1:X:2409:A:N3	2.41	0.79
14:L:54:ALA:O	14:L:71:VAL:HG23	1.82	0.79
1:X:2756:A:O2'	1:X:2757:G:OP2	2.00	0.79
7:E:43:VAL:HB	7:E:52:VAL:HA	1.62	0.79
9:G:140:GLN:HG2	9:G:144:MET:HE2	1.62	0.79
20:R:105:ARG:HH12	20:R:113:THR:N	1.80	0.79
1:X:1949:A:O2'	1:X:2572:U:H5'	1.82	0.79
9:G:33:ILE:HB	9:G:34:PRO:HD2	1.65	0.79
15:M:46:ARG:CG	15:M:47:SER:H	1.96	0.79
15:M:104:LEU:HA	15:M:106:TYR:CE2	2.17	0.79
19:Q:65:VAL:HG12	19:Q:66:GLY:H	1.48	0.79
1:X:1985:G:OP1	13:K:10:LEU:HD13	1.82	0.79
5:C:197:GLU:HG2	5:C:198:GLU:HG3	1.65	0.79
23:U:11:LYS:NZ	23:U:75:TYR:HB2	1.98	0.79
21:S:113:VAL:HG22	21:S:171:VAL:HG22	1.63	0.79
1:X:1092:U:H4'	8:F:122:ALA:HA	1.65	0.79
5:C:27:LEU:O	5:C:31:VAL:HG22	1.82	0.79
7:E:18:ASN:HB3	7:E:20:GLN:HE21	1.48	0.79
1:X:2850:U:H6	1:X:2850:U:H5'	1.45	0.79
1:X:918:A:H2'	1:X:919:U:H5''	1.62	0.79
5:C:146:GLU:HG3	5:C:185:ARG:HH22	1.48	0.79
4:B:152:LYS:HB2	9:G:106:TYR:HB3	1.62	0.79

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2265:A:H4'	1:X:2266:A:O5'	1.83	0.79
18:P:8:PHE:O	18:P:9:ARG:HB2	1.81	0.79
1:X:1075:C:H4'	8:F:88:SER:N	1.97	0.79
1:X:1922:U:H1'	1:X:2570:C:O2'	1.83	0.79
1:X:2691:C:OP1	1:X:2694:G:H4'	1.83	0.79
1:X:2212:U:H2'	1:X:2213:G:C8	2.18	0.79
12:J:131:LYS:HD2	21:S:76:ARG:NH2	1.98	0.79
10:H:83:ARG:HD2	10:H:89:ILE:HD11	1.63	0.79
1:X:1466:C:C2'	1:X:1467:U:O4'	2.31	0.79
1:X:1474:A:O2'	1:X:1475:U:H5'	1.83	0.79
1:X:2546:G:H2'	1:X:2547:C:H6	1.47	0.79
1:X:1057:A:C2'	1:X:1057:A:N3	2.45	0.78
5:C:130:THR:O	5:C:134:ILE:HG13	1.82	0.78
3:A:252:LYS:H	3:A:252:LYS:CE	1.96	0.78
2:Y:108:G:O2'	2:Y:109:G:H5'	1.83	0.78
1:X:665:A:H5'	1:X:665:A:N3	1.99	0.78
15:M:27:PHE:C	15:M:28:ARG:HG2	2.03	0.78
1:X:577:U:P	11:I:40:ARG:NH2	2.56	0.78
20:R:18:LYS:HD3	20:R:18:LYS:H	1.48	0.78
1:X:558:G:N3	1:X:558:G:C3'	2.45	0.78
1:X:689:A:H8	1:X:2052:G:H21	1.27	0.78
9:G:93:LYS:N	9:G:93:LYS:HD2	1.97	0.78
1:X:857:U:H3'	1:X:858:G:C8	2.19	0.78
1:X:555:U:OP2	1:X:556:A:H2'	1.83	0.78
1:X:1051:U:H2'	1:X:1052:C:H6	1.47	0.78
1:X:2282:G:H4'	6:D:122:PHE:HA	1.63	0.78
1:X:1778:U:H2'	1:X:1779:C:H6	1.46	0.78
1:X:333:A:H5''	5:C:162:ARG:CZ	2.12	0.78
6:D:135:GLN:HG3	6:D:151:GLY:HA2	1.63	0.78
14:L:60:LYS:HB2	14:L:63:ASN:O	1.84	0.78
26:Z:35:GLN:O	26:Z:37:HIS:N	2.16	0.78
30:4:25:VAL:HG21	30:4:34:GLN:HE21	1.49	0.78
6:D:108:LEU:HA	6:D:111:ILE:CD1	2.13	0.78
7:E:43:VAL:HG21	7:E:52:VAL:HG22	1.65	0.78
10:H:28:GLY:O	10:H:35:THR:N	2.15	0.78
23:U:70:LEU:HB3	23:U:79:GLU:OE2	1.83	0.78
1:X:922:A:H2'	1:X:923:A:C8	2.19	0.78
12:J:20:GLY:C	12:J:99:LYS:HE2	2.03	0.78
3:A:231:HIS:CD2	3:A:233:HIS:H	2.00	0.78
1:X:1953:A:H5'	1:X:1954:A:OP1	1.83	0.78
1:X:421:G:H2'	1:X:422:C:C6	2.18	0.78

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:19:ILE:HG22	21:S:20:ALA:H	1.48	0.78
1:X:1031:C:H41	1:X:1153:A:N6	1.80	0.78
1:X:1121:G:O2'	1:X:1122:A:C8	2.35	0.78
23:U:53:GLU:CD	23:U:57:VAL:HA	2.03	0.78
19:Q:29:VAL:HG11	19:Q:38:ILE:HD12	1.65	0.78
1:X:871:U:H2'	1:X:2247:A:H2'	1.63	0.78
1:X:1788:C:O2'	3:A:257:LEU:HD12	1.83	0.78
19:Q:12:ILE:HG12	19:Q:13:SER:N	1.99	0.78
1:X:136:A:N7	1:X:137:A:N7	2.30	0.78
1:X:1075:C:C5'	8:F:87:GLY:CA	2.54	0.78
1:X:542:A:H8	16:N:28:ARG:HH21	1.31	0.78
1:X:2592:U:H5''	1:X:2593:A:OP2	1.84	0.78
2:Y:46:G:C4'	6:D:92:ARG:HH12	1.97	0.78
1:X:1781:C:O2'	3:A:209:ALA:HB2	1.83	0.78
21:S:127:PRO:O	21:S:128:ARG:HG2	1.82	0.78
3:A:79:VAL:CG1	3:A:113:VAL:HA	2.14	0.78
1:X:2195:C:C5	1:X:2196:U:C4	2.68	0.78
6:D:92:ARG:HH21	6:D:92:ARG:HG3	1.49	0.78
1:X:2286:G:N2	1:X:2290:A:H61	1.81	0.78
13:K:10:LEU:HD23	13:K:17:ARG:CB	2.14	0.78
1:X:2800:C:H2'	1:X:2801:A:H5'	1.66	0.78
1:X:1791:C:OP1	3:A:263:ARG:HG3	1.84	0.78
22:T:71:ASN:HD22	22:T:77:ARG:NH1	1.80	0.78
6:D:123:ASP:C	6:D:125:ARG:H	1.86	0.77
6:D:150:ARG:HG2	6:D:151:GLY:N	1.96	0.77
6:D:80:ARG:HD3	6:D:83:MET:HB3	1.67	0.77
2:Y:46:G:C5'	6:D:92:ARG:HH12	1.97	0.77
1:X:1324:G:H2'	1:X:1325:U:C6	2.19	0.77
23:U:41:VAL:HG23	23:U:42:GLN:N	2.00	0.77
13:K:13:ASN:HD22	13:K:13:ASN:C	1.87	0.77
3:A:36:ALA:HB1	3:A:62:TYR:O	1.83	0.77
1:X:136:A:C8	1:X:137:A:N7	2.52	0.77
1:X:1186:G:C2'	1:X:1187:A:N3	2.43	0.77
1:X:2275:U:H4'	1:X:2276:C:OP1	1.83	0.77
1:X:303:C:H6	1:X:303:C:O5'	1.66	0.77
3:A:160:GLY:N	3:A:196:VAL:HG23	1.99	0.77
18:P:27:VAL:CG2	18:P:125:THR:HG22	2.14	0.77
20:R:93:ARG:NH2	20:R:108:VAL:HG13	1.99	0.77
9:G:105:GLY:C	9:G:110:LEU:HD12	2.04	0.77
2:Y:36:A:HO2'	2:Y:37:C:H5	1.32	0.77
16:N:66:ASN:CG	16:N:70:ARG:HH12	1.88	0.77

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:194:GLU:O	5:C:195:ILE:HG12	1.84	0.77
1:X:627:A:H2'	1:X:628:A:C8	2.20	0.77
1:X:2256:G:OP2	12:J:86:LYS:HD2	1.83	0.77
3:A:231:HIS:CE1	3:A:247:VAL:HA	2.20	0.77
21:S:123:VAL:N	21:S:161:ALA:HB2	1.99	0.77
30:4:1:MET:CE	30:4:33:LYS:HB3	2.14	0.77
1:X:865:A:H2'	1:X:866:U:H6	1.49	0.77
4:B:152:LYS:HD2	9:G:106:TYR:H	1.49	0.77
1:X:542:A:H2	1:X:2004:U:H2'	1.44	0.77
1:X:2823:G:O2'	1:X:2824:C:H6	1.67	0.77
1:X:2015:G:H2'	4:B:145:LYS:NZ	1.98	0.77
23:U:51:ILE:CG1	23:U:59:THR:HG22	2.14	0.77
1:X:1016:C:O2'	9:G:56:THR:HG21	1.84	0.77
1:X:1223:G:H4'	1:X:1224:A:C5'	2.14	0.77
23:U:49:LYS:HD3	23:U:61:TRP:CD2	2.20	0.77
6:D:75:SER:HB2	6:D:79:LEU:CD1	2.14	0.77
6:D:74:ILE:HG12	6:D:80:ARG:C	2.05	0.77
8:F:112:MET:CG	8:F:113:PRO:HD3	2.11	0.77
11:I:30:ALA:HB3	11:I:34:HIS:HE1	1.50	0.77
1:X:455:A:N7	5:C:39:ARG:HG3	1.99	0.77
16:N:88:ILE:HA	17:O:49:GLU:HG3	1.64	0.77
1:X:925:U:H4'	1:X:926:C:OP1	1.84	0.77
1:X:2196:U:C2'	1:X:2197:U:C6	2.65	0.77
20:R:85:ASP:OD1	20:R:86:PRO:HD3	1.84	0.77
19:Q:6:ILE:HG22	19:Q:7:LEU:N	1.98	0.77
13:K:7:GLY:O	13:K:8:ARG:HG2	1.84	0.77
30:4:19:ARG:HH11	30:4:24:LEU:HD22	1.45	0.77
9:G:110:LEU:CD2	9:G:110:LEU:N	2.48	0.77
6:D:38:GLU:HB3	6:D:87:ILE:HB	1.66	0.77
15:M:34:ARG:HH21	15:M:91:VAL:CG2	1.98	0.77
5:C:102:LEU:O	5:C:102:LEU:HD23	1.85	0.77
1:X:33:C:O2'	1:X:34:U:H5''	1.85	0.77
6:D:111:ILE:CG2	6:D:114:PHE:HB2	2.14	0.77
11:I:11:GLY:H	11:I:14:LYS:CB	1.98	0.77
1:X:2229:G:H5'	12:J:84:MET:HG2	1.66	0.77
21:S:141:MET:HA	21:S:145:ASP:OD1	1.83	0.77
7:E:65:HIS:C	7:E:67:LEU:H	1.89	0.77
5:C:5:ASN:HA	5:C:118:VAL:CG2	2.15	0.77
24:V:41:HIS:HD2	24:V:42:ARG:N	1.81	0.77
1:X:2195:C:C4	1:X:2196:U:C5	2.72	0.76
4:B:154:LYS:CE	4:B:156:MET:SD	2.74	0.76

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:G:107:GLN:HA	9:G:110:LEU:HG	1.65	0.76
1:X:1467:U:C4	1:X:1473:U:N3	2.50	0.76
4:B:31:CYS:HB3	4:B:49:ILE:CG1	2.14	0.76
1:X:2775:U:H5'	1:X:2776:U:H5''	1.66	0.76
3:A:124:GLU:O	3:A:126:LYS:HG3	1.85	0.76
1:X:417:C:H1'	1:X:419:G:C8	2.20	0.76
1:X:1053:G:C2'	1:X:1054:C:C6	2.61	0.76
20:R:105:ARG:HH12	20:R:112:LYS:C	1.88	0.76
20:R:90:LYS:CB	20:R:108:VAL:HG21	2.15	0.76
7:E:124:ALA:HB3	7:E:132:ASP:HB3	1.67	0.76
22:T:74:LYS:O	22:T:76:ALA:N	2.18	0.76
24:V:4:SER:HB3	24:V:7:ARG:NH2	1.99	0.76
12:J:106:GLU:CD	12:J:106:GLU:N	2.38	0.76
1:X:492:G:H1'	1:X:516:G:N2	2.01	0.76
11:I:89:ASP:OD2	11:I:120:VAL:HA	1.85	0.76
1:X:2516:U:H2'	1:X:2517:C:H6	1.44	0.76
5:C:179:ASP:O	5:C:182:ARG:HB3	1.86	0.76
7:E:136:ILE:N	7:E:136:ILE:HD12	2.00	0.76
18:P:36:ARG:NH2	26:Z:20:ARG:CZ	2.48	0.76
16:N:61:TRP:HZ3	16:N:94:VAL:N	1.82	0.76
15:M:33:VAL:HG22	15:M:51:GLU:CB	2.15	0.76
1:X:490:A:O2'	1:X:492:G:H5''	1.84	0.76
1:X:717:G:H1'	1:X:740:A:N6	2.00	0.76
15:M:37:THR:HG21	15:M:39:VAL:HG13	1.66	0.76
11:I:10:PRO:HA	11:I:14:LYS:HB2	1.68	0.76
3:A:164:GLN:HE22	3:A:166:GLN:HE21	1.31	0.76
1:X:839:U:H5''	1:X:2408:G:OP2	1.85	0.76
1:X:2736:U:H5''	30:4:19:ARG:HA	1.68	0.76
1:X:1996:A:C2	18:P:109:ARG:NH2	2.53	0.76
24:V:41:HIS:CD2	24:V:42:ARG:N	2.53	0.76
1:X:2873:G:H2'	1:X:2874:A:C8	2.21	0.76
19:Q:4:TYR:HE1	19:Q:45:ALA:HA	1.50	0.76
23:U:52:ARG:HD2	23:U:79:GLU:HA	1.67	0.76
19:Q:69:ILE:HD13	19:Q:70:GLY:O	1.85	0.76
30:4:1:MET:HE1	30:4:33:LYS:HB3	1.68	0.76
7:E:18:ASN:HB2	7:E:25:LYS:HB3	1.67	0.76
3:A:121:PRO:HG2	3:A:122:GLU:OE1	1.85	0.76
1:X:1935:A:C4	10:H:22:ILE:HD11	2.21	0.76
1:X:1052:C:C3'	1:X:1053:G:C5'	2.57	0.76
1:X:1188:A:P	1:X:1188:A:C8	2.78	0.76
9:G:70:PHE:HB2	16:N:64:ARG:HG2	1.67	0.76

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2175:A:H2'	1:X:2176:U:H6	1.51	0.76
3:A:208:LYS:HE3	3:A:208:LYS:HA	1.66	0.76
1:X:652:C:H42	1:X:657:A:N6	1.77	0.76
1:X:409:G:O2'	1:X:410:A:H5'	1.86	0.76
1:X:2407:G:OP1	1:X:2408:G:OP1	2.04	0.76
23:U:54:ASN:C	23:U:56:GLN:H	1.88	0.76
1:X:2404:A:H1'	1:X:2406:C:C4	2.20	0.76
12:J:27:TYR:HB3	12:J:137:VAL:CG2	2.16	0.76
15:M:17:GLU:HG3	15:M:62:SER:OG	1.84	0.76
9:G:61:ARG:NH2	9:G:61:ARG:HB3	1.99	0.76
1:X:1849:G:H1'	1:X:1868:A:H61	1.50	0.76
1:X:514:G:O6	18:P:20:LEU:HD13	1.86	0.76
13:K:37:THR:OG1	13:K:40:LYS:HG3	1.86	0.76
15:M:6:LYS:HD2	15:M:6:LYS:H	1.50	0.76
3:A:108:PRO:HB3	3:A:143:HIS:HE1	1.49	0.76
9:G:115:ALA:O	9:G:118:ALA:HB3	1.86	0.76
1:X:2625:U:OP2	1:X:2625:U:H6	1.69	0.76
23:U:28:GLY:HA3	23:U:32:ARG:HB3	1.67	0.75
15:M:34:ARG:HH11	15:M:81:PHE:HB3	1.50	0.75
5:C:148:VAL:CB	5:C:167:VAL:HG12	2.15	0.75
1:X:651:C:H2'	1:X:652:C:H5''	1.68	0.75
1:X:2379:G:O2'	1:X:2380:U:H5'	1.86	0.75
1:X:1122:A:C2	1:X:1123:G:H1'	2.21	0.75
6:D:67:ILE:HG21	6:D:84:PRO:HB3	1.67	0.75
14:L:40:ALA:HB1	14:L:75:LEU:HD22	1.68	0.75
7:E:89:LEU:HD13	7:E:95:ARG:HA	1.66	0.75
5:C:109:ALA:O	5:C:113:GLU:HG3	1.85	0.75
21:S:63:PRO:C	21:S:86:VAL:HG23	2.07	0.75
1:X:224:G:H4'	1:X:399:G:C6	2.21	0.75
1:X:540:G:HO2'	1:X:542:A:H2	1.32	0.75
14:L:33:ARG:CG	14:L:38:ILE:HB	2.16	0.75
3:A:77:ALA:HB2	3:A:97:TYR:CD1	2.21	0.75
1:X:617:U:H5	1:X:632:A:C2	2.03	0.75
1:X:427:C:H1'	1:X:1856:U:H1'	1.69	0.75
3:A:125:PRO:HG3	3:A:131:LEU:HD13	1.67	0.75
13:K:24:GLN:HB2	13:K:44:LEU:HD13	1.68	0.75
23:U:52:ARG:NH1	23:U:67:LEU:HG	2.01	0.75
23:U:49:LYS:HB3	23:U:61:TRP:CE3	2.21	0.75
21:S:113:VAL:HG22	21:S:171:VAL:HG13	1.69	0.75
3:A:183:ARG:CB	3:A:183:ARG:HH11	1.94	0.75
6:D:29:PRO:HB3	6:D:160:ALA:HA	1.66	0.75

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2581:A:H5'	1:X:2582:G:OP2	1.86	0.75
15:M:102:ALA:O	15:M:103:LYS:HD2	1.86	0.75
3:A:247:VAL:HG23	3:A:248:THR:HG23	1.68	0.75
5:C:139:GLN:CA	5:C:139:GLN:HE21	1.99	0.75
1:X:1737:G:H2'	1:X:1738:U:H6	1.50	0.75
1:X:746:G:O6	1:X:774:A:C8	2.39	0.75
10:H:2:ILE:HD12	10:H:8:LEU:HD21	1.68	0.75
21:S:19:ILE:CD1	21:S:36:ARG:HA	2.17	0.75
18:P:49:SER:O	18:P:51:GLN:N	2.19	0.75
9:G:84:ASN:O	9:G:86:ALA:N	2.19	0.75
3:A:73:SER:HA	3:A:119:ALA:HB3	1.69	0.75
1:X:1526:U:H2'	1:X:1527:G:O4'	1.86	0.75
2:Y:46:G:H4'	6:D:92:ARG:NH1	2.02	0.75
14:L:33:ARG:NH1	14:L:100:VAL:HA	2.01	0.75
14:L:101:LYS:O	14:L:104:ALA:HB3	1.87	0.75
8:F:120:VAL:HG12	8:F:121:GLU:N	2.02	0.75
24:V:32:ALA:HB2	24:V:37:LEU:HD12	1.67	0.75
1:X:1851:A:H62	1:X:1866:G:H21	1.35	0.75
1:X:2329:C:H2'	1:X:2330:G:O4'	1.86	0.75
1:X:1608:U:H2'	1:X:1609:G:H8	1.51	0.75
1:X:389:G:H2'	1:X:390:U:C6	2.22	0.75
1:X:2426:G:H4'	1:X:2427:A:O5'	1.87	0.75
1:X:82:G:H22	1:X:100:G:C2'	1.96	0.75
6:D:57:LEU:HA	6:D:60:ILE:HD11	1.67	0.75
14:L:15:ARG:HD2	14:L:91:ARG:NH1	1.96	0.75
1:X:304:A:C2'	1:X:305:A:H5''	2.12	0.75
19:Q:69:ILE:HD13	19:Q:70:GLY:H	1.48	0.75
21:S:127:PRO:CA	21:S:130:ILE:HD11	2.15	0.75
13:K:49:GLU:O	13:K:52:ILE:HG12	1.86	0.75
1:X:2205:C:H2'	1:X:2206:C:H5'	1.68	0.75
1:X:984:A:H1'	1:X:1202:U:C5	2.22	0.75
1:X:149:A:H2'	1:X:150:A:C8	2.21	0.75
19:Q:81:ARG:HG3	19:Q:81:ARG:HH11	1.50	0.75
17:O:39:PHE:CE2	17:O:51:ALA:HB1	2.21	0.75
21:S:6:LYS:HB2	21:S:31:SER:C	2.06	0.75
24:V:55:THR:O	24:V:59:GLU:HG3	1.87	0.75
1:X:1978:U:C3'	1:X:1979:C:H5''	2.16	0.75
1:X:1919:A:C2	1:X:1926:U:N3	2.52	0.75
1:X:789:G:H4'	1:X:790:A:O5'	1.87	0.75
25:W:40:VAL:HA	25:W:43:MET:CG	2.16	0.75
1:X:1416:A:H2'	1:X:1417:C:H6	1.52	0.75

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:77:ALA:HB2	3:A:97:TYR:HD1	1.51	0.74
1:X:98:U:H4'	1:X:99:U:H5''	1.68	0.74
14:L:38:ILE:HG13	14:L:39:TYR:N	2.00	0.74
9:G:40:ASN:OD1	9:G:42:VAL:HG23	1.87	0.74
1:X:492:G:H1'	1:X:516:G:H21	1.52	0.74
7:E:28:GLY:HA3	7:E:79:VAL:HB	1.69	0.74
22:T:4:LYS:C	22:T:5:LYS:HD2	2.07	0.74
7:E:154:PRO:HA	7:E:160:LYS:O	1.86	0.74
1:X:1186:G:H2'	1:X:1187:A:C4	2.22	0.74
1:X:1167:A:H61	16:N:48:ARG:HD3	1.49	0.74
14:L:36:LYS:HE3	14:L:36:LYS:HA	1.68	0.74
21:S:3:LEU:HD13	21:S:33:ALA:C	2.06	0.74
1:X:1313:U:H4'	1:X:1314:A:O5'	1.87	0.74
8:F:103:GLN:O	8:F:106:GLU:HG2	1.87	0.74
1:X:1563:U:H2'	1:X:1564:U:C6	2.22	0.74
1:X:73:A:H5''	1:X:74:G:O4'	1.88	0.74
30:4:9:LYS:H	30:4:9:LYS:HD2	1.52	0.74
20:R:95:ARG:NH1	20:R:106:VAL:HA	2.02	0.74
1:X:1070:G:O2'	8:F:74:MET:CE	2.35	0.74
1:X:1850:G:N2	1:X:1867:A:C8	2.54	0.74
8:F:99:LEU:HB2	8:F:103:GLN:HE22	1.49	0.74
1:X:591:G:H2'	1:X:592:G:C8	2.23	0.74
12:J:71:PRO:HA	12:J:96:SER:HB2	1.69	0.74
1:X:1094:C:H2'	1:X:1096:A:C5'	2.17	0.74
1:X:2352:A:H2'	1:X:2353:G:C8	2.23	0.74
7:E:58:ALA:H	7:E:62:ARG:CG	1.96	0.74
3:A:251:GLY:HA3	3:A:255:LYS:NZ	2.02	0.74
13:K:45:ARG:HG3	13:K:95:THR:HG21	1.69	0.74
1:X:969:U:H5''	12:J:17:ARG:HH11	1.52	0.74
11:I:28:LYS:HZ2	11:I:36:GLY:CA	2.00	0.74
21:S:51:LEU:H	21:S:51:LEU:HD23	1.52	0.74
20:R:82:ALA:O	20:R:83:LEU:HD12	1.87	0.74
12:J:78:LYS:HA	12:J:88:LYS:HZ3	1.53	0.74
7:E:95:ARG:HG3	7:E:106:ASN:HB3	1.70	0.74
14:L:17:VAL:HG13	14:L:18:ARG:N	2.02	0.74
1:X:618:A:OP1	5:C:94:THR:HG21	1.88	0.74
21:S:13:LYS:HB2	21:S:13:LYS:NZ	2.02	0.74
10:H:23:ARG:HH12	10:H:25:LEU:CA	1.98	0.74
19:Q:66:GLY:C	19:Q:68:PHE:H	1.90	0.74
19:Q:7:LEU:HD23	24:V:30:PHE:HE2	1.53	0.74
21:S:94:VAL:HG23	21:S:125:PRO:HG3	1.70	0.74

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:947:C:H2'	1:X:948:C:H6	1.51	0.74
1:X:746:G:N7	1:X:774:A:C5	2.55	0.74
1:X:1181:C:H2'	1:X:1182:U:H5''	1.68	0.74
1:X:403:A:H5''	1:X:404:A:OP1	1.88	0.74
1:X:134:G:H2'	1:X:136:A:OP2	1.88	0.74
6:D:33:LYS:HA	6:D:96:MET:SD	2.27	0.74
9:G:33:ILE:HB	9:G:34:PRO:HD3	1.69	0.74
1:X:1782:A:H1'	3:A:208:LYS:HE3	1.68	0.74
1:X:2218:G:O4'	3:A:249:PRO:HG3	1.87	0.74
12:J:27:TYR:HB3	12:J:137:VAL:HG21	1.69	0.74
10:H:4:PRO:HA	10:H:21:CYS:O	1.87	0.74
1:X:2546:G:H2'	1:X:2547:C:C6	2.23	0.74
3:A:72:LYS:HE2	3:A:97:TYR:CD2	2.23	0.74
20:R:16:PHE:HB3	20:R:82:ALA:HB1	1.68	0.74
6:D:13:ARG:HH21	6:D:17:MET:CE	2.01	0.74
3:A:244:ARG:CB	3:A:252:LYS:HZ1	2.00	0.74
11:I:71:THR:HB	11:I:104:ARG:HD3	1.68	0.74
21:S:23:ALA:HB3	21:S:32:PHE:HE1	1.52	0.74
1:X:648:A:H4'	1:X:649:G:O4'	1.88	0.74
1:X:1337:G:H1'	1:X:1632:A:N6	2.03	0.74
2:Y:19:C:H2'	2:Y:20:A:O4'	1.88	0.74
1:X:1036:G:C4	1:X:1145:C:H1'	2.23	0.74
4:B:162:MET:HA	4:B:162:MET:HE2	1.68	0.74
13:K:10:LEU:HD23	13:K:17:ARG:HB2	1.69	0.74
18:P:87:GLU:HA	18:P:90:LEU:HG	1.69	0.74
8:F:120:VAL:O	8:F:122:ALA:N	2.21	0.74
3:A:217:ARG:HH21	3:A:218:LYS:HE2	1.52	0.74
24:V:35:GLY:O	24:V:36:GLN:HB2	1.87	0.74
1:X:1373:G:H22	1:X:2192:U:H3	1.35	0.74
16:N:88:ILE:HG23	17:O:49:GLU:HB2	1.69	0.74
1:X:1486:A:H2'	1:X:1487:C:C6	2.23	0.74
1:X:1584:G:H5''	3:A:61:LEU:HG	1.68	0.74
1:X:787:A:H5''	3:A:48:ARG:HH22	1.53	0.74
21:S:113:VAL:HG13	21:S:171:VAL:HG22	1.68	0.74
2:Y:42:U:H1'	2:Y:47:A:N6	2.02	0.74
6:D:4:LEU:CD1	6:D:5:LYS:H	2.00	0.74
3:A:244:ARG:N	3:A:244:ARG:HD3	2.02	0.74
24:V:2:LYS:CG	24:V:3:PRO:HD3	2.17	0.74
9:G:94:LYS:O	9:G:117:GLU:HB2	1.87	0.74
1:X:417:C:N1	1:X:419:G:C8	2.56	0.74
1:X:1734:C:C4	1:X:1735:G:H1'	2.23	0.74

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:40:LEU:CD1	18:P:62:ARG:HH12	2.01	0.74
4:B:72:VAL:HG12	4:B:73:ALA:N	2.02	0.74
1:X:1053:G:N2	1:X:1124:U:O2	2.17	0.73
1:X:2036:G:O2'	1:X:2037:A:H5'	1.88	0.73
23:U:51:ILE:HA	23:U:59:THR:O	1.87	0.73
1:X:2218:G:H5'	3:A:249:PRO:HB3	1.69	0.73
20:R:18:LYS:HE2	20:R:18:LYS:C	2.08	0.73
20:R:85:ASP:H	20:R:86:PRO:HD3	1.52	0.73
20:R:93:ARG:HA	20:R:95:ARG:NH2	2.03	0.73
1:X:987:G:H4'	1:X:1167:A:N7	2.02	0.73
6:D:32:GLU:HB3	6:D:157:VAL:HG12	1.70	0.73
17:O:14:VAL:O	17:O:15:SER:HB2	1.86	0.73
17:O:64:GLY:HA3	17:O:90:PHE:CZ	2.23	0.73
1:X:2356:A:H1'	14:L:89:PHE:CE2	2.22	0.73
1:X:1885:C:C5'	3:A:244:ARG:HD2	2.18	0.73
1:X:1430:G:H2'	1:X:1431:U:C6	2.23	0.73
1:X:1125:G:H2'	1:X:1126:A:H8	1.52	0.73
6:D:75:SER:N	6:D:79:LEU:HD22	2.03	0.73
1:X:1018:C:C3'	1:X:1019:U:C5'	2.66	0.73
17:O:15:SER:OG	17:O:96:LEU:HA	1.88	0.73
15:M:106:TYR:CE1	15:M:107:LEU:CD2	2.71	0.73
15:M:34:ARG:CZ	15:M:88:VAL:HG11	2.18	0.73
1:X:2448:A:H2'	1:X:2449:G:O4'	1.88	0.73
11:I:45:LYS:HE2	11:I:47:ALA:CB	2.15	0.73
9:G:158:HIS:HA	9:G:161:GLN:CD	2.08	0.73
9:G:83:ILE:HG13	9:G:84:ASN:ND2	2.03	0.73
1:X:1841:G:H2'	1:X:1842:G:H5'	1.70	0.73
16:N:66:ASN:HD22	16:N:70:ARG:NH2	1.86	0.73
1:X:90:G:OP1	1:X:90:G:C4'	2.36	0.73
1:X:497:C:C6	1:X:497:C:H5'	2.23	0.73
25:W:16:GLN:O	25:W:20:VAL:HG23	1.88	0.73
1:X:674:U:H2'	1:X:675:C:O4'	1.89	0.73
1:X:101:A:OP1	1:X:101:A:C8	2.38	0.73
4:B:146:THR:HB	4:B:147:PRO:HD2	1.69	0.73
16:N:66:ASN:ND2	16:N:70:ARG:NH1	2.37	0.73
17:O:40:VAL:HG12	17:O:45:THR:HA	1.70	0.73
7:E:105:MET:HE1	7:E:131:ILE:HD11	1.69	0.73
7:E:105:MET:HB2	7:E:113:VAL:HB	1.70	0.73
1:X:2357:A:H61	14:L:18:ARG:CZ	2.02	0.73
1:X:2672:U:H2'	1:X:2673:G:C8	2.23	0.73
6:D:134:GLU:HG2	6:D:136:LEU:H	1.53	0.73

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:862:A:H2'	1:X:863:C:C6	2.22	0.73
1:X:2178:U:O2'	1:X:2179:C:H5'	1.87	0.73
1:X:1277:G:OP1	26:Z:19:ARG:NH2	2.21	0.73
1:X:2195:C:H2'	1:X:2196:U:O4'	1.89	0.73
20:R:24:VAL:HB	20:R:29:HIS:O	1.88	0.73
22:T:31:VAL:HG22	22:T:67:VAL:HG23	1.71	0.73
10:H:132:GLU:HB2	15:M:73:PHE:CE1	2.22	0.73
10:H:70:VAL:HG22	10:H:71:LYS:H	1.52	0.73
1:X:2811:G:H2'	1:X:2812:A:C8	2.23	0.73
3:A:58:HIS:O	3:A:59:LYS:HB3	1.87	0.73
2:Y:119:G:H4'	14:L:57:ALA:HB1	1.71	0.73
12:J:79:PRO:HD3	12:J:88:LYS:HZ2	1.53	0.73
9:G:36:ASN:C	9:G:38:GLU:H	1.90	0.73
9:G:67:ARG:HB3	9:G:70:PHE:HA	1.70	0.73
17:O:28:GLU:O	17:O:30:GLY:N	2.21	0.73
1:X:1737:G:H2'	1:X:1738:U:C6	2.23	0.73
4:B:120:TRP:CD2	4:B:155:ARG:HD2	2.24	0.73
1:X:826:U:H2'	1:X:827:C:C6	2.23	0.73
12:J:78:LYS:HE2	12:J:81:GLU:CA	2.11	0.73
6:D:123:ASP:O	6:D:125:ARG:N	2.22	0.73
9:G:42:VAL:HG13	9:G:166:LEU:O	1.88	0.73
17:O:36:LYS:HD3	17:O:39:PHE:CE2	2.24	0.73
1:X:306:G:N2	1:X:355:G:H1'	2.03	0.73
1:X:645:G:H2'	1:X:646:C:C6	2.24	0.73
18:P:80:LEU:HD21	18:P:87:GLU:HB3	1.71	0.73
1:X:554:U:H2'	1:X:554:U:O2	1.87	0.73
1:X:177:U:H3'	1:X:178:C:C6	2.24	0.73
25:W:46:THR:CG2	25:W:47:VAL:HG13	2.19	0.73
5:C:15:ILE:HG22	5:C:17:LEU:HD13	1.71	0.73
15:M:31:ASP:OD2	15:M:31:ASP:N	2.22	0.73
1:X:1055:A:C4	1:X:1055:A:H3'	2.21	0.73
1:X:136:A:C6	1:X:137:A:C6	2.77	0.73
1:X:2195:C:N4	1:X:2196:U:C4	2.56	0.73
1:X:2418:A:H4'	1:X:2419:C:O5'	1.86	0.73
17:O:90:PHE:HD1	17:O:91:THR:N	1.85	0.73
1:X:1473:U:OP2	1:X:1473:U:H6	1.71	0.73
11:I:76:LYS:CG	11:I:111:SER:HB2	2.17	0.73
5:C:26:VAL:HA	11:I:18:ARG:HH11	1.52	0.73
25:W:2:LYS:HB3	25:W:54:GLN:CB	2.15	0.73
1:X:1031:C:H2'	1:X:1031:C:O2	1.87	0.73
1:X:2237:C:H4'	1:X:2238:G:OP2	1.87	0.73

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:44:VAL:HG21	18:P:60:ILE:CD1	2.19	0.73
3:A:70:ARG:HG2	3:A:190:TYR:CE1	2.23	0.73
1:X:333:A:H5'	5:C:162:ARG:HG3	1.69	0.73
8:F:112:MET:HA	8:F:115:LEU:HD12	1.71	0.73
9:G:36:ASN:O	9:G:38:GLU:N	2.21	0.73
3:A:245:VAL:HA	3:A:252:LYS:HE2	1.70	0.73
11:I:86:THR:H	11:I:116:ARG:HH12	1.35	0.73
1:X:1429:A:O2'	1:X:1430:G:H4'	1.89	0.73
1:X:2310:G:C4'	22:T:42:GLY:HA3	2.19	0.73
25:W:36:ASP:CG	25:W:41:ARG:HH12	1.92	0.73
25:W:9:VAL:O	25:W:12:ARG:HB2	1.89	0.73
20:R:60:PRO:O	20:R:62:MET:N	2.18	0.72
7:E:139:GLN:HB3	7:E:143:GLN:CD	2.09	0.72
21:S:4:THR:CB	21:S:57:GLU:HB2	2.15	0.72
1:X:71:A:N6	1:X:110:U:H4'	2.04	0.72
3:A:270:ILE:HG13	3:A:271:VAL:N	2.03	0.72
1:X:1448:A:H61	1:X:1574:A:N6	1.85	0.72
1:X:774:A:H8	1:X:774:A:H3'	1.54	0.72
20:R:107:ALA:CB	20:R:111:GLY:HA2	2.19	0.72
20:R:25:LEU:HD22	20:R:26:SER:HB3	1.72	0.72
1:X:537:C:H1'	1:X:538:A:N6	2.03	0.72
6:D:40:LEU:HA	6:D:150:ARG:NH2	2.05	0.72
1:X:1218:C:C5'	11:I:13:ARG:HH11	2.02	0.72
6:D:39:GLY:HA2	6:D:86:GLY:HA2	1.71	0.72
1:X:98:U:C4'	1:X:99:U:O5'	2.30	0.72
1:X:531:G:H2'	1:X:532:A:H8	1.53	0.72
23:U:70:LEU:HD22	23:U:79:GLU:HG2	1.70	0.72
11:I:76:LYS:HE3	11:I:111:SER:CB	2.19	0.72
24:V:50:VAL:CA	24:V:53:LEU:HD12	2.18	0.72
5:C:48:ARG:CB	5:C:51:VAL:HG22	2.19	0.72
1:X:1978:U:H5''	1:X:1979:C:H5'	1.71	0.72
6:D:97:TYR:CD2	6:D:100:LEU:HD23	2.23	0.72
3:A:92:ILE:CG2	3:A:104:TYR:HD2	2.02	0.72
1:X:2048:C:O2'	1:X:2049:C:H5'	1.90	0.72
1:X:1051:U:H2'	1:X:1052:C:O4'	1.89	0.72
1:X:1124:U:O2'	1:X:1125:G:H5'	1.89	0.72
1:X:731:A:N3	1:X:731:A:O5'	2.22	0.72
17:O:25:LEU:HB2	17:O:32:LYS:HZ1	1.54	0.72
6:D:12:VAL:HG12	6:D:16:LEU:CD1	2.17	0.72
1:X:558:G:N3	1:X:558:G:H5''	2.03	0.72
21:S:10:PRO:O	21:S:13:LYS:HG3	1.87	0.72

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:112:A:H2'	2:Y:113:G:C8	2.24	0.72
1:X:1117:G:H2'	1:X:1118:G:C8	2.25	0.72
23:U:15:VAL:HA	23:U:45:ASN:O	1.90	0.72
1:X:469:G:HO2'	1:X:480:G:H1	1.35	0.72
1:X:168:A:O2'	1:X:169:C:H5'	1.89	0.72
4:B:149:ARG:HH12	9:G:106:TYR:HD1	1.37	0.72
7:E:58:ALA:N	7:E:62:ARG:HG3	1.99	0.72
3:A:42:GLY:C	3:A:43:ARG:NH1	2.43	0.72
17:O:86:HIS:CD2	17:O:87:ARG:N	2.56	0.72
1:X:461:A:C4'	16:N:3:ARG:HH21	2.02	0.72
1:X:2311:U:H5'	1:X:2315:A:N6	2.04	0.72
5:C:39:ARG:HG2	5:C:39:ARG:HH11	1.54	0.72
1:X:1333:G:N2	1:X:1344:C:H41	1.87	0.72
14:L:33:ARG:HH12	14:L:103:LEU:H	1.37	0.72
21:S:13:LYS:HB2	21:S:13:LYS:HZ3	1.53	0.72
19:Q:62:ARG:O	19:Q:63:LYS:HB3	1.88	0.72
5:C:48:ARG:HB2	5:C:51:VAL:CG2	2.19	0.72
11:I:86:THR:OG1	11:I:118:VAL:HG12	1.90	0.72
13:K:82:GLU:O	13:K:86:LYS:HG3	1.89	0.72
1:X:1690:U:H2'	1:X:1691:G:H5'	1.72	0.72
1:X:317:U:H2'	1:X:318:G:C5'	2.18	0.72
1:X:98:U:H1'	1:X:100:G:N7	2.04	0.72
14:L:68:ALA:HB1	14:L:102:ALA:HB1	1.71	0.72
1:X:731:A:C2'	1:X:732:G:O4'	2.36	0.72
23:U:29:GLY:O	23:U:31:GLY:N	2.22	0.72
12:J:11:ARG:NH2	12:J:15:ARG:HH22	1.88	0.72
1:X:2712:G:H3'	1:X:2713:A:C5'	2.18	0.72
11:I:32:ARG:NH2	17:O:81:ARG:NE	2.37	0.72
3:A:228:PRO:HD3	3:A:235:GLY:H	1.55	0.72
2:Y:31:A:H2'	2:Y:32:C:C6	2.25	0.72
1:X:1072:U:H4'	1:X:1073:G:OP2	1.89	0.72
7:E:92:VAL:O	7:E:94:PHE:N	2.23	0.72
19:Q:66:GLY:O	19:Q:68:PHE:N	2.22	0.72
23:U:13:LEU:HD12	23:U:14:VAL:H	1.54	0.72
25:W:12:ARG:HH11	25:W:12:ARG:HG2	1.54	0.72
3:A:164:GLN:OE1	3:A:176:ARG:HB3	1.88	0.72
1:X:566:U:O2'	1:X:567:G:H5'	1.90	0.72
17:O:35:LEU:O	17:O:36:LYS:HB2	1.89	0.72
14:L:87:VAL:HG12	14:L:88:VAL:N	2.04	0.72
1:X:1816:G:OP1	3:A:52:ARG:HD3	1.90	0.72
12:J:14:PHE:O	12:J:15:ARG:HG3	1.90	0.72

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J:60:ARG:HH11	12:J:60:ARG:HG2	1.55	0.72
1:X:196:A:H2	1:X:211:U:O2	1.72	0.72
1:X:1857:G:N2	1:X:1860:A:OP2	2.22	0.72
1:X:417:C:C2	1:X:419:G:C5	2.77	0.72
7:E:33:LEU:HD12	7:E:34:THR:H	1.53	0.72
21:S:105:GLN:O	21:S:142:ASN:HA	1.90	0.72
16:N:93:LYS:HD2	16:N:93:LYS:O	1.89	0.72
5:C:3:GLN:HG2	5:C:116:LYS:HD2	1.71	0.72
3:A:160:GLY:HA2	3:A:196:VAL:O	1.89	0.72
3:A:231:HIS:HD2	3:A:233:HIS:H	1.34	0.72
11:I:88:PHE:O	11:I:93:LEU:HB2	1.90	0.72
25:W:14:GLY:O	25:W:17:VAL:HB	1.90	0.72
1:X:1736:C:H2'	1:X:1737:G:C8	2.25	0.72
9:G:170:PRO:O	9:G:171:LEU:HD23	1.90	0.71
16:N:61:TRP:CZ3	16:N:94:VAL:N	2.56	0.71
21:S:18:MET:HA	21:S:36:ARG:N	2.05	0.71
5:C:104:LEU:HD23	5:C:104:LEU:N	2.05	0.71
21:S:64:ALA:CA	21:S:85:MET:HA	2.19	0.71
12:J:69:ILE:HG23	12:J:104:MET:HA	1.71	0.71
1:X:242:A:H2'	1:X:243:G:O4'	1.90	0.71
21:S:168:VAL:HG12	21:S:169:VAL:HG13	1.69	0.71
1:X:925:U:O2'	1:X:926:C:H5'	1.89	0.71
1:X:1705:U:O2	1:X:1717:A:H5''	1.90	0.71
4:B:1:MET:HG3	4:B:83:GLY:O	1.90	0.71
9:G:44:VAL:HG12	9:G:45:ASP:N	2.05	0.71
19:Q:91:LEU:N	19:Q:91:LEU:HD22	2.04	0.71
1:X:1402:G:H2'	1:X:1403:U:O4'	1.90	0.71
7:E:126:PRO:HG2	7:E:127:GLU:H	1.54	0.71
1:X:788:G:H5'	1:X:790:A:C1'	2.20	0.71
1:X:2451:G:O6	1:X:2455:A:H4'	1.89	0.71
14:L:8:ARG:HG3	14:L:9:ARG:H	1.55	0.71
1:X:1034:U:H2'	1:X:1035:G:H5'	1.71	0.71
14:L:63:ASN:CB	14:L:66:ASP:HB2	2.19	0.71
9:G:61:ARG:CZ	9:G:65:LYS:HD2	2.20	0.71
19:Q:59:PRO:HA	19:Q:74:ASP:OD1	1.90	0.71
12:J:64:LYS:CD	12:J:64:LYS:H	1.96	0.71
1:X:2668:U:H5'	1:X:2669:C:H5'	1.72	0.71
1:X:514:G:H22	18:P:15:LYS:HA	1.53	0.71
1:X:2310:G:H4'	22:T:43:THR:N	2.05	0.71
16:N:50:ARG:C	16:N:52:ASN:N	2.40	0.71
3:A:125:PRO:HG3	3:A:131:LEU:CD1	2.20	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:68:THR:O	7:E:72:VAL:HG23	1.90	0.71
1:X:1411:C:O2'	1:X:1412:C:H5'	1.90	0.71
3:A:132:PRO:O	3:A:136:VAL:HG23	1.90	0.71
1:X:332:C:C1'	5:C:159:ARG:HE	2.03	0.71
1:X:2736:U:H4'	1:X:2737:A:OP1	1.89	0.71
6:D:41:GLY:HA2	6:D:44:LYS:O	1.90	0.71
19:Q:29:VAL:HG11	19:Q:38:ILE:CD1	2.21	0.71
24:V:14:PHE:CD2	24:V:57:LYS:HB2	2.25	0.71
24:V:14:PHE:HD2	24:V:57:LYS:HB2	1.54	0.71
22:T:3:HIS:HD2	22:T:5:LYS:HD3	1.54	0.71
6:D:33:LYS:HB2	6:D:91:LEU:O	1.91	0.71
2:Y:30:C:OP1	14:L:37:HIS:CB	2.39	0.71
1:X:2796:A:H5''	4:B:162:MET:CE	2.19	0.71
1:X:1753:A:O5'	1:X:1753:A:H8	1.73	0.71
1:X:1787:U:H2'	1:X:1788:C:C6	2.25	0.71
1:X:2873:G:H21	9:G:162:LYS:NZ	1.88	0.71
16:N:39:LEU:HA	16:N:42:ALA:CB	2.20	0.71
18:P:14:ARG:HA	18:P:17:GLN:HG2	1.72	0.71
1:X:2195:C:H2'	1:X:2196:U:C1'	2.21	0.71
20:R:18:LYS:HA	20:R:36:VAL:HG12	1.72	0.71
1:X:541:C:O2'	1:X:542:A:OP2	2.07	0.71
21:S:141:MET:HB3	21:S:171:VAL:CG2	2.20	0.71
1:X:729:A:C2'	1:X:730:C:O4'	2.35	0.71
16:N:72:HIS:CD2	16:N:110:VAL:HG21	2.21	0.71
16:N:93:LYS:NZ	17:O:10:LYS:HZ3	1.89	0.71
17:O:57:GLN:N	17:O:97:GLY:HA3	2.03	0.71
5:C:26:VAL:O	5:C:30:VAL:HG23	1.89	0.71
17:O:66:GLY:O	17:O:87:ARG:HD3	1.90	0.71
9:G:98:LYS:HB3	9:G:116:ARG:HB2	1.73	0.71
6:D:143:TYR:HA	6:D:146:VAL:CG2	2.21	0.71
16:N:74:MET:O	16:N:75:ASN:HB3	1.90	0.71
21:S:10:PRO:O	21:S:14:LEU:HG	1.91	0.71
15:M:27:PHE:HB3	15:M:93:ILE:HD12	1.71	0.71
1:X:914:C:H2'	1:X:915:C:C6	2.26	0.71
4:B:120:TRP:O	4:B:121:ASN:HB2	1.89	0.71
10:H:27:SER:HB3	10:H:50:ILE:H	1.54	0.71
1:X:208:C:C2'	1:X:209:G:H5'	2.20	0.71
1:X:1122:A:H2	1:X:1123:G:H1'	1.56	0.71
1:X:514:G:N2	18:P:15:LYS:CA	2.53	0.71
22:T:58:THR:HG22	22:T:59:LEU:H	1.54	0.71
1:X:1337:G:OP2	18:P:105:ARG:NH1	2.24	0.71

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2625:U:C6	1:X:2625:U:OP2	2.43	0.71
1:X:797:A:H5''	3:A:227:ASN:HD21	1.53	0.71
3:A:163:VAL:HG22	3:A:177:LEU:HA	1.72	0.71
1:X:1517:C:H2'	1:X:1518:C:H6	1.55	0.71
1:X:2394:G:OP1	11:I:63:ARG:HD2	1.91	0.71
6:D:70:ALA:HB3	6:D:83:MET:N	1.99	0.71
10:H:83:ARG:HH11	15:M:40:ARG:CD	2.03	0.71
1:X:1474:A:H4'	1:X:1475:U:O5'	1.90	0.71
11:I:73:GLU:HG2	11:I:101:ARG:CB	2.21	0.71
3:A:160:GLY:CA	3:A:196:VAL:HG23	2.21	0.71
1:X:2404:A:H4'	1:X:2405:A:H5''	1.70	0.71
7:E:29:PRO:HG2	7:E:79:VAL:O	1.90	0.71
22:T:38:VAL:HG21	22:T:79:ILE:HD11	1.73	0.71
1:X:2764:U:H2'	1:X:2765:C:H6	1.55	0.71
1:X:2323:U:O4'	1:X:2323:U:P	2.49	0.71
14:L:38:ILE:CG1	14:L:39:TYR:N	2.54	0.71
1:X:1468:A:H5''	1:X:1472:C:H41	1.54	0.71
26:Z:33:CYS:O	26:Z:37:HIS:HA	1.91	0.71
1:X:1482:U:H2'	1:X:1483:G:C8	2.26	0.71
12:J:28:VAL:HG21	12:J:135:ARG:HA	1.73	0.71
6:D:106:ILE:HG23	6:D:110:ARG:HD2	1.72	0.71
1:X:1349:A:H2'	1:X:1350:G:H8	1.56	0.71
1:X:2198:U:C2	1:X:2199:C:C6	2.79	0.70
23:U:27:ASP:C	23:U:32:ARG:HD3	2.11	0.70
15:M:46:ARG:HG3	15:M:47:SER:N	2.06	0.70
1:X:1882:G:H21	1:X:1885:C:H41	1.37	0.70
18:P:94:GLU:HG2	18:P:127:ILE:HB	1.71	0.70
1:X:416:U:O2'	1:X:417:C:H5	1.74	0.70
1:X:1525:A:H3'	1:X:1526:U:H6	1.55	0.70
1:X:10:A:H2'	1:X:11:G:C8	2.26	0.70
25:W:3:ILE:O	25:W:31:SER:HB2	1.91	0.70
11:I:81:GLN:HE22	11:I:115:SER:HA	1.56	0.70
13:K:3:HIS:CE1	13:K:5:LYS:HD2	2.26	0.70
15:M:34:ARG:HD3	15:M:88:VAL:HG22	1.72	0.70
3:A:206:LEU:CA	3:A:211:ARG:HD3	2.21	0.70
7:E:43:VAL:HG23	7:E:51:LEU:O	1.91	0.70
1:X:685:U:O2'	1:X:686:C:H5'	1.91	0.70
1:X:2198:U:H2'	1:X:2199:C:C1'	2.20	0.70
11:I:62:LYS:HD3	29:3:12:ARG:CA	2.21	0.70
6:D:92:ARG:NH2	6:D:92:ARG:HG3	2.05	0.70
14:L:68:ALA:O	14:L:71:VAL:HG13	1.91	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:L:81:GLU:O	14:L:82:LYS:HG2	1.89	0.70
1:X:2691:C:H4'	1:X:2692:A:OP1	1.91	0.70
11:I:13:ARG:HH21	11:I:13:ARG:CG	2.05	0.70
1:X:865:A:H2'	1:X:866:U:C6	2.26	0.70
1:X:1539:U:H2'	1:X:1540:C:C6	2.24	0.70
3:A:48:ARG:H	3:A:48:ARG:HD2	1.57	0.70
14:L:21:THR:HG22	14:L:22:ALA:N	2.06	0.70
1:X:203:G:O2'	1:X:204:A:H5'	1.91	0.70
8:F:90:THR:N	8:F:91:PRO:CD	2.54	0.70
5:C:137:ALA:HB1	5:C:142:LEU:HB2	1.73	0.70
1:X:2371:A:H2	1:X:2403:C:N4	1.89	0.70
1:X:2563:U:C2'	1:X:2564:U:H5''	2.20	0.70
20:R:59:LYS:HD2	20:R:62:MET:CG	2.16	0.70
1:X:2266:A:O2'	1:X:2267:A:H3'	1.90	0.70
1:X:2083:G:H2'	1:X:2084:G:C8	2.27	0.70
1:X:2823:G:O2'	1:X:2824:C:P	2.50	0.70
12:J:35:LEU:HB3	12:J:105:PHE:HB2	1.72	0.70
6:D:166:ALA:O	6:D:170:LEU:HG	1.92	0.70
1:X:1218:C:H5'	11:I:13:ARG:HH11	1.56	0.70
1:X:409:G:H1'	23:U:45:ASN:HD22	1.56	0.70
1:X:554:U:O2	1:X:554:U:C2'	2.38	0.70
1:X:1250:A:HO2'	1:X:1251:G:C4'	2.03	0.70
1:X:2767:C:H1'	4:B:62:PRO:HG3	1.71	0.70
20:R:80:LYS:HZ1	20:R:82:ALA:HA	1.55	0.70
1:X:760:U:C6	26:Z:3:LYS:HG3	2.26	0.70
9:G:61:ARG:HE	9:G:65:LYS:CD	2.03	0.70
10:H:116:ARG:CD	15:M:38:LYS:HE2	2.17	0.70
1:X:2175:A:H2'	1:X:2176:U:C6	2.27	0.70
1:X:1886:G:H2'	1:X:1887:G:H8	1.55	0.70
15:M:95:GLU:HG3	15:M:95:GLU:O	1.91	0.70
1:X:1218:C:C1'	11:I:13:ARG:HE	2.04	0.70
18:P:91:PHE:HD1	18:P:129:ALA:O	1.73	0.70
1:X:2325:A:HO2'	1:X:2326:C:P	2.15	0.70
17:O:28:GLU:C	17:O:30:GLY:H	1.94	0.70
1:X:2273:C:H5'	14:L:95:LYS:CE	2.21	0.70
12:J:69:ILE:O	12:J:69:ILE:HG13	1.90	0.70
26:Z:32:GLU:HG3	26:Z:37:HIS:O	1.92	0.70
1:X:177:U:H2'	1:X:178:C:O4'	1.90	0.70
13:K:31:GLU:O	13:K:33:ARG:N	2.24	0.70
1:X:540:G:O2'	1:X:542:A:C2	2.43	0.70
1:X:760:U:C1'	26:Z:3:LYS:HE2	2.22	0.70

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:40:LEU:HB3	6:D:150:ARG:NE	2.06	0.70
1:X:2286:G:C6	1:X:2287:G:H1'	2.27	0.70
9:G:49:VAL:HG13	9:G:50:PRO:HD2	1.72	0.70
16:N:66:ASN:HD22	16:N:70:ARG:HH12	1.39	0.70
21:S:87:THR:O	21:S:88:TYR:HB2	1.91	0.70
11:I:126:SER:OG	11:I:129:ALA:HB2	1.92	0.70
1:X:1211:G:H2'	1:X:1212:U:H6	1.57	0.70
14:L:36:LYS:HB3	14:L:64:LYS:HB2	1.72	0.70
5:C:176:ASN:O	5:C:180:ILE:HG22	1.92	0.70
5:C:47:THR:HA	5:C:82:VAL:HB	1.73	0.70
16:N:85:ARG:HG3	16:N:85:ARG:HH21	1.56	0.70
10:H:60:PRO:O	10:H:61:ARG:HB2	1.90	0.70
1:X:2322:U:H2'	1:X:2323:U:C6	2.26	0.70
1:X:357:A:N7	1:X:358:C:H1'	2.07	0.70
5:C:9:GLN:O	5:C:10:ASN:HB2	1.90	0.70
5:C:150:LEU:HG	5:C:187:VAL:HG11	1.73	0.70
1:X:1324:G:H1'	1:X:1326:U:O4	1.92	0.70
1:X:692:C:O2'	1:X:693:A:H5'	1.92	0.70
1:X:469:G:O2'	1:X:470:U:OP2	2.09	0.70
1:X:2662:C:H2'	1:X:2663:U:C6	2.26	0.70
1:X:1909:U:H5	1:X:1911:A:N6	1.88	0.70
20:R:54:ILE:HA	20:R:70:GLU:O	1.92	0.70
20:R:10:HIS:O	20:R:11:ASN:HB2	1.92	0.70
20:R:85:ASP:H	20:R:86:PRO:CD	2.04	0.70
1:X:318:G:H8	1:X:318:G:H5'	1.55	0.70
1:X:2764:U:H2'	1:X:2765:C:C6	2.27	0.70
1:X:564:U:H2'	1:X:565:A:C8	2.27	0.70
1:X:2075:U:HO2'	1:X:2076:G:H5''	1.56	0.70
9:G:148:LEU:HD11	9:G:150:VAL:HG23	1.74	0.70
2:Y:16:U:H1'	2:Y:109:G:N2	2.04	0.70
5:C:26:VAL:HA	11:I:18:ARG:NH1	2.06	0.70
1:X:611:C:C4'	5:C:98:GLN:HE22	2.05	0.70
12:J:44:LYS:HE3	12:J:93:TYR:HE1	1.57	0.69
1:X:2286:G:H21	1:X:2290:A:H61	1.39	0.69
1:X:2247:A:H5'	1:X:2248:A:OP2	1.91	0.69
5:C:24:SER:O	5:C:27:LEU:N	2.24	0.69
19:Q:11:VAL:HG22	19:Q:28:TRP:NE1	2.07	0.69
13:K:11:ASN:OD1	13:K:17:ARG:CZ	2.41	0.69
16:N:22:LYS:C	16:N:24:PHE:H	1.94	0.69
1:X:571:U:O2'	1:X:581:A:O4'	2.10	0.69
3:A:143:HIS:ND1	3:A:194:GLY:O	2.25	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1569:A:H2'	1:X:1571:G:N7	2.06	0.69
1:X:1490:U:H2'	1:X:1491:C:H6	1.55	0.69
1:X:1432:G:H2'	1:X:1594:U:O4	1.91	0.69
21:S:19:ILE:CG1	21:S:36:ARG:HA	2.21	0.69
15:M:34:ARG:NH1	15:M:88:VAL:HG21	2.07	0.69
1:X:2310:G:O4'	22:T:42:GLY:HA3	1.91	0.69
1:X:417:C:C2	1:X:419:G:N7	2.60	0.69
1:X:400:U:O2'	1:X:401:G:H5''	1.91	0.69
11:I:68:VAL:O	11:I:68:VAL:HG12	1.93	0.69
2:Y:123:U:OP1	2:Y:123:U:H3'	1.92	0.69
6:D:46:ASP:C	6:D:48:LYS:N	2.45	0.69
1:X:1090:C:O2'	1:X:1091:C:H5'	1.91	0.69
23:U:28:GLY:N	23:U:32:ARG:HD3	2.07	0.69
6:D:16:LEU:O	6:D:20:PHE:N	2.24	0.69
24:V:24:GLU:O	24:V:28:LEU:HD23	1.92	0.69
1:X:2309:G:H2'	1:X:2310:G:H5'	1.74	0.69
4:B:34:VAL:HG12	4:B:72:VAL:HG21	1.73	0.69
1:X:674:U:H1'	11:I:22:GLY:HA2	1.74	0.69
21:S:149:ALA:HB3	21:S:164:PRO:HA	1.74	0.69
1:X:1142:G:H1'	9:G:103:TYR:CD2	2.27	0.69
23:U:10:LYS:HE2	23:U:11:LYS:HE3	1.73	0.69
6:D:13:ARG:O	6:D:16:LEU:HB2	1.93	0.69
1:X:2320:G:H2'	1:X:2321:C:C6	2.27	0.69
23:U:19:ILE:HA	23:U:42:GLN:HA	1.72	0.69
1:X:944:A:O2'	1:X:945:G:H5'	1.93	0.69
1:X:1060:C:H2'	1:X:1061:A:C8	2.27	0.69
17:O:22:VAL:HA	17:O:91:THR:OG1	1.92	0.69
19:Q:39:LYS:HE3	19:Q:50:VAL:HB	1.73	0.69
1:X:663:G:C2'	1:X:664:C:H5''	2.21	0.69
16:N:8:ILE:HD13	16:N:12:ARG:CZ	2.22	0.69
1:X:2210:C:OP1	23:U:45:ASN:HA	1.92	0.69
11:I:81:GLN:HB3	11:I:114:ILE:HG22	1.73	0.69
1:X:137:A:C8	1:X:137:A:OP2	2.45	0.69
15:M:106:TYR:CE1	15:M:107:LEU:HD23	2.28	0.69
1:X:2779:C:H3'	1:X:2779:C:H6	1.57	0.69
12:J:64:LYS:HG2	12:J:108:ALA:O	1.92	0.69
1:X:517:A:C5'	1:X:518:A:H5'	2.19	0.69
3:A:73:SER:HB2	3:A:120:GLY:CA	2.22	0.69
1:X:219:G:H2'	1:X:231:G:O6	1.93	0.69
1:X:1995:G:O5'	1:X:1995:G:H8	1.76	0.69
1:X:1017:C:O2	9:G:134:MET:HG2	1.93	0.69

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1069:G:C2'	1:X:1070:G:H5''	2.22	0.69
10:H:25:LEU:HD11	10:H:52:VAL:CG2	2.22	0.69
25:W:4:LYS:HD2	25:W:52:GLU:OE2	1.92	0.69
1:X:2624:G:H4'	1:X:2712:G:O2'	1.92	0.69
1:X:417:C:C1'	1:X:419:G:C8	2.75	0.69
19:Q:4:TYR:CE1	19:Q:45:ALA:HA	2.28	0.69
18:P:40:LEU:HD12	18:P:62:ARG:HH12	1.57	0.69
3:A:88:ARG:HG2	3:A:90:ALA:HB3	1.75	0.69
1:X:2198:U:C4	1:X:2199:C:C5	2.81	0.69
1:X:1187:A:H5'	1:X:1188:A:OP2	1.92	0.69
1:X:346:C:H2'	1:X:347:C:H6	1.58	0.69
2:Y:46:G:H4'	6:D:92:ARG:HH12	1.58	0.69
6:D:34:ILE:O	6:D:91:LEU:HB2	1.92	0.69
6:D:30:ARG:O	6:D:158:THR:HB	1.92	0.69
1:X:1922:U:O2'	1:X:2571:G:C1'	2.40	0.69
1:X:1922:U:H4'	1:X:1923:U:OP2	1.90	0.69
1:X:1885:C:H2'	1:X:1886:G:H5'	1.73	0.69
21:S:23:ALA:HA	21:S:83:PHE:O	1.91	0.69
1:X:1778:U:H2'	1:X:1779:C:C6	2.28	0.69
19:Q:69:ILE:CD1	19:Q:70:GLY:N	2.55	0.69
24:V:41:HIS:CD2	24:V:42:ARG:H	2.09	0.69
12:J:69:ILE:HG21	12:J:104:MET:HG2	1.74	0.69
1:X:1953:A:H1'	1:X:1955:G:C8	2.28	0.69
1:X:1312:G:H5''	1:X:1313:U:OP1	1.93	0.69
1:X:1253:C:H5'	1:X:1253:C:H6	1.57	0.69
3:A:126:LYS:O	3:A:193:ILE:HB	1.91	0.69
1:X:416:U:O2'	1:X:417:C:C5	2.46	0.69
1:X:2640:G:H2'	1:X:2641:A:C8	2.28	0.69
1:X:841:G:H2'	1:X:842:A:C8	2.28	0.69
1:X:2728:A:H2'	1:X:2729:A:H8	1.57	0.69
1:X:2245:A:H1'	1:X:2251:U:O4	1.93	0.69
20:R:17:LYS:HB3	20:R:18:LYS:NZ	2.08	0.69
20:R:91:ALA:O	20:R:108:VAL:HG22	1.93	0.69
21:S:141:MET:HB3	21:S:171:VAL:HG23	1.75	0.69
1:X:2375:G:H4'	23:U:32:ARG:O	1.92	0.69
15:M:104:LEU:HA	15:M:106:TYR:CD2	2.28	0.69
12:J:12:LYS:O	12:J:13:GLN:CB	2.40	0.69
1:X:1324:G:H1'	1:X:1326:U:C4	2.28	0.69
1:X:1734:C:C5	1:X:1735:G:H1'	2.28	0.69
11:I:28:LYS:HZ2	11:I:37:GLN:H	1.41	0.69
1:X:995:A:OP2	1:X:996:C:N4	2.20	0.69

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:501:G:H2'	1:X:502:A:H8	1.57	0.69
8:F:111:LYS:O	8:F:115:LEU:HG	1.94	0.69
9:G:132:PHE:CE1	9:G:145:HIS:HB2	2.27	0.69
17:O:36:LYS:HZ2	17:O:54:TYR:CB	2.03	0.69
5:C:8:GLY:O	5:C:9:GLN:HB3	1.93	0.69
1:X:1386:A:H5''	1:X:2191:A:H62	1.56	0.69
11:I:32:ARG:CZ	17:O:81:ARG:HE	2.05	0.69
11:I:130:ILE:HG23	11:I:140:VAL:CG2	2.23	0.69
18:P:31:VAL:HG21	18:P:124:ILE:HD12	1.75	0.69
1:X:777:A:H62	1:X:1766:U:H3	1.40	0.69
1:X:529:U:H2'	1:X:530:G:H8	1.57	0.68
12:J:15:ARG:HD3	12:J:73:LYS:HZ3	1.56	0.68
11:I:47:ALA:C	11:I:49:PHE:H	1.97	0.68
10:H:41:ASN:O	10:H:42:LYS:HB3	1.93	0.68
1:X:1513:U:H5''	1:X:1514:C:OP2	1.93	0.68
5:C:172:VAL:O	5:C:172:VAL:HG12	1.93	0.68
20:R:105:ARG:HH22	20:R:112:LYS:HA	1.57	0.68
20:R:90:LYS:CG	20:R:108:VAL:HG21	2.22	0.68
1:X:2081:U:H3	1:X:2174:G:H1	1.41	0.68
23:U:13:LEU:O	23:U:14:VAL:HG13	1.92	0.68
1:X:1732:U:H4'	1:X:1733:U:OP2	1.91	0.68
1:X:1570:C:H5'	1:X:1571:G:OP2	1.92	0.68
1:X:2055:G:O2'	1:X:2056:C:H5'	1.92	0.68
10:H:125:LYS:O	10:H:128:SER:HB2	1.93	0.68
6:D:65:PRO:HB3	6:D:89:VAL:HG22	1.75	0.68
21:S:120:LEU:HD23	21:S:121:GLN:H	1.59	0.68
10:H:13:ASN:HD21	10:H:109:ARG:HG2	1.58	0.68
1:X:1031:C:H41	1:X:1153:A:H61	1.37	0.68
1:X:503:G:H2'	1:X:504:G:O4'	1.93	0.68
1:X:2240:C:O2'	1:X:2241:U:H5'	1.92	0.68
4:B:26:VAL:O	4:B:182:ILE:HG22	1.92	0.68
1:X:2309:G:C2'	1:X:2310:G:H5'	2.23	0.68
11:I:32:ARG:NH1	17:O:81:ARG:NH2	2.41	0.68
21:S:148:THR:HB	21:S:164:PRO:O	1.92	0.68
1:X:2334:C:H4'	22:T:24:LYS:HD2	1.74	0.68
1:X:1189:G:H2'	1:X:1190:C:O4'	1.94	0.68
1:X:98:U:O2	1:X:98:U:H2'	1.92	0.68
17:O:10:LYS:HD2	17:O:37:ALA:HB3	1.76	0.68
1:X:871:U:O2'	1:X:2247:A:H2'	1.94	0.68
3:A:246:PRO:HD3	3:A:251:GLY:H	1.57	0.68
11:I:107:LYS:HG2	11:I:109:LEU:HD21	1.75	0.68

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:56:ARG:HD3	5:C:71:ASP:OD2	1.93	0.68
9:G:44:VAL:HG12	9:G:45:ASP:H	1.58	0.68
1:X:205:A:H2'	1:X:206:U:H5'	1.76	0.68
1:X:1914:U:H6	1:X:1914:U:H5'	1.58	0.68
1:X:1522:C:H2'	1:X:1523:A:C4'	2.23	0.68
1:X:1505:U:H2'	1:X:1506:C:H5''	1.76	0.68
5:C:122:GLY:C	5:C:124:ASP:H	1.97	0.68
1:X:333:A:C3'	5:C:162:ARG:CZ	2.66	0.68
20:R:93:ARG:NH2	20:R:108:VAL:HA	2.07	0.68
1:X:1072:U:O4'	1:X:1081:A:H1'	1.93	0.68
17:O:56:VAL:HA	17:O:97:GLY:HA3	1.75	0.68
21:S:122:ILE:HD13	21:S:158:CYS:HB3	1.75	0.68
11:I:53:ARG:HH21	11:I:53:ARG:HG3	1.58	0.68
1:X:1629:G:C6	1:X:1633:C:C5	2.81	0.68
2:Y:106:U:H4'	21:S:67:LYS:NZ	2.08	0.68
1:X:1231:A:H2'	1:X:1232:U:C6	2.28	0.68
1:X:623:G:N3	1:X:626:A:N1	2.42	0.68
20:R:22:VAL:HG13	20:R:81:VAL:O	1.94	0.68
23:U:54:ASN:O	23:U:56:GLN:N	2.27	0.68
6:D:36:VAL:O	6:D:89:VAL:HG23	1.94	0.68
6:D:70:ALA:CB	6:D:83:MET:H	1.98	0.68
17:O:25:LEU:HB2	17:O:32:LYS:NZ	2.09	0.68
21:S:34:LEU:HD21	21:S:39:PHE:HD1	1.58	0.68
1:X:687:G:O2'	1:X:688:A:H5'	1.93	0.68
25:W:40:VAL:HA	25:W:43:MET:HG2	1.75	0.68
20:R:11:ASN:O	20:R:12:ASP:C	2.31	0.68
1:X:756:C:O2'	1:X:757:U:H5'	1.93	0.68
6:D:13:ARG:CB	6:D:14:PRO:HD3	2.23	0.68
1:X:558:G:N3	1:X:558:G:O5'	2.27	0.68
5:C:112:GLN:HE22	5:C:188:ILE:HD11	1.58	0.68
19:Q:63:LYS:HE3	19:Q:65:VAL:HA	1.75	0.68
3:A:246:PRO:CD	3:A:251:GLY:H	2.07	0.68
1:X:1118:G:H2'	1:X:1119:U:C5'	2.23	0.68
1:X:501:G:H2'	1:X:502:A:C8	2.29	0.68
1:X:2009:U:H6	1:X:2009:U:H5''	1.57	0.68
9:G:105:GLY:O	9:G:110:LEU:HD12	1.94	0.68
1:X:1094:C:H2'	1:X:1096:A:H5'	1.75	0.68
23:U:31:GLY:CA	23:U:32:ARG:HH11	2.05	0.68
21:S:64:ALA:HA	21:S:85:MET:CA	2.20	0.68
21:S:89:GLY:O	21:S:90:GLU:HG2	1.93	0.68
1:X:1811:A:H4'	1:X:1812:U:H5''	1.74	0.68

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1118:G:C2'	1:X:1119:U:H5'	2.23	0.68
1:X:2259:G:H4'	1:X:2306:A:H5'	1.74	0.68
9:G:155:THR:HG23	9:G:156:HIS:N	2.08	0.68
1:X:623:G:H2'	1:X:626:A:N1	2.09	0.68
1:X:174:A:N6	1:X:2409:A:H2'	2.07	0.68
1:X:100:G:HO2'	1:X:101:A:H8	1.40	0.68
1:X:731:A:O2'	1:X:732:G:H5'	1.93	0.68
19:Q:53:ILE:HD13	19:Q:80:VAL:HG12	1.75	0.68
1:X:2448:A:H61	1:X:2460:G:H1'	1.58	0.68
11:I:29:THR:HA	11:I:34:HIS:CB	2.23	0.68
1:X:1514:C:O4'	1:X:1593:C:H4'	1.93	0.68
10:H:104:GLU:HG2	10:H:125:LYS:HD2	1.75	0.68
3:A:88:ARG:HD3	3:A:106:LEU:HD21	1.76	0.68
20:R:105:ARG:NH2	20:R:112:LYS:HA	2.08	0.68
23:U:10:LYS:HG2	23:U:11:LYS:HG3	1.74	0.68
6:D:41:GLY:O	6:D:43:SER:N	2.27	0.68
6:D:70:ALA:O	6:D:82:GLY:HA2	1.94	0.68
1:X:1071:U:H1'	1:X:1073:G:H5'	1.76	0.68
1:X:1073:G:H1'	1:X:1099:A:N7	2.08	0.68
17:O:26:GLN:CG	17:O:27:GLY:H	2.07	0.68
23:U:23:LYS:HD2	23:U:35:THR:OG1	1.92	0.68
21:S:48:THR:O	21:S:49:THR:HG23	1.93	0.68
22:T:31:VAL:HG11	22:T:37:LEU:HD21	1.76	0.68
1:X:1065:A:O2'	1:X:1066:G:H5'	1.93	0.68
30:4:9:LYS:H	30:4:9:LYS:CD	2.06	0.68
1:X:2065:A:H3'	1:X:2066:G:H8	1.58	0.68
1:X:310:A:H61	5:C:162:ARG:HH22	1.40	0.67
1:X:84:G:OP1	20:R:39:ALA:CB	2.42	0.67
2:Y:46:G:H5'	6:D:92:ARG:NH1	2.08	0.67
2:Y:53:G:N2	2:Y:54:U:H5	1.93	0.67
1:X:558:G:C4	1:X:558:G:C3'	2.74	0.67
11:I:73:GLU:HG2	11:I:101:ARG:HB2	1.75	0.67
10:H:25:LEU:HD11	10:H:52:VAL:HG22	1.76	0.67
1:X:490:A:O2'	1:X:491:A:H5'	1.94	0.67
1:X:1851:A:H62	1:X:1866:G:N2	1.91	0.67
1:X:2507:U:OP1	30:4:31:LYS:HE3	1.94	0.67
1:X:2728:A:H2'	1:X:2729:A:C8	2.29	0.67
23:U:22:GLY:HA3	23:U:39:LYS:CD	2.25	0.67
1:X:1505:U:H3'	1:X:1505:U:H6	1.58	0.67
23:U:11:LYS:HZ1	23:U:75:TYR:HB2	1.59	0.67
1:X:2352:A:H2'	1:X:2353:G:H8	1.59	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:54:ARG:HE	7:E:57:ASP:CB	2.07	0.67
1:X:1324:G:H1'	1:X:1326:U:C5	2.29	0.67
8:F:84:ILE:HG21	8:F:96:VAL:HG11	1.75	0.67
1:X:192:G:H4'	1:X:193:A:O5'	1.94	0.67
26:Z:45:ILE:HG21	26:Z:57:VAL:HG23	1.75	0.67
1:X:100:G:O2'	1:X:101:A:OP1	2.08	0.67
1:X:2266:A:H62	1:X:2323:U:H3	1.42	0.67
14:L:76:ALA:HB1	14:L:111:GLY:N	2.10	0.67
1:X:1073:G:OP2	1:X:1081:A:H4'	1.93	0.67
7:E:139:GLN:O	7:E:143:GLN:HG3	1.94	0.67
1:X:1129:A:OP1	1:X:1129:A:H4'	1.94	0.67
1:X:636:G:H8	1:X:636:G:H5'	1.59	0.67
17:O:66:GLY:O	17:O:87:ARG:NH1	2.27	0.67
1:X:936:A:O2'	1:X:937:C:H5'	1.95	0.67
1:X:623:G:C2'	1:X:626:A:H61	2.08	0.67
11:I:54:SER:O	11:I:59:ARG:NH2	2.27	0.67
9:G:104:THR:O	9:G:105:GLY:O	2.12	0.67
1:X:2598:C:O2'	4:B:154:LYS:HE3	1.94	0.67
1:X:756:C:C2'	1:X:757:U:H5'	2.24	0.67
21:S:141:MET:SD	21:S:147:ILE:HG12	2.34	0.67
1:X:2266:A:C2	1:X:2268:G:H1'	2.29	0.67
6:D:123:ASP:C	6:D:125:ARG:N	2.48	0.67
2:Y:36:A:H1'	2:Y:51:G:N2	2.10	0.67
9:G:67:ARG:HE	9:G:70:PHE:HB3	1.59	0.67
19:Q:11:VAL:H	19:Q:27:PHE:HA	1.60	0.67
21:S:64:ALA:N	21:S:86:VAL:HG23	2.10	0.67
1:X:1787:U:H2'	1:X:1788:C:H6	1.57	0.67
5:C:47:THR:OG1	5:C:87:LYS:HD3	1.95	0.67
30:4:22:ARG:HD2	30:4:37:GLY:HA3	1.76	0.67
8:F:98:LYS:HG3	8:F:137:THR:O	1.94	0.67
1:X:640:C:H4'	1:X:660:G:H21	1.58	0.67
8:F:84:ILE:HG12	8:F:96:VAL:HG12	1.76	0.67
1:X:1252:C:C2'	1:X:1253:C:H5''	2.24	0.67
1:X:27:G:H1'	1:X:523:A:N6	2.10	0.67
1:X:1167:A:N6	16:N:48:ARG:HD3	2.09	0.67
23:U:78:ILE:HD13	23:U:79:GLU:N	2.09	0.67
1:X:2569:A:H2'	1:X:2570:C:H6	1.59	0.67
1:X:1747:G:H4'	1:X:1749:G:H1'	1.75	0.67
11:I:94:GLU:HB3	11:I:97:ARG:HH11	1.58	0.67
1:X:667:U:C6	1:X:667:U:C3'	2.77	0.67
1:X:1625:A:O2'	1:X:1632:A:H4'	1.94	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:K:91:PRO:O	13:K:92:GLY:O	2.12	0.67
1:X:2071:G:O2'	1:X:2072:C:H5'	1.95	0.67
12:J:79:PRO:HD3	12:J:88:LYS:NZ	2.08	0.67
4:B:154:LYS:HZ1	4:B:156:MET:HE1	1.59	0.67
9:G:106:TYR:O	9:G:110:LEU:HD11	1.94	0.67
1:X:1018:C:N4	1:X:1019:U:O4	2.28	0.67
1:X:1072:U:C1'	1:X:1081:A:H1'	2.23	0.67
1:X:1094:C:C2'	1:X:1096:A:H5'	2.23	0.67
16:N:70:ARG:HH11	16:N:70:ARG:HG3	1.58	0.67
5:C:189:ASP:OD1	5:C:190:ALA:N	2.26	0.67
3:A:250:TRP:O	3:A:255:LYS:NZ	2.17	0.67
3:A:251:GLY:HA3	3:A:255:LYS:HD2	1.75	0.67
12:J:64:LYS:HD2	12:J:64:LYS:N	2.07	0.67
19:Q:92:ALA:C	19:Q:94:GLN:H	1.98	0.67
3:A:108:PRO:HB3	3:A:143:HIS:CE1	2.29	0.67
1:X:1522:C:H2'	1:X:1523:A:H4'	1.76	0.67
1:X:1076:U:H2'	1:X:1077:U:O4'	1.95	0.67
4:B:75:THR:O	4:B:76:ARG:CB	2.43	0.67
20:R:36:VAL:O	20:R:37:LEU:HD23	1.95	0.67
1:X:2273:C:H5'	14:L:95:LYS:HE3	1.76	0.67
3:A:244:ARG:C	3:A:252:LYS:NZ	2.48	0.67
4:B:131:SER:O	4:B:132:LYS:CG	2.41	0.67
9:G:62:ILE:O	9:G:77:GLY:HA3	1.95	0.67
5:C:125:ILE:O	5:C:126:ALA:HB3	1.94	0.67
5:C:128:ALA:HB2	5:C:159:ARG:CZ	2.25	0.67
4:B:154:LYS:NZ	4:B:156:MET:CE	2.58	0.67
1:X:1070:G:O2'	8:F:74:MET:HE2	1.95	0.67
6:D:13:ARG:HB3	6:D:14:PRO:CD	2.23	0.67
14:L:11:LEU:HA	14:L:14:ARG:HD2	1.75	0.67
3:A:231:HIS:ND1	3:A:247:VAL:HA	2.10	0.67
1:X:589:C:H4'	16:N:31:GLN:CD	2.14	0.67
13:K:53:THR:HG22	13:K:53:THR:O	1.94	0.67
12:J:125:LYS:HZ2	12:J:125:LYS:CB	2.06	0.67
1:X:2023:C:H2'	1:X:2024:U:H6	1.59	0.67
1:X:2417:U:O2'	1:X:2418:A:C5'	2.33	0.67
1:X:2288:A:H2'	1:X:2289:A:C8	2.24	0.67
14:L:87:VAL:HG12	14:L:88:VAL:H	1.58	0.67
26:Z:4:HIS:HB3	26:Z:5:PRO:HD2	1.75	0.67
11:I:47:ALA:HA	11:I:49:PHE:CE2	2.29	0.67
4:B:131:SER:C	4:B:132:LYS:HG2	2.15	0.67
20:R:100:ASP:C	20:R:102:LYS:H	1.97	0.67

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:402:A:C8	1:X:2392:G:H4'	2.30	0.67
5:C:153:ASP:C	5:C:154:ASP:OD1	2.33	0.67
20:R:48:VAL:O	20:R:50:GLY:N	2.28	0.67
1:X:1112:U:O2'	1:X:1113:C:H5'	1.95	0.67
1:X:774:A:C8	1:X:774:A:H3'	2.29	0.67
20:R:54:ILE:HD13	20:R:71:GLN:HA	1.77	0.67
7:E:155:ASP:OD2	7:E:158:HIS:N	2.26	0.67
6:D:74:ILE:HG23	6:D:79:LEU:O	1.96	0.66
14:L:64:LYS:H	14:L:64:LYS:HD3	1.57	0.66
17:O:20:ILE:HD11	17:O:23:GLU:OE2	1.95	0.66
1:X:305:A:H2'	1:X:306:G:H5'	1.78	0.66
1:X:1804:U:H2'	1:X:1805:G:H8	1.60	0.66
5:C:166:TRP:H	5:C:166:TRP:HE3	1.40	0.66
20:R:18:LYS:HA	20:R:36:VAL:HG11	1.76	0.66
1:X:540:G:O2'	1:X:542:A:H2	1.74	0.66
6:D:152:MET:CE	6:D:154:ILE:HD11	2.24	0.66
8:F:120:VAL:O	8:F:123:ALA:N	2.28	0.66
9:G:39:GLN:O	9:G:39:GLN:HG3	1.95	0.66
19:Q:43:GLN:OE1	19:Q:49:ARG:HA	1.96	0.66
22:T:44:LYS:HE3	22:T:45:PHE:HE1	1.60	0.66
1:X:88:G:H3'	1:X:89:A:H5''	1.78	0.66
1:X:860:U:H2'	1:X:860:U:O2	1.94	0.66
23:U:22:GLY:HA3	23:U:39:LYS:HD2	1.77	0.66
5:C:136:TRP:CD1	5:C:137:ALA:N	2.63	0.66
20:R:60:PRO:C	20:R:62:MET:H	1.98	0.66
6:D:132:ILE:HG22	6:D:133:LYS:N	2.09	0.66
6:D:88:LYS:HE2	6:D:90:THR:OG1	1.95	0.66
7:E:126:PRO:HD2	7:E:130:ARG:O	1.95	0.66
1:X:1325:U:O2'	1:X:1327:C:C5	2.48	0.66
30:4:25:VAL:CB	30:4:34:GLN:HB2	2.24	0.66
1:X:969:U:C5	12:J:17:ARG:HB2	2.30	0.66
1:X:1856:U:H2'	1:X:1857:G:O5'	1.94	0.66
3:A:79:VAL:HG11	3:A:113:VAL:HA	1.78	0.66
3:A:89:SER:OG	3:A:159:ALA:HB2	1.96	0.66
5:C:129:LYS:C	5:C:131:LYS:H	1.99	0.66
1:X:2293:G:OP1	6:D:88:LYS:HE3	1.96	0.66
2:Y:34:C:H2'	2:Y:35:C:C6	2.30	0.66
2:Y:39:C:H5'	2:Y:40:C:OP2	1.96	0.66
1:X:1068:A:C8	1:X:1097:A:H2'	2.30	0.66
2:Y:11:G:P	14:L:28:ARG:HH22	2.17	0.66
1:X:1473:U:OP2	1:X:1473:U:C6	2.48	0.66

