



wwPDB EM Map/Model Validation Report ⓘ

Apr 10, 2016 – 02:43 PM BST

PDB ID : 4V92
EMDB ID: : EMD-2604
Title : Kluyveromyces lactis 80S ribosome in complex with CrPV-IRES
Authors : Fernandez, I.S.; Bai, X.; Scheres, S.H.W.; Ramakrishnan, V.
Deposited on : 2014-03-21
Resolution : 3.70 Å(reported)
Based on PDB ID : 3B31

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>

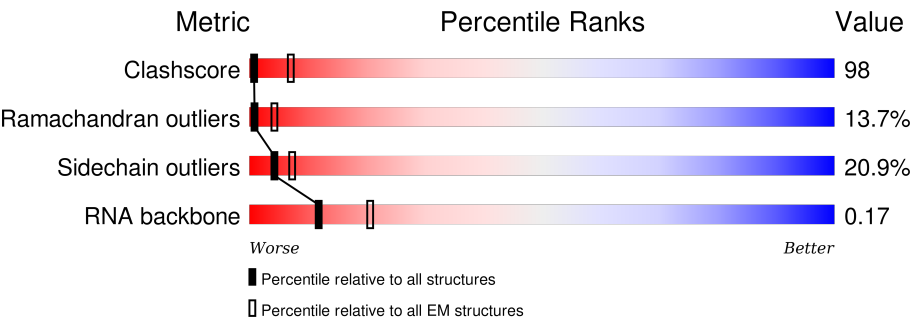
MolProbity : 4.02b-467
Mogul : unknown
Percentile statistics : 20151230.v01 (using entries in the PDB archive December 30th 2015)
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et. al. (1996)
Validation Pipeline (wwPDB-VP) : trunk27241

1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:
ELECTRON MICROSCOPY

The reported resolution of this entry is 3.70 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.



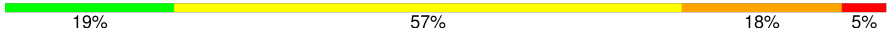
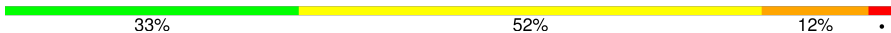
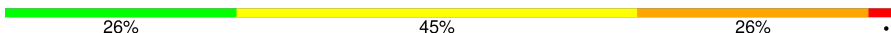
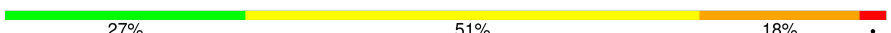

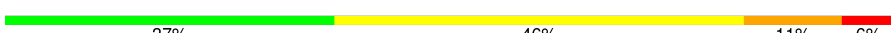





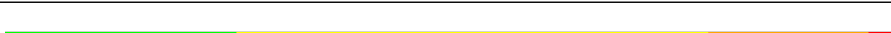






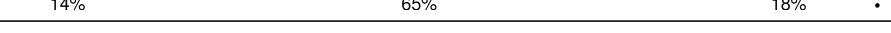
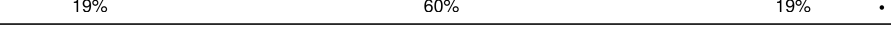





Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	114402	924
Ramachandran outliers	111179	726
Sidechain outliers	111093	686
RNA backbone	3027	244

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	A2	1767	<div><div>7%</div><div>37%</div><div>38%</div><div>18%</div></div>
2	AZ	190	<div><div>9%</div><div>28%</div><div>48%</div><div>15%</div></div>
3	BA	206	<div><div>27%</div><div>47%</div><div>18%</div><div>8%</div></div>
4	BB	213	<div><div>32%</div><div>46%</div><div>18%</div><div>.</div></div>
5	BC	216	<div><div>30%</div><div>58%</div><div>9%</div><div>.</div></div>
6	BD	222	<div><div>40%</div><div>43%</div><div>13%</div><div>5%</div></div>
7	BE	260	<div><div>20%</div><div>59%</div><div>18%</div><div>.</div></div>
8	BF	206	<div><div>37%</div><div>45%</div><div>15%</div><div>.</div></div>

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Mol	Chain	Length	Quality of chain
9	BG	226	
10	BH	184	
11	BI	187	
12	BJ	179	
13	BK	93	
14	BL	142	
15	BM	120	
16	BN	150	
17	BO	127	
18	BP	115	
19	BQ	140	
20	BR	121	
21	BS	140	
22	BT	142	
23	BU	104	
24	BV	87	
25	BW	129	
26	BX	142	
27	BY	134	
28	BZ	64	
29	Ba	97	
30	Bb	81	
31	Bc	63	
32	Bd	52	
33	Be	55	

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Mol	Chain	Length	Quality of chain
34	Bf	64	<div><div></div><div>61%</div><div>31%</div><div>6%</div><div></div></div>
35	Bg	315	<div><div></div><div>74%</div><div>23%</div><div></div></div>

2 Entry composition

There are 35 unique types of molecules in this entry. The entry contains 79002 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a RNA chain called 18S RRNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A2	1764	Total	C	N	O	P	0	0
			37579	16801	6644	12370	1764		

- Molecule 2 is a RNA chain called RNA OF CRICKET-PARALYSIS-VIRUS-IRES.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	AZ	190	Total	C	N	O	P	0	0
			4018	1801	685	1342	190		

- Molecule 3 is a protein called US2.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	BA	206	Total	C	N	O	S	0	0
			1577	1014	278	283	2		

- Molecule 4 is a protein called ES1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	BB	213	Total	C	N	O	S	0	0
			1686	1070	302	310	4		

- Molecule 5 is a protein called US5.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	BC	216	Total	C	N	O	S	0	0
			1626	1042	287	295	2		

- Molecule 6 is a protein called US3.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	BD	222	Total	C	N	O	S	0	0
			1729	1098	312	313	6		

- Molecule 7 is a protein called ES4.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	BE	260	Total	C	N	O	S	0	0
			2068	1316	389	360	3		

- Molecule 8 is a protein called US7.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	BF	206	Total	C	N	O	S	0	0
			1603	1004	297	299	3		

- Molecule 9 is a protein called ES6.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	BG	226	Total	C	N	O	S	0	0
			1790	1123	343	321	3		

- Molecule 10 is a protein called ES7.

Mol	Chain	Residues	Atoms					AltConf	Trace
10	BH	184	Total	C	N	O	S	0	0
			1481	951	265	265			

- Molecule 11 is a protein called ES8.

Mol	Chain	Residues	Atoms					AltConf	Trace
11	BI	187	Total	C	N	O	S	0	0
			1480	919	296	263	2		

- Molecule 12 is a protein called US4.

Mol	Chain	Residues	Atoms					AltConf	Trace
12	BJ	179	Total	C	N	O	S	0	0
			1452	919	282	250	1		

- Molecule 13 is a protein called ES10.

Mol	Chain	Residues	Atoms					AltConf	Trace
13	BK	93	Total	C	N	O	S	0	0
			765	496	123	144	2		

- Molecule 14 is a protein called US17.

Mol	Chain	Residues	Atoms					AltConf	Trace
14	BL	142	Total	C	N	O	S	0	0
			1146	735	217	191	3		

- Molecule 15 is a protein called ES12.

Mol	Chain	Residues	Atoms					AltConf	Trace
15	BM	120	Total	C	N	O	S	0	0
			870	548	152	168	2		

- Molecule 16 is a protein called US15.

Mol	Chain	Residues	Atoms					AltConf	Trace
16	BN	150	Total	C	N	O	S	0	0
			1192	759	224	207	2		

- Molecule 17 is a protein called US11.

Mol	Chain	Residues	Atoms					AltConf	Trace
17	BO	127	Total	C	N	O	S	0	0
			905	555	183	165	2		

- Molecule 18 is a protein called US19.

Mol	Chain	Residues	Atoms					AltConf	Trace
18	BP	115	Total	C	N	O	S	0	0
			914	585	165	157	7		

- Molecule 19 is a protein called US9.

Mol	Chain	Residues	Atoms				AltConf	Trace
19	BQ	140	Total	C	N	O	0	0
			1082	696	193	193		

- Molecule 20 is a protein called ES17.

Mol	Chain	Residues	Atoms					AltConf	Trace
20	BR	121	Total	C	N	O	S	0	0
			934	583	179	170	2		

- Molecule 21 is a protein called US13.

Mol	Chain	Residues	Atoms					AltConf	Trace
21	BS	140	Total	C	N	O	S	0	0
			1150	720	223	205	2		

- Molecule 22 is a protein called ES19.

Mol	Chain	Residues	Atoms					AltConf	Trace
22	BT	142	Total	C	N	O	S	0	0
			1105	689	207	207	2		

- Molecule 23 is a protein called US10.

Mol	Chain	Residues	Atoms					AltConf	Trace
23	BU	104	Total	C	N	O	S	0	0
			829	525	150	153	1		

- Molecule 24 is a protein called ES21.

Mol	Chain	Residues	Atoms					AltConf	Trace
24	BV	87	Total	C	N	O	S	0	0
			684	420	125	137	2		

- Molecule 25 is a protein called US8.

Mol	Chain	Residues	Atoms					AltConf	Trace
25	BW	129	Total	C	N	O	S	0	0
			1021	650	188	180	3		

- Molecule 26 is a protein called US12.

Mol	Chain	Residues	Atoms					AltConf	Trace
26	BX	142	Total	C	N	O	S	0	0
			1101	698	215	186	2		

- Molecule 27 is a protein called ES24.

Mol	Chain	Residues	Atoms				AltConf	Trace
27	BY	134	Total	C	N	O	0	0
			1073	676	208	189		

- Molecule 28 is a protein called ES25.

Mol	Chain	Residues	Atoms				AltConf	Trace
28	BZ	64	Total	C	N	O	0	0
			518	331	95	92		

- Molecule 29 is a protein called ES26.

Mol	Chain	Residues	Atoms					AltConf	Trace
29	Ba	97	Total	C	N	O	S	0	0
			769	475	160	129	5		

- Molecule 30 is a protein called ES27.

Mol	Chain	Residues	Atoms					AltConf	Trace
30	Bb	81	Total	C	N	O	S	0	0
			610	382	110	113	5		

- Molecule 31 is a protein called ES28.

Mol	Chain	Residues	Atoms					AltConf	Trace
31	Bc	63	Total	C	N	O	S	0	0
			497	306	99	91	1		

- Molecule 32 is a protein called US14.

Mol	Chain	Residues	Atoms					AltConf	Trace
32	Bd	52	Total	C	N	O	S	0	0
			433	269	91	69	4		

- Molecule 33 is a protein called ES30.

Mol	Chain	Residues	Atoms					AltConf	Trace
33	Be	55	Total	C	N	O	S	0	0
			440	277	90	72	1		

- Molecule 34 is a protein called ES31.

Mol	Chain	Residues	Atoms					AltConf	Trace
34	Bf	64	Total	C	N	O	S	0	0
			458	289	83	82	4		

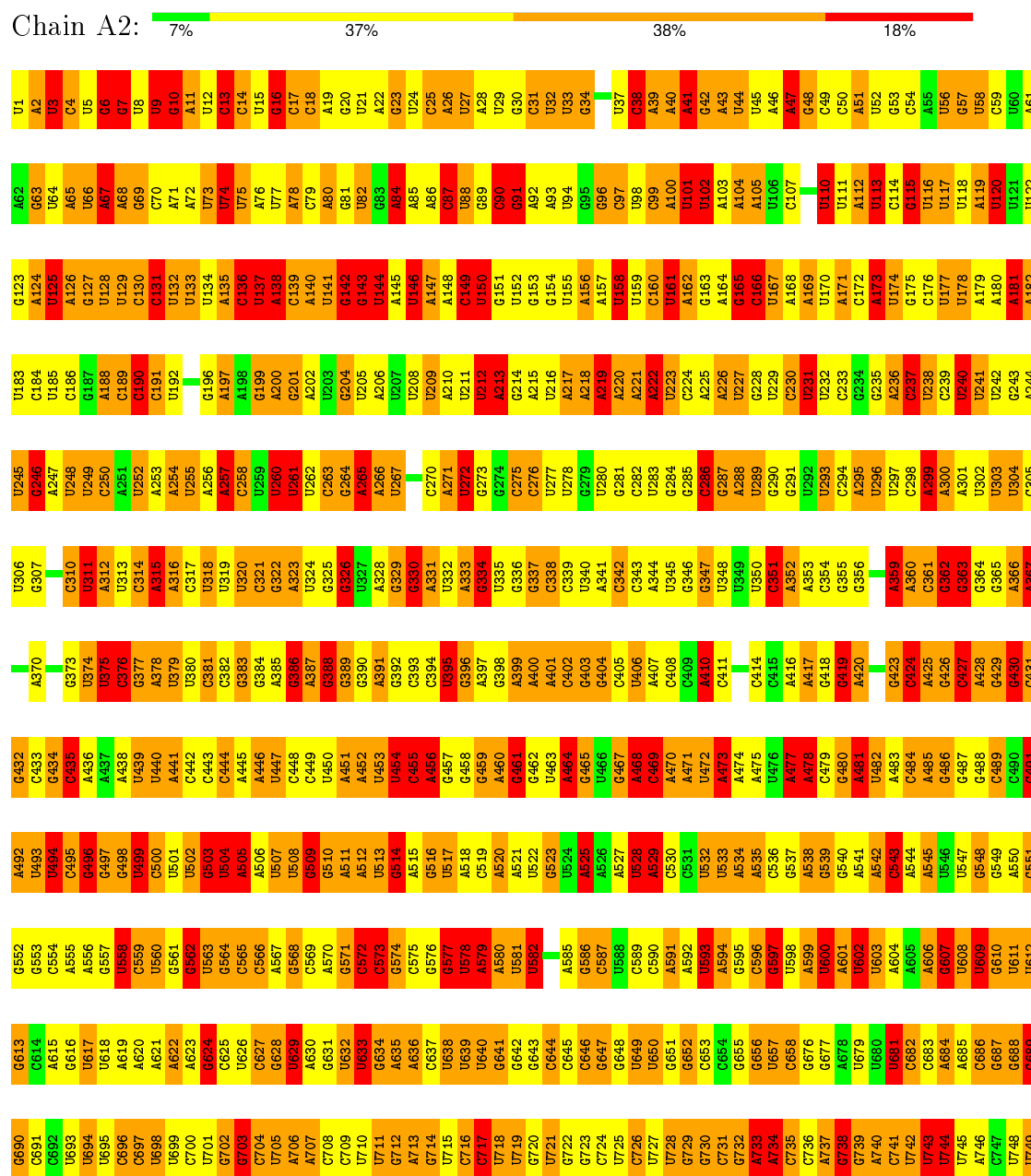
- Molecule 35 is a protein called RACK1.

Mol	Chain	Residues	Atoms					AltConf	Trace
35	Bg	315	Total	C	N	O	S	0	0
			2417	1531	414	464	8		

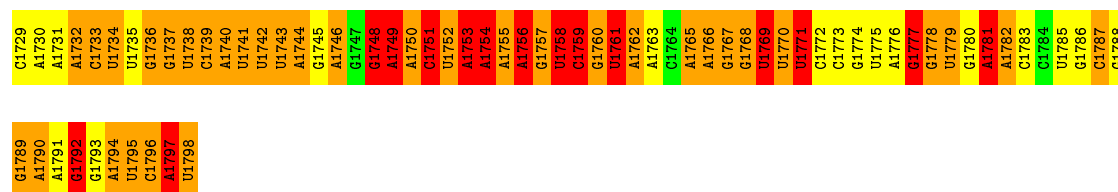
3 Residue-property plots

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: 18S rRNA

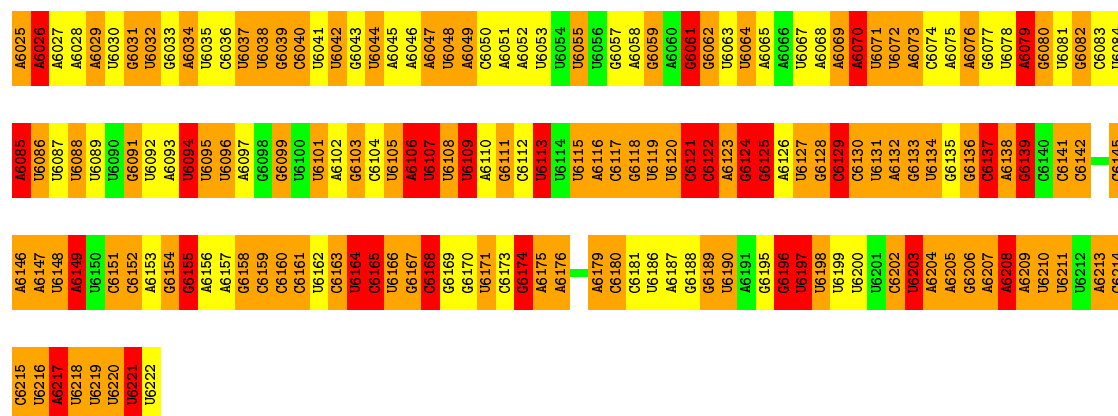


G1655	U1595	U1535	A1475	U1414	U1353	U1293	G1233	C1173	A1113	G1053	G991	C931	C870	G810	U750
G1656	C1596	G1536	C1476	U1415	G1354	G1294	A1234	C1174	G1114	U1054	A992	U932	G871	A811	G751
G1657	A1597	G1537	G1477	G1416	C1355	G1295	G1235	U1175	U1115	U1055	A993	A933	G872	A812	G752
G1658	U1598	G1538	G1478	G1417	U1356	A1296	A1236	G1176	A1116	U1056	G994	U934	U873	U813	A753
G1659	G1599	G1539	A1479	G1418	A1357	G1297	G1237	C1177	U1117	U1057	U935	U935	C874	A814	A754
A1660	A1600	G1540	G1480	G1419	G1358	G1298	A1238	G1178	G1118	U1058	U936	G936	G875	G	A755
G1661	G1601	G1541	C1481	G1420	C1359	G1299	U1239	G1179	G1119	U1059	U937	C937	G876	G816	A756
G1662	C1602	G1542	C1482	A1421	A1360	A1300	U1240	U1180	U1120	A1061	A998	G938	G877	A817	A757
G1663	A1603	A1543	A1483	A1422	G1361	U1301	G1241	C1181	C1121	U1060	A939	G939	G878	C818	U758
G1664	U1604	U1544	G1484	A1423	U1362	U1302	A1242	U1182	G1122	A1062	A1001	A940	G879	G819	U759
G1665	G1605	A1545	C1485	A1424	U1363	U1303	G1243	A1183	C1123	U1063	G1002	A941	C880	U820	A760
G1666	C1606	G1546	G1486	A1425	G1364	G1304	A1244	A1184	A1124	G1064	A1003	G942	A881	U821	G761
G1667	G1607	A1426	G1487	G1426	C1365	U1305	G1245	U1185	A1125	A1065	U1004	C943	U882	U822	A762
G1668	U1608	G1548	G1488	A1427	U1366	C1306	C1246	U1186	G1126	C1066	A1005	A944	C883	G823	G763
G1669	U1609	G1549	U1489	G1428	G1367	U1307	U1247	U1187	G1127	C1067	U945	U945	A884	G824	U764
G1670	G1610	A1550	G1490	G1429	G1368	G1308	C1248	G1188	C1128	C1068	U946	U946	C885	U825	G765
A1671	A1611	U1551	U1491	U1430	U1369	C1309	U1249	A1189	U1129	A1069	U947	U947	U886	U826	U766
G1672	G1612	U1552	A1492	G1431	U1370	U1310	G1250	C1190	G1130	G1070	G948	G948	U887	C827	U767
G1673	U1613	G1553	A1493	U1432	A1371	U1311	U1251	U1191	A1131	U1071	C949	C949	U888	U828	C768
G1674	A1614	U1554	C1494	G1433	U1372	A1312	G1252	U1192	A1132	C1072	G1011	C950	U889	A829	A769
G1675	C1615	A1555	C1495	U1434	C1373	A1313	U1253	A1193	A1133	G1073	U1012	A951	C890	U830	A770
G1676	U1616	A1556	U1496	G1435	C1374	U1314	U1254	A1194	C1134	G1074	A1013	A952	A891	U831	A771
G1677	G1617	U1557	U1497	A1436	A1375	U1315	G1255	C1195	U1135	A1075	G1014	G953	A892	U832	G772
G1678	C1618	U1558	G1498	U1437	C1376	G1316	A1256	A1196	U1136	A1076	U1015	G954	U893	U833	C773
G1679	G1619	A1559	G1499	G1438	U1377	G1317	U1257	C1197	A1137	U1077	C1016	A955	U894	G834	A774
G1680	C1620	U1560	C1500	A1439	U1378	G1318	U1258	G1198	A1138	C1078	U1017	C956	C895	U835	G775
A1681	U1621	U1561	C1501	G1440	C1379	A1319	U1259	G1199	A1139	U1079	U1018	G957	U896	U836	G776
G1682	G1622	G1562	G1502	A1441	U1380	U1320	G1260	C1207	G1140	U1080	A1019	U958	C897	G837	C777
C1683	C1623	C1563	A1503	U1442	U1381	A1321	G1261	A1208	G1141	A1081	A1020	U959	A898	G838	G778
G1684	G1624	U1564	G1504	A1443	A1382	A1322	U1262	G1269	A1142	G1082	C1021	U960	C899	U839	U779
G1685	C1625	C1565	A1505	U1444	G1383	G1323	G1263	C1209	A1143	G1083	C1022	U961	A900	U840	A780
G1686	U1626	U1566	G1506	G1445	A1384	C1324	G1264	G1270	U1144	A1084	A1023	C962	G901	U841	U781
U1687	U1627	U1567	G1507	A1446	G1385	A1325	G1265	C1205	U1145	G1085	U1024	A963	G902	C842	U782
U1688	G1628	U1568	U1508	G1447	A1388	A1326	U1266	G1271	G1146	A1091	A1030	C969	U908	C848	A788
A1689	G1629	A1569	G1509	G1448	C1389	C1327	G1267	C1207	A1147	A1086	A1025	U964	U909	U843	G783
G1690	A1630	C1570	U1510	U1449	U1390	G1328	G1268	A1208	G1148	A1087	A1026	U965	G904	A844	C784
A1691	A1631	U1511	U1511	U1450	U1391	A1329	U1269	C1209	G1149	U1088	A1027	A966	A905	G845	U785
G1692	C1632	G1572	G1512	C1451	A1391	G1330	G1270	G1210	G1150	C1090	U1029	U968	A906	G846	C786
A1693	A1633	A1573	G1513	U1452	U1392	A1331	G1271	A1211	A1151	A1091	A1030	C969	U908	A847	G787
C1694	C1634	G1574	U1514	G1453	C1393	C1332	U1272	G1212	A1152	A1092	U1031	A970	U909	C849	A789
A1695	A1635	G1575	A1515	G1454	G1394	G1334	G1273	G1213	G1153	G1094	C1032	G971	C910	U851	U790
C1696	C1636	A1576	A1516	G1455	G1395	U1335	C1274	U1214	G1154	U1095	C1033	G972	U911	U851	A791
C1697	C1637	U1577	U1517	G1456	U1396	U1336	A1275	C1215	G1155	C1096	C1034	A973	U912	C852	U792
A1712	G1638	U1578	C1518	G1457	U1397	A1336	U1276	G1216	C1156	U1097	G1035	A974	G913	G853	A793
C1713	C1639	U1579	U1519	G1458	U1398	A1337	G1277	A1217	A1157	C1098	A1036	C975	G914	U854	U794
A1714	C1640	U1580	U1520	C1459	C1399	C1338	G1278	G1218	C1158	U1098	C1037	G976	U915	A855	U795
G1715	G1641	C1581	G1521	U1460	A1400	C1339	C1279	A1219	C1159	U1099	U1038	A977	U916	A856	A796
G1716	G1642	U1582	U	A1401	A1401	U1340	C1280	C1220	A1160	G1100	A1039	A978	U917	U857	G797
G1717	U1643	A1583	G1523	G1463	G1402	A1341	G1281	A1221	G1161	G1101	G1040	A979	U918	G858	C798
G1718	C1644	U1584	A1524	G1464	C1403	C1342	U1282	C1222	C1162	G1102	G1041	G980	A919	A859	A799
A1719	G1645	U1585	A1525	C1465	C1404	U1343	U1283	A1223	A1163	U1103	G1042	U981	U920	U860	U800
G1720	C1646	A1586	A1526	G1466	G1405	A1344	C1284	A1224	G1164	U1104	A1043	U982	U921	U861	G801
A1721	U1647	C1587	C1527	C1467	A1406	U1345	U1285	G1225	C1165	C1105	U1044	A983	G922	A862	G802
A1722	A1648	U1588	U1528	U1468	U1407	A1346	U1286	A1226	A1166	U1106	C1045	G984	G923	A863	A803
U1723	G1649	C1589	G1529	A1469	G1408	U1347	G1287	A1227	G1167	G1107	G1046	G985	G925	U864	A804
U1724	U1650	C1590	C1530	G1470	G1409	U1348	G1288	G1228	U1168	G1108	G1047	G986	A926	A865	U805
A1651	A1651	G1531	A1471	A1471	A1410	G1349	U1289	G1229	G1169	G1109	G1048	G987	C927	G866	A806
G1726	C1652	U1532	U1472	G	A1411	U1350	U1290	A1230	G1170	G1110	G1049	A988	U928	G867	A807
G1727	G1653	A1593	U1473	U1473	G	C1351	G1291	U1231	A1171	G1111	G1051	U989	A929	G868	U808
A1728	G1654	G1594	G1474	G1474	U1413	G1352	G1292	U1232	G1172	G1112	U1052	C990	A930	A869	A809



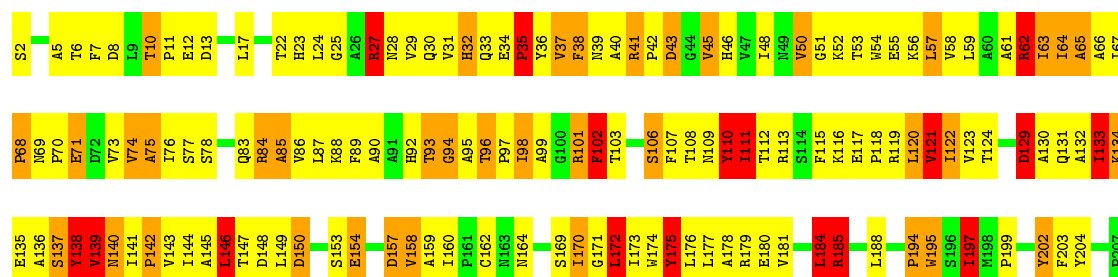
• Molecule 2: RNA OF CRICKET-PARALYSIS-VIRUS-IRES

Chain AZ: 9% 28% 48% 15%



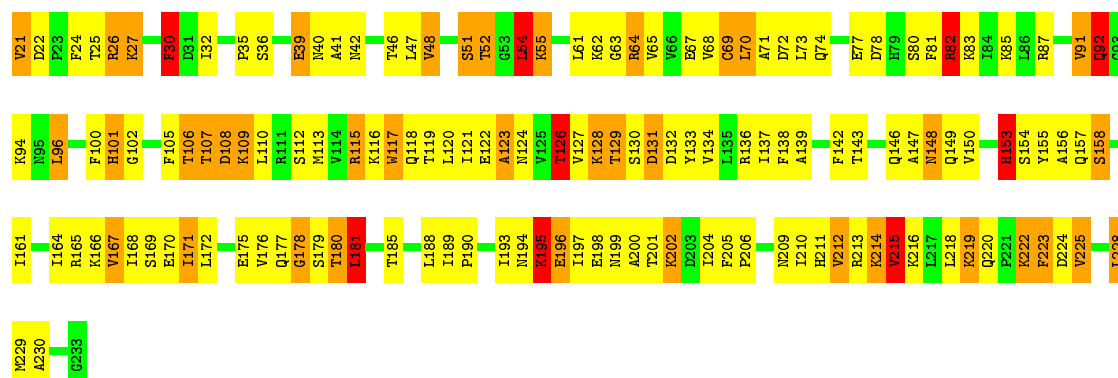
• Molecule 3: US2

Chain BA: 27% 47% 18% 8%

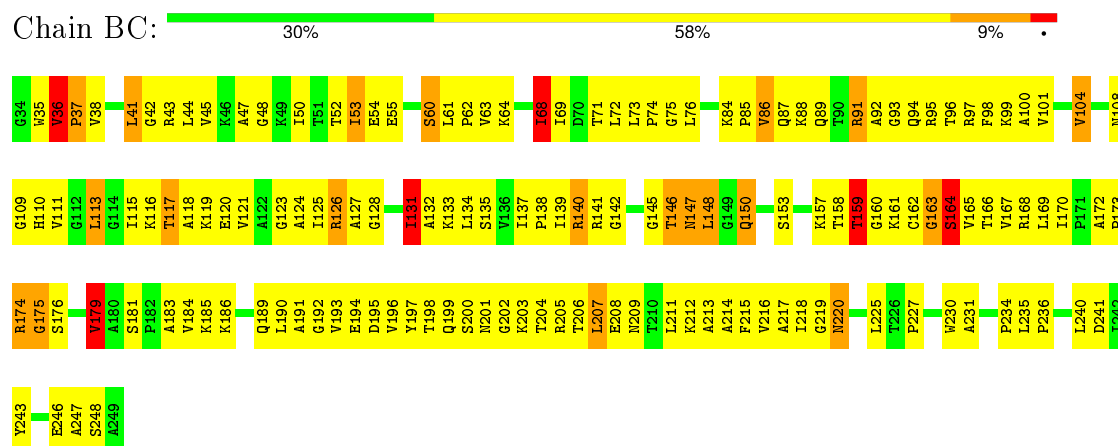


• Molecule 4: ES1

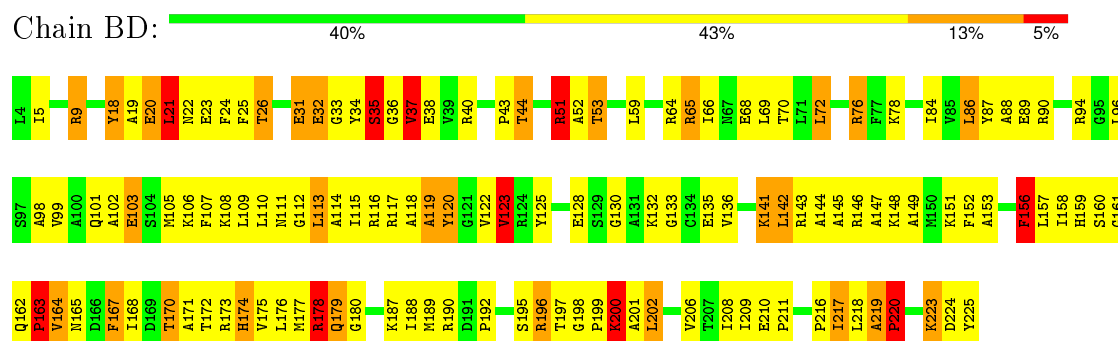
Chain BB: 32% 46% 18%



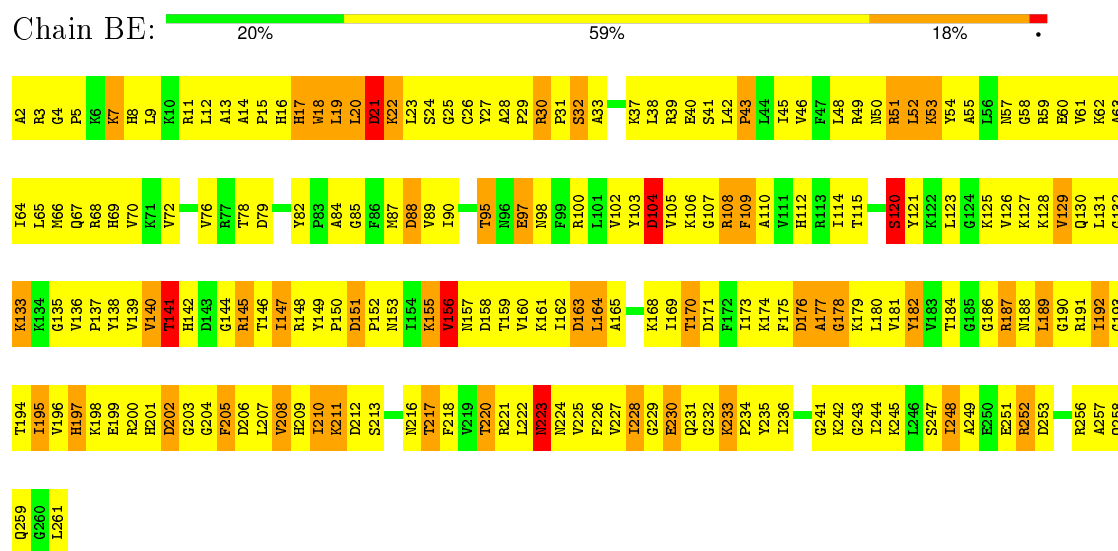
- Molecule 5: US5



- Molecule 6: US3

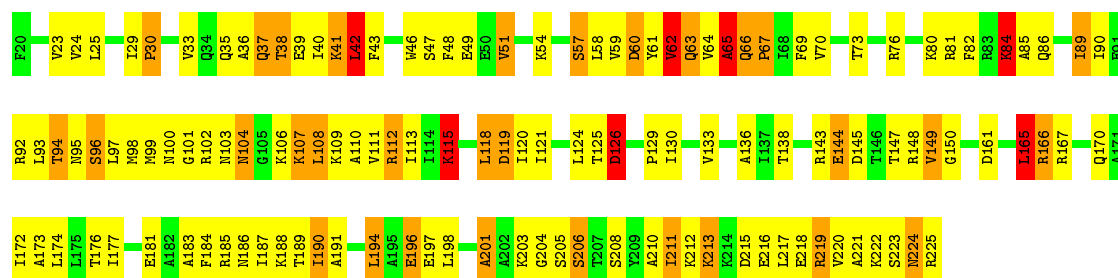


- Molecule 7: ES4



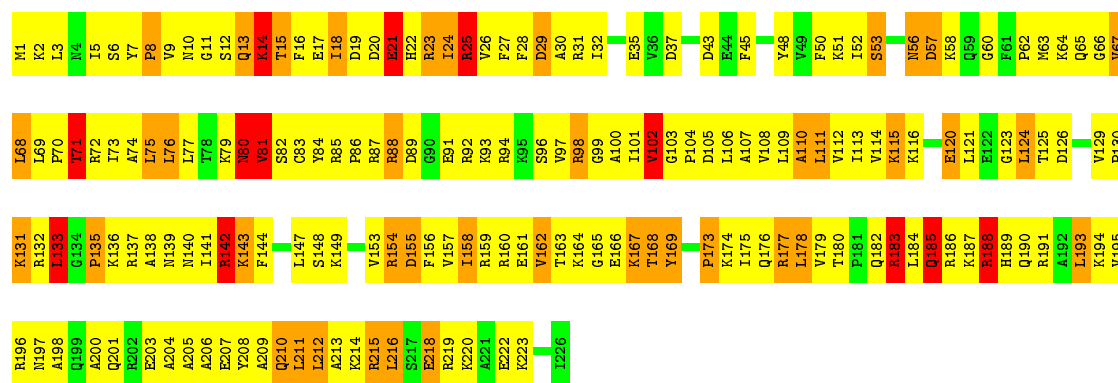
- Molecule 8: US7





- Molecule 9: ES6

Chain BG: 19% 57% 18% 5%



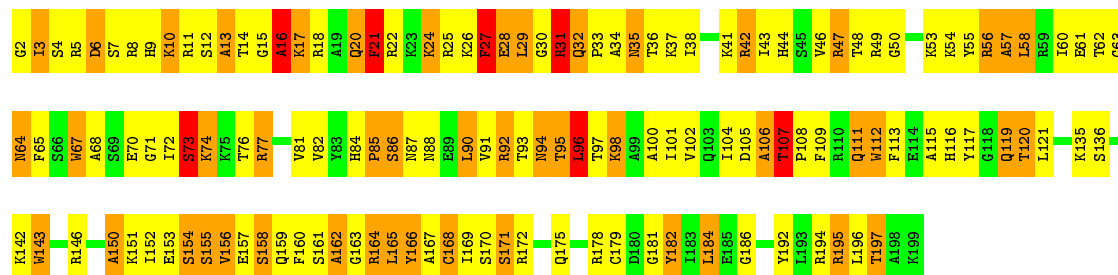
- Molecule 10: ES7

Chain BH: 33% 52% 12%

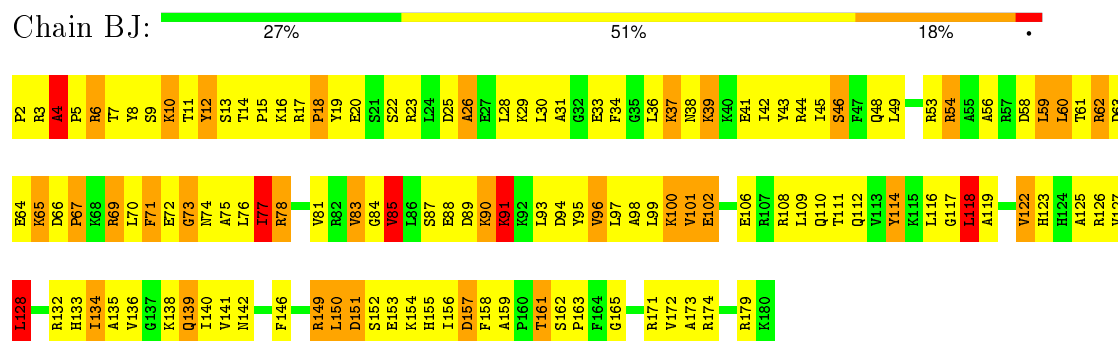


- Molecule 11: ES8

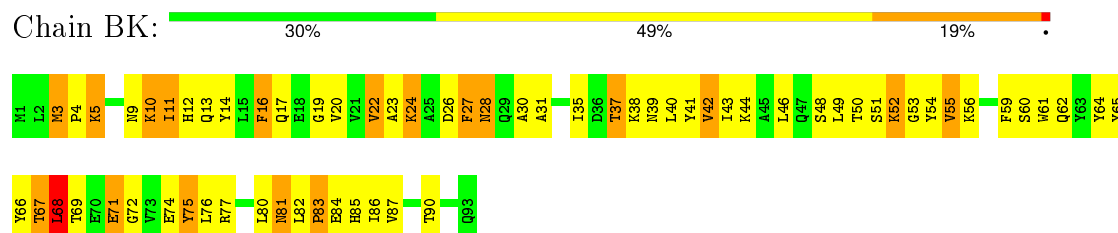
Chain BI: 26% 45% 26%



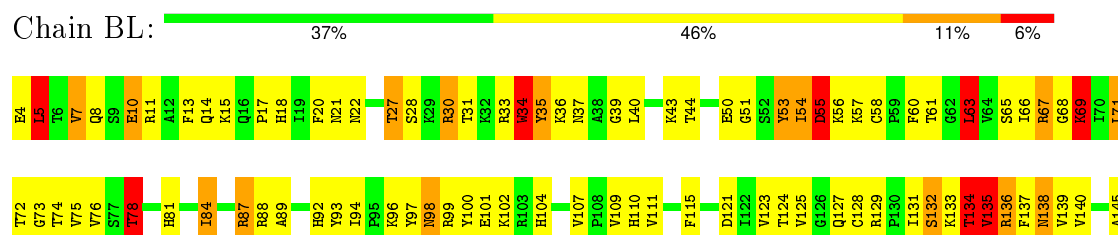
- Molecule 12: US4



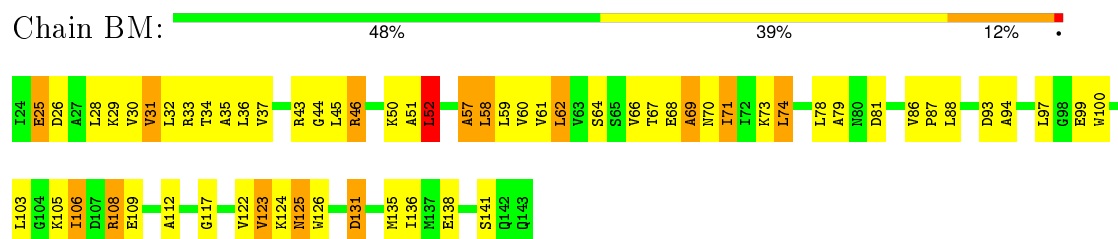
- Molecule 13: ES10



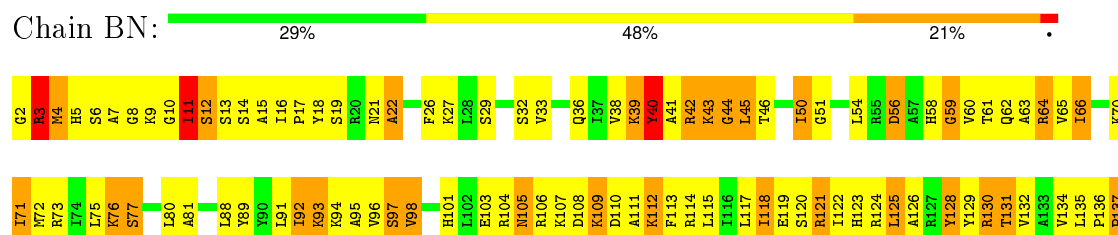
- Molecule 14: US17



- Molecule 15: ES12



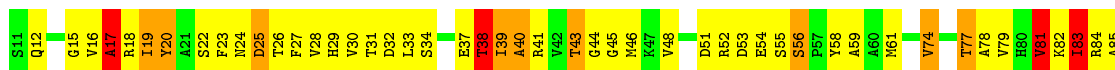
- Molecule 16: US15





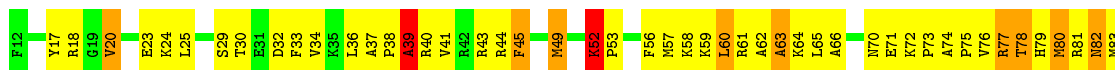
• Molecule 17: US11

Chain BO: 36% 46% 12% 6%



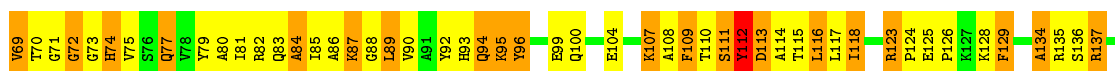
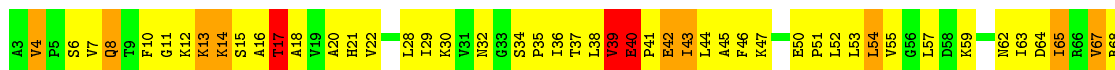
• Molecule 18: US19

Chain BP: 30% 53% 15%



• Molecule 19: US9

Chain BQ: 28% 47% 22%



• Molecule 20: ES17

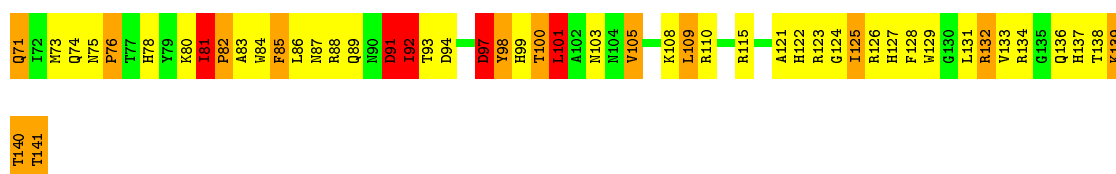
Chain BR: 26% 53% 18%



• Molecule 21: US13

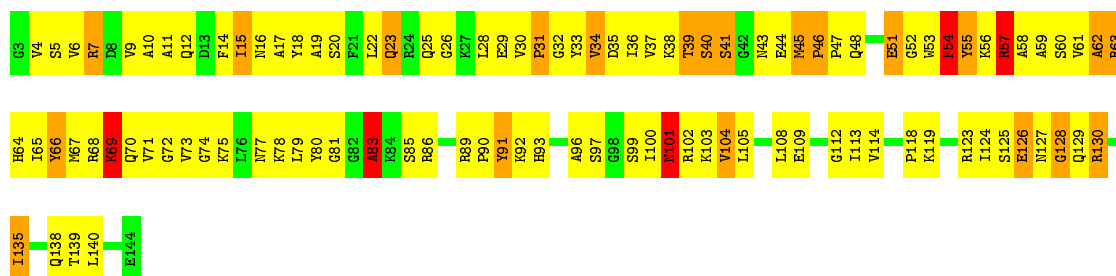
Chain BS: 29% 46% 19% 6%





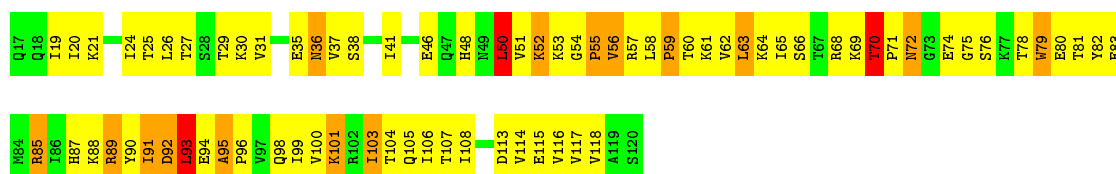
- Molecule 22: ES19

Chain BT: 26% 56% 15%



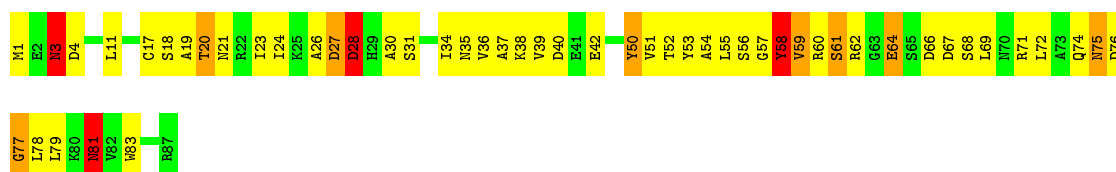
- Molecule 23: US10

Chain BU: 28% 55% 14%



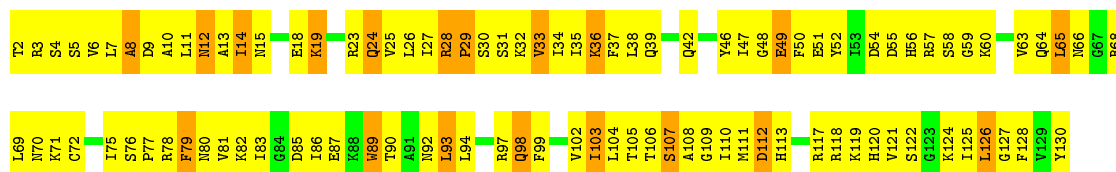
- Molecule 24: ES21

Chain BV: 40% 46% 9%



- Molecule 25: US8

Chain BW: 22% 64% 15%



- Molecule 26: US12

Chain BX: 14% 65% 18%



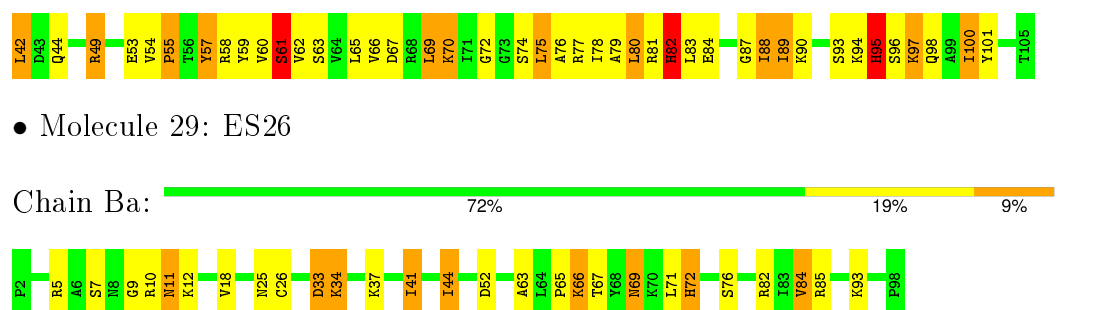
• Molecule 27: ES24

Chain BY: 19% 60% 19%



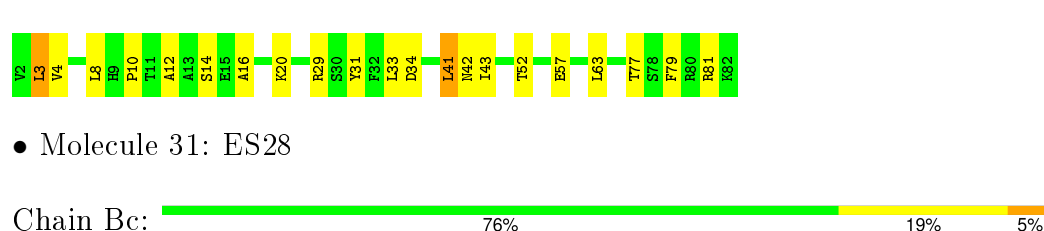
• Molecule 28: ES25

Chain BZ: 34% 42% 19% 5%



• Molecule 29: ES26

Chain Ba: 72% 19% 9%



Chain Bb: 74% 23%



• Molecule 31: ES28

Chain Bc: 76% 19% 5%

• Molecule 32: US14

Chain Bd:  63% 33% .



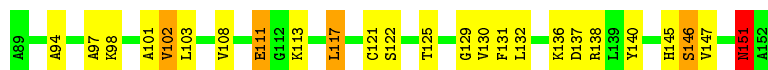
- Molecule 33: ES30

Chain Be:  67% 27% 5%




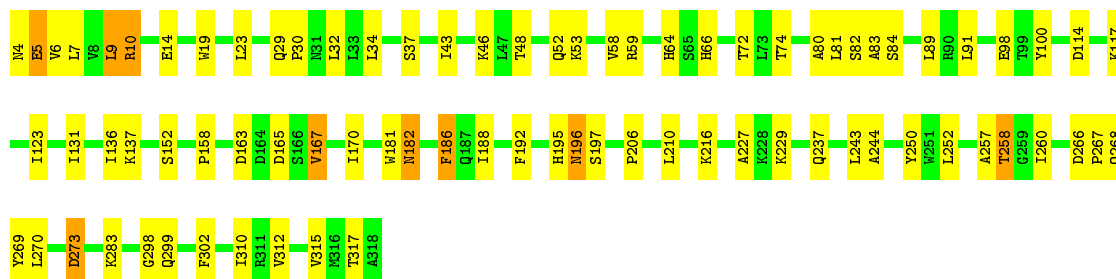
- Molecule 34: ES31

Chain Bf:  61% 31% 6%



- Molecule 35: RACK1

Chain Bg:  74% 23%



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	EACH PARTICLE	Depositor
Microscope	OTHER	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	1.8	Depositor
Maximum defocus (nm)	3	Depositor
Magnification	47000	Depositor
Image detector	FEI FALCON II (4K X 4K)	Depositor

5 Model quality ⓘ

5.1 Standard geometry ⓘ

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# $ Z > 2$	RMSZ	# $ Z > 2$
1	A2	1.00	25/41655 (0.1%)	1.31	1105/63991 (1.7%)
10	BH	0.43	0/1455	1.04	17/1875 (0.9%)
11	BI	0.53	0/1448	1.18	19/1839 (1.0%)
12	BJ	0.40	0/1435	0.99	18/1854 (1.0%)
13	BK	0.56	0/759	1.07	8/988 (0.8%)
14	BL	0.52	1/1140 (0.1%)	1.12	15/1484 (1.0%)
15	BM	0.70	0/845	1.03	8/1093 (0.7%)
16	BN	0.45	0/1186	1.04	12/1551 (0.8%)
17	BO	0.39	0/893	0.96	9/1167 (0.8%)
18	BP	0.66	1/903 (0.1%)	1.09	8/1162 (0.7%)
19	BQ	0.63	1/1072 (0.1%)	1.15	13/1392 (0.9%)
2	AZ	0.91	5/4449 (0.1%)	1.28	113/6827 (1.7%)
20	BR	0.44	0/908	1.02	10/1159 (0.9%)
21	BS	0.69	0/1140	1.18	11/1487 (0.7%)
22	BT	0.92	3/1083 (0.3%)	1.16	15/1389 (1.1%)
23	BU	0.57	0/812	1.06	9/1053 (0.9%)
24	BV	0.47	0/675	0.89	4/881 (0.5%)
25	BW	0.42	0/999	0.91	4/1278 (0.3%)
26	BX	0.38	0/1079	0.97	11/1372 (0.8%)
27	BY	0.50	0/1056	1.15	14/1356 (1.0%)
28	BZ	0.73	0/511	1.11	5/663 (0.8%)
29	Ba	0.43	0/758	1.06	7/975 (0.7%)
3	BA	0.95	2/1574 (0.1%)	1.25	26/2086 (1.2%)
30	Bb	0.41	0/596	1.05	6/766 (0.8%)
31	Bc	0.42	0/485	1.03	5/628 (0.8%)
32	Bd	0.51	0/427	1.04	5/540 (0.9%)
33	Be	0.47	0/436	1.16	6/562 (1.1%)
34	Bf	0.71	0/456	1.07	5/599 (0.8%)
35	Bg	0.55	0/2390	1.01	23/3123 (0.7%)
4	BB	0.50	0/1661	1.06	16/2154 (0.7%)
5	BC	0.40	0/1610	0.99	14/2113 (0.7%)
6	BD	0.46	0/1692	1.06	19/2175 (0.9%)
7	BE	0.42	1/2045 (0.0%)	0.99	23/2647 (0.9%)
8	BF	0.53	0/1571	1.00	14/2039 (0.7%)

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >2	RMSZ	# Z >2
9	BG	0.49	1/1767 (0.1%)	1.06	13/2288 (0.6%)
All	All	0.83	40/82971 (0.0%)	1.21	1610/118556 (1.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A2	98	0
10	BH	7	2
11	BI	12	2
12	BJ	5	1
13	BK	2	0
14	BL	8	0
15	BM	2	0
16	BN	6	0
17	BO	4	1
18	BP	4	0
19	BQ	8	2
2	AZ	8	0
20	BR	5	0
21	BS	6	4
22	BT	6	0
23	BU	1	1
24	BV	2	1
25	BW	3	0
26	BX	5	2
27	BY	6	0
28	BZ	1	0
29	Ba	4	1
3	BA	8	3
30	Bb	5	0
31	Bc	2	0
32	Bd	3	1
33	Be	3	0
34	Bf	2	1
35	Bg	9	1
4	BB	11	2
5	BC	8	1
6	BD	6	1
7	BE	8	0

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Mol	Chain	#Chirality outliers	#Planarity outliers
8	BF	6	1
9	BG	10	3
All	All	284	31

All (40) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A2	897	C	O3'-P	48.97	2.19	1.61
1	A2	633	U	O3'-P	48.70	2.19	1.61
1	A2	1797	A	O3'-P	47.72	2.18	1.61
1	A2	1388	A	O3'-P	46.19	2.16	1.61
1	A2	388	G	O3'-P	45.98	2.16	1.61
1	A2	56	U	O3'-P	45.37	2.15	1.61
1	A2	935	U	O3'-P	45.16	2.15	1.61
1	A2	419	G	O3'-P	44.76	2.14	1.61
1	A2	1377	U	O3'-P	44.75	2.14	1.61
2	AZ	6106	A	O3'-P	44.02	2.13	1.61
1	A2	47	A	O3'-P	42.43	2.12	1.61
1	A2	1732	A	O3'-P	39.87	2.08	1.61
1	A2	862	A	O3'-P	39.80	2.08	1.61
1	A2	464	A	O3'-P	38.50	2.07	1.61
1	A2	997	G	O3'-P	37.72	2.06	1.61
1	A2	399	A	O3'-P	37.54	2.06	1.61
1	A2	352	A	O3'-P	35.33	2.03	1.61
1	A2	1030	A	O3'-P	31.40	1.98	1.61
1	A2	960	U	O3'-P	29.89	1.97	1.61
1	A2	1417	A	O3'-P	24.57	1.90	1.61
1	A2	104	A	O3'-P	23.65	1.89	1.61
22	BT	54	PHE	C-O	14.82	1.51	1.23
1	A2	1298	U	P-O5'	14.38	1.74	1.59
22	BT	62	ALA	C-O	11.24	1.44	1.23
19	BQ	72	GLY	C-O	10.94	1.41	1.23
14	BL	78	THR	CB-OG1	9.34	1.61	1.43
2	AZ	6026	A	O3'-P	8.23	1.71	1.61
3	BA	138	TYR	CB-CG	7.75	1.63	1.51
22	BT	60	SER	C-O	7.72	1.38	1.23
1	A2	221	A	O3'-P	6.94	1.69	1.61
2	AZ	6028	A	P-OP2	6.81	1.60	1.49
3	BA	110	TYR	CB-CG	6.29	1.61	1.51
2	AZ	6123	A	O3'-P	5.74	1.68	1.61
1	A2	1298	U	P-OP1	5.64	1.58	1.49
7	BE	121	TYR	CE1-CZ	5.60	1.45	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
18	BP	77	ARG	C-O	5.42	1.33	1.23
9	BG	131	LYS	C-O	5.34	1.33	1.23
1	A2	1296	A	O3'-P	-5.26	1.54	1.61
2	AZ	6025	A	P-OP2	5.19	1.57	1.49
1	A2	1684	U	O3'-P	5.15	1.67	1.61

All (1610) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	104	A	P-O3'-C3'	41.97	170.06	119.70
1	A2	56	U	P-O3'-C3'	36.36	163.33	119.70
1	A2	1797	A	O3'-P-O5'	29.86	160.74	104.00
1	A2	862	A	P-O3'-C3'	26.83	151.90	119.70
1	A2	960	U	P-O3'-C3'	-25.06	89.62	119.70
1	A2	897	C	P-O3'-C3'	-18.59	97.40	119.70
1	A2	104	A	O3'-P-O5'	-18.27	69.29	104.00
1	A2	997	G	P-O3'-C3'	18.07	141.38	119.70
1	A2	352	A	P-O3'-C3'	17.54	140.74	119.70
1	A2	1797	A	OP1-P-O3'	-17.24	67.27	105.20
1	A2	464	A	P-O3'-C3'	-16.32	100.11	119.70
1	A2	633	U	P-O3'-C3'	-16.18	100.28	119.70
1	A2	997	G	OP1-P-O3'	15.54	139.38	105.20
1	A2	352	A	OP2-P-O3'	14.41	136.89	105.20
1	A2	1377	U	P-O3'-C3'	14.12	136.65	119.70
1	A2	960	U	O3'-P-O5'	-13.88	77.63	104.00
1	A2	47	A	O3'-P-O5'	13.05	128.79	104.00
1	A2	1388	A	OP1-P-O3'	-12.22	78.32	105.20
1	A2	419	G	OP1-P-O3'	12.10	131.81	105.20
1	A2	835	U	N1-C1'-C2'	12.10	129.72	114.00
1	A2	1449	U	N1-C1'-C2'	11.91	129.49	114.00
1	A2	724	C	N1-C1'-C2'	11.88	129.45	114.00
1	A2	74	U	N1-C1'-C2'	11.32	128.71	114.00
1	A2	254	A	C2'-C3'-O3'	11.15	134.03	109.50
1	A2	545	A	N9-C1'-C2'	11.09	128.42	114.00
19	BQ	96	TYR	CD1-CE1-CZ	11.03	129.72	119.80
1	A2	1580	C	N1-C1'-C2'	10.98	128.28	114.00
1	A2	47	A	P-O3'-C3'	10.93	132.81	119.70
1	A2	1388	A	P-O3'-C3'	10.81	132.67	119.70
1	A2	452	A	N9-C1'-C2'	10.80	128.04	114.00
1	A2	1685	G	N9-C1'-C2'	10.79	128.02	114.00
1	A2	352	A	O3'-P-O5'	-10.77	83.53	104.00
1	A2	201	G	C2'-C3'-O3'	10.68	133.00	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	16	G	N9-C1'-C2'	10.62	127.81	114.00
7	BE	182	TYR	CZ-CE2-CD2	10.61	129.35	119.80
27	BY	48	TYR	CD1-CE1-CZ	10.58	129.32	119.80
1	A2	607	G	C2'-C3'-O3'	10.57	132.75	109.50
16	BN	128	TYR	CD1-CE1-CZ	10.50	129.25	119.80
5	BC	243	TYR	CD1-CE1-CZ	10.46	129.22	119.80
1	A2	1797	A	P-O3'-C3'	10.44	132.23	119.70
22	BT	55	TYR	CD1-CE1-CZ	10.44	129.20	119.80
2	AZ	6163	C	N1-C1'-C2'	10.42	127.55	114.00
9	BG	169	TYR	CZ-CE2-CD2	10.41	129.17	119.80
1	A2	7	G	C2'-C3'-O3'	10.39	132.37	109.50
1	A2	1732	A	OP1-P-O3'	10.37	128.02	105.20
1	A2	1092	A	N9-C1'-C2'	10.36	127.47	114.00
10	BH	173	TYR	CZ-CE2-CD2	10.36	129.13	119.80
1	A2	1170	G	C2'-C3'-O3'	10.33	132.22	109.50
1	A2	1058	U	N1-C1'-C2'	10.32	127.41	114.00
1	A2	419	G	O3'-P-O5'	-10.25	84.53	104.00
1	A2	1417	A	P-O3'-C3'	10.24	131.99	119.70
1	A2	803	A	C2'-C3'-O3'	10.24	132.02	109.50
1	A2	1582	U	C2'-C3'-O3'	10.07	131.65	109.50
1	A2	1493	A	N9-C1'-C2'	10.06	127.08	114.00
1	A2	933	A	N9-C1'-C2'	10.02	127.03	114.00
1	A2	1363	U	N1-C1'-C2'	10.01	127.01	114.00
1	A2	1710	U	C2'-C3'-O3'	10.01	131.52	109.50
2	AZ	6208	A	C4'-C3'-O3'	10.00	133.01	113.00
1	A2	1732	A	O3'-P-O5'	-9.96	85.08	104.00
1	A2	894	U	N1-C1'-C2'	9.95	126.93	114.00
1	A2	376	C	C2'-C3'-O3'	9.93	131.35	109.50
1	A2	424	C	C2'-C3'-O3'	9.91	131.30	109.50
1	A2	112	A	C2'-C3'-O3'	9.89	131.26	109.50
1	A2	1344	A	C2'-C3'-O3'	9.89	131.26	109.50
1	A2	1432	U	N1-C1'-C2'	9.88	126.84	114.00
1	A2	935	U	P-O3'-C3'	-9.81	107.93	119.70
22	BT	55	TYR	CG-CD2-CE2	9.75	129.10	121.30
1	A2	1154	G	C2'-C3'-O3'	9.71	130.87	109.50
2	AZ	6125	G	C5'-C4'-O4'	9.70	120.74	109.10
1	A2	1720	G	C2'-C3'-O3'	9.65	130.74	109.50
2	AZ	6168	C	N1-C1'-C2'	9.60	126.48	114.00
1	A2	454	U	C2'-C3'-O3'	9.59	130.59	109.50
1	A2	1106	U	C2'-C3'-O3'	9.58	130.58	109.50
1	A2	572	C	C2'-C3'-O3'	9.57	130.55	109.50
1	A2	928	U	N1-C1'-C2'	9.56	126.43	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1781	A	C2'-C3'-O3'	9.54	130.48	109.50
1	A2	1293	U	C2'-C3'-O3'	9.53	130.46	109.50
1	A2	1447	C	C2'-C3'-O3'	9.49	130.39	109.50
1	A2	1171	A	C2'-C3'-O3'	9.46	130.31	109.50
1	A2	1769	U	N1-C1'-C2'	9.46	126.29	114.00
1	A2	1638	G	C5'-C4'-O4'	9.41	120.39	109.10
1	A2	1568	C	C2'-C3'-O3'	9.40	130.17	109.50
1	A2	609	U	C4'-C3'-O3'	9.39	131.78	113.00
1	A2	1294	G	N9-C1'-C2'	9.39	126.21	114.00
1	A2	516	G	N9-C1'-C2'	9.38	126.19	114.00
1	A2	430	G	C2'-C3'-O3'	9.36	130.09	109.50
2	AZ	6146	A	C2'-C3'-O3'	9.36	130.08	109.50
2	AZ	6091	G	C2'-C3'-O3'	9.32	130.01	109.50
1	A2	835	U	O4'-C1'-N1	9.32	115.66	108.20
22	BT	91	TYR	CG-CD2-CE2	9.29	128.73	121.30
1	A2	816	G	C2'-C3'-O3'	9.29	129.93	109.50
1	A2	1642	G	C2'-C3'-O3'	9.26	129.88	109.50
1	A2	1608	U	C2'-C3'-O3'	9.25	129.85	109.50
1	A2	1216	C	C4'-C3'-O3'	9.24	131.49	113.00
1	A2	158	U	C2'-C3'-O3'	9.22	129.78	109.50
1	A2	1712	A	C4'-C3'-O3'	9.22	131.44	113.00
2	AZ	6145	C	N1-C1'-C2'	9.21	125.97	114.00
1	A2	1629	G	C2'-C3'-O3'	9.20	129.75	109.50
1	A2	1364	G	C2'-C3'-O3'	9.18	129.70	109.50
1	A2	1442	U	C2'-C3'-O3'	9.18	129.69	109.50
1	A2	1377	U	OP1-P-O3'	9.18	125.39	105.20
1	A2	351	C	N1-C1'-C2'	9.17	125.92	114.00
1	A2	10	G	N9-C1'-C2'	9.17	125.92	114.00
1	A2	1752	U	C2'-C3'-O3'	9.16	129.65	109.50
1	A2	997	G	O3'-P-O5'	-9.15	86.62	104.00
1	A2	1415	U	C2'-C3'-O3'	9.13	129.59	109.50
2	AZ	6073	A	C2'-C3'-O3'	9.13	129.59	109.50
1	A2	1474	G	C2'-C3'-O3'	9.12	129.58	109.50
1	A2	1777	G	C2'-C3'-O3'	9.12	129.57	109.50
1	A2	1678	A	C4'-C3'-O3'	9.09	131.18	113.00
1	A2	1295	G	C2'-C3'-O3'	9.04	129.40	109.50
2	AZ	6109	U	N1-C1'-C2'	9.04	125.76	114.00
1	A2	558	U	C5'-C4'-O4'	9.01	119.92	109.10
1	A2	539	G	C2'-C3'-O3'	9.01	129.32	109.50
1	A2	794	U	C2'-C3'-O3'	9.01	129.31	109.50
1	A2	286	C	C2'-C3'-O3'	9.00	129.31	109.50
1	A2	1514	U	N1-C1'-C2'	9.00	125.70	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
13	BK	65	TYR	CG-CD1-CE1	9.00	128.50	121.30
1	A2	1789	G	C2'-C3'-O3'	8.98	129.26	109.50
1	A2	1369	U	N1-C1'-C2'	8.98	125.67	114.00
1	A2	1377	U	O3'-P-O5'	-8.98	86.94	104.00
1	A2	577	G	C2'-C3'-O3'	8.97	129.24	109.50
1	A2	1235	C	N1-C1'-C2'	8.97	125.66	114.00
1	A2	423	G	C2'-C3'-O3'	8.97	129.23	109.50
6	BD	125	TYR	CG-CD1-CE1	8.96	128.47	121.30
18	BP	123	TYR	CG-CD2-CE2	8.94	128.45	121.30
1	A2	104	A	OP2-P-O3'	8.90	124.78	105.20
1	A2	1787	C	N1-C1'-C2'	8.89	125.56	114.00
2	AZ	6215	C	C5'-C4'-O4'	8.89	119.77	109.10
1	A2	489	C	N1-C1'-C2'	8.88	125.54	114.00
14	BL	53	TYR	CG-CD2-CE2	8.88	128.40	121.30
1	A2	1573	A	C2'-C3'-O3'	8.87	129.02	109.50
14	BL	35	TYR	CG-CD1-CE1	8.86	128.39	121.30
14	BL	84	ILE	CG1-CB-CG2	8.85	130.88	111.40
1	A2	1647	U	C2'-C3'-O3'	8.85	128.97	109.50
1	A2	1237	G	C2'-C3'-O3'	8.85	128.97	109.50
1	A2	1471	A	C2'-C3'-O3'	8.83	128.92	109.50
1	A2	884	A	C2'-C3'-O3'	8.78	128.81	109.50
1	A2	1557	U	N1-C1'-C2'	8.77	125.41	114.00
1	A2	74	U	O4'-C1'-N1	8.76	115.21	108.20
1	A2	188	A	C2'-C3'-O3'	8.75	128.74	109.50
8	BF	67	PRO	N-CA-C	8.75	134.84	112.10
33	Be	40	TYR	CG-CD1-CE1	8.74	128.29	121.30
1	A2	74	U	C2'-C3'-O3'	8.74	128.73	109.50
1	A2	137	U	C2'-C3'-O3'	8.71	128.66	109.50
1	A2	504	U	C2'-C3'-O3'	8.71	128.66	109.50
1	A2	899	G	N9-C1'-C2'	8.70	125.31	114.00
1	A2	781	U	N1-C1'-C2'	8.70	125.31	114.00
1	A2	1065	A	C2'-C3'-O3'	8.70	128.63	109.50
1	A2	1020	A	C2'-C3'-O3'	8.68	128.60	109.50
1	A2	58	U	N1-C1'-C2'	8.67	125.27	114.00
2	AZ	6155	G	C2'-C3'-O3'	8.66	128.56	109.50
1	A2	142	G	C2'-C3'-O3'	8.65	128.54	109.50
1	A2	543	C	N1-C1'-C2'	8.64	125.24	114.00
1	A2	862	A	OP1-P-O3'	8.63	124.19	105.20
23	BU	79	TRP	CD1-NE1-CE2	8.63	116.76	109.00
16	BN	40	TYR	CG-CD1-CE1	8.62	128.20	121.30
1	A2	146	U	C2'-C3'-O3'	8.62	128.46	109.50
1	A2	921	U	C2'-C3'-O3'	8.62	128.46	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	733	A	C2'-C3'-O3'	8.61	128.44	109.50
1	A2	90	C	C2'-C3'-O3'	8.60	128.42	109.50
1	A2	1298	U	C4'-C3'-O3'	8.60	130.19	113.00
2	AZ	6113	U	N1-C1'-C2'	8.60	125.17	114.00
1	A2	792	U	N1-C1'-C2'	8.59	125.17	114.00
2	AZ	6139	G	C2'-C3'-O3'	8.58	128.38	109.50
1	A2	582	U	N1-C1'-C2'	8.57	125.14	114.00
1	A2	1756	A	C2'-C3'-O3'	8.56	128.34	109.50
1	A2	223	U	C2'-C3'-O3'	8.56	128.32	109.50
1	A2	514	G	C4'-C3'-O3'	8.56	130.11	113.00
1	A2	131	C	C2'-C3'-O3'	8.55	128.31	109.50
1	A2	1483	A	C2'-C3'-O3'	8.55	128.30	109.50
1	A2	1578	U	N1-C1'-C2'	8.54	125.10	114.00
1	A2	930	A	N9-C1'-C2'	8.53	125.09	114.00
1	A2	1236	A	N9-C1'-C2'	8.53	125.09	114.00
1	A2	1496	U	C2'-C3'-O3'	8.52	128.25	109.50
1	A2	1321	A	C2'-C3'-O3'	8.50	128.21	109.50
1	A2	597	G	N9-C1'-C2'	8.49	125.04	114.00
1	A2	1509	C	C2'-C3'-O3'	8.49	128.19	109.50
1	A2	744	U	C2'-C3'-O3'	8.48	128.16	109.50
1	A2	882	U	C2'-C3'-O3'	8.48	128.16	109.50
1	A2	1125	A	C2'-C3'-O3'	8.48	128.16	109.50
1	A2	990	C	C4'-C3'-O3'	8.48	129.96	113.00
1	A2	425	A	N9-C1'-C2'	8.47	125.01	114.00
1	A2	603	U	N1-C1'-C2'	8.47	125.01	114.00
1	A2	1638	G	C2'-C3'-O3'	8.46	128.12	109.50
1	A2	102	U	C2'-C3'-O3'	8.46	128.10	109.50
1	A2	237	C	N1-C1'-C2'	8.46	124.99	114.00
1	A2	939	A	C2'-C3'-O3'	8.45	128.10	109.50
1	A2	649	U	N1-C1'-C2'	8.44	124.97	114.00
1	A2	250	C	N1-C1'-C2'	8.43	124.97	114.00
1	A2	1176	G	C2'-C3'-O3'	8.42	128.03	109.50
29	Ba	41	ILE	CG1-CB-CG2	8.42	129.93	111.40
1	A2	261	U	N1-C1'-C2'	8.41	124.93	114.00
1	A2	473	A	N9-C1'-C2'	8.41	124.93	114.00
1	A2	1061	A	N9-C1'-C2'	8.40	124.92	114.00
1	A2	1325	A	C2'-C3'-O3'	8.40	127.99	109.50
1	A2	607	G	N9-C1'-C2'	8.40	124.92	114.00
1	A2	1420	C	C2'-C3'-O3'	8.39	127.96	109.50
1	A2	67	A	C2'-C3'-O3'	8.39	127.96	109.50
1	A2	1449	U	C5'-C4'-O4'	8.37	119.15	109.10
2	AZ	6129	C	C2'-C3'-O3'	8.37	127.90	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	762	A	N9-C1'-C2'	8.36	124.87	114.00
2	AZ	6107	U	N1-C1'-C2'	8.33	124.83	114.00
1	A2	1713	G	C2'-C3'-O3'	8.32	127.81	109.50
1	A2	761	G	C2'-C3'-O3'	8.31	127.78	109.50
1	A2	767	U	N1-C1'-C2'	8.30	124.79	114.00
1	A2	1259	U	C2'-C3'-O3'	8.30	127.76	109.50
1	A2	473	A	C2'-C3'-O3'	8.28	127.72	109.50
3	BA	111	ILE	CG1-CB-CG2	8.28	129.62	111.40
1	A2	1743	U	C2'-C3'-O3'	8.27	127.70	109.50
1	A2	1175	U	C2'-C3'-O3'	8.26	127.68	109.50
1	A2	1577	A	C2'-C3'-O3'	8.26	127.67	109.50
1	A2	1055	U	C2'-C3'-O3'	8.26	127.67	109.50
1	A2	852	C	C2'-C3'-O3'	8.26	127.67	109.50
1	A2	149	C	C2'-C3'-O3'	8.26	127.66	109.50
1	A2	759	U	C2'-C3'-O3'	8.25	127.66	109.50
1	A2	1196	A	N9-C1'-C2'	8.25	124.73	114.00
1	A2	603	U	C2'-C3'-O3'	8.25	127.65	109.50
2	AZ	6034	A	N9-C1'-C2'	8.25	124.73	114.00
1	A2	1603	U	C2'-C3'-O3'	8.25	127.65	109.50
1	A2	956	C	N1-C1'-C2'	8.25	124.72	114.00
1	A2	591	A	N9-C1'-C2'	8.24	124.71	114.00
1	A2	1100	G	N9-C1'-C2'	8.23	124.70	114.00
1	A2	82	U	C2'-C3'-O3'	8.23	127.60	109.50
1	A2	359	A	C4'-C3'-O3'	8.22	129.44	113.00
2	AZ	6121	C	C2'-C3'-O3'	8.22	127.59	109.50
1	A2	1472	C	C4'-C3'-O3'	8.22	129.44	113.00
1	A2	67	A	C4'-C3'-O3'	8.22	129.44	113.00
1	A2	1708	U	C2'-C3'-O3'	8.22	127.58	109.50
1	A2	502	U	C2'-C3'-O3'	8.21	127.56	109.50
1	A2	820	U	C2'-C3'-O3'	8.19	127.53	109.50
1	A2	1012	U	C2'-C3'-O3'	8.20	127.53	109.50
2	AZ	6197	U	C2'-C3'-O3'	8.18	127.48	109.50
1	A2	1561	U	C2'-C3'-O3'	8.16	127.46	109.50
1	A2	850	A	C5'-C4'-O4'	8.16	118.89	109.10
1	A2	505	A	N9-C1'-C2'	8.15	124.60	114.00
1	A2	528	U	C2'-C3'-O3'	8.15	127.43	109.50
1	A2	1287	A	C2'-C3'-O3'	8.15	127.43	109.50
1	A2	110	U	N1-C1'-C2'	8.13	124.58	114.00
1	A2	610	G	N9-C1'-C2'	8.14	124.58	114.00
1	A2	473	A	C5'-C4'-O4'	8.12	118.85	109.10
1	A2	362	G	C2'-C3'-O3'	8.11	127.34	109.50
1	A2	1570	A	C2'-C3'-O3'	8.09	127.30	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	644	C	C2'-C3'-O3'	8.08	127.28	109.50
1	A2	1372	U	C2'-C3'-O3'	8.07	127.26	109.50
1	A2	41	A	C2'-C3'-O3'	8.06	127.23	109.50
1	A2	143	G	C2'-C3'-O3'	8.06	127.23	109.50
1	A2	430	G	N9-C1'-C2'	8.06	124.47	114.00
1	A2	738	G	C2'-C3'-O3'	8.06	127.23	109.50
1	A2	1670	G	N9-C1'-C2'	8.06	124.47	114.00
1	A2	1317	C	C2'-C3'-O3'	8.05	127.22	109.50
2	AZ	6217	A	C2'-C3'-O3'	8.05	127.22	109.50
1	A2	246	G	N9-C1'-C2'	8.05	124.46	114.00
1	A2	1438	G	C2'-C3'-O3'	8.05	127.20	109.50
1	A2	1451	C	C2'-C3'-O3'	8.05	127.20	109.50
1	A2	33	U	C5'-C4'-O4'	8.04	118.75	109.10
1	A2	573	C	C2'-C3'-O3'	8.04	127.19	109.50
1	A2	599	A	C2'-C3'-O3'	8.04	127.18	109.50
1	A2	1266	U	N1-C1'-C2'	8.04	124.44	114.00
1	A2	1687	U	N1-C1'-C2'	8.03	124.44	114.00
1	A2	1340	U	N1-C1'-C2'	8.03	124.44	114.00
1	A2	514	G	C2'-C3'-O3'	8.03	127.15	109.50
2	AZ	6061	G	C2'-C3'-O3'	8.02	127.15	109.50
1	A2	1003	A	N9-C1'-C2'	8.01	124.41	114.00
1	A2	753	A	C2'-C3'-O3'	8.00	127.11	109.50
1	A2	564	G	N9-C1'-C2'	8.00	124.40	114.00
1	A2	295	A	C2'-C3'-O3'	8.00	127.09	109.50
1	A2	941	A	C2'-C3'-O3'	7.99	127.09	109.50
2	AZ	6124	G	C4'-C3'-O3'	7.99	128.98	113.00
1	A2	473	A	C5'-C4'-C3'	7.99	128.78	116.00
2	AZ	6055	U	C2'-C3'-O3'	7.98	127.06	109.50
1	A2	740	A	C2'-C3'-O3'	7.97	127.04	109.50
1	A2	265	A	N9-C1'-C2'	7.96	124.35	114.00
1	A2	1759	C	C2'-C3'-O3'	7.95	127.00	109.50
1	A2	38	C	C2'-C3'-O3'	7.95	126.98	109.50
2	AZ	6149	A	N9-C1'-C2'	7.94	124.32	114.00
1	A2	1414	U	N1-C1'-C2'	7.93	124.31	114.00
1	A2	1449	U	C5'-C4'-C3'	7.92	128.67	116.00
1	A2	120	U	C5'-C4'-O4'	7.92	118.60	109.10
2	AZ	6165	C	C5'-C4'-O4'	7.91	118.59	109.10
1	A2	138	A	C2'-C3'-O3'	7.91	126.89	109.50
3	BA	184	LEU	CB-CG-CD2	7.90	124.43	111.00
1	A2	562	G	C2'-C3'-O3'	7.89	126.86	109.50
2	AZ	6106	A	P-O3'-C3'	-7.89	110.23	119.70
33	Be	31	LYS	N-CA-C	7.88	132.28	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	334	G	C2'-C3'-O3'	7.87	126.82	109.50
1	A2	529	A	C2'-C3'-O3'	7.87	126.82	109.50
1	A2	743	U	C2'-C3'-O3'	7.87	126.81	109.50
6	BD	156	PHE	CG-CD2-CE2	7.87	129.46	120.80
1	A2	1418	G	C2'-C3'-O3'	7.86	126.79	109.50
4	BB	30	PHE	CZ-CE2-CD2	7.86	129.53	120.10
1	A2	87	C	C2'-C3'-O3'	7.86	126.79	109.50
1	A2	481	A	C2'-C3'-O3'	7.86	126.79	109.50
11	BI	27	PHE	CG-CD1-CE1	7.86	129.44	120.80
3	BA	110	TYR	CA-CB-CG	7.85	128.32	113.40
1	A2	257	A	C2'-C3'-O3'	7.85	126.77	109.50
1	A2	1662	G	C2'-C3'-O3'	7.84	126.75	109.50
1	A2	885	G	C2'-C3'-O3'	7.83	126.74	109.50
4	BB	102	GLY	C-N-CA	7.83	141.28	121.70
1	A2	1671	A	C2'-C3'-O3'	7.83	126.73	109.50
1	A2	1709	C	C2'-C3'-O3'	7.83	126.73	109.50
1	A2	1736	G	C2'-C3'-O3'	7.83	126.72	109.50
1	A2	816	G	C5'-C4'-O4'	7.82	118.48	109.10
1	A2	367	A	C5'-C4'-O4'	7.82	118.48	109.10
8	BF	30	PRO	N-CA-C	7.82	132.43	112.10
23	BU	19	ILE	CG1-CB-CG2	7.81	128.59	111.40
21	BS	128	PHE	CD1-CE1-CZ	7.81	129.47	120.10
1	A2	596	C	C2'-C3'-O3'	7.80	126.66	109.50
1	A2	1267	G	C2'-C3'-O3'	7.80	126.65	109.50
1	A2	427	C	C4'-C3'-O3'	7.79	128.59	113.00
1	A2	1797	A	OP2-P-O3'	-7.79	88.06	105.20
1	A2	220	A	C4'-C3'-O3'	7.79	128.57	113.00
1	A2	1295	G	C4'-C3'-O3'	7.78	128.57	113.00
1	A2	1482	C	C2'-C3'-O3'	7.78	126.62	109.50
3	BA	112	THR	N-CA-C	7.78	132.01	111.00
1	A2	1058	U	O4'-C1'-N1	7.78	114.43	108.20
13	BK	16	PHE	CD1-CE1-CZ	7.78	129.44	120.10
1	A2	1467	C	C2'-C3'-O3'	7.78	126.61	109.50
1	A2	1429	G	C5'-C4'-O4'	7.78	118.43	109.10
1	A2	702	G	C2'-C3'-O3'	7.77	126.59	109.50
1	A2	1771	U	C2'-C3'-O3'	7.76	126.58	109.50
1	A2	1638	G	C5'-C4'-C3'	7.75	128.40	116.00
2	AZ	6055	U	C5'-C4'-O4'	7.75	118.40	109.10
1	A2	1751	C	C5'-C4'-O4'	7.75	118.39	109.10
1	A2	1004	U	C4'-C3'-O3'	7.74	128.49	113.00
1	A2	1028	C	N1-C1'-C2'	7.74	124.06	114.00
1	A2	1571	C	N1-C1'-C2'	7.73	124.05	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	91	G	C2'-C3'-O3'	7.73	126.50	109.50
19	BQ	129	PHE	CG-CD1-CE1	7.73	129.30	120.80
1	A2	578	U	C4'-C3'-O3'	7.73	128.46	113.00
5	BC	131	ILE	N-CA-C	7.73	131.86	111.00
1	A2	1381	U	N1-C1'-C2'	7.72	124.03	114.00
1	A2	517	U	C2'-C3'-O3'	7.71	126.47	109.50
1	A2	212	U	N1-C1'-C2'	7.71	124.02	114.00
1	A2	113	U	N1-C1'-C2'	7.70	124.01	114.00
10	BH	183	PHE	CD1-CE1-CZ	7.69	129.32	120.10
1	A2	949	C	C2'-C3'-O3'	7.69	126.41	109.50
35	Bg	186	PHE	CG-CD2-CE2	7.68	129.25	120.80
1	A2	558	U	C5'-C4'-C3'	7.68	128.28	116.00
2	AZ	6195	G	C2'-C3'-O3'	7.67	126.37	109.50
14	BL	54	ILE	CG1-CB-CG2	7.67	128.27	111.40
1	A2	1002	G	C2'-C3'-O3'	7.66	126.35	109.50
1	A2	240	U	C5'-C4'-O4'	7.64	118.27	109.10
11	BI	21	PHE	CG-CD1-CE1	7.64	129.21	120.80
1	A2	563	U	N1-C1'-C2'	7.64	123.93	114.00
1	A2	1151	A	C2'-C3'-O3'	7.63	126.28	109.50
1	A2	1092	A	C2'-C3'-O3'	7.62	126.27	109.50
1	A2	767	U	C2'-C3'-O3'	7.61	126.25	109.50
1	A2	1397	U	C2'-C3'-O3'	7.61	126.24	109.50
1	A2	499	U	N1-C1'-C2'	7.61	123.89	114.00
1	A2	120	U	N1-C1'-C2'	7.61	123.89	114.00
1	A2	1452	U	N1-C1'-C2'	7.60	123.89	114.00
2	AZ	6174	G	C2'-C3'-O3'	7.60	126.23	109.50
1	A2	876	G	N9-C1'-C2'	7.59	123.87	114.00
1	A2	161	U	C2'-C3'-O3'	7.59	126.20	109.50
1	A2	711	U	C2'-C3'-O3'	7.59	126.20	109.50
1	A2	461	G	C2'-C3'-O3'	7.59	126.20	109.50
1	A2	1261	G	C2'-C3'-O3'	7.57	126.16	109.50
1	A2	1389	C	N1-C1'-C2'	7.57	123.84	114.00
1	A2	1495	C	C2'-C3'-O3'	7.57	126.14	109.50
1	A2	366	A	N9-C1'-C2'	7.56	123.83	114.00
1	A2	435	C	C2'-C3'-O3'	7.56	126.14	109.50
2	AZ	6070	A	C5'-C4'-O4'	7.56	118.17	109.10
1	A2	6	G	N9-C1'-C2'	7.56	123.83	114.00
1	A2	1197	C	C5'-C4'-O4'	7.56	118.17	109.10
1	A2	330	G	C2'-C3'-O3'	7.55	126.11	109.50
1	A2	1690	G	N9-C1'-C2'	7.55	123.81	114.00
1	A2	1688	U	C2'-C3'-O3'	7.55	126.10	109.50
1	A2	190	C	C2'-C3'-O3'	7.54	126.09	109.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	636	A	N9-C1'-C2'	7.54	123.80	114.00
1	A2	326	G	C5'-C4'-O4'	7.53	118.13	109.10
1	A2	1298	U	C2'-C3'-O3'	7.53	126.06	109.50
1	A2	1528	U	C2'-C3'-O3'	7.52	126.04	109.50
2	AZ	6106	A	N9-C1'-C2'	7.51	123.77	114.00
2	AZ	6091	G	C4'-C3'-O3'	7.50	128.01	113.00
22	BT	54	PHE	CG-CD1-CE1	7.50	129.06	120.80
1	A2	311	U	N1-C1'-C2'	7.49	123.74	114.00
1	A2	629	U	C2'-C3'-O3'	7.49	125.97	109.50
1	A2	383	G	N9-C1'-C2'	7.49	123.73	114.00
1	A2	188	A	N9-C1'-C2'	7.48	123.73	114.00
1	A2	1078	C	N1-C1'-C2'	7.48	123.73	114.00
1	A2	491	C	C2'-C3'-O3'	7.48	125.96	109.50
1	A2	960	U	OP2-P-O3'	7.48	121.65	105.20
2	AZ	6160	C	N1-C1'-C2'	7.47	123.71	114.00
10	BH	24	PHE	CG-CD1-CE1	7.47	129.01	120.80
1	A2	621	A	C2'-C3'-O3'	7.46	125.92	109.50
1	A2	150	U	N1-C1'-C2'	7.46	123.69	114.00
1	A2	453	U	C2'-C3'-O3'	7.44	125.86	109.50
1	A2	1067	C	C5'-C4'-O4'	7.43	118.02	109.10
1	A2	1252	C	C5'-C4'-O4'	7.42	118.01	109.10
1	A2	1357	A	C5'-C4'-O4'	7.42	118.00	109.10
2	AZ	6072	U	C2'-C3'-O3'	7.42	125.81	109.50
1	A2	223	U	C4'-C3'-O3'	7.42	127.83	113.00
1	A2	9	U	C2'-C3'-O3'	7.41	125.80	109.50
1	A2	724	C	O4'-C1'-N1	7.41	114.13	108.20
1	A2	511	A	C2'-C3'-O3'	7.41	125.80	109.50
1	A2	1432	U	O4'-C1'-N1	7.41	114.13	108.20
1	A2	1602	C	C5'-C4'-O4'	7.40	117.98	109.10
1	A2	836	U	C2'-C3'-O3'	7.39	125.77	109.50
1	A2	1240	U	C4'-C3'-O3'	7.39	127.77	113.00
1	A2	1290	U	C2'-C3'-O3'	7.38	125.74	109.50
1	A2	918	U	C4'-C3'-O3'	7.37	127.74	113.00
2	AZ	6179	A	C2'-C3'-O3'	7.37	125.71	109.50
1	A2	455	C	N1-C1'-C2'	7.37	123.58	114.00
1	A2	115	G	C2'-C3'-O3'	7.36	125.70	109.50
1	A2	787	G	C2'-C3'-O3'	7.36	125.70	109.50
1	A2	330	G	N9-C1'-C2'	7.36	123.57	114.00
1	A2	681	U	C5'-C4'-O4'	7.36	117.93	109.10
1	A2	221	A	C5'-C4'-O4'	7.35	117.92	109.10
1	A2	918	U	C2'-C3'-O3'	7.35	125.67	109.50
6	BD	119	ALA	N-CA-C	7.35	130.84	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	597	G	C2'-C3'-O3'	7.34	125.66	109.50
1	A2	853	G	N9-C1'-C2'	7.34	123.55	114.00
27	BY	92	VAL	CG1-CB-CG2	7.34	122.65	110.90
1	A2	1186	U	C2'-C3'-O3'	7.33	125.63	109.50
1	A2	1430	U	C2'-C3'-O3'	7.33	125.63	109.50
1	A2	1758	U	C2'-C3'-O3'	7.33	125.61	109.50
1	A2	1753	A	C4'-C3'-O3'	7.32	127.64	113.00
1	A2	9	U	C4'-C3'-O3'	7.32	127.64	113.00
1	A2	1406	A	N9-C1'-C2'	7.32	123.51	114.00
1	A2	1495	C	C4'-C3'-O3'	7.32	127.63	113.00
1	A2	263	C	N1-C1'-C2'	7.31	123.50	114.00
1	A2	493	U	C2'-C3'-O3'	7.31	125.59	109.50
1	A2	460	A	N9-C1'-C2'	7.31	123.50	114.00
1	A2	945	U	N1-C1'-C2'	7.31	123.50	114.00
1	A2	456	A	C2'-C3'-O3'	7.30	125.57	109.50
1	A2	1455	G	C5'-C4'-O4'	7.30	117.87	109.10
1	A2	600	U	C5'-C4'-O4'	7.30	117.86	109.10
1	A2	1471	A	C4'-C3'-O3'	7.30	127.60	113.00
1	A2	578	U	C2'-C3'-O3'	7.30	125.56	109.50
1	A2	1629	G	C4'-C3'-O3'	7.30	127.59	113.00
1	A2	213	A	N9-C1'-C2'	7.29	123.48	114.00
1	A2	320	U	C2'-C3'-O3'	7.29	125.54	109.50
1	A2	711	U	C4'-C3'-O3'	7.29	127.58	113.00
1	A2	939	A	C4'-C3'-O3'	7.29	127.58	113.00
1	A2	496	G	C2'-C3'-O3'	7.29	125.53	109.50
2	AZ	6039	G	C2'-C3'-O3'	7.28	125.52	109.50
5	BC	68	ILE	CG1-CB-CG2	7.28	127.42	111.40
1	A2	1450	U	C2'-C3'-O3'	7.27	125.50	109.50
17	BO	81	VAL	CG1-CB-CG2	7.27	122.53	110.90
1	A2	525	A	C5'-C4'-O4'	7.26	117.82	109.10
1	A2	1576	A	N9-C1'-C2'	7.26	123.44	114.00
2	AZ	6085	A	C5'-C4'-O4'	7.26	117.81	109.10
1	A2	1317	C	C4'-C3'-O3'	7.26	127.52	113.00
1	A2	1289	U	C2'-C3'-O3'	7.25	125.44	109.50
1	A2	161	U	C4'-C3'-O3'	7.24	127.47	113.00
29	Ba	10	ARG	N-CA-C	7.23	130.52	111.00
14	BL	63	LEU	CB-CG-CD1	7.23	123.28	111.00
19	BQ	54	LEU	CB-CG-CD1	7.23	123.28	111.00
1	A2	1580	C	C5'-C4'-O4'	7.22	117.77	109.10
1	A2	1012	U	C4'-C3'-O3'	7.22	127.44	113.00
1	A2	427	C	C2'-C3'-O3'	7.21	125.36	109.50
1	A2	452	A	O4'-C1'-N9	7.21	113.97	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	BH	91	ILE	CG1-CB-CG2	7.21	127.25	111.40
7	BE	121	TYR	CG-CD2-CE2	7.19	127.05	121.30
1	A2	990	C	C2'-C3'-O3'	7.19	125.32	109.50
8	BF	194	LEU	CB-CG-CD2	7.19	123.22	111.00
1	A2	1001	A	N9-C1'-C2'	7.18	123.34	114.00
4	BB	181	LEU	CB-CG-CD1	7.18	123.20	111.00
1	A2	9	U	C5'-C4'-O4'	7.18	117.71	109.10
1	A2	1388	A	O3'-P-O5'	7.17	117.63	104.00
1	A2	1188	G	C5'-C4'-O4'	7.17	117.70	109.10
2	AZ	6125	G	C5'-C4'-C3'	7.17	127.47	116.00
1	A2	1178	G	C2'-C3'-O3'	7.16	125.25	109.50
1	A2	1734	U	N1-C1'-C2'	7.16	123.31	114.00
3	BA	64	ILE	CG1-CB-CG2	7.15	127.13	111.40
1	A2	1232	U	C5'-C4'-O4'	7.15	117.67	109.10
1	A2	509	G	N9-C1'-C2'	7.14	123.29	114.00
1	A2	1677	C	N1-C1'-C2'	7.14	123.29	114.00
1	A2	51	A	C2'-C3'-O3'	7.14	125.21	109.50
1	A2	1226	A	N9-C1'-C2'	7.14	123.29	114.00
1	A2	997	G	OP2-P-O3'	-7.14	89.50	105.20
1	A2	1204	A	N9-C1'-C2'	7.14	123.28	114.00
1	A2	1247	U	C2'-C3'-O3'	7.14	125.20	109.50
1	A2	1748	G	N9-C1'-C2'	7.14	123.28	114.00
7	BE	70	VAL	CG1-CB-CG2	7.12	122.30	110.90
1	A2	930	A	C4'-C3'-O3'	7.12	127.24	113.00
1	A2	602	U	C2'-C3'-O3'	7.11	125.14	109.50
1	A2	1344	A	C5'-C4'-O4'	7.11	117.63	109.10
2	AZ	6179	A	C5'-C4'-O4'	7.11	117.63	109.10
2	AZ	6215	C	C5'-C4'-C3'	7.11	127.37	116.00
6	BD	163	PRO	N-CA-C	7.10	130.56	112.10
1	A2	713	A	C2'-C3'-O3'	7.10	125.12	109.50
1	A2	775	G	C2'-C3'-O3'	7.10	125.11	109.50
1	A2	395	U	C5'-C4'-O4'	7.09	117.61	109.10
1	A2	842	C	C3'-C2'-O2'	7.09	133.86	113.30
6	BD	37	VAL	CG1-CB-CG2	7.09	122.24	110.90
1	A2	1450	U	C5'-C4'-O4'	7.08	117.60	109.10
2	AZ	6120	U	O4'-C1'-N1	7.08	113.87	108.20
2	AZ	6176	A	N9-C1'-C2'	7.08	123.21	114.00
1	A2	581	U	C2'-C3'-O3'	7.08	125.08	109.50
1	A2	1683	C	C4'-C3'-O3'	7.08	127.16	113.00
1	A2	787	G	C5'-C4'-O4'	7.08	117.60	109.10
1	A2	1749	A	C2'-C3'-O3'	7.08	125.08	109.50
13	BK	59	PHE	N-CA-C	7.08	130.12	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	417	A	C2'-C3'-O3'	7.08	125.07	109.50
1	A2	478	A	N9-C1'-C2'	7.08	123.20	114.00
1	A2	1580	C	O4'-C1'-N1	7.07	113.86	108.20
1	A2	386	G	C5'-C4'-O4'	7.07	117.58	109.10
1	A2	947	U	N1-C1'-C2'	7.07	123.19	114.00
5	BC	126	ARG	N-CA-C	7.07	130.09	111.00
1	A2	456	A	N9-C1'-C2'	7.06	123.18	114.00
1	A2	1683	C	C2'-C3'-O3'	7.06	125.04	109.50
1	A2	755	A	N9-C1'-C2'	7.06	123.18	114.00
2	AZ	6198	U	C2'-C3'-O3'	7.03	124.97	109.50
7	BE	140	VAL	CG1-CB-CG2	7.03	122.14	110.90
1	A2	66	U	C5'-C4'-O4'	7.03	117.53	109.10
1	A2	165	G	N9-C1'-C2'	7.02	123.13	114.00
1	A2	716	C	C2'-C3'-O3'	7.02	124.95	109.50
1	A2	934	C	N1-C1'-C2'	7.02	123.12	114.00
1	A2	930	A	C2'-C3'-O3'	7.01	124.92	109.50
1	A2	756	A	N9-C1'-C2'	7.01	123.11	114.00
1	A2	821	U	C2'-C3'-O3'	7.01	124.92	109.50
1	A2	1422	A	C2'-C3'-O3'	7.01	124.91	109.50
1	A2	419	G	OP2-P-O3'	-7.00	89.80	105.20
1	A2	1178	G	C4'-C3'-O3'	7.00	126.99	113.00
1	A2	388	G	P-O3'-C3'	-6.99	111.31	119.70
1	A2	467	G	N9-C1'-C2'	6.98	123.08	114.00
1	A2	469	C	C2'-C3'-O3'	6.98	124.87	113.70
1	A2	1161	C	C5'-C4'-O4'	6.98	117.48	109.10
1	A2	753	A	C5'-C4'-O4'	6.97	117.46	109.10
1	A2	1240	U	C2'-C3'-O3'	6.97	124.85	113.70
1	A2	1525	A	C4'-C3'-O3'	6.97	126.93	113.00
1	A2	1779	U	N1-C1'-C2'	6.96	123.05	114.00
16	BN	56	ASP	N-CA-C	6.96	129.80	111.00
1	A2	257	A	C4'-C3'-O3'	6.96	126.92	113.00
1	A2	1089	U	N1-C1'-C2'	6.96	123.05	114.00
7	BE	121	TYR	CG-CD1-CE1	6.96	126.86	121.30
2	AZ	6165	C	C5'-C4'-C3'	6.95	127.12	116.00
1	A2	1118	G	C5'-C4'-O4'	6.95	117.44	109.10
1	A2	1041	G	C4'-C3'-O3'	6.94	126.88	113.00
1	A2	1738	U	N1-C1'-C2'	6.94	123.02	114.00
1	A2	1535	U	N1-C1'-C2'	6.94	123.02	114.00
1	A2	1291	G	C2'-C3'-O3'	6.93	124.79	113.70
1	A2	1506	G	C5'-C4'-C3'	6.93	127.08	116.00
1	A2	1294	G	C4'-C3'-O3'	6.91	126.82	113.00
1	A2	1445	G	C5'-C4'-O4'	6.90	117.39	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	481	A	C4'-C3'-O3'	6.89	126.77	113.00
1	A2	245	U	C5'-C4'-O4'	6.88	117.36	109.10
1	A2	88	U	C4'-C3'-O3'	6.87	126.74	113.00
1	A2	1102	G	C5'-C4'-O4'	6.87	117.34	109.10
1	A2	1627	U	N1-C1'-C2'	6.86	122.92	114.00
1	A2	735	C	C5'-C4'-O4'	6.86	117.33	109.10
7	BE	120	SER	N-CA-C	6.84	129.48	111.00
1	A2	938	G	C5'-C4'-O4'	6.84	117.31	109.10
1	A2	375	U	C5'-C4'-O4'	6.84	117.31	109.10
1	A2	299	A	C2'-C3'-O3'	6.83	124.63	113.70
20	BR	61	ILE	CG1-CB-CG2	6.83	126.42	111.40
1	A2	1672	G	C5'-C4'-O4'	6.83	117.29	109.10
11	BI	96	LEU	CB-CG-CD1	6.81	122.57	111.00
26	BX	90	ALA	N-CA-C	6.80	129.37	111.00
1	A2	820	U	C4'-C3'-O3'	6.80	126.60	113.00
1	A2	1234	A	N9-C1'-C2'	6.80	122.84	114.00
25	BW	14	ILE	CG1-CB-CG2	6.80	126.36	111.40
1	A2	1450	U	C4'-C3'-O3'	6.80	126.60	113.00
1	A2	1420	C	C5'-C4'-O4'	6.79	117.25	109.10
7	BE	20	LEU	CB-CG-CD2	6.79	122.55	111.00
1	A2	862	A	C5'-C4'-O4'	6.79	117.25	109.10
1	A2	504	U	C4'-C3'-O3'	6.78	126.56	113.00
1	A2	1222	C	N1-C1'-C2'	6.77	122.80	114.00
3	BA	138	TYR	CA-CB-CG	6.77	126.27	113.40
22	BT	57	ARG	N-CA-CB	6.77	122.79	110.60
1	A2	1293	U	C4'-C3'-O3'	6.77	126.54	113.00
1	A2	921	U	N1-C1'-C2'	6.76	122.79	114.00
3	BA	197	ILE	CG1-CB-CG2	6.75	126.26	111.40
12	BJ	77	ILE	CG1-CB-CG2	6.75	126.26	111.40
8	BF	115	LYS	CB-CA-C	6.75	123.90	110.40
1	A2	9	U	C5'-C4'-C3'	6.75	126.80	116.00
1	A2	738	G	C5'-C4'-O4'	6.75	117.20	109.10
1	A2	1266	U	O4'-C1'-N1	6.74	113.59	108.20
2	AZ	6197	U	C5'-C4'-O4'	6.74	117.18	109.10
1	A2	953	G	N9-C1'-C2'	6.73	122.75	114.00
4	BB	164	ILE	CG1-CB-CG2	6.73	126.21	111.40
2	AZ	6124	G	C5'-C4'-C3'	6.73	126.77	116.00
35	Bg	244	ALA	N-CA-C	6.73	129.18	111.00
1	A2	1038	U	N1-C1'-C2'	6.73	122.75	114.00
1	A2	423	G	C4'-C3'-O3'	6.73	126.45	113.00
1	A2	1448	G	C5'-C4'-O4'	6.72	117.17	109.10
1	A2	1354	G	N9-C1'-C2'	6.71	122.72	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1291	G	C4'-C3'-O3'	6.70	126.41	113.00
26	BX	98	GLU	N-CA-C	6.70	129.09	111.00
1	A2	1777	G	C4'-C3'-O3'	6.70	126.39	113.00
6	BD	220	PRO	N-CA-C	6.68	129.47	112.10
1	A2	1125	A	C5'-C4'-O4'	6.68	117.12	109.10
1	A2	376	C	C4'-C3'-O3'	6.68	126.36	113.00
1	A2	568	G	C5'-C4'-O4'	6.68	117.11	109.10
1	A2	721	U	C2'-C3'-O3'	6.68	124.39	113.70
1	A2	315	A	C5'-C4'-O4'	6.67	117.11	109.10
1	A2	612	U	N1-C1'-C2'	6.67	122.67	114.00
21	BS	81	ILE	CG1-CB-CG2	6.67	126.07	111.40
1	A2	910	C	C5'-C4'-O4'	6.66	117.10	109.10
1	A2	295	A	C4'-C3'-O3'	6.66	126.32	113.00
7	BE	192	ILE	CG1-CB-CG2	6.65	126.03	111.40
1	A2	482	U	C5'-C4'-O4'	6.65	117.08	109.10
1	A2	473	A	C4'-C3'-O3'	6.64	126.28	113.00
2	AZ	6120	U	N1-C1'-C2'	6.64	122.63	114.00
24	BV	28	ASP	N-CA-C	6.64	128.92	111.00
1	A2	212	U	O4'-C1'-N1	6.64	113.51	108.20
3	BA	173	ILE	CG1-CB-CG2	6.64	126.00	111.40
1	A2	1467	C	C5'-C4'-O4'	6.63	117.06	109.10
1	A2	1095	U	N1-C1'-C2'	6.63	122.62	114.00
2	AZ	6070	A	C2'-C3'-O3'	6.63	124.30	113.70
30	Bb	12	ALA	N-CA-C	6.62	128.88	111.00
2	AZ	6163	C	O4'-C1'-N1	6.62	113.50	108.20
1	A2	821	U	C4'-C3'-O3'	6.62	126.23	113.00
1	A2	472	U	C5'-C4'-O4'	6.61	117.03	109.10
8	BF	211	ILE	CG1-CB-CG2	6.61	125.94	111.40
16	BN	98	VAL	CG1-CB-CG2	6.61	121.48	110.90
1	A2	240	U	C5'-C4'-C3'	6.61	126.57	116.00
2	AZ	6124	G	C2'-C3'-O3'	6.60	124.27	113.70
20	BR	54	THR	N-CA-C	6.60	128.82	111.00
1	A2	1092	A	O4'-C1'-N9	6.60	113.48	108.20
1	A2	1720	G	C4'-C3'-O3'	6.60	126.19	113.00
22	BT	17	ALA	N-CA-C	6.59	128.81	111.00
26	BX	124	VAL	CG1-CB-CG2	6.59	121.45	110.90
1	A2	1304	G	C5'-C4'-O4'	6.58	117.00	109.10
2	AZ	6025	A	C1'-C2'-O2'	6.58	130.35	110.60
32	Bd	11	PRO	N-CA-C	6.58	129.19	112.10
1	A2	787	G	C4'-C3'-O3'	6.57	126.15	113.00
9	BG	26	VAL	CG1-CB-CG2	6.57	121.42	110.90
4	BB	153	HIS	N-CA-C	6.57	128.74	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AZ	6085	A	C5'-C4'-C3'	6.57	126.51	116.00
1	A2	1340	U	O4'-C1'-N1	6.56	113.45	108.20
1	A2	1418	G	C4'-C3'-O3'	6.56	126.12	113.00
1	A2	1467	C	C4'-C3'-O3'	6.56	126.12	113.00
1	A2	1516	A	C5'-C4'-O4'	6.55	116.96	109.10
1	A2	944	A	C5'-C4'-O4'	6.55	116.96	109.10
1	A2	1054	U	N1-C1'-C2'	6.55	122.51	114.00
3	BA	185	ARG	N-CA-C	6.54	128.66	111.00
5	BC	179	VAL	N-CA-C	6.54	128.67	111.00
9	BG	198	ALA	N-CA-C	6.54	128.66	111.00
1	A2	1205	C	N1-C1'-C2'	6.54	122.50	114.00
15	BM	57	ALA	N-CA-C	6.54	128.64	111.00
1	A2	330	G	C4'-C3'-O3'	6.53	126.07	113.00
35	Bg	5	GLU	N-CA-C	6.53	128.64	111.00
1	A2	734	A	N9-C1'-C2'	6.51	122.46	114.00
1	A2	914	G	N9-C1'-C2'	6.51	122.46	114.00
1	A2	1502	G	N9-C1'-C2'	6.51	122.46	114.00
1	A2	1414	U	C3'-C2'-O2'	6.50	132.16	113.30
1	A2	1041	G	C5'-C4'-O4'	6.50	116.90	109.10
1	A2	1493	A	O4'-C1'-N9	6.50	113.40	108.20
1	A2	1226	A	C5'-C4'-O4'	6.50	116.90	109.10
11	BI	13	ALA	N-CA-C	6.50	128.55	111.00
1	A2	88	U	C2'-C3'-O3'	6.50	124.10	113.70
1	A2	501	U	C3'-C2'-O2'	6.50	132.14	113.30
1	A2	744	U	C5'-C4'-O4'	6.50	116.89	109.10
1	A2	511	A	C5'-C4'-O4'	6.49	116.89	109.10
1	A2	1347	U	C2'-C3'-O3'	6.48	124.07	113.70
1	A2	750	U	C5'-C4'-O4'	6.48	116.87	109.10
1	A2	188	A	C4'-C3'-O3'	6.47	125.94	113.00
1	A2	587	C	N1-C1'-C2'	6.47	122.41	114.00
27	BY	13	ILE	CG1-CB-CG2	6.47	125.64	111.40
5	BC	131	ILE	CG1-CB-CG2	6.47	125.62	111.40
1	A2	804	A	C1'-C2'-O2'	6.46	130.00	110.60
1	A2	310	C	C5'-C4'-O4'	6.46	116.85	109.10
2	AZ	6081	U	C4'-C3'-O3'	6.46	125.91	113.00
1	A2	629	U	C5'-C4'-O4'	6.46	116.85	109.10
1	A2	1752	U	C4'-C3'-O3'	6.46	125.91	113.00
13	BK	22	VAL	CG1-CB-CG2	6.46	121.23	110.90
1	A2	359	A	N9-C1'-C2'	6.45	122.38	114.00
20	BR	66	VAL	CG1-CB-CG2	6.45	121.21	110.90
5	BC	36	VAL	CB-CA-C	6.44	123.64	111.40
1	A2	1792	G	C5'-C4'-O4'	6.44	116.83	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	921	U	O4'-C1'-N1	6.43	113.35	108.20
1	A2	1568	C	C4'-C3'-O3'	6.42	125.85	113.00
21	BS	101	LEU	N-CA-C	6.42	128.35	111.00
1	A2	459	G	C5'-C4'-O4'	6.42	116.80	109.10
1	A2	1407	U	C5'-C4'-O4'	6.42	116.80	109.10
29	Ba	11	ASN	N-CA-C	6.42	128.32	111.00
17	BO	83	ILE	CG1-CB-CG2	6.41	125.51	111.40
1	A2	1749	A	C4'-C3'-O3'	6.41	125.82	113.00
8	BF	201	ALA	N-CA-C	6.39	128.27	111.00
1	A2	1528	U	C4'-C3'-O3'	6.39	125.78	113.00
1	A2	1252	C	C5'-C4'-C3'	6.39	126.22	116.00
1	A2	1638	G	O4'-C4'-C3'	6.39	111.21	106.10
1	A2	1146	G	C4'-C3'-O3'	6.39	125.78	113.00
6	BD	175	VAL	CB-CA-C	6.39	123.53	111.40
1	A2	146	U	C5'-C4'-O4'	6.38	116.76	109.10
1	A2	258	C	C5'-C4'-O4'	6.38	116.76	109.10
1	A2	1290	U	C4'-C3'-O3'	6.38	125.77	113.00
10	BH	59	ALA	N-CA-C	6.38	128.23	111.00
35	Bg	46	LYS	CB-CA-C	6.38	123.16	110.40
6	BD	21	LEU	CB-CG-CD1	6.38	121.84	111.00
35	Bg	48	THR	N-CA-C	6.37	128.21	111.00
1	A2	272	U	C5'-C4'-C3'	6.37	126.19	116.00
1	A2	451	A	C5'-C4'-C3'	6.37	126.19	116.00
32	Bd	47	ALA	N-CA-C	6.37	128.21	111.00
1	A2	1713	G	C4'-C3'-O3'	6.37	125.74	113.00
19	BQ	84	ALA	N-CA-C	6.37	128.20	111.00
1	A2	352	A	OP1-P-O3'	-6.37	91.19	105.20
1	A2	517	U	C4'-C3'-O3'	6.37	125.73	113.00
1	A2	231	U	C1'-C2'-O2'	6.36	129.67	110.60
1	A2	562	G	C5'-C4'-O4'	6.36	116.73	109.10
1	A2	41	A	C4'-C3'-O3'	6.36	125.71	113.00
1	A2	1525	A	C2'-C3'-O3'	6.34	123.85	113.70
1	A2	1680	G	C1'-C2'-O2'	6.34	129.62	110.60
3	BA	111	ILE	N-CA-C	6.33	128.10	111.00
9	BG	25	ARG	N-CA-C	6.33	128.08	111.00
1	A2	469	C	C4'-C3'-O3'	6.32	125.63	113.00
13	BK	11	ILE	CG1-CB-CG2	6.31	125.28	111.40
1	A2	1389	C	C5'-C4'-O4'	6.31	116.67	109.10
1	A2	289	U	C1'-C2'-O2'	6.30	129.51	110.60
31	Bc	44	VAL	CG1-CB-CG2	6.30	120.98	110.90
1	A2	1445	G	C5'-C4'-C3'	6.30	126.08	116.00
1	A2	1289	U	C4'-C3'-O3'	6.29	125.59	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1455	G	C5'-C4'-C3'	6.29	126.07	116.00
1	A2	42	G	C5'-C4'-C3'	6.29	126.07	116.00
1	A2	143	G	N9-C1'-C2'	6.28	122.17	114.00
1	A2	1357	A	C5'-C4'-C3'	6.28	126.05	116.00
6	BD	51	ARG	N-CA-C	6.27	127.93	111.00
1	A2	769	A	C5'-C4'-O4'	6.27	116.62	109.10
1	A2	67	A	C3'-C2'-O2'	6.26	131.47	113.30
1	A2	1221	A	C5'-C4'-O4'	6.26	116.62	109.10
1	A2	960	U	N1-C1'-C2'	6.26	122.14	114.00
1	A2	1196	A	O4'-C1'-N9	6.26	113.21	108.20
8	BF	165	LEU	CB-CA-C	6.26	122.10	110.20
1	A2	1424	A	C5'-C4'-O4'	6.26	116.61	109.10
1	A2	303	U	N1-C1'-C2'	6.25	122.13	114.00
1	A2	1058	U	C5'-C4'-O4'	6.25	116.60	109.10
1	A2	1347	U	C4'-C3'-O3'	6.25	125.50	113.00
1	A2	131	C	C4'-C3'-O3'	6.25	125.49	113.00
1	A2	468	A	C5'-C4'-O4'	6.25	116.60	109.10
35	Bg	80	ALA	N-CA-C	6.25	127.86	111.00
1	A2	756	A	C5'-C4'-O4'	6.24	116.59	109.10
1	A2	1097	U	C5'-C4'-O4'	6.24	116.59	109.10
1	A2	51	A	C4'-C3'-O3'	6.24	125.48	113.00
1	A2	1415	U	C4'-C3'-O3'	6.24	125.48	113.00
1	A2	1442	U	C4'-C3'-O3'	6.24	125.48	113.00
18	BP	63	ALA	N-CA-C	6.24	127.84	111.00
1	A2	120	U	C5'-C4'-C3'	6.24	125.98	116.00
1	A2	461	G	C4'-C3'-O3'	6.23	125.45	113.00
1	A2	1337	A	N9-C1'-C2'	6.23	122.10	114.00
1	A2	539	G	C5'-C4'-O4'	6.22	116.57	109.10
1	A2	939	A	C5'-C4'-O4'	6.22	116.57	109.10
1	A2	1777	G	C5'-C4'-O4'	6.22	116.57	109.10
1	A2	738	G	C4'-C3'-O3'	6.22	125.43	113.00
2	AZ	6121	C	C4'-C3'-O3'	6.22	125.44	113.00
34	Bf	151	ASN	N-CA-C	6.21	127.78	111.00
1	A2	320	U	C4'-C3'-O3'	6.21	125.43	113.00
1	A2	1118	G	C5'-C4'-C3'	6.21	125.94	116.00
22	BT	7	ARG	N-CA-C	6.21	127.77	111.00
1	A2	885	G	C4'-C3'-O3'	6.21	125.41	113.00
1	A2	1475	A	N9-C1'-C2'	6.20	122.06	114.00
2	AZ	6160	C	O4'-C1'-N1	6.20	113.16	108.20
1	A2	1267	G	C4'-C3'-O3'	6.20	125.39	113.00
19	BQ	89	LEU	N-CA-C	6.20	127.73	111.00
1	A2	248	U	N1-C1'-C2'	6.19	122.05	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1197	C	C5'-C4'-C3'	6.19	125.90	116.00
1	A2	1501	C	C3'-C2'-O2'	6.19	131.24	113.30
11	BI	162	ALA	N-CA-C	6.19	127.71	111.00
1	A2	1286	U	C3'-C2'-O2'	6.18	131.23	113.30
1	A2	753	A	C4'-C3'-O3'	6.18	125.36	113.00
1	A2	1003	A	O4'-C1'-N9	6.17	113.14	108.20
1	A2	1297	G	C1'-C2'-O2'	6.17	129.10	110.60
1	A2	1441	C	N1-C1'-C2'	6.17	122.02	114.00
16	BN	121	ARG	N-CA-C	6.17	127.66	111.00
1	A2	222	A	C3'-C2'-O2'	6.17	131.18	113.30
1	A2	792	U	O4'-C1'-N1	6.17	113.13	108.20
17	BO	61	MET	N-CA-C	6.17	127.65	111.00
1	A2	299	A	C4'-C3'-O3'	6.17	125.33	113.00
1	A2	367	A	C5'-C4'-C3'	6.15	125.84	116.00
17	BO	17	ALA	N-CA-C	6.15	127.61	111.00
1	A2	138	A	C5'-C4'-O4'	6.15	116.48	109.10
14	BL	78	THR	OG1-CB-CG2	6.15	124.15	110.00
1	A2	1771	U	C5'-C4'-O4'	6.15	116.48	109.10
12	BJ	26	ALA	N-CA-C	6.15	127.60	111.00
28	BZ	42	LEU	N-CA-C	6.15	127.59	111.00
2	AZ	6164	U	C5'-C4'-C3'	6.14	125.83	116.00
2	AZ	6164	U	C5'-C4'-O4'	6.14	116.47	109.10
1	A2	748	U	C5'-C4'-O4'	6.13	116.46	109.10
2	AZ	6221	U	C5'-C4'-O4'	6.13	116.46	109.10
1	A2	1570	A	C4'-C3'-O3'	6.13	125.26	113.00
9	BG	81	VAL	CB-CA-C	6.13	123.04	111.40
12	BJ	163	PRO	N-CA-C	6.13	128.04	112.10
35	Bg	10	ARG	N-CA-C	6.12	127.52	111.00
26	BX	22	ASN	N-CA-C	6.12	127.52	111.00
1	A2	173	A	C1'-C2'-O2'	6.12	128.95	110.60
1	A2	1320	U	C5'-C4'-O4'	6.11	116.44	109.10
10	BH	65	PRO	N-CA-C	6.11	127.99	112.10
35	Bg	227	ALA	N-CA-C	6.11	127.51	111.00
1	A2	1188	G	C5'-C4'-C3'	6.11	125.78	116.00
2	AZ	6115	U	C3'-C2'-O2'	6.11	131.02	113.30
1	A2	1603	U	C5'-C4'-O4'	6.10	116.42	109.10
1	A2	13	C	N1-C1'-C2'	6.10	121.93	114.00
14	BL	138	ASN	N-CA-C	6.10	127.47	111.00
6	BD	123	VAL	N-CA-C	6.09	127.45	111.00
1	A2	1514	U	C1'-C2'-O2'	6.09	128.87	110.60
1	A2	713	A	C4'-C3'-O3'	6.09	125.18	113.00
22	BT	55	TYR	CG-CD1-CE1	-6.09	116.43	121.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1751	C	C5'-C4'-C3'	6.09	125.74	116.00
2	AZ	6164	U	N1-C1'-C2'	6.09	121.91	114.00
1	A2	1688	U	C4'-C3'-O3'	6.08	125.16	113.00
1	A2	1085	G	N9-C1'-C2'	6.08	121.90	114.00
5	BC	159	THR	OG1-CB-CG2	6.08	123.97	110.00
1	A2	545	A	O4'-C1'-N9	6.07	113.06	108.20
2	AZ	6079	A	C1'-C2'-O2'	6.07	128.82	110.60
1	A2	189	C	N1-C1'-C2'	6.07	121.88	114.00
2	AZ	6055	U	C4'-C3'-O3'	6.07	125.13	113.00
1	A2	805	U	C5'-C4'-O4'	6.06	116.38	109.10
35	Bg	257	ALA	N-CA-C	6.06	127.37	111.00
1	A2	1213	G	C3'-C2'-O2'	6.06	130.88	113.30
1	A2	1442	U	C5'-C4'-O4'	6.06	116.37	109.10
1	A2	58	U	O4'-C1'-N1	6.06	113.05	108.20
1	A2	1561	U	C4'-C3'-O3'	6.05	125.11	113.00
9	BG	142	ARG	N-CA-C	6.05	127.34	111.00
16	BN	11	ILE	CG1-CB-CG2	6.05	124.71	111.40
1	A2	161	U	C5'-C4'-C3'	6.05	125.67	116.00
1	A2	473	A	O4'-C4'-C3'	6.04	110.94	106.10
2	AZ	6188	G	C5'-C4'-O4'	6.04	116.35	109.10
1	A2	399	A	OP1-P-O3'	6.04	118.48	105.20
1	A2	472	U	C5'-C4'-C3'	6.03	125.65	116.00
1	A2	577	G	C4'-C3'-O3'	6.03	125.06	113.00
1	A2	417	A	C4'-C3'-O3'	6.03	125.06	113.00
1	A2	362	G	C4'-C3'-O3'	6.03	125.06	113.00
1	A2	1753	A	C2'-C3'-O3'	6.03	123.34	113.70
1	A2	600	U	N1-C1'-C2'	6.03	121.83	114.00
1	A2	945	U	C5'-C4'-O4'	6.03	116.33	109.10
19	BQ	134	ALA	N-CA-C	6.03	127.27	111.00
1	A2	351	C	O4'-C1'-N1	6.02	113.02	108.20
1	A2	1161	C	C5'-C4'-C3'	6.02	125.63	116.00
1	A2	1096	C	C5'-C4'-C3'	6.02	125.63	116.00
1	A2	88	U	C5'-C4'-C3'	6.01	125.62	116.00
18	BP	36	LEU	N-CA-C	6.01	127.24	111.00
14	BL	145	ALA	N-CA-C	6.01	127.23	111.00
1	A2	1097	U	C5'-C4'-C3'	6.01	125.61	116.00
1	A2	1176	G	C4'-C3'-O3'	6.01	125.01	113.00
1	A2	166	C	C1'-C2'-O2'	6.00	128.62	110.60
1	A2	703	G	C5'-C4'-O4'	6.00	116.31	109.10
2	AZ	6195	G	C4'-C3'-O3'	6.00	125.01	113.00
1	A2	1448	G	C5'-C4'-C3'	6.00	125.60	116.00
1	A2	781	U	C1'-C2'-O2'	6.00	128.60	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1600	A	C5'-C4'-O4'	6.00	116.30	109.10
1	A2	1226	A	O4'-C1'-N9	5.99	112.99	108.20
1	A2	1754	A	C5'-C4'-O4'	5.99	116.29	109.10
1	A2	1130	G	N9-C1'-C2'	5.99	121.79	114.00
1	A2	1551	U	N1-C1'-C2'	5.99	121.79	114.00
1	A2	1247	U	C5'-C4'-O4'	5.99	116.29	109.10
4	BB	21	VAL	N-CA-C	5.99	127.18	111.00
1	A2	213	A	C3'-C2'-O2'	5.99	130.66	113.30
1	A2	260	U	C1'-C2'-O2'	5.99	128.56	110.60
1	A2	161	U	C5'-C4'-O4'	5.99	116.28	109.10
7	BE	89	VAL	CB-CA-C	5.98	122.77	111.40
1	A2	689	G	C5'-C4'-O4'	5.98	116.28	109.10
1	A2	499	U	C3'-C2'-O2'	5.98	130.65	113.30
1	A2	1151	A	C4'-C3'-O3'	5.98	124.95	113.00
1	A2	1771	U	C4'-C3'-O3'	5.98	124.95	113.00
1	A2	917	U	C3'-C2'-O2'	5.97	130.63	113.30
1	A2	928	U	O4'-C1'-N1	5.97	112.98	108.20
2	AZ	6129	C	C5'-C4'-C3'	5.97	125.55	116.00
18	BP	20	VAL	N-CA-C	5.97	127.12	111.00
12	BJ	85	VAL	CG1-CB-CG2	5.97	120.45	110.90
1	A2	143	G	C4'-C3'-O3'	5.97	124.93	113.00
11	BI	73	SER	N-CA-C	5.97	127.11	111.00
15	BM	141	SER	N-CA-C	5.96	127.10	111.00
1	A2	1170	G	C4'-C3'-O3'	5.96	124.93	113.00
26	BX	65	ASN	N-CA-C	5.96	127.10	111.00
2	AZ	6034	A	C3'-C2'-O2'	5.96	130.58	113.30
28	BZ	84	GLU	N-CA-C	5.96	127.08	111.00
33	Be	43	ARG	N-CA-C	5.96	127.09	111.00
27	BY	118	ILE	CG1-CB-CG2	5.96	124.50	111.40
1	A2	461	G	C5'-C4'-C3'	5.95	125.52	116.00
1	A2	465	G	C5'-C4'-O4'	5.95	116.24	109.10
1	A2	836	U	C4'-C3'-O3'	5.95	124.90	113.00
1	A2	877	G	C5'-C4'-C3'	5.95	125.52	116.00
1	A2	743	U	C5'-C4'-O4'	5.94	116.23	109.10
1	A2	395	U	N1-C1'-C2'	5.94	121.72	114.00
1	A2	1748	G	C1'-C2'-O2'	5.94	128.41	110.60
2	AZ	6174	G	C5'-C4'-O4'	5.94	116.22	109.10
1	A2	146	U	C4'-C3'-O3'	5.94	124.87	113.00
2	AZ	6124	G	C5'-C4'-O4'	5.94	116.22	109.10
1	A2	1407	U	C5'-C4'-C3'	5.93	125.49	116.00
18	BP	82	ASN	N-CA-C	5.93	127.02	111.00
28	BZ	82	HIS	CB-CA-C	5.92	122.24	110.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AZ	6113	U	C1'-C2'-O2'	5.92	128.35	110.60
9	BG	67	VAL	N-CA-C	5.92	126.98	111.00
18	BP	122	THR	N-CA-C	5.92	126.98	111.00
1	A2	272	U	C5'-C4'-O4'	5.91	116.19	109.10
2	AZ	6197	U	C5'-C4'-C3'	5.91	125.46	116.00
2	AZ	6039	G	C5'-C4'-C3'	5.91	125.45	116.00
1	A2	750	U	N1-C1'-C2'	5.90	121.67	114.00
1	A2	1449	U	O4'-C4'-C3'	5.90	110.82	106.10
1	A2	468	A	C5'-C4'-C3'	5.90	125.44	116.00
15	BM	62	LEU	CA-CB-CG	5.90	128.87	115.30
1	A2	525	A	C5'-C4'-C3'	5.90	125.44	116.00
1	A2	1032	G	N9-C1'-C2'	5.90	121.67	114.00
1	A2	1100	G	C1'-C2'-O2'	5.90	128.29	110.60
1	A2	921	U	C4'-C3'-O3'	5.89	124.78	113.00
30	Bb	57	GLU	N-CA-C	5.89	126.91	111.00
1	A2	1268	G	C1'-C2'-O2'	5.89	128.27	110.60
1	A2	740	A	C4'-C3'-O3'	5.89	124.78	113.00
1	A2	1430	U	C4'-C3'-O3'	5.89	124.78	113.00
1	A2	1064	G	C3'-C2'-O2'	5.89	130.37	113.30
1	A2	33	U	C5'-C4'-C3'	5.88	125.41	116.00
1	A2	1450	U	C5'-C4'-C3'	5.88	125.42	116.00
1	A2	882	U	C4'-C3'-O3'	5.88	124.76	113.00
3	BA	146	LEU	CA-CB-CG	5.88	128.83	115.30
9	BG	169	TYR	CG-CD2-CE2	-5.88	116.60	121.30
1	A2	1429	G	C5'-C4'-C3'	5.88	125.40	116.00
1	A2	1571	C	O4'-C1'-N1	5.88	112.90	108.20
17	BO	120	PRO	N-CA-C	5.87	127.37	112.10
1	A2	315	A	C5'-C4'-C3'	5.87	125.39	116.00
1	A2	941	A	C4'-C3'-O3'	5.87	124.74	113.00
1	A2	949	C	C5'-C4'-O4'	5.87	116.14	109.10
9	BG	110	ALA	N-CA-C	5.87	126.84	111.00
1	A2	427	C	C5'-C4'-O4'	5.87	116.14	109.10
1	A2	430	G	C4'-C3'-O3'	5.87	124.73	113.00
1	A2	1247	U	C4'-C3'-O3'	5.87	124.73	113.00
1	A2	138	A	C5'-C4'-C3'	5.87	125.39	116.00
1	A2	1535	U	C3'-C2'-O2'	5.86	130.30	113.30
18	BP	39	ALA	N-CA-C	5.86	126.83	111.00
3	BA	130	ALA	N-CA-C	5.86	126.82	111.00
27	BY	28	LEU	CB-CG-CD2	5.86	120.96	111.00
1	A2	10	G	C1'-C2'-O2'	5.86	128.17	110.60
21	BS	97	ASP	N-CA-C	5.86	126.81	111.00
23	BU	72	ASN	N-CA-C	5.86	126.81	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	813	U	C3'-C2'-O2'	5.85	130.27	113.30
31	Bc	33	LEU	CB-CG-CD1	5.85	120.95	111.00
3	BA	110	TYR	CB-CG-CD1	5.85	124.51	121.00
1	A2	943	C	C5'-C4'-O4'	5.85	116.12	109.10
12	BJ	102	GLU	N-CA-C	5.85	126.79	111.00
1	A2	681	U	C5'-C4'-C3'	5.84	125.35	116.00
1	A2	219	A	N9-C1'-C2'	5.84	121.59	114.00
26	BX	12	ALA	N-CA-C	5.84	126.76	111.00
1	A2	42	G	C5'-C4'-O4'	5.83	116.10	109.10
1	A2	482	U	C5'-C4'-C3'	5.83	125.33	116.00
3	BA	129	ASP	N-CA-C	5.83	126.74	111.00
1	A2	1248	C	N1-C1'-C2'	5.83	121.58	114.00
7	BE	233	LYS	N-CA-C	5.83	126.73	111.00
1	A2	1677	C	C1'-C2'-O2'	5.83	128.08	110.60
1	A2	1102	G	C5'-C4'-C3'	5.82	125.32	116.00
12	BJ	122	VAL	N-CA-C	5.82	126.73	111.00
1	A2	1759	C	C4'-C3'-O3'	5.82	124.64	113.00
1	A2	738	G	C5'-C4'-C3'	5.82	125.31	116.00
2	AZ	6127	U	C3'-C2'-O2'	5.82	130.18	113.30
2	AZ	6134	U	C5'-C4'-O4'	5.82	116.08	109.10
1	A2	1563	C	C5'-C4'-C3'	5.82	125.31	116.00
5	BC	113	LEU	CB-CG-CD1	5.82	120.89	111.00
2	AZ	6198	U	C4'-C3'-O3'	5.82	124.63	113.00
1	A2	752	A	C3'-C2'-O2'	5.81	130.16	113.30
1	A2	1542	G	C1'-C2'-O2'	5.81	128.04	110.60
2	AZ	6196	G	C5'-C4'-O4'	5.81	116.08	109.10
11	BI	16	ALA	N-CA-C	5.81	126.69	111.00
2	AZ	6217	A	C4'-C3'-O3'	5.81	124.61	113.00
1	A2	644	C	C5'-C4'-O4'	5.81	116.07	109.10
1	A2	363	G	O4'-C1'-N9	5.80	112.84	108.20
22	BT	66	TYR	N-CA-C	5.80	126.66	111.00
22	BT	101	ASN	N-CA-C	5.80	126.66	111.00
1	A2	391	A	C3'-C2'-O2'	5.80	130.12	113.30
1	A2	1096	C	C5'-C4'-O4'	5.80	116.06	109.10
1	A2	1259	U	C4'-C3'-O3'	5.80	124.59	113.00
2	AZ	6052	A	C3'-C2'-O2'	5.80	130.11	113.30
1	A2	248	U	O4'-C1'-N1	5.79	112.84	108.20
1	A2	733	A	C4'-C3'-O3'	5.79	124.59	113.00
1	A2	1092	A	C4'-C3'-O3'	5.79	124.59	113.00
1	A2	1125	A	C5'-C4'-C3'	5.79	125.27	116.00
1	A2	717	C	C3'-C2'-O2'	5.79	130.09	113.30
1	A2	1319	A	C5'-C4'-O4'	5.79	116.05	109.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
35	Bg	196	ASN	N-CA-C	5.79	126.64	111.00
1	A2	149	C	C4'-C3'-O3'	5.79	124.58	113.00
1	A2	1282	U	C1'-C2'-O2'	5.79	127.97	110.60
1	A2	1749	A	C5'-C4'-O4'	5.79	116.04	109.10
1	A2	461	G	C5'-C4'-O4'	5.78	116.04	109.10
1	A2	1674	C	C3'-C2'-O2'	5.78	130.07	113.30
9	BG	120	GLU	N-CA-C	5.78	126.61	111.00
1	A2	31	C	N1-C1'-C2'	5.78	121.51	114.00
1	A2	1363	U	O4'-C1'-N1	5.78	112.82	108.20
14	BL	27	THR	N-CA-C	5.78	126.59	111.00
1	A2	822	U	C1'-C2'-O2'	5.77	127.92	110.60
1	A2	1493	A	C1'-C2'-O2'	5.77	127.92	110.60
1	A2	528	U	C4'-C3'-O3'	5.77	124.55	113.00
1	A2	1743	U	C4'-C3'-O3'	5.76	124.53	113.00
1	A2	644	C	C4'-C3'-O3'	5.76	124.52	113.00
2	AZ	6137	C	C5'-C4'-C3'	5.76	125.21	116.00
19	BQ	85	ILE	CG1-CB-CG2	5.75	124.06	111.40
1	A2	1041	G	C5'-C4'-C3'	5.75	125.20	116.00
1	A2	852	C	C5'-C4'-C3'	5.75	125.20	116.00
1	A2	1053	G	C3'-C2'-O2'	5.75	129.97	113.30
2	AZ	6070	A	C5'-C4'-C3'	5.75	125.20	116.00
1	A2	131	C	C3'-C2'-O2'	5.75	129.96	113.30
1	A2	1032	G	C3'-C2'-O2'	5.75	129.97	113.30
2	AZ	6179	A	C5'-C4'-C3'	5.75	125.19	116.00
1	A2	753	A	C5'-C4'-C3'	5.75	125.19	116.00
1	A2	944	A	C5'-C4'-C3'	5.75	125.19	116.00
11	BI	92	ARG	N-CA-C	5.74	126.50	111.00
1	A2	363	G	N9-C1'-C2'	5.74	121.46	114.00
1	A2	136	C	N1-C1'-C2'	5.74	121.46	114.00
1	A2	716	C	C4'-C3'-O3'	5.74	124.47	113.00
28	BZ	61	SER	CB-CA-C	5.74	121.00	110.10
1	A2	629	U	C4'-C3'-O3'	5.73	124.47	113.00
1	A2	810	G	C5'-C4'-O4'	5.73	115.98	109.10
4	BB	26	ARG	N-CA-C	5.73	126.48	111.00
1	A2	1509	C	C4'-C3'-O3'	5.73	124.47	113.00
1	A2	65	A	C1'-C2'-O2'	5.73	127.79	110.60
1	A2	600	U	C5'-C4'-C3'	5.73	125.16	116.00
32	Bd	55	PHE	N-CA-C	5.73	126.46	111.00
6	BD	141	LYS	N-CA-C	5.72	126.46	111.00
1	A2	1374	C	C5'-C4'-C3'	5.72	125.16	116.00
1	A2	1557	U	C1'-C2'-O2'	5.72	127.77	110.60
7	BE	147	ILE	N-CA-C	5.72	126.45	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1509	C	C5'-C4'-O4'	5.72	115.97	109.10
1	A2	846	G	C1'-C2'-O2'	5.72	127.76	110.60
1	A2	1367	G	C3'-C2'-O2'	5.72	129.88	113.30
1	A2	88	U	C5'-C4'-O4'	5.72	115.96	109.10
1	A2	1563	C	C5'-C4'-O4'	5.71	115.96	109.10
1	A2	1647	U	C5'-C4'-O4'	5.71	115.96	109.10
35	Bg	206	PRO	N-CA-C	5.71	126.95	112.10
1	A2	900	A	C3'-C2'-O2'	5.71	129.86	113.30
1	A2	37	U	C5'-C4'-O4'	5.71	115.95	109.10
1	A2	499	U	O4'-C1'-N1	5.71	112.77	108.20
1	A2	1444	A	C5'-C4'-O4'	5.71	115.95	109.10
6	BD	31	GLU	N-CA-C	5.71	126.40	111.00
1	A2	484	C	C5'-C4'-O4'	5.70	115.94	109.10
1	A2	504	U	C5'-C4'-C3'	5.70	125.13	116.00
1	A2	523	G	C3'-C2'-O2'	5.70	129.84	113.30
1	A2	1761	U	C2'-C3'-O3'	5.70	122.83	113.70
1	A2	603	U	O4'-C1'-N1	5.70	112.76	108.20
2	AZ	6061	G	C4'-C3'-O3'	5.70	124.40	113.00
1	A2	220	A	C3'-C2'-O2'	5.70	129.82	113.30
1	A2	1131	A	C5'-C4'-O4'	5.70	115.94	109.10
1	A2	1586	A	C3'-C2'-O2'	5.69	129.81	113.30
1	A2	894	U	O4'-C1'-N1	5.69	112.75	108.20
1	A2	1414	U	O4'-C1'-N1	5.69	112.75	108.20
9	BG	133	LEU	N-CA-C	5.69	126.36	111.00
1	A2	1113	A	C5'-C4'-O4'	5.69	115.92	109.10
2	AZ	6175	A	C3'-C2'-O2'	5.68	129.78	113.30
1	A2	1219	A	C1'-C2'-O2'	5.68	127.64	110.60
12	BJ	125	ALA	N-CA-C	5.68	126.34	111.00
1	A2	1242	A	C3'-C2'-O2'	5.68	129.77	113.30
1	A2	1611	A	C1'-C2'-O2'	5.67	127.62	110.60
1	A2	1374	C	C5'-C4'-O4'	5.67	115.91	109.10
1	A2	1500	C	C3'-C2'-O2'	5.67	129.75	113.30
1	A2	221	A	C5'-C4'-C3'	5.67	125.07	116.00
1	A2	938	G	C5'-C4'-C3'	5.67	125.07	116.00
11	BI	94	ASN	N-CA-C	5.67	126.31	111.00
1	A2	1448	G	C1'-C2'-O2'	5.67	127.60	110.60
1	A2	1580	C	C5'-C4'-C3'	5.67	125.07	116.00
2	AZ	6129	C	C5'-C4'-O4'	5.67	115.90	109.10
1	A2	902	G	C1'-C2'-O2'	5.66	127.59	110.60
12	BJ	67	PRO	N-CA-C	5.66	126.83	112.10
1	A2	3	U	C5'-C4'-O4'	5.66	115.89	109.10
1	A2	1118	G	C3'-C2'-O2'	5.66	129.72	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	144	U	C1'-C2'-O2'	5.66	127.58	110.60
1	A2	1687	U	C3'-C2'-O2'	5.66	129.71	113.30
15	BM	50	LYS	N-CA-C	5.66	126.28	111.00
1	A2	430	G	C5'-C4'-O4'	5.66	115.89	109.10
1	A2	1106	U	C4'-C3'-O3'	5.66	124.31	113.00
1	A2	488	G	C5'-C4'-O4'	5.66	115.89	109.10
1	A2	1343	U	C3'-C2'-O2'	5.66	129.70	113.30
4	BB	198	GLU	N-CA-C	5.65	126.27	111.00
1	A2	124	A	C1'-C2'-O2'	5.65	127.56	110.60
1	A2	649	U	O4'-C1'-N1	5.65	112.72	108.20
1	A2	1474	G	C4'-C3'-O3'	5.65	124.31	113.00
26	BX	61	SER	N-CA-C	5.65	126.26	111.00
1	A2	1738	U	O4'-C1'-N1	5.65	112.72	108.20
3	BA	2	SER	N-CA-C	5.65	126.25	111.00
1	A2	115	G	C4'-C3'-O3'	5.65	124.29	113.00
1	A2	943	C	C5'-C4'-C3'	5.65	125.03	116.00
1	A2	166	C	N1-C1'-C2'	5.65	121.34	114.00
1	A2	545	A	C1'-C2'-O2'	5.64	127.53	110.60
2	AZ	6197	U	C4'-C3'-O3'	5.64	124.29	113.00
4	BB	123	ALA	N-CA-C	5.64	126.24	111.00
21	BS	43	SER	N-CA-C	5.64	126.24	111.00
27	BY	101	GLU	N-CA-C	5.64	126.23	111.00
1	A2	1002	G	C5'-C4'-O4'	5.64	115.87	109.10
1	A2	914	G	C1'-C2'-O2'	5.64	127.52	110.60
11	BI	150	ALA	N-CA-C	5.64	126.23	111.00
11	BI	154	SER	N-CA-C	5.64	126.22	111.00
1	A2	511	A	C4'-C3'-O3'	5.64	124.27	113.00
1	A2	1676	U	C1'-C2'-O2'	5.64	127.51	110.60
1	A2	1641	C	C1'-C2'-O2'	5.63	127.50	110.60
16	BN	112	LYS	N-CA-C	5.63	126.21	111.00
13	BK	55	VAL	CB-CA-C	5.63	122.09	111.40
1	A2	87	C	C4'-C3'-O3'	5.63	124.25	113.00
1	A2	326	G	C5'-C4'-C3'	5.63	125.00	116.00
29	Ba	33	ASP	C-N-CA	5.62	135.76	121.70
1	A2	1346	A	C1'-C2'-O2'	5.62	127.47	110.60
1	A2	1600	A	C5'-C4'-C3'	5.62	124.99	116.00
11	BI	74	LYS	N-CA-C	5.62	126.18	111.00
1	A2	66	U	C5'-C4'-C3'	5.62	124.99	116.00
1	A2	379	U	C1'-C2'-O2'	5.62	127.45	110.60
1	A2	1611	A	C3'-C2'-O2'	5.62	129.59	113.30
1	A2	102	U	C4'-C3'-O3'	5.62	124.23	113.00
1	A2	919	A	C3'-C2'-O2'	5.61	129.57	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	BI	96	LEU	CB-CG-CD2	5.61	120.54	111.00
1	A2	1642	G	C4'-C3'-O3'	5.61	124.22	113.00
1	A2	579	A	C5'-C4'-C3'	5.61	124.97	116.00
19	BQ	67	VAL	N-CA-C	5.61	126.14	111.00
1	A2	644	C	C5'-C4'-C3'	5.60	124.96	116.00
1	A2	1319	A	C5'-C4'-C3'	5.60	124.96	116.00
2	AZ	6174	G	C4'-C3'-O3'	5.60	124.20	113.00
1	A2	1401	A	C3'-C2'-O2'	5.60	129.54	113.30
1	A2	562	G	C4'-C3'-O3'	5.60	124.19	113.00
1	A2	1647	U	C4'-C3'-O3'	5.60	124.19	113.00
1	A2	844	A	C3'-C2'-O2'	5.60	129.53	113.30
1	A2	503	G	C4'-C3'-O3'	5.59	124.19	113.00
22	BT	51	GLU	N-CA-C	5.59	126.10	111.00
33	Be	36	LYS	N-CA-C	5.59	126.09	111.00
1	A2	220	A	C1'-C2'-O2'	5.59	127.36	110.60
1	A2	1548	G	C1'-C2'-O2'	5.59	127.36	110.60
27	BY	28	LEU	CB-CG-CD1	5.59	120.50	111.00
1	A2	1152	A	C1'-C2'-O2'	5.58	127.36	110.60
1	A2	743	U	C4'-C3'-O3'	5.58	124.17	113.00
1	A2	351	C	C1'-C2'-O2'	5.58	127.32	110.60
1	A2	1619	C	C3'-C2'-O2'	5.58	129.47	113.30
24	BV	58	TYR	N-CA-C	5.58	126.06	111.00
35	Bg	182	ASN	N-CA-C	5.57	126.05	111.00
20	BR	42	GLN	N-CA-C	5.57	126.05	111.00
1	A2	1769	U	O4'-C1'-N1	5.57	112.66	108.20
1	A2	315	A	C1'-C2'-O2'	5.57	127.30	110.60
1	A2	451	A	C5'-C4'-O4'	5.57	115.78	109.10
1	A2	459	G	C5'-C4'-C3'	5.57	124.91	116.00
1	A2	564	G	C1'-C2'-O2'	5.57	127.30	110.60
1	A2	1619	C	C1'-C2'-O2'	5.57	127.30	110.60
2	AZ	6180	C	C3'-C2'-O2'	5.57	129.44	113.30
10	BH	55	LYS	N-CA-C	5.57	126.03	111.00
14	BL	69	LYS	N-CA-C	5.57	126.03	111.00
1	A2	775	G	C4'-C3'-O3'	5.56	124.12	113.00
2	AZ	6198	U	C5'-C4'-O4'	5.56	115.77	109.10
34	Bf	111	GLU	N-CA-C	5.56	126.00	111.00
1	A2	38	C	C5'-C4'-O4'	5.55	115.76	109.10
1	A2	972	G	C1'-C2'-O2'	5.55	127.25	110.60
35	Bg	258	THR	N-CA-C	5.55	125.99	111.00
1	A2	1230	A	C3'-C2'-O2'	5.55	129.39	113.30
1	A2	878	G	C1'-C2'-O2'	5.55	127.24	110.60
1	A2	810	G	C5'-C4'-C3'	5.54	124.87	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	82	U	C4'-C3'-O3'	5.54	124.09	113.00
12	BJ	128	LEU	N-CA-C	5.54	125.97	111.00
1	A2	188	A	O4'-C1'-N9	5.54	112.63	108.20
1	A2	1304	G	C5'-C4'-C3'	5.54	124.87	116.00
1	A2	502	U	C5'-C4'-O4'	5.54	115.75	109.10
21	BS	21	ASN	N-CA-C	5.54	125.96	111.00
1	A2	386	G	C5'-C4'-C3'	5.54	124.86	116.00
20	BR	43	SER	N-CA-C	5.53	125.94	111.00
1	A2	1671	A	C4'-C3'-O3'	5.53	124.06	113.00
1	A2	573	C	C5'-C4'-O4'	5.53	115.73	109.10
1	A2	735	C	C5'-C4'-C3'	5.52	124.84	116.00
1	A2	1226	A	C5'-C4'-C3'	5.52	124.83	116.00
1	A2	1714	A	N9-C1'-C2'	5.52	121.18	114.00
1	A2	1204	A	C5'-C4'-O4'	5.52	115.72	109.10
1	A2	1757	G	N9-C1'-C2'	5.52	121.18	114.00
1	A2	1410	A	C3'-C2'-O2'	5.52	129.30	113.30
1	A2	915	A	C5'-C4'-O4'	5.51	115.72	109.10
1	A2	1685	G	O4'-C1'-N9	5.51	112.61	108.20
1	A2	1719	A	C3'-C2'-O2'	5.51	129.29	113.30
3	BA	172	LEU	CA-CB-CG	5.51	127.98	115.30
19	BQ	142	TYR	N-CA-C	5.51	125.89	111.00
20	BR	24	LEU	N-CA-C	5.51	125.89	111.00
2	AZ	6129	C	C4'-C3'-O3'	5.51	124.02	113.00
1	A2	910	C	C5'-C4'-C3'	5.51	124.81	116.00
1	A2	245	U	C5'-C4'-C3'	5.51	124.81	116.00
1	A2	1120	U	C1'-C2'-O2'	5.51	127.12	110.60
1	A2	1221	A	C5'-C4'-C3'	5.51	124.81	116.00
26	BX	33	LEU	N-CA-C	5.50	125.86	111.00
1	A2	491	C	C4'-C3'-O3'	5.50	124.00	113.00
1	A2	744	U	C4'-C3'-O3'	5.50	124.00	113.00
35	Bg	299	GLN	N-CA-C	5.50	125.85	111.00
1	A2	1472	C	C2'-C3'-O3'	5.50	122.50	113.70
1	A2	34	G	C1'-C2'-O2'	5.50	127.09	110.60
1	A2	852	C	C4'-C3'-O3'	5.50	123.99	113.00
1	A2	342	C	C1'-C2'-O2'	5.50	127.09	110.60
1	A2	1137	A	C3'-C2'-O2'	5.49	129.22	113.30
1	A2	1389	C	C5'-C4'-C3'	5.49	124.78	116.00
2	AZ	6139	G	C4'-C3'-O3'	5.49	123.98	113.00
6	BD	167	PHE	N-CA-C	5.49	125.82	111.00
1	A2	1020	A	C4'-C3'-O3'	5.49	123.98	113.00
1	A2	1053	G	C1'-C2'-O2'	5.49	127.06	110.60
1	A2	137	U	C4'-C3'-O3'	5.49	123.97	113.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	183	U	C1'-C2'-O2'	5.49	127.06	110.60
7	BE	129	VAL	N-CA-C	5.49	125.81	111.00
21	BS	5	VAL	N-CA-C	5.48	125.81	111.00
1	A2	1236	A	C3'-C2'-O2'	5.48	129.20	113.30
1	A2	1286	U	C5'-C4'-O4'	5.48	115.68	109.10
8	BF	49	GLU	N-CA-C	5.48	125.80	111.00
1	A2	603	U	C4'-C3'-O3'	5.48	123.96	113.00
1	A2	881	A	C1'-C2'-O2'	5.48	127.04	110.60
1	A2	34	G	C3'-C2'-O2'	5.48	129.19	113.30
6	BD	32	GLU	N-CA-C	5.48	125.79	111.00
1	A2	787	G	C5'-C4'-C3'	5.48	124.76	116.00
1	A2	1342	C	C3'-C2'-O2'	5.47	129.17	113.30
1	A2	1635	A	C1'-C2'-O2'	5.47	127.02	110.60
1	A2	870	C	C3'-C2'-O2'	5.47	129.17	113.30
1	A2	1678	A	C2'-C3'-O3'	5.47	122.45	113.70
1	A2	632	U	C1'-C2'-O2'	5.47	127.01	110.60
14	BL	5	LEU	CB-CG-CD1	5.47	120.30	111.00
1	A2	824	G	C3'-C2'-O2'	5.47	129.16	113.30
5	BC	243	TYR	CG-CD1-CE1	-5.47	116.93	121.30
1	A2	756	A	C3'-C2'-O2'	5.46	129.15	113.30
26	BX	133	LEU	N-CA-C	5.46	125.76	111.00
27	BY	84	LYS	N-CA-C	5.46	125.75	111.00
1	A2	150	U	C3'-C2'-O2'	5.46	129.14	113.30
1	A2	859	A	C3'-C2'-O2'	5.46	129.13	113.30
1	A2	600	U	C1'-C2'-O2'	5.46	126.97	110.60
3	BA	27	ARG	N-CA-C	5.46	125.74	111.00
4	BB	178	GLY	N-CA-C	-5.46	99.45	113.10
14	BL	20	PHE	N-CA-C	5.46	125.74	111.00
21	BS	60	GLU	N-CA-C	5.46	125.74	111.00
1	A2	347	G	N9-C1'-C2'	5.46	121.09	114.00
1	A2	478	A	C1'-C2'-O2'	5.46	126.97	110.60
22	BT	54	PHE	N-CA-C	5.46	125.73	111.00
1	A2	1509	C	C5'-C4'-C3'	5.46	124.73	116.00
1	A2	1719	A	C1'-C2'-O2'	5.46	126.97	110.60
1	A2	1792	G	C5'-C4'-C3'	5.45	124.72	116.00
35	Bg	252	LEU	CB-CA-C	5.45	120.55	110.20
7	BE	88	ASP	N-CA-C	5.45	125.71	111.00
34	Bf	131	PHE	CE1-CZ-CE2	5.45	129.81	120.00
1	A2	38	C	C4'-C3'-O3'	5.45	123.89	113.00
1	A2	213	A	C1'-C2'-O2'	5.45	126.94	110.60
3	BA	133	ILE	CG1-CB-CG2	5.45	123.38	111.40
1	A2	764	U	C3'-C2'-O2'	5.44	129.08	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AZ	6190	U	N1-C1'-C2'	5.44	121.08	114.00
10	BH	176	LEU	N-CA-C	5.44	125.69	111.00
1	A2	125	U	C3'-C2'-O2'	5.44	129.08	113.30
16	BN	117	LEU	N-CA-C	5.44	125.69	111.00
1	A2	568	G	C5'-C4'-C3'	5.44	124.70	116.00
2	AZ	6106	A	C5'-C4'-O4'	5.44	115.62	109.10
7	BE	95	THR	N-CA-C	5.44	125.68	111.00
20	BR	99	VAL	N-CA-C	5.44	125.68	111.00
1	A2	478	A	O4'-C1'-N9	5.43	112.55	108.20
1	A2	579	A	C5'-C4'-O4'	5.43	115.62	109.10
1	A2	1635	A	C3'-C2'-O2'	5.43	129.05	113.30
21	BS	50	ALA	N-CA-C	5.43	125.67	111.00
1	A2	252	U	O4'-C4'-C3'	5.43	110.44	106.10
1	A2	859	A	C1'-C2'-O2'	5.43	126.89	110.60
1	A2	113	U	O4'-C1'-N1	5.43	112.54	108.20
1	A2	1573	A	C4'-C3'-O3'	5.43	123.86	113.00
6	BD	78	LYS	N-CA-C	5.43	125.66	111.00
22	BT	69	LYS	N-CA-CB	5.43	120.37	110.60
1	A2	894	U	C1'-C2'-O2'	5.43	126.88	110.60
1	A2	1344	A	C4'-C3'-O3'	5.42	123.85	113.00
12	BJ	12	TYR	N-CA-C	5.42	125.65	111.00
29	Ba	84	VAL	N-CA-C	5.42	125.65	111.00
1	A2	1342	C	C1'-C2'-O2'	5.42	126.86	110.60
1	A2	1468	U	C1'-C2'-O2'	5.42	126.86	110.60
1	A2	1603	U	C4'-C3'-O3'	5.42	123.84	113.00
3	BA	157	ASP	N-CA-C	5.42	125.63	111.00
7	BE	21	ASP	N-CA-C	5.42	125.63	111.00
1	A2	1066	C	C3'-C2'-O2'	5.42	129.01	113.30
1	A2	389	G	C1'-C2'-O2'	5.41	126.84	110.60
1	A2	395	U	C5'-C4'-C3'	5.41	124.66	116.00
4	BB	54	LEU	CA-CB-CG	5.41	127.75	115.30
31	Bc	33	LEU	CB-CG-CD2	5.41	120.20	111.00
1	A2	150	U	C1'-C2'-O2'	5.41	126.83	110.60
13	BK	10	LYS	N-CA-C	5.41	125.61	111.00
1	A2	265	A	C1'-C2'-O2'	5.41	126.83	110.60
1	A2	877	G	C5'-C4'-O4'	5.41	115.59	109.10
1	A2	1239	U	C3'-C2'-O2'	5.41	128.98	113.30
1	A2	1396	U	C3'-C2'-O2'	5.41	128.98	113.30
29	Ba	66	LYS	CB-CA-C	5.41	121.21	110.40
1	A2	689	G	C5'-C4'-C3'	5.40	124.65	116.00
1	A2	744	U	C5'-C4'-C3'	5.40	124.65	116.00
1	A2	287	G	C3'-C2'-O2'	5.40	128.97	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	478	A	C3'-C2'-O2'	5.40	128.96	113.30
1	A2	1106	U	C5'-C4'-O4'	5.40	115.58	109.10
10	BH	58	LEU	N-CA-C	5.40	125.58	111.00
1	A2	703	G	C5'-C4'-C3'	5.40	124.64	116.00
1	A2	1247	U	C5'-C4'-C3'	5.40	124.64	116.00
1	A2	1447	C	C4'-C3'-O3'	5.40	123.80	113.00
1	A2	1261	G	C4'-C3'-O3'	5.39	123.79	113.00
1	A2	1677	C	C3'-C2'-O2'	5.39	128.94	113.30
1	A2	142	G	C4'-C3'-O3'	5.39	123.78	113.00
1	A2	1138	A	C1'-C2'-O2'	5.38	126.75	110.60
12	BJ	4	ALA	N-CA-C	5.38	125.54	111.00
1	A2	122	U	C3'-C2'-O2'	5.38	128.91	113.30
1	A2	597	G	C4'-C3'-O3'	5.38	123.76	113.00
23	BU	50	LEU	N-CA-C	5.38	125.53	111.00
17	BO	85	ALA	CB-CA-C	5.38	118.17	110.10
19	BQ	96	TYR	CG-CD1-CE1	-5.38	117.00	121.30
2	AZ	6198	U	C5'-C4'-C3'	5.38	124.61	116.00
22	BT	83	ALA	N-CA-C	5.38	125.52	111.00
1	A2	1516	A	C5'-C4'-C3'	5.38	124.60	116.00
1	A2	273	G	O4'-C1'-N9	5.37	112.50	108.20
1	A2	573	C	C4'-C3'-O3'	5.37	123.75	113.00
1	A2	1433	G	C1'-C2'-O2'	5.37	126.72	110.60
19	BQ	116	LEU	N-CA-C	5.37	125.50	111.00
1	A2	1198	G	C5'-C4'-C3'	5.37	124.59	116.00
9	BG	111	LEU	N-CA-C	5.37	125.49	111.00
1	A2	122	U	C1'-C2'-O2'	5.37	126.70	110.60
1	A2	562	G	C5'-C4'-C3'	5.36	124.58	116.00
1	A2	1420	C	C5'-C4'-C3'	5.36	124.58	116.00
1	A2	181	A	C3'-C2'-O2'	5.36	128.85	113.30
1	A2	1451	C	C4'-C3'-O3'	5.36	123.72	113.00
1	A2	1232	U	C5'-C4'-C3'	5.36	124.58	116.00
1	A2	1371	A	C1'-C2'-O2'	5.36	126.68	110.60
1	A2	1272	U	N1-C1'-C2'	5.36	120.97	114.00
1	A2	593	U	C1'-C2'-O2'	5.36	126.67	110.60
1	A2	761	G	C4'-C3'-O3'	5.36	123.71	113.00
1	A2	1066	C	C1'-C2'-O2'	5.35	126.66	110.60
1	A2	1285	U	C1'-C2'-O2'	5.35	126.66	110.60
1	A2	1467	C	C5'-C4'-C3'	5.35	124.56	116.00
1	A2	1690	G	C3'-C2'-O2'	5.35	128.82	113.30
1	A2	334	G	C4'-C3'-O3'	5.35	123.70	113.00
1	A2	539	G	C5'-C4'-C3'	5.35	124.56	116.00
1	A2	1119	G	C3'-C2'-O2'	5.35	128.81	113.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1452	U	O4'-C1'-N1	5.35	112.48	108.20
4	BB	64	ARG	N-CA-C	5.35	125.44	111.00
6	BD	35	SER	N-CA-C	5.35	125.44	111.00
31	Bc	55	VAL	N-CA-C	5.35	125.43	111.00
1	A2	101	U	C1'-C2'-O2'	5.34	126.63	110.60
1	A2	1137	A	C1'-C2'-O2'	5.34	126.64	110.60
16	BN	128	TYR	CG-CD1-CE1	-5.34	117.02	121.30
1	A2	173	A	C3'-C2'-O2'	5.34	128.79	113.30
1	A2	221	A	C2'-C3'-O3'	5.34	122.25	113.70
6	BD	9	ARG	N-CA-C	5.34	125.42	111.00
20	BR	76	GLU	N-CA-C	5.34	125.42	111.00
1	A2	424	C	C4'-C3'-O3'	5.34	123.67	113.00
1	A2	1406	A	C3'-C2'-O2'	5.34	128.78	113.30
7	BE	156	VAL	N-CA-C	5.34	125.41	111.00
31	Bc	60	GLU	N-CA-C	5.34	125.41	111.00
2	AZ	6107	U	O4'-C1'-N1	5.33	112.47	108.20
1	A2	1642	G	C5'-C4'-O4'	5.33	115.50	109.10
1	A2	852	C	C5'-C4'-O4'	5.33	115.50	109.10
1	A2	1325	A	C4'-C3'-O3'	5.33	123.66	113.00
2	AZ	6039	G	C5'-C4'-O4'	5.33	115.49	109.10
2	AZ	6133	G	C3'-C2'-O2'	5.33	128.75	113.30
1	A2	1013	A	C1'-C2'-O2'	5.33	126.58	110.60
1	A2	471	A	C1'-C2'-O2'	5.33	126.58	110.60
2	AZ	6164	U	O4'-C1'-N1	5.33	112.46	108.20
35	Bg	9	LEU	N-CA-C	5.33	125.38	111.00
1	A2	1061	A	O4'-C1'-N9	5.32	112.46	108.20
1	A2	1105	C	C5'-C4'-O4'	5.32	115.48	109.10
1	A2	1258	U	C1'-C2'-O2'	5.32	126.56	110.60
21	BS	47	CYS	N-CA-C	5.32	125.36	111.00
35	Bg	72	THR	N-CA-C	5.32	125.36	111.00
1	A2	1002	G	C4'-C3'-O3'	5.32	123.63	113.00
1	A2	870	C	C1'-C2'-O2'	5.31	126.53	110.60
1	A2	1119	G	C1'-C2'-O2'	5.31	126.53	110.60
10	BH	173	TYR	CG-CD2-CE2	-5.31	117.05	121.30
2	AZ	6106	A	O4'-C1'-C2'	5.31	112.38	107.60
12	BJ	114	TYR	N-CA-C	5.31	125.33	111.00
1	A2	287	G	C1'-C2'-O2'	5.30	126.52	110.60
8	BF	94	THR	CA-CB-CG2	5.30	119.83	112.40
1	A2	894	U	C3'-C2'-O2'	5.30	128.68	113.30
1	A2	1749	A	C5'-C4'-C3'	5.30	124.48	116.00
16	BN	139	TRP	N-CA-C	5.30	125.32	111.00
22	BT	39	THR	N-CA-C	5.30	125.32	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	102	U	C5'-C4'-O4'	5.30	115.46	109.10
1	A2	977	A	C3'-C2'-O2'	5.30	128.68	113.30
5	BC	164	SER	N-CA-C	5.30	125.31	111.00
1	A2	1032	G	C1'-C2'-O2'	5.30	126.50	110.60
1	A2	1343	U	C1'-C2'-O2'	5.30	126.50	110.60
2	AZ	6083	C	C3'-C2'-O2'	5.29	128.66	113.30
1	A2	578	U	C5'-C4'-O4'	5.29	115.45	109.10
2	AZ	6146	A	C4'-C3'-O3'	5.29	123.58	113.00
4	BB	215	VAL	N-CA-C	5.29	125.29	111.00
1	A2	1041	G	C2'-C3'-O3'	5.29	122.16	113.70
1	A2	621	A	C4'-C3'-O3'	5.29	123.58	113.00
1	A2	1198	G	C5'-C4'-O4'	5.29	115.45	109.10
1	A2	435	C	C4'-C3'-O3'	5.29	123.57	113.00
1	A2	1186	U	C4'-C3'-O3'	5.29	123.58	113.00
3	BA	85	ALA	N-CA-C	5.29	125.28	111.00
21	BS	58	ALA	N-CA-C	5.28	125.27	111.00
2	AZ	6188	G	C5'-C4'-C3'	5.28	124.45	116.00
1	A2	596	C	C4'-C3'-O3'	5.28	123.56	113.00
1	A2	523	G	C1'-C2'-O2'	5.28	126.44	110.60
1	A2	465	G	C3'-C2'-O2'	5.28	128.60	113.30
12	BJ	77	ILE	N-CA-C	5.28	125.24	111.00
1	A2	110	U	C1'-C2'-O2'	5.27	126.42	110.60
1	A2	1718	G	C2'-C3'-O3'	5.27	122.14	113.70
5	BC	113	LEU	CB-CG-CD2	5.27	119.96	111.00
27	BY	48	TYR	CG-CD1-CE1	-5.27	117.08	121.30
1	A2	465	G	C1'-C2'-O2'	5.27	126.41	110.60
1	A2	1535	U	O4'-C1'-N1	5.27	112.42	108.20
1	A2	1438	G	C4'-C3'-O3'	5.27	123.53	113.00
7	BE	182	TYR	CG-CD2-CE2	-5.27	117.09	121.30
2	AZ	6059	G	C1'-C2'-O2'	5.26	126.40	110.60
20	BR	61	ILE	N-CA-C	5.26	125.21	111.00
25	BW	49	GLU	N-CA-C	5.26	125.21	111.00
35	Bg	302	PHE	CE1-CZ-CE2	5.26	129.48	120.00
1	A2	1028	C	O4'-C1'-N1	5.26	112.41	108.20
1	A2	1710	U	C4'-C3'-O3'	5.26	123.52	113.00
32	Bd	32	ARG	CB-CA-C	5.26	120.92	110.40
1	A2	391	A	C1'-C2'-O2'	5.26	126.37	110.60
23	BU	101	LYS	N-CA-C	5.26	125.20	111.00
1	A2	1515	A	C5'-C4'-O4'	5.26	115.41	109.10
4	BB	101	HIS	N-CA-C	5.26	125.19	111.00
4	BB	195	LYS	N-CA-C	5.26	125.19	111.00
1	A2	386	G	O4'-C4'-C3'	5.25	110.30	106.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	769	A	C5'-C4'-C3'	5.25	124.40	116.00
34	Bf	136	LYS	N-CA-C	5.25	125.19	111.00
1	A2	750	U	C1'-C2'-O2'	5.25	126.36	110.60
3	BA	102	PHE	N-CA-C	5.25	125.17	111.00
19	BQ	64	ASP	N-CA-C	5.24	125.16	111.00
29	Ba	72	HIS	N-CA-C	5.24	125.16	111.00
3	BA	65	ALA	N-CA-C	5.24	125.15	111.00
10	BH	26	GLU	N-CA-C	5.24	125.15	111.00
32	Bd	43	PHE	N-CA-C	5.24	125.15	111.00
2	AZ	6221	U	C5'-C4'-C3'	5.24	124.38	116.00
1	A2	1002	G	C5'-C4'-C3'	5.24	124.38	116.00
2	AZ	6203	U	C3'-C2'-O2'	5.24	128.49	113.30
1	A2	1320	U	C5'-C4'-C3'	5.23	124.38	116.00
1	A2	1441	C	O4'-C1'-N1	5.23	112.39	108.20
3	BA	75	ALA	CB-CA-C	5.23	117.95	110.10
1	A2	470	A	C3'-C2'-O2'	5.23	128.48	113.30
1	A2	511	A	C5'-C4'-C3'	5.23	124.37	116.00
1	A2	1397	U	C4'-C3'-O3'	5.23	123.46	113.00
24	BV	81	ASN	N-CA-C	5.23	125.12	111.00
9	BG	14	LYS	CB-CA-C	5.23	120.86	110.40
1	A2	781	U	O4'-C1'-N1	5.23	112.38	108.20
1	A2	1401	A	C1'-C2'-O2'	5.22	126.27	110.60
10	BH	66	SER	N-CA-C	5.22	125.11	111.00
2	AZ	6168	C	O4'-C1'-N1	5.22	112.38	108.20
1	A2	1131	A	O4'-C4'-C3'	5.22	110.28	106.10
1	A2	1442	U	C5'-C4'-C3'	5.22	124.35	116.00
1	A2	1514	U	O4'-C1'-N1	5.22	112.38	108.20
2	AZ	6211	U	C1'-C2'-O2'	5.22	126.26	110.60
7	BE	104	ASP	N-CA-C	5.22	125.09	111.00
1	A2	1506	G	C5'-C4'-O4'	5.22	115.36	109.10
1	A2	1578	U	C3'-C2'-O2'	5.22	128.43	113.30
20	BR	38	ILE	CG1-CB-CG2	5.22	122.88	111.40
1	A2	430	G	C5'-C4'-C3'	5.21	124.34	116.00
5	BC	186	LYS	N-CA-C	5.21	125.07	111.00
1	A2	488	G	C5'-C4'-C3'	5.21	124.33	116.00
1	A2	581	U	C4'-C3'-O3'	5.21	123.42	113.00
1	A2	529	A	C4'-C3'-O3'	5.21	123.41	113.00
1	A2	477	A	C3'-C2'-O2'	5.20	128.39	113.30
2	AZ	6034	A	C1'-C2'-O2'	5.20	126.21	110.60
1	A2	84	A	C1'-C2'-O2'	5.20	126.21	110.60
1	A2	1204	A	O4'-C4'-C3'	5.20	110.26	106.10
1	A2	1343	U	N1-C1'-C2'	5.20	120.76	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	658	C	C1'-C2'-O2'	5.20	126.18	110.60
1	A2	1205	C	O4'-C1'-N1	5.20	112.36	108.20
1	A2	1360	A	C3'-C2'-O2'	5.20	128.37	113.30
1	A2	1416	G	C1'-C2'-O2'	5.20	126.18	110.60
27	BY	23	PHE	CE1-CZ-CE2	5.20	129.35	120.00
1	A2	65	A	C3'-C2'-O2'	5.19	128.36	113.30
1	A2	624	G	C3'-C2'-O2'	5.19	128.36	113.30
15	BM	108	ARG	N-CA-C	5.19	125.02	111.00
1	A2	543	C	O4'-C1'-N1	5.19	112.35	108.20
1	A2	612	U	O4'-C1'-N1	5.19	112.35	108.20
1	A2	1219	A	C3'-C2'-O2'	5.19	128.35	113.30
2	AZ	6196	G	C5'-C4'-C3'	5.19	124.30	116.00
24	BV	3	ASN	N-CA-C	5.19	125.01	111.00
11	BI	31	ARG	N-CA-C	5.18	125.00	111.00
1	A2	258	C	C5'-C4'-C3'	5.18	124.29	116.00
1	A2	1388	A	OP2-P-O3'	5.18	116.60	105.20
1	A2	600	U	C3'-C2'-O2'	5.18	128.32	113.30
1	A2	1152	A	C3'-C2'-O2'	5.17	128.31	113.30
1	A2	1175	U	C4'-C3'-O3'	5.17	123.35	113.00
30	Bb	41	LEU	CB-CA-C	5.17	120.03	110.20
1	A2	816	G	C5'-C4'-C3'	5.17	124.28	116.00
1	A2	166	C	O4'-C1'-N1	5.17	112.34	108.20
2	AZ	6175	A	C1'-C2'-O2'	5.17	126.12	110.60
14	BL	115	PHE	CE1-CZ-CE2	5.17	129.31	120.00
8	BF	82	PHE	CE1-CZ-CE2	5.17	129.31	120.00
3	BA	202	TYR	N-CA-C	5.17	124.95	111.00
11	BI	86	SER	N-CA-C	5.17	124.95	111.00
1	A2	1420	C	C4'-C3'-O3'	5.17	123.33	113.00
10	BH	14	THR	N-CA-C	5.17	124.95	111.00
23	BU	70	THR	OG1-CB-CG2	5.17	121.88	110.00
1	A2	410	A	C1'-C2'-O2'	5.16	126.09	110.60
1	A2	1736	G	C4'-C3'-O3'	5.16	123.33	113.00
30	Bb	42	ASN	N-CA-C	5.16	124.94	111.00
1	A2	1647	U	C5'-C4'-C3'	5.16	124.26	116.00
1	A2	1724	U	C1'-C2'-O2'	5.16	126.08	110.60
28	BZ	61	SER	N-CA-CB	5.16	118.24	110.50
1	A2	949	C	C5'-C4'-C3'	5.16	124.25	116.00
25	BW	89	TRP	CE3-CZ3-CH2	5.16	126.87	121.20
14	BL	34	TRP	N-CA-C	5.16	124.92	111.00
1	A2	545	A	C3'-C2'-O2'	5.15	128.25	113.30
27	BY	135	ASP	N-CA-C	5.15	124.91	111.00
1	A2	990	C	C5'-C4'-C3'	5.15	124.24	116.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
10	BH	147	ASN	N-CA-C	5.15	124.91	111.00
1	A2	578	U	C5'-C4'-C3'	5.15	124.24	116.00
1	A2	602	U	C4'-C3'-O3'	5.15	123.30	113.00
11	BI	90	LEU	CB-CA-C	5.15	119.98	110.20
1	A2	183	U	C3'-C2'-O2'	5.15	128.22	113.30
1	A2	1371	A	C3'-C2'-O2'	5.15	128.22	113.30
1	A2	1597	A	C3'-C2'-O2'	5.15	128.22	113.30
2	AZ	6083	C	C1'-C2'-O2'	5.15	126.04	110.60
1	A2	1367	G	C1'-C2'-O2'	5.14	126.04	110.60
2	AZ	6122	C	C1'-C2'-O2'	5.14	126.03	110.60
18	BP	102	PHE	N-CA-C	5.14	124.89	111.00
11	BI	20	GLN	N-CA-C	5.14	124.89	111.00
1	A2	124	A	C3'-C2'-O2'	5.14	128.21	113.30
17	BO	86	THR	N-CA-C	5.14	124.88	111.00
1	A2	794	U	C4'-C3'-O3'	5.14	123.28	113.00
1	A2	972	G	C3'-C2'-O2'	5.14	128.21	113.30
10	BH	151	LYS	N-CA-C	5.14	124.88	111.00
3	BA	38	PHE	CE1-CZ-CE2	5.14	129.25	120.00
1	A2	263	C	O4'-C1'-N1	5.14	112.31	108.20
1	A2	1239	U	C1'-C2'-O2'	5.14	126.01	110.60
1	A2	881	A	C3'-C2'-O2'	5.13	128.19	113.30
1	A2	1690	G	C1'-C2'-O2'	5.13	125.99	110.60
1	A2	131	C	C1'-C2'-O2'	5.13	125.99	110.60
1	A2	1213	G	C1'-C2'-O2'	5.13	125.98	110.60
15	BM	25	GLU	N-CA-C	5.12	124.84	111.00
34	Bf	117	LEU	CA-CB-CG	5.12	127.08	115.30
3	BA	184	LEU	CB-CG-CD1	5.12	119.71	111.00
10	BH	72	LYS	N-CA-C	5.12	124.83	111.00
30	Bb	3	LEU	N-CA-C	5.12	124.83	111.00
1	A2	862	A	C5'-C4'-C3'	5.12	124.19	116.00
33	Be	47	VAL	N-CA-C	5.12	124.82	111.00
1	A2	456	A	C4'-C3'-O3'	5.11	123.23	113.00
1	A2	1771	U	C5'-C4'-C3'	5.11	124.18	116.00
12	BJ	39	LYS	CB-CA-C	5.11	120.63	110.40
27	BY	41	ARG	N-CA-C	5.11	124.80	111.00
30	Bb	8	LEU	N-CA-C	5.11	124.80	111.00
33	Be	61	SER	N-CA-C	5.11	124.80	111.00
25	BW	79	PHE	CE1-CZ-CE2	5.11	129.20	120.00
1	A2	1216	C	C2'-C3'-O3'	5.11	121.87	113.70
16	BN	45	LEU	N-CA-C	5.10	124.78	111.00
1	A2	805	U	C3'-C2'-O2'	5.10	128.09	113.30
12	BJ	150	LEU	N-CA-C	5.10	124.78	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
17	BO	38	THR	CA-CB-CG2	5.10	119.54	112.40
1	A2	375	U	C5'-C4'-C3'	5.10	124.16	116.00
1	A2	1498	G	C5'-C4'-O4'	5.10	115.22	109.10
7	BE	39	ARG	N-CA-C	5.10	124.77	111.00
1	A2	1578	U	O4'-C1'-N1	5.10	112.28	108.20
1	A2	1004	U	C2'-C3'-O3'	5.09	121.85	113.70
8	BF	96	SER	N-CA-C	5.09	124.75	111.00
1	A2	1067	C	C5'-C4'-C3'	5.09	124.14	116.00
1	A2	1235	C	O4'-C1'-N1	5.09	112.27	108.20
1	A2	1724	U	C3'-C2'-O2'	5.09	128.06	113.30
1	A2	505	A	O4'-C1'-N9	5.09	112.27	108.20
2	AZ	6094	U	C5'-C4'-C3'	5.09	124.14	116.00
12	BJ	48	GLN	N-CA-C	5.09	124.74	111.00
1	A2	750	U	C3'-C2'-O2'	5.09	128.06	113.30
2	AZ	6109	U	O4'-C1'-N1	5.09	112.27	108.20
1	A2	690	G	C3'-C2'-O2'	5.09	128.05	113.30
1	A2	969	C	C1'-C2'-O2'	5.09	125.86	110.60
11	BI	150	ALA	N-CA-CB	5.09	117.22	110.10
1	A2	1677	C	O4'-C1'-N1	5.08	112.27	108.20
1	A2	1406	A	C1'-C2'-O2'	5.08	125.85	110.60
1	A2	944	A	C1'-C2'-O2'	5.08	125.84	110.60
6	BD	21	LEU	CB-CG-CD2	5.08	119.64	111.00
10	BH	67	LEU	N-CA-C	5.08	124.72	111.00
1	A2	805	U	C1'-C2'-O2'	5.08	125.84	110.60
27	BY	86	GLU	N-CA-C	5.08	124.71	111.00
27	BY	92	VAL	CA-CB-CG2	5.08	118.52	110.90
1	A2	1422	A	C4'-C3'-O3'	5.08	123.15	113.00
1	A2	930	A	O4'-C1'-N9	5.07	112.26	108.20
1	A2	494	U	C3'-C2'-O2'	5.07	128.00	113.30
1	A2	636	A	O4'-C1'-N9	5.07	112.26	108.20
7	BE	108	ARG	N-CA-C	5.07	124.68	111.00
1	A2	610	G	O4'-C1'-N9	5.07	112.25	108.20
2	AZ	6174	G	C5'-C4'-C3'	5.07	124.11	116.00
19	BQ	17	THR	CA-CB-CG2	5.07	119.49	112.40
35	Bg	273	ASP	N-CA-C	5.06	124.67	111.00
1	A2	1378	U	C3'-C2'-O2'	5.06	127.98	113.30
12	BJ	71	PHE	N-CA-C	5.06	124.67	111.00
23	BU	93	LEU	CB-CA-C	5.06	119.82	110.20
26	BX	66	SER	N-CA-C	5.06	124.67	111.00
1	A2	944	A	C3'-C2'-O2'	5.06	127.97	113.30
1	A2	1105	C	C5'-C4'-C3'	5.06	124.09	116.00
35	Bg	32	LEU	N-CA-C	5.06	124.65	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	AZ	6055	U	C5'-C4'-C3'	5.05	124.09	116.00
35	Bg	91	LEU	CA-CB-CG	5.05	126.92	115.30
23	BU	20	ILE	N-CA-C	5.05	124.64	111.00
35	Bg	181	TRP	CE3-CZ3-CH2	5.05	126.76	121.20
1	A2	846	G	C3'-C2'-O2'	5.05	127.95	113.30
8	BF	66	GLN	CB-CA-C	5.05	120.50	110.40
14	BL	135	VAL	N-CA-C	5.05	124.64	111.00
15	BM	123	VAL	N-CA-C	5.05	124.64	111.00
7	BE	141	THR	CA-CB-CG2	5.05	119.47	112.40
8	BF	196	GLU	N-CA-C	5.05	124.63	111.00
23	BU	36	ASN	N-CA-C	5.05	124.63	111.00
1	A2	252	U	C5'-C4'-O4'	5.05	115.16	109.10
7	BE	87	MET	N-CA-C	5.05	124.63	111.00
8	BF	119	ASP	CB-CA-C	5.05	120.49	110.40
1	A2	684	A	C2'-C3'-O3'	5.04	121.77	113.70
1	A2	714	G	C1'-C2'-O2'	5.04	125.74	110.60
13	BK	71	GLU	N-CA-C	5.04	124.62	111.00
16	BN	130	ARG	N-CA-C	5.04	124.62	111.00
1	A2	1287	A	C4'-C3'-O3'	5.04	123.08	113.00
35	Bg	188	ILE	CB-CA-C	5.04	121.68	111.60
1	A2	1373	C	C1'-C2'-O2'	5.04	125.71	110.60
1	A2	1475	A	O4'-C1'-N9	5.04	112.23	108.20
1	A2	1548	G	C3'-C2'-O2'	5.04	127.91	113.30
26	BX	75	GLN	N-CA-C	5.04	124.61	111.00
1	A2	388	G	OP1-P-O3'	5.04	116.28	105.20
1	A2	1372	U	C4'-C3'-O3'	5.04	123.08	113.00
1	A2	47	A	OP1-P-O3'	-5.04	94.12	105.20
1	A2	132	U	C3'-C2'-O2'	5.04	127.90	113.30
1	A2	1052	U	C1'-C2'-O2'	5.04	125.71	110.60
1	A2	1777	G	C5'-C4'-C3'	5.04	124.06	116.00
4	BB	126	THR	CA-CB-CG2	5.04	119.45	112.40
1	A2	759	U	C4'-C3'-O3'	5.03	123.07	113.00
1	A2	470	A	C1'-C2'-O2'	5.03	125.69	110.60
1	A2	847	A	N9-C1'-C2'	5.03	120.54	114.00
1	A2	1171	A	C4'-C3'-O3'	5.03	123.06	113.00
5	BC	150	GLN	N-CA-C	5.03	124.58	111.00
1	A2	91	G	C4'-C3'-O3'	5.03	123.06	113.00
1	A2	824	G	C1'-C2'-O2'	5.03	125.69	110.60
1	A2	1574	G	C1'-C2'-O2'	5.03	125.69	110.60
1	A2	1344	A	C5'-C4'-C3'	5.03	124.05	116.00
11	BI	57	ALA	N-CA-C	5.03	124.57	111.00
1	A2	330	G	O4'-C1'-N9	5.03	112.22	108.20

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A2	1500	C	C1'-C2'-O2'	5.03	125.68	110.60
15	BM	52	LEU	N-CA-C	5.02	124.57	111.00
1	A2	878	G	C3'-C2'-O2'	5.02	127.86	113.30
1	A2	1542	G	C3'-C2'-O2'	5.02	127.85	113.30
6	BD	200	LYS	N-CA-C	5.02	124.55	111.00
1	A2	1687	U	O4'-C1'-N1	5.02	112.22	108.20
17	BO	85	ALA	N-CA-CB	5.02	117.13	110.10
1	A2	1286	U	C5'-C4'-C3'	5.01	124.02	116.00
1	A2	1369	U	O4'-C1'-N1	5.01	112.21	108.20
1	A2	1424	A	C5'-C4'-C3'	5.01	124.02	116.00
12	BJ	157	ASP	CB-CA-C	5.01	120.43	110.40
1	A2	990	C	C5'-C4'-O4'	5.01	115.12	109.10
7	BE	205	PHE	N-CA-C	5.01	124.53	111.00
1	A2	221	A	C3'-C2'-O2'	5.01	127.83	113.30
1	A2	767	U	O4'-C1'-C2'	5.01	112.11	107.60
1	A2	166	C	C3'-C2'-O2'	5.01	127.83	113.30
1	A2	399	A	OP2-P-O3'	-5.01	94.18	105.20
1	A2	566	C	C3'-C2'-O2'	5.01	127.83	113.30
1	A2	764	U	C1'-C2'-O2'	5.01	125.63	110.60
1	A2	1013	A	C3'-C2'-O2'	5.01	127.83	113.30
1	A2	1125	A	O4'-C4'-C3'	5.01	110.11	106.10
1	A2	265	A	O4'-C1'-N9	5.00	112.20	108.20
1	A2	1300	A	C3'-C2'-O2'	5.00	127.81	113.30

All (284) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
1	A2	7	G	C3'
1	A2	41	A	C3'
1	A2	67	A	C3'
1	A2	102	U	C3'
1	A2	124	A	C2'
1	A2	131	C	C3'
1	A2	146	U	C3'
1	A2	158	U	C3'
1	A2	173	A	C2'
1	A2	213	A	C2'
1	A2	220	A	C2'
1	A2	222	A	C2'
1	A2	231	U	C2'
1	A2	286	C	C3'
1	A2	295	A	C3'

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Mol	Chain	Res	Type	Atom
1	A2	376	C	C3'
1	A2	389	G	C2'
1	A2	391	A	C2'
1	A2	423	G	C3'
1	A2	427	C	C3'
1	A2	430	G	C3'
1	A2	454	U	C3'
1	A2	473	A	C4'
1	A2	478	A	C2'
1	A2	481	A	C3'
1	A2	499	U	C2'
1	A2	501	U	C2'
1	A2	504	U	C3'
1	A2	514	G	C3'
1	A2	523	G	C2'
1	A2	525	A	C4'
1	A2	578	U	C3'
1	A2	607	G	C3'
1	A2	740	A	C3'
1	A2	764	U	C2'
1	A2	794	U	C3'
1	A2	803	A	C3'
1	A2	820	U	C3'
1	A2	842	C	C2'
1	A2	894	U	C2'
1	A2	918	U	C3'
1	A2	921	U	C3'
1	A2	930	A	C3'
1	A2	939	A	C3'
1	A2	977	A	C2'
1	A2	990	C	C3'
1	A2	1012	U	C3'
1	A2	1032	G	C2'
1	A2	1053	G	C2'
1	A2	1066	C	C2'
1	A2	1097	U	C4'
1	A2	1106	U	C3'
1	A2	1131	A	C4'
1	A2	1152	A	C2'
1	A2	1170	G	C3'
1	A2	1171	A	C3'
1	A2	1216	C	C3'

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Mol	Chain	Res	Type	Atom
1	A2	1219	A	C2'
1	A2	1240	U	C3'
1	A2	1242	A	C2'
1	A2	1259	U	C3'
1	A2	1268	G	C2'
1	A2	1286	U	C2'
1	A2	1289	U	C3'
1	A2	1293	U	C3'
1	A2	1295	G	C3'
1	A2	1297	G	C2'
1	A2	1298	U	C3'
1	A2	1317	C	C3'
1	A2	1343	U	C2'
1	A2	1344	A	C3'
1	A2	1371	A	C2'
1	A2	1396	U	C2'
1	A2	1401	A	C2'
1	A2	1415	U	C3'
1	A2	1418	G	C3'
1	A2	1442	U	C3'
1	A2	1447	C	C3'
1	A2	1449	U	C4'
1	A2	1471	A	C3'
1	A2	1500	C	C2'
1	A2	1501	C	C2'
1	A2	1514	U	C2'
1	A2	1568	C	C3'
1	A2	1570	A	C3'
1	A2	1573	A	C3'
1	A2	1582	U	C3'
1	A2	1608	U	C3'
1	A2	1611	A	C2'
1	A2	1629	G	C3'
1	A2	1635	A	C2'
1	A2	1638	G	C4'
1	A2	1678	A	C3'
1	A2	1719	A	C2'
1	A2	1720	G	C3'
1	A2	1748	G	C2'
1	A2	1752	U	C3'
1	A2	1777	G	C3'
2	AZ	6025	A	C2'

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Mol	Chain	Res	Type	Atom
2	AZ	6034	A	C2'
2	AZ	6079	A	C2'
2	AZ	6091	G	C3'
2	AZ	6115	U	C2'
2	AZ	6124	G	C4'
2	AZ	6175	A	C2'
2	AZ	6195	G	C3'
3	BA	50	VAL	CA
3	BA	102	PHE	CA
3	BA	111	ILE	CB
3	BA	112	THR	CA
3	BA	129	ASP	CA
3	BA	150	ASP	CA
3	BA	173	ILE	CB
3	BA	204	TYR	CA
4	BB	21	VAL	CA
4	BB	26	ARG	CA
4	BB	91	VAL	CA
4	BB	98	THR	CA
4	BB	101	HIS	CA
4	BB	108	ASP	CA
4	BB	123	ALA	CA
4	BB	153	HIS	CA
4	BB	211	HIS	CA
4	BB	215	VAL	CA
4	BB	224	ASP	CA
5	BC	77	GLN	CA
5	BC	86	VAL	CA
5	BC	126	ARG	CA
5	BC	131	ILE	CA
5	BC	150	GLN	CA
5	BC	174	ARG	CA
5	BC	186	LYS	CA
5	BC	220	ASN	CA
6	BD	9	ARG	CA
6	BD	31	GLU	CA
6	BD	51	ARG	CA
6	BD	78	LYS	CA
6	BD	123	VAL	CA
6	BD	175	VAL	CA
7	BE	21	ASP	CA
7	BE	39	ARG	CA

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Mol	Chain	Res	Type	Atom
7	BE	95	THR	CA
7	BE	104	ASP	CA
7	BE	108	ARG	CA
7	BE	147	ILE	CA
7	BE	156	VAL	CA
7	BE	194	THR	CA
8	BF	23	VAL	CA
8	BF	66	GLN	CA
8	BF	115	LYS	CA
8	BF	119	ASP	CA
8	BF	162	VAL	CA
8	BF	165	LEU	CA
9	BG	14	LYS	CA
9	BG	25	ARG	CA
9	BG	67	VAL	CA
9	BG	81	VAL	CA
9	BG	120	GLU	CA
9	BG	133	LEU	CA
9	BG	142	ARG	CA
9	BG	149	LYS	CA
9	BG	198	ALA	CA
9	BG	206	ALA	CA
10	BH	14	THR	CA
10	BH	39	ARG	CA
10	BH	59	ALA	CA
10	BH	72	LYS	CA
10	BH	147	ASN	CA
10	BH	151	LYS	CA
10	BH	152	VAL	CA
11	BI	13	ALA	CA
11	BI	17	LYS	CA
11	BI	18	ARG	CA
11	BI	74	LYS	CA
11	BI	90	LEU	CA
11	BI	92	ARG	CA
11	BI	94	ASN	CA
11	BI	120	THR	CA
11	BI	150	ALA	CA
11	BI	154	SER	CA
11	BI	162	ALA	CA
11	BI	197	THR	CA
12	BJ	48	GLN	CA

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Mol	Chain	Res	Type	Atom
12	BJ	71	PHE	CA
12	BJ	77	ILE	CA
12	BJ	102	GLU	CA
12	BJ	157	ASP	CA
13	BK	59	PHE	CA
13	BK	71	GLU	CA
14	BL	27	THR	CA
14	BL	29	LYS	CA
14	BL	31	THR	CA
14	BL	63	LEU	CA
14	BL	78	THR	CB
14	BL	107	VAL	CA
14	BL	138	ASN	CA
14	BL	145	ALA	CA
15	BM	50	LYS	CA
15	BM	141	SER	CA
16	BN	45	LEU	CA
16	BN	76	LYS	CA
16	BN	112	LYS	CA
16	BN	117	LEU	CA
16	BN	121	ARG	CA
16	BN	139	TRP	CA
17	BO	17	ALA	CA
17	BO	61	MET	CA
17	BO	85	ALA	CA
17	BO	86	THR	CA
18	BP	20	VAL	CA
18	BP	36	LEU	CA
18	BP	80	MET	CA
18	BP	122	THR	CA
19	BQ	64	ASP	CA
19	BQ	89	LEU	CA
19	BQ	94	GLN	CA
19	BQ	116	LEU	CA
19	BQ	123	ARG	CA
19	BQ	136	SER	CA
19	BQ	141	SER	CA
19	BQ	142	TYR	CA
20	BR	18	GLU	CA
20	BR	24	LEU	CA
20	BR	42	GLN	CA
20	BR	54	THR	CA

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Mol	Chain	Res	Type	Atom
20	BR	99	VAL	CA
21	BS	5	VAL	CA
21	BS	21	ASN	CA
21	BS	43	SER	CA
21	BS	47	CYS	CA
21	BS	77	THR	CA
21	BS	97	ASP	CA
22	BT	7	ARG	CA
22	BT	54	PHE	CA
22	BT	65	ILE	CA
22	BT	66	TYR	CA
22	BT	69	LYS	CA
22	BT	101	ASN	CA
23	BU	41	ILE	CA
24	BV	58	TYR	CA
24	BV	81	ASN	CA
25	BW	65	LEU	CA
25	BW	83	ILE	CA
25	BW	126	LEU	CA
26	BX	22	ASN	CA
26	BX	33	LEU	CA
26	BX	61	SER	CA
26	BX	75	GLN	CA
26	BX	90	ALA	CA
27	BY	11	LYS	CA
27	BY	41	ARG	CA
27	BY	47	VAL	CA
27	BY	62	THR	CB
27	BY	84	LYS	CA
27	BY	129	VAL	CA
28	BZ	82	HIS	CA
29	Ba	11	ASN	CA
29	Ba	45	VAL	CA
29	Ba	66	LYS	CA
29	Ba	84	VAL	CA
30	Bb	8	LEU	CA
30	Bb	12	ALA	CA
30	Bb	19	HIS	CA
30	Bb	41	LEU	CA
30	Bb	57	GLU	CA
31	Bc	51	ASN	CA
31	Bc	55	VAL	CA

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Mol	Chain	Res	Type	Atom
32	Bd	43	PHE	CA
32	Bd	47	ALA	CA
32	Bd	55	PHE	CA
33	Be	31	LYS	CA
33	Be	36	LYS	CA
33	Be	43	ARG	CA
34	Bf	111	GLU	CA
34	Bf	151	ASN	CA
35	Bg	5	GLU	CA
35	Bg	10	ARG	CA
35	Bg	131	ILE	CA
35	Bg	153	GLN	CA
35	Bg	182	ASN	CA
35	Bg	188	ILE	CA
35	Bg	211	ILE	CB
35	Bg	273	ASP	CA
35	Bg	299	GLN	CA

All (31) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
3	BA	138	TYR	Peptide
3	BA	35	PRO	Peptide
3	BA	62	ARG	Peptide
4	BB	177	GLN	Peptide
4	BB	178	GLY	Peptide
5	BC	220	ASN	Peptide
6	BD	178	ARG	Peptide
8	BF	65	ALA	Peptide
9	BG	129	VAL	Peptide
9	BG	162	VAL	Peptide
9	BG	43	ASP	Peptide
10	BH	14	THR	Peptide
10	BH	161	GLN	Peptide
11	BI	16	ALA	Peptide
11	BI	31	ARG	Peptide
12	BJ	156	ILE	Peptide
17	BO	124	ASP	Peptide
19	BQ	112	TYR	Peptide
19	BQ	8	GLN	Peptide
21	BS	12	GLN	Peptide
21	BS	35	ILE	Peptide

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Mol	Chain	Res	Type	Group
21	BS	52	VAL	Peptide
21	BS	97	ASP	Peptide
23	BU	56	VAL	Peptide
24	BV	61	SER	Peptide
26	BX	63	GLN	Peptide
26	BX	93	LEU	Peptide
29	Ba	9	GLY	Peptide
32	Bd	47	ALA	Peptide
34	Bf	97	ALA	Peptide
35	Bg	266	ASP	Peptide

5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A2	37579	0	18988	10181	0
2	AZ	4018	0	2058	292	0
3	BA	1577	0	1518	356	0
4	BB	1686	0	1693	197	0
5	BC	1626	0	1633	602	0
6	BD	1729	0	1743	286	0
7	BE	2068	0	2055	1027	0
8	BF	1603	0	1601	319	0
9	BG	1790	0	1764	1203	0
10	BH	1481	0	1515	208	0
11	BI	1480	0	1432	502	0
12	BJ	1452	0	1479	315	0
13	BK	765	0	711	61	0
14	BL	1146	0	1175	164	0
15	BM	870	0	843	37	0
16	BN	1192	0	1210	273	0
17	BO	905	0	852	365	0
18	BP	914	0	886	535	0
19	BQ	1082	0	1104	210	0
20	BR	934	0	889	344	0
21	BS	1150	0	1130	445	0
22	BT	1105	0	1056	489	0
23	BU	829	0	853	237	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
24	BV	684	0	652	71	0
25	BW	1021	0	996	589	0
26	BX	1101	0	1103	789	0
27	BY	1073	0	1061	939	0
28	BZ	518	0	534	169	0
29	Ba	769	0	770	0	0
30	Bb	610	0	599	0	0
31	Bc	497	0	521	0	0
32	Bd	433	0	404	0	0
33	Be	440	0	473	0	0
34	Bf	458	0	452	0	0
35	Bg	2417	0	2290	0	0
All	All	79002	0	58043	12348	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 98.

