



Full wwPDB X-ray Structure Validation Report

Feb 27, 2014 – 03:41 PM GMT

PDB ID : 4ABR
Title : COMPLEX OF SMPB, A TMRNA FRAGMENT AND EF-TU-GDP-KIRROMYCIN WITH THE 70S RIBOSOME
Authors : Neubauer, C.; Gillet, R.; Kelley, A.C.; Ramakrishnan, V.
Deposited on : 2011-12-10
Resolution : 3.10 Å(reported)

This is a full wwPDB validation report for a publicly released PDB entry.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at <http://wwpdb.org/ValidationPDFNotes.html>

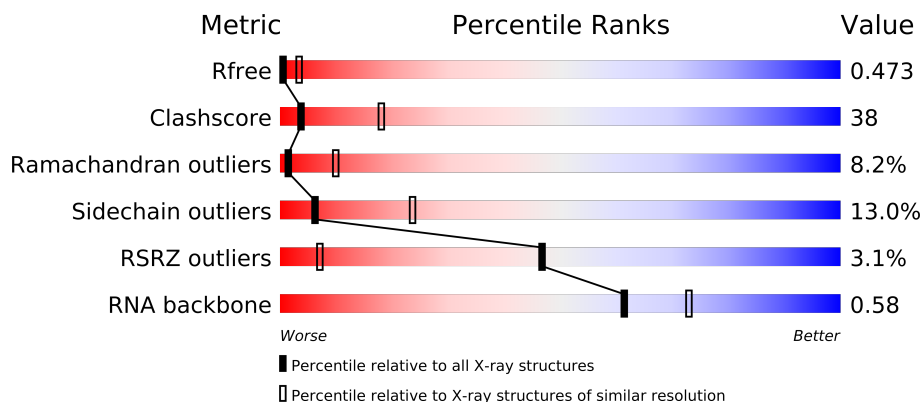
The following versions of software and data (see [references](#)) were used in the production of this report:

MolProbity : 4.02b-467
Mogul : 1.15 2013
Xtriage (Phenix) : dev-1323
EDS : stable22639
Percentile statistics : 21963
Refmac : 5.8.0049
CCP4 : 6.3.0 (Settle)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : stable22683

1 Overall quality at a glance

The reported resolution of this entry is 3.10 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1007 (3.18-3.02)
Clashscore	79885	1078 (3.16-3.04)
Ramachandran outliers	78287	1044 (3.16-3.04)
Sidechain outliers	78261	1044 (3.16-3.04)
RSRZ outliers	66119	1008 (3.18-3.02)
RNA backbone	1838	1047 (3.60-2.60)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria. The upper red bar (where present) indicates the fraction of residues that have poor fit to the electron density.

Mol	Chain	Length	Quality of chain
1	2	144	
2	A	1522	
3	B	256	
4	C	239	
5	D	209	
6	E	162	
7	F	101	
8	G	156	
9	H	138	
10	I	128	
11	J	105	
12	K	129	

Continued on next page...

Continued from previous page...

Mol	Chain	Length	Quality of chain
13	L	135	
14	M	126	
15	N	61	
16	O	89	
17	P	88	
18	Q	105	
19	R	88	
20	S	93	
21	T	106	
22	U	27	
23	V	77	
23	W	77	
24	X	19	
25	Y	90	
26	Z	405	

2 Entry composition

There are 30 unique types of molecules in this entry. The entry contains 60380 atoms, of which 0 are hydrogen and 0 are deuterium.

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 protein called SMALL PROTEIN B SMPB.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	2	144	Total	C	N	O	S	0	0	0
			1184	754	219	210	1			

- Molecule 2 is a RNA chain called 16S RRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	A	1504	Total	C	N	O	P	0	0	0
			32330	14391	5994	10442	1503			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1489	A	G	CONFLICT	GB NC_006461
A	1490	A	C	CONFLICT	GB NC_006461

- Molecule 3 is a protein called 30S RIBOSOMAL PROTEIN S2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	B	235	Total	C	N	O	S	0	0	1
			1901	1213	342	341	5			

- Molecule 4 is a protein called 30S RIBOSOMAL PROTEIN S3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	C	207	Total	C	N	O	S	0	0	1
			1613	1016	315	281	1			

- Molecule 5 is a protein called 30S RIBOSOMAL PROTEIN S4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	D	208	Total	C	N	O	S	0	0	0
			1703	1066	339	291	7			

- Molecule 6 is a protein called 30S RIBOSOMAL PROTEIN S5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	E	151	Total	C	N	O	S	0	0	1
			1147	724	218	201	4			

- Molecule 7 is a protein called 30S RIBOSOMAL PROTEIN S6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	F	101	Total	C	N	O	S	0	0	0
			843	531	155	154	3			

- Molecule 8 is a protein called 30S RIBOSOMAL PROTEIN S7.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	G	155	Total	C	N	O	S	0	0	0
			1257	781	252	218	6			

- Molecule 9 is a protein called 30S RIBOSOMAL PROTEIN S8.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	H	138	Total	C	N	O	S	0	0	0
			1116	705	215	193	3			

- Molecule 10 is a protein called 30S RIBOSOMAL PROTEIN S9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	I	127	Total	C	N	O	S	0	0	0
			1011	639	198	174				

- Molecule 11 is a protein called 30S RIBOSOMAL PROTEIN S10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	J	99	Total	C	N	O	S	0	0	1
			795	499	157	138	1			

- Molecule 12 is a protein called 30S RIBOSOMAL PROTEIN S11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	K	119	Total	C	N	O	S	0	0	0
			885	549	168	165	3			

- Molecule 13 is a protein called 30S RIBOSOMAL PROTEIN S12.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	L	125	Total	C	N	O	S	0	0	1
			971	611	196	163	1			

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
L	1	MET	-	EXPRESSION TAG	UNP Q5SHN3
L	2	VAL	-	EXPRESSION TAG	UNP Q5SHN3
L	3	ALA	-	EXPRESSION TAG	UNP Q5SHN3
L	4	LEU	-	EXPRESSION TAG	UNP Q5SHN3

- Molecule 14 is a protein called 30S RIBOSOMAL PROTEIN S13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	M	125	Total	C	N	O	S	0	0	1
			988	611	206	169	2			

- Molecule 15 is a protein called 30S RIBOSOMAL PROTEIN S14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	N	60	Total	C	N	O	S	0	0	0
			492	312	104	72	4			

- Molecule 16 is a protein called 30S RIBOSOMAL PROTEIN S15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	O	88	Total	C	N	O	S	0	0	0
			734	459	147	126	2			

- Molecule 17 is a protein called 30S RIBOSOMAL PROTEIN S16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	P	84	Total	C	N	O	S	0	0	1
			701	443	140	117	1			

- Molecule 18 is a protein called 30S RIBOSOMAL PROTEIN S17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	Q	100	Total	C	N	O	S	0	0	1
			824	528	152	142	2			

- Molecule 19 is a protein called 30S RIBOSOMAL PROTEIN S18.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
19	R	70	Total	C	N	O	0	0	0
			574	367	112	95			

- Molecule 20 is a protein called 30S RIBOSOMAL PROTEIN S19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	S	79	Total	C	N	O	S	0	0	1
			630	403	115	110	2			

- Molecule 21 is a protein called 30S RIBOSOMAL PROTEIN S20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	T	99	Total	C	N	O	S	0	0	0
			763	470	162	129	2			

- Molecule 22 is a protein called 30S RIBOSOMAL PROTEIN THX.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
22	U	25	Total	C	N	O	0	0	1
			209	128	51	30			

- Molecule 23 is a RNA chain called E-SITE TRNA FMET OR P-SITE TRNA FMET.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	V	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			
23	W	77	Total	C	N	O	P	0	0	0
			1640	732	297	535	76			

- Molecule 24 is a RNA chain called MRNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	5	Total	C	N	O	P	0	0	0
			104	48	19	33	4			

- Molecule 25 is a RNA chain called TMRNA DELA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	62	Total	C	N	O	P	0	0	0
			1306	582	233	430	61			

- Molecule 26 is a protein called ELONGATION FACTOR TU.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	378	Total	C	N	O	S	0	0	1
			2929	1854	510	553	12			

There are 9 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Z	181	GLU	GLN	CONFLICT	UNP Q5SHN6
Z	184	LYS	ARG	CONFLICT	UNP Q5SHN6
Z	189	LYS	ARG	CONFLICT	UNP Q5SHN6
Z	264	LYS	ARG	CONFLICT	UNP Q5SHN6
Z	288	LEU	VAL	CONFLICT	UNP Q5SHN6
Z	322	ILE	VAL	CONFLICT	UNP Q5SHN6
Z	336	THR	SER	CONFLICT	UNP Q5SHN6
Z	354	ARG	GLN	CONFLICT	UNP Q5SHN6
Z	357	GLN	PRO	CONFLICT	UNP Q5SHN6

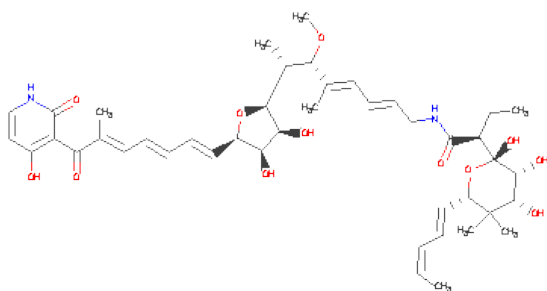
- Molecule 27 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
27	Z	2	Total	Mg	0	0
			2	2		

- Molecule 28 is ZINC ION (three-letter code: ZN) (formula: Zn).

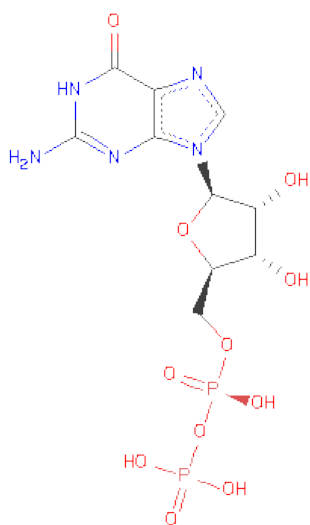
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
28	Y	1	Total	Zn	0	0
			1	1		
28	D	1	Total	Zn	0	0
			1	1		
28	N	1	Total	Zn	0	0
			1	1		

- Molecule 29 is KIRROMYCIN (three-letter code: KIR) (formula: C₄₃H₆₀N₂O₁₂).



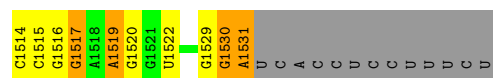
Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
29	Z	1	Total	C	N	O	0	0
			57	43	2	12		

- Molecule 30 is GUANOSINE-5'-DIPHOSPHATE (three-letter code: GDP) (formula: $C_{10}H_{15}N_5O_{11}P_2$).



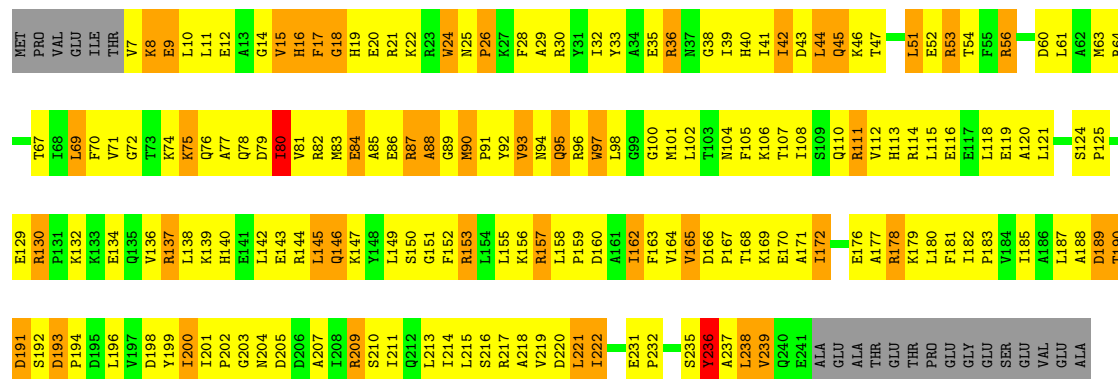
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf
30	Z	1	Total	C	N	O	P	0	0
			28	10	5	11	2		

C1437	G1438	C1439	G1440	G1441	G1442	G1442A	G1442B	G1443	A1447	G1452	G1456	G1457	G1458	G1459	A1460	G1461	G1462	G1469	G1470	A1473	G1474	G1475	G1476	C1477	C1478	C1479	G1480	G1481	C1484	C1485	G1486	G1487	C1488	C1489	G1490	G1491	G1492	A1495	A1496	U1498	A1499	G1500	C1501	G1502	C1503	C1504	G1505	G1506	C1507	C1508	A1509	A1510	C1511	U1512	C1513	U1516	G1517	C1518	C1519	C1520	G1521	C1522	A1523	C1524	C1525	C1526	G1527	G1530	U1531	A1532	U1534	A1535	A1536	G1537	A1538	A1539	C1540	G1541	G1542	C1543	G1544																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
C545	G546	A547	G548	C549	G550	U551	U552	C556	G557	G558	A559	U560	U561	C562	G566	A572	A573	A574	G575	G576	G577	U580	G581	G585	C586	C590	U591	G592	C593	G594	G595	G596	C597	U603	G604	U605	G606	A607	A608	C609	G610	A611	G612	C613	U619	C620	G621	G622	G623	C624	G625	U626	G627	G628	G629	G630	A632	G633	C634	G635	U636	G637	G638	G639	G640	U641	C642	C643	G644	C645	U646	C647	U648	G649	G650	U651	G652	U653	G654	G655	G656	G657	G658	U659	G660	G661	G662	G663	G664	G665	G666	G667	G668	G671	U672	G673	G674	A675	U676	U677	C678	G679	G680	G681	G682	G683	G684	G685	U686																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																															
A687	G688	C689	G690	U691	U692	U697	G698	G701	A632	G633	G703	A704	U705	A706	C707	G708	G709	A640	G710	G711	A712	G713	A716	C719	G720	G721	A722	U723	G724	G725	G726	G727	G731	C732	A733	C736	A737	C738	C739	U740	G741	G742	C743	G749	G750	C754	G755	U756	U757	G758	A759	G760	G761	U619	C620	G621	G622	G623	C624	G625	U626	G627	G628	G629	G630	A632	G633	C634	G635	U636	G637	G638	G639	G640	U641	C642	C643	G644	C645	U646	C647	U648	G649	G650	U651	G652	U653	G654	G655	G656	G657	G658	U659	G660	G661	G662	G663	G664	G665	G666	G667	G668	G671	U672	G673	G674	A675	U676	U677	C678	G679	G680	G681	G682	G683	G684	G685	U686																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
C762	G763	G764	G765	A766	G769	C770	U772	G776	A777	G778	G779	A780	A781	A782	C783	G784	G785	A786	A787	G788	U789	A790	G791	G792	A793	C797	G798	G799	G800	U801	A802	G803	C808	G809	C810	A814	A815	A816	C817	G818	A819	U820	G821	C822	G823	C826	U827	U828	G829	U830	A831	G832	C833	G834	G835	U836	G837	G838	G839	G840	U841	U842	U843	U844	U845	U846	U847	U848	U849	U850	U851	U852	U853	U854	U855	U856	U857	U858	U859	U860	U861	U862	U863	U864	U865	U866	U867	U868	U869	U870	U871	U872	U873	U874	U875	U876	U877	U878	U879	U880	U881	U882	U883	U884	U885	U886	U887	U888	U889	U890	U891	U892	U893	U894	U895	U896	U897	U898	U899	U900	U901	U902	U903	U904	U905	U906	U907	U908	U909	U910	U911	U912	U913	U914	U915	U916	U917	U918	U919	U920	U921	U922	U923	U924	U925	U926	U927	U928	U929	U930	U931	U932	U933	U934	U935	U936	U937	U938	U939	U940	U941	U942	U943	U944	U945	U946	U947	U948	U949	U950	U951	U952	U953	U954	U955	U956	U957	U958	U959	U960	U961	U962	U963	U964	U965	U966	U967	U968	U969	U970	U971	U972	U973	U974	U975	U976	U977	U978	U979	U980	U981	U982	U983	U984	U985	U986	U987	U988	U989	U990	U991	U992	U993	U994	U995	U996	U997	U998	U999	U1000	U1001	U1002	U1003	U1004	U1005	U1006	U1007	U1008	U1009	U1010	U1011	U1012	U1013	U1014	U1015	U1016	U1017	U1018	U1019	U1020	U1021	U1022	U1023	U1024	U1025	U1026	U1027	U1028	U1029	U1030	U1031	U1032	U1033	U1034	U1035	U1036	U1037	U1038	U1039	U1040	U1041	U1042	U1043	U1044	U1045	U1046	U1047	U1048	U1049	U1050	U1051	U1052	U1053	U1054	U1055	U1056	U1057	U1058	U1059	U1060	U1061	U1062	U1063	U1064	U1065	U1066	U1067	U1068	U1069	U1070	U1071	U1072	U1073	U1074	U1075	U1076	U1077	U1078	U1079	U1080	U1081	U1082	U1083	U1084	U1085	U1086	U1087	U1088	U1089	U1090	U1091	U1092	U1093	U1094	U1095	U1096	U1097	U1098	U1099	U1100	U1101	U1102	U1103	U1104	U1105	U1106	U1107	U1108	U1109	U1110	U1111	U1112	U1113	U1114	U1115	U1116	U1117	U1118	U1119	U1120	U1121	U1122	U1123	U1124	U1125	U1126	U1127	U1128	U1129	U1130	U1131	U1132	U1133	U1134	U1135	U1136	U1137	U1138	U1139	U1140	U1141	U1142	U1143	U1144	U1145	U1146	U1147	U1148	U1149	U1150	U1151	U1152	U1153	U1154	U1155	U1156	U1157	U1158	U1159	U1160	U1161	U1162	U1163	U1164	U1165	U1166	U1167	U1168	U1169	U1170	U1171	U1172	U1173	U1174	U1175	U1176	U1177	U1178	U1179	U1180	U1181	U1182	U1183	U1184	U1185	U1186	U1187	U1188	U1189	U1190	U1191	U1192	U1193	U1194	U1195	U1196	U1197	U1198	U1199	U1200	U1201	U1202	U1203	U1204	U1205	U1206	U1207	U1208	U1209	U1210	U1211	U1212	U1213	U1214	U1215	U1216	U1217	U1218	U1219	U1220	U1221	U1222	U1223	U1224	U1225	U1226	U1227	U1228	U1229	U1230	U1231	U1232	U1233	U1234	U1235	U1236	U1237	U1238	U1239	U1240	U1241	U1242	U1243	U1244	U1245	U1246	U1247	U1248	U1249	U1250	U1251	U1252	U1253	U1254	U1255	U1256	U1257	U1258	U1259	U1260	U1261	U1262	U1263	U1264	U1265	U1266	U1267	U1268	U1269	U1270	U1271	U1272	U1273	U1274	U1275	U1276	U1277	U1278	U1279	U1280	U1281	U1282	U1283	U1284	U1285	U1286	U1287	U1288	U1289	U1290	U1291	U1292	U1293	U1294	U1295	U1296	U1297	U1298	U1299	U1300	U1301	U1302	U1303	U1304	U1305	U1306	U1307	U1308	U1309	U1310	U1311	U1312	U1313	U1314	U1315	U1316	U1317	U1318	U1319	U1320	U1321	U1322	U1323	U1324	U1325	U1326	U1327	U1328	U1329	U1330	U1331	U1332	U1333	U1334	U1335	U1336	U1337	U1338	U1339	U1340	U1341	U1342	U1343	U1344	U1345	U1346	U1347	U1348	U1349	U1350	U1351	U1352	U1353	U1354	U1355	U1356	U1357	U1358	U1359	U1360	U1361	U1362	U1363	U1364	U1365	U1366	U1367	U1368	U1369	U1370	U1371	U1372	U1373	U1374	U1375	U1376	U1377	U1378	U1379	U1380	U1381	U1382	U1383	U1384	U1385	U1386	U1387	U1388	U1389	U1390	U1391	U1392	U1393	U1394	U1395	U1396	U1397	U1398	U1399	U1400	U1401	U1402	U1403	U1404	U1405	U1406	U1407	U1408	U1409	U1410	U1411	U1412	U1413	U1414	U1415	U1416	U1417	U1418	U1419	U1420	U1421	U1422	U1423	U1424	U1425	U1426	U1427	U1428	U1429	U1430	U1431	U1432	U1433	U1434	U1435	U1436	U1437	U1438	U1439	U1440	U1441	U1442	U1443	U1444	U1445	U1446	U1447	U1448	U1449	U1450	U1451	U1452	U1453	U1454	U1455	U1456	U1457	U1458	U1459	U1460	U1461	U1462	U1463	U1464	U1465	U1466	U1467	U1468	U1469	U1470	U1471	U1472	U1473	U1474	U1475	U1476	U1477	U1478	U1479	U1480	U1481	U1482	U1483	U1484	U1485	U1486	U1487	U1488	U1489	U1490	U1491	U1492	U1493	U1494	U1495	U1496	U1497	U1498	U1499	U1500	U1501	U1502	U1503	U1504	U1505	U1506	U1507	U1508	U1509	U1510	U1511	U1512	U1513	U1514	U1515	U1516	U1517	U1518	U1519	U1520	U1521	U1522	U1523	U1524	U1525	U1526	U1527	U1528	U1529	U1530	U1531	U1532	U1533	U1534	U1535	U1536	U1537	U1538	U1539	U1540	U1541	U1542	U1543	U1544	U1545	U1546	U1547	U1548	U1549	U1550	U1551	U1552	U1553	U1554	U1555	U1556	U1557	U1558	U1559	U1560	U1561	U1562	U1563	U1564	U1565	U1566	U1567	U1568	U1569	U1570	U1571	U1572	U1573	U1574	U1575	U1576	U1577	U1578	U1579	U1580	U1581	U1582	U1583	U1584	U1585	U1586	U1587	U1588	U1589	U1590	U1591	U1592	U1593	U1594	U1595	U1596	U1597	U1598	U1599	U1600	U1601	U1602	U1603	U1604	U1605	U1606	U1607	U1608	U1609	U1610	U1611	U1612	U1613	U1614	U1615	U1616	U1617	U1618	U1619	U1620	U1621	U1622	U1623	U1624	U1625	U1626	U1627	U1628	U1629	U1630	U1631	U1632	U1633	U1634	U1635	U1636	U1637	U1638	U1639	U1640	U1641	U1642	U1643	U1644	U1645	U1646	U1647	U1648	U1649	U1650	U1651	U1652	U1653	U1654	U1655	U1656	U1657	U1658	U1659	U1660	U1661	U1662	U1663	U1664	U1665	U1666	U1667	U1668	U1669	U1670	U1671	U1672	U1673	U1674	U1675	U1676	U1677	U1678	U1679	U1680	U1681	U1682	U1683	U1684	U1685	U1686	U1687	U1688	U1689	U1690	U1691	U1692	U1693	U1694	U1695	U1696	U1697	U1698	U1699	U1700	U1701	U1702	U1703	U1704	U1705	U1706	U1707	U1708	U1709	U1710	U1711	U1712	U1713	U1714	U1715	U1716	U1717	U1718	U1719	U1720	U1721	U1722	U1723	U1724	U1725	U1726	U1727	U1728	U1729	U1730	U1731	U1732	U1733	U1734	U1735	U1736	U1737	U1738	U1739	U1740	U1741	U1742	U1743	U1744	U1745	U1746	U1747	U1748	U1749	U1750	U1751	U1752	U1753	U1754	U1755	U1756	U1757	U1758	U1759	U1760	U1761	U1762	U1763	U1764	U1765	U1766	U1767	U1



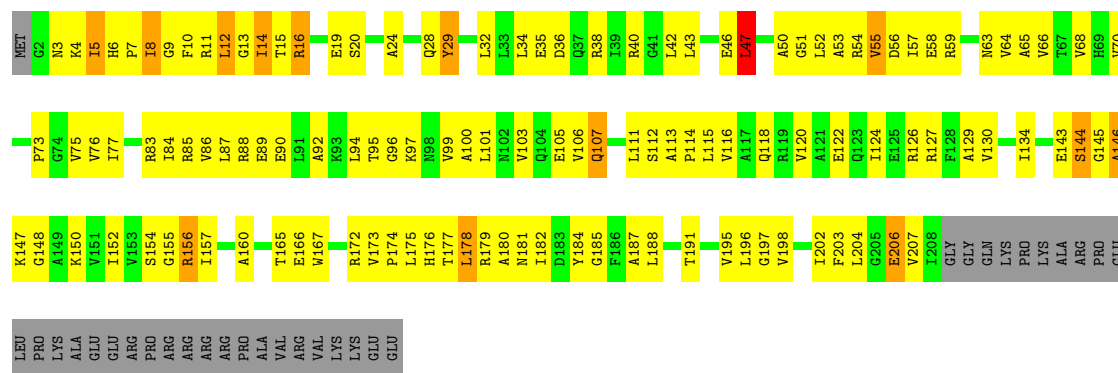
• Molecule 3: 30S RIBOSOMAL PROTEIN S2

Chain B:

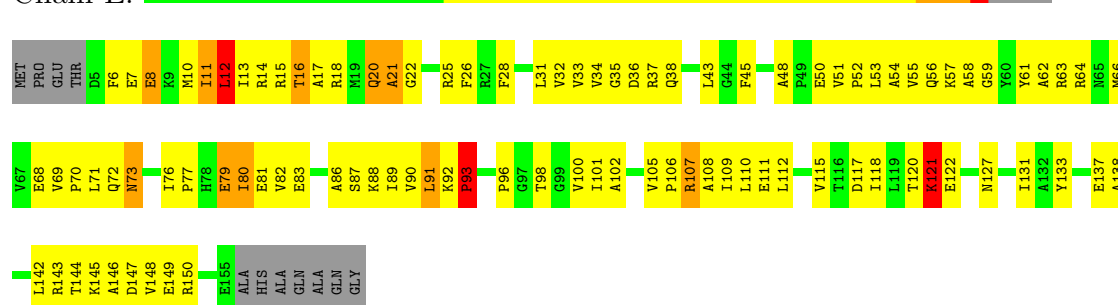


• Molecule 4: 30S RIBOSOMAL PROTEIN S3

Chain C:



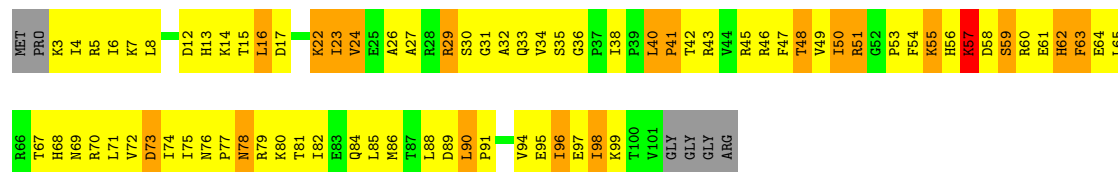
Chain E:





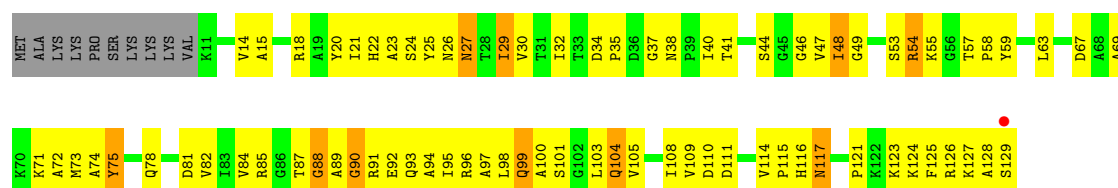
• Molecule 11: 30S RIBOSOMAL PROTEIN S10

Chain J:



• Molecule 12: 30S RIBOSOMAL PROTEIN S11

Chain K:



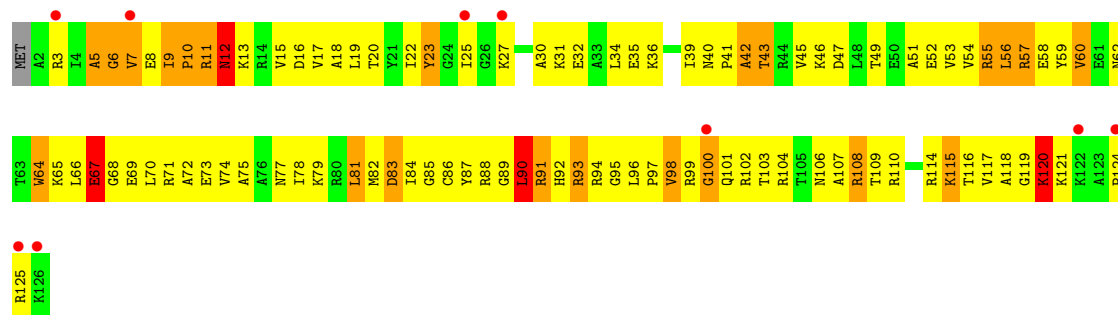
• Molecule 13: 30S RIBOSOMAL PROTEIN S12

Chain L:



• Molecule 14: 30S RIBOSOMAL PROTEIN S13

Chain M:



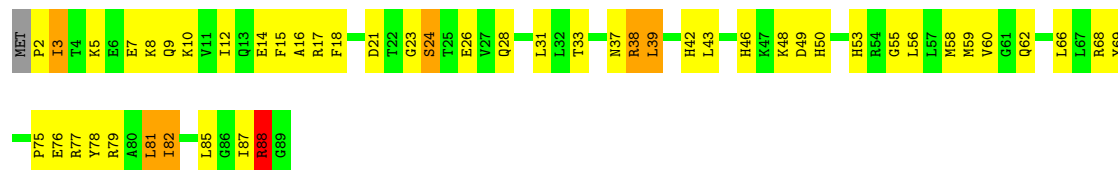
• Molecule 15: 30S RIBOSOMAL PROTEIN S14

Chain N:



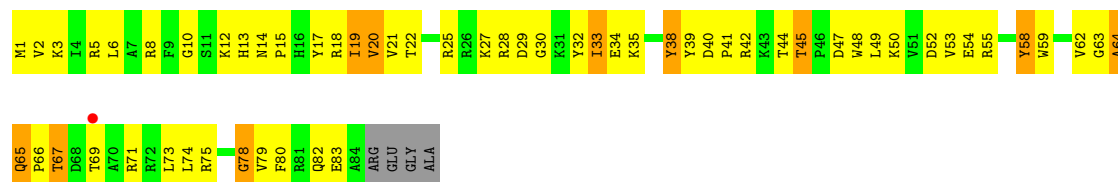
- Molecule 16: 30S RIBOSOMAL PROTEIN S15

Chain O:



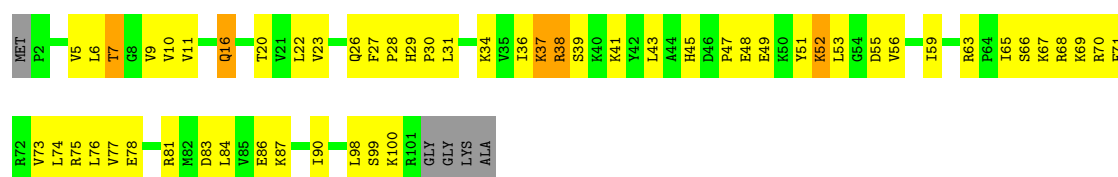
- Molecule 17: 30S RIBOSOMAL PROTEIN S16

Chain P:



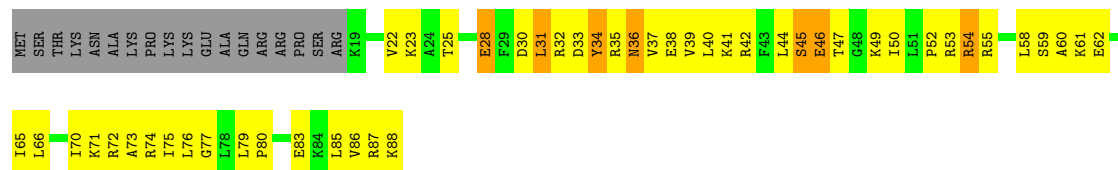
- Molecule 18: 30S RIBOSOMAL PROTEIN S17

Chain Q:



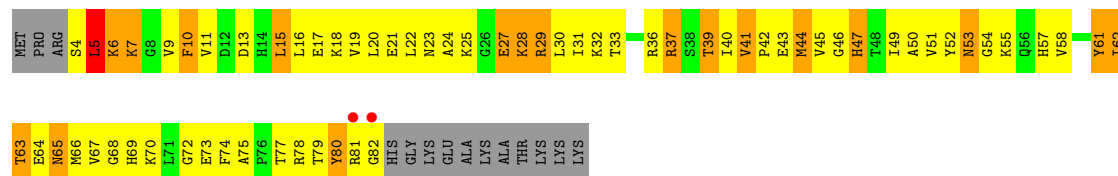
- Molecule 19: 30S RIBOSOMAL PROTEIN S18

Chain R:



- Molecule 20: 30S RIBOSOMAL PROTEIN S19

Chain S:



- Molecule 21: 30S RIBOSOMAL PROTEIN S20

Chain T:



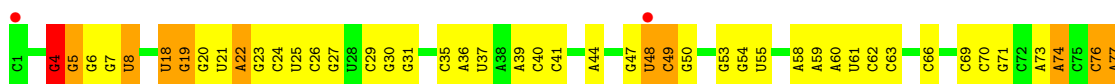
- Molecule 22: 30S RIBOSOMAL PROTEIN THX

Chain U:



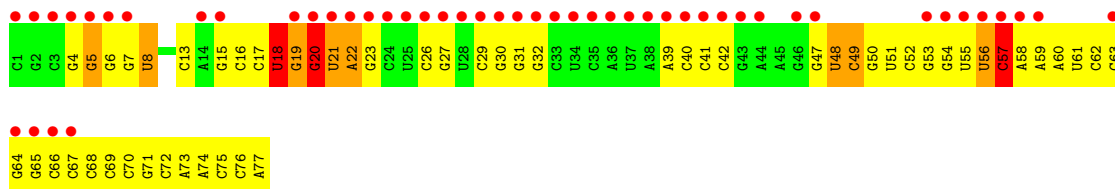
- Molecule 23: E-SITE TRNA FMET OR P-SITE TRNA FMET

Chain V:



- Molecule 23: E-SITE TRNA FMET OR P-SITE TRNA FMET

Chain W:



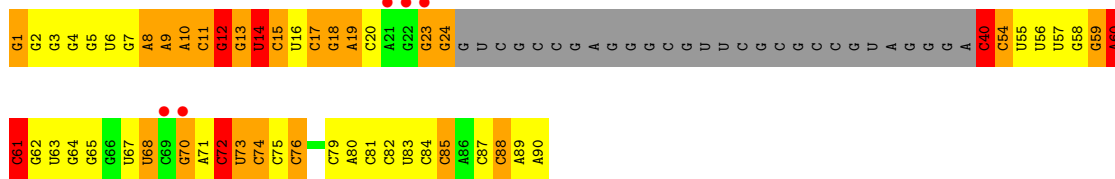
- Molecule 24: mRNA

Chain X:



- Molecule 25: TMRNA DELA

Chain Y:



- Molecule 26: ELONGATION FACTOR TU

Chain Z:



T347	D348	V349	V352	V353	R354	L355	P356	V359	E360	M361	V362	M363	P364	D365	N366	V367	V368	T369	F370	T371	V372	E373	L374	K375	K376	P377	V378	A379	L380	E381	G382	G383	L384	R385	I388	R393	T394	V395	G396	A397	G398	V399	V400	T401	K402	T403	L404	E405																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
A282	G283	D284	N285	V286	G287	L288	L289	L290	R291	G292	V293	S294	R295	V298	E299	R300	G301	Q302	V303	L304	P307	T310	T311	P312	H313	T314	A315	F316	E317	A318	Y321	I322	L323	K324	K325	R326	E327	G328	G329	R330	H331	T332	G333	F334	T335	T336	G337	Y338	R339	P340	O341	F342	R345	T346																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
D218	K219	F220	F221	L222	M223	P224	V225	E226	D227	V228	F229	T230	I231	T232	G233	R234	G235	T236	V237	A238	G239	G240	R241	I242	E243	R244	V247	K248	V249	G250	D251	V252	E253	E254	I255	V256	G257	T262	R263	K264	T265	V266	V267	T268	G269	V270	E271	H272	H273	R274	K275	T276	L277	Q278	E279	G280	I281																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																
M113	P114	Q115	T116	H119	I120	L121	L122	A123	R124	Q125	V126	P129	Y130	I131	V132	V133	F134	M135	D139	M140	V141	D142	D143	P144	E145	L146	L147	D148																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																													

4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	202.17Å 290.76Å 250.65Å 90.00° 97.63° 90.00°	Depositor
Resolution (Å)	50.00 – 3.10 49.68 – 3.10	Depositor EDS
% Data completeness (in resolution range)	97.7 (50.00-3.10) 97.4 (49.68-3.10)	Depositor EDS
R_{merge}	0.24	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.94 (at 3.12Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.230 , 0.270 0.466 , 0.473	Depositor DCC
R_{free} test set	24439 reflections (4.85%)	DCC
Wilson B-factor (Å ²)	44.8	Xtriage
Anisotropy	0.304	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.26 , 39.4	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle L \rangle = 0.46$, $\langle L^2 \rangle = 0.29$	Xtriage
Outliers	0 of 503945 reflections	Xtriage
F_o, F_c correlation	0.44	EDS
Total number of atoms	60380	wwPDB-VP
Average B, all atoms (Å ²)	65.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.67% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GDP, KIR, ZN, 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	2	0.49	0/1203	0.71	1/1606 (0.1%)
2	A	0.48	1/36192 (0.0%)	0.78	39/56489 (0.1%)
3	B	0.46	0/1936	0.72	0/2611
4	C	0.43	0/1637	0.69	0/2207
5	D	0.40	0/1733	0.68	0/2318
6	E	0.49	0/1163	0.72	0/1566
7	F	0.43	0/856	0.68	1/1154 (0.1%)
8	G	0.36	0/1276	0.61	0/1709
9	H	0.45	0/1136	0.75	0/1527
10	I	0.41	0/1029	0.67	0/1378
11	J	0.42	0/808	0.69	0/1087
12	K	0.39	0/900	0.65	0/1213
13	L	0.45	0/987	0.74	0/1322
14	M	0.38	0/999	0.71	0/1338
15	N	0.45	0/501	0.75	0/664
16	O	0.45	0/745	0.70	0/992
17	P	0.42	0/717	0.65	0/965
18	Q	0.42	0/837	0.67	0/1119
19	R	0.42	0/579	0.70	0/768
20	S	0.45	0/643	0.67	1/867 (0.1%)
21	T	0.37	0/765	0.65	0/1007
22	U	0.48	0/213	0.63	0/279
23	V	0.45	0/1832	0.79	1/2855 (0.0%)
23	W	0.45	0/1832	0.81	3/2855 (0.1%)
24	X	0.71	0/116	0.89	0/179
25	Y	0.82	5/1455 (0.3%)	0.97	5/2258 (0.2%)
26	Z	0.42	0/2986	0.69	0/4050
All	All	0.47	6/65076 (0.0%)	0.76	51/96383 (0.1%)

Chiral center outliers are detected by calculating the chiral volume of a chiral center and verifying if the center is modelled as a planar moiety or with the opposite hand. A planarity outlier is

detected by checking planarity of atoms in a peptide group, atoms in a mainchain group or atoms of a sidechain that are expected to be planar.

Mol	Chain	#Chirality outliers	#Planarity outliers
2	A	4	40
23	V	0	1
23	W	0	3
25	Y	0	3
All	All	4	47

All (6) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
25	Y	12	G	C2-N2	-13.61	1.21	1.34
25	Y	40	C	OP3-P	-6.93	1.52	1.61
25	Y	1	G	OP3-P	-6.81	1.52	1.61
25	Y	12	G	N9-C4	5.51	1.42	1.38
25	Y	12	G	N3-C4	5.17	1.39	1.35
2	A	893	C	N1-C2	5.09	1.45	1.40

All (51) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	115	G	C2'-C3'-O3'	9.61	130.64	109.50
2	A	966	G	N9-C1'-C2'	-9.47	101.58	112.00
2	A	1498	U	C2'-C3'-O3'	9.43	130.25	109.50
2	A	575	G	C2'-C3'-O3'	8.98	129.25	109.50
23	V	4	G	N9-C1'-C2'	-8.74	102.39	112.00
2	A	1399	C	C2'-C3'-O3'	8.55	128.31	109.50
2	A	1190	G	C2'-C3'-O3'	7.65	126.33	109.50
25	Y	60	A	C2'-C3'-O3'	7.03	124.97	109.50
2	A	56	U	N1-C1'-C2'	7.03	123.13	114.00
2	A	1504	G	C2'-C3'-O3'	7.02	124.95	109.50
2	A	1504	G	C4'-C3'-O3'	6.92	126.84	113.00
2	A	498	U	N1-C1'-C2'	-6.73	104.59	112.00
2	A	109	A	C2'-C3'-O3'	6.68	124.38	113.70
2	A	687	A	C2'-C3'-O3'	6.64	124.32	113.70
2	A	328	C	N1-C1'-C2'	6.54	122.51	114.00
2	A	1050	G	N9-C1'-C2'	-6.51	104.84	112.00
2	A	484	G	N9-C1'-C2'	6.50	122.45	114.00
2	A	266	G	C2'-C3'-O3'	6.42	123.97	113.70
2	A	60	A	C2'-C3'-O3'	6.11	123.48	113.70
23	W	18	U	N1-C1'-C2'	6.01	121.82	114.00
2	A	109	A	C4'-C3'-C2'	5.88	108.48	102.60

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
25	Y	61	C	C2'-C3'-O3'	5.81	122.99	113.70
2	A	960	U	N1-C1'-C2'	5.79	121.53	114.00
25	Y	14	U	C2'-C3'-O3'	5.79	122.96	113.70
2	A	1399	C	C4'-C3'-O3'	5.75	124.50	113.00
2	A	547	A	N9-C1'-C2'	5.71	121.42	114.00
25	Y	40	C	C2'-C3'-O3'	5.70	122.82	113.70
2	A	55	A	N9-C1'-C2'	5.69	121.40	114.00
2	A	1213	A	N9-C1'-C2'	5.68	121.38	114.00
2	A	1335	C	N1-C1'-C2'	5.59	121.26	114.00
25	Y	72	C	C2'-C3'-O3'	5.58	122.62	113.70
2	A	508	C	N1-C1'-C2'	5.57	121.23	114.00
2	A	1503	A	N9-C1'-C2'	5.56	121.23	114.00
2	A	1305	G	N9-C1'-C2'	5.50	121.16	114.00
2	A	198	G	N9-C1'-C2'	-5.50	105.95	112.00
2	A	772	U	C5'-C4'-C3'	-5.49	107.21	116.00
7	F	97	PHE	N-CA-C	-5.45	96.29	111.00
23	W	20	G	C2'-C3'-O3'	5.43	122.39	113.70
2	A	7	G	N9-C1'-C2'	5.43	121.06	114.00
2	A	1502	A	N9-C1'-C2'	5.40	121.02	114.00
1	2	130	ARG	N-CA-C	5.36	125.48	111.00
2	A	508	C	C2'-C3'-O3'	5.34	122.25	113.70
2	A	1492	A	C2'-C3'-O3'	5.32	122.22	113.70
2	A	1157	A	N9-C1'-C2'	5.30	120.89	114.00
2	A	1200	C	C2'-C3'-O3'	5.20	122.02	113.70
2	A	484	G	C2'-C3'-O3'	5.18	121.99	113.70
23	W	18	U	C2'-C3'-O3'	5.17	121.98	113.70
20	S	5	LEU	CA-CB-CG	5.16	127.17	115.30
2	A	872	A	N9-C1'-C2'	5.11	120.64	114.00
2	A	772	U	C2'-C3'-O3'	5.07	121.81	113.70
2	A	748	C	C2'-C3'-O3'	5.02	121.73	113.70

All (4) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
2	A	115	G	C3'
2	A	1399	C	C3'
2	A	1498	U	C3'
2	A	1504	G	C3'

All (47) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
2	A	1050	G	Sidechain
2	A	1054	C	Sidechain
2	A	1077	G	Sidechain
2	A	1153	C	Sidechain
2	A	1181	G	Sidechain
2	A	1213	A	Sidechain
2	A	1370	G	Sidechain
2	A	1393	U	Sidechain
2	A	1395	C	Sidechain
2	A	1401	G	Sidechain
2	A	1417	G	Sidechain
2	A	1498	U	Sidechain
2	A	1503	A	Sidechain
2	A	1517	G	Sidechain
2	A	197	A	Sidechain
2	A	198	G	Sidechain
2	A	245	C	Sidechain
2	A	250	A	Sidechain
2	A	251	G	Sidechain
2	A	262	A	Sidechain
2	A	274	A	Sidechain
2	A	325	A	Sidechain
2	A	347	G	Sidechain
2	A	362	G	Sidechain
2	A	368	U	Sidechain
2	A	484	G	Sidechain
2	A	498	U	Sidechain
2	A	575	G	Sidechain
2	A	727	G	Sidechain
2	A	733	A	Sidechain
2	A	760	G	Sidechain
2	A	776	G	Sidechain
2	A	782	A	Sidechain
2	A	924	C	Sidechain
2	A	952	U	Sidechain
2	A	961	U	Sidechain
2	A	966	G	Sidechain
2	A	982	U	Sidechain
2	A	992	U	Sidechain
2	A	995	C	Sidechain
23	V	4	G	Sidechain
23	W	18	U	Sidechain
23	W	20	G	Sidechain

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Group
23	W	57	C	Sidechain
25	Y	12	G	Sidechain
25	Y	70	G	Sidechain
25	Y	74	C	Sidechain

5.2 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 hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	2	1184	0	1235	205	0
2	A	32330	0	16318	1284	0
3	B	1901	0	1951	255	0
4	C	1613	0	1677	152	0
5	D	1703	0	1764	264	0
6	E	1147	0	1207	135	0
7	F	843	0	857	69	0
8	G	1257	0	1296	103	0
9	H	1116	0	1177	77	0
10	I	1011	0	1043	156	0
11	J	795	0	840	176	0
12	K	885	0	904	83	0
13	L	971	0	1057	105	0
14	M	988	0	1059	166	0
15	N	492	0	529	90	0
16	O	734	0	771	61	0
17	P	701	0	720	70	0
18	Q	824	0	891	54	0
19	R	574	0	644	62	0
20	S	630	0	652	103	0
21	T	763	0	861	83	0
22	U	209	0	221	14	0
23	V	1640	0	837	40	0
23	W	1640	0	837	74	0
24	X	104	0	55	4	0
25	Y	1306	0	663	82	0
26	Z	2929	0	2941	340	0

Continued on next page...

Continued from previous page...

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
27	Z	2	0	0	0	0
28	D	1	0	0	0	0
28	N	1	0	0	0	0
28	Y	1	0	0	0	0
29	Z	57	0	58	7	0
30	Z	28	0	12	2	0
All	All	60380	0	43077	3966	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 38.