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:599:A:H2'	1:X:600:G:C8	2.31	0.66
21:S:6:LYS:HB2	21:S:31:SER:O	1.96	0.66
1:X:1372:A:H2'	1:X:1373:G:O4'	1.95	0.66
1:X:417:C:C5	1:X:419:G:C4	2.84	0.66
1:X:417:C:C6	1:X:419:G:N9	2.64	0.66
20:R:38:LEU:HB2	20:R:47:VAL:HB	1.76	0.66
1:X:2034:A:OP1	4:B:137:ARG:NH2	2.29	0.66
9:G:106:TYR:O	9:G:110:LEU:CD1	2.44	0.66
1:X:2294:U:O2'	6:D:125:ARG:HG3	1.96	0.66
2:Y:59:A:C2	6:D:26:MET:HB3	2.30	0.66
14:L:27:LEU:O	14:L:88:VAL:HG23	1.95	0.66
1:X:2080:U:H2'	1:X:2081:U:C6	2.30	0.66
1:X:1840:A:H2'	1:X:1841:G:O4'	1.96	0.66
14:L:20:THR:HG21	14:L:23:ALA:HB3	1.76	0.66
1:X:2045:A:H4'	1:X:2046:C:OP1	1.93	0.66
1:X:82:G:O2'	1:X:83:A:C8	2.49	0.66
4:B:141:ILE:HG23	4:B:154:LYS:HD3	1.77	0.66
14:L:38:ILE:CG1	14:L:39:TYR:H	2.08	0.66
6:D:13:ARG:HA	6:D:16:LEU:HD12	1.78	0.66
5:C:7:ILE:HG22	5:C:120:VAL:O	1.96	0.66
13:K:10:LEU:HD22	13:K:13:ASN:O	1.95	0.66
8:F:98:LYS:HZ3	8:F:139:GLU:HB2	1.60	0.66
23:U:46:LEU:O	23:U:47:HIS:ND1	2.29	0.66
1:X:2551:A:N7	4:B:145:LYS:HB2	2.10	0.66
3:A:134:ARG:HG3	3:A:135:PHE:CD2	2.31	0.66
13:K:73:LYS:O	13:K:76:VAL:HG12	1.96	0.66
2:Y:3:A:H2'	2:Y:4:C:H5'	1.77	0.66
1:X:1504:G:H2'	1:X:1505:U:C2	2.30	0.66
20:R:25:LEU:HD12	20:R:81:VAL:N	2.10	0.66
13:K:94:TYR:CZ	13:K:115:LEU:O	2.48	0.66
21:S:113:VAL:HG22	21:S:171:VAL:CG2	2.25	0.66
9:G:43:VAL:O	9:G:167:LYS:HG3	1.95	0.66
1:X:1467:U:H3'	1:X:1467:U:C6	2.27	0.66
1:X:104:C:H2'	1:X:105:G:C5'	2.18	0.66
24:V:2:LYS:HG3	24:V:3:PRO:HD3	1.76	0.66
24:V:41:HIS:HA	24:V:44:ARG:HE	1.61	0.66
25:W:37:THR:C	25:W:41:ARG:HG3	2.16	0.66
1:X:653:G:C2'	1:X:654:A:H5''	2.25	0.66
22:T:32:LYS:CB	22:T:35:ASN:ND2	2.59	0.66
1:X:2800:C:C2'	1:X:2801:A:H5'	2.25	0.66
1:X:415:A:C2'	1:X:416:U:H5'	2.25	0.66

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:219:G:N2	1:X:231:G:H2'	2.11	0.66
5:C:97:ARG:O	5:C:101:GLN:HG2	1.96	0.66
1:X:2437:G:O2'	1:X:2438:A:N7	2.29	0.66
1:X:623:G:H21	1:X:626:A:H2	0.79	0.66
20:R:29:HIS:CE1	20:R:51:VAL:HG22	2.30	0.66
1:X:1095:A:H2'	1:X:1096:A:O4'	1.96	0.66
24:V:42:ARG:NH1	24:V:45:GLN:NE2	2.43	0.66
12:J:106:GLU:OE1	12:J:106:GLU:O	2.14	0.66
1:X:886:A:H1'	12:J:30:PHE:CE1	2.31	0.66
3:A:251:GLY:HA3	3:A:255:LYS:CE	2.25	0.66
19:Q:92:ALA:O	19:Q:94:GLN:N	2.29	0.66
1:X:5:A:O2'	1:X:6:A:H5'	1.95	0.66
1:X:427:C:O2	1:X:1856:U:H4'	1.96	0.66
13:K:20:LEU:O	13:K:23:ALA:N	2.28	0.66
1:X:1626:A:H5''	1:X:1627:C:OP2	1.95	0.66
10:H:9:ASP:OD1	10:H:93:ARG:NH2	2.29	0.66
10:H:97:VAL:HG11	10:H:126:ILE:CD1	2.25	0.66
1:X:1506:C:H2'	3:A:99:ASP:OD1	1.95	0.66
21:S:113:VAL:CG2	21:S:171:VAL:HG22	2.25	0.66
1:X:729:A:OP1	1:X:729:A:C2	2.49	0.66
16:N:93:LYS:CE	17:O:10:LYS:HZ3	2.09	0.66
19:Q:39:LYS:O	19:Q:42:ILE:HG23	1.95	0.66
7:E:51:LEU:HD12	7:E:52:VAL:H	1.61	0.66
7:E:9:ILE:HD12	7:E:50:LEU:HB3	1.78	0.66
1:X:1253:C:H5'	1:X:1253:C:C6	2.31	0.66
1:X:2628:C:H2'	1:X:2629:U:C6	2.31	0.66
5:C:158:ARG:O	5:C:160:ALA:N	2.28	0.66
1:X:1075:C:O2'	8:F:89:SER:HB3	1.96	0.66
20:R:14:LEU:O	20:R:16:PHE:N	2.27	0.66
6:D:143:TYR:HA	6:D:146:VAL:HG22	1.78	0.66
1:X:2082:C:H2'	1:X:2083:G:H5'	1.77	0.66
1:X:1598:C:H6	1:X:1598:C:O5'	1.78	0.66
1:X:543:G:H5'	16:N:24:PHE:CD1	2.30	0.66
11:I:32:ARG:NH1	17:O:81:ARG:HH21	1.94	0.66
25:W:1:MET:O	25:W:34:VAL:HG12	1.96	0.66
1:X:169:C:C2'	1:X:170:U:H5'	2.26	0.66
10:H:70:VAL:HG23	10:H:106:ARG:NH1	2.11	0.66
1:X:134:G:N2	1:X:136:A:C5'	2.57	0.65
1:X:1850:G:C2'	1:X:1851:A:H8	2.07	0.65
20:R:112:LYS:O	20:R:113:THR:HG23	1.96	0.65
4:B:154:LYS:HZ1	4:B:156:MET:CE	2.08	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2556:A:H5''	1:X:2557:G:H5'	1.78	0.65
14:L:63:ASN:HB2	14:L:67:THR:HG23	1.78	0.65
16:N:61:TRP:CZ3	16:N:93:LYS:HA	2.31	0.65
1:X:2726:U:H2'	1:X:2727:G:H5'	1.77	0.65
6:D:12:VAL:O	6:D:16:LEU:HG	1.96	0.65
1:X:1812:U:O2	1:X:1812:U:H2'	1.95	0.65
1:X:242:A:O2'	1:X:243:G:H4'	1.96	0.65
19:Q:16:ALA:O	19:Q:19:ALA:HB3	1.96	0.65
23:U:19:ILE:CG2	23:U:42:GLN:HG3	2.25	0.65
11:I:11:GLY:O	11:I:14:LYS:N	2.29	0.65
7:E:50:LEU:CD2	7:E:51:LEU:H	2.08	0.65
16:N:88:ILE:HG12	17:O:49:GLU:OE1	1.97	0.65
1:X:2426:G:H3'	1:X:2479:U:OP2	1.96	0.65
12:J:97:VAL:HG23	12:J:97:VAL:O	1.96	0.65
7:E:33:LEU:CD1	7:E:34:THR:H	2.08	0.65
11:I:130:ILE:O	11:I:132:ALA:N	2.26	0.65
5:C:2:ALA:HA	5:C:13:ARG:HA	1.78	0.65
1:X:679:C:H2'	1:X:680:U:C6	2.31	0.65
18:P:46:ARG:HH11	18:P:46:ARG:HG2	1.61	0.65
14:L:51:LEU:N	14:L:51:LEU:HD12	2.11	0.65
1:X:136:A:N7	1:X:137:A:C5	2.64	0.65
3:A:70:ARG:HH12	3:A:149:PRO:CA	2.09	0.65
23:U:52:ARG:HD2	23:U:79:GLU:CA	2.26	0.65
16:N:61:TRP:HZ3	16:N:93:LYS:HA	1.59	0.65
7:E:54:ARG:NE	7:E:57:ASP:OD2	2.29	0.65
1:X:1550:C:H2'	1:X:1553:G:H22	1.57	0.65
1:X:1386:A:H5''	1:X:2191:A:C6	2.32	0.65
1:X:2706:U:H2'	1:X:2706:U:O2	1.95	0.65
11:I:38:LYS:HD3	11:I:40:ARG:O	1.96	0.65
15:M:16:ILE:HG22	15:M:16:ILE:O	1.94	0.65
2:Y:64:C:H2'	2:Y:65:A:C8	2.30	0.65
1:X:994:A:O2'	1:X:995:A:OP1	2.14	0.65
1:X:621:U:H2'	1:X:622:U:C6	2.30	0.65
1:X:1971:C:O2'	1:X:1972:G:H5'	1.97	0.65
3:A:184:ARG:HH11	3:A:184:ARG:HG2	1.60	0.65
20:R:93:ARG:NH1	20:R:108:VAL:C	2.49	0.65
9:G:55:ALA:CB	9:G:134:MET:HE1	2.15	0.65
14:L:15:ARG:CD	14:L:91:ARG:HH11	2.01	0.65
21:S:95:SER:HB3	21:S:119:ASN:ND2	2.10	0.65
21:S:123:VAL:HG23	21:S:161:ALA:CB	2.27	0.65
26:Z:34:PRO:HB2	26:Z:35:GLN:NE2	2.11	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:39:LEU:HA	16:N:42:ALA:HB3	1.77	0.65
15:M:37:THR:CG2	15:M:39:VAL:HG13	2.26	0.65
1:X:585:U:H2'	1:X:586:G:C8	2.30	0.65
23:U:10:LYS:HG2	23:U:11:LYS:N	2.10	0.65
6:D:122:PHE:CB	6:D:129:ASN:HD22	1.96	0.65
23:U:28:GLY:HA3	23:U:32:ARG:CA	2.26	0.65
7:E:97:LYS:O	7:E:98:LEU:HB2	1.95	0.65
14:L:42:ILE:CG2	14:L:52:ALA:H	2.10	0.65
1:X:1745:C:OP1	15:M:101:ARG:NH2	2.29	0.65
5:C:27:LEU:HD11	5:C:106:MET:HG2	1.79	0.65
11:I:13:ARG:HB3	11:I:13:ARG:CZ	2.26	0.65
1:X:2310:G:N2	1:X:2364:C:C4	2.64	0.65
22:T:32:LYS:O	22:T:61:ALA:HB3	1.96	0.65
18:P:9:ARG:O	18:P:10:ASN:HB3	1.96	0.65
11:I:128:ALA:HA	11:I:131:LYS:HB2	1.78	0.65
1:X:1791:C:H5'	1:X:1792:C:OP1	1.96	0.65
1:X:1186:G:C4'	1:X:1187:A:OP2	2.44	0.65
20:R:22:VAL:HG11	20:R:80:LYS:CE	2.26	0.65
13:K:87:TYR:CD1	13:K:90:ARG:HD2	2.32	0.65
1:X:760:U:C5	26:Z:3:LYS:HG3	2.31	0.65
21:S:30:VAL:HB	21:S:32:PHE:CZ	2.32	0.65
22:T:71:ASN:HB2	22:T:77:ARG:HH11	1.60	0.65
15:M:34:ARG:HH11	15:M:81:PHE:CB	2.09	0.65
10:H:23:ARG:HH12	10:H:25:LEU:HD23	1.59	0.65
5:C:112:GLN:HA	5:C:116:LYS:HB3	1.78	0.65
3:A:206:LEU:HD22	3:A:211:ARG:HB3	1.78	0.65
1:X:2616:U:H5''	4:B:82:ARG:HH21	1.58	0.65
11:I:42:GLY:O	11:I:43:ALA:HB2	1.97	0.65
1:X:2015:G:H2'	4:B:145:LYS:HZ1	1.61	0.65
6:D:39:GLY:HA2	6:D:86:GLY:CA	2.26	0.65
1:X:793:G:H21	1:X:796:A:H62	1.44	0.65
1:X:1033:G:O2'	1:X:1034:U:H5'	1.96	0.65
1:X:2475:C:C2'	1:X:2476:A:H5'	2.26	0.65
1:X:2613:A:O2'	1:X:2614:A:H5'	1.96	0.65
17:O:29:ALA:O	17:O:31:ASP:N	2.30	0.65
1:X:2440:C:H2'	1:X:2441:U:H6	1.61	0.65
4:B:136:ARG:O	4:B:137:ARG:HB2	1.97	0.65
21:S:100:THR:HG23	21:S:138:VAL:HG21	1.78	0.65
21:S:113:VAL:HA	21:S:171:VAL:CA	2.16	0.65
2:Y:53:G:H21	2:Y:54:U:H5	1.43	0.65
1:X:2617:G:O2'	1:X:2618:A:H8	1.77	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J:69:ILE:CG2	12:J:104:MET:HA	2.26	0.65
4:B:4:ILE:HG23	4:B:5:LEU:N	2.11	0.65
1:X:1313:U:O2'	1:X:1314:A:P	2.55	0.65
1:X:2691:C:O2'	1:X:2692:A:P	2.55	0.65
22:T:29:GLU:O	22:T:67:VAL:HG23	1.97	0.65
3:A:142:VAL:HB	3:A:192:THR:O	1.96	0.65
1:X:415:A:C3'	1:X:416:U:H5'	2.27	0.65
1:X:1524:C:H3'	1:X:1525:A:O4'	1.97	0.65
11:I:130:ILE:HG23	11:I:140:VAL:HG21	1.77	0.65
1:X:712:A:H2'	1:X:713:G:O4'	1.96	0.65
4:B:154:LYS:O	4:B:156:MET:HG3	1.96	0.65
17:O:23:GLU:O	17:O:24:SER:HB3	1.95	0.65
1:X:1745:C:P	15:M:101:ARG:HH22	2.20	0.65
1:X:2447:G:HO2'	1:X:2448:A:H8	1.45	0.65
1:X:1926:U:H4'	1:X:1927:U:O5'	1.96	0.65
1:X:459:A:H4'	1:X:461:A:N7	2.11	0.65
16:N:81:ASN:HD21	16:N:85:ARG:HE	1.43	0.65
18:P:57:LEU:HD13	18:P:69:ALA:HA	1.78	0.65
1:X:428:A:H2'	1:X:429:C:C6	2.31	0.65
1:X:1682:A:O2'	1:X:1683:G:H5'	1.97	0.65
14:L:30:SER:C	14:L:31:VAL:HG12	2.17	0.65
26:Z:58:LEU:H	26:Z:58:LEU:HD12	1.62	0.65
5:C:122:GLY:HA2	5:C:124:ASP:OD1	1.96	0.65
10:H:116:ARG:NH1	15:M:38:LYS:NZ	2.44	0.65
1:X:930:A:O5'	1:X:930:A:H8	1.80	0.65
7:E:54:ARG:NH1	7:E:62:ARG:NE	2.45	0.65
21:S:120:LEU:HD23	21:S:121:GLN:N	2.10	0.65
21:S:62:PHE:HB3	21:S:85:MET:SD	2.37	0.65
1:X:596:C:H5'	5:C:84:PHE:CE1	2.32	0.65
16:N:7:GLY:O	16:N:9:VAL:N	2.30	0.65
1:X:2212:U:H2'	1:X:2213:G:H8	1.62	0.65
4:B:178:GLY:O	4:B:179:GLU:HG3	1.96	0.65
1:X:654:A:N3	1:X:654:A:H2'	2.11	0.65
1:X:2205:C:C2'	1:X:2206:C:H5'	2.27	0.65
21:S:1:MET:HE1	21:S:52:PHE:HB3	1.77	0.65
1:X:1050:G:H2'	1:X:1051:U:H5'	1.78	0.65
23:U:51:ILE:HG12	23:U:59:THR:CG2	2.23	0.65
14:L:101:LYS:HG2	14:L:105:ASP:OD2	1.97	0.65
1:X:1459:U:H4'	1:X:1460:G:OP1	1.96	0.65
1:X:1467:U:C3'	1:X:1467:U:C6	2.80	0.65
5:C:117:LEU:HD23	5:C:118:VAL:N	2.12	0.65

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:56:VAL:O	24:V:59:GLU:N	2.30	0.65
16:N:82:GLY:HA3	16:N:113:SER:HG	1.61	0.65
1:X:648:A:H5'	1:X:649:G:H4'	1.77	0.65
1:X:1429:A:H1'	1:X:1603:A:C6	2.32	0.65
1:X:143:A:H2'	1:X:144:U:H6	1.57	0.65
20:R:100:ASP:C	20:R:102:LYS:N	2.49	0.65
1:X:801:A:O2'	1:X:802:A:P	2.54	0.65
10:H:26:ASN:HB3	10:H:38:GLY:H	1.60	0.65
20:R:27:GLY:O	20:R:30:LYS:HG2	1.97	0.64
20:R:25:LEU:HD12	20:R:81:VAL:H	1.62	0.64
13:K:87:TYR:HE1	13:K:94:TYR:HD2	1.45	0.64
6:D:46:ASP:HB2	6:D:49:ALA:HB3	1.78	0.64
6:D:92:ARG:CA	6:D:96:MET:HB2	2.27	0.64
17:O:36:LYS:HD2	17:O:54:TYR:C	2.17	0.64
17:O:90:PHE:CD1	17:O:91:THR:N	2.64	0.64
1:X:1698:C:O2'	1:X:1753:A:C2'	2.44	0.64
1:X:242:A:N6	1:X:440:U:H2'	2.11	0.64
4:B:91:VAL:HB	4:B:93:VAL:HG12	1.77	0.64
4:B:192:ASN:HD22	15:M:9:ARG:NH1	1.92	0.64
1:X:487:G:H4'	1:X:512:A:N1	2.12	0.64
25:W:9:VAL:HG12	25:W:17:VAL:HG22	1.79	0.64
1:X:1655:C:H4'	1:X:2689:C:O2	1.96	0.64
1:X:1658:A:H2'	1:X:1659:G:O4'	1.96	0.64
1:X:1288:A:H2'	1:X:1289:A:O4'	1.98	0.64
1:X:2809:A:H2'	1:X:2854:G:O6	1.96	0.64
7:E:139:GLN:C	7:E:143:GLN:HG3	2.18	0.64
1:X:2796:A:H5''	4:B:162:MET:HE1	1.79	0.64
15:M:38:LYS:C	15:M:40:ARG:H	2.01	0.64
21:S:91:PRO:HD3	21:S:127:PRO:CD	2.24	0.64
1:X:404:A:H1'	1:X:424:G:H1'	1.78	0.64
1:X:797:A:H5''	3:A:227:ASN:ND2	2.12	0.64
1:X:233:A:O2'	1:X:234:C:H5'	1.96	0.64
5:C:2:ALA:CB	5:C:13:ARG:HA	2.27	0.64
16:N:59:ARG:O	16:N:63:GLN:HG3	1.97	0.64
30:4:15:LYS:HB2	30:4:26:ILE:HG13	1.78	0.64
1:X:91:A:H2'	1:X:92:U:C6	2.33	0.64
1:X:1503:G:H2'	1:X:1504:G:C8	2.32	0.64
11:I:52:GLY:HA3	11:I:55:ARG:NH1	2.11	0.64
14:L:40:ALA:HB1	14:L:103:LEU:HD21	1.78	0.64
14:L:60:LYS:HG2	14:L:62:GLY:H	1.62	0.64
2:Y:45:C:H2'	6:D:92:ARG:NE	2.13	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:L:16:LYS:HE2	14:L:28:ARG:NH1	2.10	0.64
14:L:27:LEU:O	14:L:88:VAL:N	2.30	0.64
3:A:43:ARG:NH1	3:A:43:ARG:N	2.37	0.64
12:J:36:ILE:HG23	12:J:102:ARG:O	1.97	0.64
5:C:45:THR:HG22	5:C:47:THR:OG1	1.96	0.64
11:I:7:LYS:N	11:I:7:LYS:HD3	2.12	0.64
1:X:1856:U:O2'	1:X:1857:G:O5'	2.15	0.64
7:E:44:ARG:HG3	7:E:44:ARG:HH21	1.62	0.64
3:A:141:VAL:HG22	3:A:164:GLN:HB3	1.78	0.64
1:X:1736:C:H2'	1:X:1737:G:H8	1.61	0.64
1:X:1644:G:H2'	1:X:1645:U:H6	1.61	0.64
1:X:624:A:C4'	1:X:626:A:C6	2.81	0.64
1:X:761:G:OP2	18:P:109:ARG:HG3	1.97	0.64
23:U:70:LEU:HD21	23:U:77:GLY:O	1.97	0.64
6:D:134:GLU:OE2	6:D:136:LEU:HD12	1.97	0.64
1:X:1218:C:H5'	11:I:13:ARG:NH1	2.11	0.64
1:X:1805:G:N3	3:A:50:THR:HG21	2.13	0.64
1:X:673:G:H5'	5:C:93:TYR:CD1	2.33	0.64
1:X:1053:G:C4	1:X:1054:C:C5	2.86	0.64
23:U:53:GLU:O	23:U:78:ILE:HG22	1.98	0.64
1:X:2074:U:H3'	1:X:2075:U:H5''	1.79	0.64
9:G:55:ALA:HB1	9:G:134:MET:CE	2.14	0.64
1:X:1095:A:H2'	1:X:1096:A:C5'	2.26	0.64
17:O:36:LYS:HD2	17:O:55:THR:HA	1.79	0.64
1:X:1006:C:H4'	1:X:1007:A:OP1	1.96	0.64
24:V:2:LYS:HA	24:V:6:MET:CE	2.28	0.64
1:X:886:A:H4'	12:J:66:TYR:CE2	2.32	0.64
1:X:1836:C:H5'	3:A:254:THR:O	1.98	0.64
11:I:134:GLU:C	11:I:136:ALA:H	2.01	0.64
1:X:1107:A:H3'	1:X:1108:U:C5'	2.24	0.64
7:E:11:VAL:HG21	7:E:50:LEU:HB2	1.80	0.64
1:X:116:A:N3	1:X:155:G:H1'	2.13	0.64
26:Z:42:SER:O	26:Z:43:HIS:HB2	1.95	0.64
20:R:80:LYS:HE3	20:R:80:LYS:O	1.98	0.64
19:Q:83:ALA:O	19:Q:85:GLY:N	2.31	0.64
2:Y:17:A:H1'	2:Y:112:A:C8	2.33	0.64
15:M:104:LEU:HB3	15:M:107:LEU:CD1	2.27	0.64
1:X:1631:C:H1'	18:P:108:PRO:CG	2.24	0.64
1:X:2691:C:O2'	1:X:2692:A:O5'	2.15	0.64
1:X:1737:G:O2'	1:X:1738:U:H5'	1.96	0.64
3:A:73:SER:HB2	3:A:120:GLY:HA2	1.78	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:81:ARG:HG3	19:Q:81:ARG:NH1	2.11	0.64
13:K:91:PRO:O	13:K:92:GLY:C	2.35	0.64
1:X:942:U:O2'	25:W:22:ALA:HA	1.96	0.64
20:R:96:LYS:HG3	20:R:97:GLN:N	2.11	0.64
12:J:79:PRO:HD2	12:J:88:LYS:HD2	1.78	0.64
3:A:44:ASN:CB	3:A:49:ILE:HA	2.26	0.64
5:C:117:LEU:HD23	5:C:117:LEU:C	2.17	0.64
5:C:148:VAL:HB	5:C:167:VAL:CG1	2.18	0.64
12:J:69:ILE:HD13	12:J:104:MET:HB3	1.80	0.64
19:Q:90:ALA:O	19:Q:92:ALA:N	2.31	0.64
13:K:102:THR:HA	13:K:109:THR:HA	1.79	0.64
11:I:61:PRO:O	11:I:62:LYS:HB2	1.98	0.64
20:R:25:LEU:C	20:R:25:LEU:HD22	2.18	0.64
4:B:116:VAL:H	4:B:136:ARG:HE	0.71	0.64
6:D:74:ILE:CA	6:D:79:LEU:HB3	2.27	0.64
11:I:76:LYS:HB3	11:I:79:GLN:NE2	2.13	0.64
1:X:2617:G:OP2	4:B:82:ARG:NH2	2.31	0.64
12:J:66:TYR:O	12:J:106:GLU:OE1	2.16	0.64
3:A:67:PHE:HB3	3:A:153:ALA:N	2.06	0.64
5:C:48:ARG:HD2	5:C:48:ARG:N	2.10	0.64
1:X:752:G:C4'	1:X:753:U:OP1	2.44	0.64
1:X:2849:C:H2'	1:X:2850:U:H5'	1.79	0.64
1:X:2219:U:O2'	1:X:2220:A:H5'	1.97	0.64
20:R:15:HIS:ND1	20:R:16:PHE:HD2	1.91	0.64
9:G:52:GLY:O	9:G:55:ALA:HB3	1.97	0.64
1:X:1071:U:H1'	1:X:1073:G:C5'	2.28	0.64
3:A:243:GLY:CA	3:A:244:ARG:NH1	2.61	0.64
11:I:72:TYR:HA	11:I:105:PRO:HG2	1.79	0.64
21:S:4:THR:HB	21:S:57:GLU:CB	2.19	0.64
3:A:54:ILE:O	3:A:54:ILE:HG23	1.98	0.64
12:J:19:THR:HG22	12:J:20:GLY:N	2.12	0.64
11:I:118:VAL:O	11:I:138:GLY:HA3	1.98	0.64
1:X:2301:A:H2'	1:X:2302:G:H8	1.62	0.64
1:X:177:U:H3'	1:X:178:C:H6	1.62	0.64
4:B:72:VAL:O	4:B:73:ALA:HB2	1.98	0.64
4:B:155:ARG:HG3	4:B:155:ARG:HH11	1.61	0.64
5:C:12:GLY:O	5:C:14:THR:N	2.30	0.64
20:R:55:THR:O	20:R:70:GLU:N	2.31	0.64
1:X:2070:G:H2'	1:X:2071:G:H8	1.63	0.64
1:X:2604:G:H2'	1:X:2605:C:C6	2.33	0.64
1:X:959:C:O2'	1:X:960:U:H5'	1.97	0.64

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:G:72:PRO:O	9:G:74:MET:N	2.30	0.64
20:R:105:ARG:HH22	20:R:112:LYS:N	1.96	0.64
9:G:102:ARG:NH2	9:G:112:THR:HG21	2.13	0.64
21:S:113:VAL:HG22	21:S:171:VAL:CG1	2.28	0.64
9:G:67:ARG:O	9:G:70:PHE:CE1	2.51	0.64
16:N:66:ASN:HD22	16:N:70:ARG:NH1	1.95	0.64
14:L:52:ALA:O	14:L:53:ALA:HB3	1.98	0.64
1:X:2174:G:H2'	1:X:2175:A:C8	2.32	0.64
10:H:23:ARG:HH12	10:H:25:LEU:CG	2.10	0.64
1:X:1551:U:H5'	1:X:1552:C:C5	2.32	0.64
1:X:553:C:C5'	1:X:554:U:OP1	2.45	0.64
1:X:2343:C:O2	22:T:36:ILE:HD11	1.96	0.64
1:X:224:G:H4'	1:X:399:G:C5	2.33	0.64
1:X:1608:U:H2'	1:X:1609:G:C8	2.33	0.64
1:X:2046:C:O2	1:X:2430:A:C2	2.51	0.64
1:X:958:G:H2'	1:X:959:C:C6	2.33	0.64
1:X:2713:A:O2'	1:X:2714:A:H5'	1.98	0.63
1:X:2210:C:H2'	1:X:2211:U:H6	1.61	0.63
8:F:79:ARG:O	8:F:84:ILE:N	2.31	0.63
9:G:84:ASN:O	9:G:152:ALA:HA	1.97	0.63
21:S:148:THR:HG22	21:S:167:THR:HA	1.80	0.63
23:U:39:LYS:O	23:U:40:ARG:HB2	1.98	0.63
1:X:191:G:O2'	1:X:192:G:H5'	1.98	0.63
4:B:75:THR:O	4:B:76:ARG:HB3	1.97	0.63
1:X:387:A:H2'	1:X:387:A:N3	2.13	0.63
12:J:81:GLU:HG2	12:J:82:THR:N	2.10	0.63
1:X:2564:U:H5'	1:X:2565:C:OP1	1.97	0.63
1:X:1007:A:H1'	17:O:6:GLN:HG2	1.80	0.63
5:C:187:VAL:CG1	5:C:187:VAL:O	2.46	0.63
1:X:1493:A:H2'	1:X:1494:G:O4'	1.98	0.63
7:E:31:GLY:O	7:E:79:VAL:HG12	1.98	0.63
1:X:1602:G:H5'	1:X:1603:A:OP2	1.99	0.63
1:X:954:U:C2'	1:X:955:G:H5''	2.28	0.63
13:K:25:ALA:HB2	13:K:47:PHE:CE2	2.32	0.63
1:X:797:A:C5	3:A:229:VAL:HG21	2.33	0.63
1:X:1349:A:H2'	1:X:1350:G:C8	2.33	0.63
1:X:1391:A:O2'	1:X:1392:U:P	2.57	0.63
5:C:128:ALA:O	5:C:130:THR:N	2.30	0.63
16:N:26:GLY:O	16:N:28:ARG:N	2.31	0.63
17:O:12:TYR:O	17:O:13:ARG:CB	2.45	0.63
1:X:930:A:H5''	2:Y:100:G:O2'	1.97	0.63

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:43:ARG:HH21	3:A:55:GLY:HA2	1.62	0.63
1:X:1553:G:H2'	1:X:1554:G:C8	2.32	0.63
11:I:93:LEU:O	11:I:97:ARG:HG3	1.97	0.63
11:I:45:LYS:HD3	11:I:46:GLY:H	1.60	0.63
11:I:45:LYS:CE	11:I:47:ALA:HB3	2.21	0.63
1:X:109:A:C3'	1:X:110:U:H5''	2.27	0.63
1:X:2424:G:OP1	5:C:68:ARG:NH2	2.31	0.63
1:X:476:G:H2'	1:X:477:A:C8	2.32	0.63
4:B:144:ARG:HG2	4:B:145:LYS:N	2.12	0.63
22:T:21:LEU:CD1	22:T:41:ARG:HG2	2.28	0.63
7:E:136:ILE:H	7:E:136:ILE:HD12	1.63	0.63
18:P:44:VAL:HG21	18:P:60:ILE:HD11	1.79	0.63
1:X:615:C:H41	11:I:100:ARG:NH1	1.96	0.63
1:X:888:G:H2'	1:X:889:C:O4'	1.98	0.63
1:X:322:A:O2'	1:X:343:A:H4'	1.99	0.63
21:S:113:VAL:CA	21:S:171:VAL:HA	2.16	0.63
2:Y:50:U:H2'	2:Y:51:G:H8	1.63	0.63
1:X:1949:A:H1'	1:X:2572:U:C5'	2.27	0.63
15:M:32:THR:HG22	15:M:33:VAL:H	1.62	0.63
11:I:92:THR:O	11:I:94:GLU:N	2.32	0.63
16:N:81:ASN:HD21	16:N:85:ARG:NE	1.96	0.63
12:J:136:GLU:OE1	12:J:136:GLU:HA	1.99	0.63
1:X:2477:C:H6	1:X:2477:C:H5'	1.64	0.63
1:X:177:U:H5	1:X:225:G:N2	1.96	0.63
1:X:1734:C:H5''	1:X:1735:G:C8	2.34	0.63
1:X:1416:A:H2'	1:X:1417:C:C6	2.32	0.63
4:B:72:VAL:O	4:B:73:ALA:CB	2.46	0.63
3:A:58:HIS:O	3:A:59:LYS:CB	2.47	0.63
11:I:82:ASP:H	11:I:114:ILE:HG21	1.64	0.63
1:X:2845:C:H5''	13:K:65:LEU:HD11	1.80	0.63
5:C:122:GLY:C	5:C:124:ASP:N	2.52	0.63
20:R:11:ASN:HD22	20:R:11:ASN:C	2.02	0.63
11:I:58:ALA:O	11:I:59:ARG:HB2	1.96	0.63
1:X:2023:C:H2'	1:X:2024:U:C6	2.34	0.63
14:L:40:ALA:CB	14:L:103:LEU:HD21	2.28	0.63
8:F:115:LEU:C	8:F:117:ALA:H	2.01	0.63
1:X:1007:A:C2	1:X:1008:G:C8	2.87	0.63
23:U:27:ASP:HA	23:U:32:ARG:HH21	1.64	0.63
1:X:1949:A:H1'	1:X:2572:U:H5'	1.80	0.63
19:Q:51:ILE:CD1	19:Q:83:ALA:HA	2.16	0.63
15:M:99:VAL:HG21	15:M:104:LEU:CD2	2.29	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:171:PRO:O	5:C:173:ALA:N	2.32	0.63
3:A:43:ARG:N	3:A:43:ARG:HD2	2.12	0.63
19:Q:7:LEU:HD23	24:V:30:PHE:CE2	2.33	0.63
12:J:35:LEU:HD23	12:J:105:PHE:HD2	1.62	0.63
12:J:21:ASP:N	12:J:99:LYS:HE2	2.14	0.63
16:N:3:ARG:HG2	16:N:3:ARG:HH11	1.63	0.63
6:D:136:LEU:O	6:D:137:ILE:HG23	1.98	0.63
25:W:23:LEU:HD21	25:W:43:MET:HB2	1.79	0.63
7:E:37:TYR:OH	7:E:72:VAL:HG22	1.99	0.63
1:X:1804:U:H2'	1:X:1805:G:C8	2.34	0.63
18:P:48:LYS:HZ1	18:P:56:LEU:HD11	1.64	0.63
26:Z:52:TYR:O	26:Z:53:ASP:HB2	1.99	0.63
3:A:186:HIS:O	3:A:188:GLU:N	2.32	0.63
1:X:1630:A:N1	18:P:114:ALA:HB2	2.14	0.63
6:D:74:ILE:HG23	6:D:80:ARG:CA	2.28	0.63
2:Y:37:C:H2'	2:Y:38:C:O4'	1.99	0.63
9:G:38:GLU:O	9:G:39:GLN:HB3	1.98	0.63
14:L:28:ARG:HA	14:L:88:VAL:O	1.99	0.63
1:X:1475:U:H4'	1:X:1475:U:OP2	1.99	0.63
1:X:2217:G:H5''	1:X:2218:G:OP1	1.98	0.63
10:H:47:VAL:HA	10:H:74:VAL:HG12	1.80	0.63
25:W:41:ARG:HG2	25:W:41:ARG:HH11	1.62	0.63
1:X:181:A:H2	1:X:182:G:N2	1.95	0.63
19:Q:84:GLU:O	19:Q:86:GLN:N	2.32	0.63
14:L:66:ASP:C	14:L:68:ALA:H	2.02	0.63
9:G:148:LEU:HD12	9:G:149:LYS:H	1.61	0.63
16:N:66:ASN:HA	16:N:69:ALA:HB3	1.81	0.63
1:X:426:C:H4'	1:X:1863:U:O2'	1.98	0.63
7:E:98:LEU:CD1	7:E:99:THR:H	2.07	0.63
19:Q:6:ILE:CG2	19:Q:7:LEU:N	2.60	0.63
12:J:128:ILE:C	12:J:128:ILE:HD12	2.19	0.63
7:E:43:VAL:CG2	7:E:52:VAL:HG22	2.28	0.63
1:X:1442:C:O2'	1:X:1443:G:OP1	2.11	0.63
1:X:1250:A:O2'	1:X:1251:G:O4'	2.12	0.63
20:R:63:THR:HG22	20:R:64:ASN:ND2	2.14	0.63
14:L:107:ALA:C	14:L:109:GLU:H	2.02	0.63
1:X:1071:U:H4'	1:X:1072:U:O5'	1.99	0.63
1:X:2797:G:H2'	1:X:2798:A:H5''	1.80	0.63
6:D:11:GLN:O	6:D:15:ALA:HB3	1.98	0.63
2:Y:14:C:H5''	22:T:72:LYS:HD3	1.80	0.63
11:I:76:LYS:HB3	11:I:79:GLN:HG2	1.81	0.63

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:34:GLN:HE22	5:C:178:TYR:H	1.45	0.63
1:X:577:U:OP1	11:I:40:ARG:NH2	2.31	0.63
1:X:592:G:OP2	16:N:10:ARG:NH1	2.28	0.63
1:X:1337:G:OP2	18:P:105:ARG:CZ	2.46	0.63
5:C:197:GLU:HG2	5:C:198:GLU:N	2.14	0.63
4:B:155:ARG:NH1	4:B:155:ARG:HG3	2.12	0.63
1:X:796:A:C8	1:X:797:A:H4'	2.33	0.63
14:L:21:THR:O	14:L:24:SER:HB2	1.97	0.63
1:X:2628:C:H2'	1:X:2629:U:H6	1.63	0.63
1:X:801:A:O2'	1:X:802:A:OP2	2.15	0.63
15:M:82:PRO:HB2	15:M:85:SER:HB2	1.81	0.63
10:H:7:ARG:NH1	10:H:20:MET:CE	2.62	0.63
3:A:72:LYS:HZ1	3:A:99:ASP:CG	2.02	0.63
20:R:25:LEU:HD11	20:R:81:VAL:HG23	1.79	0.63
23:U:53:GLU:HB3	23:U:58:LYS:N	2.14	0.63
23:U:52:ARG:HD2	23:U:79:GLU:C	2.19	0.63
17:O:13:ARG:HE	17:O:95:ILE:HG21	1.64	0.63
1:X:1922:U:O2'	1:X:2571:G:O4'	2.14	0.63
14:L:52:ALA:O	14:L:53:ALA:CB	2.47	0.63
1:X:872:G:H2'	1:X:928:G:N1	2.13	0.63
15:M:104:LEU:O	15:M:105:TYR:C	2.37	0.63
15:M:26:ASP:CG	15:M:27:PHE:H	1.95	0.63
21:S:73:LYS:O	21:S:74:ARG:HB2	1.99	0.63
1:X:1313:U:H1'	1:X:1642:G:C2	2.34	0.63
11:I:77:LEU:HD22	11:I:110:ALA:HA	1.81	0.63
23:U:13:LEU:CD1	23:U:14:VAL:H	2.11	0.63
1:X:1339:U:H5''	1:X:1994:U:H1'	1.80	0.63
1:X:940:G:OP1	1:X:940:G:H4'	1.99	0.63
13:K:20:LEU:HD21	13:K:40:LYS:HD3	1.81	0.63
1:X:1728:A:O2'	1:X:1729:C:H5'	1.99	0.63
1:X:1238:A:H5'	17:O:85:GLY:H	1.64	0.63
1:X:2523:G:O2'	1:X:2524:G:H5'	1.99	0.63
1:X:623:G:H3'	1:X:624:A:C5'	2.25	0.62
1:X:2736:U:O2'	1:X:2737:A:C5'	2.32	0.62
12:J:119:PHE:HD1	12:J:132:MET:SD	2.21	0.62
1:X:2033:C:H1'	4:B:156:MET:HE1	1.81	0.62
23:U:27:ASP:CA	23:U:32:ARG:HD3	2.29	0.62
10:H:116:ARG:NH1	15:M:38:LYS:HD3	2.14	0.62
1:X:2357:A:C4'	14:L:26:ARG:NH1	2.57	0.62
7:E:57:ASP:HB3	7:E:62:ARG:NE	2.04	0.62
12:J:15:ARG:CD	12:J:73:LYS:HZ2	2.07	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:42:ARG:HG3	24:V:46:LEU:HD11	1.80	0.62
12:J:34:GLY:HA2	12:J:106:GLU:CA	2.23	0.62
1:X:2448:A:N6	1:X:2460:G:H1'	2.14	0.62
21:S:131:PRO:CG	21:S:155:PRO:HG3	2.29	0.62
30:4:1:MET:SD	30:4:35:ARG:CZ	2.87	0.62
1:X:1770:U:C2	1:X:1774:A:N7	2.67	0.62
16:N:24:PHE:HE2	16:N:39:LEU:HD21	1.64	0.62
1:X:514:G:C5	18:P:20:LEU:CD2	2.82	0.62
1:X:2302:G:H1	1:X:2311:U:H3	1.47	0.62
11:I:32:ARG:HD2	17:O:81:ARG:HD2	1.81	0.62
7:E:37:TYR:CZ	7:E:72:VAL:HG22	2.33	0.62
23:U:22:GLY:H	23:U:39:LYS:HB2	1.64	0.62
4:B:100:GLU:O	4:B:172:VAL:HG23	1.98	0.62
1:X:1452:U:O2'	1:X:1453:A:H5'	1.98	0.62
1:X:2482:A:H4'	1:X:2483:U:OP1	1.99	0.62
1:X:2196:U:H2'	1:X:2197:U:N1	2.14	0.62
20:R:84:VAL:CG2	20:R:89:GLY:HA2	2.29	0.62
5:C:24:SER:O	5:C:28:HIS:N	2.29	0.62
1:X:2617:G:P	4:B:82:ARG:NH2	2.63	0.62
1:X:689:A:C8	1:X:2422:C:H1'	2.34	0.62
11:I:28:LYS:NZ	11:I:36:GLY:CA	2.62	0.62
1:X:825:C:O2'	1:X:826:U:H5'	1.98	0.62
1:X:2634:G:O2'	1:X:2643:G:N1	2.31	0.62
1:X:1730:G:O2'	1:X:1731:C:H5'	1.99	0.62
1:X:1186:G:C6	1:X:1187:A:N1	2.68	0.62
20:R:24:VAL:O	20:R:30:LYS:HA	1.98	0.62
2:Y:50:U:H2'	2:Y:51:G:C8	2.34	0.62
17:O:9:GLY:O	17:O:10:LYS:HB3	1.99	0.62
23:U:28:GLY:HA3	23:U:32:ARG:CB	2.30	0.62
10:H:116:ARG:HH22	15:M:41:GLU:CG	2.11	0.62
15:M:27:PHE:O	15:M:28:ARG:HG2	1.99	0.62
21:S:87:THR:HG21	21:S:90:GLU:O	1.99	0.62
17:O:78:VAL:HG13	17:O:78:VAL:O	2.00	0.62
1:X:1913:G:H5''	1:X:1914:U:OP1	1.99	0.62
21:S:106:GLY:N	21:S:109:GLN:HG3	2.14	0.62
21:S:113:VAL:CG1	21:S:171:VAL:HG22	2.29	0.62
9:G:41:TRP:O	9:G:165:VAL:HA	1.99	0.62
9:G:79:PHE:CE2	9:G:147:ARG:HG2	2.34	0.62
5:C:104:LEU:HD23	5:C:104:LEU:H	1.63	0.62
19:Q:22:ARG:HG3	19:Q:24:VAL:HG23	1.81	0.62
1:X:2222:U:H2'	1:X:2223:U:H6	1.59	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:W:40:VAL:HA	25:W:43:MET:HG3	1.80	0.62
2:Y:63:A:O2'	2:Y:64:C:H5'	1.99	0.62
11:I:28:LYS:NZ	11:I:36:GLY:HA2	2.14	0.62
10:H:99:ILE:HD12	10:H:103:GLY:HA2	1.82	0.62
3:A:46:ARG:HD3	3:A:47:GLY:N	2.13	0.62
1:X:2445:C:H5''	30:4:6:SER:HB2	1.82	0.62
1:X:2194:A:H2'	1:X:2195:C:C4'	2.30	0.62
1:X:623:G:N3	1:X:626:A:H2	1.94	0.62
4:B:116:VAL:HG13	4:B:136:ARG:NH2	2.12	0.62
1:X:2284:U:H2'	1:X:2285:U:H5''	1.80	0.62
1:X:1096:A:H4'	1:X:1097:A:OP1	1.99	0.62
7:E:91:GLY:O	7:E:92:VAL:O	2.17	0.62
5:C:107:ALA:HB1	5:C:180:ILE:HD13	1.81	0.62
1:X:2619:G:C6	1:X:2755:A:C2	2.88	0.62
1:X:514:G:C6	18:P:20:LEU:HD22	2.34	0.62
22:T:38:VAL:HG21	22:T:79:ILE:CD1	2.30	0.62
1:X:471:A:H2'	1:X:472:C:O4'	1.99	0.62
1:X:1102:G:O2'	1:X:1103:C:H5'	2.00	0.62
22:T:41:ARG:NH1	22:T:41:ARG:HG3	2.12	0.62
1:X:223:C:O2'	1:X:398:C:H5'	2.00	0.62
11:I:126:SER:O	11:I:129:ALA:HB3	2.00	0.62
1:X:1578:U:O2'	1:X:1579:G:H5'	1.99	0.62
11:I:63:ARG:O	11:I:64:GLY:C	2.37	0.62
20:R:85:ASP:H	20:R:90:LYS:HD3	1.63	0.62
4:B:136:ARG:HH11	4:B:136:ARG:HG2	1.64	0.62
23:U:52:ARG:NH1	23:U:79:GLU:OE1	2.30	0.62
23:U:23:LYS:HB2	23:U:35:THR:HG23	1.80	0.62
15:M:34:ARG:CZ	15:M:88:VAL:CG1	2.77	0.62
7:E:57:ASP:O	7:E:58:ALA:HB2	1.99	0.62
1:X:2779:C:C6	1:X:2779:C:H3'	2.34	0.62
5:C:22:VAL:HA	5:C:106:MET:HG3	1.81	0.62
3:A:206:LEU:C	3:A:211:ARG:HD3	2.18	0.62
6:D:114:PHE:HZ	6:D:176:PRO:HG3	1.64	0.62
1:X:1683:G:C2'	1:X:1684:G:H5'	2.29	0.62
1:X:1685:A:N6	1:X:1693:A:H61	1.98	0.62
1:X:136:A:C5	1:X:137:A:C8	2.85	0.62
1:X:136:A:N6	1:X:137:A:C2	2.67	0.62
1:X:2201:G:H4'	3:A:186:HIS:CE1	2.34	0.62
1:X:2074:U:O5'	1:X:2075:U:H5''	2.00	0.62
6:D:70:ALA:C	6:D:72:LYS:H	2.03	0.62
14:L:40:ALA:HB2	14:L:103:LEU:CD1	2.18	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:117:ALA:HB1	8:F:118:GLY:O	2.00	0.62
9:G:67:ARG:O	9:G:70:PHE:CD1	2.53	0.62
1:X:2081:U:H2'	1:X:2082:C:O4'	1.99	0.62
15:M:28:ARG:HB2	15:M:29:PRO:CD	2.20	0.62
1:X:1938:U:O2'	1:X:1939:U:H5'	2.00	0.62
6:D:108:LEU:HA	6:D:111:ILE:HD12	1.82	0.62
1:X:651:C:C2'	1:X:652:C:H5''	2.28	0.62
22:T:58:THR:HG22	22:T:59:LEU:N	2.14	0.62
10:H:75:VAL:HG12	10:H:118:LEU:CD2	2.27	0.62
3:A:131:LEU:HG	3:A:131:LEU:O	1.99	0.62
1:X:1147:G:H2'	1:X:1148:G:H8	1.63	0.62
12:J:113:GLU:C	12:J:115:ALA:H	2.03	0.62
1:X:1610:A:H2'	1:X:1611:U:C6	2.35	0.62
3:A:186:HIS:HB2	3:A:188:GLU:HG3	1.82	0.62
1:X:2194:A:C2'	1:X:2195:C:H5''	2.28	0.62
6:D:34:ILE:HD11	6:D:156:ILE:HG12	1.82	0.62
6:D:57:LEU:O	6:D:61:THR:HG23	1.99	0.62
5:C:110:SER:HA	5:C:113:GLU:OE1	1.99	0.62
1:X:408:U:O2'	1:X:409:G:C8	2.51	0.62
16:N:24:PHE:O	16:N:29:SER:HB3	1.98	0.62
1:X:1064:C:O5'	1:X:1064:C:H6	1.83	0.62
1:X:1113:C:H2'	1:X:1114:A:C8	2.32	0.62
1:X:2178:U:H2'	1:X:2179:C:H6	1.64	0.62
1:X:1286:U:C6	1:X:1986:G:H4'	2.35	0.62
1:X:1201:G:H5''	17:O:80:TYR:CE2	2.34	0.62
5:C:129:LYS:O	5:C:130:THR:HB	1.99	0.62
14:L:29:LEU:HA	14:L:41:GLN:O	1.99	0.62
16:N:93:LYS:HD2	17:O:10:LYS:HZ3	1.65	0.62
7:E:54:ARG:HH11	7:E:62:ARG:NE	1.98	0.62
5:C:83:ALA:O	5:C:85:GLY:N	2.33	0.62
18:P:66:GLU:HB3	18:P:67:PRO:HD3	1.81	0.62
1:X:1194:U:H2'	1:X:1195:U:C6	2.35	0.62
16:N:88:ILE:HG22	17:O:48:GLY:O	1.99	0.62
1:X:333:A:H5'	5:C:162:ARG:CG	2.30	0.62
12:J:79:PRO:O	12:J:80:ALA:CB	2.47	0.62
11:I:18:ARG:CB	11:I:21:ARG:HD3	2.29	0.62
16:N:7:GLY:C	16:N:9:VAL:H	2.03	0.62
10:H:41:ASN:H	10:H:41:ASN:ND2	1.96	0.62
1:X:1275:A:N3	26:Z:10:LYS:HE2	2.15	0.62
8:F:76:TYR:HD1	8:F:79:ARG:NH2	1.97	0.62
1:X:455:A:H2	1:X:1258:G:N3	1.98	0.62

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1036:G:O2'	1:X:1037:U:OP2	2.18	0.62
1:X:2490:U:H2'	1:X:2491:C:H6	1.64	0.62
1:X:2184:C:H2'	1:X:2185:U:H6	1.64	0.62
1:X:1057:A:H5'	1:X:1058:G:OP2	2.00	0.61
6:D:16:LEU:O	6:D:20:PHE:HD1	1.82	0.61
11:I:102:LYS:O	11:I:104:ARG:N	2.31	0.61
19:Q:7:LEU:O	19:Q:7:LEU:HD13	1.99	0.61
1:X:833:A:H1'	1:X:954:U:O2'	2.00	0.61
7:E:44:ARG:HH22	7:E:46:ASP:CB	2.12	0.61
20:R:23:ILE:HD12	20:R:23:ILE:N	2.08	0.61
23:U:53:GLU:OE1	23:U:57:VAL:HG13	1.99	0.61
16:N:66:ASN:HA	16:N:69:ALA:CB	2.30	0.61
1:X:1467:U:C3'	1:X:1467:U:H6	2.13	0.61
21:S:21:ALA:HB2	21:S:81:VAL:HB	1.81	0.61
5:C:112:GLN:HA	5:C:116:LYS:HD3	1.83	0.61
5:C:21:GLU:O	5:C:22:VAL:O	2.18	0.61
1:X:1978:U:H5''	1:X:1979:C:H5''	1.80	0.61
1:X:2226:A:H2'	1:X:2227:C:H6	1.65	0.61
1:X:1439:G:H2'	1:X:1440:G:C8	2.35	0.61
3:A:124:GLU:O	3:A:129:ASN:ND2	2.33	0.61
21:S:51:LEU:N	21:S:51:LEU:HD23	2.14	0.61
1:X:1391:A:O2'	1:X:1392:U:C6	2.53	0.61
1:X:2554:C:O2'	4:B:140:SER:HB2	2.00	0.61
1:X:314:G:H2'	1:X:315:G:C8	2.35	0.61
14:L:83:GLY:C	14:L:84:ILE:HD12	2.19	0.61
1:X:973:U:H2'	1:X:974:U:H6	1.65	0.61
1:X:1124:U:C2'	1:X:1125:G:H5'	2.30	0.61
9:G:148:LEU:HD11	9:G:150:VAL:CG2	2.29	0.61
16:N:79:PHE:CD2	16:N:80:ILE:HD13	2.35	0.61
6:D:15:ALA:O	6:D:19:GLN:HB2	1.99	0.61
14:L:28:ARG:HD2	14:L:90:ASP:OD1	2.00	0.61
1:X:871:U:O2'	1:X:2248:A:H5''	2.01	0.61
1:X:2779:C:H2'	1:X:2780:A:C1'	2.30	0.61
11:I:18:ARG:HD2	11:I:21:ARG:HD2	1.81	0.61
1:X:1810:U:H5''	3:A:158:SER:HB3	1.81	0.61
11:I:107:LYS:HG3	11:I:108:LEU:N	2.16	0.61
1:X:2405:A:H2'	1:X:2405:A:N3	2.16	0.61
1:X:648:A:H5''	1:X:649:G:OP1	2.00	0.61
9:G:158:HIS:HA	9:G:161:GLN:NE2	2.15	0.61
1:X:1194:U:H6	1:X:1194:U:H5'	1.65	0.61
18:P:13:GLN:O	18:P:16:GLN:HG3	1.99	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:I:28:LYS:HZ2	11:I:37:GLN:N	1.97	0.61
1:X:403:A:H4'	1:X:404:A:O5'	2.01	0.61
1:X:1359:G:H8	1:X:1359:G:H5'	1.65	0.61
4:B:85:ALA:CB	4:B:86:PRO:CD	2.78	0.61
3:A:70:ARG:NH2	3:A:189:CYS:HA	2.15	0.61
1:X:757:U:C2'	1:X:758:G:H5'	2.30	0.61
21:S:105:GLN:OE1	21:S:140:LYS:HA	2.00	0.61
6:D:57:LEU:HA	6:D:60:ILE:CD1	2.30	0.61
15:M:104:LEU:HB3	15:M:107:LEU:HD12	1.81	0.61
5:C:104:LEU:H	5:C:104:LEU:CD2	2.13	0.61
1:X:814:G:OP1	5:C:50:GLN:CD	2.38	0.61
13:K:11:ASN:OD1	13:K:17:ARG:NH2	2.34	0.61
1:X:2241:U:H5	22:T:17:ASN:ND2	1.97	0.61
9:G:162:LYS:N	9:G:163:PRO:CD	2.62	0.61
17:O:48:GLY:O	17:O:50:ASP:N	2.28	0.61
1:X:1231:A:H2'	1:X:1232:U:H6	1.64	0.61
16:N:4:ALA:O	16:N:5:LYS:O	2.18	0.61
5:C:136:TRP:CD2	5:C:140:ASN:ND2	2.69	0.61
1:X:333:A:H2'	1:X:350:U:O2	1.99	0.61
20:R:15:HIS:ND1	20:R:16:PHE:CD2	2.67	0.61
2:Y:25:G:H2'	2:Y:26:G:N7	2.15	0.61
16:N:66:ASN:ND2	16:N:70:ARG:HH22	1.97	0.61
7:E:94:PHE:CG	7:E:107:ILE:HG22	2.35	0.61
1:X:2795:A:N1	15:M:2:GLN:N	2.49	0.61
10:H:116:ARG:NH2	15:M:40:ARG:HB2	2.16	0.61
3:A:252:LYS:N	3:A:252:LYS:CE	2.58	0.61
24:V:6:MET:CE	24:V:52:GLN:HB3	2.30	0.61
21:S:103:ARG:HD3	21:S:108:VAL:CG2	2.27	0.61
1:X:1119:U:C2'	1:X:1120:C:O5'	2.48	0.61
4:B:67:PHE:CZ	4:B:75:THR:HG22	2.35	0.61
1:X:2002:A:N7	26:Z:9:LYS:HE2	2.16	0.61
3:A:145:LEU:HD12	3:A:146:GLU:H	1.65	0.61
15:M:50:PHE:CZ	15:M:70:LYS:HB3	2.35	0.61
1:X:2167:A:H2'	1:X:2168:A:C8	2.35	0.61
1:X:1186:G:H4'	1:X:1187:A:OP2	2.01	0.61
20:R:95:ARG:H	20:R:95:ARG:HD2	1.65	0.61
14:L:54:ALA:N	14:L:75:LEU:HD13	2.16	0.61
1:X:1091:C:O2	8:F:126:THR:HG23	2.01	0.61
17:O:40:VAL:HA	17:O:44:GLN:O	2.01	0.61
5:C:177:VAL:O	5:C:180:ILE:HG23	2.01	0.61
1:X:1547:U:H2'	1:X:1548:U:H6	1.65	0.61

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:I:85:ASP:O	11:I:87:THR:N	2.34	0.61
8:F:100:ASN:N	8:F:103:GLN:OE1	2.33	0.61
1:X:1427:G:H2'	1:X:1428:G:C1'	2.29	0.61
1:X:2307:A:H2'	1:X:2308:A:C8	2.35	0.61
1:X:741:G:O2'	1:X:743:A:H5''	2.00	0.61
1:X:2870:C:H2'	1:X:2871:U:C6	2.36	0.61
1:X:2870:C:H2'	1:X:2871:U:H6	1.66	0.61
3:A:90:ALA:HA	3:A:198:ASN:HB2	1.81	0.61
1:X:2598:C:H1'	4:B:154:LYS:CE	2.30	0.61
9:G:107:GLN:CA	9:G:110:LEU:HG	2.31	0.61
1:X:1142:G:C1'	9:G:103:TYR:CD2	2.84	0.61
17:O:57:GLN:N	17:O:97:GLY:CA	2.58	0.61
1:X:1922:U:O4'	1:X:1922:U:O2	2.18	0.61
14:L:17:VAL:HG13	14:L:18:ARG:H	1.66	0.61
19:Q:35:LYS:HD3	19:Q:53:ILE:HG23	1.82	0.61
1:X:1938:U:O2'	1:X:1939:U:OP1	2.15	0.61
1:X:2261:G:H21	1:X:2369:U:H3	1.49	0.61
16:N:29:SER:O	16:N:30:LYS:HD2	2.00	0.61
18:P:9:ARG:HD2	18:P:13:GLN:HG3	1.82	0.61
3:A:228:PRO:HD3	3:A:235:GLY:N	2.16	0.61
11:I:81:GLN:O	11:I:83:LEU:N	2.33	0.61
30:4:26:ILE:HG13	30:4:26:ILE:O	2.00	0.61
5:C:122:GLY:O	5:C:124:ASP:N	2.33	0.61
1:X:2395:C:H2'	1:X:2396:C:C5'	2.31	0.61
2:Y:30:C:H2'	2:Y:31:A:C8	2.36	0.61
1:X:663:G:H2'	1:X:664:C:H5''	1.81	0.61
3:A:42:GLY:H	3:A:43:ARG:NH1	1.99	0.61
23:U:17:SER:HB2	23:U:44:ALA:HA	1.83	0.61
1:X:624:A:C4'	1:X:626:A:N6	2.63	0.61
5:C:166:TRP:N	5:C:166:TRP:HE3	1.97	0.61
1:X:528:G:H5'	18:P:39:ARG:HH22	1.66	0.61
1:X:2322:U:C3'	1:X:2323:U:C6	2.83	0.61
6:D:148:LYS:HG3	6:D:149:THR:H	1.66	0.61
2:Y:42:U:H1'	2:Y:47:A:H62	1.66	0.61
8:F:115:LEU:O	8:F:117:ALA:N	2.34	0.61
17:O:8:GLY:H	17:O:20:ILE:HD13	1.66	0.61
1:X:1551:U:H5'	1:X:1552:C:C6	2.35	0.61
7:E:43:VAL:CB	7:E:52:VAL:HA	2.31	0.61
1:X:640:C:H4'	1:X:660:G:N3	2.16	0.61
1:X:416:U:O2'	1:X:419:G:H1'	2.00	0.61
3:A:59:LYS:HG3	3:A:59:LYS:O	1.99	0.61

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1333:G:OP2	1:X:1333:G:H8	1.82	0.61
4:B:85:ALA:HB3	4:B:86:PRO:CD	2.31	0.61
1:X:84:G:P	20:R:39:ALA:CB	2.88	0.61
1:X:1996:A:H2'	1:X:1997:A:H5'	1.82	0.61
1:X:538:A:H2'	1:X:2025:A:H2	1.65	0.61
1:X:2266:A:N6	1:X:2323:U:H3	1.98	0.61
6:D:150:ARG:CG	6:D:151:GLY:H	1.96	0.61
14:L:63:ASN:HB3	14:L:67:THR:N	2.15	0.61
1:X:1854:G:HO2'	1:X:1855:G:H5'	1.65	0.61
14:L:14:ARG:O	14:L:17:VAL:HG12	2.01	0.61
15:M:99:VAL:HG21	15:M:104:LEU:HD21	1.81	0.61
1:X:1750:A:C8	1:X:2675:U:H1'	2.36	0.61
11:I:94:GLU:HA	11:I:97:ARG:HE	1.63	0.61
16:N:6:THR:O	16:N:9:VAL:HB	2.00	0.61
1:X:177:U:C2	1:X:178:C:C1'	2.84	0.61
13:K:25:ALA:HB2	13:K:47:PHE:HE2	1.64	0.61
1:X:787:A:H5''	3:A:48:ARG:NH2	2.16	0.61
1:X:1519:G:O2'	1:X:1520:G:H5'	2.01	0.61
6:D:13:ARG:HH21	6:D:17:MET:HE1	1.65	0.60
6:D:9:ASN:O	6:D:13:ARG:N	2.34	0.60
1:X:2700:U:H6	1:X:2700:U:H5'	1.64	0.60
13:K:13:ASN:HD21	13:K:16:ALA:N	1.85	0.60
11:I:30:ALA:CB	11:I:34:HIS:CE1	2.81	0.60
23:U:45:ASN:C	23:U:46:LEU:HD23	2.22	0.60
10:H:27:SER:HB3	10:H:50:ILE:N	2.16	0.60
2:Y:106:U:H4'	21:S:67:LYS:HZ3	1.64	0.60
1:X:93:A:O2'	1:X:94:C:H5'	2.02	0.60
5:C:134:ILE:O	5:C:137:ALA:HB3	2.02	0.60
1:X:310:A:H61	5:C:162:ARG:NH2	1.99	0.60
1:X:1279:G:N2	1:X:1996:A:OP2	2.34	0.60
6:D:68:THR:CG2	6:D:88:LYS:HB2	2.30	0.60
23:U:23:LYS:HD2	23:U:35:THR:HG23	1.83	0.60
1:X:2569:A:H2'	1:X:2570:C:C6	2.36	0.60
1:X:1467:U:H6	1:X:1468:A:H5'	1.65	0.60
3:A:243:GLY:HA2	3:A:244:ARG:NH1	2.17	0.60
3:A:245:VAL:C	3:A:252:LYS:HD3	2.21	0.60
12:J:102:ARG:HH11	12:J:102:ARG:HG3	1.66	0.60
6:D:108:LEU:HB3	6:D:114:PHE:CZ	2.36	0.60
3:A:131:LEU:HD21	3:A:193:ILE:HG12	1.82	0.60
3:A:163:VAL:HG21	3:A:177:LEU:HD23	1.82	0.60
23:U:22:GLY:CA	23:U:39:LYS:HD2	2.31	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:4:11:CYS:O	30:4:13:ASN:N	2.34	0.60
1:X:1235:C:H2'	1:X:1236:G:C8	2.35	0.60
1:X:2294:U:H1'	6:D:123:ASP:OD1	2.01	0.60
2:Y:52:G:N2	2:Y:53:G:H1'	2.16	0.60
22:T:73:GLY:O	22:T:74:LYS:HB2	2.01	0.60
10:H:23:ARG:HH12	10:H:25:LEU:CD2	2.14	0.60
1:X:1324:G:H4'	1:X:1325:U:OP1	2.01	0.60
25:W:23:LEU:HD21	25:W:43:MET:CB	2.31	0.60
3:A:46:ARG:HD3	3:A:46:ARG:C	2.21	0.60
3:A:132:PRO:HA	3:A:190:TYR:HA	1.83	0.60
20:R:23:ILE:HG12	20:R:84:VAL:HG21	1.83	0.60
6:D:132:ILE:HB	6:D:152:MET:O	2.01	0.60
14:L:33:ARG:HH12	14:L:103:LEU:N	1.98	0.60
8:F:108:ALA:HA	8:F:115:LEU:HD11	1.82	0.60
1:X:2375:G:H1'	23:U:33:LYS:NZ	2.16	0.60
7:E:89:LEU:HD11	7:E:96:ALA:CB	2.31	0.60
10:H:116:ARG:HH11	15:M:38:LYS:CE	2.14	0.60
21:S:6:LYS:N	21:S:7:PRO:HD3	2.16	0.60
1:X:110:U:H5'	1:X:110:U:H6	1.65	0.60
1:X:2873:G:N2	9:G:162:LYS:NZ	2.49	0.60
1:X:1573:G:H3'	1:X:1574:A:C5'	2.26	0.60
3:A:70:ARG:NH1	3:A:150:GLY:N	2.49	0.60
20:R:22:VAL:HG12	20:R:23:ILE:N	2.16	0.60
14:L:72:GLY:O	14:L:107:ALA:HB2	2.01	0.60
14:L:37:HIS:CE1	14:L:39:TYR:CZ	2.89	0.60
1:X:637:G:O6	11:I:101:ARG:HD3	2.02	0.60
12:J:66:TYR:HB2	12:J:106:GLU:CD	2.22	0.60
6:D:175:LEU:HD12	6:D:176:PRO:HD2	1.82	0.60
1:X:2691:C:H2'	1:X:2692:A:H5''	1.84	0.60
4:B:192:ASN:ND2	15:M:9:ARG:HH12	1.93	0.60
20:R:98:ILE:C	20:R:100:ASP:H	2.04	0.60
1:X:163:A:H2'	1:X:164:G:C8	2.35	0.60
13:K:96:ARG:HD2	13:K:114:GLU:OE2	2.02	0.60
1:X:2710:C:O2'	1:X:2711:G:H5'	2.01	0.60
19:Q:76:LYS:HG2	19:Q:76:LYS:O	2.01	0.60
1:X:2198:U:C2'	1:X:2199:C:O4'	2.43	0.60
20:R:80:LYS:HE3	20:R:80:LYS:C	2.21	0.60
1:X:318:G:C8	1:X:318:G:H5'	2.35	0.60
23:U:53:GLU:OE2	23:U:57:VAL:HG22	2.02	0.60
6:D:152:MET:HE2	6:D:154:ILE:HD11	1.82	0.60
14:L:37:HIS:CG	14:L:37:HIS:O	2.55	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1922:U:C1'	1:X:2570:C:O2'	2.49	0.60
1:X:2312:A:H4'	1:X:2313:G:O5'	2.01	0.60
5:C:195:ILE:HG13	5:C:195:ILE:O	2.02	0.60
1:X:196:A:O2'	1:X:197:G:H5'	2.02	0.60
1:X:1324:G:H2'	1:X:1325:U:C5	2.37	0.60
6:D:116:GLY:HA2	6:D:176:PRO:HB2	1.84	0.60
7:E:9:ILE:HD12	7:E:51:LEU:N	2.17	0.60
1:X:640:C:C4'	1:X:660:G:H21	2.15	0.60
1:X:510:G:N2	1:X:512:A:H3'	2.16	0.60
1:X:2811:G:H2'	1:X:2812:A:H8	1.67	0.60
1:X:1333:G:N2	1:X:1344:C:N4	2.49	0.60
1:X:208:C:N4	1:X:209:G:N2	2.49	0.60
10:H:100:ASN:C	10:H:100:ASN:OD1	2.39	0.60
1:X:1221:C:H2'	1:X:1222:G:H8	1.67	0.60
7:E:171:LEU:HD12	7:E:171:LEU:N	2.16	0.60
12:J:116:LYS:O	12:J:117:GLU:HB2	2.01	0.60
1:X:1675:C:OP1	4:B:134:TRP:CD1	2.55	0.60
6:D:34:ILE:HD13	6:D:156:ILE:HA	1.83	0.60
14:L:39:TYR:O	14:L:40:ALA:C	2.40	0.60
16:N:60:LEU:HD13	16:N:60:LEU:C	2.21	0.60
16:N:93:LYS:O	16:N:94:VAL:HG23	2.02	0.60
1:X:2795:A:O3'	13:K:3:HIS:HE1	1.85	0.60
5:C:151:VAL:O	5:C:152:THR:HB	2.00	0.60
5:C:190:ALA:C	5:C:192:ALA:H	2.04	0.60
12:J:36:ILE:HD12	12:J:133:VAL:CG1	2.29	0.60
21:S:123:VAL:H	21:S:161:ALA:N	1.98	0.60
9:G:92:GLY:C	9:G:93:LYS:HD2	2.21	0.60
11:I:14:LYS:O	11:I:14:LYS:HG3	2.01	0.60
1:X:859:U:H1'	1:X:860:U:C4	2.36	0.60
3:A:166:GLN:HB2	3:A:174:ILE:O	2.02	0.60
18:P:17:GLN:HG3	18:P:18:VAL:HG23	1.83	0.60
1:X:1050:G:H2'	1:X:1051:U:C5'	2.32	0.60
20:R:16:PHE:HD2	20:R:82:ALA:HB2	1.67	0.60
12:J:80:ALA:HB1	12:J:81:GLU:OE1	2.02	0.60
9:G:107:GLN:N	9:G:107:GLN:OE1	2.34	0.60
1:X:532:A:H2'	1:X:533:C:C6	2.37	0.60
23:U:62:LEU:HD23	23:U:67:LEU:CD1	2.30	0.60
6:D:122:PHE:O	6:D:124:GLY:N	2.34	0.60
6:D:65:PRO:CB	6:D:89:VAL:HG22	2.30	0.60
3:A:208:LYS:O	3:A:209:ALA:O	2.20	0.60
23:U:43:ARG:HG3	23:U:43:ARG:HH21	1.66	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:67:ALA:O	5:C:68:ARG:CB	2.50	0.60
1:X:1561:A:H2'	1:X:1562:G:O4'	2.01	0.60
1:X:2691:C:H5''	1:X:2694:G:H5''	1.84	0.60
12:J:56:SER:O	12:J:59:PHE:N	2.35	0.60
18:P:42:VAL:HG12	18:P:42:VAL:O	2.02	0.60
1:X:136:A:H2'	1:X:137:A:H8	1.67	0.60
11:I:56:LEU:O	11:I:58:ALA:O	2.20	0.60
1:X:1186:G:C5	1:X:1187:A:N1	2.70	0.60
1:X:2736:U:HO2'	1:X:2737:A:H5''	1.63	0.60
13:K:83:VAL:HG23	13:K:87:TYR:CE2	2.37	0.60
20:R:59:LYS:O	20:R:60:PRO:O	2.19	0.60
1:X:2411:A:H4'	23:U:25:ARG:NH1	2.16	0.60
7:E:107:ILE:HD11	7:E:151:VAL:HG12	1.83	0.60
1:X:1468:A:H8	1:X:1468:A:P	2.24	0.60
3:A:244:ARG:N	3:A:244:ARG:CD	2.63	0.60
15:M:34:ARG:NH2	15:M:91:VAL:CG2	2.63	0.60
7:E:65:HIS:C	7:E:67:LEU:N	2.55	0.60
5:C:4:ILE:HG13	5:C:4:ILE:O	2.02	0.60
1:X:1820:G:O2'	1:X:1821:A:H5'	2.01	0.60
5:C:47:THR:HA	5:C:82:VAL:O	2.01	0.60
1:X:29:U:C4'	16:N:11:ARG:HH22	2.11	0.60
18:P:87:GLU:HA	18:P:90:LEU:CD1	2.32	0.60
16:N:22:LYS:O	16:N:24:PHE:N	2.34	0.60
1:X:1067:G:N2	1:X:1114:A:H62	1.97	0.60
5:C:149:LEU:HD12	5:C:168:SER:O	2.02	0.60
1:X:1513:U:OP2	1:X:1514:C:H5	1.83	0.60
7:E:38:ASN:HB2	7:E:41:LEU:HB2	1.84	0.60
12:J:52:ARG:HB2	12:J:67:ILE:HD11	1.83	0.60
1:X:965:G:N3	1:X:2253:A:C2	2.70	0.60
21:S:70:GLN:O	21:S:79:ILE:HG22	2.01	0.60
20:R:23:ILE:CG1	20:R:84:VAL:HG21	2.31	0.60
4:B:117:MET:HG3	4:B:136:ARG:HG3	1.84	0.60
1:X:2725:C:O2'	7:E:143:GLN:CG	2.50	0.60
24:V:42:ARG:HE	24:V:46:LEU:HD21	1.67	0.60
12:J:19:THR:CG2	12:J:20:GLY:N	2.64	0.60
12:J:66:TYR:O	12:J:106:GLU:OE2	2.20	0.60
21:S:75:LYS:O	21:S:77:ALA:N	2.34	0.60
15:M:32:THR:HG22	15:M:33:VAL:N	2.17	0.60
7:E:84:THR:CA	7:E:134:SER:HA	2.29	0.60
7:E:44:ARG:HG3	7:E:44:ARG:NH2	2.15	0.60
3:A:79:VAL:HG12	3:A:113:VAL:HA	1.81	0.60

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:P:91:PHE:CD1	18:P:129:ALA:O	2.54	0.60
18:P:103:LEU:HD23	18:P:103:LEU:N	2.15	0.60
12:J:92:GLU:HG3	12:J:93:TYR:CD2	2.37	0.59
9:G:103:TYR:HB3	9:G:107:GLN:NE2	2.05	0.59
14:L:37:HIS:O	14:L:38:ILE:O	2.19	0.59
14:L:75:LEU:O	14:L:78:ALA:HB3	2.00	0.59
9:G:36:ASN:CG	9:G:37:ASP:N	2.56	0.59
9:G:49:VAL:HG21	9:G:170:PRO:HG2	1.83	0.59
4:B:162:MET:HA	4:B:162:MET:CE	2.28	0.59
11:I:73:GLU:OE1	11:I:73:GLU:N	2.35	0.59
3:A:55:GLY:N	3:A:217:ARG:HB2	2.17	0.59
23:U:19:ILE:HG22	23:U:41:VAL:O	2.02	0.59
4:B:4:ILE:HG21	4:B:28:ALA:HB1	1.84	0.59
30:4:10:MET:HE3	30:4:32:HIS:HA	1.82	0.59
6:D:108:LEU:HD23	6:D:111:ILE:HD12	1.83	0.59
1:X:638:A:O2'	1:X:639:G:C8	2.51	0.59
1:X:427:C:H2'	1:X:428:A:C8	2.37	0.59
16:N:17:VAL:CG1	16:N:39:LEU:HD12	2.32	0.59
25:W:34:VAL:HG22	25:W:40:VAL:HG11	1.83	0.59
1:X:861:G:H1'	1:X:944:A:N3	2.16	0.59
16:N:86:ALA:O	16:N:89:ASP:N	2.35	0.59
1:X:1690:U:C2'	1:X:1691:G:H5'	2.31	0.59
19:Q:91:LEU:CD2	19:Q:91:LEU:H	2.15	0.59
1:X:2634:G:H2'	1:X:2643:G:O6	2.01	0.59
1:X:704:G:O2'	1:X:705:C:H5'	2.02	0.59
1:X:839:U:OP1	1:X:2408:G:OP2	2.19	0.59
20:R:93:ARG:HA	20:R:95:ARG:CZ	2.32	0.59
1:X:2592:U:C5'	1:X:2593:A:OP2	2.49	0.59
9:G:67:ARG:HB3	9:G:70:PHE:CA	2.31	0.59
7:E:126:PRO:HG2	7:E:127:GLU:N	2.18	0.59
6:D:19:GLN:HB3	6:D:20:PHE:CD1	2.37	0.59
1:X:1744:G:OP1	15:M:100:ARG:HD2	2.02	0.59
10:H:23:ARG:NH1	10:H:25:LEU:CD2	2.65	0.59
11:I:18:ARG:HB2	11:I:21:ARG:CD	2.29	0.59
3:A:200:GLU:O	3:A:202:LYS:N	2.35	0.59
12:J:62:GLY:O	12:J:64:LYS:N	2.35	0.59
5:C:46:ARG:O	5:C:47:THR:C	2.40	0.59
1:X:2447:G:O2'	1:X:2448:A:H8	1.85	0.59
1:X:1850:G:O2'	1:X:1851:A:O4'	2.18	0.59
4:B:130:GLY:O	4:B:131:SER:CB	2.49	0.59
1:X:2405:A:H4'	1:X:2406:C:OP2	2.00	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2873:G:H2'	1:X:2874:A:H8	1.66	0.59
1:X:1428:G:N2	1:X:1602:G:H5'	2.17	0.59
6:D:106:ILE:CG2	6:D:139:PRO:HB3	2.31	0.59
1:X:2445:C:H5''	30:4:6:SER:CB	2.32	0.59
20:R:29:HIS:CG	20:R:51:VAL:HG22	2.37	0.59
20:R:93:ARG:O	20:R:95:ARG:HD2	2.02	0.59
1:X:1166:A:C5'	16:N:55:ARG:HD3	2.29	0.59
1:X:2325:A:O2'	1:X:2326:C:OP2	2.20	0.59
6:D:47:SER:HA	6:D:50:ILE:HD12	1.83	0.59
6:D:92:ARG:N	6:D:96:MET:HB2	2.17	0.59
9:G:169:GLN:HB2	9:G:170:PRO:HD2	1.84	0.59
16:N:79:PHE:HD2	16:N:80:ILE:HD13	1.67	0.59
1:X:1173:G:N3	17:O:88:GLN:NE2	2.50	0.59
14:L:91:ARG:HG2	14:L:92:GLY:N	2.18	0.59
1:X:1355:A:H1'	1:X:1410:U:H4'	1.83	0.59
5:C:24:SER:O	5:C:25:GLY:C	2.39	0.59
5:C:39:ARG:HG2	5:C:39:ARG:NH1	2.17	0.59
5:C:14:THR:O	5:C:15:ILE:HB	2.02	0.59
19:Q:89:GLU:HB2	19:Q:91:LEU:HD23	1.82	0.59
1:X:1211:G:C4	1:X:1212:U:C5	2.90	0.59
1:X:2871:U:H2'	1:X:2872:U:C6	2.38	0.59
1:X:2383:C:H2'	1:X:2384:G:O4'	2.02	0.59
1:X:2195:C:N4	1:X:2196:U:O4	2.35	0.59
20:R:80:LYS:O	20:R:80:LYS:CE	2.50	0.59
12:J:77:LYS:HG3	12:J:78:LYS:N	2.15	0.59
1:X:2007:G:O2'	1:X:2008:C:H5'	2.03	0.59
6:D:81:GLN:HG2	6:D:82:GLY:H	1.67	0.59
14:L:33:ARG:NH2	14:L:103:LEU:CB	2.65	0.59
1:X:1854:G:C6	1:X:1864:G:C6	2.90	0.59
23:U:25:ARG:O	23:U:32:ARG:HG3	2.02	0.59
3:A:52:ARG:HB2	3:A:53:PHE:CD2	2.37	0.59
19:Q:72:ARG:O	19:Q:73:ASN:OD1	2.20	0.59
1:X:39:C:O2'	1:X:40:U:H5'	2.02	0.59
17:O:65:ARG:HH11	17:O:65:ARG:HG3	1.68	0.59
1:X:2692:A:C5'	1:X:2693:U:OP2	2.50	0.59
22:T:31:VAL:HG22	22:T:67:VAL:CG2	2.32	0.59
1:X:944:A:C2'	1:X:945:G:H5'	2.32	0.59
5:C:2:ALA:HA	5:C:13:ARG:CA	2.32	0.59
15:M:24:LEU:O	15:M:25:PRO:O	2.20	0.59
12:J:26:ASP:HB3	12:J:68:ARG:HH22	1.67	0.59
1:X:1186:G:C5	1:X:1187:A:C2	2.90	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:14:LEU:CD1	20:R:39:ALA:HB1	2.32	0.59
4:B:146:THR:O	4:B:147:PRO:C	2.40	0.59
1:X:1142:G:C8	9:G:107:GLN:HG2	2.36	0.59
1:X:1998:A:N3	26:Z:6:VAL:HG23	2.18	0.59
6:D:135:GLN:HA	6:D:138:PHE:CE1	2.37	0.59
14:L:28:ARG:HB2	14:L:90:ASP:HB3	1.84	0.59
1:X:1598:C:C2'	1:X:1599:G:H5'	2.32	0.59
9:G:154:GLU:N	9:G:157:PRO:HG2	2.16	0.59
9:G:159:SER:C	9:G:161:GLN:H	2.05	0.59
1:X:469:G:O2'	1:X:470:U:P	2.61	0.59
4:B:120:TRP:CE3	4:B:155:ARG:HD2	2.38	0.59
1:X:314:G:H2'	1:X:315:G:H8	1.66	0.59
1:X:449:C:H2'	1:X:450:C:H6	1.67	0.59
1:X:734:G:H2'	1:X:735:G:H8	1.66	0.59
1:X:1053:G:H2'	1:X:1054:C:O4'	2.02	0.59
5:C:169:VAL:HG12	5:C:170:LEU:N	2.16	0.59
1:X:2395:C:C2'	1:X:2396:C:H5''	2.31	0.59
1:X:2764:U:H4'	4:B:42:ASP:OD2	2.02	0.59
10:H:116:ARG:NH1	15:M:38:LYS:CE	2.66	0.59
3:A:43:ARG:HE	3:A:55:GLY:HA2	1.67	0.59
17:O:86:HIS:CG	17:O:87:ARG:N	2.70	0.59
8:F:104:VAL:HA	8:F:107:ILE:CD1	2.26	0.59
21:S:131:PRO:HG3	21:S:155:PRO:HG3	1.82	0.59
21:S:122:ILE:HB	21:S:159:THR:O	2.03	0.59
1:X:2484:G:O2'	1:X:2485:U:C5'	2.47	0.59
1:X:1439:G:H8	1:X:1439:G:O5'	1.86	0.59
9:G:154:GLU:O	9:G:157:PRO:HD2	2.01	0.59
1:X:1235:C:H2'	1:X:1236:G:H8	1.67	0.59
1:X:2661:G:O6	1:X:2708:U:H1'	2.02	0.59
1:X:2036:G:C2'	1:X:2037:A:H5'	2.32	0.59
14:L:35:SER:C	14:L:36:LYS:HD2	2.22	0.59
6:D:16:LEU:CD1	6:D:28:VAL:HG11	2.32	0.59
1:X:1922:U:O2'	1:X:2571:G:H1'	2.03	0.59
1:X:2355:A:H61	14:L:91:ARG:NH2	2.00	0.59
15:M:34:ARG:NH1	15:M:66:PHE:CE2	2.71	0.59
1:X:1698:C:C2'	1:X:1753:A:H2'	2.33	0.59
10:H:23:ARG:HH21	10:H:23:ARG:CG	2.15	0.59
24:V:13:ASP:O	24:V:17:GLU:HG2	2.03	0.59
2:Y:93:G:OP1	12:J:19:THR:HB	2.01	0.59
1:X:596:C:C6	1:X:684:C:H1'	2.37	0.59
9:G:116:ARG:NE	9:G:126:VAL:HG13	2.12	0.59

