



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:37 PM BST

PDB ID : 5ADY
EMDB ID: : EMD-3133
Title : Cryo-EM structures of the 50S ribosome subunit bound with HflX
Authors : Zhang, Y.; Mandava, C.S.; Cao, W.; Li, X.; Zhang, D.; Li, N.; Zhang, Y.;
Zhang, X.; Qin, Y.; Mi, K.; Lei, J.; Sanyal, S.; Gao, N.
Deposited on : 2015-08-25
Resolution : 4.50 Å(reported)
Based on PDB ID : 3FIK

This is a wwPDB EM Map/Model Validation Report for a publicly released PDB/EMDB entry.
For rigid body fitted models, validation errors reported here could
stem from errors in the original structure(s) used in the fitting.
We welcome your comments at validation@mail.wwpdb.org
A user guide is available at
<http://wwpdb.org/validation/2016/EMValidationReportHelp>

MolProbity : 4.02b-467
Mogul : 1.7.1 (RC1), CSD as537be (2016)
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

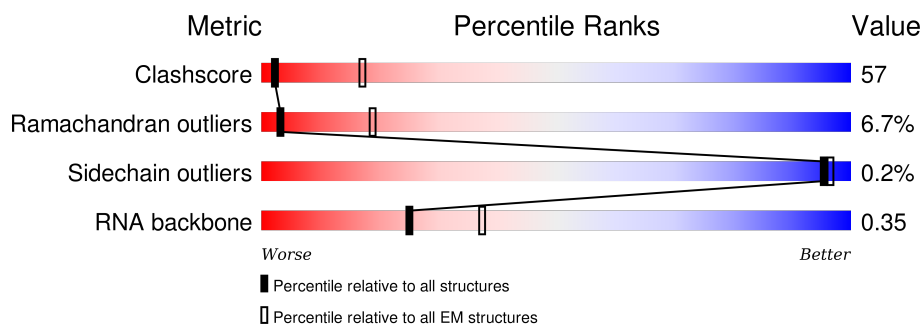
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.50 Å.

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





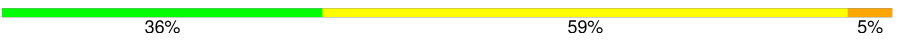
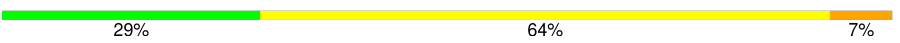


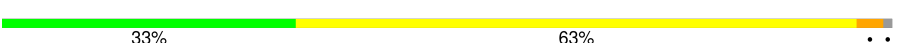
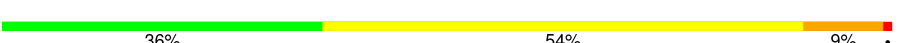
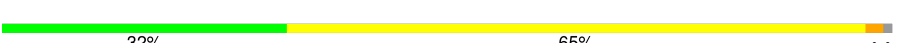

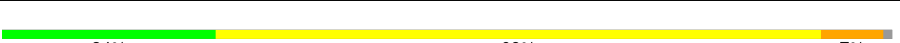
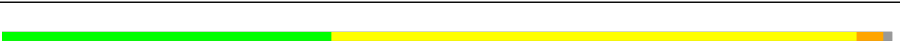
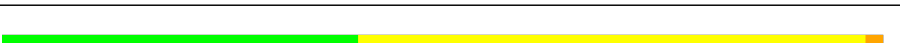
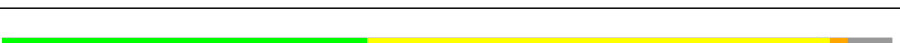
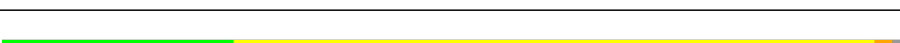

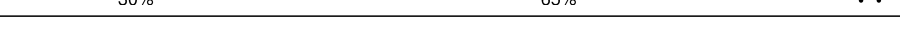
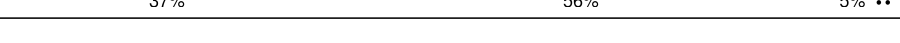





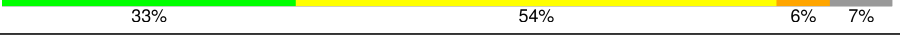

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

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

Mol	Chain	Length	Quality of chain
1	0	57	25% 72% ..
2	1	55	42% 51% 7%
3	2	46	39% 54% 7%
4	3	65	51% 48% .
5	4	38	34% 58% 8%
6	5	234	39% 56% .
7	6	426	30% 65% .
8	7	165	38% 55% 6% .

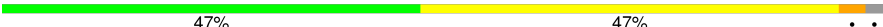
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Mol	Chain	Length	Quality of chain
9	A	120	
10	B	2903	
11	C	273	
12	D	209	
13	E	201	
14	F	179	
15	G	177	
16	H	149	
17	I	142	
18	J	142	
19	K	123	
20	L	144	
21	M	136	
22	N	127	
23	O	117	
24	P	115	
25	Q	118	
26	R	103	
27	S	110	
28	T	100	
29	U	104	
30	V	94	
31	W	85	
32	X	78	
33	Y	63	

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Mol	Chain	Length	Quality of chain
34	Z	59	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
35	GNP	6	527	-	-	X	-

2 Entry composition [i](#)

There are 36 unique types of molecules in this entry. The entry contains 97364 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	0	56	Total	C	N	O	S	0	0
			444	269	94	80	1		

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms				AltConf	Trace
2	1	51	Total	C	N	O	0	1
			410	263	76	71		

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	2	46	Total	C	N	O	S	0	0
			377	228	90	57	2		

- Molecule 4 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	3	64	Total	C	N	O	S	0	0
			504	323	105	74	2		

- Molecule 5 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	4	38	Total	C	N	O	S	0	0
			302	185	65	48	4		

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	5	234	Total	C	N	O	S	0	0
			1733	1081	315	330	7		

- Molecule 7 is a protein called GTPASE HFLX.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	6	426	Total	C	N	O	S	0	0
			3403	2129	624	641	9		

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	7	164	Total	C	N	O	S	0	1
			1231	775	220	229	7		

- Molecule 9 is a RNA chain called 5S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	A	117	Total	C	N	O	P	0	0
			2504	1116	459	813	116		

- Molecule 10 is a RNA chain called 23S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	B	2903	Total	C	N	O	P	0	0
			62317	27801	11467	20147	2902		

There are 18 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	264	C	G	CONFLICT	GB 731469900
B	542	C	U	CONFLICT	GB 731469900
B	846	U	C	CONFLICT	GB 731469900
B	1211	C	U	CONFLICT	GB 731469900
B	1220	G	A	CONFLICT	GB 731469900
B	1229	C	U	CONFLICT	GB 731469900
B	1723	G	A	CONFLICT	GB 731469900
B	1725	U	C	CONFLICT	GB 731469900
B	1726	C	G	CONFLICT	GB 731469900
B	1727	C	A	CONFLICT	GB 731469900
B	1730	C	U	CONFLICT	GB 731469900
B	1733	G	U	CONFLICT	GB 731469900
B	1734	G	C	CONFLICT	GB 731469900
B	1735	A	G	CONFLICT	GB 731469900
B	2794	C	U	CONFLICT	GB 731469900
B	2796	U	C	CONFLICT	GB 731469900
B	2799	A	G	CONFLICT	GB 731469900

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Chain	Residue	Modelled	Actual	Comment	Reference
B	2802	G	A	CONFLICT	GB 731469900

- Molecule 11 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	C	272	Total	C	N	O	S	0	1
			2083	1288	424	364	7		

- Molecule 12 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	D	209	Total	C	N	O	S	0	0
			1565	979	288	294	4		

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	E	201	Total	C	N	O	S	0	0
			1552	974	283	290	5		

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	F	178	Total	C	N	O	S	0	0
			1420	905	251	258	6		

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	G	176	Total	C	N	O	S	0	0
			1323	832	243	246	2		

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L9.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	H	149	Total	C	N	O	S	0	0
			1111	699	197	214	1		

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	I	141	Total	C	N	O	S	0	0
			1032	651	179	196	6		

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	J	142	Total	C	N	O	S	0	0
			1129	714	212	199	4		

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					AltConf	Trace
19	K	122	Total	C	N	O	S	0	1
			931	582	180	164	5		

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	L	143	Total	C	N	O	S	0	0
			1045	649	206	189	1		

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	M	136	Total	C	N	O	S	0	0
			1074	686	205	177	6		

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	N	121	Total	C	N	O	S	0	1
			961	593	197	166	5		

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms				AltConf	Trace
23	O	116	Total	C	N	O	0	0
			892	552	178	162		

- Molecule 24 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	P	114	Total	C	N	O	S	0	0
			917	574	179	163	1		

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	Q	117	Total	C	N	O	S	0	0
			947	604	192	151			

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	R	103	Total	C	N	O	S	0	0
			816	516	153	145	2		

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					AltConf	Trace
27	S	110	Total	C	N	O	S	0	0
			857	532	166	156	3		

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					AltConf	Trace
28	T	94	Total	C	N	O	S	0	1
			739	466	140	131	2		

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	U	103	Total	C	N	O	S	0	1
			780	492	147	141			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L25.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	V	94	Total	C	N	O	S	0	0
			753	479	137	134	3		

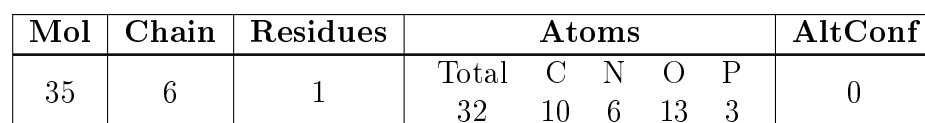
- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L27.

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L28.

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L29.

- Molecule 34 is a protein called 50S RIBOSOMAL PROTEIN L30.

- Molecule 35 is PHOSPHOAMINOPHOSPHONIC ACID-GUANYLATE ESTER (three-letter code: GNP) (formula: $\text{C}_{10}\text{H}_{17}\text{N}_6\text{O}_{13}\text{P}_3$).



- Molecule 36 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

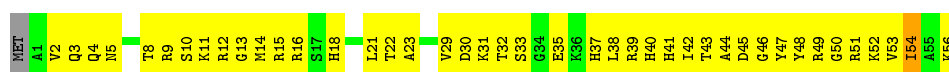
Mol	Chain	Residues	Atoms		AltConf
36	6	1	Total	Mg	0
			1	1	

3 Residue-property plots

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

• Molecule 1: 50S RIBOSOMAL PROTEIN L32

Chain 0: 



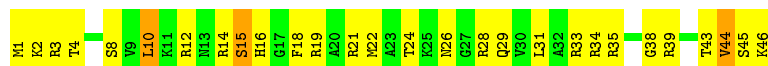
• Molecule 2: 50S RIBOSOMAL PROTEIN L33

Chain 1: 



• Molecule 3: 50S RIBOSOMAL PROTEIN L34

Chain 2: 



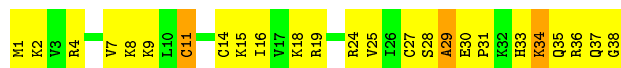
• Molecule 4: 50S RIBOSOMAL PROTEIN L35

Chain 3: 



• Molecule 5: 50S RIBOSOMAL PROTEIN L36

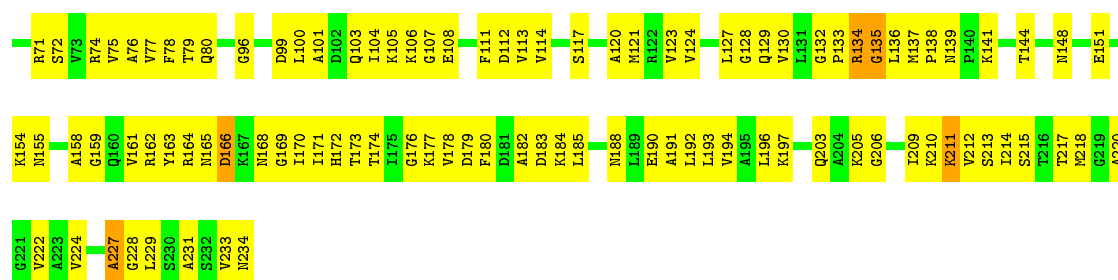
Chain 4: 



• Molecule 6: 50S RIBOSOMAL PROTEIN L1

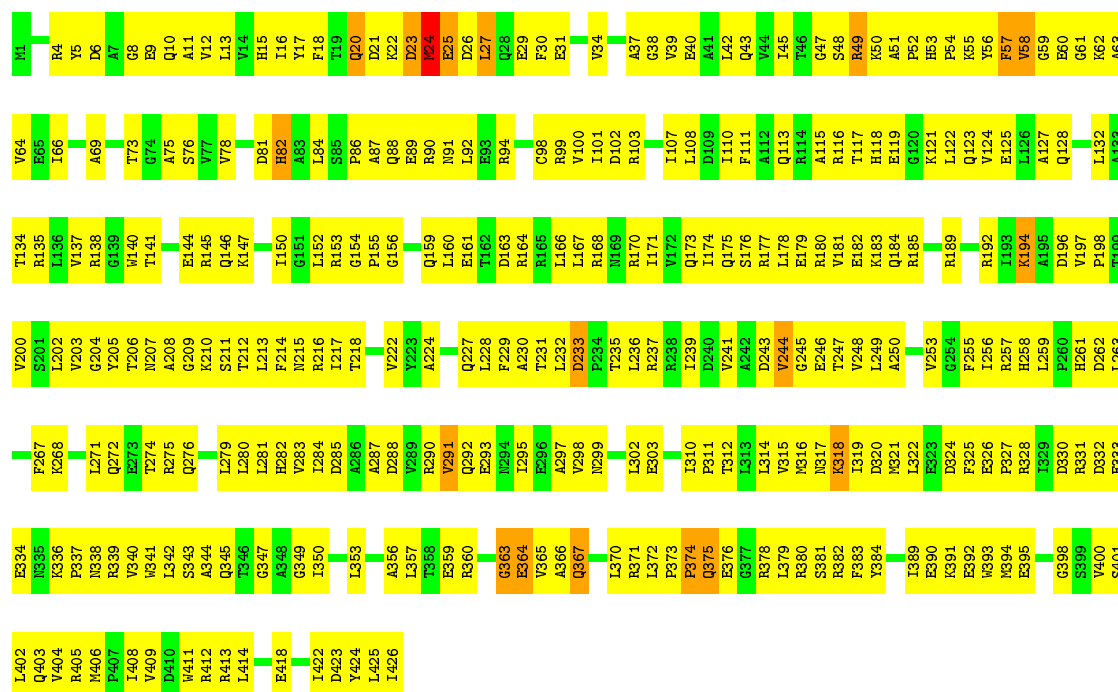
Chain 5: 





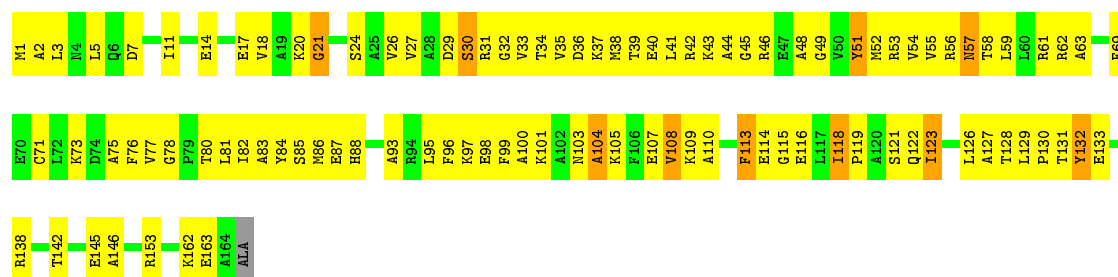
• Molecule 7: GTPASE HFLX

Chain 6: 30% 65% .



• Molecule 8: 50S RIBOSOMAL PROTEIN L10

Chain 7: 38% 55% 6% .



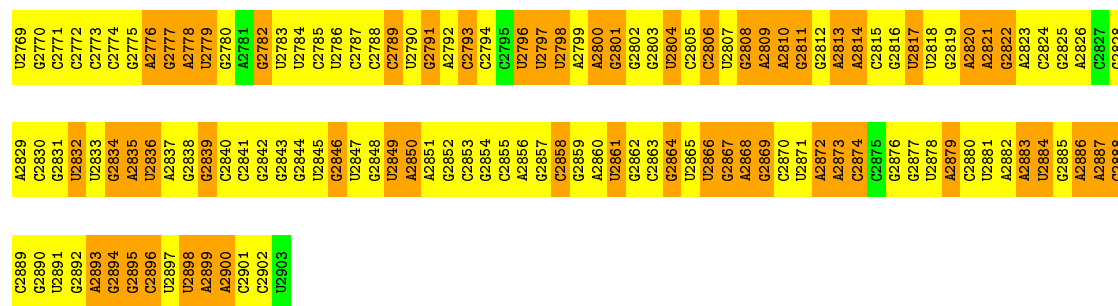
• Molecule 9: 5S RRNA

Chain A: 62% 32% . .

A783	A784	A785	A786	A787	A788	A789	A790	A791	A792	A793	A794	A795	A796	A797	A798	A799	A800	A801	A802	A803	A804	A805	A806	A807	A808	A809	A810	A811	A812	A813	A814	A815	A816	A817	A818	A819	A820	A821	A822	A823	A824	A825	A826	A827	A828	A829	A830	A831	A832	A833	A834	A835	A836	A837	A838	A839	A840	A841	A842	A843	A844	A845	A846	A847	A848	A849	A850	A851	A852	A853	A854	A855	A856	A857	A858	A859	A860	A861	A862	A863	A864	A865	A866	A867	A868	A869	A870	A871	A872	A873	A874	A875	A876	A877	A878	A879	A880	A881	A882	A883	A884	A885	A886	A887	A888	A889	A890	A891	A892	A893	A894	A895	A896	A897	A898	A899	A900	A901	A902	A903	A904	A905	A906	A907	A908	A909	A910	A911	A912	A913	A914	A915	A916	A917	A918	A919	A920	A921	A922	A923	A924	A925	A926	A927	A928	A929	A930	A931	A932	A933	A934	A935	A936	A937	A938	A939	A940	A941	A942	A943	A944	A945	A946	A947	A948	A949	A950	A951	A952	A953	A954	A955	A956	A957	A958	A959	A960	A961	A962	A963	A964	A965	A966	A967	A968	A969	A970	A971	A972	A973	A974	A975	A976	A977	A978	A979	A980	A981	A982	A983	A984	A985	A986	A987	A988	A989	A990	A991	A992	A993	A994	A995	A996	A997	A998	A999	A1000	A1001	A1002	A1003	A1004	A1005	A1006	A1007	A1008	A1009	A1010	A1011	A1012	A1013	A1014	A1015	A1016	A1017	A1018	A1019	A1020	A1021	A1022	A1023	A1024	A1025	A1026	A1027	A1028	A1029	A1030	A1031	A1032	A1033	A1034	A1035	A1036	A1037	A1038	A1039	A1040	A1041	A1042	A1043	A1044	A1045	A1046	A1047	A1048	A1049	A1050	A1051	A1052	A1053	A1054	A1055	A1056	A1057	A1058	A1059	A1060	A1061	A1062	A1063	A1064	A1065	A1066	A1067	A1068	A1069	A1070	A1071	A1072	A1073	A1074	A1075	A1076	A1077	A1078	A1079	A1080	A1081	A1082	A1083	A1084	A1085	A1086	A1087	A1088	A1089	A1090	A1091	A1092	A1093	A1094	A1095	A1096	A1097	A1098	A1099	A1100	A1101	A1102	A1103	A1104	A1105	A1106	A1107	A1108	A1109	A1110	A1111	A1112	A1113	A1114	A1115	A1116	A1117	A1118	A1119	A1120	A1121	A1122	A1123	A1124	A1125	A1126	A1127	A1128	A1129	A1130	A1131	A1132	A1133	A1134	A1135	A1136	A1137	A1138	A1139	A1140	A1141	A1142	A1143	A1144	A1145	A1146	A1147	A1148	A1149	A1150	A1151	A1152	A1153	A1154	A1155	A1156	A1157	A1158	A1159	A1160	A1161	A1162	A1163	A1164	A1165	A1166	A1167	A1168	A1169	A1170	A1171	A1172	A1173	A1174	A1175	A1176	A1177	A1178	A1179	A1180	A1181	A1182	A1183	A1184	A1185	A1186	A1187	A1188	A1189	A1190	A1191	A1192	A1193	A1194	A1195	A1196	A1197	A1198	A1199	A1200	A1201	A1202	A1203	A1204	A1205	A1206	A1207	A1208	A1209	A1210	A1211	A1212	A1213	A1214	A1215	A1216	A1217	A1218	A1219	A1220	A1221	A1222	A1223	A1224	A1225	A1226	A1227	A1228	A1229	A1230	A1231	A1232	A1233	A1234	A1235	A1236	A1237	A1238	A1239	A1240	A1241	A1242	A1243	A1244	A1245	A1246	A1247	A1248	A1249	A1250	A1251	A1252	A1253	A1254	A1255	A1256	A1257	A1258	A1259	A1260	A1261	A1262	A1263	A1264	A1265	A1266	A1267	A1268	A1269	A1270	A1271	A1272	A1273	A1274	A1275	A1276	A1277	A1278	A1279	A1280	A1281	A1282	A1283	A1284	A1285	A1286	A1287	A1288	A1289	A1290	A1291	A1292	A1293	A1294	A1295	A1296	A1297	A1298	A1299	A1300	A1301	A1302	A1303	A1304	A1305	A1306	A1307	A1308	A1309	A1310	A1311	A1312	A1313	A1314	A1315	A1316	A1317	A1318	A1319	A1320	A1321	A1322	A1323	A1324	A1325	A1326	A1327	A1328	A1329	A1330	A1331	A1332	A1333	A1334	A1335	A1336	A1337	A1338	A1339	A1340	A1341	A1342	A1343	A1344	A1345	A1346	A1347	A1348	A1349	A1350	A1351	A1352	A1353	A1354	A1355	A1356	A1357	A1358	A1359	A1360	A1361	A1362	A1363	A1364	A1365	A1366	A1367	A1368	A1369	A1370	A1371	A1372	A1373	A1374	A1375	A1376	A1377	A1378	A1379	A1380	A1381	A1382	A1383	A1384	A1385	A1386	A1387	A1388	A1389	A1390	A1391	A1392	A1393	A1394	A1395	A1396	A1397	A1398	A1399	A1400	A1401	A1402	A1403	A1404	A1405	A1406	A1407	A1408	A1409	A1410	A1411	A1412	A1413	A1414	A1415	A1416	A1417	A1418	A1419	A1420	A1421	A1422	A1423	A1424	A1425	A1426	A1427	A1428	A1429	A1430	A1431	A1432	A1433	A1434	A1435	A1436	A1437	A1438	A1439	A1440	A1441	A1442	A1443	A1444	A1445	A1446	A1447	A1448	A1449	A1450	A1451	A1452	A1453	A1454	A1455	A1456	A1457	A1458	A1459	A1460	A1461	A1462	A1463	A1464	A1465	A1466	A1467	A1468	A1469	A1470	A1471	A1472	A1473	A1474	A1475	A1476	A1477	A1478	A1479	A1480	A1481	A1482	A1483	A1484	A1485	A1486	A1487	A1488	A1489	A1490	A1491	A1492	A1493	A1494	A1495	A1496	A1497	A1498	A1499	A1500	A1501	A1502	A1503	A1504	A1505	A1506	A1507	A1508	A1509	A1510	A1511	A1512	A1513	A1514	A1515	A1516	A1517	A1518	A1519	A1520	A1521	A1522	A1523	A1524	A1525	A1526	A1527	A1528	A1529	A1530	A1531	A1532	A1533	A1534	A1535	A1536	A1537	A1538	A1539	A1540	A1541	A1542	A1543	A1544	A1545	A1546	A1547	A1548	A1549	A1550	A1551	A1552	A1553	A1554	A1555	A1556	A1557	A1558	A1559	A1560	A1561	A1562	A1563	A1564	A1565	A1566	A1567	A1568	A1569	A1570	A1571	A1572	A1573	A1574	A1575	A1576	A1577	A1578	A1579	A1580	A1581	A1582	A1583	A1584	A1585	A1586	A1587	A1588	A1589	A1590	A1591	A1592	A1593	A1594	A1595	A1596	A1597	A1598	A1599	A1600	A1601	A1602	A1603	A1604	A1605	A1606	A1607	A1608	A1609	A1610	A1611	A1612	A1613	A1614	A1615	A1616	A1617	A1618	A1619	A1620	A1621	A1622	A1623	A1624	A1625	A1626	A1627	A1628	A1629	A1630	A1631	A1632	A1633	A1634	A1635	A1636	A1637	A1638	A1639	A1640	A1641	A1642	A1643	A1644	A1645	A1646	A1647	A1648	A1649	A1650	A1651	A16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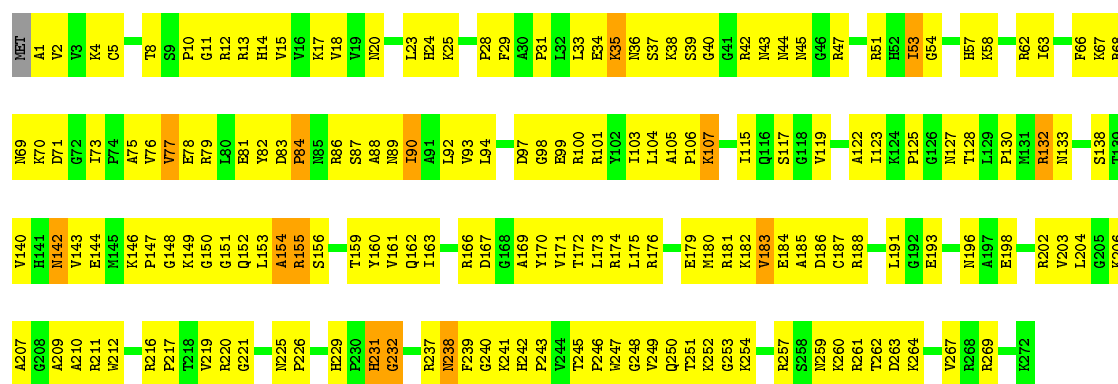
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A1755	G1695	C1575	A1453	G1332	G1271	A1151	G1091	C1030	U970	A910	A850
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C1760	A1700	U1580	U1458	U1337	A1276	A1156	A1096	U1035	A975	C915	C855
C1761	A1701	G1581	G1459	G1338	G1277	G1157	U1097	G1036	G976	G916	G856
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C1790	G1670	C1610	U1489	A1367	A1307	G1186	A1126	U1066	G1005	A945	C885
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G1806	G1686	U1566	U1505	G1444	C1323	G1202	A1142	U1082	A1021	C961	C901
A1807	U1687	G1567	U1506	A1384	G1324	U1263	A1143	U1083	G1022	G962	C902

G2709	C2649	G2588	U2538	A2468	U2408	U2348	A2288	G2228	A2108	G2048	G1988	A1928	C1868	A1808
G2710	U2650	A2589	G2529	A2469	G2409	G2349	G2289	U2229	U2109	G2049	G1989	G1929	G1869	A1809
A2711	C2651	A2590	A2531	G2470	A2411	G2351	G2291	U2231	U2111	A2051	U1991	U1931	A1871	G1811
G2712	C2652	G2591	G2532	A2471	A2412	G2352	U2292	G2232	G2112	G2052	G1992	A1932	A1872	U1812
G2713	U2653	G2592	U2533	G2472	G2413	G2353	G2293	U2233	U2113	G2053	U1993	G1933	G1873	G1813
G2714	A2654	U2593	G2534	U2473	G2414	G2354	G2294	G2234	A2114	A2054	C1994	C1934	C1874	G1814
G2715	G2655	G2594	A2534	U2474	G2415	G2355	G2295	G2235	G2115	C2055	U1995	G1935	C1875	G1815
G2716	U2656	G2595	G2535	C2475	G2416	G2356	U2296	G2236	G2116	G2056	A1936	A1936	A1876	A1816
C2717	A2657	U2596	U2536	A2476	A2417	G2357	G2297	G2237	A2117	G2057	G1997	A1937	A1877	G1817
G2718	C2658	G2597	G2537	U2477	C2418	G2358	A2298	G2238	U2118	A2058	A1998	A1938	A1878	U1818
G2719	G2659	A2598	U2538	A2478	A2419	G2359	U2299	G2239	A2119	A2059	G1999	U1939	C1878	U1819
A2720	A2660	G2599	C2539	U2479	U2419	G2360	U2299	G2240	G2120	C2000	C2000	U1940	U1880	U1820
U2721	G2661	A2600	C2540	C2480	C2420	G2361	C2300	U2240	G2120	A2060	C2001	C1941	C1881	A1821
G2722	A2662	C2601	A2541	G2481	G2421	G2362	C2301	A2241	G2121	G2061	G2002	C1942	C1882	A1822
C2723	G2663	A2602	G2542	A2482	C2422	U2362	U2302	G2242	U2122	A2062	A2003	C1943	U1883	G1823
G2724	G2664	G2603	G2543	C2483	U2423	G2363	G2303	G2243	G2123	C2063	G2004	U1944	G1884	G1824
A2725	A2665	U2604	G2544	G2484	C2424	G2364	G2304	U2244	G2124	C2064	A2005	G1945	A1885	U1825
G2726	C2666	G2605	G2545	A2485	A2425	G2365	U2305	U2245	G2125	C2065	C2006	U1946	U1886	G1826
A2727	G2667	U2606	U2546	C2486	A2426	A2366	C2306	G2246	A2126	C2066	C2007	C1947	C1887	U1827
G2728	G2668	G2607	A2547	G2487	C2427	G2367	G2307	A2247	G2127	U2067	U2008	G1948	G1888	G1828
G2729	G2669	U2608	U2548	G2488	G2428	G2368	G2308	C2248	G2128	U2068	C2009	G1949	A1889	A1829
A2730	A2670	G2609	G2549	U2489	G2429	A2369	A2309	U2249	C2129	G2069	A2009	G1950	A1890	C1830
G2731	G2671	C2610	G2550	G2490	A2430	G2370	C2310	G2250	U2130	A2070	G2010	G1951	G1891	G1831
U2732	U2672	U2611	C2551	U2491	U2431	G2371	A2311	G2251	U2131	A2071	U2011	U1952	C1892	C1832
G2733	G2673	U2612	U2552	U2492	A2432	G2372	U2312	G2252	U2132	C2072	G2012	A1953	C1893	C1833
A2734	G2674	A2613	G2553	U2493	A2433	G2373	C2313	G2253	G2133	C2073	A2013	A1954	C1894	U1834
G2735	A2675	U2614	U2554	G2494	A2434	G2374	A2314	C2254	A2134	U2074	A2014	G1955	C1895	G1835
U2736	G2676	G2615	U2555	G2495	A2435	G2375	G2315	G2255	U2135	U2075	A2015	U1956	G1896	C1836
G2737	G2677	U2617	G2556	A2496	G2436	A2376	G2316	G2256	G2136	U2076	U2016	C1957	G1897	C1837
G2738	C2678	G2618	G2557	U2497	G2437	G2377	A2317	U2257	U2137	C2077	G2017	C1958	U1898	C1838
U2739	G2679	U2619	C2558	U2498	U2438	A2378	G2318	G2258	G2138	C2078	G2018	G1959	A1899	G1839
U2740	U2680	C2620	C2559	C2499	A2439	G2379	G2319	U2259	U2139	U2079	A2019	G1960	A1900	G1840
A2741	G2681	U2621	A2560	U2500	C2440	C2380	U2320	C2260	G2140	A2080	A2020	C1961	A1901	U1841
G2742	A2682	G2622	U2561	C2501	U2441	A2381	U2321	U2261	G2141	U2081	C2021	C1962	C1902	G1842
U2743	C2683	G2623	U2562	G2502	C2442	G2382	A2322	G2262	A2142	A2082	U2022	G1963	G1903	C1843
G2744	U2684	G2624	G2563	U2503	C2443	G2383	G2323	C2263	C2143	G2083	C2023	U1964	G1904	C1844
C2745	G2685	G2625	A2564	U2504	G2444	U2384	U2324	C2264	G2144	C2084	G2024	C1965	C1905	G1845
U2746	G2686	C2626	A2565	G2505	G2445	C2385	G2325	U2265	C2145	U2085	C2025	C1966	G1906	G1846
G2747	U2687	G2627	A2566	U2506	G2446	A2386	C2326	A2266	C2146	U2086	U2026	A1967	G1907	A1847
A2748	G2688	C2628	G2567	C2507	G2447	U2387	A2327	A2267	A2147	A2087	G2027	C1967	C1908	A1848
U2749	U2689	G2629	U2568	G2508	A2448	A2388	A2328	A2268	G2148	C2088	U2028	G1968	C1909	G1849
A2750	G2690	G2630	G2569	G2509	U2449	G2389	U2329	G2269	U2149	C2089	G2029	A1969	G1910	G1850
U2751	C2691	G2631	G2570	U2510	A2450	U2390	G2330	A2270	C2150	A2090	A2030	U1970	G1911	U1851
G2752	G2692	A2632	U2571	U2511	A2451	G2391	G2331	G2271	U2151	C2091	A2031	U1971	U1852	U1851
G2753	G2693	G2633	A2572	C2512	C2452	A2392	C2332	U2272	G2152	U2092	G2032	G1972	A1912	U1852
U2754	G2694	A2634	C2573	U2513	A2453	U2393	A2333	A2273	C2153	G2093	A2033	G1973	A1913	A1853
G2755	U2695	G2635	G2574	U2514	G2454	C2394	U2334	A2274	A2154	A2094	U2034	C1974	C1914	A1854
U2756	U2696	G2636	C2575	U2515	G2455	G2395	A2335	C2275	U2155	A2095	G2035	G1975	U1915	U1855
A2757	G2697	U2637	G2576	A2516	C2456	G2396	A2336	G2276	G2156	C2096	C2036	U1976	A1916	U1856
U2758	U2698	G2638	A2577	C2517	U2457	G2397	G2337	G2277	G2157	A2097	A2037	A1977	U1917	G1857
C2759	G2699	A2639	G2578	U2518	G2458	U2398	C2338	A2278	A2158	U2098	G2038	A1978	A1918	A1858
U2760	A2700	G2640	C2579	U2519	A2459	G2399	C2339	G2279	G2159	U2099	U2039	U1979	U1859	G1860
A2761	U2701	G2641	U2580	C2520	U2460	G2400	A2340	G2280	C2160	G2100	G2040	G1980	G1920	G1861
G2762	G2702	G2642	G2581	C2521	A2461	A2401	G2341	A2281	C2161	A2101	U2041	A1981	G1921	G1862
C2763	G2703	G2643	U2582	U2522	C2462	U2402	C2342	G2282	G2162	G2102	A2042	U1982	G1922	G1863
A2764	C2704	G2644	G2583	G2523	C2463	C2403	G2343	G2283	A2163	C2103	C2043	G1983	U1923	G1864
U2765	A2705	G2645	U2584	G2524	G2464	U2404	U2344	A2284	C2164	G2104	C2044	G1984	C1924	U1864
A2766	U2706	G2646	G2585	G2525	C2465	G2405	G2345	G2285	U2166	U2106	C2045	C1985	U1926	A1865
G2767	U2707	U2647	U2586	G2526	C2466	A2406	A2346	G2286	C2166	U2106	C2046	C1986	C1927	A1866
U2768	G2708	G2648	A2587	C2527	C2467	A2407	C2347	A2287	U2167	G2107	C2047	A1987	A1927	G1867



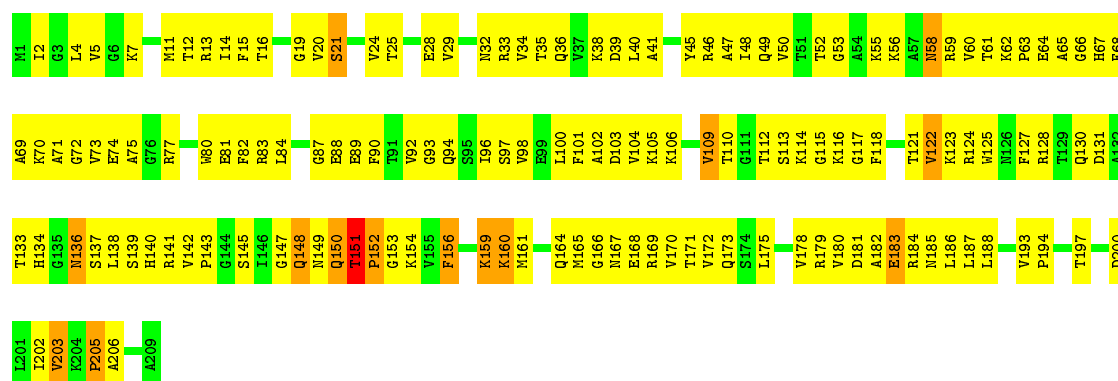
• Molecule 11: 50S RIBOSOMAL PROTEIN L2

Chain C: 36% 59% 5%



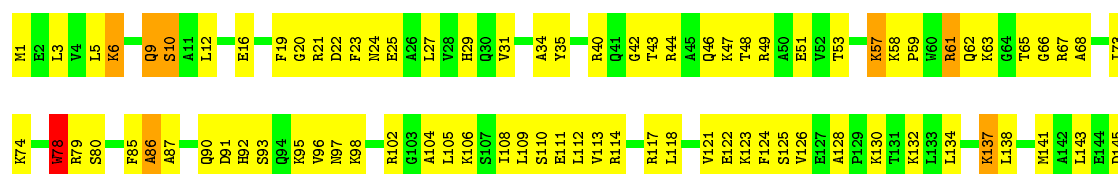
• Molecule 12: 50S RIBOSOMAL PROTEIN L3

Chain D: 29% 64% 7%



• Molecule 13: 50S RIBOSOMAL PROTEIN L4

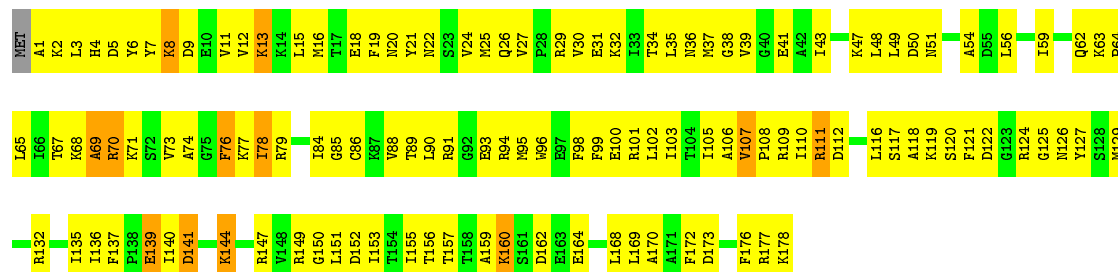
Chain E: 39% 56% 5%





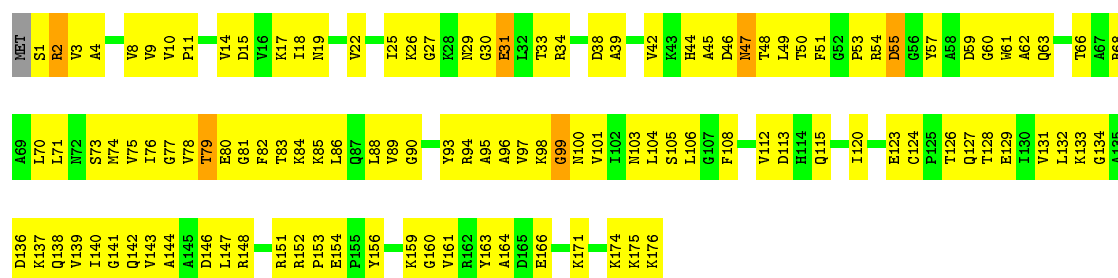
• Molecule 14: 50S RIBOSOMAL PROTEIN L5

Chain F: 30% 63% 7%



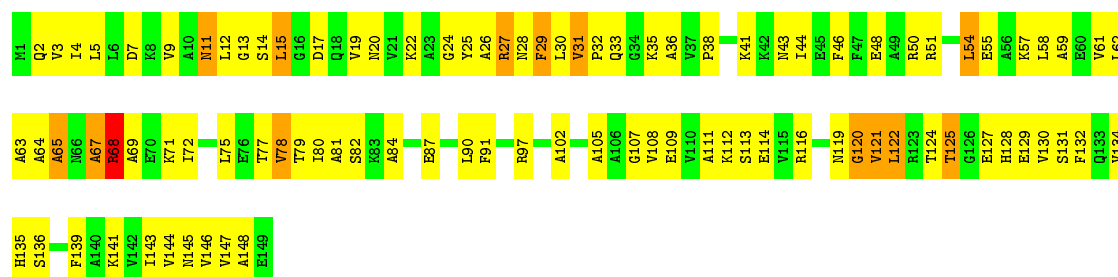
• Molecule 15: 50S RIBOSOMAL PROTEIN L6

Chain G: 33% 63%



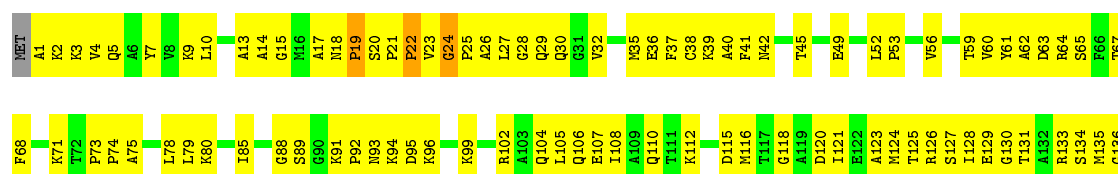
• Molecule 16: 50S RIBOSOMAL PROTEIN L9

Chain H: 36% 54% 9%



• Molecule 17: 50S RIBOSOMAL PROTEIN L11

Chain I: 32% 65%



L137
V138
V139
E140
D141

• Molecule 18: 50S RIBOSOMAL PROTEIN L13

Chain J: 27% 65% 7%

M1 P8 V11 K12 R13 R14 V15 V16 V17 V18 D19 D20 A20 T21 G22 G23 K24 T24 L25 G26 R27 L28 A29 T30 E31 L32 A33 R34 R35 L36 R37 G38 R39 H40 K41 A42 E43 Y44 T46 P46 H47 V48 D49 T50 G51 D52 Y53 I54 L57 N58 A59 D60 K61 V62 A63 V64 T65 G66 N67

H131 H132 Q138 V139 L140 D141 I142

• Molecule 19: 50S RIBOSOMAL PROTEIN L14

Chain K: 24% 68% 7%

MET I1 Q2 E3 Q4 T5 M6 L7 A10 N12 N13 G14 A15 R16 R17 V18 H19 C20 I21 C22 L24 G25 G26 S27 P37 E38 R39 V100 I101 E102 I103 A104 V105 K106 G107 M108 L109 P110 K111 G112 P113 L114 G115 R116 M117 F118 F119 A120 L122 K123 A126 G127 N128 E129 H130

R63 T64 K65 K66 G67 V68 R69 R70 P71 D72 G73 S74 W75 I76 R77 F78 D79 A82 C83 V84 L85 L86 L87 N88 N89 S90 E91 Q92 P93 I94 G95 T96 R97 I98 F99 G100 P101 V102 T103 E104 E105 L106 E109 K110 F111 P112 M113 I114 I115 S116 A118 P119 E120 V121 L122

• Molecule 20: 50S RIBOSOMAL PROTEIN L15

Chain L: 37% 59% ..

MET R2 L3 S7 P8 S12 K13 R21 G22 I23 L27 G28 K29 R33 K36 Q37 Q38 K39 S40 R41 S42 G43 G44 G45 V46 R47 R48 G49 F50 E51 G52 G53 Q54 M55 Y58 R59 R60 R63 F66 T67 S68 R69 K70 A71 T74 T75 E76 I77 R78 L79

S80 D81 L82 A83 K84 V85 E86 G87 G88 V89 V90 D91 L95 K96 A97 A98 N99 I100 I101 G102 I105 E106 F107 A108 K109 V110 I111 G112 A113 G114 E115 V116 T117 T118 P119 V120 T121 V122 R123 G124 L125 R126 V127 T128 K129 G130 A131 R132 A133 A134 I135 E136 A137 A138 G139 G140 K141 I142

E143 E144

• Molecule 21: 50S RIBOSOMAL PROTEIN L16

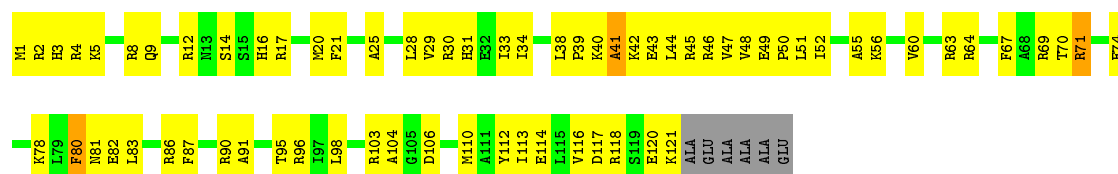
Chain M: 40% 57% .

M1 R6 T7 R8 R9 R10 K11 M12 H13 N17 N18 A21 Q22 F28 G29 S30 F31 G32 L33 K34 A35 R38 G39 R40 L41 T42 Q45 I46 E47 A48 A49 R50 R51 A52 M53 T54 R55 A56 V57 K58 K62 T63 H64 T65 R66 V67 F68 P69 P72 I73 T74 E75

K76 F77 A78 A79 V80 R81 M82 G83 K84 G85 G87 E90 Y91 A94 A95 T96 Q97 P98 G99 K100 V101 L102 I103 E104 M105 D106 E110 E111 L112 A113 E114 E115 A116 F117 A118 L119 A120 A121 A122 K123 L124 P125 I126 T132 K133 T134 V135 M136

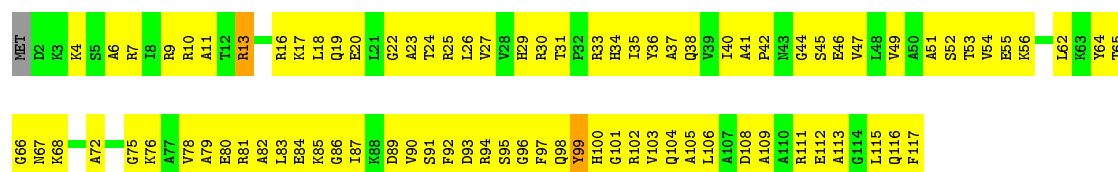
• Molecule 22: 50S RIBOSOMAL PROTEIN L17

Chain N: 41% 52% . 5%



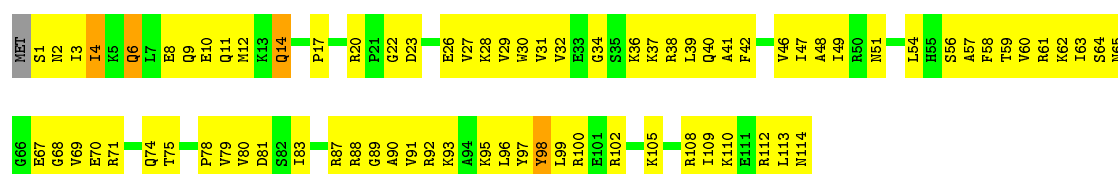
• Molecule 23: 50S RIBOSOMAL PROTEIN L18

Chain O: 26% 72%



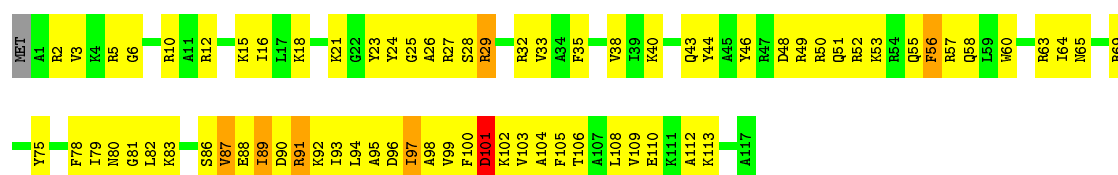
• Molecule 24: 50S RIBOSOMAL PROTEIN L19

Chain P: 30% 65%



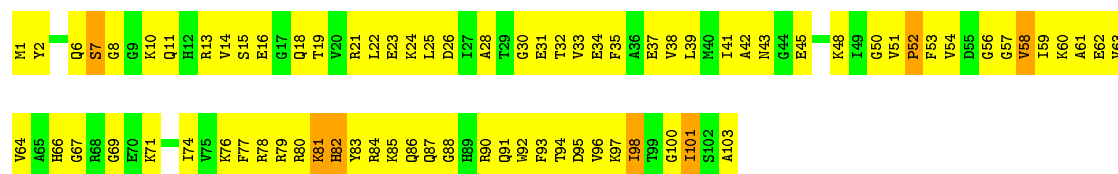
• Molecule 25: 50S RIBOSOMAL PROTEIN L20

Chain Q: 37% 56% 5%



• Molecule 26: 50S RIBOSOMAL PROTEIN L21

Chain R: 24% 69% 7%



• Molecule 27: 50S RIBOSOMAL PROTEIN L22

Chain S: 36% 59% 5%

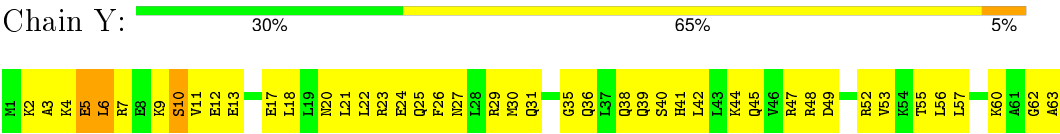




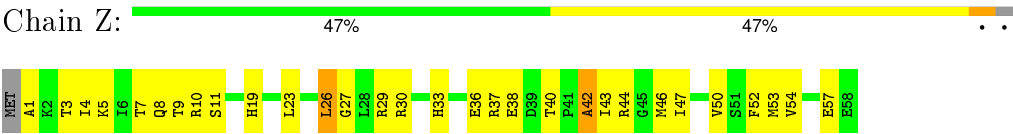
• Molecule 28: 50S RIBOSOMAL PROTEIN L23



● Molecule 33: 50S RIBOSOMAL PROTEIN L29



● Molecule 34: 50S RIBOSOMAL PROTEIN L30



4 Experimental information

Property	Value	Source
Reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	Depositor
Number of images	Not provided	Depositor
Resolution determination method	Not provided	Depositor
CTF correction method	Not provided	Depositor
Microscope	OTHER	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	20	Depositor
Minimum defocus (nm)	1000	Depositor
Maximum defocus (nm)	4000	Depositor
Magnification	75000	Depositor
Image detector	FEI EAGLE 4K X 4K CCD	Depositor

5 Model quality

5.1 Standard geometry

Bond lengths and bond angles in the following residue types are not validated in this section: GNP, 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 >2	RMSZ	# Z >2
1	0	0.65	0/450	0.77	0/599
10	B	1.18	47/69796 (0.1%)	1.22	227/108888 (0.2%)
11	C	0.63	0/2122	0.72	0/2854
12	D	0.66	0/1586	0.75	0/2134
13	E	0.58	0/1571	0.73	0/2113
14	F	0.46	0/1444	0.69	0/1937
15	G	0.57	0/1343	0.71	0/1816
16	H	0.46	0/1122	0.64	0/1515
17	I	0.41	0/1046	0.64	0/1410
18	J	0.64	0/1152	0.75	0/1551
19	K	0.60	0/940	0.75	0/1260
2	1	0.57	0/417	0.68	0/556
20	L	0.58	0/1054	0.79	1/1403 (0.1%)
21	M	0.68	0/1093	0.71	0/1460
22	N	0.66	0/974	0.74	0/1303
23	O	0.54	0/902	0.70	0/1209
24	P	0.61	0/929	0.71	0/1242
25	Q	0.78	0/960	0.77	0/1278
26	R	0.64	0/829	0.71	0/1107
27	S	0.66	0/864	0.84	0/1156
28	T	0.61	0/745	0.77	0/996
29	U	0.53	0/788	0.72	0/1053
3	2	0.69	0/380	0.78	0/498
30	V	0.60	0/766	0.72	0/1025
31	W	0.64	0/603	0.80	0/797
32	X	0.62	0/635	0.71	0/848
33	Y	0.53	0/510	0.68	0/677
34	Z	0.60	0/453	0.77	1/605 (0.2%)
4	3	0.64	0/513	0.76	0/676
5	4	0.65	0/303	0.77	0/397
6	5	0.35	0/1748	0.64	1/2355 (0.0%)
7	6	0.55	0/3456	0.76	1/4675 (0.0%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
8	7	0.39	0/1245	0.63	0/1677
9	A	1.01	0/2800	1.16	6/4367 (0.1%)
All	All	1.03	47/105539 (0.0%)	1.10	237/157437 (0.2%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
13	E	0	1
14	F	0	1
24	P	0	1
25	Q	0	1
6	5	0	1
All	All	0	5

All (47) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	B	788	A	N9-C4	-8.84	1.32	1.37
10	B	118	A	N9-C4	-7.60	1.33	1.37
10	B	677	A	N9-C4	-6.86	1.33	1.37
10	B	1142	A	N9-C4	-6.60	1.33	1.37
10	B	1254	A	N9-C4	-6.54	1.33	1.37
10	B	1780	A	N9-C4	-6.47	1.33	1.37
10	B	1553	A	N9-C4	-6.44	1.33	1.37
10	B	2060	A	N9-C4	-6.16	1.34	1.37
10	B	1021	A	N9-C4	-6.12	1.34	1.37
10	B	603	A	N9-C4	-5.98	1.34	1.37
10	B	1301	A	N9-C4	-5.86	1.34	1.37
10	B	1143	A	N9-C4	-5.79	1.34	1.37
10	B	980	A	N7-C5	-5.76	1.35	1.39
10	B	981	A	N9-C4	-5.74	1.34	1.37
10	B	575	A	N9-C4	-5.72	1.34	1.37
10	B	1204	A	N9-C4	-5.72	1.34	1.37
10	B	800	A	N9-C4	-5.70	1.34	1.37
10	B	532	A	N9-C4	-5.63	1.34	1.37
10	B	1342	A	N9-C4	-5.55	1.34	1.37
10	B	2346	A	N9-C4	-5.51	1.34	1.37
10	B	1634	A	N9-C4	-5.49	1.34	1.37
10	B	1666	G	N9-C4	-5.48	1.33	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
10	B	1936	A	N9-C4	-5.45	1.34	1.37
10	B	973	A	N9-C4	-5.39	1.34	1.37
10	B	788	A	N3-C4	-5.38	1.31	1.34
10	B	675	A	N9-C4	-5.37	1.34	1.37
10	B	1569	A	N9-C4	-5.36	1.34	1.37
10	B	788	A	C5-C4	-5.32	1.35	1.38
10	B	2019	A	N9-C4	-5.29	1.34	1.37
10	B	575	A	N3-C4	-5.28	1.31	1.34
10	B	1356	G	N7-C5	-5.24	1.36	1.39
10	B	469	G	N3-C4	-5.21	1.31	1.35
10	B	468	G	N7-C5	-5.19	1.36	1.39
10	B	2031	A	N9-C4	-5.19	1.34	1.37
10	B	1254	A	N3-C4	-5.17	1.31	1.34
10	B	990	A	N9-C4	-5.15	1.34	1.37
10	B	575	A	C5-C4	-5.14	1.35	1.38
10	B	2327	A	N9-C4	-5.12	1.34	1.37
10	B	2635	A	N9-C4	-5.11	1.34	1.37
10	B	1665	A	N9-C4	-5.10	1.34	1.37
10	B	582	A	N9-C4	-5.08	1.34	1.37
10	B	2706	A	N9-C4	-5.06	1.34	1.37
10	B	453	A	N9-C4	-5.04	1.34	1.37
10	B	2386	A	N9-C4	-5.03	1.34	1.37
10	B	465	G	C6-N1	-5.03	1.36	1.39
10	B	190	A	N9-C4	-5.01	1.34	1.37
10	B	2547	A	N9-C4	-5.01	1.34	1.37

All (237) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	828	U	C2-N1-C1'	8.23	127.58	117.70
10	B	205	G	C2-N3-C4	-8.04	107.88	111.90
10	B	1816	C	C2-N1-C1'	8.01	127.61	118.80
10	B	544	C	C2-N1-C1'	7.58	127.14	118.80
10	B	1238	G	N3-C4-C5	7.58	132.39	128.60
10	B	1070	A	O4'-C1'-N9	7.54	114.23	108.20
10	B	509	C	C2-N1-C1'	-7.34	110.73	118.80
10	B	1140	C	C2-N1-C1'	7.25	126.78	118.80
10	B	1830	C	N1-C2-O2	7.25	123.25	118.90
10	B	2767	C	N1-C2-O2	7.24	123.24	118.90
10	B	1356	G	C6-C5-N7	-7.15	126.11	130.40
10	B	1816	C	N1-C2-O2	7.09	123.16	118.90
10	B	544	C	N1-C2-O2	7.03	123.11	118.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	974	G	C6-C5-N7	-6.88	126.27	130.40
10	B	1140	C	C6-N1-C1'	-6.81	112.63	120.80
10	B	1140	C	N1-C2-O2	6.79	122.97	118.90
10	B	2458	G	C4-N9-C1'	6.79	135.32	126.50
10	B	1331	G	C6-C5-N7	-6.77	126.33	130.40
10	B	1779	U	C5-C6-N1	-6.74	119.33	122.70
10	B	1313	U	C2-N1-C1'	6.71	125.76	117.70
10	B	2767	C	C2-N1-C1'	6.70	126.17	118.80
10	B	544	C	N3-C2-O2	-6.69	117.22	121.90
10	B	533	G	C4-N9-C1'	6.66	135.15	126.50
10	B	2212	A	N1-C2-N3	6.65	132.62	129.30
10	B	1956	U	N3-C2-O2	-6.63	117.56	122.20
10	B	974	G	O4'-C1'-N9	6.63	113.50	108.20
10	B	2443	C	C2-N1-C1'	6.59	126.05	118.80
10	B	2705	A	N1-C6-N6	6.55	122.53	118.60
10	B	533	G	C6-C5-N7	-6.54	126.47	130.40
10	B	914	G	N3-C4-N9	-6.54	122.08	126.00
10	B	455	C	C2-N1-C1'	6.53	125.98	118.80
10	B	1816	C	C6-N1-C1'	-6.50	112.99	120.80
10	B	970	U	C2-N1-C1'	6.49	125.49	117.70
9	A	26	C	C2-N1-C1'	6.47	125.92	118.80
10	B	2251	G	N3-C4-C5	-6.43	125.39	128.60
20	L	87	GLY	N-CA-C	-6.38	97.15	113.10
10	B	2160	C	C2-N1-C1'	6.34	125.78	118.80
10	B	1255	U	C5-C6-N1	-6.32	119.54	122.70
10	B	828	U	N3-C2-O2	-6.31	117.78	122.20
10	B	1153	C	C2-N1-C1'	6.29	125.72	118.80
10	B	383	C	C2-N1-C1'	6.28	125.71	118.80
10	B	509	C	O4'-C1'-N1	6.27	113.22	108.20
10	B	509	C	C6-N1-C1'	6.26	128.31	120.80
10	B	1888	G	C4-N9-C1'	6.24	134.61	126.50
10	B	533	G	N3-C4-N9	6.24	129.74	126.00
10	B	561	G	C4-C5-N7	6.23	113.29	110.80
9	A	92	C	C6-N1-C2	6.21	122.78	120.30
10	B	1395	A	O4'-C1'-N9	6.21	113.17	108.20
10	B	1004	U	C2-N1-C1'	-6.18	110.28	117.70
10	B	2251	G	N3-C4-N9	6.18	129.71	126.00
10	B	2443	C	N1-C2-O2	6.17	122.60	118.90
10	B	1830	C	C2-N1-C1'	6.17	125.58	118.80
10	B	2076	U	N3-C2-O2	-6.17	117.89	122.20
10	B	2286	G	C8-N9-C1'	-6.16	118.99	127.00
10	B	1666	G	N3-C4-C5	6.13	131.66	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	2380	C	N3-C2-O2	-6.11	117.62	121.90
10	B	1611	C	C2-N3-C4	-6.10	116.85	119.90
10	B	1905	C	N1-C2-O2	6.10	122.56	118.90
10	B	2443	C	N3-C2-O2	-6.09	117.64	121.90
10	B	2251	G	C4-N9-C1'	6.07	134.39	126.50
10	B	1313	U	C6-N1-C1'	-6.07	112.71	121.20
10	B	387	U	N3-C2-O2	-6.03	117.98	122.20
10	B	509	C	C5-C6-N1	-6.03	117.98	121.00
10	B	1994	C	C5-C4-N4	-6.01	116.00	120.20
10	B	555	G	C4-N9-C1'	6.00	134.30	126.50
10	B	2214	C	C6-N1-C2	6.00	122.70	120.30
10	B	2380	C	N1-C2-O2	5.99	122.49	118.90
10	B	1210	G	N3-C4-C5	5.97	131.58	128.60
10	B	2510	C	C2-N3-C4	-5.96	116.92	119.90
10	B	1553	A	C8-N9-C4	5.95	108.18	105.80
10	B	2286	G	C4-N9-C1'	5.95	134.23	126.50
10	B	2767	C	C6-N1-C1'	-5.95	113.66	120.80
10	B	974	G	C4-C5-N7	5.94	113.17	110.80
10	B	1238	G	C4-N9-C1'	-5.94	118.78	126.50
10	B	1238	G	N3-C4-N9	-5.92	122.45	126.00
10	B	2165	C	C2-N1-C1'	5.91	125.30	118.80
10	B	1780	A	C2-N3-C4	-5.90	107.65	110.60
10	B	242	G	N9-C4-C5	-5.88	103.05	105.40
10	B	1295	C	N1-C2-O2	5.86	122.41	118.90
10	B	383	C	C6-N1-C1'	-5.83	113.81	120.80
10	B	1289	C	C6-N1-C2	-5.81	117.98	120.30
10	B	1993	U	N1-C2-O2	-5.81	118.73	122.80
10	B	1044	C	C6-N1-C2	5.80	122.62	120.30
10	B	1569	A	O4'-C1'-N9	5.80	112.84	108.20
10	B	1888	G	O4'-C1'-N9	5.79	112.83	108.20
34	Z	26	LEU	CA-CB-CG	-5.79	101.98	115.30
10	B	1328	A	N1-C6-N6	5.79	122.07	118.60
10	B	1009	A	C8-N9-C4	-5.78	103.49	105.80
10	B	1565	C	C6-N1-C2	5.78	122.61	120.30
10	B	2213	U	N3-C2-O2	-5.77	118.16	122.20
10	B	2458	G	O4'-C1'-N9	5.76	112.81	108.20
10	B	383	C	N1-C2-O2	5.75	122.35	118.90
10	B	533	G	C8-N9-C1'	-5.74	119.53	127.00
10	B	2031	A	C8-N9-C4	5.74	108.10	105.80
10	B	686	U	C5-C6-N1	-5.73	119.83	122.70
10	B	2060	A	C8-N9-C4	5.72	108.09	105.80
10	B	914	G	N3-C4-C5	5.71	131.45	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1830	C	C6-N1-C1'	-5.71	113.95	120.80
10	B	788	A	C8-N9-C4	5.70	108.08	105.80
10	B	1565	C	C5-C6-N1	-5.67	118.17	121.00
10	B	242	G	C4-C5-N7	5.66	113.06	110.80
10	B	1632	A	O4'-C1'-N9	5.66	112.73	108.20
10	B	897	C	C5-C6-N1	5.65	123.83	121.00
10	B	2056	G	C4-N9-C1'	5.64	133.83	126.50
10	B	99	U	N1-C2-O2	5.63	126.74	122.80
10	B	533	G	N3-C4-C5	-5.63	125.79	128.60
10	B	2427	C	C6-N1-C2	5.62	122.55	120.30
9	A	26	C	C6-N1-C1'	-5.61	114.07	120.80
10	B	2256	G	N3-C4-N9	5.60	129.36	126.00
10	B	830	G	N3-C4-C5	5.60	131.40	128.60
10	B	2601	C	C2-N1-C1'	-5.58	112.66	118.80
10	B	2384	U	C5-C6-N1	-5.55	119.92	122.70
10	B	653	U	C6-N1-C2	-5.55	117.67	121.00
10	B	1225	G	N3-C4-N9	-5.54	122.67	126.00
10	B	1009	A	C6-C5-N7	-5.54	128.42	132.30
10	B	544	C	C6-N1-C2	-5.54	118.08	120.30
10	B	468	G	C8-N9-C4	-5.53	104.19	106.40
10	B	2751	G	C4-N9-C1'	5.53	133.69	126.50
10	B	2010	G	C8-N9-C4	5.53	108.61	106.40
10	B	1776	G	C8-N9-C1'	-5.53	119.81	127.00
10	B	2286	G	N9-C4-C5	-5.53	103.19	105.40
10	B	984	A	O4'-C1'-N9	5.53	112.62	108.20
10	B	2436	G	N3-C4-C5	5.53	131.36	128.60
10	B	1556	C	C6-N1-C2	5.52	122.51	120.30
10	B	1380	G	C4-C5-N7	5.52	113.01	110.80
10	B	1830	C	N3-C2-O2	-5.51	118.04	121.90
10	B	2658	C	N1-C2-O2	5.51	122.21	118.90
10	B	509	C	C2-N3-C4	-5.50	117.15	119.90
10	B	2510	C	C5-C6-N1	-5.50	118.25	121.00
10	B	828	U	N1-C2-O2	5.50	126.65	122.80
10	B	479	A	O5'-P-OP2	-5.49	100.75	105.70
10	B	828	U	C6-N1-C1'	-5.48	113.53	121.20
10	B	1735	A	C8-N9-C4	5.48	107.99	105.80
10	B	2454	G	N9-C4-C5	5.48	107.59	105.40
10	B	2286	G	C4-C5-N7	5.48	112.99	110.80
10	B	2443	C	C6-N1-C1'	-5.47	114.24	120.80
10	B	1356	G	C4-C5-N7	5.46	112.98	110.80
10	B	450	G	C2-N3-C4	-5.46	109.17	111.90
10	B	1189	A	N1-C6-N6	5.45	121.87	118.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1887	C	N1-C2-O2	5.45	122.17	118.90
10	B	2658	C	N3-C2-O2	-5.45	118.09	121.90
10	B	1565	C	C2-N1-C1'	-5.44	112.82	118.80
10	B	2337	G	N3-C4-N9	5.44	129.26	126.00
10	B	1186	G	N9-C4-C5	-5.44	103.23	105.40
10	B	206	U	C5-C6-N1	-5.43	119.99	122.70
10	B	578	G	C6-C5-N7	-5.42	127.15	130.40
10	B	1328	A	C4-C5-N7	5.42	113.41	110.70
10	B	914	G	C4-N9-C1'	-5.41	119.46	126.50
10	B	544	C	C5-C6-N1	5.41	123.70	121.00
10	B	2454	G	O4'-C1'-N9	5.41	112.53	108.20
10	B	2755	C	C6-N1-C2	5.41	122.46	120.30
9	A	113	C	C6-N1-C2	5.38	122.45	120.30
10	B	1005	C	N3-C2-O2	-5.38	118.14	121.90
10	B	1210	G	N3-C4-N9	-5.37	122.78	126.00
10	B	82	U	N3-C2-O2	-5.37	118.44	122.20
10	B	141	G	C2-N3-C4	5.37	114.58	111.90
10	B	970	U	C6-N1-C1'	-5.37	113.69	121.20
10	B	921	C	C2-N1-C1'	5.36	124.69	118.80
10	B	638	G	C8-N9-C1'	-5.35	120.04	127.00
10	B	14	A	N1-C6-N6	5.34	121.81	118.60
10	B	678	C	N3-C2-O2	-5.33	118.17	121.90
10	B	2345	G	N3-C4-C5	-5.33	125.93	128.60
10	B	1914	C	C2-N1-C1'	5.33	124.67	118.80
10	B	2251	G	C8-N9-C1'	-5.33	120.07	127.00
10	B	2382	G	C4-N9-C1'	5.33	133.43	126.50
10	B	491	G	C8-N9-C4	5.33	108.53	106.40
10	B	1009	A	N7-C8-N9	5.32	116.46	113.80
10	B	1313	U	N1-C2-O2	5.32	126.52	122.80
10	B	1509	A	O4'-C1'-N9	5.31	112.45	108.20
10	B	1888	G	C8-N9-C1'	-5.29	120.12	127.00
10	B	2767	C	N3-C2-O2	-5.29	118.19	121.90
10	B	451	U	C5-C6-N1	-5.29	120.05	122.70
10	B	1095	A	O4'-C1'-N9	5.29	112.43	108.20
10	B	2253	G	C2-N3-C4	5.28	114.54	111.90
10	B	2350	C	N3-C2-O2	-5.28	118.20	121.90
10	B	1493	C	N1-C2-O2	5.25	122.05	118.90
10	B	1818	U	C5-C6-N1	-5.25	120.07	122.70
10	B	1816	C	N3-C2-O2	-5.25	118.22	121.90
10	B	2382	G	C8-N9-C1'	-5.25	120.17	127.00
10	B	1004	U	N3-C2-O2	5.24	125.87	122.20
10	B	2713	U	C2-N1-C1'	-5.24	111.41	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	864	G	N3-C4-N9	5.24	129.14	126.00
10	B	2032	G	C8-N9-C4	5.23	108.49	106.40
10	B	2420	C	C6-N1-C2	5.23	122.39	120.30
10	B	2332	C	C2-N3-C4	-5.23	117.29	119.90
10	B	2732	G	C4-C5-N7	5.23	112.89	110.80
10	B	2458	G	C8-N9-C1'	-5.22	120.21	127.00
10	B	2574	G	O4'-C1'-N9	-5.22	104.02	108.20
10	B	10	A	O4'-C1'-N9	5.21	112.37	108.20
10	B	1288	G	C4-C5-N7	5.21	112.89	110.80
10	B	99	U	N3-C2-O2	-5.21	118.55	122.20
10	B	1776	G	C4-N9-C1'	5.20	133.26	126.50
10	B	964	C	N1-C2-O2	5.20	122.02	118.90
10	B	1888	G	C6-C5-N7	-5.18	127.29	130.40
10	B	2427	C	C5-C6-N1	-5.18	118.41	121.00
10	B	762	U	C5-C6-N1	-5.18	120.11	122.70
10	B	940	G	C4-C5-N7	5.18	112.87	110.80
10	B	1905	C	N3-C2-O2	-5.18	118.28	121.90
9	A	26	C	N1-C2-O2	5.17	122.00	118.90
10	B	2384	U	C2-N3-C4	-5.17	123.90	127.00
10	B	468	G	C6-C5-N7	-5.16	127.30	130.40
10	B	2751	G	O4'-C1'-N9	5.16	112.33	108.20
10	B	1666	G	C8-N9-C4	5.15	108.46	106.40
10	B	2286	G	C6-C5-N7	-5.15	127.31	130.40
10	B	824	U	C6-N1-C2	5.14	124.09	121.00
10	B	228	C	C6-N1-C2	5.14	122.36	120.30
10	B	1361	G	N3-C4-N9	5.14	129.08	126.00
10	B	2050	C	C2-N1-C1'	5.14	124.45	118.80
10	B	769	U	C5-C6-N1	-5.13	120.13	122.70
10	B	2521	C	N1-C2-O2	5.13	121.98	118.90
10	B	2129	C	C5-C6-N1	5.12	123.56	121.00
10	B	881	G	N1-C6-O6	5.12	122.97	119.90
10	B	118	A	N3-C4-C5	5.12	130.38	126.80
10	B	1217	U	C6-N1-C2	5.11	124.07	121.00
10	B	2076	U	N1-C2-O2	5.11	126.38	122.80
10	B	2044	C	C6-N1-C2	5.11	122.34	120.30
10	B	2054	A	C6-N1-C2	-5.10	115.54	118.60
10	B	206	U	C2-N1-C1'	-5.10	111.58	117.70
10	B	644	A	C8-N9-C4	5.10	107.84	105.80
10	B	2601	C	C6-N1-C2	5.10	122.34	120.30
10	B	1142	A	O4'-C1'-N9	-5.10	104.12	108.20
10	B	2498	C	N1-C2-O2	-5.09	115.85	118.90
10	B	561	G	C6-C5-N7	-5.08	127.35	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	B	1153	C	C6-N1-C2	-5.07	118.27	120.30
10	B	2501	C	C5-C6-N1	-5.06	118.47	121.00
6	5	132	GLY	C-N-CD	5.06	139.03	128.40
10	B	64	A	C8-N9-C4	5.06	107.82	105.80
10	B	544	C	C6-N1-C1'	-5.05	114.74	120.80
10	B	2582	G	C2-N3-C4	-5.04	109.38	111.90
10	B	1380	G	C6-C5-N7	-5.04	127.37	130.40
10	B	2817	U	C2-N1-C1'	5.04	123.75	117.70
10	B	2286	G	N3-C4-N9	5.02	129.01	126.00
10	B	1238	G	C8-N9-C4	5.01	108.41	106.40
7	6	20	GLN	C-N-CA	-5.01	109.17	121.70
10	B	1360	G	N9-C4-C5	-5.01	103.40	105.40
10	B	1309	G	C8-N9-C1'	-5.01	120.49	127.00
9	A	81	G	C5-C6-O6	-5.00	125.60	128.60

There are no chirality outliers.

All (5) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
6	5	59	VAL	Peptide
13	E	59	PRO	Peptide
14	F	76	PHE	Peptide
24	P	14	GLN	Peptide
25	Q	101	ASP	Peptide

5.2 Too-close contacts [i](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	444	0	461	53	0
2	1	410	0	440	42	0
3	2	377	0	418	42	0
4	3	504	0	574	60	0
5	4	302	0	343	35	0
6	5	1733	0	1823	197	0
7	6	3403	0	3433	387	0
8	7	1231	0	1282	124	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
9	A	2504	0	1271	249	0
10	B	62317	0	31345	6160	0
11	C	2083	0	2157	244	0
12	D	1565	0	1616	238	0
13	E	1552	0	1619	130	0
14	F	1420	0	1460	169	0
15	G	1323	0	1374	136	0
16	H	1111	0	1148	188	0
17	I	1032	0	1088	142	0
18	J	1129	0	1162	144	0
19	K	931	0	1003	116	0
20	L	1045	0	1117	121	0
21	M	1074	0	1157	105	0
22	N	961	0	1000	107	0
23	O	892	0	923	130	0
24	P	917	0	965	101	0
25	Q	947	0	1022	143	0
26	R	816	0	839	106	0
27	S	857	0	922	100	0
28	T	739	0	807	74	0
29	U	780	0	834	89	0
30	V	753	0	780	60	0
31	W	596	0	610	94	0
32	X	625	0	655	92	0
33	Y	509	0	543	52	0
34	Z	449	0	491	26	0
35	6	32	0	13	23	0
36	6	1	0	0	0	0
All	All	97364	0	66695	9059	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 57.