All (3966) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:20:TYR:HA	5:D:26:CYS:SG	1.82	1.19
1:2:129:ARG:HA	2:A:1397:C:H42	1.06	1.15
26:Z:101:GLY:HA3	26:Z:210:ILE:HD11	1.25	1.14
26:Z:315:LYS:HB2	26:Z:405:GLU:HG2	1.30	1.13
14:M:12:ASN:HD21	14:M:46:LYS:HB2	1.14	1.10
11:J:50:ILE:HD13	11:J:50:ILE:H	1.15	1.08
2:A:979:C:H3'	2:A:980:C:H5''	1.35	1.08
5:D:189:PRO:HB2	5:D:194:LEU:HD21	1.30	1.08
3:B:80:ILE:H	3:B:80:ILE:HD12	1.13	1.08
3:B:7:VAL:HA	3:B:11:LEU:HG	1.35	1.08
11:J:4:ILE:HB	11:J:74:ILE:HD11	1.28	1.07
10:I:52:ALA:HB3	10:I:95:LYS:HE2	1.31	1.07
26:Z:215:ARG:H	26:Z:215:ARG:HD2	1.17	1.07
4:C:20:SER:HB2	4:C:40:ARG:HH22	1.09	1.07
23:V:48:U:H3'	23:V:49:C:H5'	1.35	1.06
25:Y:13:G:O2'	25:Y:14:U:H5''	1.56	1.05
26:Z:363:MET:HG3	26:Z:364:PRO:HD2	1.38	1.05
25:Y:84:C:H2'	25:Y:85:C:H5''	1.35	1.05
2:A:1003:G:H2'	2:A:1004:A:H4'	1.38	1.05
1:2:87:ARG:HA	1:2:90:LEU:HD23	1.39	1.04
2:A:1116:C:H2'	2:A:1117:G:H5''	1.29	1.04
2:A:1305:G:H5''	22:U:4:GLY:HA3	1.34	1.04
1:2:55:LEU:HD11	1:2:102:PRO:HG3	1.39	1.04
26:Z:143:ASP:HB3	26:Z:146:LEU:HB2	1.40	1.03
11:J:48:THR:HA	11:J:62:HIS:HB3	1.41	1.02
14:M:108:ARG:HH11	14:M:108:ARG:HG3	0.86	1.01
2:A:1053:G:H4'	2:A:1054:C:H5'	1.42	1.01
1:2:104:LYS:HD2	1:2:116:LEU:HD23	1.40	1.01
26:Z:265:THR:HG22	26:Z:266:VAL:H	1.22	1.01

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:I:53:VAL:HG13	10:I:95:LYS:HE3	1.40	1.00
11:J:38:ILE:HD11	11:J:71:LEU:HD23	1.42	1.00
1:2:48:PHE:HB3	1:2:53:LEU:HA	1.39	1.00
2:A:1149:C:H2'	2:A:1150:U:H6	1.23	1.00
5:D:3:ARG:HG2	5:D:118:ARG:HE	1.26	1.00
20:S:63:THR:HG22	20:S:66:MET:HG2	1.40	1.00
15:N:12:ARG:HH11	15:N:14:PRO:HG2	1.25	0.99
15:N:12:ARG:NH1	15:N:14:PRO:HG2	1.76	0.99
3:B:185:ILE:HG22	3:B:199:TYR:HB2	1.43	0.99
13:L:18:VAL:HG23	13:L:19:ARG:H	1.26	0.99
5:D:105:VAL:HG22	5:D:146:ILE:HG21	1.44	0.98
2:A:975:A:H4'	2:A:976:G:H5''	1.43	0.98
1:2:46:ALA:HB2	1:2:55:LEU:HD12	1.45	0.98
14:M:108:ARG:NH1	14:M:108:ARG:HG3	1.65	0.98
5:D:187:ARG:HH11	5:D:187:ARG:HB3	1.29	0.97
5:D:145:GLU:HG3	5:D:184:LYS:HG2	1.43	0.97
2:A:1116:C:C2'	2:A:1117:G:H5''	1.94	0.97
2:A:1314:C:OP2	20:S:6:LYS:HG3	1.65	0.97
5:D:28:SER:HB3	5:D:29:PRO:HD2	1.46	0.97
2:A:1125:U:H3	11:J:5:ARG:NH2	1.63	0.97
2:A:436:C:H4'	5:D:157:LEU:HD13	1.47	0.97
26:Z:224:PRO:HG3	26:Z:345:ARG:HD3	1.44	0.97
11:J:34:VAL:HG22	11:J:74:ILE:HG22	1.46	0.96
3:B:204:ASN:ND2	3:B:207:ALA:H	1.62	0.96
21:T:10:LEU:HD12	21:T:11:SER:N	1.80	0.96
2:A:1149:C:H2'	2:A:1150:U:C6	2.01	0.96
10:I:9:ARG:HB2	10:I:104:ARG:HH12	1.29	0.96
14:M:68:GLY:H	14:M:71:ARG:HB3	1.31	0.96
3:B:114:ARG:HH11	3:B:118:LEU:HD21	1.28	0.96
4:C:11:ARG:HH21	4:C:180:ALA:HB3	1.28	0.96
26:Z:327:GLU:HA	29:Z:1406:KIR:H101	1.48	0.95
2:A:1442(A):G:H3'	2:A:1442(B):A:H5''	1.48	0.95
3:B:44:LEU:H	3:B:44:LEU:HD12	1.31	0.95
11:J:50:ILE:HD11	15:N:41:ARG:HD2	1.45	0.95
3:B:172:ILE:H	3:B:172:ILE:HD12	1.32	0.95
4:C:58:GLU:H	4:C:65:ALA:HB3	1.28	0.95
25:Y:14:U:H5'	25:Y:14:U:O2	1.67	0.94
2:A:954:G:H4'	14:M:120:LYS:HD2	1.46	0.94
14:M:108:ARG:CG	14:M:108:ARG:HH11	1.80	0.94
8:G:100:ALA:O	8:G:104:LEU:HD23	1.67	0.94
5:D:108:LEU:HD11	5:D:176:LEU:HD13	1.48	0.94
10:I:4:TYR:HB2	10:I:19:LEU:HB2	1.49	0.93

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:N:13:THR:N	15:N:14:PRO:HD2	1.81	0.93
20:S:58:VAL:HG11	20:S:75:ALA:HB1	1.47	0.93
17:P:15:PRO:HB2	17:P:41:PRO:HG3	1.49	0.93
26:Z:159:ASN:ND2	26:Z:165:GLY:HA3	1.83	0.93
5:D:62:GLN:HA	5:D:62:GLN:HE21	1.30	0.93
23:V:48:U:H3'	23:V:49:C:C5'	1.98	0.93
1:2:8:ARG:N	1:2:8:ARG:HD3	1.83	0.93
2:A:1502:A:H2	2:A:1505:G:H1	1.17	0.93
2:A:1157:A:H1'	2:A:1181:G:N2	1.83	0.92
26:Z:288:LEU:HD22	26:Z:304:LEU:HD13	1.50	0.92
26:Z:99:MET:HE2	26:Z:102:ALA:HB2	1.52	0.92
11:J:40:LEU:HD23	11:J:40:LEU:H	1.31	0.92
11:J:30:SER:HB2	11:J:84:GLN:HE22	1.34	0.92
25:Y:65:G:H1	25:Y:75:C:H42	0.96	0.92
2:A:973:G:H1'	11:J:55:LYS:CE	1.99	0.91
1:2:129:ARG:HA	2:A:1397:C:N4	1.85	0.91
5:D:12:CYS:HA	5:D:19:LEU:HD13	1.51	0.91
3:B:87:ARG:O	3:B:87:ARG:HD2	1.70	0.91
5:D:34:GLU:O	5:D:35:ARG:HB2	1.70	0.91
14:M:22:ILE:HG21	14:M:66:LEU:HD23	1.53	0.91
2:A:84:U:H2'	2:A:88:A:H5'	1.51	0.91
1:2:10:ALA:HA	1:2:13:ASP:HB2	1.51	0.90
20:S:78:ARG:HB2	20:S:81:ARG:HH11	1.35	0.90
21:T:72:LEU:HD11	21:T:80:ARG:HE	1.37	0.90
26:Z:327:GLU:HB3	29:Z:1406:KIR:H121	1.52	0.90
3:B:204:ASN:HD21	3:B:207:ALA:H	1.14	0.90
15:N:4:LYS:O	15:N:7:ILE:HG12	1.70	0.90
2:A:1305:G:N2	2:A:1331:G:H2'	1.86	0.90
26:Z:215:ARG:N	26:Z:215:ARG:HD2	1.86	0.89
1:2:75:ARG:HD3	1:2:77:ARG:HG3	1.51	0.89
23:V:73:A:H2'	23:V:74:A:H5''	1.52	0.89
3:B:209:ARG:HD3	3:B:239:VAL:HG11	1.51	0.89
2:A:1305:G:HO2'	2:A:1306:A:H8	1.14	0.89
2:A:1203:C:H2'	2:A:1204:A:H8	1.37	0.89
7:F:67:MET:HB2	7:F:68:PRO:HD2	1.53	0.89
26:Z:315:LYS:CB	26:Z:405:GLU:HG2	2.02	0.89
14:M:77:ASN:O	14:M:81:LEU:HD23	1.71	0.89
3:B:14:GLY:O	3:B:15:VAL:HG22	1.73	0.89
2:A:1502:A:H2	2:A:1505:G:N1	1.69	0.89
1:2:32:LYS:HE2	1:2:32:LYS:HA	1.54	0.89
16:O:17:ARG:HH11	16:O:17:ARG:HG3	1.37	0.89
23:W:77:A:P	23:W:77:A:H8	1.95	0.89

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:318:ALA:HB1	26:Z:399:VAL:O	1.72	0.89
26:Z:19:HIS:HD2	26:Z:115:GLN:H	1.20	0.89
5:D:85:LYS:HD3	5:D:92:VAL:HG11	1.54	0.89
14:M:49:THR:HG22	14:M:51:ALA:H	1.36	0.88
25:Y:11:C:H4'	25:Y:12:G:OP1	1.72	0.88
14:M:66:LEU:HA	14:M:70:LEU:HD12	1.54	0.88
26:Z:81:ASP:O	26:Z:83:PRO:HD3	1.72	0.88
2:A:923:A:OP2	6:E:21:ALA:HB2	1.73	0.88
20:S:78:ARG:HB2	20:S:81:ARG:NH1	1.88	0.88
2:A:1305:G:H22	2:A:1331:G:H2'	1.37	0.87
3:B:80:ILE:CD1	3:B:80:ILE:H	1.87	0.87
11:J:23:ILE:HG23	11:J:85:LEU:HD22	1.56	0.87
21:T:73:HIS:HB3	21:T:74:LYS:HD3	1.57	0.87
2:A:1321:C:H5''	2:A:1322:C:H5''	1.57	0.87
10:I:10:ARG:HD3	10:I:75:ASP:HB3	1.56	0.86
3:B:24:TRP:CZ3	3:B:26:PRO:HA	2.09	0.86
3:B:116:GLU:HA	3:B:119:GLU:HB2	1.57	0.86
5:D:7:PRO:HB2	5:D:10:ARG:HD2	1.57	0.86
12:K:92:GLU:HG3	12:K:96:ARG:NH1	1.89	0.86
13:L:20:LYS:N	13:L:20:LYS:HD3	1.91	0.86
2:A:265:G:H2'	2:A:266:G:H5''	1.56	0.86
2:A:452:A:O2'	2:A:453:A:H5''	1.75	0.86
11:J:96:ILE:H	11:J:96:ILE:HD13	1.39	0.86
5:D:148:VAL:HG12	5:D:149:ALA:H	1.41	0.86
2:A:973:G:O4'	11:J:55:LYS:HG3	1.74	0.86
26:Z:130:TYR:HB3	26:Z:209:TYR:HE1	1.41	0.86
3:B:136:VAL:O	3:B:140:HIS:HB2	1.76	0.86
2:A:437:U:H5''	5:D:155:LEU:HD13	1.57	0.86
2:A:979:C:C3'	2:A:980:C:H5''	2.06	0.86
20:S:62:ILE:HD12	20:S:66:MET:HE2	1.58	0.86
4:C:20:SER:HB2	4:C:40:ARG:NH2	1.91	0.85
2:A:1124:G:H5'	11:J:35:SER:HB2	1.58	0.85
2:A:1305:G:C5'	22:U:4:GLY:HA3	2.05	0.85
13:L:5:PRO:HG2	13:L:10:LEU:HD21	1.57	0.85
7:F:43:LEU:H	7:F:43:LEU:HD22	1.41	0.85
13:L:55:VAL:HG23	13:L:68:ALA:O	1.75	0.85
2:A:858:G:C6	2:A:869:G:N7	2.44	0.85
2:A:1125:U:H3	11:J:5:ARG:CZ	1.90	0.85
26:Z:206:ILE:O	26:Z:210:ILE:HG22	1.77	0.85
3:B:77:ALA:HB2	3:B:211:ILE:HD13	1.59	0.85
2:A:539:A:H2'	2:A:540:G:H8	1.39	0.84
14:M:49:THR:HB	14:M:52:GLU:HG3	1.56	0.84

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:45:PRO:HG3	13:L:53:ARG:HD3	1.56	0.84
9:H:83:ILE:HD12	9:H:137:VAL:HG22	1.58	0.84
19:R:45:SER:O	19:R:46:GLU:HB2	1.76	0.84
5:D:187:ARG:NH1	5:D:187:ARG:HB3	1.92	0.84
1:2:86:LEU:HA	1:2:89:LEU:HD21	1.56	0.84
12:K:92:GLU:HG3	12:K:96:ARG:HH11	1.43	0.84
2:A:1199:U:H4'	11:J:54:PHE:CE1	2.12	0.84
23:W:76:C:O3'	23:W:77:A:C8	2.30	0.84
26:Z:185:ASN:HD21	26:Z:187:LYS:HB2	1.42	0.84
17:P:34:GLU:OE2	17:P:55:ARG:HD3	1.78	0.84
21:T:48:LYS:HB3	21:T:51:GLU:HG3	1.59	0.83
11:J:50:ILE:CD1	11:J:50:ILE:H	1.91	0.83
1:2:39:VAL:HG11	1:2:60:ILE:HG13	1.58	0.83
11:J:63:PHE:HZ	15:N:45:ARG:HG3	1.43	0.83
14:M:3:ARG:HH21	14:M:7:VAL:HG13	1.43	0.83
26:Z:254:GLU:HG3	26:Z:307:PRO:HG3	1.60	0.83
10:I:9:ARG:CB	10:I:104:ARG:HH12	1.92	0.83
2:A:78:G:H22	2:A:91:C:H42	1.22	0.83
2:A:1363(A):A:H4'	2:A:1364:U:H5''	1.57	0.83
17:P:19:ILE:HD11	17:P:73:LEU:HD13	1.59	0.83
3:B:155:LEU:HD21	3:B:159:PRO:HG3	1.59	0.83
2:A:1410:G:H2'	2:A:1411:C:H6	1.42	0.83
1:2:48:PHE:N	1:2:48:PHE:HD1	1.75	0.83
8:G:152:ALA:O	8:G:155:ARG:HG3	1.77	0.83
2:A:1171:G:H2'	2:A:1172:C:O2	1.78	0.83
5:D:109:GLY:O	5:D:111:ALA:N	2.11	0.83
2:A:218:C:H5'	2:A:470:C:H42	1.40	0.83
26:Z:19:HIS:CD2	26:Z:115:GLN:HB2	2.14	0.83
2:A:1410:G:H2'	2:A:1411:C:C6	2.14	0.83
15:N:29:ARG:HG3	15:N:29:ARG:HH11	1.40	0.83
12:K:82:VAL:HG13	12:K:108:ILE:HA	1.61	0.82
2:A:84:U:C2'	2:A:88:A:H5'	2.07	0.82
14:M:91:ARG:HD2	14:M:97:PRO:O	1.80	0.82
23:W:77:A:P	23:W:77:A:C8	2.73	0.82
12:K:48:ILE:HG22	12:K:49:GLY:H	1.45	0.82
26:Z:252:GLU:HG3	26:Z:265:THR:O	1.79	0.82
14:M:12:ASN:HD21	14:M:46:LYS:CB	1.92	0.82
23:V:73:A:C2'	23:V:74:A:H5''	2.09	0.82
9:H:89:PRO:HA	9:H:92:ARG:HH11	1.45	0.82
2:A:1151:A:HO2'	2:A:1152:A:H8	1.27	0.82
2:A:1490:A:O2'	2:A:1491:G:H5'	1.80	0.82
2:A:1134:G:H2'	2:A:1135:U:H5'	1.62	0.81

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:F:11:ASN:HB3	7:F:14:LEU:HD23	1.61	0.81
6:E:110:LEU:HD13	6:E:118:ILE:HD13	1.62	0.81
4:C:34:LEU:HD21	4:C:38:ARG:HE	1.45	0.81
1:2:48:PHE:HE1	1:2:93:VAL:HG11	1.45	0.81
25:Y:10:A:H5'	25:Y:11:C:OP2	1.81	0.81
1:2:130:ARG:HA	1:2:130:ARG:HH11	1.42	0.81
2:A:1054:C:O2'	2:A:1055:A:H5''	1.81	0.81
10:I:114:TYR:HE2	11:J:60:ARG:O	1.62	0.81
2:A:1324:A:H4'	2:A:1362:C:H4'	1.62	0.81
3:B:115:LEU:HB2	3:B:145:LEU:HD12	1.62	0.81
3:B:21:ARG:HH21	3:B:38:GLY:C	1.84	0.81
20:S:41:VAL:HG12	20:S:42:PRO:HD2	1.62	0.81
3:B:47:THR:HG22	3:B:51:LEU:CD1	2.11	0.81
26:Z:322:ILE:HD12	26:Z:362:VAL:HG11	1.62	0.81
3:B:165:VAL:HG23	3:B:166:ASP:H	1.45	0.81
1:2:95:GLN:HA	1:2:95:GLN:HE21	1.42	0.81
25:Y:40:C:H2'	25:Y:54:C:C6	2.15	0.81
2:A:1305:G:O2'	2:A:1306:A:H8	1.63	0.81
3:B:30:ARG:HH21	3:B:194:PRO:HG2	1.46	0.81
1:2:129:ARG:CA	2:A:1397:C:H42	1.91	0.80
1:2:48:PHE:H	1:2:48:PHE:HD1	1.28	0.80
1:2:86:LEU:HA	1:2:89:LEU:CD2	2.11	0.80
3:B:200:ILE:HD12	3:B:200:ILE:H	1.45	0.80
2:A:573:A:H8	2:A:573:A:H5'	1.45	0.80
11:J:50:ILE:CD1	15:N:41:ARG:HD2	2.11	0.80
14:M:10:PRO:O	14:M:11:ARG:HB2	1.81	0.80
1:2:139:ARG:HG3	1:2:140:ALA:N	1.95	0.80
26:Z:228:VAL:HG11	26:Z:298:VAL:HB	1.62	0.80
2:A:240:C:H2'	2:A:241:C:H6	1.45	0.80
2:A:368:U:OP1	26:Z:291:ARG:HD3	1.81	0.80
7:F:87:ARG:HH11	7:F:87:ARG:HG2	1.44	0.80
5:D:59:ARG:HA	5:D:59:ARG:HE	1.46	0.80
11:J:54:PHE:CE2	11:J:55:LYS:HD2	2.16	0.79
23:W:63:C:H2'	23:W:64:G:C8	2.17	0.79
25:Y:84:C:C2'	25:Y:85:C:H5''	2.12	0.79
2:A:1003:G:C2'	2:A:1004:A:H4'	2.10	0.79
23:W:55:U:C3'	23:W:56:U:H5''	2.12	0.79
23:W:55:U:H3'	23:W:56:U:H5''	1.65	0.79
2:A:299:G:H2'	2:A:300:A:C8	2.17	0.79
5:D:100:ARG:NH1	5:D:137:SER:HA	1.96	0.79
5:D:28:SER:HB3	5:D:29:PRO:CD	2.13	0.79
2:A:1251:A:H2'	2:A:1252:A:C8	2.17	0.79

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:J:6:ILE:HG13	11:J:72:VAL:HB	1.63	0.79
3:B:163:PHE:HD1	3:B:185:ILE:HG13	1.48	0.79
11:J:16:LEU:HD11	11:J:70:ARG:HG2	1.65	0.79
2:A:1492:A:H1'	2:A:1493:A:OP1	1.81	0.79
2:A:512:U:H2'	2:A:513:C:H6	1.46	0.79
2:A:437:U:OP2	5:D:155:LEU:HD22	1.83	0.78
2:A:973:G:H3'	2:A:974:A:H5''	1.65	0.78
2:A:1053:G:O6	2:A:1199:U:H2'	1.83	0.78
3:B:200:ILE:N	3:B:200:ILE:HD12	1.97	0.78
14:M:35:GLU:HG3	14:M:36:LYS:H	1.48	0.78
12:K:85:ARG:HG2	12:K:111:ASP:O	1.83	0.78
25:Y:15:C:O2'	25:Y:16:U:H5'	1.84	0.78
26:Z:159:ASN:HD21	26:Z:165:GLY:HA3	1.48	0.78
6:E:50:GLU:HG3	6:E:52:PRO:HD2	1.65	0.78
14:M:12:ASN:ND2	14:M:46:LYS:HB2	1.97	0.78
2:A:1116:C:H2'	2:A:1117:G:C5'	2.11	0.78
14:M:99:ARG:O	14:M:101:GLN:HG2	1.83	0.78
2:A:1452:C:H5'	2:A:1456:G:C2	2.19	0.78
26:Z:15:GLY:H	26:Z:99:MET:HE3	1.48	0.78
14:M:35:GLU:HG3	14:M:36:LYS:N	1.95	0.78
2:A:92:C:H2'	2:A:93:G:H8	1.47	0.78
3:B:30:ARG:HH21	3:B:194:PRO:CG	1.97	0.78
19:R:52:PRO:HB2	19:R:54:ARG:HG3	1.66	0.78
23:W:77:A:O5'	23:W:77:A:H8	1.66	0.78
21:T:50:GLU:HB2	21:T:100:ILE:HD13	1.66	0.78
19:R:25:THR:HG21	19:R:42:ARG:HD3	1.65	0.78
4:C:64:VAL:HG21	4:C:99:VAL:HG12	1.65	0.78
2:A:750:G:N3	16:O:23:GLY:HA3	1.99	0.78
11:J:82:ILE:O	11:J:86:MET:HB3	1.83	0.78
17:P:20:VAL:HG21	17:P:32:TYR:CG	2.19	0.78
1:2:48:PHE:N	1:2:48:PHE:CD1	2.47	0.78
1:2:48:PHE:HB3	1:2:53:LEU:CA	2.14	0.78
26:Z:325:LYS:HG3	26:Z:331:HIS:HB2	1.64	0.78
14:M:10:PRO:CB	14:M:18:ALA:HB1	2.14	0.78
4:C:11:ARG:NH2	4:C:180:ALA:HB3	1.98	0.78
14:M:84:ILE:HG13	20:S:66:MET:SD	2.23	0.77
2:A:1391:U:H2'	2:A:1392:G:C8	2.19	0.77
2:A:1277:C:HO2'	2:A:1279:A:H8	1.32	0.77
3:B:90:MET:HA	3:B:90:MET:HE2	1.64	0.77
7:F:98:LEU:H	7:F:98:LEU:HD12	1.49	0.77
4:C:112:SER:HB3	4:C:115:LEU:HD12	1.67	0.77
13:L:25:PRO:C	13:L:27:LEU:H	1.87	0.77

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:2:8:ARG:CD	1:2:8:ARG:H	1.96	0.77
2:A:1190:G:OP1	4:C:4:LYS:HA	1.83	0.77
26:Z:172:ARG:O	26:Z:198:LYS:HD2	1.84	0.77
6:E:148:VAL:HG21	9:H:107:LEU:HD13	1.66	0.77
26:Z:315:LYS:HD3	26:Z:354:ARG:HH12	1.50	0.77
1:2:139:ARG:O	1:2:143:GLU:HG2	1.85	0.77
20:S:16:LEU:C	20:S:18:LYS:H	1.87	0.77
4:C:66:VAL:HG12	4:C:66:VAL:O	1.85	0.77
4:C:46:GLU:O	4:C:47:LEU:HB2	1.83	0.77
8:G:144:MET:O	8:G:147:ALA:HB3	1.85	0.77
2:A:562:C:H41	2:A:884:U:H2'	1.48	0.77
2:A:1016:A:H2'	2:A:1017:G:O4'	1.85	0.77
2:A:443:C:H2'	2:A:444:C:H6	1.48	0.77
2:A:370:C:O2'	2:A:371:G:H5'	1.84	0.77
13:L:32:PHE:HB3	13:L:84:LEU:HD21	1.67	0.77
2:A:1443:G:H22	2:A:1460:A:H1'	1.50	0.77
5:D:103:ASN:OD1	5:D:114:ARG:NE	2.16	0.77
14:M:40:ASN:HD22	14:M:43:THR:HG23	1.50	0.77
10:I:48:GLU:HB3	10:I:101:PHE:HE2	1.47	0.77
21:T:45:GLN:HB3	21:T:91:LEU:HD13	1.65	0.76
26:Z:98:GLN:HE22	26:Z:285:ASN:HD21	1.32	0.76
26:Z:254:GLU:O	26:Z:256:VAL:HG23	1.84	0.76
1:2:138:ARG:HH21	2:A:506:G:H4'	1.49	0.76
16:O:56:LEU:O	16:O:60:VAL:HG23	1.84	0.76
26:Z:299:GLU:N	26:Z:302:GLN:NE2	2.33	0.76
19:R:58:LEU:HB3	19:R:62:GLU:HB2	1.66	0.76
2:A:1054:C:H6	2:A:1196:U:H3	1.33	0.76
1:2:86:LEU:HD12	1:2:89:LEU:HD21	1.66	0.76
4:C:58:GLU:H	4:C:65:ALA:CB	1.97	0.76
1:2:138:ARG:NH2	2:A:506:G:H4'	2.00	0.76
2:A:189(H):G:HO2'	2:A:189(I):G:H8	1.31	0.76
5:D:23:GLY:O	5:D:27:TYR:HB2	1.85	0.76
14:M:23:TYR:HB3	14:M:67:GLU:HB3	1.66	0.76
8:G:151:TYR:OH	12:K:54:ARG:HD3	1.85	0.76
1:2:75:ARG:HG2	1:2:77:ARG:CZ	2.15	0.76
14:M:90:LEU:O	14:M:92:HIS:N	2.18	0.76
8:G:16:LEU:CD1	10:I:42:ARG:HA	2.15	0.76
3:B:44:LEU:N	3:B:44:LEU:HD12	2.01	0.76
2:A:433:C:H2'	2:A:434:U:H6	1.50	0.75
2:A:1002:G:H2'	2:A:1003:G:C8	2.21	0.75
17:P:5:ARG:HH12	17:P:28:ARG:HA	1.49	0.75
1:2:48:PHE:CE1	1:2:93:VAL:HG11	2.20	0.75

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:189(D):C:H1'	2:A:189(H):G:N1	2.01	0.75
26:Z:314:THR:OG1	26:Z:405:GLU:HG3	1.87	0.75
13:L:55:VAL:CG2	13:L:67:THR:HG22	2.16	0.75
9:H:26:VAL:HG13	9:H:59:LEU:HB2	1.68	0.75
2:A:294:U:H2'	2:A:295:C:C6	2.21	0.75
3:B:163:PHE:HA	3:B:185:ILE:HG13	1.67	0.75
3:B:180:LEU:O	3:B:181:PHE:HB2	1.86	0.75
5:D:148:VAL:HG12	5:D:149:ALA:N	2.01	0.75
3:B:80:ILE:N	3:B:80:ILE:HD12	1.96	0.75
2:A:1152:A:O2'	2:A:1153:C:H5'	1.86	0.75
6:E:96:PRO:HA	6:E:117:ASP:OD2	1.87	0.75
14:M:6:GLY:C	14:M:8:GLU:H	1.90	0.75
17:P:6:LEU:HD23	17:P:17:TYR:CB	2.17	0.75
2:A:294:U:H2'	2:A:295:C:H6	1.52	0.75
11:J:64:GLU:O	15:N:56:VAL:HA	1.85	0.75
6:E:101:ILE:O	6:E:120:THR:HB	1.86	0.75
5:D:149:ALA:O	5:D:153:ARG:HG3	1.86	0.74
8:G:26:PHE:O	8:G:30:ILE:HG12	1.86	0.74
26:Z:145:GLU:HG2	26:Z:149:LEU:HB2	1.70	0.74
4:C:58:GLU:HB2	4:C:65:ALA:HB2	1.68	0.74
2:A:524:G:H2'	2:A:525:C:C6	2.21	0.74
18:Q:27:PHE:CE1	18:Q:36:ILE:HD11	2.22	0.74
15:N:12:ARG:CB	15:N:12:ARG:HH11	2.00	0.74
15:N:12:ARG:HH11	15:N:12:ARG:HB3	1.51	0.74
15:N:22:THR:CB	15:N:33:VAL:HG21	2.17	0.74
4:C:83:ARG:O	4:C:87:LEU:HG	1.88	0.74
2:A:973:G:H1'	11:J:55:LYS:HE2	1.70	0.74
2:A:1490:A:C2'	2:A:1491:G:H5'	2.16	0.74
2:A:1301:U:H3'	2:A:1302:U:H5''	1.69	0.74
5:D:170:VAL:HG21	5:D:176:LEU:HD22	1.70	0.74
2:A:436:C:O2'	5:D:157:LEU:HD22	1.88	0.74
2:A:78:G:H22	2:A:91:C:N4	1.86	0.74
10:I:122:ALA:HB1	10:I:123:PRO:HD2	1.67	0.74
2:A:991:U:O2	2:A:991:U:H2'	1.88	0.74
2:A:1264:C:O2'	2:A:1265:G:H5'	1.87	0.74
26:Z:375:ILE:HD12	26:Z:376:LYS:N	2.02	0.74
10:I:48:GLU:HB3	10:I:101:PHE:CE2	2.22	0.74
2:A:134:A:H61	17:P:25:ARG:HH12	1.34	0.74
3:B:124:SER:OG	3:B:125:PRO:HD2	1.88	0.74
2:A:509:A:H5'	5:D:54:TYR:HD2	1.52	0.74
3:B:22:LYS:HA	3:B:22:LYS:HE2	1.68	0.74
14:M:19:LEU:HB3	14:M:25:ILE:HG21	1.70	0.74

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:M:3:ARG:HG2	14:M:9:ILE:HG12	1.69	0.74
2:A:1369:C:H2'	2:A:1370:G:C8	2.23	0.74
2:A:375:U:OP1	17:P:69:THR:HG21	1.88	0.74
6:E:33:VAL:HG12	6:E:112:LEU:HD12	1.69	0.73
26:Z:130:TYR:HB3	26:Z:209:TYR:CE1	2.23	0.73
2:A:1250:A:H2'	2:A:1251:A:C8	2.22	0.73
6:E:147:ASP:HA	6:E:150:ARG:HB3	1.69	0.73
2:A:979:C:H3'	2:A:980:C:C5'	2.17	0.73
3:B:47:THR:HG22	3:B:51:LEU:HD11	1.68	0.73
3:B:72:GLY:HA2	3:B:165:VAL:HG22	1.69	0.73
13:L:27:LEU:HD13	13:L:28:LYS:H	1.53	0.73
2:A:1347:G:N2	2:A:1373:G:H2'	2.03	0.73
2:A:1324:A:C4'	2:A:1362:C:H4'	2.18	0.73
17:P:21:VAL:O	17:P:33:ILE:HG12	1.89	0.73
2:A:250:A:H4'	2:A:251:G:O5'	1.87	0.73
2:A:1058:G:H2'	2:A:1059:C:C6	2.22	0.73
5:D:3:ARG:O	5:D:5:ILE:HG13	1.89	0.73
20:S:61:TYR:O	20:S:62:ILE:HB	1.87	0.73
2:A:633:G:H5'	2:A:634:C:OP1	1.87	0.73
26:Z:215:ARG:HG2	26:Z:216:ASP:H	1.53	0.73
4:C:15:THR:HG21	4:C:181:ASN:HA	1.71	0.73
2:A:1411:C:O2	2:A:1490:A:H2	1.71	0.73
10:I:40:LEU:HD11	10:I:70:LYS:HG2	1.71	0.73
1:2:17:LEU:N	1:2:17:LEU:HD22	2.04	0.73
26:Z:101:GLY:HA3	26:Z:210:ILE:CD1	2.14	0.73
2:A:1452:C:H5'	2:A:1456:G:N3	2.04	0.73
2:A:508:C:P	5:D:209:ARG:HH12	2.11	0.73
18:Q:26:GLN:HE21	18:Q:37:LYS:HE2	1.54	0.73
2:A:1270:C:O2'	2:A:1271:G:H5'	1.89	0.73
7:F:3:ARG:HH12	7:F:66:GLU:HB2	1.54	0.73
5:D:155:LEU:HB2	5:D:158:ILE:HG12	1.71	0.73
1:2:39:VAL:CG1	1:2:60:ILE:HG13	2.19	0.73
2:A:1346:A:N1	2:A:1374:A:H5''	2.02	0.73
10:I:47:LEU:N	10:I:47:LEU:HD12	2.04	0.73
5:D:13:ARG:HD2	5:D:38:TYR:O	1.89	0.73
11:J:49:VAL:O	11:J:60:ARG:HB3	1.89	0.73
10:I:53:VAL:HG11	10:I:92:TYR:CE2	2.24	0.73
21:T:10:LEU:HD12	21:T:11:SER:H	1.50	0.73
13:L:55:VAL:HG21	13:L:67:THR:HG22	1.70	0.73
26:Z:239:THR:HG22	26:Z:287:GLY:HA2	1.70	0.72
7:F:91:VAL:HG11	19:R:72:ARG:NH1	2.04	0.72
23:V:22:A:H61	23:V:47:G:H2'	1.53	0.72

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:O:82:ILE:HG12	16:O:87:ILE:HB	1.71	0.72
4:C:86:VAL:O	4:C:89:GLU:HB3	1.90	0.72
8:G:113:GLU:HB2	8:G:119:ARG:HG2	1.70	0.72
11:J:4:ILE:CB	11:J:74:ILE:HD11	2.13	0.72
15:N:4:LYS:HD2	15:N:7:ILE:HD11	1.72	0.72
18:Q:86:GLU:O	18:Q:90:ILE:HG12	1.89	0.72
20:S:58:VAL:HG11	20:S:75:ALA:CB	2.20	0.72
3:B:18:GLY:HA3	3:B:41:ILE:HA	1.69	0.72
13:L:33:ARG:HG2	13:L:60:LEU:HD12	1.72	0.72
3:B:95:GLN:HG3	3:B:147:LYS:O	1.89	0.72
2:A:677:U:H3	2:A:713:G:H22	1.37	0.72
11:J:48:THR:HG23	11:J:62:HIS:ND1	2.04	0.72
3:B:18:GLY:HA2	3:B:42:ILE:HG22	1.70	0.72
2:A:975:A:H8	2:A:975:A:H5'	1.53	0.72
1:2:24:ILE:HD12	1:2:24:ILE:N	2.05	0.72
15:N:19:ARG:O	15:N:20:ALA:O	2.07	0.72
2:A:240:C:H2'	2:A:241:C:C6	2.24	0.72
2:A:512:U:H2'	2:A:513:C:C6	2.24	0.72
25:Y:65:G:H1	25:Y:75:C:N4	1.81	0.72
23:W:55:U:H3'	23:W:56:U:C5'	2.19	0.72
26:Z:222:LEU:HG	26:Z:303:VAL:HG11	1.70	0.72
21:T:89:ARG:HD2	21:T:104:LEU:HD11	1.70	0.72
5:D:145:GLU:CG	5:D:184:LYS:HG2	2.19	0.71
14:M:93:ARG:N	14:M:93:ARG:HD2	2.03	0.71
25:Y:54:C:O2'	25:Y:55:U:H5'	1.90	0.71
18:Q:76:LEU:HD12	18:Q:77:VAL:H	1.55	0.71
5:D:19:LEU:O	5:D:26:CYS:SG	2.47	0.71
1:2:85:GLU:O	1:2:89:LEU:HD23	1.90	0.71
15:N:22:THR:HB	15:N:33:VAL:HG21	1.72	0.71
18:Q:59:ILE:CG2	18:Q:71:PHE:HB3	2.20	0.71
15:N:3:ARG:HG2	15:N:3:ARG:O	1.90	0.71
11:J:63:PHE:CD1	11:J:63:PHE:N	2.58	0.71
2:A:1316:G:H4'	15:N:18:VAL:HG13	1.72	0.71
2:A:1203:C:H2'	2:A:1204:A:C8	2.25	0.71
12:K:32:ILE:HD12	12:K:72:ALA:HB2	1.72	0.71
13:L:113:ARG:HB3	13:L:122:THR:HG21	1.72	0.71
25:Y:82:C:H2'	25:Y:83:U:H6	1.53	0.71
23:V:73:A:H2'	23:V:74:A:C5'	2.20	0.71
1:2:24:ILE:HB	1:2:26:LEU:CD2	2.20	0.71
15:N:12:ARG:C	15:N:14:PRO:HD2	2.11	0.71
21:T:72:LEU:CD1	21:T:80:ARG:HE	2.03	0.71
5:D:120:LEU:O	5:D:126:ILE:HD13	1.91	0.71

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:J:23:ILE:HG22	11:J:23:ILE:O	1.90	0.71
26:Z:215:ARG:NH1	26:Z:215:ARG:HB3	2.04	0.71
11:J:6:ILE:CG1	11:J:72:VAL:HB	2.21	0.71
14:M:120:LYS:HE3	14:M:121:LYS:H	1.56	0.71
11:J:30:SER:HB2	11:J:84:GLN:NE2	2.04	0.71
6:E:147:ASP:HA	6:E:150:ARG:HH11	1.54	0.71
1:2:17:LEU:HD22	1:2:17:LEU:H	1.55	0.71
21:T:86:ARG:O	21:T:90:GLN:HG2	1.89	0.71
5:D:107:ARG:HH21	5:D:194:LEU:HD12	1.56	0.71
2:A:1003:G:H2'	2:A:1004:A:C4'	2.17	0.71
3:B:114:ARG:O	3:B:118:LEU:HG	1.89	0.71
10:I:83:ARG:O	10:I:86:VAL:HG12	1.89	0.71
5:D:36:ARG:HA	5:D:38:TYR:CE1	2.26	0.71
26:Z:215:ARG:HB3	26:Z:215:ARG:HH11	1.55	0.71
4:C:76:VAL:HG23	4:C:77:ILE:HG13	1.73	0.71
26:Z:27:LEU:O	26:Z:30:ALA:HB3	1.91	0.71
10:I:52:ALA:HB1	10:I:95:LYS:HB2	1.73	0.71
1:2:46:ALA:HB2	1:2:55:LEU:CD1	2.21	0.71
25:Y:73:U:H5''	25:Y:74:C:H5	1.56	0.71
2:A:1189:C:H5''	4:C:5:ILE:HG21	1.73	0.71
2:A:1054:C:H6	2:A:1196:U:N3	1.88	0.70
4:C:64:VAL:HB	4:C:99:VAL:HA	1.72	0.70
2:A:882:C:O2'	2:A:883:C:H5'	1.91	0.70
1:2:52:GLU:HB2	1:2:54:TYR:HE1	1.55	0.70
7:F:97:PHE:O	19:R:31:LEU:HD23	1.91	0.70
2:A:405:U:H3'	2:A:406:G:H5'	1.71	0.70
2:A:539:A:H2'	2:A:540:G:C8	2.24	0.70
2:A:1498:U:H4'	2:A:1519:A:C2	2.26	0.70
26:Z:315:LYS:HD3	26:Z:354:ARG:NH1	2.06	0.70
2:A:1059:C:H2'	2:A:1060:C:H6	1.56	0.70
3:B:114:ARG:NH1	3:B:118:LEU:HD21	2.05	0.70
17:P:39:TYR:CZ	17:P:41:PRO:HA	2.26	0.70
16:O:82:ILE:C	16:O:82:ILE:HD13	2.11	0.70
26:Z:327:GLU:CB	29:Z:1406:KIR:H121	2.20	0.70
14:M:88:ARG:HG3	14:M:98:VAL:CG1	2.21	0.70
11:J:32:ALA:HB1	11:J:75:ILE:HG13	1.73	0.70
26:Z:354:ARG:HB2	26:Z:371:THR:HB	1.72	0.70
3:B:118:LEU:HB2	3:B:142:LEU:HD12	1.74	0.70
1:2:130:ARG:HG3	1:2:131:GLU:H	1.55	0.70
2:A:1030:C:H2'	2:A:1030(A):G:H5'	1.71	0.70
6:E:20:GLN:O	6:E:22:GLY:N	2.24	0.70
17:P:8:ARG:HG2	17:P:8:ARG:HH11	1.55	0.70

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:323:LEU:H	26:Z:323:LEU:CD1	2.05	0.70
2:A:562:C:N4	2:A:884:U:H2'	2.06	0.70
6:E:87:SER:HB3	6:E:131:ILE:HD13	1.73	0.70
17:P:40:ASP:HB3	17:P:48:TRP:HB2	1.74	0.70
8:G:20:ASP:HB3	8:G:23:VAL:HG23	1.74	0.70
2:A:547:A:H4'	2:A:548:G:O5'	1.91	0.70
6:E:120:THR:CG2	6:E:121:LYS:N	2.54	0.70
2:A:982:U:H4'	2:A:983:A:O5'	1.92	0.70
2:A:64:G:H4'	2:A:65:U:H5''	1.74	0.70
2:A:973:G:O3'	15:N:41:ARG:NH1	2.24	0.70
1:2:59:TYR:HB2	1:2:74:ARG:HH11	1.56	0.70
5:D:4:TYR:O	5:D:5:ILE:HB	1.91	0.70
2:A:1321:C:H3'	2:A:1322:C:H5''	1.74	0.70
2:A:407:G:H2'	2:A:408:A:H8	1.57	0.70
10:I:10:ARG:CD	10:I:75:ASP:HB3	2.22	0.70
2:A:1280:A:O4'	11:J:41:PRO:HG3	1.92	0.70
2:A:1356:G:H2'	2:A:1357:A:C8	2.26	0.70
12:K:59:TYR:CE2	12:K:63:LEU:HD11	2.27	0.70
6:E:34:VAL:HG12	6:E:62:ALA:HB1	1.74	0.70
3:B:61:LEU:O	3:B:64:ARG:HG2	1.92	0.70
10:I:26:VAL:HG13	10:I:61:ALA:HB3	1.72	0.69
23:W:60:A:H2'	23:W:61:U:H5'	1.74	0.69
2:A:542:G:O2'	2:A:543:C:H5'	1.91	0.69
2:A:436:C:H4'	5:D:157:LEU:CD1	2.22	0.69
10:I:53:VAL:HG13	10:I:95:LYS:CE	2.18	0.69
2:A:1282:C:O2'	2:A:1283:G:H5'	1.92	0.69
13:L:20:LYS:HD3	13:L:20:LYS:H	1.54	0.69
1:2:95:GLN:CA	1:2:95:GLN:HE21	2.05	0.69
4:C:114:PRO:O	4:C:118:GLN:HG3	1.92	0.69
2:A:377:G:OP2	17:P:3:LYS:HD3	1.91	0.69
16:O:87:ILE:HG22	16:O:88:ARG:N	2.08	0.69
9:H:116:LYS:HD2	9:H:129:VAL:HG11	1.74	0.69
3:B:98:LEU:O	3:B:101:MET:HG3	1.91	0.69
2:A:1258:G:O2'	2:A:1259:C:H5'	1.92	0.69
2:A:722:A:N3	2:A:722:A:H2'	2.07	0.69
2:A:332:G:OP2	21:T:10:LEU:HD23	1.92	0.69
17:P:39:TYR:OH	17:P:41:PRO:HA	1.91	0.69
3:B:21:ARG:HB3	3:B:39:ILE:HG23	1.73	0.69
13:L:24:VAL:HG12	13:L:24:VAL:O	1.92	0.69
26:Z:68:VAL:HG23	26:Z:79:HIS:HB3	1.72	0.69
3:B:7:VAL:HG13	3:B:11:LEU:HD12	1.74	0.69
2:A:189(H):G:O2'	2:A:189(I):G:H8	1.73	0.69

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:723:U:O2'	2:A:724:G:H5'	1.92	0.69
2:A:1256:A:H2	2:A:1277:C:C4	2.11	0.69
15:N:27:CYS:SG	15:N:29:ARG:HB2	2.33	0.69
6:E:51:VAL:HB	6:E:52:PRO:HD3	1.73	0.69
6:E:12:LEU:CD1	6:E:31:LEU:HB3	2.22	0.69
2:A:1097:C:O2'	2:A:1098:C:H5'	1.91	0.69
8:G:65:ALA:HB1	8:G:127:ALA:HB3	1.75	0.69
1:2:139:ARG:HG3	1:2:140:ALA:H	1.56	0.69
18:Q:59:ILE:HG22	18:Q:71:PHE:CD1	2.27	0.69
9:H:120:THR:OG1	9:H:123:GLU:HG3	1.92	0.69
2:A:664:G:H22	2:A:741:G:H1	1.40	0.69
9:H:7:ALA:HB2	9:H:85:ARG:HD3	1.75	0.69
16:O:17:ARG:NH1	16:O:17:ARG:HG3	2.05	0.69
15:N:41:ARG:HG2	15:N:42:ILE:N	2.08	0.68
13:L:68:ALA:CB	13:L:85:ILE:HD11	2.23	0.68
10:I:110:GLU:HG2	10:I:113:LYS:NZ	2.07	0.68
5:D:73:ARG:O	5:D:77:ASN:HB2	1.94	0.68
2:A:197:A:C6	2:A:221:C:H4'	2.28	0.68
8:G:7:ALA:O	8:G:8:GLU:HB3	1.92	0.68
5:D:176:LEU:HG	5:D:178:VAL:HG22	1.74	0.68
26:Z:265:THR:HG22	26:Z:266:VAL:N	2.02	0.68
26:Z:322:ILE:HD12	26:Z:362:VAL:CG1	2.23	0.68
8:G:76:ARG:HH21	8:G:156:TRP:HH2	1.42	0.68
2:A:194:C:H2'	2:A:195:A:H5''	1.75	0.68
2:A:382:A:H2'	2:A:383:A:C8	2.28	0.68
13:L:124:LYS:HD2	13:L:125:PRO:HD2	1.75	0.68
2:A:954:G:H4'	14:M:120:LYS:CD	2.24	0.68
3:B:165:VAL:HG23	3:B:166:ASP:N	2.07	0.68
2:A:424:G:H2'	2:A:425:G:H8	1.58	0.68
2:A:619:U:N3	5:D:135:LEU:HD11	2.08	0.68
2:A:1010:G:H2'	2:A:1011:G:H8	1.59	0.68
11:J:29:ARG:HG2	11:J:29:ARG:O	1.93	0.68
10:I:18:PHE:O	10:I:19:LEU:HD23	1.93	0.68
10:I:4:TYR:CD2	10:I:88:TYR:HB2	2.28	0.68
2:A:1117:G:O2'	10:I:104:ARG:HD3	1.93	0.68
26:Z:366:ASP:OD2	26:Z:368:VAL:HG23	1.92	0.68
6:E:80:ILE:HD11	6:E:138:ALA:HA	1.76	0.68
2:A:226:G:O2'	2:A:227:G:H5'	1.93	0.68
5:D:25:ARG:NH1	5:D:30:LYS:O	2.27	0.68
2:A:1323:G:H2'	2:A:1324:A:C8	2.28	0.68
5:D:133:VAL:HG11	5:D:138:TYR:HD2	1.57	0.68
26:Z:168:VAL:HG22	26:Z:169:PRO:HD2	1.75	0.68

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:239:THR:HG22	26:Z:287:GLY:CA	2.23	0.68
7:F:3:ARG:HD3	7:F:64:GLN:NE2	2.09	0.68
9:H:103:VAL:CG2	9:H:110:ALA:HB2	2.23	0.68
2:A:720:C:H2'	2:A:721:G:C8	2.28	0.68
26:Z:28:THR:HG23	26:Z:79:HIS:ND1	2.09	0.68
1:2:92:LYS:O	1:2:98:LEU:HD11	1.92	0.68
26:Z:17:ILE:HD12	26:Z:119:HIS:HB3	1.75	0.68
20:S:16:LEU:HA	20:S:19:VAL:HB	1.74	0.68
12:K:21:ILE:HG13	12:K:30:VAL:HG12	1.75	0.68
2:A:1143:G:H2'	2:A:1144:G:C8	2.29	0.68
25:Y:90:ALA:N	26:Z:272:MET:HA	2.09	0.68
1:2:48:PHE:CZ	1:2:90:LEU:HA	2.29	0.68
26:Z:254:GLU:OE1	26:Z:307:PRO:HA	1.94	0.68
9:H:4:ASP:OD2	9:H:89:PRO:HD3	1.94	0.68
8:G:79:ARG:HG3	8:G:83:ALA:O	1.93	0.68
2:A:351:G:H4'	2:A:352:C:OP1	1.92	0.68
14:M:94:ARG:HG2	20:S:82:GLY:N	2.09	0.68
21:T:31:SER:HA	21:T:34:LYS:HD2	1.75	0.68
6:E:76:ILE:HD11	6:E:93:PRO:HD3	1.74	0.68
10:I:56:LEU:O	10:I:56:LEU:HD23	1.93	0.68
5:D:175:SER:O	5:D:176:LEU:HB2	1.93	0.67
2:A:218:C:H5'	2:A:470:C:N4	2.10	0.67
17:P:20:VAL:HG23	17:P:35:LYS:HA	1.74	0.67
14:M:27:LYS:HE2	14:M:31:LYS:HE3	1.75	0.67
5:D:12:CYS:CA	5:D:19:LEU:HD13	2.24	0.67
26:Z:72:THR:HG21	26:Z:77:TYR:HE2	1.58	0.67
3:B:7:VAL:HG13	3:B:11:LEU:CD1	2.25	0.67
11:J:27:ALA:HB2	11:J:85:LEU:HD11	1.76	0.67
4:C:8:ILE:HG23	4:C:16:ARG:HG2	1.74	0.67
23:W:55:U:C2'	23:W:56:U:H5''	2.24	0.67
6:E:82:VAL:HG21	6:E:138:ALA:HA	1.76	0.67
11:J:32:ALA:HB2	11:J:76:ASN:HB2	1.76	0.67
2:A:189(D):C:H1'	2:A:189(H):G:H1	1.58	0.67
2:A:219:C:H2'	2:A:220:G:O4'	1.93	0.67
2:A:532:A:N6	4:C:156:ARG:HH12	1.92	0.67
13:L:18:VAL:HG23	13:L:19:ARG:N	2.05	0.67
21:T:72:LEU:HD11	21:T:80:ARG:NE	2.09	0.67
3:B:112:VAL:O	3:B:115:LEU:HB3	1.95	0.67
4:C:34:LEU:CD2	4:C:38:ARG:HE	2.07	0.67
5:D:55:ALA:O	5:D:59:ARG:HG2	1.95	0.67
2:A:1412:C:H2'	2:A:1413:A:C8	2.29	0.67
2:A:627:G:H2'	2:A:628:G:H8	1.58	0.67

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:594:G:H2'	2:A:595:G:H5'	1.76	0.67
23:W:22:A:H4'	23:W:23:G:C8	2.30	0.67
2:A:433:C:H2'	2:A:434:U:C6	2.30	0.67
2:A:1313:U:OP2	20:S:6:LYS:HB3	1.94	0.67
4:C:64:VAL:HG12	4:C:66:VAL:HG23	1.77	0.67
2:A:135:C:H2'	2:A:136:C:H5'	1.76	0.67
5:D:129:ASN:HD21	5:D:144:ASP:HA	1.59	0.67
1:2:92:LYS:C	1:2:98:LEU:HD11	2.15	0.67
20:S:32:LYS:HA	20:S:50:ALA:HB3	1.77	0.67
2:A:1049:U:H4'	2:A:1050:G:H5'	1.76	0.67
1:2:17:LEU:HD23	1:2:119:LEU:HD12	1.77	0.67
2:A:404:U:H2'	2:A:405:U:C6	2.29	0.67
2:A:232:G:H1'	2:A:262:A:N1	2.10	0.67
2:A:1104:G:O5'	3:B:111:ARG:HD2	1.94	0.67
11:J:33:GLN:O	11:J:75:ILE:HG12	1.94	0.67
23:V:60:A:C2'	23:V:61:U:H5'	2.25	0.67
8:G:77:SER:HB3	8:G:84:ASN:HD21	1.58	0.67
10:I:88:TYR:O	10:I:89:ASN:HB2	1.94	0.67
13:L:62:SER:O	13:L:64:TYR:HD1	1.78	0.67
6:E:150:ARG:HB2	6:E:150:ARG:NH1	2.09	0.67
23:V:60:A:H2'	23:V:61:U:H5'	1.74	0.67
23:W:57:C:O2	23:W:57:C:H2'	1.93	0.67
20:S:62:ILE:HG23	20:S:62:ILE:O	1.95	0.67
17:P:14:ASN:OD1	17:P:42:ARG:NH2	2.28	0.67
17:P:63:GLY:O	17:P:64:ALA:HB2	1.95	0.67
9:H:80:ILE:O	9:H:80:ILE:HG22	1.94	0.67
2:A:1134:G:N2	2:A:1141:C:C2	2.63	0.67
17:P:45:THR:HG22	17:P:47:ASP:H	1.60	0.67
2:A:1101:A:H4'	2:A:1102:A:O5'	1.95	0.67
2:A:80:G:H3'	2:A:81:U:C5'	2.24	0.67
2:A:1124:G:C5'	11:J:35:SER:HB2	2.25	0.66
1:2:28:GLY:HA2	1:2:31:VAL:HG23	1.77	0.66
1:2:59:TYR:HB2	1:2:74:ARG:NH1	2.09	0.66
4:C:16:ARG:NH1	4:C:16:ARG:HB2	2.10	0.66
23:W:55:U:H2'	23:W:56:U:H5''	1.76	0.66
13:L:32:PHE:CB	13:L:84:LEU:HD21	2.25	0.66
17:P:6:LEU:HD23	17:P:17:TYR:CG	2.30	0.66
2:A:160:A:H2'	2:A:161:A:O4'	1.95	0.66
11:J:50:ILE:CG1	15:N:41:ARG:HD2	2.24	0.66
5:D:67:ILE:O	5:D:67:ILE:CG2	2.42	0.66
23:W:72:C:H2'	23:W:73:A:C8	2.29	0.66
18:Q:45:HIS:HB2	18:Q:65:ILE:HD12	1.78	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:H:17:THR:HG22	9:H:63:LEU:HG	1.77	0.66
26:Z:356:PRO:HG2	26:Z:359:VAL:CG2	2.25	0.66
3:B:33:TYR:HB2	3:B:43:ASP:HB2	1.77	0.66
5:D:12:CYS:SG	5:D:19:LEU:O	2.53	0.66
26:Z:324:LYS:HG3	26:Z:364:PRO:HB3	1.77	0.66
2:A:1050:G:O2'	2:A:1051:C:H6	1.78	0.66
2:A:501:C:H2'	2:A:502:G:H8	1.61	0.66
5:D:165:MET:HE3	5:D:176:LEU:HD21	1.76	0.66
14:M:81:LEU:HB3	14:M:89:GLY:HA2	1.78	0.66
23:W:54:G:O2'	23:W:55:U:H5'	1.95	0.66
17:P:5:ARG:NH1	17:P:28:ARG:HA	2.10	0.66
3:B:61:LEU:HA	3:B:64:ARG:NE	2.11	0.66
5:D:162:LEU:O	5:D:162:LEU:HD13	1.95	0.66
14:M:120:LYS:CE	14:M:120:LYS:HA	2.26	0.66
13:L:5:PRO:CG	13:L:10:LEU:HD21	2.25	0.66
5:D:100:ARG:HG2	5:D:102:ASP:OD1	1.94	0.66
2:A:1030:C:C2'	2:A:1030(A):G:H5'	2.25	0.66
8:G:38:LEU:O	8:G:42:ILE:HG13	1.95	0.66
1:2:39:VAL:HG12	1:2:60:ILE:HA	1.76	0.66
14:M:120:LYS:HE3	14:M:120:LYS:HA	1.78	0.66
9:H:10:LEU:HD22	9:H:83:ILE:HD11	1.76	0.66
2:A:176:C:H2'	2:A:177:C:H6	1.60	0.66
26:Z:316:PHE:CE1	26:Z:372:VAL:HG22	2.30	0.66
9:H:86:ILE:HG21	9:H:133:LEU:HD23	1.78	0.66
26:Z:181:GLU:HG2	26:Z:184:LYS:HD2	1.77	0.66
1:2:28:GLY:HA2	1:2:31:VAL:CG2	2.26	0.66
2:A:1346:A:H61	2:A:1374:A:H3'	1.60	0.66
10:I:5:TYR:CG	10:I:6:GLY:N	2.64	0.66
2:A:31:G:N1	2:A:48:C:H5''	2.10	0.66
2:A:413:G:H4'	2:A:414:A:H5''	1.77	0.66
5:D:28:SER:CB	5:D:29:PRO:HD2	2.25	0.66
11:J:61:GLU:HG3	15:N:58:LYS:HE2	1.77	0.66
26:Z:215:ARG:CD	26:Z:215:ARG:H	1.95	0.66
2:A:1317:C:OP1	15:N:17:LYS:HG2	1.96	0.66
13:L:24:VAL:HG13	13:L:98:TYR:CE2	2.31	0.66
2:A:594:G:C2'	2:A:595:G:H5'	2.26	0.66
26:Z:248:LYS:HE2	26:Z:279:GLU:HB3	1.77	0.66
2:A:266:G:H5'	2:A:267:C:H5	1.60	0.66
3:B:168:THR:HG23	3:B:192:SER:HB3	1.78	0.66
11:J:31:GLY:HA3	11:J:78:ASN:ND2	2.11	0.66
6:E:6:PHE:HB2	6:E:34:VAL:CG2	2.26	0.66
3:B:9:GLU:N	3:B:9:GLU:OE1	2.29	0.66