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:4:22:ARG:HG2	30:4:22:ARG:NH1	2.18	0.59
1:X:1599:G:N2	1:X:1600:U:H1'	2.17	0.59
22:T:40:GLN:HE21	22:T:57:HIS:HB3	1.67	0.59
1:X:2205:C:H2'	1:X:2206:C:C5'	2.31	0.59
1:X:1918:G:N2	1:X:1947:G:O4'	2.35	0.59
20:R:44:GLN:O	20:R:77:HIS:HA	2.03	0.59
5:C:158:ARG:C	5:C:160:ALA:H	2.05	0.59
1:X:332:C:H5''	1:X:333:A:OP2	2.02	0.59
23:U:52:ARG:HH12	23:U:67:LEU:HD11	1.68	0.59
6:D:36:VAL:HG22	6:D:154:ILE:CG1	2.32	0.59
9:G:65:LYS:HE3	9:G:66:HIS:NE2	2.17	0.59
23:U:23:LYS:HD2	23:U:35:THR:CG2	2.32	0.59
10:H:83:ARG:NH1	15:M:40:ARG:NE	2.43	0.59
1:X:2824:C:H4'	1:X:2825:A:H5'	1.83	0.59
3:A:42:GLY:H	3:A:43:ARG:HH12	1.51	0.59
12:J:99:LYS:HE3	12:J:100:PRO:HD2	1.84	0.59
1:X:242:A:H61	1:X:440:U:C2'	2.12	0.59
1:X:1937:G:O2'	1:X:1939:U:C5	2.54	0.59
23:U:17:SER:CB	23:U:44:ALA:HA	2.33	0.59
1:X:2551:A:C8	4:B:144:ARG:HD3	2.37	0.59
25:W:9:VAL:CG1	25:W:17:VAL:HG22	2.33	0.59
3:A:63:ARG:O	3:A:65:ILE:HG13	2.01	0.59
1:X:972:C:H4'	1:X:973:U:OP2	2.03	0.59
1:X:1656:U:O2'	1:X:1657:A:H5''	2.02	0.59
1:X:2067:U:H2'	1:X:2068:C:C6	2.37	0.59
1:X:135:U:C5'	1:X:136:A:OP1	2.36	0.59
1:X:1053:G:C5	1:X:1054:C:C5	2.90	0.59
20:R:93:ARG:C	20:R:95:ARG:CZ	2.71	0.59
4:B:150:VAL:CG2	4:B:154:LYS:HE2	2.11	0.59
6:D:33:LYS:HG3	6:D:157:VAL:HG21	1.85	0.59
14:L:36:LYS:HE2	14:L:65:THR:HG22	1.83	0.59
1:X:730:C:O3'	1:X:731:A:O4'	2.19	0.59
23:U:23:LYS:HE3	23:U:26:ALA:HA	1.84	0.59
7:E:98:LEU:CD1	7:E:99:THR:N	2.54	0.59
14:L:42:ILE:HG22	14:L:52:ALA:H	1.68	0.59
21:S:23:ALA:HB3	21:S:32:PHE:CE1	2.36	0.59
11:I:116:ARG:HE	11:I:118:VAL:CG1	2.16	0.59
1:X:5:A:H1'	9:G:162:LYS:NZ	2.18	0.59
11:I:78:SER:N	11:I:112:GLY:HA3	2.17	0.59
1:X:2210:C:H2'	1:X:2211:U:C6	2.38	0.59
1:X:1067:G:H21	1:X:1114:A:N6	1.98	0.59

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:W:46:THR:HG22	25:W:47:VAL:N	2.17	0.59
19:Q:89:GLU:CB	19:Q:91:LEU:HD23	2.33	0.59
4:B:16:LYS:O	4:B:17:ASN:HB2	2.03	0.59
20:R:16:PHE:HB3	20:R:82:ALA:CB	2.32	0.59
1:X:82:G:O2'	1:X:83:A:H8	1.86	0.59
12:J:79:PRO:CD	12:J:88:LYS:HD2	2.32	0.59
1:X:2620:G:H5''	9:G:104:THR:CG2	2.33	0.59
1:X:527:C:O2'	1:X:528:G:H5'	2.02	0.59
21:S:114:ASP:N	21:S:170:SER:O	2.32	0.59
14:L:60:LYS:HG2	14:L:62:GLY:N	2.18	0.59
6:D:8:TYR:HB2	6:D:173:MET:HE1	1.85	0.59
21:S:6:LYS:O	21:S:31:SER:HB3	2.03	0.59
24:V:1:MET:SD	24:V:2:LYS:HE2	2.43	0.59
1:X:1979:C:H6	1:X:1979:C:OP1	1.84	0.59
26:Z:35:GLN:C	26:Z:37:HIS:H	2.06	0.59
17:O:79:GLN:HA	17:O:79:GLN:OE1	2.03	0.59
4:B:123:ALA:O	4:B:124:GLY:O	2.21	0.59
3:A:70:ARG:HG2	3:A:190:TYR:CZ	2.38	0.58
1:X:2194:A:C3'	1:X:2195:C:C5'	2.71	0.58
1:X:2408:G:H5'	1:X:2409:A:OP2	2.03	0.58
1:X:2737:A:H2'	1:X:2737:A:N3	2.18	0.58
20:R:82:ALA:O	20:R:83:LEU:O	2.20	0.58
12:J:82:THR:O	12:J:83:ARG:HB3	2.03	0.58
21:S:145:ASP:O	21:S:170:SER:HA	2.03	0.58
6:D:37:ASN:HA	6:D:87:ILE:O	2.03	0.58
1:X:732:G:H8	1:X:732:G:O5'	1.86	0.58
4:B:110:GLY:O	13:K:3:HIS:CD2	2.56	0.58
1:X:2355:A:H61	14:L:91:ARG:CZ	2.15	0.58
3:A:252:LYS:H	3:A:253:PRO:HD2	1.68	0.58
5:C:112:GLN:HA	5:C:116:LYS:CD	2.33	0.58
3:A:206:LEU:HD23	3:A:211:ARG:HH11	1.68	0.58
12:J:19:THR:HG23	12:J:99:LYS:HD3	1.85	0.58
1:X:1107:A:C3'	1:X:1108:U:H5''	2.25	0.58
13:K:11:ASN:ND2	13:K:12:ARG:HE	2.00	0.58
13:K:36:THR:HG23	13:K:37:THR:O	2.03	0.58
22:T:3:HIS:CD2	22:T:5:LYS:HD3	2.36	0.58
1:X:2335:U:OP1	22:T:24:LYS:NZ	2.36	0.58
4:B:188:ILE:HG23	4:B:189:PRO:HD2	1.85	0.58
1:X:891:A:C6	1:X:911:A:N6	2.71	0.58
1:X:1741:G:O2'	1:X:1742:G:H5'	2.03	0.58
1:X:341:A:O2'	1:X:342:G:OP1	2.18	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:154:LYS:O	4:B:154:LYS:HG3	2.03	0.58
1:X:538:A:C4	1:X:2025:A:C2	2.90	0.58
6:D:138:PHE:CZ	6:D:152:MET:SD	2.96	0.58
17:O:40:VAL:HG12	17:O:45:THR:CA	2.33	0.58
7:E:96:ALA:HA	7:E:104:GLU:O	2.01	0.58
6:D:16:LEU:HD13	6:D:28:VAL:CG1	2.33	0.58
15:M:106:TYR:CE1	15:M:107:LEU:HD21	2.38	0.58
1:X:742:G:O2'	1:X:776:G:H4'	2.02	0.58
1:X:1547:U:H2'	1:X:1548:U:C6	2.38	0.58
1:X:461:A:H4'	16:N:3:ARG:HH21	1.67	0.58
7:E:172:LYS:O	7:E:173:ALA:HB3	2.03	0.58
1:X:860:U:O2	1:X:860:U:C2'	2.51	0.58
25:W:22:ALA:C	25:W:24:GLY:H	2.06	0.58
13:K:81:ASP:O	13:K:85:PRO:HG2	2.02	0.58
11:I:52:GLY:HA3	11:I:55:ARG:HH11	1.68	0.58
1:X:2394:G:H2'	1:X:2395:C:C6	2.38	0.58
18:P:35:PRO:O	18:P:39:ARG:CD	2.51	0.58
1:X:2208:U:H2'	1:X:2209:G:H8	1.68	0.58
3:A:183:ARG:HD3	3:A:267:ASP:CG	2.24	0.58
1:X:1088:A:H2'	1:X:1089:C:O4'	2.02	0.58
21:S:69:VAL:HG13	21:S:81:VAL:HG22	1.85	0.58
1:X:872:G:H2'	1:X:928:G:H1	1.69	0.58
1:X:1699:A:H5'	1:X:1753:A:O2'	2.04	0.58
24:V:3:PRO:C	24:V:5:GLU:H	2.07	0.58
11:I:116:ARG:HE	11:I:118:VAL:HG13	1.65	0.58
1:X:504:G:H4'	18:P:27:VAL:HG13	1.83	0.58
6:D:175:LEU:HG	6:D:177:PHE:CE1	2.38	0.58
1:X:1301:U:O2'	1:X:1664:G:N2	2.37	0.58
25:W:16:GLN:HG2	25:W:47:VAL:HG12	1.84	0.58
1:X:2229:G:O2'	1:X:2230:G:OP2	2.16	0.58
3:A:92:ILE:HG21	3:A:104:TYR:CD2	2.38	0.58
1:X:1917:C:C2'	1:X:1918:G:H5'	2.33	0.58
2:Y:44:C:N4	6:D:88:LYS:NZ	2.51	0.58
6:D:65:PRO:HB3	6:D:89:VAL:CG1	2.30	0.58
3:A:161:THR:H	3:A:196:VAL:HG22	1.68	0.58
3:A:224:SER:HA	3:A:233:HIS:O	2.03	0.58
4:B:5:LEU:HD13	4:B:49:ILE:HG21	1.86	0.58
30:4:30:VAL:C	30:4:32:HIS:H	2.04	0.58
30:4:8:LYS:H	30:4:34:GLN:HE22	1.49	0.58
1:X:1542:G:N2	1:X:1562:G:H22	2.01	0.58
11:I:11:GLY:N	11:I:14:LYS:HB3	2.15	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:140:G:H2'	1:X:141:G:C8	2.38	0.58
9:G:75:ILE:HG21	9:G:144:MET:HG2	1.86	0.58
1:X:1411:C:H2'	1:X:1412:C:H6	1.67	0.58
7:E:13:SER:O	7:E:15:VAL:N	2.37	0.58
1:X:2200:G:O2'	3:A:149:PRO:HG2	2.03	0.58
3:A:262:LYS:O	3:A:264:LYS:N	2.36	0.58
5:C:166:TRP:CE3	5:C:166:TRP:N	2.71	0.58
1:X:1074:G:O2'	1:X:1075:C:H5'	2.04	0.58
1:X:971:A:H61	12:J:83:ARG:HH22	1.49	0.58
18:P:35:PRO:O	18:P:39:ARG:HD2	2.03	0.58
1:X:2286:G:C5	1:X:2287:G:H1'	2.39	0.58
16:N:107:LYS:O	16:N:110:VAL:HB	2.03	0.58
1:X:2272:A:P	14:L:15:ARG:HH21	2.25	0.58
5:C:104:LEU:HA	5:C:107:ALA:HB3	1.85	0.58
24:V:1:MET:HG3	24:V:2:LYS:N	2.18	0.58
1:X:2759:U:H4'	1:X:2760:G:H5''	1.84	0.58
13:K:45:ARG:HD3	13:K:97:ILE:HD11	1.85	0.58
1:X:1868:A:H2'	1:X:1869:A:O4'	2.03	0.58
20:R:98:ILE:HG22	20:R:99:VAL:N	2.14	0.58
1:X:861:G:H2'	1:X:862:A:C5'	2.32	0.58
1:X:2229:G:C5'	12:J:84:MET:HG2	2.34	0.58
4:B:53:PRO:HG2	15:M:6:LYS:NZ	2.19	0.58
12:J:26:ASP:HB3	12:J:68:ARG:NH2	2.18	0.58
5:C:54:THR:CB	5:C:73:SER:HB3	2.33	0.58
3:A:68:LYS:HD3	3:A:68:LYS:H	1.69	0.58
9:G:103:TYR:CZ	9:G:111:LYS:HB2	2.38	0.58
21:S:100:THR:OG1	21:S:138:VAL:HG11	2.03	0.58
3:A:252:LYS:HE3	3:A:253:PRO:HD3	1.85	0.58
1:X:76:C:O2'	1:X:77:C:H5'	2.04	0.58
5:C:194:GLU:O	5:C:195:ILE:HG23	2.03	0.58
13:K:10:LEU:HD23	13:K:17:ARG:HG2	1.85	0.58
13:K:10:LEU:HA	13:K:17:ARG:HG2	1.86	0.58
6:D:108:LEU:HD22	6:D:114:PHE:CE1	2.38	0.58
1:X:1601:U:H4'	1:X:1602:G:OP2	2.02	0.58
1:X:1070:G:O2'	8:F:74:MET:HE1	2.03	0.58
7:E:92:VAL:HG12	7:E:93:GLY:N	2.18	0.58
6:D:13:ARG:NH2	6:D:17:MET:HE2	2.18	0.58
6:D:29:PRO:HG2	6:D:165:GLU:CB	2.30	0.58
24:V:11:ALA:O	24:V:14:PHE:HB2	2.04	0.58
24:V:6:MET:HE3	24:V:52:GLN:HB3	1.85	0.58
21:S:55:THR:CG2	21:S:59:GLY:HA2	2.34	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:63:PRO:O	21:S:85:MET:SD	2.62	0.58
9:G:88:VAL:CG2	9:G:89:ALA:H	2.00	0.58
3:A:251:GLY:HA3	3:A:255:LYS:CD	2.33	0.58
6:D:134:GLU:CD	6:D:136:LEU:HB2	2.24	0.58
9:G:157:PRO:C	9:G:161:GLN:HE21	2.06	0.58
1:X:863:C:H4'	25:W:18:LYS:HB2	1.84	0.58
1:X:739:G:HO2'	1:X:740:A:H8	1.50	0.58
3:A:108:PRO:HD2	3:A:111:LEU:HD12	1.84	0.58
4:B:121:ASN:O	4:B:122:PHE:C	2.39	0.58
7:E:33:LEU:CG	7:E:34:THR:H	2.16	0.58
3:A:163:VAL:HG23	3:A:178:PRO:HD3	1.86	0.58
30:4:17:VAL:HG12	30:4:18:ARG:N	2.18	0.58
21:S:110:GLY:O	21:S:174:PRO:HB3	2.04	0.58
3:A:186:HIS:C	3:A:188:GLU:H	2.07	0.58
1:X:2197:U:H5'	1:X:2198:U:OP1	2.03	0.58
9:G:109:GLY:C	9:G:110:LEU:HD23	2.23	0.58
1:X:538:A:H4'	1:X:539:A:OP1	2.04	0.58
8:F:121:GLU:O	8:F:122:ALA:C	2.42	0.58
17:O:38:LEU:O	17:O:39:PHE:HB3	2.02	0.58
19:Q:63:LYS:CB	19:Q:69:ILE:O	2.51	0.58
1:X:1324:G:H2'	1:X:1325:U:H6	1.67	0.58
7:E:7:GLN:H	7:E:8:PRO:CD	2.17	0.58
3:A:163:VAL:CG2	3:A:177:LEU:HD23	2.34	0.58
1:X:2560:G:H4'	1:X:2561:G:C8	2.39	0.58
1:X:189:A:O2'	1:X:190:A:H5'	2.03	0.58
7:E:59:GLN:O	7:E:60:LYS:C	2.42	0.58
1:X:2787:A:H2'	1:X:2788:C:C6	2.39	0.58
4:B:19:ARG:HG3	4:B:19:ARG:O	2.04	0.58
1:X:623:G:H2'	1:X:626:A:H61	1.67	0.58
1:X:83:A:H4'	1:X:84:G:O5'	2.03	0.58
12:J:92:GLU:OE1	12:J:92:GLU:HA	2.04	0.58
14:L:102:ALA:O	14:L:104:ALA:N	2.37	0.58
2:Y:44:C:O2	6:D:90:THR:N	2.35	0.58
1:X:1003:C:O2'	17:O:71:ILE:CD1	2.51	0.58
1:X:2673:G:O2'	1:X:2674:C:H5'	2.04	0.58
1:X:1779:C:H5''	3:A:222:ARG:NH1	2.18	0.58
5:C:47:THR:HG23	5:C:85:GLY:N	2.15	0.58
10:H:13:ASN:HD22	10:H:109:ARG:HG2	1.61	0.58
1:X:1275:A:H2	26:Z:10:LYS:HE2	1.68	0.58
8:F:84:ILE:HG22	8:F:85:GLY:N	2.18	0.58
11:I:32:ARG:CZ	17:O:81:ARG:CZ	2.82	0.58

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:717:G:H2'	1:X:739:G:N2	2.17	0.58
1:X:1808:C:OP1	3:A:39:LYS:HE2	2.04	0.58
15:M:6:LYS:HD2	15:M:6:LYS:N	2.18	0.58
18:P:49:SER:C	18:P:51:GLN:H	2.06	0.58
4:B:120:TRP:O	4:B:121:ASN:CB	2.50	0.58
19:Q:91:LEU:CD2	19:Q:91:LEU:N	2.67	0.58
18:P:14:ARG:HA	18:P:17:GLN:CG	2.34	0.58
10:H:7:ARG:HH12	10:H:20:MET:CE	2.15	0.58
4:B:198:LEU:O	4:B:199:ARG:HG3	2.03	0.58
1:X:879:A:N3	1:X:879:A:H2'	2.19	0.58
1:X:2646:C:H2'	1:X:2647:G:O4'	2.04	0.58
1:X:134:G:H21	1:X:136:A:H5''	1.61	0.58
20:R:18:LYS:HD3	20:R:18:LYS:N	2.18	0.58
6:D:57:LEU:O	6:D:60:ILE:HG12	2.03	0.58
1:X:1175:A:O2'	1:X:1176:U:H5'	2.03	0.58
1:X:2569:A:O2'	1:X:2570:C:H5'	2.04	0.58
15:M:102:ALA:C	15:M:103:LYS:HD2	2.24	0.58
1:X:2824:C:H1'	1:X:2843:A:C4	2.39	0.58
19:Q:68:PHE:C	19:Q:69:ILE:HD12	2.24	0.58
11:I:86:THR:N	11:I:116:ARG:HH12	2.00	0.58
1:X:1031:C:H4'	1:X:1032:A:O5'	2.03	0.58
1:X:1979:C:O2'	1:X:1980:A:C4'	2.52	0.58
30:4:1:MET:HE2	30:4:33:LYS:HB3	1.86	0.58
1:X:1873:A:C2'	1:X:1874:G:O5'	2.51	0.58
1:X:2211:U:O2'	1:X:2212:U:H5'	2.04	0.58
14:L:34:SER:HB2	14:L:94:TYR:OH	2.04	0.58
10:H:28:GLY:HA3	10:H:35:THR:OG1	2.04	0.58
4:B:61:LYS:HB3	4:B:62:PRO:HD3	1.85	0.58
1:X:2837:G:O2'	1:X:2838:U:H5'	2.02	0.58
10:H:1:MET:SD	10:H:1:MET:N	2.77	0.58
1:X:320:A:H1'	1:X:340:G:H2'	1.86	0.57
1:X:528:G:H2'	1:X:529:U:C6	2.39	0.57
1:X:2325:A:O2'	1:X:2326:C:P	2.61	0.57
8:F:118:GLY:O	8:F:122:ALA:HB3	2.04	0.57
1:X:1095:A:H3'	1:X:1096:A:H5''	1.84	0.57
1:X:2400:G:H21	23:U:33:LYS:NZ	2.02	0.57
6:D:13:ARG:HH21	6:D:17:MET:HE2	1.68	0.57
19:Q:34:THR:O	19:Q:38:ILE:HG22	2.04	0.57
18:P:80:LEU:HD21	18:P:87:GLU:CB	2.34	0.57
25:W:12:ARG:HH11	25:W:12:ARG:CG	2.15	0.57
1:X:940:G:O2'	25:W:40:VAL:HG23	2.03	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:422:C:O2'	1:X:423:G:H5'	2.03	0.57
1:X:228:A:H5'	11:I:53:ARG:NH2	2.18	0.57
1:X:2788:C:O2'	1:X:2789:U:H5'	2.04	0.57
20:R:93:ARG:CA	20:R:95:ARG:CZ	2.81	0.57
12:J:79:PRO:CD	12:J:88:LYS:NZ	2.67	0.57
4:B:134:TRP:O	4:B:135:HIS:C	2.42	0.57
1:X:531:G:O2'	1:X:532:A:H5'	2.04	0.57
17:O:13:ARG:HG2	17:O:14:VAL:N	2.16	0.57
7:E:163:ARG:HD3	7:E:167:GLU:HB3	1.86	0.57
1:X:558:G:N3	1:X:558:G:C4'	2.65	0.57
1:X:357:A:H2'	1:X:358:C:H5'	1.86	0.57
2:Y:108:G:C2'	2:Y:109:G:H5'	2.34	0.57
11:I:17:LYS:O	11:I:18:ARG:HG3	2.04	0.57
1:X:1153:A:HO2'	1:X:1154:A:H3'	1.69	0.57
1:X:1979:C:C2'	1:X:1980:A:O4'	2.52	0.57
9:G:157:PRO:C	9:G:161:GLN:NE2	2.58	0.57
1:X:1339:U:OP2	1:X:1339:U:C6	2.57	0.57
1:X:940:G:OP1	25:W:37:THR:HG21	2.03	0.57
1:X:2366:U:O2'	22:T:41:ARG:NH2	2.37	0.57
9:G:115:ALA:HB3	9:G:118:ALA:HB2	1.87	0.57
13:K:25:ALA:CB	13:K:47:PHE:HE2	2.17	0.57
3:A:92:ILE:HG21	3:A:104:TYR:HD2	1.68	0.57
20:R:70:GLU:OE1	20:R:72:ARG:HD2	2.03	0.57
1:X:1283:C:H5''	1:X:1284:G:O5'	2.04	0.57
1:X:1997:A:H2'	1:X:1998:A:C8	2.40	0.57
23:U:11:LYS:O	23:U:12:ASN:HB2	2.04	0.57
17:O:13:ARG:CG	17:O:14:VAL:H	2.10	0.57
21:S:94:VAL:HG12	21:S:95:SER:N	2.18	0.57
1:X:682:G:N3	1:X:682:G:H2'	2.20	0.57
1:X:394:U:H5''	23:U:19:ILE:HD11	1.86	0.57
1:X:392:G:N2	1:X:409:G:C4	2.72	0.57
10:H:118:LEU:HD12	10:H:118:LEU:H	1.68	0.57
25:W:36:ASP:OD1	25:W:41:ARG:NH1	2.37	0.57
2:Y:20:A:H2'	2:Y:21:C:C6	2.40	0.57
1:X:1211:G:H2'	1:X:1212:U:C6	2.40	0.57
1:X:583:C:H1'	1:X:2038:C:C6	2.39	0.57
1:X:972:C:H5'	1:X:973:U:OP2	2.04	0.57
1:X:1706:A:O2'	1:X:1707:A:H5'	2.05	0.57
20:R:93:ARG:NH1	20:R:108:VAL:O	2.37	0.57
12:J:79:PRO:O	12:J:80:ALA:HB2	2.03	0.57
4:B:137:ARG:HG2	4:B:137:ARG:HH21	1.69	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2034:A:H2'	1:X:2593:A:H61	1.68	0.57
1:X:760:U:H1'	26:Z:3:LYS:HE2	1.87	0.57
1:X:2417:U:C2'	1:X:2418:A:H5''	2.34	0.57
6:D:72:LYS:HA	6:D:81:GLN:O	2.03	0.57
2:Y:54:U:H2'	2:Y:55:C:O4'	2.03	0.57
17:O:36:LYS:HZ2	17:O:55:THR:N	2.03	0.57
6:D:127:ASN:OD1	6:D:158:THR:N	2.30	0.57
1:X:2082:C:H2'	1:X:2083:G:C5'	2.34	0.57
21:S:34:LEU:HD21	21:S:39:PHE:CD1	2.38	0.57
1:X:1813:A:H2'	1:X:1814:G:C8	2.39	0.57
1:X:1351:G:O3'	19:Q:13:SER:HB2	2.04	0.57
1:X:1681:A:C2	1:X:2706:U:C2	2.92	0.57
11:I:13:ARG:NH2	11:I:13:ARG:CG	2.65	0.57
1:X:691:C:H2'	1:X:692:C:C6	2.34	0.57
1:X:1597:A:H2'	1:X:1598:C:C6	2.39	0.57
1:X:2663:U:C4	1:X:2664:G:N7	2.73	0.57
1:X:417:C:C6	1:X:419:G:C8	2.93	0.57
18:P:21:ARG:HH11	18:P:21:ARG:HG3	1.68	0.57
2:Y:5:C:H2'	2:Y:6:C:C6	2.39	0.57
1:X:1238:A:O2'	1:X:1239:A:H5'	2.04	0.57
1:X:244:C:H2'	1:X:245:C:O4'	2.05	0.57
1:X:213:C:H2'	1:X:214:C:H6	1.68	0.57
1:X:2409:A:H2	1:X:2410:U:C5	2.23	0.57
1:X:542:A:N6	1:X:2003:A:N3	2.53	0.57
1:X:759:C:C5'	1:X:759:C:C6	2.85	0.57
16:N:66:ASN:CB	16:N:76:TYR:HB2	2.33	0.57
1:X:2796:A:H5''	4:B:162:MET:HE3	1.84	0.57
6:D:4:LEU:HD12	6:D:5:LYS:N	2.11	0.57
1:X:2170:C:H2'	1:X:2171:U:C4'	2.33	0.57
21:S:30:VAL:HG12	21:S:31:SER:O	2.04	0.57
5:C:112:GLN:HA	5:C:116:LYS:CG	2.34	0.57
5:C:9:GLN:HE21	5:C:120:VAL:HG21	1.69	0.57
21:S:91:PRO:O	21:S:92:VAL:HG13	2.04	0.57
1:X:29:U:H4'	16:N:11:ARG:NH2	2.19	0.57
1:X:2310:G:H4'	22:T:42:GLY:HA3	1.85	0.57
1:X:1296:G:H22	1:X:1299:A:H5''	1.68	0.57
22:T:32:LYS:HB2	22:T:35:ASN:HD21	1.69	0.57
7:E:17:VAL:HG12	7:E:18:ASN:N	2.19	0.57
15:M:39:VAL:HA	15:M:45:THR:HA	1.85	0.57
23:U:22:GLY:N	23:U:39:LYS:HD2	2.19	0.57
21:S:1:MET:HG3	21:S:52:PHE:CD2	2.39	0.57

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:26:ASN:ND2	10:H:26:ASN:O	2.36	0.57
1:X:1586:A:H2'	1:X:1587:A:C8	2.39	0.57
1:X:2165:A:H2'	1:X:2166:G:H8	1.69	0.57
1:X:2543:A:C2	1:X:2626:U:H4'	2.39	0.57
1:X:2201:G:H5''	3:A:188:GLU:OE2	2.05	0.57
20:R:92:THR:C	20:R:95:ARG:HH22	2.07	0.57
9:G:105:GLY:O	9:G:106:TYR:C	2.41	0.57
8:F:117:ALA:C	8:F:118:GLY:O	2.36	0.57
9:G:33:ILE:HD11	9:G:35:LYS:HZ3	1.69	0.57
9:G:42:VAL:HG13	9:G:168:THR:HG23	1.86	0.57
17:O:12:TYR:HB2	17:O:39:PHE:HA	1.86	0.57
23:U:28:GLY:O	23:U:30:VAL:N	2.37	0.57
1:X:2725:C:O2'	7:E:143:GLN:HG2	2.04	0.57
10:H:133:VAL:HG12	10:H:133:VAL:O	2.03	0.57
1:X:2274:C:H5	14:L:14:ARG:HH12	1.50	0.57
1:X:871:U:O2'	1:X:2247:A:C2'	2.53	0.57
1:X:1779:C:H5''	3:A:222:ARG:HH12	1.70	0.57
21:S:48:THR:HG22	21:S:66:VAL:HB	1.85	0.57
12:J:20:GLY:O	12:J:99:LYS:HG2	2.04	0.57
1:X:1954:A:H5'	1:X:1955:G:H5''	1.87	0.57
1:X:1324:G:O2'	1:X:1325:U:O5'	2.23	0.57
5:C:48:ARG:HB2	5:C:51:VAL:HG13	1.86	0.57
1:X:1031:C:O2	1:X:1031:C:C2'	2.53	0.57
13:K:95:THR:HG22	13:K:95:THR:O	2.05	0.57
1:X:29:U:C4'	16:N:11:ARG:HH12	2.18	0.57
1:X:1314:A:H2	1:X:1642:G:N3	2.02	0.57
4:B:9:ILE:HD11	4:B:27:LEU:CB	2.31	0.57
8:F:132:ARG:HG2	8:F:132:ARG:O	2.05	0.57
1:X:497:C:C5'	1:X:497:C:H6	2.16	0.57
1:X:177:U:C5	1:X:225:G:C2	2.92	0.57
1:X:699:G:H4'	1:X:700:C:OP2	2.05	0.57
1:X:2216:G:O5'	1:X:2216:G:H8	1.86	0.57
1:X:2777:A:C5	18:P:134:LYS:HB2	2.39	0.57
1:X:988:G:N3	1:X:1012:A:H2	2.02	0.57
1:X:2195:C:C2'	1:X:2196:U:O4'	2.52	0.57
4:B:40:GLN:O	4:B:40:GLN:HG2	2.04	0.57
8:F:111:LYS:C	8:F:115:LEU:HG	2.25	0.57
7:E:149:ARG:HD3	7:E:164:PHE:HE1	1.69	0.57
1:X:2299:A:N3	1:X:2299:A:H2'	2.19	0.57
1:X:2769:C:C2'	1:X:2770:A:C8	2.83	0.57
1:X:37:C:H1'	5:C:44:SER:OG	2.04	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:840:U:O2	1:X:2225:G:H4'	2.05	0.57
1:X:1542:G:H21	1:X:1562:G:H22	1.51	0.57
1:X:691:C:O2'	1:X:692:C:H5'	2.04	0.57
1:X:2014:A:O2'	1:X:2015:G:P	2.63	0.57
18:P:51:GLN:O	18:P:54:GLU:HB2	2.04	0.57
1:X:796:A:H8	1:X:797:A:H4'	1.68	0.57
1:X:181:A:C2	1:X:182:G:N2	2.73	0.57
1:X:2561:G:H5'	1:X:2561:G:H8	1.68	0.57
18:P:134:LYS:OXT	18:P:134:LYS:HG2	2.04	0.57
3:A:97:TYR:HB3	3:A:99:ASP:OD2	2.04	0.57
20:R:101:GLY:C	20:R:103:LYS:H	2.08	0.57
20:R:93:ARG:C	20:R:95:ARG:NH1	2.58	0.57
1:X:531:G:H2'	1:X:532:A:C8	2.39	0.57
21:S:3:LEU:HD21	21:S:32:PHE:CD2	2.39	0.57
5:C:112:GLN:CD	5:C:116:LYS:HD3	2.25	0.57
5:C:186:LEU:HD12	5:C:187:VAL:N	2.20	0.57
24:V:27:GLU:O	24:V:31:GLN:HG3	2.04	0.57
19:Q:92:ALA:C	19:Q:94:GLN:N	2.58	0.57
1:X:718:A:H62	1:X:739:G:H1'	1.70	0.57
1:X:1735:G:OP2	1:X:1735:G:H8	1.88	0.57
1:X:1644:G:H2'	1:X:1645:U:C6	2.39	0.57
1:X:547:U:H2'	1:X:548:G:H8	1.68	0.57
1:X:1287:A:N3	1:X:1310:C:H1'	2.20	0.57
1:X:2199:C:C2	1:X:2200:G:C8	2.92	0.57
20:R:22:VAL:HG21	20:R:80:LYS:NZ	2.19	0.57
1:X:1996:A:C2'	1:X:1997:A:H5'	2.34	0.57
1:X:537:C:O2'	1:X:538:A:C2	2.58	0.57
26:Z:20:ARG:C	26:Z:22:HIS:H	2.07	0.57
23:U:10:LYS:HE2	23:U:11:LYS:CE	2.34	0.57
6:D:46:ASP:O	6:D:50:ILE:HG13	2.04	0.57
15:M:38:LYS:O	15:M:40:ARG:N	2.37	0.57
21:S:36:ARG:O	21:S:40:ASP:OD2	2.23	0.57
1:X:687:G:H2'	1:X:817:A:H61	1.70	0.57
21:S:64:ALA:HA	21:S:86:VAL:N	2.20	0.57
11:I:94:GLU:CA	11:I:97:ARG:NE	2.61	0.57
30:4:30:VAL:C	30:4:32:HIS:N	2.57	0.57
1:X:1873:A:H2'	1:X:1874:G:O5'	2.04	0.57
4:B:105:THR:HG21	4:B:199:ARG:NH2	2.19	0.57
1:X:1026:U:O2'	1:X:1027:C:H5'	2.04	0.57
20:R:28:LYS:O	20:R:29:HIS:HB2	2.05	0.57
4:B:136:ARG:NH1	4:B:136:ARG:HG2	2.20	0.57

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1141:U:O2'	1:X:1142:G:O5'	2.23	0.57
23:U:48:LYS:CG	23:U:49:LYS:H	1.91	0.57
16:N:70:ARG:NH1	16:N:70:ARG:HG3	2.19	0.57
17:O:30:GLY:O	17:O:32:LYS:HG2	2.05	0.57
17:O:38:LEU:HA	17:O:46:VAL:O	2.05	0.57
1:X:2274:C:H2'	1:X:2275:U:H6	1.69	0.57
21:S:3:LEU:O	21:S:56:VAL:HA	2.05	0.57
1:X:2824:C:H4'	1:X:2825:A:C5'	2.35	0.57
1:X:2807:U:H6	1:X:2807:U:C5'	2.07	0.57
21:S:92:VAL:O	21:S:93:GLU:HG3	2.05	0.57
5:C:83:ALA:O	5:C:84:PHE:C	2.44	0.57
21:S:122:ILE:CA	21:S:161:ALA:H	2.12	0.57
1:X:2705:A:O2'	1:X:2706:U:P	2.62	0.57
1:X:2238:G:C6	1:X:2239:C:C4	2.93	0.57
1:X:1119:U:H2'	1:X:1120:C:O5'	2.04	0.57
18:P:49:SER:C	18:P:51:GLN:N	2.57	0.57
22:T:5:LYS:HD2	22:T:5:LYS:N	2.19	0.57
1:X:1183:C:H2'	1:X:1184:G:C8	2.40	0.57
1:X:2444:C:O2'	1:X:2445:C:H5'	2.05	0.57
1:X:312:G:O2'	1:X:313:U:O5'	2.23	0.57
1:X:1463:A:H2'	1:X:1464:A:C8	2.40	0.57
1:X:136:A:C4	1:X:137:A:N7	2.71	0.56
1:X:539:A:H5'	1:X:540:G:OP1	2.05	0.56
23:U:52:ARG:CD	23:U:79:GLU:HA	2.34	0.56
21:S:137:ASP:OD2	21:S:138:VAL:N	2.38	0.56
6:D:67:ILE:O	6:D:69:LYS:N	2.38	0.56
9:G:66:HIS:O	16:N:67:ALA:HB1	2.04	0.56
1:X:1023:U:HO2'	1:X:1024:G:P	2.27	0.56
1:X:2725:C:H2'	1:X:2726:U:C6	2.40	0.56
1:X:1467:U:H3'	1:X:1468:A:C5'	2.33	0.56
12:J:35:LEU:HD11	12:J:130:THR:OG1	2.05	0.56
3:A:246:PRO:HD2	3:A:250:TRP:H	1.70	0.56
1:X:1151:U:H4'	1:X:1153:A:H5'	1.87	0.56
5:C:95:LEU:CD2	5:C:96:PRO:HD2	2.31	0.56
1:X:431:G:H2'	1:X:432:C:C6	2.40	0.56
1:X:1339:U:H5	1:X:1664:G:HO2'	1.51	0.56
1:X:177:U:O2	1:X:178:C:O4'	2.23	0.56
1:X:169:C:H2'	1:X:170:U:C5'	2.32	0.56
1:X:1517:C:H2'	1:X:1518:C:C6	2.38	0.56
1:X:2040:A:O2'	1:X:2041:A:H5'	2.04	0.56
17:O:83:ARG:HH21	17:O:83:ARG:HG2	1.70	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:95:ARG:N	20:R:95:ARG:HD2	2.20	0.56
1:X:83:A:H61	1:X:100:G:H1'	1.69	0.56
1:X:2322:U:H2'	1:X:2323:U:N1	2.20	0.56
1:X:1023:U:H3'	1:X:1023:U:H6	1.70	0.56
7:E:127:GLU:C	7:E:129:THR:H	2.09	0.56
7:E:140:LEU:HA	7:E:143:GLN:HB2	1.86	0.56
1:X:2780:A:H2'	1:X:2781:G:H8	1.71	0.56
19:Q:8:GLN:O	19:Q:9:ALA:HB2	2.04	0.56
24:V:38:ALA:C	24:V:40:PRO:HD3	2.26	0.56
1:X:458:G:OP1	16:N:3:ARG:HD3	2.05	0.56
6:D:100:LEU:HG	6:D:104:ILE:HD11	1.87	0.56
1:X:2691:C:C2'	1:X:2692:A:H5''	2.35	0.56
7:E:43:VAL:HB	7:E:52:VAL:CG1	2.34	0.56
1:X:645:G:H2'	1:X:646:C:H6	1.67	0.56
4:B:176:ARG:HE	15:M:16:ILE:HG12	1.70	0.56
6:D:119:PRO:CG	6:D:120:ASN:H	2.14	0.56
1:X:1333:G:H22	1:X:1344:C:N4	2.03	0.56
5:C:73:SER:O	5:C:73:SER:OG	2.19	0.56
11:I:119:THR:HA	11:I:139:ARG:H	1.70	0.56
18:P:131:LYS:HG2	18:P:132:GLY:N	2.19	0.56
1:X:2277:A:H2'	1:X:2278:A:O4'	2.05	0.56
5:C:136:TRP:C	5:C:140:ASN:HD22	2.09	0.56
1:X:2395:C:H2'	1:X:2396:C:H5'	1.87	0.56
12:J:77:LYS:O	12:J:79:PRO:HD3	2.05	0.56
1:X:2597:G:H21	4:B:150:VAL:HG11	1.70	0.56
1:X:2074:U:H3'	1:X:2075:U:C5'	2.33	0.56
9:G:47:SER:O	9:G:49:VAL:N	2.37	0.56
17:O:36:LYS:HD2	17:O:55:THR:CA	2.35	0.56
17:O:34:GLU:HB2	17:O:56:VAL:HG23	1.87	0.56
16:N:74:MET:SD	16:N:110:VAL:HG13	2.45	0.56
10:H:116:ARG:HG2	10:H:116:ARG:O	2.05	0.56
6:D:8:TYR:CD1	6:D:173:MET:HE2	2.40	0.56
22:T:44:LYS:HG2	22:T:45:PHE:CD1	2.39	0.56
1:X:2821:G:H2'	1:X:2822:U:C6	2.40	0.56
1:X:2782:G:O6	1:X:2867:G:O6	2.23	0.56
5:C:180:ILE:HG23	5:C:181:LEU:H	1.71	0.56
3:A:217:ARG:NH2	3:A:218:LYS:NZ	2.53	0.56
1:X:2807:U:HO2'	1:X:2808:U:P	2.29	0.56
24:V:14:PHE:O	24:V:18:ILE:HG13	2.04	0.56
12:J:61:ARG:HG2	12:J:61:ARG:HH11	1.68	0.56
19:Q:12:ILE:N	19:Q:12:ILE:HD13	2.18	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:12:ILE:H	19:Q:12:ILE:CD1	2.15	0.56
1:X:666:U:C3'	1:X:667:U:H5''	2.30	0.56
1:X:1681:A:H61	1:X:1979:C:H42	1.53	0.56
1:X:2517:C:O2'	1:X:2518:C:H5'	2.05	0.56
1:X:969:U:C6	12:J:17:ARG:HD2	2.40	0.56
8:F:76:TYR:HD1	8:F:79:ARG:HH21	1.51	0.56
1:X:553:C:H2'	1:X:557:U:C5	2.41	0.56
1:X:1525:A:H3'	1:X:1526:U:C6	2.38	0.56
11:I:81:GLN:HE22	11:I:115:SER:CA	2.18	0.56
1:X:203:G:H4'	1:X:234:C:O2'	2.06	0.56
1:X:1569:A:N1	1:X:1571:G:H1'	2.19	0.56
1:X:2054:A:H2'	1:X:2055:G:H8	1.71	0.56
3:A:145:LEU:HD12	3:A:146:GLU:N	2.19	0.56
7:E:171:LEU:N	7:E:171:LEU:CD1	2.68	0.56
18:P:103:LEU:HB2	18:P:119:LYS:HB2	1.87	0.56
1:X:1242:A:O2'	1:X:1243:G:H5'	2.05	0.56
1:X:2396:C:H6	1:X:2396:C:H5'	1.70	0.56
20:R:90:LYS:HD2	20:R:108:VAL:HG21	1.88	0.56
1:X:2024:U:O2'	1:X:2025:A:H5'	2.06	0.56
6:D:75:SER:CB	6:D:79:LEU:HD22	2.35	0.56
16:N:93:LYS:NZ	17:O:10:LYS:NZ	2.53	0.56
1:X:1459:U:C2	1:X:1475:U:H1'	2.41	0.56
1:X:2674:C:O2'	1:X:2675:U:H5'	2.05	0.56
5:C:34:GLN:OE1	5:C:176:ASN:OD1	2.23	0.56
24:V:42:ARG:NE	24:V:46:LEU:HD21	2.19	0.56
13:K:100:VAL:CG1	13:K:101:GLY:N	2.45	0.56
1:X:2217:G:H5'	1:X:2218:G:N7	2.19	0.56
11:I:30:ALA:H	11:I:34:HIS:CE1	2.23	0.56
7:E:9:ILE:HG22	7:E:11:VAL:CG2	2.35	0.56
1:X:429:C:H2'	1:X:430:C:H6	1.69	0.56
20:R:98:ILE:C	20:R:100:ASP:N	2.59	0.56
1:X:514:G:C2	18:P:15:LYS:HG2	2.40	0.56
1:X:514:G:C4'	1:X:515:A:OP2	2.51	0.56
1:X:2228:U:H5''	1:X:2229:G:OP2	2.06	0.56
3:A:85:ASP:HB2	3:A:92:ILE:HD12	1.88	0.56
1:X:589:C:H4'	16:N:31:GLN:OE1	2.04	0.56
12:J:63:GLY:O	12:J:65:ILE:N	2.31	0.56
3:A:130:ALA:HA	3:A:191:ALA:O	2.06	0.56
1:X:2827:G:O2'	1:X:2828:C:H5'	2.05	0.56
1:X:1505:U:H3'	1:X:1505:U:C6	2.40	0.56
1:X:2194:A:H3'	1:X:2195:C:C5'	2.21	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1121:G:O2'	1:X:1122:A:H8	1.86	0.56
1:X:568:G:H2'	1:X:569:C:O4'	2.05	0.56
1:X:769:C:O2'	1:X:770:U:H5'	2.06	0.56
3:A:182:LEU:HD12	3:A:269:PHE:HD2	1.67	0.56
1:X:1072:U:H1'	1:X:1081:A:H1'	1.86	0.56
1:X:2796:A:H2'	1:X:2797:G:C8	2.40	0.56
21:S:6:LYS:H	21:S:7:PRO:CD	2.16	0.56
21:S:155:PRO:HG2	21:S:158:CYS:SG	2.46	0.56
1:X:1598:C:H2'	1:X:1599:G:H5'	1.88	0.56
1:X:577:U:P	11:I:40:ARG:HH22	2.26	0.56
23:U:15:VAL:O	23:U:16:ASN:O	2.24	0.56
4:B:25:VAL:HG11	15:M:16:ILE:HD12	1.86	0.56
3:A:142:VAL:HG12	3:A:193:ILE:HA	1.87	0.56
1:X:2642:G:H2'	1:X:2643:G:C5'	2.35	0.56
1:X:27:G:N2	1:X:522:G:O2'	2.38	0.56
4:B:52:ALA:O	4:B:75:THR:O	2.24	0.56
1:X:165:G:H2'	1:X:166:G:H5'	1.87	0.56
1:X:2876:C:H2'	1:X:2877:A:C8	2.41	0.56
1:X:2235:G:N2	1:X:2254:C:C4	2.73	0.56
15:M:5:ILE:CD1	15:M:7:ILE:HB	2.36	0.56
1:X:133:C:H2'	1:X:134:G:O5'	2.06	0.56
1:X:1053:G:C4	1:X:1054:C:C6	2.93	0.56
1:X:333:A:C5'	5:C:162:ARG:CZ	2.84	0.56
20:R:17:LYS:HB3	20:R:18:LYS:HZ3	1.70	0.56
4:B:137:ARG:CG	4:B:137:ARG:HH21	2.19	0.56
1:X:527:C:OP1	26:Z:16:ARG:NH2	2.37	0.56
1:X:760:U:C5	1:X:2592:U:C5	2.93	0.56
23:U:75:TYR:C	23:U:77:GLY:H	2.09	0.56
16:N:91:ASN:C	16:N:93:LYS:H	2.08	0.56
1:X:2375:G:H1'	23:U:33:LYS:HZ2	1.71	0.56
7:E:88:GLU:HB3	7:E:163:ARG:HG3	1.88	0.56
10:H:83:ARG:HE	15:M:40:ARG:CZ	2.19	0.56
1:X:1467:U:C6	1:X:1468:A:H5'	2.41	0.56
15:M:104:LEU:O	15:M:107:LEU:N	2.25	0.56
5:C:102:LEU:HD23	5:C:106:MET:HB2	1.87	0.56
12:J:128:ILE:O	12:J:128:ILE:HD12	2.05	0.56
6:D:111:ILE:HB	6:D:114:PHE:CB	2.28	0.56
1:X:1856:U:H3	1:X:1861:G:H1	1.54	0.56
1:X:48:A:H1'	1:X:50:G:N3	2.20	0.56
3:A:96:HIS:HE1	3:A:100:GLY:C	2.09	0.56
3:A:96:HIS:HE1	3:A:100:GLY:CA	2.18	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2027:C:C2	1:X:2604:G:C2	2.93	0.56
1:X:2490:U:H2'	1:X:2491:C:C6	2.40	0.56
20:R:14:LEU:HD13	20:R:39:ALA:HB1	1.87	0.56
12:J:44:LYS:HE3	12:J:93:TYR:CE1	2.40	0.56
1:X:2856:U:H5'	13:K:93:GLY:O	2.06	0.56
4:B:137:ARG:HG2	4:B:137:ARG:NH2	2.21	0.56
6:D:74:ILE:HA	6:D:79:LEU:CB	2.34	0.56
7:E:105:MET:CE	7:E:105:MET:HA	2.36	0.56
6:D:10:ASP:HA	6:D:14:PRO:HG2	1.87	0.56
21:S:37:LYS:O	21:S:40:ASP:HB2	2.06	0.56
21:S:127:PRO:O	21:S:128:ARG:CG	2.54	0.56
1:X:2241:U:C5	22:T:17:ASN:ND2	2.73	0.56
6:D:111:ILE:HA	6:D:137:ILE:CG2	2.36	0.56
1:X:1598:C:H2'	1:X:1599:G:C5'	2.36	0.56
1:X:455:A:H1'	1:X:1215:A:O4'	2.05	0.56
16:N:86:ALA:C	16:N:88:ILE:N	2.56	0.56
2:Y:3:A:C2'	2:Y:4:C:H5'	2.35	0.56
14:L:47:ARG:O	14:L:49:GLN:N	2.37	0.56
4:B:68:ALA:C	4:B:70:ALA:H	2.09	0.56
1:X:310:A:N6	5:C:162:ARG:HH22	2.04	0.56
20:R:84:VAL:HA	20:R:90:LYS:HD3	1.88	0.56
12:J:80:ALA:O	12:J:81:GLU:HB3	2.04	0.56
1:X:758:G:C2'	1:X:759:C:H5''	2.30	0.56
1:X:2326:C:H2'	1:X:2327:U:C5	2.38	0.56
14:L:15:ARG:HH11	14:L:15:ARG:HA	1.71	0.56
3:A:252:LYS:HE3	3:A:253:PRO:CD	2.36	0.56
15:M:34:ARG:HH21	15:M:91:VAL:HG23	1.69	0.56
1:X:1820:G:O2'	1:X:1821:A:C5'	2.53	0.56
9:G:100:TYR:HB2	9:G:116:ARG:HH12	1.68	0.56
1:X:71:A:C6	1:X:110:U:H4'	2.41	0.56
1:X:482:A:O2'	1:X:483:A:H5'	2.05	0.56
1:X:780:U:C6	1:X:780:U:H3'	2.41	0.56
1:X:874:A:H2'	1:X:875:G:O4'	2.06	0.56
20:R:110:SER:OG	20:R:111:GLY:N	2.39	0.56
2:Y:33:C:O4'	6:D:26:MET:HE1	2.06	0.56
5:C:3:GLN:HB2	5:C:116:LYS:HD2	1.87	0.56
19:Q:66:GLY:C	19:Q:68:PHE:N	2.58	0.56
1:X:2190:A:H8	1:X:2191:A:OP2	1.89	0.56
1:X:2225:G:C2	1:X:2405:A:H1'	2.40	0.56
11:I:32:ARG:HH21	17:O:81:ARG:HG3	1.71	0.56
6:D:106:ILE:HG23	6:D:110:ARG:CD	2.35	0.56

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:746:G:N7	1:X:774:A:C6	2.74	0.56
30:4:9:LYS:HD2	30:4:9:LYS:N	2.20	0.56
1:X:525:A:H2	1:X:1273:G:N3	2.04	0.56
1:X:138:G:O2'	1:X:139:A:H5'	2.06	0.56
1:X:2087:U:H2'	1:X:2088:U:C6	2.41	0.56
20:R:85:ASP:OD1	20:R:90:LYS:HD2	2.06	0.56
12:J:116:LYS:HD3	12:J:132:MET:SD	2.46	0.56
1:X:2007:G:C2	1:X:2023:C:C2	2.94	0.56
1:X:2592:U:O2	1:X:2592:U:C2'	2.45	0.56
16:N:66:ASN:HD22	16:N:70:ARG:CZ	2.18	0.56
16:N:91:ASN:O	16:N:93:LYS:HG3	2.05	0.56
7:E:103:LEU:HB2	7:E:123:PHE:CD2	2.40	0.56
7:E:109:TYR:HE1	7:E:152:ARG:NE	2.04	0.56
7:E:126:PRO:HG3	7:E:130:ARG:CD	2.31	0.56
1:X:558:G:H8	1:X:559:C:C5	2.22	0.56
7:E:54:ARG:HD2	7:E:56:SER:O	2.06	0.56
1:X:663:G:H2'	1:X:664:C:C4'	2.36	0.56
1:X:441:A:H5'	1:X:442:A:OP2	2.05	0.56
1:X:814:G:H4'	1:X:815:A:OP2	2.06	0.56
1:X:2404:A:O2'	1:X:2405:A:P	2.63	0.56
1:X:1218:C:C4'	11:I:13:ARG:NH1	2.64	0.56
16:N:29:SER:OG	16:N:30:LYS:HD3	2.05	0.56
1:X:514:G:H22	18:P:15:LYS:CA	2.17	0.56
25:W:14:GLY:O	25:W:18:LYS:HG2	2.05	0.56
10:H:28:GLY:O	10:H:35:THR:HG23	2.06	0.56
1:X:401:G:H5'	1:X:402:A:OP2	2.06	0.56
18:P:49:SER:O	18:P:52:ASP:N	2.39	0.56
1:X:984:A:H1'	1:X:1202:U:C6	2.40	0.56
1:X:1973:C:H2'	1:X:1974:U:O4'	2.05	0.56
1:X:830:C:O2'	1:X:852:U:OP1	2.24	0.56
1:X:1234:C:H2'	1:X:1235:C:H6	1.71	0.56
1:X:240:U:H2'	1:X:241:C:O4'	2.06	0.56
21:S:54:ILE:HG22	21:S:54:ILE:O	2.06	0.56
1:X:757:U:O2'	1:X:758:G:H5'	2.06	0.55
6:D:38:GLU:CB	6:D:87:ILE:HB	2.34	0.55
8:F:118:GLY:O	8:F:122:ALA:CB	2.55	0.55
17:O:10:LYS:CG	17:O:11:GLN:HG2	2.29	0.55
14:L:17:VAL:CG1	14:L:18:ARG:N	2.68	0.55
1:X:558:G:P	1:X:558:G:O4'	2.64	0.55
1:X:1710:U:H4'	1:X:1711:C:OP2	2.06	0.55
7:E:65:HIS:O	7:E:67:LEU:N	2.39	0.55

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:3:GLN:CG	5:C:116:LYS:HD2	2.34	0.55
1:X:1782:A:H4'	3:A:207:GLY:O	2.06	0.55
1:X:1327:C:C2	1:X:1352:G:N2	2.74	0.55
1:X:1105:U:N3	1:X:1107:A:H5''	2.21	0.55
1:X:1979:C:O2'	1:X:1980:A:O4'	2.24	0.55
26:Z:31:THR:HG22	26:Z:32:GLU:N	2.21	0.55
1:X:649:G:N1	1:X:660:G:N1	2.53	0.55
23:U:44:ALA:C	23:U:45:ASN:OD1	2.43	0.55
4:B:144:ARG:CG	4:B:145:LYS:H	2.12	0.55
1:X:2799:C:C4	1:X:2800:C:N3	2.74	0.55
1:X:417:C:H4'	1:X:418:C:H5'	1.88	0.55
3:A:134:ARG:NH2	3:A:135:PHE:CZ	2.74	0.55
3:A:143:HIS:HD1	3:A:194:GLY:C	2.09	0.55
1:X:403:A:OP2	1:X:403:A:H3'	2.05	0.55
8:F:90:THR:N	8:F:91:PRO:HD3	2.21	0.55
11:I:130:ILE:HA	11:I:140:VAL:HG21	1.87	0.55
2:Y:4:C:H3'	2:Y:4:C:C6	2.41	0.55
18:P:48:LYS:NZ	18:P:56:LEU:HD11	2.20	0.55
4:B:15:TRP:NE1	4:B:20:ALA:HB2	2.21	0.55
12:J:116:LYS:NZ	12:J:132:MET:HB3	2.22	0.55
6:D:148:LYS:HG3	6:D:149:THR:N	2.22	0.55
6:D:36:VAL:HA	6:D:153:ASP:O	2.06	0.55
7:E:139:GLN:HB3	7:E:143:GLN:OE1	2.06	0.55
1:X:2779:C:H2'	1:X:2780:A:C8	2.41	0.55
5:C:109:ALA:O	5:C:110:SER:C	2.43	0.55
19:Q:6:ILE:HG22	19:Q:7:LEU:H	1.71	0.55
12:J:100:PRO:CB	21:S:74:ARG:HG2	2.36	0.55
15:M:94:VAL:O	15:M:95:GLU:HB3	2.05	0.55
12:J:64:LYS:CG	12:J:108:ALA:O	2.54	0.55
1:X:592:G:P	16:N:10:ARG:HH11	2.29	0.55
1:X:396:U:O4	1:X:398:C:C2	2.59	0.55
1:X:2812:A:H2'	1:X:2813:G:H8	1.71	0.55
1:X:208:C:H2'	1:X:209:G:H5'	1.87	0.55
1:X:2845:C:C2'	1:X:2846:G:H5'	2.36	0.55
1:X:162:C:H2'	1:X:163:A:H8	1.72	0.55
1:X:2471:U:H2'	1:X:2472:U:C6	2.42	0.55
1:X:1179:A:C2	1:X:1196:G:C2	2.95	0.55
1:X:1293:A:O2'	1:X:1294:G:H5'	2.07	0.55
18:P:72:LEU:O	18:P:72:LEU:HG	2.04	0.55
1:X:757:U:H2'	1:X:758:G:H5'	1.88	0.55
1:X:2562:G:C6	1:X:2563:U:C4	2.95	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:999:A:O2'	1:X:1166:A:H2	1.89	0.55
23:U:52:ARG:HH12	23:U:67:LEU:CG	2.19	0.55
9:G:42:VAL:HG12	9:G:43:VAL:N	2.21	0.55
15:M:46:ARG:CG	15:M:47:SER:N	2.65	0.55
6:D:4:LEU:HD21	6:D:173:MET:HE3	1.88	0.55
21:S:21:ALA:O	21:S:32:PHE:HB2	2.06	0.55
5:C:104:LEU:N	5:C:104:LEU:CD2	2.69	0.55
5:C:193:LEU:HD23	5:C:193:LEU:O	2.05	0.55
1:X:33:C:N4	1:X:458:G:O2'	2.39	0.55
1:X:456:C:O2'	1:X:457:C:H5'	2.06	0.55
18:P:66:GLU:O	18:P:67:PRO:C	2.44	0.55
16:N:39:LEU:HA	16:N:42:ALA:HB2	1.88	0.55
1:X:2309:G:N2	1:X:2365:U:C2	2.74	0.55
1:X:555:U:C6	1:X:555:U:C3'	2.85	0.55
1:X:554:U:H5''	1:X:556:A:C2	2.41	0.55
17:O:78:VAL:O	17:O:79:GLN:HB2	2.04	0.55
1:X:1686:A:H5''	1:X:1687:C:OP2	2.05	0.55
7:E:33:LEU:HD12	7:E:34:THR:N	2.20	0.55
3:A:163:VAL:O	3:A:163:VAL:HG12	2.06	0.55
20:R:54:ILE:HG22	20:R:69:GLN:HB3	1.88	0.55
25:W:22:ALA:C	25:W:24:GLY:N	2.60	0.55
5:C:54:THR:HB	5:C:73:SER:HB3	1.87	0.55
1:X:2018:G:O2'	1:X:2019:C:OP1	2.22	0.55
2:Y:22:U:H2'	2:Y:23:G:C8	2.41	0.55
3:A:68:LYS:N	3:A:152:GLY:HA2	2.21	0.55
1:X:2201:G:H2'	1:X:2202:G:H8	1.70	0.55
1:X:529:U:H2'	1:X:530:G:C8	2.39	0.55
1:X:1998:A:C2	26:Z:6:VAL:HG23	2.41	0.55
1:X:2324:G:N3	1:X:2360:C:H2'	2.22	0.55
2:Y:72:C:O2'	2:Y:73:C:H5'	2.05	0.55
1:X:2676:G:C2	1:X:2690:A:C2	2.94	0.55
12:J:21:ASP:O	12:J:22:ALA:O	2.24	0.55
1:X:1787:U:H4'	3:A:254:THR:H	1.70	0.55
6:D:117:ILE:HD12	6:D:175:LEU:CD1	2.35	0.55
18:P:80:LEU:CD2	18:P:87:GLU:HB3	2.37	0.55
4:B:181:LEU:HD13	15:M:16:ILE:HD11	1.88	0.55
1:X:1336:G:OP1	18:P:105:ARG:NH1	2.37	0.55
20:R:14:LEU:C	20:R:16:PHE:H	2.10	0.55
1:X:84:G:N3	1:X:101:A:C2	2.75	0.55
14:L:38:ILE:HD11	14:L:40:ALA:N	2.17	0.55
1:X:2282:G:H1'	6:D:129:ASN:ND2	2.22	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:36:A:O2'	2:Y:37:C:H5	1.90	0.55
1:X:2726:U:H1'	7:E:139:GLN:HE21	1.71	0.55
1:X:1882:G:H21	1:X:1885:C:N4	2.03	0.55
12:J:62:GLY:O	12:J:64:LYS:HG3	2.07	0.55
1:X:814:G:OP1	5:C:50:GLN:HB2	2.06	0.55
26:Z:34:PRO:HB2	26:Z:35:GLN:HE21	1.70	0.55
30:4:3:VAL:HA	30:4:35:ARG:O	2.06	0.55
8:F:76:TYR:HA	8:F:79:ARG:HE	1.71	0.55
8:F:84:ILE:HG23	8:F:96:VAL:HG11	1.89	0.55
15:M:24:LEU:O	15:M:25:PRO:C	2.44	0.55
1:X:313:U:H2'	1:X:314:G:H8	1.72	0.55
4:B:201:ALA:HB1	4:B:204:ALA:HB2	1.89	0.55
1:X:547:U:H2'	1:X:548:G:C8	2.42	0.55
21:S:134:LEU:HD21	21:S:152:ILE:HG21	1.88	0.55
1:X:1058:G:N2	1:X:1121:G:H2'	2.22	0.55
1:X:174:A:N7	1:X:2409:A:C8	2.75	0.55
1:X:754:G:C6	1:X:770:U:O2	2.59	0.55
23:U:49:LYS:HD3	23:U:61:TRP:CG	2.42	0.55
6:D:128:TYR:O	6:D:156:ILE:HB	2.07	0.55
7:E:89:LEU:HD12	7:E:129:THR:HA	1.88	0.55
19:Q:39:LYS:O	19:Q:42:ILE:CG2	2.54	0.55
1:X:104:C:C3'	1:X:105:G:H5''	2.36	0.55
7:E:57:ASP:CB	7:E:62:ARG:HE	2.09	0.55
11:I:76:LYS:HB3	11:I:79:GLN:CG	2.36	0.55
19:Q:6:ILE:O	19:Q:7:LEU:C	2.44	0.55
24:V:42:ARG:CZ	24:V:45:GLN:HE22	2.20	0.55
5:C:48:ARG:C	5:C:50:GLN:N	2.58	0.55
5:C:82:VAL:HG12	5:C:83:ALA:O	2.06	0.55
1:X:684:C:C5	11:I:43:ALA:HB1	2.40	0.55
1:X:463:C:C2	1:X:465:C:C5	2.95	0.55
1:X:2508:G:OP2	7:E:172:LYS:HD3	2.06	0.55
1:X:1573:G:C3'	1:X:1574:A:H5''	2.30	0.55
1:X:2663:U:C2	1:X:2664:G:C8	2.94	0.55
13:K:30:ARG:HG3	13:K:30:ARG:O	2.06	0.55
11:I:53:ARG:HD3	11:I:53:ARG:O	2.06	0.55
1:X:583:C:H4'	1:X:584:A:O5'	2.07	0.55
10:H:100:ASN:OD1	10:H:102:GLN:N	2.32	0.55
4:B:105:THR:HG21	4:B:199:ARG:HH21	1.72	0.55
7:E:117:PRO:HD3	7:E:123:PHE:CD1	2.42	0.55
1:X:1466:C:H2'	1:X:1467:U:C1'	2.36	0.55
5:C:188:ILE:HG21	5:C:194:GLU:OE2	2.07	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1554:G:O2'	1:X:1555:A:H5'	2.07	0.55
11:I:85:ASP:O	11:I:86:THR:C	2.45	0.55
11:I:94:GLU:HA	11:I:97:ARG:CZ	2.35	0.55
11:I:97:ARG:O	11:I:98:LEU:CB	2.55	0.55
1:X:1312:G:H5''	1:X:1313:U:H5''	1.88	0.55
1:X:641:G:H4'	1:X:651:C:O2'	2.06	0.55
18:P:71:VAL:HG12	18:P:126:ILE:HG23	1.88	0.55
5:C:55:GLY:O	5:C:71:ASP:OD2	2.25	0.55
16:N:88:ILE:HA	17:O:49:GLU:CG	2.37	0.55
1:X:2379:G:C2'	1:X:2380:U:H5'	2.37	0.55
1:X:400:U:HO2'	1:X:401:G:H5''	1.70	0.55
1:X:2641:A:O5'	1:X:2641:A:H8	1.89	0.55
1:X:1512:A:H2'	1:X:1514:C:C5	2.42	0.55
23:U:22:GLY:N	23:U:39:LYS:HB2	2.22	0.55
4:B:70:ALA:O	4:B:71:GLY:C	2.45	0.55
1:X:2198:U:C6	1:X:2198:U:OP2	2.60	0.55
1:X:322:A:O2'	1:X:343:A:C4'	2.55	0.55
12:J:80:ALA:C	12:J:81:GLU:OE1	2.45	0.55
6:D:32:GLU:HB3	6:D:157:VAL:CG1	2.36	0.55
6:D:35:VAL:O	6:D:154:ILE:HA	2.07	0.55
1:X:2400:G:N2	23:U:33:LYS:HZ2	2.05	0.55
1:X:633:G:O2'	1:X:634:G:H5'	2.07	0.55
1:X:929:A:H2	2:Y:81:C:O2	1.89	0.55
2:Y:68:A:H61	2:Y:110:U:H3'	1.71	0.55
12:J:61:ARG:NH1	21:S:175:ARG:HB2	2.21	0.55
1:X:197:G:N3	1:X:210:A:H2	2.05	0.55
1:X:1385:C:H1'	1:X:2192:U:C5	2.42	0.55
4:B:178:GLY:O	4:B:179:GLU:CG	2.54	0.55
9:G:155:THR:CG2	9:G:156:HIS:H	2.16	0.55
14:L:51:LEU:CD1	14:L:51:LEU:N	2.69	0.55
1:X:891:A:C6	1:X:911:A:C6	2.94	0.55
1:X:107:G:N2	1:X:108:G:H1'	2.21	0.55
1:X:174:A:C5	1:X:2409:A:C5	2.95	0.55
20:R:111:GLY:C	20:R:112:LYS:HD2	2.27	0.55
20:R:93:ARG:CA	20:R:95:ARG:NH2	2.70	0.55
4:B:37:LYS:HD2	4:B:42:ASP:OD1	2.07	0.55
23:U:52:ARG:HH12	23:U:67:LEU:CD1	2.18	0.55
6:D:56:GLU:O	6:D:59:LEU:N	2.39	0.55
1:X:2796:A:OP2	13:K:3:HIS:CE1	2.60	0.55
1:X:1552:C:H1'	1:X:1553:G:N3	2.22	0.55
12:J:62:GLY:C	12:J:64:LYS:H	2.11	0.55

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2518:C:H4'	30:4:3:VAL:HG21	1.88	0.55
6:D:117:ILE:HG13	6:D:176:PRO:HG2	1.87	0.55
1:X:1430:G:H2'	1:X:1431:U:H6	1.71	0.55
1:X:2301:A:H2'	1:X:2302:G:C8	2.41	0.55
25:W:39:ALA:O	25:W:43:MET:HG2	2.06	0.55
3:A:81:ALA:HA	3:A:113:VAL:HG13	1.89	0.55
1:X:1714:A:N6	1:X:1715:A:C6	2.75	0.55
5:C:2:ALA:CA	5:C:13:ARG:HA	2.36	0.55
21:S:106:GLY:HA2	21:S:109:GLN:OE1	2.07	0.55
14:L:83:GLY:O	14:L:84:ILE:HD12	2.06	0.55
6:D:115:ARG:HB2	6:D:178:ARG:HD2	1.88	0.55
5:C:111:ARG:NE	5:C:184:ASP:O	2.40	0.55
1:X:334:G:C8	5:C:164:VAL:HG13	2.42	0.55
23:U:51:ILE:HG23	23:U:58:LYS:O	2.07	0.55
6:D:40:LEU:HD12	6:D:85:VAL:O	2.07	0.55
2:Y:25:G:H2'	2:Y:26:G:C8	2.42	0.55
7:E:131:ILE:HG22	7:E:132:ASP:N	2.22	0.55
12:J:64:LYS:CB	12:J:108:ALA:HB3	2.37	0.55
11:I:120:VAL:CG1	11:I:122:VAL:HG13	2.37	0.55
1:X:1600:U:H5'	1:X:1601:U:OP1	2.07	0.55
18:P:87:GLU:HA	18:P:90:LEU:CG	2.36	0.55
23:U:15:VAL:HG23	23:U:16:ASN:N	2.22	0.55
22:T:21:LEU:HD11	22:T:41:ARG:NE	2.22	0.55
1:X:717:G:C2'	1:X:739:G:H22	2.17	0.55
1:X:739:G:O2'	1:X:740:A:H8	1.90	0.55
3:A:126:LYS:H	3:A:129:ASN:HD22	1.55	0.55
1:X:1249:G:HO2'	1:X:1250:A:P	2.30	0.55
2:Y:5:C:H2'	2:Y:6:C:O4'	2.07	0.55
1:X:1392:U:OP1	1:X:1392:U:H6	1.89	0.55
1:X:733:G:C6	1:X:734:G:N7	2.74	0.55
5:C:53:LYS:O	5:C:54:THR:OG1	2.20	0.55
1:X:189:A:C2'	1:X:190:A:H5'	2.37	0.55
1:X:977:G:O4'	1:X:2246:A:N6	2.40	0.55
4:B:37:LYS:HD2	4:B:42:ASP:CG	2.28	0.54
4:B:152:LYS:CB	9:G:106:TYR:HB3	2.34	0.54
23:U:49:LYS:NZ	23:U:61:TRP:CZ2	2.72	0.54
20:R:62:MET:O	20:R:63:THR:C	2.45	0.54
2:Y:25:G:H2'	2:Y:26:G:C5	2.42	0.54
15:M:41:GLU:O	15:M:42:GLY:C	2.44	0.54
3:A:252:LYS:H	3:A:253:PRO:CD	2.20	0.54
21:S:48:THR:HG22	21:S:66:VAL:O	2.06	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:46:ARG:HA	5:C:51:VAL:HG21	1.89	0.54
11:I:87:THR:O	11:I:93:LEU:HD13	2.07	0.54
7:E:75:ALA:O	7:E:79:VAL:HG22	2.07	0.54
5:C:95:LEU:HD23	5:C:96:PRO:CD	2.33	0.54
1:X:1872:A:O2'	1:X:1873:A:H5'	2.08	0.54
1:X:914:C:O2'	1:X:915:C:H5'	2.07	0.54
16:N:86:ALA:O	16:N:87:ASN:C	2.44	0.54
1:X:884:C:OP1	12:J:9:LYS:HG3	2.06	0.54
1:X:2063:A:H2'	1:X:2064:U:C6	2.41	0.54
1:X:1764:A:H2'	1:X:1765:C:H5'	1.89	0.54
1:X:135:U:O3'	1:X:136:A:O4'	2.25	0.54
13:K:94:TYR:CE1	13:K:115:LEU:O	2.59	0.54
4:B:116:VAL:N	4:B:136:ARG:NE	2.30	0.54
18:P:39:ARG:HE	18:P:97:VAL:HB	1.72	0.54
21:S:133:GLU:OE2	21:S:135:VAL:HG23	2.07	0.54
16:N:93:LYS:CD	17:O:10:LYS:HZ3	2.20	0.54
3:A:244:ARG:C	3:A:252:LYS:HZ1	2.11	0.54
10:H:23:ARG:CB	10:H:23:ARG:NH2	2.51	0.54
1:X:688:A:H5''	5:C:61:GLN:HE22	1.73	0.54
12:J:99:LYS:HG3	12:J:100:PRO:HD2	1.89	0.54
1:X:466:A:H4'	1:X:467:U:O5'	2.07	0.54
11:I:134:GLU:O	11:I:136:ALA:N	2.41	0.54
1:X:490:A:O2'	1:X:491:A:C5'	2.54	0.54
4:B:192:ASN:HB2	15:M:9:ARG:NH1	2.23	0.54
16:N:14:HIS:CD2	16:N:32:TYR:CD1	2.94	0.54
1:X:182:G:O2'	1:X:183:U:OP2	2.25	0.54
21:S:70:GLN:HA	21:S:70:GLN:HE21	1.72	0.54
1:X:2827:G:C6	1:X:2828:C:N3	2.74	0.54
5:C:130:THR:HA	5:C:133:PHE:HB3	1.90	0.54
1:X:333:A:C3'	5:C:162:ARG:NH2	2.44	0.54
1:X:2395:C:O2'	1:X:2396:C:H5''	2.07	0.54
20:R:22:VAL:HG11	20:R:80:LYS:HE3	1.88	0.54
20:R:16:PHE:CD2	20:R:82:ALA:HB2	2.42	0.54
9:G:108:GLY:C	9:G:110:LEU:HD23	2.27	0.54
6:D:74:ILE:CG2	6:D:80:ARG:HA	2.28	0.54
6:D:67:ILE:CG2	6:D:84:PRO:HB3	2.38	0.54
1:X:1071:U:H5''	1:X:1072:U:OP1	2.06	0.54
10:H:83:ARG:HH11	15:M:40:ARG:HE	1.49	0.54
1:X:2356:A:N3	14:L:89:PHE:CE1	2.75	0.54
1:X:305:A:C2'	1:X:306:G:H5'	2.36	0.54
1:X:1813:A:H2'	1:X:1814:G:H8	1.73	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:43:ALA:HB1	5:C:86:PRO:O	2.07	0.54
11:I:117:ALA:HA	11:I:137:GLY:O	2.08	0.54
17:O:65:ARG:HH11	17:O:65:ARG:CG	2.19	0.54
30:4:30:VAL:O	30:4:32:HIS:N	2.40	0.54
16:N:82:GLY:O	16:N:85:ARG:N	2.40	0.54
1:X:514:G:N2	18:P:15:LYS:CB	2.70	0.54
1:X:168:A:H2'	1:X:169:C:C6	2.42	0.54
3:A:134:ARG:HG3	3:A:135:PHE:N	2.21	0.54
13:K:20:LEU:O	13:K:22:ARG:N	2.40	0.54
1:X:2437:G:O2'	1:X:2438:A:C8	2.59	0.54
15:M:82:PRO:O	15:M:83:PHE:C	2.44	0.54
1:X:1021:A:N3	1:X:1164:C:H1'	2.22	0.54
1:X:2610:G:O2'	1:X:2785:A:N1	2.33	0.54
15:M:3:THR:OG1	15:M:3:THR:O	2.26	0.54
20:R:96:LYS:CG	20:R:97:GLN:N	2.70	0.54
4:B:153:GLY:O	4:B:154:LYS:C	2.44	0.54
18:P:36:ARG:NH2	26:Z:20:ARG:NH1	2.53	0.54
23:U:48:LYS:O	23:U:61:TRP:HE3	1.90	0.54
6:D:150:ARG:CG	6:D:151:GLY:N	2.63	0.54
6:D:153:ASP:C	6:D:154:ILE:HD12	2.27	0.54
2:Y:112:A:H2'	2:Y:113:G:H8	1.71	0.54
2:Y:112:A:H2'	2:Y:113:G:O4'	2.07	0.54
24:V:21:ARG:NH1	24:V:53:LEU:HD11	2.22	0.54
12:J:21:ASP:HA	12:J:99:LYS:HG3	1.90	0.54
15:M:33:VAL:CG2	15:M:51:GLU:HB2	2.25	0.54
1:X:1552:C:H4'	1:X:1553:G:OP1	2.07	0.54
1:X:490:A:O2'	1:X:491:A:H3'	2.07	0.54
11:I:30:ALA:H	11:I:34:HIS:CG	2.26	0.54
1:X:1118:G:C2'	1:X:1119:U:C5'	2.84	0.54
23:U:13:LEU:CG	23:U:14:VAL:H	2.21	0.54
3:A:73:SER:HA	3:A:119:ALA:CB	2.37	0.54
4:B:120:TRP:CD1	4:B:155:ARG:HB3	2.43	0.54
1:X:208:C:N4	1:X:209:G:H21	2.06	0.54
16:N:14:HIS:CD2	16:N:32:TYR:CE1	2.95	0.54
1:X:244:C:H3'	1:X:245:C:H5''	1.89	0.54
1:X:2304:G:H8	1:X:2304:G:OP2	1.89	0.54
1:X:134:G:H21	1:X:136:A:H3'	1.72	0.54
20:R:90:LYS:CD	20:R:108:VAL:HG21	2.38	0.54
1:X:2855:C:O2'	13:K:90:ARG:NH1	2.40	0.54
23:U:52:ARG:NH1	23:U:67:LEU:CG	2.71	0.54
6:D:132:ILE:CG2	6:D:133:LYS:N	2.71	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:105:ALA:O	16:N:108:ALA:N	2.41	0.54
17:O:14:VAL:HG12	17:O:14:VAL:O	2.07	0.54
11:I:104:ARG:HB3	11:I:105:PRO:CD	2.34	0.54
5:C:7:ILE:CG2	5:C:120:VAL:O	2.55	0.54
1:X:1820:G:H4'	1:X:1821:A:OP1	2.06	0.54
19:Q:7:LEU:HD22	19:Q:8:GLN:N	2.22	0.54
24:V:2:LYS:HG2	24:V:3:PRO:HD3	1.88	0.54
1:X:95:G:H4'	24:V:41:HIS:CE1	2.42	0.54
21:S:128:ARG:HG3	21:S:129:ARG:N	2.23	0.54
1:X:2753:C:H2'	1:X:2754:C:H6	1.72	0.54
1:X:518:A:H4'	1:X:518:A:OP2	2.08	0.54
6:D:111:ILE:CD1	6:D:137:ILE:HD12	2.37	0.54
6:D:175:LEU:HG	6:D:177:PHE:HE1	1.72	0.54
1:X:1426:U:C2'	1:X:1427:G:H5'	2.36	0.54
1:X:1603:A:H8	1:X:1603:A:OP2	1.90	0.54
16:N:22:LYS:C	16:N:24:PHE:N	2.61	0.54
1:X:513:A:H4'	1:X:515:A:H5'	1.88	0.54
1:X:1301:U:C2	1:X:1340:C:O2	2.60	0.54
1:X:497:C:C3'	1:X:497:C:C6	2.91	0.54
1:X:148:C:H3'	1:X:149:A:C8	2.42	0.54
1:X:403:A:H3'	1:X:403:A:P	2.47	0.54
1:X:445:A:H2'	1:X:446:C:C6	2.43	0.54
1:X:2510:A:H4'	7:E:157:TYR:CE2	2.43	0.54
1:X:333:A:H3'	5:C:162:ARG:HH21	1.60	0.54
20:R:90:LYS:HB2	20:R:108:VAL:CG2	2.31	0.54
1:X:2463:G:O2'	1:X:2464:G:H5'	2.08	0.54
6:D:74:ILE:HG12	6:D:80:ARG:CA	2.38	0.54
17:O:20:ILE:HG13	17:O:21:ARG:O	2.07	0.54
17:O:36:LYS:HD2	17:O:55:THR:N	2.23	0.54
1:X:1745:C:O2'	1:X:1746:A:H5'	2.07	0.54
21:S:64:ALA:HB2	21:S:85:MET:CE	2.38	0.54
3:A:231:HIS:CG	3:A:232:PRO:HD2	2.43	0.54
1:X:459:A:H4'	1:X:461:A:C8	2.43	0.54
1:X:10:A:H2'	1:X:11:G:H8	1.72	0.54
1:X:2836:U:O2'	1:X:2837:G:H5'	2.06	0.54
12:J:63:GLY:C	12:J:65:ILE:H	2.11	0.54
9:G:125:ARG:HD2	9:G:129:HIS:CE1	2.43	0.54
1:X:980:G:O3'	25:W:11:GLY:HA2	2.08	0.54
13:K:79:VAL:CA	13:K:83:VAL:HG13	2.13	0.54
23:U:70:LEU:HB3	23:U:79:GLU:CD	2.28	0.54
19:Q:36:THR:O	19:Q:37:GLU:C	2.45	0.54

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:107:C:H2'	2:Y:108:G:O4'	2.08	0.54
1:X:1324:G:O2'	1:X:1325:U:P	2.65	0.54
13:K:10:LEU:O	13:K:11:ASN:OD1	2.26	0.54
4:B:130:GLY:O	4:B:131:SER:OG	2.21	0.54
6:D:167:ARG:O	6:D:170:LEU:HB2	2.08	0.54
6:D:168:ALA:O	6:D:169:LEU:C	2.45	0.54
22:T:40:GLN:NE2	22:T:57:HIS:HB3	2.23	0.54
1:X:177:U:C2	1:X:178:C:H1'	2.42	0.54
4:B:2:LYS:HA	4:B:84:PHE:CE1	2.43	0.54
9:G:141:GLY:O	9:G:144:MET:HB2	2.08	0.54
1:X:208:C:O2'	1:X:209:G:H5'	2.08	0.54
3:A:163:VAL:CG2	3:A:177:LEU:HA	2.37	0.54
30:4:18:ARG:HD3	30:4:23:VAL:HG22	1.88	0.54
15:M:82:PRO:O	15:M:85:SER:N	2.36	0.54
18:P:85:MET:CE	18:P:130:GLU:HG3	2.38	0.54
1:X:1005:U:H2'	16:N:54:LYS:NZ	2.23	0.54
1:X:2358:C:H2'	1:X:2359:U:C6	2.42	0.54
1:X:56:C:O5'	1:X:56:C:H6	1.90	0.54
5:C:125:ILE:O	5:C:126:ALA:CB	2.54	0.54
1:X:2372:A:H2'	1:X:2373:C:H6	1.72	0.54
4:B:154:LYS:NZ	4:B:156:MET:SD	2.81	0.54
9:G:101:THR:CG2	9:G:102:ARG:N	2.71	0.54
1:X:1996:A:H2	18:P:109:ARG:NH2	2.05	0.54
1:X:566:U:H2'	1:X:567:G:H8	1.73	0.54
6:D:138:PHE:HB2	6:D:141:ILE:HB	1.89	0.54
2:Y:35:C:H2'	2:Y:36:A:O4'	2.07	0.54
16:N:76:TYR:CZ	16:N:80:ILE:HG13	2.43	0.54
6:D:7:LYS:HA	6:D:10:ASP:HB2	1.90	0.54
1:X:602:C:H1'	29:3:2:PRO:CA	2.38	0.54
11:I:76:LYS:HD3	11:I:79:GLN:NE2	2.22	0.54
5:C:31:VAL:HG23	5:C:32:THR:H	1.72	0.54
3:A:161:THR:N	3:A:196:VAL:HG22	2.23	0.54
1:X:452:G:N2	5:C:40:ARG:HH22	2.06	0.54
1:X:1218:C:O2'	1:X:1219:C:H5'	2.07	0.54
1:X:788:G:C5'	1:X:790:A:H1'	2.34	0.54
9:G:75:ILE:HG13	9:G:75:ILE:O	2.08	0.54
18:P:10:ASN:O	18:P:10:ASN:OD1	2.26	0.54
3:A:133:LEU:HB3	3:A:173:VAL:HG21	1.89	0.54
1:X:1486:A:H2'	1:X:1487:C:H6	1.72	0.54
1:X:1206:G:O2'	1:X:1207:G:H5'	2.08	0.54
1:X:1974:U:H2'	1:X:1975:G:C5'	2.38	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2065:A:H2'	1:X:2066:G:O4'	2.08	0.54
2:Y:4:C:C2'	2:Y:5:C:H5'	2.38	0.54
1:X:165:G:C2'	1:X:166:G:H5'	2.37	0.54
1:X:1990:U:H2'	1:X:1991:C:C6	2.42	0.54
1:X:1074:G:C2'	1:X:1075:C:H5'	2.37	0.54
20:R:14:LEU:HG	20:R:41:PRO:HA	1.89	0.54
1:X:341:A:HO2'	1:X:342:G:P	2.30	0.54
4:B:152:LYS:H	9:G:106:TYR:HB3	1.73	0.54
1:X:1166:A:C3'	1:X:1167:A:H5''	2.38	0.54
23:U:54:ASN:CG	23:U:55:GLY:N	2.62	0.54
6:D:34:ILE:HA	6:D:155:THR:O	2.08	0.54
6:D:38:GLU:HG2	6:D:57:LEU:HD11	1.90	0.54
1:X:2293:G:H2'	1:X:2294:U:C6	2.43	0.54
2:Y:27:A:H61	2:Y:55:C:C5'	2.21	0.54
17:O:10:LYS:HD2	17:O:11:GLN:HE21	1.73	0.54
15:M:38:LYS:C	15:M:40:ARG:N	2.60	0.54
6:D:4:LEU:HD21	6:D:173:MET:CE	2.38	0.54
14:L:90:ASP:CG	14:L:90:ASP:O	2.46	0.54
1:X:2313:G:H1'	14:L:13:THR:HB	1.90	0.54
22:T:46:LYS:NZ	22:T:76:ALA:HB2	2.23	0.54
1:X:2779:C:H2'	1:X:2780:A:N9	2.23	0.54
4:B:92:ASN:HA	4:B:95:ILE:HB	1.90	0.54
5:C:67:ALA:O	5:C:68:ARG:HB3	2.08	0.54
6:D:111:ILE:HG22	6:D:114:PHE:HB2	1.87	0.54
1:X:1984:A:H4'	1:X:2668:U:H2'	1.90	0.54
1:X:1425:G:O2'	1:X:1426:U:H5'	2.08	0.54
1:X:408:U:O2'	1:X:409:G:H8	1.90	0.54
9:G:157:PRO:C	9:G:159:SER:H	2.10	0.54
10:H:47:VAL:HG11	10:H:115:ALA:HB1	1.90	0.54
5:C:139:GLN:NE2	5:C:139:GLN:CA	2.70	0.54
22:T:32:LYS:N	22:T:35:ASN:HD22	2.05	0.54
3:A:131:LEU:HD23	3:A:131:LEU:N	2.23	0.54
1:X:2065:A:H3'	1:X:2066:G:C8	2.41	0.54
23:U:22:GLY:HA3	23:U:39:LYS:CE	2.38	0.54
1:X:27:G:N2	1:X:522:G:HO2'	2.05	0.54
10:H:7:ARG:NH1	10:H:20:MET:HE3	2.22	0.54
4:B:169:ASN:OD1	4:B:204:ALA:HB2	2.07	0.54
12:J:56:SER:O	12:J:57:ARG:C	2.46	0.54
1:X:2492:G:C2	1:X:2493:U:C2	2.96	0.54
15:M:60:SER:HA	15:M:64:LYS:HD2	1.88	0.54
20:R:11:ASN:O	20:R:13:LYS:N	2.41	0.54

