



Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 05:18 AM GMT

PDB ID : 2WRO
Title : THE CRYSTAL STRUCTURE OF THE 70S RIBOSOME BOUND TO EF-TU AND TRNA (PART 2 OF 4).
Authors : Schmeing, T.M.; Voorhees, R.M.; Ramakrishnan, V.
Deposited on : 2009-09-01
Resolution : 3.60 Å(reported)

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

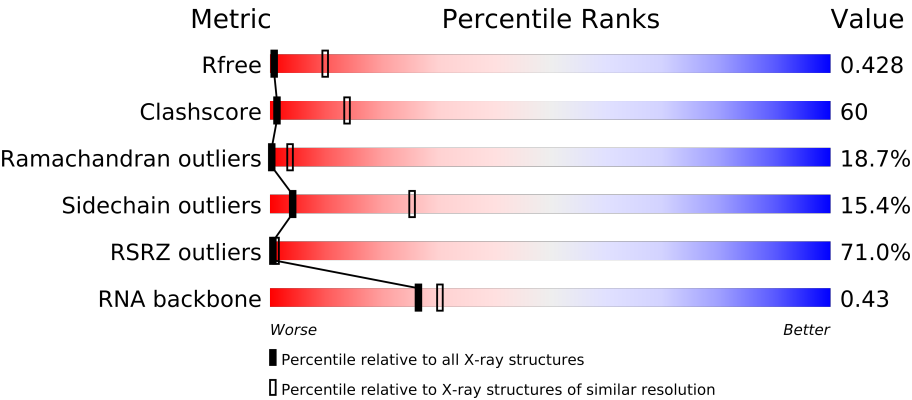
The following versions of software and data (see [references](#)) were used in the production of this report:

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

1 Overall quality at a glance

The reported resolution of this entry is 3.60 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
R_{free}	66092	1020 (3.86-3.34)
Clashscore	79885	1155 (3.80-3.40)
Ramachandran outliers	78287	1109 (3.80-3.40)
Sidechain outliers	78261	1108 (3.80-3.40)
RSRZ outliers	66119	1000 (3.84-3.36)
RNA backbone	1838	1012 (4.40-2.76)

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

Mol	Chain	Length	Quality of chain
1	0	85	
2	1	98	
3	2	72	
4	3	60	
5	4	71	
6	5	60	
7	6	54	
8	7	49	
9	8	65	
10	9	37	
11	A	2915	
12	B	122	

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Mol	Chain	Length	Quality of chain
13	C	229	
14	D	276	
15	E	206	
16	F	210	
17	G	182	
18	H	180	
19	J	173	
20	K	147	
21	N	140	
22	O	122	
23	P	150	
24	Q	141	
25	R	118	
26	S	112	
27	T	146	
28	U	118	
29	V	101	
30	W	113	
31	X	96	
32	Y	110	
33	Z	206	

2 Entry composition

There are 33 unique types of molecules in this entry. The entry contains 93761 atoms, of which 0 are hydrogen and 0 are deuterium.

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

- Molecule 1 is a protein called 50S RIBOSOMAL PROTEIN L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	0	84	Total	C	N	O	S	0	0	0
			662	410	140	111	1			

- Molecule 2 is a protein called 50S RIBOSOMAL PROTEIN L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
2	1	94	Total	C	N	O	S	0	0	1
			732	460	146	125	1			

- Molecule 3 is a protein called 50S RIBOSOMAL PROTEIN L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	2	71	Total	C	N	O	S	0	0	0
			598	370	121	106	1			

- Molecule 4 is a protein called 50S RIBOSOMAL PROTEIN L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	3	60	Total	C	N	O	S	0	0	1
			468	298	91	78	1			

- Molecule 5 is a protein called 50S RIBOSOMAL PROTEIN L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	4	45	Total	C	N	O	S	0	0	1
			341	218	58	61	4			

- Molecule 6 is a protein called 50S RIBOSOMAL PROTEIN L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	5	59	Total	C	N	O	S	0	0	0
			459	288	90	76	5			

- Molecule 7 is a protein called 50S RIBOSOMAL PROTEIN L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	6	50	Total	C	N	O	S	0	0	0
			433	270	88	71	4			

- Molecule 8 is a protein called 50S RIBOSOMAL PROTEIN L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	7	49	Total	C	N	O	S	0	0	1
			419	257	105	55	2			

- Molecule 9 is a protein called 50S RIBOSOMAL PROTEIN L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
9	8	64	Total	C	N	O	S	0	0	1
			508	326	102	78	2			

- Molecule 10 is a protein called 50S RIBOSOMAL PROTEIN L36.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	9	37	Total	C	N	O	S	0	0	0
			307	188	68	47	4			

- Molecule 11 is a RNA chain called 23S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	A	2901	Total	C	N	O	P	0	0	0
			62474	27806	11681	20087	2900			

- Molecule 12 is a RNA chain called 5S RIBOSOMAL RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
12	B	119	Total	C	N	O	P	0	0	0
			2551	1136	471	826	118			

- Molecule 13 is a protein called 50S RIBOSOMAL PROTEIN L1.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	C	228	Total	C	N	O	S	0	0	0
			1742	1101	319	319	3			

- Molecule 14 is a protein called 50S RIBOSOMAL PROTEIN L2.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
14	D	275	Total	C	N	O	S	0	0	0
			2145	1353	428	361	3			

- Molecule 15 is a protein called 50S RIBOSOMAL PROTEIN L3.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	E	205	Total	C	N	O	S	0	0	1
			1564	988	300	270	6			

- Molecule 16 is a protein called 50S RIBOSOMAL PROTEIN L4.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	F	208	Total	C	N	O	S	0	0	1
			1624	1035	304	282	3			

- Molecule 17 is a protein called 50S RIBOSOMAL PROTEIN L5.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	G	181	Total	C	N	O	S	0	0	0
			1474	942	268	260	4			

- Molecule 18 is a protein called 50S RIBOSOMAL PROTEIN L6.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
18	H	160	Total	C	N	O	S	0	0	1
			1223	773	229	220	1			

- Molecule 19 is a protein called 50S RIBOSOMAL PROTEIN L10.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	J	131	Total	C	N	O		0	0	1
			651	390	131	130				

- Molecule 20 is a protein called 50S RIBOSOMAL PROTEIN L11.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	K	141	Total	C	N	O		0	0	1
			701	420	141	140				

- Molecule 21 is a protein called 50S RIBOSOMAL PROTEIN L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	N	139	Total	C	N	O	S	0	0	1
			1105	712	207	182	4			

- Molecule 22 is a protein called 50S RIBOSOMAL PROTEIN L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	O	122	Total	C	N	O	S	0	0	0
			933	588	171	170	4			

- Molecule 23 is a protein called 50S RIBOSOMAL PROTEIN L15.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	P	146	Total	C	N	O	S	0	0	0
			1114	692	227	193	2			

- Molecule 24 is a protein called 50S RIBOSOMAL PROTEIN L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	Q	141	Total	C	N	O	S	0	0	0
			1122	715	212	188	7			

- Molecule 25 is a protein called 50S RIBOSOMAL PROTEIN L17.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	R	117	Total	C	N	O		0	0	0
			960	599	202	159				

- Molecule 26 is a protein called 50S RIBOSOMAL PROTEIN L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	S	99	Total	C	N	O		0	0	1
			771	486	155	130				

- Molecule 27 is a protein called 50S RIBOSOMAL PROTEIN L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	T	138	Total	C	N	O	S	0	0	1
			1142	710	235	196	1			

- Molecule 28 is a protein called 50S RIBOSOMAL PROTEIN L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	U	117	Total	C	N	O	S	0	0	0
			958	604	202	151	1			

- Molecule 29 is a protein called 50S RIBOSOMAL PROTEIN L21.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	V	101	Total	C	N	O	S	0	0	0
			779	501	142	135	1			

- Molecule 30 is a protein called 50S RIBOSOMAL PROTEIN L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	W	113	Total	C	N	O	S	0	0	0
			896	563	176	155	2			

- Molecule 31 is a protein called 50S RIBOSOMAL PROTEIN L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	X	93	Total	C	N	O	S	0	0	1
			726	471	132	123				

- Molecule 32 is a protein called 50S RIBOSOMAL PROTEIN L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
32	Y	101	Total	C	N	O	S	0	0	1
			776	500	149	123	4			

- Molecule 33 is a protein called 50S RIBOSOMAL PROTEIN L25.

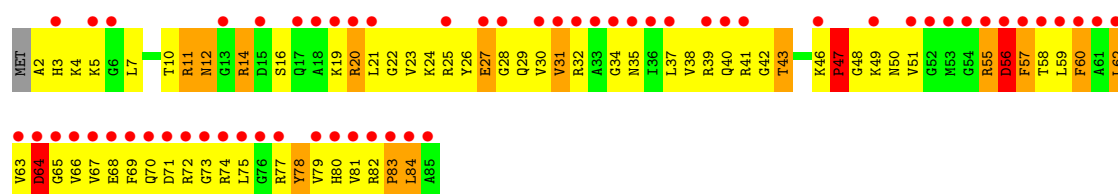
Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
33	Z	176	Total	C	N	O	S	0	0	0
			1403	897	252	252	2			

3 Residue-property plots

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

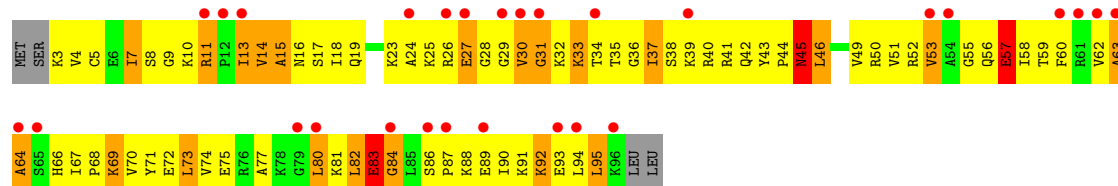
- Molecule 1: 50S RIBOSOMAL PROTEIN L27

Chain 0: 



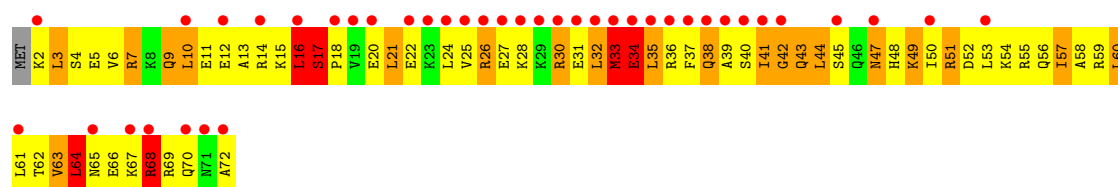
- Molecule 2: 50S RIBOSOMAL PROTEIN L28

Chain 1: 



- Molecule 3: 50S RIBOSOMAL PROTEIN L29

Chain 2: 



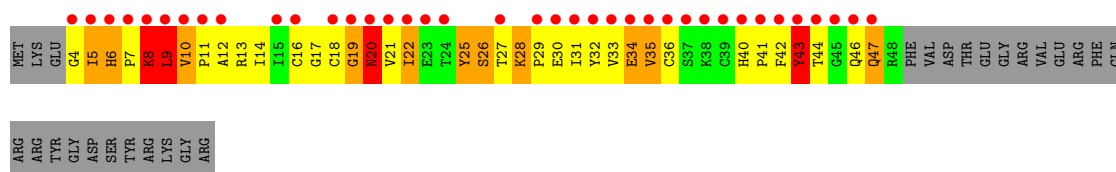
- Molecule 4: 50S RIBOSOMAL PROTEIN L30

Chain 3: 



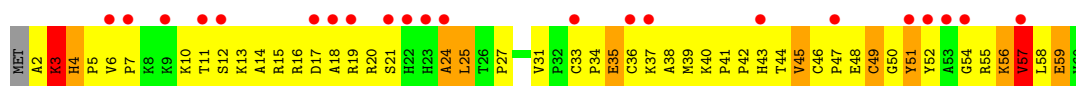
- Molecule 5: 50S RIBOSOMAL PROTEIN L31

Chain 4: 



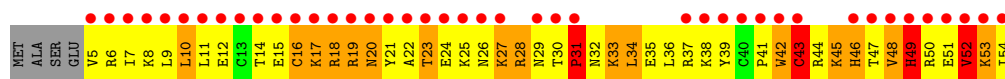
• Molecule 6: 50S RIBOSOMAL PROTEIN L32

Chain 5:



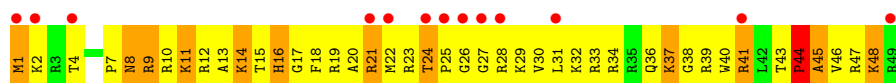
• Molecule 7: 50S RIBOSOMAL PROTEIN L33

Chain 6:



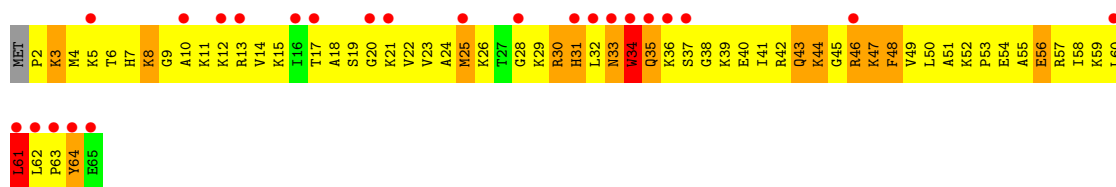
• Molecule 8: 50S RIBOSOMAL PROTEIN L34

Chain 7:



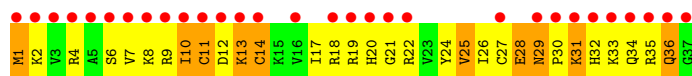
• Molecule 9: 50S RIBOSOMAL PROTEIN L35

Chain 8:



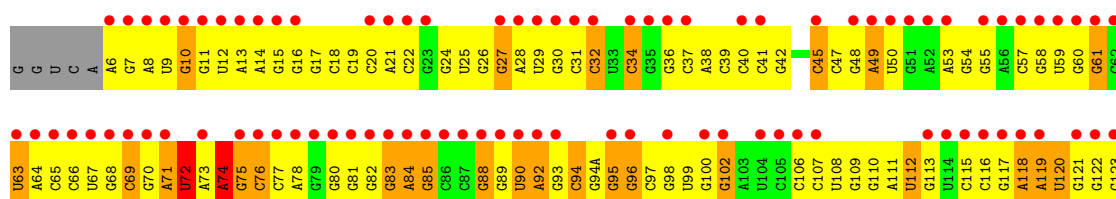
• Molecule 10: 50S RIBOSOMAL PROTEIN L36

Chain 9:



• Molecule 11: 23S RIBOSOMAL RNA

Chain A:

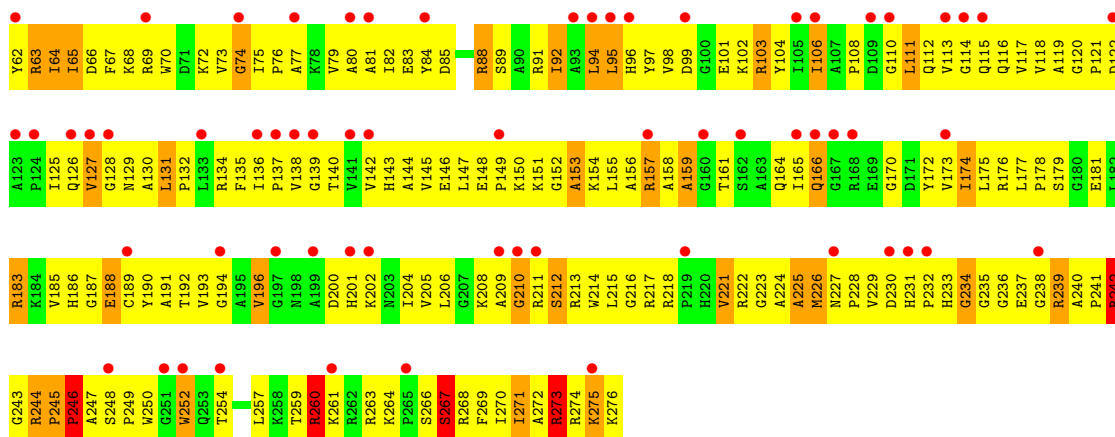




C1774	C1698	C1699	C1638	C1639	C1458	C1399	C1399	G1279	A1220	U1159	G1099	G1039	G979
U1775	G1699	G1699	U1639	G1639	G1459	G1400	G1400	G1280	C1221	G1160	C1100	C1040	A980
U1776	A1700	A1580	A1640	A1580	A1461	G1401	G1401	G1281	C1221A	C1161	C1101	C1041	A981
U1777	A1701	G1581	G1641	G1581	G1461	C1402	C1402	G1282	C1222	G1162	C1102	C1042	C982
G1702	G1702	C1582	G1642	C1582	C1462	C1403	C1403	G1283	C1223	G1163	A1103	C1043	A983
U1778	G1703	A1583	G1643	A1583	C1463	C1404	C1404	G1284	C1224	G1164	C1104	C1044	A984
U1779	G1704	C1584	G1644	C1584	C1464	U1405	U1405	G1285	C1225	U1165	U1105	A1045	C985
A1780	G1705	A1586	C1645	A1586	C1465	U1406	U1406	G1286	C1226	U1166	C1106	A1046	C986
C1781	G1706	A1587	C1646	A1587	G1466	C1407	C1407	G1287	C1227	U1167	G1107	A1047	C987
C1782	G1707	C1588	G1647	C1588	C1467	C1408	C1408	G1288	C1228	U1168	U1108	A1048	A988
A1783	G1707	C1589	G1647	C1589	C1468	C1409	C1409	G1289	C1229	U1169	C1109	C1049	A989
A1784	C1648	A1528A	C1648	A1528A	A1469	C1410	C1410	C1290	C1230	G1170	G1110	A1050	A990
A1785	G1649	G1529	G1649	G1529	C1470	C1411	C1411	C1291	G1231	U1171	A1111	A1051	C991
A1786	G1650	C1530	G1650	C1530	C1471	C1412	C1412	U1292	G1232	G1173	G1112	C1052	C992
A1787	G1651	C1531	G1651	C1531	A1471	A1413	A1413	C1293	C1233	U1174	U1113	C1053	C993
C1788	A1652	C1532	G1652	C1532	A1472	G1413	G1413	U1294	C1234	U1175	G1114	A1054	C994
A1789	G1653	G1533	G1653	G1533	G1473	G1414	G1414	A1295	G1235	U1176	G1115	G1055	C995
C1790	A1654	U1534	C1654	U1534	C1474	U1415	U1415	G1296	G1236	A1177	C1116	G1056	A996
A1791	A1655	U1535	A1655	U1535	G1475	G1416	G1416	G1297	A1237	C1178	C1117	A1057	C997
G1792	C1656	C1536	C1656	C1536	C1476	C1417	C1417	C1298	G1238	C1179	C1118	G1058	C998
G1793	C1657	G1537	C1657	G1537	A1477	G1418	G1418	G1299	G1239	C1180	C1119	G1059	U999
U1794	C1658	G1538	C1658	G1538	A1478	A1419	A1419	U1300	C1240	C1181	G1120	U1060	A1000
U1795	C1659	G1539	C1659	G1539	G1479	U1420	U1420	A1301	A1241	U1182	C1121	U1061	A1001
G1796	C1660	U1540	C1660	U1540	G1480	G1421	G1421	A1302	G1242	G1183	C1122	G1062	G1002
A1797	C1661	G1541	C1661	G1541	U1481	G1422	G1422	G1303	A1243	G1184	C1123	G1063	G1003
U1798	C1662	A1542	C1662	A1542	G1482	G1423	G1423	C1304	G1244	C1185	C1124	C1064	C1004
G1799	C1663	C1543	C1663	C1543	G1484	G1424	G1424	C1305	G1245	G1186	G1125	U1065	C1005
C1800	A1664	A1544	A1664	A1544	G1485	G1425	G1425	C1306	A1246	A1126	A1126	U1066	C1006
G1801	C1743	A1545	A1665	A1545	A1486	G1426	G1426	A1307	G1247	U1187	A1127	A1067	C1007
A1802	C1744	C1546	G1666	C1546	G1487	A1427	A1427	A1308	G1248	U1188	A1128	G1068	C1008
A1803	C1745	G1547	G1667	C1547	G1488	C1428	C1428	G1309	U1249	U1190	A1129	A1069	A1009
C1804	C1746	C1548	G1668	C1548	U1489	G1429	G1429	G1310	G1250	C1191	U1130	A1070	A1010
U1805	G1746	C1549	A1669	C1549	A1490	C1430	C1430	G1311	G1251	G1192	G1131	G1071	G1011
C1806	G1747	C1550	A1670	C1550	G1491	U1431	U1431	G1312	G1252	A1193	U1132	A1072	C1012
G1807	G1747A	G1551	C1671	G1551	G1492	U1432	U1432	C1313	A1253	C1194	U1133	A1073	C1013
U1808	G1748	G1552	C1672	G1552	C1493	C1433	C1433	C1314	A1254	G1195	C1135	G1074	U1014
A1809	A1749	A1553	U1673	A1553	A1494	A1434	A1434	G1315	U1255	G1196	G1136	G1075	G1015
A1810	G1750	A1554	G1674	A1554	A1495	G1435	G1435	G1316	G1256	G1197	G1137	C1076	G1016
G1811	C1751	G1555	C1675	G1555	A1496	G1436	G1436	U1317	C1257	U1198	G1138	U1077	C1017
A1812	C1752	C1556	C1676	C1556	U1497	U1437	U1437	C1318	G1258	U1199	G1139	U1078	C1018
G1813	G1753	A1558	A1677	A1558	C1498	A1438	A1438	G1319	G1259	C1200	U1141	C1080	A1020
A1814	C1754	G1559	G1678	G1559	C1499	A1439	A1439	C1320	G1260	C1201	U1142	U1081	A1021
A1815	G1755	G1560	U1679	G1560	G1500	G1440	G1440	C1321	C1261	G1202	U1143	U1082	G1022
G1816	U1756	G1561	G1680	G1561	C1501	G1441	G1441	A1322	A1262	G1203	A1142A	U1083	U1023
G1817	G1757	A1562	G1681	A1562	U1503	G1443	G1443	U1323	U1263	A1204	A1143	U1084	G1024
U1818	G1758	G1563	C1682	G1563	C1504	G1444	G1444	G1324	G1264	U1205	G1144	A1085	G1025
A1819	A1759	C1564	C1683	C1564	C1505	A1445	A1445	G1325	A1265	G1206	C1145	A1086	U1026
U1820	A1760	C1565	C1684	C1565	C1506	C1445A	C1445A	U1326	G1266	C1207	C1146	A1087	U1027
A1821	C1761	G1566	C1685	G1566	A1507	C1446	C1446	G1327	U1267	G1208	C1147	G1087	A1027
G1822	A1762	A1567	C1686	A1567	U1508	G1447	G1447	U1328	A1268	G1209	A1148	A1088	A1028
G1823	G1763	G1568	G1687	G1568	C1509	G1448	G1448	G1329	A1269	A1210	G1149	G1089	A1029
G1824	G1764	U1569	U1688	U1569	A1509A	G1449	G1449	C1330	C1270	U1211	C1150	U1090	G1030
A1825	C1765	A1570	A1690	A1570	A1509B	A1449	A1449	U1331	G1271	G1212	G1151	G1091	G1031
G1826	U1766	G1571	C1691	G1571	G1510	C1450A	C1450A	G1332	A1272	A1213	C1152	C1092	A1032
C1827	C1767	A1572	U1692	A1572	C1511	C1451	C1451	C1333	U1273	G1214	C1153	G1093	U1033
G1828	U1768	G1573	U1693	G1573	U1512	A1452	A1452	G1334	A1274	G1215	G1154	U1094	G1034
A1829	G1769	C1574	C1694	C1574	G1513	U1453	U1453	U1335	A1275	G1216	A1155	A1095	U1035
C1830	G1770	U1514	C1695	U1514	U1514	G1456	G1456	A1336	G1277	C1217	A1156	A1096	G1036
G1831	G1771	G1515	G1696	G1515	G1457	G1457	G1457	G1337	A1278	G1219	U1157	U1097	G1037
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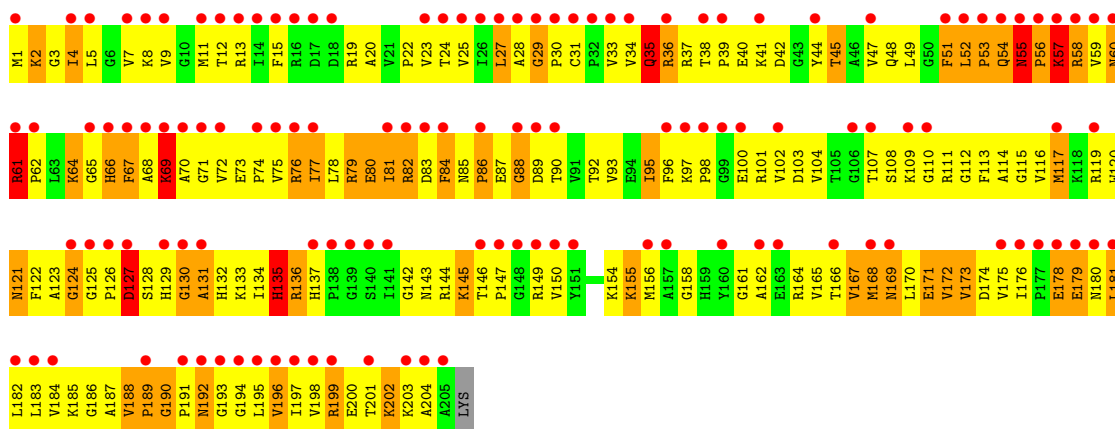
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A2638	G2578	U2518	G2458	U2398	G2338	A2278	A2208	G2148	G2087	U2027	C1965	G1905	C1836
A2639	G2579	U2519	A2459	G2399	G2339	G2279	U2218	G2149	G2088	U2028	A1966	G1906	C1837
U2640	U2580	G2520	U2460	G2400	G2340	G2280	G2220	U2150	U2089	G2029	G1967	G1907	G1838
G2641	G2581	C2521	C2461	U2401	G2341	G2281	G2221	G2151	G2090	A2030	G1968	G1908	G1839
G2642	G2582	U2522	U2462	G2402	C2342	G2282	G2222	G2152	U2091	A2031	A1969	G1909	G1840
G2643	G2583	G2523	C2463	C2403	C2343	G2283	G2223	G2153	U2092	G2032	A1970	G1910	U1841
G2644	U2584	G2524	C2464	G2404	C2344	C2284	G2224	G2154	G2093	G2033	A1971	U1911	G1842
G2645	G2585	G2525	C2465	G2405	G2345	C2285	G2225	G2155	G2094	U2034	A1972	C1943	C1843
G2646	G2586	G2526	C2466	U2406	A2346	A2286	A2226	G2156	C2095	G2035	G1973	A1913	G1844
U2647	G2587	G2527	C2467	G2407	C2347	A2287	G2227	G2157	U2096	C2036	G1974	G1914	G1845
G2648	U2588	U2528	G2468	U2408	U2348	A2288	A2228	G2158	C2097	G2037	G1975	U1915	G1846
U2649	A2589	G2529	A2469	G2409	G2349	G2289	G2229	A2158	U2098	G2038	U1976	A1916	A1847
U2650	A2590	A2530	G2470	G2410	G2350	G2290	G2230	G2159	U2099	C2039	A1977	A1917	A1848
C2651	C2591	G2531	C2471	A2411	G2351	U2291	G2231	G2160	G2100	C2040	A1978	A1918	G1849
G2652	G2592	G2532	G2472	G2412	C2352	C2292	G2232	G2161	G2101	U2041	G1979	G1919	G1850
U2653	U2593	U2533	U2473	G2413	G2353	G2293	G2233	G2162	U2102	A2042	G1980	C1920	U1851
A2534	G2594	A2534	C2474	G2414	G2354	G2294	U2234	G2163	C2103	C2043	A1981	G1921	C1852
G2535	G2595	G2535	C2475	G2415	C2355	G2295	G2235	G2164	G2104	C2044	C1982	G1922	A1853
G2536	U2596	G2536	A2476	C2416	C2356	U2296	G2236	G2165	C2105	C2045	C1983	U1923	G1854
U2537	G2597	C2537	C2477	G2417	U2357	A2297	G2237	G2166	G2106	G2046	G1984	C1924	G1855
C2538	A2598	A2538	A2478	A2418	G2358	A2298	G2238	U2167	C2107	U2047	G1985	C1925	G1856
G2539	G2599	C2539	G2479	U2419	C2359	G2299	G2239	G2168	U2108	G2048	A1986	U1926	G1857
C2540	A2600	G2540	C2480	C2420	A2360	G2300	G2240	A2169	C2109	G2049	G1987	A1927	G1858
A2541	C2601	A2541	G2481	G2421	A2361	G2301	C2241	A2170	G2110	C2050	C1988	A1928	A1859
U2542	A2602	U2542	G2482	A2422	G2362	G2302	A2242	U2171	C2111	A2051	C1989	G1929	G1860
G2543	G2603	G2543	C2483	U2423	C2363	G2303	G2243	U2172	G2112	G2052	C1990	G1930	G1861
G2544	U2604	G2544	G2484	A2424	C2364	G2304	U2244	A2173	U2113	G2053	G1991	U1931	G1862
G2545	U2605	G2545	G2485	A2425	G2365	A2305	U2245	C2174	A2114	A2054	G1992	A1932	G1863
U2546	G2606	U2546	G2486	A2426	C2366	G2306	U2246	C2175	G2115	C2055	U1993	G1933	U1864
U2547	G2607	G2547	G2487	G2427	C2367	G2307	G2247	A2176	G2116	G2056	C1994	C1934	G1865
G2548	G2608	U2548	A2488	G2428	C2368	G2308	A2248	C2177	A2117	G2057	U1995	G1935	C1866
G2549	U2609	G2549	G2489	G2429	A2369	A2309	G2249	C2178	U2118	A2058	C1996	A1936	A1876
G2550	G2610	G2550	G2490	A2430	G2370	A2310	U2249	C2179	A2119	A2059	G1997	A1937	G1877
C2551	U2611	C2551	U2491	U2431	G2371	A2311	G2250	U2180	G2120	A2060	C1998	U1938	G1878
U2552	G2612	U2552	U2492	U2432	G2372	U2312	G2251	G2181	G2121	G2061	C1999	U1939	G1879
G2553	U2613	G2553	U2493	A2433	G2373	C2313	G2252	G2182	U2122	A2062	G2000	U1940	C1880
U2554	A2614	U2554	G2494	A2434	C2374	G2314	G2253	C2183	G2123	C2063	A2001	C1941	C1881
U2555	G2615	U2555	G2495	A2435	C2375	G2315	G2254	G2184	G2124	C2064	C2005	C1942	C1882
G2556	G2616	G2556	C2496	G2436	A2376	G2316	G2255	C2185	G2125	C2065	C2006	U1943	G1883
G2557	U2617	G2557	A2497	U2437	A2377	C2317	G2256	G2186	A2126	C2066	C2007	U1944	A1884
G2558	G2618	C2558	G2498	U2438	A2378	G2318	U2257	G2187	G2127	G2067	C2008	G1945	A1885
G2559	C2619	C2559	C2499	U2439	C2379	G2319	G2258	C2188	C2128	U2068	G2009	U1946	C1886
C2660	C2620	C2660	U2500	G2440	C2380	A2320	G2259	U2189	C2129	G2069	G2009	C1947	C1887
A2561	A2621	A2561	C2501	G2441	C2381	G2321	G2260	G2190	U2130	G2070	G2010	G1948	G1888
U2562	G2622	U2562	G2502	C2442	G2382	A2322	C2261	G2191	G2131	A2071	U2011	G1949	C1889
G2563	G2623	U2563	C2503	G2443	G2383	G2323	U2262	G2192	U2132	G2072	G2012	G1950	A1890
A2564	G2624	A2564	U2504	G2444	G2384	G2324	C2263	G2193	G2133	C2073	A2013	U1951	G1891
G2565	G2625	A2565	G2505	G2445	C2385	G2325	C2264	G2194	A2134	U2074	A2014	A1952	C1892
A2566	G2626	A2566	U2506	G2446	C2386	G2326	C2265	C2195	A2135	U2075	A2015	A1953	C1893
G2567	G2627	G2567	C2507	G2447	U2387	A2327	A2267	G2196	C2136	U2076	U2016	G1954	C1894
G2568	G2628	C2568	G2508	A2448	A2388	A2328	A2268	U2197	C2137	A2077	U2017	G1955	G1895
U2689	A2629	G2569	G2509	U2449	G2389	G2329	A2269	A2198	C2138	C2078	G2018	U1956	G1896
C2690	G2630	G2570	G2510	A2450	U2390	G2330	G2270	A2199	C2139	U2079	A2019	C1957	G1897
C2691	G2631	C2571	U2511	G2451	G2391	G2331	G2271	G2200	C2140	G2080	A2020	C1958	U1898
C2692	A2632	A2572	C2512	G2452	A2392	U2332	U2272	C2201	G2141	C2081	C2021	G1959	G1899
A2693	G2633	C2573	G2513	A2453	A2393	A2333	A2273	C2202	C2142	A2082	U2022	A1960	G1899
G2694	G2634	G2574	U2514	G2454	C2394	G2334	A2274	U2203	C2143	G2083	G2023	C1961	A1900
C2695	G2635	C2575	C2515	G2455	C2395	A2335	G2275	C2205	U2144	C2084	G2024	C1962	C1902





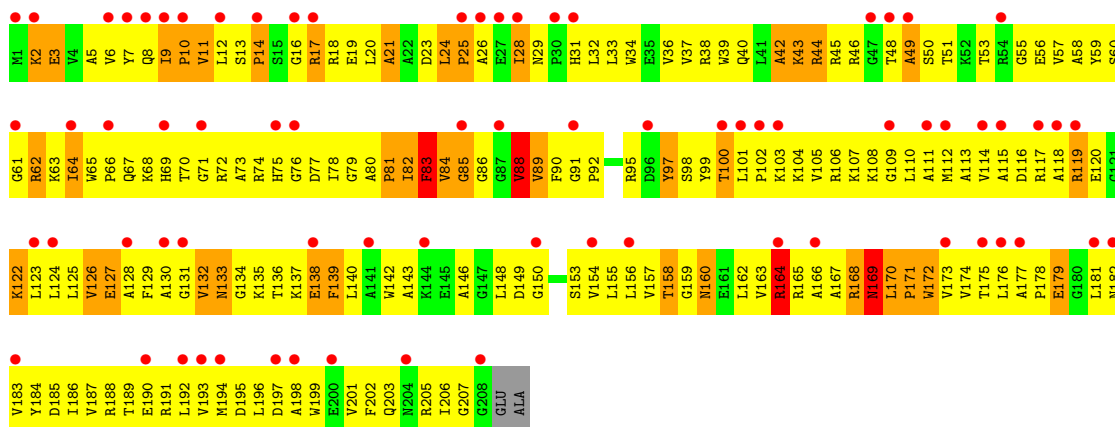
• Molecule 15: 50S RIBOSOMAL PROTEIN L3

Chain E:



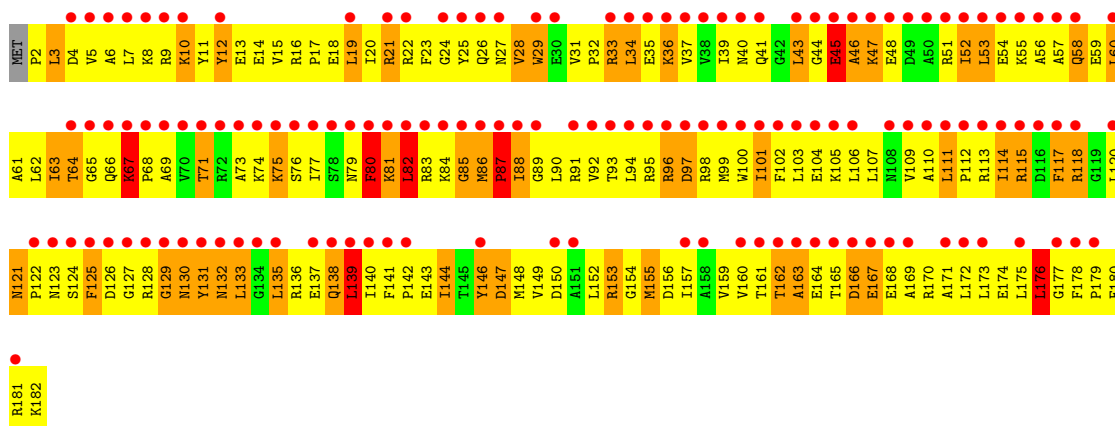
• Molecule 16: 50S RIBOSOMAL PROTEIN L4

Chain F:



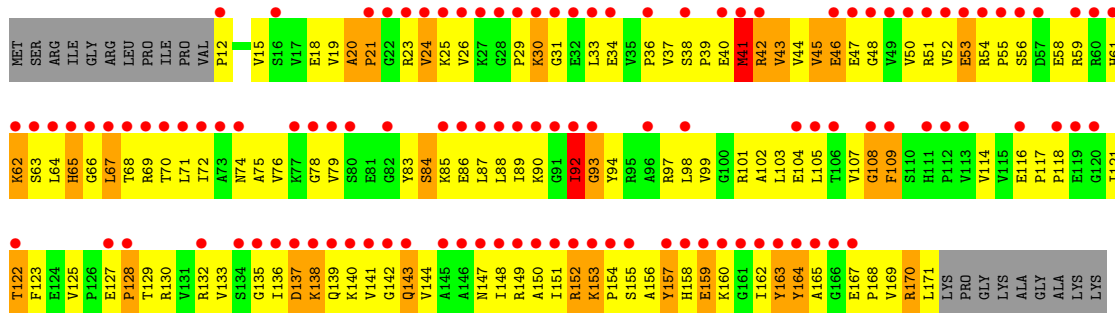
• Molecule 17: 50S RIBOSOMAL PROTEIN L5

Chain G:



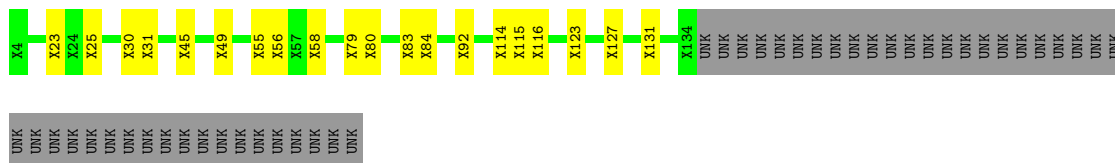
• Molecule 18: 50S RIBOSOMAL PROTEIN L6

Chain H:



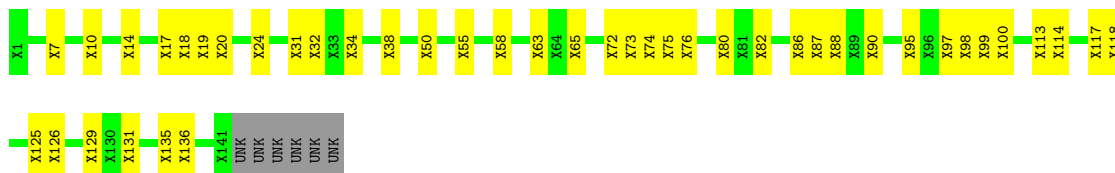
• Molecule 19: 50S RIBOSOMAL PROTEIN L10

Chain J:



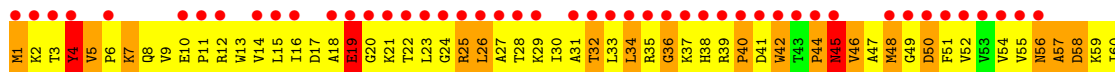
• Molecule 20: 50S RIBOSOMAL PROTEIN L11

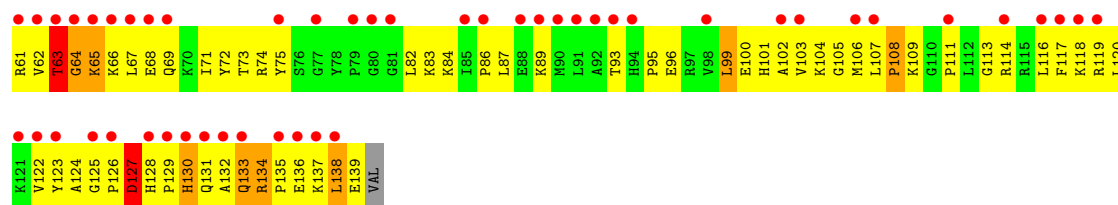
Chain K:



• Molecule 21: 50S RIBOSOMAL PROTEIN L13

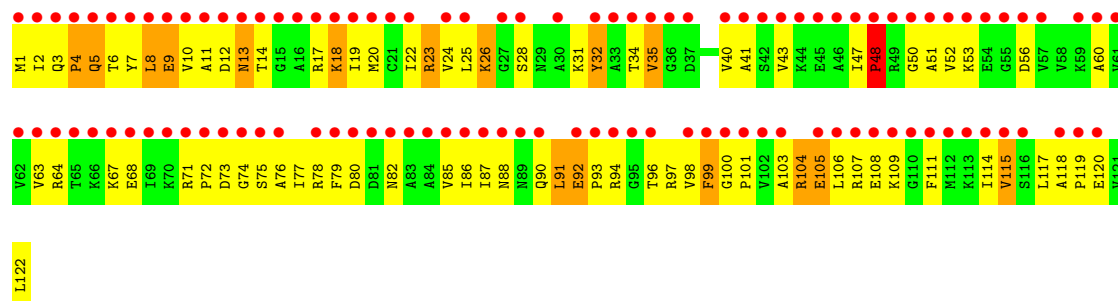
Chain N:





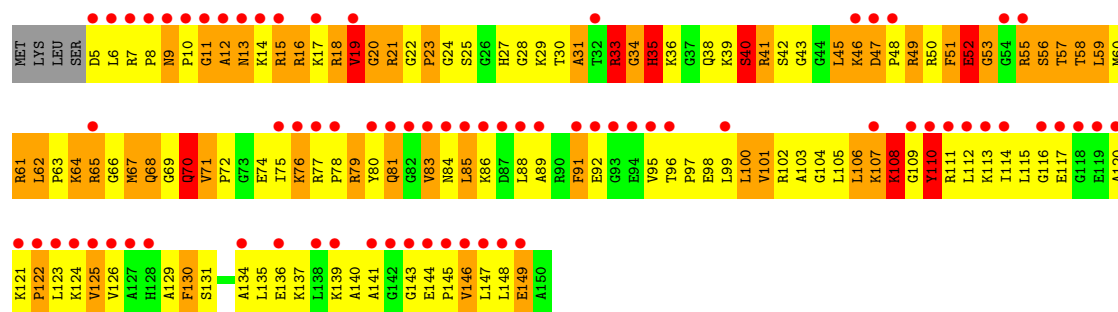
• Molecule 22: 50S RIBOSOMAL PROTEIN L14

Chain O:



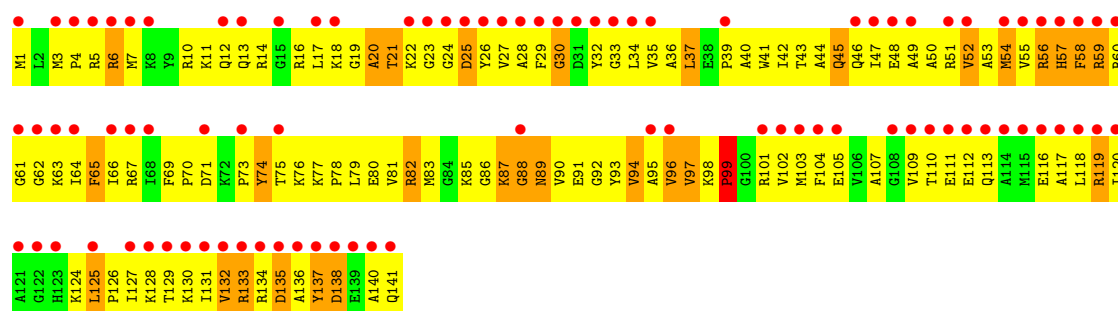
• Molecule 23: 50S RIBOSOMAL PROTEIN L15

Chain P:



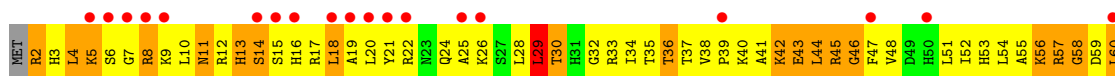
• Molecule 24: 50S RIBOSOMAL PROTEIN L16

Chain Q:



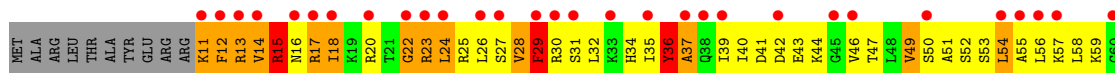
• Molecule 25: 50S RIBOSOMAL PROTEIN L17

Chain R:



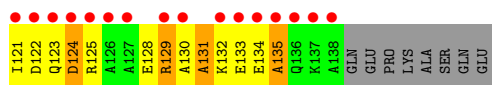
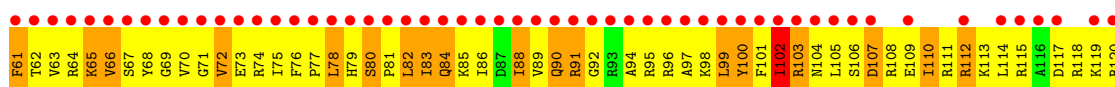
• Molecule 26: 50S RIBOSOMAL PROTEIN L18

Chain S:



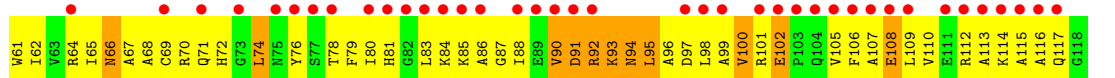
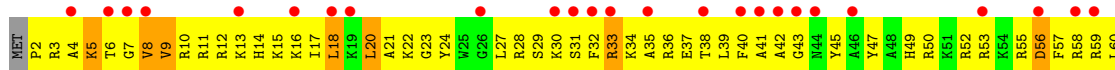
• Molecule 27: 50S RIBOSOMAL PROTEIN L19

Chain T:



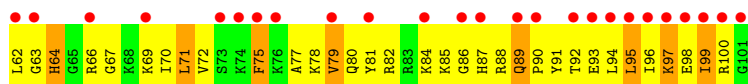
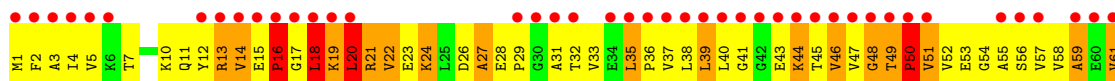
• Molecule 28: 50S RIBOSOMAL PROTEIN L20

Chain U:



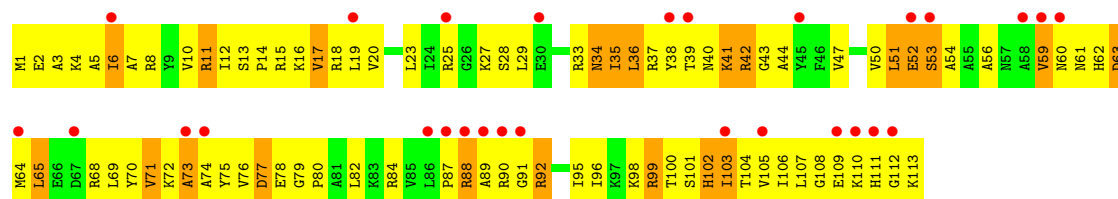
• Molecule 29: 50S RIBOSOMAL PROTEIN L21

Chain V:



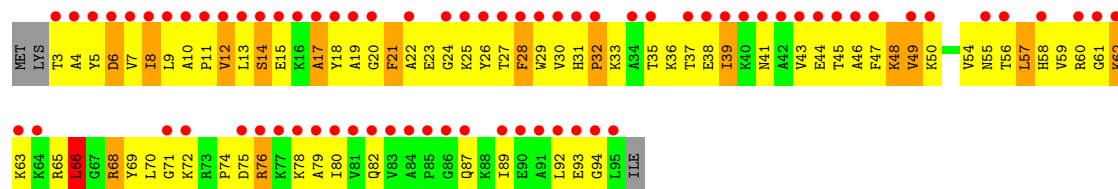
• Molecule 30: 50S RIBOSOMAL PROTEIN L22

Chain W: 



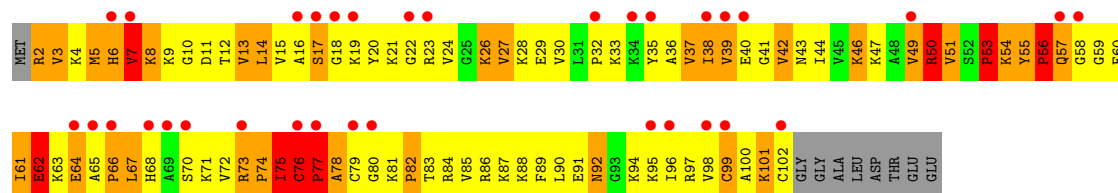
• Molecule 31: 50S RIBOSOMAL PROTEIN L23

Chain X: 



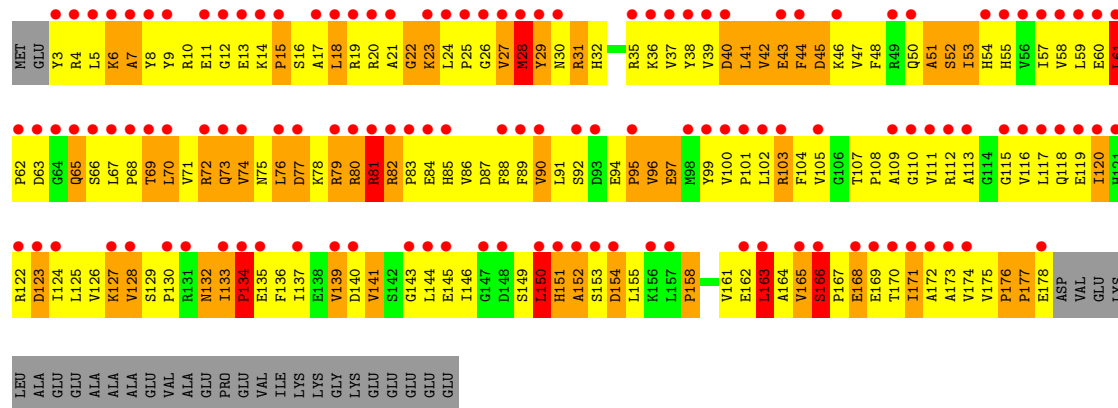
• Molecule 32: 50S RIBOSOMAL PROTEIN L24

Chain Y: 



• Molecule 33: 50S RIBOSOMAL PROTEIN L25

Chain Z: 



4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, α , β , γ	289.57Å 268.36Å 403.88Å 90.00° 91.01° 90.00°	Depositor
Resolution (Å)	50.00 – 3.60 49.91 – 3.48	Depositor EDS
% Data completeness (in resolution range)	93.6 (50.00-3.60) 87.3 (49.91-3.48)	Depositor EDS
R_{merge}	0.22	Depositor
R_{sym}	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ ¹	1.57 (at 3.48Å)	Xtriage
Refinement program	CNS 1.2	Depositor
R, R_{free}	0.281 , 0.315 0.422 , 0.428	Depositor DCC
R_{free} test set	35772 reflections (5.27%)	DCC
Wilson B-factor (Å ²)	102.0	Xtriage
Anisotropy	0.110	Xtriage
Bulk solvent k_{sol} (e/Å ³), B_{sol} (Å ²)	0.30 , 91.5	EDS
Estimated twinning fraction	0.098 for h,-k,-l	Xtriage
L-test for twinning	$\langle L \rangle = 0.37$, $\langle L^2 \rangle = 0.19$	Xtriage
Outliers	0 of 714740 reflections	Xtriage
F_o, F_c correlation	0.52	EDS
Total number of atoms	93761	wwPDB-VP
Average B, all atoms (Å ²)	110.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 15.21% of the height of the origin peak. No significant pseudotranslation is detected.*

¹Intensities estimated from amplitudes.

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	$\# Z > 5$	RMSZ	$\# Z > 5$
1	0	0.40	0/671	0.67	0/892
2	1	0.57	0/739	0.91	0/983
3	2	0.44	0/600	0.87	2/793 (0.3%)
4	3	0.44	0/473	0.74	0/636
5	4	0.71	0/350	0.79	0/476
6	5	0.44	0/473	0.72	0/639
7	6	0.53	0/440	0.91	0/586
8	7	0.50	0/427	0.75	0/563
9	8	0.51	0/516	0.78	0/681
10	9	0.42	0/310	0.66	0/407
11	A	0.61	2/69972 (0.0%)	0.76	36/109237 (0.0%)
12	B	0.46	0/2853	0.72	0/4451
13	C	0.45	2/1774 (0.1%)	0.69	0/2391
14	D	0.59	0/2195	0.86	1/2955 (0.0%)
15	E	0.48	0/1597	0.75	0/2155
16	F	0.45	0/1659	0.73	0/2246
17	G	0.46	0/1499	0.81	3/2016 (0.1%)
18	H	0.37	0/1246	0.70	0/1684
21	N	0.42	0/1132	0.75	1/1527 (0.1%)
22	O	0.49	0/943	0.79	0/1269
23	P	0.49	0/1131	1.00	7/1504 (0.5%)
24	Q	0.44	0/1143	0.71	0/1527
25	R	0.41	0/974	0.74	0/1302
26	S	0.41	0/779	0.72	0/1038
27	T	0.47	0/1156	0.75	0/1544
28	U	0.43	0/975	0.74	0/1297
29	V	0.39	0/790	0.73	0/1057
30	W	0.44	0/907	0.71	0/1216
31	X	0.47	0/740	0.71	0/995
32	Y	0.44	0/789	0.81	1/1053 (0.1%)
33	Z	0.43	0/1435	0.77	0/1949
All	All	0.57	4/100688 (0.0%)	0.77	51/151069 (0.0%)

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
5	4	0	1
11	A	2	84
21	N	0	1
All	All	2	86

All (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
13	C	218	MET	CG-SD	6.21	1.97	1.81
13	C	120	MET	CG-SD	5.97	1.96	1.81
11	A	761	A	C5-C6	-5.87	1.35	1.41
11	A	733	G	C5-C6	-5.61	1.36	1.42

All (51) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A	1799	G	C2'-C3'-O3'	8.77	128.80	109.50
11	A	1819	A	C2'-C3'-O3'	8.63	128.48	109.50
11	A	2346	A	N9-C1'-C2'	8.34	124.85	114.00
23	P	41	ARG	N-CA-C	-8.16	88.97	111.00
11	A	1653	G	C2'-C3'-O3'	8.01	127.11	109.50
11	A	1992	G	C2'-C3'-O3'	7.23	125.40	109.50
11	A	1820	U	C2'-C3'-O3'	6.95	124.81	113.70
23	P	53	GLY	N-CA-C	-6.94	95.75	113.10
23	P	51	PHE	N-CA-C	6.91	129.65	111.00
11	A	2405	G	N9-C1'-C2'	6.85	122.91	114.00
11	A	1495	A	N9-C1'-C2'	6.81	122.85	114.00
23	P	52	GLU	N-CA-C	6.67	129.00	111.00
32	Y	54	LYS	N-CA-C	-6.49	93.48	111.00
11	A	2610	C	C2'-C3'-O3'	6.31	123.80	113.70
11	A	1493	C	N1-C1'-C2'	6.28	122.17	114.00
21	N	51	PHE	N-CA-C	-6.17	94.34	111.00
17	G	88	ILE	N-CA-C	6.13	127.56	111.00
11	A	2525	G	N9-C1'-C2'	-6.12	105.27	112.00
11	A	1786	A	N9-C1'-C2'	6.07	121.89	114.00
11	A	331	A	C2'-C3'-O3'	6.00	123.30	113.70
23	P	40	SER	N-CA-C	-5.90	95.06	111.00
11	A	1896	G	N9-C1'-C2'	-5.86	105.55	112.00
11	A	352	G	N9-C1'-C2'	5.86	121.62	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
11	A	2508	G	N9-C1'-C2'	-5.80	105.62	112.00
11	A	243	U	N1-C1'-C2'	5.79	121.53	114.00
11	A	1698	A	O4'-C1'-N9	5.58	112.66	108.20
11	A	2110	G	C2'-C3'-O3'	5.55	122.59	113.70
3	2	32	LEU	N-CA-C	-5.54	96.05	111.00
11	A	1698	A	N9-C1'-C2'	5.49	121.14	114.00
11	A	784	A	N9-C1'-C2'	5.49	121.14	114.00
17	G	85	GLY	N-CA-C	-5.47	99.42	113.10
17	G	67	LYS	CD-CE-NZ	5.46	124.26	111.70
11	A	386	G	N9-C1'-C2'	5.38	121.00	114.00
11	A	1807	G	N9-C1'-C2'	-5.34	106.13	112.00
11	A	1970	A	C1'-O4'-C4'	-5.31	105.65	109.90
11	A	1820	U	C4'-C3'-C2'	5.28	107.88	102.60
11	A	1970	A	C5'-C4'-O4'	5.22	115.36	109.10
14	D	210	GLY	N-CA-C	-5.21	100.08	113.10
11	A	967	C	N1-C1'-C2'	-5.19	106.29	112.00
11	A	2477	C	N1-C1'-C2'	5.17	120.72	114.00
11	A	74	A	C2'-C3'-O3'	5.16	121.96	113.70
11	A	1799	G	C4'-C3'-O3'	5.15	123.30	113.00
11	A	1920	C	N1-C1'-C2'	-5.13	106.35	112.00
23	P	58	THR	N-CA-C	-5.08	97.27	111.00
11	A	1459	G	N9-C1'-C2'	5.08	120.61	114.00
3	2	16	LEU	N-CA-C	5.08	124.70	111.00
11	A	764	A	C1'-O4'-C4'	-5.06	105.85	109.90
11	A	1819	A	C4'-C3'-O3'	5.06	123.11	113.00
11	A	748	G	O4'-C1'-N9	5.04	112.24	108.20
11	A	748	G	N9-C1'-C2'	5.03	120.54	114.00
23	P	28	GLY	N-CA-C	-5.00	100.59	113.10

All (2) chirality outliers are listed below:

Mol	Chain	Res	Type	Atom
11	A	1799	G	C3'
11	A	1819	A	C3'

All (86) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	4	43	TYR	Sidechain
11	A	1234	U	Sidechain
11	A	1251	C	Sidechain
11	A	1343	G	Sidechain

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Mol	Chain	Res	Type	Group
11	A	1357	U	Sidechain
11	A	1420	U	Sidechain
11	A	1433	U	Sidechain
11	A	1435	G	Sidechain
11	A	1447	G	Sidechain
11	A	1504	C	Sidechain
11	A	1528	A	Sidechain
11	A	1614	A	Sidechain
11	A	1619	G	Sidechain
11	A	1633	G	Sidechain
11	A	1690	A	Sidechain
11	A	1772	G	Sidechain
11	A	1777	U	Sidechain
11	A	1779	U	Sidechain
11	A	1791	A	Sidechain
11	A	1804	C	Sidechain
11	A	1812	A	Sidechain
11	A	1833	U	Sidechain
11	A	1834	U	Sidechain
11	A	1849	G	Sidechain
11	A	1927	A	Sidechain
11	A	1938	A	Sidechain
11	A	1944	U	Sidechain
11	A	1955	U	Sidechain
11	A	1962	C	Sidechain
11	A	1971	A	Sidechain
11	A	1972	A	Sidechain
11	A	1980	G	Sidechain
11	A	1987	G	Sidechain
11	A	2052	G	Sidechain
11	A	2070	G	Sidechain
11	A	2079	U	Sidechain
11	A	2233	U	Sidechain
11	A	2237	G	Sidechain
11	A	2250	G	Sidechain
11	A	2344	U	Sidechain
11	A	2346	A	Sidechain
11	A	2357	U	Sidechain
11	A	2390	U	Sidechain
11	A	2464	C	Sidechain
11	A	250	G	Sidechain
11	A	2504	U	Sidechain

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Mol	Chain	Res	Type	Group
11	A	2507	C	Sidechain
11	A	2517	C	Sidechain
11	A	2525	G	Sidechain
11	A	2554	U	Sidechain
11	A	2595	G	Sidechain
11	A	2596	U	Sidechain
11	A	2597	G	Sidechain
11	A	2604	U	Sidechain
11	A	269	U	Sidechain
11	A	2719	G	Sidechain
11	A	2756	U	Sidechain
11	A	2779	U	Sidechain
11	A	389	G	Sidechain
11	A	395	U	Sidechain
11	A	454	A	Sidechain
11	A	463	G	Sidechain
11	A	464	U	Sidechain
11	A	532	A	Sidechain
11	A	574	C	Sidechain
11	A	606	U	Sidechain
11	A	63	U	Sidechain
11	A	676	A	Sidechain
11	A	686	G	Sidechain
11	A	688	U	Sidechain
11	A	716	A	Sidechain
11	A	72	U	Sidechain
11	A	726	G	Sidechain
11	A	746	A	Sidechain
11	A	749	C	Sidechain
11	A	763	G	Sidechain
11	A	769	G	Sidechain
11	A	776	G	Sidechain
11	A	787	U	Sidechain
11	A	792	G	Sidechain
11	A	860	U	Sidechain
11	A	945	A	Sidechain
11	A	946	G	Sidechain
11	A	972	G	Sidechain
11	A	987	G	Sidechain
21	N	4	TYR	Sidechain

5.2 Close contacts ⓘ

In the following table, the Non-H and H(model) columns list the number of non-hydrogen atoms and hydrogen atoms in the chain respectively. The H(added) column lists the number of hydrogens added by MolProbity. The Clashes column lists the number of clashes within the asymmetric unit, and the number in parentheses is this value normalized per 1000 atoms of the molecule in the chain. The Symm-Clashes column gives symmetry related clashes, in the same way as for the Clashes column.

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	0	662	0	688	110	0
2	1	732	0	808	156	0
3	2	598	0	653	166	0
4	3	468	0	523	74	0
5	4	341	0	339	70	0
6	5	459	0	480	98	0
7	6	433	0	461	157	0
8	7	419	0	467	71	0
9	8	508	0	576	141	0
10	9	307	0	338	74	0
11	A	62474	0	31497	4282	0
12	B	2551	0	1295	152	0
13	C	1742	0	1800	263	0
14	D	2145	0	2234	441	0
15	E	1564	0	1629	331	0
16	F	1624	0	1677	362	0
17	G	1474	0	1535	385	0
18	H	1223	0	1282	214	0
19	J	651	0	136	11	0
20	K	701	0	157	35	0
21	N	1105	0	1180	233	0
22	O	933	0	996	121	0
23	P	1114	0	1187	309	0
24	Q	1122	0	1179	240	0
25	R	960	0	1021	198	0
26	S	771	0	832	195	0
27	T	1142	0	1202	260	0
28	U	958	0	1015	223	0
29	V	779	0	852	167	0
30	W	896	0	953	153	0
31	X	726	0	778	118	0
32	Y	776	0	870	208	0
33	Z	1403	0	1432	320	0
All	All	93761	0	62072	9334	0

Clashscore is defined as the number of clashes calculated for the entry per 1000 atoms (including hydrogens) of the entry. The overall clashscore for this entry is 60.

All (9334) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:1:41:ARG:NH2	11:A:1365:A:H5''	1.53	1.24
7:6:45:LYS:H	7:6:45:LYS:CD	1.48	1.19
32:Y:46:LYS:H	32:Y:62:GLU:HG2	1.10	1.16
11:A:1887:C:H2'	11:A:1888:G:H5''	1.22	1.15
2:1:13:ILE:HD11	11:A:396:G:H5'	1.14	1.14
31:X:12:VAL:HB	31:X:17:ALA:HB1	1.29	1.14
14:D:147:LEU:HD11	14:D:183:ARG:NH1	1.62	1.13
11:A:2523:G:H2'	11:A:2524:G:H5''	1.23	1.13
11:A:925:C:H2'	11:A:926:A:H5''	1.14	1.11
32:Y:50:ARG:HB3	32:Y:53:PRO:HG3	1.27	1.11
13:C:114:VAL:HB	13:C:149:ILE:HD11	1.16	1.11
11:A:655:A:H4'	11:A:656:G:H5'	1.18	1.11
18:H:52:VAL:HB	18:H:69:ARG:HD3	1.29	1.11
3:2:51:ARG:HD3	3:2:55:ARG:HH22	0.96	1.11
11:A:2761:G:H2'	11:A:2762:G:H5''	1.16	1.11
16:F:155:LEU:HA	16:F:174:VAL:HB	1.33	1.11
9:8:10:ALA:HA	9:8:13:ARG:HG2	1.33	1.10
6:5:4:HIS:HB2	6:5:5:PRO:HD3	1.28	1.10
11:A:2502:G:H5''	11:A:2503:A:H5''	1.30	1.10
17:G:63:ILE:HG13	17:G:64:THR:H	1.10	1.10
11:A:271(M):G:H2'	11:A:271(N):U:H5''	1.27	1.10
3:2:38:GLN:HB3	3:2:44:LEU:HD13	1.23	1.10
11:A:833:U:H5''	23:P:48:PRO:HB3	1.35	1.09
11:A:2523:G:C2'	11:A:2524:G:H5''	1.82	1.09
11:A:227:A:H5''	23:P:76:LYS:HE3	1.25	1.09
11:A:797:C:H2'	11:A:798:G:H8	1.12	1.09
16:F:29:ASN:HD22	16:F:32:LEU:HB2	1.18	1.09
17:G:67:LYS:HD3	17:G:67:LYS:N	1.64	1.08
11:A:1484:G:H2'	11:A:1485:G:H5''	1.35	1.08
2:1:41:ARG:HH22	11:A:1365:A:C5'	1.66	1.08
11:A:511:U:H3'	11:A:512:G:H5''	1.35	1.08
24:Q:134:ARG:HD2	33:Z:122:ARG:HH22	1.11	1.08
28:U:112:ARG:HH12	29:V:46:VAL:HG11	1.13	1.08
26:S:13:ARG:HG3	26:S:14:VAL:H	1.19	1.08
7:6:19:ARG:HD3	11:A:2400:G:H4'	1.30	1.07
13:C:94:VAL:HG12	13:C:95:GLY:H	1.12	1.07
3:2:41:ILE:HG13	3:2:42:GLY:H	1.12	1.07
24:Q:134:ARG:HD2	33:Z:122:ARG:NH2	1.68	1.07
15:E:57:LYS:HE3	15:E:57:LYS:HA	1.19	1.07

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:94(A):G:H2'	11:A:95:G:H5''	1.34	1.07
11:A:2840:C:H5''	25:R:53:HIS:CD2	1.88	1.07
11:A:2012:G:H4'	30:W:96:ILE:HD11	1.27	1.07
17:G:39:ILE:HD11	17:G:60:LEU:HD11	1.27	1.07
7:6:27:LYS:HG3	7:6:30:THR:HB	1.37	1.07
23:P:146:VAL:HG22	23:P:147:LEU:H	1.14	1.06
30:W:8:ARG:HA	30:W:102:HIS:HB3	1.27	1.06
23:P:9:ASN:H	23:P:10:PRO:HD2	1.18	1.06
11:A:2807:G:H3'	11:A:2808:U:H5''	1.34	1.06
31:X:36:LYS:HA	31:X:39:ILE:HB	1.34	1.06
27:T:28:VAL:HG22	27:T:47:GLY:H	1.14	1.06
13:C:23:ASP:HB3	13:C:27:ARG:HH12	1.13	1.05
33:Z:152:ALA:HB1	33:Z:167:PRO:HB2	1.36	1.05
11:A:797:C:H2'	11:A:798:G:C8	1.92	1.05
11:A:582:G:H2'	11:A:583:G:H8	1.16	1.05
14:D:147:LEU:HD11	14:D:183:ARG:HH12	0.94	1.05
11:A:925:C:C2'	11:A:926:A:H5''	1.85	1.05
1:0:11:ARG:HB2	1:0:11:ARG:HH11	1.16	1.05
11:A:2645:G:H3'	11:A:2646:C:H5'	1.37	1.05
11:A:1710:C:H2'	11:A:1711:C:H6	1.20	1.04
22:O:2:ILE:HD11	22:O:82:ASN:HD22	1.16	1.04
33:Z:96:VAL:HG22	33:Z:97:GLU:H	1.15	1.04
11:A:2672:G:H2'	11:A:2673:G:H5''	1.37	1.03
14:D:147:LEU:CD1	14:D:183:ARG:HH12	1.70	1.03
12:B:80:U:H2'	12:B:81:G:H21	1.23	1.03
11:A:1516:C:H2'	11:A:1517:G:H5''	1.37	1.03
3:2:35:LEU:HD11	3:2:50:ILE:HG13	1.40	1.03
11:A:1024:G:H3'	11:A:1025:G:H5''	1.41	1.03
22:O:114:ILE:HD12	22:O:114:ILE:H	1.18	1.03
16:F:72:ARG:HH11	16:F:72:ARG:HA	1.20	1.03
11:A:2833:G:H3'	11:A:2834:G:C5'	1.87	1.03
32:Y:96:ILE:HG13	32:Y:99:CYS:HB3	1.37	1.02
17:G:163:ALA:HB1	17:G:169:ALA:HB2	1.39	1.02
7:6:5:VAL:HG11	11:A:2283:C:H5'	1.37	1.02
10:9:10:ILE:H	10:9:10:ILE:HD12	1.21	1.02
21:N:133:GLN:HG2	21:N:135:PRO:HD3	1.41	1.02
1:0:40:GLN:HE22	1:0:43:THR:HA	1.23	1.02
31:X:12:VAL:HG23	31:X:13:LEU:H	1.20	1.02
30:W:5:ALA:HB2	30:W:54:ALA:HB2	1.41	1.02
15:E:167:VAL:HG13	15:E:170:LEU:HD11	1.39	1.01
11:A:1590:U:H2'	11:A:1591:G:H5''	1.40	1.01
23:P:59:LEU:HA	23:P:61:ARG:NE	1.74	1.01

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:9:ILE:HG12	16:F:14:PRO:HA	1.43	1.01
6:5:41:PRO:HG2	6:5:44:THR:OG1	1.60	1.01
26:S:49:VAL:HG12	26:S:50:SER:H	1.21	1.01
11:A:582:G:H2'	11:A:583:G:C8	1.96	1.01
11:A:2184:G:H2'	11:A:2185:C:H1'	1.41	1.01
11:A:1380:G:H2'	11:A:1381:G:H8	1.24	1.01
11:A:2712:U:H1'	11:A:2712(A):A:C8	1.96	1.01
32:Y:8:LYS:HD2	32:Y:8:LYS:H	1.21	1.01
9:8:15:LYS:HD3	23:P:65:ARG:HH22	1.23	1.00
11:A:2511:U:H4'	15:E:124:GLY:HA2	1.41	1.00
11:A:1598:C:H5'	31:X:36:LYS:HG2	1.41	1.00
21:N:55:VAL:HG22	21:N:126:PRO:HA	1.40	1.00
11:A:143:G:H4'	31:X:35:THR:HG21	1.43	1.00
2:1:4:VAL:HG23	2:1:11:ARG:HG2	1.44	1.00
11:A:740:U:H2'	11:A:741:G:C8	1.96	1.00
27:T:55:ASN:H	27:T:59:THR:HG22	1.22	1.00
11:A:1665:A:C2'	11:A:1666:G:H5''	1.91	1.00
27:T:61:PHE:HE2	27:T:76:PHE:HB2	1.26	1.00
16:F:64:ILE:HG23	16:F:65:TRP:H	1.24	1.00
7:6:45:LYS:H	7:6:45:LYS:HD3	1.22	0.99
9:8:50:LEU:HD12	9:8:51:ALA:H	1.25	0.99
30:W:36:LEU:H	30:W:36:LEU:HD23	1.25	0.99
33:Z:58:VAL:HG22	33:Z:68:PRO:HA	1.45	0.99
32:Y:67:LEU:HD21	32:Y:71:LYS:HE2	1.44	0.99
11:A:662:G:H2'	11:A:663:G:H8	1.27	0.99
14:D:224:ALA:HB2	14:D:233:HIS:HB3	1.42	0.98
11:A:523:C:H2'	11:A:524:U:H5'	1.45	0.98
11:A:1665:A:H2'	11:A:1666:G:H5''	1.45	0.98
33:Z:10:ARG:HE	33:Z:36:LYS:HB2	1.24	0.98
17:G:34:LEU:HA	17:G:161:THR:HG22	1.45	0.98
23:P:62:LEU:N	23:P:62:LEU:HD23	1.78	0.98
18:H:37:VAL:HG12	18:H:38:SER:H	1.26	0.98
11:A:2892:A:H62	11:A:2893:G:H21	1.07	0.98
5:4:22:ILE:H	5:4:22:ILE:HD12	1.28	0.98
9:8:15:LYS:HD3	23:P:65:ARG:NH2	1.78	0.98
18:H:33:LEU:HD12	18:H:75:ALA:HA	1.45	0.98
15:E:199:ARG:HG2	15:E:200:GLU:H	1.28	0.98
17:G:7:LEU:HB3	17:G:100:TRP:HE3	1.29	0.98
11:A:2761:G:C2'	11:A:2762:G:H5''	1.93	0.97
2:1:45:ASN:HB3	2:1:64:ALA:HB2	1.45	0.97
3:2:6:VAL:HA	3:2:9:GLN:HB2	1.46	0.97
29:V:4:ILE:HG22	29:V:39:LEU:HD23	1.42	0.97

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:51:ARG:HD3	3:2:55:ARG:NH2	1.79	0.97
11:A:1394:U:H4'	11:A:1603:A:H4'	1.45	0.97
14:D:112:GLN:H	14:D:115:GLN:NE2	1.62	0.97
14:D:166:GLN:HA	14:D:166:GLN:HE21	1.27	0.97
22:O:2:ILE:HD11	22:O:82:ASN:ND2	1.80	0.97
11:A:266:G:H2'	11:A:267:C:H5''	1.44	0.97
11:A:598:G:H5'	23:P:15:ARG:HD3	1.47	0.97
11:A:1067:A:H3'	11:A:1068:G:H5''	1.45	0.97
11:A:1759:A:H2'	11:A:1760:A:H8	1.29	0.97
11:A:1494:A:H2'	11:A:1495:A:H5''	1.44	0.97
11:A:695:G:OP1	11:A:1380:G:H4'	1.64	0.97
27:T:24:PRO:HD3	27:T:52:ILE:HD12	1.47	0.97
11:A:27:G:N2	11:A:512:G:H2'	1.79	0.97
11:A:2640:G:H2'	11:A:2641:G:H5''	1.47	0.97
27:T:58:ASN:ND2	27:T:58:ASN:H	1.63	0.97
17:G:52:ILE:HD13	17:G:52:ILE:H	1.29	0.97
11:A:1759:A:H2'	11:A:1760:A:C8	1.98	0.97
18:H:20:ALA:HB3	18:H:23:ARG:HB2	1.45	0.97
14:D:261:LYS:NZ	14:D:263:ARG:HB2	1.79	0.96
15:E:36:ARG:NH2	15:E:88:GLY:HA2	1.79	0.96
11:A:1494:A:C2'	11:A:1495:A:H5''	1.95	0.96
12:B:7:G:H3'	12:B:8:U:H5''	1.47	0.96
11:A:2822:G:H2'	11:A:2823:A:H5''	1.47	0.96
11:A:2185:C:H2'	11:A:2186:G:H5'	1.44	0.96
11:A:2464:C:HO2'	11:A:2465:C:H6	1.08	0.96
11:A:1465:G:H2'	11:A:1466:G:H8	1.28	0.96
25:R:99:LYS:H	25:R:99:LYS:HD2	1.27	0.96
32:Y:8:LYS:HB2	32:Y:28:LYS:NZ	1.80	0.96
11:A:1177:A:H5'	11:A:1178:C:C6	2.01	0.96
7:6:19:ARG:HG3	7:6:20:ASN:H	1.27	0.96
31:X:12:VAL:HG23	31:X:13:LEU:N	1.81	0.96
25:R:96:ARG:HH12	25:R:117:VAL:HG23	1.30	0.96
27:T:82:LEU:H	27:T:82:LEU:HD12	1.27	0.96
13:C:127:LEU:CD2	13:C:130:ILE:HD12	1.96	0.96
15:E:120:TRP:CD1	15:E:155:LYS:HB3	2.00	0.96
22:O:35:VAL:HG11	22:O:103:ALA:HB3	1.48	0.96
27:T:28:VAL:O	27:T:29:ARG:HD3	1.64	0.96
15:E:77:ILE:HG22	15:E:78:LEU:H	1.29	0.95
32:Y:95:LYS:HG3	32:Y:100:ALA:HA	1.43	0.95
11:A:330:A:H2	11:A:1210:A:H2'	1.31	0.95
3:2:69:ARG:HH12	11:A:111:A:H4'	1.31	0.95
11:A:710:G:H2'	11:A:711:G:H8	1.26	0.95

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:459:U:H2'	11:A:460:A:H8	1.32	0.95
33:Z:19:ARG:HA	33:Z:23:LYS:O	1.65	0.95
27:T:61:PHE:CE2	27:T:76:PHE:HB2	2.01	0.95
21:N:26:LEU:HD11	21:N:30:ILE:HD11	1.46	0.95
3:2:13:ALA:HA	3:2:16:LEU:HD12	1.47	0.95
11:A:1092:C:H42	11:A:1100:C:H42	1.03	0.95
13:C:42:GLU:HB2	13:C:215:THR:HG23	1.45	0.95
11:A:1887:C:C2'	11:A:1888:G:H5''	1.96	0.95
32:Y:7:VAL:HB	32:Y:8:LYS:HD2	1.45	0.95
31:X:65:ARG:HG2	31:X:66:LEU:H	1.27	0.95
11:A:1058:G:H2'	11:A:1059:G:H5''	1.49	0.95
26:S:106:ARG:HH11	26:S:107:GLU:H	0.98	0.95
18:H:101:ARG:HG2	18:H:117:PRO:HG3	1.49	0.95
12:B:91:C:H5'	24:Q:17:LEU:O	1.64	0.95
11:A:2887:U:H2'	11:A:2888:C:H6	1.31	0.95
11:A:2631:G:N2	15:E:61:ARG:HH12	1.63	0.95
12:B:55:U:H2'	12:B:56:G:C8	2.02	0.95
11:A:2506:U:C6	11:A:2506:U:H5'	2.00	0.95
11:A:271(P):C:H2'	11:A:271(Q):G:H5'	1.45	0.94
11:A:862:G:H2'	11:A:863:A:O4'	1.65	0.94
2:1:3:LYS:HA	11:A:1365:A:OP2	1.67	0.94
17:G:36:LYS:HA	17:G:99:MET:SD	2.07	0.94
11:A:997:G:OP1	28:U:93:LYS:HD3	1.66	0.94
11:A:1243:G:H2'	11:A:1244:G:H5''	1.49	0.94
16:F:29:ASN:ND2	16:F:32:LEU:HB2	1.82	0.94
11:A:271(L):U:H5''	11:A:271(M):G:H5'	1.47	0.94
18:H:83:TYR:HB2	18:H:135:GLY:H	1.32	0.94
21:N:40:PRO:HB3	28:U:68:ALA:HB2	1.45	0.94
14:D:35:LYS:HG2	14:D:63:ARG:HG2	1.49	0.94
11:A:1484:G:C2'	11:A:1485:G:H5''	1.97	0.94
11:A:1543:C:H3'	11:A:1544:A:H5''	1.47	0.94
15:E:24:THR:HG21	15:E:188:VAL:HG11	1.50	0.94
13:C:74:VAL:HA	13:C:112:ALA:HB3	1.47	0.94
16:F:24:LEU:HB3	16:F:25:PRO:HD2	1.50	0.94
11:A:2645:G:H3'	11:A:2646:C:C5'	1.98	0.94
26:S:106:ARG:NH1	26:S:107:GLU:H	1.64	0.94
2:1:41:ARG:HH22	11:A:1365:A:H5''	0.79	0.94
11:A:17:G:H22	11:A:524:U:H1'	1.31	0.93
16:F:6:VAL:HG12	16:F:7:TYR:H	1.33	0.93
9:8:49:VAL:HG12	9:8:53:PRO:HD3	1.49	0.93
24:Q:141:GLN:NE2	33:Z:72:ARG:HD3	1.82	0.93
24:Q:45:GLN:NE2	24:Q:45:GLN:H	1.66	0.93

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2181:G:H2'	11:A:2182:G:H8	1.31	0.93
2:1:87:PRO:HA	2:1:90:ILE:HG12	1.47	0.93
7:6:45:LYS:N	7:6:45:LYS:CD	2.30	0.93
26:S:106:ARG:HH11	26:S:107:GLU:N	1.67	0.93
9:8:62:LEU:HD13	11:A:242:G:H3'	1.51	0.93
11:A:1222:C:H2'	11:A:1223:G:H5''	1.49	0.93
21:N:75:TYR:HD1	21:N:82:LEU:HB2	1.32	0.93
11:A:1378:A:H4'	11:A:1379:A:OP1	1.66	0.92
17:G:21:ARG:NH2	17:G:22:ARG:HA	1.84	0.92
15:E:198:VAL:HG12	15:E:199:ARG:H	1.31	0.92
32:Y:13:VAL:HG13	32:Y:14:LEU:H	1.34	0.92
13:C:82:LYS:HG3	13:C:147:PHE:HD1	1.28	0.92
11:A:1689:A:H62	11:A:1698:A:H2	1.07	0.92
18:H:85:LYS:HZ3	18:H:133:VAL:H	1.17	0.92
13:C:206:GLY:HA3	13:C:210:ARG:HH22	1.34	0.92
30:W:12:ILE:HD12	30:W:42:ARG:NH1	1.84	0.92
17:G:117:PHE:O	17:G:118:ARG:HG3	1.69	0.92
11:A:2502:G:H5''	11:A:2503:A:C5'	1.99	0.92
23:P:57:THR:OG1	23:P:59:LEU:HB3	1.69	0.92
21:N:24:GLY:H	21:N:27:ALA:H	1.17	0.92
28:U:70:ARG:HA	28:U:74:LEU:O	1.70	0.92
13:C:100:ILE:HG21	13:C:126:LYS:HB3	1.50	0.92
27:T:27:THR:O	27:T:28:VAL:HG23	1.68	0.92
11:A:1095:A:H2'	11:A:1096:A:H8	1.35	0.92
30:W:11:ARG:NH1	30:W:98:LYS:HB3	1.84	0.92
11:A:2262:U:H2'	11:A:2263:C:C6	2.05	0.92
18:H:44:VAL:HG12	18:H:45:VAL:H	1.32	0.92
11:A:1578:U:H2'	11:A:1579:A:H5''	1.50	0.92
13:C:96:GLY:HA3	13:C:99:ILE:HG12	1.50	0.92
1:0:16:SER:OG	11:A:2261:C:H3'	1.70	0.91
14:D:65:ILE:H	14:D:65:ILE:HD13	1.34	0.91
13:C:127:LEU:HD23	13:C:130:ILE:HD12	1.51	0.91
32:Y:46:LYS:HB2	32:Y:62:GLU:CG	2.00	0.91
7:6:53:LYS:CD	7:6:54:ILE:H	1.82	0.91
3:2:38:GLN:O	3:2:41:ILE:HG12	1.71	0.91
4:3:15:TYR:HD2	4:3:19:GLN:HE22	1.18	0.91
2:1:50:ARG:HG2	2:1:59:THR:HG22	1.52	0.91
2:1:25:LYS:HD2	11:A:388:G:H4'	1.52	0.91
11:A:144:C:H2'	11:A:145:G:H8	1.34	0.91
11:A:2068:U:N3	11:A:2430:A:H2	1.68	0.91
11:A:2161:C:H2'	11:A:2162:G:H8	1.32	0.91
31:X:35:THR:HG22	31:X:37:THR:H	1.36	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:10:VAL:O	27:T:13:ARG:HG2	1.70	0.91
32:Y:86:ARG:HG2	32:Y:87:LYS:H	1.36	0.91
11:A:2068:U:H3	11:A:2430:A:H2	1.14	0.91
16:F:153:SER:HA	16:F:172:TRP:HB2	1.51	0.91
31:X:12:VAL:CG2	31:X:13:LEU:H	1.83	0.91
32:Y:77:PRO:HB2	32:Y:99:CYS:SG	2.10	0.91
15:E:57:LYS:CE	15:E:57:LYS:HA	2.01	0.91
11:A:740:U:H2'	11:A:741:G:H8	1.28	0.91
11:A:1860:G:H1	11:A:1882:C:N4	1.69	0.90
11:A:1380:G:H2'	11:A:1381:G:C8	2.06	0.90
7:6:6:ARG:NH1	7:6:6:ARG:HB3	1.85	0.90
21:N:28:THR:HG23	21:N:29:LYS:H	1.33	0.90
13:C:30:LYS:HE2	13:C:180:PHE:O	1.71	0.90
31:X:30:VAL:HG11	31:X:39:ILE:HD11	1.50	0.90
17:G:21:ARG:HH21	17:G:22:ARG:HA	1.35	0.90
28:U:61:TRP:O	28:U:65:ILE:HD13	1.70	0.90
11:A:2802:G:H3'	11:A:2803:C:H5''	1.54	0.90
12:B:106:G:H5'	33:Z:31:ARG:HB3	1.52	0.90
11:A:265:A:C8	11:A:266:G:H1'	2.06	0.90
2:1:87:PRO:HA	2:1:90:ILE:CG1	2.01	0.90
11:A:372:G:N2	11:A:400:G:H2'	1.85	0.90
4:3:8:LEU:HD12	4:3:28:LEU:HB2	1.51	0.90
2:1:4:VAL:HG22	2:1:5:CYS:H	1.36	0.90
11:A:119:A:H4'	11:A:120:U:H5'	1.52	0.90
10:9:36:GLN:HE22	11:A:1031:G:N2	1.69	0.90
11:A:1629:U:H2'	11:A:1630:G:C8	2.06	0.90
9:8:6:THR:HG23	9:8:62:LEU:HD12	1.50	0.90
16:F:181:LEU:HD11	16:F:186:ILE:HD11	1.53	0.90
11:A:1516:C:C2'	11:A:1517:G:H5''	2.00	0.90
22:O:47:ILE:HG23	22:O:48:PRO:HD2	1.52	0.90
12:B:17:C:H42	12:B:68:C:H42	1.18	0.90
11:A:2385:C:H2'	11:A:2386:C:C6	2.07	0.90
22:O:119:PRO:HB2	27:T:68:TYR:CZ	2.06	0.90
11:A:2511:U:H4'	15:E:124:GLY:CA	2.01	0.90
3:2:5:GLU:HB2	3:2:9:GLN:HE22	1.36	0.90
11:A:1824:G:OP1	14:D:52:ARG:HD3	1.71	0.90
11:A:2773:C:H5''	15:E:164:ARG:HG2	1.51	0.90
16:F:154:VAL:HG11	16:F:193:VAL:HG23	1.55	0.90
17:G:56:ALA:O	17:G:59:GLU:HG2	1.72	0.90
23:P:39:LYS:HE2	23:P:42:SER:HB3	1.53	0.89
23:P:121:LYS:O	23:P:123:LEU:HD23	1.73	0.89
13:C:99:ILE:HG23	13:C:102:LYS:HZ3	1.36	0.89