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:827:U:H5'	2:A:828:A:OP2	1.96	0.66
5:D:196:LEU:HG	5:D:197:PRO:HD2	1.77	0.65
1:2:6:GLU:HG2	1:2:8:ARG:HG3	1.76	0.65
20:S:15:LEU:O	20:S:19:VAL:HG23	1.95	0.65
14:M:96:LEU:HB3	14:M:97:PRO:HD2	1.78	0.65
8:G:43:PHE:O	8:G:46:ALA:HB3	1.94	0.65
2:A:243:A:H4'	2:A:244:U:O5'	1.96	0.65
2:A:1108:G:H5'	4:C:176:HIS:CD2	2.31	0.65
2:A:573:A:C8	2:A:573:A:H5'	2.31	0.65
2:A:189(K):U:H2'	2:A:189(L):G:C8	2.31	0.65
7:F:91:VAL:HG11	19:R:72:ARG:HH12	1.60	0.65
18:Q:45:HIS:CD2	18:Q:47:PRO:HD3	2.31	0.65
5:D:153:ARG:O	5:D:155:LEU:N	2.27	0.65
11:J:48:THR:HG23	11:J:62:HIS:HD1	1.62	0.65
5:D:107:ARG:HH21	5:D:194:LEU:CD1	2.09	0.65
1:2:30:GLU:OE2	1:2:75:ARG:HD2	1.96	0.65
8:G:69:VAL:HG11	8:G:104:LEU:HD21	1.76	0.65
23:W:77:A:O5'	23:W:77:A:C8	2.49	0.65
26:Z:19:HIS:CD2	26:Z:115:GLN:H	2.08	0.65
3:B:167:PRO:HG3	3:B:188:ALA:HB2	1.77	0.65
11:J:32:ALA:CB	11:J:76:ASN:HB2	2.27	0.65
16:O:39:LEU:CD2	16:O:43:LEU:HG	2.25	0.65
6:E:6:PHE:HB2	6:E:34:VAL:HG22	1.76	0.65
2:A:199:G:O2'	2:A:200:G:H5'	1.95	0.65
8:G:22:LEU:HD22	8:G:62:PHE:HE2	1.60	0.65
1:2:7:ASN:HB2	1:2:41:PHE:HD2	1.61	0.65
26:Z:299:GLU:H	26:Z:302:GLN:NE2	1.94	0.65
1:2:144:LEU:HD13	1:2:144:LEU:O	1.96	0.65
10:I:43:ALA:HA	10:I:74:ILE:HG21	1.78	0.65
3:B:102:LEU:HD23	3:B:182:ILE:HD12	1.77	0.65
2:A:969:A:O2'	2:A:970:C:H5'	1.95	0.65
26:Z:221:PHE:HA	26:Z:244:ARG:O	1.96	0.65
4:C:95:THR:O	4:C:97:LYS:N	2.29	0.65
7:F:19:LEU:HD23	7:F:19:LEU:O	1.97	0.65
5:D:194:LEU:O	5:D:196:LEU:N	2.30	0.65
10:I:89:ASN:HB3	10:I:92:TYR:CD1	2.32	0.65
3:B:16:HIS:HB3	3:B:210:SER:HB2	1.77	0.65
3:B:115:LEU:HB2	3:B:145:LEU:CD1	2.25	0.65
2:A:1510:U:H2'	2:A:1511:G:C8	2.31	0.65
2:A:1381:U:H5	2:A:1382:C:C4	2.15	0.65
3:B:163:PHE:CD1	3:B:185:ILE:HG13	2.32	0.65
26:Z:298:VAL:HA	26:Z:302:GLN:HE22	1.60	0.65

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:E:33:VAL:CG1	6:E:112:LEU:HD12	2.26	0.65
2:A:412:A:H5'	2:A:413:G:OP1	1.97	0.65
1:2:98:LEU:O	1:2:98:LEU:HD12	1.97	0.65
20:S:40:ILE:HB	20:S:67:VAL:O	1.96	0.65
3:B:44:LEU:H	3:B:44:LEU:CD1	2.07	0.65
2:A:953:G:H5'	2:A:965:A:H61	1.61	0.65
13:L:41:ARG:HD2	13:L:42:THR:H	1.61	0.65
10:I:99:LEU:O	10:I:101:PHE:N	2.29	0.65
3:B:22:LYS:CA	3:B:22:LYS:HE2	2.27	0.65
6:E:11:ILE:O	6:E:12:LEU:HB3	1.96	0.65
9:H:20:TYR:HA	9:H:65:TYR:CE2	2.31	0.65
25:Y:89:A:H4'	26:Z:229:PHE:CZ	2.31	0.65
25:Y:23:G:H2'	25:Y:24:G:O4'	1.96	0.65
14:M:86:CYS:HB3	20:S:74:PHE:CE1	2.31	0.65
2:A:1321:C:H5''	2:A:1322:C:C5'	2.25	0.65
2:A:857:C:H2'	2:A:858:G:C8	2.32	0.65
15:N:26:ARG:HH12	15:N:46:GLU:HG2	1.61	0.65
14:M:15:VAL:HG23	14:M:16:ASP:H	1.61	0.65
19:R:66:LEU:O	19:R:70:ILE:HG13	1.97	0.65
2:A:973:G:C1'	11:J:55:LYS:HE2	2.27	0.64
15:N:57:ARG:HB3	15:N:57:ARG:HH11	1.62	0.64
2:A:423:G:C2'	2:A:424:G:H5'	2.27	0.64
2:A:828:A:H4'	2:A:828:A:OP1	1.98	0.64
6:E:81:GLU:HG2	6:E:90:VAL:HG13	1.78	0.64
11:J:49:VAL:HG23	15:N:41:ARG:HB2	1.78	0.64
11:J:63:PHE:HD1	11:J:63:PHE:H	1.45	0.64
2:A:952:U:H2'	2:A:953:G:H8	1.62	0.64
2:A:266:G:H5'	2:A:267:C:C5	2.33	0.64
10:I:102:LEU:HD23	10:I:102:LEU:O	1.96	0.64
2:A:792:A:O2'	2:A:794:A:C8	2.45	0.64
7:F:40:VAL:O	7:F:40:VAL:HG13	1.96	0.64
2:A:1228:C:OP2	14:M:115:LYS:HE3	1.97	0.64
2:A:657:G:H4'	16:O:28:GLN:HG2	1.79	0.64
5:D:148:VAL:CG1	5:D:149:ALA:H	2.10	0.64
11:J:54:PHE:CZ	11:J:55:LYS:HD2	2.31	0.64
10:I:85:LEU:HD13	10:I:92:TYR:HD2	1.62	0.64
2:A:1456:G:H8	21:T:58:LYS:HE2	1.60	0.64
2:A:80:G:H3'	2:A:81:U:H5'	1.77	0.64
25:Y:89:A:H4'	26:Z:229:PHE:HZ	1.61	0.64
2:A:1053:G:C4'	2:A:1054:C:H5'	2.24	0.64
11:J:54:PHE:CD1	11:J:55:LYS:HE3	2.32	0.64
1:2:84:HIS:HA	1:2:87:ARG:HD3	1.80	0.64

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:5:ILE:O	5:D:5:ILE:HG22	1.96	0.64
3:B:15:VAL:HG21	3:B:209:ARG:HH21	1.60	0.64
13:L:53:ARG:H	13:L:53:ARG:HD2	1.63	0.64
19:R:47:THR:O	19:R:83:GLU:HG2	1.96	0.64
19:R:31:LEU:HD23	19:R:31:LEU:H	1.63	0.64
13:L:78:GLN:O	13:L:80:HIS:N	2.24	0.64
14:M:88:ARG:HG3	14:M:98:VAL:HG12	1.80	0.64
2:A:953:G:C5'	2:A:965:A:H61	2.10	0.64
13:L:90:VAL:O	13:L:92:ASP:N	2.31	0.64
19:R:53:ARG:C	19:R:55:ARG:H	1.99	0.64
5:D:145:GLU:HB3	5:D:183:GLY:O	1.98	0.64
2:A:875:C:O2'	9:H:14:ARG:NH1	2.31	0.64
15:N:29:ARG:NH1	15:N:31:ARG:O	2.31	0.64
2:A:80:G:C3'	2:A:81:U:H5'	2.27	0.64
2:A:585:G:H4'	13:L:8:ASN:HD21	1.63	0.64
2:A:291:C:O2'	2:A:292:G:H5'	1.98	0.64
3:B:7:VAL:O	3:B:11:LEU:HB2	1.98	0.64
2:A:1308:U:H5''	14:M:98:VAL:HG23	1.80	0.64
26:Z:299:GLU:N	26:Z:302:GLN:HE21	1.96	0.64
2:A:508:C:OP1	5:D:209:ARG:NH1	2.30	0.64
9:H:103:VAL:HG23	9:H:110:ALA:HB2	1.78	0.64
9:H:11:THR:HG23	9:H:14:ARG:HH12	1.62	0.64
10:I:118:LYS:O	10:I:119:ALA:HB3	1.97	0.64
23:W:71:G:O2'	23:W:72:C:H5'	1.98	0.64
19:R:33:ASP:HB3	19:R:36:ASN:OD1	1.98	0.64
2:A:426:G:H2'	2:A:427:U:C6	2.33	0.64
26:Z:72:THR:O	26:Z:74:LYS:N	2.31	0.64
10:I:11:LYS:HG3	10:I:108:VAL:HG13	1.80	0.64
2:A:1157:A:H1'	2:A:1181:G:H22	1.57	0.64
3:B:235:SER:HG	3:B:236:TYR:HD1	1.44	0.64
23:W:76:C:O3'	23:W:77:A:H8	1.76	0.64
21:T:54:LYS:HA	21:T:57:ARG:NH2	2.13	0.64
2:A:1498:U:H4'	2:A:1519:A:H2	1.61	0.64
2:A:1412:C:H2'	2:A:1413:A:H8	1.61	0.64
2:A:972:C:O3'	11:J:57:LYS:HG3	1.98	0.64
16:O:68:ARG:HG3	16:O:68:ARG:HH11	1.62	0.64
11:J:4:ILE:HB	11:J:74:ILE:CD1	2.18	0.63
20:S:62:ILE:HD12	20:S:66:MET:CE	2.28	0.63
18:Q:67:LYS:HA	18:Q:70:ARG:HH12	1.62	0.63
21:T:100:ILE:N	21:T:100:ILE:HD12	2.13	0.63
16:O:39:LEU:HD22	16:O:43:LEU:HG	1.80	0.63
2:A:1258:G:H2'	2:A:1259:C:C6	2.33	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:198:G:O2'	2:A:199:G:H8	1.80	0.63
5:D:129:ASN:HD22	5:D:129:ASN:N	1.96	0.63
3:B:178:ARG:NH1	9:H:71:GLY:O	2.30	0.63
5:D:30:LYS:C	5:D:32:ALA:H	2.02	0.63
9:H:89:PRO:HA	9:H:92:ARG:NH1	2.12	0.63
2:A:1217:C:H2'	2:A:1218:C:H6	1.63	0.63
11:J:34:VAL:HG13	11:J:73:ASP:O	1.98	0.63
1:2:7:ASN:C	1:2:7:ASN:HD22	2.02	0.63
2:A:1323:G:H2'	2:A:1324:A:H8	1.63	0.63
20:S:63:THR:HG23	20:S:65:ASN:N	2.13	0.63
4:C:113:ALA:HB3	4:C:114:PRO:HD3	1.80	0.63
2:A:1080:A:H5'	6:E:14:ARG:NH2	2.12	0.63
1:2:68:TYR:C	1:2:68:TYR:CD1	2.71	0.63
2:A:956:U:H2'	2:A:957:U:H6	1.64	0.63
12:K:124:LYS:HD2	12:K:125:PHE:CE1	2.32	0.63
2:A:1476:G:H2'	2:A:1477:C:C6	2.33	0.63
26:Z:202:LEU:O	26:Z:206:ILE:HD13	1.98	0.63
22:U:12:LYS:HG3	22:U:17:THR:O	1.98	0.63
11:J:96:ILE:HD13	11:J:96:ILE:N	2.13	0.63
4:C:55:VAL:HG13	4:C:68:VAL:HG22	1.79	0.63
2:A:1148:U:H2'	2:A:1149:C:O4'	1.99	0.63
20:S:19:VAL:O	20:S:23:ASN:HB2	1.98	0.63
26:Z:224:PRO:HB2	26:Z:346:THR:HG23	1.80	0.63
2:A:16:A:N1	2:A:919:A:H2	1.96	0.63
6:E:120:THR:HG23	6:E:121:LYS:H	1.63	0.63
2:A:1137:C:H4'	2:A:1138:G:C2	2.33	0.63
2:A:1499:A:O2'	2:A:1500:A:H5'	1.98	0.63
25:Y:79:C:H2'	25:Y:80:A:C8	2.34	0.63
2:A:353:A:H5'	2:A:353:A:H8	1.64	0.63
2:A:1196:U:H2'	2:A:1196:U:O2	1.98	0.63
3:B:69:LEU:HD23	3:B:159:PRO:CG	2.28	0.63
2:A:1248:A:H2'	2:A:1249:C:H5'	1.81	0.63
8:G:13:GLN:NE2	8:G:14:PRO:HD2	2.14	0.63
21:T:44:ALA:CB	21:T:88:VAL:HG13	2.29	0.63
3:B:129:GLU:O	3:B:130:ARG:O	2.17	0.63
12:K:115:PRO:C	12:K:117:ASN:H	2.02	0.63
16:O:33:THR:HG21	16:O:85:LEU:HD21	1.81	0.63
10:I:52:ALA:HB3	10:I:95:LYS:CE	2.18	0.63
13:L:53:ARG:HD2	13:L:53:ARG:N	2.14	0.63
12:K:126:ARG:HH11	12:K:126:ARG:HB3	1.64	0.63
2:A:59:A:H1'	2:A:354:G:N2	2.13	0.63
3:B:236:TYR:HD1	3:B:236:TYR:H	1.47	0.63

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:27:LEU:O	13:L:29:GLY:N	2.32	0.63
7:F:64:GLN:HG3	7:F:64:GLN:O	1.98	0.63
2:A:697:U:H2'	2:A:698:G:H5'	1.81	0.63
2:A:939:G:H5''	8:G:102:ARG:NH2	2.14	0.63
4:C:143:GLU:O	4:C:143:GLU:HG2	1.98	0.63
21:T:18:GLN:O	21:T:22:ARG:HG3	1.97	0.63
2:A:1375:A:H2'	2:A:1376:U:O4'	1.99	0.63
23:W:29:C:H2'	23:W:30:G:H8	1.63	0.63
25:Y:4:G:O2'	25:Y:5:G:H5'	1.98	0.62
3:B:14:GLY:O	3:B:15:VAL:HG13	1.99	0.62
2:A:958:A:N6	20:S:77:THR:O	2.31	0.62
2:A:1233:G:H2'	2:A:1234:C:C6	2.34	0.62
2:A:619:U:H3	5:D:135:LEU:HD11	1.64	0.62
23:V:4:G:O2'	23:V:5:G:H8	1.81	0.62
18:Q:74:LEU:HD12	18:Q:75:ARG:HG2	1.80	0.62
5:D:190:ASP:O	5:D:194:LEU:HD23	1.99	0.62
3:B:172:ILE:HD12	3:B:172:ILE:N	2.10	0.62
2:A:17:U:H2'	2:A:18:C:C6	2.34	0.62
25:Y:82:C:H2'	25:Y:83:U:C6	2.34	0.62
2:A:963:G:H2'	2:A:964:A:H8	1.63	0.62
25:Y:3:G:OP2	26:Z:87:ASP:HB3	1.99	0.62
2:A:1122:U:H2'	2:A:1123:A:H5'	1.81	0.62
11:J:6:ILE:HA	11:J:97:GLU:O	1.99	0.62
3:B:114:ARG:HD2	3:B:118:LEU:HD11	1.80	0.62
2:A:1409:C:H2'	2:A:1410:G:C8	2.35	0.62
2:A:262:A:H2'	2:A:263:A:C8	2.34	0.62
2:A:1162:C:H42	2:A:1174:G:H1	1.46	0.62
21:T:26:ASN:HD22	21:T:27:LYS:N	1.97	0.62
2:A:930:C:O2'	2:A:931:C:H5'	2.00	0.62
2:A:1240:U:OP1	8:G:116:ALA:HB2	1.99	0.62
26:Z:215:ARG:O	26:Z:216:ASP:HB2	1.98	0.62
20:S:6:LYS:N	20:S:6:LYS:HD3	2.14	0.62
14:M:97:PRO:HG3	14:M:103:THR:HG22	1.80	0.62
14:M:16:ASP:HA	14:M:30:ALA:HB1	1.81	0.62
15:N:7:ILE:O	15:N:11:LYS:HE3	1.99	0.62
2:A:460:G:N1	2:A:470:C:H5''	2.14	0.62
3:B:90:MET:CE	3:B:90:MET:HA	2.29	0.62
2:A:1059:C:H2'	2:A:1060:C:C6	2.34	0.62
1:2:83:LYS:HG3	1:2:84:HIS:N	2.14	0.62
20:S:62:ILE:HA	20:S:66:MET:HE1	1.80	0.62
2:A:1189:C:O3'	4:C:5:ILE:HD12	1.98	0.62
13:L:51:ALA:HB3	13:L:53:ARG:HE	1.64	0.62

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:94:PRO:O	13:L:96:VAL:N	2.30	0.62
9:H:20:TYR:HE2	9:H:75:ARG:HD2	1.63	0.62
2:A:966:G:O2'	2:A:967:C:C6	2.52	0.62
2:A:648:A:H2'	2:A:649:G:H8	1.63	0.62
2:A:542:G:OP2	5:D:10:ARG:NH2	2.33	0.62
5:D:127:THR:CG2	5:D:128:VAL:N	2.61	0.62
26:Z:313:HIS:ND1	26:Z:405:GLU:O	2.31	0.62
10:I:108:VAL:HG12	10:I:109:VAL:H	1.63	0.62
14:M:74:VAL:HA	14:M:77:ASN:HD22	1.65	0.62
2:A:1493:A:H3'	2:A:1493:A:OP1	2.00	0.62
2:A:711:G:O2'	2:A:712:A:H5'	2.00	0.62
23:W:60:A:C2'	23:W:61:U:H5'	2.30	0.62
9:H:112:LEU:N	9:H:112:LEU:HD23	2.14	0.62
9:H:82:HIS:HD2	9:H:138:TRP:NE1	1.96	0.62
2:A:1428:A:H2'	2:A:1429:C:C6	2.34	0.62
2:A:763:G:H2'	2:A:764:C:H6	1.64	0.62
21:T:48:LYS:HB3	21:T:51:GLU:CG	2.30	0.62
9:H:88:LYS:HB3	9:H:89:PRO:HD2	1.80	0.62
23:W:22:A:H4'	23:W:23:G:H8	1.64	0.62
10:I:7:THR:HG22	10:I:8:GLY:N	2.13	0.62
10:I:7:THR:O	10:I:80:GLY:HA2	1.98	0.62
5:D:170:VAL:HG12	5:D:174:LEU:HB2	1.82	0.62
10:I:52:ALA:CB	10:I:95:LYS:HE2	2.20	0.62
26:Z:268:THR:O	26:Z:289:LEU:HD23	2.00	0.62
2:A:92:C:H2'	2:A:93:G:C8	2.31	0.62
17:P:6:LEU:HB3	17:P:17:TYR:HB3	1.82	0.62
1:2:14:TYR:HB3	1:2:121:ARG:H	1.63	0.62
26:Z:219:LYS:HB3	26:Z:220:PRO:HD2	1.81	0.62
2:A:78:G:N2	2:A:91:C:H42	1.95	0.62
4:C:34:LEU:HD21	4:C:38:ARG:NE	2.13	0.62
10:I:43:ALA:O	10:I:45:ALA:N	2.32	0.62
10:I:43:ALA:C	10:I:45:ALA:H	2.03	0.62
2:A:148:G:O2'	2:A:149:A:H5'	1.99	0.62
20:S:24:ALA:O	20:S:25:LYS:HB2	1.99	0.62
2:A:915:A:H2'	2:A:916:G:H5'	1.80	0.62
11:J:6:ILE:HG22	11:J:98:ILE:HD12	1.81	0.62
14:M:65:LYS:HE2	14:M:73:GLU:OE1	2.00	0.62
3:B:238:LEU:HG	3:B:238:LEU:O	1.99	0.62
13:L:68:ALA:HB2	13:L:85:ILE:HD11	1.80	0.62
2:A:719:C:C2	19:R:50:ILE:HG12	2.35	0.62
2:A:373:A:O2'	2:A:374:A:H5'	1.99	0.61
2:A:1443:G:N2	2:A:1460:A:H1'	2.14	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:I:112:LYS:C	10:I:112:LYS:HD3	2.20	0.61
2:A:27:G:H2'	2:A:28:G:H8	1.64	0.61
2:A:975:A:C8	2:A:975:A:H5'	2.33	0.61
11:J:4:ILE:HD13	11:J:77:PRO:CB	2.31	0.61
26:Z:325:LYS:HG3	26:Z:331:HIS:CB	2.30	0.61
22:U:4:GLY:O	22:U:6:ARG:N	2.33	0.61
14:M:23:TYR:HB3	14:M:67:GLU:CB	2.30	0.61
14:M:49:THR:CB	14:M:52:GLU:HG3	2.29	0.61
21:T:74:LYS:CG	21:T:75:ASN:H	2.13	0.61
11:J:78:ASN:HD22	11:J:81:THR:HG23	1.66	0.61
6:E:102:ALA:HB1	6:E:106:PRO:HG2	1.81	0.61
21:T:57:ARG:NH1	21:T:102:GLY:HA3	2.14	0.61
21:T:44:ALA:HB2	21:T:88:VAL:HG13	1.81	0.61
2:A:556:C:O2'	2:A:557:G:H5'	2.00	0.61
1:2:5:LEU:O	1:2:104:LYS:HB2	1.99	0.61
1:2:48:PHE:CB	1:2:53:LEU:HA	2.22	0.61
1:2:87:ARG:CA	1:2:90:LEU:HD23	2.25	0.61
13:L:41:ARG:NH1	13:L:43:VAL:HG12	2.14	0.61
2:A:1104:G:P	3:B:111:ARG:HD2	2.41	0.61
2:A:769:G:H4'	2:A:1513:A:H4'	1.83	0.61
11:J:63:PHE:CZ	15:N:45:ARG:HG3	2.33	0.61
1:2:7:ASN:HB2	1:2:41:PHE:CD2	2.36	0.61
4:C:58:GLU:N	4:C:65:ALA:HB3	2.09	0.61
3:B:209:ARG:HD3	3:B:239:VAL:CG1	2.28	0.61
15:N:6:LEU:HB3	15:N:23:ARG:NH2	2.16	0.61
2:A:189(I):G:O2'	2:A:189(J):G:H5'	2.00	0.61
2:A:189(K):U:H2'	2:A:189(L):G:H8	1.63	0.61
2:A:736:C:H2'	2:A:737:A:C8	2.36	0.61
8:G:137:LYS:O	8:G:141:VAL:HG23	2.00	0.61
2:A:1397:C:H2'	2:A:1397:C:O2	2.00	0.61
10:I:111:ARG:HD2	15:N:61:TRP:OXT	1.99	0.61
2:A:992:U:H4'	2:A:993:G:O5'	2.01	0.61
25:Y:87:C:O2	26:Z:295:ARG:NH2	2.34	0.61
5:D:13:ARG:O	5:D:15:GLU:N	2.33	0.61
26:Z:101:GLY:CA	26:Z:210:ILE:HD11	2.17	0.61
26:Z:98:GLN:NE2	26:Z:285:ASN:HD21	1.98	0.61
10:I:53:VAL:HG23	10:I:55:ALA:H	1.64	0.61
2:A:522:C:H41	13:L:53:ARG:HH22	1.48	0.61
10:I:37:PHE:CE2	10:I:74:ILE:HG12	2.35	0.61
6:E:31:LEU:HD23	6:E:45:PHE:HB2	1.83	0.61
2:A:1031:G:H2'	2:A:1032:G:O4'	2.00	0.61
26:Z:314:THR:H	26:Z:405:GLU:HB2	1.66	0.61

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:110:PHE:N	5:D:110:PHE:CD1	2.69	0.61
14:M:82:MET:HB3	14:M:93:ARG:NH2	2.16	0.61
2:A:393:A:O2'	2:A:394:G:H5'	2.00	0.61
6:E:7:GLU:O	6:E:8:GLU:HB3	1.98	0.61
4:C:73:PRO:C	4:C:75:VAL:H	2.03	0.61
25:Y:1:G:OP3	25:Y:1:G:H8	1.83	0.61
2:A:1305:G:H5''	22:U:4:GLY:CA	2.23	0.61
5:D:100:ARG:HH11	5:D:100:ARG:HG3	1.66	0.61
2:A:918:A:H2'	2:A:919:A:C8	2.35	0.61
2:A:659:U:O2'	2:A:660:G:H5'	2.01	0.61
2:A:1125:U:N3	11:J:5:ARG:NH2	2.43	0.61
2:A:1010:G:H22	2:A:1020:U:H1'	1.66	0.61
16:O:33:THR:HG21	16:O:85:LEU:CD2	2.31	0.61
2:A:630:G:H2'	2:A:631:G:H5'	1.83	0.61
26:Z:323:LEU:N	26:Z:323:LEU:HD12	2.16	0.60
25:Y:74:C:H2'	25:Y:75:C:H6	1.66	0.60
2:A:1164:G:H22	2:A:1172:C:H5	1.49	0.60
26:Z:375:ILE:HD12	26:Z:376:LYS:HB2	1.82	0.60
6:E:12:LEU:O	6:E:12:LEU:HD13	2.01	0.60
9:H:110:ALA:HB3	9:H:121:ASP:HB3	1.82	0.60
2:A:1377:A:O2'	8:G:2:ALA:HB3	2.01	0.60
23:W:29:C:H2'	23:W:30:G:C8	2.35	0.60
9:H:112:LEU:HA	9:H:134:ILE:HG12	1.83	0.60
3:B:82:ARG:O	3:B:86:GLU:HG3	2.01	0.60
2:A:269:C:H2'	2:A:270:A:C8	2.36	0.60
20:S:18:LYS:O	20:S:22:LEU:HB2	2.01	0.60
14:M:15:VAL:HG23	14:M:34:LEU:HD11	1.82	0.60
14:M:66:LEU:N	14:M:66:LEU:HD12	2.16	0.60
2:A:1505:G:H5''	2:A:1506:U:OP2	2.00	0.60
5:D:70:ILE:HG23	5:D:74:GLN:HB3	1.83	0.60
4:C:52:LEU:HD23	4:C:52:LEU:H	1.66	0.60
4:C:50:ALA:HB1	4:C:70:VAL:HG11	1.82	0.60
2:A:994:A:N7	2:A:1216:G:H4'	2.16	0.60
16:O:78:TYR:O	16:O:82:ILE:HG22	2.01	0.60
11:J:61:GLU:OE2	15:N:49:HIS:HE1	1.84	0.60
15:N:28:GLY:O	15:N:29:ARG:O	2.20	0.60
15:N:31:ARG:HG3	15:N:31:ARG:HH11	1.66	0.60
26:Z:234:ARG:HH21	26:Z:289:LEU:CD2	2.15	0.60
11:J:82:ILE:HG23	11:J:86:MET:HB2	1.83	0.60
17:P:38:TYR:N	17:P:38:TYR:CD1	2.70	0.60
2:A:314:C:O2'	2:A:315:A:H5'	2.01	0.60
5:D:33:MET:SD	5:D:37:PRO:HA	2.40	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:J:71:LEU:HD12	11:J:72:VAL:H	1.67	0.60
13:L:18:VAL:O	13:L:19:ARG:HB3	1.99	0.60
2:A:955:U:O2'	2:A:956:U:H5'	2.02	0.60
2:A:1127:G:O2'	2:A:1128:C:H5'	2.01	0.60
8:G:50:ILE:O	8:G:54:THR:HG22	2.01	0.60
5:D:14:ARG:HA	5:D:39:PRO:HB3	1.84	0.60
5:D:173:TRP:HZ3	5:D:193:ASP:HB3	1.67	0.60
11:J:38:ILE:HD11	11:J:71:LEU:CD2	2.23	0.60
20:S:19:VAL:HG11	20:S:44:MET:HG3	1.83	0.60
2:A:624:C:H4'	17:P:10:GLY:HA2	1.83	0.60
2:A:1034:G:N2	2:A:1035:A:H62	1.99	0.60
26:Z:21:ASP:HA	30:Z:1407:GDP:H5'	1.82	0.60
12:K:78:GLN:O	12:K:104:GLN:HB2	2.00	0.60
5:D:25:ARG:C	5:D:27:TYR:H	2.05	0.60
2:A:1058:G:N2	11:J:53:PRO:HG3	2.17	0.60
2:A:973:G:H1'	11:J:55:LYS:NZ	2.15	0.60
20:S:4:SER:O	20:S:5:LEU:O	2.20	0.60
15:N:12:ARG:HB3	15:N:14:PRO:HG2	1.83	0.60
13:L:17:LYS:HD3	13:L:18:VAL:HG22	1.82	0.60
4:C:29:TYR:CD2	15:N:36:PHE:HE1	2.20	0.60
11:J:16:LEU:HD11	11:J:70:ARG:CG	2.31	0.60
1:2:130:ARG:CG	1:2:131:GLU:H	2.14	0.60
18:Q:76:LEU:HD12	18:Q:77:VAL:N	2.17	0.60
9:H:21:LYS:O	9:H:65:TYR:OH	2.18	0.60
2:A:27:G:H2'	2:A:28:G:C8	2.36	0.60
5:D:153:ARG:C	5:D:155:LEU:H	2.04	0.60
5:D:62:GLN:HA	5:D:62:GLN:NE2	2.11	0.60
23:V:74:A:H5'	23:V:74:A:C8	2.36	0.60
23:V:74:A:H5'	23:V:74:A:H8	1.65	0.60
3:B:15:VAL:CG2	3:B:209:ARG:HH21	2.14	0.60
4:C:50:ALA:HB1	4:C:70:VAL:CG1	2.32	0.60
2:A:423:G:H2'	2:A:424:G:H5'	1.84	0.60
25:Y:20:C:H42	25:Y:58:G:H1	1.50	0.60
6:E:69:VAL:O	6:E:71:LEU:HG	2.00	0.60
2:A:909:A:H2'	2:A:910:C:O4'	2.02	0.60
4:C:155:GLY:O	4:C:157:ILE:N	2.35	0.60
23:V:19:G:N2	23:V:58:A:H2'	2.16	0.60
1:2:11:ARG:HG2	1:2:103:LEU:CD2	2.32	0.60
23:W:75:C:O2'	23:W:76:C:H5'	2.01	0.60
13:L:41:ARG:HH12	13:L:43:VAL:HG12	1.67	0.60
2:A:1233:G:H2'	2:A:1234:C:H6	1.67	0.60
12:K:99:GLN:HG2	12:K:105:VAL:HG21	1.84	0.60

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1497:G:C2'	2:A:1498:U:H5'	2.32	0.60
26:Z:340:PRO:HG2	26:Z:342:PHE:CE1	2.37	0.60
5:D:14:ARG:HA	5:D:39:PRO:CB	2.32	0.60
1:2:22:ALA:HB2	1:2:81:LEU:HG	1.84	0.60
15:N:13:THR:N	15:N:14:PRO:CD	2.59	0.60
12:K:58:PRO:HB2	12:K:93:GLN:HG3	1.84	0.60
12:K:99:GLN:O	12:K:101:SER:N	2.35	0.60
12:K:21:ILE:HG13	12:K:30:VAL:CG1	2.31	0.60
16:O:75:PRO:O	16:O:78:TYR:HB3	2.02	0.60
26:Z:360:GLU:O	26:Z:361:MET:HB3	2.02	0.60
8:G:133:GLY:O	8:G:136:LYS:HB2	2.02	0.60
4:C:13:GLY:H	15:N:57:ARG:HD2	1.66	0.60
5:D:190:ASP:OD1	5:D:191:ARG:N	2.34	0.60
22:U:6:ARG:HD3	22:U:15:ARG:NH1	2.16	0.60
20:S:16:LEU:C	20:S:18:LYS:N	2.54	0.60
2:A:1308:U:H5''	14:M:98:VAL:CG2	2.32	0.60
2:A:1490:A:HO2'	2:A:1491:G:H5'	1.66	0.60
7:F:7:ASN:O	7:F:8:ILE:HG13	2.02	0.60
7:F:87:ARG:NH1	7:F:87:ARG:HG2	2.13	0.60
8:G:108:ALA:O	8:G:119:ARG:HB3	2.01	0.60
23:W:73:A:O2'	23:W:74:A:H5'	2.02	0.60
23:W:7:G:H2'	23:W:50:G:OP1	2.02	0.60
2:A:437:U:C5'	5:D:155:LEU:HD13	2.31	0.59
14:M:22:ILE:CG2	14:M:66:LEU:HD23	2.30	0.59
25:Y:55:U:C2'	25:Y:56:U:H5'	2.32	0.59
7:F:3:ARG:HG3	7:F:3:ARG:HH11	1.67	0.59
4:C:59:ARG:HG2	4:C:63:ASN:O	2.01	0.59
26:Z:225:VAL:HG23	26:Z:301:GLY:H	1.67	0.59
2:A:833:U:H2'	2:A:834:C:C6	2.36	0.59
1:2:18:GLU:O	1:2:119:LEU:HB2	2.01	0.59
2:A:731:G:OP2	2:A:766:A:H1'	2.03	0.59
2:A:204:U:H4'	2:A:216:G:C8	2.37	0.59
2:A:1023:G:H2'	2:A:1024:G:H5'	1.84	0.59
2:A:437:U:H5''	5:D:155:LEU:CD1	2.32	0.59
26:Z:10:PRO:HG2	26:Z:75:ARG:HG2	1.85	0.59
1:2:93:VAL:HA	1:2:98:LEU:CD1	2.32	0.59
25:Y:1:G:H1	25:Y:85:C:H42	1.48	0.59
14:M:3:ARG:HG2	14:M:9:ILE:CG1	2.31	0.59
19:R:50:ILE:HD11	19:R:74:ARG:CZ	2.32	0.59
12:K:48:ILE:HG22	12:K:49:GLY:N	2.15	0.59
11:J:14:LYS:C	11:J:16:LEU:H	2.04	0.59
1:2:144:LEU:HD13	1:2:144:LEU:C	2.21	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:368:U:H5	26:Z:234:ARG:CZ	2.15	0.59
2:A:1348:U:H4'	10:I:120:ARG:HG3	1.84	0.59
2:A:1010:G:N2	2:A:1020:U:H1'	2.16	0.59
2:A:1435:G:H2'	2:A:1436:U:C6	2.37	0.59
9:H:38:ILE:HD11	9:H:118:VAL:O	2.03	0.59
1:2:75:ARG:CD	1:2:77:ARG:HG3	2.27	0.59
2:A:1316:G:H4'	15:N:18:VAL:CG1	2.32	0.59
17:P:15:PRO:HB2	17:P:41:PRO:CG	2.29	0.59
3:B:145:LEU:HD13	3:B:149:LEU:HD12	1.83	0.59
26:Z:21:ASP:N	30:Z:1407:GDP:O1B	2.28	0.59
2:A:1436:U:H2'	2:A:1437:C:C6	2.37	0.59
26:Z:171:ILE:HD12	26:Z:171:ILE:N	2.18	0.59
1:2:55:LEU:HD21	1:2:58:LEU:HD13	1.85	0.59
14:M:90:LEU:HD23	14:M:90:LEU:N	2.16	0.59
2:A:259:G:H1	2:A:267:C:H42	1.50	0.59
3:B:188:ALA:O	3:B:202:PRO:HA	2.01	0.59
6:E:120:THR:HG23	6:E:121:LYS:N	2.18	0.59
2:A:1009:G:H2'	2:A:1010:G:C8	2.37	0.59
3:B:134:GLU:HA	3:B:137:ARG:HB2	1.85	0.59
11:J:43:ARG:HB2	11:J:67:THR:CG2	2.31	0.59
2:A:358:U:H2'	2:A:359:U:C6	2.37	0.59
18:Q:99:SER:O	18:Q:100:LYS:HG3	2.01	0.59
2:A:477:A:O2'	2:A:479:C:H5'	2.03	0.59
1:2:75:ARG:HG2	1:2:77:ARG:NH2	2.18	0.59
2:A:1442(A):G:C3'	2:A:1442(B):A:H5''	2.23	0.59
2:A:218:C:C5'	2:A:470:C:H42	2.15	0.59
15:N:23:ARG:NH1	15:N:30:ALA:HB2	2.17	0.59
12:K:82:VAL:CG1	12:K:108:ILE:HG12	2.32	0.59
2:A:1152:A:H5''	11:J:13:HIS:HB2	1.85	0.59
2:A:250:A:H5''	2:A:251:G:OP1	2.02	0.59
9:H:82:HIS:CD2	9:H:138:TRP:NE1	2.70	0.59
2:A:349:A:O2'	2:A:350:G:H5'	2.02	0.59
21:T:60:GLU:HG3	21:T:81:LYS:HE3	1.84	0.59
21:T:41:ILE:C	21:T:43:LEU:H	2.05	0.59
4:C:165:THR:HG22	4:C:165:THR:O	2.01	0.59
5:D:18:LYS:H	5:D:33:MET:HE3	1.67	0.59
20:S:62:ILE:HA	20:S:66:MET:CE	2.33	0.59
12:K:82:VAL:HG11	12:K:108:ILE:HG12	1.83	0.59
2:A:1134:G:C2'	2:A:1135:U:H5'	2.31	0.59
9:H:109:ILE:HG12	9:H:110:ALA:N	2.15	0.59
3:B:75:LYS:HA	3:B:78:GLN:HE21	1.66	0.59
2:A:236:G:H2'	2:A:237:C:C6	2.37	0.59

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:323:LEU:HB3	26:Z:327:GLU:HG3	1.85	0.59
10:I:10:ARG:HD3	10:I:75:ASP:CB	2.32	0.59
20:S:16:LEU:N	20:S:16:LEU:HD12	2.17	0.59
20:S:18:LYS:HA	20:S:21:GLU:HG2	1.83	0.59
8:G:69:VAL:HG13	8:G:100:ALA:HB1	1.85	0.59
2:A:1409:C:H2'	2:A:1410:G:H8	1.66	0.59
6:E:87:SER:HB3	6:E:131:ILE:CD1	2.32	0.59
3:B:144:ARG:HA	3:B:147:LYS:HB3	1.83	0.59
8:G:15:ASP:HA	8:G:24:THR:CG2	2.33	0.59
2:A:197:A:N6	2:A:221:C:H4'	2.18	0.59
6:E:48:ALA:HB3	6:E:54:ALA:HB2	1.83	0.59
1:2:93:VAL:HA	1:2:98:LEU:HD11	1.84	0.59
14:M:19:LEU:HA	14:M:22:ILE:HD13	1.85	0.59
15:N:26:ARG:HG3	15:N:39:LEU:HD22	1.85	0.59
10:I:112:LYS:HE3	10:I:116:LYS:O	2.03	0.59
2:A:152:A:H62	2:A:169:C:N4	2.01	0.59
2:A:108:G:H5'	2:A:109:A:H5''	1.85	0.59
25:Y:5:G:O2'	25:Y:6:U:H5'	2.03	0.59
19:R:50:ILE:HD11	19:R:74:ARG:NH1	2.18	0.59
8:G:85:TYR:HE2	8:G:154:TYR:HE2	1.51	0.59
18:Q:59:ILE:HG22	18:Q:71:PHE:HD1	1.67	0.59
2:A:662:G:H2'	2:A:663:A:C8	2.38	0.59
2:A:1348:U:O3'	10:I:120:ARG:HG3	2.02	0.59
23:V:70:C:O2'	23:V:71:G:H5'	2.03	0.59
18:Q:52:LYS:HD2	18:Q:52:LYS:H	1.66	0.59
12:K:53:SER:C	12:K:55:LYS:H	2.06	0.59
5:D:142:PRO:HA	5:D:185:PHE:HD2	1.67	0.59
4:C:5:ILE:HG12	4:C:10:PHE:HB2	1.85	0.58
5:D:85:LYS:HZ3	5:D:92:VAL:HG22	1.68	0.58
2:A:1234:C:H1'	2:A:1364:U:O2	2.02	0.58
5:D:100:ARG:HH12	5:D:137:SER:HA	1.68	0.58
2:A:1510:U:H2'	2:A:1511:G:H8	1.68	0.58
17:P:75:ARG:HH11	17:P:75:ARG:HG3	1.68	0.58
10:I:4:TYR:HA	10:I:88:TYR:CD1	2.38	0.58
2:A:1125:U:N3	11:J:5:ARG:CZ	2.65	0.58
3:B:44:LEU:C	3:B:46:LYS:H	2.04	0.58
7:F:34:GLY:O	7:F:68:PRO:HD2	2.03	0.58
17:P:20:VAL:HG21	17:P:32:TYR:CD2	2.36	0.58
12:K:124:LYS:HD2	12:K:125:PHE:HE1	1.68	0.58
1:2:56:GLU:O	1:2:57:ASN:HB2	2.03	0.58
2:A:486:U:H2'	2:A:487:A:H8	1.68	0.58
2:A:1158:C:C2'	2:A:1158:C:O2	2.51	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:28:SER:CB	5:D:29:PRO:CD	2.81	0.58
26:Z:356:PRO:HG2	26:Z:359:VAL:HG21	1.84	0.58
2:A:1137:C:O2'	2:A:1138:G:N2	2.36	0.58
12:K:109:VAL:HG13	19:R:85:LEU:O	2.03	0.58
10:I:58:ARG:HG3	10:I:59:PHE:CD1	2.38	0.58
2:A:1250:A:H2'	2:A:1251:A:H8	1.67	0.58
2:A:176:C:H2'	2:A:177:C:C6	2.38	0.58
9:H:101:PRO:HG2	9:H:133:LEU:HD21	1.85	0.58
2:A:1221:G:OP1	20:S:36:ARG:HD3	2.03	0.58
4:C:47:LEU:HD23	4:C:52:LEU:HD13	1.85	0.58
12:K:22:HIS:HB3	12:K:29:ILE:HG23	1.84	0.58
25:Y:7:G:H5'	25:Y:8:A:H5''	1.85	0.58
10:I:28:VAL:HG21	10:I:33:PHE:HD1	1.68	0.58
2:A:1277:C:H1'	2:A:1282:C:O2	2.04	0.58
3:B:69:LEU:HD23	3:B:159:PRO:HG3	1.84	0.58
12:K:105:VAL:O	12:K:105:VAL:HG23	2.03	0.58
23:W:69:C:O2'	23:W:70:C:H5'	2.04	0.58
2:A:152:A:H62	2:A:169:C:H42	1.52	0.58
2:A:158:G:O2'	2:A:159:G:H5'	2.04	0.58
7:F:26:ILE:O	7:F:29:ALA:HB3	2.03	0.58
3:B:204:ASN:ND2	3:B:207:ALA:N	2.44	0.58
4:C:3:ASN:O	4:C:4:LYS:HB2	2.03	0.58
11:J:43:ARG:HB2	11:J:67:THR:HG22	1.85	0.58
2:A:783:C:O2'	2:A:784:C:H5'	2.04	0.58
16:O:37:ASN:HD22	16:O:37:ASN:N	2.01	0.58
2:A:413:G:H1'	2:A:428:G:H21	1.68	0.58
1:2:6:GLU:C	1:2:41:PHE:HE2	2.07	0.58
3:B:12:GLU:C	3:B:14:GLY:H	2.06	0.58
14:M:49:THR:HB	14:M:52:GLU:H	1.68	0.58
23:W:21:U:H5'	23:W:22:A:OP1	2.03	0.58
12:K:26:ASN:O	12:K:27:ASN:HB2	2.03	0.58
13:L:34:ARG:O	13:L:61:THR:HG23	2.03	0.58
26:Z:75:ARG:HH12	26:Z:210:ILE:HG23	1.69	0.58
26:Z:354:ARG:N	26:Z:371:THR:O	2.36	0.58
2:A:973:G:H1'	11:J:55:LYS:CD	2.34	0.58
1:2:93:VAL:HG12	1:2:94:GLU:N	2.19	0.58
1:2:99:THR:HG22	1:2:100:LEU:N	2.19	0.58
26:Z:363:MET:HG3	26:Z:364:PRO:CD	2.23	0.58
26:Z:222:LEU:HD23	26:Z:223:MET:N	2.18	0.58
2:A:858:G:C8	2:A:858:G:OP1	2.57	0.58
9:H:121:ASP:O	9:H:125:ARG:HB2	2.04	0.58
2:A:161:A:O2'	2:A:162:A:H5'	2.03	0.58

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:K:27:ASN:OD1	12:K:55:LYS:HB3	2.03	0.58
3:B:52:GLU:O	3:B:56:ARG:HB2	2.03	0.58
14:M:79:LYS:O	14:M:82:MET:HG2	2.04	0.58
2:A:537:G:H5''	13:L:113:ARG:NH1	2.19	0.58
6:E:79:GLU:HB3	6:E:92:LYS:HG3	1.85	0.58
2:A:363:A:O2'	2:A:364:A:H5'	2.04	0.58
2:A:407:G:H2'	2:A:408:A:C8	2.39	0.57
25:Y:1:G:P	25:Y:1:G:H8	2.27	0.57
3:B:12:GLU:C	3:B:14:GLY:N	2.55	0.57
25:Y:10:A:C5'	25:Y:11:C:OP2	2.50	0.57
2:A:1370:G:H2'	2:A:1371:G:H8	1.68	0.57
2:A:915:A:C2'	2:A:916:G:H5'	2.33	0.57
2:A:328:C:H2'	2:A:328:C:O2	2.04	0.57
2:A:1246:C:O2'	2:A:1247:U:H5'	2.04	0.57
5:D:173:TRP:O	5:D:174:LEU:HD23	2.04	0.57
26:Z:323:LEU:H	26:Z:323:LEU:HD12	1.68	0.57
11:J:32:ALA:H	11:J:78:ASN:HD21	1.52	0.57
2:A:1015:A:H2'	2:A:1016:A:C8	2.39	0.57
2:A:1301:U:H3'	2:A:1302:U:C5'	2.33	0.57
1:2:68:TYR:OH	26:Z:339:ARG:CZ	2.52	0.57
12:K:123:LYS:HG3	12:K:126:ARG:HH12	1.69	0.57
3:B:84:GLU:HB3	3:B:219:VAL:HG21	1.85	0.57
8:G:148:ASN:C	8:G:150:ALA:H	2.07	0.57
1:2:104:LYS:HD2	1:2:116:LEU:CD2	2.25	0.57
2:A:1316:G:N1	2:A:1319:A:OP2	2.35	0.57
26:Z:163:PHE:O	26:Z:165:GLY:N	2.37	0.57
4:C:99:VAL:O	4:C:99:VAL:HG23	2.04	0.57
2:A:390:C:H2'	2:A:391:G:H8	1.69	0.57
9:H:109:ILE:HD11	9:H:120:THR:HG22	1.85	0.57
2:A:895:G:H2'	2:A:896:C:C6	2.38	0.57
2:A:671:G:O2'	2:A:672:U:H5'	2.04	0.57
5:D:120:LEU:HB3	5:D:126:ILE:HD11	1.86	0.57
14:M:68:GLY:C	14:M:70:LEU:H	2.07	0.57
2:A:1255:G:OP1	11:J:45:ARG:NH2	2.37	0.57
2:A:1320:C:H41	20:S:37:ARG:HB3	1.68	0.57
3:B:67:THR:HG22	3:B:90:MET:CE	2.35	0.57
2:A:838:G:C6	2:A:840:C:H1'	2.39	0.57
26:Z:219:LYS:HB3	26:Z:220:PRO:CD	2.34	0.57
12:K:97:ALA:O	12:K:101:SER:HB3	2.04	0.57
3:B:36:ARG:HG3	3:B:36:ARG:HH11	1.68	0.57
19:R:22:VAL:O	19:R:25:THR:HB	2.04	0.57
11:J:90:LEU:H	11:J:91:PRO:HD3	1.69	0.57