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:85:ASP:N	20:R:86:PRO:CD	2.71	0.54
1:X:2532:G:C2	1:X:2562:G:H1'	2.43	0.54
6:D:33:LYS:H	6:D:157:VAL:HB	1.73	0.54
6:D:67:ILE:O	6:D:69:LYS:HG3	2.08	0.54
1:X:1003:C:O2'	17:O:71:ILE:HD11	2.07	0.54
6:D:158:THR:C	6:D:160:ALA:H	2.09	0.54
21:S:34:LEU:C	21:S:34:LEU:HD12	2.28	0.54
7:E:54:ARG:HH11	7:E:62:ARG:CZ	2.20	0.54
21:S:92:VAL:HG23	21:S:93:GLU:H	1.73	0.54
1:X:2494:C:N3	1:X:2549:G:C6	2.77	0.54
1:X:1030:U:H4'	1:X:1132:C:O2	2.08	0.54
13:K:10:LEU:HD23	13:K:17:ARG:CG	2.37	0.54
1:X:496:C:H2'	1:X:497:C:C5'	2.38	0.54
5:C:146:GLU:HG3	5:C:185:ARG:NH2	2.19	0.54
1:X:2071:G:C2'	1:X:2072:C:H5'	2.38	0.54
1:X:580:A:C8	1:X:584:A:N6	2.76	0.54
1:X:348:U:H2'	1:X:349:G:O4'	2.09	0.53
12:J:93:TYR:HD2	12:J:93:TYR:N	2.05	0.53
1:X:759:C:O2'	18:P:111:ARG:NH1	2.41	0.53
1:X:1674:C:H2'	1:X:1675:C:H6	1.73	0.53
1:X:805:G:N7	1:X:2419:C:H1'	2.23	0.53
1:X:982:C:H2'	1:X:983:G:C5'	2.38	0.53
1:X:2264:C:H5'	1:X:2267:A:N6	2.23	0.53
6:D:143:TYR:HA	6:D:146:VAL:HG21	1.89	0.53
1:X:2294:U:O2	6:D:125:ARG:NH1	2.41	0.53
8:F:123:ALA:HA	8:F:126:THR:HB	1.90	0.53
1:X:1022:A:O5'	16:N:77:SER:HB2	2.08	0.53
7:E:117:PRO:HD3	7:E:123:PHE:CE1	2.43	0.53
7:E:127:GLU:O	7:E:129:THR:N	2.39	0.53
1:X:632:A:H2'	1:X:633:G:H5'	1.90	0.53
12:J:66:TYR:O	12:J:106:GLU:CD	2.47	0.53
1:X:38:G:N3	5:C:42:THR:HG22	2.22	0.53
21:S:117:VAL:HG23	21:S:168:VAL:HG13	1.90	0.53
1:X:954:U:OP2	11:I:38:LYS:CG	2.54	0.53
1:X:1623:C:N4	1:X:1637:U:H2'	2.23	0.53
19:Q:91:LEU:HD22	19:Q:91:LEU:H	1.68	0.53
30:4:17:VAL:HG12	30:4:18:ARG:H	1.71	0.53
1:X:2561:G:H5'	1:X:2561:G:C8	2.43	0.53
1:X:1504:G:H2'	1:X:1505:U:O2	2.08	0.53
9:G:103:TYR:O	9:G:107:GLN:NE2	2.40	0.53
20:R:58:VAL:O	20:R:60:PRO:HD3	2.08	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:113:VAL:HG13	21:S:171:VAL:CG2	2.36	0.53
16:N:108:ALA:HB1	17:O:47:PHE:CE2	2.43	0.53
3:A:218:LYS:HD2	3:A:218:LYS:O	2.07	0.53
24:V:17:GLU:O	24:V:53:LEU:HD13	2.08	0.53
12:J:100:PRO:HB3	21:S:74:ARG:HG2	1.89	0.53
1:X:70:A:H5'	1:X:71:A:OP1	2.07	0.53
16:N:88:ILE:HG23	17:O:49:GLU:CB	2.38	0.53
1:X:419:G:O2'	1:X:420:C:H5'	2.08	0.53
18:P:40:LEU:HD12	18:P:62:ARG:NH1	2.23	0.53
1:X:1517:C:O2'	1:X:1518:C:H5'	2.08	0.53
3:A:46:ARG:CD	3:A:47:GLY:N	2.72	0.53
11:I:119:THR:HG23	11:I:139:ARG:HB3	1.91	0.53
1:X:2817:A:H2'	1:X:2818:G:O4'	2.09	0.53
1:X:738:G:O5'	1:X:738:G:H8	1.91	0.53
1:X:2181:A:C2'	1:X:2182:A:H5'	2.38	0.53
1:X:1933:G:C8	1:X:1934:U:C5	2.95	0.53
1:X:2283:G:O3'	6:D:131:GLY:HA3	2.08	0.53
1:X:2340:C:H2'	1:X:2341:G:H5'	1.89	0.53
1:X:2452:U:O2	1:X:2452:U:H2'	2.07	0.53
1:X:2187:A:H2'	1:X:2188:A:C8	2.44	0.53
1:X:2199:C:H2'	1:X:2199:C:O2	2.06	0.53
1:X:310:A:O2'	1:X:311:A:H5'	2.07	0.53
1:X:172:A:C8	1:X:174:A:OP2	2.61	0.53
1:X:2005:U:H2'	1:X:2595:C:O2'	2.09	0.53
14:L:71:VAL:HA	14:L:74:ALA:HB3	1.91	0.53
2:Y:44:C:O2'	6:D:63:GLN:HG2	2.08	0.53
17:O:14:VAL:O	17:O:15:SER:CB	2.53	0.53
7:E:150:LYS:C	7:E:152:ARG:N	2.58	0.53
21:S:18:MET:N	21:S:36:ARG:HB2	2.23	0.53
24:V:45:GLN:O	24:V:46:LEU:C	2.46	0.53
1:X:2058:U:H1'	1:X:2576:G:N2	2.23	0.53
1:X:197:G:N2	1:X:242:A:H62	2.07	0.53
1:X:646:C:O2'	1:X:650:U:OP1	2.15	0.53
5:C:69:HIS:CD2	5:C:77:PHE:HZ	2.26	0.53
1:X:1510:A:H2'	1:X:1511:A:C8	2.43	0.53
26:Z:45:ILE:HG21	26:Z:57:VAL:CG2	2.38	0.53
1:X:1286:U:H4'	1:X:1288:A:OP2	2.08	0.53
25:W:22:ALA:O	25:W:24:GLY:N	2.41	0.53
4:B:68:ALA:O	4:B:70:ALA:N	2.41	0.53
1:X:1317:G:O2'	1:X:1318:A:H5'	2.08	0.53
3:A:76:ASN:OD1	3:A:118:ASN:HB2	2.08	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:174:A:C8	1:X:2409:A:C8	2.96	0.53
20:R:85:ASP:N	20:R:90:LYS:HD3	2.24	0.53
1:X:84:G:OP2	20:R:39:ALA:CB	2.51	0.53
6:D:75:SER:CB	6:D:79:LEU:HD13	2.34	0.53
1:X:2289:A:H3'	1:X:2290:A:H8	1.72	0.53
1:X:618:A:C2	1:X:632:A:N7	2.76	0.53
22:T:46:LYS:NZ	22:T:76:ALA:CB	2.72	0.53
15:M:103:LYS:HG3	15:M:105:TYR:CE2	2.43	0.53
15:M:34:ARG:NH2	15:M:91:VAL:HG21	2.21	0.53
1:X:494:A:C8	20:R:56:LYS:HD2	2.43	0.53
15:M:13:LEU:HD12	15:M:13:LEU:N	2.24	0.53
1:X:1193:G:H2'	1:X:1194:U:C5'	2.32	0.53
7:E:136:ILE:N	7:E:136:ILE:CD1	2.70	0.53
1:X:2167:A:H2'	1:X:2168:A:H8	1.72	0.53
10:H:78:SER:HA	10:H:91:PHE:O	2.08	0.53
1:X:1784:C:O2'	1:X:1785:A:H5'	2.09	0.53
1:X:1188:A:HO2'	1:X:1189:G:P	2.31	0.53
20:R:82:ALA:C	20:R:83:LEU:HG	2.27	0.53
12:J:93:TYR:CD2	12:J:93:TYR:N	2.76	0.53
6:D:91:LEU:HB3	6:D:96:MET:HA	1.89	0.53
2:Y:46:G:C2	2:Y:50:U:O2	2.62	0.53
1:X:730:C:H5''	1:X:731:A:P	2.49	0.53
16:N:74:MET:CE	16:N:79:PHE:HA	2.38	0.53
1:X:2357:A:H4'	14:L:26:ARG:HH12	1.68	0.53
5:C:191:ALA:HA	5:C:194:GLU:HB3	1.91	0.53
5:C:22:VAL:HG22	5:C:106:MET:O	2.09	0.53
1:X:88:G:O5'	1:X:89:A:H5''	2.08	0.53
12:J:33:TYR:O	12:J:106:GLU:HA	2.07	0.53
1:X:2422:C:O2'	1:X:2423:G:H5'	2.08	0.53
8:F:98:LYS:HB2	8:F:137:THR:HG1	1.71	0.53
1:X:659:G:C6	1:X:660:G:C6	2.96	0.53
4:B:9:ILE:HG22	15:M:13:LEU:HD11	1.90	0.53
25:W:45:LYS:HE3	25:W:45:LYS:CA	2.36	0.53
1:X:918:A:C2'	1:X:919:U:H5''	2.34	0.53
3:A:121:PRO:HB2	3:A:135:PHE:HE1	1.74	0.53
1:X:1342:U:H5''	1:X:1343:C:H5	1.73	0.53
1:X:539:A:N3	1:X:540:G:O6	2.41	0.53
1:X:2325:A:C2	1:X:2362:G:C6	2.97	0.53
6:D:125:ARG:CG	6:D:125:ARG:HH11	2.22	0.53
6:D:148:LYS:CG	6:D:149:THR:H	2.19	0.53
7:E:95:ARG:CZ	7:E:97:LYS:HE2	2.39	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:245:VAL:CA	3:A:252:LYS:HE2	2.37	0.53
5:C:117:LEU:HD23	5:C:118:VAL:O	2.09	0.53
12:J:30:PHE:HB3	12:J:66:TYR:CE2	2.43	0.53
22:T:50:GLY:C	22:T:62:LEU:HD23	2.29	0.53
1:X:2424:G:O2'	1:X:2425:G:H5'	2.08	0.53
1:X:1218:C:O4'	11:I:13:ARG:NE	2.40	0.53
1:X:638:A:H4'	1:X:639:G:H5'	1.90	0.53
16:N:39:LEU:O	17:O:72:ARG:NH2	2.40	0.53
1:X:2799:C:C4	1:X:2800:C:C4	2.97	0.53
8:F:90:THR:C	8:F:92:ASN:H	2.12	0.53
26:Z:52:TYR:O	26:Z:53:ASP:CB	2.56	0.53
1:X:2184:C:H2'	1:X:2185:U:C6	2.44	0.53
1:X:1004:A:O2'	1:X:1005:U:H5'	2.09	0.53
25:W:32:ARG:HG3	25:W:32:ARG:O	2.08	0.53
1:X:1141:U:HO2'	1:X:1142:G:P	2.31	0.53
21:S:113:VAL:CG2	21:S:171:VAL:HG13	2.36	0.53
14:L:26:ARG:HB3	14:L:88:VAL:CG2	2.39	0.53
1:X:2271:C:H2'	1:X:2272:A:H8	1.73	0.53
1:X:2169:A:H2'	1:X:2170:C:C6	2.44	0.53
12:J:39:GLU:HG2	12:J:40:PRO:HD2	1.90	0.53
1:X:1268:U:C2'	5:C:66:ASN:HB3	2.36	0.53
4:B:25:VAL:HG13	4:B:183:LEU:CD2	2.39	0.53
7:E:17:VAL:HG12	7:E:18:ASN:H	1.74	0.53
1:X:2775:U:H5'	1:X:2776:U:C5'	2.36	0.53
3:A:134:ARG:NE	3:A:135:PHE:CE2	2.77	0.53
1:X:1510:A:H2'	1:X:1511:A:H8	1.73	0.53
1:X:548:G:C2	1:X:549:G:C8	2.97	0.53
1:X:868:U:H3	1:X:934:G:H1	1.56	0.53
3:A:35:GLU:HG3	3:A:35:GLU:O	2.08	0.53
1:X:1141:U:C2	4:B:147:PRO:HG3	2.44	0.53
6:D:152:MET:HE3	6:D:154:ILE:HD11	1.88	0.53
6:D:52:LYS:HG2	6:D:147:ASP:OD1	2.08	0.53
14:L:75:LEU:O	14:L:78:ALA:N	2.41	0.53
14:L:76:ALA:HB2	14:L:107:ALA:HA	1.91	0.53
16:N:75:ASN:OD1	16:N:78:THR:HB	2.08	0.53
1:X:2796:A:H2'	1:X:2797:G:H8	1.74	0.53
6:D:13:ARG:HG2	6:D:13:ARG:HH21	1.74	0.53
1:X:2273:C:H5'	14:L:95:LYS:HD2	1.91	0.53
22:T:71:ASN:HD22	22:T:77:ARG:HH11	1.55	0.53
2:Y:14:C:H4'	2:Y:17:A:N6	2.23	0.53
15:M:103:LYS:O	15:M:104:LEU:HB2	2.09	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:59:LEU:HD12	22:T:79:ILE:HD12	1.91	0.53
1:X:1484:G:N2	1:X:1540:C:H1'	2.23	0.53
10:H:7:ARG:HD3	10:H:18:GLU:CD	2.29	0.53
1:X:313:U:O2'	1:X:314:G:H5'	2.08	0.53
1:X:544:U:H2'	1:X:545:C:C6	2.44	0.53
1:X:2585:C:O2'	1:X:2586:G:H5'	2.09	0.53
3:A:132:PRO:CA	3:A:190:TYR:HA	2.39	0.53
5:C:158:ARG:HD3	5:C:169:VAL:CG1	2.39	0.53
20:R:16:PHE:HZ	20:R:46:VAL:HG22	1.74	0.53
9:G:106:TYR:O	9:G:108:GLY:N	2.35	0.53
1:X:2034:A:H2'	1:X:2593:A:N6	2.24	0.53
9:G:36:ASN:C	9:G:38:GLU:N	2.61	0.53
17:O:40:VAL:CG1	17:O:45:THR:HA	2.38	0.53
1:X:1008:G:H2'	1:X:1009:C:C6	2.43	0.53
1:X:1002:C:O2	1:X:1175:A:C2	2.62	0.53
1:X:2725:C:H2'	1:X:2726:U:H6	1.74	0.53
1:X:1128:G:C3'	1:X:1129:A:C5'	2.75	0.53
1:X:2273:C:O5'	14:L:11:LEU:HD21	2.09	0.53
1:X:357:A:C5	1:X:358:C:H1'	2.44	0.53
1:X:1722:G:O2'	1:X:1723:U:H5'	2.09	0.53
19:Q:62:ARG:HH12	19:Q:73:ASN:HD22	1.49	0.53
1:X:1810:U:OP2	3:A:157:ARG:HD3	2.09	0.53
1:X:1385:C:H1'	1:X:2192:U:C6	2.43	0.53
21:S:123:VAL:CA	21:S:161:ALA:HB2	2.39	0.53
1:X:417:C:N3	1:X:419:G:C5	2.77	0.53
1:X:1183:C:O2'	1:X:1184:G:H5'	2.09	0.53
4:B:67:PHE:CZ	4:B:78:LEU:HD11	2.44	0.53
21:S:44:ARG:HD3	21:S:45:GLN:NE2	2.23	0.53
1:X:2187:A:C6	1:X:2188:A:C6	2.97	0.53
20:R:11:ASN:O	20:R:13:LYS:HG3	2.08	0.53
20:R:29:HIS:ND1	20:R:51:VAL:HG22	2.24	0.53
9:G:53:ARG:NH2	9:G:171:LEU:HB2	2.24	0.53
17:O:10:LYS:HG3	17:O:11:GLN:N	2.22	0.53
7:E:149:ARG:HD3	7:E:164:PHE:CE1	2.43	0.53
2:Y:15:A:O2'	2:Y:17:A:H5''	2.09	0.53
1:X:1722:G:C2'	1:X:1723:U:H5'	2.39	0.53
7:E:54:ARG:NH1	7:E:62:ARG:CZ	2.72	0.53
5:C:112:GLN:CB	5:C:116:LYS:HD3	2.39	0.53
1:X:1811:A:O2'	1:X:1812:U:OP2	2.26	0.53
9:G:97:ASP:O	9:G:99:VAL:N	2.42	0.53
1:X:1313:U:H1'	1:X:1642:G:N2	2.24	0.53

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:108:LEU:HD23	6:D:111:ILE:CD1	2.39	0.53
1:X:1574:A:O2'	1:X:1575:C:H3'	2.09	0.53
1:X:1218:C:H1'	11:I:13:ARG:HE	1.74	0.53
11:I:13:ARG:NH2	11:I:13:ARG:H	2.07	0.53
1:X:864:C:O2'	25:W:42:GLY:HA3	2.07	0.53
1:X:417:C:C4	1:X:419:G:C4	2.97	0.53
1:X:773:G:H2'	1:X:774:A:H5'	1.90	0.53
1:X:1144:U:H2'	1:X:1147:G:OP1	2.09	0.53
1:X:1514:C:H4'	1:X:1593:C:H5'	1.90	0.53
1:X:1557:G:H2'	1:X:1558:C:H6	1.74	0.53
1:X:1656:U:C2'	1:X:1657:A:H5''	2.39	0.53
1:X:437:G:O2'	1:X:438:G:H5'	2.08	0.53
1:X:1536:G:H2'	1:X:1537:U:C6	2.44	0.53
18:P:25:PHE:CD2	18:P:25:PHE:C	2.83	0.53
3:A:72:LYS:HE2	3:A:97:TYR:HD2	1.72	0.52
5:C:158:ARG:C	5:C:160:ALA:N	2.59	0.52
23:U:62:LEU:HD23	23:U:67:LEU:HB2	1.91	0.52
14:L:79:ALA:O	14:L:82:LYS:N	2.42	0.52
9:G:32:TYR:OH	9:G:35:LYS:NZ	2.41	0.52
1:X:2321:C:O2'	1:X:2353:G:H5''	2.09	0.52
1:X:664:C:C2'	1:X:665:A:C2	2.80	0.52
5:C:186:LEU:HD12	5:C:187:VAL:H	1.73	0.52
21:S:120:LEU:HD21	21:S:162:ALA:CB	2.39	0.52
1:X:689:A:C2	1:X:815:A:N6	2.71	0.52
1:X:1775:A:H4'	1:X:1776:A:O5'	2.09	0.52
1:X:937:C:H2'	1:X:938:G:O4'	2.07	0.52
7:E:18:ASN:C	7:E:20:GLN:H	2.13	0.52
10:H:28:GLY:O	10:H:35:THR:OG1	2.27	0.52
11:I:28:LYS:HZ2	11:I:36:GLY:HA2	1.69	0.52
1:X:2642:G:H2'	1:X:2643:G:O5'	2.10	0.52
1:X:521:U:OP2	1:X:522:G:O6	2.27	0.52
5:C:169:VAL:CG1	5:C:170:LEU:N	2.72	0.52
1:X:770:U:O2'	1:X:771:C:H5'	2.09	0.52
6:D:73:SER:O	6:D:80:ARG:O	2.28	0.52
1:X:2292:C:O2'	1:X:2293:G:H5'	2.08	0.52
15:M:34:ARG:NH1	15:M:66:PHE:HE2	2.06	0.52
1:X:2699:G:O2'	1:X:2700:U:C5'	2.54	0.52
24:V:41:HIS:CB	24:V:44:ARG:HH21	2.23	0.52
1:X:89:A:H8	1:X:89:A:OP1	1.91	0.52
7:E:7:GLN:O	7:E:51:LEU:HD13	2.09	0.52
16:N:17:VAL:HG13	16:N:39:LEU:HD12	1.90	0.52

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:482:A:C2'	1:X:483:A:H5'	2.39	0.52
10:H:46:HIS:O	10:H:47:VAL:C	2.47	0.52
7:E:18:ASN:O	7:E:20:GLN:N	2.38	0.52
1:X:773:G:C2'	1:X:774:A:H5'	2.40	0.52
1:X:774:A:C8	1:X:774:A:C3'	2.91	0.52
1:X:2641:A:H2'	1:X:2642:G:O4'	2.09	0.52
5:C:99:VAL:O	5:C:103:GLY:N	2.41	0.52
1:X:2805:G:N3	1:X:2858:A:H2	2.07	0.52
1:X:163:A:H2'	1:X:164:G:H8	1.72	0.52
18:P:79:ALA:HB1	18:P:85:MET:SD	2.50	0.52
1:X:1499:A:O2'	1:X:1500:U:H5'	2.09	0.52
1:X:1228:G:C6	1:X:1229:C:C4	2.97	0.52
1:X:338:G:H4'	20:R:9:HIS:CD2	2.44	0.52
1:X:338:G:H4'	20:R:9:HIS:CG	2.45	0.52
20:R:85:ASP:HB3	20:R:90:LYS:NZ	2.24	0.52
14:L:106:ALA:O	14:L:109:GLU:HG2	2.08	0.52
9:G:33:ILE:CB	9:G:34:PRO:CD	2.69	0.52
1:X:1471:G:O2'	1:X:1472:C:H5'	2.09	0.52
15:M:103:LYS:O	15:M:104:LEU:CB	2.56	0.52
3:A:218:LYS:HD2	3:A:219:PRO:O	2.09	0.52
22:T:52:GLY:HA3	22:T:60:PHE:CE2	2.44	0.52
1:X:815:A:H2'	1:X:816:U:C6	2.44	0.52
1:X:1919:A:C6	1:X:1928:G:C4	2.97	0.52
23:U:17:SER:OG	23:U:45:ASN:N	2.42	0.52
1:X:428:A:C5	1:X:429:C:C4	2.98	0.52
1:X:2306:A:C5	1:X:2367:A:N1	2.78	0.52
4:B:181:LEU:CD1	15:M:16:ILE:HD11	2.40	0.52
1:X:218:A:H5'	1:X:220:U:H1'	1.91	0.52
1:X:887:G:O2'	1:X:888:G:H5'	2.09	0.52
1:X:1586:A:H2'	1:X:1587:A:H8	1.75	0.52
1:X:1261:G:O2'	1:X:1262:U:P	2.68	0.52
12:J:82:THR:O	12:J:83:ARG:CB	2.56	0.52
1:X:1142:G:C4'	9:G:103:TYR:CE2	2.86	0.52
21:S:100:THR:HG23	21:S:138:VAL:CG2	2.39	0.52
6:D:125:ARG:HG3	6:D:125:ARG:HH11	1.74	0.52
17:O:57:GLN:H	17:O:97:GLY:HA2	1.71	0.52
7:E:109:TYR:HE1	7:E:152:ARG:CZ	2.22	0.52
13:K:3:HIS:ND1	13:K:5:LYS:CG	2.71	0.52
10:H:116:ARG:HH21	15:M:40:ARG:HB2	1.73	0.52
1:X:2581:A:C3'	1:X:2582:G:H5''	2.21	0.52
19:Q:33:ALA:O	19:Q:34:THR:C	2.48	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1885:C:C4'	3:A:244:ARG:HD2	2.40	0.52
2:Y:67:C:O2'	2:Y:68:A:H5'	2.10	0.52
15:M:65:SER:HB2	15:M:81:PHE:O	2.10	0.52
1:X:2698:G:O2'	1:X:2699:G:H5'	2.09	0.52
11:I:18:ARG:CB	11:I:21:ARG:HB2	2.34	0.52
24:V:2:LYS:HA	24:V:6:MET:HE1	1.90	0.52
21:S:71:MET:HB3	21:S:78:PRO:HA	1.89	0.52
1:X:1795:C:OP1	3:A:257:LEU:HD22	2.09	0.52
1:X:1154:A:O2'	1:X:1155:G:OP1	2.23	0.52
4:B:93:VAL:HG13	4:B:93:VAL:O	2.10	0.52
1:X:648:A:H4'	1:X:649:G:C4'	2.40	0.52
1:X:640:C:H4'	1:X:660:G:N2	2.23	0.52
1:X:1391:A:O2'	1:X:1392:U:O5'	2.27	0.52
1:X:1917:C:H2'	1:X:1918:G:H5'	1.91	0.52
1:X:2659:C:H5'	4:B:189:PRO:HA	1.90	0.52
1:X:1374:G:O2'	1:X:1375:C:H5'	2.10	0.52
1:X:1469:U:O5'	1:X:1470:G:OP2	2.26	0.52
20:R:22:VAL:HG11	20:R:80:LYS:NZ	2.25	0.52
1:X:98:U:C4	1:X:100:G:C2	2.97	0.52
4:B:141:ILE:HG22	4:B:150:VAL:HB	1.91	0.52
16:N:60:LEU:O	16:N:60:LEU:HD13	2.09	0.52
6:D:12:VAL:HG22	6:D:172:SER:OG	2.10	0.52
1:X:356:A:C2'	1:X:357:A:C8	2.92	0.52
1:X:1746:A:C2'	1:X:1747:G:O5'	2.58	0.52
19:Q:10:PRO:HD3	24:V:30:PHE:CD2	2.43	0.52
24:V:7:ARG:HD2	24:V:8:ASN:H	1.71	0.52
12:J:128:ILE:CD1	12:J:130:THR:HG23	2.39	0.52
11:I:45:LYS:CD	11:I:46:GLY:H	2.23	0.52
1:X:70:A:OP1	1:X:110:U:H2'	2.10	0.52
1:X:2226:A:H2'	1:X:2227:C:C6	2.44	0.52
1:X:739:G:O2'	1:X:740:A:P	2.67	0.52
3:A:79:VAL:HB	3:A:114:GLY:H	1.73	0.52
9:G:44:VAL:CG1	9:G:45:ASP:N	2.72	0.52
1:X:1827:G:H1'	1:X:1914:U:C2	2.45	0.52
1:X:1729:C:H2'	1:X:1730:G:C8	2.45	0.52
1:X:20:C:O2'	1:X:21:A:H5'	2.09	0.52
1:X:1075:C:O2'	8:F:89:SER:CB	2.57	0.52
20:R:112:LYS:N	20:R:112:LYS:HD2	2.24	0.52
9:G:106:TYR:O	9:G:110:LEU:HG	2.09	0.52
1:X:537:C:O2'	1:X:538:A:OP2	2.27	0.52
14:L:72:GLY:HA3	14:L:103:LEU:HA	1.91	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:45:C:H5'	2:Y:46:G:OP1	2.10	0.52
17:O:39:PHE:CE1	17:O:46:VAL:HB	2.44	0.52
14:L:87:VAL:CG1	14:L:88:VAL:N	2.72	0.52
1:X:2357:A:H61	14:L:18:ARG:NH1	2.07	0.52
1:X:78:C:O2	1:X:357:A:H2	1.92	0.52
1:X:871:U:OP1	22:T:44:LYS:CE	2.57	0.52
1:X:105:G:H5'	1:X:105:G:C8	2.44	0.52
7:E:54:ARG:NE	7:E:62:ARG:HG2	2.25	0.52
5:C:7:ILE:HB	5:C:120:VAL:H	1.75	0.52
5:C:188:ILE:HG21	5:C:194:GLU:CD	2.30	0.52
1:X:242:A:N6	1:X:441:A:C8	2.78	0.52
2:Y:18:G:O2'	2:Y:19:C:H5'	2.09	0.52
1:X:704:G:H2'	1:X:705:C:H6	1.75	0.52
1:X:2787:A:H2'	1:X:2788:C:H6	1.74	0.52
7:E:156:ALA:C	7:E:157:TYR:CD1	2.83	0.52
6:D:94:GLU:O	6:D:98:VAL:HG23	2.10	0.52
1:X:1044:U:H4'	1:X:1045:G:OP1	2.08	0.52
11:I:54:SER:OG	11:I:59:ARG:NH1	2.43	0.52
1:X:1142:G:C1'	9:G:103:TYR:HD2	2.23	0.52
1:X:1278:A:O2'	1:X:1279:G:O5'	2.20	0.52
21:S:137:ASP:CG	21:S:140:LYS:HE2	2.30	0.52
6:D:138:PHE:HZ	6:D:152:MET:SD	2.33	0.52
16:N:66:ASN:ND2	16:N:70:ARG:NH2	2.57	0.52
1:X:2570:C:OP1	3:A:239:ARG:HD3	2.10	0.52
1:X:1782:A:H61	1:X:1820:G:H2'	1.73	0.52
12:J:66:TYR:HB2	12:J:106:GLU:OE1	2.09	0.52
1:X:2692:A:H5'	1:X:2693:U:OP2	2.10	0.52
1:X:173:A:H61	1:X:844:G:H21	1.56	0.52
1:X:155:G:O2'	1:X:156:G:H5'	2.09	0.52
1:X:497:C:H3'	1:X:497:C:C6	2.44	0.52
3:A:164:GLN:O	3:A:164:GLN:OE1	2.27	0.52
1:X:717:G:C2'	1:X:739:G:N2	2.72	0.52
1:X:150:A:H2'	1:X:151:G:O4'	2.09	0.52
1:X:219:G:O2'	1:X:220:U:OP2	2.26	0.52
4:B:75:THR:HG23	4:B:76:ARG:H	1.75	0.52
1:X:313:U:H2'	1:X:314:G:C8	2.43	0.52
1:X:2181:A:H2'	1:X:2182:A:H5'	1.92	0.52
1:X:1375:C:C4	1:X:1376:C:C5	2.97	0.52
1:X:1437:A:H2'	1:X:1438:G:H8	1.75	0.52
3:A:86:PRO:O	3:A:87:ASN:HB2	2.09	0.52
12:J:119:PHE:O	12:J:120:ARG:C	2.47	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:59:LYS:HB3	20:R:62:MET:HB2	1.90	0.52
6:D:35:VAL:O	6:D:154:ILE:HG23	2.10	0.52
1:X:2284:U:C2'	1:X:2285:U:H5''	2.40	0.52
8:F:117:ALA:HB1	8:F:122:ALA:CB	2.34	0.52
1:X:1091:C:C1'	8:F:126:THR:HA	2.34	0.52
16:N:91:ASN:O	16:N:93:LYS:N	2.38	0.52
6:D:16:LEU:HD12	6:D:28:VAL:HG11	1.92	0.52
19:Q:82:LEU:HD11	19:Q:88:ILE:CG2	2.40	0.52
1:X:216:U:OP1	1:X:601:A:C8	2.62	0.52
15:M:99:VAL:C	15:M:100:ARG:HG2	2.29	0.52
24:V:20:ALA:O	24:V:23:LYS:HB3	2.10	0.52
30:4:22:ARG:CG	30:4:22:ARG:HH11	2.18	0.52
1:X:939:C:C5'	1:X:940:G:O5'	2.55	0.52
1:X:946:U:H2'	1:X:947:C:C6	2.44	0.52
1:X:1634:A:O2'	1:X:1635:G:H5'	2.09	0.52
1:X:1322:G:O2'	1:X:1323:G:H5'	2.09	0.52
4:B:11:MET:HA	4:B:23:VAL:O	2.10	0.52
1:X:612:G:H2'	1:X:668:A:H61	1.75	0.52
7:E:83:TYR:OH	7:E:138:LYS:HD2	2.10	0.52
5:C:124:ASP:O	5:C:132:ASN:ND2	2.43	0.52
5:C:136:TRP:CG	5:C:140:ASN:ND2	2.78	0.52
1:X:1186:G:H2'	1:X:1187:A:C2	2.40	0.52
1:X:84:G:H5'	20:R:39:ALA:O	2.10	0.52
6:D:52:LYS:HG3	6:D:147:ASP:HB2	1.92	0.52
1:X:2289:A:H3'	1:X:2290:A:C8	2.44	0.52
1:X:726:G:H2'	1:X:727:U:C6	2.45	0.52
1:X:617:U:C5	1:X:632:A:N1	2.78	0.52
21:S:60:GLU:O	21:S:61:THR:C	2.47	0.52
11:I:134:GLU:HG2	11:I:138:GLY:O	2.10	0.52
1:X:1016:C:C5	1:X:1154:A:H1'	2.45	0.52
1:X:34:U:O2'	20:R:4:PRO:N	2.36	0.52
25:W:16:GLN:OE1	25:W:49:HIS:CE1	2.63	0.52
1:X:589:C:H4'	16:N:31:GLN:NE2	2.25	0.52
1:X:868:U:H2'	1:X:869:C:C6	2.45	0.52
1:X:1536:G:H2'	1:X:1537:U:H6	1.74	0.52
17:O:61:VAL:HB	17:O:92:ALA:HB3	1.92	0.52
16:N:43:ALA:HB3	17:O:74:TYR:HB3	1.91	0.52
1:X:1123:G:C6	1:X:1124:U:C4	2.98	0.52
1:X:2372:A:H5'	11:I:59:ARG:O	2.10	0.52
20:R:23:ILE:H	20:R:23:ILE:CD1	2.07	0.52
20:R:85:ASP:HB3	20:R:90:LYS:HZ2	1.74	0.52

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1142:G:H8	1:X:2008:C:H4'	1.74	0.52
18:P:36:ARG:NE	26:Z:20:ARG:NH1	2.57	0.52
3:A:181:GLU:O	3:A:182:LEU:HD23	2.10	0.52
3:A:183:ARG:HD3	3:A:267:ASP:OD2	2.10	0.52
1:X:1069:G:C3'	1:X:1070:G:H5''	2.40	0.52
9:G:69:ASP:C	9:G:70:PHE:CD2	2.84	0.52
11:I:73:GLU:HB2	11:I:106:VAL:HA	1.91	0.52
1:X:2769:C:C2'	1:X:2770:A:H8	2.10	0.52
5:C:104:LEU:O	5:C:105:ALA:C	2.47	0.52
24:V:52:GLN:C	24:V:54:ASN:H	2.12	0.52
12:J:30:PHE:HB3	12:J:66:TYR:CD2	2.44	0.52
1:X:1812:U:C4	3:A:160:GLY:O	2.63	0.52
1:X:1789:U:H4'	1:X:1794:A:O4'	2.10	0.52
1:X:493:A:OP2	1:X:517:A:N6	2.39	0.52
1:X:1939:U:H1'	1:X:2531:U:OP1	2.10	0.52
23:U:14:VAL:CB	23:U:47:HIS:NE2	2.68	0.52
1:X:2364:C:H2'	1:X:2365:U:C6	2.45	0.52
1:X:863:C:H2'	1:X:864:C:C6	2.44	0.52
1:X:864:C:O2'	1:X:865:A:H5'	2.10	0.52
1:X:653:G:C3'	1:X:654:A:H5''	2.39	0.52
15:M:39:VAL:CG1	15:M:45:THR:HG23	2.40	0.52
1:X:1149:G:O2'	1:X:1150:C:H5'	2.09	0.52
1:X:165:G:H1'	1:X:1378:A:C6	2.44	0.52
1:X:505:G:N3	18:P:82:ASN:ND2	2.55	0.52
1:X:1499:A:H2'	1:X:1500:U:O4'	2.09	0.52
1:X:810:U:H2'	1:X:811:G:O4'	2.09	0.52
1:X:1078:A:OP1	1:X:1078:A:H3'	2.10	0.52
2:Y:2:C:H6	2:Y:2:C:H3'	1.74	0.52
3:A:72:LYS:HG2	3:A:103:ARG:NH1	2.24	0.51
1:X:1505:U:O2	1:X:1506:C:C5	2.63	0.51
20:R:105:ARG:HH12	20:R:112:LYS:CA	2.23	0.51
12:J:78:LYS:C	12:J:80:ALA:H	2.12	0.51
1:X:2075:U:O2	1:X:2075:U:H2'	2.10	0.51
14:L:40:ALA:CB	14:L:75:LEU:HD22	2.38	0.51
1:X:2293:G:H2'	1:X:2294:U:H6	1.75	0.51
16:N:68:GLY:HA2	16:N:71:LEU:HB2	1.91	0.51
16:N:74:MET:HE1	16:N:79:PHE:HA	1.92	0.51
14:L:42:ILE:O	14:L:50:THR:HG23	2.10	0.51
5:C:109:ALA:O	5:C:112:GLN:N	2.43	0.51
5:C:4:ILE:HB	5:C:10:ASN:OD1	2.10	0.51
1:X:742:G:O6	3:A:208:LYS:HB3	2.10	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:120:LEU:CD2	21:S:121:GLN:N	2.74	0.51
11:I:88:PHE:HB3	11:I:93:LEU:HD12	1.90	0.51
1:X:1978:U:H3'	1:X:1979:C:C5'	2.28	0.51
1:X:844:G:H5''	11:I:41:SER:HB2	1.92	0.51
1:X:1522:C:H2'	1:X:1523:A:C5'	2.40	0.51
1:X:973:U:H2'	1:X:974:U:C6	2.44	0.51
15:M:14:ARG:HH22	15:M:18:GLN:NE2	2.08	0.51
2:Y:9:G:H5'	14:L:32:TYR:CD2	2.45	0.51
1:X:361:G:O5'	1:X:361:G:H8	1.93	0.51
1:X:136:A:C5	1:X:137:A:C4	2.94	0.51
3:A:68:LYS:HD3	3:A:68:LYS:N	2.25	0.51
20:R:25:LEU:CD2	20:R:26:SER:HB3	2.39	0.51
4:B:38:THR:H	4:B:41:THR:HG1	1.57	0.51
1:X:537:C:H1'	1:X:538:A:N1	2.21	0.51
6:D:52:LYS:NZ	6:D:149:THR:HA	2.25	0.51
14:L:66:ASP:C	14:L:68:ALA:N	2.63	0.51
1:X:732:G:P	1:X:732:G:H8	2.34	0.51
19:Q:43:GLN:O	19:Q:47:GLY:N	2.43	0.51
19:Q:51:ILE:HD11	19:Q:83:ALA:CA	2.19	0.51
19:Q:11:VAL:N	19:Q:27:PHE:HA	2.22	0.51
1:X:1811:A:H5'	3:A:158:SER:OG	2.10	0.51
1:X:1549:C:H2'	1:X:1550:C:C6	2.45	0.51
1:X:2404:A:H1'	1:X:2406:C:C5	2.44	0.51
1:X:2404:A:H4'	1:X:2405:A:H5'	1.84	0.51
1:X:1061:A:N1	1:X:2731:G:C6	2.78	0.51
1:X:147:G:O2'	1:X:149:A:N6	2.43	0.51
19:Q:89:GLU:OE1	19:Q:91:LEU:HD23	2.11	0.51
1:X:332:C:H1'	5:C:159:ARG:HE	1.75	0.51
1:X:1075:C:H5'	8:F:87:GLY:CA	2.30	0.51
4:B:152:LYS:H	9:G:106:TYR:CB	2.24	0.51
2:Y:59:A:N1	6:D:26:MET:HB3	2.25	0.51
7:E:96:ALA:HB1	7:E:103:LEU:HD11	1.91	0.51
3:A:252:LYS:N	3:A:253:PRO:CD	2.74	0.51
1:X:2779:C:C6	1:X:2779:C:C3'	2.91	0.51
5:C:7:ILE:HB	5:C:120:VAL:N	2.26	0.51
1:X:1811:A:H4'	1:X:1812:U:C5'	2.40	0.51
1:X:689:A:H8	1:X:2052:G:N2	2.02	0.51
21:S:98:VAL:HG11	21:S:168:VAL:CG1	2.40	0.51
6:D:108:LEU:HD13	6:D:176:PRO:HG3	1.93	0.51
1:X:650:U:H2'	1:X:651:C:C6	2.45	0.51
1:X:1441:A:C1'	1:X:1442:C:C5	2.89	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:37:LEU:O	22:T:38:VAL:CG2	2.59	0.51
14:L:20:THR:CG2	14:L:23:ALA:HB3	2.39	0.51
1:X:2661:G:C8	4:B:11:MET:HE2	2.46	0.51
1:X:1455:C:O2'	1:X:1456:C:H5'	2.11	0.51
21:S:172:LEU:HD22	21:S:173:PRO:HD2	1.93	0.51
1:X:2833:C:O5'	1:X:2833:C:H6	1.93	0.51
1:X:2736:U:O5'	30:4:19:ARG:HG2	2.10	0.51
1:X:971:A:C4'	1:X:2436:U:H4'	2.41	0.51
9:G:103:TYR:CZ	9:G:111:LYS:CB	2.93	0.51
1:X:1674:C:H2'	1:X:1675:C:C6	2.45	0.51
21:S:138:VAL:O	21:S:141:MET:HB2	2.11	0.51
16:N:66:ASN:CB	16:N:76:TYR:H	2.23	0.51
7:E:94:PHE:CD2	7:E:107:ILE:HG22	2.44	0.51
1:X:1711:C:H5''	1:X:1712:G:OP1	2.10	0.51
1:X:873:U:C5	1:X:2247:A:C8	2.99	0.51
19:Q:63:LYS:HG3	19:Q:64:ARG:N	2.26	0.51
1:X:1151:U:H5''	1:X:1153:A:H5''	1.92	0.51
1:X:33:C:O2'	1:X:34:U:O4'	2.28	0.51
25:W:4:LYS:HG2	25:W:52:GLU:HB3	1.88	0.51
1:X:2043:A:H1'	1:X:2481:G:O4'	2.10	0.51
6:D:169:LEU:O	6:D:170:LEU:C	2.49	0.51
15:M:8:ASN:C	15:M:10:GLY:N	2.63	0.51
18:P:66:GLU:O	18:P:69:ALA:N	2.42	0.51
22:T:42:GLY:O	22:T:57:HIS:CD2	2.64	0.51
9:G:44:VAL:CG1	9:G:45:ASP:H	2.21	0.51
1:X:27:G:HO2'	1:X:28:A:H8	1.57	0.51
1:X:1234:C:O2'	1:X:1235:C:H5'	2.10	0.51
21:S:70:GLN:HA	21:S:70:GLN:NE2	2.26	0.51
1:X:2588:U:H5'	1:X:2589:C:OP2	2.11	0.51
1:X:1356:G:H1'	1:X:1613:G:C2	2.46	0.51
1:X:2677:U:H2'	1:X:2678:C:C6	2.45	0.51
16:N:13:ARG:CG	16:N:13:ARG:HH21	2.21	0.51
1:X:328:A:H2'	1:X:329:C:H6	1.74	0.51
1:X:1053:G:C2'	1:X:1054:C:O4'	2.59	0.51
1:X:98:U:C2	1:X:100:G:C6	2.98	0.51
6:D:122:PHE:HD2	6:D:129:ASN:H	1.58	0.51
14:L:81:GLU:C	14:L:82:LYS:HG2	2.29	0.51
2:Y:44:C:H42	6:D:88:LYS:HZ1	1.58	0.51
16:N:76:TYR:O	16:N:80:ILE:HG12	2.10	0.51
17:O:36:LYS:NZ	17:O:55:THR:N	2.58	0.51
6:D:8:TYR:O	6:D:12:VAL:HG23	2.11	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2272:A:P	14:L:15:ARG:NH2	2.84	0.51
2:Y:10:U:O3'	14:L:28:ARG:NH2	2.34	0.51
1:X:1354:A:H2'	1:X:1410:U:O2'	2.11	0.51
1:X:1781:C:OP1	3:A:219:PRO:HB2	2.10	0.51
12:J:106:GLU:N	12:J:106:GLU:OE1	2.44	0.51
1:X:1811:A:O2'	1:X:1812:U:P	2.69	0.51
1:X:1550:C:H2'	1:X:1553:G:H21	1.64	0.51
1:X:1552:C:O2'	1:X:1553:G:O5'	2.28	0.51
5:C:75:PRO:HG3	5:C:83:ALA:HB2	1.91	0.51
1:X:492:G:O2'	1:X:517:A:N6	2.43	0.51
11:I:45:LYS:CD	11:I:46:GLY:N	2.71	0.51
23:U:13:LEU:C	23:U:14:VAL:HG22	2.30	0.51
9:G:156:HIS:N	9:G:157:PRO:CD	2.73	0.51
1:X:2311:U:C4'	1:X:2315:A:N6	2.73	0.51
1:X:404:A:C6	1:X:405:C:N3	2.78	0.51
16:N:32:TYR:O	16:N:33:ARG:C	2.49	0.51
1:X:972:C:C4'	1:X:973:U:OP2	2.58	0.51
4:B:88:GLY:O	4:B:89:ASP:OD1	2.29	0.51
1:X:124:A:H2'	1:X:125:A:C8	2.46	0.51
1:X:135:U:H3'	1:X:136:A:C8	2.42	0.51
1:X:1075:C:H4'	8:F:88:SER:H	1.72	0.51
20:R:110:SER:OG	20:R:112:LYS:HE3	2.10	0.51
1:X:83:A:H2	1:X:97:U:O2	1.94	0.51
9:G:106:TYR:O	9:G:110:LEU:CG	2.59	0.51
1:X:1630:A:C2	18:P:114:ALA:HB2	2.45	0.51
1:X:757:U:H2'	1:X:758:G:C5'	2.40	0.51
23:U:11:LYS:HZ3	23:U:75:TYR:HB2	1.74	0.51
6:D:35:VAL:CG2	6:D:155:THR:HB	2.32	0.51
6:D:65:PRO:HB2	6:D:87:ILE:HG22	1.91	0.51
14:L:104:ALA:O	14:L:105:ASP:C	2.47	0.51
14:L:67:THR:O	14:L:70:ALA:HB3	2.11	0.51
14:L:75:LEU:O	14:L:76:ALA:C	2.48	0.51
15:M:44:ARG:HD2	15:M:46:ARG:NH2	2.26	0.51
1:X:2357:A:N6	14:L:18:ARG:CZ	2.72	0.51
1:X:1407:G:C6	1:X:1408:A:C6	2.98	0.51
3:A:252:LYS:N	3:A:253:PRO:HD2	2.25	0.51
11:I:105:PRO:O	11:I:106:VAL:CG2	2.59	0.51
1:X:636:G:H2'	1:X:637:G:H5'	1.93	0.51
1:X:663:G:H2'	1:X:664:C:C5'	2.40	0.51
5:C:112:GLN:HA	5:C:116:LYS:CB	2.41	0.51
19:Q:61:LYS:HB2	19:Q:72:ARG:HD3	1.91	0.51

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J:40:PRO:HG3	12:J:99:LYS:HZ1	1.75	0.51
1:X:197:G:H22	1:X:242:A:H62	1.57	0.51
26:Z:51:TYR:HE1	26:Z:55:ARG:HD3	1.75	0.51
1:X:1313:U:O2'	1:X:1314:A:OP2	2.29	0.51
6:D:175:LEU:CD2	6:D:177:PHE:HE1	2.24	0.51
11:I:11:GLY:O	11:I:13:ARG:N	2.43	0.51
1:X:1716:G:O3'	1:X:1717:A:H4'	2.11	0.51
1:X:1911:A:H2'	1:X:1912:G:H1'	1.92	0.51
1:X:2186:G:O3'	3:A:151:LYS:HD3	2.10	0.51
5:C:129:LYS:C	5:C:131:LYS:N	2.64	0.51
9:G:108:GLY:N	9:G:110:LEU:HG	2.26	0.51
1:X:2620:G:OP1	9:G:104:THR:HG22	2.11	0.51
17:O:35:LEU:O	17:O:36:LYS:CB	2.58	0.51
1:X:2411:A:H4'	23:U:25:ARG:HH12	1.76	0.51
19:Q:35:LYS:O	19:Q:38:ILE:HG23	2.11	0.51
11:I:71:THR:O	11:I:104:ARG:HD3	2.10	0.51
5:C:175:VAL:O	5:C:176:ASN:HB2	2.11	0.51
1:X:2496:C:O2'	1:X:2497:A:O5'	2.28	0.51
12:J:19:THR:HG21	12:J:99:LYS:HZ2	1.76	0.51
30:4:29:ASN:ND2	30:4:31:LYS:HD3	2.19	0.51
9:G:159:SER:O	9:G:161:GLN:N	2.39	0.51
16:N:87:ASN:O	16:N:88:ILE:C	2.48	0.51
15:M:39:VAL:HG12	15:M:45:THR:HG23	1.93	0.51
18:P:62:ARG:HG3	18:P:62:ARG:HH11	1.75	0.51
1:X:2613:A:H2'	1:X:2614:A:H8	1.75	0.51
1:X:488:A:C6	1:X:489:A:C6	2.99	0.51
20:R:25:LEU:O	20:R:79:SER:O	2.29	0.51
1:X:2598:C:H1'	4:B:154:LYS:HE2	1.93	0.51
14:L:99:ARG:O	14:L:102:ALA:HB3	2.11	0.51
2:Y:35:C:O2'	2:Y:36:A:H5'	2.10	0.51
14:L:10:LYS:HB3	14:L:14:ARG:HE	1.75	0.51
22:T:44:LYS:HG2	22:T:45:PHE:CE1	2.46	0.51
15:M:99:VAL:CG2	15:M:100:ARG:N	2.49	0.51
19:Q:63:LYS:HD3	19:Q:69:ILE:O	2.11	0.51
5:C:45:THR:C	5:C:47:THR:H	2.12	0.51
5:C:74:VAL:O	5:C:76:THR:N	2.44	0.51
11:I:122:VAL:HG21	11:I:125:ALA:HB2	1.93	0.51
22:T:37:LEU:C	22:T:38:VAL:HG23	2.31	0.51
1:X:1733:U:OP1	1:X:1733:U:O4'	2.29	0.51
18:P:85:MET:HE2	18:P:130:GLU:HG3	1.93	0.51
2:Y:2:C:C6	2:Y:2:C:H3'	2.46	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:5:SER:O	20:R:6:ALA:HB3	2.11	0.51
1:X:485:G:C6	1:X:520:C:N4	2.79	0.51
1:X:2395:C:OP2	11:I:63:ARG:NH1	2.44	0.51
1:X:2855:C:O2	13:K:93:GLY:HA3	2.11	0.51
14:L:36:LYS:N	14:L:36:LYS:HD2	2.26	0.51
1:X:1093:U:H2'	1:X:1094:C:O4'	2.11	0.51
7:E:89:LEU:HD11	7:E:96:ALA:HB2	1.92	0.51
1:X:1355:A:O2'	1:X:1357:U:OP2	2.23	0.51
21:S:72:ASP:OD1	21:S:75:LYS:HD2	2.10	0.51
23:U:41:VAL:O	23:U:42:GLN:CB	2.57	0.51
1:X:1561:A:H3'	1:X:1562:G:C8	2.46	0.51
6:D:134:GLU:CG	6:D:136:LEU:HB2	2.40	0.51
1:X:649:G:C2	1:X:661:C:C2	2.99	0.51
1:X:2311:U:H5'	1:X:2315:A:H61	1.75	0.51
25:W:37:THR:O	25:W:41:ARG:HG3	2.11	0.51
1:X:717:G:HO2'	1:X:718:A:P	2.33	0.51
15:M:37:THR:CG2	15:M:39:VAL:H	2.24	0.51
1:X:1909:U:C5	1:X:1911:A:N6	2.76	0.51
1:X:2053:G:C2	1:X:2054:A:C4	2.99	0.51
4:B:67:PHE:CE1	4:B:78:LEU:HD21	2.45	0.51
1:X:1391:A:O2'	1:X:1392:U:H3'	2.11	0.51
9:G:33:ILE:O	9:G:69:ASP:CG	2.49	0.51
16:N:99:ALA:HB2	16:N:106:PHE:CD1	2.46	0.51
17:O:36:LYS:HZ1	17:O:98:ILE:HB	1.75	0.51
7:E:164:PHE:O	7:E:167:GLU:N	2.44	0.51
1:X:2725:C:O2'	7:E:143:GLN:HG3	2.11	0.51
14:L:87:VAL:CG1	14:L:88:VAL:H	2.23	0.51
12:J:15:ARG:HD3	12:J:73:LYS:HG3	1.93	0.51
19:Q:62:ARG:O	19:Q:70:GLY:HA3	2.11	0.51
24:V:39:GLN:HB3	24:V:42:ARG:HB2	1.93	0.51
21:S:94:VAL:HG23	21:S:125:PRO:CG	2.39	0.51
1:X:2494:C:O2'	1:X:2495:G:H5'	2.11	0.51
1:X:2713:A:N1	4:B:203:LYS:HG2	2.26	0.51
23:U:14:VAL:HB	23:U:47:HIS:CE1	2.44	0.51
1:X:496:C:C2'	1:X:497:C:H5''	2.41	0.51
1:X:2204:A:O2'	1:X:2205:C:OP2	2.22	0.51
1:X:209:G:N2	1:X:433:G:OP1	2.44	0.51
1:X:230:C:C2'	1:X:231:G:H5'	2.41	0.51
1:X:890:U:H6	1:X:890:U:O5'	1.94	0.51
1:X:2038:C:H2'	1:X:2483:U:C4'	2.41	0.51
1:X:244:C:C3'	1:X:245:C:H5''	2.41	0.51

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2766:U:O2'	4:B:65:GLY:HA3	2.11	0.51
21:S:43:PHE:CE1	21:S:47:SER:HA	2.46	0.51
1:X:1188:A:N6	1:X:1189:G:C2	2.79	0.50
9:G:105:GLY:CA	9:G:110:LEU:HD12	2.40	0.50
9:G:68:PRO:O	9:G:70:PHE:CE2	2.64	0.50
16:N:93:LYS:HZ2	17:O:10:LYS:HZ3	1.57	0.50
23:U:27:ASP:H	23:U:32:ARG:HH21	1.59	0.50
1:X:2275:U:C4'	1:X:2276:C:OP1	2.55	0.50
19:Q:39:LYS:O	19:Q:43:GLN:HG3	2.11	0.50
15:M:104:LEU:O	15:M:106:TYR:N	2.44	0.50
7:E:57:ASP:O	7:E:58:ALA:CB	2.58	0.50
5:C:9:GLN:HG3	5:C:10:ASN:N	2.26	0.50
19:Q:69:ILE:HD12	19:Q:70:GLY:N	2.25	0.50
24:V:21:ARG:C	24:V:23:LYS:H	2.14	0.50
21:S:71:MET:H	21:S:71:MET:HE2	1.76	0.50
1:X:682:G:H5''	1:X:683:A:OP2	2.11	0.50
11:I:94:GLU:CA	11:I:97:ARG:HE	2.24	0.50
1:X:1337:G:OP2	18:P:105:ARG:NH2	2.44	0.50
1:X:1935:A:C6	1:X:1936:A:N1	2.79	0.50
26:Z:19:ARG:O	26:Z:21:SER:N	2.44	0.50
1:X:826:U:C2	1:X:827:C:C5	2.98	0.50
1:X:2639:A:H2'	1:X:2640:G:O4'	2.11	0.50
1:X:1766:U:H2'	1:X:1767:G:H5'	1.92	0.50
1:X:964:A:OP1	12:J:18:MET:SD	2.69	0.50
1:X:1435:G:O2'	1:X:1436:G:H5'	2.11	0.50
1:X:765:C:O2'	1:X:766:A:OP2	2.25	0.50
1:X:623:G:C2'	1:X:624:A:H5''	2.41	0.50
1:X:83:A:OP2	20:R:17:LYS:HE2	2.10	0.50
1:X:322:A:C2	1:X:342:G:H3'	2.46	0.50
12:J:44:LYS:CB	12:J:47:GLN:HG3	2.32	0.50
4:B:154:LYS:NZ	4:B:156:MET:HE1	2.23	0.50
23:U:53:GLU:OE2	23:U:57:VAL:HA	2.11	0.50
14:L:97:HIS:O	14:L:101:LYS:HB2	2.11	0.50
19:Q:82:LEU:HD23	19:Q:82:LEU:N	2.26	0.50
1:X:2175:A:O2'	1:X:2176:U:H5'	2.11	0.50
5:C:3:GLN:NE2	5:C:4:ILE:N	2.59	0.50
24:V:41:HIS:HB3	24:V:44:ARG:HH21	1.77	0.50
21:S:63:PRO:O	21:S:86:VAL:N	2.43	0.50
1:X:1325:U:O2'	1:X:1327:C:C4	2.63	0.50
1:X:1105:U:C2	1:X:1107:A:H5''	2.47	0.50
1:X:70:A:H1'	1:X:72:A:N7	2.26	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:72:ARG:HA	17:O:82:ARG:O	2.11	0.50
8:F:84:ILE:HG22	8:F:85:GLY:H	1.76	0.50
1:X:2301:A:C4	1:X:2302:G:C8	2.99	0.50
1:X:2311:U:C5'	1:X:2315:A:N6	2.73	0.50
1:X:940:G:N2	25:W:43:MET:SD	2.85	0.50
1:X:717:G:O2'	1:X:718:A:P	2.68	0.50
1:X:2230:G:OP1	12:J:84:MET:SD	2.70	0.50
4:B:72:VAL:CG1	4:B:73:ALA:N	2.73	0.50
10:H:70:VAL:HG13	10:H:71:LYS:N	2.27	0.50
1:X:1974:U:H2'	1:X:1975:G:H5''	1.93	0.50
1:X:207:U:N3	1:X:208:C:C4	2.79	0.50
11:I:53:ARG:HH21	11:I:53:ARG:CG	2.21	0.50
1:X:1265:G:O4'	16:N:33:ARG:HD2	2.11	0.50
10:H:121:ARG:O	10:H:122:ARG:HB2	2.11	0.50
6:D:42:SER:O	6:D:78:LYS:HD3	2.10	0.50
1:X:1320:A:H2'	1:X:1321:A:O4'	2.11	0.50
3:A:258:LYS:NZ	3:A:261:ARG:HH21	2.09	0.50
3:A:88:ARG:O	3:A:89:SER:HB3	2.12	0.50
1:X:1125:G:H2'	1:X:1126:A:C8	2.40	0.50
5:C:153:ASP:OD1	5:C:172:VAL:HA	2.10	0.50
1:X:2382:C:O2	1:X:2382:C:H2'	2.11	0.50
1:X:2395:C:C2'	1:X:2396:C:C5'	2.89	0.50
20:R:84:VAL:HA	20:R:90:LYS:CD	2.42	0.50
1:X:1142:G:OP1	9:G:107:GLN:O	2.29	0.50
1:X:1997:A:C2	1:X:1998:A:C2	2.99	0.50
23:U:52:ARG:O	23:U:53:GLU:CB	2.60	0.50
20:R:60:PRO:C	20:R:62:MET:N	2.63	0.50
9:G:61:ARG:HH22	9:G:78:ASP:CG	2.15	0.50
14:L:17:VAL:CG1	14:L:18:ARG:H	2.24	0.50
21:S:13:LYS:HE2	21:S:20:ALA:HB2	1.93	0.50
21:S:6:LYS:HB3	21:S:32:PHE:HA	1.94	0.50
11:I:76:LYS:O	11:I:79:GLN:HG2	2.12	0.50
5:C:27:LEU:HD23	5:C:181:LEU:HD22	1.92	0.50
5:C:30:VAL:HG12	5:C:31:VAL:N	2.26	0.50
5:C:30:VAL:O	5:C:31:VAL:C	2.49	0.50
19:Q:27:PHE:N	19:Q:27:PHE:CD1	2.79	0.50
1:X:596:C:H5'	5:C:84:PHE:HE1	1.76	0.50
1:X:1031:C:HO2'	1:X:1032:A:P	2.35	0.50
13:K:97:ILE:HA	13:K:112:LEU:O	2.11	0.50
1:X:692:C:O2	1:X:693:A:C8	2.64	0.50
23:U:13:LEU:HG	23:U:14:VAL:N	2.27	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:G:157:PRO:O	9:G:159:SER:N	2.43	0.50
1:X:2048:C:H2'	1:X:2049:C:H6	1.77	0.50
1:X:1249:G:O2'	1:X:1250:A:P	2.70	0.50
1:X:2027:C:C2	1:X:2604:G:N2	2.79	0.50
1:X:719:A:H2'	1:X:720:A:O4'	2.10	0.50
2:Y:95:U:H2'	2:Y:96:C:C6	2.46	0.50
5:C:144:GLY:HA2	5:C:166:TRP:NE1	2.26	0.50
12:J:77:LYS:O	12:J:88:LYS:NZ	2.44	0.50
9:G:102:ARG:CZ	9:G:112:THR:HG21	2.40	0.50
1:X:756:C:H2'	1:X:757:U:H5'	1.92	0.50
1:X:2265:A:C2	1:X:2325:A:N7	2.79	0.50
6:D:54:ALA:O	6:D:55:LYS:C	2.50	0.50
14:L:102:ALA:O	14:L:103:LEU:C	2.49	0.50
9:G:168:THR:O	9:G:169:GLN:O	2.29	0.50
2:Y:80:A:H2'	2:Y:81:C:O4'	2.12	0.50
12:J:15:ARG:HD2	12:J:74:PRO:HD2	1.94	0.50
24:V:30:PHE:O	24:V:31:GLN:C	2.49	0.50
19:Q:20:MET:O	19:Q:23:GLY:N	2.37	0.50
19:Q:20:MET:SD	19:Q:92:ALA:HA	2.51	0.50
1:X:1151:U:O4	9:G:93:LYS:HE3	2.11	0.50
1:X:1032:A:O2'	1:X:1134:C:H5''	2.12	0.50
1:X:457:C:C2'	1:X:458:G:H5'	2.41	0.50
1:X:2261:G:H5''	1:X:2262:C:O4'	2.11	0.50
9:G:162:LYS:N	9:G:163:PRO:HD2	2.27	0.50
1:X:648:A:H4'	1:X:649:G:O5'	2.10	0.50
23:U:46:LEU:C	23:U:47:HIS:CG	2.84	0.50
22:T:42:GLY:O	22:T:57:HIS:HD2	1.95	0.50
1:X:2042:A:O2'	5:C:62:LYS:CE	2.59	0.50
10:H:30:GLY:O	10:H:33:GLY:O	2.29	0.50
3:A:150:GLY:O	3:A:152:GLY:N	2.45	0.50
1:X:624:A:N3	1:X:624:A:H5'	2.26	0.50
1:X:333:A:C2'	1:X:350:U:O2	2.59	0.50
20:R:93:ARG:O	20:R:95:ARG:CZ	2.59	0.50
21:S:139:THR:O	21:S:140:LYS:C	2.50	0.50
6:D:46:ASP:O	6:D:48:LYS:N	2.45	0.50
14:L:54:ALA:HB3	14:L:75:LEU:CB	2.36	0.50
2:Y:35:C:C2	2:Y:36:A:C8	2.99	0.50
1:X:729:A:OP1	1:X:729:A:H2	1.95	0.50
1:X:1923:U:O2'	1:X:1924:C:P	2.70	0.50
19:Q:42:ILE:HG23	19:Q:43:GLN:H	1.75	0.50
1:X:2171:U:H4'	1:X:2171:U:OP1	2.12	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:216:U:OP1	1:X:601:A:N7	2.44	0.50
1:X:358:C:H6	1:X:358:C:O5'	1.94	0.50
5:C:30:VAL:O	5:C:32:THR:N	2.45	0.50
1:X:1777:A:O2'	1:X:1778:U:OP1	2.25	0.50
21:S:128:ARG:NE	21:S:129:ARG:HD3	2.27	0.50
1:X:2753:C:O2'	1:X:2754:C:H5'	2.12	0.50
1:X:2498:U:C4'	1:X:2499:C:OP1	2.51	0.50
12:J:61:ARG:O	12:J:64:LYS:NZ	2.39	0.50
17:O:68:LYS:HD2	17:O:86:HIS:O	2.11	0.50
9:G:95:LEU:HD21	9:G:117:GLU:CD	2.31	0.50
4:B:93:VAL:O	4:B:94:ASP:HB2	2.12	0.50
1:X:590:C:H2'	1:X:591:G:H8	1.75	0.50
1:X:1773:C:H2'	1:X:2587:G:O2'	2.11	0.50
1:X:1770:U:O2	1:X:1774:A:C5	2.65	0.50
1:X:2014:A:C6	1:X:2477:C:H1'	2.46	0.50
4:B:142:GLY:C	4:B:143:GLN:HE21	2.15	0.50
5:C:179:ASP:HA	5:C:182:ARG:HB3	1.94	0.50
1:X:1715:A:O2'	1:X:1716:G:H5''	2.12	0.50
1:X:1411:C:H2'	1:X:1412:C:C6	2.46	0.50
17:O:18:ASP:C	17:O:18:ASP:OD1	2.50	0.50
1:X:2198:U:N3	1:X:2199:C:C5	2.79	0.50
5:C:136:TRP:HD1	5:C:137:ALA:N	2.09	0.50
20:R:85:ASP:C	20:R:87:GLU:H	2.13	0.50
4:B:116:VAL:HG22	4:B:136:ARG:NH2	2.26	0.50
1:X:2003:A:O2'	1:X:2004:U:H3'	2.12	0.50
1:X:804:C:HO2'	1:X:805:G:C5'	2.24	0.50
14:L:38:ILE:HD12	14:L:39:TYR:N	2.16	0.50
1:X:729:A:O2'	1:X:730:C:C4'	2.60	0.50
9:G:66:HIS:C	16:N:67:ALA:HB1	2.31	0.50
23:U:23:LYS:CB	23:U:35:THR:HG23	2.41	0.50
7:E:126:PRO:HG2	7:E:130:ARG:HB3	1.92	0.50
10:H:116:ARG:HD2	15:M:38:LYS:CE	2.20	0.50
6:D:12:VAL:C	6:D:16:LEU:HG	2.31	0.50
19:Q:40:ASP:O	19:Q:41:ALA:C	2.49	0.50
1:X:688:A:H5''	5:C:61:GLN:NE2	2.27	0.50
5:C:150:LEU:HG	5:C:187:VAL:CG1	2.41	0.50
5:C:43:ALA:HB1	5:C:86:PRO:C	2.32	0.50
1:X:683:A:O2'	1:X:684:C:P	2.68	0.50
1:X:1031:C:O2'	1:X:1032:A:H5''	2.12	0.50
1:X:1268:U:N3	5:C:66:ASN:HA	2.27	0.50
23:U:46:LEU:HD23	23:U:46:LEU:N	2.27	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:T:38:VAL:HG12	22:T:40:GLN:HG2	1.94	0.50
1:X:1223:G:H5'	1:X:1225:G:O4'	2.11	0.50
1:X:417:C:C6	1:X:419:G:C4	2.99	0.50
4:B:53:PRO:HG2	15:M:6:LYS:HZ2	1.77	0.50
20:R:55:THR:HG21	20:R:72:ARG:CZ	2.41	0.50
1:X:2441:U:H2'	1:X:2442:C:C6	2.47	0.50
12:J:26:ASP:CB	12:J:68:ARG:HH22	2.24	0.50
1:X:2828:C:H2'	1:X:2829:A:H8	1.76	0.50
1:X:1164:C:H2'	1:X:1165:G:O4'	2.12	0.50
1:X:737:C:H2'	1:X:738:G:C8	2.46	0.50
1:X:765:C:C4	1:X:1772:C:H1'	2.47	0.50
1:X:135:U:H5''	1:X:136:A:P	2.45	0.50
3:A:72:LYS:NZ	3:A:99:ASP:CG	2.65	0.50
1:X:1505:U:H2'	1:X:1506:C:C5'	2.41	0.50
5:C:130:THR:OG1	5:C:160:ALA:HA	2.11	0.50
5:C:154:ASP:HB2	5:C:157:THR:HG23	1.94	0.50
1:X:2394:G:H5''	11:I:63:ARG:NE	2.27	0.50
1:X:2395:C:H2'	1:X:2396:C:H5''	1.93	0.50
1:X:2409:A:H3'	1:X:2409:A:C4	2.40	0.50
12:J:119:PHE:CD1	12:J:132:MET:SD	3.04	0.50
4:B:150:VAL:HG21	4:B:154:LYS:CD	2.41	0.50
1:X:2594:U:H2'	1:X:2595:C:H6	1.76	0.50
21:S:100:THR:CG2	21:S:138:VAL:HG21	2.42	0.50
1:X:2293:G:H4'	6:D:155:THR:HG21	1.94	0.50
6:D:33:LYS:HD2	6:D:90:THR:CG2	2.41	0.50
2:Y:44:C:H42	6:D:88:LYS:NZ	2.10	0.50
16:N:76:TYR:CE2	16:N:80:ILE:HG13	2.47	0.50
17:O:33:VAL:O	17:O:33:VAL:HG23	2.10	0.50
6:D:12:VAL:O	6:D:13:ARG:C	2.50	0.50
6:D:30:ARG:HH11	6:D:159:THR:HG21	1.76	0.50
6:D:4:LEU:O	6:D:5:LYS:CB	2.60	0.50
1:X:2356:A:N3	14:L:89:PHE:CZ	2.79	0.50
14:L:89:PHE:HB2	14:L:91:ARG:HH21	1.76	0.50
1:X:618:A:C4	1:X:632:A:N6	2.80	0.50
1:X:1750:A:H4'	1:X:2695:C:O4'	2.12	0.50
15:M:29:PRO:HA	15:M:54:VAL:HB	1.94	0.50
19:Q:64:ARG:O	19:Q:65:VAL:HG22	2.12	0.50
17:O:87:ARG:HG3	17:O:87:ARG:O	2.10	0.50
21:S:123:VAL:N	21:S:161:ALA:CB	2.74	0.50
1:X:1134:C:H2'	1:X:1135:C:H6	1.77	0.50
11:I:47:ALA:O	11:I:49:PHE:N	2.44	0.50

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2705:A:O2'	1:X:2706:U:C6	2.65	0.50
18:P:27:VAL:HB	18:P:125:THR:HB	1.93	0.50
30:4:1:MET:CE	30:4:1:MET:HA	2.32	0.50
16:N:81:ASN:ND2	16:N:85:ARG:HE	2.10	0.50
8:F:100:ASN:O	8:F:103:GLN:OE1	2.29	0.50
7:E:51:LEU:HD12	7:E:52:VAL:N	2.27	0.50
1:X:658:G:H1'	1:X:2330:G:OP1	2.11	0.50
1:X:140:G:H2'	1:X:141:G:H8	1.75	0.50
1:X:141:G:H2'	1:X:142:U:O4'	2.12	0.50
8:F:84:ILE:CG2	8:F:85:GLY:H	2.25	0.50
1:X:1253:C:C5'	1:X:1253:C:H6	2.23	0.50
9:G:84:ASN:HA	9:G:153:GLY:O	2.12	0.50
1:X:1841:G:C2'	1:X:1842:G:H5'	2.41	0.50
1:X:870:C:H1'	22:T:26:PHE:HE2	1.77	0.50
1:X:2057:U:H5''	1:X:2057:U:H6	1.77	0.50
1:X:136:A:C5	1:X:137:A:C6	2.97	0.50
1:X:2464:G:H5''	12:J:47:GLN:NE2	2.27	0.50
1:X:971:A:H4'	1:X:2436:U:H5'	1.92	0.50
1:X:1673:C:H5''	4:B:136:ARG:HD3	1.93	0.50
1:X:2533:U:H2'	1:X:2534:U:C6	2.47	0.50
23:U:52:ARG:O	23:U:53:GLU:HB3	2.11	0.50
23:U:51:ILE:CG2	23:U:59:THR:HA	2.31	0.50
14:L:33:ARG:O	14:L:99:ARG:CZ	2.59	0.50
14:L:78:ALA:O	14:L:79:ALA:C	2.48	0.50
2:Y:58:G:H4'	2:Y:59:A:H8	1.76	0.50
17:O:32:LYS:HE3	17:O:60:VAL:CG2	2.42	0.50
6:D:30:ARG:NH1	6:D:159:THR:HG21	2.27	0.50
21:S:3:LEU:HD12	21:S:3:LEU:C	2.32	0.50
10:H:23:ARG:CG	10:H:23:ARG:NH2	2.75	0.50
5:C:112:GLN:HB3	5:C:116:LYS:NZ	2.27	0.50
12:J:62:GLY:CA	12:J:64:LYS:HE3	2.28	0.50
8:F:75:SER:O	8:F:79:ARG:HG3	2.12	0.50
1:X:1101:U:O2	1:X:1113:C:H1'	2.11	0.50
1:X:1223:G:H4'	1:X:1224:A:O5'	2.11	0.50
14:L:94:TYR:CD2	14:L:94:TYR:N	2.77	0.50
9:G:140:GLN:O	9:G:143:ALA:N	2.45	0.50
18:P:76:LYS:C	18:P:78:ASN:H	2.16	0.50
1:X:670:U:H2'	1:X:671:A:C8	2.47	0.50
1:X:1053:G:C5	1:X:1054:C:C4	3.00	0.50
1:X:2372:A:H2'	1:X:2373:C:C6	2.46	0.50
9:G:103:TYR:CD1	9:G:111:LYS:HA	2.47	0.50