All (9059) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:68:ARG:HG3	16:H:132:PHE:CD2	1.40	1.55
16:H:68:ARG:HG3	16:H:132:PHE:CE2	1.37	1.53
16:H:68:ARG:HD2	16:H:132:PHE:CE1	1.43	1.52
16:H:68:ARG:CG	16:H:132:PHE:CZ	2.00	1.43
7:6:24:MET:HE3	7:6:257:ARG:NH2	1.28	1.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1130:U:N3	12:D:152:PRO:HB3	1.28	1.42
16:H:68:ARG:HG3	16:H:132:PHE:CZ	1.55	1.42
16:H:68:ARG:CG	16:H:132:PHE:CE2	2.03	1.37
16:H:68:ARG:HD2	16:H:132:PHE:CZ	1.60	1.34
16:H:68:ARG:HG3	16:H:132:PHE:CG	1.62	1.34
16:H:31:VAL:CG1	32:X:40:GLU:CG	2.06	1.31
16:H:31:VAL:CG1	32:X:40:GLU:HG2	1.57	1.31
7:6:24:MET:CE	7:6:257:ARG:HH22	1.44	1.30
16:H:29:PHE:HD1	16:H:33:GLN:OE1	1.00	1.29
16:H:68:ARG:CD	16:H:132:PHE:CZ	2.13	1.28
6:5:37:LYS:NZ	10:B:2127:G:O2'	1.65	1.28
10:B:1130:U:C4	12:D:152:PRO:HB3	1.68	1.27
16:H:68:ARG:CG	16:H:132:PHE:CE1	2.15	1.25
7:6:24:MET:CE	7:6:257:ARG:NH2	1.98	1.25
7:6:363:GLY:O	7:6:364:GLU:HG2	1.25	1.24
16:H:68:ARG:CG	16:H:132:PHE:CD2	2.21	1.23
10:B:2032:G:H21	12:D:150:GLN:CG	1.52	1.23
16:H:68:ARG:HG3	16:H:132:PHE:CE1	1.74	1.22
10:B:2032:G:N2	12:D:150:GLN:HG2	1.55	1.22
7:6:366:ALA:O	7:6:367:GLN:O	1.58	1.21
6:5:133:PRO:HB3	10:B:2121:G:N7	1.55	1.20
16:H:31:VAL:CG1	32:X:40:GLU:OE2	1.89	1.20
16:H:68:ARG:HG3	16:H:132:PHE:CD1	1.76	1.19
16:H:31:VAL:HG11	32:X:40:GLU:CG	1.68	1.18
16:H:3:VAL:HG11	16:H:30:LEU:HD11	1.25	1.17
28:T:5:GLU:OE2	28:T:49:LYS:NZ	1.76	1.16
6:5:53:ARG:HH12	10:B:1859:U:H5''	1.00	1.13
16:H:68:ARG:CG	16:H:132:PHE:CD1	2.31	1.13
7:6:365:VAL:HG22	7:6:405:ARG:NH2	1.60	1.13
12:D:56:LYS:HZ2	12:D:59:ARG:NH2	1.48	1.11
10:B:1130:U:N3	12:D:152:PRO:CB	2.13	1.11
31:W:65:LYS:NZ	31:W:83:ALA:O	1.84	1.10
22:N:118:ARG:HE	22:N:121:LYS:N	1.49	1.10
10:B:2032:G:N2	12:D:150:GLN:CG	2.13	1.10
16:H:68:ARG:CG	16:H:132:PHE:CG	2.35	1.09
10:B:2251:G:OP1	21:M:81:ARG:NH1	1.87	1.06
10:B:2025:C:OP1	12:D:154:LYS:NZ	1.88	1.06
10:B:1754:A:N7	24:P:93:LYS:NZ	2.02	1.06
24:P:48:ALA:O	24:P:95:LYS:NZ	1.87	1.05
16:H:68:ARG:HB2	16:H:132:PHE:CG	1.91	1.05
11:C:18:VAL:O	11:C:202:ARG:NH2	1.90	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:365:VAL:HG21	7:6:405:ARG:NH2	1.39	1.04
10:B:2571:U:O2'	12:D:151:THR:HG23	1.57	1.04
16:H:31:VAL:CG1	32:X:40:GLU:CD	2.25	1.04
16:H:29:PHE:O	16:H:33:GLN:CB	2.04	1.04
7:6:364:GLU:HG3	7:6:408:ILE:HG13	1.38	1.04
10:B:796:C:OP1	13:E:57:LYS:NZ	1.91	1.04
19:K:97:ARG:NH1	19:K:117:LEU:O	1.88	1.04
19:K:39:LYS:NZ	19:K:88:ASN:OD1	1.92	1.02
6:5:133:PRO:CB	10:B:2121:G:N7	2.20	1.02
7:6:29:GLU:OE1	7:6:290:ARG:NH1	1.90	1.02
16:H:27:ARG:HH21	32:X:59:ASP:HA	1.21	1.02
16:H:29:PHE:O	16:H:33:GLN:HB2	1.59	1.01
16:H:68:ARG:HD3	16:H:132:PHE:CE1	1.95	1.01
7:6:363:GLY:O	7:6:364:GLU:CG	2.07	1.01
17:I:61:TYR:O	17:I:64:ARG:NH1	1.94	1.01
16:H:31:VAL:HG13	32:X:40:GLU:CG	1.88	1.01
10:B:2312:U:OP2	14:F:71:LYS:NZ	1.93	1.01
7:6:24:MET:SD	7:6:257:ARG:NH2	2.34	1.00
18:J:118:MET:HG2	18:J:121:LYS:HZ3	1.26	1.00
17:I:74:PRO:HA	17:I:112:LYS:HZ3	1.26	1.00
3:2:14:ARG:NH2	10:B:770:G:O3'	1.94	0.99
16:H:97:ARG:HH12	16:H:113:SER:HA	1.27	0.99
16:H:29:PHE:CE1	16:H:33:GLN:HG2	1.96	0.99
7:6:279:LEU:HD11	7:6:360:ARG:HH12	1.21	0.99
10:B:2032:G:H21	12:D:150:GLN:HG2	0.84	0.99
16:H:31:VAL:HG13	32:X:40:GLU:HG2	1.37	0.99
16:H:3:VAL:HG11	16:H:30:LEU:CD1	1.92	0.99
10:B:2305:U:O3'	14:F:132:ARG:NH2	1.94	0.99
13:E:22:ASP:HA	13:E:114:ARG:HH22	1.27	0.99
6:5:134:ARG:HB3	10:B:2125:G:O6	1.63	0.99
16:H:30:LEU:HD21	16:H:36:ALA:HB3	1.45	0.99
10:B:8:C:O5'	18:J:120:ARG:NH2	1.95	0.99
15:G:15:ASP:O	15:G:17:LYS:NZ	1.96	0.99
21:M:76:LYS:NZ	21:M:85:GLY:O	1.96	0.99
24:P:87:ARG:NH1	24:P:88:ARG:O	1.95	0.99
11:C:83:ASP:OD2	11:C:86:ARG:N	1.96	0.99
16:H:68:ARG:HG2	16:H:132:PHE:CE2	1.97	0.98
10:B:815:C:OP1	26:R:85:LYS:NZ	1.95	0.98
13:E:25:GLU:OE2	20:L:7:SER:N	1.94	0.98
10:B:880:G:N2	10:B:897:C:N3	2.12	0.98
10:B:1252:G:N3	25:Q:32:ARG:NH1	2.11	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:75:G:H2'	9:A:76:G:H8	1.29	0.98
10:B:190:A:OP1	32:X:25:LYS:NZ	1.94	0.98
10:B:1666:G:H1	10:B:1994:C:H42	1.07	0.98
16:H:31:VAL:HG22	32:X:40:GLU:OE2	1.64	0.97
10:B:1130:U:H3	12:D:152:PRO:HB3	1.25	0.97
16:H:31:VAL:HG13	32:X:40:GLU:CD	1.84	0.97
7:6:84:LEU:N	7:6:102:ASP:OD2	1.97	0.97
10:B:374:A:N7	10:B:400:G:N2	2.12	0.97
24:P:88:ARG:HH21	24:P:114:ASN:HD22	1.05	0.97
6:5:134:ARG:HA	10:B:2124:G:O6	1.65	0.97
25:Q:18:LYS:HA	25:Q:21:LYS:HZ3	1.30	0.97
30:V:66:ASP:O	30:V:68:LYS:NZ	1.96	0.96
12:D:183:GLU:HG2	12:D:184:ARG:HG3	1.46	0.96
10:B:2294:G:OP2	23:O:94:ARG:NH2	1.97	0.96
10:B:636:G:N1	20:L:76:GLU:OE2	1.99	0.96
9:A:116:G:O3'	23:O:56:LYS:NZ	1.98	0.96
10:B:1060:U:OP2	17:I:112:LYS:NZ	1.98	0.96
10:B:2275:C:O2	21:M:84:LYS:NZ	1.99	0.96
10:B:2129:C:N3	10:B:2159:G:N2	2.13	0.96
10:B:2114:A:N6	10:B:2119:A:N7	2.14	0.95
10:B:1723:G:H1	10:B:1737:G:HO2'	1.14	0.95
19:K:91:GLU:HB2	19:K:110:LYS:HZ2	1.29	0.95
10:B:2724:U:OP1	12:D:116:LYS:NZ	2.00	0.95
7:6:365:VAL:HG21	7:6:405:ARG:HH22	1.28	0.95
10:B:2547:A:N1	10:B:2561:U:N3	2.15	0.95
10:B:1913:A:N7	10:B:1917:U:N3	2.14	0.95
10:B:531:C:O3'	25:Q:40:LYS:NZ	1.99	0.94
22:N:14:SER:HA	22:N:17:ARG:HH21	1.31	0.94
16:H:68:ARG:O	16:H:132:PHE:CD2	2.20	0.94
16:H:68:ARG:CB	16:H:132:PHE:CG	2.51	0.94
16:H:31:VAL:HG21	32:X:40:GLU:OE2	1.64	0.94
10:B:18:U:H2'	10:B:19:A:H8	1.32	0.94
24:P:47:ILE:O	24:P:95:LYS:NZ	2.01	0.93
10:B:908:C:OP1	21:M:18:ARG:NH2	2.02	0.93
21:M:34:LYS:NZ	30:V:81:PRO:O	2.01	0.93
10:B:413:C:H42	10:B:2410:G:H1	1.15	0.93
6:5:133:PRO:O	10:B:2122:U:C5	2.20	0.93
7:6:331:ARG:NH1	7:6:359:GLU:OE1	2.02	0.93
10:B:451:U:H5'	13:E:47:LYS:HZ1	1.30	0.93
6:5:47:ASN:HD22	6:5:211:LYS:HB3	1.30	0.93
10:B:1007:C:O3'	18:J:111:LYS:NZ	2.02	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:856:G:OP1	31:W:23:LYS:NZ	2.03	0.92
10:B:1651:G:H1	10:B:2006:C:H42	1.13	0.92
10:B:807:U:OP1	20:L:36:LYS:NZ	2.02	0.92
10:B:2223:G:O3'	11:C:264:LYS:NZ	2.02	0.92
10:B:1076:C:H2'	10:B:1077:A:H8	1.32	0.92
16:H:127:GLU:HG3	16:H:141:LYS:HD2	1.51	0.92
10:B:2659:G:N2	10:B:2662:A:N7	2.18	0.92
10:B:251:A:O3'	20:L:47:ARG:NE	2.02	0.92
4:3:34:LYS:NZ	10:B:2390:U:OP2	2.03	0.91
16:H:30:LEU:HG	16:H:35:LYS:CE	2.00	0.91
10:B:1825:U:H2'	10:B:1826:G:H8	1.36	0.91
7:6:24:MET:SD	7:6:257:ARG:CZ	2.58	0.91
8:7:37:LYS:NZ	8:7:54:VAL:HB	1.86	0.91
10:B:226:A:N3	10:B:229:C:N4	2.17	0.91
7:6:189:ARG:NH1	7:6:272:GLN:HG3	1.84	0.91
7:6:53:HIS:HB3	7:6:55:LYS:HD3	1.52	0.91
10:B:1327:A:N6	10:B:1328:A:N3	2.18	0.91
26:R:79:ARG:HG2	26:R:80:ARG:HG2	1.53	0.90
18:J:35:ARG:HH11	18:J:40:HIS:CD2	1.90	0.90
7:6:364:GLU:HG3	7:6:408:ILE:CG1	2.00	0.90
10:B:337:C:OP2	29:U:3:LYS:NZ	2.05	0.90
10:B:396:G:H5''	32:X:9:LYS:HD3	1.53	0.90
10:B:2471:A:HO2'	10:B:2472:G:H8	0.92	0.90
9:A:90:C:O2'	21:M:38:ARG:NH1	2.05	0.90
16:H:31:VAL:HG11	32:X:40:GLU:HG3	1.52	0.90
6:5:53:ARG:NH1	10:B:1859:U:H5''	1.85	0.90
11:C:68:ARG:O	11:C:188:ARG:NH2	2.04	0.90
10:B:52:A:OP2	10:B:117:G:N1	2.05	0.90
5:4:30:GLU:OE2	15:G:171:LYS:NZ	2.04	0.90
18:J:98:GLU:OE2	18:J:126:ALA:N	2.04	0.90
28:T:38:ALA:HB2	28:T:81:LYS:HZ3	1.33	0.90
10:B:1952:A:OP1	19:K:43:LYS:NZ	2.04	0.89
7:6:24:MET:HE3	7:6:257:ARG:CZ	2.02	0.89
16:H:29:PHE:CD1	16:H:33:GLN:CD	2.45	0.89
10:B:1093:G:H21	10:B:1098:A:H62	1.21	0.89
10:B:2204:G:OP2	11:C:149:LYS:NZ	2.05	0.89
10:B:1801:A:H62	11:C:261:ARG:HH12	1.18	0.89
5:4:18:LYS:NZ	10:B:1034:G:H5'	1.87	0.89
10:B:605:G:N3	10:B:657:U:O2'	2.06	0.89
7:6:48:SER:O	7:6:50:LYS:NZ	2.06	0.88
24:P:88:ARG:HH21	24:P:114:ASN:ND2	1.70	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:3:ARG:HH21	10:B:464:U:P	1.95	0.88
6:5:37:LYS:NZ	6:5:218:MET:HE1	1.88	0.88
14:F:147:ARG:HH12	14:F:150:GLY:H	1.17	0.88
7:6:86:PRO:HG3	7:6:135:ARG:HH11	1.38	0.88
7:6:161:GLU:HA	7:6:164:ARG:HD3	1.56	0.88
10:B:1268:A:H62	10:B:2012:G:H21	1.21	0.88
10:B:956:G:OP2	21:M:86:LYS:NZ	2.05	0.88
10:B:2032:G:N2	12:D:150:GLN:CB	2.37	0.88
10:B:372:G:O4'	32:X:60:LYS:NZ	2.06	0.88
25:Q:89:ILE:HG22	25:Q:91:ARG:H	1.36	0.88
10:B:2811:G:H1	10:B:2889:C:H42	1.20	0.88
10:B:1130:U:H3	12:D:152:PRO:CB	1.80	0.88
16:H:32:PRO:HB3	32:X:38:TRP:CE3	1.92	0.88
10:B:397:U:OP2	32:X:9:LYS:NZ	2.07	0.87
12:D:56:LYS:HZ2	12:D:59:ARG:HH21	1.12	0.87
6:5:9:ARG:HH12	10:B:2151:U:H5''	1.39	0.87
9:A:13:G:H1'	9:A:14:U:H5''	1.54	0.87
10:B:329:G:H1	29:U:16:LYS:NZ	1.72	0.87
10:B:2824:C:H3'	10:B:2825:G:H21	1.38	0.87
10:B:2872:A:H4'	22:N:46:ARG:NH2	1.88	0.87
9:A:116:G:H2'	9:A:117:G:H8	1.38	0.87
10:B:1533:C:O2	10:B:1538:G:N2	2.06	0.87
10:B:1099:G:N7	17:I:3:LYS:N	2.21	0.87
10:B:2364:C:OP1	31:W:54:ARG:NH1	2.07	0.87
4:3:46:LYS:NZ	10:B:630:G:OP1	2.05	0.87
9:A:85:G:H2'	9:A:86:G:H8	1.38	0.87
10:B:219:A:N6	10:B:428:A:OP2	2.08	0.87
12:D:56:LYS:NZ	12:D:59:ARG:HH21	1.73	0.87
16:H:30:LEU:HG	16:H:35:LYS:NZ	1.90	0.87
12:D:46:ARG:HH22	12:D:88:GLU:HG2	1.39	0.87
16:H:68:ARG:CD	16:H:132:PHE:CD1	2.56	0.87
10:B:1355:G:H2'	10:B:1356:G:H8	1.38	0.87
16:H:31:VAL:CB	32:X:40:GLU:OE2	2.22	0.87
7:6:411:TRP:HA	7:6:425:LEU:HD21	1.57	0.87
10:B:1861:G:N1	10:B:1881:C:N3	2.22	0.87
17:I:93:ASN:H	17:I:136:GLY:HA2	1.38	0.87
10:B:711:G:H2'	10:B:712:G:H8	1.36	0.87
24:P:70:GLU:OE2	24:P:100:ARG:NH1	2.08	0.86
10:B:1801:A:N6	11:C:261:ARG:HH12	1.72	0.86
10:B:305:C:N3	10:B:312:G:N1	2.22	0.86
19:K:12:ASN:HD21	19:K:96:THR:HB	1.38	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:172:A:H2'	10:B:173:A:H8	1.38	0.86
7:6:189:ARG:HH12	7:6:272:GLN:HG3	1.38	0.86
10:B:2292:U:H2'	10:B:2293:G:H8	1.38	0.86
10:B:1744:A:H3'	10:B:1745:A:H8	1.40	0.86
16:H:31:VAL:HG11	32:X:40:GLU:CD	1.92	0.86
28:T:39:THR:HB	28:T:42:GLU:HB2	1.58	0.86
28:T:54:GLU:HB2	28:T:56:GLU:OE2	1.76	0.86
10:B:2642:G:H2'	10:B:2643:G:H8	1.40	0.86
10:B:2701:U:O2	22:N:71:ARG:NH2	2.09	0.86
10:B:2360:G:N3	20:L:60:ARG:NH1	2.23	0.86
16:H:30:LEU:HG	16:H:35:LYS:HE2	1.56	0.86
10:B:2631:G:N2	10:B:2787:C:O2	2.08	0.86
10:B:827:U:O2	10:B:2246:G:O2'	1.94	0.86
19:K:6:MET:HB3	19:K:17:ARG:HD2	1.57	0.86
10:B:692:C:HO2'	10:B:1354:A:HO2'	1.13	0.86
3:2:34:ARG:NH1	10:B:467:G:OP2	2.08	0.86
10:B:238:C:H42	10:B:259:G:H1	1.24	0.86
7:6:179:GLU:HB3	7:6:183:LYS:HZ1	1.41	0.85
10:B:2036:C:H2'	10:B:2037:A:H8	1.39	0.85
10:B:160:A:H2'	10:B:161:A:C8	2.12	0.85
10:B:2406:A:N3	20:L:69:ARG:NH1	2.24	0.85
12:D:94:GLN:NE2	12:D:96:ILE:O	2.09	0.85
25:Q:91:ARG:HD2	26:R:11:GLN:HG3	1.59	0.85
16:H:31:VAL:HG11	32:X:40:GLU:OE2	1.73	0.85
10:B:2470:G:N7	10:B:2481:G:N2	2.25	0.85
12:D:94:GLN:HB2	12:D:96:ILE:HG12	1.56	0.85
14:F:1:ALA:N	14:F:93:GLU:OE2	2.09	0.85
10:B:1365:A:H2'	10:B:1366:A:H8	1.42	0.85
10:B:2278:A:H5'	21:M:10:ARG:NH2	1.91	0.85
28:T:13:ALA:HB3	28:T:33:LYS:HB2	1.58	0.85
10:B:1612:C:N3	10:B:1619:G:N1	2.25	0.85
6:5:134:ARG:O	6:5:137:MET:N	1.99	0.85
33:Y:38:GLN:HB3	33:Y:42:LEU:HD12	1.57	0.85
9:A:42:C:N3	14:F:89:THR:OG1	2.10	0.85
10:B:2606:C:H2'	10:B:2607:G:C8	2.11	0.85
11:C:5:CYS:SG	11:C:12:ARG:NH2	2.49	0.85
10:B:2872:A:H4'	22:N:46:ARG:HH22	1.41	0.84
16:H:30:LEU:CD2	16:H:36:ALA:HB3	2.07	0.84
10:B:2696:U:H2'	10:B:2697:G:H8	1.41	0.84
23:O:93:ASP:OD2	23:O:95:SER:OG	1.94	0.84
10:B:1508:A:H4'	10:B:1509:A:H5'	1.58	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:711:G:N1	10:B:720:U:O2	2.09	0.84
10:B:1665:A:OP1	19:K:65:LYS:NZ	2.08	0.84
21:M:11:LYS:NZ	21:M:86:LYS:O	2.11	0.84
10:B:1779:U:O2	10:B:1783:A:N6	2.10	0.84
10:B:1283:G:N2	10:B:1286:A:OP2	2.10	0.84
10:B:2443:C:OP2	13:E:63:LYS:NZ	2.11	0.84
10:B:2572:A:H2'	12:D:149:ASN:HD21	1.41	0.84
10:B:1791:A:N6	10:B:1828:G:O2'	2.09	0.84
10:B:2513:A:H4'	12:D:159:LYS:HD3	1.60	0.84
10:B:787:C:H5''	10:B:788:A:H5'	1.59	0.84
18:J:110:PRO:HB2	18:J:111:LYS:HG2	1.58	0.84
10:B:55:G:N1	10:B:115:C:N3	2.25	0.84
16:H:31:VAL:HG13	32:X:40:GLU:OE2	1.74	0.84
10:B:1392:A:OP1	28:T:19:LYS:NZ	2.09	0.84
10:B:708:G:N2	10:B:723:C:O2	2.10	0.84
10:B:302:C:OP1	29:U:78:LYS:NZ	2.09	0.84
16:H:130:VAL:H	16:H:144:VAL:HG11	1.42	0.84
10:B:1518:C:H2'	10:B:1519:G:H8	1.40	0.84
10:B:1656:C:H42	10:B:2004:G:H1	1.24	0.84
10:B:2892:G:OP1	10:B:2894:G:N2	2.10	0.84
10:B:1568:G:OP2	11:C:62:ARG:NH2	2.11	0.84
10:B:2257:U:H2'	10:B:2258:C:H6	1.42	0.84
6:5:37:LYS:HA	10:B:2128:G:OP1	1.77	0.84
10:B:1:G:N1	10:B:2902:C:N3	2.25	0.84
7:6:364:GLU:HG3	7:6:408:ILE:CD1	2.07	0.83
10:B:2531:A:H5''	15:G:175:LYS:HZ3	1.40	0.83
10:B:329:G:H1	29:U:16:LYS:HZ3	0.86	0.83
7:6:24:MET:CE	7:6:257:ARG:CZ	2.53	0.83
10:B:535:G:O3'	25:Q:52:ARG:NH2	2.10	0.83
10:B:826:U:O2'	20:L:53:GLY:N	2.10	0.83
18:J:118:MET:HA	18:J:121:LYS:HZ2	1.43	0.83
21:M:35:ALA:HB2	21:M:102:LEU:HD11	1.58	0.83
10:B:2009:A:H2'	10:B:2010:G:H8	1.43	0.83
10:B:2304:G:N1	10:B:2312:U:O4	2.11	0.83
10:B:638:G:N7	10:B:651:G:N2	2.25	0.83
10:B:45:G:N2	10:B:433:C:O2	2.12	0.83
18:J:140:LEU:HD23	18:J:142:ILE:H	1.44	0.83
16:H:29:PHE:CE1	16:H:33:GLN:CG	2.61	0.83
6:5:134:ARG:HD2	10:B:2172:U:H5''	1.59	0.83
10:B:1062:G:H2'	10:B:1063:G:C8	2.12	0.83
10:B:2:G:N2	10:B:2901:C:O2	2.11	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1987:A:H2'	10:B:1988:G:H8	1.44	0.83
31:W:23:LYS:HZ1	31:W:67:LYS:HE3	1.43	0.83
14:F:147:ARG:NH1	14:F:150:GLY:H	1.76	0.83
18:J:118:MET:HG2	18:J:121:LYS:NZ	1.93	0.83
10:B:2830:C:O3'	12:D:56:LYS:NZ	2.11	0.83
10:B:1278:C:H2'	10:B:1279:G:H8	1.44	0.83
10:B:225:C:H2'	10:B:226:A:H8	1.42	0.83
23:O:18:LEU:O	23:O:22:GLY:N	2.11	0.83
10:B:2809:A:H2'	10:B:2810:A:C8	2.14	0.83
10:B:1453:A:N6	22:N:74:GLU:OE1	2.12	0.83
10:B:493:G:O2'	27:S:6:LYS:O	1.96	0.83
10:B:1276:A:O2'	22:N:20:MET:SD	2.35	0.83
10:B:1291:C:H2'	10:B:1292:G:H8	1.44	0.83
6:5:168:ASN:ND2	10:B:2179:C:OP1	2.12	0.83
26:R:74:ILE:HB	26:R:87:GLN:HB3	1.61	0.83
17:I:121:ILE:HA	17:I:124:MET:HE2	1.61	0.82
10:B:1568:G:P	11:C:62:ARG:HH22	2.02	0.82
7:6:84:LEU:O	7:6:135:ARG:NH2	2.11	0.82
10:B:413:C:N3	10:B:2410:G:N2	2.27	0.82
16:H:31:VAL:HB	16:H:32:PRO:HD3	1.61	0.82
10:B:1788:C:OP1	11:C:220:ARG:NH2	2.12	0.82
27:S:3:THR:HG21	27:S:8:ARG:NH1	1.92	0.82
9:A:43:C:H4'	14:F:91:ARG:HB3	1.60	0.82
7:6:320:ASP:OD2	35:6:527:GNP:N2	2.11	0.82
10:B:2010:G:H5''	27:S:42:LYS:HB2	1.59	0.82
31:W:19:ARG:NH1	31:W:21:GLY:O	2.11	0.82
10:B:1346:G:N2	10:B:1600:C:O2	2.13	0.82
10:B:895:U:H5''	10:B:896:A:H5'	1.59	0.82
8:7:97:LYS:HD2	8:7:101:LYS:NZ	1.94	0.82
8:7:93:ALA:HB2	8:7:129:LEU:HG	1.60	0.82
7:6:393:TRP:HH2	7:6:403:GLN:HG3	1.44	0.82
10:B:1340:U:OP2	28:T:82:LYS:NZ	2.13	0.82
10:B:856:G:H21	31:W:19:ARG:HH22	1.26	0.82
10:B:2387:U:O2	31:W:38:ARG:NH2	2.11	0.82
10:B:2212:A:N7	10:B:2214:C:N4	2.27	0.82
10:B:2799:A:H3'	10:B:2800:A:H5'	1.61	0.82
7:6:23:ASP:O	7:6:24:MET:HB2	1.77	0.82
9:A:44:G:N3	9:A:47:C:N4	2.25	0.82
16:H:67:ALA:O	16:H:68:ARG:HG2	1.79	0.82
6:5:54:LYS:NZ	10:B:1860:G:H5''	1.95	0.82
9:A:8:C:O3'	23:O:25:ARG:NH2	2.12	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:53:HIS:ND1	7:6:57:PHE:O	2.11	0.82
11:C:29:PHE:HB3	11:C:31:PRO:HD2	1.61	0.82
3:2:39:ARG:NH1	10:B:459:U:OP2	2.11	0.82
10:B:695:G:OP1	10:B:1380:G:O2'	1.97	0.82
10:B:1223:G:O5'	26:R:71:LYS:NZ	2.12	0.82
14:F:64:PRO:HB3	14:F:88:VAL:HG22	1.59	0.82
10:B:974:G:H8	10:B:990:A:H62	1.27	0.81
7:6:375:GLN:HG3	7:6:378:ARG:HH22	1.45	0.81
8:7:37:LYS:HZ2	8:7:54:VAL:HB	1.41	0.81
9:A:16:G:N2	9:A:68:C:O2	2.13	0.81
10:B:2637:U:O2	10:B:2782:G:N2	2.13	0.81
10:B:571:U:N3	10:B:575:A:N7	2.28	0.81
10:B:2315:G:O3'	14:F:124:ARG:NH1	2.12	0.81
7:6:103:ARG:NH2	7:6:257:ARG:O	2.14	0.81
10:B:1661:G:H1	10:B:1999:C:H42	1.24	0.81
18:J:23:LYS:NZ	18:J:141:ASP:O	2.13	0.81
10:B:1072:C:H41	17:I:3:LYS:HD3	1.45	0.81
10:B:1346:G:H2'	10:B:1347:A:C8	2.16	0.81
12:D:77:ARG:NH2	12:D:200:ASP:OD1	2.13	0.81
10:B:1315:C:N4	10:B:1337:G:O6	2.12	0.81
10:B:1492:G:H1	10:B:1498:C:H42	1.28	0.81
10:B:1548:A:H2'	10:B:1549:A:H8	1.46	0.81
10:B:2087:G:H2'	10:B:2088:A:H8	1.45	0.81
10:B:2227:A:H3'	10:B:2228:G:H8	1.44	0.81
13:E:6:LYS:HG2	13:E:122:GLU:H	1.46	0.81
10:B:621:A:OP2	20:L:99:ASN:ND2	2.13	0.81
16:H:30:LEU:HG	16:H:35:LYS:HZ1	1.44	0.81
10:B:1059:G:N1	10:B:1079:C:N3	2.26	0.81
10:B:2220:U:H2'	10:B:2221:G:H8	1.46	0.81
10:B:1018:U:H3	10:B:1144:A:H61	1.26	0.81
10:B:276:U:O2'	10:B:278:A:N7	2.13	0.81
10:B:2740:A:OP2	10:B:2763:G:N1	2.14	0.81
11:C:43:ASN:OD1	11:C:44:ASN:N	2.14	0.81
7:6:318:LYS:HG2	35:6:527:GNP:C6	2.11	0.80
15:G:45:ALA:HB3	15:G:48:THR:HB	1.61	0.80
8:7:71:CYS:HB3	8:7:75:ALA:HB2	1.63	0.80
10:B:2508:G:HO2'	10:B:2554:U:HO2'	1.20	0.80
10:B:1861:G:N2	10:B:1881:C:O2	2.14	0.80
10:B:2841:C:O2	10:B:2876:G:N2	2.12	0.80
10:B:252:G:OP1	20:L:47:ARG:NH2	2.14	0.80
25:Q:49:ARG:O	25:Q:53:LYS:NZ	2.14	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:M:66:ARG:NH2	21:M:104:GLU:OE2	2.14	0.80
16:H:128:HIS:HA	16:H:141:LYS:HZ3	1.46	0.80
28:T:37:ASP:C	28:T:81:LYS:HZ2	1.84	0.80
6:5:41:SER:HA	6:5:177:LYS:HA	1.62	0.80
19:K:57:LEU:HA	19:K:88:ASN:HD21	1.46	0.80
10:B:2089:C:H2'	10:B:2090:A:H8	1.45	0.80
7:6:119:GLU:OE1	7:6:185:ARG:NH2	2.13	0.80
9:A:85:G:H2'	9:A:86:G:C8	2.16	0.80
10:B:244:A:H62	10:B:254:G:H21	1.29	0.80
10:B:36:G:N2	10:B:444:C:O2	2.14	0.80
10:B:2634:A:H2'	10:B:2635:A:H8	1.46	0.80
10:B:541:A:H2'	10:B:542:C:C6	2.17	0.80
10:B:55:G:N2	10:B:115:C:O2	2.13	0.80
10:B:133:U:H2'	10:B:134:G:H8	1.46	0.80
10:B:188:G:H2'	10:B:189:G:C8	2.17	0.79
10:B:1055:G:H3'	10:B:1056:G:H8	1.47	0.79
10:B:2794:C:O2	10:B:2802:G:N2	2.15	0.79
10:B:2674:G:H4'	19:K:29:ARG:HG2	1.64	0.79
10:B:948:C:N4	10:B:969:G:O6	2.11	0.79
10:B:532:A:C5'	25:Q:27:ARG:HH12	1.95	0.79
10:B:883:G:N2	10:B:893:C:N3	2.28	0.79
19:K:70:ARG:HB3	19:K:74:SER:HB2	1.63	0.79
10:B:1449:G:N1	10:B:1462:C:N3	2.30	0.79
10:B:2391:G:H22	10:B:2424:C:H2'	1.46	0.79
10:B:160:A:H2'	10:B:161:A:H8	1.46	0.79
10:B:1801:A:N7	11:C:261:ARG:NH1	2.30	0.79
12:D:28:GLU:OE2	12:D:185:ASN:HB2	1.82	0.79
10:B:829:A:C8	10:B:2248:C:H5'	2.17	0.79
10:B:910:A:N3	10:B:2264:C:O2'	2.15	0.79
10:B:279:A:H61	10:B:361:G:H1'	1.46	0.79
12:D:46:ARG:NH1	12:D:87:GLY:O	2.15	0.79
10:B:1501:G:OP1	11:C:100:ARG:NH2	2.14	0.79
18:J:103:ILE:HD12	18:J:106:LYS:HB3	1.62	0.79
10:B:783:A:C2	10:B:785:G:H1'	2.18	0.79
31:W:31:LEU:HG	31:W:33:GLY:H	1.46	0.79
6:5:53:ARG:HH12	10:B:1859:U:C5'	1.91	0.79
14:F:106:ALA:HA	14:F:112:ASP:OD2	1.83	0.79
28:T:28:ASN:O	28:T:91:GLN:NE2	2.15	0.79
10:B:1807:G:OP1	11:C:47:ARG:NH1	2.16	0.79
20:L:89:VAL:HA	20:L:121:THR:HB	1.63	0.79
10:B:626:A:H2'	20:L:78:ARG:HE	1.47	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1450:G:N2	10:B:1461:C:O2	2.16	0.79
10:B:2818:U:H2'	10:B:2819:G:H8	1.44	0.79
10:B:27:G:HO2'	10:B:28:A:H8	1.29	0.79
10:B:2278:A:H5'	21:M:10:ARG:HH21	1.46	0.79
19:K:15:ALA:HA	19:K:48:ARG:HD2	1.65	0.79
30:V:30:ILE:HG12	30:V:91:PHE:HB2	1.62	0.79
10:B:1172:C:O2	10:B:1177:G:N1	2.15	0.79
10:B:2722:G:H4'	22:N:4:ARG:HB2	1.63	0.79
10:B:2417:C:H2'	10:B:2418:A:H8	1.48	0.79
7:6:48:SER:HB3	7:6:49:ARG:HG2	1.64	0.79
7:6:236:LEU:O	7:6:237:ARG:NH1	2.15	0.79
10:B:1059:G:N2	10:B:1079:C:O2	2.14	0.79
10:B:1430:G:H2'	10:B:1431:A:H8	1.48	0.79
10:B:2511:U:OP1	12:D:128:ARG:NH1	2.16	0.78
10:B:441:U:H2'	10:B:442:G:C8	2.17	0.78
10:B:2843:G:H2'	10:B:2844:G:C8	2.18	0.78
10:B:1250:G:OP2	20:L:21:ARG:NE	2.16	0.78
10:B:1853:A:H2'	10:B:1854:A:C8	2.18	0.78
10:B:1287:A:H3'	10:B:1288:G:H21	1.46	0.78
10:B:18:U:H2'	10:B:19:A:C8	2.17	0.78
10:B:947:A:H2'	10:B:948:C:H6	1.48	0.78
7:6:364:GLU:CD	7:6:408:ILE:HD11	2.03	0.78
10:B:1152:C:H2'	10:B:1153:C:H6	1.47	0.78
10:B:2269:G:N2	10:B:2270:A:N3	2.32	0.78
10:B:2524:G:N2	10:B:2539:C:O2	2.16	0.78
10:B:27:G:N2	10:B:513:A:OP2	2.17	0.78
10:B:543:G:N2	10:B:550:C:O2	2.15	0.78
10:B:1853:A:H2'	10:B:1854:A:H8	1.49	0.78
10:B:708:G:N1	10:B:723:C:N3	2.31	0.78
7:6:45:ILE:HG21	7:6:66:ILE:HG22	1.65	0.78
10:B:2336:A:C6	31:W:40:ARG:NH1	2.51	0.78
10:B:1355:G:H2'	10:B:1356:G:C8	2.19	0.78
7:6:412:ARG:NH2	10:B:2660:A:N3	2.32	0.78
10:B:1351:C:N3	10:B:1381:G:N1	2.32	0.78
10:B:517:C:O2'	27:S:18:ARG:NH2	2.16	0.78
8:7:32:GLY:O	10:B:1055:G:O2'	2.01	0.78
10:B:688:U:H2'	10:B:689:A:H8	1.47	0.78
18:J:31:GLU:OE2	18:J:34:ARG:NH2	2.16	0.78
13:E:149:ILE:HG22	13:E:188:MET:HA	1.65	0.78
10:B:1170:C:H2'	10:B:1171:G:H8	1.48	0.78
16:H:31:VAL:HG12	32:X:40:GLU:HG2	1.62	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1064:C:OP1	17:I:80:LYS:NZ	2.17	0.78
10:B:729:G:N2	11:C:10:PRO:O	2.17	0.78
3:2:12:ARG:NH1	10:B:686:U:O4	2.17	0.78
10:B:1170:C:H2'	10:B:1171:G:C8	2.19	0.78
10:B:2251:G:N7	10:B:2450:A:O2'	2.16	0.78
11:C:132:ARG:NH1	16:H:125:THR:O	2.17	0.78
10:B:2323:G:N2	10:B:2332:C:O2	2.17	0.78
10:B:1078:U:OP1	17:I:133:ARG:NH2	2.17	0.78
10:B:635:C:H2'	10:B:636:G:C8	2.19	0.78
11:C:107:LYS:NZ	11:C:193:GLU:OE2	2.17	0.78
10:B:1745:A:H2'	10:B:1746:A:H8	1.49	0.77
10:B:2125:G:O2'	10:B:2173:A:N6	2.17	0.77
10:B:2588:G:N7	10:B:2607:G:N2	2.31	0.77
10:B:2589:A:H2'	10:B:2590:A:C8	2.19	0.77
10:B:1799:G:O3'	11:C:181:ARG:NH1	2.17	0.77
7:6:20:GLN:O	10:B:1916:A:OP1	2.02	0.77
33:Y:7:ARG:O	33:Y:9:LYS:NZ	2.15	0.77
5:4:18:LYS:HZ1	10:B:1034:G:H5'	1.45	0.77
10:B:1457:U:N3	10:B:1458:U:O4	2.16	0.77
10:B:448:U:N3	10:B:1258:U:O2	2.17	0.77
27:S:6:LYS:HZ1	27:S:102:HIS:HB3	1.49	0.77
29:U:23:LYS:NZ	29:U:24:VAL:O	2.17	0.77
10:B:1449:G:O6	10:B:1462:C:N4	2.16	0.77
10:B:240:C:O2	10:B:257:C:N4	2.17	0.77
10:B:1983:G:H2'	10:B:1984:G:H8	1.49	0.77
10:B:635:C:H2'	10:B:636:G:H8	1.49	0.77
14:F:31:GLU:HB3	14:F:156:THR:HG22	1.64	0.77
10:B:1660:G:H2'	10:B:1661:G:H8	1.50	0.77
9:A:116:G:H2'	9:A:117:G:C8	2.19	0.77
9:A:49:C:OP2	23:O:30:ARG:NH1	2.17	0.77
10:B:1710:G:H2'	10:B:1711:A:C8	2.19	0.77
10:B:995:C:O2'	18:J:1:MET:SD	2.43	0.77
10:B:2330:G:H21	31:W:39:GLN:HA	1.50	0.77
10:B:1597:A:H5''	10:B:1598:A:H5'	1.66	0.77
9:A:70:C:O2	9:A:106:G:N2	2.17	0.77
14:F:96:TRP:HA	14:F:99:PHE:HB3	1.67	0.77
7:6:367:GLN:HG2	7:6:405:ARG:HB2	1.67	0.77
10:B:2260:C:H41	31:W:10:ARG:HH21	1.33	0.77
9:A:75:G:H2'	9:A:76:G:C8	2.18	0.77
10:B:870:U:H3'	10:B:871:U:H5''	1.67	0.77
10:B:85:G:OP2	29:U:6:ARG:NH2	2.18	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:47:TYR:HE1	1:0:52:LYS:HD3	1.49	0.77
10:B:1061:U:H1'	10:B:1070:A:H1'	1.67	0.77
11:C:257:ARG:HH21	11:C:259:ASN:HB2	1.49	0.77
10:B:2746:U:N3	10:B:2756:U:O4	2.18	0.77
10:B:391:A:O2'	10:B:410:G:OP1	2.03	0.77
12:D:151:THR:HB	12:D:152:PRO:HD2	1.66	0.77
10:B:2656:U:OP2	10:B:2664:G:N1	2.13	0.77
10:B:1487:U:O4	10:B:1502:A:N6	2.14	0.77
8:7:1:MET:N	10:B:1046:A:O2'	2.16	0.77
10:B:195:A:H61	10:B:198:C:H3'	1.50	0.77
10:B:1383:A:H2'	10:B:1384:A:C8	2.19	0.77
10:B:16:C:H2'	10:B:17:G:H8	1.49	0.77
10:B:2330:G:N2	31:W:38:ARG:O	2.18	0.77
14:F:125:GLY:HA3	14:F:159:ALA:HB3	1.65	0.77
10:B:769:U:H2'	10:B:770:G:H8	1.50	0.77
10:B:1971:U:O2'	11:C:238:ASN:OD1	2.03	0.77
10:B:1450:G:N1	10:B:1461:C:N3	2.33	0.76
10:B:1666:G:N2	10:B:1994:C:N3	2.28	0.76
10:B:2489:U:O2'	10:B:2518:A:N6	2.18	0.76
10:B:580:U:H2'	10:B:581:C:H6	1.50	0.76
19:K:29:ARG:NH2	19:K:36:ASP:OD2	2.18	0.76
31:W:48:ALA:HB3	31:W:81:ILE:HD11	1.66	0.76
10:B:1340:U:H4'	10:B:1394:U:H1'	1.67	0.76
10:B:1403:A:O3'	10:B:1471:G:O2'	2.02	0.76
10:B:1040:A:N6	10:B:1115:G:O6	2.15	0.76
10:B:1639:C:H2'	10:B:1640:A:H5''	1.65	0.76
13:E:3:LEU:O	13:E:12:LEU:N	2.18	0.76
10:B:1181:U:H2'	10:B:1182:G:H8	1.50	0.76
10:B:2032:G:H21	12:D:150:GLN:CB	1.95	0.76
10:B:2553:G:C2	10:B:2583:G:H1'	2.19	0.76
10:B:2692:G:N3	10:B:2847:U:O2'	2.19	0.76
10:B:1722:A:H2'	10:B:1723:G:H8	1.50	0.76
10:B:494:G:H4'	27:S:6:LYS:H	1.51	0.76
10:B:2102:G:N1	10:B:2187:U:O2	2.15	0.76
10:B:1515:A:H2'	10:B:1516:G:O4'	1.84	0.76
13:E:19:PHE:HB3	13:E:113:VAL:HG11	1.65	0.76
10:B:1619:G:H2'	10:B:1620:G:H8	1.51	0.76
10:B:2079:U:O2	10:B:2242:G:N2	2.17	0.76
10:B:2541:A:O2'	10:B:2765:A:N1	2.18	0.76
24:P:88:ARG:NH2	24:P:114:ASN:HD22	1.82	0.76
17:I:20:SER:HA	17:I:24:GLY:HA3	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1392:A:N6	10:B:1393:A:N1	2.32	0.76
19:K:91:GLU:HB2	19:K:110:LYS:NZ	1.99	0.76
6:5:103:GLN:HB3	6:5:108:GLU:HB2	1.65	0.76
26:R:6:GLN:HG3	26:R:11:GLN:HE22	1.50	0.76
10:B:122:G:H1	10:B:129:C:H42	1.33	0.76
19:K:92:GLN:HG3	19:K:110:LYS:HZ3	1.50	0.76
10:B:855:G:N2	10:B:922:C:O2	2.15	0.76
31:W:19:ARG:HH12	31:W:22:VAL:HG12	1.51	0.76
10:B:1721:G:N2	10:B:1738:G:O2'	2.18	0.76
10:B:1927:A:H2'	10:B:1928:A:C8	2.20	0.76
25:Q:101:ASP:O	25:Q:104:ALA:N	2.15	0.76
10:B:2282:G:N2	10:B:2390:U:O2	2.13	0.76
10:B:2647:U:O2	10:B:2673:G:N1	2.16	0.76
10:B:2230:G:N3	32:X:31:ASN:ND2	2.34	0.76
6:5:38:PHE:O	6:5:39:VAL:HB	1.85	0.76
10:B:652:U:H3'	10:B:653:U:O2	1.85	0.76
10:B:863:A:OP2	21:M:18:ARG:NH1	2.19	0.76
30:V:80:HIS:CD2	30:V:82:TYR:H	2.03	0.76
8:7:61:ARG:NH2	10:B:1047:G:O2'	2.19	0.76
10:B:1215:G:H2'	10:B:1216:G:H8	1.49	0.76
10:B:617:G:OP1	13:E:102:ARG:NH1	2.18	0.76
11:C:209:ALA:HA	11:C:212:TRP:HD1	1.51	0.76
10:B:1499:C:H2'	10:B:1500:G:H8	1.50	0.76
5:4:34:LYS:HD3	5:4:36:ARG:HH22	1.51	0.76
6:5:44:VAL:HA	6:5:214:ILE:HA	1.67	0.76
17:I:91:LYS:O	17:I:95:ASP:N	2.18	0.76
10:B:2897:U:H2'	10:B:2898:U:H6	1.51	0.76
10:B:821:A:H2'	10:B:946:C:H6	1.51	0.76
7:6:84:LEU:HD11	7:6:89:GLU:HB2	1.67	0.76
7:6:24:MET:CE	7:6:24:MET:HA	2.16	0.76
16:H:29:PHE:CE1	16:H:33:GLN:CD	2.60	0.76
8:7:34:THR:HG21	10:B:1057:A:H1'	1.67	0.76
10:B:706:A:N6	10:B:725:G:O2'	2.18	0.76
9:A:112:G:N2	23:O:45:SER:O	2.19	0.76
10:B:280:U:O4	10:B:360:U:N3	2.17	0.76
6:5:212:VAL:HG11	6:5:227:ALA:HB3	1.68	0.76
10:B:1869:G:N2	10:B:1872:A:OP2	2.19	0.76
10:B:573:U:OP2	26:R:80:ARG:NH2	2.19	0.75
10:B:1952:A:N6	10:B:1953:A:N1	2.33	0.75
10:B:2510:C:O2	10:B:2578:G:N2	2.19	0.75
16:H:26:ALA:O	16:H:28:ASN:N	2.19	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:67:ASN:OD1	23:O:68:LYS:N	2.20	0.75
10:B:17:G:N2	10:B:555:G:OP1	2.18	0.75
10:B:2809:A:H2'	10:B:2810:A:H8	1.51	0.75
10:B:658:U:O3'	13:E:95:LYS:NZ	2.20	0.75
6:5:134:ARG:HH21	6:5:136:LEU:HD23	1.50	0.75
10:B:2139:U:H2'	10:B:2152:G:H1	1.51	0.75
10:B:644:A:H61	10:B:2349:G:H21	1.32	0.75
9:A:43:C:O2'	14:F:90:LEU:O	2.03	0.75
10:B:1439:A:H62	10:B:1552:A:H8	1.30	0.75
10:B:1667:G:O2'	10:B:1991:U:O4	2.04	0.75
10:B:2328:A:H2'	10:B:2329:U:C6	2.21	0.75
10:B:1688:U:H2'	10:B:1698:A:N1	2.02	0.75
9:A:24:G:N2	9:A:27:C:N3	2.35	0.75
10:B:1477:A:N1	10:B:1557:C:O2'	2.19	0.75
7:6:4:ARG:NH1	7:6:113:GLN:HE21	1.84	0.75
10:B:1050:A:H2'	10:B:1051:G:H8	1.51	0.75
16:H:68:ARG:HD2	16:H:132:PHE:HE1	1.40	0.75
10:B:451:U:O2	10:B:453:A:N6	2.20	0.75
24:P:90:ALA:HB3	24:P:110:LYS:H	1.50	0.75
8:7:56:ARG:NH1	10:B:1084:A:N7	2.34	0.75
10:B:305:C:N4	10:B:312:G:O6	2.18	0.75
10:B:1492:G:N2	10:B:1498:C:N3	2.30	0.75
10:B:1902:C:O2'	11:C:240:GLY:O	2.03	0.75
1:0:4:GLN:NE2	10:B:2056:G:O2'	2.19	0.75
10:B:978:G:H2'	10:B:979:A:H8	1.49	0.75
10:B:1822:C:H2'	10:B:1823:G:H8	1.51	0.75
10:B:11:C:N4	10:B:2629:U:H3	1.84	0.75
10:B:155:A:N6	10:B:171:U:O4	2.18	0.75
10:B:2636:C:H4'	12:D:81:GLU:OE2	1.86	0.75
7:6:291:VAL:HG23	7:6:292:GLN:H	1.51	0.75
16:H:62:LEU:HD12	16:H:108:VAL:HG23	1.68	0.75
7:6:23:ASP:O	7:6:24:MET:CB	2.34	0.75
10:B:2472:G:H2'	10:B:2475:C:H42	1.52	0.75
10:B:774:G:N2	10:B:787:C:O2'	2.19	0.75
10:B:998:C:OP2	25:Q:92:LYS:NZ	2.19	0.75
10:B:2134:A:O2'	10:B:2160:C:O2	2.03	0.75
10:B:2332:C:O4'	31:W:40:ARG:NH2	2.20	0.75
7:6:375:GLN:O	7:6:378:ARG:NH2	2.20	0.75
11:C:36:ASN:OD1	11:C:37:SER:N	2.17	0.75
10:B:2100:G:N1	10:B:2189:U:O2	2.18	0.75
8:7:122:GLN:HG2	8:7:123:ILE:HG13	1.68	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1308:A:N6	10:B:1606:C:O2	2.20	0.75
4:3:2:LYS:NZ	10:B:242:G:OP2	2.19	0.75
10:B:1650:A:N6	10:B:2007:U:O4	2.13	0.75
10:B:820:A:H2'	10:B:821:A:H8	1.50	0.75
10:B:2127:G:N2	10:B:2162:G:O2'	2.20	0.75
10:B:1314:C:N4	10:B:1338:G:H1	1.84	0.75
11:C:18:VAL:H	11:C:202:ARG:NH2	1.85	0.74
9:A:56:G:H4'	9:A:57:A:H5'	1.69	0.74
16:H:127:GLU:O	16:H:141:LYS:NZ	2.15	0.74
10:B:29:U:H2'	10:B:30:G:C8	2.20	0.74
10:B:2811:G:N2	10:B:2890:G:N3	2.36	0.74
12:D:148:GLN:NE2	12:D:151:THR:HG21	2.01	0.74
16:H:31:VAL:HG12	32:X:38:TRP:CD1	2.21	0.74
16:H:29:PHE:O	16:H:33:GLN:HB3	1.84	0.74
16:H:29:PHE:CD1	16:H:33:GLN:HG2	2.23	0.74
10:B:2126:A:H2	10:B:2163:A:H5'	1.52	0.74
10:B:2323:G:N1	10:B:2332:C:N3	2.33	0.74
10:B:1077:A:H5''	17:I:94:LYS:HZ2	1.52	0.74
9:A:75:G:H1'	30:V:29:ILE:HD13	1.67	0.74
10:B:1437:C:O2'	10:B:1516:G:O2'	2.03	0.74
20:L:122:VAL:HG13	20:L:125:LEU:HD12	1.70	0.74
8:7:39:THR:HG22	8:7:43:LYS:HE3	1.70	0.74
10:B:1663:G:O6	10:B:1997:C:N4	2.20	0.74
9:A:76:G:OP1	30:V:9:ARG:NH2	2.20	0.74
10:B:2530:A:H5'	15:G:174:LYS:NZ	2.00	0.74
10:B:2632:A:H2'	10:B:2633:G:H8	1.52	0.74
14:F:32:LYS:HB2	14:F:90:LEU:HB2	1.69	0.74
10:B:1159:U:H2'	10:B:1160:G:H8	1.52	0.74
10:B:2265:U:H3'	10:B:2266:A:H8	1.52	0.74
10:B:240:C:H3'	10:B:241:A:H8	1.52	0.74
21:M:11:LYS:HZ3	21:M:86:LYS:HB3	1.51	0.74
31:W:30:VAL:HA	31:W:60:ALA:O	1.86	0.74
11:C:250:GLN:H	11:C:254:LYS:NZ	1.85	0.74
10:B:2399:G:H2'	10:B:2400:G:H8	1.52	0.74
10:B:805:G:N2	10:B:2068:U:OP2	2.20	0.74
10:B:49:A:H4'	10:B:50:U:H5''	1.70	0.74
10:B:1015:U:H2'	10:B:1016:G:H8	1.50	0.74
10:B:1653:G:O2'	22:N:9:GLN:NE2	2.21	0.74
10:B:875:G:O6	10:B:902:C:N4	2.17	0.74
10:B:653:U:OP2	10:B:654:A:N6	2.20	0.74
33:Y:31:GLN:OE1	33:Y:36:GLN:NE2	2.14	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:56:LEU:O	33:Y:60:LYS:N	2.20	0.74
10:B:971:G:OP2	10:B:974:G:N2	2.21	0.74
10:B:2127:G:N1	10:B:2159:G:N7	2.35	0.74
10:B:713:G:N2	10:B:717:C:OP2	2.21	0.74
10:B:652:U:P	10:B:653:U:H3	2.10	0.74
22:N:14:SER:CA	22:N:17:ARG:HH21	1.99	0.74
10:B:1131:G:H1	10:B:2024:G:H21	1.35	0.74
6:5:71:ARG:NH1	6:5:112:ASP:OD1	2.21	0.74
6:5:133:PRO:O	10:B:2122:U:H5	1.68	0.74
10:B:116:C:OP1	10:B:128:C:N4	2.18	0.74
10:B:1355:G:OP1	11:C:42:ARG:NH1	2.21	0.74
10:B:633:A:O2'	10:B:2404:U:OP1	2.05	0.74
7:6:331:ARG:HH21	7:6:334:GLU:HA	1.51	0.74
11:C:67:LYS:O	11:C:69:ASN:ND2	2.20	0.74
10:B:1964:G:O2'	10:B:1967:C:OP1	2.04	0.74
6:5:46:VAL:N	6:5:171:ILE:O	2.20	0.74
10:B:1207:C:H2'	10:B:1208:C:H6	1.52	0.74
18:J:77:HIS:HA	18:J:84:ILE:HG13	1.69	0.74
10:B:2093:G:H1	10:B:2196:C:H42	1.32	0.74
10:B:395:U:O2'	10:B:396:G:N7	2.20	0.74
7:6:319:ILE:HG13	7:6:324:ASP:HB3	1.67	0.74
10:B:1299:G:H21	10:B:1641:A:H62	1.35	0.74
10:B:2041:U:H2'	10:B:2042:A:C8	2.23	0.74
10:B:2406:A:OP2	10:B:2411:A:N6	2.20	0.74
10:B:2032:G:C2	12:D:150:GLN:HG2	2.23	0.74
10:B:2128:G:HO2'	10:B:2159:G:H1	1.33	0.74
10:B:1352:U:O2	10:B:1380:G:N2	2.20	0.74
10:B:281:C:H42	10:B:359:G:H1	1.35	0.74
10:B:1365:A:H2'	10:B:1366:A:C8	2.23	0.74
24:P:49:ILE:HG22	24:P:57:ALA:HB3	1.69	0.74
14:F:127:TYR:H	14:F:155:ILE:HG12	1.53	0.74
19:K:92:GLN:N	19:K:110:LYS:HZ3	1.85	0.74
13:E:6:LYS:HA	13:E:121:VAL:HA	1.68	0.74
10:B:2591:C:H2'	10:B:2592:G:C8	2.23	0.74
10:B:141:G:H3'	10:B:141:G:N3	2.03	0.74
21:M:7:THR:OG1	21:M:9:PHE:O	2.05	0.73
6:5:54:LYS:NZ	6:5:203:GLN:HE22	1.86	0.73
19:K:46:ILE:HG23	19:K:48:ARG:HG3	1.68	0.73
10:B:2885:G:O2'	10:B:2886:A:O4'	2.06	0.73
9:A:90:C:O3'	21:M:38:ARG:NH2	2.20	0.73
10:B:1660:G:H2'	10:B:1661:G:C8	2.22	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:571:U:O2'	26:R:80:ARG:NH2	2.21	0.73
10:B:627:A:N6	20:L:112:LEU:O	2.21	0.73
10:B:838:C:H2'	10:B:839:U:H6	1.52	0.73
31:W:23:LYS:HE3	31:W:67:LYS:HG3	1.69	0.73
6:5:113:VAL:HA	6:5:162:ARG:HH22	1.52	0.73
10:B:1824:G:C5'	11:C:51:ARG:HH21	2.01	0.73
10:B:325:G:H1	10:B:337:C:H42	1.36	0.73
10:B:2714:G:H2'	10:B:2715:C:C6	2.23	0.73
11:C:89:ASN:ND2	11:C:196:ASN:OD1	2.21	0.73
10:B:2422:C:N3	10:B:2424:C:N4	2.36	0.73
6:5:54:LYS:HZ2	10:B:1860:G:H5''	1.53	0.73
17:I:99:LYS:HB3	17:I:138:VAL:HB	1.70	0.73
10:B:1804:C:H42	10:B:1813:G:H1	1.35	0.73
10:B:2708:G:H1'	22:N:71:ARG:HH11	1.51	0.73
6:5:46:VAL:HB	6:5:171:ILE:HB	1.70	0.73
13:E:145:ASP:HB3	13:E:184:ASP:H	1.53	0.73
6:5:9:ARG:NH1	10:B:2151:U:H5''	2.02	0.73
11:C:2:VAL:HA	11:C:18:VAL:HG22	1.70	0.73
10:B:1346:G:H2'	10:B:1347:A:H8	1.53	0.73
10:B:57:C:H2'	10:B:58:G:C8	2.24	0.73
10:B:2631:G:H2'	10:B:2632:A:H8	1.52	0.73
10:B:952:G:H1	10:B:965:C:H42	1.35	0.73
10:B:1099:G:H1'	17:I:4:VAL:HB	1.70	0.73
10:B:1629:U:H2'	10:B:1630:A:H8	1.53	0.73
1:0:3:GLN:HG3	10:B:2615:U:H1'	1.70	0.73
28:T:14:PRO:HA	28:T:32:LEU:HB2	1.71	0.73
10:B:1250:G:P	20:L:21:ARG:HE	2.11	0.73
10:B:1258:U:O2'	13:E:79:ARG:NH1	2.21	0.73
18:J:24:THR:HB	18:J:27:ARG:HB2	1.69	0.73
10:B:2142:A:O2'	10:B:2145:C:N4	2.21	0.73
10:B:2336:A:C5	31:W:40:ARG:NH1	2.57	0.73
10:B:491:G:H2'	10:B:492:A:C8	2.24	0.73
24:P:64:SER:HB2	24:P:67:GLU:OE2	1.89	0.73
19:K:62:VAL:HB	19:K:102:VAL:HG11	1.69	0.73
7:6:10:GLN:HB3	7:6:42:LEU:HD11	1.69	0.73
10:B:188:G:H2'	10:B:189:G:H8	1.53	0.73
10:B:2857:G:N2	10:B:2860:A:OP2	2.22	0.73
9:A:10:G:N2	9:A:110:C:N3	2.36	0.73
14:F:11:VAL:HG12	14:F:12:VAL:HG12	1.71	0.73
10:B:2265:U:H3'	10:B:2266:A:C8	2.23	0.73
10:B:2273:A:H2'	10:B:2274:A:H8	1.54	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:43:ASN:O	16:H:50:ARG:NH2	2.22	0.73
10:B:2308:G:H2'	10:B:2310:C:H41	1.51	0.73
15:G:14:VAL:HG11	15:G:75:VAL:HG13	1.70	0.73
10:B:1130:U:C4	12:D:152:PRO:CB	2.63	0.73
10:B:1138:G:C5	10:B:1139:G:H1'	2.24	0.73
6:5:40:GLU:HA	6:5:217:THR:HG23	1.71	0.73
10:B:1091:G:N2	10:B:1100:C:O2	2.22	0.73
25:Q:18:LYS:HA	25:Q:21:LYS:NZ	2.04	0.73
33:Y:11:VAL:HA	33:Y:63:ALA:HA	1.69	0.73
7:6:24:MET:SD	7:6:258:HIS:HE1	2.11	0.72
10:B:2562:U:H1'	19:K:22:LYS:HZ2	1.54	0.72
10:B:583:G:H2'	10:B:584:C:C6	2.23	0.72
10:B:851:C:H2'	10:B:852:U:C6	2.23	0.72
26:R:69:GLY:O	26:R:90:ARG:NH1	2.22	0.72
10:B:131:A:H2'	10:B:132:G:H8	1.54	0.72
10:B:133:U:H2'	10:B:134:G:C8	2.22	0.72
10:B:218:A:N6	10:B:219:A:N1	2.37	0.72
10:B:2547:A:N6	10:B:2561:U:O4	2.17	0.72
10:B:572:A:OP2	26:R:80:ARG:NH2	2.22	0.72
10:B:573:U:O2'	10:B:575:A:OP1	2.07	0.72
22:N:1:MET:SD	22:N:3:HIS:NE2	2.62	0.72
10:B:401:A:H2'	10:B:402:A:C8	2.23	0.72
23:O:7:ARG:HA	23:O:10:ARG:HH21	1.52	0.72
15:G:10:VAL:H	15:G:47:ASN:HB2	1.53	0.72
13:E:27:LEU:HD21	13:E:104:ALA:HA	1.70	0.72
23:O:16:ARG:O	23:O:20:GLU:N	2.18	0.72
7:6:395:GLU:OE2	7:6:401:SER:OG	2.04	0.72
10:B:27:G:H22	10:B:512:G:H2'	1.55	0.72
10:B:76:C:O2	10:B:110:G:N2	2.16	0.72
11:C:12:ARG:HE	11:C:15:VAL:HG11	1.53	0.72
10:B:748:G:OP1	27:S:88:ARG:NH2	2.21	0.72
10:B:2242:G:O6	10:B:2243:U:N3	2.22	0.72
10:B:972:A:H3'	10:B:973:A:H2'	1.70	0.72
10:B:652:U:OP2	10:B:654:A:N6	2.22	0.72
10:B:1677:A:H2'	10:B:1678:A:C8	2.24	0.72
10:B:186:G:H2'	10:B:187:G:H8	1.53	0.72
10:B:807:U:OP1	10:B:830:G:N2	2.22	0.72
6:5:37:LYS:HZ3	6:5:218:MET:CE	2.03	0.72
29:U:89:GLY:HA2	29:U:91:LYS:NZ	2.03	0.72
10:B:1999:C:O2	10:B:2687:U:O2'	2.06	0.72
10:B:2569:G:H2'	10:B:2570:G:H8	1.55	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2573:C:O2'	10:B:2574:G:OP2	2.08	0.72
10:B:2844:G:N2	10:B:2874:C:N3	2.37	0.72
10:B:660:C:H2'	10:B:661:A:C8	2.24	0.72
10:B:857:G:N2	10:B:920:A:N1	2.35	0.72
10:B:2292:U:H2'	10:B:2293:G:C8	2.25	0.72
10:B:2653:U:H3'	10:B:2654:A:C8	2.25	0.72
5:4:1:MET:SD	5:4:36:ARG:NH1	2.63	0.72
10:B:1745:A:H2'	10:B:1746:A:C8	2.25	0.72
10:B:431:U:H2'	10:B:432:A:H8	1.53	0.72
10:B:976:G:H5'	10:B:1156:A:H62	1.54	0.72
10:B:978:G:H2'	10:B:979:A:C8	2.24	0.72
12:D:56:LYS:NZ	12:D:59:ARG:NH2	2.29	0.72
29:U:37:GLY:N	29:U:61:GLU:OE2	2.22	0.72
10:B:1276:A:OP2	10:B:1645:G:O2'	2.05	0.72
7:6:320:ASP:OD1	7:6:321:MET:N	2.23	0.72
1:0:37:HIS:ND1	1:0:38:LEU:O	2.22	0.72
10:B:2713:U:O2'	10:B:2715:C:OP2	2.06	0.72
10:B:19:A:H2'	10:B:20:C:H6	1.54	0.72
10:B:577:G:H2'	10:B:578:G:H8	1.52	0.72
10:B:401:A:H2'	10:B:402:A:H8	1.54	0.72
21:M:34:LYS:NZ	30:V:82:TYR:HA	2.05	0.72
10:B:2758:A:H1'	15:G:63:GLN:HE22	1.54	0.72
10:B:1971:U:H4'	11:C:238:ASN:HD21	1.54	0.72
7:6:194:LYS:HZ3	7:6:197:VAL:HG22	1.55	0.72
20:L:78:ARG:N	20:L:81:ASP:OD2	2.23	0.72
10:B:514:A:H2'	10:B:515:A:H8	1.55	0.72
12:D:56:LYS:CE	12:D:59:ARG:HH21	2.02	0.72
17:I:59:THR:HB	17:I:67:THR:HB	1.70	0.72
10:B:166:U:O2'	32:X:44:ARG:NH2	2.22	0.72
10:B:1:G:O6	10:B:2902:C:N4	2.23	0.72
30:V:9:ARG:HH11	30:V:27:PRO:HB3	1.55	0.72
10:B:2291:U:H2'	10:B:2292:U:C6	2.25	0.72
10:B:1615:C:O2'	10:B:1616:A:H5'	1.90	0.72
7:6:261:HIS:CG	7:6:262:ASP:H	2.08	0.72
10:B:2471:A:O2'	10:B:2472:G:O5'	2.08	0.71
6:5:172:HIS:NE2	10:B:2177:C:O2'	2.22	0.71
10:B:2631:G:N1	10:B:2787:C:N3	2.37	0.71
19:K:16:ARG:H	19:K:48:ARG:NH1	1.87	0.71
10:B:2453:A:H61	10:B:2500:U:H3	1.38	0.71
14:F:41:GLU:O	14:F:77:LYS:NZ	2.23	0.71
10:B:947:A:H2'	10:B:948:C:C6	2.25	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2562:U:H1'	19:K:22:LYS:NZ	2.05	0.71
10:B:252:G:P	20:L:47:ARG:HH21	2.14	0.71
10:B:1069:A:N6	10:B:1096:A:OP1	2.23	0.71
10:B:1420:A:H62	10:B:2211:A:H3'	1.53	0.71
10:B:2794:C:N3	10:B:2802:G:N1	2.34	0.71
13:E:147:LEU:HD13	13:E:183:PHE:HE2	1.54	0.71
10:B:297:G:O2'	29:U:85:ARG:NE	2.22	0.71
10:B:1181:U:H2'	10:B:1182:G:C8	2.26	0.71
9:A:16:G:N1	9:A:68:C:N3	2.36	0.71
7:6:331:ARG:HH12	7:6:359:GLU:CD	1.92	0.71
27:S:8:ARG:HE	27:S:102:HIS:CE1	2.09	0.71
10:B:2633:G:H2'	10:B:2634:A:C8	2.26	0.71
10:B:1656:C:OP1	12:D:141:ARG:NE	2.24	0.71
26:R:15:SER:N	26:R:18:GLN:OE1	2.24	0.71
4:3:53:ASP:OD2	10:B:2359:C:O2'	2.01	0.71
10:B:27:G:N2	10:B:512:G:H2'	2.06	0.71
9:A:74:U:O4	9:A:102:G:N2	2.23	0.71
23:O:7:ARG:HG3	23:O:10:ARG:NH2	2.05	0.71
9:A:9:G:P	23:O:25:ARG:HH22	2.13	0.71
10:B:143:C:H2'	10:B:144:A:H8	1.55	0.71
10:B:200:U:H4'	32:X:21:LEU:HB2	1.72	0.71
1:0:15:ARG:HG2	10:B:2046:G:H5'	1.72	0.71
12:D:151:THR:C	12:D:153:GLY:H	1.93	0.71
6:5:128:GLY:HA3	10:B:2170:A:H2	1.56	0.71
6:5:133:PRO:O	10:B:2122:U:C4	2.43	0.71
10:B:1792:G:O6	10:B:1828:G:N2	2.22	0.71
10:B:2531:A:H5''	15:G:175:LYS:NZ	2.04	0.71
28:T:36:LYS:O	28:T:81:LYS:NZ	2.24	0.71
28:T:38:ALA:HB2	28:T:81:LYS:NZ	2.04	0.71
10:B:2642:G:H2'	10:B:2643:G:C8	2.25	0.71
10:B:1519:G:H2'	10:B:1520:U:H6	1.54	0.71
10:B:1710:G:H2'	10:B:1711:A:H8	1.53	0.71
10:B:2246:G:H2'	10:B:2247:A:C8	2.25	0.71
10:B:582:A:O3'	25:Q:10:ARG:NH2	2.24	0.71
21:M:11:LYS:HD3	21:M:86:LYS:HD2	1.73	0.71
10:B:2290:G:N2	10:B:2342:C:O2	2.24	0.71
9:A:15:A:H3'	9:A:16:G:H8	1.56	0.71
11:C:162:GLN:H	11:C:174:ARG:HB3	1.54	0.71
10:B:857:G:H2'	10:B:858:G:C8	2.25	0.71
31:W:49:ASN:HB2	31:W:61:LYS:HG2	1.73	0.71
10:B:2333:A:OP2	31:W:76:ARG:NH1	2.23	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:126:THR:HG1	15:G:128:THR:HG1	1.24	0.71
7:6:179:GLU:HB3	7:6:183:LYS:NZ	2.05	0.71
10:B:184:C:O2'	10:B:217:A:N3	2.24	0.71
10:B:582:A:H2'	10:B:583:G:C8	2.26	0.71
10:B:445:C:O3'	25:Q:2:ARG:NH1	2.24	0.71
10:B:1370:C:H2'	10:B:1371:G:C8	2.26	0.71
7:6:189:ARG:NH2	7:6:276:GLN:OE1	2.19	0.71
14:F:2:LYS:HA	14:F:5:ASP:HB2	1.71	0.71
12:D:7:LYS:NZ	12:D:77:ARG:HH12	1.89	0.71
10:B:1935:G:H2'	10:B:1962:C:H42	1.55	0.71
16:H:129:GLU:HB3	16:H:139:PHE:HE2	1.55	0.71
28:T:18:GLU:O	28:T:21:SER:HB2	1.90	0.71
10:B:987:C:H2'	10:B:988:A:H8	1.56	0.71
16:H:29:PHE:CD1	16:H:33:GLN:CG	2.74	0.71
10:B:2320:U:O2'	10:B:2322:A:N7	2.24	0.71
10:B:1059:G:H3'	10:B:1060:U:H2'	1.71	0.71
25:Q:16:ILE:HG21	25:Q:35:PHE:HD1	1.55	0.71
10:B:1049:C:H1'	10:B:1113:U:H4'	1.73	0.71
7:6:390:GLU:N	7:6:403:GLN:O	2.20	0.71
10:B:2723:C:OP1	22:N:3:HIS:ND1	2.23	0.71
9:A:95:U:H2'	9:A:96:G:H8	1.55	0.71
10:B:1320:C:N4	10:B:1331:G:O6	2.18	0.71
7:6:10:GLN:HG3	7:6:40:GLU:HG2	1.73	0.71
19:K:60:VAL:HG11	19:K:111:PHE:HE2	1.56	0.71
15:G:104:LEU:HB2	15:G:112:VAL:HB	1.71	0.71
3:2:33:ARG:HH21	10:B:467:G:P	2.14	0.70
10:B:2572:A:H2'	12:D:149:ASN:ND2	2.06	0.70
27:S:69:LEU:HA	27:S:110:ARG:HB2	1.71	0.70
31:W:59:PHE:CE2	31:W:61:LYS:HE3	2.26	0.70
10:B:2589:A:H2'	10:B:2590:A:H8	1.53	0.70
19:K:92:GLN:HG3	19:K:110:LYS:NZ	2.06	0.70
10:B:409:G:H2'	10:B:410:G:C8	2.26	0.70
14:F:47:LYS:O	14:F:51:ASN:ND2	2.24	0.70
7:6:26:ASP:O	7:6:27:LEU:CB	2.39	0.70
10:B:1164:C:H2'	10:B:1165:A:H8	1.56	0.70
10:B:414:C:H2'	10:B:415:A:H8	1.55	0.70
10:B:2820:A:N6	12:D:197:THR:O	2.24	0.70
8:7:38:MET:HA	8:7:41:LEU:HB2	1.73	0.70
8:7:59:LEU:H	8:7:62:ARG:HB2	1.54	0.70
10:B:1038:G:H2'	10:B:1039:A:C8	2.25	0.70
7:6:331:ARG:NH2	7:6:359:GLU:OE2	2.22	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2701:U:H3	10:B:2707:U:H3	1.39	0.70
10:B:1527:G:N3	10:B:1546:G:N2	2.39	0.70
2:1:44:GLN:NE2	2:1:45:HIS:O	2.18	0.70
11:C:122:ALA:O	11:C:127:ASN:ND2	2.24	0.70
21:M:132:THR:OG1	21:M:133:LYS:N	2.24	0.70
10:B:2032:G:N7	10:B:2454:G:O2'	2.25	0.70
10:B:451:U:H5'	13:E:47:LYS:NZ	2.05	0.70
11:C:250:GLN:HE21	11:C:252:LYS:H	1.38	0.70
10:B:296:U:H3	10:B:342:A:H61	1.39	0.70
10:B:19:A:H2'	10:B:20:C:C6	2.27	0.70
10:B:309:A:N6	10:B:330:A:N7	2.39	0.70
7:6:203:VAL:O	7:6:282:HIS:ND1	2.24	0.70
10:B:1836:C:N3	10:B:1904:G:N2	2.37	0.70
10:B:1151:A:H4'	25:Q:80:ASN:ND2	2.06	0.70
25:Q:50:ARG:HA	25:Q:53:LYS:NZ	2.06	0.70
10:B:2124:G:N2	10:B:2174:C:N3	2.39	0.70
10:B:2387:U:O2'	31:W:38:ARG:NE	2.23	0.70
10:B:2207:C:O2	10:B:2217:G:N1	2.19	0.70
10:B:1642:G:N2	10:B:1643:G:N3	2.39	0.70
10:B:2070:A:H2'	10:B:2071:A:H8	1.56	0.70
10:B:238:C:N3	10:B:259:G:N2	2.34	0.70
10:B:2316:G:P	14:F:124:ARG:HH12	2.15	0.70
10:B:2336:A:N7	31:W:40:ARG:NH2	2.39	0.70
10:B:1060:U:OP1	17:I:75:ALA:N	2.25	0.70
10:B:1783:A:HO2'	10:B:2607:G:HO2'	1.23	0.70
10:B:629:G:H2'	10:B:630:G:C8	2.26	0.70
10:B:1482:G:O6	10:B:1508:A:N6	2.23	0.70
27:S:88:ARG:HG3	27:S:94:ASP:OD2	1.91	0.70
10:B:2020:A:O3'	25:Q:24:TYR:OH	2.10	0.70
10:B:2283:C:OP2	10:B:2389:G:O2'	2.10	0.70
10:B:2811:G:H1	10:B:2889:C:N4	1.88	0.70
10:B:365:U:H2'	10:B:366:C:C6	2.27	0.70
10:B:536:G:H21	18:J:47:HIS:CD2	2.10	0.70
8:7:81:LEU:HD11	10:B:1106:G:H21	1.57	0.70
10:B:1812:U:H2'	10:B:1813:G:C8	2.27	0.70
10:B:1817:G:OP1	11:C:86:ARG:NH2	2.25	0.70
10:B:371:A:H2	10:B:372:G:H21	1.37	0.70
10:B:487:C:H2'	10:B:488:G:H8	1.55	0.70
23:O:30:ARG:HB2	23:O:102:ARG:HH21	1.56	0.70
10:B:2743:U:H4'	15:G:152:ARG:HH22	1.56	0.70
10:B:2071:A:H2'	10:B:2072:C:H6	1.57	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:281:C:N3	10:B:359:G:N2	2.39	0.70
10:B:2796:U:O2	10:B:2797:U:N3	2.25	0.70
8:7:114:GLU:HG2	8:7:122:GLN:HG3	1.72	0.70
2:1:9:LYS:NZ	2:1:52:LYS:HD3	2.07	0.70
10:B:2559:C:H2'	10:B:2560:A:C8	2.26	0.70
10:B:669:G:O2'	10:B:670:A:OP1	2.08	0.70
10:B:2081:U:OP1	32:X:18:SER:OG	2.09	0.70
10:B:480:A:OP2	29:U:43:LYS:NZ	2.25	0.70
10:B:1742:U:H2'	10:B:1743:G:O4'	1.92	0.70
10:B:602:A:O2'	10:B:655:A:N6	2.24	0.70
16:H:27:ARG:NH2	32:X:58:ILE:O	2.25	0.70
10:B:1387:A:H2'	10:B:1388:G:H8	1.57	0.70
10:B:2355:G:O2'	31:W:16:GLU:OE1	2.09	0.70
19:K:89:ASN:OD1	19:K:90:SER:N	2.24	0.70
10:B:307:G:N2	10:B:309:A:H3'	2.06	0.70
14:F:105:ILE:HB	14:F:111:ARG:HH21	1.56	0.70
11:C:260:LYS:HA	11:C:263:ASP:OD2	1.92	0.70
31:W:17:ALA:HA	31:W:37:VAL:HG11	1.71	0.70
10:B:61:C:O4'	33:Y:44:LYS:NZ	2.25	0.69
9:A:24:G:O4'	9:A:26:C:N4	2.23	0.69
10:B:277:G:H1'	10:B:361:G:N1	2.07	0.69
10:B:1652:A:O2'	10:B:1653:G:OP1	2.09	0.69
10:B:2818:U:H2'	10:B:2819:G:C8	2.27	0.69
18:J:110:PRO:HB2	18:J:111:LYS:HZ3	1.57	0.69
16:H:30:LEU:HA	16:H:35:LYS:HZ3	1.57	0.69
7:6:364:GLU:OE1	7:6:408:ILE:HD11	1.90	0.69
10:B:649:G:H2'	10:B:650:C:C6	2.27	0.69
9:A:24:G:N3	9:A:27:C:N4	2.39	0.69
25:Q:101:ASP:HB3	25:Q:104:ALA:HB3	1.72	0.69
17:I:13:ALA:HA	17:I:53:PRO:HA	1.72	0.69
10:B:2811:G:H2'	10:B:2812:G:H8	1.57	0.69
10:B:579:G:H2'	10:B:580:U:C6	2.28	0.69
10:B:807:U:H2'	10:B:808:G:H8	1.57	0.69
10:B:1767:G:N2	10:B:1985:C:O2	2.24	0.69
23:O:7:ARG:HA	23:O:10:ARG:HE	1.55	0.69
10:B:2641:G:H2'	10:B:2642:G:C8	2.27	0.69
14:F:118:ALA:N	14:F:173:ASP:OD2	2.24	0.69
30:V:35:GLU:OE2	30:V:93:ARG:NE	2.25	0.69
1:0:51:ARG:HB3	1:0:53:VAL:HG13	1.75	0.69
27:S:66:ILE:O	27:S:68:ASP:N	2.26	0.69
7:6:24:MET:SD	7:6:258:HIS:CE1	2.85	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2047:C:H2'	10:B:2048:G:C8	2.27	0.69
10:B:2852:G:H5'	22:N:64:ARG:NH2	2.07	0.69
10:B:247:G:H4'	10:B:386:G:C2	2.27	0.69
22:N:38:LEU:HD11	22:N:42:LYS:HE3	1.73	0.69
16:H:31:VAL:HB	16:H:32:PRO:CD	2.21	0.69
10:B:2118:U:O4	10:B:2148:G:N2	2.24	0.69
20:L:77:ILE:HD11	20:L:110:VAL:HG22	1.74	0.69
10:B:545:U:O2'	10:B:549:G:OP1	2.10	0.69
10:B:857:G:H1'	31:W:19:ARG:NH2	2.06	0.69
7:6:241:VAL:HG12	7:6:243:ASP:H	1.58	0.69
10:B:1016:G:H1	10:B:1146:C:H42	1.41	0.69
10:B:2325:G:H22	10:B:2389:G:H1	1.38	0.69
10:B:2454:G:H22	10:B:2499:C:H1'	1.56	0.69
10:B:2817:U:O2'	10:B:2836:U:O2	2.08	0.69
10:B:658:U:O2	13:E:97:ASN:ND2	2.26	0.69
10:B:690:G:H2'	10:B:691:C:C6	2.28	0.69
10:B:973:A:O5'	26:R:81:LYS:NZ	2.24	0.69
31:W:45:HIS:NE2	31:W:48:ALA:O	2.25	0.69
17:I:60:VAL:HA	17:I:65:SER:H	1.57	0.69
8:7:56:ARG:HD2	10:B:1084:A:C4	2.28	0.69
10:B:880:G:H1	10:B:897:C:H42	1.41	0.69
23:O:7:ARG:HG3	23:O:10:ARG:HH21	1.57	0.69
14:F:96:TRP:O	14:F:100:GLU:N	2.23	0.69
10:B:1608:A:O2'	10:B:1610:A:OP2	2.10	0.69
13:E:155:GLU:HA	13:E:158:PHE:HD2	1.56	0.69
10:B:2735:G:H1	10:B:2769:U:H3	1.41	0.69
10:B:927:A:H2'	10:B:928:A:C8	2.27	0.69
10:B:456:C:N3	28:T:73:ARG:NH1	2.40	0.69
10:B:2007:U:H2'	10:B:2008:C:H6	1.57	0.69
10:B:2576:G:O2'	10:B:2579:C:OP2	2.11	0.69
10:B:26:G:N1	10:B:513:A:OP2	2.26	0.69
10:B:2032:G:N2	12:D:150:GLN:HB3	2.07	0.69
12:D:55:LYS:HD2	12:D:60:VAL:HG22	1.74	0.69
16:H:30:LEU:CG	16:H:35:LYS:HE2	2.22	0.69
10:B:1802:A:OP2	10:B:1814:G:N2	2.24	0.69
11:C:250:GLN:HE21	11:C:252:LYS:N	1.91	0.69
18:J:130:HIS:HB2	18:J:132:HIS:HD2	1.57	0.69
10:B:2047:C:H2'	10:B:2048:G:H8	1.58	0.69
10:B:967:U:H2'	10:B:968:C:C6	2.27	0.69
12:D:151:THR:CB	12:D:152:PRO:HD2	2.23	0.69
20:L:51:GLU:HG3	20:L:54:GLN:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1140:C:H1'	10:B:1143:A:C2	2.28	0.69
10:B:1666:G:H1	10:B:1994:C:N4	1.84	0.69
10:B:783:A:H2'	10:B:784:G:H4'	1.74	0.69
10:B:1753:G:OP2	24:P:108:ARG:NH2	2.24	0.69
16:H:5:LEU:HD23	16:H:36:ALA:HB2	1.73	0.69
6:5:104:ILE:HD11	10:B:2170:A:H5''	1.74	0.69
10:B:1857:G:H4'	10:B:1858:A:H5'	1.74	0.69
14:F:126:ASN:HA	14:F:155:ILE:HD11	1.75	0.69
4:3:22:LYS:NZ	10:B:650:C:H4'	2.08	0.69
10:B:154:U:H2'	10:B:155:A:H8	1.57	0.69
20:L:110:VAL:HB	20:L:127:VAL:HG13	1.73	0.69
10:B:1204:A:O2'	10:B:1205:A:OP2	2.10	0.69
20:L:135:ILE:HG23	20:L:136:GLU:HG2	1.73	0.69
34:Z:9:THR:N	34:Z:53:MET:O	2.25	0.69
10:B:1176:U:H3'	10:B:1177:G:C8	2.28	0.69
10:B:252:G:H5'	20:L:47:ARG:HH21	1.56	0.69
12:D:151:THR:CG2	12:D:152:PRO:HD2	2.23	0.69
6:5:166:ASP:HB3	10:B:2120:G:H22	1.57	0.69
6:5:37:LYS:HZ3	6:5:218:MET:HE1	1.56	0.69
10:B:1724:G:H1	10:B:1737:G:H1'	1.57	0.69
12:D:62:LYS:O	12:D:66:GLY:N	2.24	0.69
15:G:22:VAL:HB	15:G:33:THR:HG21	1.75	0.69
10:B:1729:U:O4	10:B:1731:G:N2	2.26	0.69
10:B:543:G:N1	10:B:550:C:N3	2.37	0.69
10:B:564:C:OP2	26:R:79:ARG:NH2	2.26	0.69
18:J:43:GLU:O	18:J:45:THR:N	2.26	0.69
10:B:1011:G:OP2	25:Q:69:ARG:NH2	2.26	0.69
14:F:36:ASN:HB3	14:F:152:ASP:HB2	1.75	0.69
10:B:1080:A:H1'	17:I:127:SER:HA	1.74	0.69
9:A:7:G:O2'	23:O:29:HIS:NE2	2.25	0.69
23:O:35:ILE:HG22	23:O:53:THR:HG23	1.74	0.69
10:B:1492:G:H1	10:B:1498:C:N4	1.91	0.69
10:B:2100:G:O6	10:B:2189:U:N3	2.25	0.69
8:7:40:GLU:HA	8:7:43:LYS:HB2	1.76	0.69
11:C:24:HIS:ND1	11:C:25:LYS:O	2.25	0.69
16:H:68:ARG:HB2	16:H:132:PHE:CB	2.23	0.68
10:B:1173:U:H2'	10:B:1174:U:C2	2.28	0.68
10:B:1210:G:O2'	10:B:1211:C:N4	2.25	0.68
10:B:2237:G:O2'	10:B:2239:G:N7	2.27	0.68
10:B:1422:G:H2'	10:B:1423:G:H8	1.57	0.68
7:6:332:ASP:HB2	7:6:337:PRO:HD2	1.73	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1:G:N2	10:B:2902:C:O2	2.19	0.68
7:6:208:ALA:N	35:6:527:GNP:O1B	2.26	0.68
27:S:35:ILE:O	27:S:39:THR:OG1	2.09	0.68
10:B:1612:C:O2	10:B:1619:G:N2	2.15	0.68
10:B:570:G:OP1	10:B:972:A:O2'	2.06	0.68
10:B:957:C:C2	10:B:959:A:C8	2.82	0.68
18:J:37:ARG:O	18:J:51:GLY:N	2.25	0.68
3:2:8:SER:OG	10:B:770:G:OP1	2.12	0.68
9:A:30:C:H1'	9:A:57:A:H61	1.59	0.68
15:G:8:VAL:HB	15:G:49:LEU:HD12	1.76	0.68
10:B:693:A:H2'	10:B:694:U:O4'	1.93	0.68
10:B:1704:C:H2'	10:B:1705:A:C8	2.28	0.68
7:6:153:ARG:HH11	7:6:154:GLY:H	1.42	0.68
22:N:2:ARG:HG3	22:N:5:LYS:HD2	1.75	0.68
10:B:2197:U:H1'	10:B:2198:A:H8	1.58	0.68
10:B:2204:G:O2'	11:C:147:PRO:O	2.10	0.68
33:Y:5:GLU:HA	33:Y:7:ARG:HH21	1.56	0.68
1:0:49:ARG:HB3	10:B:2884:U:H5	1.58	0.68
10:B:1837:C:H2'	10:B:1899:A:H61	1.59	0.68
7:6:393:TRP:CH2	7:6:403:GLN:HG3	2.28	0.68
10:B:1661:G:H1	10:B:1999:C:N4	1.92	0.68
10:B:2898:U:H2'	10:B:2899:A:C8	2.28	0.68
10:B:321:U:O2'	10:B:322:A:OP1	2.11	0.68
7:6:212:THR:HG21	35:6:527:GNP:H2'	1.76	0.68
29:U:5:ARG:HB2	29:U:8:ASP:OD2	1.93	0.68
10:B:1730:C:O2'	10:B:1731:G:O5'	2.11	0.68
24:P:61:ARG:NH2	24:P:63:ILE:HD11	2.09	0.68
6:5:65:LEU:HD12	6:5:161:VAL:HG21	1.75	0.68
3:2:3:ARG:NH2	10:B:464:U:P	2.64	0.68
10:B:993:G:OP2	25:Q:50:ARG:NH2	2.27	0.68
25:Q:93:ILE:HG23	25:Q:94:LEU:HG	1.75	0.68
10:B:304:U:O2	10:B:313:G:N1	2.20	0.68
24:P:75:THR:HG23	24:P:80:VAL:HG11	1.75	0.68
6:5:168:ASN:ND2	10:B:2178:C:OP1	2.25	0.68
10:B:1825:U:H2'	10:B:1826:G:C8	2.25	0.68
25:Q:18:LYS:CA	25:Q:21:LYS:HZ3	2.05	0.68
13:E:1:MET:H1	13:E:19:PHE:HB2	1.57	0.68
29:U:85:ARG:HA	29:U:91:LYS:HG2	1.74	0.68
10:B:532:A:P	25:Q:40:LYS:HZ1	2.17	0.68
10:B:2838:G:H1'	22:N:45:ARG:NH1	2.09	0.68
10:B:1590:A:H2'	10:B:1591:A:C8	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:709:U:H2'	10:B:710:U:C6	2.29	0.68
16:H:127:GLU:OE2	16:H:141:LYS:HB3	1.93	0.68
10:B:355:U:HO2'	10:B:356:G:H8	1.40	0.68
10:B:2824:C:H3'	10:B:2825:G:N2	2.08	0.68
10:B:2314:A:H2'	10:B:2315:G:H8	1.58	0.68
10:B:2305:U:C3'	14:F:132:ARG:HH21	2.05	0.68
10:B:1417:C:H42	10:B:1581:G:H1	1.41	0.68
21:M:17:ASN:HD21	21:M:95:LEU:HD11	1.58	0.68
13:E:138:LEU:HD21	13:E:146:VAL:HG11	1.76	0.68
10:B:1252:G:O2'	10:B:1253:A:O5'	2.11	0.68
10:B:2693:G:H2'	10:B:2694:G:H8	1.57	0.68
10:B:674:G:H1	10:B:806:C:H42	1.42	0.68
10:B:520:G:OP1	27:S:25:ARG:NH1	2.27	0.68
10:B:1088:A:H61	17:I:134:SER:HB3	1.57	0.68
10:B:88:G:H2'	10:B:89:A:H8	1.58	0.68
9:A:52:A:H3'	9:A:53:A:H8	1.57	0.68
14:F:98:PHE:HE1	14:F:101:ARG:HH21	1.42	0.68
7:6:203:VAL:O	7:6:210:LYS:NZ	2.26	0.68
10:B:1208:C:O2	10:B:1238:G:N1	2.25	0.68
10:B:1297:C:H2'	10:B:1298:C:H6	1.59	0.68
1:0:10:SER:OG	10:B:17:G:H5'	1.94	0.68
10:B:1229:C:H2'	10:B:1230:A:H8	1.59	0.68
10:B:178:G:H2'	10:B:179:C:H6	1.57	0.68
10:B:2075:U:H1'	10:B:2597:G:H21	1.59	0.68
10:B:578:G:N2	25:Q:32:ARG:HH21	1.90	0.68
6:5:76:ALA:HB3	6:5:114:VAL:HA	1.75	0.68
7:6:192:ARG:HA	7:6:194:LYS:NZ	2.09	0.68
10:B:1656:C:N3	10:B:2004:G:N2	2.41	0.68
10:B:1047:G:N2	10:B:1110:G:O2'	2.26	0.68
4:3:35:LYS:NZ	4:3:39:ARG:NH2	2.42	0.68
11:C:239:PHE:CE2	11:C:241:LYS:HB2	2.29	0.68
10:B:1019:U:H3	10:B:1142:A:H62	1.42	0.67
10:B:922:C:H2'	10:B:923:G:C8	2.29	0.67
12:D:125:TRP:HE1	12:D:160:LYS:HB2	1.58	0.67
10:B:2258:C:P	31:W:10:ARG:HH12	2.17	0.67
6:5:37:LYS:NZ	6:5:218:MET:CE	2.56	0.67
10:B:2634:A:H2'	10:B:2635:A:C8	2.28	0.67
8:7:153:ARG:NE	8:7:163:GLU:OE2	2.27	0.67
10:B:1651:G:H1	10:B:2006:C:N4	1.90	0.67
10:B:413:C:N4	10:B:2410:G:H1	1.92	0.67
10:B:2515:C:H2'	10:B:2516:A:H8	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2547:A:O2'	10:B:2548:U:O4'	2.11	0.67
10:B:526:A:O2'	10:B:2043:C:O2'	2.08	0.67
17:I:129:GLU:O	17:I:133:ARG:HG2	1.94	0.67
10:B:1736:U:H2'	10:B:1737:G:O4'	1.93	0.67
10:B:1518:C:H2'	10:B:1519:G:C8	2.28	0.67
13:E:1:MET:N	13:E:19:PHE:HB2	2.09	0.67
15:G:154:GLU:OE2	15:G:159:LYS:HB2	1.93	0.67
10:B:2511:U:H1'	12:D:130:GLN:HE21	1.59	0.67
10:B:2852:G:OP1	22:N:64:ARG:NH2	2.24	0.67
10:B:2180:U:H2'	10:B:2181:U:C6	2.29	0.67
9:A:28:C:OP2	23:O:34:HIS:ND1	2.27	0.67
10:B:2745:C:H4'	15:G:142:GLN:HA	1.75	0.67
10:B:1050:A:H2'	10:B:1051:G:C8	2.28	0.67
7:6:370:LEU:HD22	7:6:383:PHE:HZ	1.58	0.67
7:6:24:MET:HE3	7:6:257:ARG:HH22	0.57	0.67
7:6:184:GLN:HE22	10:B:2479:U:H2'	1.59	0.67
10:B:1450:G:H2'	10:B:1451:C:O2	1.95	0.67
10:B:185:G:N1	10:B:211:C:N3	2.33	0.67
10:B:988:A:OP1	34:Z:11:SER:N	2.27	0.67
17:I:99:LYS:HZ3	17:I:140:GLU:HG3	1.60	0.67
7:6:311:PRO:HB2	7:6:360:ARG:HH22	1.60	0.67
10:B:6:A:H2'	10:B:7:G:H8	1.59	0.67
33:Y:5:GLU:HG2	33:Y:52:ARG:HD3	1.76	0.67
20:L:109:LYS:HZ2	20:L:126:ARG:HB3	1.58	0.67
10:B:2871:U:OP1	22:N:69:ARG:NH2	2.26	0.67
10:B:46:G:O6	10:B:179:C:N4	2.21	0.67
10:B:548:G:H4'	10:B:549:G:C4	2.30	0.67
10:B:449:A:OP1	13:E:80:SER:N	2.27	0.67
25:Q:96:ASP:O	25:Q:98:ALA:N	2.26	0.67
10:B:1794:A:N6	10:B:1826:G:O6	2.27	0.67
10:B:2401:U:O2'	10:B:2403:C:N4	2.27	0.67
9:A:19:C:H2'	9:A:20:G:C8	2.29	0.67
10:B:1722:A:OP2	10:B:1738:G:N2	2.28	0.67
21:M:64:TRP:HB2	21:M:104:GLU:HB2	1.77	0.67
14:F:39:VAL:HG22	14:F:84:ILE:HA	1.77	0.67
10:B:927:A:H2'	10:B:928:A:H8	1.59	0.67
1:0:21:LEU:HD13	27:S:19:LEU:HB3	1.76	0.67
16:H:55:GLU:HA	16:H:59:ALA:HB2	1.75	0.67
7:6:236:LEU:HA	7:6:249:LEU:O	1.94	0.67
10:B:2456:C:H2'	10:B:2457:U:H6	1.59	0.67
10:B:972:A:C6	10:B:973:A:C6	2.83	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:147:ARG:HH12	14:F:150:GLY:N	1.91	0.67
10:B:1097:U:H3	17:I:29:GLN:NE2	1.92	0.67
10:B:1569:A:H2'	10:B:1570:A:H8	1.59	0.67
10:B:2221:G:O3'	16:H:116:ARG:NH1	2.28	0.67
7:6:336:LYS:O	7:6:360:ARG:NE	2.28	0.67
4:3:46:LYS:HZ3	10:B:630:G:P	2.17	0.67
9:A:8:C:H4'	23:O:25:ARG:HH21	1.59	0.67
10:B:1911:U:H2'	10:B:1912:A:H5'	1.77	0.67
10:B:2638:G:N7	10:B:2775:G:N1	2.42	0.67
10:B:1677:A:H2'	10:B:1678:A:H8	1.59	0.67
10:B:46:G:O6	10:B:47:C:N4	2.28	0.67
10:B:959:A:H2'	10:B:960:A:C8	2.29	0.67
8:7:37:LYS:HE3	10:B:1084:A:N1	2.10	0.67
8:7:37:LYS:O	8:7:41:LEU:N	2.26	0.67
23:O:30:ARG:HA	23:O:35:ILE:HG13	1.74	0.67
8:7:40:GLU:O	8:7:44:ALA:N	2.24	0.67
13:E:126:VAL:HG22	13:E:128:ALA:H	1.59	0.67
10:B:1159:U:H2'	10:B:1160:G:C8	2.29	0.67
10:B:1619:G:H2'	10:B:1620:G:C8	2.30	0.67
10:B:238:C:N4	10:B:259:G:H1	1.93	0.67
10:B:669:G:C4	10:B:801:G:C6	2.83	0.67
6:5:164:ARG:NH1	10:B:2122:U:H5'	2.09	0.67
10:B:1099:G:C1'	17:I:4:VAL:HB	2.25	0.67
10:B:1689:A:OP2	10:B:1698:A:N6	2.25	0.67
10:B:2294:G:P	23:O:94:ARG:HH21	2.18	0.67
10:B:1721:G:O2'	10:B:1722:A:OP2	2.13	0.67
7:6:413:ARG:NH1	15:G:176:LYS:OXT	2.27	0.67
10:B:311:A:N7	10:B:328:U:N3	2.43	0.67
9:A:48:U:C3'	23:O:30:ARG:HH12	2.07	0.67
10:B:1519:G:H2'	10:B:1520:U:C6	2.29	0.67
1:0:43:THR:OG1	1:0:47:TYR:O	2.10	0.67
21:M:33:LEU:HG	21:M:117:PHE:CD2	2.30	0.67
10:B:794:A:H2'	10:B:795:C:H6	1.60	0.67
10:B:1812:U:H2'	10:B:1813:G:H8	1.57	0.67
11:C:34:GLU:OE2	11:C:63:ILE:HD12	1.93	0.67
10:B:2004:G:N2	10:B:2005:A:N3	2.42	0.67
1:0:30:ASP:OD2	1:0:43:THR:OG1	2.13	0.67
10:B:1333:G:H2'	10:B:1334:G:H8	1.59	0.67
7:6:137:VAL:HG11	10:B:1942:C:H4'	1.76	0.67
7:6:15:HIS:HD2	7:6:81:ASP:OD2	1.78	0.67
10:B:2812:G:N3	10:B:2813:A:H1'	2.10	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:5:168:ASN:HB3	6:5:170:ILE:HG22	1.77	0.67
17:I:24:GLY:O	17:I:28:GLY:N	2.26	0.67
10:B:1077:A:H5''	17:I:94:LYS:NZ	2.10	0.67
10:B:1771:C:H2'	10:B:1772:A:C8	2.30	0.67
10:B:2659:G:N2	10:B:2662:A:OP 2	2.28	0.67
10:B:2631:G:H2'	10:B:2632:A:C8	2.30	0.67
15:G:153:PRO:HA	15:G:160:GLY:HA3	1.76	0.67
10:B:1212:G:O2'	10:B:1235:G:N1	2.28	0.66
10:B:1613:G:N1	10:B:1619:G:N7	2.43	0.66
10:B:2221:G:O2'	16:H:116:ARG:NH2	2.28	0.66
7:6:279:LEU:HD11	7:6:360:ARG:NH1	2.04	0.66
10:B:2787:C:H2'	10:B:2788:C:H6	1.59	0.66
33:Y:25:GLN:HG2	33:Y:29:ARG:HH22	1.60	0.66
32:X:35:HIS:ND1	32:X:36:ARG:O	2.29	0.66
25:Q:18:LYS:HG3	25:Q:21:LYS:NZ	2.10	0.66
4:3:30:HIS:CD2	4:3:31:ILE:H	2.13	0.66
28:T:39:THR:O	28:T:41:ALA:N	2.27	0.66
10:B:309:A:H5''	29:U:15:GLY:HA3	1.77	0.66
10:B:1927:A:H2'	10:B:1928:A:H8	1.60	0.66
16:H:68:ARG:CB	16:H:132:PHE:CD1	2.76	0.66
10:B:227:A:C2	10:B:2407:A:H1'	2.30	0.66
10:B:672:C:H2'	10:B:673:C:H6	1.61	0.66
10:B:2118:U:H5''	10:B:2119:A:H3'	1.76	0.66
10:B:161:A:O2'	10:B:2207:C:O2'	2.14	0.66
7:6:49:ARG:NH2	10:B:1910:G:O6	2.27	0.66
10:B:864:G:H2'	10:B:865:C:H6	1.60	0.66
10:B:2452:C:H2'	10:B:2453:A:C8	2.30	0.66
7:6:128:GLN:HE21	7:6:132:LEU:HD11	1.60	0.66
5:4:19:ARG:HH21	10:B:2755:C:H3'	1.59	0.66
10:B:1746:A:H2'	10:B:1747:U:C6	2.31	0.66
10:B:212:G:H2'	10:B:213:A:H8	1.59	0.66
10:B:2812:G:N2	10:B:2813:A:N3	2.43	0.66
10:B:2107:G:O2'	10:B:2108:A:O4'	2.12	0.66
10:B:2327:A:H2'	10:B:2328:A:C8	2.30	0.66
10:B:1795:C:H42	10:B:1824:G:H1	1.43	0.66
10:B:61:C:OP1	33:Y:44:LYS:NZ	2.27	0.66
16:H:78:VAL:HB	16:H:112:LYS:HE3	1.78	0.66
10:B:743:A:H2'	10:B:744:U:H6	1.61	0.66
29:U:23:LYS:NZ	29:U:25:LYS:HA	2.09	0.66
6:5:96:GLY:HA2	6:5:99:ASP:OD2	1.95	0.66
10:B:2071:A:H2'	10:B:2072:C:C6	2.31	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2513:A:O3'	12:D:159:LYS:NZ	2.28	0.66
12:D:151:THR:O	12:D:153:GLY:N	2.29	0.66
10:B:912:C:P	21:M:8:LYS:HZ3	2.18	0.66
10:B:2316:G:H5'	14:F:124:ARG:NH1	2.10	0.66
8:7:57:ASN:O	8:7:62:ARG:NE	2.29	0.66
10:B:704:G:HO2'	10:B:705:A:H8	1.43	0.66
22:N:90:ARG:NE	22:N:117:ASP:OD2	2.28	0.66
10:B:185:G:N2	10:B:211:C:O2	2.20	0.66
10:B:578:G:H21	25:Q:32:ARG:HE	1.44	0.66
10:B:2180:U:H2'	10:B:2181:U:H6	1.59	0.66
7:6:4:ARG:NH1	7:6:6:ASP:HA	2.10	0.66
10:B:1949:G:H2'	10:B:1950:G:C8	2.30	0.66
22:N:31:HIS:O	22:N:33:ILE:N	2.26	0.66
10:B:2560:A:H2'	10:B:2561:U:H6	1.60	0.66
10:B:954:G:H5''	21:M:13:HIS:HB3	1.76	0.66
10:B:2206:C:H2'	10:B:2207:C:H6	1.59	0.66
14:F:13:LYS:H	14:F:15:LEU:H	1.42	0.66
19:K:60:VAL:HG13	19:K:86:LEU:HD11	1.78	0.66
27:S:59:GLU:HA	27:S:64:ALA:HA	1.78	0.66
10:B:1162:G:H2'	10:B:1163:G:H8	1.60	0.66
10:B:673:C:OP1	13:E:49:ARG:NH1	2.28	0.66
10:B:305:C:O2	10:B:312:G:N2	2.29	0.66
10:B:1501:G:P	11:C:100:ARG:HH22	2.18	0.66
10:B:1461:C:H2'	10:B:1462:C:H6	1.59	0.66
10:B:1836:C:H42	10:B:1904:G:H1	1.43	0.66
10:B:1199:U:H2'	10:B:1200:C:C6	2.31	0.66
1:0:21:LEU:HD11	27:S:41:LYS:HZ2	1.61	0.66
25:Q:108:LEU:HD13	26:R:48:LYS:HD2	1.76	0.66
6:5:25:GLU:HG3	6:5:29:LEU:HD12	1.78	0.66
18:J:11:VAL:HG21	18:J:13:ARG:HH21	1.61	0.66
18:J:60:ASP:OD1	18:J:60:ASP:N	2.26	0.66
10:B:1006:C:OP1	18:J:39:LYS:NZ	2.24	0.66
10:B:242:G:N2	10:B:255:A:OP2	2.29	0.66
10:B:2676:C:H2'	10:B:2677:G:H8	1.61	0.66
18:J:113:PRO:HA	18:J:116:ARG:NH1	2.11	0.66
10:B:536:G:H4'	25:Q:56:PHE:CZ	2.31	0.66
14:F:160:LYS:N	14:F:164:GLU:OE1	2.28	0.66
10:B:864:G:H2'	10:B:865:C:C6	2.31	0.66
10:B:2653:U:O5'	10:B:2654:A:H2'	1.96	0.66
12:D:32:ASN:OD1	12:D:52:THR:OG1	2.13	0.66
10:B:735:A:H2'	10:B:736:C:O4'	1.96	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:231:THR:OG1	35:6:527:GNP:O3G	2.09	0.66
27:S:83:LYS:HD3	27:S:95:ARG:HD2	1.78	0.66
4:3:51:LYS:HG2	4:3:54:LEU:HD13	1.77	0.66
7:6:280:LEU:HB2	7:6:312:THR:HG22	1.78	0.66
10:B:1140:C:P	18:J:68:LYS:HZ3	2.20	0.65
10:B:977:G:H2'	10:B:978:G:H8	1.61	0.65
10:B:2575:C:H5'	12:D:149:ASN:HB2	1.76	0.65
10:B:1889:A:N3	10:B:2086:U:O2'	2.26	0.65
10:B:2201:G:N2	10:B:2223:G:H1'	2.11	0.65
10:B:2317:A:H3'	10:B:2318:G:H8	1.61	0.65
10:B:2330:G:H1'	31:W:39:GLN:HE21	1.61	0.65
18:J:105:VAL:HG12	18:J:109:LEU:HG	1.78	0.65
10:B:1904:G:O2'	10:B:1927:A:N1	2.26	0.65
2:1:9:LYS:HZ2	2:1:52:LYS:HD3	1.60	0.65
10:B:1950:G:N2	10:B:1956:U:O4	2.25	0.65
10:B:1684:G:H2'	10:B:1685:C:C6	2.31	0.65
15:G:123:GLU:HG2	15:G:131:VAL:HB	1.78	0.65
10:B:2706:A:O2'	22:N:64:ARG:NH1	2.28	0.65
10:B:2840:C:H2'	10:B:2841:C:C6	2.31	0.65
10:B:518:G:P	27:S:18:ARG:HH12	2.18	0.65
10:B:809:G:H2'	10:B:810:U:C6	2.31	0.65
10:B:2284:A:N6	10:B:2383:G:O6	2.28	0.65
6:5:177:LYS:HE3	6:5:179:ASP:HB2	1.78	0.65
10:B:2602:A:H4'	10:B:2603:G:H5''	1.79	0.65
11:C:87:SER:O	11:C:196:ASN:ND2	2.27	0.65
33:Y:13:GLU:HB3	33:Y:63:ALA:HB2	1.79	0.65
30:V:50:MET:HA	30:V:53:LYS:HE2	1.78	0.65
10:B:2278:A:C2	10:B:2279:G:H1'	2.32	0.65
4:3:7:ARG:NH1	10:B:243:U:OP1	2.30	0.65
4:3:7:ARG:NH2	10:B:244:A:OP2	2.28	0.65
10:B:1954:G:H21	10:B:2551:C:H5''	1.59	0.65
10:B:577:G:H2'	10:B:578:G:C8	2.30	0.65
10:B:582:A:H5'	25:Q:10:ARG:HH12	1.62	0.65
10:B:1097:U:H3	17:I:29:GLN:HE22	1.44	0.65
10:B:1983:G:H2'	10:B:1984:G:C8	2.31	0.65
10:B:1245:G:H2'	10:B:1246:A:H8	1.62	0.65
10:B:297:G:H2'	29:U:85:ARG:HH21	1.61	0.65
11:C:174:ARG:HE	11:C:180:MET:HG2	1.62	0.65
5:4:4:ARG:HH12	10:B:2477:U:H6	1.44	0.65
7:6:227:GLN:N	7:6:227:GLN:OE1	2.30	0.65
10:B:796:C:H2'	10:B:797:G:H8	1.60	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:375:GLN:HG3	7:6:378:ARG:NH2	2.11	0.65
10:B:1402:U:O2'	10:B:1470:A:N1	2.25	0.65
10:B:880:G:O2'	10:B:881:G:OP1	2.11	0.65
22:N:14:SER:HA	22:N:17:ARG:NH2	2.09	0.65
10:B:281:C:N4	10:B:359:G:H1	1.94	0.65
7:6:322:LEU:HD23	7:6:324:ASP:HB2	1.77	0.65
33:Y:5:GLU:HA	33:Y:7:ARG:NH2	2.12	0.65
10:B:147:C:H2'	10:B:148:U:C6	2.30	0.65
16:H:51:ARG:HA	16:H:54:LEU:HB3	1.77	0.65
10:B:228:C:N4	10:B:2407:A:N3	2.44	0.65
10:B:2843:G:H2'	10:B:2844:G:H8	1.61	0.65
10:B:2722:G:O2'	22:N:3:HIS:O	2.08	0.65
10:B:1851:U:H2'	10:B:1852:U:C6	2.31	0.65
6:5:114:VAL:HG21	6:5:136:LEU:O	1.95	0.65
10:B:1765:U:H2'	10:B:1766:G:C8	2.32	0.65
11:C:153:LEU:HD13	11:C:175:LEU:HD21	1.78	0.65
33:Y:44:LYS:HA	33:Y:47:ARG:HD3	1.77	0.65
10:B:1287:A:O4'	22:N:103:ARG:NH2	2.30	0.65
10:B:1310:G:H2'	10:B:1311:G:C4	2.31	0.65
4:3:51:LYS:HZ3	4:3:54:LEU:CD1	2.10	0.65
7:6:43:GLN:HE22	7:6:69:ALA:HB1	1.62	0.65
16:H:68:ARG:CB	16:H:132:PHE:CD2	2.79	0.65
10:B:2719:G:H21	10:B:2872:A:H61	1.45	0.65
10:B:406:G:H2'	10:B:407:G:H8	1.60	0.65
10:B:941:A:H3'	10:B:942:G:H8	1.62	0.65
17:I:74:PRO:HA	17:I:112:LYS:NZ	2.06	0.65
10:B:1405:U:H2'	10:B:1406:U:C6	2.31	0.65
10:B:1373:A:HO2'	10:B:2212:A:H2	1.40	0.65
32:X:39:VAL:HG23	32:X:43:LYS:H	1.62	0.65
12:D:33:ARG:NH1	12:D:71:ALA:O	2.29	0.65
23:O:35:ILE:N	23:O:53:THR:OG1	2.22	0.65
10:B:29:U:H2'	10:B:30:G:H8	1.59	0.65
19:K:63:ARG:HH12	19:K:100:GLY:C	2.00	0.65
11:C:211:ARG:HH21	11:C:217:PRO:HG3	1.60	0.65
11:C:125:PRO:HA	11:C:191:LEU:HB2	1.79	0.65
3:2:39:ARG:NH2	10:B:468:G:N7	2.45	0.65
10:B:2271:G:C5	10:B:2272:U:H5	2.13	0.65
10:B:32:C:N4	10:B:33:C:H41	1.95	0.65
10:B:672:C:H2'	10:B:673:C:C6	2.31	0.65
10:B:932:U:H4'	10:B:933:A:C5	2.31	0.65
12:D:55:LYS:HB3	12:D:59:ARG:HB3	1.77	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:18:VAL:HG12	19:K:42:ILE:HA	1.77	0.65
10:B:1977:A:H2'	10:B:1978:A:O4'	1.96	0.65
10:B:2788:C:H2'	10:B:2789:C:C5	2.31	0.65
15:G:148:ARG:NH1	15:G:152:ARG:HA	2.12	0.65
11:C:173:LEU:HD12	11:C:183:VAL:HG11	1.79	0.65
7:6:393:TRP:NE1	7:6:401:SER:HB2	2.11	0.65
10:B:1667:G:OP1	19:K:6:MET:N	2.22	0.65
10:B:2041:U:H2'	10:B:2042:A:H8	1.59	0.65
10:B:823:C:N4	10:B:824:U:O4	2.30	0.65
10:B:952:G:N2	10:B:965:C:N3	2.40	0.65
10:B:2231:U:H2'	10:B:2232:C:H6	1.62	0.65
10:B:1386:C:O2'	10:B:1469:A:N3	2.27	0.65
10:B:1763:G:H21	10:B:1765:U:H5''	1.61	0.65
11:C:34:GLU:O	11:C:36:ASN:N	2.29	0.65
9:A:95:U:H2'	9:A:96:G:C8	2.31	0.65
10:B:2699:C:H2'	10:B:2700:A:C8	2.32	0.65
10:B:732:C:H2'	10:B:733:G:C8	2.31	0.65
10:B:738:G:H2'	10:B:739:A:C8	2.31	0.65
24:P:102:ARG:HB2	24:P:105:LYS:HD3	1.78	0.65
32:X:4:CYS:HA	32:X:32:LEU:HD21	1.77	0.65
7:6:275:ARG:HH11	7:6:275:ARG:HG2	1.61	0.65
1:0:8:THR:HG23	1:0:11:LYS:H	1.60	0.65
13:E:102:ARG:NH2	13:E:199:MET:O	2.30	0.65
17:I:60:VAL:HB	17:I:64:ARG:HA	1.78	0.65
10:B:1772:A:H2'	10:B:1773:A:H4'	1.79	0.65
11:C:147:PRO:HB3	11:C:186:ASP:HB3	1.79	0.65
9:A:5:U:OP1	9:A:61:G:O2'	2.14	0.65
8:7:97:LYS:HD2	8:7:101:LYS:HZ1	1.62	0.65
10:B:626:A:C4	20:L:78:ARG:NH2	2.65	0.65
10:B:1839:G:C4	10:B:1840:G:C8	2.84	0.65
6:5:103:GLN:O	6:5:108:GLU:N	2.25	0.65
10:B:1047:G:O2'	10:B:1110:G:N1	2.21	0.65
10:B:207:A:H2'	10:B:208:C:O4'	1.97	0.65
10:B:980:A:N7	10:B:981:A:C5	2.65	0.65
10:B:558:U:OP1	18:J:113:PRO:HG2	1.96	0.65
10:B:2094:A:H5'	16:H:25:TYR:CD1	2.31	0.65
10:B:2088:A:H61	10:B:2231:U:H3	1.44	0.65
10:B:1581:G:H2'	10:B:1582:C:C6	2.32	0.65
10:B:1590:A:H2'	10:B:1591:A:H8	1.60	0.65
10:B:2586:U:H2'	10:B:2587:A:H8	1.62	0.65
10:B:705:A:C6	10:B:727:A:H1'	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:21:ARG:O	13:E:114:ARG:NH2	2.30	0.65
9:A:115:A:H2'	9:A:116:G:C8	2.31	0.65
12:D:33:ARG:HH22	12:D:72:GLY:C	2.00	0.65
12:D:7:LYS:HD3	12:D:77:ARG:HH22	1.62	0.65
6:5:65:LEU:O	6:5:159:GLY:HA3	1.97	0.65
10:B:829:A:N7	10:B:2247:A:O2'	2.30	0.64
10:B:2357:G:OP1	31:W:15:SER:OG	2.13	0.64
10:B:2520:C:O2'	10:B:2565:A:O2'	2.16	0.64
10:B:2085:U:O2	10:B:2235:G:N1	2.30	0.64
10:B:2205:A:H2'	10:B:2206:C:C6	2.31	0.64
10:B:712:G:H22	10:B:719:C:H2'	1.61	0.64
9:A:115:A:H2'	9:A:116:G:H8	1.61	0.64
10:B:2639:A:C2	10:B:2640:G:H1'	2.33	0.64
13:E:121:VAL:O	13:E:190:ALA:N	2.29	0.64
11:C:156:SER:H	11:C:159:THR:HG21	1.63	0.64
20:L:29:LYS:HZ1	26:R:82:HIS:HB2	1.61	0.64
7:6:24:MET:CE	7:6:257:ARG:NH1	2.60	0.64
10:B:1462:C:H2'	10:B:1463:C:H6	1.62	0.64
10:B:630:G:N2	10:B:633:A:OP2	2.29	0.64
23:O:24:THR:HG22	23:O:41:ALA:HA	1.77	0.64
23:O:30:ARG:HB2	23:O:102:ARG:NH2	2.11	0.64
10:B:2749:A:H5'	15:G:62:ALA:HA	1.80	0.64
10:B:2884:U:N3	10:B:2885:G:N7	2.45	0.64
8:7:61:ARG:NH2	10:B:1110:G:O6	2.29	0.64
10:B:1728:C:O2'	10:B:1729:U:N3	2.30	0.64
33:Y:45:GLN:O	33:Y:49:ASP:N	2.30	0.64
10:B:1268:A:H2'	10:B:1269:A:O4'	1.97	0.64
10:B:178:G:H2'	10:B:179:C:C6	2.31	0.64
10:B:2571:U:HO2'	12:D:151:THR:HG23	1.62	0.64
10:B:1995:U:O2	19:K:2:GLN:NE2	2.29	0.64
17:I:105:LEU:HA	17:I:108:ILE:HD12	1.79	0.64
11:C:250:GLN:H	11:C:254:LYS:HZ2	1.45	0.64
15:G:34:ARG:NH2	15:G:138:GLN:OE1	2.30	0.64
13:E:108:ILE:O	13:E:111:GLU:HB3	1.97	0.64
10:B:1936:A:OP2	10:B:1961:C:N4	2.28	0.64
24:P:91:VAL:HG11	24:P:96:LEU:HD21	1.79	0.64
10:B:685:A:N3	10:B:689:A:N6	2.46	0.64
10:B:252:G:C5'	20:L:47:ARG:HH21	2.09	0.64
10:B:715:A:H2'	10:B:716:A:O4'	1.98	0.64
10:B:2415:G:H2'	10:B:2416:C:C6	2.33	0.64
10:B:629:G:N3	10:B:639:U:O2'	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:77:ILE:HB	20:L:81:ASP:OD2	1.98	0.64
10:B:1895:C:H2'	10:B:1896:G:H8	1.62	0.64
10:B:1931:U:OP2	10:B:1968:G:N1	2.16	0.64
10:B:1869:G:N2	10:B:1873:G:N7	2.45	0.64
22:N:95:THR:OG1	22:N:96:ARG:N	2.31	0.64
23:O:104:GLN:O	23:O:108:ASP:N	2.30	0.64
8:7:100:ALA:HA	8:7:103:ASN:HB2	1.79	0.64
10:B:886:A:O2'	10:B:888:C:OP2	2.15	0.64
3:2:33:ARG:NH2	10:B:467:G:OP1	2.29	0.64
10:B:2848:G:O2'	10:B:2867:G:N2	2.29	0.64
25:Q:78:PHE:CE2	25:Q:82:LEU:HD11	2.33	0.64
10:B:2148:G:H4'	10:B:2164:C:N3	2.12	0.64
10:B:1796:U:H2'	10:B:1797:G:H8	1.63	0.64
11:C:130:PRO:HA	11:C:188:ARG:HA	1.80	0.64
11:C:39:SER:HB3	11:C:42:ARG:HB3	1.80	0.64
21:M:34:LYS:HZ1	30:V:82:TYR:HA	1.62	0.64
9:A:36:C:N4	9:A:49:C:O2	2.31	0.64
29:U:32:LYS:HB3	29:U:63:ALA:HB1	1.79	0.64
10:B:2036:C:H2'	10:B:2037:A:C8	2.29	0.64
4:3:12:ARG:NH2	10:B:250:G:OP2	2.29	0.64
10:B:521:U:O4	10:B:522:A:N6	2.31	0.64
6:5:35:THR:HG21	6:5:218:MET:HE3	1.79	0.64
7:6:378:ARG:O	7:6:381:SER:HB3	1.98	0.64
8:7:30:SER:N	8:7:107:GLU:OE2	2.30	0.64
20:L:133:ALA:O	20:L:137:ALA:N	2.23	0.64
10:B:1459:G:N2	10:B:1459:G:OP1	2.31	0.64
10:B:2072:C:H2'	10:B:2073:C:C6	2.33	0.64
10:B:2682:A:C8	12:D:11:MET:HG2	2.33	0.64
7:6:411:TRP:CD1	7:6:425:LEU:HD11	2.33	0.64
10:B:1094:U:N3	10:B:1097:U:OP2	2.30	0.64
10:B:1701:A:OP1	10:B:1763:G:N1	2.26	0.64
11:C:86:ARG:HD3	11:C:88:ALA:HB3	1.79	0.64
9:A:92:C:H2'	9:A:93:C:C6	2.32	0.64
10:B:335:C:OP2	29:U:81:ARG:NH1	2.31	0.64
14:F:105:ILE:O	14:F:111:ARG:NE	2.31	0.64
10:B:390:U:O2'	10:B:391:A:OP2	2.16	0.64
15:G:154:GLU:N	15:G:159:LYS:O	2.28	0.64
12:D:109:VAL:HG11	12:D:193:VAL:HG12	1.79	0.64
10:B:2083:G:C2	10:B:2084:C:H1'	2.32	0.64
10:B:2571:U:O2'	12:D:151:THR:CG2	2.41	0.64
10:B:2649:C:H2'	10:B:2650:U:H6	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2646:C:N4	10:B:2732:G:O6	2.28	0.64
10:B:536:G:H4'	25:Q:56:PHE:HZ	1.62	0.64
7:6:411:TRP:CG	7:6:425:LEU:HD11	2.33	0.64
10:B:1058:U:O2'	17:I:115:ASP:O	2.16	0.64
10:B:651:G:O2'	10:B:652:U:OP1	2.16	0.64
9:A:78:A:N6	9:A:98:G:O2'	2.31	0.64
10:B:83:A:H61	10:B:102:U:P	2.20	0.64
17:I:15:GLY:H	17:I:45:THR:HG21	1.62	0.64
10:B:201:C:P	32:X:17:ARG:HH12	2.20	0.64
10:B:2079:U:H2'	10:B:2080:A:H8	1.61	0.64
10:B:620:G:N2	10:B:620:G:OP2	2.30	0.64
10:B:1860:G:N2	10:B:1882:U:O2	2.31	0.64
10:B:1699:G:O2'	10:B:1701:A:OP 2	2.15	0.64
19:K:92:GLN:HA	19:K:110:LYS:HD3	1.79	0.64
9:A:94:A:H2'	9:A:95:U:O4'	1.98	0.64
21:M:64:TRP:HZ3	21:M:106:ASP:HB3	1.63	0.64
19:K:70:ARG:NH1	19:K:76:ILE:HD11	2.12	0.64
7:6:177:ARG:HH22	10:B:2462:C:P	2.21	0.64
10:B:1128:G:O2'	10:B:1129:A:H5''	1.98	0.64
10:B:36:G:H4'	10:B:451:U:C5	2.33	0.64
10:B:2087:G:H2'	10:B:2088:A:C8	2.30	0.64
27:S:6:LYS:NZ	27:S:102:HIS:CG	2.66	0.64
9:A:40:U:N3	9:A:44:G:OP2	2.22	0.64
8:7:71:CYS:O	8:7:75:ALA:N	2.32	0.64
7:6:330:ASP:OD2	7:6:339:ARG:HB3	1.98	0.64
10:B:2247:A:OP2	10:B:2253:G:N1	2.30	0.63
10:B:2831:G:OP2	12:D:59:ARG:NH2	2.30	0.63
10:B:960:A:H61	21:M:82:MET:HE3	1.63	0.63
10:B:2839:G:N2	22:N:91:ALA:O	2.25	0.63
10:B:1058:U:H2'	10:B:1059:G:C8	2.33	0.63
10:B:2210:U:N3	10:B:2212:A:N7	2.46	0.63
10:B:726:G:O2'	10:B:727:A:O5'	2.15	0.63
10:B:1115:G:O2'	10:B:1116:G:OP1	2.17	0.63
10:B:649:G:H2'	10:B:650:C:H6	1.63	0.63
10:B:1909:C:O2	10:B:1921:G:N2	2.29	0.63
9:A:97:C:H2'	9:A:98:G:O4'	1.99	0.63
10:B:346:A:H3'	10:B:347:A:H8	1.63	0.63
10:B:2696:U:H2'	10:B:2697:G:C8	2.29	0.63
26:R:21:ARG:HD3	26:R:93:PHE:CD2	2.33	0.63
10:B:2238:G:H8	10:B:2241:A:H61	1.45	0.63
10:B:2256:G:H2'	10:B:2257:U:C6	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:184:GLN:NE2	10:B:2479:U:H2'	2.13	0.63
10:B:1062:G:H1'	10:B:1088:A:H62	1.63	0.63
10:B:1038:G:H2'	10:B:1039:A:H8	1.62	0.63
13:E:148:ILE:HA	13:E:187:VAL:HB	1.79	0.63
21:M:42:THR:HG1	21:M:45:GLN:H	1.42	0.63
10:B:2389:G:O2'	10:B:2390:U:OP2	2.16	0.63
7:6:177:ARG:NH2	10:B:2462:C:OP1	2.30	0.63
10:B:532:A:H3'	25:Q:27:ARG:NH1	2.13	0.63
10:B:584:C:O2	10:B:1256:G:N2	2.21	0.63
25:Q:78:PHE:HE1	25:Q:109:VAL:HG22	1.62	0.63
10:B:2197:U:O3'	10:B:2198:A:H2'	1.98	0.63
10:B:2119:A:N1	10:B:2168:G:N2	2.46	0.63
10:B:1599:U:H2'	10:B:1600:C:H6	1.63	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CG	2.14	0.63
24:P:75:THR:HA	24:P:80:VAL:HG21	1.79	0.63
30:V:51:GLN:HE22	30:V:77:VAL:HG11	1.63	0.63
10:B:225:C:N3	10:B:231:A:N6	2.45	0.63
10:B:912:C:H2'	10:B:913:U:C6	2.33	0.63
10:B:993:G:OP1	25:Q:50:ARG:NH1	2.22	0.63
10:B:2110:G:N2	10:B:2180:U:O2	2.31	0.63
11:C:66:PHE:CE2	11:C:155:ARG:NH1	2.65	0.63
10:B:814:C:H42	10:B:1193:G:H1	1.46	0.63
10:B:1115:G:H2'	10:B:1116:G:H8	1.63	0.63
10:B:374:A:H3'	10:B:375:G:H8	1.64	0.63
10:B:279:A:N6	10:B:361:G:H1'	2.14	0.63
10:B:2641:G:H2'	10:B:2642:G:H8	1.63	0.63
6:5:48:LEU:HG	6:5:209:ILE:HD12	1.81	0.63
10:B:1668:A:O2'	10:B:1674:G:N7	2.27	0.63
10:B:2273:A:H2'	10:B:2274:A:C8	2.33	0.63
10:B:230:G:H2'	10:B:231:A:H8	1.63	0.63
10:B:2458:G:O2'	10:B:2460:U:O4	2.16	0.63
10:B:1669:A:O2'	10:B:2549:G:OP1	2.16	0.63
10:B:2725:A:N6	10:B:2727:A:N3	2.47	0.63
10:B:854:C:H42	10:B:923:G:H1	1.47	0.63
10:B:2514:U:H4'	12:D:156:PHE:HE2	1.63	0.63
10:B:1996:C:H5'	19:K:30:ARG:NH1	2.13	0.63
25:Q:89:ILE:HG22	25:Q:91:ARG:N	2.11	0.63
6:5:113:VAL:CB	6:5:162:ARG:HH12	2.11	0.63
10:B:1858:A:H2'	10:B:1859:U:O4'	1.99	0.63
10:B:1071:G:C8	17:I:3:LYS:NZ	2.66	0.63
10:B:108:G:H2'	10:B:109:C:C6	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:7:ARG:CB	23:O:10:ARG:HH21	2.12	0.63
10:B:2662:A:H3'	10:B:2663:G:H8	1.63	0.63
10:B:487:C:H2'	10:B:488:G:C8	2.33	0.63
10:B:2636:C:N3	10:B:2782:G:N2	2.46	0.63
12:D:96:ILE:HD12	12:D:100:LEU:HD21	1.79	0.63
32:X:4:CYS:O	32:X:6:VAL:N	2.30	0.63
12:D:101:PHE:HA	12:D:104:VAL:HG13	1.79	0.63
7:6:198:PRO:HG2	7:6:247:THR:HA	1.78	0.63
10:B:2018:G:H2'	10:B:2019:A:C8	2.33	0.63
10:B:659:G:P	13:E:95:LYS:NZ	2.72	0.63
8:7:31:ARG:N	8:7:107:GLU:OE2	2.30	0.63
10:B:1098:A:H2'	17:I:5:GLN:HA	1.81	0.63
10:B:1341:G:C4	28:T:84:TYR:HD2	2.16	0.63
10:B:1387:A:H2'	10:B:1388:G:C8	2.33	0.63
10:B:107:G:H21	10:B:346:A:N6	1.96	0.63
27:S:6:LYS:HZ1	27:S:102:HIS:CB	2.11	0.63
10:B:154:U:H2'	10:B:155:A:C8	2.32	0.63
23:O:68:LYS:HA	23:O:102:ARG:HG2	1.79	0.63
17:I:27:LEU:HG	17:I:32:VAL:HB	1.79	0.63
3:2:21:ARG:NH2	10:B:684:G:OP1	2.31	0.63
10:B:2249:U:H3	10:B:2253:G:H5'	1.64	0.63
10:B:2539:C:H2'	10:B:2540:C:H6	1.64	0.63
10:B:547:A:H8	10:B:548:G:H5'	1.64	0.63
10:B:2495:G:H5''	21:M:81:ARG:HG2	1.78	0.63
11:C:167:ASP:OD2	11:C:172:THR:N	2.32	0.63
16:H:31:VAL:CB	16:H:32:PRO:HD3	2.28	0.63
14:F:132:ARG:H	14:F:150:GLY:HA2	1.64	0.63
10:B:1796:U:O2'	11:C:253:GLY:N	2.31	0.63
23:O:7:ARG:CA	23:O:10:ARG:HH21	2.12	0.63
7:6:56:TYR:CE1	7:6:91:ASN:HB3	2.33	0.63
11:C:77:VAL:HG22	11:C:93:VAL:HG12	1.80	0.63
10:B:220:G:H1	10:B:427:U:H2'	1.64	0.63
10:B:2830:C:H3'	12:D:59:ARG:HH22	1.64	0.63
10:B:519:U:H2'	10:B:520:G:H8	1.63	0.63
12:D:148:GLN:HE21	12:D:151:THR:HG21	1.63	0.63
10:B:532:A:H5''	25:Q:27:ARG:HH12	1.62	0.63
6:5:37:LYS:HZ1	6:5:218:MET:HE1	1.64	0.63
6:5:50:ILE:HD11	6:5:168:ASN:HA	1.79	0.63
10:B:2641:G:P	18:J:85:LYS:HZ3	2.21	0.63
10:B:2642:G:H1	10:B:2772:C:H42	1.45	0.63
10:B:1548:A:H2'	10:B:1549:A:C8	2.32	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1716:U:H2'	10:B:1717:A:H8	1.63	0.63
5:4:11:CYS:SG	5:4:14:CYS:N	2.71	0.63
11:C:28:PRO:HB3	11:C:81:GLU:OE2	1.99	0.63
10:B:588:U:H2'	10:B:589:U:H6	1.63	0.63
10:B:912:C:P	21:M:8:LYS:NZ	2.72	0.63
25:Q:105:PHE:O	25:Q:109:VAL:HG23	1.99	0.63
10:B:1070:A:O2'	10:B:1071:G:OP1	2.16	0.63
10:B:1039:A:H2'	10:B:1040:A:O4'	1.99	0.63
9:A:28:C:H2'	9:A:29:A:C8	2.34	0.63
28:T:90:GLY:O	28:T:92:ASN:ND2	2.32	0.63
10:B:1521:G:OP2	10:B:1522:A:O2'	2.16	0.63
7:6:318:LYS:N	7:6:342:LEU:O	2.32	0.63
13:E:145:ASP:HB3	13:E:183:PHE:HB3	1.81	0.63
10:B:389:G:C8	10:B:2413:G:H4'	2.34	0.63
10:B:1009:A:C5'	25:Q:58:GLN:HE21	2.12	0.62
10:B:1019:U:H2'	10:B:1020:A:C8	2.34	0.62
10:B:1149:G:H2'	10:B:1150:C:C6	2.34	0.62
10:B:237:C:H2'	10:B:238:C:H6	1.64	0.62
10:B:2564:A:OP1	10:B:2648:G:O2'	2.16	0.62
10:B:1889:A:H2'	10:B:1890:A:C8	2.34	0.62
6:5:215:SER:HG	10:B:2175:C:HO2'	1.42	0.62
10:B:1691:C:O2	10:B:1696:G:N2	2.32	0.62
10:B:5:A:H2'	10:B:6:A:H8	1.65	0.62
9:A:5:U:H2'	9:A:6:G:H8	1.63	0.62
29:U:20:LYS:HD3	29:U:38:ILE:HD11	1.79	0.62
10:B:172:A:H2'	10:B:173:A:C8	2.27	0.62
10:B:1432:G:O6	10:B:1561:C:N4	2.30	0.62
5:4:19:ARG:HE	10:B:2755:C:H2'	1.64	0.62
20:L:29:LYS:NZ	26:R:82:HIS:HB2	2.13	0.62
26:R:10:LYS:HE2	26:R:23:GLU:HG2	1.79	0.62
8:7:113:PHE:HB3	8:7:126:LEU:HB2	1.80	0.62
10:B:2023:C:H2'	10:B:2024:G:H8	1.64	0.62
10:B:856:G:H2'	10:B:857:G:C8	2.34	0.62
10:B:1406:U:H2'	10:B:1407:G:H8	1.64	0.62
10:B:1796:U:H2'	10:B:1797:G:C8	2.33	0.62
25:Q:18:LYS:O	25:Q:21:LYS:HD3	1.99	0.62
10:B:2369:A:H2'	10:B:2370:G:C8	2.33	0.62
23:O:7:ARG:HD2	23:O:97:PHE:CZ	2.34	0.62
10:B:298:G:N1	10:B:339:U:OP2	2.29	0.62
4:3:51:LYS:HZ3	4:3:54:LEU:HD13	1.64	0.62
2:1:5:ARG:NH2	2:1:24:LYS:HA	2.14	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1223:G:N1	10:B:1226:A:OP2	2.28	0.62
10:B:247:G:HO2'	10:B:386:G:H1	1.47	0.62
10:B:2197:U:H3'	16:H:134:VAL:HG21	1.81	0.62
10:B:2230:G:O2'	32:X:30:PRO:O	2.16	0.62
10:B:1354:A:OP1	11:C:35:LYS:NZ	2.32	0.62
30:V:80:HIS:HD2	30:V:83:LYS:N	1.97	0.62
14:F:1:ALA:O	14:F:5:ASP:N	2.32	0.62
10:B:1969:A:O2'	10:B:1972:G:H1'	2.00	0.62
14:F:43:ILE:HA	14:F:77:LYS:HZ1	1.64	0.62
26:R:1:MET:HB3	26:R:101:ILE:HD12	1.80	0.62
30:V:32:GLY:N	30:V:35:GLU:OE2	2.29	0.62
29:U:73:ASN:OD1	29:U:80:ASP:N	2.32	0.62
22:N:28:LEU:HD13	22:N:34:ILE:HG12	1.81	0.62
10:B:1447:C:H2'	10:B:1448:G:C8	2.35	0.62
10:B:2544:G:C2	10:B:2545:G:C4	2.88	0.62
10:B:514:A:H2'	10:B:515:A:C8	2.32	0.62
10:B:2864:G:OP1	24:P:112:ARG:HA	1.99	0.62
10:B:123:G:N2	10:B:124:G:N3	2.46	0.62
10:B:1786:A:O2'	10:B:1787:A:O5'	2.12	0.62
10:B:2208:C:H2'	10:B:2209:G:C8	2.32	0.62
10:B:9:G:N2	10:B:11:C:H42	1.96	0.62
15:G:17:LYS:HZ1	15:G:26:LYS:HB2	1.64	0.62
10:B:293:U:H3	10:B:347:A:H61	1.46	0.62
12:D:34:VAL:HA	12:D:50:VAL:HG12	1.81	0.62
12:D:33:ARG:NH2	12:D:72:GLY:C	2.53	0.62
8:7:115:GLY:HA3	8:7:119:PRO:HG2	1.80	0.62
2:1:11:VAL:HG23	2:1:49:LYS:HG3	1.81	0.62
7:6:110:ILE:HG23	7:6:229:PHE:HE2	1.64	0.62
10:B:2020:A:N6	10:B:2022:U:O2	2.32	0.62
10:B:2560:A:H2'	10:B:2561:U:C6	2.34	0.62
10:B:2855:C:H2'	10:B:2856:A:C8	2.34	0.62
18:J:31:GLU:HG2	18:J:142:ILE:HG13	1.81	0.62
10:B:1651:G:H5'	22:N:39:PRO:HG2	1.81	0.62
6:5:54:LYS:HZ1	6:5:203:GLN:HE22	1.46	0.62
17:I:7:TYR:CE2	17:I:60:VAL:HG22	2.33	0.62
10:B:1569:A:H2'	10:B:1570:A:C8	2.34	0.62
9:A:29:A:H5'	23:O:4:LYS:NZ	2.15	0.62
22:N:12:ARG:HE	22:N:16:HIS:CE1	2.17	0.62
10:B:2785:C:O3'	12:D:70:LYS:NZ	2.32	0.62
10:B:1871:A:H2'	10:B:1872:A:O4'	1.99	0.62
7:6:4:ARG:HH12	7:6:6:ASP:HA	1.64	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2604:U:H2'	10:B:2605:U:C6	2.35	0.62
7:6:261:HIS:CG	7:6:262:ASP:N	2.68	0.62
10:B:1936:A:H2	10:B:1943:U:H5	1.47	0.62
8:7:87:GLU:OE1	8:7:87:GLU:N	2.33	0.62
10:B:1152:C:H2'	10:B:1153:C:C6	2.33	0.62
10:B:527:C:N4	10:B:2043:C:OP2	2.32	0.62
10:B:593:U:H2'	10:B:594:U:C6	2.34	0.62
10:B:690:G:O3'	11:C:216:ARG:NH2	2.32	0.62
6:5:113:VAL:HB	6:5:162:ARG:HH12	1.64	0.62
10:B:2146:C:H4'	10:B:2148:G:C6	2.34	0.62
10:B:1084:A:H1'	10:B:1106:G:H5'	1.80	0.62
4:3:30:HIS:CG	4:3:31:ILE:H	2.15	0.62
12:D:34:VAL:H	12:D:93:GLY:HA2	1.64	0.62
8:7:130:PRO:HA	8:7:133:GLU:OE2	1.98	0.62
10:B:1709:U:O4	10:B:1749:A:N6	2.16	0.62
10:B:598:U:H2'	10:B:599:A:C8	2.35	0.62
24:P:20:ARG:NH1	24:P:114:ASN:OXT	2.32	0.62
6:5:164:ARG:HH11	10:B:2122:U:H5'	1.62	0.62
17:I:120:ASP:OD1	17:I:121:ILE:N	2.32	0.62
10:B:875:G:H3'	10:B:876:C:H6	1.65	0.62
10:B:422:A:N6	10:B:423:A:N1	2.48	0.62
10:B:906:U:O4'	21:M:66:ARG:NH1	2.33	0.62
7:6:9:GLU:C	7:6:40:GLU:HB3	2.20	0.62
2:1:29:LYS:HZ2	2:1:33:LEU:HB2	1.65	0.62
15:G:96:ALA:HB3	15:G:103:ASN:HB2	1.82	0.62
10:B:2706:A:O2'	10:B:2852:G:OP1	2.16	0.62
10:B:2723:C:H2'	10:B:2724:U:C6	2.34	0.62
10:B:2764:A:C6	10:B:2766:A:C6	2.87	0.62
24:P:20:ARG:HG3	24:P:88:ARG:HH22	1.64	0.62
10:B:707:G:H1	10:B:724:U:H3	1.48	0.62
10:B:8:C:C5'	18:J:120:ARG:HH22	2.12	0.62
10:B:1435:G:H2'	10:B:1436:G:H8	1.64	0.62
10:B:1753:G:N2	10:B:1756:G:N3	2.48	0.62
10:B:852:U:H2'	10:B:853:C:C6	2.35	0.62
10:B:971:G:OP1	10:B:974:G:O2'	2.12	0.62
12:D:151:THR:HB	12:D:152:PRO:CD	2.28	0.62
10:B:18:U:OP1	25:Q:29:ARG:NH2	2.33	0.62
10:B:1069:A:H2'	10:B:1073:A:N6	2.14	0.62
10:B:1076:C:H4'	17:I:91:LYS:HE3	1.81	0.62
10:B:276:U:O2'	10:B:277:G:O3'	2.18	0.62
10:B:132:G:H2'	10:B:133:U:C6	2.35	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:W:52:CYS:HA	31:W:56:HIS:HA	1.80	0.62
10:B:1479:G:H2'	10:B:1480:C:H6	1.64	0.62
10:B:1263:U:H2'	10:B:1264:A:C4	2.34	0.62
10:B:1267:U:O2'	10:B:1268:A:OP1	2.14	0.62
10:B:581:C:H2'	10:B:582:A:C8	2.35	0.62
20:L:41:ARG:O	20:L:43:GLY:N	2.32	0.62
10:B:1060:U:O4'	10:B:1062:G:H5''	2.00	0.62
10:B:1765:U:H2'	10:B:1766:G:H8	1.63	0.62
10:B:1805:A:H5''	11:C:247:TRP:CD1	2.35	0.62
10:B:55:G:O6	10:B:115:C:N4	2.32	0.62
10:B:771:G:H2'	10:B:772:C:H6	1.65	0.62
9:A:70:C:N3	9:A:106:G:N1	2.47	0.62
10:B:1534:U:O2'	10:B:1537:G:O6	2.14	0.62
10:B:154:U:H3	10:B:172:A:H61	1.48	0.62
10:B:2227:A:H3'	10:B:2228:G:C8	2.32	0.62
10:B:1335:C:H2'	10:B:1336:A:H8	1.64	0.62
10:B:1746:A:H2'	10:B:1747:U:H6	1.64	0.61
10:B:828:U:H4'	10:B:831:G:C6	2.35	0.61
19:K:57:LEU:HA	19:K:88:ASN:ND2	2.15	0.61
10:B:2298:A:H62	10:B:2318:G:H21	1.49	0.61
10:B:108:G:H2'	10:B:109:C:H6	1.64	0.61
10:B:1350:C:N4	10:B:1382:G:O6	2.31	0.61
10:B:2220:U:H2'	10:B:2221:G:C8	2.31	0.61
21:M:30:SER:N	21:M:106:ASP:OD1	2.33	0.61
10:B:2185:U:N3	10:B:2186:G:N7	2.48	0.61
10:B:1557:C:H3'	10:B:1558:C:H6	1.65	0.61
10:B:1310:G:O6	10:B:1605:C:N4	2.33	0.61
13:E:108:ILE:O	13:E:112:LEU:HG	2.00	0.61
8:7:127:ALA:O	8:7:131:THR:N	2.33	0.61
10:B:175:G:H2'	10:B:176:A:O4'	2.00	0.61
10:B:1012:U:H3	18:J:27:ARG:NH1	1.98	0.61
10:B:1212:G:HO2'	10:B:1235:G:H1	1.45	0.61
10:B:2620:C:H2'	10:B:2621:G:C8	2.35	0.61
10:B:570:G:N2	10:B:2030:A:O4'	2.32	0.61
18:J:27:ARG:O	18:J:30:THR:OG1	2.17	0.61
10:B:1850:G:O6	10:B:1892:C:N4	2.30	0.61
7:6:364:GLU:CG	7:6:408:ILE:CD1	2.78	0.61
10:B:814:C:H2'	10:B:815:C:H6	1.66	0.61
15:G:108:PHE:CE2	15:G:151:ARG:NH1	2.68	0.61
10:B:1287:A:H3'	10:B:1288:G:N2	2.13	0.61
29:U:43:LYS:HE2	29:U:60:LYS:NZ	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:1:38:PHE:HA	2:1:45:HIS:HA	1.82	0.61
7:6:374:PRO:HG3	7:6:398:GLY:HA3	1.82	0.61
7:6:372:LEU:O	7:6:400:VAL:N	2.34	0.61
10:B:23:G:C5	10:B:518:G:C6	2.88	0.61
10:B:823:C:H42	10:B:834:G:H1	1.48	0.61
10:B:856:G:N2	31:W:19:ARG:HH22	1.98	0.61
11:C:144:GLU:HB2	11:C:187:CYS:HB3	1.81	0.61
10:B:8:C:H2'	10:B:9:G:H8	1.65	0.61
10:B:738:G:N2	10:B:758:C:O2	2.32	0.61
10:B:1946:U:H2'	10:B:1947:C:H6	1.65	0.61
8:7:121:SER:HB2	8:7:126:LEU:HD11	1.82	0.61
2:1:5:ARG:HG2	2:1:25:ASN:HB2	1.81	0.61
18:J:78:THR:OG1	18:J:80:HIS:O	2.13	0.61
13:E:40:ARG:NH2	13:E:90:GLN:OE1	2.32	0.61
15:G:73:SER:HA	15:G:137:LYS:HZ1	1.64	0.61
13:E:125:SER:HA	13:E:157:LEU:HD21	1.82	0.61
10:B:2007:U:H2'	10:B:2008:C:C6	2.35	0.61
10:B:2016:U:H2'	10:B:2017:U:H6	1.65	0.61
10:B:2841:C:H2'	10:B:2842:G:H8	1.65	0.61
10:B:2834:G:H2'	10:B:2879:A:H61	1.64	0.61
18:J:37:ARG:NH2	18:J:46:PRO:HB3	2.15	0.61
6:5:213:SER:O	10:B:2176:A:O2'	2.18	0.61
10:B:1789:A:OP1	11:C:220:ARG:N	2.28	0.61
10:B:2202:U:O2'	10:B:2204:G:OP1	2.18	0.61
11:C:204:LEU:HD22	11:C:209:ALA:HB1	1.83	0.61
14:F:24:VAL:O	14:F:29:ARG:NH2	2.33	0.61
9:A:83:G:H1	9:A:93:C:N4	1.98	0.61
10:B:2187:U:H2'	10:B:2188:U:H6	1.65	0.61
10:B:2057:G:H2'	10:B:2058:A:H8	1.64	0.61
5:4:18:LYS:HZ3	10:B:1034:G:H5'	1.64	0.61
10:B:2037:A:H2'	10:B:2038:G:C8	2.36	0.61
10:B:2863:C:N4	10:B:2864:G:O6	2.33	0.61
10:B:582:A:C5'	25:Q:10:ARG:HH12	2.13	0.61
18:J:24:THR:O	18:J:28:LEU:N	2.22	0.61
10:B:578:G:H21	25:Q:32:ARG:NE	1.97	0.61
25:Q:83:LYS:HA	25:Q:89:ILE:HD11	1.81	0.61
10:B:711:G:H2'	10:B:712:G:C8	2.26	0.61
7:6:412:ARG:NH1	10:B:2661:G:O4'	2.34	0.61
10:B:1837:C:O2'	10:B:1927:A:N3	2.32	0.61
24:P:22:GLY:H	24:P:46:VAL:HG23	1.66	0.61
12:D:48:ILE:HG12	12:D:84:LEU:HD21	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:81:ASP:OD1	7:6:82:HIS:N	2.34	0.61
10:B:2536:G:H2'	10:B:2537:U:H6	1.66	0.61
10:B:543:G:C5	10:B:544:C:H6	2.19	0.61
10:B:942:G:C4	10:B:943:A:C8	2.88	0.61
10:B:983:A:N6	10:B:984:A:N7	2.48	0.61
10:B:1008:A:P	18:J:111:LYS:HZ2	2.22	0.61
10:B:806:C:OP1	20:L:41:ARG:NH1	2.34	0.61
22:N:2:ARG:HG3	22:N:5:LYS:HB2	1.83	0.61
10:B:2093:G:N2	10:B:2196:C:N3	2.37	0.61
10:B:2141:G:N2	10:B:2151:U:H1'	2.15	0.61
10:B:712:G:H3'	10:B:713:G:C8	2.36	0.61
10:B:376:G:H2'	10:B:377:G:H8	1.65	0.61
10:B:480:A:P	29:U:43:LYS:NZ	2.74	0.61
11:C:20:ASN:OD1	11:C:89:ASN:ND2	2.32	0.61
33:Y:22:LEU:O	33:Y:24:GLU:N	2.30	0.61
16:H:41:LYS:O	16:H:44:ILE:HG12	2.01	0.61
12:D:112:THR:O	12:D:168:GLU:N	2.34	0.61
3:2:1:MET:SD	10:B:1613:G:O2'	2.58	0.61
10:B:2257:U:H2'	10:B:2258:C:C6	2.30	0.61
10:B:414:C:O2	10:B:1864:U:O2'	2.16	0.61
10:B:2089:C:H2'	10:B:2090:A:C8	2.33	0.61
10:B:2095:A:O5'	16:H:11:ASN:ND2	2.34	0.61
6:5:39:VAL:HG13	6:5:217:THR:HG21	1.81	0.61
10:B:2129:C:H4'	10:B:2130:U:OP1	2.00	0.61
18:J:115:GLY:HA2	18:J:118:MET:HB2	1.82	0.61
10:B:1772:A:N6	10:B:1980:G:O6	2.33	0.61
10:B:2369:A:H2'	10:B:2370:G:H8	1.64	0.61
9:A:52:A:H3'	9:A:53:A:C8	2.34	0.61
16:H:128:HIS:HA	16:H:141:LYS:NZ	2.16	0.61
18:J:40:HIS:CG	18:J:41:LYS:N	2.68	0.61
10:B:699:A:H2'	10:B:700:G:O4'	2.00	0.61
15:G:59:ASP:CG	15:G:63:GLN:HB2	2.21	0.61
10:B:1835:G:N2	10:B:1930:G:O2'	2.33	0.61
2:1:5:ARG:HH11	2:1:25:ASN:HB2	1.64	0.61
8:7:17:GLU:O	8:7:21:GLY:N	2.34	0.61
21:M:121:ALA:HA	21:M:124:LEU:HD12	1.83	0.61
10:B:1002:G:C6	10:B:1154:G:N2	2.69	0.61
10:B:1015:U:H2'	10:B:1016:G:C8	2.34	0.61
10:B:1212:G:H21	10:B:1237:A:H62	1.46	0.61
10:B:24:G:N2	27:S:78:GLU:OE2	2.33	0.61
10:B:266:G:C2	10:B:267:C:H1'	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:683:U:N3	10:B:684:G:N7	2.48	0.61
6:5:37:LYS:HE3	10:B:2126:A:H5''	1.83	0.61
10:B:1809:A:H2'	10:B:1810:A:O4'	2.00	0.61
10:B:56:A:C6	10:B:57:C:C4	2.88	0.61
10:B:88:G:H2'	10:B:89:A:C8	2.36	0.61
10:B:898:C:H2'	10:B:899:A:H8	1.66	0.61
9:A:73:A:H62	9:A:103:U:H3	1.49	0.61
8:7:97:LYS:HD2	8:7:101:LYS:HZ2	1.64	0.61
11:C:57:HIS:ND1	11:C:58:LYS:O	2.33	0.61
20:L:96:LYS:NZ	20:L:102:GLY:O	2.33	0.61
10:B:1005:C:C2	10:B:1143:A:C5	2.89	0.61
10:B:1183:U:H2'	10:B:1184:U:C6	2.35	0.61
10:B:1251:C:OP1	25:Q:12:ARG:NH1	2.33	0.61
10:B:1454:C:H5'	22:N:63:ARG:NH1	2.16	0.61
10:B:1652:A:N1	10:B:1653:G:N2	2.48	0.61
10:B:2276:G:C2	10:B:2277:G:C8	2.89	0.61
7:6:406:MET:O	7:6:411:TRP:NE1	2.34	0.61
16:H:27:ARG:NE	32:X:59:ASP:OD1	2.33	0.61
17:I:62:ALA:HA	17:I:64:ARG:HH12	1.65	0.61
10:B:2311:A:H3'	14:F:71:LYS:NZ	2.15	0.61
10:B:121:G:H2'	10:B:122:G:H8	1.66	0.61
7:6:159:GLN:O	7:6:161:GLU:N	2.33	0.61
10:B:1291:C:H2'	10:B:1292:G:C8	2.31	0.61
10:B:2787:C:H1'	12:D:63:PRO:HG3	1.83	0.61
14:F:105:ILE:CB	14:F:111:ARG:HH21	2.14	0.61
15:G:8:VAL:HG22	15:G:68:ARG:HG3	1.82	0.61
1:0:40:HIS:NE2	10:B:2884:U:OP2	2.34	0.61
33:Y:25:GLN:HG2	33:Y:29:ARG:NH2	2.15	0.61
10:B:202:U:H5	10:B:203:A:C5	2.19	0.61
10:B:47:C:H42	10:B:179:C:N4	1.98	0.61
10:B:2142:A:HO2'	10:B:2145:C:N4	1.96	0.61
10:B:2659:G:O2'	15:G:176:LYS:NZ	2.32	0.61
20:L:79:LEU:N	20:L:113:ALA:O	2.34	0.61
7:6:115:ALA:O	7:6:116:ARG:HD2	2.01	0.61
10:B:438:G:H2'	10:B:439:A:C8	2.35	0.61
10:B:2466:C:N3	10:B:2484:G:N2	2.42	0.60
10:B:2074:U:O2'	10:B:2598:A:N3	2.24	0.60
10:B:2692:G:H2'	10:B:2693:G:C8	2.36	0.60
10:B:414:C:H2'	10:B:415:A:C8	2.35	0.60
10:B:600:G:C2	10:B:601:C:C2	2.88	0.60
10:B:993:G:P	25:Q:50:ARG:HH22	2.24	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2093:G:OP1	16:H:24:GLY:N	2.34	0.60
6:5:129:GLN:NE2	10:B:2170:A:H61	1.98	0.60
10:B:1084:A:H8	10:B:1105:U:HO2'	1.47	0.60
10:B:69:C:H2'	10:B:70:G:H8	1.65	0.60
10:B:487:C:N4	10:B:488:G:O6	2.34	0.60
11:C:44:ASN:OD1	11:C:45:ASN:N	2.33	0.60
7:6:47:GLY:HA2	7:6:62:LYS:HE2	1.81	0.60
10:B:2717:C:O3'	24:P:98:TYR:OH	2.05	0.60
10:B:846:U:O2'	10:B:847:U:N3	2.33	0.60
10:B:952:G:H1	10:B:965:C:N4	1.99	0.60
12:D:149:ASN:O	12:D:150:GLN:C	2.40	0.60
10:B:2314:A:H2'	10:B:2315:G:C8	2.36	0.60
10:B:2313:C:H2'	10:B:2314:A:H8	1.66	0.60
8:7:77:VAL:HG13	8:7:82:ILE:HG21	1.82	0.60
10:B:1800:C:OP2	11:C:181:ARG:NH2	2.34	0.60
10:B:2286:G:H5'	10:B:2286:G:C8	2.36	0.60
10:B:1924:C:H2'	10:B:1925:C:C6	2.36	0.60
9:A:83:G:H1	9:A:93:C:H42	1.49	0.60
12:D:61:THR:O	12:D:65:ALA:N	2.29	0.60
10:B:1526:C:H42	10:B:1546:G:H1	1.48	0.60
14:F:11:VAL:O	14:F:13:LYS:NZ	2.31	0.60
10:B:1973:G:H2'	10:B:1974:C:H6	1.66	0.60
6:5:194:VAL:HG12	6:5:197:LYS:HD2	1.83	0.60
10:B:242:G:O2'	10:B:254:G:O6	2.19	0.60
10:B:2627:G:N2	10:B:2777:G:OP2	2.34	0.60
10:B:465:G:C5	10:B:466:A:C6	2.90	0.60
10:B:831:G:H2'	10:B:832:U:H6	1.66	0.60
10:B:2141:G:H1	10:B:2150:C:H42	1.49	0.60
10:B:1054:A:H2'	10:B:1055:G:C8	2.36	0.60
10:B:741:U:H2'	10:B:742:A:H8	1.67	0.60
10:B:745:G:O3'	10:B:748:G:O2'	2.20	0.60
14:F:34:THR:HG23	14:F:88:VAL:H	1.66	0.60
10:B:1048:A:C5	10:B:1111:A:C6	2.89	0.60
29:U:85:ARG:H	29:U:94:PHE:HE2	1.49	0.60
27:S:56:ALA:HA	27:S:59:GLU:HB2	1.83	0.60
29:U:83:GLY:N	29:U:96:LYS:HB2	2.17	0.60
1:0:10:SER:OG	10:B:16:C:O3'	2.15	0.60
10:B:17:G:O6	10:B:523:C:N4	2.27	0.60
10:B:528:A:N1	10:B:2042:A:H2'	2.17	0.60
10:B:2051:A:H3'	10:B:2578:G:H5''	1.82	0.60
10:B:2325:G:N2	10:B:2326:C:N3	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:578:G:N3	25:Q:32:ARG:NH2	2.47	0.60
25:Q:97:ILE:HG22	26:R:13:ARG:HH11	1.66	0.60
10:B:2223:G:OP1	11:C:170:TYR:OH	2.14	0.60
10:B:2141:G:N2	10:B:2150:C:N3	2.44	0.60
10:B:2139:U:N3	10:B:2153:C:O2	2.26	0.60
10:B:1421:G:C2	10:B:1422:G:C8	2.89	0.60
9:A:81:G:H2'	9:A:82:U:H6	1.66	0.60
10:B:84:A:N1	10:B:98:G:O2'	2.25	0.60
10:B:1657:U:OP1	12:D:141:ARG:N	2.28	0.60
1:0:29:VAL:O	10:B:2885:G:N2	2.34	0.60
14:F:78:ILE:HD11	14:F:84:ILE:HD12	1.83	0.60
10:B:2581:G:OP2	10:B:2581:G:N2	2.34	0.60
17:I:36:GLU:O	17:I:40:ALA:N	2.32	0.60
5:4:16:ILE:HD13	10:B:1032:A:H4'	1.83	0.60
10:B:2025:C:H5'	12:D:154:LYS:HZ1	1.66	0.60
10:B:47:C:H42	10:B:179:C:H42	1.49	0.60
10:B:2306:C:H2'	10:B:2307:G:H21	1.66	0.60
14:F:132:ARG:HA	14:F:150:GLY:HA2	1.82	0.60
10:B:120:U:H4'	10:B:121:G:H5''	1.84	0.60
11:C:250:GLN:HB3	11:C:254:LYS:NZ	2.16	0.60
10:B:861:A:H2'	10:B:862:G:O4'	2.01	0.60
10:B:2660:A:H2'	10:B:2661:G:O4'	2.02	0.60
10:B:81:G:H1	10:B:105:C:N4	1.99	0.60
7:6:164:ARG:HB3	7:6:168:ARG:HH12	1.66	0.60
10:B:314:C:H2'	10:B:315:G:C8	2.37	0.60
10:B:155:A:H2'	10:B:156:A:H8	1.67	0.60
7:6:343:SER:O	7:6:347:GLY:N	2.24	0.60
10:B:409:G:H2'	10:B:410:G:H8	1.65	0.60
5:4:14:CYS:HB3	5:4:27:CYS:SG	2.42	0.60
20:L:98:ALA:HB3	20:L:100:ILE:HG12	1.83	0.60
10:B:191:A:H2'	10:B:192:C:C6	2.36	0.60
16:H:27:ARG:HH21	32:X:59:ASP:CA	2.05	0.60
10:B:1592:C:H2'	10:B:1593:A:C8	2.36	0.60
10:B:347:A:C4	10:B:348:A:C8	2.89	0.60
10:B:501:A:H2'	10:B:502:A:C8	2.37	0.60
10:B:1277:G:H5'	22:N:20:MET:SD	2.42	0.60
7:6:319:ILE:HD11	7:6:325:PHE:H	1.66	0.60
33:Y:13:GLU:OE2	33:Y:57:LEU:N	2.35	0.60
8:7:73:LYS:HE2	8:7:121:SER:HA	1.82	0.60
16:H:90:LEU:HB2	16:H:147:VAL:HG12	1.84	0.60
24:P:17:PRO:HG3	24:P:83:ILE:O	2.02	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1761:C:H2'	10:B:1762:A:C4	2.37	0.60
10:B:1187:G:OP1	26:R:83:TYR:OH	2.12	0.60
10:B:2070:A:H2'	10:B:2071:A:C8	2.36	0.60
10:B:2147:A:O2'	10:B:2148:G:OP1	2.19	0.60
10:B:646:U:N3	10:B:647:G:H1'	2.16	0.60
9:A:60:C:H2'	9:A:61:G:H8	1.67	0.60
10:B:334:C:OP1	10:B:335:C:N4	2.35	0.60
10:B:328:U:O2'	29:U:67:SER:OG	2.11	0.60
10:B:2745:C:H2'	10:B:2746:U:C6	2.37	0.60
32:X:14:GLY:HA3	32:X:26:ARG:HG2	1.83	0.60
10:B:2685:G:N2	10:B:2724:U:O2	2.34	0.60
10:B:685:A:C2	10:B:689:A:C6	2.89	0.60
10:B:688:U:H2'	10:B:689:A:C8	2.35	0.60
7:6:375:GLN:OE1	7:6:378:ARG:NH1	2.35	0.60
10:B:1819:A:H4'	10:B:1820:U:H5''	1.84	0.60
30:V:26:PHE:HE2	30:V:44:HIS:HA	1.66	0.60
23:O:7:ARG:CG	23:O:10:ARG:HH21	2.15	0.60
23:O:7:ARG:HA	23:O:10:ARG:NH2	2.17	0.60
10:B:2638:G:H21	10:B:2778:A:H62	1.49	0.60
9:A:49:C:P	23:O:30:ARG:NH1	2.75	0.60
10:B:701:G:H1	10:B:731:C:H42	1.48	0.60
10:B:2714:G:H2'	10:B:2715:C:H6	1.67	0.60
29:U:86:PHE:H	29:U:91:LYS:HG3	1.65	0.60
10:B:1479:G:H2'	10:B:1480:C:C6	2.36	0.60
9:A:104:A:H2'	9:A:105:G:O4'	2.01	0.60
18:J:67:ASN:O	18:J:69:ARG:N	2.34	0.60
16:H:57:LYS:NZ	16:H:61:VAL:HG11	2.17	0.60
10:B:1148:U:H2'	10:B:1149:G:H8	1.65	0.60
10:B:1663:G:C5	10:B:1998:A:N1	2.69	0.60
10:B:2870:C:H2'	10:B:2871:U:O4'	2.01	0.60
10:B:415:A:H2'	10:B:416:U:H6	1.67	0.60
10:B:532:A:P	25:Q:40:LYS:NZ	2.73	0.60
10:B:832:U:OP1	20:L:38:GLN:N	2.35	0.60
25:Q:60:TRP:CZ3	25:Q:93:ILE:HB	2.36	0.60
16:H:9:VAL:HB	16:H:13:GLY:HA3	1.83	0.60
10:B:1565:C:O2'	10:B:1566:A:O5'	2.19	0.60
10:B:289:G:H2'	10:B:290:U:C6	2.37	0.60
18:J:76:HIS:CE1	18:J:85:LYS:HB2	2.36	0.60
10:B:2636:C:HO2'	12:D:45:TYR:HH	1.41	0.60
12:D:19:GLY:HA3	24:P:78:PRO:HD2	1.84	0.60
10:B:484:C:H2'	10:B:485:C:H6	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:42:ARG:NH2	17:I:116:MET:O	2.20	0.60
7:6:17:TYR:CE1	7:6:23:ASP:HB2	2.36	0.60
10:B:1449:G:N2	10:B:1462:C:O2	2.33	0.60
10:B:2009:A:H2'	10:B:2010:G:C8	2.31	0.60
10:B:2052:A:C2	10:B:2053:G:C8	2.90	0.60
10:B:459:U:H2'	10:B:460:A:H8	1.66	0.60
10:B:911:A:HO2'	10:B:2263:C:HO2'	1.49	0.60
10:B:2278:A:OP1	21:M:10:ARG:NH2	2.35	0.60
10:B:2333:A:P	31:W:76:ARG:HH22	2.25	0.60
7:6:373:PRO:O	7:6:375:GLN:N	2.34	0.60
10:B:1355:G:C2	10:B:1356:G:C5	2.90	0.60
10:B:2211:A:HO2'	10:B:2212:A:P	2.24	0.60
10:B:2403:C:O2'	10:B:2404:U:O4'	2.13	0.60
10:B:2531:A:N3	10:B:2658:C:O2'	2.28	0.60
10:B:500:G:N1	10:B:503:A:OP2	2.33	0.60
9:A:41:G:P	9:A:43:C:H41	2.25	0.60
10:B:1658:C:OP1	12:D:140:HIS:NE2	2.34	0.60
10:B:194:G:C2	10:B:195:A:C4	2.90	0.60
8:7:40:GLU:HG2	8:7:43:LYS:HD2	1.84	0.60
10:B:1204:A:N6	10:B:1240:U:O2'	2.35	0.60
22:N:87:PHE:CZ	22:N:117:ASP:HB2	2.36	0.60
10:B:2376:A:N3	23:O:111:ARG:NH2	2.50	0.60
7:6:236:LEU:HD23	7:6:250:ALA:HB2	1.83	0.59
10:B:1461:C:H2'	10:B:1462:C:C6	2.36	0.59
10:B:2513:A:H2'	10:B:2514:U:H6	1.67	0.59
10:B:2724:U:O2'	10:B:2725:A:O4'	2.19	0.59
10:B:2811:G:N2	10:B:2889:C:N3	2.50	0.59
10:B:938:G:H2'	10:B:939:G:H8	1.67	0.59
10:B:57:C:H2'	10:B:58:G:H8	1.65	0.59
10:B:644:A:H61	10:B:2349:G:N2	1.99	0.59
10:B:649:G:C2	10:B:650:C:C2	2.90	0.59
23:O:37:ALA:H	23:O:52:SER:HG	1.48	0.59
10:B:334:C:P	10:B:335:C:H41	2.25	0.59
12:D:32:ASN:HB2	12:D:94:GLN:NE2	2.17	0.59
10:B:755:U:H2'	10:B:756:A:C8	2.36	0.59
7:6:327:PRO:HA	7:6:341:TRP:HB2	1.84	0.59
10:B:1502:A:H2'	10:B:1503:A:H8	1.66	0.59
10:B:1834:U:O4	10:B:1900:A:N6	2.35	0.59
14:F:18:GLU:HG3	14:F:19:PHE:CD2	2.37	0.59
15:G:85:LYS:HD2	15:G:129:GLU:OE2	2.02	0.59
26:R:56:GLY:O	26:R:103:ALA:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:2:2:LYS:HZ1	10:B:1620:G:H4'	1.65	0.59
3:2:34:ARG:O	3:2:38:GLY:N	2.29	0.59
10:B:1649:G:O2'	22:N:106:ASP:OD2	2.20	0.59
10:B:1992:G:C2	10:B:1997:C:N3	2.69	0.59
10:B:2024:G:C2	10:B:2025:C:C2	2.90	0.59
10:B:673:C:H2'	10:B:674:G:C8	2.37	0.59
20:L:36:LYS:O	20:L:40:SER:OG	2.19	0.59
10:B:322:A:C6	10:B:340:A:C6	2.90	0.59
16:H:112:LYS:HD3	16:H:130:VAL:HG12	1.84	0.59
10:B:2758:A:H1'	15:G:63:GLN:NE2	2.18	0.59
10:B:143:C:H2'	10:B:144:A:C8	2.38	0.59
10:B:1703:G:H2'	10:B:1704:C:H6	1.66	0.59
27:S:52:GLU:HA	27:S:55:ILE:HD12	1.84	0.59
24:P:56:SER:N	24:P:74:GLN:OE1	2.35	0.59
15:G:98:LYS:O	15:G:100:ASN:N	2.35	0.59
10:B:1213:A:OP2	10:B:1235:G:N2	2.23	0.59
10:B:1448:G:C2	10:B:1464:G:C2	2.90	0.59
10:B:2248:C:H42	10:B:2256:G:H1	1.50	0.59
10:B:1653:G:OP2	22:N:2:ARG:NH2	2.36	0.59
10:B:560:C:O2'	25:Q:51:GLN:NE2	2.34	0.59
31:W:22:VAL:CG2	31:W:25:PHE:HB2	2.32	0.59
10:B:2199:A:H3'	10:B:2200:C:C6	2.38	0.59
10:B:6:A:H2'	10:B:7:G:C8	2.38	0.59
10:B:2533:U:OP1	10:B:2665:A:O2'	2.20	0.59
10:B:311:A:C8	10:B:332:A:C5	2.90	0.59
10:B:1200:C:N3	10:B:1245:G:N2	2.37	0.59
20:L:109:LYS:HG2	20:L:126:ARG:HB2	1.84	0.59
20:L:102:GLY:H	20:L:105:ILE:HD12	1.67	0.59
1:0:8:THR:OG1	1:0:9:ARG:N	2.35	0.59
10:B:1164:C:H2'	10:B:1165:A:C8	2.36	0.59
3:2:2:LYS:NZ	10:B:1620:G:H4'	2.16	0.59
22:N:63:ARG:HD3	22:N:80:PHE:CE2	2.37	0.59
25:Q:50:ARG:HA	25:Q:53:LYS:HZ1	1.67	0.59
6:5:133:PRO:CA	10:B:2121:G:N7	2.65	0.59
6:5:217:THR:HA	10:B:2124:G:O2'	2.02	0.59
10:B:2311:A:O2'	10:B:2312:U:O4'	2.20	0.59
10:B:1074:G:H2'	10:B:1075:C:C6	2.37	0.59
10:B:1799:G:H21	11:C:153:LEU:HD22	1.68	0.59
10:B:882:G:H1	10:B:895:U:H1'	1.67	0.59
9:A:113:C:H2'	9:A:114:C:H6	1.66	0.59
22:N:103:ARG:HG3	22:N:110:MET:HG3	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1279:G:H2'	10:B:1280:G:H8	1.66	0.59
23:O:64:TYR:HD2	23:O:67:ASN:HB2	1.67	0.59
10:B:1726:C:O2	10:B:1734:G:N1	2.29	0.59
17:I:37:PHE:O	17:I:41:PHE:N	2.35	0.59
10:B:2083:G:N1	10:B:2084:C:O2	2.36	0.59
10:B:2543:G:H2'	10:B:2544:G:H8	1.67	0.59
10:B:2580:U:OP1	12:D:137:SER:OG	2.11	0.59
10:B:2721:A:H1'	10:B:2873:A:C8	2.36	0.59
10:B:834:G:C2	10:B:835:C:C2	2.90	0.59
11:C:132:ARG:HA	11:C:166:ARG:NH2	2.17	0.59
17:I:102:ARG:CB	17:I:141:ASP:HA	2.33	0.59
10:B:1340:U:O2'	10:B:1341:G:OP1	2.20	0.59
10:B:107:G:H21	10:B:346:A:H62	1.50	0.59
8:7:51:TYR:HA	8:7:88:HIS:HB2	1.85	0.59
10:B:1220:G:C6	10:B:1230:A:C6	2.90	0.59
10:B:2077:A:H2'	10:B:2078:C:C6	2.38	0.59
10:B:2428:G:H21	20:L:60:ARG:NH2	2.01	0.59
10:B:24:G:C2	10:B:517:C:C2	2.91	0.59
10:B:811:U:O4	20:L:21:ARG:NH2	2.34	0.59
10:B:832:U:H2'	10:B:833:A:H8	1.67	0.59
10:B:952:G:C6	10:B:966:G:C6	2.90	0.59
18:J:32:LEU:O	18:J:36:LEU:HG	2.03	0.59
6:5:71:ARG:HH11	6:5:112:ASP:CG	2.05	0.59
10:B:1342:A:O2'	10:B:1344:U:OP2	2.20	0.59
10:B:1341:G:H5''	10:B:1397:U:O2	2.01	0.59
10:B:2586:U:H2'	10:B:2587:A:C8	2.38	0.59
10:B:1818:U:C4	11:C:152:GLN:HB2	2.38	0.59
10:B:875:G:C2	10:B:876:C:H1'	2.38	0.59
14:F:21:TYR:HD2	14:F:27:VAL:HG12	1.67	0.59
10:B:482:A:O2'	29:U:44:HIS:ND1	2.30	0.59
10:B:491:G:H2'	10:B:492:A:H8	1.64	0.59
16:H:130:VAL:N	16:H:144:VAL:HG11	2.17	0.59
10:B:2745:C:C4	10:B:2746:U:C4	2.90	0.59
10:B:1027:A:C6	10:B:1126:A:C4	2.91	0.59
10:B:1170:C:H42	10:B:1179:G:H1	1.51	0.59
10:B:230:G:H2'	10:B:231:A:C8	2.38	0.59
7:6:156:GLY:HA3	10:B:2583:G:H21	1.67	0.59
10:B:2819:G:H3'	10:B:2821:A:H62	1.68	0.59
10:B:983:A:C6	10:B:984:A:N7	2.70	0.59
25:Q:109:VAL:HG12	25:Q:113:LYS:HE3	1.84	0.59
10:B:2194:U:H2'	10:B:2195:U:C6	2.38	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:30:LEU:O	16:H:31:VAL:HB	2.03	0.59
10:B:1068:G:O2'	10:B:1070:A:N6	2.36	0.59
10:B:1089:A:H2	10:B:1090:A:H62	1.51	0.59
10:B:740:C:H1'	10:B:1981:A:C8	2.38	0.59
10:B:1705:A:H2'	10:B:1706:C:H6	1.68	0.59
7:6:206:THR:HG21	7:6:229:PHE:H	1.67	0.59
9:A:71:C:H42	9:A:105:G:H1	1.49	0.59
24:P:9:GLN:HA	24:P:12:MET:HB3	1.84	0.59
14:F:37:MET:HB2	14:F:85:GLY:HA2	1.84	0.59
10:B:2065:C:H2'	10:B:2066:C:C6	2.37	0.59
10:B:45:G:N3	10:B:215:G:N2	2.51	0.59
10:B:807:U:P	20:L:36:LYS:NZ	2.76	0.59
27:S:70:LYS:HE2	27:S:110:ARG:HA	1.83	0.59
6:5:5:THR:HG23	6:5:7:ARG:H	1.67	0.59
10:B:1700:A:H5'	10:B:1701:A:OP2	2.01	0.59
10:B:1778:U:C4	10:B:1784:A:C4	2.90	0.59
10:B:2345:G:C6	10:B:2381:A:C6	2.91	0.59
10:B:653:U:H3'	10:B:654:A:C8	2.37	0.59
7:6:57:PHE:HD2	7:6:58:VAL:HG13	1.68	0.59
10:B:1916:A:H5''	10:B:1917:U:H5	1.68	0.59
10:B:277:G:N1	10:B:360:U:H5	2.00	0.59
10:B:1278:C:H2'	10:B:1279:G:C8	2.33	0.59
18:J:105:VAL:O	18:J:109:LEU:N	2.36	0.59
12:D:103:ASP:OD1	12:D:103:ASP:N	2.33	0.59
24:P:46:VAL:HG12	24:P:60:VAL:HG22	1.84	0.59
14:F:35:LEU:HB3	14:F:151:LEU:HD13	1.82	0.59
4:3:37:THR:HA	4:3:40:LYS:HE2	1.83	0.59
28:T:10:VAL:O	28:T:34:VAL:HG13	2.03	0.59
16:H:113:SER:HB3	16:H:132:PHE:HA	1.85	0.59
10:B:1173:U:O2'	10:B:1176:U:N3	2.16	0.59
10:B:2026:U:O2'	10:B:2027:G:O4'	2.12	0.59
10:B:2246:G:C2	10:B:2247:A:C4	2.91	0.59
10:B:2805:C:H2'	10:B:2806:C:C6	2.37	0.59
10:B:2143:C:H1'	10:B:2145:C:C2	2.37	0.59
10:B:1577:C:H2'	10:B:1578:U:C6	2.38	0.59
10:B:299:A:N7	10:B:300:A:N6	2.51	0.59
10:B:290:U:H2'	10:B:291:G:H8	1.68	0.59
12:D:62:LYS:HA	12:D:65:ALA:HB3	1.84	0.59
10:B:2001:C:H1'	10:B:2689:U:H3	1.68	0.59
10:B:408:G:H2'	10:B:409:G:H8	1.68	0.59
10:B:848:C:H2'	10:B:849:A:H8	1.66	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1259:G:C2	10:B:1260:A:C5	2.90	0.59
10:B:2685:G:C2	10:B:2686:G:C4	2.91	0.59
10:B:129:C:O2'	10:B:1348:C:O3'	2.21	0.59
10:B:1412:U:H2'	10:B:1413:A:H8	1.67	0.59
10:B:76:C:H2'	10:B:77:G:H8	1.67	0.59
10:B:5:A:H2'	10:B:6:A:C8	2.38	0.59
10:B:2293:G:OP1	23:O:94:ARG:NH1	2.35	0.59
10:B:634:C:H2'	10:B:635:C:C6	2.38	0.59
9:A:81:G:H2'	9:A:82:U:C6	2.38	0.59
2:1:29:LYS:HE3	2:1:33:LEU:HD13	1.84	0.59
8:7:24:SER:HA	8:7:86:MET:HG2	1.85	0.59
10:B:848:C:H2'	10:B:849:A:C8	2.38	0.59
10:B:1020:A:OP1	10:B:1034:G:N2	2.35	0.58
10:B:1666:G:O2'	19:K:5:THR:OG1	2.18	0.58
10:B:981:A:H8	10:B:2027:G:H21	1.51	0.58
10:B:2359:C:H2'	10:B:2360:G:C8	2.38	0.58
10:B:2729:G:H2'	10:B:2730:C:C6	2.37	0.58
10:B:545:U:OP2	10:B:546:U:O2'	2.15	0.58
10:B:818:G:H21	10:B:1189:A:H62	1.51	0.58
10:B:831:G:H2'	10:B:832:U:C6	2.37	0.58
32:X:63:ILE:O	32:X:65:THR:N	2.36	0.58
10:B:1066:U:H2'	10:B:1068:G:OP2	2.03	0.58
10:B:2589:A:C2	10:B:2590:A:C5	2.90	0.58
10:B:61:C:P	33:Y:44:LYS:NZ	2.75	0.58
13:E:22:ASP:HA	13:E:114:ARG:NH2	2.09	0.58
9:A:113:C:H4'	23:O:46:GLU:OE1	2.03	0.58
10:B:323:C:C4	10:B:333:G:C8	2.91	0.58
9:A:31:C:H42	9:A:51:G:H1	1.50	0.58
10:B:2743:U:O3'	15:G:152:ARG:NH2	2.36	0.58
10:B:626:A:H2'	20:L:78:ARG:NE	2.17	0.58
20:L:81:ASP:HA	20:L:84:LYS:HE3	1.84	0.58
10:B:64:A:H5'	28:T:68:LYS:HD2	1.85	0.58
15:G:101:VAL:HG22	15:G:115:GLN:HB2	1.85	0.58