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:T:38:LYS:O	21:T:42:GLN:HB2	2.04	0.57
2:A:1395:C:O2'	2:A:1396:A:H5'	2.04	0.57
5:D:170:VAL:CG2	5:D:176:LEU:HD22	2.35	0.57
25:Y:16:U:O2	25:Y:60:A:N6	2.38	0.57
26:Z:288:LEU:CD2	26:Z:304:LEU:HD13	2.28	0.57
20:S:10:PHE:CZ	20:S:70:LYS:HD2	2.39	0.57
7:F:10:LEU:HD12	7:F:10:LEU:N	2.19	0.57
7:F:8:ILE:HD11	7:F:79:LEU:HD13	1.87	0.57
2:A:1292:U:H2'	2:A:1293:G:C8	2.39	0.57
18:Q:38:ARG:HE	18:Q:38:ARG:HA	1.69	0.57
20:S:16:LEU:O	20:S:18:LYS:N	2.37	0.57
14:M:15:VAL:HG23	14:M:16:ASP:N	2.19	0.57
2:A:266:G:C5'	2:A:267:C:H5	2.18	0.57
2:A:369:C:HO2'	2:A:370:C:H6	1.50	0.57
4:C:47:LEU:HB3	4:C:52:LEU:HD22	1.87	0.57
2:A:1460:A:H2'	2:A:1461:G:O4'	2.04	0.57
23:W:5:G:H1	23:W:69:C:H42	1.53	0.57
26:Z:299:GLU:HB2	26:Z:302:GLN:HE21	1.70	0.57
21:T:89:ARG:NH1	21:T:104:LEU:HD21	2.20	0.57
8:G:50:ILE:O	8:G:54:THR:O	2.23	0.57
26:Z:182:MET:HA	26:Z:182:MET:CE	2.34	0.57
26:Z:88:TYR:N	26:Z:88:TYR:CD1	2.71	0.57
26:Z:253:VAL:HA	26:Z:307:PRO:HD3	1.86	0.57
12:K:82:VAL:HG13	12:K:108:ILE:HG23	1.86	0.57
13:L:32:PHE:HB3	13:L:84:LEU:CD2	2.33	0.57
2:A:376:G:O2'	2:A:377:G:H5'	2.05	0.57
2:A:390:C:H2'	2:A:391:G:C8	2.40	0.57
6:E:98:THR:HB	6:E:117:ASP:HB3	1.87	0.57
18:Q:59:ILE:HG23	18:Q:71:PHE:HB3	1.87	0.57
2:A:1145:C:O2'	2:A:1146:A:H8	1.88	0.57
26:Z:13:ASN:O	26:Z:99:MET:HA	2.04	0.57
5:D:67:ILE:HG21	5:D:196:LEU:HD21	1.86	0.57
1:2:27:LYS:HB3	1:2:30:GLU:HG3	1.87	0.57
25:Y:16:U:H3'	25:Y:17:C:H5''	1.85	0.57
25:Y:84:C:H2'	25:Y:85:C:C5'	2.25	0.57
5:D:96:LEU:HG	5:D:139:ARG:HH21	1.70	0.57
15:N:29:ARG:HH11	15:N:29:ARG:CG	2.17	0.57
10:I:113:LYS:N	10:I:113:LYS:HD2	2.20	0.57
10:I:4:TYR:CE2	10:I:88:TYR:HB2	2.40	0.56
20:S:22:LEU:HD12	20:S:47:HIS:HE1	1.69	0.56
25:Y:75:C:O2	25:Y:75:C:H2'	2.03	0.56
3:B:35:GLU:HG2	3:B:35:GLU:O	2.05	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:135:MET:HE1	26:Z:147:LEU:O	2.05	0.56
6:E:145:LYS:HA	9:H:107:LEU:HD22	1.85	0.56
17:P:44:THR:O	17:P:45:THR:CB	2.53	0.56
17:P:66:PRO:HD2	17:P:71:ARG:HH11	1.70	0.56
5:D:126:ILE:N	5:D:126:ILE:HD12	2.20	0.56
5:D:12:CYS:HA	5:D:19:LEU:CD1	2.30	0.56
5:D:14:ARG:HA	5:D:39:PRO:HG3	1.86	0.56
5:D:187:ARG:HG2	5:D:188:LEU:N	2.21	0.56
26:Z:331:HIS:HD2	26:Z:332:THR:HG23	1.71	0.56
5:D:121:VAL:HG12	5:D:133:VAL:O	2.05	0.56
20:S:64:GLU:O	20:S:67:VAL:HG23	2.03	0.56
14:M:8:GLU:OE1	14:M:67:GLU:HG2	2.05	0.56
3:B:189:ASP:HB3	3:B:203:GLY:O	2.04	0.56
19:R:25:THR:HG21	19:R:42:ARG:CD	2.32	0.56
2:A:1139:G:H4'	2:A:1140:C:O5'	2.05	0.56
17:P:65:GLN:N	17:P:65:GLN:OE1	2.37	0.56
2:A:138:G:O2'	2:A:139:G:H5'	2.05	0.56
2:A:335:C:H2'	2:A:336:C:C6	2.39	0.56
26:Z:150:VAL:O	26:Z:154:VAL:HG23	2.04	0.56
2:A:426:G:P	5:D:36:ARG:HH22	2.28	0.56
26:Z:317:GLU:HA	26:Z:370:PHE:O	2.04	0.56
26:Z:81:ASP:O	26:Z:83:PRO:CD	2.49	0.56
2:A:265:G:C2'	2:A:266:G:H5"	2.33	0.56
13:L:51:ALA:HB3	13:L:53:ARG:NE	2.21	0.56
10:I:99:LEU:C	10:I:101:PHE:H	2.08	0.56
19:R:53:ARG:C	19:R:55:ARG:N	2.56	0.56
17:P:12:LYS:O	17:P:13:HIS:HB2	2.05	0.56
21:T:104:LEU:HD23	21:T:105:SER:N	2.20	0.56
2:A:1497:G:H2'	2:A:1498:U:H5'	1.87	0.56
6:E:6:PHE:HB3	6:E:35:GLY:C	2.25	0.56
2:A:1028:C:N4	2:A:1032:G:H22	2.03	0.56
2:A:895:G:H2'	2:A:896:C:H6	1.70	0.56
16:O:62:GLN:NE2	16:O:62:GLN:HA	2.21	0.56
2:A:1310:G:H2'	2:A:1311:G:H8	1.70	0.56
26:Z:5:PHE:HB2	26:Z:275:LYS:CB	2.35	0.56
8:G:92:SER:O	8:G:96:GLN:HB2	2.05	0.56
3:B:193:ASP:C	3:B:193:ASP:OD1	2.44	0.56
5:D:120:LEU:HB3	5:D:126:ILE:CD1	2.35	0.56
3:B:47:THR:HG22	3:B:51:LEU:HD12	1.87	0.56
11:J:30:SER:CB	11:J:84:GLN:HE22	2.13	0.56
11:J:79:ARG:HA	11:J:82:ILE:HG12	1.87	0.56
2:A:189(J):G:H2'	2:A:189(K):U:C6	2.40	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:818:G:O2'	2:A:819:A:H5'	2.05	0.56
2:A:44:G:H2'	2:A:45:U:O4'	2.06	0.56
7:F:83:ASP:OD1	7:F:83:ASP:N	2.38	0.56
5:D:12:CYS:HA	5:D:19:LEU:HB2	1.88	0.56
20:S:6:LYS:N	20:S:6:LYS:CD	2.69	0.56
2:A:1112:C:C4	4:C:178:LEU:HD22	2.40	0.56
4:C:10:PHE:CZ	4:C:178:LEU:HD11	2.41	0.56
2:A:1286:A:O2'	2:A:1287:A:H4'	2.05	0.56
4:C:113:ALA:HB1	4:C:185:GLY:N	2.21	0.56
6:E:122:GLU:OE2	6:E:131:ILE:HG21	2.06	0.56
1:2:52:GLU:HB2	1:2:54:TYR:CE1	2.40	0.56
2:A:194:C:C2'	2:A:195:A:H5''	2.34	0.56
3:B:215:LEU:O	3:B:219:VAL:HG23	2.04	0.56
2:A:624:C:O3'	17:P:10:GLY:HA2	2.05	0.56
2:A:1310:G:H2'	2:A:1311:G:C8	2.41	0.56
2:A:56:U:H2'	2:A:56:U:O2	2.06	0.56
2:A:1447:A:N3	2:A:1447:A:H2'	2.21	0.56
5:D:162:LEU:HD11	5:D:178:VAL:HG12	1.86	0.56
4:C:5:ILE:CG1	4:C:10:PHE:HB2	2.35	0.56
8:G:67:GLU:C	8:G:69:VAL:H	2.09	0.56
2:A:1286:A:O2'	2:A:1287:A:C5'	2.54	0.56
12:K:58:PRO:HA	12:K:90:GLY:HA2	1.88	0.56
3:B:19:HIS:O	3:B:39:ILE:HG22	2.05	0.56
17:P:28:ARG:NH1	17:P:29:ASP:OD1	2.39	0.56
2:A:407:G:O2'	5:D:116:GLN:HG3	2.05	0.56
2:A:1054:C:C2'	2:A:1055:A:H5''	2.36	0.56
2:A:962:C:O2'	2:A:963:G:H5'	2.05	0.56
10:I:52:ALA:CB	10:I:95:LYS:HB2	2.35	0.56
1:2:47:ARG:C	1:2:53:LEU:HD12	2.26	0.56
1:2:86:LEU:O	1:2:89:LEU:HG	2.06	0.56
26:Z:331:HIS:CD2	26:Z:332:THR:HG23	2.41	0.56
2:A:1330:U:H5'	2:A:1331:G:OP1	2.05	0.56
20:S:46:GLY:H	20:S:62:ILE:HG23	1.71	0.56
26:Z:254:GLU:CG	26:Z:307:PRO:HG3	2.35	0.56
21:T:67:ALA:HA	21:T:72:LEU:O	2.05	0.56
2:A:1221:G:O2'	2:A:1222:G:H5'	2.06	0.56
2:A:254:G:H21	18:Q:16:GLN:HE22	1.54	0.56
2:A:453:A:O2'	2:A:454:C:O4'	2.23	0.56
13:L:43:VAL:HG23	13:L:93:LEU:HD22	1.87	0.56
2:A:1355:G:O2'	2:A:1356:G:H5'	2.05	0.56
5:D:129:ASN:HD21	5:D:144:ASP:CA	2.18	0.56
2:A:792:A:O2'	2:A:793:U:OP2	2.24	0.56

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:78:GLN:C	13:L:80:HIS:H	2.08	0.56
26:Z:182:MET:CE	26:Z:188:THR:HB	2.35	0.56
26:Z:34:VAL:HG11	26:Z:199:ILE:CG2	2.35	0.56
13:L:112:ASP:O	13:L:114:LYS:HG3	2.05	0.56
14:M:54:VAL:HG12	14:M:58:GLU:HG3	1.88	0.56
3:B:74:LYS:NZ	3:B:76:GLN:HE21	2.03	0.56
2:A:1312:G:H2'	2:A:1313:U:H6	1.71	0.56
14:M:3:ARG:CG	14:M:9:ILE:HG12	2.34	0.56
14:M:89:GLY:O	14:M:90:LEU:O	2.24	0.56
2:A:1321:C:C5'	2:A:1322:C:H5''	2.33	0.56
2:A:254:G:O2'	2:A:255:G:H5'	2.06	0.56
2:A:412:A:H4'	2:A:413:G:C8	2.41	0.56
2:A:1058:G:H2'	2:A:1059:C:H6	1.70	0.56
5:D:108:LEU:CD1	5:D:176:LEU:HD13	2.30	0.56
26:Z:215:ARG:O	26:Z:216:ASP:CB	2.53	0.56
26:Z:323:LEU:N	26:Z:323:LEU:CD1	2.69	0.56
14:M:110:ARG:HG2	14:M:110:ARG:HH11	1.71	0.56
2:A:1096:C:O2'	2:A:1097:C:H5'	2.05	0.56
9:H:85:ARG:HG3	9:H:85:ARG:HH11	1.70	0.56
2:A:501:C:H2'	2:A:502:G:C8	2.40	0.56
26:Z:352:VAL:O	26:Z:372:VAL:HA	2.06	0.56
20:S:29:ARG:N	20:S:29:ARG:HD2	2.20	0.56
1:2:6:GLU:N	1:2:6:GLU:CD	2.60	0.56
4:C:6:HIS:HD2	4:C:7:PRO:HD2	1.69	0.56
3:B:138:LEU:C	3:B:140:HIS:H	2.10	0.56
19:R:59:SER:OG	19:R:62:GLU:HG3	2.06	0.56
23:V:22:A:H5'	23:V:23:G:OP1	2.05	0.56
2:A:204:U:H5''	2:A:216:G:O4'	2.05	0.56
3:B:193:ASP:O	3:B:193:ASP:OD1	2.24	0.56
2:A:946:A:H2'	2:A:947:G:C8	2.40	0.56
2:A:426:G:H2'	2:A:427:U:H6	1.70	0.55
26:Z:134:PHE:HD2	26:Z:202:LEU:HD13	1.71	0.55
13:L:18:VAL:CG2	13:L:19:ARG:H	2.03	0.55
26:Z:151:GLU:HG3	26:Z:170:VAL:HG11	1.89	0.55
2:A:403:C:O2'	2:A:404:U:H5'	2.06	0.55
2:A:977:A:O2'	2:A:978:A:C5'	2.54	0.55
2:A:1425:U:O2'	2:A:1426:C:H5'	2.05	0.55
2:A:439:A:C5	2:A:441:A:H1'	2.41	0.55
23:W:26:C:H2'	23:W:27:G:H8	1.71	0.55
2:A:428:G:H4'	2:A:429:U:O5'	2.07	0.55
15:N:57:ARG:NH1	15:N:57:ARG:HB3	2.21	0.55
26:Z:327:GLU:O	26:Z:329:GLY:N	2.40	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:S:66:MET:HG3	20:S:66:MET:O	2.05	0.55
2:A:1269:A:H2	2:A:1312:G:N3	2.03	0.55
3:B:168:THR:O	3:B:171:ALA:HB2	2.06	0.55
17:P:8:ARG:HG2	17:P:8:ARG:NH1	2.21	0.55
2:A:80:G:H22	2:A:89:C:H2'	1.70	0.55
10:I:5:TYR:CD2	10:I:6:GLY:N	2.74	0.55
2:A:585:G:H4'	13:L:8:ASN:ND2	2.21	0.55
7:F:75:LEU:HD12	7:F:75:LEU:O	2.05	0.55
5:D:193:ASP:OD1	5:D:193:ASP:N	2.39	0.55
8:G:135:VAL:O	8:G:138:LYS:HB3	2.06	0.55
2:A:1248:A:C4	2:A:1249:C:C5	2.94	0.55
11:J:65:LEU:CD1	15:N:56:VAL:H	2.19	0.55
2:A:134:A:N6	17:P:25:ARG:HH12	2.02	0.55
2:A:1349:A:H2'	2:A:1350:A:O4'	2.06	0.55
6:E:77:PRO:HD2	6:E:142:LEU:HD22	1.87	0.55
2:A:162:A:C5	2:A:163:C:H1'	2.41	0.55
2:A:256:U:O2'	2:A:257:G:H5'	2.06	0.55
2:A:1343:G:H2'	2:A:1344:C:C6	2.40	0.55
26:Z:87:ASP:HB2	26:Z:88:TYR:CD1	2.42	0.55
14:M:68:GLY:N	14:M:71:ARG:HB3	2.12	0.55
2:A:149:A:H2'	2:A:150:C:C6	2.41	0.55
7:F:42:GLU:C	7:F:44:GLY:H	2.09	0.55
2:A:67:C:H2'	2:A:68:G:C8	2.41	0.55
2:A:1119:C:O2'	2:A:1120:G:H5'	2.07	0.55
1:2:99:THR:H	1:2:120:ALA:HB3	1.70	0.55
26:Z:324:LYS:HG2	26:Z:325:LYS:N	2.21	0.55
26:Z:255:ILE:HG22	26:Z:302:GLN:OE1	2.07	0.55
2:A:858:G:O6	2:A:869:G:N7	2.38	0.55
15:N:23:ARG:HD2	15:N:28:GLY:O	2.06	0.55
12:K:98:LEU:O	12:K:101:SER:OG	2.23	0.55
4:C:52:LEU:HD12	4:C:55:VAL:HG22	1.87	0.55
2:A:134:A:H1'	2:A:325:A:C5	2.42	0.55
2:A:80:G:H5'	2:A:82:U:OP2	2.07	0.55
19:R:71:LYS:O	19:R:75:ILE:HG13	2.06	0.55
26:Z:224:PRO:CG	26:Z:345:ARG:HD3	2.29	0.55
21:T:100:ILE:O	21:T:102:GLY:N	2.37	0.55
4:C:92:ALA:HB2	4:C:99:VAL:HG22	1.88	0.55
3:B:177:ALA:HB1	3:B:182:ILE:HB	1.89	0.55
2:A:723:U:O2	2:A:723:U:H2'	2.07	0.55
2:A:628:G:O2'	2:A:629:G:H5'	2.06	0.55
10:I:63:ILE:HD11	10:I:81:ILE:HD11	1.88	0.55
13:L:80:HIS:N	13:L:80:HIS:CD2	2.74	0.55

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:G:34:GLY:O	8:G:36:LYS:N	2.36	0.55
2:A:35:G:H2'	2:A:36:C:C6	2.42	0.55
6:E:64:ARG:HH11	6:E:64:ARG:HG3	1.72	0.55
5:D:31:CYS:C	5:D:33:MET:H	2.08	0.55
2:A:1367:C:H5'	11:J:60:ARG:CZ	2.37	0.55
26:Z:145:GLU:O	26:Z:146:LEU:C	2.45	0.55
20:S:46:GLY:N	20:S:62:ILE:HG23	2.22	0.55
12:K:54:ARG:O	12:K:57:THR:HG22	2.07	0.55
9:H:11:THR:HG22	9:H:15:ASN:HD21	1.72	0.55
2:A:524:G:H2'	2:A:525:C:H6	1.69	0.55
26:Z:182:MET:HE3	26:Z:188:THR:HB	1.87	0.55
2:A:600:C:OP1	9:H:97:VAL:HG12	2.07	0.55
6:E:68:GLU:HG3	6:E:68:GLU:O	2.05	0.55
3:B:69:LEU:CD2	3:B:155:LEU:HG	2.36	0.55
15:N:22:THR:OG1	15:N:33:VAL:HG21	2.07	0.55
2:A:386:C:O2'	2:A:387:U:H5'	2.06	0.55
24:X:16:U:O2'	24:X:17:G:H5'	2.07	0.55
10:I:112:LYS:O	10:I:112:LYS:HD3	2.06	0.55
2:A:409:G:H4'	5:D:24:GLU:OE1	2.07	0.55
26:Z:13:ASN:O	26:Z:100:ASP:N	2.38	0.55
26:Z:314:THR:HG22	26:Z:377:PRO:HA	1.88	0.55
2:A:1319:A:C6	2:A:1323:G:H1'	2.42	0.55
26:Z:226:GLU:O	26:Z:300:ARG:HD2	2.06	0.55
25:Y:63:U:O2'	26:Z:339:ARG:HD2	2.06	0.55
11:J:27:ALA:HB1	11:J:34:VAL:HG21	1.89	0.55
10:I:95:LYS:HD3	10:I:95:LYS:C	2.28	0.55
14:M:42:ALA:O	14:M:43:THR:O	2.25	0.55
26:Z:385:ARG:HG2	26:Z:399:VAL:CG1	2.36	0.55
1:2:140:ALA:HB1	6:E:51:VAL:HG21	1.88	0.55
13:L:27:LEU:HB3	13:L:33:ARG:NH1	2.22	0.55
2:A:1013:G:H2'	2:A:1015:A:OP1	2.06	0.55
2:A:135:C:C2'	2:A:136:C:H5'	2.37	0.55
26:Z:150:VAL:HA	26:Z:153:GLU:CG	2.36	0.55
3:B:79:ASP:C	3:B:81:VAL:H	2.10	0.55
2:A:346:G:H2'	2:A:346:G:N3	2.22	0.55
2:A:545:C:O2'	2:A:546:G:H5'	2.07	0.55
9:H:30:ARG:HB3	9:H:30:ARG:NH1	2.21	0.55
2:A:1053:G:H4'	2:A:1054:C:C5'	2.28	0.54
10:I:88:TYR:O	10:I:89:ASN:CB	2.55	0.54
26:Z:88:TYR:N	26:Z:88:TYR:HD1	2.03	0.54
15:N:15:LYS:HB3	15:N:16:PHE:CD2	2.41	0.54
2:A:1308:U:OP2	14:M:98:VAL:HG23	2.07	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1505:G:H4'	2:A:1506:U:C5'	2.37	0.54
9:H:11:THR:HG22	9:H:15:ASN:ND2	2.21	0.54
4:C:46:GLU:O	4:C:47:LEU:CB	2.54	0.54
7:F:100:ASN:HD21	19:R:23:LYS:HG2	1.69	0.54
4:C:116:VAL:HG21	4:C:202:ILE:HD11	1.88	0.54
2:A:1530:G:H2'	2:A:1531:A:O5'	2.07	0.54
15:N:59:ALA:O	15:N:60:SER:CB	2.55	0.54
11:J:26:ALA:HB3	11:J:85:LEU:HD21	1.88	0.54
14:M:6:GLY:C	14:M:8:GLU:N	2.59	0.54
10:I:110:GLU:OE2	10:I:113:LYS:NZ	2.40	0.54
23:V:5:G:O2'	23:V:6:G:H5'	2.07	0.54
20:S:79:THR:O	20:S:80:TYR:HB3	2.06	0.54
26:Z:140:MET:CE	26:Z:140:MET:CA	2.85	0.54
2:A:822:C:O2'	2:A:823:G:H5'	2.08	0.54
8:G:44:TYR:HE2	10:I:41:VAL:HG11	1.70	0.54
4:C:150:LYS:HE3	4:C:167:TRP:HE1	1.72	0.54
4:C:150:LYS:HE3	4:C:167:TRP:NE1	2.21	0.54
2:A:1367:C:H5'	11:J:60:ARG:NH2	2.21	0.54
5:D:173:TRP:CZ3	5:D:193:ASP:HB3	2.41	0.54
26:Z:215:ARG:CB	26:Z:215:ARG:HH11	2.20	0.54
1:2:22:ALA:HB1	1:2:80:LEU:O	2.05	0.54
10:I:104:ARG:HG2	10:I:105:ASP:N	2.23	0.54
20:S:78:ARG:O	20:S:81:ARG:HD3	2.08	0.54
14:M:116:THR:HG22	14:M:118:ALA:H	1.71	0.54
23:V:30:G:O2'	23:V:31:G:H5'	2.07	0.54
25:Y:11:C:C4'	25:Y:12:G:OP1	2.52	0.54
2:A:77:G:H5'	2:A:78:G:OP1	2.07	0.54
15:N:22:THR:O	15:N:23:ARG:HB3	2.07	0.54
23:W:41:C:H2'	23:W:42:C:C6	2.43	0.54
2:A:381:C:H2'	2:A:382:A:O4'	2.07	0.54
2:A:60:A:H4'	2:A:61:G:O5'	2.07	0.54
23:V:18:U:H4'	23:V:19:G:OP1	2.05	0.54
2:A:1439:C:H42	2:A:1462:G:H1	1.56	0.54
5:D:90:GLY:O	5:D:200:GLU:HG3	2.06	0.54
12:K:87:THR:HG22	12:K:88:GLY:H	1.73	0.54
20:S:61:TYR:O	20:S:62:ILE:CB	2.55	0.54
2:A:1277:C:O2'	2:A:1279:A:H8	1.91	0.54
26:Z:20:VAL:HG22	26:Z:115:GLN:OE1	2.07	0.54
13:L:27:LEU:HD12	13:L:28:LYS:HG3	1.90	0.54
16:O:87:ILE:CG2	16:O:88:ARG:N	2.70	0.54
26:Z:277:LEU:HD13	26:Z:278:GLN:H	1.72	0.54
2:A:1436:U:H2'	2:A:1437:C:H6	1.72	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:75:LYS:HG2	3:B:78:GLN:NE2	2.22	0.54
4:C:126:ARG:O	4:C:127:ARG:HB2	2.07	0.54
7:F:72:VAL:HG13	7:F:73:ASN:N	2.23	0.54
2:A:1059:C:O2'	2:A:1060:C:H5'	2.07	0.54
1:2:48:PHE:HZ	1:2:90:LEU:HA	1.68	0.54
1:2:60:ILE:HG22	1:2:60:ILE:O	2.07	0.54
1:2:53:LEU:HD23	1:2:79:LEU:HD12	1.89	0.54
26:Z:84:GLY:O	26:Z:85:HIS:HB2	2.06	0.54
10:I:108:VAL:HG12	10:I:109:VAL:N	2.22	0.54
22:U:12:LYS:HB3	22:U:22:ARG:HD2	1.89	0.54
2:A:1217:C:H2'	2:A:1218:C:C6	2.42	0.54
6:E:33:VAL:HG12	6:E:112:LEU:CD1	2.36	0.54
2:A:221:C:H2'	2:A:222:U:H6	1.72	0.54
2:A:948:C:H2'	2:A:949:A:H8	1.73	0.54
19:R:88:LYS:HD3	19:R:88:LYS:C	2.27	0.54
2:A:426:G:OP1	5:D:36:ARG:NH1	2.40	0.54
26:Z:98:GLN:O	26:Z:99:MET:O	2.26	0.54
11:J:54:PHE:C	11:J:55:LYS:HE3	2.28	0.54
26:Z:382:GLU:O	26:Z:400:VAL:O	2.26	0.54
14:M:39:ILE:HG22	14:M:40:ASN:N	2.22	0.54
12:K:99:GLN:HG2	12:K:105:VAL:HG11	1.90	0.54
3:B:17:PHE:O	3:B:18:GLY:O	2.24	0.54
19:R:25:THR:HG22	19:R:42:ARG:HH11	1.71	0.54
2:A:1081:G:O2'	2:A:1082:G:H5'	2.08	0.54
1:2:133:LYS:HD3	2:A:16:A:OP1	2.07	0.54
3:B:130:ARG:NH2	3:B:134:GLU:HG3	2.23	0.54
13:L:6:THR:H	13:L:9:GLN:NE2	2.05	0.54
9:H:36:LEU:HA	9:H:39:LEU:HD23	1.90	0.54
2:A:560:U:H5'	2:A:566:G:N2	2.23	0.54
14:M:106:ASN:O	14:M:107:ALA:HB3	2.07	0.54
2:A:580:U:H2'	2:A:581:G:O4'	2.08	0.54
26:Z:325:LYS:HE3	26:Z:331:HIS:HB2	1.88	0.54
26:Z:224:PRO:CB	26:Z:346:THR:HG23	2.38	0.54
18:Q:52:LYS:HD3	18:Q:55:ASP:OD2	2.08	0.54
2:A:689:C:P	12:K:46:GLY:HA3	2.48	0.54
1:2:28:GLY:CA	1:2:31:VAL:HG23	2.38	0.54
11:J:40:LEU:CD2	11:J:40:LEU:H	2.11	0.54
26:Z:19:HIS:HD2	26:Z:115:GLN:N	1.98	0.54
2:A:538:G:O2'	2:A:539:A:H5'	2.08	0.54
7:F:3:ARG:NH1	7:F:66:GLU:HB2	2.23	0.54
2:A:397:A:N3	2:A:397:A:H3'	2.23	0.54
26:Z:338:TYR:CD2	26:Z:340:PRO:HD3	2.43	0.54

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:671:G:C2'	2:A:672:U:H5'	2.37	0.54
14:M:56:LEU:C	14:M:56:LEU:HD13	2.28	0.54
2:A:948:C:O2'	2:A:949:A:H5'	2.07	0.54
12:K:87:THR:HG22	12:K:88:GLY:N	2.23	0.54
5:D:76:ARG:O	5:D:80:GLU:HG2	2.08	0.54
2:A:1191:A:H2'	2:A:1192:C:C6	2.43	0.54
5:D:31:CYS:SG	5:D:31:CYS:O	2.66	0.54
2:A:961:U:O2'	2:A:962:C:H6	1.91	0.54
25:Y:1:G:H1	25:Y:85:C:N4	2.05	0.54
2:A:1285:A:H4'	2:A:1286:A:O5'	2.08	0.54
5:D:89:THR:C	5:D:91:SER:H	2.11	0.54
25:Y:56:U:H2'	25:Y:57:U:C6	2.43	0.54
23:W:54:G:N2	23:W:63:C:H1'	2.23	0.54
19:R:53:ARG:O	19:R:55:ARG:N	2.41	0.54
6:E:12:LEU:HD13	6:E:31:LEU:HB3	1.90	0.54
8:G:54:THR:C	8:G:56:GLN:H	2.11	0.54
17:P:58:TYR:CD1	17:P:58:TYR:C	2.80	0.54
23:W:51:U:H2'	23:W:52:C:C6	2.43	0.54
2:A:1406:U:O2'	2:A:1407:C:H5'	2.07	0.54
26:Z:69:GLU:OE2	26:Z:76:HIS:NE2	2.41	0.54
26:Z:317:GLU:HA	26:Z:371:THR:HA	1.90	0.54
25:Y:12:G:N2	25:Y:70:G:C4	2.76	0.54
2:A:523:A:N6	13:L:53:ARG:HH12	2.06	0.54
11:J:82:ILE:CG2	11:J:86:MET:HB2	2.38	0.54
2:A:377:G:O2'	2:A:378:G:H5'	2.08	0.54
2:A:137:C:H42	2:A:226:G:H1	1.56	0.54
17:P:2:VAL:O	17:P:64:ALA:HA	2.07	0.54
2:A:1111:A:H8	2:A:1111:A:O5'	1.91	0.54
2:A:436:C:H2'	2:A:437:U:C6	2.43	0.53
9:H:14:ARG:HG3	9:H:83:ILE:CG2	2.39	0.53
21:T:100:ILE:HD12	21:T:100:ILE:H	1.72	0.53
11:J:33:GLN:HB2	11:J:75:ILE:CD1	2.39	0.53
6:E:43:LEU:HD23	6:E:133:TYR:CD1	2.43	0.53
4:C:77:ILE:HA	4:C:84:ILE:HG22	1.90	0.53
23:W:68:C:H2'	23:W:69:C:C6	2.43	0.53
2:A:778:G:O2'	2:A:779:C:H5'	2.08	0.53
22:U:5:ASP:O	22:U:7:ARG:N	2.41	0.53
2:A:434:U:H2'	2:A:435:C:C6	2.44	0.53
26:Z:210:ILE:O	26:Z:210:ILE:HG23	2.07	0.53
5:D:192:GLU:O	5:D:195:ALA:N	2.41	0.53
10:I:53:VAL:O	10:I:54:ASP:HB2	2.08	0.53
26:Z:121:LEU:O	26:Z:125:GLN:HG2	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:M:10:PRO:HB3	14:M:18:ALA:HB1	1.90	0.53
15:N:4:LYS:HD2	15:N:7:ILE:CD1	2.38	0.53
5:D:85:LYS:HD3	5:D:92:VAL:CG1	2.31	0.53
2:A:368:U:P	26:Z:291:ARG:HH11	2.30	0.53
23:W:54:G:H2'	23:W:55:U:H6	1.73	0.53
18:Q:5:VAL:HA	18:Q:59:ILE:O	2.08	0.53
2:A:1342:C:H4'	10:I:125:TYR:HB3	1.91	0.53
13:L:6:THR:H	13:L:9:GLN:HE21	1.56	0.53
2:A:1230:C:O2'	2:A:1231:G:H5'	2.08	0.53
2:A:592:G:O2'	2:A:593:G:H5'	2.08	0.53
2:A:976:G:H5'	2:A:1358:U:O2'	2.09	0.53
20:S:40:ILE:HG23	20:S:62:ILE:HD11	1.90	0.53
8:G:127:ALA:HA	8:G:135:VAL:CG2	2.38	0.53
26:Z:168:VAL:HG23	26:Z:209:TYR:OH	2.06	0.53
2:A:455:C:H42	2:A:476:G:H1	1.56	0.53
2:A:1151:A:O2'	2:A:1152:A:H8	1.87	0.53
2:A:1248:A:C2'	2:A:1249:C:H5'	2.38	0.53
18:Q:26:GLN:HG2	18:Q:37:LYS:HG3	1.89	0.53
16:O:82:ILE:HD11	16:O:87:ILE:O	2.08	0.53
4:C:101:LEU:C	4:C:101:LEU:HD23	2.29	0.53
26:Z:14:VAL:HG23	26:Z:101:GLY:O	2.08	0.53
3:B:15:VAL:C	3:B:16:HIS:CG	2.81	0.53
2:A:538:G:OP2	13:L:115:LYS:HG3	2.09	0.53
3:B:200:ILE:CD1	3:B:200:ILE:H	2.19	0.53
23:W:62:C:C2'	23:W:63:C:H5'	2.39	0.53
2:A:443:C:O2'	2:A:444:C:H5'	2.08	0.53
8:G:108:ALA:CB	8:G:120:ILE:HD13	2.38	0.53
9:H:20:TYR:CE2	9:H:75:ARG:HD2	2.42	0.53
25:Y:63:U:O2'	25:Y:64:G:H5'	2.07	0.53
12:K:121:PRO:HB2	12:K:125:PHE:HB2	1.90	0.53
26:Z:210:ILE:O	26:Z:210:ILE:CG2	2.57	0.53
20:S:22:LEU:HD12	20:S:47:HIS:CE1	2.43	0.53
26:Z:384:LEU:O	26:Z:400:VAL:HG23	2.09	0.53
14:M:88:ARG:HG3	14:M:98:VAL:HG11	1.90	0.53
1:2:32:LYS:CE	1:2:32:LYS:HA	2.33	0.53
23:W:58:A:H2'	23:W:59:A:H5'	1.89	0.53
2:A:376:G:P	17:P:67:THR:HG21	2.49	0.53
2:A:424:G:H2'	2:A:425:G:C8	2.42	0.53
6:E:82:VAL:HG11	6:E:137:GLU:HB3	1.89	0.53
4:C:35:GLU:OE1	4:C:59:ARG:NH1	2.42	0.53
3:B:75:LYS:HA	3:B:78:GLN:NE2	2.23	0.53
12:K:44:SER:OG	12:K:47:VAL:HG23	2.09	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:J:48:THR:HA	11:J:62:HIS:CB	2.29	0.53
5:D:117:ALA:O	5:D:121:VAL:HG23	2.09	0.53
5:D:145:GLU:HA	5:D:184:LYS:HA	1.91	0.53
2:A:1312:G:H2'	2:A:1313:U:C6	2.44	0.53
11:J:16:LEU:HD13	11:J:17:ASP:N	2.23	0.53
26:Z:236:THR:O	26:Z:289:LEU:HD12	2.09	0.53
4:C:52:LEU:HD12	4:C:55:VAL:CG2	2.38	0.53
10:I:7:THR:CG2	10:I:8:GLY:N	2.71	0.53
2:A:149:A:H2'	2:A:150:C:H6	1.74	0.53
2:A:1158:C:H2'	2:A:1158:C:O2	2.08	0.53
21:T:42:GLN:HA	21:T:42:GLN:NE2	2.23	0.53
2:A:473:G:H2'	2:A:474:G:H8	1.73	0.53
15:N:57:ARG:CB	15:N:57:ARG:HH11	2.20	0.53
5:D:106:TYR:CE1	5:D:113:SER:HA	2.44	0.53
16:O:17:ARG:NH1	16:O:77:ARG:NH1	2.56	0.53
2:A:878:G:C5'	9:H:89:PRO:HG2	2.39	0.53
2:A:900:A:H2'	2:A:901:A:C8	2.43	0.53
2:A:668:G:O4'	16:O:49:ASP:HB2	2.09	0.53
2:A:412:A:H4'	2:A:413:G:H8	1.74	0.53
2:A:1057:G:O2'	2:A:1058:G:H5'	2.09	0.53
2:A:1316:G:O3'	15:N:18:VAL:HG22	2.09	0.53
2:A:1442(A):G:H5'	2:A:1442(B):A:O5'	2.09	0.53
26:Z:253:VAL:HG21	26:Z:304:LEU:HD22	1.90	0.53
11:J:30:SER:HB2	11:J:80:LYS:HZ2	1.74	0.53
14:M:52:GLU:HA	14:M:55:ARG:HB3	1.90	0.53
12:K:21:ILE:HA	12:K:30:VAL:HG12	1.90	0.53
3:B:36:ARG:HA	3:B:36:ARG:CZ	2.39	0.53
23:W:63:C:H2'	23:W:64:G:N7	2.24	0.53
8:G:26:PHE:CE2	8:G:30:ILE:HD11	2.43	0.53
19:R:31:LEU:CD2	19:R:31:LEU:H	2.21	0.53
2:A:405:U:H5''	2:A:406:G:O4'	2.08	0.53
2:A:64:G:H4'	2:A:65:U:C5'	2.39	0.53
2:A:966:G:O2'	2:A:967:C:H6	1.90	0.53
21:T:16:HIS:O	21:T:19:SER:HB3	2.08	0.53
21:T:53:LEU:N	21:T:53:LEU:HD12	2.24	0.53
5:D:127:THR:HG22	5:D:128:VAL:N	2.22	0.53
26:Z:77:TYR:OH	26:Z:206:ILE:HG22	2.09	0.53
1:2:26:LEU:HD13	1:2:77:ARG:HD3	1.90	0.53
26:Z:265:THR:CG2	26:Z:266:VAL:H	2.04	0.53
12:K:92:GLU:CG	12:K:96:ARG:NH1	2.69	0.53
13:L:42:THR:HG23	13:L:42:THR:O	2.08	0.53
3:B:25:ASN:HB2	3:B:191:ASP:O	2.07	0.53

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:16:A:O2'	2:A:17:U:H5'	2.09	0.53
19:R:53:ARG:HH21	19:R:59:SER:HA	1.74	0.53
8:G:16:LEU:HD13	10:I:42:ARG:HA	1.90	0.53
2:A:191:G:C4	21:T:105:SER:HB3	2.44	0.53
8:G:8:GLU:HG3	8:G:8:GLU:O	2.09	0.53
2:A:130:A:C8	18:Q:63:ARG:HG3	2.44	0.53
2:A:130:A:H1'	2:A:263:A:O2'	2.09	0.53
21:T:26:ASN:HB2	21:T:71:THR:HG23	1.90	0.53
14:M:56:LEU:HD13	14:M:57:ARG:N	2.24	0.53
18:Q:48:GLU:O	18:Q:49:GLU:HB2	2.08	0.53
20:S:43:GLU:C	20:S:45:VAL:H	2.09	0.53
5:D:17:VAL:O	5:D:17:VAL:HG12	2.09	0.53
26:Z:99:MET:CE	26:Z:102:ALA:HB2	2.34	0.53
1:2:8:ARG:H	1:2:8:ARG:HD3	1.54	0.53
26:Z:327:GLU:HA	29:Z:1406:KIR:C10	2.32	0.53
14:M:83:ASP:C	14:M:85:GLY:H	2.11	0.53
4:C:16:ARG:HH11	4:C:16:ARG:HB2	1.73	0.53
11:J:45:ARG:NE	15:N:36:PHE:CD2	2.77	0.53
2:A:1152:A:H5'	11:J:70:ARG:HH22	1.73	0.53
3:B:200:ILE:HG22	3:B:201:ILE:N	2.24	0.53
10:I:48:GLU:N	10:I:49:PRO:HD2	2.23	0.53
10:I:99:LEU:HD22	10:I:99:LEU:H	1.74	0.53
6:E:6:PHE:HD2	6:E:36:ASP:N	2.07	0.53
2:A:659:U:C2'	2:A:660:G:H5'	2.38	0.53
2:A:39:G:O2'	2:A:40:C:H5'	2.09	0.53
15:N:32:SER:O	15:N:40:CYS:HA	2.08	0.52
14:M:73:GLU:O	14:M:77:ASN:ND2	2.41	0.52
7:F:67:MET:HB2	7:F:68:PRO:CD	2.32	0.52
11:J:79:ARG:HG2	11:J:79:ARG:NH1	2.24	0.52
3:B:71:VAL:HB	3:B:164:VAL:HG22	1.92	0.52
3:B:162:ILE:HG22	3:B:182:ILE:CG2	2.39	0.52
12:K:53:SER:O	12:K:55:LYS:N	2.42	0.52
2:A:840:C:H5'	2:A:841:U:OP2	2.09	0.52
5:D:67:ILE:O	5:D:67:ILE:HG23	2.08	0.52
10:I:85:LEU:HD13	10:I:92:TYR:CD2	2.43	0.52
14:M:83:ASP:CG	14:M:84:ILE:H	2.11	0.52
14:M:83:ASP:OD1	14:M:84:ILE:N	2.43	0.52
2:A:1308:U:H5'	14:M:110:ARG:HD2	1.91	0.52
2:A:1372:U:OP1	10:I:71:SER:HB3	2.09	0.52
2:A:892:A:O2'	2:A:1415:G:H4'	2.08	0.52
1:2:142:GLU:HG3	5:D:49:ARG:HG2	1.91	0.52
2:A:499:A:H4'	2:A:500:G:H5'	1.91	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:66:C:H2'	23:W:67:C:C5	2.44	0.52
2:A:22:G:H2'	2:A:23:C:C6	2.43	0.52
1:2:124:LYS:O	1:2:124:LYS:HD2	2.09	0.52
3:B:160:ASP:O	3:B:183:PRO:HD2	2.09	0.52
2:A:1397:C:C2'	2:A:1397:C:O2	2.57	0.52
21:T:74:LYS:HG2	21:T:75:ASN:H	1.75	0.52
3:B:91:PRO:HG2	3:B:155:LEU:HD23	1.91	0.52
2:A:458:C:H2'	2:A:460:G:C8	2.44	0.52
2:A:369:C:O2'	2:A:370:C:H6	1.91	0.52
17:P:20:VAL:HG21	17:P:32:TYR:CD1	2.43	0.52
26:Z:341:GLN:NE2	26:Z:348:ASP:OD2	2.38	0.52
2:A:899:C:O5'	2:A:899:C:H6	1.92	0.52
2:A:408:A:H4'	5:D:112:VAL:CG1	2.39	0.52
2:A:975:A:N6	11:J:60:ARG:HH12	2.07	0.52
7:F:10:LEU:HA	7:F:84:ASN:O	2.08	0.52
5:D:59:ARG:HE	5:D:59:ARG:CA	2.17	0.52
10:I:99:LEU:N	10:I:99:LEU:HD22	2.24	0.52
2:A:918:A:H2'	2:A:919:A:H8	1.74	0.52
19:R:58:LEU:HD22	19:R:62:GLU:HB3	1.91	0.52
2:A:769:G:O2'	2:A:770:C:H5'	2.08	0.52
2:A:600:C:H2'	2:A:601:C:C6	2.44	0.52
18:Q:9:VAL:HG23	18:Q:11:VAL:HG13	1.92	0.52
2:A:1431:C:H2'	2:A:1432:G:H5'	1.90	0.52
12:K:73:MET:C	12:K:75:TYR:H	2.13	0.52
2:A:530:G:H3'	2:A:531:U:C5'	2.39	0.52
2:A:1469:G:O2'	2:A:1470:G:H5'	2.09	0.52
2:A:442:C:H42	2:A:492:G:H1	1.58	0.52
2:A:1037:C:H6	2:A:1037:C:O5'	1.91	0.52
5:D:23:GLY:HA3	5:D:112:VAL:HG22	1.90	0.52
5:D:107:ARG:HD2	5:D:173:TRP:CZ2	2.45	0.52
14:M:34:LEU:HD13	14:M:41:PRO:HA	1.92	0.52
14:M:87:TYR:C	14:M:89:GLY:N	2.61	0.52
3:B:72:GLY:HA2	3:B:165:VAL:CG2	2.38	0.52
2:A:1372:U:H5''	10:I:71:SER:HB3	1.91	0.52
3:B:88:ALA:HB2	3:B:219:VAL:HG13	1.92	0.52
2:A:1139:G:H5'	2:A:1140:C:OP2	2.09	0.52
20:S:9:VAL:O	20:S:11:VAL:HG12	2.10	0.52
2:A:1288:A:C2	2:A:1289:A:C4	2.98	0.52
6:E:15:ARG:CZ	6:E:26:PHE:CD2	2.93	0.52
26:Z:132:VAL:HG11	26:Z:206:ILE:HD11	1.92	0.52
11:J:54:PHE:CG	11:J:55:LYS:HE3	2.45	0.52
26:Z:324:LYS:HG3	26:Z:364:PRO:CB	2.38	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:3:ARG:O	5:D:4:TYR:C	2.48	0.52
2:A:1189:C:H5''	4:C:5:ILE:CG2	2.38	0.52
3:B:14:GLY:O	3:B:15:VAL:CG2	2.50	0.52
26:Z:385:ARG:HG2	26:Z:399:VAL:HG13	1.90	0.52
2:A:1458:G:H2'	2:A:1459:C:C6	2.45	0.52
2:A:509:A:H2	2:A:544:G:O4'	1.93	0.52
21:T:82:SER:O	21:T:86:ARG:HD3	2.10	0.52
2:A:143:A:H2	2:A:220:G:O6	1.92	0.52
3:B:111:ARG:HH11	3:B:111:ARG:HG2	1.74	0.52
3:B:178:ARG:HH22	9:H:68:ARG:HH12	1.58	0.52
2:A:236:G:H2'	2:A:237:C:H6	1.75	0.52
4:C:150:LYS:HE2	4:C:152:ILE:HD11	1.91	0.52
23:W:52:C:H2'	23:W:53:G:C8	2.45	0.52
12:K:73:MET:SD	12:K:103:LEU:HD22	2.50	0.52
2:A:1039:C:C5	2:A:1040:U:H5	2.28	0.52
7:F:77:ARG:HH11	7:F:77:ARG:HG2	1.74	0.52
5:D:38:TYR:N	5:D:38:TYR:CD1	2.77	0.52
1:2:103:LEU:HB2	1:2:116:LEU:O	2.10	0.52
4:C:7:PRO:O	4:C:11:ARG:HG2	2.10	0.52
2:A:719:C:O2'	19:R:49:LYS:HB3	2.10	0.52
2:A:1411:C:C2	2:A:1490:A:H2	2.27	0.52
4:C:34:LEU:HD23	4:C:34:LEU:C	2.30	0.52
2:A:371:G:N2	2:A:374:A:N6	2.58	0.52
10:I:43:ALA:HB2	10:I:74:ILE:HD13	1.91	0.52
3:B:100:GLY:N	3:B:176:GLU:OE2	2.36	0.52
17:P:44:THR:O	17:P:45:THR:HB	2.08	0.52
4:C:35:GLU:OE2	4:C:95:THR:HG23	2.10	0.52
3:B:86:GLU:C	3:B:88:ALA:H	2.13	0.52
3:B:44:LEU:C	3:B:46:LYS:N	2.61	0.52
2:A:460:G:C6	2:A:470:C:H5''	2.45	0.52
2:A:957:U:O2	2:A:959:A:H8	1.93	0.52
2:A:202:U:C2'	2:A:203:U:OP2	2.57	0.52
15:N:32:SER:HB3	15:N:41:ARG:HB3	1.92	0.52
1:2:107:PHE:HA	1:2:112:TYR:O	2.10	0.52
14:M:89:GLY:O	14:M:93:ARG:HD3	2.09	0.52
2:A:1015:A:H1'	2:A:1218:C:O2'	2.09	0.52
2:A:390:C:O3'	17:P:28:ARG:NH2	2.41	0.52
2:A:1292:U:H2'	2:A:1293:G:H8	1.74	0.52
23:V:4:G:HO2'	23:V:5:G:H8	1.58	0.52
14:M:57:ARG:C	14:M:59:TYR:N	2.61	0.52
25:Y:15:C:H2'	25:Y:15:C:O2	2.09	0.52
4:C:180:ALA:O	4:C:181:ASN:HB3	2.09	0.52