All (12348) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:782:U:P	27:BY:39:GLU:HG3	1.23	1.72
1:A2:811:A:C2	10:BH:107:ARG:HA	1.19	1.72
1:A2:1722:A:P	9:BG:73:ILE:HG13	1.23	1.72
1:A2:59:C:P	27:BY:111:LYS:HD3	1.28	1.69
1:A2:803:A:H4'	25:BW:120:HIS:CE1	1.25	1.69
1:A2:436:A:C5	26:BX:50:LYS:HD2	1.28	1.68
1:A2:1144:U:C2	5:BC:89:GLN:CG	1.77	1.68
1:A2:969:C:C2	26:BX:14:LYS:HG2	1.27	1.67
1:A2:245:U:C4	7:BE:128:LYS:HD2	1.16	1.66
1:A2:1710:U:C6	9:BG:115:LYS:HG3	1.31	1.66
1:A2:1317:C:C6	20:BR:7:LYS:HD2	1.24	1.65
1:A2:1037:C:C4'	25:BW:71:LYS:HD2	1.21	1.64
1:A2:1528:U:H5''	19:BQ:43:ILE:CG1	1.19	1.64
1:A2:1175:U:C4	21:BS:140:THR:HG21	1.31	1.63
2:AZ:6220:U:C5	6:BD:142:LEU:HA	1.31	1.63
1:A2:1389:C:H5'	20:BR:45:ARG:CB	1.20	1.63
1:A2:1505:A:C2	21:BS:84:TRP:CD2	1.81	1.63
1:A2:784:C:C5'	27:BY:44:LEU:HD23	1.28	1.62
1:A2:137:U:H3'	9:BG:143:LYS:CG	1.29	1.62
1:A2:703:G:C8	7:BE:230:GLU:HG2	1.28	1.62
1:A2:688:G:C5'	12:BJ:67:PRO:HG3	1.24	1.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:740:A:C2	7:BE:198:LYS:HG3	1.24	1.62
1:A2:1390:U:P	20:BR:45:ARG:HG2	1.36	1.62
2:AZ:6220:U:H5	6:BD:142:LEU:CA	1.08	1.61
1:A2:1548:G:H1'	21:BS:99:HIS:CE1	1.31	1.61
1:A2:1403:C:H5''	20:BR:2:GLY:CA	1.17	1.60
1:A2:601:A:C8	26:BX:105:ALA:HB1	1.12	1.60
1:A2:897:C:C5	17:BO:38:THR:HG21	1.37	1.60
1:A2:776:G:C2'	27:BY:29:HIS:CE1	1.79	1.60
1:A2:85:A:C2'	27:BY:126:ALA:HA	1.16	1.60
1:A2:1601:G:C8	22:BT:89:ARG:HG2	1.32	1.60
1:A2:1367:G:C3'	22:BT:66:TYR:HE1	1.06	1.60
1:A2:78:A:C6	9:BG:162:VAL:HB	1.32	1.59
1:A2:632:U:H1'	26:BX:15:LEU:CD1	1.22	1.59
1:A2:1367:G:C2'	22:BT:66:TYR:CE1	1.83	1.59
1:A2:778:G:P	27:BY:32:ARG:HG2	1.39	1.59
1:A2:1723:U:C5	9:BG:73:ILE:HD13	1.27	1.59
1:A2:1328:G:C8	6:BD:159:HIS:HB2	1.09	1.59
1:A2:325:G:H1'	14:BL:133:LYS:CB	1.26	1.59
1:A2:1384:A:P	23:BU:87:HIS:HB3	1.38	1.59
1:A2:787:G:C2	27:BY:61:ARG:HD2	1.07	1.58
1:A2:632:U:H1'	26:BX:15:LEU:CG	1.30	1.58
1:A2:814:A:C2	10:BH:109:VAL:HA	1.10	1.58
1:A2:57:G:C2	27:BY:115:ASP:N	1.67	1.58
1:A2:1326:A:H5''	6:BD:189:MET:SD	1.42	1.58
1:A2:1454:G:P	18:BP:118:GLU:HA	1.41	1.58
1:A2:1328:G:H8	6:BD:159:HIS:CB	1.03	1.57
1:A2:803:A:C4'	25:BW:120:HIS:CE1	1.79	1.57
1:A2:137:U:C2'	9:BG:143:LYS:HD3	1.09	1.56
1:A2:688:G:H5'	12:BJ:67:PRO:CG	1.16	1.56
1:A2:1721:A:C8	9:BG:67:VAL:CG2	1.83	1.56
1:A2:746:A:C2	25:BW:82:LYS:HE3	1.08	1.56
1:A2:127:G:C8	9:BG:186:ARG:HB2	1.04	1.56
1:A2:1317:C:H6	20:BR:7:LYS:CD	1.12	1.56
1:A2:1056:U:C5'	3:BA:46:HIS:NE2	1.67	1.56
1:A2:1564:U:C2'	21:BS:41:ARG:HB3	1.31	1.56
1:A2:956:C:C2	16:BN:11:ILE:HD12	1.39	1.55
1:A2:866:G:H5''	25:BW:3:ARG:C	1.26	1.55
1:A2:1435:G:N2	13:BK:27:PHE:CE2	1.75	1.55
1:A2:1317:C:C6	20:BR:7:LYS:CD	1.85	1.54
1:A2:1682:U:C5'	9:BG:102:VAL:HG13	1.14	1.54
1:A2:776:G:H2'	27:BY:29:HIS:CE1	1.31	1.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:598:U:C2	26:BX:132:LEU:HB3	1.37	1.54
1:A2:137:U:C2'	9:BG:143:LYS:CD	1.85	1.54
1:A2:741:C:N4	7:BE:206:ASP:CA	1.71	1.53
1:A2:1389:C:C4'	20:BR:45:ARG:HA	1.09	1.53
1:A2:1683:C:P	9:BG:52:ILE:HG23	1.47	1.53
1:A2:1452:U:H2'	18:BP:117:GLY:CA	1.32	1.53
1:A2:740:A:C5	7:BE:198:LYS:HE2	1.38	1.53
1:A2:115:G:N2	11:BI:27:PHE:CD2	1.72	1.53
1:A2:1498:G:H8	22:BT:73:VAL:CG2	1.21	1.52
1:A2:915:A:N1	17:BO:27:PHE:CE2	1.72	1.52
1:A2:127:G:N7	9:BG:186:ARG:CB	1.71	1.52
1:A2:1086:A:H8	5:BC:203:LYS:CD	1.19	1.52
1:A2:783:G:H1	27:BY:35:VAL:CG2	0.94	1.52
1:A2:787:G:C2	27:BY:61:ARG:CD	1.91	1.52
1:A2:812:A:C2	10:BH:111:LYS:HG3	1.38	1.52
1:A2:649:U:C4'	7:BE:252:ARG:NH1	1.68	1.52
1:A2:609:U:C2	26:BX:28:ASN:ND2	1.76	1.52
1:A2:456:A:N6	27:BY:108:ARG:CG	1.67	1.51
1:A2:740:A:C4	7:BE:200:ARG:HA	1.45	1.51
1:A2:1532:U:H2'	28:BZ:77:ARG:CD	1.15	1.51
1:A2:337:G:H1'	11:BI:9:HIS:CE1	1.44	1.51
1:A2:1591:C:C5'	22:BT:93:HIS:N	1.70	1.51
1:A2:216:U:H3	7:BE:150:PRO:CG	1.18	1.51
1:A2:958:U:C5	25:BW:28:ARG:NH1	1.79	1.51
1:A2:756:A:P	7:BE:23:LEU:HD12	1.48	1.51
1:A2:1389:C:C5'	20:BR:45:ARG:CB	1.86	1.51
1:A2:1564:U:H2'	21:BS:41:ARG:CB	1.37	1.51
1:A2:735:C:C5	7:BE:195:ILE:N	1.78	1.50
1:A2:1502:G:H2'	22:BT:37:VAL:CG2	1.07	1.50
1:A2:1548:G:H2'	21:BS:86:LEU:CA	1.39	1.50
1:A2:1344:A:H5'	23:BU:53:LYS:CD	1.40	1.50
1:A2:322:G:O2'	11:BI:9:HIS:CD2	1.64	1.50
1:A2:138:A:C8	9:BG:135:PRO:HB3	1.45	1.50
1:A2:702:G:H21	7:BE:173:ILE:CG2	1.25	1.50
1:A2:1709:C:H4'	9:BG:9:VAL:CG2	1.04	1.50
1:A2:632:U:C1'	26:BX:15:LEU:HD12	1.38	1.50
1:A2:1299:G:C4	5:BC:86:VAL:HG12	1.46	1.50
1:A2:1184:A:C2	18:BP:123:TYR:CD2	1.97	1.49
1:A2:955:A:H61	16:BN:11:ILE:CA	1.00	1.49
1:A2:395:U:C6	9:BG:93:LYS:HE3	1.47	1.49
1:A2:32:U:C2	26:BX:139:LYS:O	1.64	1.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:778:G:C3'	27:BY:32:ARG:HH21	1.25	1.49
1:A2:58:U:C5'	27:BY:114:ARG:HE	1.16	1.49
1:A2:865:A:H5''	25:BW:6:VAL:C	1.30	1.49
1:A2:740:A:C2	7:BE:200:ARG:N	1.80	1.49
1:A2:1281:G:C8	23:BU:74:GLU:O	1.65	1.49
1:A2:1037:C:H5''	25:BW:15:ASN:CB	1.03	1.48
1:A2:1102:G:H1'	26:BX:7:ARG:NE	1.26	1.48
1:A2:1535:U:C4'	8:BF:187:ILE:HD12	1.42	1.48
1:A2:1502:G:N7	22:BT:33:TYR:CD2	1.80	1.48
1:A2:686:C:H3'	12:BJ:65:LYS:CE	1.37	1.48
1:A2:243:G:C5'	7:BE:147:ILE:HG13	1.42	1.48
1:A2:1236:A:H2'	18:BP:65:LEU:CD2	1.39	1.48
1:A2:165:G:N2	27:BY:131:ARG:HH22	1.08	1.48
1:A2:30:G:C5'	26:BX:142:LYS:HB2	1.43	1.48
1:A2:331:A:C8	11:BI:31:ARG:CG	1.96	1.48
1:A2:340:U:N3	11:BI:3:ILE:HG21	1.19	1.48
1:A2:1328:G:C8	6:BD:159:HIS:CB	1.75	1.47
1:A2:901:G:H22	17:BO:24:ASN:C	1.00	1.47
1:A2:331:A:C8	11:BI:31:ARG:HG2	1.48	1.47
1:A2:1213:G:O6	18:BP:97:TYR:CE2	1.63	1.47
1:A2:1184:A:N1	18:BP:123:TYR:CD2	1.82	1.47
1:A2:1298:U:C2'	5:BC:99:LYS:HD3	1.45	1.46
1:A2:814:A:C2	10:BH:109:VAL:CA	1.95	1.46
1:A2:737:A:H4'	7:BE:158:ASP:C	1.09	1.46
1:A2:1535:U:H5''	28:BZ:67:ASP:CG	1.20	1.46
1:A2:1558:U:H5	21:BS:123:ARG:C	1.16	1.46
1:A2:1236:A:O2'	18:BP:65:LEU:CD2	1.63	1.46
1:A2:1390:U:OP2	20:BR:45:ARG:CG	1.64	1.46
2:AZ:6220:U:C2	6:BD:143:ARG:HD2	0.94	1.46
1:A2:866:G:H5'	25:BW:3:ARG:CA	1.42	1.46
1:A2:1553:G:O6	18:BP:39:ALA:CB	1.64	1.46
1:A2:1213:G:O3'	18:BP:77:ARG:CD	1.63	1.46
1:A2:960:U:C5'	25:BW:57:ARG:HA	1.41	1.46
1:A2:1530:C:C4	28:BZ:96:SER:N	1.84	1.45
1:A2:901:G:H22	17:BO:25:ASP:N	1.12	1.45
1:A2:1037:C:C5'	25:BW:15:ASN:CB	1.95	1.45
1:A2:633:U:H5''	14:BL:99:ARG:CG	1.39	1.45
1:A2:1535:U:C4'	8:BF:187:ILE:CD1	1.93	1.45
1:A2:338:C:O2'	11:BI:24:LYS:CD	1.64	1.45
1:A2:149:C:C5'	27:BY:130:ALA:HB3	1.41	1.45
1:A2:165:G:H22	27:BY:131:ARG:NH2	1.10	1.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:127:G:C8	9:BG:186:ARG:CB	1.97	1.45
1:A2:127:G:N7	9:BG:186:ARG:HB2	1.24	1.45
1:A2:245:U:C4	7:BE:128:LYS:CD	1.99	1.45
1:A2:1184:A:C2	18:BP:123:TYR:CG	2.02	1.45
1:A2:570:A:N1	26:BX:67:ALA:CB	1.80	1.45
1:A2:776:G:C8	27:BY:34:ASN:HB2	1.32	1.44
1:A2:859:A:C3'	10:BH:101:LYS:HE2	1.43	1.44
1:A2:1683:C:OP2	9:BG:52:ILE:CG1	1.66	1.44
1:A2:1403:C:C5'	20:BR:2:GLY:HA3	1.46	1.44
1:A2:1400:A:C5'	20:BR:53:TYR:OH	1.64	1.44
1:A2:736:C:C2	7:BE:227:VAL:HG12	1.50	1.44
1:A2:1390:U:C5	20:BR:3:ARG:HD2	1.53	1.44
1:A2:956:C:O2	16:BN:11:ILE:CD1	1.64	1.44
1:A2:1428:G:N1	23:BU:74:GLU:HG3	1.21	1.44
1:A2:784:C:C5'	27:BY:44:LEU:CD2	1.81	1.44
1:A2:812:A:N3	10:BH:111:LYS:CD	1.79	1.44
1:A2:1564:U:C3'	21:BS:41:ARG:HH11	1.27	1.44
1:A2:241:U:C3'	7:BE:149:TYR:HD2	1.08	1.44
1:A2:1682:U:C5'	9:BG:102:VAL:CG1	1.75	1.43
1:A2:150:U:C2	27:BY:131:ARG:NH1	1.87	1.43
1:A2:89:G:N1	27:BY:115:ASP:HB3	1.25	1.43
1:A2:1721:A:C3'	9:BG:67:VAL:HG21	1.48	1.43
1:A2:632:U:C2'	26:BX:15:LEU:HD12	1.47	1.43
1:A2:332:U:N3	11:BI:29:LEU:HD22	1.23	1.43
1:A2:1086:A:C8	5:BC:203:LYS:CD	2.01	1.43
1:A2:1009:U:O5'	17:BO:129:LYS:CE	1.65	1.43
1:A2:1681:A:C5'	9:BG:101:ILE:HG12	1.10	1.43
1:A2:266:A:C4'	9:BG:136:LYS:CD	1.93	1.43
1:A2:449:C:H6	27:BY:105:ARG:CZ	1.30	1.43
1:A2:1709:C:C4'	9:BG:9:VAL:CG2	1.94	1.43
1:A2:746:A:C2	25:BW:82:LYS:CE	1.99	1.43
1:A2:803:A:C5'	25:BW:120:HIS:CE1	1.98	1.43
1:A2:804:A:H5''	25:BW:121:VAL:N	1.32	1.43
1:A2:78:A:C2	9:BG:160:ARG:NE	1.85	1.43
1:A2:702:G:N2	7:BE:173:ILE:CG2	1.78	1.43
1:A2:1054:U:C2'	3:BA:30:GLN:CG	1.93	1.43
1:A2:324:U:C5'	11:BI:11:ARG:O	1.65	1.43
1:A2:1556:A:OP2	18:BP:38:PRO:CB	1.63	1.42
1:A2:1502:G:OP2	22:BT:33:TYR:CD1	1.72	1.42
1:A2:1007:C:OP2	17:BO:136:ARG:CZ	1.66	1.42
1:A2:89:G:C8	27:BY:120:GLY:N	1.78	1.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:310:C:HO2'	26:BX:35:GLY:N	1.01	1.42
1:A2:1298:U:C2'	5:BC:99:LYS:CD	1.98	1.42
1:A2:1399:C:H3'	20:BR:66:VAL:CG2	1.46	1.42
1:A2:1532:U:C6	28:BZ:77:ARG:CD	2.02	1.42
1:A2:1567:U:OP1	21:BS:34:THR:CG2	1.66	1.42
1:A2:338:C:C2'	11:BI:24:LYS:HD3	1.33	1.42
1:A2:337:G:C1'	11:BI:9:HIS:CE1	2.00	1.42
1:A2:786:C:C5'	27:BY:26:ASP:OD1	1.66	1.42
1:A2:736:C:N4	7:BE:195:ILE:HG12	1.28	1.42
1:A2:952:A:H4'	16:BN:5:HIS:CG	1.55	1.42
1:A2:1709:C:C4'	9:BG:9:VAL:HG22	1.46	1.42
1:A2:734:A:C2	7:BE:180:LEU:CD2	2.02	1.42
1:A2:1454:G:C2	18:BP:123:TYR:N	1.88	1.42
1:A2:346:G:N2	11:BI:11:ARG:C	1.69	1.42
1:A2:1280:C:N1	23:BU:72:ASN:N	1.68	1.42
1:A2:1613:U:P	8:BF:84:LYS:HD3	1.60	1.42
1:A2:3:U:C2'	12:BJ:18:PRO:HG2	1.27	1.42
1:A2:57:G:H1	27:BY:116:LYS:N	1.05	1.41
1:A2:59:C:OP1	27:BY:111:LYS:CD	1.66	1.41
1:A2:1241:G:C5	18:BP:78:THR:HG22	1.54	1.41
1:A2:91:G:C2'	27:BY:116:LYS:HE2	1.24	1.41
1:A2:139:C:H2'	9:BG:137:ARG:CA	1.32	1.41
1:A2:57:G:C3'	27:BY:114:ARG:NH1	1.81	1.41
1:A2:1498:G:C8	22:BT:73:VAL:CG2	2.01	1.41
1:A2:1563:C:H5'	22:BT:38:LYS:NZ	1.31	1.41
1:A2:601:A:C8	26:BX:105:ALA:CB	2.01	1.41
1:A2:776:G:N1	27:BY:35:VAL:HG12	1.25	1.41
1:A2:448:C:N4	27:BY:105:ARG:H	1.07	1.41
1:A2:1721:A:O2'	9:BG:98:ARG:CA	1.64	1.41
1:A2:859:A:H3'	10:BH:101:LYS:CE	1.50	1.41
1:A2:968:U:O2'	26:BX:5:LYS:CA	1.67	1.41
1:A2:636:A:O2'	25:BW:110:ILE:CG2	1.64	1.41
1:A2:322:G:O2'	11:BI:9:HIS:CG	1.70	1.41
1:A2:1102:G:H1'	26:BX:7:ARG:CD	1.50	1.41
1:A2:803:A:C4'	25:BW:120:HIS:HE1	1.15	1.41
1:A2:216:U:C6	7:BE:129:VAL:CG2	1.99	1.41
1:A2:1563:C:O3'	22:BT:38:LYS:CD	1.67	1.41
1:A2:900:A:H4'	17:BO:20:TYR:CE1	1.54	1.41
1:A2:1367:G:C3'	22:BT:66:TYR:CE1	1.97	1.41
1:A2:703:G:N7	7:BE:230:GLU:HG2	1.31	1.41
1:A2:1068:C:C6	3:BA:33:GLN:OE1	1.74	1.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:370:A:C5'	12:BJ:14:THR:OG1	1.69	1.41
1:A2:139:C:O2	9:BG:136:LYS:CG	1.69	1.40
1:A2:804:A:H5''	25:BW:121:VAL:CA	1.50	1.40
1:A2:866:G:C8	25:BW:3:ARG:O	1.72	1.40
1:A2:1326:A:C2	6:BD:159:HIS:CE1	2.09	1.40
1:A2:216:U:N3	7:BE:150:PRO:HG2	1.09	1.40
1:A2:1535:U:C1'	8:BF:187:ILE:HD12	1.37	1.40
1:A2:1722:A:P	9:BG:73:ILE:CG1	2.09	1.40
1:A2:811:A:H2	10:BH:107:ARG:CA	1.34	1.40
1:A2:137:U:C3'	9:BG:143:LYS:CD	1.99	1.40
1:A2:633:U:O3'	25:BW:79:PHE:CZ	1.73	1.40
1:A2:214:G:C3'	7:BE:132:GLY:HA3	1.23	1.40
1:A2:1241:G:N7	18:BP:78:THR:CG2	1.81	1.40
1:A2:3:U:H2'	12:BJ:18:PRO:CG	1.02	1.40
1:A2:1682:U:H5'	9:BG:102:VAL:CG1	0.93	1.40
1:A2:865:A:C5'	25:BW:6:VAL:C	1.89	1.40
1:A2:736:C:H42	7:BE:195:ILE:CG1	1.33	1.40
1:A2:1399:C:O2'	20:BR:60:ARG:CD	1.64	1.40
1:A2:1389:C:H4'	20:BR:45:ARG:CA	0.93	1.40
1:A2:959:U:HO2'	25:BW:56:HIS:N	0.94	1.40
1:A2:1435:G:N2	13:BK:27:PHE:HE2	1.01	1.40
1:A2:216:U:C6	7:BE:129:VAL:HG23	1.56	1.40
1:A2:1534:G:C2'	28:BZ:63:SER:HA	1.51	1.40
1:A2:570:A:N1	26:BX:67:ALA:HB1	1.24	1.40
2:AZ:6220:U:C5	6:BD:142:LEU:CB	2.05	1.40
1:A2:599:A:N3	26:BX:126:LYS:N	1.68	1.40
1:A2:1601:G:N7	22:BT:89:ARG:HG2	1.27	1.40
1:A2:332:U:N3	11:BI:29:LEU:CD2	1.84	1.40
1:A2:1326:A:C8	6:BD:157:LEU:O	1.74	1.39
1:A2:1241:G:N7	18:BP:78:THR:HG22	1.28	1.39
1:A2:139:C:C2'	9:BG:137:ARG:HA	1.27	1.39
1:A2:633:U:C5'	14:BL:99:ARG:HG3	1.16	1.39
1:A2:737:A:C4'	7:BE:158:ASP:C	1.87	1.39
2:AZ:6221:U:C2'	6:BD:114:ALA:HB2	1.49	1.39
1:A2:800:U:C5'	7:BE:187:ARG:N	1.70	1.39
1:A2:395:U:C3'	9:BG:91:GLU:OE2	1.69	1.39
1:A2:57:G:H3'	27:BY:114:ARG:NH1	1.20	1.39
1:A2:872:G:N1	16:BN:11:ILE:CG1	1.76	1.39
1:A2:784:C:H5''	27:BY:44:LEU:CD2	1.04	1.39
1:A2:164:A:P	9:BG:2:LYS:HG2	1.62	1.39
1:A2:633:U:C6	14:BL:99:ARG:CG	2.04	1.39

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1504:G:C1'	21:BS:41:ARG:HH22	1.31	1.39
1:A2:1367:G:C2'	22:BT:66:TYR:CZ	2.06	1.39
1:A2:266:A:C4'	9:BG:136:LYS:HD2	1.53	1.39
1:A2:597:G:H4'	26:BX:137:LYS:CD	1.53	1.39
1:A2:778:G:H3'	27:BY:32:ARG:NH2	1.34	1.38
1:A2:137:U:O5'	9:BG:143:LYS:CE	1.67	1.38
1:A2:633:U:H6	14:BL:99:ARG:CG	1.32	1.38
1:A2:1528:U:OP1	8:BF:112:ARG:CB	1.68	1.38
1:A2:1454:G:N2	18:BP:123:TYR:CA	1.83	1.38
1:A2:686:C:C5'	12:BJ:64:GLU:OE2	1.69	1.38
1:A2:1367:G:O2'	22:BT:66:TYR:CZ	1.74	1.38
1:A2:1721:A:C8	9:BG:67:VAL:HG23	1.49	1.38
1:A2:735:C:H5	7:BE:195:ILE:N	0.94	1.38
1:A2:737:A:N6	7:BE:195:ILE:HD13	1.07	1.38
1:A2:1505:A:H2	21:BS:84:TRP:CG	1.42	1.38
1:A2:1498:G:H8	22:BT:73:VAL:CB	1.35	1.38
1:A2:640:U:C1'	25:BW:119:LYS:HE2	1.52	1.38
1:A2:450:U:C6	27:BY:109:LYS:HA	1.28	1.38
1:A2:899:G:C3'	17:BO:25:ASP:OD1	1.70	1.38
1:A2:301:A:C5'	7:BE:3:ARG:HH21	1.28	1.38
1:A2:322:G:N2	11:BI:10:LYS:HD2	1.37	1.38
1:A2:89:G:H1	27:BY:115:ASP:CB	1.35	1.38
1:A2:91:G:C2'	27:BY:113:ASN:OD1	1.71	1.38
1:A2:215:A:C4'	7:BE:132:GLY:N	1.87	1.38
1:A2:1535:U:C1'	8:BF:187:ILE:CD1	1.82	1.38
1:A2:1503:A:N7	21:BS:41:ARG:NH1	1.72	1.38
1:A2:1565:C:H4'	21:BS:43:SER:CA	1.05	1.37
1:A2:753:A:C2'	7:BE:12:LEU:O	1.71	1.37
1:A2:78:A:C6	9:BG:160:ARG:HG3	1.59	1.37
1:A2:1241:G:C2	18:BP:95:GLY:C	1.98	1.37
1:A2:266:A:H4'	9:BG:136:LYS:CE	1.53	1.37
1:A2:214:G:H3'	7:BE:132:GLY:CA	1.54	1.37
1:A2:872:G:C2	16:BN:11:ILE:CG1	2.05	1.37
1:A2:346:G:C2	11:BI:11:ARG:HB3	1.58	1.37
1:A2:340:U:C4	11:BI:3:ILE:CG2	2.07	1.37
1:A2:1094:G:C4'	5:BC:161:LYS:HD2	1.09	1.37
1:A2:778:G:HO2'	27:BY:5:VAL:N	1.21	1.37
1:A2:456:A:N1	27:BY:108:ARG:HA	1.32	1.37
1:A2:1331:A:C4	6:BD:161:GLY:CA	1.91	1.37
1:A2:1316:G:C3'	20:BR:7:LYS:CG	1.75	1.37
1:A2:920:U:C3'	4:BB:214:LYS:HD3	1.50	1.37

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:597:G:C4'	26:BX:137:LYS:HE2	1.55	1.37
1:A2:336:G:H22	11:BI:24:LYS:C	1.27	1.37
1:A2:1192:C:H5''	19:BQ:141:SER:CB	1.52	1.37
1:A2:702:G:N2	7:BE:173:ILE:HG22	1.08	1.37
1:A2:920:U:O2'	4:BB:216:LYS:CE	1.69	1.37
1:A2:31:C:H1'	26:BX:138:GLU:CA	1.55	1.37
1:A2:127:G:N7	9:BG:186:ARG:CA	1.85	1.36
1:A2:458:G:C8	27:BY:107:GLN:NE2	1.92	1.36
1:A2:1328:G:C8	6:BD:159:HIS:C	1.98	1.36
1:A2:737:A:C1'	7:BE:157:ASN:O	1.71	1.36
1:A2:753:A:H2'	7:BE:12:LEU:O	1.22	1.36
1:A2:1086:A:C8	5:BC:203:LYS:HD3	1.57	1.36
1:A2:866:G:C5'	25:BW:3:ARG:CA	2.01	1.36
1:A2:1310:U:C4'	20:BR:4:VAL:HG11	1.53	1.36
1:A2:570:A:C2	26:BX:67:ALA:CB	2.08	1.36
1:A2:139:C:C2'	9:BG:138:ALA:N	1.88	1.36
1:A2:1006:C:H5''	17:BO:136:ARG:NH1	1.39	1.36
1:A2:814:A:C8	10:BH:108:GLN:HB2	1.46	1.36
1:A2:1722:A:C2	9:BG:70:PRO:HD2	1.59	1.36
1:A2:1548:G:O2'	21:BS:86:LEU:CG	1.69	1.36
1:A2:1053:G:H4'	3:BA:35:PRO:CG	1.31	1.36
1:A2:1416:G:O2'	19:BQ:126:PRO:CD	1.72	1.36
1:A2:127:G:N7	9:BG:186:ARG:N	1.69	1.36
1:A2:1290:U:C4'	6:BD:151:LYS:HE3	0.88	1.36
1:A2:1504:G:H1'	21:BS:41:ARG:NH2	1.32	1.36
1:A2:686:C:C3'	12:BJ:65:LYS:HE2	1.51	1.36
1:A2:1007:C:OP2	17:BO:136:ARG:NH1	1.57	1.36
1:A2:1710:U:C6	9:BG:115:LYS:CG	2.05	1.35
1:A2:969:C:O2	26:BX:14:LYS:HG2	1.25	1.35
1:A2:352:A:H62	26:BX:20:ARG:NH2	1.22	1.35
1:A2:863:A:H5'	25:BW:6:VAL:CB	1.57	1.35
1:A2:1390:U:OP2	20:BR:45:ARG:CD	1.72	1.35
1:A2:1502:G:C2'	22:BT:37:VAL:CG2	2.03	1.35
1:A2:30:G:H5''	26:BX:142:LYS:CB	1.56	1.35
2:AZ:6221:U:C3'	6:BD:114:ALA:CB	2.04	1.35
1:A2:741:C:C6	7:BE:201:HIS:HB2	1.59	1.35
1:A2:741:C:N4	7:BE:206:ASP:CB	1.88	1.35
1:A2:1553:G:N3	18:BP:40:ARG:HD2	1.39	1.35
1:A2:325:G:C2'	14:BL:133:LYS:HA	1.55	1.35
1:A2:449:C:N3	27:BY:105:ARG:O	1.58	1.35
1:A2:970:A:C8	26:BX:17:VAL:HG11	1.61	1.35

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:955:A:C2	16:BN:11:ILE:HD13	1.50	1.35
1:A2:1673:G:O3'	9:BG:94:ARG:CG	1.73	1.35
1:A2:1674:C:H6	9:BG:94:ARG:NH2	1.23	1.35
1:A2:1722:A:H4'	9:BG:71:THR:C	1.43	1.35
1:A2:1566:U:O2'	21:BS:35:ILE:N	1.60	1.35
1:A2:778:G:C3'	27:BY:32:ARG:NH2	1.88	1.35
1:A2:1673:G:H2'	9:BG:94:ARG:NH2	1.36	1.35
1:A2:149:C:H5''	27:BY:130:ALA:CB	1.15	1.35
1:A2:887:A:C3'	17:BO:122:PRO:C	1.93	1.35
1:A2:1601:G:P	22:BT:86:ARG:HE	1.49	1.35
1:A2:1367:G:C1'	22:BT:66:TYR:OH	1.75	1.35
1:A2:75:U:C6	9:BG:166:GLU:CA	2.03	1.34
1:A2:1068:C:C5'	3:BA:33:GLN:HB2	1.48	1.34
1:A2:325:G:N7	11:BI:10:LYS:NZ	1.72	1.34
1:A2:636:A:C5'	25:BW:126:LEU:N	1.89	1.34
1:A2:1505:A:C2	21:BS:84:TRP:CE3	2.14	1.34
2:AZ:6069:A:N3	2:AZ:6152:C:O2'	1.58	1.34
1:A2:266:A:O4'	9:BG:136:LYS:HD2	1.20	1.34
1:A2:1301:U:O4	5:BC:118:ALA:HA	1.23	1.34
1:A2:1400:A:H5'	20:BR:53:TYR:CZ	1.62	1.34
1:A2:1053:G:C5'	3:BA:35:PRO:HB3	1.56	1.34
1:A2:901:G:N2	17:BO:24:ASN:C	1.81	1.34
1:A2:18:C:O2'	26:BX:115:GLY:CA	1.74	1.34
1:A2:138:A:H8	9:BG:135:PRO:CB	1.39	1.34
1:A2:1105:C:OP1	26:BX:21:ASN:HB2	1.26	1.34
1:A2:631:G:H8	26:BX:13:ARG:CG	1.09	1.34
1:A2:864:U:C5'	25:BW:7:LEU:O	1.76	1.34
1:A2:1535:U:C2'	8:BF:187:ILE:HD12	1.55	1.34
1:A2:1053:G:C4'	3:BA:35:PRO:HB3	1.35	1.34
1:A2:332:U:C4	11:BI:29:LEU:HD21	1.63	1.34
1:A2:138:A:N3	9:BG:140:ASN:HA	1.38	1.34
1:A2:91:G:C2'	27:BY:116:LYS:CE	1.89	1.34
1:A2:457:G:C2	27:BY:106:GLN:O	1.81	1.34
1:A2:141:U:OP1	9:BG:141:ILE:CG2	1.76	1.34
1:A2:458:G:H8	27:BY:107:GLN:NE2	1.21	1.34
1:A2:887:A:H3'	17:BO:122:PRO:C	0.96	1.34
1:A2:57:G:N1	27:BY:115:ASP:N	1.63	1.33
1:A2:737:A:N6	7:BE:195:ILE:CD1	1.88	1.33
1:A2:872:G:N2	16:BN:11:ILE:HG12	1.42	1.33
1:A2:777:C:OP2	27:BY:34:ASN:N	1.60	1.33
1:A2:782:U:P	27:BY:39:GLU:CG	2.16	1.33

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1037:C:C5'	25:BW:15:ASN:HB2	1.51	1.33
1:A2:698:U:C6	7:BE:207:LEU:HB2	1.62	1.33
1:A2:1558:U:C5	21:BS:123:ARG:C	2.01	1.33
2:AZ:6111:G:O2'	8:BF:220:VAL:HG22	1.19	1.33
1:A2:889:U:OP1	17:BO:89:THR:N	1.58	1.33
1:A2:30:G:OP1	26:BX:142:LYS:HA	1.15	1.33
1:A2:139:C:C2'	9:BG:137:ARG:C	1.93	1.33
1:A2:168:A:C4'	9:BG:132:ARG:NE	1.90	1.33
1:A2:1083:G:H21	5:BC:161:LYS:CD	1.41	1.33
1:A2:168:A:H4'	9:BG:132:ARG:NE	1.00	1.33
1:A2:59:C:P	27:BY:111:LYS:CD	2.17	1.33
1:A2:448:C:H42	27:BY:105:ARG:N	1.20	1.33
1:A2:137:U:H2'	9:BG:143:LYS:CE	1.55	1.33
1:A2:1034:C:H42	26:BX:3:LYS:NZ	1.25	1.33
1:A2:1144:U:C1'	5:BC:87:GLN:O	1.77	1.33
1:A2:1298:U:C1'	5:BC:99:LYS:HD3	1.59	1.33
1:A2:1473:U:C2	8:BF:113:ILE:CG2	2.11	1.33
1:A2:917:U:C6	17:BO:84:ARG:CZ	2.08	1.33
1:A2:901:G:C5'	17:BO:86:THR:HG23	1.58	1.33
1:A2:760:A:C4'	12:BJ:9:SER:O	1.77	1.33
1:A2:165:G:P	9:BG:15:THR:CA	2.17	1.33
1:A2:1722:A:H4'	9:BG:72:ARG:CA	1.56	1.33
1:A2:631:G:C8	26:BX:13:ARG:CG	1.99	1.33
1:A2:832:U:C5'	9:BG:212:LEU:O	1.77	1.33
1:A2:1535:U:O4'	8:BF:187:ILE:CD1	1.73	1.33
1:A2:1383:G:OP2	23:BU:59:PRO:C	1.65	1.33
1:A2:330:G:OP1	11:BI:56:ARG:HD2	1.26	1.33
1:A2:1085:G:C8	5:BC:162:CYS:O	1.82	1.33
1:A2:866:G:H5'	25:BW:3:ARG:N	1.40	1.32
1:A2:1290:U:H4'	6:BD:151:LYS:CE	0.85	1.32
1:A2:735:C:C5	7:BE:194:THR:C	1.99	1.32
1:A2:1452:U:O2	18:BP:96:ILE:CG2	1.73	1.32
1:A2:31:C:O2'	26:BX:138:GLU:CB	1.74	1.32
1:A2:337:G:H3'	11:BI:6:ASP:O	1.17	1.32
1:A2:141:U:OP1	9:BG:141:ILE:HG23	1.26	1.32
1:A2:1722:A:C4'	9:BG:71:THR:C	1.89	1.32
1:A2:240:U:OP2	9:BG:211:LEU:CB	1.77	1.32
2:AZ:6219:U:O2'	6:BD:144:ALA:CA	1.76	1.32
1:A2:1473:U:O2	8:BF:113:ILE:CG2	1.77	1.32
1:A2:641:G:OP1	25:BW:118:ARG:NH1	1.62	1.32
1:A2:879:G:HO2'	16:BN:111:ALA:N	1.22	1.32

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:168:A:H4'	9:BG:132:ARG:CD	1.58	1.32
1:A2:78:A:C6	9:BG:160:ARG:CG	2.12	1.32
1:A2:631:G:O2'	26:BX:16:ARG:N	1.63	1.32
1:A2:633:U:O3'	25:BW:79:PHE:CE1	1.74	1.32
1:A2:241:U:C4'	7:BE:149:TYR:CD2	2.07	1.32
1:A2:952:A:H4'	16:BN:5:HIS:ND1	1.04	1.32
1:A2:329:G:H5'	11:BI:56:ARG:NH2	1.41	1.32
1:A2:266:A:C5'	9:BG:136:LYS:HD3	1.59	1.32
1:A2:1723:U:C5	9:BG:73:ILE:CD1	2.12	1.32
1:A2:1403:C:H6	20:BR:3:ARG:C	1.30	1.32
1:A2:1241:G:P	18:BP:105:VAL:H	1.50	1.32
1:A2:1565:C:H4'	21:BS:43:SER:N	1.41	1.32
1:A2:346:G:N2	11:BI:11:ARG:CB	1.93	1.32
1:A2:1482:C:O4'	19:BQ:74:HIS:CE1	1.83	1.32
1:A2:85:A:C1'	27:BY:126:ALA:HA	1.50	1.31
1:A2:633:U:OP2	14:BL:99:ARG:HB2	1.20	1.31
1:A2:812:A:N3	10:BH:111:LYS:HD2	1.36	1.31
1:A2:139:C:H2'	9:BG:137:ARG:C	1.50	1.31
1:A2:736:C:N3	7:BE:195:ILE:HD11	1.45	1.31
1:A2:1053:G:H4'	3:BA:35:PRO:CB	1.19	1.31
1:A2:756:A:H5'	7:BE:23:LEU:CD1	1.58	1.31
1:A2:337:G:C1'	11:BI:9:HIS:HE1	1.35	1.31
1:A2:1281:G:H1'	23:BU:74:GLU:CA	1.59	1.31
1:A2:245:U:OP1	7:BE:142:HIS:CA	1.76	1.31
1:A2:899:G:H3'	17:BO:25:ASP:CG	1.51	1.31
1:A2:548:G:H5'	26:BX:136:TRP:CD2	1.65	1.31
1:A2:570:A:C2	26:BX:67:ALA:HB1	1.65	1.31
1:A2:330:G:OP1	11:BI:56:ARG:CD	1.76	1.31
1:A2:859:A:N6	10:BH:111:LYS:CG	1.93	1.31
1:A2:163:G:C4	9:BG:2:LYS:HB2	1.65	1.31
1:A2:91:G:H3'	27:BY:116:LYS:NZ	1.43	1.31
1:A2:85:A:C2'	27:BY:126:ALA:CA	2.06	1.31
1:A2:864:U:C5	25:BW:13:ALA:HB3	1.66	1.31
1:A2:1295:G:C5	5:BC:116:LYS:NZ	1.99	1.31
1:A2:240:U:OP2	9:BG:211:LEU:HB3	1.21	1.31
1:A2:238:U:O3'	9:BG:210:GLN:HB2	1.16	1.31
1:A2:29:U:O2'	26:BX:127:VAL:CG2	1.77	1.31
1:A2:14:C:C4'	5:BC:203:LYS:HZ3	1.42	1.31
1:A2:1679:G:C4	9:BG:68:LEU:CB	2.14	1.30
1:A2:1532:U:H2'	28:BZ:77:ARG:CG	1.59	1.30
1:A2:1452:U:O2	18:BP:96:ILE:HG22	1.19	1.30

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1498:G:C8	22:BT:73:VAL:HB	1.66	1.30
1:A2:329:G:C2	11:BI:30:GLY:C	2.05	1.30
1:A2:1420:C:H5'	23:BU:82:TYR:OH	1.23	1.30
1:A2:1009:U:C5'	17:BO:129:LYS:NZ	1.93	1.30
1:A2:137:U:H3'	9:BG:143:LYS:CD	1.54	1.30
1:A2:92:A:C8	27:BY:116:LYS:NZ	1.96	1.30
1:A2:30:G:OP1	26:BX:142:LYS:CA	1.78	1.30
1:A2:301:A:N7	7:BE:2:ALA:O	1.62	1.30
1:A2:1281:G:C1'	23:BU:74:GLU:HA	1.60	1.30
1:A2:1497:U:C5'	22:BT:77:ASN:HD22	1.44	1.30
1:A2:1681:A:H5'	9:BG:101:ILE:CD1	1.59	1.30
1:A2:1034:C:O2	26:BX:7:ARG:NH1	1.65	1.30
1:A2:1532:U:C6	28:BZ:77:ARG:HD3	1.65	1.30
1:A2:318:U:N3	11:BI:15:GLY:O	1.62	1.30
1:A2:137:U:O2'	9:BG:143:LYS:HD3	1.30	1.30
1:A2:75:U:C6	9:BG:166:GLU:C	2.05	1.30
1:A2:1094:G:H4'	5:BC:161:LYS:CD	0.96	1.30
1:A2:1009:U:P	17:BO:129:LYS:NZ	2.03	1.30
1:A2:163:G:OP2	9:BG:108:VAL:HG23	1.21	1.30
1:A2:1535:U:C6	8:BF:187:ILE:N	1.77	1.30
1:A2:1452:U:C2'	18:BP:117:GLY:HA3	1.61	1.30
1:A2:1237:G:N3	18:BP:66:ALA:HB2	1.47	1.30
1:A2:1564:U:C4'	21:BS:41:ARG:NH1	1.95	1.30
1:A2:901:G:N2	17:BO:25:ASP:N	1.79	1.30
1:A2:548:G:H4'	26:BX:136:TRP:CZ3	1.35	1.30
1:A2:1083:G:C2	5:BC:161:LYS:HD3	1.66	1.30
1:A2:632:U:P	26:BX:12:ALA:HB1	1.71	1.29
1:A2:831:U:OP1	7:BE:152:PRO:CB	1.78	1.29
1:A2:1601:G:C8	22:BT:89:ARG:CG	2.15	1.29
1:A2:346:G:H2'	11:BI:13:ALA:N	1.47	1.29
1:A2:858:G:H22	10:BH:108:GLN:CG	1.46	1.29
1:A2:1681:A:H5'	9:BG:101:ILE:CG1	1.09	1.29
1:A2:179:A:C4	9:BG:184:LEU:O	1.85	1.29
1:A2:699:U:O4	7:BE:208:VAL:HG13	1.28	1.29
1:A2:243:G:OP2	7:BE:138:TYR:HB2	1.20	1.29
1:A2:1390:U:OP2	20:BR:45:ARG:NE	1.59	1.29
1:A2:1501:C:C5	22:BT:33:TYR:OH	1.79	1.29
1:A2:1565:C:O2'	21:BS:38:VAL:HG12	1.12	1.29
1:A2:325:G:O4'	14:BL:133:LYS:HG3	1.15	1.29
1:A2:85:A:H2'	27:BY:126:ALA:CA	1.59	1.29
1:A2:1037:C:H5''	25:BW:15:ASN:CG	1.50	1.29

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:735:C:C5	7:BE:194:THR:N	2.01	1.29
1:A2:740:A:C6	7:BE:198:LYS:HE2	1.66	1.29
1:A2:1401:A:OP1	20:BR:10:LYS:HA	1.32	1.29
1:A2:1532:U:C1'	28:BZ:77:ARG:HD2	1.60	1.29
1:A2:1532:U:C2'	28:BZ:77:ARG:HD2	1.54	1.29
1:A2:1184:A:C6	18:BP:123:TYR:CD2	2.21	1.29
1:A2:1502:G:C5	22:BT:33:TYR:CD2	2.21	1.29
1:A2:872:G:C2	16:BN:11:ILE:HG12	1.63	1.29
1:A2:1083:G:N2	5:BC:161:LYS:CE	1.96	1.29
1:A2:137:U:C3'	9:BG:143:LYS:HD3	1.61	1.29
1:A2:1033:C:C2'	26:BX:2:GLY:O	1.80	1.29
1:A2:741:C:C6	7:BE:201:HIS:CB	2.16	1.29
2:AZ:6220:U:C5	6:BD:142:LEU:HB3	1.63	1.29
1:A2:887:A:C2	17:BO:125:SER:N	1.82	1.29
1:A2:597:G:O3'	26:BX:136:TRP:CZ3	1.85	1.29
1:A2:165:G:H22	27:BY:131:ARG:CZ	1.46	1.29
1:A2:1721:A:O5'	9:BG:64:LYS:CB	1.64	1.29
1:A2:1326:A:C5'	6:BD:156:PHE:O	1.79	1.29
1:A2:243:G:H5''	7:BE:147:ILE:CG1	1.24	1.29
2:AZ:6107:U:H5''	8:BF:223:SER:N	1.45	1.29
1:A2:598:U:O3'	26:BX:88:PRO:HG2	1.29	1.29
1:A2:1367:G:O3'	22:BT:66:TYR:CE1	1.86	1.29
1:A2:641:G:OP1	25:BW:118:ARG:CZ	1.78	1.29
1:A2:138:A:N3	9:BG:143:LYS:HB2	1.49	1.28
1:A2:436:A:C5	26:BX:50:LYS:CD	2.14	1.28
1:A2:1533:C:O4'	28:BZ:77:ARG:CZ	1.79	1.28
1:A2:1532:U:C6	28:BZ:77:ARG:HD2	1.63	1.28
1:A2:1499:G:OP2	22:BT:102:ARG:CA	1.80	1.28
1:A2:1564:U:O3'	21:BS:41:ARG:NH1	1.65	1.28
1:A2:888:U:O3'	17:BO:89:THR:HA	1.20	1.28
1:A2:325:G:C5'	11:BI:7:SER:OG	1.80	1.28
1:A2:450:U:O4'	27:BY:109:LYS:HE2	1.29	1.28
1:A2:1298:U:O4'	5:BC:208:GLU:HG3	1.17	1.28
1:A2:1144:U:O3'	5:BC:88:LYS:HA	1.21	1.28
1:A2:245:U:OP1	7:BE:142:HIS:C	1.70	1.28
1:A2:1532:U:O5'	28:BZ:77:ARG:CB	1.82	1.28
1:A2:1532:U:O5'	28:BZ:77:ARG:HB2	1.18	1.28
1:A2:1055:U:C5'	3:BA:46:HIS:HB3	1.63	1.28
1:A2:895:G:OP1	4:BB:65:VAL:N	1.67	1.28
1:A2:1679:G:C4	9:BG:68:LEU:HB2	1.67	1.28
1:A2:1470:C:OP2	8:BF:102:ARG:NH1	1.64	1.28

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1499:G:OP2	22:BT:102:ARG:HA	1.31	1.28
1:A2:325:G:C1'	14:BL:133:LYS:CB	2.09	1.28
1:A2:776:G:H2'	27:BY:29:HIS:NE2	0.95	1.28
1:A2:1679:G:N3	9:BG:68:LEU:CB	1.94	1.28
1:A2:91:G:O2'	27:BY:113:ASN:CG	1.72	1.28
1:A2:458:G:N7	27:BY:107:GLN:OE1	1.67	1.28
1:A2:1528:U:OP1	8:BF:112:ARG:HB3	1.17	1.28
1:A2:956:C:C4	16:BN:11:ILE:HG22	1.67	1.28
1:A2:917:U:C6	17:BO:84:ARG:NE	1.88	1.28
1:A2:1343:U:O2'	23:BU:56:VAL:HG23	1.23	1.28
1:A2:1370:U:H5'	22:BT:119:LYS:NZ	1.46	1.28
1:A2:931:C:H4'	4:BB:117:TRP:CZ3	1.67	1.28
1:A2:1098:U:C1'	5:BC:170:ILE:N	1.96	1.28
1:A2:1722:A:H4'	9:BG:72:ARG:N	1.47	1.28
1:A2:1582:U:O5'	19:BQ:135:ARG:NH1	1.65	1.28
1:A2:686:C:C6	12:BJ:65:LYS:NZ	2.02	1.28
1:A2:31:C:O2'	26:BX:138:GLU:HB3	1.12	1.28
1:A2:859:A:H62	10:BH:112:ARG:N	1.29	1.27
1:A2:812:A:N3	10:BH:111:LYS:CG	1.97	1.27
1:A2:90:C:C4	27:BY:115:ASP:O	1.86	1.27
1:A2:814:A:N1	10:BH:109:VAL:N	1.81	1.27
1:A2:180:A:C2	9:BG:188:ARG:O	1.84	1.27
1:A2:455:C:OP2	27:BY:103:ALA:N	1.64	1.27
1:A2:1328:G:C8	6:BD:159:HIS:CA	2.17	1.27
1:A2:241:U:H3'	7:BE:149:TYR:CD2	1.54	1.27
1:A2:1565:C:C4'	21:BS:43:SER:N	1.97	1.27
1:A2:337:G:O2'	11:BI:9:HIS:CE1	1.85	1.27
1:A2:448:C:N4	27:BY:105:ARG:N	1.72	1.27
1:A2:89:G:O6	27:BY:118:ILE:CB	1.80	1.27
1:A2:638:U:OP1	25:BW:108:ALA:CB	1.82	1.27
1:A2:952:A:C4'	16:BN:5:HIS:ND1	1.95	1.27
1:A2:337:G:C3'	11:BI:6:ASP:O	1.82	1.27
1:A2:1384:A:OP2	23:BU:87:HIS:HB3	1.28	1.27
1:A2:215:A:O3'	7:BE:131:LEU:C	1.73	1.27
1:A2:1473:U:C1'	8:BF:113:ILE:HD13	1.62	1.27
1:A2:1175:U:C5	21:BS:140:THR:HG21	1.70	1.27
1:A2:1454:G:P	18:BP:118:GLU:CA	2.22	1.27
1:A2:1499:G:H3'	22:BT:102:ARG:O	1.29	1.27
1:A2:329:G:C5'	11:BI:56:ARG:NH2	1.97	1.27
1:A2:1591:C:H5''	22:BT:93:HIS:CA	1.63	1.27
1:A2:783:G:H5'	27:BY:39:GLU:O	1.27	1.27

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:785:U:OP2	27:BY:44:LEU:HD11	1.35	1.27
1:A2:163:G:OP1	9:BG:56:ASN:O	1.52	1.27
1:A2:1037:C:H2'	25:BW:19:LYS:CE	1.63	1.27
1:A2:1298:U:C3'	5:BC:99:LYS:HB3	1.64	1.27
1:A2:238:U:C3'	9:BG:210:GLN:HB2	1.65	1.27
2:AZ:6220:U:O2	6:BD:143:ARG:CG	1.80	1.27
1:A2:1420:C:OP2	23:BU:69:LYS:HE2	1.31	1.27
1:A2:1428:G:N2	23:BU:74:GLU:CA	1.98	1.27
1:A2:630:A:N6	26:BX:14:LYS:HD2	1.45	1.27
1:A2:955:A:N6	16:BN:10:GLY:O	1.65	1.27
1:A2:915:A:C2	17:BO:27:PHE:CE2	2.23	1.27
1:A2:915:A:N1	17:BO:27:PHE:CZ	2.01	1.27
1:A2:31:C:C1'	26:BX:138:GLU:HA	1.64	1.27
1:A2:165:G:OP2	9:BG:15:THR:CA	1.73	1.26
1:A2:1683:C:N4	9:BG:32:ILE:O	1.67	1.26
1:A2:181:A:H3'	9:BG:191:ARG:CZ	1.46	1.26
1:A2:282:C:OP1	9:BG:154:ARG:HG2	1.25	1.26
1:A2:1103:U:O3'	26:BX:15:LEU:HD22	1.20	1.26
1:A2:1357:A:C1'	22:BT:126:GLU:O	1.83	1.26
1:A2:329:G:N1	11:BI:30:GLY:C	1.87	1.26
17:BO:56:SER:HG	17:BO:59:ALA:N	1.31	1.26
1:A2:631:G:O2'	26:BX:16:ARG:CA	1.83	1.26
1:A2:733:A:C5	7:BE:209:HIS:O	1.86	1.26
1:A2:1096:C:O2'	5:BC:200:SER:C	1.72	1.26
1:A2:812:A:C2	10:BH:111:LYS:CG	2.17	1.26
1:A2:740:A:C2	7:BE:198:LYS:CG	2.19	1.26
1:A2:325:G:H5'	11:BI:7:SER:OG	1.17	1.26
2:AZ:6218:U:O2	6:BD:146:ARG:HA	1.31	1.26
1:A2:139:C:C2'	9:BG:137:ARG:CA	1.79	1.26
1:A2:634:G:O6	26:BX:9:LEU:HD12	1.29	1.26
1:A2:1326:A:O2'	6:BD:157:LEU:CD2	1.83	1.26
1:A2:735:C:C6	7:BE:194:THR:N	2.04	1.26
1:A2:1528:U:C5'	19:BQ:43:ILE:CG1	2.14	1.26
1:A2:1452:U:C2'	18:BP:117:GLY:CA	2.10	1.26
1:A2:1210:C:N3	18:BP:122:THR:HB	1.49	1.26
1:A2:955:A:N6	16:BN:10:GLY:C	1.90	1.26
1:A2:340:U:N3	11:BI:3:ILE:CG2	1.99	1.26
1:A2:862:A:H5'	25:BW:32:LYS:CA	1.65	1.26
1:A2:1244:A:C2'	18:BP:59:LYS:HD2	1.66	1.26
1:A2:1083:G:C4	5:BC:161:LYS:O	1.86	1.26
1:A2:1084:A:H2'	5:BC:164:SER:N	1.50	1.26

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AZ:6221:U:O3'	6:BD:114:ALA:CB	1.82	1.26
1:A2:1301:U:H5	5:BC:118:ALA:O	1.18	1.25
1:A2:242:U:C4	7:BE:137:PRO:HD2	1.69	1.25
1:A2:1390:U:OP2	20:BR:45:ARG:CZ	1.83	1.25
1:A2:300:A:H61	7:BE:5:PRO:N	1.34	1.25
1:A2:181:A:C3'	9:BG:191:ARG:CZ	2.11	1.25
1:A2:967:A:C2	26:BX:7:ARG:C	1.85	1.25
1:A2:631:G:O2'	26:BX:16:ARG:CB	1.83	1.25
1:A2:241:U:C5'	7:BE:149:TYR:CD2	2.20	1.25
1:A2:1390:U:OP2	20:BR:45:ARG:HG2	1.16	1.25
1:A2:1213:G:N3	18:BP:78:THR:O	1.69	1.25
1:A2:1558:U:C6	21:BS:133:VAL:CG2	2.11	1.25
1:A2:1237:G:C4	18:BP:66:ALA:HB2	1.69	1.25
1:A2:1565:C:C4'	21:BS:43:SER:CA	2.00	1.25
1:A2:600:U:N1	26:BX:105:ALA:CB	2.00	1.25
1:A2:1428:G:N3	23:BU:74:GLU:HG2	0.93	1.25
1:A2:1396:U:C4	20:BR:56:HIS:HE1	1.52	1.25
1:A2:778:G:OP1	27:BY:30:PRO:HD2	1.29	1.25
1:A2:779:U:C4	27:BY:43:LYS:HE3	1.70	1.25
1:A2:149:C:C5'	27:BY:130:ALA:CB	2.03	1.25
1:A2:138:A:C6	9:BG:140:ASN:OD1	1.90	1.25
1:A2:1328:G:C8	6:BD:159:HIS:O	1.89	1.25
1:A2:220:A:C4'	9:BG:220:LYS:N	1.98	1.25
2:AZ:6221:U:C3'	6:BD:114:ALA:HB1	1.64	1.25
2:AZ:6219:U:O2'	6:BD:144:ALA:CB	1.83	1.25
1:A2:1721:A:H62	9:BG:68:LEU:CA	1.44	1.25
1:A2:1722:A:OP2	9:BG:73:ILE:HG13	1.33	1.25
1:A2:152:U:O4	27:BY:135:ASP:HB2	1.29	1.25
1:A2:139:C:C6	9:BG:137:ARG:O	1.88	1.25
1:A2:1302:U:OP2	5:BC:95:ARG:CD	1.85	1.25
1:A2:1326:A:H3'	6:BD:158:ILE:N	1.06	1.25
1:A2:740:A:N1	7:BE:198:LYS:HB2	1.52	1.25
1:A2:215:A:H4'	7:BE:131:LEU:O	1.26	1.25
1:A2:29:U:O2'	26:BX:127:VAL:HG22	1.09	1.25
1:A2:1601:G:C8	22:BT:89:ARG:N	2.05	1.25
1:A2:1625:C:OP2	5:BC:91:ARG:CZ	1.84	1.25
1:A2:776:G:C8	27:BY:34:ASN:CB	2.10	1.25
1:A2:245:U:O4	7:BE:128:LYS:CD	1.73	1.25
1:A2:1472:C:OP1	8:BF:190:ILE:HD12	1.32	1.25
1:A2:1566:U:H5'	21:BS:30:TYR:C	1.57	1.25
1:A2:597:G:H1	26:BX:132:LEU:N	1.19	1.25

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:783:G:OP2	27:BY:39:GLU:C	1.73	1.24
1:A2:265:A:C5'	9:BG:176:GLN:HG2	1.64	1.24
1:A2:1721:A:C8	9:BG:67:VAL:HG22	1.57	1.24
1:A2:639:U:OP2	25:BW:108:ALA:CB	1.86	1.24
1:A2:1144:U:O2	5:BC:89:GLN:HG2	1.14	1.24
1:A2:737:A:H62	7:BE:195:ILE:CD1	1.46	1.24
1:A2:1244:A:O2'	18:BP:59:LYS:HD2	1.31	1.24
1:A2:18:C:O3'	26:BX:115:GLY:N	1.67	1.24
1:A2:18:C:O2'	26:BX:115:GLY:HA2	1.14	1.24
1:A2:1281:G:C4'	23:BU:68:ARG:NH2	2.00	1.24
1:A2:266:A:C5'	9:BG:136:LYS:CD	2.14	1.24
1:A2:127:G:O2'	9:BG:183:ARG:NH2	1.68	1.24
1:A2:1454:G:H21	18:BP:123:TYR:CA	1.42	1.24
1:A2:1242:A:C5'	18:BP:89:MET:CE	2.14	1.24
1:A2:597:G:C4'	26:BX:137:LYS:CE	2.14	1.24
1:A2:1420:C:H5'	23:BU:82:TYR:CZ	1.71	1.24
1:A2:1684:U:OP2	9:BG:51:LYS:HB3	1.31	1.24
1:A2:1721:A:H3'	9:BG:67:VAL:CG2	1.67	1.24
1:A2:89:G:N1	27:BY:115:ASP:O	1.71	1.24
1:A2:1472:C:OP1	8:BF:190:ILE:CD1	1.84	1.24
1:A2:1565:C:O4'	21:BS:41:ARG:N	1.70	1.24
1:A2:1548:G:H4'	21:BS:98:TYR:O	1.11	1.24
1:A2:1383:G:C8	23:BU:57:ARG:O	1.79	1.24
1:A2:1428:G:C2	23:BU:74:GLU:CD	2.10	1.24
1:A2:1281:G:N9	23:BU:74:GLU:O	1.70	1.24
1:A2:1040:G:C5'	24:BV:62:ARG:NE	2.00	1.24
1:A2:778:G:OP2	27:BY:32:ARG:CG	1.83	1.24
1:A2:165:G:OP2	9:BG:15:THR:HA	1.15	1.24
1:A2:866:G:C5'	25:BW:3:ARG:C	2.04	1.24
1:A2:1499:G:C3'	22:BT:102:ARG:O	1.84	1.24
1:A2:960:U:H6	25:BW:57:ARG:CD	1.50	1.24
1:A2:969:C:C2	26:BX:14:LYS:CG	2.21	1.24
1:A2:1301:U:O4	5:BC:118:ALA:CA	1.84	1.24
1:A2:1327:C:C6	6:BD:158:ILE:C	2.11	1.24
1:A2:1213:G:O3'	18:BP:77:ARG:HD3	1.21	1.24
1:A2:959:U:O2	25:BW:55:ASP:HB3	1.38	1.24
1:A2:600:U:C2	26:BX:105:ALA:HB2	1.72	1.24
1:A2:548:G:H4'	26:BX:136:TRP:CE3	1.71	1.24
1:A2:598:U:O3'	26:BX:88:PRO:CG	1.86	1.24
1:A2:778:G:OP2	27:BY:32:ARG:HG2	1.32	1.23
1:A2:164:A:OP2	9:BG:2:LYS:HG2	1.31	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1723:U:H5	9:BG:73:ILE:CD1	1.46	1.23
1:A2:64:U:C4	27:BY:121:THR:OG1	1.83	1.23
1:A2:80:A:N1	9:BG:162:VAL:O	1.68	1.23
1:A2:638:U:OP2	25:BW:106:THR:OG1	1.54	1.23
1:A2:1301:U:C4	5:BC:97:ARG:CD	2.20	1.23
1:A2:1328:G:OP1	6:BD:164:VAL:CG2	1.86	1.23
1:A2:1498:G:C4'	22:BT:72:GLY:O	1.84	1.23
1:A2:1565:C:O2'	21:BS:38:VAL:CG1	1.86	1.23
1:A2:650:U:OP2	7:BE:256:ARG:NE	1.71	1.23
1:A2:1520:U:C5'	22:BT:75:LYS:O	1.86	1.23
1:A2:811:A:C2	10:BH:107:ARG:CA	2.11	1.23
1:A2:1144:U:C4'	5:BC:87:GLN:O	1.86	1.23
1:A2:1558:U:C6	21:BS:133:VAL:HG21	1.70	1.23
2:AZ:6220:U:O2	6:BD:143:ARG:NE	1.72	1.23
1:A2:1504:G:C1'	21:BS:41:ARG:NH2	1.93	1.23
1:A2:1083:G:N3	5:BC:161:LYS:HD3	1.52	1.23
1:A2:396:G:N7	9:BG:91:GLU:HB2	1.54	1.23
1:A2:1037:C:O4'	25:BW:71:LYS:HD2	1.39	1.23
1:A2:1329:A:N6	6:BD:160:SER:O	1.69	1.23
1:A2:734:A:C2	7:BE:180:LEU:HD21	1.63	1.23
1:A2:1389:C:C5'	20:BR:45:ARG:CG	2.14	1.23
1:A2:1534:G:O2'	28:BZ:63:SER:HA	1.10	1.23
1:A2:1534:G:O6	28:BZ:61:SER:HB2	1.39	1.23
1:A2:1548:G:C2'	21:BS:86:LEU:CB	1.98	1.23
1:A2:382:C:C4'	12:BJ:2:PRO:HG3	1.67	1.23
1:A2:370:A:H5'	12:BJ:14:THR:OG1	1.05	1.23
1:A2:1095:U:O3'	5:BC:159:THR:OG1	1.56	1.23
1:A2:641:G:OP1	25:BW:118:ARG:CD	1.71	1.23
1:A2:765:G:C2	12:BJ:142:ASN:ND2	2.06	1.23
1:A2:775:G:C4	27:BY:61:ARG:HA	1.72	1.23
1:A2:633:U:H6	14:BL:99:ARG:CB	1.52	1.23
1:A2:967:A:C5	26:BX:8:GLY:N	2.07	1.23
1:A2:1300:A:N3	5:BC:86:VAL:C	1.92	1.23
1:A2:735:C:C5	7:BE:194:THR:CA	2.20	1.23
1:A2:1202:A:H61	21:BS:136:GLN:C	1.40	1.23
1:A2:1500:C:OP2	22:BT:102:ARG:C	1.75	1.23
1:A2:340:U:C2	11:BI:3:ILE:HG21	1.72	1.23
1:A2:1613:U:OP1	8:BF:84:LYS:CD	1.85	1.23
1:A2:1370:U:C3'	22:BT:119:LYS:HE3	1.67	1.23
1:A2:968:U:C4'	26:BX:5:LYS:N	2.01	1.23
1:A2:1316:G:C3'	20:BR:7:LYS:HG2	0.79	1.23

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1316:G:O3'	20:BR:7:LYS:HG2	1.34	1.23
1:A2:1532:U:H3'	28:BZ:77:ARG:N	1.53	1.23
1:A2:1532:U:N1	28:BZ:77:ARG:HD2	1.52	1.23
1:A2:787:G:N2	27:BY:61:ARG:CD	2.02	1.22
1:A2:811:A:N6	10:BH:103:SER:HB2	1.50	1.22
1:A2:1326:A:C3'	6:BD:158:ILE:N	2.01	1.22
1:A2:1299:G:O3'	5:BC:84:LYS:O	1.57	1.22
1:A2:1600:A:C3'	22:BT:86:ARG:NH2	2.03	1.22
1:A2:335:U:O4	11:BI:25:ARG:HB3	1.37	1.22
1:A2:1097:U:O3'	5:BC:199:GLN:N	1.70	1.22
1:A2:946:U:O3'	4:BB:158:SER:CB	1.85	1.22
1:A2:88:U:H5''	27:BY:119:PHE:CD2	1.73	1.22
1:A2:458:G:N7	27:BY:107:GLN:CD	1.91	1.22
1:A2:1038:U:O4'	25:BW:19:LYS:NZ	1.72	1.22
1:A2:242:U:O4	7:BE:136:VAL:CA	1.72	1.22
1:A2:735:C:H42	7:BE:179:LYS:N	1.34	1.22
1:A2:1317:C:C5	20:BR:7:LYS:HD2	1.72	1.22
1:A2:1503:A:N3	22:BT:36:ILE:HB	1.52	1.22
1:A2:1563:C:C5'	22:BT:38:LYS:HZ1	1.52	1.22
1:A2:649:U:H4'	7:BE:252:ARG:NH1	0.92	1.22
1:A2:597:G:O4'	26:BX:137:LYS:HE2	1.11	1.22
1:A2:1096:C:O5'	5:BC:168:ARG:HB2	1.34	1.22
1:A2:14:C:C4'	5:BC:203:LYS:NZ	2.02	1.22
1:A2:858:G:H1'	10:BH:106:SER:OG	1.04	1.22
1:A2:139:C:H6	9:BG:137:ARG:O	1.20	1.22
1:A2:89:G:C6	27:BY:115:ASP:O	1.93	1.22
1:A2:631:G:O3'	26:BX:16:ARG:NH1	1.72	1.22
1:A2:632:U:O4'	26:BX:15:LEU:HB2	1.06	1.22
1:A2:736:C:C5	7:BE:225:VAL:HG13	1.73	1.22
1:A2:1310:U:H4'	20:BR:4:VAL:CG1	1.68	1.22
1:A2:1473:U:C2	8:BF:113:ILE:HG21	1.71	1.22
1:A2:1547:A:OP1	21:BS:108:LYS:O	1.53	1.22
2:AZ:6108:U:C5'	8:BF:222:LYS:HB3	1.67	1.22
1:A2:18:C:HO3'	26:BX:114:LYS:CA	1.50	1.22
1:A2:32:U:N3	26:BX:139:LYS:O	1.70	1.22
1:A2:30:G:OP1	26:BX:143:PRO:HD2	1.32	1.22
1:A2:325:G:O2'	14:BL:133:LYS:HA	1.20	1.22
1:A2:335:U:C4	11:BI:25:ARG:HB3	1.74	1.22
1:A2:1083:G:H21	5:BC:161:LYS:CE	1.49	1.22
2:AZ:6219:U:N1	6:BD:144:ALA:HB1	1.55	1.22
1:A2:777:C:H3'	27:BY:32:ARG:CG	1.67	1.22

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:394:C:OP1	9:BG:92:ARG:HB2	1.39	1.22
1:A2:1106:U:OP2	26:BX:22:ASN:C	1.77	1.22
1:A2:864:U:H5'	25:BW:6:VAL:O	1.33	1.22
1:A2:734:A:N1	7:BE:180:LEU:HD21	1.55	1.22
1:A2:1214:U:P	18:BP:77:ARG:HD2	1.80	1.22
1:A2:1030:A:O3'	1:A2:1031:U:P	1.98	1.22
1:A2:338:C:N4	11:BI:29:LEU:C	1.93	1.22
1:A2:783:G:N7	27:BY:39:GLU:HB3	1.54	1.21
1:A2:1682:U:O3'	9:BG:109:LEU:HD11	1.32	1.21
2:AZ:6137:C:O2'	8:BF:126:ASP:CB	1.88	1.21
1:A2:1083:G:N2	5:BC:161:LYS:HD3	1.54	1.21
1:A2:1299:G:C4	5:BC:86:VAL:CG1	2.23	1.21
1:A2:698:U:C6	7:BE:207:LEU:CB	2.23	1.21
1:A2:1535:U:C4'	28:BZ:67:ASP:OD1	1.88	1.21
1:A2:1368:G:H5''	22:BT:66:TYR:C	1.59	1.21
1:A2:1280:C:C6	23:BU:72:ASN:N	2.04	1.21
1:A2:1084:A:O2'	5:BC:164:SER:CA	1.88	1.21
1:A2:1681:A:C5'	9:BG:101:ILE:CD1	2.15	1.21
1:A2:449:C:C6	27:BY:105:ARG:CZ	2.23	1.21
1:A2:738:G:H8	7:BE:157:ASN:CG	1.16	1.21
1:A2:740:A:C4	7:BE:200:ARG:CA	2.24	1.21
1:A2:1316:G:HO3'	20:BR:8:THR:N	1.38	1.21
1:A2:1529:C:C5	28:BZ:95:HIS:CD2	2.28	1.21
1:A2:1241:G:N2	18:BP:95:GLY:C	1.91	1.21
1:A2:1452:U:C2'	18:BP:117:GLY:N	1.97	1.21
1:A2:1213:G:O6	18:BP:97:TYR:CZ	1.91	1.21
1:A2:960:U:O3'	1:A2:961:U:P	1.97	1.21
1:A2:858:G:H22	10:BH:108:GLN:CD	1.44	1.21
1:A2:1673:G:O3'	9:BG:94:ARG:HG2	1.09	1.21
1:A2:139:C:C3'	9:BG:138:ALA:N	1.81	1.21
1:A2:1502:G:C8	22:BT:33:TYR:CG	2.29	1.21
1:A2:1548:G:C2'	21:BS:86:LEU:CA	2.16	1.21
1:A2:1055:U:C4'	3:BA:46:HIS:HB3	1.59	1.21
1:A2:864:U:OP1	25:BW:7:LEU:HD23	1.36	1.21
1:A2:1298:U:H2'	5:BC:99:LYS:CD	1.62	1.21
1:A2:832:U:H5''	9:BG:212:LEU:O	1.06	1.21
1:A2:734:A:H3'	7:BE:192:ILE:O	1.39	1.21
1:A2:740:A:N1	7:BE:198:LYS:HG3	1.55	1.21
1:A2:703:G:C8	7:BE:230:GLU:CG	2.20	1.21
1:A2:1402:G:C8	20:BR:5:ARG:HB2	1.73	1.21
1:A2:1470:C:H3'	8:BF:184:PHE:CE1	1.76	1.21

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:879:G:O2'	16:BN:111:ALA:HA	1.37	1.21
1:A2:91:G:H2'	27:BY:116:LYS:CE	1.57	1.20
1:A2:1389:C:C3'	20:BR:45:ARG:HA	1.71	1.20
1:A2:1553:G:N2	18:BP:40:ARG:HB2	1.57	1.20
1:A2:599:A:C2	26:BX:126:LYS:HG3	1.74	1.20
1:A2:599:A:C2	26:BX:126:LYS:N	2.10	1.20
1:A2:140:A:OP1	9:BG:138:ALA:HB2	1.40	1.20
1:A2:137:U:O5'	9:BG:143:LYS:HE2	1.27	1.20
1:A2:1679:G:N3	9:BG:68:LEU:HB3	1.54	1.20
1:A2:631:G:P	26:BX:13:ARG:HB2	1.80	1.20
1:A2:1301:U:O2'	5:BC:86:VAL:HG21	1.40	1.20
1:A2:1300:A:P	5:BC:85:PRO:HA	1.80	1.20
1:A2:1301:U:C5	5:BC:118:ALA:C	2.14	1.20
1:A2:216:U:C5	7:BE:129:VAL:HG23	1.75	1.20
1:A2:1175:U:C4	21:BS:140:THR:CG2	2.22	1.20
1:A2:1555:A:C8	18:BP:40:ARG:HG2	1.77	1.20
1:A2:1502:G:N7	22:BT:33:TYR:CG	2.10	1.20
1:A2:791:A:C6	12:BJ:7:THR:OG1	1.95	1.20
1:A2:1600:A:O3'	22:BT:86:ARG:NH2	1.71	1.20
1:A2:1683:C:OP2	9:BG:52:ILE:HG12	1.03	1.20
1:A2:450:U:C6	27:BY:109:LYS:CA	2.17	1.20
1:A2:272:U:O4	9:BG:169:TYR:CD1	1.94	1.20
1:A2:1037:C:H4'	25:BW:71:LYS:CD	1.72	1.20
1:A2:1536:G:C2	8:BF:187:ILE:CG1	2.24	1.20
2:AZ:6220:U:C2'	6:BD:143:ARG:N	1.87	1.20
1:A2:1055:U:OP2	3:BA:46:HIS:C	1.78	1.20
1:A2:598:U:C3'	26:BX:88:PRO:HG2	1.70	1.20
1:A2:331:A:N7	11:BI:31:ARG:HG3	1.55	1.20
1:A2:1396:U:O4	20:BR:56:HIS:CE1	1.93	1.20
1:A2:139:C:C1'	9:BG:137:ARG:C	2.08	1.20
1:A2:265:A:H5''	9:BG:176:GLN:CG	1.72	1.20
1:A2:177:U:H5'	9:BG:139:ASN:N	1.54	1.20
1:A2:1244:A:O2'	18:BP:59:LYS:CD	1.88	1.20
1:A2:1054:U:O2'	3:BA:30:GLN:CD	1.79	1.20
1:A2:872:G:C2	16:BN:11:ILE:HG13	1.71	1.20
1:A2:792:U:C6	12:BJ:7:THR:OG1	1.95	1.20
1:A2:1420:C:OP2	23:BU:69:LYS:CE	1.86	1.20
1:A2:1096:C:O2'	5:BC:200:SER:O	1.54	1.20
1:A2:1721:A:N9	9:BG:67:VAL:HG23	1.57	1.20
1:A2:858:G:N2	10:BH:108:GLN:HG3	1.56	1.20
1:A2:80:A:C6	9:BG:162:VAL:O	1.94	1.20

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1037:C:C4'	25:BW:71:LYS:CD	2.18	1.20
1:A2:1503:A:C4	22:BT:37:VAL:N	2.10	1.20
2:AZ:6219:U:O2'	6:BD:144:ALA:HA	1.34	1.20
1:A2:164:A:OP2	9:BG:2:LYS:CG	1.88	1.19
1:A2:182:A:C8	9:BG:191:ARG:NH2	2.09	1.19
1:A2:1722:A:C4'	9:BG:71:THR:O	1.87	1.19
1:A2:1301:U:C5	5:BC:118:ALA:O	1.95	1.19
1:A2:1546:G:N2	21:BS:38:VAL:H	1.39	1.19
1:A2:959:U:O2'	25:BW:56:HIS:N	1.72	1.19
1:A2:1053:G:C4'	3:BA:35:PRO:HG3	1.57	1.19
1:A2:1054:U:C2'	3:BA:30:GLN:HG2	1.59	1.19
1:A2:756:A:P	7:BE:23:LEU:CD1	2.28	1.19
1:A2:1396:U:C4	20:BR:56:HIS:CE1	2.28	1.19
1:A2:783:G:N1	27:BY:35:VAL:HG22	0.87	1.19
1:A2:858:G:C1'	10:BH:106:SER:OG	1.91	1.19
1:A2:704:C:H5'	7:BE:230:GLU:N	1.47	1.19
1:A2:1239:U:OP1	18:BP:72:LYS:O	1.58	1.19
1:A2:900:A:C4'	17:BO:20:TYR:HE1	1.53	1.19
1:A2:1479:A:OP1	22:BT:56:LYS:HD2	1.37	1.19
1:A2:1082:C:C2'	5:BC:216:VAL:CG1	2.19	1.19
1:A2:783:G:N2	27:BY:35:VAL:HG21	1.56	1.19
1:A2:78:A:C2	9:BG:160:ARG:CZ	2.24	1.19
1:A2:165:G:H4'	9:BG:14:LYS:CE	1.45	1.19
1:A2:449:C:C4	27:BY:105:ARG:O	1.74	1.19
1:A2:1299:G:H5''	5:BC:98:PHE:O	1.40	1.19
1:A2:1331:A:C4	6:BD:161:GLY:HA3	1.21	1.19
1:A2:702:G:C2	7:BE:173:ILE:HG22	1.77	1.19
1:A2:1403:C:O4'	20:BR:3:ARG:O	1.55	1.19
1:A2:1241:G:O2'	18:BP:116:LEU:HD13	1.42	1.19
1:A2:1503:A:C2'	22:BT:37:VAL:O	1.89	1.19
1:A2:956:C:C2	16:BN:11:ILE:CD1	2.17	1.19
1:A2:952:A:O3'	16:BN:4:MET:HG3	1.42	1.19
1:A2:381:C:O2'	12:BJ:2:PRO:HD2	1.42	1.19
1:A2:598:U:O2	26:BX:132:LEU:HB3	1.41	1.19
1:A2:1601:G:OP1	22:BT:89:ARG:CB	1.90	1.19
1:A2:1787:C:C5'	17:BO:132:ARG:NH1	2.04	1.19
1:A2:1681:A:C5'	9:BG:101:ILE:CG1	1.75	1.19
1:A2:630:A:C8	26:BX:13:ARG:HG2	1.67	1.19
1:A2:632:U:C1'	26:BX:15:LEU:CG	2.19	1.19
1:A2:739:G:O6	7:BE:198:LYS:CB	1.74	1.19
1:A2:741:C:C4	7:BE:206:ASP:HA	1.76	1.19

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:703:G:C8	7:BE:179:LYS:HE2	1.67	1.19
1:A2:1389:C:C5'	20:BR:45:ARG:HB2	1.51	1.19
1:A2:1455:G:OP1	21:BS:126:ARG:CD	1.91	1.19
1:A2:1367:G:H1'	22:BT:66:TYR:OH	1.35	1.19
1:A2:325:G:O2'	14:BL:133:LYS:CA	1.66	1.19
1:A2:1095:U:H4'	5:BC:159:THR:CG2	1.71	1.19
1:A2:105:A:OP1	11:BI:21:PHE:HB3	1.38	1.19
1:A2:170:U:P	1:A2:267:U:O2'	2.00	1.19
1:A2:1102:G:O2'	26:BX:7:ARG:HD2	1.36	1.19
1:A2:806:A:C8	25:BW:82:LYS:HD3	1.78	1.19
1:A2:1391:A:C5'	20:BR:48:ASN:HB3	1.72	1.19
1:A2:1402:G:N7	20:BR:5:ARG:NE	1.89	1.19
1:A2:1498:G:C8	22:BT:73:VAL:CB	2.17	1.19
1:A2:1563:C:O3'	22:BT:38:LYS:HD3	1.05	1.19
1:A2:955:A:N6	16:BN:11:ILE:N	1.88	1.19
1:A2:332:U:C2	11:BI:29:LEU:HD22	1.76	1.19
1:A2:785:U:H2'	27:BY:70:VAL:CA	1.71	1.18
1:A2:215:A:C4'	7:BE:131:LEU:O	1.91	1.18
1:A2:1316:G:H3'	20:BR:7:LYS:CG	1.50	1.18
1:A2:1528:U:C5'	19:BQ:43:ILE:HG12	1.71	1.18
1:A2:1245:G:OP1	18:BP:58:LYS:C	1.80	1.18
1:A2:1549:C:C5'	21:BS:86:LEU:HD13	1.73	1.18
1:A2:959:U:HO2'	25:BW:56:HIS:CA	1.55	1.18
1:A2:901:G:H5''	17:BO:86:THR:CG2	1.73	1.18
1:A2:325:G:C5	11:BI:10:LYS:NZ	2.10	1.18
1:A2:1096:C:O2'	5:BC:200:SER:CA	1.90	1.18
1:A2:1520:U:P	22:BT:75:LYS:O	2.01	1.18
1:A2:783:G:N3	27:BY:40:LEU:HD22	1.56	1.18
1:A2:137:U:H2'	9:BG:143:LYS:CD	1.59	1.18
1:A2:968:U:H4'	26:BX:5:LYS:N	1.22	1.18
1:A2:1144:U:C2	5:BC:89:GLN:CD	2.16	1.18
1:A2:740:A:N1	7:BE:198:LYS:CB	2.06	1.18
1:A2:740:A:N7	7:BE:206:ASP:OD2	1.77	1.18
1:A2:1503:A:N1	21:BS:82:PRO:HG2	1.55	1.18
1:A2:897:C:C5	17:BO:38:THR:CG2	2.26	1.18
1:A2:29:U:O5'	26:BX:130:VAL:HG13	1.42	1.18
1:A2:1709:C:C5'	9:BG:9:VAL:HG22	1.73	1.18
1:A2:456:A:C2	27:BY:111:LYS:HB2	1.78	1.18
1:A2:179:A:H1'	9:BG:184:LEU:CA	1.72	1.18
1:A2:1144:U:N3	5:BC:89:GLN:CD	1.95	1.18
1:A2:1403:C:C5'	20:BR:2:GLY:CA	2.10	1.18

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1184:A:P	18:BP:124:THR:OG1	2.02	1.18
1:A2:1503:A:C4	22:BT:36:ILE:HB	1.55	1.18
1:A2:1550:A:O5'	21:BS:84:TRP:CB	1.91	1.18
2:AZ:6137:C:O2'	8:BF:126:ASP:HB2	1.01	1.18
1:A2:888:U:C6	17:BO:124:ASP:N	2.11	1.18
1:A2:919:A:OP1	4:BB:107:THR:CG2	1.91	1.18
2:AZ:6129:C:O2'	2:AZ:6148:U:O4	1.61	1.18
1:A2:784:C:C1'	27:BY:7:ILE:HG12	1.73	1.18
1:A2:633:U:O2	26:BX:7:ARG:O	1.59	1.18
1:A2:1326:A:H5'	6:BD:156:PHE:O	1.05	1.18
2:AZ:6220:U:C5	6:BD:142:LEU:CA	1.94	1.18
1:A2:1566:U:C6	21:BS:33:THR:HG23	1.79	1.18
1:A2:1503:A:C2	22:BT:36:ILE:HD13	1.77	1.18
1:A2:1503:A:N3	22:BT:36:ILE:HD13	1.54	1.18
1:A2:901:G:H5'	17:BO:86:THR:HG23	1.23	1.18
1:A2:338:C:O2'	11:BI:24:LYS:HD3	1.09	1.18
1:A2:1721:A:C5'	9:BG:64:LYS:CB	2.21	1.18
1:A2:150:U:P	27:BY:130:ALA:HB1	1.83	1.18
1:A2:1328:G:OP1	6:BD:164:VAL:HG21	1.00	1.18
1:A2:738:G:H5'	7:BE:126:VAL:O	1.41	1.18
1:A2:242:U:P	7:BE:148:ARG:O	2.02	1.18
1:A2:704:C:C5'	7:BE:230:GLU:H	1.49	1.18
1:A2:649:U:P	7:BE:253:ASP:OD1	2.00	1.18
1:A2:1053:G:C4'	3:BA:35:PRO:CG	1.93	1.18
1:A2:346:G:N1	11:BI:11:ARG:HB3	1.56	1.18
1:A2:1384:A:P	23:BU:87:HIS:CB	2.30	1.18
1:A2:1370:U:H3'	22:BT:119:LYS:CE	1.74	1.18
1:A2:150:U:C5	27:BY:131:ARG:HD2	1.77	1.17
1:A2:1549:C:H5'	21:BS:86:LEU:CD1	1.73	1.17
2:AZ:6107:U:C5'	8:BF:223:SER:N	2.05	1.17
2:AZ:6111:G:O4'	8:BF:219:ARG:HB3	1.44	1.17
1:A2:570:A:N1	26:BX:67:ALA:CA	2.06	1.17
1:A2:332:U:C4	11:BI:29:LEU:CD2	2.24	1.17
1:A2:1344:A:C5'	23:BU:53:LYS:HD2	1.74	1.17
1:A2:1281:G:C4'	23:BU:68:ARG:HH22	1.55	1.17
1:A2:1084:A:H1'	5:BC:161:LYS:CE	1.71	1.17
1:A2:776:G:C3'	27:BY:29:HIS:CE1	2.27	1.17
1:A2:180:A:N3	9:BG:188:ARG:HA	1.59	1.17
1:A2:266:A:H5'	9:BG:136:LYS:CD	1.70	1.17
1:A2:444:C:O2	27:BY:104:SER:HB3	1.43	1.17
1:A2:1108:G:H1	26:BX:26:GLU:HA	1.08	1.17

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1326:A:C3'	6:BD:158:ILE:H	1.55	1.17
1:A2:1403:C:C5'	20:BR:2:GLY:O	1.92	1.17
1:A2:1477:G:H5'	22:BT:48:GLN:NE2	1.59	1.17
1:A2:1458:G:C1'	21:BS:126:ARG:NH2	2.07	1.17
1:A2:1237:G:OP2	18:BP:61:ARG:HG3	1.41	1.17
1:A2:30:G:P	26:BX:142:LYS:HA	1.83	1.17
14:BL:78:THR:HG22	14:BL:84:ILE:HG21	1.19	1.17
1:A2:783:G:C8	27:BY:39:GLU:C	2.18	1.17
1:A2:139:C:O2	9:BG:136:LYS:CB	1.69	1.17
1:A2:1102:G:C2'	26:BX:7:ARG:HD2	1.74	1.17
1:A2:1299:G:H8	5:BC:99:LYS:N	1.41	1.17
1:A2:1301:U:C3'	5:BC:97:ARG:HH11	1.50	1.17
1:A2:1316:G:O3'	20:BR:7:LYS:CB	1.92	1.17
1:A2:1316:G:O3'	20:BR:7:LYS:CG	1.89	1.17
1:A2:1167:G:OP1	8:BF:101:GLY:HA3	1.39	1.17
1:A2:1532:U:OP1	28:BZ:77:ARG:C	1.83	1.17
1:A2:1183:A:C8	18:BP:125:PRO:HD3	1.80	1.17
1:A2:649:U:H4'	7:BE:252:ARG:CZ	1.65	1.17
1:A2:760:A:H4'	12:BJ:9:SER:O	1.42	1.17
1:A2:633:U:C6	14:BL:99:ARG:HB3	1.79	1.17
1:A2:740:A:C5	7:BE:200:ARG:HA	1.80	1.17
1:A2:733:A:C4	7:BE:209:HIS:O	1.96	1.17
1:A2:1317:C:C6	20:BR:7:LYS:HD3	1.75	1.17
1:A2:346:G:N2	11:BI:11:ARG:O	1.76	1.17
1:A2:352:A:O3'	1:A2:353:A:P	2.03	1.17
1:A2:702:G:C2	7:BE:174:LYS:O	1.97	1.17
1:A2:1184:A:C6	18:BP:123:TYR:HD2	1.58	1.17
1:A2:1501:C:C5	22:BT:33:TYR:CZ	2.32	1.17
1:A2:1548:G:C1'	21:BS:99:HIS:CE1	2.26	1.17
1:A2:1501:C:OP2	22:BT:31:PRO:HB3	1.44	1.17
1:A2:1144:U:O4'	5:BC:87:GLN:O	1.60	1.16
1:A2:214:G:C3'	7:BE:132:GLY:CA	2.12	1.16
1:A2:1532:U:C2'	28:BZ:77:ARG:CD	1.91	1.16
1:A2:899:G:H3'	17:BO:25:ASP:OD1	1.01	1.16
1:A2:1520:U:OP2	22:BT:75:LYS:O	1.63	1.16
19:BQ:115:THR:HG1	19:BQ:116:LEU:N	1.44	1.16
1:A2:778:G:OP1	27:BY:30:PRO:CD	1.94	1.16
1:A2:75:U:C6	9:BG:166:GLU:O	1.99	1.16
1:A2:1683:C:OP2	9:BG:52:ILE:CB	1.90	1.16
1:A2:180:A:C2	9:BG:191:ARG:HB2	1.80	1.16
1:A2:969:C:O2	26:BX:14:LYS:CG	1.91	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:632:U:O2'	14:BL:99:ARG:HD2	1.46	1.16
1:A2:436:A:C4	26:BX:50:LYS:CD	2.28	1.16
1:A2:245:U:OP1	7:BE:142:HIS:HA	1.34	1.16
1:A2:1238:A:P	18:BP:63:ALA:C	2.23	1.16
1:A2:954:G:OP2	16:BN:2:GLY:N	1.76	1.16
1:A2:149:C:C4'	27:BY:130:ALA:HB3	1.75	1.16
1:A2:78:A:C6	9:BG:162:VAL:CB	2.27	1.16
1:A2:633:U:C6	14:BL:99:ARG:CB	2.27	1.16
1:A2:631:G:C4'	26:BX:13:ARG:HA	1.69	1.16
1:A2:220:A:H4'	9:BG:220:LYS:N	1.17	1.16
1:A2:740:A:N3	7:BE:200:ARG:CA	2.08	1.16
1:A2:703:G:C5	7:BE:230:GLU:HA	1.80	1.16
1:A2:1558:U:O4	21:BS:122:HIS:C	1.83	1.16
1:A2:1243:G:C5'	18:BP:56:PHE:O	1.79	1.16
1:A2:959:U:H1'	25:BW:56:HIS:N	1.59	1.16
1:A2:1357:A:O2'	22:BT:126:GLU:O	1.60	1.16
1:A2:1095:U:H4'	5:BC:159:THR:HG21	1.22	1.16
1:A2:641:G:OP1	25:BW:118:ARG:NE	1.76	1.16
1:A2:78:A:C5	9:BG:160:ARG:HG3	1.80	1.16
1:A2:89:G:O6	27:BY:118:ILE:HB	0.99	1.16
1:A2:241:U:C3'	7:BE:149:TYR:CD2	1.89	1.16
1:A2:1535:U:H4'	8:BF:187:ILE:CD1	1.69	1.16
1:A2:1212:G:O6	18:BP:99:GLY:C	1.82	1.16
1:A2:1239:U:H6	18:BP:74:ALA:N	1.43	1.16
1:A2:1503:A:H2'	22:BT:37:VAL:O	1.00	1.16
1:A2:897:C:HO3'	1:A2:898:A:P	1.68	1.16
1:A2:1054:U:H3'	3:BA:149:LEU:HD22	1.21	1.16
1:A2:956:C:C4	16:BN:11:ILE:CG2	2.29	1.16
1:A2:336:G:H22	11:BI:24:LYS:CA	1.58	1.16
1:A2:3:U:C2'	12:BJ:18:PRO:CG	1.88	1.16
1:A2:776:G:N1	27:BY:35:VAL:CG1	2.08	1.16
1:A2:181:A:N3	9:BG:191:ARG:CG	2.02	1.16
1:A2:633:U:C5'	14:BL:98:ASN:O	1.94	1.16
1:A2:1533:C:P	28:BZ:77:ARG:HH12	1.69	1.16
1:A2:1535:U:C3'	8:BF:187:ILE:HD12	1.74	1.16
1:A2:1236:A:C2'	18:BP:65:LEU:CD2	2.22	1.16
1:A2:1566:U:H5'	21:BS:30:TYR:CA	1.74	1.16
1:A2:686:C:OP1	12:BJ:64:GLU:OE2	1.63	1.16
1:A2:887:A:H2'	17:BO:124:ASP:N	1.61	1.16
1:A2:887:A:H2	17:BO:125:SER:N	1.25	1.16
1:A2:548:G:C4'	26:BX:136:TRP:CZ3	2.23	1.16

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:338:C:H3'	11:BI:4:SER:CB	1.74	1.16
1:A2:1281:G:H5'	23:BU:78:THR:OG1	1.42	1.16
1:A2:1591:C:H5''	22:BT:93:HIS:N	0.84	1.16
1:A2:1613:U:P	8:BF:84:LYS:CD	2.32	1.16
1:A2:1756:A:H3'	1:A2:1757:G:OP1	1.44	1.16
1:A2:163:G:O2'	9:BG:1:MET:O	1.60	1.15
1:A2:56:U:O2	27:BY:113:ASN:HB2	1.43	1.15
1:A2:168:A:C5'	9:BG:132:ARG:HD2	1.77	1.15
1:A2:1683:C:P	9:BG:52:ILE:CG2	2.34	1.15
1:A2:630:A:H62	26:BX:14:LYS:CD	1.59	1.15
1:A2:804:A:H5'	25:BW:120:HIS:C	1.66	1.15
1:A2:831:U:OP1	7:BE:152:PRO:CA	1.94	1.15
1:A2:1242:A:C2	18:BP:78:THR:OG1	1.78	1.15
1:A2:1565:C:C4'	21:BS:43:SER:H	1.58	1.15
1:A2:598:U:OP2	26:BX:133:LEU:HD23	1.44	1.15
1:A2:1383:G:O5'	23:BU:88:LYS:O	1.62	1.15
1:A2:1281:G:C5'	23:BU:68:ARG:HH21	1.59	1.15
1:A2:323:A:H5''	11:BI:10:LYS:H	1.02	1.15
1:A2:1096:C:C1'	5:BC:200:SER:O	1.93	1.15
1:A2:859:A:O2'	10:BH:101:LYS:HE3	1.47	1.15
1:A2:1683:C:C4	9:BG:32:ILE:C	2.19	1.15
1:A2:266:A:N3	9:BG:136:LYS:HB2	1.61	1.15
1:A2:1037:C:H2'	25:BW:19:LYS:NZ	1.59	1.15
1:A2:1326:A:C5'	6:BD:189:MET:SD	2.33	1.15
1:A2:1327:C:H3'	6:BD:159:HIS:CA	1.76	1.15
20:BR:43:SER:HG	20:BR:44:LYS:N	1.44	1.15
1:A2:1502:G:OP2	22:BT:33:TYR:HD1	1.11	1.15
1:A2:468:A:C8	26:BX:140:LYS:HE3	1.81	1.15
1:A2:1600:A:H3'	22:BT:86:ARG:CZ	1.75	1.15
1:A2:1416:G:O2'	19:BQ:126:PRO:HD3	1.38	1.15
1:A2:138:A:C8	9:BG:135:PRO:CB	2.22	1.15
1:A2:1681:A:H3'	9:BG:31:ARG:HA	1.26	1.15
1:A2:310:C:O2'	26:BX:35:GLY:N	1.76	1.15
1:A2:632:U:O5'	26:BX:12:ALA:HB1	1.01	1.15
1:A2:872:G:N2	16:BN:11:ILE:CG1	2.02	1.15
1:A2:597:G:H4'	26:BX:137:LYS:CG	1.76	1.15
1:A2:755:A:N3	12:BJ:3:ARG:HG2	1.61	1.15
1:A2:1084:A:O2'	5:BC:164:SER:HA	0.97	1.15
1:A2:858:G:C2	10:BH:108:GLN:HG3	1.80	1.15
1:A2:129:U:N3	9:BG:177:ARG:CZ	2.03	1.15
1:A2:56:U:O2	27:BY:113:ASN:CB	1.93	1.15

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1038:U:O5'	25:BW:19:LYS:NZ	1.69	1.15
1:A2:1403:C:C6	20:BR:3:ARG:C	2.20	1.15
1:A2:1390:U:P	20:BR:45:ARG:CG	2.32	1.15
1:A2:1457:C:O2	21:BS:136:GLN:HG2	1.41	1.15
1:A2:1242:A:H5'	18:BP:89:MET:CE	1.75	1.15
1:A2:1502:G:N7	22:BT:33:TYR:CE2	2.15	1.15
1:A2:599:A:N1	26:BX:126:LYS:HG3	1.60	1.15
1:A2:779:U:C5	27:BY:43:LYS:HE3	1.81	1.15
1:A2:780:A:C2	27:BY:32:ARG:CD	2.28	1.15
1:A2:57:G:N2	27:BY:115:ASP:N	1.94	1.15
1:A2:165:G:P	9:BG:15:THR:HA	1.79	1.15
1:A2:395:U:OP2	9:BG:91:GLU:HG2	1.46	1.15
1:A2:637:C:OP1	25:BW:111:MET:N	1.80	1.15
1:A2:1536:G:N2	8:BF:187:ILE:HG13	1.60	1.15
1:A2:1213:G:O2'	18:BP:78:THR:CA	1.94	1.15
1:A2:1236:A:C2'	18:BP:65:LEU:HD22	1.76	1.15
1:A2:1549:C:O5'	21:BS:86:LEU:HB2	1.36	1.15
1:A2:1367:G:O3'	22:BT:66:TYR:CD1	2.00	1.15
1:A2:346:G:C2'	11:BI:13:ALA:N	2.10	1.15
1:A2:346:G:N2	11:BI:11:ARG:HB3	1.52	1.15
1:A2:14:C:H4'	5:BC:203:LYS:NZ	1.60	1.15
1:A2:879:G:O2'	16:BN:111:ALA:CA	1.94	1.15
1:A2:139:C:C6	9:BG:140:ASN:HB2	1.35	1.14
1:A2:91:G:N7	27:BY:116:LYS:C	1.70	1.14
1:A2:311:U:H4'	26:BX:34:LEU:CA	1.69	1.14
1:A2:967:A:H1'	26:BX:7:ARG:CB	1.75	1.14
1:A2:703:G:H3'	7:BE:230:GLU:HB2	1.21	1.14
1:A2:1567:U:OP1	21:BS:34:THR:HG22	1.44	1.14
1:A2:1548:G:P	21:BS:100:THR:HG23	1.86	1.14
1:A2:1550:A:O5'	21:BS:84:TRP:CD1	1.99	1.14
1:A2:959:U:O2'	25:BW:56:HIS:CB	1.95	1.14
1:A2:958:U:O2'	25:BW:57:ARG:NE	1.80	1.14
1:A2:915:A:C2	17:BO:27:PHE:CZ	2.35	1.14
1:A2:1083:G:N2	5:BC:161:LYS:CD	2.05	1.14
1:A2:137:U:C3'	9:BG:143:LYS:CG	2.22	1.14
1:A2:804:A:C5'	25:BW:121:VAL:N	2.09	1.14
1:A2:632:U:P	26:BX:12:ALA:CB	2.35	1.14
1:A2:1146:G:N3	5:BC:93:GLY:CA	2.08	1.14
1:A2:734:A:C2	7:BE:180:LEU:HD22	1.79	1.14
1:A2:334:G:OP2	11:BI:26:LYS:NZ	1.79	1.14
1:A2:301:A:C8	7:BE:2:ALA:O	1.98	1.14

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:782:U:C5'	27:BY:39:GLU:HA	1.78	1.14
1:A2:450:U:H6	27:BY:109:LYS:HE3	1.08	1.14
1:A2:139:C:C5'	9:BG:141:ILE:HB	1.73	1.14
1:A2:859:A:N6	10:BH:111:LYS:HG2	1.59	1.14
1:A2:164:A:P	9:BG:2:LYS:CG	2.34	1.14
1:A2:139:C:H3'	9:BG:138:ALA:CB	1.73	1.14
1:A2:1722:A:N3	9:BG:70:PRO:HD2	1.62	1.14
1:A2:90:C:N3	27:BY:115:ASP:O	1.75	1.14
1:A2:633:U:OP1	14:BL:98:ASN:N	1.80	1.14
1:A2:740:A:N1	7:BE:198:LYS:CG	2.09	1.14
1:A2:1558:U:OP1	21:BS:127:HIS:NE2	1.79	1.14
1:A2:1553:G:H5''	18:BP:43:ARG:NE	1.62	1.14
1:A2:1498:G:C5	22:BT:102:ARG:HD3	1.81	1.14
1:A2:1503:A:H3'	22:BT:37:VAL:CB	1.68	1.14
1:A2:887:A:N1	17:BO:125:SER:OG	1.76	1.14
1:A2:783:G:OP2	27:BY:38:ASP:O	1.64	1.14
1:A2:85:A:H2'	27:BY:126:ALA:N	1.63	1.14
1:A2:632:U:C1'	26:BX:15:LEU:HB2	1.77	1.14
1:A2:636:A:H5''	25:BW:126:LEU:H	0.98	1.14
1:A2:1037:C:C3'	25:BW:19:LYS:HE2	1.77	1.14
1:A2:1390:U:OP1	20:BR:49:LYS:HD3	1.45	1.14
1:A2:1473:U:O2	8:BF:113:ILE:HG23	0.98	1.14
1:A2:1558:U:C4	21:BS:122:HIS:C	2.21	1.14
1:A2:1503:A:C3'	22:BT:37:VAL:HB	1.78	1.14
1:A2:952:A:HO3'	16:BN:4:MET:HG3	0.99	1.14
1:A2:18:C:O3'	26:BX:114:LYS:HA	1.45	1.14
1:A2:300:A:N6	7:BE:5:PRO:N	1.95	1.14
1:A2:997:G:O3'	1:A2:998:A:P	2.06	1.14
1:A2:397:A:C5'	9:BG:88:ARG:HG3	1.76	1.14
1:A2:162:A:O2'	9:BG:58:LYS:HE2	1.47	1.14
1:A2:86:A:C5'	27:BY:125:LEU:HD12	1.68	1.14
1:A2:397:A:H5'	9:BG:88:ARG:HG3	1.15	1.14
1:A2:1102:G:C1'	26:BX:7:ARG:NE	2.11	1.14
1:A2:436:A:C6	26:BX:50:LYS:HD2	1.81	1.14
1:A2:1533:C:P	28:BZ:77:ARG:NH1	2.16	1.14
1:A2:1533:C:O4'	28:BZ:77:ARG:NH2	1.80	1.14
1:A2:1536:G:N1	8:BF:187:ILE:HG12	1.61	1.14
1:A2:1546:G:N2	21:BS:38:VAL:N	1.95	1.14
1:A2:649:U:C4'	7:BE:252:ARG:CZ	2.13	1.14
1:A2:1520:U:H5'	22:BT:75:LYS:O	1.42	1.14
1:A2:80:A:N6	9:BG:168:THR:HA	1.63	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1682:U:C4'	9:BG:102:VAL:CG1	2.25	1.13
1:A2:396:G:C3'	9:BG:88:ARG:HB2	1.61	1.13
1:A2:163:G:C4	9:BG:2:LYS:CB	2.31	1.13
1:A2:632:U:O5'	26:BX:12:ALA:CB	1.96	1.13
1:A2:806:A:C5'	25:BW:81:VAL:CG2	2.19	1.13
1:A2:1327:C:C3'	6:BD:159:HIS:HA	1.77	1.13
1:A2:1300:A:O5'	5:BC:85:PRO:CA	1.91	1.13
1:A2:698:U:H3'	7:BE:197:HIS:CE1	1.83	1.13
1:A2:1213:G:O2'	18:BP:78:THR:HA	1.46	1.13
1:A2:1418:G:O5'	19:BQ:128:LYS:HD2	1.10	1.13
1:A2:1098:U:O4'	5:BC:170:ILE:N	1.80	1.13
1:A2:59:C:OP1	27:BY:111:LYS:HD3	0.99	1.13
1:A2:57:G:N2	27:BY:112:LYS:O	1.81	1.13
1:A2:91:G:C3'	27:BY:116:LYS:NZ	2.09	1.13
1:A2:1103:U:H1'	26:BX:5:LYS:HB2	1.17	1.13
1:A2:866:G:C5'	25:BW:3:ARG:HA	1.76	1.13
1:A2:1534:G:H2'	28:BZ:62:VAL:O	1.46	1.13
1:A2:1502:G:C2'	22:BT:37:VAL:HG21	1.73	1.13
2:AZ:6107:U:C5'	8:BF:223:SER:H	1.62	1.13
2:AZ:6108:U:O2	8:BF:223:SER:HA	1.44	1.13
1:A2:382:C:H4'	12:BJ:2:PRO:HG3	1.18	1.13
1:A2:1344:A:H5'	23:BU:53:LYS:CG	1.60	1.13
1:A2:399:A:O3'	1:A2:400:A:P	2.06	1.13
1:A2:457:G:C2	27:BY:106:GLN:C	2.20	1.13
1:A2:57:G:C2	27:BY:112:LYS:O	2.01	1.13
1:A2:451:A:C2	27:BY:111:LYS:HB3	1.84	1.13
1:A2:1102:G:C1'	26:BX:7:ARG:HD2	1.79	1.13
1:A2:1403:C:H5'	20:BR:2:GLY:O	1.46	1.13
1:A2:1534:G:O2'	28:BZ:63:SER:CA	1.96	1.13
1:A2:1503:A:N9	22:BT:37:VAL:N	1.96	1.13
1:A2:897:C:C4	17:BO:38:THR:HG21	1.84	1.13
1:A2:901:G:C5'	17:BO:86:THR:CG2	2.27	1.13
1:A2:18:C:O3'	26:BX:114:LYS:CA	1.94	1.13
1:A2:597:G:O2'	26:BX:136:TRP:HE3	1.32	1.13
1:A2:370:A:H4'	12:BJ:14:THR:N	1.64	1.13
1:A2:755:A:N3	12:BJ:3:ARG:N	1.90	1.13
1:A2:1096:C:H2'	5:BC:166:THR:OG1	1.49	1.13
1:A2:1083:G:N2	5:BC:161:LYS:HE2	1.58	1.13
1:A2:1084:A:C2'	5:BC:164:SER:HA	1.78	1.13
1:A2:1009:U:P	17:BO:129:LYS:CE	2.35	1.13
14:BL:78:THR:HG22	14:BL:84:ILE:CG2	1.78	1.13

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:814:A:C8	10:BH:108:GLN:CB	2.29	1.13
1:A2:266:A:C2	9:BG:136:LYS:N	2.16	1.13
1:A2:138:A:C3'	9:BG:143:LYS:N	2.11	1.13
1:A2:436:A:C8	26:BX:101:GLU:OE2	2.02	1.13
1:A2:733:A:H1'	7:BE:194:THR:OG1	1.48	1.13
1:A2:1401:A:OP1	20:BR:10:LYS:CA	1.95	1.13
1:A2:1458:G:H1'	21:BS:126:ARG:NH2	1.60	1.13
1:A2:29:U:H3	26:BX:131:SER:CB	1.56	1.13
1:A2:1280:C:C5'	23:BU:69:LYS:C	2.13	1.13
1:A2:1520:U:OP2	22:BT:75:LYS:C	1.86	1.13
1:A2:137:U:P	9:BG:143:LYS:HE3	1.89	1.13
1:A2:1367:G:C2'	22:BT:66:TYR:OH	1.94	1.13
1:A2:3:U:N3	12:BJ:19:TYR:CD1	2.04	1.13
1:A2:786:C:N4	27:BY:59:GLY:O	1.82	1.12
1:A2:859:A:C3'	10:BH:101:LYS:CE	2.15	1.12
1:A2:1682:U:H3'	9:BG:52:ILE:CD1	1.78	1.12
1:A2:741:C:H5''	7:BE:201:HIS:C	1.68	1.12
1:A2:738:G:C8	7:BE:157:ASN:CG	2.04	1.12
1:A2:832:U:H5''	9:BG:212:LEU:C	1.70	1.12
1:A2:1535:U:C4'	8:BF:187:ILE:HD13	1.76	1.12
2:AZ:6220:U:O2	6:BD:143:ARG:HD3	1.39	1.12
1:A2:756:A:H5'	7:BE:23:LEU:HD11	1.26	1.12
1:A2:1601:G:O3'	22:BT:90:PRO:HD3	1.50	1.12
1:A2:331:A:N7	11:BI:31:ARG:CG	2.10	1.12
1:A2:799:A:O3'	7:BE:186:GLY:HA2	1.47	1.12
1:A2:880:C:O2'	16:BN:101:HIS:NE2	1.81	1.12
1:A2:464:A:O3'	1:A2:465:G:P	2.07	1.12
1:A2:804:A:C4	25:BW:83:ILE:N	2.06	1.12
1:A2:1102:G:C1'	26:BX:7:ARG:CD	2.26	1.12
1:A2:1033:C:H2'	26:BX:2:GLY:O	0.96	1.12
1:A2:738:G:O3'	7:BE:156:VAL:HG13	1.49	1.12
1:A2:704:C:OP2	7:BE:233:LYS:HE2	1.36	1.12
1:A2:1213:G:C3'	18:BP:77:ARG:HD3	1.80	1.12
1:A2:1504:G:H5''	22:BT:39:THR:N	1.55	1.12
1:A2:920:U:O2'	4:BB:216:LYS:HE3	1.41	1.12
1:A2:92:A:H8	27:BY:116:LYS:NZ	1.38	1.12
1:A2:168:A:O3'	9:BG:132:ARG:HD3	1.48	1.12
1:A2:163:G:P	9:BG:56:ASN:O	2.06	1.12
1:A2:352:A:N6	26:BX:20:ARG:NH2	1.97	1.12
1:A2:736:C:C5	7:BE:225:VAL:CG1	2.33	1.12
1:A2:1310:U:O2'	20:BR:4:VAL:HG12	1.49	1.12

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1240:U:H3'	18:BP:104:GLN:HG2	1.31	1.12
1:A2:1175:U:C5	21:BS:140:THR:CG2	2.32	1.12
1:A2:1547:A:C3'	21:BS:87:ASN:OD1	1.95	1.12
2:AZ:6221:U:O2'	6:BD:114:ALA:HB2	1.46	1.12
1:A2:946:U:O3'	4:BB:158:SER:HB3	1.41	1.12
1:A2:778:G:H21	27:BY:32:ARG:HB3	0.95	1.12
1:A2:783:G:C2	27:BY:40:LEU:HD22	1.83	1.12
1:A2:137:U:H3'	9:BG:143:LYS:HG3	1.14	1.12
1:A2:138:A:H8	9:BG:135:PRO:CG	1.61	1.12
1:A2:858:G:C4	10:BH:102:PRO:HB3	1.74	1.12
1:A2:266:A:H2	9:BG:136:LYS:N	1.47	1.12
1:A2:141:U:H2'	9:BG:158:ILE:CG2	1.78	1.12
1:A2:631:G:H8	26:BX:13:ARG:HG3	1.15	1.12
1:A2:863:A:H5'	25:BW:6:VAL:HB	1.18	1.12
1:A2:1298:U:H2'	5:BC:99:LYS:HD2	1.18	1.12
1:A2:703:G:N7	7:BE:230:GLU:CG	2.12	1.12
1:A2:1473:U:H2'	8:BF:190:ILE:HG13	1.32	1.12
2:AZ:6220:U:H2'	6:BD:143:ARG:N	1.29	1.12
1:A2:1502:G:P	22:BT:33:TYR:HD1	1.73	1.12
1:A2:1546:G:OP1	21:BS:109:LEU:HD13	1.49	1.12
1:A2:959:U:H5''	25:BW:59:GLY:HA2	1.13	1.12
1:A2:600:U:C6	26:BX:105:ALA:HB3	1.84	1.12
1:A2:600:U:N1	26:BX:105:ALA:HB3	1.63	1.12
1:A2:116:U:H3	7:BE:4:GLY:HA3	1.12	1.12
4:BB:119:THR:HG1	4:BB:156:ALA:N	1.47	1.12
1:A2:1040:G:H5'	24:BV:62:ARG:CD	1.78	1.12
1:A2:859:A:N6	10:BH:111:LYS:CB	2.13	1.12
1:A2:137:U:O3'	9:BG:143:LYS:HG2	1.43	1.12
1:A2:88:U:H5''	27:BY:119:PHE:CG	1.80	1.12
1:A2:78:A:N1	9:BG:160:ARG:HG2	1.65	1.12
1:A2:859:A:C2'	10:BH:101:LYS:HE3	1.80	1.12
1:A2:129:U:N3	9:BG:177:ARG:NE	1.98	1.12
1:A2:57:G:O3'	27:BY:114:ARG:NH1	1.79	1.12
1:A2:967:A:C4	26:BX:8:GLY:N	2.18	1.12
1:A2:1067:C:C5'	3:BA:31:VAL:HG13	1.79	1.12
1:A2:917:U:C5'	17:BO:120:PRO:HD2	1.79	1.12
1:A2:955:A:C2	16:BN:11:ILE:CD1	2.28	1.12
1:A2:1:U:O3'	12:BJ:14:THR:HB	1.45	1.12
1:A2:597:G:C4'	26:BX:137:LYS:CD	2.27	1.12
2:AZ:6219:U:C2'	6:BD:144:ALA:HA	1.61	1.12
1:A2:457:G:H1'	27:BY:114:ARG:HH22	1.03	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:168:A:C4'	9:BG:132:ARG:CD	2.25	1.11
1:A2:458:G:C8	27:BY:107:GLN:CD	2.23	1.11
1:A2:139:C:H5'	9:BG:141:ILE:HB	1.19	1.11
1:A2:78:A:N1	9:BG:162:VAL:HB	1.64	1.11
1:A2:862:A:O3'	1:A2:863:A:P	2.08	1.11
1:A2:1301:U:C3'	5:BC:97:ARG:NH1	1.99	1.11
1:A2:346:G:C6	11:BI:15:GLY:HA2	1.84	1.11
14:BL:58:CYS:HG	14:BL:60:PHE:N	1.48	1.11
1:A2:811:A:N3	10:BH:107:ARG:HA	1.64	1.11
1:A2:90:C:N4	27:BY:116:LYS:C	2.02	1.11
1:A2:858:G:N1	10:BH:108:GLN:HG3	1.65	1.11
1:A2:1300:A:H4'	5:BC:85:PRO:HB2	1.30	1.11
1:A2:241:U:H5''	7:BE:149:TYR:CD2	1.84	1.11
1:A2:1184:A:OP2	18:BP:124:THR:OG1	1.66	1.11
1:A2:1553:G:O6	18:BP:39:ALA:HB3	1.49	1.11
1:A2:887:A:H2'	17:BO:124:ASP:H	0.97	1.11
1:A2:598:U:C2	26:BX:132:LEU:CB	2.32	1.11
1:A2:325:G:C1'	14:BL:133:LYS:HA	1.79	1.11
1:A2:1591:C:P	22:BT:92:LYS:C	2.29	1.11
1:A2:137:U:P	9:BG:143:LYS:CE	2.38	1.11
1:A2:149:C:H5''	27:BY:130:ALA:HB2	1.29	1.11
1:A2:1674:C:O3'	9:BG:76:LEU:CD1	1.72	1.11
1:A2:1299:G:C3'	5:BC:84:LYS:O	1.97	1.11
1:A2:741:C:O4'	7:BE:200:ARG:HB3	1.49	1.11
1:A2:1573:A:N6	8:BF:184:PHE:CE1	2.17	1.11
1:A2:1240:U:C1'	18:BP:76:VAL:H	1.63	1.11
1:A2:1098:U:H1'	5:BC:170:ILE:N	1.63	1.11
1:A2:776:G:O5'	27:BY:62:THR:HG23	1.49	1.11
1:A2:782:U:O5'	27:BY:39:GLU:HG3	1.45	1.11
1:A2:776:G:H1'	27:BY:62:THR:N	1.64	1.11
1:A2:141:U:H2'	9:BG:158:ILE:HG22	1.21	1.11
1:A2:56:U:H3	27:BY:113:ASN:ND2	1.47	1.11
1:A2:215:A:H5''	7:BE:130:GLN:HG2	1.31	1.11
1:A2:1557:U:O2'	21:BS:123:ARG:HA	1.47	1.11
1:A2:1564:U:O3'	21:BS:85:PHE:CZ	2.02	1.11
1:A2:916:U:H3'	17:BO:84:ARG:NH2	1.63	1.11
1:A2:917:U:H6	17:BO:84:ARG:NE	1.15	1.11
3:BA:50:VAL:HA	20:BR:105:GLN:HB3	1.32	1.11
1:A2:1280:C:H5''	23:BU:69:LYS:C	1.54	1.11
1:A2:946:U:C5'	4:BB:158:SER:OG	1.98	1.11
1:A2:778:G:P	27:BY:30:PRO:HD2	1.91	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:776:G:C2'	27:BY:29:HIS:NE2	1.91	1.11
1:A2:785:U:H2'	27:BY:70:VAL:C	1.69	1.11
1:A2:152:U:O4	27:BY:135:ASP:CB	1.99	1.11
1:A2:242:U:O4	7:BE:137:PRO:HD2	1.49	1.11
1:A2:1609:U:OP1	19:BQ:75:VAL:N	1.83	1.11
1:A2:1242:A:O2'	18:BP:56:PHE:CD1	1.67	1.11
1:A2:1243:G:H5''	18:BP:56:PHE:O	1.36	1.11
1:A2:1555:A:H8	18:BP:40:ARG:CG	1.64	1.11
1:A2:1547:A:H3'	21:BS:87:ASN:OD1	1.30	1.11
1:A2:1548:G:H2'	21:BS:86:LEU:CB	1.59	1.11
1:A2:688:G:OP2	12:BJ:66:ASP:HA	1.48	1.11
1:A2:599:A:C2	26:BX:103:LEU:HD12	1.85	1.11
1:A2:340:U:C5	11:BI:3:ILE:HG23	1.84	1.11
1:A2:458:G:H22	27:BY:105:ARG:HG2	1.04	1.10
1:A2:266:A:C5'	9:BG:136:LYS:HE2	1.80	1.10
1:A2:137:U:O3'	9:BG:143:LYS:CG	1.92	1.10
1:A2:310:C:C3'	26:BX:33:LEU:HD23	1.76	1.10
1:A2:632:U:H2'	14:BL:99:ARG:CD	1.80	1.10
1:A2:1389:C:H5''	20:BR:45:ARG:CG	1.75	1.10
1:A2:1068:C:H5'	3:BA:33:GLN:HB2	1.31	1.10
1:A2:1281:G:OP1	23:BU:78:THR:N	1.83	1.10
1:A2:1096:C:OP2	5:BC:168:ARG:HG3	1.48	1.10
1:A2:395:U:C4'	9:BG:91:GLU:OE2	1.99	1.10
1:A2:702:G:O6	7:BE:195:ILE:HD12	1.52	1.10
1:A2:215:A:C5'	7:BE:132:GLY:N	2.14	1.10
1:A2:1390:U:C5	20:BR:3:ARG:CD	2.34	1.10
1:A2:1535:U:C5	8:BF:187:ILE:N	2.00	1.10
1:A2:1458:G:OP1	21:BS:138:THR:HB	1.51	1.10
1:A2:1503:A:N3	22:BT:36:ILE:CB	2.15	1.10
1:A2:1505:A:N3	21:BS:84:TRP:CE3	2.19	1.10
1:A2:1358:G:P	22:BT:130:ARG:HG3	1.90	1.10
1:A2:1625:C:OP2	5:BC:91:ARG:NH2	1.84	1.10
1:A2:776:G:H21	27:BY:27:VAL:HB	0.99	1.10
1:A2:786:C:H3'	27:BY:70:VAL:HG11	1.33	1.10
1:A2:452:A:N6	27:BY:115:ASP:OD2	1.83	1.10
1:A2:397:A:O2'	9:BG:88:ARG:NH2	1.83	1.10
1:A2:137:U:O5'	9:BG:143:LYS:HE3	1.42	1.10
1:A2:864:U:H3'	25:BW:8:ALA:O	1.48	1.10
1:A2:1108:G:N2	26:BX:27:ASN:H	1.46	1.10
1:A2:1144:U:C2	5:BC:89:GLN:HG2	1.58	1.10
1:A2:1553:G:O6	18:BP:39:ALA:HB1	1.27	1.10

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1563:C:C5'	22:BT:38:LYS:NZ	2.09	1.10
1:A2:1566:U:C5'	21:BS:30:TYR:HA	1.81	1.10
1:A2:1056:U:H5'	3:BA:46:HIS:NE2	0.91	1.10
1:A2:887:A:H1'	17:BO:124:ASP:OD1	1.43	1.10
1:A2:601:A:OP1	26:BX:43:PHE:HE2	1.32	1.10
1:A2:1096:C:C2'	5:BC:200:SER:O	1.98	1.10
1:A2:1040:G:H5''	24:BV:62:ARG:NE	1.66	1.10
1:A2:139:C:O5'	9:BG:141:ILE:N	1.82	1.10
1:A2:859:A:N6	10:BH:111:LYS:HB3	1.66	1.10
1:A2:139:C:OP1	9:BG:142:ARG:HG3	1.51	1.10
1:A2:1673:G:O3'	9:BG:94:ARG:CD	1.99	1.10
1:A2:58:U:H5'	27:BY:114:ARG:NH2	1.67	1.10
1:A2:75:U:N1	9:BG:166:GLU:N	1.97	1.10
1:A2:179:A:H3'	9:BG:187:LYS:HD3	1.29	1.10
1:A2:633:U:C6	14:BL:99:ARG:HG2	1.83	1.10
1:A2:1457:C:N1	21:BS:136:GLN:N	1.98	1.10
1:A2:1548:G:H1'	21:BS:99:HIS:ND1	1.65	1.10
1:A2:960:U:H6	25:BW:57:ARG:HD2	1.09	1.10
1:A2:873:U:H3	16:BN:10:GLY:CA	1.65	1.10
1:A2:1480:G:C5'	22:BT:11:ALA:HB1	1.81	1.10
1:A2:878:G:H2'	16:BN:114:ARG:HH12	0.99	1.10
1:A2:208:U:O2'	11:BI:55:TYR:CE1	2.05	1.10
1:A2:209:U:C5'	11:BI:53:LYS:HB3	1.65	1.10
1:A2:139:C:C6	9:BG:140:ASN:CB	2.25	1.10
1:A2:1144:U:N1	5:BC:89:GLN:HG3	1.66	1.10
1:A2:1401:A:H5'	20:BR:10:LYS:H	1.06	1.10
1:A2:1389:C:C5'	20:BR:45:ARG:HG3	1.75	1.10
1:A2:1498:G:C8	22:BT:73:VAL:HG21	1.78	1.10
1:A2:1548:G:C2'	21:BS:86:LEU:HA	1.80	1.10
1:A2:28:A:N1	26:BX:131:SER:CA	2.15	1.10
1:A2:338:C:C4	11:BI:29:LEU:HA	1.85	1.10
1:A2:1007:C:H4'	17:BO:137:LEU:HG	1.13	1.10
1:A2:641:G:OP1	25:BW:118:ARG:HD2	1.37	1.10
1:A2:1732:A:O3'	1:A2:1733:C:P	2.09	1.09
1:A2:1301:U:C4	5:BC:118:ALA:C	2.25	1.09
1:A2:1301:U:C4	5:BC:118:ALA:CA	2.35	1.09
1:A2:736:C:C5'	7:BE:226:PHE:HB3	1.80	1.09
1:A2:1535:U:H5	8:BF:186:ASN:HB3	1.13	1.09
1:A2:1137:A:C5'	26:BX:64:PRO:HD3	1.83	1.09
1:A2:1368:G:H5''	22:BT:66:TYR:O	1.50	1.09
1:A2:1096:C:O2'	5:BC:200:SER:HA	1.47	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1083:G:N9	5:BC:161:LYS:O	1.85	1.09
1:A2:1084:A:C8	5:BC:161:LYS:O	2.04	1.09
1:A2:105:A:OP1	11:BI:21:PHE:CB	2.00	1.09
1:A2:780:A:C2	27:BY:32:ARG:HD2	1.85	1.09
1:A2:1721:A:N6	9:BG:68:LEU:CA	1.97	1.09
1:A2:1722:A:O5'	9:BG:73:ILE:HG12	1.49	1.09
1:A2:1680:G:C5'	9:BG:31:ARG:HH22	1.58	1.09
1:A2:164:A:OP2	9:BG:2:LYS:CB	1.95	1.09
1:A2:703:G:C2	7:BE:179:LYS:HB3	1.79	1.09
1:A2:740:A:C2	7:BE:200:ARG:CA	2.35	1.09
1:A2:741:C:N4	7:BE:206:ASP:HA	1.37	1.09
1:A2:1530:C:H42	28:BZ:96:SER:HB2	1.00	1.09
2:AZ:6220:U:O4	6:BD:141:LYS:O	1.70	1.09
1:A2:1505:A:C5'	22:BT:41:SER:HB3	1.81	1.09
1:A2:1503:A:N3	22:BT:36:ILE:CD1	2.16	1.09
1:A2:920:U:C5'	4:BB:214:LYS:HD3	1.81	1.09
1:A2:921:U:H5''	4:BB:138:PHE:HE2	1.16	1.09
1:A2:1008:G:OP2	17:BO:135:ARG:HA	1.43	1.09
19:BQ:7:VAL:HB	19:BQ:96:TYR:HE1	1.16	1.09
1:A2:140:A:H5'	9:BG:153:VAL:HG12	1.35	1.09
1:A2:282:C:OP1	9:BG:154:ARG:CG	2.01	1.09
1:A2:218:A:H5'	7:BE:152:PRO:O	1.51	1.09
1:A2:2:A:N3	12:BJ:16:LYS:CB	2.14	1.09
12:BJ:42:ILE:C	12:BJ:43:TYR:HA	1.72	1.09
1:A2:1601:G:P	22:BT:86:ARG:NE	2.25	1.09
1:A2:879:G:HO2'	16:BN:111:ALA:CA	1.65	1.09
1:A2:1497:U:H5'	22:BT:77:ASN:ND2	1.67	1.09
1:A2:778:G:C2'	27:BY:32:ARG:NH2	2.15	1.09
1:A2:458:G:C5'	27:BY:110:GLN:HE22	1.52	1.09
1:A2:863:A:C4	25:BW:7:LEU:N	2.17	1.09
1:A2:215:A:C5'	7:BE:130:GLN:HG2	1.80	1.09
1:A2:215:A:H4'	7:BE:131:LEU:C	1.73	1.09
1:A2:1501:C:H5	22:BT:33:TYR:OH	1.15	1.09
1:A2:1601:G:C3'	22:BT:90:PRO:HD3	1.82	1.09
1:A2:1358:G:H5'	22:BT:130:ARG:HG2	1.34	1.09
1:A2:1084:A:H8	5:BC:161:LYS:O	1.36	1.09
1:A2:76:A:H5''	9:BG:165:GLY:O	1.47	1.09
1:A2:1674:C:O3'	9:BG:76:LEU:HD12	1.18	1.09
1:A2:456:A:N1	27:BY:108:ARG:CA	2.14	1.09
1:A2:862:A:H5'	25:BW:32:LYS:HA	1.12	1.09
1:A2:1144:U:C3'	5:BC:88:LYS:HA	1.80	1.09

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1555:A:C8	18:BP:40:ARG:CG	2.36	1.09
1:A2:1567:U:OP1	21:BS:34:THR:HG23	1.48	1.09
1:A2:1498:G:H4'	22:BT:72:GLY:O	0.91	1.09
1:A2:920:U:O2'	4:BB:216:LYS:HE2	1.34	1.09
1:A2:898:A:O4'	17:BO:41:ARG:HG2	1.50	1.09
1:A2:600:U:H5'	26:BX:104:LEU:HD22	1.31	1.09
1:A2:1479:A:H5'	22:BT:16:ASN:HD21	1.11	1.09
1:A2:1281:G:O5'	23:BU:68:ARG:NH2	1.86	1.09
2:AZ:6221:U:H3'	6:BD:114:ALA:HB1	1.20	1.09
1:A2:1192:C:C5'	19:BQ:141:SER:HB2	1.82	1.09
1:A2:946:U:H5''	4:BB:158:SER:OG	1.53	1.09
1:A2:1721:A:H62	9:BG:68:LEU:HA	1.15	1.08
1:A2:395:U:H3'	9:BG:91:GLU:OE2	1.37	1.08
1:A2:163:G:O3'	9:BG:108:VAL:HA	1.52	1.08
1:A2:698:U:C3'	7:BE:197:HIS:HE1	1.64	1.08
1:A2:1056:U:C6	3:BA:40:ALA:CB	2.35	1.08
1:A2:889:U:P	17:BO:89:THR:HA	1.93	1.08
1:A2:324:U:H5'	11:BI:11:ARG:C	1.72	1.08
2:AZ:6219:U:C6	6:BD:144:ALA:HB1	1.88	1.08
1:A2:1684:U:C5	9:BG:51:LYS:HE2	1.87	1.08
1:A2:1520:U:H5''	22:BT:75:LYS:HD2	1.30	1.08
1:A2:784:C:C4'	27:BY:7:ILE:HG21	1.51	1.08
1:A2:1720:G:H4'	9:BG:64:LYS:CA	1.49	1.08
1:A2:740:A:C5	7:BE:198:LYS:CE	2.35	1.08
1:A2:737:A:H4'	7:BE:158:ASP:O	1.53	1.08
1:A2:703:G:C8	7:BE:179:LYS:CE	2.19	1.08
1:A2:1389:C:O3'	20:BR:45:ARG:HG2	1.53	1.08
1:A2:1455:G:C8	18:BP:123:TYR:HE1	1.70	1.08
1:A2:1240:U:O3'	18:BP:104:GLN:HG2	1.53	1.08
1:A2:1500:C:H6	22:BT:103:LYS:HG3	1.13	1.08
1:A2:1480:G:C4'	22:BT:11:ALA:CB	2.30	1.08
1:A2:1281:G:H4'	23:BU:76:SER:O	1.51	1.08
2:AZ:6221:U:O3'	6:BD:114:ALA:HB1	1.45	1.08
1:A2:783:G:C5	27:BY:39:GLU:HB3	1.87	1.08
1:A2:267:U:OP1	9:BG:136:LYS:NZ	1.87	1.08
1:A2:57:G:N1	27:BY:116:LYS:N	1.70	1.08
1:A2:1679:G:N3	9:BG:68:LEU:HB2	1.60	1.08
1:A2:1680:G:C5'	9:BG:31:ARG:NH2	2.13	1.08
1:A2:609:U:N3	26:BX:28:ASN:CG	2.05	1.08
1:A2:609:U:C2	26:BX:28:ASN:CG	2.26	1.08
1:A2:1144:U:C2	5:BC:89:GLN:HG3	1.63	1.08

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:241:U:H5''	7:BE:149:TYR:CG	1.88	1.08
1:A2:241:U:OP1	9:BG:207:GLU:HB3	1.51	1.08
1:A2:741:C:C5'	7:BE:200:ARG:HD2	1.83	1.08
1:A2:1403:C:C5'	20:BR:2:GLY:C	2.18	1.08
1:A2:1242:A:OP2	18:BP:94:VAL:HG23	1.54	1.08
1:A2:1213:G:C6	18:BP:97:TYR:CE2	2.40	1.08
1:A2:1453:G:C2'	18:BP:120:SER:O	2.01	1.08
1:A2:1548:G:C4'	21:BS:98:TYR:O	2.00	1.08
1:A2:337:G:H3'	11:BI:6:ASP:C	1.74	1.08
1:A2:1383:G:OP2	23:BU:59:PRO:O	1.71	1.08
1:A2:880:C:H3'	1:A2:881:A:P	1.93	1.08
1:A2:785:U:C2'	27:BY:70:VAL:HA	1.84	1.08
1:A2:779:U:C4	27:BY:43:LYS:CE	2.36	1.08
1:A2:396:G:C4	9:BG:88:ARG:CD	2.32	1.08
1:A2:179:A:H1'	9:BG:184:LEU:CB	1.83	1.08
1:A2:631:G:O5'	26:BX:13:ARG:CA	2.01	1.08
1:A2:242:U:O4	7:BE:137:PRO:CD	2.01	1.08
1:A2:216:U:H3'	7:BE:129:VAL:HG22	1.29	1.08
1:A2:1389:C:H5''	20:BR:45:ARG:HG3	1.22	1.08
1:A2:1535:U:C5	8:BF:186:ASN:HB3	1.89	1.08
1:A2:1557:U:H6	21:BS:123:ARG:HD3	1.17	1.08
1:A2:920:U:C4'	4:BB:214:LYS:HD3	1.82	1.08
1:A2:953:G:N2	16:BN:9:LYS:H	1.36	1.08
1:A2:597:G:O4'	26:BX:137:LYS:CE	2.01	1.08
1:A2:336:G:N2	11:BI:24:LYS:HA	1.67	1.08
1:A2:1613:U:OP1	8:BF:84:LYS:HD3	0.90	1.08
1:A2:631:G:C8	26:BX:13:ARG:HG3	1.87	1.08
1:A2:1535:U:H5'	28:BZ:67:ASP:OD1	1.27	1.08
1:A2:1555:A:H5''	18:BP:40:ARG:HG2	1.26	1.08
1:A2:1563:C:H4'	22:BT:38:LYS:HZ2	1.11	1.08
2:AZ:6106:A:H1'	8:BF:223:SER:O	1.54	1.08
1:A2:960:U:C3'	1:A2:961:U:P	2.42	1.08
1:A2:29:U:H3	26:BX:131:SER:HB2	0.94	1.08
1:A2:597:G:H4'	26:BX:137:LYS:HD3	1.34	1.08
1:A2:599:A:H2	26:BX:103:LEU:HB3	1.19	1.08
1:A2:337:G:C2'	11:BI:9:HIS:CE1	2.36	1.08
1:A2:1086:A:C8	5:BC:203:LYS:CE	2.36	1.08
1:A2:1722:A:O4'	9:BG:71:THR:O	1.71	1.07
1:A2:458:G:H5'	27:BY:110:GLN:HE22	0.97	1.07
1:A2:1721:A:C5'	9:BG:64:LYS:HB2	1.83	1.07
1:A2:631:G:O5'	26:BX:13:ARG:HB2	1.50	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:864:U:H5''	25:BW:7:LEU:O	0.90	1.07
1:A2:242:U:O5'	7:BE:148:ARG:C	1.91	1.07
1:A2:1535:U:C5'	28:BZ:67:ASP:OD1	0.78	1.07
1:A2:1502:G:H2'	22:BT:37:VAL:HG23	1.14	1.07
1:A2:1053:G:O2'	3:BA:35:PRO:CD	1.95	1.07
1:A2:1055:U:H5'	3:BA:46:HIS:CA	1.83	1.07
1:A2:919:A:OP1	4:BB:107:THR:HG21	1.48	1.07
1:A2:960:U:H5'	25:BW:57:ARG:HA	1.34	1.07
1:A2:29:U:O4'	26:BX:129:GLY:N	1.86	1.07
1:A2:28:A:C6	26:BX:131:SER:HA	1.89	1.07
1:A2:754:A:OP2	7:BE:14:ALA:HB3	1.53	1.07
1:A2:1367:G:O2'	22:BT:66:TYR:CE1	1.96	1.07
1:A2:325:G:C1'	14:BL:133:LYS:CA	2.31	1.07
1:A2:1435:G:C2	13:BK:27:PHE:CE2	2.40	1.07
1:A2:879:G:O2'	16:BN:110:ASP:C	1.89	1.07
1:A2:1721:A:C5'	9:BG:64:LYS:HB3	1.82	1.07
1:A2:149:C:C3'	27:BY:130:ALA:HB3	1.83	1.07
1:A2:139:C:O2'	9:BG:137:ARG:HA	1.54	1.07
1:A2:863:A:C6	25:BW:5:SER:OG	2.07	1.07
1:A2:1298:U:H3'	5:BC:99:LYS:HB3	1.17	1.07
1:A2:215:A:C8	7:BE:138:TYR:N	2.20	1.07
1:A2:740:A:C6	7:BE:198:LYS:CE	2.36	1.07
1:A2:734:A:C8	7:BE:212:ASP:C	2.27	1.07
1:A2:1392:U:H5''	20:BR:29:GLN:N	1.66	1.07
1:A2:1455:G:C8	18:BP:123:TYR:CE1	2.36	1.07
1:A2:1498:G:H5''	22:BT:72:GLY:CA	1.84	1.07
1:A2:686:C:H5''	12:BJ:64:GLU:OE2	1.47	1.07
1:A2:896:U:H5'	17:BO:32:ASP:N	1.68	1.07
1:A2:783:G:H22	27:BY:35:VAL:HG21	0.94	1.07
1:A2:858:G:O2'	10:BH:103:SER:N	1.73	1.07
1:A2:127:G:C5	9:BG:186:ARG:N	2.17	1.07
1:A2:58:U:C6	27:BY:114:ARG:C	2.27	1.07
1:A2:58:U:O4'	27:BY:114:ARG:HB3	1.54	1.07
1:A2:88:U:O5'	27:BY:119:PHE:HB3	1.53	1.07
1:A2:1326:A:N3	6:BD:159:HIS:CE1	2.22	1.07
1:A2:1300:A:N3	5:BC:86:VAL:O	1.87	1.07
1:A2:1290:U:C3'	6:BD:151:LYS:HE3	1.85	1.07
1:A2:702:G:H1'	7:BE:174:LYS:HB2	1.31	1.07
1:A2:734:A:O3'	7:BE:244:ILE:HD13	1.54	1.07
1:A2:1402:G:H8	20:BR:5:ARG:CB	1.66	1.07
1:A2:1534:G:C2'	28:BZ:63:SER:CA	2.30	1.07

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1535:U:C5	8:BF:186:ASN:C	2.28	1.07
1:A2:1532:U:N1	28:BZ:77:ARG:CD	2.11	1.07
1:A2:1566:U:C1'	21:BS:38:VAL:O	2.03	1.07
1:A2:1498:G:C5'	22:BT:72:GLY:CA	2.33	1.07
1:A2:1053:G:O5'	3:BA:35:PRO:HB3	1.52	1.07
1:A2:888:U:O2'	17:BO:126:THR:O	1.73	1.07
1:A2:548:G:O5'	26:BX:137:LYS:HA	1.41	1.07
1:A2:18:C:C3'	26:BX:115:GLY:H	1.67	1.07
1:A2:338:C:H42	11:BI:29:LEU:C	1.51	1.07
1:A2:325:G:C1'	14:BL:133:LYS:HB2	1.79	1.07
1:A2:1040:G:H5'	24:BV:62:ARG:HD2	1.31	1.07
1:A2:47:A:O3'	1:A2:48:G:P	2.12	1.07
1:A2:396:G:N7	9:BG:91:GLU:CB	2.16	1.07
1:A2:397:A:H3'	1:A2:398:G:P	1.93	1.07
1:A2:396:G:H3'	9:BG:88:ARG:HB2	1.35	1.07
1:A2:633:U:OP2	14:BL:99:ARG:CB	2.03	1.07
1:A2:865:A:O5'	25:BW:8:ALA:HB3	1.53	1.07
1:A2:1327:C:H2'	6:BD:159:HIS:HB3	1.36	1.07
1:A2:699:U:O2	7:BE:198:LYS:HG2	1.39	1.07
1:A2:735:C:C4	7:BE:194:THR:HA	1.87	1.07
1:A2:1318:G:OP2	20:BR:11:ARG:HG3	1.53	1.07
1:A2:1237:G:N3	18:BP:66:ALA:CB	2.18	1.07
1:A2:1056:U:C5	3:BA:40:ALA:HB2	1.89	1.07
1:A2:759:U:O2	12:BJ:8:TYR:N	1.63	1.07
1:A2:468:A:H8	26:BX:140:LYS:HE3	1.08	1.07
1:A2:346:G:C2	11:BI:11:ARG:CB	2.31	1.07
1:A2:1084:A:H1'	5:BC:161:LYS:HE3	1.09	1.07
1:A2:799:A:O2'	7:BE:186:GLY:CA	2.03	1.07
1:A2:78:A:C6	9:BG:160:ARG:HG2	1.88	1.07
1:A2:1721:A:O2'	9:BG:98:ARG:HA	1.51	1.07
1:A2:456:A:N6	27:BY:108:ARG:HG2	0.75	1.07
1:A2:1103:U:O2	26:BX:5:LYS:HB3	1.54	1.07
1:A2:804:A:C5'	25:BW:120:HIS:C	2.21	1.07
1:A2:219:A:OP2	7:BE:153:ASN:OD1	1.71	1.07
1:A2:1402:G:H2'	20:BR:3:ARG:O	1.54	1.07
1:A2:1528:U:O2'	19:BQ:42:GLU:HB2	1.53	1.07
1:A2:959:U:O2'	25:BW:56:HIS:CA	2.03	1.07
1:A2:1428:G:N2	23:BU:74:GLU:HB2	1.58	1.07
1:A2:950:C:C3'	16:BN:94:LYS:HE2	1.66	1.07
1:A2:787:G:N2	27:BY:61:ARG:HD2	1.63	1.06
1:A2:89:G:N7	27:BY:120:GLY:N	1.95	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:140:A:OP2	9:BG:175:ILE:HD11	1.55	1.06
1:A2:864:U:H5'	25:BW:6:VAL:C	1.75	1.06
1:A2:436:A:C4	26:BX:50:LYS:HD2	1.90	1.06
1:A2:435:C:OP1	26:BX:77:ILE:HD11	1.52	1.06
1:A2:1300:A:C4	5:BC:86:VAL:C	2.29	1.06
1:A2:245:U:O4	7:BE:128:LYS:HD2	0.90	1.06
1:A2:1243:G:O2'	18:BP:53:PRO:HB2	1.54	1.06
1:A2:920:U:C3'	4:BB:214:LYS:CD	2.33	1.06
1:A2:1334:U:H4'	23:BU:83:GLU:CD	1.74	1.06
1:A2:324:U:H5'	11:BI:11:ARG:O	1.28	1.06
1:A2:1591:C:OP2	22:BT:92:LYS:C	1.93	1.06
1:A2:1680:G:H1'	9:BG:68:LEU:HA	1.34	1.06
1:A2:138:A:C4	9:BG:140:ASN:CA	2.38	1.06
1:A2:57:G:H1	27:BY:115:ASP:C	1.56	1.06
1:A2:631:G:O5'	26:BX:13:ARG:HA	1.55	1.06
1:A2:632:U:C1'	26:BX:15:LEU:CB	2.32	1.06
1:A2:1299:G:N9	5:BC:86:VAL:CG1	2.18	1.06
1:A2:1534:G:C2'	28:BZ:62:VAL:O	1.81	1.06
1:A2:1176:G:OP1	21:BS:137:HIS:CE1	2.08	1.06
1:A2:1184:A:N1	18:BP:123:TYR:CE2	2.24	1.06
1:A2:1558:U:O4	21:BS:122:HIS:CA	2.01	1.06
1:A2:1566:U:H5'	21:BS:30:TYR:O	1.55	1.06
1:A2:1500:C:OP2	22:BT:103:LYS:N	1.64	1.06
2:AZ:6106:A:O3'	2:AZ:6107:U:P	2.14	1.06
1:A2:889:U:P	17:BO:89:THR:N	2.27	1.06
1:A2:597:G:C5'	26:BX:137:LYS:CE	2.30	1.06
1:A2:1383:G:OP2	23:BU:60:THR:N	1.87	1.06
1:A2:878:G:H2'	16:BN:114:ARG:NH1	1.71	1.06
1:A2:776:G:C3'	27:BY:29:HIS:HE1	1.65	1.06
1:A2:444:C:O2	27:BY:104:SER:CB	2.03	1.06
1:A2:91:G:C5	27:BY:116:LYS:C	2.28	1.06
1:A2:138:A:C4	9:BG:140:ASN:CB	2.37	1.06
1:A2:1720:G:H4'	9:BG:64:LYS:HA	1.35	1.06
1:A2:632:U:O4'	26:BX:15:LEU:CB	2.01	1.06
1:A2:632:U:C2'	14:BL:99:ARG:HD2	1.86	1.06
1:A2:634:G:H5''	25:BW:79:PHE:H	1.11	1.06
1:A2:736:C:H5'	7:BE:226:PHE:CB	1.72	1.06
1:A2:741:C:H5''	7:BE:200:ARG:HD2	1.38	1.06
1:A2:244:A:N7	7:BE:140:VAL:HG21	1.39	1.06
1:A2:242:U:OP2	7:BE:148:ARG:O	1.71	1.06
1:A2:1536:G:C2	8:BF:187:ILE:HG13	1.85	1.06

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:BF:96:SER:HG	8:BF:97:LEU:N	1.54	1.06
1:A2:1454:G:H2'	18:BP:123:TYR:CE1	1.91	1.06
1:A2:1548:G:O2'	21:BS:86:LEU:CD1	2.03	1.06
1:A2:952:A:C4'	16:BN:5:HIS:CG	2.36	1.06
1:A2:325:G:C1'	14:BL:133:LYS:CG	2.34	1.06
1:A2:325:G:O4'	14:BL:133:LYS:CG	2.02	1.06
1:A2:86:A:H5''	27:BY:125:LEU:HD12	1.36	1.06
1:A2:138:A:C8	9:BG:140:ASN:HB3	1.90	1.06
1:A2:1302:U:P	5:BC:95:ARG:HD2	1.95	1.06
1:A2:734:A:O3'	7:BE:244:ILE:CD1	2.03	1.06
1:A2:1453:G:O2'	18:BP:119:PHE:C	1.93	1.06
1:A2:1454:G:H1'	18:BP:121:ILE:HA	1.36	1.06
2:AZ:6220:U:C2	6:BD:143:ARG:CD	1.76	1.06
1:A2:953:G:N7	16:BN:3:ARG:HD2	1.69	1.06
1:A2:601:A:OP1	26:BX:122:PHE:CD1	2.08	1.06
1:A2:1281:G:H8	23:BU:70:THR:HG21	1.14	1.06
1:A2:1343:U:O2'	23:BU:56:VAL:CG2	2.04	1.06
1:A2:1523:G:C8	22:BT:79:LEU:HD21	1.88	1.06
1:A2:89:G:H22	27:BY:115:ASP:HB2	0.97	1.06
1:A2:138:A:C4	9:BG:140:ASN:HB3	1.90	1.06
1:A2:805:U:O2'	25:BW:81:VAL:HA	1.55	1.06
1:A2:311:U:C4'	26:BX:34:LEU:HA	1.84	1.06
1:A2:1145:U:C5'	5:BC:88:LYS:CE	2.32	1.06
1:A2:1298:U:O2	5:BC:208:GLU:CG	2.03	1.06
1:A2:1326:A:C4	6:BD:159:HIS:CE1	2.43	1.06
1:A2:239:C:H5'	9:BG:210:GLN:HG3	1.33	1.06
1:A2:1400:A:H5'	20:BR:53:TYR:OH	0.90	1.06
1:A2:1176:G:P	21:BS:137:HIS:CE1	2.49	1.06
1:A2:1546:G:C1'	21:BS:36:LYS:HB3	1.86	1.06
1:A2:894:U:H3'	4:BB:65:VAL:HG22	1.36	1.06
1:A2:1435:G:C2	13:BK:27:PHE:HE2	1.71	1.06
1:A2:1009:U:P	17:BO:129:LYS:HD3	1.95	1.06
1:A2:787:G:N1	27:BY:61:ARG:HD2	1.69	1.05
1:A2:1722:A:OP2	9:BG:73:ILE:CG1	2.01	1.05
1:A2:266:A:C4'	9:BG:136:LYS:CE	2.23	1.05
1:A2:139:C:H2'	9:BG:138:ALA:N	1.53	1.05
1:A2:179:A:N3	9:BG:184:LEU:O	1.87	1.05
1:A2:1298:U:C1'	5:BC:99:LYS:CD	2.27	1.05
1:A2:1401:A:H5'	20:BR:10:LYS:N	1.71	1.05
1:A2:1402:G:H8	20:BR:5:ARG:HB2	0.93	1.05
1:A2:1389:C:C3'	20:BR:45:ARG:CG	2.35	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1558:U:O4	21:BS:122:HIS:HA	1.56	1.05
1:A2:1555:A:H5''	18:BP:40:ARG:CG	1.65	1.05
1:A2:1564:U:C3'	21:BS:41:ARG:NH1	2.08	1.05
1:A2:953:G:N2	16:BN:9:LYS:N	1.81	1.05
1:A2:960:U:C6	25:BW:57:ARG:HD2	1.91	1.05
1:A2:338:C:C4	11:BI:29:LEU:CA	2.34	1.05
2:AZ:6221:U:C3'	6:BD:114:ALA:HB2	1.77	1.05
1:A2:776:G:H21	27:BY:27:VAL:CB	1.69	1.05
1:A2:138:A:N9	9:BG:140:ASN:HB3	1.70	1.05
1:A2:167:U:OP2	9:BG:13:GLN:N	1.88	1.05
1:A2:863:A:O3'	25:BW:34:ILE:CG1	1.97	1.05
1:A2:638:U:OP1	25:BW:108:ALA:HB3	0.89	1.05
1:A2:1037:C:O4'	25:BW:71:LYS:CD	2.03	1.05
1:A2:1534:G:C6	28:BZ:61:SER:HB2	1.90	1.05
1:A2:1584:G:OP1	19:BQ:123:ARG:CA	2.02	1.05
21:BS:42:TYR:HH	21:BS:73:MET:N	1.50	1.05
1:A2:1505:A:O5'	22:BT:38:LYS:HG3	1.55	1.05
1:A2:328:A:C5'	11:BI:172:ARG:HH12	1.69	1.05
1:A2:1344:A:H5'	23:BU:53:LYS:HD2	1.10	1.05
1:A2:115:G:N2	11:BI:27:PHE:CE2	2.23	1.05
1:A2:776:G:O4'	27:BY:62:THR:HA	1.53	1.05
1:A2:150:U:N3	27:BY:131:ARG:NH1	1.96	1.05
1:A2:165:G:N2	27:BY:131:ARG:NH2	1.79	1.05
1:A2:397:A:H2'	9:BG:88:ARG:CZ	1.86	1.05
1:A2:630:A:H62	26:BX:14:LYS:HD2	0.89	1.05
1:A2:310:C:H3'	26:BX:33:LEU:CD2	1.85	1.05
1:A2:636:A:H2'	25:BW:105:THR:CG2	1.86	1.05
1:A2:631:G:HO2'	26:BX:16:ARG:HB3	1.18	1.05
1:A2:1298:U:O2	5:BC:208:GLU:CD	1.94	1.05
1:A2:1302:U:OP2	5:BC:95:ARG:HD3	1.50	1.05
1:A2:1299:G:C5'	5:BC:98:PHE:O	2.04	1.05
1:A2:241:U:C6	9:BG:205:ALA:HA	1.89	1.05
1:A2:1316:G:O3'	20:BR:7:LYS:HB2	1.53	1.05
1:A2:917:U:H5''	17:BO:120:PRO:CD	1.86	1.05
1:A2:901:G:OP1	17:BO:86:THR:N	1.90	1.05
1:A2:935:U:O3'	1:A2:936:G:P	2.15	1.05
1:A2:791:A:N6	12:BJ:7:THR:H	1.52	1.05
1:A2:1:U:H2'	12:BJ:43:TYR:CD2	1.92	1.05
1:A2:758:U:O4	12:BJ:6:ARG:O	1.75	1.05
1:A2:1344:A:C5'	23:BU:53:LYS:CD	2.33	1.05
1:A2:334:G:OP1	11:BI:47:ARG:HD3	1.56	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:61:VAL:N	7:BE:62:LYS:N	2.05	1.05
1:A2:1377:U:O3'	1:A2:1378:U:P	2.14	1.05
1:A2:1673:G:C2'	9:BG:94:ARG:HE	1.70	1.05
1:A2:266:A:C5'	9:BG:136:LYS:CE	2.34	1.05
1:A2:698:U:H3'	7:BE:197:HIS:HE1	0.91	1.05
7:BE:159:THR:HG1	7:BE:160:VAL:N	1.53	1.05
1:A2:1242:A:C5'	18:BP:89:MET:HE2	1.80	1.05
1:A2:1184:A:C5	18:BP:123:TYR:HD2	1.73	1.05
1:A2:1175:U:O4	21:BS:140:THR:HG21	1.55	1.05
1:A2:1453:G:H2'	18:BP:120:SER:O	1.57	1.05
1:A2:1183:A:N6	18:BP:121:ILE:HD12	1.72	1.05
2:AZ:6108:U:H5'	8:BF:222:LYS:HB3	1.06	1.05
2:AZ:6106:A:C2	8:BF:225:ARG:O	2.09	1.05
1:A2:1054:U:O2'	3:BA:30:GLN:CB	2.04	1.05
1:A2:756:A:C5'	7:BE:23:LEU:CD1	2.33	1.05
1:A2:597:G:C4'	26:BX:137:LYS:HG3	1.85	1.05
1:A2:1357:A:H1'	22:BT:126:GLU:O	1.50	1.05
1:A2:300:A:H61	7:BE:5:PRO:CD	1.69	1.05
1:A2:776:G:O2'	27:BY:29:HIS:CE1	2.08	1.05
1:A2:787:G:OP2	27:BY:24:VAL:HG11	1.55	1.05
1:A2:784:C:H4'	27:BY:7:ILE:HG21	1.33	1.05
1:A2:1722:A:O5'	9:BG:73:ILE:CG1	2.03	1.05
1:A2:449:C:C6	27:BY:105:ARG:NH1	2.15	1.05
1:A2:137:U:C5'	9:BG:143:LYS:HE2	1.85	1.05
1:A2:457:G:N2	27:BY:106:GLN:O	1.89	1.05
1:A2:266:A:H5'	9:BG:136:LYS:HD3	1.10	1.05
1:A2:639:U:OP2	25:BW:108:ALA:HB1	1.57	1.05
1:A2:1144:U:N3	5:BC:89:GLN:OE1	1.88	1.05
1:A2:1146:G:N3	5:BC:93:GLY:N	2.03	1.05
1:A2:1300:A:O5'	5:BC:85:PRO:HA	1.19	1.05
1:A2:215:A:C1'	7:BE:136:VAL:O	2.02	1.05
1:A2:1068:C:O4'	3:BA:33:GLN:HB3	1.56	1.05
1:A2:889:U:OP1	17:BO:89:THR:HG23	1.54	1.05
1:A2:919:A:O2'	4:BB:85:LYS:NZ	1.90	1.05
1:A2:959:U:C5'	25:BW:59:GLY:HA2	1.86	1.05
1:A2:601:A:OP1	26:BX:122:PHE:CE1	2.10	1.05
1:A2:572:C:OP1	26:BX:116:ASP:OD1	1.73	1.05
1:A2:1281:G:H4'	23:BU:68:ARG:NH2	1.68	1.05
1:A2:1417:A:H4'	19:BQ:128:LYS:NZ	1.71	1.05
1:A2:1344:A:H4'	23:BU:53:LYS:HG3	1.35	1.05
1:A2:1085:G:C4	5:BC:163:GLY:HA3	1.90	1.05