28:T:11:LEU:HA	28:T:34:VAL:HG22	1.85	0.58
7:6:295:ILE:HG22	7:6:299:ASN:HD21	1.69	0.58
10:B:2037:A:C6	10:B:2038:G:C6	2.90	0.58
4:3:7:ARG:NH1	10:B:243:U:P	2.76	0.58
10:B:684:G:C5	10:B:774:G:C6	2.91	0.58
10:B:967:U:H2'	10:B:968:C:H6	1.67	0.58
10:B:1857:G:N1	10:B:1884:G:N7	2.51	0.58
10:B:121:G:H2'	10:B:122:G:C8	2.38	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1813:G:H2'	10:B:1814:G:H8	1.68	0.58
7:6:84:LEU:HG	7:6:102:ASP:OD2	2.03	0.58
10:B:1921:G:H2'	10:B:1922:G:C8	2.38	0.58
9:A:78:A:C4	9:A:79:G:C8	2.91	0.58
10:B:2803:G:H2'	10:B:2804:U:C6	2.38	0.58
7:6:26:ASP:O	7:6:27:LEU:HB2	2.03	0.58
33:Y:23:ARG:H	33:Y:26:PHE:HB2	1.67	0.58
6:5:22:ASP:OD1	6:5:23:ILE:N	2.37	0.58
10:B:1018:U:H3	10:B:1144:A:N6	1.98	0.58
10:B:1150:C:H2'	10:B:1151:A:H8	1.67	0.58
10:B:1167:C:H2'	10:B:1168:G:C8	2.37	0.58
10:B:2077:A:H2'	10:B:2078:C:H6	1.67	0.58
10:B:2246:G:C6	10:B:2247:A:C6	2.91	0.58
10:B:2562:U:O2'	19:K:22:LYS:NZ	2.33	0.58
10:B:2546:U:H4'	10:B:2565:A:C6	2.37	0.58
10:B:259:G:HO2'	10:B:621:A:HO2'	1.51	0.58
10:B:660:C:H2'	10:B:661:A:H8	1.65	0.58
10:B:831:G:C2	10:B:832:U:C2	2.91	0.58
11:C:170:TYR:HA	11:C:184:GLU:HA	1.85	0.58
10:B:396:G:O2'	32:X:29:LEU:O	2.15	0.58
6:5:8:MET:HG2	10:B:2174:C:H5''	1.83	0.58
8:7:37:LYS:HZ3	8:7:54:VAL:HB	1.65	0.58
10:B:1071:G:N7	17:I:3:LYS:NZ	2.50	0.58
10:B:1801:A:C5	11:C:261:ARG:NH1	2.71	0.58
10:B:1829:A:C6	10:B:1830:C:H1'	2.38	0.58
10:B:2590:A:H5''	11:C:237:ARG:HH21	1.68	0.58
10:B:329:G:O6	29:U:16:LYS:HD2	2.04	0.58
12:D:7:LYS:HZ2	12:D:77:ARG:HH12	1.50	0.58
13:E:109:LEU:HD23	13:E:112:LEU:HD12	1.85	0.58
26:R:10:LYS:NZ	26:R:23:GLU:OE2	2.34	0.58
10:B:414:C:H42	10:B:2409:G:H1	1.51	0.58
10:B:2805:C:H2'	10:B:2806:C:H6	1.67	0.58
12:D:56:LYS:HZ2	12:D:59:ARG:HH22	1.46	0.58
10:B:2162:G:H2'	10:B:2173:A:H1'	1.85	0.58
10:B:1069:A:O2'	10:B:1070:A:OP2	2.21	0.58
10:B:768:G:N2	10:B:1379:U:O2'	2.36	0.58
10:B:1688:U:N3	10:B:1700:A:OP1	2.36	0.58
10:B:2345:G:H4'	10:B:2346:A:H5''	1.85	0.58
10:B:636:G:C2	20:L:76:GLU:OE2	2.57	0.58
10:B:639:U:H2'	10:B:640:C:C6	2.38	0.58
9:A:15:A:OP2	9:A:69:G:N2	2.31	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:328:ARG:H	7:6:341:TRP:HD1	1.49	0.58
10:B:1486:U:H2'	10:B:1487:U:C6	2.38	0.58
3:2:12:ARG:NH2	10:B:686:U:H3	2.02	0.58
10:B:1905:C:H3'	10:B:1930:G:C8	2.38	0.58
10:B:140:C:O2	10:B:141:G:N1	2.36	0.58
7:6:316:MET:HB3	7:6:339:ARG:HD2	1.83	0.58
2:1:33:LEU:O	2:1:50:GLU:N	2.33	0.58
18:J:81:ILE:HG23	18:J:82:GLY:O	2.03	0.58
10:B:1022:G:C2	10:B:1141:U:H5	2.20	0.58
10:B:2010:G:O3'	27:S:42:LYS:NZ	2.30	0.58
10:B:577:G:C2	10:B:578:G:C5	2.91	0.58
10:B:832:U:H2'	10:B:833:A:C8	2.37	0.58
10:B:1009:A:H5''	25:Q:58:GLN:HE21	1.69	0.58
10:B:1907:G:H2'	10:B:1908:C:C6	2.38	0.58
7:6:192:ARG:O	7:6:197:VAL:HG21	2.02	0.58
10:B:1327:A:H2'	10:B:1328:A:H5'	1.85	0.58
10:B:476:G:N2	10:B:478:A:H3'	2.19	0.58
10:B:2772:C:H2'	10:B:2773:C:H6	1.68	0.58
9:A:49:C:OP1	23:O:102:ARG:N	2.25	0.58
10:B:2799:A:H3'	10:B:2800:A:C5'	2.32	0.58
15:G:38:ASP:OD1	15:G:63:GLN:HG2	2.04	0.58
10:B:1874:C:H2'	10:B:1875:G:O4'	2.03	0.58
22:N:86:ARG:NH1	22:N:117:ASP:O	2.36	0.58
15:G:73:SER:HA	15:G:137:LYS:NZ	2.18	0.58
10:B:72:U:H3	33:Y:55:THR:HG1	1.50	0.58
22:N:21:PHE:HZ	22:N:40:LYS:HG2	1.69	0.58
10:B:1650:A:H2'	10:B:1651:G:H8	1.67	0.58
10:B:2467:C:H2'	10:B:2468:A:C8	2.39	0.58
10:B:558:U:P	18:J:113:PRO:HG2	2.44	0.58
10:B:2025:C:P	12:D:154:LYS:NZ	2.77	0.58
10:B:252:G:H5'	20:L:47:ARG:NH2	2.17	0.58
10:B:2234:G:H2'	10:B:2235:G:C8	2.38	0.58
10:B:1882:U:H2'	10:B:1883:U:C6	2.38	0.58
10:B:1378:A:C5	10:B:1380:G:C6	2.92	0.58
10:B:1600:C:H2'	10:B:1601:G:C8	2.39	0.58
10:B:903:C:H2'	10:B:904:G:H8	1.67	0.58
18:J:35:ARG:NH1	18:J:40:HIS:CD2	2.68	0.58
10:B:2884:U:C2	10:B:2885:G:N7	2.71	0.58
7:6:138:ARG:NH1	10:B:1941:C:H1'	2.18	0.58
8:7:14:GLU:O	8:7:18:VAL:HG23	2.03	0.58
10:B:1215:G:H2'	10:B:1216:G:C8	2.37	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1233:C:H2'	10:B:1234:U:H6	1.67	0.58
10:B:21:A:H61	10:B:519:U:H3	1.51	0.58
10:B:854:C:N4	10:B:923:G:H1	2.01	0.58
10:B:974:G:C6	10:B:1186:G:C6	2.91	0.58
10:B:972:A:OP2	10:B:974:G:H5''	2.02	0.58
12:D:125:TRP:NE1	12:D:160:LYS:HB2	2.18	0.58
10:B:1599:U:H2'	10:B:1600:C:C6	2.38	0.58
10:B:1115:G:H2'	10:B:1116:G:C8	2.38	0.58
19:K:70:ARG:HG2	19:K:71:PRO:HD2	1.86	0.58
7:6:144:GLU:HB3	10:B:2602:A:C2	2.39	0.58
14:F:12:VAL:H	14:F:15:LEU:HB2	1.69	0.58
10:B:2308:G:H2'	10:B:2310:C:N4	2.19	0.58
25:Q:99:VAL:HG23	25:Q:100:PHE:CD2	2.38	0.58
10:B:1229:C:H2'	10:B:1230:A:C8	2.38	0.58
10:B:1665:A:C2	10:B:1666:G:C4	2.92	0.58
10:B:1995:U:OP1	12:D:128:ARG:NH2	2.37	0.58
10:B:2266:A:N3	10:B:2272:U:N3	2.52	0.58
10:B:239:C:H2'	10:B:240:C:O4'	2.04	0.58
16:H:3:VAL:CG1	16:H:30:LEU:HD11	2.17	0.58
10:B:2134:A:C8	10:B:2135:A:H1'	2.39	0.58
10:B:2335:A:P	23:O:13:ARG:HE	2.27	0.58
17:I:124:MET:O	17:I:128:ILE:HG12	2.03	0.58
10:B:1799:G:C4	11:C:175:LEU:HD13	2.38	0.58
10:B:61:C:O5'	33:Y:44:LYS:NZ	2.37	0.58
9:A:5:U:H2'	9:A:6:G:C8	2.37	0.58
10:B:106:C:HO2'	10:B:294:A:HO2'	1.35	0.58
27:S:6:LYS:HB3	27:S:8:ARG:HG2	1.85	0.58
10:B:307:G:N2	10:B:310:A:OP2	2.36	0.58
12:D:4:LEU:HD22	12:D:32:ASN:ND2	2.17	0.58
4:3:35:LYS:NZ	4:3:39:ARG:CZ	2.67	0.58
10:B:438:G:H2'	10:B:439:A:H8	1.69	0.58
27:S:34:ASP:HA	27:S:37:THR:HG23	1.86	0.58
34:Z:27:GLY:O	34:Z:29:ARG:NH1	2.37	0.58
17:I:17:ALA:HB1	17:I:22:PRO:HG3	1.86	0.58
7:6:179:GLU:C	7:6:183:LYS:HZ3	2.07	0.58
10:B:1651:G:N2	10:B:2006:C:N3	2.34	0.58
10:B:2018:G:H2'	10:B:2019:A:H8	1.69	0.58
10:B:272:A:H2'	10:B:273:G:C8	2.38	0.58
10:B:564:C:H2'	10:B:565:C:H6	1.68	0.58
10:B:779:U:H2'	10:B:780:G:C8	2.39	0.58
12:D:151:THR:HG22	12:D:152:PRO:HD2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1062:G:H2'	10:B:1063:G:H8	1.68	0.58
10:B:1076:C:H2'	10:B:1077:A:C8	2.24	0.58
10:B:2206:C:H2'	10:B:2207:C:C6	2.38	0.58
10:B:895:U:H4'	10:B:896:A:C8	2.39	0.58
9:A:15:A:O2'	9:A:16:G:O5'	2.14	0.58
27:S:6:LYS:HE3	27:S:8:ARG:HG2	1.85	0.58
10:B:741:U:H2'	10:B:742:A:C8	2.39	0.58
10:B:2748:A:C2	10:B:2757:A:C4	2.91	0.58
2:1:45:HIS:HD1	10:B:2371:G:HO2'	1.43	0.58
30:V:4:ILE:O	30:V:64:VAL:N	2.36	0.58
5:4:9:LYS:HB3	5:4:14:CYS:SG	2.44	0.58
2:1:24:LYS:HD2	2:1:29:LYS:HD3	1.85	0.58
7:6:170:ARG:O	7:6:174:ILE:HG12	2.04	0.58
4:3:38:LYS:HA	4:3:41:ARG:CZ	2.34	0.58
12:D:5:VAL:HG21	12:D:80:TRP:CD2	2.39	0.58
10:B:2823:A:OP1	12:D:118:PHE:HB2	2.04	0.58
3:2:16:HIS:ND1	3:2:21:ARG:NH2	2.52	0.58
3:2:44:VAL:N	3:2:46:LYS:O	2.37	0.58
10:B:534:U:O2'	25:Q:44:TYR:HB3	2.03	0.58
10:B:2311:A:C3'	14:F:71:LYS:HZ1	2.17	0.58
7:6:376:GLU:OE1	7:6:376:GLU:N	2.36	0.58
10:B:1790:C:H2'	10:B:1791:A:C8	2.39	0.58
10:B:1831:G:N3	10:B:1975:G:N2	2.52	0.58
10:B:769:U:H2'	10:B:770:G:C8	2.34	0.58
10:B:1824:G:H5''	11:C:51:ARG:HH21	1.67	0.58
10:B:874:G:C2	10:B:875:G:H1'	2.38	0.58
30:V:46:LYS:HA	30:V:49:ASN:HD22	1.69	0.58
30:V:80:HIS:ND1	30:V:81:PRO:HD2	2.19	0.58
10:B:346:A:H3'	10:B:347:A:C8	2.39	0.58
10:B:329:G:H22	29:U:16:LYS:NZ	2.02	0.58
14:F:3:LEU:HB2	14:F:96:TRP:CE2	2.39	0.58
16:H:144:VAL:HG23	16:H:146:VAL:HB	1.84	0.58
14:F:56:LEU:HD11	14:F:88:VAL:HG13	1.86	0.58
10:B:2186:G:C2	10:B:2187:U:H1'	2.38	0.58
2:1:49:LYS:HB2	2:1:50:GLU:HG2	1.85	0.58
22:N:78:LYS:HZ2	22:N:82:GLU:CD	2.06	0.58
19:K:115:ILE:HA	19:K:118:ALA:HB3	1.86	0.58
10:B:274:C:O2	10:B:363:G:N1	2.35	0.58
16:H:68:ARG:O	16:H:132:PHE:HD2	1.85	0.57
10:B:2813:A:C5	10:B:2814:A:C5	2.92	0.57
10:B:948:C:O2	10:B:984:A:O2'	2.22	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:856:G:P	31:W:23:LYS:NZ	2.77	0.57
16:H:30:LEU:CD2	16:H:35:LYS:HE2	2.34	0.57
6:5:101:ALA:O	6:5:105:LYS:HG3	2.03	0.57
10:B:814:C:N4	10:B:1193:G:H1	2.02	0.57
10:B:815:C:H42	10:B:1192:G:H1	1.52	0.57
10:B:815:C:P	26:R:85:LYS:NZ	2.76	0.57
28:T:3:ARG:NE	28:T:42:GLU:HA	2.18	0.57
10:B:759:G:H21	10:B:760:G:H1'	1.69	0.57
10:B:1492:G:H5''	10:B:1493:C:H5''	1.85	0.57
19:K:70:ARG:HH22	24:P:71:ARG:HD3	1.69	0.57
1:0:37:HIS:HB3	1:0:43:THR:HG23	1.86	0.57
28:T:14:PRO:HA	28:T:32:LEU:CB	2.33	0.57
2:1:29:LYS:HZ1	2:1:32:LYS:C	2.06	0.57
17:I:85:ILE:HD13	17:I:137:LEU:HD21	1.85	0.57
15:G:25:ILE:O	15:G:31:GLU:HA	2.04	0.57
10:B:218:A:N7	10:B:219:A:C5	2.72	0.57
10:B:2261:C:H2'	10:B:2262:U:C6	2.39	0.57
10:B:544:C:H3'	10:B:544:C:O2	2.04	0.57
10:B:676:A:H62	10:B:802:A:H61	1.50	0.57
10:B:2406:A:C2	20:L:69:ARG:NH1	2.72	0.57
10:B:2195:U:H2'	10:B:2196:C:H6	1.69	0.57
6:5:133:PRO:O	6:5:135:GLY:N	2.28	0.57
10:B:2209:G:H2'	10:B:2210:U:H5	1.68	0.57
11:C:12:ARG:O	11:C:15:VAL:HG12	2.04	0.57
10:B:1799:G:C2	11:C:175:LEU:HD22	2.38	0.57
10:B:1721:G:HO2'	10:B:1722:A:P	2.26	0.57
14:F:98:PHE:HE1	14:F:101:ARG:NH2	2.01	0.57
4:3:38:LYS:HA	4:3:41:ARG:NH2	2.19	0.57
3:2:31:LEU:O	3:2:35:ARG:HG2	2.04	0.57
7:6:293:GLU:O	7:6:297:ALA:N	2.34	0.57
10:B:1612:C:N4	10:B:1619:G:O6	2.37	0.57
10:B:1749:A:H2'	10:B:1750:G:C8	2.38	0.57
10:B:2647:U:O2'	10:B:2648:G:O4'	2.18	0.57
10:B:452:G:C2	10:B:458:G:C5	2.92	0.57
10:B:966:G:C5	10:B:967:U:C4	2.91	0.57
10:B:564:C:P	26:R:79:ARG:HH21	2.26	0.57
10:B:2163:A:N7	10:B:2164:C:O2'	2.37	0.57
8:7:59:LEU:N	8:7:62:ARG:HB2	2.19	0.57
10:B:1071:G:H1	10:B:1092:C:N4	2.02	0.57
10:B:704:G:C2	10:B:726:G:C5	2.93	0.57
7:6:5:TYR:HB3	7:6:99:ARG:NH1	2.19	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:6:TYR:OH	14:F:168:LEU:O	2.22	0.57
19:K:92:GLN:N	19:K:110:LYS:NZ	2.52	0.57
10:B:1490:A:H2'	11:C:73:ILE:HD11	1.85	0.57
19:K:70:ARG:HH11	19:K:76:ILE:HD11	1.67	0.57
27:S:66:ILE:HG23	27:S:67:ASP:H	1.70	0.57
30:V:4:ILE:HD11	30:V:50:MET:SD	2.44	0.57
16:H:64:ALA:HA	16:H:71:LYS:NZ	2.19	0.57
10:B:2112:G:H8	10:B:2113:U:C5	2.21	0.57
10:B:123:G:H2'	10:B:124:G:O4'	2.04	0.57
10:B:1687:G:H1'	10:B:1702:G:N2	2.19	0.57
10:B:1824:G:H2'	10:B:1825:U:C6	2.39	0.57
10:B:2745:C:N4	10:B:2760:C:H42	2.03	0.57
14:F:11:VAL:HA	14:F:15:LEU:HD12	1.86	0.57
10:B:1685:C:H2'	10:B:1686:C:H6	1.69	0.57
32:X:4:CYS:HB3	32:X:8:GLY:N	2.19	0.57
8:7:26:VAL:HG22	8:7:84:TYR:CE1	2.39	0.57
24:P:28:LYS:HB2	24:P:81:ASP:HB2	1.84	0.57
8:7:142:THR:HB	8:7:145:GLU:HB2	1.85	0.57
10:B:26:G:H1'	10:B:515:A:H61	1.69	0.57
10:B:2846:G:C5	10:B:2847:U:C4	2.93	0.57
18:J:77:HIS:CD2	18:J:79:GLY:H	2.21	0.57
10:B:1065:U:C4	10:B:1066:U:C4	2.92	0.57
8:7:57:ASN:CG	10:B:1106:G:H5''	2.25	0.57
10:B:1346:G:N1	10:B:1600:C:N3	2.41	0.57
9:A:27:C:C4	9:A:28:C:C4	2.92	0.57
9:A:68:C:H2'	9:A:69:G:C8	2.39	0.57
10:B:481:G:O6	10:B:509:C:N4	2.28	0.57
10:B:1509:A:C4	10:B:1510:G:C8	2.93	0.57
10:B:2793:C:H2'	10:B:2794:C:H6	1.69	0.57
29:U:4:ILE:O	29:U:5:ARG:HD2	2.05	0.57
7:6:370:LEU:HD22	7:6:383:PHE:CZ	2.39	0.57
7:6:275:ARG:NH1	7:6:275:ARG:HG2	2.20	0.57
26:R:19:THR:HA	26:R:97:LYS:HA	1.85	0.57
6:5:117:SER:H	6:5:120:ALA:HB3	1.69	0.57
7:6:394:MET:HA	7:6:400:VAL:HG13	1.86	0.57
10:B:976:G:C5'	10:B:1156:A:H62	2.16	0.57
10:B:1953:A:N1	10:B:2549:G:O2'	2.25	0.57
10:B:216:A:H2'	10:B:217:A:C8	2.40	0.57
10:B:2831:G:P	12:D:59:ARG:HH22	2.27	0.57
10:B:796:C:H2'	10:B:797:G:C8	2.40	0.57
10:B:934:U:H2'	10:B:935:C:C6	2.40	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:98:TYR:HA	24:P:100:ARG:HG2	1.85	0.57
10:B:1581:G:H2'	10:B:1582:C:H6	1.69	0.57
10:B:1771:C:O2'	10:B:1786:A:N3	2.35	0.57
10:B:399:U:H2'	10:B:400:G:C8	2.40	0.57
10:B:637:A:C6	10:B:652:U:H5''	2.40	0.57
12:D:46:ARG:NH2	12:D:88:GLU:HG2	2.15	0.57
7:6:324:ASP:OD2	7:6:341:TRP:CE3	2.58	0.57
11:C:24:HIS:ND1	11:C:79:ARG:NH2	2.52	0.57
14:F:110:ILE:HG23	14:F:176:PHE:O	2.05	0.57
26:R:37:GLU:OE2	26:R:58:VAL:N	2.37	0.57
17:I:35:MET:HB3	17:I:39:LYS:NZ	2.19	0.57
10:B:1218:G:C2	10:B:1232:G:C5	2.92	0.57
10:B:2246:G:H2'	10:B:2247:A:H8	1.70	0.57
10:B:2720:U:H2'	10:B:2721:A:O4'	2.05	0.57
10:B:2824:C:O5'	10:B:2825:G:N2	2.37	0.57
10:B:674:G:O3'	13:E:62:GLN:NE2	2.35	0.57
10:B:993:G:P	25:Q:50:ARG:HH12	2.28	0.57
10:B:1826:G:H2'	10:B:1827:U:H6	1.70	0.57
10:B:90:U:H2'	10:B:91:A:C2	2.39	0.57
10:B:81:G:H1	10:B:105:C:H42	1.52	0.57
9:A:44:G:O4'	9:A:47:C:N4	2.37	0.57
10:B:2189:U:H2'	10:B:2190:G:C8	2.39	0.57
10:B:1300:G:N2	10:B:1626:A:H62	2.02	0.57
10:B:1705:A:H2'	10:B:1706:C:C6	2.40	0.57
11:C:93:VAL:HG22	11:C:101:ARG:O	2.04	0.57
12:D:106:LYS:O	12:D:206:ALA:N	2.37	0.57
7:6:216:ARG:NH2	7:6:345:GLN:O	2.38	0.57
34:Z:5:LYS:HB3	34:Z:57:GLU:HB2	1.85	0.57
4:3:2:LYS:NZ	10:B:242:G:P	2.77	0.57
10:B:1162:G:H2'	10:B:1163:G:C8	2.39	0.57
10:B:199:A:C5	10:B:2433:A:N1	2.72	0.57
10:B:2821:A:O2'	10:B:2822:G:H5'	2.05	0.57
10:B:543:G:N3	10:B:544:C:H1'	2.20	0.57
18:J:28:LEU:O	18:J:32:LEU:HG	2.04	0.57
22:N:80:PHE:O	22:N:81:ASN:ND2	2.37	0.57
26:R:71:LYS:HG2	26:R:90:ARG:HD2	1.86	0.57
26:R:71:LYS:HG3	26:R:90:ARG:NH1	2.20	0.57
10:B:1881:C:C4	10:B:1882:U:C4	2.92	0.57
10:B:2311:A:H3'	14:F:71:LYS:HZ1	1.70	0.57
14:F:159:ALA:HB1	14:F:164:GLU:HB2	1.86	0.57
10:B:1378:A:C4	10:B:1380:G:C6	2.93	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1425:G:N2	10:B:1574:C:N3	2.52	0.57
10:B:1407:G:N1	10:B:1595:C:O2	2.34	0.57
9:A:30:C:O2'	9:A:57:A:N1	2.35	0.57
7:6:194:LYS:HZ3	7:6:197:VAL:CG2	2.18	0.57
18:J:42:ALA:HB3	18:J:44:TYR:CZ	2.40	0.57
12:D:38:LYS:HB2	12:D:47:ALA:HB3	1.85	0.57
10:B:1845:G:C6	10:B:1896:G:C6	2.93	0.57
29:U:89:GLY:HA2	29:U:91:LYS:HZ2	1.69	0.57
7:6:262:ASP:OD1	7:6:262:ASP:N	2.35	0.57
23:O:89:ASP:HA	23:O:116:GLN:O	2.05	0.57
10:B:457:A:O5'	10:B:459:U:H1'	2.05	0.57
10:B:519:U:H5''	27:S:25:ARG:HH22	1.70	0.57
10:B:533:G:C5	10:B:534:U:C4	2.92	0.57
10:B:811:U:H1'	10:B:1251:C:H5'	1.86	0.57
10:B:518:G:O5'	27:S:18:ARG:NH1	2.37	0.57
6:5:218:MET:SD	10:B:2173:A:N6	2.78	0.57
10:B:1055:G:H3'	10:B:1056:G:C8	2.35	0.57
10:B:278:A:H2	10:B:279:A:C6	2.23	0.57
10:B:2637:U:OP1	12:D:83:ARG:HD2	2.05	0.57
14:F:98:PHE:CE1	14:F:101:ARG:NH2	2.72	0.57
1:0:47:TYR:CE1	1:0:52:LYS:HD3	2.36	0.57
10:B:1206:G:H2'	10:B:1207:C:O4'	2.05	0.57
13:E:147:LEU:HB2	13:E:183:PHE:CD2	2.40	0.57
10:B:64:A:C6	10:B:65:U:C4	2.93	0.57
10:B:2581:G:C5	10:B:2610:C:C4	2.93	0.57
4:3:38:LYS:HG3	4:3:41:ARG:HH21	1.69	0.57
20:L:12:SER:C	20:L:13:LYS:HD2	2.24	0.57
26:R:33:VAL:HG13	26:R:61:ALA:HB3	1.87	0.57
26:R:7:SER:OG	26:R:8:GLY:N	2.37	0.57
1:0:35:GLU:OE2	1:0:45:ASP:OD2	2.23	0.57
10:B:1016:G:H1	10:B:1146:C:N4	2.02	0.57
10:B:1179:G:H2'	10:B:1180:U:C6	2.39	0.57
10:B:222:A:H62	10:B:232:G:H21	1.52	0.57
10:B:473:G:H8	10:B:473:G:P	2.28	0.57
10:B:807:U:H2'	10:B:808:G:C8	2.39	0.57
26:R:71:LYS:HG3	26:R:90:ARG:HH11	1.70	0.57
31:W:36:ILE:HG21	31:W:43:LYS:HB2	1.86	0.57
10:B:2200:C:OP1	32:X:36:ARG:N	2.30	0.57
16:H:11:ASN:CG	16:H:12:LEU:H	2.08	0.57
6:5:133:PRO:O	10:B:2122:U:O4	2.23	0.57
17:I:30:GLN:HG2	17:I:64:ARG:HD2	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1064:C:N4	10:B:1070:A:OP1	2.38	0.57
10:B:1098:A:C6	17:I:4:VAL:HA	2.40	0.57
10:B:1818:U:C5	11:C:152:GLN:HB2	2.40	0.57
29:U:38:ILE:N	29:U:61:GLU:OE2	2.35	0.57
10:B:2102:G:N2	10:B:2186:G:H22	2.03	0.57
28:T:24:MET:O	28:T:28:ASN:N	2.28	0.57
1:O:49:ARG:HB3	10:B:2884:U:C5	2.40	0.57
26:R:42:ALA:HA	26:R:45:GLU:O	2.05	0.57
18:J:130:HIS:ND1	18:J:130:HIS:O	2.38	0.57
24:P:61:ARG:HH22	24:P:63:ILE:HD11	1.70	0.57
7:6:370:LEU:HG	7:6:424:TYR:HB2	1.86	0.57
10:B:484:C:N3	10:B:496:G:N2	2.47	0.57
6:5:80:GLN:HG2	10:B:2169:A:H1'	1.86	0.57
4:3:15:LYS:HA	4:3:21:PHE:CD1	2.40	0.57
10:B:211:C:H2'	10:B:212:G:C8	2.40	0.56
10:B:2674:G:H2'	10:B:2675:A:H8	1.68	0.56
10:B:2867:G:O2'	10:B:2868:A:H8	1.88	0.56
10:B:2114:A:H2	10:B:2168:G:H1'	1.70	0.56
10:B:2179:C:O2'	10:B:2180:U:O4'	2.15	0.56
10:B:1094:U:O2'	10:B:1096:A:N7	2.28	0.56
10:B:1420:A:H5''	10:B:2211:A:H62	1.69	0.56
11:C:15:VAL:HG23	11:C:204:LEU:O	2.05	0.56
7:6:50:LYS:HE3	7:6:59:GLY:H	1.70	0.56
10:B:870:U:OP2	21:M:6:ARG:NH2	2.38	0.56
10:B:325:G:H1	10:B:337:C:N4	2.01	0.56
14:F:3:LEU:HB2	14:F:96:TRP:CD2	2.40	0.56
10:B:1366:A:C5	10:B:1367:A:C8	2.93	0.56
4:3:49:VAL:HG23	4:3:51:LYS:HG3	1.87	0.56
23:O:11:ALA:HB2	23:O:96:GLY:N	2.20	0.56
12:D:133:THR:OG1	12:D:134:HIS:N	2.37	0.56
12:D:178:VAL:HB	12:D:188:LEU:HB3	1.87	0.56
10:B:1458:U:H5''	10:B:1459:G:H3'	1.86	0.56
10:B:2551:C:H2'	10:B:2552:U:C6	2.40	0.56
10:B:807:U:C2	10:B:808:G:C8	2.92	0.56
10:B:953:G:C2	10:B:954:G:C8	2.92	0.56
22:N:60:VAL:O	22:N:63:ARG:HB2	2.05	0.56
27:S:28:LYS:H	27:S:71:VAL:HG12	1.70	0.56
32:X:35:HIS:HB3	32:X:37:PHE:CE2	2.39	0.56
10:B:1314:C:H42	10:B:1338:G:H1	1.54	0.56
10:B:1779:U:OP2	10:B:1784:A:N6	2.31	0.56
10:B:70:G:O5'	10:B:75:G:N1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:336:LYS:HZ1	7:6:338:ASN:ND2	2.03	0.56
10:B:2399:G:H2'	10:B:2400:G:C8	2.36	0.56
23:O:7:ARG:HA	23:O:10:ARG:NE	2.20	0.56
7:6:164:ARG:HB3	7:6:168:ARG:NH1	2.20	0.56
10:B:2788:C:H2'	10:B:2789:C:C6	2.39	0.56
10:B:1440:U:H2'	10:B:1441:G:C8	2.40	0.56
35:6:527:GNP:H5'2	35:6:527:GNP:H8	1.87	0.56
18:J:64:VAL:HG11	18:J:69:ARG:HD2	1.86	0.56
15:G:88:LEU:HD21	15:G:95:ALA:HB2	1.85	0.56
10:B:2244:U:H2'	10:B:2245:U:C6	2.40	0.56
10:B:2471:A:O2'	10:B:2472:G:H8	1.73	0.56
10:B:532:A:H5'	25:Q:27:ARG:HH12	1.68	0.56
10:B:1130:U:C2	12:D:152:PRO:HG3	2.40	0.56
10:B:562:U:O2	10:B:572:A:H1'	2.04	0.56
10:B:775:G:C2	10:B:777:G:N1	2.74	0.56
10:B:833:A:H2'	10:B:834:G:C8	2.41	0.56
10:B:972:A:C5	10:B:973:A:C5	2.93	0.56
22:N:44:LEU:HD23	22:N:113:ILE:HD13	1.87	0.56
6:5:168:ASN:HD22	10:B:2178:C:P	2.28	0.56
10:B:1861:G:O6	10:B:1881:C:N4	2.22	0.56
10:B:2328:A:H2'	10:B:2329:U:H6	1.69	0.56
10:B:1392:A:P	28:T:19:LYS:NZ	2.78	0.56
9:A:13:G:H4'	9:A:14:U:OP1	2.05	0.56
21:M:21:ALA:HB2	21:M:97:GLN:HB2	1.87	0.56
10:B:327:G:N2	10:B:335:C:O2	2.38	0.56
10:B:1281:G:H2'	10:B:1282:U:C6	2.40	0.56
10:B:2632:A:H2'	10:B:2633:G:C8	2.37	0.56
10:B:2803:G:H2'	10:B:2804:U:H6	1.68	0.56
10:B:1837:C:O2	10:B:1903:G:N1	2.38	0.56
7:6:144:GLU:OE2	10:B:2602:A:H3'	2.05	0.56
6:5:161:VAL:HG11	6:5:192:LEU:HD21	1.87	0.56
29:U:80:ASP:HB3	29:U:96:LYS:O	2.04	0.56
10:B:96:C:H4'	33:Y:41:HIS:CE1	2.41	0.56
7:6:141:THR:O	7:6:145:ARG:HG2	2.06	0.56
13:E:5:LEU:N	13:E:10:SER:O	2.26	0.56
10:B:1189:A:C8	10:B:1190:G:C8	2.93	0.56
10:B:220:G:H22	10:B:265:A:N6	2.03	0.56
10:B:2251:G:N2	10:B:2252:G:O4'	2.36	0.56
10:B:265:A:O2'	10:B:266:G:H4'	2.05	0.56
10:B:1851:U:H2'	10:B:1852:U:H6	1.70	0.56
8:7:34:THR:HA	10:B:1085:A:H61	1.71	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:378:C:N4	10:B:379:G:O6	2.37	0.56
10:B:631:A:N6	10:B:2416:C:HO2'	2.04	0.56
9:A:114:C:H2'	9:A:115:A:C8	2.41	0.56
29:U:43:LYS:HG2	29:U:60:LYS:HD3	1.88	0.56
13:E:123:LYS:HG2	13:E:125:SER:H	1.69	0.56
10:B:2823:A:OP2	12:D:118:PHE:N	2.23	0.56
10:B:2751:G:O4'	15:G:2:ARG:HG3	2.06	0.56
10:B:1147:A:H2'	10:B:1148:U:C6	2.40	0.56
10:B:2444:G:C2	10:B:2445:G:C8	2.93	0.56
10:B:251:A:C6	10:B:252:G:H1'	2.41	0.56
10:B:2765:A:H5'	10:B:2766:A:OP2	2.06	0.56
10:B:575:A:H2'	10:B:576:U:H6	1.70	0.56
10:B:583:G:C2	10:B:584:C:C2	2.93	0.56
10:B:588:U:H2'	10:B:589:U:C6	2.39	0.56
25:Q:96:ASP:CG	26:R:13:ARG:HH12	2.09	0.56
6:5:130:VAL:HB	10:B:2119:A:C4	2.41	0.56
6:5:134:ARG:NH2	6:5:136:LEU:HD23	2.20	0.56
10:B:2109:U:N3	10:B:2181:U:O2	2.38	0.56
10:B:2331:G:C5	10:B:2332:C:C4	2.94	0.56
10:B:881:G:N2	10:B:897:C:O2	2.38	0.56
10:B:2653:U:C4	10:B:2654:A:C6	2.93	0.56
10:B:153:U:H2'	10:B:154:U:C6	2.40	0.56
24:P:67:GLU:HG2	24:P:69:VAL:HG23	1.88	0.56
18:J:93:ILE:HA	18:J:97:PRO:HA	1.87	0.56
10:B:1023:U:H2'	10:B:1024:G:O4'	2.06	0.56
10:B:1139:G:O5'	18:J:72:LYS:NZ	2.36	0.56
10:B:1011:G:C6	10:B:1151:A:C6	2.93	0.56
10:B:1711:A:H61	10:B:1747:U:H3	1.52	0.56
10:B:2673:G:H2'	10:B:2674:G:H8	1.70	0.56
22:N:118:ARG:NE	22:N:121:LYS:N	2.35	0.56
10:B:1346:G:C2	10:B:1347:A:C4	2.94	0.56
10:B:58:G:O2'	10:B:59:U:H5'	2.04	0.56
10:B:58:G:C6	10:B:59:U:C4	2.93	0.56
10:B:1340:U:P	28:T:82:LYS:NZ	2.79	0.56
9:A:21:G:H2'	9:A:22:U:C6	2.41	0.56
14:F:111:ARG:HH12	14:F:135:ILE:HG22	1.70	0.56
10:B:2801:G:C2	10:B:2802:G:C4	2.93	0.56
10:B:1553:A:H2'	10:B:1555:G:C8	2.40	0.56
12:D:166:GLY:O	12:D:168:GLU:HG2	2.06	0.56
10:B:1301:A:C5	10:B:1303:G:C8	2.93	0.56
24:P:1:SER:OG	24:P:2:ASN:N	2.39	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:68:SER:HB3	20:L:70:LYS:HB2	1.87	0.56
10:B:857:G:H1	10:B:920:A:N6	2.04	0.56
10:B:2572:A:H8	12:D:149:ASN:HD21	1.53	0.56
18:J:24:THR:HG22	18:J:27:ARG:H	1.69	0.56
31:W:18:LYS:HG3	31:W:19:ARG:H	1.71	0.56
10:B:2157:G:H5''	10:B:2158:A:C4	2.40	0.56
17:I:30:GLN:HE22	17:I:60:VAL:HG21	1.71	0.56
10:B:1342:A:C5	10:B:1345:C:C4	2.94	0.56
10:B:1773:A:H2'	10:B:1774:C:O4'	2.05	0.56
10:B:1793:C:N4	10:B:1794:A:N7	2.53	0.56
10:B:1825:U:P	11:C:51:ARG:NH2	2.79	0.56
7:6:336:LYS:NZ	7:6:338:ASN:ND2	2.53	0.56
10:B:881:G:C2	10:B:882:G:H1'	2.41	0.56
9:A:17:C:H2'	9:A:18:G:O4'	2.06	0.56
29:U:39:ASN:O	29:U:61:GLU:HG2	2.06	0.56
10:B:2643:G:H2'	10:B:2644:G:O4'	2.05	0.56
10:B:1759:A:C5	10:B:1760:C:C4	2.93	0.56
9:A:34:A:H4'	9:A:35:C:N3	2.20	0.56
9:A:49:C:H5''	23:O:68:LYS:HD2	1.87	0.56
10:B:1364:G:H2'	10:B:1366:A:OP2	2.05	0.56
10:B:1841:U:H2'	10:B:1842:G:C8	2.41	0.56
10:B:1895:C:H2'	10:B:1896:G:C8	2.40	0.56
13:E:117:ARG:NH2	13:E:183:PHE:O	2.38	0.56
25:Q:16:ILE:HG21	25:Q:35:PHE:CD1	2.39	0.56
29:U:13:LEU:O	29:U:14:THR:OG1	2.21	0.56
10:B:2494:G:C5	10:B:2495:G:N7	2.74	0.56
10:B:2507:C:H2'	10:B:2508:G:H8	1.70	0.56
10:B:220:G:N1	10:B:428:A:OP2	2.38	0.56
10:B:537:G:C2	10:B:555:G:N2	2.73	0.56
10:B:749:A:C5	10:B:1618:A:C6	2.94	0.56
10:B:857:G:H1	10:B:920:A:H61	1.54	0.56
10:B:1091:G:H2'	10:B:1092:C:H6	1.71	0.56
10:B:1570:A:H2'	10:B:1571:A:H8	1.71	0.56
10:B:875:G:C6	10:B:876:C:C2	2.93	0.56
10:B:1117:C:H2'	10:B:1118:C:C6	2.40	0.56
10:B:2661:G:H2'	10:B:2662:A:O4'	2.05	0.56
10:B:491:G:C2	10:B:492:A:C4	2.94	0.56
10:B:700:G:C2	10:B:701:G:C8	2.94	0.56
10:B:738:G:C6	10:B:739:A:C6	2.93	0.56
6:5:62:ALA:HB3	6:5:144:THR:HB	1.87	0.56
17:I:38:CYS:O	17:I:42:ASN:ND2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:37:GLU:HB2	26:R:53:PHE:HB3	1.88	0.56
15:G:71:LEU:HA	15:G:74:MET:HB2	1.86	0.56
7:6:257:ARG:HB3	7:6:258:HIS:ND1	2.20	0.56
10:B:1009:A:C5	10:B:1010:A:N1	2.74	0.56
10:B:1215:G:N3	10:B:1216:G:C8	2.74	0.56
10:B:210:C:H2'	10:B:211:C:H6	1.70	0.56
10:B:2279:G:C6	10:B:2280:G:C5	2.94	0.56
10:B:2460:U:O4	10:B:2490:G:N2	2.39	0.56
10:B:264:C:O2'	10:B:428:A:N6	2.39	0.56
10:B:2815:C:C2	10:B:2816:G:C8	2.94	0.56
3:2:33:ARG:NH2	10:B:466:A:O3'	2.39	0.56
10:B:618:G:C5	10:B:619:G:C5	2.94	0.56
10:B:662:G:H2'	10:B:663:G:C8	2.41	0.56
10:B:923:G:H21	31:W:24:ARG:NH2	2.04	0.56
10:B:969:G:H5''	10:B:970:U:OP2	2.06	0.56
19:K:3:GLU:CD	19:K:3:GLU:H	2.09	0.56
16:H:29:PHE:CE2	16:H:35:LYS:HD3	2.41	0.56
17:I:106:GLN:OE1	17:I:125:THR:HG21	2.05	0.56
10:B:1314:C:C5	10:B:1315:C:H5	2.24	0.56
10:B:1429:G:C5	10:B:1568:G:C6	2.94	0.56
10:B:1355:G:P	11:C:42:ARG:NH1	2.78	0.56
10:B:1117:C:H2'	10:B:1118:C:H6	1.71	0.56
10:B:381:G:C2	10:B:382:A:C4	2.94	0.56
9:A:16:G:H2'	9:A:17:C:C6	2.40	0.56
10:B:1910:G:C2	10:B:1911:U:H1'	2.41	0.56
7:6:194:LYS:NZ	7:6:197:VAL:HG13	2.20	0.56
10:B:1533:C:C4	10:B:1534:U:C4	2.94	0.56
14:F:108:PRO:HB2	14:F:178:LYS:HD3	1.88	0.56
10:B:1351:C:C2	10:B:1381:G:N1	2.73	0.56
10:B:2371:G:H8	10:B:2371:G:OP2	1.89	0.56
23:O:98:GLN:O	23:O:100:HIS:N	2.39	0.56
8:7:103:ASN:OD1	8:7:104:ALA:N	2.39	0.56
26:R:67:GLY:HA3	26:R:93:PHE:HB2	1.87	0.56
21:M:90:GLU:OE1	21:M:90:GLU:N	2.39	0.56
7:6:384:TYR:OH	7:6:392:GLU:OE1	2.23	0.56
34:Z:30:ARG:HB2	34:Z:33:HIS:HB2	1.87	0.56
10:B:2064:C:H1'	10:B:2450:A:C2	2.40	0.56
10:B:247:G:O2'	10:B:386:G:N1	2.38	0.56
10:B:579:G:H2'	10:B:580:U:H6	1.68	0.56
10:B:974:G:H8	10:B:990:A:N6	2.00	0.56
27:S:25:ARG:HA	27:S:71:VAL:HG21	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2115:G:N2	10:B:2119:A:OP1	2.39	0.56
10:B:1392:A:P	28:T:19:LYS:HZ3	2.29	0.56
10:B:1382:G:O2'	10:B:1573:G:N3	2.39	0.56
10:B:2207:C:H2'	10:B:2208:C:C6	2.41	0.56
10:B:74:A:OP1	33:Y:47:ARG:NH2	2.39	0.56
11:C:143:VAL:O	11:C:151:GLY:HA2	2.06	0.56
32:X:39:VAL:HG22	32:X:44:ARG:O	2.06	0.56
9:A:69:G:H2'	9:A:70:C:H5'	1.86	0.56
10:B:2530:A:H5'	15:G:174:LYS:HZ2	1.69	0.56
18:J:40:HIS:O	18:J:42:ALA:N	2.37	0.56
10:B:754:U:H2'	10:B:755:U:C6	2.41	0.56
28:T:27:SER:O	28:T:28:ASN:ND2	2.38	0.56
23:O:100:HIS:CA	23:O:104:GLN:HB2	2.36	0.56
16:H:68:ARG:HD3	16:H:132:PHE:CD1	2.33	0.55
10:B:2728:U:O2'	10:B:2729:G:O4'	2.24	0.55
10:B:925:A:H2'	10:B:926:G:H8	1.71	0.55
10:B:2092:U:OP2	16:H:28:ASN:ND2	2.39	0.55
10:B:2115:G:O2'	10:B:2165:C:N4	2.34	0.55
10:B:2116:G:C4	10:B:2146:C:H5''	2.41	0.55
10:B:2313:C:H2'	10:B:2314:A:C8	2.40	0.55
10:B:2318:G:H3'	10:B:2319:G:C8	2.41	0.55
17:I:105:LEU:HD22	17:I:128:ILE:HG22	1.87	0.55
10:B:347:A:H2'	10:B:348:A:H8	1.70	0.55
10:B:309:A:C6	10:B:330:A:C5	2.93	0.55
10:B:1279:G:H2'	10:B:1280:G:C8	2.41	0.55
10:B:2192:U:N3	10:B:2193:G:N7	2.55	0.55
28:T:11:LEU:HD23	28:T:34:VAL:HG21	1.88	0.55
12:D:14:ILE:HB	12:D:24:VAL:HG21	1.87	0.55
10:B:2556:C:H3'	10:B:2557:G:H8	1.71	0.55
13:E:29:HIS:CE1	20:L:8:PRO:HD3	2.41	0.55
10:B:2652:C:C2	10:B:2669:G:C2	2.95	0.55
10:B:2241:A:H2	10:B:2242:G:C6	2.24	0.55
10:B:2489:U:O4	10:B:2490:G:N1	2.39	0.55
10:B:2568:U:H2'	10:B:2569:G:C8	2.41	0.55
10:B:909:A:O2'	10:B:910:A:O5'	2.22	0.55
10:B:912:C:H2'	10:B:913:U:H6	1.70	0.55
10:B:894:U:H2'	10:B:895:U:O4'	2.06	0.55
10:B:372:G:C6	32:X:56:ARG:NH2	2.74	0.55
20:L:76:GLU:OE2	20:L:111:ILE:HD13	2.05	0.55
10:B:1916:A:OP2	10:B:1918:A:N6	2.28	0.55
10:B:1919:A:H2'	10:B:1920:C:O4'	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:106:LEU:HD13	15:G:151:ARG:HD2	1.88	0.55
10:B:2660:A:N7	15:G:176:LYS:HB3	2.21	0.55
29:U:20:LYS:HG2	29:U:21:ARG:O	2.06	0.55
10:B:1529:G:H2'	10:B:1530:G:H8	1.70	0.55
10:B:1835:G:N3	10:B:1931:U:N3	2.55	0.55
10:B:1432:G:C2	10:B:1433:A:C4	2.94	0.55
10:B:1643:G:H2'	10:B:1644:C:O4'	2.05	0.55
10:B:1726:C:H2'	10:B:1727:C:C6	2.42	0.55
11:C:211:ARG:NH2	11:C:217:PRO:HD3	2.22	0.55
25:Q:100:PHE:O	25:Q:102:LYS:N	2.39	0.55
16:H:64:ALA:HA	16:H:71:LYS:HZ2	1.70	0.55
7:6:8:GLY:HA2	7:6:38:GLY:O	2.06	0.55
19:K:79:ASP:OD2	24:P:68:GLY:HA3	2.07	0.55
10:B:1454:C:HO2'	10:B:1455:G:H8	1.52	0.55
3:2:28:ARG:NH2	10:B:178:G:O3'	2.39	0.55
10:B:2357:G:C2	10:B:2361:G:C6	2.95	0.55
7:6:153:ARG:NH2	10:B:2505:G:O2'	2.39	0.55
10:B:2704:C:C4	10:B:2705:A:N6	2.74	0.55
10:B:2849:U:OP1	24:P:92:ARG:NH2	2.39	0.55
10:B:2790:U:C4	10:B:2893:A:C6	2.95	0.55
10:B:956:G:H2'	10:B:957:C:H2'	1.87	0.55
10:B:2830:C:H5''	12:D:56:LYS:NZ	2.22	0.55
10:B:1355:G:H1	10:B:1376:C:H42	1.55	0.55
10:B:1373:A:O2'	10:B:2212:A:H2	1.88	0.55
7:6:336:LYS:HZ1	7:6:338:ASN:HD22	1.55	0.55
9:A:76:G:P	30:V:9:ARG:HH22	2.28	0.55
21:M:29:GLY:HA3	21:M:106:ASP:HB2	1.87	0.55
14:F:105:ILE:HD12	14:F:135:ILE:HB	1.88	0.55
5:4:24:ARG:NH2	10:B:2742:G:P	2.79	0.55
10:B:195:A:H5''	10:B:196:A:H4'	1.87	0.55
14:F:37:MET:HB2	14:F:86:CYS:H	1.71	0.55
10:B:214:G:C2	10:B:215:G:C5	2.94	0.55
10:B:589:U:H2'	10:B:590:A:C8	2.42	0.55
10:B:980:A:H62	10:B:981:A:N6	2.03	0.55
10:B:659:G:P	13:E:95:LYS:HZ3	2.30	0.55
10:B:2168:G:N1	10:B:2171:A:H8	2.04	0.55
10:B:704:G:O2'	10:B:705:A:H8	1.89	0.55
10:B:1805:A:H5''	11:C:247:TRP:CG	2.42	0.55
10:B:61:C:C5'	33:Y:44:LYS:HZ3	2.19	0.55
10:B:8:C:H2'	10:B:9:G:C8	2.41	0.55
10:B:882:G:C6	10:B:895:U:C2	2.94	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:12:C:O2'	9:A:13:G:OP2	2.22	0.55
10:B:2747:G:H2'	10:B:2748:A:C8	2.41	0.55
15:G:38:ASP:OD1	15:G:39:ALA:N	2.40	0.55
12:D:101:PHE:O	12:D:104:VAL:N	2.40	0.55
22:N:78:LYS:NZ	22:N:82:GLU:OE1	2.32	0.55
24:P:3:ILE:O	24:P:6:GLN:NE2	2.38	0.55
10:B:2737:G:H2'	10:B:2738:A:C8	2.41	0.55
10:B:2428:G:N2	20:L:60:ARG:NH2	2.55	0.55
10:B:2729:G:C5	10:B:2730:C:C4	2.94	0.55
10:B:367:G:H2'	10:B:368:A:C8	2.41	0.55
10:B:512:G:OP2	10:B:1234:U:O2'	2.25	0.55
10:B:541:A:C5	10:B:542:C:C4	2.95	0.55
10:B:621:A:H2'	10:B:622:G:O4'	2.07	0.55
10:B:670:A:H4'	10:B:671:C:H5'	1.89	0.55
10:B:2830:C:C3'	12:D:59:ARG:HH22	2.19	0.55
27:S:28:LYS:HA	27:S:70:LYS:HA	1.88	0.55
10:B:988:A:C3'	34:Z:11:SER:HG	2.20	0.55
10:B:2305:U:H2'	10:B:2306:C:C6	2.42	0.55
10:B:1077:A:O2'	17:I:93:ASN:ND2	2.36	0.55
10:B:1696:G:C5	10:B:1697:G:C5	2.95	0.55
10:B:1701:A:OP1	10:B:1763:G:N2	2.37	0.55
10:B:766:U:H2'	10:B:767:U:C6	2.42	0.55
10:B:771:G:H2'	10:B:772:C:C6	2.41	0.55
11:C:204:LEU:HB3	11:C:209:ALA:HB3	1.89	0.55
10:B:897:C:H6	10:B:897:C:P	2.30	0.55
10:B:2400:G:C5	10:B:2401:U:C4	2.94	0.55
10:B:2531:A:OP1	15:G:174:LYS:HE2	2.07	0.55
10:B:2638:G:P	12:D:83:ARG:HH22	2.30	0.55
12:D:33:ARG:NH2	12:D:73:VAL:HA	2.21	0.55
14:F:43:ILE:HA	14:F:77:LYS:NZ	2.21	0.55
21:M:41:LEU:HD23	21:M:46:ILE:HG12	1.87	0.55
12:D:104:VAL:C	12:D:105:LYS:HD2	2.27	0.55
7:6:295:ILE:O	7:6:299:ASN:ND2	2.39	0.55
12:D:106:LYS:HB2	12:D:206:ALA:HB2	1.88	0.55
6:5:206:GLY:HA3	10:B:1877:A:P	2.46	0.55
16:H:97:ARG:NH1	16:H:113:SER:HA	2.10	0.55
10:B:1004:U:H1'	10:B:1010:A:C5	2.41	0.55
10:B:1138:G:C4	10:B:1139:G:H1'	2.41	0.55
10:B:976:G:H5'	10:B:1156:A:N6	2.19	0.55
10:B:2410:G:C4	10:B:2411:A:C8	2.94	0.55
10:B:972:A:OP2	10:B:973:A:O2'	2.23	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1782:U:H5''	10:B:1783:A:OP2	2.07	0.55
10:B:814:C:H2'	10:B:815:C:C6	2.42	0.55
10:B:2366:A:H2'	10:B:2367:G:O4'	2.05	0.55
10:B:653:U:N3	10:B:654:A:N1	2.54	0.55
9:A:16:G:H2'	9:A:17:C:H6	1.72	0.55
10:B:321:U:H5	13:E:130:LYS:HE3	1.72	0.55
10:B:100:U:H5''	10:B:102:U:OP2	2.07	0.55
10:B:1313:U:H1'	10:B:1610:A:C8	2.41	0.55
18:J:64:VAL:O	18:J:65:THR:OG1	2.22	0.55
17:I:107:GLU:O	17:I:110:GLN:HB3	2.07	0.55
10:B:2049:G:C4	10:B:2050:C:H5	2.25	0.55
10:B:2258:C:OP1	31:W:10:ARG:NH2	2.36	0.55
10:B:2597:G:C5	10:B:2598:A:C6	2.95	0.55
10:B:265:A:C5	10:B:428:A:C6	2.95	0.55
10:B:535:G:C5	10:B:559:G:C6	2.95	0.55
10:B:1454:C:H5'	22:N:63:ARG:HH12	1.72	0.55
10:B:2867:G:C2	24:P:20:ARG:NH2	2.75	0.55
10:B:1187:G:H5''	26:R:83:TYR:CE1	2.41	0.55
16:H:5:LEU:HD22	16:H:9:VAL:HG21	1.88	0.55
6:5:38:PHE:O	6:5:39:VAL:CB	2.55	0.55
6:5:54:LYS:HZ1	6:5:203:GLN:NE2	2.04	0.55
7:6:380:ARG:HH22	17:I:20:SER:HB3	1.72	0.55
10:B:1566:A:P	11:C:17:LYS:NZ	2.80	0.55
10:B:1191:G:C2	10:B:1192:G:C8	2.95	0.55
12:D:33:ARG:NH2	12:D:72:GLY:O	2.39	0.55
10:B:1528:A:OP2	10:B:1543:G:N2	2.40	0.55
10:B:132:G:C6	10:B:133:U:C4	2.95	0.55
19:K:70:ARG:HH12	24:P:71:ARG:CZ	2.20	0.55
10:B:1836:C:N4	10:B:1904:G:H1	2.05	0.55
10:B:1113:U:H2'	10:B:1114:C:H6	1.71	0.55
22:N:30:ARG:HB3	22:N:78:LYS:HE3	1.88	0.55
10:B:1681:G:C6	10:B:1762:A:C6	2.95	0.55
10:B:484:C:N4	10:B:496:G:H1	2.04	0.55
29:U:42:LYS:HG2	29:U:59:GLU:OE2	2.06	0.55
17:I:21:PRO:HG2	17:I:22:PRO:HD3	1.87	0.55
10:B:199:A:O2'	32:X:22:ASN:ND2	2.40	0.55
10:B:2010:G:N2	10:B:2011:U:O2	2.39	0.55
10:B:45:G:H2'	10:B:215:G:C4	2.41	0.55
10:B:2467:C:N4	10:B:2484:G:O6	2.40	0.55
10:B:459:U:OP2	10:B:469:G:N1	2.38	0.55
10:B:544:C:H2'	10:B:545:U:O2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:571:U:C2'	26:R:80:ARG:HH21	2.20	0.55
10:B:922:C:H2'	10:B:923:G:H8	1.71	0.55
10:B:855:G:C6	10:B:923:G:C6	2.95	0.55
10:B:1407:G:H2'	10:B:1408:G:C8	2.42	0.55
10:B:640:C:H2'	10:B:641:U:C6	2.42	0.55
10:B:2660:A:H62	15:G:176:LYS:HD2	1.72	0.55
10:B:1444:G:H2'	10:B:1445:G:C8	2.42	0.55
10:B:2182:U:N3	10:B:2183:A:N7	2.55	0.55
30:V:30:ILE:HB	30:V:38:LEU:HB2	1.89	0.55
10:B:418:C:H2'	10:B:419:U:C6	2.42	0.55
10:B:1930:G:H22	10:B:1968:G:H3'	1.71	0.55
14:F:11:VAL:O	14:F:13:LYS:HG2	2.07	0.55
23:O:17:LYS:HA	23:O:20:GLU:HB2	1.89	0.55
29:U:86:PHE:N	29:U:91:LYS:HG3	2.21	0.55
24:P:99:LEU:O	24:P:105:LYS:HE2	2.06	0.55
10:B:458:G:O2'	10:B:469:G:O6	2.22	0.55
10:B:825:A:H2'	10:B:826:U:O4'	2.07	0.55
10:B:2025:C:P	12:D:154:LYS:HZ2	2.23	0.55
10:B:910:A:C4	21:M:13:HIS:CE1	2.95	0.55
10:B:1849:G:H2'	10:B:1850:G:O4'	2.06	0.55
10:B:2304:G:O2'	14:F:129:MET:O	2.25	0.55
7:6:375:GLN:N	7:6:376:GLU:OE1	2.31	0.55
10:B:1094:U:O2	10:B:1096:A:H3'	2.07	0.55
10:B:1588:G:H2'	10:B:1589:U:C6	2.42	0.55
10:B:1801:A:N6	11:C:261:ARG:NH1	2.51	0.55
10:B:76:C:H2'	10:B:77:G:C8	2.42	0.55
10:B:629:G:C6	10:B:630:G:C6	2.94	0.55
9:A:25:U:O2'	9:A:27:C:OP2	2.21	0.55
10:B:1526:C:H2'	10:B:1527:G:O4'	2.07	0.55
10:B:2100:G:H3'	10:B:2101:A:H8	1.72	0.55
10:B:1971:U:H4'	11:C:238:ASN:ND2	2.22	0.55
15:G:46:ASP:OD2	15:G:47:ASN:ND2	2.39	0.55
10:B:1704:C:N3	10:B:1705:A:N6	2.54	0.55
10:B:1941:C:H2'	10:B:1942:C:O4'	2.06	0.55
10:B:275:C:H1'	10:B:363:G:N2	2.21	0.55
1:0:13:GLY:O	1:0:16:ARG:N	2.34	0.55
10:B:1266:G:C2	10:B:2012:G:C5	2.95	0.55
10:B:1663:G:N1	10:B:1997:C:N3	2.41	0.55
10:B:207:A:H3'	10:B:208:C:H6	1.72	0.55
10:B:248:G:O2'	10:B:2431:U:O3'	2.20	0.55
10:B:2536:G:H2'	10:B:2537:U:C6	2.41	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2559:C:H2'	10:B:2560:A:H8	1.71	0.55
10:B:2867:G:O2'	10:B:2868:A:O5'	2.25	0.55
10:B:794:A:C5	10:B:795:C:C5	2.95	0.55
10:B:987:C:H2'	10:B:988:A:C8	2.39	0.55
10:B:956:G:P	21:M:86:LYS:NZ	2.80	0.55
26:R:79:ARG:O	26:R:81:LYS:N	2.36	0.55
31:W:22:VAL:HG23	31:W:25:PHE:HB2	1.88	0.55
10:B:2079:U:O2'	32:X:22:ASN:OD1	2.22	0.55
10:B:123:G:N2	10:B:124:G:H1'	2.22	0.55
10:B:1429:G:C2	10:B:1430:G:C5	2.95	0.55
10:B:1799:G:O2'	11:C:181:ARG:NH1	2.39	0.55
10:B:2345:G:N3	10:B:2381:A:H2'	2.22	0.55
10:B:2414:G:H2'	10:B:2415:G:C8	2.42	0.55
7:6:152:LEU:HD11	10:B:2602:A:N7	2.22	0.55
24:P:65:ASN:N	24:P:67:GLU:OE1	2.39	0.55
10:B:1719:G:H1	10:B:1741:C:H42	1.53	0.55
8:7:17:GLU:HA	8:7:20:LYS:HB3	1.89	0.55
10:B:1167:C:H2'	10:B:1168:G:H8	1.72	0.54
10:B:829:A:H5'	10:B:831:G:N7	2.22	0.54
12:D:151:THR:HG22	12:D:152:PRO:CD	2.37	0.54
10:B:2199:A:H3'	10:B:2200:C:H6	1.72	0.54
10:B:1862:G:C2	10:B:1863:G:C8	2.94	0.54
10:B:1406:U:H2'	10:B:1407:G:C8	2.41	0.54
10:B:1570:A:H2'	10:B:1571:A:C8	2.42	0.54
19:K:91:GLU:CB	19:K:110:LYS:HZ2	2.13	0.54
19:K:90:SER:O	19:K:110:LYS:NZ	2.39	0.54
10:B:494:G:H4'	27:S:6:LYS:N	2.19	0.54
10:B:1482:G:H2'	10:B:1483:G:H8	1.71	0.54
7:6:210:LYS:HZ2	7:6:283:VAL:HB	1.72	0.54
10:B:30:G:H1	10:B:510:C:N4	2.05	0.54
8:7:17:GLU:OE2	8:7:86:MET:HB2	2.08	0.54
10:B:484:C:H2'	10:B:485:C:C6	2.42	0.54
10:B:1635:A:C6	10:B:1636:U:C2	2.95	0.54
8:7:27:VAL:HG13	8:7:109:LYS:HG2	1.88	0.54
1:0:15:ARG:HH12	10:B:1265:A:H3'	1.71	0.54
10:B:2646:C:H2'	10:B:2647:U:O4'	2.07	0.54
10:B:26:G:H4'	10:B:1260:A:H4'	1.89	0.54
10:B:524:G:H2'	10:B:525:U:H6	1.72	0.54
10:B:580:U:H2'	10:B:581:C:C6	2.36	0.54
10:B:603:A:N6	10:B:655:A:O4'	2.40	0.54
10:B:2164:C:H5'	10:B:2172:U:C5	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2303:G:H4'	14:F:121:PHE:H	1.72	0.54
10:B:762:U:H5'	10:B:763:G:N2	2.22	0.54
10:B:1923:U:H2'	10:B:1924:C:H6	1.72	0.54
10:B:907:G:C2	10:B:908:C:C2	2.94	0.54
10:B:106:C:O2'	10:B:294:A:O2'	2.11	0.54
27:S:4:ILE:HG13	27:S:6:LYS:HG3	1.88	0.54
10:B:2642:G:C2	10:B:2643:G:C5	2.95	0.54
9:A:49:C:P	23:O:30:ARG:HH12	2.30	0.54
12:D:21:SER:OG	19:K:72:ASP:HA	2.07	0.54
1:O:3:GLN:HB3	1:O:5:ASN:H	1.73	0.54
1:O:3:GLN:HA	10:B:2615:U:C2	2.41	0.54
10:B:1949:G:C2	10:B:1950:G:C4	2.95	0.54
8:7:69:PHE:HB2	8:7:116:GLU:OE2	2.07	0.54
12:D:24:VAL:HG12	12:D:178:VAL:HG21	1.89	0.54
7:6:180:ARG:HA	7:6:183:LYS:HD2	1.90	0.54
10:B:2020:A:H4'	25:Q:24:TYR:HE2	1.72	0.54
10:B:2064:C:H2'	10:B:2065:C:C6	2.43	0.54
10:B:2072:C:N3	10:B:2073:C:C4	2.76	0.54
10:B:2425:A:H4'	10:B:2426:A:O5'	2.06	0.54
10:B:2564:A:C2	10:B:2647:U:H4'	2.41	0.54
10:B:25:U:H5''	27:S:80:PRO:HG3	1.90	0.54
10:B:547:A:H2'	10:B:548:G:H5'	1.89	0.54
10:B:577:G:OP1	10:B:2502:G:O2'	2.23	0.54
10:B:819:A:H2	10:B:942:G:H21	1.55	0.54
10:B:806:C:H5''	20:L:41:ARG:NH2	2.22	0.54
10:B:2230:G:N2	32:X:31:ASN:HD21	2.06	0.54
10:B:2335:A:OP1	23:O:13:ARG:NH2	2.40	0.54
17:I:105:LEU:HD23	17:I:108:ILE:HD12	1.87	0.54
17:I:3:LYS:O	17:I:4:VAL:HG23	2.07	0.54
10:B:1425:G:C6	10:B:1426:G:C2	2.95	0.54
11:C:5:CYS:HG	11:C:12:ARG:HH21	1.54	0.54
10:B:1341:G:N3	28:T:84:TYR:HD2	2.04	0.54
10:B:283:G:C2	10:B:284:U:C2	2.96	0.54
10:B:493:G:C4	10:B:494:G:C8	2.96	0.54
29:U:35:VAL:HB	29:U:38:ILE:HG13	1.90	0.54
10:B:499:U:H5''	29:U:42:LYS:HD2	1.90	0.54
19:K:112:MET:HA	19:K:115:ILE:HG12	1.89	0.54
21:M:69:PRO:HA	21:M:94:ALA:HB2	1.88	0.54
10:B:2534:A:N6	10:B:2535:G:C5	2.75	0.54
10:B:26:G:C6	10:B:27:G:C2	2.96	0.54
10:B:2809:A:C2	10:B:2810:A:C4	2.96	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:582:A:H2'	10:B:583:G:H8	1.69	0.54
10:B:776:G:O6	10:B:793:A:H8	1.90	0.54
10:B:582:A:H4'	25:Q:10:ARG:HH22	1.71	0.54
10:B:1891:G:C6	10:B:1892:C:N3	2.75	0.54
16:H:30:LEU:HA	16:H:35:LYS:NZ	2.23	0.54
6:5:104:ILE:C	6:5:107:GLY:H	2.11	0.54
17:I:102:ARG:HB2	17:I:141:ASP:HA	1.88	0.54
10:B:1412:U:H2'	10:B:1413:A:C8	2.42	0.54
10:B:1770:G:C6	10:B:1983:G:C5	2.96	0.54
10:B:708:G:C5	10:B:709:U:C4	2.95	0.54
19:K:92:GLN:H	19:K:110:LYS:NZ	2.04	0.54
10:B:1930:G:H2'	10:B:1968:G:N1	2.22	0.54
10:B:1873:G:H2'	10:B:1874:C:O4'	2.07	0.54
10:B:1299:G:H5''	10:B:1300:G:OP1	2.07	0.54
2:1:45:HIS:ND1	10:B:2371:G:O2'	2.32	0.54
7:6:284:ILE:HG13	7:6:316:MET:HA	1.90	0.54
18:J:89:PHE:O	18:J:92:MET:HB2	2.07	0.54
14:F:107:VAL:HG12	14:F:176:PHE:HB2	1.88	0.54
10:B:1301:A:C4	10:B:1303:G:C8	2.95	0.54
10:B:1216:G:C6	10:B:1217:U:C4	2.95	0.54
10:B:2261:C:H5'	10:B:2388:A:H4'	1.89	0.54
10:B:2408:U:N3	10:B:2409:G:N7	2.56	0.54
10:B:2646:C:C4	10:B:2647:U:C4	2.96	0.54
31:W:60:ALA:C	31:W:61:LYS:HD2	2.27	0.54
10:B:1370:C:H2'	10:B:1371:G:H8	1.72	0.54
10:B:8:C:P	18:J:120:ARG:NH2	2.80	0.54
9:A:76:G:H5''	30:V:9:ARG:HH12	1.72	0.54
10:B:649:G:C6	10:B:650:C:C4	2.96	0.54
10:B:1916:A:H5''	10:B:1917:U:C5	2.43	0.54
21:M:64:TRP:CZ3	21:M:106:ASP:HB3	2.43	0.54
10:B:299:A:N7	10:B:300:A:C6	2.76	0.54
10:B:307:G:H22	10:B:309:A:H3'	1.72	0.54
10:B:1296:G:OP1	10:B:2709:G:O2'	2.15	0.54
10:B:1444:G:C2	10:B:1445:G:C4	2.96	0.54
10:B:1526:C:N4	10:B:1546:G:H1	2.05	0.54
10:B:744:U:C4	10:B:745:G:C5	2.95	0.54
10:B:1437:C:H2'	10:B:1438:U:C6	2.43	0.54
10:B:65:U:OP1	28:T:76:ARG:N	2.40	0.54
27:S:54:ALA:HA	27:S:57:ASN:OD1	2.07	0.54
16:H:75:LEU:HG	16:H:77:THR:HG23	1.89	0.54
10:B:1650:A:H2'	10:B:1651:G:C8	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:545:U:H6	10:B:549:G:H5'	1.72	0.54
10:B:596:U:H2'	10:B:597:G:C8	2.43	0.54
12:D:151:THR:CB	12:D:152:PRO:CD	2.85	0.54
19:K:2:GLN:HB3	19:K:3:GLU:OE1	2.08	0.54
7:6:376:GLU:OE2	17:I:20:SER:HB2	2.07	0.54
10:B:1690:A:H3'	10:B:1691:C:H6	1.73	0.54
10:B:1813:G:C4	10:B:1814:G:C8	2.96	0.54
10:B:2588:G:O6	10:B:2607:G:N1	2.40	0.54
10:B:895:U:C5'	10:B:896:A:H5'	2.35	0.54
4:3:22:LYS:HZ3	10:B:650:C:H4'	1.73	0.54
10:B:627:A:C4	10:B:637:A:C6	2.95	0.54
22:N:14:SER:CB	22:N:17:ARG:HH21	2.21	0.54
10:B:2655:G:H22	10:B:2664:G:H2'	1.73	0.54
10:B:2638:G:C5	10:B:2775:G:C2	2.95	0.54
9:A:44:G:H5'	9:A:46:A:H62	1.72	0.54
12:D:7:LYS:HB3	12:D:200:ASP:OD1	2.08	0.54
10:B:1477:A:C2	10:B:1515:A:C4	2.95	0.54
10:B:1047:G:O3'	10:B:1048:A:H8	1.91	0.54
4:3:35:LYS:HZ2	4:3:39:ARG:NH2	2.06	0.54
10:B:2557:G:C6	10:B:2558:C:C4	2.95	0.54
10:B:2132:U:H2'	10:B:2133:G:H3'	1.89	0.54
23:O:49:VAL:HG11	23:O:81:ARG:HB2	1.89	0.54
7:6:153:ARG:HH11	7:6:154:GLY:N	2.03	0.54
10:B:1140:C:OP1	18:J:26:GLY:N	2.38	0.54
10:B:1148:U:H2'	10:B:1149:G:C8	2.43	0.54
10:B:1223:G:N2	10:B:1227:G:C4	2.76	0.54
10:B:1660:G:C2	10:B:1661:G:C5	2.95	0.54
10:B:216:A:C4	10:B:217:A:C8	2.96	0.54
10:B:2438:U:O2'	10:B:2439:A:H3'	2.08	0.54
10:B:250:G:C2	10:B:251:A:C4	2.95	0.54
10:B:2521:C:C2	10:B:2545:G:N2	2.76	0.54
10:B:527:C:P	10:B:2779:U:H3	2.30	0.54
10:B:578:G:N2	25:Q:32:ARG:NH2	2.55	0.54
10:B:679:C:H2'	10:B:680:C:C6	2.42	0.54
10:B:823:C:N4	10:B:834:G:H1	2.05	0.54
10:B:842:U:H3	10:B:936:A:H61	1.55	0.54
10:B:960:A:H2'	10:B:962:G:H5'	1.90	0.54
18:J:29:ALA:HA	18:J:32:LEU:HD12	1.90	0.54
1:0:9:ARG:HH21	25:Q:29:ARG:CZ	2.21	0.54
10:B:2092:U:OP1	10:B:2199:A:O2'	2.13	0.54
7:6:408:ILE:HA	7:6:411:TRP:CG	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1340:U:O3'	10:B:1394:U:O2'	2.22	0.54
10:B:1697:G:C6	10:B:1698:A:C5	2.95	0.54
10:B:1724:G:N1	10:B:1737:G:H1'	2.22	0.54
30:V:14:LYS:HE2	30:V:18:ARG:NH2	2.23	0.54
10:B:748:G:O5'	27:S:89:ALA:HB2	2.08	0.54
11:C:76:VAL:HB	11:C:94:LEU:HB3	1.89	0.54
10:B:2603:G:H2'	10:B:2604:U:C6	2.43	0.54
24:P:67:GLU:OE1	24:P:67:GLU:N	2.40	0.54
33:Y:53:VAL:O	33:Y:57:LEU:N	2.36	0.54
13:E:105:LEU:HA	13:E:108:ILE:HD12	1.90	0.54
13:E:23:PHE:CD1	13:E:111:GLU:HB2	2.42	0.54
20:L:109:LYS:NZ	20:L:126:ARG:HB3	2.22	0.54
2:1:24:LYS:NZ	2:1:26:LYS:HG2	2.23	0.54
10:B:2469:A:C2	10:B:2470:G:H1'	2.43	0.54
10:B:2505:G:C6	10:B:2576:G:C8	2.96	0.54
10:B:2543:G:H2'	10:B:2544:G:C8	2.42	0.54
10:B:256:A:H2'	10:B:257:C:H6	1.73	0.54
10:B:264:C:H2'	10:B:265:A:H5''	1.90	0.54
10:B:2719:G:H21	10:B:2872:A:N6	2.05	0.54
10:B:930:G:H3'	10:B:931:U:H5'	1.89	0.54
10:B:958:U:O2'	10:B:959:A:OP2	2.23	0.54
10:B:977:G:H2'	10:B:978:G:C8	2.43	0.54
10:B:449:A:C1'	25:Q:2:ARG:HH22	2.20	0.54
10:B:2232:C:H2'	10:B:2233:U:C6	2.43	0.54
17:I:60:VAL:HA	17:I:65:SER:N	2.22	0.54
14:F:129:MET:N	14:F:153:ILE:HB	2.22	0.54
10:B:1819:A:OP1	11:C:155:ARG:N	2.26	0.54
10:B:1984:G:H2'	10:B:1985:C:H6	1.72	0.54
10:B:643:A:H2'	10:B:644:A:O4'	2.08	0.54
7:6:91:ASN:HA	7:6:94:ARG:HE	1.73	0.54
10:B:2661:G:O6	15:G:176:LYS:NZ	2.25	0.54
28:T:3:ARG:CZ	28:T:42:GLU:HA	2.38	0.54
10:B:277:G:H1'	10:B:361:G:C6	2.41	0.54
10:B:483:A:C2	29:U:57:ILE:HD11	2.42	0.54
28:T:44:LYS:NZ	28:T:56:GLU:O	2.40	0.54
10:B:2886:A:C6	10:B:2887:A:C5	2.96	0.54
20:L:109:LYS:HZ2	20:L:126:ARG:HD2	1.73	0.54
32:X:26:ARG:HD3	32:X:28:PHE:CE2	2.42	0.54
15:G:100:ASN:HB2	15:G:115:GLN:HE21	1.73	0.54
23:O:76:LYS:NZ	23:O:112:GLU:HG3	2.23	0.54
15:G:97:VAL:HG13	15:G:124:CYS:SG	2.48	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:11:ASP:OD2	19:K:13:SER:HB2	2.08	0.54
22:N:8:ARG:HH11	22:N:43:GLU:HG2	1.73	0.54
10:B:513:A:H4'	10:B:1216:G:O2'	2.07	0.54
10:B:2838:G:H2'	10:B:2839:G:O4'	2.07	0.54
10:B:958:U:H3	21:M:40:ARG:CZ	2.21	0.54
10:B:2821:A:OP1	12:D:115:GLY:N	2.41	0.54
10:B:1064:C:P	17:I:88:GLY:H	2.31	0.54
10:B:1392:A:N7	10:B:1393:A:C5	2.75	0.54
10:B:1824:G:H2'	10:B:1825:U:H6	1.73	0.54
10:B:634:C:H2'	10:B:635:C:H6	1.73	0.54
10:B:320:A:O2'	13:E:163:ASN:ND2	2.41	0.54
10:B:281:C:H2'	10:B:282:A:H8	1.73	0.54
10:B:82:U:P	29:U:90:LYS:HE2	2.48	0.54
10:B:2788:C:N3	10:B:2789:C:N4	2.56	0.54
7:6:326:GLU:O	7:6:328:ARG:HG3	2.08	0.54
10:B:1045:C:H5	10:B:1111:A:C5	2.26	0.54
20:L:82:LEU:HD13	20:L:135:ILE:HD12	1.90	0.54
24:P:26:GLU:O	24:P:83:ILE:HG13	2.08	0.54
18:J:20:ALA:HB3	18:J:58:ASN:O	2.07	0.54
6:5:155:ASN:HA	6:5:158:ALA:HB3	1.89	0.54
24:P:36:LYS:NZ	24:P:38:ARG:HD3	2.23	0.54
10:B:15:G:C6	10:B:16:C:C4	2.95	0.54
10:B:1712:U:H3'	10:B:1713:A:H8	1.73	0.54
10:B:192:C:H5''	10:B:193:U:OP2	2.08	0.54
10:B:2018:G:C2	10:B:2019:A:C4	2.96	0.54
10:B:190:A:C5	10:B:207:A:C2	2.96	0.54
10:B:2474:U:H5	10:B:2475:C:C2	2.25	0.54
10:B:2691:C:O2	10:B:2718:G:N2	2.25	0.54
10:B:2718:G:C6	10:B:2719:G:C5	2.96	0.54
10:B:2844:G:H2'	10:B:2845:U:O4'	2.07	0.54
10:B:426:C:H2'	10:B:427:U:C6	2.43	0.54
10:B:860:U:C4	10:B:2268:A:C8	2.95	0.54
10:B:976:G:C4'	10:B:1156:A:H62	2.21	0.54
10:B:2250:G:N7	21:M:83:GLY:HA3	2.22	0.54
22:N:63:ARG:HD3	22:N:80:PHE:CZ	2.42	0.54
10:B:1849:G:C4	10:B:1850:G:C8	2.96	0.54
17:I:104:GLN:O	17:I:108:ILE:HG13	2.09	0.54
30:V:43:ASP:OD2	30:V:46:LYS:HB3	2.08	0.54
9:A:66:A:O5'	9:A:108:A:N6	2.36	0.54
23:O:31:THR:HB	23:O:34:HIS:C	2.28	0.54
18:J:98:GLU:O	18:J:102:GLU:HG3	2.07	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:33:ARG:HG2	12:D:93:GLY:HA3	1.89	0.54
10:B:1970:A:C5	10:B:1972:G:C5	2.96	0.54
10:B:1609:A:C5	10:B:1616:A:C2	2.96	0.54
13:E:117:ARG:HH12	20:L:2:ARG:HG2	1.72	0.54
10:B:1731:G:N2	10:B:1733:G:C4	2.76	0.54
7:6:137:VAL:O	7:6:140:TRP:NE1	2.40	0.54
2:1:5:ARG:NH1	2:1:25:ASN:HB2	2.23	0.54
10:B:484:C:H42	10:B:496:G:H1	1.55	0.54
22:N:8:ARG:NH1	22:N:43:GLU:HG2	2.23	0.54
18:J:19:ASP:C	18:J:21:THR:H	2.11	0.54
10:B:2744:G:C6	10:B:2761:A:C6	2.96	0.54
7:6:367:GLN:NE2	7:6:390:GLU:OE1	2.40	0.53
10:B:1136:G:N2	10:B:1137:G:C4	2.76	0.53
10:B:1259:G:H2'	10:B:1260:A:C8	2.43	0.53
10:B:186:G:N3	10:B:187:G:C8	2.76	0.53
10:B:2568:U:N3	10:B:2569:G:C5	2.76	0.53
25:Q:28:SER:OG	25:Q:29:ARG:NE	2.24	0.53
11:C:132:ARG:HB2	16:H:125:THR:HG21	1.89	0.53
16:H:3:VAL:CG1	16:H:30:LEU:CD1	2.77	0.53
6:5:76:ALA:HB3	6:5:114:VAL:HG22	1.89	0.53
10:B:2134:A:N1	10:B:2156:G:O2'	2.41	0.53
10:B:2312:U:H5'	14:F:69:ALA:HA	1.88	0.53
10:B:1098:A:O5'	10:B:1098:A:H8	1.91	0.53
3:2:19:ARG:HG3	10:B:125:A:H5"	1.90	0.53
10:B:1424:G:H2'	10:B:1425:G:C8	2.43	0.53
10:B:1580:A:H3'	10:B:1581:G:H8	1.72	0.53
10:B:1824:G:H1'	11:C:251:THR:HG23	1.90	0.53
10:B:324:A:C6	10:B:325:G:C4	2.96	0.53
7:6:207:ASN:H	35:6:527:GNP:HNB3	1.56	0.53
10:B:1837:C:H2'	10:B:1899:A:N6	2.22	0.53
10:B:1551:A:C6	10:B:1552:A:C5	2.96	0.53
10:B:1323:C:OP1	27:S:84:ARG:NH1	2.40	0.53
10:B:1946:U:H2'	10:B:1947:C:C6	2.43	0.53
2:1:5:ARG:NH1	2:1:25:ASN:H	2.06	0.53
7:6:295:ILE:HA	7:6:298:VAL:HG12	1.91	0.53
10:B:1034:G:C6	10:B:1122:G:C4	2.96	0.53
10:B:2018:G:N2	10:B:2019:A:H1'	2.24	0.53
10:B:2040:G:H2'	10:B:2041:U:H6	1.73	0.53
10:B:2052:A:H4'	12:D:149:ASN:H	1.73	0.53
10:B:2447:G:C5	10:B:2501:C:C4	2.97	0.53
10:B:1139:G:P	18:J:74:TYR:HH	2.31	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1060:U:H5''	17:I:74:PRO:HB3	1.90	0.53
10:B:1812:U:C2	10:B:1813:G:C8	2.97	0.53
10:B:1341:G:C4	28:T:84:TYR:CD2	2.97	0.53
10:B:1524:G:H2'	10:B:1525:A:H8	1.72	0.53
10:B:1965:C:C4	10:B:1966:A:C5	2.96	0.53
10:B:1246:A:H2'	10:B:1247:A:H8	1.72	0.53
20:L:129:LYS:O	20:L:133:ALA:N	2.40	0.53
34:Z:4:ILE:HD11	34:Z:43:ILE:HD11	1.91	0.53
10:B:179:C:N4	10:B:180:G:O6	2.41	0.53
10:B:2064:C:H2'	10:B:2065:C:H6	1.73	0.53
10:B:2678:C:H2'	10:B:2679:A:C8	2.43	0.53
10:B:451:U:P	13:E:47:LYS:HZ2	2.31	0.53
10:B:950:G:C6	10:B:951:C:C4	2.97	0.53
10:B:1007:C:O2'	18:J:110:PRO:O	2.26	0.53
10:B:1952:A:C2	19:K:21:ILE:HB	2.43	0.53
10:B:2108:A:H2'	10:B:2109:U:O4'	2.08	0.53
10:B:2115:G:HO2'	10:B:2165:C:H41	1.55	0.53
10:B:1080:A:H2'	10:B:1081:U:O4'	2.08	0.53
10:B:1083:U:H1'	10:B:1085:A:C8	2.43	0.53
17:I:25:PRO:O	17:I:29:GLN:HB2	2.08	0.53
10:B:729:G:N7	10:B:1775:U:N3	2.57	0.53
32:X:39:VAL:HG23	32:X:43:LYS:N	2.24	0.53
7:6:310:ILE:HG22	7:6:311:PRO:O	2.09	0.53
10:B:6:A:C4	10:B:7:G:C8	2.97	0.53
10:B:2708:G:H1'	22:N:71:ARG:NH1	2.22	0.53
9:A:38:C:N4	9:A:39:A:C6	2.76	0.53
14:F:91:ARG:HG2	14:F:94:ARG:HH21	1.72	0.53
7:6:212:THR:HG21	35:6:527:GNP:H8	1.89	0.53
11:C:97:ASP:OD1	11:C:98:GLY:N	2.41	0.53
10:B:417:C:H2'	10:B:418:C:H6	1.72	0.53
10:B:1630:A:H2'	10:B:1631:G:C8	2.43	0.53
2:1:18:HIS:CD2	2:1:19:PHE:N	2.76	0.53
7:6:43:GLN:NE2	7:6:69:ALA:HB1	2.22	0.53
31:W:52:CYS:H	31:W:58:LEU:HD23	1.73	0.53
16:H:80:ILE:HD11	16:H:102:ALA:H	1.73	0.53
11:C:117:SER:HB3	11:C:128:THR:OG1	2.09	0.53
13:E:181:ILE:HG21	20:L:3:LEU:HD13	1.90	0.53
7:6:256:ILE:HB	7:6:259:LEU:HD21	1.90	0.53
10:B:2244:U:O2'	10:B:2245:U:OP1	2.25	0.53
10:B:225:C:H2'	10:B:226:A:C8	2.33	0.53
10:B:2411:A:H2'	10:B:2412:A:C8	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2392:A:C5	10:B:2429:G:C5	2.96	0.53
10:B:2484:G:C2	10:B:2485:G:C8	2.96	0.53
10:B:2485:G:H2'	10:B:2486:C:H6	1.73	0.53
10:B:2507:C:N4	10:B:2583:G:O6	2.42	0.53
10:B:2513:A:N1	10:B:2574:G:C5	2.76	0.53
10:B:2648:G:C5	10:B:2673:G:C2	2.96	0.53
10:B:2674:G:C4	10:B:2675:A:C8	2.97	0.53
10:B:2840:C:H2'	10:B:2841:C:H6	1.71	0.53
10:B:471:A:H3'	10:B:472:A:H8	1.73	0.53
6:5:133:PRO:HA	10:B:2121:G:C8	2.43	0.53
10:B:1813:G:C5	10:B:1814:G:N7	2.77	0.53
10:B:1039:A:C6	10:B:1040:A:C5	2.97	0.53
25:Q:15:LYS:O	25:Q:18:LYS:N	2.41	0.53
10:B:2344:U:OP1	10:B:2373:G:H5''	2.07	0.53
10:B:1501:G:C6	10:B:1502:A:N7	2.77	0.53
10:B:2187:U:H2'	10:B:2188:U:C6	2.43	0.53
13:E:19:PHE:O	13:E:110:SER:OG	2.25	0.53
10:B:1324:G:H3'	10:B:1325:U:H4'	1.90	0.53
10:B:2453:A:N6	10:B:2500:U:H3	2.04	0.53
20:L:109:LYS:NZ	20:L:126:ARG:HD2	2.24	0.53
12:D:89:GLU:HG3	12:D:90:PHE:H	1.74	0.53
7:6:37:ALA:HB3	7:6:39:VAL:HG23	1.91	0.53
16:H:68:ARG:O	16:H:132:PHE:CE2	2.62	0.53
10:B:1130:U:C4	10:B:2025:C:H5''	2.43	0.53
10:B:2474:U:H2'	10:B:2475:C:H5'	1.90	0.53
10:B:2814:A:C6	10:B:2815:C:C4	2.95	0.53
10:B:608:A:OP2	10:B:619:G:N1	2.32	0.53
10:B:675:A:H62	10:B:803:U:H3	1.56	0.53
10:B:451:U:P	13:E:47:LYS:NZ	2.81	0.53
10:B:2086:U:N3	10:B:2234:G:C6	2.77	0.53
11:C:132:ARG:HD3	16:H:125:THR:HB	1.91	0.53
10:B:1062:G:H21	17:I:92:PRO:HG2	1.73	0.53
10:B:1340:U:OP1	28:T:84:TYR:OH	2.24	0.53
10:B:149:A:H2'	10:B:150:U:O4'	2.08	0.53
11:C:209:ALA:HA	11:C:212:TRP:CD1	2.37	0.53
10:B:4:U:O4	10:B:5:A:N6	2.42	0.53
10:B:372:G:C5	32:X:56:ARG:NH2	2.76	0.53
10:B:2787:C:H2'	10:B:2788:C:C6	2.42	0.53
10:B:1988:G:N2	10:B:1989:G:H1'	2.23	0.53
7:6:344:ALA:N	35:6:527:GNP:O6	2.41	0.53
10:B:195:A:N6	10:B:198:C:O5'	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1627:G:C4	10:B:1628:G:C8	2.97	0.53
10:B:2056:G:C6	10:B:2577:A:C4	2.96	0.53
14:F:117:SER:N	14:F:173:ASP:OD1	2.41	0.53
10:B:1936:A:H2	10:B:1943:U:C5	2.27	0.53
8:7:86:MET:O	8:7:88:HIS:NE2	2.42	0.53
7:6:181:VAL:O	7:6:184:GLN:HB3	2.09	0.53
10:B:1022:G:O2'	10:B:1024:G:O6	2.12	0.53
10:B:225:C:C2	10:B:226:A:C8	2.96	0.53
10:B:2464:G:C6	10:B:2487:G:C6	2.96	0.53
10:B:2545:G:C2	10:B:2546:U:O2	2.62	0.53
10:B:2838:G:C5	10:B:2839:G:C8	2.97	0.53
10:B:559:G:H2'	10:B:560:C:C6	2.44	0.53
10:B:833:A:H2'	10:B:834:G:H8	1.72	0.53
27:S:74:ILE:HG13	27:S:105:VAL:HG22	1.91	0.53
9:A:52:A:O5'	23:O:33:ARG:NH1	2.42	0.53
10:B:1912:A:H1'	10:B:1913:A:O4'	2.08	0.53
10:B:319:G:OP1	13:E:132:LYS:NZ	2.39	0.53
10:B:357:C:H2'	10:B:358:U:C6	2.44	0.53
10:B:171:U:H2'	10:B:172:A:H8	1.74	0.53
7:6:315:VAL:HG11	7:6:342:LEU:HD22	1.91	0.53
10:B:2740:A:C5	10:B:2741:A:C6	2.97	0.53
10:B:1869:G:O2'	10:B:1872:A:N6	2.42	0.53
10:B:1684:G:H2'	10:B:1685:C:H6	1.72	0.53
15:G:99:GLY:O	15:G:100:ASN:ND2	2.41	0.53
12:D:90:PHE:HB3	12:D:92:VAL:HG22	1.91	0.53
33:Y:17:GLU:OE2	33:Y:21:LEU:HD11	2.08	0.53
28:T:1:MET:HG3	28:T:2:ILE:O	2.09	0.53
10:B:1654:A:C2	10:B:1655:A:C8	2.97	0.53
4:3:34:LYS:HZ3	10:B:2390:U:P	2.29	0.53
5:4:25:VAL:CG1	5:4:35:GLN:HB2	2.38	0.53
10:B:1130:U:H3	12:D:152:PRO:HB2	1.70	0.53
10:B:191:A:O2'	10:B:192:C:O4'	2.12	0.53
10:B:2060:A:C6	10:B:2502:G:C2	2.97	0.53
10:B:2455:G:C6	10:B:2456:C:C4	2.97	0.53
10:B:2722:G:C6	10:B:2723:C:C4	2.96	0.53
10:B:2679:A:C6	10:B:2729:G:C6	2.96	0.53
4:3:3:ILE:HG13	10:B:592:A:H1'	1.90	0.53
10:B:910:A:C6	10:B:911:A:C6	2.95	0.53
18:J:30:THR:OG1	18:J:31:GLU:N	2.41	0.53
10:B:1252:G:H21	25:Q:32:ARG:CZ	2.22	0.53
6:5:133:PRO:CB	10:B:2121:G:C5	2.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2167:U:H2'	10:B:2168:G:C8	2.44	0.53
6:5:53:ARG:HD2	10:B:1860:G:OP1	2.09	0.53
10:B:1763:G:N2	10:B:1765:U:H5''	2.24	0.53
9:A:76:G:C5'	30:V:9:ARG:HH12	2.22	0.53
9:A:93:C:H2'	9:A:94:A:C8	2.44	0.53
7:6:189:ARG:HA	7:6:192:ARG:HG2	1.90	0.53
10:B:1287:A:C6	10:B:1288:G:C5	2.97	0.53
10:B:335:C:N3	10:B:336:C:N4	2.56	0.53
10:B:494:G:O3'	27:S:5:ALA:HA	2.09	0.53
25:Q:101:ASP:O	25:Q:103:VAL:N	2.42	0.53
11:C:140:VAL:HG22	11:C:191:LEU:HD23	1.90	0.53
24:P:30:TRP:HB2	24:P:79:VAL:HA	1.91	0.53
30:V:56:PHE:CZ	30:V:61:LEU:HD11	2.44	0.53
10:B:1693:U:O2	11:C:13:ARG:HD3	2.09	0.53
6:5:165:ASN:HD22	6:5:169:GLY:HA2	1.74	0.53
6:5:72:SER:HB2	6:5:74:ARG:HE	1.74	0.53
34:Z:3:THR:OG1	34:Z:37:ARG:N	2.41	0.53
13:E:150:THR:HB	13:E:153:LEU:H	1.73	0.53
3:2:22:MET:SD	3:2:28:ARG:HG2	2.49	0.53
10:B:1023:U:C4	10:B:1024:G:C4	2.97	0.53
10:B:1031:G:H1	10:B:1123:C:H42	1.57	0.53
10:B:1218:G:C4	10:B:1232:G:C6	2.96	0.53
10:B:220:G:H22	10:B:265:A:H62	1.57	0.53
10:B:2692:G:OP1	10:B:2870:C:O2'	2.26	0.53
10:B:270:A:H1'	10:B:370:G:N2	2.24	0.53
10:B:384:A:O2'	10:B:385:C:OP1	2.25	0.53
10:B:535:G:C2	10:B:559:G:C4	2.97	0.53
10:B:992:C:OP1	26:R:76:LYS:NZ	2.41	0.53
12:D:149:ASN:O	12:D:150:GLN:O	2.27	0.53
10:B:676:A:OP1	13:E:58:LYS:NZ	2.37	0.53
18:J:36:LEU:O	18:J:51:GLY:HA3	2.08	0.53
10:B:2428:G:N3	20:L:60:ARG:NH2	2.56	0.53
10:B:2087:G:N3	10:B:2088:A:C8	2.77	0.53
10:B:2332:C:O5'	31:W:40:ARG:NE	2.42	0.53
10:B:2385:C:H2'	10:B:2386:A:H8	1.74	0.53
10:B:1084:A:C8	10:B:1105:U:O2'	2.62	0.53
10:B:1785:A:N7	10:B:1787:A:C4	2.76	0.53
10:B:715:A:C6	10:B:716:A:C6	2.97	0.53
10:B:880:G:H1	10:B:897:C:N4	2.05	0.53
9:A:60:C:C2	9:A:61:G:C8	2.97	0.53
23:O:31:THR:HB	23:O:34:HIS:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:41:LYS:HD3	18:J:50:THR:O	2.09	0.53
10:B:2643:G:C6	10:B:2644:G:C6	2.97	0.53
10:B:2637:U:H5''	12:D:83:ARG:NH1	2.24	0.53
10:B:1529:G:H2'	10:B:1530:G:C8	2.44	0.53
10:B:417:C:H2'	10:B:418:C:C6	2.43	0.53
10:B:1930:G:N1	10:B:1968:G:N7	2.57	0.53
7:6:138:ARG:HH11	10:B:1941:C:H1'	1.73	0.53
24:P:30:TRP:CD1	24:P:79:VAL:HA	2.44	0.53
23:O:76:LYS:HZ2	23:O:112:GLU:HG3	1.72	0.53
9:A:88:C:C4	9:A:89:U:C2	2.97	0.53
10:B:184:C:H42	10:B:212:G:H1	1.55	0.53
10:B:2078:C:N3	10:B:2079:U:N3	2.57	0.53
10:B:2250:G:C6	21:M:82:MET:HB3	2.43	0.53
10:B:2276:G:OP2	21:M:85:GLY:N	2.21	0.53
10:B:2851:A:C5	10:B:2852:G:C5	2.96	0.53
10:B:467:G:C2	10:B:468:G:C4	2.97	0.53
10:B:677:A:N1	10:B:802:A:C6	2.77	0.53
10:B:980:A:H62	10:B:981:A:H62	1.56	0.53
6:5:18:THR:HA	6:5:222:VAL:HA	1.91	0.53
10:B:2163:A:H3'	10:B:2164:C:H4'	1.88	0.53
10:B:2173:A:N6	10:B:2174:C:O2	2.40	0.53
10:B:2327:A:H2'	10:B:2328:A:O4'	2.09	0.53
8:7:33:VAL:HG23	8:7:36:ASP:H	1.73	0.53
10:B:1058:U:H2'	10:B:1059:G:H8	1.72	0.53
17:I:99:LYS:NZ	17:I:140:GLU:HG3	2.23	0.53
10:B:1354:A:C8	10:B:1355:G:C8	2.97	0.53
10:B:1801:A:H62	11:C:261:ARG:NH1	1.97	0.53
10:B:1805:A:O3'	11:C:247:TRP:NE1	2.41	0.53
11:C:181:ARG:HG2	11:C:182:LYS:O	2.09	0.53
10:B:2379:G:H2'	10:B:2380:C:H6	1.74	0.53
10:B:1921:G:H2'	10:B:1922:G:H8	1.74	0.53
10:B:1923:U:H2'	10:B:1924:C:C6	2.44	0.53
9:A:100:G:H3'	9:A:101:A:H8	1.73	0.53
10:B:97:C:H2'	10:B:98:G:C8	2.44	0.53
10:B:2708:G:C2	10:B:2709:G:C8	2.96	0.53
13:E:90:GLN:HB3	13:E:92:HIS:CE1	2.43	0.53
21:M:113:ALA:O	21:M:116:ALA:HB3	2.09	0.53
10:B:1660:G:H1	10:B:2000:C:H42	1.57	0.53
10:B:2465:C:O2	10:B:2485:G:N1	2.40	0.53
10:B:2535:G:C6	10:B:2536:G:C5	2.97	0.53
10:B:2876:G:C4	10:B:2877:G:C8	2.97	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:668:A:C5	10:B:670:A:C5	2.97	0.53
10:B:777:G:C5	10:B:778:G:N7	2.77	0.53
10:B:995:C:C2	25:Q:56:PHE:CD2	2.97	0.53
18:J:33:ALA:O	18:J:36:LEU:N	2.41	0.53
10:B:2159:G:H8	10:B:2161:C:N4	2.07	0.53
10:B:1077:A:H2	10:B:1088:A:C6	2.27	0.53
10:B:1083:U:H2'	10:B:1085:A:OP2	2.09	0.53
10:B:1105:U:H2'	10:B:1106:G:C8	2.44	0.53
17:I:125:THR:O	17:I:129:GLU:HG3	2.08	0.53
10:B:1600:C:H2'	10:B:1601:G:H8	1.72	0.53
10:B:2222:C:P	16:H:136:SER:HB2	2.48	0.53
10:B:903:C:H2'	10:B:904:G:C8	2.44	0.53
9:A:64:G:C6	9:A:65:U:C2	2.97	0.53
7:6:412:ARG:HH22	10:B:2661:G:H1'	1.74	0.53
10:B:486:C:H2'	10:B:487:C:C6	2.43	0.53
28:T:44:LYS:NZ	28:T:55:VAL:HG12	2.23	0.53
9:A:40:U:O2	9:A:43:C:H3'	2.09	0.53
10:B:1836:C:C2	10:B:1904:G:N2	2.77	0.53
26:R:21:ARG:HD3	26:R:93:PHE:CE2	2.44	0.53
24:P:56:SER:H	24:P:74:GLN:HE22	1.57	0.53
13:E:150:THR:HG21	13:E:153:LEU:HD23	1.91	0.53
6:5:224:VAL:HG21	6:5:233:VAL:HG23	1.90	0.53
29:U:48:VAL:O	29:U:53:GLN:HA	2.09	0.53
10:B:819:A:C4	10:B:1189:A:C2	2.96	0.52
10:B:197:A:C5	10:B:2430:A:N7	2.77	0.52
10:B:1996:C:OP2	19:K:30:ARG:NH2	2.42	0.52
10:B:2282:G:H1'	10:B:2390:U:O4	2.09	0.52
10:B:2543:G:C2	10:B:2544:G:C5	2.97	0.52
10:B:2547:A:C6	10:B:2562:U:C4	2.97	0.52
10:B:2674:G:H2'	10:B:2675:A:C8	2.44	0.52
10:B:271:G:O2'	10:B:272:A:H8	1.91	0.52
10:B:426:C:H2'	10:B:427:U:H6	1.73	0.52
10:B:465:G:N7	10:B:466:A:C6	2.78	0.52
10:B:841:G:H2'	10:B:842:U:C6	2.45	0.52
18:J:140:LEU:CD2	18:J:142:ILE:H	2.16	0.52
32:X:15:ASN:ND2	32:X:25:LYS:HD3	2.25	0.52
6:5:172:HIS:HB2	10:B:2122:U:O2'	2.09	0.52
10:B:1098:A:C5	17:I:4:VAL:HA	2.44	0.52
10:B:165:A:C5	10:B:166:U:C4	2.96	0.52
10:B:1977:A:H3'	10:B:1978:A:H8	1.74	0.52
10:B:376:G:H1	10:B:398:C:H42	1.57	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1759:A:OP2	10:B:1760:C:N4	2.37	0.52
14:F:2:LYS:HB2	14:F:100:GLU:OE1	2.08	0.52
10:B:2001:C:C2	10:B:2002:G:C8	2.98	0.52
12:D:29:VAL:O	12:D:185:ASN:HB3	2.09	0.52
10:B:387:U:N3	10:B:388:G:O6	2.42	0.52
10:B:1867:G:H22	10:B:1875:G:H1'	1.74	0.52
10:B:1332:G:C6	10:B:1609:A:C5	2.97	0.52
10:B:42:A:C4	10:B:43:G:C8	2.97	0.52
10:B:446:G:H4'	10:B:447:A:H5'	1.91	0.52
10:B:912:C:OP1	21:M:8:LYS:NZ	2.35	0.52
10:B:2211:A:O2'	10:B:2212:A:OP2	2.25	0.52
10:B:712:G:H3'	10:B:713:G:H8	1.72	0.52
14:F:21:TYR:HB3	14:F:26:GLN:HB3	1.90	0.52
10:B:1738:G:OP1	10:B:1738:G:H4'	2.09	0.52
10:B:311:A:H8	10:B:332:A:C5	2.27	0.52
10:B:488:G:H4'	27:S:49:LYS:NZ	2.24	0.52
10:B:504:A:O2'	27:S:1:MET:N	2.42	0.52
10:B:2639:A:C6	10:B:2640:G:C4	2.97	0.52
7:6:210:LYS:HG2	35:6:527:GNP:O1B	2.09	0.52
10:B:1435:G:H2'	10:B:1436:G:C8	2.44	0.52
10:B:1200:C:H42	10:B:1245:G:H1	1.57	0.52
26:R:15:SER:O	26:R:18:GLN:HB3	2.09	0.52
20:L:23:ILE:HG22	26:R:82:HIS:NE2	2.25	0.52
4:3:13:PHE:HE2	4:3:57:VAL:HG22	1.74	0.52
6:5:182:ALA:HA	6:5:185:LEU:HD12	1.92	0.52
21:M:50:ARG:HE	21:M:63:ILE:HD13	1.74	0.52
9:A:2:G:C5	9:A:3:C:C4	2.97	0.52
7:6:178:LEU:O	7:6:181:VAL:HB	2.08	0.52
10:B:529:A:C5	10:B:2023:C:C4	2.97	0.52
10:B:2392:A:C6	10:B:2393:U:C4	2.97	0.52
10:B:2461:A:H1'	10:B:2492:U:N3	2.24	0.52
10:B:559:G:C5	10:B:560:C:C4	2.97	0.52
10:B:592:A:C2	10:B:666:A:C5	2.98	0.52
10:B:676:A:N3	10:B:2443:C:O2'	2.30	0.52
10:B:775:G:C8	10:B:794:A:N7	2.77	0.52
10:B:976:G:H2'	10:B:977:G:H8	1.73	0.52
10:B:190:A:P	32:X:25:LYS:HZ1	2.28	0.52
10:B:1889:A:N1	10:B:2234:G:H1'	2.25	0.52
10:B:1063:G:N2	10:B:1076:C:O2	2.42	0.52
17:I:123:ALA:N	17:I:126:ARG:HH21	2.07	0.52
10:B:1588:G:H2'	10:B:1589:U:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2205:A:H2'	10:B:2206:C:H6	1.73	0.52
10:B:883:G:H2'	10:B:884:U:O4'	2.09	0.52
10:B:631:A:N6	10:B:2416:C:O2'	2.42	0.52
10:B:1722:A:N6	10:B:1738:G:H1'	2.24	0.52
7:6:10:GLN:OE1	7:6:76:SER:OG	2.15	0.52
11:C:174:ARG:NE	11:C:180:MET:HG2	2.24	0.52
2:1:9:LYS:HD2	2:1:19:PHE:CG	2.44	0.52
10:B:927:A:C2	10:B:928:A:C4	2.98	0.52
15:G:93:TYR:OH	15:G:159:LYS:HD3	2.09	0.52
10:B:1168:G:H2'	10:B:1169:A:O4'	2.09	0.52
10:B:1186:G:C6	10:B:1187:G:C2	2.98	0.52
10:B:1222:U:H5''	10:B:1223:G:OP2	2.09	0.52
10:B:1266:G:O2'	10:B:1267:U:OP2	2.25	0.52
10:B:858:G:C2	10:B:2268:A:C4	2.98	0.52
10:B:975:A:C8	10:B:990:A:N6	2.77	0.52
25:Q:90:ASP:O	25:Q:91:ARG:HG2	2.09	0.52
10:B:2168:G:H1	10:B:2171:A:H2'	1.75	0.52
7:6:414:LEU:HD22	7:6:425:LEU:HD23	1.92	0.52
10:B:1066:U:O2'	10:B:1068:G:N7	2.38	0.52
10:B:55:G:O2'	10:B:126:A:N6	2.42	0.52
4:3:22:LYS:HZ3	10:B:650:C:C4'	2.22	0.52
9:A:66:A:H61	9:A:107:G:H3'	1.74	0.52
10:B:2641:G:C2	10:B:2642:G:C5	2.97	0.52
10:B:2641:G:P	18:J:85:LYS:NZ	2.82	0.52
10:B:2104:C:H2'	10:B:2105:U:C6	2.45	0.52
1:0:4:GLN:O	1:0:5:ASN:ND2	2.43	0.52
15:G:143:VAL:HA	15:G:146:ASP:HB2	1.91	0.52
6:5:193:LEU:O	6:5:197:LYS:HG3	2.08	0.52
6:5:117:SER:O	6:5:121:MET:N	2.35	0.52
10:B:1563:U:H2'	10:B:1564:C:C6	2.45	0.52
10:B:945:A:N6	10:B:2448:A:C6	2.78	0.52
7:6:153:ARG:O	7:6:155:PRO:HD2	2.09	0.52
10:B:1036:G:C5	10:B:1120:G:C6	2.98	0.52
10:B:1173:U:H1'	10:B:1177:G:C2	2.44	0.52
10:B:202:U:C5	10:B:203:A:C5	2.97	0.52
10:B:2047:C:H42	10:B:2621:G:H1	1.56	0.52
10:B:941:A:C2	10:B:942:G:C4	2.98	0.52
10:B:949:G:N1	10:B:968:C:O2	2.34	0.52
10:B:998:C:N3	10:B:999:U:N3	2.57	0.52
10:B:2579:C:O2'	12:D:136:ASN:HA	2.09	0.52
10:B:2620:C:O3'	12:D:160:LYS:HD2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2224:G:P	11:C:264:LYS:NZ	2.83	0.52
6:5:164:ARG:HH11	10:B:2122:U:C5'	2.22	0.52
10:B:2177:C:C4	10:B:2178:C:H5	2.28	0.52
10:B:1062:G:C6	10:B:1063:G:C6	2.96	0.52
10:B:1101:U:H2'	10:B:1102:C:C6	2.45	0.52
10:B:1779:U:C2	10:B:1783:A:N7	2.77	0.52
10:B:1796:U:H3	10:B:1823:G:H1	1.57	0.52
10:B:2209:G:H2'	10:B:2210:U:C5	2.45	0.52
10:B:61:C:P	33:Y:44:LYS:HZ3	2.33	0.52
10:B:1037:G:C2	10:B:1038:G:C8	2.98	0.52
10:B:2341:G:H2'	10:B:2342:C:C6	2.45	0.52
10:B:2414:G:H2'	10:B:2415:G:H8	1.74	0.52
9:A:4:C:H2'	9:A:5:U:H6	1.74	0.52
9:A:66:A:H4'	9:A:67:G:H8	1.75	0.52
10:B:1910:G:H2'	10:B:1911:U:O4'	2.10	0.52
10:B:480:A:P	29:U:43:LYS:HZ2	2.33	0.52
10:B:2635:A:O2'	12:D:49:GLN:NE2	2.42	0.52
10:B:2102:G:O6	10:B:2187:U:N3	2.31	0.52
10:B:65:U:O2'	28:T:73:ARG:HD2	2.10	0.52
10:B:2737:G:C2	10:B:2738:A:C4	2.97	0.52
21:M:47:GLU:O	21:M:51:ARG:HG2	2.10	0.52
13:E:106:LYS:HG3	13:E:200:LEU:HD13	1.91	0.52
28:T:29:THR:OG1	28:T:30:ILE:O	2.28	0.52
10:B:1028:A:H2'	10:B:1029:A:C8	2.45	0.52
10:B:2051:A:OP2	10:B:2051:A:H8	1.92	0.52
10:B:2436:G:C2	10:B:2437:G:C8	2.98	0.52
10:B:2829:A:C6	10:B:2830:C:C4	2.98	0.52
10:B:545:U:H6	10:B:549:G:C5'	2.23	0.52
10:B:947:A:C4	10:B:971:G:N2	2.78	0.52
22:N:2:ARG:HH11	22:N:2:ARG:HG2	1.74	0.52
10:B:1156:A:C2	25:Q:50:ARG:HG3	2.44	0.52
10:B:1853:A:C2	10:B:1854:A:C4	2.98	0.52
6:5:45:ALA:HB3	6:5:213:SER:HB2	1.91	0.52
6:5:54:LYS:HZ3	10:B:1860:G:H5''	1.69	0.52
10:B:2306:C:H5'	14:F:132:ARG:NH2	2.24	0.52
18:J:118:MET:HA	18:J:121:LYS:NZ	2.19	0.52
7:6:381:SER:HB2	10:B:1095:A:C4	2.44	0.52
10:B:1315:C:H2'	10:B:1316:U:C6	2.45	0.52
10:B:1368:G:C2	10:B:1369:G:C8	2.98	0.52
10:B:1795:C:H2'	10:B:1796:U:H6	1.75	0.52
10:B:1831:G:C2	10:B:1975:G:C2	2.97	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2606:C:H2'	10:B:2607:G:H8	1.67	0.52
10:B:653:U:H5''	10:B:654:A:OP2	2.09	0.52
9:A:58:A:H3'	9:A:59:A:H8	1.75	0.52
10:B:862:G:C5	10:B:863:A:C8	2.97	0.52
7:6:331:ARG:HB3	7:6:333:GLU:O	2.09	0.52
7:6:194:LYS:HE2	7:6:196:ASP:O	2.10	0.52
10:B:332:A:C6	10:B:335:C:C2	2.98	0.52
12:D:4:LEU:O	12:D:203:VAL:HG12	2.09	0.52
9:A:44:G:N2	9:A:47:C:N3	2.46	0.52
10:B:2800:A:H2'	10:B:2801:G:O4'	2.10	0.52
10:B:1837:C:C2	10:B:1899:A:N6	2.78	0.52
10:B:1205:A:C4	13:E:165:HIS:CE1	2.98	0.52
10:B:1299:G:N2	10:B:1642:G:C6	2.77	0.52
10:B:1973:G:H2'	10:B:1974:C:C6	2.44	0.52
14:F:109:ARG:HA	14:F:177:ARG:HH11	1.75	0.52
10:B:1218:G:C5	10:B:1219:U:C4	2.97	0.52
10:B:1662:U:H2'	10:B:1663:G:H5''	1.90	0.52
10:B:2807:U:H3'	10:B:2808:G:H8	1.74	0.52
10:B:27:G:H2'	10:B:512:G:N2	2.24	0.52
10:B:941:A:C6	10:B:942:G:C6	2.98	0.52
10:B:1022:G:O6	18:J:68:LYS:HE2	2.10	0.52
19:K:17:ARG:HB3	19:K:44:GLU:OE1	2.09	0.52
10:B:2392:A:O2'	20:L:60:ARG:O	2.28	0.52
10:B:2331:G:O2'	31:W:40:ARG:HG2	2.10	0.52
10:B:1077:A:H2	10:B:1088:A:N6	2.08	0.52
10:B:1100:C:H5	17:I:2:LYS:HG3	1.74	0.52
10:B:1315:C:N3	10:B:1337:G:N1	2.47	0.52
10:B:1410:G:N1	10:B:1592:C:O2	2.37	0.52
10:B:1796:U:C2	10:B:1797:G:C8	2.98	0.52
10:B:1797:G:C2	10:B:1823:G:C5	2.98	0.52
10:B:767:U:H2'	10:B:768:G:H8	1.74	0.52
10:B:1912:A:H2'	10:B:1919:A:N6	2.24	0.52
10:B:475:C:N3	10:B:476:G:C5	2.77	0.52
10:B:1538:G:H8	10:B:1538:G:O5'	1.93	0.52
7:6:324:ASP:OD2	7:6:325:PHE:HD2	1.92	0.52
10:B:1870:C:H3'	10:B:1871:A:C8	2.45	0.52
10:B:1207:C:H2'	10:B:1208:C:C6	2.38	0.52
10:B:1683:U:H2'	10:B:1684:G:H8	1.75	0.52
10:B:1151:A:C5	10:B:1152:C:C4	2.98	0.52
10:B:1749:A:H2'	10:B:1750:G:H8	1.73	0.52
10:B:522:A:H2'	10:B:523:C:H6	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:612:G:C2	10:B:614:A:H1'	2.45	0.52
10:B:612:G:H21	10:B:616:A:H62	1.57	0.52
10:B:663:G:C2	10:B:664:G:C8	2.97	0.52
10:B:981:A:H8	10:B:2027:G:N2	2.07	0.52
10:B:2134:A:H1'	10:B:2159:G:O2'	2.10	0.52
10:B:1091:G:H2'	10:B:1092:C:C6	2.44	0.52
17:I:71:LYS:NZ	17:I:115:ASP:OD2	2.31	0.52
10:B:51:G:O2'	10:B:119:A:N1	2.29	0.52
10:B:1372:U:H1'	10:B:2214:C:C2	2.45	0.52
10:B:1426:G:H3'	10:B:1427:A:H8	1.75	0.52
10:B:1429:G:H2'	10:B:1430:G:C8	2.44	0.52
9:A:57:A:H5''	14:F:22:ASN:ND2	2.24	0.52
10:B:480:A:H61	10:B:505:A:H2	1.58	0.52
10:B:1524:G:H2'	10:B:1525:A:C8	2.45	0.52
10:B:387:U:C2	10:B:388:G:C5	2.98	0.52
10:B:1331:G:C6	10:B:1333:G:C4	2.97	0.52
13:E:31:VAL:HG11	13:E:104:ALA:HB2	1.92	0.52
10:B:2769:U:H2'	10:B:2770:G:O4'	2.10	0.52
10:B:1949:G:O6	10:B:1958:C:N4	2.42	0.52
22:N:87:PHE:CD2	22:N:90:ARG:HG3	2.45	0.52
10:B:887:U:H1'	10:B:888:C:H5	1.75	0.52
13:E:90:GLN:HB3	13:E:92:HIS:HE1	1.73	0.52
24:P:30:TRP:CD2	24:P:39:LEU:HD21	2.45	0.52
30:V:73:LYS:O	30:V:92:VAL:HG12	2.10	0.52
1:O:15:ARG:NH1	10:B:1266:G:OP1	2.43	0.52
10:B:1267:U:HO2'	10:B:1268:A:P	2.33	0.52
10:B:1663:G:O2'	10:B:1664:A:H8	1.92	0.52
10:B:1744:A:H3'	10:B:1745:A:C8	2.32	0.52
3:2:28:ARG:NH2	10:B:179:C:H5'	2.24	0.52
10:B:200:U:C5	10:B:201:C:C2	2.98	0.52
10:B:2516:A:C5	10:B:2517:C:C4	2.98	0.52
10:B:2626:C:H2'	10:B:2627:G:C8	2.45	0.52
10:B:2674:G:C2	10:B:2675:A:C4	2.98	0.52
10:B:452:G:C6	10:B:453:A:C6	2.98	0.52
10:B:1131:G:C5	18:J:77:HIS:NE2	2.78	0.52
10:B:807:U:P	20:L:36:LYS:HZ1	2.32	0.52
31:W:51:GLY:HA2	31:W:59:PHE:CE1	2.45	0.52
10:B:1889:A:H2'	10:B:1890:A:H8	1.73	0.52
10:B:2093:G:H1	10:B:2196:C:N4	2.02	0.52
10:B:2116:G:N2	10:B:2147:A:OP1	2.43	0.52
17:I:93:ASN:H	17:I:136:GLY:CA	2.18	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1409:U:H2'	10:B:1410:G:C8	2.44	0.52
10:B:67:U:H1'	10:B:88:G:N2	2.25	0.52
10:B:66:C:C2	10:B:89:A:N1	2.78	0.52
10:B:2366:A:C6	10:B:2367:G:C4	2.98	0.52
9:A:28:C:H2'	9:A:29:A:H8	1.74	0.52
9:A:86:G:N1	9:A:91:C:O2	2.43	0.52
10:B:2532:G:H2'	10:B:2533:U:H5'	1.92	0.52
7:6:164:ARG:CB	7:6:168:ARG:HH12	2.22	0.52
10:B:315:G:C6	10:B:316:C:C4	2.98	0.52
10:B:1048:A:P	10:B:1110:G:H22	2.32	0.52
10:B:1331:G:C6	10:B:1333:G:C5	2.97	0.52
10:B:1742:U:C4	10:B:1743:G:C5	2.98	0.52
7:6:69:ALA:O	7:6:73:THR:HG22	2.09	0.52
12:D:178:VAL:N	12:D:188:LEU:O	2.43	0.52
15:G:95:ALA:H	15:G:127:GLN:HB3	1.74	0.52
20:L:119:PRO:HA	20:L:139:GLY:O	2.09	0.52
10:B:2078:C:C4	10:B:2079:U:C4	2.97	0.52
10:B:216:A:H2'	10:B:217:A:H8	1.74	0.52
10:B:2460:U:C2	10:B:2461:A:C8	2.98	0.52
10:B:2472:G:N2	10:B:2529:G:H1	2.08	0.52
10:B:370:G:C6	10:B:424:G:C5	2.98	0.52
10:B:27:G:C6	10:B:512:G:C6	2.97	0.52
10:B:543:G:C6	10:B:551:G:C5	2.98	0.52
10:B:971:G:H2'	10:B:972:A:O4'	2.10	0.52
24:P:95:LYS:O	24:P:97:TYR:N	2.43	0.52
6:5:162:ARG:NE	10:B:2123:G:OP1	2.40	0.52
10:B:128:C:C2	10:B:129:C:H5	2.28	0.52
10:B:1116:G:C6	10:B:1117:C:C4	2.98	0.52
7:6:86:PRO:HG3	7:6:135:ARG:NH1	2.17	0.52
10:B:2351:G:H1'	10:B:2366:A:N6	2.24	0.52
14:F:111:ARG:HG3	14:F:112:ASP:OD1	2.10	0.52
9:A:41:G:H21	14:F:65:LEU:HD21	1.75	0.52
10:B:1443:U:H2'	10:B:1444:G:H8	1.75	0.52
10:B:1551:A:H2'	10:B:1552:A:O4'	2.11	0.52
10:B:1560:G:C6	10:B:1561:C:C4	2.98	0.52
33:Y:31:GLN:HB3	33:Y:36:GLN:OE1	2.10	0.52
19:K:64:THR:HG22	19:K:67:GLY:H	1.74	0.52
28:T:21:SER:O	28:T:25:GLU:N	2.41	0.52
30:V:35:GLU:N	30:V:35:GLU:OE1	2.42	0.52
13:E:156:ASN:HA	13:E:159:LEU:HD12	1.92	0.52
21:M:42:THR:OG1	21:M:45:GLN:HG2	2.09	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:7:52:MET:HA	8:7:87:GLU:HA	1.92	0.52
17:I:14:ALA:HA	17:I:41:PHE:CZ	2.45	0.52
6:5:206:GLY:N	10:B:1876:A:H5''	2.25	0.52
10:B:567:U:C4	10:B:568:U:N3	2.78	0.52
10:B:1224:U:O3'	26:R:88:GLY:HA3	2.09	0.52
31:W:70:VAL:HG12	31:W:77:LYS:HG2	1.92	0.52
5:4:29:ALA:HB3	5:4:33:HIS:CE1	2.45	0.51
10:B:1025:G:C2	10:B:1135:C:C6	2.97	0.51
10:B:1153:C:H3'	10:B:1154:G:C8	2.45	0.51
10:B:1259:G:H2'	10:B:1260:A:H8	1.75	0.51
10:B:1659:G:C6	10:B:1660:G:C5	2.98	0.51
10:B:2030:A:C2	10:B:2499:C:H5''	2.44	0.51
10:B:2052:A:O4'	12:D:147:GLY:HA3	2.09	0.51
10:B:2541:A:H5''	10:B:2542:A:OP2	2.10	0.51
10:B:2569:G:N3	10:B:2570:G:C8	2.77	0.51
10:B:2865:U:H2'	10:B:2866:U:H5	1.75	0.51
10:B:570:G:C6	10:B:2030:A:C6	2.98	0.51
10:B:659:G:C5	10:B:660:C:C4	2.98	0.51
10:B:661:A:C6	10:B:662:G:C5	2.98	0.51
10:B:932:U:H4'	10:B:933:A:C4	2.45	0.51
10:B:981:A:N6	10:B:2028:U:H4'	2.25	0.51
16:H:31:VAL:CB	16:H:32:PRO:CD	2.85	0.51
10:B:1060:U:P	17:I:112:LYS:HZ1	2.30	0.51
10:B:706:A:C8	10:B:707:G:C8	2.97	0.51
10:B:899:A:N3	10:B:899:A:H2'	2.23	0.51
10:B:1038:G:C2	10:B:1039:A:C5	2.98	0.51
10:B:648:G:C2	10:B:649:G:N7	2.78	0.51
9:A:6:G:H2'	9:A:7:G:H8	1.74	0.51
21:M:62:LYS:HD3	21:M:64:TRP:CZ2	2.45	0.51
10:B:1482:G:H2'	10:B:1483:G:C8	2.45	0.51
10:B:1050:A:C4	10:B:1051:G:C8	2.98	0.51
16:H:57:LYS:HZ1	16:H:61:VAL:HG11	1.75	0.51
9:A:2:G:H2'	9:A:3:C:C6	2.45	0.51
28:T:15:HIS:NE2	28:T:17:SER:OG	2.17	0.51
7:6:235:THR:O	7:6:250:ALA:HA	2.09	0.51
10:B:1176:U:H3'	10:B:1177:G:H8	1.75	0.51
10:B:226:A:C6	10:B:227:A:C6	2.98	0.51
10:B:2278:A:P	21:M:10:ARG:HH21	2.33	0.51
10:B:2494:G:H2'	10:B:2495:G:H8	1.74	0.51
10:B:265:A:C2'	10:B:266:G:H4'	2.40	0.51
10:B:2862:G:H2'	10:B:2863:C:C6	2.45	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2830:C:O2'	10:B:2883:A:N1	2.42	0.51
10:B:448:U:O4'	13:E:79:ARG:NH2	2.44	0.51
10:B:921:C:H2'	10:B:922:C:H6	1.74	0.51
10:B:2092:U:H4'	16:H:24:GLY:HA3	1.90	0.51
10:B:2140:G:H3'	10:B:2141:G:H8	1.74	0.51
8:7:80:THR:HA	10:B:1107:G:O2'	2.11	0.51
10:B:1083:U:O2	10:B:1085:A:H8	1.93	0.51
10:B:1779:U:HO2'	10:B:1780:A:P	2.33	0.51
10:B:1799:G:C5	10:B:1819:A:C5	2.98	0.51
10:B:711:G:N2	10:B:720:U:O2'	2.43	0.51
10:B:70:G:H4'	10:B:75:G:H22	1.74	0.51
10:B:2373:G:H2'	10:B:2374:C:C6	2.45	0.51
9:A:60:C:H2'	9:A:61:G:C8	2.46	0.51
10:B:1721:G:O2'	10:B:1738:G:N1	2.36	0.51
9:A:96:G:C6	9:A:97:C:C4	2.98	0.51
10:B:2530:A:H5'	15:G:174:LYS:HZ3	1.71	0.51
10:B:2641:G:OP2	18:J:85:LYS:NZ	2.43	0.51
10:B:2785:C:H2'	10:B:2786:U:H6	1.74	0.51
9:A:32:U:N3	9:A:51:G:C2	2.78	0.51
14:F:90:LEU:HD13	14:F:95:MET:HA	1.91	0.51
10:B:1443:U:H2'	10:B:1444:G:C8	2.45	0.51
10:B:1930:G:C6	10:B:1968:G:N7	2.78	0.51
5:4:34:LYS:HB3	5:4:36:ARG:NH1	2.25	0.51
17:I:42:ASN:O	17:I:45:THR:OG1	2.25	0.51
10:B:1030:C:C4	10:B:1125:G:N2	2.78	0.51
10:B:2441:U:H2'	10:B:2442:C:O4'	2.10	0.51
10:B:2461:A:H1'	10:B:2492:U:H3	1.74	0.51
10:B:971:G:OP1	10:B:989:G:N1	2.41	0.51
10:B:2201:G:H22	10:B:2223:G:H1'	1.76	0.51
10:B:1795:C:N4	10:B:1824:G:H1	2.08	0.51
10:B:1783:A:O2'	10:B:2607:G:O2'	2.02	0.51
4:3:30:HIS:CG	4:3:31:ILE:N	2.79	0.51
10:B:628:G:C6	10:B:636:G:C2	2.98	0.51
10:B:83:A:H61	10:B:102:U:H5'	1.76	0.51
10:B:488:G:N2	10:B:491:G:H3'	2.25	0.51
10:B:1047:G:OP2	10:B:1047:G:H8	1.93	0.51
10:B:1310:G:C2	10:B:1311:G:N2	2.79	0.51
10:B:65:U:P	28:T:76:ARG:H	2.33	0.51
30:V:5:ASN:HA	30:V:64:VAL:HB	1.91	0.51
18:J:80:HIS:CE1	18:J:81:ILE:HB	2.46	0.51
32:X:12:VAL:O	32:X:27:ARG:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:401:SER:C	7:6:402:LEU:HD12	2.30	0.51
10:B:1155:A:C6	10:B:1157:G:C5	2.98	0.51
10:B:1451:C:H4'	10:B:1452:G:C8	2.45	0.51
10:B:1668:A:N6	10:B:1676:A:H61	2.08	0.51
10:B:2411:A:H2'	10:B:2412:A:H8	1.74	0.51
10:B:2431:U:H2'	10:B:2433:A:OP2	2.11	0.51
10:B:2432:A:C8	10:B:2433:A:C8	2.97	0.51
10:B:527:C:C4	10:B:2779:U:H2'	2.46	0.51
10:B:671:C:H2'	10:B:672:C:C6	2.46	0.51
10:B:923:G:C2	10:B:924:G:C8	2.98	0.51
10:B:2093:G:C6	10:B:2225:A:C8	2.99	0.51
10:B:2136:G:N2	10:B:2155:U:H3	2.09	0.51
10:B:1389:G:C2	10:B:1399:C:C2	2.98	0.51
10:B:1826:G:OP2	11:C:221:GLY:N	2.39	0.51
7:6:86:PRO:HG3	7:6:135:ARG:HD3	1.93	0.51
10:B:2401:U:O2	10:B:2403:C:N4	2.44	0.51
10:B:645:C:H4'	10:B:646:U:C5	2.46	0.51
19:K:92:GLN:CG	19:K:110:LYS:HZ3	2.20	0.51
7:6:331:ARG:NH2	7:6:334:GLU:HA	2.24	0.51
10:B:1288:G:N2	10:B:1288:G:OP2	2.43	0.51
12:D:39:ASP:OD1	12:D:46:ARG:HG3	2.10	0.51
10:B:2773:C:OP1	12:D:169:ARG:NE	2.42	0.51
10:B:1275:A:N6	10:B:1295:C:O2'	2.42	0.51
10:B:2757:A:N1	15:G:66:THR:OG1	2.34	0.51
10:B:1846:G:C6	10:B:1895:C:C4	2.98	0.51
1:0:3:GLN:HB3	1:0:5:ASN:O	2.11	0.51
10:B:2452:C:N4	10:B:2453:A:H62	2.09	0.51
18:J:11:VAL:HG21	18:J:13:ARG:NH2	2.24	0.51
24:P:30:TRP:HD1	24:P:79:VAL:HA	1.76	0.51
10:B:2556:C:C4	10:B:2557:G:C5	2.98	0.51
7:6:16:ILE:HG13	7:6:18:PHE:HB2	1.93	0.51
10:B:1021:A:C2	10:B:1023:U:C2	2.98	0.51
10:B:1022:G:C2	10:B:1140:C:N3	2.78	0.51
10:B:563:A:N6	10:B:2018:G:C8	2.79	0.51
10:B:2051:A:C6	10:B:2614:A:C5	2.99	0.51
10:B:2621:G:C5	10:B:2622:U:C5	2.99	0.51
10:B:2854:G:C5	10:B:2855:C:C4	2.98	0.51
10:B:2867:G:HO2'	10:B:2868:A:P	2.33	0.51
10:B:687:C:N3	10:B:688:U:C4	2.79	0.51
10:B:968:C:H2'	10:B:969:G:C8	2.46	0.51
11:C:40:GLY:HA3	11:C:54:GLY:HA2	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2195:U:O2'	10:B:2196:C:H5'	2.11	0.51
10:B:2198:A:H2	16:H:29:PHE:CG	2.29	0.51
6:5:170:ILE:HG23	6:5:172:HIS:CE1	2.45	0.51
10:B:1857:G:C2	10:B:1884:G:C5	2.98	0.51
14:F:122:ASP:OD2	14:F:126:ASN:HB2	2.10	0.51
14:F:132:ARG:N	14:F:150:GLY:HA2	2.24	0.51
10:B:718:A:H3'	10:B:719:C:C6	2.46	0.51
10:B:765:C:C4	10:B:766:U:C4	2.99	0.51
10:B:2897:U:O2'	10:B:2898:U:H5'	2.11	0.51
9:A:9:G:C2	9:A:112:G:C4	2.98	0.51
10:B:1292:G:H2'	10:B:1293:C:C6	2.46	0.51
10:B:2003:A:H2'	10:B:2004:G:H8	1.75	0.51
10:B:1937:A:C6	10:B:1939:U:N3	2.79	0.51
23:O:76:LYS:HZ2	23:O:113:ALA:HA	1.75	0.51
21:M:54:THR:O	21:M:58:LYS:N	2.44	0.51
10:B:2692:G:H2'	10:B:2693:G:H8	1.75	0.51
10:B:2720:U:C2	10:B:2721:A:C8	2.97	0.51
10:B:2807:U:H1'	10:B:2892:G:N2	2.25	0.51
10:B:13:A:C6	10:B:525:U:C2	2.97	0.51
10:B:661:A:H2'	10:B:662:G:O4'	2.11	0.51
10:B:676:A:N6	10:B:802:A:H61	2.08	0.51
10:B:819:A:C4	10:B:820:A:C8	2.98	0.51
10:B:976:G:H2'	10:B:977:G:C8	2.45	0.51
10:B:1131:G:C5	18:J:77:HIS:CE1	2.99	0.51
10:B:2095:A:P	16:H:11:ASN:HD21	2.34	0.51
10:B:1409:U:H2'	10:B:1410:G:H8	1.74	0.51
10:B:1418:G:O6	10:B:1578:U:H5''	2.10	0.51
10:B:1566:A:P	11:C:17:LYS:HZ1	2.34	0.51
10:B:1764:C:H2'	10:B:1765:U:C6	2.45	0.51
10:B:1795:C:H2'	10:B:1796:U:C6	2.46	0.51
10:B:66:C:H2'	10:B:67:U:O4'	2.09	0.51
10:B:2339:C:H2'	10:B:2340:A:H8	1.76	0.51
10:B:628:G:C2	10:B:629:G:C4	2.99	0.51
14:F:16:MET:HG3	14:F:21:TYR:H	1.75	0.51
9:A:83:G:H2'	9:A:84:G:H8	1.75	0.51
27:S:5:ALA:O	27:S:104:THR:OG1	2.23	0.51
10:B:1292:G:C6	10:B:1293:C:C4	2.98	0.51
10:B:737:C:N3	10:B:760:G:C2	2.78	0.51
10:B:760:G:H3'	10:B:761:A:H8	1.76	0.51
10:B:2801:G:H2'	10:B:2802:G:C8	2.46	0.51
10:B:1494:A:H2'	10:B:1495:A:O4'	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1836:C:H2'	10:B:1837:C:H6	1.76	0.51
10:B:1203:U:N3	10:B:1204:A:N1	2.59	0.51
14:F:9:ASP:HA	14:F:13:LYS:NZ	2.25	0.51
15:G:75:VAL:O	15:G:78:VAL:HG22	2.09	0.51
11:C:154:ALA:HB2	11:C:161:VAL:HG23	1.93	0.51
10:B:885:C:O2'	10:B:886:A:H5'	2.11	0.51
6:5:48:LEU:O	6:5:210:LYS:NZ	2.27	0.51
26:R:24:LYS:HG2	26:R:26:ASP:H	1.76	0.51
10:B:1457:U:C2	10:B:1458:U:C4	2.98	0.51
10:B:2859:G:C5	10:B:2860:A:C6	2.98	0.51
10:B:584:C:H5''	10:B:585:G:OP2	2.10	0.51
10:B:589:U:H2'	10:B:590:A:H8	1.74	0.51
10:B:2230:G:O3'	32:X:29:LEU:HB2	2.11	0.51
10:B:2316:G:H5'	14:F:124:ARG:HH12	1.76	0.51
8:7:57:ASN:HB3	8:7:62:ARG:CZ	2.40	0.51
10:B:1374:G:C6	10:B:1375:U:C4	2.99	0.51
10:B:1688:U:O4'	10:B:1701:A:N6	2.44	0.51
10:B:2217:G:C6	10:B:2218:G:C5	2.98	0.51
10:B:2290:G:H4'	10:B:2381:A:O2'	2.11	0.51
29:U:56:GLY:C	29:U:58:VAL:H	2.12	0.51
10:B:171:U:H2'	10:B:172:A:C8	2.45	0.51
10:B:747:U:C4	10:B:2613:U:C4	2.99	0.51
10:B:1631:G:N2	10:B:1633:G:H3'	2.25	0.51
10:B:1625:C:C4	10:B:1626:A:N1	2.79	0.51
7:6:261:HIS:CD2	7:6:262:ASP:H	2.29	0.51
10:B:1959:G:N2	10:B:1960:A:N3	2.59	0.51
18:J:69:ARG:O	18:J:89:PHE:HB3	2.11	0.51
21:M:74:THR:HA	21:M:90:GLU:OE1	2.10	0.51
19:K:13:SER:OG	19:K:95:GLY:HA2	2.10	0.51
7:6:24:MET:CE	7:6:257:ARG:HH12	2.22	0.51
10:B:2031:A:N3	10:B:2455:G:O2'	2.33	0.51
10:B:2443:C:P	13:E:63:LYS:NZ	2.83	0.51
10:B:2495:G:C6	10:B:2496:C:C4	2.99	0.51
10:B:2650:U:H3	10:B:2670:A:H61	1.58	0.51
10:B:2858:C:H5	10:B:2859:G:C4	2.29	0.51
10:B:404:A:H5'	10:B:406:G:H1'	1.93	0.51
10:B:447:A:C2	10:B:473:G:C4	2.99	0.51
10:B:662:G:N3	10:B:663:G:N7	2.59	0.51
10:B:690:G:H2'	10:B:691:C:H6	1.72	0.51
10:B:820:A:N3	10:B:821:A:C8	2.79	0.51
10:B:840:C:H5''	10:B:841:G:OP2	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:959:A:H2'	10:B:960:A:H8	1.71	0.51
10:B:2224:G:N7	16:H:135:HIS:NE2	2.59	0.51
10:B:2143:C:O2'	10:B:2145:C:O2	2.20	0.51
10:B:2305:U:O2'	14:F:132:ARG:NE	2.44	0.51
10:B:1418:G:N2	10:B:1579:A:OP 2	2.38	0.51
10:B:1977:A:C5	10:B:1978:A:C5	2.98	0.51
32:X:39:VAL:O	32:X:43:LYS:HA	2.11	0.51
10:B:878:A:C2	10:B:899:A:C6	2.99	0.51
10:B:374:A:C5	10:B:375:G:C5	2.99	0.51
10:B:2364:C:H2'	10:B:2365:G:C8	2.45	0.51
10:B:2372:U:H3	10:B:2381:A:H61	1.59	0.51
10:B:870:U:H3	10:B:907:G:H1	1.58	0.51
28:T:37:ASP:C	28:T:81:LYS:NZ	2.62	0.51
10:B:352:A:C5	10:B:353:C:C4	2.99	0.51
10:B:482:A:H5''	10:B:483:A:OP1	2.11	0.51
10:B:155:A:H2'	10:B:156:A:C8	2.44	0.51
10:B:2696:U:C2	10:B:2697:G:C8	2.99	0.51
20:L:79:LEU:H	20:L:113:ALA:HB3	1.76	0.51
10:B:1846:G:N7	10:B:1847:A:N6	2.57	0.51
10:B:295:G:C6	10:B:344:A:C6	2.99	0.51
10:B:1960:A:C6	10:B:1961:C:N3	2.79	0.51
10:B:1682:G:C8	10:B:1757:A:C5	2.99	0.51
10:B:362:A:C5	10:B:363:G:C8	2.99	0.51
7:6:232:LEU:HA	7:6:253:VAL:HG12	1.91	0.51
10:B:2427:C:H5''	10:B:2429:G:OP1	2.10	0.51
10:B:2458:G:H1'	10:B:2459:A:N7	2.26	0.51
10:B:35:G:H3'	10:B:35:G:OP 2	2.11	0.51
10:B:451:U:H2'	10:B:453:A:N7	2.25	0.51
10:B:523:C:H2'	10:B:524:G:C8	2.46	0.51
10:B:616:A:C6	10:B:617:G:C4	2.99	0.51
10:B:953:G:N3	10:B:954:G:C8	2.79	0.51
10:B:962:G:H2'	10:B:963:U:H6	1.76	0.51
12:D:151:THR:C	12:D:153:GLY:N	2.56	0.51
10:B:2119:A:C2	10:B:2170:A:H2'	2.46	0.51
10:B:2297:A:C4	10:B:2320:U:C2	2.99	0.51
10:B:2418:A:C6	10:B:2419:U:C4	2.99	0.51
10:B:337:C:P	29:U:3:LYS:HZ2	2.27	0.51
10:B:489:G:C4	10:B:491:G:C8	2.99	0.51
10:B:1364:G:N2	10:B:1367:A:OP 2	2.41	0.51
7:6:204:GLY:HA2	7:6:282:HIS:HE1	1.76	0.51
29:U:23:LYS:HZ3	29:U:25:LYS:HA	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
20:L:74:THR:HG21	20:L:126:ARG:NH2	2.26	0.51
5:4:4:ARG:HH22	10:B:2477:U:H5	1.59	0.51
23:O:85:LYS:HB3	23:O:87:ILE:HG23	1.93	0.51
18:J:71:ASP:O	18:J:73:VAL:N	2.41	0.51
16:H:107:GLY:O	16:H:109:GLU:HG3	2.10	0.51
16:H:97:ARG:HH22	16:H:114:GLU:N	2.09	0.51
10:B:1462:C:H2'	10:B:1463:C:C6	2.44	0.51
10:B:181:A:H2'	10:B:182:A:H8	1.76	0.51
10:B:2514:U:H4'	12:D:156:PHE:CE2	2.46	0.51
10:B:2849:U:H3	10:B:2867:G:H1'	1.76	0.51
10:B:471:A:H2'	10:B:472:A:O4'	2.09	0.51
16:H:31:VAL:CG1	16:H:32:PRO:HD3	2.41	0.51
10:B:2109:U:N3	10:B:2181:U:C2	2.79	0.51
10:B:1359:A:C6	10:B:1360:G:C4	2.99	0.51
10:B:55:G:H2'	10:B:56:A:H8	1.75	0.51
10:B:1566:A:OP2	11:C:17:LYS:NZ	2.43	0.51
10:B:9:G:C6	10:B:2629:U:C5	2.99	0.51
10:B:881:G:H2'	10:B:882:G:O4'	2.11	0.51
4:3:16:THR:HG23	10:B:629:G:OP1	2.11	0.51
21:M:18:ARG:HE	21:M:97:GLN:NE2	2.09	0.51
10:B:325:G:N2	10:B:337:C:N3	2.49	0.51
7:6:211:SER:N	35:6:527:GNP:O2B	2.32	0.51
10:B:2745:C:O2'	15:G:142:GLN:HB2	2.10	0.51
10:B:1843:C:H2'	10:B:1844:C:C6	2.46	0.51
10:B:1631:G:H21	10:B:1633:G:H8	1.58	0.51
10:B:142:A:H2'	10:B:143:C:H6	1.76	0.51
20:L:109:LYS:HA	20:L:126:ARG:O	2.11	0.51
26:R:67:GLY:CA	26:R:93:PHE:HB2	2.41	0.51
18:J:122:LEU:O	18:J:123:LYS:HD2	2.11	0.51
7:6:422:ILE:H	7:6:422:ILE:HD12	1.76	0.50
10:B:1004:U:O2'	10:B:1010:A:N7	2.33	0.50
10:B:1149:G:H2'	10:B:1150:C:H6	1.74	0.50
10:B:1248:G:O2'	10:B:1249:U:H5''	2.11	0.50
10:B:1678:A:H1'	10:B:1991:U:O2'	2.11	0.50
10:B:2252:G:O2'	10:B:2253:G:OP1	2.29	0.50
10:B:265:A:H2'	10:B:266:G:H4'	1.92	0.50
10:B:2677:G:H2'	10:B:2678:C:H6	1.75	0.50
10:B:2694:G:C6	10:B:2695:U:C4	2.99	0.50
10:B:2808:G:H2'	10:B:2890:G:C6	2.46	0.50
10:B:2841:C:H2'	10:B:2842:G:C8	2.45	0.50
10:B:2808:G:H2'	10:B:2890:G:O6	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:608:A:C5	10:B:609:A:C5	2.99	0.50
10:B:783:A:C6	10:B:785:G:C4	2.99	0.50
10:B:822:G:C2	10:B:823:C:C2	2.98	0.50
10:B:949:G:C4	10:B:969:G:C2	3.00	0.50
10:B:2141:G:H1	10:B:2150:C:N4	2.07	0.50
10:B:1815:A:C5	10:B:1817:G:C5	2.99	0.50
10:B:640:C:H2'	10:B:641:U:H6	1.76	0.50
10:B:647:G:C6	10:B:648:G:C6	2.99	0.50
10:B:1656:C:N4	10:B:1657:U:O4	2.45	0.50
10:B:1841:U:H2'	10:B:1842:G:H8	1.76	0.50
10:B:1307:A:C4	10:B:1308:A:C8	2.98	0.50
30:V:35:GLU:CD	30:V:93:ARG:HE	2.12	0.50
10:B:888:C:O2'	10:B:889:C:OP1	2.29	0.50
24:P:8:GLU:O	24:P:12:MET:N	2.44	0.50
10:B:158:U:H3'	10:B:159:G:H8	1.75	0.50
10:B:1004:U:H4'	10:B:1010:A:N6	2.26	0.50
10:B:1147:A:H2'	10:B:1148:U:H6	1.75	0.50
10:B:1156:A:H2	25:Q:46:TYR:HH	1.57	0.50
10:B:1234:U:H2'	10:B:1235:G:O4'	2.11	0.50
10:B:1265:A:O3'	10:B:1266:G:H4'	2.11	0.50
10:B:1452:G:N7	10:B:1458:U:C4	2.80	0.50
10:B:1710:G:C6	10:B:1749:A:C6	2.99	0.50
10:B:248:G:O5'	10:B:249:C:H5''	2.12	0.50
10:B:2649:C:H2'	10:B:2650:U:C6	2.44	0.50
10:B:470:A:C6	10:B:471:A:C6	3.00	0.50
10:B:532:A:H4'	10:B:533:G:O4'	2.12	0.50
18:J:110:PRO:CB	18:J:111:LYS:HG2	2.36	0.50
31:W:31:LEU:H	31:W:60:ALA:HB3	1.76	0.50
7:6:376:GLU:H	7:6:376:GLU:CD	2.13	0.50
10:B:1429:G:C6	10:B:1568:G:C6	2.99	0.50
10:B:93:G:H2'	10:B:94:A:O4'	2.11	0.50
10:B:373:U:O2	10:B:423:A:H2	1.94	0.50
10:B:2367:G:C6	10:B:2368:C:C4	2.99	0.50
9:A:16:G:C6	9:A:69:G:N1	2.79	0.50
10:B:1723:G:C2	10:B:1724:G:C4	2.99	0.50
10:B:1287:A:C6	10:B:1288:G:C6	2.99	0.50
10:B:331:C:O2'	10:B:332:A:H5'	2.12	0.50
10:B:488:G:H22	10:B:491:G:H3'	1.75	0.50
29:U:10:VAL:O	29:U:72:PHE:HB2	2.11	0.50
12:D:110:THR:OG1	12:D:171:THR:HG22	2.11	0.50
14:F:105:ILE:CG1	14:F:111:ARG:HH21	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1988:G:N2	10:B:1989:G:N3	2.59	0.50
10:B:1307:A:C5	10:B:1622:G:C6	2.99	0.50
10:B:2516:A:H2'	10:B:2517:C:C6	2.46	0.50
10:B:2540:C:H2'	10:B:2541:A:O4'	2.12	0.50
10:B:2545:G:N3	10:B:2565:A:H2	2.08	0.50
10:B:2853:C:H2'	10:B:2854:G:C8	2.46	0.50
10:B:2868:A:C2	10:B:2869:G:C4	2.99	0.50
10:B:551:G:C6	10:B:552:U:C4	2.99	0.50
10:B:943:A:N1	10:B:944:C:C4	2.80	0.50
12:D:122:VAL:HG22	12:D:127:PHE:HB2	1.93	0.50
25:Q:24:TYR:CG	25:Q:25:GLY:N	2.80	0.50
25:Q:93:ILE:HG23	25:Q:94:LEU:N	2.25	0.50
10:B:2231:U:H2'	10:B:2232:C:C6	2.42	0.50
8:7:55:VAL:HA	10:B:1084:A:OP1	2.11	0.50
8:7:57:ASN:OD1	10:B:1106:G:H5''	2.12	0.50
10:B:1390:U:H5''	10:B:1391:U:OP2	2.12	0.50
10:B:1417:C:N3	10:B:1581:G:N2	2.56	0.50
10:B:1829:A:H2'	10:B:1830:C:H5'	1.92	0.50
10:B:75:G:C8	10:B:76:C:H5	2.29	0.50
10:B:1566:A:C5	11:C:212:TRP:CE2	3.00	0.50
10:B:871:U:H3	10:B:906:U:H3	1.59	0.50
7:6:315:VAL:O	7:6:317:ASN:N	2.44	0.50
10:B:1839:G:H2'	10:B:1840:G:O4'	2.11	0.50
10:B:1964:G:H4'	10:B:1965:C:OP2	2.12	0.50
10:B:1238:G:H2'	10:B:1239:G:H8	1.75	0.50
10:B:1683:U:C2	10:B:1684:G:C8	2.99	0.50
8:7:17:GLU:OE2	8:7:88:HIS:HE1	1.94	0.50
7:6:350:ILE:O	7:6:353:LEU:N	2.45	0.50
10:B:1473:G:H2'	10:B:1474:U:C6	2.46	0.50
20:L:95:LEU:HB3	20:L:101:ILE:HG22	1.92	0.50
10:B:2013:A:C2	10:B:2014:A:C4	2.99	0.50
10:B:860:U:N3	10:B:2268:A:C8	2.80	0.50
10:B:2357:G:N2	10:B:2360:G:OP2	2.27	0.50
10:B:260:G:C2	10:B:261:G:C8	2.99	0.50
10:B:2822:G:O6	22:N:2:ARG:NH2	2.44	0.50
10:B:2094:A:P	16:H:22:LYS:HG3	2.50	0.50
10:B:1858:A:C6	10:B:1859:U:C2	2.99	0.50
10:B:1079:C:H5	10:B:1088:A:OP1	1.94	0.50
10:B:1389:G:C6	10:B:1390:U:N3	2.79	0.50
10:B:1695:G:C6	10:B:1696:G:H1'	2.47	0.50
10:B:371:A:H2	10:B:372:G:N2	2.08	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2660:A:H2'	10:B:2661:G:C8	2.46	0.50
18:J:98:GLU:O	18:J:101:ILE:HG22	2.11	0.50
10:B:1286:A:N6	10:B:1329:U:C2	2.79	0.50
10:B:1657:U:O4	10:B:2004:G:N1	2.44	0.50
10:B:2103:C:H5	10:B:2104:C:C4	2.29	0.50
10:B:2749:A:OP1	15:G:1:SER:N	2.44	0.50
10:B:1333:G:N3	10:B:1334:G:C8	2.80	0.50
10:B:49:A:H4'	10:B:50:U:C5'	2.39	0.50
10:B:389:G:H2'	10:B:389:G:N3	2.27	0.50
19:K:14:GLY:HA2	19:K:51:VAL:HG11	1.93	0.50
17:I:56:VAL:HG11	17:I:68:PHE:HB2	1.92	0.50
10:B:2076:U:O2'	10:B:2077:A:OP1	2.23	0.50
10:B:2513:A:H2'	10:B:2514:U:C6	2.47	0.50
10:B:271:G:C4	10:B:272:A:C8	3.00	0.50
10:B:2723:C:H2'	10:B:2724:U:H6	1.76	0.50
10:B:2819:G:H2'	10:B:2821:A:N7	2.26	0.50
10:B:2832:U:C2	10:B:2834:G:N1	2.79	0.50
10:B:664:G:N3	10:B:664:G:H2'	2.27	0.50
10:B:806:C:H5	20:L:41:ARG:NE	2.09	0.50
24:P:20:ARG:CG	24:P:88:ARG:HH22	2.23	0.50
16:H:30:LEU:O	16:H:32:PRO:HD2	2.12	0.50
10:B:1855:U:H2'	10:B:1856:U:C6	2.47	0.50
31:W:65:LYS:HZ2	31:W:84:GLU:C	2.14	0.50
10:B:2303:G:C6	10:B:2314:A:C6	3.00	0.50
14:F:147:ARG:CZ	14:F:150:GLY:H	2.23	0.50
10:B:2330:G:H1'	31:W:39:GLN:NE2	2.27	0.50
10:B:1337:G:C2	10:B:1338:G:C4	3.00	0.50
10:B:1569:A:C2	10:B:1570:A:C4	2.99	0.50
10:B:1779:U:O2'	10:B:1780:A:P	2.70	0.50
11:C:35:LYS:HG3	11:C:36:ASN:N	2.27	0.50
33:Y:44:LYS:HB3	33:Y:48:ARG:NH1	2.27	0.50
19:K:110:LYS:O	19:K:113:LYS:HB3	2.11	0.50
10:B:310:A:C8	10:B:312:G:C6	3.00	0.50
10:B:1275:A:N1	10:B:1296:G:H1'	2.27	0.50
12:D:45:TYR:CD2	12:D:83:ARG:HG2	2.46	0.50
10:B:1482:G:C2	10:B:1483:G:C4	3.00	0.50
10:B:1873:G:C2	10:B:1874:C:C2	3.00	0.50
10:B:338:G:C2	10:B:339:U:C2	2.99	0.50
19:K:60:VAL:HG11	19:K:111:PHE:CE2	2.44	0.50
13:E:123:LYS:HD3	13:E:125:SER:HB3	1.94	0.50
24:P:30:TRP:CE2	24:P:39:LEU:HD21	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:37:GLU:OE1	26:R:38:VAL:HG22	2.11	0.50
10:B:1473:G:H2'	10:B:1474:U:H6	1.75	0.50
24:P:27:VAL:O	24:P:41:ALA:HA	2.11	0.50
28:T:60:THR:HG22	28:T:83:ALA:HA	1.91	0.50
10:B:1014:A:C6	10:B:1149:G:C6	3.00	0.50
10:B:1215:G:C2	10:B:1216:G:C8	3.00	0.50
10:B:1713:A:O2'	10:B:1714:U:H5''	2.10	0.50
10:B:2023:C:H42	10:B:2040:G:H1	1.58	0.50
10:B:2044:C:C2	10:B:2625:G:C2	3.00	0.50
10:B:2062:A:O2'	10:B:2063:C:O5'	2.19	0.50
10:B:2520:C:H2'	10:B:2521:C:C6	2.47	0.50
10:B:2618:G:C2	10:B:2619:C:C2	3.00	0.50
10:B:2647:U:H2'	10:B:2648:G:H8	1.76	0.50
10:B:2682:A:C2	10:B:2683:C:C2	3.00	0.50
10:B:2836:U:C4	10:B:2883:A:C6	3.00	0.50
10:B:2630:G:C4	10:B:2894:G:C6	2.99	0.50
10:B:435:C:H2'	10:B:436:C:H5'	1.93	0.50
10:B:461:C:N4	10:B:468:G:H1	2.10	0.50
10:B:548:G:H4'	10:B:549:G:C5	2.46	0.50
10:B:609:A:H62	10:B:619:G:H21	1.58	0.50
10:B:963:U:O4	10:B:964:C:N4	2.44	0.50
10:B:997:G:H1	10:B:1158:C:H42	1.59	0.50
10:B:659:G:O5'	13:E:95:LYS:HD3	2.11	0.50
10:B:2385:C:H2'	10:B:2386:A:C8	2.47	0.50
14:F:132:ARG:CA	14:F:150:GLY:HA2	2.40	0.50
10:B:1339:G:H21	10:B:1340:U:H3	1.58	0.50
10:B:1358:G:O2'	10:B:1359:A:H5'	2.11	0.50
10:B:1690:A:OP2	10:B:1691:C:N4	2.44	0.50
10:B:2588:G:H21	10:B:2589:A:H1'	1.77	0.50
10:B:643:A:C4	10:B:644:A:C8	2.99	0.50
9:A:9:G:C4	9:A:10:G:C8	3.00	0.50
9:A:10:G:H1	9:A:110:C:H42	1.58	0.50
12:D:35:THR:H	12:D:50:VAL:HA	1.76	0.50
14:F:99:PHE:O	14:F:103:ILE:HG12	2.11	0.50
10:B:1444:G:C6	10:B:1445:G:C6	3.00	0.50
10:B:748:G:C6	27:S:90:LYS:HE3	2.47	0.50
10:B:2739:U:H3'	10:B:2763:G:H1	1.76	0.50
19:K:72:ASP:OD1	19:K:72:ASP:N	2.44	0.50
10:B:1932:A:C6	10:B:1933:G:C4	3.00	0.50
10:B:1872:A:C6	10:B:1873:G:H1'	2.47	0.50
23:O:105:ALA:HA	23:O:108:ASP:OD2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:P:32:VAL:HG22	24:P:37:LYS:HB3	1.93	0.50
7:6:21:ASP:OD1	7:6:22:LYS:N	2.42	0.50
7:6:179:GLU:O	7:6:182:GLU:HG2	2.11	0.50
10:B:1233:C:H2'	10:B:1234:U:C6	2.46	0.50
10:B:1663:G:C2	10:B:1992:G:C6	3.00	0.50
10:B:860:U:O2	10:B:2268:A:H5'	2.12	0.50
10:B:247:G:N2	10:B:252:G:C4	2.80	0.50
10:B:44:A:N1	10:B:45:G:C5	2.79	0.50
10:B:561:G:O2'	10:B:562:U:H5'	2.12	0.50
10:B:834:G:H2'	10:B:835:C:C6	2.46	0.50
10:B:866:A:H1'	10:B:914:G:N2	2.27	0.50
10:B:2090:A:H1'	10:B:2230:G:H22	1.77	0.50
10:B:1858:A:C2	10:B:1859:U:H1'	2.46	0.50
10:B:1078:U:H6	10:B:1078:U:O5'	1.94	0.50
10:B:1595:C:H2'	10:B:1596:A:C8	2.46	0.50
10:B:1598:A:C5	10:B:1599:U:C4	3.00	0.50
11:C:144:GLU:CD	11:C:188:ARG:H	2.15	0.50
9:A:61:G:H2'	9:A:62:C:C6	2.47	0.50
7:6:20:GLN:CG	10:B:1916:A:OP1	2.60	0.50
10:B:104:A:H2'	10:B:105:C:O4'	2.11	0.50
10:B:97:C:H2'	10:B:98:G:H8	1.77	0.50
10:B:501:A:H2'	10:B:502:A:H8	1.74	0.50
10:B:502:A:N1	10:B:505:A:C4	2.80	0.50
10:B:1759:A:O2'	10:B:1760:C:OP1	2.25	0.50
12:D:32:ASN:HD22	12:D:94:GLN:NE2	2.10	0.50
10:B:760:G:H3'	10:B:761:A:C8	2.46	0.50
10:B:1492:G:N2	10:B:1496:A:N1	2.60	0.50
10:B:2748:A:C4	10:B:2757:A:C6	2.99	0.50
19:K:63:ARG:NH1	19:K:100:GLY:C	2.64	0.50
15:G:30:GLY:HA3	15:G:78:VAL:HA	1.94	0.50
8:7:48:ALA:HB3	8:7:51:TYR:CE1	2.46	0.50
6:5:79:THR:HA	6:5:120:ALA:HB2	1.93	0.50
10:B:1635:A:H2'	10:B:1636:U:O4'	2.12	0.50
10:B:1563:U:H2'	10:B:1564:C:H6	1.75	0.50
10:B:2600:A:H2'	10:B:2601:C:H6	1.77	0.50
10:B:1614:A:N7	27:S:93:ALA:HB2	2.26	0.50
16:H:68:ARG:CD	16:H:132:PHE:HE1	1.99	0.50
10:B:1012:U:H3	18:J:27:ARG:HH12	1.60	0.50
10:B:1663:G:HO2'	10:B:1664:A:H8	1.59	0.50
10:B:1668:A:H61	10:B:1676:A:H61	1.60	0.50
10:B:189:G:C4	10:B:205:G:N2	2.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2446:G:C2	10:B:2501:C:C5	3.00	0.50
10:B:2538:C:H2'	10:B:2539:C:H6	1.76	0.50
10:B:2675:A:C6	10:B:2676:C:C4	3.00	0.50
10:B:2806:C:H2'	10:B:2807:U:H6	1.77	0.50
10:B:471:A:C6	10:B:472:A:C5	3.00	0.50
10:B:27:G:H2'	10:B:512:G:H22	1.77	0.50
10:B:519:U:H2'	10:B:520:G:C8	2.45	0.50
10:B:543:G:C2	10:B:544:C:H1'	2.47	0.50
10:B:564:C:H2'	10:B:565:C:C6	2.46	0.50
10:B:839:U:N3	10:B:840:C:C4	2.79	0.50
10:B:855:G:C6	10:B:856:G:N7	2.80	0.50
10:B:940:G:C2	10:B:941:A:C8	3.00	0.50
10:B:2682:A:O4'	12:D:11:MET:HG3	2.11	0.50
24:P:49:ILE:HD12	24:P:95:LYS:HD2	1.94	0.50
26:R:71:LYS:HZ3	26:R:90:ARG:HD2	1.77	0.50
31:W:18:LYS:HG3	31:W:19:ARG:HG2	1.93	0.50
10:B:2094:A:H5'	16:H:25:TYR:HD1	1.74	0.50
16:H:29:PHE:CE1	16:H:33:GLN:OE1	2.48	0.50
10:B:2116:G:H1	10:B:2147:A:H3'	1.77	0.50
17:I:89:SER:HB3	17:I:95:ASP:HB2	1.93	0.50
10:B:1394:U:C4	10:B:1395:A:C6	3.00	0.50
10:B:1764:C:C4	10:B:1765:U:C4	2.98	0.50
10:B:726:G:HO2'	10:B:727:A:P	2.35	0.50
10:B:85:G:C8	29:U:6:ARG:NH2	2.80	0.50
10:B:742:A:H2'	10:B:743:A:C8	2.47	0.50
10:B:195:A:OP1	10:B:196:A:O2'	2.22	0.50
10:B:1846:G:C4	10:B:1847:A:N7	2.80	0.50
10:B:1324:G:O6	10:B:1330:C:N4	2.36	0.50
7:6:27:LEU:O	7:6:31:GLU:N	2.44	0.50
10:B:1718:G:C4	10:B:1719:G:C8	3.00	0.50
20:L:23:ILE:HD11	26:R:84:ARG:HD3	1.94	0.50
11:C:70:LYS:HD3	11:C:101:ARG:HH22	1.75	0.50
17:I:14:ALA:HA	17:I:41:PHE:CE2	2.46	0.50
31:W:70:VAL:HB	31:W:75:ASN:OD1	2.12	0.50
14:F:50:ASP:HB3	14:F:144:LYS:NZ	2.27	0.50
10:B:1452:G:N7	10:B:1458:U:C5	2.80	0.50
10:B:1676:A:C6	10:B:1677:A:C6	2.99	0.50
10:B:1667:G:N2	10:B:1992:G:OP2	2.39	0.50
10:B:241:A:C4	10:B:243:U:N3	2.80	0.50
10:B:2449:U:O2'	10:B:2450:A:OP2	2.25	0.50
10:B:257:C:H2'	10:B:258:G:O4'	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2623:G:C2	10:B:2624:G:C4	2.99	0.50
10:B:2703:C:H2'	10:B:2704:C:C6	2.47	0.50
10:B:449:A:C6	10:B:450:G:C4	3.00	0.50
10:B:659:G:OP1	13:E:95:LYS:NZ	2.41	0.50
10:B:675:A:P	13:E:62:GLN:HE22	2.35	0.50
10:B:2838:G:H1'	22:N:45:ARG:HH12	1.77	0.50
24:P:20:ARG:CB	24:P:88:ARG:HH22	2.25	0.50
16:H:30:LEU:CG	16:H:35:LYS:HZ1	2.21	0.50
7:6:363:GLY:O	7:6:364:GLU:CB	2.59	0.50
3:2:18:PHE:CE2	10:B:126:A:C4	2.98	0.50
10:B:111:A:C2	10:B:112:U:C2	2.99	0.50
10:B:115:C:H2'	10:B:116:C:H6	1.76	0.50
10:B:1387:A:H5'	10:B:1469:A:H1'	1.94	0.50
10:B:2205:A:C2	10:B:2206:C:C2	3.00	0.50
10:B:708:G:C6	10:B:709:U:C4	2.99	0.50
10:B:709:U:H3	10:B:722:A:H61	1.59	0.50
11:C:14:HIS:O	11:C:203:VAL:HG21	2.12	0.50
11:C:261:ARG:HG3	11:C:262:THR:N	2.27	0.50
10:B:1038:G:C2	10:B:1118:C:C2	3.00	0.50
10:B:1735:A:H2'	10:B:1736:U:O4'	2.12	0.50
10:B:1916:A:H8	10:B:1917:U:C5	2.30	0.50
10:B:2531:A:OP2	15:G:174:LYS:HB2	2.11	0.50
10:B:287:G:H2'	10:B:288:U:H6	1.77	0.50
10:B:291:G:C6	10:B:350:G:C5	3.00	0.50
10:B:477:A:N6	10:B:500:G:O2'	2.44	0.50
29:U:17:ASP:OD2	29:U:38:ILE:HG23	2.12	0.50
10:B:2701:U:H1'	22:N:71:ARG:NH2	2.27	0.50
10:B:1494:A:C5	10:B:1495:A:C5	3.00	0.50
29:U:8:ASP:O	29:U:23:LYS:HA	2.12	0.50
1:0:39:ARG:HG2	1:0:40:HIS:ND1	2.27	0.50
8:7:1:MET:N	8:7:7:ASP:OD2	2.45	0.50
10:B:1897:G:C2	10:B:1898:U:C2	3.00	0.50
10:B:1308:A:C4	10:B:1309:G:C8	2.99	0.50
10:B:49:A:C5	10:B:177:G:C6	3.00	0.50
10:B:2581:G:H4'	10:B:2582:G:C8	2.46	0.50
32:X:26:ARG:HD3	32:X:28:PHE:CZ	2.46	0.50
7:6:122:LEU:HD23	7:6:125:GLU:OE2	2.11	0.50
12:D:5:VAL:HG21	12:D:80:TRP:CG	2.47	0.50
29:U:27:VAL:HA	29:U:33:VAL:HG12	1.94	0.50
20:L:80:SER:HA	20:L:115:GLU:O	2.12	0.50
10:B:1212:G:C5	10:B:1236:G:C6	3.00	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1252:G:HO2'	10:B:1253:A:P	2.33	0.49
10:B:2839:G:C2	10:B:2880:C:C4	3.00	0.49
10:B:536:G:H2'	10:B:537:G:O4'	2.12	0.49
10:B:683:U:C2	10:B:684:G:C8	3.00	0.49
6:5:100:LEU:HD22	6:5:111:PHE:CD1	2.47	0.49
10:B:2129:C:H6	10:B:2130:U:H3'	1.77	0.49
7:6:408:ILE:HG12	7:6:411:TRP:CE3	2.47	0.49
17:I:7:TYR:CZ	17:I:60:VAL:HG22	2.47	0.49
14:F:160:LYS:HB2	14:F:164:GLU:OE2	2.12	0.49
17:I:4:VAL:HG12	17:I:5:GLN:H	1.77	0.49
10:B:121:G:N3	10:B:122:G:C8	2.80	0.49
10:B:1349:C:H2'	10:B:1350:C:C6	2.47	0.49
10:B:1599:U:C2	10:B:1600:C:C5	3.00	0.49
10:B:1768:C:H42	10:B:1985:C:N4	2.10	0.49
10:B:94:A:C5	10:B:95:A:C5	3.00	0.49
11:C:249:VAL:HG13	11:C:254:LYS:NZ	2.27	0.49
10:B:2399:G:C4	10:B:2400:G:C8	3.00	0.49
10:B:290:U:O2	10:B:350:G:N2	2.45	0.49
14:F:106:ALA:O	14:F:112:ASP:HB2	2.12	0.49
7:6:209:GLY:O	7:6:212:THR:OG1	2.17	0.49
15:G:44:HIS:NE2	15:G:45:ALA:O	2.45	0.49
10:B:408:G:H2'	10:B:409:G:C8	2.46	0.49
10:B:1306:C:C2	10:B:1623:G:C2	3.00	0.49
6:5:163:TYR:HB2	6:5:171:ILE:CG2	2.42	0.49
13:E:147:LEU:HB2	13:E:183:PHE:CE2	2.47	0.49
19:K:109:GLU:HB2	19:K:111:PHE:HD1	1.76	0.49
10:B:1703:G:H2'	10:B:1704:C:C6	2.46	0.49
15:G:83:THR:HB	15:G:140:ILE:HG12	1.94	0.49
21:M:50:ARG:NH1	21:M:51:ARG:HD2	2.27	0.49
32:X:2:ARG:HA	32:X:49:ARG:NH2	2.27	0.49
30:V:72:VAL:HA	30:V:94:ALA:H	1.76	0.49
10:B:1000:A:OP2	10:B:1154:G:N1	2.32	0.49
10:B:1151:A:C6	10:B:1152:C:C4	3.00	0.49
10:B:1248:G:O6	13:E:46:GLN:NE2	2.32	0.49
10:B:2040:G:H2'	10:B:2041:U:C6	2.47	0.49
10:B:2069:G:C2	10:B:2070:A:C8	3.00	0.49
10:B:190:A:C8	10:B:207:A:C6	2.99	0.49
10:B:2274:A:C6	10:B:2276:G:C8	3.00	0.49
10:B:2495:G:H2'	10:B:2496:C:C6	2.47	0.49
10:B:2508:G:C2	10:B:2509:G:C8	3.00	0.49
10:B:255:A:H1'	10:B:384:A:N7	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2621:G:H4'	12:D:164:GLN:H	1.77	0.49
10:B:414:C:C2	10:B:415:A:C8	3.00	0.49
10:B:620:G:H4'	10:B:621:A:H5'	1.93	0.49
10:B:978:G:C2	10:B:979:A:C5	3.00	0.49
31:W:20:LEU:HG	31:W:25:PHE:CZ	2.47	0.49
11:C:166:ARG:HD3	11:C:167:ASP:H	1.76	0.49
16:H:30:LEU:CG	16:H:35:LYS:NZ	2.69	0.49
10:B:2125:G:HO2'	10:B:2173:A:H61	1.56	0.49
10:B:2329:U:C2	10:B:2330:G:C8	3.00	0.49
10:B:1071:G:C8	10:B:1089:A:C6	3.01	0.49
10:B:1081:U:H2'	10:B:1082:U:H6	1.76	0.49
10:B:124:G:OP1	10:B:1376:C:O2'	2.23	0.49
10:B:1395:A:N6	10:B:1398:C:C2	2.81	0.49
10:B:1422:G:H2'	10:B:1423:G:C8	2.43	0.49
10:B:1570:A:C4	10:B:1571:A:C8	3.00	0.49
10:B:1426:G:O2'	10:B:1573:G:O6	2.19	0.49
10:B:1773:A:C2	10:B:1829:A:C5	3.00	0.49
10:B:1791:A:O2'	11:C:14:HIS:NE2	2.40	0.49
10:B:1977:A:C6	10:B:1978:A:C4	3.00	0.49
10:B:762:U:H5'	10:B:763:G:H21	1.77	0.49
11:C:144:GLU:HB2	11:C:187:CYS:CB	2.42	0.49
10:B:2895:G:H2'	10:B:2896:C:C6	2.46	0.49
10:B:1193:G:C2	10:B:1194:A:C4	3.00	0.49
10:B:631:A:O2'	20:L:66:PHE:HB3	2.11	0.49
10:B:2275:C:C2	21:M:84:LYS:NZ	2.78	0.49
10:B:290:U:H3	10:B:350:G:H1	1.60	0.49
10:B:353:C:H2'	10:B:354:A:H8	1.76	0.49
12:D:36:GLN:OE1	12:D:67:HIS:NE2	2.41	0.49
7:6:319:ILE:N	7:6:342:LEU:O	2.39	0.49
11:C:94:LEU:HD12	11:C:99:GLU:O	2.13	0.49
10:B:1549:A:C6	10:B:1550:C:C4	3.01	0.49
19:K:70:ARG:HH12	24:P:71:ARG:NE	2.10	0.49
14:F:74:ALA:HB3	14:F:78:ILE:O	2.12	0.49
26:R:16:GLU:HB2	26:R:101:ILE:HG13	1.94	0.49
4:3:35:LYS:HZ2	4:3:39:ARG:CZ	2.25	0.49
8:7:100:ALA:HB2	8:7:110:ALA:H	1.78	0.49
24:P:6:GLN:O	24:P:10:GLU:HG3	2.13	0.49
34:Z:5:LYS:HG3	34:Z:36:GLU:HG2	1.94	0.49
19:K:1:ILE:HG22	19:K:33:GLY:HA3	1.94	0.49
15:G:18:ILE:O	15:G:19:ASN:ND2	2.44	0.49
13:E:197:GLU:HB3	13:E:201:ALA:O	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:68:ARG:HG2	16:H:132:PHE:CZ	2.22	0.49
1:0:18:HIS:NE2	10:B:2045:C:H1'	2.28	0.49
10:B:1128:G:C6	10:B:2518:A:C6	3.00	0.49
10:B:186:G:H2'	10:B:187:G:C8	2.40	0.49
10:B:230:G:C2	10:B:231:A:C5	3.00	0.49
10:B:2424:C:HO2'	10:B:2425:A:P	2.34	0.49
10:B:2687:U:C4	10:B:2688:G:C6	2.99	0.49
10:B:2687:U:C4	10:B:2688:G:N1	2.80	0.49
10:B:2830:C:H2'	10:B:2831:G:H8	1.77	0.49
10:B:440:C:H2'	10:B:441:U:H6	1.77	0.49
10:B:838:C:C2	10:B:839:U:C6	3.00	0.49
10:B:858:G:H21	10:B:2268:A:H3'	1.76	0.49
31:W:34:SER:HB3	31:W:79:ILE:HD13	1.93	0.49
6:5:47:ASN:HB3	6:5:211:LYS:O	2.12	0.49
10:B:1417:C:N4	10:B:1581:G:H1	2.07	0.49
10:B:1827:U:H2'	10:B:1828:G:O4'	2.12	0.49
9:A:64:G:H2'	9:A:65:U:O4'	2.12	0.49
10:B:346:A:H2'	10:B:347:A:O4'	2.12	0.49
10:B:307:G:H22	10:B:310:A:P	2.34	0.49
10:B:2643:G:C5	10:B:2644:G:C5	3.00	0.49
14:F:3:LEU:HD22	14:F:96:TRP:CZ2	2.47	0.49
16:H:129:GLU:HB3	16:H:139:PHE:CE2	2.42	0.49
21:M:17:ASN:ND2	21:M:95:LEU:HD11	2.24	0.49
22:N:116:VAL:HG13	22:N:117:ASP:CG	2.33	0.49
4:3:56:LEU:HD22	20:L:49:GLY:HA2	1.93	0.49
12:D:102:ALA:HA	12:D:180:VAL:HG21	1.94	0.49
10:B:1127:A:O2'	10:B:1128:G:H5'	2.13	0.49
10:B:2044:C:H2'	10:B:2045:C:C6	2.47	0.49
10:B:2082:A:N6	10:B:2237:G:H1'	2.26	0.49
4:3:34:LYS:NZ	10:B:2390:U:P	2.84	0.49
10:B:2495:G:C4	10:B:2496:C:C5	3.00	0.49
10:B:564:C:P	26:R:79:ARG:NH2	2.85	0.49
10:B:579:G:N1	10:B:1262:A:N7	2.60	0.49
10:B:949:G:C6	10:B:969:G:C6	3.00	0.49
10:B:976:G:C2	10:B:977:G:C5	3.00	0.49
10:B:1007:C:H4'	18:J:110:PRO:HA	1.94	0.49
31:W:23:LYS:C	31:W:25:PHE:H	2.15	0.49
10:B:1891:G:H5''	10:B:1892:C:OP2	2.12	0.49
14:F:129:MET:H	14:F:153:ILE:HB	1.77	0.49
10:B:1392:A:N7	10:B:1393:A:C6	2.81	0.49
10:B:2203:U:O2'	10:B:2204:G:OP2	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2286:G:N2	10:B:2346:A:C8	2.81	0.49
9:A:30:C:H42	9:A:53:A:H61	1.59	0.49
9:A:7:G:O2'	23:O:38:GLN:OE1	2.21	0.49
10:B:1912:A:H62	10:B:1918:A:C4'	2.26	0.49
10:B:103:A:C6	10:B:104:A:C5	3.00	0.49
10:B:348:A:C6	10:B:349:U:C4	3.01	0.49
10:B:98:G:H5''	10:B:99:U:OP2	2.11	0.49
10:B:483:A:H5'	29:U:44:HIS:HB3	1.94	0.49
10:B:753:A:C5	10:B:754:U:C5	3.01	0.49
10:B:1202:G:C6	10:B:1244:A:C6	3.00	0.49
20:L:109:LYS:HG2	20:L:126:ARG:CB	2.42	0.49
8:7:128:THR:OG1	8:7:162:LYS:NZ	2.44	0.49
10:B:1453:A:O2'	22:N:63:ARG:NH2	2.45	0.49
10:B:1617:C:O2'	10:B:1618:A:O5'	2.18	0.49
10:B:1131:G:N1	10:B:2025:C:H1'	2.26	0.49
10:B:2478:A:C4	10:B:2529:G:C5	3.00	0.49
10:B:2674:G:H4'	19:K:29:ARG:CG	2.40	0.49
10:B:464:U:N3	10:B:788:A:C6	2.80	0.49
10:B:238:C:O2'	10:B:608:A:N3	2.39	0.49
10:B:684:G:C5	10:B:774:G:C5	3.00	0.49
10:B:939:G:C2	10:B:940:G:C8	3.01	0.49
10:B:966:G:C6	10:B:967:U:C4	3.00	0.49
27:S:70:LYS:O	27:S:107:VAL:HG13	2.13	0.49
10:B:2085:U:H3	10:B:2234:G:H1	1.60	0.49
10:B:2088:A:N6	10:B:2231:U:H3	2.09	0.49
8:7:56:ARG:HD2	10:B:1084:A:C5	2.47	0.49
10:B:1096:A:C6	10:B:1097:U:C4	3.01	0.49
17:I:1:ALA:C	17:I:2:LYS:HD2	2.31	0.49
10:B:1422:G:N3	10:B:1423:G:C8	2.81	0.49
10:B:892:A:C6	10:B:893:C:C2	3.01	0.49
4:3:22:LYS:NZ	10:B:650:C:C4'	2.75	0.49
10:B:319:G:C4	10:B:333:G:N2	2.80	0.49
10:B:352:A:OP2	10:B:352:A:H8	1.95	0.49
10:B:85:G:C2	10:B:86:G:H1'	2.47	0.49
10:B:317:G:C2	10:B:318:C:C2	3.00	0.49
1:0:56:LYS:NZ	10:B:1280:G:OP1	2.46	0.49
10:B:131:A:H2'	10:B:132:G:C8	2.42	0.49
13:E:194:LYS:HB3	13:E:198:GLU:OE2	2.13	0.49
10:B:1333:G:C4	10:B:1334:G:C8	3.00	0.49
10:B:1203:U:C4	10:B:1204:A:C6	3.00	0.49
11:C:161:VAL:HG13	11:C:174:ARG:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
33:Y:25:GLN:HE21	33:Y:29:ARG:NH2	2.10	0.49
32:X:12:VAL:HG23	32:X:28:PHE:HB2	1.94	0.49
7:6:382:ARG:CZ	7:6:418:GLU:OE2	2.60	0.49
32:X:53:LYS:O	32:X:57:VAL:HG23	2.12	0.49
10:B:1007:C:OP1	18:J:39:LYS:HD2	2.13	0.49
10:B:1030:C:N3	10:B:1125:G:N2	2.61	0.49
10:B:1142:A:C5	10:B:1144:A:N7	2.81	0.49