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:U:112:ARG:NH1	29:V:46:VAL:HG11	1.86	0.89
23:P:111:ARG:HH11	23:P:149:GLU:HG3	1.37	0.89
11:A:1710:C:H2'	11:A:1711:C:C6	2.08	0.89
17:G:5:VAL:H	17:G:8:LYS:HB2	1.37	0.89
11:A:84:A:H5'	32:Y:9:LYS:HD2	1.53	0.89
11:A:271(H):G:HO2'	11:A:271(I):G:H8	0.95	0.89
16:F:206:ILE:HG22	16:F:207:GLY:H	1.36	0.89
26:S:28:VAL:HG12	26:S:29:PHE:H	1.34	0.89
29:V:52:VAL:HG13	29:V:55:ALA:HB3	1.54	0.89
17:G:114:ILE:HG13	17:G:135:LEU:HD21	1.54	0.89
14:D:232:PRO:HD2	14:D:249:PRO:HA	1.53	0.89
22:O:111:PHE:HB3	22:O:114:ILE:HD13	1.54	0.89
11:A:710:G:H2'	11:A:711:G:C8	2.08	0.89
8:7:40:TRP:CZ3	11:A:459:U:H4'	2.07	0.89
11:A:1202:C:H2'	11:A:1203:G:H5'	1.55	0.89
33:Z:139:VAL:HG12	33:Z:140:ASP:H	1.38	0.89
1:0:40:GLN:NE2	1:0:43:THR:HA	1.85	0.89
15:E:33:VAL:HG21	15:E:36:ARG:HH21	1.37	0.89
11:A:2187:G:H2'	11:A:2188:C:H5'	1.55	0.89
11:A:265:A:H8	11:A:266:G:H1'	1.37	0.89
11:A:144:C:H2'	11:A:145:G:C8	2.08	0.89
11:A:511:U:H3'	11:A:512:G:C5'	2.03	0.89
11:A:2009:G:H4'	30:W:40:ASN:ND2	1.86	0.89
7:6:45:LYS:N	7:6:45:LYS:HD3	1.87	0.89
26:S:97:ARG:HH21	26:S:98:VAL:HA	1.37	0.89
33:Z:151:HIS:HB2	33:Z:169:GLU:O	1.72	0.89
11:A:1465:G:H2'	11:A:1466:G:C8	2.07	0.89
9:8:10:ALA:HB2	23:P:61:ARG:HH11	1.38	0.88
10:9:36:GLN:HE22	11:A:1031:G:H21	1.16	0.88
5:4:8:LYS:HG2	5:4:9:LEU:N	1.86	0.88
16:F:24:LEU:HB3	16:F:25:PRO:CD	2.03	0.88
11:A:2184:G:H2'	11:A:2185:C:C1'	2.02	0.88
11:A:17:G:N2	11:A:524:U:H1'	1.86	0.88
24:Q:34:LEU:HD11	24:Q:129:THR:HB	1.55	0.88
7:6:45:LYS:HD2	7:6:45:LYS:H	1.35	0.88
11:A:1291:C:H2'	11:A:1292:U:H5'	1.55	0.88
25:R:45:ARG:HG3	25:R:46:GLY:H	1.35	0.88
9:8:23:VAL:HG12	9:8:46:ARG:HB3	1.56	0.88
33:Z:70:LEU:HD21	33:Z:91:LEU:HD21	1.55	0.88
32:Y:75:ILE:O	32:Y:76:CYS:HB2	1.73	0.88
11:A:1590:U:C2'	11:A:1591:G:H5''	2.02	0.88
4:3:6:VAL:HB	4:3:54:VAL:HG11	1.53	0.88

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2691:C:H2'	11:A:2692:C:H6	1.38	0.88
11:A:1677:A:H2'	11:A:1678:G:C8	2.08	0.88
13:C:23:ASP:HB3	13:C:27:ARG:NH1	1.88	0.88
21:N:28:THR:HG23	21:N:29:LYS:N	1.87	0.88
12:B:20:C:H2'	12:B:21:G:H5''	1.53	0.88
3:2:51:ARG:CD	3:2:55:ARG:HH22	1.85	0.88
5:4:8:LYS:O	5:4:9:LEU:HB2	1.73	0.88
6:5:27:PRO:HG3	30:W:23:LEU:HD11	1.56	0.88
24:Q:22:LYS:H	33:Z:78:LYS:HE3	1.36	0.88
11:A:1222:C:C2'	11:A:1223:G:H5''	2.04	0.88
11:A:492:A:H2'	11:A:493:G:O4'	1.74	0.88
11:A:272(H):C:H2'	11:A:272(I):U:H5''	1.55	0.88
8:7:21:ARG:HH11	8:7:21:ARG:HG2	1.39	0.88
11:A:2833:G:H3'	11:A:2834:G:H5''	1.56	0.88
11:A:862:G:C2	11:A:863:A:H1'	2.08	0.88
22:O:11:ALA:HB1	22:O:98:VAL:HG23	1.55	0.88
9:8:28:GLY:HA2	9:8:32:LEU:HD23	1.56	0.88
23:P:47:ASP:HB3	23:P:49:ARG:N	1.89	0.88
11:A:925:C:H2'	11:A:926:A:C5'	2.04	0.88
18:H:67:LEU:HG	18:H:71:LEU:HD11	1.55	0.88
21:N:23:LEU:HA	21:N:26:LEU:HD23	1.56	0.88
21:N:3:THR:HG22	21:N:4:TYR:H	1.36	0.88
24:Q:27:VAL:HG12	24:Q:29:PHE:H	1.38	0.88
21:N:45:ASN:HD22	21:N:45:ASN:N	1.71	0.88
11:A:575:A:O2'	11:A:576:U:H5'	1.74	0.88
11:A:427:U:HO2'	11:A:428:A:H8	0.93	0.87
31:X:89:ILE:HG21	31:X:92:LEU:HD12	1.53	0.87
32:Y:79:CYS:SG	32:Y:80:GLY:N	2.47	0.87
17:G:43:LEU:HB3	17:G:45:GLU:HG2	1.55	0.87
17:G:180:PHE:HB2	17:G:182:LYS:NZ	1.89	0.87
11:A:2245:U:H5'	11:A:2246:G:H5'	1.56	0.87
11:A:894:C:H2'	11:A:895:U:H5'	1.56	0.87
11:A:2482:G:H22	24:Q:52:VAL:HG11	1.38	0.87
11:A:1291:C:C2'	11:A:1292:U:H5'	2.04	0.87
27:T:28:VAL:CG2	27:T:47:GLY:H	1.86	0.87
16:F:46:ARG:HH11	16:F:46:ARG:HG3	1.38	0.87
23:P:64:LYS:O	23:P:66:GLY:N	2.08	0.87
6:5:3:LYS:HE3	6:5:3:LYS:HA	1.55	0.87
11:A:2807:G:H1	11:A:2893:G:H1	1.23	0.87
13:C:151:GLU:HA	13:C:154:ARG:HH11	1.39	0.87
3:2:38:GLN:HB3	3:2:44:LEU:CD1	2.04	0.87
28:U:69:CYS:HB2	28:U:74:LEU:HD11	1.56	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2385:C:H2'	11:A:2386:C:H6	1.36	0.87
2:1:13:ILE:H	2:1:13:ILE:HD13	1.38	0.87
11:A:2811:G:OP1	15:E:60:ASN:HB2	1.73	0.87
11:A:2735:G:H2'	11:A:2736:G:C8	2.09	0.87
11:A:31:C:H2'	11:A:32:C:H5''	1.56	0.87
33:Z:153:SER:H	33:Z:167:PRO:HB2	1.40	0.87
31:X:24:GLY:O	31:X:82:GLN:HA	1.75	0.87
11:A:910:A:H62	24:Q:12:GLN:HA	1.36	0.87
11:A:2082:A:H2'	11:A:2083:G:O4'	1.75	0.87
27:T:32:TYR:O	27:T:33:LYS:HB2	1.74	0.87
29:V:72:VAL:CG2	29:V:85:LYS:HB2	2.05	0.87
13:C:96:GLY:HA3	13:C:99:ILE:CG1	2.05	0.87
33:Z:68:PRO:O	33:Z:91:LEU:HG	1.75	0.86
11:A:1193:G:H2'	11:A:1194:A:O4'	1.75	0.86
8:7:34:ARG:HD3	8:7:39:ARG:HG3	1.58	0.86
11:A:1087:G:H2'	11:A:1088:A:H4'	1.54	0.86
12:B:106:G:H2'	12:B:107:G:H8	1.38	0.86
27:T:130:ALA:O	27:T:132:LYS:HE2	1.76	0.86
11:A:904:C:H2'	11:A:905:U:H6	1.40	0.86
11:A:2796:U:O2'	11:A:2799:C:H5'	1.75	0.86
17:G:63:ILE:HG13	17:G:64:THR:N	1.89	0.86
17:G:34:LEU:HD11	17:G:100:TRP:CZ2	2.10	0.86
11:A:2124:G:H1'	13:C:42:GLU:OE2	1.75	0.86
6:5:36:CYS:HB3	6:5:49:CYS:HB3	1.56	0.86
22:O:107:ARG:HH12	27:T:35:LYS:HD2	1.40	0.86
27:T:80:SER:HB3	27:T:81:PRO:HD3	1.56	0.86
11:A:310:A:OP1	32:Y:18:GLY:HA2	1.75	0.86
11:A:1541:G:H1'	11:A:1542:A:C4	2.11	0.86
11:A:1170:G:H22	11:A:1179:C:H42	1.22	0.86
11:A:2403:C:H42	11:A:2414:G:H1	1.24	0.86
14:D:226:MET:HB3	14:D:230:ASP:HB2	1.56	0.86
21:N:83:LYS:HG2	21:N:84:LYS:H	1.39	0.86
13:C:214:VAL:HG23	13:C:224:ILE:HG21	1.57	0.86
25:R:38:VAL:HB	25:R:39:PRO:HD3	1.55	0.86
17:G:77:ILE:HB	17:G:81:LYS:O	1.75	0.86
9:8:10:ALA:HB2	23:P:61:ARG:NH1	1.90	0.86
11:A:2401:U:H2'	11:A:2402:C:H5''	1.56	0.86
32:Y:46:LYS:N	32:Y:62:GLU:HG2	1.91	0.86
11:A:1860:G:H1	11:A:1882:C:H42	1.21	0.86
11:A:2454:G:H2'	11:A:2455:G:H8	1.41	0.86
33:Z:165:VAL:HG12	33:Z:166:SER:N	1.87	0.86
14:D:35:LYS:CG	14:D:63:ARG:HG2	2.05	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:41:ILE:HG13	3:2:42:GLY:N	1.90	0.85
11:A:2760:C:H2'	11:A:2761:G:H5''	1.59	0.85
25:R:100:LEU:HD11	25:R:113:LEU:HD13	1.59	0.85
7:6:5:VAL:CG1	11:A:2283:C:H5'	2.07	0.85
11:A:1658:C:H2'	11:A:1659:U:H6	1.41	0.85
33:Z:81:ARG:HB2	33:Z:81:ARG:CZ	2.04	0.85
15:E:107:THR:O	15:E:191:PRO:HD3	1.76	0.85
1:0:37:LEU:HB2	1:0:59:LEU:HB2	1.59	0.85
14:D:186:HIS:NE2	14:D:188:GLU:HB2	1.91	0.85
15:E:34:VAL:O	15:E:35:GLN:HB2	1.75	0.85
13:C:147:PHE:C	13:C:149:ILE:H	1.79	0.85
1:0:11:ARG:HB2	1:0:11:ARG:NH1	1.91	0.85
13:C:72:VAL:HG23	13:C:111:ASP:HB3	1.59	0.85
11:A:1062:G:H1'	20:K:75:UNK:CB	2.07	0.85
11:A:813:U:H2'	11:A:814:C:C6	2.11	0.85
3:2:69:ARG:NH1	11:A:111:A:H4'	1.91	0.85
11:A:329:G:H22	32:Y:19:LYS:HE3	1.40	0.85
17:G:16:ARG:HD2	17:G:20:ILE:HD11	1.57	0.85
13:C:10:LEU:HD12	13:C:32:LEU:HD23	1.56	0.85
11:A:407:G:H2'	11:A:408:G:H8	1.42	0.85
7:6:53:LYS:HD3	7:6:54:ILE:H	1.39	0.85
32:Y:81:LYS:NZ	32:Y:99:CYS:HB2	1.91	0.85
9:8:25:MET:HG3	23:P:64:LYS:HB2	1.56	0.85
22:O:2:ILE:CD1	22:O:82:ASN:HD22	1.89	0.85
17:G:7:LEU:HB3	17:G:100:TRP:CE3	2.11	0.85
21:N:133:GLN:HG2	21:N:134:ARG:H	1.41	0.85
29:V:72:VAL:HG23	29:V:85:LYS:HB2	1.56	0.85
31:X:60:ARG:HG3	31:X:75:ASP:OD2	1.77	0.85
29:V:19:LYS:HG2	29:V:94:LEU:HB2	1.59	0.85
11:A:1353:A:H2'	11:A:1354:A:C8	2.12	0.84
27:T:38:ASN:C	27:T:38:ASN:HD22	1.80	0.84
33:Z:153:SER:H	33:Z:167:PRO:CB	1.90	0.84
11:A:2110:G:H22	11:A:2178:C:H41	1.24	0.84
5:4:6:HIS:HB3	17:G:67:LYS:HE3	1.57	0.84
11:A:863:A:H2'	11:A:864:G:C8	2.11	0.84
11:A:612:C:H2'	11:A:613:G:H5'	1.59	0.84
27:T:5:ALA:O	27:T:9:LEU:HG	1.76	0.84
11:A:6:A:O2'	21:N:130:HIS:HB2	1.77	0.84
11:A:483:A:H1'	32:Y:60:PHE:CE1	2.11	0.84
16:F:137:LYS:HA	16:F:140:LEU:CB	2.07	0.84
27:T:65:LYS:HE3	27:T:66:VAL:H	1.41	0.84
11:A:860:U:O2'	11:A:861:A:H5'	1.76	0.84

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1576:U:H2'	11:A:1577:C:C6	2.12	0.84
12:B:68:C:H2'	12:B:69:G:H8	1.43	0.84
27:T:53:ARG:HB3	27:T:53:ARG:NH1	1.92	0.84
12:B:30:C:H2'	12:B:31:C:O4'	1.77	0.84
11:A:1378:A:O2'	11:A:1379:A:H5'	1.77	0.84
11:A:1543:C:H3'	11:A:1544:A:C5'	2.07	0.84
11:A:1682:G:H5'	11:A:1762:A:O2'	1.77	0.84
24:Q:20:ALA:H	33:Z:79:ARG:NH2	1.75	0.84
11:A:622:G:O2'	11:A:623:G:H5'	1.77	0.84
16:F:160:ASN:HB3	16:F:163:VAL:HB	1.57	0.84
18:H:23:ARG:O	18:H:24:VAL:HG23	1.77	0.84
13:C:63:SER:HA	13:C:160:ARG:HA	1.59	0.84
11:A:2807:G:C3'	11:A:2808:U:H5''	2.08	0.84
11:A:1668:A:H4'	11:A:1669:A:O5'	1.77	0.84
33:Z:10:ARG:NE	33:Z:36:LYS:HB2	1.92	0.84
32:Y:37:VAL:HG23	32:Y:38:ILE:H	1.42	0.84
24:Q:67:ARG:HD3	24:Q:102:VAL:HB	1.59	0.84
11:A:612:C:H2'	11:A:613:G:C5'	2.08	0.84
11:A:655:A:C4'	11:A:656:G:H5'	2.07	0.84
11:A:662:G:H2'	11:A:663:G:C8	2.13	0.84
13:C:99:ILE:HD12	13:C:102:LYS:HZ3	1.43	0.84
11:A:1818:U:H2'	14:D:157:ARG:HG3	1.57	0.83
13:C:82:LYS:HG3	13:C:147:PHE:CD1	2.13	0.83
21:N:10:GLU:HG3	21:N:11:PRO:HD2	1.60	0.83
11:A:1441:G:O2'	11:A:1442:G:H5'	1.78	0.83
11:A:2039:C:H2'	11:A:2040:C:H6	1.42	0.83
14:D:181:GLU:HA	14:D:272:ALA:O	1.78	0.83
11:A:2893:G:H5'	11:A:2894:G:H5'	1.60	0.83
11:A:2185:C:C2'	11:A:2186:G:H5'	2.08	0.83
11:A:1047:G:N2	11:A:1110:G:H2'	1.93	0.83
11:A:271:A:H2	11:A:366:C:H1'	1.42	0.83
11:A:1010:A:H1'	11:A:1153:C:H1'	1.60	0.83
7:6:6:ARG:HB3	7:6:6:ARG:HH11	1.42	0.83
32:Y:81:LYS:HD3	32:Y:97:ARG:O	1.78	0.83
17:G:130:ASN:HB3	17:G:160:VAL:HA	1.60	0.83
11:A:2591:C:H2'	11:A:2592:G:C8	2.13	0.83
4:3:4:LEU:HD11	4:3:39:ASP:OD1	1.78	0.83
7:6:48:VAL:O	7:6:49:HIS:ND1	2.12	0.83
11:A:2476:A:H2'	11:A:2477:C:H5''	1.61	0.83
16:F:135:LYS:HB3	16:F:138:GLU:HB2	1.59	0.83
11:A:2814:C:H2'	11:A:2815:C:H6	1.43	0.83
2:1:13:ILE:CD1	11:A:396:G:H5'	2.06	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:68:ARG:HH12	3:2:72:ALA:HB2	1.42	0.83
31:X:44:GLU:HG3	31:X:50:LYS:HA	1.59	0.83
11:A:2302:G:H3'	11:A:2303:G:H8	1.44	0.83
15:E:132:HIS:HA	15:E:135:HIS:CE1	2.14	0.83
9:8:10:ALA:CA	9:8:13:ARG:HG2	2.09	0.83
11:A:2837:G:H2'	11:A:2838:G:H8	1.43	0.83
11:A:1503:U:H2'	11:A:1504:C:C6	2.14	0.83
11:A:1503:U:H2'	11:A:1504:C:H6	1.44	0.83
15:E:38:THR:HB	15:E:41:LYS:HG2	1.60	0.83
11:A:1301:A:O2'	11:A:1302:A:H2'	1.79	0.83
11:A:2122:U:H2'	11:A:2123:G:C8	2.14	0.83
33:Z:61:LEU:HD11	33:Z:67:LEU:HD13	1.59	0.83
32:Y:8:LYS:HB2	32:Y:28:LYS:HZ1	1.42	0.83
11:A:996:A:O2'	11:A:997:G:H5'	1.79	0.83
17:G:85:GLY:O	17:G:86:MET:HB3	1.79	0.83
11:A:372:G:H22	11:A:400:G:H2'	1.39	0.83
11:A:2841:C:H2'	11:A:2842:G:C8	2.14	0.83
11:A:2379:G:H2'	11:A:2380:C:C6	2.14	0.83
23:P:105:LEU:O	23:P:106:LEU:HB2	1.77	0.83
27:T:62:THR:HG22	27:T:75:ILE:HG23	1.61	0.83
21:N:83:LYS:HG2	21:N:84:LYS:N	1.94	0.83
11:A:884:C:H42	11:A:893:C:H42	1.26	0.83
11:A:2122:U:H2'	11:A:2123:G:H8	1.41	0.83
11:A:1132:A:N3	21:N:73:THR:HG21	1.94	0.83
27:T:60:THR:HG22	27:T:77:PRO:HA	1.60	0.82
11:A:2208:A:H1'	11:A:2219:G:N7	1.92	0.82
18:H:153:LYS:H	18:H:153:LYS:HD3	1.43	0.82
11:A:1803:A:O3'	14:D:259:THR:HG21	1.80	0.82
16:F:137:LYS:HA	16:F:140:LEU:HB3	1.61	0.82
11:A:2498:C:O2'	11:A:2499:C:H5'	1.79	0.82
24:Q:44:ALA:HA	24:Q:47:ILE:HD12	1.59	0.82
11:A:827:U:H2'	11:A:2068:U:C2	2.14	0.82
14:D:34:VAL:HG23	14:D:35:LYS:H	1.45	0.82
14:D:30:GLU:HG3	14:D:63:ARG:CZ	2.09	0.82
11:A:659:C:H2'	11:A:660:G:H8	1.43	0.82
26:S:94:TYR:O	26:S:95:HIS:HB3	1.77	0.82
11:A:1297:C:OP1	11:A:2710:C:H4'	1.79	0.82
16:F:11:VAL:HG12	16:F:12:LEU:H	1.43	0.82
14:D:126:GLN:O	14:D:193:VAL:HG11	1.80	0.82
32:Y:43:ASN:C	32:Y:44:ILE:HD12	1.99	0.82
7:6:16:CYS:O	7:6:17:LYS:HG2	1.80	0.82
13:C:100:ILE:CG2	13:C:127:LEU:HG	2.10	0.82

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:84:ASN:C	23:P:86:LYS:H	1.81	0.82
14:D:65:ILE:N	14:D:65:ILE:HD13	1.93	0.82
25:R:13:HIS:CE1	25:R:16:HIS:H	1.97	0.82
11:A:662:G:OP1	23:P:18:ARG:HD2	1.79	0.82
11:A:2377:A:H2'	11:A:2378:A:C8	2.15	0.82
18:H:85:LYS:O	18:H:132:ARG:HB2	1.80	0.82
11:A:89:G:H3'	11:A:90:U:H5''	1.60	0.82
11:A:90:U:H1'	11:A:92:A:C8	2.15	0.82
15:E:82:ARG:HG3	15:E:82:ARG:HH11	1.44	0.82
11:A:1598:C:H5'	31:X:36:LYS:CG	2.09	0.82
11:A:2020:A:O2'	11:A:2021:C:H5'	1.79	0.82
11:A:271(M):G:C2'	11:A:271(N):U:H5''	2.08	0.82
32:Y:76:CYS:SG	32:Y:77:PRO:HD2	2.19	0.82
13:C:40:THR:HA	13:C:177:LYS:HA	1.61	0.82
24:Q:12:GLN:HE21	24:Q:73:PRO:HD2	1.44	0.82
11:A:871:U:H4'	24:Q:69:PHE:CE2	2.15	0.82
17:G:105:LYS:HE3	17:G:143:GLU:OE1	1.80	0.82
7:6:27:LYS:CG	7:6:30:THR:HB	2.09	0.82
29:V:81:TYR:C	29:V:82:ARG:HD2	1.99	0.82
16:F:132:VAL:HG22	16:F:133:ASN:H	1.42	0.81
11:A:2248:C:H2'	11:A:2249:U:H5'	1.62	0.81
11:A:774:A:H2	11:A:787:U:HO2'	1.23	0.81
7:6:36:LEU:HD12	7:6:50:ARG:NH2	1.94	0.81
11:A:2401:U:C2'	11:A:2402:C:H5''	2.10	0.81
11:A:483:A:H1'	32:Y:60:PHE:CZ	2.15	0.81
11:A:2008:C:H2'	11:A:2009:G:H8	1.41	0.81
11:A:626:U:C2	23:P:105:LEU:HG	2.16	0.81
11:A:523:C:C2'	11:A:524:U:H5'	2.10	0.81
11:A:145:G:H2'	11:A:146:G:H5''	1.62	0.81
15:E:107:THR:O	15:E:190:GLY:HA2	1.79	0.81
11:A:398:G:H2'	11:A:399:G:H8	1.45	0.81
16:F:51:THR:HG21	16:F:91:GLY:HA3	1.62	0.81
18:H:85:LYS:HZ1	18:H:132:ARG:HA	1.43	0.81
15:E:69:LYS:HE2	15:E:69:LYS:H	1.45	0.81
11:A:2508:G:H1	11:A:2580:U:H3	1.25	0.81
33:Z:5:LEU:HB2	33:Z:59:LEU:HD22	1.62	0.81
19:J:25:UNK:HA	19:J:116:UNK:CB	2.11	0.81
24:Q:110:THR:HG23	24:Q:113:GLN:H	1.45	0.81
9:8:30:ARG:NE	9:8:30:ARG:HA	1.96	0.81
13:C:94:VAL:HG12	13:C:95:GLY:N	1.95	0.81
3:2:25:VAL:HG11	3:2:61:LEU:HD21	1.62	0.81
9:8:23:VAL:CG1	9:8:46:ARG:HB3	2.10	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:44:THR:HG21	25:R:101:ALA:HB2	1.63	0.81
25:R:99:LYS:N	25:R:99:LYS:HD2	1.95	0.81
6:5:48:GLU:O	6:5:49:CYS:SG	2.39	0.81
11:A:1314:C:H6	11:A:1314:C:H5'	1.44	0.81
7:6:27:LYS:HG3	7:6:30:THR:CB	2.09	0.81
11:A:537:C:N4	11:A:556:G:H1	1.79	0.81
11:A:2328:A:H2'	11:A:2329:G:C8	2.16	0.81
11:A:1190:G:H5'	23:P:35:HIS:N	1.94	0.81
11:A:2846:G:OP2	27:T:54:ARG:HD2	1.81	0.81
24:Q:140:ALA:HB1	33:Z:99:TYR:CB	2.10	0.81
11:A:2025:C:H2'	11:A:2026:C:H6	1.43	0.81
4:3:56:VAL:HG12	4:3:57:GLU:H	1.45	0.81
11:A:2358:G:N2	11:A:2359:C:H1'	1.94	0.81
30:W:8:ARG:HA	30:W:102:HIS:CB	2.09	0.81
11:A:2206:G:N2	11:A:2207:G:H4'	1.96	0.81
11:A:1599:C:H2'	11:A:1600:C:H6	1.45	0.81
29:V:29:PRO:HA	29:V:61:VAL:CG2	2.11	0.81
16:F:137:LYS:HG2	16:F:140:LEU:HD23	1.63	0.81
11:A:2672:G:C2'	11:A:2673:G:H5''	2.11	0.81
11:A:996:A:H5'	28:U:94:ASN:HB2	1.62	0.81
11:A:802:A:H2'	11:A:803:U:C6	2.16	0.81
14:D:35:LYS:HD2	14:D:36:PRO:N	1.96	0.80
11:A:926:A:H8	11:A:926:A:H5'	1.46	0.80
16:F:101:LEU:HD12	16:F:102:PRO:HD2	1.62	0.80
11:A:827:U:H2'	11:A:2068:U:O2	1.81	0.80
11:A:2801(A):A:H4'	11:A:2802:G:H5'	1.63	0.80
11:A:654(N):G:H2'	11:A:654(O):G:O4'	1.81	0.80
27:T:50:ILE:HA	27:T:99:LEU:HD11	1.62	0.80
17:G:85:GLY:O	17:G:87:PRO:HD3	1.80	0.80
11:A:1259:G:O2'	11:A:1260:G:H5'	1.81	0.80
16:F:39:TRP:CH2	16:F:106:ARG:HD2	2.16	0.80
12:B:80:U:H2'	12:B:81:G:N2	1.96	0.80
22:O:87:ILE:HG22	22:O:88:ASN:O	1.81	0.80
11:A:819:A:H2'	11:A:820:A:H5'	1.63	0.80
11:A:2762:G:H5'	11:A:2762:G:H8	1.43	0.80
11:A:2840:C:H5''	25:R:53:HIS:HD2	1.38	0.80
5:4:10:VAL:HG23	5:4:11:PRO:HD2	1.63	0.80
13:C:100:ILE:HG21	13:C:126:LYS:CB	2.11	0.80
12:B:20:C:C2'	12:B:21:G:H5''	2.11	0.80
11:A:2246:G:H2'	11:A:2247:A:C8	2.16	0.80
13:C:214:VAL:HG23	13:C:224:ILE:HD13	1.64	0.80
29:V:24:LYS:HA	29:V:92:THR:HG23	1.63	0.80

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:177:LEU:O	14:D:179:SER:N	2.14	0.80
28:U:52:ARG:CZ	28:U:55:ARG:HH22	1.94	0.80
32:Y:39:VAL:HG12	32:Y:40:GLU:H	1.47	0.80
32:Y:81:LYS:HZ3	32:Y:99:CYS:HB2	1.46	0.80
17:G:131:TYR:HE2	17:G:133:LEU:HB3	1.46	0.80
2:1:11:ARG:NH1	2:1:11:ARG:HB3	1.96	0.80
17:G:71:THR:HB	17:G:89:GLY:O	1.82	0.80
18:H:148:ILE:O	18:H:162:ILE:HD13	1.82	0.80
11:A:634:C:H2'	11:A:635:C:H6	1.45	0.80
11:A:594:U:H2'	11:A:595:C:C6	2.17	0.80
29:V:5:VAL:HG23	29:V:37:VAL:O	1.82	0.80
11:A:560:C:H1'	28:U:49:HIS:HE1	1.46	0.80
11:A:795:C:H2'	11:A:796:C:C6	2.16	0.80
7:6:16:CYS:SG	7:6:48:VAL:HG22	2.21	0.80
15:E:195:LEU:HD12	15:E:196:VAL:N	1.96	0.80
11:A:2377:A:H2'	11:A:2378:A:H8	1.46	0.80
13:C:99:ILE:HG23	13:C:102:LYS:NZ	1.97	0.80
11:A:1374:G:H2'	11:A:1375:C:C6	2.16	0.80
11:A:1820:U:O2'	14:D:159:ALA:HB3	1.82	0.80
11:A:2222:G:H2'	11:A:2223:G:H8	1.44	0.80
14:D:91:ARG:HH11	14:D:91:ARG:HG2	1.45	0.80
11:A:234:C:H2'	11:A:235:U:C6	2.16	0.80
14:D:30:GLU:HB2	14:D:35:LYS:HE3	1.64	0.80
23:P:9:ASN:N	23:P:10:PRO:HD2	1.96	0.80
15:E:80:GLU:O	15:E:81:ILE:HG12	1.81	0.80
23:P:146:VAL:HG22	23:P:147:LEU:N	1.93	0.80
33:Z:96:VAL:HG22	33:Z:97:GLU:N	1.95	0.80
17:G:97:ASP:H	17:G:100:TRP:HD1	1.30	0.80
14:D:28:GLU:H	14:D:29:PRO:HD2	1.46	0.80
14:D:43:ARG:HD2	14:D:44:ASN:OD1	1.81	0.80
16:F:53:THR:HG22	16:F:56:GLU:HG3	1.62	0.80
11:A:1785:A:OP2	11:A:1982:C:H5'	1.81	0.80
7:6:5:VAL:HG11	11:A:2283:C:C5'	2.12	0.80
11:A:227:A:C5'	23:P:76:LYS:HE3	2.12	0.80
30:W:5:ALA:CB	30:W:54:ALA:HB2	2.12	0.80
3:2:2:LYS:HA	3:2:5:GLU:OE2	1.82	0.80
25:R:96:ARG:NH1	25:R:117:VAL:HG23	1.98	0.79
15:E:33:VAL:HG21	15:E:36:ARG:NH2	1.97	0.79
3:2:5:GLU:HB2	3:2:9:GLN:NE2	1.96	0.79
6:5:38:ALA:CB	6:5:48:GLU:HB3	2.12	0.79
16:F:53:THR:HG23	16:F:55:GLY:H	1.45	0.79
11:A:1498:C:H2'	11:A:1499:C:H5''	1.63	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:833:U:H5''	23:P:48:PRO:CB	2.11	0.79
27:T:53:ARG:HB3	27:T:53:ARG:HH11	1.46	0.79
11:A:560:C:H1'	28:U:49:HIS:CE1	2.18	0.79
21:N:21:LYS:HD3	21:N:22:THR:H	1.46	0.79
7:6:5:VAL:HB	11:A:2284:C:OP2	1.82	0.79
11:A:769:G:O2'	11:A:770:G:H5'	1.82	0.79
27:T:28:VAL:HG22	27:T:47:GLY:N	1.97	0.79
27:T:88:ILE:HG22	27:T:89:VAL:HG23	1.63	0.79
11:A:2590:A:H5''	14:D:239:ARG:HB2	1.63	0.79
11:A:1005:C:H2'	11:A:1006:C:C6	2.16	0.79
11:A:374:A:H2'	11:A:375:C:O4'	1.82	0.79
27:T:107:ASP:CG	27:T:108:ARG:H	1.83	0.79
4:3:35:ARG:HH11	4:3:35:ARG:HB2	1.46	0.79
9:8:15:LYS:CD	23:P:65:ARG:HH22	1.95	0.79
31:X:59:VAL:HG21	31:X:78:LYS:HD3	1.65	0.79
17:G:32:PRO:C	17:G:33:ARG:HG3	2.03	0.79
11:A:2591:C:H2'	11:A:2592:G:H8	1.47	0.79
14:D:79:VAL:HG23	14:D:115:GLN:O	1.83	0.79
29:V:69:LYS:HB2	29:V:88:ARG:HD3	1.64	0.79
11:A:2022:U:O2'	11:A:2617:C:H5'	1.82	0.79
27:T:58:ASN:H	27:T:58:ASN:HD22	1.31	0.79
18:H:103:LEU:HB2	18:H:123:PHE:HD2	1.46	0.79
24:Q:141:GLN:HE22	33:Z:72:ARG:HD3	1.46	0.79
1:0:27:GLU:HA	1:0:67:VAL:O	1.82	0.79
11:A:2219:G:O2'	11:A:2220:G:H5'	1.82	0.79
11:A:1141:U:H2'	21:N:63:THR:CG2	2.13	0.79
13:C:119:VAL:O	13:C:123:VAL:HB	1.81	0.79
11:A:1842:G:H2'	11:A:1843:C:H6	1.48	0.79
11:A:1411:C:H2'	11:A:1412:A:H8	1.48	0.79
11:A:38:A:H2'	11:A:39:C:C6	2.18	0.79
11:A:1773:A:H2'	11:A:1774:C:O4'	1.82	0.79
11:A:1916:A:H2'	11:A:1917:U:O4'	1.82	0.79
11:A:298:G:N2	11:A:339:U:H5	1.80	0.79
6:5:4:HIS:CB	6:5:5:PRO:HD3	2.09	0.79
24:Q:19:GLY:HA2	33:Z:79:ARG:HH22	1.45	0.79
11:A:1309:G:H1	11:A:1605:C:H42	1.28	0.79
18:H:52:VAL:HG21	18:H:69:ARG:HB2	1.63	0.79
25:R:2:ARG:HD2	25:R:2:ARG:O	1.83	0.79
33:Z:55:HIS:ND1	33:Z:135:GLU:HG2	1.98	0.79
11:A:1061:U:H4'	11:A:1070:A:H4'	1.64	0.79
6:5:49:CYS:SG	6:5:50:GLY:N	2.56	0.79
7:6:52:VAL:HG13	7:6:53:LYS:H	1.46	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:0:11:ARG:HH11	1:0:11:ARG:CB	1.95	0.79
11:A:1494:A:H2'	11:A:1495:A:C5'	2.13	0.79
7:6:20:ASN:ND2	7:6:41:PRO:HB3	1.98	0.78
11:A:655:A:H4'	11:A:656:G:C5'	2.06	0.78
26:S:35:ILE:HD11	26:S:99:LYS:HE3	1.65	0.78
33:Z:27:VAL:HG23	33:Z:36:LYS:HA	1.66	0.78
6:5:7:PRO:HA	11:A:2615:U:C2	2.18	0.78
11:A:2175:C:H5'	13:C:219:GLY:O	1.83	0.78
1:0:7:LEU:HD13	24:Q:85:LYS:HG3	1.65	0.78
7:6:39:TYR:O	7:6:41:PRO:HD3	1.82	0.78
17:G:5:VAL:H	17:G:8:LYS:CB	1.96	0.78
11:A:1901:A:O2'	11:A:1902:C:H5'	1.82	0.78
14:D:66:ASP:OD2	14:D:69:ARG:HG3	1.82	0.78
13:C:100:ILE:HG23	13:C:127:LEU:HG	1.63	0.78
11:A:537:C:H42	11:A:556:G:H1	1.30	0.78
11:A:1230:C:O2'	11:A:1231:G:H5'	1.83	0.78
11:A:1754:C:H5''	27:T:113:LYS:HZ3	1.45	0.78
7:6:11:LEU:HD13	7:6:12:GLU:N	1.98	0.78
11:A:483:A:H4'	32:Y:49:VAL:HG22	1.65	0.78
11:A:2466:C:O2'	11:A:2467:C:H5'	1.83	0.78
27:T:68:TYR:O	27:T:70:VAL:N	2.15	0.78
2:1:67:ILE:N	2:1:68:PRO:HD2	1.99	0.78
30:W:78:GLU:OE2	30:W:99:ARG:HD2	1.83	0.78
11:A:151:C:H2'	11:A:152:G:C8	2.17	0.78
11:A:2781:A:C5'	11:A:2782:G:H5'	2.14	0.78
11:A:269:U:H2'	11:A:269:U:O2	1.83	0.78
11:A:659:C:H2'	11:A:660:G:C8	2.19	0.78
25:R:63:ARG:HG2	25:R:80:PHE:HE2	1.47	0.78
11:A:1297:C:H2'	11:A:1298:C:H6	1.49	0.78
11:A:55:G:HO2'	11:A:127:A:H2	1.32	0.78
11:A:852:G:O2'	11:A:853:G:H5'	1.83	0.78
11:A:1353:A:H4'	14:D:38:LYS:HE3	1.64	0.78
33:Z:59:LEU:O	33:Z:66:SER:HA	1.84	0.78
2:1:63:ALA:HB3	2:1:66:HIS:HB2	1.66	0.78
24:Q:42:ILE:O	24:Q:94:VAL:HA	1.84	0.78
11:A:2735:G:H2'	11:A:2736:G:H8	1.49	0.78
11:A:611:C:H2'	11:A:612:C:H6	1.47	0.78
25:R:84:ALA:HB3	25:R:85:PRO:HD3	1.66	0.78
16:F:3:GLU:O	16:F:19:GLU:HB2	1.83	0.78
33:Z:153:SER:CB	33:Z:167:PRO:HB3	2.14	0.78
2:1:7:ILE:HG21	2:1:66:HIS:HB3	1.65	0.78
1:0:23:VAL:HA	1:0:38:VAL:HG22	1.65	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:83:ILE:HG13	27:T:84:GLN:N	1.98	0.78
11:A:90:U:H1'	11:A:92:A:N7	1.98	0.78
11:A:2712:U:H1'	11:A:2712(A):A:N7	1.99	0.78
18:H:118:PRO:HG2	18:H:121:ILE:HB	1.65	0.78
24:Q:43:THR:HB	24:Q:45:GLN:NE2	1.97	0.78
11:A:2208:A:H1'	11:A:2219:G:C5	2.19	0.78
11:A:2402:C:C2'	11:A:2403:C:H5'	2.14	0.78
11:A:650:C:H3'	11:A:651:G:H5''	1.65	0.78
6:5:44:THR:HG22	6:5:45:VAL:H	1.47	0.78
11:A:2506:U:H5'	11:A:2506:U:H6	1.45	0.78
24:Q:20:ALA:H	33:Z:79:ARG:CZ	1.97	0.78
11:A:1612:C:H42	11:A:1619:G:H1	1.29	0.78
6:5:31:VAL:HG11	11:A:2886:G:H21	1.48	0.78
14:D:147:LEU:HD21	14:D:183:ARG:HH22	1.48	0.78
22:O:114:ILE:HD12	22:O:114:ILE:N	1.99	0.78
29:V:20:LEU:H	29:V:20:LEU:HD12	1.47	0.78
12:B:115:G:H2'	12:B:116:G:H8	1.49	0.78
10:9:30:PRO:HB2	11:A:2527:C:H4'	1.64	0.78
11:A:1290:C:H2'	11:A:1291:C:H6	1.48	0.78
26:S:15:ARG:HB2	26:S:15:ARG:NH1	1.99	0.78
23:P:16:ARG:C	23:P:16:ARG:HH11	1.87	0.78
11:A:1496:A:H8	11:A:1577:C:HO2'	1.32	0.78
4:3:28:LEU:N	4:3:28:LEU:HD23	1.99	0.78
29:V:15:GLU:HB3	29:V:16:PRO:HD2	1.65	0.78
15:E:87:GLU:O	15:E:89:ASP:N	2.17	0.78
27:T:129:ARG:CZ	27:T:131:ALA:HB3	2.14	0.78
1:0:20:ARG:HD2	1:0:20:ARG:H	1.49	0.78
14:D:147:LEU:HD21	14:D:183:ARG:NH2	1.99	0.77
30:W:50:VAL:O	30:W:105:VAL:HG21	1.83	0.77
23:P:12:ALA:HB1	23:P:16:ARG:HB3	1.66	0.77
11:A:634:C:H2'	11:A:635:C:C6	2.18	0.77
11:A:886:C:O2'	11:A:887:A:H4'	1.84	0.77
11:A:1242:A:H5'	11:A:1243:G:OP2	1.84	0.77
3:2:25:VAL:C	3:2:27:GLU:H	1.86	0.77
3:2:43:GLN:O	3:2:44:LEU:HB2	1.83	0.77
11:A:2833:G:H3'	11:A:2834:G:H5'	1.66	0.77
11:A:2306:C:H4'	17:G:136:ARG:HH22	1.48	0.77
22:O:25:LEU:O	22:O:26:LYS:HG3	1.85	0.77
14:D:83:GLU:HB2	14:D:92:ILE:HD11	1.67	0.77
22:O:72:PRO:C	22:O:74:GLY:H	1.85	0.77
11:A:271(P):C:C2'	11:A:271(Q):G:H5'	2.13	0.77
11:A:2514:U:H2'	11:A:2515:C:C6	2.19	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:271:A:C2	11:A:366:C:H1'	2.20	0.77
28:U:37:GLU:HA	28:U:40:PHE:CD1	2.18	0.77
11:A:536:A:H2'	11:A:537:C:C6	2.19	0.77
11:A:1993:U:H4'	15:E:128:SER:OG	1.83	0.77
11:A:2029:G:H5''	11:A:2030:A:OP2	1.84	0.77
6:5:42:PRO:HB2	11:A:2815:C:O2'	1.84	0.77
11:A:1231:G:H2'	11:A:1232:G:C8	2.20	0.77
16:F:43:LYS:HB3	16:F:98:SER:CB	2.13	0.77
12:B:44:G:H4'	12:B:45:A:C8	2.19	0.77
11:A:676:A:H8	11:A:2443:C:H1'	1.47	0.77
6:5:16:ARG:NH1	6:5:20:ARG:HH11	1.82	0.77
11:A:2127:G:H4'	13:C:37:PHE:CD1	2.20	0.77
31:X:27:THR:HG22	31:X:80:ILE:HG22	1.67	0.77
11:A:1599:C:H2'	11:A:1600:C:C6	2.20	0.77
11:A:977:G:H2'	11:A:978:G:H8	1.48	0.77
11:A:216:A:H2'	11:A:217:G:O4'	1.84	0.77
11:A:2572:A:N7	15:E:145:LYS:HB2	1.99	0.77
31:X:44:GLU:OE2	31:X:50:LYS:HG3	1.85	0.77
11:A:711:G:H1	11:A:720:C:H42	1.32	0.77
11:A:904:C:H2'	11:A:905:U:C6	2.20	0.77
33:Z:141:VAL:HA	33:Z:144:LEU:HD23	1.67	0.77
11:A:2009:G:H4'	30:W:40:ASN:HD22	1.50	0.77
12:B:82:G:H2'	12:B:83:G:H8	1.50	0.77
11:A:709:U:H2'	11:A:710:G:C8	2.20	0.77
17:G:117:PHE:HZ	17:G:179:PRO:HB2	1.49	0.77
11:A:1064:C:H3'	11:A:1065:U:H5''	1.66	0.77
16:F:82:ILE:O	16:F:83:PHE:CB	2.30	0.77
11:A:2774:C:H2'	11:A:2775:A:O4'	1.84	0.77
14:D:63:ARG:CG	14:D:63:ARG:HH11	1.98	0.77
31:X:8:ILE:O	31:X:8:ILE:HG22	1.84	0.77
17:G:39:ILE:HG22	17:G:157:ILE:HG23	1.67	0.77
11:A:2631:G:N2	15:E:61:ARG:NH1	2.33	0.77
31:X:36:LYS:HA	31:X:39:ILE:CB	2.14	0.77
12:B:106:G:C5'	33:Z:31:ARG:HB3	2.13	0.77
21:N:111:PRO:HG3	21:N:114:ARG:HH22	1.50	0.77
24:Q:70:PRO:HA	24:Q:94:VAL:O	1.85	0.77
26:S:56:LEU:HD22	26:S:58:LEU:HD22	1.66	0.77
25:R:13:HIS:O	25:R:17:ARG:HB2	1.85	0.77
11:A:307:G:N2	11:A:309:G:H3'	2.00	0.77
17:G:27:ASN:HD22	17:G:29:TRP:HB2	1.50	0.77
32:Y:86:ARG:HG2	32:Y:87:LYS:N	2.00	0.77
13:C:99:ILE:HD12	13:C:102:LYS:NZ	2.00	0.77