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:235:G:H2'	1:A2:236:A:O4'	1.57	1.05
1:A2:419:G:O3'	1:A2:420:A:P	2.14	1.05
1:A2:140:A:N3	9:BG:157:VAL:HB	1.42	1.04
1:A2:633:U:H6	14:BL:99:ARG:CD	1.58	1.04
1:A2:1326:A:N7	6:BD:157:LEU:O	1.88	1.04
1:A2:241:U:N3	7:BE:136:VAL:HG13	1.71	1.04
1:A2:741:C:H5	7:BE:206:ASP:OD1	1.38	1.04
1:A2:1528:U:H5''	19:BQ:43:ILE:CD1	1.86	1.04
1:A2:1536:G:C2	8:BF:187:ILE:HG12	1.91	1.04
1:A2:1584:G:H3'	19:BQ:124:PRO:HA	1.40	1.04
1:A2:1239:U:C6	18:BP:74:ALA:N	2.24	1.04
1:A2:1243:G:C6	18:BP:88:GLU:OE2	2.09	1.04
1:A2:1548:G:OP2	21:BS:88:ARG:NE	1.89	1.04
1:A2:1566:U:H1'	21:BS:38:VAL:O	1.55	1.04
1:A2:952:A:H5'	16:BN:121:ARG:NE	1.49	1.04
1:A2:917:U:H5''	17:BO:120:PRO:HD2	1.07	1.04
1:A2:755:A:C5	12:BJ:2:PRO:HB3	1.85	1.04
1:A2:756:A:P	7:BE:23:LEU:HA	1.97	1.04
1:A2:338:C:N3	11:BI:29:LEU:HA	1.72	1.04
1:A2:1521:G:N7	22:BT:68:ARG:HD3	1.72	1.04
1:A2:884:A:H4'	4:BB:165:ARG:NH2	1.72	1.04
1:A2:395:U:H5''	9:BG:86:PRO:HA	1.37	1.04
1:A2:449:C:H6	27:BY:105:ARG:NH1	1.49	1.04
1:A2:57:G:C6	27:BY:116:LYS:N	2.24	1.04
1:A2:163:G:P	9:BG:108:VAL:HG23	1.96	1.04
1:A2:1146:G:N3	5:BC:93:GLY:HA2	1.68	1.04
1:A2:1558:U:O3'	21:BS:134:ARG:N	1.82	1.04
1:A2:752:A:H4'	7:BE:16:HIS:O	1.30	1.04
1:A2:598:U:O2	26:BX:132:LEU:CB	2.05	1.04
1:A2:346:G:N2	11:BI:11:ARG:CA	2.20	1.04
1:A2:324:U:C4'	11:BI:11:ARG:O	2.04	1.04
1:A2:14:C:H4'	5:BC:203:LYS:HZ3	0.95	1.04
1:A2:931:C:C4'	4:BB:117:TRP:HZ3	1.68	1.04
1:A2:110:U:H3'	1:A2:111:U:P	1.96	1.04
1:A2:778:G:P	27:BY:32:ARG:CG	2.34	1.04
1:A2:180:A:N1	9:BG:191:ARG:HB2	1.72	1.04
1:A2:180:A:O5'	9:BG:187:LYS:HE3	1.54	1.04
1:A2:58:U:C5	27:BY:114:ARG:C	2.31	1.04
1:A2:862:A:C5'	25:BW:32:LYS:N	2.20	1.04
1:A2:863:A:C5'	25:BW:6:VAL:HB	1.88	1.04
1:A2:967:A:H1'	26:BX:7:ARG:HB2	1.04	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:215:A:O4'	7:BE:136:VAL:O	1.76	1.04
1:A2:735:C:H2'	7:BE:193:GLY:N	1.73	1.04
1:A2:242:U:O5'	7:BE:148:ARG:O	1.74	1.04
1:A2:1535:U:C5	8:BF:186:ASN:CB	2.34	1.04
1:A2:1457:C:C2	21:BS:136:GLN:HG2	1.91	1.04
1:A2:954:G:O5'	16:BN:2:GLY:HA3	1.54	1.04
1:A2:1479:A:H5'	22:BT:16:ASN:ND2	1.72	1.04
1:A2:328:A:O3'	11:BI:172:ARG:NH2	1.91	1.04
2:AZ:6219:U:O2'	6:BD:144:ALA:HB2	1.56	1.04
1:A2:776:G:N9	27:BY:34:ASN:HB2	1.73	1.04
1:A2:165:G:H4'	9:BG:14:LYS:HE3	1.39	1.04
1:A2:859:A:C6	10:BH:111:LYS:HG2	1.90	1.04
1:A2:456:A:C6	27:BY:108:ARG:HG2	1.92	1.04
1:A2:736:C:H5	7:BE:225:VAL:CG1	1.70	1.04
1:A2:243:G:O6	7:BE:138:TYR:CE2	2.11	1.04
1:A2:1388:A:O3'	1:A2:1389:C:P	2.16	1.04
1:A2:1389:C:C4'	20:BR:45:ARG:CA	1.85	1.04
1:A2:1530:C:N4	28:BZ:96:SER:HB2	1.70	1.04
1:A2:32:U:C4	26:BX:140:LYS:HA	1.91	1.04
1:A2:336:G:N2	11:BI:24:LYS:C	2.11	1.04
1:A2:1520:U:H5'	22:BT:75:LYS:C	1.78	1.04
1:A2:388:G:O3'	1:A2:389:G:P	2.16	1.04
1:A2:784:C:C5'	27:BY:44:LEU:HD21	1.84	1.04
1:A2:784:C:OP1	27:BY:44:LEU:N	1.91	1.04
1:A2:396:G:C5	9:BG:91:GLU:HB2	1.91	1.04
1:A2:1673:G:O3'	9:BG:94:ARG:NE	1.91	1.04
1:A2:56:U:O3'	1:A2:57:G:P	2.15	1.04
1:A2:633:U:C5	14:BL:99:ARG:HB3	1.93	1.04
1:A2:637:C:P	25:BW:109:GLY:O	2.14	1.04
1:A2:806:A:C5	25:BW:82:LYS:HD3	1.91	1.04
1:A2:866:G:C8	25:BW:4:SER:O	1.99	1.04
1:A2:865:A:H5'	25:BW:6:VAL:C	1.77	1.04
1:A2:741:C:N4	7:BE:206:ASP:HB3	1.67	1.04
1:A2:1528:U:HO2'	19:BQ:42:GLU:HB2	1.22	1.04
1:A2:1241:G:P	18:BP:105:VAL:N	2.30	1.04
1:A2:1459:C:P	21:BS:131:LEU:HD23	1.95	1.04
1:A2:1564:U:C2'	21:BS:41:ARG:CB	2.10	1.04
1:A2:895:G:H2'	17:BO:18:ARG:HH12	0.88	1.04
1:A2:28:A:N1	26:BX:131:SER:HA	1.70	1.04
1:A2:570:A:C2	26:BX:67:ALA:HB2	1.89	1.04
1:A2:756:A:OP2	12:BJ:4:ALA:HB3	1.58	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1358:G:C5'	22:BT:130:ARG:HG2	1.87	1.04
1:A2:322:G:N3	11:BI:9:HIS:NE2	2.06	1.04
1:A2:640:U:H1'	25:BW:119:LYS:HE2	1.08	1.04
1:A2:513:U:H2'	1:A2:514:G:C8	1.92	1.04
1:A2:451:A:O2'	27:BY:112:LYS:HA	1.56	1.03
1:A2:1683:C:C4	9:BG:32:ILE:O	2.11	1.03
1:A2:451:A:N3	27:BY:111:LYS:HB3	1.73	1.03
1:A2:57:G:C3'	27:BY:114:ARG:CZ	2.34	1.03
1:A2:863:A:O3'	25:BW:34:ILE:HG12	1.56	1.03
1:A2:803:A:H5''	25:BW:120:HIS:ND1	1.73	1.03
1:A2:1298:U:O4'	5:BC:208:GLU:CG	2.06	1.03
1:A2:1564:U:O3'	21:BS:85:PHE:CE2	2.06	1.03
1:A2:382:C:O4'	12:BJ:2:PRO:HD3	1.55	1.03
1:A2:754:A:P	7:BE:14:ALA:HB3	1.98	1.03
1:A2:597:G:N1	26:BX:132:LEU:N	1.76	1.03
1:A2:1367:G:C1'	22:BT:66:TYR:HH	1.60	1.03
1:A2:298:C:H5	7:BE:7:LYS:HD2	1.18	1.03
1:A2:137:U:C2'	9:BG:143:LYS:CE	2.21	1.03
1:A2:90:C:N4	27:BY:115:ASP:O	1.90	1.03
1:A2:631:G:C3'	26:BX:13:ARG:HA	1.87	1.03
1:A2:638:U:P	25:BW:108:ALA:HB3	1.98	1.03
1:A2:1037:C:P	25:BW:15:ASN:HB2	1.99	1.03
1:A2:863:A:H5'	25:BW:6:VAL:CG2	1.87	1.03
1:A2:633:U:C6	14:BL:99:ARG:HD3	1.62	1.03
1:A2:1399:C:C3'	20:BR:66:VAL:CG2	2.37	1.03
1:A2:1242:A:H5'	18:BP:89:MET:HE1	1.41	1.03
1:A2:1550:A:O5'	21:BS:84:TRP:CG	2.10	1.03
1:A2:921:U:H5''	4:BB:138:PHE:CE2	1.94	1.03
1:A2:917:U:C6	17:BO:84:ARG:NH1	2.26	1.03
1:A2:791:A:N1	12:BJ:7:THR:OG1	1.88	1.03
1:A2:571:G:O2'	26:BX:114:LYS:CE	2.05	1.03
1:A2:1382:A:H2	23:BU:56:VAL:HG13	1.23	1.03
1:A2:1428:G:N1	23:BU:74:GLU:CG	1.87	1.03
1:A2:783:G:C2	27:BY:35:VAL:CG2	2.39	1.03
1:A2:138:A:N3	9:BG:140:ASN:CA	2.22	1.03
1:A2:78:A:C5	9:BG:162:VAL:HB	1.91	1.03
1:A2:56:U:C2	27:BY:113:ASN:HB2	1.94	1.03
1:A2:631:G:O5'	26:BX:13:ARG:CB	2.04	1.03
1:A2:864:U:C5'	25:BW:6:VAL:O	2.07	1.03
1:A2:633:U:H5''	14:BL:98:ASN:O	1.56	1.03
1:A2:1327:C:H6	6:BD:158:ILE:C	1.61	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1455:G:OP1	21:BS:126:ARG:HD3	1.56	1.03
1:A2:1213:G:O3'	18:BP:77:ARG:HD2	1.43	1.03
1:A2:988:A:H2'	17:BO:125:SER:O	1.57	1.03
1:A2:30:G:OP1	26:BX:143:PRO:CD	2.06	1.03
1:A2:754:A:OP1	7:BE:12:LEU:N	1.90	1.03
1:A2:338:C:C2'	11:BI:4:SER:HB2	1.88	1.03
1:A2:1280:C:C1'	23:BU:72:ASN:N	2.20	1.03
1:A2:1416:G:O2'	19:BQ:126:PRO:HD2	1.53	1.03
1:A2:140:A:OP2	9:BG:153:VAL:O	1.75	1.03
1:A2:395:U:C1'	9:BG:91:GLU:OE2	2.05	1.03
1:A2:78:A:C2	9:BG:162:VAL:HG21	1.92	1.03
1:A2:58:U:H5'	27:BY:114:ARG:CZ	1.88	1.03
1:A2:1103:U:C1'	26:BX:5:LYS:HB2	1.88	1.03
1:A2:1301:U:C2	5:BC:117:THR:OG1	2.12	1.03
1:A2:1564:U:H2'	21:BS:41:ARG:CA	1.88	1.03
1:A2:1357:A:C2'	22:BT:126:GLU:O	2.07	1.03
1:A2:303:U:OP1	11:BI:22:ARG:NH1	1.90	1.03
1:A2:338:C:C1'	11:BI:24:LYS:HD3	1.87	1.03
1:A2:181:A:N3	9:BG:191:ARG:HG3	1.12	1.03
1:A2:80:A:H61	9:BG:168:THR:HA	0.92	1.03
1:A2:1328:G:N7	6:BD:159:HIS:HB2	1.73	1.03
1:A2:213:A:O3'	7:BE:135:GLY:N	1.92	1.03
1:A2:736:C:C2	7:BE:227:VAL:CG1	2.40	1.03
1:A2:1212:G:O6	18:BP:97:TYR:CE2	1.73	1.03
1:A2:1549:C:O2'	21:BS:84:TRP:CG	1.96	1.03
1:A2:887:A:N7	17:BO:123:SER:HB3	1.72	1.03
1:A2:1601:G:N7	22:BT:89:ARG:CG	2.18	1.03
1:A2:1096:C:C2'	5:BC:166:THR:O	2.07	1.03
1:A2:139:C:C6	9:BG:137:ARG:C	2.31	1.02
1:A2:1722:A:H4'	9:BG:72:ARG:HA	1.06	1.02
1:A2:139:C:H3'	9:BG:138:ALA:N	1.69	1.02
1:A2:457:G:H1'	27:BY:114:ARG:NH2	1.74	1.02
1:A2:397:A:C2'	9:BG:88:ARG:NH2	2.22	1.02
1:A2:1103:U:H5'	26:BX:15:LEU:HD13	1.41	1.02
1:A2:351:C:C5	14:BL:101:GLU:OE2	2.11	1.02
1:A2:1498:G:C6	22:BT:102:ARG:HD3	1.94	1.02
1:A2:760:A:O2'	12:BJ:9:SER:C	1.97	1.02
1:A2:18:C:O2'	26:BX:115:GLY:N	1.92	1.02
1:A2:597:G:C3'	26:BX:136:TRP:CE3	2.41	1.02
1:A2:335:U:O4	11:BI:25:ARG:HD3	1.58	1.02
1:A2:783:G:C2	27:BY:35:VAL:HG22	1.93	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:138:A:C1'	9:BG:144:PHE:HB2	1.89	1.02
1:A2:1673:G:H2'	9:BG:94:ARG:CZ	1.89	1.02
1:A2:1681:A:N3	9:BG:101:ILE:HG13	1.72	1.02
1:A2:396:G:C4	9:BG:88:ARG:HD3	1.91	1.02
1:A2:1682:U:H5'	9:BG:102:VAL:HG11	1.41	1.02
1:A2:75:U:C5	9:BG:166:GLU:C	2.32	1.02
1:A2:863:A:H3'	25:BW:6:VAL:CG1	1.89	1.02
1:A2:634:G:H5''	25:BW:79:PHE:N	1.72	1.02
1:A2:1331:A:N9	6:BD:161:GLY:HA3	1.72	1.02
1:A2:1317:C:O4'	20:BR:7:LYS:HD3	1.60	1.02
1:A2:1457:C:C6	21:BS:136:GLN:N	2.05	1.02
1:A2:1459:C:OP1	21:BS:131:LEU:HA	1.59	1.02
2:AZ:6111:G:O2'	8:BF:220:VAL:CG2	2.07	1.02
1:A2:872:G:N1	16:BN:11:ILE:HG12	1.53	1.02
1:A2:889:U:OP1	17:BO:89:THR:CA	2.05	1.02
1:A2:572:C:P	26:BX:116:ASP:OD1	2.17	1.02
1:A2:301:A:H5'	7:BE:3:ARG:NH2	1.08	1.02
1:A2:1428:G:N2	23:BU:74:GLU:HB3	1.37	1.02
1:A2:1344:A:C5'	23:BU:53:LYS:CG	2.36	1.02
1:A2:1370:U:H3'	22:BT:119:LYS:HE3	1.30	1.02
1:A2:139:C:H3'	9:BG:138:ALA:HB2	1.38	1.02
1:A2:165:G:O5'	9:BG:15:THR:N	1.91	1.02
1:A2:168:A:H5'	9:BG:132:ARG:HD2	1.38	1.02
1:A2:1326:A:C6	6:BD:159:HIS:HE1	1.77	1.02
1:A2:1532:U:C5'	28:BZ:77:ARG:HB2	1.88	1.02
1:A2:1557:U:C6	21:BS:123:ARG:HD3	1.92	1.02
1:A2:960:U:H3'	1:A2:961:U:P	1.98	1.02
1:A2:571:G:O2'	26:BX:114:LYS:HE3	1.59	1.02
1:A2:752:A:C4'	7:BE:16:HIS:O	1.92	1.02
1:A2:1428:G:N2	23:BU:74:GLU:CD	2.06	1.02
1:A2:1084:A:C2'	5:BC:164:SER:CA	2.32	1.02
1:A2:784:C:N3	27:BY:35:VAL:HG13	1.75	1.02
1:A2:1709:C:H4'	9:BG:9:VAL:HG21	1.04	1.02
1:A2:179:A:C1'	9:BG:184:LEU:CA	2.37	1.02
1:A2:456:A:H2	27:BY:111:LYS:HB2	1.24	1.02
1:A2:831:U:P	7:BE:152:PRO:CB	2.47	1.02
1:A2:1317:C:H5'	20:BR:11:ARG:HB2	1.41	1.02
1:A2:1608:U:OP1	19:BQ:72:GLY:HA2	1.58	1.02
1:A2:1546:G:H1'	21:BS:36:LYS:HB3	1.04	1.02
1:A2:960:U:C6	25:BW:57:ARG:CD	2.42	1.02
1:A2:32:U:C5	26:BX:140:LYS:HA	1.94	1.02

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:27:U:N3	26:BX:126:LYS:HD2	1.74	1.02
1:A2:338:C:N4	11:BI:29:LEU:O	1.91	1.02
1:A2:1384:A:OP2	23:BU:87:HIS:CB	2.05	1.02
1:A2:1082:C:C2'	5:BC:216:VAL:HG13	1.90	1.02
1:A2:1084:A:C5'	5:BC:166:THR:HA	1.90	1.02
1:A2:1682:U:H3'	9:BG:52:ILE:HD13	1.03	1.02
1:A2:85:A:H2'	27:BY:126:ALA:HA	1.09	1.02
1:A2:165:G:O5'	9:BG:15:THR:C	1.92	1.02
1:A2:1722:A:H4'	9:BG:71:THR:O	1.54	1.02
1:A2:396:G:C4	9:BG:91:GLU:OE1	2.13	1.02
1:A2:1299:G:O4'	5:BC:99:LYS:HB2	1.17	1.02
1:A2:244:A:P	7:BE:140:VAL:HA	2.00	1.02
1:A2:1237:G:OP2	18:BP:61:ARG:CG	2.08	1.02
1:A2:1454:G:OP1	18:BP:118:GLU:CB	2.07	1.02
1:A2:1236:A:O2'	18:BP:65:LEU:HD21	0.84	1.02
1:A2:1797:A:O3'	1:A2:1798:U:P	2.18	1.02
1:A2:753:A:O3'	7:BE:14:ALA:N	1.92	1.02
1:A2:776:G:C2	27:BY:35:VAL:HG12	1.94	1.01
1:A2:58:U:C2	27:BY:115:ASP:OD1	1.94	1.01
1:A2:75:U:C6	9:BG:166:GLU:N	2.27	1.01
1:A2:1682:U:H4'	9:BG:102:VAL:CG1	1.88	1.01
1:A2:638:U:O2	25:BW:107:SER:HB3	1.60	1.01
1:A2:1145:U:H5'	5:BC:88:LYS:HE2	1.39	1.01
1:A2:1299:G:C8	5:BC:99:LYS:N	2.28	1.01
1:A2:11:A:N3	5:BC:87:GLN:OE1	1.94	1.01
1:A2:1145:U:C5'	5:BC:88:LYS:HE2	1.87	1.01
1:A2:702:G:N7	7:BE:176:ASP:N	2.08	1.01
1:A2:1242:A:P	18:BP:107:ILE:HG13	1.99	1.01
1:A2:1084:A:H2'	5:BC:163:GLY:C	1.79	1.01
1:A2:1006:C:C5'	17:BO:136:ARG:NH1	2.22	1.01
1:A2:1006:C:C5'	17:BO:136:ARG:HH12	1.73	1.01
1:A2:1370:U:C2'	22:BT:119:LYS:HE3	1.76	1.01
1:A2:1682:U:C3'	9:BG:52:ILE:HD13	1.88	1.01
1:A2:457:G:H22	27:BY:109:LYS:H	1.05	1.01
1:A2:1037:C:H5''	25:BW:15:ASN:HB3	1.38	1.01
1:A2:632:U:H1'	26:BX:15:LEU:CB	1.90	1.01
1:A2:746:A:N1	25:BW:82:LYS:HD2	1.75	1.01
1:A2:967:A:O2'	26:BX:5:LYS:O	1.75	1.01
1:A2:1103:U:H4'	26:BX:15:LEU:CD1	1.91	1.01
1:A2:733:A:C1'	7:BE:194:THR:OG1	2.08	1.01
1:A2:215:A:O4'	7:BE:132:GLY:N	1.92	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:214:G:C8	7:BE:133:LYS:N	2.21	1.01
1:A2:1310:U:O2'	20:BR:4:VAL:CG1	2.08	1.01
1:A2:1582:U:H5''	19:BQ:135:ARG:HG3	1.39	1.01
1:A2:1202:A:H61	21:BS:137:HIS:N	1.57	1.01
1:A2:1213:G:OP2	18:BP:101:ALA:HA	1.49	1.01
18:BP:105:VAL:C	18:BP:106:GLU:N	2.14	1.01
3:BA:63:ILE:O	3:BA:66:ALA:HB1	1.61	1.01
1:A2:600:U:H5'	26:BX:104:LEU:CD2	1.90	1.01
1:A2:570:A:H2	26:BX:67:ALA:HB2	1.23	1.01
1:A2:1482:C:C1'	19:BQ:74:HIS:CE1	2.42	1.01
7:BE:60:GLU:C	7:BE:61:VAL:N	2.12	1.01
1:A2:776:G:N2	27:BY:27:VAL:HB	1.75	1.01
1:A2:812:A:N3	10:BH:111:LYS:HG3	1.64	1.01
1:A2:139:C:C3'	9:BG:138:ALA:HB2	1.89	1.01
1:A2:803:A:H5'	25:BW:120:HIS:CE1	1.94	1.01
1:A2:634:G:O6	26:BX:9:LEU:CD1	2.08	1.01
1:A2:740:A:C6	7:BE:198:LYS:HB2	1.95	1.01
1:A2:1399:C:C3'	20:BR:66:VAL:HG23	1.89	1.01
1:A2:1473:U:H1'	8:BF:113:ILE:HD13	1.40	1.01
1:A2:1243:G:O6	18:BP:88:GLU:OE2	1.78	1.01
1:A2:959:U:O2	25:BW:55:ASP:CB	1.96	1.01
1:A2:755:A:C2	12:BJ:3:ARG:HG2	1.94	1.01
1:A2:791:A:C2	12:BJ:7:THR:OG1	2.14	1.01
1:A2:1094:G:H4'	5:BC:161:LYS:CG	1.90	1.01
1:A2:800:U:H5'	7:BE:187:ARG:N	0.96	1.01
1:A2:1684:U:P	9:BG:112:VAL:C	2.36	1.01
1:A2:785:U:C2'	27:BY:70:VAL:CA	2.39	1.01
1:A2:168:A:O2'	9:BG:132:ARG:CZ	2.08	1.01
1:A2:1683:C:OP2	9:BG:52:ILE:HA	1.59	1.01
1:A2:142:G:O4'	9:BG:135:PRO:HG3	1.22	1.01
1:A2:89:G:C2	27:BY:115:ASP:HB3	1.96	1.01
1:A2:1037:C:C2'	25:BW:19:LYS:HE2	1.91	1.01
1:A2:1102:G:H1'	26:BX:7:ARG:HD2	1.30	1.01
1:A2:244:A:N7	7:BE:140:VAL:CG2	2.14	1.01
1:A2:238:U:H3'	9:BG:210:GLN:CB	1.90	1.01
1:A2:1528:U:H5''	19:BQ:43:ILE:CB	1.89	1.01
1:A2:1549:C:O5'	21:BS:86:LEU:CB	2.05	1.01
1:A2:1067:C:H5'	3:BA:31:VAL:HG13	1.43	1.01
1:A2:597:G:C3'	26:BX:133:LEU:HD22	1.90	1.01
1:A2:325:G:H1'	14:BL:133:LYS:CA	1.89	1.01
1:A2:1009:U:OP1	17:BO:129:LYS:HD3	1.58	1.01

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:783:G:C6	27:BY:35:VAL:HG22	1.94	1.01
1:A2:76:A:C5'	9:BG:165:GLY:O	1.85	1.01
1:A2:129:U:O4	9:BG:177:ARG:HD3	1.59	1.01
1:A2:179:A:C1'	9:BG:184:LEU:HA	1.90	1.01
1:A2:396:G:C5	9:BG:88:ARG:HD3	1.94	1.01
1:A2:137:U:C3'	9:BG:143:LYS:CE	2.39	1.01
1:A2:457:G:N2	27:BY:109:LYS:H	1.59	1.01
1:A2:632:U:OP1	14:BL:94:ILE:HB	1.55	1.01
1:A2:967:A:H2'	26:BX:6:PRO:HA	1.43	1.01
1:A2:1145:U:H5''	5:BC:88:LYS:CE	1.89	1.01
1:A2:1301:U:C1'	5:BC:86:VAL:HG21	1.91	1.01
1:A2:1144:U:O2	5:BC:89:GLN:CG	1.84	1.01
1:A2:239:C:OP2	9:BG:210:GLN:CG	1.99	1.01
1:A2:1528:U:O2'	19:BQ:42:GLU:CB	2.07	1.01
1:A2:31:C:O2'	26:BX:138:GLU:CG	2.08	1.01
1:A2:3:U:O4'	12:BJ:19:TYR:O	1.78	1.01
1:A2:1033:C:H2'	26:BX:2:GLY:C	1.81	1.00
1:A2:806:A:N7	25:BW:82:LYS:HD3	1.76	1.00
1:A2:631:G:C5'	26:BX:13:ARG:HA	1.91	1.00
1:A2:1609:U:P	19:BQ:75:VAL:N	2.33	1.00
1:A2:1214:U:P	18:BP:77:ARG:CD	2.44	1.00
17:BO:17:ALA:HB3	17:BO:81:VAL:HG23	1.42	1.00
1:A2:1053:G:C4'	3:BA:35:PRO:CB	1.87	1.00
1:A2:954:G:O5'	16:BN:2:GLY:CA	2.09	1.00
1:A2:336:G:N2	11:BI:24:LYS:CA	2.24	1.00
1:A2:318:U:C4	11:BI:15:GLY:O	2.14	1.00
17:BO:77:THR:HG1	17:BO:78:ALA:N	1.58	1.00
1:A2:778:G:N2	27:BY:32:ARG:HB3	1.75	1.00
1:A2:397:A:H2'	9:BG:88:ARG:NH2	1.75	1.00
1:A2:78:A:H2	9:BG:160:ARG:CZ	1.72	1.00
1:A2:141:U:C2'	9:BG:158:ILE:CG2	2.39	1.00
1:A2:1673:G:C2'	9:BG:94:ARG:HH21	1.74	1.00
1:A2:449:C:O2'	27:BY:109:LYS:NZ	1.67	1.00
1:A2:266:A:H4'	9:BG:136:LYS:NZ	1.76	1.00
1:A2:630:A:C8	26:BX:13:ARG:CG	2.40	1.00
1:A2:631:G:O2'	26:BX:16:ARG:HB3	1.57	1.00
1:A2:1144:U:C2'	5:BC:89:GLN:HG3	1.91	1.00
1:A2:734:A:OP1	7:BE:211:LYS:HE3	1.60	1.00
1:A2:1240:U:O4'	18:BP:75:PRO:HA	1.59	1.00
2:AZ:6220:U:H5	6:BD:142:LEU:CB	1.54	1.00
21:BS:28:ILE:O	21:BS:30:TYR:N	1.94	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AZ:6107:U:H5''	8:BF:223:SER:CA	1.91	1.00
1:A2:889:U:P	17:BO:89:THR:CA	2.49	1.00
1:A2:756:A:C5'	7:BE:23:LEU:HD12	1.91	1.00
1:A2:597:G:O3'	26:BX:136:TRP:CE3	2.07	1.00
1:A2:1420:C:C5'	23:BU:82:TYR:OH	2.08	1.00
7:BE:106:LYS:C	7:BE:107:GLY:N	2.14	1.00
1:A2:778:G:C2'	27:BY:32:ARG:HH21	1.73	1.00
1:A2:784:C:C4'	27:BY:7:ILE:CG2	2.39	1.00
1:A2:139:C:O2	9:BG:136:LYS:HG2	1.61	1.00
1:A2:164:A:C8	9:BG:17:GLU:HG2	1.97	1.00
1:A2:1710:U:N1	9:BG:115:LYS:HG3	1.76	1.00
1:A2:1722:A:C2	9:BG:70:PRO:CD	2.45	1.00
1:A2:633:U:C6	14:BL:99:ARG:CD	2.16	1.00
1:A2:631:G:HO3'	26:BX:16:ARG:NH1	1.52	1.00
1:A2:633:U:H5'	14:BL:98:ASN:O	1.58	1.00
1:A2:1144:U:O3'	5:BC:88:LYS:CA	2.09	1.00
1:A2:1301:U:O4	5:BC:118:ALA:C	1.98	1.00
1:A2:1328:G:H8	6:BD:159:HIS:CA	1.59	1.00
1:A2:738:G:O5'	7:BE:157:ASN:OD1	1.80	1.00
1:A2:242:U:C4	7:BE:137:PRO:CD	2.43	1.00
1:A2:740:A:N3	7:BE:200:ARG:CB	2.24	1.00
1:A2:1584:G:OP1	19:BQ:123:ARG:C	2.00	1.00
1:A2:1473:U:C2	8:BF:113:ILE:HG23	1.82	1.00
1:A2:1548:G:OP2	21:BS:88:ARG:CD	2.10	1.00
1:A2:1565:C:C1'	21:BS:43:SER:H	1.74	1.00
1:A2:1067:C:O4'	3:BA:32:HIS:N	1.82	1.00
1:A2:898:A:O5'	17:BO:28:VAL:O	1.79	1.00
1:A2:1055:U:H4'	3:BA:46:HIS:HB3	1.42	1.00
1:A2:27:U:O2	26:BX:103:LEU:HG	1.61	1.00
1:A2:332:U:H3	11:BI:29:LEU:CD2	1.69	1.00
1:A2:336:G:N2	11:BI:25:ARG:N	2.10	1.00
1:A2:1086:A:H8	5:BC:203:LYS:CE	1.70	1.00
1:A2:878:G:O2'	16:BN:114:ARG:NH1	1.94	1.00
1:A2:1681:A:H5''	9:BG:101:ILE:HD13	1.40	1.00
1:A2:703:G:O6	7:BE:178:GLY:O	1.80	1.00
1:A2:220:A:C4'	9:BG:220:LYS:H	1.65	1.00
1:A2:1243:G:H5'	18:BP:61:ARG:N	1.76	1.00
1:A2:334:G:H3'	1:A2:335:U:P	2.02	1.00
1:A2:1192:C:H5''	19:BQ:141:SER:HB2	1.05	1.00
1:A2:1370:U:C5'	22:BT:119:LYS:NZ	2.24	1.00
1:A2:139:C:C6	9:BG:137:ARG:CA	2.25	1.00

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:179:A:C3'	9:BG:187:LYS:HD3	1.91	1.00
1:A2:1720:G:C4'	9:BG:64:LYS:CA	2.40	1.00
1:A2:451:A:H2	27:BY:111:LYS:HD2	1.24	1.00
1:A2:88:U:C5'	27:BY:119:PHE:CG	2.41	1.00
1:A2:1299:G:N9	5:BC:86:VAL:HG13	1.76	1.00
1:A2:1497:U:H5'	22:BT:77:ASN:HD22	0.86	1.00
1:A2:782:U:O5'	27:BY:39:GLU:CG	2.05	1.00
1:A2:457:G:N2	27:BY:109:LYS:N	2.09	1.00
1:A2:310:C:H3'	26:BX:33:LEU:HD23	1.02	1.00
1:A2:1299:G:H2'	5:BC:86:VAL:CA	1.89	1.00
1:A2:14:C:C3'	5:BC:203:LYS:HZ3	1.70	1.00
1:A2:859:A:O5'	10:BH:101:LYS:HG2	1.27	1.00
1:A2:734:A:OP2	7:BE:216:ASN:O	1.79	1.00
1:A2:738:G:O5'	7:BE:157:ASN:CG	2.00	1.00
1:A2:1242:A:H4'	18:BP:89:MET:CE	1.91	1.00
1:A2:917:U:O5'	17:BO:84:ARG:NE	1.84	1.00
1:A2:90:C:N4	27:BY:118:ILE:N	2.11	0.99
1:A2:1243:G:O5'	18:BP:57:MET:HA	1.58	0.99
1:A2:1565:C:H3'	21:BS:40:ARG:HA	1.43	0.99
1:A2:956:C:O2	16:BN:11:ILE:HD12	0.83	0.99
1:A2:347:G:N7	11:BI:13:ALA:C	2.04	0.99
1:A2:91:G:H3'	27:BY:116:LYS:HZ2	0.98	0.99
1:A2:1710:U:N1	9:BG:115:LYS:CG	2.23	0.99
1:A2:1325:A:N3	6:BD:156:PHE:HA	1.36	0.99
1:A2:215:A:H4'	7:BE:132:GLY:N	1.71	0.99
1:A2:1391:A:H5''	20:BR:48:ASN:HB3	1.43	0.99
1:A2:1:U:C3'	12:BJ:14:THR:HB	1.76	0.99
1:A2:332:U:O4	11:BI:29:LEU:HD21	1.58	0.99
1:A2:1281:G:C5'	23:BU:68:ARG:NH2	2.21	0.99
1:A2:1520:U:O5'	22:BT:75:LYS:O	1.78	0.99
1:A2:266:A:O4'	9:BG:136:LYS:CD	1.98	0.99
1:A2:1034:C:N4	26:BX:3:LYS:NZ	2.09	0.99
1:A2:1037:C:C2'	25:BW:19:LYS:CE	2.40	0.99
1:A2:1299:G:C4'	5:BC:84:LYS:O	2.11	0.99
1:A2:1325:A:H5'	6:BD:156:PHE:CE2	1.89	0.99
1:A2:1532:U:OP1	28:BZ:81:ARG:HD3	1.63	0.99
1:A2:324:U:O4'	11:BI:11:ARG:O	1.78	0.99
1:A2:640:U:C1'	25:BW:119:LYS:CE	2.37	0.99
1:A2:140:A:OP1	9:BG:153:VAL:C	2.01	0.99
1:A2:845:G:H3'	1:A2:846:G:P	2.03	0.99
1:A2:1453:G:O2'	18:BP:120:SER:N	1.94	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1558:U:H5	21:BS:124:GLY:N	1.60	0.99
1:A2:1453:G:H4'	18:BP:119:PHE:H	1.25	0.99
1:A2:687:G:OP1	12:BJ:64:GLU:HG2	1.61	0.99
1:A2:331:A:C8	11:BI:31:ARG:CD	2.44	0.99
1:A2:330:G:P	11:BI:56:ARG:CD	2.50	0.99
1:A2:1082:C:H2'	5:BC:216:VAL:CG1	1.89	0.99
1:A2:1084:A:OP1	5:BC:167:VAL:HG23	1.62	0.99
1:A2:1009:U:P	17:BO:129:LYS:CD	2.51	0.99
1:A2:1007:C:C4'	17:BO:137:LEU:HG	1.93	0.99
1:A2:761:G:OP1	12:BJ:11:THR:HG21	1.62	0.99
1:A2:395:U:C6	9:BG:93:LYS:CE	2.44	0.99
1:A2:57:G:N1	27:BY:115:ASP:CA	2.24	0.99
1:A2:735:C:N4	7:BE:179:LYS:N	2.10	0.99
1:A2:1547:A:O3'	21:BS:100:THR:N	1.94	0.99
1:A2:1564:U:C1'	21:BS:41:ARG:HB3	1.92	0.99
1:A2:887:A:C2'	17:BO:124:ASP:H	1.70	0.99
1:A2:181:A:C3'	9:BG:191:ARG:NH1	2.23	0.99
1:A2:804:A:C5'	25:BW:121:VAL:CA	2.39	0.99
1:A2:737:A:H1'	7:BE:157:ASN:O	0.81	0.99
1:A2:1455:G:OP1	21:BS:126:ARG:HD2	1.60	0.99
1:A2:1056:U:OP2	3:BA:40:ALA:CA	2.10	0.99
1:A2:1787:C:H5''	17:BO:132:ARG:NH1	1.33	0.99
1:A2:1301:U:C4	5:BC:97:ARG:HD2	1.35	0.99
1:A2:741:C:C5'	7:BE:201:HIS:C	2.31	0.99
1:A2:1529:C:C5	28:BZ:95:HIS:CG	2.51	0.99
1:A2:1454:G:P	18:BP:118:GLU:HG2	2.02	0.99
1:A2:1548:G:C1'	21:BS:99:HIS:ND1	2.24	0.99
1:A2:599:A:N1	26:BX:103:LEU:HD12	1.78	0.99
1:A2:57:G:C6	27:BY:117:LYS:NZ	2.12	0.99
1:A2:266:A:H5'	9:BG:136:LYS:CE	1.91	0.99
1:A2:738:G:H5'	7:BE:126:VAL:C	1.81	0.99
1:A2:754:A:C4	7:BE:12:LEU:HD22	1.97	0.99
1:A2:1521:G:OP1	22:BT:75:LYS:CE	2.06	0.99
1:A2:775:G:C6	27:BY:60:PHE:C	2.31	0.99
1:A2:776:G:C1'	27:BY:62:THR:N	2.25	0.99
1:A2:858:G:C4	10:BH:107:ARG:C	2.36	0.99
1:A2:85:A:C1'	27:BY:126:ALA:CA	2.32	0.99
1:A2:91:G:C4	27:BY:116:LYS:CE	2.30	0.99
1:A2:636:A:O2'	25:BW:110:ILE:HG23	0.81	0.99
1:A2:1389:C:H4'	20:BR:45:ARG:N	1.76	0.99
1:A2:1399:C:H3'	20:BR:66:VAL:HG23	1.02	0.99

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1452:U:C2	18:BP:96:ILE:HG22	1.96	0.99
1:A2:1452:U:O2'	18:BP:117:GLY:N	1.87	0.99
1:A2:1058:U:OP2	3:BA:41:ARG:HB2	1.62	0.99
1:A2:753:A:C3'	7:BE:12:LEU:O	2.10	0.99
1:A2:784:C:H4'	27:BY:7:ILE:CG2	1.93	0.99
1:A2:216:U:C6	7:BE:129:VAL:HG22	1.97	0.99
1:A2:1505:A:C2	21:BS:84:TRP:CG	2.28	0.99
1:A2:1566:U:N1	21:BS:38:VAL:O	1.94	0.99
1:A2:1420:C:P	23:BU:69:LYS:HE2	2.03	0.99
1:A2:1192:C:C5'	19:BQ:141:SER:CB	2.39	0.99
1:A2:180:A:C2	9:BG:191:ARG:CB	2.46	0.98
1:A2:636:A:C5'	25:BW:126:LEU:H	1.65	0.98
1:A2:887:A:H3'	17:BO:122:PRO:O	1.62	0.98
1:A2:1066:C:O2'	3:BA:31:VAL:HA	1.61	0.98
1:A2:960:U:H5''	25:BW:57:ARG:HA	1.45	0.98
1:A2:346:G:C3'	11:BI:13:ALA:N	2.24	0.98
1:A2:329:G:C6	11:BI:30:GLY:HA3	1.98	0.98
1:A2:866:G:H5'	25:BW:3:ARG:HA	1.33	0.98
1:A2:311:U:H4'	26:BX:34:LEU:HA	0.99	0.98
1:A2:1300:A:C4'	5:BC:85:PRO:HB2	1.92	0.98
1:A2:1326:A:N3	6:BD:159:HIS:NE2	2.11	0.98
1:A2:1528:U:C5'	19:BQ:43:ILE:CD1	2.39	0.98
1:A2:1566:U:H5''	21:BS:30:TYR:HA	1.45	0.98
1:A2:686:C:P	12:BJ:64:GLU:OE2	2.21	0.98
1:A2:382:C:C4'	12:BJ:2:PRO:CG	2.40	0.98
1:A2:1505:A:N1	21:BS:84:TRP:CE2	2.31	0.98
1:A2:753:A:OP1	7:BE:15:PRO:O	1.52	0.98
1:A2:1600:A:C3'	22:BT:86:ARG:HH21	1.71	0.98
1:A2:1040:G:H5'	24:BV:62:ARG:NE	1.75	0.98
1:A2:89:G:H22	27:BY:115:ASP:CB	1.74	0.98
1:A2:457:G:C1'	27:BY:114:ARG:HH22	1.76	0.98
1:A2:1034:C:H42	26:BX:3:LYS:HZ2	1.10	0.98
1:A2:609:U:N3	26:BX:28:ASN:OD1	1.96	0.98
1:A2:630:A:C4	26:BX:13:ARG:HG3	1.95	0.98
1:A2:1326:A:C2	6:BD:159:HIS:NE2	2.31	0.98
1:A2:1328:G:H8	6:BD:159:HIS:HB3	1.26	0.98
1:A2:1498:G:H5''	22:BT:72:GLY:HA3	1.44	0.98
1:A2:1480:G:OP1	22:BT:12:GLN:HA	1.63	0.98
1:A2:340:U:C4	11:BI:3:ILE:HG21	1.87	0.98
1:A2:784:C:O4'	27:BY:7:ILE:HG12	1.62	0.98
1:A2:814:A:N1	10:BH:109:VAL:CA	2.17	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:139:C:N3	9:BG:136:LYS:HB3	1.24	0.98
1:A2:142:G:O4'	9:BG:135:PRO:CG	2.11	0.98
1:A2:58:U:H5'	27:BY:114:ARG:HE	1.21	0.98
1:A2:1298:U:H4'	5:BC:115:ILE:HG21	1.45	0.98
1:A2:243:G:OP2	7:BE:138:TYR:CB	2.10	0.98
1:A2:1548:G:H2'	21:BS:86:LEU:HA	1.01	0.98
2:AZ:6106:A:O2'	8:BF:225:ARG:N	1.95	0.98
1:A2:1084:A:O2'	5:BC:164:SER:C	2.00	0.98
25:BW:65:LEU:C	25:BW:66:ASN:N	2.17	0.98
1:A2:632:U:H1'	26:BX:15:LEU:HG	1.45	0.98
1:A2:1298:U:C1'	5:BC:208:GLU:HG3	1.92	0.98
1:A2:238:U:O3'	9:BG:210:GLN:CB	2.10	0.98
1:A2:952:A:O3'	16:BN:5:HIS:N	1.97	0.98
1:A2:338:C:C3'	11:BI:4:SER:CB	2.41	0.98
1:A2:57:G:H3'	27:BY:114:ARG:CZ	1.90	0.98
1:A2:863:A:H3'	25:BW:6:VAL:HG12	1.42	0.98
1:A2:865:A:H4'	25:BW:8:ALA:HB3	1.46	0.98
1:A2:1144:U:H2'	5:BC:89:GLN:HG3	1.42	0.98
1:A2:1609:U:H5'	19:BQ:75:VAL:HB	1.46	0.98
1:A2:1565:C:HO2'	21:BS:38:VAL:HG12	1.27	0.98
1:A2:595:G:H2'	26:BX:139:LYS:NZ	1.75	0.98
1:A2:163:G:OP2	9:BG:108:VAL:CG2	2.11	0.98
1:A2:632:U:H2'	14:BL:99:ARG:HD2	1.00	0.98
1:A2:631:G:C8	26:BX:13:ARG:HG2	1.97	0.98
1:A2:734:A:H8	7:BE:212:ASP:O	1.47	0.98
1:A2:1402:G:C8	20:BR:5:ARG:NE	2.31	0.98
1:A2:1211:A:H2	18:BP:120:SER:HG	1.00	0.98
1:A2:954:G:C8	16:BN:8:GLY:O	1.94	0.98
1:A2:331:A:OP2	11:BI:31:ARG:HD2	1.62	0.98
1:A2:1384:A:OP1	23:BU:87:HIS:CB	2.11	0.98
1:A2:1482:C:O4'	19:BQ:74:HIS:HE1	1.38	0.98
1:A2:778:G:O6	27:BY:39:GLU:OE1	1.80	0.98
1:A2:179:A:H3'	9:BG:187:LYS:CD	1.93	0.98
1:A2:89:G:N2	27:BY:115:ASP:HB2	1.79	0.98
1:A2:91:G:C2'	27:BY:116:LYS:NZ	2.27	0.98
1:A2:735:C:N4	7:BE:179:LYS:H	1.61	0.98
1:A2:1240:U:O4'	18:BP:76:VAL:N	1.96	0.98
1:A2:1239:U:H6	18:BP:74:ALA:H	1.09	0.98
1:A2:1549:C:H5'	21:BS:86:LEU:HD13	1.00	0.98
1:A2:338:C:H2'	11:BI:4:SER:HB2	1.41	0.98
1:A2:1683:C:OP2	9:BG:52:ILE:CA	2.10	0.98

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1302:U:OP2	5:BC:95:ARG:HD2	1.56	0.98
1:A2:243:G:O6	7:BE:138:TYR:CZ	2.17	0.98
1:A2:1608:U:C2'	19:BQ:73:GLY:HA3	1.94	0.98
1:A2:686:C:H5'	12:BJ:64:GLU:OE2	1.61	0.98
2:AZ:6221:U:C2'	6:BD:114:ALA:CB	2.37	0.98
1:A2:101:U:O3'	1:A2:102:U:P	2.22	0.98
1:A2:833:U:P	9:BG:213:ALA:HB1	2.04	0.97
1:A2:1609:U:P	19:BQ:75:VAL:H	1.86	0.97
1:A2:1500:C:C6	22:BT:103:LYS:HG3	1.98	0.97
2:AZ:6107:U:O2'	8:BF:219:ARG:O	1.79	0.97
1:A2:1054:U:O2'	3:BA:30:GLN:HG3	1.17	0.97
1:A2:896:U:O2	17:BO:18:ARG:HB3	1.63	0.97
1:A2:1192:C:H5''	19:BQ:141:SER:OG	1.62	0.97
11:BI:192:TYR:O	11:BI:195:ARG:N	1.97	0.97
1:A2:784:C:H5'	27:BY:43:LYS:HB2	1.44	0.97
1:A2:138:A:C4	9:BG:140:ASN:HA	1.97	0.97
1:A2:746:A:N1	25:BW:82:LYS:CD	2.27	0.97
1:A2:702:G:C5	7:BE:176:ASP:N	2.32	0.97
1:A2:1184:A:C4	18:BP:123:TYR:HB2	1.66	0.97
1:A2:1503:A:H2'	22:BT:37:VAL:C	1.85	0.97
1:A2:897:C:O3'	1:A2:898:A:P	2.19	0.97
1:A2:989:U:C2	17:BO:127:ARG:HG3	1.86	0.97
1:A2:872:G:N1	16:BN:11:ILE:HG13	1.62	0.97
1:A2:896:U:O2'	17:BO:18:ARG:HB2	1.61	0.97
1:A2:1480:G:C5'	22:BT:11:ALA:CB	2.40	0.97
1:A2:1084:A:H8	5:BC:161:LYS:C	1.68	0.97
1:A2:799:A:HO2'	7:BE:186:GLY:N	1.61	0.97
1:A2:639:U:P	25:BW:108:ALA:HA	2.02	0.97
1:A2:1103:U:C3'	26:BX:15:LEU:HD22	1.94	0.97
1:A2:1299:G:O4'	5:BC:99:LYS:CB	2.09	0.97
1:A2:215:A:C4'	7:BE:131:LEU:CA	2.40	0.97
1:A2:736:C:C2	7:BE:180:LEU:O	2.17	0.97
1:A2:734:A:C3'	7:BE:192:ILE:O	2.11	0.97
1:A2:570:A:N6	26:BX:68:ILE:O	1.96	0.97
1:A2:1159:C:O2'	19:BQ:140:LYS:HD2	1.63	0.97
2:AZ:6218:U:O2	6:BD:146:ARG:CA	2.13	0.97
4:BB:211:HIS:C	4:BB:212:VAL:HA	1.85	0.97
1:A2:782:U:H4'	27:BY:39:GLU:HA	1.46	0.97
1:A2:141:U:H3'	9:BG:158:ILE:HG21	1.47	0.97
1:A2:636:A:C8	25:BW:126:LEU:CD2	2.47	0.97
1:A2:215:A:H5''	7:BE:130:GLN:CG	1.81	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1390:U:H5	20:BR:3:ARG:CD	1.72	0.97
1:A2:1534:G:O2'	8:BF:187:ILE:CG2	2.12	0.97
1:A2:898:A:O4'	17:BO:41:ARG:CG	2.11	0.97
1:A2:601:A:OP1	26:BX:43:PHE:CE2	2.18	0.97
22:BT:6:VAL:HG13	22:BT:67:MET:HE1	1.41	0.97
4:BB:100:PHE:C	4:BB:101:HIS:N	2.17	0.97
1:A2:784:C:H41	27:BY:37:LYS:HA	1.28	0.97
1:A2:778:G:O2'	27:BY:5:VAL:N	1.96	0.97
1:A2:75:U:C5	9:BG:166:GLU:O	2.17	0.97
1:A2:141:U:C4	9:BG:173:PRO:HB2	1.99	0.97
1:A2:1301:U:C2'	5:BC:86:VAL:HG21	1.95	0.97
1:A2:1326:A:C5	6:BD:159:HIS:HE1	1.83	0.97
1:A2:242:U:O4	7:BE:136:VAL:HA	1.17	0.97
1:A2:244:A:OP2	7:BE:140:VAL:HA	1.64	0.97
1:A2:697:C:H4'	7:BE:209:HIS:HD2	1.28	0.97
1:A2:1183:A:H2'	18:BP:124:THR:N	1.72	0.97
1:A2:649:U:OP1	7:BE:253:ASP:HA	1.64	0.97
1:A2:1054:U:C2'	3:BA:30:GLN:HG3	1.74	0.97
1:A2:894:U:H3'	4:BB:65:VAL:CG2	1.94	0.97
1:A2:776:G:N2	27:BY:27:VAL:CB	2.26	0.97
1:A2:778:G:N9	27:BY:32:ARG:NH2	2.12	0.97
1:A2:787:G:N2	27:BY:61:ARG:HD3	1.78	0.97
1:A2:1709:C:H4'	9:BG:9:VAL:HG23	1.46	0.97
1:A2:458:G:H5'	27:BY:110:GLN:NE2	1.78	0.97
1:A2:168:A:O2'	9:BG:132:ARG:NH2	1.97	0.97
1:A2:967:A:C1'	26:BX:7:ARG:HB2	1.95	0.97
1:A2:214:G:C8	7:BE:133:LYS:HD2	2.00	0.97
1:A2:1428:G:N2	23:BU:74:GLU:CB	0.82	0.97
1:A2:812:A:C2	10:BH:111:LYS:CD	2.47	0.97
1:A2:147:A:N3	27:BY:124:ARG:O	1.77	0.97
1:A2:57:G:O6	27:BY:117:LYS:N	1.97	0.97
1:A2:1038:U:H6	25:BW:19:LYS:CE	1.77	0.97
1:A2:1299:G:OP2	5:BC:117:THR:N	1.97	0.97
1:A2:238:U:C3'	9:BG:210:GLN:CB	2.42	0.97
1:A2:1391:A:HO2'	20:BR:28:PHE:HE1	1.07	0.97
1:A2:1546:G:N2	21:BS:38:VAL:O	1.95	0.97
1:A2:931:C:H4'	4:BB:117:TRP:HZ3	1.04	0.97
1:A2:177:U:C5	9:BG:137:ARG:HD3	2.00	0.97
1:A2:450:U:C6	27:BY:109:LYS:HE3	1.98	0.97
2:AZ:6220:U:C6	6:BD:142:LEU:HA	1.99	0.97
2:AZ:6137:C:C2'	8:BF:126:ASP:HB2	1.95	0.97

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:322:G:O3'	11:BI:9:HIS:HB2	1.65	0.97
1:A2:652:G:OP2	12:BJ:88:GLU:OE2	1.78	0.97
1:A2:85:A:H4'	27:BY:129:VAL:HG11	1.46	0.97
1:A2:806:A:H8	25:BW:81:VAL:O	1.47	0.97
1:A2:338:C:H2'	11:BI:2:GLY:O	1.63	0.97
1:A2:1280:C:C4	23:BU:72:ASN:OD1	2.17	0.97
1:A2:164:A:O5'	9:BG:2:LYS:CG	2.10	0.97
1:A2:826:U:O3'	14:BL:35:TYR:OH	1.81	0.97
1:A2:1503:A:C8	22:BT:37:VAL:N	2.32	0.97
1:A2:1056:U:C5	3:BA:40:ALA:CB	2.48	0.97
1:A2:896:U:H1'	17:BO:18:ARG:NH1	1.80	0.97
1:A2:1:U:C2	12:BJ:12:TYR:HD1	1.71	0.97
1:A2:1368:G:C5'	22:BT:66:TYR:C	2.33	0.97
1:A2:859:A:N6	10:BH:112:ARG:N	2.13	0.96
1:A2:164:A:P	9:BG:108:VAL:HG13	2.05	0.96
1:A2:396:G:C3'	9:BG:88:ARG:CB	2.41	0.96
1:A2:179:A:H1'	9:BG:184:LEU:HB3	1.42	0.96
1:A2:609:U:N3	26:BX:28:ASN:ND2	2.13	0.96
1:A2:639:U:OP2	25:BW:108:ALA:HB2	1.62	0.96
1:A2:1565:C:O2	21:BS:38:VAL:HA	1.65	0.96
1:A2:886:U:OP2	4:BB:122:GLU:OE1	1.82	0.96
1:A2:330:G:C3'	11:BI:31:ARG:HB3	1.85	0.96
24:BV:28:ASP:O	24:BV:30:ALA:N	1.98	0.96
1:A2:138:A:C4'	9:BG:143:LYS:N	2.05	0.96
1:A2:806:A:C5	25:BW:82:LYS:CD	2.47	0.96
1:A2:1299:G:H4'	5:BC:84:LYS:O	1.64	0.96
1:A2:1300:A:C5	5:BC:86:VAL:HB	2.01	0.96
1:A2:736:C:N4	7:BE:195:ILE:CG1	2.04	0.96
1:A2:1548:G:O2'	21:BS:86:LEU:HG	1.14	0.96
1:A2:899:G:C5'	17:BO:25:ASP:OD1	2.13	0.96
1:A2:335:U:O4	11:BI:25:ARG:CB	2.14	0.96
1:A2:1417:A:O2'	19:BQ:126:PRO:HB2	1.66	0.96
1:A2:640:U:C2'	25:BW:119:LYS:HE2	1.95	0.96
8:BF:110:ALA:C	8:BF:111:VAL:N	2.18	0.96
1:A2:777:C:H3'	27:BY:32:ARG:CB	1.95	0.96
1:A2:179:A:N1	9:BG:186:ARG:O	1.97	0.96
1:A2:141:U:H4'	9:BG:135:PRO:CB	1.68	0.96
1:A2:1530:C:N3	28:BZ:96:SER:N	1.97	0.96
1:A2:1457:C:C2	21:BS:136:GLN:N	2.32	0.96
1:A2:1054:U:O2'	3:BA:30:GLN:CG	0.67	0.96
27:BY:19:ALA:C	27:BY:20:ARG:HA	1.86	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:782:U:C4'	27:BY:39:GLU:HA	1.95	0.96
1:A2:704:C:C5'	7:BE:230:GLU:N	2.09	0.96
1:A2:1389:C:H4'	20:BR:45:ARG:CB	1.88	0.96
2:AZ:6110:A:H8	8:BF:219:ARG:NH2	1.61	0.96
1:A2:901:G:H5''	17:BO:86:THR:CB	1.95	0.96
1:A2:1068:C:C5	3:BA:33:GLN:OE1	2.17	0.96
1:A2:597:G:O2'	26:BX:136:TRP:CE3	2.09	0.96
1:A2:776:G:H1	27:BY:35:VAL:CG1	1.75	0.96
1:A2:783:G:C8	27:BY:39:GLU:CA	2.49	0.96
1:A2:1683:C:N3	9:BG:65:GLN:OE1	1.99	0.96
1:A2:632:U:O2'	14:BL:97:TYR:HB3	1.64	0.96
1:A2:805:U:P	25:BW:121:VAL:O	2.22	0.96
1:A2:215:A:C5'	7:BE:131:LEU:O	2.14	0.96
1:A2:1403:C:H5''	20:BR:2:GLY:C	1.79	0.96
1:A2:1239:U:O4	18:BP:64:LYS:N	1.98	0.96
1:A2:1556:A:OP2	18:BP:38:PRO:HB2	0.79	0.96
2:AZ:6107:U:O5'	8:BF:220:VAL:O	1.84	0.96
1:A2:959:U:H1'	25:BW:54:ASP:CG	1.85	0.96
1:A2:597:G:C2'	26:BX:136:TRP:HE3	1.77	0.96
1:A2:30:G:OP1	26:BX:142:LYS:CB	2.13	0.96
1:A2:340:U:C4	11:BI:3:ILE:HG23	1.95	0.96
1:A2:168:A:C4'	9:BG:132:ARG:HD2	1.94	0.96
1:A2:181:A:H1'	9:BG:191:ARG:CB	1.66	0.96
1:A2:736:C:O2	7:BE:180:LEU:O	1.81	0.96
1:A2:737:A:H1'	7:BE:157:ASN:C	1.86	0.96
1:A2:1316:G:H1'	20:BR:6:THR:HG23	1.45	0.96
1:A2:1503:A:C8	21:BS:41:ARG:CZ	2.49	0.96
1:A2:336:G:H22	11:BI:25:ARG:N	1.62	0.96
1:A2:1084:A:C1'	5:BC:161:LYS:HE3	1.95	0.96
1:A2:800:U:H5'	7:BE:186:GLY:C	1.86	0.96
1:A2:778:G:C1'	27:BY:32:ARG:NH2	2.28	0.96
1:A2:776:G:H1	27:BY:35:VAL:HG12	1.28	0.96
1:A2:634:G:C5'	25:BW:79:PHE:H	1.79	0.96
1:A2:1326:A:O2'	6:BD:157:LEU:HD22	1.05	0.96
1:A2:889:U:OP1	17:BO:89:THR:CG2	2.14	0.96
1:A2:30:G:OP2	26:BX:130:VAL:HG21	1.38	0.96
1:A2:1334:U:H4'	23:BU:83:GLU:OE2	1.65	0.96
1:A2:141:U:C6	9:BG:173:PRO:HG2	2.00	0.96
1:A2:1722:A:C4'	9:BG:72:ARG:CA	2.38	0.96
1:A2:1144:U:C2'	5:BC:87:GLN:O	2.14	0.96
1:A2:1317:C:H6	20:BR:7:LYS:HD3	1.11	0.96

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1175:U:O4	21:BS:140:THR:CG2	2.10	0.96
1:A2:1502:G:H2'	22:BT:37:VAL:HG22	1.44	0.96
1:A2:953:G:N7	16:BN:3:ARG:CD	2.17	0.96
1:A2:1367:G:C4'	22:BT:66:TYR:HE1	1.77	0.96
1:A2:1367:G:OP1	22:BT:7:ARG:NH2	1.98	0.96
1:A2:765:G:O5'	27:BY:64:PHE:CE2	2.03	0.96
1:A2:787:G:N3	27:BY:61:ARG:HD2	1.81	0.96
1:A2:397:A:C2'	9:BG:88:ARG:HH21	1.78	0.96
1:A2:636:A:H5''	25:BW:126:LEU:N	1.63	0.96
1:A2:215:A:C4'	7:BE:131:LEU:C	2.31	0.96
1:A2:219:A:P	7:BE:153:ASN:OD1	2.24	0.96
1:A2:1582:U:O3'	19:BQ:135:ARG:NH2	1.99	0.96
1:A2:1240:U:H5''	18:BP:104:GLN:CD	1.86	0.96
1:A2:338:C:O2'	11:BI:24:LYS:CE	2.10	0.96
10:BH:110:GLN:C	10:BH:111:LYS:N	2.19	0.96
1:A2:140:A:N3	9:BG:157:VAL:CB	2.29	0.96
1:A2:86:A:H5''	27:BY:125:LEU:CD1	1.91	0.96
1:A2:396:G:H3'	9:BG:88:ARG:CB	1.96	0.96
1:A2:1037:C:O3'	1:A2:1038:U:P	2.24	0.96
1:A2:241:U:H3'	7:BE:149:TYR:HD2	0.79	0.96
1:A2:1202:A:N6	21:BS:136:GLN:C	2.19	0.96
1:A2:1502:G:C2'	22:BT:37:VAL:HG23	1.84	0.96
1:A2:1548:G:N3	21:BS:86:LEU:HA	1.77	0.96
1:A2:956:C:N3	16:BN:11:ILE:HB	1.81	0.96
27:BY:88:THR:HG1	27:BY:89:TYR:N	1.62	0.96
1:A2:1037:C:H3'	25:BW:19:LYS:HE2	1.46	0.95
1:A2:1326:A:C2	6:BD:159:HIS:HE1	1.70	0.95
1:A2:1300:A:H5'	5:BC:86:VAL:HG22	1.48	0.95
1:A2:1055:U:C5'	3:BA:46:HIS:CB	2.44	0.95
1:A2:338:C:H3'	11:BI:4:SER:HB3	1.44	0.95
1:A2:776:G:O3'	27:BY:66:GLY:HA2	1.66	0.95
1:A2:1682:U:C4'	9:BG:102:VAL:HG12	1.96	0.95
1:A2:76:A:H5''	9:BG:165:GLY:C	1.86	0.95
1:A2:57:G:C5'	27:BY:114:ARG:HG3	1.96	0.95
1:A2:91:G:C4	27:BY:116:LYS:HE3	1.96	0.95
1:A2:1034:C:H42	26:BX:3:LYS:CE	1.69	0.95
1:A2:1144:U:C1'	5:BC:89:GLN:HG3	1.95	0.95
1:A2:704:C:OP2	7:BE:233:LYS:CE	2.12	0.95
1:A2:760:A:C1'	12:BJ:9:SER:O	2.14	0.95
1:A2:325:G:C1'	14:BL:133:LYS:HG3	1.96	0.95
1:A2:776:G:C2'	27:BY:29:HIS:HE2	1.67	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:858:G:H22	10:BH:108:GLN:HG3	1.15	0.95
1:A2:139:C:O4'	9:BG:137:ARG:C	2.05	0.95
1:A2:91:G:C3'	27:BY:116:LYS:HZ2	1.74	0.95
1:A2:1721:A:C3'	9:BG:67:VAL:CG2	2.31	0.95
1:A2:864:U:OP1	25:BW:7:LEU:CD2	2.14	0.95
1:A2:1502:G:O6	22:BT:99:SER:HB3	1.66	0.95
1:A2:1367:G:OP1	22:BT:7:ARG:CZ	2.13	0.95
1:A2:1479:A:C5'	22:BT:16:ASN:HD21	1.79	0.95
1:A2:301:A:C5	7:BE:2:ALA:O	2.18	0.95
1:A2:1334:U:H4'	23:BU:83:GLU:CG	1.96	0.95
1:A2:864:U:C6	25:BW:13:ALA:HB3	2.01	0.95
1:A2:1608:U:O2'	19:BQ:73:GLY:CA	2.15	0.95
1:A2:1060:U:OP2	3:BA:39:ASN:ND2	2.00	0.95
1:A2:1086:A:H8	5:BC:203:LYS:HD3	0.80	0.95
1:A2:85:A:H2'	27:BY:125:LEU:C	1.84	0.95
1:A2:140:A:OP1	9:BG:138:ALA:CB	2.15	0.95
1:A2:636:A:OP2	25:BW:78:ARG:HB3	1.65	0.95
1:A2:1299:G:C8	5:BC:99:LYS:HG3	2.01	0.95
1:A2:741:C:C6	7:BE:201:HIS:CA	2.46	0.95
1:A2:240:U:OP2	9:BG:211:LEU:HB2	1.65	0.95
1:A2:1401:A:C5'	20:BR:10:LYS:H	1.77	0.95
1:A2:1213:G:C2'	18:BP:78:THR:O	2.14	0.95
21:BS:87:ASN:OD1	21:BS:88:ARG:N	1.99	0.95
1:A2:920:U:H5''	4:BB:214:LYS:CD	1.52	0.95
1:A2:1366:U:H4'	22:BT:5:SER:HB2	1.48	0.95
1:A2:1520:U:H5''	22:BT:75:LYS:CD	1.95	0.95
1:A2:787:G:N3	27:BY:61:ARG:CD	2.28	0.95
1:A2:814:A:N7	10:BH:108:GLN:HB2	1.41	0.95
1:A2:147:A:H1'	27:BY:124:ARG:HH11	1.30	0.95
1:A2:246:G:OP1	7:BE:37:LYS:HD3	1.66	0.95
3:BA:175:TYR:OH	3:BA:197:ILE:O	1.84	0.95
1:A2:338:C:O2'	11:BI:24:LYS:NZ	1.98	0.95
1:A2:1721:A:O2'	9:BG:98:ARG:C	1.85	0.95
1:A2:354:C:O3'	1:A2:355:G:P	2.24	0.95
1:A2:803:A:C3'	25:BW:120:HIS:CE1	2.49	0.95
1:A2:862:A:O4'	25:BW:32:LYS:N	1.98	0.95
1:A2:238:U:HO3'	9:BG:210:GLN:HB2	1.27	0.95
1:A2:1584:G:OP1	19:BQ:123:ARG:O	1.71	0.95
1:A2:1566:U:C2	21:BS:38:VAL:O	2.20	0.95
1:A2:1566:U:C5'	21:BS:30:TYR:O	2.13	0.95
1:A2:1357:A:O3'	22:BT:130:ARG:HG3	1.66	0.95

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:116:U:N3	7:BE:4:GLY:HA3	1.81	0.95
1:A2:786:C:H5'	27:BY:26:ASP:OD1	0.78	0.95
1:A2:776:G:H4'	27:BY:66:GLY:N	1.82	0.95
1:A2:149:C:H3'	27:BY:130:ALA:O	1.66	0.95
1:A2:1103:U:O3'	26:BX:15:LEU:CD2	2.14	0.95
1:A2:632:U:C5	26:BX:12:ALA:N	2.18	0.95
1:A2:1144:U:C4	5:BC:89:GLN:CD	2.40	0.95
1:A2:741:C:H42	7:BE:207:LEU:N	1.64	0.95
1:A2:1213:G:N2	18:BP:79:HIS:N	2.14	0.95
1:A2:1563:C:C3'	22:BT:38:LYS:CD	2.45	0.95
1:A2:688:G:H5'	12:BJ:67:PRO:CB	1.96	0.95
1:A2:873:U:N3	16:BN:11:ILE:N	2.14	0.95
1:A2:931:C:O2	4:BB:155:TYR:OH	1.84	0.95
1:A2:80:A:H61	9:BG:168:THR:CA	1.80	0.95
1:A2:266:A:H2	9:BG:136:LYS:H	1.08	0.95
1:A2:91:G:H2'	27:BY:116:LYS:HE2	0.97	0.95
1:A2:1037:C:H4'	25:BW:71:LYS:HD2	0.98	0.95
1:A2:242:U:H5	7:BE:149:TYR:CD1	1.83	0.95
1:A2:1390:U:C4	20:BR:3:ARG:HD2	2.02	0.95
1:A2:1473:U:C1'	8:BF:113:ILE:CD1	2.44	0.95
1:A2:597:G:C1'	26:BX:137:LYS:HG3	1.94	0.95
1:A2:570:A:N1	26:BX:67:ALA:HA	1.82	0.95
1:A2:164:A:O5'	9:BG:2:LYS:HG3	1.66	0.95
1:A2:975:C:O3'	1:A2:976:G:P	2.25	0.95
1:A2:1295:G:N7	5:BC:116:LYS:HE2	1.82	0.95
1:A2:1535:U:C5	8:BF:188:LYS:HG3	2.02	0.95
1:A2:900:A:C4'	17:BO:20:TYR:CE1	2.38	0.95
1:A2:331:A:H8	11:BI:31:ARG:CG	1.52	0.95
1:A2:1756:A:H3'	1:A2:1757:G:P	2.05	0.95
1:A2:91:G:N7	27:BY:116:LYS:O	1.97	0.94
1:A2:631:G:H5'	26:BX:13:ARG:CZ	1.98	0.94
1:A2:1103:U:O2	26:BX:5:LYS:CB	2.14	0.94
1:A2:1298:U:O2	5:BC:208:GLU:OE1	1.83	0.94
1:A2:245:U:C2	7:BE:128:LYS:NZ	2.35	0.94
1:A2:1473:U:O4'	8:BF:113:ILE:CD1	2.14	0.94
1:A2:1242:A:H5''	18:BP:89:MET:HE2	1.49	0.94
1:A2:137:U:H2'	9:BG:143:LYS:NZ	1.82	0.94
1:A2:139:C:N3	9:BG:136:LYS:CB	2.15	0.94
1:A2:163:G:O2'	9:BG:1:MET:C	2.06	0.94
1:A2:139:C:C3'	9:BG:138:ALA:H	1.69	0.94
1:A2:244:A:H5''	7:BE:141:THR:OG1	1.68	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:238:U:H3'	9:BG:210:GLN:HB2	1.45	0.94
1:A2:1399:C:H3'	20:BR:66:VAL:HG21	1.45	0.94
1:A2:896:U:H1'	17:BO:18:ARG:HG3	1.50	0.94
1:A2:959:U:H5''	25:BW:59:GLY:CA	1.96	0.94
1:A2:899:G:C4'	17:BO:25:ASP:OD1	2.14	0.94
1:A2:597:G:O2'	26:BX:136:TRP:HB3	1.67	0.94
1:A2:337:G:O2'	11:BI:9:HIS:ND1	1.98	0.94
1:A2:1673:G:C3'	9:BG:94:ARG:NE	2.30	0.94
1:A2:632:U:HO2'	14:BL:99:ARG:HD2	1.22	0.94
1:A2:215:A:H5'	7:BE:132:GLY:N	1.80	0.94
1:A2:734:A:H2	7:BE:180:LEU:CD2	1.56	0.94
1:A2:1389:C:C4'	20:BR:45:ARG:HG3	1.97	0.94
1:A2:1241:G:C6	18:BP:78:THR:N	2.36	0.94
1:A2:784:C:O3'	27:BY:7:ILE:CG2	2.13	0.94
1:A2:967:A:C6	26:BX:8:GLY:N	2.36	0.94
1:A2:1505:A:C2	21:BS:84:TRP:CE2	2.54	0.94
1:A2:1546:G:H21	21:BS:38:VAL:H	0.96	0.94
1:A2:328:A:H5''	11:BI:172:ARG:NH1	1.82	0.94
1:A2:180:A:H2	9:BG:188:ARG:O	1.31	0.94
1:A2:1037:C:C5'	25:BW:15:ASN:CG	2.27	0.94
1:A2:1145:U:O2'	1:A2:1146:G:O5'	1.83	0.94
1:A2:1566:U:H4'	21:BS:32:LEU:O	1.66	0.94
1:A2:1601:G:H8	22:BT:89:ARG:N	1.63	0.94
1:A2:298:C:C5	7:BE:7:LYS:HD2	2.02	0.94
1:A2:786:C:H5'	27:BY:26:ASP:CG	1.88	0.94
1:A2:147:A:C1'	27:BY:124:ARG:HH11	1.79	0.94
1:A2:1037:C:OP1	25:BW:15:ASN:HB2	1.67	0.94
1:A2:864:U:H3	25:BW:14:ILE:HD11	1.33	0.94
1:A2:1331:A:C8	6:BD:161:GLY:HA3	1.88	0.94
1:A2:736:C:H5	7:BE:225:VAL:HG13	1.13	0.94
1:A2:1238:A:O5'	18:BP:63:ALA:O	1.84	0.94
1:A2:922:G:OP2	4:BB:138:PHE:HZ	1.51	0.94
1:A2:960:U:O4'	25:BW:57:ARG:HD3	1.65	0.94
1:A2:18:C:HO3'	26:BX:114:LYS:HA	0.78	0.94
1:A2:1280:C:C1'	23:BU:72:ASN:H	1.79	0.94
1:A2:783:G:C5'	27:BY:39:GLU:O	2.16	0.94
1:A2:783:G:C2	27:BY:40:LEU:CD2	2.49	0.94
1:A2:141:U:C3'	9:BG:158:ILE:HG21	1.97	0.94
1:A2:863:A:P	25:BW:30:SER:O	2.24	0.94
1:A2:1453:G:O2'	18:BP:118:GLU:O	1.83	0.94
1:A2:1553:G:C2	18:BP:40:ARG:HB2	2.03	0.94

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1242:A:C4'	18:BP:89:MET:CE	2.46	0.94
1:A2:1458:G:H1'	21:BS:126:ARG:HH22	1.24	0.94
1:A2:1565:C:H3'	21:BS:40:ARG:CA	1.98	0.94
1:A2:920:U:H3'	4:BB:214:LYS:CD	1.96	0.94
1:A2:598:U:N1	26:BX:132:LEU:HB3	1.61	0.94
1:A2:137:U:C3'	9:BG:143:LYS:HE2	1.97	0.94
1:A2:970:A:N9	26:BX:17:VAL:HG11	1.83	0.94
1:A2:241:U:C4'	7:BE:149:TYR:HD2	1.57	0.94
1:A2:1391:A:O2'	20:BR:28:PHE:HE1	1.29	0.94
1:A2:1528:U:OP1	8:BF:112:ARG:HB2	1.66	0.94
1:A2:1202:A:N1	21:BS:136:GLN:HA	1.81	0.94
1:A2:1565:C:H3'	21:BS:40:ARG:N	1.82	0.94
1:A2:1566:U:C4'	21:BS:30:TYR:O	2.16	0.94
1:A2:1068:C:C5'	3:BA:33:GLN:CB	2.44	0.94
1:A2:916:U:C6	17:BO:84:ARG:NH1	2.36	0.94
1:A2:29:U:N3	26:BX:131:SER:HB2	1.78	0.94
1:A2:792:U:C5	12:BJ:7:THR:OG1	2.11	0.94
1:A2:1281:G:C8	23:BU:70:THR:HG21	2.01	0.94
1:A2:1613:U:P	8:BF:84:LYS:CE	2.56	0.94
1:A2:1192:C:O2'	19:BQ:140:LYS:HE2	1.67	0.94
1:A2:776:G:O6	27:BY:35:VAL:O	1.85	0.94
1:A2:858:G:H1	10:BH:108:GLN:CG	1.80	0.94
1:A2:1710:U:C6	9:BG:115:LYS:CD	2.51	0.94
1:A2:248:U:OP2	7:BE:128:LYS:HE2	1.68	0.94
1:A2:739:G:O6	7:BE:175:PHE:HE1	1.51	0.94
1:A2:736:C:N3	7:BE:195:ILE:CD1	2.31	0.94
14:BL:43:LYS:O	14:BL:44:THR:N	1.99	0.94
1:A2:1555:A:C5'	18:BP:40:ARG:HG2	1.95	0.94
1:A2:873:U:H3	16:BN:10:GLY:HA2	1.30	0.94
1:A2:597:G:C2	26:BX:135:LEU:N	2.35	0.94
7:BE:217:THR:HG1	7:BE:218:PHE:N	1.65	0.94
1:A2:145:A:OP1	9:BG:6:SER:HB2	1.68	0.94
1:A2:75:U:H6	9:BG:166:GLU:O	1.45	0.94
1:A2:1290:U:H4'	6:BD:151:LYS:NZ	1.82	0.94
1:A2:832:U:C5'	9:BG:213:ALA:HA	1.97	0.94
1:A2:736:C:H5''	7:BE:182:TYR:O	1.65	0.94
1:A2:1546:G:H1'	21:BS:36:LYS:CB	1.96	0.94
1:A2:1055:U:C4'	3:BA:46:HIS:CB	2.43	0.94
1:A2:1601:G:OP1	22:BT:89:ARG:HB3	0.95	0.94
1:A2:1519:U:OP2	22:BT:75:LYS:HE2	1.67	0.94
1:A2:1302:U:OP1	5:BC:88:LYS:HD3	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:215:A:H4'	7:BE:131:LEU:CA	1.99	0.93
1:A2:1391:A:O2'	20:BR:28:PHE:CE1	2.19	0.93
1:A2:1525:A:H61	19:BQ:73:GLY:N	1.66	0.93
1:A2:1566:U:C6	21:BS:33:THR:CG2	2.50	0.93
1:A2:955:A:N6	16:BN:11:ILE:HA	1.58	0.93
1:A2:323:A:C1'	11:BI:11:ARG:CG	2.44	0.93
16:BN:112:LYS:C	16:BN:113:PHE:N	2.21	0.93
26:BX:54:LEU:C	26:BX:55:GLU:N	2.21	0.93
1:A2:266:A:H4'	9:BG:136:LYS:CD	1.77	0.93
1:A2:75:U:C2	9:BG:166:GLU:N	2.37	0.93
1:A2:807:A:OP1	25:BW:79:PHE:C	2.07	0.93
1:A2:803:A:C5'	25:BW:120:HIS:ND1	2.31	0.93
1:A2:1327:C:C6	6:BD:159:HIS:N	2.34	0.93
1:A2:1452:U:O2	18:BP:96:ILE:HG21	1.66	0.93
1:A2:1241:G:O6	18:BP:78:THR:C	2.05	0.93
1:A2:1564:U:C4'	21:BS:41:ARG:HH11	1.67	0.93
1:A2:920:U:H3'	4:BB:214:LYS:HD3	1.46	0.93
1:A2:921:U:OP1	4:BB:215:VAL:C	2.06	0.93
1:A2:1:U:C2	12:BJ:12:TYR:CD1	2.56	0.93
1:A2:1600:A:C3'	22:BT:86:ARG:CZ	2.43	0.93
1:A2:1428:G:H1	23:BU:74:GLU:HG3	1.20	0.93
1:A2:165:G:N2	27:BY:131:ARG:HH12	1.66	0.93
1:A2:140:A:P	9:BG:153:VAL:O	2.27	0.93
1:A2:1683:C:O5'	9:BG:52:ILE:HG23	1.66	0.93
1:A2:58:U:O3'	27:BY:111:LYS:CD	1.94	0.93
1:A2:241:U:N3	7:BE:136:VAL:CG1	2.32	0.93
2:AZ:6220:U:O2	6:BD:143:ARG:CD	0.64	0.93
1:A2:1498:G:C8	22:BT:73:VAL:HG23	2.00	0.93
1:A2:1499:G:OP2	22:BT:102:ARG:C	2.05	0.93
1:A2:959:U:O2'	25:BW:56:HIS:HB2	1.66	0.93
1:A2:755:A:N3	12:BJ:3:ARG:CG	2.32	0.93
1:A2:879:G:O2'	16:BN:111:ALA:N	1.99	0.93
1:A2:858:G:N2	10:BH:108:GLN:CG	2.20	0.93
1:A2:265:A:OP1	9:BG:176:GLN:HG3	1.66	0.93
1:A2:164:A:OP2	9:BG:2:LYS:HB3	1.69	0.93
1:A2:1290:U:C5'	6:BD:151:LYS:HE3	1.98	0.93
1:A2:1457:C:HO2'	21:BS:132:ARG:N	1.66	0.93
1:A2:1055:U:P	3:BA:46:HIS:CB	2.57	0.93
1:A2:872:G:H22	16:BN:11:ILE:CG1	1.74	0.93
1:A2:955:A:H2	16:BN:11:ILE:HD13	0.83	0.93
1:A2:323:A:H1'	11:BI:11:ARG:CD	1.99	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1098:U:O2'	5:BC:169:LEU:C	2.06	0.93
1:A2:1040:G:C3'	24:BV:62:ARG:HE	1.81	0.93
1:A2:778:G:H3'	27:BY:32:ARG:CZ	1.87	0.93
1:A2:1683:C:OP1	9:BG:109:LEU:HG	1.68	0.93
1:A2:865:A:O5'	25:BW:8:ALA:CB	1.92	0.93
1:A2:831:U:P	7:BE:152:PRO:HB3	2.08	0.93
1:A2:741:C:H42	7:BE:207:LEU:H	1.16	0.93
1:A2:1454:G:OP1	18:BP:118:GLU:HB3	1.67	0.93
1:A2:1558:U:OP1	21:BS:127:HIS:CD2	2.20	0.93
1:A2:952:A:N3	16:BN:6:SER:N	2.15	0.93
1:A2:989:U:O2	17:BO:127:ARG:HG3	1.67	0.93
1:A2:597:G:C4'	26:BX:137:LYS:CG	2.41	0.93
1:A2:323:A:H1'	11:BI:11:ARG:CG	1.99	0.93
1:A2:1370:U:C5'	22:BT:119:LYS:HZ1	1.80	0.93
1:A2:1709:C:H4'	9:BG:9:VAL:HG22	1.00	0.93
1:A2:78:A:N1	9:BG:160:ARG:CG	2.26	0.93
1:A2:1721:A:H5'	9:BG:64:LYS:HB2	1.51	0.93
1:A2:1298:U:O4'	5:BC:99:LYS:HD3	1.36	0.93
1:A2:735:C:C5	7:BE:195:ILE:HG13	2.03	0.93
1:A2:215:A:C4'	7:BE:131:LEU:HA	1.98	0.93
1:A2:600:U:C2	26:BX:105:ALA:CB	2.45	0.93
1:A2:330:G:C4'	11:BI:31:ARG:HB3	1.93	0.93
1:A2:346:G:N1	11:BI:16:ALA:N	2.16	0.93
1:A2:1084:A:C5'	5:BC:161:LYS:HA	1.98	0.93
19:BQ:83:GLN:C	19:BQ:84:ALA:HA	1.87	0.93
1:A2:634:G:C6	26:BX:9:LEU:HD12	2.03	0.93
1:A2:733:A:N1	7:BE:195:ILE:CG2	2.30	0.93
1:A2:241:U:C4	7:BE:136:VAL:HG13	2.02	0.93
1:A2:699:U:H5'	7:BE:197:HIS:CE1	1.69	0.93
1:A2:1475:A:H62	28:BZ:97:LYS:CD	1.82	0.93
1:A2:1241:G:OP1	18:BP:105:VAL:N	2.01	0.93
1:A2:1237:G:C8	18:BP:65:LEU:HD22	2.03	0.93
1:A2:1498:G:H5'	22:BT:73:VAL:N	1.82	0.93
1:A2:895:G:H2'	17:BO:18:ARG:NH1	1.54	0.93
1:A2:1084:A:C2'	5:BC:164:SER:N	2.32	0.93
1:A2:149:C:O3'	27:BY:130:ALA:CB	2.17	0.93
1:A2:864:U:H5	25:BW:13:ALA:CB	1.82	0.93
1:A2:1068:C:H4'	3:BA:153:SER:HB3	1.49	0.93
1:A2:859:A:C2'	10:BH:101:LYS:CE	2.44	0.93
1:A2:1674:C:C4'	9:BG:76:LEU:HG	1.98	0.93
1:A2:1682:U:H4'	9:BG:102:VAL:HG12	1.49	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:58:U:H5'	27:BY:114:ARG:NE	1.69	0.93
1:A2:87:C:OP2	1:A2:87:C:H6	1.50	0.93
1:A2:633:U:HO3'	25:BW:79:PHE:HE1	0.96	0.93
1:A2:1298:U:O2'	5:BC:84:LYS:HG2	1.69	0.93
1:A2:741:C:N4	7:BE:207:LEU:N	2.17	0.93
1:A2:740:A:H2	7:BE:200:ARG:H	1.15	0.93
1:A2:1500:C:H6	22:BT:103:LYS:CG	1.82	0.93
1:A2:1056:U:H5''	3:BA:46:HIS:NE2	1.83	0.93
1:A2:32:U:O4	26:BX:140:LYS:HD2	1.68	0.93
1:A2:764:U:O3'	27:BY:64:PHE:HA	1.68	0.93
1:A2:179:A:H61	9:BG:190:GLN:HG2	1.34	0.93
1:A2:76:A:O2'	9:BG:163:THR:CG2	2.17	0.93
1:A2:1556:A:P	18:BP:38:PRO:CG	2.56	0.93
1:A2:1056:U:P	3:BA:46:HIS:HA	2.09	0.93
1:A2:1135:U:O5'	26:BX:119:GLY:N	2.01	0.93
1:A2:325:G:H1'	14:BL:133:LYS:CG	1.98	0.93
5:BC:139:ILE:HD11	5:BC:191:ALA:HB1	1.47	0.93
1:A2:164:A:OP2	9:BG:108:VAL:HG13	1.68	0.92
1:A2:165:G:P	9:BG:15:THR:N	2.29	0.92
1:A2:746:A:N1	25:BW:82:LYS:CE	2.33	0.92
1:A2:735:C:C2'	7:BE:193:GLY:N	2.30	0.92
1:A2:734:A:H8	7:BE:212:ASP:C	1.67	0.92
1:A2:1505:A:H5''	22:BT:41:SER:HB3	1.51	0.92
1:A2:1056:U:OP2	3:BA:40:ALA:HA	1.69	0.92
1:A2:18:C:HO2'	26:BX:115:GLY:HA2	0.88	0.92
1:A2:325:G:H5'	11:BI:7:SER:HG	1.16	0.92
1:A2:1521:G:OP1	22:BT:75:LYS:HE2	1.68	0.92
1:A2:858:G:H1	10:BH:108:GLN:HG3	1.24	0.92
1:A2:1103:U:C5'	26:BX:15:LEU:HD13	1.99	0.92
1:A2:704:C:C2	7:BE:231:GLN:HA	2.03	0.92
1:A2:704:C:H5''	7:BE:233:LYS:O	1.68	0.92
1:A2:241:U:OP2	9:BG:208:TYR:HB2	1.69	0.92
1:A2:1583:A:O3'	1:A2:1584:G:P	2.26	0.92
1:A2:1502:G:H2'	22:BT:37:VAL:HG21	0.95	0.92
1:A2:686:C:H5''	12:BJ:64:GLU:CG	1.99	0.92
1:A2:1097:U:H5''	5:BC:199:GLN:H	1.21	0.92
1:A2:814:A:H2	10:BH:109:VAL:CA	1.52	0.92
1:A2:165:G:H22	27:BY:131:ARG:NH1	1.66	0.92
1:A2:91:G:H2'	27:BY:116:LYS:NZ	1.84	0.92
1:A2:1038:U:C5'	25:BW:19:LYS:NZ	2.33	0.92
1:A2:746:A:N1	25:BW:82:LYS:HE3	1.85	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:239:C:H5'	9:BG:210:GLN:CG	1.99	0.92
1:A2:741:C:H6	7:BE:201:HIS:CB	1.72	0.92
1:A2:1213:G:C4'	18:BP:77:ARG:HD3	1.98	0.92
1:A2:18:C:O3'	26:BX:114:LYS:C	2.07	0.92
1:A2:1146:G:C4	5:BC:93:GLY:N	2.28	0.92
1:A2:1389:C:C5'	20:BR:45:ARG:CA	2.30	0.92
1:A2:1534:G:O2'	8:BF:187:ILE:HG21	1.69	0.92
1:A2:1535:U:C4	8:BF:186:ASN:C	2.41	0.92
1:A2:895:G:C2'	17:BO:18:ARG:HH12	1.80	0.92
1:A2:880:C:C6	16:BN:110:ASP:OD2	2.21	0.92
1:A2:180:A:H3'	9:BG:187:LYS:NZ	1.84	0.92
1:A2:1214:U:OP2	18:BP:102:PHE:HZ	1.53	0.92
1:A2:1056:U:OP2	3:BA:40:ALA:CB	2.18	0.92
1:A2:886:U:OP2	4:BB:122:GLU:CD	2.08	0.92
1:A2:760:A:C2'	12:BJ:9:SER:O	2.17	0.92
1:A2:329:G:H5'	11:BI:56:ARG:HH21	1.14	0.92
1:A2:1482:C:C1'	19:BQ:74:HIS:HE1	1.77	0.92
1:A2:776:G:C6	27:BY:35:VAL:HG12	2.05	0.92
1:A2:78:A:N1	9:BG:162:VAL:CB	2.31	0.92
1:A2:1673:G:C2'	9:BG:94:ARG:NE	2.31	0.92
1:A2:1453:G:O2'	18:BP:120:SER:O	1.88	0.92
1:A2:1213:G:C6	18:BP:97:TYR:CD2	2.44	0.92
1:A2:901:G:H22	17:BO:24:ASN:CA	1.82	0.92
1:A2:105:A:P	11:BI:21:PHE:CB	2.57	0.92
1:A2:458:G:N2	27:BY:105:ARG:HG2	1.83	0.92
1:A2:632:U:C2'	26:BX:15:LEU:CD1	2.42	0.92
1:A2:633:U:O3'	1:A2:634:G:P	2.19	0.92
1:A2:865:A:N7	25:BW:6:VAL:HG23	1.84	0.92
1:A2:218:A:C5'	7:BE:155:LYS:HZ3	1.82	0.92
1:A2:1473:U:OP2	8:BF:191:ALA:N	2.03	0.92
1:A2:1455:G:H8	18:BP:123:TYR:HE1	0.96	0.92
1:A2:1244:A:C2'	18:BP:59:LYS:CD	2.41	0.92
1:A2:955:A:H61	16:BN:11:ILE:HA	0.77	0.92
1:A2:601:A:N7	26:BX:105:ALA:HB1	1.85	0.92
1:A2:1159:C:C2'	19:BQ:140:LYS:HZ2	1.82	0.92
1:A2:765:G:O6	12:BJ:132:ARG:HA	1.68	0.92
1:A2:778:G:H21	27:BY:32:ARG:CB	1.81	0.92
1:A2:451:A:C2	27:BY:111:LYS:HD2	2.04	0.92
1:A2:217:A:O5'	7:BE:155:LYS:HE2	1.70	0.92
1:A2:734:A:N1	7:BE:180:LEU:CD2	2.21	0.92
1:A2:740:A:N3	7:BE:200:ARG:HA	1.77	0.92

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1245:G:H3'	18:BP:59:LYS:NZ	1.84	0.92
1:A2:1501:C:H3'	22:BT:33:TYR:CE1	2.04	0.92
1:A2:1056:U:OP2	3:BA:46:HIS:HA	1.69	0.92
16:BN:5:HIS:C	16:BN:6:SER:N	2.22	0.92
17:BO:120:PRO:HA	17:BO:121:VAL:N	1.84	0.92
1:A2:78:A:H2	9:BG:160:ARG:NH2	1.68	0.92
1:A2:244:A:OP2	7:BE:140:VAL:HG22	1.70	0.92
1:A2:733:A:N1	7:BE:195:ILE:HG22	1.85	0.92
1:A2:215:A:H5'	7:BE:132:GLY:CA	1.99	0.92
1:A2:1470:C:H3'	8:BF:184:PHE:CD1	2.04	0.92
1:A2:1530:C:N4	28:BZ:96:SER:CB	2.33	0.92
1:A2:1183:A:H8	18:BP:125:PRO:CD	1.83	0.92
1:A2:1212:G:C6	18:BP:99:GLY:C	2.35	0.92
1:A2:759:U:H3	12:BJ:7:THR:C	1.72	0.92
1:A2:323:A:H1'	11:BI:11:ARG:HD3	1.52	0.92
1:A2:1085:G:O6	5:BC:209:ASN:OD1	1.86	0.92
17:BO:54:GLU:C	17:BO:55:SER:N	2.23	0.92
1:A2:138:A:O4'	9:BG:144:PHE:HB2	1.70	0.92
1:A2:182:A:N7	9:BG:191:ARG:NH2	2.15	0.92
1:A2:631:G:H2'	26:BX:12:ALA:O	1.70	0.92
1:A2:1389:C:C3'	20:BR:45:ARG:HG3	1.96	0.92
1:A2:1242:A:OP1	18:BP:107:ILE:HG21	1.68	0.92
1:A2:917:U:OP1	17:BO:86:THR:O	1.85	0.92
1:A2:1056:U:OP2	3:BA:40:ALA:HB1	1.70	0.92
1:A2:916:U:C2	17:BO:20:TYR:CD2	2.48	0.92
1:A2:548:G:O5'	26:BX:137:LYS:CA	2.15	0.92
1:A2:1083:G:C2	5:BC:161:LYS:CD	2.51	0.92
1:A2:780:A:C2	27:BY:32:ARG:HD3	2.02	0.91
1:A2:58:U:H5'	27:BY:114:ARG:HH21	1.22	0.91
1:A2:78:A:C2	9:BG:162:VAL:CG2	2.52	0.91
1:A2:127:G:H8	9:BG:186:ARG:HB2	1.12	0.91
1:A2:632:U:H4'	14:BL:97:TYR:CG	2.06	0.91
1:A2:1533:C:O4'	28:BZ:77:ARG:NE	2.02	0.91
1:A2:1244:A:C3'	18:BP:59:LYS:HD2	1.91	0.91
1:A2:688:G:C5'	12:BJ:67:PRO:CG	2.04	0.91
1:A2:1055:U:OP2	3:BA:46:HIS:CB	2.17	0.91
1:A2:1084:A:C2'	5:BC:163:GLY:C	2.38	0.91
1:A2:168:A:O3'	9:BG:132:ARG:CD	2.18	0.91
1:A2:637:C:OP1	25:BW:109:GLY:O	1.88	0.91
1:A2:1326:A:N1	6:BD:159:HIS:CE1	2.36	0.91
1:A2:1389:C:C4'	20:BR:45:ARG:CB	2.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1547:A:O4'	21:BS:105:VAL:HG21	1.68	0.91
1:A2:1057:U:H2'	3:BA:40:ALA:O	1.70	0.91
1:A2:1357:A:O4'	22:BT:126:GLU:C	2.08	0.91
1:A2:177:U:C4	9:BG:137:ARG:HD3	2.05	0.91
1:A2:966:A:N1	26:BX:9:LEU:N	2.00	0.91
1:A2:1038:U:C5'	25:BW:19:LYS:HZ2	1.82	0.91
1:A2:966:A:H61	26:BX:10:ASN:H	1.17	0.91
1:A2:1299:G:C8	5:BC:86:VAL:CG1	2.53	0.91
1:A2:736:C:O4'	7:BE:181:VAL:HA	1.69	0.91
1:A2:1236:A:C2'	18:BP:65:LEU:HD21	1.95	0.91
1:A2:1501:C:H3'	22:BT:33:TYR:CD1	2.04	0.91
1:A2:1060:U:P	3:BA:39:ASN:HD21	1.93	0.91
1:A2:955:A:H2	16:BN:11:ILE:CD1	1.71	0.91
1:A2:959:U:C1'	25:BW:56:HIS:N	2.32	0.91
22:BT:23:GLN:HA	22:BT:55:TYR:CD2	2.05	0.91
1:A2:337:G:C8	11:BI:9:HIS:CE1	2.59	0.91
1:A2:1519:U:P	22:BT:75:LYS:HD3	2.10	0.91
1:A2:64:U:O2'	27:BY:123:LYS:NZ	2.02	0.91
1:A2:244:A:OP2	7:BE:139:VAL:O	1.87	0.91
1:A2:699:U:O2	7:BE:198:LYS:CG	2.18	0.91
1:A2:1535:U:O4'	8:BF:187:ILE:HD12	1.47	0.91
1:A2:1184:A:C6	18:BP:123:TYR:CE2	2.57	0.91
1:A2:1505:A:N1	21:BS:84:TRP:CD2	2.38	0.91
1:A2:1563:C:O3'	22:BT:38:LYS:HD2	1.67	0.91
1:A2:901:G:H5''	17:BO:86:THR:OG1	1.68	0.91
1:A2:755:A:C5	12:BJ:2:PRO:CB	2.24	0.91
1:A2:30:G:H3'	26:BX:141:GLU:HA	1.51	0.91
7:BE:65:LEU:C	7:BE:66:MET:N	2.24	0.91
1:A2:457:G:H22	27:BY:109:LYS:N	1.65	0.91
1:A2:141:U:C2	9:BG:136:LYS:HA	2.06	0.91
1:A2:164:A:C8	9:BG:2:LYS:CB	2.41	0.91
1:A2:89:G:O6	27:BY:118:ILE:CG2	2.18	0.91
1:A2:804:A:N3	25:BW:83:ILE:CA	2.23	0.91
1:A2:831:U:OP1	7:BE:152:PRO:HB2	1.68	0.91
1:A2:1473:U:O4'	8:BF:113:ILE:HD13	1.69	0.91
1:A2:1056:U:C6	3:BA:40:ALA:HB3	2.03	0.91
1:A2:899:G:H4'	17:BO:26:THR:O	1.70	0.91
1:A2:960:U:O5'	25:BW:56:HIS:O	1.89	0.91
1:A2:331:A:H8	11:BI:31:ARG:HG2	0.87	0.91
1:A2:1370:U:H5'	22:BT:119:LYS:HZ2	1.12	0.91
1:A2:175:G:C2'	9:BG:137:ARG:NH2	2.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:803:A:H5''	25:BW:120:HIS:CE1	2.01	0.91
1:A2:1301:U:C4	5:BC:118:ALA:HA	2.02	0.91
1:A2:703:G:C4	7:BE:230:GLU:HA	2.04	0.91
1:A2:1473:U:C2'	8:BF:190:ILE:HG13	2.01	0.91
1:A2:1565:C:H6	21:BS:40:ARG:C	1.74	0.91
1:A2:40:A:O3'	1:A2:41:A:P	2.27	0.91
1:A2:1096:C:H1'	5:BC:200:SER:O	1.66	0.91
1:A2:783:G:N7	27:BY:39:GLU:CB	2.32	0.91
1:A2:859:A:H2'	10:BH:101:LYS:HE3	1.51	0.91
1:A2:1682:U:C5'	9:BG:102:VAL:HG11	1.91	0.91
1:A2:632:U:O2'	14:BL:99:ARG:CD	2.17	0.91
1:A2:740:A:C5	7:BE:206:ASP:OD2	2.23	0.91
1:A2:831:U:P	7:BE:152:PRO:HB2	2.10	0.91
1:A2:1242:A:OP2	18:BP:107:ILE:HG13	1.70	0.91
1:A2:1557:U:O2'	21:BS:123:ARG:CA	2.13	0.91
1:A2:1565:C:C6	21:BS:41:ARG:N	2.38	0.91
1:A2:953:G:H21	16:BN:9:LYS:H	0.96	0.91
1:A2:897:C:H5	17:BO:38:THR:HG21	1.36	0.91
1:A2:1591:C:C5'	22:BT:93:HIS:CA	2.33	0.91
1:A2:129:U:C4	9:BG:177:ARG:CD	2.54	0.91
1:A2:456:A:O2'	27:BY:111:LYS:HE2	1.71	0.91
1:A2:864:U:H5	25:BW:13:ALA:HB3	1.12	0.91
1:A2:1389:C:C4'	20:BR:45:ARG:CG	2.47	0.91
1:A2:1225:U:O2	1:A2:1230:A:O3'	1.87	0.91
1:A2:1241:G:OP2	18:BP:105:VAL:N	2.04	0.91
1:A2:1502:G:OP1	22:BT:32:GLY:O	1.88	0.91
1:A2:896:U:C1'	17:BO:18:ARG:NH1	2.34	0.91
1:A2:139:C:C5'	9:BG:141:ILE:CB	2.46	0.91
1:A2:1721:A:O5'	9:BG:64:LYS:HB3	0.87	0.91
1:A2:450:U:H6	27:BY:109:LYS:CE	1.83	0.91
1:A2:459:G:O3'	1:A2:460:A:P	2.29	0.91
1:A2:803:A:O3'	25:BW:120:HIS:ND1	2.01	0.91
1:A2:244:A:O2'	7:BE:144:GLY:HA2	1.66	0.91
1:A2:1316:G:O3'	20:BR:8:THR:N	2.04	0.91
1:A2:1563:C:C3'	22:BT:38:LYS:HD2	2.01	0.91
1:A2:1:U:O3'	12:BJ:14:THR:CB	2.17	0.91
1:A2:27:U:C2	26:BX:126:LYS:HD2	2.05	0.91
1:A2:756:A:C5'	7:BE:23:LEU:HD11	1.98	0.91
1:A2:338:C:O5'	11:BI:4:SER:OG	1.88	0.91
1:A2:1040:G:H3'	24:BV:62:ARG:HE	1.33	0.91
1:A2:1521:G:N7	22:BT:68:ARG:CD	2.33	0.91

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:859:A:H61	10:BH:111:LYS:CB	1.76	0.91
1:A2:864:U:C5	25:BW:13:ALA:CB	2.54	0.91
1:A2:1325:A:N3	6:BD:156:PHE:CA	2.31	0.91
1:A2:1241:G:OP1	18:BP:104:GLN:HA	1.70	0.91
1:A2:1183:A:C8	18:BP:125:PRO:CD	2.53	0.91
2:AZ:6137:C:HO2'	8:BF:126:ASP:HB2	1.09	0.91
1:A2:322:G:H21	11:BI:10:LYS:HD2	1.27	0.91
1:A2:1085:G:N7	5:BC:162:CYS:O	2.03	0.91
1:A2:1097:U:H5''	5:BC:199:GLN:N	1.69	0.91
1:A2:1034:C:C3'	26:BX:2:GLY:N	2.33	0.90
1:A2:631:G:C6	26:BX:11:SER:O	2.24	0.90
1:A2:1533:C:O5'	28:BZ:77:ARG:NH1	2.03	0.90
1:A2:1553:G:H5''	18:BP:43:ARG:CD	1.99	0.90
1:A2:1498:G:H5''	22:BT:72:GLY:C	1.91	0.90
1:A2:954:G:H8	16:BN:8:GLY:O	1.39	0.90
1:A2:338:C:H3'	11:BI:4:SER:OG	1.69	0.90
1:A2:1280:C:C2	23:BU:72:ASN:N	2.35	0.90
1:A2:141:U:C5	9:BG:173:PRO:HB2	2.06	0.90
1:A2:1722:A:N3	9:BG:70:PRO:CD	2.34	0.90
1:A2:736:C:H42	7:BE:195:ILE:CD1	1.84	0.90
1:A2:1055:U:H5''	3:BA:37:VAL:HG13	1.52	0.90
1:A2:896:U:H1'	17:BO:18:ARG:HH11	1.29	0.90
1:A2:382:C:H4'	12:BJ:2:PRO:CG	1.99	0.90
1:A2:346:G:H1	11:BI:16:ALA:N	1.67	0.90
1:A2:1416:G:HO2'	19:BQ:126:PRO:HD3	1.15	0.90
1:A2:1095:U:C4'	5:BC:159:THR:HG21	1.99	0.90
1:A2:787:G:OP2	27:BY:24:VAL:CG1	2.19	0.90
1:A2:165:G:N2	27:BY:131:ARG:NH1	2.19	0.90
1:A2:632:U:C1'	26:BX:15:LEU:CD1	2.04	0.90
1:A2:240:U:H3'	9:BG:208:TYR:HB3	1.53	0.90
1:A2:818:C:O3'	1:A2:819:G:P	2.29	0.90
1:A2:699:U:H6	7:BE:197:HIS:CG	1.84	0.90
1:A2:1565:C:H2'	21:BS:39:GLY:CA	2.01	0.90
1:A2:1505:A:O5'	22:BT:38:LYS:CG	2.19	0.90
17:BO:89:THR:HG1	17:BO:90:ARG:N	1.69	0.90
1:A2:1082:C:O2'	5:BC:216:VAL:HG13	1.69	0.90
1:A2:783:G:N2	27:BY:35:VAL:CG2	2.34	0.90
1:A2:139:C:H6	9:BG:140:ASN:HB2	1.21	0.90
25:BW:71:LYS:C	25:BW:72:CYS:N	2.25	0.90
1:A2:216:U:C2	7:BE:150:PRO:HG2	2.06	0.90
1:A2:1242:A:C4'	18:BP:89:MET:HE2	2.01	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1455:G:H8	18:BP:123:TYR:CE1	1.82	0.90
1:A2:1454:G:P	18:BP:118:GLU:CB	2.59	0.90
1:A2:1213:G:H21	18:BP:79:HIS:N	1.66	0.90
1:A2:1454:G:OP1	21:BS:122:HIS:HB3	1.71	0.90
1:A2:1068:C:H6	3:BA:33:GLN:OE1	1.26	0.90
1:A2:901:G:H5''	17:BO:86:THR:HG23	1.31	0.90
1:A2:303:U:C5	7:BE:2:ALA:N	2.39	0.90
1:A2:1437:U:O3'	1:A2:1438:G:P	2.29	0.90
1:A2:1102:G:C1'	26:BX:7:ARG:HE	1.78	0.90
1:A2:436:A:H8	26:BX:101:GLU:OE2	1.49	0.90
1:A2:736:C:H4'	7:BE:228:ILE:HG23	1.53	0.90
1:A2:1237:G:O6	18:BP:62:ALA:HB1	1.70	0.90
1:A2:1564:U:H2'	21:BS:41:ARG:C	1.92	0.90
1:A2:1566:U:C5'	21:BS:30:TYR:CA	2.44	0.90
1:A2:1548:G:O4'	21:BS:87:ASN:OD1	1.87	0.90
1:A2:300:A:N6	7:BE:4:GLY:C	2.19	0.90
1:A2:1083:G:H21	5:BC:161:LYS:HE2	1.24	0.90
12:BJ:161:THR:HG1	12:BJ:162:SER:N	1.69	0.90
1:A2:783:G:H22	27:BY:35:VAL:CG2	1.83	0.90
1:A2:811:A:H62	10:BH:103:SER:HB2	1.31	0.90
1:A2:449:C:H6	27:BY:105:ARG:NE	1.57	0.90
1:A2:736:C:C5'	7:BE:182:TYR:H	1.77	0.90
1:A2:702:G:N3	7:BE:174:LYS:O	2.04	0.90
1:A2:1389:C:O3'	20:BR:45:ARG:O	1.89	0.90
1:A2:324:U:C5'	11:BI:11:ARG:C	2.33	0.90
1:A2:783:G:N1	27:BY:35:VAL:CG2	1.73	0.90
1:A2:137:U:C4'	9:BG:143:LYS:HE2	2.01	0.90
1:A2:179:A:C1'	9:BG:184:LEU:CB	2.49	0.90
1:A2:1238:A:OP1	18:BP:64:LYS:CA	2.14	0.90
1:A2:1240:U:C3'	18:BP:104:GLN:HG2	2.02	0.90
1:A2:1241:G:O2'	18:BP:116:LEU:CD1	2.20	0.90
1:A2:599:A:C2	26:BX:103:LEU:HB3	2.06	0.90
7:BE:16:HIS:C	7:BE:17:HIS:N	2.25	0.90
1:A2:548:G:C5'	26:BX:136:TRP:CD2	2.52	0.90
1:A2:777:C:H3'	27:BY:32:ARG:HG3	1.53	0.90
1:A2:812:A:H2	10:BH:111:LYS:HG3	1.33	0.90
9:BG:96:SER:C	9:BG:97:VAL:N	2.25	0.90
1:A2:456:A:H62	27:BY:108:ARG:HG2	1.29	0.90
1:A2:1108:G:N1	26:BX:26:GLU:HA	1.84	0.90
1:A2:1301:U:O5'	5:BC:97:ARG:N	2.00	0.90
1:A2:215:A:N6	7:BE:149:TYR:CA	2.29	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:704:C:O2'	7:BE:230:GLU:OE1	1.90	0.90
1:A2:1558:U:C5	21:BS:124:GLY:N	2.37	0.90
1:A2:302:U:C5'	11:BI:25:ARG:CZ	2.49	0.90
1:A2:1086:A:C8	5:BC:203:LYS:HD2	2.04	0.90
1:A2:1685:G:H8	9:BG:51:LYS:HZ1	0.90	0.90
1:A2:57:G:H5''	27:BY:114:ARG:HG3	1.52	0.90
1:A2:631:G:H5'	26:BX:13:ARG:NH2	1.87	0.90
1:A2:633:U:O3'	25:BW:79:PHE:HZ	1.49	0.90
1:A2:243:G:C5'	7:BE:147:ILE:CG1	2.11	0.90
1:A2:216:U:H6	7:BE:129:VAL:CG2	1.84	0.90
1:A2:1553:G:OP1	18:BP:43:ARG:NH2	1.94	0.90
1:A2:1681:A:H3'	9:BG:31:ARG:CA	2.01	0.90
1:A2:1721:A:H5'	9:BG:64:LYS:CB	1.98	0.90
1:A2:970:A:C8	26:BX:17:VAL:CG1	2.54	0.90
1:A2:632:U:O2'	26:BX:15:LEU:HD12	1.72	0.90
1:A2:1299:G:C8	5:BC:86:VAL:HG13	2.06	0.90
1:A2:1298:U:O4'	5:BC:99:LYS:CD	2.05	0.90
1:A2:741:C:N4	7:BE:206:ASP:C	2.25	0.90
1:A2:1177:C:H41	21:BS:139:LYS:HG3	1.38	0.90
1:A2:885:G:OP1	4:BB:122:GLU:OE1	1.89	0.90
1:A2:956:C:C2	16:BN:11:ILE:HG21	2.07	0.90
1:A2:1009:U:O5'	17:BO:129:LYS:NZ	0.75	0.90
1:A2:3:U:H3	12:BJ:19:TYR:HD1	0.93	0.90
1:A2:778:G:C3'	27:BY:32:ARG:CZ	2.41	0.89
1:A2:633:U:C4	26:BX:11:SER:N	2.38	0.89
1:A2:968:U:C4'	26:BX:5:LYS:H	1.74	0.89
1:A2:702:G:C8	7:BE:176:ASP:HB2	2.06	0.89
1:A2:1533:C:C6	28:BZ:77:ARG:NE	2.40	0.89
1:A2:1055:U:H5'	3:BA:46:HIS:CB	2.00	0.89
1:A2:953:G:H21	16:BN:9:LYS:N	1.51	0.89
1:A2:323:A:H1'	11:BI:11:ARG:HG2	1.54	0.89
1:A2:338:C:O2	11:BI:2:GLY:C	2.11	0.89
1:A2:141:U:OP1	9:BG:141:ILE:HG12	1.73	0.89
5:BC:125:ILE:O	5:BC:128:GLY:N	2.04	0.89
1:A2:828:U:H2'	1:A2:829:A:C8	2.06	0.89
1:A2:872:G:H22	16:BN:11:ILE:HG12	1.06	0.89
1:A2:340:U:C2	11:BI:3:ILE:CG2	2.47	0.89
1:A2:778:G:H3'	27:BY:32:ARG:HH21	0.76	0.89
1:A2:775:G:N3	27:BY:61:ARG:HA	1.86	0.89
1:A2:1721:A:N9	9:BG:67:VAL:CG2	2.24	0.89
1:A2:1674:C:C5'	9:BG:76:LEU:HG	2.02	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:90:C:C4	27:BY:116:LYS:O	2.15	0.89
1:A2:636:A:C2'	25:BW:110:ILE:HG23	2.01	0.89
1:A2:1548:G:O5'	21:BS:87:ASN:OD1	1.91	0.89
1:A2:1565:C:C3'	21:BS:40:ARG:HA	1.95	0.89
1:A2:1055:U:OP2	3:BA:25:GLY:HA3	1.71	0.89
1:A2:1055:U:OP2	3:BA:46:HIS:HB2	1.71	0.89
1:A2:915:A:C2	17:BO:27:PHE:HE2	1.89	0.89
1:A2:760:A:C1'	12:BJ:8:TYR:HB2	2.00	0.89
1:A2:776:G:O3'	27:BY:29:HIS:CE1	2.25	0.89
1:A2:245:U:OP1	7:BE:142:HIS:O	1.89	0.89
1:A2:1243:G:N1	18:BP:61:ARG:NH2	2.06	0.89
2:AZ:6106:A:O2'	8:BF:223:SER:C	2.10	0.89
1:A2:930:A:O2'	4:BB:116:LYS:HD3	1.72	0.89
1:A2:955:A:N6	16:BN:11:ILE:CA	1.76	0.89
1:A2:29:U:H1'	26:BX:127:VAL:H	1.36	0.89
1:A2:330:G:P	11:BI:56:ARG:HD3	2.12	0.89
1:A2:1419:G:OP1	19:BQ:129:PHE:CD1	2.26	0.89
1:A2:1009:U:O5'	17:BO:129:LYS:CD	2.19	0.89
1:A2:163:G:H4'	9:BG:1:MET:HB2	1.54	0.89
1:A2:1102:G:C2'	26:BX:7:ARG:CD	2.49	0.89
1:A2:973:A:C2	1:A2:974:A:N7	2.40	0.89
1:A2:822:U:O4	1:A2:850:A:N6	2.06	0.89
1:A2:701:U:O2	7:BE:174:LYS:HB3	1.72	0.89
1:A2:1557:U:C2'	21:BS:123:ARG:O	2.19	0.89
1:A2:1498:G:H3'	22:BT:73:VAL:HG21	1.53	0.89
1:A2:1549:C:OP2	21:BS:89:GLN:HA	1.72	0.89
1:A2:1498:G:O4'	22:BT:73:VAL:HG23	1.53	0.89
1:A2:1137:A:C8	26:BX:115:GLY:O	2.25	0.89
1:A2:1480:G:H4'	22:BT:11:ALA:HB3	1.53	0.89
1:A2:1084:A:H2'	5:BC:164:SER:CA	1.96	0.89
1:A2:58:U:C6	27:BY:114:ARG:HB3	2.08	0.89
1:A2:64:U:N3	27:BY:121:THR:OG1	2.01	0.89
1:A2:179:A:H61	9:BG:190:GLN:CG	1.84	0.89
1:A2:624:G:O3'	1:A2:625:C:P	2.30	0.89
1:A2:1301:U:H3'	5:BC:97:ARG:HH11	0.76	0.89
1:A2:1326:A:OP1	6:BD:158:ILE:HG23	1.72	0.89
1:A2:215:A:C3'	7:BE:131:LEU:C	2.34	0.89
1:A2:239:C:OP2	9:BG:210:GLN:HG3	1.73	0.89
1:A2:1503:A:N3	22:BT:36:ILE:CG1	2.36	0.89
1:A2:1056:U:H5	3:BA:40:ALA:HB2	1.38	0.89
1:A2:988:A:O3'	1:A2:989:U:P	2.29	0.89

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:370:A:H5'	12:BJ:14:THR:CB	2.03	0.89
1:A2:179:A:H1'	9:BG:184:LEU:C	1.93	0.89
1:A2:1102:G:O2'	26:BX:7:ARG:CD	2.20	0.89
1:A2:1299:G:OP2	5:BC:117:THR:CA	2.19	0.89
1:A2:702:G:C2	7:BE:173:ILE:CG2	2.47	0.89
1:A2:1534:G:O6	28:BZ:61:SER:CB	2.21	0.89
12:BJ:75:ALA:O	12:BJ:78:ARG:N	2.06	0.89
2:AZ:6219:U:C1'	6:BD:144:ALA:HB1	2.00	0.89
1:A2:91:G:C3'	27:BY:116:LYS:CE	2.47	0.89
1:A2:635:A:N3	25:BW:126:LEU:HD22	1.87	0.89
1:A2:638:U:N1	25:BW:107:SER:HA	1.85	0.89
1:A2:701:U:N3	7:BE:175:PHE:C	2.26	0.89
1:A2:702:G:N2	7:BE:173:ILE:HG21	1.85	0.89
1:A2:1457:C:O2'	21:BS:132:ARG:N	2.06	0.89
1:A2:896:U:C2'	17:BO:18:ARG:HB2	2.02	0.89
1:A2:1480:G:OP1	22:BT:11:ALA:C	2.06	0.89
1:A2:1084:A:HO2'	5:BC:164:SER:HA	1.36	0.89
1:A2:90:C:H2'	27:BY:116:LYS:HG3	1.53	0.89
1:A2:56:U:C2	27:BY:113:ASN:CB	2.54	0.89
1:A2:1390:U:H5	20:BR:3:ARG:HD2	1.08	0.89
1:A2:1055:U:H5'	3:BA:46:HIS:C	1.91	0.89
1:A2:1083:G:N3	5:BC:161:LYS:CD	2.36	0.89
1:A2:1497:U:C5'	22:BT:77:ASN:ND2	2.29	0.89
1:A2:859:A:C6	10:BH:111:LYS:CG	2.53	0.89
1:A2:181:A:H3'	9:BG:191:ARG:NH1	1.86	0.89
1:A2:1674:C:H5''	9:BG:76:LEU:HG	1.51	0.89
1:A2:395:U:C5'	9:BG:86:PRO:HA	2.02	0.89
1:A2:395:U:C2'	9:BG:91:GLU:OE2	2.20	0.89
1:A2:149:C:O3'	27:BY:130:ALA:HB1	1.72	0.89
1:A2:631:G:C2'	26:BX:16:ARG:H	1.86	0.89
1:A2:1295:G:C5	5:BC:116:LYS:CE	2.55	0.89
1:A2:1582:U:C5'	19:BQ:135:ARG:HG3	2.03	0.89
1:A2:1550:A:O5'	21:BS:84:TRP:HB3	1.38	0.89
1:A2:1417:A:H4'	19:BQ:128:LYS:HZ1	1.35	0.89
1:A2:1096:C:H2'	5:BC:166:THR:O	1.72	0.89
1:A2:1326:A:C4	6:BD:159:HIS:HE1	1.83	0.88
1:A2:705:U:O2'	7:BE:232:GLY:N	1.96	0.88
1:A2:1549:C:C6	21:BS:86:LEU:CA	2.55	0.88
1:A2:1383:G:H8	23:BU:57:ARG:O	1.52	0.88
1:A2:1018:U:H4'	16:BN:107:LYS:CG	1.68	0.88
1:A2:677:G:OP1	12:BJ:151:ASP:HB3	1.73	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:859:A:O5'	10:BH:101:LYS:CG	2.19	0.88
1:A2:180:A:C4	9:BG:188:ARG:HA	2.08	0.88
1:A2:1326:A:C5'	6:BD:156:PHE:C	2.36	0.88
1:A2:216:U:N3	7:BE:150:PRO:CG	1.97	0.88
1:A2:1214:U:OP2	18:BP:102:PHE:CZ	2.25	0.88
1:A2:1246:C:C4	18:BP:76:VAL:C	2.45	0.88
2:AZ:6106:A:H2	8:BF:225:ARG:O	1.53	0.88
1:A2:600:U:H4'	26:BX:104:LEU:HB3	1.55	0.88
1:A2:1370:U:C3'	22:BT:119:LYS:CE	2.42	0.88
1:A2:138:A:H3'	9:BG:143:LYS:N	1.88	0.88
1:A2:165:G:O5'	9:BG:15:THR:CA	2.19	0.88
26:BX:18:HIS:C	26:BX:19:ARG:N	2.27	0.88
1:A2:1301:U:O2	5:BC:97:ARG:CZ	2.21	0.88
1:A2:1301:U:O4	5:BC:119:LYS:N	2.06	0.88
1:A2:1535:U:C5'	28:BZ:67:ASP:CG	1.96	0.88
1:A2:1546:G:H22	21:BS:38:VAL:C	1.76	0.88
1:A2:1548:G:P	21:BS:100:THR:CG2	2.57	0.88
1:A2:1501:C:C6	22:BT:33:TYR:CE1	2.61	0.88
1:A2:600:U:H5''	26:BX:122:PHE:HB3	1.56	0.88
1:A2:28:A:N1	26:BX:131:SER:C	2.26	0.88
1:A2:1600:A:H3'	22:BT:86:ARG:NE	1.89	0.88
1:A2:347:G:N7	11:BI:14:THR:N	2.21	0.88
1:A2:1096:C:OP2	5:BC:168:ARG:NE	2.06	0.88
1:A2:1453:G:H4'	18:BP:119:PHE:N	1.80	0.88
1:A2:1566:U:H6	21:BS:33:THR:OG1	1.54	0.88
1:A2:329:G:C6	11:BI:30:GLY:CA	2.56	0.88
1:A2:1096:C:C2'	5:BC:166:THR:OG1	2.20	0.88
1:A2:38:C:H2'	1:A2:39:A:H5'	1.53	0.88
1:A2:140:A:C8	9:BG:156:PHE:HA	2.09	0.88
1:A2:178:U:O2	9:BG:183:ARG:HB3	1.68	0.88
1:A2:1298:U:C3'	5:BC:99:LYS:HD3	1.59	0.88
1:A2:703:G:H1'	7:BE:173:ILE:HG23	1.53	0.88
1:A2:338:C:C3'	11:BI:4:SER:OG	2.21	0.88
1:A2:1370:U:H5'	22:BT:119:LYS:HZ1	1.29	0.88
1:A2:858:G:HO2'	10:BH:106:SER:CB	1.87	0.88
1:A2:137:U:OP2	9:BG:143:LYS:HE3	1.71	0.88
1:A2:458:G:C5'	27:BY:110:GLN:NE2	2.27	0.88
1:A2:91:G:C5	27:BY:117:LYS:N	2.38	0.88
1:A2:609:U:N1	26:BX:28:ASN:ND2	2.21	0.88
1:A2:968:U:O2'	26:BX:5:LYS:HA	0.75	0.88
1:A2:597:G:C5'	26:BX:137:LYS:HE2	1.97	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:329:G:C4	11:BI:31:ARG:N	2.42	0.88
1:A2:1159:C:O2	19:BQ:140:LYS:NZ	2.05	0.88
1:A2:1673:G:H2'	9:BG:94:ARG:HH21	0.87	0.88
1:A2:1683:C:H6	9:BG:52:ILE:O	1.57	0.88
1:A2:632:U:OP1	14:BL:94:ILE:CB	2.13	0.88
1:A2:243:G:C6	7:BE:138:TYR:CE2	2.61	0.88
1:A2:1535:U:O4'	8:BF:187:ILE:HD13	1.66	0.88
1:A2:1453:G:H1'	18:BP:120:SER:HB3	1.53	0.88
1:A2:1454:G:C2	18:BP:123:TYR:CD1	2.61	0.88
2:AZ:6111:G:HO2'	8:BF:220:VAL:HG22	1.14	0.88
1:A2:1418:G:O5'	19:BQ:128:LYS:CD	1.71	0.88
1:A2:640:U:O2'	25:BW:119:LYS:CE	2.22	0.88
1:A2:630:A:C6	26:BX:14:LYS:HA	2.08	0.88
1:A2:1068:C:O4'	3:BA:33:GLN:CB	2.21	0.88
1:A2:760:A:O4'	12:BJ:9:SER:O	1.89	0.88
1:A2:332:U:C5	11:BI:31:ARG:NH1	2.42	0.88
1:A2:337:G:N9	11:BI:9:HIS:CE1	2.41	0.88
1:A2:799:A:O2'	7:BE:186:GLY:C	2.12	0.88
2:AZ:6219:U:C2'	6:BD:144:ALA:CB	2.50	0.88
1:A2:266:A:H4'	9:BG:136:LYS:HE2	1.55	0.88
1:A2:138:A:C5	9:BG:140:ASN:OD1	2.27	0.88
1:A2:630:A:C4	26:BX:13:ARG:CG	2.54	0.88
1:A2:831:U:OP1	7:BE:152:PRO:HA	1.72	0.88
1:A2:737:A:O2'	7:BE:157:ASN:OD1	1.89	0.88
1:A2:1548:G:H1'	21:BS:99:HIS:HE1	1.05	0.88
1:A2:887:A:N7	17:BO:123:SER:CB	2.28	0.88
1:A2:754:A:OP2	7:BE:14:ALA:CB	2.21	0.88
1:A2:329:G:C5'	11:BI:56:ARG:HH22	1.86	0.88
1:A2:1281:G:C4'	23:BU:76:SER:O	2.20	0.88
1:A2:1675:C:OP1	9:BG:76:LEU:HD13	1.71	0.88
25:BW:34:ILE:C	25:BW:35:ILE:N	2.26	0.88
1:A2:218:A:C5'	7:BE:152:PRO:O	2.21	0.88
1:A2:218:A:OP2	7:BE:153:ASN:O	1.92	0.88
1:A2:1243:G:H1	18:BP:61:ARG:HH22	1.16	0.88
1:A2:1558:U:C5	21:BS:123:ARG:CA	2.56	0.88
1:A2:990:C:H1'	17:BO:127:ARG:HH21	1.37	0.88
1:A2:18:C:C2'	26:BX:115:GLY:H	1.86	0.88
1:A2:328:A:H4'	11:BI:172:ARG:HH12	1.40	0.88
1:A2:338:C:N4	11:BI:29:LEU:CA	2.35	0.88
1:A2:3:U:N3	12:BJ:19:TYR:HD1	1.45	0.88
1:A2:238:U:H2'	9:BG:210:GLN:NE2	1.88	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:244:A:OP2	7:BE:140:VAL:CA	2.22	0.87
1:A2:1451:C:H42	18:BP:97:TYR:HB3	1.38	0.87
1:A2:1242:A:C5'	18:BP:89:MET:HE1	1.96	0.87
1:A2:1503:A:C2	21:BS:82:PRO:HG2	2.10	0.87
1:A2:1548:G:N3	21:BS:86:LEU:CA	2.28	0.87
2:AZ:6108:U:H5'	8:BF:222:LYS:CB	1.99	0.87
1:A2:599:A:C4	26:BX:126:LYS:N	2.41	0.87
1:A2:31:C:HO2'	26:BX:138:GLU:HB3	0.79	0.87
1:A2:1396:U:O4	20:BR:56:HIS:ND1	2.08	0.87
7:BE:97:GLU:O	7:BE:98:ASN:N	2.07	0.87
1:A2:365:G:O3'	1:A2:366:A:OP1	1.92	0.87
1:A2:141:U:C2'	9:BG:158:ILE:HG21	2.03	0.87
1:A2:138:A:C8	9:BG:135:PRO:CG	2.50	0.87
1:A2:1389:C:H1'	20:BR:48:ASN:CG	1.62	0.87
1:A2:1555:A:O2'	18:BP:115:TYR:CG	2.27	0.87
2:AZ:6106:A:C1'	8:BF:223:SER:O	2.22	0.87
1:A2:953:G:O4'	16:BN:6:SER:N	2.06	0.87
1:A2:776:G:C2'	27:BY:29:HIS:HE1	1.43	0.87
1:A2:458:G:H8	27:BY:107:GLN:HE22	1.19	0.87
1:A2:85:A:C4'	27:BY:129:VAL:HG11	1.98	0.87
1:A2:1034:C:N4	26:BX:3:LYS:CE	2.16	0.87
1:A2:1298:U:H3'	5:BC:99:LYS:CB	2.03	0.87
1:A2:1144:U:H4'	5:BC:87:GLN:O	1.71	0.87
1:A2:1565:C:C5'	21:BS:44:ASN:N	2.38	0.87
2:AZ:6137:C:C2'	8:BF:126:ASP:CB	2.51	0.87
1:A2:952:A:C5'	16:BN:121:ARG:NE	2.31	0.87
1:A2:335:U:O5'	11:BI:49:ARG:HD3	1.75	0.87
1:A2:762:A:H3'	1:A2:763:G:P	2.14	0.87
1:A2:505:A:H3'	1:A2:506:A:P	2.14	0.87
1:A2:634:G:C5'	25:BW:79:PHE:CG	2.58	0.87
1:A2:1038:U:C4'	25:BW:19:LYS:HZ2	1.87	0.87
1:A2:1102:G:H1'	26:BX:7:ARG:HE	1.07	0.87
1:A2:1300:A:H5'	5:BC:86:VAL:CG2	2.04	0.87
1:A2:741:C:C5	7:BE:206:ASP:OD1	2.26	0.87
1:A2:699:U:C5'	7:BE:197:HIS:CE1	2.33	0.87
1:A2:742:U:H3	7:BE:206:ASP:C	1.77	0.87
1:A2:1525:A:N6	19:BQ:73:GLY:N	2.21	0.87
1:A2:870:C:C2'	16:BN:13:SER:HB2	2.04	0.87
1:A2:322:G:N3	11:BI:9:HIS:CD2	2.43	0.87
1:A2:1334:U:C4'	23:BU:83:GLU:OE2	2.22	0.87
1:A2:180:A:C3'	9:BG:187:LYS:NZ	2.36	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:864:U:H5''	25:BW:7:LEU:C	1.93	0.87
1:A2:1295:G:C4	5:BC:116:LYS:NZ	2.28	0.87
1:A2:1300:A:C2	5:BC:86:VAL:C	2.48	0.87
1:A2:1454:G:C6	18:BP:122:THR:HG21	2.09	0.87
1:A2:917:U:O5'	17:BO:84:ARG:CZ	2.22	0.87
1:A2:4:C:O3'	1:A2:5:U:P	2.32	0.87
1:A2:370:A:H4'	12:BJ:13:SER:C	1.95	0.87
1:A2:323:A:H5''	11:BI:10:LYS:N	1.87	0.87
1:A2:1383:G:O4'	23:BU:57:ARG:O	1.88	0.87
1:A2:177:U:C5	9:BG:137:ARG:CD	2.57	0.87
1:A2:1721:A:O3'	9:BG:97:VAL:HB	1.72	0.87
1:A2:216:U:OP2	7:BE:129:VAL:O	1.91	0.87
1:A2:956:C:N3	16:BN:11:ILE:CG2	2.37	0.87
1:A2:887:A:C1'	17:BO:124:ASP:OD1	2.23	0.87
1:A2:959:U:OP1	25:BW:60:LYS:HE3	1.75	0.87
1:A2:318:U:C6	11:BI:11:ARG:NH1	2.42	0.87
1:A2:340:U:C6	11:BI:3:ILE:HG23	2.08	0.87
1:A2:424:C:O3'	1:A2:425:A:P	2.33	0.87
1:A2:150:U:P	27:BY:130:ALA:CB	2.62	0.87
1:A2:1037:C:H5''	25:BW:15:ASN:HB2	0.92	0.87
1:A2:866:G:C5'	25:BW:3:ARG:N	2.29	0.87
1:A2:1390:U:OP2	20:BR:45:ARG:NH1	2.06	0.87
1:A2:897:C:OP1	17:BO:30:VAL:HG22	1.73	0.87
1:A2:791:A:H61	12:BJ:7:THR:H	1.20	0.87
1:A2:1334:U:O2'	23:BU:83:GLU:OE2	1.92	0.87
1:A2:1384:A:OP1	23:BU:87:HIS:HB3	1.70	0.87
1:A2:1018:U:H4'	16:BN:107:LYS:HG3	1.56	0.87
19:BQ:7:VAL:HB	19:BQ:96:TYR:CE1	2.07	0.87
1:A2:141:U:H4'	9:BG:135:PRO:N	1.58	0.87
1:A2:245:U:N3	7:BE:128:LYS:HD2	1.87	0.87
1:A2:240:U:O2	9:BG:206:ALA:N	2.03	0.87
1:A2:220:A:P	9:BG:219:ARG:H	1.83	0.87
1:A2:1236:A:H2'	18:BP:65:LEU:HD22	0.87	0.87
1:A2:1453:G:O2'	18:BP:118:GLU:C	2.12	0.87
1:A2:1565:C:OP2	21:BS:40:ARG:HG2	1.74	0.87
1:A2:1667:A:H3'	1:A2:1668:G:P	2.15	0.87
1:A2:776:G:O4'	27:BY:62:THR:CA	2.22	0.87
1:A2:56:U:O2	27:BY:113:ASN:HB3	1.75	0.87
1:A2:1037:C:OP1	25:BW:15:ASN:N	2.08	0.87
1:A2:806:A:C5'	25:BW:81:VAL:HG22	2.00	0.87
1:A2:806:A:C4	25:BW:82:LYS:CD	2.58	0.87

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1102:G:O2'	26:BX:7:ARG:HA	1.74	0.87
1:A2:338:C:C2'	11:BI:4:SER:CB	2.53	0.87
1:A2:1383:G:H4'	23:BU:88:LYS:O	1.75	0.87
1:A2:858:G:N2	10:BH:108:GLN:CD	2.25	0.86
1:A2:1290:U:H4'	6:BD:151:LYS:CD	2.03	0.86
1:A2:1532:U:C5	28:BZ:77:ARG:HD3	2.10	0.86
1:A2:1608:U:O2'	19:BQ:73:GLY:HA2	1.75	0.86
1:A2:1547:A:O2'	21:BS:100:THR:N	2.07	0.86
1:A2:888:U:O3'	17:BO:89:THR:CA	2.16	0.86
1:A2:916:U:H3'	17:BO:84:ARG:HH22	1.39	0.86
1:A2:439:U:O3'	1:A2:440:U:P	2.33	0.86
1:A2:140:A:C4	9:BG:157:VAL:HG12	1.97	0.86
1:A2:1037:C:C5'	25:BW:15:ASN:OD1	2.23	0.86
1:A2:735:C:OP1	7:BE:191:ARG:CG	2.22	0.86
1:A2:702:G:O6	7:BE:195:ILE:CD1	2.23	0.86
1:A2:698:U:O4	7:BE:208:VAL:HG22	1.75	0.86
1:A2:1391:A:H5''	20:BR:48:ASN:CB	2.05	0.86
1:A2:1581:C:OP1	19:BQ:137:ARG:HB2	1.75	0.86
1:A2:1451:C:O3'	18:BP:80:MET:CE	2.23	0.86
1:A2:339:C:C5	11:BI:3:ILE:C	2.21	0.86
1:A2:1344:A:H4'	23:BU:53:LYS:CG	2.04	0.86
1:A2:1428:G:C4	23:BU:74:GLU:HG2	2.07	0.86
1:A2:1084:A:O5'	5:BC:161:LYS:HA	1.75	0.86
1:A2:105:A:P	11:BI:21:PHE:HB2	2.15	0.86
1:A2:90:C:H41	27:BY:118:ILE:N	1.70	0.86
1:A2:378:A:OP2	1:A2:379:U:OP2	1.92	0.86
1:A2:1298:U:C3'	5:BC:99:LYS:CB	2.37	0.86
1:A2:1327:C:H5	6:BD:158:ILE:HA	1.40	0.86
1:A2:1473:U:OP2	8:BF:190:ILE:CA	2.22	0.86
1:A2:1238:A:P	18:BP:66:ALA:N	2.49	0.86
1:A2:1498:G:C5'	22:BT:72:GLY:HA3	2.02	0.86
1:A2:1498:G:C5'	22:BT:72:GLY:O	2.22	0.86
1:A2:958:U:H5	25:BW:28:ARG:NH1	1.40	0.86
1:A2:347:G:C8	11:BI:14:THR:N	2.39	0.86
1:A2:328:A:H5''	11:BI:172:ARG:HH12	1.33	0.86
10:BH:139:ARG:O	10:BH:151:LYS:N	2.08	0.86
1:A2:807:A:OP2	25:BW:124:LYS:HG3	1.74	0.86
1:A2:1210:C:O2	18:BP:123:TYR:N	2.08	0.86
1:A2:1053:G:O2'	3:BA:35:PRO:HD3	1.20	0.86
1:A2:30:G:OP1	26:BX:142:LYS:CG	2.24	0.86
1:A2:1281:G:H8	23:BU:70:THR:CG2	1.87	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1040:G:C5'	24:BV:62:ARG:HE	1.83	0.86
1:A2:494:U:H2'	1:A2:494:U:O2	1.75	0.86
1:A2:137:U:C2'	9:BG:143:LYS:HE2	2.03	0.86
1:A2:1709:C:C5'	9:BG:9:VAL:CG2	2.44	0.86
1:A2:862:A:H5'	25:BW:32:LYS:N	1.87	0.86
1:A2:1328:G:P	6:BD:164:VAL:HG21	2.14	0.86
1:A2:245:U:C6	7:BE:140:VAL:HG12	2.10	0.86
1:A2:954:G:C8	16:BN:2:GLY:HA2	2.11	0.86
1:A2:887:A:C2'	17:BO:124:ASP:N	2.22	0.86
1:A2:1:U:O2'	12:BJ:14:THR:C	2.05	0.86
1:A2:1192:C:H5'	19:BQ:142:TYR:H	1.40	0.86
16:BN:137:PRO:O	16:BN:138:ASN:ND2	2.07	0.86
1:A2:777:C:H3'	27:BY:32:ARG:HB2	1.57	0.86
1:A2:778:G:H4'	27:BY:5:VAL:N	1.90	0.86
1:A2:858:G:N2	10:BH:108:GLN:OE1	2.08	0.86
1:A2:266:A:N3	9:BG:136:LYS:CB	2.38	0.86
1:A2:395:U:N1	9:BG:93:LYS:HE3	1.89	0.86
1:A2:57:G:N2	27:BY:112:LYS:C	2.29	0.86
1:A2:1144:U:C4	5:BC:89:GLN:OE1	2.28	0.86
1:A2:1213:G:N2	18:BP:79:HIS:CG	2.10	0.86
1:A2:686:C:H5''	12:BJ:64:GLU:CD	1.93	0.86
26:BX:125:VAL:C	26:BX:126:LYS:N	2.28	0.86
1:A2:303:U:C4	7:BE:2:ALA:N	2.43	0.86
1:A2:1428:G:C2	23:BU:74:GLU:HG2	0.52	0.86
1:A2:636:A:H2'	25:BW:105:THR:HG23	1.56	0.86
1:A2:866:G:C8	25:BW:3:ARG:C	2.47	0.86
1:A2:1498:G:H5'	22:BT:72:GLY:CA	2.04	0.86
1:A2:1564:U:H4'	21:BS:41:ARG:NH1	1.29	0.86
1:A2:961:U:C5	25:BW:58:SER:OG	2.29	0.86
1:A2:339:C:C6	11:BI:2:GLY:O	2.19	0.86
1:A2:1382:A:O2'	23:BU:57:ARG:O	1.94	0.86
1:A2:1716:C:O2'	1:A2:1717:G:O5'	1.92	0.86
1:A2:778:G:O3'	27:BY:4:ALA:HA	1.74	0.86
27:BY:56:SER:HG	27:BY:57:VAL:N	1.72	0.86
1:A2:393:C:O2'	1:A2:394:C:H5'	1.75	0.86
1:A2:1034:C:O2	26:BX:7:ARG:CZ	2.22	0.86
1:A2:1210:C:N3	18:BP:122:THR:CB	2.37	0.86
1:A2:1213:G:H2'	18:BP:78:THR:O	1.76	0.86
1:A2:1503:A:C8	21:BS:41:ARG:NH1	2.44	0.86
1:A2:1548:G:O4'	21:BS:87:ASN:CG	2.13	0.86
1:A2:468:A:O3'	1:A2:469:C:P	2.34	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:20:G:P	26:BX:114:LYS:NZ	2.49	0.86
1:A2:1383:G:C4'	23:BU:88:LYS:O	2.23	0.86
1:A2:1038:U:H6	25:BW:19:LYS:NZ	1.73	0.86
1:A2:862:A:C5'	25:BW:32:LYS:CA	2.50	0.86
1:A2:216:U:O2	7:BE:150:PRO:C	2.15	0.86
1:A2:704:C:O2	7:BE:231:GLN:CA	2.23	0.86
1:A2:1534:G:C1'	28:BZ:63:SER:HA	2.04	0.86
1:A2:1555:A:C5'	18:BP:40:ARG:CG	2.28	0.86
1:A2:1557:U:C6	21:BS:123:ARG:CD	2.55	0.86
1:A2:1563:C:H4'	22:BT:38:LYS:NZ	1.88	0.86
1:A2:1137:A:H5'	26:BX:64:PRO:HD3	1.54	0.86
1:A2:1480:G:C4'	22:BT:11:ALA:HB3	1.83	0.86
2:AZ:6219:U:N1	6:BD:144:ALA:CB	2.36	0.86
1:A2:1396:U:C5	20:BR:56:HIS:HE1	1.94	0.86
1:A2:767:U:H3'	1:A2:768:C:P	2.15	0.86
1:A2:1298:U:C2'	5:BC:99:LYS:CB	2.54	0.86
1:A2:241:U:H6	9:BG:205:ALA:HA	1.38	0.86
1:A2:1239:U:OP1	18:BP:72:LYS:C	2.13	0.86
1:A2:1213:G:C6	18:BP:97:TYR:CZ	2.47	0.86
1:A2:761:G:OP1	12:BJ:11:THR:CG2	2.24	0.86
1:A2:1682:U:H5''	9:BG:52:ILE:HD13	1.57	0.85
1:A2:1326:A:N1	6:BD:159:HIS:HE1	1.71	0.85
1:A2:213:A:C3'	7:BE:135:GLY:H	1.89	0.85
1:A2:899:G:O3'	17:BO:26:THR:O	1.93	0.85
1:A2:1055:U:H5'	3:BA:46:HIS:HB3	1.54	0.85
1:A2:598:U:C1'	26:BX:132:LEU:C	2.38	0.85
1:A2:1082:C:C2'	5:BC:216:VAL:HG11	2.03	0.85
1:A2:1096:C:OP2	5:BC:168:ARG:CG	2.23	0.85
1:A2:879:G:C1'	16:BN:110:ASP:C	2.37	0.85
1:A2:1370:U:H3'	22:BT:119:LYS:NZ	1.90	0.85
1:A2:1438:G:H3'	1:A2:1439:C:P	2.16	0.85
1:A2:141:U:O4	9:BG:175:ILE:N	2.08	0.85
1:A2:632:U:H4'	14:BL:97:TYR:CD1	2.11	0.85
1:A2:1326:A:C5	6:BD:157:LEU:O	2.29	0.85
1:A2:216:U:H3'	7:BE:129:VAL:CG2	2.05	0.85
1:A2:735:C:H42	7:BE:179:LYS:H	1.16	0.85
1:A2:1393:C:OP1	20:BR:26:LEU:C	2.15	0.85
1:A2:1392:U:H5''	20:BR:29:GLN:H	1.37	0.85
2:AZ:6220:U:C2	6:BD:143:ARG:CG	2.30	0.85
1:A2:1498:G:H4'	22:BT:72:GLY:C	1.96	0.85
1:A2:959:U:C2'	25:BW:56:HIS:N	2.38	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:138:A:N3	9:BG:143:LYS:CB	2.38	0.85
1:A2:1683:C:O5'	9:BG:52:ILE:CG2	2.22	0.85
1:A2:89:G:N2	27:BY:115:ASP:CB	2.38	0.85
1:A2:1106:U:OP2	26:BX:22:ASN:HA	1.74	0.85
1:A2:741:C:H6	7:BE:201:HIS:CA	1.85	0.85
1:A2:741:C:H6	7:BE:201:HIS:O	1.58	0.85
1:A2:214:G:H5''	7:BE:136:VAL:O	1.75	0.85
1:A2:1242:A:H4'	18:BP:89:MET:HE2	1.55	0.85
1:A2:334:G:H5'	11:BI:49:ARG:HA	1.56	0.85
1:A2:1384:A:OP1	23:BU:87:HIS:HB2	1.74	0.85
1:A2:1435:G:H21	13:BK:27:PHE:HE2	1.21	0.85
1:A2:141:U:O2	9:BG:136:LYS:CG	2.23	0.85
1:A2:448:C:N4	27:BY:104:SER:OG	2.09	0.85
1:A2:127:G:H1'	9:BG:183:ARG:CZ	2.05	0.85
1:A2:1683:C:N4	9:BG:32:ILE:C	2.22	0.85
1:A2:396:G:H3'	9:BG:88:ARG:HA	1.56	0.85
1:A2:806:A:C4	25:BW:82:LYS:HD3	2.10	0.85
1:A2:1144:U:H1'	5:BC:87:GLN:O	1.75	0.85
1:A2:1300:A:H4'	5:BC:85:PRO:CB	2.06	0.85
1:A2:1299:G:C5	5:BC:86:VAL:CG1	2.59	0.85
1:A2:1056:U:P	3:BA:46:HIS:CA	2.65	0.85
1:A2:382:C:O4'	12:BJ:2:PRO:CD	2.24	0.85
1:A2:572:C:H5''	26:BX:116:ASP:H	1.40	0.85
14:BL:4:GLU:HG3	14:BL:5:LEU:HG	1.59	0.85
1:A2:776:G:C1'	27:BY:62:THR:HA	2.06	0.85
1:A2:163:G:N3	9:BG:2:LYS:HB3	1.91	0.85
1:A2:954:G:P	16:BN:2:GLY:N	2.50	0.85
1:A2:1040:G:C5'	24:BV:62:ARG:CD	2.48	0.85
1:A2:859:A:H61	10:BH:111:LYS:CG	1.82	0.85
1:A2:1679:G:C8	9:BG:68:LEU:HG	1.73	0.85
1:A2:1105:C:OP1	26:BX:21:ASN:CB	2.21	0.85
1:A2:804:A:H3'	25:BW:122:SER:HB3	1.56	0.85
1:A2:1301:U:O2'	5:BC:86:VAL:CG2	2.22	0.85
1:A2:1316:G:H3'	20:BR:7:LYS:HG2	0.87	0.85
1:A2:1535:U:OP2	28:BZ:66:VAL:N	1.98	0.85
7:BE:18:TRP:O	7:BE:20:LEU:N	2.09	0.85
1:A2:1009:U:OP2	17:BO:129:LYS:HE2	1.74	0.85
1:A2:89:G:H8	27:BY:120:GLY:N	1.55	0.85
1:A2:1298:U:O4'	5:BC:99:LYS:CE	2.24	0.85
1:A2:1533:C:C6	28:BZ:77:ARG:CD	2.59	0.85
1:A2:1239:U:H5	18:BP:73:PRO:HB3	1.39	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1458:G:C1'	21:BS:126:ARG:HH22	1.81	0.85
1:A2:919:A:O2'	4:BB:85:LYS:CE	2.23	0.85
1:A2:959:U:C1'	25:BW:54:ASP:CG	2.35	0.85
11:BI:8:ARG:N	11:BI:9:HIS:O	2.08	0.85
1:A2:784:C:H1'	27:BY:7:ILE:HG12	1.59	0.85
1:A2:164:A:H8	9:BG:2:LYS:CB	1.76	0.85
1:A2:245:U:C4	7:BE:128:LYS:CE	2.59	0.85
1:A2:698:U:C3'	7:BE:197:HIS:CE1	2.50	0.85
1:A2:1226:A:H4'	1:A2:1227:A:OP1	1.74	0.85
1:A2:1505:A:H2	21:BS:84:TRP:CD2	1.42	0.85
1:A2:1498:G:C3'	22:BT:73:VAL:CG2	2.46	0.85
2:AZ:6137:C:H2'	8:BF:126:ASP:O	1.75	0.85
1:A2:597:G:C3'	26:BX:136:TRP:HE3	1.84	0.85
1:A2:1428:G:C2	23:BU:74:GLU:CG	0.87	0.85
1:A2:1084:A:H5''	5:BC:166:THR:HA	1.53	0.85
2:AZ:6219:U:C1'	6:BD:144:ALA:CB	2.44	0.85
1:A2:882:U:H3'	1:A2:883:C:P	2.17	0.85
1:A2:946:U:H2'	1:A2:947:U:C6	2.12	0.85
1:A2:1721:A:N7	9:BG:67:VAL:CA	2.40	0.85
1:A2:456:A:H3'	1:A2:457:G:P	2.17	0.85
1:A2:734:A:H2	7:BE:180:LEU:HD22	1.24	0.85
1:A2:1553:G:H3'	18:BP:43:ARG:HD3	1.56	0.85
1:A2:1565:C:H6	21:BS:41:ARG:N	1.71	0.85
1:A2:917:U:C3'	17:BO:118:VAL:CG2	2.55	0.85
1:A2:1367:G:C4'	22:BT:66:TYR:CE1	2.55	0.85
1:A2:116:U:H3	7:BE:4:GLY:CA	1.90	0.85
1:A2:338:C:C2'	11:BI:24:LYS:CE	2.26	0.85
1:A2:1382:A:H1'	23:BU:58:LEU:HA	1.59	0.85
1:A2:641:G:C5'	25:BW:118:ARG:HD2	2.06	0.85
2:AZ:6218:U:C2	6:BD:146:ARG:HD3	2.11	0.85
1:A2:296:U:H5''	7:BE:32:SER:HB2	1.58	0.85
1:A2:1710:U:C5	9:BG:115:LYS:HD2	2.12	0.85
1:A2:1721:A:C2'	9:BG:67:VAL:HG21	2.07	0.85
1:A2:396:G:C5	9:BG:88:ARG:CD	2.58	0.85
1:A2:1673:G:HO3'	9:BG:94:ARG:HG2	0.90	0.85
1:A2:636:A:C8	25:BW:126:LEU:HD21	1.85	0.85
1:A2:736:C:H5'	7:BE:226:PHE:HB3	0.87	0.85
1:A2:1310:U:C3'	20:BR:4:VAL:HG11	2.07	0.85
1:A2:1502:G:OP2	22:BT:33:TYR:N	2.10	0.85
1:A2:917:U:C3'	17:BO:118:VAL:HG23	1.90	0.85
1:A2:920:U:HO2'	4:BB:216:LYS:HE2	1.42	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:598:U:O3'	26:BX:88:PRO:CB	2.23	0.85
1:A2:324:U:OP1	11:BI:18:ARG:HB2	1.76	0.85
1:A2:1280:C:C2	23:BU:72:ASN:CA	2.58	0.85
1:A2:1159:C:H2'	19:BQ:140:LYS:HZ2	1.39	0.85
1:A2:145:A:O2'	1:A2:146:U:O4'	1.95	0.84
1:A2:163:G:N9	9:BG:2:LYS:HB2	1.90	0.84
1:A2:58:U:H2'	27:BY:115:ASP:OD1	1.77	0.84
1:A2:862:A:C4'	25:BW:32:LYS:N	2.40	0.84
1:A2:217:A:O5'	7:BE:155:LYS:CE	2.21	0.84
1:A2:1454:G:C6	18:BP:122:THR:CB	2.54	0.84
1:A2:1241:G:C6	18:BP:78:THR:HG22	2.12	0.84
1:A2:1565:C:H5'	21:BS:44:ASN:H	1.38	0.84
1:A2:1055:U:P	3:BA:46:HIS:HB2	2.17	0.84
1:A2:548:G:C4'	26:BX:136:TRP:CE3	2.54	0.84
1:A2:329:G:O2'	11:BI:33:PRO:N	2.08	0.84
1:A2:396:G:N9	9:BG:91:GLU:OE1	2.10	0.84
1:A2:57:G:O3'	27:BY:114:ARG:CZ	2.24	0.84
1:A2:138:A:C2	9:BG:140:ASN:HA	2.11	0.84
1:A2:456:A:C2	27:BY:107:GLN:O	2.29	0.84
1:A2:866:G:OP2	25:BW:3:ARG:HG2	1.76	0.84
1:A2:216:U:C3'	7:BE:129:VAL:HG22	2.05	0.84
1:A2:741:C:H6	7:BE:201:HIS:HB2	1.18	0.84
1:A2:1529:C:H5	28:BZ:95:HIS:CD2	1.91	0.84
1:A2:1499:G:H3'	22:BT:102:ARG:C	1.96	0.84
1:A2:960:U:C5'	25:BW:56:HIS:O	2.25	0.84
1:A2:756:A:H5'	7:BE:23:LEU:HD12	1.40	0.84
1:A2:346:G:O6	11:BI:15:GLY:HA2	1.77	0.84
1:A2:331:A:C8	11:BI:31:ARG:HD3	2.12	0.84
1:A2:1383:G:P	23:BU:59:PRO:C	2.55	0.84
1:A2:1064:G:H2'	1:A2:1065:A:C8	2.11	0.84
1:A2:89:G:H1	27:BY:115:ASP:CA	1.90	0.84
1:A2:1498:G:H5'	22:BT:72:GLY:HA2	1.57	0.84
1:A2:301:A:C5	7:BE:4:GLY:N	2.45	0.84
1:A2:1096:C:O5'	5:BC:168:ARG:CB	2.23	0.84
4:BB:209:ASN:C	4:BB:210:ILE:N	2.30	0.84
1:A2:1710:U:C1'	9:BG:115:LYS:CG	2.31	0.84
1:A2:1316:G:C1'	20:BR:6:THR:HG23	2.06	0.84
1:A2:1240:U:C5'	18:BP:104:GLN:CD	2.46	0.84
1:A2:1502:G:C8	22:BT:33:TYR:CD1	2.65	0.84
1:A2:791:A:C5	12:BJ:7:THR:OG1	2.28	0.84
1:A2:1086:A:C8	5:BC:203:LYS:HE3	2.13	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:640:U:H1'	25:BW:119:LYS:CE	2.00	0.84
11:BI:87:ASN:C	11:BI:88:ASN:N	2.31	0.84
1:A2:167:U:P	9:BG:13:GLN:N	2.51	0.84
1:A2:180:A:C2	9:BG:188:ARG:HA	2.11	0.84
1:A2:863:A:OP1	25:BW:34:ILE:CD1	2.26	0.84
1:A2:1144:U:H2'	5:BC:89:GLN:CG	2.06	0.84
6:BD:162:GLN:O	6:BD:165:ASN:N	2.09	0.84
1:A2:1402:G:OP2	20:BR:5:ARG:HG3	1.77	0.84
1:A2:1183:A:H8	18:BP:125:PRO:HD3	1.39	0.84
1:A2:1601:G:OP2	22:BT:86:ARG:NE	2.10	0.84
1:A2:1281:G:C4	23:BU:74:GLU:O	2.30	0.84
1:A2:1383:G:OP2	23:BU:60:THR:CA	2.24	0.84
1:A2:1420:C:OP2	23:BU:69:LYS:NZ	2.09	0.84
1:A2:522:U:O3'	1:A2:523:G:P	2.36	0.84
1:A2:776:G:O5'	27:BY:62:THR:CG2	2.25	0.84
1:A2:776:G:H4'	27:BY:66:GLY:CA	2.07	0.84
1:A2:1037:C:C3'	25:BW:15:ASN:HB3	2.07	0.84
1:A2:1399:C:OP2	20:BR:67:ARG:N	2.10	0.84
1:A2:381:C:O2'	12:BJ:2:PRO:CD	2.24	0.84
1:A2:570:A:H61	26:BX:68:ILE:N	1.75	0.84
1:A2:1417:A:C4'	19:BQ:128:LYS:NZ	2.40	0.84
27:BY:56:SER:HA	27:BY:57:VAL:HG12	1.59	0.84
1:A2:1326:A:C6	6:BD:159:HIS:CE1	2.65	0.84
1:A2:1326:A:H5'	6:BD:156:PHE:C	1.94	0.84
1:A2:736:C:H42	7:BE:195:ILE:HG12	0.67	0.84
1:A2:1587:A:O2'	8:BF:104:ASN:HB3	1.77	0.84
1:A2:1454:G:H21	18:BP:123:TYR:CB	1.90	0.84
1:A2:1566:U:C6	21:BS:33:THR:CB	2.60	0.84
1:A2:1685:G:H8	9:BG:51:LYS:NZ	1.75	0.84
6:BD:35:SER:HG	6:BD:52:ALA:N	1.74	0.84
1:A2:65:A:O3'	1:A2:66:U:P	2.34	0.84
1:A2:141:U:C4'	9:BG:135:PRO:N	2.15	0.84
1:A2:862:A:C5'	25:BW:32:LYS:HA	2.03	0.84
1:A2:1528:U:C5'	19:BQ:43:ILE:CB	2.53	0.84
1:A2:1242:A:C5'	18:BP:60:LEU:HD23	2.08	0.84
1:A2:1504:G:C5'	22:BT:39:THR:N	2.39	0.84
1:A2:328:A:C4'	11:BI:172:ARG:HH12	1.91	0.84
1:A2:1382:A:O2'	1:A2:1383:G:C8	2.30	0.84
1:A2:1385:G:OP2	23:BU:35:GLU:CG	2.23	0.84
1:A2:177:U:C5'	9:BG:139:ASN:N	2.37	0.84
9:BG:123:GLY:C	9:BG:124:LEU:N	2.31	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1302:U:C6	5:BC:97:ARG:NH2	2.45	0.84
1:A2:704:C:H42	7:BE:193:GLY:HA2	1.43	0.84
1:A2:1213:G:O6	18:BP:97:TYR:CD2	2.28	0.84
1:A2:1242:A:OP2	18:BP:94:VAL:CG2	2.25	0.84
1:A2:1454:G:OP1	18:BP:118:GLU:CG	2.25	0.84
1:A2:2:A:N3	12:BJ:16:LYS:HB2	1.32	0.84
1:A2:323:A:C1'	11:BI:11:ARG:HG2	1.77	0.84
1:A2:337:G:N9	11:BI:9:HIS:HE1	1.75	0.84
1:A2:778:G:O6	27:BY:36:SER:OG	1.95	0.84
1:A2:141:U:H4'	9:BG:135:PRO:CD	2.08	0.84
1:A2:457:G:N1	27:BY:106:GLN:C	2.26	0.84
1:A2:91:G:H3'	27:BY:116:LYS:HZ3	1.41	0.84
1:A2:804:A:H5''	25:BW:121:VAL:C	1.97	0.84
1:A2:735:C:H5'	7:BE:193:GLY:HA3	1.60	0.84
1:A2:220:A:OP1	9:BG:218:GLU:HG3	1.76	0.84
1:A2:1537:C:O2'	1:A2:1538:U:OP2	1.95	0.84
1:A2:1212:G:C6	18:BP:99:GLY:CA	2.60	0.84
2:AZ:6107:U:P	8:BF:220:VAL:O	2.35	0.84
1:A2:29:U:HO2'	26:BX:127:VAL:CG2	1.69	0.84
1:A2:115:G:N2	11:BI:27:PHE:HD2	1.40	0.84
1:A2:1084:A:H5'	5:BC:166:THR:HA	1.59	0.84
1:A2:1008:G:OP2	17:BO:135:ARG:CA	2.23	0.84
27:BY:92:VAL:HG11	27:BY:99:LYS:HG2	1.58	0.84
1:A2:127:G:H1'	9:BG:183:ARG:NE	1.91	0.83
1:A2:1673:G:C3'	9:BG:94:ARG:HE	1.89	0.83
1:A2:704:C:H1'	7:BE:232:GLY:N	1.93	0.83
1:A2:1167:G:OP1	8:BF:101:GLY:CA	2.25	0.83
1:A2:1473:U:H1'	8:BF:113:ILE:CD1	2.08	0.83
1:A2:897:C:O3'	17:BO:29:HIS:CB	1.99	0.83
1:A2:599:A:N3	26:BX:103:LEU:O	2.11	0.83
1:A2:30:G:O3'	26:BX:141:GLU:HG2	1.78	0.83
1:A2:322:G:N2	11:BI:10:LYS:CD	2.33	0.83
1:A2:330:G:O5'	11:BI:31:ARG:HB2	1.78	0.83
1:A2:337:G:H1'	11:BI:9:HIS:HE1	0.76	0.83
1:A2:777:C:C3'	27:BY:32:ARG:CG	2.53	0.83
1:A2:141:U:H4'	9:BG:135:PRO:HB2	1.57	0.83
1:A2:741:C:C6	7:BE:201:HIS:CG	2.66	0.83
1:A2:741:C:C5	7:BE:206:ASP:HA	2.13	0.83
1:A2:1183:A:N6	18:BP:121:ILE:CD1	2.19	0.83
18:BP:103:ASN:C	18:BP:104:GLN:N	2.31	0.83
1:A2:1240:U:O3'	18:BP:104:GLN:CG	2.25	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1566:U:C5	21:BS:33:THR:HG23	2.13	0.83
1:A2:1565:C:H2'	21:BS:39:GLY:N	1.93	0.83
1:A2:901:G:H2'	1:A2:902:G:O4'	1.78	0.83
1:A2:917:U:P	17:BO:86:THR:O	2.35	0.83
1:A2:547:U:H5'	26:BX:138:GLU:O	1.78	0.83
1:A2:346:G:H1	11:BI:11:ARG:HB3	1.38	0.83
1:A2:1006:C:H5''	17:BO:136:ARG:HH12	1.03	0.83
25:BW:23:ARG:C	25:BW:24:GLN:N	2.31	0.83
1:A2:1295:G:N7	5:BC:116:LYS:CE	2.41	0.83
1:A2:242:U:H5	7:BE:149:TYR:CE1	1.95	0.83
1:A2:741:C:C6	7:BE:201:HIS:O	2.31	0.83
1:A2:1241:G:OP2	18:BP:104:GLN:HB3	1.75	0.83
1:A2:895:G:C2'	17:BO:18:ARG:NH1	2.37	0.83
1:A2:753:A:OP2	7:BE:16:HIS:CB	2.15	0.83
1:A2:347:G:OP1	14:BL:134:THR:HG21	1.78	0.83
2:AZ:6171:U:P	2:AZ:6208:A:H62	2.00	0.83
1:A2:138:A:H1'	9:BG:144:PHE:HB2	1.59	0.83
1:A2:1103:U:H4'	26:BX:15:LEU:CD2	2.09	0.83
1:A2:570:A:C4	26:BX:69:ARG:NH2	2.47	0.83
1:A2:325:G:H5''	11:BI:7:SER:OG	1.78	0.83
1:A2:396:G:H3'	9:BG:88:ARG:CA	2.07	0.83
1:A2:90:C:N4	27:BY:117:LYS:N	2.25	0.83
1:A2:214:G:H8	7:BE:133:LYS:N	1.74	0.83
1:A2:245:U:C5	7:BE:140:VAL:HG12	2.14	0.83
1:A2:1393:C:OP2	20:BR:28:PHE:HB3	1.78	0.83
1:A2:1310:U:H4'	20:BR:4:VAL:HG11	0.85	0.83
1:A2:1556:A:P	18:BP:38:PRO:HB2	2.18	0.83
1:A2:1550:A:O5'	21:BS:84:TRP:HD1	1.58	0.83
1:A2:1548:G:O2'	21:BS:86:LEU:HD12	1.77	0.83
1:A2:871:G:C6	16:BN:12:SER:N	2.44	0.83
1:A2:871:G:O5'	16:BN:13:SER:HA	1.77	0.83
1:A2:1357:A:C4'	22:BT:126:GLU:C	2.47	0.83
1:A2:324:U:H5'	11:BI:12:SER:N	1.93	0.83
1:A2:324:U:P	11:BI:18:ARG:HB2	2.19	0.83
1:A2:335:U:C2'	11:BI:27:PHE:O	2.27	0.83
1:A2:777:C:OP2	27:BY:33:ALA:CA	2.27	0.83
1:A2:138:A:N1	9:BG:140:ASN:OD1	2.11	0.83
1:A2:150:U:C4	27:BY:131:ARG:HD2	2.13	0.83
1:A2:89:G:N1	27:BY:115:ASP:CB	2.11	0.83
1:A2:92:A:C8	27:BY:116:LYS:CE	2.60	0.83
1:A2:1298:U:O4'	5:BC:99:LYS:HE2	1.79	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1301:U:N3	5:BC:97:ARG:NE	1.81	0.83
1:A2:1327:C:H2'	6:BD:159:HIS:CB	2.08	0.83
1:A2:1301:U:H3	5:BC:97:ARG:HE	1.22	0.83
1:A2:1389:C:H5'	20:BR:45:ARG:CA	1.94	0.83
1:A2:1454:G:N2	18:BP:123:TYR:CB	2.41	0.83
1:A2:1565:C:H4'	21:BS:43:SER:C	1.97	0.83
1:A2:571:G:O2'	26:BX:114:LYS:HE2	1.77	0.83
1:A2:337:G:O2'	11:BI:9:HIS:CG	2.31	0.83
1:A2:946:U:H2'	1:A2:947:U:H6	1.41	0.83
1:A2:1763:A:OP1	1:A2:1771:U:OP1	1.96	0.83
1:A2:457:G:O6	27:BY:104:SER:O	1.97	0.83
1:A2:395:U:H4'	9:BG:87:ARG:HG2	1.58	0.83
1:A2:1673:G:C2'	9:BG:94:ARG:NH2	2.33	0.83
1:A2:64:U:O4	27:BY:121:THR:OG1	1.79	0.83
1:A2:804:A:H5''	25:BW:121:VAL:HA	1.60	0.83
1:A2:1037:C:O5'	25:BW:15:ASN:HB2	1.78	0.83
1:A2:12:U:H2'	1:A2:13:C:H6	1.43	0.83
1:A2:1237:G:H8	18:BP:65:LEU:HD22	1.39	0.83
1:A2:917:U:C5	17:BO:84:ARG:CZ	2.61	0.83
1:A2:601:A:H8	26:BX:105:ALA:CB	1.59	0.83
1:A2:791:A:H61	12:BJ:7:THR:N	1.76	0.83
1:A2:329:G:H22	11:BI:3:ILE:CB	1.91	0.83
1:A2:329:G:O3'	11:BI:56:ARG:NE	1.93	0.83
1:A2:139:C:O2	9:BG:136:LYS:HG3	1.77	0.83
1:A2:1147:A:O4'	1:A2:1147:A:OP1	1.96	0.83
1:A2:245:U:P	7:BE:142:HIS:HA	2.17	0.83
1:A2:216:U:C4	7:BE:150:PRO:HG2	2.14	0.83
1:A2:1536:G:N1	8:BF:187:ILE:CG1	2.35	0.83
1:A2:1548:G:C1'	21:BS:87:ASN:CG	2.46	0.83
1:A2:325:G:H1'	14:BL:133:LYS:HB2	0.83	0.83
1:A2:1748:G:H3'	1:A2:1749:A:P	2.19	0.83
1:A2:779:U:O4	27:BY:43:LYS:HD3	1.79	0.83
1:A2:89:G:H1	27:BY:115:ASP:HB3	0.66	0.83
1:A2:216:U:P	7:BE:129:VAL:O	2.36	0.83
1:A2:736:C:C5'	7:BE:182:TYR:O	2.26	0.83
1:A2:1389:C:O3'	20:BR:45:ARG:C	2.16	0.83
2:AZ:6220:U:C6	6:BD:142:LEU:CA	2.59	0.83
1:A2:917:U:O3'	17:BO:84:ARG:HA	1.77	0.83
1:A2:19:A:O3'	1:A2:20:G:P	2.36	0.83
1:A2:596:C:O2	26:BX:137:LYS:HB2	1.78	0.83
1:A2:1480:G:H4'	22:BT:11:ALA:CB	2.06	0.83

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1433:G:O3'	1:A2:1434:U:P	2.37	0.83
1:A2:410:A:H3'	1:A2:411:C:P	2.18	0.83
1:A2:778:G:C4	27:BY:32:ARG:NH2	2.39	0.83
1:A2:1721:A:N6	9:BG:68:LEU:HA	1.76	0.83
1:A2:633:U:H3	26:BX:9:LEU:N	1.42	0.83
1:A2:1290:U:C5'	6:BD:151:LYS:CE	2.56	0.83
1:A2:1549:C:OP1	21:BS:97:ASP:OD1	1.97	0.83
1:A2:31:C:HO2'	26:BX:138:GLU:CB	1.73	0.83
1:A2:548:G:H5'	26:BX:136:TRP:CE3	2.14	0.83
1:A2:340:U:C4	11:BI:3:ILE:HG22	2.11	0.83
1:A2:347:G:O2'	11:BI:18:ARG:NH1	2.12	0.83
1:A2:1520:U:C5'	22:BT:75:LYS:C	2.43	0.83
1:A2:149:C:O2	27:BY:131:ARG:NH2	1.91	0.82
1:A2:806:A:C8	25:BW:81:VAL:O	2.31	0.82
1:A2:866:G:H5''	25:BW:3:ARG:CA	1.88	0.82
1:A2:740:A:N6	7:BE:206:ASP:HB3	1.93	0.82
1:A2:922:G:OP2	4:BB:138:PHE:CZ	2.32	0.82
1:A2:872:G:H1	16:BN:11:ILE:HG12	1.18	0.82
1:A2:318:U:C2	11:BI:11:ARG:NH1	2.46	0.82
1:A2:1383:G:O4'	23:BU:58:LEU:N	2.11	0.82
4:BB:112:SER:HG	4:BB:113:MET:N	1.77	0.82
1:A2:786:C:P	27:BY:24:VAL:HG12	2.19	0.82
1:A2:632:U:HO2'	14:BL:99:ARG:CD	1.92	0.82
1:A2:1300:A:H3'	5:BC:86:VAL:HG23	1.59	0.82
1:A2:742:U:N3	7:BE:206:ASP:C	2.32	0.82
1:A2:1316:G:H3'	20:BR:7:LYS:HG3	1.60	0.82
1:A2:1457:C:H4'	21:BS:138:THR:N	1.93	0.82
1:A2:1547:A:OP1	21:BS:109:LEU:N	2.12	0.82
1:A2:885:G:O3'	4:BB:120:LEU:HD22	1.78	0.82
1:A2:600:U:O4'	26:BX:104:LEU:HA	1.77	0.82
1:A2:57:G:H3'	27:BY:114:ARG:HH11	0.82	0.82
1:A2:1103:U:O2'	26:BX:6:PRO:HD2	1.78	0.82
1:A2:862:A:P	25:BW:32:LYS:HD3	2.19	0.82
1:A2:735:C:C4	7:BE:194:THR:CA	2.44	0.82
1:A2:600:U:H4'	26:BX:104:LEU:CB	2.08	0.82
1:A2:752:A:O2'	7:BE:16:HIS:N	2.06	0.82
1:A2:595:G:H2'	26:BX:139:LYS:HZ2	1.38	0.82
1:A2:302:U:H5''	11:BI:25:ARG:CZ	2.09	0.82
1:A2:1435:G:N1	13:BK:27:PHE:HD2	1.78	0.82
1:A2:782:U:H4'	27:BY:39:GLU:CA	2.09	0.82
1:A2:140:A:C8	9:BG:156:PHE:CA	2.63	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:394:C:H3'	9:BG:92:ARG:O	1.74	0.82
1:A2:242:U:C5	7:BE:149:TYR:CD1	2.67	0.82
1:A2:1317:C:C5'	20:BR:11:ARG:HB2	2.10	0.82
1:A2:1241:G:C5	18:BP:78:THR:CG2	2.40	0.82
1:A2:1557:U:O2'	21:BS:133:VAL:HG21	1.78	0.82
1:A2:688:G:H5''	12:BJ:67:PRO:HG3	1.57	0.82
1:A2:888:U:H2'	17:BO:126:THR:H	1.42	0.82
1:A2:1383:G:O5'	23:BU:88:LYS:N	2.13	0.82
1:A2:1007:C:OP2	17:BO:136:ARG:NE	2.03	0.82
1:A2:1295:G:C5	5:BC:116:LYS:HZ1	1.37	0.82
1:A2:737:A:C4	7:BE:227:VAL:HG11	2.15	0.82
1:A2:572:C:OP2	26:BX:69:ARG:CZ	2.28	0.82
1:A2:1790:A:O3'	1:A2:1791:A:P	2.37	0.82
1:A2:209:U:H5'	11:BI:53:LYS:HB3	1.60	0.82
1:A2:208:U:O2'	11:BI:55:TYR:CZ	2.23	0.82
25:BW:25:VAL:C	25:BW:26:LEU:N	2.33	0.82
1:A2:778:G:OP1	27:BY:31:ASN:N	2.13	0.82
1:A2:163:G:C3'	9:BG:108:VAL:HA	2.08	0.82
1:A2:1037:C:H5'	25:BW:15:ASN:OD1	1.80	0.82
1:A2:704:C:O2	7:BE:231:GLN:HA	1.79	0.82
1:A2:1391:A:H5'	20:BR:48:ASN:HB3	1.60	0.82
1:A2:1055:U:OP2	3:BA:46:HIS:CA	2.28	0.82
1:A2:196:G:O2'	1:A2:197:A:O4'	1.97	0.82
13:BK:51:SER:O	13:BK:52:LYS:N	2.12	0.82
1:A2:88:U:H2'	27:BY:120:GLY:N	1.93	0.82
1:A2:1210:C:C2	18:BP:123:TYR:N	2.48	0.82
1:A2:1790:A:H3'	1:A2:1791:A:P	2.19	0.82
1:A2:141:U:OP1	9:BG:141:ILE:CG1	2.28	0.82
1:A2:138:A:H2	9:BG:143:LYS:HG2	1.41	0.82
25:BW:103:ILE:N	25:BW:127:GLY:O	2.13	0.82
1:A2:734:A:OP1	7:BE:211:LYS:CE	2.28	0.82
1:A2:738:G:N3	7:BE:175:PHE:HB3	1.74	0.82
1:A2:1608:U:C1'	19:BQ:73:GLY:HA3	2.08	0.82
1:A2:760:A:C8	12:BJ:8:TYR:CB	2.62	0.82
1:A2:1281:G:N2	23:BU:74:GLU:OE1	1.88	0.82
1:A2:1419:G:O2'	23:BU:80:GLU:HG3	1.80	0.82
1:A2:70:C:H2'	1:A2:71:A:O4'	1.77	0.82
6:BD:208:ILE:C	6:BD:209:ILE:N	2.32	0.82
1:A2:1740:A:H2'	1:A2:1741:U:C6	2.15	0.82
1:A2:783:G:C4	27:BY:40:LEU:HD22	2.15	0.82
1:A2:89:G:OP1	27:BY:119:PHE:CZ	1.93	0.82