10:B:1651:G:C6	10:B:1652:A:N6	2.81	0.49
10:B:1668:A:C4	10:B:1993:U:O2	2.66	0.49
10:B:2053:G:N1	10:B:2617:U:C2	2.80	0.49
10:B:2464:G:O6	10:B:2486:C:N4	2.33	0.49
10:B:250:G:C6	10:B:251:A:C6	3.01	0.49
10:B:2618:G:N1	10:B:2619:C:C2	2.81	0.49
10:B:2685:G:H1	10:B:2724:U:H3	1.59	0.49
10:B:464:U:N3	10:B:465:G:C2	2.81	0.49
10:B:776:G:O2'	10:B:777:G:OP2	2.29	0.49
10:B:852:U:H3	10:B:925:A:H61	1.61	0.49
10:B:954:G:C5	10:B:955:U:C5	3.01	0.49
10:B:959:A:C6	10:B:960:A:C6	3.00	0.49
10:B:1130:U:O4	12:D:152:PRO:HB3	2.04	0.49
12:D:164:GLN:NE2	12:D:165:MET:H	2.10	0.49
10:B:659:G:P	13:E:95:LYS:HZ2	2.35	0.49
27:S:25:ARG:HG3	27:S:74:ILE:HG21	1.93	0.49
6:5:173:THR:HA	10:B:2123:G:H4'	1.93	0.49
10:B:2137:U:H3	10:B:2154:A:H61	1.59	0.49
17:I:78:LEU:HD12	17:I:108:ILE:HG23	1.94	0.49
17:I:99:LYS:HG3	17:I:140:GLU:OE2	2.12	0.49
10:B:1799:G:C6	10:B:1819:A:C8	3.00	0.49
10:B:2364:C:H2'	10:B:2365:G:H8	1.78	0.49
10:B:651:G:O3'	10:B:653:U:N3	2.45	0.49
9:A:92:C:O2'	9:A:93:C:O4'	2.18	0.49
10:B:2663:G:N2	10:B:2664:G:H1'	2.28	0.49
10:B:733:G:C5	10:B:761:A:C6	3.00	0.49
10:B:1491:G:H2'	10:B:1492:G:H8	1.77	0.49
10:B:132:G:C4	10:B:133:U:C5	3.00	0.49
10:B:1308:A:C6	10:B:1309:G:C5	3.01	0.49
26:R:62:GLU:O	26:R:96:VAL:HA	2.13	0.49
6:5:77:VAL:HG12	6:5:79:THR:HB	1.94	0.49
8:7:27:VAL:HG22	8:7:109:LYS:O	2.12	0.49
13:E:134:LEU:HD21	13:E:167:VAL:HG21	1.95	0.49
10:B:1266:G:H22	10:B:2012:G:H2'	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1454:C:H5'	22:N:63:ARG:NH2	2.28	0.49
10:B:2044:C:H2'	10:B:2045:C:H6	1.76	0.49
10:B:226:A:H1'	10:B:230:G:C2	2.48	0.49
10:B:2271:G:C5	10:B:2272:U:C5	3.00	0.49
10:B:242:G:O2'	10:B:243:U:P	2.70	0.49
10:B:2472:G:C2'	10:B:2475:C:H42	2.22	0.49
10:B:2519:U:C4	10:B:2542:A:C6	3.00	0.49
10:B:2721:A:O2'	10:B:2873:A:O2'	2.19	0.49
10:B:368:A:C5	10:B:369:U:C4	3.01	0.49
10:B:447:A:C6	10:B:473:G:C2	3.00	0.49
10:B:569:U:H5'	10:B:821:A:H2	1.77	0.49
10:B:669:G:C5	10:B:801:G:C6	3.01	0.49
10:B:841:G:H2'	10:B:842:U:H6	1.78	0.49
10:B:595:C:O2'	10:B:939:G:H4'	2.13	0.49
10:B:949:G:C2	10:B:950:G:C5	3.01	0.49
13:E:47:LYS:HB2	13:E:51:GLU:HB2	1.94	0.49
10:B:2093:G:P	16:H:24:GLY:H	2.36	0.49
10:B:2140:G:C6	10:B:2152:G:C5	3.01	0.49
10:B:2306:C:H2'	10:B:2307:G:N2	2.27	0.49
10:B:110:G:H2'	10:B:111:A:C8	2.47	0.49
10:B:1387:A:C6	10:B:1388:G:C6	3.01	0.49
10:B:1404:C:H2'	10:B:1405:U:C6	2.48	0.49
10:B:401:A:C4	10:B:402:A:C8	3.00	0.49
4:3:46:LYS:NZ	10:B:630:G:P	2.83	0.49
10:B:638:G:C2	10:B:639:U:C2	3.01	0.49
7:6:413:ARG:NH1	15:G:176:LYS:O	2.46	0.49
10:B:2662:A:C2	10:B:2663:G:H1'	2.47	0.49
10:B:1288:G:N7	10:B:1327:A:N6	2.61	0.49
10:B:1532:A:H2'	10:B:1533:C:C6	2.47	0.49
18:J:76:HIS:HE1	18:J:85:LYS:HE2	1.77	0.49
10:B:1275:A:N3	10:B:1275:A:H2'	2.27	0.49
10:B:2786:U:H4'	12:D:67:HIS:N	2.26	0.49
10:B:1525:A:H2'	10:B:1526:C:O4'	2.13	0.49
10:B:734:A:C4	10:B:735:A:C8	3.01	0.49
10:B:1987:A:H2'	10:B:1988:G:C8	2.34	0.49
10:B:1928:A:H2'	10:B:1929:G:O4'	2.12	0.49
10:B:1866:A:N6	10:B:1867:G:N3	2.61	0.49
1:0:3:GLN:N	1:0:3:GLN:OE1	2.41	0.49
10:B:2712:C:OP1	10:B:2714:G:H4'	2.13	0.49
10:B:498:G:C2	10:B:499:U:C6	3.01	0.49
34:Z:5:LYS:HD2	34:Z:36:GLU:OE2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2668:G:C6	10:B:2669:G:C5	3.01	0.49
12:D:181:ASP:HB2	12:D:186:LEU:HB2	1.94	0.49
10:B:1177:G:H8	10:B:1177:G:O5'	1.96	0.49
10:B:1268:A:N6	10:B:2012:G:H21	2.01	0.49
10:B:2016:U:H2'	10:B:2017:U:C6	2.46	0.49
10:B:2270:A:H2'	10:B:2271:G:O4'	2.12	0.49
10:B:2474:U:H5	10:B:2475:C:N1	2.11	0.49
10:B:245:G:H22	10:B:252:G:H22	1.60	0.49
10:B:2677:G:C4	10:B:2678:C:C5	3.01	0.49
10:B:1455:G:N2	10:B:2704:C:O2	2.46	0.49
10:B:37:C:O2'	10:B:38:A:O4'	2.28	0.49
10:B:585:G:N2	10:B:1256:G:C4	2.81	0.49
10:B:668:A:C4	10:B:670:A:N6	2.81	0.49
10:B:675:A:H2'	10:B:676:A:C4	2.48	0.49
10:B:947:A:C2	10:B:971:G:C2	3.01	0.49
22:N:48:VAL:HG13	22:N:49:GLU:HG3	1.95	0.49
31:W:31:LEU:HG	31:W:33:GLY:N	2.23	0.49
10:B:2230:G:H21	32:X:31:ASN:HD21	1.60	0.49
6:5:100:LEU:HB3	6:5:111:PHE:CE1	2.48	0.49
10:B:2155:U:H2'	10:B:2156:G:H5'	1.95	0.49
6:5:105:LYS:NZ	10:B:2168:G:C5	2.81	0.49
17:I:93:ASN:HD21	17:I:134:SER:HA	1.78	0.49
10:B:123:G:C2	10:B:124:G:H1'	2.47	0.49
10:B:1788:C:C2	10:B:1789:A:C8	3.01	0.49
11:C:144:GLU:HB3	11:C:146:LYS:O	2.13	0.49
11:C:250:GLN:N	11:C:254:LYS:HZ2	2.10	0.49
10:B:2286:G:H5'	10:B:2286:G:H8	1.77	0.49
2:1:43:ARG:NH2	10:B:643:A:C4	2.80	0.49
23:O:7:ARG:HD2	23:O:97:PHE:CE1	2.48	0.49
9:A:28:C:OP1	23:O:36:TYR:OH	2.28	0.49
23:O:36:TYR:HA	23:O:52:SER:OG	2.12	0.49
10:B:358:U:H3'	10:B:359:G:H8	1.78	0.49
10:B:2698:U:H2'	10:B:2699:C:H6	1.78	0.49
10:B:1840:G:C6	10:B:1841:U:C4	2.99	0.49
6:5:163:TYR:HB2	6:5:171:ILE:HG23	1.93	0.49
10:B:568:U:H5'	10:B:945:A:N6	2.26	0.49
28:T:29:THR:OG1	28:T:85:VAL:O	2.31	0.49
11:C:103:ILE:HG12	11:C:104:LEU:H	1.77	0.49
19:K:24:LEU:CD1	19:K:58:LYS:HE2	2.43	0.49
19:K:7:LEU:HD13	19:K:83:CYS:SG	2.52	0.49
30:V:76:ASP:H	30:V:90:ASP:HB2	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:107:ILE:O	7:6:111:PHE:HB2	2.12	0.49
7:6:175:GLN:O	7:6:179:GLU:HG3	2.13	0.49
10:B:1188:U:O2'	10:B:1189:A:H5'	2.13	0.49
10:B:14:A:N7	10:B:15:G:C8	2.81	0.49
10:B:2240:U:H2'	10:B:2241:A:C8	2.47	0.49
10:B:261:G:O2'	10:B:610:C:O2'	2.24	0.49
10:B:2855:C:H2'	10:B:2856:A:H8	1.74	0.49
10:B:436:C:H2'	10:B:437:U:H6	1.78	0.49
10:B:552:U:H2'	10:B:553:G:C8	2.48	0.49
10:B:608:A:H2'	10:B:609:A:C8	2.48	0.49
10:B:609:A:H61	10:B:619:G:C2'	2.25	0.49
10:B:207:A:O2'	10:B:799:G:O4'	2.31	0.49
10:B:807:U:C4	10:B:808:G:N7	2.81	0.49
10:B:820:A:H2'	10:B:821:A:C8	2.39	0.49
10:B:558:U:OP1	18:J:114:LEU:N	2.46	0.49
16:H:31:VAL:HG12	32:X:38:TRP:HD1	1.77	0.49
10:B:2116:G:C5	10:B:2146:C:H5''	2.47	0.49
10:B:2335:A:N7	10:B:2337:G:C5	2.81	0.49
17:I:99:LYS:CB	17:I:138:VAL:HB	2.40	0.49
10:B:70:G:H3'	10:B:113:U:H4'	1.94	0.49
10:B:1419:A:C5	10:B:1421:G:C4	3.00	0.49
11:C:144:GLU:OE1	11:C:147:PRO:HA	2.12	0.49
10:B:891:G:H2'	10:B:892:A:C8	2.48	0.49
7:6:101:ILE:HG22	7:6:102:ASP:O	2.13	0.49
10:B:372:G:C4	32:X:60:LYS:NZ	2.78	0.49
10:B:399:U:C4	10:B:400:G:C5	3.00	0.49
9:A:6:G:H2'	9:A:7:G:C8	2.47	0.49
10:B:1287:A:N6	10:B:1288:G:C6	2.81	0.49
10:B:83:A:N1	10:B:102:U:H5'	2.27	0.49
28:T:16:VAL:HG22	28:T:33:LYS:NZ	2.27	0.49
7:6:203:VAL:HG23	7:6:282:HIS:ND1	2.28	0.49
10:B:1839:G:C8	10:B:1927:A:C1'	2.96	0.49
10:B:1202:G:H1	10:B:1243:C:H42	1.60	0.49
13:E:147:LEU:HB3	13:E:186:VAL:HG23	1.95	0.49
10:B:1718:G:C2	10:B:1719:G:C4	3.01	0.49
10:B:1936:A:C2	10:B:1943:U:H5	2.28	0.49
15:G:103:ASN:HA	15:G:113:ASP:OD1	2.12	0.49
24:P:26:GLU:HA	24:P:42:PHE:O	2.13	0.49
15:G:101:VAL:HA	15:G:115:GLN:HA	1.95	0.49
10:B:764:A:C2	10:B:781:A:C2	3.00	0.49
30:V:23:ALA:O	30:V:25:LYS:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:12:VAL:HG23	7:6:75:ALA:HB2	1.95	0.49
22:N:52:ILE:HA	22:N:55:ALA:HB3	1.94	0.49
4:3:4:LYS:HE2	10:B:253:C:OP2	2.13	0.49
10:B:1031:G:C4	10:B:1124:G:C2	3.01	0.49
10:B:1136:G:C2	10:B:1137:G:C5	3.01	0.49
10:B:1210:G:C5	10:B:1237:A:C6	3.01	0.49
10:B:2021:C:H4'	10:B:2022:U:OP2	2.13	0.49
10:B:2511:U:H3	12:D:145:SER:HG	1.58	0.49
10:B:2549:G:N1	10:B:2560:A:C6	2.80	0.49
10:B:259:G:C2	10:B:260:G:C5	3.01	0.49
10:B:2808:G:N2	10:B:2890:G:N7	2.60	0.49
10:B:370:G:C5	10:B:424:G:C8	3.01	0.49
10:B:404:A:H5'	10:B:406:G:C1'	2.43	0.49
10:B:925:A:H2'	10:B:926:G:C8	2.47	0.49
10:B:2822:G:OP1	12:D:117:GLY:N	2.45	0.49
12:D:58:ASN:OD1	12:D:59:ARG:N	2.45	0.49
19:K:20:CYS:SG	19:K:21:ILE:N	2.85	0.49
10:B:2092:U:P	16:H:28:ASN:HD21	2.36	0.49
6:5:100:LEU:HD22	6:5:111:PHE:HD1	1.77	0.49
10:B:2141:G:C2	10:B:2142:A:C8	3.01	0.49
10:B:1055:G:C5	10:B:1056:G:C5	3.01	0.49
10:B:116:C:HO2'	10:B:126:A:H8	1.60	0.49
10:B:722:A:H2'	10:B:723:C:O4'	2.12	0.49
10:B:901:C:C4	10:B:902:C:C4	3.01	0.49
10:B:2415:G:C5	10:B:2416:C:C4	3.01	0.49
10:B:651:G:N2	10:B:652:U:O4'	2.45	0.49
9:A:15:A:C6	9:A:109:A:C2	3.01	0.49
10:B:907:G:C6	10:B:908:C:C4	3.01	0.49
10:B:1287:A:O5'	10:B:1288:G:N2	2.46	0.49
10:B:1288:G:C5	10:B:1327:A:C6	3.01	0.49
9:A:31:C:N4	9:A:51:G:H1	2.09	0.49
9:A:38:C:H2'	9:A:39:A:O4'	2.13	0.49
10:B:2100:G:C5	10:B:2101:A:C5	3.01	0.49
1:0:38:LEU:HG	1:0:41:HIS:CD2	2.48	0.49
10:B:1224:U:H4'	26:R:88:GLY:O	2.13	0.49
27:S:46:LEU:O	27:S:50:VAL:HG23	2.13	0.49
13:E:65:THR:OG1	13:E:66:GLY:N	2.45	0.49
30:V:21:ARG:NE	30:V:87:GLN:HG2	2.27	0.49
10:B:1014:A:H2'	10:B:1015:U:C6	2.48	0.48
10:B:611:C:H2'	10:B:612:G:C8	2.48	0.48
10:B:778:G:H2'	10:B:779:U:O4'	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:677:A:N1	10:B:802:A:C5	2.81	0.48
10:B:857:G:N2	10:B:921:C:O2	2.45	0.48
10:B:968:C:H2'	10:B:969:G:H8	1.78	0.48
20:L:38:GLN:NE2	20:L:45:GLY:O	2.46	0.48
10:B:2224:G:N7	16:H:135:HIS:CE1	2.81	0.48
16:H:30:LEU:CA	16:H:35:LYS:NZ	2.76	0.48
7:6:411:TRP:HB3	7:6:426:ILE:OXT	2.13	0.48
10:B:2386:A:H4'	31:W:55:ASP:OD1	2.13	0.48
17:I:79:LEU:HB2	17:I:135:MET:SD	2.53	0.48
11:C:4:LYS:NZ	11:C:14:HIS:HA	2.28	0.48
10:B:2351:G:HO2'	10:B:2352:A:P	2.36	0.48
10:B:646:U:H2'	10:B:647:G:H4'	1.94	0.48
9:A:18:G:C5	9:A:19:C:C4	3.00	0.48
10:B:1722:A:C4	10:B:1723:G:C8	3.01	0.48
7:6:56:TYR:O	7:6:58:VAL:N	2.46	0.48
10:B:1914:C:H2'	10:B:1916:A:C6	2.48	0.48
10:B:2658:C:H2'	10:B:2659:G:C8	2.48	0.48
10:B:1494:A:N6	10:B:1495:A:N1	2.61	0.48
5:4:24:ARG:HH21	10:B:2742:G:P	2.36	0.48
10:B:1048:A:OP2	10:B:1110:G:N2	2.45	0.48
10:B:1307:A:C5	10:B:1308:A:N7	2.81	0.48
12:D:103:ASP:O	12:D:105:LYS:NZ	2.28	0.48
14:F:109:ARG:HA	14:F:177:ARG:NH1	2.28	0.48
7:6:382:ARG:NE	7:6:418:GLU:OE2	2.46	0.48
6:5:31:LYS:HD2	6:5:178:VAL:HG12	1.94	0.48
16:H:7:ASP:HA	16:H:15:LEU:HD12	1.94	0.48
15:G:136:ASP:OD1	15:G:136:ASP:N	2.42	0.48
10:B:383:C:H2'	10:B:383:C:O2	2.12	0.48
10:B:1130:U:OP1	10:B:1130:U:H6	1.95	0.48
10:B:1458:U:H4'	10:B:1460:U:P	2.53	0.48
10:B:2061:G:C8	10:B:2501:C:H1'	2.48	0.48
10:B:2251:G:N2	10:B:2252:G:C4	2.81	0.48
10:B:921:C:H4'	10:B:2269:G:O6	2.12	0.48
10:B:2469:A:C5	10:B:2482:A:C8	3.01	0.48
10:B:2859:G:H2'	10:B:2860:A:C8	2.47	0.48
10:B:471:A:N6	10:B:472:A:C6	2.82	0.48
10:B:854:C:N3	10:B:923:G:N2	2.54	0.48
10:B:936:A:C6	10:B:937:C:C4	3.01	0.48
27:S:70:LYS:O	27:S:72:THR:N	2.46	0.48
10:B:1075:C:C4	10:B:1076:C:N4	2.81	0.48
10:B:1470:A:C8	10:B:1471:G:C8	3.00	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:245:THR:O	11:C:248:GLY:N	2.44	0.48
10:B:2896:C:H2'	10:B:2897:U:C6	2.47	0.48
10:B:2287:A:H61	10:B:2344:U:H3	1.60	0.48
10:B:83:A:N1	10:B:100:U:H4'	2.29	0.48
10:B:288:U:H3	10:B:352:A:H61	1.60	0.48
14:F:103:ILE:O	14:F:108:PRO:HD3	2.12	0.48
10:B:755:U:OP1	10:B:1272:A:N6	2.43	0.48
10:B:1500:G:H2'	10:B:1501:G:O4'	2.13	0.48
10:B:1897:G:H2'	10:B:1898:U:C6	2.47	0.48
10:B:1940:U:H4'	10:B:1941:C:H5'	1.95	0.48
12:D:25:THR:HG21	12:D:193:VAL:HG22	1.95	0.48
12:D:15:PHE:HB2	24:P:11:GLN:NE2	2.29	0.48
23:O:76:LYS:NZ	23:O:113:ALA:HA	2.28	0.48
10:B:2377:A:C4	10:B:2378:A:C8	3.02	0.48
7:6:372:LEU:HD11	7:6:422:ILE:HG12	1.95	0.48
10:B:1012:U:N3	18:J:27:ARG:NH1	2.61	0.48
10:B:1141:U:H4'	10:B:1142:A:O4'	2.13	0.48
10:B:1454:C:H5'	22:N:63:ARG:CZ	2.44	0.48
10:B:185:G:N1	10:B:186:G:C5	2.82	0.48
10:B:2464:G:C5	10:B:2465:C:C5	3.01	0.48
10:B:2677:G:H2'	10:B:2678:C:C6	2.48	0.48
10:B:2705:A:N6	10:B:2706:A:C4	2.81	0.48
10:B:2824:C:C4	10:B:2825:G:C4	3.02	0.48
10:B:367:G:C6	10:B:368:A:C6	3.01	0.48
10:B:621:A:H3'	10:B:622:G:H8	1.78	0.48
10:B:976:G:N3	10:B:977:G:C8	2.81	0.48
25:Q:90:ASP:OD2	26:R:39:LEU:HB2	2.13	0.48
10:B:2088:A:C5	10:B:2089:C:C4	3.01	0.48
32:X:38:TRP:HE1	32:X:40:GLU:HA	1.79	0.48
18:J:118:MET:CA	18:J:121:LYS:HZ2	2.20	0.48
10:B:122:G:N2	10:B:129:C:N3	2.55	0.48
10:B:1388:G:H2'	10:B:1389:G:H8	1.78	0.48
10:B:1824:G:P	11:C:51:ARG:NH2	2.86	0.48
10:B:882:G:N1	10:B:895:U:H1'	2.28	0.48
10:B:637:A:C5	10:B:652:U:H5''	2.49	0.48
10:B:646:U:C2	10:B:647:G:H1'	2.48	0.48
10:B:327:G:H2'	10:B:328:U:H6	1.78	0.48
10:B:287:G:H2'	10:B:288:U:C6	2.48	0.48
10:B:307:G:N1	10:B:310:A:OP2	2.45	0.48
10:B:302:C:P	29:U:78:LYS:NZ	2.86	0.48
10:B:1657:U:OP2	12:D:141:ARG:HB3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2800:A:H2'	10:B:2801:G:C1'	2.43	0.48
10:B:2096:C:H2'	10:B:2097:A:H8	1.77	0.48
10:B:2741:A:H5''	10:B:2742:G:OP2	2.13	0.48
10:B:1310:G:C5	10:B:1311:G:N1	2.81	0.48
11:C:23:LEU:HD22	11:C:81:GLU:C	2.34	0.48
18:J:80:HIS:O	18:J:81:ILE:HG22	2.13	0.48
10:B:1681:G:O6	10:B:1762:A:N6	2.46	0.48
19:K:98:ILE:HG13	19:K:118:ALA:HB2	1.95	0.48
24:P:39:LEU:HD13	24:P:81:ASP:OD2	2.13	0.48
28:T:69:ARG:HD2	28:T:70:HIS:CD2	2.49	0.48
23:O:79:ALA:HB1	23:O:115:LEU:HB3	1.95	0.48
34:Z:40:THR:O	34:Z:44:ARG:HG2	2.14	0.48
10:B:1003:G:N2	10:B:1153:C:H1'	2.29	0.48
10:B:1129:A:O2'	10:B:1130:U:O5'	2.30	0.48
10:B:1016:G:N2	10:B:1146:C:N3	2.53	0.48
10:B:1227:G:N3	10:B:1228:G:C8	2.81	0.48
10:B:2671:G:C6	10:B:2672:U:C4	3.01	0.48
10:B:2648:G:C6	10:B:2673:G:C4	3.01	0.48
10:B:271:G:N2	10:B:367:G:H1'	2.28	0.48
10:B:527:C:OP2	10:B:2779:U:N3	2.25	0.48
10:B:563:A:C6	10:B:564:C:C4	3.01	0.48
10:B:822:G:C4	10:B:836:G:C2	3.02	0.48
10:B:910:A:C5	21:M:13:HIS:CD2	3.00	0.48
10:B:950:G:C6	10:B:951:C:N3	2.82	0.48
10:B:2674:G:H1'	19:K:26:GLY:HA2	1.95	0.48
10:B:2235:G:C2	10:B:2236:U:H1'	2.48	0.48
10:B:2171:A:H4'	10:B:2172:U:O5'	2.13	0.48
10:B:1352:U:H1'	10:B:1570:A:H2	1.77	0.48
10:B:1817:G:N2	10:B:1818:U:O2	2.46	0.48
10:B:2222:C:P	16:H:116:ARG:NH1	2.86	0.48
11:C:186:ASP:OD2	16:H:116:ARG:NH2	2.46	0.48
10:B:375:G:C2'	10:B:376:G:H5'	2.43	0.48
10:B:2373:G:C2	10:B:2374:C:C4	3.01	0.48
10:B:907:G:OP1	21:M:22:GLN:HG2	2.12	0.48
10:B:480:A:H2'	10:B:480:A:N3	2.28	0.48
23:O:92:PHE:HB2	23:O:117:PHE:CD1	2.47	0.48
7:6:230:ALA:HB3	35:6:527:GNP:PG	2.53	0.48
10:B:2793:C:H2'	10:B:2794:C:C6	2.47	0.48
11:C:107:LYS:HG2	11:C:193:GLU:HG3	1.95	0.48
10:B:1865:U:C2	10:B:1875:G:C2	3.01	0.48
29:U:89:GLY:HA2	29:U:91:LYS:HZ1	1.76	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:0:21:LEU:HD21	27:S:41:LYS:NZ	2.28	0.48
27:S:55:ILE:O	27:S:59:GLU:HG3	2.14	0.48
8:7:42:ARG:NH1	8:7:46:ARG:NH1	2.62	0.48
15:G:94:ARG:HB2	15:G:127:GLN:HB3	1.93	0.48
34:Z:7:THR:HG23	34:Z:33:HIS:O	2.13	0.48
27:S:17:VAL:HB	27:S:76:VAL:HG21	1.96	0.48
26:R:64:VAL:HB	26:R:95:ASP:HB2	1.95	0.48
10:B:571:U:C5	10:B:2030:A:C5	3.01	0.48
10:B:2519:U:C2	10:B:2542:A:N1	2.81	0.48
10:B:2578:G:N2	10:B:2579:C:C2	2.81	0.48
10:B:2702:G:C6	10:B:2703:C:C4	3.01	0.48
10:B:2729:G:C6	10:B:2730:C:C4	3.01	0.48
10:B:28:A:H62	10:B:511:U:H3	1.62	0.48
10:B:473:G:H2'	10:B:474:G:H8	1.76	0.48
10:B:540:C:H2'	10:B:541:A:C8	2.48	0.48
10:B:557:C:N4	10:B:558:U:O4	2.46	0.48
10:B:942:G:H2'	10:B:943:A:H8	1.78	0.48
10:B:1257:C:H4'	13:E:78:TRP:NE1	2.28	0.48
10:B:1653:G:P	22:N:2:ARG:HH21	2.37	0.48
25:Q:50:ARG:HA	25:Q:53:LYS:HZ3	1.75	0.48
10:B:2086:U:H2'	10:B:2087:G:H8	1.77	0.48
6:5:139:ASN:HD21	10:B:2123:G:P	2.36	0.48
17:I:91:LYS:HB2	17:I:95:ASP:CG	2.34	0.48
10:B:1358:G:N7	10:B:1371:G:C6	2.82	0.48
10:B:56:A:C5	10:B:57:C:C5	3.02	0.48
10:B:1:G:H2'	10:B:2:G:C8	2.48	0.48
10:B:5:A:C2	10:B:6:A:C5	3.02	0.48
10:B:1192:G:H2'	10:B:1193:G:H8	1.78	0.48
10:B:875:G:H3'	10:B:876:C:C6	2.45	0.48
10:B:2294:G:P	23:O:94:ARG:NH2	2.82	0.48
10:B:285:G:C2	10:B:286:U:C2	3.01	0.48
10:B:503:A:C4	10:B:506:G:N7	2.82	0.48
28:T:56:GLU:HG2	28:T:87:LEU:HA	1.95	0.48
10:B:2640:G:C2	10:B:2641:G:C8	3.01	0.48
10:B:2772:C:H2'	10:B:2773:C:C6	2.48	0.48
10:B:2638:G:H21	10:B:2778:A:N6	2.11	0.48
11:C:160:TYR:HB3	11:C:193:GLU:OE1	2.13	0.48
10:B:429:A:H2'	10:B:430:A:N9	2.28	0.48
10:B:1239:G:C5	10:B:1240:U:C4	3.02	0.48
15:G:86:LEU:HD23	15:G:147:LEU:HD23	1.96	0.48
33:Y:27:ASN:O	33:Y:30:MET:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:133:ASN:HD21	16:H:122:LEU:HD22	1.79	0.48
8:7:53:ARG:O	8:7:85:SER:HA	2.13	0.48
6:5:67:HIS:CE1	6:5:184:LYS:HD3	2.48	0.48
10:B:2396:G:C6	10:B:2421:G:C6	3.01	0.48
3:2:34:ARG:HH21	3:2:39:ARG:HD2	1.79	0.48
10:B:1036:G:C2	10:B:1120:G:C4	3.01	0.48
10:B:1019:U:H3	10:B:1142:A:N6	2.09	0.48
10:B:1267:U:O2'	10:B:1268:A:P	2.71	0.48
10:B:1650:A:C4	10:B:1651:G:C8	3.02	0.48
10:B:1652:A:C6	10:B:1653:G:C2	3.02	0.48
10:B:2277:G:N2	10:B:2278:A:H1'	2.29	0.48
10:B:42:A:H2'	10:B:43:G:H8	1.78	0.48
10:B:822:G:C6	10:B:836:G:C6	3.02	0.48
10:B:2728:U:OP1	19:K:69:ARG:NH1	2.47	0.48
10:B:518:G:O5'	27:S:18:ARG:NH2	2.47	0.48
10:B:1890:A:H2'	10:B:1891:G:C8	2.48	0.48
6:5:105:LYS:NZ	10:B:2168:G:N7	2.61	0.48
6:5:134:ARG:HD2	10:B:2172:U:C5'	2.37	0.48
6:5:105:LYS:NZ	10:B:2170:A:OP2	2.43	0.48
10:B:1068:G:H21	10:B:1096:A:H5''	1.79	0.48
17:I:102:ARG:HD3	17:I:105:LEU:HD12	1.95	0.48
10:B:1781:U:C3'	10:B:1782:U:H5'	2.43	0.48
10:B:277:G:N2	10:B:360:U:OP2	2.45	0.48
9:A:33:G:C6	9:A:34:A:C5	3.02	0.48
10:B:742:A:H2'	10:B:743:A:H8	1.78	0.48
10:B:1491:G:O2'	11:C:99:GLU:OE1	2.31	0.48
6:5:163:TYR:CD1	6:5:171:ILE:HD13	2.48	0.48
32:X:26:ARG:NH1	32:X:28:PHE:CE1	2.82	0.48
33:Y:23:ARG:HD2	33:Y:27:ASN:HB2	1.94	0.48
22:N:21:PHE:CZ	22:N:40:LYS:HG2	2.48	0.48
10:B:2737:G:H2'	10:B:2738:A:H8	1.78	0.48
10:B:158:U:C4	10:B:159:G:C5	3.01	0.48
25:Q:64:ILE:HD13	25:Q:95:ALA:HB3	1.95	0.48
7:6:163:ASP:HA	7:6:166:LEU:HD12	1.95	0.48
10:B:1036:G:C6	10:B:1120:G:C5	3.02	0.48
10:B:1026:G:C4	10:B:1134:A:C6	3.02	0.48
10:B:1179:G:C6	10:B:1180:U:C4	3.01	0.48
10:B:1184:U:H2'	10:B:1185:G:H8	1.79	0.48
10:B:1218:G:C6	10:B:1219:U:N3	2.81	0.48
10:B:2392:A:H2'	10:B:2393:U:O4'	2.13	0.48
10:B:2466:C:C2	10:B:2467:C:H5	2.30	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:259:G:H2'	10:B:260:G:C8	2.49	0.48
10:B:459:U:H2'	10:B:460:A:C8	2.46	0.48
10:B:585:G:C5	10:B:1251:C:C4	3.02	0.48
10:B:585:G:H5''	10:B:586:A:OP2	2.14	0.48
10:B:784:G:HO2'	10:B:785:G:P	2.37	0.48
10:B:844:A:N3	10:B:845:A:C2	2.82	0.48
10:B:442:G:N2	13:E:43:THR:OG1	2.45	0.48
10:B:2867:G:C6	24:P:20:ARG:NH2	2.81	0.48
25:Q:78:PHE:HE2	25:Q:82:LEU:HD11	1.77	0.48
25:Q:87:VAL:O	25:Q:89:ILE:N	2.47	0.48
31:W:21:GLY:N	31:W:33:GLY:O	2.47	0.48
10:B:988:A:P	34:Z:11:SER:HB2	2.53	0.48
6:5:1:MET:SD	6:5:5:THR:HB	2.54	0.48
10:B:2317:A:H3'	10:B:2318:G:C8	2.45	0.48
3:2:18:PHE:HB3	10:B:126:A:OP1	2.13	0.48
10:B:1316:U:H2'	10:B:1317:G:H8	1.79	0.48
10:B:1401:G:H2'	10:B:1402:U:O4'	2.14	0.48
10:B:164:C:N4	10:B:165:A:C4	2.82	0.48
10:B:1809:A:N7	10:B:1810:A:C5	2.82	0.48
11:C:250:GLN:NE2	11:C:252:LYS:H	2.10	0.48
10:B:7:G:H2'	10:B:8:C:C6	2.49	0.48
10:B:2287:A:N7	10:B:2289:G:C4	2.81	0.48
10:B:2363:G:N2	10:B:2364:C:C2	2.82	0.48
4:3:18:LYS:HE2	10:B:651:G:OP1	2.14	0.48
9:A:57:A:C4	14:F:25:MET:HB3	2.47	0.48
23:O:18:LEU:HD22	23:O:91:SER:HB2	1.94	0.48
21:M:66:ARG:CZ	21:M:104:GLU:OE2	2.62	0.48
10:B:1279:G:C2	10:B:1280:G:C4	3.02	0.48
10:B:1632:A:N1	10:B:1633:G:C6	2.82	0.48
11:C:239:PHE:CE2	11:C:241:LYS:HD3	2.49	0.48
1:0:54:ILE:HD13	22:N:112:TYR:CD2	2.49	0.48
10:B:1162:G:C4	10:B:1163:G:C8	3.02	0.48
10:B:1993:U:C4	10:B:1994:C:C2	3.02	0.48
10:B:2425:A:H4'	10:B:2426:A:C5'	2.44	0.48
10:B:2488:G:H2'	10:B:2489:U:H6	1.79	0.48
10:B:2494:G:H2'	10:B:2495:G:C8	2.48	0.48
10:B:250:G:H5'	10:B:251:A:OP2	2.12	0.48
10:B:221:A:C5	10:B:266:G:C8	3.01	0.48
10:B:2702:G:C5	10:B:2703:C:C5	3.01	0.48
10:B:2840:C:C2	10:B:2841:C:C5	3.02	0.48
10:B:460:A:C6	10:B:470:A:C8	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:528:A:C6	10:B:2042:A:C4	3.01	0.48
10:B:535:G:C6	10:B:559:G:C6	3.02	0.48
10:B:670:A:O2'	10:B:671:C:OP2	2.23	0.48
19:K:20:CYS:HA	19:K:40:ILE:HD13	1.96	0.48
25:Q:78:PHE:CE1	25:Q:109:VAL:HG22	2.45	0.48
8:7:29:ASP:HA	8:7:107:GLU:HG3	1.95	0.48
10:B:77:G:C5	10:B:110:G:C2	3.02	0.48
10:B:122:G:H1	10:B:129:C:N4	2.05	0.48
10:B:1341:G:H2'	10:B:1397:U:O2	2.14	0.48
10:B:692:C:C2	10:B:771:G:C2	3.01	0.48
11:C:86:ARG:HB3	11:C:88:ALA:H	1.78	0.48
10:B:874:G:C6	10:B:904:G:C6	3.01	0.48
2:1:43:ARG:CZ	10:B:643:A:C4	2.96	0.48
23:O:90:VAL:HG23	23:O:91:SER:O	2.14	0.48
10:B:1739:A:H2'	10:B:1740:G:O4'	2.13	0.48
10:B:2532:G:O2'	10:B:2657:A:N1	2.46	0.48
15:G:148:ARG:HH11	15:G:153:PRO:HD3	1.79	0.48
15:G:8:VAL:HG23	15:G:51:PHE:HE2	1.79	0.48
10:B:1839:G:C4	10:B:1927:A:C8	3.01	0.48
10:B:1930:G:N2	10:B:1969:A:OP2	2.40	0.48
10:B:1627:G:C2	10:B:1628:G:C8	3.02	0.48
5:4:31:PRO:O	5:4:34:LYS:HG3	2.14	0.48
13:E:112:LEU:HB3	13:E:118:LEU:HB2	1.95	0.48
18:J:13:ARG:HH22	18:J:49:ASP:CB	2.26	0.48
26:R:33:VAL:O	26:R:61:ALA:N	2.46	0.48
10:B:2557:G:C2	10:B:2558:C:C2	3.02	0.48
21:M:50:ARG:HH12	21:M:51:ARG:HD2	1.78	0.48
3:2:43:THR:O	3:2:45:SER:N	2.39	0.48
10:B:1241:A:C6	10:B:1242:U:C2	3.02	0.48
26:R:51:VAL:HG13	26:R:54:VAL:HG22	1.96	0.48
25:Q:81:GLY:HA3	25:Q:112:ALA:HB1	1.94	0.48
1:0:14:MET:HB3	10:B:2045:C:O3'	2.13	0.48
10:B:1177:G:H8	10:B:1177:G:P	2.37	0.48
10:B:1449:G:C4	10:B:1450:G:C8	3.02	0.48
10:B:203:A:C8	10:B:204:A:C8	3.02	0.48
10:B:190:A:OP2	10:B:205:G:N2	2.47	0.48
10:B:2082:A:H2'	10:B:2083:G:O4'	2.13	0.48
10:B:2241:A:H2	10:B:2242:G:N1	2.11	0.48
10:B:222:A:C6	10:B:224:U:N3	2.82	0.48
10:B:2269:G:N2	10:B:2270:A:C4	2.81	0.48
10:B:2437:G:C5	10:B:2438:U:H5	2.32	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2535:G:C5	10:B:2536:G:C5	3.01	0.48
10:B:2617:U:H2'	10:B:2618:G:C8	2.48	0.48
10:B:2679:A:H4'	12:D:194:PRO:HB3	1.96	0.48
10:B:2816:G:O2'	10:B:2817:U:H5'	2.14	0.48
10:B:585:G:N7	25:Q:5:ARG:NH1	2.61	0.48
10:B:599:A:H2'	10:B:600:G:H8	1.79	0.48
10:B:993:G:C6	10:B:1162:G:C6	3.01	0.48
10:B:997:G:H2'	10:B:998:C:H6	1.79	0.48
31:W:30:VAL:HG22	31:W:61:LYS:HA	1.95	0.48
31:W:49:ASN:CB	31:W:61:LYS:HG2	2.41	0.48
10:B:2093:G:C5	10:B:2225:A:C4	3.01	0.48
6:5:18:THR:HG21	6:5:213:SER:HB3	1.95	0.48
10:B:2110:G:H4'	10:B:2111:U:OP2	2.14	0.48
10:B:1880:U:H2'	10:B:1881:C:C6	2.49	0.48
10:B:1099:G:C6	10:B:1100:C:C4	3.02	0.48
17:I:75:ALA:HA	17:I:78:LEU:HD12	1.96	0.48
10:B:1824:G:O5'	11:C:51:ARG:NH2	2.46	0.48
10:B:718:A:H3'	10:B:719:C:H6	1.79	0.48
7:6:357:LEU:O	7:6:360:ARG:N	2.46	0.48
9:A:74:U:H2'	9:A:75:G:C8	2.49	0.48
10:B:2353:G:C6	10:B:2365:G:C2	3.02	0.48
10:B:636:G:H3'	20:L:128:THR:HG21	1.96	0.48
9:A:78:A:H2'	9:A:79:G:O4'	2.14	0.48
9:A:84:G:C2	9:A:85:G:C5	3.02	0.48
10:B:918:A:H5''	10:B:919:U:OP2	2.14	0.48
14:F:95:MET:HB2	14:F:96:TRP:CE3	2.48	0.48
14:F:34:THR:CG2	14:F:88:VAL:H	2.26	0.48
10:B:2748:A:C5	10:B:2753:A:N6	2.82	0.48
10:B:1639:C:C2'	10:B:1640:A:H5''	2.41	0.48
10:B:805:G:N2	10:B:2068:U:P	2.87	0.48
17:I:15:GLY:H	17:I:45:THR:CG2	2.25	0.48
8:7:113:PHE:CB	8:7:126:LEU:HB2	2.44	0.48
10:B:1303:G:N1	10:B:1304:A:C5	2.82	0.48
27:S:47:VAL:HA	27:S:50:VAL:HB	1.96	0.48
16:H:79:THR:HG23	16:H:145:ASN:OD1	2.14	0.48
25:Q:86:SER:C	25:Q:88:GLU:H	2.17	0.48
20:L:91:ASP:OD1	20:L:123:ARG:HG2	2.14	0.48
10:B:570:G:C2	10:B:2030:A:C4	3.02	0.48
10:B:531:C:C5	10:B:2035:G:C2	3.02	0.48
10:B:21:A:C6	10:B:520:G:C6	3.01	0.48
10:B:244:A:H62	10:B:254:G:N2	2.04	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2463:C:C2	10:B:2488:G:C2	3.02	0.48
10:B:2472:G:C8	10:B:2475:C:N4	2.82	0.48
10:B:535:G:C5	10:B:536:G:N7	2.82	0.48
10:B:951:C:H5''	10:B:952:G:OP2	2.14	0.48
18:J:31:GLU:HG3	18:J:142:ILE:HG21	1.95	0.48
22:N:39:PRO:O	22:N:41:ALA:N	2.45	0.48
27:S:69:LEU:HB3	27:S:107:VAL:HG11	1.96	0.48
10:B:2224:G:P	11:C:264:LYS:HZ1	2.36	0.48
6:5:37:LYS:HG2	10:B:2128:G:O5'	2.14	0.48
7:6:332:ASP:OD2	7:6:338:ASN:HA	2.13	0.48
10:B:2351:G:H1'	10:B:2366:A:H61	1.79	0.48
10:B:1721:G:C2	10:B:1738:G:C4	3.02	0.48
10:B:299:A:C5	10:B:300:A:C6	3.01	0.48
10:B:279:A:H8	10:B:279:A:O5'	1.97	0.48
10:B:478:A:C6	10:B:480:A:C5	3.02	0.48
28:T:44:LYS:HG3	28:T:55:VAL:HG11	1.96	0.48
10:B:2640:G:N1	10:B:2641:G:C5	2.81	0.48
10:B:1286:A:H5''	22:N:104:ALA:HB3	1.96	0.48
23:O:62:LEU:HB3	23:O:64:TYR:H	1.79	0.48
11:C:73:ILE:HD13	11:C:97:ASP:HB3	1.96	0.48
20:L:78:ARG:HA	20:L:113:ALA:HB3	1.95	0.48
1:0:32:THR:OG1	1:0:33:SER:N	2.45	0.48
10:B:1833:C:C4	10:B:1834:U:C4	3.02	0.48
10:B:1627:G:N3	10:B:1628:G:C8	2.82	0.48
10:B:1245:G:H2'	10:B:1246:A:C8	2.46	0.48
7:6:11:ALA:H	7:6:42:LEU:HG	1.79	0.48
15:G:27:GLY:HA3	15:G:78:VAL:HB	1.96	0.48
19:K:37:ILE:HG22	19:K:60:VAL:HG12	1.96	0.48
12:D:13:ARG:NH2	24:P:74:GLN:NE2	2.62	0.48
10:B:2595:G:C2	10:B:2599:G:C5	3.01	0.48
11:C:105:ALA:N	11:C:106:PRO:HD3	2.27	0.48
26:R:30:GLY:N	26:R:63:VAL:HG13	2.28	0.48
10:B:1005:C:C4	10:B:1143:A:C4	3.02	0.47
10:B:1707:G:C6	10:B:1708:C:C2	3.02	0.47
10:B:190:A:C2	10:B:191:A:C4	3.02	0.47
10:B:2009:A:C4	10:B:2010:G:N7	2.82	0.47
10:B:2359:C:H2'	10:B:2360:G:H8	1.79	0.47
10:B:2494:G:C4	10:B:2495:G:C8	3.02	0.47
10:B:2517:C:C2	10:B:2542:A:N7	2.82	0.47
10:B:2543:G:C4	10:B:2544:G:C8	3.01	0.47
10:B:2564:A:H62	10:B:2565:A:N6	2.12	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2623:G:H2'	10:B:2624:G:C8	2.49	0.47
10:B:2687:U:O4	10:B:2688:G:N1	2.47	0.47
10:B:2824:C:C4	10:B:2825:G:C5	3.02	0.47
10:B:364:C:H2'	10:B:365:U:C6	2.49	0.47
10:B:38:A:C2	10:B:39:G:C4	3.02	0.47
10:B:46:G:C6	10:B:47:C:C4	3.02	0.47
10:B:585:G:C6	10:B:1251:C:C2	3.02	0.47
10:B:802:A:N3	10:B:802:A:H2'	2.28	0.47
22:N:60:VAL:O	22:N:64:ARG:HG2	2.14	0.47
10:B:535:G:O4'	25:Q:48:ASP:OD2	2.32	0.47
25:Q:91:ARG:NH1	26:R:11:GLN:HG3	2.28	0.47
10:B:2126:A:H1'	10:B:2162:G:C5	2.49	0.47
10:B:1860:G:N1	10:B:1861:G:C5	2.82	0.47
10:B:1360:G:C2	10:B:1361:G:H1'	2.49	0.47
10:B:1601:G:C6	10:B:1602:U:N3	2.82	0.47
10:B:2607:G:N1	10:B:2608:G:C6	2.82	0.47
10:B:728:G:O2'	10:B:763:G:OP2	2.31	0.47
11:C:142:ASN:HA	11:C:153:LEU:O	2.13	0.47
10:B:1192:G:C2	10:B:1193:G:C8	3.01	0.47
25:Q:18:LYS:HG3	25:Q:21:LYS:HZ1	1.76	0.47
10:B:2293:G:C2	10:B:2294:G:C5	3.02	0.47
10:B:2340:A:H2'	10:B:2341:G:H8	1.79	0.47
10:B:628:G:N1	10:B:629:G:C5	2.82	0.47
10:B:1913:A:N6	10:B:1916:A:H62	2.12	0.47
10:B:2655:G:O2'	10:B:2656:U:P	2.71	0.47
10:B:2660:A:H2'	10:B:2661:G:H8	1.79	0.47
10:B:347:A:H2'	10:B:348:A:C8	2.49	0.47
10:B:2104:C:H2'	10:B:2105:U:H6	1.78	0.47
15:G:57:TYR:C	15:G:59:ASP:H	2.17	0.47
10:B:132:G:C5	10:B:133:U:C4	3.02	0.47
13:E:188:MET:SD	13:E:193:VAL:HG22	2.55	0.47
10:B:1845:G:N1	10:B:1895:C:O2	2.42	0.47
25:Q:101:ASP:OD2	26:R:2:TYR:CZ	2.67	0.47
28:T:21:SER:O	28:T:25:GLU:HG3	2.14	0.47
2:1:38:PHE:HB2	2:1:45:HIS:CE1	2.49	0.47
10:B:2769:U:C4	10:B:2770:G:C5	3.02	0.47
16:H:48:GLU:O	16:H:51:ARG:HG2	2.14	0.47
23:O:100:HIS:N	23:O:104:GLN:HB2	2.29	0.47
15:G:134:GLY:N	15:G:140:ILE:HD12	2.28	0.47
27:S:31:GLN:HB2	27:S:34:ASP:HB2	1.96	0.47
10:B:495:G:H1'	27:S:57:ASN:ND2	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:84:ALA:HB1	16:H:148:ALA:HA	1.96	0.47
10:B:1258:U:H2'	10:B:1259:G:H8	1.79	0.47
10:B:1676:A:C5	10:B:1677:A:C5	3.02	0.47
10:B:1707:G:C6	10:B:1708:C:N3	2.82	0.47
10:B:2258:C:OP1	31:W:10:ARG:NH1	2.48	0.47
10:B:2358:A:C6	10:B:2359:C:C4	3.02	0.47
10:B:2816:G:C4	10:B:2817:U:C5	3.02	0.47
10:B:2849:U:H4'	10:B:2868:A:C4	2.48	0.47
10:B:2852:G:H5'	22:N:64:ARG:HH22	1.78	0.47
10:B:545:U:H3'	10:B:547:A:OP2	2.14	0.47
10:B:749:A:H4'	10:B:1271:G:H21	1.77	0.47
18:J:26:GLY:O	18:J:29:ALA:N	2.47	0.47
24:P:90:ALA:HB3	24:P:110:LYS:N	2.26	0.47
6:5:43:ASP:OD1	6:5:215:SER:HB3	2.14	0.47
10:B:2106:U:N3	10:B:2107:G:C5	2.82	0.47
10:B:2118:U:O2	10:B:2148:G:O2'	2.30	0.47
10:B:2149:U:H2'	10:B:2150:C:H6	1.79	0.47
10:B:2136:G:H22	10:B:2155:U:H3	1.62	0.47
7:6:364:GLU:CG	7:6:408:ILE:HD11	2.43	0.47
10:B:1880:U:H2'	10:B:1881:C:H6	1.78	0.47
14:F:121:PHE:HE1	14:F:127:TYR:CZ	2.32	0.47
10:B:1078:U:O2'	10:B:1088:A:H5''	2.15	0.47
10:B:111:A:C6	10:B:112:U:C4	3.02	0.47
10:B:1347:A:C6	10:B:1348:C:N3	2.82	0.47
10:B:1368:G:N3	10:B:1369:G:C8	2.82	0.47
10:B:1823:G:H2'	10:B:1824:G:H8	1.78	0.47
9:A:102:G:H2'	9:A:103:U:C6	2.50	0.47
10:B:372:G:N7	32:X:56:ARG:NH2	2.61	0.47
10:B:637:A:C2	10:B:652:U:H5''	2.49	0.47
10:B:649:G:C5	10:B:650:C:C4	3.01	0.47
9:A:58:A:H2'	9:A:59:A:O4'	2.15	0.47
23:O:40:ILE:HG22	23:O:47:VAL:HG22	1.96	0.47
9:A:85:G:H1	9:A:91:C:N4	2.12	0.47
7:6:209:GLY:N	35:6:527:GNP:O1B	2.47	0.47
10:B:2796:U:C4	10:B:2798:U:N3	2.82	0.47
10:B:1502:A:C4	10:B:1503:A:C8	3.01	0.47
13:E:31:VAL:HG11	13:E:104:ALA:CB	2.45	0.47
26:R:14:VAL:HA	26:R:18:GLN:NE2	2.30	0.47
7:6:25:GLU:C	7:6:27:LEU:N	2.68	0.47
22:N:90:ARG:NH2	22:N:117:ASP:OD1	2.47	0.47
10:B:886:A:O2'	10:B:887:U:H3'	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:37:MET:HB2	14:F:85:GLY:CA	2.44	0.47
14:F:37:MET:HB2	14:F:86:CYS:N	2.29	0.47
26:R:24:LYS:HA	26:R:94:THR:OG1	2.14	0.47
10:B:1672:A:C6	10:B:1673:G:C6	3.02	0.47
26:R:77:PHE:CG	26:R:78:ARG:N	2.82	0.47
10:B:1138:G:O2'	18:J:108:MET:HG3	2.14	0.47
10:B:1157:G:C6	10:B:1158:C:C4	3.02	0.47
10:B:1189:A:N7	10:B:1190:G:C8	2.82	0.47
10:B:1218:G:C6	10:B:1219:U:C4	3.03	0.47
10:B:1750:G:C5	10:B:1751:U:C4	3.03	0.47
10:B:18:U:C2	10:B:19:A:C8	3.02	0.47
10:B:217:A:N6	10:B:218:A:C2	2.82	0.47
10:B:858:G:C4	10:B:2268:A:C2	3.03	0.47
4:3:53:ASP:OD2	10:B:2359:C:H4'	2.15	0.47
10:B:2461:A:C6	10:B:2490:G:N2	2.82	0.47
10:B:256:A:H2'	10:B:257:C:C6	2.50	0.47
10:B:458:G:N2	10:B:470:A:OP2	2.44	0.47
10:B:47:C:N4	10:B:178:G:H1	2.11	0.47
10:B:559:G:N2	25:Q:48:ASP:OD1	2.48	0.47
10:B:600:G:H2'	10:B:601:C:C6	2.49	0.47
10:B:941:A:H2'	10:B:942:G:C8	2.50	0.47
10:B:536:G:H21	18:J:47:HIS:CG	2.32	0.47
24:P:23:ASP:CG	24:P:89:GLY:H	2.17	0.47
10:B:973:A:P	26:R:81:LYS:NZ	2.88	0.47
31:W:30:VAL:O	31:W:30:VAL:HG12	2.15	0.47
31:W:31:LEU:N	31:W:60:ALA:HB3	2.29	0.47
10:B:2135:A:H2'	10:B:2136:G:C8	2.49	0.47
10:B:2156:G:H5''	10:B:2157:G:OP1	2.15	0.47
10:B:1862:G:C4	10:B:1863:G:C8	3.02	0.47
8:7:45:GLY:O	8:7:49:GLY:N	2.48	0.47
10:B:55:G:H2'	10:B:56:A:C8	2.49	0.47
10:B:708:G:H2'	10:B:709:U:C6	2.49	0.47
10:B:882:G:C2	10:B:883:G:H1'	2.49	0.47
10:B:635:C:O2	10:B:639:U:H4'	2.15	0.47
9:A:68:C:N3	9:A:69:G:C5	2.82	0.47
12:D:65:ALA:O	12:D:69:ALA:N	2.48	0.47
20:L:77:ILE:HD11	20:L:110:VAL:HG13	1.95	0.47
10:B:1606:C:H5''	10:B:1607:C:OP1	2.13	0.47
10:B:1965:C:OP1	10:B:1966:A:O2'	2.30	0.47
6:5:65:LEU:N	6:5:159:GLY:O	2.44	0.47
6:5:62:ALA:HA	6:5:161:VAL:O	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:108:LEU:N	26:R:48:LYS:HE3	2.30	0.47
26:R:37:GLU:CD	26:R:58:VAL:H	2.18	0.47
11:C:119:VAL:HG21	16:H:122:LEU:HD11	1.97	0.47
11:C:179:GLU:OE2	11:C:269:ARG:NH1	2.47	0.47
4:3:50:SER:HB3	10:B:2360:G:OP1	2.14	0.47
9:A:87:U:O2'	9:A:88:C:H4'	2.14	0.47
10:B:1216:G:C2	10:B:1217:U:C2	3.02	0.47
10:B:202:U:C5	10:B:203:A:C4	3.02	0.47
10:B:2256:G:C2	10:B:2257:U:C2	3.02	0.47
10:B:2470:G:N1	10:B:2471:A:C5	2.82	0.47
10:B:2495:G:C5	10:B:2496:C:C4	3.02	0.47
10:B:265:A:H2'	10:B:266:G:C4'	2.44	0.47
10:B:2684:U:H4'	19:K:75:VAL:HG21	1.95	0.47
10:B:445:C:C5	10:B:446:G:C5	3.03	0.47
10:B:455:C:N4	10:B:472:A:C5	2.82	0.47
10:B:524:G:C5	10:B:525:U:C5	3.02	0.47
10:B:554:U:C4	10:B:555:G:N7	2.82	0.47
10:B:866:A:N7	10:B:867:C:C4	2.82	0.47
10:B:915:C:N4	10:B:916:G:C6	2.81	0.47
10:B:962:G:C2	10:B:963:U:C2	3.03	0.47
19:K:30:ARG:O	19:K:32:ALA:N	2.47	0.47
10:B:519:U:H5''	27:S:25:ARG:NH2	2.29	0.47
16:H:32:PRO:HA	32:X:38:TRP:CE2	2.50	0.47
19:K:97:ARG:NH2	19:K:119:PRO:HD3	2.29	0.47
8:7:30:SER:O	10:B:1054:A:O2'	2.25	0.47
10:B:1057:A:H2'	10:B:1058:U:H5	1.79	0.47
10:B:1078:U:H5''	17:I:133:ARG:HH22	1.78	0.47
10:B:1093:G:C2	10:B:1094:U:C6	3.02	0.47
8:7:56:ARG:HB3	10:B:1106:G:H4'	1.97	0.47
10:B:149:A:C6	10:B:150:U:C4	3.03	0.47
10:B:1804:C:C4	10:B:1805:A:N7	2.82	0.47
10:B:1823:G:N3	10:B:1824:G:C8	2.82	0.47
10:B:725:G:C2	10:B:726:G:N2	2.82	0.47
10:B:874:G:C2	10:B:904:G:C4	3.03	0.47
7:6:84:LEU:HD13	7:6:88:GLN:HB2	1.95	0.47
10:B:2657:A:C5	10:B:2665:A:C5	3.02	0.47
10:B:475:C:H1'	10:B:509:C:C2	2.48	0.47
10:B:2641:G:C2	10:B:2774:C:C2	3.02	0.47
7:6:327:PRO:HB3	7:6:349:GLY:HA2	1.97	0.47
1:0:37:HIS:CE1	1:0:39:ARG:HA	2.49	0.47
10:B:1205:A:C6	13:E:165:HIS:CD2	3.02	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:370:LEU:HA	7:6:424:TYR:CD2	2.49	0.47
22:N:31:HIS:C	22:N:33:ILE:H	2.15	0.47
11:C:211:ARG:NH2	11:C:217:PRO:CG	2.77	0.47
21:M:42:THR:H	21:M:45:GLN:NE2	2.12	0.47
10:B:1480:C:C4	10:B:1481:U:C4	3.02	0.47
4:3:38:LYS:HG3	4:3:41:ARG:NH2	2.29	0.47
10:B:1321:A:O2'	10:B:1322:A:OP1	2.23	0.47
10:B:750:A:H5''	10:B:751:A:OP2	2.15	0.47
12:D:98:VAL:HG21	12:D:182:ALA:HA	1.95	0.47
5:4:15:LYS:O	5:4:25:VAL:HG23	2.15	0.47
10:B:585:G:C6	10:B:1251:C:N3	2.82	0.47
10:B:182:A:C5	10:B:183:C:C4	3.01	0.47
10:B:222:A:C6	10:B:224:U:C2	3.03	0.47
10:B:199:A:N7	10:B:2433:A:N6	2.62	0.47
10:B:2535:G:C5	10:B:2536:G:N7	2.82	0.47
10:B:2647:U:HO2'	10:B:2648:G:H8	1.63	0.47
10:B:666:A:N1	10:B:667:U:C4	2.82	0.47
10:B:749:A:C4	10:B:1618:A:C5	3.02	0.47
10:B:679:C:C2	10:B:799:G:N2	2.83	0.47
10:B:993:G:C5	10:B:994:C:C5	3.02	0.47
18:J:113:PRO:CA	18:J:116:ARG:NH1	2.77	0.47
21:M:125:PRO:HG2	21:M:126:ILE:HG12	1.97	0.47
32:X:37:PHE:HB3	32:X:63:ILE:HD11	1.96	0.47
32:X:36:ARG:HD2	32:X:45:PHE:CD2	2.50	0.47
6:5:129:GLN:HE22	10:B:2170:A:H61	1.61	0.47
6:5:1:MET:HB3	10:B:2118:U:H1'	1.97	0.47
10:B:2135:A:C5	10:B:2136:G:C5	3.02	0.47
10:B:2140:G:P	10:B:2140:G:H8	2.38	0.47
10:B:1885:A:C6	10:B:1886:U:C4	3.03	0.47
10:B:1754:A:C4	10:B:1755:A:C8	3.03	0.47
8:7:78:GLY:H	8:7:82:ILE:HG13	1.79	0.47
10:B:1084:A:N6	10:B:1085:A:C6	2.81	0.47
17:I:73:PRO:HA	17:I:74:PRO:HD3	1.79	0.47
10:B:1341:G:O2'	10:B:1342:A:H5'	2.13	0.47
10:B:2415:G:H2'	10:B:2416:C:H6	1.78	0.47
9:A:113:C:H2'	9:A:114:C:C6	2.46	0.47
9:A:52:A:H8	23:O:33:ARG:NH2	2.12	0.47
10:B:337:C:OP1	29:U:3:LYS:HD2	2.14	0.47
10:B:487:C:H5''	10:B:488:G:OP2	2.14	0.47
10:B:317:G:C6	10:B:318:C:C4	3.02	0.47
12:D:52:THR:HG22	12:D:53:GLY:N	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:62:LEU:HD12	23:O:65:THR:HG22	1.96	0.47
10:B:2192:U:C2	10:B:2193:G:C8	3.02	0.47
10:B:626:A:C2'	20:L:78:ARG:HH21	2.27	0.47
10:B:1838:C:C4	10:B:1899:A:C2	3.02	0.47
10:B:1704:C:H2'	10:B:1705:A:N7	2.29	0.47
22:N:33:ILE:HG22	22:N:114:GLU:CB	2.44	0.47
27:S:51:LEU:O	27:S:55:ILE:HG13	2.14	0.47
10:B:886:A:H1'	10:B:889:C:C5	2.49	0.47
11:C:77:VAL:HA	11:C:93:VAL:HA	1.95	0.47
34:Z:43:ILE:O	34:Z:46:MET:HB2	2.15	0.47
26:R:66:HIS:CE1	26:R:94:THR:HG23	2.49	0.47
7:6:217:ILE:HG23	7:6:218:THR:HG23	1.96	0.47
10:B:1175:A:H5'	10:B:1176:U:H1'	1.96	0.47
10:B:1197:G:H2'	10:B:1198:U:C6	2.50	0.47
10:B:1748:C:H2'	10:B:1749:A:C8	2.49	0.47
10:B:2061:G:HO2'	10:B:2063:C:H41	1.58	0.47
10:B:2466:C:N4	10:B:2484:G:H1	2.13	0.47
10:B:2538:C:H2'	10:B:2539:C:C6	2.50	0.47
10:B:2552:U:H2'	10:B:2554:U:OP2	2.13	0.47
10:B:529:A:N6	10:B:2023:C:C2	2.83	0.47
10:B:855:G:C4	10:B:923:G:C2	3.02	0.47
25:Q:96:ASP:OD2	26:R:13:ARG:NH1	2.47	0.47
27:S:42:LYS:O	27:S:45:VAL:HG22	2.15	0.47
31:W:19:ARG:HB2	31:W:21:GLY:H	1.80	0.47
16:H:31:VAL:HG12	16:H:32:PRO:N	2.29	0.47
10:B:1057:A:H2'	10:B:1058:U:C5	2.50	0.47
3:2:19:ARG:HG2	10:B:126:A:OP1	2.15	0.47
10:B:1424:G:C6	10:B:1425:G:C6	3.02	0.47
10:B:1799:G:N1	10:B:1819:A:C8	2.82	0.47
10:B:2352:A:C2	10:B:2366:A:N3	2.83	0.47
10:B:627:A:H4'	10:B:628:G:H5'	1.96	0.47
9:A:109:A:H2'	9:A:110:C:O4'	2.15	0.47
9:A:18:G:H1'	9:A:67:G:N2	2.30	0.47
14:F:30:VAL:HA	14:F:157:THR:HG23	1.96	0.47
19:K:87:ASN:HB3	19:K:89:ASN:OD1	2.15	0.47
10:B:357:C:C4	10:B:358:U:C4	3.03	0.47
10:B:85:G:C6	10:B:86:G:C5	3.03	0.47
10:B:748:G:P	27:S:88:ARG:NH2	2.87	0.47
10:B:2748:A:H1'	15:G:66:THR:OG1	2.14	0.47
15:G:55:ASP:H	15:G:57:TYR:HE2	1.63	0.47
10:B:1842:G:H2'	10:B:1843:C:H6	1.80	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1435:G:N3	10:B:1436:G:C8	2.83	0.47
10:B:1048:A:N7	10:B:1111:A:N6	2.62	0.47
11:C:239:PHE:HE2	11:C:241:LYS:HB2	1.79	0.47
20:L:71:ALA:HA	20:L:74:THR:HB	1.96	0.47
30:V:51:GLN:NE2	30:V:77:VAL:HG11	2.29	0.47
10:B:2377:A:H2'	10:B:2378:A:H8	1.78	0.47
13:E:16:GLU:O	13:E:20:GLY:N	2.44	0.47
10:B:1265:A:C8	10:B:1267:U:C4	3.02	0.47
10:B:2011:U:H2'	10:B:2012:G:O4'	2.13	0.47
10:B:257:C:C2	10:B:258:G:C8	3.02	0.47
10:B:2811:G:H2'	10:B:2812:G:C8	2.43	0.47
10:B:407:G:N1	10:B:421:C:N3	2.62	0.47
10:B:455:C:C4	10:B:472:A:C4	3.03	0.47
10:B:597:G:H2'	10:B:598:U:C6	2.49	0.47
10:B:677:A:N7	10:B:678:C:H5	2.13	0.47
10:B:775:G:OP1	10:B:777:G:O2'	2.21	0.47
10:B:825:A:C6	10:B:826:U:N3	2.83	0.47
10:B:842:U:H2'	10:B:843:G:C8	2.49	0.47
19:K:69:ARG:HD2	19:K:75:VAL:HG22	1.97	0.47
10:B:1265:A:C8	10:B:1267:U:C2	3.03	0.47
10:B:1650:A:C6	10:B:1651:G:C5	3.01	0.47
10:B:1707:G:N1	10:B:1708:C:C2	2.83	0.47
10:B:2010:G:H2'	10:B:2011:U:O4'	2.14	0.47
10:B:2011:U:P	27:S:42:LYS:NZ	2.88	0.47
10:B:981:A:C6	10:B:2028:U:H4'	2.50	0.47
10:B:2359:C:N3	10:B:2360:G:C5	2.83	0.47
10:B:797:G:C2	10:B:798:G:C4	3.02	0.47
10:B:1131:G:C6	18:J:77:HIS:NE2	2.83	0.47
10:B:2871:U:P	22:N:69:ARG:HH22	2.38	0.47
11:C:132:ARG:CZ	16:H:121:VAL:HA	2.44	0.47
10:B:2137:U:N3	10:B:2138:G:N7	2.63	0.47
7:6:364:GLU:CG	7:6:408:ILE:HG13	2.27	0.47
11:C:1:ALA:O	11:C:18:VAL:HA	2.15	0.47
10:B:2307:G:C2	10:B:2311:A:N6	2.83	0.47
7:6:375:GLN:CG	7:6:378:ARG:HH12	2.28	0.47
10:B:1098:A:C2	17:I:5:GLN:HB3	2.50	0.47
10:B:1339:G:N2	10:B:1340:U:O4	2.47	0.47
10:B:1403:A:H2'	10:B:1404:C:O4'	2.14	0.47
10:B:1426:G:H2'	10:B:1572:A:H61	1.80	0.47
10:B:1588:G:C6	10:B:1589:U:C4	3.03	0.47
10:B:1764:C:O2'	10:B:1765:U:H5'	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1774:C:C6	10:B:1775:U:H5	2.33	0.47
30:V:43:ASP:OD1	30:V:45:ASP:N	2.48	0.47
10:B:399:U:H2'	10:B:400:G:O4'	2.15	0.47
10:B:639:U:N3	10:B:640:C:C4	2.83	0.47
10:B:647:G:C6	10:B:648:G:C5	3.03	0.47
7:6:50:LYS:HE3	7:6:59:GLY:N	2.29	0.47
10:B:861:A:C8	10:B:862:G:C8	3.02	0.47
21:M:18:ARG:HG2	21:M:97:GLN:HE21	1.80	0.47
10:B:861:A:N6	10:B:862:G:C2	2.83	0.47
10:B:2531:A:H4'	15:G:175:LYS:HZ2	1.78	0.47
10:B:325:G:C2	10:B:326:G:C8	3.02	0.47
28:T:38:ALA:CB	28:T:81:LYS:HZ3	2.17	0.47
10:B:500:G:H22	10:B:502:A:H3'	1.79	0.47
10:B:313:G:N2	10:B:314:C:H1'	2.29	0.47
10:B:2642:G:H1	10:B:2772:C:N4	2.11	0.47
12:D:38:LYS:NZ	12:D:45:TYR:OH	2.45	0.47
9:A:41:G:O6	14:F:68:LYS:NZ	2.41	0.47
10:B:753:A:C6	10:B:754:U:C4	3.03	0.47
7:6:317:ASN:OD1	7:6:344:ALA:N	2.47	0.47
10:B:2798:U:H1'	10:B:2800:A:C4	2.49	0.47
10:B:2227:A:H2'	10:B:2228:G:O4'	2.15	0.47
13:E:188:MET:HG3	13:E:192:ALA:HB3	1.97	0.47
13:E:195:GLN:HA	13:E:198:GLU:OE1	2.14	0.47
10:B:1477:A:C6	10:B:1515:A:C8	3.03	0.47
10:B:805:G:C2	10:B:2068:U:P	3.07	0.47
10:B:138:U:H2'	10:B:140:C:C4	2.50	0.47
23:O:16:ARG:O	23:O:19:GLN:N	2.47	0.47
2:1:38:PHE:HB2	2:1:45:HIS:NE2	2.29	0.47
10:B:1719:G:C6	10:B:1720:U:C4	3.02	0.47
10:B:1949:G:C6	10:B:1958:C:N3	2.82	0.47
33:Y:25:GLN:O	33:Y:29:ARG:NH1	2.47	0.47
11:C:211:ARG:HH21	11:C:217:PRO:CG	2.26	0.47
10:B:813:U:C4	10:B:1195:G:N1	2.82	0.47
8:7:95:LEU:HD23	8:7:98:GLU:HG3	1.97	0.47
10:B:1478:G:C5	10:B:1479:G:N7	2.83	0.47
24:P:51:ASN:ND2	24:P:56:SER:HB2	2.29	0.47
12:D:13:ARG:HH12	12:D:15:PHE:HZ	1.63	0.47
6:5:27:ILE:HD11	6:5:234:ASN:HA	1.97	0.47
6:5:10:VAL:HA	6:5:13:GLU:HB2	1.97	0.47
10:B:1128:G:N3	10:B:2516:A:O2'	2.48	0.47
10:B:1707:G:C4	10:B:1756:G:C2	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2011:U:OP1	27:S:42:LYS:NZ	2.45	0.47
10:B:2076:U:O2	10:B:2076:U:H3'	2.15	0.47
10:B:2360:G:C2	10:B:2428:G:C2	3.03	0.47
10:B:2464:G:C2	10:B:2487:G:C2	3.03	0.47
10:B:2616:C:C2	10:B:2617:U:C6	3.03	0.47
10:B:26:G:C6	10:B:27:G:N1	2.83	0.47
10:B:533:G:H4'	25:Q:23:TYR:HE2	1.79	0.47
10:B:564:C:C2	10:B:565:C:C5	3.03	0.47
10:B:784:G:O4'	11:C:225:ASN:ND2	2.47	0.47
10:B:2863:C:P	24:P:112:ARG:HD2	2.54	0.47
26:R:71:LYS:NZ	26:R:90:ARG:HD2	2.29	0.47
10:B:2198:A:O2'	10:B:2224:G:N2	2.44	0.47
10:B:2320:U:N3	10:B:2333:A:N1	2.63	0.47
10:B:1079:C:H2'	10:B:1080:A:C8	2.50	0.47
10:B:1193:G:C4	10:B:1194:A:C8	3.02	0.47
30:V:43:ASP:OD1	30:V:44:HIS:N	2.47	0.47
10:B:643:A:C6	10:B:644:A:C5	3.03	0.47
9:A:44:G:H5'	9:A:46:A:N6	2.30	0.47
23:O:35:ILE:HG22	23:O:53:THR:CG2	2.44	0.47
10:B:1366:A:C6	10:B:1367:A:C4	3.03	0.47
10:B:2184:A:C6	10:B:2185:U:C2	3.02	0.47
24:P:29:VAL:HG22	24:P:40:GLN:O	2.14	0.47
10:B:1111:A:N3	10:B:1112:G:H1'	2.28	0.47
10:B:1865:U:O2'	10:B:1875:G:N2	2.32	0.47
10:B:1873:G:N1	10:B:1874:C:C2	2.83	0.47
10:B:1716:U:H2'	10:B:1717:A:C8	2.47	0.47
1:0:21:LEU:HD11	27:S:41:LYS:NZ	2.27	0.47
10:B:1947:C:H2'	10:B:1948:G:C8	2.50	0.47
7:6:295:ILE:HG22	7:6:299:ASN:ND2	2.28	0.47
18:J:18:VAL:HG22	18:J:20:ALA:H	1.80	0.47
10:B:697:G:C5	10:B:698:C:C4	3.03	0.47
21:M:52:ALA:O	21:M:56:ALA:N	2.46	0.47
10:B:1031:G:N3	10:B:1124:G:C2	2.83	0.47
10:B:1136:G:H2'	10:B:1137:G:C8	2.50	0.47
10:B:1651:G:C2	10:B:1652:A:C5	3.02	0.47
10:B:1677:A:C2	10:B:1678:A:C4	3.03	0.47
10:B:190:A:C8	10:B:207:A:N1	2.83	0.47
10:B:191:A:C2	10:B:192:C:C4	3.02	0.47
10:B:2023:C:H2'	10:B:2024:G:C8	2.46	0.47
10:B:226:A:C4	10:B:230:G:C6	3.03	0.47
10:B:23:G:C6	10:B:518:G:C5	3.03	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2445:G:C4	10:B:2446:G:C8	3.03	0.47
10:B:2847:U:C5	10:B:2848:G:C5	3.03	0.47
10:B:2849:U:N3	10:B:2867:G:H1'	2.30	0.47
10:B:449:A:C5	10:B:450:G:C5	3.03	0.47
10:B:465:G:C6	10:B:466:A:C6	3.03	0.47
10:B:602:A:C6	10:B:656:G:C6	3.03	0.47
10:B:838:C:H2'	10:B:839:U:C6	2.41	0.47
18:J:33:ALA:HA	18:J:36:LEU:HD12	1.97	0.47
25:Q:109:VAL:O	25:Q:113:LYS:HG3	2.14	0.47
25:Q:46:TYR:OH	25:Q:50:ARG:NH2	2.47	0.47
11:C:170:TYR:HA	11:C:184:GLU:CA	2.44	0.47
17:I:74:PRO:O	17:I:78:LEU:HG	2.15	0.47
10:B:1422:G:C4	10:B:1423:G:C8	3.03	0.47
10:B:1687:G:H21	10:B:1701:A:H62	1.63	0.47
10:B:705:A:H2'	10:B:706:A:O4'	2.15	0.47
10:B:897:C:N4	10:B:898:C:N3	2.63	0.47
10:B:2350:C:C2	10:B:2351:G:C8	3.03	0.47
10:B:2415:G:C2	10:B:2416:C:C2	3.02	0.47
9:A:15:A:C4	9:A:109:A:C4	3.03	0.47
9:A:18:G:C4	9:A:67:G:C6	3.03	0.47
10:B:1912:A:O2'	10:B:1913:A:OP 2	2.23	0.47
10:B:1914:C:H2'	10:B:1916:A:C5	2.50	0.47
10:B:1924:C:N3	10:B:1925:C:C4	2.83	0.47
9:A:82:U:C4	9:A:83:G:N7	2.82	0.47
15:G:108:PHE:HE2	15:G:151:ARG:NH1	2.13	0.47
10:B:322:A:O5'	13:E:163:ASN:ND2	2.45	0.47
10:B:332:A:O2'	10:B:335:C:N4	2.48	0.47
10:B:2786:U:H4'	12:D:66:GLY:C	2.35	0.47
16:H:112:LYS:HG2	16:H:131:SER:HA	1.95	0.47
10:B:746:U:H5'	10:B:748:G:H1'	1.96	0.47
7:6:210:LYS:H	35:6:527:GNP:PB	2.37	0.47
10:B:2758:A:C6	10:B:2759:G:C5	3.03	0.47
10:B:2747:G:O2'	15:G:66:THR:HG23	2.15	0.47
19:K:70:ARG:HB3	19:K:74:SER:CB	2.40	0.47
10:B:195:A:H62	10:B:198:C:P	2.38	0.47
10:B:1201:U:H3	10:B:1244:A:H61	1.61	0.47
29:U:85:ARG:HA	29:U:91:LYS:CG	2.42	0.47
11:C:239:PHE:CD2	11:C:241:LYS:HB2	2.49	0.47
20:L:109:LYS:HZ2	20:L:126:ARG:CB	2.25	0.47
23:O:100:HIS:HA	23:O:104:GLN:OE1	2.15	0.47
33:Y:20:ASN:HA	33:Y:24:GLU:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:70:LEU:O	15:G:74:MET:N	2.44	0.47
10:B:1562:U:C4	10:B:1563:U:C4	3.03	0.47
10:B:1028:A:C2	10:B:1029:A:C5	3.03	0.47
8:7:3:LEU:HD12	8:7:5:LEU:N	2.30	0.47
10:B:1153:C:H2'	10:B:1154:G:O4'	2.15	0.47
10:B:1619:G:N3	10:B:1620:G:C8	2.83	0.47
10:B:2060:A:O2'	10:B:2061:G:P	2.73	0.47
10:B:204:A:C8	10:B:206:U:N3	2.83	0.47
10:B:2279:G:C6	10:B:2280:G:N7	2.82	0.47
10:B:2357:G:N2	10:B:2361:G:C5	2.83	0.47
10:B:2445:G:N3	10:B:2446:G:C8	2.83	0.47
10:B:2478:A:C6	10:B:2529:G:C2	3.03	0.47
10:B:2547:A:O4'	10:B:2566:A:C6	2.68	0.47
10:B:2723:C:H2'	10:B:2724:U:C5	2.50	0.47
10:B:2764:A:C5	10:B:2766:A:C6	3.03	0.47
3:2:3:ARG:NH2	10:B:463:G:O3'	2.48	0.47
10:B:583:G:OP1	25:Q:6:GLY:HA2	2.15	0.47
10:B:609:A:H62	10:B:619:G:N2	2.13	0.47
20:L:47:ARG:O	20:L:48:ARG:HB2	2.14	0.47
10:B:1262:A:P	27:S:99:ARG:HH22	2.38	0.47
31:W:34:SER:O	31:W:36:ILE:HG12	2.15	0.47
10:B:1067:A:H2'	10:B:1068:G:O4'	2.15	0.47
10:B:1385:A:H1'	10:B:1386:C:C6	2.50	0.47
10:B:879:G:H2'	10:B:880:G:O4'	2.15	0.47
10:B:2346:A:C2	10:B:2383:G:C6	3.03	0.47
12:D:33:ARG:NH2	12:D:73:VAL:CA	2.78	0.47
10:B:2801:G:C6	10:B:2802:G:C6	3.03	0.47
10:B:1498:C:H2'	10:B:1499:C:O4'	2.15	0.47
10:B:2740:A:H8	10:B:2763:G:N2	2.13	0.47
11:C:107:LYS:CG	11:C:193:GLU:HG3	2.45	0.47
10:B:2884:U:H2'	10:B:2885:G:H8	1.80	0.47
10:B:1383:A:N7	10:B:1384:A:C5	2.82	0.47
8:7:146:ALA:HB1	8:7:153:ARG:HD3	1.96	0.47
20:L:74:THR:HG21	20:L:126:ARG:HH22	1.80	0.47
30:V:50:MET:HA	30:V:53:LYS:HG3	1.97	0.47
2:1:5:ARG:NH1	2:1:25:ASN:CB	2.78	0.47
15:G:100:ASN:HB2	15:G:115:GLN:HG3	1.97	0.47
6:5:80:GLN:NE2	10:B:2169:A:O2'	2.48	0.47
11:C:138:SER:HB2	11:C:163:ILE:HD12	1.97	0.47
15:G:53:PRO:HG2	15:G:61:TRP:CZ3	2.50	0.47
7:6:257:ARG:NH2	7:6:258:HIS:HE1	2.12	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:184:GLN:NE2	10:B:2479:U:O2	2.47	0.46
10:B:1156:A:HO2'	10:B:1157:G:C5'	2.27	0.46
10:B:1171:G:C2	10:B:1172:C:C2	3.03	0.46
10:B:1268:A:H62	10:B:2012:G:N2	2.00	0.46
10:B:1711:A:H2'	10:B:1712:U:O4'	2.15	0.46
10:B:200:U:H5	10:B:201:C:C4	2.33	0.46
10:B:2272:U:HO2'	10:B:2273:A:H8	1.63	0.46
10:B:2357:G:C2	10:B:2361:G:C5	3.03	0.46
10:B:2454:G:C8	10:B:2455:G:N7	2.83	0.46
10:B:2560:A:C4	10:B:2561:U:C5	3.03	0.46
10:B:2678:C:H2'	10:B:2679:A:H8	1.80	0.46
10:B:2835:A:N6	10:B:2878:U:C2	2.83	0.46
10:B:2862:G:H2'	10:B:2863:C:H6	1.79	0.46
10:B:2868:A:C6	10:B:2869:G:C6	3.03	0.46
10:B:556:A:H3'	10:B:557:C:H6	1.79	0.46
10:B:819:A:C6	10:B:820:A:C5	3.03	0.46
24:P:47:ILE:HG13	24:P:59:THR:HB	1.96	0.46
25:Q:65:ASN:O	25:Q:69:ARG:HG2	2.15	0.46
10:B:2094:A:H2'	10:B:2095:A:C8	2.50	0.46
7:6:288:ASP:HB3	7:6:290:ARG:H	1.80	0.46
10:B:1079:C:O2'	17:I:130:GLY:HA2	2.14	0.46
10:B:1354:A:H62	10:B:1377:G:H21	1.61	0.46
10:B:1815:A:N7	10:B:1817:G:C5	2.83	0.46
10:B:1770:G:C5	10:B:1983:G:C6	3.03	0.46
10:B:709:U:N3	10:B:710:U:C4	2.83	0.46
10:B:2901:C:N3	10:B:2902:C:C4	2.82	0.46
10:B:895:U:H2'	10:B:897:C:C4	2.50	0.46
23:O:94:ARG:HD2	23:O:97:PHE:O	2.14	0.46
9:A:99:A:H2'	9:A:100:G:C8	2.50	0.46
9:A:100:G:N2	10:B:863:A:H4'	2.29	0.46
10:B:277:G:C6	10:B:360:U:H5	2.34	0.46
10:B:500:G:N2	10:B:502:A:H3'	2.30	0.46
27:S:2:GLU:HG2	27:S:3:THR:H	1.80	0.46
28:T:44:LYS:HG3	28:T:55:VAL:CG1	2.45	0.46
10:B:1988:G:H2'	10:B:1989:G:O4'	2.15	0.46
19:K:70:ARG:CG	19:K:71:PRO:HD2	2.45	0.46
10:B:2714:G:C2	10:B:2715:C:C2	3.03	0.46
13:E:23:PHE:O	13:E:24:ASN:ND2	2.48	0.46
10:B:1717:A:C5	10:B:1718:G:C8	3.04	0.46
10:B:1718:G:C6	10:B:1719:G:C5	3.03	0.46
18:J:8:PRO:O	18:J:11:VAL:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:100:HIS:CD2	23:O:101:GLY:H	2.33	0.46
11:C:28:PRO:HG2	11:C:33:LEU:HD11	1.97	0.46
10:B:175:G:C6	10:B:176:A:C6	3.02	0.46
10:B:2556:C:H3'	10:B:2557:G:C8	2.51	0.46
23:O:49:VAL:HG22	23:O:85:LYS:NZ	2.30	0.46
23:O:76:LYS:HG2	23:O:109:ALA:HB1	1.96	0.46
11:C:179:GLU:OE2	11:C:269:ARG:CZ	2.63	0.46
14:F:54:ALA:HB1	14:F:139:GLU:OE2	2.14	0.46
6:5:123:VAL:HA	6:5:127:LEU:HD12	1.98	0.46
7:6:255:PHE:HD1	7:6:259:LEU:HD12	1.79	0.46
10:B:1017:G:H2'	10:B:1018:U:H6	1.78	0.46
10:B:1225:G:H4'	26:R:86:GLN:NE2	2.31	0.46
10:B:185:G:H2'	10:B:186:G:H8	1.81	0.46
10:B:2811:G:C4	10:B:2812:G:C8	3.03	0.46
10:B:414:C:H1'	10:B:1864:U:O2'	2.16	0.46
10:B:671:C:C2	10:B:672:C:C5	3.02	0.46
10:B:775:G:O6	10:B:787:C:H2'	2.15	0.46
10:B:827:U:H5	10:B:2430:A:C4	2.32	0.46
10:B:858:G:H3'	10:B:859:G:N7	2.30	0.46
10:B:1891:G:O2'	10:B:2235:G:O2'	2.33	0.46
6:5:168:ASN:HB2	10:B:2178:C:H4'	1.97	0.46
6:5:37:LYS:CE	10:B:2127:G:O2'	2.56	0.46
10:B:1107:G:H2'	10:B:1108:U:C6	2.50	0.46
10:B:1767:G:N1	10:B:1768:C:C4	2.83	0.46
10:B:1796:U:H2'	10:B:1797:G:O4'	2.16	0.46
10:B:704:G:O2'	10:B:705:A:O5'	2.33	0.46
11:C:257:ARG:NH2	11:C:262:THR:OG1	2.48	0.46
10:B:2380:C:H42	10:B:2381:A:N6	2.13	0.46
10:B:629:G:H1	10:B:634:C:H42	1.63	0.46
10:B:1721:G:O2'	10:B:1738:G:N2	2.46	0.46
19:K:90:SER:O	19:K:92:GLN:HG3	2.16	0.46
10:B:2662:A:H2'	10:B:2663:G:O4'	2.15	0.46
28:T:36:LYS:C	28:T:81:LYS:HZ1	2.15	0.46
10:B:85:G:C5	10:B:98:G:C2	3.03	0.46
9:A:43:C:C4	9:A:45:A:C6	3.03	0.46
10:B:756:A:C4	10:B:757:G:N7	2.83	0.46
10:B:1502:A:H2'	10:B:1503:A:C8	2.49	0.46
10:B:2740:A:N7	10:B:2741:A:N6	2.64	0.46
10:B:429:A:H2'	10:B:430:A:C4	2.50	0.46
10:B:1045:C:C2	10:B:1047:G:C6	3.02	0.46
10:B:1308:A:C5	10:B:1309:G:C5	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:K:63:ARG:HB2	19:K:82:ALA:HB3	1.97	0.46
10:B:1959:G:C2	10:B:1960:A:C4	3.03	0.46
16:H:54:LEU:HD12	16:H:58:LEU:HD23	1.98	0.46
10:B:886:A:H1'	10:B:889:C:H41	1.80	0.46
17:I:42:ASN:HA	17:I:45:THR:HG23	1.97	0.46
11:C:23:LEU:HD13	11:C:82:TYR:HB2	1.97	0.46
7:6:167:LEU:HD23	7:6:170:ARG:HG3	1.97	0.46
21:M:31:PHE:O	21:M:105:MET:N	2.48	0.46
10:B:1257:C:H2'	10:B:1258:U:C6	2.50	0.46
10:B:188:G:C5	10:B:189:G:C5	3.03	0.46
10:B:204:A:O2'	10:B:205:G:OP2	2.25	0.46
10:B:217:A:N6	10:B:218:A:H2	2.12	0.46
10:B:2282:G:H1'	10:B:2390:U:C4	2.51	0.46
10:B:2454:G:C8	10:B:2455:G:C8	3.03	0.46
10:B:2507:C:N3	10:B:2583:G:C6	2.83	0.46
10:B:2511:U:N3	10:B:2578:G:C6	2.83	0.46
10:B:2676:C:C2	10:B:2677:G:C8	3.03	0.46
10:B:2703:C:C4	10:B:2704:C:C4	3.04	0.46
10:B:2703:C:C4	10:B:2704:C:N4	2.83	0.46
10:B:597:G:H2'	10:B:598:U:H6	1.80	0.46
10:B:616:A:C5	10:B:617:G:C8	3.04	0.46
10:B:780:G:N1	10:B:782:A:N1	2.62	0.46
10:B:798:G:C2	10:B:799:G:C5	3.03	0.46
10:B:2278:A:C5'	21:M:10:ARG:HH21	2.24	0.46
31:W:18:LYS:HG3	31:W:19:ARG:N	2.30	0.46
10:B:114:U:C4	10:B:115:C:C4	3.04	0.46
10:B:1376:C:N4	10:B:1377:G:C6	2.83	0.46
10:B:2212:A:O2'	10:B:2213:U:O5'	2.29	0.46
10:B:705:A:C8	10:B:727:A:C2	3.03	0.46
11:C:250:GLN:HB3	11:C:254:LYS:HZ2	1.80	0.46
11:C:66:PHE:CZ	11:C:155:ARG:NH1	2.84	0.46
9:A:18:G:C2	9:A:67:G:C5	3.04	0.46
10:B:81:G:C6	10:B:82:U:C4	3.02	0.46
10:B:153:U:H3	10:B:173:A:H61	1.64	0.46
10:B:738:G:C6	10:B:739:A:N1	2.83	0.46
10:B:1048:A:OP2	10:B:1109:C:N4	2.49	0.46
10:B:2057:G:H2'	10:B:2058:A:C8	2.48	0.46
6:5:46:VAL:O	6:5:171:ILE:N	2.28	0.46
10:B:1202:G:C6	10:B:1203:U:C2	3.03	0.46
19:K:10:ALA:HB2	19:K:82:ALA:HB1	1.98	0.46
14:F:12:VAL:N	14:F:15:LEU:HB2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1741:C:H2'	10:B:1742:U:O4'	2.15	0.46
10:B:1731:G:N1	10:B:1733:G:C5	2.83	0.46
7:6:389:ILE:HA	7:6:404:VAL:HG22	1.97	0.46
10:B:1683:U:H2'	10:B:1684:G:C8	2.49	0.46
10:B:848:C:H5''	10:B:849:A:OP2	2.15	0.46
10:B:2599:G:C2	10:B:2600:A:C4	3.02	0.46
6:5:14:LYS:HD3	10:B:2131:U:OP1	2.14	0.46
22:N:47:VAL:O	22:N:50:PRO:HD2	2.16	0.46
10:B:1016:G:N1	10:B:1147:A:C6	2.84	0.46
10:B:577:G:O2'	10:B:1254:A:OP1	2.33	0.46
10:B:1994:C:C4	10:B:1995:U:C5	3.03	0.46
10:B:2061:G:O2'	10:B:2063:C:N4	2.37	0.46
10:B:2512:C:H5''	12:D:127:PHE:CE1	2.51	0.46
10:B:2537:U:N3	10:B:2538:C:C4	2.83	0.46
10:B:780:G:C2	10:B:782:A:C6	3.03	0.46
10:B:451:U:C5'	13:E:47:LYS:HZ1	2.15	0.46
10:B:2149:U:H2'	10:B:2150:C:C6	2.50	0.46
10:B:1420:A:C5'	10:B:2211:A:H62	2.29	0.46
10:B:705:A:N1	10:B:727:A:H1'	2.30	0.46
10:B:628:G:H2'	10:B:629:G:H8	1.81	0.46
9:A:18:G:C5	9:A:19:C:N4	2.84	0.46
10:B:2644:G:H5''	10:B:2645:G:OP2	2.16	0.46
9:A:34:A:C2	9:A:44:G:C6	3.03	0.46
10:B:1528:A:C8	10:B:1529:G:C8	3.03	0.46
10:B:1499:C:C2	10:B:1500:G:C8	3.03	0.46
29:U:23:LYS:HG2	29:U:24:VAL:O	2.16	0.46
10:B:1552:A:O2'	10:B:1553:A:H5'	2.15	0.46
10:B:1871:A:O5'	10:B:1871:A:H8	1.97	0.46
10:B:1309:G:N1	10:B:1310:G:C5	2.83	0.46
10:B:1239:G:C6	10:B:1240:U:C4	3.04	0.46
13:E:148:ILE:HB	13:E:169:VAL:HG12	1.98	0.46
12:D:80:TRP:CD1	12:D:202:ILE:HD11	2.50	0.46
21:M:31:PHE:CE2	21:M:110:GLU:HA	2.50	0.46
20:L:120:VAL:N	20:L:141:LYS:HD2	2.31	0.46
10:B:1613:G:C5	10:B:1617:C:C4	3.03	0.46
10:B:2010:G:N2	10:B:2011:U:H1'	2.30	0.46
10:B:1266:G:C2	10:B:2012:G:N7	2.84	0.46
10:B:216:A:H2'	10:B:217:A:O4'	2.16	0.46
10:B:1129:A:C5	10:B:2570:G:H1'	2.51	0.46
10:B:2727:A:H5''	10:B:2728:U:OP2	2.15	0.46
10:B:2853:C:H2'	10:B:2854:G:H8	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:522:A:H2'	10:B:523:C:C6	2.50	0.46
10:B:547:A:C8	10:B:548:G:H5'	2.47	0.46
10:B:915:C:C4	10:B:916:G:C5	3.03	0.46
10:B:942:G:N3	10:B:943:A:C8	2.83	0.46
10:B:2428:G:C2	20:L:60:ARG:NH2	2.84	0.46
10:B:2820:A:H4'	22:N:3:HIS:CD2	2.50	0.46
25:Q:96:ASP:OD1	26:R:13:ARG:NH1	2.48	0.46
6:5:9:ARG:NH1	10:B:2151:U:P	2.88	0.46
10:B:2313:C:OP2	14:F:70:ARG:HB2	2.15	0.46
10:B:1314:C:H5''	10:B:1315:C:OP2	2.15	0.46
10:B:1355:G:N3	10:B:1356:G:C8	2.84	0.46
10:B:2216:G:H2'	10:B:2217:G:H8	1.80	0.46
10:B:632:A:C2	10:B:633:A:C4	3.03	0.46
10:B:873:C:H4'	21:M:64:TRP:HE1	1.81	0.46
10:B:2772:C:H5'	12:D:173:GLN:HE22	1.79	0.46
10:B:2747:G:N2	10:B:2748:A:N7	2.63	0.46
10:B:1630:A:C6	10:B:1637:A:N1	2.84	0.46
10:B:1435:G:C2	10:B:1436:G:C5	3.04	0.46
27:S:84:ARG:CZ	27:S:98:LYS:HD2	2.45	0.46
10:B:1199:U:O4'	25:Q:3:VAL:HG22	2.16	0.46
23:O:17:LYS:HA	23:O:20:GLU:OE1	2.15	0.46
8:7:52:MET:HB2	8:7:87:GLU:HG3	1.98	0.46
23:O:89:ASP:OD1	23:O:116:GLN:HB2	2.16	0.46
10:B:1301:A:C6	10:B:1303:G:C5	3.04	0.46
10:B:1672:A:N6	10:B:1673:G:O6	2.49	0.46
10:B:1131:G:C6	18:J:77:HIS:CD2	3.03	0.46
10:B:1225:G:C5	10:B:1226:A:C6	3.03	0.46
10:B:2238:G:H8	10:B:2241:A:N6	2.10	0.46
10:B:2509:G:N2	10:B:2580:U:H1'	2.31	0.46
10:B:2584:U:O5'	10:B:2584:U:H6	1.98	0.46
10:B:271:G:HO2'	10:B:272:A:H8	1.64	0.46
10:B:808:G:H5''	10:B:809:G:OP2	2.16	0.46
25:Q:60:TRP:CH2	25:Q:93:ILE:HD12	2.49	0.46
27:S:74:ILE:HG13	27:S:105:VAL:CG2	2.46	0.46
10:B:2199:A:N1	10:B:2225:A:H1'	2.31	0.46
10:B:2230:G:H2'	10:B:2231:U:C6	2.51	0.46
22:N:118:ARG:HB3	22:N:121:LYS:N	2.31	0.46
10:B:2311:A:H3'	10:B:2311:A:OP1	2.16	0.46
10:B:1772:A:N1	10:B:1980:G:C6	2.83	0.46
10:B:1781:U:H3'	10:B:1782:U:H5'	1.98	0.46
10:B:1825:U:C2	10:B:1826:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1979:U:N3	10:B:1980:G:N7	2.64	0.46
10:B:877:A:H61	10:B:899:A:N6	2.14	0.46
10:B:877:A:H8	10:B:877:A:O5'	1.99	0.46
14:F:16:MET:O	14:F:20:ASN:HA	2.15	0.46
9:A:100:G:C5	9:A:101:A:C5	3.03	0.46
10:B:917:A:H2'	10:B:917:A:N3	2.30	0.46
29:U:39:ASN:O	29:U:61:GLU:HA	2.16	0.46
10:B:1445:G:H2'	10:B:1446:C:H6	1.81	0.46
10:B:1527:G:C6	10:B:1543:G:H2'	2.50	0.46
7:6:315:VAL:HG22	7:6:340:VAL:HB	1.97	0.46
15:G:59:ASP:OD2	15:G:63:GLN:HB2	2.16	0.46
10:B:1842:G:C2	10:B:1901:A:C2	3.04	0.46
10:B:1717:A:H3'	10:B:1718:G:H8	1.80	0.46
10:B:1945:G:H2'	10:B:1946:U:C6	2.50	0.46
13:E:154:ASP:HB2	13:E:157:LEU:HD12	1.98	0.46
21:M:73:ILE:HG22	21:M:90:GLU:OE2	2.16	0.46
10:B:1614:A:N1	27:S:91:GLY:HA2	2.31	0.46
10:B:1539:U:H2'	10:B:1540:G:C8	2.51	0.46
33:Y:10:SER:HA	33:Y:62:GLY:HA3	1.98	0.46
24:P:14:GLN:N	24:P:14:GLN:OE1	2.49	0.46
10:B:199:A:C6	10:B:2434:A:C6	3.03	0.46
10:B:2244:U:H2'	10:B:2245:U:H6	1.79	0.46
10:B:2283:C:C2	10:B:2389:G:C2	3.04	0.46
4:3:2:LYS:NZ	10:B:242:G:O5'	2.47	0.46
10:B:2509:G:C2	10:B:2510:C:C2	3.04	0.46
10:B:2521:C:N3	10:B:2545:G:N1	2.63	0.46
10:B:2620:C:H2'	10:B:2621:G:H8	1.78	0.46
10:B:2867:G:C5	24:P:20:ARG:CZ	2.99	0.46
10:B:32:C:H2'	10:B:33:C:H6	1.79	0.46
10:B:232:G:N2	10:B:420:C:OP1	2.48	0.46
10:B:440:C:C2	10:B:441:U:C5	3.04	0.46
10:B:464:U:H3	10:B:465:G:N2	2.14	0.46
10:B:585:G:H5''	10:B:586:A:P	2.56	0.46
10:B:866:A:N6	10:B:867:C:N3	2.63	0.46
10:B:980:A:N7	10:B:981:A:C6	2.83	0.46
12:D:142:VAL:HG12	12:D:143:PRO:O	2.15	0.46
18:J:140:LEU:HD23	18:J:141:ASP:N	2.31	0.46
22:N:38:LEU:HB3	22:N:39:PRO:HD3	1.97	0.46
25:Q:96:ASP:C	25:Q:98:ALA:H	2.18	0.46
31:W:19:ARG:HA	31:W:35:ILE:CG2	2.46	0.46
32:X:15:ASN:HD21	32:X:25:LYS:HD3	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2175:C:H2'	10:B:2176:A:H8	1.80	0.46
10:B:1754:A:C6	10:B:1755:A:C5	3.04	0.46
10:B:2322:A:C4	10:B:2323:G:C8	3.04	0.46
10:B:1069:A:C8	10:B:1073:A:N7	2.84	0.46
10:B:1781:U:O2'	10:B:1782:U:OP1	2.27	0.46
10:B:2895:G:H2'	10:B:2896:C:H6	1.80	0.46
10:B:2347:C:H2'	10:B:2348:U:C6	2.51	0.46
10:B:647:G:C2	10:B:648:G:C4	3.04	0.46
10:B:862:G:C6	10:B:863:A:C4	3.03	0.46
9:A:82:U:HO2'	34:Z:52:PHE:HE2	1.64	0.46
10:B:351:C:H2'	10:B:352:A:C8	2.50	0.46
10:B:1294:U:H5'	10:B:1295:C:OP2	2.15	0.46
10:B:1758:U:H3'	10:B:1759:A:N7	2.30	0.46
10:B:2786:U:OP1	12:D:70:LYS:NZ	2.47	0.46
12:D:33:ARG:NH2	12:D:73:VAL:N	2.64	0.46
9:A:39:A:H2'	9:A:40:U:C6	2.51	0.46
10:B:738:G:C2	10:B:759:G:C6	3.04	0.46
10:B:2190:G:C2	10:B:2191:A:C4	3.04	0.46
10:B:2740:A:N7	10:B:2741:A:C6	2.84	0.46
10:B:1628:G:C6	10:B:1629:U:C4	3.04	0.46
10:B:1477:A:C4	10:B:1515:A:C6	3.03	0.46
10:B:1865:U:H4'	10:B:1866:A:OP1	2.16	0.46
10:B:1868:C:H2'	10:B:1869:G:C8	2.50	0.46
10:B:1945:G:H2'	10:B:1946:U:H6	1.80	0.46
30:V:77:VAL:O	30:V:79:ARG:N	2.49	0.46
15:G:73:SER:CB	15:G:137:LYS:HZ2	2.29	0.46
7:6:299:ASN:O	7:6:303:GLU:HG3	2.16	0.46
4:3:15:LYS:HG3	4:3:21:PHE:HE1	1.81	0.46
20:L:118:THR:HG22	20:L:119:PRO:O	2.15	0.46
7:6:372:LEU:HD12	7:6:379:LEU:HD11	1.98	0.46
10:B:1163:G:C6	10:B:1164:C:C4	3.03	0.46
10:B:1227:G:C2	10:B:1228:G:C8	3.04	0.46
10:B:1230:A:C6	10:B:1231:U:C4	3.03	0.46
10:B:1270:C:H5'	10:B:1271:G:OP1	2.16	0.46
10:B:17:G:C4	10:B:18:U:C5	3.04	0.46
10:B:2034:U:C2	10:B:2035:G:N7	2.84	0.46
10:B:2041:U:C2	10:B:2042:A:C8	3.04	0.46
10:B:2082:A:H2'	10:B:2083:G:C8	2.50	0.46
10:B:2392:A:C6	10:B:2429:G:C8	3.04	0.46
10:B:2517:C:O2	10:B:2542:A:N6	2.48	0.46
10:B:2544:G:H2'	10:B:2545:G:C8	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2583:G:H3'	10:B:2584:U:H5	1.81	0.46
10:B:2822:G:H4'	10:B:2825:G:O6	2.16	0.46
10:B:617:G:C6	10:B:618:G:C5	3.04	0.46
10:B:909:A:H2'	10:B:912:C:C5	2.50	0.46
18:J:26:GLY:O	18:J:30:THR:HG23	2.16	0.46
10:B:1139:G:C5'	18:J:72:LYS:HZ1	2.29	0.46
10:B:2086:U:H2'	10:B:2087:G:C8	2.51	0.46
22:N:118:ARG:HE	22:N:120:GLU:C	2.13	0.46
8:7:80:THR:O	10:B:1107:G:H4'	2.16	0.46
10:B:1374:G:N1	10:B:1375:U:C4	2.84	0.46
10:B:161:A:OP2	10:B:162:U:O2'	2.28	0.46
10:B:1830:C:H2'	10:B:1831:G:C8	2.51	0.46
10:B:1831:G:C4	10:B:1975:G:N2	2.84	0.46
10:B:1:G:C2	10:B:2:G:C4	3.03	0.46
23:O:25:ARG:HB2	23:O:40:ILE:HG12	1.98	0.46
10:B:1912:A:HO2'	10:B:1913:A:P	2.39	0.46
10:B:83:A:N6	10:B:102:U:H5'	2.30	0.46
10:B:308:G:N3	10:B:501:A:C8	2.83	0.46
10:B:1443:U:C2	10:B:1444:G:C8	3.04	0.46
10:B:1544:A:C6	10:B:1545:A:C6	3.04	0.46
10:B:702:U:O2'	10:B:703:U:O4'	2.25	0.46
11:C:76:VAL:HG23	11:C:94:LEU:O	2.16	0.46
26:R:2:TYR:CD1	26:R:42:ALA:HB3	2.51	0.46
10:B:1331:G:O2'	10:B:1332:G:H5'	2.16	0.46
10:B:142:A:H2'	10:B:143:C:C6	2.51	0.46
11:C:89:ASN:HB2	11:C:196:ASN:ND2	2.31	0.46
14:F:11:VAL:H	14:F:13:LYS:HZ3	1.64	0.46
14:F:77:LYS:O	14:F:78:ILE:HB	2.16	0.46
20:L:29:LYS:HB2	20:L:29:LYS:HE3	1.72	0.46
8:7:26:VAL:HG22	8:7:84:TYR:HE1	1.77	0.46
10:B:498:G:N3	10:B:498:G:H2'	2.30	0.46
7:6:299:ASN:HA	7:6:302:LEU:HD12	1.98	0.46
19:K:103:THR:HB	19:K:105:GLU:HG2	1.98	0.46
15:G:79:THR:HG22	15:G:80:GLU:HG2	1.98	0.46
13:E:124:PHE:HZ	13:E:137:LYS:HB3	1.80	0.46
7:6:24:MET:HE3	7:6:257:ARG:NH1	2.27	0.46
5:4:33:HIS:O	5:4:35:GLN:N	2.49	0.46
10:B:1030:C:H2'	10:B:1031:G:C8	2.50	0.46
10:B:1019:U:C2	10:B:1142:A:N6	2.84	0.46
10:B:1168:G:H2'	10:B:1169:A:C8	2.51	0.46
10:B:186:G:C2	10:B:187:G:C8	3.04	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2437:G:C5	10:B:2438:U:C5	3.04	0.46
10:B:2480:C:C2	10:B:2481:G:H1'	2.51	0.46
10:B:250:G:H2'	10:B:250:G:N3	2.31	0.46
10:B:2670:A:C6	10:B:2671:G:C5	3.04	0.46
10:B:2806:C:H2'	10:B:2807:U:C6	2.50	0.46
10:B:431:U:H2'	10:B:432:A:C8	2.43	0.46
10:B:33:C:N4	10:B:473:G:H22	2.14	0.46
10:B:799:G:N1	10:B:800:A:N6	2.63	0.46
10:B:856:G:H4'	31:W:23:LYS:HD2	1.98	0.46
10:B:924:G:C2	10:B:925:A:C8	3.04	0.46
10:B:588:U:H1'	13:E:85:PHE:CD1	2.51	0.46
24:P:48:ALA:CB	24:P:58:PHE:HA	2.46	0.46
25:Q:46:TYR:O	25:Q:49:ARG:N	2.48	0.46
6:5:47:ASN:HA	6:5:170:ILE:HG13	1.97	0.46
10:B:2128:G:N3	10:B:2130:U:C4	2.83	0.46
10:B:2153:C:H2'	10:B:2154:A:C8	2.51	0.46
10:B:1861:G:N1	10:B:1862:G:C5	2.84	0.46
10:B:1862:G:C6	10:B:1881:C:C4	3.04	0.46
10:B:1883:U:N3	10:B:1884:G:N2	2.63	0.46
10:B:1389:G:C5	10:B:1390:U:C4	3.04	0.46
10:B:1425:G:H2'	10:B:1426:G:O4'	2.16	0.46
10:B:1778:U:H3'	10:B:1784:A:N6	2.31	0.46
10:B:1830:C:C2	10:B:1831:G:N7	2.84	0.46
10:B:2218:G:H2'	10:B:2219:U:C6	2.51	0.46
10:B:713:G:H1'	10:B:719:C:O2	2.15	0.46
10:B:6:A:C2'	10:B:7:G:H8	2.28	0.46
10:B:2415:G:C6	10:B:2416:C:N3	2.84	0.46
14:F:29:ARG:O	14:F:157:THR:HG23	2.16	0.46
14:F:24:VAL:O	14:F:27:VAL:HG22	2.16	0.46
10:B:1491:G:N3	10:B:1492:G:C8	2.84	0.46
10:B:2739:U:H5''	10:B:2763:G:O6	2.16	0.46
10:B:1927:A:C2	10:B:1928:A:C4	3.04	0.46
7:6:4:ARG:HH12	7:6:113:GLN:HE21	1.63	0.46
10:B:1642:G:H2'	10:B:1643:G:O4'	2.16	0.46
15:G:144:ALA:O	15:G:147:LEU:HB3	2.16	0.46
2:1:9:LYS:HD2	2:1:19:PHE:CD2	2.51	0.46
10:B:64:A:H2'	10:B:65:U:C6	2.51	0.46
20:L:74:THR:HG23	20:L:107:PHE:HB2	1.96	0.46
5:4:19:ARG:NH2	10:B:2755:C:H3'	2.30	0.46
2:1:29:LYS:NZ	2:1:33:LEU:HB2	2.31	0.46
18:J:81:ILE:HG12	18:J:82:GLY:H	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
21:M:50:ARG:HB3	21:M:103:TYR:HE2	1.80	0.46
25:Q:86:SER:O	25:Q:88:GLU:N	2.49	0.46
10:B:1010:A:H4'	25:Q:75:TYR:HD2	1.81	0.46
10:B:1178:C:C2	10:B:1179:G:C8	3.04	0.46
10:B:242:G:H22	10:B:254:G:H3'	1.81	0.46
10:B:2470:G:C5	10:B:2481:G:N2	2.81	0.46
10:B:2486:C:N3	10:B:2487:G:C8	2.84	0.46
10:B:2536:G:C4	10:B:2537:U:C5	3.04	0.46
10:B:2549:G:C6	10:B:2560:A:C6	3.04	0.46
10:B:2835:A:C2	10:B:2879:A:C5	3.03	0.46
10:B:36:G:C4	10:B:37:C:C5	3.04	0.46
10:B:412:A:C6	10:B:413:C:C2	3.04	0.46
10:B:220:G:O6	10:B:427:U:H3'	2.15	0.46
10:B:436:C:H2'	10:B:437:U:C6	2.50	0.46
10:B:552:U:C2	10:B:553:G:C8	3.03	0.46
10:B:533:G:H1	10:B:560:C:N4	2.14	0.46
10:B:808:G:H2'	10:B:809:G:C8	2.51	0.46
10:B:841:G:C4	10:B:842:U:C5	3.04	0.46
10:B:986:C:C4	10:B:987:C:C4	3.04	0.46
10:B:1861:G:C2	10:B:1862:G:C8	3.04	0.46
17:I:4:VAL:HG12	17:I:5:GLN:N	2.31	0.46
10:B:1817:G:N2	10:B:1818:U:H1'	2.31	0.46
11:C:130:PRO:CA	11:C:188:ARG:HG2	2.46	0.46
33:Y:44:LYS:HA	33:Y:47:ARG:CD	2.46	0.46
10:B:648:G:N1	10:B:649:G:N7	2.64	0.46
10:B:636:G:P	20:L:128:THR:HG22	2.56	0.46
9:A:16:G:C2	9:A:17:C:C2	3.04	0.46
10:B:2637:U:H5	10:B:2638:G:C6	2.34	0.46
9:A:37:C:H42	9:A:44:G:H1	1.64	0.46
14:F:93:GLU:HA	14:F:96:TRP:CZ3	2.51	0.46
15:G:148:ARG:HD3	15:G:163:TYR:H	1.80	0.46
10:B:1432:G:H2'	10:B:1433:A:C8	2.51	0.46
10:B:1434:A:C8	10:B:1435:G:C8	3.03	0.46
10:B:1111:A:H1'	10:B:1112:G:H1'	1.98	0.46
5:4:34:LYS:HB3	5:4:36:ARG:NH2	2.31	0.46
10:B:1935:G:C2	10:B:1962:C:C2	3.04	0.46
10:B:298:G:H5'	29:U:85:ARG:HH21	1.80	0.46
6:5:193:LEU:HD12	6:5:231:ALA:HA	1.97	0.46
24:P:6:GLN:O	24:P:10:GLU:N	2.46	0.46
26:R:37:GLU:HB2	26:R:53:PHE:HD1	1.79	0.46
10:B:1303:G:C6	10:B:1304:A:C5	3.03	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
23:O:81:ARG:HG2	23:O:84:GLU:CD	2.36	0.46
34:Z:26:LEU:HD11	34:Z:46:MET:HB3	1.98	0.46
6:5:176:GLY:HA3	6:5:185:LEU:HD22	1.98	0.46
10:B:1011:G:C2	10:B:1151:A:C4	3.04	0.45
10:B:15:G:C5	10:B:16:C:C5	3.04	0.45
10:B:203:A:C6	10:B:204:A:N6	2.83	0.45
10:B:2049:G:C4	10:B:2050:C:C5	3.04	0.45
10:B:199:A:N7	10:B:2433:A:C6	2.84	0.45
10:B:2470:G:N2	10:B:2471:A:C4	2.85	0.45
10:B:2487:G:C4	10:B:2488:G:C8	3.03	0.45
10:B:2520:C:HO2'	10:B:2565:A:HO2'	1.48	0.45
10:B:2627:G:C2	10:B:2777:G:C6	3.04	0.45
10:B:2630:G:H1'	10:B:2894:G:N3	2.31	0.45
10:B:467:G:N2	10:B:468:G:N3	2.63	0.45
10:B:553:G:H2'	10:B:554:U:O4'	2.17	0.45
18:J:37:ARG:NH2	18:J:43:GLU:OE2	2.43	0.45
7:6:375:GLN:HG3	7:6:378:ARG:HH12	1.79	0.45
10:B:1078:U:C5'	17:I:133:ARG:HH12	2.29	0.45
10:B:1394:U:O4	10:B:1395:A:C6	2.69	0.45
10:B:1417:C:H4'	10:B:1587:G:H21	1.82	0.45
10:B:1770:G:C2	10:B:1983:G:C4	3.04	0.45
10:B:1769:U:N3	10:B:1984:G:C6	2.84	0.45
10:B:89:A:C5	10:B:90:U:C4	3.03	0.45
10:B:1041:G:C2	10:B:1042:G:C8	3.04	0.45
30:V:49:ASN:O	30:V:52:ALA:HB3	2.17	0.45
10:B:2417:C:C2	10:B:2418:A:C8	3.04	0.45
10:B:636:G:O2'	10:B:637:A:O5'	2.34	0.45
23:O:36:TYR:HA	23:O:52:SER:CB	2.46	0.45
10:B:329:G:H22	29:U:16:LYS:HZ1	1.64	0.45
10:B:483:A:O2'	29:U:56:GLY:HA2	2.16	0.45
10:B:2642:G:N2	10:B:2772:C:N3	2.53	0.45
10:B:732:C:N3	10:B:733:G:C5	2.85	0.45
7:6:230:ALA:HB3	35:6:527:GNP:N3B	2.31	0.45
12:D:7:LYS:HD3	12:D:77:ARG:NH2	2.29	0.45
10:B:141:G:C2	10:B:142:A:O4'	2.69	0.45
10:B:2714:G:C6	10:B:2715:C:C4	3.04	0.45
10:B:1717:A:N6	10:B:1743:G:O2'	2.44	0.45
7:6:371:ARG:HG2	7:6:424:TYR:CE2	2.51	0.45
18:J:64:VAL:HG11	18:J:69:ARG:HH11	1.81	0.45
14:F:141:ASP:HB2	14:F:144:LYS:HD3	1.98	0.45
19:K:23:VAL:HA	19:K:38:ILE:HG22	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:73:VAL:HA	14:F:79:ARG:HH11	1.81	0.45
10:B:187:G:C6	10:B:188:G:C5	3.04	0.45
10:B:2073:C:H2'	10:B:2074:U:H6	1.81	0.45
10:B:2074:U:H4'	10:B:2598:A:H1'	1.97	0.45
10:B:214:G:H2'	10:B:215:G:C8	2.51	0.45
10:B:245:G:C2	10:B:246:C:C6	3.05	0.45
10:B:2470:G:C2	10:B:2471:A:C8	3.05	0.45
10:B:2575:C:H5'	10:B:2576:G:OP2	2.16	0.45
10:B:265:A:C6	10:B:428:A:C5	3.04	0.45
10:B:2808:G:H4'	10:B:2809:A:C5'	2.46	0.45
10:B:836:G:C5	10:B:837:C:N3	2.85	0.45
10:B:847:U:H5	10:B:932:U:H1'	1.82	0.45
10:B:2224:G:O6	16:H:135:HIS:NE2	2.49	0.45
6:5:133:PRO:HA	10:B:2121:G:N7	2.30	0.45
10:B:1754:A:H2'	10:B:1755:A:O4'	2.16	0.45
10:B:2298:A:C5	10:B:2299:U:C4	3.04	0.45
10:B:2327:A:C6	10:B:2328:A:C6	3.05	0.45
10:B:1083:U:H1'	10:B:1085:A:N7	2.30	0.45
10:B:1361:G:C6	10:B:1362:C:C4	3.05	0.45
10:B:1394:U:H2'	10:B:1395:A:H5'	1.97	0.45
10:B:58:G:OP2	10:B:58:G:H8	2.00	0.45
10:B:713:G:H2'	10:B:714:U:C6	2.51	0.45
11:C:144:GLU:OE1	11:C:187:CYS:HA	2.16	0.45
11:C:250:GLN:HG3	11:C:252:LYS:O	2.16	0.45
10:B:9:G:OP2	18:J:120:ARG:NH2	2.49	0.45
10:B:815:C:N4	10:B:1192:G:H1	2.15	0.45
10:B:379:G:C2	10:B:380:G:C8	3.04	0.45
10:B:2399:G:C6	10:B:2418:A:C6	3.04	0.45
10:B:652:U:OP2	10:B:653:U:N3	2.44	0.45
9:A:66:A:C5'	9:A:108:A:H61	2.29	0.45
10:B:865:C:N3	10:B:908:C:N4	2.64	0.45
10:B:2659:G:O2'	15:G:176:LYS:HG3	2.16	0.45
10:B:299:A:C5	10:B:322:A:C2	3.04	0.45
12:D:33:ARG:CG	12:D:93:GLY:HA3	2.46	0.45
10:B:2003:A:H2'	10:B:2004:G:C8	2.51	0.45
10:B:2746:U:H2'	10:B:2747:G:O4'	2.16	0.45
10:B:132:G:H2'	10:B:133:U:H6	1.79	0.45
10:B:1839:G:C5	10:B:1840:G:C8	3.04	0.45
10:B:1331:G:C5	10:B:1333:G:N7	2.84	0.45
10:B:2592:G:N2	10:B:2603:G:C4	2.85	0.45
8:7:99:PHE:O	8:7:108:VAL:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1681:G:C5	10:B:1762:A:C6	3.05	0.45
23:O:99:TYR:OH	23:O:111:ARG:NH2	2.45	0.45
23:O:80:GLU:O	23:O:83:LEU:HB3	2.16	0.45
1:O:8:THR:O	1:O:12:ARG:N	2.48	0.45
10:B:1456:G:H2'	10:B:1457:U:O4'	2.16	0.45
10:B:2023:C:C2	10:B:2024:G:C8	3.03	0.45
10:B:2027:G:C6	10:B:2028:U:N3	2.84	0.45
10:B:2472:G:C5	10:B:2475:C:C4	3.04	0.45
10:B:2621:G:C6	10:B:2622:U:C4	3.04	0.45
10:B:2843:G:C2	10:B:2844:G:C4	3.03	0.45
10:B:530:G:H5''	10:B:531:C:OP2	2.15	0.45
10:B:809:G:C4	10:B:810:U:C5	3.05	0.45
10:B:851:C:N3	10:B:852:U:C4	2.84	0.45
10:B:958:U:H3	21:M:40:ARG:NE	2.13	0.45
10:B:998:C:N3	10:B:999:U:C2	2.84	0.45
10:B:2032:G:C2	12:D:150:GLN:CG	2.92	0.45
31:W:50:VAL:HG12	31:W:51:GLY:O	2.16	0.45
11:C:132:ARG:NE	16:H:120:GLY:O	2.49	0.45
10:B:2168:G:N2	10:B:2171:A:OP2	2.49	0.45
6:5:53:ARG:HB3	6:5:203:GLN:HE21	1.82	0.45
17:I:102:ARG:O	17:I:106:GLN:HG2	2.16	0.45
10:B:1356:G:C5	10:B:1357:C:C5	3.04	0.45
10:B:1571:A:C2	10:B:1572:A:C4	3.04	0.45
10:B:1695:G:O2'	11:C:8:THR:HA	2.16	0.45
10:B:58:G:C2	10:B:59:U:C2	3.04	0.45
10:B:1818:U:OP2	11:C:155:ARG:NE	2.49	0.45
10:B:2383:G:C5	10:B:2384:U:C4	3.05	0.45
9:A:28:C:C2	9:A:29:A:C8	3.05	0.45
23:O:25:ARG:CZ	23:O:40:ILE:HD11	2.45	0.45
10:B:1327:A:N7	10:B:1328:A:N3	2.64	0.45
10:B:1491:G:C2	10:B:1492:G:C5	3.04	0.45
10:B:2189:U:C2	10:B:2190:G:C8	3.04	0.45
15:G:8:VAL:CB	15:G:49:LEU:HD12	2.46	0.45
10:B:1897:G:H2'	10:B:1898:U:H6	1.80	0.45
10:B:1438:U:OP2	10:B:1552:A:N6	2.50	0.45
10:B:2592:G:C6	10:B:2593:U:N3	2.85	0.45
10:B:136:G:C6	10:B:144:A:C6	3.04	0.45
10:B:1685:C:H2'	10:B:1686:C:C6	2.50	0.45
4:3:15:LYS:HG3	4:3:21:PHE:CE1	2.51	0.45
30:V:2:PHE:HE2	30:V:59:GLU:OE2	2.00	0.45
16:H:143:ILE:HG22	16:H:145:ASN:H	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:792:A:N6	10:B:2440:C:O5'	2.48	0.45
26:R:91:GLN:NE2	26:R:92:TRP:H	2.14	0.45
10:B:1022:G:C6	10:B:1140:C:C5	3.05	0.45
10:B:17:G:H2'	10:B:18:U:C6	2.51	0.45
10:B:2392:A:C5	10:B:2393:U:C5	3.04	0.45
10:B:2447:G:N2	10:B:2450:A:OP2	2.49	0.45
10:B:247:G:N2	10:B:252:G:C5	2.84	0.45
10:B:2624:G:C2	10:B:2625:G:C8	3.05	0.45
10:B:2704:C:H2'	10:B:2705:A:C4	2.52	0.45
10:B:529:A:C5	10:B:2023:C:C5	3.05	0.45
10:B:953:G:C6	10:B:965:C:N4	2.85	0.45
12:D:121:THR:HB	12:D:127:PHE:HD2	1.82	0.45
31:W:45:HIS:CD2	31:W:49:ASN:O	2.69	0.45
10:B:2117:A:N1	10:B:2164:C:C4	2.84	0.45
10:B:2140:G:C6	10:B:2152:G:C6	3.05	0.45
17:I:93:ASN:OD1	17:I:133:ARG:HB2	2.17	0.45
17:I:102:ARG:N	17:I:140:GLU:O	2.49	0.45
10:B:121:G:O6	10:B:130:C:N4	2.49	0.45
10:B:1352:U:O2'	10:B:1353:A:H5'	2.17	0.45
10:B:1774:C:H5''	10:B:1775:U:OP2	2.16	0.45
10:B:1825:U:OP2	11:C:51:ARG:NH2	2.49	0.45
10:B:1116:G:O2'	10:B:1117:C:H5'	2.16	0.45
10:B:380:G:C2	10:B:381:G:C4	3.04	0.45
10:B:402:A:H3'	10:B:403:U:C6	2.51	0.45
10:B:2366:A:C5	10:B:2367:G:C5	3.05	0.45
23:O:24:THR:HG22	23:O:42:PRO:HD3	1.99	0.45
10:B:319:G:H2'	10:B:320:A:O4'	2.16	0.45
10:B:310:A:OP1	29:U:15:GLY:N	2.49	0.45
10:B:746:U:H5''	10:B:747:U:H5'	1.98	0.45
7:6:328:ARG:HB2	7:6:341:TRP:NE1	2.31	0.45
10:B:2227:A:C5	10:B:2228:G:C5	3.04	0.45
10:B:1834:U:C4	10:B:1900:A:N6	2.84	0.45
8:7:61:ARG:NE	10:B:1047:G:OP2	2.45	0.45
10:B:2592:G:H2'	10:B:2593:U:O4'	2.17	0.45
22:N:33:ILE:HG13	22:N:33:ILE:O	2.16	0.45
2:1:24:LYS:HZ1	2:1:26:LYS:HG2	1.81	0.45
15:G:120:ILE:HG13	15:G:133:LYS:C	2.37	0.45
10:B:497:A:C4	10:B:498:G:C8	3.04	0.45
17:I:49:GLU:HB3	17:I:52:LEU:CD1	2.46	0.45
10:B:1877:A:C6	10:B:1878:G:C5	3.04	0.45
30:V:2:PHE:HB3	30:V:61:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
15:G:42:VAL:HG23	15:G:50:THR:O	2.15	0.45
10:B:1170:C:N4	10:B:1171:G:O6	2.50	0.45
10:B:1268:A:C6	10:B:2013:A:N7	2.84	0.45
10:B:1996:C:H1'	10:B:1997:C:O4'	2.17	0.45
10:B:19:A:C4	10:B:20:C:C5	3.04	0.45
10:B:2024:G:C5	10:B:2025:C:C4	3.05	0.45
10:B:2048:G:N2	10:B:2049:G:H1'	2.31	0.45
10:B:197:A:N6	10:B:2430:A:H2'	2.31	0.45
10:B:2527:C:H42	10:B:2536:G:H1	1.63	0.45
10:B:2537:U:H2'	10:B:2538:C:C6	2.52	0.45
10:B:2544:G:H2'	10:B:2545:G:H8	1.82	0.45
10:B:2630:G:C8	10:B:2894:G:C8	3.04	0.45
10:B:2705:A:N6	10:B:2706:A:C2	2.84	0.45
10:B:2842:G:H2'	10:B:2843:G:H8	1.82	0.45
10:B:406:G:H2'	10:B:407:G:C8	2.47	0.45
10:B:528:A:N6	10:B:2042:A:C5	2.84	0.45
10:B:596:U:C2	10:B:597:G:C8	3.04	0.45
10:B:669:G:C6	10:B:801:G:O6	2.70	0.45
10:B:914:G:O2'	10:B:915:C:OP1	2.29	0.45
18:J:32:LEU:HD22	18:J:54:ILE:HD11	1.98	0.45
31:W:22:VAL:HG22	31:W:25:PHE:HB2	1.98	0.45
31:W:48:ALA:O	31:W:61:LYS:HB2	2.16	0.45
6:5:218:MET:HB3	10:B:2128:G:N2	2.31	0.45
10:B:2175:C:H2'	10:B:2176:A:C8	2.51	0.45
10:B:1067:A:C6	10:B:1068:G:C6	3.05	0.45
17:I:96:LYS:HD3	17:I:138:VAL:HG22	1.98	0.45
10:B:1787:A:H4'	10:B:2589:A:H4'	1.99	0.45
7:6:311:PRO:HB2	7:6:360:ARG:NH2	2.27	0.45
9:A:20:G:C4	9:A:21:G:C8	3.05	0.45
10:B:917:A:N3	10:B:918:A:C8	2.85	0.45
28:T:44:LYS:HZ2	28:T:55:VAL:HG12	1.81	0.45
10:B:2644:G:N2	10:B:2645:G:H22	2.15	0.45
10:B:1283:G:H22	10:B:1286:A:P	2.38	0.45
10:B:1759:A:N6	10:B:2696:U:O2'	2.49	0.45
14:F:31:GLU:N	14:F:156:THR:O	2.45	0.45
14:F:3:LEU:HB2	14:F:96:TRP:CG	2.51	0.45
10:B:2791:G:C4	10:B:2792:A:C8	3.05	0.45
12:D:20:VAL:O	12:D:21:SER:HB2	2.16	0.45
10:B:1867:G:C6	10:B:1875:G:C2	3.05	0.45
10:B:1238:G:C2	10:B:1239:G:C8	3.05	0.45
7:6:10:GLN:N	7:6:40:GLU:HB3	2.31	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1949:G:H2'	10:B:1950:G:H8	1.77	0.45
27:S:51:LEU:O	27:S:55:ILE:N	2.41	0.45
4:3:51:LYS:HA	4:3:54:LEU:HB2	1.99	0.45
20:L:29:LYS:HE3	26:R:82:HIS:CE1	2.52	0.45
10:B:2652:C:O2	10:B:2668:G:N1	2.46	0.45
26:R:34:GLU:OE2	26:R:60:LYS:HA	2.15	0.45
10:B:1230:A:C5	10:B:1231:U:C4	3.04	0.45
10:B:1269:A:H2'	10:B:1270:C:C6	2.52	0.45
10:B:1458:U:C5	10:B:2702:G:N1	2.85	0.45
10:B:18:U:C2	10:B:19:A:N7	2.85	0.45
10:B:2246:G:O6	10:B:2258:C:N4	2.50	0.45
10:B:2272:U:HO2'	10:B:2273:A:P	2.38	0.45
10:B:2358:A:C5	10:B:2359:C:C5	3.05	0.45
10:B:2506:U:O2'	10:B:2507:C:O5'	2.30	0.45
10:B:2563:U:H4'	19:K:26:GLY:O	2.16	0.45
10:B:2819:G:C6	10:B:2821:A:C2	3.05	0.45
10:B:594:U:C4	10:B:595:C:C4	3.05	0.45
10:B:673:C:H2'	10:B:674:G:H8	1.78	0.45
10:B:678:C:C2	10:B:679:C:C6	3.05	0.45
10:B:868:U:C4	10:B:869:G:C5	3.04	0.45
10:B:910:A:C8	21:M:13:HIS:CG	3.05	0.45
10:B:974:G:C5	10:B:1186:G:C2	3.05	0.45
11:C:54:GLY:N	11:C:216:ARG:HG3	2.32	0.45
13:E:49:ARG:O	13:E:74:LYS:HD3	2.17	0.45
10:B:1131:G:C4	18:J:77:HIS:CE1	3.05	0.45
10:B:2863:C:OP1	24:P:112:ARG:HD2	2.16	0.45
10:B:2846:G:O3'	24:P:49:ILE:HD11	2.16	0.45
10:B:1850:G:C6	10:B:1851:U:C4	3.04	0.45
10:B:2199:A:O2'	16:H:28:ASN:ND2	2.49	0.45
10:B:2122:U:H6	10:B:2122:U:O5'	1.99	0.45
10:B:1093:G:C2	17:I:3:LYS:HB3	2.52	0.45
17:I:2:LYS:C	17:I:3:LYS:HD2	2.37	0.45
10:B:1385:A:H4'	10:B:1386:C:OP1	2.16	0.45
9:A:102:G:H2'	9:A:103:U:H6	1.81	0.45
10:B:1039:A:H4'	30:V:45:ASP:OD2	2.16	0.45
10:B:2345:G:H1'	10:B:2381:A:H2'	1.98	0.45
9:A:106:G:C5	9:A:107:G:C5	3.05	0.45
9:A:30:C:N4	9:A:53:A:H61	2.15	0.45
9:A:81:G:C6	9:A:96:G:C5	3.05	0.45
15:G:156:TYR:CG	15:G:175:LYS:NZ	2.82	0.45
10:B:2643:G:C6	10:B:2644:G:C5	3.05	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:33:ARG:HE	12:D:74:GLU:HB2	1.82	0.45
10:B:1527:G:H1'	10:B:1546:G:N2	2.31	0.45
7:6:324:ASP:OD2	7:6:341:TRP:HE3	1.97	0.45
10:B:194:G:C6	10:B:195:A:C5	3.05	0.45
10:B:1202:G:C6	10:B:1203:U:N3	2.85	0.45
10:B:1205:A:H4'	10:B:1206:G:OP2	2.16	0.45
19:K:63:ARG:HG2	19:K:78:PHE:CE2	2.51	0.45
10:B:338:G:C5	10:B:339:U:C4	3.05	0.45
10:B:1729:U:C4	10:B:1731:G:N2	2.85	0.45
27:S:33:LEU:O	27:S:36:LEU:HB2	2.17	0.45
2:1:8:ILE:HG21	2:1:26:LYS:HE3	1.98	0.45
17:I:9:LYS:HA	17:I:56:VAL:O	2.17	0.45
10:B:1952:A:C6	10:B:1953:A:N1	2.84	0.45
10:B:2083:G:C6	10:B:2084:C:C2	3.05	0.45
10:B:2265:U:C4	10:B:2266:A:C6	3.04	0.45
10:B:2483:C:C4	10:B:2484:G:C8	3.04	0.45
10:B:251:A:N1	10:B:252:G:H1'	2.32	0.45
10:B:2523:G:C6	10:B:2524:G:N7	2.85	0.45
10:B:252:G:P	20:L:47:ARG:NH2	2.85	0.45
10:B:2597:G:C6	10:B:2598:A:N1	2.85	0.45
10:B:2839:G:C6	10:B:2840:C:C2	3.04	0.45
10:B:445:C:O2'	25:Q:2:ARG:NH1	2.49	0.45
10:B:27:G:C5	10:B:512:G:N1	2.85	0.45
10:B:464:U:C2	10:B:788:A:C6	3.05	0.45
10:B:1665:A:H5''	19:K:65:LYS:HG3	1.99	0.45
25:Q:27:ARG:HG2	25:Q:33:VAL:HG12	1.99	0.45
27:S:69:LEU:HB3	27:S:107:VAL:CG1	2.46	0.45
10:B:1881:C:H2'	10:B:1882:U:O4'	2.16	0.45
8:7:59:LEU:O	8:7:63:ALA:N	2.37	0.45
10:B:1424:G:N1	10:B:1425:G:C2	2.85	0.45
10:B:1789:A:OP2	11:C:220:ARG:NE	2.50	0.45
10:B:2588:G:N2	10:B:2589:A:C4	2.84	0.45
10:B:711:G:C6	10:B:721:A:C6	3.04	0.45
10:B:91:A:H2'	10:B:91:A:N3	2.32	0.45
7:6:78:VAL:CG1	7:6:100:VAL:HG22	2.47	0.45
10:B:2374:C:N4	10:B:2375:G:O6	2.49	0.45
23:O:34:HIS:CD2	23:O:54:VAL:HG22	2.51	0.45
10:B:102:U:H2'	10:B:102:U:H6	1.56	0.45
10:B:289:G:H2'	10:B:290:U:H6	1.78	0.45
10:B:291:G:H2'	10:B:292:U:H6	1.82	0.45
10:B:2634:A:N3	10:B:2635:A:C8	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:D:33:ARG:HH21	12:D:73:VAL:HA	1.81	0.45
10:B:754:U:C2	10:B:755:U:C5	3.04	0.45
10:B:1323:C:H3'	10:B:1324:G:H5''	1.98	0.45
14:F:7:TYR:CD2	14:F:11:VAL:HG11	2.51	0.45
15:G:104:LEU:HD11	15:G:147:LEU:HD11	1.99	0.45
8:7:132:TYR:HE1	8:7:153:ARG:HH21	1.64	0.45
17:I:38:CYS:O	17:I:42:ASN:N	2.33	0.45
10:B:945:A:N1	10:B:2448:A:C4	2.85	0.45
7:6:51:ALA:HA	7:6:52:PRO:HD3	1.81	0.45
16:H:2:GLN:HA	16:H:19:VAL:O	2.17	0.45
27:S:108:SER:OG	27:S:109:ASP:N	2.47	0.45
10:B:1007:C:C5	10:B:1008:A:C5	3.05	0.45
10:B:1011:G:C6	10:B:1013:C:N3	2.85	0.45
10:B:1017:G:H2'	10:B:1018:U:C6	2.52	0.45
10:B:1151:A:H4'	25:Q:80:ASN:HD22	1.82	0.45
10:B:1249:U:OP2	20:L:21:ARG:NH2	2.50	0.45
10:B:1666:G:O2'	10:B:1667:G:H5'	2.17	0.45
10:B:203:A:N7	10:B:204:A:C5	2.85	0.45
10:B:2239:G:C6	10:B:2240:U:N3	2.85	0.45
10:B:2410:G:C2	10:B:2411:A:C4	3.04	0.45
10:B:2428:G:N2	20:L:54:GLN:HE21	2.15	0.45
10:B:2048:G:C6	10:B:2621:G:N1	2.85	0.45
10:B:2825:G:C6	10:B:2826:A:C5	3.05	0.45
10:B:618:G:C4	10:B:619:G:C8	3.04	0.45
10:B:795:C:C2	10:B:796:C:C6	3.05	0.45
10:B:820:A:C4	10:B:821:A:C8	3.05	0.45
10:B:856:G:C2	10:B:857:G:C4	3.05	0.45
10:B:859:G:O2'	10:B:916:G:O6	2.28	0.45
10:B:843:G:N2	10:B:936:A:C4	2.85	0.45
24:P:110:LYS:O	24:P:114:ASN:ND2	2.47	0.45
10:B:2198:A:C2	16:H:29:PHE:CG	3.05	0.45
6:5:3:LYS:HE2	10:B:2177:C:N4	2.32	0.45
10:B:2333:A:H5'	10:B:2335:A:H1'	1.98	0.45
8:7:37:LYS:NZ	8:7:83:ALA:HB1	2.32	0.45
10:B:1359:A:H62	10:B:1372:U:H3	1.65	0.45
10:B:1795:C:N3	10:B:1824:G:N2	2.59	0.45
10:B:695:G:C2	10:B:768:G:C4	3.05	0.45
10:B:876:C:H2'	10:B:877:A:C1'	2.47	0.45
10:B:879:G:C5	10:B:880:G:C5	3.04	0.45
10:B:880:G:C6	10:B:895:U:N3	2.85	0.45
30:V:46:LYS:HE2	30:V:46:LYS:HB3	1.77	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:374:A:C6	10:B:375:G:C5	3.05	0.45
10:B:2372:U:H2'	10:B:2373:G:C8	2.52	0.45
14:F:168:LEU:O	14:F:170:ALA:N	2.50	0.45
10:B:85:G:C5	10:B:86:G:C8	3.05	0.45
7:6:147:LYS:HZ2	7:6:159:GLN:CD	2.20	0.45
10:B:301:G:C5	10:B:302:C:C4	3.05	0.45
10:B:1290:C:C4	10:B:1291:C:N4	2.85	0.45
9:A:45:A:C6	9:A:46:A:C4	3.05	0.45
9:A:36:C:N4	9:A:49:C:H1'	2.32	0.45
10:B:740:C:N4	10:B:757:G:H22	2.15	0.45
11:C:97:ASP:OD2	11:C:99:GLU:OE2	2.34	0.45
18:J:13:ARG:HH22	18:J:49:ASP:C	2.20	0.45
27:S:83:LYS:HG2	27:S:97:LEU:HD23	1.99	0.45
4:3:20:GLY:HA3	4:3:48:MET:HE1	1.98	0.45
12:D:109:VAL:HB	12:D:175:LEU:HD12	1.98	0.45
12:D:15:PHE:HB2	24:P:11:GLN:HE21	1.82	0.45
21:M:73:ILE:HG21	21:M:91:TYR:OH	2.17	0.45
11:C:229:HIS:HE1	11:C:231:HIS:HD2	1.64	0.45
10:B:393:C:H2'	10:B:394:C:H6	1.81	0.45
7:6:30:PHE:O	7:6:34:VAL:HG23	2.17	0.45
7:6:23:ASP:O	7:6:24:MET:HG2	2.17	0.45
7:6:15:HIS:CD2	7:6:81:ASP:OD2	2.64	0.45
10:B:1011:G:N1	10:B:1151:A:C5	2.85	0.45
10:B:1014:A:C5	10:B:1015:U:C4	3.04	0.45
10:B:1026:G:H2'	10:B:1027:A:C8	2.52	0.45
10:B:1125:G:C6	10:B:1126:A:N6	2.84	0.45
10:B:2027:G:C6	10:B:2028:U:C2	3.04	0.45
10:B:2035:G:OP1	10:B:2036:C:N4	2.38	0.45
10:B:2054:A:N1	10:B:2616:C:C4	2.85	0.45
10:B:21:A:C4	10:B:520:G:C2	3.05	0.45
10:B:2465:C:H2'	10:B:2466:C:C6	2.52	0.45
10:B:2485:G:H2'	10:B:2486:C:C6	2.52	0.45
10:B:258:G:C4	10:B:259:G:C8	3.05	0.45
10:B:2721:A:C2	10:B:2873:A:C5	3.05	0.45
10:B:2836:U:H2'	10:B:2837:A:H8	1.82	0.45
10:B:465:G:C6	10:B:466:A:N1	2.85	0.45
10:B:524:G:H2'	10:B:525:U:C6	2.51	0.45
10:B:577:G:N2	10:B:578:G:C5	2.85	0.45
10:B:668:A:C6	10:B:670:A:C6	3.05	0.45
10:B:776:G:N7	10:B:793:A:C8	2.85	0.45
10:B:915:C:N3	10:B:916:G:C4	2.85	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:N:38:LEU:O	22:N:41:ALA:HB3	2.17	0.45
10:B:2852:G:P	22:N:64:ARG:HH22	2.37	0.45
10:B:1754:A:C2	10:B:1755:A:C4	3.05	0.45
10:B:2331:G:N7	10:B:2332:C:N4	2.65	0.45
10:B:1057:A:P	10:B:1057:A:H8	2.40	0.45
10:B:1081:U:O3'	17:I:118:GLY:HA2	2.16	0.45
10:B:1062:G:C1'	10:B:1088:A:H62	2.28	0.45
10:B:1410:G:H2'	10:B:1411:U:C6	2.52	0.45
10:B:150:U:H2'	10:B:151:C:O4'	2.17	0.45
10:B:2355:G:C6	10:B:2356:U:N3	2.83	0.45
10:B:2414:G:C2	10:B:2415:G:C4	3.05	0.45
10:B:651:G:HO2'	10:B:652:U:P	2.38	0.45
9:A:52:A:C5	9:A:53:A:C4	3.04	0.45
10:B:1907:G:C6	10:B:1908:C:N3	2.84	0.45
10:B:873:C:H1'	21:M:28:PHE:HE1	1.82	0.45
10:B:2657:A:H2'	10:B:2658:C:H5'	1.99	0.45
10:B:102:U:C1'	33:Y:4:LYS:NZ	2.79	0.45
10:B:476:G:N1	10:B:479:A:OP2	2.50	0.45
10:B:493:G:H2'	10:B:494:G:O4'	2.17	0.45
10:B:501:A:C2	10:B:502:A:C4	3.05	0.45
10:B:2785:C:H2'	10:B:2786:U:C6	2.51	0.45
12:D:35:THR:HB	12:D:67:HIS:HE1	1.82	0.45
16:H:144:VAL:O	16:H:146:VAL:HG23	2.17	0.45
10:B:701:G:H1	10:B:731:C:N4	2.14	0.45
6:5:41:SER:HB3	6:5:174:THR:HG23	1.99	0.45
19:K:46:ILE:HG13	19:K:47:PRO:HD2	1.99	0.45
10:B:1434:A:H62	10:B:1558:C:N4	2.14	0.45
10:B:1307:A:C6	10:B:1622:G:C6	3.05	0.45
10:B:1623:G:C6	10:B:1624:U:C4	3.05	0.45
10:B:1642:G:C2	10:B:1643:G:C4	3.05	0.45
19:K:62:VAL:HG23	19:K:82:ALA:HB3	1.99	0.45
20:L:23:ILE:CD1	26:R:84:ARG:HD3	2.47	0.45
2:1:24:LYS:NZ	2:1:26:LYS:HA	2.32	0.45
24:P:4:ILE:O	24:P:6:GLN:HG2	2.16	0.45
12:D:179:ARG:O	12:D:188:LEU:HB2	2.16	0.45
10:B:567:U:N3	10:B:568:U:O2	2.49	0.45
27:S:47:VAL:HG12	27:S:103:ILE:HG21	1.99	0.45
26:R:91:GLN:HE21	26:R:92:TRP:H	1.63	0.45
32:X:34:SER:HA	32:X:48:LEU:O	2.16	0.45
12:D:138:LEU:O	12:D:139:SER:OG	2.30	0.45
14:F:62:GLN:HB3	14:F:63:LYS:H	1.48	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:257:ARG:HH21	7:6:258:HIS:HE1	1.65	0.45
10:B:1129:A:HO2'	10:B:1130:U:P	2.40	0.45
10:B:1227:G:C4	10:B:1228:G:C8	3.05	0.45
10:B:1214:A:N6	10:B:1235:G:O2'	2.44	0.45
10:B:1613:G:C8	10:B:1617:C:N4	2.85	0.45
10:B:2523:G:C4	10:B:2765:A:N6	2.85	0.45
10:B:2828:G:C6	10:B:2829:A:N7	2.85	0.45
10:B:596:U:H2'	10:B:597:G:H8	1.81	0.45
10:B:986:C:C2	10:B:987:C:C6	3.05	0.45
10:B:986:C:H2'	10:B:987:C:C6	2.52	0.45
10:B:2091:C:C5'	10:B:2092:U:H5''	2.46	0.45
10:B:2198:A:H4'	10:B:2199:A:OP1	2.17	0.45
6:5:139:ASN:HD22	6:5:162:ARG:HD2	1.82	0.45
6:5:9:ARG:NH1	10:B:2151:U:OP2	2.50	0.45
6:5:12:ARG:NH2	10:B:2176:A:N7	2.65	0.45
10:B:1063:G:N1	10:B:1075:C:O2	2.46	0.45
10:B:1095:A:C5	10:B:1096:A:C6	3.04	0.45
10:B:120:U:H4'	10:B:121:G:C5'	2.47	0.45
10:B:1361:G:C6	10:B:1362:C:N4	2.85	0.45
10:B:707:G:C2	10:B:725:G:H1'	2.51	0.45
10:B:644:A:N6	10:B:2349:G:H21	2.07	0.45
10:B:2372:U:C2	10:B:2373:G:N7	2.85	0.45
10:B:2346:A:C5	10:B:2383:G:C2	3.05	0.45
9:A:18:G:H3'	9:A:19:C:C5	2.52	0.45
9:A:78:A:C4	9:A:99:A:C5	3.05	0.45
29:U:10:VAL:HG22	29:U:22:GLY:O	2.17	0.45
28:T:43:ILE:O	28:T:47:VAL:HG22	2.15	0.45
12:D:65:ALA:HA	12:D:68:PHE:HB2	1.98	0.45
12:D:64:GLU:HG3	12:D:68:PHE:HE2	1.82	0.45
10:B:1658:C:P	12:D:140:HIS:CD2	3.10	0.45
10:B:759:G:H2'	10:B:760:G:H8	1.81	0.45
7:6:224:ALA:HB1	35:6:527:GNP:PA	2.57	0.45
10:B:1306:C:N3	10:B:1623:G:C6	2.85	0.45
10:B:49:A:OP1	10:B:50:U:H2'	2.17	0.45
7:6:26:ASP:O	7:6:27:LEU:HB3	2.15	0.45
18:J:130:HIS:CG	18:J:130:HIS:O	2.70	0.45
10:B:1945:G:C4	10:B:1946:U:C5	3.04	0.45
15:G:120:ILE:HD12	15:G:140:ILE:HG13	1.99	0.45
32:X:10:ARG:O	32:X:12:VAL:HG13	2.17	0.45
25:Q:64:ILE:HG12	25:Q:95:ALA:O	2.18	0.45
13:E:124:PHE:CZ	13:E:137:LYS:HB3	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1003:G:N2	10:B:1010:A:N3	2.62	0.44
10:B:973:A:H5'	10:B:1188:U:C2	2.52	0.44
10:B:1212:G:O2'	10:B:1213:A:OP2	2.35	0.44
10:B:2080:A:H2'	10:B:2081:U:C6	2.51	0.44
10:B:220:G:O2'	10:B:233:A:O2'	2.18	0.44
10:B:2469:A:N6	10:B:2470:G:C4	2.85	0.44
10:B:2550:G:C5	10:B:2551:C:C5	3.04	0.44
10:B:2618:G:N2	10:B:2619:C:H1'	2.32	0.44
10:B:2723:C:C2	10:B:2724:U:C5	3.05	0.44
10:B:2821:A:H4'	12:D:167:ASN:ND2	2.32	0.44
10:B:2831:G:P	12:D:56:LYS:NZ	2.90	0.44
10:B:464:U:C5	10:B:788:A:C2	3.05	0.44
10:B:775:G:C5	10:B:777:G:N2	2.85	0.44
10:B:953:G:C2	10:B:965:C:C2	3.05	0.44
12:D:124:ARG:HG2	12:D:125:TRP:NE1	2.31	0.44
10:B:2718:G:H5'	24:P:98:TYR:HE1	1.82	0.44
31:W:59:PHE:CD1	31:W:59:PHE:N	2.85	0.44
6:5:105:LYS:HG2	10:B:2168:G:C6	2.52	0.44
10:B:2331:G:C6	10:B:2332:C:C4	3.05	0.44
10:B:2386:A:C6	10:B:2387:U:C4	3.05	0.44
14:F:121:PHE:HA	14:F:126:ASN:O	2.17	0.44
14:F:125:GLY:N	14:F:162:ASP:OD1	2.30	0.44
8:7:34:THR:HA	10:B:1085:A:N6	2.32	0.44
10:B:1060:U:P	17:I:75:ALA:H	2.40	0.44
10:B:1061:U:C2	10:B:1070:A:C4	3.06	0.44
10:B:1392:A:H62	10:B:1393:A:N6	2.15	0.44
10:B:1813:G:C4	10:B:1814:G:N7	2.85	0.44
10:B:1815:A:C8	10:B:1817:G:C4	3.05	0.44
10:B:2588:G:C2	10:B:2589:A:C4	3.06	0.44
11:C:143:VAL:HG22	11:C:144:GLU:O	2.17	0.44
11:C:86:ARG:HB3	11:C:88:ALA:N	2.32	0.44
10:B:375:G:C2	10:B:376:G:C8	3.05	0.44
10:B:2285:C:H5'	10:B:2288:A:N1	2.32	0.44
10:B:648:G:C2	10:B:649:G:C8	3.06	0.44
9:A:29:A:H5'	23:O:4:LYS:HZ1	1.82	0.44
10:B:2531:A:H2'	10:B:2532:G:O4'	2.16	0.44
10:B:2653:U:H3'	10:B:2654:A:H8	1.77	0.44
10:B:329:G:C2	10:B:477:A:C2	3.05	0.44
10:B:169:G:H2'	10:B:170:U:C6	2.52	0.44
9:A:46:A:C6	9:A:47:C:C2	3.05	0.44
10:B:417:C:C2	10:B:418:C:C6	3.05	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:194:G:N1	10:B:195:A:C4	2.86	0.44
10:B:1246:A:H2'	10:B:1247:A:C8	2.52	0.44
10:B:1940:U:H4'	10:B:1941:C:C5'	2.46	0.44
10:B:496:G:C4	10:B:497:A:C8	3.05	0.44
19:K:85:LEU:HB2	19:K:94:ILE:CD1	2.47	0.44
10:B:1707:G:H2'	10:B:1708:C:O4'	2.18	0.44
10:B:2359:C:N4	10:B:2360:G:O6	2.50	0.44
10:B:2469:A:C5	10:B:2470:G:C8	3.05	0.44
10:B:2550:G:H2'	10:B:2551:C:H6	1.82	0.44
10:B:2847:U:O4	10:B:2848:G:N1	2.50	0.44
10:B:35:G:C5	10:B:36:G:C8	3.06	0.44
10:B:684:G:C6	10:B:774:G:C5	3.05	0.44
10:B:2050:C:H5''	12:D:143:PRO:HG2	1.99	0.44
10:B:563:A:P	26:R:79:ARG:NH2	2.91	0.44
6:5:6:LYS:HG3	6:5:9:ARG:NH2	2.32	0.44
28:T:5:GLU:HG3	33:Y:18:LEU:HD11	1.99	0.44
10:B:2300:C:H2'	10:B:2301:C:C6	2.53	0.44
10:B:2328:A:C2	10:B:2329:U:C4	3.05	0.44
10:B:2336:A:N7	31:W:40:ARG:CZ	2.80	0.44
8:7:58:THR:OG1	8:7:82:ILE:HB	2.16	0.44
10:B:1357:C:H2'	10:B:1358:G:O4'	2.16	0.44
10:B:1361:G:C5	10:B:1362:C:C4	3.04	0.44
10:B:1391:U:O2'	28:T:19:LYS:HD3	2.17	0.44
10:B:729:G:C5'	11:C:206:LYS:HZ2	2.31	0.44
10:B:1192:G:N3	10:B:1193:G:C8	2.86	0.44
10:B:374:A:H1'	10:B:401:A:C6	2.52	0.44
10:B:2373:G:N2	10:B:2374:C:C2	2.85	0.44
10:B:2400:G:C6	10:B:2401:U:N3	2.85	0.44
9:A:57:A:C5	9:A:58:A:C5	3.05	0.44
19:K:92:GLN:CA	19:K:110:LYS:HZ3	2.30	0.44
9:A:85:G:C2	9:A:86:G:C5	3.06	0.44
18:J:38:GLY:O	18:J:40:HIS:N	2.43	0.44
10:B:508:A:O2'	10:B:509:C:OP1	2.31	0.44
10:B:170:U:H2'	10:B:171:U:O4'	2.17	0.44
10:B:2771:C:O2'	12:D:173:GLN:OE1	2.35	0.44
12:D:34:VAL:H	12:D:93:GLY:CA	2.28	0.44
7:6:320:ASP:H	7:6:343:SER:HB2	1.82	0.44
18:J:99:ARG:O	18:J:103:ILE:HG22	2.17	0.44
10:B:1932:A:C4	10:B:1933:G:C8	3.05	0.44
1:0:3:GLN:HA	10:B:2615:U:O2	2.18	0.44
10:B:2057:G:C5	10:B:2058:A:N7	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:67:LYS:HG2	11:C:69:ASN:HD21	1.82	0.44
10:B:1201:U:H3	10:B:1244:A:N6	2.14	0.44
10:B:1204:A:O4'	10:B:1206:G:C8	2.70	0.44
29:U:88:ASP:O	29:U:91:LYS:HD2	2.17	0.44
28:T:22:THR:HA	28:T:25:GLU:HB2	1.99	0.44
15:G:139:VAL:O	15:G:143:VAL:HG22	2.18	0.44
13:E:155:GLU:HA	13:E:158:PHE:CD2	2.43	0.44
10:B:2734:A:C6	10:B:2735:G:C4	3.04	0.44
10:B:64:A:C2	10:B:65:U:C2	3.06	0.44
5:4:4:ARG:NH2	10:B:2477:U:H5	2.15	0.44
11:C:23:LEU:HD23	11:C:23:LEU:HA	1.75	0.44
16:H:65:ALA:H	16:H:71:LYS:HG3	1.82	0.44
13:E:106:LYS:CG	13:E:200:LEU:HD13	2.46	0.44
26:R:34:GLU:HB3	26:R:35:PHE:H	1.68	0.44
10:B:587:C:N3	20:L:33:ARG:NH1	2.58	0.44
18:J:57:LEU:HB3	18:J:128:ASN:HA	1.99	0.44
11:C:242:HIS:HA	11:C:243:PRO:HD3	1.54	0.44
10:B:2296:U:H2'	23:O:9:ARG:HH22	1.82	0.44
6:5:59:VAL:HG23	6:5:60:ARG:H	1.82	0.44
1:0:42:ILE:HD11	1:0:46:GLY:HA2	1.99	0.44
13:E:67:ARG:HH11	13:E:67:ARG:HG2	1.82	0.44
18:J:25:LEU:HD11	18:J:100:VAL:HG12	1.99	0.44
16:H:97:ARG:HH12	16:H:113:SER:CA	2.12	0.44
10:B:1016:G:C6	10:B:1147:A:N6	2.85	0.44
10:B:1250:G:OP1	20:L:21:ARG:NH2	2.46	0.44
10:B:1252:G:C2	10:B:1253:A:C2	3.05	0.44
10:B:1676:A:N6	10:B:1677:A:C6	2.85	0.44
10:B:189:G:H3'	10:B:205:G:H22	1.81	0.44
10:B:1990:C:C4	10:B:1991:U:C4	3.06	0.44
10:B:2408:U:C2	10:B:2409:G:N7	2.85	0.44
10:B:242:G:O2'	10:B:243:U:OP2	2.34	0.44
10:B:2516:A:C6	10:B:2517:C:C4	3.06	0.44
10:B:572:A:N7	10:B:573:U:C5	2.85	0.44
10:B:582:A:C4'	25:Q:10:ARG:HH22	2.30	0.44
10:B:795:C:C4	10:B:796:C:C4	3.05	0.44
18:J:46:PRO:HG2	18:J:47:HIS:HD2	1.82	0.44
22:N:45:ARG:HB3	22:N:49:GLU:OE2	2.18	0.44
31:W:45:HIS:HE2	31:W:48:ALA:C	2.18	0.44
10:B:2088:A:C6	10:B:2089:C:C4	3.05	0.44
10:B:2223:G:C6	10:B:2224:G:C4	3.06	0.44
6:5:33:LEU:HD13	6:5:220:ALA:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2128:G:O2'	10:B:2159:G:N1	2.32	0.44
10:B:2386:A:H2'	10:B:2387:U:C6	2.53	0.44
14:F:120:SER:O	14:F:127:TYR:HA	2.18	0.44
10:B:122:G:H2'	10:B:123:G:H8	1.83	0.44
10:B:1341:G:H5''	10:B:1397:U:C2	2.53	0.44
10:B:1401:G:C6	10:B:1402:U:N3	2.85	0.44
10:B:1792:G:C2	10:B:1793:C:C2	3.06	0.44
10:B:399:U:H2'	10:B:400:G:H8	1.83	0.44
10:B:2369:A:C6	10:B:2370:G:C6	3.05	0.44
10:B:2372:U:H3	10:B:2381:A:N6	2.14	0.44
9:A:20:G:H1	9:A:63:C:H42	1.65	0.44
9:A:63:C:C4	9:A:64:G:N7	2.85	0.44
10:B:83:A:N6	10:B:100:U:O3'	2.50	0.44
10:B:744:U:C4	10:B:745:G:C6	3.06	0.44
10:B:760:G:C6	10:B:761:A:C4	3.05	0.44
10:B:2759:G:H21	15:G:138:GLN:HE22	1.65	0.44
18:J:103:ILE:O	18:J:106:LYS:N	2.51	0.44
10:B:1245:G:C2	10:B:1246:A:N7	2.86	0.44
10:B:1948:G:C2	10:B:1959:G:C2	3.05	0.44
10:B:1959:G:C2	10:B:1960:A:N3	2.85	0.44
10:B:1478:G:C6	10:B:1479:G:C5	3.05	0.44
10:B:2376:A:H8	10:B:2376:A:OP1	1.99	0.44
23:O:81:ARG:HA	23:O:84:GLU:CG	2.47	0.44
28:T:15:HIS:CE1	28:T:17:SER:HA	2.52	0.44
10:B:1004:U:H4'	10:B:1010:A:H62	1.83	0.44
10:B:1142:A:C6	10:B:1144:A:C4	3.05	0.44
10:B:1262:A:C6	10:B:1263:U:C4	3.06	0.44
10:B:1675:C:H2'	10:B:1676:A:C8	2.53	0.44
10:B:2524:G:C2	10:B:2525:G:C4	3.05	0.44
10:B:2682:A:H2'	10:B:2683:C:C6	2.52	0.44
10:B:2824:C:P	10:B:2825:G:H22	2.39	0.44
10:B:2868:A:C6	10:B:2869:G:C5	3.05	0.44
10:B:2721:A:H1'	10:B:2873:A:H8	1.80	0.44
10:B:461:C:C5	10:B:462:C:H5	2.35	0.44
10:B:777:G:H2'	10:B:778:G:H8	1.83	0.44
10:B:809:G:H2'	10:B:810:U:C5	2.52	0.44
10:B:860:U:C2	10:B:2268:A:O4'	2.70	0.44
10:B:954:G:C4	10:B:955:U:C6	3.05	0.44
18:J:110:PRO:CB	18:J:111:LYS:HZ3	2.29	0.44
18:J:34:ARG:HG3	18:J:39:LYS:NZ	2.32	0.44
19:K:29:ARG:CZ	19:K:36:ASP:OD2	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
31:W:49:ASN:HB2	31:W:61:LYS:CG	2.45	0.44
10:B:1853:A:N1	10:B:2087:G:H1'	2.31	0.44
17:I:30:GLN:NE2	17:I:60:VAL:HG21	2.31	0.44
10:B:1403:A:C6	10:B:1404:C:C2	3.06	0.44
10:B:1430:G:H2'	10:B:1431:A:C8	2.40	0.44
10:B:67:U:C4	10:B:68:G:N7	2.85	0.44
4:3:32:LEU:N	10:B:2420:C:OP2	2.50	0.44
10:B:2347:C:N3	10:B:2348:U:C4	2.85	0.44
10:B:630:G:N2	10:B:632:A:H3'	2.32	0.44
9:A:4:C:H2'	9:A:5:U:C6	2.50	0.44
10:B:480:A:P	29:U:43:LYS:HZ3	2.39	0.44
10:B:310:A:C5	10:B:312:G:C4	3.06	0.44
9:A:34:A:C2	9:A:49:C:C2	3.06	0.44
14:F:5:ASP:HA	14:F:8:LYS:HE3	1.98	0.44
23:O:64:TYR:CD2	23:O:67:ASN:HB2	2.50	0.44
7:6:282:HIS:HB3	7:6:314:LEU:HD23	2.00	0.44
10:B:2800:A:N3	10:B:2801:G:H1'	2.32	0.44
5:4:34:LYS:CD	5:4:36:ARG:HH22	2.25	0.44
10:B:1608:A:O3'	10:B:1609:A:H3'	2.17	0.44
27:S:55:ILE:HG22	27:S:59:GLU:OE2	2.17	0.44
15:G:120:ILE:HD11	15:G:132:LEU:HB3	1.99	0.44
24:P:31:VAL:O	24:P:37:LYS:HA	2.17	0.44
15:G:94:ARG:NH1	15:G:105:SER:OG	2.51	0.44
13:E:29:HIS:CD2	20:L:8:PRO:HB3	2.52	0.44
27:S:17:VAL:HG11	27:S:103:ILE:HD11	1.99	0.44
26:R:52:PRO:O	26:R:54:VAL:N	2.49	0.44
11:C:231:HIS:HB3	11:C:232:GLY:H	1.66	0.44
7:6:117:THR:HG23	7:6:233:ASP:OD2	2.18	0.44
19:K:34:VAL:HA	19:K:61:VAL:HG11	1.99	0.44
10:B:816:C:O2'	10:B:817:C:H5'	2.17	0.44
10:B:1197:G:C2	10:B:1250:G:C6	3.05	0.44
10:B:1228:G:C6	10:B:1229:C:C4	3.06	0.44
10:B:1235:G:C2	10:B:1236:G:N2	2.86	0.44
10:B:1448:G:C4	10:B:1449:G:C8	3.06	0.44
10:B:1750:G:H2'	10:B:1751:U:C6	2.51	0.44
10:B:48:G:N1	10:B:178:G:C6	2.86	0.44
10:B:1678:A:O2'	10:B:1991:U:H4'	2.17	0.44
10:B:2011:U:O4	10:B:2012:G:N1	2.51	0.44
10:B:2020:A:N6	10:B:2022:U:C2	2.86	0.44
1:0:15:ARG:CG	10:B:2046:G:H5'	2.43	0.44
10:B:2050:C:H2'	10:B:2051:A:C8	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2269:G:C2	10:B:2270:A:C4	3.06	0.44
10:B:2725:A:HO2'	10:B:2726:A:P	2.39	0.44
10:B:2869:G:C5	10:B:2870:C:C5	3.06	0.44
10:B:407:G:H1	10:B:420:C:N4	2.15	0.44
10:B:516:C:C2	10:B:517:C:C5	3.06	0.44
10:B:799:G:C4	10:B:800:A:N7	2.86	0.44
10:B:958:U:O4	21:M:40:ARG:HG3	2.18	0.44
10:B:956:G:P	21:M:86:LYS:HZ3	2.40	0.44
25:Q:96:ASP:OD1	25:Q:97:ILE:N	2.49	0.44
31:W:59:PHE:CZ	31:W:61:LYS:HE3	2.53	0.44
10:B:2197:U:C2	10:B:2224:G:C2	3.06	0.44
6:5:5:THR:OG1	10:B:2150:C:H5''	2.17	0.44
10:B:2121:G:H1	10:B:2176:A:N6	2.16	0.44
11:C:18:VAL:C	11:C:202:ARG:NH2	2.69	0.44
10:B:1057:A:N7	10:B:1086:A:H2'	2.33	0.44
10:B:1582:C:N4	10:B:1583:A:H62	2.15	0.44
10:B:57:C:C2	10:B:58:G:C8	3.06	0.44
10:B:712:G:C5	10:B:713:G:C5	3.06	0.44
10:B:89:A:C6	10:B:90:U:C4	3.06	0.44
32:X:41:SER:O	32:X:43:LYS:HG3	2.17	0.44
9:A:10:G:C5	9:A:11:C:C4	3.06	0.44
9:A:116:G:H5'	23:O:55:GLU:HG3	1.98	0.44
10:B:1921:G:C4	10:B:1922:G:C8	3.04	0.44
10:B:1922:G:H2'	10:B:1923:U:C6	2.53	0.44
9:A:99:A:C5	9:A:100:G:C5	3.06	0.44
10:B:2659:G:H2'	10:B:2661:G:OP2	2.17	0.44
8:7:97:LYS:HD3	8:7:130:PRO:HB3	2.00	0.44
3:2:4:THR:O	10:B:686:U:O2'	2.36	0.44
10:B:1833:C:N3	10:B:1834:U:C4	2.86	0.44
10:B:1835:G:N3	10:B:1931:U:C2	2.86	0.44
21:M:95:LEU:HA	21:M:95:LEU:HD12	1.82	0.44
7:6:12:VAL:HG23	7:6:75:ALA:CB	2.47	0.44
8:7:3:LEU:HD12	8:7:5:LEU:H	1.82	0.44
7:6:92:LEU:HA	7:6:92:LEU:HD12	1.76	0.44
3:2:26:ASN:O	3:2:29:GLN:HB3	2.17	0.44
7:6:175:GLN:O	7:6:178:LEU:HB3	2.18	0.44
10:B:1150:C:H2'	10:B:1151:A:C8	2.49	0.44
10:B:565:C:H5'	10:B:1253:A:N6	2.33	0.44
10:B:1268:A:C6	10:B:1269:A:C4	3.06	0.44
10:B:1457:U:N3	10:B:1458:U:C4	2.85	0.44
10:B:1458:U:H1'	10:B:1461:C:O2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2053:G:C4	10:B:2054:A:C8	3.06	0.44
10:B:2266:A:H5'	10:B:2267:A:N3	2.33	0.44
10:B:2282:G:C6	10:B:2425:A:N1	2.86	0.44
10:B:197:A:C5	10:B:2430:A:C8	3.05	0.44
10:B:2460:U:H2'	10:B:2461:A:H8	1.83	0.44
10:B:220:G:N2	10:B:265:A:H62	2.16	0.44
10:B:2684:U:H2'	10:B:2685:G:O4'	2.17	0.44
10:B:45:G:C2	10:B:215:G:N2	2.84	0.44
10:B:604:G:C4	10:B:625:G:C2	3.05	0.44
10:B:664:G:O2'	10:B:940:G:H5'	2.17	0.44
25:Q:40:LYS:O	25:Q:43:GLN:HB2	2.18	0.44
6:5:104:ILE:CD1	10:B:2170:A:H5''	2.45	0.44
10:B:1082:U:H2'	10:B:1083:U:C6	2.53	0.44
17:I:123:ALA:HA	17:I:126:ARG:HE	1.82	0.44
17:I:131:THR:HA	17:I:134:SER:HB2	2.00	0.44
10:B:729:G:H4'	10:B:763:G:H4'	1.99	0.44
10:B:769:U:O2	10:B:770:G:C8	2.71	0.44
10:B:93:G:C5	10:B:94:A:C8	3.06	0.44
10:B:877:A:H2	10:B:900:A:N7	2.16	0.44
7:6:99:ARG:NE	7:6:101:ILE:HD11	2.32	0.44
25:Q:18:LYS:HG3	25:Q:21:LYS:HZ3	1.82	0.44
10:B:2342:C:H6	10:B:2342:C:O5'	2.01	0.44
10:B:638:G:N2	10:B:639:U:C2	2.86	0.44
10:B:650:C:H2'	10:B:651:G:O4'	2.17	0.44
9:A:10:G:N2	9:A:110:C:C2	2.82	0.44
9:A:15:A:H3'	9:A:16:G:C8	2.44	0.44
9:A:20:G:H1	9:A:63:C:N4	2.14	0.44
14:F:25:MET:HA	14:F:29:ARG:HH22	1.83	0.44
7:6:61:GLY:N	10:B:1908:C:OP1	2.50	0.44
10:B:1907:G:C5	10:B:1908:C:C4	3.05	0.44
10:B:2658:C:N3	10:B:2659:G:C5	2.86	0.44
7:6:409:VAL:HG12	10:B:2660:A:C2	2.52	0.44
10:B:288:U:H2'	10:B:289:G:C8	2.53	0.44
10:B:701:G:C4	10:B:702:U:C5	3.05	0.44
10:B:1497:U:O2'	10:B:1498:C:H5'	2.18	0.44
10:B:2100:G:H3'	10:B:2101:A:C8	2.51	0.44
29:U:24:VAL:HG12	29:U:26:ASN:N	2.32	0.44
29:U:25:LYS:N	29:U:34:ILE:O	2.42	0.44
10:B:1930:G:H2'	10:B:1968:G:C6	2.53	0.44
10:B:1559:U:O2'	10:B:1560:G:OP1	2.31	0.44
10:B:1643:G:C6	10:B:1644:C:N3	2.85	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:117:SER:H	14:F:173:ASP:CG	2.20	0.44
17:I:14:ALA:HB3	17:I:52:LEU:N	2.32	0.44
26:R:19:THR:OG1	26:R:97:LYS:HD3	2.18	0.44
12:D:12:THR:OG1	12:D:24:VAL:HG23	2.17	0.44
16:H:2:GLN:HG2	16:H:20:ASN:HB2	1.99	0.44
11:C:226:PRO:HG3	11:C:232:GLY:O	2.17	0.44
17:I:10:LEU:HD12	17:I:10:LEU:O	2.18	0.44
7:6:15:HIS:HE1	7:6:17:TYR:HB2	1.82	0.44
10:B:1009:A:H8	10:B:1009:A:H3'	1.83	0.44
10:B:1026:G:C5	10:B:1134:A:C5	3.06	0.44
10:B:48:G:C2	10:B:178:G:C6	3.06	0.44
10:B:2527:C:N4	10:B:2536:G:H1	2.16	0.44
10:B:2547:A:OP2	10:B:2566:A:H1'	2.18	0.44
10:B:2650:U:H3	10:B:2670:A:N6	2.15	0.44
10:B:2704:C:H5'	10:B:2705:A:OP2	2.18	0.44
10:B:2816:G:C4	10:B:2817:U:H5	2.35	0.44
10:B:2849:U:O4	24:P:20:ARG:NH2	2.50	0.44
10:B:2630:G:C5	10:B:2894:G:C5	3.05	0.44
10:B:17:G:C6	10:B:524:G:N1	2.85	0.44
10:B:543:G:C6	10:B:551:G:C6	3.05	0.44
10:B:565:C:N4	10:B:573:U:OP1	2.50	0.44
10:B:818:G:O2'	10:B:819:A:O4'	2.31	0.44
10:B:930:G:C6	10:B:933:A:C2	3.06	0.44
10:B:955:U:OP1	21:M:86:LYS:HE3	2.18	0.44
10:B:962:G:H2'	10:B:963:U:C6	2.53	0.44
10:B:976:G:H4'	10:B:1156:A:H62	1.80	0.44
10:B:2121:G:H2'	10:B:2122:U:C6	2.53	0.44
10:B:2121:G:N2	10:B:2177:C:O2	2.45	0.44
7:6:425:LEU:HG	7:6:426:ILE:OXT	2.17	0.44
10:B:2331:G:H4'	31:W:41:GLY:HA3	1.99	0.44
10:B:122:G:C2	10:B:123:G:C5	3.05	0.44
10:B:162:U:O2'	10:B:163:C:OP2	2.35	0.44
10:B:1696:G:H2'	10:B:1697:G:C8	2.52	0.44
10:B:902:C:O5'	10:B:902:C:H6	2.01	0.44
10:B:402:A:N1	10:B:422:A:N6	2.66	0.44
10:B:647:G:C5	10:B:648:G:C5	3.05	0.44
9:A:14:U:O2'	9:A:107:G:O2'	2.33	0.44
9:A:53:A:C2	9:A:54:G:C4	3.05	0.44
9:A:24:G:C5	9:A:56:G:C4	3.05	0.44
9:A:16:G:C4	9:A:69:G:N2	2.85	0.44
23:O:41:ALA:HB1	23:O:42:PRO:HD2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:6:50:LYS:HD2	7:6:53:HIS:NE2	2.33	0.44
10:B:327:G:H2'	10:B:328:U:C6	2.52	0.44
10:B:479:A:C8	10:B:481:G:N7	2.86	0.44
10:B:488:G:C4	10:B:490:C:C2	3.06	0.44
10:B:507:A:H4'	10:B:508:A:H5''	2.00	0.44
27:S:9:HIS:CD2	27:S:102:HIS:CE1	3.05	0.44
10:B:1534:U:H3'	10:B:1536:C:H41	1.83	0.44
12:D:64:GLU:HG3	12:D:68:PHE:CE2	2.52	0.44
10:B:699:A:N7	10:B:734:A:C5	2.86	0.44
19:K:109:GLU:OE1	19:K:111:PHE:HE1	2.01	0.44
10:B:63:A:C8	10:B:64:A:N7	2.86	0.44
10:B:1936:A:C2	10:B:1945:G:C4	3.06	0.44
5:4:2:LYS:HE2	5:4:4:ARG:HD2	1.99	0.44
15:G:120:ILE:HG13	15:G:133:LYS:O	2.17	0.44
18:J:64:VAL:CG1	18:J:69:ARG:HH11	2.31	0.44
21:M:50:ARG:O	21:M:53:MET:HB3	2.18	0.44
28:T:30:ILE:HD11	28:T:94:ASP:N	2.33	0.44
30:V:72:VAL:HA	30:V:94:ALA:N	2.32	0.44
10:B:792:A:C6	10:B:2440:C:C6	3.05	0.44
2:1:39:ASP:OD2	2:1:42:VAL:HG23	2.17	0.44
5:4:7:VAL:HG13	5:4:35:GLN:CB	2.48	0.44
10:B:1011:G:C6	10:B:1013:C:C2	3.06	0.44
10:B:1147:A:C4	10:B:1148:U:C5	3.06	0.44
10:B:184:C:H4'	10:B:217:A:C2	2.53	0.44
10:B:2391:G:N2	10:B:2424:C:H2'	2.24	0.44
10:B:2461:A:C6	10:B:2462:C:C4	3.05	0.44
10:B:2812:G:C2	10:B:2813:A:H1'	2.53	0.44
10:B:2831:G:P	12:D:56:LYS:HZ3	2.40	0.44
10:B:2831:G:H5''	10:B:2832:U:O5'	2.17	0.44
10:B:384:A:OP1	10:B:385:C:N4	2.32	0.44
10:B:445:C:C5	10:B:446:G:C6	3.06	0.44
10:B:533:G:C6	10:B:534:U:N3	2.86	0.44
10:B:604:G:C6	10:B:625:G:C6	3.06	0.44
10:B:611:C:H2'	10:B:612:G:O4'	2.17	0.44
10:B:604:G:C6	10:B:625:G:C5	3.05	0.44
10:B:664:G:C2	10:B:665:U:C2	3.06	0.44
10:B:681:G:C5	10:B:682:G:C8	3.06	0.44
10:B:675:A:C6	10:B:804:A:N3	2.86	0.44
10:B:854:C:C2	10:B:924:G:C2	3.06	0.44
10:B:675:A:H5'	13:E:58:LYS:HZ3	1.83	0.44
10:B:1252:G:H1'	25:Q:32:ARG:HH11	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:129:MET:O	14:F:152:ASP:HA	2.17	0.44
10:B:150:U:C4	10:B:151:C:C4	3.06	0.44
10:B:1569:A:C6	10:B:1570:A:C5	3.06	0.44
10:B:1773:A:N3	10:B:1977:A:N6	2.66	0.44
10:B:58:G:C2	10:B:70:G:C6	3.05	0.44
10:B:695:G:C6	10:B:768:G:C6	3.06	0.44
9:A:73:A:C5	9:A:74:U:C4	3.06	0.44
30:V:9:ARG:N	30:V:39:ALA:O	2.37	0.44
10:B:2339:C:H2'	10:B:2340:A:C8	2.53	0.44
10:B:2364:C:OP1	31:W:54:ARG:HD3	2.18	0.44
9:A:8:C:H4'	23:O:25:ARG:NH2	2.30	0.44
7:6:61:GLY:HA3	10:B:1908:C:H5'	2.00	0.44
10:B:1910:G:C6	10:B:1911:U:C2	3.06	0.44
9:A:100:G:H3'	9:A:101:A:C8	2.51	0.44
18:J:38:GLY:C	18:J:40:HIS:H	2.21	0.44
10:B:321:U:O2'	10:B:322:A:P	2.76	0.44
10:B:85:G:H8	29:U:6:ARG:NH2	2.16	0.44
27:S:9:HIS:CD2	27:S:102:HIS:HE1	2.35	0.44
10:B:2776:A:H2'	10:B:2782:G:O6	2.17	0.44
9:A:33:G:C2	9:A:50:A:C4	3.06	0.44
14:F:31:GLU:O	14:F:156:THR:HB	2.18	0.44
10:B:1445:G:H2'	10:B:1446:C:C6	2.53	0.44
10:B:700:G:C2	10:B:701:G:N9	2.86	0.44
10:B:738:G:C5	10:B:739:A:C6	3.06	0.44
7:6:210:LYS:HZ2	7:6:283:VAL:CB	2.31	0.44
10:B:2796:U:H2'	10:B:2797:U:O2	2.18	0.44
15:G:148:ARG:HG3	15:G:161:VAL:HG12	1.99	0.44
28:T:28:ASN:C	28:T:91:GLN:HE22	2.21	0.44
10:B:1867:G:N2	10:B:1875:G:O2'	2.51	0.44
13:E:24:ASN:HB2	13:E:27:LEU:HB3	2.00	0.44
32:X:32:LEU:HD23	32:X:51:SER:N	2.33	0.44
15:G:140:ILE:HG23	15:G:141:GLY:H	1.83	0.44
15:G:82:PHE:O	15:G:84:LYS:HG3	2.17	0.44