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:8:59:LYS:HD3	23:P:50:ARG:HB3	1.67	0.76
3:2:35:LEU:HD22	3:2:35:LEU:O	1.85	0.76
23:P:126:VAL:HA	23:P:145:PRO:HB2	1.65	0.76
16:F:72:ARG:HA	16:F:72:ARG:NH1	1.97	0.76
11:A:2243:U:H2'	11:A:2244:U:C6	2.20	0.76
28:U:37:GLU:HA	28:U:40:PHE:CE1	2.20	0.76
11:A:122:G:H1	11:A:129:C:H42	1.29	0.76
11:A:1114:G:H2'	11:A:1115:G:C8	2.20	0.76
13:C:131:LEU:HB3	13:C:136:LEU:HB2	1.68	0.76
3:2:32:LEU:HA	3:2:53:LEU:HD13	1.67	0.76
10:9:1:MET:SD	11:A:2477:C:H2'	2.25	0.76
15:E:38:THR:HG22	15:E:40:GLU:H	1.50	0.76
31:X:39:ILE:HG21	31:X:54:VAL:HG11	1.67	0.76
15:E:117:MET:SD	15:E:136:ARG:HG2	2.25	0.76
11:A:203:C:H3'	11:A:204:A:H5''	1.67	0.76
14:D:70:TRP:CH2	14:D:150:LYS:HA	2.20	0.76
16:F:32:LEU:HD23	16:F:32:LEU:O	1.85	0.76
17:G:66:GLN:HG2	17:G:67:LYS:H	1.50	0.76
33:Z:128:VAL:HG22	33:Z:129:SER:H	1.49	0.76
1:0:77:ARG:HH22	11:A:857:C:H5'	1.49	0.76
32:Y:37:VAL:HG23	32:Y:38:ILE:N	1.99	0.76
11:A:1899:G:N2	11:A:1902:C:H41	1.83	0.76
11:A:2136:C:H42	11:A:2155:G:H1	1.33	0.76
15:E:30:PRO:HD3	15:E:180:ASN:ND2	2.01	0.76
11:A:672:C:C2'	11:A:673:C:H5''	2.14	0.76
16:F:113:ALA:O	16:F:117:ARG:HB2	1.84	0.76
16:F:37:VAL:HG22	16:F:183:VAL:HG23	1.68	0.76
26:S:15:ARG:HB2	26:S:15:ARG:HH11	1.51	0.76
11:A:38:A:H2'	11:A:39:C:H6	1.50	0.76
11:A:1828:G:O6	14:D:222:ARG:HD3	1.85	0.76
21:N:28:THR:CG2	21:N:29:LYS:H	1.99	0.76
8:7:8:ASN:HD22	8:7:9:ARG:N	1.82	0.76
4:3:18:ASP:HB2	11:A:850:C:H4'	1.66	0.76
11:A:2553:G:H2'	11:A:2554:U:O4'	1.86	0.76
11:A:991:C:H5'	11:A:991:C:H6	1.50	0.76
11:A:903:C:H2'	11:A:904:C:C6	2.21	0.76
11:A:2064:C:H2'	11:A:2065:C:C6	2.21	0.76
7:6:48:VAL:HG23	7:6:49:HIS:H	1.50	0.76
11:A:2389:G:H5''	11:A:2390:U:H5'	1.68	0.76
23:P:47:ASP:HB3	23:P:49:ARG:H	1.48	0.76
11:A:482:A:H4'	32:Y:47:LYS:HD3	1.67	0.76
11:A:296:C:O2'	11:A:297:C:H5'	1.84	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:3:LYS:HD3	11:A:747:U:P	2.26	0.76
2:1:8:SER:OG	2:1:10:LYS:HG3	1.86	0.76
11:A:1603:A:H8	11:A:1603:A:H5'	1.50	0.76
6:5:34:PRO:O	6:5:35:GLU:HG2	1.84	0.76
11:A:968:G:O2'	11:A:969:U:H5'	1.85	0.76
15:E:195:LEU:HD12	15:E:196:VAL:H	1.49	0.76
11:A:1665:A:C3'	11:A:1666:G:H5''	2.15	0.76
30:W:5:ALA:HB2	30:W:54:ALA:CB	2.16	0.76
28:U:88:ILE:C	28:U:90:VAL:H	1.88	0.76
11:A:2200:C:H42	11:A:2223:G:H1	1.33	0.76
11:A:1184:G:O2'	11:A:1185:C:H5'	1.86	0.76
2:1:44:PRO:HG2	2:1:46:LEU:HD23	1.67	0.76
3:2:68:ARG:NH1	3:2:72:ALA:HB2	2.01	0.76
30:W:12:ILE:HB	30:W:42:ARG:HH12	1.51	0.76
11:A:2454:G:H2'	11:A:2455:G:C8	2.21	0.76
23:P:77:ARG:HD3	23:P:78:PRO:HD2	1.67	0.76
11:A:2025:C:H2'	11:A:2026:C:C6	2.20	0.76
11:A:116:C:H2'	11:A:117:G:C8	2.20	0.76
11:A:534:U:O2'	28:U:49:HIS:HD2	1.68	0.76
11:A:1165:U:H2'	11:A:1166:C:H6	1.51	0.76
12:B:34:U:H4'	12:B:35:U:C5	2.20	0.76
11:A:751:A:H5'	30:W:90:ARG:HA	1.67	0.76
13:C:75:LEU:O	13:C:114:VAL:HG22	1.86	0.76
18:H:52:VAL:HG11	18:H:66:GLY:H	1.51	0.76
11:A:83:G:HO2'	11:A:84:A:H8	1.33	0.76
32:Y:86:ARG:HB3	32:Y:88:LYS:NZ	1.99	0.76
6:5:36:CYS:SG	6:5:38:ALA:HB3	2.25	0.76
27:T:107:ASP:OD2	27:T:109:GLU:HG3	1.85	0.76
11:A:1612:C:N4	11:A:1619:G:H1	1.83	0.76
25:R:103:ARG:NH1	25:R:110:PRO:HD3	2.00	0.76
31:X:14:SER:O	31:X:17:ALA:HB3	1.85	0.75
13:C:114:VAL:CB	13:C:149:ILE:HD11	2.08	0.75
11:A:1539:G:C2	11:A:1540:U:H1'	2.21	0.75
26:S:46:VAL:HG12	26:S:47:THR:H	1.50	0.75
11:A:2228:G:OP2	14:D:261:LYS:HE3	1.86	0.75
10:9:36:GLN:NE2	11:A:1031:G:H21	1.84	0.75
11:A:2008:C:H2'	11:A:2009:G:C8	2.21	0.75
23:P:96:THR:O	23:P:99:LEU:HB3	1.86	0.75
11:A:1514:U:H2'	11:A:1515:G:H8	1.50	0.75
12:B:34:U:H4'	12:B:35:U:H5	1.50	0.75
9:8:3:LYS:HD3	11:A:242:G:O5'	1.86	0.75
15:E:47:VAL:HG21	15:E:85:ASN:HA	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:67:ARG:HH21	26:S:100:ALA:HB3	1.49	0.75
31:X:36:LYS:CA	31:X:39:ILE:HB	2.15	0.75
27:T:58:ASN:ND2	27:T:58:ASN:N	2.34	0.75
16:F:57:VAL:HG12	16:F:58:ALA:N	2.01	0.75
11:A:1370:C:H3'	11:A:1371:G:H8	1.50	0.75
31:X:56:THR:HG22	31:X:79:ALA:CB	2.16	0.75
11:A:1013:C:O2'	11:A:1014:U:H5'	1.86	0.75
14:D:183:ARG:HD2	14:D:270:ILE:HG22	1.68	0.75
18:H:33:LEU:HD12	18:H:75:ALA:CA	2.17	0.75
11:A:2422:A:H4'	11:A:2423:U:OP1	1.86	0.75
11:A:1208:C:H2'	11:A:1209:G:H8	1.50	0.75
11:A:2306:C:H4'	17:G:136:ARG:NH2	2.01	0.75
11:A:687:C:H2'	11:A:688:U:O4'	1.86	0.75
27:T:109:GLU:O	27:T:112:ARG:HG2	1.86	0.75
22:O:4:PRO:O	22:O:5:GLN:HB2	1.87	0.75
9:8:61:LEU:CD1	9:8:62:LEU:H	1.98	0.75
11:A:2338:G:H2'	11:A:2339:G:H8	1.50	0.75
16:F:160:ASN:OD1	16:F:163:VAL:HG23	1.87	0.75
11:A:2287:A:H62	11:A:2344:U:H3	1.33	0.75
11:A:1473:G:C2	11:A:1474:C:H1'	2.22	0.75
17:G:21:ARG:NH2	17:G:22:ARG:HG2	2.01	0.75
11:A:1435:G:H1	11:A:1557:C:H42	1.33	0.75
30:W:3:ALA:O	30:W:106:ILE:HA	1.87	0.75
23:P:62:LEU:H	23:P:62:LEU:HD23	1.49	0.75
11:A:633:A:H5''	23:P:77:ARG:HH12	1.49	0.75
27:T:89:VAL:CG1	27:T:91:ARG:HE	2.00	0.75
27:T:89:VAL:HG11	27:T:91:ARG:HE	1.51	0.75
32:Y:13:VAL:HG13	32:Y:14:LEU:N	2.01	0.75
17:G:87:PRO:O	17:G:88:ILE:HD13	1.86	0.75
11:A:2110:G:H1	11:A:2178:C:N4	1.85	0.75
11:A:2887:U:H2'	11:A:2888:C:C6	2.19	0.75
8:7:8:ASN:C	8:7:8:ASN:HD22	1.89	0.75
25:R:103:ARG:HH11	25:R:110:PRO:HD3	1.52	0.75
11:A:2861:G:O2'	11:A:2862:G:H5'	1.86	0.75
11:A:1350:C:H2'	11:A:1351:C:H6	1.51	0.75
14:D:35:LYS:HZ3	14:D:36:PRO:HD3	1.51	0.75
11:A:1665:A:H2'	11:A:1666:G:C5'	2.17	0.75
11:A:2201:C:H2'	11:A:2202:C:H6	1.52	0.75
13:C:6:ARG:HH11	13:C:6:ARG:HG2	1.52	0.75
11:A:2542:A:H5'	11:A:2543:G:OP1	1.86	0.75
11:A:836:G:H2'	11:A:837:C:C6	2.21	0.75
23:P:100:LEU:HB3	23:P:106:LEU:HD13	1.69	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1998:G:O2'	11:A:1999:C:H5'	1.87	0.75
11:A:2262:U:H2'	11:A:2263:C:C5	2.21	0.75
21:N:21:LYS:HE3	21:N:25:ARG:HB3	1.69	0.75
30:W:71:VAL:HA	30:W:107:LEU:HA	1.67	0.75
18:H:130:ARG:HB3	18:H:130:ARG:NH1	2.02	0.75
4:3:59:VAL:HG12	4:3:60:GLU:N	1.99	0.75
11:A:287:C:H2'	11:A:288:C:C6	2.22	0.75
16:F:118:ALA:HA	16:F:123:LEU:HB2	1.69	0.74
16:F:5:ALA:HA	16:F:123:LEU:HD23	1.67	0.74
11:A:1268:A:H2'	11:A:1269:A:O4'	1.87	0.74
17:G:91:ARG:C	17:G:91:ARG:HD2	2.08	0.74
22:O:107:ARG:NH1	27:T:35:LYS:HD2	2.02	0.74
11:A:2305:A:H61	17:G:43:LEU:HD13	1.52	0.74
11:A:458:G:N2	11:A:469:G:H2'	2.01	0.74
11:A:1027:A:H2'	11:A:1027:A:N3	2.02	0.74
11:A:1949:G:H1	11:A:1957:C:H42	1.33	0.74
11:A:768:G:H2'	11:A:769:G:H8	1.49	0.74
16:F:20:LEU:HD12	16:F:199:TRP:HH2	1.52	0.74
11:A:2441:C:H2'	11:A:2442:C:H6	1.51	0.74
6:5:36:CYS:SG	6:5:48:GLU:O	2.45	0.74
11:A:1411:C:H2'	11:A:1412:A:C8	2.21	0.74
11:A:364:C:O2	11:A:364:C:H2'	1.86	0.74
9:8:61:LEU:HD13	9:8:62:LEU:HG	1.67	0.74
17:G:34:LEU:HA	17:G:161:THR:CG2	2.18	0.74
11:A:491:G:O2'	11:A:492:A:H5'	1.86	0.74
11:A:979:G:H8	11:A:979:G:O5'	1.68	0.74
11:A:1327:C:N4	11:A:1647:G:H21	1.84	0.74
11:A:898:C:H2'	11:A:899:A:H5'	1.67	0.74
11:A:2108:C:O2	11:A:2108:C:H2'	1.86	0.74
11:A:2402:C:H2'	11:A:2403:C:H5'	1.68	0.74
10:9:4:ARG:HB2	11:A:2466:C:OP1	1.87	0.74
7:6:7:ILE:O	7:6:7:ILE:HG22	1.88	0.74
14:D:136:ILE:N	14:D:136:ILE:HD12	2.02	0.74
11:A:508:G:H5'	11:A:509:C:OP1	1.88	0.74
18:H:118:PRO:HG3	18:H:121:ILE:HD12	1.68	0.74
18:H:44:VAL:HG12	18:H:45:VAL:N	2.02	0.74
4:3:7:LYS:O	4:3:54:VAL:HA	1.87	0.74
14:D:248:SER:HB2	14:D:249:PRO:HD2	1.69	0.74
21:N:21:LYS:C	21:N:61:ARG:HB2	2.08	0.74
11:A:2144:U:H2'	11:A:2146:C:H5	1.51	0.74
14:D:35:LYS:C	14:D:35:LYS:HD2	2.06	0.74
15:E:111:ARG:HA	25:R:2:ARG:CG	2.16	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:140:ILE:HD12	17:G:141:PHE:N	2.03	0.74
29:V:22:VAL:HG22	29:V:92:THR:O	1.87	0.74
11:A:2570:G:H2'	11:A:2571:C:H6	1.53	0.74
11:A:271(F):C:H2'	11:A:271(G):C:O4'	1.87	0.74
11:A:2359:C:C2'	11:A:2360:A:H5'	2.18	0.74
11:A:1279:G:H1	11:A:1291:C:H42	1.35	0.74
11:A:2007:C:O2'	11:A:2008:C:H5'	1.88	0.74
11:A:2827:C:H2'	11:A:2828:C:C6	2.23	0.74
25:R:32:GLY:HA2	25:R:116:LEU:HG	1.70	0.74
11:A:1484:G:H2'	11:A:1485:G:C5'	2.17	0.74
2:1:71:TYR:O	2:1:74:VAL:HB	1.87	0.74
11:A:106:C:H2'	11:A:107:C:H6	1.52	0.74
22:O:7:TYR:HE1	22:O:20:MET:HE3	1.50	0.74
11:A:1051:G:OP1	11:A:2752:C:H1'	1.87	0.74
18:H:63:SER:O	18:H:67:LEU:HB2	1.87	0.74
17:G:60:LEU:HD22	17:G:63:ILE:HD11	1.69	0.74
11:A:1335:U:H2'	11:A:1336:A:C8	2.22	0.74
14:D:139:GLY:H	14:D:165:ILE:HB	1.53	0.74
12:B:18:G:H2'	12:B:19:G:O4'	1.87	0.74
14:D:186:HIS:HB3	14:D:189:CYS:SG	2.26	0.74
11:A:733:G:O5'	11:A:733:G:H8	1.71	0.74
13:C:94:VAL:CG1	13:C:95:GLY:H	1.94	0.74
16:F:2:LYS:HG3	16:F:25:PRO:HG2	1.69	0.74
15:E:52:LEU:HB2	15:E:76:ARG:HB2	1.69	0.74
33:Z:163:LEU:HD21	33:Z:165:VAL:HG23	1.68	0.74
11:A:1498:C:C3'	11:A:1499:C:H5''	2.17	0.74
11:A:272(D):G:H2'	11:A:272(E):G:H8	1.52	0.74
22:O:76:ALA:HB3	27:T:75:ILE:HD13	1.70	0.74
14:D:129:ASN:O	14:D:193:VAL:HG12	1.88	0.74
11:A:1092:C:H42	11:A:1100:C:N4	1.83	0.74
29:V:98:GLU:OE2	29:V:100:ARG:HD3	1.88	0.74
21:N:89:LYS:O	21:N:93:THR:HG22	1.88	0.74
7:6:36:LEU:HD12	7:6:50:ARG:CZ	2.17	0.74
11:A:2010:G:OP1	30:W:41:LYS:HD3	1.87	0.74
27:T:64:ARG:HB2	27:T:73:GLU:HG2	1.68	0.74
22:O:111:PHE:O	22:O:115:VAL:HG23	1.87	0.74
17:G:5:VAL:HG12	17:G:6:ALA:H	1.53	0.74
26:S:106:ARG:HD2	26:S:107:GLU:N	2.03	0.74
11:A:862:G:N3	11:A:863:A:H1'	2.03	0.74
9:8:61:LEU:HD12	9:8:62:LEU:H	1.53	0.73
2:1:7:ILE:HG22	2:1:8:SER:N	2.02	0.73
11:A:271(E):U:H2'	11:A:271(F):C:C6	2.22	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2752:C:H2'	11:A:2752:C:O2	1.88	0.73
2:1:3:LYS:HD3	11:A:1364:G:C8	2.23	0.73
7:6:52:VAL:HG13	7:6:53:LYS:N	2.02	0.73
16:F:29:ASN:HD22	16:F:32:LEU:CB	1.99	0.73
17:G:67:LYS:CD	17:G:67:LYS:N	2.49	0.73
11:A:1484:G:C3'	11:A:1485:G:H5''	2.17	0.73
15:E:55:ASN:ND2	15:E:75:VAL:HG22	2.02	0.73
18:H:92:ILE:C	18:H:94:TYR:H	1.90	0.73
7:6:48:VAL:HG23	7:6:49:HIS:N	2.04	0.73
11:A:1654:A:OP1	25:R:2:ARG:HA	1.88	0.73
17:G:141:PHE:HB2	17:G:144:ILE:HG22	1.70	0.73
26:S:13:ARG:HG3	26:S:14:VAL:N	2.00	0.73
11:A:1092:C:N4	11:A:1100:C:H42	1.82	0.73
11:A:1058:G:C2'	11:A:1059:G:H5''	2.18	0.73
11:A:145:G:C3'	11:A:146:G:H5''	2.18	0.73
11:A:1498:C:C2'	11:A:1499:C:H5''	2.18	0.73
24:Q:6:ARG:O	24:Q:7:MET:HG3	1.87	0.73
1:0:43:THR:HG22	11:A:2331:G:O2'	1.87	0.73
11:A:814:C:O2'	11:A:815:C:H5'	1.88	0.73
16:F:84:VAL:HG12	16:F:85:GLY:N	2.03	0.73
11:A:1518:U:H2'	11:A:1519:G:O4'	1.87	0.73
11:A:2443:C:O2'	11:A:2444:G:H5'	1.87	0.73
28:U:92:ARG:HD2	29:V:11:GLN:CG	2.18	0.73
31:X:65:ARG:HG2	31:X:66:LEU:N	2.01	0.73
14:D:166:GLN:HA	14:D:166:GLN:NE2	2.02	0.73
17:G:51:ARG:HE	17:G:51:ARG:HA	1.52	0.73
30:W:11:ARG:HE	30:W:11:ARG:C	1.91	0.73
11:A:145:G:C2'	11:A:146:G:H5''	2.18	0.73
11:A:2036:C:H6	11:A:2036:C:H5'	1.52	0.73
15:E:111:ARG:HA	25:R:2:ARG:HG2	1.69	0.73
23:P:97:PRO:O	23:P:98:GLU:HB3	1.88	0.73
11:A:1991:U:H2'	11:A:1992:G:H5''	1.68	0.73
26:S:49:VAL:HG12	26:S:50:SER:N	2.01	0.73
11:A:2179:C:H5''	11:A:2180:U:OP1	1.89	0.73
17:G:135:LEU:O	17:G:154:GLY:HA3	1.87	0.73
23:P:85:LEU:HD23	23:P:115:LEU:O	1.89	0.73
4:3:1:MET:SD	4:3:40:THR:HG22	2.28	0.73
4:3:11:SER:HB3	11:A:988:A:P	2.28	0.73
26:S:101:LEU:O	26:S:101:LEU:HD12	1.89	0.73
11:A:1667:G:H8	11:A:1667:G:OP2	1.72	0.73
27:T:58:ASN:HD22	27:T:58:ASN:N	1.84	0.73
10:9:10:ILE:CD1	10:9:10:ILE:H	1.97	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:136:ILE:HG22	14:D:140:THR:OG1	1.89	0.73
11:A:723:G:H2'	11:A:724:U:C6	2.24	0.73
11:A:2053:G:N2	11:A:2054:A:H1'	2.04	0.73
23:P:62:LEU:N	23:P:62:LEU:CD2	2.52	0.73
11:A:1568:G:H5''	14:D:61:LEU:HD23	1.69	0.73
11:A:626:U:N3	23:P:105:LEU:HG	2.04	0.73
17:G:37:VAL:HG23	17:G:99:MET:HG3	1.70	0.73
14:D:8:PRO:HB3	14:D:14:ARG:CB	2.18	0.73
12:B:17:C:N4	12:B:68:C:H42	1.87	0.73
11:A:1170:G:N2	11:A:1179:C:H42	1.87	0.73
13:C:4:GLY:O	13:C:8:ARG:HG3	1.88	0.73
9:8:28:GLY:HA2	9:8:32:LEU:CD2	2.18	0.73
9:8:50:LEU:C	9:8:53:PRO:HD2	2.08	0.73
11:A:2502:G:C5'	11:A:2503:A:H5''	2.14	0.73
11:A:673:C:O2'	11:A:674:G:H5'	1.89	0.73
11:A:1708:C:H2'	11:A:1709:U:C6	2.24	0.73
11:A:1327:C:H42	11:A:1647:G:N2	1.86	0.73
11:A:1750:G:O2'	11:A:1751:C:H5'	1.89	0.73
11:A:811:U:OP2	23:P:24:GLY:HA2	1.88	0.73
11:A:1822:G:H2'	11:A:1823:G:H8	1.54	0.73
32:Y:37:VAL:O	32:Y:38:ILE:HB	1.87	0.73
18:H:102:ALA:HA	18:H:117:PRO:HD3	1.70	0.73
11:A:1165:U:H2'	11:A:1166:C:C6	2.23	0.73
26:S:67:ARG:HH21	26:S:100:ALA:CB	2.02	0.73
11:A:449:A:C4'	28:U:3:ARG:HH21	2.02	0.73
11:A:2040:C:H2'	11:A:2041:U:C6	2.24	0.73
8:7:21:ARG:NH1	8:7:21:ARG:HG2	2.02	0.73
11:A:1175:U:O3'	11:A:1176:G:H3'	1.89	0.73
11:A:608:A:H2'	11:A:609:A:C8	2.23	0.73
11:A:2854:G:H2'	11:A:2855:C:C6	2.23	0.73
24:Q:39:PRO:HG3	24:Q:99:PRO:HD2	1.70	0.73
11:A:2240:C:O2'	11:A:2241:A:H5'	1.88	0.73
11:A:2282:G:H21	11:A:2390:U:H3	1.35	0.72
16:F:24:LEU:CB	16:F:25:PRO:HD2	2.18	0.72
15:E:77:ILE:HG22	15:E:78:LEU:N	2.03	0.72
21:N:3:THR:HG22	21:N:4:TYR:N	2.04	0.72
28:U:95:LEU:HD12	29:V:11:GLN:HG3	1.69	0.72
11:A:1658:C:H2'	11:A:1659:U:C6	2.23	0.72
11:A:2110:G:H1	11:A:2178:C:H41	1.36	0.72
11:A:958:U:H5''	24:Q:14:ARG:HD3	1.70	0.72
21:N:40:PRO:CB	28:U:68:ALA:HB2	2.19	0.72
11:A:2262:U:H2'	11:A:2263:C:H6	1.53	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:197:A:C8	11:A:197:A:H5'	2.24	0.72
11:A:570:G:H2'	11:A:2030:A:N7	2.04	0.72
11:A:487:C:H1'	30:W:53:SER:HA	1.71	0.72
14:D:270:ILE:O	14:D:270:ILE:HD12	1.88	0.72
11:A:2463:C:O2'	11:A:2464:C:H5'	1.87	0.72
5:4:5:ILE:HG12	5:4:5:ILE:O	1.88	0.72
11:A:2101:G:H2'	11:A:2102:U:H5''	1.71	0.72
14:D:8:PRO:HB3	14:D:14:ARG:HB2	1.70	0.72
11:A:272(H):C:C2'	11:A:272(I):U:H5''	2.18	0.72
11:A:270:A:O2'	11:A:271:A:H5'	1.89	0.72
7:6:15:GLU:HA	7:6:49:HIS:CE1	2.24	0.72
11:A:571:A:O2'	11:A:572:A:H5''	1.89	0.72
23:P:97:PRO:C	23:P:99:LEU:H	1.93	0.72
12:B:81:G:H2'	12:B:82:G:H5'	1.71	0.72
28:U:92:ARG:HD2	29:V:11:GLN:HG2	1.71	0.72
29:V:38:LEU:C	29:V:39:LEU:HD13	2.09	0.72
9:8:50:LEU:HD12	9:8:51:ALA:N	2.02	0.72
11:A:1251:C:OP2	28:U:10:ARG:NE	2.23	0.72
3:2:47:ASN:HD22	11:A:94(A):G:H21	1.35	0.72
17:G:80:PHE:O	17:G:81:LYS:HB2	1.86	0.72
11:A:2150:U:H2'	11:A:2151:G:C8	2.24	0.72
11:A:1095:A:H2'	11:A:1096:A:C8	2.22	0.72
16:F:153:SER:HA	16:F:172:TRP:CB	2.19	0.72
11:A:2195:C:O2'	11:A:2196:C:H5'	1.89	0.72
11:A:1927:A:H2'	11:A:1928:A:C8	2.25	0.72
7:6:36:LEU:HB2	7:6:50:ARG:NH1	2.04	0.72
11:A:669:G:H2'	11:A:669:G:N3	2.04	0.72
11:A:768:G:H2'	11:A:769:G:C8	2.25	0.72
31:X:8:ILE:HD11	31:X:43:VAL:HG22	1.71	0.72
11:A:2048:G:H1	11:A:2620:C:H42	1.37	0.72
26:S:89:ARG:HE	26:S:91:PRO:HG2	1.55	0.72
9:8:19:SER:HB2	11:A:651:G:OP1	1.90	0.72
9:8:24:ALA:HA	9:8:46:ARG:HH11	1.53	0.72
12:B:75:G:H5'	12:B:76:G:OP2	1.90	0.72
33:Z:81:ARG:HB2	33:Z:81:ARG:NH1	2.03	0.72
24:Q:44:ALA:O	24:Q:47:ILE:HB	1.90	0.72
8:7:11:LYS:HZ3	11:A:686:G:H5''	1.54	0.72
11:A:803:U:H2'	11:A:804:A:H5'	1.71	0.72
11:A:811:U:C5	23:P:24:GLY:HA3	2.24	0.72
11:A:2773:C:H5''	15:E:164:ARG:CG	2.19	0.72
33:Z:51:ALA:CB	33:Z:57:ILE:HD11	2.19	0.72
11:A:2147:G:H2'	11:A:2148:G:O4'	1.90	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:107:ASP:CG	27:T:109:GLU:H	1.93	0.72
11:A:1041:C:O2'	11:A:1042:G:H5'	1.89	0.72
11:A:2653:U:H3'	11:A:2654:A:H8	1.54	0.72
30:W:20:VAL:HG23	30:W:47:VAL:HG21	1.71	0.72
7:6:19:ARG:HG3	7:6:20:ASN:N	2.04	0.72
11:A:1243:G:C2'	11:A:1244:G:H5''	2.19	0.72
16:F:28:ILE:H	16:F:28:ILE:HD13	1.53	0.72
23:P:110:TYR:CD1	23:P:111:ARG:HD2	2.24	0.72
11:A:2311:A:N1	17:G:80:PHE:HB3	2.05	0.72
18:H:87:LEU:HD23	18:H:164:TYR:HA	1.72	0.72
11:A:1170:G:H1	11:A:1179:C:N4	1.88	0.72
11:A:2350:C:H2'	11:A:2351:G:O4'	1.89	0.72
10:9:7:VAL:HG21	10:9:36:GLN:HB2	1.72	0.72
11:A:2839:G:H1	11:A:2878:U:H3	1.37	0.72
11:A:2681:C:H6	11:A:2683:C:H41	1.35	0.72
16:F:64:ILE:HG23	16:F:65:TRP:N	2.02	0.72
11:A:310:A:P	32:Y:18:GLY:HA2	2.29	0.72
17:G:180:PHE:HB2	17:G:182:LYS:HZ3	1.55	0.72
11:A:20:C:H2'	11:A:21:A:H8	1.54	0.72
11:A:1657:C:O2'	11:A:1658:C:H5'	1.90	0.72
11:A:2039:C:H2'	11:A:2040:C:C6	2.25	0.72
11:A:2249:U:H4'	11:A:2275:C:C5	2.25	0.72
11:A:2157:G:O2'	11:A:2158:A:H5'	1.89	0.72
28:U:49:HIS:HA	28:U:52:ARG:HB2	1.71	0.72
24:Q:74:TYR:HD1	24:Q:75:THR:H	1.38	0.72
12:B:51:G:H2'	12:B:52:A:C8	2.24	0.72
11:A:584:C:H2'	11:A:585:G:H5'	1.72	0.72
11:A:1681:G:O2'	11:A:1762:A:H2'	1.90	0.72
27:T:80:SER:CB	27:T:81:PRO:HD3	2.19	0.72
11:A:440:G:N2	16:F:46:ARG:HH21	1.87	0.72
24:Q:70:PRO:O	24:Q:93:TYR:HB3	1.90	0.72
11:A:1162:G:H4'	29:V:24:LYS:HB2	1.71	0.72
27:T:107:ASP:CG	27:T:108:ARG:N	2.43	0.72
33:Z:146:ILE:HA	33:Z:174:VAL:CG1	2.20	0.72
11:A:1690:A:H2'	11:A:1691:C:H5'	1.70	0.72
1:0:34:GLY:HA3	11:A:2353:G:H1'	1.72	0.72
12:B:15:A:H1'	12:B:110:G:C6	2.25	0.72
11:A:57:C:O2'	11:A:58:G:H5'	1.90	0.72
14:D:35:LYS:NZ	14:D:36:PRO:HD3	2.05	0.72
11:A:2482:G:H22	24:Q:52:VAL:CG1	2.01	0.72
23:P:111:ARG:NH1	23:P:149:GLU:HG3	2.04	0.72
15:E:64:LYS:HG2	15:E:66:HIS:HB2	1.71	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1246:A:H2'	11:A:1247:A:H5'	1.70	0.72
28:U:95:LEU:HD12	29:V:11:GLN:HE21	1.54	0.72
29:V:39:LEU:N	29:V:39:LEU:HD22	2.05	0.72
18:H:20:ALA:HB1	18:H:21:PRO:CD	2.20	0.72
8:7:12:ARG:HG3	11:A:686:G:O6	1.90	0.72
11:A:1231:G:H2'	11:A:1232:G:H8	1.52	0.72
11:A:1327:C:H42	11:A:1647:G:H21	1.37	0.72
23:P:75:ILE:N	23:P:75:ILE:HD12	2.05	0.72
11:A:1817:G:O2'	11:A:1818:U:H5'	1.90	0.71
15:E:78:LEU:HD12	15:E:78:LEU:O	1.90	0.71
12:B:106:G:H2'	12:B:107:G:C8	2.24	0.71
11:A:996:A:O2'	28:U:92:ARG:HG3	1.90	0.71
14:D:66:ASP:CG	14:D:103:ARG:HH21	1.94	0.71
11:A:2721:A:H2'	11:A:2722:G:H8	1.55	0.71
12:B:65:C:H2'	12:B:109:C:H41	1.54	0.71
2:1:40:ARG:HG3	2:1:41:ARG:N	2.03	0.71
16:F:29:ASN:O	16:F:33:LEU:HD23	1.91	0.71
11:A:76:C:H2'	11:A:77:C:H6	1.53	0.71
16:F:139:PHE:CE1	16:F:143:ALA:HB2	2.25	0.71
25:R:55:ALA:HA	25:R:80:PHE:HE1	1.55	0.71
5:4:5:ILE:O	17:G:67:LYS:HE2	1.90	0.71
15:E:4:ILE:HG13	15:E:31:CYS:SG	2.30	0.71
29:V:69:LYS:HA	29:V:87:HIS:O	1.90	0.71
11:A:272(H):C:H2'	11:A:272(I):U:C5'	2.20	0.71
11:A:547:A:H2'	11:A:548:A:H8	1.55	0.71
11:A:2415:G:H4'	23:P:66:GLY:C	2.11	0.71
3:2:14:ARG:HH22	11:A:78:A:H5'	1.55	0.71
16:F:178:PRO:HG2	16:F:179:GLU:OE1	1.89	0.71
22:O:114:ILE:CD1	22:O:114:ILE:H	1.97	0.71
32:Y:73:ARG:HA	32:Y:73:ARG:HE	1.55	0.71
17:G:20:ILE:HG23	17:G:25:TYR:HB2	1.72	0.71
11:A:1842:G:H2'	11:A:1843:C:C6	2.24	0.71
22:O:19:ILE:HG22	22:O:43:VAL:HA	1.72	0.71
11:A:760:G:H3'	11:A:761:A:C8	2.26	0.71
7:6:11:LEU:HD21	7:6:52:VAL:H	1.55	0.71
11:A:601:C:O2	11:A:605:C:H5''	1.90	0.71
18:H:42:ARG:O	18:H:43:VAL:HG13	1.89	0.71
26:S:37:ALA:HB2	26:S:99:LYS:NZ	2.06	0.71
15:E:44:TYR:O	15:E:45:THR:HB	1.90	0.71
33:Z:128:VAL:HG22	33:Z:129:SER:N	2.05	0.71
30:W:6:ILE:HG12	30:W:104:THR:HG22	1.71	0.71
11:A:598:G:H5'	23:P:15:ARG:CD	2.20	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:32:TYR:CE2	24:Q:111:GLU:HG3	2.25	0.71
16:F:32:LEU:O	16:F:36:VAL:HG23	1.90	0.71
3:2:35:LEU:CD1	3:2:50:ILE:HG13	2.19	0.71
2:1:45:ASN:CB	11:A:2230:G:H1'	2.20	0.71
11:A:2306:C:H5'	11:A:2307:G:O5'	1.91	0.71
11:A:864:G:H1'	11:A:914:C:H42	1.56	0.71
17:G:114:ILE:HD12	17:G:135:LEU:HD11	1.72	0.71
28:U:24:TYR:HB2	28:U:29:SER:HB3	1.71	0.71
11:A:1064:C:H3'	11:A:1065:U:C5'	2.20	0.71
21:N:57:ALA:HB3	21:N:124:ALA:HA	1.70	0.71
4:3:12:PRO:HG2	4:3:13:ILE:H	1.55	0.71
11:A:1512:U:H2'	11:A:1512:U:O2	1.91	0.71
2:1:83:GLU:OE1	2:1:83:GLU:N	2.24	0.71
11:A:377:C:H2'	11:A:378:C:C6	2.26	0.71
11:A:2170:A:H5''	13:C:134:ARG:HE	1.55	0.71
15:E:198:VAL:HG12	15:E:199:ARG:N	2.05	0.71
5:4:26:SER:HB2	17:G:143:GLU:OE1	1.91	0.71
15:E:4:ILE:HD13	15:E:28:ALA:HB1	1.73	0.71
11:A:1775:U:H2'	11:A:1776:G:C5'	2.21	0.71
21:N:36:GLY:H	21:N:49:GLY:CA	2.04	0.71
11:A:1578:U:C2'	11:A:1579:A:H5''	2.21	0.71
30:W:14:PRO:CG	30:W:78:GLU:HB2	2.19	0.71
12:B:114:C:H4'	26:S:46:VAL:HG13	1.73	0.71
11:A:2260:C:H42	11:A:2280:G:H1	1.39	0.71
16:F:160:ASN:ND2	16:F:162:LEU:HD13	2.06	0.71
6:5:40:LYS:HZ2	6:5:45:VAL:HA	1.53	0.71
11:A:2590:A:OP2	14:D:238:GLY:HA2	1.91	0.71
11:A:2802:G:C3'	11:A:2803:C:H5''	2.20	0.71
12:B:21:G:H2'	12:B:22:U:O4'	1.89	0.71
7:6:52:VAL:CG1	7:6:53:LYS:N	2.53	0.71
23:P:59:LEU:HA	23:P:61:ARG:CD	2.20	0.71
3:2:56:GLN:O	3:2:60:LEU:HD12	1.90	0.71
11:A:61:G:H1	11:A:94:C:H42	1.39	0.71
11:A:318:C:O2'	11:A:319:C:H5'	1.90	0.71
16:F:158:THR:HA	16:F:198:ALA:HB2	1.72	0.71
15:E:47:VAL:HG23	15:E:84:PHE:O	1.90	0.71
26:S:89:ARG:HG3	26:S:92:TYR:CA	2.20	0.71
24:Q:34:LEU:HD12	24:Q:130:LYS:O	1.90	0.71
24:Q:37:LEU:HD11	24:Q:129:THR:O	1.91	0.71
1:0:38:VAL:HB	1:0:59:LEU:HD12	1.72	0.71
11:A:2875:C:H4'	27:T:5:ALA:HB3	1.73	0.71
11:A:1946:U:H2'	11:A:1947:C:H6	1.56	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2359:C:H2'	11:A:2360:A:H5'	1.73	0.71
11:A:1853:A:H2'	11:A:1854:A:C8	2.25	0.71
11:A:1818:U:C2'	14:D:157:ARG:HG3	2.20	0.71
21:N:10:GLU:CG	21:N:11:PRO:HD2	2.21	0.71
24:Q:27:VAL:HG23	24:Q:137:TYR:CD1	2.26	0.71
21:N:129:PRO:O	21:N:130:HIS:HB3	1.91	0.71
8:7:18:PHE:HZ	11:A:117:G:H4'	1.54	0.71
4:3:1:MET:HB2	4:3:38:GLU:HG3	1.73	0.71
11:A:761:A:H8	11:A:761:A:O5'	1.74	0.71
19:J:56:UNK:HA	19:J:83:UNK:HA	1.72	0.71
14:D:35:LYS:HG2	14:D:63:ARG:CG	2.21	0.71
22:O:101:PRO:HD3	27:T:68:TYR:HB2	1.72	0.71
11:A:265:A:H4'	11:A:266:G:O5'	1.90	0.71
11:A:234:C:H2'	11:A:235:U:H6	1.55	0.71
11:A:212:G:O2'	11:A:213:A:H5'	1.90	0.71
11:A:2491:U:H4'	11:A:2570:G:OP1	1.91	0.71
11:A:106:C:H2'	11:A:107:C:C6	2.25	0.71
11:A:80:G:O2'	11:A:81:G:H5'	1.91	0.71
11:A:410:G:H1	11:A:417:C:H42	1.39	0.71
1:0:41:ARG:NH2	11:A:2387:U:H1'	2.06	0.70
32:Y:46:LYS:HB2	32:Y:62:GLU:HG2	1.72	0.70
11:A:628:G:H2'	11:A:629:G:H5''	1.73	0.70
11:A:329:G:N7	32:Y:71:LYS:HE3	2.06	0.70
18:H:33:LEU:CD1	18:H:75:ALA:HA	2.20	0.70
3:2:5:GLU:CB	3:2:9:GLN:HE22	2.02	0.70
33:Z:76:LEU:CD2	33:Z:82:ARG:H	2.04	0.70
29:V:88:ARG:O	29:V:90:PRO:HD3	1.91	0.70
11:A:1164:G:O2'	11:A:1165:U:H5'	1.89	0.70
11:A:806:C:O2'	11:A:2445:G:H4'	1.89	0.70
1:0:4:LYS:HD3	11:A:2252:G:O6	1.91	0.70
11:A:1353:A:H2'	11:A:1354:A:H8	1.54	0.70
11:A:692:C:O2'	11:A:693:C:H5'	1.90	0.70
6:5:2:ALA:N	11:A:2015:A:H1'	2.07	0.70
11:A:143(A):C:H4'	31:X:38:GLU:OE1	1.92	0.70
32:Y:96:ILE:CG1	32:Y:99:CYS:HB3	2.19	0.70
11:A:2189:U:H2'	11:A:2190:G:C4'	2.21	0.70
11:A:996:A:N6	11:A:1160:G:C6	2.59	0.70
11:A:265:A:H1'	11:A:266:G:O4'	1.91	0.70
14:D:175:LEU:HD12	14:D:185:VAL:HG21	1.71	0.70
24:Q:109:VAL:HG12	24:Q:110:THR:N	2.06	0.70
11:A:74:A:H5''	11:A:75:G:H1'	1.73	0.70
14:D:4:LYS:NZ	14:D:20:ASP:HA	2.07	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:581:C:H2'	11:A:582:G:C8	2.26	0.70
11:A:619:G:H3'	11:A:620:G:H21	1.57	0.70
3:2:10:LEU:HA	3:2:13:ALA:HB3	1.72	0.70
10:9:7:VAL:HG13	10:9:34:GLN:CG	2.21	0.70
11:A:2673:G:H5'	11:A:2673:G:H8	1.56	0.70
11:A:328:U:H4'	32:Y:68:HIS:NE2	2.06	0.70
17:G:161:THR:C	17:G:163:ALA:H	1.94	0.70
21:N:14:VAL:HG11	21:N:137:LYS:HG3	1.73	0.70
17:G:87:PRO:HG2	17:G:88:ILE:H	1.54	0.70
8:7:41:ARG:HH22	11:A:460:A:P	2.14	0.70
2:1:24:ALA:N	2:1:32:LYS:HE3	2.06	0.70
11:A:2074:U:H2'	11:A:2075:U:C6	2.26	0.70
11:A:2781:A:H5'	11:A:2782:G:H5'	1.72	0.70
11:A:968:G:H2'	11:A:969:U:C6	2.25	0.70
11:A:1946:U:H2'	11:A:1947:C:C6	2.26	0.70
15:E:9:VAL:CG1	15:E:25:VAL:HB	2.21	0.70
11:A:572:A:H61	11:A:2029:G:H21	1.38	0.70
11:A:660:G:H5'	16:F:99:TYR:CD2	2.27	0.70
11:A:1290:C:H2'	11:A:1291:C:C6	2.26	0.70
11:A:2881:C:H2'	11:A:2882:A:C8	2.26	0.70
25:R:34:ILE:HB	25:R:114:VAL:HG23	1.72	0.70
13:C:22:ILE:HG13	13:C:228:SER:OG	1.92	0.70
11:A:438:G:H2'	11:A:440:G:C8	2.26	0.70
21:N:35:ARG:HG3	21:N:35:ARG:O	1.91	0.70
4:3:27:GLY:C	4:3:28:LEU:HD23	2.10	0.70
11:A:1385:G:H4'	11:A:1386:C:OP1	1.90	0.70
11:A:189:G:H2'	11:A:205:G:N2	2.06	0.70
28:U:14:HIS:HD2	28:U:32:PHE:CB	2.04	0.70
31:X:12:VAL:HG12	31:X:27:THR:C	2.11	0.70
14:D:24:ILE:O	14:D:25:THR:O	2.09	0.70
27:T:89:VAL:HG12	27:T:91:ARG:HG3	1.73	0.70
11:A:1657:C:H6	11:A:1657:C:O5'	1.73	0.70
21:N:75:TYR:CD1	21:N:82:LEU:HB2	2.23	0.70
11:A:31:C:H2'	11:A:32:C:C5'	2.21	0.70
11:A:686:G:N2	11:A:788:A:H61	1.89	0.70
11:A:2144:U:H2'	11:A:2146:C:C5	2.25	0.70
13:C:103:ILE:O	13:C:103:ILE:HG22	1.91	0.70
22:O:23:ARG:HG3	22:O:24:VAL:N	2.06	0.70
14:D:63:ARG:HH11	14:D:63:ARG:HG3	1.55	0.70
18:H:42:ARG:HB2	18:H:42:ARG:NH1	2.06	0.70
24:Q:55:VAL:HG23	33:Z:178:GLU:CD	2.12	0.70
32:Y:97:ARG:O	32:Y:97:ARG:HG3	1.91	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:N:55:VAL:HG22	21:N:56:ASN:H	1.57	0.70
11:A:1771:C:C4	11:A:1772:G:N7	2.60	0.70
29:V:49:THR:HB	29:V:50:PRO:CD	2.20	0.70
11:A:2071:A:H2'	11:A:2072:G:C8	2.27	0.70
11:A:1065:U:O2'	11:A:1066:U:H5''	1.92	0.70
11:A:1458:C:H4'	11:A:1459:G:O4'	1.92	0.70
11:A:398:G:H2'	11:A:399:G:C8	2.27	0.70
14:D:64:ILE:HG13	14:D:65:ILE:N	2.05	0.70
11:A:654(V):A:H8	11:A:655:A:H2'	1.56	0.70
18:H:61:HIS:C	18:H:63:SER:H	1.95	0.70
17:G:51:ARG:NE	17:G:51:ARG:HA	2.05	0.70
2:1:35:THR:O	2:1:35:THR:HG23	1.92	0.70
11:A:2574:G:H2'	11:A:2575:C:O4'	1.92	0.70
11:A:34:C:N4	11:A:447:A:H61	1.90	0.70
11:A:191:A:O2'	11:A:192:C:H5'	1.92	0.70
3:2:54:LYS:HG2	11:A:73:A:OP1	1.91	0.70
11:A:2745:C:H1'	18:H:143:GLN:HG2	1.72	0.70
16:F:155:LEU:HD11	16:F:176:LEU:HD22	1.73	0.70
30:W:8:ARG:CA	30:W:102:HIS:HB3	2.14	0.70
11:A:716:A:H2'	11:A:717:G:H5''	1.74	0.70
12:B:17:C:H2'	12:B:18:G:C8	2.27	0.70
11:A:2690:C:H4'	11:A:2872:G:N2	2.07	0.70
11:A:811:U:H5	23:P:24:GLY:HA3	1.57	0.70
11:A:2523:G:H2'	11:A:2524:G:C5'	2.13	0.70
3:2:21:LEU:HD23	3:2:24:LEU:HB3	1.74	0.70
11:A:2475:C:H42	11:A:2529:G:H22	1.36	0.70
11:A:2820:A:N6	15:E:192:ASN:HB3	2.05	0.70
25:R:60:LEU:O	25:R:63:ARG:HB2	1.91	0.70
25:R:73:VAL:O	25:R:76:VAL:HG12	1.92	0.70
17:G:60:LEU:HA	17:G:63:ILE:HD11	1.72	0.70
27:T:50:ILE:HG23	27:T:99:LEU:HD12	1.73	0.70
11:A:25:U:C5'	30:W:79:GLY:HA2	2.22	0.70
11:A:118:A:N3	11:A:178:G:H1'	2.07	0.70
11:A:1062:G:C2	11:A:1063:G:H1'	2.27	0.70
27:T:113:LYS:O	27:T:114:LEU:HD23	1.92	0.70
11:A:2064:C:H1'	11:A:2450:A:C6	2.27	0.70
4:3:1:MET:HE1	4:3:40:THR:HA	1.73	0.70
7:6:15:GLU:CD	7:6:18:ARG:CZ	2.61	0.70
14:D:154:LYS:C	14:D:155:LEU:HD12	2.12	0.70
16:F:43:LYS:HB3	16:F:98:SER:HB3	1.74	0.70
18:H:37:VAL:HG12	18:H:38:SER:N	2.03	0.70
3:2:57:ILE:O	3:2:61:LEU:HG	1.92	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:66:GLN:C	17:G:67:LYS:HD3	2.11	0.70
11:A:1999:C:H2'	11:A:2000:G:H8	1.56	0.70
27:T:28:VAL:HG21	27:T:46:GLU:HA	1.74	0.70
13:C:47:LEU:N	13:C:47:LEU:HD12	2.07	0.70
11:A:330:A:C2	11:A:1210:A:H2'	2.22	0.70
30:W:12:ILE:HD12	30:W:42:ARG:HH11	1.56	0.70
30:W:14:PRO:HG3	30:W:101:SER:OG	1.91	0.70
7:6:15:GLU:HB2	7:6:20:ASN:HB3	1.74	0.69
7:6:53:LYS:CG	7:6:54:ILE:N	2.55	0.69
11:A:448:U:O4	11:A:583:G:H1'	1.92	0.69
23:P:23:PRO:HB3	23:P:29:LYS:HB3	1.74	0.69
30:W:40:ASN:O	30:W:41:LYS:HG2	1.91	0.69
26:S:98:VAL:HG12	26:S:100:ALA:H	1.55	0.69
15:E:34:VAL:HG22	15:E:34:VAL:O	1.92	0.69
11:A:1060:U:H1'	11:A:1061:U:O5'	1.92	0.69
11:A:1224:C:O3'	29:V:86:GLY:HA3	1.91	0.69
21:N:21:LYS:HE3	21:N:25:ARG:CB	2.22	0.69
13:C:161:ILE:HD12	13:C:161:ILE:C	2.13	0.69
7:6:53:LYS:CG	7:6:54:ILE:H	2.04	0.69
25:R:10:LEU:O	25:R:11:ASN:HB2	1.90	0.69
27:T:67:SER:O	27:T:68:TYR:HB2	1.90	0.69
11:A:83:G:C2	11:A:102:G:H2'	2.27	0.69
22:O:11:ALA:CB	22:O:98:VAL:HG23	2.22	0.69
29:V:28:GLU:O	29:V:61:VAL:HG21	1.92	0.69
13:C:28:LEU:O	13:C:28:LEU:HD23	1.92	0.69
16:F:154:VAL:HG13	16:F:191:ARG:O	1.91	0.69
11:A:298:G:H21	11:A:339:U:H5	1.40	0.69
15:E:47:VAL:HG21	15:E:86:PRO:HD2	1.74	0.69
17:G:62:LEU:HD12	17:G:62:LEU:H	1.57	0.69
28:U:107:ALA:O	28:U:110:VAL:HB	1.93	0.69
23:P:105:LEU:HD12	23:P:105:LEU:H	1.57	0.69
32:Y:81:LYS:HD2	32:Y:96:ILE:HD12	1.74	0.69
6:5:43:HIS:CE1	11:A:2816:C:H1'	2.27	0.69
11:A:1827:C:H2'	11:A:1828:G:O4'	1.93	0.69
17:G:77:ILE:HG22	17:G:80:PHE:H	1.56	0.69
11:A:271(U):G:O2'	11:A:271(V):G:H5'	1.92	0.69
26:S:83:LYS:HG2	26:S:105:ALA:HB2	1.73	0.69
3:2:14:ARG:O	3:2:67:LYS:NZ	2.24	0.69
16:F:131:GLY:HA2	16:F:138:GLU:OE1	1.92	0.69
25:R:24:GLN:HB2	25:R:44:LEU:HD21	1.72	0.69
17:G:60:LEU:HD13	17:G:63:ILE:HD11	1.73	0.69
11:A:2892:A:H62	11:A:2893:G:N2	1.86	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2708:G:H2'	11:A:2709:G:H8	1.56	0.69
27:T:13:ARG:NE	27:T:13:ARG:HA	2.07	0.69
33:Z:163:LEU:HD21	33:Z:165:VAL:CG2	2.22	0.69
11:A:1343:G:H2'	11:A:1344:G:H5'	1.74	0.69
11:A:1549:C:H2'	11:A:1550:C:H5'	1.74	0.69
13:C:98:GLU:C	13:C:100:ILE:H	1.94	0.69
11:A:1099:G:H2'	11:A:1100:C:C6	2.26	0.69
11:A:1087:G:H21	11:A:1103:A:H61	1.40	0.69
11:A:1428:C:N4	11:A:1569:A:H3'	2.07	0.69
16:F:108:LYS:O	16:F:112:MET:HB2	1.92	0.69
3:2:47:ASN:ND2	11:A:94(A):G:H21	1.90	0.69
3:2:53:LEU:HA	3:2:56:GLN:HB2	1.74	0.69
11:A:747:U:H5	11:A:2613:U:C5	2.10	0.69
11:A:2866:U:C6	11:A:2868:A:H1'	2.26	0.69
25:R:100:LEU:HD22	25:R:100:LEU:N	2.08	0.69
17:G:155:MET:O	17:G:157:ILE:HG13	1.92	0.69
23:P:102:ARG:NH2	23:P:102:ARG:HB2	2.07	0.69
11:A:1516:C:C3'	11:A:1517:G:H5''	2.21	0.69
17:G:47:LYS:HZ1	17:G:81:LYS:HB3	1.56	0.69
17:G:76:SER:OG	17:G:83:ARG:HB3	1.93	0.69
13:C:137:LEU:O	13:C:139:ASN:N	2.24	0.69
11:A:1019:U:H3	11:A:1142(A):A:H62	1.41	0.69
15:E:169:ASN:O	15:E:169:ASN:ND2	2.25	0.69
11:A:130:C:O3'	11:A:1349:A:H1'	1.93	0.69
24:Q:43:THR:OG1	24:Q:46:GLN:HG3	1.92	0.69
11:A:272(B):G:H1	11:A:366:C:H42	1.38	0.69
8:7:11:LYS:HE2	11:A:686:G:N3	2.07	0.69
11:A:635:C:H2'	11:A:636:G:O4'	1.91	0.69
4:3:23:LEU:C	4:3:25:ALA:H	1.93	0.69
11:A:1564:C:O2'	11:A:1565:C:H5'	1.92	0.69
21:N:38:HIS:C	28:U:67:ALA:HB1	2.12	0.69
13:C:2:LYS:HD3	13:C:2:LYS:O	1.93	0.69
18:H:41:MET:HG3	18:H:42:ARG:N	2.07	0.69
11:A:94(A):G:H2'	11:A:95:G:C5'	2.18	0.69
6:5:4:HIS:C	11:A:2056:G:H1	1.95	0.69
17:G:141:PHE:HB2	17:G:144:ILE:CG2	2.22	0.69
11:A:142:A:H5'	11:A:142(A):C:OP2	1.92	0.69
11:A:2640:G:C2'	11:A:2641:G:H5''	2.21	0.69
30:W:52:GLU:C	30:W:54:ALA:H	1.95	0.69
16:F:46:ARG:NH1	16:F:46:ARG:HG3	2.08	0.69
11:A:31:C:H2'	11:A:32:C:O4'	1.93	0.69
23:P:83:VAL:H	23:P:115:LEU:HD21	1.56	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2345:G:N3	11:A:2381:C:H2'	2.07	0.69
29:V:39:LEU:H	29:V:39:LEU:HD22	1.56	0.69
11:A:2161:C:H2'	11:A:2162:G:C8	2.23	0.69
11:A:271(H):G:O2'	11:A:271(I):G:H8	1.73	0.69
2:1:73:LEU:HB3	2:1:94:LEU:HD23	1.74	0.69
11:A:832:G:OP1	23:P:40:SER:HB2	1.93	0.69
11:A:1242:A:C6	23:P:8:PRO:HG3	2.28	0.69
11:A:1297:C:H2'	11:A:1298:C:C6	2.28	0.69
11:A:1639:U:H2'	11:A:1640:C:H5''	1.74	0.69
13:C:23:ASP:CB	13:C:27:ARG:HH12	1.98	0.69
11:A:1473:G:H2'	11:A:1474:C:O4'	1.93	0.69
11:A:525:U:O5'	11:A:556:G:H5'	1.93	0.69
11:A:537:C:H42	11:A:556:G:H22	1.41	0.69
11:A:2716:U:O2'	11:A:2717:G:H5'	1.93	0.69
11:A:817:C:H2'	11:A:818:G:O4'	1.93	0.69
7:6:11:LEU:HD22	7:6:12:GLU:H	1.58	0.69
6:5:5:PRO:HA	11:A:2056:G:H22	1.58	0.69
11:A:2186:G:H2'	11:A:2187:G:C8	2.28	0.69
13:C:127:LEU:HD22	13:C:130:ILE:HD12	1.74	0.69
14:D:76:PRO:HG2	14:D:98:VAL:HG21	1.74	0.69
11:A:935:C:H2'	11:A:936:C:H6	1.58	0.69
14:D:24:ILE:HD13	14:D:25:THR:H	1.59	0.68
16:F:117:ARG:HG2	16:F:192:LEU:HD13	1.75	0.68
23:P:10:PRO:O	23:P:11:GLY:O	2.11	0.68
11:A:92:A:H2'	11:A:93:G:O4'	1.92	0.68
11:A:1292:U:H2'	11:A:1293:C:C6	2.28	0.68
25:R:32:GLY:CA	25:R:116:LEU:HG	2.23	0.68
5:4:6:HIS:CB	17:G:67:LYS:HE3	2.22	0.68
11:A:2712:U:O2'	11:A:2712(A):A:H3'	1.93	0.68
33:Z:133:ILE:N	33:Z:134:PRO:HD3	2.08	0.68
14:D:81:ALA:HA	14:D:113:VAL:CG2	2.23	0.68
28:U:34:LYS:HA	28:U:34:LYS:HE2	1.75	0.68
2:1:71:TYR:HA	2:1:74:VAL:HG23	1.74	0.68
11:A:2825:C:H6	11:A:2825:C:O5'	1.76	0.68
11:A:2756:U:H1'	11:A:2757:A:H5''	1.76	0.68
16:F:136:THR:O	16:F:140:LEU:HB2	1.92	0.68
32:Y:82:PRO:O	32:Y:96:ILE:HG22	1.93	0.68
17:G:29:TRP:CE3	17:G:29:TRP:HA	2.27	0.68
11:A:1693:U:H5'	11:A:1693:U:C6	2.27	0.68
11:A:461:C:O2'	11:A:462:C:H5'	1.94	0.68
23:P:86:LYS:NZ	23:P:86:LYS:HB3	2.08	0.68
11:A:1122:G:O2'	11:A:1123:C:H5'	1.93	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:696:G:N3	11:A:696:G:H2'	2.08	0.68
9:8:24:ALA:HA	9:8:46:ARG:NH1	2.08	0.68
27:T:19:LEU:HD13	27:T:78:LEU:HD22	1.74	0.68
27:T:28:VAL:CG2	27:T:46:GLU:HA	2.23	0.68
11:A:2110:G:N2	11:A:2178:C:H41	1.89	0.68
29:V:19:LYS:HE2	29:V:19:LYS:HA	1.75	0.68
20:K:31:UNK:O	20:K:63:UNK:HA	1.92	0.68
4:3:10:LYS:O	4:3:53:LEU:HD22	1.93	0.68
9:8:49:VAL:CG1	9:8:53:PRO:HD3	2.22	0.68
15:E:4:ILE:CD1	15:E:28:ALA:HB1	2.24	0.68
11:A:650:C:C3'	11:A:651:G:H5''	2.23	0.68
11:A:2772:C:H2'	11:A:2773:C:C6	2.28	0.68
11:A:2123:G:H2'	11:A:2124:G:H8	1.59	0.68
13:C:40:THR:HG23	13:C:177:LYS:HD2	1.74	0.68
11:A:1341:U:O2'	11:A:1342:A:H5'	1.93	0.68
21:N:58:ASP:C	21:N:60:ILE:H	1.96	0.68
11:A:2001:A:H4'	11:A:2689:U:H2'	1.75	0.68
11:A:1565:C:H2'	14:D:21:PHE:HE1	1.58	0.68
13:C:86:ALA:HB3	13:C:94:VAL:HG11	1.74	0.68
11:A:111:A:H2'	11:A:112:U:O4'	1.93	0.68
10:9:29:ASN:HD21	10:9:32:HIS:CE1	2.11	0.68
15:E:167:VAL:HG11	15:E:188:VAL:HA	1.76	0.68
33:Z:7:ALA:HB2	33:Z:59:LEU:HD13	1.75	0.68
11:A:2302:G:H1'	17:G:128:ARG:HG3	1.75	0.68
12:B:112:U:H2'	12:B:113:G:C8	2.28	0.68
11:A:751:A:C5'	30:W:90:ARG:HA	2.24	0.68
21:N:86:PRO:HG2	21:N:89:LYS:HG2	1.75	0.68
1:0:50:ASN:HD22	1:0:63:VAL:HG21	1.58	0.68
11:A:702:G:O2'	11:A:703:U:H5'	1.94	0.68
18:H:52:VAL:CB	18:H:69:ARG:HD3	2.18	0.68
16:F:132:VAL:HG22	16:F:133:ASN:N	2.06	0.68
25:R:55:ALA:HA	25:R:80:PHE:CE1	2.28	0.68
26:S:97:ARG:NH2	26:S:98:VAL:HA	2.06	0.68
17:G:131:TYR:CE2	17:G:133:LEU:HB3	2.28	0.68
11:A:1246:A:C2'	11:A:1247:A:H5'	2.24	0.68
11:A:729:G:N7	14:D:208:LYS:HB2	2.09	0.68
14:D:239:ARG:HG2	14:D:239:ARG:HH21	1.58	0.68
29:V:49:THR:HB	29:V:50:PRO:HD2	1.74	0.68
11:A:1132:A:H2'	11:A:1133:U:C6	2.28	0.68
11:A:258:G:O2'	11:A:259:G:H5'	1.93	0.68
11:A:2777:G:H5''	11:A:2778:A:H5'	1.75	0.68
11:A:1779:U:H5	11:A:1784:A:N7	1.90	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1018:C:H2'	11:A:1019:U:H6	1.58	0.68
11:A:2352:A:H2'	11:A:2353:G:H5'	1.75	0.68
13:C:103:ILE:HG23	13:C:107:TRP:HB2	1.74	0.68
11:A:1694:C:H1'	11:A:1695:G:N2	2.09	0.68
9:8:52:LYS:N	9:8:53:PRO:HD2	2.09	0.68
11:A:2358:G:O2'	11:A:2359:C:H5'	1.92	0.68
6:5:4:HIS:HB2	6:5:5:PRO:CD	2.15	0.68
11:A:1514:U:H2'	11:A:1515:G:C8	2.29	0.68
2:1:66:HIS:C	2:1:68:PRO:HD2	2.14	0.68
11:A:1058:G:H2'	11:A:1059:G:C5'	2.23	0.68
11:A:176:G:O2'	11:A:177:G:H5'	1.93	0.68
11:A:1565:C:H2'	14:D:21:PHE:CE1	2.29	0.68
11:A:664:C:O2'	11:A:665:C:H5'	1.94	0.68
11:A:582:G:H1	11:A:1258:C:H42	1.42	0.68
30:W:41:LYS:C	30:W:43:GLY:H	1.96	0.68
23:P:146:VAL:CG2	23:P:147:LEU:H	1.95	0.68
11:A:142:A:H1'	11:A:1408:C:H1'	1.76	0.68
22:O:104:ARG:NH1	22:O:104:ARG:HB2	2.09	0.68
22:O:64:ARG:HH21	22:O:100:GLY:HA3	1.58	0.68
33:Z:165:VAL:HG12	33:Z:166:SER:H	1.59	0.68
33:Z:5:LEU:HB2	33:Z:59:LEU:CD2	2.24	0.68
32:Y:7:VAL:HB	32:Y:8:LYS:CD	2.23	0.68
12:B:30:C:H1'	12:B:57:A:H61	1.58	0.68
17:G:34:LEU:HD12	17:G:34:LEU:O	1.93	0.68
21:N:107:LEU:HB3	21:N:108:PRO:HD2	1.75	0.68
14:D:131:LEU:HD13	14:D:136:ILE:HD11	1.75	0.68
22:O:35:VAL:HG11	22:O:103:ALA:CB	2.22	0.68
11:A:666:G:H2'	11:A:667:U:C6	2.28	0.68
15:E:199:ARG:CG	15:E:200:GLU:H	2.04	0.68
33:Z:61:LEU:HD11	33:Z:67:LEU:CD1	2.23	0.68
10:9:13:LYS:HD2	10:9:28:GLU:HB2	1.75	0.68
11:A:2175:C:H5''	13:C:220:PRO:HA	1.76	0.68
12:B:91:C:C5'	24:Q:17:LEU:O	2.39	0.68
11:A:2037:G:H2'	11:A:2038:G:C8	2.28	0.68
11:A:536:A:H2	11:A:557:U:H3	1.42	0.68
28:U:53:ARG:O	28:U:56:ASP:HB2	1.94	0.68
11:A:2408:U:H6	11:A:2408:U:O5'	1.76	0.68
11:A:2028:U:H2'	11:A:2029:G:O4'	1.93	0.68
11:A:1889:A:O2'	11:A:2087:G:H5'	1.94	0.68
25:R:24:GLN:HE22	25:R:40:LYS:HD2	1.59	0.68
17:G:60:LEU:HA	17:G:63:ILE:CD1	2.24	0.68
24:Q:134:ARG:CD	33:Z:122:ARG:NH2	2.53	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:51:ALA:HB2	26:S:73:LEU:HG	1.76	0.68
33:Z:53:ILE:CG2	33:Z:71:VAL:HB	2.23	0.68
6:5:55:ARG:HD3	6:5:56:LYS:N	2.09	0.68
6:5:56:LYS:HE2	6:5:59:GLU:OE2	1.94	0.68
33:Z:76:LEU:HD21	33:Z:82:ARG:H	1.59	0.68
21:N:45:ASN:N	21:N:45:ASN:ND2	2.40	0.68
11:A:2580:U:H3'	11:A:2581:G:C2	2.29	0.68
27:T:106:SER:O	27:T:107:ASP:HB3	1.93	0.68
11:A:1021:A:H8	11:A:1022:G:H4'	1.59	0.68
11:A:1146:C:O2'	11:A:1147:C:H5'	1.94	0.68
27:T:111:ARG:HH11	27:T:111:ARG:HG2	1.59	0.68
26:S:72:ALA:O	26:S:75:GLU:HB3	1.94	0.68
7:6:18:ARG:HH11	7:6:18:ARG:HG2	1.59	0.67
11:A:605:C:H1'	11:A:657:U:O2'	1.95	0.67
11:A:2011:U:H2'	11:A:2012:G:O4'	1.93	0.67
15:E:165:VAL:HG12	15:E:166:THR:N	2.10	0.67
33:Z:153:SER:HB3	33:Z:167:PRO:HB3	1.74	0.67
17:G:162:THR:O	17:G:164:GLU:N	2.27	0.67
11:A:2101:G:H2'	11:A:2102:U:O4'	1.93	0.67
18:H:76:VAL:O	18:H:79:VAL:HG22	1.93	0.67
11:A:2136:C:N4	11:A:2155:G:H1	1.92	0.67
11:A:914:C:H2'	11:A:915:C:H5'	1.75	0.67
18:H:85:LYS:NZ	18:H:132:ARG:HA	2.09	0.67
14:D:223:GLY:HA2	14:D:226:MET:SD	2.34	0.67
11:A:2580:U:H5'	15:E:131:ALA:HB2	1.76	0.67
21:N:5:VAL:HG12	21:N:7:LYS:HG3	1.77	0.67
11:A:1038:C:C3'	11:A:1039:G:H5''	2.23	0.67
31:X:76:ARG:N	31:X:76:ARG:HD3	2.09	0.67
10:9:24:TYR:O	10:9:25:VAL:HG23	1.94	0.67
11:A:2472:G:H2'	11:A:2475:C:N4	2.09	0.67
16:F:139:PHE:HB3	16:F:166:ALA:HB1	1.75	0.67
28:U:110:VAL:O	28:U:113:ALA:HB3	1.94	0.67
7:6:8:LYS:HE3	7:6:25:LYS:HD3	1.75	0.67
11:A:2707:G:O2'	11:A:2708:G:H5'	1.95	0.67
27:T:85:LYS:HB3	27:T:85:LYS:NZ	2.07	0.67
33:Z:60:GLU:HA	33:Z:66:SER:HA	1.75	0.67
32:Y:19:LYS:HB2	32:Y:20:TYR:CE1	2.29	0.67
2:1:4:VAL:HG22	2:1:5:CYS:N	2.09	0.67
11:A:38:A:H5'	16:F:50:SER:OG	1.94	0.67
11:A:594:U:H2'	11:A:595:C:H6	1.59	0.67
28:U:88:ILE:O	28:U:88:ILE:HG13	1.93	0.67
12:B:7:G:C3'	12:B:8:U:H5''	2.21	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:0:30:VAL:HA	1:0:66:VAL:HA	1.76	0.67
9:8:43:GLN:O	9:8:44:LYS:HD2	1.94	0.67
11:A:819:A:C2'	11:A:820:A:H5'	2.25	0.67
23:P:40:SER:O	23:P:41:ARG:HD2	1.94	0.67
28:U:10:ARG:HA	28:U:13:LYS:HG2	1.76	0.67
11:A:1652:A:H2'	11:A:1653:G:H5'	1.76	0.67
9:8:24:ALA:O	9:8:46:ARG:HA	1.93	0.67
11:A:139:G:C6	11:A:140:G:H2'	2.29	0.67
11:A:142(A):C:O2'	11:A:143:G:H5'	1.94	0.67
11:A:2833:G:C3'	11:A:2834:G:H5''	2.24	0.67
14:D:131:LEU:HD12	14:D:131:LEU:N	2.09	0.67
11:A:1419:A:O2'	11:A:1420:U:H5''	1.94	0.67
26:S:106:ARG:NH1	26:S:106:ARG:HB3	2.09	0.67
4:3:6:VAL:HB	4:3:54:VAL:CG1	2.22	0.67
2:1:88:LYS:HD3	2:1:88:LYS:C	2.14	0.67
20:K:80:UNK:C	20:K:82:UNK:H	2.07	0.67
11:A:1747(A):G:H2'	11:A:1748:G:O4'	1.95	0.67
9:8:10:ALA:O	9:8:14:VAL:HG12	1.94	0.67
11:A:2233:U:H2'	11:A:2234:G:C8	2.28	0.67
16:F:24:LEU:O	16:F:115:ALA:HB1	1.93	0.67
27:T:23:ARG:O	27:T:25:GLY:N	2.27	0.67
11:A:675:A:OP1	16:F:63:LYS:HE2	1.95	0.67
14:D:144:ALA:HB3	14:D:192:THR:CG2	2.24	0.67
11:A:1579:A:H2'	11:A:1580:A:C1'	2.24	0.67
11:A:31:C:C2'	11:A:32:C:H5''	2.24	0.67
11:A:2092:U:H4'	11:A:2093:G:H5''	1.75	0.67
11:A:392:C:C2'	11:A:393:C:H5'	2.25	0.67
14:D:145:VAL:HB	14:D:155:LEU:HB2	1.77	0.67
33:Z:12:GLY:HA3	33:Z:36:LYS:HZ2	1.59	0.67
33:Z:70:LEU:CD2	33:Z:91:LEU:HD21	2.23	0.67
11:A:2201:C:H2'	11:A:2202:C:C6	2.29	0.67
11:A:2126:A:H4'	11:A:2127:G:O5'	1.94	0.67
6:5:25:LEU:O	6:5:27:PRO:HD3	1.94	0.67
11:A:2652:C:H2'	11:A:2653:U:C6	2.30	0.67
5:4:42:PHE:CG	5:4:42:PHE:O	2.47	0.67
7:6:42:TRP:C	7:6:44:ARG:H	1.97	0.67
16:F:184:TYR:HE1	23:P:7:ARG:NH2	1.92	0.67
26:S:12:PHE:O	26:S:14:VAL:HG23	1.95	0.67
11:A:139(A):G:N2	31:X:44:GLU:OE1	2.27	0.67
22:O:107:ARG:HH11	27:T:36:GLU:HG3	1.58	0.67
11:A:729:G:O2'	11:A:763:G:H4'	1.95	0.67
11:A:471:A:H2'	11:A:472:A:C5'	2.24	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1058:G:O5'	11:A:1058:G:H8	1.77	0.67
18:H:85:LYS:C	18:H:85:LYS:HE2	2.14	0.67
11:A:782:A:C2	14:D:226:MET:HG2	2.30	0.67
12:B:110:G:O2'	12:B:111:G:H5'	1.94	0.67
23:P:75:ILE:H	23:P:75:ILE:HD12	1.60	0.67
11:A:1038:C:H2'	11:A:1039:G:H5''	1.77	0.67
22:O:86:ILE:HG22	22:O:94:ARG:HB2	1.77	0.67
27:T:4:GLY:O	27:T:7:ILE:HB	1.94	0.67
11:A:672:C:H2'	11:A:673:C:H5''	1.75	0.67
11:A:2760:C:C2'	11:A:2761:G:H5''	2.23	0.67
17:G:146:TYR:O	17:G:148:MET:N	2.26	0.67
11:A:1988:C:H2'	11:A:1989:G:O4'	1.94	0.67
13:C:22:ILE:HD13	13:C:190:ARG:HG2	1.75	0.67
11:A:329:G:H1	32:Y:19:LYS:HE3	1.59	0.67
13:C:151:GLU:CA	13:C:154:ARG:HH11	2.08	0.67
11:A:2689:U:H4'	11:A:2690:C:H6	1.60	0.67
11:A:68:G:H2'	11:A:69:C:C6	2.29	0.67
11:A:654(T):C:H2'	11:A:654(U):A:O4'	1.95	0.67
1:O:55:ARG:O	1:O:57:PHE:N	2.27	0.67
23:P:36:LYS:CB	23:P:41:ARG:HB3	2.25	0.67
28:U:6:THR:O	28:U:9:VAL:HG22	1.95	0.67
26:S:65:VAL:O	26:S:69:VAL:HG12	1.95	0.67
15:E:23:VAL:HG12	15:E:173:VAL:HG21	1.76	0.67
33:Z:27:VAL:HG13	33:Z:27:VAL:O	1.94	0.67
33:Z:69:THR:HG23	33:Z:90:VAL:HA	1.77	0.67
32:Y:13:VAL:HG22	32:Y:14:LEU:N	2.09	0.67
21:N:54:VAL:HB	21:N:122:VAL:HG13	1.77	0.67
12:B:91:C:OP1	24:Q:17:LEU:N	2.27	0.67
28:U:42:ALA:HA	28:U:45:TYR:HB2	1.74	0.67
11:A:1285:G:H4'	25:R:105:ARG:NH1	2.10	0.67
11:A:1690:A:C2'	11:A:1691:C:H5'	2.25	0.67
11:A:1536:C:H2'	11:A:1537:G:H4'	1.77	0.67
13:C:183:GLU:H	13:C:183:GLU:CD	1.96	0.67
23:P:23:PRO:HD2	23:P:33:ARG:NH2	2.09	0.67
31:X:14:SER:OG	31:X:17:ALA:HB2	1.95	0.67
25:R:62:ALA:O	25:R:66:VAL:HG23	1.94	0.67
12:B:42:C:HO2'	12:B:43:C:H6	1.43	0.67
33:Z:102:LEU:HD21	33:Z:124:ILE:CD1	2.25	0.67
17:G:9:ARG:NH1	17:G:9:ARG:HB3	2.10	0.67
11:A:996:A:H4'	28:U:92:ARG:HG2	1.75	0.67
11:A:1605:C:H2'	11:A:1606:G:H5'	1.75	0.67
14:D:148:GLU:CB	14:D:151:LYS:HD2	2.25	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:218:A:H2'	11:A:219:G:O4'	1.95	0.67
11:A:193:U:H3	11:A:202:U:H3	1.43	0.67
11:A:2688:U:H3'	11:A:2688:U:O2	1.95	0.67
11:A:944:G:H5'	11:A:945:A:O5'	1.95	0.67
23:P:47:ASP:HB2	23:P:51:PHE:HB2	1.77	0.67
2:1:13:ILE:N	2:1:13:ILE:HD13	2.09	0.67
11:A:1568:G:H4'	14:D:59:LYS:HG2	1.77	0.67
13:C:79:LYS:HG2	13:C:118:ASP:OD2	1.95	0.67
11:A:1422:G:H4'	11:A:1493:C:OP2	1.95	0.67
11:A:1528(A):A:H2'	11:A:1529:G:O4'	1.94	0.67
17:G:111:LEU:HB2	17:G:112:PRO:CD	2.25	0.67
7:6:12:GLU:CD	7:6:54:ILE:HG22	2.16	0.66
15:E:31:CYS:CB	15:E:49:LEU:HD12	2.25	0.66
11:A:1664:A:H1'	11:A:2726:U:C5	2.30	0.66
13:C:20:TYR:HB3	13:C:24:GLU:CB	2.25	0.66
11:A:21:A:H2'	11:A:22:C:C6	2.29	0.66
2:1:25:LYS:HB3	11:A:388:G:H5'	1.77	0.66
2:1:77:ALA:O	2:1:82:LEU:HD22	1.95	0.66
11:A:392:C:H2'	11:A:393:C:H5'	1.76	0.66
24:Q:3:MET:HB2	24:Q:4:PRO:HD2	1.76	0.66
7:6:53:LYS:HG2	7:6:54:ILE:N	2.10	0.66
14:D:23:GLU:O	14:D:82:ILE:HD12	1.95	0.66
11:A:1242:A:N1	23:P:8:PRO:HG3	2.10	0.66
25:R:100:LEU:HD22	25:R:100:LEU:H	1.60	0.66
15:E:57:LYS:HE3	15:E:57:LYS:CA	2.11	0.66
11:A:2810:A:O2'	15:E:61:ARG:HB2	1.96	0.66
17:G:162:THR:O	17:G:164:GLU:HG3	1.95	0.66
17:G:180:PHE:HB2	17:G:182:LYS:HZ2	1.59	0.66
17:G:19:LEU:HD23	17:G:175:LEU:HD12	1.77	0.66
11:A:1390:U:O2'	11:A:1391:U:H5'	1.95	0.66
14:D:166:GLN:CA	14:D:166:GLN:HE21	1.98	0.66
17:G:117:PHE:CG	17:G:118:ARG:N	2.62	0.66
11:A:871:U:H4'	24:Q:69:PHE:CZ	2.30	0.66
21:N:21:LYS:HD3	21:N:22:THR:N	2.09	0.66
11:A:1754:C:H5'	27:T:113:LYS:NZ	2.09	0.66
16:F:57:VAL:HG12	16:F:58:ALA:H	1.58	0.66
14:D:210:GLY:O	14:D:211:ARG:HB3	1.96	0.66
11:A:1120:G:H2'	11:A:1121:C:C6	2.30	0.66
15:E:52:LEU:CB	15:E:76:ARG:HB2	2.25	0.66
27:T:38:ASN:C	27:T:38:ASN:ND2	2.48	0.66
11:A:1520:G:H2'	11:A:1523:U:O4'	1.95	0.66
11:A:1902:C:H4'	14:D:244:ARG:HB2	1.76	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:144:ALA:HB3	14:D:192:THR:HG22	1.75	0.66
11:A:1466:G:H3'	11:A:1547:C:H41	1.60	0.66
2:1:50:ARG:HG2	2:1:59:THR:CG2	2.26	0.66
29:V:24:LYS:H	29:V:91:TYR:HA	1.60	0.66
11:A:1809:A:H2'	11:A:1810:A:C8	2.31	0.66
11:A:2572:A:C8	15:E:144:ARG:HD2	2.31	0.66
20:K:7:UNK:HA	20:K:58:UNK:HA	1.77	0.66
11:A:2693:A:O2'	11:A:2694:G:H5'	1.96	0.66
11:A:582:G:H1	11:A:1258:C:N4	1.93	0.66
11:A:1855:G:H2'	11:A:1856:G:C8	2.31	0.66
31:X:26:TYR:CE2	31:X:89:ILE:HB	2.30	0.66
5:4:9:LEU:HD13	5:4:10:VAL:H	1.61	0.66
23:P:100:LEU:O	23:P:103:ALA:HB3	1.95	0.66
15:E:165:VAL:HG12	15:E:166:THR:H	1.59	0.66
33:Z:7:ALA:O	33:Z:62:PRO:HD3	1.95	0.66
11:A:1899:G:N2	11:A:1902:C:N4	2.44	0.66
11:A:1067:A:H3'	11:A:1068:G:C5'	2.23	0.66
11:A:1030:G:OP2	24:Q:128:LYS:HE2	1.94	0.66
11:A:1399:C:O2'	11:A:1400:G:H5'	1.96	0.66
11:A:1064:C:C3'	11:A:1065:U:H5''	2.25	0.66
11:A:382:G:O2'	11:A:383:U:H5'	1.95	0.66
12:B:98:G:H2'	12:B:99:G:H8	1.60	0.66
28:U:47:TYR:HA	28:U:50:ARG:HD2	1.78	0.66
18:H:105:LEU:H	18:H:105:LEU:HD23	1.59	0.66
2:1:3:LYS:NZ	2:1:3:LYS:HB3	2.11	0.66
14:D:59:LYS:HG3	14:D:60:ARG:N	2.09	0.66
24:Q:51:ARG:O	24:Q:54:MET:HB3	1.94	0.66
11:A:1651:G:O2'	11:A:1652:A:H5'	1.96	0.66
12:B:42:C:N4	17:G:91:ARG:CZ	2.58	0.66
27:T:24:PRO:HD3	27:T:52:ILE:CD1	2.21	0.66
6:5:57:VAL:C	6:5:58:LEU:HD12	2.15	0.66
11:A:593:G:O2'	11:A:594:U:H5'	1.95	0.66
23:P:16:ARG:HB2	23:P:16:ARG:NH1	2.11	0.66
11:A:764:A:H3'	11:A:765:G:H5'	1.76	0.66
11:A:18:C:O2'	28:U:23:GLY:HA2	1.95	0.66
11:A:83:G:O2'	11:A:84:A:C8	2.49	0.66
21:N:32:THR:HB	21:N:33:LEU:HD12	1.77	0.66
21:N:34:LEU:HD21	21:N:120:LEU:HD23	1.78	0.66
11:A:2485:G:H5''	24:Q:46:GLN:NE2	2.11	0.66
8:7:12:ARG:HH21	8:7:44:PRO:HB3	1.58	0.66
11:A:1141:U:H2'	21:N:63:THR:HG22	1.76	0.66
11:A:465:G:H2'	11:A:466:A:C8	2.29	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:37:ARG:HG3	30:W:37:ARG:HH11	1.60	0.66
33:Z:58:VAL:HG22	33:Z:68:PRO:CA	2.24	0.66
17:G:10:LYS:HD2	17:G:13:GLU:OE1	1.95	0.66
29:V:35:LEU:N	29:V:35:LEU:HD22	2.10	0.66
24:Q:21:THR:O	24:Q:22:LYS:HB3	1.96	0.66
11:A:2071:A:H2'	11:A:2072:G:H8	1.61	0.66
11:A:2777:G:H5''	11:A:2778:A:C5'	2.25	0.66
28:U:21:ALA:HB1	28:U:24:TYR:CD1	2.31	0.66
2:1:80:LEU:HD23	2:1:81:LYS:H	1.59	0.66
11:A:1144:G:H2'	11:A:1145:C:C6	2.30	0.66
8:7:30:VAL:CG1	11:A:466:A:H4'	2.25	0.66
26:S:42:ASP:C	26:S:44:LYS:H	1.99	0.66
11:A:2405:G:H2'	11:A:2411:A:N6	2.11	0.66
25:R:29:LEU:HD21	25:R:52:ILE:HD11	1.76	0.66
11:A:2892:A:N7	11:A:2893:G:N3	2.44	0.66
27:T:19:LEU:HD13	27:T:78:LEU:CD2	2.26	0.66
17:G:76:SER:CB	17:G:83:ARG:HB3	2.26	0.66
18:H:23:ARG:NH1	18:H:36:PRO:HB3	2.10	0.66
12:B:68:C:H2'	12:B:69:G:C8	2.27	0.66
32:Y:39:VAL:HG12	32:Y:40:GLU:N	2.10	0.66
16:F:82:ILE:O	16:F:83:PHE:HB3	1.94	0.66
11:A:1106:G:C2'	11:A:1107:G:H5'	2.25	0.66
9:8:39:LYS:HZ2	11:A:2364:C:H5	1.43	0.66
11:A:878:A:N3	11:A:878:A:H5'	2.11	0.66
13:C:124:GLY:HA2	13:C:128:GLY:HA3	1.76	0.66
9:8:13:ARG:NH2	11:A:250:G:OP2	2.28	0.66
14:D:34:VAL:HG23	14:D:35:LYS:N	2.11	0.66
3:2:32:LEU:HD12	3:2:57:ILE:HG13	1.77	0.66
24:Q:48:GLU:HG2	24:Q:52:VAL:HG23	1.76	0.66
27:T:45:PHE:CE1	27:T:74:ARG:HG3	2.30	0.66
17:G:36:LYS:HG2	17:G:37:VAL:N	2.10	0.66
11:A:2111:C:N4	11:A:2145:C:H2'	2.10	0.66
11:A:2175:C:O3'	13:C:221:SER:HB3	1.96	0.66
4:3:26:LEU:HB2	4:3:28:LEU:HD21	1.78	0.66
31:X:57:LEU:HD22	31:X:57:LEU:O	1.96	0.66
5:4:20:ASN:HD22	5:4:21:VAL:N	1.94	0.66
33:Z:149:SER:CB	33:Z:173:ALA:HA	2.26	0.66
26:S:77:ALA:C	26:S:79:ALA:H	1.96	0.66
11:A:2632:A:O2'	15:E:61:ARG:NH2	2.29	0.66
27:T:94:ALA:C	27:T:96:ARG:H	1.99	0.66
21:N:131:GLN:HE22	21:N:133:GLN:HA	1.61	0.66
11:A:406:G:H2'	11:A:407:G:C8	2.31	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:3:ALA:HB3	29:V:14:VAL:HG23	1.78	0.66
11:A:272(B):G:H2'	11:A:272(C):G:H8	1.61	0.66
11:A:803:U:C2'	11:A:804:A:H5'	2.26	0.66
15:E:179:GLU:O	15:E:180:ASN:HB2	1.94	0.66
14:D:76:PRO:HG2	14:D:98:VAL:CG2	2.26	0.66
23:P:136:GLU:HA	23:P:139:LYS:HB2	1.78	0.66
11:A:565:C:H4'	11:A:1253:A:N1	2.11	0.66
25:R:42:LYS:O	25:R:45:ARG:HG2	1.96	0.66
25:R:42:LYS:O	25:R:45:ARG:N	2.24	0.66
25:R:45:ARG:HG3	25:R:46:GLY:N	2.09	0.66
25:R:52:ILE:CD1	25:R:79:LEU:HD21	2.26	0.66
15:E:78:LEU:O	15:E:79:ARG:HD2	1.96	0.66
28:U:88:ILE:HB	28:U:90:VAL:CG2	2.26	0.66
17:G:46:ALA:HB3	17:G:88:ILE:HG13	1.77	0.66
15:E:135:HIS:O	15:E:136:ARG:HG3	1.95	0.66
11:A:1028:A:N6	11:A:1125:G:H2'	2.11	0.66
11:A:2023:G:H5'	11:A:2617:C:H4'	1.77	0.66
11:A:481:G:H1'	11:A:506:G:N2	2.10	0.66
1:0:43:THR:HG23	1:0:43:THR:O	1.96	0.65
7:6:15:GLU:OE2	7:6:41:PRO:CB	2.45	0.65
23:P:7:ARG:HB3	23:P:8:PRO:HD3	1.77	0.65
26:S:98:VAL:C	26:S:100:ALA:H	1.99	0.65
26:S:27:SER:HA	26:S:88:ASP:HB3	1.77	0.65
26:S:77:ALA:HA	26:S:80:LEU:HD12	1.78	0.65
11:A:2286:A:H4'	11:A:2287:A:O4'	1.96	0.65
11:A:2772:C:H5'	15:E:168:MET:HE3	1.77	0.65
27:T:89:VAL:HG21	27:T:91:ARG:HH21	1.59	0.65
11:A:2183:C:O2'	11:A:2184:G:H5'	1.96	0.65
11:A:1971:A:N3	14:D:240:ALA:HA	2.11	0.65
13:C:140:PRO:C	13:C:142:ALA:H	1.98	0.65
11:A:2068:U:N3	11:A:2430:A:C2	2.54	0.65
11:A:894:C:C2'	11:A:895:U:H5'	2.25	0.65
11:A:2579:C:O2'	15:E:131:ALA:CB	2.44	0.65
14:D:148:GLU:HB3	14:D:151:LYS:HD2	1.77	0.65
11:A:614(A):U:H4'	11:A:614(B):G:OP2	1.95	0.65
11:A:2496:C:OP1	24:Q:83:MET:HG2	1.96	0.65
22:O:17:ARG:O	22:O:18:LYS:HB2	1.95	0.65
24:Q:66:ILE:O	24:Q:66:ILE:HG13	1.95	0.65
7:6:15:GLU:HB2	7:6:20:ASN:CB	2.27	0.65
11:A:2361:A:H2'	11:A:2362:G:H8	1.60	0.65
17:G:138:GLN:O	17:G:140:ILE:HG13	1.96	0.65
17:G:146:TYR:C	17:G:148:MET:H	1.99	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:E:167:VAL:HB	15:E:189:PRO:HD3	1.79	0.65
27:T:117:ASP:OD2	27:T:120:ARG:HG3	1.96	0.65
11:A:2181:G:H2'	11:A:2182:G:C8	2.23	0.65
11:A:442:G:O4'	16:F:46:ARG:HD3	1.96	0.65
11:A:523:C:H4'	11:A:540:C:O2	1.95	0.65
11:A:471:A:H2'	11:A:472:A:H5''	1.77	0.65
18:H:83:TYR:HB3	18:H:135:GLY:O	1.96	0.65
11:A:185:U:H4'	11:A:218:A:H4'	1.78	0.65
11:A:2656:U:C2'	11:A:2657:A:H5''	2.26	0.65
22:O:96:THR:O	22:O:97:ARG:HG2	1.96	0.65
11:A:2304:G:N2	11:A:2312:U:H3	1.94	0.65
9:8:22:VAL:HG21	9:8:53:PRO:HB2	1.78	0.65
9:8:34:TRP:HA	11:A:2420:C:OP1	1.96	0.65
9:8:59:LYS:CD	23:P:50:ARG:HB3	2.26	0.65
11:A:1568:G:P	14:D:63:ARG:HH22	2.20	0.65
18:H:65:HIS:C	18:H:67:LEU:H	2.00	0.65
11:A:2007:C:H5'	11:A:2824:C:H1'	1.78	0.65
25:R:61:HIS:CE1	25:R:65:LEU:HD22	2.31	0.65
15:E:38:THR:HG22	15:E:40:GLU:N	2.10	0.65
11:A:2631:G:H21	15:E:61:ARG:HH12	1.43	0.65
21:N:133:GLN:HG2	21:N:134:ARG:N	2.11	0.65
11:A:1592:C:H2'	11:A:1593:G:H8	1.61	0.65
11:A:1177:A:H5'	11:A:1178:C:C5	2.32	0.65
18:H:132:ARG:HG3	18:H:132:ARG:O	1.97	0.65
28:U:38:THR:O	28:U:41:ALA:HB3	1.96	0.65
24:Q:12:GLN:NE2	24:Q:73:PRO:HD2	2.09	0.65
22:O:88:ASN:HD21	22:O:92:GLU:HB3	1.60	0.65
27:T:129:ARG:O	27:T:129:ARG:HG3	1.96	0.65
21:N:58:ASP:O	21:N:60:ILE:N	2.29	0.65
11:A:371:A:H61	11:A:401:A:H3'	1.62	0.65
9:8:4:MET:HE3	9:8:61:LEU:HD21	1.78	0.65
11:A:2337:G:H2'	11:A:2338:G:H8	1.61	0.65
16:F:124:LEU:HD12	16:F:125:LEU:H	1.61	0.65
16:F:24:LEU:O	16:F:26:ALA:N	2.30	0.65
3:2:31:GLU:C	3:2:33:MET:N	2.45	0.65
11:A:94(A):G:C2'	11:A:95:G:H5''	2.19	0.65
15:E:167:VAL:HG21	15:E:187:ALA:O	1.97	0.65
27:T:52:ILE:HG12	27:T:61:PHE:HB3	1.76	0.65
21:N:48:MET:HE3	21:N:48:MET:N	2.12	0.65
28:U:88:ILE:HB	28:U:90:VAL:HG23	1.78	0.65
11:A:709:U:H2'	11:A:710:G:H8	1.61	0.65
18:H:89:ILE:HG13	18:H:89:ILE:O	1.96	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:1:24:ALA:HB2	2:1:32:LYS:NZ	2.11	0.65
29:V:19:LYS:HG2	29:V:94:LEU:CB	2.25	0.65
33:Z:109:ALA:HB3	33:Z:144:LEU:O	1.96	0.65
11:A:1799:G:H5'	11:A:1819:A:H61	1.61	0.65
30:W:65:LEU:HD23	30:W:68:ARG:HD2	1.79	0.65
2:1:3:LYS:HD3	11:A:1364:G:N7	2.12	0.65
11:A:1796:U:H2'	11:A:1797:C:C6	2.31	0.65
11:A:691:C:O2'	11:A:692:C:H5'	1.96	0.65
18:H:67:LEU:HG	18:H:71:LEU:CD1	2.26	0.65
16:F:171:PRO:O	16:F:173:VAL:N	2.30	0.65
32:Y:14:LEU:HD13	32:Y:24:VAL:HG22	1.78	0.65
11:A:328:U:H4'	32:Y:68:HIS:CE1	2.31	0.65
32:Y:7:VAL:HG21	32:Y:8:LYS:NZ	2.10	0.65
32:Y:96:ILE:HD11	32:Y:99:CYS:SG	2.36	0.65
11:A:864:G:H1'	11:A:914:C:N4	2.12	0.65
33:Z:77:ASP:O	33:Z:78:LYS:HB2	1.97	0.65
11:A:1673:U:O2	11:A:1675:C:H5'	1.96	0.65
11:A:380:U:H2'	11:A:381:G:C8	2.32	0.65
11:A:519:U:H5''	30:W:25:ARG:NH1	2.12	0.65
7:6:15:GLU:OE1	7:6:18:ARG:NE	2.30	0.65
13:C:147:PHE:C	13:C:149:ILE:N	2.48	0.65
15:E:83:ASP:O	15:E:84:PHE:HB2	1.95	0.65
11:A:2787:C:O2	11:A:2787:C:H2'	1.97	0.65
27:T:56:GLY:O	27:T:59:THR:HG23	1.97	0.65
11:A:1902:C:H1'	14:D:244:ARG:NE	2.12	0.65
28:U:79:PHE:O	28:U:83:LEU:HD13	1.97	0.65
11:A:2113:U:H2'	11:A:2114:A:C8	2.31	0.65
12:B:20:C:H2'	12:B:21:G:C5'	2.25	0.65
17:G:107:LEU:O	17:G:111:LEU:HD11	1.97	0.65
23:P:131:SER:OG	23:P:134:ALA:HB3	1.96	0.65
30:W:27:LYS:O	30:W:70:TYR:HB2	1.97	0.65
30:W:82:LEU:HB3	30:W:84:ARG:NH1	2.12	0.65
11:A:2317:C:C2'	11:A:2318:G:H5'	2.26	0.65
9:8:8:LYS:HA	9:8:11:LYS:HB3	1.77	0.65
2:1:44:PRO:O	2:1:46:LEU:N	2.30	0.65
15:E:4:ILE:O	15:E:5:LEU:HD23	1.97	0.65
33:Z:151:HIS:HA	33:Z:171:ILE:HD11	1.77	0.65
21:N:42:TRP:CZ2	21:N:44:PRO:HA	2.32	0.65
14:D:166:GLN:HB3	14:D:174:ILE:HB	1.79	0.65
11:A:2023:G:H4'	11:A:2617:C:O3'	1.97	0.65