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:17:A:HO2'	2:Y:112:A:H8	1.56	0.50
1:X:2825:A:C2	1:X:2826:C:C2	3.00	0.50
5:C:26:VAL:CA	11:I:18:ARG:HH11	2.21	0.50
19:Q:10:PRO:HA	19:Q:27:PHE:CB	2.30	0.50
12:J:35:LEU:HD23	12:J:105:PHE:CD2	2.45	0.50
1:X:38:G:N2	5:C:42:THR:HG21	2.26	0.50
21:S:123:VAL:HG23	21:S:161:ALA:HB2	1.94	0.50
9:G:90:LEU:HB2	9:G:94:LYS:HE3	1.93	0.50
11:I:74:VAL:HG13	11:I:109:LEU:HD12	1.93	0.50
11:I:47:ALA:C	11:I:49:PHE:N	2.64	0.50
1:X:70:A:H1'	1:X:72:A:C5	2.47	0.50
1:X:865:A:H61	1:X:937:C:H42	1.60	0.50
7:E:27:LYS:HG2	7:E:32:GLU:HB3	1.94	0.50
3:A:123:ALA:O	3:A:125:PRO:HD3	2.11	0.50
9:G:72:PRO:O	9:G:73:ASN:C	2.49	0.50
1:X:831:G:H8	1:X:831:G:O5'	1.95	0.50
5:C:122:GLY:O	5:C:125:ILE:N	2.42	0.49
1:X:1074:G:H2'	1:X:1075:C:O4'	2.12	0.49
20:R:17:LYS:HB3	20:R:18:LYS:HZ2	1.76	0.49
20:R:35:LYS:HE3	20:R:37:LEU:HD21	1.94	0.49
20:R:38:LEU:HB2	20:R:47:VAL:CB	2.42	0.49
20:R:93:ARG:N	20:R:95:ARG:NH2	2.60	0.49
1:X:2322:U:H3'	1:X:2323:U:C6	2.45	0.49
2:Y:30:C:H2'	2:Y:31:A:H8	1.77	0.49
1:X:1089:C:H5''	1:X:1090:C:OP1	2.12	0.49
9:G:54:LEU:HD12	9:G:170:PRO:HG3	1.93	0.49
14:L:42:ILE:HG22	14:L:52:ALA:N	2.27	0.49
21:S:6:LYS:O	21:S:31:SER:CB	2.60	0.49
5:C:3:GLN:HA	5:C:3:GLN:OE1	2.12	0.49
24:V:1:MET:HG3	24:V:3:PRO:HD3	1.92	0.49
21:S:55:THR:HG23	21:S:59:GLY:HA2	1.93	0.49
1:X:242:A:C2'	1:X:243:G:H4'	2.42	0.49
1:X:1134:C:O2'	1:X:1135:C:H5'	2.12	0.49
21:S:103:ARG:HH21	21:S:108:VAL:CG2	2.25	0.49
1:X:763:A:OP1	1:X:1631:C:N4	2.45	0.49
11:I:7:LYS:HG2	11:I:7:LYS:O	2.12	0.49
8:F:84:ILE:CG1	8:F:96:VAL:HG11	2.38	0.49
1:X:319:G:OP1	18:P:12:LYS:HE3	2.12	0.49
3:A:124:GLU:O	3:A:126:LYS:N	2.45	0.49
1:X:745:C:C2'	1:X:746:G:H5'	2.42	0.49
23:U:21:ARG:HG2	23:U:40:ARG:HG2	1.93	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:446:C:H2'	1:X:447:U:O4'	2.12	0.49
17:O:31:ASP:OD1	17:O:59:GLU:OE2	2.30	0.49
1:X:91:A:H2'	1:X:92:U:H6	1.77	0.49
4:B:68:ALA:C	4:B:70:ALA:N	2.66	0.49
16:N:13:ARG:HG3	16:N:13:ARG:NH2	2.27	0.49
20:R:74:LEU:HD12	20:R:75:ALA:N	2.27	0.49
20:R:38:LEU:HB2	20:R:47:VAL:CG2	2.41	0.49
1:X:2266:A:C2	1:X:2325:A:N7	2.80	0.49
1:X:2266:A:N1	1:X:2325:A:N7	2.60	0.49
6:D:52:LYS:HG2	6:D:147:ASP:CG	2.33	0.49
1:X:2284:U:C3'	1:X:2285:U:H5''	2.43	0.49
9:G:32:TYR:CE2	9:G:69:ASP:OD1	2.66	0.49
1:X:2270:U:O2'	1:X:2271:C:H5'	2.12	0.49
2:Y:73:C:H2'	2:Y:74:A:O4'	2.12	0.49
1:X:63:A:O2'	19:Q:70:GLY:HA2	2.12	0.49
21:S:64:ALA:HB2	21:S:85:MET:HE2	1.93	0.49
1:X:1789:U:H5'	3:A:257:LEU:HB2	1.93	0.49
5:C:45:THR:O	5:C:45:THR:HG22	2.11	0.49
5:C:46:ARG:HD2	5:C:51:VAL:CG2	2.42	0.49
7:E:43:VAL:HB	7:E:52:VAL:CA	2.39	0.49
7:E:7:GLN:O	7:E:9:ILE:HG13	2.11	0.49
1:X:592:G:P	16:N:10:ARG:NH1	2.85	0.49
10:H:76:ARG:HD3	10:H:113:PRO:O	2.12	0.49
16:N:88:ILE:HG22	17:O:48:GLY:C	2.33	0.49
1:X:1935:A:N9	10:H:22:ILE:HD11	2.27	0.49
1:X:148:C:H3'	1:X:149:A:H8	1.76	0.49
1:X:1842:G:H2'	1:X:1843:U:O4'	2.11	0.49
7:E:24:PHE:CD1	7:E:24:PHE:N	2.80	0.49
3:A:96:HIS:HE1	3:A:100:GLY:HA2	1.77	0.49
1:X:1845:A:H2'	1:X:1846:A:C8	2.47	0.49
26:Z:43:HIS:C	26:Z:44:HIS:HD2	2.15	0.49
1:X:2660:C:C2	1:X:2704:U:O4	2.65	0.49
1:X:135:U:C6	1:X:135:U:H3'	2.47	0.49
20:R:22:VAL:HG11	20:R:80:LYS:HZ1	1.77	0.49
12:J:83:ARG:O	12:J:83:ARG:HD3	2.12	0.49
13:K:72:ASP:CG	13:K:75:VAL:HG23	2.33	0.49
4:B:127:ALA:CB	4:B:135:HIS:HE1	2.25	0.49
9:G:101:THR:HG23	9:G:103:TYR:CD1	2.46	0.49
1:X:538:A:N3	1:X:538:A:C3'	2.70	0.49
6:D:46:ASP:HB2	6:D:49:ALA:CB	2.43	0.49
16:N:76:TYR:O	16:N:77:SER:C	2.50	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:98:LEU:HD11	7:E:101:LYS:CA	2.41	0.49
1:X:2796:A:OP2	13:K:3:HIS:NE2	2.45	0.49
6:D:12:VAL:CG1	6:D:16:LEU:HD11	2.23	0.49
19:Q:26:SER:HB3	19:Q:79:ILE:HG23	1.93	0.49
19:Q:88:ILE:HD12	19:Q:88:ILE:C	2.33	0.49
1:X:2081:U:H2'	1:X:2082:C:C6	2.47	0.49
1:X:872:G:O2'	1:X:873:U:H6	1.95	0.49
15:M:55:ILE:O	15:M:103:LYS:O	2.29	0.49
7:E:62:ARG:O	7:E:65:HIS:HB3	2.12	0.49
19:Q:7:LEU:CD2	24:V:30:PHE:HE2	2.20	0.49
12:J:102:ARG:HG3	12:J:103:VAL:N	2.27	0.49
3:A:160:GLY:HA2	3:A:196:VAL:C	2.33	0.49
19:Q:19:ALA:O	19:Q:22:ARG:HG2	2.11	0.49
1:X:465:C:O2'	1:X:467:U:H1'	2.11	0.49
11:I:117:ALA:CB	11:I:137:GLY:HA3	2.42	0.49
11:I:95:ALA:O	11:I:98:LEU:N	2.44	0.49
1:X:494:A:H2'	1:X:494:A:N3	2.27	0.49
1:X:1015:U:H5''	1:X:1016:C:OP1	2.12	0.49
1:X:70:A:H4'	1:X:71:A:H3'	1.93	0.49
1:X:1976:U:H4'	4:B:128:SER:OG	2.12	0.49
3:A:59:LYS:O	3:A:60:ARG:O	2.29	0.49
7:E:37:TYR:CD2	7:E:68:THR:HG23	2.48	0.49
1:X:433:G:N2	1:X:434:C:H1'	2.27	0.49
4:B:51:TYR:N	4:B:75:THR:OG1	2.44	0.49
2:Y:4:C:O2'	2:Y:5:C:H5'	2.13	0.49
1:X:678:G:O2'	1:X:679:C:H5'	2.12	0.49
11:I:100:ARG:O	11:I:100:ARG:HG3	2.12	0.49
15:M:24:LEU:HD12	15:M:83:PHE:CD2	2.47	0.49
11:I:119:THR:HG23	11:I:139:ARG:O	2.12	0.49
12:J:55:MET:HG2	12:J:118:ALA:O	2.12	0.49
20:R:46:VAL:HG12	20:R:48:VAL:CG2	2.42	0.49
9:G:110:LEU:H	9:G:110:LEU:HD23	1.73	0.49
6:D:151:GLY:O	6:D:152:MET:HB3	2.12	0.49
14:L:102:ALA:C	14:L:104:ALA:N	2.62	0.49
1:X:2312:A:O2'	1:X:2313:G:OP2	2.30	0.49
1:X:303:C:C6	1:X:303:C:O5'	2.56	0.49
2:Y:16:U:C1'	2:Y:109:G:N2	2.70	0.49
24:V:42:ARG:HG3	24:V:46:LEU:CD1	2.42	0.49
12:J:23:LYS:HA	21:S:73:LYS:NZ	2.26	0.49
3:A:67:PHE:CE1	3:A:157:ARG:NH2	2.81	0.49
1:X:1794:A:H2	1:X:1814:G:N3	2.10	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
30:4:4:ARG:O	30:4:36:GLN:HA	2.12	0.49
1:X:2707:G:H8	1:X:2707:G:H5'	1.78	0.49
1:X:969:U:O2'	1:X:970:A:OP2	2.22	0.49
18:P:126:ILE:HD12	18:P:127:ILE:H	1.72	0.49
1:X:2306:A:H2'	1:X:2307:A:H8	1.73	0.49
1:X:1274:C:H2'	1:X:1275:A:O5'	2.12	0.49
11:I:32:ARG:HD2	17:O:81:ARG:CD	2.41	0.49
1:X:553:C:C4	1:X:557:U:C2	3.01	0.49
16:N:86:ALA:O	16:N:88:ILE:N	2.45	0.49
1:X:402:A:H8	1:X:2392:G:H4'	1.76	0.49
1:X:1344:C:H2'	1:X:1346:C:C5	2.48	0.49
7:E:24:PHE:CG	7:E:37:TYR:HD1	2.30	0.49
13:K:30:ARG:CG	13:K:30:ARG:O	2.61	0.49
1:X:2219:U:C2	1:X:2220:A:C8	3.01	0.49
15:M:5:ILE:HD12	15:M:5:ILE:O	2.12	0.49
21:S:144:GLY:O	21:S:146:HIS:CD2	2.65	0.49
1:X:338:G:H1'	20:R:10:HIS:CE1	2.47	0.49
1:X:2394:G:P	11:I:63:ARG:CZ	3.01	0.49
20:R:46:VAL:HG12	20:R:48:VAL:HG23	1.94	0.49
12:J:44:LYS:HB2	12:J:47:GLN:CD	2.32	0.49
12:J:75:VAL:HG23	12:J:93:TYR:O	2.12	0.49
13:K:87:TYR:HD1	13:K:90:ARG:HD2	1.75	0.49
1:X:1673:C:OP1	4:B:136:ARG:HD3	2.13	0.49
1:X:1142:G:C8	1:X:2008:C:H4'	2.47	0.49
23:U:54:ASN:C	23:U:56:GLN:N	2.59	0.49
1:X:2267:A:H4'	1:X:2268:G:OP1	2.12	0.49
6:D:132:ILE:HG22	6:D:133:LYS:H	1.76	0.49
1:X:1070:G:C5	1:X:1071:U:N3	2.80	0.49
9:G:132:PHE:CE2	9:G:145:HIS:HB2	2.45	0.49
7:E:92:VAL:HG12	7:E:93:GLY:H	1.78	0.49
15:M:41:GLU:OE1	15:M:46:ARG:HD2	2.13	0.49
19:Q:53:ILE:HD12	19:Q:54:SER:H	1.78	0.49
1:X:215:G:H21	1:X:632:A:H8	1.59	0.49
21:S:6:LYS:N	21:S:7:PRO:CD	2.74	0.49
7:E:54:ARG:HH11	7:E:57:ASP:HB3	1.77	0.49
3:A:217:ARG:HH21	3:A:218:LYS:CE	2.22	0.49
1:X:2807:U:H4'	1:X:2808:U:H5''	1.93	0.49
24:V:45:GLN:O	24:V:48:ARG:N	2.46	0.49
12:J:99:LYS:HD2	12:J:100:PRO:HD3	1.94	0.49
1:X:1937:G:H2'	1:X:1939:U:O4	2.11	0.49
1:X:1450:G:O2'	1:X:1451:C:H5'	2.12	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:7:GLN:OE1	7:E:7:GLN:N	2.45	0.49
1:X:1253:C:H2'	1:X:1254:G:O5'	2.12	0.49
1:X:1062:G:H4'	1:X:2732:C:O2'	2.12	0.49
1:X:2204:A:H4'	1:X:2205:C:O5'	2.12	0.49
1:X:765:C:N4	1:X:1772:C:O2	2.45	0.49
1:X:2685:A:C2	1:X:2686:C:C2	3.00	0.49
1:X:1419:G:H2'	1:X:1420:A:O4'	2.12	0.49
4:B:45:GLU:O	4:B:46:ALA:HB2	2.13	0.49
4:B:149:ARG:NH1	9:G:106:TYR:CD1	2.67	0.49
16:N:117:ARG:HG3	16:N:117:ARG:NH2	2.27	0.49
17:O:20:ILE:O	17:O:90:PHE:HB2	2.12	0.49
17:O:44:GLN:O	17:O:46:VAL:HG23	2.12	0.49
11:I:71:THR:HG21	11:I:104:ARG:NH2	2.28	0.49
3:A:217:ARG:O	3:A:218:LYS:C	2.50	0.49
1:X:2722:C:H5''	30:4:35:ARG:NH1	2.27	0.49
18:P:67:PRO:O	18:P:71:VAL:HG23	2.11	0.49
1:X:417:C:H4'	1:X:418:C:C5'	2.42	0.49
1:X:192:G:C4'	1:X:193:A:H4'	2.43	0.49
23:U:63:SER:O	23:U:66:ALA:HB3	2.13	0.49
10:H:81:ILE:HG13	10:H:82:LYS:N	2.27	0.49
26:Z:13:LYS:O	26:Z:17:ASP:OD2	2.30	0.49
3:A:89:SER:O	3:A:159:ALA:HB2	2.13	0.49
1:X:334:G:O2'	1:X:335:A:OP2	2.27	0.49
11:I:62:LYS:CG	11:I:63:ARG:N	2.75	0.49
13:K:72:ASP:OD2	13:K:72:ASP:C	2.51	0.49
6:D:36:VAL:CG2	6:D:154:ILE:HG13	2.38	0.49
1:X:1072:U:H1'	1:X:1081:A:C1'	2.43	0.49
1:X:1093:U:H3	1:X:1097:A:H2	1.61	0.49
1:X:1474:A:C2'	1:X:1475:U:H5'	2.43	0.49
3:A:44:ASN:N	3:A:44:ASN:ND2	2.57	0.49
10:H:23:ARG:HH22	10:H:25:LEU:HG	1.76	0.49
12:J:100:PRO:C	12:J:102:ARG:H	2.16	0.49
1:X:37:C:H1'	5:C:44:SER:CB	2.43	0.49
11:I:86:THR:C	11:I:88:PHE:H	2.14	0.49
1:X:1108:U:C2	1:X:1109:A:H1'	2.48	0.49
1:X:1135:C:H2'	1:X:1136:G:H8	1.77	0.49
1:X:2456:U:H3	30:4:4:ARG:HH12	1.60	0.49
16:N:8:ILE:HD12	16:N:8:ILE:C	2.32	0.49
1:X:2239:C:C2	1:X:2240:C:C5	3.01	0.49
18:P:66:GLU:O	18:P:69:ALA:HB3	2.13	0.49
1:X:1858:C:H2'	1:X:1859:A:O4'	2.13	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:48:A:H4'	1:X:49:U:C5'	2.41	0.49
22:T:25:LYS:HB2	22:T:37:LEU:CB	2.42	0.49
22:T:58:THR:O	22:T:59:LEU:HD23	2.13	0.49
1:X:718:A:N6	1:X:739:G:H1'	2.27	0.49
1:X:2605:C:H6	1:X:2605:C:O5'	1.95	0.49
2:Y:116:C:H1'	14:L:48:GLY:O	2.12	0.49
1:X:1005:U:H2'	16:N:54:LYS:HZ1	1.78	0.49
8:F:131:ALA:O	8:F:136:VAL:HB	2.12	0.49
1:X:1328:C:H2'	1:X:1329:U:H6	1.78	0.49
1:X:2194:A:H2'	1:X:2195:C:H5''	1.95	0.49
12:J:78:LYS:HG2	12:J:80:ALA:N	2.18	0.49
13:K:94:TYR:CE2	13:K:115:LEU:O	2.66	0.49
4:B:151:TYR:HB3	9:G:106:TYR:CD2	2.47	0.49
1:X:528:G:H5'	18:P:39:ARG:NH2	2.27	0.49
9:G:64:GLY:CA	9:G:67:ARG:HG3	2.43	0.49
9:G:69:ASP:C	9:G:70:PHE:HD2	2.16	0.49
1:X:2299:A:N6	1:X:2312:A:H2'	2.28	0.49
1:X:303:C:H3'	1:X:304:A:H5''	1.95	0.49
24:V:32:ALA:O	24:V:35:GLY:N	2.37	0.49
12:J:19:THR:CG2	12:J:99:LYS:NZ	2.75	0.49
1:X:39:C:H2'	1:X:40:U:C6	2.48	0.49
21:S:131:PRO:HG2	21:S:155:PRO:HG3	1.94	0.49
11:I:6:LEU:C	11:I:7:LYS:HD3	2.33	0.49
23:U:13:LEU:CG	23:U:14:VAL:N	2.75	0.49
22:T:40:GLN:NE2	22:T:57:HIS:O	2.44	0.49
1:X:1061:A:O2'	1:X:1062:G:H5'	2.12	0.49
1:X:2799:C:N4	1:X:2800:C:N3	2.60	0.49
1:X:415:A:H2'	1:X:416:U:O4'	2.13	0.49
15:M:39:VAL:HG12	15:M:45:THR:CG2	2.42	0.49
3:A:122:GLU:OE1	3:A:122:GLU:N	2.46	0.49
1:X:829:C:N3	1:X:1206:G:C2	2.80	0.49
1:X:1888:C:H4'	1:X:1912:G:C8	2.48	0.49
1:X:777:A:O2'	1:X:778:G:OP1	2.26	0.49
1:X:1322:G:H1'	1:X:1627:C:O2'	2.12	0.49
1:X:1505:U:C6	1:X:1505:U:C3'	2.96	0.49
1:X:1126:A:C2	1:X:1127:C:C2	3.00	0.49
20:R:25:LEU:CD1	20:R:25:LEU:H	2.26	0.49
1:X:346:C:H2'	1:X:347:C:C6	2.43	0.49
1:X:1142:G:H4'	9:G:103:TYR:CD2	2.46	0.49
6:D:92:ARG:HH21	6:D:92:ARG:CG	2.21	0.49
14:L:33:ARG:NH1	14:L:103:LEU:H	2.09	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:M:99:VAL:O	15:M:100:ARG:HG2	2.12	0.49
1:X:2675:U:H2'	1:X:2676:G:C8	2.48	0.49
15:M:28:ARG:CB	15:M:29:PRO:CD	2.81	0.49
5:C:150:LEU:HD13	5:C:167:VAL:HB	1.93	0.49
5:C:5:ASN:N	5:C:5:ASN:HD22	2.09	0.49
21:S:64:ALA:HA	21:S:86:VAL:H	1.78	0.49
12:J:60:ARG:NH1	12:J:60:ARG:HG2	2.23	0.49
23:U:19:ILE:HG22	23:U:42:GLN:CG	2.38	0.49
1:X:1979:C:O2'	1:X:1980:A:P	2.70	0.49
13:K:45:ARG:HG3	13:K:95:THR:CG2	2.41	0.49
1:X:2691:C:O2'	1:X:2692:A:C5'	2.61	0.49
1:X:1442:C:H2'	1:X:1585:A:OP2	2.13	0.49
1:X:1339:U:H5''	1:X:1994:U:C1'	2.42	0.49
1:X:496:C:H2'	1:X:497:C:H5'	1.94	0.49
1:X:2849:C:H2'	1:X:2850:U:C5'	2.43	0.49
15:M:45:THR:HG22	15:M:45:THR:O	2.12	0.49
1:X:405:C:H2'	1:X:406:G:H8	1.77	0.49
1:X:2048:C:H2'	1:X:2049:C:C6	2.47	0.49
14:L:8:ARG:CZ	14:L:8:ARG:HB2	2.42	0.49
1:X:1034:U:C2'	1:X:1035:G:H5'	2.42	0.49
2:Y:4:C:C3'	2:Y:4:C:C6	2.96	0.49
1:X:1221:C:H2'	1:X:1222:G:C8	2.48	0.49
13:K:84:ALA:N	13:K:85:PRO:CD	2.76	0.49
4:B:111:LYS:HB2	4:B:160:MET:O	2.13	0.49
5:C:158:ARG:HD3	5:C:169:VAL:HG13	1.95	0.49
12:J:80:ALA:CB	12:J:81:GLU:OE1	2.60	0.49
1:X:756:C:H2'	1:X:757:U:C5'	2.43	0.49
6:D:132:ILE:CG2	6:D:133:LYS:H	2.26	0.49
23:U:31:GLY:HA2	23:U:32:ARG:CZ	2.43	0.49
7:E:131:ILE:CG2	7:E:132:ASP:N	2.76	0.49
1:X:2319:G:O2'	1:X:2320:G:H5'	2.13	0.49
1:X:1710:U:H5'	1:X:1711:C:H5	1.78	0.49
1:X:687:G:C2'	1:X:688:A:C5'	2.75	0.49
1:X:2780:A:O2'	1:X:2781:G:H5'	2.13	0.49
1:X:1820:G:O2'	1:X:1821:A:P	2.71	0.49
21:S:127:PRO:O	21:S:128:ARG:CB	2.61	0.49
21:S:86:VAL:HG12	21:S:87:THR:N	2.21	0.49
1:X:2874:A:H2'	1:X:2875:C:C6	2.48	0.49
1:X:1561:A:H8	1:X:1561:A:O5'	1.95	0.49
6:D:170:LEU:HB3	6:D:175:LEU:CD2	2.43	0.49
1:X:967:G:O6	12:J:17:ARG:NH2	2.45	0.49

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:84:THR:HB	7:E:134:SER:OG	2.13	0.49
12:J:28:VAL:CG2	12:J:135:ARG:HA	2.42	0.49
1:X:1102:G:H2'	1:X:1103:C:H6	1.78	0.49
4:B:120:TRP:CE2	4:B:155:ARG:HD2	2.48	0.49
1:X:847:C:H2'	1:X:848:A:H8	1.77	0.49
1:X:2234:G:H2'	1:X:2235:G:O4'	2.13	0.49
5:C:62:LYS:HD3	5:C:62:LYS:C	2.33	0.49
5:C:62:LYS:HD3	5:C:63:GLY:N	2.28	0.49
1:X:1670:G:H4'	1:X:1671:A:OP1	2.13	0.49
3:A:172:TYR:HA	3:A:186:HIS:HA	1.94	0.48
3:A:68:LYS:H	3:A:68:LYS:CD	2.26	0.48
1:X:2763:U:O2'	1:X:2764:U:H5'	2.13	0.48
14:L:70:ALA:O	14:L:74:ALA:HB2	2.12	0.48
2:Y:27:A:N6	2:Y:56:G:OP2	2.46	0.48
8:F:120:VAL:C	8:F:122:ALA:N	2.67	0.48
17:O:95:ILE:HG22	17:O:96:LEU:N	2.28	0.48
1:X:1174:G:C2	1:X:1175:A:C5	3.00	0.48
23:U:35:THR:O	23:U:35:THR:HG22	2.12	0.48
1:X:2797:G:H2'	1:X:2798:A:C5'	2.43	0.48
6:D:9:ASN:O	6:D:14:PRO:HD2	2.12	0.48
19:Q:49:ARG:HD3	19:Q:83:ALA:HB2	1.94	0.48
21:S:64:ALA:CB	21:S:85:MET:HA	2.43	0.48
1:X:2344:G:H4'	22:T:60:PHE:CE1	2.48	0.48
1:X:39:C:H2'	1:X:40:U:H6	1.78	0.48
1:X:494:A:O2'	20:R:68:GLY:HA2	2.13	0.48
1:X:1927:U:O2'	1:X:1928:G:OP1	2.29	0.48
26:Z:31:THR:CG2	26:Z:32:GLU:N	2.76	0.48
21:S:103:ARG:HH21	21:S:108:VAL:HG22	1.76	0.48
1:X:2223:U:H2'	1:X:2224:U:O4'	2.13	0.48
1:X:1448:A:H2'	1:X:1449:C:O4'	2.13	0.48
1:X:1625:A:H1'	1:X:1632:A:H1'	1.93	0.48
1:X:744:C:N4	1:X:745:C:H41	2.11	0.48
1:X:1525:A:C5	1:X:1526:U:H1'	2.47	0.48
1:X:1944:C:H2'	1:X:1945:C:O4'	2.13	0.48
1:X:187:U:O2'	1:X:188:G:H5'	2.13	0.48
1:X:239:A:H2	1:X:443:A:N3	2.10	0.48
7:E:70:THR:O	7:E:74:ASN:ND2	2.46	0.48
1:X:221:A:H2'	1:X:222:G:O4'	2.12	0.48
3:A:70:ARG:NE	3:A:190:TYR:CE2	2.81	0.48
20:R:93:ARG:NH2	20:R:108:VAL:CA	2.75	0.48
1:X:2594:U:H2'	1:X:2595:C:C6	2.48	0.48

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:38:GLU:HB3	6:D:87:ILE:CB	2.41	0.48
9:G:40:ASN:HB3	9:G:78:ASP:OD1	2.13	0.48
9:G:61:ARG:NH2	9:G:78:ASP:OD2	2.45	0.48
7:E:103:LEU:HD23	7:E:115:ILE:HD12	1.94	0.48
6:D:16:LEU:O	6:D:19:GLN:N	2.46	0.48
14:L:89:PHE:N	14:L:89:PHE:CD1	2.80	0.48
1:X:2273:C:H5'	14:L:95:LYS:CD	2.43	0.48
15:M:101:ARG:O	15:M:103:LYS:N	2.46	0.48
15:M:34:ARG:NH2	15:M:88:VAL:CG1	2.68	0.48
1:X:1372:A:H3'	1:X:1373:G:H8	1.78	0.48
1:X:467:U:HO2'	1:X:468:A:P	2.36	0.48
9:G:96:ASP:OD1	9:G:97:ASP:N	2.43	0.48
1:X:1153:A:O2'	1:X:1154:A:H3'	2.13	0.48
11:I:80:LEU:HD21	11:I:89:ASP:OD1	2.13	0.48
1:X:2706:U:O2'	1:X:2707:G:P	2.71	0.48
1:X:4:C:C2	1:X:2874:A:C2	3.01	0.48
1:X:1869:A:H2'	1:X:1870:U:O4'	2.13	0.48
7:E:85:ILE:N	7:E:133:VAL:O	2.45	0.48
10:H:118:LEU:HD12	10:H:118:LEU:N	2.28	0.48
7:E:27:LYS:HG2	7:E:32:GLU:CB	2.43	0.48
9:G:75:ILE:HG21	9:G:144:MET:CG	2.43	0.48
1:X:1685:A:H61	1:X:1693:A:H61	1.59	0.48
11:I:81:GLN:HB3	11:I:114:ILE:CG2	2.42	0.48
19:Q:84:GLU:HA	19:Q:84:GLU:OE2	2.13	0.48
1:X:1238:A:C6	1:X:1239:A:N1	2.81	0.48
19:Q:76:LYS:CG	19:Q:76:LYS:O	2.59	0.48
1:X:824:U:O2	1:X:1263:G:H3'	2.13	0.48
3:A:78:LYS:HG2	3:A:116:THR:HG22	1.94	0.48
1:X:2394:G:H2'	1:X:2395:C:H6	1.78	0.48
1:X:98:U:C2	1:X:100:G:C5	3.02	0.48
1:X:2462:C:H2'	1:X:2463:G:O4'	2.13	0.48
2:Y:50:U:O3'	14:L:97:HIS:CD2	2.66	0.48
2:Y:34:C:H2'	2:Y:35:C:H6	1.74	0.48
17:O:11:GLN:HA	17:O:38:LEU:O	2.13	0.48
7:E:148:VAL:C	7:E:150:LYS:H	2.15	0.48
1:X:2824:C:P	15:M:100:ARG:NH1	2.86	0.48
21:S:71:MET:HB2	21:S:78:PRO:HA	1.90	0.48
1:X:1151:U:C5'	1:X:1153:A:C5'	2.91	0.48
1:X:1450:G:C4	1:X:1573:G:N2	2.81	0.48
18:P:45:ILE:CD1	18:P:57:LEU:HG	2.35	0.48
16:N:21:ALA:CB	16:N:24:PHE:CD2	2.96	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2551:A:C4	4:B:144:ARG:NH1	2.81	0.48
1:X:739:G:O2'	1:X:740:A:O5'	2.32	0.48
1:X:1147:G:H2'	1:X:1148:G:C8	2.46	0.48
10:H:60:PRO:O	10:H:61:ARG:CB	2.56	0.48
1:X:584:A:OP2	1:X:2038:C:C5	2.66	0.48
4:B:169:ASN:OD1	4:B:204:ALA:CB	2.61	0.48
1:X:1982:C:H5''	1:X:2703:C:O2'	2.13	0.48
1:X:187:U:H2'	1:X:188:G:H8	1.77	0.48
1:X:165:G:H2'	1:X:166:G:C5'	2.42	0.48
1:X:1162:A:O2'	1:X:1163:C:H5'	2.13	0.48
1:X:1177:U:H2'	1:X:1178:C:C6	2.48	0.48
1:X:2608:A:O2'	1:X:2609:G:P	2.71	0.48
20:R:95:ARG:O	20:R:96:LYS:HB3	2.13	0.48
6:D:150:ARG:HH11	6:D:150:ARG:HG3	1.79	0.48
6:D:158:THR:C	6:D:160:ALA:N	2.67	0.48
6:D:30:ARG:O	6:D:158:THR:CB	2.61	0.48
1:X:2272:A:P	14:L:18:ARG:HH12	2.36	0.48
1:X:1354:A:C2'	1:X:1410:U:O2'	2.62	0.48
21:S:24:TYR:HB3	21:S:29:ASN:HA	1.95	0.48
7:E:54:ARG:HE	7:E:57:ASP:HB3	1.77	0.48
5:C:104:LEU:O	5:C:108:ILE:N	2.43	0.48
21:S:71:MET:CE	21:S:71:MET:H	2.26	0.48
3:A:251:GLY:CA	3:A:255:LYS:HD2	2.43	0.48
1:X:38:G:H21	5:C:42:THR:HG21	1.77	0.48
21:S:154:LEU:HD11	21:S:160:LEU:CG	2.35	0.48
1:X:1979:C:H2'	1:X:1980:A:O4'	2.11	0.48
21:S:103:ARG:NH2	21:S:108:VAL:HG22	2.27	0.48
1:X:2873:G:H21	9:G:162:LYS:HZ3	1.58	0.48
1:X:1575:C:H4'	1:X:1576:G:OP1	2.12	0.48
1:X:939:C:H5''	1:X:940:G:C5'	2.43	0.48
13:K:36:THR:N	13:K:111:ALA:O	2.41	0.48
14:L:21:THR:CG2	14:L:22:ALA:N	2.75	0.48
1:X:584:A:OP2	1:X:2038:C:H5	1.96	0.48
1:X:1011:A:H2'	1:X:1012:A:O4'	2.14	0.48
1:X:1423:A:O2'	1:X:1424:U:H5'	2.13	0.48
3:A:150:GLY:C	3:A:152:GLY:N	2.67	0.48
5:C:163:ASN:ND2	5:C:166:TRP:HB2	2.28	0.48
20:R:29:HIS:CD2	20:R:51:VAL:HG22	2.49	0.48
1:X:98:U:H1'	1:X:100:G:C5	2.48	0.48
1:X:318:G:N2	1:X:320:A:H3'	2.29	0.48
1:X:2726:U:C2'	1:X:2727:G:H5'	2.43	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:17:SER:C	21:S:36:ARG:HB2	2.34	0.48
21:S:3:LEU:HB2	21:S:34:LEU:HB3	1.94	0.48
15:M:104:LEU:C	15:M:106:TYR:N	2.64	0.48
15:M:55:ILE:O	15:M:56:ALA:HB2	2.13	0.48
15:M:26:ASP:O	15:M:27:PHE:CG	2.67	0.48
24:V:24:GLU:HG2	24:V:28:LEU:HD21	1.95	0.48
21:S:71:MET:CA	21:S:78:PRO:HA	2.44	0.48
1:X:1807:A:OP2	1:X:1814:G:H5''	2.13	0.48
1:X:2058:U:C4	1:X:2217:G:C6	3.02	0.48
1:X:1404:C:C2	1:X:1406:A:N7	2.82	0.48
11:I:92:THR:O	11:I:93:LEU:C	2.51	0.48
1:X:1153:A:C4	1:X:1155:G:N7	2.82	0.48
6:D:111:ILE:HA	6:D:137:ILE:HG21	1.95	0.48
5:C:145:THR:O	5:C:145:THR:HG22	2.12	0.48
1:X:1525:A:H3'	1:X:1526:U:O4'	2.13	0.48
1:X:828:C:O2'	1:X:829:C:H5'	2.13	0.48
18:P:18:VAL:HG12	18:P:19:LYS:N	2.28	0.48
12:J:113:GLU:C	12:J:115:ALA:N	2.67	0.48
7:E:12:PRO:O	7:E:15:VAL:HG13	2.13	0.48
1:X:1933:G:N7	1:X:1934:U:C5	2.81	0.48
4:B:47:VAL:O	4:B:80:GLU:HA	2.13	0.48
1:X:1701:C:H5''	1:X:1701:C:C6	2.49	0.48
3:A:262:LYS:O	3:A:263:ARG:C	2.51	0.48
1:X:2195:C:C4	1:X:2196:U:N3	2.82	0.48
12:J:125:LYS:HB3	12:J:125:LYS:NZ	2.06	0.48
12:J:116:LYS:HZ2	12:J:132:MET:HB3	1.78	0.48
9:G:103:TYR:CE2	9:G:111:LYS:HB3	2.49	0.48
6:D:80:ARG:CD	6:D:80:ARG:N	2.76	0.48
1:X:2291:U:O2'	1:X:2292:C:H5'	2.14	0.48
23:U:34:THR:OG1	23:U:35:THR:N	2.41	0.48
7:E:92:VAL:O	7:E:94:PHE:CD1	2.67	0.48
21:S:31:SER:O	21:S:32:PHE:CD2	2.67	0.48
10:H:25:LEU:HD11	10:H:52:VAL:HG23	1.96	0.48
10:H:25:LEU:CD1	10:H:52:VAL:HG23	2.44	0.48
12:J:11:ARG:NH2	12:J:15:ARG:NH2	2.57	0.48
21:S:93:GLU:HA	21:S:125:PRO:HD3	1.95	0.48
1:X:2759:U:H5''	1:X:2760:G:H5''	1.95	0.48
12:J:39:GLU:HG2	12:J:40:PRO:CD	2.43	0.48
7:E:9:ILE:HD12	7:E:50:LEU:C	2.34	0.48
1:X:1118:G:C6	1:X:1119:U:C4	3.01	0.48
1:X:1443:G:O2'	1:X:1444:C:H5'	2.13	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2015:G:C4	4:B:145:LYS:HD3	2.48	0.48
1:X:937:C:O2'	1:X:938:G:H5'	2.13	0.48
1:X:716:U:H2'	1:X:717:G:O4'	2.12	0.48
1:X:422:C:H2'	1:X:423:G:H8	1.79	0.48
18:P:13:GLN:HA	18:P:16:GLN:OE1	2.13	0.48
10:H:28:GLY:CA	10:H:35:THR:OG1	2.62	0.48
1:X:610:G:H2'	1:X:611:C:O4'	2.13	0.48
1:X:2475:C:H2'	1:X:2476:A:H5'	1.94	0.48
30:4:15:LYS:O	30:4:26:ILE:HG12	2.13	0.48
1:X:2790:C:H2'	1:X:2791:C:C6	2.48	0.48
12:J:112:GLU:O	12:J:115:ALA:HB3	2.13	0.48
4:B:16:LYS:HB2	4:B:21:ILE:CD1	2.44	0.48
10:H:85:ASP:OD2	10:H:87:SER:HB3	2.14	0.48
1:X:573:C:H2'	1:X:574:C:O4'	2.14	0.48
1:X:597:U:H2'	1:X:598:U:C6	2.49	0.48
1:X:137:A:H8	1:X:137:A:OP2	1.95	0.48
1:X:1051:U:C2'	1:X:1052:C:O4'	2.59	0.48
1:X:2371:A:H2'	1:X:2372:A:O4'	2.12	0.48
12:J:125:LYS:H	12:J:125:LYS:HD2	1.78	0.48
1:X:531:G:O2'	1:X:532:A:C5'	2.61	0.48
2:Y:56:G:H2'	2:Y:57:U:O4'	2.14	0.48
9:G:34:PRO:C	9:G:35:LYS:HE2	2.34	0.48
9:G:67:ARG:HA	9:G:68:PRO:HD3	1.73	0.48
9:G:79:PHE:HA	9:G:147:ARG:HB3	1.96	0.48
16:N:117:ARG:HH21	16:N:117:ARG:HG3	1.77	0.48
6:D:4:LEU:CG	6:D:5:LYS:N	2.76	0.48
14:L:13:THR:O	14:L:17:VAL:HG12	2.14	0.48
1:X:558:G:H8	1:X:559:C:C4	2.31	0.48
1:X:1467:U:C6	1:X:1467:U:H5''	2.48	0.48
21:S:40:ASP:N	21:S:40:ASP:OD2	2.45	0.48
1:X:2674:C:H2'	1:X:2675:U:H6	1.78	0.48
21:S:91:PRO:C	21:S:92:VAL:HG22	2.34	0.48
1:X:1404:C:H5'	1:X:1405:A:OP2	2.13	0.48
1:X:2485:U:O2	1:X:2485:U:H2'	2.14	0.48
30:4:22:ARG:CG	30:4:22:ARG:NH1	2.74	0.48
14:L:30:SER:C	14:L:31:VAL:CG1	2.82	0.48
3:A:131:LEU:HD21	3:A:193:ILE:CG1	2.43	0.48
1:X:1563:U:H2'	1:X:1564:U:H6	1.77	0.48
1:X:2642:G:H2'	1:X:2643:G:H5'	1.96	0.48
23:U:22:GLY:HA3	23:U:39:LYS:HE2	1.95	0.48
1:X:2475:C:O2'	1:X:2476:A:H5'	2.14	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2658:A:O2'	1:X:2659:C:H5'	2.13	0.48
5:C:73:SER:HA	5:C:80:GLY:HA2	1.95	0.48
1:X:134:G:C2	1:X:136:A:H5''	2.44	0.48
1:X:333:A:O4'	1:X:351:A:H1'	2.14	0.48
20:R:49:GLU:HA	20:R:73:GLU:OE2	2.14	0.48
1:X:2322:U:C2'	1:X:2323:U:C6	2.96	0.48
16:N:93:LYS:O	16:N:94:VAL:CB	2.61	0.48
16:N:93:LYS:CD	17:O:5:ILE:HG22	2.32	0.48
1:X:1174:G:N2	1:X:1175:A:C4	2.82	0.48
7:E:97:LYS:O	7:E:98:LEU:CB	2.59	0.48
14:L:89:PHE:CD1	14:L:91:ARG:NH2	2.82	0.48
3:A:49:ILE:HD11	3:A:52:ARG:HA	1.96	0.48
2:Y:15:A:C2	2:Y:71:G:H2'	2.49	0.48
1:X:2698:G:H4'	15:M:103:LYS:HG2	1.95	0.48
1:X:2824:C:O2'	1:X:2825:A:P	2.72	0.48
1:X:2706:U:O2	1:X:2706:U:C2'	2.60	0.48
1:X:2262:C:C2	1:X:2368:G:C2	3.02	0.48
1:X:1218:C:O4'	11:I:13:ARG:NH1	2.44	0.48
23:U:17:SER:OG	23:U:44:ALA:HA	2.13	0.48
1:X:1873:A:H2'	1:X:1874:G:O4'	2.13	0.48
1:X:460:U:O2'	5:C:78:VAL:HG13	2.13	0.48
7:E:85:ILE:HG22	7:E:86:ASN:N	2.29	0.48
1:X:1064:C:H2'	1:X:1065:A:O4'	2.14	0.48
14:L:85:LYS:HE3	14:L:86:GLN:NE2	2.21	0.48
1:X:2392:G:H2'	1:X:2393:G:O4'	2.13	0.48
1:X:698:A:C8	1:X:787:A:C6	3.01	0.48
1:X:826:U:H2'	1:X:827:C:H6	1.76	0.48
1:X:1952:A:H1'	1:X:1956:G:O4'	2.13	0.48
10:H:92:ASP:OD2	15:M:69:ARG:NH2	2.45	0.48
1:X:2665:G:C2	1:X:2704:U:O2	2.66	0.48
4:B:105:THR:HG23	4:B:197:VAL:HB	1.96	0.48
21:S:112:LEU:O	21:S:172:LEU:N	2.46	0.48
24:V:60:LEU:O	24:V:62:ARG:N	2.47	0.48
1:X:135:U:O2'	1:X:136:A:C1'	2.62	0.48
1:X:623:G:H2'	1:X:626:A:N6	2.29	0.48
1:X:333:A:H5'	5:C:162:ARG:CD	2.43	0.48
1:X:338:G:H1'	20:R:10:HIS:HE1	1.79	0.48
11:I:64:GLY:O	11:I:65:PHE:CB	2.61	0.48
1:X:1087:C:OP1	8:F:89:SER:O	2.32	0.48
20:R:108:VAL:CG1	20:R:109:ALA:N	2.56	0.48
20:R:80:LYS:NZ	20:R:82:ALA:HA	2.27	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:Y:58:G:H4'	2:Y:59:A:H5''	1.95	0.48
17:O:42:GLY:C	17:O:44:GLN:H	2.17	0.48
19:Q:42:ILE:O	19:Q:42:ILE:HD12	2.14	0.48
19:Q:55:THR:O	19:Q:56:MET:HG2	2.14	0.48
1:X:1354:A:H4'	19:Q:56:MET:HG2	1.95	0.48
1:X:632:A:H2'	1:X:633:G:C5'	2.43	0.48
5:C:108:ILE:O	5:C:109:ALA:C	2.52	0.48
5:C:190:ALA:C	5:C:192:ALA:N	2.67	0.48
5:C:20:PRO:HG2	5:C:21:GLU:H	1.78	0.48
5:C:30:VAL:HG11	5:C:177:VAL:HG21	1.95	0.48
12:J:15:ARG:HH11	12:J:15:ARG:HG3	1.79	0.48
19:Q:68:PHE:O	19:Q:69:ILE:C	2.51	0.48
21:S:91:PRO:HG2	21:S:92:VAL:H	1.79	0.48
1:X:2759:U:H5''	1:X:2760:G:H3'	1.95	0.48
1:X:38:G:H21	5:C:42:THR:CG2	2.27	0.48
1:X:453:U:H2'	1:X:454:G:C8	2.48	0.48
13:K:12:ARG:HG3	13:K:17:ARG:HD3	1.94	0.48
5:C:66:ASN:O	5:C:67:ALA:HB2	2.14	0.48
6:D:100:LEU:O	6:D:104:ILE:HG13	2.13	0.48
16:N:24:PHE:HB2	16:N:29:SER:HB3	1.96	0.48
4:B:25:VAL:CG1	15:M:16:ILE:HD12	2.43	0.48
1:X:48:A:H1'	1:X:50:G:C2	2.48	0.48
1:X:1302:C:H2'	1:X:1303:U:H6	1.78	0.48
1:X:1808:C:C5	3:A:62:TYR:CD2	3.01	0.48
16:N:88:ILE:HG23	17:O:49:GLU:CG	2.44	0.48
1:X:1415:C:O2'	1:X:1416:A:H5'	2.14	0.48
2:Y:106:U:O3'	21:S:67:LYS:NZ	2.47	0.48
1:X:2442:C:O2'	1:X:2443:C:H5'	2.14	0.48
4:B:16:LYS:HB3	4:B:21:ILE:HD11	1.96	0.48
14:L:43:ILE:HG23	14:L:49:GLN:O	2.14	0.48
18:P:78:ASN:O	18:P:79:ALA:C	2.52	0.48
18:P:85:MET:HE2	18:P:130:GLU:CG	2.44	0.48
1:X:669:G:H2'	1:X:670:U:O4'	2.14	0.48
1:X:24:G:C2	1:X:25:U:C2	3.01	0.48
1:X:2749:A:H2'	1:X:2750:G:O4'	2.14	0.48
24:V:65:GLU:O	24:V:66:GLN:HB2	2.13	0.48
3:A:262:LYS:C	3:A:264:LYS:N	2.66	0.48
1:X:1086:C:H2'	1:X:1086:C:O2	2.13	0.48
1:X:1278:A:H2	1:X:1997:A:H62	1.61	0.48
1:X:2006:G:N2	1:X:2024:U:C2	2.81	0.48
6:D:56:GLU:O	6:D:57:LEU:C	2.52	0.48

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:80:ARG:N	6:D:80:ARG:HD2	2.28	0.48
9:G:69:ASP:O	16:N:64:ARG:NE	2.46	0.48
6:D:13:ARG:CG	6:D:17:MET:HE1	2.44	0.48
21:S:24:TYR:HB2	21:S:29:ASN:OD1	2.14	0.48
1:X:1745:C:P	15:M:101:ARG:NH2	2.87	0.48
1:X:742:G:C6	3:A:208:LYS:HB3	2.49	0.48
19:Q:72:ARG:C	19:Q:73:ASN:OD1	2.53	0.48
21:S:91:PRO:CG	21:S:92:VAL:H	2.27	0.48
12:J:64:LYS:HB3	12:J:108:ALA:HB3	1.94	0.48
1:X:37:C:H2'	1:X:38:G:C8	2.48	0.48
1:X:2239:C:H2'	1:X:2240:C:H6	1.77	0.48
6:D:166:ALA:C	6:D:170:LEU:HG	2.33	0.48
1:X:2309:G:H2'	1:X:2310:G:C5'	2.40	0.48
1:X:857:U:H2'	1:X:858:G:O4'	2.14	0.48
18:P:62:ARG:HG3	18:P:62:ARG:NH1	2.29	0.48
1:X:230:C:O2'	1:X:231:G:H5'	2.13	0.48
15:M:24:LEU:C	15:M:25:PRO:O	2.51	0.48
1:X:2522:G:H2'	1:X:2523:G:C8	2.48	0.48
12:J:113:GLU:O	12:J:115:ALA:N	2.47	0.48
1:X:2659:C:N4	1:X:2660:C:H41	2.12	0.48
1:X:2235:G:N2	1:X:2254:C:N4	2.61	0.48
9:G:127:ILE:O	9:G:128:GLU:C	2.51	0.48
1:X:2528:G:C2	1:X:2529:G:N7	2.82	0.48
1:X:1838:G:H3'	1:X:1839:A:H8	1.79	0.48
1:X:412:U:H5	23:U:68:ARG:HH11	1.62	0.48
3:A:95:LEU:CD1	3:A:105:ILE:HD12	2.37	0.47
1:X:1050:G:C2'	1:X:1051:U:C5'	2.92	0.47
12:J:117:GLU:O	12:J:121:LEU:HG	2.13	0.47
1:X:530:G:O2'	1:X:531:G:H5'	2.14	0.47
1:X:537:C:C1'	1:X:538:A:N6	2.75	0.47
6:D:34:ILE:HD13	6:D:155:THR:O	2.14	0.47
9:G:42:VAL:HG11	9:G:168:THR:OG1	2.14	0.47
9:G:169:GLN:HB2	9:G:170:PRO:CD	2.43	0.47
9:G:67:ARG:HB3	9:G:70:PHE:CB	2.44	0.47
1:X:1175:A:C2	1:X:1176:U:C2	3.02	0.47
1:X:1855:G:C2	1:X:1863:U:O2	2.67	0.47
11:I:72:TYR:CD1	11:I:105:PRO:HG3	2.49	0.47
21:S:3:LEU:HD21	21:S:32:PHE:HB3	1.96	0.47
3:A:213:ARG:C	3:A:215:LEU:N	2.68	0.47
1:X:2257:A:C2'	1:X:2258:G:H5'	2.44	0.47
1:X:39:C:O2	5:C:40:ARG:NH2	2.47	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:74:VAL:O	5:C:75:PRO:C	2.52	0.47
23:U:41:VAL:O	23:U:42:GLN:HB2	2.14	0.47
21:S:123:VAL:HG23	21:S:161:ALA:HA	1.96	0.47
9:G:119:LEU:HD23	9:G:119:LEU:HA	1.48	0.47
1:X:1135:C:H1'	30:4:36:GLN:NE2	2.28	0.47
1:X:33:C:C2'	1:X:34:U:H5''	2.44	0.47
4:B:128:SER:O	4:B:130:GLY:N	2.45	0.47
6:D:97:TYR:HA	6:D:100:LEU:HB3	1.96	0.47
1:X:173:A:N6	1:X:844:G:H21	2.11	0.47
1:X:1194:U:C5'	1:X:1194:U:H6	2.26	0.47
9:G:85:ALA:HB3	9:G:152:ALA:HA	1.95	0.47
1:X:1333:G:H22	1:X:1344:C:H41	1.59	0.47
7:E:33:LEU:CG	7:E:34:THR:N	2.77	0.47
1:X:1982:C:H4'	1:X:2703:C:O2	2.14	0.47
1:X:2040:A:H2'	1:X:2041:A:C8	2.49	0.47
12:J:55:MET:HB3	12:J:65:ILE:HD13	1.96	0.47
1:X:1084:A:H8	1:X:1084:A:O5'	1.96	0.47
3:A:198:ASN:O	3:A:199:ALA:HB3	2.14	0.47
20:R:93:ARG:O	20:R:95:ARG:CD	2.62	0.47
1:X:100:G:O2'	1:X:101:A:P	2.72	0.47
9:G:101:THR:HG23	9:G:102:ARG:N	2.29	0.47
1:X:769:C:C2'	1:X:770:U:H5'	2.45	0.47
6:D:34:ILE:HG23	6:D:154:ILE:CG2	2.44	0.47
6:D:65:PRO:HB3	6:D:89:VAL:CG2	2.42	0.47
8:F:121:GLU:HA	8:F:124:ALA:CB	2.35	0.47
16:N:93:LYS:HD3	17:O:5:ILE:CG2	2.31	0.47
1:X:2725:C:C1'	7:E:143:GLN:HG2	2.38	0.47
1:X:1885:C:C2'	1:X:1886:G:H5'	2.42	0.47
1:X:2247:A:H5''	1:X:2247:A:C8	2.50	0.47
5:C:3:GLN:NE2	5:C:4:ILE:CG1	2.71	0.47
19:Q:11:VAL:HG22	19:Q:28:TRP:CE2	2.49	0.47
19:Q:8:GLN:HE21	19:Q:8:GLN:HA	1.79	0.47
1:X:457:C:O3'	16:N:3:ARG:HD3	2.14	0.47
1:X:2508:G:O5'	1:X:2509:A:H5''	2.14	0.47
11:I:13:ARG:HG2	11:I:14:LYS:N	2.30	0.47
12:J:136:GLU:HA	12:J:138:TYR:HE2	1.79	0.47
9:G:155:THR:C	9:G:157:PRO:HD2	2.35	0.47
9:G:155:THR:CG2	9:G:156:HIS:N	2.77	0.47
1:X:2302:G:H21	1:X:2316:G:H5'	1.79	0.47
1:X:555:U:C5	1:X:1233:A:H3'	2.49	0.47
3:A:79:VAL:HG12	3:A:113:VAL:HG13	1.96	0.47

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:134:ARG:CZ	3:A:135:PHE:CZ	2.97	0.47
13:K:24:GLN:HB3	13:K:44:LEU:HD22	1.95	0.47
4:B:122:PHE:O	4:B:123:ALA:HB2	2.14	0.47
1:X:2633:A:H5''	1:X:2634:G:OP1	2.13	0.47
15:M:82:PRO:O	15:M:84:ALA:N	2.47	0.47
1:X:1235:C:C2	1:X:1241:G:C2	3.02	0.47
1:X:1287:A:N1	1:X:1661:C:O2'	2.44	0.47
10:H:80:ALA:HB1	10:H:88:THR:HG23	1.96	0.47
1:X:2466:G:O2'	1:X:2467:A:H5'	2.14	0.47
3:A:97:TYR:HE2	3:A:103:ARG:HD2	1.78	0.47
5:C:128:ALA:HB2	5:C:159:ARG:NE	2.28	0.47
1:X:2394:G:OP1	11:I:63:ARG:CD	2.62	0.47
1:X:1187:A:OP1	1:X:1187:A:C4'	2.62	0.47
20:R:25:LEU:H	20:R:25:LEU:HD13	1.80	0.47
20:R:93:ARG:O	20:R:95:ARG:NE	2.47	0.47
20:R:96:LYS:CG	20:R:97:GLN:H	2.04	0.47
1:X:540:G:O6	1:X:2006:G:OP1	2.32	0.47
1:X:533:C:H1'	1:X:563:U:O2'	2.14	0.47
1:X:760:U:C4	26:Z:3:LYS:HG3	2.48	0.47
6:D:71:LYS:O	6:D:72:LYS:HB2	2.14	0.47
1:X:731:A:H2'	1:X:732:G:C4'	2.44	0.47
8:F:112:MET:C	8:F:114:ASP:H	2.18	0.47
1:X:1068:A:H2'	1:X:1068:A:N3	2.29	0.47
9:G:148:LEU:O	9:G:149:LYS:HG2	2.14	0.47
23:U:32:ARG:NE	23:U:32:ARG:N	2.33	0.47
19:Q:37:GLU:O	19:Q:40:ASP:HB3	2.14	0.47
1:X:792:U:P	3:A:49:ILE:HG22	2.54	0.47
11:I:105:PRO:O	11:I:106:VAL:HG22	2.14	0.47
22:T:71:ASN:HD22	22:T:77:ARG:CZ	2.28	0.47
24:V:24:GLU:HG2	24:V:28:LEU:CD2	2.44	0.47
12:J:19:THR:HG22	12:J:99:LYS:NZ	2.29	0.47
1:X:1482:U:C2'	1:X:1483:G:C8	2.95	0.47
1:X:591:G:H2'	1:X:592:G:H8	1.75	0.47
4:B:9:ILE:CD1	4:B:27:LEU:HB2	2.36	0.47
4:B:183:LEU:HD21	15:M:16:ILE:CD1	2.37	0.47
1:X:2014:A:C5	1:X:2477:C:H1'	2.50	0.47
1:X:48:A:H1'	1:X:50:G:C4	2.50	0.47
1:X:2310:G:C5	1:X:2311:U:C4	3.02	0.47
1:X:1336:G:O2'	1:X:1337:G:H5'	2.14	0.47
1:X:2178:U:H2'	1:X:2179:C:C6	2.47	0.47
18:P:40:LEU:HD13	18:P:62:ARG:HH12	1.75	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1713:G:C6	1:X:1714:A:C4	3.03	0.47
7:E:22:GLY:O	7:E:24:PHE:CD1	2.68	0.47
1:X:2767:C:H4'	4:B:61:LYS:HG2	1.95	0.47
15:M:5:ILE:HD13	15:M:7:ILE:HB	1.96	0.47
13:K:60:LEU:HG	13:K:64:ARG:HD2	1.94	0.47
13:K:38:LEU:HD12	13:K:38:LEU:O	2.14	0.47
3:A:105:ILE:O	3:A:106:LEU:C	2.52	0.47
5:C:160:ALA:O	5:C:161:ALA:HB2	2.13	0.47
20:R:41:PRO:HG2	20:R:42:ARG:H	1.80	0.47
1:X:564:U:H2'	1:X:565:A:H8	1.76	0.47
21:S:114:ASP:OD2	21:S:115:ILE:N	2.47	0.47
2:Y:53:G:OP2	14:L:64:LYS:NZ	2.47	0.47
9:G:65:LYS:HG2	9:G:66:HIS:N	2.30	0.47
17:O:32:LYS:O	17:O:57:GLN:HA	2.15	0.47
1:X:1002:C:H2'	1:X:1003:C:H6	1.77	0.47
1:X:1002:C:C2	1:X:1003:C:C5	3.02	0.47
23:U:24:ALA:C	23:U:26:ALA:N	2.68	0.47
1:X:75:C:H2'	1:X:76:C:C5'	2.44	0.47
21:S:35:ASP:O	21:S:36:ARG:O	2.32	0.47
5:C:189:ASP:O	5:C:190:ALA:C	2.52	0.47
1:X:2257:A:OP1	12:J:14:PHE:HE2	1.97	0.47
1:X:683:A:H4'	1:X:684:C:H5'	1.97	0.47
1:X:1039:A:N6	1:X:1136:G:H2'	2.30	0.47
1:X:1046:U:H3	1:X:1131:G:H1	1.62	0.47
1:X:2239:C:N3	1:X:2240:C:C5	2.83	0.47
1:X:2652:G:O2'	1:X:2653:A:H5'	2.14	0.47
1:X:1482:U:OP2	1:X:1562:G:O2'	2.31	0.47
7:E:84:THR:HA	7:E:133:VAL:O	2.15	0.47
4:B:144:ARG:O	4:B:148:GLY:HA2	2.14	0.47
22:T:53:MET:HG3	22:T:58:THR:O	2.15	0.47
1:X:1685:A:H4'	1:X:1686:A:O5'	2.15	0.47
1:X:1515:U:O2'	1:X:1516:A:H5'	2.14	0.47
1:X:1498:G:C4	1:X:1523:A:C2	3.02	0.47
2:Y:22:U:H2'	2:Y:23:G:H8	1.80	0.47
21:S:146:HIS:N	21:S:146:HIS:CD2	2.81	0.47
1:X:2550:C:N4	1:X:2553:G:C8	2.83	0.47
1:X:2201:G:H4'	3:A:186:HIS:NE2	2.29	0.47
5:C:144:GLY:CA	5:C:166:TRP:NE1	2.77	0.47
1:X:1186:G:C4	1:X:1187:A:C2	3.03	0.47
20:R:105:ARG:O	20:R:106:VAL:HG13	2.14	0.47
1:X:1142:G:O2'	1:X:1143:A:O5'	2.26	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:759:C:H6	1:X:759:C:C5'	2.15	0.47
21:S:141:MET:HA	21:S:145:ASP:CB	2.44	0.47
6:D:135:GLN:HG3	6:D:151:GLY:CA	2.38	0.47
6:D:81:GLN:HG2	6:D:82:GLY:N	2.29	0.47
2:Y:26:G:H2'	2:Y:58:G:O6	2.14	0.47
17:O:26:GLN:HA	17:O:63:HIS:NE2	2.30	0.47
17:O:5:ILE:HG13	17:O:6:GLN:N	2.28	0.47
1:X:7:G:C2	1:X:8:A:C4	3.03	0.47
4:B:110:GLY:O	13:K:3:HIS:NE2	2.47	0.47
1:X:2357:A:C5'	14:L:26:ARG:HH12	2.28	0.47
1:X:2824:C:P	15:M:100:ARG:HH11	2.38	0.47
1:X:817:A:H2'	1:X:819:C:C4	2.49	0.47
12:J:19:THR:CG2	12:J:99:LYS:HZ2	2.27	0.47
1:X:596:C:H5'	5:C:84:PHE:CD1	2.49	0.47
1:X:682:G:N3	1:X:682:G:C2'	2.78	0.47
1:X:812:G:C4	1:X:813:A:N7	2.82	0.47
9:G:96:ASP:CG	9:G:97:ASP:H	2.18	0.47
6:D:111:ILE:HD13	6:D:137:ILE:HD12	1.95	0.47
1:X:1426:U:H2'	1:X:1427:G:H5'	1.96	0.47
1:X:562:G:OP1	16:N:22:LYS:NZ	2.48	0.47
9:G:157:PRO:C	9:G:159:SER:N	2.68	0.47
1:X:1302:C:H2'	1:X:1303:U:C6	2.49	0.47
3:A:121:PRO:HB2	3:A:135:PHE:CE1	2.48	0.47
1:X:1732:U:O2'	1:X:1733:U:OP1	2.29	0.47
3:A:227:ASN:O	3:A:228:PRO:C	2.52	0.47
30:4:15:LYS:HB2	30:4:26:ILE:CG1	2.43	0.47
1:X:2044:G:H5''	1:X:2482:A:C2	2.49	0.47
15:M:70:LYS:O	15:M:77:VAL:N	2.42	0.47
1:X:810:U:C6	1:X:810:U:H3'	2.49	0.47
23:U:63:SER:O	23:U:66:ALA:N	2.39	0.47
1:X:1802:A:H2'	1:X:1803:G:O4'	2.14	0.47
1:X:1823:G:H2'	1:X:1824:C:C6	2.49	0.47
21:S:53:ASP:OD2	21:S:53:ASP:N	2.47	0.47
5:C:147:LYS:O	5:C:184:ASP:HB2	2.15	0.47
1:X:1675:C:OP1	4:B:134:TRP:CE2	2.68	0.47
1:X:1142:G:O4'	9:G:103:TYR:HD2	1.96	0.47
9:G:35:LYS:O	9:G:36:ASN:HB3	2.15	0.47
16:N:60:LEU:HD11	16:N:64:ARG:CZ	2.45	0.47
17:O:13:ARG:HD2	17:O:15:SER:H	1.79	0.47
23:U:27:ASP:CA	23:U:32:ARG:HH21	2.26	0.47
12:J:42:TRP:CB	12:J:95:VAL:HG11	2.23	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2313:G:H21	14:L:17:VAL:N	2.13	0.47
21:S:39:PHE:CZ	21:S:81:VAL:HG21	2.50	0.47
1:X:873:U:C4	1:X:2247:A:C8	3.03	0.47
24:V:32:ALA:HA	24:V:37:LEU:HB2	1.96	0.47
24:V:37:LEU:HD21	24:V:40:PRO:HA	1.95	0.47
11:I:86:THR:N	11:I:116:ARG:NH1	2.47	0.47
1:X:1978:U:C5'	1:X:1979:C:H5''	2.45	0.47
13:K:45:ARG:HD3	13:K:97:ILE:CD1	2.45	0.47
13:K:98:LEU:HD22	26:Z:56:GLN:HG2	1.92	0.47
4:B:192:ASN:ND2	15:M:9:ARG:NH1	2.57	0.47
1:X:2015:G:C4'	1:X:2016:A:OP1	2.56	0.47
8:F:128:ALA:O	8:F:132:ARG:N	2.48	0.47
1:X:1484:G:H2'	1:X:1485:U:O4'	2.14	0.47
18:P:10:ASN:O	18:P:11:LYS:C	2.52	0.47
7:E:37:TYR:CE2	7:E:68:THR:HG23	2.50	0.47
1:X:1629:G:C5	1:X:1633:C:C5	3.02	0.47
1:X:2064:U:OP2	23:U:39:LYS:NZ	2.48	0.47
2:Y:5:C:H2'	2:Y:6:C:H6	1.78	0.47
1:X:2440:C:H2'	1:X:2441:U:C6	2.45	0.47
1:X:1982:C:OP1	1:X:2704:U:H5'	2.14	0.47
1:X:2817:A:C2	1:X:2851:G:C2	3.02	0.47
1:X:1264:C:H5''	16:N:13:ARG:NE	2.27	0.47
1:X:820:U:H2'	1:X:821:A:H8	1.79	0.47
16:N:92:ARG:HH11	16:N:92:ARG:HG3	1.79	0.47
1:X:1790:G:H5''	3:A:261:ARG:NH2	2.29	0.47
1:X:1053:G:C6	1:X:1054:C:C4	3.03	0.47
1:X:334:G:H2'	5:C:162:ARG:O	2.15	0.47
11:I:61:PRO:HG3	29:3:27:SER:CA	2.44	0.47
11:I:56:LEU:O	11:I:57:ILE:C	2.52	0.47
20:R:16:PHE:HZ	20:R:46:VAL:CG2	2.28	0.47
4:B:37:LYS:HE2	4:B:44:TYR:OH	2.14	0.47
1:X:538:A:H2'	1:X:2025:A:C2	2.47	0.47
1:X:2598:C:C4'	4:B:150:VAL:HG22	2.45	0.47
23:U:10:LYS:HZ3	23:U:70:LEU:CD1	2.28	0.47
23:U:62:LEU:CD2	23:U:67:LEU:HD12	2.34	0.47
1:X:2074:U:P	1:X:2075:U:H3'	2.55	0.47
21:S:100:THR:CG2	21:S:101:THR:N	2.78	0.47
1:X:2265:A:H4'	1:X:2266:A:C5'	2.45	0.47
2:Y:38:C:H6	2:Y:38:C:OP2	1.97	0.47
9:G:36:ASN:CG	9:G:37:ASP:H	2.18	0.47
16:N:66:ASN:HB2	16:N:76:TYR:H	1.78	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:64:GLY:HA3	17:O:90:PHE:CE1	2.49	0.47
16:N:106:PHE:O	16:N:110:VAL:HG23	2.15	0.47
17:O:57:GLN:HE21	17:O:98:ILE:HG13	1.79	0.47
23:U:24:ALA:C	23:U:26:ALA:H	2.12	0.47
1:X:2726:U:H2'	1:X:2727:G:C5'	2.44	0.47
7:E:102:ALA:HB1	7:E:115:ILE:O	2.15	0.47
2:Y:11:G:OP1	14:L:16:LYS:HD3	2.14	0.47
19:Q:32:LYS:O	19:Q:33:ALA:HB2	2.15	0.47
11:I:71:THR:HB	11:I:104:ARG:CD	2.40	0.47
21:S:16:GLU:O	21:S:18:MET:HG2	2.15	0.47
21:S:6:LYS:CB	21:S:31:SER:O	2.63	0.47
21:S:2:GLU:O	21:S:3:LEU:C	2.52	0.47
15:M:34:ARG:NH1	15:M:81:PHE:CB	2.67	0.47
1:X:2779:C:H2'	1:X:2780:A:O4'	2.14	0.47
24:V:21:ARG:O	24:V:24:GLU:N	2.41	0.47
1:X:689:A:H8	1:X:2422:C:H1'	1.78	0.47
9:G:93:LYS:CG	9:G:96:ASP:HB3	2.45	0.47
1:X:1031:C:O2'	1:X:1032:A:P	2.73	0.47
1:X:2507:U:O3'	1:X:2508:G:H8	1.98	0.47
8:F:83:GLY:O	8:F:84:ILE:C	2.48	0.47
1:X:555:U:C5	1:X:1233:A:H2'	2.49	0.47
1:X:455:A:C2	1:X:1258:G:N3	2.81	0.47
3:A:79:VAL:O	3:A:114:GLY:N	2.47	0.47
1:X:827:C:H2'	1:X:828:C:O5'	2.15	0.47
11:I:130:ILE:HG23	11:I:140:VAL:CB	2.44	0.47
1:X:2610:G:N3	1:X:2785:A:H2	2.13	0.47
1:X:1004:A:C2'	1:X:1005:U:H5'	2.45	0.47
1:X:1198:C:H6	1:X:1198:C:O5'	1.98	0.47
1:X:1246:G:C5	1:X:1247:U:C5	3.03	0.47
1:X:708:G:OP1	1:X:1393:G:O2'	2.32	0.47
19:Q:5:ASP:OD2	19:Q:5:ASP:N	2.47	0.47
1:X:1048:U:H6	1:X:1048:U:O5'	1.98	0.47
1:X:2738:A:C2'	1:X:2739:G:H5'	2.45	0.47
1:X:1142:G:O4'	9:G:107:GLN:HG3	2.15	0.47
23:U:70:LEU:HD23	23:U:74:PRO:HA	1.96	0.47
14:L:107:ALA:O	14:L:109:GLU:N	2.46	0.47
1:X:1090:C:H5	1:X:1099:A:OP1	1.98	0.47
17:O:33:VAL:HA	17:O:56:VAL:O	2.14	0.47
10:H:89:ILE:HG12	15:M:79:ARG:HD3	1.97	0.47
2:Y:10:U:O2'	14:L:28:ARG:NH2	2.48	0.47
1:X:1407:G:H4'	1:X:1619:A:H4'	1.96	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1474:A:H1'	1:X:1475:U:H5'	1.95	0.47
1:X:2823:G:O2'	1:X:2824:C:O5'	2.32	0.47
5:C:31:VAL:O	5:C:34:GLN:HB2	2.15	0.47
1:X:63:A:C2	1:X:64:C:C6	3.02	0.47
12:J:19:THR:CG2	12:J:20:GLY:H	2.28	0.47
3:A:153:ALA:O	3:A:154:GLN:CG	2.63	0.47
1:X:1818:G:C5	1:X:1819:U:C5	3.03	0.47
1:X:1548:U:H2'	1:X:1549:C:C6	2.50	0.47
11:I:86:THR:HG1	11:I:118:VAL:HG12	1.79	0.47
1:X:1032:A:H8	1:X:1032:A:H3'	1.80	0.47
1:X:1135:C:H2'	1:X:1136:G:C8	2.49	0.47
4:B:5:LEU:HB2	4:B:31:CYS:SG	2.55	0.47
9:G:162:LYS:H	9:G:163:PRO:CD	2.27	0.47
1:X:1314:A:C2'	1:X:1315:A:H3'	2.45	0.47
26:Z:14:SER:O	26:Z:15:LYS:C	2.53	0.47
5:C:182:ARG:HD3	5:C:183:HIS:CE1	2.50	0.47
3:A:134:ARG:N	3:A:187:SER:HB2	2.30	0.47
10:H:50:ILE:HG22	10:H:51:ILE:N	2.29	0.47
22:T:39:ARG:HG2	22:T:39:ARG:HH11	1.80	0.47
1:X:1238:A:H5'	17:O:85:GLY:N	2.29	0.47
1:X:1726:C:C2	1:X:1741:G:N2	2.83	0.47
10:H:80:ALA:HB2	10:H:90:ARG:HD3	1.96	0.47
1:X:176:A:H2'	1:X:2412:A:H61	1.79	0.47
18:P:100:GLY:O	18:P:101:PRO:O	2.33	0.47
7:E:73:ALA:O	7:E:76:VAL:HB	2.15	0.47
1:X:1496:G:H2'	1:X:1497:C:C6	2.50	0.47
1:X:1156:U:H2'	1:X:1157:G:H8	1.80	0.47
1:X:334:G:H5'	5:C:162:ARG:HE	1.79	0.47
20:R:105:ARG:CZ	20:R:112:LYS:HA	2.44	0.47
14:L:33:ARG:NH1	14:L:103:LEU:CB	2.69	0.47
6:D:8:TYR:O	6:D:12:VAL:HB	2.15	0.47
19:Q:58:VAL:O	19:Q:74:ASP:HA	2.13	0.47
19:Q:7:LEU:HD22	19:Q:7:LEU:O	2.14	0.47
1:X:1807:A:H1'	1:X:1809:G:C8	2.49	0.47
19:Q:12:ILE:O	19:Q:13:SER:O	2.33	0.47
11:I:134:GLU:C	11:I:136:ALA:N	2.67	0.47
1:X:1979:C:O2'	1:X:1980:A:C5'	2.63	0.47
1:X:2262:C:C5	1:X:2368:G:C4	3.03	0.47
1:X:2509:A:N7	7:E:172:LYS:HE2	2.30	0.47
6:D:114:PHE:HZ	6:D:176:PRO:CG	2.27	0.47
1:X:2669:C:N4	1:X:2693:U:O3'	2.48	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:F:79:ARG:HG3	8:F:134:MET:CE	2.45	0.47
3:A:126:LYS:HB2	3:A:129:ASN:ND2	2.30	0.47
1:X:404:A:C5	1:X:405:C:C4	3.02	0.47
7:E:33:LEU:HG	7:E:34:THR:H	1.80	0.47
1:X:1909:U:H5	1:X:1911:A:H62	1.59	0.47
1:X:994:A:H2'	1:X:995:A:O4'	2.15	0.47
1:X:2859:U:H2'	1:X:2860:C:H5'	1.96	0.47
10:H:7:ARG:NH1	10:H:20:MET:HE2	2.30	0.47
1:X:162:C:H2'	1:X:163:A:C8	2.49	0.47
1:X:119:G:H2'	1:X:120:G:H8	1.79	0.47
1:X:136:A:N9	1:X:137:A:C8	2.83	0.47
3:A:70:ARG:HH12	3:A:149:PRO:C	2.18	0.47
3:A:150:GLY:C	3:A:152:GLY:H	2.16	0.47
20:R:22:VAL:HG21	20:R:80:LYS:HZ2	1.79	0.47
12:J:76:THR:HG22	12:J:89:GLY:O	2.14	0.47
18:P:35:PRO:HG2	18:P:99:ALA:HB2	1.96	0.47
1:X:1142:G:O4'	9:G:107:GLN:CG	2.62	0.47
1:X:2073:A:C5	1:X:2074:U:C4	3.03	0.47
6:D:68:THR:HG23	6:D:88:LYS:HB2	1.97	0.47
14:L:60:LYS:HE3	14:L:62:GLY:H	1.80	0.47
1:X:1099:A:H4'	1:X:1100:G:H8	1.80	0.47
7:E:150:LYS:O	7:E:152:ARG:N	2.48	0.47
6:D:126:GLY:O	6:D:160:ALA:HB3	2.14	0.47
6:D:16:LEU:O	6:D:17:MET:C	2.54	0.47
1:X:2174:G:H2'	1:X:2175:A:H8	1.79	0.47
3:A:243:GLY:C	3:A:244:ARG:HD3	2.35	0.47
11:I:71:THR:O	11:I:104:ARG:HB3	2.14	0.47
22:T:71:ASN:ND2	22:T:77:ARG:HD3	2.30	0.47
11:I:76:LYS:HB3	11:I:79:GLN:HE21	1.80	0.47
24:V:52:GLN:O	24:V:54:ASN:N	2.48	0.47
5:C:48:ARG:HH11	5:C:87:LYS:HG3	1.80	0.47
1:X:38:G:HO2'	1:X:39:C:P	2.38	0.47
1:X:467:U:O2	1:X:467:U:C2'	2.63	0.47
1:X:1314:A:C8	1:X:1316:G:C8	3.03	0.47
1:X:651:C:C3'	1:X:652:C:H5''	2.45	0.47
1:X:1598:C:O2'	1:X:1599:G:H5'	2.15	0.47
1:X:1735:G:OP2	1:X:1735:G:C8	2.68	0.47
2:Y:118:G:O2'	2:Y:119:G:H5'	2.15	0.47
1:X:2728:A:O2'	7:E:66:GLY:HA3	2.15	0.47
1:X:801:A:C2'	1:X:802:A:OP2	2.63	0.47
1:X:1025:A:O2'	1:X:1026:U:H5'	2.14	0.47

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:H:62:GLY:O	10:H:65:LYS:NZ	2.43	0.47
1:X:344:G:C2	1:X:345:U:C6	3.03	0.46
1:X:2372:A:H5''	11:I:61:PRO:HB3	1.97	0.46
12:J:125:LYS:NZ	12:J:125:LYS:CB	2.74	0.46
1:X:1166:A:H2'	1:X:1167:A:H5''	1.97	0.46
23:U:49:LYS:HB3	23:U:61:TRP:HE3	1.77	0.46
16:N:99:ALA:HA	16:N:106:PHE:HB2	1.96	0.46
17:O:10:LYS:HE3	17:O:11:GLN:HG2	1.96	0.46
11:I:72:TYR:CE1	11:I:105:PRO:HG3	2.50	0.46
1:X:871:U:H1'	1:X:2248:A:H5'	1.96	0.46
2:Y:68:A:N6	2:Y:110:U:H3'	2.30	0.46
1:X:1744:G:OP1	15:M:100:ARG:CD	2.62	0.46
1:X:2700:U:C2	1:X:2701:A:C8	3.03	0.46
7:E:54:ARG:HE	7:E:57:ASP:CG	2.18	0.46
19:Q:11:VAL:HG23	19:Q:27:PHE:HA	1.96	0.46
19:Q:28:TRP:CE3	19:Q:75:ARG:HB3	2.49	0.46
1:X:2498:U:C5	1:X:2520:A:C6	3.03	0.46
21:S:71:MET:HB2	21:S:77:ALA:O	2.15	0.46
21:S:71:MET:HE2	21:S:71:MET:N	2.30	0.46
1:X:812:G:N1	1:X:813:A:N6	2.63	0.46
26:Z:32:GLU:CG	26:Z:37:HIS:O	2.61	0.46
1:X:692:C:H2'	1:X:693:A:H8	1.79	0.46
1:X:640:C:C4	1:X:641:G:N7	2.83	0.46
9:G:158:HIS:N	9:G:161:GLN:NE2	2.62	0.46
1:X:698:A:C2	1:X:702:A:C6	3.03	0.46
18:P:21:ARG:NH1	18:P:21:ARG:HG3	2.28	0.46
11:I:130:ILE:HG23	11:I:140:VAL:HB	1.95	0.46
13:K:53:THR:O	13:K:53:THR:CG2	2.60	0.46
5:C:101:GLN:C	5:C:103:GLY:N	2.67	0.46
1:X:2628:C:O2'	1:X:2629:U:H5'	2.14	0.46
1:X:167:A:P	1:X:182:G:H22	2.38	0.46
1:X:1358:C:H2'	1:X:1359:G:H5'	1.98	0.46
1:X:1263:G:O2'	1:X:1264:C:H5'	2.14	0.46
1:X:2751:C:H2'	1:X:2752:C:C6	2.50	0.46
1:X:343:A:H1'	1:X:346:C:N4	2.30	0.46
13:K:55:ALA:CB	13:K:79:VAL:HG22	2.45	0.46
1:X:804:C:O2'	1:X:805:G:C5'	2.63	0.46
9:G:147:ARG:O	9:G:149:LYS:HG3	2.15	0.46
7:E:139:GLN:O	7:E:142:GLY:N	2.49	0.46
1:X:2795:A:O3'	13:K:3:HIS:CE1	2.66	0.46
12:J:43:ILE:C	12:J:95:VAL:HG13	2.35	0.46

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:559:C:C2	1:X:560:G:H1'	2.50	0.46
19:Q:46:PHE:CD2	19:Q:88:ILE:HD13	2.51	0.46
1:X:634:G:H2'	1:X:635:C:H6	1.80	0.46
22:T:46:LYS:HB2	22:T:78:PHE:CE2	2.50	0.46
19:Q:75:ARG:HH11	19:Q:75:ARG:HG3	1.79	0.46
1:X:40:U:H2'	1:X:41:G:O4'	2.15	0.46
1:X:451:A:H2'	1:X:452:G:C8	2.50	0.46
21:S:98:VAL:HG11	21:S:168:VAL:HG11	1.97	0.46
1:X:649:G:O2'	1:X:650:U:H5'	2.15	0.46
23:U:45:ASN:OD1	23:U:45:ASN:N	2.48	0.46
3:A:147:LEU:CD2	3:A:155:LEU:HD11	2.35	0.46
1:X:1584:G:C5'	3:A:61:LEU:HG	2.41	0.46
1:X:2812:A:O2'	1:X:2813:G:H5'	2.15	0.46
1:X:2860:C:H2'	1:X:2861:A:O4'	2.15	0.46
1:X:2521:A:H5'	1:X:2522:G:OP1	2.15	0.46
4:B:16:LYS:CB	4:B:21:ILE:HD11	2.45	0.46
7:E:10:ALA:O	7:E:12:PRO:HD2	2.15	0.46
1:X:412:U:C5	23:U:68:ARG:NH1	2.83	0.46
1:X:359:G:H2'	1:X:360:A:H8	1.79	0.46
1:X:1871:G:N3	1:X:1871:G:H3'	2.31	0.46
1:X:2035:G:C2	1:X:2036:G:C8	3.03	0.46
9:G:61:ARG:NE	9:G:65:LYS:CD	2.52	0.46
6:D:29:PRO:HB3	6:D:160:ALA:CA	2.40	0.46
1:X:2170:C:O5'	1:X:2170:C:H6	1.99	0.46
22:T:46:LYS:HZ2	22:T:76:ALA:CB	2.29	0.46
1:X:2781:G:C3'	1:X:2782:G:H5''	2.46	0.46
5:C:112:GLN:O	5:C:116:LYS:HE2	2.15	0.46
24:V:39:GLN:O	24:V:40:PRO:C	2.52	0.46
1:X:2497:A:H5''	1:X:2498:U:OP2	2.16	0.46
1:X:886:A:C4'	12:J:66:TYR:CE2	2.98	0.46
1:X:689:A:N1	1:X:815:A:N1	2.63	0.46
1:X:2240:C:OP2	22:T:17:ASN:OD1	2.32	0.46
1:X:2505:G:C2'	30:4:1:MET:H1	2.28	0.46
6:D:111:ILE:O	6:D:114:PHE:HB3	2.16	0.46
1:X:581:A:C2	1:X:2016:A:C2	3.02	0.46
1:X:1066:G:H2'	1:X:1067:G:C8	2.49	0.46
13:K:20:LEU:O	13:K:21:ALA:C	2.54	0.46
10:H:70:VAL:HG22	10:H:71:LYS:N	2.25	0.46
1:X:891:A:N1	1:X:911:A:C6	2.83	0.46
1:X:235:C:N4	1:X:236:C:N3	2.63	0.46
3:A:70:ARG:HH12	3:A:149:PRO:HA	1.79	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1086:C:C3'	1:X:1087:C:H5''	2.39	0.46
12:J:79:PRO:HG2	12:J:88:LYS:HD2	1.98	0.46
4:B:146:THR:CB	4:B:147:PRO:HD2	2.38	0.46
1:X:1279:G:H1'	1:X:1280:U:H5	1.80	0.46
1:X:1673:C:H2'	1:X:1674:C:H6	1.80	0.46
1:X:1998:A:H1'	26:Z:3:LYS:HG2	1.98	0.46
23:U:78:ILE:O	23:U:79:GLU:O	2.34	0.46
6:D:69:LYS:HE2	6:D:84:PRO:HG3	1.97	0.46
2:Y:54:U:H4'	2:Y:54:U:OP1	2.16	0.46
2:Y:58:G:H5'	6:D:24:SER:OG	2.16	0.46
23:U:23:LYS:HE3	23:U:26:ALA:CA	2.44	0.46
23:U:27:ASP:HA	23:U:32:ARG:CZ	2.42	0.46
7:E:109:TYR:CE1	7:E:152:ARG:CZ	2.98	0.46
7:E:164:PHE:O	7:E:166:GLY:N	2.47	0.46
1:X:357:A:H3'	1:X:358:C:O4'	2.16	0.46
21:S:39:PHE:CE1	21:S:81:VAL:HG11	2.50	0.46
3:A:43:ARG:CZ	3:A:43:ARG:HB3	2.45	0.46
1:X:2257:A:H2'	1:X:2258:G:H5'	1.96	0.46
19:Q:73:ASN:HB2	19:Q:75:ARG:HH12	1.81	0.46
1:X:913:A:H2'	1:X:914:C:O5'	2.16	0.46
14:L:57:ALA:O	14:L:59:LEU:N	2.48	0.46
1:X:2334:C:H6	1:X:2334:C:O5'	1.98	0.46
1:X:1917:C:O2'	1:X:1918:G:H5'	2.15	0.46
1:X:2340:C:C2'	1:X:2341:G:H5'	2.45	0.46
1:X:1228:G:C6	1:X:1229:C:N3	2.84	0.46
16:N:13:ARG:CG	16:N:13:ARG:NH2	2.78	0.46
1:X:122:G:C2'	1:X:123:A:H5''	2.46	0.46
1:X:2738:A:H2'	1:X:2739:G:H5'	1.97	0.46
1:X:834:A:H5''	1:X:835:U:H6	1.81	0.46
13:K:69:ASP:O	13:K:70:ILE:HG12	2.15	0.46
4:B:66:HIS:O	4:B:69:LYS:HB2	2.16	0.46
1:X:1505:U:C2	1:X:1506:C:C5	3.04	0.46
1:X:174:A:C8	1:X:2409:A:N7	2.83	0.46
1:X:1186:G:C6	1:X:1187:A:C6	3.03	0.46
20:R:39:ALA:O	20:R:41:PRO:HD3	2.15	0.46
1:X:86:U:P	20:R:42:ARG:HH21	2.38	0.46
20:R:25:LEU:CG	20:R:81:VAL:HG23	2.46	0.46
14:L:29:LEU:HD13	14:L:75:LEU:HD21	1.98	0.46
14:L:37:HIS:O	14:L:37:HIS:ND1	2.48	0.46
2:Y:56:G:O2'	2:Y:57:U:H5'	2.16	0.46
9:G:61:ARG:HA	9:G:65:LYS:HB2	1.97	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:93:LYS:C	16:N:94:VAL:HG23	2.36	0.46
1:X:2356:A:HO2'	14:L:89:PHE:HE2	1.54	0.46
19:Q:33:ALA:O	19:Q:34:THR:O	2.34	0.46
1:X:2085:G:H2'	1:X:2086:U:C6	2.50	0.46
5:C:106:MET:O	5:C:110:SER:OG	2.33	0.46
12:J:40:PRO:HB3	12:J:99:LYS:HZ2	1.80	0.46
12:J:40:PRO:HG3	12:J:99:LYS:NZ	2.31	0.46
21:S:71:MET:HA	21:S:78:PRO:HA	1.98	0.46
3:A:246:PRO:O	3:A:248:THR:O	2.34	0.46
22:T:50:GLY:O	22:T:62:LEU:HD23	2.14	0.46
19:Q:22:ARG:CZ	19:Q:24:VAL:HG21	2.46	0.46
19:Q:22:ARG:NH1	19:Q:24:VAL:HG21	2.31	0.46
17:O:65:ARG:NH1	17:O:65:ARG:CG	2.77	0.46
1:X:1937:G:N3	1:X:2530:C:H5''	2.30	0.46
16:N:11:ARG:HB3	16:N:15:LYS:NZ	2.30	0.46
1:X:1770:U:O4	1:X:1776:A:C6	2.68	0.46
1:X:1274:C:C2'	1:X:1275:A:O5'	2.63	0.46
25:W:45:LYS:CE	25:W:45:LYS:HA	2.34	0.46
1:X:1065:A:C2'	1:X:1066:G:H5'	2.45	0.46
25:W:1:MET:C	25:W:34:VAL:HG12	2.35	0.46
1:X:946:U:H2'	1:X:947:C:H6	1.79	0.46
1:X:2366:U:H1'	22:T:41:ARG:CZ	2.46	0.46
5:C:145:THR:O	5:C:146:GLU:CD	2.54	0.46
14:L:22:ALA:C	14:L:24:SER:N	2.68	0.46
1:X:1845:A:H2'	1:X:1846:A:H8	1.79	0.46
5:C:33:TRP:HB2	5:C:93:TYR:OH	2.15	0.46
1:X:889:C:H2'	1:X:890:U:C6	2.51	0.46
1:X:1264:C:H5''	16:N:13:ARG:CZ	2.46	0.46
1:X:2399:C:O5'	1:X:2399:C:H6	1.98	0.46
1:X:1651:U:H4'	1:X:1652:G:OP2	2.14	0.46
1:X:136:A:H2'	1:X:137:A:O5'	2.15	0.46
20:R:15:HIS:HD1	20:R:82:ALA:HB2	1.80	0.46
1:X:321:A:OP1	20:R:27:GLY:N	2.49	0.46
12:J:116:LYS:HE2	12:J:132:MET:CE	2.46	0.46
13:K:87:TYR:O	13:K:88:ALA:C	2.53	0.46
4:B:127:ALA:HB2	4:B:135:HIS:HE1	1.81	0.46
18:P:35:PRO:O	18:P:39:ARG:HD3	2.15	0.46
1:X:982:C:H2'	1:X:983:G:O5'	2.15	0.46
8:F:120:VAL:HG12	8:F:124:ALA:HB2	1.98	0.46
9:G:166:LEU:O	9:G:168:THR:HG23	2.14	0.46
9:G:42:VAL:CG1	9:G:43:VAL:N	2.78	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:11:GLN:HE22	17:O:38:LEU:HB3	1.80	0.46
23:U:28:GLY:CA	23:U:32:ARG:HB3	2.39	0.46
14:L:12:ARG:O	14:L:16:LYS:HB2	2.14	0.46
3:A:243:GLY:C	3:A:244:ARG:CZ	2.84	0.46
1:X:2823:G:O2'	1:X:2824:C:OP2	2.34	0.46
5:C:186:LEU:HG	5:C:188:ILE:CG1	2.45	0.46
5:C:28:HIS:CE1	11:I:17:LYS:HA	2.51	0.46
11:I:18:ARG:HB2	11:I:21:ARG:CB	2.38	0.46
24:V:7:ARG:O	24:V:9:LEU:N	2.48	0.46
12:J:61:ARG:HH12	21:S:175:ARG:HD3	1.80	0.46
1:X:2332:G:H2'	1:X:2333:A:O4'	2.15	0.46
20:R:56:LYS:HA	20:R:68:GLY:O	2.16	0.46
1:X:459:A:H1'	1:X:461:A:N6	2.31	0.46
25:W:4:LYS:HD2	25:W:52:GLU:CD	2.36	0.46
1:X:845:U:P	11:I:41:SER:HG	2.39	0.46
1:X:471:A:C2	1:X:481:A:C4	3.04	0.46
11:I:36:GLY:O	11:I:37:GLN:HB2	2.15	0.46
1:X:1182:U:H2'	1:X:1183:C:O4'	2.15	0.46
3:A:92:ILE:CG2	3:A:104:TYR:CD2	2.90	0.46
1:X:1715:A:H4'	1:X:1716:G:O5'	2.16	0.46
1:X:994:A:O2'	1:X:995:A:H5'	2.14	0.46
4:B:67:PHE:CD2	4:B:74:PRO:HA	2.51	0.46
10:H:100:ASN:OD1	10:H:102:GLN:HG2	2.16	0.46
7:E:39:THR:C	7:E:41:LEU:N	2.69	0.46
1:X:2231:G:H2'	1:X:2232:G:O4'	2.14	0.46
1:X:334:G:H3'	5:C:162:ARG:HG2	1.98	0.46
1:X:1188:A:H2'	1:X:1189:G:O5'	2.16	0.46
20:R:85:ASP:CG	20:R:86:PRO:HD3	2.35	0.46
1:X:538:A:H5'	9:G:142:ARG:HH12	1.81	0.46
3:A:181:GLU:HG2	3:A:182:LEU:H	1.79	0.46
14:L:33:ARG:NH1	14:L:99:ARG:O	2.49	0.46
17:O:38:LEU:HD13	17:O:39:PHE:H	1.76	0.46
23:U:28:GLY:O	23:U:31:GLY:N	2.49	0.46
5:C:173:ALA:C	5:C:175:VAL:H	2.19	0.46
3:A:217:ARG:NH2	3:A:218:LYS:HZ3	2.14	0.46
24:V:4:SER:HB3	24:V:7:ARG:CZ	2.46	0.46
1:X:38:G:H2'	1:X:39:C:C6	2.51	0.46
10:H:13:ASN:HD21	10:H:109:ARG:N	2.14	0.46
1:X:458:G:P	16:N:3:ARG:HD3	2.56	0.46
16:N:83:LEU:HD12	16:N:83:LEU:H	1.81	0.46
1:X:428:A:H2'	1:X:429:C:O4'	2.15	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:24:PHE:CE2	16:N:39:LEU:HD21	2.49	0.46
1:X:2215:C:H2'	1:X:2216:G:O4'	2.16	0.46
1:X:1785:A:H2'	1:X:1786:C:C6	2.51	0.46
7:E:76:VAL:C	7:E:78:GLY:N	2.69	0.46
13:K:51:LEU:HD11	13:K:66:VAL:HG13	1.97	0.46
3:A:88:ARG:HH11	3:A:88:ARG:HG3	1.79	0.46
20:R:93:ARG:N	20:R:95:ARG:HH22	2.13	0.46
20:R:92:THR:C	20:R:95:ARG:NH2	2.69	0.46
1:X:2417:U:H2'	1:X:2418:A:OP2	2.16	0.46
6:D:35:VAL:O	6:D:154:ILE:HG13	2.16	0.46
6:D:33:LYS:HD2	6:D:90:THR:HG23	1.98	0.46
17:O:39:PHE:C	17:O:39:PHE:CD1	2.88	0.46
17:O:63:HIS:CE1	17:O:91:THR:HG23	2.51	0.46
23:U:28:GLY:N	23:U:32:ARG:CD	2.77	0.46
1:X:618:A:O2'	1:X:619:A:H5'	2.16	0.46
1:X:931:G:C5	1:X:932:G:C8	3.03	0.46
1:X:2698:G:O2'	1:X:2822:U:OP1	2.34	0.46
24:V:3:PRO:O	24:V:5:GLU:N	2.49	0.46
3:A:161:THR:O	3:A:195:ALA:HB1	2.16	0.46
1:X:462:G:O6	1:X:465:C:OP1	2.33	0.46
26:Z:31:THR:O	26:Z:39:LYS:HA	2.15	0.46
5:C:65:GLY:O	5:C:66:ASN:O	2.33	0.46
18:P:45:ILE:HG12	18:P:53:ALA:HA	1.98	0.46
8:F:82:ALA:HB3	8:F:84:ILE:CD1	2.46	0.46
16:N:50:ARG:O	16:N:51:ARG:C	2.53	0.46
14:L:34:SER:HB2	14:L:94:TYR:CE2	2.50	0.46
1:X:2663:U:N3	1:X:2664:G:C8	2.84	0.46
4:B:123:ALA:O	4:B:124:GLY:C	2.53	0.46
3:A:228:PRO:CD	3:A:235:GLY:H	2.25	0.46
1:X:2728:A:H4'	7:E:66:GLY:O	2.15	0.46
21:S:1:MET:HG3	21:S:52:PHE:CE2	2.51	0.46
18:P:81:HIS:O	18:P:83:ASP:N	2.49	0.46
1:X:573:C:O2	1:X:1266:G:N2	2.48	0.46
1:X:2741:G:O2'	1:X:2742:G:H5'	2.16	0.46
1:X:53:G:C2'	1:X:54:G:O5'	2.63	0.46
3:A:70:ARG:C	3:A:72:LYS:N	2.70	0.46
5:C:126:ALA:C	5:C:127:ASP:CG	2.73	0.46
5:C:138:LYS:C	5:C:140:ASN:H	2.18	0.46
5:C:154:ASP:O	5:C:157:THR:OG1	2.33	0.46
11:I:62:LYS:HG2	11:I:63:ARG:N	2.31	0.46
20:R:15:HIS:O	20:R:82:ALA:CB	2.64	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:G:103:TYR:CG	9:G:111:LYS:HA	2.51	0.46
16:N:25:TRP:O	16:N:26:GLY:O	2.33	0.46
6:D:33:LYS:CG	6:D:157:VAL:HG21	2.45	0.46
14:L:64:LYS:NZ	14:L:66:ASP:OD2	2.48	0.46
7:E:98:LEU:HD11	7:E:101:LYS:N	2.29	0.46
1:X:2274:C:H5	14:L:14:ARG:NH1	2.14	0.46
1:X:1724:C:N3	1:X:1747:G:C6	2.84	0.46
1:X:2671:C:O2'	1:X:2672:U:H5'	2.16	0.46
10:H:23:ARG:HG2	10:H:24:VAL:H	1.80	0.46
1:X:2778:U:H5'	1:X:2779:C:H1'	1.97	0.46
5:C:117:LEU:CD2	5:C:117:LEU:C	2.85	0.46
24:V:31:GLN:O	24:V:32:ALA:C	2.54	0.46
21:S:62:PHE:HB3	21:S:85:MET:CE	2.45	0.46
1:X:1793:A:O5'	1:X:1793:A:H8	1.99	0.46
23:U:41:VAL:O	23:U:42:GLN:OE1	2.33	0.46
1:X:2713:A:N6	4:B:203:LYS:HG2	2.30	0.46
1:X:862:A:H8	1:X:862:A:H5'	1.80	0.46
1:X:2662:C:O2'	1:X:2663:U:H5'	2.15	0.46
5:C:14:THR:O	5:C:15:ILE:CB	2.63	0.46
1:X:1332:G:C2	1:X:1333:G:C2	3.04	0.46
1:X:1226:A:N6	1:X:1249:G:H1'	2.30	0.46
1:X:227:G:O2'	11:I:53:ARG:CZ	2.64	0.46
12:J:53:ILE:O	12:J:57:ARG:HG2	2.15	0.46
12:J:25:GLY:O	12:J:26:ASP:O	2.34	0.46
1:X:734:G:H2'	1:X:735:G:C8	2.50	0.46
1:X:239:A:H2'	1:X:240:U:O4'	2.16	0.46
1:X:1376:C:C2	1:X:1377:G:C8	3.03	0.46
1:X:2397:A:H2'	1:X:2398:U:O4'	2.15	0.46
1:X:1383:C:C2	1:X:1384:G:C8	3.03	0.46
13:K:99:ARG:HG2	13:K:99:ARG:HH11	1.81	0.46
1:X:1053:G:H4'	1:X:1054:C:OP1	2.15	0.46
5:C:153:ASP:HA	5:C:158:ARG:HH21	1.81	0.46
12:J:81:GLU:CG	12:J:82:THR:H	2.22	0.46
6:D:69:LYS:HG2	6:D:84:PRO:HA	1.98	0.46
8:F:110:THR:O	8:F:113:PRO:HD2	2.16	0.46
9:G:148:LEU:HD12	9:G:148:LEU:C	2.33	0.46
9:G:67:ARG:HE	9:G:70:PHE:CB	2.28	0.46
16:N:93:LYS:O	16:N:94:VAL:CG2	2.64	0.46
1:X:352:G:O2'	1:X:353:G:H5'	2.15	0.46
1:X:2700:U:N3	1:X:2701:A:N7	2.64	0.46
1:X:2540:A:O2'	10:H:23:ARG:HD3	2.16	0.46