7:6:167:LEU:O	7:6:171:ILE:HG13	2.18	0.44
26:R:62:GLU:OE2	26:R:98:ILE:N	2.51	0.44
10:B:945:A:C5	10:B:2448:A:C2	3.06	0.44
7:6:60:GLU:O	7:6:64:VAL:HG23	2.17	0.44
10:B:1676:A:H2'	10:B:1677:A:C8	2.53	0.44
10:B:1952:A:H62	10:B:1953:A:N6	2.15	0.44
10:B:202:U:H5	10:B:203:A:C6	2.36	0.44
10:B:207:A:H3'	10:B:208:C:C6	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2388:A:O2'	10:B:2389:G:H5'	2.18	0.44
10:B:2724:U:H2'	10:B:2725:A:C8	2.53	0.44
10:B:2838:G:C2	10:B:2839:G:H1'	2.53	0.44
10:B:2692:G:O2'	10:B:2847:U:O2	2.33	0.44
10:B:2852:G:C2	10:B:2853:C:C2	3.06	0.44
10:B:537:G:N2	10:B:557:C:C4	2.86	0.44
10:B:604:G:C6	10:B:605:G:C6	3.06	0.44
10:B:668:A:C5	10:B:670:A:C6	3.06	0.44
10:B:974:G:C4	10:B:1186:G:C2	3.06	0.44
12:D:122:VAL:HG12	12:D:122:VAL:O	2.18	0.44
10:B:675:A:H5'	13:E:58:LYS:NZ	2.33	0.44
25:Q:79:ILE:HA	25:Q:82:LEU:HD12	2.00	0.44
6:5:139:ASN:OD1	10:B:2122:U:H5''	2.18	0.44
10:B:2123:G:N1	10:B:2175:C:O2	2.51	0.44
10:B:2168:G:N1	10:B:2171:A:C8	2.85	0.44
10:B:2297:A:N6	10:B:2319:G:H1'	2.32	0.44
10:B:1094:U:C2	10:B:1097:U:OP2	2.71	0.44
10:B:1099:G:N9	17:I:4:VAL:HB	2.33	0.44
10:B:1694:C:H5'	10:B:1695:G:C8	2.52	0.44
10:B:1801:A:N3	10:B:2203:U:N3	2.66	0.44
10:B:2217:G:C6	10:B:2218:G:C6	3.06	0.44
30:V:26:PHE:HA	30:V:27:PRO:HD3	1.71	0.44
10:B:374:A:C4	10:B:375:G:C8	3.06	0.44
10:B:380:G:C4	10:B:381:G:C8	3.06	0.44
10:B:2397:G:C6	10:B:2420:C:C2	3.06	0.44
10:B:648:G:N1	10:B:649:G:C5	2.86	0.44
7:6:54:PRO:HG2	7:6:55:LYS:HG3	1.98	0.44
10:B:352:A:C6	10:B:353:C:C4	3.06	0.44
10:B:308:G:N3	10:B:501:A:N7	2.66	0.44
10:B:504:A:N3	10:B:504:A:H3'	2.32	0.44
10:B:303:G:C6	10:B:304:U:N3	2.86	0.44
10:B:2773:C:OP1	12:D:169:ARG:NH2	2.51	0.44
10:B:1277:G:H2'	10:B:1278:C:C6	2.53	0.44
33:Y:42:LEU:HD23	33:Y:42:LEU:HA	1.74	0.44
23:O:92:PHE:CG	23:O:93:ASP:N	2.86	0.44
10:B:1528:A:C4	10:B:1544:A:C6	3.06	0.44
10:B:1542:U:H2'	10:B:1543:G:C8	2.53	0.44
10:B:2758:A:O2'	15:G:63:GLN:NE2	2.50	0.44
10:B:1903:G:C5	10:B:1904:G:C5	3.06	0.44
5:4:36:ARG:HG3	5:4:37:GLN:OE1	2.18	0.44
8:7:76:PHE:HB2	8:7:122:GLN:HE22	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1604:C:O2'	10:B:1610:A:N6	2.51	0.44
10:B:142:A:C6	10:B:143:C:C4	3.05	0.44
27:S:66:ILE:HG23	27:S:67:ASP:N	2.33	0.44
27:S:36:LEU:HA	27:S:39:THR:OG1	2.18	0.44
32:X:32:LEU:O	32:X:33:HIS:ND1	2.51	0.44
10:B:496:G:C5	10:B:497:A:C8	3.06	0.44
7:6:18:PHE:N	7:6:18:PHE:CD1	2.83	0.44
14:F:140:ILE:HB	14:F:141:ASP:H	1.62	0.44
7:6:200:VAL:HG22	7:6:248:VAL:O	2.18	0.44
10:B:1024:G:C3'	10:B:1025:G:H5''	2.48	0.43
10:B:1137:G:H2'	10:B:1138:G:H8	1.83	0.43
10:B:1002:G:H22	10:B:1154:G:H1'	1.83	0.43
10:B:1676:A:C6	10:B:1677:A:C5	3.06	0.43
10:B:191:A:C2	10:B:192:C:N3	2.86	0.43
10:B:2410:G:N2	10:B:2411:A:H1'	2.33	0.43
10:B:253:C:N4	10:B:254:G:C6	2.86	0.43
10:B:2684:U:C4	10:B:2685:G:N7	2.86	0.43
10:B:2806:C:C2	10:B:2807:U:C6	3.06	0.43
10:B:2816:G:C2	10:B:2831:G:C4	3.06	0.43
10:B:2848:G:C6	10:B:2867:G:C6	3.06	0.43
10:B:613:A:N1	10:B:616:A:C5	2.86	0.43
10:B:778:G:C2	10:B:779:U:C2	3.06	0.43
10:B:822:G:C5	10:B:836:G:C2	3.06	0.43
10:B:936:A:C6	10:B:937:C:N3	2.86	0.43
10:B:1454:C:C5'	22:N:63:ARG:NH2	2.81	0.43
24:P:88:ARG:HG2	24:P:89:GLY:N	2.32	0.43
25:Q:96:ASP:CG	26:R:13:ARG:NH1	2.71	0.43
10:B:973:A:P	26:R:81:LYS:HZ3	2.40	0.43
10:B:856:G:H4'	31:W:23:LYS:CD	2.48	0.43
10:B:2199:A:N7	10:B:2200:C:C2	2.86	0.43
10:B:1429:G:H2'	10:B:1430:G:H8	1.83	0.43
10:B:1579:A:H3'	10:B:1580:A:H8	1.83	0.43
10:B:1766:G:H2'	10:B:1767:G:H8	1.82	0.43
10:B:1770:G:C6	10:B:1771:C:C2	3.06	0.43
10:B:1791:A:H61	10:B:1828:G:HO2'	1.64	0.43
10:B:1827:U:O4	10:B:1828:G:N1	2.51	0.43
10:B:60:G:N2	10:B:74:A:C4	2.86	0.43
10:B:1566:A:C6	11:C:212:TRP:CZ2	3.06	0.43
10:B:373:U:H5''	10:B:374:A:OP2	2.17	0.43
10:B:376:G:H1	10:B:398:C:N4	2.15	0.43
23:O:29:HIS:CD2	23:O:36:TYR:HB2	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:326:G:C2	10:B:337:C:C2	3.06	0.43
10:B:153:U:H2'	10:B:154:U:H6	1.82	0.43
10:B:2633:G:C2	10:B:2634:A:C4	3.06	0.43
10:B:2638:G:C5	10:B:2775:G:N1	2.86	0.43
9:A:43:C:C2	9:A:45:A:C5	3.06	0.43
14:F:108:PRO:HB2	14:F:178:LYS:CD	2.49	0.43
10:B:1520:U:C4	10:B:1521:G:C6	3.06	0.43
10:B:760:G:C2	10:B:761:A:H1'	2.53	0.43
7:6:317:ASN:O	7:6:318:LYS:HB2	2.18	0.43
10:B:234:U:H2'	10:B:235:U:C6	2.53	0.43
10:B:2887:A:C6	10:B:2888:C:C4	3.05	0.43
10:B:387:U:C2	10:B:388:G:N7	2.86	0.43
10:B:388:G:C2	10:B:390:U:C4	3.06	0.43
10:B:1629:U:C2	10:B:1630:A:N7	2.86	0.43
5:4:34:LYS:HB3	5:4:36:ARG:HH12	1.82	0.43
10:B:1238:G:N3	10:B:1239:G:C8	2.86	0.43
10:B:928:A:H2'	10:B:929:U:O4'	2.18	0.43
33:Y:25:GLN:CG	33:Y:29:ARG:HH22	2.30	0.43
22:N:33:ILE:HG22	22:N:114:GLU:HB2	2.00	0.43
23:O:98:GLN:HG2	23:O:100:HIS:HB2	1.99	0.43
20:L:130:GLY:O	20:L:133:ALA:HB3	2.18	0.43
22:N:28:LEU:C	22:N:30:ARG:H	2.21	0.43
14:F:67:THR:OG1	14:F:85:GLY:O	2.30	0.43
33:Y:23:ARG:O	33:Y:27:ASN:HB3	2.18	0.43
34:Z:5:LYS:CG	34:Z:36:GLU:HG2	2.47	0.43
12:D:89:GLU:HG3	12:D:90:PHE:N	2.33	0.43
16:H:72:ILE:HD12	16:H:111:ALA:O	2.18	0.43
10:B:1034:G:C6	10:B:1122:G:C5	3.05	0.43
10:B:1218:G:C2	10:B:1232:G:C4	3.06	0.43
10:B:1234:U:N3	10:B:1235:G:C5	2.86	0.43
10:B:222:A:C5	10:B:224:U:C2	3.06	0.43
10:B:2569:G:C2'	10:B:2570:G:H8	2.28	0.43
10:B:463:G:N2	10:B:467:G:C4	2.86	0.43
10:B:468:G:C6	10:B:469:G:C4	3.06	0.43
10:B:523:C:C2	10:B:524:G:C8	3.06	0.43
10:B:604:G:C5	10:B:625:G:C2	3.06	0.43
10:B:613:A:N1	10:B:616:A:C6	2.86	0.43
10:B:612:G:N2	10:B:616:A:H62	2.15	0.43
10:B:808:G:H3'	10:B:809:G:H8	1.83	0.43
10:B:856:G:O2'	31:W:23:LYS:HB2	2.18	0.43
10:B:1006:C:H5''	18:J:39:LYS:HZ2	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:Q:94:LEU:HD11	26:R:11:GLN:HB3	1.99	0.43
31:W:30:VAL:HA	31:W:60:ALA:C	2.38	0.43
6:5:76:ALA:HB2	6:5:111:PHE:HB2	1.99	0.43
6:5:104:ILE:HD12	10:B:2171:A:P	2.58	0.43
8:7:54:VAL:HG21	10:B:1083:U:H5''	1.99	0.43
10:B:1419:A:C8	10:B:1421:G:C5	3.06	0.43
10:B:1690:A:H3'	10:B:1691:C:C6	2.51	0.43
10:B:1694:C:OP2	10:B:1694:C:H2'	2.19	0.43
10:B:2209:G:C4	10:B:2210:U:C5	3.06	0.43
10:B:717:C:H3'	10:B:718:A:C2	2.53	0.43
10:B:768:G:H2'	10:B:769:U:C6	2.54	0.43
10:B:1824:G:OP1	11:C:51:ARG:NH2	2.51	0.43
10:B:631:A:H2'	10:B:632:A:O4'	2.17	0.43
4:3:22:LYS:NZ	10:B:650:C:O2'	2.41	0.43
9:A:78:A:H2'	9:A:79:G:H8	1.83	0.43
10:B:1288:G:C8	10:B:1328:A:H2	2.35	0.43
10:B:98:G:C6	10:B:99:U:N3	2.86	0.43
10:B:480:A:N1	10:B:505:A:N1	2.65	0.43
7:6:212:THR:O	7:6:215:ASN:HB2	2.17	0.43
10:B:1491:G:H1'	11:C:99:GLU:HB3	2.00	0.43
10:B:2745:C:H2'	10:B:2746:U:O4'	2.17	0.43
10:B:2749:A:C6	10:B:2750:A:N7	2.86	0.43
18:J:109:LEU:CD1	18:J:119:PHE:HD1	2.30	0.43
10:B:1871:A:C6	10:B:1872:A:C4	3.06	0.43
10:B:1334:G:C5	10:B:1335:C:C5	3.06	0.43
28:T:22:THR:HA	28:T:25:GLU:CG	2.48	0.43
23:O:76:LYS:HB3	23:O:80:GLU:OE2	2.18	0.43
21:M:57:VAL:HG21	21:M:105:MET:HE1	2.00	0.43
15:G:42:VAL:HA	15:G:50:THR:O	2.17	0.43
7:6:124:VAL:O	7:6:127:ALA:N	2.51	0.43
7:6:173:GLN:O	7:6:176:SER:HB2	2.18	0.43
10:B:1170:C:N4	10:B:1179:G:H1	2.13	0.43
10:B:2033:A:C6	10:B:2036:C:N3	2.86	0.43
10:B:2425:A:H5''	10:B:2427:C:O4'	2.18	0.43
10:B:255:A:C6	10:B:256:A:C5	3.07	0.43
10:B:2625:G:C4	10:B:2626:C:C5	3.07	0.43
10:B:2819:G:C5	10:B:2821:A:C6	3.06	0.43
10:B:2877:G:O2'	10:B:2878:U:H5'	2.17	0.43
3:2:44:VAL:HG21	10:B:465:G:H5''	1.99	0.43
10:B:562:U:N3	10:B:572:A:C4	2.78	0.43
10:B:575:A:H2'	10:B:576:U:C6	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:749:A:H4'	10:B:1271:G:N2	2.33	0.43
10:B:689:A:N1	10:B:773:U:O4	2.51	0.43
10:B:806:C:C5	10:B:807:U:C5	3.06	0.43
10:B:973:A:OP1	10:B:973:A:H8	2.02	0.43
10:B:1996:C:H5'	19:K:30:ARG:HH12	1.79	0.43
24:P:48:ALA:HB2	24:P:58:PHE:HA	2.00	0.43
10:B:2094:A:C2	10:B:2196:C:C2	3.06	0.43
16:H:25:TYR:O	16:H:29:PHE:HB3	2.18	0.43
10:B:2115:G:HO2'	10:B:2165:C:H5	1.64	0.43
10:B:2312:U:H5''	10:B:2313:C:OP2	2.18	0.43
10:B:2318:G:C5	10:B:2319:G:C6	3.06	0.43
8:7:31:ARG:NH2	8:7:105:LYS:HD2	2.33	0.43
10:B:1339:G:N2	10:B:1340:U:H3	2.15	0.43
10:B:1394:U:C2'	10:B:1395:A:H5'	2.48	0.43
10:B:1582:C:H3'	10:B:1583:A:H8	1.84	0.43
10:B:1805:A:C6	10:B:1813:G:N1	2.86	0.43
10:B:2589:A:N1	10:B:2590:A:C6	2.86	0.43
7:6:78:VAL:HG12	7:6:98:CYS:SG	2.58	0.43
10:B:643:A:C5	10:B:644:A:C8	3.06	0.43
10:B:653:U:C4	10:B:654:A:C2	3.06	0.43
7:6:50:LYS:HD2	7:6:53:HIS:CE1	2.53	0.43
10:B:861:A:C2	10:B:917:A:C5	3.07	0.43
10:B:1326:U:C6	10:B:1648:U:H1'	2.53	0.43
10:B:1288:G:C8	10:B:1327:A:N6	2.86	0.43
10:B:279:A:P	10:B:279:A:H8	2.41	0.43
23:O:26:LEU:O	23:O:93:ASP:HB3	2.17	0.43
10:B:740:C:H5''	10:B:741:U:OP2	2.17	0.43
10:B:1492:G:C2	10:B:1496:A:N1	2.86	0.43
10:B:1835:G:C2	10:B:1931:U:C4	3.06	0.43
10:B:1931:U:H2'	10:B:1932:A:O4'	2.18	0.43
25:Q:103:VAL:O	25:Q:106:THR:HB	2.18	0.43
10:B:1300:G:C6	10:B:1626:A:N7	2.86	0.43
10:B:2593:U:H2'	10:B:2594:C:C6	2.53	0.43
10:B:2734:A:H2'	10:B:2735:G:O4'	2.18	0.43
15:G:137:LYS:HB2	15:G:137:LYS:HE3	1.77	0.43
23:O:81:ARG:O	23:O:84:GLU:HB2	2.18	0.43
18:J:16:TYR:HA	18:J:138:GLN:O	2.18	0.43
22:N:25:ALA:O	22:N:29:VAL:HG13	2.18	0.43
5:4:38:GLY:O	10:B:1124:G:O2'	2.28	0.43
10:B:1016:G:C6	10:B:1147:A:C6	3.05	0.43
10:B:1213:A:N3	10:B:1214:A:C8	2.86	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1449:G:N1	10:B:1463:C:C4	2.86	0.43
10:B:1459:G:OP2	10:B:1461:C:C4	2.71	0.43
10:B:184:C:N4	10:B:212:G:H1	2.16	0.43
10:B:2082:A:C5	10:B:2083:G:C5	3.07	0.43
10:B:2621:G:C5	10:B:2622:U:C4	3.07	0.43
10:B:2630:G:C8	10:B:2894:G:C4	3.07	0.43
10:B:265:A:C8	10:B:428:A:N6	2.86	0.43
10:B:2816:G:C5	10:B:2817:U:C5	3.07	0.43
10:B:2852:G:H2'	10:B:2853:C:O4'	2.19	0.43
10:B:563:A:O5'	26:R:79:ARG:NH2	2.52	0.43
10:B:657:U:H2'	10:B:658:U:C6	2.52	0.43
10:B:799:G:C5	10:B:800:A:N7	2.86	0.43
10:B:2514:U:P	12:D:159:LYS:NZ	2.91	0.43
10:B:910:A:C4	21:M:13:HIS:NE2	2.85	0.43
10:B:2087:G:C2	10:B:2088:A:C5	3.06	0.43
17:I:61:TYR:HB2	17:I:63:ASP:OD1	2.19	0.43
10:B:2317:A:C5	10:B:2318:G:C5	3.06	0.43
10:B:1078:U:C5'	17:I:133:ARG:HH22	2.30	0.43
10:B:1373:A:H3'	10:B:1374:G:H8	1.83	0.43
10:B:1410:G:C6	10:B:1411:U:C4	3.07	0.43
10:B:1774:C:C5	10:B:1775:U:H5	2.36	0.43
10:B:1692:U:H4'	10:B:1977:A:H4'	2.00	0.43
10:B:1977:A:C6	10:B:1978:A:C5	3.06	0.43
10:B:66:C:O2	10:B:88:G:N1	2.48	0.43
10:B:705:A:N6	10:B:726:G:H1'	2.33	0.43
10:B:729:G:O5'	11:C:206:LYS:NZ	2.52	0.43
10:B:90:U:H5''	10:B:91:A:OP2	2.18	0.43
10:B:879:G:C8	10:B:880:G:N7	2.87	0.43
10:B:897:C:C5	10:B:898:C:C5	3.06	0.43
10:B:2355:G:C2	10:B:2363:G:C4	3.07	0.43
9:A:4:C:C2	9:A:117:G:C2	3.06	0.43
7:6:20:GLN:HG3	10:B:1916:A:OP1	2.19	0.43
7:6:194:LYS:HZ1	7:6:197:VAL:HG13	1.82	0.43
10:B:475:C:N4	10:B:476:G:O6	2.52	0.43
10:B:169:G:C2	10:B:170:U:C4	3.06	0.43
28:T:47:VAL:HG23	28:T:55:VAL:HG21	1.99	0.43
10:B:1296:G:C6	10:B:1645:G:C6	3.06	0.43
7:6:212:THR:HG21	35:6:527:GNP:C8	2.48	0.43
10:B:1492:G:C2	10:B:1496:A:C6	3.06	0.43
10:B:2754:U:O2'	10:B:2756:U:OP1	2.22	0.43
10:B:132:G:C2	10:B:133:U:C2	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:E:192:ALA:O	13:E:195:GLN:N	2.52	0.43
10:B:1896:G:C2	10:B:1897:G:C8	3.06	0.43
10:B:1556:C:N3	10:B:1557:C:C4	2.85	0.43
10:B:1867:G:C6	10:B:1875:G:N3	2.87	0.43
10:B:1310:G:O6	10:B:1605:C:C4	2.71	0.43
34:Z:8:GLN:HG2	34:Z:9:THR:N	2.33	0.43
10:B:1729:U:C5	10:B:1731:G:N2	2.86	0.43
33:Y:25:GLN:NE2	33:Y:29:ARG:NH2	2.67	0.43
22:N:87:PHE:HD2	22:N:90:ARG:HG3	1.81	0.43
8:7:96:PHE:CE2	8:7:113:PHE:HD2	2.37	0.43
1:0:54:ILE:HD13	22:N:112:TYR:HD2	1.83	0.43
10:B:1479:G:N1	10:B:1513:U:C2	2.86	0.43
15:G:120:ILE:HA	15:G:133:LYS:O	2.17	0.43
21:M:120:ALA:O	21:M:124:LEU:HG	2.19	0.43
26:R:31:GLU:O	26:R:62:GLU:HA	2.18	0.43
6:5:206:GLY:HA3	10:B:1877:A:OP1	2.18	0.43
15:G:4:ALA:HB3	15:G:61:TRP:HD1	1.83	0.43
23:O:6:ALA:O	23:O:9:ARG:HB3	2.18	0.43
6:5:106:LYS:N	6:5:106:LYS:HD2	2.33	0.43
29:U:95:PHE:N	29:U:100:GLU:O	2.38	0.43
10:B:1022:G:N1	10:B:1140:C:C2	2.86	0.43
10:B:1122:G:C6	10:B:1123:C:C4	3.06	0.43
10:B:1707:G:C8	10:B:1756:G:C5	3.07	0.43
10:B:2256:G:C2	10:B:2257:U:N3	2.87	0.43
10:B:2272:U:O2'	10:B:2273:A:H8	2.01	0.43
10:B:2405:G:HO2'	10:B:2406:A:P	2.41	0.43
10:B:2457:U:H3'	10:B:2458:G:H21	1.84	0.43
10:B:2060:A:N6	10:B:2502:G:N1	2.67	0.43
10:B:2516:A:N6	10:B:2568:U:H3	2.15	0.43
10:B:2574:G:C6	10:B:2575:C:C4	3.07	0.43
10:B:2511:U:N3	10:B:2578:G:N1	2.66	0.43
10:B:2685:G:C2	10:B:2725:A:C2	3.06	0.43
10:B:2834:G:C5	10:B:2879:A:C5	3.05	0.43
10:B:451:U:C2	10:B:453:A:N7	2.87	0.43
10:B:45:G:H5''	10:B:46:G:H5'	2.00	0.43
10:B:656:G:C6	10:B:657:U:N3	2.87	0.43
10:B:838:C:H2'	10:B:839:U:O4'	2.17	0.43
10:B:2025:C:OP1	12:D:152:PRO:HB2	2.17	0.43
10:B:2873:A:N3	22:N:5:LYS:HA	2.33	0.43
25:Q:110:GLU:HA	25:Q:113:LYS:HD2	2.00	0.43
10:B:2223:G:H2'	10:B:2224:G:O4'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
32:X:38:TRP:HA	32:X:45:PHE:HD1	1.84	0.43
10:B:2108:A:N6	10:B:2180:U:O4	2.51	0.43
10:B:2134:A:H8	10:B:2160:C:H5'	1.83	0.43
7:6:364:GLU:CD	7:6:408:ILE:CD1	2.81	0.43
10:B:2322:A:C2	10:B:2323:G:H1'	2.54	0.43
7:6:375:GLN:CD	7:6:378:ARG:HH12	2.21	0.43
10:B:1079:C:C2	10:B:1088:A:C2	3.06	0.43
10:B:54:G:C6	10:B:117:G:N2	2.86	0.43
10:B:1356:G:C2	10:B:1357:C:C6	3.06	0.43
10:B:1388:G:C4	10:B:1389:G:C8	3.06	0.43
10:B:1410:G:C2	10:B:1411:U:C2	3.07	0.43
10:B:1810:A:N6	10:B:1811:G:C2	2.87	0.43
10:B:1823:G:C2	10:B:1824:G:C8	3.07	0.43
11:C:83:ASP:HB2	11:C:90:ILE:HG12	2.01	0.43
7:6:89:GLU:HG2	7:6:100:VAL:HB	2.01	0.43
10:B:323:C:N4	10:B:333:G:C5	2.86	0.43
10:B:327:G:C2	10:B:336:C:C2	3.06	0.43
10:B:81:G:C2	10:B:82:U:C2	3.07	0.43
10:B:503:A:C6	10:B:506:G:C6	3.07	0.43
10:B:309:A:N6	10:B:330:A:C5	2.86	0.43
10:B:2773:C:OP1	12:D:169:ARG:CZ	2.66	0.43
10:B:1281:G:N2	10:B:1282:U:C2	2.87	0.43
10:B:2697:G:C6	10:B:2698:U:C4	3.06	0.43
16:H:78:VAL:HB	16:H:112:LYS:CE	2.48	0.43
7:6:211:SER:OG	7:6:222:VAL:O	2.37	0.43
10:B:1498:C:C4	10:B:1499:C:C4	3.07	0.43
10:B:388:G:C2	10:B:390:U:O4	2.71	0.43
10:B:1629:U:C2	10:B:1630:A:C8	3.07	0.43
10:B:1331:G:C4	10:B:1333:G:C8	3.06	0.43
10:B:1608:A:N6	10:B:1611:C:C2	2.87	0.43
10:B:1323:C:OP2	27:S:98:LYS:NZ	2.52	0.43
10:B:1937:A:C5	10:B:1939:U:C4	3.07	0.43
10:B:1963:U:H5''	10:B:1964:G:P	2.58	0.43
10:B:1204:A:C8	10:B:1206:G:C6	3.06	0.43
10:B:1715:G:H1'	10:B:1716:U:H5	1.84	0.43
10:B:1942:C:N3	10:B:1943:U:C4	2.86	0.43
10:B:1949:G:N2	10:B:1950:G:N3	2.67	0.43
10:B:1973:G:O2'	10:B:1974:C:H5'	2.19	0.43
12:D:16:THR:H	12:D:19:GLY:HA2	1.82	0.43
10:B:2295:C:N4	10:B:2296:U:O4	2.51	0.43
10:B:1274:A:C6	10:B:1302:A:C2	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1214:A:C4	10:B:1215:G:C8	3.06	0.43
10:B:1449:G:C2	10:B:1450:G:C8	3.06	0.43
10:B:1450:G:C2	10:B:1462:C:C2	3.06	0.43
10:B:1652:A:HO2'	10:B:1653:G:P	2.39	0.43
10:B:1653:G:C6	22:N:9:GLN:HB2	2.53	0.43
10:B:2626:C:H2'	10:B:2627:G:H8	1.83	0.43
10:B:543:G:C6	10:B:544:C:C6	3.06	0.43
10:B:582:A:H4'	25:Q:10:ARG:HH12	1.83	0.43
10:B:586:A:C2	10:B:1254:A:N1	2.86	0.43
10:B:617:G:H5''	13:E:102:ARG:HH12	1.83	0.43
10:B:831:G:N2	10:B:832:U:H1'	2.34	0.43
10:B:2032:G:N3	12:D:150:GLN:HG2	2.34	0.43
26:R:79:ARG:HD3	26:R:80:ARG:CZ	2.49	0.43
6:5:18:THR:OG1	10:B:2176:A:H4'	2.19	0.43
11:C:18:VAL:HG11	11:C:198:GLU:HB3	2.00	0.43
10:B:1059:G:OP2	10:B:1060:U:O2'	2.36	0.43
10:B:1372:U:H1'	10:B:2214:C:O2	2.19	0.43
10:B:1411:U:H2'	10:B:1412:U:C6	2.54	0.43
10:B:1589:U:C2	10:B:1590:A:C8	3.07	0.43
10:B:160:A:C5	10:B:167:A:C2	3.07	0.43
10:B:1789:A:H2'	10:B:1790:C:H6	1.83	0.43
10:B:1821:A:H2'	10:B:1822:C:C6	2.54	0.43
10:B:692:C:C4	10:B:771:G:N1	2.86	0.43
11:C:130:PRO:HA	11:C:188:ARG:HG2	2.00	0.43
11:C:4:LYS:HG3	11:C:15:VAL:O	2.19	0.43
7:6:279:LEU:HD12	7:6:311:PRO:O	2.19	0.43
10:B:881:G:N3	10:B:882:G:H1'	2.34	0.43
10:B:898:C:N4	10:B:899:A:H62	2.17	0.43
9:A:22:U:H2'	9:A:23:G:C8	2.53	0.43
10:B:1739:A:C5	10:B:1740:G:C8	3.07	0.43
10:B:863:A:C6	10:B:864:G:C5	3.06	0.43
10:B:1288:G:N7	10:B:1327:A:C6	2.87	0.43
28:T:36:LYS:C	28:T:81:LYS:NZ	2.70	0.43
10:B:488:G:C4	10:B:490:C:N3	2.87	0.43
10:B:155:A:C4	10:B:156:A:C8	3.06	0.43
10:B:155:A:C6	10:B:172:A:C6	3.07	0.43
10:B:2772:C:H4'	12:D:171:THR:OG1	2.18	0.43
10:B:1465:G:N3	10:B:1545:A:H2	2.17	0.43
7:6:62:LYS:O	7:6:66:ILE:HG23	2.18	0.43
1:0:30:ASP:HB2	1:0:33:SER:O	2.18	0.43
10:B:1608:A:C5	10:B:1611:C:C4	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:15:LEU:HD23	14:F:18:GLU:OE2	2.18	0.43
33:Y:11:VAL:CA	33:Y:63:ALA:HA	2.44	0.43
2:1:45:HIS:CE1	10:B:2371:G:HO2'	2.34	0.43
10:B:1727:C:H2'	10:B:1728:C:O4'	2.19	0.43
4:3:20:GLY:HA2	4:3:51:LYS:NZ	2.33	0.43
15:G:82:PHE:CE1	15:G:137:LYS:HE2	2.54	0.43
8:7:20:LYS:HE2	8:7:88:HIS:CG	2.54	0.43
10:B:1303:G:C2	10:B:1304:A:C4	3.06	0.43
23:O:81:ARG:HA	23:O:84:GLU:HG3	2.00	0.43
10:B:2600:A:H2'	10:B:2601:C:C6	2.53	0.43
10:B:1672:A:H2'	10:B:1673:G:C8	2.53	0.43
30:V:1:MET:O	30:V:3:THR:OG1	2.24	0.43
11:C:207:ALA:O	11:C:210:ALA:N	2.50	0.43
10:B:1142:A:C6	10:B:1144:A:C5	3.07	0.43
10:B:1235:G:H2'	10:B:1236:G:C4	2.52	0.43
10:B:749:A:C5	10:B:1618:A:C5	3.06	0.43
10:B:181:A:H2'	10:B:182:A:C8	2.53	0.43
10:B:2020:A:OP1	25:Q:26:ALA:N	2.49	0.43
10:B:2043:C:C5	10:B:2777:G:C4	3.07	0.43
10:B:2061:G:HO2'	10:B:2063:C:H5	1.65	0.43
10:B:190:A:N7	10:B:207:A:C6	2.86	0.43
10:B:2083:G:H2'	10:B:2084:C:O4'	2.19	0.43
10:B:2425:A:H4'	10:B:2426:A:H5''	1.99	0.43
10:B:245:G:C2	10:B:246:C:C5	3.06	0.43
10:B:2808:G:H4'	10:B:2809:A:H5'	1.99	0.43
10:B:367:G:C2	10:B:368:A:C4	3.07	0.43
10:B:538:A:H1'	10:B:556:A:N1	2.34	0.43
10:B:775:G:C4	10:B:777:G:C2	3.07	0.43
10:B:802:A:C2	10:B:803:U:C2	3.07	0.43
10:B:844:A:N3	10:B:845:A:H2	2.17	0.43
10:B:869:G:C2	10:B:909:A:C6	3.06	0.43
10:B:960:A:C2	10:B:962:G:H1'	2.53	0.43
19:K:68:VAL:HG22	19:K:69:ARG:O	2.19	0.43
9:A:90:C:H4'	21:M:38:ARG:NH1	2.33	0.43
25:Q:91:ARG:CD	26:R:11:GLN:HG3	2.41	0.43
10:B:2122:U:H2'	10:B:2123:G:C8	2.54	0.43
10:B:2173:A:H8	10:B:2173:A:O5'	2.02	0.43
10:B:2306:C:N4	14:F:38:GLY:HA3	2.34	0.43
17:I:92:PRO:O	17:I:93:ASN:HB2	2.18	0.43
10:B:1587:G:C5	10:B:1588:G:C8	3.07	0.43
10:B:160:A:C2	10:B:161:A:C4	3.06	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1766:G:H1	10:B:1986:C:H42	1.66	0.43
10:B:1975:G:C5	10:B:1976:U:C5	3.07	0.43
10:B:765:C:C4	10:B:766:U:C5	3.07	0.43
10:B:878:A:H2	10:B:899:A:C5	2.37	0.43
7:6:134:THR:OG1	7:6:135:ARG:N	2.51	0.43
9:A:6:G:C2	9:A:7:G:C5	3.07	0.43
10:B:1739:A:O5'	10:B:1739:A:H8	2.01	0.43
10:B:1907:G:C2	10:B:1908:C:C2	3.06	0.43
21:M:62:LYS:HB3	21:M:64:TRP:CH2	2.54	0.43
10:B:319:G:H2'	10:B:320:A:C8	2.53	0.43
10:B:333:G:H2'	10:B:333:G:N3	2.33	0.43
10:B:291:G:C6	10:B:350:G:C6	3.06	0.43
10:B:80:G:C5	10:B:81:G:N7	2.87	0.43
10:B:491:G:N2	10:B:492:A:N3	2.66	0.43
10:B:503:A:H4'	10:B:504:A:H5'	2.01	0.43
10:B:1366:A:N6	10:B:1367:A:C4	2.86	0.43
10:B:753:A:C4	10:B:754:U:C6	3.07	0.43
10:B:759:G:O2'	10:B:760:G:O4'	2.29	0.43
10:B:2190:G:N1	10:B:2191:A:C5	2.86	0.43
18:J:106:LYS:O	18:J:109:LEU:HB2	2.19	0.43
10:B:1334:G:C6	10:B:1335:C:C4	3.07	0.43
10:B:1625:C:C5	10:B:1626:A:C6	3.07	0.43
10:B:2308:G:H5''	10:B:2309:A:OP2	2.18	0.43
10:B:64:A:H2'	10:B:65:U:H6	1.82	0.43
10:B:1949:G:N2	10:B:1950:G:C4	2.87	0.43
10:B:1684:G:C2	10:B:1685:C:C2	3.07	0.43
30:V:75:GLN:HB2	30:V:90:ASP:HB2	2.01	0.43
30:V:20:LEU:HA	30:V:20:LEU:HD23	1.78	0.43
10:B:1128:G:C4	10:B:1129:A:C2	3.07	0.43
10:B:1000:A:N1	10:B:1155:A:C4	2.86	0.43
10:B:1172:C:H3'	10:B:1173:U:C6	2.54	0.43
10:B:1173:U:O2	10:B:1177:G:C6	2.71	0.43
10:B:1678:A:H2'	10:B:1679:A:O4'	2.19	0.43
10:B:1709:U:O2'	10:B:2859:G:H1'	2.19	0.43
10:B:201:C:OP1	32:X:17:ARG:NH1	2.48	0.43
10:B:2495:G:C2	10:B:2496:C:C2	3.06	0.43
10:B:2513:A:C8	10:B:2514:U:H5	2.37	0.43
10:B:2578:G:C2	10:B:2579:C:C5	3.06	0.43
10:B:2578:G:H2'	10:B:2579:C:H6	1.84	0.43
10:B:268:C:H2'	10:B:269:C:C6	2.54	0.43
10:B:2720:U:C2	10:B:2872:A:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:449:A:C4	10:B:450:G:C8	3.06	0.43
10:B:590:A:C5	10:B:591:U:N3	2.87	0.43
25:Q:57:ARG:O	25:Q:60:TRP:HB2	2.19	0.43
27:S:70:LYS:O	27:S:107:VAL:HG22	2.18	0.43
6:5:112:ASP:O	6:5:114:VAL:HG23	2.19	0.43
6:5:2:ALA:HB1	10:B:2110:G:C8	2.54	0.43
10:B:2143:C:H2'	10:B:2146:C:OP2	2.18	0.43
10:B:129:C:O2'	10:B:1349:C:OP1	2.37	0.43
10:B:1386:C:H2'	10:B:1387:A:C8	2.53	0.43
10:B:2218:G:H2'	10:B:2219:U:H6	1.84	0.43
10:B:721:A:H2'	10:B:722:A:C1'	2.48	0.43
11:C:175:LEU:HD23	11:C:175:LEU:HA	1.83	0.43
10:B:643:A:C5	10:B:644:A:N7	2.87	0.43
28:T:37:ASP:HB3	28:T:42:GLU:OE1	2.18	0.43
10:B:301:G:O2'	10:B:302:C:H5''	2.19	0.43
10:B:1279:G:N3	10:B:1280:G:C8	2.87	0.43
10:B:626:A:C8	20:L:78:ARG:NH2	2.87	0.43
10:B:1555:G:C2	10:B:1556:C:C6	3.07	0.43
10:B:1869:G:H8	10:B:1869:G:OP2	2.01	0.43
13:E:155:GLU:O	13:E:159:LEU:HG	2.19	0.43
32:X:4:CYS:HB3	32:X:8:GLY:H	1.82	0.43
11:C:92:LEU:HD12	11:C:101:ARG:O	2.19	0.43
26:R:62:GLU:CD	26:R:97:LYS:HB3	2.39	0.43
34:Z:40:THR:OG1	34:Z:42:ALA:HB3	2.19	0.43
11:C:75:ALA:HB3	11:C:115:ILE:HG12	2.01	0.43
33:Y:35:GLY:O	33:Y:39:GLN:HG3	2.18	0.43
10:B:1531:C:O2	10:B:1541:C:H1'	2.19	0.43
10:B:2394:C:OP1	20:L:63:LYS:N	2.51	0.43
10:B:1139:G:C5'	18:J:72:LYS:NZ	2.82	0.43
10:B:1262:A:OP1	27:S:99:ARG:NH2	2.35	0.43
10:B:2024:G:H2'	10:B:2025:C:C6	2.54	0.43
10:B:2038:G:H2'	10:B:2039:U:O4'	2.18	0.43
10:B:2070:A:C2	10:B:2071:A:C4	3.07	0.43
10:B:216:A:C6	10:B:217:A:C5	3.07	0.43
10:B:2472:G:O6	10:B:2476:A:H4'	2.19	0.43
10:B:2519:U:C4	10:B:2541:A:C5	3.07	0.43
10:B:2547:A:C8	10:B:2566:A:N7	2.87	0.43
10:B:255:A:C4	10:B:256:A:C8	3.07	0.43
10:B:2623:G:C2	10:B:2624:G:C5	3.07	0.43
10:B:412:A:N6	10:B:413:C:C2	2.87	0.43
10:B:470:A:C6	10:B:471:A:C5	3.07	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:843:G:C2	10:B:844:A:C2	3.07	0.43
12:D:56:LYS:CD	12:D:59:ARG:HH21	2.31	0.43
10:B:452:G:N7	13:E:53:THR:HG21	2.33	0.43
10:B:2822:G:C8	22:N:1:MET:HE3	2.53	0.43
10:B:2839:G:H4'	22:N:49:GLU:OE1	2.19	0.43
6:5:2:ALA:HB1	10:B:2110:G:H2'	2.01	0.43
7:6:411:TRP:HE3	7:6:426:ILE:HG22	1.84	0.43
10:B:1858:A:N6	10:B:1884:G:H1'	2.34	0.43
10:B:2322:A:C5	10:B:2323:G:C8	3.07	0.43
8:7:58:THR:N	10:B:1107:G:OP1	2.50	0.43
3:2:10:LEU:HD23	10:B:125:A:N1	2.33	0.43
10:B:1343:G:C5	10:B:1597:A:C6	3.06	0.43
10:B:1823:G:H2'	10:B:1824:G:C8	2.53	0.43
10:B:1420:A:C4	10:B:2211:A:C6	3.06	0.43
10:B:708:G:O6	10:B:723:C:N4	2.46	0.43
10:B:891:G:C6	10:B:892:A:C6	3.06	0.43
4:3:31:ILE:O	4:3:32:LEU:HD23	2.18	0.43
10:B:2342:C:O2'	10:B:2374:C:H5''	2.19	0.43
9:A:52:A:H2'	9:A:53:A:O4'	2.19	0.43
10:B:1918:A:H4'	10:B:1919:A:H5'	1.99	0.43
10:B:299:A:H3'	10:B:300:A:C8	2.54	0.43
10:B:503:A:C4	10:B:505:A:N7	2.87	0.43
10:B:1286:A:C2	10:B:1289:C:C2	3.07	0.43
10:B:1542:U:C4	10:B:1543:G:C6	3.07	0.43
10:B:699:A:H2'	10:B:700:G:H8	1.84	0.43
10:B:759:G:C8	10:B:1981:A:H2	2.36	0.43
8:7:114:GLU:OE2	8:7:122:GLN:NE2	2.51	0.43
13:E:31:VAL:O	13:E:34:ALA:HB3	2.18	0.43
10:B:145:C:H2'	10:B:146:A:O4'	2.19	0.43
32:X:4:CYS:O	32:X:50:VAL:HG12	2.19	0.43
12:D:101:PHE:HB3	12:D:104:VAL:HG22	2.00	0.43
22:N:34:ILE:O	22:N:112:TYR:HA	2.19	0.43
16:H:4:ILE:HD12	16:H:44:ILE:HG22	2.01	0.43
24:P:6:GLN:HA	24:P:9:GLN:HB2	2.01	0.43
23:O:81:ARG:HG2	23:O:84:GLU:OE2	2.19	0.43
34:Z:26:LEU:HD21	34:Z:46:MET:SD	2.59	0.43
1:0:42:ILE:C	1:0:44:ALA:H	2.22	0.43
3:2:24:THR:HG23	3:2:26:ASN:N	2.32	0.43
10:B:1776:G:C2	10:B:1777:U:C6	3.07	0.43
20:L:132:ARG:HE	20:L:143:GLU:CD	2.22	0.43
20:L:116:VAL:HG11	20:L:134:ALA:O	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:118:A:H3'	10:B:118:A:C8	2.53	0.43
10:B:1003:G:C2	10:B:1153:C:C2	3.07	0.43
10:B:1163:G:C6	10:B:1164:C:N4	2.86	0.43
10:B:1707:G:C2	10:B:1708:C:H1'	2.53	0.43
10:B:578:G:C5	10:B:2018:G:H5'	2.54	0.43
10:B:2025:C:H5'	12:D:154:LYS:NZ	2.33	0.43
10:B:2359:C:N4	10:B:2360:G:C6	2.87	0.43
10:B:2408:U:C2	10:B:2409:G:C8	3.07	0.43
10:B:2679:A:C2	10:B:2680:U:C4	3.07	0.43
10:B:2687:U:H5''	10:B:2688:G:OP2	2.19	0.43
10:B:436:C:C2	10:B:437:U:C5	3.07	0.43
10:B:533:G:H2'	10:B:534:U:O4'	2.19	0.43
10:B:776:G:O6	10:B:793:A:C8	2.71	0.43
10:B:785:G:C5	10:B:786:C:C5	3.07	0.43
10:B:803:U:C2	10:B:804:A:C8	3.07	0.43
10:B:923:G:N3	10:B:924:G:C8	2.87	0.43
10:B:952:G:N2	10:B:953:G:C4	2.86	0.43
10:B:970:U:H2'	10:B:970:U:O2	2.19	0.43
10:B:972:A:N1	10:B:973:A:N6	2.66	0.43
12:D:121:THR:HB	12:D:127:PHE:CD2	2.54	0.43
31:W:19:ARG:HA	31:W:35:ILE:HG22	2.01	0.43
31:W:35:ILE:O	31:W:36:ILE:HD13	2.19	0.43
16:H:124:THR:HG22	16:H:125:THR:H	1.83	0.43
7:6:411:TRP:CE3	7:6:426:ILE:HG22	2.54	0.43
10:B:1106:G:C5	10:B:1107:G:N7	2.87	0.43
9:A:56:G:O2'	9:A:59:A:N6	2.47	0.43
10:B:1910:G:C2	10:B:1921:G:C4	3.06	0.43
10:B:862:G:C6	10:B:863:A:C5	3.07	0.43
7:6:194:LYS:NZ	7:6:197:VAL:HG22	2.28	0.43
10:B:360:U:C4	10:B:361:G:N2	2.87	0.43
10:B:475:C:H2'	10:B:476:G:O4'	2.19	0.43
10:B:301:G:C2	10:B:302:C:C2	3.07	0.43
10:B:1277:G:C6	10:B:1278:C:C4	3.07	0.43
10:B:1286:A:C6	10:B:1329:U:C4	3.07	0.43
14:F:3:LEU:HD22	14:F:96:TRP:CH2	2.54	0.43
10:B:1522:A:C4	10:B:1524:G:C2	3.06	0.43
7:6:224:ALA:HB1	35:6:527:GNP:O5'	2.18	0.43
10:B:1491:G:N1	10:B:1492:G:C5	2.87	0.43
10:B:409:G:C2	10:B:410:G:C4	3.07	0.43
10:B:1902:C:N4	10:B:1903:G:C4	2.87	0.43
10:B:1932:A:C2	10:B:1933:G:H1'	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1048:A:C8	10:B:1111:A:N6	2.86	0.43
14:F:9:ASP:HA	14:F:13:LYS:CE	2.49	0.43
29:U:86:PHE:CG	29:U:87:GLU:N	2.87	0.43
15:G:143:VAL:O	15:G:147:LEU:N	2.50	0.43
27:S:66:ILE:C	27:S:68:ASP:N	2.72	0.43
10:B:887:U:H1'	10:B:888:C:C5	2.53	0.43
9:A:71:C:N4	9:A:105:G:H1	2.16	0.43
12:D:16:THR:OG1	12:D:19:GLY:N	2.43	0.43
17:I:19:PRO:O	17:I:22:PRO:HD2	2.19	0.43
29:U:14:THR:HG23	29:U:68:ASN:ND2	2.33	0.43
6:5:180:PHE:HB2	6:5:185:LEU:HD21	2.01	0.43
10:B:2599:G:N1	10:B:2600:A:C5	2.87	0.43
13:E:134:LEU:CD2	13:E:167:VAL:HG21	2.49	0.43
6:5:183:ASP:OD1	6:5:184:LYS:N	2.52	0.43
13:E:48:THR:HG22	13:E:86:ALA:HB2	2.00	0.43
7:6:244:VAL:O	7:6:246:GLU:N	2.52	0.43
7:6:180:ARG:NH2	10:B:2537:U:O3'	2.52	0.42
10:B:1017:G:N2	10:B:1018:U:C2	2.87	0.42
10:B:1022:G:N1	10:B:1141:U:H5	2.17	0.42
10:B:1168:G:C6	10:B:1169:A:C5	3.06	0.42
10:B:1262:A:C5	10:B:1263:U:C5	3.07	0.42
10:B:2029:G:C2	10:B:2033:A:N7	2.87	0.42
10:B:2264:C:C5	10:B:2265:U:C4	3.07	0.42
10:B:2392:A:C2	10:B:2393:U:C2	3.07	0.42
10:B:2536:G:N1	10:B:2537:U:C4	2.87	0.42
10:B:1953:A:N9	10:B:2550:G:H1'	2.34	0.42
10:B:2567:G:O2'	10:B:2568:U:H5'	2.19	0.42
10:B:2583:G:C5	10:B:2584:U:C4	3.07	0.42
10:B:1452:G:N1	10:B:2702:G:C4	2.87	0.42
10:B:2822:G:N7	22:N:1:MET:HE3	2.34	0.42
10:B:685:A:N7	10:B:774:G:N1	2.66	0.42
10:B:857:G:C6	10:B:858:G:O6	2.71	0.42
10:B:972:A:C8	10:B:973:A:C8	3.07	0.42
10:B:532:A:O2'	25:Q:24:TYR:HB3	2.18	0.42
27:S:28:LYS:HD3	27:S:70:LYS:CB	2.48	0.42
11:C:167:ASP:OD2	11:C:170:TYR:O	2.37	0.42
10:B:2230:G:H1'	32:X:31:ASN:OD1	2.19	0.42
10:B:2311:A:OP1	14:F:71:LYS:NZ	2.42	0.42
10:B:1107:G:H2'	10:B:1108:U:O4'	2.19	0.42
10:B:111:A:O2'	10:B:112:U:H5'	2.19	0.42
10:B:121:G:C4	10:B:122:G:N7	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1359:A:N6	10:B:1360:G:C2	2.87	0.42
10:B:1343:G:O6	10:B:1403:A:N6	2.52	0.42
10:B:1585:C:C5	10:B:1586:A:C4	3.07	0.42
10:B:1698:A:H4'	10:B:1699:G:O5'	2.18	0.42
10:B:1794:A:O2'	10:B:1795:C:O4'	2.37	0.42
10:B:1782:U:C2	10:B:2609:U:C5	3.06	0.42
10:B:89:A:H2'	10:B:90:U:C6	2.54	0.42
11:C:143:VAL:C	11:C:151:GLY:HA2	2.40	0.42
10:B:2221:G:O2'	16:H:116:ARG:CZ	2.67	0.42
10:B:1040:A:H2	10:B:1115:G:H22	1.67	0.42
10:B:2419:U:H2'	10:B:2420:C:H6	1.84	0.42
9:A:14:U:O2'	9:A:15:A:H5'	2.19	0.42
9:A:20:G:H2'	9:A:21:G:H8	1.83	0.42
10:B:1736:U:C4	10:B:1737:G:C5	3.06	0.42
10:B:105:C:H5	33:Y:2:LYS:HZ1	1.63	0.42
10:B:2700:A:H2'	10:B:2701:U:C6	2.54	0.42
14:F:31:GLU:HG3	14:F:32:LYS:H	1.84	0.42
10:B:1482:G:C4	10:B:1483:G:C8	3.06	0.42
15:G:3:VAL:HB	15:G:68:ARG:NH1	2.34	0.42
10:B:1935:G:H2'	10:B:1962:C:N4	2.28	0.42
10:B:1297:C:O2'	10:B:1298:C:H5'	2.18	0.42
29:U:94:PHE:CB	29:U:101:THR:HA	2.49	0.42
14:F:48:LEU:HD12	14:F:49:LEU:HG	2.00	0.42
13:E:158:PHE:O	13:E:162:ARG:HG3	2.19	0.42
27:S:51:LEU:HG	27:S:55:ILE:HD11	2.00	0.42
8:7:84:TYR:CE2	8:7:86:MET:HG3	2.54	0.42
7:6:122:LEU:HD22	7:6:174:ILE:HG23	2.01	0.42
10:B:1301:A:C4	10:B:1303:G:N7	2.86	0.42
2:1:37:LYS:HB2	2:1:48:TYR:CD2	2.54	0.42
2:1:6:GLU:O	2:1:23:THR:HA	2.19	0.42
7:6:202:LEU:HD23	7:6:281:LEU:HB2	2.00	0.42
10:B:1000:A:C6	10:B:1001:A:N1	2.87	0.42
10:B:1009:A:C8	10:B:1009:A:H3'	2.53	0.42
10:B:811:U:N3	10:B:1250:G:OP1	2.44	0.42
10:B:1266:G:C8	27:S:15:GLN:NE2	2.87	0.42
10:B:2011:U:C5	10:B:2012:G:C5	3.07	0.42
10:B:1131:G:H22	10:B:2024:G:N2	2.15	0.42
10:B:2048:G:C4	10:B:2049:G:C8	3.07	0.42
10:B:2259:U:H5''	10:B:2260:C:OP2	2.18	0.42
10:B:258:G:N1	10:B:259:G:C5	2.87	0.42
10:B:2819:G:C4	10:B:2821:A:C6	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2721:A:C4	10:B:2873:A:N7	2.87	0.42
10:B:623:C:H5''	10:B:624:C:OP2	2.18	0.42
10:B:795:C:C4	10:B:796:C:C5	3.07	0.42
10:B:828:U:O2	10:B:828:U:H2'	2.19	0.42
10:B:924:G:N1	10:B:925:A:C5	2.87	0.42
10:B:934:U:N3	10:B:935:C:C4	2.86	0.42
10:B:976:G:C2	10:B:977:G:C4	3.07	0.42
31:W:20:LEU:O	31:W:20:LEU:HG	2.19	0.42
10:B:2199:A:N6	10:B:2224:G:O2'	2.42	0.42
32:X:3:VAL:HA	32:X:9:LYS:O	2.19	0.42
6:5:105:LYS:HG2	10:B:2168:G:O6	2.19	0.42
10:B:2127:G:H1'	10:B:2173:A:H2	1.83	0.42
10:B:1754:A:N1	10:B:1755:A:C5	2.88	0.42
8:7:41:LEU:O	8:7:45:GLY:HA3	2.19	0.42
10:B:1353:A:C6	10:B:1354:A:C2	3.07	0.42
10:B:2219:U:C4	10:B:2220:U:C4	3.07	0.42
10:B:711:G:C2	10:B:721:A:C4	3.06	0.42
10:B:1796:U:H4'	11:C:252:LYS:HG3	2.00	0.42
10:B:2340:A:C2	10:B:2341:G:C5	3.07	0.42
2:1:43:ARG:NH2	10:B:2370:G:H4'	2.34	0.42
4:3:46:LYS:NZ	10:B:630:G:H5''	2.33	0.42
9:A:20:G:H2'	9:A:21:G:C8	2.54	0.42
9:A:64:G:C2	9:A:65:U:H1'	2.53	0.42
9:A:6:G:C4	9:A:7:G:C8	3.07	0.42
10:B:870:U:OP1	21:M:6:ARG:NE	2.52	0.42
10:B:323:C:N4	10:B:333:G:N7	2.67	0.42
10:B:488:G:C8	10:B:490:C:N4	2.87	0.42
10:B:488:G:H4'	27:S:49:LYS:HZ3	1.84	0.42
12:D:170:VAL:HG22	12:D:171:THR:O	2.18	0.42
9:A:48:U:H3'	23:O:30:ARG:HH12	1.82	0.42
10:B:1441:G:H2'	10:B:1442:U:C6	2.54	0.42
10:B:2792:A:C6	10:B:2793:C:C4	3.07	0.42
10:B:2185:U:C2	10:B:2186:G:N7	2.87	0.42
10:B:2739:U:H3'	10:B:2763:G:N1	2.34	0.42
10:B:2748:A:C2	10:B:2749:A:C8	3.07	0.42
7:6:63:ALA:O	7:6:66:ILE:HG12	2.19	0.42
10:B:1867:G:C5	10:B:1868:C:C4	3.07	0.42
10:B:1867:G:N2	10:B:1875:G:H1'	2.34	0.42
10:B:1310:G:C4	10:B:1311:G:C2	3.06	0.42
10:B:1206:G:C6	10:B:1207:C:C2	3.07	0.42
10:B:1239:G:C5	10:B:1240:U:C5	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
16:H:46:PHE:C	16:H:50:ARG:HE	2.18	0.42
7:6:132:LEU:HA	7:6:132:LEU:HD23	1.80	0.42
12:D:48:ILE:HG13	12:D:82:PHE:HB2	2.01	0.42
24:P:56:SER:H	24:P:74:GLN:NE2	2.15	0.42
24:P:39:LEU:HD22	24:P:81:ASP:OD2	2.18	0.42
6:5:67:HIS:HB2	6:5:188:ASN:OD1	2.19	0.42
10:B:607:U:P	13:E:98:LYS:HG2	2.58	0.42
13:E:141:MET:O	13:E:143:LEU:HG	2.19	0.42
7:6:15:HIS:CE1	7:6:17:TYR:N	2.88	0.42
7:6:256:ILE:HG22	7:6:257:ARG:N	2.35	0.42
7:6:236:LEU:HD12	10:B:2472:G:H5'	2.01	0.42
10:B:1252:G:H1'	25:Q:32:ARG:NH1	2.34	0.42
10:B:1459:G:O5'	10:B:1459:G:N3	2.52	0.42
10:B:1708:C:H2'	10:B:1709:U:H6	1.84	0.42
10:B:2079:U:H2'	10:B:2080:A:C8	2.49	0.42
10:B:2272:U:O2'	10:B:2273:A:O5'	2.26	0.42
10:B:2469:A:C6	10:B:2482:A:C8	3.07	0.42
10:B:2535:G:C6	10:B:2536:G:C6	3.07	0.42
10:B:2526:G:H1	10:B:2536:G:H22	1.68	0.42
10:B:2834:G:C6	10:B:2879:A:C8	3.07	0.42
10:B:33:C:H2'	10:B:33:C:OP2	2.19	0.42
10:B:446:G:OP1	25:Q:2:ARG:HD3	2.19	0.42
10:B:618:G:C6	10:B:619:G:C5	3.07	0.42
10:B:662:G:C2	10:B:663:G:N7	2.87	0.42
10:B:785:G:O2'	10:B:786:C:H5'	2.20	0.42
10:B:920:A:H2'	10:B:921:C:C6	2.54	0.42
10:B:941:A:H3'	10:B:942:G:C8	2.47	0.42
10:B:953:G:C2	10:B:965:C:N3	2.87	0.42
10:B:978:G:C6	10:B:986:C:N4	2.87	0.42
18:J:140:LEU:HD23	18:J:142:ILE:N	2.23	0.42
31:W:45:HIS:HE1	31:W:81:ILE:HG12	1.83	0.42
6:5:33:LEU:O	10:B:2130:U:H5'	2.19	0.42
10:B:2121:G:N2	10:B:2176:A:N1	2.66	0.42
6:5:53:ARG:HD2	10:B:1860:G:P	2.59	0.42
10:B:1055:G:C6	10:B:1056:G:C6	3.08	0.42
10:B:1077:A:C5'	17:I:94:LYS:HZ2	2.29	0.42
10:B:1795:C:C4	10:B:1796:U:C4	3.07	0.42
10:B:1802:A:C5	10:B:1803:A:N1	2.87	0.42
10:B:2216:G:C4	10:B:2217:G:C8	3.07	0.42
11:C:144:GLU:CD	11:C:148:GLY:H	2.22	0.42
23:O:94:ARG:HB2	23:O:97:PHE:O	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:157:THR:HG21	14:F:168:LEU:HD22	2.02	0.42
10:B:169:G:N1	10:B:170:U:C4	2.87	0.42
10:B:173:A:H2'	10:B:174:U:C6	2.53	0.42
22:N:67:PHE:CZ	22:N:71:ARG:HB2	2.54	0.42
7:6:208:ALA:HB3	7:6:210:LYS:HD3	2.01	0.42
11:C:94:LEU:HD13	11:C:100:ARG:HG2	2.02	0.42
10:B:2741:A:C8	10:B:2742:G:C8	3.07	0.42
24:P:29:VAL:HG11	24:P:71:ARG:NH1	2.35	0.42
10:B:1839:G:C8	10:B:1927:A:H1'	2.54	0.42
10:B:1904:G:C6	10:B:1905:C:N4	2.87	0.42
10:B:1560:G:C5	10:B:1561:C:C5	3.08	0.42
13:E:1:MET:H3	13:E:19:PHE:HD2	1.67	0.42
10:B:1331:G:C5	10:B:1333:G:C5	3.08	0.42
13:E:147:LEU:HD13	13:E:183:PHE:CE2	2.44	0.42
14:F:18:GLU:HG3	14:F:19:PHE:HD2	1.79	0.42
14:F:76:PHE:HB2	14:F:77:LYS:O	2.19	0.42
10:B:296:U:H3	10:B:342:A:N6	2.13	0.42
2:1:9:LYS:HZ1	2:1:52:LYS:HD3	1.84	0.42
6:5:65:LEU:HD22	6:5:191:ALA:HB1	2.00	0.42
10:B:1947:C:O2	10:B:1959:G:N2	2.52	0.42
22:N:95:THR:OG1	22:N:114:GLU:O	2.22	0.42
29:U:83:GLY:H	29:U:96:LYS:HB2	1.82	0.42
15:G:77:GLY:HA2	15:G:82:PHE:CZ	2.55	0.42
15:G:77:GLY:HA2	15:G:82:PHE:HZ	1.84	0.42
9:A:104:A:C8	9:A:105:G:C8	3.07	0.42
10:B:497:A:C6	10:B:498:G:C5	3.08	0.42
10:B:362:A:C2	10:B:363:G:H1'	2.54	0.42
10:B:2751:G:H5'	10:B:2752:C:C5	2.53	0.42
13:E:67:ARG:NH1	13:E:67:ARG:HG2	2.34	0.42
2:1:46:VAL:HG22	2:1:47:ILE:N	2.34	0.42
11:C:123:ILE:HG13	11:C:123:ILE:O	2.19	0.42
10:B:1992:G:N3	10:B:1994:C:H5	2.17	0.42
10:B:2060:A:O2'	10:B:2061:G:OP2	2.37	0.42
10:B:2406:A:H5''	10:B:2407:A:OP1	2.19	0.42
10:B:2422:C:C2	10:B:2424:C:C5	3.07	0.42
10:B:2457:U:C2	10:B:2458:G:N3	2.88	0.42
10:B:2470:G:C2	10:B:2471:A:C5	3.06	0.42
10:B:2482:A:C6	10:B:2483:C:C4	3.07	0.42
10:B:2484:G:N2	10:B:2485:G:C4	2.87	0.42
10:B:2543:G:C2	10:B:2544:G:C4	3.08	0.42
10:B:2717:C:H2'	10:B:2718:G:C8	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2828:G:C2	10:B:2829:A:C8	3.07	0.42
10:B:2854:G:C2	10:B:2864:G:C2	3.07	0.42
10:B:523:C:H1'	10:B:554:U:O2'	2.19	0.42
10:B:565:C:H5''	10:B:566:U:OP2	2.19	0.42
10:B:570:G:C2	10:B:2030:A:C5	3.08	0.42
10:B:578:G:C2	25:Q:32:ARG:NH2	2.63	0.42
10:B:656:G:N7	10:B:657:U:C4	2.88	0.42
10:B:798:G:N1	10:B:799:G:C6	2.87	0.42
10:B:822:G:C6	10:B:836:G:C5	3.08	0.42
10:B:2512:C:H1'	12:D:145:SER:O	2.19	0.42
10:B:444:C:OP1	13:E:44:ARG:HD3	2.19	0.42
19:K:29:ARG:NH1	19:K:36:ASP:OD2	2.52	0.42
10:B:1012:U:OP2	25:Q:69:ARG:NH2	2.52	0.42
32:X:1:SER:O	32:X:3:VAL:N	2.53	0.42
14:F:122:ASP:CG	14:F:126:ASN:HB2	2.40	0.42
14:F:121:PHE:HE1	14:F:127:TYR:CE2	2.37	0.42
10:B:1107:G:N2	10:B:1108:U:H1'	2.34	0.42
10:B:1586:A:N6	10:B:1587:G:C2	2.87	0.42
10:B:1688:U:H2'	10:B:1698:A:C6	2.53	0.42
10:B:1810:A:N7	10:B:1811:G:C8	2.88	0.42
10:B:1977:A:H3'	10:B:1978:A:C8	2.55	0.42
10:B:2217:G:H2'	10:B:2218:G:H8	1.85	0.42
10:B:9:G:C2	10:B:2629:U:N3	2.87	0.42
10:B:877:A:H2'	10:B:878:A:O4'	2.20	0.42
10:B:644:A:H2'	10:B:645:C:H5''	2.01	0.42
9:A:116:G:C4	9:A:117:G:N7	2.87	0.42
9:A:61:G:C2	9:A:62:C:C2	3.07	0.42
9:A:100:G:C6	9:A:101:A:C6	3.08	0.42
10:B:356:G:H2'	10:B:357:C:O4'	2.18	0.42
10:B:2228:G:OP2	11:C:260:LYS:HD2	2.19	0.42
10:B:2096:C:C2'	10:B:2097:A:H8	2.33	0.42
10:B:2886:A:H2'	10:B:2887:A:O4'	2.19	0.42
10:B:1903:G:C5	10:B:1904:G:N7	2.87	0.42
10:B:1930:G:N1	10:B:1968:G:C8	2.87	0.42
10:B:1869:G:N2	10:B:1873:G:C5	2.88	0.42
10:B:1608:A:C6	10:B:1611:C:C2	3.07	0.42
10:B:1200:C:H2'	10:B:1201:U:H6	1.84	0.42
26:R:1:MET:HB2	26:R:15:SER:OG	2.19	0.42
10:B:1728:C:H2'	10:B:1730:C:O2	2.20	0.42
5:4:4:ARG:NH1	10:B:2477:U:C6	2.84	0.42
10:B:146:A:H2'	10:B:147:C:C6	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:C:211:ARG:NH2	11:C:217:PRO:HG3	2.30	0.42
23:O:72:ALA:HB2	23:O:105:ALA:HB1	2.01	0.42
13:E:5:LEU:HB3	13:E:9:GLN:O	2.19	0.42
28:T:29:THR:OG1	28:T:30:ILE:N	2.52	0.42
30:V:25:LYS:HA	30:V:42:LEU:O	2.19	0.42
23:O:78:VAL:HG23	23:O:79:ALA:N	2.33	0.42
10:B:1321:A:N3	10:B:1321:A:H2'	2.34	0.42
7:6:150:ILE:HD11	10:B:2585:U:C2	2.54	0.42
1:0:8:THR:OG1	1:0:9:ARG:HG2	2.19	0.42
7:6:214:PHE:HE1	7:6:249:LEU:HB3	1.84	0.42
10:B:1128:G:C2	10:B:1129:A:H2	2.37	0.42
10:B:1155:A:C2	10:B:1157:G:C8	3.08	0.42
10:B:1663:G:C4	10:B:1998:A:C2	3.08	0.42
10:B:1748:C:H2'	10:B:1749:A:H8	1.85	0.42
10:B:2069:G:N2	10:B:2070:A:C4	2.88	0.42
10:B:2445:G:C2	10:B:2446:G:C8	3.08	0.42
10:B:237:C:N4	10:B:261:G:C6	2.88	0.42
10:B:255:A:O2'	10:B:384:A:N7	2.41	0.42
10:B:513:A:C2	10:B:514:A:C4	3.08	0.42
10:B:541:A:N6	10:B:551:G:O6	2.53	0.42
10:B:783:A:N1	10:B:785:G:H1'	2.35	0.42
10:B:826:U:H2'	10:B:828:U:O4'	2.20	0.42
10:B:855:G:C6	10:B:923:G:N1	2.87	0.42
10:B:974:G:O2'	10:B:989:G:N2	2.51	0.42
10:B:983:A:N1	10:B:984:A:C8	2.88	0.42
24:P:20:ARG:HG3	24:P:88:ARG:NH2	2.33	0.42
10:B:2234:G:C2	10:B:2235:G:C5	3.08	0.42
11:C:167:ASP:HB2	11:C:171:VAL:HA	2.01	0.42
10:B:2385:C:C2	10:B:2386:A:C8	3.08	0.42
17:I:126:ARG:HA	17:I:129:GLU:CG	2.50	0.42
10:B:1347:A:C5	10:B:1348:C:C4	3.07	0.42
10:B:1595:C:H2'	10:B:1596:A:H8	1.82	0.42
10:B:1363:C:H1'	10:B:1810:A:H1'	2.02	0.42
10:B:55:G:C4	10:B:56:A:C8	3.08	0.42
10:B:2351:G:N2	10:B:2365:G:C4	2.87	0.42
9:A:26:C:O2'	9:A:117:G:O4'	2.31	0.42
23:O:24:THR:HB	23:O:40:ILE:O	2.19	0.42
9:A:82:U:O3'	34:Z:19:HIS:HE1	2.03	0.42
18:J:40:HIS:CG	18:J:41:LYS:H	2.35	0.42
10:B:103:A:C5	10:B:104:A:C5	3.07	0.42
10:B:80:G:C2	10:B:107:G:C5	3.08	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:80:G:C6	10:B:107:G:C6	3.07	0.42
10:B:81:G:C2	10:B:106:C:C2	3.07	0.42
10:B:1277:G:C6	10:B:1294:U:N3	2.88	0.42
10:B:2786:U:O2'	12:D:63:PRO:O	2.26	0.42
7:6:320:ASP:CG	35:6:527:GNP:HN21	2.16	0.42
7:6:231:THR:N	35:6:527:GNP:O2G	2.51	0.42
10:B:1933:G:C2	10:B:1934:C:C2	3.08	0.42
26:R:59:ILE:HD12	26:R:101:ILE:H	1.84	0.42
10:B:928:A:H2'	10:B:929:U:C6	2.55	0.42
18:J:13:ARG:HA	18:J:52:ASP:OD1	2.19	0.42
10:B:886:A:H1'	10:B:889:C:H5	1.82	0.42
6:5:190:GLU:O	6:5:194:VAL:HG22	2.20	0.42
30:V:56:PHE:CE1	30:V:61:LEU:HD11	2.54	0.42
21:M:57:VAL:HA	21:M:112:LEU:HD21	2.01	0.42
7:6:268:LYS:HE3	7:6:268:LYS:HB2	1.86	0.42
10:B:1027:A:N1	10:B:1126:A:C4	2.88	0.42
10:B:818:G:N2	10:B:1190:G:C6	2.88	0.42
10:B:1668:A:N3	10:B:1674:G:C8	2.88	0.42
10:B:19:A:C6	10:B:20:C:C4	3.08	0.42
10:B:2024:G:OP2	10:B:2034:U:H4'	2.20	0.42
10:B:2243:U:C6	10:B:2244:U:H5	2.38	0.42
10:B:2524:G:N2	10:B:2525:G:C4	2.88	0.42
10:B:2074:U:H1'	10:B:2598:A:N3	2.34	0.42
10:B:2618:G:C6	10:B:2619:C:C4	3.08	0.42
10:B:2648:G:C2	10:B:2649:C:C2	3.07	0.42
10:B:2683:C:C4	10:B:2684:U:C5	3.08	0.42
10:B:2837:A:C6	10:B:2882:A:N1	2.87	0.42
10:B:38:A:C6	10:B:442:G:C6	3.08	0.42
10:B:426:C:C2	10:B:427:U:C5	3.07	0.42
10:B:28:A:C5	10:B:513:A:C8	3.08	0.42
10:B:603:A:C5	10:B:655:A:N3	2.87	0.42
10:B:797:G:N1	10:B:798:G:C5	2.88	0.42
10:B:822:G:C6	10:B:823:C:C4	3.07	0.42
10:B:911:A:C5	21:M:9:PHE:CE2	3.08	0.42
10:B:843:G:N1	10:B:936:A:C6	2.88	0.42
18:J:110:PRO:HB2	18:J:111:LYS:NZ	2.32	0.42
10:B:2327:A:H61	10:B:2387:U:H3	1.66	0.42
8:7:56:ARG:NH1	10:B:1084:A:C8	2.86	0.42
17:I:125:THR:O	17:I:128:ILE:HB	2.19	0.42
10:B:111:A:H2'	10:B:112:U:C6	2.55	0.42
10:B:1764:C:N4	10:B:1765:U:O4	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:723:C:C4	10:B:724:U:C4	3.08	0.42
10:B:94:A:H2'	10:B:95:A:C8	2.55	0.42
10:B:3:U:H2'	10:B:4:U:O4'	2.20	0.42
10:B:7:G:H2'	10:B:8:C:H6	1.85	0.42
10:B:892:A:H2'	10:B:893:C:O4'	2.19	0.42
10:B:882:G:N1	10:B:895:U:C2	2.88	0.42
10:B:2345:G:C5	10:B:2347:C:C5	3.08	0.42
10:B:2400:G:H2'	10:B:2401:U:C6	2.55	0.42
10:B:628:G:H2'	10:B:629:G:C8	2.55	0.42
20:L:128:THR:O	20:L:131:ALA:HB3	2.19	0.42
9:A:99:A:C6	9:A:100:G:C5	3.07	0.42
10:B:2659:G:C2	10:B:2663:G:C6	3.08	0.42
10:B:103:A:C6	10:B:104:A:C6	3.08	0.42
10:B:283:G:C6	10:B:284:U:C4	3.08	0.42
10:B:354:A:C5	10:B:355:U:C5	3.07	0.42
29:U:43:LYS:HE2	29:U:60:LYS:HZ1	1.80	0.42
28:T:54:GLU:OE2	28:T:90:GLY:HA3	2.19	0.42
10:B:2643:G:H2'	10:B:2644:G:C8	2.55	0.42
10:B:1292:G:C2	10:B:1293:C:C2	3.07	0.42
10:B:2103:C:C2	10:B:2186:G:N1	2.88	0.42
10:B:2740:A:C8	10:B:2741:A:N7	2.87	0.42
8:7:7:ASP:O	8:7:11:ILE:HG12	2.20	0.42
10:B:1439:A:C4	10:B:1553:A:C6	3.08	0.42
10:B:1050:A:C6	10:B:1051:G:C5	3.08	0.42
10:B:2056:G:C6	10:B:2577:A:N3	2.87	0.42
10:B:1937:A:C8	10:B:1939:U:C6	3.07	0.42
10:B:137:U:C4	10:B:138:U:C4	3.07	0.42
7:6:10:GLN:HA	7:6:40:GLU:O	2.20	0.42
4:3:35:LYS:HZ3	4:3:39:ARG:CZ	2.33	0.42
15:G:154:GLU:HG2	15:G:159:LYS:O	2.20	0.42
6:5:29:LEU:HD23	6:5:32:GLU:OE2	2.20	0.42
23:O:105:ALA:O	23:O:108:ASP:HB2	2.20	0.42
22:N:78:LYS:NZ	22:N:82:GLU:CD	2.71	0.42
7:6:110:ILE:HG12	7:6:229:PHE:CD2	2.53	0.42
24:P:22:GLY:N	24:P:46:VAL:HG23	2.33	0.42
10:B:496:G:C2'	10:B:497:A:H5'	2.49	0.42
10:B:2651:C:C2	10:B:2652:C:C5	3.08	0.42
29:U:84:PHE:CD1	29:U:93:ARG:HG2	2.55	0.42
7:6:87:ALA:O	7:6:90:ARG:HB2	2.20	0.42
7:6:205:TYR:HA	7:6:255:PHE:H	1.85	0.42
10:B:1031:G:H1	10:B:1123:C:N4	2.17	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1189:A:OP2	20:L:27:LEU:HD13	2.20	0.42
10:B:185:G:C2	10:B:186:G:C5	3.07	0.42
10:B:201:C:C4	10:B:202:U:O2	2.73	0.42
10:B:2244:U:HO2'	10:B:2245:U:P	2.41	0.42
10:B:2359:C:C2	10:B:2360:G:C8	3.08	0.42
10:B:2460:U:H2'	10:B:2461:A:C8	2.55	0.42
10:B:2461:A:C5	10:B:2462:C:C5	3.08	0.42
10:B:2674:G:N3	10:B:2675:A:C8	2.88	0.42
10:B:2813:A:C4	10:B:2814:A:C8	3.08	0.42
10:B:2892:G:H5'	10:B:2893:A:H5'	2.02	0.42
10:B:460:A:C2	10:B:470:A:C4	3.08	0.42
10:B:533:G:H3'	10:B:534:U:C6	2.54	0.42
10:B:689:A:N1	10:B:690:G:C5	2.87	0.42
10:B:854:C:N3	10:B:924:G:C6	2.88	0.42
10:B:958:U:O2'	10:B:959:A:P	2.78	0.42
10:B:826:U:HO2'	20:L:53:GLY:H	1.54	0.42
10:B:2232:C:C4	10:B:2233:U:C4	3.07	0.42
10:B:2128:G:N2	10:B:2174:C:O2'	2.44	0.42
10:B:1858:A:C4	10:B:1885:A:C8	3.08	0.42
10:B:1588:G:C2	10:B:1589:U:C2	3.08	0.42
10:B:70:G:C5'	10:B:75:G:H1	2.32	0.42
10:B:1799:G:OP1	11:C:257:ARG:HD3	2.18	0.42
10:B:7:G:C6	10:B:8:C:C4	3.08	0.42
9:A:106:G:H3'	9:A:107:G:H8	1.84	0.42
9:A:20:G:N2	9:A:63:C:N3	2.64	0.42
10:B:2661:G:C2	10:B:2662:A:H1'	2.54	0.42
10:B:83:A:C2	10:B:100:U:H4'	2.55	0.42
10:B:1465:G:N2	10:B:1466:U:H1'	2.34	0.42
10:B:733:G:N7	10:B:761:A:N6	2.67	0.42
10:B:743:A:N3	10:B:744:U:C6	2.88	0.42
7:6:208:ALA:HA	7:6:285:ASP:OD1	2.19	0.42
10:B:2743:U:C4'	15:G:152:ARG:HH22	2.27	0.42
5:4:34:LYS:HB3	5:4:36:ARG:CZ	2.50	0.42
10:B:342:A:N6	10:B:343:C:N3	2.67	0.42
10:B:813:U:N3	10:B:1195:G:C2	2.88	0.42
30:V:77:VAL:HB	30:V:89:ILE:HG13	2.01	0.42
7:6:239:ILE:HG13	7:6:247:THR:HB	2.00	0.42
10:B:274:C:C4	10:B:275:C:C4	3.07	0.42
14:F:137:PHE:HB3	14:F:139:GLU:C	2.40	0.42
15:G:76:ILE:O	15:G:79:THR:HB	2.19	0.42
11:C:242:HIS:ND1	11:C:242:HIS:O	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
18:J:59:ALA:O	18:J:62:VAL:HG13	2.19	0.42
14:F:169:LEU:HG	14:F:172:PHE:CZ	2.55	0.42
34:Z:1:ALA:HB3	34:Z:38:GLU:OE2	2.20	0.42
10:B:1001:A:N7	10:B:1002:G:C4	2.88	0.42
10:B:1462:C:O2'	10:B:1463:C:H5'	2.19	0.42
10:B:1677:A:C6	10:B:1678:A:C6	3.08	0.42
10:B:1707:G:C5	10:B:1756:G:C6	3.07	0.42
10:B:237:C:H2'	10:B:238:C:C6	2.50	0.42
10:B:267:C:H42	10:B:268:C:N4	2.18	0.42
10:B:2846:G:H2'	10:B:2847:U:C6	2.54	0.42
10:B:2858:C:H2'	10:B:2859:G:H5'	2.01	0.42
10:B:32:C:H2'	10:B:33:C:C6	2.54	0.42
10:B:407:G:C6	10:B:421:C:N3	2.88	0.42
10:B:556:A:C6	10:B:557:C:H1'	2.55	0.42
10:B:779:U:H3'	10:B:780:G:H8	1.84	0.42
10:B:855:G:C2	10:B:856:G:C8	3.08	0.42
10:B:251:A:H4'	20:L:47:ARG:HD3	2.02	0.42
10:B:2717:C:C3'	24:P:98:TYR:HH	2.25	0.42
27:S:28:LYS:O	27:S:32:ALA:HB2	2.20	0.42
6:5:100:LEU:HD13	6:5:111:PHE:CG	2.54	0.42
10:B:1082:U:H2'	10:B:1083:U:O4'	2.20	0.42
17:I:92:PRO:HB3	17:I:135:MET:C	2.40	0.42
10:B:1077:A:C5'	17:I:94:LYS:NZ	2.80	0.42
10:B:1427:A:C4	10:B:1428:C:N4	2.87	0.42
10:B:1773:A:C2	10:B:1829:A:C4	3.07	0.42
10:B:76:C:N3	10:B:110:G:N1	2.49	0.42
11:C:249:VAL:HG13	11:C:254:LYS:HZ3	1.85	0.42
11:C:62:ARG:HG3	11:C:84:PRO:HD2	2.02	0.42
10:B:897:C:C4	10:B:898:C:C2	3.07	0.42
10:B:2403:C:C4	10:B:2415:G:N1	2.86	0.42
9:A:20:G:C2	9:A:64:G:C2	3.08	0.42
9:A:27:C:H2'	9:A:28:C:O4'	2.20	0.42
9:A:57:A:C6	9:A:58:A:C5	3.07	0.42
7:6:48:SER:O	7:6:50:LYS:HG3	2.20	0.42
10:B:863:A:C6	10:B:864:G:C6	3.08	0.42
10:B:862:G:C4	10:B:863:A:C8	3.08	0.42
10:B:287:G:C2	10:B:354:A:C4	3.08	0.42
10:B:82:U:H5''	10:B:83:A:OP2	2.20	0.42
10:B:85:G:N2	10:B:86:G:H1'	2.35	0.42
10:B:1277:G:H2'	10:B:1278:C:H6	1.85	0.42
10:B:1282:U:H2'	10:B:1283:G:O4'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1543:G:O2'	10:B:1544:A:H8	2.02	0.42
10:B:701:G:O6	10:B:731:C:N4	2.53	0.42
10:B:742:A:C4	10:B:743:A:C8	3.08	0.42
10:B:756:A:H2'	10:B:757:G:H8	1.85	0.42
10:B:2228:G:H2'	10:B:2229:U:C6	2.55	0.42
10:B:134:G:N3	10:B:134:G:H2'	2.35	0.42
33:Y:7:ARG:O	33:Y:9:LYS:HG3	2.20	0.42
10:B:408:G:C2	10:B:409:G:C4	3.08	0.42
10:B:1435:G:C4	10:B:1436:G:C8	3.07	0.42
8:7:35:VAL:O	8:7:39:THR:N	2.47	0.42
10:B:1203:U:C4	10:B:1204:A:N1	2.88	0.42
10:B:2711:A:C8	10:B:2714:G:O4'	2.73	0.42
4:3:51:LYS:HG2	4:3:54:LEU:HB2	2.01	0.42
20:L:102:GLY:N	20:L:105:ILE:HD12	2.33	0.42
8:7:42:ARG:HD3	8:7:42:ARG:HA	1.79	0.42
24:P:30:TRP:CZ3	24:P:37:LYS:HE3	2.55	0.42
30:V:21:ARG:HH21	30:V:87:GLN:C	2.23	0.42
12:D:2:ILE:O	12:D:205:PRO:HD3	2.18	0.42
11:C:176:ARG:NH1	11:C:176:ARG:O	2.45	0.42
16:H:67:ALA:C	16:H:68:ARG:HG2	2.40	0.42
7:6:24:MET:HE1	7:6:257:ARG:HH12	1.83	0.42
10:B:1022:G:C2	10:B:1140:C:C4	3.08	0.42
10:B:565:C:H5'	10:B:1253:A:H61	1.85	0.42
10:B:1455:G:C2	10:B:1456:G:C4	3.08	0.42
10:B:1463:C:H2'	10:B:1464:G:C8	2.54	0.42
10:B:197:A:O5'	10:B:197:A:H8	2.03	0.42
10:B:579:G:O4'	10:B:2017:U:N3	2.53	0.42
10:B:2026:U:H2'	10:B:2027:G:C8	2.54	0.42
10:B:2027:G:H2'	10:B:2028:U:O4'	2.19	0.42
10:B:2047:C:C2	10:B:2048:G:C8	3.07	0.42
10:B:216:A:N7	10:B:432:A:C5	2.87	0.42
10:B:2242:G:N7	10:B:2243:U:C2	2.88	0.42
10:B:2679:A:C6	10:B:2729:G:O6	2.73	0.42
10:B:2688:G:N2	10:B:2722:G:O6	2.53	0.42
10:B:2693:G:O2'	10:B:2694:G:H5'	2.20	0.42
10:B:2704:C:C2	10:B:2705:A:N1	2.88	0.42
10:B:2836:U:C2	10:B:2837:A:C8	3.07	0.42
10:B:2849:U:OP2	24:P:92:ARG:NH1	2.53	0.42
10:B:36:G:H2'	10:B:36:G:N3	2.34	0.42
10:B:404:A:C4	10:B:406:G:N1	2.88	0.42
10:B:406:G:H2'	10:B:407:G:O4'	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:447:A:H2'	10:B:473:G:O6	2.20	0.42
10:B:569:U:H5'	10:B:821:A:C2	2.53	0.42
10:B:608:A:C4	10:B:621:A:C6	3.07	0.42
10:B:238:C:H1'	10:B:609:A:H1'	2.01	0.42
10:B:834:G:C6	10:B:835:C:C4	3.08	0.42
10:B:856:G:P	31:W:23:LYS:HZ3	2.43	0.42
10:B:856:G:C2	10:B:857:G:C5	3.07	0.42
10:B:949:G:C5	10:B:969:G:N1	2.88	0.42
10:B:973:A:O4'	10:B:1188:U:C2	2.72	0.42
25:Q:96:ASP:OD2	26:R:13:ARG:NH2	2.53	0.42
31:W:24:ARG:H	31:W:66:VAL:HG23	1.84	0.42
32:X:18:SER:O	32:X:21:LEU:N	2.48	0.42
10:B:1063:G:C6	10:B:1064:C:C2	3.08	0.42
10:B:1079:C:O2'	17:I:133:ARG:HD3	2.19	0.42
10:B:1099:G:C8	17:I:4:VAL:N	2.88	0.42
10:B:1100:C:C5	17:I:2:LYS:HG3	2.55	0.42
10:B:122:G:OP1	10:B:149:A:H4'	2.20	0.42
10:B:1316:U:H2'	10:B:1317:G:C8	2.54	0.42
10:B:1412:U:C2	10:B:1591:A:C2	3.07	0.42
10:B:160:A:N6	10:B:167:A:H1'	2.35	0.42
10:B:1799:G:N9	11:C:175:LEU:HD13	2.35	0.42
10:B:769:U:C2	10:B:770:G:C8	3.07	0.42
11:C:11:GLY:HA3	11:C:206:LYS:HB3	2.02	0.42
7:6:332:ASP:CG	7:6:338:ASN:HA	2.39	0.42
10:B:2895:G:N2	10:B:2896:C:C2	2.88	0.42
10:B:874:G:N1	10:B:904:G:C5	2.88	0.42
10:B:401:A:C2	10:B:402:A:C4	3.07	0.42
10:B:2291:U:C2	10:B:2292:U:C4	3.08	0.42
10:B:1722:A:C5	10:B:1739:A:C5	3.07	0.42
10:B:319:G:C4	10:B:320:A:C8	3.08	0.42
10:B:281:C:C2	10:B:359:G:N2	2.82	0.42
10:B:309:A:C5	10:B:330:A:C6	3.08	0.42
10:B:315:G:C2	10:B:316:C:C2	3.08	0.42
10:B:1282:U:C4	10:B:1283:G:C5	3.07	0.42
10:B:1293:C:C4	10:B:1294:U:C4	3.08	0.42
9:A:37:C:O2	9:A:48:U:O2'	2.20	0.42
14:F:101:ARG:O	14:F:105:ILE:HG12	2.20	0.42
7:6:203:VAL:HG23	7:6:282:HIS:HD1	1.84	0.42
10:B:1498:C:C2	10:B:1499:C:C6	3.08	0.42
10:B:1840:G:C2	10:B:1841:U:C2	3.08	0.42
10:B:1434:A:N7	10:B:1435:G:C5	2.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1200:C:N4	10:B:1245:G:H1	2.16	0.42
10:B:138:U:H2'	10:B:140:C:N3	2.35	0.42
10:B:2735:G:C2	10:B:2736:A:C4	3.08	0.42
22:N:83:LEU:HD21	22:N:86:ARG:CZ	2.50	0.42
12:D:172:VAL:HG21	12:D:175:LEU:HD11	2.02	0.42
11:C:77:VAL:HA	11:C:92:LEU:O	2.20	0.42
26:R:32:THR:HA	26:R:61:ALA:O	2.20	0.42
25:Q:86:SER:C	25:Q:88:GLU:N	2.73	0.42
23:O:75:GLY:HA2	23:O:106:LEU:HG	2.02	0.42
6:5:78:PHE:CD2	6:5:138:PRO:HG3	2.55	0.42
26:R:22:LEU:HD11	26:R:25:LEU:HD11	2.02	0.42
21:M:49:ALA:HB2	21:M:123:LYS:HB2	2.02	0.42
13:E:61:ARG:HD3	13:E:61:ARG:HA	1.65	0.42
7:6:23:ASP:O	7:6:24:MET:CG	2.68	0.42
3:2:34:ARG:NH1	10:B:466:A:P	2.93	0.42
10:B:1158:C:H2'	10:B:1159:U:H6	1.85	0.42
10:B:1178:C:C4	10:B:1179:G:N7	2.88	0.42
10:B:1213:A:C4	10:B:1214:A:C8	3.08	0.42
10:B:1227:G:H2'	10:B:1228:G:H8	1.85	0.42
10:B:1619:G:C2	10:B:1620:G:C4	3.08	0.42
10:B:218:A:N6	10:B:219:A:C6	2.82	0.42
10:B:2508:G:C4	10:B:2509:G:C8	3.07	0.42
10:B:249:C:O2'	10:B:250:G:OP2	2.37	0.42
10:B:2535:G:C4	10:B:2536:G:C8	3.07	0.42
10:B:2570:G:H2'	10:B:2571:U:O4'	2.19	0.42
10:B:2043:C:N4	10:B:2777:G:C6	2.88	0.42
10:B:27:G:O2'	10:B:513:A:N6	2.53	0.42
10:B:2818:U:O5'	10:B:2837:A:O2'	2.32	0.42
10:B:2867:G:N1	24:P:20:ARG:NH2	2.67	0.42
10:B:43:G:C6	10:B:44:A:C6	3.08	0.42
10:B:463:G:N1	10:B:467:G:C5	2.88	0.42
10:B:623:C:C4	10:B:624:C:N4	2.88	0.42
10:B:775:G:N3	10:B:777:G:N1	2.68	0.42
10:B:808:G:C5	10:B:809:G:N7	2.88	0.42
10:B:845:A:H1'	10:B:847:U:H5'	2.02	0.42
10:B:936:A:C5	10:B:937:C:C4	3.08	0.42
10:B:953:G:C4	10:B:954:G:C8	3.08	0.42
6:5:47:ASN:N	6:5:170:ILE:HG13	2.35	0.42
10:B:2332:C:H1'	10:B:2336:A:C8	2.55	0.42
17:I:120:ASP:O	17:I:124:MET:HG3	2.20	0.42
10:B:124:G:H5'	10:B:1376:C:O2'	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:165:A:C6	10:B:166:U:C4	3.08	0.42
10:B:1975:G:C8	10:B:1976:U:H5	2.38	0.42
10:B:94:A:C6	10:B:95:A:C5	3.08	0.42
10:B:2899:A:C4	10:B:2900:A:C8	3.07	0.42
10:B:7:G:C2	10:B:8:C:C2	3.08	0.42
10:B:7:G:H1	10:B:2896:C:H42	1.68	0.42
10:B:882:G:H22	10:B:895:U:H1'	1.85	0.42
10:B:1040:A:C4	10:B:1041:G:C8	3.08	0.42
10:B:2346:A:C6	10:B:2383:G:C2	3.08	0.42
4:3:22:LYS:CE	10:B:650:C:H4'	2.49	0.42
10:B:650:C:C4	10:B:651:G:C8	3.08	0.42
9:A:21:G:C6	9:A:22:U:C4	3.08	0.42
23:O:40:ILE:HG22	23:O:47:VAL:HA	2.02	0.42
10:B:872:U:H2'	10:B:873:C:C6	2.55	0.42
10:B:2654:A:C4	10:B:2656:U:N3	2.88	0.42
15:G:106:LEU:HD22	15:G:151:ARG:HD3	2.02	0.42
10:B:299:A:C4	10:B:322:A:C6	3.08	0.42
10:B:105:C:H2'	10:B:106:C:H6	1.84	0.42
10:B:97:C:C2	10:B:98:G:C8	3.08	0.42
10:B:1759:A:C6	10:B:1760:C:N3	2.88	0.42
10:B:699:A:C8	10:B:700:G:C8	3.08	0.42
10:B:699:A:C4	10:B:700:G:C8	3.08	0.42
27:S:88:ARG:HG3	27:S:94:ASP:CG	2.40	0.42
10:B:2794:C:C2	10:B:2803:G:C2	3.08	0.42
10:B:1548:A:N3	10:B:1549:A:C8	2.88	0.42
10:B:2182:U:C2	10:B:2183:A:N7	2.88	0.42
15:G:148:ARG:HD3	15:G:163:TYR:N	2.35	0.42
10:B:2747:G:C4	10:B:2756:U:O4	2.73	0.42
10:B:1383:A:C8	10:B:1384:A:C4	3.08	0.42
10:B:1842:G:C8	10:B:1843:C:C5	3.08	0.42
6:5:44:VAL:HG22	6:5:214:ILE:HB	2.02	0.42
10:B:1333:G:H2'	10:B:1334:G:C8	2.46	0.42
6:5:163:TYR:CE1	6:5:196:LEU:HD21	2.55	0.42
27:S:52:GLU:O	27:S:55:ILE:HB	2.20	0.42
10:B:1303:G:C6	10:B:1304:A:C6	3.08	0.42
10:B:1693:U:OP1	10:B:1693:U:H6	2.03	0.42
21:M:47:GLU:HG2	21:M:51:ARG:HG2	2.01	0.42
31:W:71:LYS:O	31:W:75:ASN:HA	2.19	0.42
10:B:393:C:C2	10:B:394:C:C5	3.08	0.42
2:1:13:SER:HB2	2:1:46:VAL:HG22	2.02	0.42
32:X:74:GLY:O	32:X:77:TYR:OH	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1140:C:O5'	18:J:68:LYS:NZ	2.34	0.41
10:B:1142:A:C5	10:B:1144:A:C5	3.08	0.41
10:B:1182:G:H2'	10:B:1183:U:O4'	2.20	0.41
10:B:1186:G:O6	10:B:1187:G:C2	2.73	0.41
10:B:973:A:H5'	10:B:1188:U:O2	2.20	0.41
10:B:582:A:N1	10:B:1259:G:C2	2.88	0.41
10:B:46:G:N1	10:B:180:G:C2	2.88	0.41
10:B:2054:A:N6	10:B:2616:C:N4	2.68	0.41
7:6:146:GLN:HB3	10:B:2252:G:O6	2.20	0.41
10:B:2277:G:C6	10:B:2278:A:C8	3.08	0.41
10:B:2282:G:N3	10:B:2390:U:N3	2.68	0.41
10:B:24:G:C2	10:B:25:U:O2	2.73	0.41
10:B:2630:G:H1'	10:B:2894:G:C2	2.54	0.41
10:B:2764:A:C5	10:B:2766:A:N6	2.88	0.41
10:B:2817:U:OP1	22:N:42:LYS:NZ	2.30	0.41
10:B:2817:U:O2'	10:B:2837:A:H1'	2.19	0.41
10:B:2870:C:N3	10:B:2871:U:N3	2.68	0.41
10:B:2893:A:H4'	10:B:2894:G:O5'	2.20	0.41
10:B:366:C:H6	10:B:366:C:O5'	2.02	0.41
10:B:465:G:N2	10:B:684:G:H1'	2.34	0.41
10:B:610:C:H42	10:B:619:G:N2	2.18	0.41
10:B:664:G:C4	10:B:665:U:C5	3.08	0.41
10:B:799:G:C6	10:B:800:A:C6	3.08	0.41
10:B:802:A:C6	10:B:803:U:C4	3.08	0.41
10:B:838:C:H42	10:B:940:G:H1	1.67	0.41
10:B:950:G:C5	10:B:951:C:C4	3.08	0.41
12:D:151:THR:CG2	12:D:152:PRO:CD	2.95	0.41
10:B:1139:G:P	18:J:72:LYS:NZ	2.93	0.41
19:K:17:ARG:HG2	19:K:18:VAL:N	2.35	0.41
10:B:911:A:C2	21:M:9:PHE:CE1	3.08	0.41
10:B:2865:U:OP2	24:P:113:LEU:HD23	2.20	0.41
10:B:1223:G:P	26:R:71:LYS:NZ	2.93	0.41
10:B:1849:G:C2	10:B:1850:G:C8	3.07	0.41
10:B:1889:A:C2	10:B:1890:A:C4	3.08	0.41
10:B:1892:C:H5''	10:B:1893:C:OP2	2.20	0.41
10:B:2092:U:H5	10:B:2226:C:OP2	2.03	0.41
6:5:113:VAL:HA	6:5:162:ARG:NH2	2.28	0.41
6:5:134:ARG:HH21	6:5:136:LEU:CD2	2.27	0.41
6:5:39:VAL:HG21	10:B:2125:G:OP1	2.19	0.41
7:6:408:ILE:O	7:6:411:TRP:N	2.51	0.41
10:B:2335:A:C8	10:B:2337:G:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1084:A:H8	10:B:1105:U:O2'	2.02	0.41
10:B:1341:G:OP2	10:B:1397:U:N3	2.53	0.41
10:B:1374:G:N2	10:B:1375:U:C2	2.88	0.41
10:B:1378:A:C2	10:B:1380:G:C5	3.08	0.41
10:B:1689:A:C6	10:B:1700:A:C2	3.08	0.41
10:B:1779:U:H4'	10:B:1780:A:OP2	2.20	0.41
10:B:1797:G:C2	10:B:1798:U:C2	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:C5	3.08	0.41
10:B:1820:U:H5''	10:B:1821:A:C8	2.55	0.41
10:B:2217:G:C4	10:B:2218:G:C8	3.08	0.41
10:B:59:U:OP2	10:B:59:U:H6	2.03	0.41
11:C:245:THR:N	11:C:249:VAL:O	2.29	0.41
10:B:61:C:P	33:Y:44:LYS:HZ2	2.39	0.41
9:A:28:C:N3	9:A:29:A:C5	2.89	0.41
19:K:87:ASN:OD1	19:K:90:SER:HB2	2.20	0.41
9:A:96:G:C2	9:A:97:C:C2	3.08	0.41
10:B:863:A:C2	10:B:864:G:C4	3.08	0.41
10:B:873:C:H1'	21:M:28:PHE:CE1	2.54	0.41
34:Z:19:HIS:O	34:Z:23:LEU:HG	2.19	0.41
10:B:301:G:N2	10:B:316:C:O2	2.53	0.41
10:B:2636:C:O2'	12:D:45:TYR:OH	2.14	0.41
9:A:49:C:C5'	23:O:68:LYS:HD2	2.49	0.41
10:B:1442:U:H2'	10:B:1443:U:C6	2.55	0.41
10:B:1486:U:H3	10:B:1503:A:H61	1.66	0.41
10:B:2186:G:N1	10:B:2187:U:H1'	2.34	0.41
10:B:2762:C:N4	10:B:2763:G:C6	2.88	0.41
10:B:2753:A:C5	10:B:2754:U:C2	3.07	0.41
15:G:54:ARG:NH2	15:G:57:TYR:OH	2.32	0.41
18:J:103:ILE:HA	18:J:106:LYS:HB3	2.02	0.41
8:7:7:ASP:HB3	10:B:1046:A:C8	2.55	0.41
10:B:1559:U:HO2'	10:B:1560:G:P	2.43	0.41
21:M:41:LEU:HA	21:M:45:GLN:NE2	2.35	0.41
16:H:4:ILE:HA	16:H:17:ASP:O	2.20	0.41
32:X:26:ARG:NH1	32:X:28:PHE:CZ	2.88	0.41
26:R:57:GLY:O	26:R:103:ALA:HA	2.20	0.41
10:B:1562:U:C2	10:B:1563:U:C6	3.08	0.41
28:T:6:ARG:O	28:T:9:LYS:HE3	2.19	0.41
10:B:1024:G:H3'	10:B:1025:G:H5''	2.01	0.41
10:B:1034:G:C5	10:B:1122:G:C2	3.09	0.41
10:B:1137:G:H2'	10:B:1138:G:C8	2.55	0.41
10:B:1210:G:H3'	10:B:1211:C:C5	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:585:G:N2	10:B:1256:G:C5	2.88	0.41
10:B:1266:G:N7	27:S:15:GLN:HG3	2.35	0.41
10:B:1452:G:C2	10:B:2702:G:C8	3.08	0.41
10:B:1675:C:C2	10:B:1676:A:C8	3.08	0.41
10:B:1649:G:C2	10:B:2009:A:C5	3.08	0.41
10:B:2010:G:C2	10:B:2011:U:C2	3.08	0.41
10:B:2070:A:C4	10:B:2071:A:C8	3.08	0.41
10:B:2074:U:H2'	10:B:2075:U:C6	2.55	0.41
10:B:2261:C:H2'	10:B:2262:U:H6	1.85	0.41
10:B:2357:G:N2	10:B:2361:G:N7	2.68	0.41
10:B:2521:C:H2'	10:B:2522:U:C6	2.54	0.41
10:B:2766:A:N3	10:B:2766:A:H2'	2.34	0.41
10:B:268:C:N4	10:B:424:G:H1	2.18	0.41
10:B:424:G:C2	10:B:425:G:C5	3.09	0.41
10:B:425:G:N2	10:B:426:C:C2	2.88	0.41
10:B:266:G:C2	10:B:427:U:C2	3.09	0.41
10:B:514:A:C4	10:B:515:A:C8	3.08	0.41
10:B:604:G:C5	10:B:625:G:N1	2.88	0.41
10:B:827:U:H2'	10:B:827:U:H6	1.74	0.41
10:B:868:U:C4	10:B:869:G:N7	2.88	0.41
10:B:915:C:H2'	10:B:916:G:O4'	2.20	0.41
21:M:38:ARG:O	21:M:126:ILE:HG21	2.20	0.41
31:W:60:ALA:O	31:W:61:LYS:HD2	2.19	0.41
10:B:1851:U:C4	10:B:1852:U:C4	3.08	0.41
6:5:75:VAL:HA	6:5:113:VAL:HG23	2.02	0.41
10:B:2106:U:N3	10:B:2107:G:N7	2.68	0.41
10:B:1860:G:C4	10:B:1861:G:C8	3.08	0.41
10:B:1861:G:C2	10:B:1862:G:C4	3.09	0.41
10:B:2329:U:H2'	10:B:2330:G:C8	2.55	0.41
10:B:1081:U:H2'	10:B:1082:U:C6	2.53	0.41
10:B:109:C:H2'	10:B:110:G:O4'	2.19	0.41
10:B:1389:G:H2'	10:B:1390:U:O4'	2.20	0.41
10:B:1425:G:N2	10:B:1574:C:C2	2.89	0.41
10:B:1587:G:C4	10:B:1588:G:C8	3.08	0.41
10:B:695:G:C5	10:B:768:G:C6	3.08	0.41
10:B:1805:A:H4'	11:C:247:TRP:CE2	2.55	0.41
10:B:2293:G:H2'	10:B:2294:G:C8	2.55	0.41
10:B:2397:G:C2	10:B:2398:U:C2	3.08	0.41
10:B:2399:G:C2	10:B:2400:G:C4	3.08	0.41
4:3:18:LYS:HB3	10:B:651:G:OP1	2.20	0.41
10:B:1739:A:C6	10:B:1740:G:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:98:G:H1	30:V:14:LYS:HB2	1.84	0.41
10:B:2661:G:N1	10:B:2662:A:N3	2.69	0.41
10:B:323:C:C2	10:B:333:G:H1'	2.55	0.41
29:U:10:VAL:HG21	29:U:35:VAL:HG21	2.03	0.41
29:U:16:LYS:O	29:U:17:ASP:HB2	2.21	0.41
29:U:45:GLN:O	29:U:55:GLY:HA3	2.20	0.41
10:B:2792:A:N1	10:B:2793:C:C2	2.89	0.41
10:B:2802:G:C6	10:B:2803:G:C5	3.08	0.41
10:B:2189:U:H2'	10:B:2190:G:H8	1.81	0.41
15:G:44:HIS:HA	15:G:49:LEU:HD23	2.02	0.41
10:B:2759:G:H21	15:G:138:GLN:NE2	2.17	0.41
10:B:1846:G:C2	10:B:1895:C:C2	3.08	0.41
10:B:1932:A:C5	10:B:1933:G:C5	3.08	0.41
10:B:1435:G:N1	10:B:1436:G:C5	2.87	0.41
10:B:342:A:N6	10:B:343:C:C4	2.88	0.41
6:5:209:ILE:O	6:5:229:LEU:HD12	2.20	0.41
10:B:1681:G:O2'	10:B:1682:G:H5'	2.20	0.41
23:O:76:LYS:CD	23:O:109:ALA:HB1	2.50	0.41
7:6:213:LEU:O	7:6:217:ILE:HG22	2.20	0.41
10:B:1197:G:H2'	10:B:1198:U:H6	1.84	0.41
10:B:1234:U:C4	10:B:1235:G:C5	3.08	0.41
10:B:585:G:C5	10:B:1251:C:N3	2.89	0.41
10:B:2070:A:N3	10:B:2071:A:C8	2.88	0.41
10:B:270:A:H1'	10:B:370:G:C2	2.55	0.41
10:B:465:G:N7	10:B:466:A:C5	2.89	0.41
10:B:539:G:C5	10:B:540:C:C5	3.08	0.41
10:B:593:U:N3	10:B:594:U:C4	2.87	0.41
10:B:687:C:C5	10:B:788:A:C8	3.08	0.41
10:B:979:A:N1	10:B:985:C:N3	2.68	0.41
10:B:1130:U:C2	12:D:152:PRO:HB3	2.31	0.41
19:K:6:MET:SD	19:K:17:ARG:CZ	3.09	0.41
10:B:2360:G:H1'	20:L:60:ARG:NH1	2.35	0.41
22:N:44:LEU:HA	22:N:44:LEU:HD12	1.84	0.41
25:Q:63:ARG:HH22	25:Q:98:ALA:HB3	1.84	0.41
25:Q:90:ASP:HA	25:Q:91:ARG:NH2	2.35	0.41
10:B:2231:U:C2	10:B:2232:C:C5	3.09	0.41
10:B:1856:U:H3	10:B:1887:C:N4	2.18	0.41
10:B:1857:G:N1	10:B:1884:G:C5	2.88	0.41
10:B:2297:A:C8	10:B:2320:U:N3	2.88	0.41
10:B:2329:U:N3	10:B:2330:G:N7	2.69	0.41
10:B:2330:G:C4	10:B:2331:G:H1'	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:122:ASP:OD1	14:F:125:GLY:N	2.53	0.41
14:F:160:LYS:HE3	14:F:164:GLU:OE2	2.19	0.41
8:7:37:LYS:HD2	8:7:54:VAL:HG21	2.02	0.41
3:2:14:ARG:HH22	10:B:770:G:C3'	2.30	0.41
10:B:1338:G:C2	10:B:1339:G:C8	3.08	0.41
10:B:1799:G:C6	10:B:1819:A:N7	2.88	0.41
10:B:1811:G:C2	10:B:1812:U:C6	3.09	0.41
10:B:2205:A:C6	10:B:2206:C:C4	3.08	0.41
10:B:2209:G:C2	10:B:2216:G:C2	3.08	0.41
10:B:1783:A:C2	10:B:2587:A:C6	3.08	0.41
10:B:695:G:C2	10:B:696:G:C8	3.08	0.41
10:B:709:U:C4	10:B:710:U:O4	2.73	0.41
10:B:722:A:H2'	10:B:723:C:C6	2.54	0.41
11:C:249:VAL:HG12	11:C:250:GLN:N	2.35	0.41
10:B:880:G:H2'	10:B:881:G:N7	2.35	0.41
10:B:1115:G:HO2'	10:B:1116:G:P	2.41	0.41
4:3:46:LYS:NZ	10:B:631:A:OP2	2.53	0.41
23:O:36:TYR:HA	23:O:52:SER:HB3	2.03	0.41
10:B:1739:A:C4	10:B:1740:G:C8	3.08	0.41
10:B:2667:C:H1'	15:G:108:PHE:CD1	2.55	0.41
10:B:340:A:C2	10:B:341:C:H1'	2.56	0.41
10:B:2637:U:C4	10:B:2638:G:C2	3.09	0.41
9:A:32:U:C4	9:A:51:G:C2	3.08	0.41
10:B:737:C:N3	10:B:759:G:N2	2.67	0.41
7:6:328:ARG:N	7:6:341:TRP:CD1	2.85	0.41
35:6:527:GNP:H2'	35:6:527:GNP:H8	1.84	0.41
10:B:2099:U:H1'	10:B:2191:A:C2	2.55	0.41
10:B:2742:G:N2	10:B:2743:U:C2	2.88	0.41
3:2:12:ARG:O	3:2:15:SER:N	2.54	0.41
1:0:31:LYS:HE3	10:B:2885:G:N2	2.36	0.41
10:B:1904:G:C6	10:B:1905:C:C4	3.08	0.41
10:B:1627:G:C6	10:B:1640:A:C5	3.09	0.41
10:B:1631:G:O5'	10:B:1631:G:H8	2.03	0.41
10:B:1045:C:C4	10:B:1047:G:C2	3.07	0.41
10:B:1311:G:H1'	10:B:1313:U:O4	2.20	0.41
10:B:29:U:C2	10:B:30:G:C8	3.07	0.41
10:B:1478:G:C6	10:B:1514:G:N3	2.88	0.41
26:R:37:GLU:HB2	26:R:53:PHE:CD1	2.55	0.41
10:B:2556:C:H2'	10:B:2557:G:O4'	2.20	0.41
6:5:26:ALA:HB1	6:5:224:VAL:HG12	2.02	0.41
12:D:180:VAL:HA	12:D:187:LEU:HD12	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:N:51:LEU:O	22:N:55:ALA:N	2.53	0.41
26:R:34:GLU:OE2	26:R:60:LYS:HG2	2.20	0.41
28:T:65:GLY:HA3	28:T:77:ARG:HG3	2.01	0.41
10:B:615:U:C2	13:E:35:TYR:CD1	3.08	0.41
18:J:91:GLU:HA	18:J:94:ALA:HB3	2.01	0.41
19:K:28:HIS:ND1	19:K:28:HIS:O	2.54	0.41
10:B:2666:C:H6	10:B:2666:C:H2'	1.69	0.41
4:3:2:LYS:HZ2	10:B:242:G:P	2.40	0.41
10:B:1215:G:N2	10:B:1216:G:C4	2.89	0.41
10:B:1262:A:H2'	10:B:1262:A:N3	2.35	0.41
10:B:1660:G:H1	10:B:2000:C:N4	2.16	0.41
10:B:2410:G:H2'	10:B:2411:A:C8	2.55	0.41
10:B:2509:G:N2	10:B:2510:C:C2	2.88	0.41
10:B:2509:G:N1	10:B:2580:U:O2	2.53	0.41
10:B:2583:G:C4	10:B:2584:U:C5	3.08	0.41
10:B:2684:U:N3	10:B:2685:G:C8	2.88	0.41
10:B:2728:U:OP1	19:K:69:ARG:HG3	2.20	0.41
10:B:2832:U:C2	10:B:2834:G:C2	3.08	0.41
10:B:2848:G:C5	10:B:2867:G:N1	2.88	0.41
10:B:2865:U:H2'	10:B:2866:U:C5	2.55	0.41
10:B:37:C:H5'	10:B:451:U:P	2.60	0.41
10:B:457:A:H8	10:B:457:A:OP1	2.04	0.41
10:B:464:U:C4	10:B:788:A:C5	3.08	0.41
10:B:546:U:H6	10:B:548:G:H22	1.65	0.41
10:B:552:U:N3	10:B:553:G:N7	2.69	0.41
10:B:577:G:P	10:B:2502:G:O2'	2.78	0.41
10:B:833:A:C6	10:B:834:G:O6	2.73	0.41
10:B:920:A:C5	10:B:921:C:C4	3.08	0.41
10:B:975:A:C2	10:B:990:A:C8	3.08	0.41
10:B:997:G:O2'	10:B:998:C:H5'	2.20	0.41
10:B:691:C:P	11:C:216:ARG:HH21	2.42	0.41
12:D:56:LYS:HD2	12:D:59:ARG:HH21	1.86	0.41
10:B:806:C:H5	20:L:41:ARG:HE	1.67	0.41
31:W:18:LYS:CG	31:W:19:ARG:H	2.32	0.41
10:B:1889:A:H2'	10:B:1890:A:O4'	2.21	0.41
11:C:132:ARG:NH1	16:H:121:VAL:HG12	2.35	0.41
10:B:2107:G:O2'	10:B:2108:A:O5'	2.37	0.41
10:B:2163:A:H5''	10:B:2164:C:OP2	2.20	0.41
16:H:27:ARG:NH2	32:X:59:ASP:HA	2.06	0.41
17:I:59:THR:O	17:I:65:SER:HB3	2.21	0.41
8:7:57:ASN:ND2	10:B:1106:G:OP1	2.48	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1106:G:C5	10:B:1107:G:C8	3.09	0.41
10:B:1423:G:C2	10:B:1424:G:C4	3.09	0.41
10:B:1429:G:C5	10:B:1568:G:C5	3.08	0.41
10:B:1786:A:C5	10:B:1938:A:C6	3.09	0.41
10:B:1420:A:C4	10:B:2211:A:C5	3.08	0.41
10:B:705:A:C2	10:B:727:A:H1'	2.55	0.41
30:V:66:ASP:CB	30:V:68:LYS:HZ3	2.33	0.41
10:B:2293:G:N1	10:B:2294:G:C5	2.89	0.41
10:B:2419:U:H2'	10:B:2420:C:C6	2.55	0.41
10:B:918:A:N3	10:B:918:A:H2'	2.36	0.41
10:B:490:C:O2'	10:B:491:G:OP2	2.29	0.41
10:B:329:G:N2	29:U:16:LYS:NZ	2.68	0.41
10:B:1277:G:C2	10:B:1278:C:C2	3.08	0.41
9:A:46:A:C5	9:A:47:C:C5	3.08	0.41
14:F:105:ILE:HB	14:F:111:ARG:NH2	2.29	0.41
23:O:66:GLY:O	23:O:102:ARG:HD3	2.20	0.41
10:B:1366:A:H2'	10:B:1367:A:H5'	2.01	0.41
15:G:49:LEU:HA	15:G:49:LEU:HD23	1.76	0.41
10:B:2056:G:N2	10:B:2057:G:C4	2.88	0.41
7:6:144:GLU:HB3	10:B:2602:A:H2	1.85	0.41
10:B:2592:G:N1	10:B:2603:G:C6	2.88	0.41
13:E:117:ARG:NH1	20:L:2:ARG:HG2	2.33	0.41
14:F:9:ASP:HA	14:F:13:LYS:HZ3	1.85	0.41
23:O:16:ARG:O	23:O:20:GLU:HG3	2.21	0.41
19:K:106:LEU:HD21	19:K:111:PHE:HD2	1.86	0.41
10:B:1949:G:C2	10:B:1950:G:C5	3.09	0.41
7:6:108:LEU:HD13	7:6:128:GLN:HA	2.02	0.41
10:B:888:C:HO2'	10:B:889:C:P	2.42	0.41
8:7:118:ILE:HB	8:7:119:PRO:HD3	2.02	0.41
32:X:14:GLY:O	32:X:26:ARG:N	2.54	0.41
16:H:80:ILE:HD11	16:H:102:ALA:N	2.34	0.41
10:B:1562:U:H2'	10:B:1563:U:C6	2.55	0.41
10:B:2595:G:C6	10:B:2599:G:O6	2.73	0.41
11:C:229:HIS:HE1	11:C:231:HIS:CD2	2.38	0.41
7:6:263:LEU:O	7:6:267:PHE:HB2	2.20	0.41
10:B:1022:G:C2	10:B:1141:U:C5	3.07	0.41
10:B:1180:U:H2'	10:B:1181:U:C6	2.55	0.41
10:B:1196:C:H1'	10:B:1226:A:C4	2.55	0.41
10:B:1258:U:H2'	10:B:1259:G:C8	2.56	0.41
10:B:1651:G:N1	10:B:1652:A:C6	2.88	0.41
10:B:1744:A:H2'	10:B:1744:A:N3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:217:A:C6	10:B:218:A:N3	2.89	0.41
10:B:2252:G:O2'	10:B:2253:G:P	2.79	0.41
10:B:2265:U:C5	10:B:2266:A:C5	3.08	0.41
10:B:2553:G:N3	10:B:2583:G:H1'	2.35	0.41
10:B:2617:U:H3'	10:B:2618:G:H8	1.85	0.41
10:B:2842:G:C2	10:B:2843:G:C4	3.08	0.41
10:B:452:G:H8	10:B:452:G:O5'	2.03	0.41
10:B:465:G:N7	10:B:466:A:N6	2.68	0.41
10:B:532:A:H8	10:B:2021:C:C4	2.38	0.41
10:B:775:G:C5'	10:B:777:G:H1'	2.50	0.41
10:B:855:G:O3'	31:W:23:LYS:NZ	2.52	0.41
10:B:821:A:O2'	10:B:946:C:H5"	2.21	0.41
10:B:1248:G:OP1	13:E:44:ARG:NH1	2.53	0.41
21:M:38:ARG:HG2	21:M:98:PRO:HD3	2.01	0.41
21:M:76:LYS:HZ3	21:M:87:GLY:N	2.19	0.41
22:N:41:ALA:O	22:N:44:LEU:N	2.54	0.41
10:B:190:A:P	32:X:25:LYS:NZ	2.91	0.41
6:5:7:ARG:HE	10:B:2174:C:P	2.43	0.41
10:B:2111:U:H4'	10:B:2115:G:O6	2.20	0.41
10:B:2148:G:H5"	10:B:2149:U:OP2	2.20	0.41
10:B:2304:G:C2	10:B:2313:C:N3	2.88	0.41
10:B:1107:G:H2'	10:B:1108:U:H6	1.84	0.41
10:B:1064:C:P	17:I:80:LYS:NZ	2.92	0.41
10:B:1378:A:C6	10:B:1380:G:N1	2.88	0.41
10:B:1412:U:C2	10:B:1413:A:C8	3.08	0.41
10:B:1422:G:C2	10:B:1423:G:C8	3.08	0.41
10:B:1368:G:N2	10:B:1809:A:N1	2.69	0.41
10:B:1817:G:C2	10:B:1818:U:C2	3.08	0.41
10:B:2216:G:N3	10:B:2217:G:C8	2.88	0.41
10:B:2218:G:N1	10:B:2219:U:C4	2.88	0.41
10:B:56:A:C5	10:B:57:C:C4	3.08	0.41
10:B:721:A:N6	10:B:722:A:N6	2.69	0.41
10:B:722:A:H2'	10:B:723:C:H6	1.85	0.41
7:6:332:ASP:N	7:6:338:ASN:OD1	2.35	0.41
10:B:882:G:N1	10:B:883:G:H1'	2.35	0.41
10:B:627:A:H8	10:B:627:A:P	2.44	0.41
7:6:194:LYS:CG	7:6:197:VAL:HG22	2.50	0.41
14:F:102:LEU:HD12	14:F:103:ILE:N	2.35	0.41
14:F:111:ARG:HH22	14:F:135:ILE:HG22	1.86	0.41
10:B:743:A:H2'	10:B:744:U:C6	2.47	0.41
7:6:319:ILE:HD12	7:6:341:TRP:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:F:56:LEU:HD12	14:F:64:PRO:HD3	2.02	0.41
14:F:56:LEU:HD12	14:F:64:PRO:N	2.35	0.41
10:B:2189:U:N3	10:B:2190:G:C5	2.89	0.41
10:B:2749:A:C5	10:B:2750:A:N7	2.88	0.41
19:K:72:ASP:OD1	19:K:74:SER:OG	2.38	0.41
10:B:1845:G:C2	10:B:1896:G:C4	3.09	0.41
10:B:1629:U:N3	10:B:1630:A:N7	2.68	0.41
10:B:1633:G:O2'	10:B:1634:A:H5'	2.20	0.41
10:B:1298:C:N3	10:B:1299:G:C2	2.89	0.41
19:K:64:THR:H	19:K:78:PHE:HD2	1.69	0.41
10:B:2309:A:C6	10:B:2310:C:N3	2.89	0.41
33:Y:11:VAL:HA	33:Y:63:ALA:CA	2.47	0.41
10:B:2452:C:N4	10:B:2453:A:N6	2.67	0.41
14:F:39:VAL:HG11	14:F:48:LEU:HB3	2.01	0.41
7:6:371:ARG:HG2	7:6:424:TYR:OH	2.19	0.41
7:6:371:ARG:HG2	7:6:424:TYR:CZ	2.55	0.41
17:I:18:ASN:ND2	17:I:38:CYS:SG	2.94	0.41
8:7:119:PRO:HB3	8:7:126:LEU:HD13	2.01	0.41
10:B:499:U:C5'	29:U:42:LYS:HD2	2.49	0.41
7:6:118:HIS:O	7:6:121:LYS:HB2	2.20	0.41
29:U:13:LEU:HB2	29:U:68:ASN:HD22	1.85	0.41
29:U:13:LEU:N	29:U:68:ASN:O	2.53	0.41
34:Z:43:ILE:O	34:Z:47:ILE:HG12	2.21	0.41
34:Z:50:VAL:O	34:Z:54:VAL:HG22	2.20	0.41
20:L:80:SER:HB3	20:L:114:GLY:HA3	2.02	0.41
23:O:51:ALA:HB3	23:O:78:VAL:CG1	2.50	0.41
14:F:137:PHE:HB3	14:F:139:GLU:HG3	2.02	0.41
7:6:395:GLU:HG2	7:6:400:VAL:HA	2.03	0.41
10:B:1618:A:OP1	10:B:1618:A:C8	2.74	0.41
10:B:1652:A:O2'	10:B:1653:G:P	2.79	0.41
10:B:2046:G:C2	10:B:2047:C:C6	3.08	0.41
10:B:213:A:C2	10:B:214:G:C5	3.08	0.41
10:B:2243:U:H2'	10:B:2244:U:H6	1.86	0.41
10:B:860:U:C2	10:B:2268:A:H5'	2.55	0.41
10:B:2435:A:N1	10:B:2436:G:C5	2.89	0.41
10:B:2816:G:C5	10:B:2817:U:H5	2.39	0.41
10:B:2834:G:H2'	10:B:2879:A:N6	2.32	0.41
10:B:35:G:C4	10:B:454:A:C2	3.09	0.41
10:B:542:C:C2	10:B:543:G:C8	3.08	0.41
10:B:617:G:C4	10:B:618:G:C8	3.09	0.41
10:B:799:G:C8	10:B:800:A:C8	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:806:C:C5	10:B:807:U:H5	2.39	0.41
10:B:957:C:N3	10:B:959:A:C4	2.88	0.41
10:B:966:G:H4'	10:B:2267:A:N6	2.36	0.41
19:K:21:ILE:HG13	19:K:39:LYS:CB	2.49	0.41
10:B:2867:G:OP2	24:P:113:LEU:HG	2.21	0.41
10:B:582:A:C3'	25:Q:10:ARG:HH22	2.31	0.41
6:5:2:ALA:HB1	10:B:2110:G:H8	1.85	0.41
10:B:2117:A:H2	10:B:2118:U:H2'	1.86	0.41
10:B:2120:G:C6	10:B:2178:C:C4	3.08	0.41
10:B:1754:A:H8	10:B:1754:A:OP1	2.03	0.41
10:B:1062:G:OP1	10:B:1070:A:H4'	2.20	0.41
10:B:1801:A:N6	11:C:261:ARG:HH22	2.19	0.41
10:B:1193:G:H2'	10:B:1194:A:H8	1.85	0.41
10:B:2415:G:H2'	10:B:2416:C:O4'	2.21	0.41
9:A:61:G:H2'	9:A:62:C:O4'	2.20	0.41
23:O:27:VAL:HG23	23:O:38:GLN:HB2	2.03	0.41
10:B:2662:A:O5'	10:B:2662:A:H8	2.04	0.41
10:B:288:U:H3	10:B:352:A:N6	2.18	0.41
10:B:106:C:H41	33:Y:2:LYS:NZ	2.17	0.41
10:B:305:C:H2'	10:B:306:U:C6	2.56	0.41
14:F:90:LEU:HD13	14:F:95:MET:HG2	2.02	0.41
10:B:1529:G:C4	10:B:1530:G:C8	3.08	0.41
10:B:1658:C:OP1	12:D:140:HIS:CD2	2.73	0.41
10:B:1548:A:C4	10:B:1549:A:C8	3.09	0.41
26:R:2:TYR:O	26:R:41:ILE:HA	2.21	0.41
8:7:123:ILE:HG22	8:7:123:ILE:O	2.20	0.41
10:B:1935:G:C6	10:B:1964:G:C6	3.09	0.41
19:K:100:GLY:HA2	19:K:101:PRO:HD3	1.75	0.41
30:V:31:TYR:O	30:V:93:ARG:N	2.46	0.41
10:B:64:A:C5	10:B:65:U:C4	3.08	0.41
25:Q:108:LEU:HB2	26:R:48:LYS:HD2	2.02	0.41
15:G:83:THR:O	15:G:132:LEU:HB2	2.20	0.41
9:A:71:C:C4	9:A:72:G:C4	3.08	0.41
26:R:28:ALA:O	26:R:31:GLU:HG2	2.20	0.41
6:5:148:ASN:HB2	6:5:151:GLU:HB2	2.03	0.41
23:O:82:ALA:O	23:O:86:GLY:N	2.53	0.41
10:B:1312:U:N3	10:B:1603:A:C6	2.77	0.41
10:B:2059:A:C2	10:B:2503:A:N1	2.89	0.41
1:0:12:ARG:NH2	1:0:16:ARG:NH1	2.68	0.41
5:4:16:ILE:HA	5:4:25:VAL:HG23	2.01	0.41
10:B:1232:G:C5	10:B:1233:C:C5	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2359:C:C4	10:B:2360:G:C5	3.08	0.41
10:B:2454:G:N7	10:B:2455:G:N7	2.69	0.41
10:B:2467:C:N3	10:B:2468:A:C6	2.88	0.41
10:B:2525:G:C2	10:B:2526:G:C8	3.09	0.41
10:B:511:U:C4	10:B:512:G:C4	3.09	0.41
10:B:543:G:H2'	10:B:544:C:O4'	2.20	0.41
10:B:582:A:C6	10:B:583:G:C6	3.09	0.41
10:B:613:A:N6	10:B:616:A:C4	2.87	0.41
10:B:681:G:N2	10:B:797:G:C4	2.89	0.41
10:B:685:A:C6	10:B:774:G:N2	2.89	0.41
10:B:783:A:N6	10:B:785:G:C4	2.89	0.41
10:B:809:G:C2	10:B:810:U:C2	3.09	0.41
10:B:909:A:C4	10:B:912:C:C4	3.08	0.41
10:B:972:A:C6	10:B:973:A:C5	3.08	0.41
10:B:986:C:H2'	10:B:987:C:H6	1.86	0.41
18:J:45:THR:OG1	18:J:48:VAL:HG22	2.21	0.41
25:Q:82:LEU:HB3	25:Q:89:ILE:HG12	2.02	0.41
32:X:15:ASN:HA	32:X:24:THR:O	2.21	0.41
6:5:133:PRO:HD2	6:5:134:ARG:H	1.85	0.41
6:5:104:ILE:HG21	6:5:137:MET:HE3	2.02	0.41
6:5:104:ILE:HB	10:B:2171:A:OP1	2.20	0.41
10:B:116:C:N4	10:B:117:G:N1	2.69	0.41
10:B:1360:G:H2'	10:B:1361:G:O4'	2.21	0.41
10:B:1420:A:C5	10:B:2211:A:C4	3.09	0.41
10:B:1425:G:O6	10:B:1426:G:N1	2.54	0.41
10:B:1764:C:H2'	10:B:1765:U:H6	1.83	0.41
10:B:1773:A:N7	10:B:1774:C:C2	2.89	0.41
10:B:1797:G:C6	10:B:1798:U:C4	3.09	0.41
10:B:1800:C:C4	10:B:1818:U:O2	2.72	0.41
10:B:68:G:C6	10:B:69:C:C2	3.08	0.41
10:B:712:G:C2'	10:B:713:G:H5'	2.50	0.41
10:B:2404:U:H1'	20:L:66:PHE:HZ	1.86	0.41
10:B:643:A:N6	10:B:644:A:C6	2.88	0.41
10:B:643:A:C5	10:B:644:A:C5	3.09	0.41
9:A:66:A:O2'	9:A:67:G:P	2.79	0.41
9:A:116:G:C3'	23:O:56:LYS:HZ3	2.19	0.41
23:O:24:THR:O	23:O:90:VAL:HB	2.21	0.41
10:B:1724:G:C2	10:B:1725:U:C2	3.09	0.41
7:6:50:LYS:HB2	7:6:50:LYS:HE2	1.80	0.41
10:B:870:U:C3'	10:B:871:U:H5''	2.46	0.41
10:B:917:A:H2'	10:B:918:A:C8	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:477:A:C6	10:B:478:A:C5	3.08	0.41
10:B:508:A:H3'	10:B:509:C:H5'	2.02	0.41
10:B:2786:U:H2'	10:B:2787:C:C6	2.55	0.41
10:B:1528:A:C6	10:B:1544:A:C8	3.09	0.41
10:B:760:G:C5	10:B:761:A:C4	3.09	0.41
7:6:317:ASN:ND2	35:6:527:GNP:O6	2.54	0.41
10:B:1486:U:O4	10:B:1504:A:N6	2.54	0.41
10:B:1493:C:N4	10:B:1494:A:C5	2.89	0.41
10:B:2884:U:H2'	10:B:2885:G:C8	2.55	0.41
10:B:1836:C:H2'	10:B:1837:C:C6	2.55	0.41
10:B:1630:A:C2	10:B:1631:G:C4	3.09	0.41
10:B:136:G:C5	10:B:137:U:C4	3.09	0.41
10:B:2309:A:C5	10:B:2310:C:C4	3.08	0.41
5:4:4:ARG:NH2	10:B:2477:U:C5	2.89	0.41
17:I:23:VAL:O	17:I:27:LEU:HB3	2.21	0.41
10:B:1672:A:C8	10:B:1673:G:N7	2.88	0.41
10:B:697:G:C6	10:B:698:C:N4	2.89	0.41
1:0:22:THR:OG1	1:0:23:ALA:N	2.53	0.41
12:D:114:LYS:HG2	12:D:114:LYS:H	1.64	0.41
7:6:256:ILE:HG22	7:6:257:ARG:O	2.20	0.41
3:2:2:LYS:NZ	10:B:1620:G:C4'	2.82	0.41
9:A:89:U:O2	10:B:958:U:H5	2.04	0.41
10:B:1168:G:C4	10:B:1169:A:C8	3.09	0.41
10:B:1454:C:H5'	22:N:63:ARG:HH22	1.86	0.41
10:B:1620:G:O2'	10:B:1621:U:H5'	2.20	0.41
10:B:1661:G:C2	10:B:1662:U:C5	3.08	0.41
10:B:183:C:O2'	10:B:184:C:H5'	2.21	0.41
10:B:21:A:C6	10:B:22:C:C4	3.09	0.41
10:B:264:C:C2'	10:B:265:A:H5''	2.50	0.41
10:B:2843:G:C5	10:B:2844:G:C5	3.08	0.41
10:B:2881:U:H2'	10:B:2882:A:C8	2.56	0.41
10:B:461:C:C5	10:B:462:C:C5	3.09	0.41
10:B:684:G:C4	10:B:774:G:C6	3.09	0.41
10:B:965:C:C4	10:B:966:G:N7	2.89	0.41
10:B:2621:G:P	12:D:124:ARG:HH22	2.40	0.41
10:B:2429:G:N7	20:L:55:MET:HE1	2.36	0.41
10:B:955:U:C3'	21:M:86:LYS:HZ3	2.34	0.41
10:B:2011:U:H5'	27:S:42:LYS:NZ	2.36	0.41
10:B:2197:U:H1'	10:B:2198:A:C8	2.48	0.41
16:H:11:ASN:CG	16:H:12:LEU:N	2.73	0.41
16:H:3:VAL:HG12	16:H:38:PRO:HA	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2123:G:C4	10:B:2124:G:C8	3.09	0.41
10:B:2125:G:C2	10:B:2126:A:N7	2.88	0.41
10:B:2164:C:H5'	10:B:2172:U:H5	1.86	0.41
8:7:56:ARG:HG3	10:B:1084:A:C2	2.55	0.41
10:B:1063:G:C6	10:B:1064:C:C4	3.09	0.41
10:B:1074:G:C2	10:B:1075:C:C2	3.09	0.41
10:B:1076:C:C2	10:B:1077:A:C8	3.09	0.41
10:B:1355:G:C2	10:B:1356:G:N7	2.88	0.41
10:B:1410:G:H2'	10:B:1411:U:H6	1.86	0.41
10:B:1593:A:H2'	10:B:1594:U:O4'	2.21	0.41
10:B:160:A:C6	10:B:161:A:C6	3.09	0.41
10:B:1687:G:C2	10:B:1702:G:C6	3.08	0.41
10:B:1701:A:C8	10:B:1702:G:C8	3.09	0.41
10:B:1786:A:C5	10:B:1938:A:N1	2.89	0.41
10:B:768:G:C4	10:B:769:U:C5	3.09	0.41
3:2:14:ARG:HH22	10:B:770:G:H4'	1.85	0.41
9:A:75:G:H1'	30:V:29:ILE:HG21	2.02	0.41
10:B:2341:G:H2'	10:B:2342:C:H6	1.86	0.41
10:B:628:G:O6	10:B:636:G:N1	2.54	0.41
9:A:25:U:O2'	9:A:26:C:O5'	2.39	0.41
10:B:2655:G:N2	10:B:2664:G:N3	2.69	0.41
10:B:1326:U:O2	10:B:1327:A:C8	2.74	0.41
10:B:291:G:H2'	10:B:292:U:C6	2.56	0.41
27:S:6:LYS:NZ	27:S:102:HIS:HB3	2.27	0.41
10:B:483:A:H4'	29:U:45:GLN:O	2.21	0.41
10:B:1280:G:H2'	10:B:1281:G:H8	1.85	0.41
9:A:33:G:C6	9:A:50:A:C6	3.08	0.41
14:F:3:LEU:HD23	14:F:4:HIS:NE2	2.36	0.41
23:O:68:LYS:CA	23:O:102:ARG:HG2	2.48	0.41
23:O:30:ARG:HH21	23:O:103:VAL:HG23	1.85	0.41
10:B:2003:A:N3	10:B:2004:G:C8	2.88	0.41
7:6:212:THR:CG2	35:6:527:GNP:H2'	2.49	0.41
10:B:1491:G:C2	10:B:1492:G:C4	3.09	0.41
10:B:195:A:C6	10:B:198:C:C5	3.08	0.41
19:K:62:VAL:HB	19:K:102:VAL:CG1	2.47	0.41
14:F:13:LYS:N	14:F:15:LEU:H	2.13	0.41
10:B:456:C:C4	28:T:73:ARG:NH1	2.88	0.41
8:7:96:PHE:HA	8:7:99:PHE:CE2	2.56	0.41
7:6:206:THR:OG1	7:6:228:LEU:HG	2.20	0.41
15:G:140:ILE:HG23	15:G:141:GLY:N	2.36	0.41
15:G:100:ASN:HB2	15:G:115:GLN:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2744:G:O6	10:B:2761:A:N6	2.53	0.41
34:Z:46:MET:O	34:Z:50:VAL:HG22	2.21	0.41
14:F:109:ARG:HE	14:F:177:ARG:HH12	1.68	0.41
19:K:85:LEU:O	19:K:94:ILE:HG23	2.21	0.41
7:6:123:GLN:OE1	7:6:267:PHE:HA	2.21	0.41
10:B:1505:A:H2'	10:B:1506:U:C6	2.55	0.41
28:T:50:LEU:HD23	28:T:50:LEU:HA	1.82	0.41
10:B:1171:G:H2'	10:B:1172:C:C6	2.56	0.41
10:B:1183:U:H2'	10:B:1184:U:H6	1.85	0.41
10:B:1213:A:C5	10:B:1237:A:C4	3.09	0.41
10:B:15:G:H2'	10:B:16:C:H6	1.86	0.41
10:B:1613:G:C5	10:B:1617:C:N3	2.89	0.41
10:B:1620:G:N2	10:B:1621:U:C2	2.89	0.41
10:B:1745:A:O2'	10:B:1746:A:O4'	2.22	0.41
10:B:178:G:C2	10:B:179:C:C4	3.08	0.41
10:B:2060:A:N1	10:B:2502:G:C5	2.89	0.41
10:B:2077:A:C4	10:B:2435:A:C8	3.09	0.41
10:B:20:C:H2'	10:B:21:A:H8	1.86	0.41
10:B:2435:A:C2	10:B:2436:G:C4	3.09	0.41
10:B:2454:G:N2	10:B:2499:C:C2	2.89	0.41
10:B:2454:G:C2	10:B:2499:C:C2	3.08	0.41
10:B:2597:G:C6	10:B:2598:A:C6	3.09	0.41
10:B:25:U:H5	10:B:26:G:C6	2.39	0.41
10:B:2840:C:C4	10:B:2841:C:N4	2.89	0.41
10:B:2850:A:H2'	10:B:2851:A:O4'	2.21	0.41
10:B:468:G:O6	10:B:469:G:C2	2.74	0.41
10:B:512:G:O2'	10:B:513:A:O5'	2.35	0.41
10:B:682:G:C2	10:B:683:U:C6	3.09	0.41
10:B:786:C:N3	10:B:787:C:C4	2.89	0.41
10:B:952:G:N1	10:B:953:G:C5	2.89	0.41
10:B:978:G:O6	10:B:986:C:N4	2.54	0.41
12:D:131:ASP:HB2	12:D:136:ASN:OD1	2.21	0.41
10:B:1130:U:C2	12:D:152:PRO:CB	2.96	0.41
18:J:39:LYS:HG2	18:J:39:LYS:O	2.21	0.41
25:Q:55:GLN:O	25:Q:58:GLN:HB3	2.21	0.41
25:Q:93:ILE:O	25:Q:96:ASP:N	2.47	0.41
10:B:1130:U:C2	12:D:152:PRO:CG	3.04	0.41
10:B:1139:G:H5''	10:B:1140:C:OP2	2.20	0.41
10:B:1166:G:C5	10:B:1167:C:C5	3.08	0.41
10:B:1259:G:N2	10:B:1260:A:C4	2.89	0.41
10:B:2053:G:H2'	10:B:2054:A:H8	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2646:C:N3	10:B:2647:U:N3	2.69	0.41
10:B:2731:G:C2	10:B:2732:G:N7	2.89	0.41
10:B:2825:G:H3'	10:B:2826:A:H8	1.86	0.41
10:B:412:A:H8	10:B:412:A:OP2	2.03	0.41
10:B:440:C:H2'	10:B:441:U:C6	2.56	0.41
10:B:38:A:C4	10:B:442:G:N2	2.89	0.41
10:B:847:U:C5	10:B:932:U:H1'	2.56	0.41
10:B:910:A:C2	10:B:911:A:C4	3.08	0.41
10:B:942:G:H5''	20:L:39:LYS:HE3	2.02	0.41
10:B:960:A:O5'	10:B:960:A:H8	2.04	0.41
24:P:20:ARG:HD2	24:P:20:ARG:HA	1.90	0.41
25:Q:60:TRP:CZ2	25:Q:93:ILE:HD12	2.56	0.41
27:S:69:LEU:HD23	27:S:69:LEU:HA	1.90	0.41
10:B:2085:U:O2	10:B:2235:G:C2	2.74	0.41
10:B:1862:G:C6	10:B:1863:G:N7	2.89	0.41
10:B:2327:A:N6	10:B:2328:A:N1	2.69	0.41
10:B:2303:G:H2'	10:B:2304:G:O4'	2.21	0.41
10:B:2305:U:H4'	14:F:132:ARG:HE	1.86	0.41
10:B:1090:A:N6	10:B:1091:G:O6	2.54	0.41
8:7:33:VAL:HA	10:B:1055:G:H4'	2.03	0.41
10:B:1098:A:N3	17:I:5:GLN:HA	2.35	0.41
17:I:102:ARG:H	17:I:141:ASP:C	2.24	0.41
10:B:117:G:C6	10:B:119:A:N6	2.89	0.41
10:B:1356:G:C4	10:B:1357:C:C5	3.09	0.41
10:B:1398:C:C2	10:B:1399:C:C5	3.09	0.41
10:B:1387:A:C6	10:B:1401:G:C6	3.09	0.41
10:B:1601:G:C5	10:B:1602:U:C4	3.09	0.41
10:B:1817:G:N3	10:B:1817:G:H2'	2.35	0.41
10:B:2214:C:H2'	10:B:2215:C:O4'	2.20	0.41
10:B:2218:G:N2	10:B:2219:U:C2	2.89	0.41
10:B:73:A:H4'	10:B:75:G:N3	2.35	0.41
10:B:67:U:H1'	10:B:88:G:C2	2.56	0.41
10:B:90:U:H2'	10:B:91:A:H2	1.83	0.41
7:6:356:ALA:O	7:6:360:ARG:HG3	2.20	0.41
7:6:84:LEU:HG	7:6:102:ASP:CG	2.40	0.41
7:6:84:LEU:HB2	7:6:88:GLN:OE1	2.20	0.41
10:B:637:A:C4	10:B:652:U:H5''	2.56	0.41
10:B:639:U:H3	10:B:649:G:H1	1.69	0.41
9:A:11:C:H3'	9:A:12:C:C6	2.56	0.41
9:A:18:G:N7	9:A:19:C:N4	2.69	0.41
9:A:66:A:C4	9:A:108:A:C6	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:9:G:C6	9:A:112:G:C5	3.09	0.41
10:B:864:G:C4	10:B:865:C:C5	3.08	0.41
10:B:917:A:H2'	10:B:918:A:H8	1.86	0.41
10:B:906:U:C4'	21:M:66:ARG:NH1	2.83	0.41
16:H:91:PHE:CE1	16:H:127:GLU:HA	2.56	0.41
29:U:20:LYS:HE2	29:U:36:GLU:O	2.20	0.41
10:B:501:A:C4	10:B:502:A:C8	3.08	0.41
29:U:20:LYS:HD3	29:U:38:ILE:CD1	2.46	0.41
10:B:1537:G:H2'	10:B:1538:G:O4'	2.21	0.41
10:B:301:G:C6	10:B:317:G:C5	3.08	0.41
10:B:305:C:N3	10:B:313:G:C6	2.89	0.41
10:B:172:A:N3	10:B:173:A:C8	2.89	0.41
12:D:96:ILE:HD12	12:D:100:LEU:HD11	2.03	0.41
23:O:35:ILE:HD12	23:O:102:ARG:HE	1.86	0.41
10:B:1657:U:H2'	10:B:1658:C:H6	1.85	0.41
10:B:1444:G:C6	10:B:1445:G:C5	3.08	0.41
10:B:1528:A:C2	10:B:1544:A:C4	3.09	0.41
10:B:1491:G:C2	10:B:1492:G:C8	3.09	0.41
10:B:1492:G:C4	10:B:1496:A:N6	2.88	0.41
10:B:2742:G:C2	10:B:2743:U:C2	3.09	0.41
19:K:70:ARG:O	19:K:72:ASP:N	2.53	0.41
10:B:2886:A:C4	10:B:2887:A:C8	3.09	0.41
10:B:1970:A:N6	10:B:1972:G:O6	2.53	0.41
10:B:1631:G:N2	10:B:1634:A:OP2	2.35	0.41
10:B:1299:G:N2	10:B:1642:G:C5	2.88	0.41
10:B:1643:G:C6	10:B:1644:C:C2	3.09	0.41
10:B:295:G:H2'	10:B:296:U:C6	2.56	0.41
10:B:64:A:C5	10:B:65:U:C5	3.09	0.41
22:N:98:LEU:HD11	22:N:114:GLU:OE2	2.21	0.41
18:J:14:ASP:H	18:J:52:ASP:CG	2.24	0.41
12:D:193:VAL:O	12:D:193:VAL:HG23	2.20	0.41
8:7:52:MET:HE2	8:7:95:LEU:HD13	2.02	0.41
13:E:123:LYS:HG2	13:E:125:SER:N	2.35	0.41
8:7:17:GLU:OE2	8:7:88:HIS:CE1	2.73	0.41
10:B:849:A:H2'	10:B:850:U:C6	2.55	0.41
7:6:295:ILE:O	7:6:298:VAL:HG12	2.20	0.41
12:D:14:ILE:HD12	12:D:14:ILE:HA	1.94	0.41
24:P:36:LYS:HZ3	24:P:38:ARG:HD3	1.84	0.41
29:U:53:GLN:N	29:U:54:PRO:HD2	2.35	0.41
7:6:16:ILE:C	7:6:18:PHE:H	2.23	0.41
13:E:164:LEU:HB3	13:E:167:VAL:HG12	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:30:GLY:N	26:R:63:VAL:O	2.33	0.41
11:C:229:HIS:CE1	11:C:231:HIS:HB2	2.56	0.41
10:B:118:A:H8	10:B:118:A:H3'	1.86	0.41
14:F:169:LEU:HG	14:F:172:PHE:CE2	2.56	0.41
10:B:1034:G:C5	10:B:1035:U:C4	3.09	0.41
10:B:974:G:C6	10:B:1186:G:C5	3.09	0.41
10:B:1234:U:C4	10:B:1235:G:C6	3.09	0.41
10:B:1458:U:C5'	10:B:1459:G:H3'	2.50	0.41
10:B:17:G:N2	10:B:18:U:C2	2.89	0.41
10:B:1665:A:N6	10:B:1996:C:H42	2.19	0.41
10:B:2244:U:O2'	10:B:2245:U:P	2.78	0.41
10:B:2273:A:C2	10:B:2274:A:C5	3.09	0.41
10:B:2510:C:H2'	10:B:2511:U:C6	2.56	0.41
10:B:258:G:C2	10:B:259:G:C4	3.09	0.41
10:B:2625:G:C6	10:B:2626:C:C4	3.09	0.41
10:B:563:A:C5	10:B:564:C:C5	3.09	0.41
10:B:683:U:N3	10:B:684:G:C8	2.89	0.41
10:B:910:A:H2	10:B:2264:C:H1'	1.86	0.41
10:B:2278:A:C5'	21:M:10:ARG:NH2	2.76	0.41
31:W:31:LEU:O	31:W:60:ALA:N	2.40	0.41
10:B:1889:A:C6	10:B:1890:A:C5	3.09	0.41
10:B:1890:A:C5	10:B:1891:G:C5	3.09	0.41
10:B:2109:U:H3	10:B:2181:U:H3	1.69	0.41
6:5:53:ARG:HH22	10:B:1859:U:P	2.44	0.41
10:B:1887:C:O2	10:B:1887:C:H2'	2.20	0.41
10:B:2336:A:C5	31:W:40:ARG:CZ	3.04	0.41
10:B:123:G:O2'	10:B:1376:C:H4'	2.21	0.41
10:B:1314:C:C5	10:B:1315:C:C5	3.08	0.41
10:B:1342:A:H5''	28:T:59:ASN:OD1	2.20	0.41
10:B:1353:A:C6	10:B:1378:A:C2	3.09	0.41
10:B:1386:C:C2	10:B:1387:A:N7	2.89	0.41
10:B:120:U:C6	10:B:149:A:C4	3.09	0.41
10:B:1803:A:H61	10:B:1814:G:C2'	2.34	0.41
10:B:1810:A:C8	10:B:1811:G:C8	3.09	0.41
10:B:59:U:H4'	10:B:73:A:C5	2.56	0.41
11:C:144:GLU:HA	11:C:150:GLY:O	2.21	0.41
10:B:2901:C:H2'	10:B:2902:C:C6	2.56	0.41
10:B:372:G:O6	32:X:56:ARG:NH2	2.54	0.41
10:B:2399:G:N3	10:B:2400:G:C8	2.88	0.41
10:B:628:G:C5	10:B:636:G:N2	2.89	0.41
23:O:40:ILE:HD12	23:O:44:GLY:HA2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1919:A:H2'	10:B:1920:C:C6	2.56	0.41
10:B:2655:G:HO2'	10:B:2656:U:P	2.43	0.41
10:B:2655:G:N2	10:B:2664:G:C4	2.88	0.41
10:B:84:A:N1	10:B:103:A:C8	2.89	0.41
10:B:85:G:OP1	29:U:6:ARG:HB2	2.21	0.41
10:B:734:A:C5	10:B:735:A:N7	2.89	0.41
10:B:2742:G:C6	10:B:2743:U:C4	3.09	0.41
10:B:1871:A:C5	10:B:1872:A:C5	3.09	0.41
33:Y:56:LEU:HD23	33:Y:56:LEU:HA	1.82	0.41
15:G:86:LEU:CD2	15:G:147:LEU:HD23	2.51	0.41
14:F:116:LEU:HA	14:F:173:ASP:O	2.21	0.41
10:B:1948:G:C5	10:B:1949:G:N7	2.89	0.41
4:3:51:LYS:HD3	4:3:54:LEU:HD22	2.03	0.41
8:7:24:SER:HB2	8:7:116:GLU:H	1.86	0.41
6:5:206:GLY:CA	10:B:1876:A:H5''	2.51	0.41
12:D:187:LEU:HD12	12:D:187:LEU:HA	1.75	0.41
30:V:24:ASN:O	30:V:25:LYS:HD2	2.20	0.41
20:L:120:VAL:H	20:L:141:LYS:HB2	1.86	0.41
18:J:91:GLU:O	18:J:95:ARG:HG2	2.21	0.41
7:6:271:LEU:O	7:6:274:THR:N	2.52	0.41
11:C:38:LYS:HB3	11:C:38:LYS:HE3	1.93	0.41
10:B:1031:G:C4	10:B:1124:G:N2	2.89	0.40
10:B:1035:U:H2'	10:B:1036:G:H8	1.86	0.40
10:B:1007:C:N4	10:B:1136:G:H1	2.18	0.40
10:B:1451:C:H4'	10:B:1452:G:H8	1.86	0.40
10:B:16:C:H2'	10:B:17:G:C8	2.41	0.40
10:B:181:A:O2'	10:B:182:A:O4'	2.29	0.40
10:B:240:C:H3'	10:B:241:A:C8	2.43	0.40
10:B:2508:G:N1	10:B:2509:G:C5	2.89	0.40
10:B:2512:C:H1'	12:D:145:SER:HB2	2.03	0.40
10:B:2536:G:C6	10:B:2537:U:C4	3.10	0.40
10:B:2583:G:C2	10:B:2584:U:C2	3.09	0.40
10:B:258:G:N3	10:B:259:G:C8	2.89	0.40
10:B:2671:G:C5	10:B:2672:U:C4	3.09	0.40
10:B:2684:U:H4'	19:K:75:VAL:CG2	2.51	0.40
10:B:268:C:H42	10:B:424:G:H1	1.70	0.40
10:B:271:G:O2'	10:B:272:A:H5''	2.21	0.40
10:B:2817:U:C4	10:B:2818:U:C4	3.09	0.40
10:B:471:A:C5	10:B:472:A:C5	3.09	0.40
10:B:586:A:C2	10:B:1254:A:C6	3.09	0.40
10:B:690:G:C6	10:B:691:C:C4	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:843:G:C2	10:B:936:A:C2	3.09	0.40
10:B:977:G:C4	10:B:978:G:N7	2.89	0.40
13:E:47:LYS:HB2	13:E:51:GLU:CB	2.51	0.40
25:Q:48:ASP:C	25:Q:50:ARG:N	2.74	0.40
10:B:2093:G:O6	10:B:2225:A:H5''	2.21	0.40
10:B:1858:A:C5	10:B:1885:A:C8	3.09	0.40
10:B:2316:G:N2	10:B:2317:A:H1'	2.36	0.40
7:6:375:GLN:HG3	7:6:378:ARG:NH1	2.36	0.40
8:7:59:LEU:HB2	8:7:62:ARG:HG3	2.03	0.40
8:7:81:LEU:O	8:7:82:ILE:HD13	2.20	0.40
10:B:1062:G:C6	10:B:1077:A:C6	3.10	0.40
10:B:1063:G:C6	10:B:1064:C:N3	2.89	0.40
10:B:1072:C:N4	17:I:3:LYS:HD3	2.24	0.40
10:B:149:A:C5	10:B:150:U:C5	3.10	0.40
10:B:1585:C:N4	10:B:1586:A:N3	2.69	0.40
10:B:1790:C:H2'	10:B:1791:A:C4	2.56	0.40
10:B:763:G:C6	10:B:765:C:N3	2.89	0.40
11:C:219:VAL:HG12	11:C:220:ARG:O	2.21	0.40
11:C:83:ASP:HA	11:C:84:PRO:HD2	1.83	0.40
10:B:2900:A:C5	10:B:2901:C:C4	3.10	0.40
10:B:377:G:C2	10:B:378:C:C2	3.09	0.40
10:B:2339:C:C4	10:B:2340:A:N7	2.89	0.40
10:B:2375:G:N1	10:B:2379:G:C6	2.88	0.40
10:B:649:G:H2'	10:B:650:C:O4'	2.21	0.40
10:B:1918:A:H1'	10:B:1919:A:C8	2.56	0.40
10:B:332:A:C5	10:B:335:C:C2	3.09	0.40
10:B:102:U:O2'	33:Y:4:LYS:NZ	2.44	0.40
10:B:359:G:H2'	10:B:360:U:C6	2.57	0.40
10:B:83:A:H2	10:B:84:A:N6	2.19	0.40
10:B:305:C:H2'	10:B:306:U:O4'	2.22	0.40
10:B:1275:A:C4	22:N:16:HIS:NE2	2.89	0.40
16:H:112:LYS:CD	16:H:130:VAL:HG12	2.51	0.40
10:B:701:G:H2'	10:B:701:G:N3	2.36	0.40
10:B:2104:C:N4	10:B:2183:A:N6	2.69	0.40
15:G:11:PRO:HG2	15:G:14:VAL:HB	2.03	0.40
15:G:85:LYS:HD2	15:G:85:LYS:HA	1.88	0.40
12:D:133:THR:HG23	12:D:134:HIS:CG	2.57	0.40
21:M:115:GLU:O	21:M:119:LEU:HG	2.20	0.40
13:E:180:LEU:HD23	13:E:180:LEU:HA	1.87	0.40
20:L:59:ARG:HG2	20:L:59:ARG:O	2.21	0.40
9:A:88:C:C2	9:A:89:U:C5	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:A:89:U:OP2	9:A:90:C:C2	2.75	0.40
10:B:1005:C:N4	10:B:1006:C:H41	2.18	0.40
10:B:1011:G:H1'	10:B:1013:C:O4'	2.20	0.40
10:B:1461:C:N4	10:B:1462:C:N4	2.70	0.40
10:B:1664:A:H61	10:B:1996:C:N4	2.18	0.40
10:B:1707:G:C4	10:B:1756:G:N1	2.89	0.40
10:B:182:A:C6	10:B:183:C:N3	2.88	0.40
10:B:185:G:C6	10:B:212:G:N1	2.89	0.40
10:B:185:G:C4	10:B:186:G:C8	3.09	0.40
10:B:2018:G:C4	10:B:2019:A:C8	3.09	0.40
10:B:2071:A:C4	10:B:2072:C:C5	3.08	0.40
10:B:2078:C:H2'	10:B:2079:U:C6	2.57	0.40
10:B:244:A:C5	10:B:245:G:C8	3.09	0.40
10:B:249:C:HO2'	10:B:250:G:P	2.44	0.40
10:B:2570:G:C4	10:B:2571:U:C6	3.09	0.40
10:B:2869:G:C4	10:B:2870:C:C6	3.09	0.40
10:B:444:C:P	13:E:44:ARG:HD3	2.61	0.40
10:B:47:C:N3	10:B:178:G:N2	2.66	0.40
10:B:534:U:OP1	25:Q:23:TYR:OH	2.36	0.40
10:B:543:G:C2	10:B:551:G:C4	3.08	0.40
10:B:794:A:H2'	10:B:795:C:C6	2.48	0.40
10:B:843:G:OP2	10:B:843:G:H8	2.05	0.40
10:B:936:A:H2'	10:B:937:C:O4'	2.20	0.40
11:C:53:ILE:HA	11:C:216:ARG:H	1.84	0.40
19:K:39:LYS:HA	19:K:39:LYS:HD2	1.91	0.40
10:B:807:U:OP2	20:L:36:LYS:HD2	2.21	0.40
16:H:5:LEU:HA	16:H:36:ALA:HB2	2.02	0.40
16:H:31:VAL:CG1	32:X:38:TRP:HD1	2.34	0.40
10:B:2123:G:H2'	10:B:2124:G:O4'	2.22	0.40
10:B:2318:G:C6	10:B:2319:G:N1	2.89	0.40
8:7:31:ARG:HG3	8:7:32:GLY:N	2.35	0.40
10:B:1077:A:H5'	17:I:94:LYS:HD2	2.02	0.40
17:I:102:ARG:HB3	17:I:141:ASP:HA	2.02	0.40
10:B:1314:C:N3	10:B:1339:G:C2	2.89	0.40
10:B:164:C:N3	10:B:165:A:H1'	2.36	0.40
10:B:1977:A:N6	10:B:1978:A:C6	2.89	0.40
10:B:1783:A:N1	10:B:2587:A:C6	2.89	0.40
10:B:712:G:H2'	10:B:713:G:H5'	2.03	0.40
11:C:245:THR:HA	11:C:246:PRO:HD3	1.95	0.40
10:B:1:G:C4	10:B:2:G:C8	3.09	0.40
10:B:2287:A:C8	10:B:2289:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2285:C:H5'	10:B:2288:A:C6	2.56	0.40
10:B:2373:G:H2'	10:B:2374:C:H6	1.83	0.40
10:B:629:G:H2'	10:B:630:G:H8	1.82	0.40
10:B:1724:G:C6	10:B:1725:U:C4	3.10	0.40
10:B:2661:G:N2	10:B:2662:A:H1'	2.35	0.40
7:6:194:LYS:HG2	7:6:197:VAL:HG22	2.02	0.40
10:B:319:G:H2'	10:B:320:A:H8	1.85	0.40
10:B:79:C:C4	10:B:80:G:N7	2.89	0.40
10:B:303:G:N1	10:B:315:G:C6	2.89	0.40
10:B:2641:G:C2	10:B:2642:G:C4	3.10	0.40
10:B:1465:G:N1	10:B:1466:U:C2	2.90	0.40
10:B:1491:G:C8	11:C:97:ASP:O	2.74	0.40
33:Y:6:LEU:O	33:Y:7:ARG:HG3	2.21	0.40
10:B:387:U:C2	10:B:388:G:C6	3.10	0.40
10:B:1627:G:H2'	10:B:1628:G:O4'	2.20	0.40
10:B:1333:G:C2	10:B:1334:G:C8	3.09	0.40
24:P:62:LYS:HE2	24:P:64:SER:OG	2.21	0.40
26:R:1:MET:HB2	26:R:15:SER:CB	2.51	0.40
10:B:1716:U:C5	10:B:1743:G:N2	2.89	0.40
8:7:96:PHE:HA	8:7:99:PHE:HE2	1.86	0.40
2:1:24:LYS:HZ2	2:1:26:LYS:HA	1.87	0.40
30:V:21:ARG:NH2	30:V:87:GLN:O	2.51	0.40
16:H:14:SER:O	16:H:15:LEU:HB3	2.21	0.40
10:B:1672:A:N6	10:B:1673:G:C6	2.89	0.40
7:6:13:LEU:HD23	7:6:30:PHE:CE2	2.56	0.40
32:X:67:LEU:HD12	32:X:70:LEU:HD23	2.04	0.40
20:L:85:VAL:C	20:L:86:GLU:HG2	2.41	0.40
10:B:1031:G:C2	10:B:1124:G:C4	3.09	0.40
10:B:1177:G:C6	10:B:1178:C:C2	3.08	0.40
10:B:1165:A:C2	10:B:1185:G:C5	3.09	0.40
10:B:1707:G:C4	10:B:1708:C:C6	3.09	0.40
10:B:210:C:H2'	10:B:211:C:C6	2.53	0.40
10:B:212:G:C2	10:B:213:A:N7	2.89	0.40
10:B:218:A:N7	10:B:219:A:C4	2.90	0.40
10:B:2274:A:C5	10:B:2276:G:C8	3.10	0.40
10:B:2507:C:C4	10:B:2583:G:C6	3.10	0.40
10:B:2534:A:C2	10:B:2535:G:H1'	2.57	0.40
10:B:2559:C:C2	10:B:2560:A:N7	2.89	0.40
10:B:2686:G:C5	10:B:2687:U:C2	3.09	0.40
10:B:2705:A:H3'	10:B:2705:A:C8	2.57	0.40
10:B:2830:C:C2	10:B:2831:G:C8	3.09	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1750:G:N3	10:B:2860:A:H2	2.19	0.40
10:B:44:A:N1	10:B:45:G:C4	2.90	0.40
10:B:562:U:H5''	10:B:563:A:OP1	2.21	0.40
10:B:592:A:H2'	10:B:593:U:C6	2.56	0.40
10:B:597:G:N1	10:B:661:A:C6	2.90	0.40
10:B:777:G:C4	10:B:778:G:C8	3.09	0.40
10:B:843:G:C6	10:B:936:A:C6	3.09	0.40
10:B:950:G:H2'	10:B:951:C:O4'	2.22	0.40
10:B:980:A:N7	10:B:981:A:C4	2.89	0.40
10:B:1667:G:OP1	19:K:6:MET:HG2	2.21	0.40
10:B:997:G:H5''	25:Q:91:ARG:HB2	2.04	0.40
11:C:171:VAL:N	11:C:184:GLU:O	2.37	0.40
6:5:37:LYS:O	6:5:38:PHE:CB	2.69	0.40
10:B:2116:G:N1	10:B:2147:A:O5'	2.53	0.40
10:B:2144:G:H4'	10:B:2146:C:OP1	2.21	0.40
10:B:2147:A:HO2'	10:B:2148:G:P	2.43	0.40
28:T:5:GLU:O	28:T:8:LEU:HB2	2.21	0.40
10:B:1885:A:C5	10:B:1886:U:C5	3.09	0.40
17:I:62:ALA:CA	17:I:64:ARG:HH12	2.32	0.40
10:B:2330:G:C2	10:B:2331:G:H1'	2.56	0.40
14:F:122:ASP:O	14:F:162:ASP:OD2	2.39	0.40
10:B:1055:G:N1	10:B:1105:U:N3	2.69	0.40
10:B:1799:G:H21	11:C:153:LEU:CD2	2.32	0.40
10:B:714:U:O2'	10:B:716:A:N7	2.30	0.40
9:A:28:C:P	23:O:36:TYR:HH	2.43	0.40
10:B:871:U:H4'	21:M:68:PHE:CE2	2.57	0.40
18:J:40:HIS:CE1	18:J:41:LYS:HG2	2.56	0.40
10:B:311:A:H5'	10:B:332:A:N3	2.36	0.40
10:B:504:A:OP2	27:S:2:GLU:HB2	2.22	0.40
18:J:76:HIS:CE1	18:J:85:LYS:HE2	2.57	0.40
10:B:2697:G:N2	10:B:2710:C:O2	2.55	0.40
14:F:102:LEU:HA	14:F:105:ILE:HG12	2.03	0.40
10:B:732:C:H2'	10:B:733:G:O4'	2.21	0.40
7:6:211:SER:HB3	7:6:224:ALA:HB2	2.03	0.40
1:0:38:LEU:O	1:0:41:HIS:HB2	2.21	0.40
10:B:1383:A:C5	10:B:1384:A:C6	3.09	0.40
10:B:1839:G:C4	10:B:1840:G:H8	2.37	0.40
10:B:1970:A:O2'	10:B:1971:U:OP2	2.35	0.40
10:B:1306:C:C4	10:B:1623:G:C6	3.09	0.40
10:B:30:G:C6	10:B:31:C:C4	3.09	0.40
10:B:1199:U:O2	10:B:1200:C:C2	2.74	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1205:A:C5	13:E:165:HIS:CD2	3.09	0.40
16:H:46:PHE:HB2	16:H:50:ARG:NH2	2.36	0.40
29:U:85:ARG:N	29:U:94:PHE:HE2	2.17	0.40
4:3:51:LYS:HZ3	4:3:54:LEU:CD2	2.35	0.40
2:1:5:ARG:NH1	2:1:25:ASN:N	2.69	0.40
15:G:81:GLY:HA2	15:G:134:GLY:O	2.21	0.40
10:B:1681:G:C6	10:B:1762:A:C5	3.10	0.40
11:C:71:ASP:OD2	11:C:117:SER:O	2.39	0.40
10:B:1654:A:C2	10:B:1655:A:N9	2.90	0.40
10:B:1562:U:H2'	10:B:1563:U:H6	1.85	0.40
7:6:160:LEU:HA	7:6:163:ASP:HB3	2.02	0.40
20:L:116:VAL:HG11	20:L:134:ALA:C	2.42	0.40
15:G:89:VAL:HG22	15:G:90:GLY:N	2.36	0.40
12:D:40:LEU:HD23	12:D:40:LEU:O	2.22	0.40
10:B:2402:U:P	10:B:2402:U:H6	2.44	0.40
10:B:1021:A:N1	10:B:1023:U:C4	2.90	0.40
10:B:996:A:H61	10:B:1159:U:H3	1.68	0.40
10:B:1182:G:C5	10:B:1183:U:C5	3.10	0.40
10:B:14:A:N3	10:B:2625:G:O2'	2.47	0.40
3:2:28:ARG:NH1	10:B:178:G:O3'	2.55	0.40
10:B:2007:U:C2	10:B:2008:C:C5	3.10	0.40
10:B:2011:U:O4	10:B:2012:G:C2	2.75	0.40
10:B:222:A:H2	10:B:233:A:H5''	1.85	0.40
10:B:2461:A:H1'	10:B:2492:U:C2	2.56	0.40
10:B:2478:A:C5	10:B:2479:U:C2	3.09	0.40
10:B:2478:A:C6	10:B:2479:U:O2	2.75	0.40
10:B:246:C:N4	10:B:247:G:C6	2.89	0.40
10:B:2487:G:H2'	10:B:2488:G:H8	1.86	0.40
10:B:250:G:H3'	10:B:251:A:H8	1.86	0.40
10:B:2725:A:C5	10:B:2727:A:C4	3.10	0.40
10:B:2851:A:H3'	10:B:2852:G:C8	2.56	0.40
10:B:2861:U:H2'	10:B:2862:G:O4'	2.20	0.40
10:B:2867:G:C4	24:P:20:ARG:NH2	2.90	0.40
10:B:27:G:C4	10:B:512:G:C2	3.09	0.40
10:B:780:G:C2	10:B:782:A:C2	3.09	0.40
10:B:825:A:C2	10:B:833:A:C2	3.10	0.40
10:B:831:G:C4	10:B:832:U:C6	3.10	0.40
10:B:2621:G:P	12:D:124:ARG:HH12	2.44	0.40
19:K:26:GLY:HA3	19:K:29:ARG:HG3	2.02	0.40
10:B:449:A:H1'	25:Q:2:ARG:HH22	1.87	0.40
10:B:534:U:O2'	25:Q:48:ASP:OD2	2.39	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:R:79:ARG:HD3	26:R:80:ARG:NH1	2.37	0.40
10:B:1849:G:N2	10:B:1850:G:H1'	2.36	0.40
10:B:1890:A:H2'	10:B:1891:G:H8	1.86	0.40
10:B:2090:A:N1	10:B:2091:C:C4	2.90	0.40
10:B:2179:C:H2'	10:B:2180:U:C6	2.57	0.40
10:B:1074:G:C5	10:B:1075:C:C4	3.10	0.40
10:B:1087:G:N7	10:B:1089:A:C5	2.90	0.40
10:B:1346:G:C4	10:B:1601:G:C2	3.10	0.40
10:B:1814:G:H5''	10:B:1815:A:O5'	2.21	0.40
10:B:695:G:C6	10:B:696:G:N7	2.90	0.40
10:B:77:G:C4	10:B:78:U:C6	3.10	0.40
10:B:1825:U:H5'	11:C:246:PRO:HD3	2.03	0.40
10:B:9:G:H21	10:B:11:C:H42	1.65	0.40
10:B:2369:A:C6	10:B:2370:G:C5	3.09	0.40
10:B:631:A:C4	10:B:632:A:C8	3.09	0.40
9:A:117:G:H2'	9:A:118:C:H5'	2.03	0.40
9:A:84:G:N1	9:A:85:G:C5	2.89	0.40
9:A:83:G:C2	9:A:94:A:N1	2.90	0.40
10:B:300:A:H2'	10:B:334:C:H1'	2.04	0.40
10:B:308:G:C4'	10:B:501:A:H5'	2.52	0.40
10:B:2635:A:O3'	12:D:81:GLU:OE2	2.39	0.40
10:B:1366:A:N6	10:B:1367:A:C5	2.89	0.40
16:H:78:VAL:HG12	16:H:78:VAL:O	2.22	0.40
10:B:1517:G:C5	10:B:1518:C:C5	3.09	0.40
10:B:1543:G:HO2'	10:B:1544:A:P	2.44	0.40
10:B:759:G:N2	10:B:760:G:C4	2.89	0.40
10:B:2096:C:C2	10:B:2097:A:C8	3.09	0.40
10:B:2100:G:C6	10:B:2101:A:C4	3.10	0.40
10:B:1628:G:C4	10:B:1629:U:C5	3.09	0.40
10:B:1558:C:O2	10:B:1560:G:C6	2.74	0.40
10:B:1299:G:N2	10:B:1641:A:H62	2.10	0.40
11:C:180:MET:HB2	11:C:267:VAL:HB	2.03	0.40
32:X:4:CYS:SG	32:X:7:THR:HB	2.62	0.40
18:J:80:HIS:NE2	18:J:81:ILE:HB	2.36	0.40
15:G:82:PHE:HB2	15:G:140:ILE:HD13	2.03	0.40
10:B:1682:G:C5	10:B:1757:A:C4	3.10	0.40
15:G:100:ASN:C	15:G:115:GLN:HG3	2.42	0.40
7:6:167:LEU:HD23	7:6:167:LEU:HA	1.80	0.40
1:0:42:ILE:HG23	1:0:44:ALA:H	1.86	0.40
28:T:66:LYS:HE2	28:T:77:ARG:NH2	2.35	0.40
6:5:151:GLU:O	6:5:154:LYS:HB2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:1506:U:C4	10:B:1507:C:C4	3.10	0.40
19:K:52:LYS:HB3	19:K:55:ASP:OD2	2.21	0.40
10:B:1011:G:C5	10:B:1013:C:C2	3.10	0.40
10:B:1166:G:H2'	10:B:1166:G:N3	2.37	0.40
10:B:1753:G:C2	10:B:1756:G:C2	3.10	0.40
10:B:2276:G:O2'	10:B:2277:G:H5'	2.21	0.40
10:B:23:G:H1'	10:B:518:G:N2	2.36	0.40
10:B:199:A:N1	10:B:2434:A:C6	2.90	0.40
10:B:2455:G:C2	10:B:2498:C:N4	2.88	0.40
10:B:2468:A:C2	10:B:2481:G:C2	3.09	0.40
10:B:2560:A:C6	10:B:2561:U:C4	3.10	0.40
10:B:2630:G:C8	10:B:2894:G:C5	3.10	0.40
10:B:2646:C:N3	10:B:2647:U:C2	2.89	0.40
10:B:270:A:OP1	10:B:271:G:H5'	2.22	0.40
10:B:2821:A:C2	10:B:2822:G:C2	3.10	0.40
10:B:2854:G:C5	10:B:2855:C:N4	2.90	0.40
10:B:533:G:C2	10:B:561:G:C2	3.10	0.40
10:B:787:C:H5''	10:B:788:A:C5'	2.40	0.40
10:B:798:G:C2	10:B:799:G:C6	3.10	0.40
10:B:675:A:C5	10:B:804:A:C2	3.09	0.40
10:B:856:G:O6	10:B:922:C:C4	2.75	0.40
10:B:922:C:H1'	31:W:22:VAL:HG11	2.03	0.40
10:B:955:U:H5''	21:M:86:LYS:NZ	2.36	0.40
10:B:956:G:C2	10:B:962:G:O6	2.74	0.40
24:P:87:ARG:NH1	24:P:88:ARG:C	2.70	0.40
10:B:2196:C:C4	10:B:2197:U:C4	3.10	0.40
10:B:2230:G:H2'	10:B:2231:U:H6	1.87	0.40
10:B:1886:U:O2'	10:B:1887:C:H5'	2.22	0.40
10:B:2327:A:C5	10:B:2328:A:C5	3.10	0.40
14:F:147:ARG:NH2	14:F:150:GLY:H	2.19	0.40
10:B:1055:G:O2'	10:B:1085:A:C2	2.75	0.40
8:7:41:LEU:HD13	10:B:1082:U:H4'	2.03	0.40
10:B:1077:A:HO2'	17:I:93:ASN:HD22	1.62	0.40
3:2:19:ARG:NH2	10:B:124:G:N7	2.70	0.40
10:B:1689:A:C2	10:B:1690:A:C5	3.09	0.40
10:B:1827:U:N3	10:B:1828:G:C2	2.87	0.40
10:B:707:G:C2	10:B:708:G:C4	3.09	0.40
10:B:727:A:OP1	10:B:1431:A:O2'	2.18	0.40
7:6:78:VAL:O	7:6:78:VAL:HG13	2.21	0.40
10:B:2287:A:C8	10:B:2289:G:N9	2.89	0.40
10:B:2345:G:C6	10:B:2347:C:N4	2.87	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:B:2348:U:H2'	10:B:2349:G:C8	2.57	0.40
10:B:2414:G:C2	10:B:2415:G:C5	3.10	0.40
9:A:112:G:C6	9:A:113:C:C4	3.10	0.40
10:B:862:G:H2'	10:B:863:A:O4'	2.22	0.40
28:T:81:LYS:HB2	28:T:81:LYS:HE3	1.85	0.40
7:6:147:LYS:NZ	7:6:159:GLN:CD	2.75	0.40
10:B:475:C:C4	10:B:481:G:O6	2.74	0.40
10:B:482:A:OP2	10:B:507:A:N6	2.55	0.40
10:B:487:C:H3'	10:B:490:C:N4	2.37	0.40
10:B:304:U:C2	10:B:305:C:C5	3.09	0.40
10:B:303:G:C6	10:B:304:U:C4	3.10	0.40
7:6:211:SER:OG	7:6:222:VAL:HG12	2.21	0.40
18:J:109:LEU:HD23	18:J:109:LEU:HA	1.70	0.40
20:L:90:VAL:N	20:L:121:THR:O	2.54	0.40
13:E:149:ILE:HG13	13:E:170:ARG:O	2.21	0.40
10:B:1846:G:C5	10:B:1847:A:N7	2.90	0.40
10:B:1866:A:N6	10:B:1867:G:C2	2.89	0.40
8:7:39:THR:O	8:7:43:LYS:HG3	2.21	0.40
19:K:63:ARG:HB2	19:K:82:ALA:H	1.85	0.40
15:G:10:VAL:HG23	15:G:47:ASN:O	2.21	0.40
25:Q:16:ILE:HG23	25:Q:38:VAL:HG21	2.04	0.40
10:B:1742:U:C2	10:B:1743:G:C8	3.09	0.40
10:B:1733:G:C4	10:B:1734:G:C8	3.10	0.40
10:B:693:A:N7	10:B:694:U:C4	2.89	0.40
8:7:138:ARG:HB3	8:7:146:ALA:HB3	2.02	0.40
7:6:383:PHE:CD2	7:6:389:ILE:HG12	2.56	0.40
7:6:389:ILE:HG22	7:6:391:LYS:N	2.36	0.40
10:B:1936:A:C2	10:B:1945:G:C5	3.10	0.40
2:1:24:LYS:HD3	2:1:33:LEU:HD22	2.04	0.40
13:E:91:ASP:O	13:E:92:HIS:CG	2.75	0.40
15:G:81:GLY:C	15:G:82:PHE:CG	2.95	0.40
24:P:8:GLU:HB3	24:P:54:LEU:HB2	2.03	0.40
7:6:121:LYS:O	7:6:125:GLU:HG2	2.21	0.40
6:5:206:GLY:HA2	10:B:1876:A:H5''	2.03	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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	54/57 (95%)	45 (83%)	5 (9%)	4 (7%)	1	21
2	1	49/55 (89%)	45 (92%)	4 (8%)	0	100	100
3	2	44/46 (96%)	35 (80%)	6 (14%)	3 (7%)	1	24
4	3	62/65 (95%)	58 (94%)	4 (6%)	0	100	100
5	4	36/38 (95%)	26 (72%)	5 (14%)	5 (14%)	0	6
6	5	232/234 (99%)	190 (82%)	27 (12%)	15 (6%)	1	26
7	6	424/426 (100%)	364 (86%)	39 (9%)	21 (5%)	3	31
8	7	162/165 (98%)	128 (79%)	23 (14%)	11 (7%)	1	24
11	C	270/273 (99%)	219 (81%)	34 (13%)	17 (6%)	2	26
12	D	207/209 (99%)	166 (80%)	20 (10%)	21 (10%)	1	13
13	E	199/201 (99%)	160 (80%)	21 (11%)	18 (9%)	1	16
14	F	176/179 (98%)	131 (74%)	30 (17%)	15 (8%)	1	17
15	G	174/177 (98%)	142 (82%)	21 (12%)	11 (6%)	2	26
16	H	147/149 (99%)	97 (66%)	29 (20%)	21 (14%)	0	6
17	I	139/142 (98%)	122 (88%)	13 (9%)	4 (3%)	6	45
18	J	140/142 (99%)	109 (78%)	19 (14%)	12 (9%)	1	17
19	K	120/123 (98%)	96 (80%)	14 (12%)	10 (8%)	1	18
20	L	141/144 (98%)	113 (80%)	20 (14%)	8 (6%)	2	28
21	M	134/136 (98%)	113 (84%)	13 (10%)	8 (6%)	2	27
22	N	119/127 (94%)	96 (81%)	18 (15%)	5 (4%)	3	35
23	O	114/117 (97%)	105 (92%)	6 (5%)	3 (3%)	7	47
24	P	112/115 (97%)	89 (80%)	18 (16%)	5 (4%)	3	33
25	Q	115/118 (98%)	102 (89%)	7 (6%)	6 (5%)	2	30
26	R	101/103 (98%)	78 (77%)	13 (13%)	10 (10%)	1	14
27	S	108/110 (98%)	93 (86%)	8 (7%)	7 (6%)	1	26