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:143:G:OP1	9:BG:131:LYS:HA	1.78	0.82
1:A2:1326:A:C4'	6:BD:156:PHE:O	2.28	0.82
1:A2:831:U:O5'	7:BE:152:PRO:HB2	1.79	0.82
20:BR:54:THR:HG1	20:BR:55:THR:N	1.75	0.82
1:A2:1454:G:C5	18:BP:122:THR:CG2	2.57	0.82
1:A2:1238:A:P	18:BP:66:ALA:H	2.03	0.82
1:A2:1566:U:O2'	21:BS:35:ILE:CA	2.28	0.82
2:AZ:6110:A:H8	8:BF:219:ARG:CZ	1.92	0.82
1:A2:759:U:C2	12:BJ:8:TYR:N	2.48	0.82
1:A2:1420:C:OP1	23:BU:80:GLU:CB	2.21	0.82
10:BH:140:VAL:O	25:BW:51:GLU:N	2.12	0.82
1:A2:447:U:O4	27:BY:104:SER:OG	1.97	0.82
1:A2:701:U:C2	7:BE:175:PHE:C	2.53	0.82
1:A2:1528:U:H5''	19:BQ:43:ILE:HG12	0.83	0.82
1:A2:1532:U:P	28:BZ:77:ARG:HB3	2.19	0.82
1:A2:1504:G:H5''	22:BT:39:THR:H	1.45	0.82
1:A2:1564:U:C2'	21:BS:41:ARG:C	2.48	0.82
1:A2:1068:C:C4'	3:BA:33:GLN:HB2	2.10	0.82
1:A2:898:A:C1'	17:BO:41:ARG:HG2	1.98	0.82
1:A2:598:U:OP2	26:BX:133:LEU:CD2	2.26	0.82
1:A2:759:U:C4	12:BJ:6:ARG:O	2.32	0.82
1:A2:335:U:O4	11:BI:25:ARG:CD	2.27	0.82
1:A2:1420:C:H5'	23:BU:82:TYR:HH	1.39	0.82
2:AZ:6218:U:C2	6:BD:146:ARG:CD	2.63	0.82
1:A2:139:C:H3'	9:BG:138:ALA:H	1.32	0.81
1:A2:1722:A:OP2	9:BG:73:ILE:CD1	2.28	0.81
1:A2:1718:G:N2	9:BG:65:GLN:HE22	1.77	0.81
1:A2:631:G:C3'	26:BX:13:ARG:CA	2.58	0.81
1:A2:1327:C:C2'	6:BD:159:HIS:CB	2.58	0.81
1:A2:1300:A:C8	5:BC:86:VAL:HB	2.15	0.81
1:A2:736:C:C4	7:BE:195:ILE:HD11	2.14	0.81
1:A2:1403:C:C6	20:BR:3:ARG:HB3	2.14	0.81
1:A2:1389:C:O3'	20:BR:45:ARG:CG	2.19	0.81
1:A2:920:U:C5'	4:BB:214:LYS:CD	2.36	0.81
1:A2:916:U:H3'	17:BO:84:ARG:CZ	2.08	0.81
1:A2:1358:G:C4'	22:BT:130:ARG:HA	2.09	0.81
1:A2:332:U:O2	11:BI:26:LYS:CD	2.16	0.81
1:A2:1334:U:C3'	23:BU:83:GLU:OE2	2.27	0.81
1:A2:782:U:O5'	27:BY:39:GLU:CA	2.28	0.81
1:A2:775:G:C2	27:BY:61:ARG:CA	2.62	0.81
1:A2:128:U:H2'	1:A2:128:U:O2	1.79	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:137:PRO:C	7:BE:138:TYR:N	2.19	0.81
1:A2:1505:A:C4'	22:BT:41:SER:HB3	2.10	0.81
2:AZ:6107:U:H5''	8:BF:223:SER:H	1.13	0.81
1:A2:1060:U:P	3:BA:39:ASN:ND2	2.53	0.81
1:A2:921:U:C5'	4:BB:138:PHE:HE2	1.93	0.81
1:A2:597:G:C3'	26:BX:136:TRP:CZ3	2.63	0.81
1:A2:572:C:H5''	26:BX:116:ASP:N	1.95	0.81
1:A2:326:G:H5'	14:BL:132:SER:O	1.79	0.81
1:A2:1435:G:C2	13:BK:27:PHE:CD2	2.68	0.81
1:A2:784:C:C4'	27:BY:44:LEU:CD2	2.59	0.81
1:A2:1720:G:C4	9:BG:66:GLY:CA	2.51	0.81
1:A2:1037:C:C2'	25:BW:19:LYS:NZ	2.43	0.81
1:A2:738:G:H3'	7:BE:157:ASN:ND2	1.85	0.81
1:A2:741:C:N4	7:BE:207:LEU:H	1.75	0.81
1:A2:1528:U:C5'	19:BQ:43:ILE:HB	2.09	0.81
1:A2:1535:U:H4'	8:BF:187:ILE:HD13	1.43	0.81
1:A2:1532:U:P	28:BZ:77:ARG:C	2.58	0.81
1:A2:1240:U:O4'	18:BP:75:PRO:CA	2.28	0.81
1:A2:1242:A:H5'	18:BP:89:MET:SD	2.19	0.81
1:A2:1558:U:N3	21:BS:126:ARG:N	2.28	0.81
1:A2:1499:G:C4'	22:BT:102:ARG:O	2.28	0.81
1:A2:896:U:C1'	17:BO:18:ARG:HH11	1.91	0.81
1:A2:27:U:H3	26:BX:126:LYS:HD2	1.45	0.81
1:A2:336:G:O6	11:BI:27:PHE:N	2.13	0.81
1:A2:337:G:HO2'	11:BI:9:HIS:CD2	1.99	0.81
1:A2:324:U:OP2	11:BI:10:LYS:N	2.06	0.81
1:A2:334:G:OP1	11:BI:47:ARG:CD	2.29	0.81
1:A2:946:U:C4'	4:BB:158:SER:OG	2.29	0.81
6:BD:201:ALA:C	6:BD:202:LEU:N	2.33	0.81
1:A2:1301:U:H5	5:BC:118:ALA:C	1.65	0.81
1:A2:245:U:N3	7:BE:128:LYS:CE	2.43	0.81
1:A2:241:U:O2'	7:BE:148:ARG:NH2	2.14	0.81
1:A2:739:G:C6	7:BE:175:PHE:HE1	1.98	0.81
1:A2:887:A:H2	17:BO:125:SER:H	1.26	0.81
3:BA:103:THR:HB	3:BA:106:SER:OG	1.80	0.81
1:A2:760:A:N9	12:BJ:8:TYR:HB2	1.96	0.81
1:A2:300:A:N6	7:BE:5:PRO:O	2.11	0.81
1:A2:1279:C:N3	23:BU:72:ASN:OD1	2.14	0.81
1:A2:181:A:C8	9:BG:191:ARG:NH1	2.47	0.81
1:A2:164:A:C8	9:BG:2:LYS:HB2	2.16	0.81
1:A2:746:A:H2	25:BW:82:LYS:HE3	1.02	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1299:G:C5	5:BC:86:VAL:HG12	2.11	0.81
1:A2:242:U:C5	7:BE:149:TYR:CE1	2.69	0.81
1:A2:1532:U:H2'	28:BZ:77:ARG:HG3	1.59	0.81
2:AZ:6108:U:OP2	8:BF:225:ARG:HB3	1.80	0.81
3:BA:177:LEU:O	3:BA:181:VAL:HG13	1.79	0.81
1:A2:1097:U:C1'	5:BC:199:GLN:HA	2.09	0.81
1:A2:783:G:C2	27:BY:35:VAL:HG21	2.07	0.81
1:A2:783:G:C8	27:BY:39:GLU:CB	2.63	0.81
1:A2:1710:U:C6	9:BG:115:LYS:HD2	2.15	0.81
1:A2:1721:A:H3'	9:BG:67:VAL:HG21	0.81	0.81
1:A2:396:G:C5	9:BG:88:ARG:CG	2.62	0.81
1:A2:1392:U:H5'	20:BR:29:GLN:HB2	1.60	0.81
1:A2:1565:C:C1'	21:BS:41:ARG:H	1.93	0.81
1:A2:899:G:H3'	17:BO:25:ASP:CB	2.10	0.81
1:A2:1096:C:H3'	5:BC:166:THR:C	2.01	0.81
1:A2:491:C:N3	1:A2:496:G:N2	2.27	0.81
1:A2:777:C:OP2	27:BY:33:ALA:C	2.19	0.81
1:A2:811:A:N6	10:BH:103:SER:CB	2.41	0.81
1:A2:1688:U:H2'	1:A2:1689:A:C8	2.16	0.81
1:A2:127:G:H1'	9:BG:183:ARG:NH2	1.95	0.81
1:A2:1328:G:P	6:BD:164:VAL:CG2	2.69	0.81
1:A2:242:U:C5	7:BE:137:PRO:HD2	2.15	0.81
1:A2:1454:G:N2	18:BP:123:TYR:CD1	2.49	0.81
1:A2:1504:G:O4'	21:BS:41:ARG:NH2	2.12	0.81
1:A2:1548:G:OP2	21:BS:100:THR:CG2	2.29	0.81
1:A2:897:C:O3'	17:BO:29:HIS:HB2	1.79	0.81
1:A2:897:C:OP2	17:BO:39:ILE:N	2.13	0.81
1:A2:370:A:C4'	12:BJ:14:THR:N	2.43	0.81
1:A2:572:C:O3'	26:BX:116:ASP:HB3	1.80	0.81
1:A2:325:G:C6	11:BI:10:LYS:NZ	2.48	0.81
1:A2:950:C:C4'	16:BN:94:LYS:HE2	2.10	0.81
1:A2:395:U:H1'	9:BG:93:LYS:NZ	1.96	0.81
1:A2:58:U:C6	27:BY:114:ARG:CB	2.64	0.81
1:A2:456:A:C2	27:BY:111:LYS:CB	2.61	0.81
1:A2:863:A:N3	25:BW:7:LEU:N	2.27	0.81
25:BW:102:VAL:C	25:BW:103:ILE:N	2.34	0.81
1:A2:220:A:P	9:BG:219:ARG:N	2.52	0.81
1:A2:1454:G:P	18:BP:118:GLU:CG	2.68	0.81
2:AZ:6108:U:P	8:BF:225:ARG:HD2	2.21	0.81
1:A2:917:U:H2'	17:BO:118:VAL:HG21	1.61	0.81
1:A2:370:A:H5''	12:BJ:14:THR:OG1	1.80	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1495:C:O2'	1:A2:1519:U:O2	1.99	0.81
5:BC:44:LEU:C	5:BC:45:VAL:N	2.33	0.81
1:A2:179:A:C1'	9:BG:184:LEU:HB3	2.11	0.81
1:A2:241:U:C5'	7:BE:149:TYR:CG	2.55	0.81
1:A2:1498:G:C6	22:BT:102:ARG:CD	2.63	0.81
1:A2:800:U:O3'	7:BE:187:ARG:HG3	1.78	0.81
1:A2:778:G:C6	27:BY:39:GLU:OE1	1.90	0.81
1:A2:78:A:N3	9:BG:160:ARG:NE	2.23	0.81
1:A2:1722:A:OP1	9:BG:73:ILE:HG13	1.80	0.81
1:A2:89:G:C6	27:BY:118:ILE:HG22	2.16	0.81
1:A2:738:G:C5'	7:BE:126:VAL:O	2.27	0.81
1:A2:1401:A:OP2	20:BR:10:LYS:NZ	2.11	0.81
1:A2:1539:G:C4	28:BZ:74:SER:OG	2.25	0.81
2:AZ:6107:U:C2	8:BF:217:LEU:O	2.34	0.81
1:A2:870:C:H2'	16:BN:13:SER:HB2	1.62	0.81
1:A2:952:A:C4'	16:BN:5:HIS:CB	2.55	0.81
1:A2:336:G:N3	11:BI:6:ASP:OD2	2.14	0.81
1:A2:330:G:C4	11:BI:31:ARG:CG	2.63	0.81
2:AZ:6221:U:H3'	6:BD:114:ALA:CB	1.87	0.81
24:BV:56:SER:C	24:BV:57:GLY:N	2.34	0.81
1:A2:577:G:O3'	1:A2:578:U:P	2.39	0.81
1:A2:56:U:O2	27:BY:113:ASN:O	1.98	0.80
1:A2:631:G:C5	26:BX:11:SER:O	2.32	0.80
1:A2:435:C:P	26:BX:77:ILE:HD11	2.20	0.80
1:A2:1298:U:H5'	5:BC:115:ILE:CG2	2.09	0.80
1:A2:1296:A:OP2	5:BC:116:LYS:HD3	1.81	0.80
1:A2:832:U:H5'	9:BG:212:LEU:O	1.80	0.80
1:A2:1451:C:N4	18:BP:97:TYR:HB3	1.96	0.80
1:A2:1503:A:N1	21:BS:82:PRO:CG	2.43	0.80
1:A2:1056:U:P	3:BA:40:ALA:HB1	2.20	0.80
1:A2:598:U:H3'	26:BX:88:PRO:HG2	1.61	0.80
1:A2:329:G:C5'	11:BI:175:GLN:HE22	1.93	0.80
12:BJ:23:ARG:O	12:BJ:26:ALA:N	2.14	0.80
1:A2:780:A:C6	27:BY:32:ARG:HA	2.15	0.80
1:A2:56:U:H3	27:BY:113:ASN:HD22	0.81	0.80
1:A2:1402:G:C2'	20:BR:3:ARG:O	2.29	0.80
1:A2:1530:C:H42	28:BZ:96:SER:CB	1.85	0.80
1:A2:1182:U:H1'	18:BP:125:PRO:O	1.76	0.80
1:A2:1504:G:OP2	22:BT:33:TYR:O	1.99	0.80
1:A2:872:G:O3'	1:A2:873:U:P	2.39	0.80
1:A2:760:A:O2'	12:BJ:9:SER:O	1.99	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1096:C:C6	5:BC:201:ASN:HA	2.16	0.80
10:BH:166:LEU:O	10:BH:167:GLU:N	2.14	0.80
1:A2:775:G:C4	27:BY:61:ARG:CA	2.62	0.80
1:A2:786:C:H5	27:BY:71:GLY:N	1.78	0.80
1:A2:451:A:H2	27:BY:111:LYS:CD	1.94	0.80
1:A2:138:A:O3'	9:BG:143:LYS:N	2.14	0.80
1:A2:164:A:H3'	9:BG:3:LEU:O	1.81	0.80
1:A2:456:A:C2'	27:BY:111:LYS:HE2	1.96	0.80
1:A2:1301:U:C1'	5:BC:86:VAL:CG2	2.59	0.80
1:A2:217:A:H5''	7:BE:155:LYS:HA	1.62	0.80
1:A2:735:C:OP1	7:BE:191:ARG:HG2	1.79	0.80
1:A2:1212:G:O6	18:BP:99:GLY:CA	2.30	0.80
1:A2:30:G:OP2	26:BX:130:VAL:CG2	2.23	0.80
1:A2:754:A:P	7:BE:14:ALA:CB	2.70	0.80
1:A2:1381:U:C3'	23:BU:59:PRO:CG	2.60	0.80
2:AZ:6221:U:O3'	6:BD:114:ALA:HB3	1.76	0.80
1:A2:457:G:C1'	27:BY:114:ARG:NH2	2.40	0.80
1:A2:1103:U:H4'	26:BX:15:LEU:HD13	1.61	0.80
1:A2:215:A:H4'	7:BE:131:LEU:HA	1.60	0.80
1:A2:703:G:N2	7:BE:180:LEU:O	2.14	0.80
1:A2:1245:G:OP1	18:BP:58:LYS:O	1.98	0.80
1:A2:1453:G:N3	18:BP:120:SER:O	2.14	0.80
1:A2:1343:U:C4'	23:BU:54:GLY:C	2.38	0.80
1:A2:1613:U:O5'	8:BF:84:LYS:HE2	1.81	0.80
1:A2:776:G:O3'	27:BY:29:HIS:HE1	1.60	0.80
1:A2:776:G:C5'	27:BY:62:THR:HG23	2.11	0.80
1:A2:179:A:O4'	9:BG:184:LEU:HA	1.79	0.80
1:A2:698:U:H2'	7:BE:197:HIS:CE1	2.16	0.80
1:A2:1533:C:C1'	28:BZ:77:ARG:HH21	1.94	0.80
1:A2:1184:A:C4	18:BP:124:THR:N	2.29	0.80
1:A2:1519:U:OP2	22:BT:75:LYS:CE	2.30	0.80
1:A2:777:C:C5'	27:BY:32:ARG:HB2	2.12	0.80
1:A2:782:U:C5'	27:BY:39:GLU:CA	2.60	0.80
1:A2:140:A:O3'	9:BG:157:VAL:O	1.74	0.80
1:A2:141:U:C5	9:BG:173:PRO:CB	2.65	0.80
1:A2:266:A:H4'	9:BG:136:LYS:HZ3	1.43	0.80
1:A2:1037:C:H4'	25:BW:71:LYS:CG	2.12	0.80
1:A2:1034:C:H3'	26:BX:2:GLY:N	1.96	0.80
1:A2:243:G:O6	7:BE:138:TYR:OH	2.00	0.80
1:A2:1530:C:C4	28:BZ:95:HIS:C	2.52	0.80
1:A2:1241:G:OP1	18:BP:104:GLN:CA	2.30	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1184:A:C4	18:BP:123:TYR:HD2	1.99	0.80
1:A2:1549:C:C5'	21:BS:86:LEU:HB2	2.11	0.80
1:A2:987:G:N2	1:A2:1013:A:OP2	2.14	0.80
1:A2:1200:G:H4'	1:A2:1201:G:C5'	2.10	0.80
1:A2:329:G:N1	11:BI:30:GLY:CA	2.45	0.80
1:A2:1710:U:C1'	9:BG:115:LYS:HG3	2.05	0.80
1:A2:1720:G:C4	9:BG:66:GLY:HA2	2.16	0.80
1:A2:697:C:H4'	7:BE:209:HIS:CD2	2.14	0.80
1:A2:1531:G:O6	28:BZ:97:LYS:HG3	1.81	0.80
1:A2:340:U:C2	11:BI:3:ILE:HG12	2.16	0.80
1:A2:1084:A:H5''	5:BC:166:THR:CA	1.99	0.80
17:BO:56:SER:OG	17:BO:59:ALA:N	2.13	0.80
1:A2:129:U:H3	9:BG:177:ARG:NE	1.74	0.80
1:A2:804:A:H5'	25:BW:120:HIS:O	1.81	0.80
1:A2:863:A:OP1	25:BW:34:ILE:HD11	1.82	0.80
1:A2:242:U:H1'	7:BE:148:ARG:CZ	2.12	0.80
1:A2:216:U:H6	7:BE:129:VAL:HG22	1.43	0.80
1:A2:215:A:N7	7:BE:138:TYR:N	2.29	0.80
1:A2:760:A:C8	12:BJ:8:TYR:HB2	2.17	0.80
1:A2:758:U:C4	12:BJ:6:ARG:O	2.34	0.80
2:AZ:6218:U:N3	6:BD:146:ARG:HD2	1.97	0.80
1:A2:1521:G:OP1	22:BT:75:LYS:HE3	1.66	0.80
1:A2:765:G:C8	12:BJ:132:ARG:NH1	2.49	0.80
1:A2:946:U:O3'	4:BB:158:SER:HB2	1.78	0.80
14:BL:68:GLY:C	14:BL:69:LYS:HA	2.02	0.80
1:A2:784:C:H5'	27:BY:43:LYS:CB	2.11	0.80
27:BY:56:SER:C	27:BY:57:VAL:N	2.35	0.80
1:A2:395:U:C6	9:BG:91:GLU:CD	2.55	0.80
1:A2:1300:A:N7	5:BC:86:VAL:HB	1.96	0.80
1:A2:736:C:C6	7:BE:225:VAL:HG13	2.16	0.80
1:A2:740:A:N3	7:BE:200:ARG:HB2	1.95	0.80
1:A2:1581:C:OP1	19:BQ:137:ARG:HD2	1.81	0.80
1:A2:1236:A:H5''	18:BP:61:ARG:HG2	1.63	0.80
1:A2:1547:A:C8	21:BS:87:ASN:HB2	2.17	0.80
1:A2:1498:G:N7	22:BT:73:VAL:HB	1.96	0.80
1:A2:1053:G:O5'	3:BA:35:PRO:CB	2.30	0.80
1:A2:1281:G:C5'	23:BU:78:THR:OG1	2.25	0.80
1:A2:1097:U:H1'	5:BC:199:GLN:HA	1.63	0.80
2:AZ:6221:U:O2'	6:BD:114:ALA:CB	2.29	0.80
1:A2:1018:U:C3'	16:BN:107:LYS:HD2	1.72	0.80
6:BD:135:GLU:C	6:BD:136:VAL:N	2.35	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:786:C:OP1	27:BY:24:VAL:O	1.99	0.80
1:A2:138:A:C2	9:BG:143:LYS:HG2	2.17	0.80
1:A2:138:A:C5	9:BG:140:ASN:HB3	2.17	0.80
1:A2:866:G:H3'	25:BW:3:ARG:H	1.46	0.80
1:A2:746:A:N3	25:BW:82:LYS:HE3	1.92	0.80
1:A2:1211:A:H2	18:BP:120:SER:OG	1.64	0.80
22:BT:40:SER:HG	22:BT:41:SER:N	1.80	0.80
1:A2:2:A:N3	12:BJ:16:LYS:HD3	1.97	0.80
1:A2:1124:A:O3'	1:A2:1125:A:P	2.40	0.80
12:BJ:94:ASP:O	12:BJ:96:VAL:N	2.15	0.80
1:A2:855:A:C2	1:A2:857:U:H1'	2.17	0.79
1:A2:149:C:H5''	27:BY:130:ALA:HB3	0.88	0.79
1:A2:804:A:H3'	25:BW:122:SER:CB	2.10	0.79
1:A2:635:A:O3'	25:BW:126:LEU:CA	2.12	0.79
1:A2:704:C:H1'	7:BE:231:GLN:C	1.60	0.79
1:A2:1389:C:H3'	20:BR:45:ARG:HG3	1.64	0.79
1:A2:900:A:O5'	17:BO:25:ASP:HB3	1.80	0.79
1:A2:337:G:HO2'	11:BI:9:HIS:CE1	1.88	0.79
21:BS:66:LEU:O	21:BS:67:GLU:N	2.15	0.79
1:A2:776:G:C4'	27:BY:66:GLY:HA2	2.12	0.79
1:A2:784:C:C4'	27:BY:44:LEU:HD21	2.12	0.79
1:A2:1675:C:OP1	9:BG:76:LEU:CD1	2.30	0.79
1:A2:633:U:C3'	25:BW:79:PHE:CE1	2.64	0.79
25:BW:94:LEU:HD11	25:BW:102:VAL:HG23	1.62	0.79
1:A2:1298:U:O2	5:BC:208:GLU:HG3	1.80	0.79
1:A2:1533:C:H1'	28:BZ:77:ARG:HH21	1.46	0.79
1:A2:1555:A:H1'	18:BP:115:TYR:CE2	2.16	0.79
1:A2:1213:G:C1'	18:BP:78:THR:O	2.30	0.79
1:A2:1499:G:C8	22:BT:102:ARG:C	2.49	0.79
1:A2:1055:U:C6	3:BA:37:VAL:HG22	2.17	0.79
1:A2:599:A:C2	26:BX:103:LEU:CD1	2.64	0.79
1:A2:1357:A:C1'	22:BT:126:GLU:C	2.50	0.79
1:A2:1382:A:C2	23:BU:56:VAL:HG13	2.12	0.79
1:A2:1790:A:C3'	1:A2:1791:A:P	2.70	0.79
12:BJ:126:ARG:C	12:BJ:127:VAL:N	2.36	0.79
1:A2:858:G:HO2'	10:BH:106:SER:HB3	1.47	0.79
1:A2:450:U:C4'	27:BY:109:LYS:HE2	1.95	0.79
25:BW:110:ILE:C	25:BW:111:MET:N	2.35	0.79
1:A2:1327:C:C5	6:BD:159:HIS:N	2.50	0.79
1:A2:735:C:H3'	7:BE:192:ILE:HA	1.64	0.79
1:A2:741:C:C5	7:BE:206:ASP:CG	2.55	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1547:A:O2'	21:BS:100:THR:O	2.00	0.79
1:A2:1565:C:C2'	21:BS:38:VAL:HG12	2.12	0.79
1:A2:1498:G:H3'	22:BT:73:VAL:CG2	2.12	0.79
1:A2:960:U:C6	25:BW:57:ARG:CG	2.65	0.79
1:A2:451:A:C2	27:BY:111:LYS:CB	2.63	0.79
1:A2:1721:A:C8	9:BG:67:VAL:CA	2.66	0.79
9:BG:64:LYS:NZ	9:BG:83:CYS:SG	2.55	0.79
1:A2:634:G:C3'	25:BW:79:PHE:H	1.94	0.79
1:A2:638:U:O2	25:BW:107:SER:CB	2.31	0.79
1:A2:863:A:H5'	25:BW:6:VAL:HG21	1.64	0.79
1:A2:1290:U:H4'	6:BD:151:LYS:HE2	1.51	0.79
1:A2:212:U:C6	7:BE:133:LYS:NZ	2.50	0.79
1:A2:1533:C:C1'	28:BZ:77:ARG:NH2	2.45	0.79
1:A2:1556:A:OP2	18:BP:38:PRO:CG	2.30	0.79
1:A2:800:U:O3'	1:A2:801:G:P	2.39	0.79
1:A2:1756:A:N1	2:AZ:6189:G:O2'	2.16	0.79
1:A2:783:G:H8	27:BY:39:GLU:C	1.83	0.79
1:A2:141:U:C5	9:BG:173:PRO:HG2	2.17	0.79
14:BL:100:TYR:O	26:BX:12:ALA:N	2.15	0.79
1:A2:1558:U:C4	21:BS:122:HIS:O	2.35	0.79
1:A2:886:U:OP2	4:BB:122:GLU:OE2	1.99	0.79
1:A2:1756:A:C3'	1:A2:1757:G:OP1	2.28	0.79
1:A2:181:A:H1'	9:BG:191:ARG:HB3	1.62	0.79
1:A2:178:U:OP1	9:BG:179:VAL:HG12	1.83	0.79
1:A2:180:A:N1	9:BG:191:ARG:N	2.28	0.79
1:A2:396:G:C4	9:BG:88:ARG:HD2	2.17	0.79
1:A2:738:G:H8	7:BE:157:ASN:OD1	1.63	0.79
1:A2:1389:C:O3'	20:BR:45:ARG:CA	2.30	0.79
1:A2:1213:G:H4'	18:BP:77:ARG:HD3	1.64	0.79
1:A2:1239:U:C6	18:BP:74:ALA:CA	2.62	0.79
1:A2:1553:G:N3	18:BP:40:ARG:CD	2.35	0.79
1:A2:961:U:H5	25:BW:58:SER:OG	1.64	0.79
1:A2:597:G:H3'	26:BX:133:LEU:HD22	1.61	0.79
11:BI:104:ILE:C	11:BI:105:ASP:N	2.36	0.79
15:BM:28:LEU:HD11	15:BM:61:VAL:HG21	1.64	0.79
1:A2:787:G:C2	27:BY:61:ARG:HD3	2.07	0.79
1:A2:140:A:C5'	9:BG:153:VAL:HG12	2.12	0.79
1:A2:1721:A:H62	9:BG:68:LEU:N	1.79	0.79
1:A2:864:U:C4'	25:BW:6:VAL:O	2.31	0.79
1:A2:1331:A:C4	6:BD:161:GLY:N	2.50	0.79
1:A2:1502:G:C6	22:BT:33:TYR:CD2	2.71	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:BA:10:THR:HB	3:BA:11:PRO:HD2	1.63	0.79
1:A2:347:G:C4	11:BI:16:ALA:N	2.50	0.79
1:A2:931:C:C4'	4:BB:117:TRP:CZ3	2.51	0.79
1:A2:464:A:C3'	1:A2:465:G:P	2.71	0.79
22:BT:28:LEU:HG	22:BT:29:GLU:N	1.98	0.79
1:A2:632:U:C4	26:BX:12:ALA:N	2.50	0.79
1:A2:1327:C:C5	6:BD:158:ILE:HA	2.17	0.79
1:A2:1403:C:O4'	20:BR:3:ARG:C	2.21	0.79
1:A2:1566:U:O2'	21:BS:35:ILE:O	1.99	0.79
1:A2:1505:A:P	22:BT:38:LYS:HG3	2.23	0.79
1:A2:686:C:H5''	12:BJ:64:GLU:HG2	1.63	0.79
1:A2:346:G:C2	11:BI:12:SER:O	2.36	0.79
1:A2:1381:U:C3'	23:BU:59:PRO:HG3	2.13	0.79
1:A2:1419:G:OP1	19:BQ:129:PHE:HD1	1.66	0.79
1:A2:1722:A:C1'	9:BG:71:THR:O	2.29	0.79
1:A2:1731:A:O3'	1:A2:1732:A:P	2.41	0.79
1:A2:75:U:H5	9:BG:167:LYS:HB2	1.47	0.79
1:A2:1327:C:H5''	6:BD:164:VAL:HG22	1.65	0.79
1:A2:238:U:H3'	9:BG:210:GLN:HB3	1.63	0.79
1:A2:1584:G:H2'	19:BQ:124:PRO:HG3	1.64	0.79
1:A2:1507:G:OP2	1:A2:1507:G:C8	2.36	0.79
1:A2:1502:G:P	22:BT:32:GLY:C	2.60	0.79
1:A2:888:U:H5	17:BO:123:SER:N	1.81	0.79
1:A2:791:A:N6	12:BJ:7:THR:N	2.29	0.79
15:BM:52:LEU:HD12	15:BM:78:LEU:HB3	1.65	0.79
14:BL:7:VAL:C	14:BL:8:GLN:N	2.37	0.79
1:A2:783:G:OP1	27:BY:52:LYS:HG3	1.81	0.79
1:A2:163:G:N7	9:BG:17:GLU:CD	2.37	0.79
1:A2:633:U:O2	26:BX:7:ARG:C	2.20	0.79
20:BR:2:GLY:O	20:BR:4:VAL:N	2.08	0.79
1:A2:1184:A:H62	18:BP:125:PRO:HB3	1.47	0.79
1:A2:1556:A:P	18:BP:38:PRO:HG2	2.22	0.79
2:AZ:6137:C:H2'	8:BF:126:ASP:CA	2.11	0.79
1:A2:916:U:C2	17:BO:20:TYR:CE2	2.71	0.79
1:A2:785:U:O2'	27:BY:26:ASP:HA	1.82	0.78
1:A2:787:G:C5	27:BY:61:ARG:HB3	2.17	0.78
1:A2:140:A:H5'	9:BG:153:VAL:CG1	2.12	0.78
1:A2:140:A:O5'	9:BG:141:ILE:CD1	2.31	0.78
1:A2:449:C:C6	27:BY:105:ARG:NE	2.28	0.78
1:A2:1721:A:N7	9:BG:68:LEU:N	2.31	0.78
1:A2:91:G:C4	27:BY:116:LYS:HE2	1.96	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:863:A:O5'	25:BW:31:SER:HB3	1.83	0.78
1:A2:863:A:OP1	25:BW:6:VAL:HG11	1.83	0.78
1:A2:1299:G:N3	5:BC:86:VAL:HG12	1.98	0.78
1:A2:1246:C:C4	18:BP:76:VAL:CA	2.64	0.78
1:A2:1503:A:C5	22:BT:37:VAL:N	2.50	0.78
1:A2:1548:G:O2'	21:BS:86:LEU:HA	1.81	0.78
1:A2:1550:A:N7	21:BS:89:GLN:NE2	2.30	0.78
1:A2:896:U:OP1	17:BO:33:LEU:C	2.21	0.78
1:A2:920:U:C2'	4:BB:216:LYS:HE3	2.13	0.78
20:BR:109:LEU:O	20:BR:112:SER:C	2.21	0.78
1:A2:552:G:O3'	1:A2:553:G:P	2.42	0.78
1:A2:599:A:H2	26:BX:103:LEU:CB	1.95	0.78
4:BB:67:GLU:C	4:BB:68:VAL:N	2.37	0.78
1:A2:1723:U:C6	9:BG:73:ILE:HD13	2.13	0.78
1:A2:804:A:OP1	25:BW:121:VAL:HA	1.83	0.78
1:A2:1302:U:C6	5:BC:97:ARG:CZ	2.66	0.78
1:A2:826:U:O2	1:A2:846:G:O6	2.00	0.78
1:A2:1609:U:H5'	19:BQ:75:VAL:CB	2.11	0.78
1:A2:1556:A:P	18:BP:38:PRO:CB	2.70	0.78
2:AZ:6220:U:C6	6:BD:142:LEU:CB	2.65	0.78
5:BC:193:VAL:O	5:BC:194:GLU:N	2.17	0.78
24:BV:36:VAL:HG12	24:BV:37:ALA:N	1.98	0.78
1:A2:775:G:N3	27:BY:61:ARG:CA	2.46	0.78
1:A2:139:C:C2'	9:BG:138:ALA:H	1.75	0.78
1:A2:179:A:N6	9:BG:190:GLN:HG2	1.99	0.78
1:A2:58:U:OP2	27:BY:114:ARG:HD3	1.36	0.78
1:A2:435:C:OP1	26:BX:77:ILE:CD1	2.31	0.78
1:A2:1326:A:O5'	6:BD:157:LEU:N	2.10	0.78
1:A2:1328:G:N9	6:BD:159:HIS:O	2.14	0.78
1:A2:1054:U:H4'	3:BA:34:GLU:HB2	1.66	0.78
1:A2:1055:U:P	3:BA:46:HIS:HB3	2.20	0.78
1:A2:960:U:C6	25:BW:57:ARG:HG3	2.19	0.78
10:BH:136:VAL:O	10:BH:137:GLY:N	2.17	0.78
1:A2:1480:G:OP1	22:BT:12:GLN:CA	2.32	0.78
1:A2:328:A:H4'	11:BI:172:ARG:NH1	1.96	0.78
1:A2:1383:G:O3'	23:BU:87:HIS:O	2.01	0.78
1:A2:140:A:C4	9:BG:157:VAL:CG1	2.56	0.78
1:A2:395:U:H5'	9:BG:85:ARG:O	1.83	0.78
1:A2:90:C:C5	27:BY:116:LYS:O	2.37	0.78
1:A2:163:G:C5	9:BG:2:LYS:HB2	2.17	0.78
1:A2:632:U:P	26:BX:12:ALA:HB3	2.23	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:740:A:C4	7:BE:200:ARG:CB	2.59	0.78
1:A2:1238:A:C8	18:BP:63:ALA:O	2.37	0.78
1:A2:1242:A:C4'	18:BP:89:MET:HE1	2.10	0.78
1:A2:1558:U:H5	21:BS:123:ARG:O	1.65	0.78
2:AZ:6220:U:O5'	6:BD:143:ARG:HB3	1.84	0.78
1:A2:1566:U:H4'	21:BS:30:TYR:O	1.83	0.78
1:A2:1547:A:C8	21:BS:87:ASN:CB	2.66	0.78
1:A2:960:U:C5'	25:BW:57:ARG:CA	2.26	0.78
1:A2:548:G:C2	1:A2:591:A:N1	2.51	0.78
1:A2:601:A:H5'	26:BX:43:PHE:CE2	2.18	0.78
1:A2:1601:G:C3'	22:BT:90:PRO:CD	2.57	0.78
1:A2:1358:G:H5'	22:BT:130:ARG:CG	2.13	0.78
1:A2:1095:U:H4'	5:BC:159:THR:CB	2.14	0.78
1:A2:1094:G:C3'	5:BC:161:LYS:HD2	2.10	0.78
1:A2:640:U:C2'	25:BW:119:LYS:CE	2.58	0.78
1:A2:457:G:H22	27:BY:109:LYS:HB2	1.47	0.78
1:A2:265:A:OP1	9:BG:176:GLN:CG	2.31	0.78
1:A2:148:A:OP2	27:BY:131:ARG:HB2	1.84	0.78
25:BW:14:ILE:O	25:BW:18:GLU:N	2.16	0.78
1:A2:1145:U:H5''	5:BC:88:LYS:HE3	1.62	0.78
1:A2:1327:C:C2'	6:BD:159:HIS:HB3	2.14	0.78
1:A2:737:A:O4'	7:BE:158:ASP:HA	1.83	0.78
1:A2:1400:A:P	20:BR:53:TYR:OH	2.40	0.78
1:A2:600:U:OP1	26:BX:122:PHE:C	2.21	0.78
1:A2:1137:A:C4'	26:BX:64:PRO:HD3	2.12	0.78
1:A2:1082:C:O2'	5:BC:216:VAL:CG1	2.29	0.78
7:BE:65:LEU:O	7:BE:68:ARG:N	2.17	0.78
1:A2:606:A:H4'	1:A2:607:G:H5'	1.65	0.78
1:A2:776:G:N2	27:BY:27:VAL:CG1	2.45	0.78
1:A2:859:A:H62	10:BH:111:LYS:HB3	1.44	0.78
1:A2:844:A:O2'	1:A2:845:G:O4'	2.01	0.78
1:A2:243:G:N7	7:BE:138:TYR:CD2	2.52	0.78
1:A2:736:C:C6	7:BE:181:VAL:HG13	2.16	0.78
1:A2:1558:U:O4	21:BS:123:ARG:N	2.17	0.78
1:A2:1565:C:O2	21:BS:38:VAL:CA	2.20	0.78
1:A2:548:G:H5'	26:BX:136:TRP:CG	2.17	0.78
1:A2:1136:U:O4	26:BX:113:ALA:CB	2.32	0.78
1:A2:337:G:O2'	11:BI:9:HIS:CD2	2.36	0.78
5:BC:138:PRO:C	5:BC:139:ILE:HA	2.03	0.78
1:A2:1711:C:OP2	9:BG:115:LYS:N	2.14	0.78
1:A2:141:U:C4'	9:BG:135:PRO:CB	2.56	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:266:A:C4'	9:BG:136:LYS:HE2	2.04	0.78
1:A2:137:U:OP2	9:BG:143:LYS:CE	2.31	0.78
1:A2:91:G:H2'	27:BY:113:ASN:OD1	1.84	0.78
1:A2:352:A:N6	26:BX:20:ARG:HH21	1.82	0.78
1:A2:650:U:O3'	12:BJ:91:LYS:HE3	1.83	0.78
1:A2:382:C:H5'	12:BJ:2:PRO:CD	2.14	0.78
1:A2:1383:G:OP2	23:BU:60:THR:HA	1.82	0.78
1:A2:1417:A:H4'	19:BQ:128:LYS:HZ2	1.44	0.78
1:A2:1419:G:OP1	19:BQ:129:PHE:CE1	2.37	0.78
1:A2:1383:G:C5'	23:BU:88:LYS:O	2.31	0.78
5:BC:203:LYS:O	5:BC:205:ARG:N	2.17	0.78
1:A2:1482:C:H1'	19:BQ:74:HIS:CE1	2.17	0.78
1:A2:139:C:O5'	9:BG:141:ILE:CA	2.31	0.78
1:A2:142:G:C8	9:BG:135:PRO:HA	2.19	0.78
1:A2:179:A:C2'	9:BG:187:LYS:HD3	2.13	0.78
1:A2:698:U:C2'	7:BE:197:HIS:CE1	2.67	0.78
1:A2:1241:G:C6	18:BP:96:ILE:HA	1.65	0.78
1:A2:1243:G:O2'	18:BP:53:PRO:CB	2.32	0.78
3:BA:54:TRP:O	20:BR:109:LEU:N	2.16	0.78
1:A2:370:A:C5'	12:BJ:14:THR:CB	2.62	0.78
1:A2:1384:A:OP2	23:BU:87:HIS:CG	2.37	0.78
1:A2:1085:G:H5''	5:BC:202:GLY:HA2	1.66	0.78
1:A2:799:A:C3'	7:BE:186:GLY:HA2	2.14	0.78
1:A2:1040:G:H5''	24:BV:62:ARG:CZ	2.14	0.78
1:A2:180:A:P	9:BG:187:LYS:HE3	2.23	0.78
1:A2:457:G:N2	27:BY:109:LYS:HB2	1.99	0.78
1:A2:636:A:C4	25:BW:105:THR:HG21	2.18	0.78
1:A2:632:U:C4'	26:BX:15:LEU:HB2	2.14	0.78
1:A2:1299:G:O2'	5:BC:84:LYS:C	2.21	0.78
1:A2:1184:A:C4	18:BP:123:TYR:CD2	2.71	0.78
1:A2:1563:C:H3'	22:BT:38:LYS:HD2	1.63	0.78
1:A2:687:G:O2'	12:BJ:67:PRO:HA	1.84	0.78
1:A2:955:A:C6	16:BN:11:ILE:N	2.49	0.78
1:A2:954:G:P	16:BN:2:GLY:CA	2.72	0.78
1:A2:877:G:N3	16:BN:6:SER:HB2	1.99	0.78
1:A2:753:A:OP2	7:BE:16:HIS:HB2	1.83	0.78
1:A2:1358:G:P	22:BT:130:ARG:CG	2.72	0.78
1:A2:799:A:O2'	7:BE:186:GLY:HA2	1.84	0.78
1:A2:784:C:C3'	27:BY:44:LEU:HD21	2.14	0.78
1:A2:175:G:O2'	9:BG:137:ARG:NH2	2.15	0.78
1:A2:86:A:C8	27:BY:126:ALA:N	2.51	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1036:A:OP2	25:BW:12:ASN:ND2	2.16	0.78
1:A2:1038:U:C6	25:BW:19:LYS:CE	2.65	0.78
1:A2:968:U:O2'	26:BX:5:LYS:CB	2.31	0.78
1:A2:1330:G:N7	6:BD:161:GLY:HA2	1.44	0.78
1:A2:1402:G:N7	20:BR:5:ARG:CZ	2.46	0.78
1:A2:1390:U:H5	20:BR:3:ARG:CG	1.97	0.78
1:A2:896:U:O2'	17:BO:18:ARG:CB	2.31	0.78
1:A2:115:G:H1'	11:BI:49:ARG:HH12	1.49	0.78
11:BI:88:ASN:O	11:BI:91:VAL:N	2.17	0.78
1:A2:180:A:C2	9:BG:188:ARG:C	2.58	0.77
1:A2:632:U:O2'	14:BL:97:TYR:CB	2.32	0.77
1:A2:635:A:H3'	25:BW:126:LEU:HD23	1.66	0.77
1:A2:820:U:O4	1:A2:853:G:N2	2.16	0.77
1:A2:1243:G:HO2'	18:BP:53:PRO:HB2	1.49	0.77
1:A2:759:U:O4	12:BJ:6:ARG:C	2.20	0.77
1:A2:1006:C:O3'	17:BO:136:ARG:HG3	1.54	0.77
1:A2:89:G:OP1	27:BY:119:PHE:CE2	2.04	0.77
1:A2:631:G:H4'	26:BX:16:ARG:NH1	1.98	0.77
1:A2:1390:U:OP1	20:BR:49:LYS:CD	2.29	0.77
1:A2:1473:U:OP2	8:BF:190:ILE:C	2.23	0.77
1:A2:1202:A:N6	21:BS:137:HIS:N	2.33	0.77
1:A2:1503:A:N7	21:BS:41:ARG:CZ	2.45	0.77
1:A2:946:U:C3'	4:BB:158:SER:HB3	2.14	0.77
1:A2:1354:G:O6	1:A2:1369:U:N3	2.17	0.77
1:A2:779:U:OP1	27:BY:4:ALA:N	2.17	0.77
1:A2:784:C:C1'	27:BY:7:ILE:CG1	2.61	0.77
1:A2:1683:C:OP2	9:BG:52:ILE:CG2	2.31	0.77
1:A2:57:G:H1	27:BY:115:ASP:CA	1.89	0.77
1:A2:140:A:P	9:BG:138:ALA:HB2	2.24	0.77
1:A2:1608:U:C4'	19:BQ:73:GLY:HA3	2.15	0.77
1:A2:1549:C:O2'	21:BS:84:TRP:CD2	2.38	0.77
1:A2:871:G:N1	16:BN:12:SER:N	2.32	0.77
1:A2:335:U:P	11:BI:49:ARG:HB2	2.24	0.77
14:BL:75:VAL:C	14:BL:76:VAL:HA	2.04	0.77
1:A2:776:G:N2	27:BY:27:VAL:HG11	2.00	0.77
1:A2:1721:A:H8	9:BG:67:VAL:HG22	0.96	0.77
1:A2:78:A:OP2	9:BG:161:GLU:OE1	2.03	0.77
1:A2:1301:U:O4'	5:BC:86:VAL:CG2	2.31	0.77
1:A2:832:U:H5''	9:BG:213:ALA:HA	1.64	0.77
1:A2:1477:G:H5'	22:BT:48:GLN:HE21	1.46	0.77
1:A2:1555:A:H8	18:BP:40:ARG:HG3	1.50	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1241:G:O6	18:BP:78:THR:CA	2.32	0.77
1:A2:1565:C:C2'	21:BS:39:GLY:N	2.46	0.77
1:A2:954:G:P	16:BN:2:GLY:C	2.62	0.77
1:A2:116:U:N3	7:BE:4:GLY:CA	2.46	0.77
1:A2:336:G:O6	11:BI:26:LYS:C	2.17	0.77
4:BB:218:LEU:HB2	4:BB:219:LYS:N	1.98	0.77
1:A2:636:A:C8	25:BW:78:ARG:NH1	2.53	0.77
1:A2:1037:C:OP1	25:BW:15:ASN:CB	2.33	0.77
1:A2:12:U:H2'	1:A2:13:C:C6	2.19	0.77
1:A2:733:A:C6	7:BE:209:HIS:O	2.37	0.77
1:A2:1454:G:C6	18:BP:122:THR:CG2	2.67	0.77
1:A2:1565:C:C5'	21:BS:44:ASN:H	1.96	0.77
1:A2:1563:C:C3'	22:BT:38:LYS:HD3	2.09	0.77
1:A2:686:C:C3'	12:BJ:65:LYS:CE	2.30	0.77
3:BA:63:ILE:O	3:BA:66:ALA:CB	2.32	0.77
26:BX:135:LEU:C	26:BX:136:TRP:N	2.37	0.77
1:A2:1384:A:C4'	23:BU:35:GLU:CG	2.57	0.77
1:A2:1282:U:OP2	23:BU:78:THR:HG21	1.84	0.77
1:A2:903:U:H4'	17:BO:135:ARG:HH12	1.48	0.77
1:A2:210:A:N6	1:A2:255:U:O4	2.17	0.77
1:A2:1023:A:O3'	1:A2:1024:U:O5'	2.03	0.77
1:A2:1532:U:HO2'	1:A2:1533:C:P	2.04	0.77
1:A2:1452:U:H2'	18:BP:117:GLY:HA3	0.77	0.77
1:A2:1553:G:H5''	18:BP:43:ARG:HD3	1.67	0.77
1:A2:650:U:OP2	7:BE:256:ARG:CZ	2.33	0.77
1:A2:960:U:H6	25:BW:57:ARG:CG	1.98	0.77
1:A2:992:A:C2	1:A2:1012:U:O4	2.38	0.77
1:A2:18:C:H5''	26:BX:109:ARG:CD	2.14	0.77
1:A2:547:U:H4'	26:BX:138:GLU:C	2.01	0.77
1:A2:30:G:N2	26:BX:138:GLU:N	2.32	0.77
1:A2:301:A:H61	7:BE:5:PRO:HA	1.49	0.77
1:A2:303:U:OP1	11:BI:22:ARG:CZ	2.32	0.77
1:A2:329:G:H5''	11:BI:56:ARG:NH2	1.98	0.77
1:A2:1192:C:H4'	19:BQ:141:SER:OG	1.83	0.77
1:A2:1684:U:OP2	9:BG:51:LYS:CB	2.24	0.77
1:A2:71:A:H3'	1:A2:72:A:H4'	1.67	0.77
1:A2:786:C:OP1	27:BY:24:VAL:C	2.23	0.77
1:A2:1679:G:C4	9:BG:68:LEU:CG	2.45	0.77
1:A2:91:G:C3'	27:BY:112:LYS:HE3	2.15	0.77
1:A2:866:G:O2'	25:BW:4:SER:HB3	1.83	0.77
25:BW:102:VAL:C	25:BW:103:ILE:CA	2.53	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1473:U:OP2	8:BF:190:ILE:N	2.18	0.77
1:A2:1534:G:H2'	28:BZ:63:SER:CA	2.14	0.77
1:A2:915:A:N1	17:BO:27:PHE:CD2	2.50	0.77
1:A2:953:G:H2'	16:BN:8:GLY:O	1.84	0.77
1:A2:792:U:O2	12:BJ:7:THR:HA	1.84	0.77
1:A2:595:G:O6	26:BX:140:LYS:HD3	1.85	0.77
1:A2:400:A:H4'	1:A2:401:A:H5''	1.66	0.77
1:A2:1549:C:C4'	21:BS:86:LEU:HD13	2.14	0.77
1:A2:382:C:H5'	12:BJ:2:PRO:HD2	1.67	0.77
1:A2:29:U:HO2'	26:BX:127:VAL:HG22	0.80	0.77
2:AZ:6123:A:C2	2:AZ:6152:C:N3	2.53	0.77
1:A2:776:G:H5'	27:BY:66:GLY:N	2.00	0.77
1:A2:785:U:C2'	27:BY:70:VAL:C	2.53	0.77
1:A2:1673:G:C2'	9:BG:94:ARG:CZ	2.63	0.77
1:A2:175:G:C1'	9:BG:137:ARG:HH21	1.98	0.77
1:A2:1721:A:C2'	9:BG:67:VAL:CG2	2.61	0.77
1:A2:635:A:H5'	25:BW:77:PRO:O	1.85	0.77
1:A2:1144:U:C5	5:BC:89:GLN:NE2	2.53	0.77
1:A2:832:U:H5''	9:BG:213:ALA:CA	2.14	0.77
1:A2:1534:G:O2'	8:BF:187:ILE:HG22	1.84	0.77
1:A2:1532:U:C2'	28:BZ:77:ARG:CG	2.48	0.77
1:A2:1555:A:O2'	18:BP:115:TYR:HB2	1.84	0.77
1:A2:1558:U:OP1	21:BS:127:HIS:CE1	2.38	0.77
1:A2:1454:G:C5	18:BP:122:THR:HG21	2.19	0.77
1:A2:1454:G:C2	18:BP:123:TYR:HD1	2.02	0.77
1:A2:649:U:O5'	7:BE:253:ASP:OD1	2.02	0.77
1:A2:20:G:O3'	1:A2:21:U:P	2.42	0.77
1:A2:1420:C:OP1	23:BU:80:GLU:HB2	1.84	0.77
1:A2:1687:U:O4	1:A2:1714:A:N6	2.16	0.77
1:A2:764:U:O3'	27:BY:64:PHE:CA	2.31	0.77
1:A2:765:G:O6	12:BJ:132:ARG:CA	2.31	0.77
1:A2:622:A:O3'	1:A2:623:A:P	2.42	0.77
1:A2:1301:U:H3'	5:BC:97:ARG:NH1	1.38	0.77
1:A2:1328:G:N7	6:BD:159:HIS:CA	2.47	0.77
1:A2:832:U:H4'	9:BG:216:LEU:H	1.48	0.77
1:A2:1316:G:O2'	20:BR:6:THR:HG22	1.84	0.77
1:A2:1533:C:H6	28:BZ:77:ARG:CG	1.97	0.77
1:A2:1550:A:N7	21:BS:89:GLN:OE1	2.18	0.77
1:A2:1501:C:C6	22:BT:33:TYR:CZ	2.73	0.77
1:A2:1384:A:H5''	23:BU:31:VAL:HG12	1.65	0.77
1:A2:1384:A:O4'	23:BU:57:ARG:CD	2.19	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1094:G:O4'	5:BC:161:LYS:HD2	1.85	0.77
1:A2:1614:A:OP2	8:BF:84:LYS:HE2	1.85	0.77
14:BL:65:SER:O	14:BL:66:ILE:N	2.18	0.77
1:A2:1722:A:N7	9:BG:67:VAL:O	2.18	0.76
1:A2:451:A:H1'	27:BY:112:LYS:CA	2.15	0.76
1:A2:1037:C:O4'	25:BW:71:LYS:CE	2.32	0.76
1:A2:804:A:O3'	25:BW:121:VAL:O	2.02	0.76
1:A2:1300:A:C4	5:BC:86:VAL:CA	2.68	0.76
1:A2:1328:G:N7	6:BD:159:HIS:CB	2.41	0.76
1:A2:1326:A:C5	6:BD:159:HIS:CE1	2.68	0.76
1:A2:741:C:H6	7:BE:201:HIS:C	1.88	0.76
1:A2:1183:A:H62	18:BP:121:ILE:HD12	1.49	0.76
1:A2:599:A:N1	26:BX:126:LYS:CG	2.47	0.76
1:A2:302:U:O3'	11:BI:25:ARG:NH1	2.18	0.76
1:A2:333:A:H3'	11:BI:26:LYS:CE	2.15	0.76
1:A2:1591:C:H5''	22:BT:93:HIS:CB	2.16	0.76
16:BN:76:LYS:O	16:BN:77:SER:N	2.17	0.76
1:A2:865:A:H5'	25:BW:6:VAL:O	1.86	0.76
1:A2:1102:G:N3	26:BX:7:ARG:CZ	2.48	0.76
1:A2:1144:U:N3	1:A2:1145:U:O4	2.18	0.76
1:A2:1298:U:C2'	5:BC:99:LYS:HB3	2.14	0.76
1:A2:241:U:O4'	9:BG:204:ALA:HB3	1.62	0.76
1:A2:1557:U:O3'	21:BS:123:ARG:O	2.04	0.76
1:A2:1459:C:O5'	21:BS:131:LEU:HD23	1.84	0.76
4:BB:48:VAL:HG22	4:BB:61:LEU:HD22	1.66	0.76
1:A2:871:G:H22	16:BN:11:ILE:HG13	1.50	0.76
1:A2:871:G:N2	16:BN:11:ILE:HG13	2.00	0.76
1:A2:756:A:O5'	7:BE:23:LEU:HD12	1.84	0.76
1:A2:1:U:C6	12:BJ:12:TYR:CD1	2.58	0.76
1:A2:299:A:C8	7:BE:7:LYS:HB2	2.19	0.76
1:A2:782:U:H5''	27:BY:39:GLU:HA	1.65	0.76
1:A2:175:G:C4	9:BG:137:ARG:NH2	2.53	0.76
1:A2:179:A:C6	9:BG:186:ARG:C	2.59	0.76
1:A2:866:G:OP2	25:BW:3:ARG:HA	1.85	0.76
1:A2:1145:U:H5'	5:BC:88:LYS:CE	1.95	0.76
1:A2:1399:C:C3'	20:BR:66:VAL:HG21	2.08	0.76
1:A2:1241:G:O6	18:BP:78:THR:N	2.17	0.76
1:A2:958:U:O5'	25:BW:60:LYS:CE	2.25	0.76
1:A2:599:A:H3'	26:BX:123:LYS:HB2	1.67	0.76
1:A2:29:U:C1'	26:BX:127:VAL:H	1.98	0.76
1:A2:1384:A:C5'	23:BU:35:GLU:HG2	2.15	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:717:C:H2'	1:A2:718:U:H5'	1.66	0.76
1:A2:1681:A:H5''	9:BG:101:ILE:CD1	1.97	0.76
1:A2:452:A:O3'	1:A2:453:U:P	2.43	0.76
1:A2:866:G:N7	25:BW:3:ARG:O	2.18	0.76
1:A2:823:G:OP2	1:A2:823:G:N3	2.18	0.76
1:A2:243:G:C4'	7:BE:147:ILE:HG13	2.13	0.76
1:A2:215:A:N6	7:BE:149:TYR:HA	1.99	0.76
1:A2:1582:U:C5'	19:BQ:135:ARG:NH1	2.48	0.76
1:A2:1243:G:C5'	18:BP:61:ARG:N	2.47	0.76
1:A2:1184:A:O5'	18:BP:124:THR:OG1	2.02	0.76
1:A2:649:U:O4'	7:BE:252:ARG:NH1	2.18	0.76
1:A2:754:A:P	7:BE:14:ALA:CA	2.73	0.76
1:A2:140:A:O5'	9:BG:141:ILE:HD13	1.85	0.76
1:A2:436:A:N7	26:BX:50:LYS:HD2	1.97	0.76
1:A2:1327:C:C5	6:BD:158:ILE:C	2.58	0.76
1:A2:1327:C:H6	6:BD:158:ILE:O	1.67	0.76
1:A2:218:A:O5'	7:BE:155:LYS:NZ	2.15	0.76
1:A2:1458:G:O4'	21:BS:126:ARG:NH2	2.10	0.76
1:A2:1565:C:O2'	21:BS:43:SER:CB	2.32	0.76
1:A2:880:C:C3'	1:A2:881:A:P	2.72	0.76
1:A2:451:A:O4'	27:BY:112:LYS:CB	2.33	0.76
1:A2:1102:G:C4	26:BX:7:ARG:CZ	2.69	0.76
1:A2:1038:U:C4'	25:BW:19:LYS:NZ	2.47	0.76
1:A2:244:A:OP2	7:BE:140:VAL:CG2	2.33	0.76
1:A2:1399:C:O2'	20:BR:60:ARG:HD3	0.79	0.76
1:A2:1470:C:H3'	8:BF:184:PHE:CZ	2.20	0.76
1:A2:1588:G:O3'	1:A2:1589:C:P	2.44	0.76
1:A2:1502:G:H3'	22:BT:33:TYR:HB3	1.67	0.76
1:A2:329:G:H22	11:BI:3:ILE:HB	1.51	0.76
1:A2:333:A:H3'	11:BI:26:LYS:HE2	1.68	0.76
1:A2:337:G:C2'	11:BI:6:ASP:O	2.31	0.76
1:A2:340:U:H3	11:BI:3:ILE:HG21	1.50	0.76
7:BE:66:MET:N	7:BE:78:THR:HG1	1.82	0.76
1:A2:786:C:C3'	27:BY:70:VAL:CG1	2.52	0.76
1:A2:450:U:O4'	27:BY:109:LYS:CE	2.24	0.76
1:A2:1683:C:O3'	9:BG:53:SER:OG	1.82	0.76
1:A2:59:C:OP1	27:BY:111:LYS:CE	2.34	0.76
1:A2:45:U:O2	26:BX:77:ILE:HG21	1.86	0.76
1:A2:739:G:O6	7:BE:175:PHE:CE1	2.38	0.76
1:A2:1608:U:C3'	19:BQ:73:GLY:HA3	2.14	0.76
1:A2:1530:C:C5	28:BZ:96:SER:N	2.52	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:572:C:C5'	26:BX:116:ASP:H	1.98	0.76
1:A2:590:C:O3'	1:A2:591:A:P	2.44	0.76
1:A2:782:U:O5'	27:BY:39:GLU:CB	2.34	0.76
1:A2:780:A:N1	27:BY:32:ARG:HA	2.01	0.76
1:A2:149:C:C3'	27:BY:130:ALA:CB	2.61	0.76
1:A2:631:G:C4'	26:BX:13:ARG:CA	2.58	0.76
1:A2:741:C:C2	7:BE:201:HIS:CD2	2.73	0.76
1:A2:1452:U:H4'	18:BP:80:MET:O	1.83	0.76
1:A2:922:G:OP1	4:BB:136:ARG:HD2	1.86	0.76
1:A2:921:U:C5'	4:BB:138:PHE:CE2	2.68	0.76
1:A2:113:U:C4	7:BE:5:PRO:HA	2.21	0.76
1:A2:334:G:H5'	11:BI:49:ARG:CA	2.16	0.76
1:A2:1613:U:OP2	8:BF:84:LYS:HE3	1.86	0.76
6:BD:89:GLU:O	6:BD:90:ARG:N	2.19	0.76
1:A2:777:C:H4'	27:BY:29:HIS:O	1.86	0.76
1:A2:80:A:N7	9:BG:163:THR:CB	2.29	0.76
9:BG:27:PHE:HB2	9:BG:28:PHE:N	2.01	0.76
1:A2:245:U:C4	7:BE:128:LYS:NZ	2.53	0.76
1:A2:736:C:C5'	7:BE:182:TYR:N	2.40	0.76
1:A2:1214:U:OP1	18:BP:77:ARG:HD2	1.84	0.76
1:A2:1056:U:H6	3:BA:40:ALA:CB	1.96	0.76
1:A2:548:G:H5'	26:BX:136:TRP:CE2	2.21	0.76
1:A2:1601:G:H8	22:BT:89:ARG:CG	1.94	0.76
1:A2:323:A:O3'	11:BI:18:ARG:HB2	1.86	0.76
1:A2:329:G:O2'	11:BI:33:PRO:CA	2.34	0.76
1:A2:1009:U:C4'	17:BO:129:LYS:NZ	2.49	0.76
19:BQ:20:ALA:HB2	19:BQ:67:VAL:HG11	1.68	0.76
15:BM:33:ARG:O	15:BM:37:VAL:HG21	1.85	0.76
1:A2:64:U:C5	27:BY:121:THR:HG21	2.21	0.76
1:A2:631:G:H3'	26:BX:13:ARG:HA	1.66	0.76
1:A2:733:A:N7	7:BE:209:HIS:HB2	2.01	0.76
1:A2:1558:U:C5	21:BS:123:ARG:O	2.39	0.76
2:AZ:6220:U:C4	6:BD:141:LYS:O	2.39	0.76
1:A2:1053:G:O4'	3:BA:35:PRO:HG3	1.83	0.76
25:BW:68:ARG:C	25:BW:69:LEU:N	2.40	0.76
14:BL:65:SER:C	14:BL:66:ILE:N	2.39	0.76
1:A2:57:G:C2	27:BY:112:LYS:C	2.60	0.75
1:A2:266:A:C2	9:BG:135:PRO:C	2.60	0.75
9:BG:58:LYS:C	9:BG:60:GLY:N	2.38	0.75
1:A2:85:A:O2'	27:BY:126:ALA:HA	1.85	0.75
1:A2:1108:G:H1	26:BX:26:GLU:CA	1.94	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:635:A:C3'	25:BW:126:LEU:HD23	2.13	0.75
26:BX:74:VAL:O	26:BX:75:GLN:N	2.19	0.75
1:A2:1144:U:N1	5:BC:89:GLN:CG	2.36	0.75
1:A2:245:U:C6	7:BE:128:LYS:NZ	2.54	0.75
1:A2:1316:G:O2'	20:BR:6:THR:CG2	2.34	0.75
1:A2:1502:G:OP2	22:BT:32:GLY:C	2.24	0.75
2:AZ:6110:A:C8	8:BF:219:ARG:CZ	2.68	0.75
1:A2:959:U:H3'	25:BW:55:ASP:CG	1.96	0.75
1:A2:760:A:C8	12:BJ:8:TYR:HB3	2.22	0.75
7:BE:3:ARG:O	7:BE:4:GLY:N	2.18	0.75
1:A2:1683:C:P	9:BG:109:LEU:HD11	2.25	0.75
1:A2:632:U:HO2'	14:BL:97:TYR:HB3	1.49	0.75
1:A2:434:G:H3'	26:BX:52:ILE:CD1	2.13	0.75
7:BE:234:PRO:O	7:BE:235:TYR:N	2.18	0.75
1:A2:1655:A:C2	1:A2:1746:A:C4	2.73	0.75
1:A2:456:A:C2'	27:BY:111:LYS:CE	2.57	0.75
1:A2:449:C:N4	27:BY:108:ARG:HB2	2.02	0.75
1:A2:89:G:C2	27:BY:115:ASP:CB	2.64	0.75
1:A2:861:U:H3'	1:A2:862:A:P	2.26	0.75
1:A2:704:C:N4	1:A2:735:C:O4'	2.19	0.75
1:A2:830:U:O2'	1:A2:831:U:O4'	2.04	0.75
1:A2:1241:G:OP1	18:BP:104:GLN:C	2.25	0.75
1:A2:1555:A:O4'	18:BP:115:TYR:CE1	2.38	0.75
1:A2:1548:G:OP2	21:BS:88:ARG:HD2	1.86	0.75
1:A2:952:A:H4'	16:BN:5:HIS:CE1	2.13	0.75
1:A2:950:C:H5''	16:BN:94:LYS:HE3	1.66	0.75
1:A2:1670:G:O2'	1:A2:1731:A:N6	2.19	0.75
1:A2:863:A:H5'	25:BW:6:VAL:CG1	2.17	0.75
1:A2:633:U:C5'	14:BL:99:ARG:CG	1.97	0.75
1:A2:1291:G:OP2	5:BC:119:LYS:NZ	2.17	0.75
1:A2:214:G:N9	7:BE:133:LYS:HB2	1.72	0.75
1:A2:1553:G:C5'	18:BP:43:ARG:NE	2.47	0.75
1:A2:1566:U:C6	21:BS:33:THR:OG1	2.38	0.75
1:A2:1502:G:O5'	22:BT:33:TYR:HB3	1.85	0.75
3:BA:55:GLU:HA	20:BR:109:LEU:CB	2.16	0.75
1:A2:318:U:N1	11:BI:11:ARG:NH1	2.34	0.75
1:A2:1040:G:H5''	24:BV:62:ARG:HE	1.40	0.75
11:BI:168:CYS:SG	11:BI:182:TYR:O	2.44	0.75
1:A2:1037:C:H2'	25:BW:19:LYS:HZ1	1.48	0.75
1:A2:1038:U:C6	25:BW:19:LYS:HE3	2.22	0.75
1:A2:632:U:H3'	26:BX:12:ALA:HB2	1.65	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:630:A:N6	26:BX:14:LYS:HA	2.01	0.75
1:A2:213:A:N6	1:A2:252:U:O4	2.19	0.75
1:A2:740:A:C2	7:BE:200:ARG:HA	2.11	0.75
1:A2:736:C:N1	7:BE:227:VAL:HG12	2.01	0.75
1:A2:241:U:C6	9:BG:205:ALA:CA	2.69	0.75
1:A2:347:G:C5	11:BI:14:THR:N	2.54	0.75
1:A2:640:U:O2'	25:BW:119:LYS:HE3	1.86	0.75
1:A2:859:A:N6	10:BH:111:LYS:HG3	1.98	0.75
1:A2:138:A:C8	9:BG:135:PRO:HG3	2.21	0.75
1:A2:1710:U:H6	9:BG:115:LYS:HG3	0.94	0.75
1:A2:1718:G:C2	9:BG:65:GLN:NE2	2.54	0.75
1:A2:1037:C:C5'	25:BW:15:ASN:HB3	2.01	0.75
1:A2:436:A:C5'	26:BX:101:GLU:OE1	2.35	0.75
1:A2:703:G:C4	7:BE:230:GLU:CA	2.69	0.75
1:A2:241:U:C5	9:BG:205:ALA:HA	2.21	0.75
1:A2:832:U:H4'	9:BG:216:LEU:N	1.67	0.75
1:A2:1184:A:C5'	18:BP:124:THR:HG23	2.17	0.75
1:A2:1244:A:O2'	18:BP:59:LYS:HD3	1.83	0.75
3:BA:55:GLU:HA	20:BR:109:LEU:HB3	1.69	0.75
1:A2:989:U:C6	17:BO:127:ARG:HB2	2.11	0.75
1:A2:15:U:H2'	1:A2:16:G:O4'	1.87	0.75
24:BV:60:ARG:N	24:BV:61:SER:N	2.34	0.75
25:BW:104:LEU:C	25:BW:105:THR:N	2.40	0.75
1:A2:351:C:O5'	26:BX:16:ARG:NH2	2.20	0.75
1:A2:818:C:C3'	1:A2:819:G:P	2.75	0.75
1:A2:214:G:C8	7:BE:133:LYS:CA	2.70	0.75
1:A2:1472:C:H3'	8:BF:188:LYS:O	1.85	0.75
1:A2:1532:U:P	28:BZ:77:ARG:CB	2.72	0.75
1:A2:1240:U:H5''	18:BP:104:GLN:CG	2.16	0.75
21:BS:39:GLY:O	21:BS:41:ARG:N	2.18	0.75
1:A2:956:C:C5	16:BN:11:ILE:HG22	2.21	0.75
1:A2:758:U:O4	12:BJ:6:ARG:N	2.19	0.75
1:A2:1334:U:OP1	23:BU:85:ARG:HB2	1.87	0.75
1:A2:178:U:O5'	9:BG:179:VAL:HB	1.87	0.75
1:A2:636:A:H8	25:BW:126:LEU:CD2	1.98	0.75
1:A2:863:A:C5	25:BW:78:ARG:NH2	2.55	0.75
1:A2:703:G:H2'	7:BE:229:GLY:HA2	1.67	0.75
1:A2:1471:A:H3'	8:BF:183:ALA:CB	1.78	0.75
1:A2:1212:G:C6	18:BP:99:GLY:N	2.55	0.75
1:A2:954:G:C8	16:BN:2:GLY:CA	2.70	0.75
1:A2:873:U:N3	16:BN:10:GLY:CA	2.48	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:757:A:H3'	1:A2:758:U:P	2.26	0.75
1:A2:334:G:C5'	11:BI:49:ARG:HA	2.16	0.75
1:A2:1787:C:C5'	17:BO:132:ARG:HH11	1.95	0.75
1:A2:208:U:H2'	11:BI:55:TYR:OH	1.87	0.75
24:BV:59:VAL:C	24:BV:61:SER:N	2.39	0.75
1:A2:1038:U:C6	25:BW:19:LYS:NZ	2.55	0.75
1:A2:216:U:C6	7:BE:129:VAL:HG21	2.20	0.75
1:A2:218:A:C5'	7:BE:155:LYS:NZ	2.50	0.75
3:BA:146:LEU:HD21	3:BA:177:LEU:HD11	1.68	0.75
1:A2:1053:G:H4'	3:BA:35:PRO:HG3	1.19	0.75
16:BN:120:SER:HG	16:BN:121:ARG:N	1.84	0.75
17:BO:122:PRO:C	17:BO:123:SER:N	2.39	0.75
1:A2:888:U:H6	17:BO:124:ASP:N	1.80	0.75
1:A2:571:G:C2'	26:BX:114:LYS:HE3	2.16	0.75
1:A2:785:U:OP2	27:BY:44:LEU:CD1	2.27	0.74
1:A2:179:A:O2'	9:BG:184:LEU:HD22	1.85	0.74
1:A2:395:U:H3'	9:BG:91:GLU:CD	2.07	0.74
1:A2:1300:A:C5'	5:BC:85:PRO:CB	2.58	0.74
1:A2:1573:A:N6	8:BF:184:PHE:HE1	1.85	0.74
1:A2:1498:G:C3'	22:BT:73:VAL:HG21	2.15	0.74
1:A2:1546:G:C4'	21:BS:105:VAL:O	2.35	0.74
1:A2:1502:G:P	22:BT:33:TYR:CD1	2.64	0.74
2:AZ:6111:G:C4'	8:BF:219:ARG:HB3	2.17	0.74
2:AZ:6107:U:H5"	8:BF:223:SER:CB	2.15	0.74
1:A2:990:C:H1'	17:BO:127:ARG:NH2	1.56	0.74
1:A2:329:G:N2	11:BI:3:ILE:HD13	2.00	0.74
1:A2:1382:A:HO2'	1:A2:1383:G:H8	1.35	0.74
1:A2:1520:U:OP2	22:BT:75:LYS:CA	2.34	0.74
1:A2:89:G:N1	27:BY:115:ASP:C	2.41	0.74
1:A2:1683:C:N3	9:BG:32:ILE:C	2.41	0.74
1:A2:807:A:P	25:BW:79:PHE:C	2.65	0.74
1:A2:631:G:HO3'	26:BX:16:ARG:HH12	1.34	0.74
1:A2:245:U:N3	7:BE:128:LYS:NZ	2.34	0.74
1:A2:699:U:O4	7:BE:208:VAL:CG1	2.23	0.74
1:A2:733:A:C3'	7:BE:194:THR:OG1	2.36	0.74
1:A2:1563:C:C4'	22:BT:38:LYS:HZ2	1.97	0.74
1:A2:956:C:C5	16:BN:11:ILE:CG2	2.69	0.74
1:A2:599:A:C2	26:BX:103:LEU:O	2.40	0.74
1:A2:333:A:H61	7:BE:3:ARG:HD3	1.52	0.74
1:A2:1723:U:OP2	9:BG:73:ILE:CA	2.09	0.74
1:A2:1453:G:C2'	18:BP:118:GLU:O	2.32	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1503:A:OP2	22:BT:33:TYR:HA	1.87	0.74
1:A2:686:C:O5'	12:BJ:64:GLU:OE2	2.04	0.74
1:A2:599:A:O3'	26:BX:86:PHE:O	2.03	0.74
1:A2:334:G:H4'	11:BI:49:ARG:HA	1.68	0.74
1:A2:565:C:O3'	1:A2:566:C:P	2.45	0.74
1:A2:452:A:N7	27:BY:115:ASP:CG	2.40	0.74
1:A2:396:G:N7	9:BG:91:GLU:HB3	2.02	0.74
1:A2:967:A:C1'	26:BX:7:ARG:CB	2.59	0.74
26:BX:73:ARG:C	26:BX:74:VAL:N	2.41	0.74
1:A2:1328:G:N7	6:BD:159:HIS:C	2.41	0.74
1:A2:699:U:C6	7:BE:197:HIS:CG	2.63	0.74
1:A2:1212:G:C8	18:BP:100:LYS:CG	2.70	0.74
1:A2:1055:U:C5'	3:BA:37:VAL:HG13	2.16	0.74
3:BA:59:LEU:HA	3:BA:63:ILE:CD1	2.17	0.74
1:A2:329:G:O6	11:BI:30:GLY:HA3	1.87	0.74
1:A2:332:U:H5	11:BI:31:ARG:NH1	1.85	0.74
20:BR:83:GLN:O	20:BR:84:TYR:N	2.20	0.74
1:A2:87:C:OP2	1:A2:87:C:C6	2.38	0.74
1:A2:634:G:H5''	25:BW:79:PHE:CG	2.22	0.74
1:A2:1529:C:OP1	8:BF:112:ARG:NH2	2.20	0.74
1:A2:1213:G:O2'	18:BP:78:THR:O	2.04	0.74
1:A2:650:U:O3'	12:BJ:91:LYS:CE	2.35	0.74
3:BA:54:TRP:CH2	20:BR:119:LEU:HD23	2.23	0.74
1:A2:30:G:P	26:BX:142:LYS:CA	2.64	0.74
1:A2:1435:G:N1	13:BK:27:PHE:CD2	2.55	0.74
6:BD:172:THR:HA	6:BD:173:ARG:N	2.03	0.74
23:BU:95:ALA:HB3	23:BU:100:VAL:HG13	1.70	0.74
1:A2:267:U:P	9:BG:136:LYS:NZ	2.59	0.74
1:A2:1682:U:O4	9:BG:31:ARG:HD3	1.88	0.74
1:A2:395:U:P	9:BG:92:ARG:HA	2.27	0.74
1:A2:1103:U:C1'	26:BX:5:LYS:CB	2.53	0.74
1:A2:865:A:C5	1:A2:866:G:C8	2.75	0.74
1:A2:863:A:P	25:BW:31:SER:HB3	2.28	0.74
1:A2:704:C:H5'	7:BE:230:GLU:H	0.66	0.74
1:A2:1538:U:O4	8:BF:185:ARG:HA	1.88	0.74
1:A2:1555:A:H8	18:BP:40:ARG:HG2	1.20	0.74
1:A2:595:G:H2'	26:BX:139:LYS:HZ3	1.50	0.74
1:A2:1097:U:OP1	5:BC:167:VAL:HG12	1.87	0.74
1:A2:1591:C:C5'	22:BT:93:HIS:CB	2.66	0.74
1:A2:811:A:H61	10:BH:103:SER:HB2	1.48	0.74
1:A2:397:A:H2'	9:BG:88:ARG:NE	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BW:102:VAL:C	25:BW:103:ILE:HA	2.08	0.74
1:A2:1454:G:H2'	18:BP:123:TYR:CZ	2.21	0.74
1:A2:956:C:C4	16:BN:11:ILE:HG21	2.22	0.74
11:BI:152:ILE:C	11:BI:153:GLU:N	2.40	0.74
1:A2:75:U:C5	9:BG:167:LYS:HB2	2.21	0.74
1:A2:965:U:O3'	1:A2:966:A:P	2.45	0.74
1:A2:215:A:P	7:BE:130:GLN:NE2	2.61	0.74
1:A2:1473:U:N3	8:BF:97:LEU:HD21	1.97	0.74
1:A2:1241:G:N7	18:BP:78:THR:HG23	2.01	0.74
1:A2:917:U:O4'	17:BO:20:TYR:HD2	1.70	0.74
1:A2:955:A:C8	16:BN:9:LYS:HB3	2.22	0.74
1:A2:597:G:O2'	26:BX:136:TRP:CB	2.35	0.74
1:A2:1358:G:O4'	22:BT:130:ARG:HA	1.88	0.74
1:A2:1334:U:C2'	23:BU:83:GLU:OE2	2.36	0.74
1:A2:1343:U:H4'	23:BU:54:GLY:C	1.88	0.74
1:A2:1344:A:O3'	1:A2:1345:A:P	2.45	0.74
1:A2:1097:U:O4'	5:BC:200:SER:N	2.21	0.74
1:A2:1084:A:C1'	5:BC:161:LYS:CE	2.60	0.74
1:A2:1085:G:OP1	5:BC:165:VAL:HG13	1.87	0.74
1:A2:611:U:O3'	1:A2:612:U:P	2.46	0.74
8:BF:173:ALA:C	8:BF:174:LEU:N	2.41	0.74
2:AZ:6038:U:O4	2:AZ:6080:G:N3	2.20	0.74
1:A2:786:C:C3'	27:BY:70:VAL:HG11	2.00	0.74
1:A2:175:G:C1'	9:BG:137:ARG:NH2	2.51	0.74
1:A2:164:A:O4'	9:BG:17:GLU:CA	2.31	0.74
1:A2:1680:G:H5''	9:BG:31:ARG:HH22	1.50	0.74
1:A2:58:U:C5'	27:BY:114:ARG:NE	1.98	0.74
25:BW:89:TRP:C	25:BW:90:THR:N	2.41	0.74
1:A2:242:U:H2'	7:BE:138:TYR:HB3	1.68	0.74
1:A2:823:G:O6	1:A2:850:A:N6	2.20	0.74
1:A2:1184:A:H5'	18:BP:124:THR:HG23	1.70	0.74
2:AZ:6137:C:H2'	8:BF:126:ASP:CB	2.16	0.74
1:A2:1058:U:OP2	3:BA:41:ARG:CB	2.36	0.74
1:A2:332:U:H3	11:BI:29:LEU:HD22	1.33	0.74
1:A2:337:G:C8	11:BI:9:HIS:HE1	2.04	0.74
1:A2:560:U:H3'	1:A2:561:G:P	2.28	0.74
1:A2:784:C:H4'	27:BY:7:ILE:CB	2.17	0.74
1:A2:806:A:N9	25:BW:82:LYS:HD3	2.01	0.74
14:BL:96:LYS:O	14:BL:97:TYR:N	2.21	0.74
1:A2:865:A:C5'	25:BW:6:VAL:O	2.34	0.74
1:A2:887:A:C6	17:BO:125:SER:OG	2.41	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1067:C:C4'	3:BA:32:HIS:N	2.50	0.74
1:A2:370:A:O4'	12:BJ:14:THR:O	2.05	0.74
1:A2:759:U:C4	12:BJ:6:ARG:C	2.62	0.74
1:A2:1095:U:OP1	5:BC:166:THR:HA	1.88	0.74
1:A2:1082:C:H2'	5:BC:216:VAL:HG11	1.64	0.74
1:A2:640:U:O2'	25:BW:119:LYS:HE2	1.85	0.74
1:A2:168:A:H4'	9:BG:132:ARG:HE	0.94	0.73
1:A2:635:A:O3'	25:BW:126:LEU:HA	1.87	0.73
1:A2:244:A:H3'	7:BE:140:VAL:HG13	1.69	0.73
1:A2:735:C:OP2	7:BE:193:GLY:N	2.21	0.73
1:A2:1546:G:O3'	21:BS:105:VAL:O	2.06	0.73
1:A2:1068:C:O5'	3:BA:33:GLN:NE2	2.18	0.73
1:A2:896:U:OP2	17:BO:34:SER:CB	2.22	0.73
1:A2:902:G:OP1	17:BO:90:ARG:HB3	1.87	0.73
3:BA:50:VAL:CA	20:BR:105:GLN:HB3	2.16	0.73
1:A2:597:G:H1'	26:BX:137:LYS:HG3	1.70	0.73
1:A2:1611:A:OP1	8:BF:107:LYS:NZ	2.22	0.73
1:A2:138:A:C5	9:BG:140:ASN:CB	2.72	0.73
1:A2:180:A:C2	9:BG:188:ARG:CA	2.70	0.73
1:A2:91:G:H2'	27:BY:116:LYS:HZ3	1.51	0.73
1:A2:866:G:P	25:BW:3:ARG:HA	2.29	0.73
1:A2:703:G:H22	7:BE:180:LEU:C	1.90	0.73
3:BA:146:LEU:HD22	3:BA:160:ILE:CG2	2.19	0.73
3:BA:54:TRP:CD1	20:BR:110:VAL:HB	2.23	0.73
1:A2:1137:A:OP2	26:BX:62:LYS:CD	2.36	0.73
24:BV:28:ASP:OD1	24:BV:30:ALA:N	2.21	0.73
13:BK:11:ILE:HG22	13:BK:12:HIS:HA	1.70	0.73
1:A2:141:U:O2	9:BG:136:LYS:CD	2.36	0.73
1:A2:76:A:O2'	9:BG:163:THR:HB	1.88	0.73
1:A2:1722:A:C4'	9:BG:72:ARG:N	2.24	0.73
1:A2:1532:U:C4'	28:BZ:77:ARG:HB2	2.19	0.73
1:A2:919:A:O2'	4:BB:85:LYS:HE3	1.88	0.73
1:A2:29:U:O2'	26:BX:127:VAL:HG23	1.83	0.73
1:A2:596:C:N3	26:BX:139:LYS:HB2	2.02	0.73
1:A2:1480:G:H5''	22:BT:11:ALA:HB1	1.69	0.73
1:A2:1384:A:C4'	23:BU:35:GLU:HG2	2.18	0.73
1:A2:1220:C:O2	1:A2:1263:G:N2	2.21	0.73
1:A2:778:G:P	27:BY:30:PRO:CD	2.71	0.73
1:A2:148:A:C1'	27:BY:127:LYS:HG2	2.08	0.73
1:A2:178:U:O4'	9:BG:179:VAL:HB	1.89	0.73
1:A2:1037:C:H5''	25:BW:15:ASN:OD1	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1103:U:C2'	26:BX:5:LYS:HB2	2.18	0.73
1:A2:700:C:H5''	7:BE:177:ALA:HB2	1.69	0.73
1:A2:703:G:H22	7:BE:180:LEU:CA	2.01	0.73
1:A2:1401:A:P	20:BR:10:LYS:HZ3	2.10	0.73
1:A2:1055:U:P	3:BA:25:GLY:HA3	2.28	0.73
1:A2:870:C:C3'	16:BN:13:SER:HB2	2.18	0.73
1:A2:989:U:O2	17:BO:127:ARG:CZ	2.20	0.73
1:A2:548:G:C5'	26:BX:136:TRP:CE3	2.70	0.73
1:A2:347:G:C6	11:BI:16:ALA:N	2.56	0.73
1:A2:631:G:C2'	26:BX:16:ARG:N	2.48	0.73
1:A2:968:U:H4'	26:BX:4:GLY:C	2.07	0.73
1:A2:966:A:H61	26:BX:10:ASN:N	1.85	0.73
1:A2:1103:U:C4'	26:BX:15:LEU:HD13	2.17	0.73
1:A2:703:G:C3'	7:BE:230:GLU:HB2	2.12	0.73
1:A2:1535:U:C5	8:BF:186:ASN:CA	2.72	0.73
1:A2:1239:U:H6	18:BP:74:ALA:CA	2.01	0.73
1:A2:1558:U:P	21:BS:127:HIS:CD2	2.78	0.73
1:A2:872:G:N2	16:BN:11:ILE:CD1	2.52	0.73
1:A2:916:U:C3'	17:BO:84:ARG:NH2	2.49	0.73
1:A2:1384:A:OP2	23:BU:87:HIS:ND1	2.20	0.73
1:A2:1040:G:C3'	24:BV:62:ARG:NE	2.51	0.73
1:A2:137:U:H3'	9:BG:143:LYS:CE	2.14	0.73
1:A2:448:C:H42	27:BY:104:SER:C	1.91	0.73
1:A2:703:G:O2'	7:BE:173:ILE:HG12	1.88	0.73
1:A2:896:U:C5'	17:BO:32:ASP:N	2.50	0.73
1:A2:548:G:C2	1:A2:591:A:C6	2.76	0.73
1:A2:329:G:N2	11:BI:30:GLY:C	2.42	0.73
1:A2:334:G:P	11:BI:26:LYS:NZ	2.61	0.73
15:BM:32:LEU:HD11	15:BM:61:VAL:HG11	1.68	0.73
1:A2:174:U:O4'	1:A2:174:U:OP2	2.07	0.73
1:A2:163:G:C8	9:BG:17:GLU:CD	2.62	0.73
1:A2:241:U:OP2	9:BG:208:TYR:CB	2.36	0.73
1:A2:736:C:N3	7:BE:227:VAL:HG12	2.02	0.73
1:A2:1530:C:N4	28:BZ:96:SER:N	2.35	0.73
1:A2:1502:G:C5	22:BT:33:TYR:HD2	2.03	0.73
1:A2:1500:C:C5	22:BT:102:ARG:HG2	2.22	0.73
1:A2:888:U:H6	17:BO:122:PRO:HB2	1.51	0.73
16:BN:121:ARG:N	16:BN:122:ILE:N	2.35	0.73
1:A2:887:A:C2	17:BO:125:SER:CA	2.71	0.73
1:A2:1435:G:N2	13:BK:27:PHE:CD2	2.53	0.73
1:A2:1370:U:H3'	22:BT:119:LYS:HZ2	1.51	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BB:129:THR:HG1	4:BB:133:TYR:N	1.87	0.73
1:A2:129:U:C4	9:BG:177:ARG:NE	2.57	0.73
1:A2:448:C:O2'	27:BY:105:ARG:NH1	2.19	0.73
1:A2:457:G:H3'	27:BY:107:GLN:HE21	1.51	0.73
1:A2:865:A:C4	25:BW:4:SER:O	2.42	0.73
1:A2:1295:G:C6	1:A2:1296:A:N7	2.57	0.73
1:A2:1402:G:C8	20:BR:5:ARG:CD	2.71	0.73
1:A2:1539:G:N2	28:BZ:77:ARG:HH22	1.85	0.73
1:A2:1213:G:O2'	18:BP:78:THR:C	2.26	0.73
3:BA:73:VAL:HG12	3:BA:89:PHE:CE1	2.23	0.73
1:A2:597:G:C2'	26:BX:133:LEU:HD22	2.19	0.73
1:A2:1041:G:H5'	24:BV:62:ARG:HA	1.71	0.73
1:A2:1487:A:N6	1:A2:1519:U:O4	2.19	0.73
14:BL:33:ARG:C	14:BL:34:TRP:HA	2.09	0.73
1:A2:1721:A:C1'	9:BG:67:VAL:CG2	2.66	0.73
1:A2:57:G:O6	27:BY:116:LYS:N	2.21	0.73
1:A2:639:U:P	25:BW:108:ALA:CA	2.77	0.73
1:A2:631:G:H2'	26:BX:16:ARG:H	1.53	0.73
1:A2:1584:G:H5'	19:BQ:124:PRO:HA	1.70	0.73
1:A2:1473:U:O4'	8:BF:113:ILE:CG1	2.37	0.73
1:A2:886:U:P	4:BB:122:GLU:OE2	2.47	0.73
1:A2:895:G:H5'	17:BO:34:SER:CB	2.19	0.73
1:A2:896:U:H1'	17:BO:18:ARG:CG	2.18	0.73
3:BA:10:THR:HB	3:BA:11:PRO:CD	2.16	0.73
1:A2:382:C:O4'	12:BJ:2:PRO:HG3	1.88	0.73
1:A2:760:A:N9	12:BJ:8:TYR:CB	2.51	0.73
1:A2:31:C:C2'	26:BX:138:GLU:HB3	2.17	0.73
1:A2:331:A:N7	11:BI:31:ARG:CD	2.51	0.73
1:A2:1007:C:H4'	17:BO:137:LEU:CG	2.07	0.73
1:A2:1007:C:O4'	17:BO:137:LEU:HA	1.88	0.73
10:BH:181:ILE:C	10:BH:182:VAL:N	2.43	0.73
1:A2:783:G:H21	27:BY:5:VAL:HG11	1.52	0.73
1:A2:858:G:O2'	10:BH:106:SER:HB3	1.88	0.73
1:A2:266:A:H5'	9:BG:136:LYS:HE2	1.60	0.73
1:A2:1721:A:H5'	9:BG:64:LYS:N	2.04	0.73
1:A2:818:C:H3'	1:A2:819:G:P	2.28	0.73
20:BR:11:ARG:C	20:BR:12:ALA:N	2.43	0.73
1:A2:1213:G:C4	18:BP:78:THR:O	2.40	0.73
1:A2:1499:G:O5'	22:BT:105:LEU:N	2.11	0.73
1:A2:1009:U:C4'	17:BO:129:LYS:HZ2	2.02	0.73
1:A2:1192:C:C5'	19:BQ:141:SER:OG	2.35	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BC:62:PRO:C	5:BC:63:VAL:HA	2.10	0.73
16:BN:38:VAL:C	16:BN:39:LYS:N	2.41	0.73
1:A2:1682:U:H5'	9:BG:52:ILE:CD1	2.19	0.72
1:A2:397:A:P	9:BG:88:ARG:HA	2.29	0.72
1:A2:1710:U:N1	9:BG:115:LYS:HG2	1.93	0.72
1:A2:804:A:C3'	25:BW:122:SER:CB	2.60	0.72
1:A2:818:C:N4	1:A2:819:G:O6	2.22	0.72
1:A2:1535:U:C2'	8:BF:187:ILE:CD1	2.41	0.72
1:A2:1549:C:C6	21:BS:86:LEU:N	2.54	0.72
1:A2:952:A:HO3'	16:BN:4:MET:CG	1.92	0.72
1:A2:1066:C:H2'	3:BA:32:HIS:N	2.04	0.72
1:A2:386:G:O2'	1:A2:387:A:O4'	2.01	0.72
1:A2:1709:C:H5'	9:BG:9:VAL:CG2	2.19	0.72
1:A2:1034:C:H42	26:BX:3:LYS:HZ1	1.36	0.72
1:A2:865:A:C4'	25:BW:8:ALA:HB3	2.19	0.72
1:A2:968:U:H4'	26:BX:5:LYS:H	0.91	0.72
1:A2:241:U:OP1	9:BG:207:GLU:CB	2.33	0.72
1:A2:1388:A:HO3'	1:A2:1389:C:P	2.11	0.72
1:A2:1584:G:OP1	19:BQ:123:ARG:N	2.20	0.72
1:A2:1608:U:O2'	19:BQ:73:GLY:HA3	1.87	0.72
1:A2:1210:C:C4	18:BP:98:ASN:O	2.42	0.72
2:AZ:6107:U:C4'	8:BF:223:SER:N	2.18	0.72
1:A2:324:U:O5'	11:BI:11:ARG:O	2.06	0.72
1:A2:1417:A:O2'	19:BQ:126:PRO:CB	2.36	0.72
1:A2:931:C:H4'	4:BB:117:TRP:CH2	2.25	0.72
10:BH:140:VAL:HA	10:BH:141:ARG:N	2.04	0.72
1:A2:859:A:HO2'	10:BH:101:LYS:HE3	1.50	0.72
1:A2:169:A:P	9:BG:132:ARG:HD3	2.27	0.72
1:A2:149:C:O3'	27:BY:130:ALA:HB3	1.86	0.72
1:A2:627:C:N3	1:A2:628:G:C4	2.57	0.72
1:A2:631:G:HO2'	26:BX:16:ARG:CB	1.80	0.72
1:A2:1295:G:C6	5:BC:116:LYS:NZ	2.58	0.72
1:A2:703:G:O3'	7:BE:235:TYR:HE1	1.71	0.72
1:A2:1246:C:N3	18:BP:76:VAL:HA	2.04	0.72
1:A2:1213:G:H22	18:BP:79:HIS:CG	2.04	0.72
2:AZ:6106:A:N3	8:BF:225:ARG:O	2.22	0.72
1:A2:915:A:H2	17:BO:27:PHE:CZ	2.06	0.72
1:A2:757:A:OP2	12:BJ:6:ARG:NE	2.21	0.72
1:A2:1785:U:O3'	1:A2:1786:G:P	2.38	0.72
1:A2:1682:U:O4'	9:BG:100:ALA:O	2.08	0.72
1:A2:1298:U:H5'	5:BC:115:ILE:HG22	1.69	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:737:A:C4	7:BE:227:VAL:CG1	2.71	0.72
1:A2:1536:G:C6	8:BF:187:ILE:HG12	2.23	0.72
1:A2:1564:U:OP1	22:BT:44:GLU:O	2.07	0.72
1:A2:30:G:H3'	26:BX:141:GLU:CA	2.18	0.72
1:A2:754:A:P	7:BE:14:ALA:N	2.63	0.72
1:A2:338:C:C2	11:BI:4:SER:HB2	2.24	0.72
1:A2:338:C:C2'	11:BI:24:LYS:NZ	2.52	0.72
1:A2:325:G:C2'	14:BL:133:LYS:CA	2.37	0.72
1:A2:80:A:N6	9:BG:162:VAL:O	2.21	0.72
1:A2:168:A:C3'	9:BG:132:ARG:NE	2.52	0.72
1:A2:1298:U:C4'	5:BC:115:ILE:HG21	2.18	0.72
1:A2:239:C:OP2	9:BG:210:GLN:HG2	1.86	0.72
1:A2:1588:G:H4'	8:BF:102:ARG:O	1.89	0.72
1:A2:1528:U:H4'	19:BQ:43:ILE:N	2.04	0.72
8:BF:166:ARG:C	8:BF:167:ARG:N	2.43	0.72
1:A2:686:C:C5	12:BJ:65:LYS:NZ	2.56	0.72
1:A2:1068:C:O3'	1:A2:1069:A:P	2.47	0.72
1:A2:900:A:C8	17:BO:25:ASP:CB	2.72	0.72
12:BJ:9:SER:C	12:BJ:10:LYS:N	2.43	0.72
1:A2:300:A:H61	7:BE:5:PRO:HD2	1.54	0.72
1:A2:348:U:O4	11:BI:14:THR:C	2.22	0.72
1:A2:1429:G:N2	23:BU:72:ASN:O	2.22	0.72
1:A2:1370:U:C5'	22:BT:119:LYS:HZ2	1.94	0.72
1:A2:878:G:H21	16:BN:114:ARG:CG	2.01	0.72
11:BI:90:LEU:O	11:BI:93:THR:N	2.23	0.72
1:A2:812:A:N3	10:BH:111:LYS:HD3	2.02	0.72
1:A2:127:G:H22	9:BG:184:LEU:HG	1.54	0.72
1:A2:178:U:O2	9:BG:183:ARG:CB	2.38	0.72
1:A2:740:A:N1	7:BE:200:ARG:N	2.36	0.72
1:A2:1392:U:C5'	20:BR:29:GLN:HB2	2.19	0.72
1:A2:1532:U:O5'	28:BZ:77:ARG:HB3	1.84	0.72
1:A2:1534:G:C6	28:BZ:61:SER:CB	2.71	0.72
1:A2:1554:U:P	18:BP:43:ARG:O	2.33	0.72
1:A2:1502:G:H21	1:A2:1504:G:H3'	1.55	0.72
1:A2:1550:A:C8	21:BS:89:GLN:OE1	2.42	0.72
1:A2:897:C:H1'	17:BO:41:ARG:HD3	1.72	0.72
1:A2:548:G:O2'	26:BX:136:TRP:CH2	2.40	0.72
1:A2:792:U:O2	12:BJ:7:THR:CA	2.14	0.72
1:A2:1600:A:C2'	22:BT:86:ARG:NH2	2.53	0.72
1:A2:330:G:H5'	11:BI:56:ARG:HD3	1.70	0.72
1:A2:331:A:C6	11:BI:29:LEU:C	2.61	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1496:U:O3'	22:BT:74:GLY:HA3	1.90	0.72
1:A2:137:U:O2'	9:BG:143:LYS:CD	2.17	0.72
1:A2:455:C:P	27:BY:103:ALA:N	2.62	0.72
1:A2:168:A:C3'	9:BG:132:ARG:CD	2.68	0.72
1:A2:85:A:C2'	27:BY:125:LEU:O	2.37	0.72
1:A2:1290:U:O2'	1:A2:1291:G:O4'	2.08	0.72
1:A2:1452:U:C4	18:BP:81:ARG:NH1	2.57	0.72
21:BS:42:TYR:OH	21:BS:73:MET:N	2.21	0.72
1:A2:1682:U:H3'	9:BG:52:ILE:CG1	2.18	0.72
1:A2:1683:C:C6	9:BG:52:ILE:O	2.42	0.72
1:A2:80:A:C6	9:BG:162:VAL:C	2.49	0.72
1:A2:164:A:C1'	9:BG:17:GLU:HG3	2.20	0.72
1:A2:1722:A:C3'	9:BG:72:ARG:N	2.51	0.72
1:A2:632:U:O2'	26:BX:15:LEU:CD1	2.38	0.72
1:A2:1294:G:N1	1:A2:1295:G:C5	2.58	0.72
1:A2:245:U:C4	7:BE:128:LYS:CG	2.73	0.72
1:A2:1183:A:O5'	18:BP:124:THR:HB	1.77	0.72
1:A2:1548:G:OP2	21:BS:100:THR:HG21	1.89	0.72
1:A2:649:U:O4'	7:BE:252:ARG:CZ	2.37	0.72
1:A2:1055:U:H6	3:BA:37:VAL:HG22	1.53	0.72
1:A2:1056:U:OP1	3:BA:46:HIS:N	2.22	0.72
1:A2:1068:C:H6	3:BA:33:GLN:CD	1.93	0.72
1:A2:897:C:C3'	1:A2:898:A:P	2.76	0.72
1:A2:956:C:N4	16:BN:11:ILE:HG22	2.02	0.72
1:A2:899:G:C4'	17:BO:26:THR:O	2.37	0.72
1:A2:958:U:H5	25:BW:28:ARG:HH11	1.00	0.72
1:A2:346:G:N2	11:BI:11:ARG:HB2	2.00	0.72
1:A2:1098:U:H6	5:BC:198:THR:HG22	1.54	0.72
1:A2:946:U:H4'	4:BB:158:SER:CB	2.20	0.72
1:A2:776:G:H2'	27:BY:29:HIS:HE2	0.90	0.72
1:A2:396:G:C8	9:BG:91:GLU:OE1	2.43	0.72
1:A2:452:A:C6	27:BY:115:ASP:OD2	2.42	0.72
1:A2:397:A:H5''	9:BG:88:ARG:HG3	1.70	0.72
1:A2:1299:G:O3'	5:BC:85:PRO:HA	1.89	0.72
1:A2:741:C:O4'	7:BE:200:ARG:CB	2.34	0.72
1:A2:219:A:OP2	9:BG:215:ARG:CD	2.38	0.72
1:A2:1241:G:P	18:BP:104:GLN:CA	2.78	0.72
1:A2:1565:C:C3'	21:BS:40:ARG:N	2.53	0.72
3:BA:178:ALA:HA	3:BA:181:VAL:HG22	1.71	0.72
26:BX:68:ILE:C	26:BX:69:ARG:N	2.44	0.72
1:A2:410:A:C3'	1:A2:411:C:P	2.77	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:395:U:P	9:BG:92:ARG:CA	2.78	0.72
1:A2:78:A:OP1	9:BG:163:THR:HG22	1.90	0.72
1:A2:456:A:H2	27:BY:107:GLN:O	1.70	0.72
1:A2:57:G:H21	27:BY:112:LYS:CA	2.02	0.72
1:A2:168:A:N6	27:BY:124:ARG:HE	1.88	0.72
1:A2:1300:A:O4'	5:BC:86:VAL:CA	2.37	0.72
1:A2:1498:G:C5'	22:BT:72:GLY:C	2.55	0.72
1:A2:1066:C:C2	3:BA:32:HIS:HA	2.25	0.72
1:A2:1480:G:H5'	22:BT:11:ALA:HB1	1.60	0.72
1:A2:1367:G:O3'	22:BT:66:TYR:HD1	1.68	0.72
1:A2:300:A:H62	7:BE:5:PRO:C	1.92	0.72
9:BG:8:PRO:O	9:BG:11:GLY:N	2.23	0.72
12:BJ:134:ILE:HB	12:BJ:157:ASP:O	1.89	0.72
1:A2:811:A:O2'	1:A2:812:A:OP1	2.07	0.71
1:A2:163:G:N3	9:BG:2:LYS:CB	2.52	0.71
1:A2:151:G:O6	27:BY:135:ASP:OD2	2.08	0.71
1:A2:1294:G:H3'	1:A2:1295:G:O5'	1.90	0.71
6:BD:164:VAL:C	6:BD:165:ASN:N	2.44	0.71
1:A2:240:U:C6	9:BG:206:ALA:O	2.43	0.71
1:A2:1553:G:C6	18:BP:39:ALA:CB	2.70	0.71
1:A2:959:U:O2'	25:BW:56:HIS:CG	2.42	0.71
1:A2:1381:U:H3'	23:BU:59:PRO:HG3	1.71	0.71
1:A2:1281:G:C8	23:BU:70:THR:CG2	2.69	0.71
1:A2:1163:A:N6	1:A2:1164:G:C6	2.58	0.71
1:A2:146:U:O2	27:BY:124:ARG:NH2	2.23	0.71
1:A2:148:A:H1'	27:BY:127:LYS:HG2	1.71	0.71
1:A2:52:U:H2'	1:A2:53:G:C8	2.25	0.71
1:A2:64:U:C4	27:BY:121:THR:CB	2.73	0.71
1:A2:864:U:C5'	25:BW:7:LEU:C	2.55	0.71
1:A2:1298:U:C2'	5:BC:99:LYS:HD2	1.86	0.71
1:A2:1391:A:C5'	20:BR:48:ASN:CB	2.61	0.71
1:A2:1243:G:H5'	18:BP:61:ARG:H	1.55	0.71
1:A2:1454:G:N3	18:BP:123:TYR:CD1	2.57	0.71
1:A2:1455:G:P	21:BS:126:ARG:HD3	2.29	0.71
2:AZ:6108:U:O5'	8:BF:222:LYS:HB3	1.89	0.71
1:A2:989:U:OP1	17:BO:126:THR:HG22	1.89	0.71
1:A2:757:A:C5	12:BJ:3:ARG:NH1	2.58	0.71
1:A2:1358:G:OP1	22:BT:130:ARG:CD	2.37	0.71
1:A2:1679:G:C2	9:BG:68:LEU:HB2	2.25	0.71
1:A2:970:A:N9	26:BX:17:VAL:CG1	2.53	0.71
1:A2:738:G:P	7:BE:157:ASN:OD1	2.48	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1176:G:OP1	21:BS:137:HIS:NE2	2.22	0.71
1:A2:897:C:OP1	17:BO:30:VAL:CG2	2.17	0.71
1:A2:597:G:O4'	26:BX:137:LYS:HG3	1.90	0.71
1:A2:601:A:C1'	26:BX:47:SER:C	2.59	0.71
1:A2:1479:A:H5'	22:BT:16:ASN:CG	2.11	0.71
1:A2:884:A:H4'	4:BB:165:ARG:HH21	1.50	0.71
1:A2:783:G:C8	27:BY:39:GLU:HB3	2.24	0.71
1:A2:397:A:HO2'	9:BG:88:ARG:NH2	1.87	0.71
1:A2:179:A:N9	9:BG:184:LEU:O	2.22	0.71
1:A2:631:G:H3'	26:BX:13:ARG:CA	2.20	0.71
1:A2:804:A:OP1	25:BW:120:HIS:O	2.08	0.71
1:A2:1147:A:N1	1:A2:1633:A:N6	2.39	0.71
1:A2:1389:C:H3'	20:BR:45:ARG:CG	2.20	0.71
1:A2:1454:G:N2	18:BP:123:TYR:N	0.71	0.71
1:A2:1243:G:N3	18:BP:57:MET:O	2.24	0.71
1:A2:888:U:C5	17:BO:123:SER:C	2.64	0.71
1:A2:597:G:N2	26:BX:135:LEU:N	2.38	0.71
1:A2:1:U:H2'	12:BJ:43:TYR:CG	2.25	0.71
1:A2:1096:C:H4'	5:BC:168:ARG:HB2	1.72	0.71
12:BJ:87:SER:C	12:BJ:88:GLU:N	2.44	0.71
4:BB:204:ILE:HB	4:BB:205:PHE:N	2.05	0.71
16:BN:26:PHE:CE1	16:BN:66:ILE:HD11	2.26	0.71
1:A2:85:A:H2'	27:BY:125:LEU:O	1.89	0.71
1:A2:635:A:C5'	25:BW:77:PRO:O	2.38	0.71
1:A2:969:C:O2	26:BX:14:LYS:HG3	1.87	0.71
1:A2:803:A:C3'	25:BW:120:HIS:HE1	1.97	0.71
1:A2:967:A:H2	26:BX:7:ARG:C	1.85	0.71
1:A2:1144:U:O2'	5:BC:87:GLN:C	2.29	0.71
1:A2:1145:U:OP2	5:BC:89:GLN:N	2.23	0.71
1:A2:243:G:H5''	7:BE:147:ILE:HG13	0.72	0.71
1:A2:704:C:H42	7:BE:193:GLY:CA	2.03	0.71
1:A2:1534:G:O5'	28:BZ:66:VAL:CG2	2.26	0.71
1:A2:1204:A:C8	1:A2:1555:A:N1	2.57	0.71
1:A2:942:G:O3'	1:A2:943:C:P	2.48	0.71
1:A2:988:A:C2'	17:BO:125:SER:O	2.38	0.71
1:A2:594:A:O3'	1:A2:595:G:O5'	2.08	0.71
1:A2:600:U:O2	26:BX:105:ALA:HB2	1.90	0.71
1:A2:28:A:N6	26:BX:131:SER:HA	2.04	0.71
1:A2:1601:G:OP1	22:BT:86:ARG:HB3	1.89	0.71
1:A2:1281:G:OP1	23:BU:78:THR:OG1	2.09	0.71
1:A2:783:G:C5	27:BY:39:GLU:CB	2.70	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:782:U:O5'	27:BY:39:GLU:O	2.09	0.71
1:A2:76:A:C2	9:BG:167:LYS:N	2.59	0.71
1:A2:1682:U:C5'	9:BG:52:ILE:HD13	2.20	0.71
1:A2:865:A:O5'	25:BW:8:ALA:N	2.00	0.71
1:A2:804:A:N3	25:BW:83:ILE:N	2.38	0.71
1:A2:737:A:H3'	7:BE:125:LYS:CD	2.20	0.71
1:A2:1240:U:H1'	18:BP:76:VAL:HB	1.72	0.71
1:A2:1503:A:H3'	22:BT:37:VAL:HB	0.82	0.71
1:A2:1055:U:H5''	3:BA:37:VAL:N	2.06	0.71
3:BA:70:PRO:C	3:BA:73:VAL:HG23	2.11	0.71
1:A2:920:U:H3'	4:BB:214:LYS:HD2	1.72	0.71
1:A2:887:A:H2'	17:BO:124:ASP:CA	2.19	0.71
1:A2:329:G:N3	11:BI:31:ARG:N	2.38	0.71
21:BS:3:LEU:HD13	21:BS:5:VAL:HG13	1.71	0.71
1:A2:634:G:H3'	25:BW:79:PHE:N	2.04	0.71
3:BA:132:ALA:O	3:BA:143:VAL:HG21	1.89	0.71
1:A2:1358:G:H4'	22:BT:130:ARG:HA	1.73	0.71
1:A2:14:C:O3'	5:BC:203:LYS:HE2	1.90	0.71
15:BM:66:VAL:HG12	15:BM:68:GLU:N	2.06	0.71
1:A2:150:U:C5	27:BY:131:ARG:CD	2.67	0.71
1:A2:56:U:N3	27:BY:113:ASN:ND2	2.23	0.71
1:A2:64:U:O4	27:BY:121:THR:CB	2.39	0.71
1:A2:1721:A:N7	9:BG:67:VAL:C	2.43	0.71
1:A2:395:U:OP1	9:BG:84:TYR:CE2	2.39	0.71
1:A2:1034:C:O2	26:BX:7:ARG:NH2	2.23	0.71
1:A2:1294:G:C6	1:A2:1295:G:C6	2.79	0.71
1:A2:739:G:O6	7:BE:198:LYS:HB3	0.91	0.71
1:A2:1532:U:H3'	28:BZ:77:ARG:CB	2.21	0.71
1:A2:1535:U:C5	8:BF:188:LYS:CG	2.73	0.71
1:A2:1553:G:C2	18:BP:40:ARG:CB	2.73	0.71
1:A2:922:G:H5'	4:BB:136:ARG:NH2	2.06	0.71
14:BL:33:ARG:O	14:BL:34:TRP:HA	1.90	0.71
1:A2:784:C:C2	27:BY:35:VAL:HG13	2.25	0.71
1:A2:138:A:N9	9:BG:140:ASN:CB	2.47	0.71
1:A2:139:C:O5'	9:BG:141:ILE:CB	2.38	0.71
1:A2:394:C:OP1	9:BG:92:ARG:CB	2.31	0.71
1:A2:137:U:OP2	9:BG:143:LYS:NZ	2.24	0.71
9:BG:24:ILE:O	9:BG:25:ARG:N	2.22	0.71
1:A2:863:A:C5'	25:BW:6:VAL:CG2	2.67	0.71
1:A2:1300:A:C4'	5:BC:85:PRO:CB	2.66	0.71
1:A2:1326:A:N9	6:BD:157:LEU:O	2.18	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1184:A:N3	18:BP:123:TYR:CD2	2.52	0.71
1:A2:318:U:O4	11:BI:15:GLY:O	2.08	0.71
6:BD:170:THR:HG22	6:BD:171:ALA:N	2.05	0.71
1:A2:776:G:C6	27:BY:35:VAL:CG1	2.70	0.71
1:A2:141:U:OP1	9:BG:141:ILE:CB	2.38	0.71
1:A2:141:U:OP1	9:BG:141:ILE:HG21	1.84	0.71
1:A2:1721:A:C8	9:BG:67:VAL:CB	2.71	0.71
1:A2:163:G:C4	9:BG:2:LYS:HB3	2.22	0.71
1:A2:806:A:H5''	25:BW:81:VAL:CG2	2.21	0.71
1:A2:832:U:C5'	9:BG:212:LEU:C	2.45	0.71
1:A2:741:C:N1	7:BE:201:HIS:CD2	2.59	0.71
1:A2:1473:U:O4'	8:BF:113:ILE:HG12	1.91	0.71
1:A2:1529:C:C5	28:BZ:95:HIS:NE2	2.35	0.71
1:A2:1454:G:O5'	18:BP:118:GLU:HA	1.89	0.71
1:A2:888:U:C5	17:BO:123:SER:N	2.59	0.71
1:A2:324:U:OP2	11:BI:9:HIS:C	2.28	0.71
1:A2:1280:C:O2	23:BU:72:ASN:C	2.30	0.71
1:A2:1095:U:C3'	5:BC:159:THR:OG1	2.37	0.71
1:A2:634:G:OP2	14:BL:98:ASN:C	2.30	0.70
1:A2:633:U:H5'	14:BL:98:ASN:C	2.10	0.70
1:A2:1299:G:C2'	5:BC:86:VAL:HG13	2.21	0.70
1:A2:243:G:C6	7:BE:138:TYR:HE2	2.08	0.70
1:A2:240:U:H6	9:BG:206:ALA:O	1.71	0.70
1:A2:1241:G:N7	18:BP:78:THR:HG21	1.97	0.70
1:A2:1240:U:H1'	18:BP:76:VAL:H	1.55	0.70
3:BA:146:LEU:HD22	3:BA:160:ILE:HG21	1.73	0.70
1:A2:600:U:H5''	26:BX:105:ALA:O	1.91	0.70
1:A2:301:A:C4	7:BE:4:GLY:N	2.59	0.70
1:A2:334:G:O5'	11:BI:26:LYS:HE3	1.91	0.70
1:A2:784:C:O3'	27:BY:44:LEU:HD21	1.90	0.70
1:A2:1327:C:C5	6:BD:158:ILE:CA	2.73	0.70
1:A2:703:G:O6	7:BE:178:GLY:C	2.21	0.70
1:A2:32:U:C2	26:BX:139:LYS:C	2.62	0.70
1:A2:330:G:C4	11:BI:31:ARG:HG2	2.26	0.70
1:A2:330:G:O5'	11:BI:31:ARG:CB	2.39	0.70
1:A2:1150:G:H2'	1:A2:1768:G:N2	2.06	0.70
27:BY:4:ALA:C	27:BY:5:VAL:N	2.44	0.70
1:A2:778:G:C4'	27:BY:5:VAL:N	2.53	0.70
1:A2:807:A:OP2	25:BW:124:LYS:CG	2.38	0.70
1:A2:831:U:OP1	7:BE:152:PRO:HB3	1.77	0.70
20:BR:53:TYR:O	20:BR:55:THR:N	2.24	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1210:C:C4	18:BP:122:THR:HB	2.23	0.70
1:A2:1246:C:C4	18:BP:77:ARG:N	2.59	0.70
8:BF:48:PHE:C	8:BF:51:VAL:HG13	2.11	0.70
1:A2:649:U:OP1	7:BE:253:ASP:OD1	2.08	0.70
1:A2:1058:U:H4'	1:A2:1059:U:OP1	1.91	0.70
1:A2:953:G:C2'	16:BN:8:GLY:O	2.39	0.70
1:A2:332:U:H5	11:BI:31:ARG:HH12	1.36	0.70
25:BW:50:PHE:O	25:BW:51:GLU:N	2.24	0.70
1:A2:1125:A:O2'	1:A2:1776:A:OP1	2.08	0.70
11:BI:72:ILE:HD13	11:BI:112:TRP:CG	2.26	0.70
14:BL:123:VAL:C	14:BL:124:THR:N	2.45	0.70
1:A2:1680:G:N3	9:BG:68:LEU:N	2.40	0.70
1:A2:1682:U:H4'	9:BG:102:VAL:HG11	1.70	0.70
1:A2:137:U:C3'	9:BG:143:LYS:HG3	2.06	0.70
1:A2:1298:U:H2'	5:BC:99:LYS:CB	2.16	0.70
1:A2:1210:C:O2	18:BP:123:TYR:CA	2.39	0.70
1:A2:1452:U:N3	18:BP:81:ARG:NH1	2.36	0.70
1:A2:1245:G:H3'	18:BP:59:LYS:HZ1	1.52	0.70
1:A2:897:C:O3'	17:BO:41:ARG:HA	1.85	0.70
1:A2:601:A:P	26:BX:122:PHE:CD1	2.84	0.70
1:A2:324:U:O2'	14:BL:133:LYS:CG	2.39	0.70
1:A2:777:C:C3'	27:BY:32:ARG:HG2	2.19	0.70
1:A2:776:G:C1'	27:BY:62:THR:CA	2.70	0.70
1:A2:139:C:O4'	9:BG:137:ARG:O	2.09	0.70
5:BC:96:THR:HG1	5:BC:97:ARG:N	1.89	0.70
1:A2:245:U:P	7:BE:142:HIS:CA	2.77	0.70
1:A2:959:U:C4'	25:BW:59:GLY:HA2	2.20	0.70
1:A2:917:U:C2'	17:BO:118:VAL:CG2	2.70	0.70
1:A2:756:A:C8	12:BJ:3:ARG:O	2.44	0.70
1:A2:757:A:H3'	1:A2:758:U:O5'	1.91	0.70
1:A2:777:C:OP2	27:BY:33:ALA:HA	1.92	0.70
1:A2:456:A:C6	27:BY:108:ARG:HA	2.22	0.70
1:A2:609:U:C4	26:BX:28:ASN:OD1	2.45	0.70
1:A2:705:U:OP1	7:BE:233:LYS:HG3	1.92	0.70
1:A2:1457:C:O2	21:BS:136:GLN:CG	2.31	0.70
1:A2:1184:A:C4	18:BP:124:THR:CA	2.65	0.70
1:A2:1183:A:H8	18:BP:125:PRO:HD2	1.57	0.70
1:A2:1546:G:H5''	21:BS:105:VAL:O	1.92	0.70
1:A2:990:C:O2	17:BO:127:ARG:NH2	2.25	0.70
1:A2:1057:U:C3'	3:BA:42:PRO:HD3	2.03	0.70
1:A2:754:A:N3	7:BE:12:LEU:HD22	2.06	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:337:G:H3'	11:BI:6:ASP:CA	2.20	0.70
1:A2:346:G:C2	11:BI:11:ARG:HB2	2.27	0.70
1:A2:775:G:C6	27:BY:61:ARG:N	2.60	0.70
1:A2:267:U:P	9:BG:136:LYS:HZ3	2.15	0.70
1:A2:1103:U:H1'	26:BX:5:LYS:CB	1.91	0.70
1:A2:314:C:N3	1:A2:354:C:N4	2.39	0.70
1:A2:1037:C:O4'	25:BW:71:LYS:NZ	2.23	0.70
20:BR:7:LYS:C	20:BR:8:THR:C	2.51	0.70
1:A2:1503:A:N7	1:A2:1564:U:O3'	2.25	0.70
3:BA:71:GLU:HA	3:BA:95:ALA:HA	1.74	0.70
1:A2:301:A:C5'	7:BE:3:ARG:NH2	1.99	0.70
1:A2:329:G:H5''	11:BI:56:ARG:HH22	1.56	0.70
1:A2:3:U:C5	12:BJ:18:PRO:O	2.06	0.70
1:A2:776:G:H22	27:BY:27:VAL:HG21	1.56	0.70
1:A2:141:U:O2	9:BG:136:LYS:CB	2.40	0.70
9:BG:180:THR:HG1	9:BG:182:GLN:N	1.89	0.70
1:A2:803:A:C3'	25:BW:120:HIS:ND1	2.55	0.70
1:A2:863:A:H2'	25:BW:6:VAL:C	2.12	0.70
1:A2:1144:U:C3'	5:BC:88:LYS:CA	2.66	0.70
18:BP:83:MET:O	18:BP:116:LEU:N	2.25	0.70
1:A2:1547:A:P	21:BS:109:LEU:N	2.65	0.70
1:A2:1567:U:O5'	21:BS:33:THR:O	2.10	0.70
1:A2:1546:G:N2	21:BS:38:VAL:C	2.43	0.70
22:BT:113:ILE:HA	22:BT:128:GLY:HA2	1.74	0.70
1:A2:329:G:O3'	11:BI:56:ARG:CD	2.40	0.70
1:A2:1009:U:OP2	17:BO:129:LYS:CE	2.34	0.70
1:A2:566:C:C3'	1:A2:567:A:P	2.79	0.70
1:A2:190:C:O2'	1:A2:191:C:H5'	1.92	0.70
1:A2:1481:C:OP2	22:BT:63:ARG:NH2	2.25	0.70
1:A2:272:U:O4	9:BG:169:TYR:CE1	2.44	0.70
1:A2:1532:U:C3'	28:BZ:77:ARG:HB2	2.22	0.70
1:A2:1555:A:HO2'	18:BP:115:TYR:CB	2.04	0.70
1:A2:1506:G:O6	22:BT:99:SER:HB2	1.92	0.70
1:A2:959:U:OP2	25:BW:60:LYS:HG3	1.91	0.70
1:A2:759:U:N3	12:BJ:7:THR:C	2.44	0.70
1:A2:1382:A:O2'	1:A2:1383:G:H8	1.74	0.70
1:A2:1064:G:H2'	1:A2:1065:A:H8	1.57	0.70
1:A2:137:U:H2'	9:BG:143:LYS:HZ3	1.55	0.70
1:A2:1674:C:H4'	9:BG:76:LEU:HG	1.73	0.70
1:A2:1036:A:N3	25:BW:71:LYS:NZ	2.40	0.70
1:A2:1103:U:O2'	26:BX:5:LYS:HB2	1.91	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:805:U:OP1	25:BW:104:LEU:HD11	1.92	0.70
1:A2:863:A:N7	25:BW:78:ARG:NH2	2.40	0.70
1:A2:1583:A:P	19:BQ:135:ARG:NH2	2.65	0.70
1:A2:1242:A:H4'	18:BP:89:MET:HE1	1.71	0.70
1:A2:1548:G:HO2'	21:BS:86:LEU:HG	1.51	0.70
1:A2:456:A:N1	27:BY:108:ARG:N	2.40	0.69
1:A2:456:A:C2	27:BY:107:GLN:C	2.65	0.69
1:A2:746:A:C2	25:BW:82:LYS:CD	2.69	0.69
1:A2:863:A:N1	25:BW:5:SER:OG	2.23	0.69
1:A2:1104:U:C6	26:BX:18:HIS:NE2	2.27	0.69
1:A2:1533:C:C6	28:BZ:77:ARG:CG	2.75	0.69
1:A2:1240:U:H5''	18:BP:104:GLN:HG2	1.73	0.69
1:A2:1214:U:OP1	18:BP:77:ARG:CD	2.31	0.69
2:AZ:6137:C:H2'	8:BF:126:ASP:C	2.12	0.69
1:A2:116:U:C4	7:BE:4:GLY:CA	2.75	0.69
1:A2:1384:A:H4'	23:BU:35:GLU:CG	2.18	0.69
1:A2:1096:C:C3'	5:BC:166:THR:O	2.39	0.69
22:BT:96:ALA:C	22:BT:97:SER:N	2.45	0.69
1:A2:92:A:H8	27:BY:116:LYS:HZ3	1.34	0.69
1:A2:633:U:OP1	14:BL:96:LYS:O	2.10	0.69
1:A2:245:U:O4	7:BE:128:LYS:CG	2.40	0.69
1:A2:740:A:C6	7:BE:198:LYS:CG	2.75	0.69
1:A2:737:A:C2'	7:BE:157:ASN:O	2.40	0.69
1:A2:740:A:N6	7:BE:198:LYS:HB2	2.05	0.69
1:A2:1452:U:C2'	18:BP:117:GLY:H	1.81	0.69
1:A2:1546:G:C5'	21:BS:105:VAL:O	2.39	0.69
1:A2:1281:G:H5'	23:BU:78:THR:HG1	1.57	0.69
1:A2:1281:G:C5'	23:BU:76:SER:O	2.40	0.69
2:AZ:6169:G:H2'	2:AZ:6170:G:H5'	1.74	0.69
14:BL:33:ARG:HG2	14:BL:34:TRP:N	2.07	0.69
1:A2:775:G:N3	27:BY:61:ARG:C	2.44	0.69
1:A2:776:G:C3'	27:BY:66:GLY:HA2	2.22	0.69
1:A2:140:A:OP2	9:BG:175:ILE:CD1	2.36	0.69
1:A2:1673:G:HO3'	9:BG:94:ARG:CG	1.75	0.69
1:A2:457:G:N3	27:BY:110:GLN:HB2	2.08	0.69
1:A2:139:C:OP2	9:BG:140:ASN:N	2.26	0.69
1:A2:163:G:C4'	9:BG:1:MET:HB2	2.21	0.69
1:A2:1108:G:N2	26:BX:27:ASN:N	2.32	0.69
1:A2:1301:U:H3'	5:BC:97:ARG:CZ	2.16	0.69
1:A2:1301:U:N3	5:BC:117:THR:OG1	2.26	0.69
1:A2:215:A:P	7:BE:130:GLN:HE21	2.15	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1582:U:O3'	19:BQ:135:ARG:CZ	2.40	0.69
22:BT:104:VAL:C	22:BT:105:LEU:HA	2.12	0.69
1:A2:30:G:C3'	26:BX:141:GLU:HA	2.20	0.69
1:A2:1358:G:OP1	22:BT:130:ARG:CG	2.40	0.69
1:A2:1096:C:P	5:BC:168:ARG:HE	2.15	0.69
2:AZ:6221:U:H2'	6:BD:114:ALA:HB2	1.66	0.69
1:A2:765:G:N2	12:BJ:142:ASN:ND2	2.39	0.69
15:BM:57:ALA:HB1	15:BM:122:VAL:HG12	1.72	0.69
2:AZ:6130:C:H3'	2:AZ:6131:U:H5''	1.73	0.69
4:BB:123:ALA:HB1	4:BB:124:ASN:HA	1.74	0.69
1:A2:457:G:H22	27:BY:109:LYS:CB	2.05	0.69
1:A2:141:U:C6	9:BG:173:PRO:CG	2.76	0.69
1:A2:214:G:N7	7:BE:133:LYS:HD2	2.08	0.69
1:A2:1246:C:C4	18:BP:76:VAL:HA	2.26	0.69
2:AZ:6220:U:C5'	6:BD:143:ARG:HB3	1.87	0.69
2:AZ:6107:U:O2'	2:AZ:6110:A:N3	2.26	0.69
1:A2:597:G:C4'	26:BX:133:LEU:HD22	2.21	0.69
1:A2:330:G:C5'	11:BI:56:ARG:HD3	2.22	0.69
1:A2:1096:C:C5	5:BC:201:ASN:HA	2.28	0.69
1:A2:1769:U:O2'	1:A2:1770:U:H5'	1.93	0.69
1:A2:858:G:C4	10:BH:102:PRO:CB	2.65	0.69
1:A2:457:G:N1	27:BY:105:ARG:O	2.25	0.69
14:BL:98:ASN:O	14:BL:99:ARG:HG3	1.93	0.69
1:A2:740:A:C6	7:BE:200:ARG:HA	2.27	0.69
1:A2:239:C:C5'	9:BG:210:GLN:HG3	2.18	0.69
1:A2:1212:G:C4	18:BP:98:ASN:N	2.58	0.69
1:A2:1067:C:H4'	3:BA:31:VAL:CG1	2.22	0.69
1:A2:330:G:N2	11:BI:3:ILE:H	1.91	0.69
1:A2:1085:G:C6	5:BC:209:ASN:OD1	2.40	0.69
3:BA:139:VAL:HG22	24:BV:60:ARG:NH1	2.07	0.69
23:BU:50:LEU:HD11	23:BU:95:ALA:HB2	1.74	0.69
28:BZ:94:LYS:N	28:BZ:98:GLN:O	2.26	0.69
27:BY:37:LYS:C	27:BY:38:ASP:N	2.45	0.69
1:A2:814:A:OP1	10:BH:110:GLN:HA	1.91	0.69
1:A2:272:U:C4	9:BG:169:TYR:CE1	2.80	0.69
1:A2:1709:C:C4'	9:BG:9:VAL:HG21	1.94	0.69
1:A2:457:G:N2	27:BY:109:LYS:CA	2.54	0.69
5:BC:118:ALA:HB3	5:BC:124:ALA:HB1	1.75	0.69
1:A2:741:C:N1	7:BE:201:HIS:CG	2.60	0.69
1:A2:1533:C:P	28:BZ:75:LEU:H	2.16	0.69
1:A2:1238:A:OP2	18:BP:66:ALA:N	2.22	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1553:G:C2	18:BP:40:ARG:HD2	2.25	0.69
22:BT:36:ILE:HD12	22:BT:37:VAL:HB	1.73	0.69
2:AZ:6107:U:P	8:BF:223:SER:HB2	2.32	0.69
1:A2:888:U:C6	17:BO:122:PRO:HB2	2.28	0.69
1:A2:900:A:C3'	17:BO:20:TYR:HE1	2.04	0.69
1:A2:370:A:C5'	12:BJ:14:THR:N	2.55	0.69
1:A2:1084:A:H5'	5:BC:161:LYS:HA	1.74	0.69
1:A2:1097:U:C3'	5:BC:199:GLN:N	2.43	0.69
1:A2:1046:G:C4	1:A2:1073:G:N2	2.60	0.69
1:A2:816:G:O4'	10:BH:107:ARG:NH1	2.23	0.69
1:A2:162:A:H4'	9:BG:58:LYS:CD	2.23	0.69
9:BG:193:LEU:N	9:BG:194:LYS:N	2.40	0.69
1:A2:457:G:N3	27:BY:106:GLN:O	2.24	0.69
5:BC:207:LEU:HA	5:BC:208:GLU:N	2.07	0.69
6:BD:161:GLY:N	6:BD:163:PRO:HD2	2.08	0.69
1:A2:1532:U:OP2	28:BZ:77:ARG:HB3	1.93	0.69
1:A2:1532:U:C3'	28:BZ:77:ARG:N	2.46	0.69
28:BZ:96:SER:HB3	28:BZ:97:LYS:HA	1.72	0.69
1:A2:1564:U:C3'	21:BS:41:ARG:CB	2.67	0.69
1:A2:1:U:C6	12:BJ:43:TYR:HB2	2.28	0.69
1:A2:329:G:H5'	11:BI:56:ARG:HH22	1.47	0.69
11:BI:42:ARG:C	11:BI:43:ILE:N	2.45	0.69
1:A2:1084:A:C2'	5:BC:163:GLY:O	2.39	0.69
1:A2:1613:U:OP2	8:BF:84:LYS:CD	2.40	0.69
2:AZ:6219:U:C3'	6:BD:144:ALA:HA	2.22	0.69
16:BN:21:ASN:O	16:BN:22:ALA:O	2.11	0.69
1:A2:712:G:N2	1:A2:726:C:O2'	2.25	0.69
1:A2:534:A:H2'	1:A2:535:A:O4'	1.93	0.69
7:BE:52:LEU:O	7:BE:53:LYS:HB2	1.92	0.69
1:A2:777:C:O3'	27:BY:32:ARG:HG2	1.92	0.69
1:A2:1722:A:H62	9:BG:68:LEU:HB3	1.57	0.69
1:A2:57:G:N1	27:BY:115:ASP:C	2.27	0.69
9:BG:28:PHE:C	9:BG:29:ASP:N	2.46	0.69
1:A2:803:A:C4'	25:BW:120:HIS:ND1	2.48	0.69
1:A2:866:G:H8	25:BW:4:SER:O	1.66	0.69
1:A2:1106:U:OP2	26:BX:22:ASN:CA	2.40	0.69
26:BX:31:LYS:N	26:BX:32:ARG:N	2.40	0.69
1:A2:1291:G:N2	1:A2:1324:G:N2	2.41	0.69
1:A2:736:C:N4	7:BE:195:ILE:CD1	2.51	0.69
1:A2:242:U:C4	7:BE:137:PRO:N	2.60	0.69
1:A2:843:U:H3'	1:A2:844:A:P	2.33	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:246:G:OP2	7:BE:127:LYS:HD2	1.93	0.69
1:A2:1238:A:OP2	18:BP:63:ALA:C	2.30	0.69
1:A2:1454:G:OP1	21:BS:122:HIS:CB	2.39	0.69
1:A2:1554:U:O2'	18:BP:41:VAL:HG13	1.92	0.69
1:A2:901:G:N2	17:BO:25:ASP:H	1.86	0.69
1:A2:887:A:H5''	17:BO:122:PRO:O	1.91	0.69
1:A2:1097:U:OP1	5:BC:167:VAL:CG1	2.41	0.69
1:A2:1613:U:OP2	8:BF:84:LYS:CE	2.39	0.69
1:A2:1018:U:H5''	16:BN:109:LYS:HD3	1.74	0.69
1:A2:299:A:H62	7:BE:7:LYS:NZ	1.90	0.69
2:AZ:6117:C:H4'	2:AZ:6118:G:O5'	1.92	0.69
1:A2:1577:A:H2'	1:A2:1578:U:O4'	1.93	0.69
1:A2:57:G:H5''	27:BY:114:ARG:CG	2.20	0.69
1:A2:802:G:O3'	1:A2:803:A:P	2.50	0.69
1:A2:1294:G:N2	1:A2:1322:A:C5	2.61	0.69
1:A2:1327:C:C6	6:BD:158:ILE:O	2.42	0.69
1:A2:214:G:H8	7:BE:132:GLY:C	1.96	0.69
1:A2:1309:C:H3'	1:A2:1310:U:P	2.33	0.69
1:A2:1527:C:H2'	1:A2:1528:U:C6	2.26	0.69
1:A2:1239:U:C5	18:BP:73:PRO:HB3	2.25	0.69
2:AZ:6220:U:C4	6:BD:142:LEU:HB3	2.27	0.69
2:AZ:6110:A:C8	8:BF:219:ARG:NH2	2.53	0.69
1:A2:901:G:C2	17:BO:24:ASN:C	2.52	0.69
1:A2:872:G:H1	16:BN:11:ILE:CG1	1.42	0.69
1:A2:760:A:C3'	12:BJ:9:SER:O	2.41	0.69
1:A2:1358:G:C5'	22:BT:130:ARG:CG	2.68	0.69
1:A2:1281:G:H5'	23:BU:76:SER:O	1.93	0.69
15:BM:31:VAL:HG11	15:BM:136:ILE:HG21	1.75	0.69
1:A2:395:U:O4'	9:BG:91:GLU:OE2	2.11	0.69
1:A2:806:A:C5'	25:BW:81:VAL:HG23	1.95	0.69
1:A2:631:G:H3'	26:BX:12:ALA:C	2.13	0.69
1:A2:609:U:O2	26:BX:28:ASN:ND2	2.25	0.69
1:A2:216:U:N3	7:BE:150:PRO:CD	2.56	0.69
1:A2:701:U:C2'	7:BE:176:ASP:CG	2.33	0.69
1:A2:736:C:C4	7:BE:195:ILE:CG1	2.76	0.69
1:A2:741:C:C6	7:BE:201:HIS:CD2	2.81	0.69
1:A2:733:A:C5	7:BE:209:HIS:C	2.66	0.69
1:A2:1175:U:C5	21:BS:140:THR:HG22	2.25	0.69
1:A2:899:G:OP2	17:BO:43:THR:OG1	2.09	0.69
1:A2:756:A:OP1	7:BE:23:LEU:HA	1.92	0.69
1:A2:1601:G:P	22:BT:86:ARG:HH21	2.16	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:323:A:C5'	11:BI:10:LYS:H	1.95	0.69
1:A2:329:G:H22	11:BI:3:ILE:CG1	2.06	0.69
1:A2:1009:U:P	17:BO:129:LYS:HZ1	1.96	0.69
16:BN:93:LYS:O	16:BN:97:SER:N	2.26	0.69
17:BO:110:LEU:HA	17:BO:111:ARG:N	2.08	0.69
19:BQ:29:ILE:HG23	19:BQ:65:ILE:CG1	2.23	0.69
1:A2:138:A:C5	9:BG:140:ASN:CG	2.66	0.68
1:A2:1670:G:C2	1:A2:1730:A:C2	2.81	0.68
1:A2:1682:U:C5'	9:BG:102:VAL:HG12	2.06	0.68
1:A2:1720:G:H2'	9:BG:67:VAL:N	2.00	0.68
1:A2:56:U:N3	27:BY:113:ASN:HB2	2.06	0.68
1:A2:1683:C:OP1	9:BG:109:LEU:CG	2.40	0.68
1:A2:140:A:P	9:BG:153:VAL:C	2.69	0.68
1:A2:804:A:C2	25:BW:82:LYS:O	2.46	0.68
1:A2:1145:U:O5'	5:BC:88:LYS:C	2.27	0.68
1:A2:738:G:OP1	7:BE:125:LYS:HG2	1.93	0.68
1:A2:1565:C:O2'	21:BS:43:SER:HB2	1.92	0.68
1:A2:952:A:O3'	16:BN:4:MET:CG	2.33	0.68
1:A2:32:U:C4	26:BX:140:LYS:HD2	2.26	0.68
1:A2:548:G:O2'	26:BX:136:TRP:HH2	1.74	0.68
1:A2:338:C:H2'	11:BI:4:SER:CB	2.20	0.68
1:A2:338:C:O2	11:BI:2:GLY:O	2.11	0.68
1:A2:338:C:C6	11:BI:28:GLU:HB3	2.11	0.68
1:A2:329:G:H1	11:BI:30:GLY:C	1.96	0.68
11:BI:150:ALA:HB3	11:BI:151:LYS:CA	2.23	0.68
1:A2:785:U:O2'	27:BY:70:VAL:HA	1.94	0.68
1:A2:1674:C:C6	9:BG:94:ARG:NH2	2.15	0.68
1:A2:165:G:N1	27:BY:131:ARG:NH1	2.42	0.68
1:A2:627:C:N4	1:A2:628:G:C6	2.61	0.68
1:A2:804:A:C5'	25:BW:121:VAL:HA	2.18	0.68
1:A2:1326:A:OP1	6:BD:158:ILE:CG2	2.42	0.68
1:A2:1567:U:H6	21:BS:33:THR:O	1.76	0.68
1:A2:1565:C:O4'	21:BS:43:SER:N	2.11	0.68
20:BR:118:PRO:C	20:BR:119:LEU:N	2.46	0.68
1:A2:30:G:C5'	26:BX:142:LYS:CB	2.39	0.68
1:A2:116:U:C4	7:BE:4:GLY:HA3	2.29	0.68
1:A2:324:U:OP1	11:BI:18:ARG:CB	2.33	0.68
2:AZ:6123:A:H2	2:AZ:6152:C:N3	1.90	0.68
1:A2:1685:G:C2	1:A2:1717:G:C6	2.81	0.68
1:A2:1636:C:O3'	1:A2:1637:C:P	2.51	0.68
2:AZ:6057:G:H2'	2:AZ:6057:G:N3	2.09	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:785:U:C3'	27:BY:70:VAL:HA	2.22	0.68
1:A2:1683:C:OP1	9:BG:110:ALA:O	2.12	0.68
1:A2:129:U:C4	9:BG:177:ARG:HD3	2.23	0.68
1:A2:395:U:H6	9:BG:93:LYS:HE3	1.45	0.68
1:A2:165:G:C2	27:BY:131:ARG:NH1	2.60	0.68
1:A2:351:C:H5	14:BL:101:GLU:OE2	1.70	0.68
1:A2:863:A:C5'	25:BW:6:VAL:HG21	2.23	0.68
1:A2:803:A:H5'	25:BW:120:HIS:NE2	2.08	0.68
1:A2:1554:U:H3	18:BP:115:TYR:HE2	1.41	0.68
18:BP:98:ASN:HB2	18:BP:122:THR:HA	1.74	0.68
1:A2:953:G:C5	16:BN:3:ARG:HD2	2.28	0.68
3:BA:54:TRP:NE1	20:BR:110:VAL:HB	2.07	0.68
1:A2:899:G:H5''	17:BO:25:ASP:OD1	1.93	0.68
11:BI:43:ILE:HA	11:BI:44:HIS:N	2.07	0.68
1:A2:1417:A:C4'	19:BQ:128:LYS:HZ1	2.04	0.68
1:A2:1281:G:C4'	23:BU:75:GLY:O	2.21	0.68
23:BU:58:LEU:N	23:BU:88:LYS:O	2.26	0.68
1:A2:814:A:H2'	10:BH:108:GLN:O	1.93	0.68
1:A2:138:A:H2	9:BG:143:LYS:CG	2.06	0.68
1:A2:1682:U:O2	9:BG:32:ILE:HD12	1.91	0.68
1:A2:58:U:OP2	27:BY:114:ARG:CD	1.75	0.68
1:A2:165:G:H1	27:BY:131:ARG:NH1	1.92	0.68
1:A2:636:A:O3'	25:BW:104:LEU:O	2.11	0.68
1:A2:638:U:C2	25:BW:107:SER:HB3	2.28	0.68
1:A2:1238:A:O5'	18:BP:63:ALA:C	2.26	0.68
1:A2:1557:U:C2'	21:BS:123:ARG:C	2.49	0.68
1:A2:1184:A:H62	18:BP:125:PRO:CB	2.06	0.68
7:BE:256:ARG:O	7:BE:257:ALA:N	2.26	0.68
1:A2:896:U:O2'	17:BO:18:ARG:CG	2.41	0.68
10:BH:136:VAL:N	10:BH:153:LEU:O	2.26	0.68
1:A2:952:A:O3'	16:BN:4:MET:C	2.32	0.68
1:A2:338:C:C4'	11:BI:4:SER:OG	2.42	0.68
1:A2:775:G:C5	27:BY:60:PHE:C	2.66	0.68
1:A2:141:U:H5''	9:BG:135:PRO:HB2	1.74	0.68
1:A2:58:U:C5'	27:BY:114:ARG:HH21	2.01	0.68
1:A2:738:G:P	7:BE:126:VAL:O	2.51	0.68
1:A2:1584:G:H5'	19:BQ:124:PRO:CA	2.23	0.68
1:A2:1246:C:N3	18:BP:77:ARG:N	2.41	0.68
1:A2:1241:G:C6	18:BP:78:THR:CG2	2.73	0.68
1:A2:920:U:H5''	4:BB:214:LYS:HD3	1.31	0.68
4:BB:155:TYR:C	4:BB:156:ALA:N	2.47	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
13:BK:84:GLU:C	13:BK:85:HIS:N	2.47	0.68
1:A2:1478:G:O5'	1:A2:1478:G:H8	1.77	0.68
1:A2:180:A:H3'	9:BG:187:LYS:HZ1	1.59	0.68
1:A2:634:G:C3'	25:BW:79:PHE:N	2.53	0.68
1:A2:737:A:C1'	7:BE:158:ASP:HA	2.23	0.68
1:A2:735:C:C4	7:BE:194:THR:N	2.56	0.68
1:A2:1533:C:H4'	28:BZ:74:SER:HA	1.75	0.68
1:A2:1553:G:H5''	18:BP:43:ARG:HE	1.53	0.68
1:A2:873:U:H3	16:BN:11:ILE:N	1.84	0.68
26:BX:127:VAL:O	26:BX:129:GLY:N	2.27	0.68
1:A2:1136:U:C2	26:BX:62:LYS:NZ	2.61	0.68
1:A2:1085:G:OP1	5:BC:165:VAL:CG1	2.17	0.68
1:A2:1096:C:C5'	5:BC:168:ARG:HB2	2.23	0.68
1:A2:903:U:O5'	17:BO:135:ARG:NH1	2.27	0.68
4:BB:179:SER:OG	4:BB:180:THR:N	2.26	0.68
14:BL:10:GLU:O	14:BL:11:ARG:N	2.27	0.68
1:A2:859:A:H61	10:BH:111:LYS:HG2	1.40	0.68
1:A2:57:G:N2	1:A2:451:A:O2'	2.26	0.68
1:A2:180:A:C2	9:BG:191:ARG:N	2.62	0.68
1:A2:451:A:H2	27:BY:111:LYS:HB3	1.57	0.68
1:A2:1034:C:C5'	26:BX:2:GLY:N	2.56	0.68
1:A2:434:G:C3'	26:BX:52:ILE:CD1	2.54	0.68
1:A2:1298:U:H4'	5:BC:115:ILE:CG2	2.21	0.68
1:A2:740:A:N7	7:BE:198:LYS:HE2	2.04	0.68
1:A2:1558:U:C2	21:BS:133:VAL:HG23	2.19	0.68
1:A2:1239:U:C5	18:BP:63:ALA:O	2.15	0.68
1:A2:1502:G:C5	22:BT:33:TYR:CE2	2.76	0.68
21:BS:32:LEU:HD21	21:BS:69:ILE:CG2	2.24	0.68
1:A2:1067:C:C4'	3:BA:31:VAL:HG13	2.23	0.68
1:A2:1056:U:O5'	3:BA:40:ALA:HB1	1.93	0.68
1:A2:302:U:H5''	11:BI:25:ARG:NH2	2.08	0.68
1:A2:800:U:H3'	1:A2:801:G:P	2.34	0.68
13:BK:19:GLY:O	13:BK:20:VAL:N	2.27	0.68
1:A2:779:U:C4	27:BY:43:LYS:NZ	2.61	0.68
1:A2:814:A:H2'	10:BH:108:GLN:C	2.12	0.68
1:A2:178:U:P	9:BG:179:VAL:HG12	2.34	0.68
1:A2:168:A:C4'	9:BG:132:ARG:HE	1.76	0.68
1:A2:138:A:C2	9:BG:143:LYS:HB2	2.27	0.68
1:A2:1680:G:O5'	9:BG:31:ARG:NH2	2.22	0.68
1:A2:1720:G:OP1	9:BG:82:SER:N	2.27	0.68
1:A2:216:U:H5'	7:BE:131:LEU:N	2.08	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:216:U:H5	7:BE:138:TYR:O	1.74	0.68
1:A2:737:A:H5'	7:BE:227:VAL:N	2.09	0.68
1:A2:1389:C:C3'	20:BR:45:ARG:CA	2.44	0.68
1:A2:1567:U:O5'	21:BS:33:THR:C	2.30	0.68
1:A2:1566:U:C5'	21:BS:30:TYR:C	2.48	0.68
1:A2:1500:C:C6	22:BT:103:LYS:CG	2.69	0.68
1:A2:889:U:OP1	17:BO:89:THR:CB	2.41	0.68
1:A2:598:U:H1'	26:BX:132:LEU:C	2.11	0.68
12:BJ:45:ILE:C	12:BJ:46:SER:N	2.47	0.68
1:A2:329:G:O2'	11:BI:32:GLN:C	2.32	0.68
1:A2:1428:G:N2	23:BU:74:GLU:C	2.47	0.68
1:A2:1384:A:O4'	23:BU:57:ARG:HD2	1.71	0.68
16:BN:94:LYS:O	16:BN:98:VAL:HG23	1.94	0.68
28:BZ:100:ILE:C	28:BZ:101:TYR:N	2.47	0.68
1:A2:787:G:C4	27:BY:61:ARG:HB3	2.29	0.68
1:A2:77:U:C6	1:A2:77:U:O5'	2.47	0.68
1:A2:1291:G:N2	1:A2:1325:A:C4	2.62	0.68
1:A2:741:C:H4'	7:BE:200:ARG:CZ	2.23	0.68
1:A2:1503:A:C4	22:BT:36:ILE:CB	2.49	0.68
1:A2:302:U:H5'	11:BI:25:ARG:CZ	2.24	0.68
1:A2:1018:U:O2'	16:BN:107:LYS:CD	2.39	0.68
1:A2:487:G:O6	1:A2:498:G:N2	2.25	0.68
4:BB:228:LEU:C	4:BB:229:MET:N	2.48	0.68
1:A2:779:U:O4	27:BY:43:LYS:CD	2.42	0.68
1:A2:179:A:N1	9:BG:186:ARG:C	2.47	0.68
1:A2:78:A:C2	9:BG:160:ARG:CD	2.77	0.68
1:A2:804:A:P	25:BW:120:HIS:O	2.52	0.68
1:A2:1145:U:P	5:BC:88:LYS:HA	2.34	0.68
1:A2:245:U:N1	7:BE:128:LYS:NZ	2.41	0.68
1:A2:1315:U:O3'	1:A2:1316:G:P	2.52	0.68
1:A2:1608:U:OP1	19:BQ:72:GLY:CA	2.39	0.68
1:A2:1166:A:O3'	8:BF:101:GLY:HA2	1.93	0.68
1:A2:1453:G:O2'	18:BP:119:PHE:N	2.27	0.68
1:A2:954:G:OP2	16:BN:2:GLY:C	2.32	0.68
3:BA:27:ARG:HA	3:BA:45:VAL:HG12	1.76	0.68
1:A2:877:G:C2	16:BN:6:SER:HB3	2.29	0.68
1:A2:334:G:C4'	11:BI:49:ARG:HA	2.24	0.68
1:A2:325:G:C4'	14:BL:133:LYS:HA	2.24	0.68
1:A2:1083:G:H4'	5:BC:160:GLY:CA	2.24	0.68
1:A2:1521:G:C8	22:BT:68:ARG:HD3	2.29	0.68
1:A2:1074:G:C2	1:A2:1075:C:C5	2.82	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1425:A:O3'	1:A2:1426:C:P	2.52	0.68
1:A2:811:A:N6	10:BH:104:ARG:N	2.41	0.67
1:A2:141:U:C5'	9:BG:135:PRO:HB2	2.24	0.67
1:A2:127:G:C2'	9:BG:183:ARG:NH2	2.56	0.67
1:A2:1683:C:C2'	9:BG:52:ILE:O	2.42	0.67
1:A2:632:U:HO2'	14:BL:97:TYR:CB	2.07	0.67
1:A2:1299:G:C6	5:BC:99:LYS:NZ	2.61	0.67
1:A2:738:G:C3'	7:BE:156:VAL:HG13	2.23	0.67
1:A2:245:U:C5	7:BE:140:VAL:CG1	2.77	0.67
1:A2:1529:C:C4	28:BZ:95:HIS:CG	2.69	0.67
1:A2:1176:G:O5'	21:BS:137:HIS:HE1	1.77	0.67
1:A2:649:U:H3'	7:BE:256:ARG:HD2	1.75	0.67
1:A2:958:U:O2'	25:BW:57:ARG:CZ	2.42	0.67
1:A2:754:A:N9	7:BE:12:LEU:HD22	2.09	0.67
1:A2:1:U:N1	12:BJ:12:TYR:HD1	1.91	0.67
1:A2:1006:C:H5''	17:BO:136:ARG:HH11	1.50	0.67
1:A2:878:G:C2'	16:BN:114:ARG:HH12	1.92	0.67
1:A2:522:U:H3'	1:A2:523:G:P	2.34	0.67
8:BF:194:LEU:O	8:BF:194:LEU:HG	1.93	0.67
1:A2:784:C:N4	27:BY:37:LYS:HA	2.07	0.67
1:A2:76:A:H3'	1:A2:77:U:C5'	2.24	0.67
1:A2:141:U:C4'	9:BG:135:PRO:HB2	2.22	0.67
1:A2:141:U:C2	9:BG:136:LYS:HG3	2.29	0.67
1:A2:57:G:H21	27:BY:112:LYS:C	1.95	0.67
1:A2:92:A:N7	27:BY:116:LYS:HE3	2.09	0.67
1:A2:631:G:C4'	26:BX:16:ARG:NH1	2.57	0.67
1:A2:807:A:HO2'	14:BL:100:TYR:HH	1.38	0.67
1:A2:737:A:C4	7:BE:175:PHE:CB	2.14	0.67
1:A2:702:G:N3	7:BE:173:ILE:HG22	2.08	0.67
7:BE:176:ASP:O	7:BE:178:GLY:N	2.28	0.67
1:A2:1403:C:OP2	20:BR:3:ARG:HG3	1.94	0.67
1:A2:959:U:HO2'	25:BW:56:HIS:CB	1.92	0.67
1:A2:1054:U:H2'	3:BA:30:GLN:HG3	1.75	0.67
1:A2:887:A:C5'	17:BO:122:PRO:O	2.41	0.67
1:A2:29:U:C4'	26:BX:128:SER:HB2	1.94	0.67
1:A2:757:A:C8	12:BJ:3:ARG:NH1	2.62	0.67
1:A2:382:C:O4'	12:BJ:2:PRO:CG	2.42	0.67
1:A2:346:G:N1	11:BI:11:ARG:CB	2.47	0.67
1:A2:1279:C:N3	23:BU:72:ASN:HB3	2.08	0.67
1:A2:1334:U:O3'	23:BU:83:GLU:OE2	2.12	0.67
5:BC:184:VAL:C	5:BC:185:LYS:N	2.48	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1761:U:OP2	1:A2:1761:U:O2	2.13	0.67
1:A2:812:A:C4	10:BH:111:LYS:HD2	2.26	0.67
1:A2:141:U:C4	9:BG:173:PRO:CB	2.75	0.67
1:A2:451:A:C4'	27:BY:112:LYS:HB2	2.24	0.67
1:A2:436:A:H5'	26:BX:101:GLU:OE1	1.92	0.67
1:A2:1326:A:O3'	6:BD:168:ILE:HG21	1.94	0.67
1:A2:214:G:H3'	7:BE:132:GLY:HA3	0.68	0.67
1:A2:1563:C:C4'	22:BT:38:LYS:NZ	2.56	0.67
3:BA:73:VAL:HG12	3:BA:89:PHE:HE1	1.58	0.67
1:A2:1600:A:C3'	22:BT:86:ARG:NE	2.55	0.67
1:A2:330:G:OP1	11:BI:56:ARG:HD3	1.86	0.67
1:A2:1098:U:O2'	5:BC:169:LEU:CA	2.42	0.67
10:BH:163:ASP:C	10:BH:164:TYR:N	2.47	0.67
12:BJ:134:ILE:C	12:BJ:135:ALA:N	2.48	0.67
1:A2:49:C:O3'	1:A2:50:C:P	2.52	0.67
1:A2:783:G:N7	27:BY:37:LYS:C	2.48	0.67
1:A2:784:C:O2	27:BY:35:VAL:CG1	2.43	0.67
27:BY:21:LYS:HB3	27:BY:75:VAL:HG13	1.77	0.67
1:A2:135:A:H5'	1:A2:136:C:OP2	1.95	0.67
1:A2:64:U:O2'	27:BY:123:LYS:CE	2.42	0.67
1:A2:76:A:C2	9:BG:166:GLU:N	2.62	0.67
1:A2:865:A:C5'	25:BW:8:ALA:HB3	2.23	0.67
1:A2:970:A:C1'	26:BX:17:VAL:CG1	2.72	0.67
1:A2:702:G:H21	7:BE:173:ILE:CB	2.06	0.67
1:A2:1499:G:OP2	22:BT:102:ARG:O	2.13	0.67
1:A2:1503:A:H8	21:BS:41:ARG:CZ	2.07	0.67
1:A2:877:G:C2	16:BN:6:SER:CB	2.77	0.67
1:A2:954:G:OP2	16:BN:2:GLY:CA	2.42	0.67
1:A2:783:G:C4	27:BY:40:LEU:CD2	2.77	0.67
1:A2:783:G:OP1	27:BY:52:LYS:NZ	2.27	0.67
1:A2:76:A:O2'	9:BG:163:THR:CB	2.42	0.67
1:A2:90:C:N4	27:BY:118:ILE:H	1.92	0.67
1:A2:138:A:C2	9:BG:143:LYS:CG	2.76	0.67
1:A2:1145:U:P	5:BC:88:LYS:CA	2.81	0.67
1:A2:1303:U:O4	1:A2:1304:G:C2	2.48	0.67
1:A2:1144:U:C6	5:BC:89:GLN:NE2	2.63	0.67
1:A2:736:C:C5	7:BE:225:VAL:HG11	2.28	0.67
1:A2:239:C:C2	9:BG:210:GLN:OE1	2.48	0.67
1:A2:1388:A:H5''	20:BR:44:LYS:HD2	1.77	0.67
1:A2:1239:U:H5	18:BP:73:PRO:CB	2.08	0.67
1:A2:1242:A:C5'	18:BP:89:MET:SD	2.80	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1553:G:N1	18:BP:40:ARG:N	2.42	0.67
1:A2:1601:G:C8	22:BT:89:ARG:CD	2.76	0.67
1:A2:641:G:H5'	25:BW:118:ARG:HD2	1.76	0.67
1:A2:1676:U:O2	1:A2:1726:G:C2	2.48	0.67
1:A2:451:A:O4'	27:BY:112:LYS:HB3	1.95	0.67
1:A2:1108:G:H22	26:BX:27:ASN:H	1.41	0.67
1:A2:1301:U:H5'	5:BC:95:ARG:HG2	1.75	0.67
1:A2:216:U:O2	7:BE:150:PRO:O	2.11	0.67
1:A2:1528:U:C5	1:A2:1529:C:C5	2.83	0.67
1:A2:1535:U:H5	8:BF:186:ASN:CB	1.75	0.67
1:A2:1558:U:C4	21:BS:123:ARG:N	2.62	0.67
1:A2:1499:G:C2'	22:BT:102:ARG:O	2.42	0.67
1:A2:1056:U:C6	3:BA:40:ALA:HB2	2.16	0.67
14:BL:58:CYS:SG	14:BL:61:THR:N	2.63	0.67
1:A2:522:U:C3'	1:A2:523:G:P	2.83	0.67
20:BR:83:GLN:C	20:BR:84:TYR:HB2	2.15	0.67
13:BK:12:HIS:HB2	13:BK:76:LEU:HD11	1.77	0.67
6:BD:176:LEU:N	6:BD:177:MET:N	2.41	0.67
5:BC:52:THR:HG1	5:BC:54:GLU:N	1.92	0.67
1:A2:784:C:O2	27:BY:35:VAL:HG11	1.94	0.67
1:A2:785:U:P	27:BY:44:LEU:HD21	2.34	0.67
27:BY:75:VAL:HA	27:BY:76:TYR:N	2.10	0.67
1:A2:127:G:C1'	9:BG:183:ARG:NH2	2.57	0.67
1:A2:636:A:H8	25:BW:126:LEU:HD23	1.58	0.67
1:A2:1294:G:OP2	1:A2:1294:G:H8	1.78	0.67
1:A2:1144:U:H2'	5:BC:89:GLN:CB	2.19	0.67
1:A2:736:C:C1'	7:BE:181:VAL:HA	2.24	0.67
1:A2:734:A:HO3'	7:BE:244:ILE:HD13	1.60	0.67
1:A2:1473:U:H2'	8:BF:190:ILE:CG1	2.20	0.67
1:A2:1502:G:N7	22:BT:33:TYR:CD1	2.62	0.67
1:A2:873:U:H3	16:BN:10:GLY:C	1.98	0.67
1:A2:570:A:H61	26:BX:67:ALA:C	1.97	0.67
1:A2:598:U:O4'	26:BX:133:LEU:HA	1.95	0.67
1:A2:1358:G:OP1	22:BT:130:ARG:HG3	1.95	0.67
1:A2:800:U:HO3'	7:BE:187:ARG:HG3	1.58	0.67
1:A2:464:A:H3'	1:A2:465:G:P	2.34	0.67
19:BQ:22:VAL:HG22	19:BQ:65:ILE:HG22	1.77	0.67
1:A2:1710:U:OP1	9:BG:7:TYR:HE1	1.78	0.67
1:A2:85:A:O2'	27:BY:125:LEU:O	2.12	0.67
1:A2:127:G:N3	9:BG:183:ARG:NE	2.41	0.67
1:A2:704:C:O2	7:BE:231:GLN:HB2	1.94	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1450:U:O2'	1:A2:1451:C:O4'	2.11	0.67
1:A2:1240:U:C5'	18:BP:104:GLN:CG	2.72	0.67
1:A2:1555:A:O2'	18:BP:115:TYR:CB	2.42	0.67
1:A2:1057:U:C4	3:BA:39:ASN:OD1	2.47	0.67
1:A2:1797:A:O3'	1:A2:1798:U:OP1	2.11	0.67
1:A2:922:G:OP1	4:BB:136:ARG:CD	2.42	0.67
1:A2:889:U:H5'	17:BO:89:THR:HG22	1.76	0.67
1:A2:38:C:C2'	1:A2:39:A:H5'	2.24	0.67
14:BL:65:SER:HG	14:BL:66:ILE:N	1.92	0.67
19:BQ:44:LEU:O	19:BQ:46:PHE:N	2.28	0.67
2:AZ:6165:C:O2	2:AZ:6165:C:H2'	1.95	0.67
1:A2:76:A:H3'	1:A2:77:U:H5''	1.77	0.67
1:A2:1710:U:C1'	9:BG:115:LYS:HG2	1.87	0.67
1:A2:1722:A:C5'	9:BG:73:ILE:HG12	2.25	0.67
1:A2:394:C:N1	9:BG:93:LYS:HG2	1.91	0.67
1:A2:451:A:H2	27:BY:111:LYS:CB	2.06	0.67
1:A2:1105:C:OP2	26:BX:22:ASN:HB2	1.94	0.67
14:BL:96:LYS:O	14:BL:98:ASN:N	2.27	0.67
1:A2:1298:U:O3'	5:BC:99:LYS:HB3	1.93	0.67
1:A2:242:U:C1'	7:BE:148:ARG:NE	2.31	0.67
1:A2:1470:C:P	8:BF:102:ARG:HH12	2.11	0.67
1:A2:1212:G:H8	18:BP:100:LYS:HG3	1.60	0.67
1:A2:1238:A:OP1	18:BP:64:LYS:HA	1.93	0.67
1:A2:1459:C:O5'	21:BS:131:LEU:CD2	2.43	0.67
1:A2:1068:C:OP2	3:BA:33:GLN:NE2	2.23	0.67
3:BA:59:LEU:HA	3:BA:63:ILE:HD13	1.76	0.67
1:A2:754:A:C1'	7:BE:12:LEU:CD2	2.64	0.67
1:A2:756:A:P	7:BE:23:LEU:CA	2.80	0.67
1:A2:1600:A:O3'	22:BT:86:ARG:CZ	2.43	0.67
1:A2:1357:A:H4'	22:BT:126:GLU:C	2.15	0.67
1:A2:328:A:C3'	11:BI:172:ARG:HH22	2.08	0.67
11:BI:4:SER:HA	11:BI:5:ARG:N	2.08	0.67
1:A2:1383:G:H4'	23:BU:87:HIS:O	1.95	0.67
1:A2:1383:G:P	23:BU:88:LYS:N	2.67	0.67
13:BK:51:SER:C	13:BK:52:LYS:N	2.47	0.67
6:BD:19:ALA:C	6:BD:20:GLU:N	2.48	0.67
1:A2:1205:C:O3'	1:A2:1206:U:P	2.53	0.67
1:A2:290:G:H3'	1:A2:291:G:H8	1.60	0.67
1:A2:58:U:H5''	27:BY:111:LYS:CE	2.23	0.67
1:A2:632:U:H3'	26:BX:12:ALA:CB	2.24	0.67
1:A2:1299:G:C2'	5:BC:84:LYS:O	2.43	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:735:C:C4	7:BE:195:ILE:HG13	2.29	0.67
1:A2:1533:C:C6	28:BZ:77:ARG:HG2	2.30	0.67
1:A2:1242:A:H5''	18:BP:60:LEU:CD2	2.25	0.67
1:A2:1269:U:O3'	1:A2:1270:G:P	2.53	0.67
1:A2:1565:C:O4'	21:BS:42:TYR:N	2.28	0.67
1:A2:989:U:C2	17:BO:127:ARG:CG	2.67	0.67
1:A2:29:U:N3	26:BX:131:SER:CB	2.26	0.67
1:A2:2:A:N3	12:BJ:16:LYS:CD	2.58	0.67
1:A2:1200:G:H4'	1:A2:1201:G:H5'	1.77	0.67
1:A2:1084:A:C8	5:BC:161:LYS:C	2.59	0.67
1:A2:1096:C:N1	5:BC:200:SER:O	2.27	0.67
10:BH:141:ARG:N	10:BH:149:ILE:O	2.28	0.67
24:BV:53:TYR:O	24:BV:54:ALA:N	2.27	0.67
7:BE:64:ILE:HG21	27:BY:17:LEU:HD13	1.77	0.67
14:BL:17:PRO:C	14:BL:18:HIS:N	2.48	0.67
1:A2:554:C:O3'	1:A2:555:A:OP1	2.12	0.67
2:AZ:6132:A:N3	2:AZ:6132:A:H2'	2.08	0.67
1:A2:859:A:N1	10:BH:111:LYS:HG2	2.11	0.66
1:A2:1690:G:H1'	1:A2:1712:A:N6	2.10	0.66
1:A2:59:C:H42	27:BY:121:THR:HB	1.59	0.66
1:A2:458:G:N3	27:BY:106:GLN:CD	2.45	0.66
25:BW:78:ARG:HD2	25:BW:126:LEU:HD23	1.76	0.66
1:A2:1299:G:C5'	5:BC:98:PHE:C	2.62	0.66
1:A2:700:C:H5''	7:BE:177:ALA:CB	2.25	0.66
21:BS:52:VAL:HG21	21:BS:69:ILE:HD11	1.76	0.66
1:A2:900:A:O5'	17:BO:25:ASP:O	1.87	0.66
1:A2:1057:U:C6	3:BA:40:ALA:N	2.57	0.66
1:A2:917:U:H2'	17:BO:118:VAL:CG2	2.24	0.66
1:A2:548:G:N3	1:A2:591:A:C2	2.63	0.66
1:A2:1480:G:OP2	22:BT:15:ILE:HG21	1.96	0.66
1:A2:329:G:C4'	11:BI:56:ARG:NH2	2.57	0.66
1:A2:1383:G:P	23:BU:59:PRO:O	2.53	0.66
1:A2:1370:U:C3'	22:BT:119:LYS:NZ	2.58	0.66
7:BE:78:THR:N	7:BE:79:ASP:N	2.43	0.66
1:A2:296:U:OP1	7:BE:33:ALA:CB	2.43	0.66
1:A2:57:G:O2'	27:BY:111:LYS:HA	1.96	0.66
1:A2:1147:A:O2'	1:A2:1148:C:O5'	2.12	0.66
5:BC:127:ALA:C	5:BC:128:GLY:N	2.49	0.66
1:A2:1584:G:C4	19:BQ:14:LYS:HE3	2.24	0.66
1:A2:1454:G:OP1	18:BP:118:GLU:HG2	1.92	0.66
1:A2:1548:G:C2'	21:BS:99:HIS:ND1	2.58	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:953:G:OP2	16:BN:3:ARG:HA	1.94	0.66
1:A2:750:U:H3'	1:A2:751:G:P	2.35	0.66
22:BT:18:TYR:HB3	22:BT:59:ALA:HB2	1.76	0.66
1:A2:1281:G:N7	23:BU:74:GLU:O	2.25	0.66
19:BQ:7:VAL:CB	19:BQ:96:TYR:HE1	2.02	0.66
2:AZ:6205:A:O2'	2:AZ:6206:G:C6	2.47	0.66
1:A2:778:G:O2'	27:BY:5:VAL:CB	2.43	0.66
1:A2:1683:C:C3'	9:BG:52:ILE:O	2.38	0.66
1:A2:448:C:O2'	1:A2:449:C:H5'	1.94	0.66
1:A2:80:A:N6	9:BG:162:VAL:C	2.47	0.66
1:A2:863:A:OP1	25:BW:34:ILE:HD12	1.94	0.66
1:A2:1300:A:O5'	5:BC:85:PRO:CB	2.43	0.66
1:A2:1302:U:P	5:BC:95:ARG:CD	2.72	0.66
1:A2:215:A:OP1	7:BE:130:GLN:NE2	2.25	0.66
1:A2:220:A:H4'	9:BG:220:LYS:H	0.73	0.66
1:A2:241:U:H5'	7:BE:149:TYR:HB2	1.78	0.66
1:A2:703:G:O3'	7:BE:235:TYR:CE1	2.48	0.66
1:A2:823:G:OP2	1:A2:823:G:C2	2.48	0.66
7:BE:145:ARG:C	7:BE:146:THR:N	2.39	0.66
1:A2:1531:G:H2'	1:A2:1532:U:C6	2.30	0.66
1:A2:1533:C:C4'	28:BZ:77:ARG:NH2	2.59	0.66
1:A2:1475:A:H62	28:BZ:97:LYS:HD3	1.56	0.66
1:A2:1502:G:C8	22:BT:33:TYR:CB	2.79	0.66
1:A2:1564:U:H2'	21:BS:41:ARG:HB3	0.72	0.66
4:BB:62:LYS:HB3	4:BB:63:GLY:N	2.10	0.66
1:A2:208:U:H2'	11:BI:55:TYR:HH	1.60	0.66
23:BU:95:ALA:HB3	23:BU:100:VAL:CG1	2.25	0.66
12:BJ:157:ASP:C	12:BJ:158:PHE:N	2.47	0.66
1:A2:1576:A:H3'	1:A2:1577:A:P	2.35	0.66
2:AZ:6029:A:H2	2:AZ:6030:U:C4	2.13	0.66
1:A2:778:G:P	27:BY:31:ASN:H	2.19	0.66
1:A2:396:G:C3'	9:BG:88:ARG:CA	2.70	0.66
1:A2:137:U:P	9:BG:143:LYS:NZ	2.69	0.66
27:BY:109:LYS:C	27:BY:110:GLN:N	2.49	0.66
1:A2:1584:G:H3'	19:BQ:124:PRO:CA	2.19	0.66
1:A2:1358:G:C4'	22:BT:130:ARG:HG2	2.24	0.66
1:A2:1046:G:C2	1:A2:1073:G:C2	2.84	0.66
1:A2:499:U:O2'	1:A2:500:C:OP2	2.10	0.66
1:A2:811:A:H62	10:BH:104:ARG:N	1.94	0.66
1:A2:165:G:H4'	9:BG:14:LYS:NZ	2.11	0.66
1:A2:631:G:C4'	26:BX:16:ARG:HH12	2.09	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:741:C:C5'	7:BE:201:HIS:CA	2.72	0.66
1:A2:1528:U:OP1	8:BF:112:ARG:CG	2.43	0.66
1:A2:1505:A:C5'	22:BT:41:SER:CB	2.68	0.66
1:A2:1565:C:C3'	21:BS:40:ARG:CA	2.66	0.66
1:A2:1343:U:O2	23:BU:56:VAL:HG22	1.95	0.66
2:AZ:6219:U:O4'	6:BD:145:ALA:CB	2.43	0.66
1:A2:396:G:C5	9:BG:91:GLU:OE1	2.48	0.66
1:A2:177:U:C5	9:BG:137:ARG:HD2	2.29	0.66
1:A2:150:U:C6	27:BY:131:ARG:HD2	2.29	0.66
1:A2:631:G:C5'	26:BX:13:ARG:CZ	2.71	0.66
1:A2:1327:C:P	6:BD:158:ILE:N	2.62	0.66
1:A2:241:U:C2	7:BE:136:VAL:HG11	2.30	0.66
1:A2:734:A:H2'	7:BE:193:GLY:C	2.16	0.66
1:A2:737:A:C4	7:BE:175:PHE:HB2	1.53	0.66
1:A2:1240:U:C1'	18:BP:76:VAL:N	2.49	0.66
1:A2:1240:U:C5'	18:BP:104:GLN:HG2	2.25	0.66
1:A2:888:U:H2'	17:BO:126:THR:N	2.11	0.66
1:A2:897:C:C3'	17:BO:41:ARG:HA	2.25	0.66
1:A2:956:C:C2	16:BN:11:ILE:HD13	2.27	0.66
1:A2:756:A:OP2	12:BJ:4:ALA:CB	2.40	0.66
1:A2:1480:G:OP2	22:BT:15:ILE:CG2	2.42	0.66
1:A2:324:U:O5'	11:BI:11:ARG:C	2.33	0.66
1:A2:329:G:H5'	11:BI:175:GLN:HE22	1.60	0.66
1:A2:332:U:O2	11:BI:26:LYS:HD2	1.31	0.66
1:A2:946:U:C4'	4:BB:158:SER:CB	2.72	0.66
1:A2:946:U:H4'	4:BB:158:SER:HB3	1.75	0.66
1:A2:617:U:C5	1:A2:1093:A:C5	2.82	0.66
1:A2:1651:A:H2'	1:A2:1652:C:H6	1.61	0.66
1:A2:858:G:O2'	10:BH:106:SER:CB	2.42	0.66
1:A2:812:A:C2	10:BH:111:LYS:HD3	2.31	0.66
1:A2:162:A:H4'	9:BG:58:LYS:HD2	1.77	0.66
1:A2:163:G:P	9:BG:108:VAL:CG2	2.81	0.66
1:A2:397:A:C5'	9:BG:88:ARG:CG	2.66	0.66
1:A2:451:A:O4'	27:BY:112:LYS:HB2	1.96	0.66
1:A2:1036:A:O2'	25:BW:71:LYS:HE3	1.96	0.66
1:A2:631:G:C2'	26:BX:12:ALA:O	2.41	0.66
1:A2:635:A:C2	25:BW:33:VAL:HG21	2.31	0.66
1:A2:1290:U:C4'	6:BD:151:LYS:CE	1.81	0.66
1:A2:701:U:C3'	7:BE:176:ASP:OD2	2.12	0.66
1:A2:1389:C:C3'	20:BR:45:ARG:HG2	2.13	0.66
1:A2:1176:G:O5'	21:BS:137:HIS:CE1	2.49	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1241:G:P	18:BP:104:GLN:HA	2.34	0.66
1:A2:1239:U:C5	18:BP:73:PRO:CB	2.78	0.66
1:A2:686:C:H3'	12:BJ:65:LYS:NZ	2.08	0.66
1:A2:894:U:C3'	4:BB:65:VAL:CG2	2.72	0.66
1:A2:955:A:C6	16:BN:10:GLY:C	2.68	0.66
1:A2:27:U:O2	26:BX:103:LEU:CG	2.40	0.66
1:A2:1137:A:OP2	26:BX:62:LYS:HD3	1.94	0.66
1:A2:302:U:C5'	11:BI:25:ARG:NH2	2.58	0.66
1:A2:1094:G:C4'	5:BC:161:LYS:CD	1.87	0.66
1:A2:1007:C:P	17:BO:136:ARG:NH1	2.68	0.66
1:A2:1684:U:H5	9:BG:51:LYS:HE2	1.52	0.66
1:A2:299:A:H62	7:BE:7:LYS:HZ1	1.42	0.66
2:AZ:6093:A:H2'	2:AZ:6094:U:H5'	1.78	0.66
1:A2:175:G:N3	9:BG:137:ARG:NH2	2.43	0.66
1:A2:91:G:C3'	27:BY:116:LYS:HZ3	2.01	0.66
1:A2:175:G:H1'	9:BG:137:ARG:HH21	1.61	0.66
1:A2:1103:U:H4'	26:BX:15:LEU:HD11	1.77	0.66
1:A2:1300:A:C8	5:BC:86:VAL:HG23	2.30	0.66
1:A2:1326:A:C4	6:BD:157:LEU:O	2.48	0.66
1:A2:1068:C:H5''	3:BA:154:GLU:H	1.61	0.66
3:BA:180:GLU:O	3:BA:184:LEU:HD23	1.95	0.66
3:BA:69:ASN:N	3:BA:69:ASN:HD22	3.40	0.66
1:A2:1084:A:C8	5:BC:161:LYS:HG2	2.26	0.66
14:BL:58:CYS:SG	14:BL:60:PHE:N	2.64	0.66
1:A2:208:U:C2'	11:BI:55:TYR:OH	2.43	0.66
21:BS:18:LEU:O	21:BS:20:THR:HG23	1.96	0.66
1:A2:142:G:H8	9:BG:135:PRO:HA	1.57	0.66
1:A2:397:A:C3'	1:A2:398:G:P	2.77	0.66
1:A2:164:A:C8	9:BG:17:GLU:CG	2.76	0.66
1:A2:1102:G:C4	26:BX:7:ARG:NE	2.63	0.66
1:A2:863:A:C5	25:BW:5:SER:OG	2.48	0.66
1:A2:1327:C:H3'	6:BD:159:HIS:HA	0.84	0.66
1:A2:1327:C:O2'	6:BD:187:LYS:NZ	2.29	0.66
1:A2:1300:A:C4	5:BC:86:VAL:HB	2.31	0.66
1:A2:842:C:O2	1:A2:842:C:C2'	2.43	0.66
1:A2:215:A:H8	7:BE:138:TYR:HD1	1.43	0.66
1:A2:1503:A:C8	21:BS:41:ARG:NH2	2.64	0.66
1:A2:1503:A:C3'	22:BT:37:VAL:CB	2.56	0.66
1:A2:1067:C:H4'	3:BA:31:VAL:HG13	1.78	0.66
1:A2:789:A:HO3'	1:A2:790:U:C5'	2.09	0.66
1:A2:370:A:P	12:BJ:14:THR:HG1	2.19	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BB:142:PHE:C	4:BB:143:THR:N	2.49	0.66
4:BB:36:SER:O	4:BB:41:ALA:HB2	1.96	0.66
1:A2:776:G:C4'	27:BY:66:GLY:CA	2.71	0.66
1:A2:179:A:N6	9:BG:190:GLN:CG	2.56	0.66
1:A2:89:G:O6	27:BY:118:ILE:HG22	1.92	0.66
1:A2:127:G:C1'	9:BG:183:ARG:HH21	2.07	0.66
1:A2:627:C:N3	1:A2:628:G:C5	2.65	0.66
1:A2:862:A:P	25:BW:32:LYS:CD	2.84	0.66
1:A2:44:U:O3'	1:A2:45:U:P	2.54	0.66
26:BX:75:GLN:HA	26:BX:76:LEU:N	2.11	0.66
1:A2:1300:A:C8	5:BC:86:VAL:CB	2.78	0.66
1:A2:214:G:N9	7:BE:133:LYS:CB	2.49	0.66
1:A2:216:U:H2'	7:BE:129:VAL:HG21	1.77	0.66
7:BE:140:VAL:HA	7:BE:141:THR:HG23	1.78	0.66
1:A2:896:U:H2'	17:BO:18:ARG:HB2	1.77	0.66
1:A2:893:U:O4	1:A2:919:A:N6	2.29	0.66
1:A2:1592:A:P	22:BT:93:HIS:HB3	2.36	0.66
1:A2:1018:U:O2'	16:BN:107:LYS:HD3	1.95	0.66
1:A2:1523:G:C8	22:BT:79:LEU:CD2	2.73	0.66
1:A2:1748:G:C3'	1:A2:1749:A:P	2.84	0.66
1:A2:611:U:C3'	1:A2:612:U:P	2.84	0.66
12:BJ:134:ILE:O	12:BJ:135:ALA:N	2.29	0.66
1:A2:1637:C:O3'	1:A2:1638:G:P	2.54	0.66
12:BJ:49:LEU:HD11	12:BJ:99:LEU:O	1.96	0.66
1:A2:786:C:C4'	27:BY:26:ASP:OD1	2.43	0.65
1:A2:141:U:C5	9:BG:173:PRO:CG	2.79	0.65
1:A2:1675:C:OP2	9:BG:76:LEU:N	2.26	0.65
1:A2:395:U:C1'	9:BG:93:LYS:NZ	2.58	0.65
1:A2:1102:G:N9	26:BX:7:ARG:NE	2.44	0.65
1:A2:1399:C:OP2	20:BR:67:ARG:CA	2.43	0.65
1:A2:1507:G:OP2	1:A2:1507:G:H8	1.77	0.65
21:BS:45:LEU:HD21	21:BS:81:ILE:HB	1.77	0.65
1:A2:901:G:H5'	17:BO:86:THR:CG2	2.08	0.65
3:BA:141:ILE:O	3:BA:141:ILE:HG22	1.96	0.65
1:A2:919:A:H5'	4:BB:83:LYS:NZ	2.11	0.65
1:A2:759:U:H3	12:BJ:7:THR:CA	2.08	0.65
1:A2:31:C:C2'	26:BX:138:GLU:CB	2.74	0.65
22:BT:16:ASN:HA	22:BT:19:ALA:HB2	1.77	0.65
1:A2:322:G:C2'	11:BI:9:HIS:CD2	2.79	0.65
1:A2:1429:G:C2	23:BU:72:ASN:O	2.49	0.65
1:A2:1095:U:OP1	5:BC:166:THR:CA	2.35	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1614:A:OP2	8:BF:84:LYS:CE	2.44	0.65
1:A2:1625:C:P	5:BC:91:ARG:CZ	2.84	0.65
1:A2:1788:G:H3'	1:A2:1789:G:P	2.36	0.65
1:A2:778:G:C2	27:BY:35:VAL:HG23	2.31	0.65
1:A2:814:A:C2'	10:BH:108:GLN:C	2.54	0.65
1:A2:1680:G:O3'	1:A2:1681:A:H5'	1.95	0.65
1:A2:395:U:N1	9:BG:91:GLU:CD	2.49	0.65
1:A2:1023:A:O3'	1:A2:1024:U:P	2.54	0.65
1:A2:807:A:OP1	25:BW:124:LYS:HG2	1.96	0.65
1:A2:436:A:C8	26:BX:50:LYS:HD3	2.31	0.65
1:A2:1583:A:OP1	19:BQ:135:ARG:NH2	2.28	0.65
1:A2:1565:C:C2'	21:BS:39:GLY:CA	2.68	0.65
3:BA:120:LEU:HD22	3:BA:142:PRO:HB2	1.78	0.65
1:A2:959:U:H4'	25:BW:59:GLY:HA2	1.78	0.65
1:A2:1591:C:O5'	22:BT:93:HIS:N	2.27	0.65
1:A2:3:U:C1'	12:BJ:19:TYR:O	2.43	0.65
1:A2:1370:U:H2'	22:BT:119:LYS:HE3	1.71	0.65
1:A2:1220:C:H6	1:A2:1220:C:O5'	1.77	0.65
2:AZ:6099:G:O2'	2:AZ:6147:A:C6	2.49	0.65
1:A2:1340:U:H3'	1:A2:1340:U:OP1	1.96	0.65
1:A2:775:G:N1	27:BY:61:ARG:N	2.44	0.65
1:A2:777:C:O5'	27:BY:29:HIS:ND1	2.28	0.65
1:A2:812:A:H2	10:BH:111:LYS:CG	1.95	0.65
1:A2:139:C:H2'	9:BG:138:ALA:H	1.36	0.65
1:A2:149:C:H3'	27:BY:130:ALA:HB3	1.78	0.65
1:A2:1037:C:O3'	25:BW:15:ASN:HB3	1.95	0.65
1:A2:1104:U:C6	26:BX:18:HIS:CD2	2.82	0.65
1:A2:864:U:C5'	25:BW:6:VAL:HG12	2.26	0.65
1:A2:864:U:O5'	25:BW:6:VAL:HG12	1.96	0.65
1:A2:1103:U:C4'	26:BX:15:LEU:HD22	2.26	0.65
1:A2:1144:U:C4	5:BC:89:GLN:NE2	2.64	0.65
1:A2:701:U:C4	7:BE:175:PHE:O	2.50	0.65
1:A2:703:G:H2'	7:BE:230:GLU:N	2.10	0.65
14:BL:43:LYS:C	14:BL:44:THR:N	2.50	0.65
1:A2:1546:G:H4'	21:BS:105:VAL:O	1.97	0.65
4:BB:80:SER:HG	4:BB:81:PHE:N	1.94	0.65
1:A2:899:G:H5''	17:BO:45:GLY:N	2.12	0.65
1:A2:917:U:N1	17:BO:84:ARG:NH1	2.44	0.65
1:A2:760:A:H1'	12:BJ:9:SER:N	2.10	0.65
1:A2:1136:U:O2	26:BX:62:LYS:NZ	2.29	0.65
1:A2:1601:G:C8	22:BT:89:ARG:CB	2.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:117:U:H2'	1:A2:118:U:O4'	1.96	0.65
1:A2:360:A:O2'	1:A2:361:C:O3'	2.09	0.65
13:BK:42:VAL:O	13:BK:44:LYS:N	2.29	0.65
1:A2:142:G:H8	9:BG:135:PRO:CA	2.08	0.65
1:A2:168:A:H62	27:BY:124:ARG:HE	1.44	0.65
1:A2:58:U:H6	27:BY:114:ARG:HB3	1.61	0.65
1:A2:91:G:N3	27:BY:113:ASN:HA	2.10	0.65
1:A2:1103:U:H5'	26:BX:15:LEU:CD1	2.23	0.65
1:A2:633:U:C3'	1:A2:634:G:P	2.82	0.65
1:A2:1298:U:H5'	5:BC:115:ILE:HG21	1.76	0.65
1:A2:1183:A:N7	18:BP:125:PRO:HD3	2.10	0.65
1:A2:1242:A:O5'	18:BP:94:VAL:CG2	2.41	0.65
1:A2:1555:A:H1'	18:BP:115:TYR:CZ	2.31	0.65
2:AZ:6106:A:O2'	8:BF:223:SER:O	2.14	0.65
2:AZ:6107:U:OP2	8:BF:220:VAL:O	2.12	0.65
3:BA:53:THR:OG1	20:BR:105:GLN:HG3	1.96	0.65
1:A2:1137:A:C3'	26:BX:64:PRO:HD3	2.27	0.65
1:A2:1385:G:OP2	23:BU:35:GLU:HG3	1.41	0.65
1:A2:105:A:OP1	11:BI:21:PHE:HB2	1.92	0.65
1:A2:365:G:O3'	1:A2:366:A:P	2.54	0.65
1:A2:410:A:O3'	1:A2:411:C:P	2.55	0.65
10:BH:181:ILE:O	10:BH:182:VAL:N	2.29	0.65
1:A2:858:G:N3	10:BH:107:ARG:C	2.49	0.65
1:A2:702:G:C4	7:BE:174:LYS:O	2.50	0.65
7:BE:234:PRO:O	7:BE:236:ILE:N	2.29	0.65
1:A2:1531:G:O6	28:BZ:97:LYS:CG	2.43	0.65
1:A2:1555:A:N7	18:BP:40:ARG:HD3	2.11	0.65
1:A2:1504:G:N7	22:BT:37:VAL:HG23	2.11	0.65
1:A2:919:A:OP1	4:BB:107:THR:HG22	1.92	0.65
1:A2:960:U:H3'	1:A2:961:U:OP2	1.97	0.65
3:BA:122:ILE:O	3:BA:123:VAL:HB	1.96	0.65
1:A2:898:A:O4'	17:BO:41:ARG:HG3	1.95	0.65
1:A2:791:A:C4	12:BJ:7:THR:OG1	2.50	0.65
26:BX:46:SER:C	26:BX:47:SER:HA	2.17	0.65
1:A2:331:A:C8	11:BI:31:ARG:HG3	1.97	0.65
1:A2:14:C:C1'	5:BC:203:LYS:HZ1	1.82	0.65
1:A2:1788:G:O2'	1:A2:1789:G:O4'	2.14	0.65
4:BB:30:PHE:HB3	4:BB:96:LEU:HD22	1.77	0.65
1:A2:778:G:O4'	27:BY:32:ARG:CZ	2.43	0.65
1:A2:741:C:H5	7:BE:206:ASP:CG	1.97	0.65
1:A2:698:U:H6	7:BE:207:LEU:HB2	1.52	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1390:U:O2'	1:A2:1391:A:C8	2.49	0.65
1:A2:1241:G:C1'	18:BP:96:ILE:HD11	2.26	0.65
1:A2:686:C:OP1	12:BJ:64:GLU:CD	2.35	0.65
1:A2:898:A:P	17:BO:28:VAL:O	2.54	0.65
3:BA:120:LEU:HD22	3:BA:142:PRO:CB	2.26	0.65
4:BB:169:SER:O	4:BB:172:LEU:N	2.29	0.65
1:A2:595:G:H22	26:BX:139:LYS:N	1.92	0.65
1:A2:753:A:OP1	7:BE:17:HIS:N	2.30	0.65
1:A2:597:G:C5'	26:BX:133:LEU:HD21	2.27	0.65
1:A2:335:U:H2'	11:BI:27:PHE:O	1.96	0.65
1:A2:113:U:O4	7:BE:5:PRO:HA	1.97	0.65
1:A2:347:G:C5	11:BI:16:ALA:N	2.65	0.65
1:A2:335:U:C3'	11:BI:27:PHE:O	2.44	0.65
1:A2:799:A:O3'	7:BE:186:GLY:CA	2.38	0.65
1:A2:1715:G:C6	1:A2:1716:C:N3	2.65	0.65
1:A2:617:U:C6	1:A2:1093:A:N7	2.64	0.65
25:BW:75:ILE:HG23	25:BW:76:SER:HA	1.77	0.65
14:BL:37:ASN:O	14:BL:39:GLY:N	2.29	0.65
1:A2:811:A:O2'	1:A2:812:A:P	2.55	0.65
1:A2:163:G:H4'	9:BG:1:MET:CB	2.25	0.65
1:A2:804:A:N1	25:BW:82:LYS:HB2	2.11	0.65
1:A2:1102:G:N3	26:BX:7:ARG:HD3	2.12	0.65
1:A2:1299:G:C1'	5:BC:84:LYS:HG3	2.26	0.65
1:A2:741:C:O2	7:BE:199:GLU:CG	2.44	0.65
1:A2:832:U:O5'	9:BG:216:LEU:HD13	1.97	0.65
7:BE:158:ASP:C	7:BE:159:THR:N	2.49	0.65
1:A2:1453:G:O5'	18:BP:117:GLY:C	2.35	0.65
1:A2:1549:C:P	21:BS:97:ASP:OD1	2.54	0.65
1:A2:1382:A:C1'	23:BU:58:LEU:HA	2.24	0.65
1:A2:1096:C:H4'	5:BC:168:ARG:CB	2.26	0.65
1:A2:780:A:N6	27:BY:32:ARG:O	2.30	0.65
1:A2:1689:A:H2'	1:A2:1690:G:H8	1.61	0.65
1:A2:449:C:N3	27:BY:109:LYS:N	2.45	0.65
1:A2:127:G:N2	9:BG:183:ARG:HB3	2.11	0.65
1:A2:864:U:H4'	25:BW:6:VAL:O	1.96	0.65
1:A2:970:A:O4'	26:BX:17:VAL:HG12	1.97	0.65
1:A2:734:A:O3'	7:BE:244:ILE:HD12	1.97	0.65
1:A2:702:G:H8	7:BE:176:ASP:HB2	1.62	0.65
1:A2:1400:A:H5'	20:BR:53:TYR:CE2	2.28	0.65
1:A2:1573:A:N6	8:BF:184:PHE:CD1	2.54	0.65
1:A2:1054:U:C2'	3:BA:30:GLN:CD	2.50	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:954:G:H8	16:BN:2:GLY:CA	2.08	0.65
1:A2:1041:G:H5'	24:BV:62:ARG:CA	2.26	0.65
4:BB:149:GLN:C	4:BB:150:VAL:N	2.49	0.65
1:A2:858:G:C2'	10:BH:106:SER:OG	2.44	0.65
1:A2:90:C:H42	27:BY:118:ILE:H	1.45	0.65
1:A2:127:G:H1'	9:BG:183:ARG:HE	1.60	0.65
1:A2:1100:G:O2'	25:BW:92:ASN:OD1	2.14	0.65
1:A2:239:C:C5'	9:BG:210:GLN:CG	2.75	0.65
1:A2:736:C:C6	7:BE:181:VAL:CG1	2.68	0.65
1:A2:827:C:C5	1:A2:828:U:C5	2.85	0.65
1:A2:1473:U:C2	8:BF:190:ILE:HB	2.32	0.65
1:A2:1454:G:H22	18:BP:123:TYR:N	0.74	0.65
1:A2:1504:G:P	22:BT:33:TYR:O	2.54	0.65
1:A2:1565:C:H5''	21:BS:44:ASN:N	2.10	0.65
1:A2:896:U:O2'	17:BO:18:ARG:HG3	1.97	0.65
1:A2:897:C:C5	17:BO:38:THR:CB	2.80	0.65
1:A2:30:G:N7	26:BX:130:VAL:O	2.30	0.65
1:A2:1384:A:H4'	23:BU:35:GLU:HG2	1.77	0.65
1:A2:1098:U:C6	5:BC:198:THR:HG22	2.32	0.65
1:A2:777:C:H5'	27:BY:32:ARG:N	2.12	0.65
1:A2:129:U:O4	9:BG:177:ARG:CD	2.33	0.65
1:A2:1709:C:OP1	9:BG:9:VAL:HA	1.96	0.65
1:A2:866:G:O3'	25:BW:4:SER:OG	2.12	0.65
1:A2:968:U:C4	26:BX:6:PRO:HB3	1.36	0.65
1:A2:1037:C:C4'	25:BW:15:ASN:HB3	2.26	0.65
1:A2:1301:U:HO2'	5:BC:86:VAL:HG21	1.59	0.65
7:BE:150:PRO:C	7:BE:151:ASP:N	2.50	0.65
1:A2:1399:C:O5'	20:BR:67:ARG:HB2	1.97	0.65
1:A2:1477:G:C5'	22:BT:48:GLN:NE2	2.50	0.65
1:A2:1558:U:C6	21:BS:133:VAL:HG23	2.13	0.65
1:A2:1242:A:C5'	18:BP:60:LEU:CD2	2.74	0.65
1:A2:1454:G:N7	18:BP:81:ARG:NH2	2.44	0.65
1:A2:687:G:H4'	12:BJ:66:ASP:C	2.17	0.65
1:A2:894:U:P	1:A2:895:G:OP2	2.55	0.65
11:BI:27:PHE:O	11:BI:27:PHE:HD1	1.80	0.65
1:A2:1082:C:H2'	5:BC:216:VAL:HG12	1.77	0.65
1:A2:1085:G:N9	5:BC:163:GLY:HA3	2.12	0.65
1:A2:14:C:C3'	5:BC:205:ARG:CZ	2.48	0.65
1:A2:1614:A:OP2	8:BF:84:LYS:NZ	2.28	0.65
1:A2:799:A:C2'	7:BE:186:GLY:HA2	2.27	0.65
1:A2:730:G:N3	1:A2:730:G:H2'	2.10	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:814:A:C5	1:A2:816:G:C8	2.85	0.64
1:A2:397:A:H3'	9:BG:88:ARG:HE	1.59	0.64
1:A2:56:U:H3	27:BY:113:ASN:CB	2.10	0.64
1:A2:58:U:C1'	27:BY:114:ARG:HB3	2.26	0.64
1:A2:638:U:P	25:BW:106:THR:OG1	2.55	0.64
1:A2:863:A:P	25:BW:6:VAL:HG11	2.37	0.64
1:A2:1292:G:H3'	1:A2:1293:U:P	2.36	0.64
1:A2:1298:U:C5'	5:BC:115:ILE:HG21	2.27	0.64
1:A2:737:A:O4'	7:BE:158:ASP:C	2.35	0.64
1:A2:1403:C:H5'	20:BR:4:VAL:HG23	1.78	0.64
1:A2:1470:C:O3'	8:BF:185:ARG:HG3	1.97	0.64
1:A2:1584:G:C3'	19:BQ:124:PRO:HA	2.24	0.64
19:BQ:35:PRO:O	19:BQ:36:ILE:C	2.36	0.64
1:A2:1243:G:H1	18:BP:61:ARG:NH2	1.82	0.64
1:A2:898:A:N1	1:A2:911:U:O2'	2.31	0.64
25:BW:28:ARG:HB3	25:BW:29:PRO:CD	2.27	0.64
22:BT:6:VAL:HG13	22:BT:67:MET:CE	2.20	0.64
1:A2:1591:C:H5'	22:BT:93:HIS:CA	2.25	0.64
1:A2:495:C:H3'	1:A2:496:G:O4'	1.97	0.64
5:BC:42:GLY:O	5:BC:44:LEU:N	2.30	0.64
1:A2:1611:A:N7	1:A2:1612:U:C5	2.65	0.64
13:BK:12:HIS:CB	13:BK:76:LEU:HD11	2.27	0.64
1:A2:164:A:N3	9:BG:15:THR:HB	2.12	0.64
1:A2:312:A:OP2	26:BX:24:TRP:HH2	1.81	0.64
1:A2:638:U:C2	25:BW:107:SER:CB	2.80	0.64
1:A2:1298:U:H2'	5:BC:99:LYS:CG	2.26	0.64
1:A2:1329:A:C6	6:BD:160:SER:O	2.48	0.64
1:A2:1583:A:P	19:BQ:135:ARG:HH22	2.19	0.64
1:A2:1563:C:H5''	22:BT:44:GLU:HA	1.79	0.64
1:A2:1055:U:H5'	3:BA:46:HIS:HA	1.75	0.64
1:A2:894:U:O2'	1:A2:895:G:O4'	2.15	0.64
1:A2:751:G:H2'	1:A2:752:A:O4'	1.97	0.64
1:A2:760:A:N6	12:BJ:6:ARG:NH1	2.45	0.64
1:A2:334:G:P	11:BI:47:ARG:HH11	2.20	0.64
1:A2:1083:G:N3	5:BC:161:LYS:HB3	2.11	0.64
1:A2:800:U:C3'	1:A2:801:G:P	2.86	0.64
11:BI:170:SER:O	11:BI:171:SER:N	2.30	0.64
2:AZ:6029:A:C2	2:AZ:6030:U:C4	2.84	0.64
1:A2:776:G:H1	27:BY:35:VAL:HG13	1.62	0.64
1:A2:814:A:O5'	10:BH:110:GLN:N	2.30	0.64
1:A2:139:C:H2'	9:BG:137:ARG:HA	0.92	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:632:U:C1'	26:BX:15:LEU:HG	2.10	0.64
1:A2:1294:G:N1	1:A2:1295:G:C6	2.65	0.64
1:A2:1299:G:H2'	5:BC:86:VAL:HG13	1.80	0.64
1:A2:737:A:C4'	7:BE:158:ASP:CA	2.75	0.64
1:A2:737:A:O4'	7:BE:158:ASP:CA	2.45	0.64
1:A2:1211:A:C2	18:BP:120:SER:OG	2.45	0.64
1:A2:872:G:H22	16:BN:11:ILE:CD1	2.07	0.64
1:A2:915:A:H2	17:BO:27:PHE:CE2	2.07	0.64
1:A2:302:U:HO2'	11:BI:27:PHE:HE2	1.43	0.64
1:A2:784:C:C3'	27:BY:40:LEU:HD11	2.28	0.64
1:A2:1679:G:C2	9:BG:67:VAL:HA	2.30	0.64
1:A2:395:U:O5'	9:BG:93:LYS:HG3	1.93	0.64
1:A2:865:A:C5'	25:BW:8:ALA:N	2.60	0.64
7:BE:192:ILE:HB	7:BE:193:GLY:HA3	1.78	0.64
1:A2:1538:U:O4	8:BF:185:ARG:CA	2.45	0.64
1:A2:1202:A:H3'	1:A2:1203:A:P	2.38	0.64
1:A2:1212:G:C5	18:BP:99:GLY:N	2.64	0.64
1:A2:1054:U:H2'	3:BA:37:VAL:N	2.12	0.64
1:A2:1057:U:H3'	3:BA:41:ARG:HA	1.78	0.64
1:A2:749:U:O3'	1:A2:750:U:O5'	2.14	0.64
1:A2:1279:C:N4	23:BU:72:ASN:OD1	2.31	0.64
1:A2:1651:A:H2'	1:A2:1652:C:C6	2.33	0.64
8:BF:120:ILE:C	8:BF:121:ILE:N	2.51	0.64
1:A2:814:A:C2	10:BH:109:VAL:N	2.41	0.64
1:A2:1681:A:H5'	9:BG:101:ILE:HD11	1.74	0.64
1:A2:1037:C:C3'	1:A2:1038:U:P	2.85	0.64
1:A2:609:U:H3	26:BX:28:ASN:CG	1.95	0.64
26:BX:74:VAL:C	26:BX:75:GLN:N	2.51	0.64
1:A2:1291:G:N1	1:A2:1325:A:C6	2.66	0.64
1:A2:1327:C:C6	6:BD:158:ILE:CA	2.80	0.64
1:A2:733:A:H1'	7:BE:194:THR:CB	2.27	0.64
1:A2:1310:U:HO2'	20:BR:4:VAL:HG12	1.60	0.64
1:A2:1530:C:N3	28:BZ:96:SER:CA	2.60	0.64
1:A2:1454:G:N2	18:BP:123:TYR:CG	2.64	0.64
1:A2:1211:A:H1'	18:BP:103:ASN:HD21	1.61	0.64
1:A2:1502:G:C2	22:BT:37:VAL:HG13	2.32	0.64
1:A2:1549:C:C5'	21:BS:86:LEU:CD1	2.51	0.64
1:A2:335:U:C1'	11:BI:27:PHE:O	2.45	0.64
1:A2:1095:U:C4'	5:BC:159:THR:OG1	2.46	0.64
1:A2:765:G:O6	12:BJ:132:ARG:CB	2.46	0.64
17:BO:54:GLU:O	17:BO:55:SER:N	2.30	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BI:150:ALA:HB3	11:BI:151:LYS:HA	1.78	0.64
1:A2:1652:C:H2'	1:A2:1653:C:C6	2.33	0.64
1:A2:776:G:O3'	27:BY:66:GLY:CA	2.43	0.64
27:BY:55:VAL:HG12	27:BY:74:LEU:O	1.97	0.64
1:A2:127:G:N2	9:BG:184:LEU:HG	2.12	0.64
1:A2:163:G:H3'	1:A2:164:A:OP2	1.98	0.64
1:A2:78:A:C2	9:BG:162:VAL:CB	2.81	0.64
1:A2:89:G:C8	27:BY:120:GLY:CA	2.79	0.64
1:A2:141:U:O2	9:BG:136:LYS:HG3	1.97	0.64
1:A2:178:U:O5'	9:BG:179:VAL:CG1	2.45	0.64
1:A2:1104:U:C5	1:A2:1105:C:C5	2.86	0.64
1:A2:1535:U:O5'	28:BZ:67:ASP:OD1	2.02	0.64
1:A2:1:U:N1	12:BJ:12:TYR:CD1	2.64	0.64
1:A2:597:G:C1'	26:BX:133:LEU:HD22	2.28	0.64
1:A2:598:U:O3'	26:BX:88:PRO:CD	2.45	0.64
1:A2:1600:A:O2'	22:BT:86:ARG:NH2	2.31	0.64
1:A2:1099:U:H5'	5:BC:168:ARG:C	2.17	0.64
1:A2:365:G:C6	1:A2:377:G:C2	2.85	0.64
1:A2:778:G:OP1	27:BY:30:PRO:N	2.31	0.64
1:A2:786:C:P	27:BY:25:VAL:N	2.70	0.64
1:A2:785:U:P	27:BY:44:LEU:HD11	2.36	0.64
1:A2:395:U:OP1	9:BG:92:ARG:HA	1.98	0.64
1:A2:396:G:C5	9:BG:88:ARG:HG2	2.26	0.64
1:A2:457:G:H22	27:BY:109:LYS:CA	2.09	0.64
1:A2:57:G:H21	27:BY:112:LYS:HA	1.61	0.64
1:A2:351:C:O4'	26:BX:16:ARG:NH2	2.30	0.64
1:A2:863:A:OP1	25:BW:30:SER:O	2.15	0.64
1:A2:1298:U:C2'	5:BC:99:LYS:CG	2.72	0.64
1:A2:1145:U:P	5:BC:89:GLN:N	2.71	0.64
1:A2:737:A:O3'	7:BE:126:VAL:O	2.14	0.64
1:A2:216:U:N1	7:BE:129:VAL:CG2	2.59	0.64
1:A2:1241:G:P	18:BP:104:GLN:CB	2.86	0.64
1:A2:900:A:O3'	17:BO:20:TYR:CE1	2.50	0.64
1:A2:936:G:O3'	1:A2:937:C:P	2.56	0.64
1:A2:952:A:C3'	16:BN:5:HIS:CG	2.80	0.64
3:BA:116:LYS:C	3:BA:118:PRO:HD3	2.17	0.64
1:A2:1067:C:H5''	3:BA:31:VAL:HG13	1.78	0.64
1:A2:896:U:C6	17:BO:31:THR:HG21	2.32	0.64
1:A2:896:U:OP2	17:BO:34:SER:N	1.97	0.64
1:A2:334:G:P	11:BI:26:LYS:HZ1	2.13	0.64
1:A2:787:G:H21	27:BY:61:ARG:HD3	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:859:A:H2'	10:BH:101:LYS:CE	2.23	0.64
1:A2:84:A:H3'	1:A2:85:A:OP2	1.96	0.64
1:A2:1721:A:C4	9:BG:67:VAL:HG23	2.32	0.64
1:A2:58:U:H6	27:BY:114:ARG:CG	2.11	0.64
1:A2:1327:C:O4'	6:BD:159:HIS:CD2	1.78	0.64
1:A2:740:A:C4	7:BE:198:LYS:HE2	2.20	0.64
1:A2:1532:U:H3'	28:BZ:77:ARG:CA	2.27	0.64
1:A2:1246:C:C2	18:BP:77:ARG:N	2.65	0.64
1:A2:1550:A:N7	21:BS:89:GLN:CD	2.51	0.64
1:A2:1499:G:C8	22:BT:102:ARG:O	2.50	0.64
1:A2:1563:C:H5'	22:BT:38:LYS:HZ1	0.63	0.64
1:A2:887:A:O3'	1:A2:888:U:P	2.55	0.64
1:A2:959:U:O2'	25:BW:56:HIS:CD2	2.51	0.64
1:A2:328:A:H5''	11:BI:172:ARG:CZ	2.28	0.64
1:A2:322:G:N1	1:A2:337:G:C5	2.66	0.64
4:BB:129:THR:OG1	4:BB:133:TYR:N	2.31	0.64
5:BC:181:SER:HG	5:BC:183:ALA:N	1.96	0.64
6:BD:64:ARG:HD3	13:BK:90:THR:CB	2.28	0.64
1:A2:56:U:N3	27:BY:113:ASN:CB	2.60	0.64
9:BG:73:ILE:HB	9:BG:74:ALA:N	2.13	0.64
1:A2:804:A:C5'	25:BW:120:HIS:O	2.42	0.64
26:BX:30:LYS:O	26:BX:32:ARG:N	2.30	0.64
1:A2:704:C:C1'	7:BE:231:GLN:C	2.49	0.64
8:BF:189:THR:O	8:BF:190:ILE:N	2.31	0.64
1:A2:1459:C:OP1	21:BS:131:LEU:HD23	1.98	0.64
8:BF:129:PRO:O	8:BF:133:VAL:HG23	1.98	0.64
8:BF:46:TRP:HB3	8:BF:130:ILE:HD13	1.79	0.64
1:A2:952:A:H2'	16:BN:6:SER:N	2.13	0.64
1:A2:381:C:C2'	12:BJ:2:PRO:HD2	2.28	0.64
1:A2:601:A:N7	26:BX:105:ALA:CB	2.53	0.64
1:A2:329:G:C6	11:BI:30:GLY:C	2.70	0.64
1:A2:1159:C:C2	19:BQ:140:LYS:NZ	2.62	0.64
2:AZ:6218:U:N1	6:BD:146:ARG:HD3	2.13	0.64
1:A2:946:U:C4'	4:BB:158:SER:HB3	2.27	0.64
15:BM:31:VAL:HG11	15:BM:136:ILE:CG2	2.28	0.64
1:A2:811:A:C8	10:BH:104:ARG:O	2.51	0.64
1:A2:167:U:O2	27:BY:127:LYS:NZ	2.31	0.64
1:A2:266:A:C2	9:BG:135:PRO:HA	2.33	0.64
1:A2:1103:U:H4'	26:BX:15:LEU:HD22	1.80	0.64
1:A2:352:A:H62	26:BX:20:ARG:CZ	2.07	0.64
1:A2:1391:A:H2'	1:A2:1392:U:C6	2.32	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1470:C:O3'	8:BF:185:ARG:CG	2.46	0.64
8:BF:96:SER:C	8:BF:97:LEU:N	2.51	0.64
1:A2:956:C:N3	16:BN:11:ILE:HG21	2.09	0.64
11:BI:27:PHE:C	11:BI:27:PHE:HD1	2.00	0.64
1:A2:331:A:H8	11:BI:31:ARG:CD	1.99	0.64
1:A2:1274:C:OP1	1:A2:1428:G:OP1	2.15	0.64
2:AZ:6125:G:O6	2:AZ:6151:C:O2	2.16	0.64
1:A2:91:G:O3'	27:BY:112:LYS:HE3	1.98	0.63
1:A2:141:U:O2	9:BG:136:LYS:HD2	1.98	0.63
1:A2:149:C:H3'	27:BY:130:ALA:CB	2.27	0.63
1:A2:968:U:C3'	26:BX:5:LYS:N	2.60	0.63
1:A2:1037:C:C1'	25:BW:71:LYS:HZ2	2.10	0.63
1:A2:1299:G:C1'	5:BC:99:LYS:HB2	2.24	0.63
1:A2:703:G:H2'	7:BE:229:GLY:CA	2.27	0.63
1:A2:244:A:OP2	7:BE:140:VAL:CB	2.46	0.63
1:A2:737:A:C6	7:BE:195:ILE:CD1	2.78	0.63
1:A2:737:A:N9	7:BE:227:VAL:HG13	2.13	0.63
1:A2:1403:C:C4'	20:BR:2:GLY:HA3	2.26	0.63
8:BF:61:TYR:O	8:BF:62:VAL:HG23	1.99	0.63
1:A2:1184:A:C5	18:BP:123:TYR:CD2	2.65	0.63
1:A2:1453:G:C4'	18:BP:119:PHE:N	2.51	0.63
1:A2:1451:C:O3'	18:BP:80:MET:HE2	1.96	0.63
2:AZ:6107:U:H5''	8:BF:223:SER:HB2	1.79	0.63
2:AZ:6137:C:O2'	8:BF:126:ASP:CA	2.47	0.63
1:A2:754:A:N9	7:BE:12:LEU:CD2	2.62	0.63
1:A2:31:C:C1'	26:BX:138:GLU:CA	2.46	0.63
1:A2:1085:G:C5'	5:BC:202:GLY:HA2	2.27	0.63
16:BN:33:VAL:HG21	16:BN:66:ILE:HG21	1.80	0.63
1:A2:784:C:O4'	27:BY:40:LEU:HD13	1.98	0.63
1:A2:395:U:N1	9:BG:91:GLU:OE2	2.31	0.63
1:A2:241:U:H3	7:BE:136:VAL:CG1	2.08	0.63
1:A2:244:A:C3'	7:BE:140:VAL:HG13	2.29	0.63
1:A2:213:A:H3'	7:BE:133:LYS:HA	1.76	0.63
1:A2:213:A:O3'	7:BE:135:GLY:CA	2.46	0.63
1:A2:1498:G:C5'	22:BT:72:GLY:HA2	2.17	0.63
1:A2:956:C:C6	16:BN:11:ILE:HG21	2.33	0.63
1:A2:896:U:C1'	17:BO:18:ARG:HG3	2.27	0.63
1:A2:335:U:C4	11:BI:25:ARG:CB	2.67	0.63
1:A2:1098:U:C2'	5:BC:198:THR:HA	2.23	0.63
1:A2:296:U:OP1	7:BE:33:ALA:HB3	1.98	0.63
27:BY:100:VAL:HG22	27:BY:102:LYS:N	2.13	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1205:C:H2'	1:A2:1206:U:O4'	1.98	0.63
1:A2:1654:G:N2	1:A2:1745:G:H2'	2.14	0.63
1:A2:57:G:O2'	1:A2:58:U:O4'	2.16	0.63
1:A2:1681:A:O2'	9:BG:29:ASP:HA	1.99	0.63
1:A2:456:A:N3	27:BY:111:LYS:HB2	2.13	0.63
1:A2:967:A:H2'	26:BX:6:PRO:CA	2.22	0.63
1:A2:639:U:P	25:BW:108:ALA:CB	2.87	0.63
1:A2:804:A:C2	25:BW:85:ASP:OD1	2.51	0.63
1:A2:1299:G:C8	5:BC:99:LYS:CG	2.81	0.63
1:A2:735:C:C6	7:BE:181:VAL:CG2	2.77	0.63
1:A2:1392:U:C5'	20:BR:29:GLN:N	2.54	0.63
1:A2:1503:A:OP2	22:BT:32:GLY:O	2.16	0.63
2:AZ:6108:U:O2	8:BF:223:SER:CA	2.34	0.63
1:A2:911:U:H4'	1:A2:915:A:H1'	1.81	0.63
1:A2:1137:A:C5'	26:BX:64:PRO:CD	2.70	0.63
23:BU:61:LYS:O	23:BU:62:VAL:N	2.31	0.63
1:A2:1086:A:N7	5:BC:203:LYS:HD2	2.12	0.63
5:BC:139:ILE:HG22	5:BC:140:ARG:N	2.13	0.63
1:A2:866:G:H5'	25:BW:2:THR:C	2.16	0.63
1:A2:1293:U:P	1:A2:1293:U:H6	2.22	0.63
1:A2:1326:A:P	6:BD:158:ILE:HG23	2.38	0.63
1:A2:1243:G:HO2'	18:BP:53:PRO:CB	2.09	0.63
3:BA:117:GLU:N	3:BA:118:PRO:HD3	2.13	0.63
1:A2:902:G:N7	17:BO:23:PHE:C	2.52	0.63
1:A2:1137:A:H3'	26:BX:64:PRO:CD	2.28	0.63
1:A2:570:A:OP2	26:BX:90:ALA:C	2.37	0.63
1:A2:1601:G:P	22:BT:86:ARG:CZ	2.86	0.63
1:A2:338:C:O2'	11:BI:24:LYS:HD2	1.89	0.63
1:A2:1591:C:C5'	22:BT:93:HIS:HB2	2.27	0.63
1:A2:950:C:H5''	16:BN:94:LYS:CE	2.28	0.63
1:A2:676:G:H4'	12:BJ:154:LYS:HD2	1.80	0.63
16:BN:72:MET:HB3	16:BN:73:ARG:N	2.14	0.63
1:A2:434:G:O3'	26:BX:77:ILE:CD1	2.46	0.63
28:BZ:75:LEU:HA	28:BZ:78:ILE:HD12	1.80	0.63
1:A2:1466:G:O2'	1:A2:1602:C:OP2	2.15	0.63
1:A2:1040:G:C4'	24:BV:62:ARG:HE	2.12	0.63
1:A2:776:G:O4'	27:BY:62:THR:CB	2.46	0.63
1:A2:787:G:N3	27:BY:61:ARG:CG	2.62	0.63
1:A2:266:A:H5''	9:BG:136:LYS:HE2	1.78	0.63
9:BG:142:ARG:HE	9:BG:149:LYS:HA	1.63	0.63
1:A2:78:A:N6	9:BG:160:ARG:CG	2.61	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:177:U:H1'	9:BG:178:LEU:N	2.10	0.63
1:A2:448:C:H41	27:BY:105:ARG:H	1.35	0.63
1:A2:806:A:O3'	25:BW:79:PHE:C	2.36	0.63
1:A2:310:C:H5''	26:BX:32:ARG:HG2	1.79	0.63
1:A2:243:G:C5	7:BE:138:TYR:CE2	2.87	0.63
1:A2:736:C:C4	7:BE:195:ILE:CD1	2.81	0.63
1:A2:832:U:C3'	9:BG:213:ALA:HA	2.28	0.63
1:A2:1317:C:H5'	20:BR:11:ARG:CB	2.23	0.63
1:A2:1402:G:H2'	20:BR:3:ARG:C	2.18	0.63
1:A2:1238:A:N7	18:BP:62:ALA:C	2.52	0.63
1:A2:1558:U:C5	21:BS:133:VAL:HG21	2.31	0.63
1:A2:1504:G:C6	21:BS:85:PHE:CD1	2.87	0.63
1:A2:1547:A:O4'	21:BS:105:VAL:CG2	2.43	0.63
1:A2:1550:A:C8	21:BS:84:TRP:HA	2.34	0.63
1:A2:1068:C:H5'	3:BA:33:GLN:CB	2.20	0.63
1:A2:900:A:H8	17:BO:25:ASP:CB	2.12	0.63
1:A2:597:G:O3'	26:BX:136:TRP:HZ3	1.68	0.63
1:A2:572:C:OP2	26:BX:69:ARG:NE	2.32	0.63
1:A2:318:U:C5	11:BI:11:ARG:NH1	2.63	0.63
1:A2:338:C:C1'	11:BI:4:SER:HB2	2.28	0.63
1:A2:337:G:C3'	11:BI:6:ASP:CA	2.71	0.63
1:A2:1280:C:H2'	1:A2:1281:G:H8	1.63	0.63
11:BI:153:GLU:O	11:BI:155:SER:N	2.30	0.63
1:A2:1636:C:C3'	1:A2:1637:C:P	2.87	0.63
7:BE:43:PRO:HB2	7:BE:45:ILE:HG22	1.81	0.63
4:BB:181:LEU:O	4:BB:185:THR:HG23	1.99	0.63
1:A2:784:C:H1'	27:BY:7:ILE:CG1	2.28	0.63
1:A2:88:U:O5'	27:BY:119:PHE:CB	2.38	0.63
1:A2:395:U:H1'	9:BG:93:LYS:HZ1	1.62	0.63
1:A2:87:C:OP2	27:BY:122:GLY:HA2	1.98	0.63
1:A2:1295:G:O2'	1:A2:1321:A:C8	2.51	0.63
1:A2:1292:G:C2	1:A2:1324:G:N2	2.66	0.63
1:A2:832:U:H5''	9:BG:213:ALA:N	2.13	0.63
1:A2:741:C:C5	7:BE:201:HIS:HB2	2.26	0.63
1:A2:703:G:C6	7:BE:230:GLU:HA	2.33	0.63
1:A2:1584:G:O2'	1:A2:1610:G:O6	2.14	0.63
1:A2:1241:G:H4'	18:BP:107:ILE:HD11	1.81	0.63
2:AZ:6137:C:O2'	8:BF:126:ASP:N	2.29	0.63
1:A2:873:U:C5	16:BN:12:SER:HB3	2.33	0.63
1:A2:755:A:H2'	1:A2:756:A:C8	2.34	0.63
1:A2:382:C:C5'	12:BJ:2:PRO:CG	2.76	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BX:118:PRO:O	26:BX:120:VAL:N	2.32	0.63
1:A2:1601:G:O2'	1:A2:1602:C:P	2.56	0.63
1:A2:1367:G:O2'	22:BT:129:GLN:OE1	2.16	0.63
19:BQ:115:THR:OG1	19:BQ:116:LEU:N	2.24	0.63
1:A2:451:A:H5''	1:A2:452:A:OP2	1.99	0.63
9:BG:179:VAL:O	9:BG:180:THR:HG23	1.99	0.63
9:BG:81:VAL:O	9:BG:82:SER:HA	1.99	0.63
1:A2:450:U:H5''	27:BY:112:LYS:NZ	2.14	0.63
1:A2:352:A:H62	26:BX:20:ARG:HH22	1.36	0.63
1:A2:242:U:C2	7:BE:148:ARG:NH1	2.65	0.63
1:A2:1317:C:C1'	20:BR:7:LYS:HD3	2.28	0.63
18:BP:60:LEU:HD21	18:BP:89:MET:HB2	1.80	0.63
1:A2:1500:C:C6	22:BT:103:LYS:HD2	2.34	0.63
1:A2:870:C:H3'	16:BN:13:SER:HB2	1.78	0.63
1:A2:896:U:O2	17:BO:18:ARG:CB	2.44	0.63
4:BB:69:CYS:SG	4:BB:70:LEU:N	2.71	0.63
10:BH:49:ILE:O	10:BH:57:ALA:N	2.32	0.63
19:BQ:71:GLY:O	19:BQ:77:GLN:NE2	2.32	0.63
1:A2:1661:U:C4	1:A2:1662:G:N7	2.67	0.63
1:A2:636:A:O2'	25:BW:110:ILE:HG21	1.88	0.63
1:A2:1298:U:O2'	5:BC:84:LYS:HE2	1.98	0.63
1:A2:1390:U:C5	20:BR:3:ARG:CG	2.78	0.63
8:BF:97:LEU:HD21	8:BF:113:ILE:HG21	1.79	0.63
1:A2:1549:C:C5'	21:BS:86:LEU:CG	2.70	0.63
1:A2:1502:G:OP1	22:BT:32:GLY:C	2.35	0.63
1:A2:922:G:H5'	4:BB:136:ARG:CZ	2.29	0.63
1:A2:760:A:N6	12:BJ:6:ARG:HH12	1.96	0.63
1:A2:1084:A:O2'	5:BC:163:GLY:O	2.05	0.63
1:A2:878:G:H21	16:BN:114:ARG:HG3	1.63	0.63
25:BW:25:VAL:HG12	25:BW:26:LEU:N	2.14	0.63
3:BA:110:TYR:HD1	3:BA:110:TYR:O	1.82	0.63
1:A2:776:G:O2'	27:BY:29:HIS:HE1	1.62	0.62
27:BY:109:LYS:O	27:BY:111:LYS:N	2.32	0.62
1:A2:58:U:OP2	27:BY:114:ARG:HD2	1.50	0.62
1:A2:806:A:H8	25:BW:81:VAL:C	2.03	0.62
1:A2:866:G:H8	25:BW:3:ARG:C	2.02	0.62
1:A2:634:G:OP2	14:BL:98:ASN:O	2.17	0.62
1:A2:737:A:C3'	7:BE:125:LYS:HG3	2.29	0.62
9:BG:218:GLU:O	9:BG:222:GLU:CB	2.47	0.62
1:A2:1505:A:H2	21:BS:84:TRP:CB	2.10	0.62
2:AZ:6110:A:C8	8:BF:219:ARG:NE	2.66	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:649:U:H3'	7:BE:256:ARG:CD	2.29	0.62
1:A2:917:U:O3'	17:BO:84:ARG:CA	2.40	0.62
1:A2:759:U:N3	12:BJ:6:ARG:O	2.32	0.62
22:BT:12:GLN:HA	22:BT:15:ILE:HG12	1.80	0.62
8:BF:63:GLN:O	8:BF:64:VAL:N	2.32	0.62
19:BQ:40:GLU:N	19:BQ:40:GLU:CD	2.52	0.62
1:A2:580:A:O2'	1:A2:582:U:OP1	2.18	0.62
1:A2:140:A:H3'	9:BG:141:ILE:HD13	1.79	0.62
1:A2:91:G:O2'	27:BY:113:ASN:OD1	0.63	0.62
9:BG:175:ILE:C	9:BG:176:GLN:N	2.53	0.62
27:BY:125:LEU:O	27:BY:129:VAL:HG12	1.98	0.62
1:A2:1298:U:C6	5:BC:99:LYS:HD2	2.34	0.62
1:A2:704:C:O2	7:BE:231:GLN:CB	2.47	0.62
7:BE:151:ASP:N	7:BE:151:ASP:OD1	2.32	0.62
1:A2:1609:U:H3'	1:A2:1610:G:P	2.40	0.62
1:A2:1237:G:C2	18:BP:66:ALA:CB	2.81	0.62
1:A2:1182:U:H2'	18:BP:124:THR:OG1	1.99	0.62
1:A2:1213:G:HO2'	18:BP:78:THR:HA	1.62	0.62
3:BA:67:ILE:HG22	3:BA:69:ASN:H	1.64	0.62
1:A2:29:U:C3'	26:BX:128:SER:HB2	2.28	0.62
1:A2:597:G:H3'	26:BX:133:LEU:CD2	2.29	0.62
1:A2:1383:G:N2	23:BU:55:PRO:O	2.26	0.62
1:A2:209:U:O2'	1:A2:210:A:O4'	2.14	0.62
1:A2:776:G:C4'	27:BY:66:GLY:N	2.62	0.62
1:A2:451:A:C1'	27:BY:112:LYS:CB	2.77	0.62
1:A2:1294:G:OP2	1:A2:1294:G:C8	2.53	0.62
1:A2:241:U:H2'	7:BE:148:ARG:NH2	2.14	0.62
1:A2:848:C:O3'	1:A2:849:C:OP2	2.13	0.62
1:A2:214:G:P	7:BE:135:GLY:HA2	2.39	0.62
1:A2:1470:C:C6	8:BF:184:PHE:CE1	2.86	0.62
1:A2:1530:C:C4	28:BZ:96:SER:CA	2.79	0.62
1:A2:1567:U:C5'	21:BS:33:THR:O	2.47	0.62
1:A2:888:U:C2'	17:BO:126:THR:H	2.11	0.62
17:BO:81:VAL:N	17:BO:114:ARG:O	2.32	0.62
1:A2:332:U:C4	11:BI:31:ARG:NH1	2.67	0.62
1:A2:1274:C:OP2	1:A2:1428:G:OP2	2.16	0.62
1:A2:14:C:H5'	5:BC:205:ARG:HB2	1.80	0.62
20:BR:56:HIS:O	20:BR:57:LEU:HA	1.99	0.62
1:A2:1163:A:N6	1:A2:1164:G:C5	2.67	0.62
17:BO:91:THR:C	17:BO:92:LYS:HG2	2.20	0.62
1:A2:778:G:C6	27:BY:35:VAL:HG23	2.34	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1720:G:N3	9:BG:66:GLY:N	2.23	0.62
1:A2:1301:U:C4	5:BC:118:ALA:N	2.68	0.62
1:A2:1549:C:H5'	21:BS:86:LEU:CG	2.23	0.62
8:BF:124:LEU:O	8:BF:125:THR:HG23	1.99	0.62
8:BF:42:LEU:HD11	8:BF:47:SER:HA	1.82	0.62
3:BA:92:HIS:CD2	20:BR:88:VAL:HA	2.34	0.62
1:A2:590:C:C2'	1:A2:591:A:H5'	2.30	0.62
1:A2:600:U:O4'	26:BX:123:LYS:O	2.11	0.62
1:A2:755:A:H3'	12:BJ:5:PRO:HD3	1.81	0.62
1:A2:110:U:C3'	1:A2:111:U:P	2.81	0.62
5:BC:230:TRP:CD2	25:BW:68:ARG:HD3	2.34	0.62
24:BV:53:TYR:C	24:BV:54:ALA:N	2.53	0.62
8:BF:38:THR:HG1	8:BF:39:GLU:N	1.97	0.62
14:BL:125:VAL:HG12	14:BL:139:VAL:HA	1.80	0.62
1:A2:786:C:C4	27:BY:59:GLY:O	2.53	0.62
1:A2:635:A:N3	25:BW:126:LEU:CD2	2.61	0.62
1:A2:804:A:N3	25:BW:82:LYS:C	2.53	0.62
5:BC:124:ALA:N	5:BC:125:ILE:N	2.48	0.62
1:A2:736:C:H5''	7:BE:182:TYR:N	2.14	0.62
1:A2:740:A:N6	7:BE:206:ASP:OD2	2.32	0.62
1:A2:242:U:C5'	7:BE:148:ARG:C	2.64	0.62
1:A2:740:A:C6	7:BE:206:ASP:OD2	2.53	0.62
1:A2:1532:U:C3'	28:BZ:77:ARG:CB	2.78	0.62
1:A2:1500:C:C6	22:BT:103:LYS:CD	2.82	0.62
3:BA:197:ILE:O	20:BR:91:ALA:N	2.32	0.62
3:BA:59:LEU:CA	3:BA:63:ILE:HD13	2.29	0.62
3:BA:77:SER:OG	3:BA:86:VAL:HG11	1.99	0.62
3:BA:7:PHE:HB2	20:BR:110:VAL:HG12	1.81	0.62
1:A2:548:G:C2	1:A2:591:A:C2	2.86	0.62
1:A2:752:A:HO2'	7:BE:16:HIS:H	1.47	0.62
1:A2:370:A:P	12:BJ:14:THR:OG1	2.57	0.62
1:A2:302:U:O2'	11:BI:27:PHE:HE2	1.81	0.62
1:A2:1085:G:H5'	5:BC:164:SER:O	1.45	0.62
1:A2:1084:A:O5'	5:BC:162:CYS:N	2.32	0.62
5:BC:179:VAL:HG23	5:BC:197:TYR:HA	1.82	0.62
5:BC:138:PRO:C	5:BC:139:ILE:CA	2.67	0.62
1:A2:1682:U:O2	9:BG:32:ILE:CD1	2.31	0.62
1:A2:457:G:C3'	27:BY:107:GLN:HE21	2.12	0.62
1:A2:89:G:C8	27:BY:119:PHE:C	2.70	0.62
1:A2:163:G:N9	9:BG:2:LYS:CB	2.42	0.62
1:A2:1683:C:P	9:BG:52:ILE:CA	2.88	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:861:U:C6	25:BW:32:LYS:HE2	2.28	0.62
1:A2:244:A:C5'	7:BE:141:THR:OG1	2.43	0.62
1:A2:214:G:OP1	7:BE:136:VAL:N	2.32	0.62
7:BE:159:THR:C	7:BE:160:VAL:N	2.53	0.62
1:A2:1212:G:C8	18:BP:100:LYS:HG3	2.34	0.62
2:AZ:6111:G:C5'	8:BF:219:ARG:HB3	2.28	0.62
1:A2:877:G:N2	16:BN:6:SER:HB3	2.14	0.62
1:A2:1055:U:C5'	3:BA:37:VAL:N	2.62	0.62
4:BB:121:ILE:HG22	4:BB:122:GLU:N	2.15	0.62
1:A2:989:U:O4'	17:BO:125:SER:O	2.17	0.62
1:A2:548:G:C4'	26:BX:137:LYS:HG2	2.29	0.62
1:A2:753:A:O2'	7:BE:12:LEU:O	2.15	0.62
1:A2:1480:G:OP1	22:BT:12:GLN:N	2.32	0.62
1:A2:1084:A:H1'	5:BC:161:LYS:NZ	2.14	0.62
1:A2:1160:A:O3'	1:A2:1161:C:P	2.57	0.62
1:A2:1758:U:O3'	1:A2:1759:C:O5'	2.17	0.62
1:A2:127:G:N7	9:BG:186:ARG:CG	2.60	0.62
1:A2:164:A:C5'	9:BG:3:LEU:O	2.46	0.62
1:A2:1681:A:O2'	9:BG:102:VAL:O	2.17	0.62
27:BY:103:ALA:HB1	27:BY:104:SER:N	2.14	0.62
1:A2:633:U:P	14:BL:99:ARG:HB2	2.35	0.62
1:A2:735:C:OP2	7:BE:193:GLY:CA	2.48	0.62
1:A2:215:A:N6	7:BE:149:TYR:N	2.47	0.62
1:A2:740:A:N3	7:BE:198:LYS:HG3	2.02	0.62
1:A2:240:U:C4'	9:BG:209:ALA:H	2.11	0.62
1:A2:1392:U:H5'	20:BR:29:GLN:CB	2.30	0.62
1:A2:1241:G:OP2	18:BP:105:VAL:O	2.16	0.62
1:A2:1240:U:H1'	18:BP:76:VAL:CB	2.30	0.62
1:A2:952:A:C4'	16:BN:5:HIS:HB2	1.96	0.62
1:A2:1201:G:N2	1:A2:1600:A:OP2	2.32	0.62
1:A2:300:A:N6	7:BE:5:PRO:C	2.52	0.62
1:A2:554:C:O3'	1:A2:555:A:P	2.57	0.62
10:BH:16:LEU:C	10:BH:17:GLU:N	2.53	0.62
1:A2:394:C:H5''	9:BG:76:LEU:HD23	1.80	0.62
1:A2:164:A:H3'	9:BG:15:THR:HG22	1.81	0.62
1:A2:78:A:C2	9:BG:162:VAL:HB	2.31	0.62
1:A2:76:A:O2'	9:BG:163:THR:HG22	1.98	0.62
1:A2:272:U:O4	9:BG:169:TYR:CG	2.51	0.62
1:A2:57:G:C3'	27:BY:114:ARG:HH11	1.71	0.62
1:A2:735:C:H5	7:BE:195:ILE:H	0.63	0.62
1:A2:1533:C:C1'	28:BZ:77:ARG:NE	2.63	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1533:C:O2'	1:A2:1539:G:C4	2.51	0.62
1:A2:1550:A:P	21:BS:84:TRP:CD1	2.93	0.62
1:A2:993:A:H3'	1:A2:994:G:P	2.40	0.62
1:A2:1068:C:C4'	3:BA:153:SER:HB3	2.26	0.62
1:A2:1056:U:C5	3:BA:40:ALA:HB3	2.29	0.62
1:A2:1137:A:H5'	26:BX:63:GLN:N	2.15	0.62
1:A2:756:A:P	7:BE:23:LEU:HD13	2.37	0.62
1:A2:1479:A:C5'	22:BT:16:ASN:ND2	2.49	0.62
11:BI:27:PHE:C	11:BI:27:PHE:CD1	2.72	0.62
1:A2:115:G:H1'	11:BI:49:ARG:NH1	2.13	0.62
1:A2:296:U:C5'	7:BE:32:SER:HB2	2.30	0.62
12:BJ:60:LEU:C	12:BJ:61:THR:N	2.53	0.62
1:A2:508:U:O2	1:A2:508:U:H2'	1.99	0.62
1:A2:776:G:C5'	27:BY:66:GLY:N	2.63	0.62
1:A2:1681:A:C5'	9:BG:101:ILE:HD13	1.98	0.62
1:A2:179:A:H2'	9:BG:187:LYS:HD3	1.81	0.62
1:A2:163:G:H3'	9:BG:108:VAL:HA	1.82	0.62
1:A2:78:A:N1	9:BG:162:VAL:CG1	2.62	0.62
1:A2:457:G:C2	27:BY:109:LYS:N	2.65	0.62
1:A2:1331:A:C1'	6:BD:163:PRO:HD3	2.30	0.62
1:A2:736:C:C4	1:A2:737:A:N7	2.67	0.62
1:A2:1546:G:C2	21:BS:38:VAL:N	2.68	0.62
3:BA:121:VAL:O	3:BA:122:ILE:HG13	2.00	0.62
1:A2:595:G:C2'	26:BX:139:LYS:NZ	2.60	0.62
1:A2:330:G:C5	11:BI:31:ARG:HG3	2.35	0.62
1:A2:335:U:H3'	11:BI:27:PHE:O	1.99	0.62
11:BI:46:VAL:HG13	11:BI:54:LYS:HB2	1.81	0.62
1:A2:1279:C:C4	23:BU:72:ASN:OD1	2.52	0.62
22:BT:83:ALA:HB1	22:BT:92:LYS:C	2.20	0.62
7:BE:58:GLY:O	7:BE:61:VAL:HG23	2.00	0.62
1:A2:513:U:H2'	1:A2:514:G:N7	2.14	0.62
1:A2:1758:U:H3'	1:A2:1759:C:P	2.40	0.62
10:BH:17:GLU:O	10:BH:21:ALA:N	2.33	0.62
2:AZ:6136:G:O6	2:AZ:6139:G:C8	2.53	0.62
1:A2:1677:C:H1'	1:A2:1725:U:O2	2.00	0.62
1:A2:777:C:C3'	27:BY:32:ARG:HB2	2.28	0.62
1:A2:786:C:OP2	27:BY:25:VAL:N	2.32	0.62
1:A2:782:U:O5'	27:BY:39:GLU:HA	1.97	0.62
1:A2:88:U:O3'	1:A2:171:A:H4'	2.00	0.62
1:A2:59:C:OP1	27:BY:111:LYS:HD2	1.87	0.62
1:A2:807:A:O2'	14:BL:100:TYR:OH	2.11	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1037:C:C4'	25:BW:15:ASN:CB	2.77	0.62
1:A2:1296:A:OP2	5:BC:116:LYS:CD	2.47	0.62
1:A2:1291:G:N2	1:A2:1325:A:N3	2.48	0.62
1:A2:702:G:C8	7:BE:176:ASP:N	2.66	0.62
1:A2:241:U:H5'	7:BE:149:TYR:CB	2.30	0.62
1:A2:1399:C:C6	20:BR:60:ARG:CB	2.83	0.62
22:BT:61:VAL:HG23	22:BT:80:TYR:OH	1.99	0.62
2:AZ:6107:U:C2'	8:BF:219:ARG:O	2.47	0.62
17:BO:17:ALA:HB3	17:BO:81:VAL:CG2	2.26	0.62
1:A2:548:G:C5'	26:BX:136:TRP:CE2	2.81	0.62
1:A2:1200:G:H4'	1:A2:1201:G:H5''	1.81	0.62
1:A2:297:U:O2'	1:A2:298:C:O4'	2.18	0.62
11:BI:81:VAL:C	11:BI:82:VAL:N	2.53	0.62
6:BD:208:ILE:HG23	20:BR:38:ILE:HD11	1.80	0.62
1:A2:606:A:H4'	1:A2:607:G:C5'	2.28	0.62
2:AZ:6122:C:O2	2:AZ:6122:C:H2'	2.00	0.62
1:A2:776:G:H3'	27:BY:34:ASN:CA	2.30	0.61
1:A2:1681:A:N3	9:BG:101:ILE:CG1	2.48	0.61
1:A2:1689:A:H2'	1:A2:1690:G:C8	2.35	0.61
1:A2:266:A:N3	9:BG:136:LYS:N	2.46	0.61
1:A2:1290:U:C4'	6:BD:151:LYS:NZ	2.53	0.61
1:A2:241:U:C2'	7:BE:148:ARG:NH2	2.62	0.61
1:A2:242:U:C1'	7:BE:148:ARG:CZ	2.75	0.61
1:A2:1213:G:O2'	18:BP:78:THR:N	2.32	0.61
1:A2:1237:G:C6	18:BP:62:ALA:HB1	2.30	0.61
1:A2:1565:C:C5	1:A2:1566:U:O4	2.53	0.61
1:A2:1548:G:O2'	21:BS:86:LEU:CA	2.36	0.61
1:A2:895:G:N3	17:BO:18:ARG:CZ	2.63	0.61
1:A2:917:U:O4'	17:BO:20:TYR:CD2	2.53	0.61
1:A2:896:U:H5''	17:BO:37:GLU:O	2.00	0.61
20:BR:117:LEU:CB	20:BR:119:LEU:HG	2.30	0.61
1:A2:753:A:O3'	7:BE:13:ALA:C	2.38	0.61
1:A2:879:G:H2'	1:A2:880:C:C6	2.35	0.61
1:A2:643:G:H3'	1:A2:644:C:P	2.40	0.61
7:BE:223:ASN:HD22	7:BE:223:ASN:C	2.04	0.61
1:A2:1299:G:OP2	5:BC:117:THR:HA	1.99	0.61
1:A2:825:U:C4	1:A2:826:U:C4	2.88	0.61
1:A2:1586:A:H2'	1:A2:1587:A:O4'	2.00	0.61
1:A2:1213:G:H5''	18:BP:77:ARG:NH1	2.15	0.61
1:A2:1548:G:P	21:BS:87:ASN:OD1	2.58	0.61
2:AZ:6107:U:H3	8:BF:217:LEU:N	1.98	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:892:A:C6	1:A2:893:U:C4	2.88	0.61