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:42:GLY:N	3:A:43:ARG:NH1	2.64	0.46
3:A:67:PHE:CB	3:A:153:ALA:H	2.10	0.46
1:X:1807:A:P	1:X:1814:G:H4'	2.56	0.46
19:Q:93:GLY:O	19:Q:94:GLN:C	2.54	0.46
1:X:1325:U:O2'	1:X:1327:C:N4	2.49	0.46
5:C:47:THR:CG2	5:C:85:GLY:H	2.17	0.46
30:4:29:ASN:OD1	30:4:31:LYS:N	2.49	0.46
1:X:2507:U:O2'	1:X:2508:G:H3'	2.16	0.46
6:D:101:GLU:HA	6:D:104:ILE:HD12	1.98	0.46
6:D:163:ASP:HA	6:D:166:ALA:HB3	1.97	0.46
1:X:514:G:N7	18:P:20:LEU:HD21	2.30	0.46
8:F:84:ILE:CG2	8:F:85:GLY:N	2.78	0.46
1:X:1082:G:N2	1:X:1101:U:H5	2.13	0.46
25:W:36:ASP:C	25:W:41:ARG:NH1	2.69	0.46
1:X:944:A:H2'	1:X:945:G:H5'	1.98	0.46
1:X:1801:C:H1'	1:X:2207:G:O2'	2.16	0.46
1:X:1147:G:C4	1:X:1148:G:C8	3.04	0.46
1:X:2334:C:O2'	22:T:39:ARG:NE	2.49	0.46
1:X:1914:U:O2'	1:X:1915:A:H5'	2.15	0.46
2:Y:4:C:H2'	2:Y:5:C:H5'	1.96	0.46
21:S:1:MET:CE	21:S:52:PHE:HB3	2.44	0.46
18:P:83:ASP:O	18:P:84:GLU:C	2.54	0.46
15:M:11:GLU:O	15:M:12:LEU:C	2.53	0.46
10:H:10:VAL:HA	10:H:96:ALA:O	2.16	0.46
1:X:2030:U:O2'	1:X:2031:A:H5'	2.15	0.46
1:X:1040:A:C8	1:X:1041:G:C8	3.04	0.46
3:A:184:ARG:CG	3:A:184:ARG:HH11	2.29	0.45
1:X:1502:G:O2'	1:X:1503:G:H5'	2.16	0.45
1:X:623:G:N2	1:X:626:A:N3	2.49	0.45
20:R:25:LEU:CD1	20:R:81:VAL:N	2.77	0.45
1:X:2598:C:H4'	4:B:150:VAL:HG22	1.98	0.45
1:X:1672:A:H3'	1:X:1673:C:C6	2.51	0.45
1:X:2289:A:C2	6:D:79:LEU:HD21	2.29	0.45
14:L:77:ALA:O	14:L:80:ALA:HB3	2.15	0.45
9:G:150:VAL:HG12	9:G:151:TYR:N	2.31	0.45
17:O:10:LYS:CD	17:O:11:GLN:HE21	2.28	0.45
17:O:6:GLN:O	17:O:7:THR:OG1	2.31	0.45
1:X:1468:A:C8	1:X:1468:A:P	3.04	0.45
1:X:2701:A:H2'	1:X:2702:G:O5'	2.15	0.45
19:Q:9:ALA:O	19:Q:27:PHE:HB2	2.16	0.45
24:V:18:ILE:O	24:V:20:ALA:N	2.48	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2618:A:H1'	1:X:2758:A:C2	2.51	0.45
1:X:1953:A:C5'	1:X:1954:A:OP1	2.61	0.45
1:X:1929:U:H2'	1:X:1930:C:C6	2.50	0.45
30:4:1:MET:CE	30:4:35:ARG:NH2	2.78	0.45
18:P:88:ASP:N	18:P:88:ASP:OD2	2.49	0.45
1:X:469:G:N2	1:X:480:G:H2'	2.31	0.45
10:H:47:VAL:HG11	10:H:115:ALA:CB	2.47	0.45
9:G:86:ALA:HB2	9:G:152:ALA:HB1	1.97	0.45
1:X:59:G:N2	1:X:73:A:C4	2.84	0.45
11:I:28:LYS:NZ	11:I:37:GLN:H	2.11	0.45
1:X:203:G:OP1	1:X:233:A:O2'	2.32	0.45
1:X:1522:C:H6	1:X:1522:C:H3'	1.82	0.45
1:X:312:G:O2'	1:X:313:U:O4'	2.33	0.45
1:X:988:G:N3	1:X:1012:A:C2	2.83	0.45
1:X:1318:A:H2'	1:X:1319:C:O5'	2.16	0.45
12:J:51:CYS:SG	12:J:126:LEU:HD21	2.55	0.45
1:X:1987:G:C6	1:X:1988:A:C4	3.04	0.45
1:X:1830:C:H42	1:X:1881:U:H2'	1.81	0.45
1:X:308:C:O2	1:X:308:C:H2'	2.15	0.45
3:A:261:ARG:O	3:A:264:LYS:HB3	2.15	0.45
1:X:2196:U:C4	1:X:2197:U:C4	3.05	0.45
1:X:2395:C:O5'	1:X:2395:C:H6	1.99	0.45
1:X:1188:A:N7	1:X:1189:G:C5	2.85	0.45
16:N:91:ASN:ND2	17:O:11:GLN:HE22	2.14	0.45
4:B:159:HIS:CE1	4:B:162:MET:HB3	2.51	0.45
4:B:161:GLY:O	4:B:162:MET:HB3	2.17	0.45
10:H:83:ARG:CD	10:H:89:ILE:HD11	2.42	0.45
15:M:46:ARG:O	15:M:47:SER:HB2	2.16	0.45
1:X:2299:A:C2	1:X:2312:A:C5	3.05	0.45
3:A:244:ARG:CB	3:A:252:LYS:NZ	2.68	0.45
5:C:107:ALA:CB	5:C:180:ILE:HD13	2.45	0.45
3:A:43:ARG:NH2	3:A:55:GLY:HA2	2.29	0.45
1:X:1551:U:C5'	1:X:1552:C:C5	3.00	0.45
22:T:52:GLY:HA3	22:T:60:PHE:CZ	2.51	0.45
5:C:46:ARG:HD2	5:C:51:VAL:HG23	1.98	0.45
5:C:43:ALA:HB3	5:C:87:LYS:C	2.37	0.45
13:K:13:ASN:ND2	13:K:13:ASN:C	2.60	0.45
7:E:7:GLN:HB3	7:E:51:LEU:HD11	1.96	0.45
1:X:2210:C:H5''	23:U:45:ASN:HB3	1.97	0.45
1:X:409:G:C2'	1:X:410:A:H5'	2.45	0.45
1:X:1858:C:C2'	1:X:1859:A:O5'	2.64	0.45

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:428:A:N1	1:X:2388:G:C6	2.84	0.45
25:W:37:THR:HA	25:W:41:ARG:NH2	2.30	0.45
1:X:939:C:H4'	1:X:940:G:OP2	2.14	0.45
1:X:417:C:N3	1:X:419:G:C6	2.84	0.45
1:X:843:G:H1'	1:X:2427:A:C6	2.50	0.45
1:X:1148:G:H5''	1:X:1149:G:OP2	2.17	0.45
3:A:228:PRO:HD3	3:A:235:GLY:CA	2.46	0.45
1:X:620:G:O2'	1:X:621:U:H5'	2.15	0.45
1:X:1476:G:C6	1:X:1477:C:C4	3.04	0.45
1:X:1389:C:O2'	1:X:1390:G:H5'	2.16	0.45
3:A:186:HIS:C	3:A:188:GLU:N	2.69	0.45
3:A:172:TYR:CD2	3:A:186:HIS:N	2.84	0.45
20:R:95:ARG:HG3	20:R:95:ARG:NH1	2.32	0.45
1:X:83:A:C2	1:X:97:U:O2	2.69	0.45
1:X:2532:G:C6	1:X:2533:U:C2	3.05	0.45
21:S:101:THR:OG1	21:S:135:VAL:CG1	2.64	0.45
6:D:52:LYS:O	6:D:56:GLU:HB2	2.17	0.45
6:D:99:PHE:O	6:D:102:LYS:HB2	2.15	0.45
9:G:33:ILE:HD11	9:G:35:LYS:NZ	2.31	0.45
17:O:35:LEU:HD22	17:O:36:LYS:O	2.15	0.45
19:Q:53:ILE:HD12	19:Q:79:ILE:O	2.16	0.45
1:X:1354:A:C5'	19:Q:56:MET:HG3	2.46	0.45
1:X:2170:C:C3'	1:X:2171:U:C5'	2.88	0.45
1:X:632:A:C2	1:X:633:G:C8	3.04	0.45
5:C:104:LEU:O	5:C:107:ALA:N	2.48	0.45
24:V:41:HIS:O	24:V:42:ARG:C	2.52	0.45
24:V:4:SER:O	24:V:8:ASN:OD1	2.34	0.45
21:S:87:THR:O	21:S:88:TYR:CB	2.61	0.45
1:X:2499:C:O2'	1:X:2500:C:H5'	2.16	0.45
3:A:231:HIS:HD2	3:A:233:HIS:N	2.08	0.45
1:X:196:A:C2'	1:X:197:G:H5'	2.46	0.45
1:X:467:U:O2'	1:X:468:A:OP1	2.29	0.45
11:I:86:THR:O	11:I:86:THR:HG22	2.17	0.45
11:I:120:VAL:HG12	11:I:122:VAL:HG13	1.97	0.45
1:X:1:G:H2'	1:X:2:G:C8	2.51	0.45
1:X:1312:G:C5'	1:X:1313:U:OP1	2.63	0.45
1:X:1631:C:C1'	18:P:108:PRO:HG2	2.34	0.45
8:F:99:LEU:HD13	8:F:103:GLN:HB2	1.98	0.45
1:X:410:A:OP1	23:U:47:HIS:ND1	2.49	0.45
1:X:1339:U:H5	1:X:1664:G:O2'	2.00	0.45
1:X:1517:C:H4'	3:A:96:HIS:CD2	2.51	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:52:ASN:HD21	20:R:71:GLN:CD	2.19	0.45
1:X:1490:U:H2'	1:X:1491:C:C6	2.43	0.45
1:X:219:G:C2'	1:X:220:U:OP2	2.63	0.45
1:X:673:G:H5'	5:C:93:TYR:CE1	2.51	0.45
5:C:53:LYS:HA	5:C:53:LYS:HD3	1.63	0.45
1:X:2263:C:H1'	1:X:2304:G:N2	2.32	0.45
1:X:1830:C:N4	1:X:1881:U:H2'	2.31	0.45
16:N:45:TYR:O	16:N:49:ASP:OD1	2.34	0.45
1:X:2431:C:N4	1:X:2432:A:C6	2.84	0.45
5:C:158:ARG:HB3	5:C:169:VAL:HG11	1.99	0.45
12:J:44:LYS:HD3	12:J:47:GLN:OE1	2.17	0.45
12:J:76:THR:HB	12:J:88:LYS:O	2.16	0.45
9:G:108:GLY:C	9:G:110:LEU:CD2	2.85	0.45
1:X:986:A:C2	1:X:1001:A:C8	3.05	0.45
20:R:58:VAL:C	20:R:60:PRO:HD3	2.37	0.45
21:S:105:GLN:O	21:S:141:MET:O	2.35	0.45
6:D:88:LYS:HE2	6:D:90:THR:HG1	1.78	0.45
14:L:107:ALA:C	14:L:109:GLU:N	2.68	0.45
16:N:91:ASN:C	16:N:93:LYS:N	2.69	0.45
1:X:1008:G:H2'	1:X:1009:C:H6	1.81	0.45
7:E:163:ARG:HB2	7:E:167:GLU:HG2	1.98	0.45
6:D:8:TYR:O	6:D:12:VAL:CG2	2.65	0.45
1:X:558:G:H2'	1:X:559:C:O4'	2.15	0.45
1:X:1357:U:H4'	1:X:1397:A:C6	2.51	0.45
1:X:215:G:H2'	1:X:216:U:O4'	2.17	0.45
1:X:600:G:H3'	1:X:601:A:H5''	1.99	0.45
1:X:617:U:H5	1:X:632:A:N1	2.11	0.45
1:X:304:A:N7	1:X:356:A:N6	2.65	0.45
1:X:2247:A:H5'	1:X:2248:A:P	2.57	0.45
11:I:76:LYS:HG3	11:I:111:SER:CB	2.25	0.45
12:J:15:ARG:HB3	12:J:16:GLY:H	1.41	0.45
21:S:91:PRO:CG	21:S:125:PRO:HG2	2.46	0.45
11:I:93:LEU:C	11:I:97:ARG:HG3	2.36	0.45
1:X:394:U:OP1	23:U:19:ILE:HD11	2.16	0.45
1:X:2224:U:H5''	1:X:2225:G:H5'	1.98	0.45
1:X:5:A:C2	1:X:6:A:C4	3.04	0.45
1:X:2651:U:O2	1:X:2652:G:C8	2.69	0.45
6:D:175:LEU:CG	6:D:177:PHE:HE1	2.29	0.45
22:T:14:ARG:O	22:T:15:ASP:HB2	2.17	0.45
1:X:945:G:O2'	1:X:946:U:H5'	2.16	0.45
5:C:17:LEU:HA	5:C:18:PRO:HD3	1.75	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1332:G:C6	1:X:1333:G:N1	2.84	0.45
11:I:81:GLN:NE2	11:I:115:SER:CA	2.80	0.45
1:X:1522:C:H3'	1:X:1522:C:C6	2.52	0.45
10:H:97:VAL:HG11	10:H:126:ILE:HD12	1.96	0.45
18:P:79:ALA:O	18:P:85:MET:HB2	2.16	0.45
1:X:1771:A:O2'	1:X:1772:C:OP1	2.33	0.45
1:X:42:G:H2'	1:X:43:A:C8	2.52	0.45
1:X:1958:G:H2'	1:X:1959:U:C6	2.51	0.45
1:X:1876:C:C2'	1:X:1877:C:H5'	2.47	0.45
1:X:2199:C:N3	1:X:2200:G:N7	2.64	0.45
1:X:1189:G:O2'	1:X:1190:C:H5'	2.17	0.45
12:J:92:GLU:CA	12:J:92:GLU:OE1	2.64	0.45
1:X:2436:U:O2	1:X:2474:G:C2	2.69	0.45
18:P:109:ARG:HH11	18:P:115:ASN:HD22	1.63	0.45
1:X:1673:C:H5''	4:B:136:ARG:HH11	1.81	0.45
1:X:986:A:O3'	16:N:48:ARG:NH2	2.49	0.45
1:X:1089:C:H1'	1:X:1099:A:C2	2.51	0.45
9:G:66:HIS:O	9:G:70:PHE:CE1	2.69	0.45
16:N:91:ASN:HA	16:N:93:LYS:HZ2	1.81	0.45
17:O:26:GLN:CG	17:O:27:GLY:N	2.77	0.45
17:O:40:VAL:HG12	17:O:45:THR:N	2.31	0.45
1:X:1615:C:OP1	19:Q:35:LYS:N	2.25	0.45
1:X:871:U:H1'	1:X:2248:A:C5'	2.45	0.45
15:M:34:ARG:CZ	15:M:88:VAL:HG21	2.47	0.45
5:C:195:ILE:O	5:C:196:VAL:HB	2.16	0.45
3:A:55:GLY:H	3:A:217:ARG:HB2	1.82	0.45
3:A:216:GLY:O	3:A:217:ARG:O	2.35	0.45
24:V:13:ASP:O	24:V:17:GLU:N	2.41	0.45
3:A:153:ALA:O	3:A:154:GLN:HG3	2.17	0.45
1:X:1851:A:N6	1:X:1866:G:H21	2.09	0.45
1:X:1314:A:C2	1:X:1642:G:N3	2.85	0.45
16:N:81:ASN:C	16:N:84:LYS:HB3	2.36	0.45
6:D:108:LEU:HD13	6:D:176:PRO:CG	2.46	0.45
1:X:1874:G:C6	1:X:1875:C:C4	3.05	0.45
1:X:2213:G:N2	1:X:2214:G:C4	2.84	0.45
7:E:84:THR:HB	7:E:134:SER:CB	2.46	0.45
1:X:857:U:C3'	1:X:858:G:H8	2.20	0.45
22:T:20:TYR:HB3	22:T:21:LEU:H	1.41	0.45
16:N:88:ILE:HG23	17:O:49:GLU:OE1	2.16	0.45
1:X:1182:U:H5'	1:X:1182:U:H6	1.80	0.45
1:X:1277:G:O5'	1:X:1277:G:H8	1.99	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:230:C:H2'	1:X:231:G:H5'	1.97	0.45
1:X:2070:G:H2'	1:X:2071:G:C8	2.47	0.45
1:X:2186:G:O2'	3:A:151:LYS:HB2	2.16	0.45
1:X:704:G:H2'	1:X:705:C:C6	2.51	0.45
1:X:549:G:C6	1:X:550:C:C4	3.04	0.45
1:X:239:A:C2	1:X:443:A:N3	2.85	0.45
7:E:76:VAL:O	7:E:78:GLY:N	2.49	0.45
1:X:413:G:C2'	1:X:414:A:H5''	2.46	0.45
5:C:165:SER:HB3	5:C:166:TRP:CE3	2.52	0.45
1:X:84:G:O2'	1:X:85:C:H5'	2.17	0.45
9:G:103:TYR:CE2	9:G:111:LYS:CB	2.99	0.45
18:P:109:ARG:HG3	18:P:110:ALA:H	1.81	0.45
1:X:2598:C:O2'	1:X:2599:U:H5'	2.16	0.45
21:S:104:SER:HA	21:S:139:THR:CA	2.22	0.45
8:F:121:GLU:HB3	8:F:125:ASN:HD21	1.81	0.45
9:G:49:VAL:CG1	9:G:50:PRO:HD2	2.43	0.45
16:N:66:ASN:CB	16:N:70:ARG:NH1	2.60	0.45
17:O:32:LYS:HB2	17:O:58:ALA:O	2.17	0.45
6:D:20:PHE:CD1	6:D:20:PHE:N	2.85	0.45
14:L:28:ARG:O	14:L:42:ILE:HD13	2.17	0.45
1:X:792:U:OP1	3:A:49:ILE:HG22	2.17	0.45
21:S:19:ILE:HG22	21:S:20:ALA:N	2.25	0.45
1:X:2700:U:H2'	1:X:2701:A:H8	1.81	0.45
5:C:117:LEU:HD22	5:C:187:VAL:HG22	1.98	0.45
1:X:1793:A:H2'	1:X:1794:A:C8	2.51	0.45
1:X:1819:U:H4'	1:X:1953:A:O2'	2.17	0.45
21:S:122:ILE:HG13	21:S:122:ILE:O	2.17	0.45
11:I:120:VAL:HG11	11:I:122:VAL:HG13	1.98	0.45
1:X:2814:G:O2'	13:K:49:GLU:OE2	2.28	0.45
16:N:7:GLY:C	16:N:9:VAL:N	2.70	0.45
7:E:9:ILE:HG22	7:E:11:VAL:HG22	1.98	0.45
1:X:481:A:C6	1:X:482:A:C6	3.04	0.45
1:X:2546:G:C4	1:X:2547:C:C5	3.04	0.45
1:X:416:U:H4'	1:X:419:G:O2'	2.16	0.45
1:X:1842:G:O2'	1:X:1843:U:H5'	2.17	0.45
1:X:1685:A:C5	1:X:1691:G:C4	3.05	0.45
1:X:830:C:H2'	1:X:831:G:C8	2.52	0.45
1:X:810:U:C3'	1:X:810:U:C6	3.00	0.45
1:X:1837:G:O2'	1:X:1838:G:H5'	2.16	0.45
1:X:134:G:N3	1:X:136:A:OP2	2.50	0.45
1:X:2382:C:C4	1:X:2394:G:C2	3.05	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:R:23:ILE:CD1	20:R:81:VAL:O	2.65	0.45
1:X:98:U:H1'	1:X:100:G:N9	2.27	0.45
19:Q:47:GLY:O	19:Q:48:VAL:HB	2.16	0.45
1:X:2079:A:H61	1:X:2175:A:N6	2.15	0.45
21:S:23:ALA:O	21:S:29:ASN:HA	2.16	0.45
3:A:211:ARG:O	3:A:215:LEU:HD12	2.16	0.45
3:A:200:GLU:HG3	3:A:202:LYS:CB	2.47	0.45
1:X:518:A:C4'	1:X:518:A:OP2	2.65	0.45
30:4:25:VAL:CG2	30:4:34:GLN:HB2	2.46	0.45
30:4:35:ARG:HG2	30:4:37:GLY:O	2.17	0.45
25:W:36:ASP:C	25:W:41:ARG:HH12	2.19	0.45
3:A:79:VAL:HG12	3:A:79:VAL:O	2.16	0.45
13:K:37:THR:HG1	13:K:40:LYS:HG3	1.79	0.45
9:G:85:ALA:O	9:G:87:GLN:N	2.50	0.45
14:L:8:ARG:CB	14:L:8:ARG:NH1	2.80	0.45
1:X:1595:A:H2'	1:X:1596:A:O4'	2.16	0.45
5:C:13:ARG:HD2	5:C:13:ARG:H	1.80	0.45
1:X:1659:G:O2'	1:X:1660:G:H5'	2.16	0.45
1:X:2711:G:OP1	4:B:169:ASN:ND2	2.49	0.45
1:X:2560:G:C4	1:X:2589:C:C4	3.05	0.45
1:X:1661:C:O2'	1:X:1662:G:H5'	2.16	0.45
2:Y:116:C:O2'	14:L:49:GLN:HA	2.16	0.45
1:X:736:G:H2'	1:X:737:C:O4'	2.16	0.45
5:C:154:ASP:HB2	5:C:157:THR:CG2	2.47	0.45
5:C:144:GLY:CA	5:C:166:TRP:CE2	3.00	0.45
20:R:28:LYS:O	20:R:29:HIS:CB	2.64	0.45
12:J:125:LYS:NZ	12:J:125:LYS:N	2.65	0.45
1:X:2473:G:O2'	12:J:81:GLU:HB2	2.16	0.45
1:X:1142:G:C4'	9:G:103:TYR:CD2	3.00	0.45
23:U:49:LYS:HB2	23:U:61:TRP:CA	2.37	0.45
20:R:60:PRO:O	20:R:65:PRO:HG3	2.17	0.45
21:S:141:MET:HA	21:S:145:ASP:CG	2.36	0.45
17:O:52:GLY:O	17:O:53:LYS:C	2.56	0.45
23:U:27:ASP:N	23:U:32:ARG:HH21	2.15	0.45
7:E:126:PRO:CG	7:E:130:ARG:HB3	2.46	0.45
19:Q:35:LYS:HD3	19:Q:53:ILE:CG2	2.45	0.45
19:Q:43:GLN:HA	19:Q:48:VAL:O	2.16	0.45
1:X:1746:A:H2'	1:X:1747:G:O5'	2.16	0.45
5:C:3:GLN:CB	5:C:116:LYS:HD2	2.46	0.45
3:A:218:LYS:C	3:A:218:LYS:HD2	2.36	0.45
1:X:1777:A:O2'	1:X:1778:U:P	2.75	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:59:PRO:O	19:Q:75:ARG:NH2	2.50	0.45
24:V:26:MET:HE2	24:V:27:GLU:OE2	2.17	0.45
24:V:7:ARG:HD2	24:V:8:ASN:CA	2.44	0.45
1:X:89:A:O2'	1:X:90:G:H5''	2.17	0.45
1:X:1554:G:H2'	1:X:1555:A:C8	2.52	0.45
1:X:2190:A:C8	1:X:2190:A:H3'	2.52	0.45
16:N:7:GLY:O	16:N:9:VAL:HG23	2.16	0.45
26:Z:12:SER:HB2	26:Z:15:LYS:N	2.18	0.45
9:G:160:ALA:C	9:G:161:GLN:HG3	2.37	0.45
1:X:1623:C:C4'	1:X:1624:A:O5'	2.57	0.45
1:X:1182:U:H2'	1:X:1183:C:C6	2.52	0.45
1:X:827:C:H6	1:X:827:C:O5'	1.99	0.45
26:Z:45:ILE:HD13	26:Z:57:VAL:CG2	2.47	0.45
1:X:1284:G:OP2	1:X:1285:A:OP1	2.35	0.45
18:P:85:MET:HE3	18:P:130:GLU:H	1.80	0.45
4:B:32:PRO:HA	4:B:89:ASP:OD1	2.17	0.45
1:X:1420:A:H2'	1:X:1421:U:C6	2.52	0.45
4:B:170:LEU:HB3	4:B:184:VAL:CG1	2.46	0.45
1:X:2371:A:H8	11:I:59:ARG:HA	1.82	0.45
1:X:839:U:C5'	1:X:2408:G:OP2	2.62	0.45
1:X:1630:A:H61	18:P:109:ARG:H	1.65	0.45
18:P:36:ARG:CZ	26:Z:20:ARG:CZ	2.92	0.45
1:X:542:A:N6	1:X:2003:A:H1'	2.32	0.45
17:O:12:TYR:CG	17:O:13:ARG:N	2.84	0.45
17:O:46:VAL:HG12	17:O:51:ALA:HB2	1.98	0.45
1:X:304:A:H62	1:X:356:A:N6	2.14	0.45
1:X:872:G:H2'	1:X:928:G:C6	2.51	0.45
2:Y:16:U:O2'	2:Y:110:U:O2	2.34	0.45
1:X:1723:U:O2'	1:X:1724:C:P	2.75	0.45
1:X:1788:C:H4'	3:A:255:LYS:O	2.16	0.45
1:X:1555:A:H2'	1:X:1556:A:C8	2.52	0.45
19:Q:20:MET:C	19:Q:22:ARG:N	2.69	0.45
1:X:1032:A:C8	1:X:1032:A:H3'	2.52	0.45
1:X:1131:G:C6	1:X:1132:C:C4	3.05	0.45
13:K:95:THR:O	13:K:95:THR:CG2	2.58	0.45
3:A:270:ILE:CG1	3:A:271:VAL:H	2.15	0.45
6:D:169:LEU:HD12	6:D:169:LEU:C	2.37	0.45
1:X:2668:U:O2	1:X:2693:U:O4'	2.35	0.45
1:X:660:G:C2'	1:X:661:C:H5'	2.46	0.45
1:X:173:A:H61	1:X:844:G:N2	2.15	0.45
1:X:943:U:O2'	1:X:944:A:O4'	2.28	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2229:G:O4'	1:X:2229:G:N3	2.49	0.45
1:X:417:C:O2'	1:X:418:C:H4'	2.17	0.45
1:X:956:A:C4	1:X:2427:A:C2	3.05	0.45
1:X:1515:U:H2'	1:X:1516:A:H8	1.82	0.45
1:X:1766:U:H2'	1:X:1767:G:C5'	2.46	0.45
1:X:192:G:C1'	1:X:193:A:H4'	2.47	0.45
1:X:444:U:O2'	1:X:445:A:H5'	2.17	0.45
1:X:1627:C:N4	1:X:1628:C:H41	2.15	0.45
1:X:802:A:H3'	1:X:802:A:OP1	2.17	0.45
21:S:106:GLY:CA	21:S:109:GLN:HG3	2.47	0.45
1:X:2560:G:N2	1:X:2560:G:OP2	2.50	0.45
2:Y:2:C:C3'	2:Y:2:C:C6	3.00	0.45
15:M:11:GLU:O	15:M:14:ARG:N	2.50	0.45
10:H:90:ARG:HH21	10:H:90:ARG:HG3	1.82	0.45
18:P:107:ILE:HG23	18:P:107:ILE:O	2.16	0.45
3:A:171:ASP:O	3:A:186:HIS:HA	2.17	0.45
1:X:2394:G:H3'	11:I:63:ARG:NH1	2.22	0.45
20:R:22:VAL:O	20:R:33:THR:HA	2.17	0.45
20:R:25:LEU:HD12	20:R:81:VAL:HG23	1.93	0.45
1:X:2595:C:O2'	1:X:2596:C:H5'	2.17	0.45
6:D:33:LYS:HG3	6:D:157:VAL:CG2	2.47	0.45
1:X:1070:G:H2'	1:X:1071:U:C5	2.52	0.45
16:N:78:THR:HG23	16:N:117:ARG:CZ	2.47	0.45
3:A:219:PRO:O	3:A:220:HIS:O	2.34	0.45
19:Q:7:LEU:CD2	24:V:30:PHE:CE2	2.97	0.45
1:X:1811:A:H1'	1:X:1813:A:C6	2.52	0.45
1:X:1812:U:N3	3:A:200:GLU:OE1	2.51	0.45
12:J:60:ARG:O	12:J:61:ARG:CG	2.57	0.45
1:X:393:U:H4'	23:U:19:ILE:O	2.16	0.45
4:B:93:VAL:C	4:B:95:ILE:H	2.20	0.45
16:N:12:ARG:O	16:N:16:LYS:HG3	2.17	0.45
18:P:27:VAL:HG13	18:P:27:VAL:O	2.17	0.45
1:X:1976:U:O2'	1:X:1977:C:H5'	2.17	0.45
1:X:2225:G:C6	1:X:2405:A:C8	3.05	0.45
1:X:2874:A:H2'	1:X:2875:C:H6	1.82	0.45
6:D:111:ILE:HA	6:D:137:ILE:HG22	1.99	0.45
1:X:431:G:H2'	1:X:432:C:H6	1.82	0.45
1:X:1770:U:H6	1:X:1775:A:H62	1.65	0.45
1:X:913:A:O5'	1:X:913:A:H8	2.00	0.45
1:X:861:G:C1'	1:X:944:A:N3	2.79	0.45
6:D:119:PRO:CG	6:D:120:ASN:N	2.80	0.45

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:796:A:H2'	1:X:797:A:O3'	2.17	0.45
19:Q:89:GLU:OE1	19:Q:91:LEU:CD2	2.65	0.45
1:X:2634:G:O2'	1:X:2635:U:OP2	2.34	0.45
1:X:2340:C:H2'	1:X:2341:G:C5'	2.47	0.45
1:X:1916:G:O2'	1:X:1957:C:H4'	2.16	0.45
1:X:411:C:H6	1:X:411:C:H5''	1.81	0.45
11:I:52:GLY:O	11:I:57:ILE:HG13	2.17	0.44
1:X:2394:G:OP1	11:I:63:ARG:CZ	2.64	0.44
1:X:1278:A:N6	1:X:1996:A:H5''	2.32	0.44
1:X:1166:A:C2'	1:X:1167:A:H5''	2.46	0.44
6:D:74:ILE:HG23	6:D:79:LEU:C	2.37	0.44
14:L:100:VAL:C	14:L:102:ALA:N	2.70	0.44
14:L:60:LYS:HE3	14:L:62:GLY:N	2.32	0.44
16:N:108:ALA:HB1	17:O:47:PHE:CZ	2.52	0.44
16:N:75:ASN:O	16:N:76:TYR:C	2.55	0.44
17:O:36:LYS:HD2	17:O:54:TYR:O	2.18	0.44
19:Q:40:ASP:CG	19:Q:41:ALA:N	2.70	0.44
21:S:19:ILE:HG12	21:S:36:ARG:CA	2.40	0.44
21:S:91:PRO:HD3	21:S:127:PRO:CG	2.46	0.44
1:X:2495:G:O2'	1:X:2496:C:H5'	2.17	0.44
12:J:36:ILE:O	12:J:130:THR:HB	2.18	0.44
12:J:37:ALA:HB2	12:J:104:MET:CE	2.47	0.44
1:X:1812:U:O2	1:X:1812:U:C2'	2.64	0.44
1:X:2058:U:H1'	1:X:2576:G:H21	1.82	0.44
1:X:242:A:H2'	1:X:243:G:C4'	2.46	0.44
1:X:2190:A:C8	1:X:2190:A:C3'	2.94	0.44
19:Q:15:LYS:O	19:Q:19:ALA:HB2	2.16	0.44
1:X:1108:U:N3	1:X:1109:A:H1'	2.32	0.44
1:X:1978:U:OP2	1:X:1979:C:H3'	2.17	0.44
1:X:33:C:O2'	1:X:34:U:C5'	2.60	0.44
6:D:111:ILE:O	6:D:114:PHE:CB	2.65	0.44
20:R:100:ASP:O	20:R:100:ASP:OD1	2.35	0.44
16:N:39:LEU:CA	16:N:42:ALA:HB3	2.45	0.44
8:F:82:ALA:HB3	8:F:84:ILE:HG13	1.98	0.44
5:C:168:SER:HB2	5:C:183:HIS:NE2	2.32	0.44
1:X:447:U:O2'	1:X:448:C:H5	2.00	0.44
1:X:764:A:C6	1:X:802:A:C5	3.05	0.44
1:X:1200:G:H2'	1:X:1201:G:O4'	2.16	0.44
7:E:15:VAL:HG23	7:E:16:THR:N	2.31	0.44
1:X:2560:G:C4	1:X:2589:C:N4	2.85	0.44
1:X:188:G:N1	1:X:189:A:C5	2.85	0.44

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:V:60:LEU:C	24:V:62:ARG:H	2.20	0.44
3:A:69:ARG:NH2	3:A:105:ILE:HG21	2.33	0.44
30:4:24:LEU:HD12	30:4:24:LEU:N	2.32	0.44
1:X:2074:U:OP2	1:X:2075:U:H3'	2.17	0.44
6:D:54:ALA:N	6:D:57:LEU:HD12	2.32	0.44
14:L:33:ARG:HH12	14:L:103:LEU:HB2	1.75	0.44
17:O:90:PHE:CD1	17:O:90:PHE:C	2.90	0.44
7:E:107:ILE:HD11	7:E:151:VAL:CG1	2.44	0.44
10:H:116:ARG:NH1	15:M:38:LYS:CD	2.79	0.44
10:H:116:ARG:NH2	15:M:40:ARG:C	2.71	0.44
1:X:2271:C:P	14:L:18:ARG:HH21	2.40	0.44
3:A:243:GLY:N	3:A:244:ARG:HH11	2.15	0.44
5:C:151:VAL:CG1	5:C:173:ALA:HA	2.47	0.44
5:C:8:GLY:O	5:C:9:GLN:CB	2.64	0.44
3:A:220:HIS:ND1	3:A:220:HIS:N	2.65	0.44
24:V:6:MET:HE2	24:V:56:VAL:HG21	1.99	0.44
21:S:117:VAL:CG2	21:S:168:VAL:HG22	2.47	0.44
30:4:30:VAL:O	30:4:33:LYS:N	2.27	0.44
1:X:5:A:H1'	9:G:162:LYS:HZ2	1.82	0.44
16:N:82:GLY:C	16:N:84:LYS:N	2.67	0.44
1:X:1218:C:H1'	11:I:8:PRO:O	2.17	0.44
15:M:8:ASN:O	15:M:10:GLY:N	2.50	0.44
18:P:67:PRO:O	18:P:68:VAL:C	2.53	0.44
1:X:2387:U:H2'	1:X:2388:G:C8	2.51	0.44
4:B:182:ILE:C	4:B:183:LEU:HD23	2.36	0.44
1:X:936:A:H2'	1:X:937:C:C6	2.52	0.44
1:X:1524:C:H5''	1:X:1525:A:H8	1.81	0.44
1:X:403:A:H4'	1:X:404:A:C5'	2.48	0.44
7:E:22:GLY:O	7:E:24:PHE:HD1	2.00	0.44
1:X:1570:C:C5'	1:X:1571:G:OP2	2.63	0.44
21:S:149:ALA:C	21:S:151:ASP:H	2.20	0.44
1:X:2055:G:C2'	1:X:2056:C:H5'	2.47	0.44
1:X:1611:U:H2'	1:X:1612:U:O4'	2.17	0.44
18:P:42:VAL:CG1	18:P:42:VAL:O	2.64	0.44
10:H:82:LYS:HE3	10:H:82:LYS:HB2	1.77	0.44
10:H:56:LYS:O	10:H:57:ASP:OD1	2.36	0.44
15:M:36:ASP:OD1	15:M:36:ASP:C	2.56	0.44
1:X:2197:U:C4	1:X:2198:U:C4	3.06	0.44
11:I:54:SER:OG	11:I:59:ARG:CZ	2.65	0.44
1:X:528:G:H5'	18:P:39:ARG:HH12	1.82	0.44
1:X:2033:C:C4	1:X:2034:A:C6	3.04	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:754:G:C6	1:X:755:C:N4	2.85	0.44
26:Z:20:ARG:C	26:Z:22:HIS:N	2.70	0.44
23:U:48:LYS:NZ	23:U:48:LYS:HB2	2.32	0.44
1:X:2208:U:O2	23:U:48:LYS:NZ	2.50	0.44
23:U:23:LYS:HE3	23:U:26:ALA:CB	2.47	0.44
7:E:87:LEU:N	7:E:131:ILE:O	2.49	0.44
1:X:2270:U:O2'	1:X:2353:G:H1'	2.18	0.44
21:S:10:PRO:HG2	21:S:14:LEU:CD1	2.25	0.44
2:Y:16:U:H4'	2:Y:72:C:O2	2.17	0.44
1:X:2701:A:O2'	1:X:2702:G:H5'	2.18	0.44
12:J:62:GLY:C	12:J:64:LYS:N	2.69	0.44
20:R:56:LYS:HG2	20:R:56:LYS:H	1.53	0.44
9:G:119:LEU:CD1	9:G:126:VAL:HG22	2.47	0.44
11:I:77:LEU:HA	11:I:77:LEU:HD12	1.86	0.44
18:P:66:GLU:HB3	18:P:67:PRO:CD	2.46	0.44
9:G:159:SER:C	9:G:161:GLN:N	2.68	0.44
9:G:158:HIS:CA	9:G:161:GLN:NE2	2.80	0.44
1:X:13:A:N3	1:X:15:G:O6	2.50	0.44
1:X:13:A:N3	1:X:15:G:C6	2.85	0.44
16:N:88:ILE:CG2	17:O:49:GLU:HB2	2.44	0.44
15:M:37:THR:HG23	15:M:39:VAL:H	1.82	0.44
10:H:8:LEU:N	10:H:8:LEU:HD23	2.33	0.44
1:X:2812:A:H2'	1:X:2813:G:C8	2.51	0.44
5:C:17:LEU:HD12	5:C:17:LEU:HA	1.78	0.44
18:P:19:LYS:HD3	18:P:21:ARG:NH2	2.32	0.44
1:X:1516:A:C2	3:A:100:GLY:HA3	2.53	0.44
20:R:52:ASN:HD21	20:R:71:GLN:NE2	2.15	0.44
1:X:615:C:H41	11:I:100:ARG:CZ	2.30	0.44
1:X:181:A:H4'	1:X:182:G:OP1	2.16	0.44
1:X:972:C:C5'	1:X:973:U:OP2	2.66	0.44
1:X:546:A:H2'	1:X:547:U:C6	2.52	0.44
1:X:2828:C:O2'	1:X:2829:A:H5'	2.18	0.44
1:X:1990:U:H2'	1:X:1991:C:H6	1.81	0.44
1:X:1247:U:O2'	1:X:1248:G:H5'	2.17	0.44
1:X:2280:A:H2'	1:X:2281:C:C6	2.52	0.44
1:X:2420:C:O2'	1:X:2421:C:H5'	2.17	0.44
1:X:1121:G:C2'	1:X:1122:A:C8	3.00	0.44
5:C:125:ILE:HG22	5:C:126:ALA:N	2.32	0.44
20:R:93:ARG:CZ	20:R:108:VAL:HA	2.47	0.44
12:J:76:THR:CG2	12:J:88:LYS:O	2.65	0.44
12:J:83:ARG:HH11	12:J:83:ARG:HG2	1.81	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1673:C:C5'	4:B:136:ARG:HD3	2.46	0.44
1:X:1278:A:H61	1:X:1996:A:H5''	1.82	0.44
1:X:985:G:C6	1:X:1000:G:C5	3.06	0.44
6:D:125:ARG:CG	6:D:125:ARG:NH1	2.80	0.44
7:E:146:ALA:O	7:E:150:LYS:HG3	2.18	0.44
1:X:2526:U:H2'	1:X:2527:G:H8	1.83	0.44
1:X:2539:C:O2'	1:X:2540:A:H5'	2.18	0.44
1:X:64:C:N3	1:X:89:A:N6	2.65	0.44
1:X:1555:A:H2'	1:X:1556:A:O4'	2.18	0.44
1:X:1370:U:H2'	1:X:1371:G:O4'	2.18	0.44
19:Q:14:GLU:HG3	19:Q:15:LYS:N	2.32	0.44
19:Q:19:ALA:O	19:Q:24:VAL:HB	2.17	0.44
19:Q:20:MET:C	19:Q:22:ARG:H	2.21	0.44
21:S:117:VAL:HG21	21:S:168:VAL:HG22	1.98	0.44
1:X:657:A:H8	1:X:657:A:O5'	1.99	0.44
1:X:649:G:N2	1:X:661:C:C2	2.86	0.44
1:X:590:C:H2'	1:X:591:G:C8	2.50	0.44
12:J:27:TYR:HB3	12:J:28:VAL:H	1.68	0.44
1:X:428:A:H2'	1:X:429:C:H6	1.79	0.44
10:H:47:VAL:HG22	10:H:75:VAL:C	2.37	0.44
1:X:860:U:H2'	1:X:861:G:H5'	1.99	0.44
25:W:48:LYS:O	25:W:50:LEU:N	2.50	0.44
3:A:125:PRO:HG3	3:A:131:LEU:HD11	1.99	0.44
1:X:1524:C:H3'	1:X:1525:A:H5''	1.98	0.44
11:I:36:GLY:O	11:I:37:GLN:CB	2.64	0.44
1:X:698:A:H5''	1:X:699:G:H5''	2.00	0.44
1:X:1206:G:C2'	1:X:1207:G:H5'	2.48	0.44
21:S:1:MET:HG3	21:S:52:PHE:HD2	1.81	0.44
1:X:2038:C:H2'	1:X:2483:U:H4'	1.99	0.44
1:X:2490:U:H2'	1:X:2491:C:O4'	2.17	0.44
1:X:870:C:H1'	22:T:26:PHE:CE2	2.53	0.44
13:K:106:ASP:OD1	13:K:108:VAL:HG23	2.18	0.44
20:R:105:ARG:NH1	20:R:112:LYS:HA	2.32	0.44
20:R:25:LEU:HG	20:R:81:VAL:HG23	1.98	0.44
1:X:2764:U:C4'	4:B:42:ASP:OD2	2.64	0.44
12:J:78:LYS:C	12:J:80:ALA:N	2.71	0.44
13:K:83:VAL:HG23	13:K:87:TYR:HE2	1.81	0.44
9:G:106:TYR:CE2	9:G:108:GLY:CA	3.00	0.44
6:D:57:LEU:C	6:D:60:ILE:HG12	2.37	0.44
6:D:79:LEU:CA	6:D:80:ARG:CZ	2.88	0.44
14:L:101:LYS:C	14:L:104:ALA:HB3	2.37	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:L:68:ALA:HB1	14:L:102:ALA:HB2	1.93	0.44
9:G:66:HIS:HB3	16:N:71:LEU:HD13	1.99	0.44
1:X:631:G:H4'	1:X:632:A:OP1	2.17	0.44
3:A:55:GLY:O	3:A:56:GLY:O	2.36	0.44
12:J:100:PRO:HB2	21:S:74:ARG:HG2	1.99	0.44
3:A:246:PRO:HD3	3:A:251:GLY:N	2.29	0.44
9:G:116:ARG:O	9:G:119:LEU:HB2	2.17	0.44
1:X:1681:A:N1	1:X:2706:U:C6	2.85	0.44
1:X:1494:G:O2'	1:X:1574:A:H2	2.01	0.44
7:E:7:GLN:H	7:E:8:PRO:HD3	1.82	0.44
4:B:192:ASN:HB2	15:M:9:ARG:HH11	1.81	0.44
1:X:514:G:C2	18:P:15:LYS:HA	2.51	0.44
1:X:717:G:C2'	1:X:718:A:OP2	2.65	0.44
5:C:90:SER:O	5:C:91:TYR:C	2.55	0.44
3:A:65:ILE:HD11	3:A:92:ILE:HD11	1.99	0.44
1:X:1226:A:H62	1:X:1249:G:H1'	1.82	0.44
13:K:30:ARG:C	13:K:31:GLU:HG2	2.38	0.44
1:X:801:A:HO2'	1:X:802:A:P	2.31	0.44
1:X:2710:C:H4'	4:B:168:GLN:O	2.17	0.44
23:U:63:SER:O	23:U:64:ALA:C	2.55	0.44
1:X:551:A:H2'	1:X:552:C:O4'	2.17	0.44
1:X:782:U:O2'	1:X:783:G:H5'	2.17	0.44
3:A:72:LYS:CG	3:A:103:ARG:NH1	2.79	0.44
20:R:105:ARG:NH1	20:R:113:THR:OG1	2.50	0.44
1:X:100:G:C4'	1:X:101:A:OP2	2.38	0.44
1:X:542:A:H8	16:N:28:ARG:NH2	2.07	0.44
1:X:755:C:H2'	1:X:756:C:C6	2.53	0.44
3:A:268:ARG:C	3:A:269:PHE:CD2	2.90	0.44
6:D:74:ILE:HG12	6:D:80:ARG:HA	1.98	0.44
1:X:730:C:H4'	1:X:731:A:OP1	2.17	0.44
17:O:51:ALA:C	17:O:53:LYS:N	2.68	0.44
1:X:1023:U:C6	1:X:1023:U:H3'	2.52	0.44
7:E:140:LEU:O	7:E:141:VAL:C	2.55	0.44
1:X:1468:A:OP2	1:X:1468:A:C8	2.71	0.44
21:S:10:PRO:HB2	21:S:13:LYS:HE3	1.99	0.44
1:X:1698:C:HO2'	1:X:1753:A:C2'	2.28	0.44
21:S:125:PRO:HG2	21:S:126:GLY:H	1.81	0.44
21:S:90:GLU:HA	21:S:90:GLU:OE1	2.18	0.44
1:X:2520:A:C2	1:X:2745:A:N6	2.86	0.44
12:J:64:LYS:HB2	12:J:108:ALA:HB3	1.99	0.44
5:C:48:ARG:C	5:C:50:GLN:H	2.18	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:I:94:GLU:HB3	11:I:97:ARG:NH1	2.31	0.44
1:X:490:A:HO2'	1:X:492:G:H5''	1.80	0.44
1:X:1937:G:N3	1:X:2530:C:C5'	2.80	0.44
1:X:34:U:H1'	20:R:4:PRO:CA	2.47	0.44
26:Z:31:THR:O	26:Z:40:LYS:N	2.39	0.44
7:E:172:LYS:HB2	7:E:172:LYS:NZ	2.33	0.44
6:D:108:LEU:HD13	6:D:117:ILE:HD11	1.96	0.44
1:X:1574:A:C2'	1:X:1575:C:H5''	2.38	0.44
7:E:7:GLN:N	7:E:8:PRO:CD	2.79	0.44
1:X:638:A:C6	1:X:648:A:C8	3.06	0.44
1:X:408:U:C2'	1:X:409:G:C8	3.01	0.44
15:M:13:LEU:CD1	15:M:13:LEU:N	2.80	0.44
18:P:126:ILE:HD12	18:P:126:ILE:C	2.35	0.44
1:X:1443:G:H2'	1:X:1444:C:C6	2.53	0.44
1:X:2800:C:C5	1:X:2801:A:C8	3.05	0.44
13:K:46:PRO:O	13:K:47:PHE:C	2.55	0.44
1:X:797:A:C6	3:A:229:VAL:HG21	2.52	0.44
11:I:127:ALA:C	11:I:129:ALA:H	2.20	0.44
1:X:1629:G:H3'	1:X:1633:C:H42	1.82	0.44
1:X:2063:A:C2	1:X:2064:U:C2	3.05	0.44
1:X:2185:U:H2'	1:X:2186:G:C8	2.53	0.44
1:X:546:A:H2'	1:X:547:U:H6	1.83	0.44
1:X:1469:U:H2'	13:K:60:LEU:HD12	1.98	0.44
1:X:1246:G:C6	1:X:1247:U:C4	3.06	0.44
3:A:226:MET:HE3	3:A:230:ASP:CB	2.47	0.44
11:I:58:ALA:C	11:I:59:ARG:HD2	2.38	0.44
1:X:2382:C:N4	1:X:2394:G:C6	2.86	0.44
1:X:1187:A:OP1	1:X:1187:A:H4'	2.17	0.44
1:X:2486:C:C4	1:X:2562:G:C6	3.05	0.44
2:Y:46:G:C5'	6:D:92:ARG:NH1	2.74	0.44
9:G:66:HIS:HA	16:N:67:ALA:HB1	2.00	0.44
1:X:1009:C:H6	1:X:1009:C:O5'	2.01	0.44
1:X:2570:C:H2'	1:X:2571:G:C8	2.52	0.44
1:X:1354:A:H5'	19:Q:56:MET:HG3	1.99	0.44
1:X:1459:U:O4'	1:X:1475:U:O2'	2.32	0.44
1:X:637:G:C6	11:I:101:ARG:HD3	2.52	0.44
1:X:2701:A:C2'	1:X:2702:G:O5'	2.66	0.44
3:A:215:LEU:HD12	3:A:215:LEU:N	2.33	0.44
3:A:218:LYS:CD	3:A:218:LYS:O	2.66	0.44
21:S:75:LYS:C	21:S:77:ALA:N	2.71	0.44
3:A:246:PRO:CD	3:A:251:GLY:N	2.79	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J:64:LYS:CD	12:J:64:LYS:N	2.65	0.44
16:N:3:ARG:NH1	16:N:3:ARG:HG2	2.32	0.44
6:D:104:ILE:HG13	6:D:104:ILE:H	1.54	0.44
6:D:104:ILE:HG21	6:D:174:GLY:HA3	1.99	0.44
1:X:2691:C:H2'	1:X:2692:A:H3'	1.99	0.44
7:E:11:VAL:HG12	7:E:11:VAL:O	2.18	0.44
12:J:136:GLU:HA	12:J:138:TYR:CE2	2.53	0.44
1:X:416:U:H4'	1:X:419:G:C1'	2.47	0.44
1:X:219:G:HO2'	1:X:231:G:H1	1.66	0.44
1:X:836:G:H2'	1:X:837:U:H6	1.82	0.44
1:X:2522:G:H2'	1:X:2523:G:O4'	2.17	0.44
1:X:733:G:O2'	1:X:734:G:H5'	2.18	0.44
1:X:102:C:H2'	1:X:103:U:O4'	2.18	0.44
1:X:67:G:H2'	1:X:68:C:O4'	2.17	0.44
1:X:1051:U:H3'	1:X:1051:U:C6	2.52	0.44
1:X:754:G:H2'	1:X:755:C:H6	1.82	0.44
1:X:982:C:C4	1:X:983:G:C5	3.06	0.44
23:U:11:LYS:NZ	23:U:75:TYR:CD1	2.85	0.44
23:U:78:ILE:O	23:U:78:ILE:HG23	2.18	0.44
6:D:33:LYS:N	6:D:157:VAL:HB	2.33	0.44
6:D:43:SER:OG	6:D:44:LYS:HG3	2.17	0.44
6:D:70:ALA:C	6:D:72:LYS:N	2.69	0.44
9:G:61:ARG:HH22	9:G:78:ASP:CB	2.31	0.44
1:X:1173:G:H2'	1:X:1174:G:H8	1.83	0.44
7:E:140:LEU:O	7:E:144:VAL:N	2.50	0.44
1:X:2356:A:H1'	14:L:89:PHE:CZ	2.52	0.44
15:M:98:LYS:HE2	15:M:99:VAL:O	2.17	0.44
1:X:663:G:C3'	1:X:664:C:C5'	2.81	0.44
3:A:43:ARG:CB	3:A:54:ILE:HG23	2.48	0.44
3:A:43:ARG:NH1	3:A:43:ARG:HB3	2.32	0.44
1:X:1782:A:H1'	3:A:208:LYS:CE	2.42	0.44
12:J:128:ILE:C	12:J:128:ILE:CD1	2.86	0.44
1:X:2344:G:H4'	22:T:60:PHE:CZ	2.53	0.44
5:C:48:ARG:CA	5:C:51:VAL:HG22	2.48	0.44
1:X:684:C:H5	11:I:43:ALA:HB1	1.83	0.44
26:Z:35:GLN:HG3	26:Z:51:TYR:CD2	2.52	0.44
18:P:24:GLY:O	18:P:127:ILE:HA	2.18	0.44
1:X:1965:U:H2'	1:X:1966:C:C6	2.53	0.44
4:B:26:VAL:HB	4:B:182:ILE:HG23	1.99	0.44
1:X:654:A:N3	1:X:654:A:C2'	2.80	0.44
1:X:168:A:H2'	1:X:169:C:H6	1.83	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1715:A:C8	1:X:1717:A:H1'	2.53	0.44
13:K:31:GLU:C	13:K:33:ARG:H	2.20	0.44
1:X:192:G:H4'	1:X:193:A:H4'	1.98	0.44
1:X:1391:A:H1'	1:X:1392:U:C5	2.52	0.44
7:E:157:TYR:CD1	7:E:157:TYR:N	2.86	0.44
1:X:1422:C:O2'	1:X:1423:A:H5'	2.18	0.44
10:H:85:ASP:HB3	15:M:87:LEU:HG	2.00	0.44
1:X:1999:U:O2	26:Z:7:PRO:HG2	2.18	0.44
1:X:135:U:N3	1:X:136:A:N6	2.66	0.44
1:X:136:A:N1	1:X:137:A:C4	2.85	0.44
3:A:68:LYS:CA	3:A:152:GLY:HA2	2.48	0.44
12:J:122:ALA:HA	12:J:125:LYS:HD3	1.99	0.44
4:B:134:TRP:O	4:B:136:ARG:O	2.35	0.44
1:X:982:C:H2'	1:X:983:G:H5'	2.00	0.44
1:X:1071:U:OP1	1:X:1071:U:H6	2.01	0.44
9:G:33:ILE:CB	9:G:34:PRO:HD3	2.44	0.44
9:G:41:TRP:CZ3	9:G:79:PHE:CG	3.06	0.44
16:N:61:TRP:HZ3	16:N:93:LYS:CA	2.29	0.44
17:O:20:ILE:CG1	17:O:21:ARG:N	2.79	0.44
17:O:28:GLU:C	17:O:30:GLY:N	2.61	0.44
6:D:13:ARG:HG2	6:D:13:ARG:NH2	2.33	0.44
6:D:13:ARG:HG2	6:D:17:MET:HE1	2.00	0.44
11:I:73:GLU:HG3	11:I:101:ARG:HG3	1.98	0.44
21:S:39:PHE:CZ	21:S:81:VAL:HG11	2.53	0.44
1:X:930:A:C3'	1:X:930:A:C8	3.01	0.44
2:Y:107:C:H4'	21:S:24:TYR:HE1	1.83	0.44
2:Y:15:A:C6	2:Y:72:C:H5'	2.52	0.44
19:Q:58:VAL:HA	19:Q:59:PRO:HD2	1.71	0.44
1:X:876:A:P	12:J:23:LYS:HD3	2.58	0.44
5:C:46:ARG:O	5:C:48:ARG:N	2.50	0.44
1:X:812:G:H2'	1:X:813:A:C8	2.52	0.44
13:K:10:LEU:C	13:K:11:ASN:OD1	2.56	0.44
1:X:456:C:OP2	16:N:2:PRO:HD3	2.18	0.44
30:4:1:MET:CE	30:4:1:MET:CA	2.96	0.44
30:4:7:VAL:HG22	30:4:34:GLN:HB3	2.00	0.44
1:X:1631:C:O2	1:X:1631:C:H2'	2.18	0.44
6:D:108:LEU:HA	6:D:111:ILE:CG1	2.47	0.44
3:A:81:ALA:HA	3:A:113:VAL:CG1	2.48	0.44
9:G:115:ALA:O	9:G:118:ALA:CB	2.63	0.44
1:X:405:C:C2	1:X:406:G:C8	3.06	0.44
4:B:34:VAL:O	4:B:35:GLN:HB2	2.18	0.44

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:59:LYS:O	3:A:60:ARG:C	2.57	0.44
1:X:2633:A:N1	1:X:2644:A:H5''	2.33	0.44
21:S:148:THR:HG22	21:S:166:LEU:C	2.38	0.44
1:X:218:A:H5'	1:X:220:U:C1'	2.48	0.44
1:X:228:A:H2'	1:X:229:G:O4'	2.18	0.44
1:X:45:C:OP2	1:X:192:G:H3'	2.18	0.44
1:X:580:A:N7	1:X:584:A:C5	2.86	0.44
7:E:39:THR:C	7:E:41:LEU:H	2.21	0.44
1:X:1309:G:O2'	1:X:1310:C:H5'	2.18	0.44
17:O:61:VAL:HB	17:O:92:ALA:CB	2.48	0.44
1:X:1606:C:O2'	1:X:1607:A:H5'	2.17	0.44
13:K:28:LEU:C	13:K:28:LEU:CD2	2.86	0.44
1:X:2199:C:O2	1:X:2199:C:C2'	2.65	0.43
1:X:1142:G:H21	9:G:101:THR:HG21	1.83	0.43
21:S:138:VAL:O	21:S:139:THR:C	2.56	0.43
1:X:2324:G:O2'	1:X:2325:A:OP2	2.33	0.43
2:Y:58:G:H4'	2:Y:59:A:C5'	2.48	0.43
7:E:113:VAL:HG21	7:E:151:VAL:HG13	2.00	0.43
1:X:1749:G:H5'	1:X:1750:A:N7	2.33	0.43
5:C:186:LEU:HG	5:C:188:ILE:HG12	2.00	0.43
24:V:2:LYS:H	24:V:3:PRO:CD	2.30	0.43
12:J:19:THR:HG21	12:J:40:PRO:HB3	1.99	0.43
1:X:2654:A:H5'	10:H:42:LYS:H	1.83	0.43
14:L:34:SER:HB2	14:L:94:TYR:CZ	2.53	0.43
9:G:83:ILE:HG13	9:G:84:ASN:HD22	1.81	0.43
1:X:829:C:C2	1:X:1206:G:N2	2.86	0.43
1:X:1055:A:C4	1:X:1055:A:C3'	2.83	0.43
1:X:2335:U:H2'	1:X:2336:G:H8	1.83	0.43
10:H:1:MET:HE2	10:H:44:TYR:CZ	2.52	0.43
1:X:1662:G:H5''	1:X:1663:C:H5'	2.00	0.43
1:X:2181:A:O2'	1:X:2182:A:H5'	2.18	0.43
19:Q:2:SER:OG	19:Q:3:HIS:N	2.51	0.43
1:X:1191:G:C6	1:X:1192:A:C6	3.06	0.43
5:C:35:LEU:O	5:C:36:ALA:C	2.54	0.43
1:X:1790:G:H5''	3:A:261:ARG:HH22	1.82	0.43
3:A:69:ARG:CZ	3:A:105:ILE:HD13	2.48	0.43
1:X:334:G:O2'	1:X:335:A:P	2.77	0.43
20:R:105:ARG:HH22	20:R:111:GLY:C	2.21	0.43
20:R:38:LEU:CD1	20:R:47:VAL:HG21	2.48	0.43
1:X:318:G:H21	1:X:341:A:N6	2.16	0.43
1:X:98:U:C4'	1:X:99:U:H5''	2.43	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:K:75:VAL:O	13:K:79:VAL:HG12	2.17	0.43
4:B:141:ILE:HD13	4:B:154:LYS:NZ	2.33	0.43
1:X:982:C:C2'	1:X:983:G:H5'	2.48	0.43
1:X:2074:U:H1'	23:U:48:LYS:CE	2.39	0.43
6:D:60:ILE:O	6:D:99:PHE:CD1	2.71	0.43
2:Y:31:A:P	14:L:35:SER:HB2	2.59	0.43
17:O:64:GLY:O	17:O:89:ASN:HA	2.18	0.43
17:O:5:ILE:CD1	17:O:9:GLY:O	2.66	0.43
14:L:16:LYS:O	14:L:19:THR:HB	2.18	0.43
1:X:601:A:H2'	1:X:602:C:OP1	2.18	0.43
1:X:663:G:H3'	1:X:664:C:C5'	2.32	0.43
11:I:76:LYS:C	11:I:79:GLN:HG2	2.38	0.43
5:C:112:GLN:O	5:C:114:GLY:N	2.51	0.43
5:C:112:GLN:CA	5:C:116:LYS:HD3	2.47	0.43
12:J:11:ARG:HB3	12:J:12:LYS:H	1.53	0.43
1:X:2026:C:H1'	1:X:2759:U:O4	2.18	0.43
12:J:33:TYR:O	12:J:106:GLU:CA	2.66	0.43
8:F:101:TRP:HA	8:F:104:VAL:CG2	2.48	0.43
8:F:101:TRP:HA	8:F:104:VAL:HG23	1.99	0.43
21:S:154:LEU:HB3	21:S:155:PRO:HD2	2.00	0.43
7:E:7:GLN:HB3	7:E:51:LEU:CD1	2.47	0.43
25:W:46:THR:CG2	25:W:47:VAL:N	2.79	0.43
3:A:80:ALA:O	3:A:81:ALA:HB2	2.18	0.43
1:X:1735:G:C6	1:X:1736:C:C4	3.06	0.43
2:Y:118:G:C2'	2:Y:119:G:H5'	2.48	0.43
1:X:1238:A:C2	1:X:1239:A:C2	3.06	0.43
1:X:2483:U:H6	1:X:2483:U:O5'	2.02	0.43
10:H:88:THR:HB	15:M:80:VAL:HB	2.01	0.43
1:X:2733:A:O5'	1:X:2733:A:H8	2.00	0.43
5:C:147:LYS:HB2	5:C:184:ASP:H	1.82	0.43
20:R:82:ALA:C	20:R:83:LEU:CG	2.86	0.43
23:U:53:GLU:HB3	23:U:58:LYS:H	1.84	0.43
1:X:2073:A:C6	1:X:2074:U:C4	3.06	0.43
1:X:1069:G:H1'	8:F:116:ASN:OD1	2.18	0.43
16:N:75:ASN:OD1	16:N:75:ASN:O	2.36	0.43
23:U:28:GLY:H	23:U:32:ARG:NE	2.16	0.43
15:M:43:ASN:O	15:M:44:ARG:C	2.55	0.43
1:X:2571:G:C6	1:X:2572:U:C4	3.06	0.43
19:Q:36:THR:O	19:Q:39:LYS:N	2.51	0.43
1:X:75:C:C2'	1:X:76:C:H5''	2.48	0.43
21:S:34:LEU:HD13	21:S:35:ASP:O	2.18	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1722:G:H2'	1:X:1723:U:H5'	1.99	0.43
24:V:17:GLU:O	24:V:21:ARG:NH1	2.50	0.43
24:V:3:PRO:C	24:V:5:GLU:N	2.72	0.43
3:A:161:THR:N	3:A:196:VAL:CG2	2.80	0.43
19:Q:17:TYR:HA	19:Q:20:MET:HE2	2.01	0.43
1:X:37:C:H2'	1:X:38:G:H8	1.83	0.43
9:G:94:LYS:HB2	9:G:94:LYS:HE3	1.84	0.43
4:B:4:ILE:HD11	4:B:91:VAL:HA	2.00	0.43
1:X:2:G:H2'	1:X:3:U:C6	2.53	0.43
7:E:43:VAL:CB	7:E:52:VAL:HG13	2.42	0.43
1:X:1296:G:H22	1:X:1299:A:C5'	2.32	0.43
3:A:63:ARG:NE	3:A:85:ASP:OD1	2.51	0.43
3:A:82:ILE:HA	3:A:92:ILE:O	2.18	0.43
1:X:1705:U:O2	1:X:1717:A:C5'	2.63	0.43
1:X:685:U:C2	1:X:822:G:N2	2.86	0.43
21:S:164:PRO:C	21:S:166:LEU:H	2.21	0.43
11:I:53:ARG:NH2	11:I:53:ARG:CG	2.81	0.43
1:X:2728:A:C4'	7:E:66:GLY:O	2.66	0.43
1:X:1581:C:O2'	1:X:1582:A:O5'	2.24	0.43
1:X:447:U:O2'	1:X:448:C:C5	2.71	0.43
4:B:67:PHE:HE1	4:B:78:LEU:HD21	1.82	0.43
2:Y:6:C:O2'	2:Y:7:C:H5'	2.19	0.43
1:X:1971:C:C2'	1:X:1972:G:H5'	2.47	0.43
1:X:2790:C:H2'	1:X:2791:C:H6	1.82	0.43
1:X:2859:U:H2'	1:X:2860:C:C5'	2.48	0.43
30:4:13:ASN:HB2	30:4:27:CYS:SG	2.59	0.43
1:X:1544:A:C2	1:X:1560:A:C5	3.07	0.43
1:X:765:C:C5	1:X:1772:C:C2	3.07	0.43
1:X:435:A:N1	1:X:436:A:C6	2.86	0.43
1:X:1529:C:C2'	1:X:1530:U:H5'	2.47	0.43
1:X:1051:U:C3'	1:X:1051:U:C6	3.02	0.43
20:R:8:SER:O	20:R:9:HIS:C	2.56	0.43
20:R:97:GLN:OE1	20:R:101:GLY:HA3	2.19	0.43
20:R:37:LEU:HD11	20:R:49:GLU:HG2	1.99	0.43
1:X:322:A:HO2'	1:X:323:G:P	2.40	0.43
2:Y:58:G:H5''	2:Y:59:A:OP1	2.17	0.43
9:G:41:TRP:CH2	9:G:79:PHE:CD2	3.06	0.43
16:N:107:LYS:O	16:N:108:ALA:C	2.57	0.43
16:N:74:MET:O	16:N:75:ASN:CB	2.62	0.43
17:O:10:LYS:HE3	17:O:11:GLN:CG	2.48	0.43
7:E:162:VAL:CG1	7:E:163:ARG:N	2.82	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:637:G:H1	11:I:101:ARG:HD3	1.82	0.43
5:C:173:ALA:HB1	5:C:193:LEU:HB2	2.00	0.43
1:X:876:A:OP2	12:J:23:LYS:HD3	2.17	0.43
12:J:69:ILE:HD13	12:J:104:MET:CB	2.48	0.43
21:S:75:LYS:C	21:S:77:ALA:H	2.22	0.43
3:A:144:ALA:O	3:A:153:ALA:HB1	2.18	0.43
19:Q:12:ILE:CG1	19:Q:13:SER:H	2.07	0.43
1:X:490:A:HO2'	1:X:491:A:P	2.41	0.43
1:X:1451:C:O2'	1:X:1533:G:H4'	2.18	0.43
8:F:100:ASN:HB2	8:F:139:GLU:OE1	2.18	0.43
1:X:1429:A:H1'	1:X:1603:A:N1	2.33	0.43
5:C:95:LEU:O	5:C:96:PRO:C	2.56	0.43
1:X:2300:G:C2'	1:X:2301:A:OP1	2.66	0.43
1:X:984:A:H1'	1:X:1202:U:C4	2.53	0.43
1:X:227:G:O3'	11:I:53:ARG:HG2	2.18	0.43
1:X:1629:G:C6	1:X:1635:G:O6	2.71	0.43
1:X:521:U:OP2	1:X:522:G:C6	2.71	0.43
2:Y:4:C:H2'	2:Y:5:C:C5'	2.49	0.43
1:X:2027:C:N3	1:X:2604:G:C2	2.86	0.43
1:X:1391:A:O2'	1:X:1392:U:OP1	2.37	0.43
1:X:1011:A:O2'	1:X:1012:A:H5'	2.18	0.43
1:X:438:G:H2'	1:X:439:C:C6	2.54	0.43
1:X:668:A:O2'	1:X:669:G:O4'	2.36	0.43
21:S:25:ASN:O	21:S:26:LYS:HB3	2.17	0.43
1:X:1341:G:O5'	1:X:1341:G:H8	2.02	0.43
5:C:164:VAL:C	5:C:166:TRP:H	2.22	0.43
4:B:133:LYS:HG2	4:B:137:ARG:HB3	1.99	0.43
6:D:53:ALA:C	6:D:57:LEU:HD12	2.38	0.43
14:L:97:HIS:CG	14:L:98:GLY:N	2.84	0.43
1:X:2286:G:N2	1:X:2290:A:N6	2.60	0.43
1:X:1092:U:H2'	1:X:1093:U:C6	2.53	0.43
17:O:33:VAL:CG2	17:O:33:VAL:O	2.67	0.43
1:X:2797:G:C2'	1:X:2798:A:O5'	2.65	0.43
19:Q:29:VAL:HG23	19:Q:30:SER:N	2.34	0.43
1:X:631:G:H8	1:X:633:G:O6	2.01	0.43
2:Y:109:G:H2'	2:Y:110:U:O4'	2.19	0.43
1:X:931:G:H4'	2:Y:83:C:H4'	2.00	0.43
5:C:102:LEU:HD21	5:C:106:MET:CE	2.49	0.43
5:C:3:GLN:CD	5:C:4:ILE:N	2.71	0.43
1:X:627:A:OP1	5:C:34:GLN:OE1	2.36	0.43
19:Q:11:VAL:HG23	19:Q:27:PHE:CA	2.49	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:49:THR:HG22	21:S:94:VAL:HG11	2.01	0.43
1:X:2548:G:C2	1:X:2549:G:C8	3.07	0.43
1:X:1850:G:H2'	1:X:1851:A:OP2	2.18	0.43
13:K:10:LEU:CD2	13:K:17:ARG:HB2	2.46	0.43
4:B:131:SER:O	4:B:132:LYS:CB	2.66	0.43
18:P:80:LEU:HD21	18:P:90:LEU:HD11	1.99	0.43
12:J:28:VAL:N	12:J:137:VAL:HG11	2.33	0.43
1:X:399:G:O2'	1:X:400:U:P	2.76	0.43
12:J:70:PHE:HA	12:J:71:PRO:HD3	1.78	0.43
7:E:68:THR:O	7:E:71:LEU:HB2	2.19	0.43
19:Q:76:LYS:O	19:Q:77:LYS:C	2.54	0.43
4:B:16:LYS:HB2	4:B:21:ILE:HD12	1.99	0.43
10:H:1:MET:CB	10:H:44:TYR:HB3	2.48	0.43
1:X:102:C:C4	1:X:103:U:C4	3.06	0.43
15:M:22:ARG:NH2	15:M:89:ASN:O	2.50	0.43
1:X:882:C:H2'	1:X:883:A:O4'	2.19	0.43
18:P:118:LYS:HE3	18:P:118:LYS:HB2	1.70	0.43
3:A:70:ARG:HH12	3:A:150:GLY:N	2.16	0.43
1:X:342:G:H4'	1:X:343:A:OP1	2.18	0.43
21:S:105:GLN:OE1	21:S:139:THR:HG22	2.18	0.43
6:D:52:LYS:HD3	6:D:56:GLU:OE2	2.18	0.43
6:D:50:ILE:O	6:D:53:ALA:HB3	2.19	0.43
9:G:33:ILE:CD1	9:G:34:PRO:N	2.82	0.43
1:X:2084:G:H2'	1:X:2085:G:C8	2.54	0.43
21:S:6:LYS:CB	21:S:32:PHE:HA	2.49	0.43
2:Y:111:C:H5'	2:Y:111:C:H6	1.84	0.43
19:Q:8:GLN:NE2	19:Q:8:GLN:HA	2.33	0.43
24:V:6:MET:HE1	24:V:52:GLN:HB3	2.00	0.43
1:X:2448:A:H5'	1:X:2448:A:H8	1.83	0.43
1:X:1919:A:C2	1:X:1928:G:C8	3.07	0.43
4:B:95:ILE:HA	4:B:95:ILE:HD13	1.78	0.43
30:4:34:GLN:O	30:4:35:ARG:HB2	2.19	0.43
1:X:657:A:O2'	1:X:658:G:H5'	2.19	0.43
23:U:14:VAL:O	23:U:15:VAL:HG22	2.19	0.43
1:X:2210:C:C5'	23:U:45:ASN:HB3	2.49	0.43
1:X:1965:U:OP1	1:X:1965:U:H3'	2.18	0.43
1:X:1441:A:O2'	1:X:1442:C:OP2	2.35	0.43
1:X:48:A:N7	1:X:154:U:C4	2.86	0.43
1:X:455:A:C5	5:C:39:ARG:HD2	2.53	0.43
13:K:20:LEU:C	13:K:22:ARG:N	2.71	0.43
1:X:884:C:H5''	12:J:70:PHE:CZ	2.52	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:I:28:LYS:NZ	11:I:36:GLY:HA3	2.33	0.43
4:B:123:ALA:C	4:B:124:GLY:O	2.55	0.43
1:X:1692:C:O2'	1:X:1693:A:H5'	2.19	0.43
1:X:2334:C:H4'	22:T:24:LYS:CD	2.46	0.43
1:X:837:U:C2	1:X:838:A:C8	3.06	0.43
10:H:92:ASP:O	10:H:93:ARG:HG3	2.18	0.43
1:X:312:G:C4	1:X:313:U:C5	3.06	0.43
1:X:820:U:H2'	1:X:821:A:C8	2.53	0.43
1:X:1876:C:H2'	1:X:1877:C:H5'	1.99	0.43
1:X:114:C:H2'	1:X:115:G:C8	2.54	0.43
3:A:91:ARG:HB2	3:A:107:ALA:HB3	2.00	0.43
5:C:164:VAL:C	5:C:166:TRP:N	2.72	0.43
1:X:334:G:C2	1:X:344:G:H1'	2.53	0.43
1:X:2370:G:O2'	1:X:2403:C:N4	2.51	0.43
30:4:19:ARG:HH11	30:4:19:ARG:HG3	1.83	0.43
1:X:540:G:C2'	1:X:542:A:C2	3.02	0.43
1:X:563:U:H2'	1:X:564:U:O4'	2.19	0.43
6:D:138:PHE:HB2	6:D:141:ILE:CG1	2.49	0.43
6:D:70:ALA:O	6:D:72:LYS:N	2.52	0.43
2:Y:51:G:OP1	14:L:99:ARG:HG2	2.18	0.43
2:Y:47:A:OP1	6:D:92:ARG:NH2	2.52	0.43
16:N:66:ASN:HB3	16:N:76:TYR:CB	2.38	0.43
17:O:54:TYR:N	17:O:54:TYR:CD1	2.85	0.43
17:O:36:LYS:NZ	17:O:55:THR:O	2.48	0.43
10:H:116:ARG:NH2	15:M:40:ARG:O	2.51	0.43
1:X:1921:A:O2'	1:X:1922:U:OP1	2.28	0.43
14:L:90:ASP:O	14:L:91:ARG:O	2.36	0.43
1:X:2082:C:C2'	1:X:2083:G:H5'	2.47	0.43
1:X:930:A:H3'	1:X:930:A:C8	2.53	0.43
26:Z:4:HIS:O	26:Z:5:PRO:C	2.54	0.43
5:C:112:GLN:HB3	5:C:116:LYS:HD3	1.99	0.43
3:A:205:VAL:O	3:A:207:GLY:N	2.51	0.43
19:Q:65:VAL:HG12	19:Q:66:GLY:N	2.27	0.43
19:Q:69:ILE:HD13	19:Q:70:GLY:N	2.25	0.43
19:Q:7:LEU:CD2	19:Q:7:LEU:C	2.71	0.43
1:X:242:A:C2'	1:X:243:G:C4'	2.97	0.43
1:X:2345:A:H4'	22:T:62:LEU:HD12	2.01	0.43
9:G:96:ASP:O	9:G:98:LYS:N	2.52	0.43
11:I:45:LYS:CG	11:I:46:GLY:H	2.32	0.43
1:X:969:U:C5'	12:J:17:ARG:HH11	2.24	0.43
1:X:1573:G:O5'	1:X:1574:A:H5''	2.19	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:460:U:C4	1:X:592:G:H1'	2.49	0.43
1:X:2309:G:O2'	1:X:2310:G:H5'	2.19	0.43
1:X:2663:U:N3	1:X:2664:G:N7	2.66	0.43
9:G:140:GLN:O	9:G:143:ALA:HB3	2.19	0.43
3:A:133:LEU:O	3:A:134:ARG:C	2.54	0.43
1:X:1202:U:O2'	1:X:1203:A:H5'	2.19	0.43
14:L:8:ARG:HH11	14:L:8:ARG:HB3	1.83	0.43
14:L:8:ARG:HB3	14:L:8:ARG:NH1	2.34	0.43
1:X:1766:U:C2'	1:X:1767:G:H5'	2.48	0.43
16:N:33:ARG:HH11	16:N:33:ARG:HG3	1.83	0.43
30:4:15:LYS:O	30:4:17:VAL:HG23	2.19	0.43
1:X:1237:G:C6	1:X:1238:A:N6	2.86	0.43
30:4:14:CYS:HA	30:4:27:CYS:HB2	1.99	0.43
1:X:977:G:H2'	1:X:978:U:C6	2.52	0.43
4:B:59:VAL:HG12	4:B:64:GLN:HG3	2.01	0.43
18:P:100:GLY:C	18:P:101:PRO:O	2.57	0.43
1:X:1830:C:N4	1:X:1881:U:H3'	2.34	0.43
1:X:16:G:C2	1:X:17:G:C8	3.07	0.43
1:X:2630:C:O2'	1:X:2631:C:H5'	2.19	0.43
1:X:2502:G:O2'	1:X:2503:G:H5'	2.19	0.43
1:X:880:C:H6	1:X:880:C:O5'	2.01	0.43
1:X:1052:C:H3'	1:X:1053:G:H5'	1.93	0.43
1:X:1122:A:C2'	1:X:1123:G:O5'	2.66	0.43
5:C:165:SER:HB3	5:C:166:TRP:CZ3	2.54	0.43
20:R:22:VAL:CG1	20:R:23:ILE:N	2.81	0.43
1:X:1630:A:N6	18:P:109:ARG:H	2.16	0.43
1:X:2564:U:H5'	1:X:2565:C:P	2.59	0.43
14:L:33:ARG:CZ	14:L:103:LEU:HD12	2.49	0.43
2:Y:44:C:N3	6:D:90:THR:OG1	2.44	0.43
9:G:165:VAL:O	9:G:167:LYS:N	2.51	0.43
17:O:39:PHE:HE2	17:O:51:ALA:HB1	1.79	0.43
1:X:2299:A:H61	1:X:2312:A:H2'	1.84	0.43
1:X:2270:U:O2'	1:X:2353:G:N3	2.48	0.43
3:A:243:GLY:O	3:A:244:ARG:CZ	2.67	0.43
21:S:19:ILE:HD11	21:S:36:ARG:HA	1.98	0.43
21:S:56:VAL:O	21:S:57:GLU:C	2.56	0.43
2:Y:100:G:H2'	2:Y:101:A:O4'	2.18	0.43
1:X:2701:A:H2'	1:X:2702:G:O4'	2.19	0.43
19:Q:71:GLN:O	19:Q:72:ARG:O	2.36	0.43
1:X:2759:U:C5'	1:X:2760:G:OP1	2.67	0.43
22:T:50:GLY:O	22:T:81:ILE:HD12	2.19	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:Q:90:ALA:C	19:Q:92:ALA:N	2.50	0.43
5:C:46:ARG:HD2	5:C:51:VAL:HB	2.01	0.43
23:U:20:ARG:HB2	23:U:43:ARG:HD2	2.01	0.43
9:G:119:LEU:HD12	9:G:126:VAL:HG22	2.01	0.43
6:D:108:LEU:HB2	6:D:109:PRO:HD3	2.01	0.43
1:X:1873:A:H2	1:X:2214:G:O4'	2.02	0.43
10:H:75:VAL:HG23	10:H:76:ARG:HG3	2.00	0.43
1:X:1115:C:H6	1:X:1115:C:O5'	2.02	0.43
1:X:863:C:H4'	25:W:18:LYS:CB	2.46	0.43
1:X:861:G:C2'	1:X:862:A:C5'	2.96	0.43
5:C:149:LEU:HD22	5:C:179:ASP:HB3	2.00	0.43
15:M:6:LYS:H	15:M:6:LYS:CD	2.24	0.43
9:G:84:ASN:N	9:G:153:GLY:O	2.49	0.43
1:X:984:A:H5'	17:O:78:VAL:CG2	2.49	0.43
11:I:127:ALA:C	11:I:129:ALA:N	2.72	0.43
1:X:1514:C:C4'	1:X:1593:C:H5'	2.48	0.43
1:X:1463:A:H2'	1:X:1464:A:H8	1.82	0.43
3:A:86:PRO:O	3:A:87:ASN:CB	2.66	0.43
1:X:486:U:H4'	1:X:519:C:H2'	2.00	0.43
24:V:22:LYS:HA	24:V:25:LEU:HB3	2.01	0.43
1:X:2197:U:C4	1:X:2198:U:C5	3.06	0.43
1:X:349:G:OP1	20:R:13:LYS:NZ	2.32	0.43
1:X:2598:C:HO2'	4:B:154:LYS:HE3	1.82	0.43
21:S:138:VAL:HG23	21:S:139:THR:N	2.33	0.43
6:D:122:PHE:O	6:D:123:ASP:C	2.57	0.43
14:L:100:VAL:HG13	14:L:101:LYS:N	2.34	0.43
14:L:81:GLU:O	14:L:82:LYS:CG	2.63	0.43
1:X:731:A:O2'	1:X:732:G:C5'	2.64	0.43
15:M:41:GLU:O	15:M:44:ARG:O	2.37	0.43
6:D:4:LEU:HG	6:D:5:LYS:N	2.34	0.43
21:S:13:LYS:O	21:S:16:GLU:O	2.36	0.43
1:X:872:G:H22	1:X:929:A:P	2.42	0.43
1:X:1698:C:HO2'	1:X:1753:A:H2'	1.76	0.43
15:M:29:PRO:C	15:M:30:GLY:O	2.54	0.43
3:A:213:ARG:C	3:A:215:LEU:H	2.22	0.43
1:X:1782:A:N6	1:X:1820:G:C2'	2.82	0.43
19:Q:71:GLN:C	19:Q:72:ARG:O	2.57	0.43
24:V:21:ARG:C	24:V:23:LYS:N	2.72	0.43
24:V:26:MET:HA	24:V:29:ARG:NH2	2.34	0.43
1:X:89:A:O4'	1:X:89:A:OP1	2.36	0.43
21:S:130:ILE:HD12	21:S:130:ILE:N	2.34	0.43