5:4:16:CYS:SG	5:4:17:GLY:N	2.70	0.65
11:A:612:C:C2'	11:A:613:G:H5''	2.27	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:216:A:O2'	11:A:217:G:H5'	1.96	0.65
11:A:1326:U:H2'	11:A:1327:C:C6	2.31	0.65
2:1:71:TYR:HA	2:1:74:VAL:CG2	2.26	0.65
1:0:19:LYS:O	1:0:21:LEU:HG	1.96	0.65
23:P:135:LEU:O	23:P:135:LEU:HD13	1.97	0.65
11:A:1858:G:H1'	11:A:1884:A:N6	2.11	0.65
11:A:344:G:H3'	11:A:344:G:OP2	1.96	0.65
16:F:178:PRO:HB2	16:F:201:VAL:HG11	1.76	0.65
9:8:23:VAL:HG13	9:8:47:LYS:O	1.96	0.65
11:A:2180:U:H2'	11:A:2181:G:C8	2.32	0.65
11:A:1423:G:H2'	11:A:1424:G:C8	2.31	0.65
13:C:215:THR:OG1	13:C:216:THR:N	2.29	0.65
24:Q:45:GLN:HE21	24:Q:45:GLN:H	1.41	0.65
2:1:25:LYS:CB	11:A:388:G:H5'	2.27	0.65
30:W:72:LYS:HE2	30:W:108:GLY:HA3	1.77	0.65
11:A:736:C:H42	11:A:760:G:H1	1.43	0.65
30:W:29:LEU:O	30:W:33:ARG:HG3	1.96	0.65
28:U:20:LEU:HD22	28:U:20:LEU:H	1.62	0.65
3:2:38:GLN:CB	3:2:44:LEU:HD22	2.27	0.65
11:A:2619:C:O2'	11:A:2620:C:H5'	1.96	0.65
11:A:2875:C:H4'	27:T:5:ALA:CB	2.26	0.65
21:N:62:VAL:CG2	21:N:66:LYS:HD2	2.25	0.65
11:A:1409:C:H2'	11:A:1410:G:H8	1.62	0.65
11:A:1326:U:H2'	11:A:1327:C:H6	1.61	0.65
11:A:963:U:H2'	11:A:964:C:C6	2.31	0.65
11:A:302:C:H42	11:A:315:G:H1	1.45	0.65
24:Q:79:LEU:HD23	24:Q:80:GLU:N	2.12	0.65
9:8:10:ALA:HA	9:8:13:ARG:CG	2.19	0.65
11:A:667:U:H2'	11:A:668:G:O4'	1.96	0.65
11:A:76:C:H2'	11:A:77:C:C6	2.31	0.65
11:A:2334:G:H5'	26:S:13:ARG:HD3	1.78	0.65
1:0:77:ARG:NH2	11:A:857:C:H5'	2.10	0.65
17:G:130:ASN:OD1	17:G:163:ALA:HB3	1.97	0.65
17:G:125:PHE:HZ	17:G:173:LEU:HD12	1.60	0.65
21:N:23:LEU:HD12	21:N:102:ALA:CB	2.27	0.65
14:D:140:THR:O	14:D:165:ILE:HG12	1.97	0.65
5:4:16:CYS:HB2	5:4:36:CYS:SG	2.36	0.65
11:A:272(I):U:H2'	11:A:272(J):C:H5'	1.78	0.65
11:A:8:A:H2'	11:A:9:U:C5	2.32	0.65
23:P:84:ASN:C	23:P:86:LYS:N	2.50	0.65
8:7:18:PHE:CZ	11:A:117:G:H4'	2.32	0.65
11:A:686:G:H21	11:A:788:A:H61	1.45	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2053:G:C2	11:A:2054:A:H1'	2.31	0.65
7:6:14:THR:CG2	7:6:50:ARG:HB2	2.26	0.64
9:8:7:HIS:O	9:8:11:LYS:HB2	1.97	0.64
23:P:23:PRO:HD2	23:P:33:ARG:HH21	1.62	0.64
24:Q:51:ARG:O	24:Q:55:VAL:HG12	1.96	0.64
11:A:1208:C:H2'	11:A:1209:G:C8	2.30	0.64
17:G:27:ASN:ND2	17:G:29:TRP:HB2	2.12	0.64
17:G:4:ASP:HA	17:G:8:LYS:HG2	1.78	0.64
29:V:62:LEU:HD21	29:V:95:LEU:HB2	1.79	0.64
23:P:86:LYS:HB3	23:P:86:LYS:HZ3	1.62	0.64
11:A:2580:U:C5	11:A:2581:G:C6	2.84	0.64
1:0:70:GLN:NE2	1:0:80:HIS:HE2	1.95	0.64
11:A:1718:G:H8	11:A:1718:G:H5'	1.62	0.64
13:C:43:VAL:HG21	13:C:175:VAL:HG21	1.78	0.64
11:A:2790:A:H2	11:A:2791:C:H2'	1.61	0.64
11:A:845:G:OP2	11:A:845:G:H8	1.79	0.64
11:A:673:C:H6	11:A:673:C:H5'	1.62	0.64
31:X:12:VAL:CB	31:X:17:ALA:HB1	2.17	0.64
16:F:110:LEU:HD13	16:F:111:ALA:N	2.12	0.64
16:F:122:LYS:H	16:F:122:LYS:HE3	1.63	0.64
11:A:92:A:O2'	11:A:93:G:H5'	1.97	0.64
11:A:628:G:C2'	11:A:629:G:H5''	2.27	0.64
11:A:2814:C:H2'	11:A:2815:C:C6	2.30	0.64
24:Q:43:THR:C	24:Q:45:GLN:HE21	2.00	0.64
17:G:111:LEU:O	17:G:114:ILE:HG22	1.98	0.64
11:A:2131:G:H4'	11:A:2132:U:OP2	1.95	0.64
11:A:1018:C:H2'	11:A:1019:U:C6	2.32	0.64
11:A:272(D):G:H2'	11:A:272(E):G:C8	2.33	0.64
11:A:271(B):C:H42	11:A:271(W):G:N2	1.94	0.64
23:P:122:PRO:HB3	23:P:141:ALA:HB1	1.79	0.64
33:Z:17:ALA:HA	33:Z:20:ARG:HG2	1.79	0.64
11:A:2173:A:H3'	11:A:2173:A:N3	2.11	0.64
7:6:22:ALA:HB2	7:6:39:TYR:CE2	2.32	0.64
11:A:1817:G:C2'	11:A:1818:U:H5'	2.28	0.64
13:C:134:ARG:O	13:C:136:LEU:N	2.30	0.64
11:A:657:U:H2'	11:A:658:C:C6	2.32	0.64
18:H:68:THR:HA	18:H:71:LEU:HB2	1.79	0.64
15:E:47:VAL:CG2	15:E:85:ASN:HA	2.26	0.64
16:F:61:GLY:O	16:F:62:ARG:C	2.35	0.64
7:6:7:ILE:O	7:6:27:LYS:HD2	1.97	0.64
23:P:102:ARG:HH21	23:P:102:ARG:HB2	1.61	0.64
23:P:126:VAL:HG13	23:P:145:PRO:HB2	1.79	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:142:A:H5''	11:A:142(A):C:H5	1.61	0.64
11:A:266:G:C2'	11:A:267:C:H5''	2.23	0.64
11:A:2134:A:N6	11:A:2157:G:H1'	2.11	0.64
13:C:152:ILE:O	13:C:155:GLU:HG3	1.98	0.64
12:B:94:C:O2'	12:B:95:C:H5'	1.98	0.64
11:A:2290:G:N2	11:A:2343:C:H1'	2.12	0.64
11:A:2821:A:H61	25:R:4:LEU:HD23	1.62	0.64
2:1:45:ASN:HD22	2:1:45:ASN:C	2.00	0.64
21:N:111:PRO:HG3	21:N:114:ARG:NH2	2.13	0.64
18:H:19:VAL:HG12	18:H:20:ALA:N	2.12	0.64
11:A:473:G:H5''	11:A:508:G:N2	2.13	0.64
11:A:30:G:H2'	11:A:31:C:C6	2.33	0.64
11:A:2854:G:H2'	11:A:2855:C:H6	1.63	0.64
11:A:1023:U:O2'	11:A:1122:G:H5''	1.97	0.64
7:6:36:LEU:HD23	7:6:36:LEU:C	2.18	0.64
11:A:252:G:H2'	11:A:253:C:C6	2.32	0.64
23:P:7:ARG:HB3	23:P:8:PRO:CD	2.28	0.64
11:A:2785:C:H2'	11:A:2786:U:C6	2.31	0.64
31:X:49:VAL:HB	31:X:87:GLN:NE2	2.13	0.64
11:A:83:G:N2	11:A:102:G:H2'	2.12	0.64
17:G:137:GLU:O	17:G:154:GLY:HA2	1.98	0.64
11:A:479:A:HO2'	11:A:481:G:H8	1.45	0.64
11:A:1416:G:H1'	11:A:1417:C:C5	2.32	0.64
11:A:2331:G:N2	11:A:2385:C:C4	2.66	0.64
3:2:64:LEU:O	3:2:68:ARG:HB2	1.97	0.64
16:F:137:LYS:HA	16:F:140:LEU:HB2	1.80	0.64
11:A:1640:C:O2'	11:A:1641:A:H5'	1.97	0.64
21:N:132:ALA:O	21:N:133:GLN:HB2	1.96	0.64
11:A:1390:U:H3	11:A:1395:A:H62	1.44	0.64
11:A:2114:A:H2'	11:A:2115:G:H5'	1.77	0.64
18:H:86:GLU:OE2	18:H:86:GLU:N	2.31	0.64
11:A:2715:C:H2'	11:A:2716:U:H6	1.61	0.64
15:E:30:PRO:HD3	15:E:180:ASN:HD21	1.61	0.64
11:A:2689:U:H4'	11:A:2690:C:C6	2.33	0.64
31:X:10:ALA:HB3	31:X:29:TRP:HD1	1.63	0.64
11:A:1824:G:N3	14:D:254:THR:OG1	2.31	0.64
15:E:36:ARG:HH22	15:E:88:GLY:HA2	1.62	0.64
27:T:90:GLN:O	27:T:92:GLY:N	2.31	0.64
12:B:24:G:O6	12:B:56:G:H2'	1.97	0.64
17:G:174:GLU:HA	17:G:180:PHE:HE1	1.62	0.64
17:G:29:TRP:HA	17:G:29:TRP:HE3	1.62	0.64
2:1:8:SER:CB	2:1:10:LYS:HG3	2.28	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:39:LEU:HA	29:V:47:VAL:CG1	2.28	0.64
11:A:428:A:H2'	11:A:428:A:N3	2.13	0.64
11:A:2152:G:O2'	11:A:2153:G:H5'	1.98	0.64
11:A:2485:G:O2'	11:A:2486:G:H5'	1.98	0.64
11:A:1169:G:H1	11:A:1180:C:H42	1.45	0.64
11:A:1184:G:C2'	11:A:1185:C:H5'	2.28	0.64
32:Y:2:ARG:HD3	32:Y:3:VAL:HG23	1.79	0.64
11:A:2721:A:H2'	11:A:2722:G:C8	2.32	0.64
21:N:57:ALA:HB2	21:N:123:TYR:O	1.97	0.64
2:1:70:VAL:HA	2:1:73:LEU:HD12	1.79	0.64
11:A:359:A:H2'	11:A:360:G:O4'	1.98	0.64
11:A:370:G:H2'	11:A:423:A:N7	2.13	0.64
11:A:631:A:H1'	11:A:2415:G:O2'	1.98	0.64
14:D:34:VAL:C	14:D:36:PRO:HD2	2.18	0.64
3:2:68:ARG:NH2	3:2:72:ALA:HB1	2.12	0.64
21:N:126:PRO:O	21:N:127:ASP:HB2	1.97	0.64
2:1:45:ASN:HB2	11:A:2230:G:H1'	1.80	0.64
11:A:2110:G:H22	11:A:2178:C:N4	1.92	0.64
14:D:149:PRO:HG3	14:D:186:HIS:CD2	2.32	0.64
11:A:612:C:O2'	11:A:613:G:H5''	1.97	0.64
23:P:134:ALA:HB2	23:P:137:LYS:HZ2	1.63	0.64
11:A:1341:U:H4'	31:X:57:LEU:HB3	1.79	0.64
30:W:62:HIS:O	30:W:64:MET:HG3	1.98	0.64
11:A:287:C:H2'	11:A:288:C:H6	1.63	0.64
24:Q:18:LYS:HB3	24:Q:98:LYS:NZ	2.13	0.64
33:Z:117:LEU:HD11	33:Z:172:ALA:HB1	1.80	0.64
26:S:11:LYS:HD2	26:S:11:LYS:N	2.12	0.64
11:A:2291:U:H3	11:A:2341:G:H1	1.45	0.64
9:8:26:LYS:NZ	11:A:2361:A:OP2	2.30	0.64
28:U:9:VAL:O	28:U:13:LYS:HE2	1.98	0.64
14:D:26:LYS:O	14:D:27:THR:HB	1.97	0.64
11:A:2469:A:H1'	11:A:2482:G:C5	2.32	0.64
33:Z:151:HIS:HA	33:Z:171:ILE:CD1	2.28	0.64
33:Z:28:MET:O	33:Z:29:TYR:HB3	1.98	0.64
11:A:856:C:H2'	11:A:857:C:C6	2.33	0.64
11:A:2179:C:H4'	11:A:2180:U:O5'	1.96	0.64
11:A:2189:U:H2'	11:A:2190:G:H4'	1.79	0.64
11:A:2137:C:N4	11:A:2154:G:H22	1.96	0.64
11:A:1223:G:N2	11:A:1225:G:H3'	2.13	0.64
11:A:1132:A:H2'	11:A:1133:U:H6	1.63	0.64
21:N:75:TYR:HA	21:N:82:LEU:HA	1.80	0.64
4:3:56:VAL:HG12	4:3:57:GLU:N	2.12	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2073:C:H4'	14:D:228:PRO:HB2	1.80	0.64
11:A:435:C:O2'	11:A:436:C:H5'	1.98	0.64
11:A:916:G:O2'	11:A:917:A:H5''	1.98	0.64
12:B:60:C:H2'	12:B:61:G:H8	1.63	0.64
11:A:2761:G:H1'	18:H:143:GLN:OE1	1.98	0.64
17:G:55:LYS:O	17:G:58:GLN:HG3	1.97	0.64
15:E:23:VAL:HA	15:E:184:VAL:O	1.98	0.64
33:Z:133:ILE:N	33:Z:134:PRO:CD	2.61	0.64
33:Z:163:LEU:HD11	33:Z:165:VAL:HG23	1.80	0.64
23:P:16:ARG:HD3	23:P:18:ARG:H	1.63	0.64
11:A:1549:C:C2'	11:A:1550:C:H5'	2.28	0.64
11:A:271(Z):C:O2	11:A:272(C):G:H1'	1.98	0.64
21:N:6:PRO:O	21:N:9:VAL:HG23	1.98	0.64
11:A:391:G:C2'	11:A:392:C:H5'	2.29	0.64
1:0:19:LYS:HB3	1:0:21:LEU:HD21	1.79	0.64
29:V:36:PRO:HA	29:V:56:SER:CB	2.27	0.64
11:A:1186:G:H2'	11:A:1187:G:O4'	1.98	0.64
11:A:821:A:H5''	11:A:822:U:H6	1.63	0.64
7:6:35:GLU:HG2	7:6:51:GLU:HG3	1.80	0.63
28:U:9:VAL:HG23	28:U:10:ARG:H	1.63	0.63
31:X:12:VAL:CG2	31:X:13:LEU:N	2.48	0.63
31:X:20:GLY:O	31:X:25:LYS:HB2	1.98	0.63
3:2:68:ARG:HH22	3:2:72:ALA:HB1	1.63	0.63
16:F:175:THR:O	16:F:176:LEU:HD12	1.98	0.63
15:E:202:LYS:N	15:E:202:LYS:HD2	2.12	0.63
22:O:64:ARG:NE	27:T:70:VAL:HG21	2.12	0.63
22:O:2:ILE:CD1	22:O:82:ASN:ND2	2.55	0.63
24:Q:140:ALA:HB1	33:Z:99:TYR:HB2	1.79	0.63
33:Z:58:VAL:HG13	33:Z:67:LEU:C	2.18	0.63
17:G:9:ARG:C	17:G:11:TYR:H	1.99	0.63
11:A:1789:A:OP1	14:D:222:ARG:HG3	1.98	0.63
28:U:92:ARG:HH22	29:V:10:LYS:CB	2.12	0.63
17:G:47:LYS:O	17:G:51:ARG:HB2	1.98	0.63
11:A:639:U:H2'	11:A:640:C:C6	2.33	0.63
8:7:26:GLY:O	8:7:30:VAL:HG23	1.98	0.63
11:A:242:G:N2	11:A:254:G:H2'	2.13	0.63
11:A:90:U:O2'	11:A:92:A:H5''	1.98	0.63
11:A:2454:G:O2'	11:A:2455:G:H5'	1.98	0.63
11:A:2850:A:H2	25:R:61:HIS:CD2	2.15	0.63
11:A:2310:A:O2'	11:A:2311:A:H5''	1.97	0.63
11:A:1541:G:H1'	11:A:1542:A:N9	2.12	0.63
15:E:120:TRP:HB3	15:E:155:LYS:HE3	1.80	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:786:C:O2'	11:A:787:U:H5'	1.98	0.63
11:A:988:A:H8	11:A:988:A:O5'	1.81	0.63
14:D:210:GLY:HA2	14:D:213:ARG:HB2	1.79	0.63
13:C:58:VAL:HG22	13:C:201:PRO:CD	2.28	0.63
11:A:2360:A:O2'	11:A:2361:A:O4'	2.16	0.63
23:P:9:ASN:H	23:P:10:PRO:CD	2.04	0.63
17:G:60:LEU:HD22	17:G:63:ILE:CD1	2.28	0.63
23:P:92:GLU:HA	23:P:123:LEU:HD13	1.80	0.63
27:T:28:VAL:CG2	27:T:47:GLY:N	2.60	0.63
33:Z:51:ALA:HB1	33:Z:57:ILE:HD11	1.78	0.63
32:Y:14:LEU:HD12	32:Y:23:ARG:O	1.98	0.63
10:9:27:CYS:SG	10:9:28:GLU:N	2.70	0.63
2:1:43:TYR:HB2	11:A:2230:G:O3'	1.99	0.63
11:A:729:G:H2'	11:A:1775:U:O2	1.99	0.63
11:A:1902:C:O4'	14:D:244:ARG:HG3	1.99	0.63
21:N:26:LEU:HG	21:N:27:ALA:N	2.12	0.63
11:A:2111:C:H42	11:A:2145:C:H2'	1.62	0.63
11:A:2777:G:C4'	11:A:2778:A:H5'	2.29	0.63
11:A:761:A:O5'	11:A:761:A:C8	2.52	0.63
14:D:4:LYS:HZ1	14:D:20:ASP:HA	1.64	0.63
11:A:2092:U:C4'	11:A:2093:G:H5''	2.27	0.63
2:1:13:ILE:HD11	11:A:396:G:C5'	2.09	0.63
16:F:123:LEU:HD12	16:F:124:LEU:H	1.60	0.63
11:A:2476:A:C2'	11:A:2477:C:H5''	2.29	0.63
15:E:82:ARG:HG3	15:E:82:ARG:NH1	2.14	0.63
22:O:72:PRO:C	22:O:74:GLY:N	2.51	0.63
33:Z:24:LEU:C	33:Z:24:LEU:HD23	2.18	0.63
11:A:1024:G:H3'	11:A:1025:G:C5'	2.22	0.63
11:A:337:C:H3'	11:A:338:G:H5''	1.81	0.63
21:N:33:LEU:N	21:N:33:LEU:HD12	2.13	0.63
14:D:73:VAL:HG13	14:D:120:GLY:HA2	1.80	0.63
13:C:100:ILE:HG23	13:C:127:LEU:CG	2.29	0.63
32:Y:86:ARG:HB3	32:Y:88:LYS:HZ1	1.61	0.63
11:A:1367:A:H2'	11:A:1368:G:H5'	1.78	0.63
23:P:45:LEU:HD22	23:P:46:LYS:H	1.64	0.63
11:A:925:C:C3'	11:A:926:A:H5''	2.28	0.63
16:F:154:VAL:HG11	16:F:193:VAL:CG2	2.26	0.63
33:Z:99:TYR:HA	33:Z:124:ILE:O	1.98	0.63
33:Z:51:ALA:HA	33:Z:55:HIS:HD2	1.63	0.63
33:Z:58:VAL:O	33:Z:59:LEU:HD23	1.99	0.63
11:A:1132:A:C2	21:N:73:THR:HG21	2.33	0.63
30:W:12:ILE:CB	30:W:42:ARG:HH12	2.12	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:Z:105:VAL:O	33:Z:141:VAL:HG23	1.98	0.63
4:3:59:VAL:CG1	4:3:60:GLU:N	2.60	0.63
15:E:97:LYS:O	15:E:100:GLU:HG3	1.97	0.63
7:6:16:CYS:SG	7:6:48:VAL:CG2	2.87	0.63
11:A:1215:G:H5''	28:U:12:ARG:NH2	2.14	0.63
11:A:1859:A:N6	11:A:1883:G:O2'	2.31	0.63
3:2:22:GLU:HG2	3:2:64:LEU:HD11	1.79	0.63
11:A:749:C:O2	11:A:1618:A:H2'	1.98	0.63
27:T:52:ILE:HA	27:T:61:PHE:HA	1.79	0.63
11:A:1405:U:H2'	11:A:1406:U:C6	2.33	0.63
32:Y:10:GLY:C	32:Y:27:VAL:HG13	2.19	0.63
16:F:127:GLU:HB2	16:F:196:LEU:HD12	1.79	0.63
11:A:2589:A:H2'	11:A:2590:A:H8	1.63	0.63
31:X:65:ARG:HG2	31:X:65:ARG:HH11	1.63	0.63
11:A:1551:C:H2'	11:A:1552:G:H5'	1.80	0.63
18:H:122:THR:O	18:H:133:VAL:HG13	1.99	0.63
11:A:2802:G:H3'	11:A:2803:C:C5'	2.27	0.63
11:A:407:G:H2'	11:A:408:G:C8	2.28	0.63
18:H:153:LYS:N	18:H:153:LYS:HD3	2.13	0.63
21:N:61:ARG:HG3	21:N:61:ARG:HH11	1.64	0.63
11:A:953:A:H2'	11:A:954:G:H8	1.62	0.63
11:A:489:G:H1'	11:A:1284:A:C5	2.34	0.63
2:1:14:VAL:HG13	2:1:40:ARG:O	1.98	0.63
15:E:196:VAL:HG23	15:E:196:VAL:O	1.98	0.63
25:R:63:ARG:HG2	25:R:80:PHE:CE2	2.32	0.63
16:F:70:THR:HG22	16:F:72:ARG:HG2	1.80	0.63
11:A:2305:A:H1'	17:G:136:ARG:CG	2.29	0.63
13:C:40:THR:HG22	13:C:176:GLY:O	1.98	0.63
11:A:612:C:C2'	11:A:613:G:C5'	2.76	0.63
11:A:2352:A:C2'	11:A:2353:G:H5'	2.28	0.63
15:E:9:VAL:HG22	15:E:9:VAL:O	1.97	0.63
11:A:2687:U:C5	11:A:2688:U:C5	2.86	0.63
16:F:101:LEU:CD1	16:F:102:PRO:HD2	2.29	0.63
16:F:184:TYR:CE1	23:P:7:ARG:NH2	2.67	0.63
11:A:2540:C:O2'	11:A:2541:A:H5'	1.99	0.63
6:5:5:PRO:HA	11:A:2056:G:N2	2.14	0.63
27:T:48:ILE:HD12	27:T:64:ARG:O	1.99	0.63
33:Z:53:ILE:HG23	33:Z:71:VAL:HB	1.80	0.63
32:Y:73:ARG:HB3	32:Y:80:GLY:HA3	1.81	0.63
11:A:445:C:H2'	11:A:446:G:O4'	1.98	0.63
11:A:729:G:C5	14:D:208:LYS:HB2	2.34	0.63
28:U:90:VAL:O	28:U:92:ARG:N	2.32	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:20:ALA:CB	18:H:23:ARG:HB2	2.24	0.63
11:A:1448:G:H2'	11:A:1449:A:C8	2.34	0.63
24:Q:36:ALA:C	24:Q:37:LEU:HD23	2.18	0.63
31:X:56:THR:HG22	31:X:79:ALA:HB1	1.80	0.63
11:A:944:G:H22	23:P:38:GLN:NE2	1.97	0.63
20:K:86:UNK:O	20:K:87:UNK:CB	2.46	0.63
11:A:2403:C:N4	11:A:2414:G:H1	1.93	0.63
32:Y:46:LYS:C	32:Y:47:LYS:HG3	2.19	0.63
16:F:36:VAL:O	16:F:39:TRP:HB3	1.99	0.63
3:2:35:LEU:HD13	3:2:36:ARG:N	2.14	0.63
16:F:178:PRO:CB	16:F:201:VAL:HG11	2.29	0.63
25:R:10:LEU:HD22	25:R:17:ARG:NE	2.12	0.63
17:G:58:GLN:HE22	17:G:62:LEU:HD11	1.62	0.63
12:B:37:C:O2	26:S:95:HIS:NE2	2.31	0.63
23:P:91:PHE:CE2	23:P:95:VAL:HG12	2.34	0.63
11:A:141:A:H8	11:A:1408:C:HO2'	1.47	0.63
11:A:1999:C:H2'	11:A:2000:G:C8	2.34	0.63
12:B:55:U:H2'	12:B:56:G:H8	1.60	0.63
21:N:36:GLY:H	21:N:49:GLY:HA2	1.62	0.63
29:V:38:LEU:HD23	29:V:39:LEU:N	2.14	0.63
31:X:65:ARG:CG	31:X:66:LEU:H	2.05	0.63
12:B:8:U:H3	12:B:113:G:H1	1.46	0.63
11:A:718:A:H2'	11:A:719:C:H5'	1.81	0.63
27:T:53:ARG:HH11	27:T:53:ARG:CB	2.11	0.63
11:A:1345:C:C2'	11:A:1346:G:H5'	2.29	0.63
11:A:2553:G:H2'	11:A:2554:U:C4'	2.29	0.63
15:E:9:VAL:HG13	15:E:25:VAL:HB	1.79	0.63
20:K:32:UNK:HA	20:K:63:UNK:O	1.98	0.63
11:A:966:G:H2'	11:A:967:C:C6	2.33	0.63
25:R:18:LEU:HD13	25:R:19:ALA:N	2.14	0.63
11:A:1431:U:O2'	11:A:1432:C:H5'	1.99	0.63
11:A:2667:C:H2'	11:A:2668:G:O4'	1.99	0.63
11:A:1803:A:O3'	14:D:259:THR:CG2	2.47	0.62
10:9:1:MET:SD	11:A:2477:C:H3'	2.40	0.62
11:A:747:U:O3'	30:W:89:ALA:HB2	1.99	0.62
17:G:63:ILE:HG13	17:G:64:THR:HG22	1.80	0.62
11:A:2726:U:H5'	11:A:2726:U:O2	1.98	0.62
22:O:64:ARG:O	22:O:82:ASN:HA	1.99	0.62
27:T:32:TYR:CD2	27:T:32:TYR:N	2.67	0.62
33:Z:9:TYR:CE2	33:Z:61:LEU:HD13	2.34	0.62
32:Y:84:ARG:NH2	32:Y:97:ARG:HB2	2.13	0.62
17:G:171:ALA:O	17:G:175:LEU:HG	1.99	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:18:C:O2'	11:A:554:U:H5''	1.99	0.62
17:G:52:ILE:HD13	17:G:52:ILE:N	2.09	0.62
30:W:12:ILE:CD1	30:W:42:ARG:NH1	2.60	0.62
11:A:1341:U:O2	11:A:1398:C:H5'	1.98	0.62
11:A:1183:G:H2'	11:A:1184:G:H8	1.62	0.62
2:1:94:LEU:O	2:1:95:LEU:C	2.37	0.62
11:A:410:G:N2	11:A:2407:G:C5	2.67	0.62
11:A:520:G:H2'	11:A:521:G:C8	2.33	0.62
11:A:2367:G:O2'	11:A:2368:C:H5'	1.98	0.62
11:A:2085:C:O2'	11:A:2086:U:H5'	1.99	0.62
31:X:10:ALA:HB1	31:X:11:PRO:HD2	1.81	0.62
14:D:24:ILE:HD13	14:D:25:THR:N	2.13	0.62
3:2:10:LEU:HD23	3:2:14:ARG:HG3	1.80	0.62
3:2:35:LEU:HD21	3:2:50:ILE:CG1	2.30	0.62
6:5:3:LYS:HD3	11:A:747:U:OP1	1.99	0.62
11:A:2455:G:O2'	11:A:2456:C:H5'	1.99	0.62
3:2:2:LYS:HD2	3:2:5:GLU:CD	2.19	0.62
1:0:58:THR:HG22	1:0:59:LEU:N	2.14	0.62
11:A:2134:A:H61	11:A:2157:G:H1'	1.64	0.62
11:A:1605:C:C2'	11:A:1606:G:H5'	2.29	0.62
11:A:1409:C:H2'	11:A:1410:G:C8	2.34	0.62
11:A:1328:G:C2	11:A:1647:G:N2	2.67	0.62
2:1:88:LYS:HD3	2:1:88:LYS:O	1.99	0.62
11:A:2096:U:O2'	11:A:2097:C:H5'	1.99	0.62
15:E:108:SER:O	15:E:162:ALA:HA	1.99	0.62
11:A:637:A:H4'	11:A:638:G:O5'	1.98	0.62
9:8:8:LYS:HG2	9:8:11:LYS:CD	2.29	0.62
28:U:20:LEU:CD2	28:U:20:LEU:H	2.12	0.62
14:D:65:ILE:CD1	14:D:65:ILE:N	2.58	0.62
16:F:33:LEU:HD11	16:F:113:ALA:HB2	1.80	0.62
18:H:41:MET:HG3	18:H:42:ARG:O	1.99	0.62
11:A:2762:G:C8	11:A:2762:G:H5'	2.31	0.62
11:A:2762:G:H2'	11:A:2763:G:H5'	1.80	0.62
16:F:61:GLY:HA2	16:F:77:ASP:HB3	1.82	0.62
15:E:81:ILE:O	15:E:81:ILE:HG22	1.99	0.62
31:X:35:THR:HG22	31:X:37:THR:N	2.09	0.62
12:B:82:G:H2'	12:B:83:G:C8	2.33	0.62
16:F:65:TRP:CZ3	16:F:75:HIS:CD2	2.87	0.62
29:V:39:LEU:HA	29:V:47:VAL:HG11	1.79	0.62
17:G:85:GLY:C	17:G:87:PRO:HD3	2.19	0.62
11:A:1543:C:C3'	11:A:1544:A:H5''	2.25	0.62
15:E:132:HIS:HA	15:E:135:HIS:HE1	1.62	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:92:ILE:O	18:H:94:TYR:N	2.31	0.62
11:A:2162:G:O2'	11:A:2163:C:H5'	1.99	0.62
14:D:45:ASN:CG	14:D:46:GLN:H	2.02	0.62
11:A:1229:G:H2'	11:A:1230:C:O4'	1.98	0.62
31:X:56:THR:HG22	31:X:79:ALA:HB2	1.81	0.62
8:7:30:VAL:HG11	11:A:466:A:H4'	1.80	0.62
20:K:90:UNK:HA	33:Z:112:ARG:HH22	1.62	0.62
11:A:2562:U:H2'	11:A:2563:U:H5'	1.80	0.62
11:A:245:G:N2	11:A:254:G:H1'	2.14	0.62
11:A:2472:G:H2'	11:A:2475:C:H42	1.63	0.62
11:A:298:G:N2	11:A:339:U:C5	2.66	0.62
25:R:12:ARG:HB3	25:R:16:HIS:CD2	2.34	0.62
15:E:57:LYS:HE2	15:E:59:VAL:HG12	1.80	0.62
15:E:51:PHE:O	15:E:74:PRO:HB3	1.99	0.62
11:A:628:G:H2'	11:A:629:G:C5'	2.29	0.62
16:F:65:TRP:CZ3	16:F:75:HIS:HD2	2.17	0.62
17:G:125:PHE:CZ	17:G:131:TYR:HD1	2.16	0.62
6:5:45:VAL:HG13	6:5:51:TYR:HB2	1.81	0.62
11:A:1465:G:H5'	11:A:1528:A:C8	2.35	0.62
11:A:1659:U:OP2	15:E:132:HIS:HE1	1.81	0.62
11:A:2485:G:H5''	24:Q:46:GLN:HE21	1.63	0.62
11:A:2125:G:H5'	13:C:40:THR:OG1	1.99	0.62
11:A:782:A:H5'	11:A:783:A:C2	2.34	0.62
11:A:1064:C:H42	11:A:1074:G:H1	1.47	0.62
12:B:87:G:O5'	12:B:87:G:H8	1.82	0.62
25:R:21:TYR:HB3	25:R:47:PHE:CE2	2.33	0.62
9:8:3:LYS:HD3	11:A:242:G:C5'	2.29	0.62
14:D:32:SER:O	14:D:36:PRO:HG3	2.00	0.62
13:C:71:GLN:HE22	13:C:157:LYS:HD3	1.63	0.62
11:A:2882:A:H5'	25:R:96:ARG:HG3	1.80	0.62
5:4:7:PRO:O	5:4:8:LYS:HB3	1.99	0.62
7:6:8:LYS:HE3	7:6:25:LYS:CD	2.30	0.62
11:A:329:G:N2	32:Y:19:LYS:HE3	2.12	0.62
17:G:27:ASN:O	17:G:29:TRP:N	2.31	0.62
11:A:2187:G:C2'	11:A:2188:C:H5'	2.28	0.62
6:5:16:ARG:NH1	6:5:20:ARG:NH1	2.47	0.62
17:G:45:GLU:C	17:G:47:LYS:H	2.02	0.62
32:Y:43:ASN:O	32:Y:44:ILE:HD12	1.98	0.62
33:Z:107:THR:CG2	33:Z:111:VAL:HG21	2.29	0.62
15:E:142:GLY:C	15:E:143:ASN:HD22	2.02	0.62
21:N:17:ASP:OD1	21:N:19:GLU:HG2	2.00	0.62
31:X:63:LYS:HE2	31:X:72:LYS:HG2	1.82	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
9:8:52:LYS:HG2	23:P:58:THR:HG21	1.78	0.62
23:P:63:PRO:O	23:P:64:LYS:C	2.38	0.62
18:H:41:MET:O	18:H:42:ARG:HB3	1.99	0.62
25:R:28:LEU:O	25:R:30:THR:N	2.33	0.62
17:G:58:GLN:O	17:G:61:ALA:HB3	2.00	0.62
23:P:148:LEU:O	23:P:149:GLU:HB2	2.00	0.62
23:P:16:ARG:CZ	23:P:16:ARG:HB2	2.29	0.62
11:A:1791:A:O3'	14:D:206:LEU:HB2	2.00	0.62
28:U:59:ARG:O	28:U:62:ILE:N	2.31	0.62
11:A:2801(A):A:C4'	11:A:2802:G:H5'	2.29	0.62
29:V:29:PRO:HA	29:V:61:VAL:HG23	1.81	0.62
11:A:122:G:H1	11:A:129:C:N4	1.96	0.62
21:N:96:GLU:OE2	21:N:96:GLU:N	2.33	0.62
11:A:1188:U:H4'	29:V:79:VAL:HG13	1.82	0.62
14:D:273:ARG:HH11	14:D:273:ARG:HG2	1.64	0.62
14:D:70:TRP:CZ3	14:D:150:LYS:HA	2.35	0.62
13:C:76:ALA:HB3	13:C:94:VAL:HG13	1.82	0.62
11:A:1202:C:C2'	11:A:1203:G:H5'	2.28	0.62
3:2:59:ARG:HA	3:2:62:THR:OG1	2.00	0.62
16:F:162:LEU:H	16:F:162:LEU:HD12	1.64	0.62
11:A:2892:A:C8	11:A:2893:G:H1'	2.35	0.62
11:A:1664:A:H61	11:A:1996:C:H42	1.48	0.62
15:E:201:THR:C	15:E:202:LYS:HD2	2.20	0.62
33:Z:27:VAL:HA	33:Z:37:VAL:HG22	1.80	0.62
11:A:2182:G:H2'	11:A:2183:C:C6	2.35	0.62
30:W:36:LEU:CD2	30:W:36:LEU:H	2.06	0.62
32:Y:9:LYS:HE2	32:Y:94:LYS:HE2	1.80	0.62
28:U:66:ASN:HB2	28:U:76:TYR:HB2	1.82	0.62
28:U:66:ASN:CG	28:U:76:TYR:HB2	2.20	0.62
29:V:95:LEU:C	29:V:95:LEU:HD23	2.19	0.62
8:7:11:LYS:NZ	11:A:686:G:H5''	2.14	0.62
12:B:115:G:H2'	12:B:116:G:C8	2.34	0.62
2:1:34:THR:HG22	2:1:35:THR:N	2.14	0.62
11:A:2677:G:H2'	11:A:2678:C:H6	1.65	0.62
32:Y:61:ILE:O	32:Y:62:GLU:HB2	2.00	0.62
11:A:1855:G:H2'	11:A:1856:G:H8	1.63	0.62
33:Z:24:LEU:HD23	33:Z:25:PRO:N	2.15	0.62
11:A:2444:G:P	16:F:68:LYS:HE3	2.40	0.62
11:A:2833:G:C3'	11:A:2834:G:C5'	2.70	0.62
17:G:28:VAL:O	17:G:28:VAL:HG12	1.99	0.62
11:A:1057:A:H2'	11:A:1058:G:O4'	2.00	0.62
18:H:107:VAL:HG23	18:H:152:ARG:HD3	1.80	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:12:ILE:CG1	30:W:42:ARG:HH12	2.13	0.62
11:A:1783:A:C2	11:A:2587:A:C2	2.88	0.62
1:O:30:VAL:HA	1:O:65:GLY:C	2.20	0.62
11:A:1438:U:H2'	11:A:1439:A:C8	2.34	0.62
11:A:2389:G:H5''	11:A:2390:U:C5'	2.29	0.62
23:P:66:GLY:O	23:P:67:MET:CB	2.47	0.62
3:2:37:PHE:O	3:2:40:SER:HB2	1.99	0.62
25:R:35:THR:HG23	25:R:112:ALA:O	1.99	0.62
5:4:8:LYS:O	5:4:9:LEU:CB	2.48	0.62
33:Z:52:SER:O	33:Z:53:ILE:HG23	1.99	0.62
11:A:328:U:H4'	32:Y:68:HIS:CD2	2.35	0.62
2:1:7:ILE:CG2	2:1:8:SER:N	2.62	0.62
11:A:1775:U:C2'	11:A:1776:G:H5'	2.29	0.62
11:A:1902:C:O2'	14:D:244:ARG:HB2	2.00	0.62
14:D:176:ARG:HG2	14:D:176:ARG:HH11	1.65	0.62
14:D:69:ARG:NH2	14:D:192:THR:HB	2.15	0.62
11:A:1068:G:H1'	11:A:1069:A:OP2	1.99	0.62
13:C:98:GLU:C	13:C:100:ILE:N	2.53	0.62
32:Y:88:LYS:O	32:Y:89:PHE:HB2	1.99	0.62
13:C:40:THR:HG23	13:C:177:LYS:CD	2.30	0.62
13:C:120:MET:O	13:C:123:VAL:HG12	1.99	0.62
15:E:126:PRO:O	15:E:128:SER:N	2.32	0.62
11:A:2413:G:H2'	11:A:2414:G:H8	1.65	0.62
23:P:24:GLY:CA	23:P:33:ARG:NH1	2.63	0.62
18:H:52:VAL:HG21	18:H:69:ARG:CB	2.29	0.62
15:E:47:VAL:HG21	15:E:86:PRO:CD	2.29	0.62
17:G:143:GLU:O	17:G:144:ILE:C	2.39	0.62
6:5:40:LYS:HD3	6:5:44:THR:HB	1.80	0.62
11:A:523:C:H2'	11:A:524:U:C5'	2.26	0.62
11:A:1093:G:H4'	18:H:170:ARG:HH12	1.63	0.62
11:A:2024:G:H2'	11:A:2025:C:O4'	2.00	0.62
11:A:1169:G:H1	11:A:1180:C:N4	1.98	0.62
11:A:2226:C:H2'	11:A:2227:A:O4'	2.00	0.62
11:A:547:A:H2'	11:A:548:A:C8	2.34	0.62
13:C:106:GLY:O	13:C:107:TRP:CB	2.47	0.62
11:A:34:C:H41	11:A:447:A:N6	1.98	0.62
11:A:869:G:O2'	11:A:870:A:H5'	2.00	0.62
11:A:2605:U:H2'	11:A:2606:C:C6	2.35	0.62
11:A:669:G:N2	11:A:670:A:C2	2.68	0.61
11:A:2084:C:H2'	11:A:2085:C:H6	1.64	0.61
11:A:1818:U:H2'	14:D:157:ARG:CG	2.30	0.61
11:A:1654:A:C2	15:E:113:PHE:CD2	2.88	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:227:A:H5''	23:P:76:LYS:CE	2.16	0.61
2:1:11:ARG:CB	2:1:11:ARG:CZ	2.78	0.61
11:A:1693:U:H5'	11:A:1693:U:H6	1.64	0.61
21:N:23:LEU:HD12	21:N:102:ALA:HB2	1.82	0.61
11:A:514:A:H2'	11:A:515:A:C8	2.35	0.61
13:C:30:LYS:HZ3	13:C:30:LYS:HA	1.65	0.61
13:C:151:GLU:HA	13:C:154:ARG:HD2	1.80	0.61
11:A:1170:G:H22	11:A:1179:C:N4	1.96	0.61
11:A:2159:G:H2'	11:A:2160:G:H5''	1.81	0.61
11:A:2653:U:H3'	11:A:2654:A:C8	2.35	0.61
6:5:39:MET:O	30:W:38:TYR:HE2	1.83	0.61
12:B:2:C:H2'	12:B:3:C:H6	1.64	0.61
11:A:1188:U:O2'	11:A:1189:A:H5'	2.00	0.61
11:A:1258:C:O2'	11:A:1259:G:H5'	1.99	0.61
9:8:30:ARG:NH2	11:A:2419:U:O4	2.33	0.61
11:A:1882:C:H5'	11:A:1883:G:OP2	1.99	0.61
11:A:2007:C:H5'	11:A:2824:C:C1'	2.30	0.61
11:A:1654:A:H2	15:E:113:PHE:CD2	2.18	0.61
27:T:98:LYS:CG	27:T:100:TYR:HE1	2.12	0.61
13:C:195:ALA:O	13:C:198:ALA:HB3	2.00	0.61
17:G:165:THR:OG1	17:G:168:GLU:HG3	1.99	0.61
11:A:1826:G:H4'	14:D:242:ARG:HE	1.65	0.61
11:A:1902:C:H1'	14:D:244:ARG:HE	1.64	0.61
24:Q:20:ALA:N	33:Z:79:ARG:NH2	2.48	0.61
5:4:31:ILE:CG2	5:4:33:VAL:HG23	2.29	0.61
11:A:181:A:H2'	11:A:182:A:O4'	1.99	0.61
22:O:12:ASP:HA	22:O:97:ARG:O	2.00	0.61
33:Z:20:ARG:HB2	33:Z:20:ARG:NH1	2.15	0.61
11:A:1866:C:H2'	11:A:1876:A:O4'	2.00	0.61
11:A:1907:G:O2'	11:A:1908:C:H5'	1.99	0.61
11:A:2537:U:H2'	11:A:2538:C:H6	1.66	0.61
11:A:695:G:OP1	11:A:1380:G:C4'	2.46	0.61
11:A:600:G:H2'	11:A:601:C:C6	2.35	0.61
11:A:1278:A:C2	11:A:1293:C:N3	2.69	0.61
11:A:1652:A:C2'	11:A:1653:G:H5'	2.30	0.61
32:Y:29:GLU:N	32:Y:29:GLU:OE1	2.33	0.61
17:G:28:VAL:C	17:G:31:VAL:HG12	2.20	0.61
14:D:241:PRO:O	14:D:243:GLY:N	2.34	0.61
32:Y:9:LYS:CE	32:Y:94:LYS:HE2	2.29	0.61
28:U:65:ILE:HD11	28:U:96:ALA:HB3	1.82	0.61
11:A:2121:G:H2'	11:A:2122:U:C6	2.34	0.61
18:H:97:ARG:HH21	18:H:99:VAL:HG21	1.65	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:14:PRO:HG2	30:W:78:GLU:CD	2.21	0.61
30:W:14:PRO:HG3	30:W:78:GLU:HB2	1.80	0.61
11:A:534:U:O2'	28:U:49:HIS:CD2	2.52	0.61
11:A:1042:G:C2	11:A:1043:C:H1'	2.35	0.61
24:Q:39:PRO:HD3	24:Q:99:PRO:HG2	1.82	0.61
11:A:955:C:C2'	11:A:956:G:H5'	2.30	0.61
11:A:956:G:N2	11:A:959:A:H3'	2.16	0.61
11:A:2297:C:O2'	11:A:2298:A:H5'	2.00	0.61
11:A:1702:G:H2'	11:A:1703:G:O4'	2.00	0.61
7:6:45:LYS:O	7:6:46:HIS:HB3	1.99	0.61
11:A:588:U:H1'	16:F:90:PHE:CG	2.35	0.61
3:2:27:GLU:O	3:2:30:ARG:N	2.32	0.61
11:A:110:G:O2'	11:A:111:A:H5'	2.00	0.61
11:A:2620:C:H1'	15:E:156:MET:HB2	1.83	0.61
25:R:28:LEU:HD23	25:R:29:LEU:N	2.15	0.61
5:4:10:VAL:HG23	5:4:11:PRO:CD	2.29	0.61
27:T:65:LYS:O	27:T:72:VAL:HG23	2.00	0.61
6:5:46:CYS:HB2	6:5:47:PRO:HD2	1.82	0.61
11:A:2101:G:H2'	11:A:2102:U:C5'	2.30	0.61
2:1:64:ALA:O	2:1:67:ILE:HG13	2.01	0.61
11:A:36:G:H4'	11:A:451:C:C2	2.34	0.61
15:E:116:VAL:O	15:E:117:MET:CB	2.48	0.61
18:H:116:GLU:HG3	18:H:117:PRO:HD2	1.81	0.61
27:T:106:SER:O	27:T:107:ASP:CB	2.48	0.61
31:X:29:TRP:CZ3	31:X:78:LYS:HD2	2.35	0.61
33:Z:57:ILE:HD12	33:Z:57:ILE:N	2.15	0.61
11:A:1515:G:H4'	11:A:1556:C:O2'	1.99	0.61
11:A:1519:G:H5'	11:A:1520:G:OP2	2.01	0.61
21:N:35:ARG:HH21	21:N:42:TRP:HH2	1.47	0.61
14:D:81:ALA:HA	14:D:113:VAL:HG22	1.82	0.61
11:A:1093:G:H4'	18:H:170:ARG:NH1	2.15	0.61
11:A:45:C:H42	11:A:179:G:H1	1.49	0.61
11:A:384:U:H2'	11:A:385:C:H6	1.66	0.61
11:A:697:C:O2'	11:A:698:C:H5'	2.00	0.61
5:4:46:GLN:HG3	5:4:47:GLN:N	2.14	0.61
11:A:1824:G:H5''	14:D:52:ARG:HH11	1.66	0.61
11:A:2482:G:N2	24:Q:52:VAL:HG11	2.12	0.61
25:R:57:ARG:O	25:R:59:ASP:N	2.33	0.61
26:S:17:ARG:HA	26:S:20:ARG:NH1	2.16	0.61
26:S:96:GLY:C	26:S:98:VAL:H	2.02	0.61
11:A:1999:C:H5''	11:A:2723:C:O2'	2.00	0.61
27:T:52:ILE:HG12	27:T:61:PHE:CB	2.30	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:45:ALA:O	13:C:171:ILE:HG22	2.00	0.61
11:A:2302:G:H3'	11:A:2303:G:C8	2.32	0.61
10:9:14:CYS:HA	10:9:26:ILE:O	2.00	0.61
11:A:36:G:O2'	11:A:37:C:H5'	2.01	0.61
11:A:21:A:O2'	11:A:22:C:H5'	2.01	0.61
14:D:130:ALA:HB2	14:D:192:THR:HB	1.83	0.61
13:C:100:ILE:HG23	13:C:127:LEU:CD1	2.30	0.61
12:B:18:G:H2'	12:B:19:G:C1'	2.30	0.61
29:V:14:VAL:HB	29:V:96:ILE:HG21	1.83	0.61
24:Q:79:LEU:CD2	24:Q:80:GLU:HG3	2.31	0.61
11:A:654(E):G:O2'	11:A:654(F):C:H5'	2.00	0.61
11:A:654(J):A:C8	11:A:654(L):G:H8	2.18	0.61
26:S:36:TYR:HD1	26:S:36:TYR:H	1.49	0.61
23:P:79:ARG:O	23:P:110:TYR:HB3	1.99	0.61
11:A:2811:G:P	15:E:60:ASN:HB2	2.41	0.61
33:Z:165:VAL:CG1	33:Z:166:SER:N	2.60	0.61
11:A:2733:A:O2'	11:A:2734:A:H5'	2.01	0.61
11:A:444:C:OP2	16:F:49:ALA:HB2	2.00	0.61
23:P:39:LYS:CE	23:P:42:SER:HB3	2.30	0.61
11:A:2043:C:H42	11:A:2625:G:H1	1.48	0.61
11:A:2199:A:H3'	11:A:2200:C:H6	1.65	0.61
32:Y:2:ARG:C	32:Y:4:LYS:H	2.03	0.61
11:A:1458:C:H4'	11:A:1459:G:C5'	2.29	0.61
11:A:874:G:H2'	11:A:875:G:H8	1.64	0.61
11:A:1331:A:HO2'	11:A:1332:G:H8	1.48	0.61
11:A:2087:G:O2'	11:A:2088:G:H5'	2.00	0.61
11:A:2048:G:H1	11:A:2620:C:N4	1.98	0.61
26:S:69:VAL:O	26:S:73:LEU:HB2	2.01	0.61
11:A:1826:G:H4'	14:D:242:ARG:HH21	1.64	0.61
13:C:206:GLY:HA3	13:C:210:ARG:NH2	2.11	0.61
11:A:2263:C:O2'	11:A:2264:C:H5'	2.00	0.61
11:A:2131:G:O4'	11:A:2133:G:N2	2.31	0.61
11:A:6:A:H2'	11:A:7:G:C8	2.36	0.61
30:W:72:LYS:O	30:W:73:ALA:HB2	2.01	0.61
11:A:549:G:O2'	11:A:551:G:H5'	1.99	0.61
9:8:35:GLN:O	9:8:36:LYS:HG3	2.01	0.61
11:A:483:A:O3'	32:Y:49:VAL:HG22	2.01	0.61
3:2:30:ARG:HA	31:X:5:TYR:CD2	2.36	0.61
15:E:31:CYS:HB2	15:E:49:LEU:HD12	1.83	0.61
7:6:8:LYS:HA	7:6:27:LYS:HD3	1.81	0.61
11:A:2892:A:N6	11:A:2893:G:H21	1.89	0.61
17:G:131:TYR:HB3	17:G:159:VAL:CG1	2.31	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:43:HIS:HE1	11:A:2816:C:H1'	1.65	0.61
11:A:39:C:H2'	11:A:40:C:C6	2.35	0.61
24:Q:29:PHE:HB2	24:Q:105:GLU:OE2	2.00	0.61
11:A:2248:C:C2'	11:A:2249:U:H5'	2.30	0.61
11:A:2275:C:H6	11:A:2275:C:OP1	1.83	0.61
29:V:18:LEU:HD23	29:V:19:LYS:N	2.16	0.61
11:A:1779:U:C5	11:A:1784:A:N7	2.69	0.61
11:A:848:G:N3	11:A:933:A:H1'	2.15	0.61
25:R:83:ILE:HA	25:R:86:ARG:HD3	1.81	0.61
33:Z:144:LEU:N	33:Z:144:LEU:HD22	2.15	0.61
11:A:205:G:H1'	11:A:206:U:H5	1.66	0.61
28:U:102:GLU:CB	28:U:105:VAL:HB	2.31	0.61
7:6:14:THR:O	7:6:49:HIS:HA	2.00	0.61
23:P:30:THR:HG22	23:P:31:ALA:N	2.14	0.61
31:X:11:PRO:HG2	31:X:13:LEU:CG	2.31	0.61
11:A:619:G:H3'	11:A:620:G:N2	2.15	0.61
11:A:2529:G:H5''	11:A:2530:A:H5''	1.82	0.61
11:A:2724:C:H2'	11:A:2725:A:C8	2.36	0.61
13:C:47:LEU:HD11	13:C:171:ILE:HG22	1.83	0.61
33:Z:10:ARG:HG2	33:Z:12:GLY:H	1.66	0.61
1:0:48:GLY:H	1:0:51:VAL:HB	1.65	0.61
11:A:1343:G:C2'	11:A:1344:G:H5'	2.30	0.61
26:S:106:ARG:HD2	26:S:107:GLU:C	2.21	0.61
11:A:907:U:OP1	24:Q:24:GLY:N	2.33	0.61
11:A:2579:C:O2'	15:E:131:ALA:HB2	2.01	0.61
11:A:795:C:H2'	11:A:796:C:H6	1.64	0.61
11:A:203:C:C3'	11:A:204:A:H5''	2.28	0.61
22:O:7:TYR:HA	22:O:19:ILE:O	2.01	0.61
21:N:65:LYS:HB3	21:N:65:LYS:NZ	2.16	0.61
29:V:99:ILE:N	29:V:99:ILE:HD13	2.16	0.61
2:1:41:ARG:NH1	11:A:1365:A:O4'	2.26	0.60
11:A:572:A:H5'	29:V:78:LYS:NZ	2.15	0.60
31:X:12:VAL:HG12	31:X:27:THR:O	2.01	0.60
14:D:27:THR:O	14:D:27:THR:HG23	2.01	0.60
16:F:43:LYS:HB3	16:F:98:SER:HB2	1.81	0.60
11:A:2807:G:H3'	11:A:2808:U:C5'	2.22	0.60
11:A:2773:C:O3'	15:E:164:ARG:HB3	2.01	0.60
11:A:2675:A:H5'	22:O:31:LYS:NZ	2.16	0.60
11:A:2230:G:H2'	11:A:2231:C:C6	2.36	0.60
11:A:1012:U:C5	21:N:28:THR:HG21	2.36	0.60
14:D:95:LEU:HD12	14:D:103:ARG:O	2.00	0.60
17:G:41:GLN:HB3	17:G:43:LEU:HD21	1.83	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:19:GLY:HA2	33:Z:79:ARG:NH2	2.16	0.60
24:Q:37:LEU:HD23	24:Q:37:LEU:N	2.16	0.60
11:A:1224:C:O2'	29:V:85:LYS:HA	2.00	0.60
11:A:198:C:H5'	11:A:2244:U:OP1	2.01	0.60
11:A:2715:C:H2'	11:A:2716:U:C6	2.36	0.60
11:A:2570:G:H2'	11:A:2571:C:C6	2.36	0.60
11:A:1038:C:H3'	11:A:1039:G:H5''	1.82	0.60
11:A:479:A:O2'	11:A:481:G:H5'	2.00	0.60
11:A:1431:U:C2'	11:A:1432:C:H5'	2.31	0.60
11:A:1909:C:H42	11:A:1921:G:H1	1.49	0.60
18:H:12:PRO:O	18:H:15:VAL:HG22	2.01	0.60
18:H:169:VAL:O	18:H:171:LEU:N	2.34	0.60
7:6:12:GLU:HG2	7:6:54:ILE:HG21	1.81	0.60
9:8:30:ARG:O	9:8:31:HIS:HB3	2.01	0.60
11:A:809:G:O4'	11:A:1254:A:H1'	2.01	0.60
31:X:11:PRO:HA	31:X:28:PHE:HB3	1.83	0.60
18:H:61:HIS:O	18:H:63:SER:N	2.34	0.60
3:2:13:ALA:O	3:2:16:LEU:HB2	2.01	0.60
25:R:52:ILE:O	25:R:55:ALA:HB3	2.01	0.60
11:A:2636:U:OP1	15:E:80:GLU:HG3	2.01	0.60
27:T:10:VAL:C	27:T:12:SER:H	2.05	0.60
13:C:186:ALA:O	13:C:190:ARG:HG3	2.01	0.60
33:Z:133:ILE:HG22	33:Z:133:ILE:O	2.01	0.60
17:G:130:ASN:ND2	17:G:160:VAL:HG13	2.16	0.60
18:H:94:TYR:CE2	18:H:152:ARG:HG2	2.36	0.60
24:Q:43:THR:OG1	24:Q:45:GLN:HG2	2.01	0.60
17:G:114:ILE:O	17:G:114:ILE:HG23	2.00	0.60
29:V:29:PRO:HA	29:V:61:VAL:HG21	1.82	0.60
11:A:496:G:C1'	30:W:61:ASN:HD22	2.14	0.60
11:A:391:G:O5'	11:A:391:G:H8	1.84	0.60
11:A:916:G:C2'	11:A:917:A:H5''	2.30	0.60
10:9:19:ARG:C	10:9:21:GLY:H	2.03	0.60
25:R:56:LYS:O	25:R:58:GLY:N	2.34	0.60
8:7:19:ARG:HD3	11:A:125:G:O5'	2.02	0.60
11:A:581:C:H2'	11:A:582:G:H8	1.66	0.60
23:P:36:LYS:CD	23:P:41:ARG:HB3	2.31	0.60
11:A:1824:G:H5''	14:D:52:ARG:NH1	2.16	0.60
13:C:113:VAL:HG21	13:C:136:LEU:HB3	1.83	0.60
10:9:1:MET:CG	10:9:31:LYS:O	2.50	0.60
16:F:195:ASP:OD2	16:F:197:ASP:HB2	2.00	0.60
25:R:11:ASN:O	25:R:12:ARG:HB2	2.01	0.60
25:R:14:SER:HA	25:R:17:ARG:NH1	2.16	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:77:PRO:O	27:T:78:LEU:HB2	2.01	0.60
12:B:72:G:N2	12:B:104:U:H5	1.99	0.60
17:G:163:ALA:HB1	17:G:169:ALA:CB	2.24	0.60
17:G:21:ARG:CZ	17:G:22:ARG:HA	2.30	0.60
21:N:55:VAL:CG2	21:N:126:PRO:HA	2.25	0.60
21:N:18:ALA:HB2	21:N:26:LEU:HD13	1.83	0.60
28:U:90:VAL:HG12	28:U:91:ASP:N	2.14	0.60
29:V:51:VAL:HG12	29:V:52:VAL:H	1.65	0.60
11:A:744:G:OP1	15:E:132:HIS:HB3	2.02	0.60
11:A:1057:A:C2	11:A:1058:G:H1'	2.36	0.60
14:D:106:ILE:O	14:D:108:PRO:HD3	2.01	0.60
11:A:2654:A:N3	11:A:2656:U:N3	2.49	0.60
11:A:1215:G:H2'	11:A:1216:G:H8	1.66	0.60
11:A:672:C:H2'	11:A:673:C:C5'	2.31	0.60
11:A:819:A:H2'	11:A:820:A:C5'	2.31	0.60
16:F:34:TRP:HB2	23:P:10:PRO:HB2	1.83	0.60
11:A:342:G:H2'	11:A:343:C:H6	1.65	0.60
16:F:177:ALA:HB1	16:F:178:PRO:HD2	1.82	0.60
5:4:9:LEU:C	5:4:10:VAL:HG12	2.22	0.60
5:4:8:LYS:HG2	5:4:9:LEU:H	1.64	0.60
15:E:39:PRO:HD3	15:E:45:THR:OG1	2.02	0.60
16:F:7:TYR:HD2	16:F:16:GLY:H	1.48	0.60
21:N:46:VAL:HG13	21:N:48:MET:HG3	1.83	0.60
32:Y:85:VAL:HG12	32:Y:86:ARG:N	2.16	0.60
11:A:2117:A:N6	11:A:2171:A:H61	1.99	0.60
11:A:2377:A:H4'	26:S:107:GLU:O	2.01	0.60
13:C:5:LYS:HG3	13:C:6:ARG:N	2.16	0.60
11:A:1011:G:O2'	11:A:1013:C:H5''	2.01	0.60
11:A:2315:G:H2'	11:A:2316:C:C6	2.36	0.60
11:A:1924:C:H2'	11:A:1925:C:H6	1.66	0.60
9:8:15:LYS:HD3	23:P:65:ARG:CZ	2.32	0.60
11:A:2235:G:H2'	11:A:2236:C:C6	2.36	0.60
3:2:59:ARG:HA	11:A:76:C:O2'	2.01	0.60
16:F:171:PRO:C	16:F:173:VAL:H	2.04	0.60
11:A:2840:C:C5'	25:R:53:HIS:CD2	2.76	0.60
26:S:92:TYR:CG	26:S:93:LYS:N	2.69	0.60
24:Q:140:ALA:HB1	33:Z:99:TYR:HB3	1.84	0.60
11:A:2673:G:H2'	11:A:2674:G:H8	1.66	0.60
32:Y:73:ARG:O	32:Y:74:PRO:O	2.19	0.60
17:G:133:LEU:HD12	17:G:133:LEU:C	2.21	0.60
11:A:1826:G:C4'	14:D:242:ARG:HH21	2.14	0.60
17:G:46:ALA:HA	17:G:53:LEU:HD23	1.82	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:17:GLY:C	29:V:18:LEU:HD13	2.22	0.60
11:A:2219:G:C2'	11:A:2220:G:H5'	2.30	0.60
11:A:2196:C:O2'	11:A:2197:U:H5'	2.02	0.60
11:A:1141:U:H2'	21:N:63:THR:HG21	1.84	0.60
15:E:29:GLY:HA2	15:E:180:ASN:ND2	2.16	0.60
22:O:7:TYR:HE1	22:O:20:MET:CE	2.15	0.60
11:A:1722:A:C2	11:A:1740:G:H2'	2.37	0.60
7:6:19:ARG:CD	11:A:2400:G:H4'	2.20	0.60
11:A:1570:A:H2'	11:A:1571:A:C8	2.37	0.60
16:F:102:PRO:O	16:F:106:ARG:HG3	2.01	0.60
11:A:89:G:H3'	11:A:90:U:C5'	2.31	0.60
11:A:2476:A:H2	11:A:2477:C:C5	2.19	0.60
6:5:4:HIS:O	11:A:2056:G:N2	2.33	0.60
11:A:2453:A:O2'	11:A:2454:G:H5'	2.02	0.60
13:C:198:ALA:O	13:C:200:LYS:N	2.35	0.60
11:A:1343:G:N2	11:A:1405:U:C2	2.70	0.60
22:O:91:LEU:HD13	22:O:111:PHE:CE1	2.37	0.60
32:Y:81:LYS:HG2	32:Y:96:ILE:HB	1.84	0.60
30:W:6:ILE:HG22	30:W:7:ALA:N	2.16	0.60
11:A:2484:G:O2'	11:A:2485:G:H5'	2.01	0.60
4:3:7:LYS:HA	4:3:34:GLU:HA	1.83	0.60
11:A:1345:C:H2'	11:A:1346:G:H5'	1.83	0.60
24:Q:39:PRO:HG3	24:Q:99:PRO:CD	2.32	0.60
24:Q:74:TYR:HD1	24:Q:75:THR:N	1.99	0.60
14:D:213:ARG:HD2	14:D:217:ARG:O	2.01	0.60
11:A:520:G:H2'	11:A:521:G:H8	1.67	0.60
11:A:2584:U:O5'	11:A:2584:U:O2	2.20	0.60
9:8:61:LEU:O	9:8:64:TYR:N	2.31	0.60
11:A:2283:C:H5	11:A:2389:G:H2'	1.66	0.60
13:C:75:LEU:HB3	13:C:93:TYR:HD2	1.66	0.60
11:A:658:C:H2'	11:A:659:C:C6	2.37	0.60
25:R:73:VAL:HG12	25:R:77:ARG:NH1	2.16	0.60
11:A:271(M):G:H2'	11:A:271(N):U:C5'	2.17	0.60
26:S:29:PHE:HD2	26:S:30:ARG:N	1.98	0.60
26:S:64:GLU:O	26:S:67:ARG:HG3	2.01	0.60
18:H:136:ILE:HD12	18:H:136:ILE:N	2.17	0.60
11:A:1550:C:H2'	11:A:1551:C:C6	2.37	0.60
11:A:2113:U:H2'	11:A:2114:A:H8	1.65	0.60
11:A:783:A:H8	11:A:784:A:H4'	1.67	0.60
29:V:24:LYS:HA	29:V:92:THR:CG2	2.31	0.60
11:A:528:A:H2	11:A:2043:C:H4'	1.67	0.60
11:A:2199:A:N3	11:A:2199:A:H2'	2.16	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:361:G:H2'	11:A:362:U:H4'	1.82	0.60
11:A:821:A:H5''	11:A:822:U:C6	2.35	0.60
7:6:36:LEU:HD12	7:6:50:ARG:NH1	2.15	0.60
31:X:18:TYR:O	31:X:20:GLY:N	2.34	0.60
5:4:6:HIS:HB3	17:G:67:LYS:CE	2.30	0.60
23:P:100:LEU:HD13	23:P:103:ALA:HB3	1.82	0.60
11:A:1669:A:H2'	11:A:1670:C:H5'	1.84	0.60
13:C:65:PRO:HD2	13:C:188:ASN:OD1	2.02	0.60
17:G:5:VAL:HG12	17:G:6:ALA:N	2.16	0.60
11:A:55:G:O2'	11:A:127:A:H2	1.84	0.60
4:3:1:MET:O	4:3:3:ARG:N	2.34	0.60
11:A:987:G:C2	11:A:988:A:H1'	2.37	0.60
11:A:2312:U:C2'	11:A:2313:C:H5''	2.32	0.60
26:S:78:LEU:HD11	26:S:103:GLU:HB2	1.83	0.60
11:A:1887:C:C3'	11:A:1888:G:H5''	2.32	0.60
16:F:202:PHE:O	16:F:206:ILE:HG12	2.02	0.60
22:O:63:VAL:HG23	22:O:64:ARG:HG3	1.83	0.60
27:T:16:ARG:HB2	27:T:19:LEU:HD11	1.84	0.60
27:T:70:VAL:HG12	27:T:71:GLY:N	2.15	0.60
11:A:442:G:N3	16:F:48:THR:HG21	2.17	0.60
14:D:9:TYR:CD2	14:D:10:THR:HG22	2.37	0.60
13:C:98:GLU:O	13:C:100:ILE:N	2.34	0.60
2:1:23:LYS:HB3	2:1:29:GLY:H	1.66	0.60
11:A:777:A:H2'	11:A:778:G:C8	2.36	0.60
8:7:18:PHE:H	8:7:43:THR:HG21	1.66	0.60
11:A:1563:G:O2'	11:A:1564:C:H5'	2.02	0.60
11:A:1362:C:C2'	11:A:1363:C:H5'	2.32	0.60
17:G:149:VAL:O	17:G:149:VAL:HG23	2.01	0.60
23:P:68:GLN:NE2	23:P:68:GLN:HA	2.15	0.60
16:F:185:ASP:HA	16:F:188:ARG:HD3	1.84	0.60
18:H:66:GLY:HA2	18:H:69:ARG:HE	1.66	0.60
3:2:50:ILE:N	3:2:50:ILE:HD12	2.17	0.60
16:F:157:VAL:CG2	16:F:194:MET:HG2	2.31	0.60
16:F:168:ARG:HG2	16:F:169:ASN:H	1.67	0.60
26:S:35:ILE:O	26:S:35:ILE:HG12	2.01	0.60
11:A:2630:G:H1'	11:A:2894:G:H1'	1.83	0.60
27:T:10:VAL:C	27:T:12:SER:N	2.52	0.60
11:A:1971:A:C2	14:D:240:ALA:HA	2.37	0.60
5:4:22:ILE:HD12	5:4:22:ILE:N	2.10	0.60
11:A:1009:A:N3	11:A:1154:G:H5'	2.17	0.60
24:Q:34:LEU:CD1	24:Q:129:THR:HB	2.31	0.60
4:3:56:VAL:O	4:3:57:GLU:HB2	2.01	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2073:C:O2'	11:A:2074:U:H5'	2.02	0.60
11:A:779:U:H2'	11:A:780:G:C8	2.36	0.60
16:F:78:ILE:O	16:F:80:ALA:N	2.35	0.60
11:A:496:G:H1'	30:W:61:ASN:HD22	1.65	0.60
24:Q:39:PRO:CD	24:Q:99:PRO:HG2	2.31	0.60
2:1:72:GLU:O	2:1:73:LEU:HG	2.01	0.60
16:F:17:ARG:HG3	16:F:17:ARG:HH11	1.67	0.60
9:8:28:GLY:CA	9:8:32:LEU:HD23	2.30	0.59
11:A:2394:C:OP1	23:P:63:PRO:HD2	2.01	0.59
23:P:6:LEU:HD23	23:P:6:LEU:H	1.67	0.59
10:9:29:ASN:O	10:9:29:ASN:ND2	2.34	0.59
11:A:957:A:N1	11:A:2458:G:H4'	2.17	0.59
5:4:9:LEU:HG	17:G:98:ARG:NH1	2.17	0.59
12:B:79:C:O2'	12:B:80:U:H5'	2.02	0.59
11:A:1403:C:H5''	11:A:1471:A:H1'	1.84	0.59
32:Y:7:VAL:HG21	32:Y:8:LYS:HZ2	1.67	0.59
18:H:118:PRO:CG	18:H:121:ILE:HB	2.32	0.59
16:F:80:ALA:HB1	16:F:81:PRO:HD2	1.82	0.59
15:E:100:GLU:O	15:E:172:VAL:HG23	2.01	0.59
11:A:2393:A:C2'	11:A:2394:C:H5'	2.32	0.59
32:Y:46:LYS:HB2	32:Y:62:GLU:CD	2.22	0.59
13:C:75:LEU:HG	13:C:112:ALA:O	2.02	0.59
11:A:2476:A:H2	11:A:2477:C:C6	2.20	0.59
11:A:2008:C:O2'	11:A:2009:G:H5'	2.02	0.59
27:T:82:LEU:H	27:T:82:LEU:CD1	2.03	0.59
17:G:7:LEU:HB2	17:G:104:GLU:OE2	2.02	0.59
10:9:12:ASP:C	10:9:14:CYS:H	2.04	0.59
16:F:51:THR:HG21	16:F:91:GLY:CA	2.30	0.59
11:A:1340:U:O2	11:A:1603:A:C8	2.55	0.59
14:D:136:ILE:N	14:D:136:ILE:CD1	2.65	0.59
15:E:116:VAL:HG23	15:E:120:TRP:HB2	1.84	0.59
17:G:117:PHE:HZ	17:G:179:PRO:CB	2.13	0.59
2:1:50:ARG:CG	2:1:59:THR:HG22	2.29	0.59
11:A:1345:C:O2'	11:A:1346:G:H5'	2.02	0.59
11:A:678:C:H2'	11:A:679:C:H6	1.66	0.59
11:A:1438:U:H2'	11:A:1439:A:H8	1.68	0.59
12:B:10:C:O2'	12:B:11:C:H5'	2.03	0.59
11:A:1963:U:H4'	11:A:1964:G:OP1	2.01	0.59
9:8:28:GLY:O	9:8:32:LEU:HD23	2.01	0.59
16:F:20:LEU:H	16:F:24:LEU:HD21	1.68	0.59
17:G:139:LEU:HD22	17:G:146:TYR:HB2	1.85	0.59
26:S:94:TYR:O	26:S:95:HIS:CB	2.48	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:6:VAL:HG12	16:F:7:TYR:N	2.12	0.59
11:A:1899:G:H21	11:A:1902:C:H41	1.48	0.59
11:A:428:A:H3'	11:A:429:A:H8	1.67	0.59
17:G:57:ALA:HB2	17:G:90:LEU:HD21	1.84	0.59
11:A:1526:G:O2'	11:A:1527:G:H5'	2.01	0.59
11:A:1805:U:H4'	14:D:250:TRP:CZ2	2.37	0.59
29:V:3:ALA:CB	29:V:14:VAL:HG23	2.32	0.59
15:E:69:LYS:HE2	15:E:69:LYS:N	2.17	0.59
11:A:2626:C:H2'	11:A:2627:G:C8	2.37	0.59
11:A:1784:A:H4'	11:A:1785:A:O5'	2.02	0.59
11:A:968:G:H2'	11:A:969:U:H6	1.65	0.59
11:A:271(D):G:H2'	11:A:271(E):U:O4'	2.02	0.59
11:A:973:A:H5'	11:A:1188:U:H1'	1.84	0.59
31:X:18:TYR:HA	31:X:21:PHE:CE1	2.38	0.59
11:A:1351:C:H2'	11:A:1352:U:C6	2.38	0.59
11:A:621:A:H2'	11:A:622:G:C5'	2.32	0.59
11:A:621:A:H2'	11:A:622:G:H5'	1.85	0.59
25:R:45:ARG:O	25:R:46:GLY:C	2.41	0.59
11:A:1503:U:C6	11:A:1504:C:H5	2.21	0.59
11:A:2189:U:H2'	11:A:2190:G:O4'	2.02	0.59
2:1:45:ASN:HB3	2:1:64:ALA:CB	2.28	0.59
23:P:16:ARG:HD3	23:P:18:ARG:N	2.16	0.59
11:A:1060:U:H1'	11:A:1061:U:C5'	2.32	0.59
11:A:2311:A:C2	17:G:80:PHE:HB3	2.37	0.59
13:C:30:LYS:NZ	13:C:30:LYS:HA	2.17	0.59
12:B:5:C:H2'	12:B:6:C:H6	1.66	0.59
16:F:81:PRO:O	16:F:82:ILE:C	2.40	0.59
2:1:70:VAL:O	2:1:73:LEU:HD12	2.03	0.59
11:A:2312:U:H2'	11:A:2313:C:C5'	2.32	0.59
14:D:2:ALA:O	14:D:3:VAL:O	2.21	0.59
19:J:114:UNK:O	19:J:115:UNK:CB	2.50	0.59
11:A:738:G:C2'	11:A:739:G:H5'	2.32	0.59
7:6:10:LEU:H	7:6:10:LEU:HD22	1.68	0.59
16:F:117:ARG:HG2	16:F:192:LEU:CD1	2.33	0.59
25:R:28:LEU:HD23	25:R:28:LEU:C	2.22	0.59
32:Y:37:VAL:CG2	32:Y:38:ILE:H	2.09	0.59
25:R:99:LYS:H	25:R:99:LYS:CD	2.02	0.59
11:A:711:G:H1	11:A:720:C:N4	1.98	0.59
8:7:38:GLY:O	11:A:458:G:H3'	2.03	0.59
11:A:472:A:H5'	11:A:472:A:H8	1.67	0.59
11:A:828:U:C5	11:A:829:A:N6	2.70	0.59
11:A:1783:A:N1	11:A:2587:A:C2	2.71	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2781:A:H5'	11:A:2782:G:H5'	1.82	0.59
12:B:65:C:H2'	12:B:109:C:N4	2.16	0.59
11:A:1747(A):G:H2'	11:A:1748:G:H5''	1.84	0.59
11:A:2312:U:O2'	11:A:2313:C:H5''	2.02	0.59
11:A:2292:C:O2'	11:A:2293:C:H5'	2.02	0.59
14:D:85:ASP:OD2	14:D:88:ARG:NH1	2.36	0.59
13:C:83:ILE:HD11	13:C:97:GLU:OE2	2.02	0.59
3:2:12:GLU:O	3:2:16:LEU:HG	2.02	0.59
25:R:116:LEU:O	25:R:117:VAL:HG12	2.02	0.59
26:S:89:ARG:O	26:S:92:TYR:HB3	2.01	0.59
15:E:52:LEU:HB3	15:E:76:ARG:H	1.68	0.59
11:A:2786:U:O2'	15:E:62:PRO:HA	2.02	0.59
27:T:64:ARG:HH11	27:T:102:ILE:HD11	1.68	0.59
13:C:21:THR:HB	13:C:228:SER:HB2	1.85	0.59
33:Z:28:MET:SD	33:Z:35:ARG:O	2.60	0.59
21:N:46:VAL:CG1	21:N:48:MET:HG3	2.33	0.59
11:A:1091:G:H2'	11:A:1092:C:H6	1.67	0.59
24:Q:42:ILE:C	24:Q:94:VAL:HG12	2.23	0.59
11:A:792:G:H2'	11:A:2440:C:O2	2.03	0.59
33:Z:139:VAL:HG12	33:Z:140:ASP:N	2.12	0.59
31:X:60:ARG:HA	31:X:75:ASP:CG	2.23	0.59
23:P:115:LEU:HG	23:P:116:GLY:N	2.17	0.59
11:A:2582:G:N3	11:A:2582:G:H2'	2.17	0.59
27:T:113:LYS:C	27:T:114:LEU:HD23	2.23	0.59
11:A:271(D):G:O2'	11:A:271(E):U:H5'	2.02	0.59
33:Z:118:GLN:NE2	33:Z:120:ILE:HD11	2.17	0.59
11:A:2562:U:C2'	11:A:2563:U:H5'	2.33	0.59
26:S:102:ALA:O	26:S:103:GLU:HG2	2.02	0.59
11:A:531:C:C5	11:A:2035:G:C2	2.91	0.59
11:A:2337:G:H2'	11:A:2338:G:C8	2.37	0.59
11:A:586:A:H5'	16:F:89:VAL:HG21	1.84	0.59
11:A:1244:G:H4'	23:P:11:GLY:HA2	1.84	0.59
18:H:67:LEU:C	18:H:71:LEU:HG	2.23	0.59
11:A:2012:G:H4'	30:W:96:ILE:CD1	2.18	0.59
11:A:1651:G:H4'	25:R:39:PRO:HG2	1.85	0.59
25:R:59:ASP:O	25:R:61:HIS:N	2.36	0.59
17:G:68:PRO:HG3	17:G:92:VAL:HB	1.83	0.59
11:A:2444:G:OP1	16:F:68:LYS:HE3	2.02	0.59
11:A:763:G:C4	11:A:765:G:C8	2.91	0.59
11:A:1573:G:H2'	11:A:1574:C:H5'	1.83	0.59
11:A:1496:A:H8	11:A:1577:C:O2'	1.84	0.59
11:A:1541:G:H4'	11:A:1542:A:O5'	2.03	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1099:G:O5'	11:A:1099:G:H8	1.86	0.59
11:A:2777:G:H4'	11:A:2778:A:H5'	1.84	0.59
11:A:1386:C:H6	11:A:1386:C:H3'	1.66	0.59
11:A:1141:U:C5	21:N:64:GLY:HA3	2.38	0.59
11:A:183:C:H5'	11:A:433:C:H4'	1.83	0.59
4:3:3:ARG:HB2	4:3:59:VAL:O	2.02	0.59
12:B:15:A:H1'	12:B:110:G:C5	2.38	0.59
33:Z:117:LEU:HD12	33:Z:173:ALA:O	2.02	0.59
11:A:2494:G:O2'	24:Q:80:GLU:HA	2.01	0.59
11:A:1892:C:H2'	11:A:1893:C:C6	2.38	0.59
11:A:1364:G:H5''	11:A:1365:A:OP2	2.02	0.59
1:0:55:ARG:C	1:0:57:PHE:H	2.04	0.59
11:A:28:A:N6	11:A:512:G:O2'	2.36	0.59
31:X:11:PRO:HG2	31:X:13:LEU:HG	1.85	0.59
13:C:131:LEU:HD22	13:C:136:LEU:CD1	2.33	0.59
3:2:10:LEU:CD2	3:2:14:ARG:HG3	2.33	0.59
3:2:54:LYS:O	3:2:57:ILE:HG12	2.03	0.59
11:A:2475:C:H42	11:A:2529:G:N2	2.00	0.59
11:A:1269:A:H61	11:A:2011:U:H3	1.50	0.59
11:A:1661:G:O2'	11:A:1662:C:H5'	2.03	0.59
13:C:20:TYR:HB3	13:C:24:GLU:HB2	1.84	0.59
11:A:1708:C:H2'	11:A:1709:U:H6	1.68	0.59
17:G:34:LEU:CA	17:G:161:THR:HG22	2.29	0.59
10:9:10:ILE:O	10:9:11:CYS:SG	2.60	0.59
11:A:2101:G:H22	11:A:2189:U:H3	1.50	0.59
11:A:1788:C:O2'	11:A:1789:A:H5'	2.03	0.59
18:H:33:LEU:HD21	18:H:136:ILE:HG22	1.83	0.59
21:N:46:VAL:O	21:N:47:ALA:HB3	2.02	0.59
11:A:996:A:H1'	28:U:92:ARG:HE	1.68	0.59
24:Q:22:LYS:N	33:Z:78:LYS:HE3	2.12	0.59
11:A:47:C:C4	11:A:48:G:N7	2.71	0.59
14:D:149:PRO:CG	14:D:186:HIS:HD2	2.16	0.59
11:A:1038:C:C2'	11:A:1039:G:H5''	2.32	0.59
11:A:2533:A:C2'	11:A:2534:A:H5'	2.33	0.59
18:H:30:LYS:HA	18:H:30:LYS:HE2	1.84	0.59
11:A:1190:G:H5'	23:P:35:HIS:H	1.66	0.59
10:9:2:LYS:HE2	11:A:2526:G:H1'	1.84	0.59
26:S:13:ARG:CG	26:S:14:VAL:H	2.05	0.59
11:A:1639:U:O2'	11:A:2699:C:H4'	2.02	0.59
11:A:1988:C:O2'	11:A:1989:G:H5'	2.02	0.59
15:E:103:ASP:HA	15:E:168:MET:HA	1.83	0.59
24:Q:135:ASP:O	24:Q:138:ASP:OD2	2.20	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:Z:100:VAL:O	33:Z:124:ILE:HG12	2.02	0.59
11:A:858:U:O2	11:A:2268:A:H2'	2.02	0.59
11:A:38:A:O2'	11:A:39:C:H5'	2.02	0.59
2:1:26:ARG:HG3	2:1:27:GLU:H	1.67	0.59
11:A:2131:G:OP1	11:A:2132:U:H3'	2.03	0.59
29:V:19:LYS:HB2	29:V:96:ILE:HD11	1.82	0.59
11:A:1600:C:H2'	11:A:1601:G:C8	2.38	0.59
14:D:44:ASN:HB2	14:D:48:ARG:O	2.02	0.59
1:0:56:ASP:OD1	1:0:56:ASP:O	2.21	0.59
7:6:32:ASN:O	7:6:33:LYS:HB2	2.03	0.59
16:F:40:GLN:HE22	16:F:182:ASN:HB2	1.66	0.59
18:H:40:GLU:HB2	18:H:64:LEU:CD1	2.33	0.59
31:X:8:ILE:N	31:X:8:ILE:HD12	2.18	0.59
16:F:157:VAL:HG22	16:F:194:MET:HG2	1.85	0.59
15:E:1:MET:N	15:E:84:PHE:HB2	2.17	0.59
11:A:271(L):U:H5''	11:A:271(M):G:C5'	2.29	0.59
11:A:2631:G:H22	15:E:61:ARG:NH1	2.00	0.59
11:A:2712:U:O2'	11:A:2713:A:H5'	2.03	0.59
11:A:2772:C:H5'	15:E:168:MET:CE	2.33	0.59
15:E:13:ARG:O	27:T:57:PHE:HE1	1.85	0.59
33:Z:52:SER:OG	33:Z:53:ILE:HG12	2.03	0.59
11:A:860:U:C2'	11:A:861:A:H5'	2.33	0.59
11:A:1971:A:C4	14:D:241:PRO:HD3	2.38	0.59
14:D:243:GLY:O	14:D:244:ARG:HB3	2.03	0.59
11:A:20:C:H2'	11:A:21:A:C8	2.37	0.59
14:D:77:ALA:CB	14:D:97:TYR:HA	2.33	0.59
13:C:100:ILE:O	13:C:104:LEU:HD23	2.03	0.59
15:E:120:TRP:CG	15:E:155:LYS:HE3	2.38	0.59
32:Y:95:LYS:CG	32:Y:100:ALA:HA	2.27	0.59
11:A:1099:G:H2'	11:A:1100:C:H6	1.68	0.59
26:S:24:LEU:CB	26:S:85:VAL:HG12	2.33	0.59
11:A:48:G:N2	11:A:177:G:N2	2.50	0.59
29:V:15:GLU:O	29:V:96:ILE:HB	2.03	0.59
11:A:1812:A:O2'	11:A:1813:G:H5'	2.02	0.59
11:A:2715:C:O2'	11:A:2716:U:H5'	2.03	0.59
11:A:2885:C:H2'	11:A:2886:G:O4'	2.02	0.59
16:F:57:VAL:CG1	16:F:58:ALA:H	2.16	0.59
26:S:83:LYS:HG2	26:S:105:ALA:CB	2.33	0.59
11:A:1747(A):G:C3'	11:A:1748:G:H5''	2.32	0.59
25:R:21:TYR:HB3	25:R:47:PHE:CD2	2.37	0.59
9:8:7:HIS:C	9:8:9:GLY:H	2.07	0.58
11:A:568:U:C6	11:A:570:G:OP2	2.55	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:35:LYS:N	14:D:36:PRO:HD2	2.17	0.58
13:C:131:LEU:HD22	13:C:136:LEU:HD12	1.84	0.58
16:F:124:LEU:HD22	16:F:191:ARG:NH2	2.18	0.58
11:A:2015:A:H2'	11:A:2016:U:O4'	2.03	0.58
11:A:1654:A:OP2	25:R:3:HIS:HD2	1.85	0.58
17:G:92:VAL:O	17:G:92:VAL:HG13	2.03	0.58
31:X:48:LYS:O	31:X:49:VAL:HG13	2.02	0.58
11:A:1763:G:N2	11:A:1765:C:H5''	2.18	0.58
11:A:1994:C:O2'	11:A:1995:U:H5'	2.02	0.58
11:A:2645:G:C3'	11:A:2646:C:H5'	2.25	0.58
11:A:1247:A:OP2	23:P:18:ARG:NH1	2.36	0.58
28:U:92:ARG:NH2	29:V:10:LYS:HA	2.17	0.58
11:A:2115:G:H22	11:A:2119:A:P	2.25	0.58
5:4:14:ILE:N	5:4:14:ILE:HD12	2.18	0.58
11:A:776:G:H4'	11:A:777:A:O5'	2.02	0.58
11:A:782:A:H4'	11:A:783:A:O5'	2.03	0.58
26:S:56:LEU:C	26:S:58:LEU:H	2.06	0.58
11:A:2543:G:H8	11:A:2543:G:H5'	1.68	0.58
14:D:76:PRO:O	14:D:98:VAL:HG23	2.03	0.58
11:A:2304:G:H22	11:A:2312:U:H3	1.49	0.58
11:A:1362:C:O2'	11:A:1363:C:H5'	2.02	0.58
18:H:74:ASN:OD1	18:H:138:LYS:HD3	2.03	0.58
5:4:40:HIS:CD2	5:4:41:PRO:HA	2.37	0.58
9:8:38:GLY:HA3	9:8:42:ARG:HH12	1.67	0.58
9:8:7:HIS:CE1	9:8:9:GLY:HA3	2.38	0.58
11:A:769:G:O4'	11:A:1379:A:N6	2.36	0.58
14:D:26:LYS:O	14:D:27:THR:CB	2.50	0.58
11:A:2469:A:O2'	24:Q:56:ARG:HG3	2.03	0.58
25:R:9:LYS:O	25:R:10:LEU:HD23	2.03	0.58
26:S:28:VAL:HG12	26:S:29:PHE:N	2.13	0.58
26:S:89:ARG:HG3	26:S:92:TYR:HA	1.85	0.58
11:A:1636:C:H2'	11:A:1637:A:C8	2.38	0.58
27:T:102:ILE:HG13	27:T:103:ARG:N	2.11	0.58
27:T:75:ILE:HD12	27:T:75:ILE:N	2.18	0.58
24:Q:138:ASP:HB2	33:Z:53:ILE:HD11	1.85	0.58
17:G:77:ILE:HG22	17:G:80:PHE:N	2.17	0.58
17:G:47:LYS:NZ	17:G:81:LYS:HB3	2.18	0.58
15:E:117:MET:HA	15:E:122:PHE:H	1.68	0.58
11:A:135:G:O2'	11:A:136:G:H5'	2.03	0.58
11:A:1376:C:O2'	11:A:1377:G:H5'	2.03	0.58
11:A:1020:A:N1	11:A:1141:U:H1'	2.18	0.58
11:A:2282:G:H5''	11:A:2283:C:O4'	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2320:A:N3	11:A:2320:A:H2'	2.17	0.58
3:2:63:VAL:O	3:2:66:GLU:N	2.36	0.58
15:E:54:GLN:O	15:E:75:VAL:HG23	2.03	0.58
27:T:80:SER:HB3	27:T:81:PRO:CD	2.32	0.58
33:Z:55:HIS:CE1	33:Z:135:GLU:HG2	2.37	0.58
11:A:1709:U:H2'	11:A:1710:C:C6	2.38	0.58
1:0:69:PHE:CD2	1:0:79:VAL:HG22	2.39	0.58
11:A:1384:A:N3	11:A:1405:U:H1'	2.18	0.58
28:U:3:ARG:HH11	28:U:5:LYS:HB3	1.68	0.58
11:A:1775:U:H2'	11:A:1776:G:H5'	1.84	0.58
11:A:554:U:H2'	11:A:555:U:C6	2.38	0.58
28:U:92:ARG:HD3	28:U:94:ASN:HB3	1.85	0.58
28:U:92:ARG:NH2	29:V:10:LYS:HG2	2.18	0.58
29:V:38:LEU:CD1	29:V:57:VAL:HB	2.33	0.58
18:H:19:VAL:HG12	18:H:20:ALA:H	1.67	0.58
9:8:39:LYS:NZ	11:A:2364:C:H5	2.01	0.58
11:A:416:C:C2'	11:A:417:C:H5'	2.33	0.58
23:P:52:GLU:OE1	23:P:52:GLU:HA	2.02	0.58
3:2:7:ARG:O	3:2:11:GLU:HG3	2.03	0.58
18:H:156:ALA:C	18:H:158:HIS:N	2.50	0.58
11:A:1644:C:H2'	11:A:1644:C:O2	2.02	0.58
11:A:645:C:H3'	11:A:645:C:O2	2.04	0.58
9:8:33:ASN:ND2	11:A:2419:U:H5''	2.19	0.58
16:F:122:LYS:HG3	16:F:191:ARG:HG3	1.85	0.58
18:H:68:THR:HG22	18:H:72:ILE:HG12	1.85	0.58
11:A:1655:A:H4'	15:E:114:ALA:HA	1.86	0.58
17:G:66:GLN:HG2	17:G:67:LYS:N	2.14	0.58
26:S:99:LYS:O	26:S:100:ALA:C	2.40	0.58
31:X:35:THR:HB	31:X:38:GLU:HG3	1.84	0.58
27:T:42:ILE:O	27:T:42:ILE:HG13	2.02	0.58
33:Z:10:ARG:HH21	33:Z:36:LYS:CB	2.17	0.58
11:A:1693:U:O2'	14:D:14:ARG:NH2	2.36	0.58
11:A:1137:G:H2'	11:A:1138:G:C8	2.37	0.58
11:A:1496:A:H1'	11:A:1578:U:O2'	2.03	0.58
26:S:24:LEU:HB3	26:S:85:VAL:HG12	1.84	0.58
30:W:12:ILE:HD12	30:W:42:ARG:HH12	1.66	0.58
30:W:14:PRO:HG2	30:W:78:GLU:HB2	1.85	0.58
11:A:7:G:N2	11:A:8:A:H1'	2.17	0.58
8:7:8:ASN:C	8:7:8:ASN:ND2	2.55	0.58
11:A:1374:G:H2'	11:A:1375:C:H6	1.66	0.58
11:A:685:A:C2	11:A:787:U:H1'	2.38	0.58
11:A:1820:U:C2	14:D:202:LYS:HB3	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:57:VAL:CG1	16:F:58:ALA:N	2.66	0.58
24:Q:5:ARG:O	24:Q:6:ARG:HG2	2.03	0.58
11:A:67:U:C5	11:A:68:G:N7	2.72	0.58
14:D:61:LEU:O	14:D:63:ARG:NH1	2.36	0.58
16:F:203:GLN:C	16:F:205:ARG:H	2.06	0.58
16:F:5:ALA:HB3	16:F:18:ARG:O	2.03	0.58
11:A:2475:C:H2'	11:A:2477:C:OP1	2.04	0.58
10:9:1:MET:SD	11:A:2477:C:C2'	2.91	0.58
25:R:13:HIS:ND1	25:R:14:SER:N	2.52	0.58
25:R:13:HIS:HE1	25:R:15:SER:OG	1.85	0.58
11:A:271(L):U:C5'	11:A:271(M):G:H5'	2.29	0.58
11:A:2636:U:H4'	15:E:80:GLU:OE1	2.03	0.58
15:E:51:PHE:CD1	15:E:52:LEU:N	2.72	0.58
11:A:1344:G:H4'	11:A:1384:A:C5	2.39	0.58
32:Y:73:ARG:HB3	32:Y:80:GLY:CA	2.34	0.58
11:A:83:G:H5''	11:A:84:A:OP2	2.03	0.58
14:D:126:GLN:HG3	14:D:129:ASN:ND2	2.17	0.58
11:A:1541:G:O2'	11:A:1542:A:H5''	2.03	0.58
15:E:116:VAL:O	15:E:117:MET:HB2	2.01	0.58
28:U:27:LEU:O	28:U:31:SER:HB3	2.04	0.58
14:D:229:VAL:HG23	14:D:230:ASP:N	2.19	0.58
23:P:130:PHE:N	23:P:130:PHE:CD2	2.68	0.58
11:A:2195:C:H2'	11:A:2196:C:H6	1.68	0.58
11:A:1409:C:H6	11:A:1409:C:O5'	1.87	0.58
11:A:898:C:C2'	11:A:899:A:H5'	2.34	0.58
22:O:7:TYR:CE1	22:O:20:MET:HE3	2.37	0.58
11:A:1566:A:OP1	14:D:211:ARG:NH1	2.35	0.58
11:A:292:C:O2'	11:A:293:U:H5'	2.03	0.58
11:A:1242:A:N6	23:P:8:PRO:HG3	2.18	0.58
16:F:20:LEU:H	16:F:24:LEU:CD2	2.16	0.58
16:F:28:ILE:HG22	16:F:116:ASP:HB2	1.84	0.58
23:P:101:VAL:C	23:P:103:ALA:H	2.07	0.58
23:P:78:PRO:HB2	23:P:111:ARG:HH21	1.66	0.58
27:T:63:VAL:O	27:T:73:GLU:HA	2.03	0.58
33:Z:163:LEU:CD2	33:Z:165:VAL:HG23	2.33	0.58
11:A:2647:U:O2'	11:A:2648:C:H5'	2.03	0.58
11:A:2189:U:H3'	11:A:2190:G:H5''	1.84	0.58
14:D:14:ARG:HG3	14:D:15:PHE:N	2.19	0.58
11:A:1138:G:H1'	21:N:105:GLY:O	2.03	0.58
11:A:1337:G:H2'	11:A:1338:G:C8	2.38	0.58
11:A:597:U:H4'	23:P:15:ARG:CZ	2.34	0.58