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:172:ILE:H	3:B:172:ILE:CD1	1.99	0.52
21:T:48:LYS:O	21:T:52:ALA:N	2.42	0.52
2:A:22:G:O2'	2:A:23:C:H5'	2.09	0.52
2:A:1431:C:C2'	2:A:1432:G:H5'	2.40	0.52
23:V:50:G:H1	23:V:66:C:H42	1.56	0.52
2:A:461:A:N7	2:A:471:G:N7	2.58	0.52
11:J:35:SER:OG	11:J:73:ASP:HB2	2.10	0.51
1:2:99:THR:HB	1:2:120:ALA:CB	2.39	0.51
1:2:38:LYS:O	1:2:39:VAL:CG1	2.58	0.51
1:2:99:THR:CG2	1:2:100:LEU:N	2.71	0.51
3:B:121:LEU:HD23	3:B:139:LYS:HZ3	1.75	0.51
4:C:29:TYR:HD1	4:C:29:TYR:O	1.93	0.51
19:R:45:SER:O	19:R:46:GLU:CB	2.53	0.51
3:B:155:LEU:HD13	3:B:157:ARG:O	2.09	0.51
6:E:144:THR:O	6:E:145:LYS:C	2.47	0.51
2:A:8:A:O5'	6:E:101:ILE:HG22	2.10	0.51
21:T:81:LYS:O	21:T:85:MET:HG2	2.10	0.51
26:Z:5:PHE:HB2	26:Z:275:LYS:HB2	1.92	0.51
14:M:58:GLU:O	14:M:62:ASN:HB2	2.10	0.51
7:F:99:ALA:O	7:F:100:ASN:HB2	2.09	0.51
2:A:689:C:H4'	2:A:705:U:H1'	1.92	0.51
2:A:797:C:O2'	2:A:798:G:H5'	2.10	0.51
2:A:986:A:H1'	20:S:54:GLY:O	2.09	0.51
11:J:24:VAL:C	11:J:26:ALA:N	2.64	0.51
29:Z:1406:KIR:O30	29:Z:1406:KIR:H473	2.09	0.51
5:D:3:ARG:O	5:D:3:ARG:HD3	2.10	0.51
15:N:12:ARG:NH1	15:N:12:ARG:CB	2.71	0.51
14:M:119:GLY:O	23:V:30:G:OP2	2.28	0.51
2:A:385:C:H2'	2:A:386:C:C6	2.46	0.51
10:I:65:VAL:HG21	10:I:73:GLN:HB3	1.92	0.51
2:A:646:U:H2'	2:A:647:C:H6	1.75	0.51
11:J:50:ILE:HD13	11:J:50:ILE:N	2.01	0.51
11:J:24:VAL:C	11:J:26:ALA:H	2.13	0.51
14:M:40:ASN:HD21	14:M:42:ALA:HB3	1.74	0.51
14:M:81:LEU:HD13	14:M:86:CYS:SG	2.49	0.51
2:A:875:C:H1'	9:H:15:ASN:OD1	2.10	0.51
2:A:586:C:O2'	2:A:878:G:H4'	2.10	0.51
9:H:7:ALA:HB2	9:H:85:ARG:CD	2.39	0.51
2:A:197:A:O2'	2:A:198:G:C8	2.64	0.51
2:A:1211:U:O2'	2:A:1213:A:C2	2.62	0.51
5:D:14:ARG:HA	5:D:39:PRO:CG	2.41	0.51
10:I:53:VAL:HG23	10:I:55:ALA:N	2.26	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:S:44:MET:SD	20:S:44:MET:N	2.84	0.51
26:Z:168:VAL:CG2	26:Z:169:PRO:HD2	2.41	0.51
26:Z:253:VAL:HG23	26:Z:254:GLU:N	2.25	0.51
2:A:1255:G:H3'	2:A:1279:A:N6	2.25	0.51
2:A:1282:C:C2'	2:A:1283:G:H5'	2.39	0.51
11:J:40:LEU:HB2	11:J:41:PRO:HD2	1.92	0.51
12:K:21:ILE:HD11	12:K:98:LEU:HD11	1.91	0.51
2:A:792:A:HO2'	2:A:794:A:H8	1.47	0.51
3:B:178:ARG:NH2	3:B:198:ASP:OD1	2.44	0.51
2:A:557:G:C6	2:A:558:G:C6	2.99	0.51
2:A:70:G:H2'	2:A:71:C:O4'	2.10	0.51
2:A:927:G:H1	2:A:1390:U:H3	1.57	0.51
16:O:38:ARG:HG2	16:O:38:ARG:HH11	1.74	0.51
5:D:13:ARG:O	5:D:14:ARG:HB3	2.11	0.51
11:J:53:PRO:O	15:N:41:ARG:NH2	2.44	0.51
10:I:89:ASN:HB3	10:I:92:TYR:CE1	2.46	0.51
20:S:41:VAL:HG12	20:S:42:PRO:CD	2.37	0.51
14:M:78:ILE:O	14:M:81:LEU:HB2	2.10	0.51
13:L:51:ALA:CB	13:L:53:ARG:HE	2.22	0.51
3:B:153:ARG:C	3:B:155:LEU:H	2.14	0.51
19:R:86:VAL:O	19:R:87:ARG:HB3	2.09	0.51
2:A:1153:C:O2'	2:A:1154:G:H5''	2.09	0.51
2:A:1010:G:H2'	2:A:1011:G:C8	2.42	0.51
2:A:31:G:H1	2:A:48:C:H5''	1.76	0.51
2:A:59:A:H2'	2:A:59:A:N3	2.26	0.51
2:A:338:A:O2'	2:A:339:C:H5'	2.11	0.51
8:G:70:LYS:HG2	8:G:96:GLN:O	2.11	0.51
1:2:49:GLU:O	1:2:50:ASP:HB2	2.11	0.51
1:2:70:ASN:N	1:2:70:ASN:OD1	2.31	0.51
2:A:938:A:C2	2:A:1345:U:O4	2.64	0.51
2:A:853:G:O2'	2:A:854:G:H5'	2.09	0.51
5:D:18:LYS:C	5:D:19:LEU:HD12	2.31	0.51
5:D:8:VAL:HB	5:D:21:LEU:HD12	1.92	0.51
13:L:93:LEU:O	13:L:94:PRO:O	2.28	0.51
4:C:68:VAL:O	4:C:70:VAL:HG23	2.10	0.51
2:A:509:A:H5'	5:D:54:TYR:CD2	2.39	0.51
3:B:95:GLN:HA	3:B:95:GLN:OE1	2.10	0.51
25:Y:90:ALA:N	26:Z:273:HIS:H	2.08	0.51
2:A:792:A:H4'	2:A:793:U:O5'	2.11	0.51
2:A:763:G:H2'	2:A:764:C:C6	2.44	0.51
2:A:302:G:N3	2:A:556:C:H4'	2.25	0.51
7:F:27:GLN:O	7:F:28:ARG:C	2.49	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:411:A:H62	2:A:413:G:H21	1.59	0.51
26:Z:16:THR:HG23	26:Z:16:THR:O	2.11	0.51
1:2:99:THR:N	1:2:120:ALA:HB3	2.25	0.51
1:2:75:ARG:HD3	1:2:77:ARG:CG	2.32	0.51
1:2:92:LYS:HD3	1:2:98:LEU:HD22	1.93	0.51
26:Z:145:GLU:HG2	26:Z:149:LEU:CB	2.38	0.51
2:A:1123:A:O2'	11:J:38:ILE:HG22	2.11	0.51
14:M:83:ASP:CG	14:M:84:ILE:N	2.64	0.51
14:M:79:LYS:HA	14:M:93:ARG:HH22	1.76	0.51
13:L:43:VAL:CG2	13:L:93:LEU:HD22	2.41	0.51
3:B:156:LYS:O	3:B:157:ARG:HB2	2.10	0.51
10:I:99:LEU:CD2	10:I:99:LEU:H	2.24	0.51
1:2:54:TYR:CZ	1:2:78:LYS:HE2	2.46	0.51
14:M:27:LYS:CE	14:M:31:LYS:HE3	2.40	0.51
2:A:1477:C:O2'	2:A:1478:C:H5'	2.09	0.51
10:I:65:VAL:HG21	10:I:73:GLN:CG	2.41	0.51
15:N:41:ARG:CG	15:N:42:ILE:N	2.73	0.51
15:N:59:ALA:O	15:N:60:SER:HB2	2.10	0.51
5:D:3:ARG:CG	5:D:118:ARG:HE	2.12	0.51
2:A:1189:C:OP2	11:J:51:ARG:NH2	2.42	0.51
26:Z:290:LEU:O	26:Z:293:VAL:HG22	2.11	0.51
2:A:460:G:C6	2:A:470:C:C5'	2.94	0.51
3:B:189:ASP:O	3:B:191:ASP:N	2.44	0.51
3:B:165:VAL:CG2	3:B:166:ASP:H	2.12	0.51
2:A:710:G:O2'	2:A:711:G:H5'	2.11	0.51
10:I:100:GLY:O	10:I:102:LEU:N	2.44	0.51
26:Z:34:VAL:HG11	26:Z:199:ILE:HG21	1.92	0.51
23:W:65:G:C2'	23:W:66:C:H5'	2.41	0.51
2:A:505:G:H5'	2:A:534:U:H2'	1.92	0.51
2:A:757:U:H2'	2:A:758:G:O4'	2.11	0.51
5:D:15:GLU:HA	5:D:15:GLU:OE1	2.10	0.51
26:Z:14:VAL:O	26:Z:79:HIS:HA	2.11	0.51
2:A:1113:C:O2'	2:A:1114:C:H5'	2.11	0.51
2:A:1180:A:OP1	10:I:103:THR:HG23	2.11	0.51
2:A:1314:C:H2'	2:A:1315:U:C6	2.45	0.51
2:A:1281:U:H4'	2:A:1282:C:OP1	2.11	0.51
2:A:1152:A:H2'	2:A:1153:C:C6	2.46	0.51
11:J:79:ARG:HG2	11:J:79:ARG:HH11	1.76	0.51
21:T:89:ARG:HH11	21:T:104:LEU:HD21	1.74	0.51
4:C:76:VAL:HG21	4:C:103:VAL:CG2	2.41	0.51
6:E:36:ASP:O	6:E:38:GLN:HG2	2.11	0.51
2:A:724:G:O2'	2:A:725:G:H5'	2.11	0.51

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:80:G:C2'	2:A:81:U:H5'	2.41	0.51
12:K:41:THR:HG21	12:K:71:LYS:O	2.11	0.51
20:S:31:ILE:O	20:S:31:ILE:HG23	2.10	0.51
2:A:411:A:O2'	2:A:412:A:H5'	2.11	0.51
5:D:24:GLU:O	5:D:27:TYR:N	2.44	0.51
2:A:1060:C:H2'	2:A:1061:G:H8	1.74	0.51
25:Y:16:U:OP1	25:Y:59:G:N1	2.41	0.51
25:Y:4:G:C2'	25:Y:5:G:H5'	2.41	0.51
14:M:84:ILE:O	14:M:84:ILE:HG22	2.10	0.51
5:D:62:GLN:CA	5:D:62:GLN:HE21	2.13	0.51
2:A:1321:C:C3'	2:A:1322:C:H5''	2.41	0.51
12:K:93:GLN:NE2	12:K:96:ARG:NH2	2.59	0.51
18:Q:67:LYS:HA	18:Q:70:ARG:NH1	2.27	0.51
13:L:50:SER:O	13:L:51:ALA:HB2	2.11	0.51
2:A:1172:C:O4'	2:A:1172:C:O2	2.29	0.51
15:N:31:ARG:HG3	15:N:31:ARG:NH1	2.26	0.51
7:F:8:ILE:HG22	7:F:10:LEU:CD1	2.41	0.51
23:V:59:A:H4'	23:V:60:A:OP2	2.11	0.51
2:A:977:A:C2'	2:A:977:A:N3	2.73	0.51
10:I:53:VAL:CG1	10:I:95:LYS:HG2	2.42	0.50
4:C:178:LEU:C	4:C:180:ALA:H	2.14	0.50
26:Z:318:ALA:O	26:Z:369:THR:HA	2.11	0.50
19:R:40:LEU:O	19:R:42:ARG:N	2.43	0.50
1:2:132:ASP:O	1:2:133:LYS:C	2.49	0.50
1:2:132:ASP:O	1:2:134:LYS:N	2.43	0.50
2:A:189(C):C:H2'	2:A:189(D):C:O4'	2.11	0.50
11:J:65:LEU:HD12	15:N:56:VAL:H	1.76	0.50
10:I:86:VAL:HG22	10:I:86:VAL:O	2.09	0.50
24:X:15:A:H2'	24:X:16:U:H6	1.76	0.50
2:A:224:C:O2'	2:A:225:C:H5'	2.11	0.50
9:H:20:TYR:CE1	9:H:78:GLN:NE2	2.80	0.50
11:J:43:ARG:O	11:J:67:THR:HG22	2.11	0.50
26:Z:174:SER:OG	26:Z:177:LEU:HB2	2.11	0.50
26:Z:193:ASN:OD1	26:Z:195:TRP:HB2	2.11	0.50
16:O:66:LEU:O	16:O:69:TYR:HB3	2.10	0.50
1:2:24:ILE:HB	1:2:26:LEU:HD23	1.90	0.50
2:A:1122:U:C2'	2:A:1123:A:H5'	2.42	0.50
3:B:121:LEU:HD23	3:B:139:LYS:NZ	2.26	0.50
2:A:952:U:H2'	2:A:953:G:C8	2.46	0.50
2:A:1254:C:OP2	11:J:45:ARG:HG3	2.11	0.50
17:P:48:TRP:O	17:P:49:LEU:HB2	2.11	0.50
10:I:26:VAL:HG13	10:I:61:ALA:O	2.10	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:101:MET:HB3	3:B:152:PHE:HE2	1.77	0.50
2:A:226:G:C2'	2:A:227:G:H5'	2.41	0.50
23:V:60:A:H2'	23:V:61:U:C5'	2.38	0.50
8:G:22:LEU:HD23	8:G:22:LEU:C	2.31	0.50
21:T:14:LYS:O	21:T:18:GLN:HB2	2.11	0.50
23:V:76:C:H2'	23:V:77:A:O4'	2.10	0.50
2:A:666:G:H5'	2:A:726:C:H1'	1.94	0.50
21:T:25:ARG:HH11	21:T:25:ARG:HG3	1.76	0.50
2:A:742:G:H5''	16:O:58:MET:HE1	1.92	0.50
4:C:172:ARG:O	4:C:173:VAL:HG23	2.11	0.50
2:A:110:C:H2'	2:A:111:G:O4'	2.11	0.50
14:M:69:GLU:HA	14:M:69:GLU:OE1	2.11	0.50
2:A:431:A:H2'	2:A:432:A:C8	2.46	0.50
1:2:24:ILE:HG13	1:2:79:LEU:CD2	2.41	0.50
26:Z:345:ARG:HH12	26:Z:384:LEU:HD21	1.76	0.50
3:B:140:HIS:HA	3:B:143:GLU:OE1	2.12	0.50
6:E:110:LEU:O	6:E:115:VAL:HG23	2.11	0.50
25:Y:55:U:H2'	25:Y:56:U:H5'	1.93	0.50
2:A:1369:C:H2'	2:A:1370:G:H8	1.70	0.50
21:T:99:LEU:HB3	21:T:100:ILE:HD12	1.93	0.50
2:A:1217:C:P	15:N:9:LYS:HZ2	2.34	0.50
6:E:80:ILE:HD11	6:E:138:ALA:CA	2.41	0.50
7:F:22:GLU:O	7:F:26:ILE:HG13	2.12	0.50
2:A:1299:A:N3	2:A:1299:A:H2'	2.26	0.50
7:F:62:TRP:CG	19:R:35:ARG:NH1	2.80	0.50
2:A:1379:G:O2'	2:A:1380:U:H5'	2.12	0.50
26:Z:314:THR:H	26:Z:405:GLU:CB	2.24	0.50
26:Z:121:LEU:O	26:Z:124:ARG:HB3	2.11	0.50
10:I:9:ARG:HG2	10:I:14:VAL:HG22	1.92	0.50
22:U:18:TYR:N	22:U:18:TYR:CD1	2.79	0.50
6:E:110:LEU:HD13	6:E:118:ILE:HG21	1.93	0.50
25:Y:55:U:H2'	25:Y:56:U:O4'	2.12	0.50
3:B:67:THR:HG22	3:B:90:MET:HE3	1.93	0.50
4:C:68:VAL:HG12	4:C:70:VAL:CG2	2.41	0.50
1:2:17:LEU:HD23	1:2:119:LEU:HB3	1.92	0.50
2:A:343:U:HO2'	2:A:344:A:H8	1.58	0.50
21:T:60:GLU:HA	21:T:63:ILE:HD12	1.91	0.50
4:C:172:ARG:O	4:C:173:VAL:CG2	2.59	0.50
2:A:597:G:H2'	2:A:598:U:H5'	1.93	0.50
2:A:272:C:O2'	2:A:273:A:H5'	2.11	0.50
22:U:3:LYS:HD3	22:U:14:TRP:CD1	2.46	0.50
8:G:111:ARG:HH11	8:G:111:ARG:HB3	1.76	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:407:G:N2	2:A:436:C:H1'	2.27	0.50
5:D:110:PHE:N	5:D:110:PHE:HD1	2.08	0.50
2:A:1179:A:H2'	2:A:1180:A:O4'	2.11	0.50
2:A:1148:U:H4'	10:I:14:VAL:HG11	1.93	0.50
20:S:22:LEU:O	20:S:22:LEU:HD13	2.11	0.50
2:A:1157:A:H1'	2:A:1181:G:H21	1.69	0.50
3:B:69:LEU:HD23	3:B:159:PRO:HG2	1.93	0.50
3:B:69:LEU:HD22	3:B:91:PRO:HB2	1.94	0.50
2:A:1490:A:H2'	2:A:1491:G:H5'	1.93	0.50
7:F:8:ILE:HG22	7:F:10:LEU:HD11	1.92	0.50
16:O:43:LEU:HD11	16:O:53:HIS:HA	1.93	0.50
6:E:12:LEU:HD11	6:E:31:LEU:HB3	1.93	0.50
2:A:663:A:O2'	2:A:664:G:H5'	2.11	0.50
2:A:660:G:OP1	16:O:5:LYS:HD3	2.10	0.50
2:A:158:G:C2'	2:A:159:G:H5'	2.42	0.50
2:A:167:G:O2'	2:A:168:G:H5'	2.12	0.50
5:D:114:ARG:HA	5:D:117:ALA:HB3	1.92	0.50
4:C:66:VAL:O	4:C:66:VAL:CG1	2.57	0.50
2:A:1216:G:O2'	2:A:1217:C:H5'	2.12	0.50
16:O:39:LEU:O	16:O:42:HIS:HB3	2.12	0.50
17:P:5:ARG:C	17:P:6:LEU:HD12	2.31	0.50
6:E:147:ASP:HA	6:E:150:ARG:NH1	2.23	0.50
2:A:1292:U:OP1	8:G:41:ARG:NH2	2.44	0.50
2:A:1128:C:O2'	2:A:1130:A:N7	2.44	0.50
26:Z:182:MET:HE3	26:Z:182:MET:HA	1.93	0.50
2:A:977:A:O2'	2:A:978:A:H5'	2.11	0.50
2:A:71:C:O5'	2:A:71:C:H6	1.94	0.50
2:A:408:A:H5'	5:D:116:GLN:HB2	1.93	0.50
5:D:148:VAL:CG1	5:D:149:ALA:N	2.69	0.50
14:M:120:LYS:CA	14:M:120:LYS:HE3	2.41	0.50
3:B:12:GLU:O	3:B:14:GLY:N	2.45	0.50
5:D:70:ILE:HG23	5:D:74:GLN:CB	2.42	0.50
18:Q:45:HIS:CB	18:Q:65:ILE:HD12	2.42	0.50
26:Z:277:LEU:HD12	26:Z:279:GLU:H	1.77	0.50
13:L:37:CYS:O	13:L:80:HIS:HA	2.11	0.50
2:A:742:G:H5''	16:O:58:MET:CE	2.41	0.50
11:J:94:VAL:HG12	11:J:95:GLU:N	2.26	0.50
2:A:1126:U:H2'	2:A:1126:U:O2	2.10	0.50
5:D:8:VAL:C	5:D:10:ARG:N	2.65	0.50
2:A:1060:C:O2'	11:J:56:HIS:CD2	2.64	0.50
15:N:57:ARG:O	15:N:58:LYS:C	2.50	0.50
3:B:77:ALA:HA	3:B:80:ILE:HD13	1.94	0.50

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:288:LEU:HD22	26:Z:304:LEU:CD1	2.33	0.50
2:A:1276:G:H2'	2:A:1277:C:O4'	2.12	0.50
25:Y:73:U:H5''	25:Y:74:C:C5	2.43	0.50
26:Z:185:ASN:ND2	26:Z:187:LYS:H	2.09	0.50
3:B:42:ILE:HD13	3:B:203:GLY:HA2	1.93	0.50
1:2:144:LEU:CD1	6:E:52:PRO:HG3	2.42	0.50
6:E:11:ILE:HG13	6:E:31:LEU:HD12	1.92	0.50
6:E:36:ASP:OD1	6:E:38:GLN:HB2	2.11	0.50
13:L:24:VAL:HG13	13:L:98:TYR:HE2	1.74	0.50
8:G:38:LEU:HD12	8:G:41:ARG:HD2	1.94	0.50
26:Z:316:PHE:C	26:Z:316:PHE:CD1	2.85	0.50
2:A:297:G:H4'	2:A:557:G:H4'	1.93	0.50
21:T:41:ILE:C	21:T:43:LEU:N	2.64	0.50
2:A:518:C:O2'	2:A:530:G:N2	2.45	0.50
23:V:62:C:O2'	23:V:63:C:H5'	2.11	0.50
9:H:29:SER:HB3	9:H:32:LYS:HD2	1.94	0.50
2:A:1385:G:O2'	2:A:1386:G:H5'	2.11	0.50
2:A:112:G:O2'	2:A:113:G:H5'	2.12	0.50
3:B:74:LYS:O	3:B:76:GLN:N	2.44	0.50
20:S:20:LEU:O	20:S:23:ASN:HB3	2.11	0.50
3:B:47:THR:CG2	3:B:51:LEU:HD11	2.41	0.50
26:Z:131:ILE:O	26:Z:168:VAL:HG21	2.12	0.50
7:F:10:LEU:HD11	7:F:61:LEU:HD12	1.93	0.50
4:C:53:ALA:HB2	4:C:115:LEU:HG	1.93	0.50
2:A:1264:C:C2'	2:A:1265:G:H5'	2.42	0.50
4:C:76:VAL:HG21	4:C:103:VAL:HG21	1.94	0.50
8:G:22:LEU:HD22	8:G:62:PHE:CE2	2.44	0.50
2:A:1128:C:C5	2:A:1139:G:H2'	2.47	0.50
7:F:69:GLU:CD	7:F:69:GLU:H	2.16	0.50
2:A:620:C:H2'	2:A:621:A:O4'	2.12	0.50
2:A:184:G:H2'	2:A:185:A:H8	1.76	0.50
25:Y:67:U:H2'	25:Y:68:U:H5''	1.92	0.50
21:T:93:GLU:O	21:T:93:GLU:HG2	2.12	0.50
5:D:120:LEU:C	5:D:126:ILE:HD13	2.33	0.49
26:Z:75:ARG:NH2	26:Z:212:THR:N	2.59	0.49
26:Z:324:LYS:HA	26:Z:364:PRO:HB3	1.93	0.49
4:C:12:LEU:C	4:C:14:ILE:H	2.15	0.49
2:A:1284:C:C6	2:A:1285:A:N7	2.80	0.49
7:F:68:PRO:HG2	7:F:71:ARG:HB2	1.94	0.49
26:Z:322:ILE:CD1	26:Z:362:VAL:HG11	2.38	0.49
2:A:1492:A:C1'	2:A:1493:A:OP1	2.59	0.49
13:L:86:ARG:HB2	13:L:101:VAL:CG2	2.42	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1248:A:C5	2:A:1249:C:C5	3.00	0.49
2:A:1498:U:C4	24:X:16:U:H5'	2.47	0.49
12:K:116:HIS:O	12:K:117:ASN:HB2	2.11	0.49
2:A:945:G:C2	2:A:946:A:C8	2.99	0.49
9:H:30:ARG:CZ	9:H:30:ARG:HB3	2.42	0.49
16:O:9:GLN:O	16:O:10:LYS:C	2.50	0.49
2:A:106:C:O2	2:A:379:C:H4'	2.11	0.49
2:A:963:G:H21	11:J:55:LYS:HD3	1.77	0.49
15:N:12:ARG:NH1	15:N:14:PRO:CG	2.62	0.49
7:F:39:LYS:HB2	7:F:64:GLN:HB3	1.93	0.49
10:I:47:LEU:CD1	10:I:47:LEU:N	2.75	0.49
2:A:532:A:N6	2:A:1206:G:HO2'	2.09	0.49
2:A:1509:C:O2'	2:A:1510:U:H5'	2.11	0.49
19:R:33:ASP:O	19:R:36:ASN:OD1	2.29	0.49
2:A:56:U:H2'	2:A:57:G:C8	2.47	0.49
5:D:8:VAL:C	5:D:10:ARG:H	2.14	0.49
10:I:103:THR:HG22	10:I:104:ARG:N	2.28	0.49
14:M:3:ARG:HA	14:M:8:GLU:O	2.12	0.49
8:G:67:GLU:O	8:G:69:VAL:N	2.45	0.49
12:K:99:GLN:HE21	12:K:105:VAL:HG21	1.78	0.49
3:B:21:ARG:HH21	3:B:38:GLY:CA	2.25	0.49
6:E:33:VAL:HG22	6:E:43:LEU:CD1	2.41	0.49
2:A:1019:C:O2'	2:A:1020:U:H5'	2.12	0.49
2:A:1142:G:H2'	2:A:1143:G:H5'	1.94	0.49
5:D:57:ARG:NH2	5:D:205:GLU:OE1	2.37	0.49
2:A:928:G:O2'	2:A:929:G:H5'	2.13	0.49
3:B:29:ALA:O	3:B:32:ILE:HG22	2.11	0.49
17:P:80:PHE:N	17:P:80:PHE:CD1	2.80	0.49
26:Z:256:VAL:HG13	26:Z:312:PRO:HD3	1.95	0.49
2:A:858:G:P	2:A:858:G:H8	2.35	0.49
21:T:51:GLU:O	21:T:55:ILE:HG12	2.12	0.49
2:A:1459:C:O2'	2:A:1460:A:H5'	2.13	0.49
2:A:737:A:H2'	2:A:738:C:H6	1.77	0.49
13:L:24:VAL:O	13:L:24:VAL:CG1	2.60	0.49
2:A:225:C:O2'	2:A:226:G:H5'	2.12	0.49
2:A:510:A:N3	2:A:543:C:H1'	2.28	0.49
5:D:36:ARG:N	5:D:37:PRO:HD3	2.27	0.49
1:2:110:ARG:HD3	1:2:110:ARG:H	1.77	0.49
10:I:104:ARG:HG2	10:I:105:ASP:H	1.77	0.49
5:D:133:VAL:HG11	5:D:138:TYR:CD2	2.43	0.49
3:B:118:LEU:CB	3:B:142:LEU:HD12	2.40	0.49
2:A:1157:A:C1'	2:A:1181:G:N2	2.68	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:226:GLU:O	26:Z:300:ARG:CD	2.61	0.49
19:R:44:LEU:HA	19:R:49:LYS:O	2.12	0.49
2:A:750:G:C2	16:O:23:GLY:HA3	2.48	0.49
2:A:552:U:H4'	13:L:86:ARG:HG2	1.94	0.49
11:J:65:LEU:HD13	15:N:56:VAL:HG23	1.95	0.49
8:G:22:LEU:CD2	8:G:62:PHE:HE2	2.25	0.49
13:L:8:ASN:HD22	18:Q:34:LYS:HE2	1.77	0.49
2:A:603:U:H2'	2:A:604:G:H8	1.76	0.49
2:A:609:A:C2'	2:A:610:G:H5'	2.43	0.49
18:Q:22:LEU:HD11	18:Q:39:SER:HB2	1.93	0.49
2:A:979:C:C3'	2:A:980:C:C5'	2.86	0.49
2:A:1502:A:C2	2:A:1505:G:N1	2.57	0.49
2:A:1170:A:H2'	2:A:1171:G:O4'	2.13	0.49
25:Y:23:G:H2'	25:Y:24:G:O5'	2.12	0.49
2:A:353:A:H5'	2:A:353:A:C8	2.44	0.49
26:Z:140:MET:HA	26:Z:140:MET:HE2	1.94	0.49
26:Z:177:LEU:HD13	26:Z:195:TRP:NE1	2.28	0.49
6:E:15:ARG:NH2	6:E:26:PHE:CE2	2.81	0.49
2:A:598:U:H4'	9:H:94:TYR:CD2	2.47	0.49
6:E:57:LYS:HG2	6:E:61:TYR:CE2	2.47	0.49
2:A:398:C:H2'	2:A:399:G:H8	1.77	0.49
10:I:4:TYR:HB2	10:I:19:LEU:CB	2.32	0.49
3:B:132:LYS:O	3:B:136:VAL:HG23	2.12	0.49
2:A:858:G:H8	2:A:858:G:O5'	1.96	0.49
11:J:16:LEU:C	11:J:16:LEU:HD13	2.32	0.49
3:B:41:ILE:HD12	3:B:41:ILE:N	2.28	0.49
10:I:26:VAL:CG1	10:I:61:ALA:HB3	2.41	0.49
5:D:135:LEU:N	5:D:135:LEU:CD1	2.75	0.49
2:A:1342:C:O2'	2:A:1343:G:H5'	2.12	0.49
7:F:24:GLU:HG2	7:F:28:ARG:NH1	2.27	0.49
2:A:490:G:O2'	2:A:491:G:H5'	2.12	0.49
2:A:963:G:H2'	2:A:964:A:C8	2.46	0.49
11:J:27:ALA:CB	11:J:34:VAL:HG21	2.43	0.49
1:2:83:LYS:O	1:2:87:ARG:HG2	2.13	0.49
26:Z:155:ARG:HG2	26:Z:165:GLY:C	2.33	0.49
25:Y:72:C:C2'	25:Y:73:U:O5'	2.60	0.49
16:O:43:LEU:CD1	16:O:53:HIS:HA	2.42	0.49
2:A:189(J):G:O2'	2:A:189(K):U:H5'	2.12	0.49
2:A:394:G:H2'	2:A:395:C:C6	2.47	0.49
16:O:87:ILE:O	16:O:88:ARG:HB2	2.13	0.49
2:A:697:U:C2'	2:A:698:G:H5'	2.43	0.49
17:P:58:TYR:O	17:P:62:VAL:HG22	2.13	0.49

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:2:49:GLU:N	1:2:49:GLU:OE1	2.44	0.49
2:A:417:C:H2'	2:A:418:C:C6	2.48	0.49
12:K:37:GLY:C	12:K:38:ASN:HD22	2.15	0.49
2:A:1196:U:O2	2:A:1196:U:C2'	2.59	0.49
2:A:1330:U:H3'	2:A:1331:G:O4'	2.12	0.49
4:C:8:ILE:HG13	4:C:184:TYR:HB3	1.94	0.49
23:W:54:G:H2'	23:W:55:U:C6	2.48	0.49
4:C:54:ARG:NH1	4:C:56:ASP:OD2	2.46	0.49
2:A:16:A:C2'	2:A:17:U:H5'	2.43	0.49
2:A:193:C:O2'	2:A:194:C:H5'	2.13	0.49
6:E:79:GLU:O	6:E:80:ILE:HG22	2.12	0.49
17:P:63:GLY:O	17:P:64:ALA:CB	2.60	0.49
2:A:1292:U:P	8:G:41:ARG:NH2	2.86	0.49
10:I:17:VAL:HG21	10:I:81:ILE:N	2.28	0.49
10:I:22:GLY:O	10:I:58:ARG:HA	2.13	0.49
2:A:337:C:H2'	2:A:338:A:C8	2.48	0.49
2:A:1426:C:H2'	2:A:1427:U:C6	2.48	0.49
20:S:43:GLU:C	20:S:45:VAL:N	2.65	0.49
2:A:398:C:H2'	2:A:399:G:C8	2.47	0.49
21:T:32:ALA:O	21:T:36:LEU:HB2	2.12	0.49
14:M:87:TYR:HE1	20:S:81:ARG:NH2	2.11	0.49
2:A:454:C:H5	2:A:455:C:C2	2.31	0.49
3:B:35:GLU:HA	3:B:39:ILE:O	2.13	0.49
3:B:98:LEU:H	3:B:101:MET:HE3	1.78	0.49
2:A:346:G:C2'	2:A:346:G:N3	2.75	0.49
8:G:47:CYS:HB3	8:G:58:PRO:CB	2.43	0.49
2:A:421:U:H3'	2:A:421:U:O2	2.13	0.49
2:A:123:C:OP2	2:A:312:C:H5'	2.13	0.49
2:A:1262:C:H2'	2:A:1263:C:H6	1.78	0.49
2:A:911:U:O2'	2:A:912:C:H5'	2.12	0.49
1:2:6:GLU:C	1:2:41:PHE:CE2	2.86	0.48
22:U:18:TYR:HB3	22:U:22:ARG:O	2.13	0.48
4:C:29:TYR:CD2	15:N:36:PHE:CE1	3.01	0.48
3:B:235:SER:OG	3:B:236:TYR:HD1	1.96	0.48
2:A:1493:A:H3'	2:A:1493:A:P	2.53	0.48
23:V:22:A:N6	23:V:47:G:H2'	2.25	0.48
18:Q:59:ILE:HD13	18:Q:73:VAL:HA	1.95	0.48
21:T:82:SER:O	21:T:86:ARG:HB2	2.13	0.48
8:G:13:GLN:C	8:G:13:GLN:HE21	2.16	0.48
16:O:68:ARG:HG3	16:O:68:ARG:NH1	2.27	0.48
1:2:68:TYR:OH	26:Z:339:ARG:NH2	2.45	0.48
2:A:1512:U:H2'	2:A:1513:A:H8	1.78	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:K:127:LYS:C	12:K:129:SER:H	2.16	0.48
4:C:58:GLU:N	4:C:65:ALA:CB	2.73	0.48
4:C:112:SER:CB	4:C:115:LEU:HD12	2.40	0.48
2:A:8:A:OP1	2:A:8:A:H2'	2.13	0.48
2:A:991:U:C2'	2:A:991:U:O2	2.60	0.48
2:A:192:U:H2'	2:A:193:C:H6	1.78	0.48
2:A:1075:C:H4'	2:A:1101:A:N6	2.27	0.48
19:R:70:ILE:HG22	19:R:70:ILE:O	2.13	0.48
2:A:860:A:H2'	2:A:861:G:O4'	2.13	0.48
3:B:218:ALA:O	3:B:222:ILE:HG12	2.12	0.48
4:C:147:LYS:HB2	4:C:203:PHE:CD2	2.47	0.48
2:A:114:U:H2'	2:A:115:G:C8	2.48	0.48
2:A:116:A:H2'	2:A:117:G:O4'	2.13	0.48
2:A:1226:C:N4	14:M:104:ARG:HD2	2.28	0.48
5:D:126:ILE:HG22	5:D:127:THR:N	2.28	0.48
5:D:14:ARG:HB2	5:D:40:PRO:HD2	1.94	0.48
1:2:81:LEU:HB2	1:2:86:LEU:HD13	1.95	0.48
25:Y:2:G:O2'	25:Y:3:G:H5'	2.13	0.48
26:Z:84:GLY:O	26:Z:85:HIS:CB	2.62	0.48
20:S:63:THR:HG23	20:S:65:ASN:H	1.77	0.48
14:M:40:ASN:ND2	14:M:43:THR:HG23	2.22	0.48
4:C:16:ARG:CB	4:C:16:ARG:HH11	2.25	0.48
5:D:61:LYS:HE3	5:D:207:TYR:OH	2.12	0.48
23:W:56:U:H2'	23:W:58:A:OP2	2.14	0.48
23:W:17:C:OP1	23:W:62:C:H5'	2.13	0.48
2:A:386:C:C2'	2:A:387:U:H5'	2.44	0.48
17:P:38:TYR:HE1	17:P:50:LYS:HE2	1.78	0.48
2:A:1258:G:O2'	2:A:1259:C:C5'	2.60	0.48
6:E:105:VAL:HB	6:E:106:PRO:CD	2.43	0.48
11:J:89:ASP:O	11:J:90:LEU:HD13	2.14	0.48
2:A:979:C:C2'	2:A:980:C:H5''	2.43	0.48
25:Y:16:U:H3'	25:Y:17:C:C5'	2.43	0.48
14:M:120:LYS:HE3	14:M:121:LYS:N	2.26	0.48
20:S:51:VAL:O	20:S:57:HIS:HA	2.13	0.48
23:W:16:C:O2'	23:W:17:C:H5'	2.12	0.48
5:D:70:ILE:HD11	5:D:100:ARG:HD2	1.95	0.48
13:L:60:LEU:N	13:L:60:LEU:HD22	2.28	0.48
26:Z:150:VAL:HA	26:Z:153:GLU:HG2	1.94	0.48
1:2:71:VAL:HG12	1:2:72:ASP:N	2.28	0.48
26:Z:331:HIS:CD2	26:Z:331:HIS:C	2.87	0.48
14:M:108:ARG:N	14:M:108:ARG:HD2	2.27	0.48
2:A:1063:C:H2'	2:A:1064:G:C8	2.48	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:255:ILE:HD11	26:Z:293:VAL:HG11	1.95	0.48
5:D:89:THR:O	5:D:91:SER:N	2.46	0.48
17:P:17:TYR:CD1	17:P:17:TYR:N	2.80	0.48
17:P:6:LEU:N	17:P:6:LEU:HD12	2.29	0.48
3:B:162:ILE:HG22	3:B:182:ILE:HG22	1.95	0.48
26:Z:181:GLU:HA	26:Z:184:LYS:HD2	1.94	0.48
3:B:79:ASP:O	3:B:81:VAL:N	2.47	0.48
8:G:44:TYR:O	8:G:47:CYS:N	2.46	0.48
11:J:8:LEU:HA	11:J:95:GLU:O	2.12	0.48
1:2:2:ALA:HB2	1:2:35:ARG:HA	1.96	0.48
14:M:116:THR:O	14:M:117:VAL:C	2.49	0.48
2:A:177:C:OP1	21:T:65:LYS:HD3	2.13	0.48
19:R:36:ASN:HB2	19:R:39:VAL:HG23	1.94	0.48
2:A:630:G:C2'	2:A:631:G:H5'	2.42	0.48
2:A:357:G:O2'	2:A:358:U:H5'	2.14	0.48
13:L:34:ARG:CG	13:L:35:GLY:N	2.77	0.48
2:A:779:C:O2'	2:A:780:A:H5'	2.14	0.48
12:K:69:ALA:HB1	12:K:103:LEU:HD23	1.95	0.48
19:R:34:TYR:CD1	19:R:35:ARG:HG3	2.49	0.48
2:A:415:A:H2'	2:A:416:G:C8	2.48	0.48
2:A:144:G:H1	2:A:178:C:H42	1.60	0.48
26:Z:314:THR:HG22	26:Z:377:PRO:HB3	1.96	0.48
20:S:4:SER:C	20:S:5:LEU:O	2.51	0.48
5:D:145:GLU:CD	5:D:145:GLU:H	2.15	0.48
14:M:22:ILE:HB	14:M:25:ILE:HB	1.96	0.48
2:A:1279:A:O2'	2:A:1282:C:N4	2.46	0.48
2:A:1219:U:H2'	2:A:1220:G:H8	1.78	0.48
13:L:55:VAL:HG22	13:L:56:ALA:N	2.27	0.48
2:A:457:C:H2'	2:A:458:C:C6	2.48	0.48
11:J:70:ARG:HG2	11:J:70:ARG:HH11	1.78	0.48
1:2:130:ARG:HA	1:2:130:ARG:NH1	2.18	0.48
3:B:169:LYS:C	3:B:171:ALA:H	2.16	0.48
7:F:91:VAL:HG12	7:F:92:LYS:O	2.13	0.48
2:A:1414:U:H2'	2:A:1415:G:H8	1.77	0.48
2:A:627:G:O2'	2:A:628:G:H5'	2.13	0.48
2:A:969:A:C2'	2:A:970:C:H5'	2.43	0.48
25:Y:80:A:H2'	25:Y:81:C:C6	2.49	0.48
12:K:115:PRO:C	12:K:117:ASN:N	2.67	0.48
25:Y:7:G:H5'	25:Y:8:A:OP1	2.14	0.48
2:A:1118:C:H2'	2:A:1119:C:C6	2.49	0.48
4:C:124:ILE:C	4:C:126:ARG:H	2.17	0.48
2:A:786:G:H2'	2:A:787:A:O4'	2.14	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:K:24:SER:OG	12:K:25:TYR:N	2.47	0.48
5:D:127:THR:HA	5:D:132:ARG:HA	1.96	0.48
11:J:56:HIS:O	11:J:58:ASP:O	2.31	0.48
4:C:8:ILE:O	4:C:11:ARG:N	2.33	0.48
26:Z:226:GLU:HG2	26:Z:239:THR:O	2.14	0.48
6:E:145:LYS:O	6:E:149:GLU:HG2	2.14	0.48
2:A:393:A:C2'	2:A:394:G:H5'	2.44	0.48
18:Q:27:PHE:HD1	18:Q:28:PRO:O	1.97	0.48
8:G:23:VAL:HG13	8:G:43:PHE:CE2	2.47	0.48
6:E:82:VAL:CG2	6:E:138:ALA:HA	2.42	0.48
5:D:129:ASN:H	5:D:129:ASN:HD22	1.59	0.48
9:H:13:ILE:O	9:H:17:THR:HG23	2.13	0.48
25:Y:63:U:C2'	25:Y:64:G:H5'	2.43	0.48
2:A:1512:U:H2'	2:A:1513:A:C8	2.49	0.48
18:Q:10:VAL:HG23	18:Q:55:ASP:O	2.13	0.48
2:A:346:G:O2'	2:A:347:G:P	2.71	0.48
2:A:1041:A:H2'	2:A:1042:G:H8	1.78	0.48
1:2:58:LEU:HD23	1:2:60:ILE:CD1	2.44	0.48
21:T:74:LYS:HG2	21:T:75:ASN:N	2.29	0.48
7:F:43:LEU:H	7:F:43:LEU:CD2	2.20	0.48
2:A:878:G:H5''	9:H:89:PRO:HG2	1.96	0.48
3:B:28:PHE:CZ	3:B:189:ASP:HA	2.48	0.48
21:T:57:ARG:HB2	21:T:57:ARG:NH1	2.29	0.48
6:E:31:LEU:HD23	6:E:45:PHE:CD1	2.48	0.48
2:A:162:A:N7	2:A:163:C:H1'	2.28	0.48
10:I:63:ILE:CD1	10:I:81:ILE:HD11	2.44	0.48
3:B:8:LYS:O	3:B:10:LEU:N	2.47	0.48
2:A:956:U:H2'	2:A:957:U:C6	2.47	0.48
1:2:124:LYS:O	1:2:124:LYS:CG	2.61	0.48
2:A:637:G:H2'	2:A:638:G:C8	2.48	0.48
2:A:1070:U:H5'	6:E:18:ARG:HH22	1.79	0.48
2:A:436:C:H5''	5:D:156:GLU:CD	2.35	0.48
5:D:107:ARG:HD2	5:D:173:TRP:HZ2	1.78	0.48
11:J:38:ILE:CG1	11:J:71:LEU:HB3	2.44	0.48
11:J:7:LYS:HG2	11:J:71:LEU:HD13	1.94	0.48
26:Z:284:ASP:HB3	26:Z:286:VAL:HG13	1.96	0.48
3:B:200:ILE:HG22	3:B:201:ILE:H	1.79	0.48
2:A:737:A:H2'	2:A:738:C:C6	2.49	0.48
2:A:404:U:H5''	5:D:122:ARG:HG2	1.96	0.48
2:A:689:C:H2'	2:A:690:G:O4'	2.13	0.48
2:A:40:C:H2'	2:A:41:G:C8	2.48	0.48
4:C:105:GLU:HG2	4:C:106:VAL:N	2.29	0.48

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:323:U:H2'	2:A:324:G:O4'	2.13	0.48
2:A:1440:C:H2'	2:A:1441:G:O4'	2.14	0.48
14:M:13:LYS:O	14:M:45:VAL:HG23	2.13	0.48
2:A:408:A:O4'	5:D:116:GLN:NE2	2.47	0.47
5:D:31:CYS:O	5:D:32:ALA:HB3	2.13	0.47
14:M:6:GLY:O	14:M:8:GLU:N	2.46	0.47
4:C:65:ALA:O	4:C:100:ALA:O	2.32	0.47
2:A:926:G:H2'	2:A:1505:G:N3	2.29	0.47
11:J:12:ASP:O	11:J:16:LEU:HB3	2.14	0.47
3:B:89:GLY:O	3:B:90:MET:HE2	2.14	0.47
16:O:53:HIS:O	16:O:56:LEU:HB3	2.14	0.47
3:B:97:TRP:CZ2	3:B:102:LEU:HD13	2.49	0.47
3:B:147:LYS:HG2	3:B:147:LYS:O	2.12	0.47
2:A:594:G:H2'	2:A:595:G:C5'	2.44	0.47
26:Z:248:LYS:CE	26:Z:279:GLU:HB3	2.42	0.47
2:A:658:G:H2'	2:A:659:U:C6	2.49	0.47
14:M:107:ALA:C	14:M:109:THR:H	2.17	0.47
2:A:646:U:H2'	2:A:647:C:C6	2.49	0.47
20:S:31:ILE:HG23	20:S:49:ILE:HA	1.95	0.47
5:D:79:PHE:O	5:D:82:ALA:HB3	2.14	0.47
2:A:975:A:H62	11:J:60:ARG:HH12	1.61	0.47
3:B:74:LYS:HZ1	3:B:76:GLN:NE2	2.11	0.47
1:2:6:GLU:OE1	1:2:6:GLU:N	2.47	0.47
10:I:9:ARG:HB3	10:I:104:ARG:HH22	1.78	0.47
14:M:117:VAL:HG12	14:M:117:VAL:O	2.14	0.47
7:F:34:GLY:O	7:F:67:MET:HB2	2.13	0.47
19:R:25:THR:CG2	19:R:42:ARG:HH11	2.27	0.47
10:I:37:PHE:CD1	10:I:70:LYS:HD2	2.49	0.47
11:J:65:LEU:CD1	15:N:55:GLY:HA3	2.43	0.47
2:A:601:C:O2'	2:A:602:A:H5'	2.15	0.47
26:Z:140:MET:HA	26:Z:140:MET:CE	2.44	0.47
2:A:687:A:N3	2:A:688:G:H1'	2.29	0.47
2:A:413:G:O6	5:D:35:ARG:HD3	2.15	0.47
26:Z:16:THR:HB	26:Z:79:HIS:HE2	1.78	0.47
2:A:961:U:O2'	2:A:962:C:O5'	2.29	0.47
26:Z:345:ARG:NH1	26:Z:384:LEU:HD21	2.29	0.47
11:J:96:ILE:CD1	11:J:96:ILE:N	2.76	0.47
14:M:35:GLU:CG	14:M:36:LYS:N	2.73	0.47
2:A:1442:G:H1	2:A:1461:G:H21	1.61	0.47
1:2:138:ARG:NH2	2:A:506:G:C4'	2.75	0.47
2:A:1097:C:C2'	2:A:1098:C:H5'	2.44	0.47
2:A:1350:A:N7	10:I:118:LYS:NZ	2.62	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:4:G:HO2'	23:W:5:G:H8	1.62	0.47
16:O:85:LEU:O	16:O:85:LEU:HD23	2.15	0.47
1:2:15:GLU:H	1:2:121:ARG:HB2	1.79	0.47
2:A:152:A:N6	2:A:170:U:C2	2.82	0.47
2:A:1504:G:OP1	2:A:1507:A:H4'	2.14	0.47
2:A:238:G:O2'	2:A:239:U:H5'	2.14	0.47
26:Z:231:ILE:HG13	26:Z:237:VAL:HG21	1.96	0.47
18:Q:20:THR:HG21	18:Q:41:LYS:HD2	1.97	0.47
9:H:87:SER:HA	9:H:93:VAL:HG23	1.95	0.47
5:D:99:SER:O	5:D:140:VAL:HG23	2.13	0.47
2:A:430:A:OP1	5:D:22:LYS:HE2	2.14	0.47
5:D:120:LEU:O	5:D:125:HIS:HB2	2.14	0.47
5:D:6:GLY:O	5:D:7:PRO:C	2.53	0.47
26:Z:72:THR:HG21	26:Z:77:TYR:CE2	2.45	0.47
2:A:1366:C:O3'	11:J:60:ARG:NH2	2.48	0.47
1:2:59:TYR:C	1:2:59:TYR:CD1	2.87	0.47
25:Y:2:G:P	26:Z:90:LYS:HD2	2.54	0.47
14:M:15:VAL:O	14:M:19:LEU:HD23	2.13	0.47
5:D:59:ARG:HA	5:D:59:ARG:NE	2.23	0.47
23:W:62:C:H2'	23:W:63:C:H5'	1.95	0.47
15:N:26:ARG:HD3	15:N:43:CYS:HB3	1.95	0.47
2:A:61:G:H2'	2:A:62:U:O4'	2.14	0.47
4:C:150:LYS:CE	4:C:167:TRP:HE1	2.26	0.47
7:F:52:ILE:O	7:F:53:ALA:HB3	2.14	0.47
2:A:427:U:C4	2:A:428:G:C6	3.02	0.47
2:A:413:G:H1'	2:A:428:G:N2	2.28	0.47
5:D:127:THR:HG23	5:D:131:ARG:O	2.13	0.47
3:B:163:PHE:HD1	3:B:185:ILE:CG1	2.23	0.47
14:M:41:PRO:O	14:M:42:ALA:O	2.32	0.47
11:J:82:ILE:O	11:J:86:MET:CB	2.57	0.47
13:L:27:LEU:C	13:L:29:GLY:N	2.67	0.47
18:Q:76:LEU:HD11	18:Q:78:GLU:O	2.14	0.47
2:A:1028:C:H2'	2:A:1029:C:H5'	1.95	0.47
2:A:1436:U:H2'	2:A:1437:C:O4'	2.15	0.47
23:V:69:C:H2'	23:V:70:C:C6	2.49	0.47
1:2:124:LYS:O	1:2:124:LYS:CD	2.63	0.47
12:K:38:ASN:HD22	12:K:38:ASN:N	2.13	0.47
26:Z:68:VAL:CG2	26:Z:79:HIS:HB3	2.42	0.47
8:G:69:VAL:HG21	8:G:104:LEU:HD21	1.97	0.47
26:Z:209:TYR:O	26:Z:211:PRO:HD3	2.15	0.47
9:H:11:THR:HG23	9:H:14:ARG:NH1	2.30	0.47
2:A:1391:U:H2'	2:A:1392:G:H8	1.74	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:22:A:N6	23:W:47:G:H2'	2.29	0.47
10:I:77:ILE:O	10:I:81:ILE:HG12	2.14	0.47
15:N:26:ARG:HG3	15:N:39:LEU:CD2	2.44	0.47
13:L:79:GLU:C	13:L:80:HIS:CG	2.88	0.47
2:A:1426:C:O2'	2:A:1427:U:H5'	2.15	0.47
2:A:1165:C:O2'	2:A:1166:G:H5'	2.15	0.47
16:O:55:GLY:O	16:O:59:MET:HG3	2.13	0.47
2:A:1290:G:H2'	2:A:1290:G:N3	2.30	0.47
2:A:427:U:OP2	5:D:13:ARG:NH2	2.48	0.47
2:A:432:A:H2'	2:A:433:C:H5'	1.97	0.47
11:J:74:ILE:HG13	11:J:74:ILE:O	2.14	0.47
26:Z:84:GLY:HA3	26:Z:88:TYR:HB2	1.96	0.47
26:Z:251:ASP:O	26:Z:266:VAL:HG13	2.14	0.47
14:M:71:ARG:O	14:M:74:VAL:HG23	2.15	0.47
3:B:142:LEU:CD2	3:B:146:GLN:HE21	2.28	0.47
26:Z:290:LEU:HD11	26:Z:304:LEU:HD21	1.95	0.47
3:B:238:LEU:O	3:B:239:VAL:C	2.52	0.47
5:D:88:VAL:O	5:D:92:VAL:HG23	2.13	0.47
2:A:254:G:OP1	18:Q:67:LYS:O	2.32	0.47
2:A:719:C:O2	19:R:50:ILE:HG12	2.15	0.47
7:F:87:ARG:NH1	7:F:87:ARG:CG	2.77	0.47
11:J:78:ASN:O	11:J:82:ILE:HG12	2.15	0.47
4:C:53:ALA:O	4:C:54:ARG:CB	2.63	0.47
2:A:189(B):C:H2'	2:A:189(C):C:C6	2.50	0.47
2:A:375:U:O2'	17:P:28:ARG:HD2	2.15	0.47
6:E:147:ASP:HA	6:E:150:ARG:CB	2.41	0.47
2:A:397:A:N7	2:A:547:A:O2'	2.38	0.47
2:A:1168:A:N1	2:A:1169:A:C2	2.83	0.47
23:W:31:G:H2'	23:W:32:G:H8	1.80	0.47
2:A:28:G:O2'	2:A:296:U:OP1	2.31	0.47
21:T:15:ARG:O	21:T:19:SER:HB2	2.14	0.47
2:A:605:U:O2'	2:A:606:G:H5'	2.14	0.47
6:E:89:ILE:HG23	6:E:89:ILE:O	2.14	0.47
5:D:196:LEU:CG	5:D:197:PRO:HD2	2.43	0.47
5:D:65:ARG:O	5:D:67:ILE:N	2.48	0.47
26:Z:303:VAL:HG12	26:Z:304:LEU:N	2.30	0.47
3:B:24:TRP:CH2	3:B:26:PRO:HA	2.49	0.47
3:B:36:ARG:H	3:B:41:ILE:HD13	1.80	0.47
2:A:375:U:C2	2:A:376:G:C8	3.02	0.47
6:E:31:LEU:HB2	6:E:45:PHE:CD1	2.49	0.47
2:A:173:U:H5''	2:A:197:A:O4'	2.15	0.47
2:A:382:A:H2'	2:A:383:A:H8	1.78	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:Q:99:SER:C	18:Q:100:LYS:HG3	2.35	0.47
13:L:34:ARG:HG2	13:L:35:GLY:N	2.30	0.47
2:A:175:C:H4'	21:T:25:ARG:NH1	2.30	0.47
2:A:37:U:O2'	2:A:38:G:H5'	2.15	0.47
2:A:287:U:O2'	2:A:288:A:H5'	2.15	0.47
3:B:110:GLN:O	3:B:113:HIS:HB2	2.14	0.47
5:D:189:PRO:HB2	5:D:194:LEU:CD2	2.22	0.47
20:S:47:HIS:O	20:S:62:ILE:HG22	2.14	0.47
14:M:15:VAL:CG2	14:M:34:LEU:HD11	2.44	0.47
3:B:142:LEU:HD21	3:B:146:GLN:HE21	1.80	0.47
16:O:26:GLU:HG3	16:O:77:ARG:NH1	2.30	0.47
3:B:167:PRO:HG2	3:B:192:SER:CB	2.44	0.47
2:A:1118:C:H2'	2:A:1119:C:H6	1.80	0.47
26:Z:140:MET:O	26:Z:141:VAL:C	2.53	0.47
17:P:58:TYR:HD1	17:P:59:TRP:N	2.12	0.47
1:2:142:GLU:OE1	5:D:49:ARG:HA	2.15	0.47
23:V:77:A:OP2	23:V:77:A:H4'	2.15	0.47
2:A:1299:A:O2'	2:A:1300:G:H4'	2.15	0.47
2:A:106:C:H2'	2:A:107:G:H8	1.79	0.47
23:V:54:G:H2'	23:V:55:U:H6	1.79	0.47
2:A:1175:G:O2'	2:A:1176:A:H5'	2.15	0.47
7:F:45:LEU:HD12	7:F:46:ARG:N	2.29	0.47
23:V:35:C:H6	23:V:35:C:O5'	1.98	0.47
5:D:194:LEU:HD22	5:D:194:LEU:N	2.30	0.47
1:2:110:ARG:NH1	25:Y:17:C:OP2	2.48	0.47
1:2:24:ILE:N	1:2:24:ILE:CD1	2.75	0.47
1:2:28:GLY:C	1:2:30:GLU:N	2.67	0.47
1:2:46:ALA:CB	1:2:55:LEU:HD12	2.32	0.47
14:M:119:GLY:O	14:M:120:LYS:O	2.33	0.47
11:J:30:SER:HB2	11:J:80:LYS:NZ	2.29	0.47
2:A:77:G:N3	2:A:77:G:H2'	2.30	0.47
2:A:1129:C:N4	2:A:1135:U:H3	2.12	0.47
2:A:8:A:H62	5:D:208:SER:HB2	1.80	0.47
2:A:1498:U:C4'	2:A:1519:A:H2	2.25	0.47
26:Z:316:PHE:CE1	26:Z:372:VAL:CG2	2.98	0.47
4:C:73:PRO:C	4:C:75:VAL:N	2.68	0.47
2:A:645:C:O2'	2:A:646:U:H5'	2.15	0.47
11:J:47:PHE:CE1	15:N:37:PHE:HE1	2.33	0.47
2:A:99:U:H2'	2:A:100:C:C6	2.50	0.47
6:E:107:ARG:HG2	6:E:108:ALA:N	2.30	0.47
2:A:1187:G:H3'	2:A:1188:A:H8	1.80	0.47
2:A:681:C:O2'	2:A:682:G:H5'	2.14	0.47