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
28	T	92/100 (92%)	73 (79%)	13 (14%)	6 (6%)	1	26
29	U	101/104 (97%)	79 (78%)	14 (14%)	8 (8%)	1	19
30	V	92/94 (98%)	81 (88%)	10 (11%)	1 (1%)	17	64
31	W	77/85 (91%)	58 (75%)	12 (16%)	7 (9%)	1	16
32	X	75/78 (96%)	61 (81%)	9 (12%)	5 (7%)	1	24
33	Y	61/63 (97%)	49 (80%)	6 (10%)	6 (10%)	1	14
34	Z	56/59 (95%)	51 (91%)	3 (5%)	2 (4%)	4	40
All	All	4133/4234 (98%)	3374 (82%)	484 (12%)	275 (7%)	3	24

All (275) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
5	4	11	CYS
5	4	34	LYS
6	5	38	PHE
6	5	39	VAL
6	5	135	GLY
6	5	166	ASP
7	6	23	ASP
7	6	24	MET
7	6	49	ARG
7	6	291	VAL
7	6	364	GLU
7	6	367	GLN
7	6	374	PRO
8	7	51	TYR
8	7	118	ILE
11	C	35	LYS
11	C	84	PRO
11	C	107	LYS
12	D	150	GLN
13	E	96	VAL
13	E	152	GLU
14	F	119	LYS
15	G	2	ARG
15	G	47	ASN
15	G	60	GLY
16	H	31	VAL
16	H	67	ALA
16	H	119	ASN