1:A2:1479:A:H4'	22:BT:12:GLN:OE1	2.01	0.61
1:A2:1280:C:H1'	23:BU:72:ASN:N	2.14	0.61
1:A2:1417:A:O3'	19:BQ:128:LYS:NZ	2.24	0.61
1:A2:884:A:H4'	4:BB:165:ARG:CZ	2.29	0.61
24:BV:28:ASP:OD2	24:BV:57:GLY:N	2.34	0.61
10:BH:165:LYS:O	10:BH:168:SER:N	2.33	0.61
1:A2:153:G:H2'	1:A2:154:G:C8	2.35	0.61
1:A2:783:G:C8	27:BY:39:GLU:N	2.68	0.61
1:A2:780:A:N3	27:BY:32:ARG:HD2	2.13	0.61
1:A2:172:C:C4	1:A2:173:A:N7	2.68	0.61
1:A2:89:G:C5	27:BY:118:ILE:HG22	2.34	0.61
1:A2:864:U:H5	25:BW:13:ALA:CA	2.13	0.61
1:A2:1401:A:O4'	20:BR:10:LYS:HE2	1.94	0.61
1:A2:1538:U:C2'	1:A2:1538:U:O2	2.48	0.61
1:A2:1453:G:O2'	18:BP:120:SER:C	2.39	0.61
3:BA:67:ILE:O	3:BA:68:PRO:C	2.38	0.61
1:A2:494:U:C2'	1:A2:494:U:O2	2.45	0.61
2:AZ:6039:G:H1'	2:AZ:6079:A:H61	1.65	0.61
1:A2:1325:A:C2	1:A2:1326:A:N7	2.69	0.61
1:A2:703:G:N7	7:BE:230:GLU:CD	2.53	0.61
28:BZ:65:LEU:O	28:BZ:70:LYS:N	2.34	0.61
1:A2:1236:A:H5'	18:BP:61:ARG:HD3	1.82	0.61
1:A2:1547:A:O2'	21:BS:100:THR:C	2.39	0.61
1:A2:1567:U:C6	21:BS:33:THR:O	2.53	0.61
1:A2:885:G:H5''	1:A2:886:U:P	2.40	0.61
20:BR:113:LEU:O	20:BR:113:LEU:HD12	2.00	0.61
1:A2:754:A:C1'	7:BE:12:LEU:HD23	2.29	0.61
1:A2:1192:C:C4'	19:BQ:141:SER:OG	2.48	0.61
4:BB:92:GLN:O	4:BB:94:LYS:N	2.33	0.61
10:BH:113:PRO:O	10:BH:115:SER:N	2.33	0.61
7:BE:163:ASP:O	7:BE:165:ALA:N	2.32	0.61
1:A2:1742:U:O2	1:A2:1742:U:H2'	1.99	0.61
1:A2:180:A:N1	9:BG:191:ARG:CB	2.56	0.61
1:A2:395:U:OP2	9:BG:91:GLU:CG	2.38	0.61
1:A2:1722:A:O3'	9:BG:72:ARG:N	2.33	0.61
1:A2:863:A:C3'	25:BW:6:VAL:HB	2.30	0.61
1:A2:806:A:H5'	25:BW:81:VAL:HG22	1.81	0.61
1:A2:1034:C:C4'	26:BX:2:GLY:N	2.36	0.61
1:A2:1291:G:HO2'	1:A2:1292:G:C1'	2.12	0.61
1:A2:1294:G:C2	1:A2:1295:G:C4	2.89	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:242:U:O4	7:BE:136:VAL:C	2.35	0.61
1:A2:736:C:N1	7:BE:227:VAL:CG1	2.63	0.61
1:A2:1533:C:H6	28:BZ:77:ARG:HG2	1.64	0.61
4:BB:61:LEU:HD21	4:BB:64:ARG:CZ	2.31	0.61
1:A2:1479:A:OP1	22:BT:16:ASN:OD1	2.18	0.61
1:A2:1281:G:H4'	23:BU:76:SER:C	2.20	0.61
1:A2:1420:C:H5'	23:BU:82:TYR:CE1	2.32	0.61
1:A2:1018:U:O3'	16:BN:107:LYS:HD2	2.00	0.61
11:BI:93:THR:N	11:BI:94:ASN:N	2.49	0.61
13:BK:50:THR:HG1	13:BK:51:SER:N	1.99	0.61
7:BE:108:ARG:C	7:BE:109:PHE:N	2.54	0.61
1:A2:148:A:OP1	27:BY:128:LYS:NZ	2.33	0.61
1:A2:633:U:P	14:BL:98:ASN:N	2.73	0.61
1:A2:1331:A:C2'	6:BD:163:PRO:HD3	2.30	0.61
1:A2:697:C:O2	7:BE:196:VAL:HG11	2.01	0.61
1:A2:736:C:C5'	7:BE:226:PHE:CB	2.58	0.61
1:A2:915:A:C2	17:BO:27:PHE:HZ	2.13	0.61
1:A2:1054:U:H2'	3:BA:30:GLN:CG	2.17	0.61
1:A2:601:A:H5'	26:BX:43:PHE:CD2	2.35	0.61
1:A2:335:U:P	11:BI:49:ARG:HD3	2.40	0.61
1:A2:1083:G:N9	5:BC:161:LYS:C	2.52	0.61
1:A2:784:C:H3'	27:BY:40:LEU:HD11	1.82	0.61
1:A2:453:U:C2'	1:A2:453:U:O2	2.49	0.61
1:A2:1299:G:OP1	5:BC:100:ALA:N	2.34	0.61
1:A2:1299:G:O2'	5:BC:84:LYS:O	2.18	0.61
1:A2:1327:C:P	6:BD:158:ILE:H	2.23	0.61
1:A2:220:A:N3	1:A2:842:C:O2'	2.29	0.61
1:A2:705:U:P	7:BE:232:GLY:HA3	2.40	0.61
1:A2:1317:C:O4'	20:BR:7:LYS:HA	2.00	0.61
1:A2:1310:U:C2'	20:BR:4:VAL:HG11	2.31	0.61
1:A2:1453:G:C8	18:BP:81:ARG:HB2	2.36	0.61
1:A2:900:A:C8	17:BO:25:ASP:HB2	2.34	0.61
1:A2:952:A:C5'	16:BN:5:HIS:ND1	2.62	0.61
1:A2:1479:A:P	22:BT:56:LYS:HD2	2.39	0.61
1:A2:337:G:O2'	11:BI:9:HIS:NE2	2.09	0.61
13:BK:60:SER:HG	13:BK:61:TRP:N	1.99	0.61
13:BK:26:ASP:C	13:BK:27:PHE:N	2.54	0.61
6:BD:209:ILE:HG23	20:BR:20:TYR:OH	2.01	0.61
27:BY:52:LYS:O	27:BY:54:ALA:N	2.34	0.61
1:A2:396:G:C6	9:BG:88:ARG:HD3	2.35	0.61
1:A2:807:A:P	25:BW:124:LYS:HG2	2.41	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:703:G:C8	7:BE:230:GLU:CB	2.84	0.61
1:A2:214:G:OP1	7:BE:135:GLY:HA2	1.99	0.61
20:BR:27:ASP:O	20:BR:30:THR:N	2.34	0.61
1:A2:1402:G:H1'	20:BR:4:VAL:HG13	1.82	0.61
1:A2:600:U:C5'	26:BX:104:LEU:CD2	2.73	0.61
1:A2:28:A:C2	26:BX:131:SER:N	2.69	0.61
1:A2:439:U:C3'	1:A2:440:U:P	2.89	0.61
1:A2:1312:A:H2'	1:A2:1313:A:C8	2.36	0.61
3:BA:108:THR:C	3:BA:109:ASN:HB2	2.21	0.61
1:A2:785:U:H1'	27:BY:27:VAL:CG2	2.31	0.61
1:A2:777:C:O2'	27:BY:29:HIS:N	2.23	0.61
1:A2:89:G:O6	27:BY:118:ILE:CA	2.48	0.61
1:A2:265:A:H5''	9:BG:176:GLN:HG2	0.76	0.61
1:A2:804:A:N3	25:BW:83:ILE:C	2.54	0.61
5:BC:116:LYS:C	5:BC:117:THR:N	2.53	0.61
1:A2:1208:A:H4'	1:A2:1270:G:P	2.41	0.61
1:A2:989:U:OP1	17:BO:126:THR:CG2	2.48	0.61
1:A2:597:G:C2'	26:BX:137:LYS:HG3	2.29	0.61
1:A2:347:G:OP2	11:BI:13:ALA:O	2.17	0.61
1:A2:1096:C:O2'	5:BC:166:THR:O	2.19	0.61
2:AZ:6170:G:N2	2:AZ:6207:A:OP2	2.32	0.61
1:A2:1722:A:OP1	9:BG:97:VAL:N	2.33	0.61
1:A2:1034:C:C4	26:BX:3:LYS:CB	2.84	0.61
25:BW:124:LYS:O	25:BW:125:ILE:N	2.34	0.61
1:A2:633:U:C3'	25:BW:79:PHE:HE1	2.08	0.61
1:A2:1294:G:C6	1:A2:1295:G:C5	2.89	0.61
5:BC:99:LYS:C	5:BC:100:ALA:N	2.54	0.61
1:A2:1300:A:O4'	5:BC:86:VAL:HA	2.00	0.61
1:A2:741:C:N4	7:BE:206:ASP:CG	2.55	0.61
1:A2:706:A:C8	7:BE:231:GLN:CD	2.74	0.61
1:A2:1557:U:C3'	21:BS:123:ARG:O	2.48	0.61
1:A2:1502:G:N7	22:BT:33:TYR:CZ	2.67	0.61
1:A2:1058:U:OP2	3:BA:41:ARG:CA	2.49	0.61
3:BA:178:ALA:O	3:BA:181:VAL:N	2.34	0.61
1:A2:988:A:O2'	17:BO:125:SER:HB3	2.00	0.61
1:A2:301:A:C6	7:BE:4:GLY:N	2.68	0.61
1:A2:1655:A:C2	1:A2:1746:A:N3	2.69	0.61
1:A2:939:A:C2	1:A2:940:A:C4	2.89	0.61
1:A2:163:G:H1'	9:BG:1:MET:CA	2.31	0.60
1:A2:58:U:O4'	27:BY:114:ARG:CB	2.40	0.60
1:A2:1297:G:N2	1:A2:1299:G:N7	2.49	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:215:A:C5'	7:BE:130:GLN:CG	2.56	0.60
1:A2:1316:G:C1'	20:BR:6:THR:CG2	2.79	0.60
1:A2:1223:A:C2	1:A2:1261:G:C2	2.88	0.60
1:A2:1528:U:O2'	19:BQ:42:GLU:CA	2.49	0.60
1:A2:955:A:N7	16:BN:9:LYS:O	2.34	0.60
1:A2:897:C:O3'	17:BO:41:ARG:HG3	2.00	0.60
1:A2:29:U:OP2	26:BX:129:GLY:O	2.19	0.60
1:A2:336:G:C8	11:BI:27:PHE:HD1	2.19	0.60
7:BE:38:LEU:O	7:BE:41:SER:N	2.34	0.60
9:BG:50:PHE:CD2	9:BG:111:LEU:HD13	2.36	0.60
1:A2:775:G:H22	27:BY:69:SER:CA	2.15	0.60
1:A2:775:G:H22	27:BY:69:SER:HB3	1.66	0.60
1:A2:56:U:H3	27:BY:113:ASN:CG	2.05	0.60
1:A2:1682:U:O5'	9:BG:102:VAL:HG13	1.98	0.60
1:A2:1683:C:H2'	9:BG:52:ILE:O	2.01	0.60
1:A2:451:A:C2'	27:BY:112:LYS:HA	2.31	0.60
1:A2:58:U:C5'	27:BY:114:ARG:NH2	2.57	0.60
1:A2:218:A:H4'	7:BE:153:ASN:HA	1.83	0.60
1:A2:1242:A:OP1	18:BP:92:SER:O	2.16	0.60
1:A2:1566:U:OP2	21:BS:29:VAL:HG12	2.01	0.60
1:A2:952:A:C3'	16:BN:5:HIS:N	2.50	0.60
1:A2:18:C:H3'	1:A2:19:A:P	2.41	0.60
1:A2:3:U:O2'	12:BJ:18:PRO:HG2	1.96	0.60
1:A2:1523:G:OP1	22:BT:78:LYS:HB3	2.01	0.60
11:BI:96:LEU:C	11:BI:97:THR:HG22	2.21	0.60
2:AZ:6171:U:H2'	2:AZ:6173:C:H5'	1.82	0.60
1:A2:1369:U:C5'	22:BT:123:ARG:HH21	2.14	0.60
19:BQ:29:ILE:HG23	19:BQ:65:ILE:HG13	1.83	0.60
1:A2:784:C:C2	27:BY:35:VAL:CG1	2.84	0.60
1:A2:803:A:O2'	1:A2:804:A:OP2	2.14	0.60
1:A2:1300:A:C8	5:BC:86:VAL:CG2	2.84	0.60
1:A2:740:A:C6	7:BE:198:LYS:CB	2.68	0.60
1:A2:1318:G:H2'	1:A2:1319:A:H8	1.65	0.60
1:A2:1475:A:H62	28:BZ:97:LYS:CG	2.15	0.60
1:A2:1546:G:H5''	21:BS:109:LEU:HB2	1.83	0.60
1:A2:1548:G:OP2	21:BS:100:THR:HG23	1.98	0.60
8:BF:48:PHE:CD1	8:BF:130:ILE:HD12	2.36	0.60
1:A2:598:U:O4'	26:BX:132:LEU:C	2.39	0.60
1:A2:1601:G:P	22:BT:86:ARG:NH2	2.74	0.60
14:BL:110:HIS:O	14:BL:138:ASN:HA	2.02	0.60
4:BB:204:ILE:HG21	4:BB:205:PHE:HB2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BC:157:LYS:C	5:BC:158:THR:HA	2.21	0.60
1:A2:782:U:H4'	27:BY:39:GLU:C	2.21	0.60
1:A2:1722:A:C5'	9:BG:73:ILE:CG1	2.79	0.60
1:A2:58:U:H6	27:BY:114:ARG:CB	2.09	0.60
1:A2:58:U:C2'	27:BY:115:ASP:OD1	2.47	0.60
1:A2:635:A:C2	25:BW:33:VAL:CG2	2.84	0.60
1:A2:631:G:C3'	26:BX:16:ARG:NH1	2.63	0.60
1:A2:742:U:N3	7:BE:206:ASP:CA	2.65	0.60
1:A2:735:C:C4'	7:BE:193:GLY:N	2.64	0.60
1:A2:1401:A:OP2	20:BR:53:TYR:CD1	2.54	0.60
1:A2:1531:G:N7	28:BZ:95:HIS:O	2.19	0.60
28:BZ:77:ARG:N	28:BZ:78:ILE:N	2.50	0.60
3:BA:103:THR:HG22	3:BA:106:SER:HA	1.83	0.60
1:A2:958:U:HO2'	25:BW:57:ARG:NE	1.97	0.60
1:A2:794:U:O2	1:A2:794:U:C2'	2.49	0.60
1:A2:1417:A:C2'	19:BQ:126:PRO:HB2	2.32	0.60
2:AZ:6218:U:C2	6:BD:146:ARG:HD2	2.35	0.60
1:A2:946:U:C3'	4:BB:158:SER:CB	2.74	0.60
15:BM:36:LEU:HD23	15:BM:37:VAL:HG23	1.83	0.60
10:BH:16:LEU:O	10:BH:17:GLU:N	2.34	0.60
21:BS:91:ASP:O	21:BS:92:ILE:HG22	2.01	0.60
1:A2:141:U:O2	9:BG:136:LYS:HA	2.00	0.60
1:A2:1672:G:O3'	1:A2:1673:G:H5'	2.01	0.60
1:A2:179:A:O2'	9:BG:184:LEU:HB3	2.01	0.60
1:A2:1299:G:C2'	5:BC:86:VAL:CA	2.73	0.60
1:A2:1471:A:N7	8:BF:186:ASN:O	2.34	0.60
1:A2:1241:G:O3'	18:BP:107:ILE:HG13	2.01	0.60
1:A2:1243:G:C5	18:BP:61:ARG:NH1	2.52	0.60
1:A2:1242:A:H5''	18:BP:60:LEU:HD21	1.84	0.60
1:A2:1212:G:C4	18:BP:97:TYR:CD1	2.83	0.60
1:A2:1136:U:C6	26:BX:118:PRO:HA	2.36	0.60
1:A2:32:U:C4	26:BX:139:LYS:O	2.52	0.60
1:A2:1479:A:H5'	22:BT:16:ASN:OD1	2.01	0.60
2:AZ:6095:U:H2'	2:AZ:6096:U:H4'	1.84	0.60
5:BC:137:ILE:HG21	5:BC:215:PHE:CZ	2.37	0.60
1:A2:1285:U:P	1:A2:1286:U:C5	2.94	0.60
1:A2:450:U:C6	27:BY:109:LYS:N	2.60	0.60
1:A2:57:G:O6	27:BY:117:LYS:HE2	1.95	0.60
25:BW:90:THR:HB	25:BW:94:LEU:HD12	1.83	0.60
1:A2:13:C:O2'	1:A2:1298:U:O4	2.19	0.60
1:A2:239:C:C3'	9:BG:207:GLU:CA	2.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:741:C:O5'	7:BE:200:ARG:HD2	2.00	0.60
1:A2:1501:C:O5'	22:BT:33:TYR:HE1	1.85	0.60
1:A2:900:A:O2'	1:A2:901:G:H5'	2.01	0.60
3:BA:103:THR:O	3:BA:106:SER:HB2	2.02	0.60
1:A2:1055:U:P	3:BA:46:HIS:C	2.80	0.60
1:A2:885:G:OP1	4:BB:122:GLU:HB3	2.01	0.60
16:BN:118:ILE:O	16:BN:121:ARG:N	2.34	0.60
1:A2:601:A:P	26:BX:122:PHE:HD1	2.25	0.60
1:A2:337:G:H2'	11:BI:6:ASP:O	2.01	0.60
1:A2:1420:C:C5'	23:BU:82:TYR:HH	2.05	0.60
1:A2:1096:C:C3'	5:BC:166:THR:C	2.69	0.60
1:A2:1040:G:C4'	24:BV:62:ARG:NE	2.63	0.60
2:AZ:6094:U:O3'	2:AZ:6095:U:O4'	2.19	0.60
25:BW:75:ILE:O	25:BW:76:SER:N	2.33	0.60
7:BE:247:SER:O	7:BE:249:ALA:N	2.35	0.60
1:A2:1116:A:H2'	1:A2:1117:U:O4'	2.02	0.60
1:A2:152:U:O4	27:BY:135:ASP:HB3	1.97	0.60
1:A2:1672:G:H3'	1:A2:1673:G:P	2.42	0.60
1:A2:179:A:C6	9:BG:186:ARG:O	2.55	0.60
1:A2:396:G:C6	9:BG:91:GLU:HB2	2.36	0.60
1:A2:634:G:O6	26:BX:10:ASN:CG	2.40	0.60
1:A2:742:U:C2	7:BE:207:LEU:N	2.69	0.60
1:A2:1452:U:H2'	18:BP:117:GLY:C	2.20	0.60
1:A2:1213:G:O2'	18:BP:77:ARG:HB2	2.02	0.60
1:A2:756:A:O5'	12:BJ:4:ALA:CA	2.50	0.60
1:A2:753:A:H8	7:BE:16:HIS:HB2	1.67	0.60
1:A2:1344:A:C4'	23:BU:53:LYS:CG	2.79	0.60
1:A2:1384:A:C8	23:BU:57:ARG:HG2	2.37	0.60
1:A2:296:U:H5''	7:BE:32:SER:CB	2.30	0.60
1:A2:566:C:O3'	1:A2:567:A:P	2.60	0.60
1:A2:775:G:C5	27:BY:60:PHE:O	2.55	0.60
1:A2:857:U:N3	10:BH:107:ARG:O	2.35	0.60
1:A2:180:A:C6	9:BG:191:ARG:HB2	2.36	0.60
1:A2:182:A:H4'	9:BG:195:VAL:HG22	1.83	0.60
1:A2:705:U:O2'	7:BE:231:GLN:HA	2.02	0.60
1:A2:736:C:C4'	7:BE:182:TYR:H	2.14	0.60
1:A2:698:U:H6	7:BE:207:LEU:CB	2.05	0.60
1:A2:832:U:C4'	9:BG:213:ALA:HA	2.32	0.60
1:A2:1236:A:C5'	18:BP:61:ARG:HD3	2.31	0.60
1:A2:1243:G:C5'	18:BP:61:ARG:H	2.11	0.60
1:A2:370:A:O2'	12:BJ:13:SER:HB2	2.01	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:11:ARG:HB2	7:BE:28:ALA:N	2.17	0.60
16:BN:139:TRP:O	16:BN:140:LYS:O	2.19	0.60
23:BU:104:THR:HG1	23:BU:105:GLN:N	2.00	0.60
21:BS:93:THR:HG22	21:BS:115:ARG:HD3	1.84	0.60
1:A2:178:U:OP1	9:BG:179:VAL:CG1	2.49	0.60
1:A2:93:A:C8	1:A2:398:G:H2'	2.36	0.60
1:A2:139:C:O5'	9:BG:141:ILE:HB	2.01	0.60
1:A2:627:C:O2	1:A2:627:C:H2'	2.01	0.60
1:A2:631:G:HO2'	26:BX:16:ARG:CA	2.04	0.60
25:BW:124:LYS:C	25:BW:125:ILE:N	2.56	0.60
1:A2:1322:A:C2	1:A2:1323:C:C6	2.89	0.60
1:A2:1399:C:C5	20:BR:60:ARG:HB3	2.36	0.60
1:A2:1555:A:H1'	18:BP:115:TYR:CD2	2.36	0.60
1:A2:1457:C:N3	21:BS:134:ARG:N	2.50	0.60
1:A2:1499:G:C1'	22:BT:102:ARG:O	2.49	0.60
1:A2:886:U:O2	17:BO:124:ASP:OD2	2.19	0.60
4:BB:214:LYS:C	4:BB:215:VAL:HG12	2.21	0.60
1:A2:895:G:N3	17:BO:18:ARG:NH1	2.50	0.60
20:BR:99:VAL:CB	20:BR:119:LEU:O	2.50	0.60
7:BE:26:CYS:O	7:BE:26:CYS:SG	2.59	0.60
1:A2:1137:A:H8	26:BX:115:GLY:O	1.81	0.60
1:A2:336:G:N7	11:BI:27:PHE:HD1	2.00	0.60
14:BL:127:GLN:HA	14:BL:137:PHE:HA	1.83	0.60
1:A2:1344:A:C4'	23:BU:53:LYS:HG3	2.24	0.60
1:A2:1095:U:H5''	1:A2:1096:C:H5'	1.84	0.60
16:BN:139:TRP:O	16:BN:140:LYS:N	2.35	0.60
23:BU:95:ALA:HB1	23:BU:99:ILE:HG23	1.83	0.60
1:A2:98:U:H2'	1:A2:99:C:C6	2.37	0.60
1:A2:1621:U:H3'	1:A2:1622:G:P	2.41	0.60
1:A2:1723:U:C5	9:BG:73:ILE:HD11	2.30	0.60
1:A2:87:C:H3'	1:A2:88:U:OP2	2.02	0.60
1:A2:76:A:O2'	9:BG:163:THR:HG21	2.00	0.60
1:A2:164:A:H1'	9:BG:17:GLU:HG3	1.84	0.60
1:A2:1036:A:O3'	1:A2:1037:C:P	2.59	0.60
1:A2:241:U:N3	7:BE:136:VAL:HG11	2.16	0.60
1:A2:742:U:N3	7:BE:207:LEU:N	2.50	0.60
1:A2:1473:U:N1	8:BF:113:ILE:HD13	2.17	0.60
1:A2:1237:G:C2	18:BP:66:ALA:HB2	2.31	0.60
1:A2:1241:G:C5	18:BP:96:ILE:HG23	2.36	0.60
1:A2:1502:G:O2'	21:BS:84:TRP:CZ2	2.55	0.60
1:A2:901:G:O2'	17:BO:90:ARG:NH1	2.31	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:959:U:H1'	25:BW:54:ASP:OD1	2.02	0.60
1:A2:370:A:C5'	12:BJ:14:THR:CA	2.80	0.60
1:A2:116:U:O4	7:BE:4:GLY:CA	2.44	0.60
1:A2:1613:U:P	8:BF:84:LYS:HE2	2.35	0.60
1:A2:235:G:H2'	1:A2:236:A:C1'	2.31	0.60
1:A2:386:G:HO2'	1:A2:387:A:C1'	2.11	0.60
13:BK:11:ILE:HD11	13:BK:37:THR:CG2	2.31	0.60
1:A2:260:U:O3'	1:A2:261:U:OP2	2.15	0.60
14:BL:56:LYS:C	14:BL:57:LYS:N	2.55	0.60
1:A2:784:C:C2'	27:BY:7:ILE:HG12	2.29	0.59
1:A2:138:A:C2	9:BG:143:LYS:CB	2.85	0.59
1:A2:806:A:O2'	25:BW:80:ASN:OD1	2.20	0.59
1:A2:1326:A:H3'	6:BD:158:ILE:H	0.77	0.59
1:A2:1296:A:OP2	5:BC:116:LYS:CE	2.50	0.59
5:BC:119:LYS:HA	5:BC:120:GLU:N	2.16	0.59
1:A2:1302:U:C6	5:BC:97:ARG:NE	2.70	0.59
1:A2:702:G:H21	7:BE:173:ILE:HG22	0.54	0.59
1:A2:1451:C:C4	18:BP:97:TYR:HB3	2.37	0.59
1:A2:930:A:O2'	4:BB:116:LYS:CD	2.49	0.59
7:BE:11:ARG:C	7:BE:12:LEU:N	2.56	0.59
1:A2:322:G:O2'	11:BI:9:HIS:NE2	2.31	0.59
1:A2:332:U:N3	1:A2:335:U:OP2	2.35	0.59
1:A2:1281:G:C5	23:BU:74:GLU:O	2.54	0.59
1:A2:1083:G:H4'	5:BC:160:GLY:HA2	1.84	0.59
1:A2:1520:U:P	22:BT:78:LYS:HB2	2.42	0.59
15:BM:31:VAL:HG22	15:BM:31:VAL:O	2.02	0.59
15:BM:58:LEU:HD11	15:BM:126:TRP:CH2	2.37	0.59
1:A2:775:G:N2	27:BY:69:SER:HB3	2.17	0.59
1:A2:282:C:OP1	9:BG:154:ARG:CB	2.49	0.59
1:A2:804:A:C2	25:BW:82:LYS:C	2.75	0.59
1:A2:804:A:C4	25:BW:82:LYS:C	2.76	0.59
1:A2:866:G:H3'	25:BW:3:ARG:N	2.16	0.59
1:A2:733:A:C2'	7:BE:194:THR:OG1	2.49	0.59
1:A2:214:G:C5	7:BE:133:LYS:HD2	2.37	0.59
1:A2:737:A:N1	7:BE:176:ASP:N	2.50	0.59
1:A2:1452:U:O2'	18:BP:117:GLY:CA	2.37	0.59
18:BP:60:LEU:HD21	18:BP:89:MET:CB	2.32	0.59
2:AZ:6111:G:O4'	8:BF:219:ARG:CB	2.36	0.59
1:A2:891:A:C2	1:A2:922:G:C2	2.90	0.59
1:A2:896:U:OP1	17:BO:34:SER:N	2.27	0.59
1:A2:1055:U:C5'	3:BA:46:HIS:C	2.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:873:U:N3	16:BN:10:GLY:HA2	2.10	0.59
1:A2:335:U:N1	11:BI:27:PHE:O	2.27	0.59
1:A2:765:G:O6	12:BJ:132:ARG:CG	2.25	0.59
1:A2:1755:A:H1'	1:A2:1756:A:O4'	2.02	0.59
2:AZ:6171:U:OP1	2:AZ:6171:U:C6	2.55	0.59
7:BE:103:TYR:C	7:BE:104:ASP:HA	2.23	0.59
4:BB:147:ALA:HA	4:BB:148:ASN:N	2.17	0.59
1:A2:341:A:O3'	1:A2:342:C:P	2.59	0.59
1:A2:141:U:H4'	9:BG:135:PRO:CG	2.29	0.59
1:A2:89:G:HO3'	1:A2:90:C:P	2.26	0.59
1:A2:142:G:H8	9:BG:135:PRO:N	1.98	0.59
1:A2:56:U:C2	27:BY:113:ASN:HB3	2.32	0.59
1:A2:634:G:C4'	25:BW:79:PHE:H	2.15	0.59
1:A2:1034:C:C5	26:BX:3:LYS:CB	2.84	0.59
1:A2:702:G:C8	7:BE:176:ASP:CB	2.83	0.59
1:A2:703:G:O2'	7:BE:173:ILE:CG1	2.49	0.59
7:BE:206:ASP:O	7:BE:222:LEU:N	2.35	0.59
1:A2:1533:C:C1'	28:BZ:77:ARG:HE	2.14	0.59
1:A2:1498:G:H5''	22:BT:72:GLY:O	1.88	0.59
1:A2:1498:G:C1'	22:BT:73:VAL:HG23	2.28	0.59
1:A2:956:C:C2	16:BN:11:ILE:CG2	2.80	0.59
1:A2:590:C:H2'	1:A2:591:A:H5'	1.83	0.59
1:A2:338:C:H5'	11:BI:24:LYS:HA	1.84	0.59
1:A2:322:G:C2	11:BI:9:HIS:NE2	2.57	0.59
1:A2:1099:U:H5'	5:BC:199:GLN:HB3	1.79	0.59
24:BV:26:ALA:C	24:BV:27:ASP:HA	2.23	0.59
1:A2:778:G:C1'	27:BY:32:ARG:CZ	2.80	0.59
1:A2:141:U:H5''	9:BG:141:ILE:HG12	1.83	0.59
1:A2:1720:G:H2'	9:BG:67:VAL:H	1.67	0.59
1:A2:866:G:OP2	25:BW:3:ARG:CA	2.50	0.59
1:A2:864:U:H5'	25:BW:6:VAL:HG12	1.85	0.59
25:BW:89:TRP:O	25:BW:92:ASN:N	2.35	0.59
1:A2:966:A:N6	26:BX:10:ASN:H	1.95	0.59
1:A2:632:U:O4'	26:BX:12:ALA:O	2.21	0.59
1:A2:1296:A:P	5:BC:116:LYS:HD3	2.42	0.59
1:A2:219:A:OP2	9:BG:215:ARG:HD2	2.02	0.59
1:A2:1393:C:OP1	20:BR:27:ASP:N	2.35	0.59
1:A2:1399:C:OP2	20:BR:67:ARG:CB	2.51	0.59
8:BF:96:SER:HB2	8:BF:176:THR:HG21	1.83	0.59
1:A2:1502:G:O2'	21:BS:84:TRP:HZ2	1.86	0.59
1:A2:1546:G:H4'	21:BS:105:VAL:C	2.23	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1565:C:H5'	21:BS:44:ASN:N	2.03	0.59
1:A2:329:G:N1	11:BI:30:GLY:HA3	2.16	0.59
1:A2:1384:A:C8	23:BU:57:ARG:CG	2.62	0.59
1:A2:1096:C:OP2	5:BC:168:ARG:CD	2.49	0.59
24:BV:56:SER:HG	24:BV:57:GLY:N	1.99	0.59
12:BJ:25:ASP:O	12:BJ:26:ALA:HA	2.02	0.59
1:A2:162:A:O2'	9:BG:58:LYS:CE	2.37	0.59
1:A2:266:A:C2	9:BG:136:LYS:CB	2.85	0.59
1:A2:634:G:O6	26:BX:10:ASN:OD1	2.21	0.59
1:A2:1325:A:C2	1:A2:1326:A:C8	2.91	0.59
6:BD:164:VAL:HG13	6:BD:168:ILE:HD11	1.85	0.59
1:A2:243:G:H5'	7:BE:147:ILE:CG1	2.27	0.59
1:A2:1403:C:H5''	20:BR:2:GLY:HA3	0.59	0.59
1:A2:1242:A:H5''	18:BP:89:MET:CE	2.09	0.59
1:A2:1555:A:O2'	18:BP:115:TYR:CD1	2.49	0.59
1:A2:937:C:H2'	1:A2:938:G:O5'	2.02	0.59
1:A2:986:G:C2	1:A2:987:G:H1'	2.37	0.59
1:A2:995:A:H2'	1:A2:996:U:O4'	2.02	0.59
1:A2:591:A:H2'	1:A2:592:A:C8	2.38	0.59
1:A2:756:A:P	12:BJ:4:ALA:HB3	2.42	0.59
1:A2:1137:A:H5''	26:BX:64:PRO:HD3	1.81	0.59
2:AZ:6219:U:C2'	6:BD:144:ALA:HB1	2.25	0.59
1:A2:1748:G:O3'	1:A2:1749:A:P	2.60	0.59
1:A2:226:A:H2'	1:A2:227:U:H5'	1.84	0.59
1:A2:395:U:OP2	9:BG:92:ARG:N	2.35	0.59
1:A2:968:U:O3'	26:BX:4:GLY:C	2.41	0.59
1:A2:1298:U:H2'	5:BC:99:LYS:HB2	1.83	0.59
5:BC:116:LYS:O	5:BC:117:THR:N	2.36	0.59
1:A2:1300:A:N9	5:BC:86:VAL:CA	2.66	0.59
1:A2:1588:G:H5'	8:BF:101:GLY:O	2.03	0.59
1:A2:1566:U:O2'	21:BS:35:ILE:C	2.40	0.59
8:BF:148:ARG:NH2	8:BF:150:GLY:O	2.35	0.59
1:A2:650:U:H2'	12:BJ:91:LYS:HE2	1.83	0.59
1:A2:956:C:N1	16:BN:11:ILE:HG21	2.18	0.59
1:A2:1054:U:C3'	3:BA:149:LEU:HD22	2.13	0.59
4:BB:126:THR:HG22	4:BB:136:ARG:HG3	1.83	0.59
1:A2:1041:G:C5'	24:BV:62:ARG:HA	2.32	0.59
5:BC:62:PRO:C	5:BC:63:VAL:HG22	2.22	0.59
21:BS:93:THR:HG1	21:BS:94:ASP:N	2.01	0.59
23:BU:26:LEU:HD21	23:BU:114:VAL:HG22	1.83	0.59
4:BB:199:ASN:N	4:BB:200:ALA:N	2.50	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:743:U:C4	1:A2:809:A:C2	2.90	0.59
10:BH:142:TYR:O	25:BW:49:GLU:HA	2.01	0.59
1:A2:811:A:C2	10:BH:107:ARG:N	2.70	0.59
1:A2:451:A:C1'	27:BY:112:LYS:HA	2.33	0.59
1:A2:457:G:N2	27:BY:109:LYS:CB	2.64	0.59
1:A2:90:C:H42	27:BY:117:LYS:N	1.97	0.59
1:A2:93:A:C4	1:A2:399:A:C2	2.91	0.59
1:A2:140:A:P	9:BG:141:ILE:HD12	2.42	0.59
1:A2:862:A:O3'	25:BW:30:SER:O	2.20	0.59
1:A2:631:G:H4'	26:BX:16:ARG:CZ	2.33	0.59
1:A2:1301:U:H2'	1:A2:1301:U:O2	2.02	0.59
1:A2:706:A:C8	7:BE:231:GLN:NE2	2.71	0.59
1:A2:1212:G:O6	18:BP:99:GLY:O	2.21	0.59
1:A2:1184:A:N6	18:BP:125:PRO:HB3	2.16	0.59
1:A2:1503:A:O2'	22:BT:35:ASP:O	2.20	0.59
21:BS:45:LEU:HD21	21:BS:81:ILE:CG2	2.32	0.59
1:A2:1795:U:H4'	3:BA:86:VAL:CG1	44.86	0.59
3:BA:5:ALA:N	20:BR:114:GLY:O	2.36	0.59
1:A2:572:C:H5''	26:BX:116:ASP:CB	2.31	0.59
1:A2:1428:G:C2	23:BU:74:GLU:HG3	1.12	0.59
16:BN:105:ASN:C	16:BN:105:ASN:HD22	2.06	0.59
1:A2:91:G:C8	27:BY:116:LYS:HE3	2.35	0.59
1:A2:452:A:C5	27:BY:115:ASP:OD2	2.56	0.59
1:A2:92:A:C8	27:BY:116:LYS:HE3	2.36	0.59
1:A2:88:U:C2'	27:BY:119:PHE:C	2.68	0.59
1:A2:633:U:H3'	1:A2:634:G:P	2.42	0.59
1:A2:634:G:H5''	25:BW:79:PHE:CA	2.33	0.59
1:A2:1034:C:C4	26:BX:3:LYS:HB3	2.37	0.59
1:A2:1301:U:C4	5:BC:119:LYS:N	2.68	0.59
1:A2:245:U:N3	7:BE:128:LYS:CD	2.51	0.59
1:A2:241:U:H3	7:BE:136:VAL:HG13	1.57	0.59
1:A2:1213:G:O2'	18:BP:77:ARG:CB	2.50	0.59
1:A2:1453:G:H1'	18:BP:120:SER:CB	2.29	0.59
1:A2:1241:G:H5'	18:BP:105:VAL:O	2.02	0.59
20:BR:121:VAL:O	20:BR:122:ILE:N	2.36	0.59
1:A2:29:U:O2	26:BX:132:LEU:N	2.36	0.59
1:A2:30:G:OP2	26:BX:130:VAL:HG11	2.02	0.59
1:A2:757:A:OP2	12:BJ:6:ARG:CD	2.51	0.59
22:BT:5:SER:HG	22:BT:6:VAL:N	2.00	0.59
1:A2:338:C:N1	11:BI:4:SER:HB2	2.18	0.59
23:BU:61:LYS:O	23:BU:62:VAL:HG23	2.03	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BD:33:GLY:HA3	6:BD:53:THR:HG23	1.84	0.59
27:BY:99:LYS:HE3	27:BY:100:VAL:HG12	1.85	0.59
1:A2:1620:C:H2'	1:A2:1621:U:C6	2.38	0.59
25:BW:112:ASP:C	25:BW:113:HIS:N	2.55	0.59
3:BA:131:GLN:HE21	3:BA:134:LYS:HE3	1.67	0.59
3:BA:51:GLY:O	20:BR:107:SER:N	2.35	0.59
1:A2:785:U:H2'	27:BY:70:VAL:N	2.13	0.59
1:A2:89:G:O3'	1:A2:90:C:P	2.61	0.59
1:A2:398:G:C3'	9:BG:88:ARG:NH1	2.66	0.59
1:A2:1722:A:C5'	9:BG:97:VAL:O	2.50	0.59
1:A2:165:G:H21	27:BY:131:ARG:HH22	1.37	0.59
1:A2:1299:G:O3'	5:BC:85:PRO:CA	2.51	0.59
1:A2:1299:G:N2	1:A2:1300:A:N1	2.51	0.59
1:A2:703:G:H2'	7:BE:229:GLY:C	2.24	0.59
1:A2:216:U:C3'	7:BE:129:VAL:CG2	2.75	0.59
1:A2:741:C:C6	7:BE:201:HIS:C	2.69	0.59
1:A2:1555:A:C8	18:BP:40:ARG:CD	2.85	0.59
1:A2:888:U:C6	17:BO:123:SER:C	2.76	0.59
3:BA:115:PHE:CE1	3:BA:116:LYS:HA	2.37	0.59
3:BA:58:VAL:HG22	3:BA:176:LEU:O	2.03	0.59
1:A2:18:C:O3'	26:BX:114:LYS:HG2	2.02	0.59
1:A2:756:A:C8	12:BJ:3:ARG:C	2.76	0.59
1:A2:789:A:O3'	1:A2:790:U:O5'	2.12	0.59
1:A2:600:U:C5'	26:BX:122:PHE:HB3	2.31	0.59
1:A2:300:A:N6	7:BE:5:PRO:CD	2.54	0.59
1:A2:1096:C:C6	5:BC:200:SER:O	2.55	0.59
25:BW:24:GLN:C	25:BW:25:VAL:HA	2.23	0.59
12:BJ:37:LYS:HE2	12:BJ:38:ASN:HD21	1.66	0.59
1:A2:138:A:O4'	9:BG:144:PHE:CB	2.40	0.59
1:A2:129:U:C4	9:BG:177:ARG:CZ	2.84	0.59
1:A2:863:A:O3'	25:BW:34:ILE:HG13	1.96	0.59
1:A2:249:U:O3'	1:A2:250:C:O5'	2.20	0.59
1:A2:704:C:O3'	7:BE:230:GLU:CD	2.41	0.59
1:A2:740:A:C6	7:BE:198:LYS:HE3	2.37	0.59
1:A2:1240:U:H5'	18:BP:104:GLN:OE1	2.03	0.59
1:A2:1243:G:C4	18:BP:57:MET:O	2.51	0.59
1:A2:1212:G:C6	18:BP:97:TYR:CZ	2.74	0.59
4:BB:214:LYS:HB3	4:BB:215:VAL:N	2.18	0.59
1:A2:917:U:P	17:BO:84:ARG:NE	2.76	0.59
1:A2:1479:A:H4'	22:BT:16:ASN:HD21	1.67	0.59
1:A2:1191:U:O2	19:BQ:142:TYR:HB3	2.01	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1438:G:C5	1:A2:1439:C:C4	2.91	0.59
1:A2:473:A:C8	1:A2:474:A:N7	2.71	0.59
9:BG:8:PRO:O	9:BG:10:ASN:N	2.36	0.59
1:A2:939:A:O2'	1:A2:940:A:O4'	2.20	0.59
6:BD:190:ARG:NH2	6:BD:195:SER:OG	2.35	0.59
1:A2:779:U:N3	27:BY:43:LYS:NZ	2.40	0.58
1:A2:272:U:C4	9:BG:169:TYR:CD1	2.87	0.58
1:A2:394:C:P	9:BG:92:ARG:HB2	2.42	0.58
1:A2:804:A:H2	25:BW:85:ASP:OD1	1.84	0.58
1:A2:1037:C:C1'	25:BW:71:LYS:HD2	2.31	0.58
1:A2:216:U:C2	7:BE:150:PRO:HD2	2.38	0.58
1:A2:1183:A:C8	18:BP:124:THR:HA	2.38	0.58
1:A2:1212:G:C6	18:BP:97:TYR:CE1	2.83	0.58
21:BS:45:LEU:HD21	21:BS:81:ILE:HG22	1.84	0.58
1:A2:960:U:H5'	25:BW:57:ARG:CA	2.15	0.58
3:BA:122:ILE:HG22	3:BA:123:VAL:N	2.17	0.58
1:A2:958:U:C6	25:BW:28:ARG:NH1	2.62	0.58
1:A2:1:U:C5	12:BJ:43:TYR:HB2	2.37	0.58
4:BB:117:TRP:CE3	4:BB:117:TRP:HA	2.38	0.58
13:BK:67:THR:HG22	13:BK:68:LEU:HD13	1.85	0.58
1:A2:1682:U:O2'	1:A2:1683:C:O5'	2.22	0.58
14:BL:98:ASN:O	14:BL:99:ARG:N	2.36	0.58
1:A2:632:U:C5'	26:BX:12:ALA:HB1	2.25	0.58
7:BE:159:THR:OG1	7:BE:160:VAL:N	2.31	0.58
1:A2:739:G:C6	7:BE:175:PHE:CE1	2.87	0.58
1:A2:1390:U:P	20:BR:45:ARG:NH1	2.77	0.58
1:A2:896:U:N3	17:BO:29:HIS:HE1	2.01	0.58
1:A2:897:C:C4	17:BO:38:THR:CG2	2.74	0.58
1:A2:1601:G:H8	22:BT:89:ARG:HD2	1.68	0.58
1:A2:322:G:N1	1:A2:337:G:N7	2.51	0.58
1:A2:300:A:O2'	7:BE:3:ARG:NH1	2.36	0.58
1:A2:1099:U:C5'	5:BC:168:ARG:HB3	2.33	0.58
24:BV:35:ASN:C	24:BV:36:VAL:N	2.57	0.58
1:A2:1478:G:O5'	1:A2:1478:G:C8	2.56	0.58
7:BE:162:ILE:HG22	7:BE:168:LYS:O	2.03	0.58
28:BZ:53:GLU:HB3	28:BZ:57:TYR:CZ	2.38	0.58
2:AZ:6034:A:N6	2:AZ:6082:G:OP2	2.36	0.58
1:A2:178:U:C4	9:BG:177:ARG:O	2.55	0.58
9:BG:193:LEU:O	9:BG:194:LYS:N	2.36	0.58
1:A2:1037:C:OP1	25:BW:15:ASN:CA	2.51	0.58
1:A2:633:U:C5	14:BL:99:ARG:CB	2.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:436:A:H1'	26:BX:50:LYS:NZ	2.19	0.58
1:A2:1294:G:H8	1:A2:1294:G:P	2.26	0.58
1:A2:1299:G:C1'	5:BC:86:VAL:HG13	2.33	0.58
6:BD:152:PHE:C	6:BD:153:ALA:HB2	2.23	0.58
1:A2:240:U:C6	9:BG:209:ALA:HB3	2.37	0.58
1:A2:698:U:C5	7:BE:207:LEU:CB	2.30	0.58
1:A2:1586:A:OP1	19:BQ:134:ALA:N	2.24	0.58
8:BF:61:TYR:HD2	8:BF:165:LEU:HD23	1.68	0.58
1:A2:1453:G:O2'	18:BP:119:PHE:CA	2.51	0.58
1:A2:1202:A:C8	1:A2:1456:C:C4	2.91	0.58
1:A2:1559:A:OP1	21:BS:133:VAL:C	2.39	0.58
1:A2:1547:A:C1'	21:BS:100:THR:O	2.52	0.58
1:A2:952:A:C3'	16:BN:5:HIS:H	2.08	0.58
1:A2:956:C:C5	16:BN:11:ILE:HG21	2.37	0.58
1:A2:954:G:O5'	16:BN:2:GLY:N	2.37	0.58
1:A2:888:U:C5	17:BO:124:ASP:N	2.66	0.58
1:A2:30:G:OP1	26:BX:142:LYS:HG3	2.01	0.58
14:BL:109:VAL:HG22	14:BL:138:ASN:N	2.18	0.58
1:A2:1097:U:OP1	5:BC:168:ARG:O	2.21	0.58
1:A2:514:G:C8	1:A2:537:G:N2	2.71	0.58
1:A2:1734:U:H2'	1:A2:1735:U:O4'	2.03	0.58
2:AZ:6161:C:O2	2:AZ:6161:C:H2'	2.03	0.58
10:BH:12:ALA:HB3	10:BH:13:PRO:CD	2.33	0.58
1:A2:776:G:N2	27:BY:27:VAL:CG2	2.66	0.58
1:A2:784:C:C4'	27:BY:44:LEU:HD23	2.23	0.58
1:A2:784:C:C4'	27:BY:7:ILE:HG12	2.33	0.58
1:A2:147:A:C1'	27:BY:124:ARG:NH1	2.61	0.58
1:A2:314:C:C2	1:A2:355:G:C2	2.91	0.58
1:A2:1527:C:O3'	8:BF:108:LEU:HD22	2.04	0.58
1:A2:1470:C:C6	8:BF:184:PHE:CZ	2.91	0.58
3:BA:141:ILE:O	3:BA:142:PRO:O	2.21	0.58
1:A2:1055:U:C2	3:BA:30:GLN:OE1	2.52	0.58
3:BA:61:ALA:O	3:BA:62:ARG:HG3	2.03	0.58
4:BB:48:VAL:HG13	4:BB:61:LEU:HB3	1.84	0.58
1:A2:887:A:H2'	17:BO:124:ASP:HA	1.84	0.58
1:A2:896:U:C2'	17:BO:18:ARG:CB	2.80	0.58
1:A2:382:C:C4'	12:BJ:2:PRO:CD	2.81	0.58
1:A2:1600:A:H4'	22:BT:89:ARG:HB3	1.85	0.58
1:A2:322:G:C6	1:A2:337:G:N7	2.71	0.58
1:A2:347:G:N2	11:BI:17:LYS:N	2.38	0.58
11:BI:8:ARG:O	11:BI:9:HIS:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1384:A:O4'	23:BU:57:ARG:HD3	1.87	0.58
1:A2:1429:G:O6	23:BU:72:ASN:OD1	2.16	0.58
1:A2:1083:G:H22	5:BC:161:LYS:HE2	1.59	0.58
1:A2:1099:U:C6	5:BC:199:GLN:HB2	2.36	0.58
14:BL:68:GLY:O	14:BL:69:LYS:HA	2.04	0.58
1:A2:1543:A:H2'	1:A2:1544:U:O4'	2.04	0.58
21:BS:121:ALA:N	21:BS:125:ILE:HD13	2.19	0.58
1:A2:858:G:O2'	10:BH:106:SER:OG	2.21	0.58
1:A2:163:G:C8	9:BG:17:GLU:CG	2.85	0.58
1:A2:1709:C:H5'	9:BG:9:VAL:HG23	1.86	0.58
1:A2:1102:G:N3	26:BX:7:ARG:NH1	2.51	0.58
1:A2:628:G:N2	1:A2:972:G:C6	2.72	0.58
1:A2:821:U:C4	1:A2:853:G:N2	2.71	0.58
1:A2:1390:U:C5	20:BR:3:ARG:HG2	2.37	0.58
19:BQ:39:VAL:HG23	19:BQ:42:GLU:CG	2.34	0.58
1:A2:1236:A:H5''	18:BP:61:ARG:CG	2.31	0.58
21:BS:138:THR:O	21:BS:140:THR:N	2.36	0.58
1:A2:959:U:C1'	25:BW:54:ASP:OD1	2.51	0.58
1:A2:548:G:N1	1:A2:591:A:C6	2.70	0.58
1:A2:1479:A:C4'	22:BT:16:ASN:HD21	2.16	0.58
11:BI:25:ARG:HG3	11:BI:27:PHE:CZ	2.38	0.58
1:A2:1417:A:C5'	19:BQ:128:LYS:HZ1	2.16	0.58
1:A2:1007:C:P	17:BO:136:ARG:HH11	2.25	0.58
1:A2:641:G:H1	1:A2:693:U:H3	1.50	0.58
1:A2:765:G:N1	12:BJ:142:ASN:ND2	2.34	0.58
7:BE:162:ILE:CD1	7:BE:164:LEU:HD22	2.33	0.58
1:A2:778:G:C2'	27:BY:5:VAL:N	2.65	0.58
1:A2:266:A:N3	9:BG:135:PRO:C	2.57	0.58
1:A2:394:C:H5''	9:BG:76:LEU:CD2	2.34	0.58
1:A2:76:A:O4'	9:BG:166:GLU:OE1	2.21	0.58
1:A2:967:A:C2	26:BX:8:GLY:N	2.71	0.58
1:A2:216:U:C2'	7:BE:129:VAL:HG21	2.32	0.58
1:A2:1400:A:O2'	20:BR:10:LYS:HB3	2.03	0.58
1:A2:1582:U:C3'	19:BQ:135:ARG:NH1	2.66	0.58
1:A2:1553:G:C2	18:BP:40:ARG:CA	2.86	0.58
1:A2:1566:U:OP1	21:BS:29:VAL:HA	2.03	0.58
1:A2:1229:G:O2'	1:A2:1255:G:N2	2.36	0.58
4:BB:137:ILE:CD1	4:BB:172:LEU:HD22	2.34	0.58
1:A2:601:A:C8	26:BX:105:ALA:HB2	2.26	0.58
26:BX:113:ALA:C	26:BX:114:LYS:N	2.57	0.58
1:A2:1600:A:H4'	1:A2:1601:G:OP1	2.03	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:347:G:C2	11:BI:14:THR:OG1	2.56	0.58
1:A2:1096:C:H3'	5:BC:167:VAL:N	2.18	0.58
1:A2:101:U:C3'	1:A2:102:U:P	2.91	0.58
1:A2:1776:A:H2'	1:A2:1777:G:C8	2.39	0.58
23:BU:93:LEU:C	23:BU:94:GLU:N	2.56	0.58
16:BN:103:GLU:OE1	16:BN:106:ARG:NH1	2.37	0.58
12:BJ:20:GLU:O	12:BJ:22:SER:N	2.37	0.58
1:A2:181:A:H8	9:BG:191:ARG:NH1	2.00	0.58
1:A2:164:A:C1'	9:BG:17:GLU:N	2.55	0.58
1:A2:182:A:H8	9:BG:191:ARG:NH2	1.92	0.58
1:A2:395:U:C5	9:BG:91:GLU:HG3	2.39	0.58
1:A2:962:C:H3'	1:A2:963:A:H8	1.69	0.58
1:A2:1033:C:O2'	26:BX:2:GLY:O	2.22	0.58
1:A2:1294:G:O6	1:A2:1295:G:O6	2.22	0.58
1:A2:823:G:C2'	1:A2:824:G:OP1	2.52	0.58
1:A2:246:G:H5''	7:BE:127:LYS:HD3	1.84	0.58
1:A2:216:U:C5	7:BE:138:TYR:O	2.42	0.58
1:A2:735:C:C3'	7:BE:192:ILE:HA	2.27	0.58
1:A2:1390:U:P	20:BR:45:ARG:CZ	2.89	0.58
28:BZ:66:VAL:HA	28:BZ:70:LYS:N	2.19	0.58
1:A2:1475:A:N6	28:BZ:97:LYS:CD	2.61	0.58
1:A2:1210:C:O2	18:BP:123:TYR:C	2.42	0.58
1:A2:1184:A:N9	18:BP:123:TYR:HB2	2.17	0.58
1:A2:1241:G:N3	18:BP:95:GLY:C	2.54	0.58
1:A2:888:U:C2'	17:BO:126:THR:N	2.66	0.58
1:A2:925:G:H8	1:A2:925:G:O5'	1.86	0.58
3:BA:17:LEU:HD13	3:BA:22:THR:OG1	2.04	0.58
1:A2:370:A:H5'	12:BJ:14:THR:CA	2.34	0.58
1:A2:364:G:N2	1:A2:757:A:C2	2.72	0.58
7:BE:21:ASP:O	7:BE:22:LYS:CB	2.51	0.58
1:A2:318:U:C2'	11:BI:16:ALA:O	2.44	0.58
1:A2:566:C:H3'	1:A2:567:A:P	2.43	0.58
1:A2:554:C:HO3'	1:A2:555:A:P	2.26	0.58
2:AZ:6124:G:O6	2:AZ:6151:C:N3	2.36	0.58
1:A2:1372:U:C4	1:A2:1373:C:C4	2.92	0.58
1:A2:374:U:O2	1:A2:374:U:H2'	2.03	0.58
1:A2:1114:G:O2'	1:A2:1130:G:O6	2.20	0.58
1:A2:777:C:H5'	27:BY:32:ARG:HB2	1.84	0.58
1:A2:783:G:N7	27:BY:39:GLU:CA	2.67	0.58
1:A2:137:U:O2	1:A2:137:U:C2'	2.52	0.58
1:A2:427:C:O2'	1:A2:428:A:O4'	2.21	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:53:G:C6	1:A2:54:C:C4	2.92	0.58
1:A2:1674:C:C3'	9:BG:76:LEU:HG	2.30	0.58
1:A2:1401:A:OP2	20:BR:53:TYR:CG	2.57	0.58
21:BS:28:ILE:HG23	21:BS:29:VAL:H	1.67	0.58
3:BA:160:ILE:HG22	3:BA:160:ILE:O	2.04	0.58
20:BR:109:LEU:O	20:BR:113:LEU:N	2.37	0.58
1:A2:1109:G:N7	26:BX:112:LYS:HD2	2.19	0.58
1:A2:115:G:C1'	11:BI:49:ARG:HH12	2.17	0.58
1:A2:1009:U:H3'	17:BO:129:LYS:CE	2.34	0.58
2:AZ:6218:U:N3	6:BD:146:ARG:CD	2.65	0.58
5:BC:193:VAL:O	5:BC:193:VAL:HG12	2.02	0.58
16:BN:104:ARG:O	16:BN:105:ASN:N	2.36	0.58
11:BI:156:VAL:HA	11:BI:159:GLN:HE21	1.69	0.58
1:A2:56:U:H3	27:BY:113:ASN:HB2	1.67	0.58
1:A2:139:C:O5'	9:BG:137:ARG:O	2.22	0.58
1:A2:138:A:N9	9:BG:140:ASN:CA	2.67	0.58
1:A2:1034:C:N4	26:BX:3:LYS:HE3	2.17	0.58
1:A2:631:G:P	26:BX:13:ARG:CB	2.73	0.58
1:A2:1305:U:O4'	1:A2:1305:U:O2	2.22	0.58
1:A2:1294:G:N2	1:A2:1322:A:C4	2.72	0.58
1:A2:1328:G:P	6:BD:164:VAL:HG23	2.44	0.58
1:A2:706:A:H1'	7:BE:213:SER:HB3	1.85	0.58
1:A2:1547:A:O2'	21:BS:100:THR:CA	2.51	0.58
1:A2:896:U:C2	17:BO:29:HIS:CE1	2.92	0.58
1:A2:935:U:C3'	1:A2:936:G:P	2.92	0.58
1:A2:994:G:H3'	1:A2:995:A:P	2.44	0.58
3:BA:174:TRP:O	3:BA:177:LEU:N	2.36	0.58
1:A2:406:U:H3'	1:A2:407:A:O5'	2.03	0.58
12:BJ:96:VAL:O	12:BJ:97:LEU:N	2.37	0.58
2:AZ:6043:G:O2'	2:AZ:6044:U:O4'	2.22	0.58
1:A2:679:U:OP2	7:BE:259:GLN:NE2	2.37	0.58
1:A2:785:U:O3'	27:BY:26:ASP:OD1	2.22	0.58
27:BY:32:ARG:O	27:BY:33:ALA:HB3	2.04	0.58
1:A2:1529:C:P	8:BF:112:ARG:NH2	2.76	0.58
1:A2:1534:G:C1'	28:BZ:63:SER:CA	2.66	0.58
1:A2:1533:C:C4'	28:BZ:77:ARG:CZ	2.82	0.58
1:A2:1454:G:C2'	18:BP:123:TYR:CZ	2.86	0.58
1:A2:1504:G:O2'	1:A2:1563:C:O3'	2.22	0.58
1:A2:1565:C:C4'	21:BS:41:ARG:N	2.52	0.58
1:A2:985:G:C4	1:A2:986:G:C8	2.91	0.58
3:BA:174:TRP:O	3:BA:176:LEU:N	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BB:126:THR:C	4:BB:127:VAL:N	2.58	0.58
1:A2:547:U:C5'	26:BX:138:GLU:O	2.50	0.58
1:A2:302:U:H5''	11:BI:25:ARG:NH1	2.19	0.58
1:A2:329:G:O3'	11:BI:56:ARG:HD3	2.04	0.58
1:A2:14:C:O4'	5:BC:203:LYS:NZ	2.37	0.58
1:A2:1353:U:H2'	1:A2:1354:G:C8	2.39	0.58
15:BM:44:GLY:C	15:BM:45:LEU:N	2.57	0.58
1:A2:962:C:C5	1:A2:963:A:N7	2.72	0.57
1:A2:969:C:N1	26:BX:14:LYS:HG2	2.04	0.57
1:A2:436:A:C4	26:BX:50:LYS:HD3	2.31	0.57
1:A2:1144:U:H4'	5:BC:87:GLN:C	2.23	0.57
1:A2:1293:U:H2'	1:A2:1294:G:O4'	2.04	0.57
1:A2:1301:U:H5'	5:BC:95:ARG:CG	2.34	0.57
1:A2:1237:G:OP2	18:BP:61:ARG:HG2	2.01	0.57
1:A2:1449:U:O4	18:BP:97:TYR:HE2	1.87	0.57
1:A2:1548:G:C5'	21:BS:98:TYR:O	2.51	0.57
3:BA:118:PRO:HD2	3:BA:141:ILE:HD13	1.86	0.57
3:BA:74:VAL:HG23	3:BA:75:ALA:N	2.18	0.57
16:BN:115:LEU:O	16:BN:119:GLU:N	2.37	0.57
20:BR:104:ASN:HA	20:BR:121:VAL:CB	2.34	0.57
1:A2:572:C:H5'	26:BX:115:GLY:HA3	1.85	0.57
1:A2:419:G:HO3'	1:A2:420:A:P	2.26	0.57
1:A2:1750:A:C5	1:A2:1751:C:C5	2.91	0.57
1:A2:1560:U:O4'	1:A2:1560:U:O2	2.22	0.57
1:A2:779:U:O4	27:BY:43:LYS:CE	2.51	0.57
1:A2:178:U:O5'	9:BG:179:VAL:CB	2.53	0.57
1:A2:450:U:H2'	1:A2:451:A:O4'	2.03	0.57
1:A2:458:G:N3	27:BY:106:GLN:NE2	2.52	0.57
1:A2:63:G:O6	1:A2:87:C:N3	2.33	0.57
1:A2:78:A:C2	9:BG:160:ARG:CG	2.85	0.57
1:A2:266:A:H4'	9:BG:136:LYS:HD2	1.52	0.57
1:A2:1683:C:H3'	9:BG:52:ILE:O	1.99	0.57
1:A2:1722:A:OP2	9:BG:73:ILE:HD11	2.04	0.57
1:A2:635:A:N6	1:A2:964:U:C5	2.73	0.57
1:A2:803:A:C3'	25:BW:120:HIS:HD1	2.17	0.57
1:A2:435:C:P	26:BX:77:ILE:CD1	2.92	0.57
18:BP:85:ILE:O	18:BP:86:VAL:N	2.37	0.57
1:A2:960:U:C4'	25:BW:57:ARG:HD3	2.35	0.57
1:A2:760:A:H61	12:BJ:6:ARG:HH12	1.52	0.57
1:A2:328:A:C2	1:A2:329:G:C4	2.92	0.57
14:BL:132:SER:OG	14:BL:135:VAL:HG23	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1280:C:N4	23:BU:72:ASN:OD1	2.36	0.57
1:A2:1334:U:C4'	23:BU:83:GLU:CD	2.61	0.57
1:A2:641:G:P	25:BW:118:ARG:HH11	2.26	0.57
13:BK:39:ASN:O	13:BK:41:TYR:N	2.36	0.57
16:BN:142:GLU:O	16:BN:144:ALA:N	2.37	0.57
1:A2:783:G:P	27:BY:38:ASP:O	2.60	0.57
1:A2:149:C:OP2	27:BY:132:ARG:HG3	2.05	0.57
1:A2:182:A:C8	9:BG:191:ARG:CZ	2.86	0.57
1:A2:1107:G:C6	1:A2:1108:G:O6	2.57	0.57
1:A2:803:A:O3'	25:BW:120:HIS:CE1	2.55	0.57
1:A2:823:G:H5''	1:A2:823:G:N3	2.19	0.57
1:A2:1504:G:C6	21:BS:85:PHE:HD1	2.20	0.57
1:A2:898:A:C2	1:A2:915:A:C6	2.93	0.57
1:A2:302:U:H5	7:BE:2:ALA:CB	1.50	0.57
1:A2:1279:C:N3	23:BU:72:ASN:CB	2.68	0.57
1:A2:1281:G:O4'	23:BU:68:ARG:NH2	2.21	0.57
1:A2:1009:U:C5'	17:BO:129:LYS:CD	2.82	0.57
1:A2:100:A:H2'	1:A2:101:U:O4'	2.04	0.57
10:BH:140:VAL:HG23	10:BH:141:ARG:N	2.18	0.57
16:BN:76:LYS:HB3	16:BN:81:ALA:HB2	1.86	0.57
1:A2:275:C:H2'	1:A2:276:C:O4'	2.03	0.57
1:A2:783:G:C5	27:BY:40:LEU:HB2	2.38	0.57
1:A2:1722:A:N3	9:BG:70:PRO:N	2.51	0.57
1:A2:631:G:H3'	26:BX:13:ARG:N	2.19	0.57
1:A2:242:U:O4	7:BE:137:PRO:N	2.38	0.57
1:A2:833:U:OP2	9:BG:213:ALA:HB1	2.03	0.57
1:A2:1581:C:H5'	19:BQ:136:SER:HA	1.85	0.57
1:A2:1454:G:H22	18:BP:123:TYR:CA	1.77	0.57
1:A2:1557:U:O2'	21:BS:133:VAL:CG2	2.50	0.57
1:A2:1499:G:OP2	22:BT:102:ARG:N	2.36	0.57
1:A2:1506:G:H4'	1:A2:1551:U:H5''	1.85	0.57
1:A2:1565:C:C4	21:BS:39:GLY:HA3	2.39	0.57
1:A2:918:U:H5''	17:BO:118:VAL:N	1.75	0.57
1:A2:958:U:O5'	25:BW:60:LYS:HE3	2.03	0.57
3:BA:92:HIS:ND1	3:BA:202:TYR:OH	2.29	0.57
1:A2:757:A:OP2	12:BJ:6:ARG:HD2	2.03	0.57
1:A2:334:G:H5'	11:BI:49:ARG:N	2.19	0.57
1:A2:1095:U:O3'	5:BC:159:THR:CB	2.50	0.57
1:A2:1591:C:O5'	22:BT:92:LYS:C	2.42	0.57
1:A2:1007:C:O5'	17:BO:136:ARG:N	2.22	0.57
1:A2:1520:U:OP2	22:BT:78:LYS:HB2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BQ:88:GLY:HA2	19:BQ:89:LEU:N	2.19	0.57
2:AZ:6036:C:O2'	2:AZ:6037:U:C5'	2.53	0.57
1:A2:457:G:H1'	27:BY:110:GLN:HB2	1.86	0.57
1:A2:138:A:C2	9:BG:140:ASN:OD1	2.57	0.57
1:A2:127:G:C2'	9:BG:183:ARG:HH21	2.17	0.57
1:A2:88:U:H2'	27:BY:119:PHE:C	2.25	0.57
1:A2:146:U:O2	27:BY:124:ARG:CZ	2.51	0.57
1:A2:1145:U:P	5:BC:89:GLN:H	2.28	0.57
1:A2:1240:U:H5'	18:BP:104:GLN:CD	2.23	0.57
1:A2:1454:G:H1'	18:BP:121:ILE:CA	2.23	0.57
22:BT:108:LEU:O	22:BT:109:GLU:N	2.37	0.57
2:AZ:6111:G:H1'	8:BF:219:ARG:O	2.04	0.57
1:A2:871:G:H22	16:BN:11:ILE:CG1	2.17	0.57
1:A2:917:U:C5	17:BO:84:ARG:NH1	2.71	0.57
1:A2:917:U:OP1	17:BO:87:GLY:HA3	2.04	0.57
25:BW:58:SER:C	25:BW:59:GLY:N	2.58	0.57
1:A2:1357:A:O5'	22:BT:126:GLU:HG3	2.05	0.57
1:A2:337:G:C3'	11:BI:6:ASP:C	2.53	0.57
12:BJ:93:LEU:HB3	12:BJ:94:ASP:N	2.20	0.57
2:AZ:6116:A:N6	2:AZ:6154:G:N7	2.45	0.57
1:A2:156:A:O3'	1:A2:157:A:P	2.63	0.57
1:A2:1774:G:H2'	1:A2:1775:U:O4'	2.05	0.57
1:A2:783:G:C4	27:BY:39:GLU:CG	2.87	0.57
1:A2:450:U:C6	27:BY:109:LYS:CE	2.72	0.57
9:BG:137:ARG:O	9:BG:140:ASN:N	2.38	0.57
1:A2:129:U:C2	9:BG:177:ARG:NH1	2.50	0.57
1:A2:806:A:H5'	25:BW:81:VAL:CG2	2.25	0.57
1:A2:435:C:H1'	26:BX:101:GLU:C	2.24	0.57
1:A2:1536:G:P	1:A2:1537:C:OP2	2.63	0.57
1:A2:1538:U:O2'	1:A2:1539:G:H2'	2.04	0.57
1:A2:919:A:N3	4:BB:85:LYS:NZ	2.46	0.57
1:A2:958:U:O2'	25:BW:57:ARG:CD	2.53	0.57
1:A2:753:A:OP2	7:BE:16:HIS:CG	2.52	0.57
1:A2:338:C:C4	11:BI:29:LEU:C	2.65	0.57
1:A2:1420:C:C5'	23:BU:82:TYR:CZ	2.66	0.57
20:BR:19:ARG:HB2	20:BR:20:TYR:CD1	2.40	0.57
5:BC:42:GLY:O	5:BC:45:VAL:N	2.37	0.57
20:BR:83:GLN:CA	20:BR:84:TYR:HB2	2.35	0.57
10:BH:97:ARG:O	10:BH:98:ILE:N	2.37	0.57
1:A2:784:C:C1'	27:BY:40:LEU:HD11	1.98	0.57
1:A2:784:C:C5'	27:BY:43:LYS:HB2	2.29	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:775:G:C5	27:BY:61:ARG:HA	2.34	0.57
1:A2:812:A:H5'	10:BH:108:GLN:CD	1.93	0.57
1:A2:164:A:H3'	9:BG:15:THR:CG2	2.35	0.57
1:A2:89:G:C2	27:BY:115:ASP:O	2.52	0.57
1:A2:1322:A:C2	1:A2:1323:C:C5	2.93	0.57
1:A2:1329:A:H2'	1:A2:1330:G:O4'	2.04	0.57
1:A2:245:U:C5	7:BE:128:LYS:NZ	2.60	0.57
8:BF:48:PHE:HD1	8:BF:130:ILE:HD12	1.70	0.57
12:BJ:42:ILE:C	12:BJ:43:TYR:CA	2.63	0.57
1:A2:572:C:C5'	26:BX:116:ASP:N	2.62	0.57
1:A2:946:U:H4'	4:BB:158:SER:OG	2.05	0.57
1:A2:774:A:H3'	1:A2:774:A:N3	2.19	0.57
11:BI:36:THR:HG21	11:BI:60:ILE:HD11	1.85	0.57
1:A2:400:A:H4'	1:A2:401:A:C5'	2.34	0.57
1:A2:451:A:H1'	27:BY:112:LYS:HA	1.84	0.57
9:BG:162:VAL:N	9:BG:169:TYR:O	2.37	0.57
1:A2:128:U:H5	9:BG:187:LYS:HA	1.69	0.57
1:A2:1037:C:OP1	25:BW:12:ASN:O	2.23	0.57
26:BX:49:ALA:HB1	26:BX:50:LYS:N	2.19	0.57
1:A2:1291:G:C2	1:A2:1325:A:C2	2.92	0.57
1:A2:1299:G:P	5:BC:117:THR:N	2.78	0.57
1:A2:242:U:O2	7:BE:148:ARG:HD2	2.05	0.57
7:BE:126:VAL:HA	7:BE:127:LYS:N	2.19	0.57
1:A2:1208:A:N1	1:A2:1455:G:N2	2.52	0.57
1:A2:1566:U:C3'	21:BS:30:TYR:O	2.53	0.57
1:A2:955:A:C5	16:BN:9:LYS:O	2.57	0.57
1:A2:2:A:H3'	12:BJ:15:PRO:HB2	1.86	0.57
1:A2:336:G:C5	11:BI:27:PHE:CD1	2.92	0.57
1:A2:347:G:N2	11:BI:17:LYS:H	2.00	0.57
1:A2:297:U:P	7:BE:32:SER:HB3	2.45	0.57
6:BD:177:MET:SD	6:BD:178:ARG:NH2	2.77	0.57
1:A2:153:G:H2'	1:A2:154:G:H8	1.70	0.57
8:BF:33:VAL:HG13	8:BF:33:VAL:O	2.05	0.57
1:A2:266:A:C2	9:BG:135:PRO:CA	2.88	0.57
1:A2:139:C:O3'	9:BG:175:ILE:CD1	2.53	0.57
1:A2:165:G:N2	27:BY:131:ARG:CZ	2.31	0.57
1:A2:970:A:O4'	26:BX:17:VAL:CG1	2.53	0.57
1:A2:634:G:H3'	25:BW:79:PHE:H	1.65	0.57
1:A2:1292:G:N1	1:A2:1324:G:C2	2.73	0.57
1:A2:1399:C:P	20:BR:67:ARG:N	2.77	0.57
1:A2:1471:A:O3'	8:BF:183:ALA:O	1.96	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1535:U:C5'	28:BZ:67:ASP:CB	2.80	0.57
1:A2:1451:C:N3	18:BP:97:TYR:HB3	2.20	0.57
1:A2:872:G:C3'	1:A2:873:U:P	2.92	0.57
1:A2:898:A:H1'	17:BO:27:PHE:CD1	2.39	0.57
1:A2:955:A:C2	1:A2:956:C:C2	2.93	0.57
3:BA:59:LEU:O	3:BA:63:ILE:HG12	2.04	0.57
1:A2:20:G:P	26:BX:114:LYS:HZ3	2.22	0.57
1:A2:301:A:C8	7:BE:2:ALA:C	2.76	0.57
1:A2:334:G:C5'	11:BI:49:ARG:CA	2.81	0.57
1:A2:1428:G:N2	23:BU:74:GLU:HG3	1.27	0.57
1:A2:1684:U:OP2	9:BG:112:VAL:C	2.43	0.57
1:A2:299:A:C8	7:BE:7:LYS:CB	2.88	0.57
7:BE:41:SER:OG	7:BE:42:LEU:N	2.37	0.57
1:A2:913:G:H3'	1:A2:913:G:P	2.45	0.57
1:A2:1298:U:O2	5:BC:208:GLU:CB	2.53	0.57
1:A2:736:C:N1	7:BE:181:VAL:HA	2.20	0.57
7:BE:241:GLY:O	7:BE:243:GLY:N	2.38	0.57
1:A2:1391:A:H5''	20:BR:48:ASN:CG	2.26	0.57
1:A2:1534:G:C2'	8:BF:187:ILE:HG21	2.35	0.57
18:BP:38:PRO:O	18:BP:40:ARG:N	2.38	0.57
1:A2:1549:C:C6	21:BS:86:LEU:CB	2.87	0.57
3:BA:87:LEU:N	3:BA:97:PRO:HB3	2.20	0.57
1:A2:1083:G:N2	5:BC:161:LYS:HE3	2.13	0.57
16:BN:88:LEU:O	16:BN:92:ILE:N	2.38	0.57
4:BB:128:LYS:NZ	4:BB:132:ASP:O	2.37	0.57
1:A2:1636:C:O2	1:A2:1638:G:C5	2.57	0.57
1:A2:777:C:O2'	27:BY:28:LEU:C	2.44	0.56
1:A2:179:A:H61	9:BG:190:GLN:CB	2.17	0.56
1:A2:866:G:OP2	25:BW:3:ARG:CG	2.51	0.56
1:A2:1292:G:C5	1:A2:1293:U:C4	2.93	0.56
1:A2:1537:C:C2'	1:A2:1538:U:OP2	2.52	0.56
1:A2:1581:C:OP1	19:BQ:137:ARG:CB	2.52	0.56
1:A2:1457:C:C6	21:BS:136:GLN:O	2.58	0.56
1:A2:872:G:N2	16:BN:11:ILE:HD11	2.20	0.56
1:A2:930:A:H1'	4:BB:116:LYS:HG2	1.86	0.56
1:A2:548:G:O4'	26:BX:137:LYS:HG2	2.05	0.56
1:A2:30:G:H5''	26:BX:142:LYS:HB2	0.64	0.56
1:A2:1601:G:N9	22:BT:89:ARG:N	2.17	0.56
1:A2:329:G:N3	11:BI:32:GLN:N	2.53	0.56
13:BK:46:LEU:O	13:BK:50:THR:HG23	2.04	0.56
1:A2:1621:U:O3'	1:A2:1622:G:P	2.63	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BD:101:GLN:C	6:BD:102:ALA:N	2.58	0.56
1:A2:9:U:O2	1:A2:9:U:C2'	2.53	0.56
1:A2:778:G:N1	27:BY:35:VAL:HG23	2.20	0.56
1:A2:775:G:N2	27:BY:69:SER:HA	2.20	0.56
1:A2:814:A:N7	10:BH:107:ARG:HB3	2.12	0.56
1:A2:1037:C:C1'	25:BW:71:LYS:CD	2.82	0.56
1:A2:628:G:H3'	1:A2:969:C:H41	1.69	0.56
1:A2:630:A:C5	26:BX:14:LYS:HA	2.40	0.56
26:BX:7:ARG:C	26:BX:8:GLY:N	2.58	0.56
1:A2:215:A:O3'	7:BE:131:LEU:CA	2.02	0.56
1:A2:242:U:C4	7:BE:136:VAL:C	2.54	0.56
1:A2:1582:U:C3'	19:BQ:135:ARG:HH12	2.18	0.56
1:A2:893:U:C4	1:A2:919:A:N6	2.73	0.56
1:A2:897:C:OP1	17:BO:30:VAL:HG13	2.03	0.56
1:A2:1055:U:C5	3:BA:37:VAL:HG22	2.39	0.56
1:A2:922:G:OP1	4:BB:136:ARG:NE	2.28	0.56
1:A2:870:C:H2'	16:BN:13:SER:CB	2.33	0.56
17:BO:81:VAL:HG13	17:BO:115:ILE:HG23	1.87	0.56
1:A2:888:U:H6	17:BO:124:ASP:H	1.52	0.56
1:A2:1134:C:OP2	26:BX:121:ARG:NH2	2.38	0.56
1:A2:757:A:N7	12:BJ:3:ARG:NH1	2.53	0.56
1:A2:328:A:H2'	1:A2:329:G:C8	2.39	0.56
1:A2:1277:G:H2'	1:A2:1278:G:O4'	2.05	0.56
1:A2:1084:A:C6	5:BC:162:CYS:SG	2.98	0.56
1:A2:1086:A:C2	1:A2:1087:A:C4	2.93	0.56
1:A2:14:C:H5'	5:BC:205:ARG:CB	2.35	0.56
2:AZ:6219:U:O4'	6:BD:145:ALA:HB3	2.05	0.56
28:BZ:100:ILE:O	28:BZ:100:ILE:HD13	2.05	0.56
20:BR:74:GLN:O	20:BR:77:GLU:N	2.38	0.56
1:A2:783:G:O4'	27:BY:39:GLU:O	2.23	0.56
1:A2:778:G:C4	27:BY:35:VAL:CG2	2.88	0.56
27:BY:7:ILE:HA	27:BY:8:ARG:N	2.20	0.56
1:A2:451:A:C1'	27:BY:112:LYS:CA	2.83	0.56
1:A2:78:A:C5	9:BG:162:VAL:CB	2.76	0.56
1:A2:811:A:C6	1:A2:858:G:O2'	2.53	0.56
1:A2:80:A:N7	9:BG:163:THR:HB	2.19	0.56
1:A2:804:A:N3	25:BW:82:LYS:O	2.38	0.56
1:A2:865:A:O4'	25:BW:6:VAL:N	2.37	0.56
1:A2:1034:C:C5	26:BX:3:LYS:HB3	2.40	0.56
1:A2:632:U:OP1	26:BX:12:ALA:CB	2.53	0.56
1:A2:10:G:C2	1:A2:11:A:C4	2.92	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1328:G:C1'	6:BD:159:HIS:O	2.54	0.56
1:A2:1328:G:OP2	6:BD:164:VAL:HG23	2.05	0.56
6:BD:152:PHE:C	6:BD:153:ALA:N	2.59	0.56
1:A2:241:U:C5'	7:BE:149:TYR:CB	2.83	0.56
1:A2:736:C:H1'	7:BE:180:LEU:O	2.06	0.56
1:A2:1389:C:H5'	20:BR:45:ARG:HB2	0.58	0.56
1:A2:1401:A:P	20:BR:10:LYS:NZ	2.78	0.56
1:A2:1587:A:O2'	8:BF:104:ASN:CB	2.52	0.56
1:A2:1241:G:C6	18:BP:96:ILE:CA	2.58	0.56
1:A2:1457:C:H4'	21:BS:138:THR:H	1.69	0.56
1:A2:1453:G:H8	18:BP:81:ARG:HB2	1.70	0.56
1:A2:1499:G:O4'	22:BT:102:ARG:O	2.23	0.56
21:BS:28:ILE:HG23	21:BS:29:VAL:N	2.20	0.56
1:A2:897:C:H3'	1:A2:898:A:P	2.45	0.56
3:BA:76:ILE:HB	3:BA:123:VAL:HA	1.87	0.56
1:A2:1068:C:H5'	3:BA:153:SER:H	1.70	0.56
1:A2:917:U:H5'	17:BO:120:PRO:HD2	1.83	0.56
1:A2:755:A:O3'	1:A2:756:A:P	2.63	0.56
1:A2:2:A:H3'	12:BJ:15:PRO:CB	2.30	0.56
1:A2:32:U:C5	26:BX:140:LYS:CA	2.81	0.56
1:A2:1357:A:O2'	22:BT:126:GLU:C	2.40	0.56
1:A2:1366:U:C4'	22:BT:5:SER:HB2	2.30	0.56
1:A2:330:G:C4	1:A2:331:A:C8	2.94	0.56
1:A2:335:U:C5'	11:BI:49:ARG:HD3	2.34	0.56
1:A2:1099:U:C5'	5:BC:199:GLN:HB3	1.85	0.56
1:A2:1084:A:N6	5:BC:162:CYS:SG	2.78	0.56
1:A2:1008:G:P	17:BO:135:ARG:C	2.67	0.56
16:BN:94:LYS:O	16:BN:97:SER:N	2.38	0.56
1:A2:1370:U:C4'	22:BT:119:LYS:NZ	2.67	0.56
1:A2:1396:U:H2'	1:A2:1397:U:H6	1.70	0.56
1:A2:1519:U:O5'	22:BT:75:LYS:HD3	2.05	0.56
12:BJ:141:VAL:HG12	12:BJ:141:VAL:O	2.05	0.56
1:A2:496:G:H2'	1:A2:497:G:O4'	2.05	0.56
15:BM:66:VAL:HG11	15:BM:71:ILE:HG23	1.86	0.56
1:A2:1090:C:O4'	1:A2:1093:A:C2	2.59	0.56
14:BL:131:ILE:HG22	14:BL:131:ILE:O	2.04	0.56
11:BI:165:LEU:HD22	11:BI:166:TYR:H	1.71	0.56
1:A2:230:C:H2'	1:A2:231:U:H4'	1.86	0.56
4:BB:153:HIS:CG	4:BB:154:SER:N	2.73	0.56
22:BT:47:PRO:HB2	22:BT:53:TRP:CD1	2.40	0.56
1:A2:93:A:N3	1:A2:399:A:C2	2.74	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:400:A:C4'	1:A2:401:A:H5''	2.35	0.56
1:A2:395:U:O4'	9:BG:93:LYS:HD2	2.06	0.56
14:BL:97:TYR:C	14:BL:98:ASN:N	2.59	0.56
1:A2:434:G:O3'	26:BX:77:ILE:HD13	2.05	0.56
1:A2:702:G:H22	7:BE:227:VAL:HB	1.70	0.56
2:AZ:6108:U:OP2	8:BF:223:SER:C	2.43	0.56
1:A2:877:G:N3	16:BN:6:SER:CB	2.68	0.56
1:A2:6:G:H2'	1:A2:7:G:H5''	1.86	0.56
1:A2:1417:A:C4'	19:BQ:128:LYS:HZ2	2.08	0.56
1:A2:1370:U:C3'	22:BT:119:LYS:HZ2	2.18	0.56
6:BD:68:GLU:C	6:BD:69:LEU:N	2.59	0.56
26:BX:83:VAL:C	26:BX:84:THR:N	2.59	0.56
1:A2:128:U:C2'	1:A2:128:U:O2	2.53	0.56
1:A2:164:A:O4'	9:BG:17:GLU:HA	2.05	0.56
1:A2:180:A:O5'	9:BG:187:LYS:CE	2.43	0.56
1:A2:88:U:H5''	27:BY:119:PHE:CE2	2.37	0.56
1:A2:631:G:N1	26:BX:11:SER:O	2.39	0.56
1:A2:1328:G:N7	6:BD:159:HIS:N	2.54	0.56
7:BE:155:LYS:HA	7:BE:155:LYS:HE3	1.87	0.56
1:A2:937:C:C2'	1:A2:938:G:O5'	2.53	0.56
3:BA:62:ARG:HD3	20:BR:113:LEU:HD13	1.88	0.56
1:A2:1:U:H6	12:BJ:43:TYR:HD2	1.53	0.56
1:A2:597:G:C3'	26:BX:137:LYS:HG3	2.36	0.56
1:A2:1084:A:C5'	5:BC:166:THR:CA	2.63	0.56
1:A2:799:A:O2'	7:BE:186:GLY:N	2.22	0.56
1:A2:1611:A:C8	1:A2:1612:U:C6	2.93	0.56
13:BK:84:GLU:O	13:BK:85:HIS:N	2.38	0.56
6:BD:69:LEU:HA	6:BD:72:LEU:HD23	1.87	0.56
10:BH:119:THR:O	10:BH:122:HIS:N	2.38	0.56
1:A2:1644:C:H3'	1:A2:1645:G:P	2.45	0.56
1:A2:778:G:OP2	27:BY:32:ARG:CD	2.53	0.56
1:A2:145:A:P	9:BG:6:SER:HB2	2.45	0.56
1:A2:175:G:H2'	9:BG:137:ARG:NH2	2.19	0.56
1:A2:181:A:H3'	9:BG:191:ARG:NH2	2.12	0.56
1:A2:395:U:H1'	9:BG:93:LYS:HZ2	1.69	0.56
1:A2:57:G:N3	27:BY:112:LYS:C	2.59	0.56
1:A2:58:U:H1'	27:BY:115:ASP:N	2.20	0.56
1:A2:78:A:OP1	9:BG:163:THR:CG2	2.53	0.56
1:A2:89:G:C8	27:BY:119:PHE:HA	2.40	0.56
1:A2:631:G:OP2	26:BX:13:ARG:HB2	2.05	0.56
1:A2:1298:U:C2'	5:BC:84:LYS:HE2	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1310:U:O2'	20:BR:4:VAL:HG11	1.99	0.56
1:A2:1535:U:C5'	28:BZ:67:ASP:CA	2.83	0.56
1:A2:1238:A:O5'	18:BP:66:ALA:N	2.38	0.56
21:BS:87:ASN:ND2	21:BS:99:HIS:CE1	2.74	0.56
2:AZ:6137:C:C2'	8:BF:126:ASP:CA	2.77	0.56
8:BF:42:LEU:HD13	8:BF:48:PHE:N	2.19	0.56
1:A2:917:U:O2'	17:BO:118:VAL:CG2	2.53	0.56
1:A2:919:A:H2'	1:A2:920:U:H6	1.70	0.56
17:BO:19:ILE:N	17:BO:82:LYS:O	2.38	0.56
1:A2:754:A:C4	7:BE:12:LEU:CD2	2.82	0.56
1:A2:1601:G:OP2	22:BT:86:ARG:CZ	2.54	0.56
1:A2:321:C:O3'	1:A2:322:G:OP2	2.24	0.56
1:A2:1334:U:OP1	23:BU:85:ARG:CB	2.45	0.56
1:A2:1281:G:C1'	23:BU:74:GLU:O	2.50	0.56
1:A2:1086:A:H2'	1:A2:1087:A:C8	2.41	0.56
1:A2:878:G:N2	16:BN:114:ARG:HG3	2.20	0.56
4:BB:67:GLU:O	4:BB:68:VAL:O	2.23	0.56
13:BK:11:ILE:HD11	13:BK:37:THR:HG21	1.88	0.56
8:BF:197:GLU:O	8:BF:201:ALA:N	2.39	0.56
1:A2:786:C:H3'	1:A2:787:G:P	2.46	0.56
1:A2:88:U:C4	27:BY:122:GLY:N	2.74	0.56
1:A2:85:A:H1'	27:BY:126:ALA:HA	1.73	0.56
1:A2:862:A:O5'	25:BW:32:LYS:N	2.38	0.56
1:A2:351:C:C4	14:BL:101:GLU:OE2	2.58	0.56
25:BW:103:ILE:HD13	25:BW:104:LEU:N	2.21	0.56
1:A2:803:A:H4'	25:BW:120:HIS:HE1	0.41	0.56
1:A2:1299:G:H2'	5:BC:86:VAL:CG1	2.35	0.56
1:A2:1291:G:H4'	6:BD:153:ALA:HB3	1.88	0.56
1:A2:1548:G:C1'	21:BS:99:HIS:HE1	1.94	0.56
3:BA:56:LYS:HB3	3:BA:158:VAL:HG22	1.88	0.56
1:A2:886:U:P	4:BB:122:GLU:CD	2.84	0.56
1:A2:321:C:O2	1:A2:321:C:O4'	2.21	0.56
1:A2:1085:G:O6	5:BC:162:CYS:SG	2.64	0.56
1:A2:1487:A:C2'	1:A2:1488:G:O5'	2.54	0.56
2:AZ:6171:U:C2'	2:AZ:6173:C:H5'	2.35	0.56
10:BH:166:LEU:HA	10:BH:169:PHE:CD2	2.41	0.56
11:BI:150:ALA:HB3	11:BI:151:LYS:N	2.20	0.56
8:BF:194:LEU:C	8:BF:197:GLU:HB3	2.26	0.56
5:BC:145:GLY:O	5:BC:146:THR:C	2.44	0.56
22:BT:34:VAL:O	22:BT:34:VAL:HG13	2.05	0.56
1:A2:775:G:H22	27:BY:69:SER:CB	2.18	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1674:C:OP2	9:BG:75:LEU:HA	2.06	0.56
1:A2:1674:C:O2'	1:A2:1675:C:O4'	2.15	0.56
1:A2:78:A:N3	9:BG:162:VAL:CG2	2.69	0.56
1:A2:1390:U:P	20:BR:49:LYS:HD3	2.43	0.56
1:A2:688:G:C2	1:A2:689:G:C5	2.94	0.56
1:A2:650:U:C2'	12:BJ:91:LYS:HE2	2.35	0.56
1:A2:871:G:C2	16:BN:12:SER:N	2.74	0.56
1:A2:1137:A:C5'	26:BX:63:GLN:N	2.69	0.56
1:A2:1366:U:H4'	22:BT:5:SER:CB	2.30	0.56
1:A2:492:A:N3	1:A2:495:C:OP2	2.39	0.56
11:BI:167:ALA:O	11:BI:168:CYS:N	2.39	0.56
11:BI:154:SER:O	11:BI:155:SER:N	2.38	0.56
13:BK:82:LEU:HB2	13:BK:83:PRO:CD	2.36	0.56
16:BN:125:LEU:HD22	16:BN:129:TYR:CE2	2.41	0.56
1:A2:257:A:H3'	1:A2:258:C:P	2.45	0.56
5:BC:211:LEU:C	5:BC:212:LYS:N	2.59	0.56
1:A2:776:G:H21	27:BY:27:VAL:CG1	2.13	0.56
1:A2:166:C:N3	27:BY:131:ARG:NH2	2.53	0.56
1:A2:394:C:C6	9:BG:93:LYS:HG2	2.41	0.56
1:A2:1302:U:O2'	1:A2:1303:U:O4'	2.05	0.56
1:A2:1328:G:C8	6:BD:159:HIS:HB3	2.11	0.56
1:A2:1301:U:H1'	5:BC:86:VAL:HG21	1.85	0.56
1:A2:1581:C:H4'	19:BQ:135:ARG:HB2	1.88	0.56
1:A2:1534:G:N1	28:BZ:61:SER:HB2	2.21	0.56
28:BZ:62:VAL:HG21	28:BZ:77:ARG:HG2	1.87	0.56
1:A2:1240:U:OP1	18:BP:104:GLN:NE2	2.39	0.56
1:A2:1547:A:C3'	21:BS:100:THR:H	2.15	0.56
1:A2:959:U:H4'	25:BW:59:GLY:CA	2.36	0.56
1:A2:917:U:H3'	17:BO:118:VAL:HG23	1.82	0.56
1:A2:25:C:O2'	1:A2:26:A:P	2.63	0.56
1:A2:760:A:C1'	12:BJ:8:TYR:CB	2.80	0.56
1:A2:30:G:P	26:BX:143:PRO:HD2	2.43	0.56
1:A2:330:G:N2	11:BI:3:ILE:N	2.54	0.56
1:A2:1520:U:P	22:BT:75:LYS:HA	2.45	0.56
7:BE:106:LYS:CA	7:BE:107:GLY:N	2.69	0.56
21:BS:16:ARG:NH2	21:BS:22:VAL:HG23	2.20	0.56
12:BJ:81:VAL:O	12:BJ:84:GLY:N	2.38	0.56
1:A2:777:C:O3'	27:BY:29:HIS:C	2.39	0.56
1:A2:139:C:C4'	9:BG:137:ARG:C	2.54	0.56
1:A2:175:G:N9	9:BG:137:ARG:NH2	2.54	0.56
1:A2:58:U:C6	27:BY:114:ARG:CG	2.89	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:243:G:C8	7:BE:146:THR:C	2.79	0.56
1:A2:1317:C:C5'	20:BR:11:ARG:HE	2.18	0.56
1:A2:1393:C:OP1	20:BR:26:LEU:O	2.24	0.56
1:A2:1534:G:C2'	8:BF:187:ILE:CG2	2.84	0.56
1:A2:1057:U:O4	3:BA:39:ASN:OD1	2.22	0.56
1:A2:887:A:C2'	17:BO:124:ASP:CA	2.83	0.56
1:A2:599:A:H2'	26:BX:123:LYS:O	2.03	0.56
1:A2:600:U:H5'	26:BX:104:LEU:HD23	1.84	0.56
1:A2:335:U:O4	11:BI:25:ARG:CG	2.54	0.56
1:A2:336:G:H21	11:BI:24:LYS:HA	1.67	0.56
1:A2:1009:U:H3'	17:BO:129:LYS:HD2	1.88	0.56
1:A2:1040:G:C4'	24:BV:62:ARG:CD	2.82	0.56
1:A2:1523:G:C4	22:BT:79:LEU:CD2	2.86	0.56
19:BQ:20:ALA:O	19:BQ:21:HIS:N	2.39	0.56
3:BA:52:LYS:HG2	20:BR:108:ASP:OD2	2.06	0.56
1:A2:1636:C:H3'	1:A2:1637:C:P	2.46	0.56
10:BH:9:LEU:HD11	10:BH:14:THR:HG21	1.88	0.56
1:A2:397:A:H5'	9:BG:88:ARG:CG	2.09	0.55
1:A2:91:G:O2'	27:BY:112:LYS:HG3	2.05	0.55
1:A2:139:C:C2	9:BG:137:ARG:HG3	2.41	0.55
26:BX:27:ASN:O	26:BX:30:LYS:N	2.39	0.55
1:A2:1144:U:C3'	5:BC:87:GLN:O	2.52	0.55
1:A2:1331:A:H2'	6:BD:162:GLN:HB2	1.87	0.55
1:A2:703:G:H3'	7:BE:230:GLU:CB	2.15	0.55
1:A2:824:G:N7	1:A2:825:U:C4	2.74	0.55
7:BE:149:TYR:N	7:BE:150:PRO:HD3	2.20	0.55
1:A2:736:C:C2	7:BE:227:VAL:CB	2.89	0.55
1:A2:1472:C:OP1	8:BF:190:ILE:HD11	1.96	0.55
1:A2:1212:G:C5	18:BP:97:TYR:CD1	2.83	0.55
1:A2:1242:A:P	18:BP:107:ILE:CG1	2.87	0.55
1:A2:649:U:OP1	7:BE:253:ASP:CA	2.48	0.55
1:A2:649:U:P	7:BE:256:ARG:HD2	2.46	0.55
20:BR:101:ASN:N	20:BR:101:ASN:OD1	2.38	0.55
1:A2:337:G:C8	11:BI:9:HIS:NE2	2.74	0.55
1:A2:1280:C:H2'	1:A2:1281:G:C8	2.41	0.55
1:A2:1384:A:H5''	23:BU:31:VAL:CG1	2.36	0.55
19:BQ:128:LYS:C	19:BQ:129:PHE:C	2.64	0.55
1:A2:1520:U:H5''	22:BT:75:LYS:CG	2.36	0.55
1:A2:1265:G:H2'	1:A2:1266:U:O4'	2.06	0.55
1:A2:1654:G:H22	1:A2:1745:G:H2'	1.70	0.55
3:BA:107:PHE:N	3:BA:135:GLU:HB3	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BH:63:PRO:O	10:BH:64:VAL:HG23	2.06	0.55
5:BC:36:VAL:HG13	5:BC:37:PRO:CD	2.36	0.55
27:BY:57:VAL:HG13	27:BY:57:VAL:O	2.06	0.55
1:A2:451:A:H2	27:BY:111:LYS:CG	2.19	0.55
1:A2:456:A:N6	27:BY:108:ARG:HG3	2.02	0.55
9:BG:185:GLN:O	9:BG:188:ARG:HB3	2.06	0.55
1:A2:1035:G:O3'	1:A2:1036:A:H5'	2.06	0.55
1:A2:864:U:H3	25:BW:14:ILE:CD1	2.07	0.55
1:A2:867:G:C3'	25:BW:2:THR:HG21	2.34	0.55
1:A2:968:U:O2	26:BX:7:ARG:N	2.33	0.55
25:BW:79:PHE:C	25:BW:80:ASN:HA	2.26	0.55
1:A2:1299:G:OP2	5:BC:117:THR:CB	2.54	0.55
1:A2:831:U:O5'	7:BE:152:PRO:CB	2.49	0.55
1:A2:741:C:O2	7:BE:199:GLU:HG2	2.05	0.55
1:A2:1212:G:C8	18:BP:100:LYS:HG2	2.40	0.55
1:A2:1566:U:OP1	21:BS:29:VAL:CA	2.43	0.55
1:A2:1566:U:O3'	21:BS:30:TYR:O	2.23	0.55
1:A2:986:G:N2	1:A2:987:G:H1'	2.21	0.55
1:A2:755:A:C1'	12:BJ:3:ARG:O	2.23	0.55
1:A2:325:G:C3'	14:BL:133:LYS:HA	2.33	0.55
1:A2:1279:C:H3'	23:BU:71:PRO:CG	2.35	0.55
1:A2:1092:A:C2	1:A2:1094:G:C5	2.94	0.55
14:BL:78:THR:CG2	14:BL:84:ILE:HG21	2.14	0.55
1:A2:1659:A:C2'	1:A2:1660:A:H5'	2.37	0.55
11:BI:163:GLY:O	11:BI:164:ARG:N	2.39	0.55
1:A2:858:G:H1	10:BH:108:GLN:HG2	1.68	0.55
1:A2:395:U:OP2	9:BG:92:ARG:CA	2.54	0.55
1:A2:633:U:H5	14:BL:99:ARG:HB3	1.62	0.55
1:A2:436:A:N7	26:BX:50:LYS:CD	2.62	0.55
1:A2:1299:G:N7	5:BC:99:LYS:HG3	2.21	0.55
1:A2:1301:U:O4'	5:BC:86:VAL:HG22	2.05	0.55
1:A2:848:C:HO3'	1:A2:849:C:P	2.29	0.55
1:A2:215:A:O5'	7:BE:138:TYR:CD1	2.40	0.55
1:A2:1501:C:H3'	22:BT:33:TYR:HE1	1.68	0.55
1:A2:1502:G:H3'	22:BT:33:TYR:CB	2.35	0.55
1:A2:1546:G:H1'	21:BS:37:GLY:N	2.20	0.55
1:A2:1502:G:C6	22:BT:33:TYR:CE2	2.94	0.55
1:A2:987:G:H3'	1:A2:988:A:P	2.46	0.55
3:BA:13:ASP:CG	20:BR:119:LEU:HB2	2.26	0.55
1:A2:889:U:P	17:BO:88:GLY:C	2.84	0.55
11:BI:64:ASN:C	11:BI:64:ASN:HD22	2.10	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BQ:40:GLU:OE1	19:BQ:40:GLU:N	2.40	0.55
8:BF:29:ILE:HB	19:BQ:57:LEU:HD21	1.88	0.55
13:BK:3:MET:HB2	13:BK:4:PRO:HD3	1.87	0.55
27:BY:7:ILE:N	27:BY:7:ILE:HD12	2.21	0.55
1:A2:814:A:N6	1:A2:858:G:C2	2.74	0.55
1:A2:1720:G:C5	9:BG:66:GLY:HA2	2.41	0.55
1:A2:63:G:H2'	1:A2:63:G:N3	2.20	0.55
9:BG:147:LEU:HD13	9:BG:153:VAL:HG21	1.88	0.55
1:A2:1721:A:N6	9:BG:68:LEU:N	2.45	0.55
1:A2:806:A:H5''	25:BW:81:VAL:HG23	1.86	0.55
1:A2:1326:A:O5'	6:BD:156:PHE:C	2.41	0.55
1:A2:735:C:C3'	7:BE:193:GLY:N	2.70	0.55
1:A2:242:U:P	7:BE:149:TYR:HB2	2.46	0.55
1:A2:1532:U:C1'	28:BZ:77:ARG:CD	2.43	0.55
1:A2:1502:G:N2	1:A2:1504:G:H3'	2.22	0.55
1:A2:1565:C:C6	21:BS:40:ARG:C	2.66	0.55
1:A2:1550:A:P	21:BS:84:TRP:HD1	2.30	0.55
1:A2:1055:U:H5''	3:BA:37:VAL:CG1	2.32	0.55
1:A2:25:C:HO2'	1:A2:26:A:P	2.30	0.55
23:BU:57:ARG:O	23:BU:58:LEU:N	2.40	0.55
1:A2:1613:U:OP2	8:BF:84:LYS:HG3	2.06	0.55
1:A2:235:G:C2'	1:A2:236:A:O4'	2.44	0.55
13:BK:23:ALA:O	13:BK:24:LYS:N	2.38	0.55
22:BT:14:PHE:CZ	22:BT:135:ILE:HD11	2.41	0.55
1:A2:778:G:O5'	27:BY:2:SER:HB3	2.06	0.55
1:A2:454:U:O2'	1:A2:455:C:H5'	2.07	0.55
9:BG:16:PHE:CE2	9:BG:121:LEU:HD22	2.41	0.55
1:A2:91:G:C2'	27:BY:116:LYS:HZ3	2.06	0.55
25:BW:79:PHE:C	25:BW:80:ASN:N	2.60	0.55
1:A2:1294:G:O5'	1:A2:1294:G:C8	2.59	0.55
1:A2:1328:G:C5	6:BD:160:SER:OG	2.59	0.55
1:A2:702:G:N3	7:BE:173:ILE:CG2	2.67	0.55
1:A2:1471:A:H8	8:BF:186:ASN:H	1.54	0.55
1:A2:1504:G:H1'	21:BS:41:ARG:HH22	0.99	0.55
1:A2:759:U:H3	12:BJ:7:THR:N	2.04	0.55
1:A2:30:G:O5'	26:BX:142:LYS:HB2	2.02	0.55
1:A2:1479:A:C5'	22:BT:16:ASN:OD1	2.54	0.55
1:A2:1480:G:H4'	22:BT:11:ALA:CA	2.28	0.55
1:A2:337:G:C5'	11:BI:6:ASP:O	2.55	0.55
1:A2:1280:C:C2	23:BU:72:ASN:C	2.80	0.55
1:A2:1096:C:P	5:BC:168:ARG:NE	2.78	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1714:A:C2	1:A2:1715:G:C5	2.94	0.55
1:A2:1659:A:H2'	1:A2:1660:A:H5'	1.88	0.55
1:A2:154:G:C4	1:A2:155:U:H5	2.24	0.55
1:A2:1336:A:H2'	1:A2:1337:A:O4'	2.06	0.55
1:A2:89:G:N7	27:BY:119:PHE:C	2.59	0.55
1:A2:353:A:O3'	1:A2:354:C:P	2.64	0.55
1:A2:806:A:O2'	25:BW:80:ASN:CG	2.24	0.55
1:A2:631:G:C4	26:BX:11:SER:O	2.59	0.55
1:A2:1326:A:O4'	6:BD:156:PHE:O	2.20	0.55
7:BE:140:VAL:C	7:BE:141:THR:N	2.60	0.55
1:A2:704:C:H6	7:BE:234:PRO:HA	1.72	0.55
1:A2:1315:U:C3'	1:A2:1316:G:P	2.95	0.55
1:A2:1315:U:H3'	1:A2:1316:G:P	2.47	0.55
1:A2:1553:G:C6	18:BP:39:ALA:C	2.80	0.55
1:A2:1068:C:C4'	3:BA:33:GLN:CB	2.77	0.55
20:BR:101:ASN:O	20:BR:102:VAL:N	2.40	0.55
1:A2:760:A:O4'	12:BJ:8:TYR:HB2	2.05	0.55
1:A2:301:A:H61	7:BE:5:PRO:CA	2.18	0.55
1:A2:334:G:O5'	11:BI:26:LYS:CE	2.55	0.55
1:A2:338:C:O2	1:A2:338:C:H2'	2.06	0.55
1:A2:1435:G:H1	13:BK:27:PHE:HD2	1.55	0.55
1:A2:879:G:H2'	1:A2:880:C:O4'	2.06	0.55
1:A2:1787:C:H5'	17:BO:132:ARG:HH11	1.72	0.55
1:A2:439:U:H3'	1:A2:440:U:P	2.46	0.55
2:AZ:6169:G:C2'	2:AZ:6170:G:H5'	2.36	0.55
1:A2:560:U:C3'	1:A2:561:G:P	2.94	0.55
1:A2:1637:C:HO3'	1:A2:1638:G:P	2.29	0.55
9:BG:125:THR:C	9:BG:126:ASP:N	2.59	0.55
1:A2:453:U:H2'	1:A2:453:U:O2	2.06	0.55
1:A2:56:U:HO3'	1:A2:57:G:P	2.27	0.55
1:A2:452:A:N7	27:BY:115:ASP:OD2	2.39	0.55
1:A2:1032:G:C6	1:A2:1033:C:C4	2.95	0.55
1:A2:1237:G:C8	18:BP:65:LEU:CD2	2.75	0.55
1:A2:1502:G:N2	22:BT:37:VAL:HG13	2.22	0.55
1:A2:1506:G:O3'	1:A2:1551:U:H5''	2.06	0.55
1:A2:1548:G:H8	21:BS:87:ASN:OD1	1.52	0.55
1:A2:1069:A:OP1	3:BA:154:GLU:HA	2.05	0.55
1:A2:31:C:H1'	26:BX:138:GLU:HA	0.67	0.55
1:A2:382:C:C5'	12:BJ:2:PRO:CD	2.84	0.55
1:A2:1417:A:H5'	19:BQ:128:LYS:HZ1	1.71	0.55
5:BC:199:GLN:C	5:BC:200:SER:N	2.60	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:298:C:H5	7:BE:7:LYS:CD	2.06	0.55
1:A2:1163:A:H3'	1:A2:1164:G:P	2.47	0.55
16:BN:64:ARG:C	16:BN:65:VAL:N	2.60	0.55
1:A2:160:C:H2'	1:A2:161:U:O4'	2.07	0.55
10:BH:97:ARG:C	10:BH:98:ILE:N	2.60	0.55
16:BN:42:ARG:O	16:BN:44:GLY:N	2.40	0.55
1:A2:775:G:N2	27:BY:69:SER:CB	2.70	0.55
10:BH:111:LYS:HB3	10:BH:112:ARG:N	2.21	0.55
1:A2:265:A:C5'	9:BG:176:GLN:CG	2.54	0.55
1:A2:89:G:C8	27:BY:119:PHE:CA	2.90	0.55
1:A2:141:U:H3	9:BG:136:LYS:HZ2	1.53	0.55
1:A2:397:A:C3'	9:BG:88:ARG:HE	2.20	0.55
1:A2:631:G:H1	26:BX:6:PRO:HG3	1.72	0.55
1:A2:1393:C:OP2	20:BR:28:PHE:CB	2.49	0.55
1:A2:1176:G:P	21:BS:137:HIS:HE1	2.20	0.55
1:A2:1565:C:C1'	21:BS:43:SER:N	2.58	0.55
1:A2:1550:A:C8	21:BS:89:GLN:NE2	2.73	0.55
22:BT:57:ARG:HG2	22:BT:61:VAL:HG21	1.89	0.55
12:BJ:72:GLU:O	12:BJ:76:LEU:N	2.40	0.55
1:A2:1068:C:O2'	1:A2:1069:A:H5'	2.06	0.55
3:BA:194:PRO:O	3:BA:195:TRP:HB2	2.04	0.55
1:A2:1135:U:P	26:BX:119:GLY:N	2.79	0.55
1:A2:2:A:H8	12:BJ:15:PRO:HA	1.72	0.55
1:A2:1281:G:HI1'	23:BU:74:GLU:HA	0.71	0.55
1:A2:1085:G:O2'	5:BC:164:SER:HB3	2.04	0.55
1:A2:1085:G:N3	5:BC:163:GLY:HA3	2.20	0.55
1:A2:410:A:H3'	1:A2:411:C:OP2	2.07	0.55
12:BJ:114:TYR:CG	12:BJ:122:VAL:HG12	2.42	0.55
1:A2:785:U:O3'	27:BY:70:VAL:HA	2.07	0.55
1:A2:129:U:N1	9:BG:177:ARG:NH1	2.54	0.55
1:A2:86:A:C8	27:BY:125:LEU:HB2	2.38	0.55
1:A2:638:U:O2	1:A2:638:U:C2'	2.54	0.55
1:A2:10:G:N2	1:A2:11:A:C4	2.75	0.55
1:A2:214:G:C8	7:BE:132:GLY:C	2.74	0.55
1:A2:243:G:H4'	7:BE:147:ILE:HG13	1.88	0.55
1:A2:1473:U:O2	1:A2:1473:U:O4'	2.25	0.55
1:A2:1608:U:C2'	19:BQ:73:GLY:CA	2.71	0.55
1:A2:1242:A:H5''	18:BP:89:MET:HB2	1.88	0.55
1:A2:918:U:O2'	1:A2:919:A:O4'	2.24	0.55
1:A2:900:A:O3'	17:BO:20:TYR:HE1	1.89	0.55
1:A2:18:C:O3'	26:BX:114:LYS:CG	2.55	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BX:113:ALA:O	26:BX:114:LYS:N	2.39	0.55
1:A2:330:G:OP1	11:BI:46:VAL:HG11	2.07	0.55
1:A2:1383:G:O5'	23:BU:88:LYS:C	2.44	0.55
23:BU:78:THR:C	23:BU:79:TRP:N	2.60	0.55
1:A2:800:U:H5'	7:BE:186:GLY:CA	2.36	0.55
19:BQ:20:ALA:HB2	19:BQ:67:VAL:CG1	2.37	0.55
1:A2:1721:A:O3'	9:BG:97:VAL:N	2.34	0.55
1:A2:57:G:C2'	27:BY:114:ARG:CZ	2.85	0.55
1:A2:90:C:N4	27:BY:117:LYS:C	2.60	0.55
1:A2:633:U:O2	14:BL:99:ARG:NH1	2.32	0.55
1:A2:1145:U:HO2'	1:A2:1146:G:P	2.24	0.55
1:A2:698:U:C6	7:BE:207:LEU:HB3	2.31	0.55
9:BG:19:ASP:C	9:BG:20:ASP:N	2.60	0.55
1:A2:953:G:C1'	16:BN:8:GLY:O	2.55	0.55
1:A2:370:A:OP2	12:BJ:14:THR:OG1	2.22	0.55
1:A2:595:G:H22	26:BX:138:GLU:C	2.10	0.55
1:A2:382:C:H5'	12:BJ:2:PRO:CG	2.37	0.55
1:A2:300:A:O2'	7:BE:3:ARG:CZ	2.55	0.55
1:A2:1517:U:O3'	1:A2:1518:C:P	2.65	0.55
1:A2:463:U:H2'	1:A2:464:A:C8	2.42	0.55
1:A2:1113:A:O3'	1:A2:1114:G:P	2.65	0.55
6:BD:116:ARG:O	6:BD:117:ARG:C	2.45	0.55
1:A2:775:G:C2	27:BY:61:ARG:N	2.76	0.54
1:A2:180:A:N3	9:BG:188:ARG:CA	2.51	0.54
1:A2:139:C:C4	1:A2:266:A:C2	2.94	0.54
1:A2:451:A:H4'	27:BY:112:LYS:HB2	1.89	0.54
1:A2:57:G:C6	27:BY:115:ASP:CA	2.89	0.54
1:A2:85:A:O2'	27:BY:126:ALA:CA	2.50	0.54
1:A2:242:U:H1'	7:BE:148:ARG:NH1	2.21	0.54
1:A2:848:C:O3'	1:A2:849:C:P	2.65	0.54
1:A2:1402:G:N7	20:BR:5:ARG:NH2	2.55	0.54
1:A2:1609:U:OP2	19:BQ:75:VAL:N	2.38	0.54
1:A2:1184:A:C4	18:BP:123:TYR:CB	2.46	0.54
1:A2:1555:A:N7	18:BP:40:ARG:CD	2.70	0.54
1:A2:1549:C:OP1	21:BS:97:ASP:C	2.46	0.54
2:AZ:6106:A:C3'	2:AZ:6107:U:P	2.94	0.54
2:AZ:6106:A:C2'	8:BF:223:SER:O	2.55	0.54
7:BE:248:ILE:O	7:BE:252:ARG:N	2.39	0.54
1:A2:1068:C:H4'	3:BA:153:SER:CB	2.30	0.54
3:BA:75:ALA:HB2	3:BA:174:TRP:CZ3	2.42	0.54
1:A2:760:A:H1'	12:BJ:8:TYR:CA	2.37	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:32:U:O2	26:BX:139:LYS:O	2.17	0.54
1:A2:1684:U:C5	9:BG:51:LYS:CE	2.77	0.54
1:A2:1487:A:N6	1:A2:1488:G:C6	2.75	0.54
11:BI:195:ARG:O	11:BI:196:LEU:N	2.40	0.54
3:BA:108:THR:C	3:BA:109:ASN:CB	2.75	0.54
1:A2:906:A:H2'	1:A2:906:A:N3	2.21	0.54
19:BQ:111:SER:C	19:BQ:113:ASP:H	2.09	0.54
11:BI:63:GLY:HA3	11:BI:179:CYS:SG	2.47	0.54
27:BY:39:GLU:C	27:BY:40:LEU:N	2.33	0.54
1:A2:776:G:C5'	27:BY:66:GLY:HA2	2.37	0.54
1:A2:811:A:H61	10:BH:103:SER:CB	2.16	0.54
1:A2:857:U:O4	10:BH:109:VAL:HG22	2.07	0.54
1:A2:165:G:C5'	9:BG:15:THR:N	2.70	0.54
1:A2:395:U:C6	9:BG:91:GLU:CG	2.90	0.54
1:A2:80:A:H3'	1:A2:81:G:H5'	1.88	0.54
1:A2:1680:G:C1'	9:BG:68:LEU:HA	2.22	0.54
1:A2:1102:G:C4	26:BX:5:LYS:NZ	2.66	0.54
1:A2:1302:U:H6	5:BC:97:ARG:NH2	2.03	0.54
1:A2:1295:G:C6	5:BC:116:LYS:CE	2.90	0.54
1:A2:734:A:C8	7:BE:212:ASP:CA	2.90	0.54
1:A2:823:G:O6	1:A2:850:A:C6	2.60	0.54
1:A2:698:U:C5	7:BE:208:VAL:CA	2.58	0.54
1:A2:1307:U:O4'	1:A2:1307:U:O2	2.24	0.54
1:A2:1389:C:O3'	20:BR:45:ARG:CB	2.55	0.54
1:A2:1399:C:OP2	20:BR:67:ARG:O	2.24	0.54
1:A2:1473:U:C2	8:BF:97:LEU:HD21	2.41	0.54
1:A2:1184:A:H62	18:BP:125:PRO:CA	2.20	0.54
1:A2:1546:G:N2	21:BS:38:VAL:CA	2.69	0.54
1:A2:1566:U:H4'	21:BS:32:LEU:C	2.26	0.54
1:A2:1500:C:N4	22:BT:99:SER:HA	2.22	0.54
1:A2:1053:G:N3	1:A2:1053:G:C2'	2.70	0.54
1:A2:956:C:N3	16:BN:11:ILE:CB	2.63	0.54
1:A2:988:A:O2'	17:BO:125:SER:C	2.45	0.54
3:BA:77:SER:HB2	3:BA:86:VAL:HG21	1.89	0.54
1:A2:921:U:OP1	4:BB:216:LYS:N	2.40	0.54
1:A2:894:U:C3'	4:BB:65:VAL:HG22	2.25	0.54
1:A2:889:U:C5'	17:BO:89:THR:HG22	2.36	0.54
22:BT:18:TYR:OH	22:BT:113:ILE:HD13	2.06	0.54
1:A2:1084:A:O2'	5:BC:164:SER:O	2.25	0.54
1:A2:778:G:C5	27:BY:35:VAL:CG2	2.90	0.54
1:A2:786:C:H3'	27:BY:70:VAL:CG1	2.09	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1671:A:H1'	1:A2:1731:A:N1	2.22	0.54
1:A2:1680:G:O2'	1:A2:1720:G:N2	2.41	0.54
1:A2:168:A:O3'	9:BG:132:ARG:NH1	2.40	0.54
1:A2:178:U:P	9:BG:179:VAL:CG1	2.94	0.54
1:A2:395:U:C6	9:BG:91:GLU:OE2	2.59	0.54
1:A2:1679:G:O2'	9:BG:68:LEU:O	2.25	0.54
1:A2:85:A:N6	27:BY:123:LYS:HB2	2.23	0.54
1:A2:1103:U:O2	26:BX:5:LYS:CG	2.21	0.54
25:BW:71:LYS:HG3	25:BW:72:CYS:N	2.22	0.54
1:A2:735:C:C1'	7:BE:193:GLY:N	2.70	0.54
1:A2:700:C:C5	7:BE:198:LYS:N	2.74	0.54
1:A2:1241:G:P	18:BP:104:GLN:HB3	2.47	0.54
1:A2:876:G:O3'	1:A2:877:G:P	2.65	0.54
1:A2:1051:G:H1	3:BA:32:HIS:CE1	2.24	0.54
3:BA:67:ILE:C	3:BA:69:ASN:N	2.61	0.54
4:BB:81:PHE:HA	4:BB:106:THR:HG23	1.88	0.54
1:A2:370:A:H5''	12:BJ:14:THR:N	2.22	0.54
1:A2:324:U:O2'	14:BL:133:LYS:HG3	2.07	0.54
13:BK:53:GLY:O	13:BK:69:THR:HG21	2.07	0.54
3:BA:131:GLN:HB3	3:BA:135:GLU:HG3	1.89	0.54
1:A2:694:U:O2	1:A2:694:U:O4'	2.25	0.54
1:A2:783:G:C8	27:BY:37:LYS:C	2.81	0.54
1:A2:1674:C:H5''	9:BG:76:LEU:CG	2.30	0.54
1:A2:178:U:O2'	9:BG:183:ARG:NH2	2.38	0.54
1:A2:87:C:H3'	1:A2:88:U:P	2.47	0.54
9:BG:57:ASP:HA	9:BG:106:LEU:HD23	1.89	0.54
1:A2:1102:G:H4'	14:BL:99:ARG:NH2	2.22	0.54
1:A2:1104:U:OP1	26:BX:15:LEU:O	2.24	0.54
1:A2:863:A:C4'	25:BW:6:VAL:HB	2.36	0.54
1:A2:244:A:H2'	1:A2:245:U:O4'	2.07	0.54
1:A2:703:G:C4	7:BE:230:GLU:N	2.75	0.54
1:A2:819:G:C6	1:A2:853:G:C6	2.96	0.54
1:A2:821:U:H3'	1:A2:822:U:H5''	1.89	0.54
7:BE:127:LYS:N	7:BE:140:VAL:O	2.40	0.54
1:A2:702:G:N7	7:BE:176:ASP:O	2.41	0.54
1:A2:1582:U:P	19:BQ:135:ARG:HH11	2.25	0.54
1:A2:1237:G:N3	18:BP:66:ALA:HB1	2.17	0.54
1:A2:1237:G:O3'	1:A2:1238:A:P	2.65	0.54
1:A2:1553:G:C4	18:BP:40:ARG:HD2	2.34	0.54
8:BF:118:LEU:HD13	8:BF:130:ILE:HG22	1.89	0.54
1:A2:916:U:O3'	17:BO:86:THR:O	2.24	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BW:28:ARG:O	25:BW:29:PRO:C	2.46	0.54
26:BX:120:VAL:C	26:BX:121:ARG:N	2.61	0.54
1:A2:30:G:H3'	26:BX:141:GLU:C	2.27	0.54
1:A2:331:A:OP2	11:BI:31:ARG:CD	2.48	0.54
7:BE:52:LEU:O	7:BE:53:LYS:CB	2.56	0.54
4:BB:39:GLU:O	4:BB:41:ALA:N	2.41	0.54
4:BB:91:VAL:HG22	4:BB:92:GLN:N	2.23	0.54
1:A2:543:C:O4'	1:A2:543:C:O2	2.25	0.54
3:BA:172:LEU:O	3:BA:172:LEU:HD22	2.08	0.54
1:A2:778:G:O2'	27:BY:5:VAL:CA	2.55	0.54
1:A2:395:U:C4'	9:BG:87:ARG:CG	2.84	0.54
1:A2:458:G:OP2	27:BY:107:GLN:NE2	2.40	0.54
1:A2:89:G:N7	27:BY:119:PHE:CA	2.71	0.54
1:A2:1681:A:H5'	9:BG:101:ILE:HG12	0.65	0.54
1:A2:1683:C:P	9:BG:52:ILE:HA	2.47	0.54
1:A2:451:A:C1'	27:BY:112:LYS:HB3	2.38	0.54
1:A2:1103:U:C2'	26:BX:5:LYS:CB	2.84	0.54
1:A2:862:A:N3	1:A2:963:A:C2	2.76	0.54
1:A2:740:A:H62	7:BE:206:ASP:HB3	1.72	0.54
1:A2:1533:C:C1'	28:BZ:77:ARG:CZ	2.81	0.54
21:BS:32:LEU:HD21	21:BS:69:ILE:HG22	1.89	0.54
1:A2:917:U:C5'	17:BO:120:PRO:CD	2.65	0.54
1:A2:895:G:C5'	17:BO:34:SER:CB	2.85	0.54
1:A2:755:A:N9	12:BJ:3:ARG:O	2.40	0.54
1:A2:1136:U:O4	26:BX:113:ALA:HB1	2.08	0.54
1:A2:335:U:O2	11:BI:27:PHE:CZ	2.13	0.54
1:A2:318:U:C4	11:BI:11:ARG:NH1	2.75	0.54
1:A2:1082:C:O4'	1:A2:1082:C:O2	2.22	0.54
11:BI:100:ALA:C	11:BI:101:ILE:HD13	2.28	0.54
2:AZ:6118:G:O6	2:AZ:6159:C:H4'	2.06	0.54
1:A2:1658:G:N2	1:A2:1659:A:H1'	2.22	0.54
6:BD:148:LYS:C	6:BD:149:ALA:N	2.61	0.54
22:BT:22:LEU:HD12	22:BT:58:ALA:CB	2.37	0.54
23:BU:63:LEU:HD23	23:BU:63:LEU:N	2.22	0.54
27:BY:26:ASP:OD1	27:BY:70:VAL:HG22	2.08	0.54
1:A2:181:A:O4'	9:BG:191:ARG:NH1	2.23	0.54
1:A2:637:C:H3'	25:BW:109:GLY:O	2.06	0.54
1:A2:848:C:O3'	14:BL:43:LYS:HD2	2.07	0.54
1:A2:704:C:C5'	7:BE:233:LYS:O	2.48	0.54
1:A2:1240:U:C4	18:BP:63:ALA:CB	2.90	0.54
1:A2:1242:A:C2'	18:BP:60:LEU:HB2	2.16	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1501:C:OP2	22:BT:103:LYS:HD3	2.08	0.54
1:A2:919:A:H2'	1:A2:920:U:C6	2.43	0.54
1:A2:1051:G:O6	3:BA:32:HIS:CE1	2.61	0.54
1:A2:959:U:H5	10:BH:138:LYS:HB2	1.73	0.54
20:BR:113:LEU:C	20:BR:114:GLY:N	2.61	0.54
1:A2:572:C:OP2	26:BX:69:ARG:NH1	2.40	0.54
1:A2:880:C:P	16:BN:110:ASP:HB2	2.37	0.54
1:A2:1523:G:N7	22:BT:79:LEU:HD21	2.19	0.54
1:A2:299:A:N7	7:BE:7:LYS:HB2	2.19	0.54
6:BD:34:TYR:HH	6:BD:36:GLY:N	2.06	0.54
12:BJ:93:LEU:O	12:BJ:93:LEU:HD23	2.08	0.54
2:AZ:6118:G:H2'	2:AZ:6118:G:N3	2.22	0.54
2:AZ:6206:G:H3'	2:AZ:6206:G:N3	2.23	0.54
10:BH:36:ALA:HB3	10:BH:37:GLU:OE1	2.07	0.54
1:A2:1594:G:C2	1:A2:1595:U:O2	2.60	0.54
27:BY:9:THR:C	27:BY:10:ARG:N	2.61	0.54
1:A2:129:U:H1'	1:A2:264:G:N1	2.23	0.54
1:A2:149:C:C6	27:BY:127:LYS:O	2.61	0.54
1:A2:863:A:C2'	25:BW:6:VAL:HB	2.38	0.54
1:A2:238:U:H2'	9:BG:210:GLN:HE21	1.69	0.54
1:A2:241:U:H6	9:BG:205:ALA:CA	2.14	0.54
1:A2:830:U:O2'	1:A2:831:U:C6	2.61	0.54
1:A2:1535:U:C6	8:BF:188:LYS:HG3	2.41	0.54
1:A2:1502:G:O6	22:BT:33:TYR:CE2	2.61	0.54
1:A2:885:G:H5'	4:BB:122:GLU:HB2	1.90	0.54
1:A2:953:G:OP2	16:BN:3:ARG:CA	2.53	0.54
1:A2:598:U:P	26:BX:133:LEU:HD23	2.44	0.54
1:A2:329:G:O2'	11:BI:33:PRO:HA	2.05	0.54
1:A2:317:C:H42	11:BI:15:GLY:C	2.11	0.54
1:A2:1334:U:O3'	23:BU:83:GLU:CD	2.46	0.54
1:A2:14:C:O3'	5:BC:203:LYS:CE	2.56	0.54
1:A2:1744:A:H3'	1:A2:1745:G:O5'	2.08	0.54
11:BI:65:PHE:N	11:BI:74:LYS:O	2.41	0.54
1:A2:1753:A:N1	1:A2:1754:A:N6	2.56	0.54
1:A2:782:U:O5'	27:BY:39:GLU:C	2.46	0.54
1:A2:1102:G:N3	26:BX:7:ARG:NE	2.56	0.54
1:A2:806:A:H5''	25:BW:81:VAL:HG22	1.85	0.54
5:BC:118:ALA:HB3	5:BC:124:ALA:CB	2.37	0.54
1:A2:819:G:H4'	1:A2:820:U:OP1	2.07	0.54
1:A2:1314:U:O2'	1:A2:1315:U:P	2.66	0.54
1:A2:1259:U:H2'	1:A2:1260:U:H6	1.72	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1555:A:C1'	18:BP:115:TYR:CZ	2.91	0.54
1:A2:1547:A:C2'	21:BS:100:THR:H	2.20	0.54
1:A2:887:A:H2	17:BO:125:SER:CA	2.12	0.54
1:A2:1601:G:C8	22:BT:89:ARG:CA	2.90	0.54
1:A2:1281:G:P	23:BU:78:THR:OG1	2.66	0.54
1:A2:1087:A:C2	1:A2:1088:A:C4	2.96	0.54
2:AZ:6219:U:C2	6:BD:144:ALA:HB1	2.37	0.54
1:A2:365:G:C5	1:A2:377:G:N2	2.76	0.54
1:A2:365:G:C5	1:A2:377:G:C2	2.96	0.54
14:BL:33:ARG:NH1	14:BL:51:GLY:O	2.41	0.54
4:BB:148:ASN:O	4:BB:148:ASN:CG	2.46	0.54
1:A2:783:G:O2'	27:BY:41:ARG:C	2.43	0.54
1:A2:396:G:H2'	9:BG:88:ARG:HD2	1.90	0.54
1:A2:90:C:H41	27:BY:117:LYS:C	2.10	0.54
1:A2:1036:A:C3'	1:A2:1037:C:P	2.96	0.54
1:A2:740:A:O5'	1:A2:740:A:H8	1.91	0.54
1:A2:245:U:H6	7:BE:140:VAL:HG12	1.69	0.54
1:A2:1581:C:O3'	19:BQ:135:ARG:HB3	2.08	0.54
1:A2:1241:G:H1'	18:BP:96:ILE:HD11	1.90	0.54
1:A2:1243:G:H5''	18:BP:60:LEU:N	2.23	0.54
1:A2:1565:C:P	21:BS:41:ARG:CA	2.80	0.54
1:A2:1056:U:P	3:BA:46:HIS:N	2.81	0.54
1:A2:571:G:H2'	26:BX:114:LYS:HE3	1.89	0.54
1:A2:599:A:H1'	26:BX:124:VAL:CG1	2.37	0.54
1:A2:328:A:C4'	11:BI:172:ARG:HH22	2.20	0.54
1:A2:1382:A:H1'	23:BU:57:ARG:C	2.28	0.54
1:A2:210:A:N1	1:A2:256:A:C6	2.76	0.54
1:A2:299:A:N6	7:BE:7:LYS:CE	2.70	0.54
11:BI:81:VAL:CA	11:BI:82:VAL:N	2.71	0.54
11:BI:169:ILE:C	11:BI:170:SER:N	2.61	0.54
6:BD:33:GLY:CA	6:BD:53:THR:HG23	2.38	0.54
23:BU:95:ALA:HB1	23:BU:99:ILE:CG2	2.37	0.54
1:A2:9:U:O2	1:A2:9:U:H2'	2.08	0.54
1:A2:783:G:C4	27:BY:39:GLU:HG2	2.43	0.54
1:A2:787:G:N7	27:BY:59:GLY:O	2.41	0.54
1:A2:265:A:C2	1:A2:267:U:O4	2.60	0.54
1:A2:76:A:H2	9:BG:167:LYS:N	2.05	0.54
1:A2:75:U:H2'	9:BG:166:GLU:N	2.23	0.54
1:A2:394:C:O5'	9:BG:76:LEU:HD21	2.08	0.54
1:A2:633:U:C3'	14:BL:99:ARG:CG	2.76	0.54
1:A2:312:A:OP2	26:BX:24:TRP:CH2	2.61	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:244:A:H5''	7:BE:141:THR:HG1	1.70	0.54
1:A2:842:C:O2	1:A2:842:C:H2'	2.08	0.54
1:A2:1309:C:C3'	1:A2:1310:U:P	2.95	0.54
1:A2:1471:A:C3'	8:BF:183:ALA:C	2.66	0.54
19:BQ:36:ILE:O	19:BQ:39:VAL:HG13	2.07	0.54
19:BQ:39:VAL:HG23	19:BQ:42:GLU:HG2	1.89	0.54
1:A2:1533:C:C6	28:BZ:77:ARG:HD3	2.42	0.54
1:A2:1458:G:N3	1:A2:1458:G:H2'	2.23	0.54
1:A2:1549:C:H6	21:BS:86:LEU:HB2	1.73	0.54
21:BS:29:VAL:O	21:BS:29:VAL:HG12	2.07	0.54
8:BF:213:LYS:HA	8:BF:216:GLU:HB3	1.89	0.54
1:A2:960:U:O3'	1:A2:961:U:O5'	2.25	0.54
1:A2:899:G:C8	17:BO:43:THR:OG1	2.61	0.54
1:A2:300:A:N6	7:BE:5:PRO:CA	2.71	0.54
1:A2:1279:C:C2	23:BU:72:ASN:HB3	2.43	0.54
1:A2:1281:G:H4'	23:BU:75:GLY:O	2.08	0.54
1:A2:1519:U:C2	1:A2:1520:U:C5	2.96	0.54
12:BJ:135:ALA:HB3	12:BJ:157:ASP:O	2.07	0.54
24:BV:51:VAL:HA	24:BV:52:THR:N	2.23	0.54
16:BN:40:TYR:O	16:BN:41:ALA:C	2.47	0.54
19:BQ:107:LYS:HE2	19:BQ:107:LYS:N	2.23	0.54
1:A2:778:G:H2'	27:BY:32:ARG:NH2	2.18	0.53
1:A2:859:A:N7	10:BH:112:ARG:N	2.56	0.53
1:A2:1682:U:OP1	9:BG:30:ALA:N	2.29	0.53
1:A2:148:A:P	27:BY:131:ARG:HB2	2.48	0.53
1:A2:862:A:HO3'	1:A2:863:A:P	2.30	0.53
1:A2:436:A:C8	26:BX:50:LYS:CD	2.89	0.53
1:A2:1326:A:C4'	6:BD:189:MET:SD	2.95	0.53
1:A2:1318:G:H2'	1:A2:1319:A:C8	2.42	0.53
1:A2:1538:U:H2'	1:A2:1538:U:O2	2.09	0.53
28:BZ:77:ARG:O	28:BZ:78:ILE:N	2.41	0.53
1:A2:1243:G:H5'	18:BP:61:ARG:CB	2.38	0.53
1:A2:1454:G:OP2	18:BP:118:GLU:HG2	2.08	0.53
1:A2:952:A:O3'	1:A2:953:G:P	2.66	0.53
1:A2:887:A:C2'	17:BO:124:ASP:HA	2.38	0.53
1:A2:31:C:O2'	26:BX:138:GLU:HG2	2.04	0.53
1:A2:347:G:O2'	11:BI:12:SER:N	2.37	0.53
14:BL:110:HIS:C	14:BL:111:VAL:HB	2.27	0.53
1:A2:1281:G:C1'	23:BU:74:GLU:CA	2.47	0.53
1:A2:1416:G:O2'	19:BQ:126:PRO:CG	2.51	0.53
2:AZ:6123:A:H2	2:AZ:6152:C:C2	2.25	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
27:BY:88:THR:O	27:BY:91:LEU:N	2.35	0.53
2:AZ:6171:U:OP2	2:AZ:6207:A:N6	2.41	0.53
1:A2:69:G:H2'	1:A2:70:C:O4'	2.08	0.53
1:A2:606:A:C4'	1:A2:607:G:H5'	2.37	0.53
1:A2:606:A:C5'	1:A2:607:G:H5'	2.38	0.53
4:BB:82:ARG:NH2	4:BB:188:LEU:O	2.41	0.53
1:A2:237:C:C5	1:A2:834:G:C8	2.95	0.53
2:AZ:6101:U:H2'	2:AZ:6102:A:H5''	1.90	0.53
1:A2:778:G:C5	27:BY:35:VAL:HG23	2.43	0.53
1:A2:785:U:C3'	27:BY:26:ASP:HA	2.38	0.53
1:A2:1720:G:C2'	9:BG:67:VAL:H	2.21	0.53
1:A2:866:G:O5'	25:BW:5:SER:N	2.40	0.53
1:A2:804:A:P	25:BW:121:VAL:HA	2.47	0.53
1:A2:635:A:H2	25:BW:33:VAL:HG22	1.71	0.53
25:BW:30:SER:O	25:BW:34:ILE:HD12	2.08	0.53
1:A2:703:G:H21	7:BE:229:GLY:H	1.57	0.53
1:A2:1548:G:C5	21:BS:86:LEU:O	2.53	0.53
1:A2:686:C:O5'	12:BJ:65:LYS:HE3	2.08	0.53
3:BA:103:THR:CG2	3:BA:106:SER:HA	2.38	0.53
1:A2:753:A:O3'	7:BE:12:LEU:O	2.26	0.53
1:A2:1601:G:O2'	1:A2:1602:C:OP1	2.25	0.53
1:A2:325:G:C2	1:A2:326:G:C8	2.96	0.53
1:A2:302:U:H5'	11:BI:25:ARG:NH2	2.23	0.53
1:A2:1685:G:N2	1:A2:1717:G:C5	2.76	0.53
1:A2:1714:A:H8	1:A2:1714:A:OP2	1.92	0.53
14:BL:78:THR:CG2	14:BL:84:ILE:CG2	2.71	0.53
1:A2:365:G:C2	1:A2:366:A:C8	2.96	0.53
13:BK:50:THR:C	13:BK:51:SER:N	2.62	0.53
11:BI:105:ASP:O	11:BI:106:ALA:C	2.46	0.53
1:A2:1150:G:H2'	1:A2:1768:G:H22	1.73	0.53
19:BQ:90:VAL:O	19:BQ:94:GLN:HB3	2.09	0.53
1:A2:776:G:H22	27:BY:27:VAL:CG2	2.21	0.53
9:BG:153:VAL:O	9:BG:154:ARG:N	2.41	0.53
25:BW:102:VAL:O	25:BW:103:ILE:HA	2.08	0.53
1:A2:1295:G:H2'	1:A2:1296:A:O4'	2.08	0.53
1:A2:1144:U:C4'	5:BC:88:LYS:HA	2.36	0.53
1:A2:1535:U:C4	8:BF:186:ASN:O	2.61	0.53
28:BZ:62:VAL:HG13	28:BZ:76:ALA:HB3	1.91	0.53
1:A2:1458:G:H4'	21:BS:131:LEU:CA	1.98	0.53
4:BB:71:ALA:HB3	4:BB:72:ASP:N	2.24	0.53
17:BO:22:SER:HB2	17:BO:23:PHE:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:896:U:P	17:BO:33:LEU:C	2.70	0.53
1:A2:600:U:C5'	26:BX:104:LEU:HD23	2.37	0.53
1:A2:754:A:N6	1:A2:794:U:OP1	2.42	0.53
1:A2:2:A:O3'	12:BJ:17:ARG:O	2.06	0.53
1:A2:1429:G:C6	1:A2:1430:U:C4	2.97	0.53
6:BD:37:VAL:HG13	6:BD:38:GLU:N	2.24	0.53
2:AZ:6219:U:C2	6:BD:144:ALA:CB	2.92	0.53
1:A2:1685:G:C8	9:BG:51:LYS:NZ	2.56	0.53
1:A2:1520:U:P	22:BT:75:LYS:C	2.74	0.53
19:BQ:115:THR:O	19:BQ:118:ILE:N	2.39	0.53
15:BM:52:LEU:HB3	15:BM:78:LEU:HD13	1.90	0.53
1:A2:226:A:C3'	1:A2:227:U:H5'	2.37	0.53
21:BS:16:ARG:HH21	21:BS:21:ASN:HA	1.74	0.53
1:A2:1149:G:C2	1:A2:1151:A:C8	2.96	0.53
1:A2:786:C:C5	27:BY:71:GLY:N	2.68	0.53
27:BY:9:THR:OG1	27:BY:9:THR:O	2.22	0.53
10:BH:108:GLN:HA	10:BH:109:VAL:C	2.29	0.53
1:A2:270:C:C4	1:A2:271:A:N7	2.77	0.53
1:A2:445:A:C2	1:A2:446:A:C8	2.96	0.53
1:A2:451:A:H1'	27:BY:112:LYS:N	2.22	0.53
1:A2:1680:G:N3	9:BG:68:LEU:CA	2.71	0.53
1:A2:806:A:C8	25:BW:81:VAL:C	2.80	0.53
26:BX:11:SER:N	26:BX:12:ALA:N	2.56	0.53
1:A2:1102:G:C2	26:BX:7:ARG:NH1	2.76	0.53
1:A2:1296:A:C5	1:A2:1297:G:C8	2.97	0.53
1:A2:731:C:H4'	1:A2:732:G:OP1	2.08	0.53
1:A2:1558:U:C5	21:BS:123:ARG:HA	2.44	0.53
1:A2:1558:U:H2'	21:BS:133:VAL:O	1.83	0.53
1:A2:1137:A:H5'	26:BX:64:PRO:CD	2.33	0.53
1:A2:757:A:C3'	1:A2:758:U:O5'	2.57	0.53
1:A2:572:C:H5''	26:BX:116:ASP:OD1	2.08	0.53
1:A2:1601:G:H8	22:BT:89:ARG:CD	2.16	0.53
1:A2:785:U:H5	27:BY:57:VAL:HG23	1.74	0.53
1:A2:168:A:O3'	9:BG:132:ARG:CZ	2.56	0.53
1:A2:78:A:C4	9:BG:162:VAL:HG23	2.44	0.53
1:A2:1681:A:O5'	9:BG:29:ASP:O	2.27	0.53
1:A2:1722:A:H1'	9:BG:70:PRO:C	1.92	0.53
1:A2:638:U:P	25:BW:108:ALA:CB	2.71	0.53
1:A2:634:G:O3'	25:BW:77:PRO:HD2	2.08	0.53
1:A2:634:G:C5'	25:BW:79:PHE:CD2	2.92	0.53
1:A2:1293:U:OP2	1:A2:1294:G:OP2	2.26	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:831:U:H5'	7:BE:152:PRO:HG3	1.90	0.53
1:A2:1535:U:C6	8:BF:186:ASN:C	2.64	0.53
1:A2:1470:C:C3'	8:BF:184:PHE:CZ	2.91	0.53
1:A2:1240:U:O4'	18:BP:75:PRO:C	2.46	0.53
1:A2:1553:G:O6	18:BP:39:ALA:CA	2.53	0.53
1:A2:1057:U:C3'	3:BA:41:ARG:HA	2.37	0.53
1:A2:1067:C:C5'	3:BA:31:VAL:CG1	2.72	0.53
1:A2:952:A:OP1	16:BN:121:ARG:CD	2.57	0.53
1:A2:900:A:C5'	17:BO:20:TYR:CE1	2.91	0.53
1:A2:338:C:O2	11:BI:3:ILE:N	2.41	0.53
3:BA:131:GLN:HE21	3:BA:134:LYS:CE	2.21	0.53
1:A2:783:G:N7	27:BY:39:GLU:N	2.56	0.53
1:A2:181:A:H2'	1:A2:182:A:O4'	2.08	0.53
1:A2:138:A:N7	9:BG:140:ASN:HB3	2.23	0.53
1:A2:456:A:N1	27:BY:107:GLN:C	2.62	0.53
1:A2:1144:U:C2	1:A2:1145:U:O4	2.61	0.53
1:A2:1145:U:C5	5:BC:89:GLN:NE2	2.62	0.53
1:A2:216:U:O5'	7:BE:129:VAL:O	2.26	0.53
20:BR:66:VAL:C	20:BR:67:ARG:HA	2.29	0.53
1:A2:1211:A:C2	1:A2:1453:G:C2	2.97	0.53
1:A2:1268:G:N2	1:A2:1270:G:C5	2.76	0.53
1:A2:1452:U:C2	18:BP:81:ARG:NH1	2.69	0.53
1:A2:1213:G:H1'	18:BP:78:THR:O	2.07	0.53
1:A2:1210:C:N4	18:BP:98:ASN:O	2.42	0.53
1:A2:1548:G:C1'	21:BS:87:ASN:ND2	2.71	0.53
21:BS:30:TYR:HB2	21:BS:31:ALA:N	2.24	0.53
1:A2:871:G:N7	16:BN:12:SER:C	2.47	0.53
1:A2:954:G:C4	1:A2:955:A:C8	2.96	0.53
3:BA:48:ILE:HG22	20:BR:105:GLN:HE22	1.74	0.53
12:BJ:2:PRO:O	12:BJ:3:ARG:N	2.41	0.53
1:A2:1370:U:H3'	22:BT:119:LYS:CG	2.39	0.53
1:A2:208:U:C2'	11:BI:55:TYR:CZ	2.92	0.53
14:BL:8:GLN:HG3	14:BL:13:PHE:HA	1.91	0.53
1:A2:1636:C:O2	1:A2:1638:G:C6	2.62	0.53
2:AZ:6029:A:C2	2:AZ:6030:U:C5	2.97	0.53
4:BB:167:VAL:C	4:BB:168:ILE:N	2.60	0.53
17:BO:74:VAL:O	17:BO:74:VAL:HG22	2.07	0.53
27:BY:8:ARG:N	27:BY:26:ASP:O	2.42	0.53
1:A2:777:C:H5''	27:BY:32:ARG:HB2	1.91	0.53
1:A2:1723:U:P	9:BG:72:ARG:O	2.66	0.53
1:A2:162:A:H4'	9:BG:58:LYS:HD3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:57:G:C6	27:BY:115:ASP:N	2.69	0.53
1:A2:310:C:O2'	26:BX:35:GLY:CA	2.56	0.53
1:A2:635:A:H2	25:BW:33:VAL:CG2	2.21	0.53
25:BW:89:TRP:C	25:BW:90:THR:CA	2.77	0.53
1:A2:1302:U:H6	5:BC:97:ARG:CZ	2.17	0.53
1:A2:698:U:O4	7:BE:208:VAL:CG2	2.54	0.53
1:A2:703:G:C5	7:BE:230:GLU:CA	2.72	0.53
1:A2:701:U:N3	7:BE:175:PHE:O	2.42	0.53
1:A2:1391:A:OP1	20:BR:48:ASN:CB	2.56	0.53
1:A2:1472:C:H5''	8:BF:190:ILE:HD11	1.90	0.53
1:A2:1240:U:H5''	18:BP:104:GLN:NE2	2.23	0.53
1:A2:1454:G:H21	18:BP:123:TYR:N	1.08	0.53
1:A2:1239:U:C2	18:BP:76:VAL:HG22	2.44	0.53
1:A2:1547:A:H1'	21:BS:100:THR:O	2.09	0.53
1:A2:1504:G:C5'	22:BT:39:THR:H	2.15	0.53
2:AZ:6111:G:C1'	8:BF:219:ARG:O	2.57	0.53
1:A2:1:U:O2'	12:BJ:15:PRO:N	2.40	0.53
1:A2:28:A:N1	26:BX:131:SER:N	2.57	0.53
1:A2:1:U:OP1	12:BJ:39:LYS:HB2	2.08	0.53
26:BX:61:SER:HG	26:BX:62:LYS:N	2.06	0.53
1:A2:1417:A:C3'	19:BQ:128:LYS:HZ2	2.22	0.53
1:A2:615:A:OP1	5:BC:201:ASN:C	2.47	0.53
1:A2:1084:A:C5	5:BC:162:CYS:SG	3.01	0.53
16:BN:92:ILE:O	16:BN:95:ALA:N	2.39	0.53
1:A2:1040:G:OP1	24:BV:58:TYR:CD2	2.45	0.53
12:BJ:159:ALA:O	12:BJ:162:SER:N	2.42	0.53
1:A2:1074:G:C6	1:A2:1075:C:N4	2.76	0.53
1:A2:1205:C:HO3'	1:A2:1206:U:P	2.32	0.53
28:BZ:54:VAL:HG12	28:BZ:54:VAL:O	2.08	0.53
2:AZ:6031:G:O2'	2:AZ:6032:U:H2'	2.09	0.53
1:A2:787:G:P	27:BY:70:VAL:HG11	2.48	0.53
1:A2:87:C:H4'	27:BY:124:ARG:CZ	2.39	0.53
1:A2:704:C:N1	7:BE:231:GLN:HA	2.00	0.53
1:A2:1470:C:H2'	8:BF:184:PHE:CE2	2.44	0.53
1:A2:1470:C:H2''	8:BF:184:PHE:CZ	2.44	0.53
1:A2:1548:G:OP1	21:BS:100:THR:HG23	2.09	0.53
1:A2:873:U:C6	16:BN:12:SER:HB2	2.44	0.53
1:A2:896:U:N1	17:BO:18:ARG:NH1	2.56	0.53
1:A2:586:G:C6	1:A2:587:C:N4	2.77	0.53
1:A2:30:G:P	26:BX:142:LYS:CB	2.96	0.53
1:A2:325:G:C5	11:BI:10:LYS:HZ2	1.65	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:405:C:N3	1:A2:406:U:C4	2.77	0.53
14:BL:128:CYS:C	14:BL:129:ARG:N	2.63	0.53
1:A2:168:A:O3'	9:BG:132:ARG:NE	2.42	0.53
1:A2:456:A:N6	27:BY:108:ARG:CD	2.65	0.53
1:A2:395:U:C1'	9:BG:93:LYS:CE	2.87	0.53
1:A2:92:A:N7	27:BY:116:LYS:CE	2.70	0.53
1:A2:865:A:N7	25:BW:6:VAL:CG2	2.66	0.53
1:A2:1301:U:O2	5:BC:97:ARG:NE	1.95	0.53
1:A2:741:C:C1'	7:BE:200:ARG:HB3	2.39	0.53
1:A2:1315:U:C4	1:A2:1316:G:N7	2.77	0.53
1:A2:1402:G:O6	20:BR:5:ARG:NH2	2.42	0.53
20:BR:9:VAL:O	20:BR:12:ALA:N	2.41	0.53
1:A2:1453:G:N3	18:BP:120:SER:C	2.62	0.53
1:A2:1555:A:C5'	18:BP:41:VAL:HG23	2.39	0.53
1:A2:956:C:N3	16:BN:11:ILE:HD12	2.09	0.53
1:A2:897:C:C6	17:BO:38:THR:OG1	2.61	0.53
1:A2:30:G:H5''	26:BX:142:LYS:CG	2.32	0.53
1:A2:346:G:O6	11:BI:15:GLY:CA	2.54	0.53
1:A2:1084:A:H4'	5:BC:166:THR:CG2	2.38	0.53
1:A2:947:U:P	4:BB:158:SER:HB2	2.48	0.53
1:A2:299:A:N6	7:BE:7:LYS:HE3	2.13	0.53
1:A2:1738:U:H2'	1:A2:1739:C:C6	2.43	0.53
11:BI:107:THR:N	11:BI:108:PRO:CD	2.72	0.53
5:BC:146:THR:HG23	5:BC:146:THR:O	2.09	0.53
12:BJ:33:GLU:OE1	12:BJ:33:GLU:N	2.42	0.53
1:A2:175:G:O2'	9:BG:137:ARG:CZ	2.56	0.53
1:A2:242:U:N1	7:BE:148:ARG:NH1	2.57	0.53
1:A2:1536:G:H22	8:BF:187:ILE:HG13	1.68	0.53
4:BB:65:VAL:HG12	4:BB:87:ARG:HB2	1.90	0.53
1:A2:759:U:C2	12:BJ:7:THR:C	2.82	0.53
1:A2:1137:A:C3'	26:BX:64:PRO:CD	2.85	0.53
1:A2:1008:G:C6	1:A2:1009:U:C5	2.97	0.53
2:AZ:6123:A:N1	2:AZ:6152:C:N3	2.56	0.53
1:A2:1520:U:P	22:BT:75:LYS:CA	2.97	0.53
1:A2:882:U:C3'	1:A2:883:C:P	2.96	0.53
16:BN:138:ASN:O	16:BN:140:LYS:N	2.42	0.53
12:BJ:97:LEU:C	12:BJ:98:ALA:N	2.62	0.53
14:BL:33:ARG:CG	14:BL:34:TRP:N	2.71	0.53
12:BJ:89:ASP:C	12:BJ:90:LYS:N	2.63	0.53
1:A2:909:U:H2'	1:A2:910:C:C6	2.44	0.53
23:BU:48:HIS:CD2	23:BU:103:ILE:HD11	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:57:G:C2	1:A2:58:U:H1'	2.44	0.52
1:A2:149:C:C3'	27:BY:130:ALA:O	2.47	0.52
1:A2:354:C:C3'	1:A2:355:G:P	2.97	0.52
1:A2:633:U:O5'	14:BL:99:ARG:CD	2.52	0.52
1:A2:803:A:H5''	25:BW:120:HIS:CG	2.42	0.52
1:A2:866:G:O2'	25:BW:4:SER:CB	2.57	0.52
1:A2:1328:G:C6	6:BD:160:SER:OG	2.62	0.52
1:A2:733:A:C4'	7:BE:194:THR:OG1	2.57	0.52
1:A2:1534:G:O4'	28:BZ:62:VAL:HG12	2.09	0.52
28:BZ:80:LEU:HB3	28:BZ:81:ARG:N	2.23	0.52
1:A2:1203:A:C5	1:A2:1556:A:C2	2.97	0.52
1:A2:1449:U:O4	18:BP:97:TYR:CE2	2.62	0.52
1:A2:687:G:P	12:BJ:64:GLU:HG2	2.49	0.52
1:A2:916:U:C5	17:BO:84:ARG:NH1	2.76	0.52
4:BB:137:ILE:O	4:BB:138:PHE:CD1	2.61	0.52
1:A2:900:A:OP2	17:BO:25:ASP:OD1	2.28	0.52
1:A2:1600:A:H2'	1:A2:1600:A:N3	2.24	0.52
1:A2:338:C:C4	11:BI:5:ARG:N	2.77	0.52
1:A2:1344:A:C1'	23:BU:56:VAL:HG21	2.39	0.52
1:A2:1097:U:O2	5:BC:200:SER:OG	2.24	0.52
1:A2:765:G:N1	12:BJ:142:ASN:CB	2.72	0.52
7:BE:58:GLY:O	7:BE:61:VAL:N	2.42	0.52
2:AZ:6171:U:O2'	2:AZ:6173:C:H5'	2.10	0.52
21:BS:63:GLN:HG3	21:BS:66:LEU:HG	1.91	0.52
1:A2:912:U:C5	1:A2:912:U:OP2	2.63	0.52
9:BG:120:GLU:HG3	9:BG:125:THR:HG21	1.89	0.52
15:BM:135:MET:O	15:BM:135:MET:SD	2.67	0.52
5:BC:53:ILE:HG23	5:BC:72:LEU:CD2	2.39	0.52
1:A2:728:U:H2'	1:A2:728:U:O2	2.08	0.52
1:A2:859:A:C6	10:BH:111:LYS:HG3	2.38	0.52
1:A2:163:G:O3'	9:BG:108:VAL:CA	2.42	0.52
1:A2:1720:G:C4	9:BG:65:GLN:CG	2.93	0.52
1:A2:282:C:OP1	9:BG:154:ARG:HB3	2.09	0.52
1:A2:1036:A:H3'	1:A2:1037:C:P	2.49	0.52
26:BX:77:ILE:CA	26:BX:78:LYS:N	2.72	0.52
1:A2:1294:G:H5''	1:A2:1295:G:P	2.49	0.52
1:A2:699:U:C5	7:BE:198:LYS:C	2.77	0.52
1:A2:246:G:H5''	7:BE:127:LYS:CD	2.40	0.52
1:A2:1410:A:H2'	1:A2:1411:A:O4'	2.09	0.52
1:A2:1532:U:N1	28:BZ:77:ARG:NE	2.55	0.52
1:A2:1194:A:C6	1:A2:1195:C:C5	2.98	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:686:C:C4'	12:BJ:70:LEU:HD21	2.28	0.52
1:A2:930:A:C3'	4:BB:116:LYS:HD3	2.39	0.52
1:A2:31:C:H1'	26:BX:138:GLU:CB	2.34	0.52
1:A2:6:G:O6	1:A2:19:A:C6	2.63	0.52
22:BT:18:TYR:O	22:BT:19:ALA:C	2.47	0.52
1:A2:1273:G:C2	1:A2:1430:U:C4	2.98	0.52
1:A2:1096:C:P	5:BC:159:THR:OG1	2.67	0.52
1:A2:940:A:C2	1:A2:941:A:H1'	2.45	0.52
16:BN:61:THR:C	16:BN:62:GLN:N	2.62	0.52
5:BC:133:LYS:C	5:BC:134:LEU:N	2.62	0.52
1:A2:559:C:O2	1:A2:559:C:H2'	2.09	0.52
1:A2:784:C:H3'	27:BY:40:LEU:CD1	2.38	0.52
1:A2:783:G:OP1	27:BY:52:LYS:CE	2.58	0.52
1:A2:141:U:N3	9:BG:136:LYS:HG3	2.24	0.52
1:A2:145:A:OP1	9:BG:6:SER:CB	2.51	0.52
1:A2:1683:C:P	9:BG:52:ILE:CB	2.80	0.52
1:A2:168:A:C3'	9:BG:132:ARG:CZ	2.87	0.52
1:A2:140:A:P	9:BG:141:ILE:CD1	2.97	0.52
1:A2:80:A:C8	9:BG:164:LYS:CA	2.89	0.52
1:A2:127:G:H8	9:BG:186:ARG:CB	1.82	0.52
1:A2:1682:U:C4'	9:BG:52:ILE:HD13	2.38	0.52
1:A2:746:A:C2	25:BW:82:LYS:NZ	2.76	0.52
1:A2:635:A:C8	1:A2:863:A:C6	2.97	0.52
25:BW:14:ILE:C	25:BW:15:ASN:N	2.63	0.52
1:A2:1147:A:N1	1:A2:1633:A:C6	2.77	0.52
1:A2:243:G:N7	7:BE:138:TYR:CE2	2.77	0.52
1:A2:245:U:O2'	1:A2:247:A:N7	2.32	0.52
1:A2:733:A:N7	7:BE:209:HIS:CB	2.72	0.52
1:A2:819:G:H1'	1:A2:820:U:C5	2.44	0.52
1:A2:1564:U:C1'	21:BS:41:ARG:CB	2.74	0.52
3:BA:158:VAL:HG13	3:BA:159:ALA:N	2.24	0.52
3:BA:93:THR:HG22	3:BA:94:GLY:H	1.74	0.52
1:A2:916:U:C3'	17:BO:84:ARG:CZ	2.86	0.52
1:A2:30:G:N2	26:BX:138:GLU:H	2.04	0.52
11:BI:7:SER:C	11:BI:8:ARG:N	2.63	0.52
1:A2:800:U:O3'	7:BE:187:ARG:CG	2.14	0.52
1:A2:1625:C:OP2	5:BC:91:ARG:NH1	2.38	0.52
1:A2:542:A:HO2'	1:A2:543:C:P	2.31	0.52
2:AZ:6061:G:C6	2:AZ:6062:G:C8	2.97	0.52
4:BB:222:LYS:C	4:BB:223:PHE:N	2.62	0.52
1:A2:75:U:H5	9:BG:166:GLU:O	1.86	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1037:C:H2'	25:BW:19:LYS:HE3	1.79	0.52
1:A2:1328:G:C3'	6:BD:159:HIS:O	2.56	0.52
1:A2:219:A:OP2	9:BG:215:ARG:HD3	2.08	0.52
1:A2:247:A:O2'	1:A2:248:U:H5'	2.08	0.52
5:BC:47:ALA:C	5:BC:48:GLY:N	2.63	0.52
1:A2:1175:U:O4	21:BS:140:THR:HG23	2.08	0.52
1:A2:1505:A:C2	1:A2:1550:A:H4'	2.45	0.52
1:A2:1565:C:C4	1:A2:1566:U:C4	2.97	0.52
2:AZ:6108:U:C2	8:BF:223:SER:HA	2.36	0.52
1:A2:650:U:OP2	7:BE:256:ARG:CD	2.57	0.52
1:A2:649:U:OP1	7:BE:256:ARG:HB3	2.09	0.52
1:A2:953:G:H2'	16:BN:2:GLY:CA	2.03	0.52
1:A2:370:A:H5''	12:BJ:14:THR:CB	2.35	0.52
1:A2:1479:A:OP1	22:BT:56:LYS:CD	2.32	0.52
1:A2:1018:U:H3'	16:BN:109:LYS:NZ	2.24	0.52
7:BE:60:GLU:C	7:BE:61:VAL:CA	2.77	0.52
11:BI:112:TRP:C	11:BI:113:PHE:N	2.62	0.52
2:AZ:6099:G:O2'	2:AZ:6147:A:N6	2.43	0.52
1:A2:1074:G:C4	1:A2:1075:C:C5	2.97	0.52
1:A2:679:U:OP1	7:BE:259:GLN:OE1	2.27	0.52
1:A2:186:C:N3	1:A2:200:A:C2	2.78	0.52
26:BX:94:ASN:O	26:BX:95:PHE:CG	2.62	0.52
20:BR:70:SER:HA	20:BR:71:PHE:N	2.25	0.52
2:AZ:6142:C:H2'	2:AZ:6142:C:O2	2.09	0.52
1:A2:785:U:H1'	27:BY:27:VAL:HG21	1.91	0.52
1:A2:272:U:O2'	1:A2:284:G:N2	2.43	0.52
1:A2:91:G:C5	27:BY:116:LYS:CA	2.51	0.52
9:BG:75:LEU:C	9:BG:76:LEU:N	2.61	0.52
1:A2:864:U:N3	25:BW:14:ILE:HD11	2.11	0.52
1:A2:867:G:H3'	25:BW:2:THR:HG21	1.91	0.52
1:A2:698:U:C5	7:BE:208:VAL:HA	2.44	0.52
1:A2:833:U:OP1	9:BG:213:ALA:HB1	2.10	0.52
1:A2:1318:G:OP2	20:BR:11:ARG:CG	2.43	0.52
1:A2:1230:A:O2'	1:A2:1231:U:O4'	2.22	0.52
1:A2:1242:A:N6	1:A2:1244:A:C6	2.78	0.52
1:A2:1243:G:H1'	18:BP:58:LYS:HG3	1.92	0.52
1:A2:1502:G:H1'	1:A2:1505:A:N6	2.25	0.52
21:BS:52:VAL:HG12	21:BS:53:ASP:N	2.25	0.52
22:BT:101:ASN:O	22:BT:102:ARG:N	2.42	0.52
1:A2:650:U:H1'	12:BJ:74:ASN:ND2	2.25	0.52
1:A2:1056:U:OP1	3:BA:45:VAL:O	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:901:G:N1	17:BO:24:ASN:O	2.42	0.52
3:BA:17:LEU:HD12	20:BR:121:VAL:HA	1.92	0.52
3:BA:87:LEU:HA	3:BA:97:PRO:HB3	1.91	0.52
4:BB:106:THR:O	4:BB:107:THR:HG22	2.09	0.52
1:A2:597:G:C5'	26:BX:133:LEU:CD2	2.87	0.52
1:A2:757:A:C4	12:BJ:3:ARG:NH1	2.77	0.52
1:A2:1136:U:O4	26:BX:113:ALA:HB3	2.09	0.52
1:A2:18:C:C2'	26:BX:115:GLY:N	2.59	0.52
1:A2:597:G:C2'	26:BX:136:TRP:CE3	2.67	0.52
1:A2:322:G:O2'	11:BI:9:HIS:ND1	2.37	0.52
1:A2:879:G:H1'	16:BN:110:ASP:C	2.27	0.52
1:A2:503:G:H4'	1:A2:504:U:OP1	2.10	0.52
6:BD:202:LEU:HD13	6:BD:202:LEU:N	2.24	0.52
21:BS:15:LEU:HD13	21:BS:58:ALA:O	2.09	0.52
28:BZ:93:SER:O	28:BZ:94:LYS:N	2.43	0.52
3:BA:108:THR:C	3:BA:109:ASN:N	2.63	0.52
11:BI:159:GLN:C	11:BI:162:ALA:HB2	2.29	0.52
2:AZ:6036:C:O2'	2:AZ:6037:U:H5'	2.08	0.52
22:BT:138:GLN:O	22:BT:139:THR:N	2.43	0.52
13:BK:16:PHE:O	13:BK:17:GLN:CB	2.58	0.52
1:A2:574:G:OP2	26:BX:65:ASN:OD1	2.27	0.52
22:BT:70:GLN:O	22:BT:71:VAL:HG13	2.08	0.52
1:A2:163:G:O5'	9:BG:108:VAL:CG2	2.56	0.52
1:A2:1675:C:N4	1:A2:1676:U:C4	2.77	0.52
1:A2:452:A:N1	27:BY:120:GLY:O	2.42	0.52
1:A2:1103:U:O2'	1:A2:1104:U:H5'	2.10	0.52
26:BX:27:ASN:HD22	26:BX:27:ASN:C	2.13	0.52
1:A2:1300:A:C4	5:BC:86:VAL:CB	2.92	0.52
1:A2:216:U:C2'	7:BE:129:VAL:CG2	2.87	0.52
1:A2:245:U:H5	7:BE:140:VAL:HB	1.73	0.52
1:A2:737:A:C8	7:BE:227:VAL:HG13	2.45	0.52
1:A2:1537:C:H4'	1:A2:1538:U:C6	2.45	0.52
1:A2:1055:U:H4'	3:BA:46:HIS:CB	2.23	0.52
19:BQ:38:LEU:HD11	22:BT:9:VAL:C	2.30	0.52
1:A2:1280:C:N3	23:BU:72:ASN:OD1	2.40	0.52
1:A2:651:G:H3'	12:BJ:88:GLU:OE2	2.09	0.52
1:A2:1774:G:C5	1:A2:1775:U:C5	2.98	0.52
4:BB:193:ILE:O	4:BB:196:GLU:N	2.43	0.52
1:A2:784:C:C2'	27:BY:40:LEU:HD11	2.37	0.52
1:A2:137:U:O2	1:A2:137:U:H2'	2.09	0.52
1:A2:57:G:H3'	27:BY:114:ARG:CD	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:87:C:H5''	1:A2:88:U:OP2	2.10	0.52
9:BG:25:ARG:HA	9:BG:28:PHE:CD2	2.45	0.52
1:A2:145:A:H5''	9:BG:6:SER:CB	2.40	0.52
1:A2:634:G:H5'	25:BW:79:PHE:CD2	2.45	0.52
1:A2:609:U:O2	26:BX:28:ASN:CG	2.47	0.52
1:A2:432:G:H3'	1:A2:433:C:P	2.50	0.52
1:A2:434:G:O3'	26:BX:77:ILE:HD11	2.08	0.52
1:A2:1298:U:C1'	5:BC:99:LYS:HD2	2.26	0.52
1:A2:832:U:C5'	9:BG:213:ALA:CA	2.75	0.52
1:A2:1392:U:OP1	20:BR:28:PHE:C	2.48	0.52
1:A2:30:G:C8	26:BX:130:VAL:HG23	2.44	0.52
1:A2:760:A:HO2'	12:BJ:9:SER:C	2.10	0.52
11:BI:96:LEU:C	11:BI:97:THR:N	2.63	0.52
6:BD:219:ALA:HB1	6:BD:220:PRO:HD2	1.92	0.52
1:A2:1723:U:OP2	9:BG:73:ILE:N	2.42	0.52
1:A2:444:C:H4'	1:A2:445:A:H5'	1.91	0.52
1:A2:1102:G:O3'	14:BL:99:ARG:NH2	2.43	0.52
1:A2:699:U:H5	7:BE:209:HIS:N	2.08	0.52
1:A2:1317:C:H5''	20:BR:11:ARG:HE	1.75	0.52
1:A2:1317:C:H2'	1:A2:1318:G:C8	2.45	0.52
1:A2:1535:U:O2'	1:A2:1536:G:OP1	2.26	0.52
1:A2:1202:A:H61	21:BS:136:GLN:CA	2.21	0.52
1:A2:1213:G:C6	1:A2:1214:U:C4	2.98	0.52
1:A2:1559:A:OP1	21:BS:133:VAL:O	2.27	0.52
21:BS:81:ILE:HD11	21:BS:86:LEU:HD11	1.91	0.52
2:AZ:6107:U:O2'	8:BF:219:ARG:C	2.46	0.52
2:AZ:6107:U:N3	8:BF:217:LEU:O	2.42	0.52
1:A2:1796:C:O4'	1:A2:1796:C:O2	2.25	0.52
3:BA:55:GLU:CA	20:BR:109:LEU:HB3	2.40	0.52
3:BA:56:LYS:HD2	3:BA:158:VAL:HG22	1.92	0.52
1:A2:917:U:O2'	17:BO:118:VAL:HG21	2.08	0.52
1:A2:599:A:C2	26:BX:126:LYS:CG	2.69	0.52
26:BX:120:VAL:HA	26:BX:121:ARG:N	2.24	0.52
2:AZ:6069:A:C2	2:AZ:6152:C:O2'	2.52	0.52
1:A2:951:A:C2	16:BN:114:ARG:NE	2.73	0.52
22:BT:14:PHE:O	22:BT:139:THR:HG21	2.10	0.52
11:BI:102:VAL:O	11:BI:102:VAL:HG23	2.10	0.52
8:BF:177:ILE:O	8:BF:177:ILE:HG22	2.09	0.52
1:A2:784:C:H4'	27:BY:7:ILE:HB	1.91	0.52
1:A2:1672:G:H2'	1:A2:1673:G:C8	2.45	0.52
1:A2:88:U:C5'	27:BY:119:PHE:CB	2.87	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:862:A:C2	1:A2:963:A:N3	2.77	0.52
1:A2:636:A:N7	25:BW:78:ARG:NH1	2.58	0.52
1:A2:1331:A:H2'	6:BD:162:GLN:HG2	1.92	0.52
1:A2:1326:A:P	6:BD:156:PHE:CZ	2.79	0.52
1:A2:846:G:C6	1:A2:847:A:C5	2.97	0.52
1:A2:737:A:C5'	7:BE:158:ASP:C	2.74	0.52
1:A2:1528:U:H5'	19:BQ:43:ILE:HB	1.88	0.52
1:A2:1555:A:O5'	18:BP:41:VAL:CG2	2.58	0.52
1:A2:1030:A:C6	1:A2:1792:G:C6	2.98	0.52
3:BA:70:PRO:C	3:BA:73:VAL:CG2	2.78	0.52
1:A2:953:G:C1'	16:BN:6:SER:O	2.57	0.52
1:A2:989:U:P	17:BO:126:THR:CG2	2.98	0.52
20:BR:119:LEU:N	20:BR:119:LEU:HD12	2.25	0.52
1:A2:754:A:OP2	7:BE:14:ALA:C	2.40	0.52
1:A2:19:A:P	26:BX:109:ARG:HG3	2.49	0.52
1:A2:324:U:O2'	14:BL:133:LYS:HG2	2.08	0.52
1:A2:1591:C:OP2	22:BT:92:LYS:CA	2.57	0.52
1:A2:1009:U:H3'	17:BO:129:LYS:HE3	1.92	0.52
1:A2:1756:A:C8	1:A2:1756:A:H5''	2.45	0.52
1:A2:1776:A:H2'	1:A2:1777:G:H8	1.75	0.52
1:A2:1074:G:C2	1:A2:1075:C:C4	2.97	0.52
1:A2:1422:A:C2	1:A2:1423:U:C2	2.98	0.52
1:A2:939:A:C2	1:A2:940:A:C5	2.98	0.52
16:BN:126:ALA:O	16:BN:130:ARG:N	2.42	0.52
15:BM:25:GLU:HG2	15:BM:26:ASP:HA	1.90	0.52
1:A2:784:C:O3'	27:BY:7:ILE:HG22	2.05	0.52
1:A2:1329:A:C5	6:BD:160:SER:C	2.82	0.52
1:A2:702:G:H5''	7:BE:179:LYS:CE	2.40	0.52
1:A2:734:A:C8	7:BE:213:SER:N	2.70	0.52
1:A2:741:C:C5'	7:BE:200:ARG:CD	2.74	0.52
1:A2:216:U:C2	7:BE:150:PRO:CG	2.80	0.52
20:BR:43:SER:OG	20:BR:44:LYS:N	2.27	0.52
20:BR:26:LEU:HD22	20:BR:58:MET:O	2.10	0.52
1:A2:1533:C:H6	28:BZ:77:ARG:CD	2.13	0.52
1:A2:1502:G:O6	22:BT:100:ILE:CD1	2.57	0.52
1:A2:1068:C:O3'	1:A2:1069:A:OP1	2.28	0.52
1:A2:954:G:N2	1:A2:955:A:H1'	2.24	0.52
3:BA:71:GLU:CD	3:BA:71:GLU:N	2.63	0.52
1:A2:552:G:C3'	1:A2:553:G:P	2.98	0.52
1:A2:1084:A:H5'	5:BC:160:GLY:O	2.10	0.52
5:BC:161:LYS:C	5:BC:162:CYS:N	2.64	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1519:U:OP2	22:BT:75:LYS:HD3	2.10	0.52
11:BI:76:THR:HG22	11:BI:106:ALA:HB2	1.93	0.52
11:BI:112:TRP:CH2	11:BI:116:HIS:CB	2.93	0.52
6:BD:70:THR:CG2	6:BD:86:LEU:HD13	2.40	0.52
2:AZ:6209:A:C2	2:AZ:6210:U:O4	2.63	0.52
1:A2:783:G:N9	27:BY:39:GLU:HG2	2.24	0.51
1:A2:141:U:O2	9:BG:136:LYS:CA	2.58	0.51
1:A2:1102:G:N3	26:BX:7:ARG:CD	2.73	0.51
1:A2:633:U:C3'	14:BL:99:ARG:HG2	2.40	0.51
1:A2:804:A:C5	25:BW:83:ILE:N	2.71	0.51
1:A2:1327:C:C5	6:BD:157:LEU:O	2.62	0.51
1:A2:1299:G:C5	5:BC:86:VAL:HG11	2.41	0.51
1:A2:1302:U:O3'	5:BC:88:LYS:CD	2.58	0.51
1:A2:1317:C:C4'	20:BR:7:LYS:HA	2.40	0.51
1:A2:1556:A:P	18:BP:38:PRO:HG3	2.48	0.51
1:A2:650:U:OP1	12:BJ:78:ARG:HG2	2.09	0.51
3:BA:176:LEU:HD11	20:BR:101:ASN:C	2.30	0.51
4:BB:70:LEU:O	4:BB:73:LEU:N	2.43	0.51
1:A2:899:G:OP1	17:BO:46:MET:HB2	2.10	0.51
1:A2:338:C:C5'	11:BI:4:SER:OG	2.57	0.51
1:A2:1428:G:C6	1:A2:1429:G:N7	2.77	0.51
1:A2:881:A:P	16:BN:108:ASP:OD2	2.68	0.51
20:BR:56:HIS:C	20:BR:57:LEU:N	2.63	0.51
1:A2:762:A:H2'	1:A2:763:G:O4'	2.10	0.51
16:BN:137:PRO:O	16:BN:138:ASN:CG	2.48	0.51
10:BH:21:ALA:C	10:BH:22:GLN:N	2.64	0.51
5:BC:35:TRP:CD1	5:BC:36:VAL:O	2.62	0.51
6:BD:109:LEU:O	6:BD:110:LEU:N	2.43	0.51
27:BY:9:THR:O	27:BY:10:ARG:N	2.43	0.51
10:BH:111:LYS:C	10:BH:112:ARG:HA	2.30	0.51
1:A2:136:C:O2	1:A2:136:C:C2'	2.57	0.51
1:A2:89:G:H5'	27:BY:119:PHE:CE1	2.45	0.51
1:A2:630:A:N6	26:BX:14:LYS:CD	2.35	0.51
25:BW:6:VAL:C	25:BW:7:LEU:N	2.63	0.51
1:A2:1302:U:O3'	5:BC:88:LYS:HD2	2.10	0.51
1:A2:703:G:C2	7:BE:179:LYS:CB	2.63	0.51
1:A2:705:U:O2'	7:BE:231:GLN:CA	2.54	0.51
1:A2:832:U:O3'	9:BG:213:ALA:HA	2.10	0.51
1:A2:1608:U:H4'	19:BQ:73:GLY:HA3	1.92	0.51
1:A2:1564:U:C2'	21:BS:41:ARG:CG	2.70	0.51
1:A2:916:U:O2	17:BO:27:PHE:CD2	2.63	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:952:A:OP1	16:BN:121:ARG:HD3	2.10	0.51
3:BA:132:ALA:HB1	3:BA:143:VAL:HG13	1.92	0.51
1:A2:1051:G:O6	3:BA:32:HIS:HE1	1.93	0.51
1:A2:899:G:C3'	17:BO:25:ASP:CG	2.47	0.51
1:A2:889:U:OP2	17:BO:88:GLY:C	2.49	0.51
20:BR:101:ASN:HA	20:BR:120:SER:CB	2.40	0.51
1:A2:756:A:O5'	12:BJ:4:ALA:N	2.43	0.51
1:A2:597:G:C4'	26:BX:137:LYS:HD3	2.20	0.51
1:A2:570:A:N6	26:BX:68:ILE:C	2.62	0.51
1:A2:1600:A:H4'	22:BT:89:ARG:CB	2.36	0.51
1:A2:336:G:C4	11:BI:25:ARG:HB2	2.22	0.51
1:A2:338:C:N3	11:BI:29:LEU:CA	2.56	0.51
1:A2:1755:A:O3'	1:A2:1756:A:C4'	2.58	0.51
1:A2:388:G:C3'	1:A2:389:G:P	2.98	0.51
5:BC:138:PRO:CA	5:BC:139:ILE:N	2.73	0.51
24:BV:34:ILE:HG22	24:BV:36:VAL:N	2.25	0.51
1:A2:607:G:O2'	1:A2:608:U:OP2	2.17	0.51
1:A2:1750:A:C6	1:A2:1751:C:C4	2.98	0.51
1:A2:1140:G:O3'	1:A2:1141:G:P	2.69	0.51
26:BX:36:THR:O	26:BX:40:SER:N	2.37	0.51
26:BX:37:ALA:C	26:BX:38:PHE:N	2.64	0.51
1:A2:1398:U:O4'	1:A2:1398:U:O2	2.28	0.51
1:A2:784:C:O5'	27:BY:40:LEU:HD12	2.10	0.51
1:A2:141:U:C4'	9:BG:135:PRO:CD	2.82	0.51
1:A2:76:A:H3'	1:A2:77:U:H5'	1.93	0.51
1:A2:127:G:C6	9:BG:186:ARG:N	2.39	0.51
1:A2:1107:G:H2'	1:A2:1108:G:N3	2.25	0.51
1:A2:215:A:H5''	7:BE:131:LEU:O	2.05	0.51
20:BR:55:THR:O	20:BR:55:THR:HG22	2.10	0.51
1:A2:1473:U:C3'	8:BF:190:ILE:HG13	2.39	0.51
1:A2:1451:C:N4	1:A2:1452:U:C4	2.79	0.51
1:A2:1453:G:OP2	18:BP:115:TYR:CD2	2.63	0.51
1:A2:1458:G:OP1	21:BS:138:THR:CB	2.43	0.51
8:BF:215:ASP:O	8:BF:217:LEU:N	2.43	0.51
1:A2:916:U:C2	17:BO:27:PHE:CD2	2.98	0.51
1:A2:917:U:H3'	17:BO:120:PRO:HD3	1.92	0.51
1:A2:897:C:P	17:BO:39:ILE:HG13	2.49	0.51
1:A2:30:G:O6	26:BX:140:LYS:HG2	2.11	0.51
1:A2:572:C:OP1	26:BX:117:ILE:HG13	2.10	0.51
1:A2:1383:G:N3	23:BU:57:ARG:NE	2.56	0.51
1:A2:1084:A:H4'	5:BC:166:THR:HG22	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1040:G:C5'	24:BV:62:ARG:HD2	2.20	0.51
1:A2:561:G:C6	1:A2:562:G:C5	2.98	0.51
16:BN:36:GLN:O	16:BN:39:LYS:HB3	2.11	0.51
14:BL:123:VAL:O	14:BL:124:THR:N	2.43	0.51
1:A2:1151:A:H4'	1:A2:1766:A:C8	2.45	0.51
1:A2:1766:A:C4	1:A2:1794:A:C2	2.98	0.51
1:A2:655:G:H4'	1:A2:656:G:OP1	2.10	0.51
1:A2:1185:U:O2	1:A2:1185:U:H2'	2.11	0.51
10:BH:100:PRO:O	10:BH:112:ARG:HD3	2.10	0.51
1:A2:144:U:H2'	1:A2:145:A:O4'	2.11	0.51
1:A2:179:A:H3'	9:BG:187:LYS:HD2	1.88	0.51
1:A2:395:U:N1	9:BG:93:LYS:CE	2.65	0.51
1:A2:57:G:C6	27:BY:115:ASP:C	2.78	0.51
1:A2:633:U:H5''	14:BL:99:ARG:CB	2.32	0.51
1:A2:969:C:O2	26:BX:6:PRO:HG3	2.10	0.51
1:A2:219:A:C2	1:A2:220:A:C8	2.99	0.51
1:A2:215:A:O5'	7:BE:130:GLN:HG2	2.10	0.51
1:A2:1403:C:C6	20:BR:3:ARG:CB	2.89	0.51
1:A2:1532:U:H6	28:BZ:77:ARG:CD	2.07	0.51
1:A2:1212:G:O6	18:BP:97:TYR:CZ	2.52	0.51
1:A2:1507:G:C5	1:A2:1508:U:C5	2.98	0.51
3:BA:56:LYS:HD2	3:BA:59:LEU:HD13	1.93	0.51
4:BB:126:THR:HG22	4:BB:136:ARG:CG	2.41	0.51
1:A2:594:A:O3'	1:A2:595:G:P	2.69	0.51
1:A2:597:G:H3'	1:A2:598:U:P	2.50	0.51
1:A2:598:U:N1	26:BX:132:LEU:CB	2.43	0.51
1:A2:572:C:OP2	26:BX:69:ARG:CD	2.59	0.51
1:A2:316:A:O2'	1:A2:317:C:O5'	2.27	0.51
1:A2:1085:G:C6	5:BC:162:CYS:SG	3.03	0.51
1:A2:1096:C:P	5:BC:168:ARG:CG	2.99	0.51
1:A2:765:G:H1	12:BJ:142:ASN:CB	2.24	0.51
19:BQ:7:VAL:HA	19:BQ:8:GLN:N	2.24	0.51
1:A2:362:G:C6	1:A2:383:G:C6	2.97	0.51
4:BB:149:GLN:O	4:BB:150:VAL:N	2.43	0.51
1:A2:811:A:N3	10:BH:107:ARG:CA	2.53	0.51
1:A2:139:C:C6	9:BG:137:ARG:CB	2.93	0.51
1:A2:145:A:C2	1:A2:146:U:C2	2.98	0.51
1:A2:139:C:HO2'	9:BG:137:ARG:HA	1.71	0.51
1:A2:632:U:O2'	14:BL:99:ARG:NE	2.44	0.51
1:A2:636:A:OP2	25:BW:78:ARG:CB	2.48	0.51
1:A2:805:U:H4'	25:BW:86:ILE:HG23	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:638:U:C2	25:BW:107:SER:HA	2.45	0.51
1:A2:436:A:O5'	26:BX:101:GLU:OE1	2.28	0.51
1:A2:1303:U:C5	1:A2:1304:G:C5	2.98	0.51
1:A2:1301:U:N1	5:BC:117:THR:OG1	2.43	0.51
1:A2:702:G:N7	7:BE:176:ASP:CA	2.74	0.51
1:A2:737:A:C5	7:BE:227:VAL:CG1	2.93	0.51
1:A2:697:C:C4'	7:BE:209:HIS:HD2	2.00	0.51
7:BE:235:TYR:C	7:BE:236:ILE:N	2.64	0.51
12:BJ:71:PHE:CD1	12:BJ:71:PHE:C	2.83	0.51
1:A2:989:U:P	17:BO:126:THR:HG23	2.50	0.51
1:A2:899:G:C3'	17:BO:26:THR:O	2.59	0.51
25:BW:28:ARG:HB3	25:BW:29:PRO:HD2	1.91	0.51
1:A2:959:U:P	25:BW:60:LYS:HE3	2.50	0.51
1:A2:789:A:HO3'	1:A2:790:U:P	2.33	0.51
23:BU:68:ARG:NH2	23:BU:76:SER:O	2.44	0.51
1:A2:880:C:O2'	16:BN:101:HIS:CE1	2.58	0.51
27:BY:18:LEU:HD23	27:BY:85:PHE:CG	2.46	0.51
15:BM:70:ASN:O	15:BM:74:LEU:HB2	2.10	0.51
1:A2:1165:G:O5'	1:A2:1165:G:H8	1.94	0.51
2:AZ:6165:C:N4	2:AZ:6166:U:O2	2.43	0.51
1:A2:617:U:C5	1:A2:1093:A:N7	2.78	0.51
25:BW:112:ASP:CA	25:BW:113:HIS:N	2.73	0.51
1:A2:1774:G:N7	1:A2:1775:U:C5	2.79	0.51
1:A2:1119:G:C5	1:A2:1120:U:C5	2.99	0.51
1:A2:1671:A:C2	1:A2:1672:G:H1'	2.46	0.51
1:A2:1681:A:H3'	9:BG:31:ARG:N	2.25	0.51
1:A2:1682:U:C4	1:A2:1719:A:N1	2.78	0.51
1:A2:93:A:C2	1:A2:399:A:N1	2.79	0.51
1:A2:168:A:C2'	9:BG:132:ARG:CZ	2.89	0.51
9:BG:56:ASN:HD21	9:BG:62:PRO:HA	1.76	0.51
9:BG:84:TYR:CD1	9:BG:85:ARG:N	2.78	0.51
1:A2:1299:G:H2'	5:BC:86:VAL:CB	2.38	0.51
1:A2:1299:G:O2'	5:BC:84:LYS:HG3	2.10	0.51
1:A2:12:U:C2	1:A2:13:C:C5	2.98	0.51
1:A2:13:C:O2'	1:A2:1298:U:C4	2.62	0.51
1:A2:241:U:H2'	7:BE:148:ARG:CZ	2.41	0.51
1:A2:735:C:OP1	7:BE:191:ARG:HG3	2.05	0.51
1:A2:1392:U:C4	1:A2:1393:C:N4	2.78	0.51
1:A2:1529:C:H5	28:BZ:95:HIS:NE2	1.99	0.51
1:A2:1239:U:H3'	18:BP:73:PRO:O	2.08	0.51
2:AZ:6107:U:O5'	8:BF:221:ALA:HA	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1014:G:H2'	1:A2:1015:U:O4'	2.11	0.51
1:A2:919:A:H2'	1:A2:920:U:O4'	2.11	0.51
1:A2:960:U:O5'	25:BW:56:HIS:C	2.48	0.51
1:A2:599:A:H1'	26:BX:124:VAL:HG12	1.92	0.51
1:A2:337:G:C4'	11:BI:6:ASP:O	2.57	0.51
1:A2:1417:A:O3'	19:BQ:128:LYS:HD3	1.86	0.51
1:A2:931:C:H5'	4:BB:117:TRP:CH2	2.46	0.51
11:BI:101:ILE:HG23	11:BI:167:ALA:O	2.10	0.51
1:A2:1621:U:C3'	1:A2:1622:G:P	2.99	0.51
1:A2:397:A:C2	1:A2:398:G:H1'	2.46	0.51
1:A2:89:G:C6	1:A2:90:C:N4	2.78	0.51
1:A2:639:U:O4'	1:A2:639:U:O2	2.28	0.51
25:BW:78:ARG:O	25:BW:79:PHE:C	2.49	0.51
26:BX:27:ASN:ND2	26:BX:27:ASN:C	2.63	0.51
1:A2:703:G:C4	7:BE:229:GLY:C	2.71	0.51
1:A2:740:A:N6	7:BE:206:ASP:CB	2.69	0.51
1:A2:820:U:O4	1:A2:853:G:C2	2.63	0.51
1:A2:1399:C:C5	20:BR:60:ARG:CB	2.93	0.51
1:A2:1529:C:OP2	8:BF:112:ARG:CZ	2.59	0.51
1:A2:1565:C:C4	1:A2:1566:U:O4	2.64	0.51
1:A2:1566:U:H2'	1:A2:1567:U:H6	1.76	0.51
1:A2:1498:G:C5'	22:BT:73:VAL:N	2.65	0.51
2:AZ:6105:U:H2'	2:AZ:6106:A:H5''	1.92	0.51
1:A2:1054:U:C1'	3:BA:30:GLN:HG2	2.34	0.51
16:BN:18:TYR:C	16:BN:19:SER:N	2.64	0.51
1:A2:370:A:C4'	12:BJ:14:THR:O	2.59	0.51
1:A2:328:A:C5'	11:BI:172:ARG:NH1	2.44	0.51
11:BI:48:THR:HG22	11:BI:49:ARG:H	1.76	0.51
1:A2:1428:G:N2	23:BU:74:GLU:CG	0.76	0.51
5:BC:230:TRP:CE2	25:BW:68:ARG:HD3	2.45	0.51
1:A2:1737:G:C2	1:A2:1738:U:C2	2.99	0.51
23:BU:104:THR:HG22	23:BU:116:VAL:HG21	1.92	0.51
6:BD:101:GLN:C	6:BD:102:ALA:C	2.69	0.51
1:A2:285:G:C6	1:A2:286:C:C4	2.98	0.51
1:A2:777:C:H5''	27:BY:34:ASN:N	2.26	0.51
27:BY:54:ALA:O	27:BY:76:TYR:N	2.44	0.51
1:A2:137:U:HO3'	9:BG:143:LYS:HG2	1.66	0.51
1:A2:451:A:H1'	27:BY:112:LYS:CB	2.41	0.51
27:BY:126:ALA:O	27:BY:129:VAL:HG13	2.10	0.51
14:BL:96:LYS:C	14:BL:97:TYR:N	2.64	0.51
25:BW:35:ILE:C	25:BW:36:LYS:HA	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:737:A:H3'	7:BE:125:LYS:HG3	1.92	0.51
1:A2:1470:C:H1'	8:BF:185:ARG:HH21	1.75	0.51
1:A2:1239:U:O2	18:BP:76:VAL:HG22	2.11	0.51
1:A2:1565:C:P	21:BS:41:ARG:HA	2.49	0.51
3:BA:179:ARG:HH11	20:BR:100:LEU:CB	2.24	0.51
16:BN:5:HIS:C	16:BN:6:SER:CA	2.79	0.51
1:A2:1040:G:H3'	24:BV:62:ARG:NE	2.12	0.51
1:A2:1787:C:H5'	17:BO:132:ARG:NH1	2.15	0.51
19:BQ:20:ALA:C	19:BQ:21:HIS:N	2.64	0.51
1:A2:69:G:C2	1:A2:70:C:C2	2.99	0.51
11:BI:168:CYS:SG	11:BI:184:LEU:HD22	2.51	0.51
1:A2:1046:G:N3	1:A2:1073:G:N2	2.58	0.51
19:BQ:86:ALA:C	19:BQ:87:LYS:N	2.64	0.51
1:A2:1394:G:H2'	1:A2:1395:G:O4'	2.10	0.51
1:A2:1673:G:C5	1:A2:1674:C:C5	2.98	0.51
1:A2:1710:U:H6	9:BG:115:LYS:CG	1.82	0.51
1:A2:1722:A:H2'	9:BG:69:LEU:HD23	1.93	0.51
1:A2:76:A:N3	9:BG:166:GLU:N	2.59	0.51
1:A2:163:G:C8	9:BG:17:GLU:OE1	2.63	0.51
1:A2:57:G:H22	27:BY:115:ASP:N	1.98	0.51
1:A2:699:U:H6	7:BE:197:HIS:ND1	2.09	0.51
1:A2:703:G:H1'	7:BE:173:ILE:CG2	2.31	0.51
1:A2:1402:G:C1'	20:BR:4:VAL:HG13	2.40	0.51
6:BD:142:LEU:O	6:BD:143:ARG:N	2.44	0.51
1:A2:687:G:H4'	12:BJ:66:ASP:O	2.10	0.51
3:BA:122:ILE:HG23	3:BA:144:ILE:HG22	1.93	0.51
3:BA:141:ILE:O	3:BA:142:PRO:C	2.49	0.51
1:A2:1066:C:C2'	3:BA:32:HIS:N	2.74	0.51
1:A2:595:G:C4	26:BX:139:LYS:HD3	2.45	0.51
22:BT:140:LEU:HD23	22:BT:140:LEU:O	2.11	0.51
1:A2:322:G:C2	11:BI:10:LYS:HD2	2.33	0.51
1:A2:332:U:O2'	11:BI:26:LYS:HB2	2.11	0.51
1:A2:329:G:C2	11:BI:31:ARG:N	2.79	0.51
1:A2:1083:G:N3	5:BC:161:LYS:O	2.37	0.51
14:BL:123:VAL:HG22	14:BL:123:VAL:O	2.11	0.51
1:A2:617:U:C5	1:A2:1093:A:C8	2.98	0.51
16:BN:72:MET:C	16:BN:75:LEU:HB2	2.31	0.51
10:BH:64:VAL:HG12	10:BH:65:PRO:N	2.26	0.51
7:BE:189:LEU:HD12	7:BE:189:LEU:C	2.31	0.51
8:BF:205:SER:O	8:BF:206:SER:CB	2.58	0.51
23:BU:25:THR:HG23	23:BU:90:TYR:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1765:A:C6	1:A2:1767:G:N1	2.79	0.51
1:A2:783:G:C4	27:BY:39:GLU:CD	2.84	0.51
1:A2:459:G:HO3'	1:A2:460:A:P	2.30	0.51
1:A2:1295:G:N1	1:A2:1296:A:C5	2.79	0.51
1:A2:1298:U:C2	5:BC:208:GLU:HG3	2.44	0.51
1:A2:1301:U:H3'	5:BC:97:ARG:CD	2.31	0.51
1:A2:737:A:H8	7:BE:225:VAL:HG12	1.75	0.51
1:A2:1533:C:H4'	1:A2:1539:G:C2	2.45	0.51
1:A2:1608:U:H1'	19:BQ:73:GLY:HA3	1.91	0.51
2:AZ:6138:A:OP2	8:BF:126:ASP:N	2.30	0.51
2:AZ:6107:U:H3	8:BF:217:LEU:CA	2.23	0.51
1:A2:597:G:C4'	26:BX:133:LEU:CD2	2.89	0.51
1:A2:754:A:H2'	1:A2:754:A:N3	2.25	0.51
1:A2:1196:A:OP2	1:A2:1464:G:N2	2.44	0.51
1:A2:1280:C:N1	23:BU:72:ASN:CA	2.64	0.51
1:A2:1282:U:H3'	1:A2:1283:U:H5''	1.93	0.51
1:A2:1082:C:OP2	1:A2:1083:G:OP2	2.29	0.51
27:BY:18:LEU:HD13	27:BY:20:ARG:NH1	2.26	0.51
1:A2:1650:U:H2'	1:A2:1651:A:H8	1.75	0.51
1:A2:772:G:O2'	1:A2:773:C:OP1	2.27	0.51
12:BJ:152:SER:O	12:BJ:153:GLU:N	2.44	0.51
1:A2:814:A:C2	10:BH:109:VAL:C	2.80	0.50
1:A2:143:G:OP1	9:BG:131:LYS:HG2	2.10	0.50
1:A2:457:G:C6	27:BY:104:SER:O	2.64	0.50
1:A2:968:U:O2'	26:BX:6:PRO:CD	2.52	0.50
1:A2:973:A:N3	1:A2:974:A:C8	2.78	0.50
25:BW:7:LEU:O	25:BW:10:ALA:N	2.43	0.50
25:BW:9:ASP:O	25:BW:12:ASN:HB3	2.10	0.50
1:A2:1145:U:O2	5:BC:94:GLN:HA	2.11	0.50
1:A2:1301:U:O2	1:A2:1302:U:H5'	2.11	0.50
5:BC:101:VAL:HG23	5:BC:115:ILE:HG12	1.92	0.50
1:A2:1298:U:N1	5:BC:99:LYS:CD	2.73	0.50
1:A2:220:A:C3'	9:BG:220:LYS:N	2.72	0.50
1:A2:1403:C:C6	20:BR:3:ARG:CA	2.92	0.50
2:AZ:6220:U:C6	6:BD:142:LEU:HB2	2.45	0.50
1:A2:1549:C:C2	21:BS:86:LEU:O	2.55	0.50
1:A2:1565:C:C5	1:A2:1566:U:C4	2.99	0.50
3:BA:90:ALA:HB3	3:BA:97:PRO:HG3	1.92	0.50
17:BO:43:THR:O	17:BO:44:GLY:C	2.49	0.50
20:BR:110:VAL:HG13	20:BR:113:LEU:HG	1.92	0.50
1:A2:31:C:C2'	26:BX:138:GLU:CA	2.89	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1479:A:OP2	22:BT:56:LYS:HB3	2.10	0.50
1:A2:1095:U:C4'	5:BC:159:THR:CB	2.87	0.50
1:A2:1083:G:N3	5:BC:161:LYS:CG	2.73	0.50
1:A2:527:A:C5	1:A2:528:U:C5	2.99	0.50
2:AZ:6168:C:H2'	2:AZ:6169:G:O4'	2.11	0.50
11:BI:72:ILE:HG21	11:BI:112:TRP:CD1	2.46	0.50
9:BG:50:PHE:HB3	9:BG:111:LEU:HD22	1.93	0.50
22:BT:22:LEU:HD12	22:BT:58:ALA:HB1	1.93	0.50
14:BL:128:CYS:HB3	14:BL:129:ARG:O	2.11	0.50
1:A2:131:C:O2	1:A2:133:U:N3	2.44	0.50
14:BL:21:ASN:HA	14:BL:22:ASN:N	2.27	0.50
1:A2:168:A:C4'	9:BG:132:ARG:CZ	2.80	0.50
1:A2:1720:G:O3'	9:BG:64:LYS:HE3	2.11	0.50
1:A2:1731:A:H3'	1:A2:1732:A:O5'	2.11	0.50
6:BD:223:LYS:HB3	6:BD:225:TYR:CE1	2.46	0.50
1:A2:457:G:O4'	27:BY:114:ARG:NH2	2.43	0.50
1:A2:630:A:N1	26:BX:17:VAL:HG11	2.25	0.50
6:BD:162:GLN:O	6:BD:164:VAL:N	2.45	0.50
1:A2:220:A:C2'	9:BG:220:LYS:HA	2.40	0.50
1:A2:735:C:C2	7:BE:181:VAL:HG23	2.46	0.50
7:BE:201:HIS:HB3	7:BE:202:ASP:N	2.26	0.50
1:A2:1538:U:O4	8:BF:185:ARG:C	2.49	0.50
1:A2:1555:A:C1'	18:BP:115:TYR:CE1	2.93	0.50
1:A2:1506:G:H4'	1:A2:1551:U:C5'	2.40	0.50
21:BS:32:LEU:HD11	21:BS:69:ILE:HG23	1.92	0.50
1:A2:1499:G:H8	22:BT:102:ARG:C	2.07	0.50
8:BF:144:GLU:OE1	8:BF:225:ARG:NH2	2.44	0.50
1:A2:1055:U:O5'	3:BA:37:VAL:N	2.44	0.50
1:A2:892:A:H3'	1:A2:893:U:P	2.51	0.50
3:BA:53:THR:HG22	20:BR:106:THR:HG23	1.92	0.50
1:A2:549:G:H2'	1:A2:550:A:O4'	2.11	0.50
6:BD:23:GLU:OE1	13:BK:60:SER:OG	2.29	0.50
1:A2:1418:G:O5'	19:BQ:128:LYS:HD3	1.66	0.50
1:A2:1496:U:O2'	1:A2:1512:G:N2	2.44	0.50
1:A2:834:G:C6	1:A2:835:U:C4	3.00	0.50
12:BJ:62:ARG:C	12:BJ:63:ASP:N	2.64	0.50
1:A2:780:A:H5'	27:BY:32:ARG:NH2	2.26	0.50
1:A2:289:U:H2'	1:A2:290:G:O4'	2.10	0.50
1:A2:90:C:N4	27:BY:115:ASP:C	2.60	0.50
1:A2:863:A:H2'	25:BW:6:VAL:HB	1.92	0.50
1:A2:967:A:O5'	1:A2:967:A:H8	1.95	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:969:C:C2	26:BX:14:LYS:CD	2.93	0.50
26:BX:29:TYR:O	26:BX:32:ARG:N	2.45	0.50
1:A2:45:U:O2	26:BX:77:ILE:CG2	2.57	0.50
1:A2:1299:G:OP2	5:BC:117:THR:HB	2.10	0.50
1:A2:735:C:C6	7:BE:181:VAL:HG23	2.45	0.50
1:A2:702:G:H22	7:BE:227:VAL:CG2	2.24	0.50
1:A2:1389:C:H5''	20:BR:45:ARG:CD	2.39	0.50
9:BG:19:ASP:O	9:BG:20:ASP:N	2.44	0.50
1:A2:1400:A:O5'	20:BR:53:TYR:OH	2.23	0.50
1:A2:1399:C:H5	20:BR:60:ARG:HB3	1.76	0.50
1:A2:1476:C:C4	1:A2:1477:G:N7	2.80	0.50
1:A2:1528:U:P	8:BF:112:ARG:HB2	2.51	0.50
1:A2:1472:C:C5'	8:BF:190:ILE:HD11	2.41	0.50
2:AZ:6108:U:H4'	2:AZ:6109:U:O5'	2.11	0.50
1:A2:1051:G:C2	1:A2:1053:G:H1'	2.47	0.50
1:A2:869:A:H2'	1:A2:870:C:O4'	2.12	0.50
3:BA:115:PHE:CD1	3:BA:116:LYS:HA	2.47	0.50
10:BH:154:LEU:N	10:BH:184:GLU:O	2.44	0.50
1:A2:900:A:H8	17:BO:25:ASP:HB3	1.75	0.50
1:A2:19:A:OP2	26:BX:109:ARG:HG2	2.12	0.50
1:A2:601:A:H8	26:BX:105:ALA:HB1	0.70	0.50
1:A2:570:A:H61	26:BX:68:ILE:C	2.14	0.50
1:A2:1083:G:C8	5:BC:161:LYS:O	2.60	0.50
1:A2:1591:C:H5'	22:BT:93:HIS:HB2	1.93	0.50
1:A2:1613:U:OP2	8:BF:84:LYS:CG	2.59	0.50
1:A2:462:G:C5	1:A2:463:U:C5	2.98	0.50
1:A2:1655:A:N3	1:A2:1746:A:C2	2.80	0.50
2:AZ:6036:C:O2'	2:AZ:6037:U:H5''	2.12	0.50
1:A2:775:G:O4'	27:BY:61:ARG:NH2	2.44	0.50
1:A2:265:A:C6	1:A2:290:G:N1	2.80	0.50
1:A2:444:C:C4	1:A2:461:G:N2	2.79	0.50
1:A2:137:U:H3	9:BG:139:ASN:HB2	1.76	0.50
1:A2:78:A:C2	9:BG:160:ARG:NH2	2.55	0.50
1:A2:1720:G:C4	9:BG:65:GLN:HG2	2.47	0.50
1:A2:1721:A:C5	9:BG:68:LEU:N	2.79	0.50
1:A2:444:C:C2	27:BY:104:SER:HB3	2.36	0.50
1:A2:863:A:C3'	25:BW:6:VAL:CG1	2.77	0.50
26:BX:19:ARG:O	26:BX:23:ARG:N	2.44	0.50
1:A2:735:C:O3'	7:BE:181:VAL:HG12	2.10	0.50
1:A2:240:U:C3'	9:BG:208:TYR:HB3	2.36	0.50
1:A2:1470:C:O3'	8:BF:185:ARG:HG2	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1502:G:P	22:BT:32:GLY:O	2.67	0.50
1:A2:1502:G:N3	22:BT:37:VAL:HG22	2.26	0.50
1:A2:1505:A:H4'	22:BT:41:SER:HB3	1.93	0.50
2:AZ:6105:U:C3'	2:AZ:6106:A:H5''	2.42	0.50
2:AZ:6106:A:N3	8:BF:224:ASN:O	2.44	0.50
1:A2:959:U:H1'	25:BW:54:ASP:OD2	2.11	0.50
3:BA:37:VAL:O	3:BA:48:ILE:HG23	2.10	0.50
1:A2:370:A:N7	12:BJ:16:LYS:HG3	2.25	0.50
1:A2:18:C:C5'	26:BX:109:ARG:CD	2.62	0.50
1:A2:29:U:C5	26:BX:129:GLY:O	2.52	0.50
1:A2:328:A:H2'	1:A2:329:G:H8	1.75	0.50
1:A2:325:G:O4'	14:BL:133:LYS:HA	2.11	0.50
24:BV:28:ASP:O	24:BV:30:ALA:CA	2.60	0.50
11:BI:90:LEU:HB3	11:BI:95:THR:HB	1.91	0.50
1:A2:1664:C:O2	1:A2:1664:C:H2'	2.10	0.50
11:BI:162:ALA:HB1	11:BI:164:ARG:N	2.26	0.50
1:A2:1782:A:H3'	1:A2:1783:C:O5'	2.12	0.50
19:BQ:112:TYR:O	19:BQ:114:ALA:HB2	2.12	0.50
1:A2:787:G:C2	27:BY:61:ARG:CG	2.88	0.50
1:A2:392:G:C6	1:A2:393:C:C4	3.00	0.50
1:A2:57:G:C2'	27:BY:114:ARG:NE	2.73	0.50
1:A2:90:C:H42	27:BY:115:ASP:C	2.14	0.50
1:A2:1036:A:C2	25:BW:71:LYS:NZ	2.79	0.50
1:A2:1103:U:C2'	1:A2:1104:U:H5'	2.41	0.50
1:A2:43:A:C6	1:A2:378:A:C6	2.99	0.50
1:A2:1326:A:C3'	6:BD:157:LEU:HD23	2.16	0.50
1:A2:1225:U:O2	1:A2:1230:A:C3'	2.59	0.50
1:A2:1504:G:OP2	22:BT:33:TYR:HB2	2.12	0.50
3:BA:123:VAL:HG13	3:BA:129:ASP:OD1	2.11	0.50
3:BA:59:LEU:N	3:BA:63:ILE:HD13	2.27	0.50
3:BA:7:PHE:N	20:BR:114:GLY:N	2.59	0.50
1:A2:960:U:C5	25:BW:57:ARG:HG3	2.46	0.50
1:A2:30:G:N2	26:BX:137:LYS:H	2.10	0.50
26:BX:127:VAL:C	26:BX:129:GLY:N	2.63	0.50
1:A2:1008:G:O3'	17:BO:135:ARG:HD2	2.12	0.50
1:A2:1488:G:O3'	1:A2:1489:U:P	2.70	0.50
15:BM:34:THR:C	15:BM:35:ALA:N	2.65	0.50
27:BY:48:TYR:HD2	27:BY:75:VAL:HG11	1.76	0.50
9:BG:62:PRO:O	9:BG:97:VAL:HG13	2.12	0.50
1:A2:633:U:C2	26:BX:9:LEU:HA	2.46	0.50
1:A2:632:U:N1	26:BX:15:LEU:HG	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1145:U:H5	1:A2:1147:A:H62	1.59	0.50
1:A2:741:C:C4	7:BE:206:ASP:CB	2.86	0.50
1:A2:1401:A:OP1	20:BR:10:LYS:CB	2.29	0.50
1:A2:1533:C:O5'	28:BZ:77:ARG:CZ	2.58	0.50
1:A2:1202:A:O2'	1:A2:1207:C:N4	2.45	0.50
1:A2:1550:A:C6	1:A2:1551:U:O4	2.65	0.50
1:A2:1564:U:H3'	21:BS:41:ARG:O	2.10	0.50
1:A2:1565:C:H2'	21:BS:39:GLY:HA2	1.90	0.50
2:AZ:6107:U:O5'	8:BF:221:ALA:CA	2.56	0.50
8:BF:210:ALA:O	8:BF:213:LYS:N	2.44	0.50
1:A2:872:G:H3'	1:A2:873:U:P	2.52	0.50
1:A2:988:A:C5	1:A2:989:U:C5	3.00	0.50
1:A2:585:A:H2'	1:A2:586:G:C8	2.47	0.50
1:A2:1383:G:C4'	23:BU:89:ARG:HE	2.20	0.50
1:A2:1417:A:H2'	1:A2:1418:G:C8	2.47	0.50
1:A2:1335:U:H5'	23:BU:62:VAL:CG1	2.42	0.50
5:BC:213:ALA:O	5:BC:216:VAL:N	2.45	0.50
5:BC:138:PRO:C	5:BC:139:ILE:N	2.65	0.50
27:BY:99:LYS:HE3	27:BY:100:VAL:N	2.27	0.50
2:AZ:6038:U:O4	2:AZ:6080:G:C4	2.65	0.50
4:BB:202:LYS:O	4:BB:205:PHE:N	2.45	0.50
4:BB:123:ALA:O	4:BB:139:ALA:N	2.44	0.50
15:BM:60:VAL:HG23	15:BM:87:PRO:HB3	1.93	0.50
1:A2:163:G:C8	9:BG:2:LYS:HB2	2.46	0.50
1:A2:164:A:O5'	9:BG:3:LEU:O	2.25	0.50
1:A2:436:A:O5'	26:BX:101:GLU:CD	2.50	0.50
1:A2:1609:U:H2'	1:A2:1610:G:O5'	2.12	0.50
1:A2:1240:U:O2'	18:BP:94:VAL:CG1	2.57	0.50
1:A2:1550:A:H1'	1:A2:1562:G:N2	2.26	0.50
1:A2:1501:C:C6	22:BT:33:TYR:OH	2.52	0.50
1:A2:901:G:H4'	17:BO:86:THR:HG21	1.92	0.50
1:A2:1057:U:C2'	3:BA:41:ARG:HA	2.41	0.50
1:A2:753:A:OP2	7:BE:16:HIS:CD2	2.64	0.50
1:A2:4:C:OP1	12:BJ:17:ARG:HD2	2.12	0.50
1:A2:569:C:H5''	26:BX:90:ALA:O	2.12	0.50
1:A2:338:C:C1'	11:BI:4:SER:HG	2.25	0.50
1:A2:764:U:H4'	27:BY:64:PHE:N	2.25	0.50
1:A2:566:C:C5	1:A2:567:A:N7	2.79	0.50
6:BD:209:ILE:HG22	20:BR:38:ILE:O	2.11	0.50
1:A2:1186:U:H2'	1:A2:1186:U:O2	2.10	0.50
8:BF:24:VAL:O	8:BF:24:VAL:HG13	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:127:G:N7	9:BG:186:ARG:C	2.62	0.50
1:A2:1722:A:H5'	9:BG:97:VAL:O	2.12	0.50
1:A2:398:G:C2'	9:BG:88:ARG:NH1	2.71	0.50
1:A2:85:A:N1	27:BY:123:LYS:O	2.45	0.50
1:A2:140:A:P	9:BG:175:ILE:CD1	3.00	0.50
1:A2:1036:A:OP1	25:BW:12:ASN:CB	2.59	0.50
1:A2:436:A:N9	26:BX:50:LYS:HD3	2.27	0.50
1:A2:1331:A:H2'	6:BD:162:GLN:CB	2.42	0.50
1:A2:215:A:C6	7:BE:149:TYR:HA	2.47	0.50
1:A2:215:A:H8	7:BE:138:TYR:CD1	2.27	0.50
1:A2:740:A:H61	7:BE:198:LYS:HB2	1.77	0.50
1:A2:1401:A:O4'	20:BR:10:LYS:CE	2.59	0.50
22:BT:61:VAL:O	22:BT:64:HIS:HB3	2.12	0.50
1:A2:1053:G:O2'	3:BA:35:PRO:HD2	2.00	0.50
1:A2:960:U:H5'	25:BW:56:HIS:O	2.09	0.50
1:A2:19:A:C2	1:A2:20:G:C4	3.00	0.50
1:A2:2:A:H5'	12:BJ:14:THR:C	2.21	0.50
1:A2:316:A:C2	1:A2:317:C:C6	3.00	0.50
2:AZ:6171:U:OP2	2:AZ:6208:A:N6	2.42	0.50
19:BQ:95:LYS:HE2	19:BQ:95:LYS:O	2.12	0.50
2:AZ:6130:C:H2'	2:AZ:6131:U:O4'	2.12	0.50
13:BK:82:LEU:HB2	13:BK:83:PRO:HD2	1.93	0.50
1:A2:226:A:C2'	1:A2:227:U:H5'	2.42	0.50
2:AZ:6075:A:HO3'	2:AZ:6076:A:P	2.35	0.50
1:A2:124:A:C2	1:A2:125:U:H1'	2.46	0.50
5:BC:218:ILE:HD12	5:BC:219:GLY:N	2.27	0.50
1:A2:149:C:C6	27:BY:131:ARG:N	2.80	0.50
1:A2:164:A:C1'	9:BG:17:GLU:CG	2.90	0.50
1:A2:1675:C:C4	1:A2:1676:U:C4	3.00	0.50
1:A2:1729:C:O3'	1:A2:1730:A:P	2.70	0.50
1:A2:397:A:C6	1:A2:398:G:C4	3.00	0.50
1:A2:91:G:N3	27:BY:116:LYS:HE2	2.23	0.50
1:A2:1103:U:H4'	26:BX:15:LEU:CG	2.42	0.50
1:A2:215:A:N7	7:BE:138:TYR:CA	2.74	0.50
7:BE:222:LEU:C	7:BE:222:LEU:HD13	2.32	0.50
1:A2:1538:U:O2'	1:A2:1539:G:H8	1.95	0.50
8:BF:97:LEU:O	8:BF:99:MET:N	2.45	0.50
3:BA:95:ALA:O	3:BA:96:THR:N	2.45	0.50
4:BB:73:LEU:HD12	4:BB:73:LEU:O	5.77	0.50
20:BR:102:VAL:C	20:BR:103:ASP:O	2.50	0.50
1:A2:602:U:C4'	26:BX:47:SER:HG	2.23	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1755:A:O3'	1:A2:1756:A:H4'	2.11	0.50
1:A2:1376:C:H5''	1:A2:1377:U:OP2	2.12	0.50
1:A2:1073:G:H2'	1:A2:1074:G:O4'	2.11	0.50
10:BH:114:ARG:O	10:BH:116:ARG:N	2.45	0.50
14:BL:55:ASP:OD1	14:BL:57:LYS:N	2.44	0.50
3:BA:134:LYS:HA	3:BA:137:SER:OG	2.12	0.50
1:A2:137:U:O3'	9:BG:143:LYS:HG3	1.86	0.49
1:A2:1671:A:H1'	1:A2:1731:A:C2	2.47	0.49
1:A2:1712:A:C2	1:A2:1713:G:C8	3.00	0.49
1:A2:631:G:O2'	26:BX:16:ARG:HB2	2.01	0.49
1:A2:636:A:N9	25:BW:105:THR:HG21	2.26	0.49
1:A2:638:U:OP2	25:BW:109:GLY:O	2.29	0.49
1:A2:1295:G:HO2'	1:A2:1321:A:H8	1.53	0.49
5:BC:96:THR:C	5:BC:97:ARG:N	2.43	0.49
1:A2:240:U:C4'	9:BG:209:ALA:N	2.72	0.49
1:A2:741:C:O2'	1:A2:742:U:O5'	2.30	0.49
1:A2:845:G:C3'	1:A2:846:G:P	2.91	0.49
1:A2:1579:U:O3'	1:A2:1580:C:H5'	2.12	0.49
1:A2:1555:A:O5'	18:BP:41:VAL:HG23	2.12	0.49
1:A2:1060:U:H5''	3:BA:39:ASN:OD1	2.12	0.49
16:BN:18:TYR:HB3	16:BN:19:SER:N	2.27	0.49
1:A2:597:G:H5''	26:BX:133:LEU:HD21	1.94	0.49
1:A2:756:A:H5''	12:BJ:4:ALA:O	2.12	0.49
1:A2:329:G:N2	11:BI:3:ILE:CD1	2.73	0.49
1:A2:340:U:C5	11:BI:3:ILE:CG2	2.55	0.49
1:A2:1520:U:H5''	22:BT:75:LYS:HA	1.94	0.49
11:BI:87:ASN:HB3	11:BI:90:LEU:N	2.26	0.49
15:BM:74:LEU:O	15:BM:78:LEU:HG	2.12	0.49
16:BN:61:THR:O	16:BN:62:GLN:N	2.45	0.49
5:BC:225:LEU:HB2	25:BW:70:ASN:HD21	1.75	0.49
1:A2:813:U:O2	1:A2:813:U:O4'	2.30	0.49
1:A2:811:A:H2	10:BH:107:ARG:C	2.06	0.49
1:A2:814:A:H5''	10:BH:108:GLN:C	2.33	0.49
1:A2:139:C:OP1	9:BG:142:ARG:CG	2.43	0.49
1:A2:163:G:C3'	9:BG:108:VAL:CA	2.85	0.49
9:BG:58:LYS:O	9:BG:60:GLY:N	2.45	0.49
1:A2:91:G:C5	27:BY:116:LYS:HE3	2.42	0.49
1:A2:1296:A:C6	1:A2:1297:G:N7	2.81	0.49
1:A2:1302:U:OP1	5:BC:95:ARG:HD2	2.09	0.49
1:A2:736:C:O2	7:BE:227:VAL:HG12	1.98	0.49
1:A2:1316:G:C2'	20:BR:6:THR:HG22	2.42	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AZ:6220:U:C5	6:BD:141:LYS:O	2.65	0.49
3:BA:144:ILE:CG2	3:BA:160:ILE:HD12	2.41	0.49
1:A2:548:G:N3	1:A2:591:A:N1	2.59	0.49
1:A2:755:A:C5'	12:BJ:4:ALA:HB2	2.41	0.49
1:A2:328:A:H5''	11:BI:172:ARG:NH2	2.28	0.49
23:BU:80:GLU:O	23:BU:81:THR:N	2.45	0.49
1:A2:1099:U:H5'	5:BC:168:ARG:HB3	1.94	0.49
1:A2:616:G:C2	1:A2:622:A:N7	2.80	0.49
1:A2:1072:C:N4	1:A2:1073:G:O6	2.45	0.49
1:A2:939:A:H2'	1:A2:940:A:H8	1.78	0.49
28:BZ:54:VAL:N	28:BZ:55:PRO:CD	2.75	0.49
8:BF:80:LYS:O	8:BF:81:ARG:N	2.45	0.49
24:BV:19:ALA:N	24:BV:20:THR:N	2.59	0.49
1:A2:783:G:OP2	27:BY:39:GLU:O	2.26	0.49
1:A2:786:C:P	27:BY:26:ASP:OD1	2.69	0.49
1:A2:399:A:C3'	1:A2:400:A:P	2.98	0.49
1:A2:1710:U:H4'	9:BG:116:LYS:O	2.11	0.49
1:A2:865:A:N3	25:BW:5:SER:HB2	2.27	0.49
1:A2:220:A:OP1	9:BG:218:GLU:N	2.45	0.49
1:A2:242:U:C1'	7:BE:148:ARG:NH1	2.76	0.49
1:A2:732:G:C2	7:BE:177:ALA:O	2.56	0.49
1:A2:701:U:H2'	7:BE:176:ASP:CG	2.27	0.49
1:A2:703:G:H8	7:BE:179:LYS:HE2	1.60	0.49
1:A2:1580:C:H3'	1:A2:1581:C:P	2.52	0.49
21:BS:52:VAL:CG2	21:BS:69:ILE:HD11	2.42	0.49
2:AZ:6107:U:H1'	8:BF:218:GLU:O	2.11	0.49
7:BE:29:PRO:C	7:BE:30:ARG:N	2.66	0.49
1:A2:334:G:O5'	11:BI:26:LYS:NZ	2.45	0.49
1:A2:1096:C:H2'	5:BC:166:THR:C	2.33	0.49
11:BI:77:ARG:NH2	11:BI:106:ALA:HA	2.28	0.49
13:BK:3:MET:HB2	13:BK:4:PRO:CD	2.43	0.49
2:AZ:6209:A:H2	2:AZ:6210:U:O4	1.96	0.49
2:AZ:6058:A:O2'	2:AZ:6059:G:H5'	2.12	0.49
27:BY:13:ILE:O	27:BY:15:ASN:N	2.45	0.49
1:A2:787:G:N3	27:BY:61:ARG:HG2	2.27	0.49
1:A2:164:A:H8	9:BG:2:LYS:CA	2.24	0.49
1:A2:1719:A:C2	9:BG:32:ILE:CG2	2.95	0.49
1:A2:1729:C:H3'	1:A2:1730:A:P	2.52	0.49
1:A2:165:G:C4'	9:BG:14:LYS:HE3	2.17	0.49
1:A2:1679:G:C4	9:BG:68:LEU:HB3	2.10	0.49
9:BG:96:SER:O	9:BG:97:VAL:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1033:C:H2'	26:BX:3:LYS:CA	2.41	0.49
1:A2:248:U:C5	1:A2:250:C:H1'	2.48	0.49
1:A2:738:G:C5'	7:BE:126:VAL:C	2.69	0.49
20:BR:50:ILE:O	20:BR:53:TYR:N	2.45	0.49
1:A2:1400:A:OP2	20:BR:53:TYR:OH	2.30	0.49
1:A2:1223:A:H2'	1:A2:1224:A:O4'	2.12	0.49
1:A2:1549:C:C5'	21:BS:86:LEU:CB	2.80	0.49
22:BT:30:VAL:HG12	22:BT:54:PHE:CZ	2.47	0.49
1:A2:1053:G:HO2'	3:BA:34:GLU:N	2.09	0.49
3:BA:89:PHE:CE2	3:BA:178:ALA:HB2	2.48	0.49
1:A2:930:A:C2'	4:BB:116:LYS:HD3	2.42	0.49
4:BB:126:THR:HG1	4:BB:127:VAL:N	2.09	0.49
1:A2:937:C:O2'	16:BN:7:ALA:HB1	2.12	0.49
1:A2:757:A:C3'	1:A2:758:U:P	2.99	0.49
7:BE:17:HIS:CD2	7:BE:17:HIS:N	2.80	0.49
1:A2:1367:G:H4'	22:BT:66:TYR:CE1	2.40	0.49
1:A2:332:U:O4	11:BI:31:ARG:NH1	2.44	0.49
1:A2:1417:A:H1'	19:BQ:126:PRO:HB3	1.69	0.49
1:A2:765:G:N1	12:BJ:142:ASN:HB3	2.27	0.49
2:AZ:6128:G:C2	2:AZ:6149:A:N6	2.80	0.49
1:A2:425:A:O3'	1:A2:426:G:P	2.69	0.49
6:BD:35:SER:HB3	6:BD:51:ARG:CZ	2.42	0.49
27:BY:99:LYS:HE3	27:BY:100:VAL:H	1.77	0.49
1:A2:1662:G:H2'	1:A2:1663:G:C8	2.48	0.49
10:BH:114:ARG:C	10:BH:116:ARG:H	2.14	0.49
1:A2:771:A:C6	1:A2:772:G:C5	3.00	0.49
6:BD:68:GLU:O	6:BD:69:LEU:N	2.46	0.49
16:BN:128:TYR:C	16:BN:129:TYR:N	2.66	0.49
12:BJ:136:VAL:O	12:BJ:155:HIS:HB3	2.12	0.49
12:BJ:108:ARG:O	12:BJ:112:GLN:N	2.45	0.49
1:A2:480:G:C6	1:A2:481:A:C6	3.01	0.49
1:A2:778:G:C4	27:BY:35:VAL:HG23	2.46	0.49
1:A2:178:U:O2	9:BG:179:VAL:HA	2.12	0.49
27:BY:128:LYS:O	27:BY:132:ARG:HG3	2.13	0.49
1:A2:865:A:C2	1:A2:866:G:H1'	2.48	0.49
1:A2:974:A:C2	1:A2:975:C:C6	3.00	0.49
25:BW:34:ILE:HG22	25:BW:38:LEU:CD2	2.43	0.49
1:A2:1146:G:N3	5:BC:92:ALA:C	2.63	0.49
1:A2:1295:G:C4	1:A2:1296:A:C8	3.01	0.49
1:A2:1301:U:C5	5:BC:118:ALA:CA	2.85	0.49
1:A2:249:U:O3'	1:A2:250:C:C5'	2.59	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:832:U:O3'	9:BG:213:ALA:CA	2.60	0.49
1:A2:737:A:C5	7:BE:227:VAL:HG11	2.48	0.49
1:A2:239:C:H3'	9:BG:207:GLU:CA	2.40	0.49
1:A2:1239:U:C5	18:BP:73:PRO:HB2	2.47	0.49
1:A2:1246:C:N4	18:BP:76:VAL:C	2.59	0.49
1:A2:1549:C:OP1	21:BS:97:ASP:O	2.30	0.49
1:A2:1055:U:C5	3:BA:37:VAL:CG2	2.95	0.49
1:A2:30:G:C6	1:A2:597:G:C6	3.01	0.49
1:A2:1009:U:O5'	17:BO:129:LYS:HD3	2.01	0.49
24:BV:30:ALA:O	24:BV:57:GLY:HA2	2.12	0.49
1:A2:366:A:H2'	1:A2:367:A:C8	2.47	0.49
1:A2:1753:A:C6	1:A2:1754:A:N6	2.81	0.49
1:A2:1042:G:H3'	1:A2:1043:A:P	2.51	0.49
19:BQ:47:LYS:O	19:BQ:82:ARG:NE	2.42	0.49
1:A2:344:A:C5	1:A2:345:U:C5	3.00	0.49
6:BD:105:MET:O	6:BD:106:LYS:C	2.51	0.49
1:A2:783:G:O2'	1:A2:784:C:P	2.70	0.49
1:A2:858:G:N3	10:BH:102:PRO:HB3	2.23	0.49
1:A2:446:A:C5	1:A2:447:U:C5	3.00	0.49
1:A2:138:A:H4'	9:BG:141:ILE:O	2.11	0.49
1:A2:397:A:C2'	9:BG:88:ARG:NE	2.75	0.49
1:A2:1035:G:H3'	1:A2:1036:A:P	2.53	0.49
1:A2:965:U:C3'	1:A2:966:A:P	3.01	0.49
1:A2:863:A:C3'	25:BW:34:ILE:HD11	2.40	0.49
1:A2:436:A:C6	26:BX:50:LYS:CD	2.71	0.49
1:A2:732:G:H2'	1:A2:732:G:N3	2.28	0.49
1:A2:1392:U:H2'	1:A2:1393:C:C6	2.47	0.49
1:A2:1503:A:H2'	22:BT:37:VAL:CA	2.42	0.49
8:BF:57:SER:C	8:BF:58:LEU:N	2.66	0.49
3:BA:120:LEU:CD1	3:BA:144:ILE:HD12	2.43	0.49
16:BN:4:MET:SD	16:BN:124:ARG:NH1	2.86	0.49
3:BA:54:TRP:CZ2	20:BR:119:LEU:HD23	2.46	0.49
7:BE:27:TYR:C	7:BE:28:ALA:N	2.66	0.49
1:A2:26:A:C2	26:BX:48:HIS:ND1	2.81	0.49
26:BX:91:GLY:O	26:BX:92:CYS:N	2.46	0.49
1:A2:322:G:O2'	11:BI:9:HIS:CB	2.53	0.49
1:A2:339:C:C1'	11:BI:3:ILE:HG13	2.42	0.49
14:BL:109:VAL:HA	14:BL:135:VAL:HG13	1.95	0.49
1:A2:1097:U:O4'	1:A2:1097:U:O2	2.29	0.49
16:BN:96:VAL:C	16:BN:97:SER:N	2.65	0.49
13:BK:49:LEU:O	13:BK:50:THR:C	2.51	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1074:G:N3	1:A2:1075:C:C5	2.80	0.49
1:A2:164:A:C3'	9:BG:15:THR:HG22	2.43	0.49
9:BG:29:ASP:O	9:BG:31:ARG:N	2.46	0.49
1:A2:87:C:O4'	27:BY:124:ARG:HB3	2.12	0.49
1:A2:633:U:H3'	14:BL:99:ARG:HG2	1.95	0.49
1:A2:636:A:C8	25:BW:126:LEU:HD23	2.34	0.49
25:BW:34:ILE:O	25:BW:37:PHE:HB3	2.13	0.49
14:BL:99:ARG:NH1	26:BX:7:ARG:O	2.45	0.49
1:A2:1291:G:N2	1:A2:1324:G:H22	2.08	0.49
1:A2:1299:G:H5'	5:BC:98:PHE:C	2.32	0.49
1:A2:1402:G:OP2	20:BR:5:ARG:HA	1.95	0.49
1:A2:1402:G:C8	20:BR:5:ARG:CB	2.57	0.49
1:A2:1530:C:N4	28:BZ:96:SER:CA	2.75	0.49
1:A2:1609:U:H5'	19:BQ:75:VAL:CG2	2.43	0.49
1:A2:1505:A:OP1	22:BT:40:SER:HA	2.13	0.49
1:A2:920:U:H2'	4:BB:216:LYS:HE3	1.95	0.49
3:BA:92:HIS:HB3	20:BR:88:VAL:HG13	1.95	0.49
25:BW:28:ARG:CB	25:BW:29:PRO:CD	2.90	0.49
5:BC:138:PRO:HA	5:BC:139:ILE:N	2.28	0.49
12:BJ:93:LEU:C	12:BJ:94:ASP:O	2.51	0.49
18:BP:18:ARG:N	18:BP:20:VAL:C	2.66	0.49
1:A2:912:U:H4'	1:A2:913:G:H3'	1.95	0.49
5:BC:146:THR:O	5:BC:147:ASN:C	2.50	0.49
12:BJ:122:VAL:O	12:BJ:123:HIS:N	2.45	0.49
1:A2:199:G:O2'	1:A2:200:A:C8	2.64	0.49
12:BJ:31:ALA:O	12:BJ:36:LEU:N	2.46	0.49
6:BD:31:GLU:O	6:BD:32:GLU:HA	2.13	0.49
6:BD:197:THR:C	6:BD:198:GLY:N	2.66	0.49
1:A2:784:C:C3'	27:BY:40:LEU:CD1	2.91	0.49
1:A2:1731:A:C3'	1:A2:1732:A:O5'	2.61	0.49
1:A2:163:G:H21	9:BG:108:VAL:CG2	2.26	0.49
1:A2:1683:C:OP1	9:BG:109:LEU:CD1	2.60	0.49
1:A2:57:G:O2'	27:BY:110:GLN:O	2.15	0.49
1:A2:1107:G:C6	1:A2:1108:G:C6	3.01	0.49
1:A2:863:A:O4'	25:BW:33:VAL:HG11	2.11	0.49
5:BC:121:VAL:O	5:BC:124:ALA:N	2.45	0.49
1:A2:697:C:C4'	7:BE:209:HIS:CD2	2.83	0.49
1:A2:830:U:O2'	1:A2:831:U:H6	1.96	0.49
1:A2:1390:U:H5''	20:BR:49:LYS:CD	2.43	0.49
1:A2:1608:U:C3'	19:BQ:73:GLY:CA	2.89	0.49
8:BF:103:ASN:O	8:BF:104:ASN:C	2.50	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1238:A:OP1	18:BP:64:LYS:N	2.46	0.49
1:A2:1240:U:C4'	18:BP:76:VAL:N	2.76	0.49
21:BS:28:ILE:C	21:BS:30:TYR:H	2.10	0.49
1:A2:954:G:C2	1:A2:955:A:C8	3.00	0.49
1:A2:1:U:H2'	12:BJ:43:TYR:CE2	2.44	0.49
26:BX:120:VAL:CA	26:BX:121:ARG:N	2.76	0.49
1:A2:1358:G:OP1	22:BT:130:ARG:HD2	2.12	0.49
1:A2:903:U:H4'	17:BO:135:ARG:NH1	2.24	0.49
1:A2:1519:U:OP2	22:BT:75:LYS:CD	2.61	0.49
24:BV:28:ASP:OD1	24:BV:28:ASP:O	2.30	0.49
4:BB:228:LEU:HD12	4:BB:228:LEU:O	2.13	0.49
1:A2:1157:A:C2	1:A2:1622:G:C2	3.01	0.49
5:BC:108:ASN:O	5:BC:110:HIS:ND1	2.43	0.49
9:BG:63:MET:HA	9:BG:97:VAL:HG13	1.95	0.49
1:A2:1037:C:C2'	25:BW:19:LYS:HZ3	2.25	0.49
1:A2:624:G:O2'	1:A2:625:C:O4'	2.30	0.49
1:A2:1331:A:C8	6:BD:161:GLY:CA	2.73	0.49
1:A2:1533:C:O5'	28:BZ:77:ARG:HG3	2.13	0.49
1:A2:1567:U:O2	1:A2:1567:U:H2'	2.12	0.49
8:BF:42:LEU:CD1	8:BF:48:PHE:N	2.76	0.49
1:A2:1051:G:H2'	1:A2:1052:U:OP1	2.13	0.49
3:BA:124:THR:HG22	3:BA:170:ILE:HG23	1.95	0.49
3:BA:69:ASN:O	3:BA:70:PRO:C	2.51	0.49
3:BA:50:VAL:C	20:BR:105:GLN:HB3	2.32	0.49
1:A2:318:U:N3	11:BI:11:ARG:NH1	2.60	0.49
1:A2:337:G:H1'	11:BI:9:HIS:ND1	2.14	0.49
1:A2:880:C:C5	16:BN:110:ASP:OD2	2.65	0.49
6:BD:34:TYR:OH	6:BD:36:GLY:O	2.29	0.49
1:A2:535:A:H3'	1:A2:536:C:P	2.53	0.49
3:BA:110:TYR:O	3:BA:110:TYR:CD1	2.65	0.49
12:BJ:54:ARG:O	12:BJ:58:ASP:N	2.35	0.49
1:A2:477:A:C8	1:A2:538:A:N1	2.80	0.49
1:A2:206:A:C2	1:A2:262:U:C5	3.01	0.49
1:A2:1731:A:O3'	1:A2:1732:A:O5'	2.31	0.49
1:A2:75:U:C2'	9:BG:166:GLU:N	2.71	0.49
1:A2:163:G:O5'	9:BG:108:VAL:HG23	2.09	0.49
1:A2:87:C:N4	27:BY:121:THR:OG1	2.44	0.49
1:A2:1103:U:H2'	1:A2:1103:U:O2	2.12	0.49
1:A2:1532:U:H6	28:BZ:77:ARG:HD2	1.59	0.49
1:A2:1499:G:N1	22:BT:102:ARG:NH1	2.34	0.49
1:A2:1546:G:C3'	21:BS:105:VAL:O	2.61	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1052:U:O2	1:A2:1052:U:O4'	2.30	0.49
1:A2:917:U:C3'	17:BO:120:PRO:HD3	2.43	0.49
1:A2:338:C:H1'	11:BI:24:LYS:HD3	1.86	0.49
1:A2:332:U:C4	11:BI:29:LEU:HD22	2.09	0.49
13:BK:27:PHE:O	13:BK:28:ASN:HB2	2.13	0.49
7:BE:67:GLN:O	7:BE:68:ARG:N	2.45	0.49
5:BC:132:ALA:O	5:BC:134:LEU:N	2.46	0.49
1:A2:477:A:N7	1:A2:538:A:C2	2.81	0.49
1:A2:1216:C:H2'	1:A2:1444:A:C2	2.47	0.49
1:A2:78:A:N1	9:BG:162:VAL:HG11	2.28	0.48
1:A2:458:G:H1'	27:BY:110:GLN:HG3	1.66	0.48
1:A2:636:A:O5'	25:BW:125:ILE:N	2.46	0.48
1:A2:239:C:H3'	9:BG:207:GLU:HA	1.94	0.48
20:BR:51:ALA:O	20:BR:54:THR:OG1	2.31	0.48
1:A2:1241:G:O6	18:BP:78:THR:CG2	2.61	0.48
1:A2:1549:C:H6	21:BS:86:LEU:CB	2.25	0.48
12:BJ:64:GLU:O	12:BJ:65:LYS:HB2	2.13	0.48
3:BA:64:ILE:O	3:BA:66:ALA:HB3	2.13	0.48
1:A2:758:U:O4	12:BJ:5:PRO:C	2.50	0.48
12:BJ:42:ILE:N	12:BJ:43:TYR:N	2.61	0.48
1:A2:570:A:C6	26:BX:67:ALA:HB1	2.28	0.48
1:A2:1096:C:P	5:BC:168:ARG:CD	3.01	0.48
5:BC:201:ASN:C	5:BC:202:GLY:N	2.67	0.48
1:A2:878:G:C2'	16:BN:114:ARG:NH1	2.58	0.48
1:A2:607:G:C6	1:A2:613:G:O4'	2.66	0.48
3:BA:139:VAL:O	3:BA:140:ASN:OD1	2.31	0.48
1:A2:1219:A:N6	1:A2:1264:G:O2'	2.46	0.48
10:BH:113:PRO:HD2	10:BH:116:ARG:HB3	1.94	0.48
1:A2:1544:U:H2'	1:A2:1545:A:O4'	2.12	0.48
5:BC:147:ASN:HD21	24:BV:4:ASP:N	2.11	0.48
13:BK:54:TYR:CE1	13:BK:75:TYR:HB2	2.48	0.48
1:A2:80:A:H3'	1:A2:81:G:C5'	2.43	0.48
1:A2:58:U:C4	27:BY:114:ARG:C	2.85	0.48
1:A2:1399:C:O2'	1:A2:1400:A:P	2.70	0.48
1:A2:1535:U:O2'	1:A2:1536:G:P	2.71	0.48
1:A2:1584:G:P	19:BQ:123:ARG:N	2.85	0.48
1:A2:688:G:OP2	12:BJ:66:ASP:CA	2.41	0.48
1:A2:1016:C:N3	1:A2:1017:U:C5	2.81	0.48
4:BB:62:LYS:HG2	4:BB:63:GLY:HA2	1.95	0.48
1:A2:21:U:O3'	1:A2:22:A:P	2.71	0.48
1:A2:1590:G:C6	1:A2:1591:C:C4	3.01	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:880:C:H5'	16:BN:111:ALA:N	2.28	0.48
13:BK:11:ILE:HD11	13:BK:37:THR:HB	1.95	0.48
1:A2:1264:G:O2'	1:A2:1265:G:O4'	2.17	0.48
1:A2:1649:G:N1	1:A2:1650:U:C4	2.81	0.48
19:BQ:16:ALA:HB2	19:BQ:71:GLY:HA3	1.95	0.48
1:A2:154:G:C4	1:A2:155:U:C5	3.01	0.48
26:BX:83:VAL:HA	26:BX:84:THR:N	2.29	0.48
27:BY:81:GLU:O	27:BY:84:LYS:N	2.46	0.48
1:A2:450:U:C5	27:BY:109:LYS:N	2.80	0.48
1:A2:1294:G:C2	1:A2:1295:G:C5	3.01	0.48
1:A2:247:A:OP2	7:BE:128:LYS:NZ	2.43	0.48