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:J:98:ILE:O	11:J:99:LYS:HD3	2.15	0.46
2:A:1283:G:O2'	2:A:1284:C:C6	2.65	0.46
5:D:89:THR:C	5:D:91:SER:N	2.68	0.46
2:A:266:G:C5'	2:A:267:C:C5	2.96	0.46
21:T:48:LYS:O	21:T:49:ALA:C	2.53	0.46
12:K:82:VAL:HG13	12:K:108:ILE:CA	2.39	0.46
11:J:14:LYS:C	11:J:16:LEU:N	2.68	0.46
2:A:9:G:OP2	6:E:122:GLU:HG3	2.15	0.46
6:E:6:PHE:CB	6:E:34:VAL:HG22	2.43	0.46
23:W:15:G:O2'	23:W:21:U:C5	2.68	0.46
21:T:23:ARG:O	21:T:27:LYS:HB2	2.15	0.46
2:A:833:U:H2'	2:A:834:C:H6	1.79	0.46
23:V:40:C:H2'	23:V:41:C:C6	2.51	0.46
5:D:127:THR:HG23	5:D:128:VAL:H	1.80	0.46
26:Z:15:GLY:H	26:Z:99:MET:CE	2.25	0.46
2:A:1054:C:O2	2:A:1054:C:C2'	2.63	0.46
26:Z:145:GLU:CG	26:Z:149:LEU:HB2	2.43	0.46
4:C:6:HIS:NE2	4:C:184:TYR:CE2	2.79	0.46
26:Z:209:TYR:CD1	26:Z:209:TYR:C	2.88	0.46
14:M:100:GLY:C	14:M:101:GLN:HG2	2.36	0.46
2:A:1152:A:OP1	11:J:68:HIS:CD2	2.69	0.46
3:B:42:ILE:CD1	3:B:202:PRO:C	2.84	0.46
16:O:50:HIS:O	16:O:53:HIS:HB3	2.15	0.46
2:A:385:C:O2'	2:A:386:C:H5'	2.15	0.46
3:B:97:TRP:CZ3	3:B:176:GLU:OE2	2.69	0.46
2:A:736:C:H2'	2:A:737:A:H8	1.77	0.46
16:O:79:ARG:HA	16:O:82:ILE:CG2	2.45	0.46
23:W:48:U:H3'	23:W:49:C:H5'	1.96	0.46
2:A:939:G:H5''	8:G:102:ARG:HH22	1.78	0.46
26:Z:141:VAL:O	26:Z:141:VAL:HG23	2.15	0.46
2:A:644:G:O2'	2:A:645:C:H5'	2.16	0.46
8:G:78:ARG:O	8:G:78:ARG:HG3	2.13	0.46
26:Z:315:LYS:HB2	26:Z:405:GLU:CG	2.21	0.46
1:2:45:PHE:HE2	1:2:47:ARG:CZ	2.29	0.46
14:M:87:TYR:O	14:M:89:GLY:N	2.48	0.46
4:C:6:HIS:NE2	4:C:184:TYR:CD2	2.80	0.46
26:Z:131:ILE:HG22	26:Z:131:ILE:O	2.14	0.46
15:N:29:ARG:HG3	15:N:29:ARG:NH1	2.18	0.46
4:C:34:LEU:CD2	4:C:38:ARG:NE	2.77	0.46
26:Z:322:ILE:HD13	26:Z:334:PHE:CE2	2.51	0.46
1:2:95:GLN:NE2	1:2:95:GLN:CA	2.77	0.46
4:C:43:LEU:O	4:C:47:LEU:HB2	2.14	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:71:VAL:HG13	3:B:93:VAL:HG13	1.97	0.46
4:C:84:ILE:O	4:C:88:ARG:HG3	2.15	0.46
8:G:15:ASP:HB2	8:G:23:VAL:HB	1.97	0.46
2:A:982:U:O2'	2:A:983:A:OP1	2.30	0.46
2:A:1097:C:O2	2:A:1169:A:H2	1.98	0.46
2:A:532:A:N6	2:A:1206:G:O2'	2.49	0.46
23:W:57:C:O2	23:W:57:C:C2'	2.61	0.46
2:A:966:G:O2'	2:A:967:C:O5'	2.32	0.46
1:2:43:GLY:O	1:2:57:ASN:ND2	2.46	0.46
2:A:486:U:H2'	2:A:487:A:C8	2.50	0.46
14:M:59:TYR:O	14:M:60:VAL:C	2.54	0.46
5:D:57:ARG:HB3	5:D:206:PHE:HB2	1.96	0.46
10:I:126:SER:O	10:I:128:ARG:HD2	2.14	0.46
18:Q:7:THR:O	18:Q:23:VAL:HG13	2.16	0.46
23:V:36:A:O2'	23:V:37:U:H5'	2.14	0.46
26:Z:75:ARG:HH12	26:Z:210:ILE:CG2	2.28	0.46
26:Z:324:LYS:CG	26:Z:325:LYS:N	2.78	0.46
14:M:7:VAL:O	14:M:7:VAL:HG12	2.15	0.46
2:A:1280:A:O2'	2:A:1281:U:OP1	2.31	0.46
16:O:26:GLU:HG3	16:O:77:ARG:HH12	1.80	0.46
2:A:475:G:O2'	2:A:476:G:H5'	2.16	0.46
13:L:55:VAL:CG2	13:L:56:ALA:N	2.78	0.46
12:K:108:ILE:O	19:R:87:ARG:N	2.41	0.46
5:D:100:ARG:NH1	5:D:100:ARG:HG3	2.29	0.46
7:F:98:LEU:HD12	7:F:98:LEU:N	2.22	0.46
8:G:143:ARG:O	8:G:147:ALA:HB2	2.15	0.46
3:B:97:TRP:HZ2	3:B:102:LEU:HD13	1.80	0.46
6:E:147:ASP:CA	6:E:150:ARG:HB3	2.42	0.46
3:B:101:MET:HB3	3:B:152:PHE:CE2	2.49	0.46
26:Z:356:PRO:CG	26:Z:359:VAL:HG21	2.45	0.46
21:T:37:SER:O	21:T:38:LYS:C	2.53	0.46
23:W:67:C:H6	23:W:67:C:O5'	1.98	0.46
2:A:124:G:C6	2:A:125:U:C4	3.04	0.46
26:Z:26:THR:O	26:Z:29:ALA:HB3	2.16	0.46
10:I:13:ALA:HA	10:I:67:GLY:O	2.16	0.46
2:A:961:U:O2'	2:A:962:C:P	2.73	0.46
5:D:67:ILE:O	5:D:68:TYR:CD1	2.68	0.46
1:2:5:LEU:HB3	1:2:41:PHE:HZ	1.79	0.46
20:S:16:LEU:HB3	20:S:20:LEU:HG	1.97	0.46
2:A:1256:A:C2	2:A:1277:C:C4	2.99	0.46
6:E:100:VAL:HG12	6:E:118:ILE:HG22	1.98	0.46
2:A:189(B):C:O2'	2:A:189(C):C:H5'	2.16	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:98:TYR:N	13:L:98:TYR:CD1	2.83	0.46
2:A:193:C:H2'	2:A:194:C:C6	2.51	0.46
2:A:24:U:O2'	2:A:25:C:H5'	2.16	0.46
10:I:128:ARG:OXT	10:I:128:ARG:HG2	2.15	0.46
8:G:89:MET:O	8:G:90:GLU:C	2.53	0.46
3:B:104:ASN:O	3:B:108:ILE:HG12	2.15	0.46
2:A:334:C:O5'	2:A:334:C:H6	1.97	0.46
10:I:114:TYR:CE2	11:J:60:ARG:O	2.54	0.46
1:2:100:LEU:HD12	1:2:117:LEU:HD13	1.98	0.46
2:A:1316:G:H2'	2:A:1317:C:H5''	1.98	0.46
8:G:67:GLU:C	8:G:69:VAL:N	2.68	0.46
14:M:49:THR:C	14:M:51:ALA:N	2.67	0.46
2:A:858:G:C5'	2:A:858:G:H8	2.29	0.46
19:R:47:THR:C	19:R:83:GLU:HG2	2.35	0.46
2:A:78:G:H1	2:A:91:C:N4	2.13	0.46
3:B:149:LEU:O	3:B:153:ARG:HB2	2.16	0.46
2:A:674:G:H2'	2:A:675:A:C8	2.50	0.46
2:A:1349:A:OP1	10:I:118:LYS:HE2	2.15	0.46
4:C:35:GLU:O	4:C:36:ASP:C	2.53	0.46
1:2:64:GLU:OE1	13:L:78:GLN:HA	2.15	0.46
17:P:65:GLN:HA	17:P:66:PRO:HD3	1.74	0.46
2:A:471:G:H3'	2:A:471:G:OP1	2.15	0.46
2:A:986:A:H2'	2:A:987:G:O4'	2.15	0.46
2:A:790:A:H2'	2:A:791:G:C8	2.51	0.46
5:D:126:ILE:CG2	5:D:127:THR:N	2.78	0.46
26:Z:132:VAL:HG12	26:Z:133:VAL:N	2.31	0.46
3:B:74:LYS:NZ	3:B:76:GLN:NE2	2.64	0.46
1:2:82:HIS:HA	25:Y:19:A:OP2	2.16	0.46
10:I:104:ARG:CG	10:I:105:ASP:H	2.28	0.46
8:G:69:VAL:HA	8:G:138:LYS:HD2	1.97	0.46
11:J:17:ASP:OD1	11:J:70:ARG:NH2	2.48	0.46
3:B:188:ALA:HB1	3:B:192:SER:OG	2.16	0.46
2:A:1371:G:O3'	10:I:69:GLY:HA3	2.15	0.46
17:P:38:TYR:O	17:P:49:LEU:HD12	2.16	0.46
12:K:59:TYR:O	12:K:63:LEU:HG	2.15	0.46
5:D:129:ASN:N	5:D:129:ASN:ND2	2.64	0.46
2:A:1075:C:O2'	2:A:1076:C:H5'	2.15	0.46
2:A:160:A:O2'	2:A:161:A:H5'	2.16	0.46
2:A:977:A:N3	2:A:977:A:H2'	2.31	0.46
19:R:37:VAL:HG23	19:R:38:GLU:N	2.30	0.46
2:A:1473:A:O2'	2:A:1474:G:H5'	2.15	0.46
11:J:54:PHE:CD2	11:J:55:LYS:HD2	2.51	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:122:LEU:C	26:Z:124:ARG:N	2.69	0.46
25:Y:1:G:H4'	26:Z:91:ASN:OD1	2.16	0.46
5:D:78:LEU:HD21	5:D:96:LEU:HD23	1.98	0.46
3:B:102:LEU:HB3	3:B:180:LEU:HD12	1.98	0.46
10:I:113:LYS:H	10:I:119:ALA:HA	1.81	0.46
2:A:44:G:C6	2:A:45:U:C2	3.04	0.46
2:A:1530:G:C2'	2:A:1531:A:O5'	2.64	0.46
2:A:1389:C:H2'	2:A:1390:U:C6	2.50	0.46
4:C:24:ALA:HB2	4:C:32:LEU:HD12	1.98	0.46
26:Z:72:THR:HG21	26:Z:207:ASP:OD1	2.15	0.46
5:D:67:ILE:HG22	5:D:68:TYR:CD1	2.51	0.46
11:J:3:LYS:N	11:J:74:ILE:O	2.49	0.46
2:A:1313:U:P	20:S:6:LYS:HB3	2.56	0.46
14:M:79:LYS:C	14:M:81:LEU:N	2.68	0.46
2:A:84:U:O2'	2:A:88:A:H5'	2.16	0.46
21:T:72:LEU:HD22	21:T:76:ALA:HB1	1.97	0.46
2:A:673:G:H2'	2:A:674:G:C8	2.51	0.46
4:C:77:ILE:HG12	4:C:84:ILE:HG21	1.96	0.46
13:L:124:LYS:HD2	13:L:125:PRO:CD	2.44	0.46
2:A:1128:C:H1'	2:A:1146:A:H61	1.81	0.46
26:Z:195:TRP:HA	26:Z:195:TRP:CE3	2.51	0.46
9:H:35:ILE:HG22	9:H:39:LEU:CD2	2.46	0.46
2:A:1388:C:H2'	2:A:1389:C:C6	2.51	0.46
19:R:37:VAL:CG2	19:R:38:GLU:N	2.78	0.46
2:A:1199:U:H4'	11:J:54:PHE:CD1	2.49	0.46
2:A:975:A:N6	2:A:1367:C:O4'	2.49	0.46
5:D:170:VAL:CG1	5:D:174:LEU:HB2	2.46	0.46
26:Z:87:ASP:HB2	26:Z:88:TYR:HD1	1.80	0.46
26:Z:129:PRO:O	26:Z:130:TYR:O	2.34	0.46
2:A:1318:A:H1'	20:S:37:ARG:HH21	1.80	0.46
20:S:53:ASN:HB2	20:S:77:THR:HG22	1.98	0.46
2:A:1152:A:H2'	2:A:1153:C:H6	1.80	0.46
7:F:10:LEU:O	7:F:11:ASN:C	2.54	0.46
6:E:100:VAL:HA	6:E:118:ILE:HG22	1.98	0.46
19:R:40:LEU:C	19:R:42:ARG:N	2.69	0.46
2:A:1014:A:H2'	2:A:1015:A:C8	2.51	0.46
16:O:82:ILE:HD13	16:O:82:ILE:O	2.16	0.46
12:K:15:ALA:HB1	12:K:78:GLN:HB2	1.98	0.46
7:F:69:GLU:O	7:F:72:VAL:HG12	2.15	0.46
2:A:498:U:O2'	2:A:499:A:O5'	2.33	0.46
2:A:202:U:H2'	2:A:203:U:OP2	2.16	0.46
2:A:71:C:H2'	2:A:72:C:C6	2.50	0.46

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:790:A:H5'	23:V:39:A:O3'	2.15	0.46
2:A:748:C:H4'	2:A:749:C:O5'	2.15	0.46
9:H:34:GLU:HA	9:H:34:GLU:OE1	2.16	0.46
5:D:18:LYS:N	5:D:33:MET:HE3	2.30	0.45
26:Z:13:ASN:OD1	26:Z:78:SER:HB2	2.17	0.45
1:2:38:LYS:O	1:2:39:VAL:HG12	2.16	0.45
1:2:45:PHE:HE2	1:2:47:ARG:NE	2.13	0.45
13:L:83:VAL:HG12	13:L:84:LEU:N	2.31	0.45
11:J:46:ARG:HG2	11:J:64:GLU:OE1	2.15	0.45
6:E:91:LEU:O	6:E:92:LYS:HB2	2.16	0.45
26:Z:196:VAL:O	26:Z:199:ILE:HB	2.16	0.45
14:M:57:ARG:O	14:M:59:TYR:N	2.49	0.45
2:A:41:G:H2'	2:A:42:G:C8	2.51	0.45
1:2:142:GLU:OE1	5:D:50:ARG:N	2.44	0.45
4:C:24:ALA:CB	4:C:32:LEU:HD12	2.46	0.45
2:A:309:G:O2'	2:A:310:G:H5'	2.16	0.45
12:K:91:ARG:O	12:K:94:ALA:HB3	2.15	0.45
2:A:849:C:O2'	2:A:850:U:H5'	2.16	0.45
2:A:414:A:C5	2:A:431:A:C2	3.04	0.45
5:D:157:LEU:O	5:D:161:ASN:ND2	2.49	0.45
26:Z:99:MET:HE2	26:Z:102:ALA:CB	2.36	0.45
14:M:66:LEU:CA	14:M:70:LEU:HD12	2.38	0.45
2:A:951:G:O2'	2:A:952:U:H5'	2.16	0.45
14:M:99:ARG:O	14:M:100:GLY:C	2.54	0.45
2:A:1411:C:C2	2:A:1490:A:C2	3.04	0.45
12:K:20:TYR:O	12:K:30:VAL:HA	2.16	0.45
3:B:39:ILE:HG22	3:B:40:HIS:H	1.80	0.45
3:B:54:THR:HG21	3:B:201:ILE:HD11	1.98	0.45
10:I:69:GLY:O	10:I:71:SER:N	2.49	0.45
10:I:40:LEU:O	10:I:42:ARG:N	2.49	0.45
1:2:17:LEU:N	1:2:17:LEU:CD2	2.76	0.45
2:A:1009:G:H2'	2:A:1010:G:H8	1.80	0.45
2:A:1104:G:H4'	3:B:111:ARG:NH1	2.30	0.45
2:A:80:G:N2	2:A:89:C:H2'	2.31	0.45
2:A:1292:U:P	8:G:41:ARG:HH21	2.40	0.45
2:A:109:A:C6	2:A:326:G:C6	3.05	0.45
2:A:1439:C:N4	2:A:1462:G:H1	2.14	0.45
23:W:65:G:H2'	23:W:66:C:H5'	1.98	0.45
2:A:179:A:O2'	2:A:180:U:H5'	2.16	0.45
2:A:590:C:O2'	2:A:591:U:H5'	2.15	0.45
2:A:755:G:O2'	2:A:756:C:H5'	2.16	0.45
4:C:187:ALA:HB3	4:C:198:VAL:HB	1.97	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:14:U:O2'	25:Y:15:C:C5'	2.64	0.45
26:Z:85:HIS:C	26:Z:87:ASP:H	2.20	0.45
2:A:1134:G:H2'	2:A:1135:U:C5'	2.41	0.45
19:R:40:LEU:C	19:R:42:ARG:H	2.20	0.45
26:Z:147:LEU:HB3	26:Z:172:ARG:CZ	2.46	0.45
10:I:43:ALA:C	10:I:45:ALA:N	2.70	0.45
7:F:5:GLU:HG3	7:F:93:SER:OG	2.16	0.45
2:A:710:G:OP2	7:F:54:LYS:HE3	2.16	0.45
2:A:1030(C):G:O2'	2:A:1030(D):A:H5'	2.17	0.45
2:A:1377:A:H2'	8:G:7:ALA:HB2	1.98	0.45
2:A:472:A:H4'	17:P:80:PHE:O	2.16	0.45
2:A:790:A:O2'	2:A:791:G:H5'	2.16	0.45
2:A:1360:A:H8	2:A:1360:A:OP2	1.99	0.45
2:A:1324:A:H2'	2:A:1325:C:C6	2.51	0.45
26:Z:185:ASN:ND2	26:Z:187:LYS:HB2	2.21	0.45
5:D:122:ARG:HA	5:D:122:ARG:HD2	1.72	0.45
8:G:137:LYS:HB3	8:G:137:LYS:HE2	1.85	0.45
8:G:50:ILE:O	8:G:54:THR:CG2	2.64	0.45
7:F:99:ALA:O	19:R:28:GLU:HA	2.15	0.45
12:K:34:ASP:HB3	12:K:40:ILE:HD11	1.99	0.45
6:E:15:ARG:NE	6:E:26:PHE:CD2	2.85	0.45
6:E:37:ARG:HH12	6:E:111:GLU:HG2	1.81	0.45
23:V:40:C:H2'	23:V:41:C:H6	1.81	0.45
26:Z:242:ILE:CG2	26:Z:282:ALA:HA	2.46	0.45
5:D:127:THR:CG2	5:D:128:VAL:H	2.30	0.45
5:D:109:GLY:HA3	5:D:165:MET:HE2	1.98	0.45
5:D:190:ASP:CG	5:D:191:ARG:N	2.70	0.45
1:2:39:VAL:HB	1:2:59:TYR:O	2.17	0.45
1:2:7:ASN:CB	1:2:41:PHE:HD2	2.28	0.45
1:2:86:LEU:HA	1:2:89:LEU:HD23	1.97	0.45
26:Z:332:THR:O	26:Z:364:PRO:HD3	2.16	0.45
2:A:1114:C:H2'	2:A:1115:C:H6	1.81	0.45
14:M:64:TRP:HD1	14:M:66:LEU:HD11	1.81	0.45
3:B:142:LEU:HD23	3:B:142:LEU:C	2.37	0.45
4:C:15:THR:HG22	4:C:16:ARG:N	2.32	0.45
4:C:3:ASN:O	4:C:4:LYS:CB	2.62	0.45
3:B:36:ARG:HG3	3:B:36:ARG:NH1	2.32	0.45
3:B:42:ILE:HD11	3:B:202:PRO:O	2.16	0.45
19:R:59:SER:O	19:R:60:ALA:C	2.55	0.45
10:I:113:LYS:H	10:I:113:LYS:HD2	1.80	0.45
26:Z:273:HIS:O	26:Z:274:ARG:HB2	2.16	0.45
6:E:142:LEU:O	6:E:143:ARG:NE	2.49	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1245:A:C2	2:A:1293:G:C2	3.05	0.45
2:A:1499:A:C2'	2:A:1500:A:H5'	2.47	0.45
4:C:157:ILE:HD13	4:C:166:GLU:HB2	1.98	0.45
2:A:328:C:H4'	2:A:329:A:H5'	1.97	0.45
1:2:123:LYS:HB3	1:2:124:LYS:H	1.38	0.45
2:A:692:U:H5'	2:A:797:C:H5'	1.98	0.45
10:I:97:LYS:N	10:I:98:PRO:CD	2.79	0.45
11:J:58:ASP:O	11:J:59:SER:O	2.35	0.45
5:D:162:LEU:CD1	5:D:178:VAL:HG12	2.46	0.45
11:J:23:ILE:HG23	11:J:85:LEU:CD2	2.36	0.45
1:2:24:ILE:HG23	1:2:79:LEU:HD23	1.99	0.45
1:2:7:ASN:ND2	1:2:10:ALA:H	2.13	0.45
14:M:64:TRP:CD1	14:M:66:LEU:HD11	2.52	0.45
26:Z:298:VAL:CA	26:Z:302:GLN:HE22	2.28	0.45
2:A:1220:G:H2'	2:A:1221:G:H8	1.81	0.45
2:A:368:U:C5	26:Z:234:ARG:CZ	2.98	0.45
11:J:79:ARG:HA	11:J:82:ILE:CG1	2.46	0.45
3:B:71:VAL:HG13	3:B:93:VAL:CG1	2.46	0.45
2:A:915:A:H2'	2:A:916:G:C5'	2.45	0.45
25:Y:67:U:C3'	25:Y:68:U:H5''	2.47	0.45
2:A:520:A:N1	2:A:536:C:H1'	2.32	0.45
5:D:182:LYS:HE3	5:D:182:LYS:HB2	1.68	0.45
10:I:10:ARG:O	10:I:11:LYS:HB3	2.16	0.45
2:A:1125:U:C4	11:J:71:LEU:HD21	2.52	0.45
2:A:1505:G:H4'	2:A:1506:U:H5''	1.99	0.45
11:J:30:SER:CB	11:J:84:GLN:NE2	2.76	0.45
13:L:27:LEU:CD1	13:L:28:LYS:HG3	2.46	0.45
2:A:444:C:H2'	2:A:445:G:C8	2.52	0.45
1:2:17:LEU:CD2	1:2:17:LEU:H	2.28	0.45
2:A:403:C:H2'	2:A:404:U:H6	1.81	0.45
2:A:922:G:N3	2:A:1398:A:H2	2.15	0.45
9:H:42:GLU:HG3	9:H:109:ILE:HD12	1.99	0.45
10:I:110:GLU:HG2	10:I:113:LYS:HZ2	1.81	0.45
8:G:79:ARG:HG3	8:G:83:ALA:C	2.37	0.45
26:Z:221:PHE:CE1	26:Z:247:VAL:HG22	2.51	0.45
2:A:609:A:O2'	2:A:610:G:H5'	2.16	0.45
12:K:23:ALA:CB	12:K:91:ARG:HB2	2.47	0.45
26:Z:113:MET:H	26:Z:116:THR:HB	1.81	0.45
2:A:127:G:C2	2:A:128:G:C8	3.05	0.45
2:A:1091:U:C2	2:A:1095:U:N3	2.84	0.45
8:G:149:ARG:O	8:G:149:ARG:HG2	2.16	0.45
5:D:150:GLU:OE1	5:D:150:GLU:N	2.36	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:D:165:MET:CE	5:D:176:LEU:HD21	2.47	0.45
5:D:65:ARG:C	5:D:67:ILE:N	2.70	0.45
25:Y:18:G:O2'	25:Y:19:A:OP2	2.26	0.45
26:Z:324:LYS:O	26:Z:325:LYS:C	2.55	0.45
4:C:14:ILE:O	4:C:15:THR:HB	2.16	0.45
2:A:950:U:H2'	2:A:951:G:C8	2.52	0.45
20:S:58:VAL:HG13	20:S:58:VAL:O	2.17	0.45
2:A:1408:A:O2'	2:A:1409:C:H5'	2.16	0.45
3:B:42:ILE:CD1	3:B:202:PRO:HB2	2.47	0.45
26:Z:147:LEU:HD23	26:Z:147:LEU:N	2.32	0.45
7:F:3:ARG:HD3	7:F:64:GLN:HE22	1.79	0.45
2:A:1476:G:H2'	2:A:1477:C:H6	1.80	0.45
2:A:716:A:N3	12:K:117:ASN:O	2.50	0.45
8:G:102:ARG:O	8:G:106:GLN:HG3	2.17	0.45
26:Z:340:PRO:HB2	26:Z:388:ILE:HG23	1.99	0.45
21:T:16:HIS:O	21:T:19:SER:CB	2.65	0.45
2:A:328:C:C2'	2:A:328:C:O2	2.65	0.45
2:A:688:G:O2'	2:A:689:C:H5'	2.16	0.45
6:E:15:ARG:CZ	6:E:26:PHE:CE2	2.99	0.45
16:O:8:LYS:O	16:O:12:ILE:HG13	2.17	0.45
2:A:116:A:H2'	2:A:117:G:H8	1.82	0.45
18:Q:29:HIS:O	18:Q:31:LEU:N	2.49	0.45
2:A:799:G:H2'	2:A:800:G:H5'	1.99	0.45
4:C:145:GLY:O	4:C:146:ALA:O	2.35	0.45
2:A:903:G:H2'	2:A:904:C:H6	1.81	0.45
5:D:26:CYS:HA	5:D:31:CYS:HA	1.99	0.45
8:G:138:LYS:O	8:G:142:GLU:HG3	2.17	0.45
8:G:69:VAL:HG21	8:G:104:LEU:CD2	2.45	0.45
12:K:93:GLN:NE2	12:K:96:ARG:HH21	2.15	0.45
2:A:1202:G:H1'	15:N:29:ARG:HD3	1.99	0.45
6:E:28:PHE:CD2	6:E:51:VAL:HG22	2.52	0.45
21:T:100:ILE:CD1	21:T:100:ILE:H	2.30	0.45
16:O:23:GLY:O	16:O:24:SER:O	2.35	0.45
6:E:32:VAL:HG23	6:E:58:ALA:CB	2.47	0.45
2:A:738:C:H2'	2:A:739:C:H6	1.81	0.45
18:Q:51:TYR:CD2	18:Q:73:VAL:HG11	2.52	0.45
19:R:36:ASN:HB2	19:R:39:VAL:CG2	2.47	0.45
7:F:33:TYR:CD2	7:F:75:LEU:HA	2.51	0.45
2:A:473:G:O2'	2:A:474:G:H5'	2.17	0.45
2:A:692:U:H5'	2:A:797:C:C5'	2.47	0.45
2:A:131:C:H2'	2:A:132:C:C6	2.51	0.45
2:A:1160:G:O2'	2:A:1161:C:H5'	2.16	0.45

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1099:G:H3'	2:A:1100:C:H6	1.82	0.45
23:V:24:C:H2'	23:V:25:U:C6	2.52	0.45
25:Y:76:C:H2'	25:Y:76:C:O2	2.16	0.45
5:D:10:ARG:NH1	5:D:40:PRO:HG3	2.32	0.45
5:D:126:ILE:CD1	5:D:126:ILE:N	2.80	0.45
26:Z:69:GLU:HG2	26:Z:70:TYR:N	2.32	0.45
1:2:38:LYS:C	1:2:39:VAL:HG13	2.37	0.45
1:2:47:ARG:O	1:2:53:LEU:HD12	2.17	0.45
2:A:1115:C:O2'	2:A:1116:C:H5'	2.16	0.45
2:A:1313:U:H2'	2:A:1314:C:H6	1.81	0.45
26:Z:345:ARG:HH12	26:Z:384:LEU:CD2	2.30	0.45
3:B:142:LEU:HD21	3:B:146:GLN:NE2	2.32	0.45
18:Q:67:LYS:O	18:Q:68:ARG:HB2	2.17	0.45
9:H:14:ARG:O	9:H:15:ASN:C	2.55	0.45
2:A:90:U:O3'	2:A:91:C:C6	2.70	0.45
2:A:709:G:O2'	2:A:710:G:H5'	2.17	0.45
2:A:66:G:H4'	2:A:173:U:C5	2.51	0.45
2:A:720:C:H2'	2:A:721:G:H8	1.79	0.45
23:W:13:C:O5'	23:W:13:C:H6	2.00	0.45
25:Y:23:G:C2'	25:Y:24:G:O5'	2.65	0.45
2:A:914:A:O2'	2:A:915:A:H5'	2.17	0.45
8:G:54:THR:HG23	8:G:54:THR:O	2.17	0.45
2:A:731:G:H5'	2:A:766:A:H4'	1.98	0.45
26:Z:171:ILE:CD1	26:Z:171:ILE:N	2.80	0.45
2:A:706:A:H1'	12:K:29:ILE:HD11	1.99	0.45
2:A:421:U:H6	4:C:127:ARG:CZ	2.30	0.45
26:Z:242:ILE:HD12	26:Z:281:ILE:O	2.17	0.45
5:D:12:CYS:SG	5:D:19:LEU:HB2	2.56	0.44
5:D:30:LYS:C	5:D:32:ALA:N	2.70	0.44
26:Z:98:GLN:NE2	26:Z:285:ASN:ND2	2.65	0.44
5:D:171:GLY:HA2	5:D:172:PRO:HD3	1.81	0.44
26:Z:216:ASP:OD2	26:Z:219:LYS:HG3	2.16	0.44
1:2:39:VAL:HG23	1:2:39:VAL:O	2.15	0.44
10:I:9:ARG:HB2	10:I:104:ARG:NH1	2.13	0.44
20:S:33:THR:HG22	20:S:50:ALA:O	2.17	0.44
20:S:47:HIS:O	20:S:62:ILE:CG2	2.65	0.44
14:M:15:VAL:C	14:M:17:VAL:N	2.70	0.44
14:M:17:VAL:O	14:M:20:THR:OG1	2.34	0.44
19:R:87:ARG:HB3	19:R:87:ARG:HE	1.55	0.44
8:G:144:MET:C	8:G:145:ALA:O	2.53	0.44
6:E:11:ILE:HD11	6:E:31:LEU:HD13	1.99	0.44
2:A:1478:C:H2'	2:A:1479:C:C6	2.52	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:M:53:VAL:O	14:M:56:LEU:HB3	2.17	0.44
14:M:54:VAL:O	14:M:56:LEU:N	2.50	0.44
20:S:79:THR:O	20:S:80:TYR:CB	2.65	0.44
23:W:65:G:H2'	23:W:66:C:O4'	2.17	0.44
2:A:518:C:H2'	2:A:530:G:C2	2.52	0.44
1:2:63:TYR:H	1:2:70:ASN:HD22	1.64	0.44
2:A:622:A:C8	2:A:623:C:C6	3.05	0.44
2:A:1225:A:OP1	14:M:102:ARG:HA	2.17	0.44
4:C:146:ALA:C	4:C:148:GLY:H	2.20	0.44
26:Z:401:THR:HG22	26:Z:402:LYS:N	2.32	0.44
2:A:233:C:H2'	2:A:234:C:H6	1.82	0.44
2:A:995:C:O2'	2:A:996:A:P	2.75	0.44
6:E:63:ARG:HH11	6:E:63:ARG:HG2	1.82	0.44
2:A:864:A:H3'	2:A:865:A:C8	2.52	0.44
8:G:107:ALA:O	8:G:109:ASN:N	2.50	0.44
2:A:1055:A:H8	2:A:1055:A:O5'	2.00	0.44
2:A:1505:G:H4'	2:A:1506:U:H5'	1.98	0.44
2:A:1280:A:O4'	11:J:41:PRO:CG	2.64	0.44
2:A:455:C:N4	2:A:476:G:H1	2.14	0.44
1:2:140:ALA:CB	6:E:51:VAL:HG21	2.46	0.44
2:A:369:C:O2'	2:A:370:C:O5'	2.36	0.44
2:A:1370:G:C2	2:A:1371:G:N7	2.85	0.44
11:J:33:GLN:HB2	11:J:75:ILE:HD13	1.98	0.44
8:G:143:ARG:HD3	23:W:41:C:C5'	2.47	0.44
13:L:84:LEU:C	13:L:84:LEU:HD23	2.37	0.44
2:A:981:U:H2'	2:A:982:U:C5	2.52	0.44
2:A:626:U:H2'	2:A:627:G:C8	2.52	0.44
2:A:1293:G:H2'	2:A:1294:G:C8	2.52	0.44
25:Y:89:A:H5'	26:Z:229:PHE:CE1	2.51	0.44
2:A:959:A:O3'	2:A:960:U:H4'	2.16	0.44
12:K:124:LYS:CB	12:K:124:LYS:NZ	2.80	0.44
26:Z:139:ASP:OD2	26:Z:140:MET:CE	2.65	0.44
4:C:120:VAL:HB	4:C:198:VAL:HG11	2.00	0.44
13:L:89:ARG:HA	13:L:97:ARG:HA	1.99	0.44
3:B:45:GLN:HE21	3:B:45:GLN:HB3	1.60	0.44
26:Z:336:THR:O	26:Z:353:VAL:O	2.34	0.44
2:A:1058:G:C5	2:A:1059:C:C4	3.06	0.44
15:N:58:LYS:HD3	15:N:59:ALA:N	2.32	0.44
2:A:1001(A):G:H8	2:A:1002:G:C8	2.35	0.44
11:J:71:LEU:HD12	11:J:72:VAL:N	2.30	0.44
2:A:1314:C:C5	20:S:6:LYS:HE2	2.52	0.44
4:C:15:THR:CG2	4:C:181:ASN:HA	2.45	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1442(A):G:H3'	2:A:1442(B):A:C5'	2.33	0.44
20:S:51:VAL:HG12	20:S:52:TYR:N	2.32	0.44
2:A:1255:G:C6	2:A:1279:A:C8	3.05	0.44
3:B:149:LEU:O	3:B:150:SER:C	2.55	0.44
13:L:83:VAL:HG13	13:L:100:ILE:HG23	1.99	0.44
2:A:1459:C:H4'	21:T:24:LEU:HD21	1.98	0.44
3:B:96:ARG:O	3:B:97:TRP:C	2.54	0.44
2:A:134:A:N6	17:P:25:ARG:NH1	2.66	0.44
2:A:782:A:H2'	2:A:783:C:H5'	1.99	0.44
2:A:783:C:H2'	2:A:784:C:C6	2.52	0.44
2:A:1070:U:H5'	6:E:18:ARG:NH2	2.32	0.44
2:A:760:G:O2'	18:Q:98:LEU:HD23	2.17	0.44
10:I:89:ASN:O	10:I:92:TYR:HB2	2.17	0.44
1:2:99:THR:HB	1:2:120:ALA:HB3	1.99	0.44
25:Y:1:G:C8	25:Y:1:G:OP3	2.69	0.44
2:A:1114:C:H2'	2:A:1115:C:C6	2.53	0.44
20:S:64:GLU:CG	20:S:65:ASN:N	2.80	0.44
26:Z:131:ILE:HD11	26:Z:163:PHE:CZ	2.51	0.44
2:A:1276:G:O2'	2:A:1277:C:H5'	2.18	0.44
2:A:1321:C:C5'	2:A:1322:C:C5'	2.95	0.44
2:A:868:C:H2'	2:A:869:G:O4'	2.16	0.44
19:R:74:ARG:HG2	19:R:80:PRO:O	2.16	0.44
3:B:42:ILE:HD12	3:B:202:PRO:HB2	1.99	0.44
2:A:189(D):C:H1'	2:A:189(H):G:C2	2.52	0.44
18:Q:26:GLN:HA	18:Q:36:ILE:O	2.18	0.44
23:W:6:G:H2'	23:W:7:G:H8	1.82	0.44
3:B:8:LYS:HB2	3:B:9:GLU:OE1	2.18	0.44
2:A:1379:G:C6	2:A:1380:U:C4	3.05	0.44
26:Z:310:ILE:O	26:Z:311:THR:HG23	2.18	0.44
26:Z:176:LEU:O	26:Z:180:GLU:HG3	2.18	0.44
2:A:1194:U:H2'	2:A:1195:C:O4'	2.16	0.44
2:A:655:A:H2'	2:A:656:C:C6	2.52	0.44
2:A:52:G:O2'	2:A:53:A:H5'	2.17	0.44
20:S:39:THR:HG23	20:S:68:GLY:O	2.17	0.44
18:Q:53:LEU:C	18:Q:53:LEU:HD23	2.38	0.44
5:D:34:GLU:O	5:D:35:ARG:CB	2.52	0.44
5:D:8:VAL:O	5:D:10:ARG:N	2.41	0.44
1:2:55:LEU:HD11	1:2:102:PRO:CG	2.28	0.44
1:2:7:ASN:O	1:2:7:ASN:ND2	2.51	0.44
26:Z:17:ILE:HB	26:Z:119:HIS:ND1	2.33	0.44
20:S:16:LEU:CD1	20:S:16:LEU:N	2.81	0.44
14:M:5:ALA:O	14:M:6:GLY:O	2.36	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:9:A:N6	25:Y:72:C:N3	2.65	0.44
18:Q:68:ARG:N	18:Q:70:ARG:NH1	2.66	0.44
2:A:1163:C:H2'	2:A:1164:G:H8	1.82	0.44
1:2:95:GLN:NE2	1:2:95:GLN:HA	2.22	0.44
23:W:58:A:H2'	23:W:59:A:C5'	2.47	0.44
26:Z:375:ILE:HD12	26:Z:375:ILE:C	2.38	0.44
10:I:26:VAL:HG22	10:I:61:ALA:HB3	1.99	0.44
3:B:111:ARG:NH1	3:B:111:ARG:HG2	2.33	0.44
2:A:1147:C:HO2'	10:I:5:TYR:HH	1.65	0.44
23:V:4:G:O2'	23:V:5:G:O5'	2.36	0.44
2:A:479:C:H2'	2:A:480:U:C6	2.53	0.44
2:A:336:C:O2'	2:A:337:C:H5'	2.18	0.44
2:A:668:G:O2'	16:O:46:HIS:CD2	2.70	0.44
12:K:34:ASP:HB2	12:K:35:PRO:CD	2.47	0.44
4:C:111:LEU:HA	4:C:111:LEU:HD23	1.86	0.44
23:W:39:A:O2'	23:W:40:C:H5'	2.17	0.44
2:A:685:G:N2	2:A:704:A:OP1	2.47	0.44
2:A:437:U:O3'	5:D:125:HIS:CE1	2.71	0.44
26:Z:353:VAL:HG13	26:Z:370:PHE:CD1	2.53	0.44
1:2:112:TYR:HB3	1:2:114:LYS:NZ	2.33	0.44
1:2:24:ILE:HD11	1:2:115:VAL:H	1.82	0.44
26:Z:168:VAL:HG23	26:Z:209:TYR:CZ	2.53	0.44
8:G:85:TYR:CE2	8:G:154:TYR:HE2	2.32	0.44
2:A:1081:G:P	6:E:16:THR:HG1	2.40	0.44
2:A:17:U:H4'	2:A:1080:A:O4'	2.17	0.44
2:A:1293:G:H2'	2:A:1294:G:H8	1.82	0.44
2:A:848:C:H2'	2:A:849:C:C6	2.53	0.44
6:E:59:GLY:O	6:E:63:ARG:HG3	2.17	0.44
26:Z:9:LYS:HB3	26:Z:10:PRO:HD2	2.00	0.44
13:L:18:VAL:O	13:L:19:ARG:CB	2.64	0.44
2:A:1314:C:O2'	2:A:1315:U:H5'	2.16	0.44
20:S:6:LYS:C	20:S:7:LYS:HE3	2.37	0.44
7:F:34:GLY:HA3	7:F:71:ARG:HH21	1.82	0.44
5:D:85:LYS:HG2	5:D:86:LYS:N	2.32	0.44
12:K:57:THR:OG1	12:K:58:PRO:HD2	2.18	0.44
2:A:392:G:H2'	2:A:393:A:H8	1.83	0.44
3:B:93:VAL:HG13	3:B:93:VAL:O	2.17	0.44
2:A:1373:G:H8	2:A:1373:G:O5'	2.00	0.44
2:A:186:C:O3'	21:T:82:SER:HB3	2.17	0.44
2:A:198:G:O2'	2:A:199:G:O5'	2.34	0.44
8:G:156:TRP:H	8:G:156:TRP:HD1	1.62	0.44
6:E:82:VAL:HG12	6:E:83:GLU:N	2.33	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1142:G:C2'	2:A:1143:G:H5'	2.47	0.44
9:H:20:TYR:HA	9:H:65:TYR:CZ	2.52	0.44
2:A:657:G:C4'	16:O:28:GLN:HG2	2.48	0.44
2:A:1032:G:H2'	2:A:1033:G:N7	2.33	0.44
9:H:38:ILE:HD12	9:H:118:VAL:HG12	1.99	0.44
7:F:23:LYS:NZ	7:F:42:GLU:OE2	2.49	0.44
2:A:1431:C:H2'	2:A:1432:G:C5'	2.48	0.44
13:L:46:LYS:HB3	13:L:47:LYS:H	1.53	0.44
5:D:11:LEU:O	5:D:13:ARG:O	2.36	0.44
2:A:1313:U:H2'	2:A:1314:C:C6	2.52	0.44
14:M:49:THR:HB	14:M:52:GLU:CG	2.40	0.44
17:P:52:ASP:OD2	17:P:55:ARG:HG3	2.18	0.44
2:A:460:G:C6	2:A:470:C:H5'	2.53	0.44
1:2:136:ALA:O	1:2:139:ARG:HG2	2.18	0.44
13:L:32:PHE:CE1	13:L:86:ARG:HG3	2.52	0.44
2:A:619:U:H3	5:D:135:LEU:CD1	2.31	0.44
2:A:80:G:H2'	2:A:81:U:C6	2.53	0.44
2:A:344:A:O2'	2:A:345:C:OP1	2.32	0.44
23:W:7:G:H5'	23:W:8:U:C5	2.53	0.44
1:2:64:GLU:HG3	13:L:79:GLU:HB2	2.00	0.44
14:M:56:LEU:O	14:M:60:VAL:HG23	2.18	0.44
2:A:947:G:H2'	2:A:948:C:C6	2.52	0.44
4:C:150:LYS:NZ	4:C:167:TRP:HE1	2.15	0.44
2:A:99:U:H2'	2:A:100:C:H6	1.82	0.44
2:A:1105:A:O2'	2:A:1106:G:H5'	2.17	0.44
7:F:9:VAL:HG12	7:F:86:ARG:HG3	1.99	0.44
11:J:49:VAL:HG12	11:J:61:GLU:O	2.18	0.44
10:I:4:TYR:HA	10:I:88:TYR:CE1	2.53	0.44
1:2:2:ALA:HB3	1:2:107:PHE:CD1	2.52	0.44
1:2:24:ILE:H	1:2:24:ILE:HD12	1.79	0.44
5:D:96:LEU:CD2	5:D:139:ARG:HH21	2.31	0.44
13:L:55:VAL:HG22	13:L:67:THR:HG22	1.97	0.44
12:K:95:ILE:HG21	12:K:108:ILE:HD13	2.00	0.44
23:W:55:U:C3'	23:W:56:U:C5'	2.85	0.44
5:D:102:ASP:OD1	5:D:102:ASP:N	2.51	0.44
3:B:67:THR:HG22	3:B:90:MET:HE1	2.00	0.44
2:A:1248:A:O2'	10:I:70:LYS:NZ	2.50	0.44
2:A:1296:C:H4'	2:A:1302:U:C5	2.53	0.44
3:B:60:ASP:CG	3:B:64:ARG:HH21	2.22	0.44
2:A:1075:C:OP1	3:B:179:LYS:HE2	2.18	0.44
4:C:36:ASP:OD1	4:C:57:ILE:HG21	2.18	0.44
25:Y:20:C:N4	25:Y:58:G:H1	2.13	0.44