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Mol	Chain	Res	Type
18	J	81	ILE
19	K	2	GLN
19	K	28	HIS
19	K	31	TYR
19	K	72	ASP
21	M	73	ILE
25	Q	87	VAL
25	Q	97	ILE
26	R	81	LYS
27	S	2	GLU
27	S	30	SER
28	T	40	LYS
31	W	49	ASN
32	X	75	GLU
33	Y	40	SER
1	0	2	VAL
5	4	28	SER
6	5	15	VAL
6	5	53	ARG
6	5	134	ARG
6	5	228	GLY
7	6	25	GLU
7	6	27	LEU
7	6	57	PHE
7	6	194	LYS
7	6	244	VAL
7	6	245	GLY
7	6	287	ALA
7	6	318	LYS
7	6	363	GLY
8	7	2	ALA
8	7	57	ASN
8	7	104	ALA
8	7	132	TYR
11	C	53	ILE
11	C	90	ILE
11	C	132	ARG
11	C	142	ASN
11	C	183	VAL
11	C	232	GLY
11	C	238	ASN
12	D	21	SER

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Mol	Chain	Res	Type
12	D	58	ASN
12	D	109	VAL
12	D	113	SER
12	D	151	THR
12	D	183	GLU
13	E	57	LYS
13	E	73	ILE
13	E	87	ALA
13	E	164	LEU
14	F	8	LYS
14	F	59	ILE
14	F	111	ARG
14	F	136	ILE
14	F	141	ASP
15	G	31	GLU
15	G	99	GLY
16	H	11	ASN
16	H	27	ARG
16	H	105	ALA
17	I	22	PRO
18	J	42	ALA
18	J	44	TYR
18	J	53	TYR
18	J	65	THR
19	K	5	THR
19	K	34	VAL
20	L	27	LEU
20	L	42	SER
20	L	58	TYR
20	L	141	LYS
21	M	79	ALA
22	N	41	ALA
22	N	70	THR
22	N	71	ARG
22	N	80	PHE
23	O	23	ALA
24	P	6	GLN
24	P	98	TYR
25	Q	101	ASP
26	R	43	ASN
26	R	98	ILE
27	S	40	ASN