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:77:ALA:HA	21:S:78:PRO:HD3	1.70	0.43
5:C:82:VAL:C	5:C:83:ALA:O	2.56	0.43
1:X:2237:C:H2'	1:X:2406:C:OP2	2.18	0.43
1:X:2516:U:C2	1:X:2517:C:C5	3.06	0.43
1:X:2722:C:H5''	30:4:35:ARG:HH12	1.83	0.43
16:N:82:GLY:O	16:N:83:LEU:C	2.58	0.43
1:X:657:A:H2'	1:X:658:G:O4'	2.19	0.43
9:G:155:THR:HG23	9:G:156:HIS:ND1	2.34	0.43
10:H:4:PRO:O	10:H:5:GLN:CB	2.57	0.43
1:X:496:C:O2'	1:X:497:C:H5''	2.19	0.43
1:X:717:G:H1'	1:X:740:A:H61	1.82	0.43
1:X:1808:C:H41	3:A:37:LEU:HD12	1.83	0.43
1:X:1492:A:N6	1:X:1531:C:N4	2.66	0.43
3:A:45:ASN:ND2	3:A:46:ARG:N	2.67	0.43
4:B:188:ILE:HG23	4:B:189:PRO:CD	2.49	0.43
1:X:766:A:H8	1:X:766:A:O5'	2.01	0.43
1:X:1419:G:H2'	1:X:1420:A:C8	2.54	0.43
1:X:2378:G:C2	1:X:2397:A:C2	3.07	0.43
4:B:30:PRO:N	4:B:180:ASN:ND2	2.67	0.43
1:X:1169:C:O5'	1:X:1169:C:H6	2.01	0.43
1:X:623:G:H2'	1:X:626:A:C6	2.53	0.43
1:X:756:C:C2'	1:X:757:U:C5'	2.96	0.43
6:D:32:GLU:OE2	6:D:157:VAL:HG11	2.19	0.43
6:D:75:SER:O	6:D:76:ASN:C	2.57	0.43
1:X:731:A:C2'	1:X:732:G:C4'	2.97	0.43
16:N:105:ALA:O	16:N:106:PHE:C	2.57	0.43
1:X:1022:A:C2	1:X:1024:G:C4	3.07	0.43
7:E:126:PRO:CG	7:E:127:GLU:H	2.21	0.43
1:X:2726:U:H1'	7:E:139:GLN:NE2	2.32	0.43
6:D:10:ASP:O	6:D:11:GLN:C	2.57	0.43
21:S:24:TYR:HA	21:S:28:ASN:O	2.18	0.43
21:S:28:ASN:OD1	21:S:28:ASN:N	2.51	0.43
10:H:25:LEU:HG	10:H:52:VAL:HG23	2.00	0.43
5:C:187:VAL:O	5:C:189:ASP:N	2.52	0.43
19:Q:7:LEU:CD2	24:V:29:ARG:HH12	2.31	0.43
24:V:31:GLN:O	24:V:35:GLY:N	2.51	0.43
24:V:5:GLU:HA	24:V:8:ASN:HB2	1.99	0.43
21:S:73:LYS:C	21:S:75:LYS:H	2.23	0.43
11:I:116:ARG:CG	11:I:117:ALA:N	2.81	0.43
1:X:1850:G:C2'	1:X:1851:A:C8	2.95	0.43
1:X:461:A:H4'	16:N:3:ARG:NH2	2.32	0.43

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:29:U:O2'	16:N:11:ARG:NH2	2.52	0.43
1:X:2713:A:C6	4:B:203:LYS:HG2	2.53	0.43
1:X:1060:C:N4	1:X:1061:A:N6	2.67	0.43
3:A:142:VAL:CG1	3:A:193:ILE:HD13	2.48	0.43
1:X:1526:U:H3'	1:X:1527:G:C8	2.53	0.43
1:X:703:A:O2'	1:X:793:G:OP1	2.36	0.43
4:B:61:LYS:N	4:B:62:PRO:CD	2.82	0.43
1:X:777:A:OP2	3:A:214:TRP:HH2	2.01	0.43
1:X:160:C:O2	1:X:445:A:H2	2.01	0.43
1:X:1392:U:C6	1:X:1392:U:OP1	2.69	0.43
1:X:2444:C:O3'	30:4:5:SER:HB3	2.19	0.43
1:X:1558:C:C2'	1:X:1559:G:O5'	2.67	0.43
1:X:2304:G:H8	1:X:2304:G:P	2.41	0.43
1:X:437:G:H2'	1:X:438:G:O4'	2.19	0.43
7:E:137:ASP:O	7:E:138:LYS:C	2.57	0.43
1:X:2378:G:C6	1:X:2397:A:N1	2.87	0.43
1:X:185:C:H2'	1:X:186:C:H6	1.84	0.43
1:X:2718:A:H2'	1:X:2719:U:O5'	2.19	0.43
23:U:72:LYS:N	23:U:72:LYS:HD3	2.33	0.43
3:A:258:LYS:NZ	3:A:261:ARG:HE	2.17	0.42
5:C:147:LYS:HA	5:C:166:TRP:O	2.19	0.42
1:X:2381:A:C2'	1:X:2382:C:OP2	2.67	0.42
1:X:1189:G:O5'	1:X:1189:G:H8	2.01	0.42
20:R:18:LYS:CD	20:R:18:LYS:N	2.81	0.42
12:J:119:PHE:O	12:J:122:ALA:N	2.52	0.42
23:U:70:LEU:HD13	23:U:79:GLU:OE2	2.18	0.42
6:D:52:LYS:HE3	6:D:148:LYS:H	1.84	0.42
14:L:35:SER:OG	14:L:36:LYS:N	2.51	0.42
2:Y:26:G:H5''	2:Y:27:A:OP1	2.19	0.42
9:G:164:GLN:O	9:G:165:VAL:CG1	2.56	0.42
17:O:42:GLY:C	17:O:44:GLN:N	2.71	0.42
1:X:1023:U:C6	1:X:1023:U:C3'	3.01	0.42
23:U:23:LYS:HD2	23:U:35:THR:CB	2.49	0.42
7:E:163:ARG:HB2	7:E:167:GLU:CG	2.49	0.42
1:X:2081:U:H2'	1:X:2082:C:H6	1.83	0.42
1:X:873:U:O4	1:X:929:A:N7	2.52	0.42
5:C:195:ILE:O	5:C:196:VAL:CB	2.67	0.42
24:V:6:MET:CE	24:V:56:VAL:HG21	2.49	0.42
1:X:2760:G:C2'	1:X:2761:A:OP1	2.66	0.42
1:X:1371:G:H1'	1:X:1387:G:H1	1.84	0.42
1:X:2331:A:H2	22:T:33:ALA:HB1	1.84	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:C:48:ARG:CB	5:C:51:VAL:H	2.32	0.42
1:X:1031:C:O2'	1:X:1032:A:C5'	2.67	0.42
11:I:107:LYS:HG3	11:I:108:LEU:H	1.84	0.42
1:X:2505:G:O2'	30:4:1:MET:N	2.51	0.42
1:X:1:G:H2'	1:X:2:G:O4'	2.19	0.42
11:I:34:HIS:O	11:I:35:LYS:CG	2.67	0.42
7:E:6:LYS:O	7:E:7:GLN:HG3	2.19	0.42
1:X:695:G:O2'	1:X:696:U:H5'	2.19	0.42
1:X:648:A:OP1	11:I:110:ALA:HB3	2.19	0.42
1:X:640:C:H4'	1:X:660:G:C2	2.54	0.42
16:N:47:TYR:CE1	17:O:73:LYS:NZ	2.87	0.42
1:X:938:G:H4'	1:X:939:C:C6	2.53	0.42
1:X:885:A:C5	1:X:918:A:C2	3.07	0.42
1:X:1808:C:C5	3:A:62:TYR:CE2	3.07	0.42
3:A:108:PRO:HG2	3:A:111:LEU:HG	2.00	0.42
1:X:2379:G:H2'	1:X:2380:U:C5'	2.49	0.42
1:X:1582:A:H1'	3:A:214:TRP:HB3	2.00	0.42
1:X:777:A:OP2	3:A:214:TRP:CH2	2.71	0.42
1:X:847:C:H2'	1:X:848:A:C8	2.54	0.42
1:X:1077:U:H2'	1:X:1079:G:OP2	2.19	0.42
1:X:2560:G:C8	1:X:2589:C:N4	2.87	0.42
12:J:126:LEU:HA	12:J:127:PRO:HD3	1.89	0.42
1:X:1830:C:H41	1:X:1881:U:H3'	1.83	0.42
1:X:2718:A:C2	1:X:2719:U:H1'	2.54	0.42
11:I:90:ARG:O	11:I:121:HIS:HB2	2.19	0.42
13:K:103:ARG:CG	13:K:104:ARG:N	2.82	0.42
3:A:172:TYR:HB3	3:A:184:ARG:HB3	1.99	0.42
5:C:154:ASP:OD2	5:C:157:THR:OG1	2.29	0.42
5:C:161:ALA:HB3	5:C:169:VAL:CG2	2.49	0.42
20:R:93:ARG:HH22	20:R:108:VAL:CA	2.32	0.42
1:X:971:A:H4'	1:X:2436:U:C5'	2.49	0.42
1:X:2035:G:N3	4:B:149:ARG:HA	2.34	0.42
1:X:759:C:C1'	1:X:761:G:N2	2.82	0.42
1:X:760:U:C2	26:Z:3:LYS:HG3	2.53	0.42
3:A:268:ARG:O	3:A:269:PHE:HB2	2.19	0.42
2:Y:32:C:H2'	2:Y:33:C:H5'	2.01	0.42
1:X:1089:C:C1'	1:X:1099:A:H2	2.31	0.42
1:X:127:C:O2'	1:X:128:C:H5'	2.19	0.42
5:C:108:ILE:O	5:C:112:GLN:HG2	2.19	0.42
1:X:922:A:N1	1:X:2256:G:H1'	2.34	0.42
24:V:18:ILE:C	24:V:20:ALA:H	2.22	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2618:A:N7	1:X:2755:A:H2	2.17	0.42
15:M:33:VAL:CG2	15:M:51:GLU:OE1	2.66	0.42
1:X:1385:C:O2'	1:X:1386:A:H5'	2.19	0.42
13:K:13:ASN:HD22	13:K:14:SER:N	2.17	0.42
22:T:31:VAL:CG1	22:T:37:LEU:HD21	2.47	0.42
25:W:41:ARG:HH11	25:W:41:ARG:CG	2.29	0.42
1:X:774:A:C8	1:X:774:A:O5'	2.73	0.42
20:R:70:GLU:OE1	20:R:72:ARG:NH1	2.34	0.42
23:U:39:LYS:O	23:U:40:ARG:CB	2.67	0.42
2:Y:7:C:H2'	2:Y:8:C:H6	1.83	0.42
1:X:677:G:C2	1:X:678:G:C8	3.08	0.42
1:X:2858:A:H5''	1:X:2859:U:H5'	2.00	0.42
1:X:2859:U:OP2	26:Z:43:HIS:CE1	2.72	0.42
1:X:167:A:H5''	1:X:181:A:N1	2.34	0.42
1:X:1283:C:H5''	1:X:1284:G:C5'	2.49	0.42
1:X:1261:G:O2'	1:X:1262:U:OP1	2.34	0.42
1:X:1300:A:OP2	13:K:103:ARG:HD2	2.19	0.42
1:X:131:C:H6	1:X:131:C:O5'	2.02	0.42
5:C:154:ASP:N	5:C:154:ASP:OD1	2.52	0.42
20:R:22:VAL:HG22	20:R:83:LEU:H	1.84	0.42
1:X:321:A:C2	1:X:323:G:H1'	2.54	0.42
1:X:1673:C:C2	1:X:1674:C:C5	3.08	0.42
1:X:541:C:OP1	1:X:570:G:N1	2.51	0.42
23:U:59:THR:O	23:U:60:VAL:O	2.37	0.42
6:D:55:LYS:O	6:D:59:LEU:HG	2.19	0.42
1:X:8:A:P	9:G:149:LYS:HZ1	2.41	0.42
21:S:10:PRO:O	21:S:13:LYS:CG	2.63	0.42
1:X:1699:A:H61	1:X:1723:U:H3	1.67	0.42
5:C:102:LEU:CD2	5:C:106:MET:HB2	2.47	0.42
5:C:34:GLN:O	5:C:38:ARG:HG3	2.19	0.42
21:S:117:VAL:O	21:S:117:VAL:HG23	2.19	0.42
1:X:1926:U:H5''	1:X:1927:U:OP1	2.20	0.42
3:A:270:ILE:HG13	3:A:271:VAL:HG23	2.02	0.42
30:4:1:MET:SD	30:4:35:ARG:NE	2.91	0.42
8:F:129:GLY:CA	8:F:132:ARG:HB3	2.37	0.42
7:E:26:VAL:HG12	7:E:27:LYS:N	2.34	0.42
3:A:111:LEU:HD21	3:A:127:LEU:O	2.20	0.42
1:X:224:G:H4'	1:X:399:G:N1	2.34	0.42
1:X:745:C:H2'	1:X:746:G:H5'	2.01	0.42
1:X:1516:A:N3	3:A:100:GLY:HA3	2.35	0.42
1:X:2644:A:O2'	1:X:2645:C:H5'	2.19	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1200:G:N7	1:X:1201:G:N7	2.68	0.42
7:E:39:THR:O	7:E:41:LEU:N	2.51	0.42
1:X:1918:G:C6	1:X:1945:C:C5	3.07	0.42
1:X:963:G:C6	1:X:977:G:C6	3.07	0.42
1:X:2358:C:H2'	1:X:2359:U:H6	1.83	0.42
10:H:121:ARG:HB3	10:H:123:PHE:CE1	2.54	0.42
1:X:1824:C:N4	1:X:1825:C:C4	2.88	0.42
1:X:111:G:H5'	1:X:112:U:OP1	2.17	0.42
1:X:2590:U:O2	1:X:2590:U:H2'	2.19	0.42
20:R:66:GLN:HG2	20:R:66:GLN:O	2.19	0.42
1:X:1050:G:C2'	1:X:1051:U:H5''	2.50	0.42
5:C:129:LYS:O	5:C:131:LYS:N	2.48	0.42
1:X:759:C:OP2	1:X:2591:C:C6	2.72	0.42
26:Z:20:ARG:O	26:Z:22:HIS:N	2.52	0.42
1:X:2562:G:C5	1:X:2563:U:C5	3.07	0.42
14:L:33:ARG:HH22	14:L:103:LEU:HB2	1.79	0.42
2:Y:53:G:N2	2:Y:54:U:C5	2.80	0.42
9:G:33:ILE:CD1	9:G:35:LYS:HZ3	2.31	0.42
17:O:11:GLN:NE2	17:O:38:LEU:HB3	2.34	0.42
7:E:150:LYS:C	7:E:152:ARG:H	2.21	0.42
1:X:931:G:C6	1:X:932:G:C5	3.07	0.42
2:Y:15:A:C2'	2:Y:16:U:H5''	2.50	0.42
5:C:112:GLN:OE1	5:C:116:LYS:HD3	2.20	0.42
1:X:2807:U:O2'	1:X:2808:U:C5'	2.68	0.42
1:X:923:A:C2	12:J:12:LYS:HE3	2.54	0.42
1:X:1325:U:H4'	1:X:1326:U:O5'	2.19	0.42
5:C:48:ARG:HB2	5:C:51:VAL:CG1	2.50	0.42
23:U:20:ARG:HD2	23:U:43:ARG:CD	2.50	0.42
1:X:1978:U:C3'	1:X:1979:C:C5'	2.94	0.42
1:X:2551:A:H2'	4:B:144:ARG:HH11	1.84	0.42
1:X:496:C:H2'	1:X:497:C:H5''	1.99	0.42
1:X:2849:C:C2'	1:X:2850:U:C5'	2.98	0.42
3:A:165:VAL:HG13	3:A:173:VAL:HG11	2.01	0.42
1:X:745:C:H2'	1:X:746:G:C5'	2.50	0.42
1:X:956:A:H5'	1:X:957:G:OP2	2.18	0.42
1:X:2220:A:H2'	1:X:2221:G:C8	2.55	0.42
10:H:1:MET:HB3	10:H:44:TYR:HB3	2.01	0.42
1:X:2555:G:H3'	1:X:2555:G:OP1	2.19	0.42
1:X:1688:U:H6	1:X:1688:U:O5'	2.03	0.42
1:X:1708:C:C4	1:X:1709:U:C5	3.08	0.42
20:R:48:VAL:C	20:R:50:GLY:H	2.22	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:B:147:PRO:C	4:B:149:ARG:H	2.23	0.42
1:X:805:G:N7	1:X:2419:C:C1'	2.82	0.42
14:L:79:ALA:O	14:L:82:LYS:HB2	2.19	0.42
9:G:67:ARG:NH2	9:G:70:PHE:O	2.52	0.42
17:O:36:LYS:HE3	17:O:56:VAL:HG13	2.01	0.42
7:E:109:TYR:CD1	7:E:109:TYR:N	2.88	0.42
1:X:1750:A:N7	1:X:2675:U:H1'	2.35	0.42
1:X:2825:A:C6	1:X:2826:C:C4	3.07	0.42
7:E:54:ARG:CZ	7:E:62:ARG:HG2	2.50	0.42
5:C:112:GLN:C	5:C:114:GLY:N	2.73	0.42
21:S:94:VAL:CG1	21:S:95:SER:N	2.83	0.42
1:X:2754:C:O2'	1:X:2755:A:H5'	2.19	0.42
1:X:1814:G:O2'	1:X:1815:G:H5'	2.19	0.42
1:X:199:A:O2'	1:X:200:A:H5'	2.20	0.42
1:X:1406:A:N6	19:Q:15:LYS:CG	2.82	0.42
1:X:494:A:N7	1:X:507:A:H2	2.17	0.42
13:K:45:ARG:O	13:K:49:GLU:HG3	2.19	0.42
25:W:4:LYS:HD2	25:W:52:GLU:CG	2.49	0.42
1:X:5:A:N3	9:G:162:LYS:HD2	2.34	0.42
1:X:2712:G:H8	1:X:2712:G:OP2	2.02	0.42
6:D:93:GLY:O	6:D:97:TYR:HB2	2.19	0.42
1:X:691:C:C2	1:X:692:C:C5	3.07	0.42
1:X:694:G:H2'	1:X:695:G:O4'	2.20	0.42
1:X:1858:C:H2'	1:X:1859:A:C8	2.54	0.42
1:X:2314:A:O2'	1:X:2315:A:H8	2.03	0.42
16:N:97:ASP:OD2	16:N:101:ARG:CZ	2.68	0.42
6:D:119:PRO:HG2	6:D:120:ASN:N	2.21	0.42
1:X:2799:C:C5	1:X:2800:C:C4	3.08	0.42
13:K:24:GLN:O	13:K:25:ALA:C	2.57	0.42
1:X:1183:C:H2'	1:X:1184:G:H8	1.82	0.42
1:X:1145:C:C6	1:X:1147:G:OP2	2.73	0.42
1:X:787:A:P	3:A:48:ARG:HH12	2.43	0.42
1:X:826:U:O2	1:X:827:C:C6	2.72	0.42
10:H:27:SER:HB3	10:H:49:ASP:HA	2.02	0.42
13:K:33:ARG:HG2	13:K:34:ILE:N	2.34	0.42
11:I:126:SER:O	11:I:130:ILE:HG13	2.20	0.42
1:X:92:U:H2'	1:X:93:A:C8	2.55	0.42
1:X:2777:A:N7	18:P:134:LYS:HB2	2.34	0.42
15:M:5:ILE:HD12	15:M:7:ILE:HB	2.01	0.42
1:X:1163:C:H2'	1:X:1164:C:H6	1.84	0.42
1:X:221:A:C6	1:X:232:A:C8	3.08	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2398:U:H2'	1:X:2399:C:C6	2.54	0.42
1:X:43:A:H8	1:X:43:A:O5'	2.03	0.42
1:X:643:A:H4'	11:I:67:ASN:HB2	2.01	0.42
1:X:2196:U:C3'	1:X:2197:U:H6	2.33	0.42
5:C:170:LEU:HD12	5:C:170:LEU:HA	1.78	0.42
1:X:317:U:C2'	1:X:318:G:C5'	2.88	0.42
12:J:122:ALA:O	12:J:125:LYS:HD2	2.19	0.42
18:P:38:VAL:O	18:P:39:ARG:C	2.54	0.42
6:D:123:ASP:H	6:D:129:ASN:ND2	2.17	0.42
1:X:730:C:C5'	1:X:731:A:P	3.06	0.42
15:M:43:ASN:C	15:M:43:ASN:ND2	2.70	0.42
6:D:5:LYS:C	6:D:8:TYR:HB3	2.34	0.42
14:L:11:LEU:HA	14:L:14:ARG:CD	2.45	0.42
1:X:1780:A:H2'	1:X:1781:C:O4'	2.20	0.42
24:V:56:VAL:O	24:V:57:LYS:C	2.57	0.42
3:A:248:THR:HB	3:A:249:PRO:HD2	2.02	0.42
1:X:441:A:OP2	1:X:441:A:H8	2.01	0.42
17:O:68:LYS:HA	17:O:87:ARG:HB3	2.01	0.42
23:U:41:VAL:CG2	23:U:42:GLN:N	2.70	0.42
1:X:1927:U:H1'	1:X:1938:U:C4'	2.49	0.42
1:X:2210:C:C2	1:X:2211:U:C6	3.08	0.42
5:C:185:ARG:HG2	5:C:185:ARG:HH21	1.84	0.42
7:E:136:ILE:H	7:E:136:ILE:CD1	2.31	0.42
4:B:85:ALA:HB3	4:B:86:PRO:HD3	2.02	0.42
1:X:2252:A:O2'	1:X:2253:A:H5'	2.20	0.42
1:X:2165:A:H2'	1:X:2166:G:C8	2.54	0.42
14:L:43:ILE:HD12	14:L:43:ILE:N	2.34	0.42
1:X:1375:C:N3	1:X:1376:C:C6	2.88	0.42
1:X:1437:A:H2'	1:X:1438:G:C8	2.53	0.42
23:U:64:ALA:O	23:U:66:ALA:N	2.53	0.42
1:X:2431:C:O2'	1:X:2432:A:H5'	2.20	0.42
3:A:223:GLY:HA2	3:A:226:MET:SD	2.60	0.42
1:X:707:U:H6	1:X:707:U:O5'	2.03	0.42
3:A:88:ARG:NH1	3:A:88:ARG:HG3	2.35	0.42
4:B:133:LYS:HE2	4:B:133:LYS:HB3	1.73	0.42
21:S:100:THR:O	21:S:101:THR:HG23	2.20	0.42
6:D:128:TYR:HB3	6:D:156:ILE:HD12	2.02	0.42
6:D:130:LEU:HD22	6:D:132:ILE:HD11	2.01	0.42
6:D:33:LYS:O	6:D:157:VAL:HG23	2.20	0.42
2:Y:58:G:C4'	2:Y:59:A:H8	2.33	0.42
16:N:93:LYS:HE2	17:O:5:ILE:HG21	2.00	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:117:PRO:N	7:E:123:PHE:HE1	2.18	0.42
10:H:116:ARG:HH21	15:M:40:ARG:CB	2.32	0.42
10:H:133:VAL:HG12	15:M:38:LYS:NZ	2.35	0.42
10:H:127:VAL:HG13	10:H:133:VAL:HG21	2.00	0.42
1:X:2356:A:H2	14:L:91:ARG:HH22	1.61	0.42
19:Q:35:LYS:HA	19:Q:38:ILE:CG2	2.50	0.42
21:S:16:GLU:O	21:S:17:SER:C	2.57	0.42
15:M:34:ARG:NE	15:M:88:VAL:HG13	2.35	0.42
15:M:34:ARG:HH12	15:M:81:PHE:HB3	1.82	0.42
3:A:248:THR:HB	3:A:249:PRO:CD	2.50	0.42
15:M:51:GLU:O	15:M:51:GLU:HG3	2.14	0.42
1:X:198:A:N7	1:X:243:G:C5	2.87	0.42
5:C:48:ARG:HB2	5:C:51:VAL:H	1.84	0.42
1:X:463:C:OP1	5:C:46:ARG:NH1	2.53	0.42
9:G:117:GLU:C	9:G:119:LEU:N	2.73	0.42
1:X:2225:G:H2'	1:X:2226:A:C8	2.55	0.42
6:D:108:LEU:HA	6:D:111:ILE:HG13	2.01	0.42
1:X:2691:C:C2'	1:X:2692:A:C5'	2.98	0.42
1:X:2387:U:H2'	1:X:2388:G:H8	1.85	0.42
1:X:510:G:H1'	1:X:515:A:N6	2.34	0.42
15:M:72:SER:O	15:M:73:PHE:HB2	2.19	0.42
5:C:168:SER:CB	5:C:183:HIS:NE2	2.82	0.42
1:X:1412:C:C2'	1:X:1413:U:O5'	2.68	0.42
1:X:847:C:H2'	1:X:848:A:O4'	2.20	0.42
1:X:26:G:C2	1:X:27:G:N2	2.87	0.42
18:P:46:ARG:HH11	18:P:46:ARG:CG	2.29	0.42
1:X:2490:U:O4	1:X:2554:C:N3	2.53	0.42
13:K:96:ARG:CD	13:K:114:GLU:OE2	2.67	0.42
17:O:62:GLU:H	17:O:92:ALA:HB3	1.85	0.42
3:A:68:LYS:HG2	3:A:69:ARG:N	2.34	0.42
20:R:86:PRO:HD3	20:R:90:LYS:HD3	2.01	0.42
1:X:2004:U:H4'	1:X:2005:U:OP2	2.16	0.42
1:X:2033:C:H1'	4:B:156:MET:CE	2.48	0.42
1:X:2594:U:C2	1:X:2595:C:C5	3.08	0.42
23:U:53:GLU:HB3	23:U:58:LYS:HB2	2.01	0.42
6:D:40:LEU:HB2	6:D:41:GLY:H	1.69	0.42
6:D:69:LYS:HG2	6:D:84:PRO:HG3	2.01	0.42
2:Y:29:C:O3'	14:L:37:HIS:CD2	2.73	0.42
8:F:112:MET:CA	8:F:115:LEU:HD12	2.45	0.42
1:X:1088:A:C2'	1:X:1089:C:H5'	2.49	0.42
16:N:93:LYS:O	16:N:94:VAL:HB	2.18	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:13:ARG:CZ	17:O:13:ARG:HB2	2.49	0.42
14:L:26:ARG:HD3	14:L:88:VAL:HG22	2.02	0.42
1:X:632:A:H3'	1:X:632:A:N3	2.34	0.42
1:X:305:A:H2'	1:X:306:G:C5'	2.48	0.42
22:T:72:LYS:O	22:T:74:LYS:N	2.52	0.42
2:Y:16:U:HO2'	2:Y:17:A:P	2.43	0.42
1:X:2754:C:C2'	1:X:2755:A:H5'	2.49	0.42
5:C:45:THR:HG21	5:C:86:PRO:HD2	2.02	0.42
1:X:516:G:O2'	1:X:517:A:P	2.76	0.42
11:I:108:LEU:O	11:I:109:LEU:HD23	2.20	0.42
6:D:134:GLU:HG2	6:D:136:LEU:N	2.28	0.42
11:I:11:GLY:C	11:I:13:ARG:N	2.72	0.42
11:I:78:SER:CA	11:I:112:GLY:HA3	2.50	0.42
1:X:1441:A:H4'	1:X:1442:C:O5'	2.19	0.42
10:H:113:PRO:HB2	10:H:134:LEU:HD12	2.01	0.42
1:X:1194:U:C6	1:X:1194:U:H5'	2.49	0.42
1:X:715:U:H2'	1:X:716:U:O4'	2.19	0.42
11:I:28:LYS:HZ2	11:I:36:GLY:HA3	1.83	0.42
21:S:51:LEU:CD2	21:S:51:LEU:H	2.19	0.42
1:X:405:C:H2'	1:X:406:G:O4'	2.19	0.42
1:X:699:G:C4'	1:X:700:C:OP2	2.67	0.42
1:X:219:G:O2'	1:X:220:U:P	2.78	0.42
1:X:777:A:O2'	1:X:778:G:P	2.78	0.42
1:X:1914:U:O4	1:X:1952:A:N7	2.52	0.42
16:N:59:ARG:HB2	16:N:59:ARG:HE	1.64	0.42
1:X:1917:C:H2'	1:X:1918:G:C5'	2.50	0.42
17:O:83:ARG:NH2	17:O:83:ARG:HG2	2.34	0.42
1:X:165:G:O2'	1:X:166:G:H5'	2.19	0.42
2:Y:9:G:H5'	14:L:32:TYR:CE2	2.54	0.42
21:S:172:LEU:CD2	21:S:173:PRO:HD2	2.50	0.42
1:X:1838:G:C2	1:X:1878:C:C2	3.08	0.42
3:A:70:ARG:O	3:A:72:LYS:N	2.53	0.42
1:X:2197:U:H3'	1:X:2198:U:H6	1.85	0.42
5:C:122:GLY:CA	5:C:124:ASP:OD1	2.67	0.42
20:R:14:LEU:C	20:R:16:PHE:N	2.71	0.42
1:X:2463:G:H1'	12:J:125:LYS:HB2	2.02	0.42
1:X:2856:U:H2'	1:X:2857:C:C6	2.54	0.42
4:B:146:THR:O	4:B:147:PRO:O	2.37	0.42
18:P:36:ARG:HH21	26:Z:20:ARG:HD3	1.85	0.42
18:P:39:ARG:NE	18:P:97:VAL:HB	2.34	0.42
1:X:531:G:C2'	1:X:532:A:O5'	2.68	0.42

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:756:C:O5'	1:X:756:C:H6	2.02	0.42
6:D:53:ALA:O	6:D:54:ALA:C	2.57	0.42
8:F:115:LEU:C	8:F:117:ALA:N	2.67	0.42
1:X:1068:A:N7	1:X:1097:A:H3'	2.34	0.42
1:X:1095:A:H2'	1:X:1096:A:C4'	2.49	0.42
23:U:24:ALA:O	23:U:25:ARG:HB2	2.18	0.42
23:U:32:ARG:HG2	23:U:33:LYS:N	2.35	0.42
1:X:1922:U:HO2'	1:X:2571:G:H1'	1.77	0.42
1:X:559:C:O2	1:X:560:G:H1'	2.19	0.42
19:Q:49:ARG:C	19:Q:50:VAL:HG23	2.40	0.42
1:X:354:C:H2'	1:X:355:G:O4'	2.19	0.42
1:X:871:U:H2'	1:X:2247:A:N3	2.34	0.42
1:X:1724:C:H2'	1:X:1725:C:C6	2.55	0.42
24:V:49:GLU:O	24:V:53:LEU:HG	2.20	0.42
12:J:39:GLU:HA	12:J:40:PRO:HD3	1.80	0.42
3:A:257:LEU:HA	3:A:257:LEU:HD23	1.61	0.42
1:X:1552:C:H1'	1:X:1553:G:C4	2.55	0.42
5:C:46:ARG:HB3	5:C:51:VAL:HG23	2.02	0.42
1:X:37:C:H1'	5:C:44:SER:HB2	2.02	0.42
1:X:683:A:O2'	1:X:684:C:O5'	2.36	0.42
21:S:98:VAL:HG21	21:S:168:VAL:CG1	2.50	0.42
1:X:1939:U:C4	1:X:1940:C:C4	3.07	0.42
4:B:192:ASN:CB	15:M:9:ARG:NH1	2.83	0.42
12:J:28:VAL:O	12:J:29:ALA:HB2	2.20	0.42
1:X:1114:A:H3'	1:X:1115:C:H5	1.85	0.42
1:X:698:A:C2	1:X:702:A:C2	3.07	0.42
1:X:1453:A:H2'	1:X:1454:U:O4'	2.20	0.42
1:X:107:G:C2	1:X:108:G:C8	3.08	0.42
1:X:1177:U:C2	1:X:1198:C:O2	2.73	0.42
1:X:1178:C:H6	1:X:1178:C:O5'	2.03	0.42
1:X:1831:G:C5	1:X:1832:G:C8	3.08	0.42
1:X:711:C:O2'	1:X:747:A:N6	2.53	0.42
1:X:951:G:H3'	1:X:952:A:H5''	2.02	0.42
1:X:1188:A:C8	1:X:1189:G:C5	3.08	0.42
1:X:1188:A:C2'	1:X:1189:G:O5'	2.68	0.42
4:B:39:ALA:HA	4:B:44:TYR:N	2.35	0.42
12:J:83:ARG:O	12:J:83:ARG:CG	2.68	0.42
1:X:1017:C:O2'	1:X:1018:C:H5'	2.19	0.42
17:O:13:ARG:NE	17:O:95:ILE:HG13	2.35	0.42
7:E:89:LEU:CD1	7:E:96:ALA:N	2.82	0.42
1:X:2313:G:OP1	1:X:2313:G:H8	2.03	0.42

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:75:C:H2'	1:X:76:C:H5''	2.02	0.42
5:C:148:VAL:O	5:C:167:VAL:CA	2.62	0.42
3:A:43:ARG:HH21	3:A:55:GLY:CA	2.31	0.42
1:X:2757:G:OP2	1:X:2761:A:O2'	2.34	0.42
1:X:1138:A:H2'	1:X:1139:A:H5''	2.01	0.42
1:X:2331:A:C8	1:X:2345:A:N1	2.88	0.42
1:X:1351:G:C2	1:X:1352:G:C4	3.08	0.42
1:X:494:A:H3'	1:X:495:C:H6	1.85	0.42
17:O:86:HIS:O	17:O:87:ARG:HB3	2.18	0.42
18:P:27:VAL:HG23	18:P:125:THR:CG2	2.35	0.42
1:X:5:A:N3	9:G:162:LYS:NZ	2.62	0.42
6:D:175:LEU:HD12	6:D:176:PRO:CD	2.50	0.42
1:X:968:C:C4	1:X:970:A:C4	3.08	0.42
1:X:692:C:H2'	1:X:693:A:C8	2.54	0.42
1:X:660:G:O2'	1:X:661:C:H5'	2.20	0.42
1:X:1426:U:H2'	1:X:1427:G:O4'	2.19	0.42
23:U:46:LEU:C	23:U:47:HIS:ND1	2.74	0.42
1:X:1276:U:H1'	26:Z:10:LYS:HG3	2.01	0.42
16:N:21:ALA:HB1	16:N:24:PHE:CD2	2.54	0.42
22:T:51:VAL:HG21	22:T:79:ILE:O	2.20	0.42
1:X:1253:C:H2'	1:X:1254:G:C5'	2.50	0.42
12:J:38:MET:SD	12:J:131:LYS:HD3	2.60	0.42
22:T:5:LYS:CD	22:T:5:LYS:N	2.83	0.42
1:X:1715:A:C8	1:X:1717:A:C1'	3.03	0.42
1:X:1249:G:O2'	1:X:1250:A:O5'	2.34	0.42
10:H:1:MET:HB2	10:H:44:TYR:CD1	2.55	0.42
15:M:7:ILE:HD13	15:M:7:ILE:HA	1.81	0.42
1:X:2088:U:HO2'	1:X:2089:C:P	2.42	0.42
1:X:2585:C:C2'	1:X:2586:G:H5'	2.50	0.42
1:X:20:C:H2'	1:X:21:A:H8	1.84	0.42
21:S:46:GLN:HB3	21:S:50:GLY:HA3	2.02	0.42
1:X:1838:G:H2'	1:X:1839:A:O4'	2.20	0.42
10:H:14:SER:OG	10:H:98:ILE:HD12	2.20	0.42
1:X:1968:G:O2'	1:X:1969:G:H5'	2.20	0.42
1:X:2819:G:H2'	1:X:2820:C:C6	2.55	0.42
1:X:133:C:C2'	1:X:134:G:O5'	2.68	0.41
1:X:136:A:H2'	1:X:137:A:C8	2.52	0.41
1:X:2200:G:H2'	1:X:2201:G:H8	1.84	0.41
1:X:2202:G:O2'	3:A:262:LYS:HD3	2.20	0.41
1:X:1188:A:N6	1:X:1189:G:N2	2.68	0.41
20:R:105:ARG:NH1	20:R:113:THR:N	2.59	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:98:U:N1	1:X:100:G:C4	2.88	0.41
1:X:2463:G:O2'	12:J:125:LYS:HB2	2.20	0.41
4:B:151:TYR:CD1	9:G:106:TYR:CZ	3.07	0.41
1:X:2036:G:N2	1:X:2037:A:H1'	2.35	0.41
2:Y:40:C:N3	2:Y:46:G:N2	2.63	0.41
8:F:74:MET:HG3	8:F:111:LYS:HD2	2.02	0.41
10:H:116:ARG:HH21	15:M:40:ARG:C	2.24	0.41
6:D:7:LYS:O	6:D:11:GLN:HB2	2.19	0.41
19:Q:42:ILE:O	19:Q:43:GLN:C	2.58	0.41
1:X:2171:U:C4	1:X:2172:U:C4	3.07	0.41
1:X:216:U:H5''	1:X:601:A:H62	1.86	0.41
1:X:2527:G:C6	1:X:2540:A:N1	2.88	0.41
5:C:104:LEU:N	5:C:177:VAL:HG22	2.35	0.41
5:C:22:VAL:HA	5:C:106:MET:CG	2.48	0.41
3:A:55:GLY:H	3:A:217:ARG:H	1.68	0.41
1:X:1782:A:N6	1:X:1820:G:O2'	2.53	0.41
19:Q:71:GLN:HG2	19:Q:72:ARG:N	2.33	0.41
19:Q:7:LEU:HD21	24:V:29:ARG:HH12	1.85	0.41
12:J:35:LEU:N	12:J:105:PHE:O	2.46	0.41
1:X:1818:G:OP1	3:A:224:SER:HB3	2.19	0.41
11:I:97:ARG:O	11:I:98:LEU:HB3	2.20	0.41
1:X:57:G:N3	1:X:72:A:H2	2.18	0.41
1:X:2508:G:C5'	1:X:2509:A:H5''	2.50	0.41
6:D:163:ASP:HA	6:D:166:ALA:CB	2.50	0.41
1:X:1428:G:H2'	1:X:1429:A:OP2	2.20	0.41
12:J:28:VAL:HG23	12:J:137:VAL:HG21	2.02	0.41
1:X:1773:C:O5'	1:X:1773:C:H6	2.02	0.41
16:N:17:VAL:O	16:N:18:LEU:C	2.56	0.41
4:B:183:LEU:HD11	15:M:16:ILE:CG2	2.50	0.41
1:X:2013:A:H5''	1:X:2014:A:OP1	2.20	0.41
1:X:481:A:H2'	1:X:481:A:N3	2.35	0.41
1:X:177:U:C4	1:X:225:G:C2	3.07	0.41
1:X:2204:A:H5'	1:X:2205:C:O4'	2.20	0.41
1:X:1036:G:HO2'	1:X:1037:U:P	2.42	0.41
5:C:14:THR:HG22	5:C:15:ILE:N	2.34	0.41
1:X:1033:G:O2'	1:X:1034:U:OP2	2.36	0.41
1:X:1348:C:H2'	1:X:1349:A:H8	1.85	0.41
18:P:93:LYS:HB2	18:P:129:ALA:HB3	2.01	0.41
16:N:31:GLN:O	16:N:32:TYR:O	2.38	0.41
1:X:1221:C:C2	1:X:1222:G:C8	3.08	0.41
1:X:2665:G:C6	1:X:2666:U:N3	2.88	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2492:G:C6	1:X:2493:U:C4	3.08	0.41
1:X:612:G:O2'	1:X:614:G:O2'	2.35	0.41
1:X:1329:U:O2'	1:X:1330:G:H5'	2.19	0.41
9:G:124:GLU:O	9:G:128:GLU:HB2	2.20	0.41
1:X:236:C:H2'	1:X:237:G:H8	1.84	0.41
1:X:53:G:H2'	1:X:54:G:O5'	2.20	0.41
11:I:90:ARG:O	11:I:91:ASP:HB3	2.19	0.41
1:X:1969:G:O2'	1:X:1970:G:H5'	2.20	0.41
1:X:2021:G:C6	1:X:2022:C:N3	2.88	0.41
2:Y:77:G:H2'	2:Y:78:A:C8	2.55	0.41
3:A:89:SER:HG	3:A:201:HIS:CE1	2.35	0.41
20:R:11:ASN:ND2	20:R:11:ASN:O	2.51	0.41
1:X:971:A:H4'	1:X:2436:U:H4'	2.02	0.41
1:X:2557:G:N2	1:X:2558:C:C2	2.88	0.41
1:X:759:C:C1'	1:X:761:G:H21	2.32	0.41
26:Z:16:ARG:HD3	26:Z:20:ARG:CZ	2.50	0.41
3:A:267:ASP:OD1	3:A:268:ARG:N	2.52	0.41
14:L:98:GLY:O	14:L:99:ARG:C	2.58	0.41
1:X:1096:A:H2'	1:X:1097:A:C4	2.55	0.41
9:G:170:PRO:C	9:G:171:LEU:HD23	2.40	0.41
16:N:96:ALA:O	16:N:99:ALA:HB3	2.20	0.41
17:O:10:LYS:CE	17:O:11:GLN:HE21	2.33	0.41
1:X:1007:A:C6	1:X:1171:A:C2	3.08	0.41
7:E:126:PRO:CG	7:E:127:GLU:N	2.77	0.41
7:E:139:GLN:O	7:E:140:LEU:C	2.58	0.41
7:E:144:VAL:C	7:E:146:ALA:N	2.68	0.41
7:E:90:ARG:NH2	7:E:163:ARG:NH1	2.68	0.41
19:Q:25:TYR:HH	19:Q:87:SER:HA	1.83	0.41
22:T:46:LYS:HZ1	22:T:76:ALA:HA	1.85	0.41
1:X:2256:G:P	12:J:86:LYS:HD2	2.59	0.41
24:V:39:GLN:N	24:V:40:PRO:HD3	2.36	0.41
24:V:24:GLU:OE2	24:V:46:LEU:HD21	2.20	0.41
1:X:2757:G:H5''	1:X:2758:A:H5''	2.02	0.41
1:X:1140:A:C4	1:X:2549:G:H1'	2.55	0.41
12:J:69:ILE:HD13	12:J:104:MET:CG	2.49	0.41
15:M:33:VAL:HG23	15:M:94:VAL:HG21	2.02	0.41
1:X:197:G:H22	1:X:242:A:N6	2.18	0.41
1:X:198:A:H4'	1:X:199:A:O5'	2.21	0.41
1:X:681:A:H5'	1:X:682:G:OP2	2.20	0.41
11:I:94:GLU:O	11:I:99:VAL:HG22	2.21	0.41
1:X:1928:G:C4	1:X:1929:U:C5	3.08	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:N:85:ARG:HH21	16:N:85:ARG:CG	2.25	0.41
7:E:9:ILE:CD1	7:E:50:LEU:HB3	2.46	0.41
1:X:1622:G:H4'	1:X:1624:A:C2	2.55	0.41
1:X:2799:C:H6	1:X:2799:C:O5'	2.03	0.41
18:P:49:SER:O	18:P:50:VAL:C	2.59	0.41
12:J:96:SER:O	12:J:97:VAL:C	2.59	0.41
1:X:1686:A:OP2	1:X:1687:C:H5	2.04	0.41
1:X:1033:G:O2'	1:X:1034:U:P	2.78	0.41
11:I:83:LEU:HB3	11:I:84:GLU:H	1.69	0.41
1:X:1569:A:O2'	1:X:1570:C:H5"	2.20	0.41
1:X:1804:U:O2'	1:X:1805:G:H5'	2.19	0.41
10:H:92:ASP:CG	15:M:69:ARG:HH12	2.22	0.41
1:X:182:G:O2'	1:X:183:U:P	2.78	0.41
12:J:52:ARG:HG3	12:J:67:ILE:HD11	2.02	0.41
7:E:10:ALA:O	7:E:12:PRO:CD	2.68	0.41
14:L:43:ILE:HG23	14:L:49:GLN:C	2.41	0.41
1:X:780:U:C6	1:X:780:U:C3'	3.03	0.41
5:C:153:ASP:O	5:C:154:ASP:CG	2.59	0.41
4:B:38:THR:C	4:B:40:GLN:N	2.74	0.41
4:B:38:THR:CG2	4:B:39:ALA:N	2.82	0.41
4:B:141:ILE:HD13	4:B:154:LYS:HZ2	1.85	0.41
23:U:50:ALA:HB3	23:U:52:ARG:HH22	1.85	0.41
23:U:49:LYS:CB	23:U:62:LEU:H	2.33	0.41
14:L:66:ASP:O	14:L:68:ALA:N	2.53	0.41
1:X:2286:G:N7	1:X:2287:G:C8	2.88	0.41
17:O:38:LEU:O	17:O:39:PHE:CB	2.65	0.41
6:D:8:TYR:HB2	6:D:173:MET:CE	2.50	0.41
1:X:2313:G:N2	14:L:17:VAL:HB	2.35	0.41
1:X:1473:U:C2'	1:X:1474:A:OP2	2.69	0.41
1:X:2082:C:C2'	1:X:2083:G:C5'	2.98	0.41
1:X:357:A:H3'	1:X:358:C:C6	2.55	0.41
1:X:930:A:N7	1:X:931:G:C8	2.88	0.41
11:I:19:VAL:C	11:I:21:ARG:H	2.24	0.41
1:X:1779:C:H2'	1:X:1780:A:C8	2.55	0.41
21:S:120:LEU:HD21	21:S:162:ALA:HB3	2.01	0.41
1:X:2618:A:N7	1:X:2755:A:C2	2.89	0.41
1:X:2520:A:H4'	1:X:2744:A:N1	2.35	0.41
1:X:2720:A:C6	1:X:2744:A:C8	3.08	0.41
1:X:494:A:H3'	1:X:495:C:C6	2.55	0.41
1:X:1108:U:H2'	1:X:1109:A:O4'	2.19	0.41
1:X:1937:G:H1'	1:X:2530:C:H4'	2.01	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2623:A:N6	1:X:2624:G:N1	2.69	0.41
7:E:43:VAL:HG23	7:E:51:LEU:C	2.40	0.41
1:X:1440:G:H3'	1:X:1441:A:H5''	2.02	0.41
1:X:1442:C:O2'	1:X:1443:G:P	2.77	0.41
4:B:183:LEU:N	4:B:183:LEU:HD23	2.34	0.41
22:T:42:GLY:C	22:T:57:HIS:HD2	2.23	0.41
1:X:469:G:H22	1:X:481:A:P	2.43	0.41
1:X:1733:U:H6	1:X:1733:U:H5''	1.84	0.41
1:X:701:U:O2'	1:X:702:A:H5'	2.20	0.41
18:P:31:VAL:HG21	18:P:124:ILE:CD1	2.48	0.41
1:X:93:A:C2'	1:X:94:C:H5'	2.50	0.41
1:X:1359:G:O2'	1:X:1360:G:H5'	2.19	0.41
1:X:1981:A:O3'	1:X:2704:U:H4'	2.19	0.41
1:X:891:A:N1	1:X:911:A:C5	2.88	0.41
1:X:963:G:H2'	1:X:964:A:O5'	2.20	0.41
1:X:119:G:H2'	1:X:120:G:C8	2.55	0.41
21:S:26:LYS:HE3	21:S:26:LYS:HB2	1.67	0.41
18:P:32:ARG:NH2	18:P:120:ARG:O	2.53	0.41
10:H:73:VAL:O	10:H:73:VAL:HG13	2.20	0.41
1:X:2724:G:N7	1:X:2735:C:H1'	2.35	0.41
1:X:1925:C:H6	1:X:1925:C:O5'	2.03	0.41
13:K:89:GLU:HG3	13:K:89:GLU:H	1.64	0.41
1:X:2648:G:C2'	1:X:2649:A:O5'	2.68	0.41
1:X:2468:G:H2'	1:X:2469:G:O4'	2.20	0.41
3:A:105:ILE:HG22	3:A:106:LEU:O	2.20	0.41
1:X:2196:U:H3'	1:X:2197:U:H6	1.84	0.41
5:C:127:ASP:HB2	5:C:129:LYS:HG2	2.01	0.41
11:I:55:ARG:O	11:I:56:LEU:HB2	2.19	0.41
20:R:95:ARG:HG3	20:R:95:ARG:HH11	1.86	0.41
4:B:38:THR:C	4:B:40:GLN:H	2.20	0.41
1:X:2596:C:O2'	1:X:2597:G:H5'	2.20	0.41
1:X:538:A:OP2	9:G:142:ARG:NH1	2.53	0.41
1:X:804:C:O2'	1:X:805:G:O5'	2.37	0.41
23:U:52:ARG:NH1	23:U:67:LEU:CD1	2.83	0.41
6:D:57:LEU:HA	6:D:60:ILE:CG1	2.51	0.41
14:L:69:ALA:CB	14:L:106:ALA:HB2	2.50	0.41
17:O:15:SER:HA	17:O:95:ILE:CB	2.42	0.41
23:U:27:ASP:N	23:U:32:ARG:HD3	2.34	0.41
23:U:28:GLY:O	23:U:29:GLY:C	2.58	0.41
7:E:165:VAL:C	7:E:167:GLU:H	2.23	0.41
1:X:1949:A:N6	1:X:2581:A:H62	2.19	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:S:12:GLN:O	21:S:13:LYS:CB	2.68	0.41
1:X:1724:C:C4	1:X:1747:G:C6	3.09	0.41
15:M:26:ASP:O	15:M:27:PHE:CD2	2.74	0.41
1:X:2779:C:C2'	1:X:2780:A:O4'	2.69	0.41
11:I:18:ARG:O	11:I:19:VAL:HB	2.21	0.41
21:S:73:LYS:O	21:S:75:LYS:N	2.45	0.41
17:O:65:ARG:CG	17:O:87:ARG:HD2	2.32	0.41
7:E:172:LYS:O	7:E:173:ALA:CB	2.68	0.41
1:X:407:A:H2'	1:X:408:U:C6	2.55	0.41
20:R:98:ILE:CG2	20:R:99:VAL:H	2.16	0.41
1:X:1440:G:C6	1:X:1441:A:N6	2.89	0.41
9:G:155:THR:N	9:G:157:PRO:HD2	2.35	0.41
1:X:50:G:H1'	1:X:116:A:N6	2.35	0.41
22:T:25:LYS:HB2	22:T:37:LEU:HA	2.02	0.41
1:X:2310:G:C6	1:X:2311:U:C4	3.09	0.41
1:X:1301:U:H5''	1:X:1302:C:OP2	2.19	0.41
1:X:177:U:C2	1:X:178:C:N1	2.88	0.41
3:A:134:ARG:NE	3:A:135:PHE:CZ	2.88	0.41
12:J:97:VAL:CG2	12:J:97:VAL:O	2.67	0.41
3:A:83:GLU:OE1	3:A:104:TYR:HE2	2.03	0.41
3:A:96:HIS:CE1	3:A:100:GLY:HA2	2.54	0.41
26:Z:45:ILE:HD13	26:Z:57:VAL:HG22	2.02	0.41
1:X:2560:G:N9	1:X:2589:C:N4	2.68	0.41
1:X:1229:C:H2'	1:X:1230:C:H6	1.85	0.41
10:H:121:ARG:HB3	10:H:123:PHE:CD1	2.56	0.41
7:E:69:ARG:O	7:E:70:THR:C	2.58	0.41
1:X:2528:G:C2	1:X:2529:G:C8	3.08	0.41
1:X:2434:G:H2'	1:X:2435:C:C6	2.55	0.41
1:X:1433:A:N3	1:X:1433:A:H2'	2.35	0.41
13:K:80:MET:HB2	13:K:80:MET:HE3	1.83	0.41
20:R:90:LYS:HB2	20:R:108:VAL:HG11	2.01	0.41
1:X:83:A:N6	1:X:100:G:H1'	2.33	0.41
16:N:26:GLY:O	16:N:27:SER:C	2.58	0.41
23:U:49:LYS:HD3	23:U:61:TRP:CE2	2.56	0.41
14:L:40:ALA:HB2	14:L:103:LEU:HD21	2.01	0.41
1:X:2289:A:C3'	1:X:2290:A:H8	2.33	0.41
1:X:2292:C:H5''	6:D:68:THR:HG21	2.02	0.41
2:Y:26:G:O3'	2:Y:27:A:O4'	2.39	0.41
7:E:94:PHE:CB	7:E:107:ILE:HG22	2.51	0.41
6:D:13:ARG:CB	6:D:14:PRO:CD	2.87	0.41
19:Q:25:TYR:O	19:Q:80:VAL:HG22	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:1474:A:C1'	1:X:1475:U:H5'	2.51	0.41
1:X:931:G:H4'	2:Y:83:C:C4'	2.51	0.41
1:X:2769:C:O2	1:X:2866:A:H2	2.04	0.41
11:I:18:ARG:HD2	11:I:21:ARG:CD	2.48	0.41
1:X:211:U:H2'	1:X:212:U:O4'	2.21	0.41
1:X:2331:A:H2'	1:X:2332:G:H5'	2.02	0.41
19:Q:20:MET:O	19:Q:22:ARG:N	2.53	0.41
21:S:123:VAL:HG23	21:S:161:ALA:CA	2.49	0.41
21:S:123:VAL:N	21:S:159:THR:O	2.53	0.41
1:X:1029:C:O2'	1:X:1030:U:H5'	2.21	0.41
13:K:98:LEU:N	13:K:112:LEU:O	2.48	0.41
1:X:504:G:H4'	18:P:27:VAL:CG1	2.50	0.41
11:I:7:LYS:O	11:I:9:THR:N	2.54	0.41
20:R:98:ILE:HB	20:R:100:ASP:H	1.86	0.41
22:T:21:LEU:HD11	22:T:41:ARG:HG2	2.00	0.41
1:X:1254:G:H8	1:X:1254:G:O5'	2.04	0.41
25:W:47:VAL:HB	25:W:50:LEU:HD12	2.02	0.41
10:H:2:ILE:HD12	10:H:8:LEU:CD2	2.46	0.41
1:X:1347:C:O2'	1:X:1348:C:H5'	2.20	0.41
1:X:679:C:H2'	1:X:680:U:H6	1.80	0.41
1:X:580:A:C8	1:X:584:A:C6	3.09	0.41
1:X:1012:A:H2'	1:X:1013:G:O4'	2.21	0.41
1:X:2864:C:O2'	1:X:2865:G:H5'	2.20	0.41
25:W:5:LEU:HB2	25:W:25:LEU:HD13	2.02	0.41
10:H:12:ASP:C	10:H:12:ASP:OD1	2.58	0.41
1:X:2194:A:H2'	1:X:2195:C:C5'	2.50	0.41
1:X:1122:A:H2'	1:X:1123:G:O5'	2.21	0.41
20:R:37:LEU:N	20:R:47:VAL:O	2.53	0.41
20:R:86:PRO:O	20:R:87:GLU:HB2	2.21	0.41
1:X:318:G:H21	1:X:341:A:H62	1.69	0.41
4:B:127:ALA:HB2	4:B:135:HIS:CE1	2.54	0.41
18:P:34:SER:O	18:P:35:PRO:C	2.59	0.41
1:X:1141:U:O2'	1:X:1142:G:P	2.78	0.41
1:X:2558:C:O5'	1:X:2558:C:H6	2.03	0.41
1:X:769:C:H2'	1:X:770:U:H5'	2.02	0.41
1:X:771:C:H2'	1:X:772:G:H8	1.85	0.41
1:X:982:C:O2'	1:X:983:G:H5'	2.21	0.41
21:S:132:GLN:O	21:S:133:GLU:HB3	2.20	0.41
6:D:83:MET:O	6:D:84:PRO:C	2.57	0.41
2:Y:39:C:C5	2:Y:40:C:C4	3.08	0.41
16:N:68:GLY:C	16:N:106:PHE:HE2	2.23	0.41

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:16:LEU:HD13	6:D:28:VAL:HG11	1.99	0.41
1:X:1474:A:HO2'	1:X:1475:U:P	2.43	0.41
1:X:353:G:H2'	1:X:354:C:H6	1.84	0.41
1:X:871:U:C4	1:X:2247:A:N1	2.89	0.41
2:Y:68:A:H61	2:Y:111:C:H5''	1.85	0.41
1:X:2770:A:O2'	1:X:2771:C:P	2.78	0.41
5:C:3:GLN:NE2	5:C:4:ILE:H	2.19	0.41
12:J:105:PHE:HA	12:J:106:GLU:OE2	2.21	0.41
1:X:2576:G:C5	1:X:2577:A:C6	3.08	0.41
1:X:210:A:H61	1:X:441:A:H62	1.68	0.41
1:X:1151:U:C5'	1:X:1153:A:H5'	2.50	0.41
1:X:459:A:H1'	1:X:461:A:H62	1.85	0.41
26:Z:51:TYR:HA	26:Z:54:GLY:O	2.20	0.41
6:D:171:GLN:O	6:D:174:GLY:N	2.48	0.41
1:X:2210:C:C2	1:X:2211:U:C5	3.09	0.41
12:J:27:TYR:HB3	12:J:137:VAL:CG1	2.51	0.41
1:X:2259:G:O2'	1:X:2260:C:H5'	2.20	0.41
4:B:176:ARG:C	4:B:177:ALA:O	2.59	0.41
4:B:179:GLU:HB3	4:B:181:LEU:HG	2.02	0.41
1:X:1064:C:C4	1:X:1065:A:N7	2.89	0.41
25:W:1:MET:HB2	25:W:34:VAL:CG1	2.51	0.41
7:E:45:GLN:NE2	7:E:48:ASP:O	2.54	0.41
1:X:2800:C:H5''	1:X:2800:C:H6	1.85	0.41
2:Y:19:C:H2'	2:Y:20:A:C8	2.55	0.41
1:X:228:A:OP1	11:I:53:ARG:HB3	2.20	0.41
12:J:113:GLU:HA	12:J:113:GLU:OE2	2.21	0.41
1:X:1298:G:N1	1:X:1342:U:OP1	2.53	0.41
1:X:2020:G:C6	1:X:2021:G:C6	3.09	0.41
1:X:1666:G:C6	1:X:1992:G:C6	3.09	0.41
20:R:101:GLY:C	20:R:103:LYS:N	2.74	0.41
20:R:38:LEU:HD13	20:R:47:VAL:HG21	2.02	0.41
20:R:48:VAL:C	20:R:50:GLY:N	2.74	0.41
4:B:39:ALA:N	4:B:45:GLU:OE2	2.33	0.41
1:X:2418:A:N6	1:X:2564:U:H4'	2.36	0.41
1:X:999:A:N1	1:X:1000:G:C2	2.88	0.41
6:D:143:TYR:CA	6:D:146:VAL:HG22	2.48	0.41
6:D:66:ILE:O	6:D:87:ILE:HA	2.21	0.41
14:L:63:ASN:HB3	14:L:66:ASP:CB	2.43	0.41
1:X:2289:A:N1	6:D:79:LEU:HD11	2.36	0.41
9:G:145:HIS:CE1	9:G:148:LEU:HD23	2.56	0.41
17:O:47:PHE:O	17:O:51:ALA:HB2	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:9:GLY:O	17:O:10:LYS:CB	2.66	0.41
1:X:1171:A:H2'	1:X:1172:U:C6	2.55	0.41
7:E:150:LYS:O	7:E:151:VAL:C	2.59	0.41
6:D:22:TYR:CE2	6:D:29:PRO:HD3	2.56	0.41
1:X:2273:C:C5'	14:L:95:LYS:HD2	2.50	0.41
19:Q:53:ILE:HG13	19:Q:54:SER:N	2.36	0.41
1:X:2170:C:C2'	1:X:2171:U:H4'	2.39	0.41
11:I:73:GLU:OE2	11:I:105:PRO:O	2.38	0.41
1:X:632:A:C2	1:X:633:G:C4	3.09	0.41
21:S:34:LEU:CD1	21:S:34:LEU:C	2.89	0.41
15:M:56:ALA:O	15:M:66:PHE:HA	2.20	0.41
3:A:213:ARG:HD2	3:A:213:ARG:HA	1.75	0.41
19:Q:75:ARG:NH1	19:Q:75:ARG:HG3	2.36	0.41
24:V:37:LEU:CD2	24:V:37:LEU:C	2.89	0.41
1:X:1139:A:O2'	1:X:1140:A:P	2.79	0.41
22:T:52:GLY:N	22:T:62:LEU:HD21	2.35	0.41
1:X:1406:A:N6	19:Q:15:LYS:HG2	2.35	0.41
11:I:117:ALA:HB2	11:I:137:GLY:HA3	2.03	0.41
1:X:223:C:H2'	1:X:224:G:H5'	2.02	0.41
1:X:836:G:H2'	1:X:837:U:C6	2.56	0.41
1:X:1728:A:H2'	1:X:1729:C:C6	2.55	0.41
1:X:831:G:N7	1:X:1201:G:C6	2.89	0.41
1:X:1742:G:H2'	1:X:1743:C:H6	1.85	0.41
12:J:63:GLY:C	12:J:65:ILE:N	2.74	0.41
19:Q:3:HIS:ND1	19:Q:44:GLN:HB2	2.35	0.41
11:I:123:ASP:OD1	11:I:123:ASP:O	2.38	0.41
18:P:116:ILE:HD13	18:P:116:ILE:HG21	1.89	0.41
20:R:105:ARG:NH2	20:R:112:LYS:CA	2.69	0.41
12:J:88:LYS:HZ2	12:J:88:LYS:HB2	1.86	0.41
1:X:2446:C:N3	1:X:2462:C:N4	2.69	0.41
1:X:565:A:H2'	1:X:566:U:C6	2.55	0.41
14:L:39:TYR:O	14:L:41:GLN:N	2.53	0.41
14:L:40:ALA:HB1	14:L:75:LEU:CD2	2.45	0.41
17:O:13:ARG:HB2	17:O:13:ARG:NH2	2.35	0.41
1:X:1007:A:N6	1:X:1171:A:C6	2.89	0.41
1:X:2796:A:P	13:K:3:HIS:CE1	3.14	0.41
14:L:11:LEU:HD23	14:L:14:ARG:HD2	2.01	0.41
1:X:871:U:OP1	22:T:44:LYS:HE3	2.20	0.41
24:V:37:LEU:HD23	24:V:37:LEU:C	2.40	0.41
21:S:60:GLU:O	21:S:62:PHE:CD2	2.74	0.41
21:S:94:VAL:O	21:S:121:GLN:HG3	2.21	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:I:94:GLU:CB	11:I:97:ARG:HH11	2.30	0.41
1:X:1151:U:H5''	1:X:1153:A:C5'	2.51	0.41
1:X:2706:U:O2'	1:X:2707:G:OP1	2.33	0.41
1:X:457:C:H2'	1:X:458:G:O4'	2.21	0.41
1:X:2225:G:H2'	1:X:2226:A:H8	1.85	0.41
10:H:41:ASN:O	10:H:42:LYS:O	2.39	0.41
1:X:2714:A:C2	4:B:203:LYS:NZ	2.84	0.41
7:E:30:LYS:HG2	7:E:79:VAL:C	2.36	0.41
1:X:1776:A:OP1	1:X:1965:U:H5'	2.20	0.41
1:X:944:A:H2'	1:X:945:G:C5'	2.51	0.41
1:X:223:C:C4	1:X:224:G:N7	2.89	0.41
13:K:44:LEU:HA	13:K:44:LEU:HD12	1.84	0.41
1:X:208:C:H2'	1:X:209:G:C5'	2.50	0.41
20:R:53:VAL:O	20:R:71:GLN:HA	2.20	0.41
1:X:678:G:H4'	11:I:50:GLU:OE1	2.21	0.41
1:X:2790:C:O2'	26:Z:43:HIS:HD2	2.04	0.41
1:X:780:U:O2'	1:X:781:G:H5'	2.21	0.41
6:D:113:ASP:O	6:D:115:ARG:NH2	2.54	0.41
1:X:869:C:O5'	1:X:869:C:H6	2.04	0.41
1:X:328:A:O2'	1:X:329:C:H5'	2.21	0.41
10:H:16:ALA:HA	10:H:58:ALA:HA	2.03	0.41
1:X:135:U:C3'	1:X:135:U:C6	3.04	0.41
1:X:1052:C:H2'	1:X:1053:G:C5'	2.35	0.41
1:X:335:A:N6	1:X:349:G:O2'	2.53	0.41
11:I:64:GLY:O	11:I:65:PHE:HB3	2.19	0.41
1:X:171:G:N1	1:X:172:A:C2	2.89	0.41
20:R:14:LEU:HD23	20:R:14:LEU:HA	1.84	0.41
20:R:17:LYS:C	20:R:19:GLY:H	2.24	0.41
20:R:25:LEU:HD22	20:R:26:SER:CB	2.48	0.41
20:R:15:HIS:CE1	20:R:16:PHE:CE2	3.08	0.41
20:R:40:LEU:HA	20:R:41:PRO:HD2	1.88	0.41
20:R:93:ARG:HH12	20:R:109:ALA:N	2.17	0.41
1:X:2764:U:O2'	1:X:2765:C:H5'	2.21	0.41
1:X:2036:G:H2'	1:X:2037:A:C5'	2.50	0.41
1:X:567:G:H2'	1:X:568:G:H8	1.86	0.41
6:D:81:GLN:CG	6:D:82:GLY:H	2.28	0.41
6:D:80:ARG:O	6:D:81:GLN:O	2.39	0.41
14:L:80:ALA:C	14:L:82:LYS:H	2.24	0.41
1:X:2285:U:H5'	1:X:2286:G:O4'	2.21	0.41
6:D:57:LEU:O	6:D:60:ILE:CG1	2.69	0.41
1:X:1090:C:C2'	1:X:1091:C:H5'	2.51	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:20:ILE:HD12	17:O:21:ARG:N	2.35	0.41
1:X:1002:C:N3	1:X:1003:C:C5	2.89	0.41
10:H:83:ARG:NH1	15:M:40:ARG:HE	2.14	0.41
6:D:22:TYR:CG	6:D:28:VAL:HG22	2.56	0.41
1:X:1949:A:N3	1:X:2572:U:O4'	2.54	0.41
14:L:27:LEU:HB3	14:L:42:ILE:HD11	2.03	0.41
2:Y:11:G:P	14:L:28:ARG:NH2	2.91	0.41
19:Q:25:TYR:CE2	19:Q:88:ILE:HG23	2.56	0.41
11:I:73:GLU:CG	11:I:101:ARG:CB	2.95	0.41
1:X:617:U:H5''	1:X:617:U:O2	2.21	0.41
1:X:306:G:H22	1:X:355:G:H1'	1.84	0.41
21:S:22:VAL:HA	21:S:32:PHE:HD1	1.85	0.41
1:X:1753:A:C8	1:X:1753:A:O5'	2.63	0.41
10:H:23:ARG:HH12	10:H:25:LEU:HG	1.83	0.41
1:X:2526:U:O2'	1:X:2527:G:H5'	2.21	0.41
11:I:76:LYS:HB3	11:I:79:GLN:CD	2.40	0.41
5:C:112:GLN:NE2	5:C:116:LYS:CB	2.84	0.41
5:C:26:VAL:HG22	11:I:18:ARG:HH11	1.84	0.41
3:A:54:ILE:O	3:A:54:ILE:CG2	2.68	0.41
24:V:7:ARG:CD	24:V:8:ASN:N	2.68	0.41
21:S:90:GLU:N	21:S:127:PRO:HG2	2.36	0.41
1:X:2218:G:H5'	3:A:249:PRO:CB	2.43	0.41
1:X:1386:A:H2'	1:X:1387:G:O4'	2.21	0.41
1:X:2460:G:H2'	1:X:2461:G:OP2	2.21	0.41
1:X:490:A:HO2'	1:X:492:G:C5'	2.34	0.41
30:4:22:ARG:HD2	30:4:37:GLY:CA	2.49	0.41
1:X:1601:U:H6	1:X:1601:U:O5'	2.04	0.41
1:X:844:G:OP2	1:X:955:G:N2	2.52	0.41
23:U:14:VAL:HB	23:U:15:VAL:H	1.71	0.41
15:M:9:ARG:O	15:M:13:LEU:HD13	2.21	0.41
1:X:2364:C:H2'	1:X:2365:U:H6	1.84	0.41
1:X:497:C:C4'	1:X:497:C:C6	3.04	0.41
6:D:106:ILE:CG2	6:D:110:ARG:HD2	2.44	0.41
25:W:36:ASP:O	25:W:36:ASP:OD1	2.38	0.41
1:X:862:A:H2'	1:X:863:C:O4'	2.20	0.41
1:X:1538:A:H2'	1:X:1539:U:O4'	2.21	0.41
1:X:417:C:C2	1:X:419:G:C8	3.07	0.41
1:X:59:G:N3	1:X:73:A:C2	2.88	0.41
12:J:71:PRO:CA	12:J:96:SER:HB2	2.44	0.41
1:X:1184:G:H3'	1:X:1185:C:H5''	2.02	0.41
1:X:674:U:H6	1:X:674:U:O5'	2.04	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:A:57:GLY:O	3:A:58:HIS:HB2	2.21	0.41
7:E:33:LEU:HG	7:E:34:THR:N	2.36	0.41
1:X:2451:G:H2'	1:X:2454:C:H42	1.86	0.41
7:E:71:LEU:HA	7:E:71:LEU:HD23	1.84	0.41
1:X:1511:A:H2	1:X:1594:U:H1'	1.86	0.41
21:S:148:THR:HG22	21:S:167:THR:CA	2.51	0.41
1:X:2055:G:C6	1:X:2056:C:C4	3.09	0.41
1:X:1498:G:C5	1:X:1523:A:C6	3.09	0.41
1:X:2009:U:H6	1:X:2009:U:C5'	2.28	0.41
26:Z:44:HIS:CD2	26:Z:44:HIS:N	2.89	0.41
18:P:134:LYS:HB3	18:P:134:LYS:HE2	1.78	0.41
1:X:51:A:O2'	1:X:52:A:H5'	2.21	0.41
1:X:1763:G:C2'	1:X:1764:A:H5'	2.50	0.41
1:X:1318:A:C2'	1:X:1319:C:O5'	2.68	0.41
1:X:439:C:H6	1:X:439:C:O5'	2.04	0.41
4:B:59:VAL:HG12	4:B:60:ASN:O	2.20	0.41
4:B:63:MET:O	4:B:64:GLN:C	2.57	0.41
1:X:2042:A:O2'	5:C:62:LYS:HE3	2.21	0.41
3:A:78:LYS:HG2	3:A:115:ALA:O	2.20	0.41
9:G:127:ILE:HD12	9:G:127:ILE:N	2.36	0.41
3:A:226:MET:HE3	3:A:230:ASP:HB2	2.03	0.41
1:X:952:A:H1'	1:X:1204:G:O2'	2.21	0.41
25:W:5:LEU:HA	25:W:51:LEU:HD23	2.02	0.41
5:C:58:MET:HB2	5:C:70:GLY:O	2.21	0.41
1:X:593:C:N4	1:X:594:G:C6	2.89	0.41
1:X:921:A:C6	1:X:924:C:C2	3.09	0.41
4:B:33:ILE:HD13	4:B:36:ARG:HH12	1.85	0.41
14:L:44:ASP:OD1	14:L:44:ASP:C	2.59	0.41
3:A:190:TYR:CD2	3:A:190:TYR:N	2.89	0.41
1:X:1501:C:C2'	1:X:1502:G:O4'	2.62	0.41
1:X:2187:A:N6	1:X:2188:A:N6	2.69	0.41
1:X:1121:G:H2'	1:X:1122:A:C8	2.55	0.41
20:R:30:LYS:HG3	20:R:30:LYS:H	1.63	0.41
1:X:341:A:C8	1:X:341:A:H3'	2.55	0.41
9:G:109:GLY:N	9:G:110:LEU:HD23	2.36	0.41
23:U:10:LYS:HZ3	23:U:70:LEU:HG	1.86	0.41
1:X:2208:U:H2'	1:X:2209:G:C8	2.53	0.41
1:X:2322:U:O3'	1:X:2323:U:O4'	2.39	0.41
9:G:146:THR:O	9:G:149:LYS:HE2	2.20	0.41
16:N:91:ASN:HA	16:N:93:LYS:NZ	2.36	0.41
17:O:35:LEU:HD23	17:O:35:LEU:C	2.40	0.41

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:98:LEU:CD1	7:E:101:LYS:C	2.89	0.41
7:E:109:TYR:O	7:E:110:SER:C	2.58	0.41
1:X:1948:C:C6	1:X:1949:A:C8	3.09	0.41
3:A:206:LEU:O	3:A:207:GLY:C	2.58	0.41
19:Q:8:GLN:O	19:Q:9:ALA:CB	2.69	0.41
24:V:6:MET:O	24:V:14:PHE:HE1	2.04	0.41
21:S:87:THR:OG1	21:S:91:PRO:HA	2.21	0.41
1:X:1787:U:H4'	3:A:254:THR:HG23	2.03	0.41
1:X:441:A:N7	1:X:442:A:C5	2.89	0.41
19:Q:12:ILE:O	19:Q:16:ALA:HB3	2.20	0.41
1:X:37:C:H4'	1:X:463:C:OP1	2.21	0.41
1:X:666:U:OP1	1:X:666:U:H4'	2.21	0.41
30:4:2:LYS:HG2	30:4:4:ARG:HD3	2.02	0.41
1:X:1681:A:N6	1:X:1979:C:H42	2.18	0.41
1:X:461:A:H4'	16:N:3:ARG:HE	1.85	0.41
30:4:30:VAL:HG23	30:4:31:LYS:N	2.36	0.41
1:X:2691:C:H1'	1:X:2692:A:C8	2.56	0.41
1:X:142:U:H5''	1:X:143:A:OP2	2.20	0.41
7:E:84:THR:CB	7:E:134:SER:HA	2.50	0.41
1:X:2297:G:O2'	1:X:2300:G:O6	2.31	0.41
10:H:113:PRO:CB	10:H:134:LEU:HD12	2.51	0.41
4:B:142:GLY:O	4:B:143:GLN:CG	2.61	0.41
1:X:422:C:H2'	1:X:423:G:C8	2.55	0.41
1:X:417:C:C4	1:X:419:G:C5	3.09	0.41
1:X:793:G:C2	1:X:795:A:C2	3.09	0.41
1:X:1705:U:O2	1:X:1717:A:H8	2.04	0.41
1:X:2437:G:O2'	1:X:2438:A:P	2.79	0.41
1:X:877:G:H21	1:X:879:A:H61	1.67	0.41
1:X:963:G:C2'	1:X:964:A:O5'	2.69	0.41
18:P:81:HIS:CD2	18:P:82:ASN:N	2.89	0.41
1:X:123:A:C2'	1:X:124:A:OP1	2.69	0.41
4:B:64:GLN:O	4:B:65:GLY:C	2.58	0.41
10:H:77:THR:C	10:H:79:HIS:H	2.23	0.41
1:X:2243:C:H2'	1:X:2244:C:O4'	2.21	0.41
1:X:2715:C:H2'	1:X:2716:G:O4'	2.20	0.41
1:X:83:A:C1'	1:X:84:G:O4'	2.69	0.40
1:X:98:U:O2	1:X:98:U:C2'	2.60	0.40
9:G:103:TYR:CE1	9:G:111:LYS:HA	2.57	0.40
21:S:141:MET:HG2	21:S:145:ASP:CB	2.41	0.40
6:D:146:VAL:HB	6:D:147:ASP:H	1.51	0.40
6:D:71:LYS:O	6:D:72:LYS:CB	2.69	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2290:A:C8	1:X:2290:A:O5'	2.74	0.40
7:E:87:LEU:HD22	7:E:162:VAL:CG1	2.51	0.40
14:L:42:ILE:O	14:L:42:ILE:CG2	2.68	0.40
1:X:1460:G:C6	1:X:1461:C:C4	3.09	0.40
3:A:52:ARG:HB2	3:A:53:PHE:CE2	2.56	0.40
1:X:77:C:C2	1:X:78:C:C5	3.09	0.40
24:V:2:LYS:N	24:V:3:PRO:CD	2.84	0.40
12:J:102:ARG:NH1	12:J:102:ARG:HG3	2.33	0.40
12:J:66:TYR:N	12:J:106:GLU:OE1	2.52	0.40
2:Y:94:G:H5''	21:S:74:ARG:HH12	1.86	0.40
23:U:41:VAL:HG21	23:U:43:ARG:HH22	1.86	0.40
9:G:95:LEU:HD21	9:G:117:GLU:OE2	2.21	0.40
11:I:107:LYS:HG2	11:I:109:LEU:CD2	2.49	0.40
1:X:2484:G:C2'	1:X:2485:U:H5'	2.49	0.40
1:X:2404:A:HO2'	1:X:2405:A:P	2.44	0.40
1:X:2506:C:O2'	1:X:2507:U:H5'	2.21	0.40
11:I:77:LEU:HB3	11:I:112:GLY:N	2.36	0.40
17:O:73:LYS:HB2	17:O:82:ARG:HB2	2.03	0.40
1:X:2311:U:H4'	1:X:2315:A:H62	1.85	0.40
25:W:12:ARG:HD3	25:W:12:ARG:HA	1.95	0.40
14:L:31:VAL:O	14:L:94:TYR:HE1	2.04	0.40
2:Y:65:A:H2'	2:Y:66:G:H8	1.86	0.40
3:A:39:LYS:HD2	3:A:39:LYS:HA	1.84	0.40
30:4:27:CYS:O	30:4:28:SER:C	2.60	0.40
21:S:70:GLN:CA	21:S:70:GLN:HE21	2.30	0.40
1:X:704:G:HO2'	1:X:705:C:H5'	1.86	0.40
7:E:14:GLY:O	7:E:15:VAL:O	2.38	0.40
1:X:877:G:H2'	1:X:878:C:O4'	2.21	0.40
10:H:1:MET:HE2	10:H:44:TYR:CE2	2.56	0.40
2:Y:23:G:C6	2:Y:24:U:C4	3.10	0.40
1:X:1342:U:H5''	1:X:1343:C:C5	2.54	0.40
1:X:2057:U:H5''	1:X:2057:U:C6	2.56	0.40
2:Y:75:A:C2	2:Y:76:U:H1'	2.56	0.40
5:C:59:TYR:HB3	5:C:60:GLY:H	1.55	0.40
1:X:2011:U:O2'	1:X:2012:A:H5'	2.21	0.40
13:K:39:THR:O	13:K:42:LYS:HB2	2.21	0.40
4:B:165:VAL:HG12	4:B:166:THR:N	2.36	0.40
1:X:2511:G:C6	1:X:2512:A:C5	3.09	0.40
1:X:625:A:H5'	1:X:626:A:OP2	2.20	0.40
1:X:1188:A:H3'	1:X:1189:G:C8	2.55	0.40
20:R:95:ARG:CZ	20:R:106:VAL:HG12	2.51	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:J:77:LYS:HB2	12:J:92:GLU:HB2	2.03	0.40
13:K:115:LEU:HA	13:K:115:LEU:HD23	1.89	0.40
1:X:1279:G:O6	18:P:34:SER:CB	2.69	0.40
1:X:1997:A:C2	1:X:1998:A:N1	2.89	0.40
1:X:2620:G:H5'	9:G:104:THR:HG22	2.03	0.40
1:X:532:A:C2	1:X:533:C:C2	3.09	0.40
1:X:982:C:OP1	1:X:985:G:C8	2.75	0.40
17:O:56:VAL:CA	17:O:97:GLY:HA3	2.45	0.40
17:O:55:THR:O	17:O:98:ILE:HB	2.21	0.40
19:Q:49:ARG:O	19:Q:50:VAL:CG2	2.69	0.40
1:X:1473:U:O2'	1:X:1474:A:OP2	2.36	0.40
1:X:2080:U:N3	1:X:2081:U:C4	2.89	0.40
1:X:357:A:C2'	1:X:358:C:H5'	2.50	0.40
1:X:2770:A:N3	1:X:2867:G:O2'	2.51	0.40
3:A:43:ARG:NE	3:A:55:GLY:HA2	2.34	0.40
24:V:52:GLN:C	24:V:54:ASN:N	2.74	0.40
12:J:19:THR:CG2	12:J:99:LYS:HD3	2.51	0.40
1:X:1135:C:C2	1:X:1136:G:C8	3.09	0.40
1:X:457:C:HO2'	1:X:458:G:H5'	1.82	0.40
1:X:71:A:H8	1:X:71:A:O5'	2.03	0.40
1:X:1312:G:H4'	1:X:1313:U:H5'	2.03	0.40
5:C:77:PHE:O	5:C:78:VAL:C	2.58	0.40
15:M:8:ASN:O	15:M:9:ARG:C	2.60	0.40
1:X:46:C:N3	1:X:156:G:C2	2.90	0.40
25:W:1:MET:SD	25:W:55:GLU:OXT	2.79	0.40
1:X:1683:G:H2'	1:X:1684:G:H5'	2.01	0.40
18:P:12:LYS:HD3	18:P:13:GLN:HE21	1.86	0.40
1:X:1055:A:C3'	1:X:1055:A:C8	2.77	0.40
1:X:795:A:OP1	1:X:795:A:O4'	2.39	0.40
1:X:1491:C:C2	1:X:1492:A:C8	3.09	0.40
1:X:2245:A:N3	1:X:2251:U:C5	2.89	0.40
1:X:1522:C:C6	1:X:1522:C:C3'	3.03	0.40
1:X:1845:A:N1	1:X:2070:G:H1'	2.36	0.40
7:E:39:THR:OG1	7:E:40:GLU:N	2.54	0.40
1:X:1790:G:HO2'	1:X:1791:C:P	2.45	0.40
20:R:85:ASP:OD1	20:R:86:PRO:CD	2.64	0.40
18:P:109:ARG:NH1	18:P:115:ASN:HD22	2.20	0.40
1:X:1674:C:O2'	1:X:1675:C:H5'	2.21	0.40
1:X:2556:A:N1	1:X:2593:A:C2	2.89	0.40
1:X:999:A:N1	1:X:1000:G:N2	2.69	0.40
9:G:70:PHE:CB	16:N:64:ARG:HG2	2.43	0.40