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:782:A:H4'	2:A:1514:C:O2'	2.18	0.44
2:A:116:A:H61	2:A:313:A:H1'	1.82	0.44
2:A:516:U:C2'	2:A:517:G:H5'	2.48	0.44
26:Z:314:THR:HG22	26:Z:377:PRO:CA	2.47	0.43
10:I:82:ALA:O	10:I:85:LEU:HG	2.18	0.43
1:2:99:THR:HG22	1:2:101:VAL:HG13	1.99	0.43
20:S:41:VAL:O	20:S:44:MET:HB2	2.18	0.43
2:A:1221:G:OP1	2:A:1321:C:N3	2.51	0.43
12:K:21:ILE:HB	12:K:84:VAL:HG12	1.99	0.43
4:C:19:GLU:O	4:C:56:ASP:HA	2.18	0.43
2:A:738:C:H2'	2:A:739:C:C6	2.53	0.43
2:A:677:U:O2	2:A:777:A:O2'	2.35	0.43
10:I:118:LYS:O	10:I:119:ALA:CB	2.63	0.43
26:Z:248:LYS:HE2	26:Z:279:GLU:CB	2.45	0.43
12:K:53:SER:C	12:K:55:LYS:N	2.71	0.43
2:A:1288:A:H1'	2:A:1352:C:O2'	2.18	0.43
2:A:1325:C:OP1	22:U:15:ARG:NH2	2.51	0.43
5:D:114:ARG:O	5:D:118:ARG:N	2.49	0.43
14:M:8:GLU:C	14:M:9:ILE:HG13	2.38	0.43
4:C:178:LEU:C	4:C:180:ALA:N	2.71	0.43
4:C:6:HIS:CD2	4:C:7:PRO:HD2	2.51	0.43
14:M:120:LYS:NZ	14:M:120:LYS:HA	2.33	0.43
5:D:84:LYS:O	5:D:85:LYS:O	2.37	0.43
3:B:17:PHE:O	3:B:18:GLY:C	2.57	0.43
2:A:17:U:H2'	2:A:18:C:H6	1.81	0.43
2:A:1080:A:H5'	6:E:14:ARG:HH21	1.80	0.43
3:B:97:TRP:HZ2	3:B:102:LEU:CD1	2.31	0.43
3:B:120:ALA:O	3:B:124:SER:HB2	2.18	0.43
12:K:109:VAL:HG12	12:K:110:ASP:N	2.33	0.43
7:F:28:ARG:HG3	7:F:28:ARG:HH11	1.82	0.43
2:A:655:A:C2	2:A:754:C:N4	2.86	0.43
26:Z:13:ASN:HD22	26:Z:241:ARG:HD2	1.82	0.43
26:Z:132:VAL:HG21	26:Z:206:ILE:HD12	2.00	0.43
26:Z:70:TYR:CE1	26:Z:79:HIS:HB2	2.53	0.43
2:A:973:G:C1'	11:J:55:LYS:HG3	2.46	0.43
5:D:108:LEU:O	5:D:110:PHE:CD1	2.71	0.43
2:A:1125:U:C5	11:J:71:LEU:HD21	2.53	0.43
14:M:10:PRO:HB2	14:M:18:ALA:HB1	1.95	0.43
26:Z:267:VAL:HG11	26:Z:288:LEU:HD11	2.00	0.43
17:P:21:VAL:HG12	17:P:34:GLU:O	2.17	0.43
2:A:1152:A:C6	2:A:1153:C:N4	2.86	0.43
1:2:96:LYS:HE2	1:2:96:LYS:HB3	1.78	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:R:73:ALA:HB3	19:R:79:LEU:HD12	2.00	0.43
16:O:21:ASP:OD1	16:O:24:SER:HB3	2.18	0.43
21:T:27:LYS:HD3	21:T:27:LYS:O	2.18	0.43
6:E:48:ALA:HB1	6:E:53:LEU:HD22	2.00	0.43
17:P:75:ARG:O	17:P:78:GLY:N	2.51	0.43
2:A:1246:C:C2'	2:A:1247:U:H5'	2.47	0.43
8:G:148:ASN:C	8:G:150:ALA:N	2.71	0.43
2:A:21:G:H2'	2:A:22:G:C8	2.53	0.43
8:G:89:MET:HG2	8:G:89:MET:O	2.18	0.43
8:G:107:ALA:C	8:G:109:ASN:H	2.22	0.43
17:P:27:LYS:HG3	17:P:30:GLY:HA3	2.00	0.43
2:A:389:A:H2'	2:A:389:A:N3	2.34	0.43
11:J:38:ILE:HG13	11:J:71:LEU:HB3	2.00	0.43
11:J:6:ILE:O	11:J:71:LEU:HD12	2.18	0.43
5:D:145:GLU:N	5:D:145:GLU:OE1	2.48	0.43
2:A:1266:G:N2	2:A:1269:A:OP2	2.50	0.43
14:M:10:PRO:O	14:M:11:ARG:CB	2.59	0.43
14:M:23:TYR:C	14:M:23:TYR:CD1	2.91	0.43
14:M:118:ALA:HB3	23:V:30:G:C5'	2.48	0.43
5:D:61:LYS:C	5:D:61:LYS:HD3	2.38	0.43
2:A:1281:U:H3'	2:A:1282:C:C6	2.53	0.43
3:B:151:GLY:O	3:B:153:ARG:N	2.51	0.43
2:A:1163:C:O2'	2:A:1164:G:H5'	2.19	0.43
4:C:53:ALA:HB1	4:C:114:PRO:HB2	1.99	0.43
13:L:83:VAL:CG1	13:L:84:LEU:N	2.81	0.43
2:A:392:G:OP2	17:P:12:LYS:HG3	2.17	0.43
6:E:7:GLU:O	6:E:8:GLU:CB	2.65	0.43
8:G:8:GLU:O	8:G:8:GLU:CG	2.67	0.43
2:A:22:G:H2'	2:A:23:C:H6	1.83	0.43
23:V:53:G:H2'	23:V:54:G:H8	1.83	0.43
26:Z:232:THR:HG22	26:Z:233:GLY:N	2.33	0.43
2:A:1333:A:H2'	2:A:1334:G:O4'	2.18	0.43
18:Q:43:LEU:O	18:Q:69:LYS:HG3	2.18	0.43
2:A:1237:C:H5''	2:A:1238:A:C1'	2.49	0.43
5:D:19:LEU:HD12	5:D:19:LEU:N	2.34	0.43
1:2:5:LEU:HD21	1:2:39:VAL:HG22	1.99	0.43
26:Z:121:LEU:HD22	29:Z:1406:KIR:O4	2.18	0.43
14:M:87:TYR:O	14:M:88:ARG:C	2.57	0.43
2:A:1050:G:O2'	2:A:1051:C:O5'	2.37	0.43
2:A:460:G:O6	2:A:470:C:H5'	2.19	0.43
2:A:368:U:O4	26:Z:234:ARG:NH1	2.48	0.43
13:L:26:ALA:O	13:L:27:LEU:O	2.36	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:392:G:H2'	2:A:393:A:C8	2.52	0.43
16:O:82:ILE:C	16:O:82:ILE:CD1	2.82	0.43
2:A:1415:G:C6	2:A:1486:G:C6	3.06	0.43
2:A:1236:A:H4'	2:A:1304:G:H4'	1.99	0.43
2:A:307:C:H2'	2:A:308:C:C6	2.53	0.43
4:C:130:VAL:O	4:C:134:ILE:HG13	2.19	0.43
8:G:31:MET:CG	8:G:32:ARG:N	2.81	0.43
2:A:19:C:H5''	6:E:86:ALA:CB	2.47	0.43
5:D:72:GLU:OE1	5:D:72:GLU:HA	2.18	0.43
5:D:31:CYS:C	5:D:33:MET:N	2.71	0.43
26:Z:96:ALA:HA	26:Z:99:MET:SD	2.58	0.43
14:M:12:ASN:HD22	14:M:12:ASN:HA	1.61	0.43
26:Z:329:GLY:HA3	26:Z:393:ARG:HG3	2.00	0.43
5:D:114:ARG:O	5:D:117:ALA:N	2.48	0.43
26:Z:254:GLU:HA	26:Z:263:ARG:O	2.19	0.43
2:A:1320:C:N4	20:S:37:ARG:HB3	2.33	0.43
2:A:878:G:H5'	9:H:89:PRO:HG2	1.99	0.43
3:B:36:ARG:N	3:B:41:ILE:HD13	2.34	0.43
16:O:16:ALA:HB1	16:O:21:ASP:HB3	2.00	0.43
21:T:87:LYS:O	21:T:91:LEU:HG	2.18	0.43
23:W:71:G:C2'	23:W:72:C:H5'	2.48	0.43
6:E:81:GLU:HG2	6:E:90:VAL:HG22	1.99	0.43
2:A:1401:G:H2'	2:A:1402:C:O4'	2.18	0.43
26:Z:347:THR:HG23	26:Z:348:ASP:N	2.32	0.43
17:P:75:ARG:NH1	17:P:75:ARG:HG3	2.31	0.43
2:A:68:G:H5'	2:A:171:A:H1'	2.00	0.43
4:C:28:GLN:O	4:C:32:LEU:HG	2.19	0.43
26:Z:315:LYS:H	26:Z:405:GLU:HB2	1.84	0.43
2:A:1057:G:H1'	4:C:195:VAL:HG11	1.99	0.43
5:D:111:ALA:C	5:D:113:SER:H	2.22	0.43
1:2:5:LEU:HD23	1:2:39:VAL:CG2	2.48	0.43
4:C:58:GLU:HB2	4:C:65:ALA:CB	2.44	0.43
21:T:72:LEU:HA	21:T:72:LEU:HD23	1.91	0.43
17:P:52:ASP:O	17:P:54:GLU:N	2.51	0.43
15:N:22:THR:O	15:N:23:ARG:CB	2.67	0.43
15:N:28:GLY:O	15:N:29:ARG:C	2.56	0.43
3:B:21:ARG:HB3	3:B:39:ILE:CG2	2.47	0.43
13:L:58:VAL:HG12	13:L:60:LEU:HD22	2.00	0.43
6:E:82:VAL:HG21	6:E:138:ALA:CA	2.48	0.43
26:Z:360:GLU:OE1	26:Z:360:GLU:N	2.52	0.43
23:W:65:G:H2'	23:W:66:C:C5'	2.48	0.43
2:A:25:C:H2'	2:A:26:A:C8	2.54	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:E:17:ALA:HB2	6:E:26:PHE:CD2	2.54	0.43
3:B:214:ILE:O	3:B:218:ALA:HB2	2.18	0.43
2:A:707:C:H2'	2:A:708:C:H6	1.84	0.43
4:C:179:ARG:HG3	4:C:206:GLU:HG2	2.00	0.43
5:D:25:ARG:C	5:D:27:TYR:N	2.72	0.43
15:N:42:ILE:HA	15:N:42:ILE:HD13	1.89	0.43
10:I:90:PRO:C	10:I:92:TYR:N	2.72	0.43
20:S:20:LEU:O	20:S:23:ASN:N	2.51	0.43
26:Z:257:GLY:O	26:Z:302:GLN:HG2	2.18	0.43
23:W:75:C:C2'	23:W:76:C:H5'	2.49	0.43
13:L:20:LYS:CD	13:L:20:LYS:H	2.27	0.43
17:P:22:THR:HA	17:P:33:ILE:HG12	2.00	0.43
9:H:88:LYS:O	9:H:92:ARG:HD2	2.19	0.43
2:A:16:A:N1	2:A:919:A:C2	2.82	0.43
8:G:16:LEU:HD12	10:I:42:ARG:HA	1.98	0.43
6:E:11:ILE:CD1	6:E:33:VAL:HG23	2.48	0.43
4:C:76:VAL:CG2	4:C:103:VAL:HG21	2.49	0.43
2:A:1350:A:P	10:I:121:ARG:HG3	2.59	0.43
26:Z:316:PHE:C	26:Z:316:PHE:HD1	2.22	0.43
2:A:59:A:H61	2:A:331:G:H1'	1.84	0.43
21:T:63:ILE:O	21:T:66:ALA:N	2.51	0.43
13:L:6:THR:HG23	13:L:9:GLN:NE2	2.33	0.43
2:A:1352:C:H2'	2:A:1353:G:C8	2.54	0.43
2:A:72:C:O2'	2:A:73:G:H5'	2.19	0.43
4:C:173:VAL:HG12	4:C:175:LEU:CD1	2.48	0.43
2:A:605:U:C2'	2:A:606:G:H5'	2.49	0.43
26:Z:249:VAL:HG22	26:Z:269:GLY:HA2	2.00	0.43
16:O:14:GLU:HG3	16:O:15:PHE:CD2	2.54	0.43
5:D:147:ALA:HA	5:D:181:MET:O	2.19	0.43
2:A:936:C:H2'	2:A:937:A:H8	1.84	0.43
1:2:31:VAL:O	1:2:35:ARG:HG3	2.19	0.43
1:2:112:TYR:CE2	25:Y:16:U:H4'	2.54	0.43
2:A:1323:G:O2'	2:A:1324:A:H5'	2.19	0.43
5:D:3:ARG:O	5:D:3:ARG:CD	2.67	0.43
15:N:12:ARG:NH1	15:N:12:ARG:HB2	2.34	0.43
20:S:51:VAL:O	20:S:58:VAL:N	2.52	0.43
2:A:1322:C:H5'	14:M:100:GLY:HA3	1.99	0.43
2:A:1219:U:P	15:N:19:ARG:HH22	2.41	0.43
2:A:264:U:H2'	2:A:265:G:O4'	2.19	0.43
19:R:47:THR:HB	19:R:49:LYS:HG3	2.00	0.43
6:E:145:LYS:HA	9:H:107:LEU:CD2	2.48	0.43
8:G:16:LEU:CD2	10:I:45:ALA:HB2	2.48	0.43

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:E:150:ARG:HH11	6:E:150:ARG:CB	2.31	0.43
7:F:91:VAL:HG12	7:F:92:LYS:N	2.34	0.43
9:H:116:LYS:HD2	9:H:129:VAL:CG1	2.43	0.43
2:A:723:U:O2	2:A:723:U:C2'	2.67	0.43
2:A:1402:C:O2	2:A:1500:A:N1	2.51	0.43
12:K:126:ARG:CB	12:K:126:ARG:HH11	2.29	0.43
8:G:54:THR:O	8:G:56:GLN:N	2.50	0.43
2:A:138:G:H2'	2:A:139:G:O4'	2.19	0.43
2:A:668:G:O2'	16:O:46:HIS:HD2	2.01	0.43
2:A:986:A:H1'	20:S:55:LYS:HA	2.01	0.43
10:I:65:VAL:HG21	10:I:73:GLN:CB	2.48	0.43
2:A:707:C:H2'	2:A:708:C:C6	2.54	0.43
2:A:495:A:H1'	2:A:496:A:C8	2.54	0.43
26:Z:315:LYS:HB2	26:Z:315:LYS:HE3	1.88	0.43
26:Z:85:HIS:HB2	26:Z:88:TYR:CD1	2.54	0.43
20:S:15:LEU:HD21	20:S:33:THR:OG1	2.19	0.43
26:Z:345:ARG:CZ	26:Z:384:LEU:HD11	2.48	0.43
2:A:1221:G:P	20:S:36:ARG:HD3	2.58	0.43
3:B:155:LEU:HD11	3:B:159:PRO:HD3	2.00	0.43
2:A:1493:A:C4	24:X:18:U:H1'	2.53	0.43
13:L:25:PRO:C	13:L:27:LEU:N	2.60	0.43
1:2:134:LYS:O	1:2:138:ARG:HB2	2.19	0.43
2:A:9:G:H5'	6:E:122:GLU:OE1	2.19	0.43
2:A:197:A:C5	2:A:221:C:H4'	2.54	0.43
3:B:8:LYS:C	3:B:10:LEU:N	2.73	0.43
2:A:1033:G:H8	2:A:1033:G:P	2.42	0.43
21:T:56:MET:O	21:T:59:ALA:HB3	2.19	0.43
21:T:16:HIS:HA	21:T:19:SER:HB2	2.01	0.43
2:A:1310:G:C2	2:A:1328:C:N3	2.86	0.43
2:A:820:U:H4'	2:A:821:G:OP2	2.19	0.43
8:G:44:TYR:O	8:G:45:ASP:C	2.55	0.43
2:A:461:A:N7	2:A:471:G:C5	2.87	0.43
2:A:621:A:O2'	2:A:622:A:H5'	2.19	0.43
2:A:799:G:C2'	2:A:800:G:H5'	2.49	0.43
13:L:89:ARG:HD3	13:L:91:LYS:N	2.34	0.43
2:A:1238:A:N7	2:A:1303:C:H1'	2.34	0.43
2:A:781:A:H4'	2:A:1522:U:O2'	2.18	0.43
2:A:1416:G:O2'	2:A:1417:G:H5'	2.19	0.43
2:A:808:C:O2'	2:A:809:G:H5'	2.19	0.43
16:O:2:PRO:HB2	16:O:3:ILE:H	1.70	0.43
26:Z:74:LYS:HD2	26:Z:207:ASP:HB3	2.00	0.42
11:J:62:HIS:O	15:N:59:ALA:HB3	2.19	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:Z:324:LYS:O	26:Z:327:GLU:N	2.48	0.42
26:Z:363:MET:CG	26:Z:364:PRO:HD2	2.29	0.42
11:J:5:ARG:CG	11:J:71:LEU:HD11	2.48	0.42
20:S:13:ASP:C	20:S:15:LEU:H	2.22	0.42
3:B:236:TYR:CD1	3:B:236:TYR:N	2.87	0.42
13:L:70:ILE:HG12	13:L:100:ILE:HD12	2.00	0.42
1:2:119:LEU:HA	1:2:119:LEU:HD22	1.72	0.42
6:E:143:ARG:HD3	6:E:143:ARG:HA	1.68	0.42
2:A:627:G:H2'	2:A:628:G:C8	2.46	0.42
2:A:792:A:O2'	2:A:793:U:P	2.77	0.42
11:J:90:LEU:N	11:J:91:PRO:CD	2.81	0.42
4:C:111:LEU:HD11	4:C:144:SER:O	2.20	0.42
2:A:1433:A:O2'	2:A:1434:A:H5'	2.19	0.42
2:A:814:A:N7	2:A:816:A:C4	2.87	0.42
18:Q:83:ASP:CG	18:Q:84:LEU:N	2.73	0.42
23:V:29:C:C2	23:V:44:A:C2	3.07	0.42
26:Z:314:THR:O	26:Z:373:GLU:HA	2.19	0.42
5:D:188:LEU:HA	5:D:189:PRO:HD2	1.88	0.42
11:J:12:ASP:C	11:J:14:LYS:H	2.23	0.42
3:B:19:HIS:CG	3:B:20:GLU:N	2.86	0.42
2:A:1492:A:H2'	2:A:1492:A:OP1	2.19	0.42
1:2:133:LYS:HB2	1:2:133:LYS:HE3	1.82	0.42
13:L:113:ARG:CB	13:L:122:THR:HG21	2.47	0.42
2:A:1350:A:C5	2:A:1351:U:C4	3.07	0.42
2:A:1413:A:C2	2:A:1414:U:C2	3.07	0.42
23:W:6:G:N2	23:W:69:C:N3	2.67	0.42
2:A:1244:C:H2'	2:A:1245:A:C8	2.54	0.42
2:A:770:C:O2'	2:A:771:G:H5'	2.19	0.42
2:A:658:G:H2'	2:A:659:U:H6	1.84	0.42
2:A:41:G:H2'	2:A:42:G:H8	1.83	0.42
2:A:1090:U:O2'	2:A:1091:U:H5'	2.19	0.42
17:P:74:LEU:O	17:P:79:VAL:HG23	2.19	0.42
2:A:50:A:N6	2:A:361:G:H4'	2.34	0.42
2:A:642:A:C5	9:H:115:SER:HA	2.53	0.42
9:H:53:VAL:HB	9:H:58:TYR:CE1	2.55	0.42
16:O:31:LEU:HD12	16:O:31:LEU:HA	1.73	0.42
5:D:108:LEU:O	5:D:110:PHE:CE1	2.72	0.42
1:2:2:ALA:HB3	1:2:107:PHE:CE1	2.54	0.42
1:2:82:HIS:HB2	1:2:85:GLU:HB2	2.01	0.42
5:D:118:ARG:HH11	5:D:118:ARG:HG3	1.82	0.42
4:C:8:ILE:O	4:C:10:PHE:N	2.52	0.42
2:A:953:G:C2	2:A:954:G:H1'	2.54	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:72:GLY:O	3:B:94:ASN:HA	2.18	0.42
19:R:25:THR:O	19:R:25:THR:HG22	2.19	0.42
8:G:145:ALA:O	8:G:146:GLU:C	2.56	0.42
2:A:1443:G:OP2	2:A:1443:G:H8	2.02	0.42
2:A:189(I):G:C2'	2:A:189(J):G:H5'	2.49	0.42
8:G:26:PHE:CZ	8:G:30:ILE:HD11	2.55	0.42
2:A:1516:G:N1	2:A:1519:A:OP2	2.52	0.42
9:H:103:VAL:HG21	9:H:110:ALA:HB2	1.96	0.42
2:A:422:C:H1'	2:A:423:G:C2	2.54	0.42
6:E:76:ILE:HB	6:E:77:PRO:HD2	1.99	0.42
23:W:70:C:O2'	23:W:71:G:H5'	2.18	0.42
10:I:100:GLY:C	10:I:102:LEU:H	2.23	0.42
21:T:41:ILE:O	21:T:43:LEU:N	2.52	0.42
2:A:783:C:C2'	2:A:784:C:H5'	2.49	0.42
16:O:37:ASN:N	16:O:37:ASN:ND2	2.66	0.42
21:T:53:LEU:HD12	21:T:53:LEU:H	1.82	0.42
5:D:57:ARG:NH2	5:D:202:LEU:HD22	2.35	0.42
23:W:18:U:O2'	23:W:19:G:P	2.77	0.42
4:C:174:PRO:HB2	4:C:177:THR:HB	2.01	0.42
9:H:1:MET:HE2	9:H:2:LEU:H	1.84	0.42
14:M:108:ARG:CG	14:M:108:ARG:NH1	2.51	0.42
14:M:97:PRO:CG	14:M:103:THR:HG22	2.48	0.42
2:A:1281:U:H5'	2:A:1282:C:H5	1.85	0.42
25:Y:9:A:C8	25:Y:9:A:H5''	2.54	0.42
3:B:12:GLU:O	3:B:16:HIS:ND1	2.31	0.42
3:B:235:SER:O	3:B:237:ALA:N	2.53	0.42
3:B:70:PHE:O	3:B:92:TYR:HA	2.20	0.42
25:Y:55:U:H2'	25:Y:56:U:C5'	2.49	0.42
2:A:1458:G:H2'	2:A:1459:C:H6	1.84	0.42
6:E:32:VAL:HG12	6:E:33:VAL:N	2.34	0.42
8:G:113:GLU:CB	8:G:119:ARG:HG2	2.44	0.42
2:A:1030(A):G:H2'	2:A:1030(C):G:OP2	2.19	0.42
2:A:401:C:O2'	2:A:402:G:H5'	2.18	0.42
6:E:83:GLU:OE2	6:E:88:LYS:HD2	2.19	0.42
21:T:26:ASN:HD22	21:T:26:ASN:C	2.21	0.42
21:T:59:ALA:O	21:T:60:GLU:C	2.57	0.42
2:A:1328:C:H2'	2:A:1329:A:H8	1.83	0.42
2:A:609:A:H2'	2:A:610:G:H5'	2.02	0.42
2:A:415:A:H2'	2:A:416:G:H8	1.84	0.42
13:L:11:VAL:HG22	18:Q:29:HIS:CD2	2.54	0.42
2:A:55:A:N6	25:Y:88:C:C5	2.88	0.42
2:A:920:U:H2'	2:A:921:U:C6	2.53	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:F:50:TYR:CE1	19:R:77:GLY:HA2	2.54	0.42
25:Y:1:G:N2	25:Y:2:G:C4	2.88	0.42
26:Z:222:LEU:HG	26:Z:303:VAL:CG1	2.46	0.42
21:T:76:ALA:HA	21:T:79:ARG:NH1	2.35	0.42
5:D:96:LEU:N	5:D:96:LEU:HD12	2.34	0.42
9:H:11:THR:CG2	9:H:15:ASN:HD21	2.33	0.42
2:A:458:C:C6	2:A:460:G:N7	2.88	0.42
3:B:20:GLU:HG3	3:B:191:ASP:HB2	2.02	0.42
21:T:100:ILE:N	21:T:100:ILE:CD1	2.80	0.42
3:B:97:TRP:CH2	3:B:176:GLU:OE2	2.72	0.42
15:N:56:VAL:HG12	15:N:56:VAL:O	2.18	0.42
3:B:60:ASP:CG	3:B:64:ARG:NH2	2.73	0.42
2:A:1168:A:C6	2:A:1169:A:C6	3.08	0.42
26:Z:337:GLY:O	26:Z:338:TYR:C	2.57	0.42
12:K:67:ASP:OD1	12:K:71:LYS:HD2	2.20	0.42
6:E:107:ARG:O	6:E:111:GLU:HB2	2.20	0.42
3:B:217:ARG:HA	3:B:220:ASP:OD2	2.20	0.42
2:A:246:A:N1	2:A:278:G:O2'	2.46	0.42
4:C:154:SER:O	4:C:196:LEU:HD13	2.20	0.42
15:N:44:LEU:HD12	15:N:53:LEU:HD11	2.01	0.42
11:J:48:THR:HG23	11:J:62:HIS:CG	2.54	0.42
1:2:28:GLY:H	1:2:31:VAL:HG23	1.84	0.42
1:2:38:LYS:HD2	1:2:38:LYS:HA	1.87	0.42
25:Y:60:A:O2'	25:Y:61:C:OP1	2.33	0.42
2:A:1316:G:O3'	15:N:18:VAL:CG2	2.68	0.42
5:D:61:LYS:HD3	5:D:62:GLN:N	2.34	0.42
15:N:23:ARG:CD	15:N:28:GLY:O	2.68	0.42
12:K:21:ILE:HD13	12:K:82:VAL:HG23	2.02	0.42
2:A:368:U:O4	26:Z:234:ARG:HD3	2.20	0.42
8:G:88:PRO:HB2	8:G:145:ALA:HB1	2.01	0.42
2:A:1296:C:H4'	2:A:1302:U:H5	1.84	0.42
6:E:143:ARG:NH1	9:H:77:GLU:OE2	2.53	0.42
8:G:148:ASN:O	8:G:150:ALA:N	2.53	0.42
2:A:1327:C:O2'	2:A:1328:C:H5'	2.20	0.42
3:B:81:VAL:O	3:B:85:ALA:HB2	2.19	0.42
4:C:147:LYS:CB	4:C:203:PHE:CD2	3.03	0.42
2:A:637:G:H2'	2:A:638:G:H8	1.84	0.42
2:A:865:A:H2'	2:A:866:C:C6	2.54	0.42
2:A:802:A:H3'	2:A:803:G:C8	2.54	0.42
19:R:61:LYS:O	19:R:65:ILE:HG12	2.19	0.42
4:C:94:LEU:HD12	4:C:94:LEU:C	2.40	0.42
2:A:436:C:H5''	5:D:156:GLU:OE1	2.20	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:2:129:ARG:C	1:2:129:ARG:HD2	2.40	0.42
26:Z:314:THR:CG2	26:Z:377:PRO:HB3	2.50	0.42
2:A:1057:G:C2'	2:A:1058:G:H5'	2.49	0.42
2:A:1366:C:H2'	2:A:1367:C:H6	1.84	0.42
5:D:67:ILE:HG22	5:D:67:ILE:O	2.19	0.42
2:A:1324:A:H2'	2:A:1325:C:H6	1.83	0.42
2:A:923:A:O2'	2:A:924:C:H5'	2.19	0.42
25:Y:40:C:H6	25:Y:40:C:O5'	2.02	0.42
2:A:750:G:H21	16:O:23:GLY:HA3	1.85	0.42
11:J:31:GLY:HA3	11:J:78:ASN:HD21	1.79	0.42
7:F:3:ARG:HB3	7:F:93:SER:HB2	2.01	0.42
10:I:79:LEU:O	10:I:79:LEU:HD13	2.19	0.42
6:E:83:GLU:HG2	6:E:88:LYS:HG3	2.02	0.42
2:A:600:C:H2'	2:A:601:C:H6	1.85	0.42
3:B:79:ASP:C	3:B:81:VAL:N	2.73	0.42
2:A:936:C:O2'	2:A:937:A:H5'	2.20	0.42
2:A:802:A:H2'	2:A:803:G:O4'	2.19	0.42
3:B:105:PHE:O	3:B:106:LYS:C	2.58	0.42
2:A:303:A:H2'	2:A:304:U:H6	1.84	0.42
11:J:22:LYS:HE3	11:J:22:LYS:HB3	1.85	0.42
21:T:8:ARG:HH11	21:T:8:ARG:HG3	1.84	0.42
5:D:20:TYR:HD2	5:D:26:CYS:O	2.02	0.42
2:A:1205:U:H4'	4:C:195:VAL:HG23	2.01	0.42
11:J:54:PHE:CD1	11:J:55:LYS:CE	3.03	0.42
11:J:61:GLU:OE1	15:N:45:ARG:HD2	2.19	0.42
10:I:94:ALA:O	10:I:95:LYS:HB3	2.19	0.42
1:2:110:ARG:CD	1:2:110:ARG:H	2.32	0.42
14:M:73:GLU:HG2	14:M:77:ASN:HD21	1.85	0.42
17:P:14:ASN:N	17:P:15:PRO:HD3	2.34	0.42
2:A:1286:A:O2'	2:A:1287:A:C4'	2.68	0.42
12:K:82:VAL:CG1	12:K:108:ILE:HG23	2.50	0.42
5:D:70:ILE:CG2	5:D:74:GLN:HB3	2.49	0.42
4:C:46:GLU:O	4:C:47:LEU:HD13	2.19	0.42
6:E:120:THR:HG22	6:E:121:LYS:N	2.33	0.42
2:A:1347:G:C4	10:I:107:ARG:NH2	2.88	0.42
16:O:87:ILE:CG2	16:O:88:ARG:H	2.33	0.42
2:A:160:A:H1'	2:A:344:A:C5	2.54	0.42
26:Z:316:PHE:HD2	26:Z:380:LEU:HD13	1.83	0.42
10:I:80:GLY:O	10:I:84:ALA:N	2.51	0.42
2:A:116:A:O5'	2:A:116:A:H8	2.02	0.42
2:A:1383:C:H2'	2:A:1384:C:C6	2.54	0.42
2:A:1242:C:H2'	2:A:1243:C:C6	2.55	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:H:105:ARG:HD3	9:H:105:ARG:HA	1.72	0.42
2:A:510:A:O2'	2:A:542:G:H1'	2.19	0.42
26:Z:98:GLN:O	26:Z:99:MET:HG2	2.19	0.42
3:B:74:LYS:HD3	3:B:205:ASP:O	2.19	0.42
14:M:86:CYS:HB2	20:S:73:GLU:HB3	2.02	0.42
4:C:181:ASN:ND2	4:C:204:LEU:HB2	2.34	0.42
2:A:1283:G:O2'	2:A:1284:C:H6	2.01	0.42
25:Y:74:C:H2'	25:Y:75:C:C6	2.49	0.42
2:A:266:G:O3'	18:Q:67:LYS:HB2	2.20	0.42
2:A:452:A:C2	2:A:453:A:C4	3.08	0.42
13:L:53:ARG:HB2	13:L:93:LEU:HD21	2.02	0.42
19:R:45:SER:HB3	19:R:49:LYS:HB2	2.02	0.42
12:K:99:GLN:CG	12:K:105:VAL:HG11	2.50	0.42
7:F:61:LEU:HD13	7:F:63:TYR:OH	2.19	0.42
3:B:18:GLY:HA2	3:B:42:ILE:H	1.85	0.42
26:Z:135:MET:HE1	26:Z:151:GLU:HB2	2.02	0.42
1:2:133:LYS:O	1:2:137:VAL:HG12	2.19	0.42
2:A:1080:A:H5''	6:E:16:THR:HG21	2.01	0.42
2:A:9:G:OP1	6:E:121:LYS:NZ	2.51	0.42
17:P:25:ARG:HG3	17:P:25:ARG:HH11	1.85	0.42
6:E:11:ILE:HG13	6:E:31:LEU:CD1	2.49	0.42
2:A:1347:G:H22	2:A:1374:A:P	2.43	0.42
18:Q:86:GLU:O	18:Q:87:LYS:C	2.58	0.42
2:A:1259:C:C4	2:A:1260:C:O2	2.72	0.42
3:B:81:VAL:O	3:B:85:ALA:CB	2.68	0.42
20:S:9:VAL:O	20:S:11:VAL:N	2.53	0.42
2:A:71:C:H2'	2:A:72:C:C5	2.55	0.42
2:A:638:G:O2'	2:A:639:G:H5'	2.20	0.42
2:A:503:C:H2'	2:A:504:C:H6	1.85	0.42
3:B:231:GLU:HB2	3:B:232:PRO:CD	2.50	0.42
1:2:81:LEU:HA	1:2:81:LEU:HD23	1.73	0.42
25:Y:3:G:H2'	25:Y:4:G:O4'	2.20	0.42
2:A:1122:U:H2'	2:A:1123:A:C5'	2.48	0.42
2:A:1125:U:O4	11:J:5:ARG:NE	2.52	0.42
14:M:79:LYS:HB3	14:M:82:MET:SD	2.60	0.42
21:T:74:LYS:CG	21:T:75:ASN:N	2.79	0.42
2:A:1318:A:O3'	20:S:10:PHE:CD2	2.72	0.42
2:A:1322:C:OP2	2:A:1322:C:H6	2.03	0.42
13:L:85:ILE:HD12	13:L:85:ILE:HA	1.90	0.42
12:K:18:ARG:HD3	12:K:20:TYR:OH	2.20	0.42
2:A:1154:G:H2'	2:A:1155:G:H8	1.85	0.42
19:R:40:LEU:HB3	19:R:79:LEU:HD11	2.02	0.42

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:L:27:LEU:HD23	13:L:64:TYR:CE1	2.55	0.42
2:A:1457:G:O2'	2:A:1458:G:H5'	2.19	0.42
6:E:112:LEU:HD23	6:E:112:LEU:HA	1.86	0.42
6:E:43:LEU:HD23	6:E:133:TYR:CE1	2.55	0.42
6:E:6:PHE:HB3	6:E:35:GLY:O	2.20	0.42
2:A:501:C:H1'	2:A:549:C:H1'	2.02	0.42
9:H:65:TYR:CD1	9:H:65:TYR:N	2.87	0.42
26:Z:139:ASP:OD1	26:Z:174:SER:HB2	2.20	0.42
18:Q:81:ARG:HD2	18:Q:81:ARG:HA	1.93	0.42
2:A:1199:U:H4'	11:J:54:PHE:CZ	2.54	0.41
26:Z:119:HIS:O	26:Z:120:ILE:C	2.58	0.41
2:A:1117:G:H5'	2:A:1117:G:H8	1.85	0.41
2:A:1319:A:P	20:S:5:LEU:HD23	2.60	0.41
3:B:53:ARG:NH2	3:B:199:TYR:CE1	2.88	0.41
20:S:7:LYS:HA	20:S:7:LYS:HD3	1.80	0.41
20:S:69:HIS:HA	20:S:73:GLU:OE2	2.20	0.41
3:B:44:LEU:HA	3:B:47:THR:OG1	2.20	0.41
4:C:29:TYR:C	4:C:29:TYR:CD1	2.93	0.41
11:J:40:LEU:HG	11:J:69:ASN:CB	2.50	0.41
2:A:1219:U:C5	2:A:1220:G:N7	2.88	0.41
20:S:37:ARG:HD3	20:S:37:ARG:O	2.20	0.41
2:A:277:C:H5'	18:Q:68:ARG:NH1	2.34	0.41
2:A:538:G:OP1	13:L:115:LYS:N	2.50	0.41
2:A:1490:A:H2'	2:A:1491:G:C5'	2.50	0.41
3:B:97:TRP:HH2	3:B:176:GLU:CD	2.23	0.41
2:A:922:G:H4'	6:E:20:GLN:HA	2.01	0.41
16:O:9:GLN:O	16:O:12:ILE:N	2.52	0.41
5:D:56:VAL:O	5:D:57:ARG:C	2.58	0.41
6:E:107:ARG:C	6:E:109:ILE:H	2.24	0.41
6:E:107:ARG:C	6:E:109:ILE:N	2.73	0.41
3:B:106:LYS:HG3	3:B:107:THR:H	1.84	0.41
13:L:117:ARG:O	13:L:118:SER:C	2.55	0.41
26:Z:321:TYR:N	26:Z:397:ALA:O	2.53	0.41
5:D:29:PRO:C	5:D:30:LYS:HG2	2.39	0.41
1:2:84:HIS:HA	1:2:87:ARG:CD	2.49	0.41
2:A:1317:C:OP1	15:N:18:VAL:HG22	2.20	0.41
20:S:15:LEU:HD22	20:S:15:LEU:HA	1.91	0.41
20:S:19:VAL:CG1	20:S:44:MET:HE2	2.50	0.41
2:A:1201:A:H5'	2:A:1203:C:OP2	2.20	0.41
3:B:157:ARG:HG2	3:B:158:LEU:N	2.36	0.41
8:G:152:ALA:O	8:G:154:TYR:N	2.51	0.41
11:J:14:LYS:O	11:J:16:LEU:N	2.53	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:712:A:O2'	2:A:713:G:H5'	2.21	0.41
2:A:173:U:C6	2:A:197:A:C2	3.08	0.41
23:W:69:C:H2'	23:W:70:C:C6	2.55	0.41
8:G:22:LEU:CD2	8:G:62:PHE:CE2	3.02	0.41
16:O:81:LEU:CD1	16:O:85:LEU:HD12	2.51	0.41
2:A:1239:A:O2'	2:A:1240:U:OP2	2.32	0.41
2:A:349:A:C2'	2:A:350:G:H5'	2.50	0.41
2:A:782:A:O3'	2:A:1515:C:H4'	2.19	0.41
14:M:57:ARG:C	14:M:59:TYR:H	2.22	0.41
8:G:34:GLY:C	8:G:36:LYS:H	2.18	0.41
4:C:182:ILE:HA	4:C:202:ILE:O	2.20	0.41
18:Q:20:THR:CG2	18:Q:41:LYS:HD2	2.49	0.41
2:A:611:A:O2'	2:A:612:C:H5'	2.19	0.41
2:A:1291:G:H4'	10:I:39:GLY:HA3	2.02	0.41
5:D:8:VAL:HG23	5:D:9:CYS:N	2.35	0.41
26:Z:14:VAL:HA	26:Z:99:MET:HB2	2.02	0.41
2:A:963:G:N2	11:J:55:LYS:HG2	2.35	0.41
1:2:24:ILE:HG13	1:2:79:LEU:HD23	2.02	0.41
1:2:30:GLU:HB3	1:2:60:ILE:HG21	2.02	0.41
26:Z:324:LYS:CG	26:Z:325:LYS:H	2.33	0.41
14:M:90:LEU:HD23	14:M:90:LEU:H	1.84	0.41
2:A:90:U:O3'	2:A:91:C:H6	2.03	0.41
3:B:92:TYR:CE1	3:B:151:GLY:HA2	2.55	0.41
6:E:51:VAL:HB	6:E:52:PRO:CD	2.45	0.41
2:A:673:G:H5''	7:F:87:ARG:NE	2.36	0.41
17:P:6:LEU:HD23	17:P:17:TYR:HB3	1.98	0.41
18:Q:59:ILE:CG2	18:Q:71:PHE:CD1	3.01	0.41
4:C:77:ILE:HG23	4:C:84:ILE:CG2	2.50	0.41
2:A:243:A:H4'	2:A:244:U:C5'	2.49	0.41
13:L:8:ASN:HD22	18:Q:34:LYS:CE	2.32	0.41
10:I:115:GLY:O	10:I:116:LYS:HG2	2.20	0.41
2:A:108:G:C6	21:T:15:ARG:HG3	2.54	0.41
14:M:54:VAL:C	14:M:56:LEU:N	2.72	0.41
2:A:977:A:O2'	2:A:978:A:H5''	2.20	0.41
4:C:172:ARG:C	4:C:173:VAL:HG23	2.40	0.41
2:A:639:G:O2'	2:A:640:A:H5'	2.20	0.41
2:A:430:A:C2'	2:A:431:A:H5'	2.51	0.41
5:D:112:VAL:O	5:D:112:VAL:HG22	2.20	0.41
26:Z:323:LEU:H	26:Z:323:LEU:HD13	1.84	0.41
5:D:4:TYR:O	5:D:5:ILE:CB	2.61	0.41
14:M:66:LEU:O	14:M:67:GLU:O	2.38	0.41
14:M:77:ASN:O	14:M:81:LEU:CD2	2.55	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:M:91:ARG:O	14:M:95:GLY:N	2.51	0.41
14:M:91:ARG:HH11	14:M:96:LEU:HB3	1.84	0.41
25:Y:72:C:O2'	25:Y:73:U:O5'	2.37	0.41
17:P:18:ARG:O	17:P:19:ILE:C	2.57	0.41
12:K:99:GLN:HG2	12:K:105:VAL:CG2	2.50	0.41
2:A:368:U:H3'	2:A:369:C:H5''	2.02	0.41
4:C:55:VAL:O	4:C:55:VAL:HG12	2.20	0.41
6:E:31:LEU:HD23	6:E:45:PHE:CB	2.48	0.41
10:I:79:LEU:HD11	10:I:83:ARG:NH2	2.35	0.41
10:I:110:GLU:HG2	10:I:113:LYS:HZ1	1.80	0.41
2:A:197:A:H4'	2:A:198:G:O5'	2.20	0.41
8:G:77:SER:HB3	8:G:84:ASN:ND2	2.32	0.41
8:G:141:VAL:O	8:G:141:VAL:HG12	2.20	0.41
26:Z:388:ILE:HG22	26:Z:395:VAL:CG2	2.51	0.41
2:A:1040:U:H2'	2:A:1041:A:C8	2.55	0.41
2:A:1213:A:N7	2:A:1215:G:C5	2.89	0.41
8:G:73:MET:HG2	8:G:90:GLU:HG2	2.02	0.41
2:A:1046:A:H2'	2:A:1047:G:H5'	2.01	0.41
14:M:72:ALA:O	14:M:75:ALA:HB3	2.20	0.41
12:K:14:VAL:HG23	12:K:14:VAL:O	2.19	0.41
2:A:409:G:OP1	5:D:25:ARG:N	2.52	0.41
3:B:74:LYS:O	3:B:77:ALA:N	2.49	0.41
11:J:23:ILE:HG23	11:J:85:LEU:HD13	2.02	0.41
1:2:39:VAL:O	1:2:39:VAL:CG2	2.68	0.41
10:I:104:ARG:CG	10:I:105:ASP:N	2.83	0.41
14:M:90:LEU:HB2	14:M:91:ARG:H	1.48	0.41
4:C:7:PRO:HG3	4:C:184:TYR:CD1	2.55	0.41
3:B:44:LEU:O	3:B:46:LYS:N	2.54	0.41
2:A:1157:A:C4	2:A:1181:G:N2	2.88	0.41
26:Z:299:GLU:HB3	26:Z:300:ARG:H	1.73	0.41
7:F:35:ALA:HA	7:F:67:MET:HB3	2.01	0.41
25:Y:10:A:H2'	25:Y:10:A:N3	2.34	0.41
2:A:369:C:O2'	2:A:370:C:P	2.78	0.41
21:T:89:ARG:HB2	21:T:104:LEU:HD11	2.02	0.41
6:E:20:GLN:NE2	6:E:20:GLN:C	2.74	0.41
23:W:48:U:H3'	23:W:49:C:C5'	2.51	0.41
9:H:41:ARG:NH1	9:H:123:GLU:OE1	2.53	0.41
2:A:1101:A:O2'	2:A:1102:A:OP1	2.37	0.41
4:C:122:GLU:O	4:C:126:ARG:HG3	2.21	0.41
12:K:40:ILE:HG22	12:K:75:TYR:CD2	2.56	0.41
2:A:102:G:H2'	2:A:103:C:C6	2.55	0.41
2:A:1484:C:O2'	2:A:1485:U:H5'	2.20	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:283:C:O5'	2:A:283:C:H6	2.04	0.41
26:Z:132:VAL:CG1	26:Z:133:VAL:N	2.83	0.41
1:2:5:LEU:CD2	1:2:39:VAL:CG2	2.98	0.41
10:I:11:LYS:HE2	10:I:11:LYS:HB3	1.80	0.41
2:A:1317:C:C2	15:N:16:PHE:CE1	3.08	0.41
5:D:88:VAL:HG12	5:D:89:THR:N	2.35	0.41
5:D:92:VAL:O	5:D:96:LEU:HD13	2.21	0.41
2:A:1320:C:C2	20:S:72:GLY:HA3	2.55	0.41
2:A:1202:G:C1'	15:N:29:ARG:HD3	2.50	0.41
1:2:144:LEU:HD12	6:E:52:PRO:HG3	2.02	0.41
11:J:46:ARG:HA	11:J:64:GLU:HB3	2.03	0.41
23:W:49:C:OP1	23:W:60:A:H5'	2.20	0.41
2:A:401:C:OP1	5:D:77:ASN:ND2	2.54	0.41
2:A:262:A:C6	2:A:263:A:C6	3.09	0.41
2:A:930:C:C2'	2:A:931:C:H5'	2.49	0.41
2:A:947:G:C6	2:A:948:C:C4	3.08	0.41
1:2:123:LYS:O	1:2:124:LYS:HG3	2.20	0.41
2:A:1389:C:H2'	2:A:1390:U:H6	1.85	0.41
20:S:27:GLU:O	20:S:28:LYS:O	2.39	0.41
2:A:187:C:O2'	2:A:188:C:H5'	2.20	0.41
26:Z:315:LYS:HE3	26:Z:405:GLU:HG2	2.02	0.41
26:Z:145:GLU:O	26:Z:148:ASP:N	2.53	0.41
5:D:3:ARG:HE	5:D:5:ILE:HG13	1.84	0.41
20:S:15:LEU:HB3	20:S:16:LEU:HD12	2.03	0.41
14:M:81:LEU:CD2	14:M:81:LEU:N	2.84	0.41
3:B:44:LEU:O	3:B:47:THR:N	2.53	0.41
2:A:1049:U:H1'	2:A:1201:A:N7	2.36	0.41
2:A:1221:G:H4'	20:S:77:THR:HG21	2.02	0.41
2:A:1452:C:H4'	2:A:1456:G:H5''	2.02	0.41
21:T:96:GLY:O	21:T:97:ALA:O	2.39	0.41
2:A:750:G:N2	16:O:23:GLY:HA3	2.36	0.41
10:I:70:LYS:O	10:I:74:ILE:HG13	2.21	0.41
8:G:120:ILE:O	8:G:124:LEU:HG	2.21	0.41
6:E:8:GLU:HA	6:E:34:VAL:HA	2.03	0.41
2:A:66:G:H5'	2:A:173:U:O4	2.20	0.41
14:M:54:VAL:HG12	14:M:58:GLU:CG	2.51	0.41
2:A:942:G:C2	2:A:1342:C:C2	3.08	0.41
23:W:52:C:H2'	23:W:53:G:H8	1.85	0.41
2:A:691:G:H2'	2:A:692:U:C6	2.55	0.41
2:A:848:C:H3'	2:A:848:C:H6	1.86	0.41
2:A:516:U:H2'	2:A:517:G:H5'	2.02	0.41
9:H:1:MET:CE	9:H:3:THR:HG23	2.51	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1243:C:C2	2:A:1295:G:N2	2.89	0.41
7:F:96:PRO:HB3	19:R:30:ASP:CG	2.40	0.41
26:Z:161:TYR:O	26:Z:162:GLU:HB2	2.21	0.41
11:J:49:VAL:CG2	15:N:41:ARG:HB2	2.49	0.41
10:I:4:TYR:O	10:I:19:LEU:N	2.53	0.41
10:I:4:TYR:CZ	10:I:88:TYR:HB3	2.56	0.41
1:2:7:ASN:ND2	1:2:7:ASN:C	2.70	0.41
2:A:1114:C:O2'	2:A:1115:C:H5'	2.21	0.41
20:S:40:ILE:CG2	20:S:67:VAL:HA	2.51	0.41
14:M:93:ARG:N	14:M:93:ARG:CD	2.81	0.41
3:B:142:LEU:CD2	3:B:146:GLN:NE2	2.84	0.41
4:C:6:HIS:O	4:C:7:PRO:C	2.58	0.41
26:Z:264:LYS:HE2	26:Z:307:PRO:CG	2.50	0.41
4:C:29:TYR:HD1	4:C:29:TYR:C	2.24	0.41
2:A:18:C:H5''	6:E:127:ASN:ND2	2.36	0.41
9:H:114:THR:C	9:H:116:LYS:H	2.24	0.41
21:T:31:SER:O	21:T:35:THR:HG23	2.21	0.41
6:E:107:ARG:CG	6:E:108:ALA:N	2.83	0.41
3:B:106:LYS:HG3	3:B:107:THR:N	2.35	0.41
2:A:1383:C:H2'	2:A:1384:C:H6	1.86	0.41
5:D:201:GLN:O	5:D:204:ILE:N	2.45	0.41
2:A:1007:C:O2'	2:A:1008:C:H5'	2.20	0.41
6:E:73:ASN:HA	6:E:73:ASN:HD22	1.61	0.41
26:Z:132:VAL:HG11	26:Z:206:ILE:CD1	2.51	0.41
3:B:80:ILE:CD1	3:B:80:ILE:N	2.65	0.41
11:J:4:ILE:HD13	11:J:77:PRO:HB2	2.03	0.41
1:2:84:HIS:HA	1:2:87:ARG:CG	2.51	0.41
1:2:105:ILE:HG12	1:2:115:VAL:HG23	2.03	0.41
2:A:1116:C:O2'	10:I:108:VAL:HG21	2.21	0.41
2:A:1323:G:H4'	2:A:1363:C:N3	2.36	0.41
3:B:163:PHE:CD1	3:B:185:ILE:CG1	3.01	0.41
13:L:17:LYS:HD3	13:L:18:VAL:N	2.35	0.41
2:A:1190:G:OP1	4:C:5:ILE:N	2.54	0.41
2:A:1064:G:N2	2:A:1190:G:O2'	2.51	0.41
4:C:7:PRO:HG2	4:C:184:TYR:HB2	2.02	0.41
26:Z:239:THR:HA	26:Z:286:VAL:O	2.21	0.41
3:B:16:HIS:HB3	3:B:210:SER:CB	2.46	0.41
3:B:237:ALA:O	3:B:238:LEU:HB3	2.21	0.41
26:Z:368:VAL:CG1	26:Z:369:THR:N	2.82	0.41
2:A:1232:U:H2'	2:A:1233:G:O5'	2.21	0.41
7:F:61:LEU:HB3	7:F:63:TYR:HE1	1.85	0.41
3:B:28:PHE:CG	3:B:190:THR:HA	2.56	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:B:36:ARG:C	3:B:38:GLY:H	2.22	0.41
21:T:97:ALA:O	21:T:99:LEU:N	2.54	0.41
2:A:1216:G:OP2	15:N:2:ALA:HB1	2.21	0.41
10:I:99:LEU:N	10:I:99:LEU:CD2	2.84	0.41
1:2:134:LYS:O	1:2:137:VAL:HG13	2.20	0.41
3:B:71:VAL:HG13	3:B:97:TRP:CD1	2.55	0.41
8:G:13:GLN:O	8:G:24:THR:HG21	2.20	0.41
2:A:1103:C:H5''	3:B:98:LEU:HD22	2.03	0.41
2:A:419:C:O2	2:A:425:G:C2	2.74	0.41
2:A:826:C:H2'	2:A:827:U:H6	1.86	0.41
2:A:972:C:O3'	11:J:57:LYS:CG	2.68	0.41
12:K:126:ARG:C	12:K:128:ALA:N	2.71	0.41
2:A:556:C:C2'	2:A:557:G:H5'	2.51	0.41
26:Z:330:ARG:HG3	26:Z:395:VAL:CG1	2.51	0.41
2:A:57:G:H2'	2:A:58:C:C6	2.56	0.41
7:F:44:GLY:HA2	7:F:59:TYR:CE1	2.56	0.41
2:A:689:C:O2'	2:A:690:G:H5'	2.20	0.41
2:A:1192:C:O2	6:E:25:ARG:NH2	2.54	0.41
2:A:116:A:H2'	2:A:117:G:C8	2.56	0.41
2:A:590:C:H2'	2:A:591:U:H6	1.86	0.41
2:A:788:U:H2'	2:A:789:U:O4'	2.20	0.41
23:V:7:G:H3'	23:V:8:U:C5'	2.49	0.41
13:L:127:GLU:O	13:L:128:ALA:C	2.58	0.41
14:M:32:GLU:O	14:M:32:GLU:HG2	2.21	0.41
8:G:114:ARG:HG2	8:G:114:ARG:H	1.59	0.41
2:A:10:A:O2'	2:A:11:G:H5'	2.21	0.41
4:C:42:LEU:HD21	4:C:90:GLU:OE1	2.20	0.41
5:D:131:ARG:N	5:D:131:ARG:HD3	2.36	0.41
5:D:173:TRP:C	5:D:186:LEU:HB2	2.41	0.41
5:D:192:GLU:C	5:D:194:LEU:N	2.74	0.41
5:D:65:ARG:C	5:D:67:ILE:H	2.25	0.41
3:B:74:LYS:HZ3	3:B:76:GLN:HE21	1.65	0.41
1:2:22:ALA:O	1:2:115:VAL:HG12	2.21	0.41
26:Z:143:ASP:HB3	26:Z:146:LEU:CB	2.29	0.41
26:Z:146:LEU:HA	26:Z:146:LEU:HD13	1.88	0.41
2:A:1281:U:C5'	2:A:1282:C:H5	2.34	0.41
2:A:1320:C:H2'	2:A:1321:C:O4'	2.21	0.41
2:A:1151:A:H5''	11:J:42:THR:OG1	2.21	0.41
2:A:9:G:C5'	6:E:122:GLU:OE1	2.69	0.41
6:E:55:VAL:O	6:E:58:ALA:HB3	2.21	0.41
16:O:75:PRO:HG2	16:O:76:GLU:H	1.85	0.41
16:O:87:ILE:O	16:O:88:ARG:CB	2.69	0.41