11:A:1464:C:O2'	11:A:1528:A:C8	2.56	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2127:G:H2'	11:A:2128:C:H6	1.69	0.58
12:B:17:C:H2'	12:B:18:G:H8	1.67	0.58
12:B:19:G:H5'	12:B:20:C:OP2	2.04	0.58
11:A:2073:C:H2'	11:A:2074:U:H6	1.69	0.58
14:D:175:LEU:HD12	14:D:185:VAL:CG2	2.32	0.58
11:A:1672:C:N3	11:A:1673:U:C5	2.72	0.58
11:A:2853:C:H2'	11:A:2854:G:C8	2.39	0.58
21:N:60:ILE:HD13	21:N:99:LEU:HD23	1.85	0.58
1:0:28:GLY:H	1:0:66:VAL:HG13	1.68	0.58
7:6:33:LYS:O	7:6:34:LEU:HB2	2.04	0.58
11:A:2629:A:H2'	11:A:2629:A:N3	2.18	0.58
24:Q:59:ARG:HD2	24:Q:59:ARG:C	2.24	0.58
11:A:1847:A:H2'	11:A:1847:A:N3	2.19	0.58
16:F:88:VAL:HG22	16:F:89:VAL:H	1.68	0.58
11:A:621:A:H2'	11:A:622:G:O4'	2.02	0.58
23:P:126:VAL:HG22	23:P:145:PRO:CB	2.34	0.58
11:A:1301:A:H4'	11:A:1302:A:OP1	2.02	0.58
11:A:661:C:H2'	11:A:662:G:C8	2.39	0.58
11:A:1902:C:C4'	14:D:244:ARG:HB2	2.34	0.58
11:A:459:U:H2'	11:A:460:A:C8	2.24	0.58
23:P:83:VAL:H	23:P:115:LEU:CD2	2.16	0.58
1:0:25:ARG:NH2	1:0:35:ASN:HD22	2.01	0.58
11:A:1722:A:O2'	11:A:1739:U:C5'	2.52	0.58
15:E:15:PHE:CD1	15:E:20:ALA:HB2	2.38	0.58
11:A:1396:U:O2	11:A:1396:U:H2'	2.03	0.58
7:6:18:ARG:HG2	7:6:18:ARG:NH1	2.17	0.58
9:8:62:LEU:HD22	11:A:242:G:H5'	1.85	0.58
11:A:1861:G:H1	11:A:1881:C:H42	1.52	0.58
16:F:19:GLU:O	16:F:20:LEU:HD23	2.03	0.58
11:A:2757:A:H2'	11:A:2757:A:N3	2.18	0.58
3:2:30:ARG:O	3:2:33:MET:HB3	2.03	0.58
3:2:63:VAL:O	3:2:65:ASN:N	2.36	0.58
11:A:749:C:H4'	11:A:1271:G:N3	2.19	0.58
26:S:66:ALA:HB1	26:S:99:LYS:HD3	1.86	0.58
11:A:1348:G:O2'	11:A:1349:A:H5''	2.04	0.58
13:C:20:TYR:HB3	13:C:24:GLU:HB3	1.85	0.58
33:Z:5:LEU:O	33:Z:59:LEU:HA	2.04	0.58
33:Z:99:TYR:HE2	33:Z:125:LEU:HD13	1.68	0.58
11:A:336:C:H4'	32:Y:7:VAL:CG2	2.34	0.58
11:A:1199:U:H3	11:A:1246:A:H61	1.51	0.58
11:A:84:A:H2	11:A:98:G:H21	1.51	0.58
11:A:1392:A:H2'	11:A:1393:A:O4'	2.02	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:428:A:H3'	11:A:429:A:C8	2.39	0.58
11:A:2176:A:H4'	13:C:213:TYR:CD1	2.39	0.58
24:Q:137:TYR:CZ	33:Z:81:ARG:NH2	2.72	0.58
30:W:13:SER:O	30:W:17:VAL:HG23	2.04	0.58
14:D:149:PRO:HG3	14:D:186:HIS:HD2	1.67	0.58
11:A:66:C:O4'	11:A:456:C:N3	2.36	0.58
12:B:3:C:H42	12:B:118:G:H1	1.51	0.58
11:A:1782:C:O2	11:A:2609:U:H5''	2.04	0.58
11:A:333:G:H2'	11:A:333:G:N3	2.19	0.58
11:A:1705:G:O2'	11:A:1706:U:H5'	2.03	0.58
11:A:2764:A:C2	11:A:2766:G:H1'	2.38	0.58
11:A:1968:G:C2'	11:A:1969:A:H5''	2.34	0.58
11:A:2290:G:H2'	11:A:2291:U:O4'	2.03	0.58
11:A:2756:U:H4'	11:A:2757:A:O5'	2.04	0.58
18:H:51:ARG:O	18:H:52:VAL:HG23	2.04	0.58
11:A:108:U:H2'	11:A:109:G:H8	1.68	0.58
7:6:6:ARG:CB	7:6:6:ARG:HH11	2.13	0.58
11:A:1639:U:H2'	11:A:1640:C:C5'	2.32	0.58
27:T:28:VAL:CG1	27:T:46:GLU:HA	2.33	0.58
33:Z:130:PRO:O	33:Z:133:ILE:HD11	2.04	0.58
32:Y:74:PRO:HG2	32:Y:80:GLY:O	2.04	0.58
11:A:2206:G:N3	11:A:2206:G:H5''	2.19	0.58
18:H:149:ARG:HD3	18:H:164:TYR:CD1	2.38	0.58
11:A:31:C:H5''	11:A:1239:G:OP1	2.04	0.58
20:K:72:UNK:O	20:K:73:UNK:C	2.52	0.58
11:A:611:C:H2'	11:A:612:C:C6	2.35	0.58
11:A:2375:G:N3	11:A:2379:G:N2	2.52	0.58
15:E:169:ASN:HD22	15:E:169:ASN:C	2.07	0.58
21:N:5:VAL:CG1	21:N:7:LYS:HG3	2.33	0.58
22:O:22:ILE:HG12	22:O:41:ALA:HA	1.84	0.58
7:6:10:LEU:HD22	7:6:10:LEU:N	2.19	0.58
7:6:19:ARG:CG	7:6:20:ASN:H	1.98	0.58
32:Y:50:ARG:HG3	32:Y:56:PRO:O	2.03	0.58
14:D:27:THR:OG1	14:D:83:GLU:HG2	2.03	0.58
16:F:101:LEU:HD12	16:F:102:PRO:CD	2.31	0.58
11:A:2840:C:C5'	25:R:53:HIS:HD2	2.11	0.58
25:R:77:ARG:C	25:R:79:LEU:H	2.08	0.58
17:G:105:LYS:HD2	17:G:142:PRO:HG3	1.86	0.58
23:P:101:VAL:CG2	23:P:102:ARG:N	2.67	0.58
11:A:2639:A:H2'	11:A:2640:G:O4'	2.04	0.58
13:C:166:ASP:OD2	13:C:168:THR:HG23	2.04	0.58
16:F:64:ILE:CG2	16:F:65:TRP:H	2.09	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:1:11:ARG:HH11	2:1:11:ARG:HB3	1.67	0.58
11:A:1777:U:O2'	11:A:1778:U:H5'	2.04	0.58
11:A:1902:C:H5''	14:D:246:PRO:CD	2.34	0.58
11:A:1069:A:H1'	11:A:1070:A:P	2.43	0.58
11:A:2110:G:O2'	11:A:2111:C:OP1	2.22	0.58
29:V:64:HIS:ND1	29:V:92:THR:HG22	2.19	0.58
14:D:91:ARG:CG	14:D:91:ARG:HH11	2.16	0.58
11:A:1806:C:N4	11:A:1811:G:H1	2.02	0.58
1:0:30:VAL:O	1:0:31:VAL:HG13	2.04	0.58
11:A:304:G:H2'	11:A:305:U:C6	2.38	0.58
11:A:2856:C:C2'	11:A:2857:G:H5'	2.34	0.58
7:6:15:GLU:O	7:6:17:LYS:N	2.37	0.57
23:P:55:ARG:O	23:P:57:THR:N	2.37	0.57
11:A:2090:G:N2	11:A:2229:C:O2	2.37	0.57
11:A:2010:G:O2'	11:A:2011:U:H5'	2.03	0.57
7:6:26:ASN:O	7:6:27:LYS:HB2	2.01	0.57
27:T:11:GLU:CD	27:T:11:GLU:H	2.08	0.57
24:Q:141:GLN:O	33:Z:70:LEU:HD12	2.04	0.57
12:B:75:G:O2'	33:Z:27:VAL:HG21	2.04	0.57
1:0:49:LYS:O	1:0:51:VAL:HG23	2.04	0.57
32:Y:10:GLY:CA	32:Y:27:VAL:HG13	2.34	0.57
23:P:16:ARG:HD3	23:P:17:LYS:N	2.18	0.57
11:A:2589:A:H2'	11:A:2590:A:C8	2.39	0.57
11:A:1826:G:OP2	14:D:222:ARG:HB3	2.03	0.57
28:U:95:LEU:CD1	29:V:11:GLN:HG3	2.32	0.57
13:C:139:ASN:OD1	13:C:140:PRO:HD2	2.04	0.57
8:7:40:TRP:CE3	11:A:459:U:H4'	2.39	0.57
11:A:2151:G:H2'	11:A:2152:G:H8	1.68	0.57
11:A:223:A:N7	11:A:422:A:H1'	2.18	0.57
11:A:2442:C:H2'	11:A:2442:C:O2	2.02	0.57
11:A:2249:U:H4'	11:A:2275:C:H5	1.69	0.57
11:A:6:A:H2'	11:A:7:G:H8	1.69	0.57
23:P:116:GLY:O	23:P:137:LYS:NZ	2.37	0.57
12:B:6:C:H42	12:B:115:G:H1	1.51	0.57
13:C:58:VAL:HG22	13:C:201:PRO:CG	2.34	0.57
9:8:59:LYS:O	9:8:60:LEU:HD23	2.03	0.57
11:A:1801:G:H3'	11:A:1802:A:H5'	1.86	0.57
11:A:1822:G:C4	11:A:1823:G:C8	2.92	0.57
11:A:1242:A:H3'	11:A:1243:G:H8	1.69	0.57
11:A:2758:A:H2	11:A:2759:G:H1'	1.69	0.57
3:2:63:VAL:HA	3:2:66:GLU:HG2	1.86	0.57
11:A:343:C:H2'	11:A:344:G:O5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:40:LEU:HD13	29:V:46:VAL:H	1.69	0.57
11:A:2789:C:H1'	11:A:2892:A:C2	2.38	0.57
11:A:1678:G:O5'	11:A:1678:G:H8	1.88	0.57
11:A:2230:G:H2'	11:A:2231:C:H6	1.69	0.57
11:A:1248:G:P	16:F:92:PRO:HG3	2.44	0.57
24:Q:24:GLY:O	24:Q:26:TYR:N	2.36	0.57
11:A:1375:C:O2'	11:A:1376:C:H5'	2.02	0.57
11:A:2777:G:C5'	11:A:2778:A:H5'	2.34	0.57
14:D:48:ARG:HG3	14:D:48:ARG:NH1	2.19	0.57
11:A:1949:G:H1	11:A:1957:C:N4	2.01	0.57
11:A:1304:C:O2'	11:A:1305:C:H5'	2.03	0.57
11:A:226:G:H1	11:A:418:G:H21	1.51	0.57
11:A:811:U:O2	11:A:1251:C:C5	2.57	0.57
16:F:28:ILE:HG21	16:F:116:ASP:OD1	2.04	0.57
11:A:749:C:H5'	11:A:1271:G:H1'	1.85	0.57
7:6:8:LYS:HA	7:6:27:LYS:CD	2.34	0.57
23:P:97:PRO:C	23:P:99:LEU:N	2.58	0.57
33:Z:102:LEU:HD21	33:Z:124:ILE:HD13	1.86	0.57
33:Z:25:PRO:O	33:Z:85:HIS:HD2	1.87	0.57
17:G:165:THR:O	17:G:168:GLU:HB2	2.04	0.57
17:G:27:ASN:C	17:G:29:TRP:H	2.07	0.57
32:Y:6:HIS:CD2	32:Y:6:HIS:N	2.70	0.57
11:A:1528(A):A:H62	11:A:1541:G:N2	2.03	0.57
32:Y:86:ARG:CG	32:Y:87:LYS:H	2.15	0.57
11:A:471:A:C2'	11:A:472:A:H5''	2.34	0.57
18:H:103:LEU:HB2	18:H:123:PHE:CD2	2.32	0.57
13:C:6:ARG:O	13:C:10:LEU:HD23	2.05	0.57
11:A:535:C:O3'	28:U:53:ARG:HD3	2.04	0.57
28:U:52:ARG:HA	28:U:55:ARG:HH12	1.69	0.57
14:D:196:VAL:HG12	14:D:196:VAL:O	2.04	0.57
33:Z:145:GLU:HG3	33:Z:146:ILE:H	1.69	0.57
7:6:32:ASN:CG	7:6:33:LYS:H	2.06	0.57
11:A:41:C:H2'	11:A:42:G:O4'	2.05	0.57
9:8:13:ARG:HD2	23:P:61:ARG:HD2	1.87	0.57
28:U:16:LYS:C	28:U:17:ILE:HD12	2.23	0.57
13:C:116:THR:HG21	13:C:147:PHE:CD1	2.39	0.57
10:9:1:MET:HG3	10:9:31:LYS:O	2.04	0.57
15:E:1:MET:O	15:E:2:LYS:C	2.43	0.57
11:A:2785:C:H2'	11:A:2786:U:H6	1.69	0.57
33:Z:10:ARG:HG2	33:Z:12:GLY:N	2.19	0.57
23:P:20:GLY:O	23:P:21:ARG:HB2	2.04	0.57
11:A:2591:C:OP2	14:D:239:ARG:HB3	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2123:G:H1'	13:C:172:HIS:HB3	1.86	0.57
4:3:15:TYR:HB3	4:3:19:GLN:NE2	2.19	0.57
11:A:195:A:N7	11:A:197:A:OP1	2.38	0.57
15:E:178:GLU:HG3	15:E:179:GLU:N	2.20	0.57
26:S:83:LYS:C	26:S:105:ALA:HB3	2.25	0.57
8:7:19:ARG:NH2	11:A:124:G:N7	2.52	0.57
2:1:56:GLN:O	2:1:57:GLU:O	2.21	0.57
2:1:56:GLN:O	2:1:57:GLU:C	2.42	0.57
21:N:16:ILE:HG23	21:N:16:ILE:O	2.04	0.57
11:A:1623:G:O2'	11:A:1624:G:H5'	2.05	0.57
20:K:113:UNK:O	20:K:114:UNK:CB	2.52	0.57
15:E:149:ARG:HH11	15:E:149:ARG:HG3	1.69	0.57
11:A:2333:A:H1'	11:A:2335:A:C5	2.39	0.57
23:P:36:LYS:HB3	23:P:41:ARG:HB3	1.86	0.57
25:R:28:LEU:HA	25:R:34:ILE:HG13	1.85	0.57
17:G:146:TYR:CG	17:G:147:ASP:N	2.72	0.57
26:S:30:ARG:HH11	26:S:35:ILE:HB	1.68	0.57
23:P:78:PRO:CB	23:P:111:ARG:NH2	2.67	0.57
23:P:147:LEU:HG	23:P:148:LEU:N	2.20	0.57
15:E:60:ASN:OD1	15:E:62:PRO:HD2	2.05	0.57
11:A:2864:G:OP1	27:T:119:LYS:HD2	2.05	0.57
33:Z:127:LYS:NZ	33:Z:164:ALA:HB2	2.20	0.57
16:F:10:PRO:HG2	16:F:11:VAL:H	1.70	0.57
24:Q:67:ARG:HD2	24:Q:105:GLU:OE1	2.03	0.57
28:U:31:SER:HB3	28:U:34:LYS:HB2	1.85	0.57
11:A:654(N):G:O2'	11:A:654(O):G:H5'	2.04	0.57
11:A:873:G:O2'	11:A:874:G:H5'	2.05	0.57
22:O:13:ASN:ND2	22:O:97:ARG:HB2	2.20	0.57
1:0:55:ARG:NH1	11:A:2384:G:OP2	2.38	0.57
11:A:2289:G:H5''	11:A:2384:G:H4'	1.86	0.57
11:A:2338:G:H2'	11:A:2339:G:C8	2.37	0.57
14:D:37:LEU:O	14:D:62:TYR:HB3	2.04	0.57
16:F:45:ARG:CZ	16:F:97:TYR:CE1	2.88	0.57
11:A:2762:G:C2'	11:A:2763:G:H5'	2.35	0.57
11:A:1278:A:H5''	25:R:36:THR:HG22	1.85	0.57
11:A:271(J):C:H2'	11:A:271(J):C:O2	2.03	0.57
11:A:1299:G:H4'	11:A:1301:A:C4	2.40	0.57
27:T:64:ARG:HA	27:T:72:VAL:O	2.05	0.57
16:F:9:ILE:HG12	16:F:14:PRO:CA	2.26	0.57
2:1:11:ARG:CB	2:1:11:ARG:NH1	2.68	0.57
11:A:1199:U:H2'	11:A:1200:C:C6	2.39	0.57
11:A:2305:A:N6	17:G:43:LEU:HD13	2.20	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:51:ARG:HD3	17:G:53:LEU:HD21	1.84	0.57
11:A:2026:C:H42	11:A:2037:G:H1	1.52	0.57
11:A:2514:U:H2'	11:A:2515:C:H6	1.69	0.57
17:G:114:ILE:CD1	17:G:135:LEU:HD11	2.35	0.57
13:C:6:ARG:NH1	13:C:6:ARG:O	2.38	0.57
11:A:979:G:H21	11:A:985:C:H42	1.52	0.57
11:A:1127:A:O2'	11:A:2517:C:H4'	2.05	0.57
11:A:584:C:OP1	28:U:6:THR:HB	2.04	0.57
11:A:2881:C:H2'	11:A:2882:A:H8	1.70	0.57
17:G:144:ILE:O	17:G:144:ILE:HG23	2.04	0.57
27:T:68:TYR:C	27:T:70:VAL:H	2.07	0.57
33:Z:163:LEU:CG	33:Z:165:VAL:HG23	2.35	0.57
33:Z:92:SER:O	33:Z:130:PRO:HG2	2.05	0.57
1:0:47:PRO:O	1:0:78:TYR:HD2	1.87	0.57
17:G:163:ALA:CB	17:G:169:ALA:HB2	2.27	0.57
17:G:19:LEU:CD2	17:G:175:LEU:HD12	2.35	0.57
17:G:31:VAL:O	17:G:31:VAL:HG13	2.02	0.57
11:A:18:C:O3'	28:U:23:GLY:HA2	2.04	0.57
11:A:553:G:H2'	11:A:554:U:O4'	2.05	0.57
29:V:52:VAL:HG22	29:V:52:VAL:O	2.03	0.57
26:S:106:ARG:C	26:S:106:ARG:HD2	2.25	0.57
18:H:85:LYS:NZ	18:H:133:VAL:H	1.97	0.57
11:A:1027:A:H2	11:A:1028:A:N7	2.03	0.57
11:A:537:C:H42	11:A:556:G:N2	2.02	0.57
14:D:48:ARG:HG3	14:D:48:ARG:HH11	1.69	0.57
14:D:125:ILE:O	14:D:125:ILE:HG22	2.03	0.57
12:B:25:A:H2'	12:B:25:A:N3	2.18	0.57
11:A:811:U:O2	11:A:1251:C:C6	2.58	0.57
11:A:669:G:C2	11:A:801:G:C6	2.93	0.57
11:A:769:G:H2'	11:A:770:G:H8	1.70	0.57
3:2:63:VAL:C	3:2:65:ASN:N	2.56	0.57
10:9:1:MET:SD	11:A:2478:A:OP2	2.62	0.57
11:A:2467:C:O2'	11:A:2468:G:H5'	2.04	0.57
23:P:88:LEU:HD21	23:P:95:VAL:HG21	1.86	0.57
11:A:327:G:O2'	11:A:328:U:H5'	2.04	0.57
21:N:131:GLN:HE22	21:N:133:GLN:CA	2.17	0.57
6:5:16:ARG:HD3	11:A:1263:U:H5''	1.87	0.57
11:A:20:C:O2'	11:A:21:A:H5'	2.05	0.57
17:G:52:ILE:CD1	17:G:52:ILE:H	2.08	0.57
15:E:120:TRP:NE1	15:E:155:LYS:HB3	2.19	0.57
18:H:86:GLU:OE1	18:H:165:ALA:HB2	2.04	0.57
28:U:28:ARG:HD3	28:U:38:THR:HG23	1.87	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:41:VAL:N	13:C:176:GLY:O	2.38	0.57
29:V:19:LYS:HB3	29:V:94:LEU:O	2.04	0.57
8:7:13:ALA:O	8:7:17:GLY:HA3	2.05	0.57
32:Y:39:VAL:CG1	32:Y:40:GLU:H	2.11	0.57
26:S:56:LEU:C	26:S:58:LEU:N	2.57	0.57
14:D:209:ALA:C	14:D:210:GLY:O	2.40	0.57
11:A:2410:G:H2'	11:A:2411:A:H8	1.69	0.57
11:A:2312:U:H5''	17:G:74:LYS:NZ	2.19	0.57
2:1:3:LYS:HZ3	2:1:3:LYS:HB3	1.69	0.57
11:A:573:G:H5'	11:A:575:A:N7	2.20	0.57
15:E:1:MET:N	15:E:83:ASP:O	2.36	0.57
22:O:91:LEU:HD13	22:O:111:PHE:HE1	1.70	0.57
32:Y:98:VAL:HG12	32:Y:98:VAL:O	2.05	0.57
17:G:20:ILE:CG2	17:G:25:TYR:HB2	2.35	0.57
6:5:51:TYR:HB3	6:5:54:GLY:HA3	1.86	0.57
11:A:1440:G:H2'	11:A:1441:G:H8	1.70	0.57
11:A:1551:C:C2'	11:A:1552:G:H5'	2.35	0.57
13:C:98:GLU:O	13:C:98:GLU:HG3	2.04	0.57
11:A:1010:A:H1'	11:A:1153:C:C1'	2.33	0.57
23:P:134:ALA:HB2	23:P:137:LYS:NZ	2.19	0.57
11:A:2656:U:H2'	11:A:2657:A:H5''	1.87	0.57
11:A:1511:C:H2'	11:A:1512:U:H6	1.69	0.57
11:A:2480:C:OP1	11:A:2537:U:H4'	2.05	0.57
11:A:2728:U:O2'	15:E:22:PRO:HG3	2.05	0.57
11:A:2460:U:H2'	11:A:2461:C:O4'	2.04	0.57
11:A:2292:C:H42	11:A:2340:G:H1	1.52	0.57
28:U:20:LEU:HD22	28:U:20:LEU:N	2.20	0.57
11:A:1427:A:H4'	11:A:1428:C:O5'	2.05	0.57
15:E:111:ARG:HA	25:R:2:ARG:HG3	1.85	0.57
15:E:34:VAL:HG11	15:E:78:LEU:HD22	1.87	0.57
7:6:8:LYS:HD3	7:6:27:LYS:HD3	1.87	0.57
27:T:59:THR:OG1	27:T:78:LEU:HD12	2.05	0.57
11:A:1403:C:H5''	11:A:1471:A:C1'	2.34	0.57
11:A:444:C:H4'	28:U:2:PRO:HD3	1.86	0.57
11:A:442:G:H21	16:F:48:THR:HB	1.69	0.57
14:D:245:PRO:O	14:D:246:PRO:C	2.42	0.57
11:A:1440:G:N2	11:A:1552:G:H1'	2.20	0.57
11:A:1528(A):A:H8	11:A:1529:G:C8	2.23	0.57
2:1:89:GLU:O	2:1:93:GLU:HB2	2.05	0.57
28:U:28:ARG:HD3	28:U:38:THR:CG2	2.34	0.57
11:A:1326:U:O2'	11:A:1327:C:H5'	2.05	0.57
11:A:988:A:O5'	11:A:988:A:C8	2.57	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:N:39:ARG:C	21:N:41:ASP:H	2.08	0.57
11:A:1121:C:H2'	11:A:1122:G:C8	2.39	0.57
1:0:30:VAL:HG12	1:0:66:VAL:HG23	1.87	0.57
11:A:2558:C:H2'	11:A:2559:C:H6	1.69	0.57
9:8:8:LYS:HG2	9:8:11:LYS:HD3	1.86	0.56
23:P:24:GLY:CA	23:P:33:ARG:HH12	2.18	0.56
5:4:7:PRO:HD3	17:G:67:LYS:HE3	1.88	0.56
15:E:81:ILE:O	15:E:81:ILE:CG2	2.53	0.56
11:A:1274:A:N3	11:A:1297:C:H1'	2.20	0.56
11:A:2710:C:O2'	11:A:2711:A:H5'	2.04	0.56
33:Z:125:LEU:HG	33:Z:164:ALA:HB3	1.87	0.56
11:A:2101:G:H2'	11:A:2102:U:C4'	2.35	0.56
31:X:65:ARG:O	31:X:66:LEU:HB2	2.04	0.56
11:A:1577:C:H2'	11:A:1578:U:C6	2.40	0.56
4:3:52:HIS:H	4:3:52:HIS:CD2	2.22	0.56
11:A:149:A:C2	11:A:150:C:C2	2.93	0.56
11:A:536:A:P	28:U:53:ARG:HH11	2.28	0.56
30:W:64:MET:HB3	30:W:109:GLU:CG	2.35	0.56
30:W:69:LEU:HA	30:W:108:GLY:O	2.05	0.56
11:A:2737:G:H2'	11:A:2738:A:C8	2.39	0.56
11:A:2193:G:H8	11:A:2193:G:H5'	1.70	0.56
11:A:843:G:O2'	11:A:844:C:H5'	2.05	0.56
7:6:15:GLU:O	7:6:16:CYS:C	2.43	0.56
9:8:62:LEU:CD1	11:A:242:G:H3'	2.30	0.56
11:A:572:A:H5'	29:V:78:LYS:HZ1	1.70	0.56
16:F:84:VAL:O	16:F:86:GLY:N	2.35	0.56
9:8:13:ARG:NH1	23:P:59:LEU:HG	2.20	0.56
11:A:2761:G:H2'	11:A:2762:G:C5'	2.11	0.56
5:4:6:HIS:CA	17:G:67:LYS:HE3	2.35	0.56
29:V:40:LEU:HA	29:V:45:THR:HB	1.87	0.56
12:B:50:G:OP1	26:S:63:THR:HG23	2.03	0.56
11:A:1761:C:H2'	11:A:1762:A:H8	1.71	0.56
12:B:74:U:H2'	12:B:75:G:C1'	2.35	0.56
11:A:920:G:H2'	11:A:921:G:H8	1.70	0.56
32:Y:27:VAL:HG12	32:Y:29:GLU:H	1.70	0.56
11:A:37:C:H2'	11:A:38:A:C8	2.40	0.56
28:U:91:ASP:OD1	28:U:96:ALA:HB2	2.06	0.56
11:A:1336:A:H2'	11:A:1337:G:H8	1.69	0.56
14:D:95:LEU:H	14:D:95:LEU:HD12	1.70	0.56
17:G:47:LYS:HE3	17:G:81:LYS:HG3	1.87	0.56
11:A:1525:G:H2'	11:A:1526:G:H8	1.70	0.56
33:Z:77:ASP:OD2	33:Z:79:ARG:O	2.23	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:25:U:H5'	30:W:79:GLY:HA2	1.87	0.56
4:3:15:TYR:CD2	4:3:19:GLN:NE2	2.72	0.56
11:A:2801(A):A:H5'	11:A:2802:G:H8	1.70	0.56
11:A:2246:G:H2'	11:A:2247:A:H8	1.65	0.56
11:A:31:C:H2'	11:A:32:C:C4'	2.34	0.56
27:T:6:LEU:HA	27:T:9:LEU:HD12	1.87	0.56
11:A:1011:G:O2'	11:A:1013:C:C5'	2.54	0.56
11:A:2422:A:C8	11:A:2422:A:H3'	2.40	0.56
11:A:953:A:OP2	24:Q:16:ARG:CZ	2.53	0.56
18:H:167:GLU:HG2	18:H:168:PRO:HD2	1.87	0.56
11:A:653:A:N3	11:A:653:A:H2'	2.19	0.56
11:A:587:C:C5	23:P:33:ARG:HG2	2.40	0.56
11:A:448:U:H1'	16:F:84:VAL:CG1	2.34	0.56
11:A:2027:G:O2'	11:A:2028:U:H5'	2.04	0.56
11:A:2386:C:H2'	11:A:2387:U:C6	2.40	0.56
14:D:68:LYS:HB2	14:D:70:TRP:CE2	2.41	0.56
16:F:25:PRO:HB3	16:F:119:ARG:CB	2.35	0.56
16:F:206:ILE:HG22	16:F:207:GLY:N	2.13	0.56
11:A:2760:C:C3'	11:A:2761:G:H5''	2.36	0.56
11:A:320:A:C5	16:F:136:THR:HG21	2.41	0.56
11:A:321:G:H1'	16:F:168:ARG:NH2	2.19	0.56
11:A:1268:A:H2'	11:A:1269:A:H8	1.70	0.56
25:R:29:LEU:O	25:R:30:THR:HB	2.05	0.56
11:A:2837:G:H2'	11:A:2838:G:C8	2.34	0.56
15:E:3:GLY:O	15:E:4:ILE:HB	2.05	0.56
23:P:95:VAL:HG23	23:P:125:VAL:HG23	1.87	0.56
27:T:85:LYS:HB3	27:T:85:LYS:HZ2	1.66	0.56
1:0:47:PRO:HB3	1:0:51:VAL:O	2.04	0.56
11:A:675:A:H4'	16:F:67:GLN:OE1	2.05	0.56
17:G:125:PHE:CZ	17:G:173:LEU:HD12	2.39	0.56
32:Y:74:PRO:HG2	32:Y:81:LYS:O	2.04	0.56
10:9:11:CYS:SG	10:9:12:ASP:N	2.77	0.56
21:N:134:ARG:N	21:N:135:PRO:HD3	2.21	0.56
11:A:2188:C:H2'	11:A:2189:U:N1	2.19	0.56
18:H:26:VAL:CG1	18:H:76:VAL:HA	2.36	0.56
21:N:36:GLY:H	21:N:49:GLY:HA3	1.69	0.56
28:U:92:ARG:O	28:U:94:ASN:N	2.38	0.56
11:A:1574:C:H2'	11:A:1575:C:C6	2.40	0.56
11:A:2110:G:N2	11:A:2178:C:H5	2.03	0.56
11:A:2123:G:O2'	11:A:2124:G:H5'	2.06	0.56
11:A:2145:C:H2'	11:A:2147:G:H22	1.70	0.56
11:A:958:U:O4	24:Q:17:LEU:HD21	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:87:LEU:CD2	18:H:164:TYR:HA	2.35	0.56
24:Q:70:PRO:CA	24:Q:94:VAL:O	2.52	0.56
11:A:827:U:H5'	11:A:828:U:O5'	2.06	0.56
17:G:111:LEU:HB2	17:G:112:PRO:HD3	1.87	0.56
28:U:55:ARG:HG2	28:U:58:ARG:CZ	2.35	0.56
28:U:49:HIS:O	28:U:53:ARG:N	2.30	0.56
33:Z:146:ILE:HA	33:Z:174:VAL:HG11	1.86	0.56
18:H:127:GLU:OE1	18:H:128:PRO:HD3	2.05	0.56
11:A:733:G:N7	11:A:761:A:C6	2.74	0.56
11:A:2496:C:O2'	11:A:2497:A:H5'	2.05	0.56
11:A:302:C:O2'	11:A:303:U:H5'	2.04	0.56
18:H:12:PRO:HA	18:H:48:GLY:HA2	1.86	0.56
10:9:17:ILE:HG21	10:9:19:ARG:HH21	1.70	0.56
8:7:19:ARG:NH2	11:A:124:G:C5	2.73	0.56
31:X:33:LYS:HD3	31:X:33:LYS:N	2.20	0.56
28:U:17:ILE:HA	28:U:20:LEU:HD23	1.88	0.56
3:2:57:ILE:O	3:2:61:LEU:N	2.36	0.56
17:G:106:LEU:HD12	17:G:110:ALA:HB3	1.88	0.56
12:B:48:A:OP1	26:S:93:LYS:HB3	2.05	0.56
11:A:2787:C:H1'	15:E:61:ARG:HG3	1.87	0.56
27:T:38:ASN:ND2	27:T:40:THR:OG1	2.38	0.56
27:T:78:LEU:O	27:T:79:HIS:HD2	1.88	0.56
13:C:196:LEU:O	13:C:197:GLU:C	2.44	0.56
24:Q:140:ALA:O	24:Q:141:GLN:HG2	2.05	0.56
21:N:2:LYS:HZ1	29:V:12:TYR:HA	1.70	0.56
11:A:2243:U:H2'	11:A:2244:U:C5	2.39	0.56
11:A:197:A:N6	11:A:2430:A:H2'	2.20	0.56
11:A:2127:G:H2'	11:A:2128:C:C6	2.41	0.56
11:A:116:C:O2'	11:A:126:A:N3	2.39	0.56
28:U:52:ARG:HA	28:U:55:ARG:NH1	2.20	0.56
11:A:1675:C:O2	15:E:129:HIS:HA	2.06	0.56
11:A:978:G:H1	11:A:985:C:N4	2.03	0.56
26:S:56:LEU:O	26:S:56:LEU:HD23	2.05	0.56
11:A:1049:C:O2	11:A:1113:U:H4'	2.04	0.56
11:A:1957:C:O2'	11:A:1985:G:H1'	2.04	0.56
1:0:50:ASN:ND2	1:0:63:VAL:HG21	2.19	0.56
11:A:1865:G:H5'	11:A:1866:C:P	2.45	0.56
12:B:101:G:H2'	12:B:102:A:O4'	2.04	0.56
20:K:95:UNK:O	20:K:97:UNK:N	2.38	0.56
23:P:71:VAL:HG13	23:P:72:PRO:HD3	1.86	0.56
11:A:343:C:C2'	11:A:344:G:O5'	2.54	0.56
11:A:2820:A:H4'	25:R:5:LYS:HE2	1.87	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:96:GLY:O	26:S:98:VAL:N	2.38	0.56
11:A:2685:G:HO2'	11:A:2726:U:H5	1.54	0.56
15:E:201:THR:HG23	15:E:203:LYS:H	1.70	0.56
17:G:122:PRO:HD3	17:G:181:ARG:HB3	1.88	0.56
17:G:44:GLY:O	17:G:46:ALA:N	2.38	0.56
12:B:8:U:H2'	12:B:9:G:C8	2.40	0.56
11:A:723:G:C2	11:A:724:U:C2	2.94	0.56
11:A:2138:C:O2'	11:A:2139:C:H5'	2.06	0.56
24:Q:37:LEU:HD21	24:Q:129:THR:C	2.25	0.56
17:G:117:PHE:CD2	17:G:118:ARG:N	2.74	0.56
4:3:4:LEU:HG	4:3:39:ASP:HB2	1.87	0.56
14:D:28:GLU:OE2	14:D:28:GLU:N	2.39	0.56
11:A:851:U:O2'	11:A:852:G:H5'	2.05	0.56
11:A:678:C:H2'	11:A:679:C:C6	2.41	0.56
22:O:4:PRO:O	22:O:5:GLN:CB	2.53	0.56
11:A:733:G:O5'	11:A:733:G:C8	2.57	0.56
11:A:736:C:O2'	11:A:737:C:H5'	2.06	0.56
1:0:3:HIS:HB2	11:A:2494:G:OP1	2.05	0.56
19:J:45:UNK:O	19:J:49:UNK:HA	2.06	0.56
15:E:95:ILE:N	15:E:95:ILE:HD13	2.20	0.56
7:6:36:LEU:HD12	7:6:50:ARG:HH22	1.65	0.56
11:A:2393:A:H2'	11:A:2394:C:H5'	1.88	0.56
16:F:24:LEU:CB	16:F:25:PRO:CD	2.78	0.56
16:F:42:ALA:C	16:F:44:ARG:H	2.09	0.56
3:2:43:GLN:O	3:2:44:LEU:CB	2.53	0.56
11:A:298:G:H5'	11:A:299:A:OP1	2.05	0.56
16:F:170:LEU:O	16:F:173:VAL:HB	2.06	0.56
15:E:199:ARG:HG2	15:E:200:GLU:N	2.11	0.56
25:R:54:LEU:HB3	25:R:62:ALA:HB1	1.86	0.56
11:A:2680:C:O2'	11:A:2681:C:H5'	2.06	0.56
11:A:1440:G:H22	11:A:1552:G:H1'	1.71	0.56
32:Y:86:ARG:HD2	32:Y:88:LYS:HE3	1.88	0.56
26:S:106:ARG:NH1	26:S:107:GLU:N	2.40	0.56
11:A:2513:G:C2	11:A:2514:U:C2	2.94	0.56
11:A:612:C:H2'	11:A:613:G:H5''	1.81	0.56
14:D:44:ASN:N	14:D:44:ASN:OD1	2.38	0.56
27:T:107:ASP:OD1	27:T:109:GLU:HB2	2.05	0.56
11:A:295:G:H5'	32:Y:3:VAL:HG22	1.88	0.56
24:Q:86:GLY:O	24:Q:87:LYS:HB2	2.05	0.56
11:A:1536:C:H2'	11:A:1537:G:C4'	2.35	0.56
29:V:71:LEU:HD21	29:V:84:LYS:HE2	1.87	0.56
9:8:50:LEU:CD1	9:8:51:ALA:H	2.08	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1252:G:O2'	11:A:1253:A:H5''	2.04	0.56
23:P:23:PRO:HA	23:P:29:LYS:O	2.06	0.56
10:9:30:PRO:C	10:9:32:HIS:H	2.07	0.56
24:Q:55:VAL:HG23	33:Z:178:GLU:CG	2.36	0.56
11:A:747:U:C5	11:A:2613:U:C5	2.94	0.56
12:B:44:G:O2'	12:B:45:A:H5''	2.04	0.56
16:F:60:SER:O	16:F:77:ASP:HB2	2.06	0.56
23:P:91:PHE:N	23:P:91:PHE:CD1	2.73	0.56
27:T:32:TYR:HD2	27:T:32:TYR:N	2.03	0.56
27:T:28:VAL:HG11	27:T:46:GLU:OE1	2.05	0.56
27:T:58:ASN:O	27:T:60:THR:HG23	2.06	0.56
33:Z:153:SER:N	33:Z:167:PRO:CB	2.65	0.56
22:O:111:PHE:HB3	22:O:114:ILE:CD1	2.30	0.56
28:U:92:ARG:O	28:U:93:LYS:C	2.44	0.56
30:W:42:ARG:O	30:W:42:ARG:HG2	2.06	0.56
2:1:25:LYS:CD	11:A:388:G:H4'	2.32	0.56
4:3:7:LYS:HB3	4:3:55:ARG:HB2	1.88	0.56
6:5:12:SER:HB3	11:A:2020:A:H5'	1.87	0.56
11:A:1342:A:OP2	11:A:1602:U:O4	2.24	0.56
11:A:1020:A:C2	11:A:1141:U:H1'	2.40	0.56
11:A:2720:U:H2'	11:A:2720:U:O2	2.04	0.56
21:N:6:PRO:O	21:N:7:LYS:O	2.23	0.56
1:0:25:ARG:HH21	1:0:35:ASN:HD22	1.52	0.56
11:A:477:A:H2'	11:A:478:A:C8	2.41	0.56
11:A:2584:U:H2'	11:A:2585:U:H5'	1.87	0.56
11:A:880:G:H2'	11:A:881:G:H8	1.71	0.56
24:Q:10:ARG:HH11	24:Q:10:ARG:HB2	1.70	0.56
9:8:61:LEU:CD1	9:8:62:LEU:HG	2.34	0.56
11:A:812:C:H2'	11:A:813:U:H6	1.70	0.56
11:A:1798:U:C2	11:A:1822:G:N2	2.73	0.56
16:F:185:ASP:HA	16:F:188:ARG:HG2	1.88	0.56
11:A:2762:G:C5'	11:A:2762:G:H8	2.15	0.56
16:F:132:VAL:HG13	16:F:133:ASN:N	2.20	0.56
16:F:168:ARG:O	16:F:169:ASN:C	2.44	0.56
27:T:26:ASP:H	27:T:90:GLN:HA	1.71	0.56
30:W:5:ALA:HB3	30:W:105:VAL:HB	1.88	0.56
2:1:5:CYS:SG	2:1:62:VAL:HA	2.46	0.56
11:A:1840:G:H1	11:A:1902:C:H42	1.54	0.56
11:A:1138:G:C2	11:A:1139:G:H1'	2.41	0.56
28:U:88:ILE:C	28:U:90:VAL:N	2.58	0.56
28:U:92:ARG:HH22	29:V:10:LYS:HG2	1.71	0.56
29:V:4:ILE:HB	29:V:39:LEU:O	2.05	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1390:U:C2'	11:A:1391:U:H5'	2.36	0.56
11:A:1057:A:O2'	11:A:1058:G:H5'	2.06	0.56
11:A:863:A:H2'	11:A:864:G:H8	1.68	0.56
33:Z:77:ASP:HA	33:Z:84:GLU:OE1	2.06	0.56
8:7:15:THR:HG22	8:7:16:HIS:CD2	2.40	0.56
11:A:496:G:H1'	30:W:61:ASN:ND2	2.20	0.56
11:A:959:A:O2'	11:A:960:A:H5'	2.05	0.56
11:A:410:G:N2	11:A:2407:G:C6	2.74	0.56
28:U:102:GLU:HB2	28:U:105:VAL:HB	1.86	0.56
10:9:19:ARG:O	10:9:21:GLY:N	2.37	0.56
21:N:16:ILE:CD1	21:N:139:GLU:N	2.69	0.56
3:2:17:SER:HB2	3:2:20:GLU:HB3	1.88	0.56
7:6:16:CYS:O	7:6:17:LYS:CG	2.52	0.56
11:A:1216:G:N2	11:A:1234:U:H1'	2.20	0.56
11:A:2284:C:H42	11:A:2384:G:H1	1.54	0.56
11:A:693:C:H42	11:A:769:G:H1	1.52	0.56
3:2:22:GLU:HA	3:2:64:LEU:HD11	1.88	0.56
11:A:320:A:C6	16:F:136:THR:HG21	2.41	0.56
11:A:2821:A:OP2	15:E:110:GLY:HA3	2.05	0.56
23:P:88:LEU:HD13	23:P:100:LEU:HD21	1.87	0.56
11:A:1667:G:O2'	11:A:1991:U:O4	2.24	0.56
11:A:1758:G:N7	11:A:2695:C:H4'	2.21	0.56
11:A:1665:A:H4'	22:O:67:LYS:HB2	1.88	0.56
12:B:76:G:H5''	33:Z:15:PRO:HB2	1.88	0.56
11:A:306:U:C4	11:A:307:G:C6	2.94	0.56
17:G:11:TYR:OH	17:G:16:ARG:NH2	2.39	0.56
11:A:1771:C:C5	11:A:1772:G:N7	2.74	0.56
11:A:1775:U:O2'	11:A:1776:G:H5'	2.06	0.56
6:5:16:ARG:HH11	6:5:20:ARG:HH11	1.54	0.56
32:Y:95:LYS:HE3	32:Y:100:ALA:HB2	1.88	0.56
24:Q:67:ARG:N	24:Q:103:MET:O	2.38	0.56
11:A:777:A:H2'	11:A:778:G:H8	1.70	0.56
29:V:82:ARG:N	29:V:82:ARG:HD2	2.21	0.56
4:3:23:LEU:C	4:3:25:ALA:N	2.60	0.56
11:A:817:C:H4'	11:A:932:G:C6	2.40	0.56
11:A:282:A:N3	11:A:282:A:H2'	2.19	0.56
9:8:60:LEU:O	9:8:63:PRO:HG2	2.05	0.56
11:A:1189:A:C2	11:A:1190:G:H1'	2.41	0.56
11:A:497:A:H2'	11:A:498:G:C8	2.41	0.56
14:D:247:ALA:HB1	14:D:252:TRP:O	2.05	0.56
16:F:38:ARG:O	16:F:42:ALA:HB2	2.06	0.56
18:H:66:GLY:HA2	18:H:69:ARG:HB3	1.88	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:69:ARG:NH2	11:A:111:A:O3'	2.39	0.56
6:5:6:VAL:H	11:A:2056:G:N2	2.04	0.56
11:A:1453:U:H5'	25:R:63:ARG:NE	2.21	0.56
11:A:1639:U:C2'	11:A:1640:C:H5''	2.36	0.56
27:T:52:ILE:HG22	27:T:52:ILE:O	2.06	0.56
11:A:1471:A:H3'	11:A:1472:A:H8	1.71	0.56
32:Y:8:LYS:HB2	32:Y:28:LYS:HZ3	1.68	0.56
30:W:36:LEU:N	30:W:36:LEU:HD23	2.08	0.56
28:U:76:TYR:CE2	28:U:80:ILE:HG13	2.41	0.56
11:A:1061:U:H4'	11:A:1070:A:C4'	2.35	0.56
2:1:84:GLY:C	2:1:86:SER:H	2.09	0.56
11:A:223:A:C5	11:A:422:A:H1'	2.41	0.56
11:A:1491:G:H5'	14:D:99:ASP:OD1	2.06	0.56
11:A:452:G:OP1	16:F:57:VAL:HG13	2.05	0.56
30:W:72:LYS:HG3	30:W:108:GLY:HA3	1.87	0.56
11:A:1107:G:OP1	19:J:58:UNK:CB	2.54	0.56
11:A:552:G:H1'	11:A:1220:A:N1	2.21	0.56
5:4:20:ASN:C	5:4:20:ASN:HD22	2.08	0.56
11:A:2677:G:H2'	11:A:2678:C:C6	2.41	0.56
11:A:1622:G:H2'	11:A:1623:G:H8	1.70	0.56
4:3:49:LYS:HG2	4:3:49:LYS:O	2.06	0.56
9:8:10:ALA:C	9:8:12:LYS:N	2.58	0.55
7:6:10:LEU:HD12	9:8:34:TRP:HB2	1.87	0.55
11:A:2358:G:H21	11:A:2359:C:H1'	1.69	0.55
11:A:926:A:C8	11:A:926:A:H5'	2.36	0.55
16:F:117:ARG:NH2	23:P:5:ASP:N	2.55	0.55
24:Q:120:ILE:HG22	24:Q:124:LYS:HE2	1.88	0.55
11:A:2376:A:N6	26:S:92:TYR:CE2	2.74	0.55
17:G:133:LEU:C	17:G:133:LEU:CD1	2.74	0.55
17:G:35:GLU:H	17:G:161:THR:HA	1.72	0.55
16:F:7:TYR:OH	16:F:10:PRO:HG3	2.05	0.55
11:A:2305:A:H1'	17:G:136:ARG:HG2	1.87	0.55
11:A:1446:C:H42	11:A:1465:G:H1	1.54	0.55
11:A:1658:C:C2	11:A:1659:U:C5	2.94	0.55
15:E:116:VAL:HG21	15:E:122:PHE:CD2	2.41	0.55
24:Q:22:LYS:O	24:Q:22:LYS:HG3	2.06	0.55
11:A:2277:G:C6	11:A:2278:A:N7	2.74	0.55
29:V:18:LEU:HD22	29:V:96:ILE:HG12	1.87	0.55
11:A:1229:G:H3'	11:A:1230:C:C6	2.41	0.55
11:A:1064:C:H2'	11:A:1065:U:H5''	1.88	0.55
26:S:34:HIS:NE2	26:S:54:LEU:HB3	2.21	0.55
11:A:1144:G:H2'	11:A:1145:C:H6	1.71	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:111:ARG:NH1	27:T:111:ARG:HG2	2.20	0.55
1:0:26:TYR:HB2	1:0:29:GLN:OE1	2.06	0.55
11:A:2313:C:H6	11:A:2313:C:H5'	1.71	0.55
18:H:12:PRO:HD2	18:H:15:VAL:HG21	1.87	0.55
25:R:56:LYS:C	25:R:58:GLY:H	2.09	0.55
11:A:2856:C:H2'	11:A:2857:G:H5'	1.88	0.55
11:A:990:A:H5'	11:A:1157:G:H5''	1.87	0.55
11:A:1356:G:H2'	11:A:1357:U:O4'	2.05	0.55
24:Q:96:VAL:O	24:Q:96:VAL:HG12	2.04	0.55
9:8:62:LEU:HD13	11:A:242:G:C3'	2.33	0.55
11:A:2282:G:H2'	11:A:2425:A:H61	1.72	0.55
11:A:584:C:C2'	11:A:585:G:H5'	2.36	0.55
11:A:2758:A:H62	18:H:67:LEU:HD11	1.70	0.55
3:2:66:GLU:HG3	3:2:67:LYS:N	2.20	0.55
11:A:72:U:O4	11:A:112:U:H4'	2.07	0.55
11:A:1278:A:H2'	11:A:1279:G:H8	1.71	0.55
11:A:1655:A:H4'	15:E:115:GLY:H	1.71	0.55
11:A:2636:U:H4'	15:E:80:GLU:CD	2.27	0.55
22:O:105:GLU:O	22:O:109:LYS:HG2	2.06	0.55
27:T:28:VAL:HG11	27:T:46:GLU:HA	1.88	0.55
17:G:22:ARG:HH11	17:G:23:PHE:HE2	1.52	0.55
10:9:11:CYS:HG	10:9:14:CYS:HG	1.52	0.55
21:N:26:LEU:CD1	21:N:30:ILE:HD11	2.30	0.55
2:1:87:PRO:HA	2:1:90:ILE:HG13	1.85	0.55
29:V:66:ARG:HG2	29:V:88:ARG:HB3	1.88	0.55
29:V:15:GLU:HB3	29:V:16:PRO:CD	2.35	0.55
8:7:9:ARG:HG2	11:A:1309:G:P	2.45	0.55
11:A:1064:C:N4	11:A:1074:G:H22	2.04	0.55
11:A:201:C:H2'	11:A:202:U:H5'	1.87	0.55
1:0:50:ASN:HD22	1:0:63:VAL:CG2	2.18	0.55
11:A:2408:U:H2'	11:A:2409:G:C8	2.42	0.55
1:0:30:VAL:HA	1:0:65:GLY:O	2.05	0.55
11:A:2097:C:O2'	11:A:2098:U:H5'	2.05	0.55
11:A:757:U:H2'	11:A:758:C:O4'	2.07	0.55
11:A:1260:G:H2'	11:A:1261:C:C6	2.41	0.55
11:A:2341:G:C2	11:A:2342:C:N3	2.75	0.55
14:D:261:LYS:HZ3	14:D:263:ARG:HB2	1.70	0.55
14:D:267:SER:O	14:D:269:PHE:N	2.37	0.55
3:2:13:ALA:CA	3:2:16:LEU:HD12	2.27	0.55
11:A:1487:G:C2	11:A:1488:G:H1'	2.41	0.55
9:8:21:LYS:HD3	9:8:48:PHE:CE2	2.41	0.55
11:A:1991:U:C2'	11:A:1992:G:H5''	2.35	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2699:C:O2'	11:A:2700:C:H5'	2.06	0.55
11:A:1470:G:H3'	11:A:1519:G:O6	2.06	0.55
11:A:310:A:H2	11:A:330:A:HO2'	1.53	0.55
17:G:174:GLU:HA	17:G:180:PHE:CE1	2.41	0.55
17:G:37:VAL:O	17:G:94:LEU:HB2	2.06	0.55
14:D:112:GLN:HB2	14:D:115:GLN:HE21	1.71	0.55
14:D:142:VAL:HG23	14:D:192:THR:O	2.05	0.55
17:G:52:ILE:HB	17:G:54:GLU:OE1	2.06	0.55
11:A:907:U:H4'	24:Q:101:ARG:HH12	1.70	0.55
24:Q:19:GLY:CA	33:Z:79:ARG:HH22	2.15	0.55
14:D:231:HIS:ND1	14:D:232:PRO:N	2.54	0.55
11:A:2223:G:C2'	11:A:2224:G:H5'	2.36	0.55
11:A:271(B):C:H42	11:A:271(W):G:H21	1.54	0.55
12:B:70:C:O2'	12:B:71:C:H5'	2.06	0.55
11:A:464:U:O2'	11:A:465:G:H5'	2.06	0.55
11:A:2316:C:H2'	11:A:2317:C:H6	1.70	0.55
21:N:16:ILE:HD12	21:N:139:GLU:N	2.20	0.55
23:P:71:VAL:CG1	23:P:72:PRO:HD3	2.35	0.55
14:D:204:ILE:O	14:D:204:ILE:HG13	2.05	0.55
11:A:572:A:N6	11:A:2029:G:H21	2.04	0.55
11:A:631:A:H1'	11:A:2415:G:HO2'	1.72	0.55
11:A:607:U:H3	11:A:621:A:H2	1.54	0.55
3:2:38:GLN:HB2	3:2:44:LEU:HD22	1.87	0.55
25:R:28:LEU:HA	25:R:34:ILE:CG1	2.37	0.55
15:E:76:ARG:O	15:E:77:ILE:O	2.24	0.55
11:A:2810:A:C8	11:A:2811:G:H1'	2.41	0.55
33:Z:127:LYS:H	33:Z:163:LEU:HA	1.71	0.55
33:Z:127:LYS:O	33:Z:128:VAL:HB	2.07	0.55
33:Z:12:GLY:HA3	33:Z:36:LYS:NZ	2.20	0.55
33:Z:5:LEU:C	33:Z:6:LYS:HD3	2.27	0.55
21:N:131:GLN:NE2	21:N:133:GLN:HA	2.21	0.55
11:A:1903:G:OP2	14:D:241:PRO:HB2	2.06	0.55
11:A:1005:C:H2'	11:A:1006:C:H6	1.69	0.55
28:U:92:ARG:HH22	29:V:10:LYS:HB3	1.72	0.55
29:V:37:VAL:HG23	29:V:37:VAL:O	2.07	0.55
14:D:79:VAL:O	14:D:113:VAL:HG13	2.07	0.55
17:G:44:GLY:H	17:G:88:ILE:HG21	1.71	0.55
2:1:24:ALA:CA	2:1:32:LYS:HE3	2.36	0.55
11:A:2126:A:H5'	13:C:37:PHE:CE2	2.42	0.55
13:C:70:LYS:HE3	13:C:70:LYS:HA	1.88	0.55
11:A:272(J):C:C3'	11:A:274:G:H5''	2.37	0.55
11:A:237:C:N3	11:A:261:G:C2	2.75	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:7:10:ARG:O	8:7:11:LYS:C	2.43	0.55
22:O:87:ILE:HD13	22:O:93:PRO:HA	1.88	0.55
11:A:2222:G:N3	11:A:2223:G:C8	2.74	0.55
25:R:83:ILE:HG22	25:R:87:TYR:HE2	1.70	0.55
26:S:56:LEU:CD2	26:S:58:LEU:HB2	2.36	0.55
30:W:59:VAL:O	30:W:63:ASP:N	2.28	0.55
11:A:2364:C:H2'	11:A:2365:G:O4'	2.06	0.55
11:A:2790:A:N3	11:A:2791:C:H5''	2.22	0.55
12:B:40:U:H3'	12:B:41:U:H5''	1.88	0.55
11:A:1056:G:O5'	11:A:1056:G:H8	1.90	0.55
9:8:50:LEU:O	9:8:52:LYS:N	2.35	0.55
9:8:22:VAL:CG2	9:8:53:PRO:HB2	2.36	0.55
11:A:1192:G:O6	23:P:29:LYS:NZ	2.36	0.55
11:A:379:G:C6	11:A:396:G:O6	2.60	0.55
13:C:77:ILE:O	13:C:77:ILE:HG22	2.06	0.55
16:F:135:LYS:HB3	16:F:138:GLU:CB	2.33	0.55
11:A:2880:C:H3'	11:A:2880:C:C6	2.41	0.55
25:R:14:SER:O	25:R:17:ARG:N	2.37	0.55
27:T:13:ARG:NE	27:T:13:ARG:CA	2.69	0.55
32:Y:98:VAL:O	32:Y:99:CYS:HB2	2.05	0.55
18:H:135:GLY:HA3	18:H:141:VAL:CG2	2.37	0.55
18:H:148:ILE:O	18:H:162:ILE:HG21	2.07	0.55
11:A:532:A:H5''	28:U:28:ARG:HH12	1.71	0.55
14:D:172:TYR:HD1	14:D:186:HIS:HA	1.71	0.55
15:E:69:LYS:O	15:E:71:GLY:N	2.33	0.55
11:A:635:C:H2'	11:A:636:G:C8	2.41	0.55
11:A:886:C:O2'	11:A:887:A:C4'	2.54	0.55
11:A:950:G:H2'	11:A:951:C:C6	2.42	0.55
24:Q:75:THR:HG21	24:Q:87:LYS:NZ	2.22	0.55
14:D:3:VAL:HG12	14:D:17:THR:HB	1.88	0.55
11:A:1845:G:O2'	11:A:1846:G:H5'	2.06	0.55
23:P:23:PRO:O	23:P:30:THR:HA	2.06	0.55
23:P:24:GLY:HA3	23:P:33:ARG:HH12	1.71	0.55
11:A:1350:C:H2'	11:A:1351:C:C6	2.37	0.55
11:A:1568:G:OP2	14:D:63:ARG:NH2	2.33	0.55
14:D:67:PHE:CE1	14:D:157:ARG:NH2	2.74	0.55
3:2:33:MET:SD	31:X:5:TYR:O	2.65	0.55
5:4:6:HIS:HA	17:G:67:LYS:HE3	1.88	0.55
15:E:52:LEU:HD12	15:E:53:PRO:HD2	1.88	0.55
12:B:30:C:H1'	12:B:57:A:N6	2.21	0.55
6:5:54:GLY:O	6:5:56:LYS:HG2	2.07	0.55
11:A:440:G:N2	16:F:46:ARG:NH2	2.53	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:47:LYS:CE	17:G:81:LYS:HG3	2.36	0.55
24:Q:67:ARG:HB2	24:Q:102:VAL:O	2.07	0.55
18:H:44:VAL:CG1	18:H:45:VAL:H	2.11	0.55
28:U:55:ARG:HA	28:U:58:ARG:CG	2.37	0.55
14:D:28:GLU:H	14:D:29:PRO:CD	2.19	0.55
27:T:129:ARG:HD2	27:T:131:ALA:H	1.72	0.55
11:A:1361:G:N2	11:A:1371:G:H1'	2.22	0.55
11:A:1106:G:H2'	11:A:1107:G:H5'	1.87	0.55
13:C:103:ILE:HG23	13:C:107:TRP:CB	2.37	0.55
11:A:65:C:H5'	31:X:71:GLY:HA3	1.89	0.55
11:A:401:A:H2'	11:A:402:A:C8	2.41	0.55
30:W:95:ILE:O	30:W:95:ILE:HG13	2.05	0.55
7:6:11:LEU:HD13	7:6:11:LEU:C	2.26	0.55
9:8:50:LEU:O	9:8:53:PRO:HD2	2.06	0.55
11:A:2290:G:H22	11:A:2343:C:H1'	1.70	0.55
11:A:1798:U:H5''	14:D:260:ARG:H	1.72	0.55
14:D:35:LYS:HB3	14:D:35:LYS:HZ2	1.72	0.55
16:F:3:GLU:HA	16:F:24:LEU:HB2	1.89	0.55
3:2:32:LEU:HD23	3:2:32:LEU:O	2.07	0.55
11:A:61:G:H8	11:A:61:G:O5'	1.89	0.55
16:F:195:ASP:HB3	16:F:198:ALA:HB3	1.87	0.55
5:4:25:TYR:N	5:4:25:TYR:CD1	2.75	0.55
27:T:61:PHE:O	27:T:75:ILE:HG23	2.07	0.55
27:T:64:ARG:NH1	27:T:102:ILE:HD11	2.21	0.55
12:B:72:G:H21	12:B:104:U:H5	1.53	0.55
11:A:309:G:O3'	32:Y:18:GLY:CA	2.55	0.55
23:P:16:ARG:CD	23:P:18:ARG:H	2.18	0.55
28:U:66:ASN:CB	28:U:76:TYR:HB2	2.36	0.55
11:A:1463:C:H2'	11:A:1464:C:O4'	2.07	0.55
11:A:2149:G:H2'	11:A:2150:U:O4'	2.07	0.55
18:H:83:TYR:HB2	18:H:135:GLY:N	2.13	0.55
11:A:2243:U:O2	11:A:2434:A:C2	2.59	0.55
27:T:83:ILE:O	27:T:84:GLN:O	2.23	0.55
11:A:2062:A:O2'	11:A:2063:C:H5'	2.06	0.55
21:N:6:PRO:CB	21:N:41:ASP:OD1	2.55	0.55
11:A:2684:U:O5'	11:A:2684:U:H6	1.90	0.55
11:A:2033:A:O2'	11:A:2034:U:OP1	2.24	0.55
11:A:2339:G:H2'	11:A:2340:G:H8	1.72	0.55
11:A:1215:G:H4'	28:U:8:VAL:HG21	1.89	0.55
11:A:2530:A:H2'	11:A:2531:A:H5''	1.88	0.55
24:Q:50:ALA:O	24:Q:51:ARG:C	2.43	0.55
15:E:199:ARG:CZ	15:E:199:ARG:HB2	2.36	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:T:11:GLU:C	27:T:13:ARG:H	2.09	0.55
2:1:62:VAL:HG11	2:1:67:ILE:HA	1.89	0.55
21:N:128:HIS:HD2	21:N:130:HIS:CE1	2.25	0.55
8:7:11:LYS:O	8:7:14:LYS:N	2.39	0.55
11:A:2223:G:H2'	11:A:2224:G:H5'	1.89	0.55
2:1:71:TYR:O	2:1:74:VAL:CB	2.55	0.55
11:A:380:U:H2'	11:A:381:G:H8	1.69	0.55
8:7:31:LEU:O	8:7:33:ARG:N	2.40	0.55
13:C:7:TYR:CZ	13:C:11:LEU:HD21	2.41	0.55
4:3:45:GLY:HA2	4:3:48:GLU:HG2	1.87	0.55
11:A:1451:C:H4'	11:A:1452:A:C8	2.42	0.55
28:U:108:GLU:OE2	29:V:44:LYS:HB3	2.06	0.55
29:V:78:LYS:O	29:V:79:VAL:HG23	2.07	0.55
11:A:1853:A:H1'	11:A:2233:U:O2'	2.06	0.55
11:A:1798:U:H5'	14:D:259:THR:HB	1.88	0.55
11:A:108:U:H2'	11:A:109:G:C8	2.42	0.55
3:2:30:ARG:HG3	31:X:5:TYR:CE2	2.42	0.55
16:F:158:THR:HB	16:F:195:ASP:CB	2.36	0.55
11:A:2623:G:O5'	11:A:2826:A:H1'	2.07	0.55
5:4:5:ILE:HD13	5:4:5:ILE:H	1.71	0.55
17:G:138:GLN:O	17:G:140:ILE:N	2.40	0.55
27:T:26:ASP:HB3	27:T:89:VAL:O	2.07	0.55
11:A:1437:C:O2	11:A:1437:C:H2'	2.05	0.55
11:A:325:G:H2'	11:A:326:G:H8	1.72	0.55
17:G:10:LYS:HE2	17:G:14:GLU:OE2	2.07	0.55
3:2:3:LEU:O	3:2:3:LEU:HD23	2.07	0.55
14:D:164:GLN:OE1	14:D:176:ARG:NH2	2.40	0.55
11:A:133:C:N3	11:A:146:G:O6	2.40	0.55
13:C:6:ARG:HD2	13:C:34:THR:HG22	1.88	0.55
29:V:16:PRO:O	29:V:96:ILE:HB	2.06	0.55
21:N:130:HIS:O	21:N:130:HIS:CG	2.60	0.55
23:P:85:LEU:CD1	23:P:120:ALA:HB2	2.37	0.55
11:A:774:A:H2	11:A:787:U:O2'	1.89	0.55
33:Z:141:VAL:O	33:Z:141:VAL:HG12	2.05	0.55
11:A:2065:C:H2'	11:A:2066:C:C6	2.42	0.55
30:W:107:LEU:N	30:W:107:LEU:HD12	2.22	0.55
2:1:73:LEU:HD22	2:1:94:LEU:HB3	1.89	0.55
2:1:82:LEU:C	2:1:83:GLU:HG3	2.27	0.55
11:A:463:G:C2	11:A:467:G:C6	2.94	0.55
3:2:11:GLU:O	3:2:15:LYS:HE3	2.06	0.55
11:A:2746:U:H2'	11:A:2747:G:H8	1.71	0.55
14:D:11:PRO:C	14:D:13:ARG:H	2.10	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:6:42:TRP:O	7:6:44:ARG:N	2.35	0.55
10:9:35:ARG:HD3	11:A:2742:C:OP1	2.07	0.55
10:9:35:ARG:HG2	10:9:35:ARG:O	2.07	0.55
23:P:105:LEU:HD12	23:P:105:LEU:N	2.22	0.55
24:Q:140:ALA:HA	33:Z:99:TYR:CD1	2.41	0.55
33:Z:102:LEU:CD2	33:Z:137:ILE:HB	2.37	0.55
33:Z:9:TYR:HE2	33:Z:61:LEU:HD13	1.71	0.55
11:A:308:G:H2'	11:A:309:G:C8	2.42	0.55
11:A:329:G:OP1	32:Y:71:LYS:HD3	2.07	0.55
30:W:76:VAL:HB	30:W:103:ILE:HG23	1.89	0.55
11:A:1138:G:H1	11:A:1143:A:H2	1.53	0.55
21:N:120:LEU:HD13	21:N:122:VAL:HG23	1.89	0.55
14:D:75:ILE:HG22	14:D:97:TYR:HD2	1.72	0.55
14:D:73:VAL:O	14:D:75:ILE:N	2.40	0.55
14:D:77:ALA:HB2	14:D:97:TYR:HA	1.88	0.55
11:A:1493:C:H4'	11:A:1494:A:OP2	2.07	0.55
11:A:1131:G:OP2	11:A:2515:C:H4'	2.07	0.55
21:N:93:THR:O	21:N:93:THR:HG23	2.06	0.55
11:A:2252:G:C2'	11:A:2253:G:H5'	2.36	0.55
33:Z:20:ARG:HG3	33:Z:21:ALA:N	2.22	0.55
20:K:88:UNK:C	20:K:90:UNK:N	2.69	0.55
7:6:42:TRP:C	7:6:44:ARG:N	2.61	0.54
11:A:823:G:N2	11:A:2358:G:C8	2.75	0.54
11:A:631:A:C5'	23:P:65:ARG:HG2	2.37	0.54
11:A:1568:G:H4'	14:D:59:LYS:CG	2.37	0.54
18:H:66:GLY:HA2	18:H:69:ARG:NE	2.22	0.54
11:A:320:A:C2	11:A:323:G:N1	2.75	0.54
11:A:1205:U:C5	16:F:171:PRO:HA	2.41	0.54
6:5:2:ALA:N	11:A:747:U:H3	2.04	0.54
11:A:1278:A:H2'	11:A:1279:G:C8	2.42	0.54
11:A:2051:A:H5'	11:A:2578:G:O4'	2.07	0.54
26:S:29:PHE:CE2	26:S:31:SER:HB2	2.42	0.54
15:E:165:VAL:HG11	15:E:189:PRO:HB3	1.89	0.54
11:A:1154:G:H5''	28:U:59:ARG:NH2	2.22	0.54
29:V:49:THR:O	29:V:50:PRO:C	2.45	0.54
14:D:80:ALA:HB3	14:D:94:LEU:O	2.06	0.54
2:1:50:ARG:NH2	11:A:2201:C:OP2	2.40	0.54
11:A:2245:U:H5'	11:A:2246:G:C5'	2.32	0.54
1:0:24:LYS:HD2	11:A:2355:C:H4'	1.89	0.54
11:A:185:U:C2	11:A:212:G:N2	2.75	0.54
22:O:43:VAL:HG23	22:O:56:ASP:O	2.06	0.54
11:A:955:C:H2'	11:A:956:G:H5'	1.89	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:E:147:PRO:HB2	15:E:149:ARG:HG2	1.89	0.54
20:K:117:UNK:O	20:K:118:UNK:CB	2.54	0.54
11:A:284:U:O5'	11:A:284:U:H6	1.89	0.54
11:A:819:A:N6	11:A:1189:A:H1'	2.22	0.54
11:A:2084:C:H2'	11:A:2085:C:C6	2.42	0.54
13:C:75:LEU:HD11	13:C:113:VAL:HA	1.89	0.54
10:9:25:VAL:O	10:9:25:VAL:HG12	2.07	0.54
16:F:167:ALA:C	16:F:173:VAL:HG11	2.27	0.54
16:F:168:ARG:CG	16:F:169:ASN:H	2.19	0.54
17:G:110:ALA:HB1	17:G:140:ILE:HD13	1.88	0.54
11:A:1504:C:O2'	11:A:1505:C:C5'	2.56	0.54
17:G:9:ARG:O	17:G:11:TYR:N	2.40	0.54
14:D:81:ALA:HA	14:D:113:VAL:HG21	1.88	0.54
24:Q:35:VAL:HG22	24:Q:36:ALA:N	2.22	0.54
11:A:528:A:C2	11:A:2043:C:H4'	2.42	0.54
11:A:1812:A:C1'	14:D:46:GLN:HE22	2.20	0.54
21:N:61:ARG:NH1	21:N:61:ARG:HG3	2.22	0.54
11:A:977:G:O2'	11:A:978:G:H5'	2.07	0.54
11:A:1150:C:O2'	11:A:1151:G:H5'	2.07	0.54
18:H:130:ARG:CZ	18:H:130:ARG:HB3	2.37	0.54
11:A:1288:U:C2	11:A:1327:C:O2	2.60	0.54
12:B:70:C:H2'	12:B:71:C:H6	1.72	0.54
11:A:479:A:O2'	11:A:481:G:H8	1.90	0.54
11:A:2316:C:H2'	11:A:2317:C:C6	2.42	0.54
12:B:2:C:H2'	12:B:3:C:C6	2.42	0.54
3:2:17:SER:CB	3:2:20:GLU:HB3	2.36	0.54
4:3:31:LEU:HD23	4:3:32:GLN:H	1.72	0.54
20:K:98:UNK:HA	20:K:135:UNK:CB	2.37	0.54
9:8:32:LEU:HD12	11:A:2391:G:OP1	2.07	0.54
9:8:53:PRO:HA	9:8:56:GLU:OE1	2.07	0.54
11:A:2389:G:C5'	11:A:2390:U:H5'	2.35	0.54
14:D:39:LYS:HB2	14:D:62:TYR:HB2	1.88	0.54
16:F:32:LEU:HD22	16:F:109:GLY:HA3	1.90	0.54
16:F:154:VAL:HG22	16:F:191:ARG:HB3	1.89	0.54
3:2:60:LEU:O	3:2:63:VAL:HB	2.06	0.54
3:2:37:PHE:CE2	31:X:8:ILE:O	2.60	0.54
25:R:97:VAL:HA	25:R:113:LEU:O	2.07	0.54
17:G:39:ILE:HA	17:G:156:ASP:O	2.08	0.54
16:F:62:ARG:HH11	16:F:62:ARG:HG2	1.73	0.54
15:E:38:THR:HG23	15:E:39:PRO:HD2	1.90	0.54
11:A:1637:A:H2'	11:A:1638:C:O4'	2.08	0.54
17:G:121:ASN:OD1	17:G:123:ASN:C	2.46	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:13:GLU:O	17:G:17:PRO:HG3	2.08	0.54
11:A:438:G:H2'	11:A:440:G:H8	1.71	0.54
6:5:16:ARG:HH11	6:5:20:ARG:NH1	2.03	0.54
18:H:85:LYS:HE3	18:H:87:LEU:HG	1.88	0.54
2:1:26:ARG:O	2:1:27:GLU:O	2.24	0.54
11:A:2068:U:C2	11:A:2430:A:H2	2.24	0.54
11:A:2063:C:O2	11:A:2450:A:N1	2.41	0.54
11:A:1370:C:H2'	11:A:1371:G:O4'	2.08	0.54
18:H:137:ASP:OD1	18:H:138:LYS:N	2.40	0.54
11:A:2284:C:H1'	11:A:2325:G:N2	2.23	0.54
1:0:55:ARG:HH21	11:A:2386:C:H5''	1.72	0.54
13:C:74:VAL:HG11	13:C:153:ILE:HG23	1.88	0.54
11:A:2880:C:H6	11:A:2880:C:H3'	1.73	0.54
25:R:13:HIS:CE1	25:R:16:HIS:N	2.73	0.54
25:R:28:LEU:CB	25:R:34:ILE:HG13	2.38	0.54
26:S:37:ALA:HB2	26:S:99:LYS:HZ3	1.71	0.54
11:A:2846:G:H2'	11:A:2847:U:O4'	2.06	0.54
15:E:167:VAL:O	15:E:168:MET:O	2.25	0.54
22:O:105:GLU:O	22:O:109:LYS:CG	2.55	0.54
11:A:2189:U:C2'	11:A:2190:G:H4'	2.37	0.54
11:A:1901:A:C2'	11:A:1902:C:H5'	2.37	0.54
11:A:712:G:H1	11:A:719:C:H42	1.56	0.54
26:S:106:ARG:HB3	26:S:106:ARG:HH11	1.72	0.54
18:H:85:LYS:HE2	18:H:86:GLU:N	2.23	0.54
11:A:1130:U:C2	11:A:2025:C:H5''	2.43	0.54
11:A:2041:U:H6	11:A:2041:U:OP2	1.90	0.54
12:B:69:G:H2'	12:B:69:G:N3	2.22	0.54
11:A:2199:A:H3'	11:A:2200:C:C6	2.43	0.54
11:A:233:A:H2'	11:A:234:C:O4'	2.08	0.54
1:0:32:ARG:HA	1:0:64:ASP:HB3	1.89	0.54
5:4:42:PHE:O	5:4:43:TYR:O	2.25	0.54
11:A:2317:C:O2'	11:A:2318:G:H5'	2.08	0.54
11:A:966:G:H1'	11:A:2267:A:N6	2.23	0.54
11:A:566:U:O4	29:V:78:LYS:HE2	2.08	0.54
11:A:483:A:H1'	32:Y:60:PHE:HE1	1.66	0.54
13:C:81:GLU:C	13:C:82:LYS:HE2	2.28	0.54
3:2:10:LEU:HD11	11:A:77:C:H5''	1.89	0.54
3:2:21:LEU:HB3	3:2:64:LEU:HG	1.89	0.54
3:2:21:LEU:O	3:2:24:LEU:HB3	2.08	0.54
10:9:36:GLN:HG2	11:A:1124:C:O2'	2.07	0.54
16:F:157:VAL:HG22	16:F:194:MET:HA	1.89	0.54
16:F:158:THR:HB	16:F:195:ASP:HB3	1.87	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:67:ARG:HB2	26:S:71:ARG:HH11	1.73	0.54
11:A:1674:G:H1'	11:A:1676:A:H62	1.72	0.54
27:T:103:ARG:O	27:T:105:LEU:N	2.40	0.54
10:9:13:LYS:O	10:9:27:CYS:HA	2.07	0.54
6:5:52:TYR:CD1	6:5:52:TYR:O	2.60	0.54
11:A:594:U:H3	11:A:663:G:H1	1.56	0.54
21:N:4:TYR:N	21:N:4:TYR:CD1	2.74	0.54
29:V:52:VAL:HG13	29:V:55:ALA:CB	2.31	0.54
14:D:142:VAL:HG22	14:D:143:HIS:N	2.22	0.54
11:A:826:U:H2'	11:A:828:U:O4'	2.08	0.54
22:O:47:ILE:CG2	22:O:48:PRO:HD2	2.33	0.54
11:A:1355:G:O6	11:A:1377:G:N2	2.40	0.54
24:Q:109:VAL:CG1	24:Q:110:THR:N	2.70	0.54
24:Q:113:GLN:O	24:Q:117:ALA:N	2.40	0.54
11:A:1183:G:H2'	11:A:1184:G:C8	2.42	0.54
11:A:2569:G:O2'	11:A:2570:G:H5'	2.07	0.54
11:A:2721:A:H2'	11:A:2722:G:O4'	2.08	0.54
22:O:117:LEU:O	22:O:118:ALA:C	2.46	0.54
32:Y:41:GLY:O	32:Y:42:VAL:O	2.24	0.54
11:A:753:C:O2'	11:A:754:C:H5'	2.07	0.54
9:8:57:ARG:C	9:8:59:LYS:H	2.09	0.54
9:8:61:LEU:HD12	9:8:62:LEU:N	2.23	0.54
11:A:1856:G:C2'	11:A:1857:G:H5'	2.38	0.54
11:A:378:C:H2'	11:A:379:G:H8	1.71	0.54
3:2:53:LEU:HD23	3:2:57:ILE:HD11	1.90	0.54
10:9:7:VAL:CG2	10:9:36:GLN:HB2	2.38	0.54
5:4:9:LEU:CD1	5:4:10:VAL:H	2.19	0.54
26:S:61:ASN:O	26:S:65:VAL:HG21	2.08	0.54
11:A:2729:G:H21	15:E:167:VAL:HG23	1.71	0.54
27:T:13:ARG:HH22	27:T:15:VAL:HG11	1.72	0.54
33:Z:163:LEU:HD11	33:Z:165:VAL:CG2	2.37	0.54
33:Z:58:VAL:HG12	33:Z:59:LEU:N	2.22	0.54
21:N:33:LEU:O	21:N:52:VAL:HG21	2.07	0.54
11:A:473:G:O2'	11:A:474:G:H5'	2.07	0.54
11:A:271(P):C:H2'	11:A:271(Q):G:C5'	2.29	0.54
24:Q:43:THR:CB	24:Q:45:GLN:NE2	2.69	0.54
2:1:23:LYS:O	2:1:32:LYS:HG3	2.08	0.54
2:1:26:ARG:HG3	2:1:27:GLU:N	2.22	0.54
11:A:1087:G:C2'	11:A:1088:A:H4'	2.32	0.54
15:E:29:GLY:HA2	15:E:180:ASN:CG	2.27	0.54
1:0:39:ARG:NH1	1:0:56:ASP:OD2	2.40	0.54
11:A:416:C:H2'	11:A:417:C:H5'	1.90	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:7:24:THR:C	8:7:26:GLY:H	2.11	0.54
11:A:1833:U:O2	11:A:1969:A:H2	1.90	0.54
22:O:52:VAL:C	22:O:53:LYS:HD2	2.27	0.54
18:H:88:LEU:HD22	18:H:88:LEU:N	2.22	0.54
11:A:1252:G:O4'	28:U:33:ARG:HD3	2.08	0.54
3:2:62:THR:O	3:2:66:GLU:N	2.38	0.54
16:F:131:GLY:HA3	16:F:139:PHE:HA	1.89	0.54
6:5:5:PRO:CA	11:A:2056:G:H22	2.19	0.54
11:A:2838:G:H4'	25:R:45:ARG:HD3	1.90	0.54
25:R:61:HIS:HE1	25:R:65:LEU:HD22	1.72	0.54
23:P:106:LEU:HD11	23:P:112:LEU:HD23	1.89	0.54
22:O:72:PRO:O	22:O:74:GLY:N	2.41	0.54
27:T:50:ILE:HA	27:T:99:LEU:CD1	2.35	0.54
32:Y:10:GLY:HA2	32:Y:27:VAL:HG13	1.88	0.54
11:A:1199:U:H1'	28:U:4:ALA:HB2	1.88	0.54
11:A:426:C:O2'	11:A:427:U:H5'	2.07	0.54
11:A:724:U:O2'	11:A:725:G:H5'	2.08	0.54
11:A:48:G:N2	11:A:177:G:H21	2.06	0.54
17:G:107:LEU:HD11	17:G:178:PHE:CE1	2.43	0.54
11:A:784:A:C6	14:D:229:VAL:HG11	2.42	0.54
23:P:113:LYS:HA	23:P:129:ALA:O	2.08	0.54
11:A:2094:G:N2	11:A:2196:C:H1'	2.22	0.54
11:A:464:U:C2'	11:A:465:G:H5'	2.37	0.54
10:9:19:ARG:NH1	11:A:2755:C:C4	2.76	0.54
22:O:50:GLY:C	22:O:52:VAL:H	2.11	0.54
2:1:40:ARG:NH2	11:A:2232:U:OP2	2.41	0.54
23:P:36:LYS:HD2	23:P:41:ARG:HB3	1.89	0.54
23:P:40:SER:C	23:P:41:ARG:HD2	2.28	0.54
11:A:1796:U:OP1	14:D:276:LYS:HE3	2.08	0.54
16:F:40:GLN:NE2	16:F:182:ASN:HB2	2.22	0.54
11:A:90:U:H2'	11:A:90:U:O2	2.07	0.54
11:A:2873:A:N3	25:R:6:SER:OG	2.35	0.54
26:S:61:ASN:OD1	26:S:62:LYS:N	2.41	0.54
15:E:48:GLN:NE2	15:E:78:LEU:HD13	2.23	0.54
7:6:29:ASN:O	7:6:30:THR:C	2.46	0.54
27:T:101:PHE:O	27:T:103:ARG:N	2.41	0.54
32:Y:17:SER:HB2	32:Y:71:LYS:HD2	1.90	0.54
11:A:1902:C:C1'	14:D:244:ARG:HG3	2.38	0.54
11:A:1774:C:H4'	11:A:1979:C:O2	2.08	0.54
28:U:94:ASN:O	28:U:96:ALA:N	2.39	0.54
11:A:1539:G:H2'	11:A:1540:U:O4'	2.07	0.54
11:A:744:G:H2'	11:A:745:G:O4'	2.08	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2154:G:H8	11:A:2154:G:O5'	1.91	0.54
28:U:99:ALA:HA	28:U:106:PHE:CG	2.43	0.54
5:4:35:VAL:HG12	17:G:112:PRO:HG3	1.90	0.54
11:A:1308:A:N1	11:A:1611:C:H1'	2.23	0.54
22:O:88:ASN:ND2	22:O:92:GLU:HB3	2.23	0.54
21:N:62:VAL:HG23	21:N:66:LYS:HD2	1.88	0.54
1:0:20:ARG:CD	1:0:20:ARG:H	2.19	0.54
11:A:1323:U:H2'	11:A:1324:G:H5'	1.90	0.54
4:3:11:SER:HB3	11:A:988:A:O5'	2.08	0.54
24:Q:18:LYS:HB3	24:Q:98:LYS:HZ1	1.73	0.54
11:A:875:G:H2'	11:A:876:C:O4'	2.08	0.54
33:Z:150:LEU:O	33:Z:150:LEU:HD23	2.07	0.54
11:A:500:G:H2'	11:A:502:A:OP2	2.08	0.54
3:2:4:SER:CB	3:2:7:ARG:HD2	2.38	0.54
11:A:13:A:H2	11:A:14:A:H62	1.56	0.54
11:A:1744:C:C2'	11:A:1745:C:H5'	2.38	0.54
11:A:1255:U:C5	16:F:73:ALA:HA	2.43	0.54
2:1:16:ASN:ND2	2:1:37:ILE:HG22	2.23	0.54
11:A:674:G:H1'	16:F:74:ARG:HD3	1.89	0.54
16:F:40:GLN:HE22	16:F:184:TYR:HB3	1.72	0.54
11:A:2469:A:H1'	11:A:2482:G:C6	2.42	0.54
16:F:159:GLY:N	16:F:178:PRO:HD3	2.23	0.54
33:Z:51:ALA:O	33:Z:53:ILE:N	2.41	0.54
11:A:1473:G:N3	11:A:1474:C:H1'	2.23	0.54
17:G:16:ARG:C	17:G:18:GLU:N	2.61	0.54
10:9:12:ASP:OD2	10:9:13:LYS:HG3	2.07	0.54
28:U:96:ALA:C	28:U:98:LEU:H	2.10	0.54
11:A:718:A:H2'	11:A:719:C:C5'	2.38	0.54
13:C:96:GLY:CA	13:C:99:ILE:HG12	2.32	0.54
11:A:145:G:H3'	11:A:146:G:H5''	1.89	0.54
12:B:17:C:H2'	12:B:18:G:O4'	2.07	0.54
11:A:784:A:HO2'	11:A:785:G:H8	1.56	0.54
11:A:1601:G:C2'	11:A:1602:U:H5'	2.38	0.54
11:A:381:G:C2	11:A:394:A:C2	2.96	0.54
11:A:481:G:H4'	11:A:481:G:OP1	2.07	0.54
11:A:2312:U:H2'	11:A:2313:C:H5'	1.88	0.54
11:A:2297:C:C2'	11:A:2298:A:H5'	2.38	0.54
11:A:2677:G:O2'	11:A:2678:C:H5'	2.07	0.54
11:A:1625:C:O2'	11:A:1626:G:H5'	2.08	0.54
11:A:2488:A:H2'	11:A:2489:G:H8	1.73	0.54
11:A:1265:A:OP1	11:A:1265:A:H8	1.91	0.54
11:A:2283:C:C5	11:A:2389:G:H2'	2.43	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2328:A:H2'	11:A:2329:G:H8	1.73	0.54
11:A:2414:G:C2	11:A:2415:G:C8	2.96	0.54
13:C:77:ILE:O	13:C:78:ALA:O	2.24	0.54
11:A:1201:C:N3	11:A:1245:G:C2	2.76	0.54
11:A:1245:G:H5'	16:F:34:TRP:HZ2	1.71	0.54
18:H:37:VAL:CG1	18:H:38:SER:H	2.09	0.54
17:G:63:ILE:CG1	17:G:64:THR:H	1.94	0.54
26:S:68:GLN:HA	26:S:71:ARG:HD3	1.89	0.54
26:S:77:ALA:O	26:S:79:ALA:N	2.37	0.54
26:S:98:VAL:C	26:S:100:ALA:N	2.61	0.54
11:A:1761:C:H3'	11:A:1762:A:C8	2.43	0.54
11:A:2550:G:C2'	11:A:2551:C:H5'	2.38	0.54
27:T:89:VAL:HG12	27:T:91:ARG:CG	2.38	0.54
33:Z:51:ALA:HA	33:Z:55:HIS:CD2	2.41	0.54
11:A:856:C:H2'	11:A:857:C:O4'	2.08	0.54
22:O:111:PHE:CB	22:O:114:ILE:HD13	2.34	0.54
12:B:57:A:C5	17:G:29:TRP:CD1	2.95	0.54
11:A:1826:G:H8	11:A:1826:G:O5'	1.90	0.54
11:A:1551:C:H2'	11:A:1552:G:C5'	2.38	0.54
13:C:122:ALA:O	13:C:126:LYS:HG2	2.08	0.54
11:A:828:U:H2'	11:A:829:A:C8	2.43	0.54
13:C:38:ASP:O	13:C:177:LYS:HE3	2.07	0.54
11:A:272(B):G:H1	11:A:366:C:N4	2.06	0.54
11:A:182:A:C6	11:A:183:C:C4	2.96	0.54
21:N:60:ILE:CD1	21:N:99:LEU:HD23	2.38	0.54
11:A:1431:U:H2'	11:A:1432:C:C5'	2.38	0.54
21:N:65:LYS:O	21:N:69:GLN:HB2	2.08	0.54
29:V:26:ASP:O	29:V:27:ALA:HB2	2.08	0.54
25:R:43:GLU:OE2	25:R:43:GLU:HA	2.06	0.54
9:8:3:LYS:HD2	11:A:242:G:C8	2.43	0.53
11:A:251:A:H2'	11:A:252:G:O4'	2.08	0.53
11:A:814:C:H2'	11:A:815:C:C6	2.43	0.53
11:A:485:C:H2'	11:A:486:C:C6	2.44	0.53
16:F:42:ALA:O	16:F:44:ARG:N	2.40	0.53
16:F:31:HIS:CG	23:P:13:ASN:HB2	2.43	0.53
25:R:55:ALA:CB	25:R:79:LEU:HD11	2.37	0.53
26:S:88:ASP:CG	26:S:89:ARG:H	2.11	0.53
22:O:71:ARG:NE	22:O:105:GLU:OE2	2.40	0.53
27:T:51:ARG:NE	27:T:100:TYR:OH	2.42	0.53
27:T:32:TYR:CG	27:T:81:PRO:HB3	2.43	0.53
33:Z:126:VAL:HG12	33:Z:163:LEU:HD12	1.89	0.53
33:Z:4:ARG:HA	33:Z:57:ILE:HG23	1.90	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:0:10:THR:HG22	1:0:12:ASN:H	1.73	0.53
18:H:26:VAL:HG11	18:H:76:VAL:HA	1.90	0.53
14:D:69:ARG:HD2	14:D:119:ALA:HB2	1.89	0.53
11:A:1103:A:H5'	11:A:1104:C:OP2	2.08	0.53
11:A:1170:G:H1	11:A:1179:C:H42	1.56	0.53
11:A:847:U:H2'	11:A:848:G:H5''	1.88	0.53
11:A:500:G:N2	11:A:502:A:H3'	2.23	0.53
7:6:42:TRP:CE3	7:6:42:TRP:HA	2.43	0.53
11:A:674:G:H5''	16:F:76:GLY:N	2.23	0.53
11:A:620:G:H4'	11:A:621:A:OP1	2.07	0.53
18:H:61:HIS:C	18:H:63:SER:N	2.58	0.53
11:A:94:C:H3'	11:A:94(A):G:C8	2.43	0.53
11:A:1613:G:H3'	11:A:1614:A:H5''	1.88	0.53
15:E:4:ILE:HD11	15:E:28:ALA:O	2.08	0.53
7:6:8:LYS:O	7:6:27:LYS:HA	2.07	0.53
11:A:1763:G:H2'	11:A:1764:G:C5'	2.38	0.53
27:T:80:SER:CB	27:T:81:PRO:CD	2.85	0.53
12:B:66:A:H61	12:B:108:U:H3'	1.72	0.53
33:Z:47:VAL:HG11	33:Z:57:ILE:HG12	1.90	0.53
6:5:40:LYS:HE2	6:5:46:CYS:SG	2.47	0.53
11:A:1825:A:H2'	11:A:1826:G:C8	2.43	0.53
11:A:1825:A:O3'	14:D:233:HIS:CE1	2.62	0.53
18:H:26:VAL:HG11	18:H:75:ALA:O	2.08	0.53
28:U:83:LEU:CD1	28:U:83:LEU:H	2.21	0.53
11:A:716:A:C2'	11:A:717:G:H5''	2.37	0.53
11:A:515:A:H2'	11:A:516:C:O4'	2.09	0.53
11:A:1779:U:C2'	11:A:1783:A:H62	2.21	0.53
11:A:364:C:C2'	11:A:364:C:O2	2.56	0.53
12:B:14:U:H2'	12:B:15:A:H2	1.73	0.53
24:Q:10:ARG:HB2	24:Q:10:ARG:NH1	2.23	0.53
1:0:72:ARG:O	1:0:74:ARG:N	2.41	0.53
11:A:2028:U:O4	11:A:2033:A:OP1	2.26	0.53
11:A:669:G:C2'	11:A:669:G:N3	2.72	0.53
23:P:50:ARG:NH1	23:P:51:PHE:CE2	2.75	0.53
14:D:35:LYS:HG2	14:D:63:ARG:CB	2.38	0.53
3:2:25:VAL:O	3:2:27:GLU:N	2.41	0.53
3:2:33:MET:HA	3:2:36:ARG:NH1	2.23	0.53
27:T:94:ALA:O	27:T:96:ARG:N	2.41	0.53
11:A:329:G:H1	32:Y:19:LYS:CE	2.20	0.53
21:N:15:LEU:O	21:N:136:GLU:HA	2.07	0.53
16:F:81:PRO:C	16:F:82:ILE:O	2.46	0.53
11:A:548:A:H2'	11:A:549:G:H5'	1.89	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:32:TYR:HE2	24:Q:111:GLU:HG3	1.72	0.53
33:Z:149:SER:HB2	33:Z:173:ALA:HA	1.88	0.53
21:N:17:ASP:OD2	21:N:19:GLU:HB3	2.09	0.53
11:A:1973:G:H2'	11:A:1974:C:C6	2.44	0.53
11:A:754:C:H2'	11:A:755:C:C6	2.43	0.53
15:E:119:ARG:NH1	15:E:158:GLY:HA3	2.23	0.53
28:U:97:ASP:O	28:U:100:VAL:HB	2.08	0.53
11:A:275:G:C2	11:A:276:A:C2	2.97	0.53
11:A:1686:C:H5'	11:A:1687:G:OP2	2.07	0.53
1:O:5:LYS:NZ	1:O:5:LYS:HB3	2.23	0.53
23:P:59:LEU:C	23:P:61:ARG:N	2.59	0.53
16:F:118:ALA:O	16:F:120:GLU:N	2.41	0.53
3:2:25:VAL:C	3:2:27:GLU:N	2.55	0.53
3:2:35:LEU:C	3:2:35:LEU:HD22	2.28	0.53
24:Q:48:GLU:HG2	24:Q:52:VAL:CG2	2.37	0.53
11:A:2833:G:OP1	11:A:2833:G:H8	1.92	0.53
32:Y:28:LYS:C	32:Y:38:ILE:HG22	2.28	0.53
17:G:122:PRO:CD	17:G:181:ARG:HB3	2.38	0.53
2:1:11:ARG:HB2	2:1:11:ARG:CZ	2.38	0.53
14:D:224:ALA:HB2	14:D:233:HIS:CB	2.27	0.53
6:5:10:LYS:HG3	11:A:1263:U:H1'	1.90	0.53
21:N:24:GLY:C	21:N:26:LEU:N	2.61	0.53
29:V:21:ARG:HB3	29:V:91:TYR:CG	2.44	0.53
11:A:535:C:O2'	11:A:536:A:H5'	2.08	0.53
11:A:1498:C:H3'	11:A:1499:C:H5''	1.90	0.53
25:R:107:ASP:O	25:R:108:GLY:C	2.46	0.53
11:A:2422:A:H8	11:A:2422:A:H3'	1.74	0.53
11:A:2657:A:O2'	18:H:160:LYS:NZ	2.40	0.53
26:S:84:GLN:CA	26:S:105:ALA:HB3	2.37	0.53
11:A:315:G:H2'	11:A:316:C:C6	2.44	0.53
7:6:33:LYS:O	7:6:34:LEU:CB	2.56	0.53
11:A:225:A:C2'	11:A:226:G:H5'	2.38	0.53
11:A:2557:G:O2'	11:A:2558:C:H5'	2.07	0.53
18:H:98:LEU:HB3	18:H:125:VAL:HG21	1.90	0.53
11:A:24:G:H1'	30:W:77:ASP:OD1	2.08	0.53
11:A:922:U:H2'	11:A:923:C:C6	2.43	0.53
24:Q:95:ALA:O	24:Q:97:VAL:HG22	2.08	0.53
14:D:152:GLY:O	14:D:153:ALA:O	2.26	0.53
11:A:2282:G:H4'	11:A:2283:C:O5'	2.06	0.53
28:U:32:PHE:O	28:U:36:ARG:HB2	2.09	0.53
14:D:24:ILE:CG1	14:D:25:THR:N	2.67	0.53
11:A:629:G:H2'	11:A:630:G:O4'	2.07	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2893:G:C5'	11:A:2894:G:H5'	2.36	0.53
33:Z:6:LYS:N	33:Z:6:LYS:HD3	2.24	0.53
11:A:676:A:C8	11:A:2443:C:H1'	2.36	0.53
11:A:324:A:O2'	11:A:325:G:H5'	2.09	0.53
17:G:33:ARG:C	17:G:161:THR:HB	2.28	0.53
21:N:134:ARG:H	21:N:135:PRO:HD3	1.72	0.53