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Mol	Chain	Res	Type
27	S	71	VAL
28	T	52	GLU
28	T	55	VAL
29	U	12	VAL
29	U	98	ASN
30	V	78	GLN
31	W	17	ALA
31	W	29	SER
31	W	75	ASN
32	X	65	THR
34	Z	10	ARG
1	0	48	TYR
1	0	50	GLY
6	5	55	SER
6	5	141	LYS
6	5	205	LYS
8	7	113	PHE
11	C	78	GLU
11	C	154	ALA
11	C	169	ALA
11	C	185	ALA
11	C	231	HIS
12	D	148	GLN
12	D	159	LYS
13	E	61	ARG
13	E	78	TRP
13	E	188	MET
14	F	69	ALA
14	F	107	VAL
14	F	149	ARG
14	F	160	LYS
15	G	9	VAL
15	G	55	ASP
15	G	164	ALA
16	H	54	LEU
16	H	63	ALA
16	H	65	ALA
16	H	68	ARG
16	H	81	ALA
16	H	122	LEU
18	J	39	LYS
18	J	128	ASN

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Mol	Chain	Res	Type
19	K	120	GLU
21	M	72	PRO
21	M	78	LEU
21	M	134	THR
26	R	50	GLY
26	R	52	PRO
26	R	82	HIS
28	T	21	SER
28	T	28	ASN
31	W	8	SER
31	W	43	LYS
31	W	54	ARG
32	X	2	ARG
33	Y	5	GLU
33	Y	6	LEU
33	Y	10	SER
33	Y	12	GLU
3	2	15	SER
5	4	29	ALA
6	5	124	VAL
6	5	211	LYS
7	6	233	ASP
8	7	21	GLY
12	D	41	ALA
12	D	97	SER
12	D	152	PRO
12	D	156	PHE
12	D	160	LYS
12	D	161	MET
13	E	9	GLN
13	E	10	SER
13	E	68	ALA
13	E	93	SER
14	F	13	LYS
14	F	70	ARG
14	F	139	GLU
15	G	166	GLU
16	H	15	LEU
16	H	87	GLU
17	I	26	ALA
18	J	40	HIS
19	K	30	ARG

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Mol	Chain	Res	Type
19	K	48	ARG
20	L	66	PHE
20	L	113	ALA
20	L	138	ALA
21	M	100	LYS
22	N	56	LYS
23	O	99	TYR
24	P	4	ILE
24	P	109	ILE
26	R	100	GLY
26	R	101	ILE
27	S	66	ILE
28	T	35	ALA
29	U	16	LYS
3	2	10	LEU
5	4	8	LYS
6	5	3	LYS
7	6	82	HIS
7	6	423	ASP
8	7	30	SER
8	7	108	VAL
11	C	77	VAL
11	C	155	ARG
12	D	75	ALA
12	D	123	LYS
12	D	136	ASN
13	E	86	ALA
14	F	144	LYS
15	G	29	ASN
16	H	29	PHE
16	H	69	ALA
18	J	38	GLY
21	M	38	ARG
21	M	116	ALA
23	O	13	ARG
25	Q	29	ARG
25	Q	91	ARG
26	R	7	SER
29	U	17	ASP
29	U	38	ILE
29	U	43	LYS
32	X	27	ARG

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Mol	Chain	Res	Type
32	X	30	PRO
33	Y	3	ALA
34	Z	42	ALA
1	0	54	ILE
6	5	227	ALA
7	6	375	GLN
13	E	6	LYS
13	E	137	LYS
14	F	78	ILE
15	G	79	THR
16	H	82	SER
16	H	125	THR
17	I	24	GLY
18	J	68	LYS
18	J	71	ASP
19	K	92	GLN
20	L	48	ARG
27	S	4	ILE
3	2	44	VAL
12	D	205	PRO
16	H	120	GLY
7	6	58	VAL
13	E	42	GLY
13	E	174	GLY
29	U	57	ILE
16	H	121	VAL
17	I	19	PRO
18	J	127	GLY
24	P	34	GLY
27	S	74	ILE
12	D	122	VAL
25	Q	89	ILE
26	R	58	VAL
29	U	10	VAL
8	7	123	ILE
12	D	203	VAL
16	H	78	VAL

5.3.2 Protein sidechains ⓘ

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

entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	47/48 (98%)	47 (100%)	0	100	100
2	1	45/49 (92%)	45 (100%)	0	100	100
3	2	38/38 (100%)	38 (100%)	0	100	100
4	3	51/52 (98%)	51 (100%)	0	100	100
5	4	34/34 (100%)	34 (100%)	0	100	100
6	5	181/181 (100%)	179 (99%)	2 (1%)	80	90
7	6	364/364 (100%)	363 (100%)	1 (0%)	94	96
8	7	123/123 (100%)	123 (100%)	0	100	100
11	C	216/218 (99%)	216 (100%)	0	100	100
12	D	164/164 (100%)	163 (99%)	1 (1%)	90	95
13	E	165/165 (100%)	164 (99%)	1 (1%)	90	95
14	F	149/150 (99%)	149 (100%)	0	100	100
15	G	137/138 (99%)	137 (100%)	0	100	100
16	H	114/114 (100%)	113 (99%)	1 (1%)	84	92
17	I	109/110 (99%)	109 (100%)	0	100	100
18	J	116/116 (100%)	116 (100%)	0	100	100
19	K	102/104 (98%)	102 (100%)	0	100	100
20	L	102/103 (99%)	102 (100%)	0	100	100
21	M	109/109 (100%)	109 (100%)	0	100	100
22	N	100/103 (97%)	100 (100%)	0	100	100
23	O	86/87 (99%)	86 (100%)	0	100	100
24	P	99/100 (99%)	99 (100%)	0	100	100
25	Q	89/90 (99%)	88 (99%)	1 (1%)	80	90
26	R	84/84 (100%)	84 (100%)	0	100	100
27	S	93/93 (100%)	93 (100%)	0	100	100
28	T	80/84 (95%)	80 (100%)	0	100	100
29	U	83/85 (98%)	83 (100%)	0	100	100
30	V	78/78 (100%)	78 (100%)	0	100	100
31	W	59/63 (94%)	59 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
32	X	67/68 (98%)	67 (100%)	0	100	100
33	Y	55/55 (100%)	55 (100%)	0	100	100
34	Z	48/49 (98%)	48 (100%)	0	100	100
All	All	3387/3419 (99%)	3380 (100%)	7 (0%)	95	97

All (7) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
6	5	37	LYS
6	5	38	PHE
7	6	24	MET
12	D	151	THR
13	E	78	TRP
16	H	68	ARG
25	Q	56	PHE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (82) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	4	GLN
1	0	5	ASN
1	0	41	HIS
2	1	18	HIS
6	5	203	GLN
7	6	15	HIS
7	6	43	GLN
7	6	82	HIS
7	6	113	GLN
7	6	128	GLN
7	6	146	GLN
7	6	258	HIS
7	6	292	GLN
7	6	299	ASN
7	6	335	ASN
7	6	338	ASN
7	6	367	GLN
11	C	69	ASN
11	C	231	HIS
11	C	250	GLN
12	D	94	GLN

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Mol	Chain	Res	Type
12	D	130	GLN
12	D	148	GLN
12	D	149	ASN
12	D	164	GLN
12	D	173	GLN
13	E	29	HIS
13	E	62	GLN
13	E	92	HIS
13	E	163	ASN
13	E	165	HIS
14	F	22	ASN
15	G	19	ASN
15	G	21	GLN
15	G	63	GLN
15	G	100	ASN
15	G	114	HIS
15	G	115	GLN
16	H	33	GLN
17	I	29	GLN
17	I	30	GLN
18	J	40	HIS
18	J	47	HIS
18	J	76	HIS
18	J	136	GLN
21	M	17	ASN
21	M	45	GLN
21	M	97	GLN
22	N	9	GLN
22	N	11	ASN
22	N	62	ASN
22	N	81	ASN
24	P	11	GLN
24	P	51	ASN
24	P	114	ASN
25	Q	51	GLN
25	Q	58	GLN
26	R	11	GLN
26	R	86	GLN
26	R	91	GLN
27	S	7	HIS
27	S	9	HIS
27	S	102	HIS

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Mol	Chain	Res	Type
28	T	28	ASN
28	T	91	GLN
28	T	92	ASN
29	U	68	ASN
29	U	98	ASN
30	V	5	ASN
30	V	49	ASN
30	V	51	GLN
30	V	80	HIS
30	V	87	GLN
31	W	39	GLN
31	W	56	HIS
32	X	15	ASN
32	X	22	ASN
33	Y	25	GLN
33	Y	38	GLN
33	Y	39	GLN
33	Y	58	ASN
34	Z	19	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
10	B	2902/2903 (99%)	1015 (34%)	56 (1%)
9	A	116/120 (96%)	35 (30%)	2 (1%)
All	All	3018/3023 (99%)	1050 (34%)	58 (1%)

All (1050) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
9	A	7	G
9	A	11	C
9	A	13	G
9	A	14	U
9	A	15	A
9	A	16	G
9	A	18	G
9	A	24	G
9	A	25	U
9	A	26	C
9	A	27	C

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Mol	Chain	Res	Type
9	A	29	A
9	A	30	C
9	A	35	C
9	A	37	C
9	A	38	C
9	A	41	G
9	A	45	A
9	A	56	G
9	A	57	A
9	A	63	C
9	A	64	G
9	A	67	G
9	A	73	A
9	A	76	G
9	A	83	G
9	A	86	G
9	A	87	U
9	A	88	C
9	A	90	C
9	A	91	C
9	A	94	A
9	A	99	A
9	A	105	G
9	A	109	A
10	B	4	U
10	B	6	A
10	B	7	G
10	B	8	C
10	B	11	C
10	B	12	U
10	B	18	U
10	B	26	G
10	B	32	C
10	B	33	C
10	B	34	U
10	B	35	G
10	B	37	C
10	B	39	G
10	B	46	G
10	B	49	A
10	B	50	U
10	B	51	G

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Mol	Chain	Res	Type
10	B	58	G
10	B	59	U
10	B	60	G
10	B	61	C
10	B	63	A
10	B	71	A
10	B	74	A
10	B	75	G
10	B	79	C
10	B	80	G
10	B	82	U
10	B	83	A
10	B	84	A
10	B	87	U
10	B	91	A
10	B	93	G
10	B	99	U
10	B	101	A
10	B	102	U
10	B	106	C
10	B	114	U
10	B	118	A
10	B	119	A
10	B	120	U
10	B	122	G
10	B	124	G
10	B	126	A
10	B	127	A
10	B	128	C
10	B	134	G
10	B	139	U
10	B	140	C
10	B	142	A
10	B	144	A
10	B	146	A
10	B	149	A
10	B	153	U
10	B	160	A
10	B	163	C
10	B	165	A
10	B	170	U
10	B	174	U

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Mol	Chain	Res	Type
10	B	180	G
10	B	181	A
10	B	182	A
10	B	193	U
10	B	196	A
10	B	199	A
10	B	201	C
10	B	204	A
10	B	205	G
10	B	214	G
10	B	215	G
10	B	216	A
10	B	218	A
10	B	221	A
10	B	223	A
10	B	224	U
10	B	227	A
10	B	228	C
10	B	229	C
10	B	230	G
10	B	233	A
10	B	240	C
10	B	244	A
10	B	248	G
10	B	249	C
10	B	250	G
10	B	254	G
10	B	255	A
10	B	265	A
10	B	266	G
10	B	267	C
10	B	271	G
10	B	273	G
10	B	277	G
10	B	281	C
10	B	282	A
10	B	284	U
10	B	285	G
10	B	286	U
10	B	287	G
10	B	292	U
10	B	294	A

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Mol	Chain	Res	Type
10	B	296	U
10	B	299	A
10	B	310	A
10	B	311	A
10	B	317	G
10	B	321	U
10	B	322	A
10	B	324	A
10	B	329	G
10	B	330	A
10	B	331	C
10	B	333	G
10	B	334	C
10	B	338	G
10	B	339	U
10	B	342	A
10	B	343	C
10	B	344	A
10	B	346	A
10	B	347	A
10	B	349	U
10	B	352	A
10	B	353	C
10	B	360	U
10	B	361	G
10	B	362	A
10	B	364	C
10	B	365	U
10	B	371	A
10	B	372	G
10	B	373	U
10	B	375	G
10	B	376	G
10	B	381	G
10	B	385	C
10	B	386	G
10	B	388	G
10	B	396	G
10	B	404	A
10	B	405	U
10	B	406	G
10	B	411	G

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Mol	Chain	Res	Type
10	B	420	C
10	B	424	G
10	B	428	A
10	B	429	A
10	B	431	U
10	B	452	G
10	B	456	C
10	B	457	A
10	B	461	C
10	B	467	G
10	B	473	G
10	B	475	C
10	B	479	A
10	B	481	G
10	B	482	A
10	B	488	G
10	B	490	C
10	B	491	G
10	B	494	G
10	B	496	G
10	B	497	A
10	B	498	G
10	B	504	A
10	B	505	A
10	B	508	A
10	B	509	C
10	B	510	C
10	B	512	G
10	B	513	A
10	B	521	U
10	B	528	A
10	B	530	G
10	B	531	C
10	B	532	A
10	B	533	G
10	B	539	G
10	B	542	C
10	B	544	C
10	B	545	U
10	B	546	U
10	B	547	A
10	B	548	G

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Mol	Chain	Res	Type
10	B	549	G
10	B	550	C
10	B	555	G
10	B	558	U
10	B	562	U
10	B	563	A
10	B	565	C
10	B	566	U
10	B	567	U
10	B	568	U
10	B	569	U
10	B	571	U
10	B	572	A
10	B	573	U
10	B	575	A
10	B	583	G
10	B	584	C
10	B	585	G
10	B	586	A
10	B	587	C
10	B	593	U
10	B	595	C
10	B	613	A
10	B	614	A
10	B	620	G
10	B	621	A
10	B	623	C
10	B	630	G
10	B	637	A
10	B	639	U
10	B	640	C
10	B	643	A
10	B	644	A
10	B	645	C
10	B	646	U
10	B	647	G
10	B	652	U
10	B	655	A
10	B	656	G
10	B	657	U
10	B	664	G
10	B	669	G

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Mol	Chain	Res	Type
10	B	670	A
10	B	671	C
10	B	672	C
10	B	675	A
10	B	677	A
10	B	686	U
10	B	687	C
10	B	695	G
10	B	700	G
10	B	701	G
10	B	705	A
10	B	713	G
10	B	716	A
10	B	721	A
10	B	722	A
10	B	723	C
10	B	724	U
10	B	727	A
10	B	729	G
10	B	730	A
10	B	733	G
10	B	740	C
10	B	741	U
10	B	745	G
10	B	748	G
10	B	749	A
10	B	750	A
10	B	751	A
10	B	752	A
10	B	756	A
10	B	759	G
10	B	765	C
10	B	769	U
10	B	773	U
10	B	775	G
10	B	780	G
10	B	781	A
10	B	782	A
10	B	784	G
10	B	785	G
10	B	788	A
10	B	790	U

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Mol	Chain	Res	Type
10	B	792	A
10	B	797	G
10	B	800	A
10	B	802	A
10	B	803	U
10	B	805	G
10	B	806	C
10	B	807	U
10	B	808	G
10	B	811	U
10	B	812	C
10	B	819	A
10	B	820	A
10	B	822	G
10	B	823	C
10	B	824	U
10	B	827	U
10	B	830	G
10	B	840	C
10	B	843	G
10	B	846	U
10	B	848	C
10	B	851	C
10	B	859	G
10	B	860	U
10	B	866	A
10	B	869	G
10	B	870	U
10	B	871	U
10	B	872	U
10	B	873	C
10	B	875	G
10	B	879	G
10	B	881	G
10	B	882	G
10	B	883	G
10	B	884	U
10	B	888	C
10	B	889	C
10	B	891	G
10	B	896	A
10	B	897	C

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Mol	Chain	Res	Type
10	B	905	A
10	B	909	A
10	B	910	A
10	B	912	C
10	B	915	C
10	B	930	G
10	B	931	U
10	B	932	U
10	B	933	A
10	B	937	C
10	B	940	G
10	B	941	A
10	B	942	G
10	B	945	A
10	B	946	C
10	B	951	C
10	B	952	G
10	B	953	G
10	B	957	C
10	B	958	U
10	B	959	A
10	B	961	C
10	B	962	G
10	B	969	G
10	B	970	U
10	B	974	G
10	B	975	A
10	B	983	A
10	B	985	C
10	B	991	C
10	B	992	C
10	B	996	A
10	B	1005	C
10	B	1009	A
10	B	1012	U
10	B	1013	C
10	B	1020	A
10	B	1021	A
10	B	1022	G
10	B	1023	U
10	B	1025	G
10	B	1027	A

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Mol	Chain	Res	Type
10	B	1033	U
10	B	1039	A
10	B	1046	A
10	B	1047	G
10	B	1054	A
10	B	1055	G
10	B	1056	G
10	B	1058	U
10	B	1060	U
10	B	1069	A
10	B	1070	A
10	B	1071	G
10	B	1073	A
10	B	1084	A
10	B	1087	G
10	B	1088	A
10	B	1089	A
10	B	1090	A
10	B	1093	G
10	B	1095	A
10	B	1099	G
10	B	1102	C
10	B	1104	C
10	B	1110	G
10	B	1112	G
10	B	1115	G
10	B	1116	G
10	B	1122	G
10	B	1129	A
10	B	1130	U
10	B	1131	G
10	B	1132	U
10	B	1133	A
10	B	1134	A
10	B	1135	C
10	B	1136	G
10	B	1139	G
10	B	1140	C
10	B	1141	U
10	B	1142	A
10	B	1143	A
10	B	1144	A

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Mol	Chain	Res	Type
10	B	1155	A
10	B	1157	G
10	B	1163	G
10	B	1166	G
10	B	1170	C
10	B	1171	G
10	B	1174	U
10	B	1175	A
10	B	1176	U
10	B	1178	C
10	B	1179	G
10	B	1180	U
10	B	1186	G
10	B	1195	G
10	B	1205	A
10	B	1209	U
10	B	1211	C
10	B	1212	G
10	B	1222	U
10	B	1223	G
10	B	1227	G
10	B	1232	G
10	B	1233	C
10	B	1236	G
10	B	1238	G
10	B	1241	A
10	B	1244	A
10	B	1248	G
10	B	1249	U
10	B	1251	C
10	B	1253	A
10	B	1256	G
10	B	1258	U
10	B	1265	A
10	B	1266	G
10	B	1268	A
10	B	1270	C
10	B	1271	G
10	B	1272	A
10	B	1273	U
10	B	1274	A
10	B	1275	A

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Mol	Chain	Res	Type
10	B	1276	A
10	B	1279	G
10	B	1280	G
10	B	1286	A
10	B	1287	A
10	B	1289	C
10	B	1293	C
10	B	1294	U
10	B	1296	G
10	B	1297	C
10	B	1299	G
10	B	1300	G
10	B	1301	A
10	B	1302	A
10	B	1309	G
10	B	1311	G
10	B	1312	U
10	B	1313	U
10	B	1314	C
10	B	1316	U
10	B	1318	U
10	B	1320	C
10	B	1321	A
10	B	1322	A
10	B	1324	G
10	B	1325	U
10	B	1326	U
10	B	1327	A
10	B	1328	A
10	B	1329	U
10	B	1330	C
10	B	1337	G
10	B	1341	G
10	B	1342	A
10	B	1344	U
10	B	1345	C
10	B	1350	C
10	B	1355	G
10	B	1356	G
10	B	1368	G
10	B	1374	G
10	B	1378	A

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Mol	Chain	Res	Type
10	B	1379	U
10	B	1383	A
10	B	1384	A
10	B	1385	A
10	B	1386	C
10	B	1391	U
10	B	1396	U
10	B	1398	C
10	B	1399	C
10	B	1408	G
10	B	1416	G
10	B	1419	A
10	B	1420	A
10	B	1421	G
10	B	1426	G
10	B	1427	A
10	B	1428	C
10	B	1429	G
10	B	1430	G
10	B	1434	A
10	B	1435	G
10	B	1440	U
10	B	1451	C
10	B	1452	G
10	B	1453	A
10	B	1454	C
10	B	1456	G
10	B	1458	U
10	B	1459	G
10	B	1461	C
10	B	1463	C
10	B	1466	U
10	B	1467	U
10	B	1475	G
10	B	1476	U
10	B	1477	A
10	B	1478	G
10	B	1479	G
10	B	1482	G
10	B	1490	A
10	B	1498	C
10	B	1501	G

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Mol	Chain	Res	Type
10	B	1502	A
10	B	1504	A
10	B	1505	A
10	B	1507	C
10	B	1508	A
10	B	1510	G
10	B	1516	G
10	B	1519	G
10	B	1523	U
10	B	1524	G
10	B	1535	A
10	B	1536	C
10	B	1537	G
10	B	1540	G
10	B	1544	A
10	B	1547	C
10	B	1552	A
10	B	1557	C
10	B	1558	C
10	B	1560	G
10	B	1566	A
10	B	1571	A
10	B	1575	C
10	B	1578	U
10	B	1583	A
10	B	1584	U
10	B	1585	C
10	B	1587	G
10	B	1600	C
10	B	1602	U
10	B	1603	A
10	B	1606	C
10	B	1607	C
10	B	1608	A
10	B	1610	A
10	B	1613	G
10	B	1614	A
10	B	1616	A
10	B	1618	A
10	B	1619	G
10	B	1624	U
10	B	1625	C

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Mol	Chain	Res	Type
10	B	1627	G
10	B	1628	G
10	B	1635	A
10	B	1640	A
10	B	1643	G
10	B	1646	C
10	B	1647	U
10	B	1648	U
10	B	1649	G
10	B	1652	A
10	B	1653	G
10	B	1659	G
10	B	1663	G
10	B	1665	A
10	B	1668	A
10	B	1670	C
10	B	1674	G
10	B	1679	A
10	B	1681	G
10	B	1693	U
10	B	1694	C
10	B	1696	G
10	B	1698	A
10	B	1699	G
10	B	1701	A
10	B	1702	G
10	B	1705	A
10	B	1715	G
10	B	1716	U
10	B	1718	G
10	B	1721	G
10	B	1725	U
10	B	1728	C
10	B	1729	U
10	B	1730	C
10	B	1731	G
10	B	1737	G
10	B	1738	G
10	B	1739	A
10	B	1744	A
10	B	1745	A
10	B	1748	C

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Mol	Chain	Res	Type
10	B	1751	U
10	B	1753	G
10	B	1756	G
10	B	1757	A
10	B	1758	U
10	B	1760	C
10	B	1763	G
10	B	1764	C
10	B	1769	U
10	B	1771	C
10	B	1772	A
10	B	1773	A
10	B	1775	U
10	B	1779	U
10	B	1780	A
10	B	1781	U
10	B	1782	U
10	B	1784	A
10	B	1785	A
10	B	1787	A
10	B	1798	U
10	B	1800	C
10	B	1801	A
10	B	1802	A
10	B	1808	A
10	B	1811	G
10	B	1814	G
10	B	1815	A
10	B	1816	C
10	B	1819	A
10	B	1821	A
10	B	1828	G
10	B	1833	C
10	B	1838	C
10	B	1839	G
10	B	1841	U
10	B	1845	G
10	B	1847	A
10	B	1848	A
10	B	1854	A
10	B	1858	A
10	B	1866	A

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Mol	Chain	Res	Type
10	B	1869	G
10	B	1884	G
10	B	1891	G
10	B	1903	G
10	B	1905	C
10	B	1906	G
10	B	1910	G
10	B	1912	A
10	B	1913	A
10	B	1915	U
10	B	1916	A
10	B	1917	U
10	B	1918	A
10	B	1919	A
10	B	1929	G
10	B	1930	G
10	B	1936	A
10	B	1937	A
10	B	1938	A
10	B	1941	C
10	B	1948	G
10	B	1951	U
10	B	1955	U
10	B	1956	U
10	B	1964	G
10	B	1965	C
10	B	1967	C
10	B	1968	G
10	B	1970	A
10	B	1972	G
10	B	1973	G
10	B	1975	G
10	B	1980	G
10	B	1981	A
10	B	1990	C
10	B	1992	G
10	B	1994	C
10	B	1997	C
10	B	1999	C
10	B	2000	C
10	B	2001	C
10	B	2004	G

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Mol	Chain	Res	Type
10	B	2016	U
10	B	2017	U
10	B	2023	C
10	B	2025	C
10	B	2027	G
10	B	2030	A
10	B	2032	G
10	B	2033	A
10	B	2043	C
10	B	2055	C
10	B	2056	G
10	B	2060	A
10	B	2061	G
10	B	2062	A
10	B	2063	C
10	B	2069	G
10	B	2073	C
10	B	2077	A
10	B	2085	U
10	B	2092	U
10	B	2093	G
10	B	2095	A
10	B	2097	A
10	B	2099	U
10	B	2100	G
10	B	2104	C
10	B	2108	A
10	B	2109	U
10	B	2110	G
10	B	2111	U
10	B	2112	G
10	B	2113	U
10	B	2116	G
10	B	2117	A
10	B	2119	A
10	B	2121	G
10	B	2123	G
10	B	2127	G
10	B	2128	G
10	B	2130	U
10	B	2131	U
10	B	2132	U

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Mol	Chain	Res	Type
10	B	2134	A
10	B	2135	A
10	B	2138	G
10	B	2142	A
10	B	2148	G
10	B	2149	U
10	B	2151	U
10	B	2153	C
10	B	2154	A
10	B	2157	G
10	B	2158	A
10	B	2159	G
10	B	2160	C
10	B	2161	C
10	B	2162	G
10	B	2163	A
10	B	2164	C
10	B	2169	A
10	B	2172	U
10	B	2173	A
10	B	2174	C
10	B	2176	A
10	B	2177	C
10	B	2178	C
10	B	2179	C
10	B	2184	A
10	B	2186	G
10	B	2187	U
10	B	2192	U
10	B	2193	G
10	B	2196	C
10	B	2198	A
10	B	2199	A
10	B	2204	G
10	B	2212	A
10	B	2213	U
10	B	2214	C
10	B	2223	G
10	B	2225	A
10	B	2234	G
10	B	2238	G
10	B	2239	G

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Mol	Chain	Res	Type
10	B	2241	A
10	B	2243	U
10	B	2245	U
10	B	2247	A
10	B	2250	G
10	B	2251	G
10	B	2252	G
10	B	2253	G
10	B	2254	C
10	B	2259	U
10	B	2266	A
10	B	2267	A
10	B	2268	A
10	B	2269	G
10	B	2272	U
10	B	2273	A
10	B	2274	A
10	B	2278	A
10	B	2279	G
10	B	2283	C
10	B	2284	A
10	B	2287	A
10	B	2288	A
10	B	2297	A
10	B	2298	A
10	B	2305	U
10	B	2307	G
10	B	2308	G
10	B	2309	A
10	B	2312	U
10	B	2319	G
10	B	2320	U
10	B	2322	A
10	B	2324	U
10	B	2325	G
10	B	2326	C
10	B	2331	G
10	B	2332	C
10	B	2333	A
10	B	2334	U
10	B	2336	A
10	B	2337	G

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Mol	Chain	Res	Type
10	B	2344	U
10	B	2345	G
10	B	2347	C
10	B	2349	G
10	B	2352	A
10	B	2366	A
10	B	2371	G
10	B	2373	G
10	B	2379	G
10	B	2383	G
10	B	2385	C
10	B	2387	U
10	B	2388	A
10	B	2390	U
10	B	2391	G
10	B	2396	G
10	B	2402	U
10	B	2404	U
10	B	2405	G
10	B	2406	A
10	B	2407	A
10	B	2417	C
10	B	2422	C
10	B	2423	U
10	B	2425	A
10	B	2426	A
10	B	2428	G
10	B	2429	G
10	B	2430	A
10	B	2431	U
10	B	2432	A
10	B	2434	A
10	B	2435	A
10	B	2440	C
10	B	2441	U
10	B	2442	C
10	B	2443	C
10	B	2447	G
10	B	2448	A
10	B	2449	U
10	B	2450	A
10	B	2469	A

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Mol	Chain	Res	Type
10	B	2472	G
10	B	2474	U
10	B	2476	A
10	B	2478	A
10	B	2479	U
10	B	2481	G
10	B	2484	G
10	B	2487	G
10	B	2491	U
10	B	2492	U
10	B	2497	A
10	B	2498	C
10	B	2502	G
10	B	2503	A
10	B	2504	U
10	B	2505	G
10	B	2511	U
10	B	2518	A
10	B	2519	U
10	B	2529	G
10	B	2531	A
10	B	2534	A
10	B	2535	G
10	B	2541	A
10	B	2542	A
10	B	2543	G
10	B	2548	U
10	B	2552	U
10	B	2553	G
10	B	2554	U
10	B	2556	C
10	B	2562	U
10	B	2566	A
10	B	2567	G
10	B	2572	A
10	B	2573	C
10	B	2574	G
10	B	2576	G
10	B	2577	A
10	B	2578	G
10	B	2582	G
10	B	2584	U

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Mol	Chain	Res	Type
10	B	2585	U
10	B	2586	U
10	B	2597	G
10	B	2598	A
10	B	2599	G
10	B	2602	A
10	B	2603	G
10	B	2608	G
10	B	2609	U
10	B	2613	U
10	B	2620	C
10	B	2622	U
10	B	2625	G
10	B	2628	C
10	B	2629	U
10	B	2633	G
10	B	2634	A
10	B	2636	C
10	B	2637	U
10	B	2639	A
10	B	2645	G
10	B	2651	C
10	B	2656	U
10	B	2671	G
10	B	2681	C
10	B	2682	A
10	B	2683	C
10	B	2684	U
10	B	2688	G
10	B	2689	U
10	B	2690	U
10	B	2692	G
10	B	2704	C
10	B	2706	A
10	B	2707	U
10	B	2708	G
10	B	2712	C
10	B	2716	C
10	B	2717	C
10	B	2719	G
10	B	2726	A
10	B	2727	A

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Mol	Chain	Res	Type
10	B	2729	G
10	B	2732	G
10	B	2733	A
10	B	2741	A
10	B	2742	G
10	B	2744	G
10	B	2748	A
10	B	2750	A
10	B	2751	G
10	B	2752	C
10	B	2753	A
10	B	2757	A
10	B	2762	C
10	B	2765	A
10	B	2776	A
10	B	2777	G
10	B	2778	A
10	B	2779	U
10	B	2780	G
10	B	2782	G
10	B	2783	U
10	B	2784	U
10	B	2789	C
10	B	2791	G
10	B	2793	C
10	B	2796	U
10	B	2797	U
10	B	2798	U
10	B	2800	A
10	B	2801	G
10	B	2804	U
10	B	2806	C
10	B	2808	G
10	B	2809	A
10	B	2811	G
10	B	2813	A
10	B	2814	A
10	B	2820	A
10	B	2821	A
10	B	2822	G
10	B	2832	U
10	B	2833	U

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Mol	Chain	Res	Type
10	B	2834	G
10	B	2835	A
10	B	2836	U
10	B	2839	G
10	B	2846	G
10	B	2849	U
10	B	2850	A
10	B	2858	C
10	B	2861	U
10	B	2864	G
10	B	2866	U
10	B	2867	G
10	B	2868	A
10	B	2869	G
10	B	2872	A
10	B	2873	A
10	B	2874	C
10	B	2879	A
10	B	2883	A
10	B	2884	U
10	B	2886	A
10	B	2887	A
10	B	2888	C
10	B	2891	U
10	B	2893	A
10	B	2894	G
10	B	2895	G
10	B	2896	C
10	B	2898	U
10	B	2899	A
10	B	2900	A

All (58) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
9	A	13	G
9	A	66	A
10	B	127	A
10	B	321	U
10	B	384	A
10	B	387	U
10	B	490	C

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Mol	Chain	Res	Type
10	B	509	C
10	B	512	G
10	B	636	G
10	B	651	G
10	B	669	G
10	B	670	A
10	B	704	G
10	B	726	G
10	B	780	G
10	B	784	G
10	B	830	G
10	B	880	G
10	B	888	C
10	B	909	A
10	B	914	G
10	B	958	U
10	B	984	A
10	B	1115	G
10	B	1129	A
10	B	1267	U
10	B	1321	A
10	B	1385	A
10	B	1395	A
10	B	1489	C
10	B	1543	G
10	B	1652	A
10	B	1730	C
10	B	1759	A
10	B	1779	U
10	B	2022	U
10	B	2076	U
10	B	2129	C
10	B	2147	A
10	B	2152	G
10	B	2158	A
10	B	2211	A
10	B	2244	U
10	B	2252	G
10	B	2253	G
10	B	2272	U
10	B	2336	A
10	B	2351	G

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Mol	Chain	Res	Type
10	B	2389	G
10	B	2425	A
10	B	2573	C
10	B	2655	G
10	B	2688	G
10	B	2808	G
10	B	2810	A
10	B	2832	U
10	B	2867	G

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

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

5.5 Carbohydrates [i](#)

There are no carbohydrates in this entry.

5.6 Ligand geometry [i](#)

Of 2 ligands modelled in this entry, 1 is monoatomic - leaving 1 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$
35	GNP	6	527	36	29,34,34	2.14	9 (31%)	29,54,54	2.81	10 (34%)

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
35	GNP	6	527	36	-	0/13/38/38	0/3/3/3

All (9) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
35	6	527	GNP	PB-O3A	-7.21	1.50	1.59
35	6	527	GNP	PB-O2B	-3.48	1.47	1.56
35	6	527	GNP	C8-N7	-2.45	1.29	1.34
35	6	527	GNP	PG-O3G	-2.27	1.50	1.56
35	6	527	GNP	PG-O2G	-2.20	1.50	1.56
35	6	527	GNP	PG-N3B	-2.09	1.57	1.63
35	6	527	GNP	PB-N3B	-2.06	1.57	1.63
35	6	527	GNP	C6-N1	3.18	1.38	1.33
35	6	527	GNP	PG-O1G	4.33	1.50	1.46

All (10) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	6	527	GNP	C5-C6-N1	-8.92	111.86	123.52
35	6	527	GNP	PA-O3A-PB	-4.95	114.77	132.71
35	6	527	GNP	O3G-PG-O1G	-3.22	105.11	113.58
35	6	527	GNP	C2'-C1'-N9	-3.05	105.29	113.47
35	6	527	GNP	C2'-C3'-C4'	-2.81	96.89	102.64
35	6	527	GNP	N3-C2-N1	-2.02	124.80	127.56
35	6	527	GNP	O3G-PG-O2G	2.81	115.85	107.67
35	6	527	GNP	C1'-N9-C4	2.85	129.99	126.81
35	6	527	GNP	O2B-PB-O1B	3.90	117.71	110.02
35	6	527	GNP	C6-N1-C2	7.07	124.17	115.88

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

1 monomer is involved in 23 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
35	6	527	GNP	23	0

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.