*Continued on next page...*



*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
17:O:71:ILE:HB	17:O:84:THR:HG1	1.86	0.40
1:X:1007:A:N6	1:X:1171:A:N1	2.70	0.40
1:X:129:A:O2'	1:X:130:C:H5'	2.21	0.40
14:L:19:THR:HG22	14:L:19:THR:O	2.20	0.40
19:Q:34:THR:O	19:Q:36:THR:N	2.54	0.40
19:Q:49:ARG:O	19:Q:50:VAL:HG23	2.21	0.40
1:X:872:G:OP2	1:X:872:G:C8	2.74	0.40
2:Y:15:A:H2	2:Y:71:G:N3	2.19	0.40
1:X:2699:G:H5'	1:X:2822:U:OP1	2.21	0.40
1:X:2700:U:C2	1:X:2701:A:N7	2.90	0.40
5:C:118:VAL:O	5:C:119:ALA:HB2	2.22	0.40
1:X:2756:A:O2'	1:X:2757:G:P	2.80	0.40
10:H:13:ASN:OD1	10:H:107:GLY:CA	2.70	0.40
16:N:85:ARG:CG	16:N:85:ARG:NH2	2.84	0.40
6:D:111:ILE:HG12	6:D:137:ILE:HB	2.04	0.40
11:I:13:ARG:NH2	11:I:13:ARG:CB	2.84	0.40
1:X:1270:C:H4'	5:C:77:PHE:CE2	2.55	0.40
1:X:430:C:C2	1:X:431:G:C8	3.09	0.40
16:N:18:LEU:HA	16:N:18:LEU:HD12	1.73	0.40
1:X:2301:A:H2'	1:X:2302:G:O4'	2.20	0.40
1:X:2366:U:HO2'	22:T:41:ARG:NH2	2.18	0.40
1:X:1609:G:N3	1:X:1609:G:H2'	2.35	0.40
1:X:2206:C:N4	1:X:2207:G:C6	2.89	0.40
1:X:1412:C:H2'	1:X:1413:U:O5'	2.22	0.40
18:P:14:ARG:CA	18:P:17:GLN:HG2	2.47	0.40
14:L:21:THR:HG22	14:L:22:ALA:H	1.84	0.40
1:X:2645:C:N4	7:E:108:GLY:O	2.54	0.40
1:X:2046:C:O2	1:X:2429:A:N1	2.54	0.40
1:X:1557:G:O2'	1:X:1558:C:H5'	2.21	0.40
4:B:188:ILE:HA	4:B:189:PRO:HD3	1.89	0.40
1:X:2787:A:O2'	1:X:2788:C:H5'	2.22	0.40
6:D:112:ARG:O	6:D:113:ASP:HB2	2.20	0.40
1:X:720:A:H2'	1:X:721:C:C6	2.57	0.40
18:P:106:LEU:HD23	18:P:107:ILE:N	2.36	0.40
1:X:67:G:H2'	1:X:68:C:C6	2.56	0.40
1:X:1704:G:N2	1:X:1719:G:C6	2.90	0.40
3:A:169:GLU:HG2	3:A:170:SER:N	2.36	0.40
1:X:2350:G:C6	1:X:2351:G:N7	2.89	0.40
22:T:66:LYS:HB3	22:T:66:LYS:HE2	1.99	0.40
3:A:91:ARG:HG3	3:A:198:ASN:HA	2.04	0.40
1:X:2187:A:H2'	1:X:2188:A:H8	1.84	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:2194:A:C2'	1:X:2195:C:O4'	2.48	0.40
20:R:11:ASN:ND2	20:R:11:ASN:C	2.72	0.40
1:X:2394:G:H4'	11:I:64:GLY:O	2.21	0.40
20:R:88:THR:O	20:R:89:GLY:C	2.60	0.40
23:U:52:ARG:HE	23:U:79:GLU:HB3	1.85	0.40
21:S:142:ASN:H	21:S:145:ASP:CG	2.25	0.40
6:D:52:LYS:HZ1	6:D:149:THR:HA	1.86	0.40
1:X:726:G:N2	1:X:731:A:C2	2.89	0.40
17:O:19:VAL:CG1	17:O:90:PHE:CG	3.04	0.40
10:H:116:ARG:HA	10:H:133:VAL:HG13	2.03	0.40
1:X:559:C:H2'	1:X:560:G:C4'	2.52	0.40
19:Q:49:ARG:HE	19:Q:49:ARG:HB2	1.70	0.40
1:X:1408:A:H4'	1:X:1410:U:C5	2.56	0.40
1:X:353:G:H2'	1:X:354:C:C6	2.56	0.40
5:C:174:GLY:O	5:C:175:VAL:O	2.40	0.40
5:C:28:HIS:ND1	11:I:21:ARG:NH1	2.68	0.40
24:V:15:ALA:O	24:V:18:ILE:HB	2.21	0.40
21:S:59:GLY:C	21:S:60:GLU:HG3	2.41	0.40
12:J:100:PRO:O	12:J:102:ARG:N	2.54	0.40
1:X:38:G:H1	1:X:453:U:H3	1.70	0.40
1:X:812:G:H2'	1:X:813:A:H8	1.87	0.40
23:U:43:ARG:NH2	23:U:43:ARG:HG3	2.36	0.40
21:S:154:LEU:CD1	21:S:160:LEU:HG	2.39	0.40
1:X:2873:G:N2	9:G:162:LYS:HZ3	2.17	0.40
1:X:141:G:O2'	1:X:142:U:H5'	2.22	0.40
1:X:1774:A:H5'	1:X:2587:G:H4'	2.02	0.40
22:T:37:LEU:C	22:T:38:VAL:CG2	2.90	0.40
7:E:44:ARG:NH2	7:E:46:ASP:HB2	2.21	0.40
1:X:1733:U:C2	1:X:1734:C:C5	3.09	0.40
26:Z:19:ARG:C	26:Z:21:SER:H	2.25	0.40
1:X:1514:C:O4'	1:X:1593:C:C5'	2.69	0.40
1:X:1918:G:C5	1:X:1945:C:C4	3.09	0.40
1:X:2626:U:O2'	1:X:2627:G:H5'	2.21	0.40
4:B:88:GLY:O	4:B:89:ASP:CG	2.59	0.40
7:E:76:VAL:C	7:E:78:GLY:H	2.24	0.40
4:B:125:GLY:O	4:B:126:PRO:O	2.39	0.40
1:X:1588:A:H2'	1:X:1589:G:H8	1.87	0.40
1:X:1946:U:OP2	1:X:1946:U:H3'	2.22	0.40
1:X:2061:C:O5'	1:X:2061:C:H6	2.04	0.40
3:A:70:ARG:C	3:A:72:LYS:H	2.25	0.40
1:X:1050:G:C2'	1:X:1051:U:H5'	2.49	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:331:U:O2'	5:C:162:ARG:HD2	2.22	0.40
20:R:10:HIS:O	20:R:11:ASN:CB	2.64	0.40
6:D:74:ILE:O	6:D:75:SER:O	2.39	0.40
16:N:79:PHE:HE2	16:N:95:LEU:HD21	1.86	0.40
1:X:1007:A:N3	1:X:1008:G:C8	2.90	0.40
7:E:92:VAL:O	7:E:94:PHE:HD1	2.02	0.40
14:L:15:ARG:NH2	14:L:18:ARG:NH1	2.70	0.40
1:X:631:G:H4'	1:X:632:A:C5'	2.51	0.40
1:X:636:G:C5'	1:X:636:G:H8	2.32	0.40
1:X:613:A:C2	1:X:636:G:N3	2.90	0.40
1:X:1710:U:H5'	1:X:1711:C:C5	2.56	0.40
1:X:76:C:H2'	1:X:77:C:O4'	2.22	0.40
10:H:23:ARG:HG2	10:H:24:VAL:N	2.36	0.40
11:I:76:LYS:CB	11:I:79:GLN:HG2	2.50	0.40
19:Q:6:ILE:C	19:Q:7:LEU:O	2.59	0.40
24:V:21:ARG:HG2	24:V:21:ARG:HH11	1.86	0.40
1:X:1549:C:H2'	1:X:1550:C:O4'	2.21	0.40
1:X:1373:G:O6	1:X:1385:C:C4	2.74	0.40
1:X:1136:G:C6	1:X:1137:A:N6	2.90	0.40
1:X:1938:U:C5	1:X:2536:G:N2	2.90	0.40
1:X:2714:A:N1	4:B:203:LYS:HE3	2.37	0.40
1:X:1542:G:N2	1:X:1562:G:N2	2.69	0.40
1:X:693:A:C4	1:X:694:G:N7	2.90	0.40
12:J:135:ARG:HB3	12:J:136:GLU:H	1.55	0.40
4:B:181:LEU:HD13	15:M:16:ILE:CD1	2.51	0.40
22:T:58:THR:CG2	22:T:59:LEU:N	2.83	0.40
1:X:1301:U:H2'	1:X:1340:C:O2	2.22	0.40
3:A:126:LYS:C	3:A:193:ILE:HG21	2.41	0.40
1:X:2426:G:O2'	1:X:2427:A:OP2	2.34	0.40
1:X:405:C:H2'	1:X:406:G:C8	2.55	0.40
3:A:48:ARG:N	3:A:48:ARG:HD2	2.32	0.40
6:D:39:GLY:HA2	6:D:86:GLY:HA3	2.02	0.40
1:X:1432:G:H21	1:X:1596:A:H62	1.69	0.40
1:X:229:G:H2'	1:X:230:C:H6	1.87	0.40
9:G:58:ILE:O	9:G:62:ILE:HG13	2.21	0.40
1:X:1578:U:H2'	1:X:1579:G:O4'	2.22	0.40
1:X:1918:G:H21	1:X:1947:G:C1'	2.34	0.40
1:X:1544:A:C2	1:X:1560:A:C4	3.10	0.40
4:B:198:LEU:C	4:B:199:ARG:HG3	2.41	0.40
18:P:79:ALA:O	18:P:83:ASP:HB2	2.20	0.40
21:S:46:GLN:O	21:S:47:SER:C	2.59	0.40

*Continued on next page...*

*Continued from previous page...*

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:X:710:C:O2'	1:X:711:C:H5'	2.21	0.40
8:F:109:LYS:O	8:F:109:LYS:HG3	2.21	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all 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	
3	A	238/274 (87%)	147 (62%)	53 (22%)	38 (16%)	0	0
4	B	203/211 (96%)	147 (72%)	31 (15%)	25 (12%)	0	1
5	C	195/205 (95%)	99 (51%)	48 (25%)	48 (25%)	0	0
6	D	175/180 (97%)	91 (52%)	59 (34%)	25 (14%)	0	0
7	E	169/185 (91%)	100 (59%)	39 (23%)	30 (18%)	0	0
8	F	69/144 (48%)	45 (65%)	19 (28%)	5 (7%)	1	3
9	G	140/174 (80%)	80 (57%)	28 (20%)	32 (23%)	0	0
10	H	132/134 (98%)	114 (86%)	11 (8%)	7 (5%)	2	7
11	I	139/156 (89%)	62 (45%)	33 (24%)	44 (32%)	0	0
12	J	134/142 (94%)	74 (55%)	36 (27%)	24 (18%)	0	0
13	K	111/116 (96%)	85 (77%)	12 (11%)	14 (13%)	0	1
14	L	102/114 (90%)	55 (54%)	22 (22%)	25 (24%)	0	0
15	M	106/166 (64%)	71 (67%)	21 (20%)	14 (13%)	0	1
16	N	115/118 (98%)	72 (63%)	25 (22%)	18 (16%)	0	0
17	O	92/100 (92%)	57 (62%)	16 (17%)	19 (21%)	0	0
18	P	125/134 (93%)	94 (75%)	20 (16%)	11 (9%)	1	2
19	Q	91/95 (96%)	44 (48%)	23 (25%)	24 (26%)	0	0
20	R	108/115 (94%)	60 (56%)	24 (22%)	24 (22%)	0	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
21	S	173/237 (73%)	94 (54%)	40 (23%)	39 (22%)	0	0
22	T	82/91 (90%)	48 (58%)	20 (24%)	14 (17%)	0	0
23	U	70/81 (86%)	35 (50%)	18 (26%)	17 (24%)	0	0
24	V	64/67 (96%)	32 (50%)	20 (31%)	12 (19%)	0	0
25	W	53/55 (96%)	42 (79%)	6 (11%)	5 (9%)	1	1
26	Z	56/60 (93%)	41 (73%)	7 (12%)	8 (14%)	0	0
30	4	35/37 (95%)	17 (49%)	9 (26%)	9 (26%)	0	0
All	All	2977/3391 (88%)	1806 (61%)	640 (22%)	531 (18%)	0	0

All (531) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	A	60	ARG
3	A	187	SER
3	A	209	ALA
3	A	217	ARG
3	A	220	HIS
4	B	73	ALA
4	B	85	ALA
4	B	86	PRO
4	B	123	ALA
4	B	126	PRO
4	B	131	SER
4	B	132	LYS
4	B	137	ARG
4	B	147	PRO
4	B	179	GLU
5	C	9	GLN
5	C	10	ASN
5	C	13	ARG
5	C	30	VAL
5	C	31	VAL
5	C	67	ALA
5	C	84	PHE
5	C	129	LYS
5	C	161	ALA
5	C	164	VAL
5	C	165	SER
5	C	166	TRP
5	C	172	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
5	C	175	VAL
5	C	184	ASP
5	C	195	ILE
5	C	196	VAL
6	D	5	LYS
6	D	10	ASP
6	D	53	ALA
6	D	75	SER
6	D	81	GLN
6	D	119	PRO
6	D	123	ASP
6	D	137	ILE
6	D	145	MET
7	E	13	SER
7	E	14	GLY
7	E	15	VAL
7	E	55	PRO
7	E	58	ALA
7	E	92	VAL
7	E	93	GLY
7	E	119	ALA
7	E	126	PRO
7	E	165	VAL
8	F	120	VAL
9	G	33	ILE
9	G	34	PRO
9	G	37	ASP
9	G	39	GLN
9	G	48	GLY
9	G	65	LYS
9	G	67	ARG
9	G	73	ASN
9	G	78	ASP
9	G	97	ASP
9	G	98	LYS
9	G	104	THR
9	G	107	GLN
9	G	165	VAL
9	G	170	PRO
10	H	27	SER
11	I	29	THR
11	I	38	LYS

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
11	I	39	SER
11	I	40	ARG
11	I	49	PHE
11	I	65	PHE
11	I	86	THR
11	I	91	ASP
11	I	93	LEU
11	I	98	LEU
11	I	99	VAL
11	I	106	VAL
11	I	127	ALA
11	I	131	LYS
12	J	11	ARG
12	J	21	ASP
12	J	22	ALA
12	J	26	ASP
12	J	82	THR
12	J	117	GLU
13	K	6	ALA
13	K	11	ASN
13	K	32	GLY
13	K	92	GLY
14	L	31	VAL
14	L	38	ILE
14	L	45	ASP
14	L	46	SER
14	L	55	SER
14	L	68	ALA
14	L	91	ARG
14	L	104	ALA
15	M	26	ASP
15	M	28	ARG
15	M	29	PRO
15	M	58	ASN
15	M	102	ALA
16	N	5	LYS
16	N	8	ILE
16	N	27	SER
16	N	32	TYR
16	N	75	ASN
16	N	94	VAL
17	O	7	THR

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
17	O	9	GLY
17	O	10	LYS
17	O	13	ARG
17	O	35	LEU
17	O	36	LYS
18	P	11	LYS
18	P	50	VAL
19	Q	12	ILE
19	Q	33	ALA
19	Q	34	THR
19	Q	40	ASP
19	Q	63	LYS
19	Q	69	ILE
19	Q	74	ASP
19	Q	84	GLU
20	R	7	GLY
20	R	11	ASN
20	R	49	GLU
20	R	60	PRO
20	R	61	SER
20	R	83	LEU
20	R	96	LYS
21	S	13	LYS
21	S	17	SER
21	S	26	LYS
21	S	33	ALA
21	S	36	ARG
21	S	49	THR
21	S	76	ARG
21	S	88	TYR
21	S	92	VAL
21	S	118	HIS
21	S	156	GLU
22	T	3	HIS
22	T	19	LYS
22	T	75	GLY
22	T	83	ALA
23	U	14	VAL
23	U	16	ASN
23	U	19	ILE
23	U	30	VAL
23	U	56	GLN

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
23	U	60	VAL
24	V	2	LYS
24	V	36	GLN
25	W	49	HIS
26	Z	4	HIS
26	Z	20	ARG
26	Z	36	CYS
26	Z	53	ASP
30	4	12	ASP
3	A	52	ARG
3	A	54	ILE
3	A	56	GLY
3	A	58	HIS
3	A	59	LYS
3	A	151	LYS
3	A	160	GLY
3	A	197	GLY
3	A	235	GLY
3	A	241	GLY
3	A	244	ARG
3	A	249	PRO
3	A	263	ARG
4	B	17	ASN
4	B	76	ARG
4	B	121	ASN
4	B	124	GLY
4	B	135	HIS
5	C	14	THR
5	C	15	ILE
5	C	22	VAL
5	C	66	ASN
5	C	68	ARG
5	C	103	GLY
5	C	152	THR
5	C	153	ASP
5	C	159	ARG
5	C	176	ASN
5	C	188	ILE
5	C	192	ALA
6	D	13	ARG
6	D	19	GLN
6	D	42	SER

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
6	D	68	THR
6	D	71	LYS
6	D	107	GLY
6	D	120	ASN
6	D	124	GLY
6	D	168	ALA
7	E	7	GLN
7	E	19	ALA
7	E	139	GLN
8	F	116	ASN
8	F	121	GLU
9	G	36	ASN
9	G	68	PRO
9	G	72	PRO
9	G	86	ALA
9	G	105	GLY
9	G	158	HIS
9	G	164	GLN
9	G	166	LEU
10	H	5	GLN
10	H	32	LYS
10	H	37	GLY
10	H	101	ASN
11	I	12	SER
11	I	18	ARG
11	I	44	GLY
11	I	56	LEU
11	I	64	GLY
11	I	69	GLY
11	I	81	GLN
11	I	102	LYS
11	I	103	ASN
11	I	105	PRO
11	I	135	ALA
12	J	13	GLN
12	J	15	ARG
12	J	27	TYR
12	J	63	GLY
12	J	64	LYS
12	J	80	ALA
12	J	81	GLU
12	J	83	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
12	J	97	VAL
12	J	101	GLY
12	J	111	THR
13	K	7	GLY
13	K	21	ALA
13	K	70	ILE
14	L	40	ALA
14	L	52	ALA
14	L	53	ALA
14	L	56	SER
14	L	82	LYS
14	L	89	PHE
14	L	102	ALA
15	M	17	GLU
15	M	39	VAL
15	M	46	ARG
16	N	7	GLY
16	N	26	GLY
16	N	51	ARG
16	N	110	VAL
17	O	8	GLY
17	O	15	SER
17	O	26	GLN
17	O	29	ALA
17	O	30	GLY
17	O	49	GLU
17	O	66	GLY
17	O	80	TYR
17	O	96	LEU
17	O	97	GLY
18	P	10	ASN
18	P	81	HIS
18	P	82	ASN
19	Q	13	SER
19	Q	35	LYS
19	Q	41	ALA
19	Q	47	GLY
19	Q	48	VAL
19	Q	65	VAL
19	Q	67	ARG
19	Q	72	ARG
19	Q	93	GLY

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
20	R	5	SER
20	R	12	ASP
20	R	15	HIS
20	R	50	GLY
20	R	63	THR
20	R	91	ALA
20	R	110	SER
21	S	19	ILE
21	S	25	ASN
21	S	37	LYS
21	S	47	SER
21	S	61	THR
21	S	86	VAL
21	S	91	PRO
21	S	128	ARG
21	S	139	THR
21	S	152	ILE
21	S	165	GLU
22	T	31	VAL
22	T	47	ALA
22	T	48	GLY
23	U	29	GLY
23	U	41	VAL
23	U	53	GLU
24	V	4	SER
24	V	8	ASN
24	V	19	ASP
24	V	43	VAL
24	V	53	LEU
24	V	61	ALA
24	V	65	GLU
25	W	54	GLN
26	Z	19	ARG
30	4	16	VAL
30	4	20	HIS
30	4	33	LYS
3	A	46	ARG
3	A	90	ALA
3	A	115	ALA
3	A	125	PRO
3	A	168	LYS
3	A	199	ALA

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
3	A	206	LEU
3	A	222	ARG
4	B	35	GLN
4	B	69	LYS
4	B	74	PRO
4	B	127	ALA
5	C	11	GLY
5	C	75	PRO
5	C	123	PHE
5	C	126	ALA
5	C	178	TYR
6	D	77	PHE
6	D	146	VAL
7	E	21	ASP
7	E	49	GLN
7	E	76	VAL
7	E	98	LEU
7	E	106	ASN
8	F	143	ASN
9	G	84	ASN
9	G	169	GLN
11	I	17	LYS
11	I	37	GLN
11	I	43	ALA
11	I	48	PHE
11	I	62	LYS
11	I	82	ASP
11	I	84	GLU
12	J	29	ALA
12	J	61	ARG
12	J	89	GLY
12	J	114	GLN
13	K	4	GLY
13	K	13	ASN
13	K	95	THR
14	L	83	GLY
14	L	103	LEU
14	L	108	ARG
14	L	109	GLU
15	M	25	PRO
15	M	27	PHE
15	M	44	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
15	M	47	SER
16	N	33	ARG
16	N	46	GLU
17	O	14	VAL
17	O	39	PHE
17	O	87	ARG
18	P	9	ARG
18	P	32	ARG
18	P	49	SER
19	Q	61	LYS
19	Q	91	LEU
20	R	20	ASP
20	R	26	SER
20	R	65	PRO
21	S	106	GLY
21	S	109	GLN
21	S	124	ALA
21	S	125	PRO
21	S	158	CYS
22	T	4	LYS
23	U	15	VAL
23	U	26	ALA
23	U	32	ARG
23	U	34	THR
23	U	42	GLN
25	W	23	LEU
26	Z	37	HIS
30	4	35	ARG
3	A	106	LEU
3	A	132	PRO
3	A	156	ALA
3	A	159	ALA
3	A	248	THR
4	B	66	HIS
4	B	143	GLN
5	C	20	PRO
5	C	46	ARG
5	C	113	GLU
5	C	119	ALA
5	C	121	ASP
5	C	138	LYS
5	C	154	ASP

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
5	C	190	ALA
6	D	9	ASN
7	E	8	PRO
7	E	84	THR
7	E	128	PRO
7	E	149	ARG
9	G	55	ALA
9	G	85	ALA
9	G	163	PRO
11	I	10	PRO
11	I	25	GLY
11	I	33	GLY
11	I	47	ALA
11	I	90	ARG
11	I	136	ALA
13	K	5	LYS
14	L	26	ARG
14	L	80	ALA
15	M	83	PHE
16	N	78	THR
16	N	90	LEU
18	P	101	PRO
20	R	66	GLN
20	R	85	ASP
20	R	108	VAL
21	S	6	LYS
21	S	45	GLN
21	S	85	MET
21	S	110	GLY
22	T	13	GLY
23	U	47	HIS
26	Z	12	SER
26	Z	21	SER
30	4	21	GLY
3	A	79	VAL
3	A	154	GLN
3	A	201	HIS
3	A	219	PRO
4	B	46	ALA
5	C	47	THR
5	C	125	ILE
6	D	164	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
6	D	170	LEU
7	E	16	THR
7	E	69	ARG
7	E	173	ALA
9	G	160	ALA
11	I	8	PRO
11	I	19	VAL
11	I	133	VAL
12	J	56	SER
12	J	106	GLU
12	J	112	GLU
13	K	100	VAL
14	L	58	ALA
14	L	78	ALA
16	N	77	SER
16	N	88	ILE
18	P	77	ALA
18	P	112	GLY
19	Q	71	GLN
19	Q	89	GLU
19	Q	90	ALA
20	R	6	ALA
20	R	10	HIS
21	S	24	TYR
21	S	133	GLU
21	S	134	LEU
21	S	164	PRO
22	T	73	GLY
22	T	74	LYS
23	U	40	ARG
25	W	38	PRO
30	4	9	LYS
30	4	31	LYS
3	A	55	GLY
3	A	269	PHE
4	B	71	GLY
4	B	122	PHE
4	B	177	ALA
5	C	80	GLY
7	E	11	VAL
7	E	40	GLU
7	E	66	GLY

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
7	E	77	LYS
9	G	130	ALA
10	H	42	LYS
11	I	57	ILE
11	I	95	ALA
11	I	114	ILE
13	K	57	GLY
14	L	33	ARG
14	L	96	TYR
15	M	95	GLU
16	N	76	TYR
19	Q	85	GLY
20	R	89	GLY
21	S	7	PRO
21	S	10	PRO
22	T	20	TYR
23	U	55	GLY
24	V	32	ALA
24	V	35	GLY
24	V	45	GLN
25	W	53	VAL
30	4	14	CYS
6	D	12	VAL
9	G	88	VAL
19	Q	60	GLY
21	S	63	PRO
22	T	7	VAL
3	A	210	GLY
5	C	25	GLY
5	C	171	PRO
16	N	23	GLY
6	D	14	PRO
8	F	91	PRO
9	G	162	LYS
13	K	91	PRO
20	R	31	GLY
22	T	30	VAL
5	C	55	GLY
7	E	43	VAL
10	H	74	VAL
21	S	131	PRO

### 5.3.2 Protein sidechains ⓘ

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all 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	
3	A	185/215 (86%)	167 (90%)	18 (10%)	10	30
4	B	155/157 (99%)	139 (90%)	16 (10%)	9	26
5	C	157/163 (96%)	132 (84%)	25 (16%)	3	8
6	D	153/156 (98%)	136 (89%)	17 (11%)	8	22
7	E	136/144 (94%)	124 (91%)	12 (9%)	12	35
8	F	51/107 (48%)	49 (96%)	2 (4%)	39	74
9	G	118/146 (81%)	101 (86%)	17 (14%)	4	11
10	H	103/103 (100%)	93 (90%)	10 (10%)	10	30
11	I	108/121 (89%)	91 (84%)	17 (16%)	3	9
12	J	110/116 (95%)	97 (88%)	13 (12%)	6	19
13	K	90/93 (97%)	73 (81%)	17 (19%)	2	5
14	L	74/82 (90%)	57 (77%)	17 (23%)	1	3
15	M	94/134 (70%)	81 (86%)	13 (14%)	4	12
16	N	96/97 (99%)	85 (88%)	11 (12%)	7	20
17	O	75/79 (95%)	66 (88%)	9 (12%)	6	18
18	P	109/115 (95%)	100 (92%)	9 (8%)	14	38
19	Q	75/76 (99%)	67 (89%)	8 (11%)	8	24
20	R	91/96 (95%)	79 (87%)	12 (13%)	5	14
21	S	149/192 (78%)	133 (89%)	16 (11%)	8	24
22	T	62/67 (92%)	58 (94%)	4 (6%)	21	51
23	U	57/66 (86%)	44 (77%)	13 (23%)	1	3
24	V	54/55 (98%)	48 (89%)	6 (11%)	8	22
25	W	48/48 (100%)	43 (90%)	5 (10%)	9	25
26	Z	51/53 (96%)	43 (84%)	8 (16%)	3	9
30	4	35/35 (100%)	33 (94%)	2 (6%)	25	58
All	All	2436/2716 (90%)	2139 (88%)	297 (12%)	6	18

All (297) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	A	38	PRO
3	A	40	THR
3	A	43	ARG
3	A	44	ASN
3	A	48	ARG
3	A	68	LYS
3	A	122	GLU
3	A	161	THR
3	A	162	SER
3	A	163	VAL
3	A	164	GLN
3	A	183	ARG
3	A	208	LYS
3	A	214	TRP
3	A	218	LYS
3	A	244	ARG
3	A	252	LYS
3	A	260	ARG
4	B	18	ASP
4	B	23	VAL
4	B	60	ASN
4	B	74	PRO
4	B	75	THR
4	B	86	PRO
4	B	87	ASP
4	B	91	VAL
4	B	105	THR
4	B	107	THR
4	B	126	PRO
4	B	137	ARG
4	B	138	PRO
4	B	143	GLN
4	B	147	PRO
4	B	150	VAL
5	C	5	ASN
5	C	13	ARG
5	C	17	LEU
5	C	39	ARG
5	C	45	THR
5	C	48	ARG
5	C	62	LYS
5	C	66	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
5	C	71	ASP
5	C	75	PRO
5	C	95	LEU
5	C	104	LEU
5	C	113	GLU
5	C	121	ASP
5	C	124	ASP
5	C	127	ASP
5	C	136	TRP
5	C	139	GLN
5	C	153	ASP
5	C	154	ASP
5	C	155	GLU
5	C	162	ARG
5	C	166	TRP
5	C	171	PRO
5	C	180	ILE
6	D	20	PHE
6	D	35	VAL
6	D	40	LEU
6	D	42	SER
6	D	80	ARG
6	D	89	VAL
6	D	104	ILE
6	D	112	ARG
6	D	123	ASP
6	D	125	ARG
6	D	130	LEU
6	D	137	ILE
6	D	144	ASP
6	D	145	MET
6	D	146	VAL
6	D	147	ASP
6	D	173	MET
7	E	24	PHE
7	E	35	VAL
7	E	42	THR
7	E	48	ASP
7	E	50	LEU
7	E	57	ASP
7	E	67	LEU
7	E	72	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
7	E	98	LEU
7	E	107	ILE
7	E	129	THR
7	E	136	ILE
8	F	102	ASP
8	F	111	LYS
9	G	34	PRO
9	G	37	ASP
9	G	38	GLU
9	G	61	ARG
9	G	70	PHE
9	G	93	LYS
9	G	98	LYS
9	G	101	THR
9	G	102	ARG
9	G	106	TYR
9	G	110	LEU
9	G	113	GLU
9	G	132	PHE
9	G	148	LEU
9	G	154	GLU
9	G	165	VAL
9	G	169	GLN
10	H	1	MET
10	H	22	ILE
10	H	23	ARG
10	H	41	ASN
10	H	70	VAL
10	H	78	SER
10	H	81	ILE
10	H	88	THR
10	H	92	ASP
10	H	120	ASP
11	I	7	LYS
11	I	13	ARG
11	I	21	ARG
11	I	23	PRO
11	I	26	THR
11	I	34	HIS
11	I	37	GLN
11	I	45	LYS
11	I	53	ARG

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
11	I	60	LEU
11	I	61	PRO
11	I	65	PHE
11	I	84	GLU
11	I	85	ASP
11	I	88	PHE
11	I	99	VAL
11	I	103	ASN
12	J	11	ARG
12	J	21	ASP
12	J	27	TYR
12	J	60	ARG
12	J	64	LYS
12	J	75	VAL
12	J	82	THR
12	J	91	VAL
12	J	93	TYR
12	J	106	GLU
12	J	111	THR
12	J	125	LYS
12	J	134	LYS
13	K	3	HIS
13	K	11	ASN
13	K	12	ARG
13	K	13	ASN
13	K	28	LEU
13	K	31	GLU
13	K	43	GLU
13	K	51	LEU
13	K	59	ASP
13	K	60	LEU
13	K	83	VAL
13	K	89	GLU
13	K	95	THR
13	K	96	ARG
13	K	99	ARG
13	K	109	THR
13	K	114	GLU
14	L	15	ARG
14	L	31	VAL
14	L	37	HIS
14	L	38	ILE

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
14	L	42	ILE
14	L	43	ILE
14	L	44	ASP
14	L	45	ASP
14	L	60	LYS
14	L	64	LYS
14	L	67	THR
14	L	71	VAL
14	L	88	VAL
14	L	89	PHE
14	L	90	ASP
14	L	91	ARG
14	L	93	SER
15	M	7	ILE
15	M	22	ARG
15	M	26	ASP
15	M	31	ASP
15	M	37	THR
15	M	43	ASN
15	M	46	ARG
15	M	51	GLU
15	M	69	ARG
15	M	72	SER
15	M	79	ARG
15	M	89	ASN
15	M	92	THR
16	N	13	ARG
16	N	18	LEU
16	N	19	LYS
16	N	22	LYS
16	N	30	LYS
16	N	33	ARG
16	N	85	ARG
16	N	87	ASN
16	N	88	ILE
16	N	90	LEU
16	N	93	LYS
17	O	18	ASP
17	O	20	ILE
17	O	28	GLU
17	O	47	PHE
17	O	56	VAL

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
17	O	65	ARG
17	O	78	VAL
17	O	82	ARG
17	O	87	ARG
18	P	16	GLN
18	P	32	ARG
18	P	46	ARG
18	P	91	PHE
18	P	118	LYS
18	P	122	SER
18	P	125	THR
18	P	126	ILE
18	P	133	ASN
19	Q	6	ILE
19	Q	7	LEU
19	Q	12	ILE
19	Q	13	SER
19	Q	27	PHE
19	Q	42	ILE
19	Q	62	ARG
19	Q	82	LEU
20	R	10	HIS
20	R	11	ASN
20	R	18	LYS
20	R	23	ILE
20	R	25	LEU
20	R	57	ASN
20	R	80	LYS
20	R	83	LEU
20	R	95	ARG
20	R	106	VAL
20	R	112	LYS
20	R	113	THR
21	S	3	LEU
21	S	4	THR
21	S	9	THR
21	S	13	LYS
21	S	34	LEU
21	S	35	ASP
21	S	40	ASP
21	S	49	THR
21	S	51	LEU

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
21	S	53	ASP
21	S	71	MET
21	S	82	ASP
21	S	92	VAL
21	S	101	THR
21	S	120	LEU
21	S	122	ILE
22	T	31	VAL
22	T	40	GLN
22	T	77	ARG
22	T	85	GLN
23	U	8	THR
23	U	14	VAL
23	U	27	ASP
23	U	32	ARG
23	U	35	THR
23	U	40	ARG
23	U	42	GLN
23	U	45	ASN
23	U	46	LEU
23	U	54	ASN
23	U	59	THR
23	U	70	LEU
23	U	78	ILE
24	V	6	MET
24	V	19	ASP
24	V	21	ARG
24	V	37	LEU
24	V	41	HIS
24	V	55	THR
25	W	12	ARG
25	W	32	ARG
25	W	35	SER
25	W	45	LYS
25	W	46	THR
26	Z	3	LYS
26	Z	4	HIS
26	Z	5	PRO
26	Z	6	VAL
26	Z	25	LEU
26	Z	29	ASN
26	Z	32	GLU

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
26	Z	57	VAL
30	4	11	CYS
30	4	22	ARG

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (90) such sidechains are listed below:

Mol	Chain	Res	Type
3	A	44	ASN
3	A	96	HIS
3	A	129	ASN
3	A	166	GLN
3	A	227	ASN
3	A	231	HIS
4	B	129	HIS
4	B	135	HIS
4	B	143	GLN
4	B	180	ASN
4	B	192	ASN
5	C	3	GLN
5	C	5	ASN
5	C	9	GLN
5	C	61	GLN
5	C	66	ASN
5	C	112	GLN
5	C	132	ASN
5	C	139	GLN
5	C	140	ASN
6	D	9	ASN
6	D	63	GLN
6	D	118	ASN
6	D	129	ASN
7	E	20	GLN
7	E	45	GLN
7	E	61	HIS
7	E	111	HIS
7	E	139	GLN
8	F	125	ASN
9	G	84	ASN
9	G	129	HIS
9	G	140	GLN
9	G	161	GLN
10	H	41	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
11	I	37	GLN
11	I	79	GLN
11	I	81	GLN
11	I	121	HIS
12	J	13	GLN
13	K	13	ASN
14	L	37	HIS
14	L	49	GLN
14	L	63	ASN
14	L	86	GLN
14	L	97	HIS
15	M	18	GLN
15	M	43	ASN
15	M	48	GLN
16	N	31	GLN
16	N	34	ASN
16	N	66	ASN
16	N	72	HIS
16	N	81	ASN
16	N	91	ASN
17	O	11	GLN
17	O	57	GLN
17	O	86	HIS
18	P	13	GLN
18	P	78	ASN
18	P	81	HIS
18	P	115	ASN
18	P	133	ASN
19	Q	8	GLN
19	Q	73	ASN
20	R	10	HIS
20	R	11	ASN
20	R	29	HIS
20	R	64	ASN
20	R	71	GLN
21	S	45	GLN
21	S	70	GLN
21	S	80	HIS
21	S	146	HIS
22	T	3	HIS
22	T	12	ASN
22	T	17	ASN

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
22	T	35	ASN
22	T	57	HIS
22	T	71	ASN
23	U	42	GLN
24	V	41	HIS
24	V	45	GLN
25	W	49	HIS
26	Z	29	ASN
26	Z	35	GLN
26	Z	43	HIS
26	Z	44	HIS
30	4	34	GLN
30	4	36	GLN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	X	2680/2880 (93%)	695 (25%)	324 (12%)
2	Y	121/123 (98%)	25 (20%)	1 (0%)
All	All	2801/3003 (93%)	720 (25%)	325 (11%)

All (720) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	X	2	G
1	X	4	C
1	X	13	A
1	X	14	A
1	X	25	U
1	X	28	A
1	X	34	U
1	X	35	G
1	X	39	C
1	X	45	C
1	X	49	U
1	X	50	G
1	X	59	G
1	X	63	A
1	X	70	A
1	X	71	A
1	X	72	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	74	G
1	X	76	C
1	X	82	G
1	X	83	A
1	X	84	G
1	X	87	G
1	X	88	G
1	X	89	A
1	X	90	G
1	X	91	A
1	X	97	U
1	X	98	U
1	X	99	U
1	X	100	G
1	X	101	A
1	X	105	G
1	X	110	U
1	X	111	G
1	X	117	A
1	X	118	U
1	X	119	G
1	X	123	A
1	X	124	A
1	X	129	A
1	X	133	C
1	X	134	G
1	X	136	A
1	X	137	A
1	X	138	G
1	X	147	G
1	X	149	A
1	X	158	A
1	X	173	A
1	X	174	A
1	X	176	A
1	X	177	U
1	X	178	C
1	X	181	A
1	X	182	G
1	X	193	A
1	X	199	A
1	X	200	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	201	G
1	X	203	G
1	X	205	A
1	X	206	U
1	X	207	U
1	X	210	A
1	X	218	A
1	X	219	G
1	X	225	G
1	X	229	G
1	X	242	A
1	X	245	C
1	X	304	A
1	X	305	A
1	X	318	G
1	X	323	G
1	X	333	A
1	X	334	G
1	X	335	A
1	X	340	G
1	X	341	A
1	X	342	G
1	X	343	A
1	X	399	G
1	X	400	U
1	X	401	G
1	X	403	A
1	X	404	A
1	X	414	A
1	X	416	U
1	X	417	C
1	X	418	C
1	X	419	G
1	X	424	G
1	X	425	A
1	X	441	A
1	X	447	U
1	X	448	C
1	X	455	A
1	X	456	C
1	X	460	U
1	X	461	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	463	C
1	X	466	A
1	X	467	U
1	X	468	A
1	X	470	U
1	X	485	G
1	X	491	A
1	X	492	G
1	X	497	C
1	X	514	G
1	X	515	A
1	X	517	A
1	X	519	C
1	X	520	C
1	X	523	A
1	X	537	C
1	X	538	A
1	X	539	A
1	X	540	G
1	X	541	C
1	X	542	A
1	X	543	G
1	X	554	U
1	X	555	U
1	X	556	A
1	X	557	U
1	X	558	G
1	X	559	C
1	X	571	U
1	X	572	G
1	X	580	A
1	X	581	A
1	X	582	G
1	X	583	C
1	X	584	A
1	X	587	A
1	X	595	A
1	X	601	A
1	X	613	A
1	X	614	G
1	X	624	A
1	X	625	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	626	A
1	X	628	A
1	X	631	G
1	X	632	A
1	X	633	G
1	X	636	G
1	X	638	A
1	X	639	G
1	X	648	A
1	X	649	G
1	X	652	C
1	X	654	A
1	X	655	A
1	X	657	A
1	X	664	C
1	X	665	A
1	X	666	U
1	X	667	U
1	X	668	A
1	X	669	G
1	X	670	U
1	X	682	G
1	X	683	A
1	X	684	C
1	X	695	G
1	X	699	G
1	X	700	C
1	X	718	A
1	X	728	G
1	X	729	A
1	X	730	C
1	X	731	A
1	X	740	A
1	X	742	G
1	X	743	A
1	X	752	G
1	X	753	U
1	X	759	C
1	X	760	U
1	X	766	A
1	X	775	U
1	X	776	G

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	X	777	A
1	X	778	G
1	X	780	U
1	X	781	G
1	X	789	G
1	X	790	A
1	X	794	A
1	X	795	A
1	X	796	A
1	X	797	A
1	X	798	G
1	X	802	A
1	X	803	C
1	X	804	C
1	X	805	G
1	X	806	A
1	X	807	A
1	X	813	A
1	X	814	G
1	X	815	A
1	X	818	G
1	X	819	C
1	X	825	C
1	X	832	A
1	X	840	U
1	X	841	G
1	X	843	G
1	X	844	G
1	X	845	U
1	X	862	A
1	X	872	G
1	X	873	U
1	X	878	C
1	X	879	A
1	X	891	A
1	X	919	U
1	X	922	A
1	X	926	C
1	X	927	C
1	X	940	G
1	X	944	A
1	X	952	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	955	G
1	X	956	A
1	X	957	G
1	X	968	C
1	X	969	U
1	X	970	A
1	X	972	C
1	X	973	U
1	X	984	A
1	X	985	G
1	X	994	A
1	X	995	A
1	X	996	C
1	X	1001	A
1	X	1006	C
1	X	1007	A
1	X	1016	C
1	X	1019	U
1	X	1020	A
1	X	1022	A
1	X	1023	U
1	X	1024	G
1	X	1032	A
1	X	1033	G
1	X	1034	U
1	X	1036	G
1	X	1037	U
1	X	1044	U
1	X	1045	G
1	X	1051	U
1	X	1053	G
1	X	1054	C
1	X	1055	A
1	X	1056	U
1	X	1057	A
1	X	1058	G
1	X	1059	A
1	X	1060	C
1	X	1070	G
1	X	1071	U
1	X	1072	U
1	X	1073	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1078	A
1	X	1079	G
1	X	1081	A
1	X	1082	G
1	X	1087	C
1	X	1090	C
1	X	1095	A
1	X	1096	A
1	X	1097	A
1	X	1098	G
1	X	1099	A
1	X	1108	U
1	X	1115	C
1	X	1119	U
1	X	1120	C
1	X	1121	G
1	X	1122	A
1	X	1123	G
1	X	1125	G
1	X	1128	G
1	X	1129	A
1	X	1137	A
1	X	1138	A
1	X	1139	A
1	X	1140	A
1	X	1142	G
1	X	1143	A
1	X	1145	C
1	X	1146	G
1	X	1152	C
1	X	1153	A
1	X	1154	A
1	X	1155	G
1	X	1167	A
1	X	1168	G
1	X	1182	U
1	X	1183	C
1	X	1185	C
1	X	1186	G
1	X	1187	A
1	X	1188	A
1	X	1189	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1192	A
1	X	1194	U
1	X	1195	U
1	X	1220	G
1	X	1224	A
1	X	1225	G
1	X	1234	C
1	X	1250	A
1	X	1251	G
1	X	1253	C
1	X	1261	G
1	X	1262	U
1	X	1264	C
1	X	1266	G
1	X	1269	G
1	X	1278	A
1	X	1279	G
1	X	1280	U
1	X	1284	G
1	X	1285	A
1	X	1286	U
1	X	1288	A
1	X	1295	U
1	X	1300	A
1	X	1302	C
1	X	1313	U
1	X	1314	A
1	X	1315	A
1	X	1316	G
1	X	1325	U
1	X	1326	U
1	X	1333	G
1	X	1334	A
1	X	1338	G
1	X	1339	U
1	X	1342	U
1	X	1343	C
1	X	1346	C
1	X	1354	A
1	X	1355	A
1	X	1356	G
1	X	1358	C

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1359	G
1	X	1374	G
1	X	1391	A
1	X	1392	U
1	X	1398	G
1	X	1410	U
1	X	1411	C
1	X	1413	U
1	X	1428	G
1	X	1429	A
1	X	1430	G
1	X	1432	G
1	X	1433	A
1	X	1434	U
1	X	1440	G
1	X	1441	A
1	X	1442	C
1	X	1443	G
1	X	1460	G
1	X	1465	G
1	X	1467	U
1	X	1468	A
1	X	1469	U
1	X	1470	G
1	X	1473	U
1	X	1474	A
1	X	1475	U
1	X	1482	U
1	X	1489	C
1	X	1490	U
1	X	1497	C
1	X	1498	G
1	X	1513	U
1	X	1514	C
1	X	1523	A
1	X	1524	C
1	X	1525	A
1	X	1528	C
1	X	1551	U
1	X	1552	C
1	X	1553	G
1	X	1554	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1559	G
1	X	1562	G
1	X	1563	U
1	X	1570	C
1	X	1571	G
1	X	1574	A
1	X	1575	C
1	X	1576	G
1	X	1581	C
1	X	1582	A
1	X	1583	A
1	X	1585	A
1	X	1601	U
1	X	1602	G
1	X	1603	A
1	X	1608	U
1	X	1619	A
1	X	1624	A
1	X	1625	A
1	X	1626	A
1	X	1627	C
1	X	1632	A
1	X	1633	C
1	X	1634	A
1	X	1635	G
1	X	1648	C
1	X	1651	U
1	X	1652	G
1	X	1657	A
1	X	1661	C
1	X	1664	G
1	X	1665	C
1	X	1668	G
1	X	1671	A
1	X	1685	A
1	X	1686	A
1	X	1691	G
1	X	1692	C
1	X	1699	A
1	X	1710	U
1	X	1711	C
1	X	1712	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1713	G
1	X	1715	A
1	X	1716	G
1	X	1717	A
1	X	1718	A
1	X	1724	C
1	X	1732	U
1	X	1733	U
1	X	1734	C
1	X	1747	G
1	X	1749	G
1	X	1750	A
1	X	1754	G
1	X	1755	G
1	X	1764	A
1	X	1771	A
1	X	1772	C
1	X	1773	C
1	X	1776	A
1	X	1778	U
1	X	1790	G
1	X	1791	C
1	X	1792	C
1	X	1793	A
1	X	1800	A
1	X	1801	C
1	X	1802	A
1	X	1807	A
1	X	1808	C
1	X	1812	U
1	X	1813	A
1	X	1821	A
1	X	1825	C
1	X	1831	G
1	X	1842	G
1	X	1851	A
1	X	1852	G
1	X	1854	G
1	X	1855	G
1	X	1856	U
1	X	1857	G
1	X	1859	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1861	G
1	X	1865	C
1	X	1867	A
1	X	1868	A
1	X	1869	A
1	X	1873	A
1	X	1874	G
1	X	1883	A
1	X	1910	A
1	X	1912	G
1	X	1914	U
1	X	1919	A
1	X	1922	U
1	X	1923	U
1	X	1924	C
1	X	1926	U
1	X	1927	U
1	X	1928	G
1	X	1938	U
1	X	1939	U
1	X	1946	U
1	X	1947	G
1	X	1948	C
1	X	1949	A
1	X	1950	C
1	X	1953	A
1	X	1954	A
1	X	1955	G
1	X	1964	A
1	X	1976	U
1	X	1978	U
1	X	1979	C
1	X	1980	A
1	X	2004	U
1	X	2005	U
1	X	2006	G
1	X	2014	A
1	X	2015	G
1	X	2016	A
1	X	2019	C
1	X	2026	C
1	X	2035	G

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2038	C
1	X	2039	G
1	X	2044	G
1	X	2045	A
1	X	2046	C
1	X	2052	G
1	X	2075	U
1	X	2076	G
1	X	2083	G
1	X	2089	C
1	X	2171	U
1	X	2181	A
1	X	2190	A
1	X	2191	A
1	X	2192	U
1	X	2195	C
1	X	2196	U
1	X	2197	U
1	X	2198	U
1	X	2199	C
1	X	2200	G
1	X	2205	C
1	X	2217	G
1	X	2218	G
1	X	2229	G
1	X	2230	G
1	X	2237	C
1	X	2238	G
1	X	2245	A
1	X	2246	A
1	X	2247	A
1	X	2248	A
1	X	2254	C
1	X	2255	G
1	X	2261	G
1	X	2262	C
1	X	2265	A
1	X	2266	A
1	X	2267	A
1	X	2268	G
1	X	2276	C
1	X	2284	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2285	U
1	X	2286	G
1	X	2287	G
1	X	2288	A
1	X	2298	U
1	X	2299	A
1	X	2300	G
1	X	2301	A
1	X	2306	A
1	X	2313	G
1	X	2314	A
1	X	2316	G
1	X	2322	U
1	X	2323	U
1	X	2324	G
1	X	2325	A
1	X	2326	C
1	X	2351	G
1	X	2362	G
1	X	2364	C
1	X	2369	U
1	X	2371	A
1	X	2386	G
1	X	2396	C
1	X	2402	U
1	X	2403	C
1	X	2405	A
1	X	2406	C
1	X	2408	G
1	X	2409	A
1	X	2410	U
1	X	2418	A
1	X	2419	C
1	X	2420	C
1	X	2427	A
1	X	2428	U
1	X	2438	A
1	X	2448	A
1	X	2452	U
1	X	2455	A
1	X	2461	G
1	X	2469	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2470	U
1	X	2476	A
1	X	2477	C
1	X	2481	G
1	X	2482	A
1	X	2483	U
1	X	2484	G
1	X	2485	U
1	X	2497	A
1	X	2498	U
1	X	2499	C
1	X	2508	G
1	X	2521	A
1	X	2522	G
1	X	2545	A
1	X	2546	G
1	X	2552	C
1	X	2560	G
1	X	2561	G
1	X	2564	U
1	X	2565	C
1	X	2581	A
1	X	2582	G
1	X	2588	U
1	X	2591	C
1	X	2592	U
1	X	2593	A
1	X	2594	U
1	X	2608	A
1	X	2609	G
1	X	2624	G
1	X	2625	U
1	X	2633	A
1	X	2634	G
1	X	2650	G
1	X	2660	C
1	X	2668	U
1	X	2669	C
1	X	2684	A
1	X	2691	C
1	X	2692	A
1	X	2693	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2694	G
1	X	2700	U
1	X	2702	G
1	X	2706	U
1	X	2707	G
1	X	2712	G
1	X	2713	A
1	X	2730	A
1	X	2731	G
1	X	2732	C
1	X	2736	U
1	X	2737	A
1	X	2738	A
1	X	2744	A
1	X	2745	A
1	X	2757	G
1	X	2758	A
1	X	2759	U
1	X	2760	G
1	X	2761	A
1	X	2770	A
1	X	2771	C
1	X	2775	U
1	X	2777	A
1	X	2778	U
1	X	2779	C
1	X	2782	G
1	X	2783	U
1	X	2795	A
1	X	2796	A
1	X	2798	A
1	X	2807	U
1	X	2808	U
1	X	2809	A
1	X	2810	A
1	X	2811	G
1	X	2815	C
1	X	2824	C
1	X	2825	A
1	X	2841	U
1	X	2842	C
1	X	2846	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2847	G
1	X	2850	U
1	X	2854	G
1	X	2855	C
1	X	2858	A
1	X	2868	G
2	Y	4	C
2	Y	14	C
2	Y	15	A
2	Y	17	A
2	Y	18	G
2	Y	27	A
2	Y	28	A
2	Y	37	C
2	Y	38	C
2	Y	43	G
2	Y	44	C
2	Y	46	G
2	Y	47	A
2	Y	54	U
2	Y	59	A
2	Y	68	A
2	Y	69	G
2	Y	81	C
2	Y	93	G
2	Y	102	A
2	Y	110	U
2	Y	111	C
2	Y	112	A
2	Y	115	G
2	Y	123	U

All (325) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	X	3	U
1	X	13	A
1	X	27	G
1	X	33	C
1	X	38	G
1	X	48	A
1	X	62	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	70	A
1	X	71	A
1	X	73	A
1	X	82	G
1	X	83	A
1	X	89	A
1	X	90	G
1	X	98	U
1	X	99	U
1	X	100	G
1	X	117	A
1	X	118	U
1	X	173	A
1	X	176	A
1	X	177	U
1	X	181	A
1	X	192	G
1	X	198	A
1	X	199	A
1	X	204	A
1	X	218	A
1	X	226	C
1	X	312	G
1	X	318	G
1	X	322	A
1	X	333	A
1	X	334	G
1	X	340	G
1	X	341	A
1	X	342	G
1	X	399	G
1	X	400	U
1	X	403	A
1	X	417	C
1	X	424	G
1	X	454	G
1	X	458	G
1	X	460	U
1	X	466	A
1	X	467	U
1	X	468	A
1	X	469	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	485	G
1	X	490	A
1	X	513	A
1	X	514	G
1	X	516	G
1	X	522	G
1	X	538	A
1	X	539	A
1	X	541	C
1	X	542	A
1	X	553	C
1	X	554	U
1	X	555	U
1	X	556	A
1	X	557	U
1	X	571	U
1	X	580	A
1	X	582	G
1	X	583	C
1	X	596	C
1	X	613	A
1	X	625	A
1	X	631	G
1	X	638	A
1	X	648	A
1	X	664	C
1	X	667	U
1	X	682	G
1	X	683	A
1	X	698	A
1	X	699	G
1	X	717	G
1	X	730	C
1	X	739	G
1	X	741	G
1	X	751	G
1	X	752	G
1	X	759	C
1	X	765	C
1	X	775	U
1	X	777	A
1	X	780	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	788	G
1	X	789	G
1	X	795	A
1	X	801	A
1	X	802	A
1	X	803	C
1	X	804	C
1	X	805	G
1	X	806	A
1	X	813	A
1	X	814	G
1	X	818	G
1	X	824	U
1	X	842	A
1	X	843	G
1	X	872	G
1	X	878	C
1	X	890	U
1	X	925	U
1	X	939	C
1	X	955	G
1	X	956	A
1	X	968	C
1	X	969	U
1	X	972	C
1	X	983	G
1	X	984	A
1	X	985	G
1	X	994	A
1	X	1000	G
1	X	1006	C
1	X	1023	U
1	X	1031	C
1	X	1033	G
1	X	1036	G
1	X	1044	U
1	X	1053	G
1	X	1055	A
1	X	1057	A
1	X	1071	U
1	X	1072	U
1	X	1096	A

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1121	G
1	X	1122	A
1	X	1123	G
1	X	1137	A
1	X	1139	A
1	X	1141	U
1	X	1142	G
1	X	1152	C
1	X	1153	A
1	X	1154	A
1	X	1167	A
1	X	1182	U
1	X	1186	G
1	X	1188	A
1	X	1194	U
1	X	1223	G
1	X	1224	A
1	X	1233	A
1	X	1249	G
1	X	1260	A
1	X	1261	G
1	X	1263	G
1	X	1264	C
1	X	1265	G
1	X	1266	G
1	X	1278	A
1	X	1279	G
1	X	1285	A
1	X	1299	A
1	X	1301	U
1	X	1313	U
1	X	1314	A
1	X	1315	A
1	X	1324	G
1	X	1325	U
1	X	1333	G
1	X	1337	G
1	X	1338	G
1	X	1342	U
1	X	1345	G
1	X	1353	A
1	X	1354	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1355	A
1	X	1373	G
1	X	1391	A
1	X	1409	U
1	X	1410	U
1	X	1412	C
1	X	1439	G
1	X	1441	A
1	X	1442	C
1	X	1459	U
1	X	1473	U
1	X	1474	A
1	X	1496	G
1	X	1552	C
1	X	1561	A
1	X	1575	C
1	X	1581	C
1	X	1582	A
1	X	1583	A
1	X	1601	U
1	X	1607	A
1	X	1618	U
1	X	1623	C
1	X	1624	A
1	X	1626	A
1	X	1632	A
1	X	1633	C
1	X	1634	A
1	X	1651	U
1	X	1664	G
1	X	1670	G
1	X	1685	A
1	X	1691	G
1	X	1698	C
1	X	1710	U
1	X	1711	C
1	X	1712	G
1	X	1715	A
1	X	1716	G
1	X	1723	U
1	X	1732	U
1	X	1749	G

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	1771	A
1	X	1772	C
1	X	1775	A
1	X	1777	A
1	X	1790	G
1	X	1791	C
1	X	1807	A
1	X	1811	A
1	X	1820	G
1	X	1849	G
1	X	1867	A
1	X	1913	G
1	X	1921	A
1	X	1922	U
1	X	1923	U
1	X	1926	U
1	X	1927	U
1	X	1938	U
1	X	1947	G
1	X	1953	A
1	X	1963	G
1	X	1975	G
1	X	1979	C
1	X	2004	U
1	X	2005	U
1	X	2014	A
1	X	2015	G
1	X	2016	A
1	X	2018	G
1	X	2034	A
1	X	2044	G
1	X	2045	A
1	X	2050	G
1	X	2075	U
1	X	2088	U
1	X	2189	A
1	X	2195	C
1	X	2196	U
1	X	2197	U
1	X	2204	A
1	X	2217	G
1	X	2228	U

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2229	G
1	X	2237	C
1	X	2245	A
1	X	2254	C
1	X	2261	G
1	X	2265	A
1	X	2267	A
1	X	2275	U
1	X	2298	U
1	X	2312	A
1	X	2313	G
1	X	2323	U
1	X	2324	G
1	X	2325	A
1	X	2396	C
1	X	2401	A
1	X	2402	U
1	X	2404	A
1	X	2405	A
1	X	2409	A
1	X	2418	A
1	X	2426	G
1	X	2427	A
1	X	2428	U
1	X	2437	G
1	X	2460	G
1	X	2469	G
1	X	2476	A
1	X	2482	A
1	X	2496	C
1	X	2497	A
1	X	2498	U
1	X	2521	A
1	X	2545	A
1	X	2551	A
1	X	2560	G
1	X	2580	C
1	X	2588	U
1	X	2589	C
1	X	2592	U
1	X	2593	A
1	X	2608	A

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type
1	X	2624	G
1	X	2633	A
1	X	2660	C
1	X	2668	U
1	X	2669	C
1	X	2691	C
1	X	2693	U
1	X	2705	A
1	X	2706	U
1	X	2712	G
1	X	2736	U
1	X	2756	A
1	X	2758	A
1	X	2759	U
1	X	2770	A
1	X	2807	U
1	X	2810	A
1	X	2823	G
1	X	2824	C
1	X	2841	U
1	X	2848	A
1	X	2854	G
1	X	2867	G
2	Y	26	G

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

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

## 5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

Of 35 ligands modelled in this entry, 35 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 ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	X	2686/2880 (93%)	-0.17	96 (3%) 46 39	3, 38, 98, 118	0
2	Y	122/123 (99%)	-0.00	3 (2%) 61 56	24, 67, 89, 101	0
3	A	240/274 (87%)	0.29	22 (9%) 11 7	17, 53, 65, 71	0
4	B	205/211 (97%)	-0.44	1 (0%) 91 90	2, 21, 43, 56	0
5	C	197/205 (96%)	0.03	10 (5%) 32 26	14, 43, 58, 66	0
6	D	177/180 (98%)	0.47	13 (7%) 18 12	50, 60, 67, 69	0
7	E	171/185 (92%)	-0.08	5 (2%) 55 49	38, 53, 64, 68	0
8	F	71/144 (49%)	2.92	51 (71%) 0 0	0, 77, 83, 85	0
9	G	142/174 (81%)	0.12	10 (7%) 19 14	24, 39, 53, 63	0
10	H	134/134 (100%)	-0.52	0 100 100	3, 17, 33, 42	0
11	I	141/156 (90%)	0.78	24 (17%) 2 1	21, 53, 62, 71	0
12	J	136/142 (95%)	-0.02	3 (2%) 65 61	28, 43, 60, 65	0
13	K	113/116 (97%)	-0.46	0 100 100	2, 10, 24, 34	0
14	L	104/114 (91%)	0.28	10 (9%) 10 6	38, 51, 58, 63	0
15	M	108/166 (65%)	-0.54	1 (0%) 85 84	3, 18, 43, 55	0
16	N	117/118 (99%)	-0.18	2 (1%) 73 70	5, 37, 54, 61	0
17	O	94/100 (94%)	-0.15	3 (3%) 51 44	22, 47, 59, 64	0
18	P	127/134 (94%)	-0.49	0 100 100	4, 18, 47, 59	0
19	Q	93/95 (97%)	0.01	3 (3%) 51 44	29, 42, 57, 68	0
20	R	110/115 (95%)	0.39	12 (10%) 7 4	35, 46, 61, 65	0
21	S	175/237 (73%)	0.65	16 (9%) 11 7	49, 58, 64, 68	0
22	T	84/91 (92%)	0.63	14 (16%) 2 1	26, 44, 59, 70	0
23	U	72/81 (88%)	0.76	12 (16%) 2 1	41, 53, 63, 67	0
24	V	66/67 (98%)	-0.10	2 (3%) 54 47	38, 52, 65, 67	0

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
25	W	55/55 (100%)	-0.38	0 100 100	21, 37, 49, 64	0
26	Z	58/60 (96%)	-0.41	1 (1%) 73 70	4, 16, 38, 44	0
27	1	53/55 (96%)	3.51	42 (79%) 0 0	37, 47, 56, 60	0
28	2	46/47 (97%)	6.30	46 (100%) 0 0	11, 27, 34, 37	0
29	3	63/66 (95%)	5.75	59 (93%) 0 0	21, 36, 46, 48	0
30	4	37/37 (100%)	1.01	8 (21%) 1 1	44, 52, 58, 59	0
All	All	5997/6562 (91%)	0.13	469 (7%) 16 11	0, 43, 85, 118	0

All (469) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
29	3	37	SER	16.8
29	3	38	GLY	16.5
29	3	39	ASP	11.7
29	3	33	ASN	11.7
29	3	43	GLY	11.1
28	2	29	ASN	10.7
29	3	36	LYS	9.4
28	2	26	SER	9.4
28	2	24	THR	9.4
29	3	42	ARG	9.2
29	3	35	GLY	9.2
29	3	40	GLU	9.1
8	F	125	ASN	9.1
29	3	41	ILE	9.0
29	3	34	THR	9.0
28	2	7	PRO	9.0
28	2	22	MET	8.8
21	S	92	VAL	8.7
28	2	36	ALA	8.6
22	T	15	ASP	8.4
29	3	6	THR	8.4
29	3	7	HIS	8.4
27	1	25	THR	8.4
27	1	43	VAL	8.3
29	3	31	HIS	8.2
28	2	8	ASN	8.2
28	2	20	ALA	8.2
28	2	9	ASN	8.0
28	2	15	THR	8.0

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
28	2	4	THR	7.9
29	3	11	LYS	7.9
28	2	6	GLN	7.8
29	3	27	SER	7.7
29	3	28	GLY	7.7
28	2	27	GLY	7.6
29	3	8	LYS	7.5
21	S	91	PRO	7.5
27	1	42	PRO	7.4
28	2	32	ALA	7.4
29	3	9	MET	7.2
29	3	63	PRO	7.2
28	2	5	TYR	7.1
3	A	250	TRP	7.0
27	1	40	TYR	7.0
1	X	1086	C	6.9
20	R	58	VAL	6.9
27	1	23	THR	6.8
28	2	40	HIS	6.8
28	2	16	HIS	6.7
12	J	84	MET	6.7
11	I	48	PHE	6.7
29	3	44	LYS	6.7
22	T	9	SER	6.7
28	2	33	ARG	6.7
11	I	29	THR	6.6
27	1	41	ASP	6.6
9	G	97	ASP	6.5
29	3	62	LEU	6.4
27	1	47	HIS	6.3
29	3	10	ALA	6.3
28	2	30	ILE	6.1
29	3	4	MET	6.0
28	2	37	LYS	6.0
11	I	6	LEU	6.0
1	X	731	A	5.9
29	3	61	MET	5.9
27	1	24	THR	5.9
28	2	25	LYS	5.9
27	1	9	ILE	5.9
28	2	43	THR	5.8
28	2	3	ARG	5.8

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
28	2	46	ASP	5.8
27	1	21	TYR	5.8
28	2	31	LEU	5.7
29	3	18	GLY	5.7
28	2	21	ARG	5.7
27	1	26	LYS	5.7
28	2	28	ARG	5.7
11	I	10	PRO	5.6
28	2	45	SER	5.6
28	2	13	ALA	5.6
8	F	144	ALA	5.6
28	2	42	LEU	5.6
1	X	1069	G	5.6
29	3	45	GLY	5.5
29	3	47	GLY	5.5
23	U	16	ASN	5.5
28	2	19	ARG	5.4
29	3	32	GLN	5.4
8	F	114	ASP	5.4
27	1	7	ARG	5.4
1	X	891	A	5.3
28	2	17	GLY	5.3
1	X	2779	C	5.3
8	F	129	GLY	5.3
1	X	514	G	5.2
28	2	10	ARG	5.2
29	3	25	PHE	5.2
28	2	41	GLN	5.1
29	3	53	ALA	5.1
29	3	55	TRP	5.1
28	2	23	LYS	5.1
28	2	11	LYS	5.0
8	F	93	LYS	5.0
29	3	54	GLU	5.0
27	1	10	VAL	5.0
28	2	1	MET	5.0
8	F	92	ASN	5.0
28	2	39	ARG	5.0
9	G	156	HIS	4.9
1	X	558	G	4.9
1	X	1522	C	4.9
11	I	5	ASP	4.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
7	E	37	TYR	4.9
11	I	53	ARG	4.8
8	F	130	THR	4.8
30	4	37	GLY	4.8
26	Z	2	ALA	4.8
29	3	46	LYS	4.8
8	F	142	PRO	4.8
27	1	27	ASN	4.8
29	3	17	THR	4.7
1	X	1085	G	4.7
8	F	101	TRP	4.7
29	3	29	LYS	4.7
29	3	19	THR	4.7
27	1	37	LEU	4.7
2	Y	123	U	4.7
11	I	52	GLY	4.7
29	3	26	LYS	4.6
29	3	30	ARG	4.6
29	3	3	LYS	4.5
28	2	44	VAL	4.5
28	2	38	GLY	4.5
8	F	74	MET	4.5
5	C	44	SER	4.5
28	2	14	LYS	4.4
28	2	34	ARG	4.4
22	T	8	GLY	4.4
27	1	44	ALA	4.4
28	2	18	PHE	4.4
27	1	36	GLU	4.4
6	D	43	SER	4.3
8	F	116	ASN	4.3
19	Q	64	ARG	4.3
20	R	99	VAL	4.3
8	F	132	ARG	4.3
20	R	57	ASN	4.3
8	F	128	ALA	4.3
27	1	30	ASN	4.3
8	F	126	THR	4.3
22	T	10	SER	4.3
21	S	123	VAL	4.3
8	F	94	ALA	4.3
6	D	11	GLN	4.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
8	F	123	ALA	4.2
8	F	90	THR	4.2
3	A	254	THR	4.2
1	X	1090	C	4.1
9	G	129	HIS	4.1
1	X	2088	U	4.1
3	A	203	ASN	4.1
6	D	145	MET	4.1
14	L	58	ALA	4.0
3	A	249	PRO	4.0
29	3	56	ALA	4.0
1	X	1104	G	4.0
22	T	3	HIS	4.0
7	E	23	VAL	3.9
6	D	86	GLY	3.9
30	4	22	ARG	3.9
11	I	4	HIS	3.9
17	O	46	VAL	3.9
29	3	60	LEU	3.9
29	3	5	LYS	3.9
27	1	22	TYR	3.9
7	E	119	ALA	3.8
8	F	122	ALA	3.8
8	F	143	ASN	3.8
1	X	2780	A	3.8
8	F	136	VAL	3.8
1	X	1057	A	3.8
17	O	39	PHE	3.8
23	U	52	ARG	3.8
8	F	84	ILE	3.8
22	T	7	VAL	3.8
1	X	1190	C	3.8
8	F	113	PRO	3.8
8	F	97	GLY	3.8
27	1	48	VAL	3.7
1	X	248	A	3.7
29	3	58	MET	3.7
27	1	12	MET	3.7
1	X	1087	C	3.7
1	X	1524	C	3.7
28	2	2	LYS	3.7
28	2	35	ARG	3.7

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
27	1	38	LYS	3.7
1	X	1121	G	3.7
21	S	143	ILE	3.7
1	X	728	G	3.7
3	A	219	PRO	3.7
27	1	14	SER	3.7
1	X	2290	A	3.6
28	2	12	ARG	3.6
22	T	2	ALA	3.6
3	A	241	GLY	3.6
23	U	62	LEU	3.6
1	X	2776	U	3.6
11	I	36	GLY	3.6
8	F	88	SER	3.6
5	C	19	LEU	3.5
1	X	730	C	3.5
3	A	242	ALA	3.5
8	F	83	GLY	3.5
11	I	32	ARG	3.5
29	3	48	PHE	3.5
1	X	1189	G	3.4
1	X	665	A	3.4
6	D	42	SER	3.4
29	3	12	ARG	3.4
1	X	1058	G	3.4
14	L	97	HIS	3.4
8	F	96	VAL	3.4
5	C	47	THR	3.4
1	X	1523	A	3.3
1	X	1186	G	3.3
27	1	52	GLU	3.3
1	X	1103	C	3.3
11	I	8	PRO	3.3
27	1	46	LYS	3.3
29	3	51	ALA	3.3
1	X	1187	A	3.3
3	A	39	LYS	3.3
22	T	6	GLY	3.3
30	4	24	LEU	3.3
22	T	14	ARG	3.2
6	D	141	ILE	3.2
22	T	17	ASN	3.2

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
1	X	1111	C	3.2
29	3	57	ARG	3.2
20	R	68	GLY	3.2
8	F	82	ALA	3.2
8	F	133	SER	3.2
27	1	28	ARG	3.1
4	B	135	HIS	3.1
1	X	1067	G	3.1
1	X	729	A	3.1
29	3	64	ARG	3.1
8	F	119	SER	3.1
29	3	23	MET	3.1
27	1	11	LYS	3.1
20	R	102	LYS	3.1
1	X	1120	C	3.1
8	F	85	GLY	3.1
1	X	1106	A	3.1
1	X	2409	A	3.1
24	V	4	SER	3.0
1	X	418	C	3.0
1	X	2173	G	3.0
1	X	2775	U	3.0
8	F	121	GLU	3.0
1	X	2777	A	3.0
1	X	1074	G	3.0
1	X	1850	G	3.0
14	L	34	SER	3.0
27	1	31	THR	3.0
6	D	147	ASP	3.0
8	F	81	ALA	3.0
29	3	59	LYS	3.0
11	I	15	ASP	3.0
1	X	2089	C	3.0
11	I	50	GLU	3.0
23	U	27	ASP	3.0
8	F	134	MET	3.0
1	X	1188	A	3.0
1	X	100	G	3.0
27	1	45	LYS	3.0
11	I	49	PHE	3.0
8	F	124	ALA	2.9
6	D	146	VAL	2.9

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
8	F	127	VAL	2.9
1	X	2778	U	2.9
8	F	102	ASP	2.9
11	I	88	PHE	2.9
8	F	110	THR	2.9
1	X	1080	A	2.9
1	X	1084	A	2.9
1	X	1107	A	2.9
1	X	1114	A	2.9
1	X	2190	A	2.9
11	I	97	ARG	2.9
9	G	37	ASP	2.9
27	1	17	GLY	2.9
9	G	158	HIS	2.9
21	S	55	THR	2.8
1	X	1553	G	2.8
14	L	33	ARG	2.8
23	U	43	ARG	2.8
24	V	36	GLN	2.8
16	N	48	ARG	2.8
1	X	90	G	2.8
11	I	9	THR	2.8
1	X	1552	C	2.7
20	R	67	GLY	2.7
21	S	86	VAL	2.7
27	1	49	VAL	2.7
1	X	1557	G	2.7
8	F	118	GLY	2.7
5	C	121	ASP	2.7
8	F	98	LYS	2.7
27	1	20	PHE	2.7
8	F	112	MET	2.7
20	R	100	ASP	2.7
11	I	7	LYS	2.7
1	X	2170	C	2.7
1	X	2169	A	2.7
23	U	40	ARG	2.7
1	X	1065	A	2.7
3	A	237	GLU	2.7
23	U	47	HIS	2.7
8	F	104	VAL	2.7
9	G	103	TYR	2.6

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
14	L	64	LYS	2.6
1	X	1525	A	2.6
1	X	2087	U	2.6
27	1	19	GLY	2.6
21	S	171	VAL	2.6
1	X	358	C	2.6
29	3	2	PRO	2.6
8	F	95	LYS	2.6
8	F	105	LEU	2.6
23	U	25	ARG	2.6
5	C	48	ARG	2.6
11	I	63	ARG	2.6
20	R	94	VAL	2.6
22	T	62	LEU	2.6
3	A	220	HIS	2.6
5	C	165	SER	2.6
8	F	100	ASN	2.6
29	3	13	ARG	2.6
30	4	35	ARG	2.6
3	A	78	LYS	2.6
22	T	4	LYS	2.6
21	S	54	ILE	2.6
5	C	123	PHE	2.6
21	S	17	SER	2.6
23	U	49	LYS	2.6
1	X	1095	A	2.5
14	L	57	ALA	2.5
7	E	62	ARG	2.5
9	G	96	ASP	2.5
21	S	12	GLN	2.5
6	D	35	VAL	2.5
8	F	115	LEU	2.5
1	X	1089	C	2.5
7	E	175	LYS	2.5
21	S	23	ALA	2.5
1	X	1913	G	2.5
1	X	2174	G	2.5
1	X	2324	G	2.5
20	R	63	THR	2.5
8	F	76	TYR	2.5
2	Y	61	A	2.5
27	1	35	LEU	2.5

*Continued on next page...*



*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
27	1	39	LYS	2.4
2	Y	2	C	2.4
11	I	103	ASN	2.4
21	S	101	THR	2.4
1	X	1079	G	2.4
22	T	74	LYS	2.4
23	U	46	LEU	2.4
1	X	1077	U	2.4
3	A	186	HIS	2.4
3	A	271	VAL	2.4
6	D	144	ASP	2.4
8	F	111	LYS	2.4
27	1	13	GLU	2.4
3	A	84	TYR	2.4
5	C	91	TYR	2.4
1	X	1096	A	2.4
1	X	1432	G	2.4
21	S	93	GLU	2.4
1	X	1070	G	2.4
1	X	1098	G	2.4
14	L	63	ASN	2.4
14	L	85	LYS	2.4
30	4	20	HIS	2.4
1	X	1097	A	2.3
3	A	91	ARG	2.3
1	X	2082	C	2.3
27	1	15	SER	2.3
29	3	49	VAL	2.3
16	N	118	GLN	2.3
17	O	41	GLY	2.3
20	R	60	PRO	2.3
27	1	4	ASP	2.3
1	X	1068	A	2.3
1	X	1110	G	2.3
9	G	155	THR	2.3
12	J	82	THR	2.3
1	X	727	U	2.3
1	X	434	C	2.3
27	1	16	ALA	2.3
1	X	2877	A	2.3
11	I	23	PRO	2.3
21	S	32	PHE	2.3

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
3	A	261	ARG	2.3
5	C	57	LYS	2.3
1	X	1078	A	2.3
22	T	5	LYS	2.3
20	R	61	SER	2.3
30	4	16	VAL	2.3
27	1	3	LYS	2.3
30	4	36	GLN	2.2
5	C	66	ASN	2.2
8	F	75	SER	2.2
8	F	89	SER	2.2
1	X	1184	G	2.2
3	A	272	THR	2.2
1	X	1733	U	2.2
29	3	22	VAL	2.2
3	A	217	ARG	2.2
1	X	1526	U	2.2
1	X	1091	C	2.2
3	A	134	ARG	2.2
1	X	1185	C	2.2
29	3	20	GLY	2.2
6	D	94	GLU	2.2
8	F	80	LYS	2.2
29	3	52	LYS	2.2
27	1	50	PHE	2.2
11	I	33	GLY	2.2
1	X	1054	C	2.2
21	S	169	VAL	2.2
19	Q	72	ARG	2.2
29	3	14	ILE	2.2
9	G	106	TYR	2.2
21	S	152	ILE	2.2
1	X	1115	C	2.1
1	X	1037	U	2.1
11	I	30	ALA	2.1
1	X	2287	G	2.1
15	M	34	ARG	2.1
1	X	1556	A	2.1
20	R	82	ALA	2.1
30	4	21	GLY	2.1
6	D	120	ASN	2.1
9	G	40	ASN	2.1

*Continued on next page...*

*Continued from previous page...*

Mol	Chain	Res	Type	RSRZ
8	F	78	ILE	2.1
19	Q	2	SER	2.1
23	U	51	ILE	2.1
1	X	172	A	2.1
3	A	46	ARG	2.1
11	I	68	VAL	2.1
27	1	29	ARG	2.1
6	D	143	TYR	2.1
1	X	1081	A	2.1
14	L	40	ALA	2.1
1	X	1071	U	2.1
29	3	16	ILE	2.0
14	L	9	ARG	2.0
1	X	1055	A	2.0
23	U	28	GLY	2.0
1	X	1073	G	2.0
1	X	2289	A	2.0
12	J	18	MET	2.0
3	A	202	LYS	2.0
3	A	238	GLY	2.0

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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

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

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
31	MG	X	2910	1/1	0.62	0.37	21.47	19,19,19,19	0

*Continued on next page...*

*Continued from previous page...*

Mol	Type	Chain	Res	Atoms	RSCC	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
31	MG	X	2908	1/1	0.72	0.50	18.86	17,17,17,17	0
31	MG	Y	124	1/1	0.80	0.44	12.95	26,26,26,26	0
31	MG	X	2882	1/1	0.66	0.29	9.24	12,12,12,12	0
31	MG	X	2906	1/1	0.91	0.43	7.34	13,13,13,13	0
31	MG	X	2899	1/1	0.88	0.22	4.64	19,19,19,19	0
31	MG	X	2888	1/1	0.83	0.23	4.44	3,3,3,3	0
31	MG	X	2895	1/1	0.97	0.35	1.85	3,3,3,3	0
31	MG	X	2904	1/1	0.96	0.14	-0.56	3,3,3,3	0
31	MG	Y	128	1/1	0.83	0.15	-	41,41,41,41	0
31	MG	X	2897	1/1	0.93	0.52	-	3,3,3,3	0
31	MG	X	2909	1/1	0.86	0.12	-	3,3,3,3	0
31	MG	X	2907	1/1	0.96	0.17	-	58,58,58,58	0
31	MG	X	2894	1/1	0.95	0.39	-	15,15,15,15	0
31	MG	X	2886	1/1	0.51	0.33	-	41,41,41,41	0
31	MG	X	2891	1/1	0.99	0.51	-	12,12,12,12	0
31	MG	X	2883	1/1	0.76	0.19	-	49,49,49,49	0
31	MG	X	2881	1/1	0.83	0.24	-	59,59,59,59	0
31	MG	X	2901	1/1	0.93	0.28	-	3,3,3,3	0
31	MG	X	2892	1/1	0.87	0.19	-	22,22,22,22	0
31	MG	X	2898	1/1	0.92	0.42	-	3,3,3,3	0
31	MG	X	2889	1/1	0.98	0.37	-	3,3,3,3	0
31	MG	X	2902	1/1	0.98	0.11	-	60,60,60,60	0
31	MG	X	2885	1/1	0.84	0.53	-	56,56,56,56	0
31	MG	X	2905	1/1	0.92	0.28	-	6,6,6,6	0
31	MG	Y	125	1/1	0.97	0.20	-	9,9,9,9	0
31	MG	X	2900	1/1	0.83	0.40	-	3,3,3,3	0
31	MG	Y	127	1/1	0.90	0.17	-	12,12,12,12	0
31	MG	X	2896	1/1	0.92	0.25	-	3,3,3,3	0
31	MG	X	2893	1/1	0.83	0.21	-	13,13,13,13	0
31	MG	X	2890	1/1	0.84	0.20	-	49,49,49,49	0
31	MG	X	2903	1/1	0.93	0.24	-	24,24,24,24	0
31	MG	X	2884	1/1	0.52	0.42	-	55,55,55,55	0
31	MG	Y	126	1/1	0.74	0.29	-	25,25,25,25	0
31	MG	X	2887	1/1	0.94	0.15	-	3,3,3,3	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.