11:A:1775:U:H2'	11:A:1776:G:C4'	2.38	0.53
11:A:995:C:O2	28:U:61:TRP:HZ2	1.91	0.53
11:A:1316:U:H2'	11:A:1317:A:C8	2.43	0.53
11:A:708:C:H5'	11:A:709:U:OP2	2.09	0.53
11:A:2110:G:N2	11:A:2178:C:C5	2.76	0.53
4:3:15:TYR:HD2	4:3:19:GLN:NE2	1.99	0.53
11:A:1042:G:H1	11:A:1112:G:H22	1.54	0.53
11:A:681:G:H2'	11:A:682:G:C8	2.42	0.53
32:Y:2:ARG:C	32:Y:4:LYS:N	2.61	0.53
21:N:71:ILE:HG22	21:N:72:TYR:N	2.24	0.53
11:A:2547:U:O2	22:O:23:ARG:NH1	2.41	0.53
11:A:615:G:H2'	11:A:616:G:C8	2.44	0.53
11:A:738:G:H2'	11:A:739:G:H5'	1.90	0.53
14:D:152:GLY:O	14:D:153:ALA:C	2.47	0.53
7:6:18:ARG:HE	7:6:43:CYS:HB3	1.74	0.53
11:A:1856:G:O2'	11:A:1857:G:H5'	2.08	0.53
11:A:2839:G:H5'	25:R:46:GLY:HA2	1.90	0.53
26:S:90:GLY:O	26:S:92:TYR:HD1	1.90	0.53
7:6:6:ARG:HH12	7:6:7:ILE:HG13	1.73	0.53
11:A:1680:U:H2'	11:A:1681:G:O4'	2.09	0.53
15:E:23:VAL:CG1	15:E:173:VAL:HG21	2.39	0.53
22:O:80:ASP:OD2	27:T:71:GLY:HA3	2.09	0.53
33:Z:60:GLU:HA	33:Z:66:SER:CA	2.38	0.53
11:A:2190:G:N3	11:A:2190:G:H2'	2.22	0.53
11:A:718:A:C2'	11:A:719:C:H5'	2.37	0.53
11:A:2041:U:H2'	11:A:2042:A:C8	2.42	0.53
11:A:31:C:C3'	11:A:32:C:H5''	2.37	0.53
13:C:214:VAL:CG2	13:C:224:ILE:HG21	2.32	0.53
29:V:19:LYS:HZ3	29:V:20:LEU:N	2.07	0.53
11:A:1342:A:N1	11:A:1345:C:C4	2.76	0.53
30:W:61:ASN:O	30:W:62:HIS:ND1	2.41	0.53
11:A:956:G:OP2	24:Q:87:LYS:HE2	2.09	0.53
11:A:464:U:H2'	11:A:465:G:O4'	2.08	0.53
11:A:2790:A:H2'	11:A:2790:A:N3	2.23	0.53
11:A:1431:U:H2'	11:A:1432:C:H5'	1.89	0.53
18:H:155:SER:O	18:H:157:TYR:N	2.40	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:0:62:LEU:HD23	1:0:62:LEU:N	2.22	0.53
14:D:24:ILE:HG23	14:D:25:THR:H	1.72	0.53
16:F:107:LYS:O	16:F:110:LEU:HB3	2.09	0.53
11:A:1275:A:N7	25:R:16:HIS:HB2	2.23	0.53
11:A:2457:U:O2'	11:A:2458:G:H5'	2.07	0.53
7:6:27:LYS:CG	7:6:30:THR:CB	2.80	0.53
11:A:2711:A:OP1	11:A:2712(A):A:P	2.67	0.53
27:T:23:ARG:HG2	27:T:120:ARG:NH1	2.24	0.53
27:T:32:TYR:CD1	27:T:81:PRO:HB3	2.44	0.53
18:H:136:ILE:HD12	18:H:136:ILE:H	1.72	0.53
28:U:94:ASN:ND2	28:U:95:LEU:HG	2.24	0.53
11:A:1542:A:H8	11:A:1542:A:H3'	1.74	0.53
11:A:1090:U:O4	11:A:1102:C:H1'	2.08	0.53
11:A:2140:C:H2'	11:A:2141:G:H8	1.73	0.53
11:A:1130:U:O2'	11:A:1131:G:H2'	2.08	0.53
11:A:48:G:H22	11:A:177:G:H21	1.54	0.53
11:A:2073:C:H2'	11:A:2074:U:C6	2.43	0.53
11:A:272(J):C:H2'	11:A:274:G:H5''	1.91	0.53
11:A:1308:A:H2'	11:A:1309:G:O4'	2.08	0.53
11:A:205:G:O2'	11:A:206:U:OP2	2.24	0.53
11:A:1328:G:H8	11:A:1328:G:O5'	1.91	0.53
11:A:107:C:H1'	11:A:294:A:N3	2.23	0.53
11:A:955:C:OP1	24:Q:87:LYS:HE3	2.09	0.53
11:A:416:C:H42	11:A:2407:G:H1	1.56	0.53
11:A:74:A:H5''	11:A:75:G:C1'	2.38	0.53
14:D:210:GLY:O	14:D:211:ARG:CB	2.57	0.53
11:A:1458:C:C4'	11:A:1459:G:O4'	2.56	0.53
26:S:42:ASP:C	26:S:44:LYS:N	2.62	0.53
11:A:1186:G:C2'	11:A:1187:G:H5'	2.38	0.53
11:A:419:C:H2'	11:A:420:C:H6	1.74	0.53
11:A:1221(A):C:H42	11:A:1228:G:H1	1.55	0.53
11:A:2329:G:O2'	11:A:2330:G:H5'	2.09	0.53
11:A:2290:G:C2	11:A:2343:C:O2	2.62	0.53
31:X:10:ALA:HB3	31:X:29:TRP:CD1	2.44	0.53
11:A:769:G:H2'	11:A:770:G:C8	2.44	0.53
14:D:30:GLU:OE1	14:D:63:ARG:HD3	2.09	0.53
13:C:131:LEU:HB3	13:C:136:LEU:CB	2.37	0.53
15:E:110:GLY:O	25:R:2:ARG:HG2	2.09	0.53
27:T:13:ARG:NH2	27:T:15:VAL:HG11	2.24	0.53
27:T:57:PHE:HE2	27:T:79:HIS:HD1	1.56	0.53
27:T:62:THR:HG22	27:T:75:ILE:CG2	2.37	0.53
13:C:189:ILE:O	13:C:192:PHE:HB3	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:Z:151:HIS:CB	33:Z:170:THR:HA	2.39	0.53
32:Y:37:VAL:CG2	32:Y:38:ILE:N	2.67	0.53
11:A:17:G:H21	11:A:555:U:C5'	2.22	0.53
21:N:3:THR:CG2	21:N:4:TYR:H	2.14	0.53
11:A:7:G:H21	11:A:8:A:H1'	1.72	0.53
14:D:91:ARG:NH1	14:D:91:ARG:HG2	2.21	0.53
30:W:59:VAL:O	30:W:60:ASN:C	2.46	0.53
11:A:1949:G:C6	11:A:1950:G:C6	2.97	0.53
11:A:272(E):G:H2'	11:A:272(F):C:H5'	1.91	0.53
11:A:936:C:H2'	11:A:937:U:C6	2.42	0.53
11:A:1036:G:C2	11:A:1120:G:C6	2.97	0.53
32:Y:21:LYS:HG2	32:Y:21:LYS:O	2.08	0.53
11:A:1914:C:H2'	11:A:1915:U:O4'	2.08	0.53
2:1:40:ARG:HG3	2:1:41:ARG:H	1.74	0.53
11:A:2260:C:N4	11:A:2280:G:H1	2.07	0.53
11:A:814:C:H2'	11:A:815:C:H6	1.73	0.53
11:A:484:C:H2'	11:A:485:C:C6	2.44	0.53
14:D:145:VAL:HG12	14:D:146:GLU:N	2.23	0.53
18:H:37:VAL:HG11	18:H:68:THR:HG21	1.91	0.53
6:5:6:VAL:O	6:5:6:VAL:HG13	2.08	0.53
26:S:97:ARG:O	26:S:99:LYS:HG2	2.09	0.53
27:T:23:ARG:CG	27:T:120:ARG:NH1	2.72	0.53
13:C:22:ILE:HD12	13:C:228:SER:C	2.29	0.53
12:B:79:C:C2'	12:B:80:U:H5'	2.38	0.53
11:A:1343:G:C2	11:A:1405:U:N3	2.77	0.53
16:F:9:ILE:HA	16:F:14:PRO:O	2.09	0.53
11:A:2593:U:H2'	11:A:2594:C:H6	1.74	0.53
18:H:76:VAL:C	18:H:78:GLY:H	2.12	0.53
28:U:86:ALA:O	28:U:88:ILE:HG23	2.09	0.53
11:A:372:G:O2'	11:A:373:U:OP1	2.27	0.53
14:D:249:PRO:HG2	14:D:250:TRP:N	2.24	0.53
13:C:214:VAL:CG2	13:C:224:ILE:HD13	2.37	0.53
14:D:177:LEU:C	14:D:179:SER:H	2.10	0.53
23:P:130:PHE:HD2	23:P:130:PHE:N	2.04	0.53
28:U:52:ARG:NH2	28:U:55:ARG:NH2	2.56	0.53
33:Z:105:VAL:O	33:Z:105:VAL:HG13	2.08	0.53
11:A:1358:G:O2'	11:A:1359:A:H5''	2.09	0.53
11:A:874:G:O2'	11:A:875:G:H5'	2.09	0.53
11:A:2497:A:H8	11:A:2497:A:OP2	1.91	0.53
17:G:74:LYS:HD2	17:G:74:LYS:N	2.23	0.53
11:A:1722:A:O2'	11:A:1739:U:H5'	2.08	0.53
12:B:77:U:H2'	12:B:77:U:O2	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:809:G:O2'	11:A:810:U:H5'	2.08	0.53
23:P:23:PRO:HG2	23:P:33:ARG:HE	1.74	0.53
32:Y:47:LYS:HA	32:Y:60:PHE:CZ	2.43	0.53
16:F:182:ASN:OD1	16:F:185:ASP:N	2.29	0.53
24:Q:52:VAL:O	24:Q:53:ALA:C	2.47	0.53
16:F:160:ASN:HD21	16:F:162:LEU:HD13	1.73	0.53
30:W:89:ALA:O	30:W:92:ARG:HD2	2.09	0.53
12:B:42:C:O2'	12:B:43:C:H6	1.91	0.53
12:B:44:G:H4'	12:B:45:A:N7	2.23	0.53
11:A:1666:G:H2'	11:A:1667:G:O4'	2.08	0.53
27:T:74:ARG:C	27:T:75:ILE:HD12	2.29	0.53
27:T:96:ARG:HB2	27:T:96:ARG:CZ	2.39	0.53
33:Z:69:THR:HG22	33:Z:89:PHE:C	2.29	0.53
11:A:857:C:H5'	11:A:858:U:OP2	2.08	0.53
11:A:2303:G:O2'	17:G:132:ASN:CB	2.56	0.53
11:A:2306:C:H4'	17:G:136:ARG:CZ	2.39	0.53
11:A:1092:C:H2'	11:A:1093:G:O4'	2.08	0.53
18:H:149:ARG:HA	18:H:162:ILE:HG23	1.91	0.53
17:G:177:GLY:O	17:G:179:PRO:HD3	2.08	0.53
11:A:197:A:H8	11:A:197:A:H5'	1.74	0.53
11:A:45:C:OP2	11:A:215:G:H2'	2.09	0.53
29:V:58:VAL:HG12	29:V:59:ALA:N	2.23	0.53
8:7:11:LYS:HE2	11:A:686:G:C2	2.44	0.53
11:A:2508:G:C2	11:A:2582:G:O6	2.62	0.53
21:N:58:ASP:C	21:N:60:ILE:N	2.61	0.53
2:1:34:THR:HG22	2:1:35:THR:H	1.73	0.53
5:4:42:PHE:CD2	5:4:42:PHE:O	2.62	0.53
20:K:99:UNK:N	20:K:135:UNK:CB	2.72	0.53
11:A:363:G:N1	11:A:363(A):A:N7	2.57	0.53
20:K:129:UNK:C	20:K:131:UNK:N	2.71	0.53
11:A:494:G:N3	11:A:494:G:H2'	2.24	0.53
11:A:1192:G:H8	11:A:1192:G:O5'	1.92	0.52
28:U:14:HIS:CD2	28:U:32:PHE:CB	2.89	0.52
32:Y:50:ARG:CB	32:Y:53:PRO:HG3	2.19	0.52
14:D:147:LEU:CD1	14:D:183:ARG:NH1	2.45	0.52
13:C:75:LEU:CD1	13:C:113:VAL:HA	2.40	0.52
11:A:601:C:O2	11:A:605:C:C5'	2.56	0.52
16:F:122:LYS:N	16:F:122:LYS:HE3	2.22	0.52
16:F:187:VAL:HG12	23:P:7:ARG:HA	1.90	0.52
22:O:2:ILE:HD12	22:O:6:THR:HG21	1.91	0.52
33:Z:100:VAL:HB	33:Z:124:ILE:HG13	1.90	0.52
12:B:79:C:H2'	12:B:80:U:O4'	2.08	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:11:VAL:C	16:F:13:SER:H	2.13	0.52
28:U:66:ASN:ND2	28:U:70:ARG:HB2	2.24	0.52
29:V:39:LEU:N	29:V:39:LEU:HD13	2.24	0.52
11:A:2127:G:C6	11:A:2128:C:N4	2.76	0.52
14:D:232:PRO:HG2	14:D:248:SER:O	2.09	0.52
29:V:21:ARG:HG2	29:V:91:TYR:CE2	2.44	0.52
11:A:1327:C:N4	11:A:1647:G:N2	2.50	0.52
11:A:1053:C:O2'	11:A:1054:A:H5'	2.09	0.52
21:N:57:ALA:O	21:N:58:ASP:O	2.27	0.52
31:X:3:THR:HA	31:X:6:ASP:OD2	2.09	0.52
14:D:121:PRO:HB3	14:D:135:PHE:CE2	2.44	0.52
15:E:67:PHE:HD2	15:E:68:ALA:H	1.57	0.52
18:H:114:VAL:O	18:H:114:VAL:HG23	2.08	0.52
28:U:71:GLN:O	28:U:71:GLN:HG2	2.09	0.52
7:6:15:GLU:HA	7:6:49:HIS:ND1	2.24	0.52
11:A:2029:G:O6	11:A:2033:A:OP2	2.26	0.52
11:A:2425:A:H5''	11:A:2427:C:O4'	2.09	0.52
16:F:111:ALA:O	16:F:115:ALA:N	2.42	0.52
3:2:57:ILE:HG22	3:2:61:LEU:HG	1.91	0.52
11:A:2577:A:H5''	11:A:2578:G:H5'	1.91	0.52
11:A:2818:G:O2'	11:A:2819:G:H5'	2.10	0.52
11:A:2007:C:C5'	11:A:2824:C:H1'	2.39	0.52
25:R:14:SER:HA	25:R:17:ARG:CZ	2.39	0.52
25:R:63:ARG:O	25:R:66:VAL:HB	2.09	0.52
26:S:13:ARG:HH11	26:S:13:ARG:HG2	1.74	0.52
15:E:31:CYS:HB3	15:E:49:LEU:HD12	1.91	0.52
7:6:26:ASN:O	7:6:27:LYS:CB	2.58	0.52
22:O:64:ARG:CZ	27:T:70:VAL:HG21	2.39	0.52
27:T:101:PHE:O	27:T:102:ILE:C	2.48	0.52
22:O:75:SER:OG	27:T:74:ARG:NH1	2.41	0.52
11:A:2673:G:H2'	11:A:2674:G:C8	2.45	0.52
11:A:1553:A:N6	11:A:1555:G:H1'	2.23	0.52
11:A:324:A:H61	11:A:338:G:C2'	2.23	0.52
17:G:7:LEU:O	17:G:11:TYR:HB2	2.08	0.52
11:A:1772:G:N2	11:A:1774:C:H5''	2.24	0.52
14:D:240:ALA:HB1	14:D:241:PRO:HD2	1.91	0.52
28:U:76:TYR:OH	28:U:93:LYS:HE3	2.09	0.52
29:V:38:LEU:HD12	29:V:57:VAL:HB	1.90	0.52
11:A:1657:C:C2'	11:A:1658:C:H5'	2.39	0.52
11:A:717:G:H2'	11:A:718:A:C8	2.44	0.52
26:S:106:ARG:NH2	26:S:109:GLY:N	2.56	0.52
24:Q:19:GLY:O	24:Q:20:ALA:HB3	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:19:GLY:CA	33:Z:79:ARG:NH2	2.72	0.52
6:5:48:GLU:O	6:5:49:CYS:CB	2.57	0.52
11:A:2626:C:H6	11:A:2626:C:O5'	1.92	0.52
26:S:84:GLN:HA	26:S:105:ALA:HB3	1.91	0.52
11:A:2076:U:OP1	11:A:2076:U:H6	1.90	0.52
13:C:1:PRO:C	13:C:3:HIS:H	2.13	0.52
2:1:40:ARG:CG	2:1:41:ARG:N	2.72	0.52
11:A:1215:G:O2'	11:A:1216:G:H5'	2.08	0.52
11:A:1853:A:N6	11:A:1889:A:C8	2.78	0.52
11:A:2235:G:H2'	11:A:2236:C:H6	1.72	0.52
3:2:35:LEU:HD21	3:2:50:ILE:HG13	1.89	0.52
11:A:2457:U:C2'	11:A:2458:G:H5'	2.39	0.52
11:A:2346:A:H5'	11:A:2383:G:O4'	2.09	0.52
15:E:166:THR:C	15:E:168:MET:H	2.11	0.52
27:T:79:HIS:O	27:T:80:SER:HB3	2.09	0.52
17:G:168:GLU:C	17:G:170:ARG:N	2.63	0.52
11:A:2105:C:O2'	11:A:2106:G:H5'	2.09	0.52
11:A:1792:G:OP2	14:D:206:LEU:HD12	2.09	0.52
28:U:92:ARG:HH22	29:V:10:LYS:CG	2.22	0.52
11:A:1335:U:OP1	31:X:65:ARG:NH2	2.43	0.52
11:A:1578:U:H2'	11:A:1578:U:O2	2.09	0.52
11:A:2111:C:H2'	11:A:2112:G:C5'	2.39	0.52
4:3:7:LYS:N	4:3:54:VAL:HG13	2.24	0.52
11:A:1785:A:P	11:A:1982:C:H5'	2.48	0.52
8:7:1:MET:N	11:A:1619:G:O2'	2.42	0.52
11:A:189:G:H2'	11:A:205:G:H22	1.73	0.52
11:A:1690:A:H2'	11:A:1691:C:C5'	2.38	0.52
13:C:28:LEU:C	13:C:28:LEU:HD23	2.30	0.52
11:A:360:G:H2'	11:A:361:G:O4'	2.09	0.52
3:2:39:ALA:CB	3:2:45:SER:HA	2.39	0.52
2:1:53:VAL:O	2:1:55:GLY:N	2.38	0.52
27:T:134:GLU:O	27:T:135:ALA:HB3	2.07	0.52
11:A:1741:A:H3'	11:A:1742:G:C8	2.45	0.52
11:A:2331:G:H2'	11:A:2332:U:H6	1.75	0.52
23:P:30:THR:CG2	23:P:31:ALA:N	2.72	0.52
31:X:12:VAL:CG1	31:X:27:THR:H	2.22	0.52
14:D:30:GLU:HB3	14:D:35:LYS:HG3	1.90	0.52
11:A:600:G:C6	11:A:601:C:N4	2.77	0.52
11:A:654(A):G:H5'	11:A:654(B):C:OP2	2.08	0.52
11:A:2464:C:O2'	11:A:2465:C:H6	1.85	0.52
11:A:319:C:H2'	11:A:320:A:C8	2.44	0.52
25:R:96:ARG:HB2	25:R:96:ARG:NH1	2.24	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1665:A:C3'	11:A:1666:G:C5'	2.85	0.52
11:A:1668:A:C2	11:A:1670:C:N3	2.77	0.52
33:Z:61:LEU:C	33:Z:63:ASP:N	2.58	0.52
12:B:105:A:H4'	33:Z:89:PHE:CD2	2.44	0.52
1:O:51:VAL:HG21	1:O:79:VAL:O	2.09	0.52
17:G:83:ARG:O	17:G:85:GLY:N	2.43	0.52
11:A:716:A:C3'	11:A:717:G:H5''	2.40	0.52
11:A:2111:C:H2'	11:A:2112:G:H5''	1.90	0.52
11:A:1027:A:O2'	11:A:1028:A:H5'	2.10	0.52
24:Q:44:ALA:HA	24:Q:47:ILE:CD1	2.35	0.52
21:N:75:TYR:HB2	21:N:82:LEU:HD13	1.91	0.52
11:A:1376:C:C2'	11:A:1377:G:H5'	2.40	0.52
11:A:2628:C:H5'	11:A:2781:A:C6	2.44	0.52
33:Z:108:PRO:O	33:Z:111:VAL:HG23	2.09	0.52
2:1:71:TYR:O	2:1:74:VAL:N	2.42	0.52
11:A:415:A:N1	11:A:2409:G:C6	2.77	0.52
11:A:500:G:N1	11:A:503:A:OP2	2.42	0.52
11:A:1416:G:H1'	11:A:1417:C:C6	2.45	0.52
13:C:51:PRO:HB2	13:C:167:LYS:O	2.09	0.52
16:F:20:LEU:HD12	16:F:199:TRP:CH2	2.40	0.52
16:F:28:ILE:N	16:F:28:ILE:HD13	2.23	0.52
11:A:2011:U:OP2	30:W:16:LYS:HE3	2.09	0.52
25:R:28:LEU:HB2	25:R:34:ILE:HG13	1.91	0.52
13:C:23:ASP:CB	13:C:27:ARG:NH1	2.65	0.52
33:Z:28:MET:HG3	33:Z:37:VAL:HG11	1.91	0.52
33:Z:51:ALA:HB3	33:Z:57:ILE:HD11	1.90	0.52
32:Y:8:LYS:CD	32:Y:8:LYS:H	1.97	0.52
17:G:16:ARG:CD	17:G:31:VAL:HG21	2.39	0.52
11:A:1826:G:H4'	14:D:242:ARG:NH2	2.24	0.52
14:D:233:HIS:O	14:D:234:GLY:O	2.27	0.52
11:A:85:G:O5'	32:Y:30:VAL:HB	2.10	0.52
11:A:996:A:H4'	28:U:92:ARG:CG	2.39	0.52
11:A:709:U:H3	11:A:722:A:H61	1.57	0.52
24:Q:27:VAL:O	24:Q:28:ALA:HB3	2.09	0.52
14:D:229:VAL:HG23	14:D:230:ASP:H	1.74	0.52
4:3:4:LEU:N	4:3:37:LEU:O	2.30	0.52
11:A:978:G:H1	11:A:985:C:H42	1.56	0.52
11:A:1511:C:H2'	11:A:1512:U:C6	2.44	0.52
11:A:664:C:H4'	11:A:941:A:OP1	2.10	0.52
11:A:64:A:H2'	11:A:65:C:O4'	2.09	0.52
8:7:22:MET:O	8:7:28:ARG:NH1	2.42	0.52
11:A:966:G:H1'	11:A:2267:A:H62	1.74	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
20:K:90:UNK:HA	33:Z:112:ARG:NH2	2.24	0.52
8:7:19:ARG:HB3	11:A:125:G:H5''	1.92	0.52
16:F:17:ARG:NH1	16:F:17:ARG:HG3	2.24	0.52
7:6:48:VAL:O	7:6:49:HIS:CG	2.62	0.52
11:A:667:U:H3'	11:A:668:G:H5''	1.91	0.52
11:A:483:A:C4'	32:Y:49:VAL:HG22	2.37	0.52
11:A:2086:U:OP2	14:D:263:ARG:NH2	2.37	0.52
11:A:2228:G:H2'	11:A:2229:C:C6	2.45	0.52
11:A:2758:A:O2'	11:A:2759:G:H8	1.92	0.52
25:R:20:LEU:O	25:R:24:GLN:HG3	2.10	0.52
11:A:141:A:H8	11:A:1408:C:O2'	1.92	0.52
33:Z:102:LEU:HD11	33:Z:124:ILE:CG2	2.39	0.52
33:Z:15:PRO:HA	33:Z:18:LEU:HD22	1.91	0.52
33:Z:166:SER:OG	33:Z:168:GLU:N	2.42	0.52
33:Z:26:GLY:O	33:Z:27:VAL:HB	2.09	0.52
11:A:324:A:H2'	11:A:325:G:O4'	2.09	0.52
11:A:1467:C:H42	11:A:1525:G:H1	1.58	0.52
11:A:2243:U:H2'	11:A:2244:U:H6	1.70	0.52
13:C:178:ALA:O	13:C:180:PHE:N	2.42	0.52
11:A:2373:G:H2'	11:A:2374:C:C6	2.45	0.52
11:A:2199:A:C5'	11:A:2200:C:OP2	2.58	0.52
12:B:5:C:H2'	12:B:6:C:C6	2.45	0.52
14:D:4:LYS:HB2	14:D:18:VAL:HG12	1.92	0.52
11:A:2532:G:H2'	11:A:2533:A:C8	2.45	0.52
11:A:2533:A:H2'	11:A:2534:A:H5'	1.91	0.52
18:H:156:ALA:C	18:H:158:HIS:H	2.13	0.52
11:A:992:C:C2	11:A:1163:G:N2	2.78	0.52
11:A:448:U:H1'	16:F:84:VAL:HG11	1.92	0.52
11:A:565:C:H2'	11:A:566:U:H6	1.74	0.52
11:A:588:U:H1'	16:F:90:PHE:CD2	2.45	0.52
11:A:499:U:H1'	32:Y:47:LYS:NZ	2.25	0.52
11:A:1202:C:H2'	11:A:1203:G:C5'	2.34	0.52
24:Q:48:GLU:HG3	24:Q:51:ARG:HG2	1.92	0.52
11:A:1278:A:O2'	11:A:1279:G:H5'	2.10	0.52
15:E:8:LYS:HB2	15:E:196:VAL:HG11	1.92	0.52
26:S:79:ALA:O	26:S:80:LEU:HD23	2.10	0.52
23:P:98:GLU:O	23:P:101:VAL:HG22	2.09	0.52
11:A:1682:G:H2'	11:A:1683:C:C6	2.45	0.52
17:G:13:GLU:HG3	17:G:14:GLU:HG3	1.92	0.52
11:A:662:G:H5'	23:P:18:ARG:C	2.30	0.52
11:A:19:C:O2'	11:A:20:C:H5'	2.09	0.52
15:E:154:LYS:O	15:E:155:LYS:O	2.27	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1131:G:C8	11:A:2025:C:H4'	2.45	0.52
11:A:1170:G:OP2	11:A:1170:G:H8	1.93	0.52
11:A:2221:G:C6	11:A:2222:G:C6	2.97	0.52
18:H:127:GLU:HB2	18:H:130:ARG:HB2	1.91	0.52
11:A:1328:G:H4'	11:A:1329:U:H5	1.75	0.52
11:A:2491:U:H5'	11:A:2570:G:H5''	1.91	0.52
11:A:2654:A:O2'	11:A:2655:G:H4'	2.10	0.52
2:1:17:SER:O	2:1:18:ILE:HG13	2.09	0.52
11:A:614(A):U:H4'	11:A:614(B):G:H5''	1.92	0.52
11:A:303:U:H2'	11:A:304:G:C8	2.44	0.52
11:A:1451:C:OP2	11:A:1451:C:H6	1.91	0.52
30:W:39:THR:O	30:W:44:ALA:HB2	2.10	0.52
11:A:1720:U:H2'	11:A:1721:G:H5''	1.92	0.52
11:A:972:G:H3'	11:A:973:A:H2'	1.90	0.52
11:A:497:A:H2'	11:A:498:G:H8	1.75	0.52
14:D:261:LYS:HZ1	14:D:263:ARG:HB2	1.68	0.52
3:2:31:GLU:O	3:2:32:LEU:C	2.44	0.52
6:5:2:ALA:CA	11:A:2015:A:H1'	2.40	0.52
11:A:2638:G:P	15:E:82:ARG:HH21	2.32	0.52
25:R:2:ARG:HH11	25:R:2:ARG:N	2.07	0.52
11:A:1273:U:H5''	11:A:1646:C:H41	1.75	0.52
11:A:1998:G:H4'	11:A:2724:C:H4'	1.91	0.52
22:O:119:PRO:HB2	27:T:68:TYR:CE2	2.44	0.52
27:T:78:LEU:C	27:T:79:HIS:CD2	2.83	0.52
33:Z:69:THR:HB	33:Z:88:PHE:HB3	1.92	0.52
11:A:307:G:H22	11:A:310:A:P	2.33	0.52
17:G:96:ARG:HA	17:G:100:TRP:CD1	2.44	0.52
30:W:35:ILE:HG22	30:W:36:LEU:N	2.23	0.52
11:A:449:A:H4'	28:U:3:ARG:HH21	1.73	0.52
11:A:1773:A:N6	11:A:1829:A:H1'	2.25	0.52
18:H:20:ALA:HB1	18:H:21:PRO:HD3	1.92	0.52
12:B:8:U:H2'	12:B:9:G:H8	1.75	0.52
11:A:471:A:H2'	11:A:472:A:H5'	1.91	0.52
18:H:118:PRO:CG	18:H:121:ILE:HD12	2.38	0.52
11:A:177:G:H3'	11:A:178:G:H8	1.75	0.52
24:Q:109:VAL:HG12	24:Q:110:THR:H	1.72	0.52
11:A:181:A:C2	11:A:182:A:C4	2.98	0.52
1:0:4:LYS:HG3	24:Q:82:ARG:HD2	1.91	0.52
18:H:125:VAL:HG12	18:H:125:VAL:O	2.09	0.52
11:A:1939:U:O2'	11:A:1940:U:H5'	2.09	0.52
23:P:59:LEU:C	23:P:61:ARG:H	2.14	0.52
24:Q:48:GLU:O	24:Q:52:VAL:HG23	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2880:C:C5	11:A:2881:C:H5	2.28	0.52
25:R:4:LEU:HG	25:R:4:LEU:O	2.10	0.52
25:R:52:ILE:HD12	25:R:79:LEU:HD21	1.90	0.52
26:S:26:LEU:HD23	26:S:27:SER:O	2.09	0.52
15:E:51:PHE:HD1	15:E:52:LEU:N	2.08	0.52
23:P:143:GLY:C	23:P:145:PRO:HD3	2.30	0.52
11:A:2550:G:O2'	11:A:2551:C:H5'	2.08	0.52
1:0:46:LYS:HE3	1:0:78:TYR:OH	2.10	0.52
11:A:856:C:H4'	11:A:857:C:OP2	2.10	0.52
32:Y:13:VAL:CG2	32:Y:73:ARG:O	2.57	0.52
16:F:11:VAL:HG12	16:F:12:LEU:N	2.21	0.52
16:F:130:ALA:HB3	16:F:142:TRP:CD1	2.45	0.52
2:1:62:VAL:HG13	2:1:67:ILE:HG12	1.92	0.52
2:1:67:ILE:N	2:1:68:PRO:CD	2.72	0.52
11:A:2089:U:H3	11:A:2230:G:H1	1.58	0.52
11:A:1246:A:OP2	23:P:18:ARG:HG3	2.10	0.52
3:2:2:LYS:HB3	11:A:97:C:H5''	1.90	0.52
21:N:108:PRO:HG2	21:N:113:GLY:CA	2.40	0.52
21:N:34:LEU:CD2	21:N:120:LEU:HD23	2.38	0.52
21:N:40:PRO:HD3	28:U:68:ALA:HA	1.92	0.52
28:U:28:ARG:O	28:U:35:ALA:HA	2.10	0.52
2:1:25:LYS:HD2	11:A:388:G:C4'	2.32	0.52
11:A:272(I):U:C2'	11:A:272(J):C:H5'	2.39	0.52
11:A:911:A:H5''	11:A:912:C:H5''	1.92	0.52
11:A:1170:G:H5''	11:A:1173:G:N2	2.24	0.52
13:C:110:PHE:O	13:C:111:ASP:HB2	2.08	0.52
15:E:131:ALA:CB	15:E:134:ILE:HD11	2.40	0.52
11:A:1052:C:H2'	11:A:1053:C:C5	2.45	0.52
11:A:2652:C:C4	11:A:2653:U:C4	2.98	0.52
11:A:956:G:OP1	24:Q:87:LYS:HG3	2.10	0.52
11:A:80:G:H1'	11:A:346:A:N1	2.25	0.52
11:A:807:U:H2'	11:A:808:G:O4'	2.09	0.52
11:A:2253:G:O2'	11:A:2254:C:H5'	2.10	0.52
22:O:14:THR:HG22	22:O:14:THR:O	2.10	0.52
15:E:96:PHE:HA	15:E:100:GLU:OE1	2.10	0.52
6:5:18:ALA:O	6:5:21:SER:HB3	2.10	0.52
11:A:1506:C:H2'	11:A:1506:C:O2	2.09	0.52
11:A:973:A:O4'	11:A:1188:U:C6	2.64	0.52
11:A:2392:A:H8	23:P:60:MET:HA	1.74	0.52
11:A:76:C:O2'	11:A:77:C:H5'	2.08	0.52
11:A:2469:A:C5	11:A:2470:G:H1'	2.45	0.52
16:F:143:ALA:O	16:F:148:LEU:HB2	2.09	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2048:G:C2	11:A:2621:A:C2	2.98	0.52
25:R:3:HIS:O	25:R:5:LYS:HD3	2.10	0.52
17:G:63:ILE:C	17:G:65:GLY:H	2.13	0.52
26:S:36:TYR:O	26:S:37:ALA:HB2	2.09	0.52
15:E:56:PRO:O	15:E:57:LYS:HD2	2.09	0.52
23:P:144:GLU:N	23:P:145:PRO:HD3	2.25	0.52
11:A:1299:G:H2'	11:A:1639:U:O4	2.09	0.52
33:Z:153:SER:H	33:Z:167:PRO:HB3	1.69	0.52
33:Z:70:LEU:CD2	33:Z:91:LEU:HD11	2.40	0.52
12:B:83:G:O2'	12:B:84:C:H5'	2.10	0.52
11:A:553:G:O2'	11:A:554:U:H5'	2.09	0.52
11:A:745:G:OP2	15:E:133:LYS:HD2	2.10	0.52
27:T:2:ASN:O	27:T:3:ARG:HG2	2.10	0.52
11:A:1346:G:H2'	11:A:1347:G:H8	1.75	0.52
15:E:93:VAL:HG12	15:E:175:VAL:CG2	2.40	0.52
11:A:2252:G:O2'	11:A:2253:G:H5'	2.09	0.52
13:C:25:ALA:O	13:C:28:LEU:N	2.43	0.52
11:A:1119:C:H2'	11:A:1120:G:H8	1.75	0.52
5:4:46:GLN:CG	5:4:47:GLN:N	2.73	0.52
9:8:49:VAL:HG12	9:8:50:LEU:H	1.75	0.51
14:D:261:LYS:HZ1	14:D:263:ARG:NH1	2.08	0.51
3:2:16:LEU:HD13	3:2:24:LEU:CD1	2.40	0.51
16:F:163:VAL:O	16:F:166:ALA:HB3	2.10	0.51
11:A:2504:U:O5'	11:A:2504:U:H6	1.93	0.51
15:E:36:ARG:HH11	15:E:36:ARG:HG2	1.75	0.51
15:E:36:ARG:O	15:E:37:ARG:HG2	2.10	0.51
32:Y:75:ILE:HG13	32:Y:76:CYS:H	1.73	0.51
17:G:166:ASP:O	17:G:168:GLU:N	2.43	0.51
21:N:126:PRO:O	21:N:127:ASP:CB	2.57	0.51
21:N:48:MET:HE3	21:N:49:GLY:H	1.74	0.51
11:A:2120:G:H2'	11:A:2121:G:H8	1.75	0.51
11:A:1094:U:H2'	11:A:1096:A:OP2	2.09	0.51
12:B:19:G:H3'	12:B:20:C:C6	2.45	0.51
5:4:31:ILE:HG22	5:4:33:VAL:HG23	1.90	0.51
11:A:1174:A:OP2	11:A:1175:U:H5''	2.10	0.51
23:P:86:LYS:HB2	23:P:117:GLU:O	2.10	0.51
11:A:1607:C:H4'	11:A:1608:A:O5'	2.10	0.51
15:E:174:ASP:OD2	15:E:175:VAL:N	2.43	0.51
11:A:949:C:O2'	11:A:950:G:H5'	2.10	0.51
11:A:1949:G:H2'	11:A:1950:G:C8	2.45	0.51
31:X:74:PRO:O	31:X:76:ARG:HD2	2.09	0.51
11:A:456:C:C2	31:X:69:TYR:HE2	2.28	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:615:G:H2'	11:A:616:G:H8	1.74	0.51
11:A:606:U:H2'	11:A:607:U:C4'	2.40	0.51
11:A:607:U:OP1	16:F:102:PRO:HA	2.10	0.51
10:9:2:LYS:HG3	11:A:2526:G:H21	1.76	0.51
11:A:1655:A:H1'	15:E:113:PHE:HD2	1.75	0.51
9:8:47:LYS:HD3	9:8:48:PHE:O	2.10	0.51
10:9:9:ARG:O	10:9:11:CYS:N	2.43	0.51
6:5:43:HIS:CD2	6:5:43:HIS:N	2.78	0.51
11:A:21:A:H2'	11:A:22:C:H6	1.74	0.51
21:N:46:VAL:HG13	21:N:48:MET:H	1.76	0.51
14:D:137:PRO:HB2	14:D:140:THR:HG23	1.92	0.51
11:A:723:G:H2'	11:A:724:U:O4'	2.10	0.51
11:A:1130:U:O2	11:A:2025:C:H5''	2.10	0.51
13:C:120:MET:SD	13:C:123:VAL:HG11	2.51	0.51
11:A:371:A:N1	11:A:401:A:H5''	2.24	0.51
26:S:78:LEU:HD11	26:S:103:GLU:CB	2.39	0.51
13:C:117:PRO:HD3	13:C:146:GLY:N	2.25	0.51
11:A:713:G:H2'	11:A:714:U:C6	2.46	0.51
33:Z:30:ASN:ND2	33:Z:32:HIS:H	2.09	0.51
17:G:12:TYR:N	17:G:12:TYR:CD1	2.78	0.51
11:A:49:A:H5'	11:A:49:A:N3	2.25	0.51
11:A:1259:G:H2'	11:A:1260:G:H8	1.74	0.51
11:A:572:A:N1	11:A:2033:A:C2	2.79	0.51
31:X:10:ALA:HB1	31:X:11:PRO:CD	2.40	0.51
11:A:657:U:C2	11:A:658:C:C5	2.99	0.51
16:F:185:ASP:HA	16:F:188:ARG:CG	2.40	0.51
11:A:2758:A:C2	11:A:2759:G:H1'	2.44	0.51
18:H:66:GLY:HA2	18:H:69:ARG:CB	2.39	0.51
18:H:64:LEU:O	18:H:67:LEU:HB3	2.10	0.51
11:A:2467:C:C2'	11:A:2468:G:H5'	2.40	0.51
6:5:6:VAL:HG22	11:A:2016:U:H1'	1.92	0.51
25:R:2:ARG:HD2	25:R:2:ARG:C	2.31	0.51
27:T:1:MET:HG3	27:T:1:MET:O	2.09	0.51
30:W:41:LYS:C	30:W:43:GLY:N	2.64	0.51
30:W:96:ILE:HG23	30:W:96:ILE:O	2.10	0.51
33:Z:119:GLU:HG3	33:Z:122:ARG:HH11	1.75	0.51
26:S:66:ALA:CA	26:S:99:LYS:HD3	2.40	0.51
7:6:28:ARG:O	7:6:29:ASN:C	2.49	0.51
11:A:2681:C:C5	11:A:2725:A:N6	2.78	0.51
27:T:28:VAL:O	27:T:29:ARG:CD	2.48	0.51
27:T:65:LYS:NZ	27:T:65:LYS:HA	2.25	0.51
33:Z:151:HIS:HB3	33:Z:171:ILE:HG12	1.92	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1517:G:C6	11:A:1518:U:C4	2.99	0.51
11:A:309:G:O3'	32:Y:18:GLY:HA2	2.10	0.51
28:U:66:ASN:HA	28:U:69:CYS:SG	2.51	0.51
17:G:71:THR:CB	17:G:89:GLY:O	2.56	0.51
32:Y:86:ARG:NH2	32:Y:95:LYS:NZ	2.58	0.51
26:S:106:ARG:HH21	26:S:109:GLY:N	2.08	0.51
13:C:99:ILE:O	13:C:99:ILE:HG22	2.09	0.51
5:4:14:ILE:HG13	5:4:31:ILE:HB	1.91	0.51
11:A:1193:G:N3	11:A:1194:A:H1'	2.24	0.51
29:V:23:GLU:O	29:V:24:LYS:O	2.28	0.51
11:A:534:U:H5'	28:U:42:ALA:HB1	1.91	0.51
16:F:81:PRO:O	16:F:82:ILE:O	2.29	0.51
30:W:71:VAL:C	30:W:73:ALA:H	2.13	0.51
11:A:2317:C:H2'	11:A:2318:G:H5'	1.92	0.51
11:A:1331:A:O2'	11:A:1332:G:C8	2.63	0.51
9:8:37:SER:O	9:8:41:ILE:HG22	2.11	0.51
23:P:22:GLY:O	23:P:29:LYS:HB2	2.11	0.51
14:D:35:LYS:HB2	14:D:104:TYR:CE1	2.46	0.51
13:C:116:THR:HG22	13:C:147:PHE:HA	1.93	0.51
16:F:28:ILE:CD1	16:F:28:ILE:H	2.20	0.51
6:5:3:LYS:CE	6:5:3:LYS:HA	2.35	0.51
25:R:37:THR:HG23	25:R:40:LYS:HE2	1.91	0.51
29:V:46:VAL:O	29:V:46:VAL:HG13	2.11	0.51
11:A:1669:A:OP2	11:A:1670:C:OP2	2.28	0.51
27:T:89:VAL:CB	27:T:91:ARG:HE	2.23	0.51
33:Z:102:LEU:HD11	33:Z:124:ILE:HG21	1.92	0.51
33:Z:61:LEU:C	33:Z:63:ASP:H	2.13	0.51
16:F:7:TYR:HD2	16:F:16:GLY:N	2.08	0.51
11:A:1248:G:OP1	16:F:92:PRO:HG3	2.09	0.51
11:A:2589:A:H2'	11:A:2590:A:O4'	2.10	0.51
3:2:3:LEU:HD12	11:A:98:G:H5''	1.93	0.51
3:2:6:VAL:HA	3:2:9:GLN:OE1	2.10	0.51
21:N:3:THR:C	21:N:4:TYR:CG	2.83	0.51
28:U:94:ASN:C	28:U:96:ALA:H	2.12	0.51
29:V:5:VAL:O	29:V:11:GLN:HA	2.11	0.51
11:A:1542:A:C8	11:A:1544:A:H5'	2.46	0.51
15:E:132:HIS:HD2	15:E:135:HIS:NE2	2.07	0.51
11:A:708:C:H42	11:A:723:G:H1	1.58	0.51
18:H:94:TYR:HE2	18:H:152:ARG:HG2	1.75	0.51
11:A:2038:G:H2'	11:A:2039:C:O4'	2.10	0.51
14:D:227:ASN:HB3	14:D:228:PRO:HD2	1.92	0.51
11:A:1087:G:N2	11:A:1103:A:H61	2.07	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:613:G:H5'	11:A:613:G:H8	1.76	0.51
11:A:534:U:H5'	28:U:42:ALA:CB	2.40	0.51
25:R:87:TYR:O	25:R:89:ASP:N	2.40	0.51
11:A:1064:C:C2'	11:A:1065:U:H5''	2.40	0.51
11:A:2107:C:C2	11:A:2108:C:C5	2.99	0.51
11:A:2690:C:H4'	11:A:2872:G:H21	1.73	0.51
13:C:50:ASP:OD1	13:C:51:PRO:HD2	2.11	0.51
29:V:13:ARG:HG3	29:V:13:ARG:HH11	1.74	0.51
33:Z:54:HIS:CD2	33:Z:101:PRO:HD3	2.46	0.51
11:A:1378:A:O2'	11:A:1379:A:C5'	2.53	0.51
16:F:31:HIS:CD2	23:P:13:ASN:HB2	2.45	0.51
11:A:1277:G:C2	11:A:1294:U:O2	2.63	0.51
33:Z:71:VAL:HA	33:Z:87:ASP:O	2.11	0.51
32:Y:74:PRO:O	32:Y:75:ILE:HB	2.11	0.51
17:G:174:GLU:HG2	17:G:175:LEU:HD23	1.92	0.51
17:G:93:THR:HG22	17:G:94:LEU:N	2.24	0.51
2:1:62:VAL:HG11	2:1:67:ILE:HG23	1.92	0.51
11:A:440:G:H22	16:F:46:ARG:HH21	1.57	0.51
16:F:46:ARG:NH1	16:F:46:ARG:CG	2.71	0.51
3:2:3:LEU:C	3:2:3:LEU:CD2	2.78	0.51
11:A:425:G:H2'	11:A:426:C:H6	1.75	0.51
11:A:598:G:H2'	11:A:599:G:O4'	2.10	0.51
23:P:14:LYS:O	23:P:15:ARG:HB2	2.10	0.51
11:A:2306:C:N4	11:A:2311:A:C8	2.79	0.51
11:A:1528:A:O2'	11:A:1528(A):A:O5'	2.24	0.51
15:E:120:TRP:CB	15:E:155:LYS:HE3	2.40	0.51
33:Z:80:ARG:O	33:Z:81:ARG:O	2.29	0.51
13:C:99:ILE:CG2	13:C:102:LYS:HZ3	2.17	0.51
11:A:150:C:O2'	11:A:151:C:H5'	2.10	0.51
11:A:272(B):G:H2'	11:A:272(C):G:C8	2.43	0.51
11:A:2776:A:H4'	11:A:2777:G:H5''	1.92	0.51
11:A:1601:G:O2'	11:A:1602:U:H5'	2.09	0.51
10:9:18:ARG:O	10:9:19:ARG:HB3	2.11	0.51
18:H:58:GLU:O	18:H:62:LYS:HB2	2.10	0.51
11:A:247:G:H1'	11:A:251:A:H62	1.76	0.51
11:A:1192:G:C6	23:P:29:LYS:NZ	2.79	0.51
28:U:33:ARG:O	28:U:36:ARG:HB3	2.10	0.51
11:A:483:A:H1'	32:Y:60:PHE:HZ	1.73	0.51
14:D:27:THR:CG2	14:D:82:ILE:O	2.58	0.51
16:F:25:PRO:HB3	16:F:119:ARG:CA	2.41	0.51
11:A:95:G:H2'	11:A:96:G:O4'	2.10	0.51
11:A:1268:A:H2'	11:A:1269:A:C8	2.45	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:R:98:LEU:O	25:R:113:LEU:N	2.44	0.51
17:G:110:ALA:CB	17:G:140:ILE:HD13	2.41	0.51
26:S:29:PHE:C	26:S:29:PHE:CD2	2.84	0.51
11:A:2713:A:H3'	11:A:2714:G:H5'	1.93	0.51
11:A:2683:C:N4	11:A:2727:G:H21	2.09	0.51
27:T:27:THR:O	27:T:28:VAL:CG2	2.52	0.51
27:T:55:ASN:N	27:T:59:THR:HG22	2.07	0.51
13:C:196:LEU:O	13:C:198:ALA:N	2.44	0.51
33:Z:128:VAL:CG2	33:Z:129:SER:H	2.20	0.51
33:Z:86:VAL:O	33:Z:87:ASP:OD1	2.29	0.51
11:A:1473:G:O6	11:A:1519:G:N2	2.41	0.51
32:Y:13:VAL:HG22	32:Y:73:ARG:O	2.11	0.51
32:Y:13:VAL:HG22	32:Y:14:LEU:H	1.74	0.51
10:9:12:ASP:O	10:9:14:CYS:N	2.43	0.51
21:N:14:VAL:CG1	21:N:137:LYS:HG3	2.41	0.51
16:F:51:THR:CG2	16:F:92:PRO:HD2	2.40	0.51
11:A:1825:A:H4'	14:D:233:HIS:CE1	2.46	0.51
28:U:65:ILE:HG13	28:U:96:ALA:HB1	1.91	0.51
14:D:132:PRO:O	14:D:136:ILE:HD13	2.11	0.51
17:G:43:LEU:HD11	17:G:153:ARG:CB	2.41	0.51
11:A:719:C:O2'	11:A:720:C:H5'	2.10	0.51
11:A:2137:C:H2'	11:A:2138:C:H6	1.75	0.51
26:S:24:LEU:CD1	26:S:41:ASP:HB2	2.41	0.51
29:V:70:ILE:HD12	29:V:87:HIS:HD2	1.75	0.51
4:3:50:VAL:HA	4:3:52:HIS:CE1	2.46	0.51
6:5:38:ALA:HB1	6:5:48:GLU:HB3	1.92	0.51
1:0:22:GLY:C	1:0:38:VAL:HG13	2.31	0.51
11:A:116:C:H2'	11:A:117:G:H8	1.71	0.51
11:A:185:U:H2'	11:A:186:G:H8	1.75	0.51
11:A:67:U:O2'	11:A:68:G:H5'	2.11	0.51
11:A:2688:U:O2	11:A:2688:U:C3'	2.58	0.51
33:Z:149:SER:HB3	33:Z:172:ALA:O	2.10	0.51
11:A:2316:C:C2	11:A:2317:C:C5	2.99	0.51
11:A:2447:G:C6	11:A:2501:C:C2	2.99	0.51
11:A:2259:G:C2	11:A:2282:G:N1	2.78	0.51
11:A:564:C:O2'	11:A:565:C:H5'	2.10	0.51
11:A:961:C:C5	11:A:2031:A:C2	2.98	0.51
3:2:35:LEU:HD21	3:2:50:ILE:HD11	1.91	0.51
11:A:2529:G:OP2	11:A:2530:A:H8	1.93	0.51
11:A:1277:G:O2'	11:A:1278:A:H5'	2.10	0.51
15:E:82:ARG:O	15:E:83:ASP:C	2.48	0.51
25:R:59:ASP:O	25:R:60:LEU:C	2.49	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:E:56:PRO:O	15:E:57:LYS:HB2	2.10	0.51
15:E:61:ARG:HG2	15:E:62:PRO:HD3	1.91	0.51
22:O:71:ARG:HB3	22:O:72:PRO:HD2	1.92	0.51
12:B:74:U:H2'	12:B:75:G:H1'	1.92	0.51
33:Z:39:VAL:O	33:Z:40:ASP:O	2.29	0.51
32:Y:28:LYS:O	32:Y:38:ILE:HG22	2.10	0.51
6:5:52:TYR:HE2	11:A:2884:U:O2	1.94	0.51
11:A:2103:C:H2'	11:A:2104:G:C5'	2.40	0.51
11:A:1902:C:C2'	11:A:1903:G:O5'	2.59	0.51
11:A:1012:U:O4	21:N:28:THR:HG21	2.11	0.51
21:N:35:ARG:O	21:N:36:GLY:C	2.48	0.51
11:A:2306:C:H4'	17:G:136:ARG:NH1	2.25	0.51
33:Z:22:GLY:O	33:Z:23:LYS:O	2.27	0.51
30:W:10:VAL:HB	30:W:101:SER:O	2.11	0.51
28:U:37:GLU:HA	28:U:40:PHE:HD1	1.75	0.51
11:A:1410:G:H2'	11:A:1411:C:H6	1.75	0.51
24:Q:87:LYS:O	24:Q:88:GLY:O	2.29	0.51
11:A:2352:A:C5	11:A:2366:A:N1	2.79	0.51
11:A:877:U:O2'	11:A:878:A:H5''	2.10	0.51
5:4:20:ASN:ND2	5:4:20:ASN:C	2.63	0.51
11:A:230:U:O2'	11:A:231:C:H5'	2.11	0.51
11:A:1307:A:N3	11:A:1307:A:H2'	2.25	0.51
11:A:591:C:H2'	11:A:592:G:H8	1.76	0.51
23:P:34:GLY:O	23:P:35:HIS:HB2	2.10	0.51
11:A:1816:G:H8	14:D:62:TYR:OH	1.94	0.51
11:A:655:A:H1'	11:A:656:G:O4'	2.09	0.51
16:F:33:LEU:CD1	16:F:113:ALA:HB2	2.40	0.51
11:A:61:G:H1	11:A:94:C:N4	2.07	0.51
25:R:45:ARG:CG	25:R:46:GLY:H	2.06	0.51
7:6:27:LYS:HG3	7:6:27:LYS:O	2.10	0.51
33:Z:28:MET:HG3	33:Z:37:VAL:CG1	2.40	0.51
17:G:161:THR:C	17:G:163:ALA:N	2.61	0.51
10:9:8:LYS:O	10:9:10:ILE:HD12	2.11	0.51
11:A:1775:U:H2'	11:A:1776:G:O4'	2.10	0.51
11:A:1970:A:H5''	11:A:1971:A:OP1	2.11	0.51
11:A:1493:C:O2	11:A:1493:C:H2'	2.11	0.51
24:Q:26:TYR:HA	24:Q:137:TYR:CD1	2.46	0.51
11:A:2485:G:O2'	24:Q:126:PRO:HA	2.11	0.51
4:3:7:LYS:O	4:3:54:VAL:HG13	2.11	0.51
11:A:2875:C:C4'	27:T:5:ALA:HB3	2.40	0.51
11:A:208:C:H2'	11:A:209:C:H6	1.76	0.51
1:0:39:ARG:NH2	11:A:2354:G:H22	2.09	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2369:A:H2'	11:A:2370:G:H8	1.76	0.51
11:A:1632:A:N6	11:A:1633:G:N1	2.58	0.51
33:Z:155:LEU:N	33:Z:155:LEU:HD23	2.26	0.51
11:A:576:U:OP1	11:A:2503:A:OP1	2.29	0.51
11:A:973:A:H5'	11:A:1188:U:C1'	2.41	0.51
28:U:14:HIS:C	28:U:16:LYS:N	2.61	0.51
31:X:22:ALA:HB1	31:X:23:GLU:OE2	2.11	0.51
31:X:43:VAL:O	31:X:47:PHE:HB2	2.11	0.51
25:R:28:LEU:CA	25:R:34:ILE:HG13	2.40	0.51
22:O:78:ARG:O	27:T:73:GLU:N	2.44	0.51
1:O:69:PHE:CE2	1:O:79:VAL:HG22	2.45	0.51
11:A:1344:G:H4'	11:A:1384:A:N7	2.26	0.51
17:G:95:ARG:O	17:G:96:ARG:O	2.29	0.51
11:A:84:A:C5'	32:Y:9:LYS:HD2	2.35	0.51
11:A:1069:A:H1'	11:A:1070:A:OP1	2.11	0.51
11:A:2206:G:H21	11:A:2207:G:H4'	1.75	0.51
13:C:132:GLY:HA2	13:C:137:LEU:HB2	1.93	0.51
15:E:132:HIS:HD2	15:E:135:HIS:CE1	2.29	0.51
33:Z:76:LEU:HD21	33:Z:82:ARG:N	2.25	0.51
11:A:177:G:H3'	11:A:178:G:C8	2.46	0.51
28:U:42:ALA:O	28:U:43:GLY:C	2.49	0.51
11:A:1779:U:O2	11:A:1783:A:N6	2.44	0.51
27:T:107:ASP:OD2	27:T:108:ARG:HG2	2.11	0.51
11:A:1022:G:N7	21:N:66:LYS:HE3	2.25	0.51
26:S:54:LEU:C	26:S:56:LEU:H	2.14	0.51
11:A:2450:A:O2'	11:A:2451:A:H5'	2.10	0.51
11:A:2689:U:H4'	11:A:2690:C:OP2	2.11	0.51
11:A:654(T):C:O2'	11:A:654(U):A:H5'	2.11	0.51
31:X:3:THR:N	31:X:6:ASP:OD2	2.44	0.51
11:A:1429:G:H2'	11:A:1430:C:C6	2.46	0.51
11:A:1476:C:H2'	11:A:1477:A:H8	1.76	0.51
11:A:2283:C:O2'	11:A:2284:C:H5'	2.10	0.51
3:2:24:LEU:C	3:2:24:LEU:HD23	2.32	0.51
10:9:7:VAL:HG12	10:9:25:VAL:HG21	1.93	0.51
24:Q:54:MET:HG2	24:Q:64:ILE:HD13	1.92	0.51
24:Q:55:VAL:HG23	33:Z:178:GLU:CB	2.41	0.51
24:Q:55:VAL:CG2	33:Z:178:GLU:HB2	2.41	0.51
22:O:77:ILE:HD13	27:T:74:ARG:HG2	1.93	0.51
32:Y:77:PRO:O	32:Y:78:ALA:HB2	2.11	0.51
17:G:34:LEU:HD11	17:G:100:TRP:CH2	2.44	0.51
17:G:16:ARG:C	17:G:18:GLU:H	2.13	0.51
10:9:10:ILE:HD12	10:9:10:ILE:N	2.05	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:50:VAL:HG22	30:W:105:VAL:CG2	2.40	0.51
11:A:2117:A:H61	11:A:2171:A:H61	1.57	0.51
18:H:85:LYS:HG3	18:H:141:VAL:HG12	1.93	0.51
11:A:2224:G:H4'	11:A:2226:C:C2	2.46	0.51
11:A:2649:U:O2'	11:A:2650:U:H5'	2.10	0.51
11:A:1458:C:H4'	11:A:1459:G:O5'	2.11	0.51
11:A:393:C:H2'	11:A:394:A:C8	2.46	0.51
30:W:37:ARG:CG	30:W:37:ARG:HH11	2.24	0.51
11:A:519:U:H2'	11:A:520:G:H8	1.76	0.51
30:W:82:LEU:HB3	30:W:84:ARG:HH12	1.76	0.51
8:7:19:ARG:NH2	11:A:124:G:C8	2.79	0.51
11:A:2192:G:H2'	11:A:2193:G:H5'	1.92	0.51
25:R:75:LEU:O	25:R:75:LEU:HD13	2.10	0.51
9:8:13:ARG:HA	23:P:63:PRO:HA	1.92	0.50
11:A:2282:G:N2	11:A:2390:U:H3	2.07	0.50
13:C:153:ILE:O	13:C:157:LYS:HB2	2.11	0.50
11:A:603:A:H1'	11:A:604:G:OP1	2.11	0.50
11:A:654(B):C:H2'	11:A:654(C):G:H8	1.75	0.50
18:H:42:ARG:CZ	18:H:42:ARG:HB2	2.41	0.50
11:A:2535:G:C2	11:A:2536:G:C8	2.99	0.50
6:5:4:HIS:CB	6:5:5:PRO:CD	2.81	0.50
11:A:2456:C:H2'	11:A:2457:U:O4'	2.11	0.50
5:4:6:HIS:CB	17:G:67:LYS:CE	2.88	0.50
26:S:52:SER:O	26:S:69:VAL:HG21	2.11	0.50
26:S:52:SER:HB3	26:S:55:ALA:HB3	1.92	0.50
15:E:3:GLY:HA3	15:E:81:ILE:HD12	1.92	0.50
12:B:105:A:H4'	33:Z:89:PHE:CE2	2.46	0.50
32:Y:13:VAL:HG23	32:Y:74:PRO:HA	1.92	0.50
11:A:493:G:O2'	30:W:7:ALA:HA	2.11	0.50
21:N:55:VAL:HG22	21:N:56:ASN:N	2.25	0.50
11:A:1966:A:H2	11:A:2592:G:N3	2.09	0.50
21:N:24:GLY:O	21:N:28:THR:HG22	2.11	0.50
18:H:97:ARG:HE	18:H:99:VAL:HG23	1.76	0.50
12:B:78:A:C6	12:B:100:A:C8	2.99	0.50
18:H:86:GLU:HA	18:H:132:ARG:CB	2.40	0.50
11:A:197:A:C8	11:A:2430:A:C2	2.99	0.50
13:C:6:ARG:NH1	13:C:6:ARG:HG2	2.23	0.50
11:A:261:G:O4'	11:A:609:A:H2	1.94	0.50
23:P:114:ILE:HG23	23:P:130:PHE:HA	1.92	0.50
11:A:1605:C:N4	11:A:1606:G:C2	2.80	0.50
27:T:106:SER:C	27:T:107:ASP:OD1	2.49	0.50
11:A:1432:C:H2'	11:A:1433:U:C6	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:19:VAL:HA	13:C:223:ARG:O	2.12	0.50
7:6:51:GLU:O	7:6:52:VAL:HG23	2.12	0.50
11:A:1217:C:H2'	11:A:1218:C:C6	2.46	0.50
14:D:270:ILE:C	14:D:270:ILE:HD12	2.30	0.50
14:D:273:ARG:C	14:D:274:ARG:HG3	2.31	0.50
14:D:27:THR:HG21	14:D:82:ILE:O	2.11	0.50
13:C:74:VAL:HA	13:C:112:ALA:CB	2.31	0.50
18:H:68:THR:HA	18:H:71:LEU:CG	2.41	0.50
18:H:67:LEU:CG	18:H:71:LEU:HD11	2.36	0.50
11:A:2462:U:H2'	11:A:2463:C:C6	2.46	0.50
11:A:2010:G:C5	11:A:2011:U:C5	3.00	0.50
11:A:2821:A:H2'	11:A:2822:G:C8	2.46	0.50
11:A:271(J):C:C3'	11:A:271(K):U:H5''	2.41	0.50
11:A:1485:G:H2'	11:A:1486:A:O4'	2.11	0.50
11:A:1485:G:H1'	11:A:1505:C:N4	2.26	0.50
24:Q:141:GLN:CD	33:Z:72:ARG:HD3	2.31	0.50
32:Y:17:SER:CB	32:Y:71:LYS:HD2	2.41	0.50
17:G:18:GLU:O	17:G:20:ILE:N	2.42	0.50
16:F:130:ALA:HB3	16:F:142:TRP:HD1	1.75	0.50
2:1:45:ASN:O	2:1:64:ALA:HB2	2.10	0.50
14:D:117:VAL:CG2	14:D:118:VAL:N	2.73	0.50
11:A:2111:C:H42	11:A:2147:G:H1	1.58	0.50
24:Q:45:GLN:HG2	24:Q:46:GLN:H	1.76	0.50
30:W:11:ARG:HH21	30:W:12:ILE:HA	1.75	0.50
11:A:145:G:H2'	11:A:146:G:C5'	2.39	0.50
11:A:2020:A:O2'	11:A:2021:C:C5'	2.57	0.50
11:A:2107:C:H2'	11:A:2108:C:H6	1.75	0.50
5:4:18:CYS:SG	5:4:19:GLY:N	2.84	0.50
11:A:280:C:N4	11:A:360:G:H1	2.09	0.50
11:A:1221:C:H2'	11:A:1221(A):C:C6	2.47	0.50
20:K:17:UNK:O	20:K:18:UNK:CB	2.59	0.50
11:A:2390:U:O2'	11:A:2391:G:H5'	2.11	0.50
9:8:5:LYS:HG2	11:A:242:G:C8	2.46	0.50
10:9:36:GLN:NE2	11:A:1031:G:N2	2.48	0.50
11:A:2577:A:C5'	11:A:2578:G:H5'	2.41	0.50
11:A:2880:C:C6	11:A:2880:C:C3'	2.95	0.50
25:R:38:VAL:HB	25:R:39:PRO:CD	2.34	0.50
11:A:2880:C:H1'	25:R:92:GLY:O	2.12	0.50
17:G:141:PHE:HB3	17:G:142:PRO:HD2	1.93	0.50
15:E:4:ILE:HG12	15:E:5:LEU:H	1.77	0.50
11:A:2811:G:H5'	15:E:60:ASN:ND2	2.27	0.50
11:A:141:A:N6	11:A:142:A:H62	2.09	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:Z:70:LEU:HD21	33:Z:91:LEU:CD2	2.37	0.50
11:A:1523:U:H2'	11:A:1524:G:O4'	2.10	0.50
11:A:306:U:H2'	11:A:307:G:C8	2.46	0.50
11:A:2593:U:H2'	11:A:2594:C:C6	2.46	0.50
11:A:705:A:C2	11:A:727:A:H1'	2.47	0.50
21:N:32:THR:HG22	21:N:37:LYS:HB3	1.94	0.50
21:N:29:LYS:O	21:N:33:LEU:HD13	2.10	0.50
21:N:2:LYS:NZ	29:V:12:TYR:HA	2.26	0.50
11:A:425:G:H2'	11:A:426:C:C6	2.47	0.50
8:7:37:LYS:HD2	11:A:458:G:C8	2.46	0.50
11:A:907:U:H4'	24:Q:101:ARG:NH1	2.27	0.50
24:Q:34:LEU:HD11	24:Q:129:THR:CB	2.34	0.50
18:H:163:TYR:N	18:H:163:TYR:CD1	2.79	0.50
11:A:1028:A:H61	11:A:1125:G:H2'	1.76	0.50
11:A:25:U:H5''	30:W:79:GLY:HA2	1.91	0.50
11:A:2125:G:OP1	13:C:40:THR:HG21	2.11	0.50
11:A:2588:G:C6	11:A:2607:G:C2	2.99	0.50
11:A:1993:U:H5''	15:E:128:SER:HB3	1.93	0.50
26:S:56:LEU:HD22	26:S:58:LEU:HB2	1.92	0.50
11:A:680:G:H2'	11:A:681:G:C8	2.45	0.50
11:A:2517:C:C2	11:A:2542:A:N1	2.79	0.50
21:N:58:ASP:O	21:N:60:ILE:HG13	2.11	0.50
11:A:304:G:N3	11:A:314:A:C2	2.79	0.50
11:A:2770:G:H5'	11:A:2771:C:OP2	2.11	0.50
11:A:654(H):G:C2'	11:A:654(I):C:H5'	2.41	0.50
9:8:26:LYS:HB2	9:8:44:LYS:HG3	1.93	0.50
11:A:2030:A:H5''	11:A:2031:A:OP1	2.11	0.50
23:P:58:THR:C	23:P:61:ARG:HE	2.14	0.50
11:A:1856:G:H2'	11:A:1857:G:H5'	1.93	0.50
11:A:2762:G:H2'	11:A:2763:G:C5'	2.39	0.50
15:E:192:ASN:HD22	15:E:193:GLY:N	2.09	0.50
15:E:1:MET:HB3	15:E:200:GLU:OE2	2.12	0.50
11:A:1503:U:N1	11:A:1504:C:H5	2.10	0.50
11:A:2334:G:H21	26:S:18:ILE:CG2	2.25	0.50
15:E:36:ARG:C	15:E:37:ARG:HG2	2.31	0.50
11:A:1668:A:N7	11:A:1674:G:C6	2.79	0.50
27:T:38:ASN:O	27:T:38:ASN:ND2	2.44	0.50
27:T:64:ARG:CB	27:T:73:GLU:HG2	2.40	0.50
27:T:77:PRO:O	27:T:78:LEU:CB	2.58	0.50
13:C:23:ASP:O	13:C:24:GLU:C	2.49	0.50
13:C:46:LYS:C	13:C:47:LEU:HD12	2.31	0.50
32:Y:19:LYS:HB2	32:Y:20:TYR:CD1	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:121:ASN:OD1	17:G:121:ASN:C	2.48	0.50
17:G:16:ARG:N	17:G:17:PRO:HD2	2.26	0.50
11:A:445:C:C2'	11:A:446:G:O4'	2.60	0.50
11:A:471:A:C2'	11:A:472:A:C5'	2.89	0.50
11:A:2153:G:N2	11:A:2154:G:H1'	2.26	0.50
11:A:778:G:C6	11:A:779:U:C4	3.00	0.50
11:A:1173:G:H5'	11:A:1174:A:O5'	2.11	0.50
31:X:57:LEU:N	31:X:57:LEU:CD1	2.75	0.50
11:A:1982:C:H6	11:A:1982:C:O5'	1.95	0.50
15:E:144:ARG:C	15:E:146:THR:H	2.14	0.50
11:A:2687:U:C4	11:A:2688:U:C5	2.99	0.50
5:4:19:GLY:O	5:4:20:ASN:C	2.49	0.50
18:H:12:PRO:N	18:H:48:GLY:HA2	2.26	0.50
18:H:137:ASP:HB2	18:H:140:LYS:HE3	1.93	0.50
28:U:108:GLU:HG3	29:V:44:LYS:HG2	1.92	0.50
11:A:517:C:O5'	11:A:517:C:H6	1.95	0.50
11:A:584:C:H2'	11:A:585:G:C5'	2.38	0.50
11:A:1567:A:OP2	14:D:84:TYR:OH	2.25	0.50
14:D:147:LEU:HD21	14:D:183:ARG:CZ	2.41	0.50
16:F:118:ALA:CB	16:F:123:LEU:HD22	2.42	0.50
16:F:188:ARG:HB3	23:P:7:ARG:HD3	1.93	0.50
11:A:2758:A:HO2'	11:A:2759:G:H8	1.59	0.50
18:H:68:THR:HA	18:H:71:LEU:CB	2.40	0.50
3:2:57:ILE:HG22	3:2:61:LEU:CG	2.42	0.50
26:S:37:ALA:HB2	26:S:99:LYS:HZ1	1.73	0.50
11:A:632:A:O2'	11:A:633:A:H5'	2.11	0.50
15:E:11:MET:HB2	15:E:23:VAL:O	2.12	0.50
15:E:11:MET:HB3	15:E:24:THR:HA	1.93	0.50
33:Z:41:LEU:HD23	33:Z:42:VAL:N	2.25	0.50
33:Z:50:GLN:O	33:Z:51:ALA:C	2.50	0.50
11:A:327:G:C2	11:A:336:C:N3	2.80	0.50
16:F:9:ILE:HG23	16:F:13:SER:O	2.10	0.50
6:5:40:LYS:HZ2	6:5:45:VAL:CA	2.23	0.50
2:1:8:SER:HB2	2:1:10:LYS:HG3	1.94	0.50
11:A:1902:C:H4'	14:D:244:ARG:CB	2.42	0.50
11:A:1697:G:H5''	11:A:1979:C:OP1	2.12	0.50
14:D:241:PRO:C	14:D:242:ARG:HD2	2.32	0.50
11:A:83:G:O2'	11:A:84:A:H8	1.90	0.50
11:A:1540:U:H3'	11:A:1541:G:H3'	1.93	0.50
32:Y:86:ARG:O	32:Y:92:ASN:HA	2.12	0.50
8:7:39:ARG:HD3	11:A:458:G:O2'	2.11	0.50
11:A:2138:C:H2'	11:A:2139:C:C6	2.46	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2148:G:O2'	11:A:2149:G:H5'	2.11	0.50
24:Q:27:VAL:HG12	24:Q:29:PHE:N	2.17	0.50
6:5:13:LYS:NZ	11:A:516:C:P	2.85	0.50
11:A:2247:A:H2'	11:A:2248:C:O4'	2.11	0.50
11:A:904:C:OP2	11:A:904:C:H6	1.94	0.50
11:A:1019:U:HO2'	11:A:1021:A:H2	1.57	0.50
11:A:216:A:C2'	11:A:217:G:H5'	2.41	0.50
11:A:183:C:C5'	11:A:433:C:H4'	2.41	0.50
11:A:1040:C:C4	11:A:1041:C:C5	2.99	0.50
11:A:1747(A):G:H3'	11:A:1748:G:H5''	1.93	0.50
11:A:2312:U:H5''	17:G:74:LYS:HZ2	1.76	0.50
11:A:654(H):G:H2'	11:A:654(I):C:H5'	1.94	0.50
11:A:2601:C:H2'	11:A:2603:G:H8	1.76	0.50
11:A:1861:G:O2'	11:A:1862:G:H5'	2.11	0.50
11:A:1202:C:O5'	11:A:1202:C:H6	1.95	0.50
3:2:41:ILE:HG13	3:2:43:GLN:H	1.77	0.50
11:A:1652:A:C6	11:A:1653:G:C2	3.00	0.50
26:S:98:VAL:CG1	26:S:100:ALA:HB2	2.41	0.50
27:T:70:VAL:CG1	27:T:71:GLY:N	2.75	0.50
27:T:22:PHE:HA	27:T:90:GLN:OE1	2.12	0.50
27:T:89:VAL:HB	27:T:91:ARG:NE	2.27	0.50
33:Z:69:THR:CG2	33:Z:90:VAL:HA	2.40	0.50
32:Y:76:CYS:O	32:Y:77:PRO:C	2.50	0.50
21:N:133:GLN:CG	21:N:134:ARG:H	2.18	0.50
11:A:37:C:O2	11:A:444:C:C2	2.64	0.50
3:2:3:LEU:C	3:2:3:LEU:HD23	2.32	0.50
21:N:31:ALA:HA	21:N:34:LEU:HB2	1.92	0.50
29:V:49:THR:CB	29:V:50:PRO:CD	2.88	0.50
15:E:116:VAL:HG21	15:E:122:PHE:CE2	2.46	0.50
11:A:2152:G:C2	11:A:2153:G:C8	2.99	0.50
13:C:70:LYS:HD2	13:C:177:LYS:HZ3	1.76	0.50
11:A:1171:G:N7	11:A:1173:G:H1'	2.27	0.50
21:N:83:LYS:CG	21:N:84:LYS:N	2.72	0.50
14:D:172:TYR:CD1	14:D:186:HIS:HA	2.46	0.50
8:7:11:LYS:NZ	11:A:685:A:OP1	2.41	0.50
11:A:635:C:H1'	11:A:639:U:H5''	1.93	0.50
11:A:2199:A:OP2	11:A:2200:C:H5	1.94	0.50
11:A:852:G:HO2'	11:A:853:G:H5'	1.77	0.50
11:A:2036:C:C6	11:A:2036:C:H5'	2.39	0.50
11:A:391:G:H2'	11:A:392:C:H5'	1.91	0.50
11:A:966:G:H2'	11:A:967:C:H6	1.75	0.50
11:A:1741:A:H3'	11:A:1742:G:H8	1.77	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:272:G:H1	11:A:404:C:H42	1.57	0.50
11:A:2599:G:H5''	11:A:2599:G:H8	1.76	0.50
11:A:251:A:H2'	11:A:252:G:C4'	2.41	0.50
14:D:30:GLU:CB	14:D:35:LYS:HE3	2.39	0.50
13:C:81:GLU:O	13:C:85:GLU:HB3	2.12	0.50
25:R:10:LEU:HD22	25:R:17:ARG:HE	1.77	0.50
11:A:1298:C:H1'	11:A:1302:A:N3	2.27	0.50
24:Q:141:GLN:HE22	33:Z:72:ARG:HA	1.77	0.50
1:O:67:VAL:HG13	1:O:81:VAL:HG22	1.93	0.50
11:A:1404:C:O2	11:A:1404:C:H2'	2.12	0.50
11:A:1520:G:C2'	11:A:1523:U:H5'	2.41	0.50
11:A:2303:G:O2'	17:G:132:ASN:HB3	2.12	0.50
17:G:120:LEU:O	17:G:121:ASN:C	2.50	0.50
3:2:5:GLU:O	3:2:9:GLN:NE2	2.45	0.50
11:A:1337:G:H2'	11:A:1338:G:H8	1.77	0.50
17:G:52:ILE:HG12	17:G:53:LEU:N	2.27	0.50
11:A:1091:G:H2'	11:A:1092:C:C6	2.46	0.50
11:A:862:G:N3	11:A:863:A:C1'	2.74	0.50
2:1:26:ARG:HG3	2:1:27:GLU:OE1	2.12	0.50
11:A:1087:G:C8	11:A:1088:A:H4'	2.47	0.50
11:A:1810:A:H2'	11:A:1811:G:O4'	2.11	0.50
11:A:1151:G:H2'	11:A:1152:C:O4'	2.11	0.50
11:A:1747(A):G:C2'	11:A:1748:G:H5''	2.41	0.50
11:A:2563:U:H2'	11:A:2565:A:OP2	2.11	0.50
11:A:1968:G:H2'	11:A:1969:A:H5''	1.94	0.50
11:A:983:A:H2'	11:A:984:A:O4'	2.12	0.50
11:A:263:C:O2'	11:A:264:C:H5'	2.11	0.50
11:A:2281:C:H2'	11:A:2282:G:C8	2.47	0.50
11:A:2329:G:H2'	11:A:2330:G:C8	2.46	0.50
11:A:811:U:O2'	11:A:812:C:H5''	2.12	0.50
32:Y:46:LYS:H	32:Y:62:GLU:CG	2.02	0.50
11:A:1352:U:O2'	11:A:1353:A:H5'	2.12	0.50
11:A:1567:A:OP1	14:D:60:ARG:NH2	2.43	0.50
11:A:2523:G:C3'	11:A:2524:G:H5''	2.41	0.50
24:Q:52:VAL:O	24:Q:54:MET:N	2.45	0.50
15:E:197:ILE:HD11	15:E:199:ARG:HH22	1.76	0.50
25:R:3:HIS:O	25:R:5:LYS:N	2.45	0.50
26:S:88:ASP:O	26:S:89:ARG:HB3	2.12	0.50
15:E:57:LYS:HE2	15:E:59:VAL:CG1	2.41	0.50
31:X:36:LYS:NZ	31:X:55:ASN:HA	2.27	0.50
11:A:1639:U:O2'	11:A:1640:C:H5''	2.12	0.50
11:A:1668:A:N3	11:A:1670:C:N3	2.59	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
15:E:167:VAL:HG13	15:E:170:LEU:CD1	2.28	0.50
24:Q:136:ALA:C	24:Q:138:ASP:H	2.14	0.50
33:Z:63:ASP:OD1	33:Z:65:GLN:NE2	2.45	0.50
11:A:2674:G:H2'	11:A:2675:A:O4'	2.12	0.50
11:A:860:U:O4'	11:A:860:U:O2	2.28	0.50
17:G:32:PRO:HA	17:G:162:THR:HB	1.94	0.50
16:F:7:TYR:HE1	16:F:196:LEU:HD11	1.76	0.50
28:U:3:ARG:NH1	28:U:5:LYS:HB3	2.27	0.50
11:A:1772:G:N2	11:A:1774:C:C5'	2.75	0.50
11:A:1827:C:H5''	11:A:1971:A:O3'	2.12	0.50
11:A:1012:U:C4	21:N:28:THR:HG21	2.47	0.50
17:G:83:ARG:C	17:G:85:GLY:H	2.15	0.50
26:S:24:LEU:HD13	26:S:41:ASP:HB2	1.93	0.50
18:H:149:ARG:HD3	18:H:164:TYR:HD1	1.76	0.50
11:A:1132:A:C8	11:A:1133:U:H5	2.30	0.50
14:D:177:LEU:HD12	14:D:181:GLU:OE2	2.12	0.50
11:A:1491:G:C6	11:A:1500:G:C2	3.00	0.50
11:A:2554:U:C2	11:A:2555:U:H5	2.30	0.50
11:A:953:A:OP2	24:Q:16:ARG:NH2	2.44	0.50
11:A:1722:A:H2	11:A:1740:G:H2'	1.77	0.50
4:3:42:ALA:O	4:3:44:ARG:N	2.45	0.50
11:A:2282:G:C4'	11:A:2283:C:O5'	2.60	0.50
13:C:83:ILE:HG23	13:C:95:GLY:HA3	1.94	0.50
13:C:83:ILE:HG12	13:C:95:GLY:HA3	1.93	0.50
16:F:3:GLU:O	16:F:24:LEU:HG	2.12	0.50
3:2:33:MET:O	3:2:34:GLU:C	2.49	0.50
16:F:170:LEU:HB3	16:F:173:VAL:CG2	2.42	0.50
11:A:1277:G:N1	11:A:1294:U:C2	2.79	0.50
11:A:1271:G:C2	11:A:1617:C:H4'	2.46	0.50
17:G:113:ARG:O	17:G:140:ILE:HG22	2.11	0.50
26:S:77:ALA:C	26:S:79:ALA:N	2.64	0.50
9:8:18:ALA:HB2	11:A:628:G:H5''	1.93	0.50
23:P:96:THR:H	23:P:99:LEU:HD22	1.77	0.50
15:E:24:THR:OG1	15:E:186:GLY:HA2	2.12	0.50
11:A:336:C:H5''	32:Y:7:VAL:HG11	1.94	0.50
11:A:336:C:H4'	32:Y:7:VAL:HG22	1.94	0.50
11:A:1590:U:C3'	11:A:1591:G:H5''	2.41	0.50
11:A:1829:A:O2'	14:D:15:PHE:CE1	2.53	0.50
21:N:101:HIS:C	21:N:103:VAL:N	2.61	0.50
11:A:1060:U:H1'	11:A:1061:U:H5''	1.94	0.50
17:G:85:GLY:C	17:G:87:PRO:CD	2.80	0.50
18:H:18:GLU:HB2	18:H:25:LYS:HB2	1.94	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:140:PRO:C	13:C:142:ALA:N	2.64	0.50
11:A:2174:C:O2'	13:C:219:GLY:O	2.26	0.50
11:A:862:G:H3'	11:A:863:A:C8	2.47	0.50
24:Q:43:THR:HA	24:Q:93:TYR:O	2.12	0.50
29:V:58:VAL:CG1	29:V:97:LYS:HB2	2.42	0.50
11:A:2374:C:H2'	11:A:2375:G:O4'	2.12	0.50
11:A:2752:C:C2'	11:A:2752:C:O2	2.58	0.50
11:A:806:C:H2'	11:A:807:U:H6	1.77	0.50
13:C:182:PRO:HD2	13:C:183:GLU:OE2	2.11	0.50
11:A:521:G:H2'	11:A:522:G:C8	2.46	0.50
11:A:1924:C:O2'	11:A:1925:C:H5'	2.11	0.50
3:2:4:SER:CA	3:2:7:ARG:HD2	2.42	0.50
11:A:590:A:H2'	11:A:591:C:C6	2.47	0.50
7:6:15:GLU:CD	7:6:18:ARG:NH2	2.65	0.49
11:A:2358:G:C2'	11:A:2359:C:H5'	2.42	0.49
11:A:251:A:H5''	23:P:51:PHE:CZ	2.47	0.49
11:A:693:C:O2'	11:A:694:U:H5'	2.12	0.49
13:C:86:ALA:HB3	13:C:94:VAL:CG1	2.39	0.49
16:F:33:LEU:O	16:F:37:VAL:HG23	2.11	0.49
11:A:2620:C:C1'	15:E:156:MET:HB2	2.42	0.49
11:A:2850:A:C2	25:R:61:HIS:CD2	2.99	0.49
15:E:82:ARG:HG3	15:E:83:ASP:H	1.77	0.49
15:E:4:ILE:HG12	15:E:5:LEU:N	2.27	0.49
27:T:47:GLY:HA3	27:T:65:LYS:HB2	1.94	0.49
33:Z:151:HIS:HB3	33:Z:170:THR:HA	1.94	0.49
11:A:1827:C:C2'	11:A:1828:G:H5'	2.42	0.49
14:D:244:ARG:HG2	14:D:245:PRO:HB3	1.93	0.49
32:Y:85:VAL:HG12	32:Y:86:ARG:H	1.75	0.49
8:7:36:GLN:C	8:7:38:GLY:N	2.65	0.49
30:W:14:PRO:O	30:W:17:VAL:N	2.45	0.49
11:A:783:A:H2'	11:A:784:A:O5'	2.12	0.49
11:A:1173:G:H2'	11:A:1175:U:C5	2.47	0.49
11:A:2219:G:HO2'	11:A:2220:G:H5'	1.77	0.49
13:C:120:MET:O	13:C:121:GLY:C	2.49	0.49
15:E:145:LYS:O	15:E:146:THR:HG23	2.11	0.49
11:A:1288:U:C2	11:A:1327:C:C2	3.00	0.49
11:A:1328:G:N1	11:A:1647:G:N2	2.60	0.49
14:D:18:VAL:HG23	14:D:211:ARG:NH2	2.27	0.49
18:H:169:VAL:HG13	18:H:169:VAL:O	2.12	0.49
11:A:1832:C:N4	11:A:1833:U:C4	2.80	0.49
11:A:1720:U:H2'	11:A:1721:G:C5'	2.42	0.49
11:A:830:G:C4	11:A:2448:A:C6	3.00	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2058:A:O5'	11:A:2058:A:H8	1.95	0.49
27:T:115:ARG:HG3	27:T:115:ARG:HH11	1.76	0.49
1:0:43:THR:HG21	11:A:2336:A:H61	1.78	0.49
23:P:23:PRO:HG2	23:P:33:ARG:HG3	1.94	0.49
28:U:9:VAL:O	28:U:12:ARG:HB2	2.12	0.49
16:F:34:TRP:CD1	23:P:10:PRO:HB2	2.48	0.49
11:A:109:G:H2'	11:A:110:G:H8	1.77	0.49
11:A:2015:A:O2'	11:A:2016:U:H5'	2.11	0.49
15:E:199:ARG:NH1	15:E:199:ARG:HB2	2.27	0.49
25:R:17:ARG:NH1	25:R:17:ARG:HB3	2.27	0.49
12:B:42:C:H1'	17:G:66:GLN:NE2	2.27	0.49
27:T:92:GLY:C	27:T:94:ALA:N	2.62	0.49
33:Z:28:MET:O	33:Z:29:TYR:CB	2.59	0.49
12:B:56:G:O2'	12:B:57:A:OP2	2.27	0.49
17:G:162:THR:O	17:G:164:GLU:OE2	2.31	0.49
10:9:12:ASP:CG	10:9:13:LYS:H	2.15	0.49
11:A:1773:A:H62	11:A:1829:A:H1'	1.77	0.49
11:A:1899:G:N2	11:A:1903:G:C2	2.81	0.49
11:A:996:A:O2'	11:A:997:G:C5'	2.58	0.49
11:A:2206:G:C2	11:A:2207:G:H5'	2.47	0.49
11:A:472:A:H2'	11:A:473:G:H5'	1.94	0.49
11:A:864:G:N2	11:A:913:U:O2	2.45	0.49
17:G:117:PHE:O	17:G:118:ARG:CG	2.51	0.49
4:3:15:TYR:HB3	4:3:16:PRO:HD2	1.94	0.49
4:3:19:GLN:C	4:3:21:ALA:H	2.16	0.49
11:A:270:A:H2'	11:A:271:A:O4'	2.12	0.49
11:A:849:A:H2'	11:A:850:C:O4'	2.12	0.49
11:A:271(U):G:C4	11:A:271(V):G:C8	3.00	0.49
20:K:100:UNK:C	20:K:136:UNK:HA	2.42	0.49
13:C:117:PRO:HD3	13:C:146:GLY:H	1.76	0.49
11:A:1478:G:C2	11:A:1479:G:C5	3.01	0.49
22:O:60:ALA:HB1	22:O:85:VAL:O	2.13	0.49
11:A:699:A:C2'	11:A:700:G:H5'	2.41	0.49
11:A:1781:C:O2	11:A:1781:C:O4'	2.30	0.49
11:A:2314:C:H6	11:A:2314:C:O5'	1.95	0.49
11:A:571:A:H5'	11:A:2030:A:N7	2.26	0.49
11:A:2415:G:H4'	23:P:66:GLY:O	2.12	0.49
9:8:59:LYS:NZ	23:P:50:ARG:HB3	2.27	0.49
28:U:17:ILE:HG23	28:U:39:LEU:HD12	1.94	0.49
11:A:1854:A:H62	11:A:1888:G:H8	1.58	0.49
11:A:769:G:C4'	11:A:1379:A:N6	2.74	0.49
16:F:123:LEU:HD12	16:F:124:LEU:N	2.27	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:31:HIS:CE1	16:F:34:TRP:CE3	3.00	0.49
18:H:42:ARG:NH1	18:H:42:ARG:CB	2.75	0.49
15:E:53:PRO:O	15:E:74:PRO:HA	2.12	0.49
11:A:2286:A:C2	11:A:2346:A:N6	2.80	0.49
11:A:2867:G:C5	27:T:23:ARG:NH1	2.80	0.49
27:T:121:ILE:O	27:T:124:ASP:N	2.42	0.49
33:Z:153:SER:N	33:Z:167:PRO:HB3	2.28	0.49
17:G:34:LEU:HD13	17:G:99:MET:HE3	1.95	0.49
17:G:9:ARG:C	17:G:11:TYR:N	2.65	0.49
11:A:2189:U:H3'	11:A:2190:G:C5'	2.42	0.49
2:1:45:ASN:CA	11:A:2230:G:H1'	2.42	0.49
28:U:4:ALA:O	28:U:5:LYS:O	2.29	0.49
11:A:18:C:H2'	11:A:19:C:H6	1.78	0.49
3:2:6:VAL:HG22	3:2:9:GLN:OE1	2.12	0.49
17:G:52:ILE:HG12	17:G:53:LEU:H	1.77	0.49
26:S:85:VAL:HG23	26:S:86:ALA:N	2.27	0.49
24:Q:41:TRP:HB3	24:Q:94:VAL:HG11	1.94	0.49
11:A:25:U:H2'	11:A:26:G:O4'	2.11	0.49
11:A:2071:A:H2	11:A:2441:C:N3	2.10	0.49
27:T:129:ARG:NH1	27:T:131:ALA:HB3	2.26	0.49
25:R:103:ARG:HH11	25:R:110:PRO:CD	2.24	0.49
1:0:30:VAL:HA	1:0:66:VAL:CA	2.40	0.49
30:W:65:LEU:HB3	30:W:68:ARG:HD2	1.95	0.49
33:Z:20:ARG:HB2	33:Z:20:ARG:CZ	2.41	0.49
20:K:87:UNK:O	20:K:88:UNK:CB	2.59	0.49
11:A:2558:C:H2'	11:A:2559:C:C6	2.47	0.49
9:8:8:LYS:HE2	9:8:11:LYS:HE2	1.93	0.49
11:A:810:U:OP1	11:A:1253:A:N7	2.45	0.49
7:6:5:VAL:HG11	11:A:2283:C:C4'	2.43	0.49
7:6:19:ARG:NH1	11:A:2400:G:O2'	2.43	0.49
11:A:29:U:O2'	28:U:8:VAL:HG23	2.13	0.49
16:F:118:ALA:HB1	16:F:123:LEU:HD22	1.95	0.49
18:H:41:MET:O	18:H:42:ARG:CB	2.60	0.49
15:E:102:VAL:HG12	15:E:199:ARG:O	2.12	0.49
17:G:58:GLN:NE2	17:G:62:LEU:HD11	2.27	0.49
31:X:7:VAL:O	31:X:30:VAL:HA	2.12	0.49
11:A:1661:G:C6	11:A:2000:G:C2	3.00	0.49
11:A:2639:A:H3'	11:A:2640:G:C8	2.47	0.49
11:A:860:U:C4	11:A:2268:A:C8	3.00	0.49
32:Y:8:LYS:N	32:Y:8:LYS:HD2	2.06	0.49
17:G:34:LEU:HA	17:G:161:THR:CB	2.42	0.49
6:5:55:ARG:HD3	6:5:56:LYS:H	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:56:LYS:O	6:5:57:VAL:C	2.50	0.49
6:5:16:ARG:HH11	6:5:16:ARG:HG2	1.77	0.49
11:A:976:C:H2'	11:A:977:G:H8	1.77	0.49
11:A:218:A:O2'	11:A:219:G:H5'	2.12	0.49
11:A:391:G:O2'	11:A:392:C:H5'	2.12	0.49
11:A:2488:A:H2'	11:A:2489:G:C8	2.48	0.49
11:A:1429:G:H2'	11:A:1430:C:H6	1.78	0.49
14:D:218:ARG:HG3	14:D:218:ARG:HH11	1.77	0.49
7:6:53:LYS:HD3	7:6:54:ILE:N	2.20	0.49
9:8:31:HIS:O	9:8:32:LEU:C	2.51	0.49
14:D:252:TRP:CD1	14:D:252:TRP:N	2.80	0.49
11:A:2524:G:H5'	11:A:2524:G:C8	2.47	0.49
13:C:78:ALA:HB1	13:C:82:LYS:HB2	1.95	0.49
11:A:601:C:O2	11:A:605:C:H4'	2.13	0.49
3:2:51:ARG:O	3:2:54:LYS:HB3	2.13	0.49
24:Q:64:ILE:HG22	24:Q:65:PHE:N	2.28	0.49
15:E:195:LEU:HD11	15:E:197:ILE:CG2	2.42	0.49
11:A:1487:G:N2	11:A:1488:G:H1'	2.27	0.49
11:A:2787:C:C2'	15:E:61:ARG:HD3	2.42	0.49
11:A:2681:C:O2	11:A:2681:C:H2'	2.11	0.49
33:Z:69:THR:C	33:Z:70:LEU:HD23	2.32	0.49
33:Z:72:ARG:HG3	33:Z:89:PHE:HB2	1.95	0.49
21:N:137:LYS:O	21:N:138:LEU:HG	2.12	0.49
14:D:142:VAL:CG2	14:D:143:HIS:N	2.74	0.49
17:G:44:GLY:C	17:G:46:ALA:H	2.14	0.49
11:A:1805:U:H5''	14:D:250:TRP:CD2	2.47	0.49
28:U:40:PHE:HB3	29:V:75:PHE:CE1	2.47	0.49
11:A:2579:C:C4'	15:E:134:ILE:HG12	2.42	0.49
30:W:70:TYR:CE1	30:W:72:LYS:HA	2.47	0.49
11:A:2517:C:HO2'	11:A:2519:U:H5	1.58	0.49
11:A:2053:G:H2'	11:A:2054:A:O4'	2.12	0.49
11:A:1511:C:C5	11:A:1512:U:H5	2.30	0.49
11:A:2690:C:C5'	11:A:2872:G:H21	2.26	0.49
13:C:58:VAL:HG22	13:C:201:PRO:HG2	1.94	0.49
11:A:2537:U:H2'	11:A:2538:C:C6	2.48	0.49
11:A:1833:U:O2'	11:A:1969:A:N1	2.35	0.49
11:A:753:C:H2'	11:A:754:C:C6	2.47	0.49
13:C:59:ARG:NE	13:C:164:ARG:HD2	2.28	0.49
11:A:1425:G:H2'	11:A:1426:G:O4'	2.13	0.49
24:Q:33:GLY:O	24:Q:131:ILE:HA	2.11	0.49
7:6:15:GLU:OE2	7:6:41:PRO:HB2	2.11	0.49
11:A:2259:G:N1	11:A:2282:G:C6	2.80	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:252:G:H2'	11:A:253:C:H6	1.75	0.49
28:U:9:VAL:C	28:U:13:LYS:HE2	2.33	0.49
11:A:2083:G:C5	11:A:2084:C:C4	3.01	0.49
3:2:10:LEU:HD13	11:A:78:A:OP1	2.13	0.49
11:A:2475:C:N4	11:A:2529:G:H22	2.09	0.49
11:A:1484:G:H3'	11:A:1485:G:H5''	1.93	0.49
23:P:97:PRO:O	23:P:99:LEU:N	2.43	0.49
31:X:54:VAL:O	31:X:55:ASN:ND2	2.39	0.49
11:A:1636:C:O2	11:A:1760:A:H2	1.95	0.49
11:A:1683:C:H2'	11:A:1684:C:C6	2.48	0.49
12:B:105:A:H3'	12:B:106:G:H8	1.77	0.49
33:Z:128:VAL:CG2	33:Z:129:SER:N	2.75	0.49
12:B:81:G:C6	12:B:97:G:C2	3.01	0.49