7:BE:105:VAL:HG22	7:BE:243:GLY:HA2	1.95	0.48
1:A2:1403:C:C5	20:BR:3:ARG:HB3	2.47	0.48
1:A2:1475:A:N6	28:BZ:97:LYS:HD2	2.28	0.48
1:A2:1547:A:O3'	21:BS:87:ASN:OD1	2.30	0.48
1:A2:1503:A:H3'	22:BT:36:ILE:HD12	1.95	0.48
1:A2:959:U:HO2'	25:BW:56:HIS:CG	2.29	0.48
1:A2:897:C:OP1	17:BO:39:ILE:HG13	2.13	0.48
20:BR:102:VAL:C	20:BR:121:VAL:CB	2.81	0.48
1:A2:572:C:H5''	26:BX:116:ASP:HB3	1.95	0.48
1:A2:597:G:C6	26:BX:134:ALA:CB	2.95	0.48
1:A2:1334:U:H3'	1:A2:1335:U:P	2.54	0.48
1:A2:1418:G:H2'	1:A2:1419:G:C8	2.49	0.48
13:BK:61:TRP:O	13:BK:62:GLN:N	2.46	0.48
1:A2:1003:A:C2	1:A2:1005:A:C5	3.00	0.48
1:A2:1006:C:H5''	1:A2:1007:C:OP2	2.14	0.48
1:A2:799:A:O2'	7:BE:187:ARG:N	2.47	0.48
1:A2:1518:C:O2	1:A2:1518:C:H2'	2.14	0.48
1:A2:1520:U:C5'	22:BT:75:LYS:CA	2.91	0.48
1:A2:496:G:H2'	1:A2:497:G:C1'	2.42	0.48
4:BB:134:VAL:HB	4:BB:219:LYS:N	2.27	0.48
13:BK:11:ILE:HG22	13:BK:12:HIS:CA	2.43	0.48
11:BI:158:SER:HB2	11:BI:159:GLN:N	2.28	0.48
1:A2:773:C:O2'	1:A2:788:A:O2'	2.31	0.48
1:A2:1645:G:O6	1:A2:1646:C:N4	2.46	0.48
14:BL:128:CYS:C	14:BL:129:ARG:O	2.51	0.48
9:BG:104:PRO:O	9:BG:105:ASP:N	2.46	0.48
1:A2:163:G:C8	9:BG:17:GLU:HG2	2.47	0.48
1:A2:76:A:N3	9:BG:164:LYS:N	2.43	0.48
1:A2:78:A:C6	9:BG:162:VAL:CG1	2.95	0.48
1:A2:314:C:N3	1:A2:355:G:C6	2.81	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:633:U:C2	26:BX:9:LEU:CA	2.79	0.48
1:A2:1299:G:C5	5:BC:99:LYS:NZ	2.72	0.48
1:A2:738:G:C8	7:BE:157:ASN:O	2.66	0.48
1:A2:1451:C:O2'	18:BP:81:ARG:N	2.14	0.48
2:AZ:6111:G:O4'	8:BF:219:ARG:C	2.52	0.48
8:BF:118:LEU:HD22	8:BF:133:VAL:HG21	1.95	0.48
1:A2:29:U:C4'	26:BX:128:SER:CB	2.62	0.48
1:A2:595:G:C6	26:BX:139:LYS:O	2.64	0.48
1:A2:597:G:C3'	26:BX:133:LEU:CD2	2.78	0.48
1:A2:599:A:H3'	26:BX:123:LYS:CB	2.32	0.48
1:A2:332:U:O4	11:BI:31:ARG:CZ	2.61	0.48
1:A2:1009:U:OP2	17:BO:135:ARG:HD2	2.14	0.48
1:A2:1482:C:O4'	19:BQ:74:HIS:NE2	2.41	0.48
1:A2:1040:G:C5'	24:BV:62:ARG:CZ	2.78	0.48
13:BK:50:THR:O	13:BK:53:GLY:HA2	2.14	0.48
5:BC:62:PRO:C	5:BC:63:VAL:CA	2.80	0.48
1:A2:617:U:O3'	1:A2:618:U:OP1	2.24	0.48
13:BK:13:GLN:O	13:BK:16:PHE:O	2.31	0.48
1:A2:124:A:C6	1:A2:125:U:C2	3.01	0.48
2:AZ:6027:A:N1	2:AZ:6088:U:O2	2.47	0.48
1:A2:778:G:C4	27:BY:35:VAL:HG21	2.48	0.48
1:A2:783:G:C6	27:BY:39:GLU:OE1	2.67	0.48
1:A2:1682:U:O2'	1:A2:1683:C:O4'	2.31	0.48
1:A2:53:G:O6	1:A2:428:A:N6	2.46	0.48
1:A2:139:C:N3	9:BG:137:ARG:HG3	2.27	0.48
1:A2:140:A:O2'	9:BG:158:ILE:N	2.45	0.48
1:A2:57:G:N2	27:BY:112:LYS:CA	2.72	0.48
1:A2:85:A:H61	27:BY:123:LYS:HB2	1.78	0.48
1:A2:1033:C:H2'	26:BX:3:LYS:C	2.33	0.48
1:A2:43:A:C6	1:A2:44:U:C4	3.02	0.48
1:A2:1295:G:N7	5:BC:116:LYS:NZ	2.41	0.48
1:A2:213:A:C3'	7:BE:133:LYS:CA	2.64	0.48
1:A2:734:A:C2'	7:BE:192:ILE:O	2.61	0.48
1:A2:1306:C:O2'	1:A2:1307:U:O2	2.28	0.48
1:A2:1473:U:N3	8:BF:113:ILE:CG2	2.69	0.48
1:A2:1182:U:H2'	18:BP:124:THR:HG1	1.78	0.48
1:A2:1504:G:N2	1:A2:1563:C:O2'	2.39	0.48
1:A2:1505:A:C5'	22:BT:38:LYS:HG3	2.42	0.48
3:BA:67:ILE:HD12	3:BA:73:VAL:HG23	1.95	0.48
17:BO:22:SER:CB	17:BO:23:PHE:N	2.77	0.48
1:A2:889:U:P	17:BO:89:THR:CG2	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:552:G:H3'	1:A2:553:G:P	2.53	0.48
1:A2:755:A:N3	12:BJ:3:ARG:CA	2.73	0.48
1:A2:322:G:H22	11:BI:10:LYS:HD2	1.59	0.48
23:BU:60:THR:O	23:BU:62:VAL:HG21	2.13	0.48
1:A2:16:G:H2'	1:A2:17:C:C6	2.48	0.48
1:A2:1009:U:P	17:BO:135:ARG:HD2	2.53	0.48
1:A2:931:C:C5'	4:BB:117:TRP:CZ3	2.95	0.48
4:BB:117:TRP:HE3	4:BB:117:TRP:HA	1.76	0.48
2:AZ:6203:U:H2'	2:AZ:6204:A:H8	1.78	0.48
8:BF:201:ALA:HB2	8:BF:208:SER:OG	2.13	0.48
1:A2:1664:C:C4	1:A2:1665:U:C4	3.01	0.48
11:BI:156:VAL:O	11:BI:157:GLU:C	2.52	0.48
1:A2:679:U:OP1	7:BE:259:GLN:CD	2.51	0.48
1:A2:156:A:H3'	1:A2:157:A:P	2.54	0.48
19:BQ:111:SER:C	19:BQ:113:ASP:N	2.66	0.48
1:A2:786:C:OP1	27:BY:24:VAL:HG12	2.13	0.48
1:A2:1721:A:H4'	9:BG:97:VAL:C	2.27	0.48
1:A2:401:A:O2'	1:A2:402:C:H4'	2.13	0.48
1:A2:457:G:N3	27:BY:110:GLN:CB	2.76	0.48
1:A2:1679:G:H22	9:BG:67:VAL:CB	2.27	0.48
1:A2:864:U:N3	25:BW:27:ILE:HG21	2.29	0.48
1:A2:1104:U:H6	26:BX:18:HIS:CD2	2.31	0.48
1:A2:1295:G:OP2	5:BC:127:ALA:HB1	2.14	0.48
1:A2:737:A:H3'	7:BE:125:LYS:CG	2.43	0.48
7:BE:228:ILE:H	7:BE:228:ILE:HD13	1.79	0.48
1:A2:1402:G:OP2	20:BR:5:ARG:CA	2.59	0.48
1:A2:1536:G:C2	8:BF:187:ILE:CD1	2.95	0.48
1:A2:1242:A:O2'	18:BP:56:PHE:O	2.30	0.48
1:A2:1451:C:C4	1:A2:1452:U:C5	3.01	0.48
1:A2:872:G:C2	1:A2:873:U:H1'	2.49	0.48
1:A2:871:G:H5'	16:BN:14:SER:OG	2.14	0.48
1:A2:953:G:H1'	16:BN:6:SER:O	2.13	0.48
17:BO:122:PRO:CA	17:BO:123:SER:N	2.77	0.48
7:BE:16:HIS:CA	7:BE:17:HIS:N	2.76	0.48
11:BI:27:PHE:O	11:BI:27:PHE:CD1	2.63	0.48
14:BL:110:HIS:C	14:BL:111:VAL:N	2.67	0.48
1:A2:1281:G:N9	23:BU:74:GLU:C	2.57	0.48
1:A2:1417:A:OP1	19:BQ:125:GLU:CD	2.52	0.48
1:A2:1096:C:C6	5:BC:201:ASN:CA	2.93	0.48
1:A2:3:U:C4	12:BJ:18:PRO:O	2.65	0.48
2:AZ:6219:U:O3'	6:BD:144:ALA:HA	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:950:C:C5'	16:BN:94:LYS:CE	2.91	0.48
1:A2:1625:C:P	5:BC:91:ARG:NE	2.86	0.48
1:A2:978:A:H2'	1:A2:979:A:O4'	2.13	0.48
1:A2:1438:G:C6	1:A2:1439:C:C4	3.00	0.48
27:BY:99:LYS:CE	27:BY:100:VAL:HG12	2.43	0.48
11:BI:64:ASN:O	11:BI:181:GLY:C	2.52	0.48
2:AZ:6099:G:H2'	2:AZ:6147:A:N1	2.29	0.48
2:AZ:6141:C:C2'	2:AZ:6141:C:O2	2.62	0.48
22:BT:4:VAL:O	22:BT:4:VAL:HG13	2.12	0.48
1:A2:777:C:O3'	27:BY:30:PRO:CD	2.62	0.48
1:A2:787:G:C4	27:BY:61:ARG:CG	2.96	0.48
1:A2:776:G:N9	27:BY:62:THR:N	2.61	0.48
27:BY:68:LYS:C	27:BY:69:SER:N	2.67	0.48
1:A2:1671:A:C6	1:A2:1672:G:C4	3.02	0.48
1:A2:127:G:HO2'	9:BG:183:ARG:NH2	2.02	0.48
1:A2:151:G:C6	27:BY:135:ASP:HB3	2.48	0.48
1:A2:863:A:H4'	25:BW:34:ILE:HG13	1.95	0.48
1:A2:967:A:C2'	26:BX:6:PRO:C	2.79	0.48
1:A2:1331:A:H2'	6:BD:163:PRO:HD3	1.95	0.48
1:A2:1175:U:H5	21:BS:140:THR:HG22	1.73	0.48
1:A2:1240:U:O2'	18:BP:94:VAL:HG13	2.13	0.48
1:A2:1546:G:N2	1:A2:1566:U:O2	2.47	0.48
1:A2:1012:U:C2'	1:A2:1013:A:O5'	2.62	0.48
3:BA:70:PRO:HB2	3:BA:94:GLY:CA	2.43	0.48
1:A2:896:U:C2	17:BO:29:HIS:HE1	2.31	0.48
17:BO:31:THR:HG22	17:BO:38:THR:HB	1.96	0.48
1:A2:469:C:H2'	1:A2:470:A:O4'	2.13	0.48
1:A2:2:A:C8	12:BJ:15:PRO:HA	2.49	0.48
1:A2:1094:G:O3'	5:BC:161:LYS:HB2	2.13	0.48
1:A2:945:U:O2	1:A2:945:U:H2'	2.13	0.48
5:BC:139:ILE:C	5:BC:140:ARG:N	2.66	0.48
1:A2:523:G:O2'	1:A2:529:A:N6	2.46	0.48
12:BJ:25:ASP:O	12:BJ:29:LYS:N	2.46	0.48
2:AZ:6119:U:O2	2:AZ:6158:G:O2'	2.29	0.48
2:AZ:6025:A:H2'	2:AZ:6025:A:N3	2.28	0.48
16:BN:130:ARG:O	16:BN:132:VAL:N	2.47	0.48
16:BN:54:LEU:HB3	16:BN:60:VAL:CG2	2.44	0.48
20:BR:41:ILE:C	20:BR:42:GLN:HA	2.34	0.48
23:BU:37:VAL:C	23:BU:41:ILE:N	2.67	0.48
1:A2:128:U:O2	1:A2:204:G:O4'	2.31	0.48
1:A2:456:A:O2'	27:BY:111:LYS:CE	2.51	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:76:A:N6	1:A2:80:A:O2'	2.46	0.48
1:A2:1682:U:H2'	9:BG:32:ILE:HA	1.94	0.48
1:A2:863:A:H5'	25:BW:6:VAL:HG11	1.96	0.48
1:A2:1037:C:C1'	25:BW:71:LYS:NZ	2.75	0.48
1:A2:311:U:C4'	26:BX:34:LEU:CA	2.56	0.48
26:BX:73:ARG:C	26:BX:74:VAL:CA	2.81	0.48
1:A2:741:C:C4	7:BE:206:ASP:CG	2.86	0.48
1:A2:218:A:N6	1:A2:844:A:H1'	2.28	0.48
1:A2:738:G:C5'	7:BE:157:ASN:CG	2.76	0.48
1:A2:1530:C:C2	28:BZ:96:SER:N	2.66	0.48
1:A2:1166:A:H4'	8:BF:104:ASN:ND2	2.28	0.48
1:A2:1458:G:P	21:BS:138:THR:HB	2.52	0.48
22:BT:104:VAL:O	22:BT:105:LEU:HA	2.13	0.48
22:BT:36:ILE:HD12	22:BT:37:VAL:CB	2.42	0.48
1:A2:936:G:O3'	1:A2:937:C:O5'	2.32	0.48
3:BA:71:GLU:HA	3:BA:95:ALA:CA	2.43	0.48
4:BB:61:LEU:HD11	4:BB:64:ARG:HH21	1.78	0.48
17:BO:18:ARG:O	17:BO:19:ILE:N	2.47	0.48
1:A2:30:G:H2'	1:A2:31:C:O4'	2.14	0.48
1:A2:570:A:OP1	26:BX:90:ALA:HA	2.14	0.48
22:BT:66:TYR:HA	22:BT:124:ILE:HG22	1.96	0.48
1:A2:560:U:O3'	1:A2:561:G:P	2.72	0.48
15:BM:66:VAL:HG11	15:BM:71:ILE:CG2	2.44	0.48
19:BQ:22:VAL:HG21	19:BQ:88:GLY:O	2.13	0.48
18:BP:17:TYR:CZ	21:BS:92:ILE:HD11	2.48	0.48
6:BD:217:ILE:N	6:BD:217:ILE:HD12	2.29	0.48
1:A2:777:C:P	27:BY:66:GLY:HA2	2.52	0.48
1:A2:355:G:H2'	1:A2:355:G:N3	2.28	0.48
1:A2:635:A:C4	25:BW:126:LEU:HD22	2.46	0.48
1:A2:1301:U:O2	1:A2:1301:U:C2'	2.61	0.48
1:A2:1300:A:C3'	5:BC:86:VAL:HG23	2.38	0.48
1:A2:218:A:O2'	1:A2:219:A:P	2.72	0.48
1:A2:702:G:N3	7:BE:174:LYS:N	2.62	0.48
1:A2:1399:C:OP2	20:BR:67:ARG:HB3	2.14	0.48
1:A2:1400:A:O2'	20:BR:10:LYS:CB	2.61	0.48
1:A2:1400:A:C5'	20:BR:53:TYR:CZ	2.58	0.48
1:A2:1458:G:C8	21:BS:126:ARG:NH2	2.82	0.48
22:BT:43:ASN:C	22:BT:44:GLU:N	2.67	0.48
1:A2:1058:U:OP2	3:BA:41:ARG:HA	2.12	0.48
1:A2:1055:U:O5'	3:BA:46:HIS:HB3	2.10	0.48
1:A2:551:G:C2	1:A2:552:G:C8	3.02	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:596:C:N3	26:BX:139:LYS:CB	2.66	0.48
1:A2:1601:G:H5''	1:A2:1601:G:C8	2.49	0.48
1:A2:301:A:C4	7:BE:4:GLY:CA	2.92	0.48
1:A2:334:G:H2'	11:BI:27:PHE:HA	1.96	0.48
1:A2:300:A:N6	7:BE:5:PRO:HD2	2.27	0.48
2:AZ:6148:U:H5''	2:AZ:6149:A:OP2	2.14	0.48
1:A2:651:G:OP1	12:BJ:88:GLU:OE1	2.31	0.48
1:A2:906:A:C2	1:A2:907:A:C4	3.02	0.48
1:A2:180:A:OP2	9:BG:187:LYS:HE3	2.13	0.48
1:A2:91:G:H1'	27:BY:112:LYS:O	2.14	0.48
9:BG:136:LYS:O	9:BG:141:ILE:HD11	2.13	0.48
1:A2:1680:G:H5''	9:BG:31:ARG:NH2	2.10	0.48
1:A2:165:G:OP1	9:BG:5:ILE:HD12	2.14	0.48
9:BG:88:ARG:O	9:BG:89:ASP:C	2.53	0.48
1:A2:91:G:H21	27:BY:113:ASN:HB3	1.78	0.48
1:A2:88:U:C5'	27:BY:119:PHE:HB3	2.40	0.48
1:A2:632:U:HO2'	14:BL:99:ARG:NE	2.12	0.48
1:A2:1037:C:OP1	25:BW:12:ASN:HA	2.13	0.48
1:A2:1326:A:H4'	6:BD:157:LEU:HD23	1.22	0.48
1:A2:698:U:C5	7:BE:207:LEU:HB3	2.39	0.48
20:BR:13:SER:OG	20:BR:54:THR:C	2.52	0.48
1:A2:1453:G:HO2'	18:BP:119:PHE:C	2.11	0.48
3:BA:34:GLU:CD	3:BA:147:THR:HB	2.34	0.48
1:A2:1057:U:H3'	3:BA:41:ARG:CA	2.44	0.48
1:A2:1:U:H6	12:BJ:43:TYR:CD2	2.31	0.48
1:A2:336:G:N7	11:BI:27:PHE:CD1	2.82	0.48
1:A2:336:G:H1'	11:BI:6:ASP:OD1	2.13	0.48
1:A2:1083:G:N3	5:BC:161:LYS:CB	2.77	0.48
1:A2:1520:U:C5'	22:BT:75:LYS:CD	2.81	0.48
1:A2:505:A:N1	1:A2:507:U:N3	2.62	0.48
18:BP:17:TYR:HB2	18:BP:25:LEU:HD13	1.96	0.48
1:A2:374:U:N3	1:A2:375:U:C5	2.82	0.48
12:BJ:114:TYR:CD2	12:BJ:122:VAL:HG12	2.49	0.48
6:BD:109:LEU:O	6:BD:112:GLY:N	2.47	0.48
25:BW:98:GLN:HG2	25:BW:99:PHE:N	2.28	0.48
1:A2:775:G:H22	27:BY:70:VAL:H	1.61	0.47
1:A2:780:A:H2	27:BY:32:ARG:HD3	1.69	0.47
1:A2:776:G:C5'	27:BY:66:GLY:CA	2.92	0.47
1:A2:165:G:H5'	9:BG:16:PHE:CD2	2.49	0.47
1:A2:458:G:C4	27:BY:106:GLN:NE2	2.82	0.47
1:A2:396:G:C3'	9:BG:88:ARG:HA	2.34	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:57:G:N3	27:BY:113:ASN:N	2.62	0.47
1:A2:804:A:C5'	25:BW:121:VAL:C	2.74	0.47
1:A2:245:U:C6	7:BE:140:VAL:CG1	2.91	0.47
1:A2:702:G:C4'	7:BE:179:LYS:NZ	2.71	0.47
1:A2:702:G:H22	7:BE:227:VAL:CB	2.26	0.47
1:A2:703:G:C6	1:A2:704:C:H2'	2.48	0.47
1:A2:1539:G:O6	28:BZ:72:GLY:O	2.32	0.47
1:A2:1452:U:C2	18:BP:96:ILE:CG2	2.70	0.47
1:A2:1505:A:O5'	22:BT:38:LYS:HG2	2.11	0.47
1:A2:685:A:H2'	1:A2:686:C:O4'	2.14	0.47
1:A2:919:A:C5'	4:BB:83:LYS:NZ	2.76	0.47
1:A2:753:A:OP1	7:BE:19:LEU:N	2.47	0.47
7:BE:29:PRO:C	7:BE:30:ARG:CA	2.83	0.47
1:A2:1344:A:H5''	23:BU:53:LYS:HD2	1.85	0.47
7:BE:55:ALA:CB	7:BE:61:VAL:HG22	2.44	0.47
7:BE:60:GLU:O	7:BE:63:ALA:HB3	2.13	0.47
10:BH:162:ILE:HD12	10:BH:165:LYS:CE	2.44	0.47
11:BI:152:ILE:O	11:BI:153:GLU:N	2.47	0.47
24:BV:53:TYR:CE1	24:BV:72:LEU:HD13	2.49	0.47
1:A2:508:U:O2	1:A2:508:U:C2'	2.62	0.47
18:BP:17:TYR:CB	18:BP:25:LEU:HD13	2.44	0.47
1:A2:771:A:N6	1:A2:772:G:C6	2.82	0.47
2:AZ:6075:A:O3'	2:AZ:6076:A:P	2.72	0.47
26:BX:57:LEU:HD23	26:BX:58:GLY:N	2.29	0.47
27:BY:59:GLY:C	27:BY:60:PHE:N	2.67	0.47
1:A2:857:U:C2	10:BH:107:ARG:O	2.67	0.47
9:BG:180:THR:OG1	9:BG:182:GLN:N	2.45	0.47
1:A2:1301:U:C5	5:BC:119:LYS:HB3	2.49	0.47
1:A2:213:A:C3'	7:BE:133:LYS:HA	1.82	0.47
20:BR:60:ARG:O	20:BR:63:LYS:N	2.47	0.47
1:A2:1475:A:H62	28:BZ:97:LYS:HD2	1.72	0.47
1:A2:1236:A:H5''	18:BP:61:ARG:CD	2.44	0.47
1:A2:1547:A:N3	21:BS:37:GLY:O	2.47	0.47
1:A2:1505:A:H5'	22:BT:41:SER:HB3	1.82	0.47
3:BA:57:LEU:HG	3:BA:160:ILE:CG2	2.45	0.47
16:BN:17:PRO:O	16:BN:19:SER:N	2.46	0.47
7:BE:21:ASP:O	7:BE:22:LYS:HB2	2.14	0.47
1:A2:1601:G:C8	22:BT:89:ARG:HD2	2.45	0.47
1:A2:1279:C:C4'	23:BU:71:PRO:HB3	2.22	0.47
6:BD:25:PHE:O	6:BD:26:THR:C	2.52	0.47
28:BZ:100:ILE:HD13	28:BZ:100:ILE:C	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BH:27:LEU:O	10:BH:31:SER:OG	2.24	0.47
14:BL:92:HIS:O	14:BL:93:TYR:N	2.46	0.47
2:AZ:6086:U:C2'	2:AZ:6086:U:O2	2.61	0.47
1:A2:1673:G:C2	1:A2:1674:C:C6	3.02	0.47
1:A2:1681:A:O2'	9:BG:102:VAL:C	2.39	0.47
1:A2:1722:A:P	9:BG:97:VAL:N	2.88	0.47
1:A2:1723:U:OP2	9:BG:73:ILE:HA	2.06	0.47
1:A2:1723:U:P	9:BG:72:ARG:C	2.92	0.47
1:A2:402:C:O2'	1:A2:403:G:H5''	2.15	0.47
1:A2:87:C:N3	27:BY:121:THR:OG1	2.48	0.47
9:BG:124:LEU:HD22	9:BG:124:LEU:N	2.29	0.47
1:A2:1038:U:OP1	25:BW:19:LYS:CA	2.62	0.47
1:A2:804:A:C6	25:BW:82:LYS:HB3	2.49	0.47
1:A2:1298:U:C1'	5:BC:208:GLU:CG	2.81	0.47
1:A2:239:C:P	9:BG:210:GLN:HG3	2.53	0.47
1:A2:1389:C:C5'	20:BR:45:ARG:N	2.74	0.47
20:BR:60:ARG:HG3	20:BR:66:VAL:HG11	1.95	0.47
1:A2:1582:U:O3'	19:BQ:135:ARG:NH1	2.47	0.47
1:A2:1240:U:H1'	18:BP:76:VAL:N	2.25	0.47
1:A2:1242:A:H5''	18:BP:89:MET:CB	2.43	0.47
1:A2:1563:C:C2'	1:A2:1563:C:O2	2.62	0.47
1:A2:886:U:OP1	4:BB:122:GLU:OE2	2.33	0.47
4:BB:40:ASN:O	4:BB:42:ASN:N	2.48	0.47
22:BT:15:ILE:N	22:BT:15:ILE:HD13	2.29	0.47
1:A2:903:U:H2'	1:A2:903:U:O2	2.13	0.47
1:A2:1159:C:C1'	19:BQ:140:LYS:NZ	2.77	0.47
7:BE:106:LYS:C	7:BE:107:GLY:CA	2.82	0.47
5:BC:111:VAL:CG1	5:BC:191:ALA:HB2	2.45	0.47
1:A2:199:G:HO2'	1:A2:200:A:H8	1.56	0.47
6:BD:109:LEU:C	6:BD:110:LEU:N	2.68	0.47
6:BD:197:THR:O	6:BD:198:GLY:N	2.47	0.47
1:A2:1126:G:O3'	1:A2:1127:G:P	2.72	0.47
20:BR:23:LYS:N	20:BR:23:LYS:HZ2	2.12	0.47
1:A2:783:G:C5	27:BY:39:GLU:CG	2.97	0.47
1:A2:141:U:C2	9:BG:136:LYS:NZ	2.76	0.47
1:A2:1683:C:O2	1:A2:1719:A:C2	2.66	0.47
1:A2:395:U:C2	9:BG:91:GLU:OE1	2.68	0.47
1:A2:148:A:H3'	27:BY:131:ARG:N	2.29	0.47
1:A2:818:C:H3'	1:A2:819:G:OP2	2.14	0.47
9:BG:20:ASP:O	9:BG:21:GLU:HB2	2.15	0.47
1:A2:1580:C:H5''	19:BQ:137:ARG:O	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1176:G:O3'	1:A2:1177:C:P	2.72	0.47
1:A2:885:G:O2'	1:A2:886:U:O4'	2.20	0.47
3:BA:146:LEU:HD22	3:BA:160:ILE:CB	2.44	0.47
1:A2:1047:G:O2'	16:BN:11:ILE:HD11	2.14	0.47
1:A2:18:C:HO3'	26:BX:114:LYS:CB	2.20	0.47
1:A2:598:U:C4	26:BX:131:SER:OG	2.68	0.47
26:BX:112:LYS:O	26:BX:113:ALA:CB	2.62	0.47
1:A2:323:A:P	11:BI:9:HIS:HB2	2.54	0.47
1:A2:1191:U:H2'	19:BQ:142:TYR:HB3	1.58	0.47
1:A2:641:G:H5'	25:BW:118:ARG:HH11	1.79	0.47
2:AZ:6039:G:H1'	2:AZ:6079:A:N6	2.29	0.47
1:A2:839:U:H3'	1:A2:840:U:P	2.54	0.47
1:A2:144:U:C2	1:A2:145:A:C8	3.02	0.47
1:A2:265:A:C2	1:A2:267:U:C4	3.02	0.47
1:A2:163:G:H3'	9:BG:108:VAL:CA	2.44	0.47
1:A2:867:G:H3'	1:A2:868:G:P	2.55	0.47
1:A2:631:G:O4'	26:BX:13:ARG:HG3	2.15	0.47
1:A2:1034:C:N4	26:BX:3:LYS:HZ2	1.90	0.47
1:A2:701:U:N3	7:BE:175:PHE:CA	2.77	0.47
1:A2:1167:G:P	8:BF:101:GLY:CA	3.03	0.47
21:BS:30:TYR:HD1	21:BS:33:THR:HG21	1.80	0.47
22:BT:54:PHE:CZ	22:BT:104:VAL:HG21	2.49	0.47
1:A2:896:U:N1	17:BO:31:THR:HG21	2.29	0.47
1:A2:993:A:C8	1:A2:994:G:C8	3.03	0.47
3:BA:83:GLN:O	3:BA:87:LEU:HD22	2.14	0.47
1:A2:1479:A:C4	1:A2:1480:G:C8	3.02	0.47
1:A2:325:G:H4'	14:BL:133:LYS:O	2.14	0.47
11:BI:106:ALA:HB1	11:BI:109:PHE:CD1	2.50	0.47
1:A2:1622:G:H2'	1:A2:1623:C:C6	2.49	0.47
28:BZ:53:GLU:O	28:BZ:54:VAL:N	2.48	0.47
10:BH:120:ALA:HB3	10:BH:121:VAL:N	2.29	0.47
1:A2:1172:G:N7	1:A2:1173:C:C5	2.83	0.47
1:A2:1021:C:H2'	1:A2:1021:C:O2	2.14	0.47
1:A2:394:C:C4	1:A2:395:U:C5	3.02	0.47
1:A2:87:C:N3	27:BY:123:LYS:N	2.40	0.47
1:A2:178:U:C4'	9:BG:179:VAL:HB	2.45	0.47
1:A2:398:G:OP2	9:BG:88:ARG:CG	2.62	0.47
1:A2:395:U:O4'	9:BG:93:LYS:CD	2.61	0.47
1:A2:90:C:H41	27:BY:118:ILE:C	2.18	0.47
1:A2:1036:A:H5''	25:BW:12:ASN:HB2	1.96	0.47
1:A2:239:C:H3'	9:BG:210:GLN:HG2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:252:U:H2'	1:A2:253:A:H8	1.80	0.47
1:A2:242:U:O4'	7:BE:148:ARG:NE	2.46	0.47
1:A2:702:G:C3'	7:BE:179:LYS:NZ	2.44	0.47
20:BR:24:LEU:HD13	20:BR:58:MET:CE	2.44	0.47
1:A2:1246:C:C5	18:BP:77:ARG:NE	2.79	0.47
1:A2:1547:A:OP2	21:BS:109:LEU:N	2.47	0.47
3:BA:70:PRO:O	3:BA:73:VAL:HB	2.15	0.47
1:A2:758:U:O4	12:BJ:6:ARG:C	2.48	0.47
1:A2:754:A:OP1	7:BE:14:ALA:HB3	2.13	0.47
5:BC:204:THR:C	5:BC:205:ARG:N	2.67	0.47
1:A2:1520:U:H5''	22:BT:75:LYS:CA	2.44	0.47
1:A2:979:A:H5'	1:A2:1787:C:O2'	2.14	0.47
1:A2:208:U:O5'	11:BI:53:LYS:HG2	2.13	0.47
1:A2:578:U:H4'	1:A2:579:A:OP1	2.14	0.47
2:AZ:6038:U:O4	2:AZ:6080:G:H1'	2.14	0.47
1:A2:107:C:H5''	1:A2:383:G:O2'	2.14	0.47
1:A2:1660:A:O2'	1:A2:1661:U:H5'	2.14	0.47
5:BC:157:LYS:C	5:BC:158:THR:CA	2.83	0.47
5:BC:157:LYS:C	5:BC:158:THR:N	2.68	0.47
28:BZ:49:ARG:HG3	28:BZ:69:LEU:HD22	1.97	0.47
19:BQ:4:VAL:O	19:BQ:6:SER:N	2.48	0.47
15:BM:105:LYS:O	15:BM:106:ILE:CB	2.62	0.47
1:A2:784:C:C4'	27:BY:7:ILE:CB	2.87	0.47
1:A2:859:A:H61	10:BH:111:LYS:HB3	1.46	0.47
1:A2:127:G:N3	9:BG:183:ARG:HB3	2.24	0.47
1:A2:1681:A:OP1	9:BG:31:ARG:NH1	2.48	0.47
1:A2:179:A:H61	9:BG:190:GLN:HB2	1.79	0.47
1:A2:1107:G:C5	1:A2:1108:G:C6	3.02	0.47
1:A2:629:U:OP2	1:A2:629:U:H3'	2.15	0.47
1:A2:631:G:H2'	26:BX:15:LEU:H	1.78	0.47
1:A2:628:G:O2'	1:A2:629:U:O5'	2.22	0.47
1:A2:1326:A:O5'	6:BD:157:LEU:C	2.48	0.47
1:A2:1293:U:H6	1:A2:1293:U:OP2	1.98	0.47
1:A2:1298:U:C4'	5:BC:115:ILE:CG2	2.89	0.47
1:A2:1327:C:H5''	6:BD:168:ILE:HG12	1.96	0.47
1:A2:1326:A:O3'	6:BD:168:ILE:CG2	2.60	0.47
1:A2:853:G:H3'	1:A2:854:U:OP2	2.15	0.47
1:A2:734:A:C8	7:BE:212:ASP:O	2.38	0.47
1:A2:243:G:N3	7:BE:146:THR:OG1	2.46	0.47
1:A2:697:C:O2	7:BE:196:VAL:CG1	2.63	0.47
1:A2:1388:A:N6	1:A2:1409:G:O2'	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1534:G:H4'	8:BF:187:ILE:HG23	1.96	0.47
8:BF:92:ARG:O	8:BF:95:ASN:N	2.48	0.47
1:A2:1528:U:H4'	19:BQ:43:ILE:CB	2.44	0.47
1:A2:1471:A:H3'	8:BF:183:ALA:C	2.13	0.47
1:A2:1537:C:OP1	1:A2:1572:G:O6	2.33	0.47
1:A2:1584:G:C5'	19:BQ:124:PRO:HA	2.43	0.47
1:A2:1239:U:N3	18:BP:76:VAL:HG22	2.29	0.47
21:BS:30:TYR:O	21:BS:33:THR:HB	2.14	0.47
1:A2:1055:U:H2'	1:A2:1056:U:O4'	2.14	0.47
3:BA:57:LEU:CA	3:BA:160:ILE:HG23	2.44	0.47
1:A2:917:U:H4'	17:BO:84:ARG:C	2.35	0.47
1:A2:570:A:N3	26:BX:69:ARG:NH2	2.61	0.47
1:A2:598:U:O2	26:BX:132:LEU:HB2	2.08	0.47
22:BT:18:TYR:HB3	22:BT:59:ALA:CB	2.43	0.47
1:A2:1417:A:C5'	19:BQ:128:LYS:NZ	2.77	0.47
1:A2:322:G:O2'	11:BI:9:HIS:CE1	2.67	0.47
1:A2:329:G:C3'	11:BI:56:ARG:CZ	2.75	0.47
1:A2:338:C:C1'	11:BI:4:SER:CB	2.91	0.47
1:A2:1018:U:C4'	16:BN:107:LYS:HG3	2.34	0.47
1:A2:978:A:C2	1:A2:979:A:H1'	2.49	0.47
1:A2:387:A:HO2'	1:A2:388:G:P	2.37	0.47
25:BW:25:VAL:O	25:BW:26:LEU:N	2.48	0.47
19:BQ:67:VAL:O	19:BQ:69:VAL:HG13	2.15	0.47
5:BC:191:ALA:O	5:BC:192:GLY:N	2.48	0.47
5:BC:191:ALA:C	5:BC:193:VAL:HG23	2.35	0.47
11:BI:91:VAL:HA	11:BI:94:ASN:N	2.30	0.47
10:BH:163:ASP:C	10:BH:166:LEU:HD13	2.34	0.47
1:A2:1163:A:C6	1:A2:1164:G:C5	3.02	0.47
16:BN:33:VAL:HG21	16:BN:66:ILE:CG2	2.44	0.47
15:BM:68:GLU:O	15:BM:69:ALA:CB	2.62	0.47
2:AZ:6131:U:O2'	2:AZ:6133:G:C8	2.68	0.47
1:A2:49:C:C3'	1:A2:50:C:P	3.03	0.47
2:AZ:6034:A:N6	2:AZ:6082:G:P	2.88	0.47
10:BH:13:PRO:C	10:BH:14:THR:OG1	2.52	0.47
5:BC:41:LEU:HD12	5:BC:68:ILE:HD12	1.96	0.47
4:BB:51:SER:O	4:BB:52:THR:HG23	2.15	0.47
5:BC:35:TRP:NE1	5:BC:36:VAL:O	2.48	0.47
20:BR:41:ILE:O	20:BR:42:GLN:HA	2.14	0.47
10:BH:133:THR:HG22	10:BH:158:ASP:O	2.15	0.47
18:BP:33:PHE:O	18:BP:33:PHE:CG	2.67	0.47
6:BD:99:VAL:O	6:BD:103:GLU:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:778:G:OP1	27:BY:30:PRO:CG	2.60	0.47
1:A2:785:U:C2'	27:BY:26:ASP:HA	2.44	0.47
1:A2:393:C:O2'	1:A2:394:C:P	2.73	0.47
1:A2:863:A:H3'	25:BW:6:VAL:HG11	1.91	0.47
1:A2:1037:C:H4'	25:BW:71:LYS:CB	2.45	0.47
1:A2:631:G:H5''	26:BX:16:ARG:HH12	1.80	0.47
1:A2:215:A:OP1	7:BE:130:GLN:HG2	2.15	0.47
1:A2:703:G:N2	1:A2:736:C:O2	2.48	0.47
1:A2:741:C:O5'	7:BE:200:ARG:CD	2.61	0.47
1:A2:1167:G:P	8:BF:101:GLY:HA3	2.49	0.47
1:A2:1534:G:H1'	8:BF:187:ILE:CG2	2.44	0.47
1:A2:1533:C:H6	28:BZ:77:ARG:NE	2.08	0.47
1:A2:1241:G:HO2'	18:BP:116:LEU:CD1	2.24	0.47
1:A2:1211:A:N1	18:BP:122:THR:HG22	2.30	0.47
1:A2:1241:G:O4'	18:BP:96:ILE:HD11	2.15	0.47
1:A2:1501:C:C6	22:BT:33:TYR:HE1	2.28	0.47
1:A2:1565:C:C5'	21:BS:43:SER:C	2.82	0.47
1:A2:1548:G:C8	21:BS:87:ASN:OD1	2.29	0.47
1:A2:887:A:C3'	17:BO:122:PRO:O	2.41	0.47
1:A2:897:C:C6	17:BO:38:THR:CB	2.98	0.47
1:A2:900:A:H4'	17:BO:20:TYR:CD1	2.35	0.47
3:BA:176:LEU:HD11	20:BR:102:VAL:N	2.30	0.47
1:A2:1057:U:H3'	3:BA:42:PRO:HD3	1.93	0.47
1:A2:888:U:P	17:BO:121:VAL:HG12	2.55	0.47
1:A2:916:U:C2	17:BO:27:PHE:HD2	2.32	0.47
1:A2:18:C:O3'	1:A2:19:A:H5'	2.15	0.47
1:A2:595:G:C2'	26:BX:139:LYS:HZ3	2.23	0.47
1:A2:1418:G:H2'	1:A2:1419:G:H8	1.80	0.47
1:A2:1159:C:C1'	19:BQ:140:LYS:HZ2	2.28	0.47
1:A2:384:G:H2'	1:A2:385:A:H8	1.78	0.47
13:BK:66:TYR:O	13:BK:67:THR:CB	2.62	0.47
13:BK:54:TYR:HA	13:BK:72:GLY:HA3	1.97	0.47
7:BE:90:ILE:HD12	7:BE:90:ILE:N	2.29	0.47
1:A2:1484:G:H8	1:A2:1484:G:O5'	1.97	0.47
1:A2:75:U:H6	9:BG:166:GLU:C	1.79	0.47
1:A2:1291:G:O2'	1:A2:1292:G:C8	2.64	0.47
1:A2:1324:G:H8	1:A2:1324:G:O5'	1.98	0.47
1:A2:244:A:H3'	7:BE:140:VAL:CG1	2.41	0.47
1:A2:736:C:C1'	7:BE:180:LEU:O	2.63	0.47
1:A2:823:G:O2'	1:A2:824:G:OP1	2.33	0.47
1:A2:1257:U:H3'	1:A2:1258:U:O2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1534:G:O6	28:BZ:61:SER:CA	2.62	0.47
1:A2:1241:G:N2	18:BP:95:GLY:CA	2.75	0.47
1:A2:1452:U:H1'	18:BP:96:ILE:CG2	2.45	0.47
18:BP:85:ILE:C	18:BP:86:VAL:N	2.68	0.47
21:BS:138:THR:HG22	21:BS:141:THR:OG1	2.15	0.47
1:A2:1564:U:O2'	21:BS:41:ARG:C	2.53	0.47
2:AZ:6111:G:C5'	8:BF:219:ARG:CB	2.93	0.47
1:A2:902:G:OP1	17:BO:90:ARG:CB	2.60	0.47
3:BA:53:THR:HB	20:BR:106:THR:N	2.29	0.47
1:A2:791:A:C6	12:BJ:7:THR:CB	2.95	0.47
1:A2:794:U:O2'	1:A2:795:U:H5'	2.15	0.47
1:A2:600:U:O2'	26:BX:48:HIS:HA	2.15	0.47
1:A2:1334:U:H4'	23:BU:83:GLU:HG3	1.90	0.47
6:BD:18:TYR:O	6:BD:22:ASN:HB2	2.15	0.47
1:A2:1384:A:O2'	23:BU:35:GLU:OE1	2.27	0.47
1:A2:1497:U:H5'	22:BT:74:GLY:HA2	1.32	0.47
2:AZ:6218:U:C2	6:BD:146:ARG:HA	2.33	0.47
9:BG:112:VAL:HA	9:BG:113:ILE:N	2.30	0.47
1:A2:884:A:C2	1:A2:945:U:C2	3.01	0.47
11:BI:106:ALA:C	11:BI:108:PRO:HD2	2.35	0.47
11:BI:112:TRP:CH2	11:BI:116:HIS:HB3	2.50	0.47
3:BA:138:TYR:O	24:BV:60:ARG:O	2.32	0.47
1:A2:1221:A:N6	1:A2:1263:G:C6	2.83	0.47
1:A2:1758:U:O3'	1:A2:1759:C:P	2.72	0.47
1:A2:1372:U:H2'	1:A2:1373:C:O4'	2.15	0.47
9:BG:120:GLU:CG	9:BG:125:THR:HG21	2.44	0.47
1:A2:1149:G:C6	1:A2:1629:G:C6	3.03	0.47
26:BX:94:ASN:O	26:BX:95:PHE:CB	2.62	0.47
10:BH:117:THR:O	10:BH:118:LEU:C	2.53	0.47
16:BN:58:HIS:O	16:BN:59:GLY:C	2.53	0.47
1:A2:783:G:N2	27:BY:5:VAL:HG11	2.28	0.47
1:A2:129:U:C4	9:BG:177:ARG:HD2	2.46	0.47
1:A2:310:C:O2	1:A2:356:G:N2	2.38	0.47
1:A2:1299:G:P	5:BC:117:THR:HA	2.55	0.47
1:A2:1330:G:N1	6:BD:163:PRO:HD2	2.30	0.47
1:A2:1389:C:O2'	20:BR:45:ARG:O	2.33	0.47
1:A2:1583:A:C8	1:A2:1585:U:C2	3.03	0.47
28:BZ:88:ILE:HG23	28:BZ:89:ILE:H	1.80	0.47
1:A2:1240:U:C5'	18:BP:104:GLN:OE1	2.63	0.47
1:A2:1503:A:H3'	22:BT:37:VAL:CA	2.41	0.47
3:BA:59:LEU:O	3:BA:63:ILE:CG1	2.63	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:586:G:C6	1:A2:587:C:C4	3.02	0.47
1:A2:755:A:C6	12:BJ:2:PRO:CD	2.64	0.47
1:A2:2:A:C2	12:BJ:16:LYS:HD3	2.48	0.47
22:BT:66:TYR:HA	22:BT:124:ILE:CG2	2.45	0.47
1:A2:1098:U:H4'	5:BC:197:TYR:CB	2.45	0.47
1:A2:1667:A:O2'	1:A2:1668:G:O4'	2.19	0.47
11:BI:98:LYS:HB2	11:BI:169:ILE:C	2.34	0.47
1:A2:1650:U:H2'	1:A2:1651:A:C8	2.50	0.47
1:A2:906:A:H2'	1:A2:907:A:C8	2.49	0.47
14:BL:88:ARG:O	14:BL:89:ALA:C	2.53	0.47
25:BW:46:TYR:O	25:BW:47:ILE:HG23	2.15	0.47
12:BJ:83:VAL:HG23	12:BJ:85:VAL:HG23	1.97	0.47
1:A2:776:G:C2'	27:BY:69:SER:OG	2.52	0.46
1:A2:777:C:H1'	27:BY:27:VAL:HG12	1.96	0.46
1:A2:58:U:C6	27:BY:114:ARG:HG2	2.50	0.46
1:A2:397:A:H5''	9:BG:88:ARG:CG	2.38	0.46
1:A2:216:U:C2	7:BE:150:PRO:CD	2.98	0.46
1:A2:831:U:H5'	7:BE:152:PRO:CG	2.45	0.46
7:BE:188:ASN:OD1	7:BE:191:ARG:NH2	2.48	0.46
1:A2:1402:G:C1'	20:BR:4:VAL:CG1	2.93	0.46
1:A2:1532:U:C3'	28:BZ:77:ARG:CG	2.92	0.46
1:A2:1473:U:C4'	8:BF:113:ILE:HG12	2.45	0.46
1:A2:1503:A:N6	1:A2:1504:G:C6	2.80	0.46
22:BT:30:VAL:HA	22:BT:31:PRO:HD2	1.77	0.46
1:A2:1503:A:C1'	22:BT:37:VAL:N	2.76	0.46
2:AZ:6107:U:H5'	8:BF:225:ARG:H	1.80	0.46
1:A2:960:U:H2'	1:A2:960:U:O2	2.16	0.46
3:BA:120:LEU:HD22	3:BA:142:PRO:HB3	1.97	0.46
3:BA:87:LEU:HD13	3:BA:99:ALA:HB3	1.97	0.46
1:A2:597:G:O4'	26:BX:137:LYS:CG	2.57	0.46
1:A2:29:U:P	26:BX:130:VAL:HG13	2.53	0.46
26:BX:134:ALA:C	26:BX:136:TRP:N	2.68	0.46
22:BT:9:VAL:CG2	22:BT:140:LEU:HD12	2.45	0.46
1:A2:332:U:O4	11:BI:31:ARG:NH2	2.48	0.46
1:A2:1487:A:C6	1:A2:1488:G:C6	3.03	0.46
1:A2:441:A:C6	1:A2:464:A:C2	3.02	0.46
10:BH:114:ARG:C	10:BH:116:ARG:N	2.67	0.46
24:BV:18:SER:O	24:BV:19:ALA:N	2.48	0.46
1:A2:205:U:H2'	1:A2:206:A:C8	2.49	0.46
1:A2:222:A:H61	1:A2:839:U:H3	1.61	0.46
6:BD:119:ALA:O	6:BD:120:TYR:HA	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
26:BX:107:PHE:C	26:BX:108:GLY:N	2.69	0.46
1:A2:1727:G:C6	1:A2:1728:A:C6	3.03	0.46
1:A2:164:A:N9	9:BG:17:GLU:CG	2.79	0.46
1:A2:179:A:C1'	9:BG:184:LEU:C	2.74	0.46
1:A2:1723:U:H6	9:BG:73:ILE:HG21	1.80	0.46
1:A2:631:G:O3'	1:A2:632:U:P	2.73	0.46
1:A2:637:C:O4'	25:BW:105:THR:HG23	2.14	0.46
1:A2:865:A:H5''	25:BW:6:VAL:CA	2.32	0.46
1:A2:740:A:N6	7:BE:198:LYS:HE3	2.30	0.46
7:BE:201:HIS:C	7:BE:202:ASP:HB3	2.36	0.46
1:A2:1391:A:C2	1:A2:1408:G:C2	3.03	0.46
1:A2:1586:A:P	19:BQ:134:ALA:H	2.36	0.46
1:A2:1499:G:C2	1:A2:1509:C:O2	2.67	0.46
1:A2:1051:G:C2'	1:A2:1052:U:OP1	2.62	0.46
1:A2:1067:C:C4'	3:BA:31:VAL:CG1	2.90	0.46
1:A2:468:A:C3'	1:A2:469:C:P	3.03	0.46
1:A2:570:A:N1	26:BX:67:ALA:C	2.66	0.46
1:A2:597:G:O4'	26:BX:133:LEU:HD22	2.14	0.46
1:A2:755:A:N3	12:BJ:3:ARG:CB	2.77	0.46
1:A2:753:A:H3'	7:BE:12:LEU:O	2.08	0.46
1:A2:1095:U:O2'	5:BC:159:THR:HG21	2.15	0.46
1:A2:1591:C:C5'	22:BT:93:HIS:HA	2.40	0.46
17:BO:58:TYR:C	17:BO:59:ALA:N	2.69	0.46
19:BQ:115:THR:C	19:BQ:117:LEU:H	2.18	0.46
1:A2:505:A:C2	1:A2:507:U:OP1	2.68	0.46
10:BH:162:ILE:HD12	10:BH:165:LYS:HE3	1.98	0.46
1:A2:1766:A:N3	1:A2:1794:A:N1	2.64	0.46
24:BV:77:GLY:O	24:BV:78:LEU:HD23	2.15	0.46
11:BI:119:GLN:N	11:BI:120:THR:O	2.48	0.46
1:A2:775:G:N1	27:BY:69:SER:HB3	2.31	0.46
1:A2:858:G:N1	10:BH:108:GLN:CG	2.46	0.46
1:A2:427:C:H4'	1:A2:459:G:O2'	2.15	0.46
1:A2:449:C:O3'	1:A2:450:U:P	2.73	0.46
1:A2:129:U:C6	9:BG:177:ARG:NH1	2.84	0.46
1:A2:866:G:O5'	25:BW:3:ARG:HA	2.13	0.46
1:A2:609:U:O2	26:BX:28:ASN:HB2	2.15	0.46
1:A2:737:A:C1'	7:BE:158:ASP:CA	2.94	0.46
1:A2:742:U:H3	7:BE:207:LEU:N	2.11	0.46
1:A2:1534:G:O6	28:BZ:61:SER:C	2.42	0.46
8:BF:62:VAL:O	8:BF:62:VAL:HG12	2.16	0.46
1:A2:1533:C:H3'	28:BZ:62:VAL:HG11	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1558:U:H1'	21:BS:126:ARG:CG	2.45	0.46
1:A2:1452:U:O2'	18:BP:117:GLY:HA3	2.07	0.46
1:A2:1558:U:C4	21:BS:123:ARG:CA	2.99	0.46
1:A2:1548:G:N2	1:A2:1564:U:C2	2.83	0.46
2:AZ:6108:U:O2	2:AZ:6108:U:O4'	2.31	0.46
1:A2:1056:U:OP2	3:BA:40:ALA:C	2.53	0.46
1:A2:898:A:P	17:BO:29:HIS:HA	2.53	0.46
1:A2:917:U:OP1	17:BO:87:GLY:CA	2.64	0.46
10:BH:135:ILE:HG22	10:BH:136:VAL:O	2.14	0.46
1:A2:18:C:C3'	1:A2:19:A:P	3.04	0.46
1:A2:1383:G:C4	23:BU:57:ARG:NE	2.82	0.46
1:A2:1084:A:C1'	5:BC:163:GLY:O	2.62	0.46
1:A2:1159:C:C2'	19:BQ:140:LYS:NZ	2.67	0.46
5:BC:54:GLU:N	5:BC:55:GLU:N	2.64	0.46
24:BV:68:SER:O	24:BV:71:ARG:N	2.48	0.46
17:BO:15:GLY:O	17:BO:79:VAL:HG23	2.15	0.46
11:BI:68:ALA:HA	11:BI:71:GLY:HA2	1.98	0.46
1:A2:776:G:H1'	27:BY:62:THR:HA	1.87	0.46
27:BY:59:GLY:CA	27:BY:60:PHE:N	2.78	0.46
1:A2:138:A:N3	9:BG:140:ASN:O	2.48	0.46
1:A2:141:U:P	9:BG:141:ILE:HG23	2.45	0.46
1:A2:140:A:P	9:BG:175:ILE:HD11	2.55	0.46
9:BG:28:PHE:O	9:BG:29:ASP:N	2.47	0.46
1:A2:456:A:C6	27:BY:108:ARG:CA	2.93	0.46
1:A2:862:A:O4'	25:BW:31:SER:CB	2.45	0.46
1:A2:738:G:C8	7:BE:157:ASN:OD1	2.50	0.46
1:A2:1212:G:O6	18:BP:99:GLY:HA2	2.12	0.46
1:A2:1554:U:N3	18:BP:115:TYR:CE2	2.70	0.46
1:A2:1453:G:C1'	18:BP:120:SER:HB3	2.37	0.46
1:A2:1502:G:O6	22:BT:99:SER:CB	2.52	0.46
1:A2:1508:U:O2	1:A2:1508:U:H2'	2.14	0.46
1:A2:959:U:P	25:BW:60:LYS:HG3	2.55	0.46
1:A2:984:G:C6	1:A2:985:G:N7	2.83	0.46
3:BA:101:ARG:HA	3:BA:102:PHE:N	2.30	0.46
20:BR:104:ASN:HB2	20:BR:122:ILE:N	2.30	0.46
1:A2:22:A:H2'	1:A2:23:G:O4'	2.15	0.46
1:A2:570:A:N6	26:BX:68:ILE:N	2.56	0.46
22:BT:15:ILE:O	22:BT:19:ALA:HB2	2.15	0.46
1:A2:1281:G:N3	23:BU:75:GLY:N	2.64	0.46
1:A2:1383:G:C4'	23:BU:87:HIS:O	2.63	0.46
1:A2:1095:U:C5'	5:BC:159:THR:OG1	2.63	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1096:C:C1'	5:BC:166:THR:OG1	2.63	0.46
1:A2:1591:C:OP2	22:BT:92:LYS:HA	2.16	0.46
24:BV:55:LEU:O	24:BV:56:SER:O	2.33	0.46
1:A2:1786:G:C5'	17:BO:133:ARG:HB2	2.46	0.46
1:A2:1074:G:N1	1:A2:1075:C:C4	2.83	0.46
16:BN:22:ALA:N	16:BN:65:VAL:HG13	2.30	0.46
1:A2:1422:A:N1	1:A2:1423:U:C2	2.84	0.46
4:BB:197:ILE:O	4:BB:200:ALA:N	2.49	0.46
1:A2:1372:U:O4	1:A2:1373:C:N4	2.49	0.46
22:BT:138:GLN:C	22:BT:139:THR:N	2.69	0.46
19:BQ:110:THR:HG23	19:BQ:113:ASP:OD1	2.16	0.46
11:BI:34:ALA:O	11:BI:35:ASN:N	2.49	0.46
10:BH:144:VAL:HG12	25:BW:42:GLN:HE21	1.80	0.46
1:A2:776:G:H3'	27:BY:34:ASN:N	2.31	0.46
1:A2:811:A:H2	10:BH:107:ARG:N	2.00	0.46
1:A2:812:A:H2	10:BH:111:LYS:HA	1.80	0.46
1:A2:175:G:H22	1:A2:266:A:P	2.38	0.46
1:A2:397:A:C2'	9:BG:88:ARG:CZ	2.70	0.46
1:A2:633:U:OP2	14:BL:99:ARG:CA	2.62	0.46
1:A2:1302:U:H2'	1:A2:1303:U:C6	2.50	0.46
1:A2:1331:A:H3'	6:BD:162:GLN:HG2	1.97	0.46
1:A2:704:C:O2	7:BE:231:GLN:N	2.47	0.46
1:A2:216:U:C4	7:BE:150:PRO:CG	2.87	0.46
1:A2:700:C:C4	7:BE:198:LYS:N	2.84	0.46
1:A2:1316:G:C2'	20:BR:6:THR:CG2	2.93	0.46
1:A2:1528:U:H4'	19:BQ:43:ILE:HB	1.97	0.46
28:BZ:81:ARG:O	28:BZ:82:HIS:C	2.53	0.46
1:A2:1175:U:H2'	1:A2:1176:G:H8	1.80	0.46
1:A2:1450:U:C2	1:A2:1451:C:C5	3.04	0.46
1:A2:1055:U:C4	1:A2:1056:U:C5	3.02	0.46
1:A2:897:C:OP2	17:BO:38:THR:HA	2.15	0.46
1:A2:960:U:C5'	25:BW:57:ARG:HD3	2.26	0.46
1:A2:1109:G:C8	26:BX:112:LYS:HE3	2.51	0.46
1:A2:790:U:H2'	1:A2:791:A:O4'	2.16	0.46
1:A2:1358:G:N2	1:A2:1366:U:H1'	2.31	0.46
1:A2:321:C:O2'	1:A2:322:G:C5'	2.64	0.46
1:A2:338:C:O4'	11:BI:4:SER:OG	2.34	0.46
1:A2:1084:A:O2'	5:BC:163:GLY:C	2.49	0.46
1:A2:1003:A:N3	1:A2:1005:A:C5	2.83	0.46
5:BC:227:PRO:HA	5:BC:230:TRP:CE2	2.50	0.46
4:BB:134:VAL:O	4:BB:218:LEU:HD23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AZ:6130:C:H3'	2:AZ:6131:U:C5'	2.44	0.46
1:A2:834:G:H2'	1:A2:835:U:O4'	2.16	0.46
1:A2:1629:G:C2'	1:A2:1630:U:H5'	2.45	0.46
5:BC:133:LYS:O	5:BC:135:SER:N	2.49	0.46
1:A2:778:G:C8	1:A2:783:G:C2	3.03	0.46
1:A2:775:G:N2	27:BY:69:SER:CA	2.78	0.46
1:A2:812:A:P	10:BH:108:GLN:NE2	2.80	0.46
1:A2:139:C:O3'	9:BG:175:ILE:HD13	2.16	0.46
1:A2:151:G:N7	27:BY:134:ALA:O	2.49	0.46
1:A2:315:A:N6	1:A2:353:A:N7	2.64	0.46
1:A2:638:U:O5'	25:BW:107:SER:N	2.44	0.46
1:A2:864:U:H5'	25:BW:7:LEU:C	2.33	0.46
1:A2:865:A:C4	25:BW:5:SER:HB2	2.38	0.46
1:A2:630:A:H61	26:BX:14:LYS:HD2	1.65	0.46
1:A2:1331:A:H1'	6:BD:163:PRO:CD	2.46	0.46
1:A2:242:U:C6	7:BE:149:TYR:CG	3.04	0.46
7:BE:243:GLY:C	7:BE:244:ILE:N	2.68	0.46
9:BG:23:ARG:O	9:BG:23:ARG:CG	2.64	0.46
20:BR:54:THR:OG1	20:BR:55:THR:N	2.43	0.46
1:A2:1242:A:H5''	18:BP:89:MET:SD	2.54	0.46
1:A2:1453:G:O2'	18:BP:120:SER:CA	2.64	0.46
1:A2:1505:A:C5	1:A2:1506:G:H1'	2.50	0.46
21:BS:71:GLN:C	21:BS:73:MET:HB2	2.36	0.46
8:BF:42:LEU:HD21	8:BF:47:SER:HA	1.98	0.46
1:A2:921:U:OP1	4:BB:215:VAL:O	2.33	0.46
1:A2:1367:G:H1'	22:BT:66:TYR:HH	1.38	0.46
1:A2:301:A:C5	7:BE:2:ALA:C	2.88	0.46
1:A2:302:U:H5	7:BE:2:ALA:HB1	1.63	0.46
1:A2:329:G:HO2'	11:BI:33:PRO:HA	1.79	0.46
1:A2:340:U:N1	11:BI:3:ILE:HG12	2.30	0.46
1:A2:329:G:H2'	11:BI:32:GLN:N	2.31	0.46
1:A2:1279:C:N3	23:BU:72:ASN:CG	2.68	0.46
1:A2:1488:G:O2'	1:A2:1489:U:H5'	2.16	0.46
1:A2:977:A:H2'	1:A2:978:A:O4'	2.15	0.46
19:BQ:7:VAL:HG13	19:BQ:8:GLN:N	2.31	0.46
10:BH:180:GLN:C	10:BH:181:ILE:HD12	2.35	0.46
2:AZ:6042:U:O3'	2:AZ:6043:G:P	2.74	0.46
1:A2:1750:A:C4	1:A2:1751:C:C6	3.03	0.46
1:A2:157:A:O2'	1:A2:158:U:H5'	2.16	0.46
6:BD:76:ARG:NH1	6:BD:76:ARG:O	2.45	0.46
1:A2:778:G:O2'	27:BY:5:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:395:U:OP2	9:BG:92:ARG:C	2.54	0.46
1:A2:427:C:HO2'	1:A2:428:A:C4'	2.29	0.46
1:A2:164:A:C2'	9:BG:15:THR:HG22	2.46	0.46
26:BX:34:LEU:N	26:BX:34:LEU:HD12	2.31	0.46
26:BX:76:LEU:O	26:BX:78:LYS:N	2.49	0.46
1:A2:1294:G:P	1:A2:1294:G:C8	3.09	0.46
1:A2:1330:G:C8	6:BD:161:GLY:HA2	2.29	0.46
1:A2:736:C:O2	7:BE:227:VAL:CB	2.64	0.46
1:A2:241:U:C2	7:BE:136:VAL:CG1	2.92	0.46
1:A2:703:G:O2'	7:BE:235:TYR:CE1	2.67	0.46
1:A2:1581:C:O3'	19:BQ:135:ARG:CB	2.63	0.46
1:A2:1558:U:C1'	21:BS:126:ARG:C	2.84	0.46
1:A2:1553:G:C2	18:BP:40:ARG:N	2.84	0.46
1:A2:1239:U:C6	18:BP:63:ALA:O	2.67	0.46
1:A2:1252:C:C5	1:A2:1253:U:C5	3.04	0.46
2:AZ:6107:U:N3	8:BF:217:LEU:CA	2.79	0.46
1:A2:952:A:H2'	1:A2:952:A:N3	2.31	0.46
1:A2:318:U:H3	11:BI:15:GLY:C	1.95	0.46
1:A2:1097:U:O2	5:BC:200:SER:CB	2.63	0.46
1:A2:883:C:C2	1:A2:946:U:C4	3.03	0.46
19:BQ:83:GLN:C	19:BQ:84:ALA:CA	2.75	0.46
11:BI:170:SER:C	11:BI:171:SER:N	2.69	0.46
17:BO:91:THR:OG1	17:BO:93:THR:HB	2.16	0.46
1:A2:1758:U:HO3'	1:A2:1759:C:C5'	2.28	0.46
1:A2:341:A:C3'	1:A2:342:C:P	3.04	0.46
1:A2:479:C:H3'	1:A2:480:G:OP2	2.16	0.46
6:BD:87:TYR:O	6:BD:88:ALA:N	2.48	0.46
10:BH:103:SER:C	10:BH:104:ARG:HG2	2.35	0.46
1:A2:633:U:O5'	14:BL:99:ARG:HD2	2.14	0.46
1:A2:866:G:C3'	25:BW:3:ARG:N	2.78	0.46
1:A2:736:C:N3	7:BE:195:ILE:CG1	2.78	0.46
1:A2:1408:G:C2	1:A2:1409:G:H1'	2.51	0.46
21:BS:4:VAL:HG23	28:BZ:79:ALA:HB2	1.97	0.46
1:A2:1566:U:P	21:BS:29:VAL:HG12	2.56	0.46
1:A2:1066:C:O2'	3:BA:31:VAL:CA	2.49	0.46
1:A2:988:A:O3'	17:BO:126:THR:HA	2.15	0.46
3:BA:195:TRP:CE3	20:BR:91:ALA:N	2.83	0.46
1:A2:348:U:O4	11:BI:14:THR:O	2.34	0.46
1:A2:1381:U:C3'	23:BU:59:PRO:HG2	2.21	0.46
1:A2:1413:U:O3'	1:A2:1414:U:OP1	2.33	0.46
1:A2:977:A:C2	1:A2:978:A:H1'	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:441:A:N1	1:A2:442:C:C4	2.84	0.46
1:A2:1662:G:H2'	1:A2:1663:G:H8	1.80	0.46
1:A2:1758:U:H3'	1:A2:1759:C:OP2	2.15	0.46
5:BC:53:ILE:HG23	5:BC:72:LEU:HD23	1.98	0.46
14:BL:14:GLN:HB3	14:BL:54:ILE:HG12	1.98	0.46
4:BB:189:ILE:HB	4:BB:190:PRO:HD3	1.98	0.46
21:BS:75:ASN:O	21:BS:76:PRO:C	2.54	0.46
18:BP:90:ILE:O	18:BP:90:ILE:HG22	2.16	0.46
27:BY:57:VAL:N	27:BY:72:PHE:O	2.49	0.46
1:A2:1683:C:P	9:BG:109:LEU:CD1	3.01	0.46
1:A2:267:U:OP2	9:BG:136:LYS:HE2	2.16	0.46
1:A2:141:U:O2'	9:BG:158:ILE:CG2	2.64	0.46
1:A2:182:A:H4'	9:BG:195:VAL:CG2	2.46	0.46
1:A2:450:U:H5''	27:BY:112:LYS:HZ3	1.80	0.46
1:A2:149:C:O4'	27:BY:127:LYS:O	2.32	0.46
1:A2:312:A:C2	1:A2:315:A:C8	3.04	0.46
1:A2:635:A:H5''	25:BW:78:ARG:HA	1.70	0.46
1:A2:865:A:C5'	25:BW:6:VAL:CA	2.86	0.46
1:A2:965:U:C2'	1:A2:966:A:P	3.03	0.46
1:A2:1331:A:H1'	6:BD:163:PRO:HD3	1.97	0.46
28:BZ:62:VAL:HG13	28:BZ:76:ALA:CB	2.46	0.46
1:A2:1183:A:C2'	18:BP:124:THR:N	2.59	0.46
1:A2:1504:G:C1'	21:BS:41:ARG:HH21	2.11	0.46
1:A2:1505:A:H5'	22:BT:41:SER:CB	2.43	0.46
1:A2:1548:G:H5'	21:BS:98:TYR:O	2.16	0.46
2:AZ:6106:A:N3	8:BF:224:ASN:C	2.69	0.46
1:A2:992:A:N1	1:A2:1013:A:C4	2.84	0.46
1:A2:1030:A:C3'	1:A2:1031:U:P	2.98	0.46
1:A2:873:U:C5	16:BN:12:SER:CB	2.98	0.46
1:A2:959:U:C4	25:BW:54:ASP:N	2.82	0.46
1:A2:960:U:OP2	25:BW:57:ARG:NE	2.42	0.46
20:BR:102:VAL:N	20:BR:120:SER:O	2.49	0.46
1:A2:1135:U:H3'	26:BX:118:PRO:HB2	1.56	0.46
1:A2:1:U:C6	12:BJ:43:TYR:CD2	3.04	0.46
7:BE:21:ASP:OD1	7:BE:23:LEU:N	2.44	0.46
19:BQ:140:LYS:C	19:BQ:141:SER:N	2.69	0.46
1:A2:1098:U:H2'	5:BC:198:THR:HA	1.97	0.46
1:A2:210:A:C8	1:A2:211:U:C5	3.03	0.46
1:A2:39:A:C2	1:A2:467:G:C2	3.04	0.46
1:A2:1744:A:C3'	1:A2:1745:G:O5'	2.64	0.46
16:BN:71:ILE:O	16:BN:72:MET:C	2.54	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BV:27:ASP:N	24:BV:27:ASP:OD1	2.49	0.46
5:BC:147:ASN:ND2	5:BC:148:LEU:O	2.49	0.46
24:BV:51:VAL:O	24:BV:52:THR:HA	2.16	0.46
10:BH:90:VAL:C	10:BH:91:ILE:N	2.69	0.46
1:A2:58:U:C6	27:BY:114:ARG:CA	2.97	0.46
1:A2:85:A:H1'	27:BY:126:ALA:CA	2.37	0.46
1:A2:85:A:C2	27:BY:127:LYS:N	2.80	0.46
1:A2:967:A:C1'	26:BX:7:ARG:HB3	2.43	0.46
1:A2:844:A:C6	1:A2:845:G:C5	3.03	0.46
1:A2:1607:G:C6	1:A2:1608:U:C4	3.04	0.46
1:A2:1554:U:C2	18:BP:44:ARG:NE	2.83	0.46
1:A2:1563:C:C5'	22:BT:38:LYS:CE	2.90	0.46
1:A2:1054:U:H1'	3:BA:30:GLN:HG2	1.97	0.46
4:BB:127:VAL:HG11	4:BB:176:VAL:HG11	1.98	0.46
1:A2:557:G:O3'	1:A2:558:U:P	2.74	0.46
1:A2:759:U:N3	12:BJ:6:ARG:C	2.68	0.46
1:A2:601:A:P	26:BX:43:PHE:CE2	3.08	0.46
1:A2:346:G:N3	11:BI:12:SER:O	2.49	0.46
23:BU:38:SER:CB	23:BU:55:PRO:HB3	2.46	0.46
1:A2:1099:U:H5''	5:BC:168:ARG:HD3	1.98	0.46
1:A2:1378:U:H2'	1:A2:1379:C:C1'	2.46	0.46
16:BN:135:LEU:HD22	16:BN:139:TRP:CD1	2.51	0.46
6:BD:33:GLY:O	6:BD:35:SER:N	2.49	0.46
6:BD:208:ILE:O	6:BD:208:ILE:HG22	2.16	0.46
6:BD:98:ALA:O	6:BD:102:ALA:N	2.49	0.46
21:BS:10:SER:N	21:BS:11:PHE:N	2.64	0.46
3:BA:85:ALA:HB3	3:BA:171:GLY:HA3	1.98	0.46
12:BJ:173:ALA:O	12:BJ:174:ARG:N	2.49	0.46
7:BE:161:LYS:HB2	7:BE:170:THR:OG1	2.16	0.46
1:A2:293:U:H2'	1:A2:294:C:C6	2.51	0.46
8:BF:170:GLN:HA	8:BF:170:GLN:HE21	1.80	0.46
1:A2:776:G:O6	27:BY:35:VAL:C	2.40	0.45
27:BY:34:ASN:OD1	27:BY:35:VAL:N	2.48	0.45
1:A2:785:U:O2	27:BY:69:SER:HB3	2.17	0.45
1:A2:1711:C:H3'	1:A2:1712:A:P	2.56	0.45
1:A2:1726:G:H2'	1:A2:1727:G:O4'	2.16	0.45
1:A2:78:A:N1	9:BG:160:ARG:NE	2.52	0.45
26:BX:73:ARG:C	26:BX:74:VAL:HA	2.36	0.45
1:A2:833:U:P	9:BG:213:ALA:CB	2.92	0.45
1:A2:242:U:C2	7:BE:148:ARG:HD2	2.45	0.45
1:A2:703:G:N7	7:BE:230:GLU:OE1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1176:G:H2'	1:A2:1177:C:C6	2.50	0.45
1:A2:1565:C:H1'	21:BS:42:TYR:HB3	1.98	0.45
20:BR:99:VAL:HA	20:BR:118:PRO:O	2.16	0.45
1:A2:597:G:O5'	26:BX:133:LEU:HD21	2.16	0.45
1:A2:26:A:C2	26:BX:48:HIS:CE1	3.04	0.45
1:A2:570:A:P	26:BX:90:ALA:HA	2.56	0.45
1:A2:338:C:C2	11:BI:29:LEU:HA	2.49	0.45
1:A2:1281:G:C1'	23:BU:74:GLU:C	2.85	0.45
23:BU:80:GLU:CD	23:BU:82:TYR:CZ	2.89	0.45
1:A2:1592:A:OP2	22:BT:93:HIS:HB3	2.14	0.45
7:BE:187:ARG:HA	7:BE:187:ARG:NE	2.31	0.45
1:A2:1191:U:O2	19:BQ:142:TYR:CB	2.64	0.45
25:BW:51:GLU:O	25:BW:52:TYR:N	2.49	0.45
11:BI:107:THR:O	11:BI:111:GLN:N	2.49	0.45
7:BE:40:GLU:N	7:BE:41:SER:N	2.64	0.45
2:AZ:6122:C:O2	2:AZ:6122:C:C2'	2.63	0.45
5:BC:35:TRP:CE2	5:BC:36:VAL:O	2.68	0.45
24:BV:51:VAL:C	24:BV:52:THR:HA	2.36	0.45
9:BG:75:LEU:HD13	9:BG:77:LEU:HD21	1.97	0.45
1:A2:89:G:C6	27:BY:118:ILE:CG2	2.85	0.45
1:A2:1144:U:C5	5:BC:89:GLN:CD	2.88	0.45
1:A2:216:U:N1	7:BE:129:VAL:HG21	2.26	0.45
1:A2:1402:G:C8	20:BR:5:ARG:N	2.73	0.45
9:BG:23:ARG:O	9:BG:23:ARG:HG3	2.17	0.45
1:A2:1532:U:C2	28:BZ:77:ARG:NE	2.84	0.45
1:A2:1532:U:H5''	28:BZ:77:ARG:N	2.31	0.45
1:A2:1581:C:H4'	19:BQ:135:ARG:CB	2.45	0.45
19:BQ:13:LYS:C	19:BQ:14:LYS:N	2.70	0.45
1:A2:1458:G:C2'	1:A2:1458:G:N3	2.79	0.45
1:A2:1453:G:OP1	18:BP:115:TYR:C	2.55	0.45
1:A2:1239:U:C6	18:BP:74:ALA:HB3	2.52	0.45
1:A2:1565:C:C4	21:BS:39:GLY:CA	2.99	0.45
1:A2:1566:U:H2'	1:A2:1567:U:C6	2.50	0.45
1:A2:938:G:N2	1:A2:942:G:C4	2.84	0.45
1:A2:959:U:N3	25:BW:54:ASP:N	2.59	0.45
1:A2:916:U:O2	17:BO:27:PHE:HD2	1.99	0.45
3:BA:7:PHE:N	20:BR:114:GLY:O	2.49	0.45
1:A2:641:G:H2'	1:A2:642:G:O4'	2.15	0.45
16:BN:111:ALA:O	16:BN:112:LYS:O	2.35	0.45
2:AZ:6128:G:N2	2:AZ:6129:C:O2	2.48	0.45
1:A2:997:G:H2'	1:A2:998:A:O4'	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1768:G:H4'	1:A2:1769:U:H5''	1.98	0.45
10:BH:17:GLU:N	10:BH:17:GLU:CD	2.69	0.45
1:A2:1593:A:H2'	1:A2:1594:G:H8	1.82	0.45
5:BC:104:VAL:CG2	5:BC:132:ALA:HB3	2.46	0.45
22:BT:70:GLN:C	22:BT:71:VAL:N	2.70	0.45
1:A2:785:U:O2	27:BY:69:SER:CB	2.64	0.45
1:A2:281:G:C2	1:A2:282:C:C4	3.05	0.45
1:A2:80:A:O3'	1:A2:81:G:P	2.75	0.45
1:A2:457:G:C1'	27:BY:110:GLN:HB2	2.45	0.45
1:A2:351:C:O3'	1:A2:352:A:OP2	2.31	0.45
25:BW:79:PHE:O	25:BW:80:ASN:HA	2.17	0.45
25:BW:7:LEU:HD22	25:BW:11:LEU:HD12	1.99	0.45
1:A2:804:A:C6	25:BW:82:LYS:CB	2.99	0.45
26:BX:24:TRP:O	26:BX:25:ALA:C	2.54	0.45
1:A2:1328:G:O4'	6:BD:159:HIS:O	2.32	0.45
1:A2:1299:G:O4'	5:BC:84:LYS:HG3	2.15	0.45
1:A2:1327:C:C3'	6:BD:159:HIS:CB	2.94	0.45
1:A2:218:A:H5''	7:BE:152:PRO:O	2.13	0.45
9:BG:214:LYS:HE2	9:BG:214:LYS:HA	1.98	0.45
1:A2:1239:U:P	18:BP:72:LYS:O	2.63	0.45
1:A2:1566:U:O2'	1:A2:1567:U:H5'	2.15	0.45
1:A2:1564:U:OP1	22:BT:44:GLU:HB2	2.17	0.45
1:A2:1053:G:H2'	1:A2:1053:G:N3	2.31	0.45
1:A2:917:U:H4'	17:BO:84:ARG:CA	2.06	0.45
1:A2:960:U:O4'	25:BW:57:ARG:CD	2.52	0.45
3:BA:174:TRP:O	3:BA:175:TYR:C	2.54	0.45
4:BB:172:LEU:O	4:BB:175:GLU:N	2.48	0.45
1:A2:921:U:OP1	4:BB:216:LYS:HG2	2.15	0.45
4:BB:54:LEU:O	4:BB:55:LYS:HB3	2.15	0.45
16:BN:119:GLU:C	16:BN:120:SER:OG	2.54	0.45
1:A2:990:C:C6	17:BO:127:ARG:NH1	2.70	0.45
1:A2:338:C:OP2	11:BI:9:HIS:N	2.49	0.45
1:A2:1279:C:O3'	1:A2:1280:C:P	2.75	0.45
1:A2:1438:G:C6	1:A2:1439:C:N3	2.84	0.45
23:BU:94:GLU:O	23:BU:95:ALA:HB2	2.17	0.45
4:BB:131:ASP:O	4:BB:133:TYR:N	2.50	0.45
2:AZ:6165:C:O2	2:AZ:6165:C:C2'	2.59	0.45
1:A2:1663:G:H2'	1:A2:1664:C:O4'	2.16	0.45
1:A2:774:A:OP2	1:A2:788:A:C2	2.70	0.45
5:BC:69:ILE:HD11	5:BC:133:LYS:HD3	1.98	0.45
20:BR:70:SER:CA	20:BR:71:PHE:N	2.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BL:15:LYS:HA	14:BL:54:ILE:HD11	1.98	0.45
6:BD:108:LYS:O	6:BD:113:LEU:HD12	2.17	0.45
1:A2:1647:U:C4	1:A2:1648:A:N7	2.84	0.45
3:BA:133:ILE:HG22	3:BA:133:ILE:O	2.15	0.45
1:A2:776:G:H3'	27:BY:34:ASN:CB	2.46	0.45
1:A2:1682:U:C4'	9:BG:102:VAL:HG11	2.21	0.45
1:A2:1679:G:O2'	1:A2:1722:A:N6	2.50	0.45
1:A2:403:G:H2'	1:A2:404:G:OP1	2.15	0.45
9:BG:24:ILE:CG2	9:BG:28:PHE:CE1	3.00	0.45
1:A2:1722:A:H2	9:BG:70:PRO:HD2	1.58	0.45
1:A2:1294:G:O6	1:A2:1295:G:C6	2.69	0.45
1:A2:736:C:O2	7:BE:227:VAL:CG1	2.61	0.45
1:A2:1401:A:C5'	20:BR:10:LYS:N	2.54	0.45
1:A2:1238:A:OP1	18:BP:63:ALA:C	2.53	0.45
8:BF:216:GLU:O	8:BF:217:LEU:N	2.49	0.45
12:BJ:71:PHE:HB3	12:BJ:72:GLU:N	2.31	0.45
1:A2:897:C:OP1	17:BO:30:VAL:CG1	2.40	0.45
1:A2:901:G:C5'	17:BO:86:THR:HG21	2.37	0.45
1:A2:960:U:C5	25:BW:57:ARG:CG	3.00	0.45
1:A2:753:A:P	7:BE:17:HIS:N	2.88	0.45
1:A2:1:U:C6	12:BJ:43:TYR:HD2	2.34	0.45
1:A2:29:U:C4'	26:BX:129:GLY:N	2.74	0.45
1:A2:1358:G:H4'	22:BT:130:ARG:HG2	1.96	0.45
1:A2:1343:U:C5'	23:BU:54:GLY:HA3	2.06	0.45
5:BC:203:LYS:O	5:BC:204:THR:N	2.50	0.45
1:A2:1018:U:C4'	16:BN:107:LYS:CG	2.57	0.45
2:AZ:6218:U:O2'	6:BD:146:ARG:HB2	2.17	0.45
1:A2:299:A:H8	7:BE:7:LYS:HB2	1.76	0.45
8:BF:172:ILE:O	8:BF:173:ALA:C	2.54	0.45
5:BC:132:ALA:O	5:BC:133:LYS:O	2.35	0.45
2:AZ:6070:A:O2'	2:AZ:6071:U:OP2	2.32	0.45
24:BV:71:ARG:HG3	24:BV:83:TRP:CZ2	2.51	0.45
1:A2:786:C:C5	27:BY:71:GLY:HA2	2.50	0.45
27:BY:128:LYS:O	27:BY:132:ARG:CG	2.65	0.45
1:A2:863:A:O3'	25:BW:7:LEU:HG	2.16	0.45
1:A2:1103:U:C4'	26:BX:15:LEU:CD2	2.82	0.45
1:A2:1303:U:C4	1:A2:1304:G:C4	3.04	0.45
1:A2:213:A:H3'	1:A2:214:G:H8	1.81	0.45
1:A2:831:U:C5'	7:BE:152:PRO:CB	2.94	0.45
1:A2:1402:G:C6	20:BR:5:ARG:NH2	2.85	0.45
1:A2:1536:G:N3	8:BF:187:ILE:HD11	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BQ:13:LYS:CA	19:BQ:14:LYS:N	2.80	0.45
1:A2:900:A:C8	17:BO:25:ASP:HB3	2.47	0.45
1:A2:900:A:O5'	17:BO:25:ASP:CB	2.45	0.45
1:A2:919:A:O2'	1:A2:920:U:O4'	2.35	0.45
3:BA:115:PHE:O	3:BA:115:PHE:CG	2.69	0.45
3:BA:195:TRP:NE1	20:BR:90:ALA:HA	2.31	0.45
3:BA:199:PRO:HG3	20:BR:91:ALA:O	2.15	0.45
1:A2:23:G:C5	1:A2:24:U:C5	3.04	0.45
1:A2:599:A:H2	26:BX:103:LEU:CD1	2.18	0.45
1:A2:757:A:C8	12:BJ:3:ARG:CZ	3.00	0.45
1:A2:753:A:C8	7:BE:16:HIS:HB2	2.51	0.45
7:BE:24:SER:OG	7:BE:25:GLY:N	2.49	0.45
19:BQ:38:LEU:HD21	22:BT:10:ALA:HA	1.98	0.45
1:A2:332:U:O2	11:BI:26:LYS:CG	2.64	0.45
1:A2:1380:U:C5	1:A2:1381:U:C4	3.05	0.45
1:A2:1417:A:H5''	19:BQ:128:LYS:HE3	1.96	0.45
1:A2:366:A:C2	1:A2:367:A:C5	3.05	0.45
10:BH:171:ALA:O	10:BH:174:ASN:CB	2.64	0.45
1:A2:1114:G:N2	1:A2:1130:G:H2'	2.32	0.45
5:BC:72:LEU:C	5:BC:73:LEU:N	2.70	0.45
12:BJ:83:VAL:HG23	12:BJ:85:VAL:CG2	2.47	0.45
20:BR:78:ARG:O	20:BR:79:GLU:N	2.50	0.45
23:BU:107:THR:HG22	23:BU:108:ILE:O	2.17	0.45
11:BI:58:LEU:N	11:BI:58:LEU:HD12	2.31	0.45
1:A2:784:C:O2'	27:BY:27:VAL:HG22	2.16	0.45
27:BY:54:ALA:O	27:BY:55:VAL:HG13	2.17	0.45
1:A2:163:G:OP1	9:BG:107:ALA:N	2.40	0.45
1:A2:352:A:HO3'	1:A2:353:A:P	2.32	0.45
1:A2:634:G:C6	26:BX:10:ASN:N	2.85	0.45
25:BW:33:VAL:HG12	25:BW:34:ILE:N	2.32	0.45
1:A2:1298:U:O3'	5:BC:101:VAL:HB	2.16	0.45
1:A2:213:A:O3'	7:BE:135:GLY:HA2	2.15	0.45
1:A2:217:A:H5'	7:BE:156:VAL:HB	1.98	0.45
1:A2:1550:A:H8	21:BS:84:TRP:HA	1.80	0.45
7:BE:251:GLU:C	7:BE:252:ARG:N	2.70	0.45
1:A2:1056:U:H6	3:BA:40:ALA:HB1	1.78	0.45
1:A2:892:A:N6	1:A2:893:U:O4	2.49	0.45
1:A2:895:G:OP1	4:BB:64:ARG:HB2	2.17	0.45
1:A2:990:C:C1'	17:BO:127:ARG:NH2	2.38	0.45
1:A2:902:G:P	17:BO:86:THR:OG1	2.74	0.45
7:BE:18:TRP:N	7:BE:19:LEU:N	2.64	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:29:PRO:C	7:BE:30:ARG:HA	2.36	0.45
22:BT:6:VAL:O	22:BT:7:ARG:N	2.49	0.45
1:A2:324:U:C2	1:A2:325:G:C8	3.05	0.45
1:A2:338:C:C2'	11:BI:24:LYS:HZ3	2.18	0.45
6:BD:23:GLU:C	6:BD:24:PHE:N	2.70	0.45
10:BH:17:GLU:OE1	10:BH:17:GLU:N	2.49	0.45
5:BC:132:ALA:O	5:BC:133:LYS:C	2.53	0.45
17:BO:79:VAL:HG22	17:BO:79:VAL:O	2.15	0.45
1:A2:1142:A:H2'	1:A2:1143:A:O4'	2.16	0.45
1:A2:1077:C:H2'	1:A2:1078:C:C6	2.51	0.45
1:A2:1271:G:C6	1:A2:1272:U:C4	3.04	0.45
1:A2:87:C:O2'	1:A2:169:A:N1	2.45	0.45
1:A2:164:A:C3'	9:BG:3:LEU:O	2.60	0.45
1:A2:1104:U:C6	1:A2:1105:C:C5	3.05	0.45
1:A2:631:G:C5'	26:BX:16:ARG:HH12	2.29	0.45
1:A2:861:U:C4	1:A2:862:A:C2	3.05	0.45
25:BW:79:PHE:C	25:BW:80:ASN:CA	2.84	0.45
1:A2:241:U:O2'	9:BG:201:GLN:HG3	2.16	0.45
1:A2:736:C:C6	7:BE:181:VAL:HA	2.51	0.45
1:A2:737:A:H5'	7:BE:227:VAL:HG22	1.99	0.45
1:A2:853:G:H3'	1:A2:854:U:P	2.56	0.45
1:A2:735:C:O4'	7:BE:193:GLY:N	2.49	0.45
7:BE:197:HIS:O	7:BE:209:HIS:ND1	2.50	0.45
1:A2:704:C:C1'	7:BE:232:GLY:N	2.73	0.45
8:BF:136:ALA:HB1	8:BF:198:LEU:HD22	1.98	0.45
1:A2:886:U:C2	17:BO:124:ASP:OD2	2.69	0.45
1:A2:952:A:H5''	16:BN:121:ARG:HD3	1.99	0.45
1:A2:986:G:H2'	1:A2:987:G:O4'	2.17	0.45
1:A2:756:A:C5'	12:BJ:4:ALA:O	2.65	0.45
1:A2:334:G:OP1	11:BI:47:ARG:NH1	2.34	0.45
1:A2:302:U:H4'	11:BI:25:ARG:HD2	1.98	0.45
11:BI:49:ARG:C	11:BI:50:GLY:N	2.70	0.45
1:A2:1280:C:H5	23:BU:71:PRO:HG2	0.96	0.45
1:A2:1381:U:C2'	23:BU:59:PRO:CG	2.94	0.45
1:A2:1085:G:C8	5:BC:164:SER:N	2.80	0.45
2:AZ:6123:A:C2	2:AZ:6152:C:C2	3.04	0.45
16:BN:108:ASP:OD1	16:BN:111:ALA:N	2.50	0.45
16:BN:109:LYS:O	16:BN:110:ASP:C	2.54	0.45
27:BY:89:TYR:O	27:BY:90:ARG:N	2.49	0.45
5:BC:139:ILE:CD1	5:BC:191:ALA:HB1	2.34	0.45
5:BC:191:ALA:C	5:BC:192:GLY:N	2.70	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:496:G:C2'	1:A2:497:G:O4'	2.65	0.45
8:BF:201:ALA:HB2	8:BF:208:SER:CB	2.47	0.45
19:BQ:40:GLU:HG2	19:BQ:41:PRO:HD3	1.99	0.45
4:BB:223:PHE:CZ	4:BB:225:VAL:HG12	2.52	0.45
1:A2:1139:A:C2	1:A2:1140:G:H1'	2.52	0.45
1:A2:1172:G:O6	1:A2:1173:C:C4	2.70	0.45
1:A2:471:A:C6	1:A2:472:U:C5	3.04	0.45
3:BA:84:ARG:NH1	3:BA:204:TYR:O	2.50	0.45
1:A2:150:U:C6	27:BY:131:ARG:CD	2.97	0.45
1:A2:864:U:C5	25:BW:14:ILE:N	2.85	0.45
1:A2:1103:U:C4'	26:BX:15:LEU:CD1	2.73	0.45
1:A2:45:U:H4'	26:BX:77:ILE:O	2.16	0.45
1:A2:1327:C:C3'	6:BD:159:HIS:CA	2.62	0.45
1:A2:1301:U:H1'	5:BC:86:VAL:CG2	2.41	0.45
1:A2:1301:U:C2	5:BC:97:ARG:CZ	2.57	0.45
1:A2:825:U:H2'	1:A2:826:U:O4'	2.17	0.45
1:A2:821:U:C5	1:A2:853:G:N2	2.84	0.45
7:BE:221:ARG:C	7:BE:222:LEU:N	2.70	0.45
1:A2:1573:A:C2	8:BF:100:ASN:ND2	2.85	0.45
1:A2:1176:G:O2'	1:A2:1177:C:O5'	2.33	0.45
1:A2:1241:G:C1'	18:BP:96:ILE:CD1	2.94	0.45
1:A2:1241:G:C6	18:BP:96:ILE:HG23	2.52	0.45
1:A2:687:G:OP1	12:BJ:64:GLU:CG	2.34	0.45
1:A2:887:A:H61	1:A2:925:G:H1	1.64	0.45
1:A2:954:G:C8	16:BN:2:GLY:HA3	2.50	0.45
3:BA:55:GLU:HA	20:BR:109:LEU:HB2	1.95	0.45
1:A2:952:A:C5'	16:BN:121:ARG:CD	2.93	0.45
1:A2:572:C:OP2	26:BX:69:ARG:HD2	2.17	0.45
12:BJ:41:GLU:C	12:BJ:43:TYR:N	2.70	0.45
1:A2:301:A:N6	7:BE:5:PRO:CA	2.80	0.45
1:A2:1489:U:N3	1:A2:1513:G:C2	2.85	0.45
5:BC:42:GLY:O	5:BC:43:ARG:C	2.55	0.45
1:A2:1352:G:C6	1:A2:1353:U:C2	3.05	0.45
13:BK:77:ARG:HD3	13:BK:82:LEU:HD12	1.98	0.45
11:BI:121:LEU:HB2	11:BI:160:PHE:CB	2.47	0.45
8:BF:37:GLN:CB	8:BF:69:PHE:CE1	3.00	0.45
1:A2:1181:U:H2'	18:BP:126:VAL:HA	1.98	0.45
5:BC:74:PRO:O	5:BC:75:GLY:C	2.54	0.45
1:A2:785:U:H1'	27:BY:27:VAL:HG23	1.98	0.45
1:A2:784:C:O4'	27:BY:40:LEU:CD1	2.61	0.45
1:A2:814:A:H2	10:BH:109:VAL:HA	0.66	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BH:109:VAL:C	10:BH:110:GLN:C	2.76	0.45
1:A2:1680:G:C2	9:BG:68:LEU:N	2.84	0.45
1:A2:1731:A:H2'	1:A2:1731:A:N3	2.32	0.45
1:A2:78:A:C4	9:BG:162:VAL:CG2	3.00	0.45
1:A2:179:A:O4'	9:BG:184:LEU:CB	2.62	0.45
1:A2:1721:A:OP1	9:BG:83:CYS:SG	2.74	0.45
1:A2:395:U:C1'	9:BG:93:LYS:HE3	2.47	0.45
1:A2:973:A:N3	1:A2:974:A:N7	2.63	0.45
25:BW:8:ALA:O	25:BW:9:ASP:C	2.54	0.45
1:A2:731:C:OP2	1:A2:732:G:OP1	2.35	0.45
7:BE:160:VAL:HG23	7:BE:171:ASP:O	2.16	0.45
20:BR:7:LYS:C	20:BR:9:VAL:N	2.70	0.45
1:A2:1532:U:C5'	28:BZ:77:ARG:CB	2.70	0.45
1:A2:1202:A:C8	1:A2:1456:C:C5	3.05	0.45
1:A2:1564:U:N1	21:BS:41:ARG:HB3	2.29	0.45
21:BS:68:ARG:HA	21:BS:71:GLN:HB2	1.99	0.45
1:A2:952:A:O3'	16:BN:5:HIS:CG	2.70	0.45
1:A2:1136:U:C5	26:BX:118:PRO:C	2.90	0.45
1:A2:20:G:O3'	1:A2:21:U:OP1	2.34	0.45
22:BT:113:ILE:HG22	22:BT:124:ILE:HD11	1.98	0.45
1:A2:329:G:H22	11:BI:3:ILE:CD1	2.30	0.45
1:A2:330:G:H4'	11:BI:32:GLN:O	2.16	0.45
1:A2:1008:G:C3'	17:BO:129:LYS:HZ1	2.30	0.45
1:A2:441:A:H2'	1:A2:441:A:N3	2.32	0.45
1:A2:1377:U:HO3'	1:A2:1378:U:P	2.32	0.45
21:BS:15:LEU:HD11	21:BS:66:LEU:HD22	1.98	0.45
6:BD:170:THR:C	6:BD:171:ALA:N	2.70	0.45
2:AZ:6118:G:N3	2:AZ:6118:G:C2'	2.80	0.45
24:BV:53:TYR:O	24:BV:54:ALA:HB2	2.17	0.45
1:A2:913:G:C3'	1:A2:913:G:P	3.05	0.45
1:A2:1171:A:O2'	1:A2:1172:G:C8	2.58	0.45
11:BI:67:TRP:O	11:BI:71:GLY:N	2.39	0.45
1:A2:430:G:N2	1:A2:431:C:C2	2.85	0.45
19:BQ:100:GLN:O	19:BQ:104:GLU:N	2.49	0.45
12:BJ:128:LEU:HD22	12:BJ:133:HIS:ND1	2.31	0.45
1:A2:783:G:C2	27:BY:40:LEU:HD23	2.46	0.45
1:A2:779:U:P	27:BY:4:ALA:HA	2.57	0.45
1:A2:265:A:N1	1:A2:267:U:O4	2.50	0.45
1:A2:395:U:H4'	9:BG:87:ARG:CG	2.35	0.45
1:A2:452:A:C5	27:BY:115:ASP:CG	2.90	0.45
6:BD:224:ASP:HA	6:BD:225:TYR:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:976:G:N2	1:A2:1023:A:O2'	2.50	0.45
1:A2:965:U:O2'	1:A2:966:A:P	2.74	0.45
1:A2:1147:A:C4'	1:A2:1147:A:OP1	2.55	0.45
1:A2:1323:C:N4	1:A2:1324:G:C6	2.85	0.45
1:A2:704:C:H4'	7:BE:233:LYS:HD2	1.70	0.45
1:A2:832:U:O5'	9:BG:213:ALA:HA	2.15	0.45
1:A2:1317:C:N1	20:BR:7:LYS:HD3	2.24	0.45
1:A2:1504:G:H2'	1:A2:1505:A:C8	2.52	0.45
1:A2:1547:A:C2'	21:BS:100:THR:O	2.64	0.45
22:BT:61:VAL:HG12	22:BT:62:ALA:H	1.82	0.45
1:A2:876:G:C3'	1:A2:877:G:P	3.04	0.45
1:A2:960:U:C3'	1:A2:961:U:O5'	2.64	0.45
3:BA:17:LEU:HD11	20:BR:102:VAL:N	2.32	0.45
1:A2:950:C:C5'	16:BN:94:LYS:HE2	2.45	0.45
1:A2:1396:U:H2'	1:A2:1397:U:C6	2.51	0.45
1:A2:208:U:H2'	11:BI:55:TYR:CZ	2.52	0.45
1:A2:1349:G:N3	1:A2:1379:C:N4	2.65	0.45
4:BB:108:ASP:O	4:BB:112:SER:N	2.50	0.45
13:BK:12:HIS:HB3	13:BK:76:LEU:HD11	1.99	0.45
16:BN:64:ARG:N	16:BN:65:VAL:N	2.65	0.45
23:BU:116:VAL:O	23:BU:118:VAL:HG23	2.17	0.45
15:BM:79:ALA:HB1	15:BM:87:PRO:O	2.16	0.45
1:A2:149:C:H6	27:BY:131:ARG:N	2.16	0.44
9:BG:12:SER:HA	9:BG:13:GLN:N	2.33	0.44
1:A2:147:A:C8	27:BY:124:ARG:NH1	2.64	0.44
1:A2:85:A:C5	27:BY:126:ALA:HB2	1.21	0.44
1:A2:1037:C:H4'	25:BW:71:LYS:HB2	1.99	0.44
1:A2:630:A:C5	1:A2:631:G:C8	3.04	0.44
1:A2:863:A:C3'	25:BW:6:VAL:CB	2.95	0.44
1:A2:863:A:P	25:BW:31:SER:CB	3.02	0.44
1:A2:866:G:OP2	25:BW:5:SER:O	2.32	0.44
1:A2:1103:U:H5''	14:BL:97:TYR:HD2	1.82	0.44
1:A2:1036:A:HO2'	25:BW:71:LYS:HE3	1.81	0.44
1:A2:631:G:C2	26:BX:11:SER:O	2.70	0.44
26:BX:30:LYS:C	26:BX:31:LYS:N	2.71	0.44
1:A2:1145:U:P	5:BC:88:LYS:C	2.96	0.44
1:A2:217:A:H4'	7:BE:156:VAL:H	1.82	0.44
1:A2:242:U:C6	7:BE:149:TYR:N	2.79	0.44
1:A2:698:U:O4'	7:BE:209:HIS:HE1	1.99	0.44
1:A2:706:A:H8	7:BE:231:GLN:NE2	2.15	0.44
1:A2:1608:U:H5''	19:BQ:72:GLY:C	2.38	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1534:G:C3'	28:BZ:62:VAL:O	2.60	0.44
1:A2:1503:A:C2'	22:BT:37:VAL:N	2.80	0.44
21:BS:30:TYR:HA	21:BS:33:THR:HB	1.98	0.44
1:A2:873:U:O4	16:BN:10:GLY:HA3	2.16	0.44
1:A2:897:C:N4	1:A2:914:G:C8	2.85	0.44
3:BA:64:ILE:C	3:BA:66:ALA:HB3	2.37	0.44
3:BA:89:PHE:HE2	3:BA:178:ALA:HB2	1.81	0.44
1:A2:871:G:H1	16:BN:11:ILE:HB	1.81	0.44
3:BA:176:LEU:HD11	20:BR:101:ASN:O	2.17	0.44
20:BR:110:VAL:HA	20:BR:113:LEU:HB3	2.00	0.44
1:A2:30:G:N2	26:BX:137:LYS:N	2.65	0.44
1:A2:794:U:O2	1:A2:794:U:H2'	2.16	0.44
1:A2:1601:G:OP1	22:BT:86:ARG:CB	2.64	0.44
1:A2:1368:G:H5'	22:BT:66:TYR:C	2.29	0.44
1:A2:338:C:N1	11:BI:4:SER:CB	2.79	0.44
1:A2:1082:C:HO2'	5:BC:216:VAL:HG13	1.80	0.44
9:BG:113:ILE:O	9:BG:114:VAL:HA	2.17	0.44
5:BC:139:ILE:O	5:BC:140:ARG:HB3	2.17	0.44
2:AZ:6171:U:HO2'	2:AZ:6173:C:H5'	1.83	0.44
12:BJ:96:VAL:N	12:BJ:97:LEU:N	2.65	0.44
4:BB:205:PHE:CD1	4:BB:206:PRO:HD2	2.52	0.44
1:A2:1769:U:C2'	1:A2:1770:U:H5'	2.46	0.44
1:A2:374:U:O2	1:A2:374:U:C2'	2.65	0.44
1:A2:681:U:C5	1:A2:682:C:C4	3.04	0.44
10:BH:110:GLN:O	10:BH:111:LYS:N	2.48	0.44
1:A2:140:A:N3	9:BG:157:VAL:CG1	2.73	0.44
9:BG:182:GLN:O	9:BG:185:GLN:HB3	2.16	0.44
1:A2:1721:A:N3	9:BG:99:GLY:N	2.57	0.44
1:A2:311:U:H5''	26:BX:33:LEU:HB3	1.50	0.44
1:A2:312:A:N6	1:A2:352:A:N3	2.64	0.44
1:A2:972:G:C2	1:A2:973:A:C8	3.04	0.44
25:BW:106:THR:OG1	25:BW:107:SER:N	2.50	0.44
25:BW:90:THR:CB	25:BW:94:LEU:HD12	2.47	0.44
1:A2:1295:G:C6	5:BC:116:LYS:HE3	2.53	0.44
1:A2:1566:U:C2	21:BS:39:GLY:CA	2.96	0.44
1:A2:1547:A:P	21:BS:105:VAL:O	2.75	0.44
1:A2:1565:C:C1'	21:BS:42:TYR:H	2.30	0.44
1:A2:1502:G:O6	22:BT:33:TYR:HE2	1.99	0.44
1:A2:1502:G:O2'	22:BT:37:VAL:HG23	2.14	0.44
2:AZ:6112:C:OP1	8:BF:216:GLU:HA	2.16	0.44
8:BF:166:ARG:O	8:BF:166:ARG:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:647:G:N1	1:A2:688:G:C2	2.85	0.44
3:BA:154:GLU:CD	3:BA:154:GLU:N	2.71	0.44
3:BA:87:LEU:CA	3:BA:97:PRO:HB3	2.47	0.44
7:BE:18:TRP:O	7:BE:19:LEU:C	2.55	0.44
22:BT:12:GLN:HA	22:BT:15:ILE:CG1	2.38	0.44
1:A2:1099:U:H5'	5:BC:168:ARG:CD	2.47	0.44
22:BT:118:PRO:O	22:BT:119:LYS:O	2.35	0.44
1:A2:1518:C:O3'	1:A2:1519:U:P	2.75	0.44
1:A2:299:A:H62	7:BE:7:LYS:CE	2.28	0.44
16:BN:137:PRO:O	16:BN:138:ASN:CB	2.64	0.44
2:AZ:6166:U:H1'	2:AZ:6167:G:N7	2.31	0.44
12:BJ:20:GLU:C	12:BJ:22:SER:N	2.70	0.44
10:BH:95:GLU:C	10:BH:96:ARG:HA	2.37	0.44
24:BV:17:CYS:O	24:BV:20:THR:N	2.50	0.44
12:BJ:173:ALA:C	12:BJ:174:ARG:N	2.71	0.44
10:BH:33:GLU:O	10:BH:34:LEU:C	2.55	0.44
5:BC:246:GLU:HB2	5:BC:247:ALA:N	2.32	0.44
1:A2:532:U:C5	1:A2:533:U:C5	3.05	0.44
1:A2:814:A:C5	1:A2:816:G:N7	2.85	0.44
1:A2:1729:C:C3'	1:A2:1730:A:P	3.06	0.44
1:A2:1034:C:HO3'	1:A2:1035:G:P	2.40	0.44
1:A2:825:U:C4	1:A2:826:U:O4	2.71	0.44
1:A2:1389:C:H5'	20:BR:45:ARG:N	2.30	0.44
19:BQ:123:ARG:HG2	19:BQ:124:PRO:HD2	1.99	0.44
1:A2:1241:G:O3'	18:BP:107:ILE:CD1	2.65	0.44
1:A2:1240:U:C4'	18:BP:76:VAL:H	2.25	0.44
1:A2:1504:G:N7	22:BT:37:VAL:CG2	2.70	0.44
1:A2:1565:C:C5'	21:BS:43:SER:CA	2.87	0.44
1:A2:686:C:C3'	12:BJ:70:LEU:HD11	2.39	0.44
1:A2:1055:U:C4'	3:BA:30:GLN:HB2	2.46	0.44
1:A2:919:A:HO2'	1:A2:920:U:C4'	2.30	0.44
1:A2:920:U:O2	4:BB:216:LYS:NZ	2.33	0.44
1:A2:954:G:C2	1:A2:955:A:N9	2.85	0.44
1:A2:993:A:C2	1:A2:1012:U:C2	3.05	0.44
3:BA:17:LEU:HB2	20:BR:121:VAL:HA	2.00	0.44
3:BA:59:LEU:O	3:BA:63:ILE:CB	2.66	0.44
1:A2:5:U:O2'	1:A2:553:G:O3'	2.32	0.44
1:A2:599:A:C2'	26:BX:123:LYS:O	2.55	0.44
1:A2:640:U:C2'	25:BW:119:LYS:HE3	2.39	0.44
1:A2:1685:G:N2	1:A2:1717:G:C6	2.85	0.44
1:A2:47:A:C8	1:A2:425:A:C4	3.06	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BJ:151:ASP:N	12:BJ:151:ASP:OD1	2.50	0.44
1:A2:1369:U:OP2	22:BT:69:LYS:HB3	2.17	0.44
1:A2:1164:G:C6	1:A2:1165:G:C6	3.06	0.44
1:A2:1761:U:O2	1:A2:1761:U:O4'	2.35	0.44
11:BI:60:ILE:O	11:BI:62:THR:N	2.49	0.44
6:BD:147:ALA:HA	6:BD:148:LYS:N	2.32	0.44
5:BC:71:THR:OG1	5:BC:72:LEU:N	2.50	0.44
1:A2:811:A:C8	10:BH:104:ARG:C	2.68	0.44
10:BH:99:LEU:HB2	10:BH:112:ARG:HD2	1.98	0.44
1:A2:1672:G:O6	1:A2:1729:C:N3	2.51	0.44
1:A2:76:A:C4	9:BG:166:GLU:N	2.86	0.44
1:A2:164:A:N9	9:BG:17:GLU:HG3	2.32	0.44
1:A2:1722:A:N6	9:BG:68:LEU:HB3	2.29	0.44
1:A2:630:A:H62	26:BX:14:LYS:HD3	1.69	0.44
1:A2:637:C:O5'	25:BW:110:ILE:HG23	2.17	0.44
1:A2:1291:G:N2	1:A2:1325:A:C2	2.86	0.44
1:A2:1325:A:C2	1:A2:1326:A:C5	3.05	0.44
1:A2:738:G:OP1	7:BE:126:VAL:O	2.34	0.44
7:BE:156:VAL:HG22	7:BE:156:VAL:O	2.17	0.44
8:BF:109:LYS:O	8:BF:113:ILE:HD12	2.18	0.44
1:A2:1558:U:H1'	21:BS:126:ARG:HG3	1.99	0.44
1:A2:1243:G:C5'	18:BP:60:LEU:CB	2.65	0.44
1:A2:1505:A:H4'	22:BT:41:SER:CB	2.48	0.44
8:BF:136:ALA:CB	8:BF:198:LEU:HD22	2.48	0.44
1:A2:1056:U:OP1	3:BA:45:VAL:C	2.56	0.44
1:A2:886:U:C2	1:A2:887:A:C8	3.06	0.44
1:A2:960:U:C5'	25:BW:56:HIS:C	2.85	0.44
3:BA:146:LEU:HD22	3:BA:160:ILE:HB	1.99	0.44
3:BA:175:TYR:CD1	20:BR:89:LYS:HD3	2.52	0.44
1:A2:30:G:OP2	26:BX:130:VAL:CB	2.66	0.44
1:A2:598:U:H1'	26:BX:132:LEU:CA	2.03	0.44
1:A2:756:A:O5'	12:BJ:4:ALA:O	2.36	0.44
1:A2:27:U:O2	26:BX:126:LYS:HD2	2.16	0.44
1:A2:548:G:C4'	26:BX:136:TRP:CD2	2.93	0.44
11:BI:43:ILE:CG1	11:BI:57:ALA:HB2	2.47	0.44
1:A2:880:C:C4'	16:BN:111:ALA:N	2.81	0.44
1:A2:118:U:O2	1:A2:299:A:C2	2.70	0.44
27:BY:89:TYR:N	27:BY:90:ARG:N	2.66	0.44
2:AZ:6130:C:H1'	2:AZ:6147:A:H1'	1.99	0.44
1:A2:1074:G:N1	1:A2:1075:C:N4	2.66	0.44
13:BK:83:PRO:O	13:BK:84:GLU:CB	2.65	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:BD:198:GLY:N	6:BD:199:PRO:HD3	2.31	0.44
2:AZ:6086:U:H2'	2:AZ:6086:U:O2	2.17	0.44
2:AZ:6049:A:OP1	2:AZ:6155:G:N2	2.50	0.44
26:BX:80:GLY:O	26:BX:81:LYS:N	2.51	0.44
1:A2:172:C:C5	1:A2:173:A:N7	2.86	0.44
1:A2:174:U:H2'	1:A2:175:G:C8	2.51	0.44
1:A2:288:A:H2'	1:A2:289:U:C6	2.52	0.44
1:A2:634:G:O3'	25:BW:77:PRO:O	2.33	0.44
1:A2:1299:G:O3'	5:BC:84:LYS:C	2.47	0.44
1:A2:214:G:C8	7:BE:133:LYS:CB	3.00	0.44
7:BE:202:ASP:OD1	7:BE:202:ASP:N	2.49	0.44
1:A2:1402:G:C8	20:BR:5:ARG:HD3	2.53	0.44
1:A2:1535:U:H5'	28:BZ:67:ASP:CB	2.46	0.44
1:A2:1455:G:H5''	21:BS:126:ARG:HH11	1.83	0.44
1:A2:1499:G:OP2	22:BT:105:LEU:N	2.43	0.44
1:A2:1548:G:H3'	21:BS:86:LEU:HB3	0.81	0.44
2:AZ:6108:U:C5'	8:BF:222:LYS:CB	2.63	0.44
1:A2:1060:U:OP2	3:BA:39:ASN:CG	2.53	0.44
3:BA:62:ARG:HA	3:BA:65:ALA:HB3	1.99	0.44
20:BR:109:LEU:O	20:BR:112:SER:CA	2.65	0.44
1:A2:1601:G:OP1	22:BT:86:ARG:NE	2.42	0.44
1:A2:1196:A:O2'	1:A2:1602:C:O2'	2.11	0.44
1:A2:1344:A:H1'	23:BU:56:VAL:HG21	1.99	0.44
1:A2:903:U:C4'	17:BO:135:ARG:HH12	2.23	0.44
1:A2:1005:A:H2'	1:A2:1006:C:O4'	2.17	0.44
19:BQ:81:ILE:C	19:BQ:84:ALA:N	2.70	0.44
11:BI:72:ILE:HG21	11:BI:112:TRP:NE1	2.32	0.44
1:A2:1354:G:C5	1:A2:1355:C:C4	3.05	0.44
1:A2:611:U:H3'	1:A2:612:U:P	2.58	0.44
24:BV:72:LEU:O	24:BV:74:GLN:N	2.51	0.44
1:A2:1622:G:C5	1:A2:1623:C:C4	3.06	0.44
1:A2:743:U:C4	1:A2:744:U:C4	3.05	0.44
2:AZ:6116:A:N6	2:AZ:6154:G:C5	2.86	0.44
7:BE:84:ALA:C	7:BE:85:GLY:N	2.70	0.44
19:BQ:108:ALA:O	19:BQ:109:PHE:HB2	2.18	0.44
1:A2:1778:G:C5	1:A2:1779:U:C5	3.05	0.44
1:A2:784:C:C1'	27:BY:40:LEU:CD1	2.56	0.44
1:A2:859:A:H3'	10:BH:101:LYS:HE2	0.56	0.44
1:A2:393:C:O2	1:A2:394:C:C5	2.70	0.44
1:A2:53:G:C6	1:A2:428:A:N1	2.85	0.44
1:A2:57:G:O3'	27:BY:110:GLN:HB3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:609:U:C2'	26:BX:28:ASN:HD22	2.30	0.44
1:A2:627:C:C4	1:A2:628:G:C6	3.06	0.44
1:A2:639:U:OP2	25:BW:108:ALA:CA	2.56	0.44
1:A2:863:A:H3'	25:BW:6:VAL:CB	2.44	0.44
1:A2:10:G:N1	1:A2:11:A:C5	2.86	0.44
1:A2:1295:G:C8	5:BC:116:LYS:NZ	2.78	0.44
1:A2:736:C:O2	7:BE:227:VAL:HB	2.17	0.44
1:A2:1533:C:P	28:BZ:75:LEU:N	2.87	0.44
1:A2:1573:A:H62	8:BF:184:PHE:HE1	1.33	0.44
1:A2:646:C:O2	1:A2:689:G:N2	2.50	0.44
1:A2:649:U:OP2	7:BE:253:ASP:OD1	2.32	0.44
4:BB:70:LEU:O	4:BB:71:ALA:C	2.56	0.44
1:A2:18:C:O3'	26:BX:114:LYS:CB	2.62	0.44
1:A2:29:U:O4'	26:BX:129:GLY:CA	2.61	0.44
1:A2:597:G:C2	26:BX:134:ALA:C	2.89	0.44
1:A2:1281:G:N3	23:BU:75:GLY:CA	2.78	0.44
1:A2:880:C:O4'	16:BN:110:ASP:HB3	2.18	0.44
11:BI:82:VAL:CG1	11:BI:196:LEU:HD11	2.47	0.44
1:A2:529:A:C2	1:A2:530:C:C2	3.06	0.44
6:BD:216:PRO:CB	6:BD:217:ILE:HD12	2.48	0.44
1:A2:1173:C:H2'	1:A2:1174:C:H6	1.82	0.44
1:A2:1570:A:H2'	1:A2:1571:C:O5'	2.17	0.44
1:A2:1721:A:N1	9:BG:101:ILE:HB	2.33	0.44
1:A2:1723:U:O4'	9:BG:71:THR:OG1	2.36	0.44
1:A2:271:A:C4	1:A2:272:U:H1'	2.52	0.44
1:A2:453:U:H3'	1:A2:453:U:O2	2.18	0.44
1:A2:457:G:H2'	1:A2:458:G:O4'	2.17	0.44
9:BG:175:ILE:HG22	9:BG:176:GLN:O	2.17	0.44
1:A2:1723:U:C6	9:BG:73:ILE:HG21	2.52	0.44
1:A2:396:G:C8	9:BG:91:GLU:CB	2.97	0.44
1:A2:1108:G:C2	26:BX:26:GLU:HA	2.51	0.44
1:A2:1293:U:C6	1:A2:1293:U:OP2	2.71	0.44
6:BD:188:ILE:HG22	6:BD:189:MET:N	2.33	0.44
1:A2:833:U:OP2	9:BG:213:ALA:CB	2.66	0.44
1:A2:736:C:H6	7:BE:181:VAL:HG13	1.77	0.44
1:A2:1470:C:C2'	8:BF:184:PHE:CZ	3.01	0.44
1:A2:1470:C:H1'	8:BF:185:ARG:NH2	2.33	0.44
1:A2:1451:C:N3	18:BP:97:TYR:CB	2.80	0.44
1:A2:1451:C:O3'	18:BP:80:MET:HE1	2.14	0.44
1:A2:1555:A:C8	18:BP:40:ARG:HG3	2.35	0.44
12:BJ:72:GLU:O	12:BJ:73:GLY:C	2.55	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:932:U:H4'	1:A2:933:A:N3	2.32	0.44
1:A2:897:C:H6	17:BO:38:THR:HG1	1.62	0.44
1:A2:1137:A:H3'	26:BX:64:PRO:HD3	1.96	0.44
1:A2:585:A:H2'	1:A2:586:G:H8	1.82	0.44
1:A2:791:A:C2	12:BJ:7:THR:CB	2.99	0.44
12:BJ:43:TYR:O	12:BJ:46:SER:N	2.51	0.44
19:BQ:38:LEU:HD12	22:BT:7:ARG:O	2.17	0.44
1:A2:325:G:N7	11:BI:10:LYS:CE	2.72	0.44
1:A2:1419:G:P	19:BQ:129:PHE:CE1	3.11	0.44
1:A2:1419:G:P	19:BQ:129:PHE:HE1	2.40	0.44
1:A2:1096:C:P	5:BC:168:ARG:HG3	2.51	0.44
1:A2:407:A:C2	1:A2:408:C:C2	3.06	0.44
1:A2:503:G:N3	1:A2:503:G:H2'	2.32	0.44
14:BL:7:VAL:HG23	14:BL:8:GLN:N	2.33	0.44
12:BJ:37:LYS:HE2	12:BJ:38:ASN:ND2	2.31	0.44
22:BT:47:PRO:HG2	22:BT:53:TRP:CD2	2.52	0.44
5:BC:69:ILE:HD12	5:BC:69:ILE:O	2.18	0.44
19:BQ:86:ALA:O	19:BQ:87:LYS:N	2.51	0.44
1:A2:1778:G:H3'	1:A2:1779:U:P	2.57	0.44
6:BD:179:GLN:HG3	6:BD:180:GLY:N	2.33	0.44
1:A2:1772:C:O2	1:A2:1773:C:C6	2.71	0.44
11:BI:142:LYS:C	11:BI:143:TRP:N	2.71	0.44
1:A2:696:C:O2	1:A2:696:C:O4'	2.34	0.44
1:A2:139:C:C5	9:BG:137:ARG:HB2	2.52	0.44
1:A2:1680:G:H3'	1:A2:1681:A:P	2.57	0.44
1:A2:64:U:C4	27:BY:121:THR:HG21	2.53	0.44
1:A2:975:C:C3'	1:A2:976:G:P	3.06	0.44
25:BW:125:ILE:HG23	25:BW:125:ILE:O	2.17	0.44
1:A2:702:G:N2	7:BE:227:VAL:HG21	2.32	0.44
1:A2:736:C:H1'	7:BE:228:ILE:H	1.63	0.44
8:BF:97:LEU:HD21	8:BF:113:ILE:CG2	2.46	0.44
1:A2:1555:A:C8	18:BP:40:ARG:HD3	2.53	0.44
1:A2:1457:C:H1'	21:BS:136:GLN:CG	2.48	0.44
1:A2:1565:C:H2'	1:A2:1566:U:C6	2.52	0.44
2:AZ:6105:U:H3'	2:AZ:6106:A:C5'	2.47	0.44
3:BA:136:ALA:CB	3:BA:143:VAL:CG2	2.96	0.44
3:BA:178:ALA:O	3:BA:179:ARG:C	2.56	0.44
3:BA:58:VAL:O	3:BA:58:VAL:HG13	4.44	0.44
1:A2:29:U:H4'	26:BX:128:SER:CB	2.46	0.44
1:A2:1600:A:C3'	22:BT:86:ARG:HE	2.27	0.44
1:A2:317:C:O2	11:BI:16:ALA:HB1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:338:C:C3'	11:BI:4:SER:HB3	2.27	0.44
1:A2:1348:A:H1'	1:A2:1380:U:O2	2.17	0.44
1:A2:1008:G:C6	1:A2:1009:U:C4	3.06	0.44
1:A2:365:G:N2	1:A2:377:G:H1'	2.33	0.44
10:BH:168:SER:O	10:BH:169:PHE:C	2.56	0.44
12:BJ:95:TYR:O	12:BJ:97:LEU:N	2.51	0.44
2:AZ:6036:C:H2'	2:AZ:6085:A:H61	1.82	0.44
10:BH:119:THR:O	10:BH:120:ALA:C	2.56	0.44
11:BI:84:HIS:CG	11:BI:85:PRO:HD2	2.53	0.44
1:A2:775:G:H1	27:BY:69:SER:HB3	1.81	0.44
1:A2:1712:A:O5'	1:A2:1713:G:OP2	2.35	0.44
1:A2:444:C:N3	1:A2:460:A:N6	2.65	0.44
1:A2:450:U:H2'	1:A2:451:A:C1'	2.45	0.44
1:A2:451:A:C2	1:A2:456:A:C2	3.06	0.44
1:A2:460:A:OP2	1:A2:461:G:OP2	2.35	0.44
1:A2:75:U:C5	9:BG:166:GLU:N	2.83	0.44
1:A2:163:G:C1'	9:BG:1:MET:CA	2.95	0.44
1:A2:1103:U:O2'	26:BX:15:LEU:CD2	2.66	0.44
1:A2:636:A:C2'	25:BW:105:THR:CG2	2.75	0.44
25:BW:12:ASN:O	25:BW:15:ASN:N	2.51	0.44
1:A2:967:A:N3	26:BX:8:GLY:N	2.59	0.44
1:A2:1299:G:C2'	5:BC:86:VAL:CG1	2.94	0.44
1:A2:1298:U:C2'	5:BC:84:LYS:CE	2.94	0.44
1:A2:737:A:H8	7:BE:225:VAL:CG1	2.31	0.44
1:A2:1502:G:N3	22:BT:37:VAL:CG2	2.81	0.44
22:BT:104:VAL:O	22:BT:108:LEU:HD12	2.18	0.44
3:BA:144:ILE:HG23	3:BA:160:ILE:HD12	1.99	0.44
16:BN:118:ILE:O	16:BN:120:SER:OG	2.36	0.44
1:A2:952:A:O3'	16:BN:4:MET:CA	2.66	0.44
1:A2:953:G:H1'	16:BN:8:GLY:N	2.32	0.44
1:A2:958:U:H2'	25:BW:57:ARG:HG2	1.99	0.44
1:A2:40:A:C2	1:A2:469:C:O4'	2.71	0.44
1:A2:338:C:C2'	1:A2:338:C:O2	2.66	0.44
6:BD:38:GLU:OE2	6:BD:40:ARG:NH2	2.51	0.44
1:A2:1085:G:H5''	5:BC:202:GLY:CA	2.42	0.44
2:AZ:6069:A:H1'	2:AZ:6152:C:H4'	2.00	0.44
9:BG:113:ILE:C	9:BG:114:VAL:N	2.71	0.44
1:A2:1487:A:N6	1:A2:1488:G:O6	2.51	0.44
1:A2:651:G:N2	1:A2:683:C:O2	2.41	0.44
27:BY:90:ARG:O	27:BY:93:ARG:N	2.45	0.44
1:A2:503:G:N2	1:A2:504:U:N3	2.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
11:BI:108:PRO:O	11:BI:112:TRP:N	2.51	0.44
11:BI:64:ASN:HD21	11:BI:73:SER:C	2.20	0.44
5:BC:61:LEU:HB3	5:BC:62:PRO:HD2	2.00	0.44
1:A2:940:A:C5	1:A2:941:A:C8	3.05	0.44
20:BR:107:SER:O	20:BR:111:LYS:HB2	2.17	0.44
1:A2:126:A:N1	1:A2:263:C:O2'	2.51	0.44
24:BV:50:TYR:CD1	24:BV:50:TYR:N	2.86	0.44
18:BP:49:MET:SD	18:BP:49:MET:N	2.91	0.44
14:BL:72:THR:C	14:BL:73:GLY:N	2.71	0.44
1:A2:784:C:H5'	27:BY:44:LEU:N	2.33	0.43
1:A2:138:A:C4'	9:BG:143:LYS:HB2	2.46	0.43
1:A2:138:A:N3	9:BG:140:ASN:C	2.72	0.43
1:A2:166:C:OP2	9:BG:123:GLY:C	2.50	0.43
1:A2:1720:G:H3'	9:BG:66:GLY:HA3	1.84	0.43
1:A2:1721:A:H5'	9:BG:64:LYS:CA	2.46	0.43
1:A2:453:U:C3'	1:A2:453:U:O2	2.67	0.43
1:A2:57:G:C3'	27:BY:114:ARG:NE	2.80	0.43
1:A2:57:G:O2'	27:BY:114:ARG:NE	2.51	0.43
1:A2:635:A:H2'	25:BW:126:LEU:HD22	0.97	0.43
1:A2:862:A:P	25:BW:32:LYS:HG3	2.58	0.43
1:A2:863:A:N3	25:BW:7:LEU:CB	2.81	0.43
26:BX:75:GLN:C	26:BX:76:LEU:HA	2.38	0.43
1:A2:1296:A:C4	1:A2:1297:G:C8	3.06	0.43
1:A2:1292:G:N1	1:A2:1324:G:N2	2.66	0.43
1:A2:739:G:H2'	1:A2:740:A:C8	2.53	0.43
1:A2:214:G:H5'	7:BE:133:LYS:C	2.38	0.43
1:A2:217:A:C5'	7:BE:155:LYS:HA	2.41	0.43
20:BR:26:LEU:HA	20:BR:55:THR:HG23	1.99	0.43
8:BF:62:VAL:HG13	8:BF:89:ILE:CG2	2.48	0.43
28:BZ:76:ALA:C	28:BZ:77:ARG:HA	2.37	0.43
1:A2:1475:A:N6	28:BZ:97:LYS:CG	2.81	0.43
18:BP:95:GLY:HA2	18:BP:104:GLN:HA	2.00	0.43
1:A2:1502:G:OP2	22:BT:33:TYR:CG	2.56	0.43
21:BS:36:LYS:O	21:BS:38:VAL:N	2.51	0.43
1:A2:1055:U:H5	3:BA:37:VAL:CG2	2.31	0.43
3:BA:90:ALA:HB1	3:BA:95:ALA:O	2.18	0.43
1:A2:930:A:H1'	4:BB:116:LYS:CG	2.46	0.43
4:BB:32:ILE:HD11	4:BB:46:THR:HG23	1.99	0.43
4:BB:61:LEU:HD11	4:BB:64:ARG:NH2	2.32	0.43
1:A2:960:U:H5'	25:BW:56:HIS:C	2.38	0.43
1:A2:5:U:O2	1:A2:20:G:N2	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:755:A:N7	12:BJ:2:PRO:HB3	2.31	0.43
1:A2:598:U:C5	26:BX:131:SER:OG	2.71	0.43
1:A2:116:U:O4	7:BE:4:GLY:HA3	2.15	0.43
1:A2:1095:U:H5''	5:BC:159:THR:OG1	2.18	0.43
1:A2:1523:G:C5	22:BT:79:LEU:CD2	3.01	0.43
1:A2:101:U:H3'	1:A2:102:U:P	2.57	0.43
13:BK:12:HIS:HB3	13:BK:76:LEU:HD21	2.00	0.43
28:BZ:54:VAL:HA	28:BZ:57:TYR:HB2	2.00	0.43
14:BL:21:ASN:O	14:BL:22:ASN:N	2.50	0.43
1:A2:855:A:C2	1:A2:857:U:C1'	2.97	0.43
1:A2:141:U:O4	9:BG:175:ILE:CA	2.65	0.43
1:A2:1727:G:H2'	1:A2:1727:G:N3	2.33	0.43
1:A2:1671:A:C4	1:A2:1731:A:C2	3.06	0.43
1:A2:67:A:C5	1:A2:84:A:C5	3.06	0.43
1:A2:178:U:C2'	9:BG:183:ARG:HH22	2.32	0.43
1:A2:57:G:O2'	27:BY:114:ARG:CZ	2.66	0.43
1:A2:152:U:C4	27:BY:135:ASP:CB	2.92	0.43
1:A2:1104:U:C5	1:A2:1105:C:H5	2.33	0.43
1:A2:807:A:P	25:BW:124:LYS:CG	3.06	0.43
1:A2:865:A:H5''	25:BW:8:ALA:N	2.31	0.43
1:A2:1034:C:H5''	26:BX:2:GLY:N	2.33	0.43
1:A2:1299:G:C3'	5:BC:98:PHE:C	2.86	0.43
1:A2:239:C:C3'	9:BG:207:GLU:HA	2.24	0.43
1:A2:240:U:O2	1:A2:240:U:O2'	2.36	0.43
1:A2:215:A:P	7:BE:130:GLN:HG2	2.58	0.43
1:A2:732:G:N2	7:BE:177:ALA:O	2.51	0.43
7:BE:173:ILE:HD11	7:BE:235:TYR:CE2	2.53	0.43
1:A2:1538:U:O4	8:BF:185:ARG:O	2.37	0.43
1:A2:1581:C:H5''	19:BQ:135:ARG:HB3	2.00	0.43
1:A2:1528:U:H5'	8:BF:108:LEU:CD2	2.48	0.43
1:A2:1608:U:H4'	19:BQ:73:GLY:CA	2.48	0.43
1:A2:1202:A:C6	21:BS:136:GLN:HA	2.50	0.43
1:A2:1505:A:O4'	1:A2:1563:C:O3'	2.37	0.43
1:A2:1564:U:P	1:A2:1564:U:H6	2.41	0.43
1:A2:985:G:C5	1:A2:986:G:C8	3.05	0.43
3:BA:136:ALA:HB2	3:BA:143:VAL:CG2	2.48	0.43
1:A2:956:C:C2	16:BN:11:ILE:HB	2.52	0.43
1:A2:572:C:C5'	26:BX:116:ASP:OD1	2.67	0.43
1:A2:754:A:N9	7:BE:12:LEU:HD23	2.32	0.43
12:BJ:9:SER:O	12:BJ:10:LYS:N	2.51	0.43
1:A2:116:U:O2	1:A2:116:U:H2'	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:328:A:C5'	11:BI:172:ARG:HH22	2.30	0.43
1:A2:1413:U:HO3'	1:A2:1414:U:P	2.41	0.43
1:A2:1094:G:H4'	5:BC:161:LYS:HD2	0.46	0.43
16:BN:88:LEU:HA	16:BN:91:LEU:HD12	2.00	0.43
1:A2:385:A:C2	1:A2:386:G:C5	3.06	0.43
1:A2:473:A:O3'	1:A2:768:C:N3	2.41	0.43
1:A2:73:U:H1'	1:A2:74:U:H5'	1.99	0.43
10:BH:168:SER:O	10:BH:171:ALA:N	2.51	0.43
1:A2:1636:C:C2	1:A2:1638:G:C5	3.07	0.43
5:BC:181:SER:O	5:BC:185:LYS:N	2.51	0.43
24:BV:69:LEU:O	24:BV:72:LEU:N	2.51	0.43
16:BN:41:ALA:HB1	16:BN:80:LEU:HD12	1.98	0.43
7:BE:114:ILE:HB	7:BE:115:THR:OG1	2.18	0.43
2:AZ:6048:U:O4	2:AZ:6068:A:N1	2.52	0.43
19:BQ:79:TYR:O	19:BQ:80:ALA:C	2.56	0.43
27:BY:7:ILE:O	27:BY:9:THR:HG23	2.18	0.43
1:A2:147:A:C2	1:A2:148:A:H1'	2.54	0.43
1:A2:1673:G:H2'	9:BG:94:ARG:NE	2.05	0.43
1:A2:179:A:H1'	9:BG:184:LEU:O	2.17	0.43
1:A2:88:U:C4	27:BY:121:THR:C	2.91	0.43
9:BG:98:ARG:HH12	9:BG:102:VAL:HA	1.83	0.43
1:A2:64:U:C4	27:BY:121:THR:CG2	3.00	0.43
25:BW:72:CYS:HA	25:BW:128:PHE:O	2.18	0.43
1:A2:822:U:H3'	1:A2:822:U:C6	2.53	0.43
1:A2:741:C:C4'	7:BE:200:ARG:CZ	2.94	0.43
7:BE:220:THR:OG1	7:BE:221:ARG:N	2.50	0.43
1:A2:1409:G:H3'	1:A2:1410:A:O5'	2.19	0.43
1:A2:1607:G:C2'	1:A2:1608:U:O5'	2.66	0.43
28:BZ:74:SER:O	28:BZ:75:LEU:CB	2.67	0.43
1:A2:1502:G:C6	22:BT:33:TYR:HD2	2.23	0.43
2:AZ:6137:C:O3'	8:BF:125:THR:HA	2.17	0.43
1:A2:900:A:C5'	17:BO:20:TYR:CD1	3.02	0.43
1:A2:957:G:C5	1:A2:958:U:N3	2.86	0.43
1:A2:959:U:H5	10:BH:138:LYS:CB	2.31	0.43
1:A2:545:A:N1	1:A2:593:U:O2'	2.32	0.43
22:BT:129:GLN:O	22:BT:130:ARG:N	2.51	0.43
1:A2:1278:G:C6	1:A2:1279:C:C4	3.06	0.43
6:BD:21:LEU:O	6:BD:25:PHE:N	2.51	0.43
4:BB:209:ASN:O	4:BB:211:HIS:CD2	2.72	0.43
10:BH:140:VAL:O	25:BW:52:TYR:N	2.52	0.43
26:BX:36:THR:HB	26:BX:37:ALA:N	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1076:A:N1	1:A2:1077:C:C4	2.87	0.43
1:A2:1181:U:H6	1:A2:1181:U:P	2.41	0.43
1:A2:1154:G:C6	1:A2:1155:G:N7	2.86	0.43
8:BF:203:LYS:N	8:BF:204:GLY:C	2.72	0.43
2:AZ:6103:G:C2	2:AZ:6113:U:C2	3.06	0.43
1:A2:776:G:C2	1:A2:785:U:O2	2.71	0.43
27:BY:32:ARG:O	27:BY:33:ALA:CB	2.66	0.43
1:A2:1671:A:C1'	1:A2:1731:A:N1	2.80	0.43
1:A2:456:A:H2	27:BY:111:LYS:CB	2.11	0.43
1:A2:427:C:C4'	1:A2:459:G:O2'	2.66	0.43
1:A2:805:U:H1'	25:BW:85:ASP:CG	2.39	0.43
1:A2:220:A:OP1	9:BG:219:ARG:N	2.50	0.43
1:A2:844:A:C6	1:A2:845:G:C6	3.06	0.43
1:A2:740:A:H62	7:BE:206:ASP:CB	2.29	0.43
7:BE:209:HIS:C	7:BE:210:ILE:HD13	2.39	0.43
1:A2:704:C:C5	7:BE:228:ILE:HD11	2.53	0.43
1:A2:1259:U:H2'	1:A2:1260:U:C6	2.52	0.43
1:A2:1472:C:C3'	8:BF:188:LYS:O	2.58	0.43
1:A2:1243:G:H5'	18:BP:61:ARG:CA	2.46	0.43
1:A2:1548:G:C2'	21:BS:99:HIS:CE1	2.98	0.43
3:BA:199:PRO:HG2	20:BR:97:ASN:CB	2.49	0.43
3:BA:53:THR:OG1	20:BR:105:GLN:CG	2.64	0.43
1:A2:548:G:N1	1:A2:591:A:N6	2.66	0.43
1:A2:754:A:P	7:BE:14:ALA:H	2.37	0.43
1:A2:572:C:H5'	26:BX:116:ASP:H	1.81	0.43
1:A2:333:A:H3'	11:BI:26:LYS:HE3	1.96	0.43
1:A2:335:U:H2'	1:A2:336:G:C8	2.53	0.43
14:BL:137:PHE:O	14:BL:138:ASN:N	2.51	0.43
1:A2:1591:C:H5'	22:BT:93:HIS:CB	2.47	0.43
1:A2:73:U:C4'	1:A2:74:U:OP1	2.67	0.43
15:BM:51:ALA:CA	15:BM:57:ALA:HB3	2.48	0.43
2:AZ:6117:C:C4'	2:AZ:6118:G:O5'	2.63	0.43
1:A2:1117:U:H2'	1:A2:1118:G:C8	2.53	0.43
10:BH:35:LYS:O	10:BH:36:ALA:C	2.57	0.43
2:AZ:6101:U:O4'	2:AZ:6101:U:O2	2.35	0.43
1:A2:785:U:H4'	27:BY:26:ASP:C	2.15	0.43
1:A2:1727:G:H3'	1:A2:1728:A:C8	2.53	0.43
1:A2:58:U:O4	27:BY:118:ILE:HG12	2.18	0.43
9:BG:185:GLN:C	9:BG:188:ARG:HB3	2.38	0.43
1:A2:248:U:C4	1:A2:250:C:H1'	2.54	0.43
1:A2:737:A:H1'	7:BE:158:ASP:HA	1.97	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:BE:132:GLY:N	7:BE:136:VAL:O	2.50	0.43
2:AZ:6108:U:O5'	8:BF:222:LYS:CB	2.52	0.43
8:BF:42:LEU:HD11	8:BF:47:SER:CA	2.47	0.43
1:A2:919:A:H5'	4:BB:83:LYS:HZ1	1.82	0.43
3:BA:176:LEU:O	3:BA:180:GLU:N	2.50	0.43
1:A2:1137:A:H5''	26:BX:64:PRO:CD	2.45	0.43
1:A2:551:G:N3	1:A2:552:G:C8	2.86	0.43
1:A2:381:C:C2'	12:BJ:2:PRO:CD	2.93	0.43
1:A2:880:C:H5'	16:BN:109:LYS:N	2.34	0.43
25:BW:25:VAL:N	25:BW:63:VAL:HB	2.34	0.43
1:A2:102:U:O4	1:A2:361:C:H4'	2.18	0.43
1:A2:495:C:H3'	1:A2:496:G:C4'	2.48	0.43
24:BV:36:VAL:HG12	24:BV:37:ALA:CA	2.48	0.43
1:A2:1266:U:C2	1:A2:1267:G:C8	3.06	0.43
2:AZ:6164:U:P	2:AZ:6166:U:O4	2.76	0.43
11:BI:159:GLN:O	11:BI:162:ALA:HB2	2.18	0.43
7:BE:72:VAL:HG11	7:BE:82:TYR:CE2	2.53	0.43
10:BH:145:GLY:O	10:BH:146:GLY:C	2.56	0.43
21:BS:26:ILE:HD12	21:BS:26:ILE:O	2.19	0.43
26:BX:96:VAL:O	26:BX:96:VAL:HG23	2.19	0.43
24:BV:11:LEU:HD22	24:BV:11:LEU:N	2.34	0.43
1:A2:780:A:H2	27:BY:2:SER:N	2.15	0.43
1:A2:784:C:C5'	27:BY:44:LEU:N	2.81	0.43
1:A2:1681:A:C3'	9:BG:31:ARG:N	2.81	0.43
1:A2:91:G:HO2'	27:BY:112:LYS:HG3	1.81	0.43
1:A2:91:G:O3'	27:BY:112:LYS:CE	2.65	0.43
1:A2:631:G:HO3'	26:BX:16:ARG:HH11	1.30	0.43
1:A2:864:U:C6	25:BW:13:ALA:CB	2.87	0.43
1:A2:214:G:O3'	7:BE:132:GLY:HA3	2.03	0.43
1:A2:1401:A:H3'	20:BR:5:ARG:HB3	1.31	0.43
1:A2:1401:A:P	20:BR:53:TYR:CD2	3.12	0.43
1:A2:1477:G:H4'	22:BT:48:GLN:CD	2.39	0.43
28:BZ:76:ALA:C	28:BZ:77:ARG:N	2.72	0.43
1:A2:1203:A:C6	1:A2:1556:A:C4	3.07	0.43
1:A2:1242:A:O2'	18:BP:56:PHE:C	2.57	0.43
1:A2:1457:C:H5''	21:BS:136:GLN:O	2.18	0.43
1:A2:1561:U:C4	1:A2:1562:G:N7	2.86	0.43
12:BJ:75:ALA:C	12:BJ:76:LEU:N	2.72	0.43
1:A2:1012:U:O2	1:A2:1012:U:C2'	2.67	0.43
1:A2:918:U:O2'	1:A2:919:A:C8	2.71	0.43
1:A2:955:A:H2'	1:A2:956:C:O4'	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:993:A:C3'	1:A2:994:G:P	3.07	0.43
3:BA:50:VAL:HG12	20:BR:105:GLN:HG2	2.01	0.43
3:BA:62:ARG:O	3:BA:65:ALA:N	2.52	0.43
1:A2:330:G:O5'	11:BI:31:ARG:HB3	2.19	0.43
1:A2:1087:A:C6	1:A2:1088:A:C6	3.06	0.43
8:BF:111:VAL:HG12	8:BF:111:VAL:O	2.18	0.43
8:BF:194:LEU:O	8:BF:197:GLU:HB3	2.18	0.43
19:BQ:40:GLU:HG2	19:BQ:41:PRO:CD	2.49	0.43
10:BH:18:LEU:O	10:BH:22:GLN:N	2.52	0.43
1:A2:939:A:H2'	1:A2:940:A:C8	2.54	0.43
15:BM:125:ASN:O	15:BM:126:TRP:CD1	2.71	0.43
2:AZ:6153:A:OP1	2:AZ:6154:G:OP2	2.37	0.43
1:A2:1645:G:H3'	1:A2:1646:C:OP2	2.18	0.43
4:BB:222:LYS:HA	4:BB:223:PHE:N	2.34	0.43
2:AZ:6103:G:N2	2:AZ:6113:U:C2	2.87	0.43
1:A2:1342:C:O2	1:A2:1342:C:H2'	2.17	0.43
1:A2:777:C:O2'	27:BY:28:LEU:O	2.37	0.43
1:A2:779:U:OP2	27:BY:2:SER:N	2.51	0.43
1:A2:1728:A:H2'	1:A2:1729:C:O4'	2.19	0.43
1:A2:88:U:C4'	27:BY:119:PHE:O	2.64	0.43
26:BX:73:ARG:CA	26:BX:74:VAL:N	2.82	0.43
1:A2:1295:G:C8	1:A2:1296:A:OP2	2.72	0.43
1:A2:1403:C:OP2	20:BR:3:ARG:CG	2.62	0.43
20:BR:58:MET:C	20:BR:59:LYS:N	2.72	0.43
8:BF:181:GLU:O	8:BF:184:PHE:HB3	2.18	0.43
8:BF:183:ALA:HB2	8:BF:188:LYS:O	2.19	0.43
1:A2:1453:G:H1'	18:BP:120:SER:N	2.34	0.43
18:BP:92:SER:O	18:BP:107:ILE:HG21	2.19	0.43
1:A2:1053:G:HO2'	3:BA:35:PRO:HD3	1.61	0.43
3:BA:63:ILE:C	3:BA:66:ALA:HB1	2.36	0.43
17:BO:120:PRO:C	17:BO:121:VAL:HA	2.39	0.43
1:A2:598:U:O2	26:BX:132:LEU:CG	2.66	0.43
1:A2:760:A:H1'	12:BJ:8:TYR:C	2.39	0.43
1:A2:1479:A:H2'	1:A2:1480:G:O4'	2.19	0.43
11:BI:44:HIS:O	11:BI:46:VAL:N	2.51	0.43
14:BL:132:SER:OG	14:BL:133:LYS:N	2.51	0.43
1:A2:1099:U:C5'	5:BC:199:GLN:CB	2.63	0.43
1:A2:1095:U:O3'	5:BC:159:THR:HB	2.18	0.43
2:AZ:6128:G:N3	2:AZ:6149:A:N1	2.66	0.43
1:A2:117:U:O3'	1:A2:118:U:H5'	2.18	0.43
15:BM:57:ALA:HB1	15:BM:122:VAL:CG1	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
24:BV:26:ALA:C	24:BV:27:ASP:CA	2.87	0.43
1:A2:836:U:C5	1:A2:837:G:N7	2.87	0.43
1:A2:778:G:OP1	27:BY:30:PRO:CB	2.67	0.43
1:A2:777:C:C3'	27:BY:32:ARG:HG3	2.32	0.43
25:BW:32:LYS:O	25:BW:34:ILE:N	2.52	0.43
1:A2:865:A:C8	25:BW:6:VAL:HG23	2.50	0.43
1:A2:435:C:H5'	26:BX:52:ILE:HG12	1.13	0.43
1:A2:1301:U:O4'	5:BC:86:VAL:HG21	2.03	0.43
1:A2:252:U:H2'	1:A2:253:A:C8	2.54	0.43
1:A2:703:G:N2	7:BE:229:GLY:H	2.16	0.43
1:A2:1473:U:P	8:BF:190:ILE:N	2.90	0.43
1:A2:1535:U:H5'	28:BZ:67:ASP:CG	2.01	0.43
1:A2:1558:U:OP2	21:BS:123:ARG:NH1	2.45	0.43
2:AZ:6137:C:O2'	2:AZ:6138:A:P	2.77	0.43
3:BA:90:ALA:CB	3:BA:97:PRO:HG3	2.49	0.43
3:BA:54:TRP:HE3	20:BR:106:THR:HG22	1.84	0.43
1:A2:1201:G:O4'	1:A2:1600:A:N6	2.51	0.43
1:A2:340:U:C6	11:BI:3:ILE:CG2	2.87	0.43
1:A2:333:A:N6	7:BE:3:ARG:HD3	2.26	0.43
1:A2:1008:G:C5	1:A2:1009:U:C5	3.06	0.43
1:A2:1009:U:O4'	17:BO:129:LYS:NZ	2.43	0.43
1:A2:3:U:H1'	12:BJ:19:TYR:HB2	1.56	0.43
20:BR:56:HIS:O	20:BR:57:LEU:N	2.52	0.43
1:A2:1715:G:H2'	1:A2:1716:C:H5'	2.01	0.43
1:A2:1518:C:HO3'	1:A2:1519:U:P	2.41	0.43
7:BE:58:GLY:O	7:BE:59:ARG:C	2.57	0.43
17:BO:77:THR:N	17:BO:78:ALA:N	2.67	0.43
25:BW:66:ASN:CG	25:BW:68:ARG:HG3	2.39	0.43
27:BY:18:LEU:HD12	27:BY:18:LEU:N	2.34	0.43
1:A2:1353:U:C2	1:A2:1354:G:N7	2.87	0.43
2:AZ:6164:U:OP2	2:AZ:6166:U:O4	2.37	0.43
25:BW:75:ILE:C	25:BW:76:SER:N	2.72	0.43
1:A2:1544:U:C4	1:A2:1545:A:N7	2.86	0.43
12:BJ:33:GLU:C	12:BJ:34:PHE:N	2.71	0.43
1:A2:306:U:O4'	1:A2:796:A:O2'	2.37	0.43
1:A2:775:G:C2	27:BY:69:SER:HB3	2.53	0.43
1:A2:396:G:C5	9:BG:91:GLU:CB	2.79	0.43
1:A2:58:U:H5''	27:BY:111:LYS:HE3	1.99	0.43
1:A2:81:G:H2'	1:A2:81:G:N3	2.33	0.43
1:A2:1722:A:O3'	9:BG:72:ARG:C	2.56	0.43
1:A2:1674:C:O4'	9:BG:94:ARG:NH2	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:150:U:N1	27:BY:131:ARG:NH1	2.53	0.43
1:A2:1298:U:O2'	5:BC:84:LYS:CG	2.55	0.43
1:A2:1322:A:N1	1:A2:1323:C:C4	2.86	0.43
1:A2:1299:G:C3'	5:BC:98:PHE:O	2.67	0.43
1:A2:215:A:H2'	7:BE:137:PRO:HB3	1.81	0.43
7:BE:194:THR:OG1	7:BE:211:LYS:HG2	2.18	0.43
1:A2:1399:C:H3'	20:BR:66:VAL:HB	2.01	0.43
1:A2:1166:A:H2'	1:A2:1167:G:O4'	2.18	0.43
1:A2:1060:U:H2'	1:A2:1061:A:H4'	2.01	0.43
3:BA:121:VAL:O	3:BA:122:ILE:CG1	2.65	0.43
3:BA:67:ILE:HB	3:BA:69:ASN:C	2.39	0.43
17:BO:30:VAL:HG12	17:BO:40:ALA:O	2.18	0.43
1:A2:573:C:P	26:BX:116:ASP:HB3	2.57	0.43
13:BK:27:PHE:N	13:BK:27:PHE:CD1	2.87	0.43
1:A2:1191:U:H3'	1:A2:1192:C:P	2.59	0.43
1:A2:1378:U:H2'	1:A2:1379:C:H1'	2.00	0.43
1:A2:389:G:N7	1:A2:390:G:C2	2.87	0.43
11:BI:90:LEU:HD13	11:BI:97:THR:HG21	2.01	0.43
1:A2:1116:A:C2	1:A2:1131:A:C4	3.06	0.43
1:A2:776:G:N2	27:BY:27:VAL:HG21	2.25	0.43
27:BY:54:ALA:HB2	27:BY:79:VAL:CA	2.49	0.43
1:A2:446:A:C2	1:A2:447:U:C6	3.07	0.43
1:A2:141:U:H3	9:BG:136:LYS:HG3	1.83	0.43
1:A2:78:A:H3'	9:BG:163:THR:HG23	2.00	0.43
1:A2:1679:G:N2	9:BG:67:VAL:CB	2.78	0.43
1:A2:458:G:C8	27:BY:107:GLN:CA	2.98	0.43
1:A2:634:G:C6	26:BX:9:LEU:CD1	2.53	0.43
1:A2:806:A:N7	25:BW:82:LYS:CD	2.63	0.43
1:A2:863:A:C2	25:BW:5:SER:OG	2.71	0.43
1:A2:1290:U:O2'	1:A2:1291:G:C8	2.71	0.43
1:A2:1301:U:C4'	5:BC:86:VAL:CG2	2.96	0.43
1:A2:1300:A:C2	5:BC:86:VAL:O	2.62	0.43
1:A2:1298:U:N1	5:BC:99:LYS:HD2	2.33	0.43
1:A2:219:A:H5''	9:BG:215:ARG:HD2	2.00	0.43
18:BP:86:VAL:HG12	18:BP:89:MET:HG2	2.00	0.43
1:A2:1503:A:H5'	22:BT:35:ASP:OD1	2.18	0.43
1:A2:1550:A:C8	21:BS:89:GLN:CD	2.92	0.43
2:AZ:6111:G:OP1	8:BF:215:ASP:C	2.58	0.43
1:A2:1047:G:O2'	16:BN:11:ILE:CD1	2.66	0.43
1:A2:871:G:C4	1:A2:957:G:N2	2.86	0.43
3:BA:67:ILE:O	3:BA:69:ASN:N	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:889:U:C5'	17:BO:89:THR:CG2	2.97	0.43
7:BE:28:ALA:HB1	7:BE:29:PRO:HD2	2.00	0.43
7:BE:30:ARG:CB	7:BE:31:PRO:CD	2.97	0.43
1:A2:600:U:OP1	26:BX:122:PHE:CA	2.66	0.43
1:A2:330:G:H3'	11:BI:31:ARG:HB3	1.88	0.43
1:A2:322:G:C1'	11:BI:9:HIS:CD2	3.02	0.43
1:A2:1334:U:HO3'	23:BU:83:GLU:CD	2.20	0.43
1:A2:1613:U:O5'	8:BF:84:LYS:CE	2.55	0.43
1:A2:208:U:O2'	1:A2:209:U:H5'	2.19	0.43
1:A2:296:U:H2'	1:A2:297:U:C6	2.53	0.43
10:BH:140:VAL:HG13	25:BW:52:TYR:HB3	2.01	0.43
5:BC:45:VAL:HG22	5:BC:50:ILE:HB	2.00	0.43
21:BS:67:GLU:HA	21:BS:70:VAL:HG22	2.00	0.43
1:A2:1351:G:H2'	1:A2:1352:G:O4'	2.19	0.43
1:A2:1655:A:C2	1:A2:1746:A:C2	3.07	0.43
1:A2:1652:C:H2'	1:A2:1653:C:C5	2.53	0.43
2:AZ:6025:A:C2	2:AZ:6026:A:N7	2.87	0.43
2:AZ:6161:C:O2	2:AZ:6161:C:C2'	2.66	0.43
1:A2:156:A:C3'	1:A2:157:A:P	3.07	0.43
24:BV:51:VAL:CA	24:BV:52:THR:HA	2.49	0.43
1:A2:1154:G:N1	1:A2:1155:G:C5	2.87	0.43
10:BH:77:LEU:O	10:BH:80:GLU:N	2.52	0.43
20:BR:75:GLU:C	20:BR:76:GLU:N	2.73	0.43
1:A2:1490:C:C2'	1:A2:1490:C:O2	2.67	0.43
1:A2:787:G:C4	27:BY:61:ARG:CB	2.99	0.42
1:A2:814:A:N7	10:BH:108:GLN:CB	2.30	0.42
1:A2:136:C:H4'	1:A2:137:U:OP1	2.19	0.42
1:A2:1674:C:H3'	9:BG:76:LEU:HB2	1.66	0.42
1:A2:168:A:H2'	1:A2:169:A:C8	2.54	0.42
1:A2:58:U:N3	27:BY:115:ASP:CG	2.56	0.42
9:BG:180:THR:C	9:BG:182:GLN:N	2.72	0.42
1:A2:57:G:N2	27:BY:112:LYS:HA	2.30	0.42
1:A2:624:G:C2	1:A2:625:C:C2	3.07	0.42
1:A2:805:U:H2'	25:BW:81:VAL:HA	1.36	0.42
1:A2:740:A:N6	7:BE:198:LYS:CE	2.77	0.42
1:A2:1306:C:N3	1:A2:1319:A:N1	2.66	0.42
1:A2:1528:U:H5'	8:BF:108:LEU:HD21	2.00	0.42
8:BF:96:SER:CA	8:BF:97:LEU:N	2.82	0.42
1:A2:1505:A:P	22:BT:38:LYS:CG	3.01	0.42
1:A2:1502:G:O6	22:BT:100:ILE:HD12	2.19	0.42
1:A2:686:C:H6	12:BJ:65:LYS:NZ	1.95	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:331:A:H2'	11:BI:29:LEU:HD13	1.90	0.42
16:BN:92:ILE:O	16:BN:93:LYS:C	2.57	0.42
1:A2:1487:A:O2'	1:A2:1488:G:O5'	2.28	0.42
1:A2:210:A:N7	1:A2:211:U:C5	2.87	0.42
1:A2:513:U:C2'	1:A2:514:G:C8	2.83	0.42
2:AZ:6173:C:O2	2:AZ:6204:A:C8	2.71	0.42
13:BK:48:SER:O	13:BK:51:SER:HB3	2.19	0.42
2:AZ:6064:U:C5	2:AZ:6159:C:O2	2.71	0.42
4:BB:228:LEU:C	4:BB:230:ALA:N	2.72	0.42
14:BL:57:LYS:HG2	14:BL:131:ILE:CG2	2.49	0.42
10:BH:96:ARG:O	10:BH:98:ILE:N	2.51	0.42
15:BM:135:MET:HA	15:BM:138:GLU:N	2.34	0.42
1:A2:784:C:O2	27:BY:27:VAL:HG21	2.19	0.42
1:A2:783:G:C5	27:BY:39:GLU:CD	2.93	0.42
1:A2:163:G:C5	1:A2:164:A:N7	2.87	0.42
1:A2:57:G:O6	27:BY:115:ASP:C	2.58	0.42
1:A2:861:U:H6	25:BW:32:LYS:CE	2.32	0.42
1:A2:968:U:O3'	1:A2:1032:G:N2	2.52	0.42
1:A2:973:A:C2	1:A2:974:A:C8	3.06	0.42
1:A2:850:A:H3'	1:A2:851:U:OP2	2.19	0.42
1:A2:242:U:H6	7:BE:149:TYR:CG	2.38	0.42
7:BE:150:PRO:HB3	7:BE:169:ILE:HD13	2.01	0.42
7:BE:180:LEU:HB3	7:BE:228:ILE:HD11	2.01	0.42
1:A2:735:C:N1	7:BE:194:THR:N	2.58	0.42
1:A2:1390:U:H5'	1:A2:1391:A:OP1	2.19	0.42
1:A2:1399:C:O5'	20:BR:67:ARG:N	2.52	0.42
1:A2:1531:G:C2	1:A2:1532:U:C2	3.07	0.42
1:A2:1534:G:H2'	28:BZ:63:SER:C	2.39	0.42
1:A2:1451:C:H3'	1:A2:1452:U:P	2.59	0.42
1:A2:1558:U:N3	21:BS:122:HIS:O	2.52	0.42
1:A2:1508:U:O2	1:A2:1508:U:C2'	2.66	0.42
22:BT:44:GLU:OE1	22:BT:44:GLU:N	2.51	0.42
22:BT:30:VAL:HG12	22:BT:54:PHE:CE2	2.54	0.42
1:A2:1030:A:C5	1:A2:1792:G:C6	3.07	0.42
3:BA:37:VAL:HA	3:BA:48:ILE:HA	2.01	0.42
3:BA:56:LYS:HD2	3:BA:158:VAL:CG2	2.48	0.42
1:A2:755:A:C2	1:A2:756:A:C4	3.08	0.42
1:A2:1280:C:H1'	23:BU:72:ASN:CA	2.49	0.42
1:A2:296:U:C5'	7:BE:32:SER:CB	2.96	0.42
20:BR:38:ILE:HG23	20:BR:39:ALA:N	2.33	0.42
1:A2:1739:C:H2'	1:A2:1740:A:C8	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:AZ:6133:G:N3	2:AZ:6133:G:H2'	2.34	0.42
16:BN:63:ALA:O	16:BN:64:ARG:N	2.52	0.42
1:A2:1127:G:C4	1:A2:1128:C:C5	3.07	0.42
1:A2:1076:A:C2	1:A2:1077:C:C6	3.07	0.42
8:BF:37:GLN:HB2	8:BF:69:PHE:CE1	2.54	0.42
1:A2:1406:A:O2'	1:A2:1407:U:O5'	2.33	0.42
2:AZ:6175:A:N6	2:AZ:6202:C:N3	2.67	0.42
21:BS:46:VAL:O	21:BS:50:ALA:HB3	2.18	0.42
13:BK:30:ALA:N	13:BK:38:LYS:HA	2.34	0.42
4:BB:105:PHE:HB3	4:BB:110:LEU:HD11	2.00	0.42
1:A2:784:C:O5'	27:BY:40:LEU:CD1	2.66	0.42
1:A2:142:G:H4'	9:BG:144:PHE:CE1	2.54	0.42
1:A2:1711:C:O3'	1:A2:1712:A:OP1	2.29	0.42
1:A2:176:C:N4	9:BG:136:LYS:HG2	2.34	0.42
1:A2:1719:A:C2	9:BG:32:ILE:HB	2.55	0.42
1:A2:396:G:C8	9:BG:91:GLU:HB3	2.53	0.42
1:A2:803:A:O3'	25:BW:120:HIS:O	2.37	0.42
1:A2:863:A:H2'	25:BW:6:VAL:CB	2.49	0.42
26:BX:77:ILE:C	26:BX:78:LYS:N	2.73	0.42
1:A2:10:G:C2	1:A2:11:A:C5	3.06	0.42
1:A2:1298:U:O2	5:BC:208:GLU:HB3	2.19	0.42
1:A2:1299:G:C8	5:BC:99:LYS:CB	3.03	0.42
1:A2:244:A:OP2	7:BE:139:VAL:C	2.55	0.42
1:A2:244:A:OP2	7:BE:146:THR:HA	2.08	0.42
1:A2:219:A:OP1	7:BE:153:ASN:OD1	2.35	0.42
1:A2:734:A:C6	7:BE:194:THR:CG2	3.02	0.42
1:A2:1583:A:C8	1:A2:1585:U:O2	2.72	0.42
28:BZ:70:LYS:HA	28:BZ:70:LYS:HE2	2.01	0.42
28:BZ:80:LEU:O	28:BZ:88:ILE:HD11	2.19	0.42
2:AZ:6220:U:C2	6:BD:143:ARG:HG3	2.45	0.42
1:A2:1499:G:C2	1:A2:1500:C:C2	3.07	0.42
2:AZ:6105:U:C2'	2:AZ:6106:A:H5''	2.49	0.42
1:A2:597:G:C3'	26:BX:136:TRP:HZ3	2.27	0.42
1:A2:600:U:C5'	26:BX:105:ALA:O	2.48	0.42
12:BJ:42:ILE:O	12:BJ:46:SER:N	2.52	0.42
1:A2:347:G:N3	11:BI:12:SER:N	2.66	0.42
1:A2:333:A:O3'	11:BI:47:ARG:NH1	2.52	0.42
1:A2:1590:G:C6	1:A2:1591:C:N4	2.87	0.42
5:BC:172:ALA:HB2	5:BC:197:TYR:CD2	2.54	0.42
4:BB:108:ASP:OD1	4:BB:109:LYS:N	2.52	0.42
22:BT:69:LYS:O	22:BT:123:ARG:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
12:BJ:134:ILE:O	12:BJ:140:ILE:HG23	2.19	0.42
1:A2:555:A:P	1:A2:556:A:P	3.17	0.42
15:BM:60:VAL:O	15:BM:60:VAL:HG12	2.18	0.42
9:BG:79:LYS:C	9:BG:80:ASN:HD22	2.22	0.42
16:BN:15:ALA:C	16:BN:16:ILE:N	2.73	0.42
1:A2:1197:C:O2	1:A2:1197:C:H2'	2.18	0.42
1:A2:775:G:H22	27:BY:69:SER:HA	1.77	0.42
1:A2:779:U:C5	27:BY:43:LYS:CE	2.74	0.42
1:A2:780:A:C2	27:BY:2:SER:N	2.86	0.42
1:A2:784:C:H2'	1:A2:785:U:O4'	2.19	0.42
1:A2:458:G:H1'	27:BY:106:GLN:O	2.19	0.42
1:A2:57:G:H3'	27:BY:114:ARG:NE	2.32	0.42
9:BG:56:ASN:N	9:BG:108:VAL:HB	2.34	0.42
1:A2:398:G:H3'	9:BG:88:ARG:NH1	2.33	0.42
1:A2:627:C:O2'	1:A2:628:G:OP1	2.33	0.42
1:A2:865:A:N6	1:A2:866:G:C5	2.88	0.42
1:A2:865:A:OP1	25:BW:9:ASP:O	2.37	0.42
1:A2:1301:U:H2'	1:A2:1302:U:H5'	2.01	0.42
1:A2:1144:U:N1	5:BC:89:GLN:CD	2.68	0.42
1:A2:741:C:P	7:BE:200:ARG:CD	3.05	0.42
1:A2:1317:C:H5'	20:BR:7:LYS:O	2.20	0.42
19:BQ:136:SER:C	19:BQ:137:ARG:NE	2.72	0.42
1:A2:1455:G:H1'	18:BP:123:TYR:HB3	1.85	0.42
1:A2:1553:G:C3'	18:BP:43:ARG:HD3	2.38	0.42
1:A2:1499:G:N2	1:A2:1509:C:O2	2.53	0.42
1:A2:1506:G:P	22:BT:41:SER:HG	2.42	0.42
2:AZ:6106:A:C2	8:BF:224:ASN:O	2.72	0.42
1:A2:988:A:C4	1:A2:989:U:C6	3.07	0.42
3:BA:71:GLU:N	3:BA:71:GLU:OE1	2.53	0.42
3:BA:77:SER:OG	3:BA:124:THR:HG21	2.19	0.42
1:A2:27:U:O3'	1:A2:28:A:P	2.78	0.42
1:A2:751:G:C2	1:A2:752:A:C4	3.07	0.42
7:BE:28:ALA:HB1	7:BE:29:PRO:CD	2.50	0.42
1:A2:880:C:H5'	16:BN:108:ASP:C	2.39	0.42
4:BB:157:GLN:O	4:BB:158:SER:CB	2.67	0.42
2:AZ:6128:G:H2'	2:AZ:6129:C:O4'	2.19	0.42
1:A2:1369:U:H4'	22:BT:123:ARG:NH2	2.34	0.42
2:AZ:6094:U:H5''	2:AZ:6095:U:H1'	2.01	0.42
7:BE:223:ASN:ND2	7:BE:223:ASN:C	2.71	0.42
6:BD:147:ALA:C	6:BD:148:LYS:HA	2.40	0.42
1:A2:199:G:O2'	1:A2:200:A:H8	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
14:BL:21:ASN:CA	14:BL:22:ASN:N	2.83	0.42
26:BX:81:LYS:HA	26:BX:82:LYS:HB2	2.01	0.42
2:AZ:6174:G:H2'	2:AZ:6175:A:H5''	2.02	0.42
4:BB:170:GLU:O	4:BB:171:ILE:C	2.57	0.42
10:BH:132:PRO:HG2	10:BH:161:GLN:HB3	2.01	0.42
13:BK:5:LYS:O	13:BK:9:ASN:ND2	2.52	0.42
20:BR:86:PRO:O	20:BR:87:GLU:HG2	2.19	0.42
11:BI:135:LYS:O	11:BI:136:SER:C	2.57	0.42
1:A2:971:A:H2'	1:A2:971:A:N3	2.34	0.42
1:A2:904:G:H2'	1:A2:904:G:N3	2.33	0.42
19:BQ:10:PHE:HA	19:BQ:18:ALA:O	2.20	0.42
1:A2:162:A:C6	1:A2:163:G:C6	3.08	0.42
1:A2:1688:U:H2'	1:A2:1689:A:N7	2.31	0.42
1:A2:170:U:OP1	1:A2:267:U:O2'	2.35	0.42
1:A2:399:A:HO3'	1:A2:400:A:P	2.30	0.42
1:A2:451:A:C2	27:BY:111:LYS:CG	2.98	0.42
1:A2:458:G:C1'	27:BY:106:GLN:O	2.61	0.42
1:A2:175:G:H2'	9:BG:137:ARG:HH22	1.83	0.42
1:A2:1103:U:C5'	14:BL:97:TYR:HD2	2.32	0.42
1:A2:632:U:OP2	26:BX:12:ALA:HB3	2.19	0.42
1:A2:44:U:O2'	1:A2:436:A:N1	2.50	0.42
1:A2:1331:A:N7	6:BD:161:GLY:CA	2.42	0.42
28:BZ:63:SER:O	28:BZ:67:ASP:OD2	2.38	0.42
1:A2:1454:G:C1'	18:BP:121:ILE:HA	2.27	0.42
1:A2:1246:C:N3	18:BP:76:VAL:CA	2.75	0.42
1:A2:932:U:O4'	1:A2:933:A:C2	2.73	0.42
3:BA:143:VAL:O	3:BA:144:ILE:HG13	2.19	0.42
1:A2:1054:U:H2'	3:BA:30:GLN:CD	2.33	0.42
3:BA:59:LEU:O	3:BA:63:ILE:HB	2.19	0.42
1:A2:759:U:O2'	12:BJ:8:TYR:O	2.37	0.42
22:BT:52:GLY:HA3	22:BT:55:TYR:CD2	2.55	0.42
1:A2:1428:G:N3	23:BU:74:GLU:CG	1.87	0.42
1:A2:1009:U:H3'	17:BO:129:LYS:CD	2.47	0.42
1:A2:72:A:O2'	1:A2:73:U:H5''	2.19	0.42
5:BC:43:ARG:CZ	5:BC:248:SER:N	2.83	0.42
15:BM:36:LEU:HD23	15:BM:37:VAL:CG2	2.48	0.42
13:BK:83:PRO:O	13:BK:84:GLU:CG	2.68	0.42
1:A2:1652:C:H2'	1:A2:1653:C:H6	1.83	0.42
1:A2:913:G:C8	1:A2:913:G:H5'	2.54	0.42
19:BQ:52:LEU:O	19:BQ:57:LEU:N	2.52	0.42
28:BZ:59:TYR:O	28:BZ:60:VAL:HG13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:BC:175:GLY:O	5:BC:176:SER:C	2.58	0.42
1:A2:778:G:C4'	27:BY:32:ARG:NH2	2.64	0.42
1:A2:64:U:O4	27:BY:121:THR:HB	2.20	0.42
1:A2:78:A:N3	9:BG:162:VAL:HG23	2.34	0.42
1:A2:179:A:C1'	9:BG:184:LEU:O	2.66	0.42
1:A2:632:U:O2	14:BL:99:ARG:HD3	2.19	0.42
5:BC:127:ALA:N	5:BC:128:GLY:N	2.68	0.42
1:A2:245:U:N3	7:BE:128:LYS:HE2	2.31	0.42
1:A2:702:G:H22	7:BE:227:VAL:HG21	1.85	0.42
1:A2:736:C:C4'	7:BE:228:ILE:HG23	2.38	0.42
9:BG:210:GLN:O	9:BG:214:LYS:N	2.53	0.42
1:A2:688:G:H5'	12:BJ:67:PRO:HG3	0.44	0.42
1:A2:875:G:N2	16:BN:8:GLY:CA	2.82	0.42
3:BA:36:TYR:CD2	3:BA:159:ALA:HB2	2.55	0.42
1:A2:1057:U:H3'	3:BA:41:ARG:C	2.40	0.42
1:A2:919:A:OP2	17:BO:118:VAL:HA	2.20	0.42
1:A2:1133:A:H2'	1:A2:1134:C:O4'	2.19	0.42
12:BJ:44:ARG:O	12:BJ:45:ILE:C	2.57	0.42
1:A2:758:U:C5	12:BJ:6:ARG:HG2	2.53	0.42
1:A2:329:G:H5'	11:BI:175:GLN:NE2	2.31	0.42
1:A2:329:G:H22	11:BI:3:ILE:HD13	1.82	0.42
1:A2:1383:G:H4'	23:BU:89:ARG:HE	1.85	0.42
1:A2:1087:A:C2	1:A2:1088:A:C5	3.08	0.42
1:A2:1096:C:H4'	5:BC:168:ARG:HB3	2.02	0.42
4:BB:132:ASP:C	4:BB:133:TYR:N	2.73	0.42
2:AZ:6057:G:C2'	2:AZ:6057:G:N3	2.81	0.42
1:A2:1622:G:H2'	1:A2:1623:C:O4'	2.19	0.42
10:BH:8:ILE:O	10:BH:9:LEU:N	2.52	0.42
16:BN:44:GLY:C	16:BN:45:LEU:HD22	2.40	0.42
8:BF:40:ILE:HG13	8:BF:41:LYS:N	2.35	0.42
10:BH:103:SER:O	10:BH:104:ARG:N	2.53	0.42
1:A2:145:A:O2'	1:A2:146:U:C4'	2.66	0.42
1:A2:163:G:N7	9:BG:17:GLU:OE2	2.51	0.42
1:A2:281:G:H2'	1:A2:282:C:C6	2.54	0.42
1:A2:265:A:C6	1:A2:290:G:C2	3.07	0.42
1:A2:58:U:C4	27:BY:114:ARG:O	2.73	0.42
1:A2:141:U:C3'	9:BG:135:PRO:CD	2.88	0.42
9:BG:56:ASN:ND2	9:BG:62:PRO:HA	2.35	0.42
1:A2:823:G:H3'	1:A2:824:G:O4'	2.19	0.42
1:A2:214:G:C4	7:BE:133:LYS:HD2	2.55	0.42
7:BE:232:GLY:C	7:BE:233:LYS:N	2.73	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1391:A:OP1	20:BR:48:ASN:HB3	2.18	0.42
1:A2:1534:G:H4'	8:BF:187:ILE:CG2	2.50	0.42
1:A2:1546:G:C1'	21:BS:37:GLY:N	2.81	0.42
1:A2:1547:A:HO2'	21:BS:100:THR:C	2.13	0.42
1:A2:1549:C:O3'	21:BS:83:ALA:O	2.19	0.42
1:A2:1015:U:H5''	1:A2:1016:C:OP2	2.20	0.42
1:A2:897:C:C3'	17:BO:41:ARG:CA	2.96	0.42
4:BB:115:ARG:HB3	4:BB:116:LYS:O	2.19	0.42
1:A2:29:U:H4'	26:BX:127:VAL:HG23	2.01	0.42
1:A2:590:C:O2'	1:A2:591:A:H5'	2.20	0.42
1:A2:601:A:H1'	26:BX:48:HIS:N	2.35	0.42
26:BX:90:ALA:C	26:BX:91:GLY:N	2.73	0.42
1:A2:1479:A:C5'	22:BT:16:ASN:CG	2.86	0.42
1:A2:1281:G:H1'	23:BU:74:GLU:CB	2.41	0.42
1:A2:1191:U:C4	1:A2:1192:C:N4	2.88	0.42
7:BE:63:ALA:HA	7:BE:66:MET:CE	2.50	0.42
25:BW:25:VAL:N	25:BW:63:VAL:O	2.52	0.42
2:AZ:6203:U:O4'	2:AZ:6203:U:OP2	2.37	0.42
4:BB:218:LEU:CB	4:BB:219:LYS:N	2.77	0.42
1:A2:611:U:C4	1:A2:612:U:C4	3.08	0.42
1:A2:1219:A:H3'	1:A2:1220:C:C6	2.54	0.42
1:A2:1659:A:H3'	1:A2:1660:A:P	2.59	0.42
1:A2:1422:A:C2	1:A2:1423:U:N1	2.88	0.42
5:BC:145:GLY:O	5:BC:147:ASN:N	2.52	0.42
19:BQ:52:LEU:O	19:BQ:53:LEU:C	2.58	0.42
1:A2:1570:A:C2'	1:A2:1571:C:O5'	2.68	0.42
12:BJ:59:LEU:HD22	12:BJ:69:ARG:HA	2.02	0.42
24:BV:38:LYS:C	24:BV:39:VAL:N	2.72	0.42
4:BB:27:LYS:HA	4:BB:27:LYS:NZ	2.35	0.42
1:A2:1597:A:H2'	1:A2:1598:U:O4'	2.19	0.42
1:A2:164:A:H5''	9:BG:3:LEU:HB2	1.39	0.42
1:A2:444:C:H4'	1:A2:445:A:C5'	2.50	0.42
1:A2:151:G:C5	27:BY:135:ASP:HB3	2.55	0.42
1:A2:1034:C:O3'	1:A2:1035:G:P	2.78	0.42
25:BW:11:LEU:HD22	25:BW:72:CYS:O	2.19	0.42
1:A2:609:U:C4	26:BX:28:ASN:ND2	2.87	0.42
1:A2:436:A:O4'	26:BX:101:GLU:OE1	2.37	0.42
1:A2:1301:U:C5	5:BC:119:LYS:N	2.81	0.42
5:BC:121:VAL:O	5:BC:125:ILE:N	2.53	0.42
1:A2:220:A:N3	1:A2:220:A:C2'	2.82	0.42
1:A2:705:U:C5	1:A2:707:A:N1	2.87	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1225:U:C2	1:A2:1230:A:O3'	2.56	0.42
1:A2:1225:U:O4	1:A2:1226:A:C2	2.72	0.42
1:A2:1470:C:C3'	8:BF:184:PHE:CD1	2.88	0.42
1:A2:1553:G:H21	18:BP:40:ARG:HB2	1.67	0.42
1:A2:1565:C:C2'	21:BS:43:SER:H	2.29	0.42
3:BA:146:LEU:HD11	3:BA:177:LEU:CD1	2.49	0.42
3:BA:59:LEU:HD13	3:BA:158:VAL:CG2	2.49	0.42
10:BH:153:LEU:HD21	10:BH:184:GLU:HB3	2.01	0.42
1:A2:325:G:O4'	14:BL:133:LYS:CA	2.67	0.42
1:A2:1417:A:C3'	19:BQ:128:LYS:NZ	2.82	0.42
1:A2:1396:U:C5	20:BR:56:HIS:CE1	2.87	0.42
1:A2:1714:A:H2'	1:A2:1715:G:C8	2.55	0.42
1:A2:763:G:C6	1:A2:764:U:N3	2.88	0.42
1:A2:1124:A:C5	1:A2:1125:A:N7	2.88	0.42
1:A2:622:A:H4'	1:A2:623:A:O5'	2.19	0.42
1:A2:1655:A:H2	1:A2:1746:A:N3	2.17	0.42
11:BI:181:GLY:HA2	11:BI:182:TYR:N	2.35	0.42
14:BL:71:LEU:O	14:BL:125:VAL:HG22	2.19	0.42
23:BU:101:LYS:O	23:BU:105:GLN:N	2.53	0.42
1:A2:542:A:O2'	1:A2:543:C:P	2.78	0.42
7:BE:189:LEU:HA	7:BE:190:GLY:N	2.34	0.42
14:BL:92:HIS:HA	14:BL:93:TYR:N	2.35	0.42
1:A2:1126:G:C3'	1:A2:1127:G:P	3.08	0.42
1:A2:1077:C:H2'	1:A2:1078:C:H6	1.83	0.42
1:A2:119:A:C8	1:A2:120:U:C6	3.08	0.42
1:A2:168:A:N6	27:BY:124:ARG:NE	2.63	0.42
1:A2:1721:A:C4	9:BG:100:ALA:N	2.80	0.42
1:A2:436:A:C1'	26:BX:50:LYS:NZ	2.76	0.42
1:A2:1301:U:C1'	5:BC:86:VAL:HG22	2.48	0.42
1:A2:212:U:C4	1:A2:213:A:N7	2.88	0.42
1:A2:215:A:H5'	7:BE:132:GLY:HA2	1.94	0.42
1:A2:1316:G:N2	1:A2:1317:C:C2	2.88	0.42
1:A2:1311:U:H5'	20:BR:2:GLY:O	2.19	0.42
1:A2:1317:C:C5'	20:BR:7:LYS:HB3	2.24	0.42
28:BZ:76:ALA:O	28:BZ:78:ILE:N	2.53	0.42
1:A2:1214:U:H2'	1:A2:1215:C:C6	2.54	0.42
1:A2:1241:G:N1	18:BP:95:GLY:C	2.64	0.42
1:A2:1499:G:H3'	22:BT:105:LEU:N	2.35	0.42
22:BT:36:ILE:HD12	22:BT:37:VAL:CG2	2.50	0.42
8:BF:149:VAL:O	8:BF:150:GLY:N	2.53	0.42
1:A2:18:C:H5"	26:BX:109:ARG:CG	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:363:G:H2'	1:A2:364:G:O4'	2.20	0.42
1:A2:570:A:OP2	26:BX:90:ALA:O	2.38	0.42
1:A2:596:C:C4	26:BX:139:LYS:CB	3.02	0.42
1:A2:329:G:C4'	11:BI:56:ARG:CZ	2.97	0.42
1:A2:318:U:H2'	11:BI:16:ALA:O	2.20	0.42
2:AZ:6218:U:C4	6:BD:146:ARG:HD2	2.55	0.42
1:A2:376:C:H2'	1:A2:377:G:O5'	2.19	0.42
10:BH:163:ASP:HB3	10:BH:164:TYR:HA	2.02	0.42
4:BB:129:THR:OG1	4:BB:131:ASP:O	2.30	0.42
4:BB:204:ILE:CG2	4:BB:205:PHE:HB2	2.50	0.42
15:BM:105:LYS:CB	15:BM:112:ALA:O	2.68	0.42
1:A2:783:G:OP1	27:BY:52:LYS:CG	2.61	0.42
27:BY:7:ILE:CA	27:BY:8:ARG:N	2.82	0.42
1:A2:147:A:H1'	27:BY:124:ARG:NH1	2.14	0.42
1:A2:1709:C:OP1	9:BG:9:VAL:CA	2.66	0.42
1:A2:179:A:C2'	9:BG:184:LEU:HB3	2.49	0.42
1:A2:861:U:H6	25:BW:32:LYS:NZ	2.18	0.42
1:A2:962:C:C6	1:A2:963:A:N7	2.88	0.42
25:BW:124:LYS:C	25:BW:125:ILE:HG22	2.40	0.42
1:A2:863:A:H2'	25:BW:6:VAL:CA	2.49	0.42
1:A2:1145:U:H5	1:A2:1147:A:N6	2.18	0.42
6:BD:133:GLY:O	6:BD:189:MET:N	2.53	0.42
1:A2:740:A:O5'	1:A2:740:A:C8	2.73	0.42
7:BE:155:LYS:HA	7:BE:155:LYS:CE	2.48	0.42
1:A2:701:U:C3'	7:BE:176:ASP:CG	2.80	0.42
1:A2:737:A:O4'	7:BE:227:VAL:HG22	2.19	0.42
8:BF:165:LEU:O	8:BF:165:LEU:HD22	2.20	0.42
1:A2:1244:A:H2'	18:BP:59:LYS:CD	2.40	0.42
1:A2:1242:A:C8	18:BP:94:VAL:HG22	2.55	0.42
1:A2:1457:C:C5'	21:BS:136:GLN:O	2.44	0.42
12:BJ:77:ILE:HD13	12:BJ:91:LYS:HB2	2.01	0.42
1:A2:933:A:C6	1:A2:935:U:N3	2.88	0.42
1:A2:954:G:C6	1:A2:955:A:C5	3.06	0.42
3:BA:67:ILE:CD1	3:BA:73:VAL:HG23	2.50	0.42
16:BN:118:ILE:C	16:BN:120:SER:OG	2.59	0.42
1:A2:871:G:C5	16:BN:12:SER:N	2.88	0.42
1:A2:959:U:HO2'	25:BW:56:HIS:CD2	2.38	0.42
1:A2:18:C:H5''	26:BX:109:ARG:HD3	1.98	0.42
1:A2:468:A:O2'	1:A2:469:C:P	2.78	0.42
26:BX:131:SER:O	26:BX:133:LEU:N	2.47	0.42
22:BT:19:ALA:HB1	22:BT:55:TYR:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
22:BT:19:ALA:O	22:BT:20:SER:N	2.53	0.42
14:BL:134:THR:O	14:BL:136:ARG:NH1	2.53	0.42
1:A2:1715:G:C5	1:A2:1716:C:N3	2.88	0.42
1:A2:523:G:N1	1:A2:528:U:OP2	2.49	0.42
6:BD:65:ARG:O	6:BD:69:LEU:HG	2.20	0.42
8:BF:25:LEU:HD21	19:BQ:57:LEU:CD2	2.50	0.42
2:AZ:6032:U:O2	2:AZ:6084:U:O4	2.38	0.42
12:BJ:30:LEU:O	12:BJ:31:ALA:C	2.58	0.42
4:BB:222:LYS:CA	4:BB:223:PHE:N	2.83	0.42
1:A2:1394:G:C5	1:A2:1395:G:N7	2.88	0.42
17:BO:83:ILE:N	17:BO:116:GLU:O	2.52	0.42
12:BJ:117:GLY:O	12:BJ:118:LEU:C	2.58	0.42
1:A2:859:A:O4'	10:BH:102:PRO:HG2	2.20	0.41
1:A2:814:A:C5'	10:BH:110:GLN:N	2.83	0.41
1:A2:1728:A:C5	1:A2:1729:C:C5	3.08	0.41
1:A2:396:G:C2	9:BG:88:ARG:HD3	2.55	0.41
1:A2:90:C:C2'	27:BY:116:LYS:HG3	2.38	0.41
1:A2:807:A:O2'	14:BL:100:TYR:CZ	2.64	0.41
1:A2:865:A:N7	1:A2:866:G:C8	2.87	0.41
1:A2:1033:C:C2'	26:BX:3:LYS:C	2.78	0.41
1:A2:1298:U:C5'	5:BC:115:ILE:CG2	2.84	0.41
1:A2:249:U:O3'	1:A2:250:C:H5'	2.20	0.41
1:A2:700:C:N4	7:BE:198:LYS:N	2.68	0.41
1:A2:1315:U:C2	1:A2:1316:G:C8	3.08	0.41
20:BR:24:LEU:HD13	20:BR:58:MET:HE2	2.02	0.41
1:A2:1549:C:H5	21:BS:89:GLN:HB2	1.85	0.41
1:A2:1565:C:C1'	21:BS:42:TYR:N	2.83	0.41
3:BA:75:ALA:HB2	3:BA:174:TRP:CE3	2.55	0.41
1:A2:757:A:N9	12:BJ:3:ARG:CZ	2.83	0.41
1:A2:1358:G:OP1	22:BT:130:ARG:NE	2.53	0.41
1:A2:324:U:OP2	11:BI:9:HIS:O	2.38	0.41
23:BU:76:SER:HB3	23:BU:78:THR:HG21	2.01	0.41
1:A2:1083:G:H21	5:BC:161:LYS:HD3	1.19	0.41
1:A2:14:C:O3'	5:BC:203:LYS:NZ	2.48	0.41
7:BE:186:GLY:O	7:BE:187:ARG:C	2.58	0.41
1:A2:299:A:H8	7:BE:7:LYS:CB	2.30	0.41
1:A2:365:G:C2	1:A2:366:A:N7	2.88	0.41
2:AZ:6039:G:N2	2:AZ:6040:C:O2	2.52	0.41
3:BA:131:GLN:O	3:BA:135:GLU:HB2	2.19	0.41
2:AZ:6035:U:C4	2:AZ:6036:C:C5	3.07	0.41
2:AZ:6031:G:N2	2:AZ:6032:U:O4	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:430:G:C2	1:A2:431:C:C2	3.08	0.41
10:BH:175:LYS:C	10:BH:176:LEU:HA	2.41	0.41
7:BE:110:ALA:O	7:BE:112:HIS:N	2.53	0.41
19:BQ:50:GLU:N	19:BQ:51:PRO:HD2	2.35	0.41
2:AZ:6196:G:O2'	2:AZ:6197:U:O4'	2.33	0.41
7:BE:95:THR:HG21	27:BY:16:PRO:HG2	2.02	0.41
14:BL:67:ARG:HD3	14:BL:67:ARG:N	2.34	0.41
1:A2:812:A:O5'	10:BH:108:GLN:NE2	2.23	0.41
1:A2:398:G:O3'	1:A2:399:A:P	2.78	0.41
1:A2:164:A:C2'	9:BG:15:THR:CG2	2.95	0.41
1:A2:180:A:C4'	9:BG:187:LYS:NZ	2.82	0.41
9:BG:57:ASP:OD1	9:BG:58:LYS:N	2.53	0.41
1:A2:804:A:O5'	25:BW:121:VAL:HA	2.18	0.41
1:A2:746:A:C6	25:BW:82:LYS:HD2	2.48	0.41
1:A2:10:G:N7	1:A2:1633:A:C2	2.88	0.41
1:A2:1331:A:H2'	6:BD:162:GLN:CG	2.50	0.41
1:A2:246:G:OP2	7:BE:127:LYS:CD	2.65	0.41
1:A2:740:A:N1	7:BE:199:GLU:N	2.68	0.41
1:A2:740:A:C6	7:BE:198:LYS:HG3	2.39	0.41
20:BR:51:ALA:HA	20:BR:54:THR:HG23	2.03	0.41
18:BP:121:ILE:HD11	21:BS:122:HIS:CE1	2.55	0.41
1:A2:1502:G:N7	22:BT:33:TYR:CE1	2.88	0.41
1:A2:1504:G:O3'	22:BT:38:LYS:CG	2.68	0.41
1:A2:1068:C:C2'	1:A2:1069:A:H5'	2.50	0.41
1:A2:897:C:C5	17:BO:38:THR:OG1	2.70	0.41
10:BH:136:VAL:C	10:BH:137:GLY:N	2.72	0.41
1:A2:870:C:H2'	16:BN:14:SER:H	1.86	0.41
10:BH:138:LYS:N	16:BN:18:TYR:HH	2.17	0.41
1:A2:599:A:H4'	26:BX:124:VAL:HB	1.06	0.41
26:BX:88:PRO:C	26:BX:89:ASN:N	2.73	0.41
22:BT:23:GLN:HA	22:BT:55:TYR:CE2	2.52	0.41
1:A2:329:G:N2	11:BI:3:ILE:CG1	2.77	0.41
1:A2:800:U:P	7:BE:186:GLY:HA2	2.58	0.41
1:A2:879:G:H2'	1:A2:880:C:H6	1.80	0.41
12:BJ:141:VAL:C	12:BJ:142:ASN:N	2.74	0.41
5:BC:189:GLN:O	5:BC:192:GLY:N	2.53	0.41
1:A2:38:C:C2'	1:A2:39:A:C5'	2.95	0.41
2:AZ:6025:A:O2'	2:AZ:6095:U:O5'	2.30	0.41
10:BH:12:ALA:HB3	10:BH:13:PRO:HD3	2.01	0.41
16:BN:142:GLU:O	16:BN:143:SER:C	2.59	0.41
10:BH:62:VAL:HG12	10:BH:64:VAL:N	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1753:A:C2'	1:A2:1754:A:O5'	2.68	0.41
15:BM:79:ALA:HB2	15:BM:87:PRO:HB2	2.02	0.41
1:A2:1216:C:O2	1:A2:1448:G:N2	2.53	0.41
4:BB:194:ASN:O	4:BB:195:LYS:O	2.38	0.41
1:A2:926:A:H2'	1:A2:927:C:H6	1.84	0.41
10:BH:15:GLU:N	10:BH:15:GLU:CD	2.73	0.41
8:BF:115:LYS:HG2	8:BF:115:LYS:O	2.20	0.41
7:BE:50:ASN:C	7:BE:51:ARG:HG2	2.41	0.41
1:A2:783:G:C2	27:BY:39:GLU:OE2	2.74	0.41
27:BY:54:ALA:HB2	27:BY:79:VAL:HA	2.02	0.41
1:A2:1721:A:N3	9:BG:99:GLY:C	2.63	0.41
1:A2:1722:A:C4'	9:BG:72:ARG:HA	1.78	0.41
1:A2:58:U:C4'	27:BY:111:LYS:O	2.68	0.41
1:A2:85:A:O2'	27:BY:126:ALA:C	2.59	0.41
1:A2:1032:G:C6	1:A2:1033:C:N4	2.88	0.41
1:A2:1103:U:HO2'	1:A2:1104:U:H5'	1.85	0.41
1:A2:631:G:H3'	26:BX:12:ALA:O	2.20	0.41
1:A2:359:A:C2	26:BX:78:LYS:HG3	2.56	0.41
1:A2:1292:G:C3'	1:A2:1293:U:P	3.07	0.41
1:A2:1300:A:N9	5:BC:86:VAL:CB	2.83	0.41
1:A2:1299:G:C4'	5:BC:98:PHE:C	2.88	0.41
1:A2:1331:A:N3	6:BD:161:GLY:CA	2.57	0.41
1:A2:703:G:C3'	1:A2:704:C:H5'	2.50	0.41
1:A2:242:U:OP2	7:BE:149:TYR:O	2.38	0.41
1:A2:1528:U:C4'	19:BQ:43:ILE:HB	2.50	0.41
1:A2:1533:C:C5	28:BZ:77:ARG:HG2	2.54	0.41
1:A2:1236:A:H5''	18:BP:61:ARG:HD3	1.98	0.41
1:A2:1210:C:N4	18:BP:122:THR:HB	2.35	0.41
1:A2:1499:G:P	22:BT:102:ARG:O	2.79	0.41
1:A2:1504:G:C2'	1:A2:1505:A:O5'	2.68	0.41
1:A2:870:C:C2	16:BN:13:SER:CB	3.03	0.41
1:A2:26:A:C4	1:A2:27:U:C5	3.08	0.41
1:A2:548:G:C4'	26:BX:136:TRP:CE2	3.03	0.41
1:A2:333:A:N1	1:A2:334:G:C6	2.89	0.41
1:A2:1591:C:H5'	22:BT:93:HIS:HA	1.99	0.41
4:BB:156:ALA:HB3	4:BB:161:ILE:HD11	2.01	0.41
1:A2:1518:C:C5'	1:A2:1518:C:C6	3.03	0.41
1:A2:360:A:H2'	1:A2:361:C:H4'	2.02	0.41
1:A2:504:U:H2'	1:A2:505:A:H4'	2.01	0.41
23:BU:94:GLU:O	23:BU:95:ALA:CB	2.68	0.41
24:BV:74:GLN:NE2	24:BV:81:ASN:O	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1742:U:C6	1:A2:1742:U:H5'	2.55	0.41
1:A2:257:A:H2'	1:A2:258:C:P	2.60	0.41
1:A2:133:U:H5'	1:A2:133:U:C6	2.55	0.41
25:BW:97:ARG:C	25:BW:99:PHE:N	2.73	0.41
5:BC:142:GLY:N	5:BC:153:SER:O	2.47	0.41
5:BC:173:PRO:O	5:BC:174:ARG:O	2.38	0.41
22:BT:45:MET:SD	22:BT:46:PRO:O	2.78	0.41
1:A2:1760:G:HO2'	1:A2:1781:A:H2	1.62	0.41
1:A2:657:U:H3'	1:A2:657:U:H6	1.85	0.41
15:BM:30:VAL:O	15:BM:30:VAL:HG12	2.20	0.41
1:A2:140:A:H3'	9:BG:141:ILE:HG21	2.02	0.41
1:A2:150:U:H2'	1:A2:151:G:O4'	2.20	0.41
1:A2:163:G:C3'	1:A2:164:A:OP2	2.64	0.41
1:A2:392:G:C5	1:A2:393:C:C5	3.09	0.41
1:A2:449:C:O2'	1:A2:450:U:H5'	2.20	0.41
1:A2:457:G:C2'	27:BY:107:GLN:HE21	2.34	0.41
25:BW:110:ILE:CA	25:BW:111:MET:N	2.83	0.41
1:A2:1036:A:P	25:BW:12:ASN:HB2	2.60	0.41
1:A2:433:C:N3	1:A2:434:G:C4	2.88	0.41
1:A2:1295:G:O2'	1:A2:1321:A:H8	1.99	0.41
1:A2:1297:G:C2	1:A2:1299:G:N7	2.88	0.41
1:A2:1304:G:H3'	1:A2:1305:U:H3'	2.03	0.41
1:A2:1329:A:C6	6:BD:160:SER:C	2.93	0.41
6:BD:168:ILE:HD12	6:BD:168:ILE:C	2.41	0.41
1:A2:738:G:OP2	7:BE:157:ASN:OD1	2.39	0.41
1:A2:1401:A:P	20:BR:10:LYS:CE	2.90	0.41
1:A2:1534:G:O5'	28:BZ:66:VAL:HG22	2.15	0.41
1:A2:1244:A:C2'	18:BP:59:LYS:HD3	2.41	0.41
1:A2:1451:C:N4	1:A2:1452:U:O4	2.53	0.41
1:A2:1244:A:H3'	18:BP:59:LYS:HB2	1.33	0.41
21:BS:85:PHE:C	21:BS:86:LEU:HD12	2.41	0.41
1:A2:916:U:H3'	17:BO:84:ARG:NH1	2.34	0.41
16:BN:119:GLU:C	16:BN:120:SER:N	2.73	0.41
17:BO:16:VAL:HG13	17:BO:33:LEU:HA	2.01	0.41
1:A2:31:C:O2'	26:BX:138:GLU:HG3	2.13	0.41
1:A2:336:G:C8	11:BI:27:PHE:CD1	3.06	0.41
1:A2:329:G:HO2'	11:BI:32:GLN:C	2.23	0.41
1:A2:1414:U:HO2'	1:A2:1416:G:P	2.43	0.41
5:BC:213:ALA:O	5:BC:214:ALA:C	2.59	0.41
1:A2:1039:A:O2'	1:A2:1040:G:O5'	2.31	0.41
1:A2:1756:A:C2'	1:A2:1757:G:OP1	2.69	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
19:BQ:69:VAL:HG11	19:BQ:81:ILE:CG2	2.49	0.41
10:BH:140:VAL:CA	10:BH:141:ARG:N	2.79	0.41
1:A2:1123:C:H2'	1:A2:1124:A:O4'	2.21	0.41
24:BV:26:ALA:C	24:BV:27:ASP:N	2.73	0.41
1:A2:374:U:C2	1:A2:375:U:C6	3.08	0.41
16:BN:42:ARG:O	16:BN:43:LYS:C	2.58	0.41
2:AZ:6061:G:N1	2:AZ:6062:G:N7	2.68	0.41
23:BU:24:ILE:C	23:BU:25:THR:N	2.74	0.41
18:BP:33:PHE:CZ	18:BP:37:ALA:HB2	2.55	0.41
5:BC:60:SER:OG	5:BC:60:SER:O	2.26	0.41
14:BL:87:ARG:NH2	14:BL:104:HIS:CD2	2.89	0.41
15:BM:94:ALA:HB1	15:BM:117:GLY:HA3	2.02	0.41
23:BU:52:LYS:HA	23:BU:92:ASP:HB3	2.02	0.41
6:BD:66:ILE:HD13	6:BD:66:ILE:HA	1.94	0.41
6:BD:115:ILE:C	6:BD:115:ILE:HD12	2.41	0.41
1:A2:429:G:H2'	1:A2:429:G:N3	2.36	0.41
16:BN:50:ILE:HG22	16:BN:51:GLY:N	2.36	0.41
1:A2:1679:G:C8	9:BG:68:LEU:CG	2.64	0.41
1:A2:394:C:C5'	9:BG:76:LEU:HD21	2.50	0.41
1:A2:75:U:H3	9:BG:164:LYS:HE3	1.76	0.41
1:A2:1328:G:OP2	1:A2:1330:G:O6	2.38	0.41
1:A2:733:A:C8	7:BE:209:HIS:C	2.94	0.41
1:A2:831:U:H5'	7:BE:152:PRO:CB	2.50	0.41
1:A2:1391:A:HO2'	1:A2:1392:U:H6	1.65	0.41
1:A2:1547:A:C4	21:BS:87:ASN:ND2	2.81	0.41
1:A2:1547:A:H2'	21:BS:99:HIS:CE1	2.53	0.41
1:A2:1503:A:N7	22:BT:37:VAL:N	2.66	0.41
8:BF:58:LEU:HD12	8:BF:138:THR:HB	2.03	0.41
1:A2:875:G:H4'	1:A2:936:G:O2'	2.21	0.41
1:A2:888:U:C4	1:A2:889:U:C5	3.08	0.41
3:BA:103:THR:O	3:BA:106:SER:N	2.54	0.41
3:BA:123:VAL:CG2	3:BA:132:ALA:HB3	2.51	0.41
4:BB:46:THR:C	4:BB:47:LEU:HD22	2.41	0.41
4:BB:64:ARG:O	4:BB:87:ARG:HG3	2.20	0.41
1:A2:871:G:C3'	16:BN:13:SER:N	2.78	0.41
1:A2:897:C:OP2	17:BO:39:ILE:HG13	2.21	0.41
1:A2:600:U:OP1	26:BX:122:PHE:O	2.37	0.41
1:A2:370:A:H5'	12:BJ:14:THR:C	2.41	0.41
1:A2:334:G:C5	11:BI:26:LYS:HB3	2.32	0.41
1:A2:304:U:H3'	1:A2:305:C:H6	1.86	0.41
1:A2:407:A:C6	1:A2:408:C:C4	3.09	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:296:U:OP1	7:BE:33:ALA:HB2	2.17	0.41
5:BC:189:GLN:O	5:BC:190:LEU:C	2.58	0.41
11:BI:112:TRP:CZ3	11:BI:116:HIS:HB3	2.56	0.41
12:BJ:139:GLN:HE21	12:BJ:140:ILE:N	2.17	0.41
1:A2:1753:A:C2	1:A2:1754:A:N7	2.89	0.41
1:A2:1127:G:C5	1:A2:1128:C:C5	3.08	0.41
7:BE:54:TYR:CE1	27:BY:16:PRO:HD3	2.56	0.41
2:AZ:6216:U:O3'	2:AZ:6217:A:P	2.79	0.41
23:BU:65:ILE:HG22	23:BU:65:ILE:O	2.20	0.41
24:BV:31:SER:OG	24:BV:31:SER:O	2.38	0.41
1:A2:778:G:HO2'	27:BY:5:VAL:CA	2.14	0.41
1:A2:1729:C:C5	1:A2:1730:A:N7	2.88	0.41
1:A2:1732:A:C6	1:A2:1733:C:C4	3.09	0.41
1:A2:204:G:C2	1:A2:264:G:N2	2.88	0.41
1:A2:1722:A:H3'	9:BG:73:ILE:HG23	1.59	0.41
1:A2:632:U:H5'	26:BX:16:ARG:HB2	2.01	0.41
1:A2:864:U:C5	25:BW:13:ALA:CA	2.97	0.41
26:BX:49:ALA:CA	26:BX:50:LYS:N	2.83	0.41
26:BX:75:GLN:N	26:BX:76:LEU:N	2.69	0.41
1:A2:1297:G:N1	1:A2:1301:U:C2	2.87	0.41
1:A2:1632:C:H2'	1:A2:1633:A:H8	1.85	0.41
5:BC:207:LEU:CA	5:BC:208:GLU:N	2.81	0.41
1:A2:1331:A:C3'	6:BD:162:GLN:HG2	2.50	0.41
1:A2:218:A:O2'	1:A2:219:A:OP1	2.38	0.41
1:A2:213:A:C2	1:A2:253:A:C2	3.09	0.41
1:A2:703:G:C5	7:BE:230:GLU:CG	2.98	0.41
1:A2:1399:C:C6	20:BR:60:ARG:HB3	2.54	0.41
1:A2:1573:A:H2	8:BF:100:ASN:ND2	2.19	0.41
8:BF:90:ILE:O	8:BF:93:LEU:HB2	2.20	0.41
1:A2:1240:U:C4	18:BP:63:ALA:HB3	2.56	0.41
1:A2:1240:U:C4'	18:BP:104:GLN:HG2	2.48	0.41
1:A2:1451:C:C4	18:BP:79:HIS:CG	2.95	0.41
1:A2:1502:G:C3'	22:BT:37:VAL:HG21	2.46	0.41
8:BF:58:LEU:HD21	8:BF:167:ARG:NH1	2.35	0.41
8:BF:48:PHE:CB	8:BF:65:ALA:HB3	2.50	0.41
4:BB:24:PHE:CE1	17:BO:39:ILE:HG22	2.56	0.41
1:A2:27:U:C2	26:BX:126:LYS:CD	2.91	0.41
1:A2:346:G:C2	11:BI:16:ALA:N	2.86	0.41
1:A2:1335:U:C5'	23:BU:62:VAL:CG1	2.98	0.41
1:A2:1518:C:H5'	1:A2:1518:C:C6	2.55	0.41
1:A2:946:U:O5'	4:BB:158:SER:OG	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:441:A:C2	1:A2:442:C:C5	3.09	0.41
1:A2:389:G:H3'	1:A2:390:G:O5'	2.20	0.41
1:A2:1611:A:N7	1:A2:1612:U:C6	2.89	0.41
1:A2:1788:G:C3'	1:A2:1789:G:P	3.08	0.41
7:BE:41:SER:HG	7:BE:42:LEU:H	1.67	0.41
1:A2:1131:A:C2	1:A2:1132:A:C4	3.09	0.41
19:BQ:90:VAL:HA	19:BQ:93:HIS:HB2	2.02	0.41
5:BC:113:LEU:N	5:BC:132:ALA:HB1	2.36	0.41
1:A2:520:A:C6	1:A2:521:A:C6	3.08	0.41
1:A2:858:G:N3	10:BH:102:PRO:CB	2.83	0.41
1:A2:1035:G:O6	1:A2:1036:A:N6	2.54	0.41
1:A2:1103:U:C3'	26:BX:15:LEU:CD2	2.81	0.41
1:A2:633:U:O5'	14:BL:99:ARG:CG	2.61	0.41
1:A2:433:C:N4	1:A2:434:G:C6	2.89	0.41
1:A2:736:C:C6	7:BE:225:VAL:CG1	2.88	0.41
1:A2:1399:C:P	20:BR:67:ARG:CB	3.09	0.41
19:BQ:39:VAL:HG23	19:BQ:42:GLU:HG3	2.02	0.41
18:BP:52:LYS:HA	18:BP:80:MET:CE	2.51	0.41
1:A2:1565:C:HO2'	21:BS:38:VAL:CG1	2.02	0.41
1:A2:1565:C:H5''	21:BS:43:SER:C	2.40	0.41
1:A2:1047:G:C5	1:A2:1048:G:N7	2.89	0.41
1:A2:1067:C:H4'	3:BA:31:VAL:HG12	2.00	0.41
3:BA:76:ILE:HG23	3:BA:102:PHE:CD2	2.56	0.41
3:BA:141:ILE:O	3:BA:141:ILE:CG2	2.66	0.41
3:BA:36:TYR:CD2	3:BA:159:ALA:CB	3.04	0.41
3:BA:40:ALA:O	3:BA:69:ASN:ND2	46.81	0.41
16:BN:120:SER:OG	16:BN:121:ARG:N	2.50	0.41
1:A2:592:A:C6	1:A2:593:U:C2	3.08	0.41
1:A2:754:A:H2'	7:BE:12:LEU:HD22	1.31	0.41
1:A2:28:A:C2	26:BX:131:SER:CA	2.94	0.41
1:A2:1418:G:H4'	19:BQ:128:LYS:HD3	2.01	0.41
1:A2:1281:G:H4'	23:BU:68:ARG:HH22	1.38	0.41
7:BE:57:ASN:O	7:BE:58:GLY:N	2.54	0.41
2:AZ:6169:G:H2'	2:AZ:6170:G:C8	2.55	0.41
13:BK:50:THR:HG1	13:BK:51:SER:HB2	1.85	0.41
1:A2:1739:C:N4	1:A2:1740:A:N6	2.69	0.41
1:A2:1220:C:O3'	1:A2:1221:A:P	2.79	0.41
1:A2:1664:C:N4	1:A2:1665:U:O4	2.53	0.41
1:A2:1119:G:C6	1:A2:1120:U:C4	3.09	0.41
12:BJ:111:THR:C	12:BJ:112:GLN:N	2.74	0.41
6:BD:119:ALA:O	6:BD:122:VAL:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:778:G:OP1	27:BY:30:PRO:CA	2.68	0.41
1:A2:119:A:N3	1:A2:397:A:C6	2.88	0.41
27:BY:122:GLY:CA	27:BY:125:LEU:HD23	2.51	0.41
1:A2:1108:G:C2	26:BX:27:ASN:N	2.84	0.41
14:BL:100:TYR:CD1	26:BX:9:LEU:HD11	2.56	0.41
1:A2:638:U:C6	25:BW:107:SER:HA	2.53	0.41
26:BX:26:GLU:O	26:BX:28:ASN:N	2.54	0.41
1:A2:1323:C:H2'	1:A2:1324:G:O4'	2.20	0.41
1:A2:1327:C:C5'	6:BD:168:ILE:HG12	2.51	0.41
1:A2:13:C:O2	1:A2:13:C:H2'	2.20	0.41
1:A2:214:G:C8	7:BE:133:LYS:HA	2.56	0.41
1:A2:826:U:H2'	1:A2:827:C:C6	2.56	0.41
1:A2:740:A:N3	7:BE:200:ARG:N	2.29	0.41
1:A2:1389:C:C2'	20:BR:45:ARG:HA	2.46	0.41
1:A2:1525:A:H61	19:BQ:73:GLY:CA	2.31	0.41
1:A2:1534:G:C1'	8:BF:187:ILE:CG2	2.98	0.41
28:BZ:78:ILE:HG22	28:BZ:79:ALA:N	2.36	0.41
1:A2:1503:A:C6	1:A2:1504:G:C5	3.09	0.41
22:BT:54:PHE:O	22:BT:57:ARG:HB3	2.20	0.41
4:BB:127:VAL:CG1	4:BB:176:VAL:HG11	2.51	0.41
4:BB:64:ARG:C	4:BB:65:VAL:N	2.74	0.41
1:A2:756:A:P	12:BJ:4:ALA:CA	3.08	0.41
1:A2:1367:G:O2'	22:BT:66:TYR:CE2	2.57	0.41
1:A2:1417:A:C5'	19:BQ:128:LYS:HE3	2.51	0.41
1:A2:1420:C:H4'	23:BU:82:TYR:CE1	2.55	0.41
5:BC:202:GLY:O	5:BC:204:THR:HG23	2.20	0.41
1:A2:880:C:O3'	1:A2:881:A:P	2.79	0.41
1:A2:880:C:OP1	16:BN:109:LYS:HG2	2.21	0.41
1:A2:209:U:C1'	11:BI:55:TYR:HH	2.31	0.41
25:BW:23:ARG:C	25:BW:65:LEU:HD12	2.41	0.41
1:A2:565:C:O2'	1:A2:577:G:N2	2.54	0.41
7:BE:43:PRO:HG2	7:BE:46:VAL:HG23	2.03	0.41
17:BO:91:THR:C	17:BO:92:LYS:N	2.73	0.41
1:A2:1758:U:H3'	1:A2:1759:C:O5'	2.21	0.41
1:A2:275:C:H2'	1:A2:276:C:C1'	2.50	0.41
5:BC:53:ILE:HD12	5:BC:110:HIS:CD2	2.56	0.41
2:AZ:6061:G:C6	2:AZ:6062:G:H8	2.39	0.41
20:BR:79:GLU:N	20:BR:82:ASP:OD2	2.54	0.41
2:AZ:6174:G:H3'	2:AZ:6175:A:P	2.61	0.41
7:BE:48:LEU:C	7:BE:49:ARG:N	2.74	0.41
15:BM:93:ASP:HB3	15:BM:94:ALA:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:BH:67:LEU:HD11	10:BH:128:ASP:OD2	2.21	0.41
19:BQ:11:GLY:O	19:BQ:17:THR:HB	2.21	0.41
1:A2:444:C:O2	27:BY:104:SER:OG	2.35	0.41
1:A2:89:G:C6	1:A2:90:C:C4	3.09	0.41
9:BG:164:LYS:HD2	9:BG:167:LYS:HB3	2.01	0.41
9:BG:175:ILE:HG22	9:BG:176:GLN:N	2.36	0.41
1:A2:1673:G:C6	1:A2:1674:C:C4	3.09	0.41
1:A2:1679:G:C4	9:BG:68:LEU:HG	1.99	0.41
1:A2:1679:G:H3'	9:BG:68:LEU:HD21	1.48	0.41
1:A2:1682:U:O2'	9:BG:53:SER:C	2.59	0.41
1:A2:1709:C:OP1	9:BG:9:VAL:N	2.54	0.41
1:A2:1710:U:H2'	9:BG:115:LYS:HG2	0.82	0.41
1:A2:164:A:C4	9:BG:15:THR:HB	2.54	0.41
1:A2:79:C:P	9:BG:163:THR:OG1	2.79	0.41
9:BG:182:GLN:O	9:BG:183:ARG:C	2.58	0.41
1:A2:1104:U:C4	1:A2:1105:C:C4	3.08	0.41
1:A2:866:G:N9	25:BW:3:ARG:O	2.41	0.41
1:A2:1034:C:N4	26:BX:3:LYS:HZ1	2.03	0.41
1:A2:635:A:C4	25:BW:126:LEU:CD2	3.04	0.41
1:A2:1147:A:C2	1:A2:1148:C:C5	3.09	0.41
1:A2:1302:U:P	1:A2:1302:U:H3'	2.61	0.41
1:A2:733:A:N7	7:BE:209:HIS:C	2.74	0.41
1:A2:703:G:C4	7:BE:179:LYS:HB3	2.54	0.41
1:A2:238:U:HO3'	9:BG:210:GLN:CB	2.13	0.41
7:BE:125:LYS:N	7:BE:142:HIS:HD1	2.18	0.41
7:BE:208:VAL:C	7:BE:209:HIS:N	2.74	0.41
1:A2:1309:C:H2'	1:A2:1310:U:O5'	2.21	0.41
1:A2:1402:G:C5	20:BR:5:ARG:NH2	2.89	0.41
19:BQ:135:ARG:HA	19:BQ:137:ARG:NH1	2.35	0.41
8:BF:62:VAL:HG13	8:BF:89:ILE:HG21	2.03	0.41
1:A2:1565:C:H4'	21:BS:44:ASN:N	2.34	0.41
21:BS:81:ILE:HA	21:BS:82:PRO:HD3	1.59	0.41
21:BS:85:PHE:HB3	21:BS:86:LEU:HD12	2.03	0.41
1:A2:1565:C:O4'	21:BS:41:ARG:CA	2.60	0.41
1:A2:1498:G:H3'	22:BT:102:ARG:HA	2.03	0.41
1:A2:1499:G:H8	22:BT:102:ARG:O	2.00	0.41
2:AZ:6105:U:O2	2:AZ:6111:G:C2	2.74	0.41
1:A2:649:U:P	1:A2:649:U:H2'	2.60	0.41
12:BJ:64:GLU:O	12:BJ:65:LYS:CB	2.69	0.41
1:A2:938:G:N1	1:A2:942:G:C6	2.89	0.41
1:A2:961:U:O4	25:BW:58:SER:OG	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:BB:126:THR:C	4:BB:127:VAL:HB	2.41	0.41
1:A2:887:A:N1	17:BO:125:SER:CB	2.78	0.41
3:BA:101:ARG:O	3:BA:103:THR:N	2.54	0.41
1:A2:1057:U:H3'	3:BA:42:PRO:CD	2.51	0.41
1:A2:896:U:H4'	17:BO:16:VAL:CG2	2.51	0.41
7:BE:30:ARG:HB2	7:BE:31:PRO:CD	2.51	0.41
1:A2:18:C:O3'	1:A2:19:A:P	2.79	0.41
1:A2:597:G:H5''	26:BX:133:LEU:CD2	2.51	0.41
26:BX:111:GLY:C	26:BX:112:LYS:N	2.74	0.41
14:BL:109:VAL:HA	14:BL:135:VAL:CG1	2.50	0.41
1:A2:329:G:N2	11:BI:3:ILE:HB	2.28	0.41
1:A2:1274:C:H2'	1:A2:1274:C:O2	2.20	0.41
1:A2:1282:U:C3'	1:A2:1283:U:H5''	2.50	0.41
5:BC:203:LYS:O	5:BC:206:THR:HG23	2.19	0.41
1:A2:1009:U:C5'	17:BO:129:LYS:HD3	2.51	0.41
1:A2:3:U:H2'	12:BJ:18:PRO:HG2	0.41	0.41
2:AZ:6069:A:H1'	2:AZ:6152:C:O3'	2.21	0.41
1:A2:1098:U:O2'	5:BC:169:LEU:N	2.54	0.41
1:A2:441:A:C2	1:A2:442:C:C6	3.09	0.41
1:A2:951:A:H2	16:BN:114:ARG:HE	1.59	0.41
4:BB:209:ASN:O	4:BB:210:ILE:O	2.38	0.41
1:A2:366:A:C2	1:A2:367:A:C4	3.09	0.41
11:BI:97:THR:C	11:BI:98:LYS:O	2.59	0.41
1:A2:71:A:H3'	1:A2:72:A:C4'	2.45	0.41
1:A2:72:A:O2'	1:A2:73:U:C5'	2.69	0.41
1:A2:617:U:O3'	1:A2:618:U:P	2.79	0.41
1:A2:1649:G:C2	1:A2:1650:U:C4	3.09	0.41
1:A2:1651:A:C4	1:A2:1652:C:C5	3.09	0.41
1:A2:1742:U:C2'	1:A2:1742:U:O2	2.68	0.41
4:BB:146:GLN:O	4:BB:148:ASN:N	2.54	0.41
7:BE:120:SER:O	7:BE:164:LEU:HD23	2.20	0.41
1:A2:1371:A:H1'	1:A2:1373:C:OP2	2.20	0.41
26:BX:83:VAL:CA	26:BX:84:THR:N	2.84	0.41
6:BD:117:ARG:HB3	6:BD:118:ALA:N	2.36	0.41
10:BH:175:LYS:O	10:BH:176:LEU:HA	2.21	0.41
1:A2:509:G:H2'	1:A2:510:G:C8	2.56	0.41
16:BN:134:VAL:O	16:BN:134:VAL:HG22	2.21	0.41
1:A2:719:U:C2'	1:A2:719:U:O2	2.68	0.41
12:BJ:146:PHE:CZ	12:BJ:149:ARG:NH1	2.89	0.41
1:A2:96:G:C5	1:A2:97:C:C5	3.08	0.41
18:BP:30:THR:HG22	18:BP:45:PHE:CE1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
25:BW:48:GLY:O	25:BW:64:GLN:HB2	2.21	0.41
14:BL:63:LEU:HD12	14:BL:63:LEU:N	2.36	0.41
24:BV:75:ASN:ND2	24:BV:75:ASN:O	2.54	0.41
1:A2:786:C:OP1	27:BY:25:VAL:N	2.53	0.41
1:A2:177:U:C6	9:BG:137:ARG:HD2	2.55	0.41
9:BG:18:ILE:HB	9:BG:24:ILE:HD11	2.03	0.41
1:A2:632:U:C4'	14:BL:97:TYR:CG	2.83	0.41
1:A2:1298:U:O2'	5:BC:84:LYS:CE	2.66	0.41
1:A2:1329:A:N6	1:A2:1330:G:C2	2.89	0.41
1:A2:1299:G:H1'	5:BC:84:LYS:HG3	1.99	0.41
1:A2:240:U:OP2	9:BG:208:TYR:HA	2.18	0.41
1:A2:1236:A:C3'	18:BP:65:LEU:HD22	2.48	0.41
1:A2:688:G:N1	1:A2:689:G:C6	2.89	0.41
1:A2:901:G:H5''	17:BO:86:THR:HG1	1.79	0.41
1:A2:952:A:C3'	1:A2:953:G:H5'	2.51	0.41
25:BW:57:ARG:HB3	25:BW:59:GLY:N	2.36	0.41
7:BE:25:GLY:O	7:BE:26:CYS:C	2.60	0.41
1:A2:757:A:H62	12:BJ:5:PRO:HB3	1.85	0.41
1:A2:1280:C:H5''	23:BU:69:LYS:CA	2.42	0.41
23:BU:78:THR:CA	23:BU:79:TRP:N	2.84	0.41
1:A2:15:U:H5'	5:BC:203:LYS:HE2	2.03	0.41
1:A2:1003:A:N3	1:A2:1005:A:N7	2.68	0.41
1:A2:799:A:H2'	1:A2:800:U:O4'	2.21	0.41
1:A2:389:G:C8	1:A2:390:G:C2	3.09	0.41
1:A2:1063:U:C5	1:A2:1064:G:N7	2.89	0.41
1:A2:68:A:H4'	1:A2:69:G:OP2	2.21	0.41
1:A2:839:U:C2'	1:A2:840:U:H5'	2.51	0.41
1:A2:1173:C:H2'	1:A2:1174:C:C6	2.55	0.41
7:BE:203:GLY:HA3	7:BE:204:GLY:N	2.36	0.41
13:BK:56:LYS:O	13:BK:56:LYS:HG3	2.20	0.41
1:A2:446:A:C6	1:A2:447:U:C5	3.09	0.40
1:A2:64:U:C5	27:BY:121:THR:CG2	3.00	0.40
1:A2:1719:A:C2	9:BG:32:ILE:HG21	2.56	0.40
1:A2:90:C:N4	27:BY:118:ILE:O	2.54	0.40
1:A2:627:C:C4	1:A2:628:G:C5	3.09	0.40
1:A2:634:G:H5''	25:BW:79:PHE:CB	2.51	0.40
25:BW:92:ASN:C	25:BW:93:LEU:N	2.75	0.40
1:A2:632:U:O2	26:BX:15:LEU:CD1	2.69	0.40
1:A2:735:C:OP2	7:BE:193:GLY:HA3	2.21	0.40
1:A2:733:A:H5'	7:BE:211:LYS:HB3	1.63	0.40
1:A2:1388:A:C2	1:A2:1411:A:H2'	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:1310:U:O3'	20:BR:4:VAL:HB	2.21	0.40
1:A2:1471:A:C8	8:BF:186:ASN:N	2.88	0.40
1:A2:1535:U:C6	8:BF:186:ASN:CA	3.01	0.40
1:A2:1580:C:H2'	1:A2:1581:C:P	2.60	0.40
1:A2:1533:C:C5	28:BZ:77:ARG:HD3	2.56	0.40
1:A2:1246:C:O4'	18:BP:77:ARG:C	2.60	0.40
1:A2:1550:A:N3	1:A2:1562:G:C2	2.90	0.40
1:A2:1564:U:C3'	21:BS:41:ARG:O	2.69	0.40
2:AZ:6137:C:C6	8:BF:126:ASP:O	2.74	0.40
1:A2:891:A:H2'	1:A2:892:A:C8	2.56	0.40
1:A2:1056:U:P	3:BA:40:ALA:C	3.00	0.40
10:BH:137:GLY:O	10:BH:138:LYS:N	2.54	0.40
1:A2:990:C:C2	17:BO:127:ARG:NH1	2.67	0.40
1:A2:30:G:O3'	1:A2:31:C:P	2.78	0.40
1:A2:551:G:H2'	1:A2:552:G:O4'	2.20	0.40
1:A2:791:A:C6	12:BJ:7:THR:N	2.84	0.40
1:A2:595:G:O6	26:BX:139:LYS:O	2.38	0.40
22:BT:113:ILE:O	22:BT:124:ILE:HA	2.20	0.40
1:A2:1094:G:C5	1:A2:1095:U:C5	3.09	0.40
8:BF:84:LYS:O	8:BF:85:ALA:C	2.60	0.40
1:A2:881:A:C2	1:A2:948:G:C2	3.09	0.40
4:BB:119:THR:OG1	4:BB:156:ALA:N	2.29	0.40
1:A2:1489:U:O2	1:A2:1513:G:N2	2.54	0.40
1:A2:762:A:C3'	1:A2:763:G:P	3.00	0.40
1:A2:565:C:C4	1:A2:576:G:N7	2.89	0.40
1:A2:1762:A:C2	1:A2:1763:A:C8	3.09	0.40
3:BA:139:VAL:HG22	24:BV:60:ARG:CZ	2.50	0.40
18:BP:17:TYR:CD2	18:BP:18:ARG:N	2.88	0.40
7:BE:162:ILE:HD13	7:BE:164:LEU:H	1.86	0.40
10:BH:11:GLN:O	10:BH:12:ALA:HB2	2.21	0.40
1:A2:1594:G:N2	1:A2:1595:U:O2	2.54	0.40
20:BR:82:ASP:N	20:BR:82:ASP:OD1	2.54	0.40
23:BU:51:VAL:O	23:BU:52:LYS:N	2.54	0.40
18:BP:70:ASN:C	18:BP:71:GLU:N	2.74	0.40
2:AZ:6115:U:O2	2:AZ:6115:U:C2'	2.69	0.40
1:A2:857:U:O2	10:BH:107:ARG:O	2.39	0.40
1:A2:265:A:C4	1:A2:290:G:N2	2.90	0.40
9:BG:102:VAL:HG23	9:BG:103:GLY:N	2.36	0.40
9:BG:176:GLN:O	9:BG:177:ARG:HB2	2.17	0.40
1:A2:152:U:C4	27:BY:135:ASP:HB3	2.56	0.40
1:A2:631:G:O2'	26:BX:16:ARG:C	2.54	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:359:A:H1'	26:BX:78:LYS:HD2	2.03	0.40
1:A2:217:A:H4'	7:BE:156:VAL:N	2.36	0.40
1:A2:249:U:HO3'	1:A2:250:C:P	2.43	0.40
1:A2:699:U:C2	1:A2:700:C:C5	3.08	0.40
1:A2:825:U:H2'	1:A2:826:U:C6	2.57	0.40
1:A2:1470:C:H6	8:BF:184:PHE:CE1	2.37	0.40
1:A2:1558:U:O3'	1:A2:1559:A:P	2.79	0.40
1:A2:1564:U:OP1	22:BT:44:GLU:CA	2.69	0.40
2:AZ:6108:U:OP1	8:BF:222:LYS:CB	2.50	0.40
1:A2:1055:U:C2	1:A2:1056:U:C6	3.09	0.40
1:A2:30:G:N2	26:BX:137:LYS:C	2.75	0.40
1:A2:363:G:C4	1:A2:364:G:C8	3.09	0.40
1:A2:755:A:H5'	12:BJ:4:ALA:HB2	2.02	0.40
12:BJ:2:PRO:C	12:BJ:3:ARG:N	2.73	0.40
1:A2:113:U:C4	7:BE:5:PRO:CA	3.00	0.40
1:A2:316:A:HO2'	1:A2:317:C:P	2.44	0.40
1:A2:332:U:O2'	11:BI:26:LYS:CB	2.60	0.40
1:A2:1086:A:O5'	5:BC:203:LYS:HD3	2.21	0.40
16:BN:98:VAL:O	16:BN:101:HIS:N	2.55	0.40
16:BN:135:LEU:HD23	16:BN:136:PRO:HD2	2.03	0.40
13:BK:46:LEU:HB3	13:BK:66:TYR:CE1	2.55	0.40
1:A2:1124:A:C4	1:A2:1125:A:C8	3.09	0.40
4:BB:130:SER:HG	4:BB:131:ASP:N	2.18	0.40
15:BM:57:ALA:HB2	15:BM:124:LYS:HE3	2.03	0.40
2:AZ:6117:C:O2	2:AZ:6117:C:O4'	2.39	0.40
24:BV:53:TYR:OH	24:BV:76:ASP:HB2	2.21	0.40
1:A2:617:U:C6	1:A2:1093:A:C8	3.08	0.40
10:BH:16:LEU:N	10:BH:17:GLU:OE1	2.55	0.40
2:AZ:6121:C:C4	2:AZ:6122:C:C5	3.09	0.40
1:A2:1043:A:C6	1:A2:1044:U:C4	3.09	0.40
23:BU:106:ILE:O	23:BU:107:THR:C	2.60	0.40
1:A2:485:A:H5'	1:A2:486:G:OP2	2.22	0.40
6:BD:196:ARG:HA	6:BD:200:LYS:CE	2.51	0.40
27:BY:23:PHE:O	27:BY:73:GLY:N	2.52	0.40
1:A2:729:G:H2'	1:A2:729:G:N3	2.36	0.40
1:A2:784:C:C4'	27:BY:7:ILE:CG1	2.99	0.40
1:A2:814:A:OP1	10:BH:110:GLN:CA	2.67	0.40
1:A2:858:G:H4'	10:BH:103:SER:H	1.40	0.40
1:A2:129:U:OP1	1:A2:130:C:C5	2.74	0.40
1:A2:168:A:O2'	9:BG:132:ARG:NH1	2.50	0.40
1:A2:180:A:C2	9:BG:191:ARG:CA	3.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:445:A:C8	1:A2:525:A:C8	3.09	0.40
1:A2:63:G:C6	1:A2:87:C:N3	2.89	0.40
1:A2:91:G:H5''	1:A2:92:A:OP2	2.21	0.40
1:A2:138:A:C4	9:BG:140:ASN:OD1	2.72	0.40
1:A2:1106:U:O2'	1:A2:1107:G:H5'	2.21	0.40
1:A2:806:A:N9	25:BW:82:LYS:CD	2.73	0.40
1:A2:631:G:C3'	26:BX:12:ALA:O	2.70	0.40
1:A2:242:U:H1'	7:BE:148:ARG:HH11	1.85	0.40
1:A2:699:U:H3'	7:BE:197:HIS:HB2	1.27	0.40
1:A2:214:G:N9	7:BE:133:LYS:HD2	2.30	0.40
1:A2:1390:U:H5''	20:BR:49:LYS:HD3	2.03	0.40
1:A2:1534:G:O2'	28:BZ:63:SER:C	2.57	0.40
1:A2:1537:C:H4'	1:A2:1538:U:H6	1.85	0.40
1:A2:1608:U:C2'	1:A2:1609:U:O5'	2.70	0.40
1:A2:1473:U:N1	8:BF:113:ILE:HG21	2.27	0.40
1:A2:1477:G:O6	28:BZ:96:SER:HB2	2.20	0.40
1:A2:1239:U:O2'	18:BP:75:PRO:CB	2.46	0.40
1:A2:1211:A:H2'	18:BP:98:ASN:HD22	1.66	0.40
1:A2:1564:U:C3'	21:BS:41:ARG:CZ	2.72	0.40
8:BF:221:ALA:O	8:BF:225:ARG:HB2	2.22	0.40
1:A2:916:U:C2	17:BO:27:PHE:CE2	3.09	0.40
3:BA:142:PRO:HG3	24:BV:66:ASP:OD1	2.21	0.40
3:BA:145:ALA:O	3:BA:147:THR:N	2.55	0.40
1:A2:753:A:O2'	7:BE:13:ALA:HA	2.22	0.40
1:A2:1600:A:C2'	1:A2:1600:A:N3	2.83	0.40
6:BD:43:PRO:O	6:BD:44:THR:OG1	2.36	0.40
1:A2:1488:G:H2'	1:A2:1515:A:N6	2.37	0.40
11:BI:116:HIS:C	11:BI:117:TYR:N	2.74	0.40
13:BK:37:THR:HG22	13:BK:41:TYR:HB3	2.03	0.40
2:AZ:6206:G:C3'	2:AZ:6206:G:N3	2.83	0.40
12:BJ:56:ALA:O	12:BJ:60:LEU:HD23	2.21	0.40
7:BE:120:SER:C	7:BE:164:LEU:HD23	2.41	0.40
12:BJ:30:LEU:O	12:BJ:34:PHE:N	2.54	0.40
20:BR:70:SER:C	20:BR:71:PHE:N	2.75	0.40
2:AZ:6047:A:N6	2:AZ:6070:A:H2	2.19	0.40
27:BY:78:SER:OG	27:BY:81:GLU:OE1	2.40	0.40
13:BK:30:ALA:C	13:BK:31:ALA:HB2	2.42	0.40
1:A2:783:G:N1	27:BY:40:LEU:HD23	2.36	0.40
1:A2:81:G:N2	1:A2:82:U:H1'	2.37	0.40
1:A2:1103:U:H4'	26:BX:15:LEU:HD21	1.99	0.40
25:BW:89:TRP:N	25:BW:90:THR:N	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:213:A:H3'	7:BE:132:GLY:C	2.41	0.40
1:A2:1535:U:H5'	28:BZ:67:ASP:CA	2.51	0.40
8:BF:190:ILE:N	8:BF:190:ILE:HD13	2.37	0.40
1:A2:1508:U:H2'	1:A2:1509:C:C6	2.57	0.40
22:BT:100:ILE:O	22:BT:103:LYS:N	2.54	0.40
2:AZ:6111:G:OP1	8:BF:215:ASP:HB3	2.22	0.40
8:BF:58:LEU:HD12	8:BF:138:THR:CB	2.52	0.40
8:BF:58:LEU:N	8:BF:59:VAL:N	2.70	0.40
1:A2:891:A:H2'	1:A2:892:A:O4'	2.22	0.40
1:A2:919:A:H4'	4:BB:83:LYS:NZ	2.37	0.40
1:A2:955:A:C2	1:A2:956:C:N1	2.90	0.40
3:BA:132:ALA:HB1	3:BA:143:VAL:CG1	2.51	0.40
3:BA:174:TRP:C	3:BA:176:LEU:N	2.74	0.40
3:BA:36:TYR:CG	3:BA:159:ALA:CB	3.04	0.40
20:BR:110:VAL:HG13	20:BR:113:LEU:CG	2.52	0.40
1:A2:1137:A:OP2	26:BX:62:LYS:HE2	2.21	0.40
1:A2:1356:U:H2'	1:A2:1357:A:C8	2.56	0.40
19:BQ:7:VAL:O	19:BQ:8:GLN:N	2.55	0.40
1:A2:512:A:C2	1:A2:513:U:O2	2.74	0.40
1:A2:1639:C:H2'	1:A2:1640:C:O4'	2.22	0.40
1:A2:1220:C:HO3'	1:A2:1221:A:P	2.44	0.40
2:AZ:6117:C:H4'	2:AZ:6118:G:H4'	2.04	0.40
2:AZ:6158:G:H2'	2:AZ:6159:C:O5'	2.21	0.40
9:BG:50:PHE:HD2	9:BG:111:LEU:HD13	1.86	0.40
4:BB:147:ALA:C	4:BB:148:ASN:HD22	2.25	0.40
10:BH:12:ALA:CB	10:BH:13:PRO:CD	2.99	0.40
12:BJ:109:LEU:O	12:BJ:112:GLN:N	2.54	0.40
1:A2:478:A:C6	1:A2:479:C:C4	3.09	0.40
9:BG:197:ASN:O	9:BG:200:ALA:HB3	2.22	0.40
12:BJ:100:LYS:O	12:BJ:101:VAL:C	2.59	0.40
6:BD:132:LYS:HE3	6:BD:192:PRO:HD2	2.03	0.40
24:BV:40:ASP:O	24:BV:42:GLU:N	2.54	0.40
1:A2:786:C:C5	27:BY:71:GLY:CA	3.04	0.40
27:BY:74:LEU:HA	27:BY:74:LEU:HD23	1.93	0.40
1:A2:1719:A:H2'	9:BG:65:GLN:HB3	2.04	0.40
1:A2:394:C:C5'	9:BG:76:LEU:CD2	3.00	0.40
1:A2:638:U:C2	25:BW:107:SER:CA	3.05	0.40
1:A2:1037:C:H3'	25:BW:15:ASN:HB3	1.99	0.40
1:A2:1293:U:OP2	5:BC:123:GLY:HA2	2.21	0.40
5:BC:128:GLY:O	5:BC:131:ILE:N	2.54	0.40
1:A2:735:C:O4'	7:BE:193:GLY:CA	2.70	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A2:704:C:C2	7:BE:231:GLN:CA	2.79	0.40
1:A2:1457:C:C2	21:BS:132:ARG:O	2.74	0.40
1:A2:1242:A:P	18:BP:107:ILE:HG21	2.59	0.40
1:A2:1547:A:OP1	21:BS:108:LYS:C	2.48	0.40
8:BF:59:VAL:O	8:BF:60:ASP:HB2	2.21	0.40
3:BA:103:THR:HB	3:BA:106:SER:CB	2.51	0.40
3:BA:70:PRO:HB2	3:BA:94:GLY:HA3	2.03	0.40
1:A2:955:A:C8	16:BN:9:LYS:O	2.74	0.40
17:BO:30:VAL:HG13	17:BO:39:ILE:HG13	2.03	0.40
17:BO:31:THR:HG22	17:BO:38:THR:HA	2.03	0.40
1:A2:597:G:N2	26:BX:135:LEU:CA	2.84	0.40
1:A2:322:G:H1'	11:BI:9:HIS:CD2	2.56	0.40
1:A2:336:G:H1'	11:BI:6:ASP:CG	2.41	0.40
1:A2:1384:A:C8	1:A2:1385:G:C8	3.09	0.40
23:BU:78:THR:O	23:BU:79:TRP:N	2.55	0.40
1:A2:47:A:C8	1:A2:425:A:C5	3.10	0.40
1:A2:555:A:C6	1:A2:556:A:N1	2.90	0.40
16:BN:70:LYS:O	16:BN:71:ILE:C	2.60	0.40
10:BH:113:PRO:O	10:BH:114:ARG:C	2.60	0.40
15:BM:58:LEU:HD23	15:BM:123:VAL:O	2.21	0.40
1:A2:257:A:C5	1:A2:258:C:C5	3.09	0.40
1:A2:1216:C:H2'	1:A2:1444:A:N1	2.37	0.40
1:A2:1342:C:C2'	1:A2:1342:C:O2	2.69	0.40
2:AZ:6213:A:H2'	2:AZ:6214:C:O4'	2.21	0.40
24:BV:23:ILE:CG2	24:BV:24:ILE:N	2.85	0.40
1:A2:1010:C:C4	1:A2:1011:G:C5	3.10	0.40
16:BN:89:TYR:O	16:BN:89:TYR:CG	2.75	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	
3	BA	129/206 (63%)	60 (46%)	39 (30%)	30 (23%)	0	1
4	BB	118/213 (55%)	88 (75%)	17 (14%)	13 (11%)	0	10
5	BC	136/216 (63%)	84 (62%)	31 (23%)	21 (15%)	0	5
6	BD	116/222 (52%)	83 (72%)	17 (15%)	16 (14%)	0	6
7	BE	143/260 (55%)	100 (70%)	26 (18%)	17 (12%)	0	8
8	BF	116/206 (56%)	81 (70%)	20 (17%)	15 (13%)	0	7
9	BG	141/226 (62%)	88 (62%)	32 (23%)	21 (15%)	0	5
10	BH	100/184 (54%)	61 (61%)	22 (22%)	17 (17%)	0	4
11	BI	87/187 (46%)	51 (59%)	22 (25%)	14 (16%)	0	5
12	BJ	101/179 (56%)	58 (57%)	27 (27%)	16 (16%)	0	5
13	BK	48/93 (52%)	29 (60%)	9 (19%)	10 (21%)	0	2
14	BL	85/142 (60%)	53 (62%)	25 (29%)	7 (8%)	1	17
15	BM	63/120 (52%)	36 (57%)	20 (32%)	7 (11%)	0	10
16	BN	97/150 (65%)	62 (64%)	22 (23%)	13 (13%)	0	6
17	BO	84/127 (66%)	58 (69%)	16 (19%)	10 (12%)	0	8
18	BP	60/115 (52%)	40 (67%)	14 (23%)	6 (10%)	1	12
19	BQ	85/140 (61%)	56 (66%)	19 (22%)	10 (12%)	0	8
20	BR	59/121 (49%)	45 (76%)	9 (15%)	5 (8%)	1	16
21	BS	89/140 (64%)	61 (68%)	13 (15%)	15 (17%)	0	4
22	BT	72/142 (51%)	47 (65%)	14 (19%)	11 (15%)	0	5
23	BU	57/104 (55%)	38 (67%)	12 (21%)	7 (12%)	0	8
24	BV	53/87 (61%)	38 (72%)	10 (19%)	5 (9%)	1	14
25	BW	58/129 (45%)	41 (71%)	11 (19%)	6 (10%)	1	12
26	BX	70/142 (49%)	49 (70%)	12 (17%)	9 (13%)	0	7
27	BY	77/134 (58%)	55 (71%)	15 (20%)	7 (9%)	1	15
28	BZ	37/64 (58%)	22 (60%)	9 (24%)	6 (16%)	0	5
29	Ba	51/97 (53%)	29 (57%)	12 (24%)	10 (20%)	0	3
30	Bb	38/81 (47%)	24 (63%)	11 (29%)	3 (8%)	1	18
31	Bc	38/63 (60%)	29 (76%)	7 (18%)	2 (5%)	2	29
32	Bd	25/52 (48%)	15 (60%)	8 (32%)	2 (8%)	1	18
33	Be	33/55 (60%)	16 (48%)	12 (36%)	5 (15%)	0	5
34	Bf	45/64 (70%)	18 (40%)	14 (31%)	13 (29%)	0	0