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:Q:56:VAL:O	18:Q:77:VAL:HB	2.20	0.41
2:A:1348:U:H4'	10:I:120:ARG:HD2	2.01	0.41
2:A:1349:A:OP2	10:I:120:ARG:HB2	2.21	0.41
2:A:420:U:C2	2:A:424:G:C2	3.09	0.41
2:A:1104:G:OP1	3:B:111:ARG:CD	2.69	0.41
10:I:16:ARG:O	10:I:63:ILE:HG23	2.21	0.41
23:W:30:G:H2'	23:W:31:G:O4'	2.20	0.41
2:A:624:C:H2'	2:A:625:G:C8	2.56	0.41
11:J:67:THR:O	11:J:67:THR:HG23	2.21	0.41
2:A:202:U:O2	2:A:202:U:H2'	2.21	0.41
2:A:852:G:C6	2:A:853:G:N7	2.89	0.41
3:B:221:LEU:O	3:B:222:ILE:C	2.59	0.41
26:Z:378:VAL:HG22	26:Z:379:ALA:N	2.36	0.41
5:D:14:ARG:CA	5:D:39:PRO:HG3	2.51	0.40
26:Z:72:THR:CG2	26:Z:77:TYR:HE2	2.30	0.40
1:2:79:LEU:HD13	1:2:117:LEU:HD11	2.03	0.40
26:Z:119:HIS:O	26:Z:122:LEU:N	2.55	0.40
2:A:1113:C:H2'	2:A:1114:C:H6	1.85	0.40
2:A:1306:A:N6	2:A:1331:G:H1'	2.37	0.40
3:B:118:LEU:O	3:B:121:LEU:HB3	2.22	0.40
11:J:75:ILE:HG13	11:J:76:ASN:N	2.36	0.40
11:J:75:ILE:HG13	11:J:76:ASN:H	1.86	0.40
10:I:49:PRO:C	10:I:51:ARG:H	2.24	0.40
2:A:8:A:C6	5:D:209:ARG:HB3	2.56	0.40
6:E:150:ARG:CZ	6:E:150:ARG:HB2	2.50	0.40
2:A:737:A:OP1	7:F:91:VAL:HG13	2.21	0.40
2:A:739:C:C4	2:A:740:U:C5	3.08	0.40
10:I:26:VAL:HG13	10:I:61:ALA:CB	2.47	0.40
23:W:60:A:H2'	23:W:61:U:C5'	2.49	0.40
2:A:594:G:O2'	2:A:595:G:H5'	2.21	0.40
2:A:1508:G:H2'	2:A:1509:C:C6	2.56	0.40
19:R:66:LEU:HD11	19:R:70:ILE:HD11	2.01	0.40
2:A:59:A:H5'	2:A:60:A:H5''	2.03	0.40
2:A:269:C:H2'	2:A:270:A:H8	1.84	0.40
6:E:64:ARG:CG	6:E:64:ARG:HH11	2.34	0.40
2:A:40:C:H2'	2:A:41:G:H8	1.86	0.40
2:A:1416:G:C2'	2:A:1417:G:H5'	2.51	0.40
2:A:802:A:H3'	2:A:803:G:H8	1.86	0.40
20:S:27:GLU:HB3	20:S:28:LYS:H	1.52	0.40
2:A:1480:G:H2'	2:A:1481:U:O4'	2.20	0.40
16:O:48:LYS:HD3	16:O:48:LYS:HA	1.79	0.40
2:A:426:G:P	5:D:36:ARG:NH2	2.94	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:414:A:N7	2:A:431:A:C2	2.90	0.40
2:A:1054:C:OP1	2:A:1197:G:OP2	2.38	0.40
5:D:106:TYR:C	5:D:108:LEU:N	2.74	0.40
1:2:110:ARG:CD	1:2:110:ARG:N	2.84	0.40
1:2:24:ILE:HG22	1:2:25:ALA:H	1.84	0.40
10:I:10:ARG:HB2	10:I:76:ALA:HB2	2.04	0.40
2:A:1330:U:H5'	2:A:1331:G:P	2.61	0.40
20:S:4:SER:O	20:S:5:LEU:C	2.58	0.40
22:U:6:ARG:O	22:U:12:LYS:HD3	2.21	0.40
20:S:40:ILE:HG21	20:S:66:MET:O	2.21	0.40
14:M:66:LEU:N	14:M:66:LEU:CD1	2.83	0.40
14:M:9:ILE:O	14:M:10:PRO:O	2.39	0.40
13:L:90:VAL:HG11	13:L:93:LEU:HD12	2.02	0.40
2:A:1251:A:O2'	2:A:1370:G:H5'	2.20	0.40
10:I:71:SER:O	10:I:72:GLY:C	2.58	0.40
10:I:37:PHE:HD1	10:I:70:LYS:HD2	1.86	0.40
10:I:43:ALA:CB	10:I:74:ILE:HD13	2.51	0.40
2:A:375:U:H4'	17:P:17:TYR:CE2	2.57	0.40
2:A:991:U:C2	2:A:1212:U:O2	2.74	0.40
18:Q:5:VAL:O	18:Q:6:LEU:HD23	2.21	0.40
2:A:423:G:C3'	2:A:424:G:H5'	2.50	0.40
3:B:84:GLU:OE1	3:B:216:SER:HA	2.22	0.40
22:U:5:ASP:C	22:U:7:ARG:N	2.75	0.40
2:A:417:C:H2'	2:A:418:C:H6	1.84	0.40
26:Z:242:ILE:HB	26:Z:282:ALA:HA	2.04	0.40
2:A:1303:C:N4	2:A:1304:G:C6	2.90	0.40
2:A:935:A:C2	2:A:936:C:C2	3.09	0.40
2:A:612:C:O2'	2:A:613:C:H5'	2.20	0.40
8:G:12:LEU:HD11	8:G:25:ALA:HB2	2.03	0.40
2:A:1121:U:H6	2:A:1121:U:O5'	2.03	0.40
8:G:95:ARG:HG3	8:G:95:ARG:HH11	1.86	0.40
5:D:14:ARG:HG3	5:D:15:GLU:N	2.35	0.40
26:Z:98:GLN:HB3	26:Z:241:ARG:HD3	2.03	0.40
2:A:1055:A:C2	2:A:1056:U:H1'	2.56	0.40
1:2:5:LEU:CD2	1:2:39:VAL:HG22	2.51	0.40
11:J:5:ARG:HG3	11:J:71:LEU:HD11	2.02	0.40
26:Z:345:ARG:NH1	26:Z:384:LEU:HD11	2.37	0.40
26:Z:169:PRO:HD3	26:Z:209:TYR:CD2	2.57	0.40
3:B:14:GLY:O	3:B:15:VAL:CG1	2.68	0.40
3:B:116:GLU:H	3:B:116:GLU:HG2	1.74	0.40
13:L:41:ARG:NH1	13:L:43:VAL:CG1	2.82	0.40
2:A:538:G:C6	2:A:539:A:C6	3.09	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:E:144:THR:O	6:E:148:VAL:HG23	2.21	0.40
1:2:132:ASP:O	1:2:135:GLU:N	2.53	0.40
6:E:147:ASP:N	6:E:147:ASP:OD1	2.53	0.40
10:I:79:LEU:HD13	10:I:79:LEU:C	2.41	0.40
9:H:85:ARG:HG3	9:H:85:ARG:NH1	2.35	0.40
2:A:351:G:HO2'	2:A:352:C:C5'	2.35	0.40
9:H:20:TYR:HD1	9:H:65:TYR:CD2	2.39	0.40
2:A:956:U:O2'	2:A:957:U:H5'	2.21	0.40
26:Z:342:PHE:O	26:Z:348:ASP:HA	2.21	0.40
26:Z:188:THR:HG21	26:Z:196:VAL:HG21	2.03	0.40
9:H:98:LYS:HG3	9:H:99:GLU:HG3	2.04	0.40
2:A:635:G:O2'	2:A:636:U:H5'	2.21	0.40
5:D:24:GLU:O	5:D:27:TYR:CB	2.70	0.40
26:Z:72:THR:CG2	26:Z:77:TYR:CE2	3.05	0.40
5:D:193:ASP:HB2	5:D:194:LEU:HD22	2.03	0.40
10:I:90:PRO:C	10:I:92:TYR:H	2.25	0.40
25:Y:18:G:H2'	25:Y:19:A:C8	2.56	0.40
26:Z:125:GLN:HB3	29:Z:1406:KIR:H392	2.03	0.40
14:M:83:ASP:C	14:M:85:GLY:N	2.74	0.40
2:A:1313:U:C2	2:A:1314:C:C5	3.09	0.40
14:M:82:MET:HB3	14:M:93:ARG:HH22	1.85	0.40
7:F:30:LEU:O	7:F:35:ALA:HB3	2.21	0.40
13:L:43:VAL:HG22	13:L:55:VAL:HG12	2.04	0.40
2:A:1411:C:N3	2:A:1490:A:N1	2.69	0.40
3:B:19:HIS:O	3:B:39:ILE:CG2	2.69	0.40
1:2:95:GLN:HG3	1:2:96:LYS:HG3	2.03	0.40
2:A:674:G:H2'	2:A:675:A:H8	1.86	0.40
2:A:1452:C:O4'	2:A:1456:G:N2	2.54	0.40
2:A:445:G:H2'	2:A:446:G:H8	1.86	0.40
2:A:391:G:H2'	2:A:392:G:O5'	2.21	0.40
4:C:84:ILE:HG13	4:C:101:LEU:HD22	2.03	0.40
8:G:40:ALA:O	8:G:41:ARG:C	2.58	0.40
5:D:142:PRO:HA	5:D:185:PHE:CD2	2.50	0.40
2:A:1328:C:H2'	2:A:1329:A:C8	2.56	0.40
26:Z:5:PHE:HB2	26:Z:275:LYS:HB3	2.03	0.40
2:A:819:A:H4'	2:A:820:U:OP1	2.22	0.40
2:A:44:G:C2	2:A:45:U:H1'	2.57	0.40
2:A:20:U:H2'	2:A:21:G:O4'	2.21	0.40
2:A:23:C:O2'	2:A:24:U:H5'	2.21	0.40
2:A:925:G:C2	2:A:927:G:C8	3.09	0.40
14:M:69:GLU:O	14:M:69:GLU:HG3	2.22	0.40
2:A:1225:A:H2'	2:A:1226:C:C5	2.57	0.40

Continued on next page...

Continued from previous page...

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:A:1503:A:C2	2:A:1507:A:OP2	2.74	0.40
2:A:1165:C:C2'	2:A:1166:G:H5'	2.50	0.40
2:A:1237:C:C2'	2:A:1238:A:OP1	2.69	0.40
13:L:126:LYS:C	13:L:128:ALA:H	2.25	0.40
2:A:880:C:O2'	2:A:881:G:H5'	2.21	0.40
2:A:1404:C:H2'	2:A:1405:G:C8	2.57	0.40
2:A:1054:C:O2	2:A:1054:C:H2'	2.21	0.40
5:D:170:VAL:CG1	5:D:171:GLY:N	2.84	0.40
1:2:87:ARG:H	1:2:87:ARG:HG2	1.58	0.40
2:A:1112:C:N4	4:C:178:LEU:HD22	2.37	0.40
4:C:3:ASN:N	4:C:3:ASN:OD1	2.54	0.40
11:J:40:LEU:N	11:J:40:LEU:HD23	2.14	0.40
2:A:259:G:H1	2:A:267:C:N4	2.17	0.40
19:R:44:LEU:HD23	19:R:80:PRO:HG2	2.03	0.40
17:P:22:THR:HA	17:P:33:ILE:CG1	2.52	0.40
2:A:458:C:C5	2:A:460:G:N7	2.90	0.40
3:B:20:GLU:HG2	3:B:189:ASP:OD2	2.21	0.40
2:A:551:U:O2'	2:A:552:U:H5'	2.21	0.40
3:B:180:LEU:O	3:B:181:PHE:CB	2.60	0.40
17:P:38:TYR:CE1	17:P:50:LYS:HB3	2.56	0.40
23:W:8:U:H2'	23:W:13:C:H42	1.87	0.40
2:A:1147:C:H2'	10:I:16:ARG:HD3	2.02	0.40
10:I:17:VAL:CG1	10:I:81:ILE:HD13	2.51	0.40
19:R:66:LEU:HD21	19:R:70:ILE:HD11	2.03	0.40
2:A:939:G:H2'	2:A:940:C:C6	2.57	0.40
2:A:1130:A:N3	2:A:1146:A:C2	2.90	0.40
21:T:37:SER:O	21:T:40:ALA:N	2.55	0.40
2:A:604:G:C6	2:A:605:U:C4	3.10	0.40
2:A:760:G:H2'	2:A:761:G:H5'	2.04	0.40
25:Y:88:C:O2	25:Y:88:C:O4'	2.36	0.40
23:V:26:C:H2'	23:V:27:G:O4'	2.21	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

In the following table, the Percentiles column shows the percent Ramachandran outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution. The Analysed column shows the number of residues for which the backbone conformation was analysed, and the total number of residues.

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	2	142/144 (99%)	124 (87%)	14 (10%)	4 (3%)	8	39
3	B	233/256 (91%)	153 (66%)	55 (24%)	25 (11%)	1	5
4	C	205/239 (86%)	141 (69%)	49 (24%)	15 (7%)	2	12
5	D	206/209 (99%)	126 (61%)	52 (25%)	28 (14%)	0	2
6	E	149/162 (92%)	121 (81%)	21 (14%)	7 (5%)	4	23
7	F	99/101 (98%)	80 (81%)	14 (14%)	5 (5%)	3	22
8	G	153/156 (98%)	109 (71%)	34 (22%)	10 (6%)	2	15
9	H	136/138 (99%)	120 (88%)	14 (10%)	2 (2%)	15	57
10	I	125/128 (98%)	73 (58%)	33 (26%)	19 (15%)	0	1
11	J	97/105 (92%)	69 (71%)	18 (19%)	10 (10%)	1	6
12	K	117/129 (91%)	87 (74%)	21 (18%)	9 (8%)	1	11
13	L	123/135 (91%)	84 (68%)	23 (19%)	16 (13%)	0	3
14	M	123/126 (98%)	76 (62%)	28 (23%)	19 (15%)	0	1
15	N	58/61 (95%)	43 (74%)	5 (9%)	10 (17%)	0	0
16	O	86/89 (97%)	67 (78%)	16 (19%)	3 (4%)	6	32
17	P	82/88 (93%)	53 (65%)	23 (28%)	6 (7%)	2	12
18	Q	98/105 (93%)	76 (78%)	20 (20%)	2 (2%)	11	49
19	R	68/88 (77%)	53 (78%)	10 (15%)	5 (7%)	2	11
20	S	77/93 (83%)	53 (69%)	14 (18%)	10 (13%)	0	3
21	T	97/106 (92%)	72 (74%)	17 (18%)	8 (8%)	1	10
22	U	23/27 (85%)	11 (48%)	10 (44%)	2 (9%)	1	9
26	Z	374/405 (92%)	295 (79%)	58 (16%)	21 (6%)	3	19
All	All	2871/3090 (93%)	2086 (73%)	549 (19%)	236 (8%)	1	10

All (236) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	2	133	LYS
3	B	15	VAL
3	B	18	GLY
3	B	75	LYS
3	B	97	TRP
3	B	130	ARG
3	B	165	VAL
3	B	190	THR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	238	LEU
4	C	47	LEU
4	C	146	ALA
4	C	156	ARG
5	D	3	ARG
5	D	4	TYR
5	D	18	LYS
5	D	28	SER
5	D	85	LYS
5	D	110	PHE
5	D	154	ASN
6	E	21	ALA
7	F	40	VAL
8	G	8	GLU
8	G	114	ARG
8	G	153	HIS
10	I	44	VAL
10	I	58	ARG
10	I	89	ASN
10	I	95	LYS
11	J	36	GLY
12	K	99	GLN
13	L	18	VAL
13	L	27	LEU
13	L	28	LYS
13	L	46	LYS
13	L	79	GLU
13	L	80	HIS
13	L	91	LYS
13	L	94	PRO
14	M	5	ALA
14	M	10	PRO
14	M	12	ASN
14	M	42	ALA
14	M	43	THR
14	M	67	GLU
14	M	83	ASP
14	M	90	LEU
14	M	91	ARG
14	M	120	LYS
14	M	125	ARG
15	N	14	PRO

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
15	N	15	LYS
15	N	20	ALA
15	N	22	THR
15	N	29	ARG
15	N	56	VAL
15	N	59	ALA
15	N	60	SER
16	O	24	SER
17	P	45	THR
17	P	64	ALA
19	R	45	SER
19	R	46	GLU
20	S	5	LEU
20	S	28	LYS
20	S	61	TYR
20	S	62	ILE
21	T	49	ALA
21	T	71	THR
21	T	99	LEU
22	U	5	ASP
26	Z	73	ALA
26	Z	83	PRO
26	Z	85	HIS
26	Z	99	MET
26	Z	130	TYR
26	Z	141	VAL
26	Z	216	ASP
26	Z	220	PRO
26	Z	328	GLY
26	Z	338	TYR
1	2	131	GLU
3	B	80	ILE
3	B	93	VAL
3	B	191	ASP
3	B	236	TYR
3	B	239	VAL
4	C	9	GLY
4	C	96	GLY
5	D	5	ILE
5	D	35	ARG
5	D	49	ARG
5	D	63	LYS

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	D	176	LEU
5	D	195	ALA
6	E	12	LEU
8	G	68	ASN
8	G	149	ARG
8	G	155	ARG
9	H	14	ARG
10	I	23	ASN
10	I	42	ARG
10	I	70	LYS
10	I	100	GLY
10	I	101	PHE
10	I	105	ASP
11	J	59	SER
11	J	88	LEU
12	K	27	ASN
12	K	54	ARG
12	K	90	GLY
12	K	100	ALA
13	L	63	GLY
13	L	92	ASP
13	L	95	GLY
13	L	128	ALA
14	M	7	VAL
14	M	11	ARG
14	M	55	ARG
14	M	60	VAL
14	M	100	GLY
14	M	114	ARG
15	N	16	PHE
16	O	88	ARG
17	P	53	VAL
17	P	78	GLY
19	R	41	LYS
20	S	10	PHE
20	S	17	GLU
20	S	30	LEU
20	S	47	HIS
20	S	80	TYR
21	T	63	ILE
21	T	101	GLY
21	T	102	GLY

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	U	6	ARG
26	Z	310	ILE
3	B	9	GLU
3	B	87	ARG
3	B	88	ALA
3	B	153	ARG
3	B	209	ARG
4	C	8	ILE
4	C	12	LEU
4	C	107	GLN
4	C	129	ALA
5	D	24	GLU
5	D	26	CYS
5	D	47	ARG
5	D	66	ARG
5	D	144	ASP
5	D	166	LYS
6	E	70	PRO
6	E	146	ALA
7	F	31	GLU
7	F	43	LEU
8	G	20	ASP
8	G	108	ALA
10	I	12	GLU
10	I	98	PRO
10	I	106	ALA
11	J	15	THR
11	J	41	PRO
11	J	57	LYS
13	L	45	PRO
14	M	124	PRO
15	N	19	ARG
17	P	19	ILE
17	P	83	GLU
18	Q	30	PRO
18	Q	66	SER
19	R	34	TYR
19	R	54	ARG
20	S	53	ASN
26	Z	213	PRO
26	Z	307	PRO
3	B	95	GLN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
4	C	206	GLU
5	D	13	ARG
5	D	75	PHE
6	E	8	GLU
7	F	29	ALA
10	I	11	LYS
10	I	93	ARG
11	J	24	VAL
11	J	29	ARG
12	K	89	ALA
13	L	19	ARG
13	L	51	ALA
14	M	6	GLY
21	T	98	PRO
26	Z	221	PHE
1	2	50	ASP
3	B	8	LYS
3	B	83	MET
3	B	84	GLU
3	B	157	ARG
4	C	51	GLY
4	C	160	ALA
5	D	30	LYS
5	D	70	ILE
5	D	156	GLU
5	D	159	ARG
5	D	172	PRO
6	E	121	LYS
8	G	78	ARG
8	G	88	PRO
9	H	2	LEU
12	K	74	ALA
26	Z	40	PRO
26	Z	364	PRO
1	2	66	GLY
3	B	26	PRO
5	D	7	PRO
5	D	153	ARG
10	I	24	GLY
10	I	41	VAL
10	I	50	LEU
13	L	127	GLU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
21	T	97	ALA
26	Z	146	LEU
26	Z	325	LYS
26	Z	361	MET
3	B	222	ILE
4	C	207	VAL
11	J	90	LEU
11	J	23	ILE
26	Z	164	PRO
4	C	197	GLY
6	E	93	PRO
7	F	44	GLY
16	O	18	PHE
26	Z	249	VAL
4	C	55	VAL
10	I	81	ILE
12	K	48	ILE
12	K	88	GLY

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	
1	2	120/120 (100%)	81 (68%)	39 (32%)	0	0
3	B	202/220 (92%)	172 (85%)	30 (15%)	4	17
4	C	160/188 (85%)	149 (93%)	11 (7%)	22	62
5	D	180/181 (99%)	152 (84%)	28 (16%)	4	14
6	E	115/123 (94%)	99 (86%)	16 (14%)	5	21
7	F	90/90 (100%)	76 (84%)	14 (16%)	4	14
8	G	126/127 (99%)	115 (91%)	11 (9%)	15	49
9	H	119/119 (100%)	108 (91%)	11 (9%)	13	45
10	I	98/99 (99%)	87 (89%)	11 (11%)	9	33
11	J	88/92 (96%)	74 (84%)	14 (16%)	4	13
12	K	90/99 (91%)	84 (93%)	6 (7%)	23	63

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
13	L	104/111 (94%)	91 (88%)	13 (12%)	7	25
14	M	99/101 (98%)	84 (85%)	15 (15%)	4	16
15	N	49/50 (98%)	41 (84%)	8 (16%)	3	12
16	O	79/80 (99%)	72 (91%)	7 (9%)	14	47
17	P	72/74 (97%)	64 (89%)	8 (11%)	9	33
18	Q	94/97 (97%)	89 (95%)	5 (5%)	32	72
19	R	61/77 (79%)	56 (92%)	5 (8%)	17	53
20	S	69/80 (86%)	57 (83%)	12 (17%)	3	11
21	T	76/82 (93%)	68 (90%)	8 (10%)	10	35
22	U	19/22 (86%)	16 (84%)	3 (16%)	4	14
26	Z	316/338 (94%)	275 (87%)	41 (13%)	6	23
All	All	2426/2570 (94%)	2110 (87%)	316 (13%)	6	23

All (316) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	2	1	MET
1	2	4	VAL
1	2	6	GLU
1	2	7	ASN
1	2	8	ARG
1	2	9	ARG
1	2	11	ARG
1	2	12	HIS
1	2	13	ASP
1	2	16	ILE
1	2	17	LEU
1	2	18	GLU
1	2	24	ILE
1	2	29	THR
1	2	34	LEU
1	2	38	LYS
1	2	48	PHE
1	2	49	GLU
1	2	50	ASP
1	2	52	GLU
1	2	60	ILE
1	2	68	TYR

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
1	2	70	ASN
1	2	77	ARG
1	2	88	ARG
1	2	89	LEU
1	2	90	LEU
1	2	95	GLN
1	2	98	LEU
1	2	110	ARG
1	2	119	LEU
1	2	124	LYS
1	2	126	TYR
1	2	129	ARG
1	2	130	ARG
1	2	133	LYS
1	2	137	VAL
1	2	138	ARG
1	2	144	LEU
3	B	16	HIS
3	B	17	PHE
3	B	24	TRP
3	B	36	ARG
3	B	42	ILE
3	B	44	LEU
3	B	45	GLN
3	B	51	LEU
3	B	53	ARG
3	B	56	ARG
3	B	63	MET
3	B	69	LEU
3	B	80	ILE
3	B	90	MET
3	B	111	ARG
3	B	137	ARG
3	B	145	LEU
3	B	146	GLN
3	B	162	ILE
3	B	170	GLU
3	B	172	ILE
3	B	178	ARG
3	B	187	LEU
3	B	189	ASP
3	B	193	ASP

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
3	B	196	LEU
3	B	200	ILE
3	B	213	LEU
3	B	221	LEU
3	B	236	TYR
4	C	5	ILE
4	C	14	ILE
4	C	16	ARG
4	C	29	TYR
4	C	47	LEU
4	C	85	ARG
4	C	107	GLN
4	C	144	SER
4	C	178	LEU
4	C	188	LEU
4	C	191	THR
5	D	3	ARG
5	D	9	CYS
5	D	13	ARG
5	D	15	GLU
5	D	20	TYR
5	D	27	TYR
5	D	34	GLU
5	D	38	TYR
5	D	58	LEU
5	D	59	ARG
5	D	62	GLN
5	D	67	ILE
5	D	78	LEU
5	D	86	LYS
5	D	101	LEU
5	D	107	ARG
5	D	110	PHE
5	D	129	ASN
5	D	131	ARG
5	D	135	LEU
5	D	144	ASP
5	D	145	GLU
5	D	156	GLU
5	D	190	ASP
5	D	193	ASP
5	D	194	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
5	D	200	GLU
5	D	209	ARG
6	E	10	MET
6	E	11	ILE
6	E	12	LEU
6	E	13	ILE
6	E	16	THR
6	E	20	GLN
6	E	56	GLN
6	E	66	MET
6	E	72	GLN
6	E	73	ASN
6	E	79	GLU
6	E	80	ILE
6	E	91	LEU
6	E	93	PRO
6	E	107	ARG
6	E	121	LYS
7	F	14	LEU
7	F	21	LEU
7	F	25	ILE
7	F	31	GLU
7	F	32	ASN
7	F	43	LEU
7	F	57	GLN
7	F	63	TYR
7	F	69	GLU
7	F	83	ASP
7	F	86	ARG
7	F	87	ARG
7	F	92	LYS
7	F	98	LEU
8	G	8	GLU
8	G	13	GLN
8	G	21	VAL
8	G	37	ASN
8	G	77	SER
8	G	78	ARG
8	G	84	ASN
8	G	89	MET
8	G	111	ARG
8	G	144	MET

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
8	G	156	TRP
9	H	1	MET
9	H	2	LEU
9	H	14	ARG
9	H	19	VAL
9	H	52	ASP
9	H	81	HIS
9	H	91	ARG
9	H	102	ARG
9	H	104	ARG
9	H	119	LEU
9	H	127	LEU
10	I	10	ARG
10	I	47	LEU
10	I	75	ASP
10	I	91	ASP
10	I	93	ARG
10	I	95	LYS
10	I	112	LYS
10	I	114	TYR
10	I	120	ARG
10	I	121	ARG
10	I	128	ARG
11	J	16	LEU
11	J	22	LYS
11	J	40	LEU
11	J	48	THR
11	J	50	ILE
11	J	51	ARG
11	J	55	LYS
11	J	57	LYS
11	J	62	HIS
11	J	63	PHE
11	J	73	ASP
11	J	78	ASN
11	J	96	ILE
11	J	98	ILE
12	K	29	ILE
12	K	75	TYR
12	K	81	ASP
12	K	104	GLN
12	K	114	VAL

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
12	K	117	ASN
13	L	16	GLU
13	L	20	LYS
13	L	27	LEU
13	L	41	ARG
13	L	46	LYS
13	L	53	ARG
13	L	65	GLU
13	L	67	THR
13	L	80	HIS
13	L	89	ARG
13	L	92	ASP
13	L	94	PRO
13	L	122	THR
14	M	9	ILE
14	M	12	ASN
14	M	23	TYR
14	M	47	ASP
14	M	56	LEU
14	M	57	ARG
14	M	64	TRP
14	M	67	GLU
14	M	81	LEU
14	M	90	LEU
14	M	93	ARG
14	M	98	VAL
14	M	108	ARG
14	M	115	LYS
14	M	120	LYS
15	N	12	ARG
15	N	14	PRO
15	N	18	VAL
15	N	22	THR
15	N	29	ARG
15	N	33	VAL
15	N	42	ILE
15	N	46	GLU
16	O	3	ILE
16	O	7	GLU
16	O	38	ARG
16	O	39	LEU
16	O	81	LEU

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
16	O	82	ILE
16	O	88	ARG
17	P	1	MET
17	P	20	VAL
17	P	33	ILE
17	P	38	TYR
17	P	58	TYR
17	P	65	GLN
17	P	67	THR
17	P	82	GLN
18	Q	7	THR
18	Q	16	GLN
18	Q	37	LYS
18	Q	38	ARG
18	Q	52	LYS
19	R	28	GLU
19	R	31	LEU
19	R	32	ARG
19	R	36	ASN
19	R	76	LEU
20	S	5	LEU
20	S	6	LYS
20	S	7	LYS
20	S	15	LEU
20	S	27	GLU
20	S	29	ARG
20	S	37	ARG
20	S	39	THR
20	S	41	VAL
20	S	44	MET
20	S	63	THR
20	S	65	ASN
21	T	10	LEU
21	T	23	ARG
21	T	26	ASN
21	T	30	LYS
21	T	36	LEU
21	T	45	GLN
21	T	62	LEU
21	T	74	LYS
22	U	5	ASP
22	U	15	ARG

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
22	U	18	TYR
26	Z	20	VAL
26	Z	85	HIS
26	Z	88	TYR
26	Z	100	ASP
26	Z	116	THR
26	Z	126	VAL
26	Z	140	MET
26	Z	146	LEU
26	Z	147	LEU
26	Z	148	ASP
26	Z	166	ASP
26	Z	168	VAL
26	Z	174	SER
26	Z	182	MET
26	Z	185	ASN
26	Z	212	THR
26	Z	215	ARG
26	Z	218	ASP
26	Z	225	VAL
26	Z	230	THR
26	Z	244	ARG
26	Z	247	VAL
26	Z	253	VAL
26	Z	262	THR
26	Z	268	THR
26	Z	271	GLU
26	Z	277	LEU
26	Z	279	GLU
26	Z	288	LEU
26	Z	311	THR
26	Z	316	PHE
26	Z	330	ARG
26	Z	331	HIS
26	Z	336	THR
26	Z	349	VAL
26	Z	360	GLU
26	Z	364	PRO
26	Z	366	ASP
26	Z	367	ASN
26	Z	399	VAL
26	Z	404	LEU

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (65) such sidechains are listed below:

Mol	Chain	Res	Type
1	2	7	ASN
1	2	95	GLN
3	B	37	ASN
3	B	45	GLN
3	B	76	GLN
3	B	78	GLN
3	B	146	GLN
3	B	204	ASN
4	C	28	GLN
4	C	107	GLN
4	C	118	GLN
4	C	170	GLN
4	C	176	HIS
5	D	62	GLN
5	D	74	GLN
5	D	129	ASN
5	D	161	ASN
6	E	20	GLN
6	E	73	ASN
7	F	7	ASN
7	F	27	GLN
7	F	32	ASN
7	F	84	ASN
7	F	100	ASN
8	G	11	GLN
8	G	13	GLN
8	G	28	ASN
8	G	37	ASN
8	G	68	ASN
8	G	148	ASN
9	H	82	HIS
10	I	31	GLN
10	I	89	ASN
10	I	124	GLN
11	J	56	HIS
11	J	68	HIS
11	J	78	ASN
12	K	38	ASN
12	K	93	GLN
12	K	117	ASN
13	L	8	ASN

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
13	L	9	GLN
13	L	49	ASN
13	L	75	HIS
14	M	12	ASN
14	M	40	ASN
14	M	77	ASN
14	M	92	HIS
15	N	49	HIS
16	O	37	ASN
16	O	46	HIS
16	O	62	GLN
17	P	76	GLN
18	Q	16	GLN
18	Q	26	GLN
20	S	14	HIS
20	S	47	HIS
21	T	26	ASN
21	T	42	GLN
21	T	75	ASN
26	Z	19	HIS
26	Z	98	GLN
26	Z	159	ASN
26	Z	185	ASN
26	Z	302	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
2	A	1503/1522 (98%)	248 (16%)	56 (3%)
23	V	76/77 (98%)	12 (15%)	2 (2%)
23	W	76/77 (98%)	11 (14%)	2 (2%)
24	X	4/19 (21%)	1 (25%)	0
25	Y	60/90 (66%)	22 (36%)	13 (21%)
All	All	1719/1785 (96%)	294 (17%)	73 (4%)

All (294) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
2	A	8	A
2	A	9	G
2	A	31	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	32	A
2	A	39	G
2	A	47	C
2	A	48	C
2	A	51	A
2	A	54	C
2	A	55	A
2	A	60	A
2	A	61	G
2	A	65	U
2	A	79	G
2	A	80	G
2	A	81	U
2	A	84	U
2	A	90	U
2	A	110	C
2	A	116	A
2	A	120	A
2	A	121	C
2	A	131	C
2	A	144	G
2	A	147	G
2	A	163	C
2	A	189(H)	G
2	A	189(I)	G
2	A	195	A
2	A	197	A
2	A	198	G
2	A	199	G
2	A	201	C
2	A	203	U
2	A	216	G
2	A	217	C
2	A	220	G
2	A	244	U
2	A	246	A
2	A	247	G
2	A	251	G
2	A	267	C
2	A	274	A
2	A	275	G
2	A	289	G

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	316	G
2	A	321	A
2	A	328	C
2	A	330	C
2	A	332	G
2	A	344	A
2	A	345	C
2	A	346	G
2	A	347	G
2	A	348	G
2	A	352	C
2	A	353	A
2	A	354	G
2	A	367	U
2	A	369	C
2	A	370	C
2	A	372	C
2	A	373	A
2	A	397	A
2	A	398	C
2	A	412	A
2	A	413	G
2	A	414	A
2	A	422	C
2	A	428	G
2	A	429	U
2	A	430	A
2	A	435	C
2	A	439	A
2	A	452	A
2	A	453	A
2	A	454	C
2	A	471	G
2	A	484	G
2	A	485	G
2	A	496	A
2	A	498	U
2	A	499	A
2	A	500	G
2	A	508	C
2	A	509	A
2	A	511	C

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	512	U
2	A	518	C
2	A	527	G
2	A	531	U
2	A	532	A
2	A	533	A
2	A	548	G
2	A	559	A
2	A	561	U
2	A	562	C
2	A	572	A
2	A	573	A
2	A	575	G
2	A	576	G
2	A	577	G
2	A	607	A
2	A	631	G
2	A	632	A
2	A	633	G
2	A	650	G
2	A	653	A
2	A	665	A
2	A	673	G
2	A	687	A
2	A	688	G
2	A	701	C
2	A	702	A
2	A	722	A
2	A	723	U
2	A	731	G
2	A	748	C
2	A	749	C
2	A	755	G
2	A	777	A
2	A	793	U
2	A	794	A
2	A	816	A
2	A	817	C
2	A	828	A
2	A	839	U
2	A	840	C
2	A	841	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	848	C
2	A	858	G
2	A	859	A
2	A	864	A
2	A	889	A
2	A	890	G
2	A	902	G
2	A	914	A
2	A	926	G
2	A	927	G
2	A	934	C
2	A	935	A
2	A	960	U
2	A	962	C
2	A	966	G
2	A	967	C
2	A	968	A
2	A	969	A
2	A	971	G
2	A	972	C
2	A	974	A
2	A	975	A
2	A	976	G
2	A	977	A
2	A	978	A
2	A	980	C
2	A	982	U
2	A	983	A
2	A	991	U
2	A	992	U
2	A	993	G
2	A	996	A
2	A	1009	G
2	A	1026	G
2	A	1050	G
2	A	1051	C
2	A	1054	C
2	A	1066	C
2	A	1094	G
2	A	1095	U
2	A	1101	A
2	A	1102	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	1108	G
2	A	1117	G
2	A	1124	G
2	A	1125	U
2	A	1126	U
2	A	1129	C
2	A	1130	A
2	A	1131	G
2	A	1136	U
2	A	1137	C
2	A	1139	G
2	A	1140	C
2	A	1141	C
2	A	1145	C
2	A	1146	A
2	A	1152	A
2	A	1158	C
2	A	1159	U
2	A	1184	G
2	A	1196	U
2	A	1199	U
2	A	1200	C
2	A	1201	A
2	A	1212	U
2	A	1238	A
2	A	1240	U
2	A	1241	G
2	A	1249	C
2	A	1255	G
2	A	1256	A
2	A	1257	U
2	A	1258	G
2	A	1278	U
2	A	1280	A
2	A	1281	U
2	A	1284	C
2	A	1285	A
2	A	1286	A
2	A	1287	A
2	A	1299	A
2	A	1300	G
2	A	1301	U

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	1302	U
2	A	1306	A
2	A	1317	C
2	A	1320	C
2	A	1322	C
2	A	1323	G
2	A	1331	G
2	A	1332	A
2	A	1335	C
2	A	1346	A
2	A	1347	G
2	A	1364	U
2	A	1400	C
2	A	1419	G
2	A	1422	G
2	A	1442	G
2	A	1442(B)	A
2	A	1443	G
2	A	1447	A
2	A	1456	G
2	A	1492	A
2	A	1493	A
2	A	1494	G
2	A	1497	G
2	A	1499	A
2	A	1504	G
2	A	1505	G
2	A	1506	U
2	A	1507	A
2	A	1517	G
2	A	1519	A
2	A	1520	G
2	A	1529	G
2	A	1530	G
2	A	1531	A
23	V	5	G
23	V	8	U
23	V	18	U
23	V	19	G
23	V	20	G
23	V	21	U
23	V	22	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
23	V	48	U
23	V	49	C
23	V	74	A
23	V	76	C
23	V	77	A
23	W	5	G
23	W	8	U
23	W	18	U
23	W	19	G
23	W	20	G
23	W	21	U
23	W	22	A
23	W	48	U
23	W	49	C
23	W	56	U
23	W	57	C
24	X	18	U
25	Y	8	A
25	Y	9	A
25	Y	10	A
25	Y	11	C
25	Y	12	G
25	Y	13	G
25	Y	14	U
25	Y	15	C
25	Y	17	C
25	Y	19	A
25	Y	23	G
25	Y	24	G
25	Y	54	C
25	Y	60	A
25	Y	61	C
25	Y	62	G
25	Y	68	U
25	Y	71	A
25	Y	73	U
25	Y	76	C
25	Y	85	C
25	Y	88	C

All (73) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
2	A	7	G
2	A	30	U
2	A	60	A
2	A	79	G
2	A	109	A
2	A	115	G
2	A	119	A
2	A	197	A
2	A	202	U
2	A	243	A
2	A	250	A
2	A	266	G
2	A	274	A
2	A	344	A
2	A	351	G
2	A	412	A
2	A	428	G
2	A	429	U
2	A	453	A
2	A	484	G
2	A	495	A
2	A	508	C
2	A	547	A
2	A	560	U
2	A	575	G
2	A	687	A
2	A	748	C
2	A	792	A
2	A	793	U
2	A	889	A
2	A	966	G
2	A	968	A
2	A	982	U
2	A	983	A
2	A	992	U
2	A	1049	U
2	A	1050	G
2	A	1053	G
2	A	1065	U
2	A	1101	A
2	A	1139	G
2	A	1145	C
2	A	1157	A

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type
2	A	1190	G
2	A	1200	C
2	A	1239	A
2	A	1280	A
2	A	1285	A
2	A	1305	G
2	A	1319	A
2	A	1399	C
2	A	1442(A)	G
2	A	1492	A
2	A	1493	A
2	A	1498	U
2	A	1504	G
23	V	4	G
23	V	18	U
23	W	18	U
23	W	20	G
25	Y	9	A
25	Y	10	A
25	Y	11	C
25	Y	12	G
25	Y	13	G
25	Y	14	U
25	Y	18	G
25	Y	23	G
25	Y	40	C
25	Y	59	G
25	Y	60	A
25	Y	61	C
25	Y	72	C

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry

Of 7 ligands modelled in this entry, 5 are monoatomic - leaving 2 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# $ Z > 2$	Counts	RMSZ	# $ Z > 2$
29	KIR	Z	1406	-	59,59,59	3.53	22 (37%)	82,84,84	2.13	22 (26%)
30	GDP	Z	1407	27	30,30,30	1.32	3 (10%)	44,47,47	2.51	9 (20%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the chemical component dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
29	KIR	Z	1406	-	-	0/53/98/98	0/3/3/3
30	GDP	Z	1407	27	-	0/16/32/32	0/1/3/3

All (25) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	Z	1406	KIR	O18-C17	-12.54	1.24	1.44
29	Z	1406	KIR	O30-C30	-12.10	1.16	1.42
29	Z	1406	KIR	O34-C33	-11.32	1.28	1.44
29	Z	1406	KIR	C45-C28	5.65	1.61	1.54
29	Z	1406	KIR	C5-C4	4.84	1.48	1.39
29	Z	1406	KIR	C3-C4	4.71	1.50	1.41
29	Z	1406	KIR	C19-C20	4.69	1.61	1.53
29	Z	1406	KIR	C27-N26	4.36	1.43	1.33
29	Z	1406	KIR	C22-C21	4.05	1.37	1.34
29	Z	1406	KIR	C19-C17	3.99	1.63	1.54
29	Z	1406	KIR	C37-C38	3.89	1.39	1.32
29	Z	1406	KIR	C8-C7	3.46	1.57	1.47
30	Z	1407	GDP	C4-N9	-3.44	1.32	1.37
29	Z	1406	KIR	C41-C8	3.40	1.60	1.50
29	Z	1406	KIR	C9-C8	3.33	1.42	1.34
29	Z	1406	KIR	C29-C30	3.27	1.59	1.54

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
29	Z	1406	KIR	O4-C4	-3.26	1.29	1.36
29	Z	1406	KIR	O7-C7	3.22	1.30	1.23
29	Z	1406	KIR	O2-C2	2.94	1.30	1.24
29	Z	1406	KIR	O29-C29	2.83	1.46	1.40
30	Z	1407	GDP	C8-N9	-2.49	1.32	1.36
29	Z	1406	KIR	C3-C7	2.47	1.54	1.51
30	Z	1407	GDP	C2-N1	2.44	1.40	1.36
29	Z	1406	KIR	C42-C19	2.28	1.58	1.53
29	Z	1406	KIR	C44-C21	2.06	1.54	1.50

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
30	Z	1407	GDP	C6-C5-N7	-12.71	132.43	134.14
29	Z	1406	KIR	C3-C2-N1	8.86	122.86	115.40
29	Z	1406	KIR	O29-C29-O34	-5.89	100.64	110.22
29	Z	1406	KIR	C4-C3-C7	5.27	133.90	119.37
29	Z	1406	KIR	C45-C28-C27	4.84	111.63	108.10
29	Z	1406	KIR	C20-C21-C22	-4.42	115.28	118.92
30	Z	1407	GDP	C2-N3-C4	4.22	121.02	115.09
29	Z	1406	KIR	C2-C3-C7	-3.96	112.75	120.17
30	Z	1407	GDP	PA-O3A-PB	-3.86	120.37	131.68
30	Z	1407	GDP	C5-C4-N3	-3.82	120.41	125.94
29	Z	1406	KIR	O34-C29-C28	3.64	114.55	104.50
29	Z	1406	KIR	O34-C33-C32	3.51	115.22	112.04
30	Z	1407	GDP	N3-C4-N9	3.50	132.05	126.91
29	Z	1406	KIR	C3-C7-C8	3.47	126.04	120.15
29	Z	1406	KIR	C22-C23-C24	-3.20	117.42	124.26
29	Z	1406	KIR	O7-C7-C3	-3.07	112.68	121.02
30	Z	1407	GDP	C4-C5-N7	-2.99	106.96	109.52
29	Z	1406	KIR	O27-C27-C28	-2.82	118.12	121.94
30	Z	1407	GDP	C4'-O4'-C1'	-2.77	106.74	109.75
29	Z	1406	KIR	C29-O34-C33	2.70	120.92	115.13
29	Z	1406	KIR	O20-C20-C21	-2.57	107.36	111.07
29	Z	1406	KIR	C48-C32-C31	2.48	113.44	109.11
29	Z	1406	KIR	C12-C11-C10	-2.44	119.47	124.99
30	Z	1407	GDP	O4'-C1'-C2'	-2.41	103.08	106.77
30	Z	1407	GDP	N2-C2-N1	2.28	120.36	117.86
29	Z	1406	KIR	C15-C16-C17	2.26	106.07	102.63
29	Z	1406	KIR	C44-C21-C20	2.18	119.30	115.58
29	Z	1406	KIR	C11-C10-C9	-2.16	118.57	123.36
29	Z	1406	KIR	C29-C30-C31	-2.13	107.84	110.65

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
29	Z	1406	KIR	O20-C20-C19	2.05	111.25	107.00
29	Z	1406	KIR	O31-C31-C32	-2.02	108.44	111.11

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

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, 95th percentile and maximum values of the occupancy-weighted average B-factor per residue. The column labelled ‘Q< 0.9’ lists the number of (and percentage) of residues with an average occupancy less than 0.9.

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
1	2	144/144 (100%)	0.55	9 (6%) 19 3	49, 78, 118, 124	0
2	A	1504/1522 (98%)	0.36	40 (2%) 52 8	14, 52, 128, 187	0
3	B	235/256 (91%)	-0.00	0 100 100	27, 51, 114, 128	0
4	C	207/239 (86%)	0.04	0 100 100	36, 59, 86, 96	0
5	D	208/209 (99%)	0.40	5 (2%) 56 9	47, 74, 111, 116	0
6	E	151/162 (93%)	-0.12	0 100 100	23, 40, 70, 92	0
7	F	101/101 (100%)	-0.05	0 100 100	33, 56, 71, 95	0
8	G	155/156 (99%)	0.29	5 (3%) 45 7	52, 75, 107, 129	0
9	H	138/138 (100%)	0.00	2 (1%) 72 17	17, 36, 54, 67	0
10	I	127/128 (99%)	0.31	1 (0%) 83 28	46, 82, 107, 111	0
11	J	99/105 (94%)	0.20	0 100 100	42, 82, 119, 122	0
12	K	119/129 (92%)	0.13	1 (0%) 83 28	26, 56, 90, 107	0
13	L	125/135 (92%)	0.21	2 (1%) 68 15	24, 50, 69, 112	0
14	M	125/126 (99%)	0.33	9 (7%) 15 2	42, 80, 107, 139	0
15	N	60/61 (98%)	0.11	1 (1%) 67 15	38, 48, 70, 77	0
16	O	88/89 (98%)	-0.08	0 100 100	22, 41, 64, 69	0
17	P	84/88 (95%)	0.19	1 (1%) 75 20	39, 58, 77, 102	0
18	Q	100/105 (95%)	0.03	0 100 100	27, 47, 68, 73	0
19	R	70/88 (79%)	-0.19	0 100 100	28, 46, 71, 79	0
20	S	79/93 (84%)	0.24	2 (2%) 54 9	55, 73, 101, 111	0
21	T	99/106 (93%)	0.14	0 100 100	46, 65, 101, 104	0
22	U	25/27 (92%)	0.46	0 100 100	52, 65, 83, 84	0
23	V	77/77 (100%)	0.21	2 (2%) 53 8	36, 57, 97, 104	0
23	W	77/77 (100%)	3.09	49 (63%) 0 0	95, 192, 197, 199	0

Continued on next page...

Continued from previous page...

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
24	X	5/19 (26%)	0.24	0 100 100	34, 36, 69, 80	0
25	Y	62/90 (68%)	0.89	5 (8%) 12 2	55, 85, 125, 136	0
26	Z	378/405 (93%)	0.10	8 (2%) 60 11	23, 56, 92, 124	0
All	All	4642/4875 (95%)	0.27	142 (3%) 47 7	14, 59, 114, 199	0

All (142) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
23	W	35	C	15.2
23	W	34	U	8.3
23	W	42	C	8.3
23	W	36	A	8.2
2	A	422	C	7.8
2	A	1030(D)	A	7.5
13	L	129	ALA	6.6
23	W	19	G	6.4
23	W	23	G	6.4
23	W	46	G	6.3
23	W	20	G	6.1
23	W	27	G	5.9
23	W	57	C	5.7
23	W	58	A	5.7
23	W	38	A	5.6
2	A	1001(A)	G	5.5
23	W	6	G	5.3
23	W	65	G	4.9
15	N	2	ALA	4.8
5	D	47	ARG	4.8
23	W	66	C	4.8
1	2	91	GLY	4.7
23	W	39	A	4.5
2	A	1031	G	4.4
25	Y	22	G	4.4
23	W	33	C	4.4
2	A	1040	U	4.4
2	A	1026	G	4.4
23	W	1	C	4.3
23	W	2	G	4.3
2	A	1030(C)	G	4.2
2	A	91	C	4.2
23	W	7	G	4.1

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
13	L	128	ALA	4.1
23	W	43	G	4.1
2	A	1030(B)	C	4.0
23	W	54	G	3.9
14	M	124	PRO	3.9
2	A	424	G	3.9
14	M	122	LYS	3.8
23	V	48	U	3.6
1	2	94	GLU	3.6
23	V	1	C	3.6
23	W	21	U	3.5
23	W	56	U	3.5
23	W	32	G	3.4
23	W	24	C	3.4
2	A	1024	G	3.3
2	A	82	U	3.3
23	W	44	A	3.3
2	A	1008	C	3.3
23	W	55	U	3.2
5	D	157	LEU	3.2
2	A	89	C	3.2
23	W	14	A	3.1
8	G	156	TRP	3.1
23	W	22	A	3.0
2	A	92	C	3.0
1	2	76	LYS	3.0
23	W	59	A	3.0
23	W	26	C	3.0
2	A	97	G	2.9
23	W	4	G	2.9
23	W	37	U	2.9
2	A	90	U	2.9
26	Z	85	HIS	2.9
26	Z	86	ALA	2.8
10	I	38	GLN	2.8
26	Z	141	VAL	2.8
2	A	1023	G	2.8
1	2	97	GLY	2.8
2	A	88	A	2.8
23	W	67	C	2.8
23	W	53	G	2.7
20	S	82	GLY	2.7

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	W	29	C	2.7
23	W	5	G	2.7
2	A	1492	A	2.6
14	M	126	LYS	2.6
23	W	31	G	2.6
23	W	25	U	2.6
2	A	1456	G	2.5
2	A	96	U	2.5
2	A	1129	C	2.5
14	M	25	ILE	2.5
2	A	1127	G	2.5
23	W	63	C	2.4
2	A	84	U	2.4
23	W	30	G	2.4
14	M	3	ARG	2.4
14	M	125	ARG	2.4
8	G	38	LEU	2.4
1	2	121	ARG	2.4
17	P	69	THR	2.4
25	Y	21	A	2.4
2	A	137	C	2.4
2	A	1452	C	2.3
23	W	3	C	2.3
1	2	92	LYS	2.3
5	D	207	TYR	2.3
26	Z	88	TYR	2.3
1	2	95	GLN	2.3
2	A	488	C	2.3
14	M	100	GLY	2.3
8	G	34	GLY	2.3
2	A	1035	A	2.3
2	A	1289	A	2.3
25	Y	23	G	2.3
2	A	532	A	2.3
20	S	81	ARG	2.3
23	W	15	G	2.3
5	D	161	ASN	2.3
2	A	840	C	2.2
2	A	1027	C	2.2
25	Y	70	G	2.2
8	G	78	ARG	2.2
2	A	1144	G	2.2

Continued on next page...

Continued from previous page...

Mol	Chain	Res	Type	RSRZ
23	W	28	U	2.2
25	Y	69	C	2.2
2	A	79	G	2.2
9	H	102	ARG	2.2
9	H	98	LYS	2.2
8	G	79	ARG	2.1
1	2	13	ASP	2.1
2	A	423	G	2.1
26	Z	84	GLY	2.1
14	M	7	VAL	2.1
2	A	1034	G	2.1
26	Z	144	PRO	2.1
23	W	47	G	2.1
23	W	64	G	2.1
2	A	434	U	2.1
23	W	41	C	2.1
26	Z	328	GLY	2.0
14	M	27	LYS	2.0
2	A	217	C	2.0
23	W	40	C	2.0
1	2	50	ASP	2.0
2	A	1001	A	2.0
12	K	129	SER	2.0
26	Z	130	TYR	2.0
5	D	122	ARG	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

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, 95th percentile and maximum values of B factors

of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(\AA^2)	Q<0.9
28	ZN	D	1001	1/1	0.14	-	59,59,59,59	0
30	GDP	Z	1407	28/28	0.16	-	36,43,44,45	0
29	KIR	Z	1406	57/57	0.40	-	101,117,134,134	0
28	ZN	N	1001	1/1	0.07	-	51,51,51,51	0
27	MG	Z	1002	1/1	0.25	-	10,10,10,10	0
27	MG	Z	1001	1/1	0.18	-	25,25,25,25	0
28	ZN	Y	1001	1/1	0.08	-	58,58,58,58	0

6.5 Other polymers

There are no such residues in this entry.