32:Y:27:VAL:HG12	32:Y:29:GLU:OE1	2.13	0.49
11:A:1827:C:O2'	11:A:1828:G:H5'	2.12	0.49
29:V:47:VAL:O	29:V:47:VAL:HG23	2.12	0.49
13:C:104:LEU:O	13:C:105:ASP:CB	2.60	0.49
11:A:864:G:N2	11:A:913:U:C2	2.80	0.49
11:A:2133:G:O2'	11:A:2134:A:H8	1.94	0.49
11:A:2580:U:H3'	11:A:2581:G:N2	2.27	0.49
11:A:2885:C:C2	11:A:2886:G:H1'	2.48	0.49
11:A:185:U:N3	11:A:212:G:N2	2.61	0.49
2:1:73:LEU:O	2:1:77:ALA:HB2	2.13	0.49
2:1:18:ILE:HG22	2:1:19:GLN:N	2.28	0.49
13:C:181:PRO:HB2	13:C:183:GLU:OE2	2.12	0.49
11:A:1892:C:H2'	11:A:1893:C:H6	1.76	0.49
18:H:90:LYS:HB3	18:H:159:GLU:OE2	2.13	0.49
11:A:1911:U:H2'	11:A:1912:A:H5'	1.95	0.49
20:K:14:UNK:CB	20:K:50:UNK:HA	2.41	0.49
7:6:19:ARG:NH2	11:A:2401:U:OP1	2.46	0.49
11:A:942:G:H5'	23:P:35:HIS:C	2.31	0.49
11:A:695:G:C5	11:A:768:G:C6	3.01	0.49
16:F:3:GLU:O	16:F:19:GLU:CB	2.59	0.49
11:A:2475:C:H5'	11:A:2476:A:OP2	2.13	0.49
24:Q:61:GLY:O	33:Z:177:PRO:HB3	2.12	0.49
11:A:344:G:H3'	11:A:344:G:P	2.52	0.49
11:A:1655:A:C2	11:A:2049:G:H4'	2.48	0.49
15:E:77:ILE:CG2	15:E:78:LEU:H	2.03	0.49
7:6:6:ARG:C	7:6:8:LYS:H	2.16	0.49
33:Z:10:ARG:HG2	33:Z:11:GLU:N	2.28	0.49
33:Z:123:ASP:O	33:Z:124:ILE:HG23	2.12	0.49
33:Z:127:LYS:HZ3	33:Z:164:ALA:HB2	1.76	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:325:G:O2'	11:A:326:G:H5'	2.13	0.49
11:A:329:G:H22	32:Y:19:LYS:CE	2.18	0.49
32:Y:29:GLU:CD	32:Y:38:ILE:HG21	2.33	0.49
11:A:444:C:H2'	11:A:445:C:O5'	2.13	0.49
11:A:1794:U:O4'	11:A:1900:A:C2	2.66	0.49
17:G:47:LYS:NZ	17:G:81:LYS:CB	2.76	0.49
18:H:34:GLU:O	18:H:36:PRO:HD3	2.11	0.49
11:A:1376:C:H2'	11:A:1377:G:H5'	1.95	0.49
11:A:1386:C:H2'	11:A:1387:C:H6	1.77	0.49
11:A:2222:G:H1'	14:D:148:GLU:OE2	2.13	0.49
4:3:35:ARG:HB2	4:3:35:ARG:NH1	2.21	0.49
22:O:12:ASP:C	22:O:14:THR:H	2.16	0.49
11:A:1221:C:C2'	11:A:1221(A):C:H6	2.26	0.49
11:A:389:G:C6	23:P:70:GLN:HG3	2.48	0.49
15:E:123:ALA:O	15:E:125:GLY:N	2.44	0.49
9:8:13:ARG:CB	23:P:63:PRO:HA	2.43	0.49
9:8:41:ILE:HG23	9:8:42:ARG:H	1.77	0.49
11:A:2402:C:O2'	11:A:2403:C:H5'	2.12	0.49
11:A:245:G:H22	11:A:254:G:H1'	1.77	0.49
11:A:1884:A:H2'	11:A:1885:A:O4'	2.12	0.49
11:A:2228:G:C5	11:A:2229:C:C4	3.01	0.49
14:D:275:LYS:O	14:D:276:LYS:HB2	2.12	0.49
13:C:75:LEU:HD11	13:C:113:VAL:HG13	1.95	0.49
24:Q:51:ARG:CG	24:Q:52:VAL:N	2.75	0.49
24:Q:62:GLY:O	33:Z:177:PRO:HA	2.13	0.49
11:A:345:A:N3	11:A:347:A:N6	2.61	0.49
11:A:2048:G:H5'	11:A:2823:A:C2	2.48	0.49
11:A:1275:A:C4	25:R:16:HIS:ND1	2.81	0.49
5:4:5:ILE:CG1	5:4:5:ILE:O	2.59	0.49
26:S:68:GLN:C	26:S:70:GLY:N	2.66	0.49
26:S:89:ARG:CG	26:S:92:TYR:HA	2.42	0.49
15:E:35:GLN:C	15:E:36:ARG:HD2	2.33	0.49
15:E:3:GLY:O	15:E:4:ILE:CB	2.61	0.49
15:E:77:ILE:CG2	15:E:78:LEU:N	2.70	0.49
11:A:1992:G:C4	11:A:1997:G:O6	2.66	0.49
11:A:1710:C:H6	11:A:1710:C:O5'	1.95	0.49
17:G:15:VAL:HG12	17:G:19:LEU:HD12	1.95	0.49
28:U:57:PHE:C	28:U:59:ARG:N	2.66	0.49
28:U:90:VAL:HG21	29:V:47:VAL:CG2	2.43	0.49
11:A:598:G:H5'	23:P:15:ARG:CB	2.42	0.49
11:A:2377:A:O2'	11:A:2378:A:H5'	2.13	0.49
14:D:248:SER:HB2	14:D:249:PRO:CD	2.42	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:53:A:H62	11:A:117:G:H21	1.59	0.49
11:A:2507:C:H2'	11:A:2508:G:O4'	2.13	0.49
32:Y:2:ARG:O	32:Y:4:LYS:N	2.45	0.49
20:K:58:UNK:O	20:K:65:UNK:HA	2.13	0.49
18:H:105:LEU:H	18:H:105:LEU:CD2	2.25	0.49
22:O:53:LYS:N	22:O:53:LYS:HD2	2.28	0.49
11:A:746:A:HO2'	11:A:2611:U:HO2'	1.60	0.49
14:D:25:THR:O	14:D:27:THR:HG22	2.13	0.49
3:2:51:ARG:HG3	3:2:52:ASP:N	2.28	0.49
11:A:2745:C:O3'	18:H:142:GLY:HA3	2.12	0.49
11:A:2713:A:H3'	11:A:2714:G:C5'	2.43	0.49
11:A:2845:G:O2'	11:A:2846:G:H5'	2.13	0.49
33:Z:24:LEU:CD2	33:Z:24:LEU:C	2.81	0.49
17:G:121:ASN:CG	17:G:124:SER:HB2	2.33	0.49
11:A:1247:A:OP1	16:F:95:ARG:NH2	2.46	0.49
21:N:30:ILE:O	21:N:34:LEU:HB2	2.13	0.49
29:V:47:VAL:O	29:V:49:THR:O	2.31	0.49
14:D:101:GLU:CG	14:D:102:LYS:N	2.75	0.49
14:D:128:GLY:H	14:D:193:VAL:HG13	1.77	0.49
11:A:1423:G:H2'	11:A:1424:G:H8	1.76	0.49
11:A:1542:A:C8	11:A:1542:A:H3'	2.47	0.49
32:Y:95:LYS:HE3	32:Y:100:ALA:CB	2.43	0.49
11:A:2441:C:H2'	11:A:2442:C:C6	2.39	0.49
19:J:116:UNK:O	19:J:123:UNK:N	2.46	0.49
14:D:196:VAL:O	14:D:196:VAL:CG1	2.60	0.49
11:A:185:U:H2'	11:A:186:G:C8	2.48	0.49
11:A:1322:A:H2'	11:A:1323:U:C6	2.47	0.49
11:A:479:A:H4'	11:A:480:A:H5'	1.95	0.49
11:A:589:C:H2'	11:A:590:A:C8	2.48	0.49
11:A:648:G:H2'	11:A:649:G:C8	2.48	0.49
28:U:10:ARG:O	28:U:11:ARG:C	2.50	0.49
11:A:2236:C:H2'	11:A:2237:G:O4'	2.13	0.49
3:2:24:LEU:HD22	3:2:25:VAL:HG23	1.94	0.49
16:F:170:LEU:HB3	16:F:173:VAL:HG23	1.95	0.49
11:A:1651:G:N2	11:A:1652:A:H1'	2.27	0.49
25:R:4:LEU:HD12	25:R:6:SER:O	2.13	0.49
25:R:67:LEU:CD2	25:R:76:VAL:HG21	2.42	0.49
25:R:76:VAL:CG1	25:R:77:ARG:N	2.75	0.49
11:A:1503:U:H2'	11:A:1504:C:C5	2.48	0.49
11:A:629:G:H5'	11:A:629:G:H8	1.78	0.49
13:C:189:ILE:HG22	13:C:190:ARG:N	2.28	0.49
32:Y:15:VAL:HB	32:Y:20:TYR:O	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:8:GLN:HB3	16:F:126:VAL:HA	1.95	0.49
11:A:2186:G:C2	11:A:2187:G:C6	3.01	0.49
11:A:437:G:O2'	11:A:438:G:H5'	2.13	0.49
11:A:1770:G:O2'	11:A:1771:C:H5'	2.12	0.49
14:D:136:ILE:CG2	14:D:140:THR:OG1	2.61	0.49
14:D:79:VAL:CG1	14:D:113:VAL:HA	2.43	0.49
11:A:1525:G:O2'	11:A:1526:G:H5'	2.13	0.49
11:A:1657:C:OP1	15:E:136:ARG:HB2	2.13	0.49
24:Q:67:ARG:HB3	24:Q:67:ARG:NH1	2.28	0.49
2:1:87:PRO:CA	2:1:90:ILE:HG12	2.32	0.49
11:A:1131:G:C2	21:N:75:TYR:CB	2.96	0.49
11:A:26:G:H1'	11:A:515:A:H61	1.78	0.49
14:D:170:GLY:C	14:D:172:TYR:H	2.16	0.49
11:A:116:C:O2	11:A:126:A:H2	1.96	0.49
11:A:201:C:C2'	11:A:202:U:H5'	2.42	0.49
11:A:1328:G:H2'	11:A:1330:C:C5	2.48	0.49
2:1:88:LYS:NZ	2:1:92:LYS:HE3	2.28	0.49
11:A:391:G:C8	11:A:391:G:O5'	2.65	0.49
11:A:2271:G:O2'	11:A:2272:U:H5'	2.13	0.49
7:6:32:ASN:O	7:6:33:LYS:CB	2.60	0.49
15:E:95:ILE:CD1	15:E:95:ILE:H	2.25	0.49
11:A:755:C:H2'	11:A:756:C:H6	1.77	0.49
11:A:2488:A:O2'	11:A:2489:G:H5'	2.12	0.49
11:A:153:C:H2'	11:A:154:G:H8	1.78	0.49
11:A:654(P):C:H2'	11:A:654(Q):C:O4'	2.12	0.49
9:8:3:LYS:NZ	11:A:242:G:OP2	2.42	0.48
18:H:41:MET:HA	18:H:55:PRO:HD3	1.96	0.48
18:H:46:GLU:HB3	18:H:50:VAL:HG13	1.94	0.48
11:A:2530:A:C3'	11:A:2531:A:H5''	2.42	0.48
15:E:195:LEU:HD11	15:E:197:ILE:HG22	1.94	0.48
11:A:797:C:OP2	16:F:62:ARG:HG3	2.13	0.48
22:O:77:ILE:HD11	27:T:72:VAL:HG12	1.95	0.48
11:A:307:G:H8	11:A:307:G:O5'	1.95	0.48
32:Y:7:VAL:CB	32:Y:8:LYS:HD2	2.29	0.48
17:G:9:ARG:HH11	17:G:9:ARG:HB3	1.76	0.48
21:N:131:GLN:NE2	21:N:133:GLN:CA	2.76	0.48
11:A:1060:U:O2'	11:A:1061:U:OP2	2.31	0.48
13:C:100:ILE:CG2	13:C:126:LYS:HB3	2.33	0.48
18:H:89:ILE:HG22	18:H:162:ILE:HG13	1.95	0.48
30:W:12:ILE:CG1	30:W:42:ARG:NH1	2.76	0.48
11:A:2131:G:H5''	11:A:2132:U:O5'	2.12	0.48
11:A:6:A:O2'	21:N:130:HIS:CB	2.56	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:684:G:H2'	11:A:774:A:H61	1.78	0.48
14:D:161:THR:H	14:D:196:VAL:HB	1.78	0.48
21:N:21:LYS:HE3	21:N:25:ARG:HB2	1.95	0.48
11:A:2554:U:H2'	11:A:2555:U:H6	1.78	0.48
11:A:2422:A:C8	11:A:2422:A:C3'	2.96	0.48
11:A:2518:A:O2'	11:A:2519:U:H5'	2.12	0.48
11:A:1054:A:N3	11:A:1054:A:H2'	2.28	0.48
21:N:39:ARG:HE	21:N:41:ASP:HB3	1.76	0.48
21:N:38:HIS:O	28:U:67:ALA:HB1	2.13	0.48
11:A:391:G:C5	11:A:392:C:C5	3.01	0.48
11:A:2312:U:C2'	11:A:2313:C:C5'	2.90	0.48
9:8:59:LYS:CE	23:P:50:ARG:HB3	2.42	0.48
11:A:2261:C:H1'	11:A:2388:A:H1'	1.95	0.48
31:X:12:VAL:HA	31:X:27:THR:O	2.13	0.48
13:C:147:PHE:O	13:C:149:ILE:N	2.46	0.48
3:2:59:ARG:HB3	11:A:76:C:O3'	2.13	0.48
15:E:192:ASN:HD22	15:E:192:ASN:C	2.16	0.48
25:R:38:VAL:O	25:R:41:ALA:HB3	2.13	0.48
22:O:2:ILE:CD1	22:O:6:THR:HG21	2.43	0.48
16:F:70:THR:CG2	16:F:72:ARG:HG2	2.43	0.48
11:A:2832:U:H4'	11:A:2833:G:H5''	1.94	0.48
32:Y:36:ALA:HA	32:Y:67:LEU:O	2.13	0.48
16:F:8:GLN:O	16:F:10:PRO:HD3	2.13	0.48
6:5:17:ASP:HB2	11:A:16:G:H5''	1.94	0.48
14:D:131:LEU:HA	14:D:190:TYR:CE2	2.49	0.48
8:7:36:GLN:O	8:7:38:GLY:N	2.46	0.48
11:A:1059:G:H21	20:K:126:UNK:HA	1.77	0.48
20:K:73:UNK:O	20:K:76:UNK:N	2.46	0.48
11:A:1184:G:H2'	11:A:1185:C:H5'	1.95	0.48
11:A:1370:C:C2	11:A:1371:G:C8	3.01	0.48
22:O:17:ARG:O	22:O:18:LYS:CB	2.61	0.48
15:E:149:ARG:NH1	15:E:149:ARG:HG3	2.27	0.48
11:A:752:A:O2'	11:A:753:C:OP2	2.27	0.48
18:H:59:ARG:HA	18:H:62:LYS:HB2	1.96	0.48
28:U:85:LYS:CD	28:U:117:GLN:HE22	2.25	0.48
15:E:109:LYS:O	15:E:161:GLY:HA3	2.13	0.48
11:A:2283:C:H2'	11:A:2284:C:O4'	2.13	0.48
11:A:1884:A:C3'	11:A:1885:A:H5''	2.43	0.48
14:D:39:LYS:HB3	14:D:60:ARG:O	2.12	0.48
16:F:205:ARG:HG2	16:F:206:ILE:HD13	1.94	0.48
11:A:2527:C:C5	11:A:2528:U:C5	3.01	0.48
11:A:1279:G:H1	11:A:1291:C:N4	2.07	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2882:A:H5''	25:R:98:LEU:HD21	1.95	0.48
12:B:44:G:H4'	12:B:45:A:H8	1.72	0.48
17:G:60:LEU:HD12	17:G:60:LEU:O	2.13	0.48
11:A:1274:A:N6	11:A:1646:C:O2	2.42	0.48
17:G:14:GLU:O	17:G:17:PRO:HG2	2.13	0.48
17:G:95:ARG:HH11	17:G:95:ARG:HG2	1.78	0.48
16:F:127:GLU:HB2	16:F:196:LEU:CD1	2.42	0.48
2:1:5:CYS:SG	2:1:63:ALA:N	2.84	0.48
11:A:442:G:C4'	16:F:46:ARG:HD3	2.42	0.48
14:D:69:ARG:NH2	14:D:192:THR:CB	2.76	0.48
2:1:29:GLY:O	2:1:30:VAL:C	2.51	0.48
11:A:1168:G:O2'	11:A:1169:G:H5'	2.13	0.48
1:0:24:LYS:HG3	11:A:2355:C:H4'	1.95	0.48
11:A:884:C:H2'	11:A:885:C:H5'	1.94	0.48
11:A:892:G:H2'	11:A:893:C:C5	2.48	0.48
11:A:183:C:O2'	11:A:184:C:H5'	2.12	0.48
33:Z:143:GLY:H	33:Z:144:LEU:HD22	1.78	0.48
11:A:1370:C:H3'	11:A:1371:G:C8	2.38	0.48
30:W:72:LYS:O	30:W:73:ALA:CB	2.61	0.48
11:A:1054:A:C6	11:A:1106:G:O6	2.66	0.48
11:A:1945:G:C6	11:A:1946:U:C4	3.00	0.48
11:A:1416:G:O2'	11:A:1417:C:H5	1.96	0.48
15:E:96:PHE:CD2	15:E:182:LEU:HD21	2.48	0.48
15:E:108:SER:O	15:E:162:ALA:N	2.45	0.48
18:H:12:PRO:CA	18:H:48:GLY:HA2	2.42	0.48
4:3:45:GLY:HA2	4:3:48:GLU:CG	2.44	0.48
13:C:66:HIS:CG	13:C:184:LYS:HD2	2.49	0.48
5:4:28:LYS:HE3	5:4:28:LYS:HA	1.94	0.48
11:A:1497:U:H2'	11:A:1497:U:O2	2.13	0.48
7:6:15:GLU:OE2	7:6:41:PRO:HB3	2.12	0.48
11:A:2289:G:H1	11:A:2343:C:H42	1.59	0.48
11:A:2320:A:C4	11:A:2333:A:C6	3.01	0.48
11:A:972:G:H2'	11:A:973:A:H8	1.78	0.48
15:E:27:LEU:HD22	27:T:1:MET:HB2	1.96	0.48
28:U:113:ALA:C	28:U:115:ALA:H	2.16	0.48
26:S:64:GLU:HA	26:S:67:ARG:HG3	1.94	0.48
7:6:7:ILE:CG2	7:6:7:ILE:O	2.58	0.48
33:Z:102:LEU:HD21	33:Z:124:ILE:HD11	1.96	0.48
33:Z:10:ARG:NH2	33:Z:36:LYS:CB	2.76	0.48
33:Z:44:PHE:C	33:Z:44:PHE:CD1	2.86	0.48
21:N:13:TRP:O	21:N:135:PRO:HD2	2.13	0.48
21:N:55:VAL:O	21:N:56:ASN:C	2.51	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1199:U:H1'	28:U:4:ALA:CB	2.43	0.48
11:A:1775:U:C2'	11:A:1776:G:C5'	2.88	0.48
28:U:59:ARG:O	28:U:60:LEU:C	2.52	0.48
13:C:104:LEU:O	13:C:105:ASP:HB2	2.14	0.48
11:A:958:U:OP2	24:Q:14:ARG:NH1	2.46	0.48
11:A:862:G:H21	12:B:100:A:H2	1.62	0.48
11:A:1132:A:C8	11:A:1133:U:C5	3.01	0.48
8:7:11:LYS:O	8:7:12:ARG:C	2.51	0.48
24:Q:113:GLN:O	24:Q:116:GLU:N	2.39	0.48
11:A:556:G:H2'	11:A:557:U:C6	2.48	0.48
28:U:55:ARG:HA	28:U:58:ARG:HG3	1.94	0.48
11:A:848:G:H5'	11:A:848:G:H8	1.78	0.48
15:E:142:GLY:C	15:E:143:ASN:ND2	2.67	0.48
33:Z:149:SER:CB	33:Z:172:ALA:O	2.61	0.48
11:A:2493:U:H2'	11:A:2494:G:O4'	2.13	0.48
7:6:39:TYR:O	7:6:47:THR:O	2.31	0.48
9:8:28:GLY:C	9:8:30:ARG:H	2.17	0.48
11:A:1217:C:OP2	28:U:15:LYS:NZ	2.42	0.48
23:P:56:SER:O	23:P:57:THR:O	2.32	0.48
14:D:145:VAL:HG12	14:D:146:GLU:O	2.13	0.48
14:D:259:THR:O	14:D:260:ARG:C	2.50	0.48
11:A:2620:C:H2'	11:A:2621:A:O4'	2.14	0.48
15:E:199:ARG:CB	15:E:199:ARG:NH1	2.77	0.48
25:R:24:GLN:C	25:R:26:LYS:N	2.64	0.48
25:R:25:ALA:O	25:R:29:LEU:HB2	2.14	0.48
12:B:37:C:N4	12:B:49:C:H1'	2.27	0.48
11:A:2784:C:O2'	15:E:37:ARG:NH1	2.46	0.48
23:P:126:VAL:HG12	23:P:148:LEU:HD11	1.96	0.48
31:X:54:VAL:HG12	31:X:55:ASN:N	2.28	0.48
11:A:1764:G:C6	11:A:1989:G:C2	3.00	0.48
27:T:33:LYS:HE2	27:T:43:GLN:HE21	1.79	0.48
27:T:19:LEU:CD1	27:T:78:LEU:HD22	2.43	0.48
33:Z:15:PRO:HA	33:Z:18:LEU:CD2	2.44	0.48
33:Z:166:SER:OG	33:Z:167:PRO:HA	2.13	0.48
33:Z:57:ILE:O	33:Z:69:THR:N	2.43	0.48
2:1:63:ALA:O	2:1:64:ALA:C	2.51	0.48
11:A:996:A:C5'	28:U:94:ASN:HB2	2.40	0.48
17:G:69:ALA:O	17:G:90:LEU:HD12	2.13	0.48
13:C:130:ILE:C	13:C:132:GLY:H	2.16	0.48
11:A:1222:C:C3'	11:A:1223:G:H5''	2.43	0.48
17:G:107:LEU:HD11	17:G:178:PHE:HE1	1.78	0.48
20:K:73:UNK:O	20:K:74:UNK:C	2.61	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:59:ALA:HA	29:V:95:LEU:O	2.12	0.48
11:A:115:C:O2'	11:A:116:C:H5'	2.14	0.48
11:A:1398:C:H2'	11:A:1399:C:C6	2.48	0.48
14:D:44:ASN:CB	14:D:48:ARG:O	2.61	0.48
11:A:269:U:C2'	11:A:269:U:O2	2.55	0.48
33:Z:145:GLU:O	33:Z:174:VAL:HG21	2.13	0.48
21:N:68:GLU:HA	21:N:86:PRO:HB2	1.94	0.48
21:N:6:PRO:HB3	21:N:41:ASP:OD1	2.14	0.48
18:H:98:LEU:CB	18:H:125:VAL:HG21	2.43	0.48
11:A:1877:A:H3'	11:A:1878:G:O4'	2.13	0.48
11:A:242:G:H22	11:A:255:A:P	2.36	0.48
11:A:631:A:H2	11:A:2415:G:N3	2.10	0.48
9:8:2:PRO:N	11:A:667:U:O2	2.47	0.48
11:A:604:G:C6	11:A:625:G:C2	3.01	0.48
11:A:71:A:O2'	11:A:72:U:OP2	2.27	0.48
10:9:1:MET:SD	11:A:2477:C:C3'	3.01	0.48
24:Q:58:PHE:N	24:Q:58:PHE:CD1	2.80	0.48
11:A:318:C:C2'	11:A:319:C:H5'	2.43	0.48
6:5:2:ALA:HA	11:A:2015:A:H1'	1.94	0.48
11:A:2050:C:H2'	11:A:2051:A:O4'	2.13	0.48
11:A:2837:G:O5'	11:A:2837:G:H8	1.97	0.48
5:4:9:LEU:O	5:4:10:VAL:HG12	2.13	0.48
15:E:55:ASN:ND2	15:E:75:VAL:CG2	2.74	0.48
11:A:1664:A:H61	11:A:1996:C:N4	2.10	0.48
33:Z:163:LEU:CD1	33:Z:165:VAL:HG23	2.42	0.48
32:Y:81:LYS:HZ2	32:Y:99:CYS:HB2	1.75	0.48
16:F:128:ALA:O	16:F:129:PHE:CG	2.67	0.48
2:1:7:ILE:CG2	2:1:66:HIS:HB3	2.39	0.48
11:A:1826:G:H4'	14:D:242:ARG:NE	2.27	0.48
21:N:24:GLY:H	21:N:27:ALA:N	1.98	0.48
11:A:1603:A:C8	11:A:1603:A:H5'	2.39	0.48
14:D:166:GLN:CA	14:D:166:GLN:NE2	2.70	0.48
17:G:51:ARG:NH1	17:G:53:LEU:HD21	2.29	0.48
30:W:12:ILE:CD1	30:W:42:ARG:HH12	2.23	0.48
11:A:1087:G:H8	11:A:1088:A:H4'	1.77	0.48
11:A:2158:A:H4'	11:A:2159:G:OP1	2.12	0.48
29:V:96:ILE:N	29:V:96:ILE:HD13	2.28	0.48
11:A:2587:A:O2'	11:A:2588:G:H5'	2.13	0.48
11:A:1019:U:H3	11:A:1142(A):A:N6	2.09	0.48
15:E:128:SER:OG	15:E:129:HIS:N	2.44	0.48
15:E:179:GLU:O	15:E:179:GLU:HG3	2.13	0.48
11:A:271(C):C:O2'	11:A:271(D):G:H5'	2.13	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:1:80:LEU:HD23	2:1:81:LYS:N	2.27	0.48
2:1:81:LYS:O	2:1:82:LEU:HD12	2.14	0.48
8:7:31:LEU:C	8:7:33:ARG:N	2.67	0.48
24:Q:78:PRO:O	24:Q:79:LEU:C	2.52	0.48
29:V:43:GLU:O	29:V:44:LYS:HB2	2.12	0.48
11:A:642:G:H8	11:A:642:G:O5'	1.97	0.48
9:8:61:LEU:C	9:8:63:PRO:HD2	2.34	0.48
11:A:2259:G:C2	11:A:2282:G:C6	3.02	0.48
11:A:2391:G:O6	11:A:2425:A:H8	1.97	0.48
11:A:1190:G:C5'	23:P:35:HIS:H	2.27	0.48
11:A:605:C:OP1	16:F:104:LYS:NZ	2.46	0.48
16:F:111:ALA:HA	16:F:114:VAL:HB	1.94	0.48
31:X:8:ILE:HD11	31:X:43:VAL:CG2	2.42	0.48
11:A:2498:C:O2'	11:A:2499:C:C5'	2.57	0.48
17:G:60:LEU:CD1	17:G:92:VAL:HG11	2.43	0.48
26:S:15:ARG:O	26:S:18:ILE:HG13	2.14	0.48
26:S:98:VAL:HG12	26:S:100:ALA:N	2.25	0.48
11:A:2700:C:O2'	11:A:2701:C:H5'	2.13	0.48
11:A:1344:G:H22	11:A:1404:C:H1'	1.77	0.48
32:Y:81:LYS:HG3	32:Y:97:ARG:HG3	1.96	0.48
16:F:126:VAL:HG21	16:F:129:PHE:CZ	2.48	0.48
6:5:44:THR:CG2	25:R:101:ALA:HB2	2.40	0.48
11:A:1200:C:C2	11:A:1246:A:C2	3.00	0.48
18:H:83:TYR:O	18:H:84:SER:C	2.52	0.48
13:C:151:GLU:HA	13:C:154:ARG:CD	2.44	0.48
6:5:36:CYS:C	6:5:38:ALA:H	2.17	0.48
23:P:84:ASN:ND2	23:P:116:GLY:HA3	2.29	0.48
8:7:11:LYS:HG2	11:A:686:G:C4	2.49	0.48
8:7:44:PRO:O	8:7:45:ALA:O	2.32	0.48
8:7:8:ASN:HB3	8:7:11:LYS:HB3	1.94	0.48
11:A:689:A:H2'	11:A:690:G:H8	1.79	0.48
11:A:1809:A:C6	11:A:1810:A:C6	3.02	0.48
21:N:25:ARG:HH11	21:N:25:ARG:HG2	1.79	0.48
26:S:53:SER:O	26:S:56:LEU:HB3	2.13	0.48
21:N:67:LEU:O	21:N:68:GLU:CB	2.61	0.48
11:A:987:G:H2'	11:A:988:A:O4'	2.13	0.48
14:D:4:LYS:HZ2	14:D:20:ASP:HA	1.79	0.48
8:7:25:PRO:N	8:7:28:ARG:NH2	2.62	0.48
11:A:519:U:H2'	11:A:520:G:C8	2.48	0.48
1:0:19:LYS:NZ	1:0:21:LEU:HD21	2.28	0.48
33:Z:17:ALA:HA	33:Z:20:ARG:CG	2.44	0.48
28:U:102:GLU:HB3	28:U:105:VAL:HB	1.93	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:52:GLU:CG	23:P:53:GLY:H	2.27	0.48
14:D:11:PRO:O	14:D:13:ARG:N	2.47	0.48
11:A:2704:C:H2'	11:A:2705:A:O4'	2.14	0.48
11:A:2520:C:C6	11:A:2567:G:H1'	2.49	0.48
7:6:15:GLU:HG2	7:6:18:ARG:NH1	2.29	0.48
7:6:38:LYS:HA	7:6:48:VAL:HA	1.94	0.48
11:A:568:U:H2'	11:A:570:G:OP2	2.14	0.48
2:1:44:PRO:HA	11:A:396:G:O3'	2.14	0.48
31:X:26:TYR:O	31:X:80:ILE:HA	2.14	0.48
10:9:30:PRO:C	10:9:32:HIS:N	2.65	0.48
16:F:132:VAL:CG2	16:F:133:ASN:H	2.13	0.48
17:G:62:LEU:CD1	17:G:62:LEU:H	2.23	0.48
15:E:37:ARG:O	15:E:45:THR:HA	2.14	0.48
27:T:28:VAL:O	27:T:29:ARG:CB	2.62	0.48
27:T:48:ILE:O	27:T:63:VAL:HG13	2.13	0.48
11:A:2831:G:OP1	11:A:2834:G:H4'	2.13	0.48
17:G:169:ALA:O	17:G:173:LEU:HG	2.14	0.48
13:C:140:PRO:HG2	13:C:141:LYS:H	1.79	0.48
18:H:123:PHE:N	18:H:123:PHE:CD1	2.82	0.48
11:A:2022:U:O2'	11:A:2617:C:C5'	2.60	0.48
11:A:792:G:O2'	11:A:2440:C:N3	2.36	0.48
11:A:2796:U:C2'	11:A:2799:C:H5'	2.42	0.48
1:0:23:VAL:HA	1:0:38:VAL:HG13	1.95	0.48
11:A:1047:G:H21	11:A:1110:G:H2'	1.75	0.48
15:E:69:LYS:HD3	15:E:89:ASP:HA	1.96	0.48
24:Q:109:VAL:CG1	24:Q:110:THR:H	2.26	0.48
11:A:1400:G:H2'	11:A:1401:G:C8	2.49	0.48
22:O:88:ASN:HD21	22:O:92:GLU:CB	2.25	0.48
11:A:979:G:C2	11:A:982:C:C5	3.01	0.48
30:W:59:VAL:HA	30:W:63:ASP:HA	1.96	0.48
11:A:2107:C:H2'	11:A:2108:C:C6	2.49	0.48
11:A:733:G:C6	11:A:761:A:C5	3.01	0.48
11:A:2241:A:H2'	11:A:2242:G:C8	2.48	0.48
8:7:25:PRO:N	8:7:28:ARG:HH21	2.12	0.48
11:A:2312:U:H2'	11:A:2313:C:H5''	1.95	0.48
18:H:30:LYS:CA	18:H:30:LYS:HE2	2.42	0.48
11:A:1930:G:H22	11:A:1969:A:C5'	2.27	0.48
11:A:1044:G:C3'	11:A:1045:A:H5''	2.43	0.48
11:A:1769:G:H1'	11:A:1958:C:H5''	1.96	0.48
11:A:2596:U:H3'	11:A:2597:G:H8	1.78	0.48
19:J:30:UNK:O	19:J:31:UNK:CB	2.62	0.48
11:A:927:G:N3	11:A:927:G:H2'	2.29	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:66:GLY:O	23:P:67:MET:HB2	2.14	0.48
11:A:1188:U:H5''	29:V:79:VAL:HG11	1.96	0.48
11:A:1567:A:H5'	14:D:58:HIS:HD2	1.79	0.48
14:D:68:LYS:HB2	14:D:70:TRP:CZ2	2.49	0.48
14:D:92:ILE:H	14:D:92:ILE:HD13	1.79	0.48
16:F:192:LEU:C	16:F:192:LEU:HD23	2.34	0.48
18:H:65:HIS:HE1	18:H:69:ARG:CZ	2.26	0.48
10:9:35:ARG:NH1	11:A:2741:A:O3'	2.45	0.48
25:R:7:GLY:O	25:R:8:ARG:HB2	2.13	0.48
15:E:55:ASN:O	15:E:56:PRO:C	2.52	0.48
31:X:35:THR:CG2	31:X:37:THR:HB	2.44	0.48
11:A:1668:A:H61	11:A:1676:A:H61	1.62	0.48
24:Q:141:GLN:NE2	33:Z:72:ARG:HA	2.29	0.48
11:A:2646:C:H2'	11:A:2647:U:O4'	2.14	0.48
1:0:48:GLY:N	1:0:51:VAL:HB	2.29	0.48
11:A:1344:G:C2	11:A:1404:C:C2	3.02	0.48
21:N:116:LEU:O	21:N:119:ARG:HB2	2.14	0.48
21:N:18:ALA:CB	21:N:26:LEU:HD22	2.43	0.48
11:A:1069:A:C1'	11:A:1070:A:P	3.02	0.48
11:A:1627:G:H2'	11:A:1628:G:H8	1.78	0.48
11:A:2262:U:C2	11:A:2263:C:C5	3.01	0.48
5:4:16:CYS:HA	5:4:33:VAL:CG1	2.44	0.48
8:7:11:LYS:HE3	8:7:15:THR:HG21	1.95	0.48
11:A:1811:G:H2'	11:A:1812:A:H8	1.79	0.48
11:A:1112:G:O2'	11:A:1113:U:H5'	2.13	0.48
11:A:204:A:OP1	11:A:206:U:H1'	2.14	0.48
26:S:42:ASP:O	26:S:43:GLU:HB3	2.13	0.48
11:A:316:C:H2'	11:A:317:G:O5'	2.14	0.48
11:A:1701:A:H2'	11:A:1702:G:H5'	1.96	0.48
7:6:12:GLU:CD	7:6:54:ILE:CG2	2.83	0.48
11:A:972:G:O5'	11:A:972:G:H8	1.96	0.48
9:8:13:ARG:HB3	23:P:63:PRO:HA	1.96	0.48
9:8:25:MET:CG	23:P:64:LYS:HB2	2.34	0.48
28:U:10:ARG:O	28:U:13:LYS:N	2.45	0.48
14:D:70:TRP:C	14:D:70:TRP:CD1	2.87	0.48
13:C:134:ARG:O	13:C:135:GLY:C	2.52	0.48
13:C:113:VAL:CG2	13:C:136:LEU:HD22	2.44	0.48
16:F:168:ARG:HA	16:F:175:THR:HG21	1.94	0.48
25:R:67:LEU:HD13	25:R:70:LEU:O	2.14	0.48
11:A:2880:C:O2	25:R:91:GLN:O	2.32	0.48
17:G:67:LYS:HD3	17:G:67:LYS:H	1.69	0.48
26:S:12:PHE:N	26:S:12:PHE:CD2	2.82	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:147:LEU:HG	23:P:148:LEU:H	1.77	0.48
12:B:73:A:C2	12:B:74:U:H1'	2.49	0.48
11:A:2443:C:C2'	11:A:2444:G:H5'	2.43	0.48
11:A:335:C:H2'	11:A:336:C:C6	2.49	0.48
17:G:97:ASP:N	17:G:100:TRP:HD1	2.06	0.48
17:G:18:GLU:OE1	17:G:22:ARG:HG3	2.14	0.48
30:W:76:VAL:CB	30:W:103:ILE:HG23	2.44	0.48
21:N:2:LYS:HZ1	29:V:12:TYR:CA	2.26	0.48
33:Z:82:ARG:NH1	33:Z:83:PRO:O	2.46	0.48
13:C:177:LYS:O	13:C:180:PHE:HD1	1.97	0.48
11:A:784:A:C8	11:A:792:G:C5	3.02	0.48
21:N:83:LYS:CG	21:N:84:LYS:H	2.20	0.48
11:A:892:G:H2'	11:A:893:C:C6	2.48	0.48
23:P:83:VAL:O	23:P:115:LEU:HD23	2.14	0.48
11:A:1605:C:H2'	11:A:1606:G:C5'	2.43	0.48
13:C:103:ILE:CG2	13:C:103:ILE:O	2.60	0.48
11:A:817:C:H4'	11:A:932:G:N1	2.29	0.48
11:A:1023:U:H1'	11:A:1122:G:H5''	1.96	0.48
1:0:32:ARG:O	1:0:35:ASN:OD1	2.32	0.48
11:A:1714:G:H2'	11:A:1717:G:C8	2.49	0.48
11:A:953:A:H2'	11:A:954:G:C8	2.46	0.48
11:A:1625:C:H2'	11:A:1626:G:O4'	2.14	0.48
15:E:95:ILE:H	15:E:95:ILE:HD13	1.78	0.48
32:Y:90:LEU:HD23	32:Y:90:LEU:N	2.29	0.48
11:A:1365:A:C6	11:A:1366:A:C5	3.02	0.47
7:6:53:LYS:HE2	7:6:54:ILE:HA	1.96	0.47
9:8:52:LYS:N	9:8:53:PRO:CD	2.77	0.47
11:A:2283:C:C2'	11:A:2284:C:H5'	2.44	0.47
9:8:28:GLY:N	11:A:2393:A:OP1	2.47	0.47
11:A:1862:G:N2	11:A:1881:C:C2	2.82	0.47
11:A:601:C:H5'	16:F:108:LYS:HE3	1.96	0.47
11:A:88:G:N3	11:A:88:G:H2'	2.28	0.47
10:9:25:VAL:HB	10:9:34:GLN:HB3	1.94	0.47
11:A:2822:G:O6	25:R:4:LEU:HB3	2.14	0.47
23:P:105:LEU:O	23:P:106:LEU:CB	2.56	0.47
11:A:2807:G:C3'	11:A:2808:U:C5'	2.88	0.47
11:A:1988:C:C2'	11:A:1989:G:H5'	2.44	0.47
22:O:104:ARG:CZ	22:O:104:ARG:CB	2.91	0.47
22:O:79:PHE:CD2	27:T:72:VAL:HG13	2.48	0.47
33:Z:100:VAL:HG11	33:Z:137:ILE:HG12	1.95	0.47
1:0:27:GLU:CG	1:0:68:GLU:HA	2.44	0.47
11:A:1516:C:H2'	11:A:1517:G:C5'	2.27	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:38:LEU:O	29:V:51:VAL:CG1	2.62	0.47
14:D:96:HIS:CE1	14:D:102:LYS:NZ	2.82	0.47
11:A:1494:A:O2'	11:A:1496:A:H2	1.97	0.47
13:C:42:GLU:HB3	13:C:44:HIS:NE2	2.28	0.47
24:Q:125:LEU:HD23	24:Q:125:LEU:N	2.28	0.47
11:A:2776:A:H4'	11:A:2778:A:H5''	1.95	0.47
11:A:2222:G:C2	11:A:2223:G:C8	3.02	0.47
11:A:1980:G:O2'	11:A:1982:C:OP2	2.32	0.47
11:A:206:U:H2'	11:A:207:A:C8	2.49	0.47
30:W:64:MET:O	30:W:109:GLU:HG2	2.14	0.47
11:A:2649:U:H2'	11:A:2650:U:C6	2.49	0.47
11:A:2654:A:N3	11:A:2656:U:C4	2.81	0.47
4:3:13:ILE:HD13	11:A:989:G:C5	2.49	0.47
11:A:1119:C:H2'	11:A:1120:G:C8	2.49	0.47
8:7:20:ALA:O	8:7:23:ARG:N	2.45	0.47
8:7:31:LEU:C	8:7:33:ARG:H	2.18	0.47
11:A:479:A:O2'	11:A:481:G:C5'	2.61	0.47
20:K:99:UNK:O	20:K:100:UNK:O	2.30	0.47
27:T:133:GLU:HG2	27:T:133:GLU:O	2.13	0.47
23:P:108:LYS:HD2	23:P:108:LYS:N	2.29	0.47
11:A:2419:U:H2'	11:A:2420:C:H6	1.78	0.47
23:P:23:PRO:HB2	23:P:33:ARG:CD	2.45	0.47
14:D:261:LYS:HZ2	14:D:263:ARG:HB2	1.76	0.47
14:D:52:ARG:HB2	14:D:53:PHE:CD2	2.49	0.47
11:A:2170:A:H5''	13:C:134:ARG:NE	2.26	0.47
16:F:203:GLN:C	16:F:205:ARG:N	2.66	0.47
16:F:39:TRP:HZ2	16:F:43:LYS:HZ3	1.62	0.47
11:A:2850:A:C6	11:A:2869:G:H5'	2.48	0.47
23:P:109:GLY:O	23:P:110:TYR:C	2.53	0.47
27:T:61:PHE:CZ	27:T:76:PHE:HD1	2.31	0.47
17:G:16:ARG:HG3	17:G:16:ARG:HH11	1.79	0.47
17:G:93:THR:C	17:G:94:LEU:HG	2.33	0.47
17:G:96:ARG:O	17:G:97:ASP:HB2	2.14	0.47
25:R:101:ALA:O	25:R:102:GLU:HB2	2.14	0.47
14:D:130:ALA:O	14:D:131:LEU:HG	2.14	0.47
11:A:2306:C:H4'	17:G:136:ARG:HH12	1.78	0.47
11:A:1222:C:H2'	11:A:1223:G:C5'	2.35	0.47
11:A:532:A:H2'	11:A:532:A:N3	2.28	0.47
17:G:111:LEU:CB	17:G:112:PRO:CD	2.92	0.47
11:A:2074:U:H2'	11:A:2075:U:C5	2.49	0.47
11:A:1170:G:H5''	11:A:1173:G:H22	1.79	0.47
11:A:237:C:H2'	11:A:238:C:H6	1.79	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1360:A:C6	11:A:1372:U:C4	3.02	0.47
28:U:29:SER:O	28:U:30:LYS:HD3	2.14	0.47
28:U:52:ARG:NH2	28:U:55:ARG:HH22	2.10	0.47
11:A:1387:C:C4	11:A:1401:G:N2	2.82	0.47
11:A:848:G:C4	11:A:933:A:H1'	2.49	0.47
11:A:979:G:H21	11:A:985:C:N4	2.12	0.47
11:A:1435:G:H1	11:A:1557:C:N4	2.09	0.47
11:A:80:G:H1'	11:A:346:A:C6	2.49	0.47
30:W:68:ARG:O	30:W:110:LYS:CB	2.62	0.47
11:A:284:U:O2'	11:A:285:C:H5'	2.13	0.47
11:A:1221:C:H2'	11:A:1221(A):C:H6	1.79	0.47
11:A:2830:G:H5'	15:E:58:ARG:NH1	2.29	0.47
11:A:2059:A:OP1	16:F:71:GLY:HA3	2.14	0.47
13:C:227:HIS:N	13:C:227:HIS:ND1	2.62	0.47
7:6:17:LYS:O	7:6:18:ARG:CB	2.62	0.47
11:A:2284:C:O2'	11:A:2288:A:N6	2.48	0.47
11:A:2335:A:C8	11:A:2337:G:C6	3.02	0.47
11:A:2399:G:C2	11:A:2400:G:H1'	2.49	0.47
9:8:62:LEU:HD13	11:A:242:G:C5'	2.44	0.47
11:A:251:A:H2'	11:A:252:G:C5'	2.45	0.47
23:P:23:PRO:HB2	23:P:33:ARG:HD2	1.95	0.47
14:D:65:ILE:HG22	14:D:104:TYR:HB3	1.97	0.47
11:A:2524:G:H5'	11:A:2524:G:H8	1.79	0.47
16:F:110:LEU:CD1	16:F:111:ALA:N	2.76	0.47
18:H:65:HIS:CE1	18:H:69:ARG:CZ	2.97	0.47
3:2:59:ARG:HB3	11:A:76:C:O2'	2.14	0.47
25:R:77:ARG:O	25:R:79:LEU:N	2.46	0.47
17:G:60:LEU:HD11	17:G:92:VAL:HG11	1.96	0.47
26:S:12:PHE:O	26:S:14:VAL:N	2.47	0.47
11:A:329:G:N1	32:Y:19:LYS:HE3	2.27	0.47
30:W:52:GLU:C	30:W:54:ALA:N	2.62	0.47
17:G:44:GLY:N	17:G:88:ILE:HG21	2.29	0.47
11:A:2123:G:N2	13:C:42:GLU:OE2	2.48	0.47
18:H:152:ARG:HG3	18:H:152:ARG:NH1	2.29	0.47
11:A:2841:C:H2'	11:A:2842:G:H8	1.76	0.47
11:A:1375:C:C2'	11:A:1376:C:H5'	2.44	0.47
11:A:558:G:H2'	11:A:559:G:H8	1.79	0.47
11:A:1021:A:C8	11:A:1022:G:H4'	2.44	0.47
11:A:979:G:N7	11:A:981:A:OP1	2.47	0.47
4:3:17:LYS:HG2	11:A:969:U:OP1	2.13	0.47
26:S:39:ILE:O	26:S:40:ILE:HG23	2.15	0.47
30:W:4:LYS:HA	30:W:106:ILE:HG22	1.95	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:105:LEU:HG	18:H:105:LEU:O	2.13	0.47
33:Z:149:SER:O	33:Z:150:LEU:O	2.33	0.47
11:A:614(A):U:C4'	11:A:614(B):G:H5''	2.44	0.47
11:A:360:G:O2'	11:A:361:G:H5'	2.15	0.47
33:Z:103:ARG:HG2	33:Z:103:ARG:O	2.14	0.47
9:8:50:LEU:N	9:8:53:PRO:HG3	2.29	0.47
11:A:2033:A:HO2'	11:A:2034:U:P	2.37	0.47
11:A:252:G:P	23:P:50:ARG:NH1	2.87	0.47
9:8:13:ARG:CA	23:P:63:PRO:HA	2.45	0.47
11:A:1816:G:H5'	14:D:62:TYR:CE2	2.49	0.47
16:F:25:PRO:HB3	16:F:119:ARG:HA	1.97	0.47
3:2:35:LEU:HA	3:2:38:GLN:HG3	1.97	0.47
3:2:35:LEU:HD11	3:2:50:ILE:CG1	2.29	0.47
24:Q:62:GLY:CA	33:Z:116:VAL:HG11	2.45	0.47
11:A:1270:C:H5''	11:A:1271:G:O5'	2.14	0.47
25:R:41:ALA:O	25:R:42:LYS:C	2.53	0.47
25:R:42:LYS:O	25:R:45:ARG:CG	2.62	0.47
25:R:73:VAL:HG12	25:R:77:ARG:HH12	1.77	0.47
5:4:6:HIS:HA	17:G:67:LYS:CE	2.44	0.47
26:S:18:ILE:H	26:S:18:ILE:HG13	1.49	0.47
26:S:74:ALA:O	26:S:76:LYS:N	2.48	0.47
26:S:98:VAL:O	26:S:100:ALA:N	2.46	0.47
27:T:119:LYS:O	27:T:123:GLN:HG2	2.15	0.47
27:T:78:LEU:H	27:T:82:LEU:HD21	1.80	0.47
11:A:2101:G:C2'	11:A:2102:U:H5''	2.44	0.47
11:A:1902:C:H2'	11:A:1903:G:O5'	2.15	0.47
11:A:83:G:C2'	11:A:102:G:H22	2.26	0.47
21:N:24:GLY:C	21:N:26:LEU:H	2.11	0.47
28:U:92:ARG:NH2	29:V:10:LYS:CB	2.77	0.47
11:A:2121:G:C2	11:A:2122:U:C4	3.02	0.47
11:A:2139:C:H2'	11:A:2140:C:C6	2.48	0.47
5:4:33:VAL:CG1	5:4:34:GLU:N	2.77	0.47
11:A:783:A:H2'	11:A:784:A:H4'	1.96	0.47
1:0:24:LYS:N	1:0:37:LEU:O	2.44	0.47
11:A:536:A:C2	11:A:558:G:C6	3.02	0.47
11:A:222:A:H2	11:A:233:A:O3'	1.98	0.47
11:A:980:A:C6	11:A:981:A:C2	3.03	0.47
16:F:82:ILE:O	16:F:83:PHE:HB2	2.11	0.47
15:E:176:ILE:HG22	15:E:178:GLU:HB3	1.95	0.47
11:A:478:A:N1	11:A:500:G:H4'	2.29	0.47
11:A:2317:C:H3'	11:A:2318:G:H21	1.79	0.47
11:A:280:C:H2'	11:A:281:G:H5'	1.96	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:N:96:GLU:CD	21:N:96:GLU:H	2.17	0.47
11:A:1973:G:C6	11:A:1974:C:N4	2.83	0.47
11:A:704:G:N3	11:A:726:G:C2	2.82	0.47
26:S:22:GLY:O	26:S:23:ARG:O	2.33	0.47
11:A:1545:A:H2'	11:A:1546:C:O4'	2.15	0.47
11:A:759:G:O5'	11:A:759:G:H8	1.98	0.47
23:P:59:LEU:CA	23:P:61:ARG:NE	2.62	0.47
32:Y:46:LYS:CB	32:Y:62:GLU:HG2	2.40	0.47
11:A:2233:U:H2'	11:A:2234:G:H8	1.75	0.47
11:A:2539:C:H2'	11:A:2540:C:H6	1.79	0.47
11:A:2540:C:O2	11:A:2740:A:H2	1.97	0.47
11:A:1205:U:C6	16:F:171:PRO:HA	2.50	0.47
15:E:1:MET:H3	15:E:84:PHE:HB2	1.79	0.47
26:S:89:ARG:HG3	26:S:92:TYR:HB3	1.95	0.47
26:S:97:ARG:NE	26:S:97:ARG:C	2.68	0.47
33:Z:42:VAL:HG22	33:Z:43:GLU:N	2.29	0.47
11:A:326:G:H2'	11:A:327:G:O4'	2.15	0.47
32:Y:68:HIS:ND1	32:Y:70:SER:HB3	2.29	0.47
32:Y:75:ILE:HA	32:Y:79:CYS:O	2.13	0.47
30:W:5:ALA:C	30:W:6:ILE:HG13	2.35	0.47
11:A:1137:G:H2'	11:A:1138:G:H8	1.76	0.47
21:N:101:HIS:O	21:N:103:VAL:N	2.48	0.47
14:D:118:VAL:HG22	14:D:119:ALA:N	2.29	0.47
11:A:220:G:H2'	11:A:427:U:O4	2.14	0.47
11:A:2305:A:O2'	17:G:136:ARG:NE	2.48	0.47
11:A:2122:U:O2	13:C:172:HIS:NE2	2.47	0.47
18:H:101:ARG:HG2	18:H:117:PRO:CG	2.35	0.47
24:Q:22:LYS:H	33:Z:78:LYS:CE	2.19	0.47
28:U:68:ALA:HB1	28:U:106:PHE:CE2	2.49	0.47
11:A:793:A:N7	11:A:2072:G:H5''	2.30	0.47
8:7:11:LYS:CE	11:A:686:G:H5''	2.44	0.47
14:D:148:GLU:HB2	14:D:151:LYS:HD2	1.96	0.47
14:D:91:ARG:CG	14:D:91:ARG:NH1	2.75	0.47
11:A:1410:G:O2'	11:A:1411:C:H5'	2.14	0.47
11:A:848:G:H1'	11:A:933:A:O2'	2.14	0.47
4:3:14:GLY:O	11:A:969:U:H4'	2.14	0.47
11:A:751:A:H5'	30:W:90:ARG:CA	2.42	0.47
11:A:1509(B):A:O2'	11:A:1510:G:H5'	2.13	0.47
11:A:2432:A:C6	11:A:2433:A:C6	3.03	0.47
4:3:10:LYS:HB3	4:3:53:LEU:HD22	1.95	0.47
29:V:36:PRO:HA	29:V:56:SER:HB3	1.97	0.47
28:U:102:GLU:HB3	28:U:105:VAL:CG2	2.44	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:7:19:ARG:HD3	11:A:125:G:C5'	2.44	0.47
11:A:1722:A:O2'	11:A:1739:U:H5''	2.13	0.47
11:A:2596:U:H3'	11:A:2597:G:C8	2.49	0.47
2:1:51:VAL:HG23	2:1:51:VAL:O	2.15	0.47
11:A:701:G:N3	11:A:701:G:H2'	2.30	0.47
31:X:10:ALA:O	31:X:28:PHE:HB2	2.15	0.47
11:A:621:A:C2'	11:A:622:G:H5'	2.45	0.47
18:H:42:ARG:HH11	18:H:42:ARG:CB	2.27	0.47
24:Q:63:LYS:HE3	24:Q:65:PHE:HE1	1.79	0.47
11:A:296:C:N4	11:A:343:C:H42	2.13	0.47
11:A:2009:G:H4'	30:W:40:ASN:HD21	1.75	0.47
11:A:2822:G:H2'	11:A:2823:A:C5'	2.33	0.47
25:R:55:ALA:HB1	25:R:79:LEU:HD11	1.96	0.47
23:P:78:PRO:HB2	23:P:111:ARG:NH2	2.27	0.47
11:A:1668:A:N6	11:A:1676:A:H61	2.12	0.47
27:T:65:LYS:HG3	27:T:66:VAL:N	2.28	0.47
13:C:64:LEU:HD13	13:C:188:ASN:ND2	2.29	0.47
33:Z:162:GLU:O	33:Z:163:LEU:O	2.33	0.47
1:0:10:THR:HG22	1:0:12:ASN:N	2.28	0.47
1:0:77:ARG:C	1:0:78:TYR:CD1	2.88	0.47
11:A:856:C:H2'	11:A:857:C:H6	1.78	0.47
11:A:2815:C:H2'	11:A:2815:C:O2	2.13	0.47
2:1:67:ILE:O	2:1:68:PRO:C	2.50	0.47
14:D:112:GLN:O	14:D:115:GLN:HB2	2.15	0.47
14:D:142:VAL:HG21	14:D:191:ALA:HB1	1.97	0.47
14:D:94:LEU:HD23	14:D:103:ARG:O	2.14	0.47
18:H:83:TYR:CD1	18:H:84:SER:N	2.82	0.47
11:A:1027:A:C2'	11:A:1027:A:N3	2.75	0.47
29:V:91:TYR:HE1	29:V:93:GLU:HG3	1.79	0.47
28:U:52:ARG:CZ	28:U:55:ARG:NH2	2.72	0.47
11:A:204:A:OP1	11:A:204:A:H8	1.96	0.47
21:N:71:ILE:HA	21:N:86:PRO:HA	1.97	0.47
11:A:986:C:O2'	11:A:987:G:H5'	2.14	0.47
13:C:199:HIS:O	13:C:201:PRO:N	2.48	0.47
3:2:4:SER:HA	3:2:7:ARG:HD2	1.97	0.47
11:A:646:A:H3'	11:A:647:G:H8	1.79	0.47
11:A:2359:C:C2	11:A:2360:A:C8	3.02	0.47
9:8:3:LYS:HD3	11:A:242:G:H5''	1.96	0.47
11:A:28:A:H1'	11:A:513:A:C2	2.50	0.47
14:D:23:GLU:OE1	14:D:23:GLU:HA	2.14	0.47
14:D:267:SER:HA	14:D:270:ILE:CG1	2.45	0.47
16:F:31:HIS:O	16:F:32:LEU:C	2.52	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:53:ALA:CB	24:Q:124:LYS:HE3	2.45	0.47
11:A:321:G:C1'	16:F:168:ARG:HH21	2.27	0.47
11:A:343:C:H2'	11:A:343:C:O2	2.14	0.47
11:A:2578:G:OP2	11:A:2578:G:H4'	2.15	0.47
28:U:112:ARG:O	28:U:115:ALA:HB3	2.15	0.47
26:S:89:ARG:HG3	26:S:92:TYR:N	2.29	0.47
7:6:30:THR:O	7:6:31:PRO:C	2.53	0.47
9:8:23:VAL:HG13	9:8:47:LYS:N	2.29	0.47
23:P:111:ARG:HH11	23:P:149:GLU:CG	2.19	0.47
11:A:1680:U:O2	11:A:1763:G:H3'	2.15	0.47
11:A:1645:G:H5''	11:A:1646:C:H5'	1.97	0.47
11:A:2641:G:OP2	21:N:74:ARG:CZ	2.63	0.47
33:Z:90:VAL:HG12	33:Z:91:LEU:N	2.29	0.47
33:Z:126:VAL:HA	33:Z:163:LEU:HB2	1.97	0.47
16:F:63:LYS:O	16:F:64:ILE:C	2.53	0.47
32:Y:17:SER:OG	32:Y:18:GLY:N	2.43	0.47
32:Y:26:LYS:HG2	32:Y:27:VAL:H	1.79	0.47
32:Y:76:CYS:HB3	32:Y:96:ILE:HD11	1.97	0.47
17:G:100:TRP:O	17:G:102:PHE:N	2.47	0.47
17:G:6:ALA:HB3	17:G:104:GLU:CD	2.35	0.47
10:9:10:ILE:O	10:9:11:CYS:CB	2.63	0.47
11:A:444:C:O3'	28:U:2:PRO:N	2.48	0.47
11:A:661:C:H2'	11:A:662:G:H8	1.79	0.47
11:A:728:G:C2	11:A:730:C:C2	3.03	0.47
21:N:18:ALA:HB1	21:N:26:LEU:HD22	1.96	0.47
11:A:996:A:C1'	28:U:92:ARG:HE	2.27	0.47
11:A:85:G:OP1	32:Y:9:LYS:HB2	2.14	0.47
14:D:80:ALA:O	14:D:113:VAL:HG11	2.15	0.47
14:D:117:VAL:HG22	14:D:118:VAL:N	2.28	0.47
17:G:76:SER:HB3	17:G:83:ARG:HB3	1.95	0.47
11:A:2149:G:C2'	11:A:2150:U:H5'	2.45	0.47
18:H:123:PHE:HD1	18:H:123:PHE:N	2.13	0.47
11:A:993:G:H4'	29:V:70:ILE:HD12	1.97	0.47
11:A:2023:G:C5'	11:A:2617:C:H4'	2.43	0.47
11:A:2513:G:N1	11:A:2514:U:C2	2.83	0.47
11:A:25:U:H5'	30:W:78:GLU:O	2.15	0.47
2:1:23:LYS:HD3	2:1:28:GLY:HA3	1.97	0.47
11:A:2128:C:O2'	11:A:2129:C:H6	1.97	0.47
11:A:2128:C:O2'	11:A:2129:C:C6	2.68	0.47
11:A:910:A:N6	24:Q:11:LYS:O	2.47	0.47
11:A:904:C:OP2	11:A:904:C:C6	2.67	0.47
1:0:23:VAL:HG13	1:0:38:VAL:HG22	1.97	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1309:G:O2'	11:A:1310:G:H5'	2.14	0.47
28:U:52:ARG:HG2	28:U:55:ARG:HH12	1.80	0.47
29:V:28:GLU:HB3	29:V:29:PRO:HD2	1.95	0.47
14:D:45:ASN:CG	14:D:46:GLN:N	2.67	0.47
11:A:933:A:H2'	11:A:934:G:O4'	2.14	0.47
22:O:7:TYR:CE1	22:O:20:MET:HB2	2.50	0.47
11:A:807:U:H2'	11:A:808:G:C8	2.49	0.47
11:A:940:G:H2'	11:A:941:A:O4'	2.15	0.47
28:U:47:TYR:HA	28:U:50:ARG:HB2	1.96	0.47
11:A:2313:C:C6	11:A:2313:C:H5'	2.48	0.47
11:A:1799:G:H5'	11:A:1819:A:N6	2.27	0.47
12:B:87:G:C3'	12:B:88:C:H5''	2.45	0.47
8:7:19:ARG:NE	11:A:124:G:H2'	2.29	0.47
11:A:1624:G:C4	11:A:1625:C:C5	3.03	0.47
2:1:37:ILE:HD12	2:1:37:ILE:H	1.80	0.47
11:A:1720:U:H2'	11:A:1721:G:C4'	2.44	0.47
11:A:1545:A:N7	11:A:1546:C:C2	2.82	0.47
3:2:26:ARG:O	3:2:26:ARG:HG2	2.14	0.47
1:0:43:THR:CG2	11:A:2332:U:H5'	2.45	0.47
7:6:12:GLU:CB	7:6:23:THR:HG22	2.45	0.47
31:X:17:ALA:O	31:X:18:TYR:C	2.53	0.47
31:X:20:GLY:O	31:X:22:ALA:N	2.47	0.47
10:9:1:MET:HA	10:9:4:ARG:CZ	2.44	0.47
11:A:2481:G:HO2'	11:A:2482:G:P	2.37	0.47
24:Q:62:GLY:HA2	33:Z:116:VAL:HG11	1.96	0.47
11:A:344:G:HO2'	11:A:345:A:H8	1.62	0.47
11:A:347:A:H2'	11:A:348:G:H8	1.80	0.47
16:F:156:LEU:HD23	16:F:167:ALA:HB2	1.97	0.47
11:A:2818:G:OP2	25:R:42:LYS:NZ	2.46	0.47
11:A:2839:G:H2'	11:A:2840:C:C6	2.49	0.47
25:R:36:THR:HB	25:R:40:LYS:HD2	1.97	0.47
30:W:41:LYS:O	30:W:43:GLY:N	2.47	0.47
17:G:62:LEU:N	17:G:62:LEU:HD12	2.29	0.47
11:A:271(J):C:HO2'	11:A:271(K):U:H6	1.59	0.47
15:E:55:ASN:HD22	15:E:55:ASN:HA	1.57	0.47
23:P:101:VAL:C	23:P:103:ALA:N	2.68	0.47
23:P:107:LYS:O	23:P:109:GLY:N	2.48	0.47
11:A:1662:C:H2'	11:A:1663:C:C6	2.50	0.47
27:T:117:ASP:OD1	27:T:119:LYS:HB3	2.15	0.47
27:T:8:LYS:HA	27:T:11:GLU:OE1	2.15	0.47
10:9:12:ASP:CG	10:9:13:LYS:N	2.68	0.47
11:A:449:A:C4	11:A:450:G:C8	3.02	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:16:ARG:O	23:P:16:ARG:NH1	2.47	0.47
14:D:73:VAL:C	14:D:75:ILE:H	2.18	0.47
11:A:265:A:H1'	11:A:266:G:C1'	2.44	0.47
11:A:1538:G:H2'	11:A:1539:G:C8	2.50	0.47
11:A:2136:C:O2'	11:A:2137:C:H5'	2.15	0.47
12:B:17:C:H42	12:B:68:C:N4	2.00	0.47
13:C:63:SER:HA	13:C:160:ARG:CA	2.38	0.47
11:A:1400:G:C6	11:A:1401:G:C6	3.03	0.47
15:E:129:HIS:O	15:E:130:GLY:O	2.33	0.47
30:W:28:SER:HA	30:W:70:TYR:HB2	1.97	0.47
11:A:271(V):G:C6	11:A:271(W):G:C2	3.03	0.47
2:1:18:ILE:CG2	2:1:19:GLN:N	2.78	0.47
11:A:664:C:H1'	11:A:940:G:OP1	2.14	0.47
33:Z:117:LEU:CD1	33:Z:172:ALA:HB1	2.45	0.47
11:A:2533:A:H2'	11:A:2534:A:O4'	2.15	0.47
13:C:108:MET:O	13:C:109:ASP:O	2.32	0.47
7:6:15:GLU:HG3	7:6:47:THR:OG1	2.13	0.47
9:8:49:VAL:HB	9:8:53:PRO:HG3	1.97	0.47
23:P:61:ARG:C	23:P:62:LEU:HD23	2.35	0.47
23:P:9:ASN:N	23:P:10:PRO:CD	2.72	0.47
11:A:2754:U:H2'	11:A:2756:U:OP1	2.15	0.47
3:2:32:LEU:CB	3:2:53:LEU:HD22	2.44	0.47
3:2:57:ILE:HG22	3:2:61:LEU:HD11	1.97	0.47
24:Q:55:VAL:HA	24:Q:58:PHE:HE1	1.80	0.47
11:A:2007:C:H5'	11:A:2824:C:O4'	2.14	0.47
25:R:17:ARG:HB3	25:R:17:ARG:HH11	1.80	0.47
25:R:73:VAL:CG1	25:R:77:ARG:HH12	2.28	0.47
16:F:62:ARG:HG2	16:F:62:ARG:NH1	2.30	0.47
26:S:89:ARG:HG3	26:S:92:TYR:CB	2.44	0.47
15:E:52:LEU:O	15:E:74:PRO:CB	2.63	0.47
23:P:106:LEU:HD11	23:P:112:LEU:CD2	2.44	0.47
27:T:23:ARG:O	27:T:24:PRO:C	2.53	0.47
11:A:2675:A:H5'	22:O:31:LYS:HZ1	1.80	0.47
11:A:1515:G:H2'	11:A:1516:C:C6	2.49	0.47
32:Y:14:LEU:HD12	32:Y:15:VAL:H	1.79	0.47
16:F:49:ALA:HB1	16:F:92:PRO:HB3	1.97	0.47
21:N:103:VAL:O	21:N:104:LYS:C	2.52	0.47
18:H:148:ILE:HG22	18:H:162:ILE:HD13	1.97	0.47
11:A:2485:G:C5'	24:Q:46:GLN:HE21	2.27	0.47
11:A:121:G:H4'	11:A:149:A:H5'	1.96	0.47
11:A:2208:A:N3	11:A:2219:G:C6	2.83	0.47
11:A:1360:A:N6	11:A:1372:U:C4	2.82	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:31:VAL:HG11	11:A:2886:G:N2	2.25	0.47
11:A:1323:U:C2'	11:A:1324:G:H5'	2.45	0.47
11:A:1053:C:C5	11:A:1054:A:N7	2.83	0.47
1:0:30:VAL:CG1	1:0:66:VAL:HG23	2.45	0.47
11:A:466:A:C2'	11:A:467:G:H5'	2.45	0.47
11:A:2497:A:C8	11:A:2497:A:OP2	2.67	0.47
24:Q:10:ARG:CB	24:Q:10:ARG:NH1	2.77	0.47
13:C:7:TYR:CE2	13:C:11:LEU:HD21	2.50	0.47
11:A:2851:A:C2'	11:A:2852:G:H5'	2.44	0.47
7:6:35:GLU:CB	7:6:51:GLU:HG3	2.45	0.47
11:A:942:G:H2'	11:A:943:U:O4'	2.15	0.47
11:A:251:A:H5''	23:P:51:PHE:HZ	1.79	0.47
32:Y:63:LYS:HG2	32:Y:64:GLU:H	1.80	0.47
14:D:24:ILE:CD1	14:D:25:THR:N	2.77	0.47
3:2:63:VAL:C	3:2:65:ASN:H	2.17	0.47
3:2:59:ARG:HB2	11:A:77:C:H5'	1.97	0.47
31:X:46:ALA:O	31:X:47:PHE:CD1	2.68	0.47
31:X:46:ALA:C	31:X:47:PHE:HD1	2.18	0.47
10:9:35:ARG:O	10:9:36:GLN:O	2.33	0.47
17:G:146:TYR:C	17:G:148:MET:N	2.62	0.47
33:Z:119:GLU:HG3	33:Z:122:ARG:NH1	2.30	0.47
26:S:99:LYS:O	26:S:101:LEU:N	2.48	0.47
26:S:28:VAL:O	26:S:29:PHE:HB2	2.15	0.47
15:E:4:ILE:HD12	15:E:92:THR:O	2.16	0.47
27:T:29:ARG:CB	27:T:85:LYS:HA	2.45	0.47
27:T:89:VAL:O	27:T:90:GLN:C	2.53	0.47
27:T:94:ALA:C	27:T:96:ARG:N	2.67	0.47
27:T:96:ARG:NH1	27:T:96:ARG:HB2	2.29	0.47
12:B:81:G:C2	12:B:82:G:N7	2.83	0.47
32:Y:67:LEU:HD23	32:Y:68:HIS:H	1.80	0.47
17:G:130:ASN:O	17:G:131:TYR:O	2.33	0.47
2:1:45:ASN:HA	11:A:2230:G:C1'	2.44	0.47
11:A:20:C:C2	11:A:21:A:C8	3.03	0.47
5:4:22:ILE:H	5:4:22:ILE:CD1	2.00	0.47
12:B:112:U:H2'	12:B:113:G:H8	1.78	0.47
11:A:2121:G:H2'	11:A:2122:U:H6	1.78	0.47
24:Q:21:THR:HG23	24:Q:101:ARG:HB2	1.95	0.47
11:A:406:G:C6	11:A:407:G:C6	3.03	0.47
24:Q:77:LYS:HD3	24:Q:81:VAL:CG1	2.45	0.47
15:E:144:ARG:O	15:E:146:THR:N	2.47	0.47
25:R:107:ASP:O	25:R:109:ALA:N	2.48	0.47
11:A:271(E):U:H2'	11:A:271(F):C:C5	2.49	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:733:G:C5	11:A:761:A:C6	3.03	0.47
13:C:106:GLY:O	13:C:107:TRP:HB2	2.15	0.47
13:C:183:GLU:N	13:C:183:GLU:CD	2.66	0.47
33:Z:20:ARG:HG3	33:Z:21:ALA:H	1.80	0.47
3:2:20:GLU:OE1	3:2:20:GLU:O	2.33	0.47
11:A:1744:C:O2'	11:A:1745:C:H5'	2.15	0.47
27:T:118:ARG:O	27:T:122:ASP:N	2.38	0.47
11:A:245:G:H2'	11:A:246:C:C6	2.50	0.46
11:A:631:A:H5''	23:P:65:ARG:HG2	1.97	0.46
11:A:499:U:H1'	32:Y:47:LYS:HZ1	1.80	0.46
11:A:1887:C:H2'	11:A:1888:G:C5'	2.16	0.46
14:D:273:ARG:CG	14:D:273:ARG:HH11	2.28	0.46
31:X:46:ALA:C	31:X:47:PHE:CD1	2.88	0.46
17:G:139:LEU:HA	17:G:144:ILE:HG23	1.97	0.46
11:A:1502:C:H5'	11:A:1503:U:OP2	2.13	0.46
31:X:35:THR:HG21	31:X:37:THR:HB	1.97	0.46
11:A:1298:C:H1'	11:A:1302:A:C2	2.50	0.46
11:A:1764:G:H2'	11:A:1765:C:H6	1.80	0.46
11:A:2681:C:C5	11:A:2727:G:N2	2.84	0.46
11:A:2708:G:C4	11:A:2709:G:N7	2.83	0.46
15:E:171:GLU:O	15:E:173:VAL:N	2.48	0.46
15:E:24:THR:HG21	15:E:188:VAL:CG1	2.33	0.46
22:O:104:ARG:HB2	22:O:104:ARG:HH11	1.80	0.46
27:T:50:ILE:HG22	27:T:51:ARG:N	2.30	0.46
1:0:10:THR:HG23	1:0:12:ASN:OD1	2.15	0.46
11:A:1469:A:H2'	11:A:1470:G:O4'	2.15	0.46
17:G:173:LEU:O	17:G:176:LEU:HB2	2.15	0.46
17:G:36:LYS:CG	17:G:37:VAL:N	2.78	0.46
30:W:6:ILE:HG12	30:W:104:THR:HA	1.97	0.46
2:1:7:ILE:HB	2:1:62:VAL:HG23	1.96	0.46
18:H:31:GLY:O	18:H:79:VAL:HG12	2.15	0.46
3:2:5:GLU:CG	3:2:9:GLN:HE22	2.28	0.46
14:D:112:GLN:H	14:D:115:GLN:HE22	1.56	0.46
11:A:267:C:H2'	11:A:268:C:H6	1.80	0.46
18:H:148:ILE:HG22	18:H:162:ILE:CD1	2.45	0.46
24:Q:126:PRO:HG2	24:Q:127:ILE:HG23	1.97	0.46
24:Q:92:GLY:C	24:Q:93:TYR:CD1	2.88	0.46
4:3:19:GLN:C	4:3:21:ALA:N	2.69	0.46
5:4:14:ILE:HD12	5:4:14:ILE:H	1.80	0.46
1:0:58:THR:CG2	1:0:59:LEU:N	2.78	0.46
11:A:7:G:O2'	11:A:8:A:H5'	2.16	0.46
11:A:2582:G:N2	11:A:2583:G:C1'	2.78	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1386:C:H2'	11:A:1387:C:C6	2.50	0.46
11:A:1410:G:H2'	11:A:1411:C:C6	2.49	0.46
26:S:56:LEU:O	26:S:58:LEU:N	2.48	0.46
11:A:188:G:H2'	11:A:189:G:O4'	2.15	0.46
11:A:1563:G:H2'	11:A:1564:C:H6	1.80	0.46
21:N:39:ARG:O	21:N:41:ASP:N	2.44	0.46
11:A:664:C:O4'	11:A:940:G:H5''	2.14	0.46
11:A:873:G:H2'	11:A:874:G:H8	1.79	0.46
11:A:2792:G:O2'	11:A:2793:G:H5'	2.15	0.46
20:K:99:UNK:O	20:K:135:UNK:O	2.33	0.46
11:A:2618:G:H21	15:E:150:VAL:HG21	1.79	0.46
11:A:1798:U:C2	11:A:1822:G:C2	3.03	0.46
14:D:70:TRP:HZ3	14:D:146:GLU:CD	2.18	0.46
14:D:85:ASP:HB2	14:D:92:ILE:HG23	1.97	0.46
16:F:118:ALA:O	16:F:119:ARG:C	2.53	0.46
16:F:133:ASN:HB2	16:F:138:GLU:OE2	2.14	0.46
11:A:2051:A:OP1	15:E:137:HIS:ND1	2.48	0.46
15:E:194:GLY:O	15:E:196:VAL:HG13	2.14	0.46
23:P:107:LYS:C	23:P:109:GLY:H	2.18	0.46
11:A:2864:G:H2'	11:A:2865:U:O4'	2.15	0.46
27:T:61:PHE:H	27:T:61:PHE:HD2	1.63	0.46
33:Z:99:TYR:CE2	33:Z:125:LEU:HD13	2.50	0.46
1:O:12:ASN:O	1:O:14:ARG:N	2.44	0.46
17:G:133:LEU:HD12	17:G:133:LEU:O	2.14	0.46
11:A:1899:G:O2'	11:A:1900:A:H5''	2.15	0.46
11:A:2305:A:O2'	17:G:136:ARG:HG3	2.15	0.46
17:G:47:LYS:HZ2	17:G:81:LYS:CG	2.28	0.46
11:A:2120:G:N2	11:A:2178:C:C2	2.83	0.46
24:Q:42:ILE:HA	24:Q:42:ILE:HD12	1.79	0.46
11:A:146:G:H2'	11:A:147:U:H5'	1.97	0.46
11:A:778:G:C5	11:A:779:U:C4	3.04	0.46
11:A:2246:G:C8	11:A:2426:A:C6	3.03	0.46
11:A:2134:A:H2'	11:A:2134:A:N3	2.29	0.46
23:P:120:ALA:HB3	23:P:137:LYS:O	2.15	0.46
24:Q:110:THR:HG23	24:Q:113:GLN:HB2	1.98	0.46
11:A:1754:C:N3	11:A:2716:U:O2'	2.40	0.46
30:W:59:VAL:HG12	30:W:60:ASN:N	2.30	0.46
31:X:70:LEU:HD23	31:X:71:GLY:N	2.30	0.46
26:S:42:ASP:O	26:S:44:LYS:N	2.40	0.46
11:A:1953:A:H2	11:A:2549:G:N3	2.12	0.46
24:Q:90:VAL:HG12	24:Q:91:GLU:H	1.80	0.46
7:6:35:GLU:HB3	7:6:51:GLU:HG3	1.97	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:6:41:PRO:HG3	7:6:49:HIS:CE1	2.50	0.46
11:A:1218:C:H2'	11:A:1219:G:H5'	1.96	0.46
11:A:2358:G:H2'	11:A:2359:C:O4'	2.16	0.46
14:D:26:LYS:C	14:D:27:THR:HG22	2.36	0.46
11:A:299:A:N7	11:A:322:A:C2	2.83	0.46
16:F:171:PRO:C	16:F:173:VAL:N	2.69	0.46
11:A:2010:G:OP2	30:W:41:LYS:NZ	2.43	0.46
11:A:1655:A:H1'	15:E:113:PHE:CD2	2.49	0.46
5:4:25:TYR:O	5:4:26:SER:HB3	2.15	0.46
26:S:73:LEU:HD23	26:S:73:LEU:C	2.36	0.46
26:S:74:ALA:C	26:S:76:LYS:N	2.67	0.46
11:A:2635:C:H2'	11:A:2636:U:O5'	2.16	0.46
11:A:2811:G:H1	11:A:2889:C:H42	1.63	0.46
11:A:1676:A:H2'	11:A:1677:A:O4'	2.15	0.46
27:T:32:TYR:CG	27:T:33:LYS:N	2.83	0.46
27:T:35:LYS:NZ	27:T:41:ARG:HD2	2.31	0.46
12:B:74:U:H2'	12:B:75:G:O4'	2.15	0.46
33:Z:10:ARG:NH2	33:Z:36:LYS:HB3	2.30	0.46
1:0:10:THR:HG22	1:0:11:ARG:N	2.29	0.46
17:G:5:VAL:N	17:G:8:LYS:HB2	2.19	0.46
21:N:108:PRO:HG2	21:N:113:GLY:HA3	1.97	0.46
28:U:91:ASP:O	28:U:92:ARG:HB3	2.16	0.46
11:A:1339:G:N2	11:A:1603:A:N3	2.64	0.46
11:A:598:G:C4'	23:P:15:ARG:HB3	2.45	0.46
11:A:455:C:N3	11:A:472:A:H2'	2.30	0.46
11:A:2124:G:H4'	13:C:174:PRO:HB3	1.97	0.46
14:D:249:PRO:CG	14:D:250:TRP:N	2.77	0.46
29:V:81:TYR:CD1	29:V:81:TYR:O	2.69	0.46
14:D:28:GLU:N	14:D:29:PRO:HD2	2.23	0.46
18:H:130:ARG:CZ	18:H:130:ARG:CB	2.94	0.46
11:A:2650:U:H2'	11:A:2651:C:C6	2.50	0.46
11:A:2651:C:O5'	11:A:2651:C:H6	1.98	0.46
11:A:2651:C:O2'	11:A:2652:C:H5'	2.15	0.46
2:1:19:GLN:O	2:1:35:THR:HG22	2.15	0.46
11:A:937:U:H2'	11:A:938:G:H8	1.79	0.46
11:A:937:U:H2'	11:A:938:G:C8	2.50	0.46
8:7:24:THR:HG23	8:7:27:GLY:HA3	1.96	0.46
11:A:479:A:N3	11:A:481:G:O4'	2.49	0.46
11:A:2766:G:N3	11:A:2766:G:H2'	2.30	0.46
18:H:56:SER:HB2	18:H:58:GLU:HG3	1.98	0.46
11:A:153:C:H2'	11:A:154:G:C8	2.51	0.46
31:X:31:HIS:O	31:X:32:PRO:C	2.53	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:138:VAL:O	14:D:138:VAL:HG13	2.14	0.46
7:6:41:PRO:HG2	7:6:47:THR:OG1	2.16	0.46
11:A:584:C:H6	11:A:584:C:O5'	1.97	0.46
11:A:1857:G:O2'	11:A:1885:A:N6	2.48	0.46
11:A:1243:G:C3'	11:A:1244:G:H5''	2.45	0.46
16:F:99:TYR:O	16:F:100:THR:C	2.52	0.46
16:F:40:GLN:NE2	16:F:184:TYR:HB3	2.30	0.46
11:A:660:G:H5'	16:F:99:TYR:CE2	2.49	0.46
11:A:2839:G:H2'	11:A:2840:C:H6	1.80	0.46
11:A:2850:A:OP2	11:A:2866:U:O4	2.34	0.46
25:R:100:LEU:HD22	25:R:112:ALA:HA	1.96	0.46
11:A:2839:G:C5'	25:R:46:GLY:HA2	2.46	0.46
26:S:12:PHE:C	26:S:12:PHE:CD2	2.86	0.46
26:S:27:SER:O	26:S:28:VAL:HG22	2.15	0.46
27:T:100:TYR:HD2	27:T:103:ARG:NH2	2.13	0.46
27:T:32:TYR:O	27:T:41:ARG:O	2.34	0.46
27:T:51:ARG:HG2	27:T:62:THR:HG23	1.98	0.46
33:Z:153:SER:HB2	33:Z:167:PRO:HB3	1.96	0.46
32:Y:96:ILE:CD1	32:Y:99:CYS:SG	3.04	0.46
17:G:125:PHE:CD1	17:G:125:PHE:N	2.83	0.46
11:A:729:G:O6	11:A:1774:C:N4	2.48	0.46
11:A:596:G:N1	11:A:597:U:C2	2.84	0.46
24:Q:21:THR:HG22	24:Q:23:GLY:O	2.15	0.46
18:H:152:ARG:O	18:H:162:ILE:HG22	2.15	0.46
11:A:2691:C:H2'	11:A:2692:C:C6	2.31	0.46
11:A:270:A:C2'	11:A:271:A:H5'	2.45	0.46
23:P:114:ILE:CG2	23:P:130:PHE:HA	2.46	0.46
11:A:1386:C:C6	11:A:1386:C:H3'	2.48	0.46
11:A:1387:C:H42	11:A:1400:G:H1	1.62	0.46
16:F:53:THR:HG22	16:F:56:GLU:CG	2.40	0.46
11:A:2298:A:H2'	11:A:2299:G:O4'	2.15	0.46
23:P:140:ALA:O	23:P:141:ALA:HB3	2.16	0.46
11:A:1921:G:O2'	11:A:1922:G:H5'	2.14	0.46
11:A:340:A:C2	11:A:341:G:H1'	2.50	0.46
22:O:99:PHE:N	22:O:99:PHE:CD1	2.82	0.46
2:1:15:ALA:CB	2:1:42:GLN:HG3	2.46	0.46
11:A:531:C:H5	11:A:2035:G:C4	2.33	0.46
11:A:28:A:H2'	11:A:28:A:N3	2.29	0.46
11:A:1802:A:C5	11:A:1817:G:N2	2.84	0.46
13:C:79:LYS:HB3	13:C:147:PHE:HE1	1.81	0.46
16:F:31:HIS:HE1	16:F:34:TRP:CZ3	2.34	0.46
3:2:38:GLN:O	3:2:43:GLN:O	2.33	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:94:C:H3'	11:A:94(A):G:H8	1.81	0.46
11:A:271(K):U:H2'	11:A:271(M):G:N2	2.30	0.46
11:A:1763:G:H2'	11:A:1764:G:H5'	1.97	0.46
33:Z:3:TYR:O	33:Z:57:ILE:HA	2.15	0.46
21:N:11:PRO:O	21:N:13:TRP:HD1	1.99	0.46
11:A:729:G:H5'	11:A:730:C:H5''	1.97	0.46
28:U:83:LEU:HD12	28:U:83:LEU:N	2.30	0.46
11:A:1337:G:H2'	11:A:1338:G:O4'	2.16	0.46
14:D:126:GLN:HG3	14:D:129:ASN:HD21	1.80	0.46
11:A:428:A:H5'	11:A:429:A:OP2	2.15	0.46
11:A:2115:G:N3	11:A:2117:A:N7	2.63	0.46
11:A:2140:C:O2'	11:A:2141:G:H5'	2.16	0.46
24:Q:67:ARG:O	24:Q:101:ARG:NH2	2.49	0.46
6:5:15:ARG:NH2	11:A:2022:U:OP2	2.49	0.46
14:D:186:HIS:CD2	14:D:188:GLU:HB2	2.48	0.46
20:K:73:UNK:C	20:K:75:UNK:N	2.77	0.46
11:A:1342:A:C2	11:A:1345:C:C4	3.04	0.46
11:A:775:G:C5	11:A:794:G:C8	3.03	0.46
30:W:70:TYR:O	30:W:108:GLY:N	2.48	0.46
14:D:214:TRP:O	14:D:215:LEU:C	2.54	0.46
11:A:2001:A:H4'	11:A:2689:U:C2'	2.43	0.46
30:W:65:LEU:HD23	30:W:68:ARG:CD	2.45	0.46
11:A:643:A:H2'	11:A:644:A:O4'	2.15	0.46
11:A:1932:A:C2'	11:A:1933:G:H5'	2.46	0.46
13:C:53:ARG:HB3	13:C:53:ARG:CZ	2.46	0.46
11:A:2333:A:C1'	11:A:2335:A:C5	2.99	0.46
23:P:47:ASP:HB3	23:P:48:PRO:CA	2.46	0.46
31:X:29:TRP:HZ3	31:X:78:LYS:HD2	1.80	0.46
14:D:270:ILE:C	14:D:271:ILE:HG13	2.32	0.46
16:F:39:TRP:CZ3	16:F:106:ARG:HD2	2.49	0.46
16:F:122:LYS:CG	16:F:191:ARG:HG3	2.45	0.46
16:F:174:VAL:HG21	16:F:189:THR:CG2	2.45	0.46
11:A:1613:G:C3'	11:A:1614:A:H5''	2.46	0.46
11:A:2056:G:C4	11:A:2577:A:C2	3.04	0.46
12:B:37:C:O2	26:S:95:HIS:CE1	2.69	0.46
7:6:27:LYS:O	7:6:28:ARG:C	2.54	0.46
9:8:18:ALA:C	9:8:20:GLY:H	2.19	0.46
33:Z:127:LYS:O	33:Z:127:LYS:HG3	2.16	0.46
11:A:1517:G:C5	11:A:1518:U:C4	3.02	0.46
11:A:1518:U:O5'	11:A:1518:U:H6	1.99	0.46
32:Y:81:LYS:HG3	32:Y:97:ARG:CG	2.45	0.46
17:G:125:PHE:O	17:G:127:GLY:N	2.48	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:51:LEU:O	30:W:54:ALA:HB3	2.15	0.46
11:A:1593:G:C2	11:A:1594:G:C8	3.04	0.46
11:A:593:G:C2'	11:A:594:U:H5'	2.46	0.46
23:P:16:ARG:CB	23:P:16:ARG:NH1	2.78	0.46
11:A:1825:A:H4'	14:D:233:HIS:HE1	1.81	0.46
14:D:239:ARG:O	14:D:240:ALA:HB2	2.16	0.46
11:A:1902:C:H5''	14:D:246:PRO:HD2	1.98	0.46
28:U:86:ALA:O	28:U:88:ILE:N	2.48	0.46
29:V:47:VAL:O	29:V:48:GLY:C	2.54	0.46
14:D:96:HIS:HE1	14:D:102:LYS:NZ	2.14	0.46
11:A:426:C:H2'	11:A:426:C:O2	2.15	0.46
11:A:2306:C:H41	11:A:2311:A:H8	1.64	0.46
17:G:47:LYS:HZ1	17:G:81:LYS:CB	2.24	0.46
17:G:47:LYS:HB3	17:G:48:GLU:H	1.41	0.46
11:A:1448:G:N2	11:A:1464:C:H1'	2.30	0.46
11:A:1538:G:H2'	11:A:1539:G:H8	1.81	0.46
11:A:2512:C:H2'	11:A:2513:G:O4'	2.15	0.46
11:A:2579:C:O2'	15:E:134:ILE:HD11	2.16	0.46
11:A:1141:U:H5''	11:A:1142(A):A:O4'	2.15	0.46
22:O:8:LEU:O	22:O:9:GLU:O	2.34	0.46
1:O:56:ASP:OD2	11:A:2364:C:H4'	2.15	0.46
11:A:2791:C:H4'	11:A:2792:G:O5'	2.15	0.46
20:K:95:UNK:C	20:K:97:UNK:N	2.79	0.46
11:A:275:G:C2	11:A:276:A:H2	2.32	0.46
20:K:125:UNK:O	20:K:129:UNK:CB	2.64	0.46
13:C:49:ILE:HD12	13:C:50:ASP:N	2.29	0.46
11:A:2596:U:H2'	11:A:2597:G:O4'	2.16	0.46
9:8:8:LYS:HA	9:8:11:LYS:CD	2.45	0.46
11:A:510:C:OP1	11:A:511:U:OP2	2.34	0.46
11:A:1817:G:OP1	14:D:88:ARG:NH2	2.48	0.46
14:D:70:TRP:HZ3	14:D:146:GLU:OE2	1.99	0.46
11:A:1203:G:C6	11:A:1204:A:N6	2.84	0.46
11:A:603:A:C2	11:A:655:A:N1	2.84	0.46
18:H:65:HIS:C	18:H:67:LEU:N	2.68	0.46
10:9:7:VAL:HG13	10:9:34:GLN:CB	2.45	0.46
16:F:132:VAL:HG13	16:F:133:ASN:H	1.80	0.46
16:F:198:ALA:HA	16:F:201:VAL:HG12	1.98	0.46
11:A:1290:C:H6	11:A:1290:C:O5'	1.98	0.46
11:A:1292:U:H2'	11:A:1293:C:C5	2.51	0.46
11:A:2049:G:O2'	11:A:2050:C:H5'	2.16	0.46
15:E:2:LYS:O	15:E:199:ARG:HA	2.16	0.46
25:R:17:ARG:O	25:R:20:LEU:HB3	2.16	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:4:8:LYS:HG2	5:4:9:LEU:O	2.16	0.46
17:G:139:LEU:HA	17:G:144:ILE:CG2	2.46	0.46
12:B:48:A:H4'	26:S:95:HIS:HD2	1.80	0.46
23:P:126:VAL:CA	23:P:145:PRO:HB2	2.39	0.46
23:P:95:VAL:HA	23:P:99:LEU:CD2	2.46	0.46
13:C:46:LYS:NZ	13:C:168:THR:O	2.48	0.46
33:Z:24:LEU:HB3	33:Z:39:VAL:O	2.16	0.46
33:Z:96:VAL:HG13	33:Z:97:GLU:N	2.30	0.46
11:A:1403:C:H2'	11:A:1404:C:O5'	2.15	0.46
17:G:96:ARG:HA	17:G:100:TRP:HD1	1.79	0.46
17:G:18:GLU:O	17:G:21:ARG:N	2.49	0.46
21:N:133:GLN:CG	21:N:135:PRO:HD3	2.29	0.46
30:W:6:ILE:HA	30:W:103:ILE:O	2.16	0.46
11:A:2100:G:C4	11:A:2190:G:C6	3.04	0.46
11:A:440:G:H8	11:A:440:G:O5'	1.99	0.46
11:A:449:A:H1'	28:U:3:ARG:HE	1.81	0.46
28:U:92:ARG:C	28:U:94:ASN:N	2.68	0.46
28:U:95:LEU:HD12	29:V:11:GLN:NE2	2.28	0.46
11:A:2307:G:H3'	11:A:2307:G:N3	2.31	0.46
18:H:144:VAL:HA	18:H:147:ASN:HB2	1.97	0.46
11:A:784:A:C5	14:D:229:VAL:HG11	2.50	0.46
11:A:610:G:H2'	11:A:611:C:C6	2.51	0.46
11:A:884:C:N3	11:A:893:C:N3	2.64	0.46
11:A:2205:C:C2	11:A:2220:G:N1	2.84	0.46
8:7:18:PHE:CG	11:A:126:A:C8	3.03	0.46
11:A:771:G:C5	11:A:772:C:C5	3.03	0.46
11:A:1345:C:H2'	11:A:1346:G:C5'	2.44	0.46
21:N:25:ARG:HH11	21:N:25:ARG:CG	2.28	0.46
21:N:62:VAL:HG21	21:N:66:LYS:HB2	1.98	0.46
11:A:1917:U:O2'	11:A:1918:A:H5'	2.16	0.46
11:A:896:A:C5'	33:Z:146:ILE:HD12	2.46	0.46
11:A:2422:A:HO2'	11:A:2423:U:C5'	2.28	0.46
11:A:2350:C:O2'	11:A:2351:G:H5'	2.16	0.46
11:A:1509(B):A:C2'	11:A:1510:G:H5'	2.45	0.46
21:N:38:HIS:O	28:U:67:ALA:O	2.32	0.46
17:G:74:LYS:O	17:G:75:LYS:C	2.53	0.46
6:5:19:ARG:O	6:5:21:SER:N	2.49	0.46
11:A:2061:G:H5''	11:A:2503:A:C6	2.51	0.46
11:A:666:G:H2'	11:A:667:U:C5	2.51	0.46
11:A:833:U:O2	23:P:55:ARG:NH1	2.46	0.46
11:A:942:G:H5''	23:P:36:LYS:HA	1.98	0.46
11:A:820:A:H1'	11:A:943:U:O2'	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:1:46:LEU:HA	2:1:46:LEU:HD13	1.78	0.46
11:A:398:G:H5''	11:A:2090:G:C4'	2.46	0.46
23:P:9:ASN:O	23:P:10:PRO:C	2.52	0.46
10:9:1:MET:CE	11:A:2477:C:H3'	2.45	0.46
11:A:2526:G:H8	11:A:2526:G:O5'	1.98	0.46
16:F:162:LEU:H	16:F:162:LEU:CD1	2.27	0.46
26:S:14:VAL:O	26:S:15:ARG:C	2.53	0.46
15:E:34:VAL:O	15:E:35:GLN:CB	2.53	0.46
11:A:1298:C:C1'	11:A:1302:A:C2	2.98	0.46
27:T:33:LYS:HG3	27:T:43:GLN:HB2	1.97	0.46
24:Q:141:GLN:HE22	33:Z:72:ARG:CA	2.28	0.46
33:Z:10:ARG:CG	33:Z:11:GLU:N	2.79	0.46
17:G:125:PHE:CZ	17:G:131:TYR:CD1	3.02	0.46
17:G:32:PRO:O	17:G:33:ARG:HG3	2.16	0.46
17:G:4:ASP:OD1	17:G:4:ASP:O	2.34	0.46
2:1:45:ASN:HA	11:A:2230:G:H1'	1.97	0.46
28:U:62:ILE:HG23	28:U:76:TYR:CZ	2.51	0.46
17:G:43:LEU:HD11	17:G:153:ARG:HB2	1.98	0.46
17:G:87:PRO:CG	17:G:88:ILE:H	2.24	0.46
11:A:1389:G:C5'	11:A:1526:G:OP1	2.64	0.46
15:E:154:LYS:O	15:E:155:LYS:C	2.54	0.46
11:A:2140:C:H2'	11:A:2141:G:C8	2.50	0.46