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
35	Bg	170/315 (54%)	115 (68%)	38 (22%)	17 (10%)	1	12
All	All	2681/4776 (56%)	1730 (64%)	585 (22%)	366 (14%)	1	6

All (366) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	BA	27	ARG
3	BA	43	ASP
3	BA	50	VAL
3	BA	121	VAL
3	BA	122	ILE
3	BA	129	ASP
3	BA	140	ASN
3	BA	150	ASP
3	BA	175	TYR
3	BA	194	PRO
3	BA	195	TRP
4	BB	30	PHE
4	BB	91	VAL
4	BB	92	GLN
4	BB	158	SER
4	BB	225	VAL
5	BC	37	PRO
5	BC	91	ARG
5	BC	109	GLY
5	BC	126	ARG
5	BC	150	GLN
5	BC	174	ARG
5	BC	179	VAL
5	BC	196	VAL
5	BC	220	ASN
5	BC	236	PRO
6	BD	123	VAL
6	BD	163	PRO
6	BD	178	ARG
6	BD	179	GLN
6	BD	211	PRO
6	BD	217	ILE
6	BD	220	PRO
7	BE	22	LYS
7	BE	76	VAL
7	BE	120	SER

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Mol	Chain	Res	Type
7	BE	177	ALA
7	BE	205	PHE
8	BF	62	VAL
8	BF	67	PRO
8	BF	144	GLU
8	BF	206	SER
9	BG	8	PRO
9	BG	80	ASN
9	BG	88	ARG
9	BG	102	VAL
9	BG	133	LEU
9	BG	135	PRO
9	BG	177	ARG
9	BG	189	HIS
10	BH	12	ALA
10	BH	58	LEU
10	BH	64	VAL
10	BH	114	ARG
10	BH	131	PHE
10	BH	152	VAL
11	BI	10	LYS
11	BI	32	GLN
11	BI	61	GLU
11	BI	86	SER
11	BI	186	GLY
11	BI	197	THR
12	BJ	18	PRO
12	BJ	37	LYS
12	BJ	91	LYS
12	BJ	118	LEU
12	BJ	150	LEU
13	BK	68	LEU
13	BK	81	ASN
13	BK	83	PRO
14	BL	30	ARG
14	BL	53	TYR
14	BL	55	ASP
14	BL	135	VAL
15	BM	106	ILE
16	BN	3	ARG
16	BN	22	ALA
16	BN	43	LYS

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Mol	Chain	Res	Type
16	BN	71	ILE
16	BN	131	THR
17	BO	114	ARG
17	BO	125	SER
18	BP	39	ALA
19	BQ	45	ALA
19	BQ	113	ASP
20	BR	88	VAL
20	BR	99	VAL
21	BS	29	VAL
21	BS	40	ARG
21	BS	60	GLU
21	BS	76	PRO
21	BS	80	LYS
21	BS	139	LYS
22	BT	69	LYS
22	BT	83	ALA
23	BU	95	ALA
23	BU	96	PRO
24	BV	58	TYR
24	BV	64	GLU
25	BW	8	ALA
25	BW	28	ARG
25	BW	33	VAL
26	BX	3	LYS
26	BX	27	ASN
26	BX	98	GLU
28	BZ	75	LEU
29	Ba	11	ASN
29	Ba	34	LYS
29	Ba	44	ILE
29	Ba	63	ALA
29	Ba	65	PRO
29	Ba	66	LYS
30	Bb	63	LEU
32	Bd	34	TYR
33	Be	13	LYS
33	Be	48	THR
34	Bf	94	ALA
34	Bf	101	ALA
34	Bf	121	CYS
34	Bf	130	VAL

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Mol	Chain	Res	Type
34	Bf	137	ASP
34	Bf	145	HIS
34	Bf	147	VAL
34	Bf	151	ASN
35	Bg	5	GLU
35	Bg	84	SER
35	Bg	165	ASP
35	Bg	186	PHE
35	Bg	195	HIS
35	Bg	197	SER
35	Bg	267	PRO
35	Bg	283	LYS
3	BA	62	ARG
3	BA	63	ILE
3	BA	94	GLY
3	BA	113	ARG
3	BA	157	ASP
3	BA	169	SER
3	BA	185	ARG
5	BC	68	ILE
5	BC	76	LEU
5	BC	146	THR
5	BC	147	ASN
5	BC	175	GLY
5	BC	234	PRO
6	BD	9	ARG
6	BD	26	THR
6	BD	44	THR
6	BD	130	GLY
6	BD	167	PHE
7	BE	21	ASP
7	BE	32	SER
7	BE	53	LYS
7	BE	102	VAL
7	BE	248	ILE
8	BF	30	PRO
8	BF	60	ASP
8	BF	98	MET
8	BF	104	ASN
8	BF	196	GLU
9	BG	71	THR
9	BG	158	ILE

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Mol	Chain	Res	Type
9	BG	167	LYS
9	BG	178	LEU
9	BG	183	ARG
9	BG	185	GLN
9	BG	215	ARG
10	BH	126	LEU
11	BI	41	LYS
11	BI	106	ALA
11	BI	115	ALA
12	BJ	59	LEU
12	BJ	128	LEU
12	BJ	171	ARG
13	BK	3	MET
13	BK	42	VAL
13	BK	43	ILE
13	BK	64	TYR
15	BM	69	ALA
15	BM	131	ASP
16	BN	12	SER
16	BN	32	SER
16	BN	44	GLY
16	BN	59	GLY
16	BN	93	LYS
17	BO	40	ALA
17	BO	48	VAL
17	BO	124	ASP
19	BQ	99	GLU
19	BQ	109	PHE
19	BQ	111	SER
21	BS	28	ILE
21	BS	37	GLY
21	BS	78	HIS
21	BS	101	LEU
22	BT	26	GLY
22	BT	125	SER
22	BT	128	GLY
24	BV	3	ASN
24	BV	28	ASP
25	BW	19	LYS
25	BW	107	SER
26	BX	24	TRP
26	BX	67	ALA

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Mol	Chain	Res	Type
27	BY	53	ASP
31	Bc	42	ARG
33	Be	11	ALA
35	Bg	6	VAL
3	BA	139	VAL
3	BA	142	PRO
3	BA	148	ASP
4	BB	51	SER
4	BB	201	THR
5	BC	217	ALA
5	BC	231	ALA
6	BD	218	LEU
7	BE	43	PRO
7	BE	170	THR
7	BE	223	ASN
7	BE	245	LYS
8	BF	84	LYS
9	BG	21	GLU
9	BG	35	GLU
9	BG	188	ARG
10	BH	44	LYS
10	BH	115	SER
10	BH	169	PHE
11	BI	67	TRP
12	BJ	110	GLN
12	BJ	165	GLY
13	BK	40	LEU
13	BK	67	THR
15	BM	31	VAL
15	BM	46	ARG
15	BM	108	ARG
16	BN	137	PRO
17	BO	52	ARG
18	BP	29	SER
18	BP	32	ASP
19	BQ	40	GLU
19	BQ	112	TYR
21	BS	91	ASP
21	BS	140	THR
22	BT	31	PRO
23	BU	55	PRO
24	BV	77	GLY

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Mol	Chain	Res	Type
27	BY	33	ALA
28	BZ	55	PRO
28	BZ	95	HIS
29	Ba	7	SER
29	Ba	33	ASP
29	Ba	93	LYS
30	Bb	10	PRO
35	Bg	298	GLY
3	BA	134	LYS
4	BB	55	LYS
5	BC	235	LEU
6	BD	174	HIS
7	BE	164	LEU
8	BF	65	ALA
8	BF	126	ASP
8	BF	165	LEU
10	BH	134	GLU
10	BH	158	ASP
10	BH	174	ASN
11	BI	24	LYS
12	BJ	85	VAL
14	BL	132	SER
14	BL	134	THR
16	BN	123	HIS
17	BO	17	ALA
17	BO	74	VAL
18	BP	80	MET
19	BQ	15	SER
20	BR	10	LYS
20	BR	96	SER
20	BR	116	LYS
23	BU	92	ASP
26	BX	94	ASN
27	BY	54	ALA
28	BZ	61	SER
28	BZ	87	GLY
28	BZ	88	ILE
34	Bf	111	GLU
34	Bf	122	SER
35	Bg	82	SER
35	Bg	83	ALA
35	Bg	158	PRO

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Mol	Chain	Res	Type
35	Bg	163	ASP
35	Bg	317	THR
3	BA	10	THR
3	BA	35	PRO
3	BA	68	PRO
3	BA	78	SER
3	BA	162	CYS
3	BA	172	LEU
4	BB	35	PRO
4	BB	54	LEU
4	BB	82	ARG
5	BC	36	VAL
5	BC	163	GLY
6	BD	219	ALA
7	BE	178	GLY
8	BF	36	ALA
9	BG	155	ASP
10	BH	127	GLU
11	BI	156	VAL
12	BJ	119	ALA
13	BK	28	ASN
15	BM	109	GLU
16	BN	40	TYR
17	BO	20	TYR
17	BO	96	PRO
18	BP	125	PRO
19	BQ	34	SER
19	BQ	39	VAL
21	BS	97	ASP
22	BT	46	PRO
22	BT	65	ILE
26	BX	95	PHE
27	BY	105	ARG
30	Bb	16	ALA
31	Bc	36	THR
4	BB	22	ASP
8	BF	42	LEU
12	BJ	4	ALA
12	BJ	65	LYS
14	BL	81	HIS
21	BS	82	PRO
22	BT	81	GLY

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Mol	Chain	Res	Type
22	BT	91	TYR
27	BY	67	GLY
27	BY	78	SER
29	Ba	69	ASN
32	Bd	49	ASP
33	Be	60	PRO
34	Bf	102	VAL
34	Bf	146	SER
3	BA	98	ILE
7	BE	195	ILE
9	BG	130	PRO
11	BI	107	THR
21	BS	92	ILE
23	BU	91	ILE
23	BU	117	VAL
35	Bg	30	PRO
3	BA	111	ILE
6	BD	210	GLU
12	BJ	101	VAL
18	BP	52	LYS
23	BU	59	PRO
25	BW	29	PRO
27	BY	30	PRO
33	Be	27	PRO
10	BH	73	VAL
26	BX	42	PRO
10	BH	54	GLY
10	BH	130	VAL
11	BI	85	PRO
12	BJ	73	GLY
22	BT	112	GLY
34	Bf	129	GLY
35	Bg	167	VAL
4	BB	48	VAL
9	BG	173	PRO
26	BX	64	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
3	BA	164/173 (95%)	117 (71%)	47 (29%)	0	4
4	BB	187/187 (100%)	142 (76%)	45 (24%)	1	7
5	BC	175/175 (100%)	156 (89%)	19 (11%)	8	40
6	BD	182/182 (100%)	148 (81%)	34 (19%)	2	14
7	BE	221/221 (100%)	178 (80%)	43 (20%)	2	12
8	BF	172/172 (100%)	131 (76%)	41 (24%)	1	7
9	BG	185/191 (97%)	138 (75%)	47 (25%)	1	6
10	BH	165/165 (100%)	138 (84%)	27 (16%)	3	20
11	BI	149/149 (100%)	105 (70%)	44 (30%)	0	4
12	BJ	154/154 (100%)	126 (82%)	28 (18%)	2	15
13	BK	80/84 (95%)	62 (78%)	18 (22%)	1	8
14	BL	127/127 (100%)	100 (79%)	27 (21%)	1	9
15	BM	88/97 (91%)	67 (76%)	21 (24%)	1	7
16	BN	127/127 (100%)	104 (82%)	23 (18%)	2	15
17	BO	84/96 (88%)	62 (74%)	22 (26%)	0	5
18	BP	97/97 (100%)	81 (84%)	16 (16%)	3	20
19	BQ	114/114 (100%)	80 (70%)	34 (30%)	0	3
20	BR	94/109 (86%)	71 (76%)	23 (24%)	1	7
21	BS	125/125 (100%)	96 (77%)	29 (23%)	1	8
22	BT	114/114 (100%)	94 (82%)	20 (18%)	2	17
23	BU	97/97 (100%)	77 (79%)	20 (21%)	1	10
24	BV	74/74 (100%)	62 (84%)	12 (16%)	3	21
25	BW	110/110 (100%)	97 (88%)	13 (12%)	6	36
26	BX	116/116 (100%)	101 (87%)	15 (13%)	5	32
27	BY	112/112 (100%)	94 (84%)	18 (16%)	3	22
28	BZ	57/57 (100%)	42 (74%)	15 (26%)	0	5
29	Ba	83/83 (100%)	65 (78%)	18 (22%)	1	9
30	Bb	70/70 (100%)	56 (80%)	14 (20%)	1	11
31	Bc	56/56 (100%)	44 (79%)	12 (21%)	1	9
32	Bd	46/46 (100%)	33 (72%)	13 (28%)	0	4

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
33	Be	48/48 (100%)	38 (79%)	10 (21%)	1	10
34	Bf	43/43 (100%)	31 (72%)	12 (28%)	0	4
35	Bg	257/259 (99%)	208 (81%)	49 (19%)	2	13
All	All	3973/4030 (99%)	3144 (79%)	829 (21%)	4	10

All (829) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	BA	6	THR
3	BA	8	ASP
3	BA	12	GLU
3	BA	23	HIS
3	BA	24	LEU
3	BA	27	ARG
3	BA	28	ASN
3	BA	29	VAL
3	BA	32	HIS
3	BA	37	VAL
3	BA	38	PHE
3	BA	41	ARG
3	BA	43	ASP
3	BA	45	VAL
3	BA	57	LEU
3	BA	71	GLU
3	BA	74	VAL
3	BA	84	ARG
3	BA	88	LYS
3	BA	93	THR
3	BA	96	THR
3	BA	98	ILE
3	BA	101	ARG
3	BA	102	PHE
3	BA	106	SER
3	BA	110	TYR
3	BA	111	ILE
3	BA	119	ARG
3	BA	120	LEU
3	BA	121	VAL
3	BA	129	ASP
3	BA	133	ILE
3	BA	137	SER

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Mol	Chain	Res	Type
3	BA	139	VAL
3	BA	146	LEU
3	BA	150	ASP
3	BA	154	GLU
3	BA	158	VAL
3	BA	164	ASN
3	BA	170	ILE
3	BA	172	LEU
3	BA	175	TYR
3	BA	184	LEU
3	BA	185	ARG
3	BA	188	LEU
3	BA	197	ILE
3	BA	203	PHE
4	BB	21	VAL
4	BB	25	THR
4	BB	26	ARG
4	BB	27	LYS
4	BB	39	GLU
4	BB	52	THR
4	BB	69	CYS
4	BB	70	LEU
4	BB	74	GLN
4	BB	77	GLU
4	BB	78	ASP
4	BB	82	ARG
4	BB	92	GLN
4	BB	96	LEU
4	BB	106	THR
4	BB	107	THR
4	BB	108	ASP
4	BB	109	LYS
4	BB	115	ARG
4	BB	117	TRP
4	BB	118	GLN
4	BB	126	THR
4	BB	128	LYS
4	BB	129	THR
4	BB	131	ASP
4	BB	148	ASN
4	BB	153	HIS
4	BB	166	LYS

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Mol	Chain	Res	Type
4	BB	167	VAL
4	BB	171	ILE
4	BB	180	THR
4	BB	181	LEU
4	BB	195	LYS
4	BB	196	GLU
4	BB	202	LYS
4	BB	212	VAL
4	BB	213	ARG
4	BB	214	LYS
4	BB	215	VAL
4	BB	219	LYS
4	BB	220	GLN
4	BB	222	LYS
4	BB	223	PHE
4	BB	224	ASP
4	BB	228	LEU
5	BC	38	VAL
5	BC	41	LEU
5	BC	53	ILE
5	BC	60	SER
5	BC	64	LYS
5	BC	68	ILE
5	BC	86	VAL
5	BC	104	VAL
5	BC	117	THR
5	BC	131	ILE
5	BC	140	ARG
5	BC	141	ARG
5	BC	148	LEU
5	BC	159	THR
5	BC	164	SER
5	BC	195	ASP
5	BC	207	LEU
5	BC	240	LEU
5	BC	241	ASP
6	BD	5	ILE
6	BD	18	TYR
6	BD	20	GLU
6	BD	21	LEU
6	BD	35	SER
6	BD	37	VAL

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Mol	Chain	Res	Type
6	BD	51	ARG
6	BD	53	THR
6	BD	59	LEU
6	BD	65	ARG
6	BD	72	LEU
6	BD	76	ARG
6	BD	84	ILE
6	BD	86	LEU
6	BD	94	ARG
6	BD	96	LEU
6	BD	103	GLU
6	BD	107	PHE
6	BD	111	ASN
6	BD	113	LEU
6	BD	120	TYR
6	BD	123	VAL
6	BD	128	GLU
6	BD	142	LEU
6	BD	156	PHE
6	BD	164	VAL
6	BD	170	THR
6	BD	174	HIS
6	BD	178	ARG
6	BD	196	ARG
6	BD	200	LYS
6	BD	202	LEU
6	BD	206	VAL
6	BD	223	LYS
7	BE	7	LYS
7	BE	8	HIS
7	BE	9	LEU
7	BE	17	HIS
7	BE	18	TRP
7	BE	19	LEU
7	BE	21	ASP
7	BE	30	ARG
7	BE	51	ARG
7	BE	52	LEU
7	BE	69	HIS
7	BE	88	ASP
7	BE	97	GLU
7	BE	100	ARG

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Mol	Chain	Res	Type
7	BE	104	ASP
7	BE	109	PHE
7	BE	123	LEU
7	BE	133	LYS
7	BE	141	THR
7	BE	145	ARG
7	BE	151	ASP
7	BE	155	LYS
7	BE	156	VAL
7	BE	163	ASP
7	BE	176	ASP
7	BE	184	THR
7	BE	187	ARG
7	BE	189	LEU
7	BE	197	HIS
7	BE	202	ASP
7	BE	208	VAL
7	BE	210	ILE
7	BE	211	LYS
7	BE	217	THR
7	BE	220	THR
7	BE	223	ASN
7	BE	224	ASN
7	BE	228	ILE
7	BE	230	GLU
7	BE	242	LYS
7	BE	252	ARG
7	BE	258	GLN
7	BE	261	LEU
8	BF	23	VAL
8	BF	35	GLN
8	BF	37	GLN
8	BF	38	THR
8	BF	41	LYS
8	BF	42	LEU
8	BF	43	PHE
8	BF	51	VAL
8	BF	54	LYS
8	BF	57	SER
8	BF	62	VAL
8	BF	63	GLN
8	BF	66	GLN

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Mol	Chain	Res	Type
8	BF	70	VAL
8	BF	73	THR
8	BF	76	ARG
8	BF	84	LYS
8	BF	86	GLN
8	BF	89	ILE
8	BF	94	THR
8	BF	106	LYS
8	BF	107	LYS
8	BF	108	LEU
8	BF	112	ARG
8	BF	115	LYS
8	BF	118	LEU
8	BF	119	ASP
8	BF	126	ASP
8	BF	143	ARG
8	BF	145	ASP
8	BF	147	THR
8	BF	149	VAL
8	BF	161	ASP
8	BF	165	LEU
8	BF	166	ARG
8	BF	190	ILE
8	BF	211	ILE
8	BF	212	LYS
8	BF	213	LYS
8	BF	219	ARG
8	BF	224	ASN
9	BG	13	GLN
9	BG	14	LYS
9	BG	15	THR
9	BG	18	ILE
9	BG	21	GLU
9	BG	22	HIS
9	BG	23	ARG
9	BG	24	ILE
9	BG	25	ARG
9	BG	29	ASP
9	BG	37	ASP
9	BG	45	PHE
9	BG	48	TYR
9	BG	53	SER

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Mol	Chain	Res	Type
9	BG	56	ASN
9	BG	57	ASP
9	BG	68	LEU
9	BG	71	THR
9	BG	75	LEU
9	BG	76	LEU
9	BG	80	ASN
9	BG	81	VAL
9	BG	98	ARG
9	BG	102	VAL
9	BG	115	LYS
9	BG	124	LEU
9	BG	133	LEU
9	BG	142	ARG
9	BG	143	LYS
9	BG	148	SER
9	BG	154	ARG
9	BG	155	ASP
9	BG	159	ARG
9	BG	168	THR
9	BG	174	LYS
9	BG	183	ARG
9	BG	185	GLN
9	BG	188	ARG
9	BG	193	LEU
9	BG	196	ARG
9	BG	203	GLU
9	BG	210	GLN
9	BG	211	LEU
9	BG	212	LEU
9	BG	216	LEU
9	BG	218	GLU
9	BG	223	LYS
10	BH	7	LYS
10	BH	22	GLN
10	BH	38	LEU
10	BH	39	ARG
10	BH	51	VAL
10	BH	56	LYS
10	BH	60	ILE
10	BH	66	SER
10	BH	67	LEU

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Mol	Chain	Res	Type
10	BH	71	HIS
10	BH	72	LYS
10	BH	75	THR
10	BH	78	THR
10	BH	91	ILE
10	BH	93	LEU
10	BH	95	GLU
10	BH	111	LYS
10	BH	129	LEU
10	BH	131	PHE
10	BH	136	VAL
10	BH	147	ASN
10	BH	154	LEU
10	BH	158	ASP
10	BH	162	ILE
10	BH	175	LYS
10	BH	176	LEU
10	BH	180	GLN
11	BI	3	ILE
11	BI	6	ASP
11	BI	17	LYS
11	BI	20	GLN
11	BI	21	PHE
11	BI	27	PHE
11	BI	28	GLU
11	BI	29	LEU
11	BI	35	ASN
11	BI	37	LYS
11	BI	38	ILE
11	BI	42	ARG
11	BI	47	ARG
11	BI	56	ARG
11	BI	58	LEU
11	BI	64	ASN
11	BI	70	GLU
11	BI	73	SER
11	BI	77	ARG
11	BI	92	ARG
11	BI	95	THR
11	BI	96	LEU
11	BI	98	LYS
11	BI	107	THR

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Mol	Chain	Res	Type
11	BI	111	GLN
11	BI	112	TRP
11	BI	119	GLN
11	BI	120	THR
11	BI	143	TRP
11	BI	146	ARG
11	BI	155	SER
11	BI	158	SER
11	BI	161	SER
11	BI	164	ARG
11	BI	165	LEU
11	BI	166	TYR
11	BI	168	CYS
11	BI	171	SER
11	BI	178	ARG
11	BI	182	TYR
11	BI	184	LEU
11	BI	194	ARG
11	BI	195	ARG
11	BI	197	THR
12	BJ	6	ARG
12	BJ	10	LYS
12	BJ	28	LEU
12	BJ	46	SER
12	BJ	53	ARG
12	BJ	54	ARG
12	BJ	60	LEU
12	BJ	62	ARG
12	BJ	69	ARG
12	BJ	77	ILE
12	BJ	78	ARG
12	BJ	83	VAL
12	BJ	90	LYS
12	BJ	91	LYS
12	BJ	96	VAL
12	BJ	100	LYS
12	BJ	102	GLU
12	BJ	106	GLU
12	BJ	116	LEU
12	BJ	118	LEU
12	BJ	134	ILE
12	BJ	138	LYS

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Mol	Chain	Res	Type
12	BJ	139	GLN
12	BJ	149	ARG
12	BJ	151	ASP
12	BJ	161	THR
12	BJ	172	VAL
12	BJ	179	ARG
13	BK	5	LYS
13	BK	10	LYS
13	BK	14	TYR
13	BK	22	VAL
13	BK	24	LYS
13	BK	27	PHE
13	BK	35	ILE
13	BK	37	THR
13	BK	52	LYS
13	BK	55	VAL
13	BK	68	LEU
13	BK	71	GLU
13	BK	74	GLU
13	BK	75	TYR
13	BK	80	LEU
13	BK	81	ASN
13	BK	86	ILE
13	BK	87	VAL
14	BL	5	LEU
14	BL	7	VAL
14	BL	10	GLU
14	BL	27	THR
14	BL	28	SER
14	BL	30	ARG
14	BL	31	THR
14	BL	34	TRP
14	BL	36	LYS
14	BL	40	LEU
14	BL	50	GLU
14	BL	55	ASP
14	BL	63	LEU
14	BL	67	ARG
14	BL	69	LYS
14	BL	71	LEU
14	BL	74	THR
14	BL	78	THR

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Mol	Chain	Res	Type
14	BL	87	ARG
14	BL	98	ASN
14	BL	102	LYS
14	BL	107	VAL
14	BL	121	ASP
14	BL	134	THR
14	BL	135	VAL
14	BL	136	ARG
14	BL	140	VAL
15	BM	29	LYS
15	BM	43	ARG
15	BM	46	ARG
15	BM	52	LEU
15	BM	58	LEU
15	BM	59	LEU
15	BM	62	LEU
15	BM	64	SER
15	BM	67	THR
15	BM	71	ILE
15	BM	73	LYS
15	BM	74	LEU
15	BM	81	ASP
15	BM	86	VAL
15	BM	88	LEU
15	BM	97	LEU
15	BM	99	GLU
15	BM	100	TRP
15	BM	103	LEU
15	BM	125	ASN
15	BM	131	ASP
16	BN	3	ARG
16	BN	4	MET
16	BN	11	ILE
16	BN	27	LYS
16	BN	29	SER
16	BN	39	LYS
16	BN	42	ARG
16	BN	46	THR
16	BN	50	ILE
16	BN	56	ASP
16	BN	64	ARG
16	BN	66	ILE

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Mol	Chain	Res	Type
16	BN	76	LYS
16	BN	77	SER
16	BN	92	ILE
16	BN	97	SER
16	BN	105	ASN
16	BN	109	LYS
16	BN	118	ILE
16	BN	125	LEU
16	BN	131	THR
16	BN	140	LYS
16	BN	150	VAL
17	BO	12	GLN
17	BO	19	ILE
17	BO	25	ASP
17	BO	38	THR
17	BO	39	ILE
17	BO	43	THR
17	BO	51	ASP
17	BO	53	ASP
17	BO	56	SER
17	BO	77	THR
17	BO	81	VAL
17	BO	83	ILE
17	BO	86	THR
17	BO	92	LYS
17	BO	102	LEU
17	BO	105	LEU
17	BO	107	ARG
17	BO	114	ARG
17	BO	115	ILE
17	BO	117	ASP
17	BO	133	ARG
17	BO	136	ARG
18	BP	23	GLU
18	BP	24	LYS
18	BP	34	VAL
18	BP	45	PHE
18	BP	49	MET
18	BP	52	LYS
18	BP	60	LEU
18	BP	78	THR
18	BP	82	ASN

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Mol	Chain	Res	Type
18	BP	86	VAL
18	BP	90	ILE
18	BP	97	TYR
18	BP	102	PHE
18	BP	112	LEU
18	BP	116	LEU
18	BP	121	ILE
19	BQ	4	VAL
19	BQ	12	LYS
19	BQ	13	LYS
19	BQ	14	LYS
19	BQ	17	THR
19	BQ	28	LEU
19	BQ	30	LYS
19	BQ	32	ASN
19	BQ	37	THR
19	BQ	39	VAL
19	BQ	40	GLU
19	BQ	42	GLU
19	BQ	43	ILE
19	BQ	54	LEU
19	BQ	55	VAL
19	BQ	59	LYS
19	BQ	62	ASN
19	BQ	63	ILE
19	BQ	65	ILE
19	BQ	68	ARG
19	BQ	69	VAL
19	BQ	70	THR
19	BQ	74	HIS
19	BQ	77	GLN
19	BQ	87	LYS
19	BQ	92	TYR
19	BQ	94	GLN
19	BQ	95	LYS
19	BQ	107	LYS
19	BQ	112	TYR
19	BQ	118	ILE
19	BQ	123	ARG
19	BQ	137	ARG
19	BQ	141	SER
20	BR	5	ARG

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Mol	Chain	Res	Type
20	BR	7	LYS
20	BR	23	LYS
20	BR	26	LEU
20	BR	28	PHE
20	BR	38	ILE
20	BR	43	SER
20	BR	49	LYS
20	BR	60	ARG
20	BR	66	VAL
20	BR	69	ILE
20	BR	70	SER
20	BR	71	PHE
20	BR	72	LYS
20	BR	73	LEU
20	BR	75	GLU
20	BR	83	GLN
20	BR	87	GLU
20	BR	101	ASN
20	BR	106	THR
20	BR	113	LEU
20	BR	115	LEU
20	BR	119	LEU
21	BS	3	LEU
21	BS	5	VAL
21	BS	12	GLN
21	BS	14	ILE
21	BS	17	LEU
21	BS	19	ASN
21	BS	25	ASN
21	BS	40	ARG
21	BS	41	ARG
21	BS	52	VAL
21	BS	62	THR
21	BS	66	LEU
21	BS	71	GLN
21	BS	74	GLN
21	BS	81	ILE
21	BS	85	PHE
21	BS	91	ASP
21	BS	92	ILE
21	BS	98	TYR
21	BS	100	THR

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Mol	Chain	Res	Type
21	BS	101	LEU
21	BS	103	ASN
21	BS	105	VAL
21	BS	109	LEU
21	BS	110	ARG
21	BS	125	ILE
21	BS	129	TRP
21	BS	132	ARG
21	BS	141	THR
22	BT	15	ILE
22	BT	23	GLN
22	BT	25	GLN
22	BT	34	VAL
22	BT	40	SER
22	BT	41	SER
22	BT	45	MET
22	BT	51	GLU
22	BT	54	PHE
22	BT	57	ARG
22	BT	63	ARG
22	BT	69	LYS
22	BT	85	SER
22	BT	101	ASN
22	BT	104	VAL
22	BT	114	VAL
22	BT	126	GLU
22	BT	127	ASN
22	BT	130	ARG
22	BT	135	ILE
23	BU	21	LYS
23	BU	27	THR
23	BU	29	THR
23	BU	30	LYS
23	BU	36	ASN
23	BU	46	GLU
23	BU	50	LEU
23	BU	52	LYS
23	BU	63	LEU
23	BU	64	LYS
23	BU	66	SER
23	BU	70	THR
23	BU	85	ARG

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Mol	Chain	Res	Type
23	BU	89	ARG
23	BU	91	ILE
23	BU	93	LEU
23	BU	98	GLN
23	BU	103	ILE
23	BU	113	ASP
23	BU	115	GLU
24	BV	1	MET
24	BV	3	ASN
24	BV	20	THR
24	BV	21	ASN
24	BV	27	ASP
24	BV	50	TYR
24	BV	59	VAL
24	BV	64	GLU
24	BV	67	ASP
24	BV	75	ASN
24	BV	79	LEU
24	BV	81	ASN
25	BW	12	ASN
25	BW	24	GLN
25	BW	36	LYS
25	BW	39	GLN
25	BW	65	LEU
25	BW	87	GLU
25	BW	93	LEU
25	BW	98	GLN
25	BW	103	ILE
25	BW	112	ASP
25	BW	117	ARG
25	BW	126	LEU
25	BW	130	TYR
26	BX	3	LYS
26	BX	7	ARG
26	BX	13	ARG
26	BX	19	ARG
26	BX	27	ASN
26	BX	46	SER
26	BX	56	LYS
26	BX	57	LEU
26	BX	93	LEU
26	BX	107	PHE

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Mol	Chain	Res	Type
26	BX	112	LYS
26	BX	114	LYS
26	BX	132	LEU
26	BX	133	LEU
26	BX	141	GLU
27	BY	7	ILE
27	BY	9	THR
27	BY	11	LYS
27	BY	26	ASP
27	BY	34	ASN
27	BY	40	LEU
27	BY	42	GLU
27	BY	55	VAL
27	BY	62	THR
27	BY	84	LYS
27	BY	88	THR
27	BY	99	LYS
27	BY	102	LYS
27	BY	119	PHE
27	BY	121	THR
27	BY	129	VAL
27	BY	132	ARG
27	BY	135	ASP
28	BZ	42	LEU
28	BZ	44	GLN
28	BZ	49	ARG
28	BZ	57	TYR
28	BZ	58	ARG
28	BZ	69	LEU
28	BZ	70	LYS
28	BZ	80	LEU
28	BZ	82	HIS
28	BZ	83	LEU
28	BZ	89	ILE
28	BZ	90	LYS
28	BZ	95	HIS
28	BZ	97	LYS
28	BZ	100	ILE
29	Ba	5	ARG
29	Ba	12	LYS
29	Ba	18	VAL
29	Ba	25	ASN

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Mol	Chain	Res	Type
29	Ba	26	CYS
29	Ba	34	LYS
29	Ba	37	LYS
29	Ba	41	ILE
29	Ba	44	ILE
29	Ba	52	ASP
29	Ba	67	THR
29	Ba	69	ASN
29	Ba	71	LEU
29	Ba	72	HIS
29	Ba	76	SER
29	Ba	82	ARG
29	Ba	84	VAL
29	Ba	85	ARG
30	Bb	3	LEU
30	Bb	4	VAL
30	Bb	14	SER
30	Bb	20	LYS
30	Bb	29	ARG
30	Bb	31	TYR
30	Bb	33	LEU
30	Bb	34	ASP
30	Bb	41	LEU
30	Bb	43	ILE
30	Bb	52	THR
30	Bb	77	THR
30	Bb	79	PHE
30	Bb	81	ARG
31	Bc	13	ILE
31	Bc	14	LYS
31	Bc	21	SER
31	Bc	29	ARG
31	Bc	33	LEU
31	Bc	35	ASP
31	Bc	36	THR
31	Bc	38	ARG
31	Bc	42	ARG
31	Bc	43	ASN
31	Bc	56	LEU
31	Bc	65	ARG
32	Bd	7	TRP
32	Bd	10	HIS

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Mol	Chain	Res	Type
32	Bd	24	CYS
32	Bd	27	HIS
32	Bd	28	THR
32	Bd	30	LEU
32	Bd	38	ILE
32	Bd	40	ARG
32	Bd	48	ASN
32	Bd	50	ILE
32	Bd	54	LYS
32	Bd	55	PHE
32	Bd	56	ARG
33	Be	20	LYS
33	Be	22	GLU
33	Be	23	LYS
33	Be	26	LYS
33	Be	28	LYS
33	Be	31	LYS
33	Be	40	TYR
33	Be	43	ARG
33	Be	44	PHE
33	Be	54	ARG
34	Bf	98	LYS
34	Bf	102	VAL
34	Bf	103	LEU
34	Bf	108	VAL
34	Bf	113	LYS
34	Bf	117	LEU
34	Bf	125	THR
34	Bf	132	LEU
34	Bf	138	ARG
34	Bf	140	TYR
34	Bf	146	SER
34	Bf	151	ASN
35	Bg	4	ASN
35	Bg	7	LEU
35	Bg	9	LEU
35	Bg	10	ARG
35	Bg	14	GLU
35	Bg	19	TRP
35	Bg	23	LEU
35	Bg	29	GLN
35	Bg	34	LEU

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Mol	Chain	Res	Type
35	Bg	37	SER
35	Bg	43	ILE
35	Bg	52	GLN
35	Bg	53	LYS
35	Bg	58	VAL
35	Bg	59	ARG
35	Bg	64	HIS
35	Bg	66	HIS
35	Bg	74	THR
35	Bg	81	LEU
35	Bg	89	LEU
35	Bg	98	GLU
35	Bg	100	TYR
35	Bg	114	ASP
35	Bg	117	LYS
35	Bg	123	ILE
35	Bg	131	ILE
35	Bg	136	ILE
35	Bg	137	LYS
35	Bg	152	SER
35	Bg	167	VAL
35	Bg	170	ILE
35	Bg	182	ASN
35	Bg	192	PHE
35	Bg	196	ASN
35	Bg	210	LEU
35	Bg	216	LYS
35	Bg	229	LYS
35	Bg	237	GLN
35	Bg	243	LEU
35	Bg	250	TYR
35	Bg	258	THR
35	Bg	260	ILE
35	Bg	268	GLN
35	Bg	269	TYR
35	Bg	270	LEU
35	Bg	273	ASP
35	Bg	310	ILE
35	Bg	312	VAL
35	Bg	315	VAL

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (96) such sidechains are listed below:

Mol	Chain	Res	Type
3	BA	21	ASN
3	BA	28	ASN
3	BA	33	GLN
3	BA	131	GLN
3	BA	163	ASN
4	BB	95	ASN
4	BB	124	ASN
4	BB	148	ASN
5	BC	89	GLN
5	BC	147	ASN
5	BC	228	ASN
6	BD	67	ASN
6	BD	74	GLN
6	BD	165	ASN
7	BE	17	HIS
7	BE	67	GLN
7	BE	223	ASN
8	BF	44	ASN
8	BF	63	GLN
8	BF	66	GLN
8	BF	95	ASN
8	BF	100	ASN
8	BF	131	GLN
8	BF	170	GLN
8	BF	186	ASN
9	BG	4	ASN
9	BG	13	GLN
9	BG	34	GLN
9	BG	56	ASN
9	BG	59	GLN
9	BG	80	ASN
9	BG	182	GLN
9	BG	185	GLN
10	BH	19	GLN
10	BH	147	ASN
10	BH	180	GLN
11	BI	35	ASN
11	BI	52	ASN
11	BI	64	ASN
11	BI	88	ASN
11	BI	111	GLN
11	BI	175	GLN
12	BJ	38	ASN

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Mol	Chain	Res	Type
12	BJ	131	GLN
13	BK	28	ASN
13	BK	47	GLN
13	BK	62	GLN
14	BL	92	HIS
14	BL	98	ASN
14	BL	104	HIS
14	BL	127	GLN
15	BM	139	HIS
16	BN	105	ASN
18	BP	79	HIS
18	BP	114	HIS
19	BQ	32	ASN
19	BQ	74	HIS
20	BR	31	ASN
20	BR	74	GLN
20	BR	83	GLN
21	BS	74	GLN
21	BS	137	HIS
22	BT	16	ASN
22	BT	23	GLN
22	BT	48	GLN
22	BT	70	GLN
22	BT	77	ASN
23	BU	48	HIS
24	BV	21	ASN
24	BV	35	ASN
24	BV	70	ASN
24	BV	75	ASN
25	BW	24	GLN
25	BW	39	GLN
25	BW	42	GLN
25	BW	56	HIS
25	BW	64	GLN
25	BW	70	ASN
26	BX	27	ASN
26	BX	75	GLN
27	BY	34	ASN
27	BY	107	GLN
27	BY	133	ASN
29	Ba	25	ASN
29	Ba	69	ASN

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Mol	Chain	Res	Type
31	Bc	27	GLN
32	Bd	27	HIS
32	Bd	48	ASN
34	Bf	145	HIS
35	Bg	29	GLN
35	Bg	64	HIS
35	Bg	66	HIS
35	Bg	159	ASN
35	Bg	185	GLN
35	Bg	196	ASN
35	Bg	288	HIS

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A2	1459/1767 (82%)	899 (61%)	316 (21%)
2	AZ	160/190 (84%)	128 (80%)	43 (26%)
All	All	1619/1957 (82%)	1027 (63%)	359 (22%)

All (1027) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A2	2	A
1	A2	3	U
1	A2	4	C
1	A2	6	G
1	A2	7	G
1	A2	8	U
1	A2	9	U
1	A2	10	G
1	A2	11	A
1	A2	13	C
1	A2	14	C
1	A2	16	G
1	A2	17	C
1	A2	18	C
1	A2	23	G
1	A2	25	C
1	A2	26	A
1	A2	27	U
1	A2	32	U

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Mol	Chain	Res	Type
1	A2	34	G
1	A2	38	C
1	A2	39	A
1	A2	40	A
1	A2	42	G
1	A2	43	A
1	A2	44	U
1	A2	46	A
1	A2	47	A
1	A2	48	G
1	A2	57	G
1	A2	61	A
1	A2	63	G
1	A2	68	A
1	A2	69	G
1	A2	73	U
1	A2	74	U
1	A2	75	U
1	A2	78	A
1	A2	80	A
1	A2	84	A
1	A2	87	C
1	A2	91	G
1	A2	94	U
1	A2	96	G
1	A2	97	C
1	A2	99	C
1	A2	100	A
1	A2	101	U
1	A2	103	A
1	A2	104	A
1	A2	105	A
1	A2	110	U
1	A2	114	C
1	A2	115	G
1	A2	116	U
1	A2	117	U
1	A2	119	A
1	A2	123	G
1	A2	125	U
1	A2	126	A
1	A2	127	G

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Mol	Chain	Res	Type
1	A2	128	U
1	A2	129	U
1	A2	130	C
1	A2	131	C
1	A2	133	U
1	A2	134	U
1	A2	136	C
1	A2	137	U
1	A2	139	C
1	A2	140	A
1	A2	141	U
1	A2	142	G
1	A2	143	G
1	A2	144	U
1	A2	147	A
1	A2	149	C
1	A2	150	U
1	A2	156	A
1	A2	158	U
1	A2	159	U
1	A2	160	C
1	A2	161	U
1	A2	162	A
1	A2	165	G
1	A2	166	C
1	A2	167	U
1	A2	169	A
1	A2	171	A
1	A2	173	A
1	A2	174	U
1	A2	177	U
1	A2	178	U
1	A2	181	A
1	A2	182	A
1	A2	184	C
1	A2	185	U
1	A2	188	A
1	A2	189	C
1	A2	190	C
1	A2	191	C
1	A2	192	U
1	A2	197	A

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Mol	Chain	Res	Type
1	A2	199	G
1	A2	200	A
1	A2	201	G
1	A2	202	A
1	A2	204	G
1	A2	209	U
1	A2	212	U
1	A2	213	A
1	A2	217	A
1	A2	218	A
1	A2	219	A
1	A2	221	A
1	A2	222	A
1	A2	223	U
1	A2	224	C
1	A2	225	A
1	A2	226	A
1	A2	227	U
1	A2	228	G
1	A2	229	U
1	A2	230	C
1	A2	231	U
1	A2	232	U
1	A2	233	C
1	A2	236	A
1	A2	237	C
1	A2	238	U
1	A2	240	U
1	A2	241	U
1	A2	246	G
1	A2	249	U
1	A2	254	A
1	A2	255	U
1	A2	257	A
1	A2	260	U
1	A2	264	G
1	A2	265	A
1	A2	266	A
1	A2	267	U
1	A2	271	A
1	A2	272	U
1	A2	275	C

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Mol	Chain	Res	Type
1	A2	276	C
1	A2	277	U
1	A2	278	U
1	A2	280	U
1	A2	283	U
1	A2	286	C
1	A2	287	G
1	A2	288	A
1	A2	293	U
1	A2	295	A
1	A2	296	U
1	A2	299	A
1	A2	300	A
1	A2	304	U
1	A2	307	G
1	A2	311	U
1	A2	312	A
1	A2	313	U
1	A2	314	C
1	A2	315	A
1	A2	316	A
1	A2	318	U
1	A2	319	U
1	A2	321	C
1	A2	323	A
1	A2	329	G
1	A2	330	G
1	A2	331	A
1	A2	333	A
1	A2	334	G
1	A2	337	G
1	A2	338	C
1	A2	343	C
1	A2	350	U
1	A2	351	C
1	A2	359	A
1	A2	360	A
1	A2	361	C
1	A2	362	G
1	A2	363	G
1	A2	367	A
1	A2	373	G

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Mol	Chain	Res	Type
1	A2	374	U
1	A2	375	U
1	A2	376	C
1	A2	377	G
1	A2	378	A
1	A2	380	U
1	A2	381	C
1	A2	386	G
1	A2	388	G
1	A2	391	A
1	A2	395	U
1	A2	396	G
1	A2	400	A
1	A2	401	A
1	A2	402	C
1	A2	403	G
1	A2	404	G
1	A2	406	U
1	A2	410	A
1	A2	414	C
1	A2	416	A
1	A2	417	A
1	A2	418	G
1	A2	419	G
1	A2	420	A
1	A2	423	G
1	A2	424	C
1	A2	427	C
1	A2	428	A
1	A2	429	G
1	A2	430	G
1	A2	431	C
1	A2	432	G
1	A2	434	G
1	A2	435	C
1	A2	438	A
1	A2	439	U
1	A2	441	A
1	A2	443	C
1	A2	444	C
1	A2	447	U
1	A2	454	U

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Mol	Chain	Res	Type
1	A2	455	C
1	A2	456	A
1	A2	461	G
1	A2	464	A
1	A2	468	A
1	A2	473	A
1	A2	475	A
1	A2	477	A
1	A2	478	A
1	A2	481	A
1	A2	482	U
1	A2	483	A
1	A2	484	C
1	A2	485	A
1	A2	486	G
1	A2	489	C
1	A2	492	A
1	A2	494	U
1	A2	495	C
1	A2	496	G
1	A2	497	G
1	A2	498	G
1	A2	499	U
1	A2	500	C
1	A2	503	G
1	A2	504	U
1	A2	505	A
1	A2	507	U
1	A2	508	U
1	A2	509	G
1	A2	510	G
1	A2	511	A
1	A2	512	A
1	A2	513	U
1	A2	515	A
1	A2	516	G
1	A2	518	A
1	A2	519	C
1	A2	520	A
1	A2	525	A
1	A2	528	U
1	A2	529	A

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Mol	Chain	Res	Type
1	A2	532	U
1	A2	533	U
1	A2	534	A
1	A2	535	A
1	A2	538	A
1	A2	540	G
1	A2	541	A
1	A2	542	A
1	A2	543	C
1	A2	544	A
1	A2	548	G
1	A2	551	G
1	A2	559	C
1	A2	560	U
1	A2	563	U
1	A2	564	G
1	A2	565	C
1	A2	568	G
1	A2	571	G
1	A2	572	C
1	A2	573	C
1	A2	574	G
1	A2	575	C
1	A2	577	G
1	A2	579	A
1	A2	580	A
1	A2	582	U
1	A2	586	G
1	A2	589	C
1	A2	593	U
1	A2	594	A
1	A2	597	G
1	A2	601	A
1	A2	603	U
1	A2	604	A
1	A2	606	A
1	A2	607	G
1	A2	608	U
1	A2	609	U
1	A2	610	G
1	A2	611	U
1	A2	613	G

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Mol	Chain	Res	Type
1	A2	617	U
1	A2	619	A
1	A2	620	A
1	A2	622	A
1	A2	624	G
1	A2	626	U
1	A2	628	G
1	A2	629	U
1	A2	634	G
1	A2	635	A
1	A2	638	U
1	A2	640	U
1	A2	641	G
1	A2	646	C
1	A2	647	G
1	A2	648	G
1	A2	650	U
1	A2	652	G
1	A2	653	C
1	A2	656	G
1	A2	657	U
1	A2	658	C
1	A2	681	U
1	A2	682	C
1	A2	684	A
1	A2	687	G
1	A2	688	G
1	A2	689	G
1	A2	690	G
1	A2	691	C
1	A2	694	U
1	A2	695	U
1	A2	696	C
1	A2	698	U
1	A2	703	G
1	A2	704	C
1	A2	706	A
1	A2	707	A
1	A2	708	C
1	A2	709	C
1	A2	710	U
1	A2	712	G

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Mol	Chain	Res	Type
1	A2	714	G
1	A2	715	U
1	A2	716	C
1	A2	717	C
1	A2	718	U
1	A2	719	U
1	A2	721	U
1	A2	722	G
1	A2	723	G
1	A2	725	U
1	A2	726	C
1	A2	727	U
1	A2	729	G
1	A2	730	G
1	A2	731	C
1	A2	732	G
1	A2	733	A
1	A2	734	A
1	A2	737	A
1	A2	738	G
1	A2	739	G
1	A2	741	C
1	A2	742	U
1	A2	743	U
1	A2	745	U
1	A2	749	U
1	A2	753	A
1	A2	754	A
1	A2	755	A
1	A2	759	U
1	A2	760	A
1	A2	761	G
1	A2	762	A
1	A2	764	U
1	A2	765	G
1	A2	766	U
1	A2	767	U
1	A2	773	C
1	A2	774	A
1	A2	775	G
1	A2	776	G
1	A2	777	C

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Mol	Chain	Res	Type
1	A2	778	G
1	A2	779	U
1	A2	780	A
1	A2	781	U
1	A2	785	U
1	A2	788	A
1	A2	789	A
1	A2	792	U
1	A2	794	U
1	A2	798	C
1	A2	802	G
1	A2	804	A
1	A2	807	A
1	A2	810	G
1	A2	811	A
1	A2	814	A
1	A2	817	A
1	A2	818	C
1	A2	820	U
1	A2	821	U
1	A2	822	U
1	A2	823	G
1	A2	824	G
1	A2	828	U
1	A2	831	U
1	A2	836	U
1	A2	841	U
1	A2	843	U
1	A2	845	G
1	A2	848	C
1	A2	850	A
1	A2	852	C
1	A2	853	G
1	A2	855	A
1	A2	856	A
1	A2	857	U
1	A2	860	U
1	A2	863	A
1	A2	864	U
1	A2	865	A
1	A2	866	G
1	A2	867	G

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Mol	Chain	Res	Type
1	A2	870	C
1	A2	874	C
1	A2	876	G
1	A2	880	C
1	A2	882	U
1	A2	884	A
1	A2	885	G
1	A2	887	A
1	A2	892	A
1	A2	896	U
1	A2	898	A
1	A2	903	U
1	A2	909	U
1	A2	913	G
1	A2	916	U
1	A2	917	U
1	A2	918	U
1	A2	919	A
1	A2	921	U
1	A2	922	G
1	A2	927	C
1	A2	928	U
1	A2	929	A
1	A2	930	A
1	A2	931	C
1	A2	933	A
1	A2	935	U
1	A2	938	G
1	A2	939	A
1	A2	940	A
1	A2	941	A
1	A2	942	G
1	A2	944	A
1	A2	945	U
1	A2	946	U
1	A2	949	C
1	A2	950	C
1	A2	956	C
1	A2	959	U
1	A2	960	U
1	A2	961	U
1	A2	969	C

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Mol	Chain	Res	Type
1	A2	970	A
1	A2	971	A
1	A2	972	G
1	A2	981	U
1	A2	982	U
1	A2	987	G
1	A2	990	C
1	A2	991	G
1	A2	992	A
1	A2	993	A
1	A2	996	U
1	A2	998	A
1	A2	1003	A
1	A2	1005	A
1	A2	1006	C
1	A2	1007	C
1	A2	1011	G
1	A2	1012	U
1	A2	1013	A
1	A2	1015	U
1	A2	1020	A
1	A2	1021	C
1	A2	1022	C
1	A2	1023	A
1	A2	1026	A
1	A2	1027	A
1	A2	1028	C
1	A2	1029	U
1	A2	1031	U
1	A2	1032	G
1	A2	1033	C
1	A2	1034	C
1	A2	1039	A
1	A2	1040	G
1	A2	1041	G
1	A2	1042	G
1	A2	1045	C
1	A2	1047	G
1	A2	1048	G
1	A2	1052	U
1	A2	1054	U
1	A2	1057	U

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Mol	Chain	Res	Type
1	A2	1058	U
1	A2	1059	U
1	A2	1060	U
1	A2	1061	A
1	A2	1063	U
1	A2	1066	C
1	A2	1071	U
1	A2	1074	G
1	A2	1075	C
1	A2	1078	C
1	A2	1079	U
1	A2	1082	C
1	A2	1087	A
1	A2	1089	U
1	A2	1091	A
1	A2	1092	A
1	A2	1095	U
1	A2	1096	C
1	A2	1097	U
1	A2	1098	U
1	A2	1100	G
1	A2	1101	G
1	A2	1103	U
1	A2	1104	U
1	A2	1105	C
1	A2	1106	U
1	A2	1107	G
1	A2	1108	G
1	A2	1109	G
1	A2	1111	G
1	A2	1113	A
1	A2	1120	U
1	A2	1121	C
1	A2	1122	G
1	A2	1124	A
1	A2	1126	G
1	A2	1131	A
1	A2	1132	A
1	A2	1138	A
1	A2	1140	G
1	A2	1142	A
1	A2	1145	U

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Mol	Chain	Res	Type
1	A2	1146	G
1	A2	1147	A
1	A2	1148	C
1	A2	1150	G
1	A2	1151	A
1	A2	1152	A
1	A2	1154	G
1	A2	1155	G
1	A2	1158	C
1	A2	1159	C
1	A2	1160	A
1	A2	1162	C
1	A2	1167	G
1	A2	1168	U
1	A2	1170	G
1	A2	1171	A
1	A2	1172	G
1	A2	1175	U
1	A2	1176	G
1	A2	1180	C
1	A2	1182	U
1	A2	1183	A
1	A2	1184	A
1	A2	1185	U
1	A2	1189	A
1	A2	1191	U
1	A2	1194	A
1	A2	1195	C
1	A2	1196	A
1	A2	1197	C
1	A2	1198	G
1	A2	1200	G
1	A2	1201	G
1	A2	1205	C
1	A2	1207	C
1	A2	1208	A
1	A2	1209	C
1	A2	1210	C
1	A2	1213	G
1	A2	1214	U
1	A2	1217	A
1	A2	1218	G

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Mol	Chain	Res	Type
1	A2	1219	A
1	A2	1220	C
1	A2	1226	A
1	A2	1227	A
1	A2	1228	G
1	A2	1229	G
1	A2	1230	A
1	A2	1232	U
1	A2	1233	G
1	A2	1234	A
1	A2	1236	A
1	A2	1237	G
1	A2	1240	U
1	A2	1241	G
1	A2	1243	G
1	A2	1244	A
1	A2	1245	G
1	A2	1246	C
1	A2	1248	C
1	A2	1250	U
1	A2	1251	U
1	A2	1252	C
1	A2	1256	A
1	A2	1257	U
1	A2	1258	U
1	A2	1259	U
1	A2	1260	U
1	A2	1261	G
1	A2	1262	U
1	A2	1266	U
1	A2	1271	G
1	A2	1273	G
1	A2	1276	U
1	A2	1279	C
1	A2	1284	C
1	A2	1286	U
1	A2	1287	A
1	A2	1288	G
1	A2	1291	G
1	A2	1292	G
1	A2	1294	G
1	A2	1296	A

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Mol	Chain	Res	Type
1	A2	1300	A
1	A2	1301	U
1	A2	1304	G
1	A2	1305	U
1	A2	1307	U
1	A2	1312	A
1	A2	1314	U
1	A2	1315	U
1	A2	1318	G
1	A2	1319	A
1	A2	1320	U
1	A2	1321	A
1	A2	1332	C
1	A2	1334	U
1	A2	1337	A
1	A2	1338	C
1	A2	1339	C
1	A2	1340	U
1	A2	1341	A
1	A2	1343	U
1	A2	1344	A
1	A2	1346	A
1	A2	1348	A
1	A2	1349	G
1	A2	1353	U
1	A2	1356	U
1	A2	1357	A
1	A2	1358	G
1	A2	1361	U
1	A2	1362	U
1	A2	1364	G
1	A2	1365	C
1	A2	1370	U
1	A2	1372	U
1	A2	1373	C
1	A2	1375	A
1	A2	1376	C
1	A2	1377	U
1	A2	1379	C
1	A2	1381	U
1	A2	1383	G
1	A2	1384	A

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Mol	Chain	Res	Type
1	A2	1385	G
1	A2	1388	A
1	A2	1389	C
1	A2	1390	U
1	A2	1391	A
1	A2	1393	C
1	A2	1395	G
1	A2	1397	U
1	A2	1398	U
1	A2	1399	C
1	A2	1400	A
1	A2	1401	A
1	A2	1404	C
1	A2	1409	G
1	A2	1415	U
1	A2	1416	G
1	A2	1417	A
1	A2	1418	G
1	A2	1420	C
1	A2	1421	A
1	A2	1422	A
1	A2	1427	A
1	A2	1428	G
1	A2	1431	C
1	A2	1432	U
1	A2	1433	G
1	A2	1440	C
1	A2	1441	C
1	A2	1442	U
1	A2	1443	U
1	A2	1444	A
1	A2	1445	G
1	A2	1446	A
1	A2	1448	G
1	A2	1449	U
1	A2	1451	C
1	A2	1453	G
1	A2	1456	C
1	A2	1458	G
1	A2	1460	A
1	A2	1464	G
1	A2	1467	C

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Mol	Chain	Res	Type
1	A2	1468	U
1	A2	1470	C
1	A2	1471	A
1	A2	1472	C
1	A2	1473	U
1	A2	1478	G
1	A2	1479	A
1	A2	1480	G
1	A2	1481	C
1	A2	1482	C
1	A2	1483	A
1	A2	1485	C
1	A2	1486	G
1	A2	1488	G
1	A2	1490	C
1	A2	1491	U
1	A2	1492	A
1	A2	1494	C
1	A2	1496	U
1	A2	1499	G
1	A2	1505	A
1	A2	1507	G
1	A2	1509	C
1	A2	1511	U
1	A2	1512	G
1	A2	1514	U
1	A2	1517	U
1	A2	1521	G
1	A2	1524	A
1	A2	1525	A
1	A2	1526	A
1	A2	1527	C
1	A2	1528	U
1	A2	1529	C
1	A2	1530	C
1	A2	1533	C
1	A2	1535	U
1	A2	1538	U
1	A2	1539	G
1	A2	1540	G
1	A2	1545	A
1	A2	1547	A

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Mol	Chain	Res	Type
1	A2	1548	G
1	A2	1551	U
1	A2	1553	G
1	A2	1555	A
1	A2	1557	U
1	A2	1558	U
1	A2	1560	U
1	A2	1562	G
1	A2	1563	C
1	A2	1569	A
1	A2	1571	C
1	A2	1573	A
1	A2	1574	G
1	A2	1575	G
1	A2	1582	U
1	A2	1583	A
1	A2	1585	U
1	A2	1586	A
1	A2	1587	A
1	A2	1588	G
1	A2	1590	G
1	A2	1591	C
1	A2	1592	A
1	A2	1594	G
1	A2	1595	U
1	A2	1596	C
1	A2	1597	A
1	A2	1598	U
1	A2	1600	A
1	A2	1601	G
1	A2	1602	C
1	A2	1604	U
1	A2	1606	C
1	A2	1607	G
1	A2	1608	U
1	A2	1609	U
1	A2	1612	U
1	A2	1614	A
1	A2	1615	C
1	A2	1616	G
1	A2	1618	C
1	A2	1621	U

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Mol	Chain	Res	Type
1	A2	1625	C
1	A2	1629	G
1	A2	1630	U
1	A2	1631	A
1	A2	1632	C
1	A2	1634	C
1	A2	1635	A
1	A2	1639	C
1	A2	1642	G
1	A2	1643	U
1	A2	1644	C
1	A2	1647	U
1	A2	1648	A
1	A2	1654	G
1	A2	1657	U
1	A2	1662	G
1	A2	1663	G
1	A2	1664	C
1	A2	1665	U
1	A2	1666	U
1	A2	1667	A
1	A2	1670	G
1	A2	1671	A
1	A2	1672	G
1	A2	1678	A
1	A2	1680	G
1	A2	1682	U
1	A2	1683	C
1	A2	1684	U
1	A2	1685	G
1	A2	1688	U
1	A2	1689	A
1	A2	1690	G
1	A2	1691	A
1	A2	1692	G
1	A2	1693	A
1	A2	1709	C
1	A2	1710	U
1	A2	1711	C
1	A2	1713	G
1	A2	1716	C
1	A2	1717	G

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Mol	Chain	Res	Type
1	A2	1719	A
1	A2	1720	G
1	A2	1722	A
1	A2	1727	G
1	A2	1733	C
1	A2	1737	G
1	A2	1739	C
1	A2	1740	A
1	A2	1741	U
1	A2	1743	U
1	A2	1744	A
1	A2	1746	A
1	A2	1748	G
1	A2	1750	A
1	A2	1752	U
1	A2	1753	A
1	A2	1754	A
1	A2	1755	A
1	A2	1756	A
1	A2	1758	U
1	A2	1760	G
1	A2	1761	U
1	A2	1762	A
1	A2	1766	A
1	A2	1767	G
1	A2	1768	G
1	A2	1769	U
1	A2	1770	U
1	A2	1771	U
1	A2	1777	G
1	A2	1778	G
1	A2	1780	G
1	A2	1781	A
1	A2	1782	A
1	A2	1790	A
1	A2	1793	G
1	A2	1794	A
1	A2	1795	U
1	A2	1797	A
1	A2	1798	U
2	AZ	6026	A
2	AZ	6029	A

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Mol	Chain	Res	Type
2	AZ	6031	G
2	AZ	6033	G
2	AZ	6037	U
2	AZ	6038	U
2	AZ	6040	C
2	AZ	6041	U
2	AZ	6042	U
2	AZ	6044	U
2	AZ	6045	A
2	AZ	6046	A
2	AZ	6048	U
2	AZ	6049	A
2	AZ	6050	C
2	AZ	6051	A
2	AZ	6053	U
2	AZ	6055	U
2	AZ	6061	G
2	AZ	6063	U
2	AZ	6064	U
2	AZ	6065	A
2	AZ	6067	U
2	AZ	6070	A
2	AZ	6071	U
2	AZ	6072	U
2	AZ	6073	A
2	AZ	6074	C
2	AZ	6077	G
2	AZ	6078	U
2	AZ	6079	A
2	AZ	6080	G
2	AZ	6082	G
2	AZ	6086	U
2	AZ	6087	U
2	AZ	6088	U
2	AZ	6089	U
2	AZ	6091	G
2	AZ	6092	U
2	AZ	6094	U
2	AZ	6095	U
2	AZ	6096	U
2	AZ	6097	A
2	AZ	6099	G

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Mol	Chain	Res	Type
2	AZ	6101	U
2	AZ	6103	G
2	AZ	6104	C
2	AZ	6105	U
2	AZ	6106	A
2	AZ	6107	U
2	AZ	6109	U
2	AZ	6111	G
2	AZ	6113	U
2	AZ	6116	A
2	AZ	6117	C
2	AZ	6118	G
2	AZ	6119	U
2	AZ	6120	U
2	AZ	6121	C
2	AZ	6122	C
2	AZ	6124	G
2	AZ	6125	G
2	AZ	6126	A
2	AZ	6127	U
2	AZ	6128	G
2	AZ	6129	C
2	AZ	6130	C
2	AZ	6131	U
2	AZ	6132	A
2	AZ	6134	U
2	AZ	6135	G
2	AZ	6136	G
2	AZ	6137	C
2	AZ	6138	A
2	AZ	6139	G
2	AZ	6141	C
2	AZ	6142	C
2	AZ	6145	C
2	AZ	6146	A
2	AZ	6147	A
2	AZ	6148	U
2	AZ	6149	A
2	AZ	6151	C
2	AZ	6152	C
2	AZ	6154	G
2	AZ	6156	A

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Mol	Chain	Res	Type
2	AZ	6157	A
2	AZ	6158	G
2	AZ	6159	C
2	AZ	6160	C
2	AZ	6161	C
2	AZ	6162	U
2	AZ	6163	C
2	AZ	6165	C
2	AZ	6166	U
2	AZ	6167	G
2	AZ	6168	C
2	AZ	6171	U
2	AZ	6174	G
2	AZ	6176	A
2	AZ	6180	C
2	AZ	6181	C
2	AZ	6187	A
2	AZ	6189	G
2	AZ	6190	U
2	AZ	6196	G
2	AZ	6197	U
2	AZ	6198	U
2	AZ	6199	U
2	AZ	6200	U
2	AZ	6202	C
2	AZ	6203	U
2	AZ	6204	A
2	AZ	6205	A
2	AZ	6206	G
2	AZ	6207	A
2	AZ	6208	A
2	AZ	6209	A
2	AZ	6210	U
2	AZ	6211	U
2	AZ	6213	A
2	AZ	6214	C
2	AZ	6215	C
2	AZ	6216	U
2	AZ	6218	U
2	AZ	6219	U
2	AZ	6220	U
2	AZ	6222	U

All (359) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A2	2	A
1	A2	3	U
1	A2	9	U
1	A2	25	C
1	A2	33	U
1	A2	38	C
1	A2	41	A
1	A2	42	G
1	A2	51	A
1	A2	67	A
1	A2	68	A
1	A2	73	U
1	A2	74	U
1	A2	90	C
1	A2	91	G
1	A2	99	C
1	A2	102	U
1	A2	103	A
1	A2	104	A
1	A2	112	A
1	A2	113	U
1	A2	114	C
1	A2	115	G
1	A2	120	U
1	A2	126	A
1	A2	128	U
1	A2	129	U
1	A2	132	U
1	A2	133	U
1	A2	135	A
1	A2	138	A
1	A2	139	C
1	A2	141	U
1	A2	142	G
1	A2	143	G
1	A2	146	U
1	A2	149	C
1	A2	158	U
1	A2	161	U
1	A2	177	U
1	A2	188	A
1	A2	190	C

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Mol	Chain	Res	Type
1	A2	201	G
1	A2	217	A
1	A2	218	A
1	A2	221	A
1	A2	223	U
1	A2	227	U
1	A2	232	U
1	A2	240	U
1	A2	254	A
1	A2	261	U
1	A2	266	A
1	A2	286	C
1	A2	295	A
1	A2	299	A
1	A2	312	A
1	A2	315	A
1	A2	320	U
1	A2	322	G
1	A2	326	G
1	A2	330	G
1	A2	362	G
1	A2	367	A
1	A2	376	C
1	A2	387	A
1	A2	395	U
1	A2	400	A
1	A2	417	A
1	A2	420	A
1	A2	423	G
1	A2	426	G
1	A2	427	C
1	A2	430	G
1	A2	435	C
1	A2	438	A
1	A2	440	U
1	A2	444	C
1	A2	446	A
1	A2	454	U
1	A2	469	C
1	A2	480	G
1	A2	481	A
1	A2	482	U

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Mol	Chain	Res	Type
1	A2	485	A
1	A2	491	C
1	A2	493	U
1	A2	494	U
1	A2	498	G
1	A2	499	U
1	A2	502	U
1	A2	503	G
1	A2	504	U
1	A2	508	U
1	A2	511	A
1	A2	512	A
1	A2	514	G
1	A2	517	U
1	A2	528	U
1	A2	529	A
1	A2	539	G
1	A2	558	U
1	A2	562	G
1	A2	571	G
1	A2	572	C
1	A2	573	C
1	A2	578	U
1	A2	581	U
1	A2	600	U
1	A2	602	U
1	A2	603	U
1	A2	606	A
1	A2	607	G
1	A2	609	U
1	A2	627	C
1	A2	628	G
1	A2	633	U
1	A2	639	U
1	A2	645	C
1	A2	656	G
1	A2	681	U
1	A2	686	C
1	A2	690	G
1	A2	697	C
1	A2	705	U
1	A2	708	C

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Mol	Chain	Res	Type
1	A2	711	U
1	A2	713	A
1	A2	716	C
1	A2	720	G
1	A2	721	U
1	A2	728	U
1	A2	729	G
1	A2	733	A
1	A2	738	G
1	A2	744	U
1	A2	753	A
1	A2	759	U
1	A2	761	G
1	A2	765	G
1	A2	766	U
1	A2	769	A
1	A2	772	G
1	A2	773	C
1	A2	779	U
1	A2	787	G
1	A2	803	A
1	A2	816	G
1	A2	820	U
1	A2	821	U
1	A2	822	U
1	A2	823	G
1	A2	835	U
1	A2	836	U
1	A2	852	C
1	A2	855	A
1	A2	856	A
1	A2	884	A
1	A2	897	C
1	A2	910	C
1	A2	918	U
1	A2	921	U
1	A2	930	A
1	A2	939	A
1	A2	941	A
1	A2	944	A
1	A2	945	U
1	A2	949	C

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Mol	Chain	Res	Type
1	A2	960	U
1	A2	990	C
1	A2	1002	G
1	A2	1004	U
1	A2	1020	A
1	A2	1021	C
1	A2	1026	A
1	A2	1030	A
1	A2	1031	U
1	A2	1041	G
1	A2	1055	U
1	A2	1057	U
1	A2	1058	U
1	A2	1059	U
1	A2	1065	A
1	A2	1067	C
1	A2	1074	G
1	A2	1077	C
1	A2	1081	A
1	A2	1092	A
1	A2	1096	C
1	A2	1097	U
1	A2	1102	G
1	A2	1106	U
1	A2	1108	G
1	A2	1118	G
1	A2	1125	A
1	A2	1131	A
1	A2	1137	A
1	A2	1145	U
1	A2	1151	A
1	A2	1154	G
1	A2	1158	C
1	A2	1159	C
1	A2	1161	C
1	A2	1170	G
1	A2	1175	U
1	A2	1183	A
1	A2	1186	U
1	A2	1188	G
1	A2	1196	A
1	A2	1197	C

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Mol	Chain	Res	Type
1	A2	1207	C
1	A2	1216	C
1	A2	1221	A
1	A2	1226	A
1	A2	1229	G
1	A2	1232	U
1	A2	1235	C
1	A2	1240	U
1	A2	1247	U
1	A2	1250	U
1	A2	1258	U
1	A2	1259	U
1	A2	1261	G
1	A2	1273	G
1	A2	1285	U
1	A2	1287	A
1	A2	1293	U
1	A2	1295	G
1	A2	1306	C
1	A2	1314	U
1	A2	1325	A
1	A2	1340	U
1	A2	1357	A
1	A2	1364	G
1	A2	1372	U
1	A2	1382	A
1	A2	1397	U
1	A2	1398	U
1	A2	1399	C
1	A2	1407	U
1	A2	1415	U
1	A2	1420	C
1	A2	1424	A
1	A2	1426	C
1	A2	1427	A
1	A2	1430	U
1	A2	1442	U
1	A2	1444	A
1	A2	1445	G
1	A2	1447	C
1	A2	1448	G
1	A2	1450	U

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Mol	Chain	Res	Type
1	A2	1455	G
1	A2	1457	C
1	A2	1463	C
1	A2	1467	C
1	A2	1471	A
1	A2	1472	C
1	A2	1478	G
1	A2	1483	A
1	A2	1491	U
1	A2	1493	A
1	A2	1495	C
1	A2	1516	A
1	A2	1525	A
1	A2	1528	U
1	A2	1529	C
1	A2	1532	U
1	A2	1537	C
1	A2	1538	U
1	A2	1539	G
1	A2	1561	U
1	A2	1568	C
1	A2	1570	A
1	A2	1572	G
1	A2	1573	A
1	A2	1582	U
1	A2	1590	G
1	A2	1591	C
1	A2	1600	A
1	A2	1601	G
1	A2	1603	U
1	A2	1608	U
1	A2	1629	G
1	A2	1638	G
1	A2	1642	G
1	A2	1647	U
1	A2	1662	G
1	A2	1671	A
1	A2	1678	A
1	A2	1682	U
1	A2	1683	C
1	A2	1685	G
1	A2	1688	U

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Mol	Chain	Res	Type
1	A2	1708	U
1	A2	1710	U
1	A2	1712	A
1	A2	1716	C
1	A2	1736	G
1	A2	1742	U
1	A2	1743	U
1	A2	1749	A
1	A2	1751	C
1	A2	1752	U
1	A2	1753	A
1	A2	1754	A
1	A2	1759	C
1	A2	1761	U
1	A2	1765	A
1	A2	1769	U
1	A2	1771	U
1	A2	1777	G
1	A2	1781	A
1	A2	1792	G
1	A2	1793	G
1	A2	1796	C
2	AZ	6032	U
2	AZ	6047	A
2	AZ	6050	C
2	AZ	6062	G
2	AZ	6063	U
2	AZ	6069	A
2	AZ	6070	A
2	AZ	6073	A
2	AZ	6076	A
2	AZ	6085	A
2	AZ	6087	U
2	AZ	6091	G
2	AZ	6096	U
2	AZ	6108	U
2	AZ	6109	U
2	AZ	6117	C
2	AZ	6118	G
2	AZ	6121	C
2	AZ	6124	G
2	AZ	6125	G

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Mol	Chain	Res	Type
2	AZ	6129	C
2	AZ	6130	C
2	AZ	6137	C
2	AZ	6141	C
2	AZ	6146	A
2	AZ	6155	G
2	AZ	6156	A
2	AZ	6164	U
2	AZ	6165	C
2	AZ	6166	U
2	AZ	6168	C
2	AZ	6179	A
2	AZ	6186	U
2	AZ	6197	U
2	AZ	6198	U
2	AZ	6203	U
2	AZ	6206	G
2	AZ	6208	A
2	AZ	6209	A
2	AZ	6210	U
2	AZ	6215	C
2	AZ	6217	A
2	AZ	6221	U

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](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues ⓘ

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	A2	392
35	Bg	80
7	BE	64
6	BD	62
11	BI	58
8	BF	52
4	BB	51
10	BH	51
9	BG	47
5	BC	46
3	BA	43
12	BJ	42
26	BX	40
2	AZ	40
22	BT	39
25	BW	39
20	BR	36
15	BM	33
14	BL	32
18	BP	31
27	BY	31
19	BQ	30
16	BN	29
21	BS	29
23	BU	27
13	BK	25
29	Ba	24
30	Bb	24
17	BO	23
24	BV	18
32	Bd	16
31	Bc	14
28	BZ	14
33	Be	11
34	Bf	9

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1693:A	O3'	1708:U	P	22.38

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	658:C	O3'	676:G	P	18.27
1	BI	123:LYS	C	135:LYS	N	16.74
1	BA	190:ASP	C	191:ARG	N	10.15
1	BR	124:VAL	C	125:SER	N	8.71
1	BR	91:ALA	C	95:ARG	N	8.21
1	BZ	84:GLU	C	85:LYS	N	7.70
1	BT	66:TYR	C	67:MET	N	7.45
1	BP	19:GLY	C	20:VAL	N	7.22
1	AZ	6089:U	O3'	6090:U	P	6.99
1	A2	712:G	O3'	713:A	P	6.85
1	BM	141:SER	C	142:GLN	N	6.82
1	A2	1564:U	O3'	1565:C	P	6.79
1	BA	66:ALA	C	67:ILE	N	6.70
1	BF	25:LEU	C	26:ALA	N	6.70
1	BA	58:VAL	C	59:LEU	N	6.64
1	A2	719:U	O3'	720:G	P	6.52
1	A2	492:A	O3'	493:U	P	6.40
1	A2	833:U	O3'	834:G	P	6.33
1	BP	18:ARG	C	19:GLY	N	6.32
1	BA	37:VAL	C	38:PHE	N	6.29
1	BQ	72:GLY	C	73:GLY	N	6.22
1	BM	80:ASN	C	81:ASP	N	6.21
1	A2	1267:G	O3'	1268:G	P	6.06
1	AZ	6061:G	O3'	6062:G	P	6.03
1	BF	34:GLN	C	35:GLN	N	6.00
1	BA	127:ARG	C	128:SER	N	5.96
1	BS	6:GLN	C	7:GLU	N	5.95
1	BA	200:ASP	C	201:LEU	N	5.91
1	BU	107:THR	C	108:ILE	N	5.88
1	AZ	6056:U	O3'	6057:G	P	5.84
1	BG	142:ARG	C	143:LYS	N	5.82
1	Bf	106:TYR	C	107:LYS	N	5.82
1	BM	111:ASN	C	112:ALA	N	5.81
1	BA	106:SER	C	107:PHE	N	5.80
1	BA	36:TYR	C	37:VAL	N	5.79
1	A2	234:G	O3'	235:G	P	5.76
1	BF	68:ILE	C	69:PHE	N	5.76
1	A2	194:U	O3'	195:G	P	5.73
1	BM	25:GLU	C	26:ASP	N	5.72
1	BP	20:VAL	C	21:ASP	N	5.70
1	A2	1563:C	O3'	1564:U	P	5.69
1	A2	489:C	O3'	490:C	P	5.67

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BM	82:PRO	C	83:GLU	N	5.65
1	AZ	6067:U	O3'	6068:A	P	5.62
1	BA	65:ALA	C	66:ALA	N	5.61
1	BA	47:VAL	C	48:ILE	N	5.60
1	A2	682:C	O3'	683:C	P	5.59
1	BA	126:PRO	C	127:ARG	N	5.53
1	BA	32:HIS	C	33:GLN	N	5.52
1	BG	146:GLY	C	147:LEU	N	5.49
1	BQ	53:LEU	C	54:LEU	N	5.49
1	A2	1234:A	O3'	1235:C	P	5.48
1	AZ	6171:U	O3'	6173:C	P	5.48
1	A2	1054:U	O3'	1055:U	P	5.45
1	A2	1571:C	O3'	1572:G	P	5.41
1	BA	170:ILE	C	171:GLY	N	5.41
1	BZ	96:SER	C	97:LYS	N	5.41
1	Bg	156:VAL	C	157:VAL	N	5.40
1	BZ	82:HIS	C	83:LEU	N	5.39
1	BM	26:ASP	C	27:ALA	N	5.38
1	A2	654:C	O3'	655:G	P	5.37
1	BZ	69:LEU	C	70:LYS	N	5.37
1	BG	165:GLY	C	166:GLU	N	5.35
1	Bg	48:THR	C	49:GLY	N	5.34
1	Bf	107:LYS	C	108:VAL	N	5.30
1	Bg	160:GLU	C	161:LYS	N	5.29
1	A2	841:U	O3'	842:C	P	5.26
1	A2	696:C	O3'	697:C	P	5.25
1	BS	74:GLN	C	75:ASN	N	5.25
1	BA	4:PRO	C	5:ALA	N	5.22
1	BM	137:MET	C	138:GLU	N	5.21
1	BU	49:ASN	C	50:LEU	N	5.16
1	BA	6:THR	C	7:PHE	N	5.15
1	BT	54:PHE	C	55:TYR	N	5.15
1	Bd	5:ASN	C	6:VAL	N	5.14
1	BR	76:GLU	C	77:GLU	N	5.12
1	Bg	284:ALA	C	285:ALA	N	5.12
1	AZ	6152:C	O3'	6153:A	P	5.11
1	BM	142:GLN	C	143:GLN	N	5.10
1	BP	21:ASP	C	22:LEU	N	5.10
1	Bb	58:SER	C	59:CYS	N	5.09
1	BT	40:SER	C	41:SER	N	5.06
1	A2	698:U	O3'	699:U	P	5.01
1	BA	46:HIS	C	47:VAL	N	5.01

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BH	6:ALA	C	7:LYS	N	5.01
1	BH	13:PRO	C	14:THR	N	5.01
1	BM	72:ILE	C	73:LYS	N	4.99
1	AZ	6082:G	O3'	6083:C	P	4.96
1	BD	59:LEU	C	60:GLY	N	4.96
1	A2	1449:U	O3'	1450:U	P	4.91
1	A2	1713:G	O3'	1714:A	P	4.90
1	BA	81:PHE	C	82:GLY	N	4.90
1	AZ	6139:G	O3'	6140:C	P	4.89
1	BG	131:LYS	C	132:ARG	N	4.88
1	BK	70:GLU	C	71:GLU	N	4.86
1	BP	77:ARG	C	78:THR	N	4.81
1	BS	31:ALA	C	32:LEU	N	4.81
1	A2	386:G	O3'	387:A	P	4.80
1	A2	1555:A	O3'	1556:A	P	4.80
1	BG	147:LEU	C	148:SER	N	4.80
1	A2	838:G	O3'	839:U	P	4.79
1	BF	100:ASN	C	101:GLY	N	4.78
1	BU	77:LYS	C	78:THR	N	4.78
1	BC	122:ALA	C	123:GLY	N	4.77
1	A2	1540:G	O3'	1541:G	P	4.75
1	Bg	172:ALA	C	173:GLY	N	4.75
1	BA	189:VAL	C	190:ASP	N	4.73
1	A2	1496:U	O3'	1497:U	P	4.71
1	BF	71:ALA	C	72:HIS	N	4.71
1	BI	150:ALA	C	151:LYS	N	4.71
1	BM	136:ILE	C	137:MET	N	4.71
1	BG	198:ALA	C	199:GLN	N	4.70
1	BT	62:ALA	C	63:ARG	N	4.70
1	AZ	6027:A	O3'	6028:A	P	4.69
1	BM	39:ASP	C	40:GLY	N	4.68
1	BM	76:GLU	C	77:GLY	N	4.68
1	BS	7:GLU	C	8:GLN	N	4.68
1	BB	36:SER	C	37:THR	N	4.67
1	BD	121:GLY	C	122:VAL	N	4.67
1	BS	16:ARG	C	17:LEU	N	4.67
1	A2	76:A	O3'	77:U	P	4.66
1	A2	1201:G	O3'	1202:A	P	4.66
1	AZ	6084:U	O3'	6085:A	P	4.66
1	BF	194:LEU	C	195:ALA	N	4.66
1	A2	894:U	O3'	895:G	P	4.65
1	Bg	296:ALA	C	297:ASP	N	4.64

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BR	22:PRO	C	23:LYS	N	4.63
1	Bc	34:GLU	C	35:ASP	N	4.63
1	BR	97:ASN	C	98:GLY	N	4.62
1	Bg	31:ASN	C	32:LEU	N	4.62
1	BM	117:GLY	C	118:ALA	N	4.61
1	Bg	276:PRO	C	277:GLU	N	4.61
1	BH	32:PRO	C	33:GLU	N	4.60
1	BA	115:PHE	C	116:LYS	N	4.59
1	Bg	301:LEU	C	302:PHE	N	4.57
1	A2	648:G	O3'	649:U	P	4.55
1	BR	23:LYS	C	24:LEU	N	4.55
1	BT	27:LYS	C	28:LEU	N	4.55
1	A2	278:U	O3'	279:G	P	4.54
1	BA	56:LYS	C	57:LEU	N	4.52
1	BK	60:SER	C	61:TRP	N	4.52
1	BQ	57:LEU	C	58:ASP	N	4.52
1	A2	1305:U	O3'	1306:C	P	4.51
1	BT	52:GLY	C	53:TRP	N	4.51
1	BH	108:GLN	C	109:VAL	N	4.50
1	BB	93:GLY	C	94:LYS	N	4.49
1	BQ	5:PRO	C	6:SER	N	4.49
1	BP	92:SER	C	93:VAL	N	4.48
1	BV	19:ALA	C	20:THR	N	4.48
1	BM	50:LYS	C	51:ALA	N	4.46
1	Bg	159:ASN	C	160:GLU	N	4.46
1	A2	1230:A	O3'	1231:U	P	4.44
1	BT	72:GLY	C	73:VAL	N	4.44
1	Bg	26:SER	C	27:ALA	N	4.43
1	BG	225:GLU	C	226:ILE	N	4.42
1	BK	30:ALA	C	31:ALA	N	4.42
1	BJ	71:PHE	C	72:GLU	N	4.41
1	BR	106:THR	C	107:SER	N	4.41
1	A2	834:G	O3'	835:U	P	4.40
1	A2	1535:U	O3'	1536:G	P	4.36
1	BL	5:LEU	C	6:THR	N	4.35
1	Bf	90:ALA	C	91:LYS	N	4.35
1	A2	238:U	O3'	239:C	P	4.34
1	A2	516:G	O3'	517:U	P	4.34
1	Bg	63:GLY	C	64:HIS	N	4.34
1	BG	138:ALA	C	139:ASN	N	4.33
1	BT	5:SER	C	6:VAL	N	4.32
1	Bg	148:ASN	C	149:ASP	N	4.32

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	145:A	O3'	146:U	P	4.31
1	AZ	6033:G	O3'	6034:A	P	4.31
1	BV	29:HIS	C	30:ALA	N	4.30
1	BF	199:ILE	C	200:ASN	N	4.29
1	BG	148:SER	C	149:LYS	N	4.29
1	BG	161:GLU	C	162:VAL	N	4.29
1	Bd	6:VAL	C	7:TRP	N	4.28
1	Bg	285:ALA	C	286:GLU	N	4.28
1	BD	35:SER	C	36:GLY	N	4.27
1	BF	203:LYS	C	204:GLY	N	4.27
1	BK	5:LYS	C	6:GLU	N	4.27
1	BU	74:GLU	C	75:GLY	N	4.27
1	BZ	103:ARG	C	104:ALA	N	4.27
1	BD	34:TYR	C	35:SER	N	4.26
1	Bd	11:PRO	C	12:ARG	N	4.26
1	Bg	136:ILE	C	137:LYS	N	4.26
1	BH	153:LEU	C	154:LEU	N	4.25
1	BA	33:GLN	C	34:GLU	N	4.24
1	BP	23:GLU	C	24:LYS	N	4.24
1	Bg	95:ALA	C	96:THR	N	4.24
1	A2	233:C	O3'	234:G	P	4.23
1	A2	1198:G	O3'	1199:G	P	4.23
1	BI	118:GLY	C	119:GLN	N	4.23
1	Ba	2:PRO	C	3:LYS	N	4.23
1	BI	181:GLY	C	182:TYR	N	4.22
1	BM	28:LEU	C	29:LYS	N	4.22
1	BN	60:VAL	C	61:THR	N	4.22
1	Bg	248:ASN	C	249:ARG	N	4.22
1	A2	71:A	O3'	72:A	P	4.21
1	BE	236:ILE	C	237:SER	N	4.20
1	A2	501:U	O3'	502:U	P	4.19
1	BI	162:ALA	C	163:GLY	N	4.19
1	Bd	9:SER	C	10:HIS	N	4.19
1	A2	913:G	O3'	914:G	P	4.18
1	A2	1178:G	O3'	1179:G	P	4.18
1	Bg	223:TRP	C	224:ASN	N	4.18
1	A2	487:G	O3'	488:G	P	4.17
1	BF	94:THR	C	95:ASN	N	4.17
1	BH	160:GLN	C	161:GLN	N	4.17
1	BA	72:ASP	C	73:VAL	N	4.16
1	Bb	2:VAL	C	3:LEU	N	4.16
1	A2	1353:U	O3'	1354:G	P	4.15

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BP	115:TYR	C	116:LEU	N	4.15
1	A2	1284:C	O3'	1285:U	P	4.14
1	BK	17:GLN	C	18:GLU	N	4.14
1	AZ	6055:U	O3'	6056:U	P	4.13
1	Bc	61:ARG	C	62:GLU	N	4.13
1	A2	839:U	O3'	840:U	P	4.12
1	A2	1609:U	O3'	1610:G	P	4.12
1	BF	191:ALA	C	192:GLU	N	4.12
1	Bg	262:VAL	C	263:PHE	N	4.12
1	Bg	258:THR	C	259:GLY	N	4.11
1	A2	1298:U	O3'	1299:G	P	4.10
1	BG	37:ASP	C	38:GLY	N	4.10
1	A2	1350:U	O3'	1351:G	P	4.09
1	BS	126:ARG	C	127:HIS	N	4.09
1	Bf	114:VAL	C	115:THR	N	4.09
1	Bg	7:LEU	C	8:VAL	N	4.09
1	BQ	132:LYS	C	133:GLY	N	4.08
1	BY	41:ARG	C	42:GLU	N	4.07
1	A2	57:G	O3'	58:U	P	4.06
1	A2	710:U	O3'	711:U	P	4.06
1	A2	1569:A	O3'	1570:A	P	4.06
1	BA	31:VAL	C	32:HIS	N	4.06
1	BH	86:GLN	C	87:ASP	N	4.06
1	AZ	6178:A	O3'	6179:A	P	4.04
1	BI	92:ARG	C	93:THR	N	4.04
1	BM	93:ASP	C	94:ALA	N	4.04
1	A2	280:U	O3'	281:G	P	4.03
1	BT	122:ARG	C	123:ARG	N	4.03
1	BW	24:GLN	C	25:VAL	N	4.03
1	Bg	289:ALA	C	290:VAL	N	4.02
1	BF	202:ALA	C	203:LYS	N	4.01
1	BM	100:TRP	C	101:ALA	N	4.01
1	A2	473:A	O3'	474:A	P	4.00
1	A2	861:U	O3'	862:A	P	4.00
1	A2	831:U	O3'	832:U	P	3.99
1	Bd	50:ILE	C	51:GLY	N	3.99
1	A2	1644:C	O3'	1645:G	P	3.98
1	BR	54:THR	C	55:THR	N	3.98
1	A2	1580:C	O3'	1581:C	P	3.97
1	BB	227:ALA	C	228:LEU	N	3.97
1	BK	29:GLN	C	30:ALA	N	3.96
1	BR	27:ASP	C	28:PHE	N	3.96

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	182:A	O3'	183:U	P	3.95
1	BI	120:THR	C	121:LEU	N	3.95
1	A2	828:U	O3'	829:A	P	3.94
1	BB	96:LEU	C	97:LEU	N	3.94
1	BO	97:GLY	C	98:GLY	N	3.94
1	Bg	99:THR	C	100:TYR	N	3.94
1	BA	100:GLY	C	101:ARG	N	3.93
1	BR	102:VAL	C	103:ASP	N	3.93
1	BS	71:GLN	C	72:ILE	N	3.93
1	Be	43:ARG	C	44:PHE	N	3.93
1	BB	73:LEU	C	74:GLN	N	3.92
1	Bb	42:ASN	C	43:ILE	N	3.92
1	Bg	206:PRO	C	207:ASP	N	3.92
1	A2	131:C	O3'	132:U	P	3.91
1	A2	478:A	O3'	479:C	P	3.91
1	A2	885:G	O3'	886:U	P	3.91
1	BQ	71:GLY	C	72:GLY	N	3.91
1	BX	36:THR	C	37:ALA	N	3.91
1	A2	471:A	O3'	472:U	P	3.90
1	BC	89:GLN	C	90:THR	N	3.90
1	BT	104:VAL	C	105:LEU	N	3.90
1	BH	146:GLY	C	147:ASN	N	3.89
1	BS	120:ARG	C	121:ALA	N	3.89
1	A2	1560:U	O3'	1561:U	P	3.88
1	BA	179:ARG	C	180:GLU	N	3.88
1	BF	212:LYS	C	213:LYS	N	3.88
1	BI	144:ALA	C	145:ALA	N	3.88
1	A2	644:C	O3'	645:C	P	3.87
1	BQ	36:ILE	C	37:THR	N	3.86
1	BQ	51:PRO	C	52:LEU	N	3.86
1	BZ	49:ARG	C	50:ILE	N	3.86
1	Bf	148:TYR	C	149:LYS	N	3.86
1	BA	48:ILE	C	49:ASN	N	3.85
1	BB	151:LYS	C	152:ALA	N	3.85
1	Bc	65:ARG	C	66:LEU	N	3.85
1	Bd	55:PHE	C	56:ARG	N	3.85
1	BB	71:ALA	C	72:ASP	N	3.83
1	BE	126:VAL	C	127:LYS	N	3.83
1	BG	112:VAL	C	113:ILE	N	3.82
1	BR	2:GLY	C	3:ARG	N	3.82
1	BS	26:ILE	C	27:LYS	N	3.82
1	A2	704:C	O3'	705:U	P	3.81

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1294:G	O3'	1295:G	P	3.81
1	AZ	6200:U	O3'	6201:U	P	3.81
1	BA	45:VAL	C	46:HIS	N	3.81
1	BK	91:TYR	C	92:ILE	N	3.81
1	Bd	7:TRP	C	8:PHE	N	3.81
1	Bg	227:ALA	C	228:LYS	N	3.81
1	BU	102:ARG	C	103:ILE	N	3.80
1	A2	195:G	O3'	196:G	P	3.79
1	A2	1042:G	O3'	1043:A	P	3.79
1	A2	82:U	O3'	83:G	P	3.78
1	BD	55:THR	C	56:GLN	N	3.78
1	BP	59:LYS	C	60:LEU	N	3.78
1	A2	1069:A	O3'	1070:C	P	3.77
1	A2	1180:C	O3'	1181:U	P	3.77
1	BA	123:VAL	C	124:THR	N	3.77
1	BB	204:ILE	C	205:PHE	N	3.77
1	BH	5:GLN	C	6:ALA	N	3.77
1	BM	103:LEU	C	104:GLY	N	3.77
1	BT	28:LEU	C	29:GLU	N	3.77
1	BF	47:SER	C	48:PHE	N	3.76
1	BH	106:SER	C	107:ARG	N	3.76
1	Bg	97:GLY	C	98:GLU	N	3.76
1	BF	38:THR	C	39:GLU	N	3.75
1	BO	82:LYS	C	83:ILE	N	3.75
1	BW	98:GLN	C	99:PHE	N	3.75
1	Bg	151:VAL	C	152:SER	N	3.75
1	BA	146:LEU	C	147:THR	N	3.74
1	BI	111:GLN	C	112:TRP	N	3.74
1	BV	51:VAL	C	52:THR	N	3.74
1	A2	1409:G	O3'	1410:A	P	3.73
1	BT	22:LEU	C	23:GLN	N	3.73
1	A2	1373:C	O3'	1374:C	P	3.72
1	AZ	6038:U	O3'	6039:G	P	3.72
1	BE	78:THR	C	79:ASP	N	3.72
1	BU	101:LYS	C	102:ARG	N	3.72
1	A2	414:C	O3'	415:C	P	3.71
1	A2	734:A	O3'	735:C	P	3.71
1	BU	87:HIS	C	88:LYS	N	3.71
1	A2	1297:G	O3'	1298:U	P	3.70
1	BF	69:PHE	C	70:VAL	N	3.69
1	BF	112:ARG	C	113:ILE	N	3.69
1	BQ	70:THR	C	71:GLY	N	3.69

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BY	64:PHE	C	65:GLY	N	3.69
1	A2	88:U	O3'	89:G	P	3.68
1	A2	1788:G	O3'	1789:G	P	3.68
1	BJ	28:LEU	C	29:LYS	N	3.68
1	Bd	35:GLY	C	36:LEU	N	3.68
1	A2	743:U	O3'	744:U	P	3.67
1	BE	260:GLY	C	261:LEU	N	3.67
1	BQ	128:LYS	C	129:PHE	N	3.67
1	A2	197:A	O3'	198:A	P	3.66
1	A2	1327:C	O3'	1328:G	P	3.66
1	AZ	6177:A	O3'	6178:A	P	3.66
1	BI	55:TYR	C	56:ARG	N	3.66
1	A2	783:G	O3'	784:C	P	3.65
1	A2	889:U	O3'	890:C	P	3.65
1	BE	201:HIS	C	202:ASP	N	3.65
1	BT	75:LYS	C	76:LEU	N	3.65
1	A2	629:U	O3'	630:A	P	3.64
1	A2	1509:C	O3'	1510:U	P	3.64
1	BE	130:GLN	C	131:LEU	N	3.64
1	BF	58:LEU	C	59:VAL	N	3.64
1	BZ	93:SER	C	94:LYS	N	3.64
1	A2	544:A	O3'	545:A	P	3.63
1	A2	843:U	O3'	844:A	P	3.63
1	BD	196:ARG	C	197:THR	N	3.63
1	BI	39:GLY	C	40:ALA	N	3.63
1	BS	17:LEU	C	18:LEU	N	3.63
1	BT	39:THR	C	40:SER	N	3.63
1	BV	72:LEU	C	73:ALA	N	3.63
1	BT	14:PHE	C	15:ILE	N	3.62
1	BM	118:ALA	C	119:SER	N	3.61
1	Be	19:PRO	C	20:LYS	N	3.61
1	A2	369:A	O3'	370:A	P	3.60
1	AZ	6111:G	O3'	6112:C	P	3.60
1	AZ	6191:A	O3'	6195:G	P	3.60
1	BA	8:ASP	C	9:LEU	N	3.60
1	BC	98:PHE	C	99:LYS	N	3.60
1	BI	93:THR	C	94:ASN	N	3.60
1	BK	37:THR	C	38:LYS	N	3.60
1	Bg	254:ALA	C	255:ALA	N	3.60
1	A2	370:A	O3'	371:G	P	3.59
1	A2	829:A	O3'	830:U	P	3.59
1	BA	144:ILE	C	145:ALA	N	3.59

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BD	39:VAL	C	40:ARG	N	3.59
1	BZ	102:THR	C	103:ARG	N	3.59
1	Bb	54:VAL	C	55:THR	N	3.59
1	A2	1370:U	O3'	1371:A	P	3.58
1	BA	70:PRO	C	71:GLU	N	3.58
1	BH	56:LYS	C	57:ALA	N	3.58
1	BI	80:GLY	C	81:VAL	N	3.58
1	BF	40:ILE	C	41:LYS	N	3.57
1	BS	69:ILE	C	70:VAL	N	3.57
1	Be	36:LYS	C	37:ARG	N	3.57
1	BL	26:LYS	C	27:THR	N	3.56
1	BY	114:ARG	C	115:ASP	N	3.56
1	Bd	37:ASN	C	38:ILE	N	3.56
1	Bg	103:PHE	C	104:VAL	N	3.56
1	A2	396:G	O3'	397:A	P	3.55
1	A2	1224:A	O3'	1225:U	P	3.55
1	BU	31:VAL	C	32:LYS	N	3.55
1	BW	17:ALA	C	18:GLU	N	3.55
1	Bc	66:LEU	C	67:ARG	N	3.55
1	A2	241:U	O3'	242:U	P	3.54
1	A2	1578:U	O3'	1579:U	P	3.54
1	AZ	6058:A	O3'	6059:G	P	3.54
1	BH	111:LYS	C	112:ARG	N	3.54
1	BI	89:GLU	C	90:LEU	N	3.54
1	BM	121:VAL	C	122:VAL	N	3.54
1	BP	30:THR	C	31:GLU	N	3.54
1	BT	19:ALA	C	20:SER	N	3.54
1	A2	1667:A	O3'	1668:G	P	3.53
1	AZ	6211:U	O3'	6212:U	P	3.53
1	BF	149:VAL	C	150:GLY	N	3.53
1	BI	43:ILE	C	44:HIS	N	3.53
1	BU	65:ILE	C	66:SER	N	3.53
1	BU	108:ILE	C	109:GLU	N	3.53
1	BY	65:GLY	C	66:GLY	N	3.53
1	Bg	57:PRO	C	58:VAL	N	3.53
1	Bg	183:LEU	C	184:ASN	N	3.53
1	BA	13:ASP	C	14:ALA	N	3.52
1	BB	129:THR	C	130:SER	N	3.52
1	BF	73:THR	C	74:ALA	N	3.52
1	BH	107:ARG	C	108:GLN	N	3.52
1	BM	41:LEU	C	42:ALA	N	3.52
1	BS	64:GLU	C	65:GLU	N	3.52

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1202:A	O3'	1203:A	P	3.51
1	BN	72:MET	C	73:ARG	N	3.51
1	A2	525:A	O3'	526:A	P	3.50
1	A2	1536:G	O3'	1537:C	P	3.50
1	BA	86:VAL	C	87:LEU	N	3.50
1	BF	148:ARG	C	149:VAL	N	3.50
1	A2	1451:C	O3'	1452:U	P	3.49
1	A2	1680:G	O3'	1681:A	P	3.49
1	BT	133:ASP	C	134:ARG	N	3.49
1	A2	676:G	O3'	677:G	P	3.48
1	AZ	6149:A	O3'	6150:U	P	3.48
1	BG	220:LYS	C	221:ALA	N	3.48
1	BJ	77:ILE	C	78:ARG	N	3.48
1	BM	104:GLY	C	105:LYS	N	3.48
1	BM	119:SER	C	120:VAL	N	3.48
1	BW	51:GLU	C	52:TYR	N	3.48
1	BW	83:ILE	C	84:GLY	N	3.48
1	Bb	61:THR	C	62:ILE	N	3.48
1	A2	1645:G	O3'	1646:C	P	3.47
1	BA	202:TYR	C	203:PHE	N	3.47
1	BB	153:HIS	C	154:SER	N	3.47
1	BI	110:ARG	C	111:GLN	N	3.47
1	BP	58:LYS	C	59:LYS	N	3.47
1	BW	3:ARG	C	4:SER	N	3.47
1	Bg	278:PHE	C	279:ALA	N	3.47
1	A2	66:U	O3'	67:A	P	3.46
1	BA	40:ALA	C	41:ARG	N	3.46
1	BB	199:ASN	C	200:ALA	N	3.46
1	BE	217:THR	C	218:PHE	N	3.46
1	BG	12:SER	C	13:GLN	N	3.46
1	BQ	12:LYS	C	13:LYS	N	3.46
1	BR	78:ARG	C	79:GLU	N	3.46
1	Bg	101:GLN	C	102:ARG	N	3.46
1	BI	15:GLY	C	16:ALA	N	3.45
1	Bg	32:LEU	C	33:LEU	N	3.45
1	A2	867:G	O3'	868:G	P	3.44
1	BJ	161:THR	C	162:SER	N	3.44
1	BZ	53:GLU	C	54:VAL	N	3.44
1	Bg	55:GLY	C	56:VAL	N	3.44
1	Bg	108:SER	C	109:ASP	N	3.44
1	Bg	215:GLY	C	216:LYS	N	3.44
1	BE	241:GLY	C	242:LYS	N	3.43

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BG	160:ARG	C	161:GLU	N	3.43
1	BP	78:THR	C	79:HIS	N	3.43
1	BP	123:TYR	C	124:THR	N	3.43
1	Ba	61:GLU	C	62:TYR	N	3.43
1	A2	397:A	O3'	398:G	P	3.42
1	BC	86:VAL	C	87:GLN	N	3.42
1	BM	29:LYS	C	30:VAL	N	3.42
1	A2	792:U	O3'	793:A	P	3.41
1	A2	1246:C	O3'	1247:U	P	3.41
1	BF	39:GLU	C	40:ILE	N	3.41
1	BF	48:PHE	C	49:GLU	N	3.41
1	BG	153:VAL	C	154:ARG	N	3.41
1	A2	257:A	O3'	258:C	P	3.40
1	A2	371:G	O3'	372:G	P	3.40
1	A2	781:U	O3'	782:U	P	3.40
1	A2	1787:C	O3'	1788:G	P	3.40
1	AZ	6174:G	O3'	6175:A	P	3.40
1	BF	211:ILE	C	212:LYS	N	3.40
1	BG	141:ILE	C	142:ARG	N	3.40
1	BQ	68:ARG	C	69:VAL	N	3.40
1	BU	40:ASN	C	41:ILE	N	3.40
1	A2	1492:A	O3'	1493:A	P	3.39
1	BB	72:ASP	C	73:LEU	N	3.39
1	BB	123:ALA	C	124:ASN	N	3.39
1	BB	130:SER	C	131:ASP	N	3.39
1	BD	119:ALA	C	120:TYR	N	3.39
1	BE	131:LEU	C	132:GLY	N	3.39
1	BS	30:TYR	C	31:ALA	N	3.39
1	A2	461:G	O3'	462:G	P	3.38
1	A2	1061:A	O3'	1062:A	P	3.38
1	A2	1362:U	O3'	1363:U	P	3.38
1	A2	1406:A	O3'	1407:U	P	3.38
1	BL	75:VAL	C	76:VAL	N	3.38
1	BO	85:ALA	C	86:THR	N	3.38
1	Bb	6:ASP	C	7:LEU	N	3.38
1	A2	1672:G	O3'	1673:G	P	3.37
1	AZ	6132:A	O3'	6133:G	P	3.37
1	BJ	81:VAL	C	82:ARG	N	3.37
1	BL	42:PHE	C	43:LYS	N	3.37
1	BR	26:LEU	C	27:ASP	N	3.37
1	Bb	34:ASP	C	35:VAL	N	3.37
1	Bd	36:LEU	C	37:ASN	N	3.37

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BG	181:PRO	C	182:GLN	N	3.36
1	BH	155:ASP	C	156:SER	N	3.36
1	Bg	300:THR	C	301:LEU	N	3.36
1	A2	1266:U	O3'	1267:G	P	3.35
1	A2	1308:G	O3'	1309:C	P	3.35
1	BJ	20:GLU	C	21:SER	N	3.35
1	A2	1434:U	O3'	1435:G	P	3.34
1	A2	1474:G	O3'	1475:A	P	3.34
1	A2	1499:G	O3'	1500:C	P	3.34
1	A2	1576:A	O3'	1577:A	P	3.34
1	AZ	6181:C	O3'	6186:U	P	3.34
1	BP	71:GLU	C	72:LYS	N	3.34
1	A2	850:A	O3'	851:U	P	3.33
1	A2	1321:A	O3'	1322:A	P	3.33
1	BD	61:GLU	C	62:ASN	N	3.33
1	BG	27:PHE	C	28:PHE	N	3.33
1	BT	21:PHE	C	22:LEU	N	3.33
1	A2	500:C	O3'	501:U	P	3.32
1	A2	1001:A	O3'	1002:G	P	3.32
1	A2	1366:U	O3'	1367:G	P	3.32
1	A2	1711:C	O3'	1712:A	P	3.32
1	AZ	6101:U	O3'	6102:A	P	3.32
1	BA	95:ALA	C	96:THR	N	3.32
1	BB	229:MET	C	230:ALA	N	3.32
1	BF	22:PRO	C	23:VAL	N	3.32
1	BI	83:TYR	C	84:HIS	N	3.32
1	Bg	294:TRP	C	295:SER	N	3.32
1	A2	505:A	O3'	506:A	P	3.31
1	A2	538:A	O3'	539:G	P	3.31
1	A2	555:A	O3'	556:A	P	3.31
1	A2	745:U	O3'	746:A	P	3.31
1	A2	762:A	O3'	763:G	P	3.31
1	A2	1163:A	O3'	1164:G	P	3.31
1	A2	1346:A	O3'	1347:U	P	3.31
1	BG	139:ASN	C	140:ASN	N	3.31
1	BJ	83:VAL	C	84:GLY	N	3.31
1	BK	19:GLY	C	20:VAL	N	3.31
1	BX	22:ASN	C	23:ARG	N	3.31
1	Bg	222:LEU	C	223:TRP	N	3.31
1	A2	479:C	O3'	480:G	P	3.30
1	AZ	6122:C	O3'	6123:A	P	3.30
1	BD	91:VAL	C	92:GLN	N	3.30

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BG	24:ILE	C	25:ARG	N	3.30
1	BG	36:VAL	C	37:ASP	N	3.30
1	BI	8:ARG	C	9:HIS	N	3.30
1	BI	64:ASN	C	65:PHE	N	3.30
1	BP	41:VAL	C	42:ARG	N	3.30
1	BS	87:ASN	C	88:ARG	N	3.30
1	Bb	52:THR	C	53:ALA	N	3.30
1	Bg	231:MET	C	232:TYR	N	3.30
1	A2	638:U	O3'	639:U	P	3.29
1	A2	882:U	O3'	883:C	P	3.29
1	A2	1456:C	O3'	1457:C	P	3.29
1	A2	1494:C	O3'	1495:C	P	3.29
1	BB	40:ASN	C	41:ALA	N	3.29
1	BD	117:ARG	C	118:ALA	N	3.29
1	BF	138:THR	C	139:ASN	N	3.29
1	BF	182:ALA	C	183:ALA	N	3.29
1	BS	61:LEU	C	62:THR	N	3.29
1	BS	93:THR	C	94:ASP	N	3.29
1	BS	114:GLU	C	115:ARG	N	3.29
1	BX	82:LYS	C	83:VAL	N	3.29
1	Ba	51:ARG	C	52:ASP	N	3.29
1	Bg	141:LEU	C	142:ALA	N	3.29
1	Bg	226:ALA	C	227:ALA	N	3.29
1	Bg	242:SER	C	243:LEU	N	3.29
1	A2	914:G	O3'	915:A	P	3.28
1	A2	1365:C	O3'	1366:U	P	3.28
1	AZ	6059:G	O3'	6060:A	P	3.28
1	AZ	6107:U	O3'	6108:U	P	3.28
1	BE	189:LEU	C	190:GLY	N	3.28
1	BI	38:ILE	C	39:GLY	N	3.28
1	BI	97:THR	C	98:LYS	N	3.28
1	BP	47:ARG	C	48:GLY	N	3.28
1	BS	10:SER	C	11:PHE	N	3.28
1	BS	94:ASP	C	95:GLY	N	3.28
1	BX	75:GLN	C	76:LEU	N	3.28
1	BZ	68:ARG	C	69:LEU	N	3.28
1	A2	110:U	O3'	111:U	P	3.27
1	A2	252:U	O3'	253:A	P	3.27
1	A2	1302:U	O3'	1303:U	P	3.27
1	BD	224:ASP	C	225:TYR	N	3.27
1	BE	95:THR	C	96:ASN	N	3.27
1	BG	104:PRO	C	105:ASP	N	3.27

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BH	175:LYS	C	176:LEU	N	3.27
1	BQ	56:GLY	C	57:LEU	N	3.27
1	BS	72:ILE	C	73:MET	N	3.27
1	BS	109:LEU	C	110:ARG	N	3.27
1	BT	126:GLU	C	127:ASN	N	3.27
1	Ba	12:LYS	C	13:LYS	N	3.27
1	Bc	29:ARG	C	30:VAL	N	3.27
1	Bg	15:GLY	C	16:HIS	N	3.27
1	A2	1117:U	O3'	1118:G	P	3.26
1	BB	195:LYS	C	196:GLU	N	3.26
1	BE	110:ALA	C	111:VAL	N	3.26
1	BE	175:PHE	C	176:ASP	N	3.26
1	BH	89:HIS	C	90:VAL	N	3.26
1	BI	91:VAL	C	92:ARG	N	3.26
1	BI	99:ALA	C	100:ALA	N	3.26
1	BQ	80:ALA	C	81:ILE	N	3.26
1	BW	48:GLY	C	49:GLU	N	3.26
1	Bd	54:LYS	C	55:PHE	N	3.26
1	A2	389:G	O3'	390:G	P	3.25
1	A2	1254:U	O3'	1255:G	P	3.25
1	A2	1332:C	O3'	1333:C	P	3.25
1	AZ	6163:C	O3'	6164:U	P	3.25
1	BA	197:ILE	C	198:MET	N	3.25
1	BB	202:LYS	C	203:ASP	N	3.25
1	BE	40:GLU	C	41:SER	N	3.25
1	BF	215:ASP	C	216:GLU	N	3.25
1	BG	32:ILE	C	33:GLY	N	3.25
1	BH	8:ILE	C	9:LEU	N	3.25
1	BI	119:GLN	C	120:THR	N	3.25
1	BI	158:SER	C	159:GLN	N	3.25
1	BK	88:PRO	C	89:GLY	N	3.25
1	BU	104:THR	C	105:GLN	N	3.25
1	Bg	245:PHE	C	246:SER	N	3.25
1	Bg	271:VAL	C	272:ASP	N	3.25
1	A2	750:U	O3'	751:G	P	3.24
1	BD	51:ARG	C	52:ALA	N	3.24
1	BD	172:THR	C	173:ARG	N	3.24
1	BD	176:LEU	C	177:MET	N	3.24
1	BF	95:ASN	C	96:SER	N	3.24
1	BF	189:THR	C	190:ILE	N	3.24
1	BL	143:SER	C	144:ALA	N	3.24
1	BQ	83:GLN	C	84:ALA	N	3.24

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BR	7:LYS	C	8:THR	N	3.24
1	BU	61:LYS	C	62:VAL	N	3.24
1	Bb	12:ALA	C	13:ALA	N	3.24
1	Be	9:ALA	C	10:ARG	N	3.24
1	Be	35:TYR	C	36:LYS	N	3.24
1	A2	643:G	O3'	644:C	P	3.23
1	A2	987:G	O3'	988:A	P	3.23
1	A2	1735:U	O3'	1736:G	P	3.23
1	AZ	6053:U	O3'	6054:U	P	3.23
1	BD	56:GLN	C	57:ASP	N	3.23
1	BD	120:TYR	C	121:GLY	N	3.23
1	BF	99:MET	C	100:ASN	N	3.23
1	BQ	3:ALA	C	4:VAL	N	3.23
1	BU	37:VAL	C	38:SER	N	3.23
1	BX	34:LEU	C	35:GLY	N	3.23
1	BY	130:ALA	C	131:ARG	N	3.23
1	Bb	36:LYS	C	37:CYS	N	3.23
1	Bg	111:MET	C	112:SER	N	3.23
1	A2	1156:C	O3'	1157:A	P	3.22
1	AZ	6031:G	O3'	6032:U	P	3.22
1	BB	212:VAL	C	213:ARG	N	3.22
1	BC	119:LYS	C	120:GLU	N	3.22
1	BD	38:GLU	C	39:VAL	N	3.22
1	BD	111:ASN	C	112:GLY	N	3.22
1	BG	57:ASP	C	58:LYS	N	3.22
1	BK	15:LEU	C	16:PHE	N	3.22
1	BM	36:LEU	C	37:VAL	N	3.22
1	BQ	106:LYS	C	107:LYS	N	3.22
1	BY	97:ALA	C	98:GLU	N	3.22
1	Bb	13:ALA	C	14:SER	N	3.22
1	Bg	147:HIS	C	148:ASN	N	3.22
1	A2	1189:A	O3'	1190:C	P	3.21
1	A2	1579:U	O3'	1580:C	P	3.21
1	BC	246:GLU	C	247:ALA	N	3.21
1	BD	84:ILE	C	85:VAL	N	3.21
1	BD	85:VAL	C	86:LEU	N	3.21
1	BD	142:LEU	C	143:ARG	N	3.21
1	BE	197:HIS	C	198:LYS	N	3.21
1	BE	256:ARG	C	257:ALA	N	3.21
1	BI	154:SER	C	155:SER	N	3.21
1	BP	17:TYR	C	18:ARG	N	3.21
1	Bg	59:ARG	C	60:SER	N	3.21

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Bg	212:ALA	C	213:SER	N	3.21
1	A2	97:C	O3'	98:U	P	3.20
1	A2	186:C	O3'	187:G	P	3.20
1	BC	123:GLY	C	124:ALA	N	3.20
1	BG	84:TYR	C	85:ARG	N	3.20
1	BI	4:SER	C	5:ARG	N	3.20
1	BT	3:GLY	C	4:VAL	N	3.20
1	BU	51:VAL	C	52:LYS	N	3.20
1	BX	118:PRO	C	119:GLY	N	3.20
1	BY	19:ALA	C	20:ARG	N	3.20
1	A2	204:G	O3'	205:U	P	3.19
1	A2	451:A	O3'	452:A	P	3.19
1	A2	906:A	O3'	907:A	P	3.19
1	BH	4:PRO	C	5:GLN	N	3.19
1	BO	110:LEU	C	111:ARG	N	3.19
1	BP	68:PRO	C	69:GLU	N	3.19
1	BY	103:ALA	C	104:SER	N	3.19
1	Bb	75:GLU	C	76:GLY	N	3.19
1	Bc	62:GLU	C	63:ALA	N	3.19
1	Be	46:ASN	C	47:VAL	N	3.19
1	A2	84:A	O3'	85:A	P	3.18
1	BC	70:ASP	C	71:THR	N	3.18
1	BC	124:ALA	C	125:ILE	N	3.18
1	BE	203:GLY	C	204:GLY	N	3.18
1	BI	161:SER	C	162:ALA	N	3.18
1	BL	98:ASN	C	99:ARG	N	3.18
1	BO	79:VAL	C	80:HIS	N	3.18
1	BR	90:ALA	C	91:ALA	N	3.18
1	BT	92:LYS	C	93:HIS	N	3.18
1	BX	46:SER	C	47:SER	N	3.18
1	Bb	71:ALA	C	72:LYS	N	3.18
1	A2	178:U	O3'	179:A	P	3.17
1	A2	272:U	O3'	273:G	P	3.17
1	A2	812:A	O3'	813:U	P	3.17
1	A2	1610:G	O3'	1611:A	P	3.17
1	BB	174:LYS	C	175:GLU	N	3.17
1	BE	56:LEU	C	57:ASN	N	3.17
1	BM	57:ALA	C	58:LEU	N	3.17
1	BQ	28:LEU	C	29:ILE	N	3.17
1	BU	62:VAL	C	63:LEU	N	3.17
1	Bg	170:ILE	C	171:SER	N	3.17
1	Bg	241:PHE	C	242:SER	N	3.17

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	169:A	O3'	170:U	P	3.16
1	A2	319:U	O3'	320:U	P	3.16
1	BF	157:ARG	C	158:GLN	N	3.16
1	BH	150:GLN	C	151:LYS	N	3.16
1	BK	6:GLU	C	7:ASP	N	3.16
1	BN	143:SER	C	144:ALA	N	3.16
1	BP	13:LYS	C	14:THR	N	3.16
1	BT	108:LEU	C	109:GLU	N	3.16
1	BW	45:GLY	C	46:TYR	N	3.16
1	BX	61:SER	C	62:LYS	N	3.16
1	Bg	14:GLU	C	15:GLY	N	3.16
1	Bg	237:GLN	C	238:ASP	N	3.16
1	A2	137:U	O3'	138:A	P	3.15
1	A2	845:G	O3'	846:G	P	3.15
1	AZ	6092:U	O3'	6093:A	P	3.15
1	BD	194:LYS	C	195:SER	N	3.15
1	BE	36:HIS	C	37:LYS	N	3.15
1	BG	55:GLY	C	56:ASN	N	3.15
1	BL	25:VAL	C	26:LYS	N	3.15
1	BO	61:MET	C	62:LEU	N	3.15
1	BT	36:ILE	C	37:VAL	N	3.15
1	BW	99:PHE	C	100:GLY	N	3.15
1	BY	61:ARG	C	62:THR	N	3.15
1	AZ	6035:U	O3'	6036:C	P	3.14
1	BC	121:VAL	C	122:ALA	N	3.14
1	BC	168:ARG	C	169:LEU	N	3.14
1	BD	7:LYS	C	8:LYS	N	3.14
1	BD	147:ALA	C	148:LYS	N	3.14
1	BF	79:ASN	C	80:LYS	N	3.14
1	BH	140:VAL	C	141:ARG	N	3.14
1	BI	194:ARG	C	195:ARG	N	3.14
1	BJ	19:TYR	C	20:GLU	N	3.14
1	BJ	115:LYS	C	116:LEU	N	3.14
1	BJ	166:GLY	C	167:ALA	N	3.14
1	BL	18:HIS	C	19:ILE	N	3.14
1	BM	67:THR	C	68:GLU	N	3.14
1	BN	121:ARG	C	122:ILE	N	3.14
1	BV	60:ARG	C	61:SER	N	3.14
1	BX	91:GLY	C	92:CYS	N	3.14
1	Bg	256:THR	C	257:ALA	N	3.14
1	A2	404:G	O3'	405:C	P	3.13
1	AZ	6080:G	O3'	6081:U	P	3.13

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	49:ASN	C	50:LYS	N	3.13
1	BB	218:LEU	C	219:LYS	N	3.13
1	BJ	114:TYR	C	115:LYS	N	3.13
1	BS	20:THR	C	21:ASN	N	3.13
1	BU	103:ILE	C	104:THR	N	3.13
1	Bg	259:GLY	C	260:ILE	N	3.13
1	A2	61:A	O3'	62:A	P	3.12
1	A2	163:G	O3'	164:A	P	3.12
1	A2	269:G	O3'	270:C	P	3.12
1	A2	561:G	O3'	562:G	P	3.12
1	A2	613:G	O3'	614:C	P	3.12
1	A2	1458:G	O3'	1459:C	P	3.12
1	A2	1533:C	O3'	1534:G	P	3.12
1	AZ	6220:U	O3'	6221:U	P	3.12
1	BF	223:SER	C	224:ASN	N	3.12
1	BI	47:ARG	C	48:THR	N	3.12
1	BM	92:ALA	C	93:ASP	N	3.12
1	BQ	104:GLU	C	105:LEU	N	3.12
1	BV	42:GLU	C	43:GLY	N	3.12
1	A2	64:U	O3'	65:A	P	3.11
1	A2	1116:A	O3'	1117:U	P	3.11
1	BB	211:HIS	C	212:VAL	N	3.11
1	BD	92:GLN	C	93:ASP	N	3.11
1	BD	102:ALA	C	103:GLU	N	3.11
1	BG	9:VAL	C	10:ASN	N	3.11
1	BI	163:GLY	C	164:ARG	N	3.11
1	BP	63:ALA	C	64:LYS	N	3.11
1	BS	32:LEU	C	33:THR	N	3.11
1	BY	71:GLY	C	72:PHE	N	3.11
1	Bc	25:VAL	C	26:THR	N	3.11
1	A2	78:A	O3'	79:C	P	3.10
1	A2	892:A	O3'	893:U	P	3.10
1	BB	171:ILE	C	172:LEU	N	3.10
1	BD	63:GLY	C	64:ARG	N	3.10
1	BD	83:THR	C	84:ILE	N	3.10
1	BH	74:GLN	C	75:THR	N	3.10
1	BU	80:GLU	C	81:THR	N	3.10
1	BW	31:SER	C	32:LYS	N	3.10
1	Bf	99:ALA	C	100:ALA	N	3.10
1	A2	1238:A	O3'	1239:U	P	3.09
1	BB	121:ILE	C	122:GLU	N	3.09
1	BC	43:ARG	C	44:LEU	N	3.09

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BG	179:VAL	C	180:THR	N	3.09
1	BH	55:LYS	C	56:LYS	N	3.09
1	BK	69:THR	C	70:GLU	N	3.09
1	BN	80:LEU	C	81:ALA	N	3.09
1	BR	38:ILE	C	39:ALA	N	3.09
1	BY	26:ASP	C	27:VAL	N	3.09
1	Ba	53:LEU	C	54:SER	N	3.09
1	Bb	33:LEU	C	34:ASP	N	3.09
1	Bg	130:THR	C	131:ILE	N	3.09
1	A2	48:G	O3'	49:C	P	3.08
1	A2	119:A	O3'	120:U	P	3.08
1	A2	1423:U	O3'	1424:A	P	3.08
1	BA	101:ARG	C	102:PHE	N	3.08
1	BE	57:ASN	C	58:GLY	N	3.08
1	BO	80:HIS	C	81:VAL	N	3.08
1	BQ	7:VAL	C	8:GLN	N	3.08
1	BQ	115:THR	C	116:LEU	N	3.08
1	BX	128:SER	C	129:GLY	N	3.08
1	Bg	181:TRP	C	182:ASN	N	3.08
1	A2	1052:U	O3'	1053:G	P	3.07
1	BB	23:PRO	C	24:PHE	N	3.07
1	BD	182:LEU	C	183:GLY	N	3.07
1	BF	85:ALA	C	86:GLN	N	3.07
1	BF	91:GLU	C	92:ARG	N	3.07
1	BI	136:SER	C	137:LYS	N	3.07
1	BK	44:LYS	C	45:ALA	N	3.07
1	BL	45:PRO	C	46:LYS	N	3.07
1	BN	105:ASN	C	106:ARG	N	3.07
1	BN	110:ASP	C	111:ALA	N	3.07
1	BN	118:ILE	C	119:GLU	N	3.07
1	BO	89:THR	C	90:ARG	N	3.07
1	BO	135:ARG	C	136:ARG	N	3.07
1	BP	122:THR	C	123:TYR	N	3.07
1	BQ	88:GLY	C	89:LEU	N	3.07
1	A2	1281:G	O3'	1282:U	P	3.06
1	A2	1659:A	O3'	1660:A	P	3.06
1	A2	1744:A	O3'	1745:G	P	3.06
1	BB	80:SER	C	81:PHE	N	3.06
1	BD	106:LYS	C	107:PHE	N	3.06
1	BE	18:TRP	C	19:LEU	N	3.06
1	BE	67:GLN	C	68:ARG	N	3.06
1	BE	93:ASP	C	94:ALA	N	3.06

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BJ	42:ILE	C	43:TYR	N	3.06
1	BK	75:TYR	C	76:LEU	N	3.06
1	BS	95:GLY	C	96:LYS	N	3.06
1	BT	74:GLY	C	75:LYS	N	3.06
1	BU	60:THR	C	61:LYS	N	3.06
1	BY	102:LYS	C	103:ALA	N	3.06
1	Bg	96:THR	C	97:GLY	N	3.06
1	A2	794:U	O3'	795:U	P	3.05
1	BB	62:LYS	C	63:GLY	N	3.05
1	BB	198:GLU	C	199:ASN	N	3.05
1	BC	140:ARG	C	141:ARG	N	3.05
1	BD	161:GLY	C	162:GLN	N	3.05
1	BE	193:GLY	C	194:THR	N	3.05
1	BF	63:GLN	C	64:VAL	N	3.05
1	BG	30:ALA	C	31:ARG	N	3.05
1	BJ	15:PRO	C	16:LYS	N	3.05
1	BL	33:ARG	C	34:TRP	N	3.05
1	BN	63:ALA	C	64:ARG	N	3.05
1	BO	136:ARG	C	137:LEU	N	3.05
1	BR	62:GLN	C	63:LYS	N	3.05
1	BS	131:LEU	C	132:ARG	N	3.05
1	BU	72:ASN	C	73:GLY	N	3.05
1	BY	75:VAL	C	76:TYR	N	3.05
1	BZ	77:ARG	C	78:ILE	N	3.05
1	A2	767:U	O3'	768:C	P	3.04
1	A2	786:C	O3'	787:G	P	3.04
1	A2	1756:A	O3'	1757:G	P	3.04
1	BD	31:GLU	C	32:GLU	N	3.04
1	BR	43:SER	C	44:LYS	N	3.04
1	BR	66:VAL	C	67:ARG	N	3.04
1	BR	101:ASN	C	102:VAL	N	3.04
1	BW	108:ALA	C	109:GLY	N	3.04
1	BX	65:ASN	C	66:SER	N	3.04
1	Ba	45:VAL	C	46:GLU	N	3.04
1	Bb	60:SER	C	61:THR	N	3.04
1	Bc	28:VAL	C	29:ARG	N	3.04
1	Bf	141:CYS	C	142:GLY	N	3.04
1	A2	853:G	O3'	854:U	P	3.03
1	A2	893:U	O3'	894:U	P	3.03
1	BD	79:TYR	C	80:ALA	N	3.03
1	BH	93:LEU	C	94:ALA	N	3.03
1	BJ	139:GLN	C	140:ILE	N	3.03

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BP	112:LEU	C	113:GLY	N	3.03
1	BT	42:GLY	C	43:ASN	N	3.03
1	BT	60:SER	C	61:VAL	N	3.03
1	Bb	56:CYS	C	57:GLU	N	3.03
1	Bg	88:THR	C	89:LEU	N	3.03
1	Bg	306:THR	C	307:ASP	N	3.03
1	A2	521:A	O3'	522:U	P	3.02
1	A2	597:G	O3'	598:U	P	3.02
1	A2	735:C	O3'	736:C	P	3.02
1	A2	808:U	O3'	809:A	P	3.02
1	A2	1322:A	O3'	1323:C	P	3.02
1	A2	1741:U	O3'	1742:U	P	3.02
1	BB	147:ALA	C	148:ASN	N	3.02
1	BB	214:LYS	C	215:VAL	N	3.02
1	BE	123:LEU	C	124:GLY	N	3.02
1	BH	7:LYS	C	8:ILE	N	3.02
1	BH	103:SER	C	104:ARG	N	3.02
1	BJ	31:ALA	C	32:GLY	N	3.02
1	BL	32:LYS	C	33:ARG	N	3.02
1	BR	24:LEU	C	25:THR	N	3.02
1	BW	30:SER	C	31:SER	N	3.02
1	A2	406:U	O3'	407:A	P	3.01
1	BF	124:LEU	C	125:THR	N	3.01
1	BF	156:ARG	C	157:ARG	N	3.01
1	BL	9:SER	C	10:GLU	N	3.01
1	BM	40:GLY	C	41:LEU	N	3.01
1	BO	22:SER	C	23:PHE	N	3.01
1	BO	49:LYS	C	50:ALA	N	3.01
1	BY	89:TYR	C	90:ARG	N	3.01
1	Bb	32:PHE	C	33:LEU	N	3.01
1	Bg	104:VAL	C	105:GLY	N	3.01
1	Bg	127:ARG	C	128:ASP	N	3.01
1	A2	23:G	O3'	24:U	P	3.00
1	A2	782:U	O3'	783:G	P	3.00
1	A2	1003:A	O3'	1004:U	P	3.00
1	A2	1519:U	O3'	1520:U	P	3.00
1	BF	80:LYS	C	81:ARG	N	3.00
1	BG	73:ILE	C	74:ALA	N	3.00
1	BI	45:SER	C	46:VAL	N	3.00
1	BJ	21:SER	C	22:SER	N	3.00
1	BK	71:GLU	C	72:GLY	N	3.00
1	BL	10:GLU	C	11:ARG	N	3.00

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BM	63:VAL	C	64:SER	N	3.00
1	BP	117:GLY	C	118:GLU	N	3.00
1	BU	50:LEU	C	51:VAL	N	3.00
1	A2	526:A	O3'	527:A	P	2.99
1	BD	37:VAL	C	38:GLU	N	2.99
1	BJ	152:SER	C	153:GLU	N	2.99
1	BN	91:LEU	C	92:ILE	N	2.99
1	BO	44:GLY	C	45:GLY	N	2.99
1	BQ	54:LEU	C	55:VAL	N	2.99
1	BQ	91:ALA	C	92:TYR	N	2.99
1	BR	41:ILE	C	42:GLN	N	2.99
1	BS	108:LYS	C	109:LEU	N	2.99
1	BT	129:GLN	C	130:ARG	N	2.99
1	A2	117:U	O3'	118:U	P	2.98
1	A2	535:A	O3'	536:C	P	2.98
1	A2	1309:C	O3'	1310:U	P	2.98
1	A2	1746:A	O3'	1747:G	P	2.98
1	BD	32:GLU	C	33:GLY	N	2.98
1	BD	96:LEU	C	97:SER	N	2.98
1	BE	77:ARG	C	78:THR	N	2.98
1	BF	216:GLU	C	217:LEU	N	2.98
1	BG	186:ARG	C	187:LYS	N	2.98
1	BM	32:LEU	C	33:ARG	N	2.98
1	BN	34:ILE	C	35:GLU	N	2.98
1	BV	83:TRP	C	84:SER	N	2.98
1	BW	55:ASP	C	56:HIS	N	2.98
1	Bg	24:ALA	C	25:THR	N	2.98
1	A2	393:C	O3'	394:C	P	2.97
1	BA	135:GLU	C	136:ALA	N	2.97
1	BC	62:PRO	C	63:VAL	N	2.97
1	BD	40:ARG	C	41:VAL	N	2.97
1	BD	114:ALA	C	115:ILE	N	2.97
1	BG	59:GLN	C	60:GLY	N	2.97
1	BK	11:ILE	C	12:HIS	N	2.97
1	BV	70:ASN	C	71:ARG	N	2.97
1	BY	2:SER	C	3:ASP	N	2.97
1	Be	32:GLY	C	33:ARG	N	2.97
1	A2	81:G	O3'	82:U	P	2.96
1	A2	87:C	O3'	88:U	P	2.96
1	A2	456:A	O3'	457:G	P	2.96
1	A2	470:A	O3'	471:A	P	2.96
1	A2	1185:U	O3'	1186:U	P	2.96

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	137:ILE	C	138:PHE	N	2.96
1	BC	34:GLY	C	35:TRP	N	2.96
1	BC	247:ALA	C	248:SER	N	2.96
1	BH	42:GLN	C	43:PHE	N	2.96
1	BI	12:SER	C	13:ALA	N	2.96
1	BP	62:ALA	C	63:ALA	N	2.96
1	BV	36:VAL	C	37:ALA	N	2.96
1	BX	49:ALA	C	50:LYS	N	2.96
1	A2	339:C	O3'	340:U	P	2.95
1	BA	20:ALA	C	21:ASN	N	2.95
1	BA	196:SER	C	197:ILE	N	2.95
1	BC	131:ILE	C	132:ALA	N	2.95
1	BC	186:LYS	C	187:LEU	N	2.95
1	BF	160:VAL	C	161:ASP	N	2.95
1	BH	120:ALA	C	121:VAL	N	2.95
1	BH	166:LEU	C	167:GLU	N	2.95
1	BJ	61:THR	C	62:ARG	N	2.95
1	BK	4:PRO	C	5:LYS	N	2.95
1	BN	76:LYS	C	77:SER	N	2.95
1	BN	104:ARG	C	105:ASN	N	2.95
1	BN	139:TRP	C	140:LYS	N	2.95
1	BT	95:ASP	C	96:ALA	N	2.95
1	BU	89:ARG	C	90:TYR	N	2.95
1	BX	29:TYR	C	30:LYS	N	2.95
1	Bc	40:ILE	C	41:VAL	N	2.95
1	Bc	52:ASP	C	53:ILE	N	2.95
1	A2	249:U	O3'	250:C	P	2.94
1	A2	262:U	O3'	263:C	P	2.94
1	A2	1625:C	O3'	1626:U	P	2.94
1	BC	53:ILE	C	54:GLU	N	2.94
1	BC	63:VAL	C	64:LYS	N	2.94
1	BC	193:VAL	C	194:GLU	N	2.94
1	BE	61:VAL	C	62:LYS	N	2.94
1	BE	124:GLY	C	125:LYS	N	2.94
1	BF	121:ILE	C	122:ASN	N	2.94
1	BG	81:VAL	C	82:SER	N	2.94
1	BH	167:GLU	C	168:SER	N	2.94
1	BR	83:GLN	C	84:TYR	N	2.94
1	BY	70:VAL	C	71:GLY	N	2.94
1	BY	83:LYS	C	84:LYS	N	2.94
1	Bc	21:SER	C	22:ARG	N	2.94
1	A2	260:U	O3'	261:U	P	2.93

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	321:C	O3'	322:G	P	2.93
1	A2	458:G	O3'	459:G	P	2.93
1	A2	903:U	O3'	904:G	P	2.93
1	BC	207:LEU	C	208:GLU	N	2.93
1	BD	195:SER	C	196:ARG	N	2.93
1	BH	9:LEU	C	10:SER	N	2.93
1	BJ	178:ALA	C	179:ARG	N	2.93
1	BP	107:ILE	C	108:ARG	N	2.93
1	BR	3:ARG	C	4:VAL	N	2.93
1	Bg	232:TYR	C	233:THR	N	2.93
1	A2	994:G	O3'	995:A	P	2.92
1	A2	1326:A	O3'	1327:C	P	2.92
1	A2	1413:U	O3'	1414:U	P	2.92
1	A2	1791:A	O3'	1792:G	P	2.92
1	BD	66:ILE	C	67:ASN	N	2.92
1	BD	89:GLU	C	90:ARG	N	2.92
1	BD	221:SER	C	222:VAL	N	2.92
1	BE	133:LYS	C	134:LYS	N	2.92
1	BI	195:ARG	C	196:LEU	N	2.92
1	BJ	93:LEU	C	94:ASP	N	2.92
1	BJ	95:TYR	C	96:VAL	N	2.92
1	BL	92:HIS	C	93:TYR	N	2.92
1	BL	142:VAL	C	143:SER	N	2.92
1	BO	18:ARG	C	19:ILE	N	2.92
1	BR	52:GLY	C	53:TYR	N	2.92
1	BR	121:VAL	C	122:ILE	N	2.92
1	BT	88:VAL	C	89:ARG	N	2.92
1	BT	119:LYS	C	120:GLY	N	2.92
1	BX	81:LYS	C	82:LYS	N	2.92
1	Ba	60:PRO	C	61:GLU	N	2.92
1	Be	22:GLU	C	23:LYS	N	2.92
1	Be	42:ARG	C	43:ARG	N	2.92
1	A2	757:A	O3'	758:U	P	2.91
1	A2	1214:U	O3'	1215:C	P	2.91
1	BC	182:PRO	C	183:ALA	N	2.91
1	BY	34:ASN	C	35:VAL	N	2.91
1	BY	88:THR	C	89:TYR	N	2.91
1	Ba	73:TYR	C	74:CYS	N	2.91
1	Bc	59:SER	C	60:GLU	N	2.91
1	A2	911:U	O3'	912:U	P	2.90
1	A2	985:G	O3'	986:G	P	2.90
1	AZ	6114:U	O3'	6115:U	P	2.90

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BD	24:PHE	C	25:PHE	N	2.90
1	BE	97:GLU	C	98:ASN	N	2.90
1	BG	50:PHE	C	51:LYS	N	2.90
1	BH	95:GLU	C	96:ARG	N	2.90
1	BH	118:LEU	C	119:THR	N	2.90
1	BI	167:ALA	C	168:CYS	N	2.90
1	BJ	175:ARG	C	176:ASN	N	2.90
1	BT	17:ALA	C	18:TYR	N	2.90
1	BV	15:ARG	C	16:LYS	N	2.90
1	BX	31:LYS	C	32:ARG	N	2.90
1	BY	7:ILE	C	8:ARG	N	2.90
1	BB	105:PHE	C	106:THR	N	2.89
1	BF	217:LEU	C	218:GLU	N	2.89
1	BL	38:ALA	C	39:GLY	N	2.89
1	BN	41:ALA	C	42:ARG	N	2.89
1	BO	31:THR	C	32:ASP	N	2.89
1	A2	749:U	O3'	750:U	P	2.88
1	A2	898:A	O3'	899:G	P	2.88
1	A2	1292:G	O3'	1293:U	P	2.88
1	A2	1657:U	O3'	1658:G	P	2.88
1	BE	185:GLY	C	186:GLY	N	2.88
1	Bg	180:ALA	C	181:TRP	N	2.88
1	A2	1655:A	O3'	1656:U	P	2.87
1	BB	138:PHE	C	139:ALA	N	2.87
1	BD	71:LEU	C	72:LEU	N	2.87
1	BD	160:SER	C	161:GLY	N	2.87
1	BE	103:TYR	C	104:ASP	N	2.87
1	BG	1:MET	C	2:LYS	N	2.87
1	BP	49:MET	C	50:THR	N	2.87
1	BW	5:SER	C	6:VAL	N	2.87
1	BW	44:HIS	C	45:GLY	N	2.87
1	BW	50:PHE	C	51:GLU	N	2.87
1	Bb	51:GLN	C	52:THR	N	2.87
1	A2	334:G	O3'	335:U	P	2.86
1	A2	432:G	O3'	433:C	P	2.86
1	A2	993:A	O3'	994:G	P	2.86
1	A2	998:A	O3'	999:U	P	2.86
1	A2	1035:G	O3'	1036:A	P	2.86
1	A2	1438:G	O3'	1439:C	P	2.86
1	BC	223:GLY	C	224:PHE	N	2.86
1	BE	5:PRO	C	6:LYS	N	2.86
1	BG	192:ALA	C	193:LEU	N	2.86

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BI	58:LEU	C	59:ARG	N	2.86
1	BR	79:GLU	C	80:ARG	N	2.86
1	BT	102:ARG	C	103:LYS	N	2.86
1	BU	57:ARG	C	58:LEU	N	2.86
1	BW	9:ASP	C	10:ALA	N	2.86
1	A2	1282:U	O3'	1283:U	P	2.85
1	A2	1778:G	O3'	1779:U	P	2.85
1	BB	43:VAL	C	44:GLY	N	2.85
1	BC	64:LYS	C	65:GLU	N	2.85
1	BD	12:VAL	C	13:ALA	N	2.85
1	BE	26:CYS	C	27:TYR	N	2.85
1	BE	114:ILE	C	115:THR	N	2.85
1	BE	143:ASP	C	144:GLY	N	2.85
1	BE	192:ILE	C	193:GLY	N	2.85
1	BG	213:ALA	C	214:LYS	N	2.85
1	BH	20:VAL	C	21:ALA	N	2.85
1	BH	79:ARG	C	80:GLU	N	2.85
1	BH	186:PRO	C	187:SER	N	2.85
1	BK	13:GLN	C	14:TYR	N	2.85
1	BL	21:ASN	C	22:ASN	N	2.85
1	BN	120:SER	C	121:ARG	N	2.85
1	BX	131:SER	C	132:LEU	N	2.85
1	Bf	125:THR	C	126:CYS	N	2.85
1	Bg	199:ILE	C	200:ASN	N	2.85
1	A2	636:A	O3'	637:C	P	2.84
1	A2	789:A	O3'	790:U	P	2.84
1	A2	1191:U	O3'	1192:C	P	2.84
1	A2	1334:U	O3'	1335:U	P	2.84
1	A2	1379:C	O3'	1380:U	P	2.84
1	BH	164:TYR	C	165:LYS	N	2.84
1	BJ	35:GLY	C	36:LEU	N	2.84
1	BQ	17:THR	C	18:ALA	N	2.84
1	BS	66:LEU	C	67:GLU	N	2.84
1	BT	101:ASN	C	102:ARG	N	2.84
1	BU	67:THR	C	68:ARG	N	2.84
1	Ba	29:SER	C	30:ILE	N	2.84
1	A2	1429:G	O3'	1430:U	P	2.83
1	A2	1473:U	O3'	1474:G	P	2.83
1	A2	1727:G	O3'	1728:A	P	2.83
1	BH	109:VAL	C	110:GLN	N	2.83
1	BH	135:ILE	C	136:VAL	N	2.83
1	BJ	96:VAL	C	97:LEU	N	2.83

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BJ	122:VAL	C	123:HIS	N	2.83
1	BR	8:THR	C	9:VAL	N	2.83
1	BV	18:SER	C	19:ALA	N	2.83
1	BV	21:ASN	C	22:ARG	N	2.83
1	BX	25:ALA	C	26:GLU	N	2.83
1	BX	133:LEU	C	134:ALA	N	2.83
1	Bg	312:VAL	C	313:TRP	N	2.83
1	A2	106:U	O3'	107:C	P	2.82
1	A2	977:A	O3'	978:A	P	2.82
1	A2	1024:U	O3'	1025:A	P	2.82
1	BE	160:VAL	C	161:LYS	N	2.82
1	BH	68:ALA	C	69:GLY	N	2.82
1	BN	116:ILE	C	117:LEU	N	2.82
1	BQ	129:PHE	C	130:GLY	N	2.82
1	BY	101:GLU	C	102:LYS	N	2.82
1	BZ	80:LEU	C	81:ARG	N	2.82
1	Ba	4:LYS	C	5:ARG	N	2.82
1	Ba	87:ARG	C	88:SER	N	2.82
1	A2	304:U	O3'	305:C	P	2.81
1	A2	598:U	O3'	599:A	P	2.81
1	A2	1276:U	O3'	1277:G	P	2.81
1	BF	88:PRO	C	89:ILE	N	2.81
1	BH	67:LEU	C	68:ALA	N	2.81
1	BI	176:SER	C	177:GLY	N	2.81
1	BO	77:THR	C	78:ALA	N	2.81
1	BY	14:SER	C	15:ASN	N	2.81
1	Ba	39:MET	C	40:ALA	N	2.81
1	Ba	94:ASN	C	95:ARG	N	2.81
1	A2	351:C	O3'	352:A	P	2.80
1	A2	811:A	O3'	812:A	P	2.80
1	A2	1782:A	O3'	1783:C	P	2.80
1	BB	112:SER	C	113:MET	N	2.80
1	BG	193:LEU	C	194:LYS	N	2.80
1	BH	137:GLY	C	138:LYS	N	2.80
1	BI	11:ARG	C	12:SER	N	2.80
1	BI	101:ILE	C	102:VAL	N	2.80
1	Bb	23:THR	C	24:LEU	N	2.80
1	Bg	153:GLN	C	154:VAL	N	2.80
1	A2	18:C	O3'	19:A	P	2.79
1	A2	617:U	O3'	618:U	P	2.79
1	A2	880:C	O3'	881:A	P	2.79
1	A2	1220:C	O3'	1221:A	P	2.79

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1558:U	O3'	1559:A	P	2.79
1	AZ	6216:U	O3'	6217:A	P	2.79
1	BC	203:LYS	C	204:THR	N	2.79
1	BD	87:TYR	C	88:ALA	N	2.79
1	BD	175:VAL	C	176:LEU	N	2.79
1	BE	54:TYR	C	55:ALA	N	2.79
1	BF	162:VAL	C	163:SER	N	2.79
1	BH	34:LEU	C	35:LYS	N	2.79
1	BL	111:VAL	C	112:SER	N	2.79
1	BO	102:LEU	C	103:ARG	N	2.79
1	A2	27:U	O3'	28:A	P	2.78
1	A2	30:G	O3'	31:C	P	2.78
1	A2	398:G	O3'	399:A	P	2.78
1	A2	1034:C	O3'	1035:G	P	2.78
1	BC	54:GLU	C	55:GLU	N	2.78
1	BE	3:ARG	C	4:GLY	N	2.78
1	BL	68:GLY	C	69:LYS	N	2.78
1	BL	137:PHE	C	138:ASN	N	2.78
1	BP	95:GLY	C	96:ILE	N	2.78
1	BS	33:THR	C	34:THR	N	2.78
1	BW	60:LYS	C	61:ILE	N	2.78
1	BY	76:TYR	C	77:ASN	N	2.78
1	Ba	31:PRO	C	32:LYS	N	2.78
1	BI	180:ASP	C	181:GLY	N	2.77
1	BK	23:ALA	C	24:LYS	N	2.77
1	BK	61:TRP	C	62:GLN	N	2.77
1	BT	6:VAL	C	7:ARG	N	2.77
1	BV	20:THR	C	21:ASN	N	2.77
1	BW	35:ILE	C	36:LYS	N	2.77
1	Ba	85:ARG	C	86:VAL	N	2.77
1	A2	1795:U	O3'	1796:C	P	2.76
1	BC	169:LEU	C	170:ILE	N	2.76
1	BE	234:PRO	C	235:TYR	N	2.76
1	BH	36:ALA	C	37:GLU	N	2.76
1	BI	34:ALA	C	35:ASN	N	2.76
1	BO	90:ARG	C	91:THR	N	2.76
1	BO	120:PRO	C	121:VAL	N	2.76
1	BT	123:ARG	C	124:ILE	N	2.76
1	Bg	40:LYS	C	41:THR	N	2.76
1	A2	80:A	O3'	81:G	P	2.75
1	A2	1279:C	O3'	1280:C	P	2.75
1	A2	1518:C	O3'	1519:U	P	2.75

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BB	94:LYS	C	95:ASN	N	2.75
1	BB	107:THR	C	108:ASP	N	2.75
1	BB	118:GLN	C	119:THR	N	2.75
1	BJ	25:ASP	C	26:ALA	N	2.75
1	BL	59:PRO	C	60:PHE	N	2.75
1	BN	56:ASP	C	57:ALA	N	2.75
1	BN	129:TYR	C	130:ARG	N	2.75
1	BR	12:ALA	C	13:SER	N	2.75
1	BR	70:SER	C	71:PHE	N	2.75
1	BW	92:ASN	C	93:LEU	N	2.75
1	BW	129:VAL	C	130:TYR	N	2.75
1	BX	80:GLY	C	81:LYS	N	2.75
1	Bg	150:TRP	C	151:VAL	N	2.75
1	A2	557:G	O3'	558:U	P	2.74
1	AZ	6042:U	O3'	6043:G	P	2.74
1	BB	64:ARG	C	65:VAL	N	2.74
1	BE	48:LEU	C	49:ARG	N	2.74
1	BE	208:VAL	C	209:HIS	N	2.74
1	BI	116:HIS	C	117:TYR	N	2.74
1	BJ	111:THR	C	112:GLN	N	2.74
1	BJ	141:VAL	C	142:ASN	N	2.74
1	BP	70:ASN	C	71:GLU	N	2.74
1	BU	24:ILE	C	25:THR	N	2.74
1	BX	11:SER	C	12:ALA	N	2.74
1	BX	111:GLY	C	112:LYS	N	2.74
1	A2	449:C	O3'	450:U	P	2.73
1	A2	631:G	O3'	632:U	P	2.73
1	BB	132:ASP	C	133:TYR	N	2.73
1	BE	232:GLY	C	233:LYS	N	2.73
1	BJ	2:PRO	C	3:ARG	N	2.73
1	BN	15:ALA	C	16:ILE	N	2.73
1	BN	119:GLU	C	120:SER	N	2.73
1	BO	91:THR	C	92:LYS	N	2.73
1	BR	75:GLU	C	76:GLU	N	2.73
1	BV	26:ALA	C	27:ASP	N	2.73
1	BX	77:ILE	C	78:LYS	N	2.73
1	BX	88:PRO	C	89:ASN	N	2.73
1	BX	90:ALA	C	91:GLY	N	2.73
1	Ba	90:GLU	C	91:ASP	N	2.73
1	Bg	21:THR	C	22:SER	N	2.73
1	A2	560:U	O3'	561:G	P	2.72
1	A2	1126:G	O3'	1127:G	P	2.72

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1176:G	O3'	1177:C	P	2.72
1	A2	1758:U	O3'	1759:C	P	2.72
1	AZ	6075:A	O3'	6076:A	P	2.72
1	BH	136:VAL	C	137:GLY	N	2.72
1	BJ	75:ALA	C	76:LEU	N	2.72
1	BR	58:MET	C	59:LYS	N	2.72
1	BV	38:LYS	C	39:VAL	N	2.72
1	BW	75:ILE	C	76:SER	N	2.72
1	BZ	76:ALA	C	77:ARG	N	2.72
1	A2	21:U	O3'	22:A	P	2.71
1	BG	113:ILE	C	114:VAL	N	2.71
1	BI	142:LYS	C	143:TRP	N	2.71
1	BJ	33:GLU	C	34:PHE	N	2.71
1	BJ	173:ALA	C	174:ARG	N	2.71
1	BL	72:THR	C	73:GLY	N	2.71
1	BX	30:LYS	C	31:LYS	N	2.71
1	BX	122:PHE	C	123:LYS	N	2.71
1	Bc	26:THR	C	27:GLN	N	2.71
1	Bd	52:PHE	C	53:ASN	N	2.71
1	A2	1488:G	O3'	1489:U	P	2.70
1	A2	1729:C	O3'	1730:A	P	2.70
1	BC	72:LEU	C	73:LEU	N	2.70
1	BC	191:ALA	C	192:GLY	N	2.70
1	BD	23:GLU	C	24:PHE	N	2.70
1	BD	170:THR	C	171:ALA	N	2.70
1	BE	84:ALA	C	85:GLY	N	2.70
1	BE	221:ARG	C	222:LEU	N	2.70
1	BE	251:GLU	C	252:ARG	N	2.70
1	BI	49:ARG	C	50:GLY	N	2.70
1	BQ	13:LYS	C	14:LYS	N	2.70
1	BT	70:GLN	C	71:VAL	N	2.70
1	Be	25:GLU	C	26:LYS	N	2.70
1	A2	425:A	O3'	426:G	P	2.69
1	A2	594:A	O3'	595:G	P	2.69
1	A2	1140:G	O3'	1141:G	P	2.69
1	BH	90:VAL	C	91:ILE	N	2.69
1	BI	170:SER	C	171:SER	N	2.69
1	BO	58:TYR	C	59:ALA	N	2.69
1	BQ	140:LYS	C	141:SER	N	2.69
1	BT	138:GLN	C	139:THR	N	2.69
1	BX	107:PHE	C	108:GLY	N	2.69
1	Bd	46:LYS	C	47:ALA	N	2.69

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	Bg	52:GLN	C	53:LYS	N	2.69
1	BC	157:LYS	C	158:THR	N	2.68
1	BD	109:LEU	C	110:LEU	N	2.68
1	BE	243:GLY	C	244:ILE	N	2.68
1	BP	85:ILE	C	86:VAL	N	2.68
1	Bb	70:LYS	C	71:ALA	N	2.68
1	BC	201:ASN	C	202:GLY	N	2.67
1	BC	204:THR	C	205:ARG	N	2.67
1	BL	110:HIS	C	111:VAL	N	2.67
1	BT	43:ASN	C	44:GLU	N	2.67
1	BY	59:GLY	C	60:PHE	N	2.67
1	BY	68:LYS	C	69:SER	N	2.67
1	A2	952:A	O3'	953:G	P	2.66
1	BC	139:ILE	C	140:ARG	N	2.66
1	BD	197:THR	C	198:GLY	N	2.66
1	BE	27:TYR	C	28:ALA	N	2.66
1	BE	29:PRO	C	30:ARG	N	2.66
1	BF	57:SER	C	58:LEU	N	2.66
1	BN	128:TYR	C	129:TYR	N	2.66
1	Bf	95:ALA	C	96:ALA	N	2.66
1	Bg	287:PRO	C	288:HIS	N	2.66
1	A2	848:C	O3'	849:C	P	2.65
1	A2	876:G	O3'	877:G	P	2.65
1	A2	1113:A	O3'	1114:G	P	2.65
1	A2	1237:G	O3'	1238:A	P	2.65
1	A2	1517:U	O3'	1518:C	P	2.65
1	BC	138:PRO	C	139:ILE	N	2.65
1	BM	34:THR	C	35:ALA	N	2.65
1	BN	96:VAL	C	97:SER	N	2.65
1	BS	83:ALA	C	84:TRP	N	2.65
1	Bd	43:PHE	C	44:ARG	N	2.65
1	A2	353:A	O3'	354:C	P	2.64
1	BC	161:LYS	C	162:CYS	N	2.64
1	BE	235:TYR	C	236:ILE	N	2.64
1	BH	21:ALA	C	22:GLN	N	2.64
1	BJ	62:ARG	C	63:ASP	N	2.64
1	BL	96:LYS	C	97:TYR	N	2.64
1	BN	18:TYR	C	19:SER	N	2.64
1	BQ	20:ALA	C	21:HIS	N	2.64
1	BQ	86:ALA	C	87:LYS	N	2.64
1	BX	37:ALA	C	38:PHE	N	2.64
1	A2	156:A	O3'	157:A	P	2.63

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	755:A	O3'	756:A	P	2.63
1	A2	1621:U	O3'	1622:G	P	2.63
1	BA	108:THR	C	109:ASN	N	2.63
1	BC	47:ALA	C	48:GLY	N	2.63
1	BI	7:SER	C	8:ARG	N	2.63
1	BI	96:LEU	C	97:THR	N	2.63
1	BJ	89:ASP	C	90:LYS	N	2.63
1	BL	128:CYS	C	129:ARG	N	2.63
1	BR	56:HIS	C	57:LEU	N	2.63
1	BW	6:VAL	C	7:LEU	N	2.63
1	BW	14:ILE	C	15:ASN	N	2.63
1	A2	1720:G	O3'	1721:A	P	2.62
1	BB	222:LYS	C	223:PHE	N	2.62
1	BC	133:LYS	C	134:LEU	N	2.62
1	BI	112:TRP	C	113:PHE	N	2.62
1	BJ	97:LEU	C	98:ALA	N	2.62
1	BK	50:THR	C	51:SER	N	2.62
1	BN	61:THR	C	62:GLN	N	2.62
1	Bg	65:SER	C	66:HIS	N	2.62
1	A2	89:G	O3'	90:C	P	2.61
1	BD	148:LYS	C	149:ALA	N	2.61
1	BG	75:LEU	C	76:LEU	N	2.61
1	BI	169:ILE	C	170:SER	N	2.61
1	BR	113:LEU	C	114:GLY	N	2.61
1	BX	120:VAL	C	121:ARG	N	2.61
1	BY	9:THR	C	10:ARG	N	2.61
1	Bd	23:VAL	C	24:CYS	N	2.61
1	Bg	70:ASP	C	71:CYS	N	2.61
1	A2	566:C	O3'	567:A	P	2.60
1	A2	1748:G	O3'	1749:A	P	2.60
1	BB	167:VAL	C	168:ILE	N	2.60
1	BC	199:GLN	C	200:SER	N	2.60
1	BE	140:VAL	C	141:THR	N	2.60
1	BG	19:ASP	C	20:ASP	N	2.60
1	BH	97:ARG	C	98:ILE	N	2.60
1	BN	64:ARG	C	65:VAL	N	2.60
1	BU	78:THR	C	79:TRP	N	2.60
1	BW	79:PHE	C	80:ASN	N	2.60
1	Ba	23:CYS	C	24:VAL	N	2.60
1	A2	341:A	O3'	342:C	P	2.59
1	A2	1036:A	O3'	1037:C	P	2.59
1	A2	1673:G	O3'	1674:C	P	2.59

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BC	211:LEU	C	212:LYS	N	2.59
1	BD	68:GLU	C	69:LEU	N	2.59
1	BD	152:PHE	C	153:ALA	N	2.59
1	BG	125:THR	C	126:ASP	N	2.59
1	BL	97:TYR	C	98:ASN	N	2.59
1	BX	83:VAL	C	84:THR	N	2.59
1	BB	126:THR	C	127:VAL	N	2.58
1	BD	101:GLN	C	102:ALA	N	2.58
1	BW	58:SER	C	59:GLY	N	2.58
1	BX	7:ARG	C	8:GLY	N	2.58
1	Ba	27:SER	C	28:LYS	N	2.58
1	A2	554:C	O3'	555:A	P	2.57
1	A2	1160:A	O3'	1161:C	P	2.57
1	BM	44:GLY	C	45:LEU	N	2.57
1	BV	35:ASN	C	36:VAL	N	2.57
1	BX	113:ALA	C	114:LYS	N	2.57
1	Bb	19:HIS	C	20:LYS	N	2.57
1	A2	936:G	O3'	937:C	P	2.56
1	BE	11:ARG	C	12:LEU	N	2.56
1	BU	93:LEU	C	94:GLU	N	2.56
1	BW	124:LYS	C	125:ILE	N	2.56
1	A2	410:A	O3'	411:C	P	2.55
1	A2	887:A	O3'	888:U	P	2.55
1	BE	200:ARG	C	201:HIS	N	2.55
1	BL	56:LYS	C	57:LYS	N	2.55
1	BW	112:ASP	C	113:HIS	N	2.55
1	Ba	35:ALA	C	36:ILE	N	2.55
1	Bd	40:ARG	C	41:GLN	N	2.55
1	A2	44:U	O3'	45:U	P	2.54
1	A2	365:G	O3'	366:A	P	2.54
1	A2	1023:A	O3'	1024:U	P	2.54
1	A2	1637:C	O3'	1638:G	P	2.54
1	BC	99:LYS	C	100:ALA	N	2.54
1	BE	108:ARG	C	109:PHE	N	2.54
1	BK	26:ASP	C	27:PHE	N	2.54
1	Bg	309:VAL	C	310:ILE	N	2.54
1	A2	1205:C	O3'	1206:U	P	2.53
1	A2	1269:U	O3'	1270:G	P	2.53
1	BC	116:LYS	C	117:THR	N	2.53
1	BE	159:THR	C	160:VAL	N	2.53
1	BG	175:ILE	C	176:GLN	N	2.53
1	BH	16:LEU	C	17:GLU	N	2.53

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	BI	81:VAL	C	82:VAL	N	2.53
1	BJ	60:LEU	C	61:THR	N	2.53
1	BV	53:TYR	C	54:ALA	N	2.53
1	Ba	3:LYS	C	4:LYS	N	2.53
1	A2	49:C	O3'	50:C	P	2.52
1	A2	1315:U	O3'	1316:G	P	2.52
1	A2	1425:A	O3'	1426:C	P	2.52
1	A2	1316:G	O3'	1317:C	P	2.51
1	A2	1636:C	O3'	1637:C	P	2.51
1	BF	96:SER	C	97:LEU	N	2.51
1	BF	120:ILE	C	121:ILE	N	2.51
1	BX	74:VAL	C	75:GLN	N	2.51
1	Ba	8:ASN	C	9:GLY	N	2.51
1	A2	802:G	O3'	803:A	P	2.50
1	BE	150:PRO	C	151:ASP	N	2.50
1	BL	43:LYS	C	44:THR	N	2.50
1	Bb	8:LEU	C	9:HIS	N	2.50
1	Bg	299:GLN	C	300:THR	N	2.50
1	A2	599:A	O3'	600:U	P	2.49
1	A2	1136:U	O3'	1137:A	P	2.49
1	BB	142:PHE	C	143:THR	N	2.49
1	BB	149:GLN	C	150:VAL	N	2.49
1	BC	127:ALA	C	128:GLY	N	2.49
1	BE	158:ASP	C	159:THR	N	2.49
1	BY	109:LYS	C	110:GLN	N	2.49
1	A2	942:G	O3'	943:C	P	2.48
1	BB	228:LEU	C	229:MET	N	2.48
1	BC	184:VAL	C	185:LYS	N	2.48
1	BD	19:ALA	C	20:GLU	N	2.48
1	BJ	134:ILE	C	135:ALA	N	2.48
1	BL	17:PRO	C	18:HIS	N	2.48
1	A2	1068:C	O3'	1069:A	P	2.47
1	A2	1453:G	O3'	1454:G	P	2.47
1	BB	155:TYR	C	156:ALA	N	2.47
1	BH	163:ASP	C	164:TYR	N	2.47
1	BI	30:GLY	C	31:ARG	N	2.47
1	BJ	45:ILE	C	46:SER	N	2.47
1	BJ	157:ASP	C	158:PHE	N	2.47
1	BK	51:SER	C	52:LYS	N	2.47
1	BK	84:GLU	C	85:HIS	N	2.47
1	BZ	100:ILE	C	101:TYR	N	2.47
1	Bb	73:LEU	C	74:SER	N	2.47

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	611:U	O3'	612:U	P	2.46
1	BG	28:PHE	C	29:ASP	N	2.46
1	BR	118:PRO	C	119:LEU	N	2.46
1	A2	565:C	O3'	566:C	P	2.45
1	A2	965:U	O3'	966:A	P	2.45
1	A2	1344:A	O3'	1345:A	P	2.45
1	BI	42:ARG	C	43:ILE	N	2.45
1	BL	123:VAL	C	124:THR	N	2.45
1	BT	96:ALA	C	97:SER	N	2.45
1	BY	37:LYS	C	38:ASP	N	2.45
1	A2	590:C	O3'	591:A	P	2.44
1	A2	1588:G	O3'	1589:C	P	2.44
1	BD	164:VAL	C	165:ASN	N	2.44
1	BJ	87:SER	C	88:GLU	N	2.44
1	BW	77:PRO	C	78:ARG	N	2.44
1	BX	68:ILE	C	69:ARG	N	2.44
1	BY	4:ALA	C	5:VAL	N	2.44
1	A2	452:A	O3'	453:U	P	2.43
1	BC	96:THR	C	97:ARG	N	2.43
1	BF	166:ARG	C	167:ARG	N	2.43
1	BH	181:ILE	C	182:VAL	N	2.43
1	BJ	9:SER	C	10:LYS	N	2.43
1	BR	11:ARG	C	12:ALA	N	2.43
1	A2	20:G	O3'	21:U	P	2.42
1	A2	552:G	O3'	553:G	P	2.42
1	A2	622:A	O3'	623:A	P	2.42
1	Ba	17:HIS	C	18:VAL	N	2.42
1	Ba	78:ALA	C	79:ILE	N	2.42
1	Be	15:LYS	C	16:SER	N	2.42
1	A2	1731:A	O3'	1732:A	P	2.41
1	BF	173:ALA	C	174:LEU	N	2.41
1	BN	38:VAL	C	39:LYS	N	2.41
1	BW	89:TRP	C	90:THR	N	2.41
1	BX	73:ARG	C	74:VAL	N	2.41
1	A2	1084:A	O3'	1085:G	P	2.40
1	A2	1124:A	O3'	1125:A	P	2.40
1	BI	152:ILE	C	153:GLU	N	2.40
1	BW	68:ARG	C	69:LEU	N	2.40
1	BW	104:LEU	C	105:THR	N	2.40
1	Ba	25:ASN	C	26:CYS	N	2.40
1	A2	577:G	O3'	578:U	P	2.39
1	A2	800:U	O3'	801:G	P	2.39

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	872:G	O3'	873:U	P	2.39
1	BE	145:ARG	C	146:THR	N	2.39
1	BL	65:SER	C	66:ILE	N	2.39
1	BO	122:PRO	C	123:SER	N	2.39
1	Bb	21:LEU	C	22:LYS	N	2.39
1	Bc	47:PRO	C	48:VAL	N	2.39
1	A2	1785:U	O3'	1786:G	P	2.38
1	A2	1433:G	O3'	1434:U	P	2.37
1	A2	1790:A	O3'	1791:A	P	2.37
1	BB	67:GLU	C	68:VAL	N	2.37
1	BL	7:VAL	C	8:GLN	N	2.37
1	BX	135:LEU	C	136:TRP	N	2.37
1	A2	19:A	O3'	20:G	P	2.36
1	A2	522:U	O3'	523:G	P	2.36
1	BI	3:ILE	C	4:SER	N	2.36
1	BI	104:ILE	C	105:ASP	N	2.36
1	BJ	126:ARG	C	127:VAL	N	2.36
1	BD	135:GLU	C	136:VAL	N	2.35
1	BW	110:ILE	C	111:MET	N	2.35
1	BY	56:SER	C	57:VAL	N	2.35
1	Bg	61:PHE	C	62:LYS	N	2.35
1	A2	65:A	O3'	66:U	P	2.34
1	A2	468:A	O3'	469:C	P	2.34
1	BV	56:SER	C	57:GLY	N	2.34
1	BW	102:VAL	C	103:ILE	N	2.34
1	A2	424:C	O3'	425:A	P	2.33
1	A2	439:U	O3'	440:U	P	2.33
1	BC	44:LEU	C	45:VAL	N	2.33
1	BD	201:ALA	C	202:LEU	N	2.33
1	BW	25:VAL	C	26:LEU	N	2.33
1	BY	39:GLU	C	40:LEU	N	2.33
1	A2	4:C	O3'	5:U	P	2.32
1	BD	208:ILE	C	209:ILE	N	2.32
1	BG	123:GLY	C	124:LEU	N	2.31
1	BI	87:ASN	C	88:ASN	N	2.31
1	BP	103:ASN	C	104:GLN	N	2.31
1	BW	23:ARG	C	24:GLN	N	2.31
1	A2	624:G	O3'	625:C	P	2.30
1	BB	209:ASN	C	210:ILE	N	2.30
1	A2	459:G	O3'	460:A	P	2.29
1	A2	818:C	O3'	819:G	P	2.29
1	A2	988:A	O3'	989:U	P	2.29

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	1437:U	O3'	1438:G	P	2.29
1	BX	125:VAL	C	126:LYS	N	2.28
1	A2	40:A	O3'	41:A	P	2.27
1	BX	18:HIS	C	19:ARG	N	2.27
1	BX	130:VAL	C	131:SER	N	2.27
1	A2	1583:A	O3'	1584:G	P	2.26
1	BW	34:ILE	C	35:ILE	N	2.26
1	A2	975:C	O3'	976:G	P	2.25
1	BE	16:HIS	C	17:HIS	N	2.25
1	BG	96:SER	C	97:VAL	N	2.25
1	BW	71:LYS	C	72:CYS	N	2.25
1	A2	354:C	O3'	355:G	P	2.24
1	A2	1037:C	O3'	1038:U	P	2.24
1	BE	65:LEU	C	66:MET	N	2.24
1	BO	54:GLU	C	55:SER	N	2.23
1	A2	101:U	O3'	102:U	P	2.22
1	BN	5:HIS	C	6:SER	N	2.22
1	BN	112:LYS	C	113:PHE	N	2.21
1	BX	54:LEU	C	55:GLU	N	2.21
1	A2	633:U	O3'	634:G	P	2.19
1	A2	897:C	O3'	898:A	P	2.19
1	BE	137:PRO	C	138:TYR	N	2.19
1	BH	110:GLN	C	111:LYS	N	2.19
1	A2	1797:A	O3'	1798:U	P	2.18
1	BF	110:ALA	C	111:VAL	N	2.18
1	BB	100:PHE	C	101:HIS	N	2.17
1	BW	65:LEU	C	66:ASN	N	2.17
1	A2	388:G	O3'	389:G	P	2.16
1	A2	1388:A	O3'	1389:C	P	2.16
1	A2	56:U	O3'	57:G	P	2.15
1	A2	935:U	O3'	936:G	P	2.15
1	A2	419:G	O3'	420:A	P	2.14
1	A2	1377:U	O3'	1378:U	P	2.14
1	AZ	6106:A	O3'	6107:U	P	2.14
1	BE	106:LYS	C	107:GLY	N	2.14
1	BP	105:VAL	C	106:GLU	N	2.14
1	A2	47:A	O3'	48:G	P	2.12
1	BE	60:GLU	C	61:VAL	N	2.12
1	A2	1732:A	O3'	1733:C	P	2.09
1	A2	862:A	O3'	863:A	P	2.08
1	A2	464:A	O3'	465:G	P	2.07
1	A2	399:A	O3'	400:A	P	2.06

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Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	A2	997:G	O3'	998:A	P	2.06
1	A2	352:A	O3'	353:A	P	2.03
1	A2	1030:A	O3'	1031:U	P	1.98
1	A2	960:U	O3'	961:U	P	1.97
1	A2	1417:A	O3'	1418:G	P	1.90