26:S:24:LEU:N	26:S:24:LEU:HD22	2.31	0.46
18:H:144:VAL:HG12	18:H:144:VAL:O	2.16	0.46
11:A:178:G:O2'	11:A:179:G:H5'	2.15	0.46
5:4:16:CYS:HA	5:4:33:VAL:HG12	1.97	0.46
11:A:2355:C:C5	11:A:2356:C:C4	3.04	0.46
27:T:6:LEU:HA	27:T:9:LEU:CD1	2.46	0.46
8:7:15:THR:O	8:7:15:THR:CG2	2.63	0.46
11:A:1022:G:H22	11:A:1142(A):A:H2	1.64	0.46
24:Q:77:LYS:HD3	24:Q:81:VAL:HG11	1.98	0.46
11:A:1672:C:C4	11:A:1673:U:C5	3.04	0.46
4:3:2:PRO:O	4:3:3:ARG:O	2.34	0.46
15:E:143:ASN:ND2	15:E:143:ASN:N	2.64	0.46
11:A:1510:G:H2'	11:A:1511:C:C6	2.50	0.46
14:D:213:ARG:HD2	14:D:213:ARG:HA	1.67	0.46
11:A:2371:G:C2	11:A:2372:G:C4	3.04	0.46
11:A:67:U:H2'	11:A:68:G:H8	1.81	0.46
11:A:225:A:C2	11:A:231:C:C2	3.03	0.46
19:J:79:UNK:O	19:J:80:UNK:CB	2.63	0.46
32:Y:33:LYS:C	32:Y:35:TYR:H	2.19	0.46
11:A:2661:G:H2'	11:A:2662:A:O4'	2.15	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:579:G:H4'	11:A:2017:U:H2'	1.98	0.46
11:A:2521:C:H5'	11:A:2522:U:OP2	2.15	0.46
11:A:247:G:H1'	11:A:251:A:N6	2.29	0.46
11:A:672:C:C2'	11:A:673:C:C5'	2.89	0.46
14:D:266:SER:C	14:D:267:SER:O	2.54	0.46
14:D:37:LEU:O	14:D:38:LYS:C	2.54	0.46
11:A:93:G:H2'	11:A:94:C:C6	2.51	0.46
16:F:168:ARG:CG	16:F:169:ASN:N	2.79	0.46
16:F:169:ASN:O	16:F:170:LEU:C	2.54	0.46
16:F:175:THR:C	16:F:176:LEU:HD12	2.37	0.46
11:A:1275:A:N3	11:A:1276:A:H1'	2.31	0.46
26:S:96:GLY:C	26:S:98:VAL:N	2.69	0.46
15:E:34:VAL:CG2	15:E:34:VAL:O	2.64	0.46
11:A:2675:A:N3	11:A:2675:A:H2'	2.29	0.46
1:0:51:VAL:HG22	1:0:81:VAL:HG23	1.98	0.46
12:B:81:G:N3	12:B:81:G:H5'	2.31	0.46
32:Y:73:ARG:HA	32:Y:73:ARG:NE	2.28	0.46
28:U:65:ILE:HD11	28:U:96:ALA:CB	2.45	0.46
14:D:131:LEU:HD13	14:D:136:ILE:CD1	2.43	0.46
11:A:1525:G:H2'	11:A:1526:G:C8	2.50	0.46
13:C:207:THR:HB	13:C:210:ARG:NH1	2.31	0.46
4:3:7:LYS:HG3	4:3:34:GLU:HB3	1.97	0.46
22:O:47:ILE:HG23	22:O:48:PRO:CD	2.35	0.46
11:A:909:A:O2'	11:A:910:A:C5'	2.64	0.46
14:D:173:VAL:HG12	14:D:185:VAL:O	2.16	0.46
11:A:609:A:H2'	11:A:610:G:O4'	2.16	0.46
11:A:850:C:C4	11:A:851:U:C5	3.03	0.46
26:S:84:GLN:N	26:S:105:ALA:HB3	2.31	0.46
11:A:381:G:O2'	11:A:382:G:H5'	2.16	0.46
12:B:98:G:C4	12:B:99:G:C8	3.04	0.46
11:A:876:C:H2'	11:A:877:U:O4'	2.16	0.46
13:C:43:VAL:CG2	13:C:175:VAL:HG21	2.44	0.46
7:6:32:ASN:ND2	7:6:33:LYS:H	2.13	0.46
11:A:2259:G:O2'	11:A:2260:C:H5'	2.16	0.46
11:A:2061:G:H5''	11:A:2503:A:C2	2.50	0.46
11:A:587:C:N4	23:P:33:ARG:HB2	2.30	0.46
31:X:20:GLY:C	31:X:22:ALA:H	2.19	0.46
11:A:89:G:O5'	11:A:89:G:H8	1.98	0.46
11:A:2819:G:C6	11:A:2821:A:N3	2.84	0.46
15:E:198:VAL:CG1	15:E:199:ARG:H	2.14	0.46
11:A:2635:C:C2'	11:A:2636:U:O5'	2.64	0.46
11:A:1301:A:HO2'	11:A:1302:A:P	2.37	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1670:C:C2'	11:A:1671:U:H5'	2.46	0.46
33:Z:11:GLU:HB2	33:Z:13:GLU:HG3	1.98	0.46
1:0:47:PRO:O	1:0:78:TYR:CD2	2.69	0.46
11:A:920:G:O2'	11:A:921:G:H5'	2.15	0.46
11:A:1518:U:C2	11:A:1519:G:H1'	2.51	0.46
17:G:120:LEU:HD22	17:G:133:LEU:HD22	1.98	0.46
17:G:162:THR:HG22	17:G:164:GLU:OE2	2.16	0.46
17:G:168:GLU:C	17:G:170:ARG:H	2.19	0.46
17:G:16:ARG:O	17:G:18:GLU:N	2.49	0.46
23:P:16:ARG:CA	23:P:16:ARG:HH11	2.29	0.46
11:A:1827:C:OP2	14:D:222:ARG:NH1	2.49	0.46
11:A:83:G:N2	11:A:102:G:C2'	2.79	0.46
21:N:18:ALA:O	21:N:20:GLY:N	2.49	0.46
11:A:47:C:C5	11:A:48:G:N7	2.84	0.46
15:E:87:GLU:O	15:E:87:GLU:HG3	2.15	0.46
15:E:131:ALA:HB3	15:E:134:ILE:HD11	1.96	0.46
14:D:106:ILE:HD11	14:D:196:VAL:HG22	1.97	0.46
12:B:33:G:H2'	12:B:34:U:O4'	2.16	0.46
13:C:68:LEU:HD11	13:C:161:ILE:HG22	1.97	0.46
1:0:25:ARG:HG3	1:0:31:VAL:HG11	1.98	0.46
11:A:2250:G:N7	24:Q:83:MET:HG3	2.30	0.46
11:A:2299:G:O2'	11:A:2300:G:H5'	2.16	0.46
11:A:2298:A:H62	11:A:2318:G:H8	1.60	0.46
11:A:1967:C:H2'	11:A:1968:G:O4'	2.15	0.46
11:A:1227:G:C2'	11:A:1228:G:H5'	2.46	0.46
11:A:2274:A:C5	11:A:2276:G:C8	3.04	0.46
28:U:78:THR:O	28:U:81:HIS:HB3	2.16	0.46
2:1:41:ARG:NH2	11:A:1365:A:OP1	2.49	0.45
11:A:563:G:C4	11:A:2018:G:C2	3.04	0.45
11:A:573:G:C5'	11:A:575:A:N7	2.79	0.45
32:Y:50:ARG:O	32:Y:53:PRO:HD3	2.15	0.45
11:A:1800:C:P	14:D:266:SER:HG	2.39	0.45
11:A:693:C:H2'	11:A:694:U:C6	2.51	0.45
14:D:147:LEU:HA	14:D:147:LEU:HD12	1.66	0.45
14:D:183:ARG:HG3	14:D:269:PHE:O	2.15	0.45
16:F:122:LYS:HB3	16:F:191:ARG:HG3	1.98	0.45
16:F:185:ASP:HA	16:F:188:ARG:CD	2.46	0.45
16:F:32:LEU:C	16:F:32:LEU:HD23	2.36	0.45
11:A:2758:A:C2	11:A:2759:G:N9	2.84	0.45
24:Q:55:VAL:HA	33:Z:178:GLU:OE2	2.16	0.45
11:A:1614:A:N6	30:W:92:ARG:O	2.49	0.45
11:A:2009:G:O2'	11:A:2010:G:H5'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2826:A:C2'	11:A:2827:C:H5'	2.46	0.45
15:E:197:ILE:CD1	15:E:199:ARG:HH22	2.29	0.45
26:S:14:VAL:C	26:S:15:ARG:HG3	2.35	0.45
26:S:17:ARG:HH21	26:S:90:GLY:H	1.63	0.45
23:P:101:VAL:HG22	23:P:102:ARG:N	2.31	0.45
12:B:105:A:H3'	12:B:106:G:C8	2.50	0.45
1:O:81:VAL:O	1:O:81:VAL:HG12	2.14	0.45
11:A:1555:G:C2	11:A:1556:C:C5	3.04	0.45
11:A:325:G:H2'	11:A:326:G:C8	2.50	0.45
11:A:336:C:H4'	32:Y:7:VAL:HG21	1.97	0.45
11:A:1787:A:H2'	11:A:1788:C:C6	2.50	0.45
11:A:1788:C:H2'	11:A:1789:A:O4'	2.16	0.45
11:A:1007:C:O2'	21:N:108:PRO:HA	2.16	0.45
28:U:70:ARG:C	28:U:72:HIS:H	2.18	0.45
11:A:268:C:N4	11:A:425:G:C6	2.84	0.45
17:G:46:ALA:HB3	17:G:88:ILE:CG1	2.46	0.45
11:A:1657:C:H2'	11:A:1658:C:O4'	2.16	0.45
11:A:1658:C:OP1	15:E:132:HIS:CE1	2.69	0.45
24:Q:34:LEU:HD12	24:Q:130:LYS:C	2.37	0.45
14:D:223:GLY:HA3	14:D:231:HIS:CD2	2.51	0.45
11:A:2133:G:N1	11:A:2157:G:O6	2.49	0.45
11:A:2373:G:O2'	11:A:2374:C:H5'	2.16	0.45
11:A:848:G:H2'	11:A:849:A:C8	2.51	0.45
32:Y:2:ARG:CD	32:Y:3:VAL:HG23	2.45	0.45
11:A:2720:U:H3'	11:A:2721:A:H8	1.80	0.45
33:Z:14:LYS:HB2	33:Z:17:ALA:CB	2.47	0.45
33:Z:17:ALA:CA	33:Z:20:ARG:HG2	2.45	0.45
11:A:332:A:O2'	11:A:333:G:O5'	2.34	0.45
11:A:1196:C:O4'	11:A:1226:A:C2	2.68	0.45
24:Q:76:LYS:HB2	24:Q:91:GLU:HG3	1.98	0.45
11:A:2439:A:C8	11:A:2586:C:H4'	2.50	0.45
1:O:43:THR:HG21	11:A:2332:U:H5'	1.99	0.45
7:6:10:LEU:H	7:6:10:LEU:CD2	2.27	0.45
9:8:43:GLN:C	9:8:44:LYS:HD2	2.36	0.45
11:A:497:A:C6	11:A:498:G:C6	3.05	0.45
16:F:182:ASN:ND2	16:F:185:ASP:OD2	2.49	0.45
16:F:31:HIS:O	16:F:34:TRP:N	2.49	0.45
3:2:32:LEU:HA	3:2:53:LEU:CD1	2.42	0.45
11:A:319:C:H2'	11:A:320:A:O4'	2.16	0.45
6:5:4:HIS:O	11:A:2056:G:N1	2.48	0.45
11:A:1652:A:O2'	11:A:1653:G:H5'	2.16	0.45
15:E:198:VAL:O	15:E:199:ARG:HB2	2.15	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:R:2:ARG:NH1	25:R:2:ARG:HG3	2.30	0.45
25:R:6:SER:OG	25:R:8:ARG:NH2	2.50	0.45
12:B:44:G:H1'	12:B:47:C:N4	2.31	0.45
23:P:107:LYS:C	23:P:109:GLY:N	2.68	0.45
11:A:1344:G:N2	11:A:1404:C:H1'	2.30	0.45
10:9:26:ILE:CG2	10:9:27:CYS:N	2.80	0.45
21:N:134:ARG:HH21	21:N:136:GLU:HB2	1.80	0.45
21:N:134:ARG:O	21:N:136:GLU:N	2.48	0.45
11:A:1591:G:H2'	11:A:1592:C:H5'	1.98	0.45
16:F:9:ILE:HA	16:F:13:SER:O	2.16	0.45
6:5:16:ARG:NH1	6:5:16:ARG:HG2	2.31	0.45
11:A:539:G:H2'	11:A:540:C:H6	1.81	0.45
11:A:1572:A:O2'	11:A:1573:G:H5'	2.16	0.45
11:A:2307:G:H21	11:A:2308:G:C5'	2.28	0.45
17:G:41:GLN:HB3	17:G:43:LEU:CD2	2.46	0.45
24:Q:27:VAL:N	24:Q:137:TYR:HD1	2.14	0.45
11:A:1222:C:OP2	29:V:88:ARG:NH2	2.50	0.45
11:A:372:G:H1'	11:A:373:U:H5	1.81	0.45
14:D:249:PRO:CD	14:D:250:TRP:H	2.29	0.45
14:D:232:PRO:CD	14:D:249:PRO:HA	2.35	0.45
11:A:1600:C:OP1	31:X:58:HIS:NE2	2.49	0.45
11:A:1491:G:O2'	11:A:1492:G:H5'	2.15	0.45
11:A:2450:A:C2	11:A:2451:A:C4	3.03	0.45
11:A:761:A:P	11:A:761:A:H8	2.38	0.45
14:D:214:TRP:C	14:D:216:GLY:N	2.64	0.45
11:A:940:G:H3'	11:A:941:A:H5''	1.99	0.45
11:A:384:U:H2'	11:A:385:C:C6	2.49	0.45
11:A:2688:U:O2	11:A:2719:G:C2	2.69	0.45
11:A:1713:U:O2'	11:A:1714:G:H5'	2.16	0.45
11:A:1186:G:O2'	11:A:1187:G:H5'	2.17	0.45
11:A:1705:G:C2'	11:A:1706:U:H5'	2.46	0.45
11:A:2601:C:H2'	11:A:2603:G:C8	2.50	0.45
11:A:1961:C:H2'	11:A:1962:C:O4'	2.16	0.45
1:0:41:ARG:HD2	1:0:41:ARG:HA	1.77	0.45
9:8:8:LYS:HA	9:8:11:LYS:CB	2.45	0.45
11:A:673:C:HO2'	11:A:674:G:H5'	1.80	0.45
28:U:12:ARG:O	28:U:16:LYS:HD2	2.16	0.45
11:A:377:C:O2	11:A:398:G:C2	2.69	0.45
11:A:1567:A:H2'	14:D:84:TYR:HE2	1.82	0.45
11:A:1798:U:C5'	14:D:259:THR:HB	2.46	0.45
14:D:266:SER:O	14:D:267:SER:O	2.34	0.45
11:A:1569:A:H4'	14:D:61:LEU:HD21	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:33:MET:HG3	3:2:37:PHE:CE1	2.51	0.45
3:2:38:GLN:OE1	3:2:44:LEU:HD21	2.17	0.45
11:A:2761:G:C3'	11:A:2762:G:H5''	2.44	0.45
24:Q:51:ARG:HH11	24:Q:51:ARG:HG3	1.82	0.45
11:A:297:C:H2'	11:A:298:G:O4'	2.15	0.45
16:F:155:LEU:O	16:F:155:LEU:HG	2.16	0.45
23:P:105:LEU:H	23:P:105:LEU:CD1	2.27	0.45
27:T:28:VAL:HG13	27:T:45:PHE:C	2.36	0.45
33:Z:10:ARG:CG	33:Z:12:GLY:H	2.29	0.45
33:Z:39:VAL:O	33:Z:39:VAL:HG23	2.16	0.45
11:A:2672:G:C3'	11:A:2673:G:H5''	2.47	0.45
30:W:6:ILE:CG2	30:W:7:ALA:N	2.79	0.45
11:A:1591:G:C2'	11:A:1592:C:H5'	2.46	0.45
11:A:1264:G:O3'	11:A:2615:U:H5'	2.16	0.45
21:N:111:PRO:HA	21:N:114:ARG:CZ	2.46	0.45
11:A:1154:G:H5''	28:U:59:ARG:HH22	1.81	0.45
11:A:1392:A:N7	11:A:1393:A:C5	2.84	0.45
14:D:131:LEU:CB	14:D:132:PRO:CD	2.94	0.45
11:A:1579:A:H2'	11:A:1580:A:C8	2.51	0.45
17:G:54:GLU:O	17:G:57:ALA:N	2.48	0.45
11:A:722:A:N3	11:A:722:A:H2'	2.32	0.45
18:H:117:PRO:HB3	18:H:123:PHE:CE1	2.51	0.45
28:U:68:ALA:HB1	28:U:106:PHE:HE2	1.80	0.45
16:F:150:GLY:HA2	16:F:172:TRP:CE2	2.51	0.45
11:A:2275:C:H2'	11:A:2275:C:OP1	2.15	0.45
29:V:91:TYR:CD1	29:V:92:THR:N	2.84	0.45
29:V:91:TYR:HD1	29:V:92:THR:N	2.14	0.45
11:A:978:G:N2	11:A:979:G:H1'	2.30	0.45
11:A:732:C:H2'	11:A:733:G:C8	2.52	0.45
11:A:2851:A:H2'	11:A:2852:G:H5'	1.99	0.45
11:A:1450(A):C:O2	11:A:1450(A):C:H2'	2.17	0.45
11:A:70:G:H2'	11:A:113:G:O2'	2.16	0.45
11:A:1216:G:N2	11:A:1217:C:H1'	2.32	0.45
11:A:2414:G:H21	23:P:67:MET:HE1	1.82	0.45
14:D:261:LYS:NZ	14:D:263:ARG:NH1	2.65	0.45
11:A:1380:G:C4	11:A:1381:G:N7	2.84	0.45
16:F:115:ALA:O	16:F:118:ALA:N	2.48	0.45
11:A:2756:U:C1'	11:A:2757:A:H5''	2.44	0.45
18:H:46:GLU:HB3	18:H:50:VAL:CG1	2.47	0.45
18:H:65:HIS:O	18:H:67:LEU:N	2.49	0.45
18:H:68:THR:C	18:H:70:THR:N	2.69	0.45
3:2:38:GLN:HB3	3:2:44:LEU:CG	2.45	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:35:LEU:HD21	3:2:50:ILE:CD1	2.46	0.45
3:2:59:ARG:CB	11:A:76:C:O2'	2.65	0.45
11:A:71:A:C5	11:A:73:A:N1	2.85	0.45
12:B:42:C:N4	17:G:91:ARG:NH2	2.65	0.45
11:A:2786:U:C4	11:A:2787:C:C5	3.04	0.45
15:E:62:PRO:C	15:E:64:LYS:N	2.68	0.45
31:X:49:VAL:CB	31:X:87:GLN:NE2	2.79	0.45
27:T:92:GLY:HA3	27:T:120:ARG:NH2	2.31	0.45
33:Z:127:LYS:HD2	33:Z:162:GLU:OE2	2.16	0.45
32:Y:27:VAL:HG12	32:Y:28:LYS:N	2.32	0.45
32:Y:77:PRO:HB2	32:Y:99:CYS:HG	1.75	0.45
17:G:121:ASN:OD1	17:G:123:ASN:N	2.50	0.45
21:N:14:VAL:HG12	21:N:15:LEU:N	2.32	0.45
11:A:445:C:H5''	28:U:3:ARG:HB2	1.98	0.45
11:A:727:A:H2'	11:A:728:G:C8	2.51	0.45
11:A:729:G:C8	14:D:208:LYS:HD2	2.52	0.45
21:N:114:ARG:O	21:N:117:PHE:HB3	2.16	0.45
11:A:1334:G:H2'	11:A:1335:U:H6	1.82	0.45
17:G:44:GLY:C	17:G:46:ALA:N	2.70	0.45
11:A:1541:G:C1'	11:A:1542:A:C4	2.94	0.45
11:A:1548:C:H2'	11:A:1549:C:C6	2.51	0.45
18:H:92:ILE:C	18:H:94:TYR:N	2.59	0.45
11:A:882:G:N2	11:A:895:U:C2	2.84	0.45
15:E:107:THR:C	15:E:190:GLY:HA2	2.35	0.45
11:A:2133:G:H8	11:A:2133:G:H3'	1.81	0.45
23:P:83:VAL:HG12	23:P:113:LYS:O	2.17	0.45
29:V:75:PHE:HB2	29:V:82:ARG:HG3	1.98	0.45
25:R:85:PRO:O	25:R:87:TYR:N	2.50	0.45
15:E:98:PRO:HG3	15:E:175:VAL:HG12	1.97	0.45
11:A:968:G:C6	11:A:969:U:C4	3.04	0.45
30:W:62:HIS:O	30:W:63:ASP:C	2.54	0.45
30:W:2:GLU:N	30:W:64:MET:HE3	2.31	0.45
13:C:103:ILE:HG23	13:C:107:TRP:CG	2.52	0.45
21:N:7:LYS:O	21:N:9:VAL:N	2.50	0.45
21:N:96:GLU:HG2	21:N:100:GLU:OE2	2.16	0.45
11:A:123:G:C6	11:A:124:G:C5	3.04	0.45
11:A:1362:C:H2'	11:A:1363:C:H5'	1.97	0.45
11:A:363:G:C2	11:A:363(A):A:C8	3.04	0.45
25:R:75:LEU:HA	25:R:75:LEU:HD22	1.79	0.45
24:Q:90:VAL:HG12	24:Q:91:GLU:N	2.32	0.45
11:A:2661:G:O2'	11:A:2662:A:H5'	2.17	0.45
9:8:54:GLU:O	9:8:58:ILE:HG12	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:N:12:ARG:HG2	21:N:50:ASP:OD2	2.16	0.45
7:6:19:ARG:CZ	11:A:2400:G:O3'	2.64	0.45
11:A:671:C:H2'	11:A:672:C:C6	2.52	0.45
11:A:811:U:C6	23:P:24:GLY:HA3	2.51	0.45
11:A:1856:G:H2'	11:A:1857:G:C5'	2.46	0.45
31:X:23:GLU:CD	31:X:23:GLU:N	2.70	0.45
11:A:1351:C:N3	11:A:1381:G:C2	2.84	0.45
14:D:267:SER:C	14:D:269:PHE:H	2.18	0.45
26:S:98:VAL:HG12	26:S:100:ALA:HB2	1.98	0.45
11:A:2808:U:O4	11:A:2892:A:C8	2.69	0.45
11:A:1666:G:H5'	11:A:1666:G:H8	1.81	0.45
11:A:2710:C:HO2'	11:A:2711:A:H5'	1.80	0.45
27:T:27:THR:HG23	27:T:28:VAL:N	2.31	0.45
27:T:61:PHE:N	27:T:61:PHE:CD2	2.84	0.45
33:Z:40:ASP:HB3	33:Z:43:GLU:HB3	1.97	0.45
11:A:1471:A:OP2	11:A:1519:G:N1	2.50	0.45
16:F:65:TRP:HB3	16:F:66:PRO:CD	2.46	0.45
11:A:17:G:H21	11:A:555:U:H5''	1.81	0.45
21:N:120:LEU:CD1	21:N:122:VAL:HG23	2.45	0.45
21:N:44:PRO:HG3	28:U:60:LEU:HD21	1.98	0.45
21:N:48:MET:SD	21:N:49:GLY:N	2.89	0.45
29:V:35:LEU:O	29:V:37:VAL:N	2.50	0.45
11:A:597:U:C5'	23:P:15:ARG:NH2	2.79	0.45
17:G:47:LYS:HG3	17:G:81:LYS:HE2	1.98	0.45
18:H:23:ARG:O	18:H:24:VAL:CG2	2.58	0.45
11:A:883:G:N2	11:A:893:C:C2	2.84	0.45
11:A:1376:C:H2'	11:A:1377:G:C5'	2.46	0.45
11:A:1141:U:H5	21:N:64:GLY:HA3	1.79	0.45
11:A:978:G:C2	11:A:979:G:H1'	2.51	0.45
11:A:218:A:C2'	11:A:219:G:H5'	2.46	0.45
11:A:431:U:O5'	11:A:431:U:H6	2.00	0.45
15:E:93:VAL:HG23	15:E:180:ASN:OD1	2.17	0.45
11:A:1051:G:H2'	11:A:1052:C:C2	2.51	0.45
11:A:806:C:H2'	11:A:807:U:C6	2.52	0.45
22:O:23:ARG:HG3	22:O:24:VAL:H	1.79	0.45
15:E:108:SER:O	15:E:162:ALA:CA	2.63	0.45
28:U:101:ARG:O	28:U:102:GLU:C	2.55	0.45
11:A:1706:U:O2	11:A:1757:U:H5'	2.17	0.45
11:A:363:G:C6	11:A:363(A):A:N7	2.84	0.45
11:A:1558:A:C5	11:A:1560:G:C8	3.05	0.45
8:7:29:LYS:HE3	11:A:210:C:OP2	2.15	0.45
24:Q:89:ASN:N	24:Q:89:ASN:OD1	2.49	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:6:20:ASN:C	7:6:21:TYR:CG	2.89	0.45
7:6:35:GLU:HB3	7:6:51:GLU:CG	2.46	0.45
11:A:1216:G:C2'	11:A:1217:C:H5'	2.46	0.45
11:A:2282:G:H5''	11:A:2283:C:O5'	2.17	0.45
11:A:28:A:C2	28:U:11:ARG:NH2	2.84	0.45
11:A:1567:A:C5'	14:D:58:HIS:HD2	2.29	0.45
3:2:48:HIS:O	3:2:50:ILE:N	2.50	0.45
11:A:1268:A:C8	11:A:1269:A:C8	3.05	0.45
25:R:100:LEU:CD2	25:R:112:ALA:HA	2.47	0.45
11:A:1654:A:OP1	25:R:3:HIS:N	2.50	0.45
11:A:2808:U:H5'	11:A:2891:G:O6	2.16	0.45
11:A:2710:C:C2'	11:A:2711:A:H5'	2.47	0.45
22:O:104:ARG:HH22	22:O:107:ARG:NH2	2.15	0.45
22:O:2:ILE:CG2	22:O:3:GLN:N	2.79	0.45
27:T:31:SER:O	27:T:32:TYR:O	2.35	0.45
12:B:104:U:H2'	12:B:105:A:H8	1.82	0.45
12:B:105:A:C2	12:B:106:G:H1'	2.52	0.45
33:Z:6:LYS:O	33:Z:7:ALA:O	2.34	0.45
11:A:2187:G:N7	11:A:2188:C:C5	2.85	0.45
3:2:5:GLU:O	3:2:9:GLN:CD	2.55	0.45
28:U:90:VAL:O	28:U:91:ASP:C	2.55	0.45
11:A:1334:G:O2'	11:A:1335:U:H5'	2.17	0.45
11:A:597:U:H5''	23:P:15:ARG:NH2	2.31	0.45
17:G:54:GLU:OE1	17:G:54:GLU:N	2.50	0.45
11:A:2138:C:H2'	11:A:2139:C:H6	1.82	0.45
28:U:28:ARG:HH11	28:U:38:THR:HG23	1.80	0.45
12:B:35:U:H2'	12:B:36:C:C6	2.52	0.45
11:A:2720:U:C2	11:A:2721:A:C8	3.05	0.45
4:3:12:PRO:HG2	4:3:13:ILE:N	2.28	0.45
13:C:161:ILE:CD1	13:C:161:ILE:C	2.82	0.45
11:A:591:C:H2'	11:A:592:G:C8	2.50	0.45
11:A:1477:A:H5'	11:A:1478:G:OP2	2.17	0.45
11:A:1932:A:H2'	11:A:1933:G:O4'	2.16	0.45
9:8:58:ILE:HG22	9:8:58:ILE:O	2.17	0.45
11:A:970:C:H2'	11:A:971:C:H6	1.81	0.45
33:Z:8:TYR:HB3	33:Z:38:TYR:CZ	2.52	0.45
7:6:12:GLU:HG3	7:6:23:THR:HG22	1.98	0.45
7:6:17:LYS:HA	7:6:17:LYS:HD3	1.43	0.45
7:6:42:TRP:HE3	7:6:42:TRP:HA	1.82	0.45
11:A:251:A:C2'	11:A:252:G:H5'	2.47	0.45
11:A:1853:A:N6	11:A:1888:G:H2'	2.32	0.45
11:A:2090:G:H2'	11:A:2091:U:O4'	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1244:G:H5'	11:A:1244:G:H8	1.81	0.45
11:A:1245:G:C5'	16:F:34:TRP:HZ2	2.28	0.45
18:H:37:VAL:CG2	18:H:72:ILE:HD11	2.47	0.45
3:2:68:ARG:NH2	3:2:72:ALA:CB	2.79	0.45
10:9:31:LYS:C	10:9:32:HIS:HD2	2.20	0.45
11:A:2465:C:O2'	11:A:2466:C:H5'	2.16	0.45
11:A:2838:G:H2'	11:A:2839:G:H8	1.82	0.45
11:A:2839:G:O2'	25:R:92:GLY:HA2	2.17	0.45
25:R:42:LYS:O	25:R:44:LEU:N	2.50	0.45
17:G:60:LEU:CD1	17:G:60:LEU:O	2.64	0.45
26:S:101:LEU:C	26:S:101:LEU:HD12	2.37	0.45
15:E:103:ASP:OD2	15:E:202:LYS:HE3	2.16	0.45
27:T:89:VAL:O	27:T:91:ARG:HG3	2.17	0.45
11:A:675:A:O2'	11:A:676:A:H5'	2.17	0.45
16:F:7:TYR:HD2	16:F:16:GLY:CA	2.30	0.45
11:A:1423:G:H1	11:A:1575:C:H42	1.63	0.45
17:G:44:GLY:HA2	17:G:88:ILE:HB	1.98	0.45
11:A:2115:G:C2	11:A:2117:A:C8	3.04	0.45
11:A:1028:A:O5'	11:A:1028:A:H8	1.99	0.45
30:W:17:VAL:C	30:W:19:LEU:H	2.19	0.45
22:O:11:ALA:O	22:O:98:VAL:HA	2.17	0.45
27:T:6:LEU:HD23	27:T:9:LEU:HD12	1.99	0.45
11:A:2197:U:O4	11:A:2224:G:H2'	2.17	0.45
21:N:67:LEU:O	21:N:68:GLU:HB2	2.16	0.45
11:A:401:A:H2'	11:A:402:A:H8	1.81	0.45
11:A:2562:U:H2'	11:A:2563:U:C5'	2.45	0.45
11:A:1332:G:H5'	11:A:1333:C:H5	1.81	0.45
14:D:3:VAL:CG1	14:D:17:THR:HB	2.47	0.45
2:1:37:ILE:H	2:1:37:ILE:CD1	2.29	0.45
29:V:2:PHE:HB3	29:V:41:GLY:O	2.17	0.45
24:Q:30:GLY:HA2	24:Q:107:ALA:HB2	1.97	0.45
11:A:1897:G:H8	11:A:1897:G:O5'	2.00	0.45
9:8:10:ALA:O	9:8:13:ARG:N	2.50	0.45
11:A:568:U:O2'	11:A:569:U:C5	2.68	0.45
23:P:23:PRO:HD2	23:P:33:ARG:CZ	2.46	0.45
14:D:57:GLY:O	14:D:58:HIS:C	2.52	0.45
3:2:14:ARG:O	3:2:67:LYS:CE	2.64	0.45
11:A:2464:C:O2'	11:A:2465:C:O5'	2.35	0.45
25:R:13:HIS:CE1	25:R:16:HIS:HB3	2.52	0.45
25:R:63:ARG:HG3	25:R:63:ARG:HH11	1.81	0.45
17:G:63:ILE:C	17:G:65:GLY:N	2.70	0.45
11:A:1504:C:O2'	11:A:1505:C:H5'	2.17	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:78:PRO:HB3	23:P:111:ARG:NH2	2.31	0.45
11:A:141:A:N6	11:A:142:A:N6	2.65	0.45
11:A:1301:A:HO2'	11:A:1302:A:H2'	1.80	0.45
27:T:92:GLY:HA3	27:T:120:ARG:HH21	1.82	0.45
22:O:78:ARG:HH21	27:T:73:GLU:CD	2.20	0.45
33:Z:58:VAL:C	33:Z:59:LEU:HD23	2.37	0.45
11:A:1519:G:H5'	11:A:1520:G:P	2.57	0.45
30:W:50:VAL:O	30:W:50:VAL:HG22	2.16	0.45
2:1:4:VAL:HG23	2:1:11:ARG:CG	2.32	0.45
18:H:136:ILE:H	18:H:136:ILE:CD1	2.30	0.45
29:V:38:LEU:HD11	29:V:57:VAL:HB	1.98	0.45
11:A:2306:C:H5''	11:A:2307:G:O4'	2.17	0.45
11:A:1528:A:O2'	11:A:1528(A):A:P	2.75	0.45
11:A:2123:G:H1'	13:C:172:HIS:CB	2.47	0.45
11:A:271(Q):G:H1'	11:A:271(R):G:C8	2.52	0.45
14:D:231:HIS:CD2	14:D:249:PRO:HB3	2.52	0.45
11:A:533:G:H5'	28:U:24:TYR:CE2	2.52	0.45
11:A:853:G:H2'	11:A:854:G:O4'	2.16	0.45
11:A:211:A:H2'	11:A:212:G:C8	2.51	0.45
33:Z:145:GLU:HA	33:Z:145:GLU:OE1	2.17	0.45
11:A:680:G:H2'	11:A:681:G:H8	1.80	0.45
15:E:93:VAL:HG12	15:E:175:VAL:HG21	1.99	0.45
8:7:20:ALA:C	8:7:22:MET:N	2.70	0.45
11:A:2460:U:H2'	11:A:2461:C:H6	1.82	0.45
11:A:158:U:H2'	11:A:171:G:O4'	2.16	0.45
11:A:2203:U:H2'	11:A:2203:U:O2	2.17	0.45
7:6:12:GLU:HA	7:6:23:THR:HA	1.99	0.45
11:A:1884:A:H3'	11:A:1885:A:H5''	1.99	0.45
11:A:1822:G:C4	11:A:1823:G:N7	2.85	0.45
11:A:926:A:H8	11:A:926:A:C5'	2.22	0.45
11:A:2466:C:C2'	11:A:2467:C:H5'	2.46	0.45
11:A:2826:A:H2'	11:A:2827:C:H5'	1.98	0.45
11:A:2787:C:O2	11:A:2787:C:C2'	2.64	0.45
11:A:2810:A:O2'	15:E:61:ARG:NE	2.50	0.45
15:E:188:VAL:O	15:E:189:PRO:O	2.35	0.45
27:T:100:TYR:CD2	27:T:103:ARG:NH2	2.85	0.45
2:1:45:ASN:ND2	2:1:45:ASN:C	2.69	0.45
32:Y:9:LYS:HG2	32:Y:11:ASP:OD2	2.15	0.45
11:A:1005:C:O5'	11:A:1005:C:H6	1.99	0.45
21:N:108:PRO:C	21:N:109:LYS:HG3	2.37	0.45
28:U:83:LEU:HD12	28:U:83:LEU:H	1.82	0.45
11:A:723:G:H2'	11:A:724:U:H6	1.75	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:135:GLY:HA3	18:H:141:VAL:HG22	1.99	0.45
11:A:2026:C:O2	11:A:2026:C:H2'	2.16	0.45
11:A:150:C:H6	11:A:150:C:O5'	2.00	0.45
11:A:2071:A:C2	11:A:2441:C:N3	2.85	0.45
29:V:15:GLU:O	29:V:16:PRO:O	2.35	0.45
25:R:85:PRO:O	25:R:86:ARG:C	2.56	0.45
11:A:886:C:HO2'	11:A:887:A:H4'	1.78	0.45
30:W:1:MET:HG3	30:W:64:MET:HE3	1.98	0.45
11:A:272(E):G:H22	11:A:364:C:H1'	1.81	0.45
12:B:52:A:O2'	12:B:53:A:C8	2.64	0.45
11:A:58:G:H2'	11:A:59:U:H6	1.81	0.45
11:A:1747(A):G:H2'	11:A:1748:G:C4'	2.46	0.45
30:W:82:LEU:HD12	30:W:82:LEU:N	2.31	0.45
11:A:654(L):G:H2'	11:A:654(M):C:C4'	2.46	0.45
11:A:880:G:H2'	11:A:881:G:C8	2.52	0.45
32:Y:16:ALA:O	32:Y:21:LYS:HG3	2.17	0.45
29:V:7:THR:HG23	29:V:7:THR:O	2.17	0.45
1:O:84:LEU:HD12	1:O:84:LEU:H	1.81	0.45
11:A:173:G:N3	11:A:173:G:H2'	2.32	0.45
11:A:2413:G:C4	11:A:2414:G:C8	3.05	0.45
11:A:832:G:P	23:P:40:SER:HB2	2.56	0.45
28:U:14:HIS:C	28:U:16:LYS:H	2.19	0.45
32:Y:49:VAL:O	32:Y:50:ARG:HB2	2.16	0.45
11:A:606:U:H2'	11:A:607:U:H4'	1.98	0.45
24:Q:51:ARG:NH1	24:Q:51:ARG:HG3	2.31	0.45
11:A:296:C:C2'	11:A:297:C:H5'	2.47	0.45
11:A:1654:A:OP2	25:R:3:HIS:CD2	2.69	0.45
11:A:2455:G:N1	11:A:2498:C:N4	2.66	0.45
11:A:2638:G:OP1	15:E:82:ARG:NH2	2.50	0.45
25:R:24:GLN:O	25:R:25:ALA:C	2.56	0.45
25:R:97:VAL:O	25:R:98:LEU:HD23	2.17	0.45
30:W:87:PRO:O	30:W:88:ARG:HD2	2.17	0.45
12:B:43:C:H2'	12:B:44:G:H5''	1.99	0.45
11:A:2334:G:H21	26:S:18:ILE:HG21	1.81	0.45
11:A:139(A):G:H3'	11:A:140:G:H8	1.82	0.45
11:A:1761:C:C2'	11:A:1762:A:H8	2.29	0.45
15:E:165:VAL:CG1	15:E:166:THR:N	2.80	0.45
33:Z:151:HIS:O	33:Z:152:ALA:O	2.34	0.45
11:A:919:G:H22	11:A:2268:A:H3'	1.82	0.45
11:A:309:G:O3'	32:Y:18:GLY:HA3	2.17	0.45
17:G:18:GLU:O	17:G:19:LEU:C	2.55	0.45
11:A:2814:C:C6	11:A:2815:C:H5	2.35	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1777:U:N3	11:A:1778:U:C5	2.85	0.45
11:A:1336:A:O2'	11:A:1337:G:H5'	2.17	0.45
11:A:1060:U:H6	11:A:1060:U:OP1	2.00	0.45
17:G:88:ILE:CG2	17:G:89:GLY:N	2.80	0.45
11:A:1466:G:C3'	11:A:1547:C:H41	2.29	0.45
18:H:83:TYR:CB	18:H:135:GLY:H	2.15	0.45
24:Q:125:LEU:HB3	24:Q:126:PRO:HD2	1.97	0.45
11:A:373:U:H2'	11:A:374:A:H8	1.81	0.45
13:C:148:ASN:O	13:C:151:GLU:N	2.50	0.45
13:C:10:LEU:HD12	13:C:32:LEU:CD2	2.39	0.45
11:A:526:A:N6	11:A:2626:C:H4'	2.32	0.45
28:U:18:LEU:HD11	28:U:30:LYS:O	2.17	0.45
11:A:2199:A:H5'	11:A:2200:C:OP2	2.17	0.45
14:D:43:ARG:NH1	14:D:49:ILE:CG2	2.80	0.45
33:Z:107:THR:HG22	33:Z:111:VAL:HG21	1.99	0.45
11:A:363(A):A:H2'	11:A:363(A):A:N3	2.30	0.45
11:A:1720:U:H3'	11:A:1721:G:H5''	1.98	0.45
11:A:830:G:H1'	11:A:2448:A:N1	2.31	0.45
11:A:1830:C:O5'	11:A:1830:C:H6	2.00	0.45
11:A:2400:G:H2'	11:A:2401:U:H5'	1.98	0.44
11:A:244:A:H3'	11:A:245:G:H5''	1.99	0.44
14:D:30:GLU:HB2	14:D:35:LYS:CE	2.43	0.44
14:D:52:ARG:H	14:D:52:ARG:HG3	1.36	0.44
25:R:52:ILE:O	25:R:55:ALA:N	2.49	0.44
26:S:66:ALA:CB	26:S:99:LYS:HD3	2.47	0.44
11:A:1668:A:C5	11:A:1674:G:C5	3.05	0.44
32:Y:8:LYS:HB2	32:Y:28:LYS:CE	2.47	0.44
30:W:5:ALA:CB	30:W:105:VAL:HB	2.46	0.44
11:A:441:U:O2'	11:A:442:G:H5'	2.16	0.44
21:N:118:LYS:C	21:N:120:LEU:H	2.20	0.44
11:A:1494:A:O2'	11:A:1495:A:H5''	2.13	0.44
17:G:69:ALA:O	17:G:90:LEU:CD1	2.65	0.44
15:E:132:HIS:CD2	15:E:135:HIS:CE1	3.05	0.44
11:A:2041:U:H2'	11:A:2042:A:H8	1.80	0.44
11:A:532:A:C5'	28:U:28:ARG:HH12	2.30	0.44
11:A:532:A:H5''	28:U:28:ARG:NH1	2.30	0.44
4:3:8:LEU:HA	4:3:54:VAL:HG22	2.00	0.44
11:A:120:U:H1'	11:A:149:A:C8	2.52	0.44
11:A:685:A:O2'	11:A:773:U:O4	2.26	0.44
21:N:89:LYS:C	21:N:93:THR:HG22	2.37	0.44
30:W:68:ARG:O	30:W:110:LYS:N	2.50	0.44
23:P:122:PRO:HB3	23:P:141:ALA:CB	2.45	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2460:U:O2'	11:A:2461:C:H5'	2.17	0.44
11:A:1720:U:C3'	11:A:1721:G:H5''	2.47	0.44
20:K:18:UNK:O	20:K:19:UNK:C	2.65	0.44
11:A:699:A:H2'	11:A:700:G:O4'	2.17	0.44
11:A:2633:G:H5'	11:A:2812:G:H5'	1.99	0.44
31:X:41:ASN:O	31:X:45:THR:HG23	2.17	0.44
23:P:23:PRO:HG2	23:P:33:ARG:NE	2.32	0.44
11:A:1188:U:H5''	29:V:79:VAL:CG1	2.47	0.44
32:Y:59:GLY:O	32:Y:60:PHE:CD1	2.70	0.44
31:X:12:VAL:HG12	31:X:27:THR:CA	2.46	0.44
11:A:1798:U:OP2	14:D:274:ARG:NH2	2.37	0.44
13:C:134:ARG:O	13:C:136:LEU:HG	2.16	0.44
11:A:601:C:O5'	11:A:601:C:H6	2.00	0.44
25:R:2:ARG:HD3	25:R:5:LYS:NZ	2.31	0.44
9:8:17:THR:O	9:8:20:GLY:N	2.45	0.44
23:P:123:LEU:HD23	23:P:123:LEU:H	1.81	0.44
11:A:140:G:H1'	11:A:141:A:C2	2.52	0.44
11:A:2729:G:H2'	11:A:2730:C:H6	1.82	0.44
22:O:107:ARG:NH1	27:T:35:LYS:HB2	2.33	0.44
12:B:105:A:H2'	12:B:106:G:O4'	2.16	0.44
12:B:73:A:H2'	12:B:74:U:H5'	1.99	0.44
33:Z:18:LEU:HD23	33:Z:25:PRO:HB3	2.00	0.44
33:Z:95:PRO:HA	33:Z:128:VAL:O	2.17	0.44
11:A:2732:G:H3'	11:A:2733:A:C5'	2.46	0.44
30:W:5:ALA:O	30:W:6:ILE:HB	2.16	0.44
6:5:40:LYS:NZ	6:5:46:CYS:N	2.66	0.44
11:A:1789:A:H2'	11:A:1790:C:H6	1.82	0.44
11:A:1392:A:N6	11:A:1393:A:N1	2.65	0.44
14:D:101:GLU:HG2	14:D:102:LYS:N	2.32	0.44
32:Y:87:LYS:O	32:Y:91:GLU:N	2.50	0.44
11:A:1090:U:H2'	11:A:1091:G:O4'	2.17	0.44
24:Q:27:VAL:H	24:Q:137:TYR:HD1	1.65	0.44
33:Z:76:LEU:O	33:Z:84:GLU:HG3	2.18	0.44
6:5:13:LYS:HZ1	11:A:516:C:P	2.41	0.44
30:W:17:VAL:O	30:W:19:LEU:N	2.50	0.44
4:3:26:LEU:CB	4:3:28:LEU:HD21	2.45	0.44
4:3:56:VAL:CG1	4:3:57:GLU:H	2.23	0.44
13:C:10:LEU:HD12	13:C:32:LEU:HA	1.99	0.44
29:V:19:LYS:NZ	29:V:21:ARG:O	2.50	0.44
8:7:10:ARG:O	8:7:13:ALA:N	2.51	0.44
11:A:1413:G:H2'	11:A:1414:G:H8	1.82	0.44
33:Z:115:GLY:HA2	33:Z:174:VAL:HG13	1.98	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2853:C:H2'	11:A:2854:G:H8	1.79	0.44
11:A:1120:G:H2'	11:A:1121:C:H6	1.76	0.44
11:A:944:G:H5'	11:A:945:A:C5'	2.46	0.44
11:A:280:C:H42	11:A:360:G:H1	1.65	0.44
11:A:226:G:H5''	11:A:257:A:O2'	2.17	0.44
11:A:363:G:C2	11:A:363(A):A:N7	2.85	0.44
15:E:68:ALA:O	15:E:70:ALA:N	2.51	0.44
11:A:970:C:H2'	11:A:971:C:C6	2.53	0.44
11:A:1834:U:O2	11:A:1834:U:H2'	2.18	0.44
9:8:22:VAL:CB	9:8:53:PRO:HB2	2.48	0.44
11:A:27:G:N2	11:A:512:G:C2'	2.68	0.44
11:A:531:C:OP1	11:A:561:G:N1	2.50	0.44
11:A:1292:U:O2'	11:A:1293:C:H5'	2.17	0.44
12:B:49:C:OP1	26:S:96:GLY:HA3	2.17	0.44
11:A:1678:G:O5'	11:A:1678:G:C8	2.70	0.44
11:A:2682:U:O2'	27:T:58:ASN:OD1	2.36	0.44
15:E:13:ARG:O	27:T:57:PHE:CE1	2.69	0.44
27:T:61:PHE:N	27:T:61:PHE:HD2	2.14	0.44
27:T:85:LYS:O	27:T:86:ILE:C	2.56	0.44
13:C:47:LEU:HD11	13:C:171:ILE:CG2	2.46	0.44
33:Z:86:VAL:HG12	33:Z:87:ASP:H	1.82	0.44
17:G:97:ASP:O	17:G:101:ILE:N	2.51	0.44
30:W:5:ALA:O	30:W:6:ILE:CB	2.66	0.44
11:A:2105:C:H2'	11:A:2106:G:H8	1.82	0.44
2:1:4:VAL:CG2	2:1:5:CYS:H	2.18	0.44
11:A:1697:G:H3'	11:A:1698:A:H5''	1.99	0.44
11:A:2590:A:C2'	11:A:2591:C:H5'	2.47	0.44
21:N:48:MET:HE3	21:N:48:MET:H	1.83	0.44
28:U:90:VAL:HG21	29:V:47:VAL:HG23	1.99	0.44
28:U:95:LEU:HD13	29:V:4:ILE:HG23	1.99	0.44
29:V:49:THR:CB	29:V:50:PRO:HD2	2.43	0.44
11:A:2308:G:C2	11:A:2309:A:C6	3.06	0.44
17:G:87:PRO:CG	17:G:88:ILE:N	2.81	0.44
11:A:715:G:C6	11:A:716:A:C6	3.06	0.44
11:A:2037:G:H2'	11:A:2038:G:H8	1.77	0.44
11:A:1174:A:OP2	11:A:1174:A:H3'	2.18	0.44
11:A:2159:G:H2'	11:A:2160:G:C5'	2.46	0.44
13:C:6:ARG:CG	13:C:6:ARG:HH11	2.25	0.44
29:V:95:LEU:C	29:V:95:LEU:CD2	2.86	0.44
11:A:800:A:C5	11:A:802:A:O4'	2.69	0.44
12:B:34:U:C4'	12:B:35:U:H5	2.26	0.44
11:A:1053:C:H42	11:A:1108:U:H3	1.66	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:P:75:ILE:H	23:P:75:ILE:CD1	2.27	0.44
11:A:74:A:C5'	11:A:75:G:H1'	2.46	0.44
11:A:64:A:H2'	11:A:65:C:C6	2.52	0.44
33:Z:14:LYS:C	33:Z:16:SER:H	2.21	0.44
11:A:654(L):G:H2'	11:A:654(M):C:H4'	1.98	0.44
3:2:4:SER:HA	3:2:7:ARG:HG3	1.98	0.44
7:6:20:ASN:HD21	7:6:42:TRP:H	1.66	0.44
9:8:13:ARG:HB2	23:P:62:LEU:O	2.17	0.44
9:8:4:MET:HE3	9:8:61:LEU:CD2	2.45	0.44
11:A:1427:A:H1'	11:A:1428:C:C5	2.52	0.44
11:A:605:C:O2'	11:A:606:U:H5'	2.18	0.44
3:2:27:GLU:O	3:2:30:ARG:CB	2.65	0.44
3:2:47:ASN:O	3:2:50:ILE:HD13	2.17	0.44
3:2:53:LEU:CA	3:2:56:GLN:HB2	2.46	0.44
11:A:88:G:N2	11:A:89:G:H1'	2.32	0.44
11:A:323:G:C8	16:F:171:PRO:HG3	2.53	0.44
16:F:157:VAL:O	16:F:158:THR:HB	2.16	0.44
16:F:194:MET:HB3	16:F:195:ASP:H	1.51	0.44
11:A:2048:G:H5'	11:A:2823:A:N1	2.31	0.44
15:E:199:ARG:CG	15:E:200:GLU:N	2.75	0.44
26:S:12:PHE:CE1	26:S:91:PRO:HB3	2.53	0.44
11:A:1645:G:OP1	11:A:1646:C:H5'	2.18	0.44
22:O:71:ARG:NE	22:O:105:GLU:OE1	2.50	0.44
22:O:71:ARG:NH2	22:O:77:ILE:HG21	2.32	0.44
27:T:16:ARG:NH2	27:T:80:SER:O	2.47	0.44
33:Z:4:ARG:HB3	33:Z:58:VAL:O	2.17	0.44
11:A:1520:G:H2'	11:A:1523:U:C5'	2.47	0.44
32:Y:29:GLU:OE2	32:Y:38:ILE:HG21	2.18	0.44
17:G:21:ARG:HH22	17:G:22:ARG:HG2	1.78	0.44
6:5:56:LYS:HE2	6:5:59:GLU:CD	2.38	0.44
11:A:2815:C:H2'	11:A:2816:C:C6	2.52	0.44
11:A:19:C:H5'	11:A:554:U:OP1	2.18	0.44
28:U:80:ILE:O	28:U:80:ILE:HG22	2.18	0.44
28:U:83:LEU:O	28:U:88:ILE:HG12	2.17	0.44
14:D:126:GLN:C	14:D:193:VAL:HG11	2.35	0.44
26:S:104:GLY:C	26:S:106:ARG:H	2.21	0.44
11:A:906:G:O2'	24:Q:67:ARG:NH2	2.51	0.44
18:H:152:ARG:HH11	18:H:152:ARG:HG3	1.83	0.44
18:H:84:SER:O	18:H:85:LYS:HB3	2.18	0.44
24:Q:42:ILE:CG2	24:Q:42:ILE:O	2.66	0.44
11:A:1131:G:C2	21:N:75:TYR:HB2	2.53	0.44
6:5:38:ALA:HB2	6:5:48:GLU:HB3	1.94	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:33:CYS:SG	6:5:49:CYS:SG	3.13	0.44
11:A:1372:U:O2'	11:A:1373:A:H5'	2.17	0.44
14:D:158:ALA:O	14:D:161:THR:HG23	2.17	0.44
24:Q:77:LYS:HB3	24:Q:81:VAL:HG11	1.98	0.44
11:A:206:U:H2'	11:A:207:A:H8	1.82	0.44
11:A:271(B):C:O2'	11:A:271(C):C:H5'	2.17	0.44
11:A:412:A:H3'	11:A:413:C:H6	1.82	0.44
11:A:1416:G:N2	11:A:1582:C:N3	2.54	0.44
11:A:2585:U:O2	11:A:2585:U:O4'	2.35	0.44
11:A:2557:G:C2'	11:A:2558:C:H5'	2.47	0.44
28:U:85:LYS:HD2	28:U:117:GLN:HE22	1.81	0.44
11:A:2600:A:OP2	14:D:237:GLU:HG3	2.16	0.44
3:2:49:LYS:HB3	3:2:49:LYS:NZ	2.31	0.44
9:8:42:ARG:O	9:8:44:LYS:N	2.49	0.44
11:A:2348:U:O2'	11:A:2349:G:H5'	2.16	0.44
11:A:2392:A:H2'	11:A:2393:A:O4'	2.18	0.44
16:F:89:VAL:HG12	16:F:90:PHE:N	2.32	0.44
23:P:36:LYS:CB	23:P:41:ARG:CB	2.96	0.44
11:A:1887:C:C3'	11:A:1888:G:C5'	2.95	0.44
11:A:1890:A:H2	11:A:2235:G:O4'	2.00	0.44
11:A:696:G:N3	11:A:696:G:C2'	2.79	0.44
14:D:85:ASP:CG	14:D:88:ARG:HH11	2.21	0.44
11:A:1453:U:OP1	25:R:77:ARG:HD3	2.17	0.44
25:R:44:LEU:HD13	25:R:44:LEU:O	2.17	0.44
28:U:109:LEU:O	28:U:113:ALA:N	2.50	0.44
26:S:12:PHE:HD2	26:S:12:PHE:N	2.16	0.44
7:6:6:ARG:HB3	7:6:6:ARG:CZ	2.45	0.44
11:A:1678:G:N2	11:A:1989:G:H1	2.15	0.44
15:E:12:THR:OG1	15:E:13:ARG:N	2.50	0.44
22:O:105:GLU:HA	22:O:108:GLU:OE1	2.18	0.44
12:B:76:G:H5''	33:Z:15:PRO:CB	2.47	0.44
33:Z:168:GLU:HA	33:Z:168:GLU:OE2	2.18	0.44
32:Y:28:LYS:HA	32:Y:38:ILE:HG22	1.99	0.44
32:Y:81:LYS:CD	32:Y:97:ARG:O	2.57	0.44
17:G:100:TRP:O	17:G:101:ILE:C	2.55	0.44
17:G:172:LEU:O	17:G:176:LEU:HD12	2.17	0.44
11:A:1899:G:H21	11:A:1902:C:N4	2.08	0.44
11:A:1902:C:O2'	14:D:244:ARG:CB	2.64	0.44
3:2:3:LEU:O	3:2:6:VAL:HB	2.18	0.44
11:A:1006:C:H2'	11:A:1007:C:H6	1.82	0.44
21:N:103:VAL:O	21:N:106:MET:N	2.50	0.44
11:A:1542:A:H5'	11:A:1543:C:OP2	2.18	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:45:GLN:N	24:Q:45:GLN:HE21	2.12	0.44
11:A:1131:G:N7	11:A:2025:C:H4'	2.32	0.44
30:W:11:ARG:HH12	30:W:98:LYS:HB3	1.75	0.44
2:1:30:VAL:O	2:1:31:GLY:O	2.36	0.44
2:1:25:LYS:HB2	11:A:388:G:H5'	2.00	0.44
11:A:537:C:N4	11:A:556:G:N1	2.57	0.44
28:U:55:ARG:HG2	28:U:58:ARG:HD2	1.99	0.44
11:A:635:C:O2'	11:A:639:U:OP1	2.36	0.44
22:O:25:LEU:HD11	22:O:40:VAL:HG22	2.00	0.44
11:A:821:A:C5'	11:A:822:U:C6	3.01	0.44
11:A:2633:G:C5'	11:A:2812:G:H5'	2.48	0.44
11:A:1814:G:C4'	14:D:51:VAL:HG21	2.47	0.44
17:G:152:LEU:N	17:G:152:LEU:HD23	2.32	0.44
11:A:1188:U:C2'	11:A:1189:A:H5'	2.47	0.44
11:A:587:C:N3	11:A:671:C:C6	2.86	0.44
16:F:181:LEU:HD11	16:F:186:ILE:CD1	2.37	0.44
11:A:90:U:C2'	11:A:90:U:O2	2.65	0.44
11:A:2527:C:N4	11:A:2536:G:O6	2.50	0.44
11:A:2760:C:H2'	11:A:2761:G:C5'	2.41	0.44
16:F:169:ASN:O	16:F:170:LEU:O	2.35	0.44
16:F:155:LEU:CD1	16:F:176:LEU:HD22	2.45	0.44
11:A:1277:G:H2'	11:A:1278:A:O4'	2.16	0.44
11:A:1651:G:C2'	11:A:1652:A:H5'	2.48	0.44
25:R:12:ARG:HD3	25:R:16:HIS:NE2	2.32	0.44
11:A:2636:U:H1'	11:A:2783:G:H22	1.82	0.44
15:E:44:TYR:O	15:E:45:THR:CB	2.60	0.44
22:O:120:GLU:HB2	27:T:68:TYR:HE2	1.83	0.44
33:Z:132:ASN:C	33:Z:134:PRO:HD3	2.38	0.44
12:B:96:U:H2'	12:B:97:G:C8	2.52	0.44
11:A:1520:G:H2'	11:A:1523:U:H5'	2.00	0.44
32:Y:73:ARG:HE	32:Y:73:ARG:CA	2.28	0.44
11:A:2104:G:O6	11:A:2185:C:N3	2.50	0.44
29:V:4:ILE:O	29:V:39:LEU:HD22	2.17	0.44
14:D:118:VAL:CG2	14:D:119:ALA:N	2.81	0.44
11:A:908:C:OP2	24:Q:22:LYS:HG2	2.17	0.44
24:Q:35:VAL:HG23	24:Q:101:ARG:O	2.18	0.44
18:H:89:ILE:O	18:H:129:THR:HB	2.17	0.44
11:A:530:G:H2'	11:A:530:G:OP2	2.18	0.44
30:W:12:ILE:O	30:W:13:SER:C	2.54	0.44
11:A:45:C:O2'	11:A:47:C:H5'	2.18	0.44
5:4:14:ILE:CD1	5:4:14:ILE:H	2.31	0.44
11:A:272(J):C:C2'	11:A:274:G:H5''	2.46	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:62:VAL:O	13:C:160:ARG:HA	2.18	0.44
14:D:158:ALA:O	14:D:159:ALA:C	2.55	0.44
11:A:2197:U:O2'	11:A:2198:A:H2'	2.18	0.44
15:E:126:PRO:C	15:E:128:SER:N	2.71	0.44
11:A:1328:G:N2	11:A:1647:G:H1	2.15	0.44
11:A:760:G:H2'	11:A:761:A:O4'	2.17	0.44
11:A:955:C:O2'	11:A:956:G:H5'	2.16	0.44
12:B:64:C:H2'	12:B:65:C:O4'	2.17	0.44
11:A:552:G:H1'	11:A:1220:A:C6	2.53	0.44
11:A:64:A:H2'	11:A:65:C:H6	1.82	0.44
11:A:414:C:H5''	11:A:1879:C:O2'	2.16	0.44
11:A:1367:A:C2'	11:A:1368:G:H5'	2.45	0.44
11:A:1368:G:O2'	11:A:1369:G:H5'	2.18	0.44
11:A:239:U:H2'	11:A:240:G:O4'	2.17	0.44
11:A:1196:C:H2'	11:A:1197:G:H8	1.83	0.44
11:A:1477:A:H2'	11:A:1478:G:O4'	2.18	0.44
11:A:746:A:O2'	11:A:2611:U:O2'	2.25	0.44
11:A:834:C:H2'	11:A:835:A:H8	1.83	0.44
33:Z:74:VAL:O	33:Z:75:ASN:C	2.55	0.44
14:D:221:VAL:O	14:D:221:VAL:CG2	2.65	0.44
6:5:37:LYS:HB2	6:5:37:LYS:HE3	1.84	0.44
11:A:569:U:C4	11:A:570:G:C6	3.06	0.44
11:A:575:A:C2'	11:A:576:U:H5'	2.48	0.44
11:A:1862:G:N2	11:A:1881:C:O2	2.50	0.44
11:A:1822:G:C5	11:A:1823:G:N7	2.86	0.44
11:A:694:U:HO2'	11:A:695:G:P	2.41	0.44
13:C:91:ALA:HB3	13:C:94:VAL:CG2	2.48	0.44
16:F:43:LYS:CB	16:F:98:SER:HB3	2.46	0.44
18:H:50:VAL:HG12	18:H:51:ARG:N	2.32	0.44
11:A:2540:C:H2'	11:A:2541:A:O4'	2.18	0.44
11:A:2744:G:C2	11:A:2761:G:C4	3.05	0.44
16:F:158:THR:HG23	16:F:160:ASN:H	1.82	0.44
11:A:1652:A:N6	11:A:1653:G:N2	2.65	0.44
11:A:1269:A:N6	11:A:2011:U:H3	2.14	0.44
11:A:2870:C:O2'	11:A:2871:C:H5'	2.18	0.44
25:R:22:ARG:O	25:R:26:LYS:HB2	2.18	0.44
26:S:29:PHE:C	26:S:29:PHE:HD2	2.20	0.44
31:X:39:ILE:CG2	31:X:54:VAL:HG11	2.41	0.44
11:A:1297:C:O2'	11:A:1298:C:H5'	2.18	0.44
17:G:32:PRO:HG3	17:G:168:GLU:OE1	2.18	0.44
21:N:131:GLN:NE2	21:N:133:GLN:N	2.65	0.44
14:D:239:ARG:HG2	14:D:239:ARG:NH2	2.28	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:N:24:GLY:HA2	21:N:27:ALA:HB3	1.99	0.44
21:N:35:ARG:CG	21:N:35:ARG:O	2.60	0.44
28:U:59:ARG:O	28:U:61:TRP:N	2.51	0.44
14:D:127:VAL:HA	14:D:193:VAL:HG13	2.00	0.44
11:A:2305:A:H1'	17:G:136:ARG:HG3	1.98	0.44
17:G:87:PRO:HG2	17:G:88:ILE:N	2.27	0.44
17:G:82:LEU:HD22	17:G:87:PRO:HG3	1.99	0.44
11:A:718:A:H8	11:A:718:A:O5'	2.01	0.44
11:A:2164:C:H2'	11:A:2165:G:H5'	1.99	0.44
18:H:107:VAL:O	18:H:109:PHE:N	2.51	0.44
11:A:2026:C:N4	11:A:2037:G:H1	2.15	0.44
11:A:529:A:H4'	11:A:530:G:O5'	2.17	0.44
4:3:8:LEU:O	4:3:8:LEU:CD2	2.66	0.44
11:A:793:A:OP2	11:A:2072:G:H5'	2.18	0.44
11:A:1168:G:N1	11:A:1182:A:C6	2.86	0.44
11:A:406:G:H2'	11:A:407:G:H8	1.82	0.44
29:V:62:LEU:CD2	29:V:95:LEU:HB2	2.46	0.44
11:A:2580:U:H3'	11:A:2581:G:N3	2.33	0.44
11:A:1412:A:O2'	11:A:1413:G:H5'	2.17	0.44
11:A:1435:G:H2'	11:A:1436:G:C8	2.53	0.44
30:W:73:ALA:HB3	30:W:106:ILE:HD11	2.00	0.44
22:O:8:LEU:HD22	22:O:19:ILE:HG13	2.00	0.44
11:A:2721:A:C2'	11:A:2722:G:H8	2.27	0.44
2:1:82:LEU:C	2:1:83:GLU:CG	2.85	0.44
1:0:63:VAL:HG23	1:0:63:VAL:O	2.18	0.44
11:A:945:A:OP2	11:A:945:A:H4'	2.17	0.44
14:D:17:THR:OG1	14:D:205:VAL:N	2.41	0.44
11:A:420:C:H2'	11:A:421:U:C6	2.52	0.44
11:A:1476:C:H2'	11:A:1477:A:C8	2.53	0.44
20:K:20:UNK:HA	20:K:24:UNK:CB	2.48	0.44
7:6:22:ALA:HB2	7:6:39:TYR:CZ	2.53	0.44
11:A:1217:C:C2	11:A:1218:C:C5	3.05	0.44
11:A:531:C:O2'	11:A:563:G:H5''	2.18	0.44
11:A:563:G:O2'	11:A:564:C:H5'	2.18	0.44
23:P:48:PRO:O	23:P:49:ARG:O	2.35	0.44
11:A:1800:C:H42	11:A:1817:G:N2	2.16	0.44
14:D:26:LYS:O	14:D:27:THR:HG22	2.18	0.44
14:D:92:ILE:HG13	14:D:104:TYR:CD2	2.52	0.44
11:A:1203:G:O2'	11:A:1242:A:N6	2.50	0.44
11:A:606:U:H6	11:A:606:U:H3'	1.82	0.44
11:A:654:A:C8	11:A:654(V):A:H4'	2.52	0.44
16:F:107:LYS:O	16:F:110:LEU:N	2.45	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:110:LEU:HD12	16:F:206:ILE:CD1	2.48	0.44
3:2:59:ARG:CA	11:A:76:C:O2'	2.65	0.44
11:A:2740:A:H2'	11:A:2741:A:C8	2.52	0.44
11:A:2015:A:C2'	11:A:2016:U:H5'	2.47	0.44
11:A:2612:C:C5	11:A:2613:U:H5	2.36	0.44
25:R:44:LEU:HD13	25:R:48:VAL:HB	1.99	0.44
11:A:747:U:H4'	30:W:89:ALA:HB3	2.00	0.44
17:G:138:GLN:C	17:G:140:ILE:H	2.20	0.44
26:S:13:ARG:NH1	26:S:13:ARG:HG2	2.32	0.44
26:S:15:ARG:NH1	26:S:18:ILE:HD11	2.32	0.44
23:P:95:VAL:HG13	23:P:123:LEU:HD12	1.99	0.44
11:A:1666:G:N2	11:A:1995:U:C2	2.86	0.44
33:Z:151:HIS:HA	33:Z:171:ILE:HG12	1.99	0.44
33:Z:86:VAL:C	33:Z:87:ASP:OD1	2.56	0.44
11:A:310:A:O2'	11:A:311:A:O5'	2.36	0.44
32:Y:38:ILE:HD13	32:Y:66:PRO:HG3	1.99	0.44
11:A:1826:G:O2'	11:A:1827:C:H5'	2.18	0.44
11:A:1902:C:C2'	14:D:244:ARG:HB2	2.48	0.44
6:5:7:PRO:HA	11:A:2615:U:N3	2.33	0.44
14:D:193:VAL:O	14:D:193:VAL:HG13	2.18	0.44
13:C:42:GLU:OE1	13:C:216:THR:O	2.36	0.44
33:Z:79:ARG:O	33:Z:81:ARG:N	2.50	0.44
11:A:1224:C:N4	11:A:1225:G:C6	2.86	0.44
11:A:176:G:C5	11:A:177:G:C6	3.05	0.44
11:A:2247:A:H2'	11:A:2248:C:C6	2.53	0.44
11:A:2156:G:N2	11:A:2157:G:H21	2.15	0.44
11:A:2843:G:C2	11:A:2875:C:N4	2.86	0.44
11:A:687:C:O2	11:A:788:A:H5'	2.18	0.44
11:A:2222:G:C4	11:A:2223:G:C8	3.05	0.44
11:A:2064:C:H2'	11:A:2065:C:H6	1.79	0.44
4:3:2:PRO:O	4:3:3:ARG:C	2.56	0.44
22:O:86:ILE:CG2	22:O:94:ARG:HB2	2.46	0.44
11:A:1865:G:H5'	11:A:1866:C:OP2	2.17	0.44
11:A:1923:U:O2'	11:A:1924:C:H5'	2.18	0.44
11:A:757:U:H6	11:A:757:U:H3'	1.83	0.44
15:E:68:ALA:C	15:E:70:ALA:H	2.21	0.44
8:7:46:VAL:HG12	8:7:48:LYS:NZ	2.32	0.44
11:A:54:G:O5'	11:A:54:G:H8	2.01	0.44
21:N:1:MET:C	21:N:1:MET:SD	2.96	0.44
7:6:11:LEU:HD22	7:6:12:GLU:N	2.30	0.44
23:P:35:HIS:HB3	23:P:36:LYS:H	1.38	0.44
23:P:47:ASP:OD1	23:P:50:ARG:HG2	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:87:GLU:HG2	13:C:94:VAL:HG21	2.00	0.44
16:F:33:LEU:HD21	16:F:112:MET:SD	2.57	0.44
26:S:32:LEU:O	26:S:62:LYS:HE3	2.18	0.44
26:S:77:ALA:O	26:S:80:LEU:N	2.47	0.44
26:S:87:PHE:CG	26:S:88:ASP:N	2.86	0.44
27:T:70:VAL:HG12	27:T:71:GLY:O	2.18	0.44
13:C:23:ASP:OD1	13:C:190:ARG:NH2	2.51	0.44
11:A:1517:G:H5'	11:A:1517:G:H8	1.82	0.44
11:A:2590:A:O2'	11:A:2591:C:H5'	2.18	0.44
18:H:33:LEU:HD12	18:H:75:ALA:CB	2.48	0.44
3:2:6:VAL:CA	3:2:9:GLN:HB2	2.31	0.44
28:U:88:ILE:CB	28:U:90:VAL:HG23	2.48	0.44
29:V:52:VAL:O	29:V:54:GLY:N	2.51	0.44
14:D:73:VAL:HG13	14:D:120:GLY:CA	2.46	0.44
13:C:100:ILE:HG21	13:C:126:LYS:HB2	1.95	0.44
8:7:39:ARG:HA	11:A:459:U:OP1	2.17	0.44
11:A:2114:A:C2'	11:A:2115:G:H5'	2.44	0.44
24:Q:132:VAL:HG11	33:Z:81:ARG:CD	2.47	0.44
11:A:2023:G:O2'	11:A:2024:G:H5'	2.18	0.44
11:A:2512:C:H6	11:A:2512:C:O5'	2.01	0.44
13:C:207:THR:H	13:C:210:ARG:HH12	1.65	0.44
11:A:1169:G:H2'	11:A:1170:G:O4'	2.17	0.44
11:A:1355:G:C6	11:A:1377:G:N2	2.86	0.44
24:Q:113:GLN:O	24:Q:116:GLU:HB3	2.18	0.44
11:A:2410:G:H2'	11:A:2411:A:C8	2.49	0.44
12:B:60:C:H2'	12:B:61:G:C8	2.50	0.44
11:A:1909:C:N4	11:A:1921:G:H1	2.13	0.44
11:A:2764:A:H2'	11:A:2766:G:C8	2.53	0.44
4:3:31:LEU:O	11:A:1158:C:H4'	2.17	0.44
11:A:2851:A:H2'	11:A:2852:G:C5'	2.48	0.44
33:Z:154:ASP:OD2	33:Z:154:ASP:N	2.51	0.44
28:U:22:LYS:HA	28:U:22:LYS:HD3	1.72	0.44
7:6:35:GLU:CG	7:6:51:GLU:HG3	2.47	0.43
11:A:29:U:OP1	11:A:583:G:H4'	2.18	0.43
23:P:63:PRO:O	23:P:65:ARG:N	2.51	0.43
28:U:10:ARG:CA	28:U:13:LYS:HG2	2.47	0.43
32:Y:64:GLU:O	32:Y:65:ALA:HB2	2.18	0.43
11:A:1884:A:H2'	11:A:1885:A:H5''	2.00	0.43
3:2:34:GLU:O	3:2:37:PHE:HB2	2.18	0.43
3:2:57:ILE:HG22	3:2:61:LEU:CD1	2.48	0.43
31:X:43:VAL:O	31:X:43:VAL:HG12	2.18	0.43
24:Q:60:ARG:HA	33:Z:178:GLU:H	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1279:G:N2	11:A:1292:U:C2	2.86	0.43
11:A:2849:U:H4'	11:A:2868:A:C2	2.53	0.43
26:S:30:ARG:NH1	26:S:35:ILE:HB	2.33	0.43
11:A:1678:G:N2	11:A:1989:G:H22	2.16	0.43
13:C:198:ALA:C	13:C:200:LYS:H	2.20	0.43
24:Q:141:GLN:OE1	33:Z:72:ARG:NE	2.51	0.43
14:D:128:GLY:N	14:D:193:VAL:HG13	2.33	0.43
11:A:598:G:C5'	23:P:15:ARG:HD3	2.32	0.43
17:G:57:ALA:CB	17:G:90:LEU:HD21	2.46	0.43
11:A:1466:G:H5'	11:A:1467:C:OP1	2.18	0.43
11:A:1131:G:C6	21:N:75:TYR:CD2	3.06	0.43
4:3:50:VAL:O	4:3:52:HIS:N	2.50	0.43
11:A:223:A:H61	11:A:374:A:H4'	1.82	0.43
23:P:84:ASN:O	23:P:86:LYS:N	2.50	0.43
11:A:1386:C:C6	11:A:1386:C:C3'	3.01	0.43
11:A:1600:C:H2'	11:A:1601:G:H8	1.82	0.43
14:D:159:ALA:HB1	14:D:201:HIS:HB3	2.00	0.43
11:A:1050:A:C2	11:A:2751:G:C5	3.06	0.43
11:A:1053:C:H2'	11:A:1054:A:C8	2.53	0.43
24:Q:6:ARG:C	24:Q:7:MET:HG3	2.37	0.43
12:B:13:A:C2	12:B:70:C:O4'	2.71	0.43
11:A:936:C:C2	11:A:937:U:C5	3.06	0.43
27:T:111:ARG:O	27:T:111:ARG:HG3	2.17	0.43
11:A:877:U:O2'	11:A:878:A:C5'	2.66	0.43
11:A:2173:A:N3	11:A:2173:A:C3'	2.79	0.43
11:A:1431:U:C4	11:A:1432:C:C4	3.06	0.43
11:A:2533:A:H2'	11:A:2534:A:C5'	2.48	0.43
22:O:50:GLY:O	22:O:53:LYS:NZ	2.42	0.43
11:A:2414:G:H21	23:P:67:MET:CE	2.32	0.43
11:A:833:U:H6	11:A:833:U:O5'	2.01	0.43
11:A:1856:G:H1	11:A:1886:C:H42	1.67	0.43
14:D:147:LEU:HD21	14:D:183:ARG:NH1	2.33	0.43
14:D:34:VAL:CG2	14:D:35:LYS:H	2.23	0.43
11:A:654:A:H4'	11:A:654(A):G:C4'	2.48	0.43
16:F:111:ALA:O	16:F:114:VAL:HB	2.19	0.43
23:P:7:ARG:O	23:P:10:PRO:HD2	2.18	0.43
18:H:61:HIS:O	18:H:64:LEU:N	2.50	0.43
3:2:38:GLN:OE1	3:2:44:LEU:CD2	2.65	0.43
10:9:4:ARG:O	10:9:36:GLN:HA	2.18	0.43
11:A:2458:G:C4	11:A:2490:G:C2	3.06	0.43
11:A:2838:G:H2'	11:A:2839:G:C8	2.53	0.43
26:S:16:ASN:O	26:S:18:ILE:N	2.51	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:36:TYR:N	26:S:36:TYR:CD1	2.84	0.43
11:A:1664:A:H3'	11:A:1665:A:C8	2.54	0.43
11:A:2698:U:H2'	11:A:2699:C:C6	2.53	0.43
15:E:167:VAL:HG22	15:E:167:VAL:O	2.18	0.43
22:O:1:MET:HG3	22:O:67:LYS:HG2	1.99	0.43
27:T:27:THR:HA	27:T:88:ILE:H	1.83	0.43
27:T:91:ARG:HA	27:T:117:ASP:H	1.83	0.43
33:Z:50:GLN:O	33:Z:52:SER:N	2.51	0.43
33:Z:72:ARG:O	33:Z:73:GLN:HB2	2.18	0.43
11:A:859:G:C2	11:A:2268:A:C2	3.07	0.43
11:A:307:G:H21	11:A:330:A:H62	1.66	0.43
11:A:329:G:P	32:Y:71:LYS:NZ	2.91	0.43
17:G:21:ARG:NE	17:G:22:ARG:HA	2.33	0.43
11:A:440:G:H21	16:F:46:ARG:NH2	2.16	0.43
11:A:662:G:H4'	23:P:19:VAL:O	2.18	0.43
23:P:16:ARG:HG3	23:P:17:LYS:H	1.83	0.43
11:A:1789:A:C5	11:A:1790:C:C5	3.07	0.43
11:A:425:G:C4	11:A:426:C:C5	3.06	0.43
11:A:1494:A:N3	11:A:1494:A:H5'	2.33	0.43
13:C:100:ILE:HD13	13:C:126:LYS:HB2	1.99	0.43
11:A:2023:G:H8	11:A:2023:G:P	2.40	0.43
11:A:2071:A:H8	11:A:2071:A:OP2	2.01	0.43
11:A:1492:G:N3	11:A:1499:C:O2	2.51	0.43
4:3:18:ASP:HB2	11:A:850:C:C5'	2.48	0.43
11:A:896:A:H5'	33:Z:146:ILE:HD12	1.99	0.43
11:A:1257:C:H4'	16:F:83:PHE:CD2	2.52	0.43
11:A:1166:C:H1'	11:A:1184:G:N2	2.34	0.43
11:A:2052:G:N1	11:A:2053:G:N7	2.66	0.43
11:A:1750:G:N3	11:A:2860:A:H2	2.16	0.43
11:A:551:G:O2'	11:A:1220:A:N3	2.41	0.43
15:E:9:VAL:CG2	15:E:9:VAL:O	2.65	0.43
30:W:37:ARG:CG	30:W:37:ARG:NH1	2.81	0.43
11:A:1718:G:C8	11:A:1718:G:H5'	2.47	0.43
11:A:360:G:C4	11:A:361:G:C8	3.06	0.43
7:6:36:LEU:O	7:6:37:ARG:HB2	2.17	0.43
9:8:57:ARG:C	9:8:59:LYS:N	2.71	0.43
11:A:2388:A:H5'	11:A:2389:G:OP2	2.18	0.43
23:P:34:GLY:O	23:P:35:HIS:CB	2.66	0.43
14:D:65:ILE:HG22	14:D:104:TYR:CB	2.48	0.43
3:2:10:LEU:O	3:2:14:ARG:HB2	2.19	0.43
10:9:31:LYS:C	10:9:32:HIS:CD2	2.92	0.43
11:A:2483:C:O2	11:A:2483:C:H2'	2.17	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:322:A:OP1	16:F:168:ARG:HG2	2.18	0.43
11:A:2822:G:OP2	15:E:110:GLY:C	2.56	0.43
23:P:125:VAL:HG13	23:P:125:VAL:O	2.18	0.43
15:E:104:VAL:O	15:E:166:THR:HA	2.19	0.43
27:T:99:LEU:O	27:T:101:PHE:N	2.51	0.43
27:T:15:VAL:CG2	27:T:16:ARG:N	2.82	0.43
13:C:166:ASP:CG	13:C:168:THR:H	2.22	0.43
1:0:78:TYR:N	1:0:78:TYR:CD1	2.86	0.43
17:G:130:ASN:OD1	17:G:161:THR:O	2.36	0.43
17:G:23:PHE:CE1	17:G:168:GLU:HG2	2.54	0.43
17:G:21:ARG:O	17:G:24:GLY:N	2.46	0.43
11:A:728:G:C6	11:A:730:C:C4	3.06	0.43
14:D:245:PRO:O	14:D:246:PRO:O	2.37	0.43
3:2:5:GLU:C	3:2:9:GLN:NE2	2.72	0.43
11:A:102:G:OP1	11:A:102:G:H4'	2.19	0.43
11:A:1628:G:O2'	11:A:1629:U:H5'	2.19	0.43
22:O:103:ALA:O	22:O:106:LEU:HG	2.18	0.43
11:A:2175:C:N3	11:A:2176:A:N1	2.66	0.43
11:A:1028:A:N3	11:A:2486:G:O2'	2.38	0.43
4:3:15:TYR:HB3	4:3:16:PRO:CD	2.49	0.43
11:A:827:U:C2'	11:A:2068:U:C2	2.97	0.43
11:A:178:G:C2	11:A:179:G:C8	3.06	0.43
22:O:11:ALA:HB1	22:O:98:VAL:CG2	2.37	0.43
31:X:24:GLY:O	31:X:82:GLN:NE2	2.51	0.43
23:P:114:ILE:N	23:P:129:ALA:O	2.51	0.43
11:A:773:U:H5'	14:D:47:GLY:HA2	2.00	0.43
11:A:2579:C:H4'	15:E:134:ILE:HG12	1.99	0.43
11:A:803:U:H2'	11:A:804:A:C5'	2.45	0.43
11:A:976:C:H2'	11:A:977:G:C8	2.53	0.43
2:1:80:LEU:CD2	2:1:81:LYS:N	2.81	0.43
11:A:664:C:H4'	11:A:941:A:P	2.58	0.43
11:A:1717:G:H2'	11:A:1718:G:C5'	2.48	0.43
11:A:954:G:H5''	24:Q:13:GLN:CG	2.48	0.43
11:A:2599:G:H5''	11:A:2599:G:C8	2.53	0.43
1:0:82:ARG:HA	1:0:83:PRO:HD3	1.86	0.43
5:4:12:ALA:CB	5:4:29:PRO:HA	2.47	0.43
1:0:2:ALA:HB3	11:A:2602:A:N1	2.32	0.43
23:P:80:TYR:CD2	23:P:80:TYR:N	2.87	0.43
7:6:20:ASN:C	7:6:21:TYR:CD1	2.91	0.43
11:A:2033:A:O2'	11:A:2034:U:P	2.76	0.43
11:A:250:G:OP1	11:A:2394:C:H4'	2.18	0.43
11:A:587:C:O2'	11:A:588:U:P	2.76	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:H:37:VAL:HG11	18:H:68:THR:CG2	2.48	0.43
18:H:68:THR:C	18:H:70:THR:H	2.22	0.43
25:R:13:HIS:C	25:R:13:HIS:ND1	2.71	0.43
17:G:63:ILE:O	17:G:65:GLY:N	2.51	0.43
11:A:628:G:O2'	11:A:629:G:H5''	2.18	0.43
11:A:1670:C:H2'	11:A:1671:U:O4'	2.18	0.43
11:A:2679:A:C6	11:A:2729:G:O6	2.72	0.43
11:A:2641:G:OP1	21:N:74:ARG:HG2	2.18	0.43
27:T:101:PHE:C	27:T:103:ARG:N	2.68	0.43
33:Z:165:VAL:HG12	33:Z:167:PRO:HA	1.99	0.43
33:Z:44:PHE:O	33:Z:45:ASP:O	2.36	0.43
11:A:1708:C:H2'	11:A:1709:U:C5	2.53	0.43
30:W:75:TYR:CD1	30:W:104:THR:OG1	2.69	0.43
11:A:2307:G:N2	11:A:2308:G:H5''	2.33	0.43
17:G:51:ARG:HD3	17:G:53:LEU:CD2	2.48	0.43
24:Q:35:VAL:CG2	24:Q:36:ALA:N	2.82	0.43
24:Q:92:GLY:O	24:Q:93:TYR:CD1	2.72	0.43
2:1:58:ILE:HD13	2:1:60:PHE:HE2	1.82	0.43
14:D:226:MET:O	14:D:227:ASN:OD1	2.37	0.43
1:0:23:VAL:N	1:0:38:VAL:HG13	2.33	0.43
11:A:2130:U:OP1	13:C:5:LYS:HG2	2.18	0.43
29:V:21:ARG:HB3	29:V:91:TYR:CD1	2.53	0.43
11:A:260:G:C6	11:A:261:G:N7	2.87	0.43
8:7:4:THR:HB	11:A:788:A:H1'	2.00	0.43
11:A:1313:U:H3'	11:A:1314:C:H5'	1.99	0.43
13:C:120:MET:HA	13:C:123:VAL:CG1	2.49	0.43
27:T:83:ILE:CD1	27:T:84:GLN:HG2	2.49	0.43
6:5:34:PRO:O	6:5:35:GLU:CG	2.62	0.43
15:E:126:PRO:O	15:E:127:ASP:C	2.55	0.43
11:A:1041:C:C2'	11:A:1042:G:H5'	2.49	0.43
11:A:2063:C:C2'	11:A:2064:C:H5'	2.49	0.43
12:B:14:U:OP2	12:B:70:C:O2'	2.37	0.43
11:A:2547:U:H1'	22:O:28:SER:O	2.18	0.43
11:A:944:G:H22	23:P:38:GLN:HE22	1.65	0.43
25:R:21:TYR:CD1	25:R:21:TYR:N	2.87	0.43
32:Y:101:LYS:HG2	32:Y:102:CYS:N	2.32	0.43
15:E:183:LEU:HD12	15:E:183:LEU:N	2.32	0.43
5:4:13:ARG:HG3	5:4:13:ARG:O	2.19	0.43
2:1:3:LYS:NZ	2:1:3:LYS:CB	2.81	0.43
11:A:1365:A:N6	11:A:1366:A:C6	2.86	0.43
11:A:244:A:H3'	11:A:245:G:C5'	2.48	0.43
28:U:9:VAL:O	28:U:13:LYS:HG2	2.19	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:482:A:H1'	11:A:498:G:N2	2.32	0.43
32:Y:46:LYS:HB2	32:Y:62:GLU:HG3	1.94	0.43
11:A:1801:G:N3	11:A:1801:G:O5'	2.51	0.43
11:A:1203:G:N1	11:A:1241:A:OP2	2.40	0.43
11:A:2758:A:C2	11:A:2759:G:C1'	3.00	0.43
10:9:2:LYS:C	10:9:34:GLN:HE22	2.22	0.43
11:A:1649:G:C2	11:A:2009:G:N3	2.87	0.43
23:P:79:ARG:HH22	23:P:81:GLN:HE21	1.66	0.43
23:P:98:GLU:CA	23:P:101:VAL:HG13	2.49	0.43
11:A:1992:G:N2	11:A:1996:C:O2	2.30	0.43
11:A:2643:G:N2	11:A:2772:C:C2	2.86	0.43
27:T:98:LYS:HG2	27:T:100:TYR:HE1	1.82	0.43
27:T:91:ARG:O	27:T:117:ASP:HB3	2.18	0.43
32:Y:12:THR:CG2	32:Y:13:VAL:N	2.81	0.43
11:A:765:G:C6	11:A:766:C:C4	3.07	0.43
17:G:47:LYS:NZ	17:G:81:LYS:CG	2.81	0.43
18:H:19:VAL:O	18:H:20:ALA:HB2	2.18	0.43
11:A:470:A:H2'	11:A:471:A:O4'	2.18	0.43
26:S:104:GLY:O	26:S:106:ARG:N	2.51	0.43
18:H:93:GLY:C	18:H:94:TYR:HD1	2.21	0.43
12:B:67:G:O2'	12:B:68:C:O5'	2.35	0.43
11:A:1804:C:H2'	11:A:1805:U:H6	1.84	0.43
6:5:24:ALA:O	6:5:25:LEU:HG	2.19	0.43
11:A:1086:A:O4'	11:A:1104:C:O2	2.35	0.43
13:C:6:ARG:CG	13:C:6:ARG:NH1	2.81	0.43
29:V:21:ARG:HG2	29:V:21:ARG:HH11	1.83	0.43
21:N:62:VAL:HG13	21:N:62:VAL:O	2.19	0.43
25:R:109:ALA:O	25:R:111:LEU:HD12	2.19	0.43
30:W:70:TYR:HE1	30:W:72:LYS:HA	1.83	0.43
22:O:8:LEU:O	22:O:9:GLU:C	2.56	0.43
11:A:2239:G:C6	11:A:2240:C:C4	3.07	0.43
21:N:57:ALA:CB	21:N:124:ALA:HA	2.44	0.43
11:A:1717:G:H2'	11:A:1718:G:H5''	1.99	0.43
11:A:360:G:H2'	11:A:361:G:H8	1.84	0.43
12:B:40:U:C3'	12:B:41:U:H5''	2.48	0.43
11:A:1769:G:C1'	11:A:1958:C:H5''	2.47	0.43
11:A:248:G:H5''	11:A:386:G:N2	2.33	0.43
11:A:1249:U:H2'	11:A:1250:G:C8	2.53	0.43
29:V:32:THR:HG22	29:V:33:VAL:N	2.34	0.43
9:8:10:ALA:C	9:8:12:LYS:H	2.20	0.43
23:P:47:ASP:HB3	23:P:48:PRO:C	2.37	0.43
28:U:17:ILE:CA	28:U:20:LEU:HD23	2.48	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:157:VAL:O	16:F:158:THR:CB	2.66	0.43
11:A:749:C:O5'	11:A:749:C:H6	2.01	0.43
26:S:63:THR:O	26:S:64:GLU:C	2.57	0.43
26:S:67:ARG:HB2	26:S:71:ARG:NH1	2.33	0.43
11:A:2635:C:H5''	15:E:78:LEU:O	2.19	0.43
11:A:2346:A:H5'	11:A:2383:G:C1'	2.49	0.43
33:Z:167:PRO:O	33:Z:168:GLU:HB2	2.18	0.43
17:G:128:ARG:O	17:G:129:GLY:O	2.35	0.43
17:G:161:THR:OG1	17:G:163:ALA:HB2	2.18	0.43
17:G:93:THR:CG2	17:G:94:LEU:N	2.80	0.43
10:9:12:ASP:C	10:9:14:CYS:N	2.71	0.43
11:A:2311:A:H2	17:G:77:ILE:HG21	1.84	0.43
17:G:87:PRO:C	17:G:88:ILE:HD13	2.39	0.43
11:A:25:U:H2'	11:A:26:G:C8	2.53	0.43
4:3:50:VAL:C	4:3:52:HIS:H	2.21	0.43
11:A:2246:G:O2'	11:A:2247:A:H5'	2.19	0.43
11:A:685:A:N1	11:A:787:U:H1'	2.34	0.43
11:A:2580:U:C6	11:A:2581:G:C6	3.06	0.43
11:A:1843:C:H2'	11:A:1844:C:C6	2.54	0.43
33:Z:141:VAL:CA	33:Z:144:LEU:HD23	2.43	0.43
11:A:2239:G:H2'	11:A:2240:C:C6	2.53	0.43
12:B:52:A:P	12:B:52:A:H8	2.41	0.43
14:D:209:ALA:O	14:D:212:SER:HB2	2.18	0.43
11:A:2319:G:O6	26:S:11:LYS:HD3	2.18	0.43
31:X:63:LYS:HE3	31:X:63:LYS:HB2	1.82	0.43
11:A:225:A:O2'	11:A:226:G:H5'	2.18	0.43
3:2:39:ALA:HB1	3:2:45:SER:HA	2.00	0.43
1:0:42:GLY:O	1:0:43:THR:HB	2.19	0.43
14:D:155:LEU:HD12	14:D:155:LEU:N	2.33	0.43
14:D:83:GLU:CB	14:D:92:ILE:HD11	2.45	0.43
11:A:654:A:H4'	11:A:654(A):G:O5'	2.18	0.43
11:A:654(V):A:P	11:A:655:A:H3'	2.58	0.43
10:9:1:MET:HE1	11:A:2477:C:H3'	2.00	0.43
11:A:2878:U:H6	11:A:2878:U:O5'	2.02	0.43
26:S:69:VAL:HG22	26:S:69:VAL:O	2.19	0.43
11:A:1665:A:C2'	11:A:1666:G:C5'	2.79	0.43
11:A:2709:G:H2'	11:A:2710:C:C6	2.53	0.43
11:A:2729:G:H2'	11:A:2730:C:C6	2.54	0.43
15:E:101:ARG:HG3	15:E:101:ARG:HH11	1.84	0.43
33:Z:102:LEU:HD22	33:Z:137:ILE:HB	1.99	0.43
33:Z:45:ASP:O	33:Z:48:PHE:N	2.51	0.43
16:F:13:SER:HA	16:F:14:PRO:HD3	1.82	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2189:U:C3'	11:A:2190:G:H4'	2.48	0.43
11:A:1791:A:H3'	11:A:1792:G:H8	1.83	0.43
11:A:1827:C:H1'	11:A:1970:A:C2	2.53	0.43
11:A:1006:C:H42	11:A:1137:G:H1	1.66	0.43
21:N:117:PHE:O	21:N:118:LYS:C	2.57	0.43
11:A:1441:G:H4'	11:A:1627:G:O3'	2.18	0.43
11:A:716:A:H3'	11:A:717:G:H5''	1.99	0.43
11:A:2177:C:H2'	11:A:2178:C:O2	2.19	0.43
33:Z:81:ARG:CZ	33:Z:81:ARG:CB	2.84	0.43
2:1:24:ALA:HB2	2:1:32:LYS:CE	2.48	0.43
11:A:805:G:N2	11:A:829:A:P	2.92	0.43
11:A:2435:A:C2'	11:A:2436:G:O5'	2.66	0.43
11:A:2133:G:C1'	11:A:2157:G:H22	2.32	0.43
29:V:95:LEU:HD23	29:V:96:ILE:N	2.33	0.43
11:A:1375:C:H2'	11:A:1376:C:O4'	2.18	0.43
33:Z:110:GLY:N	33:Z:145:GLU:OE1	2.51	0.43
32:Y:4:LYS:HG3	32:Y:5:MET:N	2.34	0.43
22:O:8:LEU:HD13	22:O:8:LEU:N	2.33	0.43
11:A:733:G:O6	11:A:761:A:C5	2.72	0.43
11:A:2352:A:C2	11:A:2366:A:C2	3.07	0.43
20:K:31:UNK:C	20:K:63:UNK:HA	2.48	0.43
11:A:953:A:C2	11:A:965:C:O2	2.72	0.43
3:2:17:SER:OG	3:2:20:GLU:HG2	2.18	0.43
11:A:654(H):G:H2'	11:A:654(I):C:C5'	2.49	0.43
11:A:340:A:H2'	11:A:341:G:O4'	2.19	0.43
11:A:1863:G:C2	11:A:1880:C:O2	2.72	0.43
11:A:1755:A:O2'	11:A:1756:G:H5'	2.18	0.43
11:A:2255:G:H2'	11:A:2256:G:O4'	2.18	0.43
23:P:24:GLY:HA2	23:P:33:ARG:NH1	2.33	0.43
11:A:1802:A:N1	11:A:1822:G:H1'	2.33	0.43
11:A:1816:G:H3'	14:D:62:TYR:CE2	2.54	0.43
14:D:85:ASP:CG	14:D:88:ARG:NH1	2.73	0.43
13:C:82:LYS:HA	13:C:85:GLU:HB3	2.00	0.43
23:P:7:ARG:CB	23:P:8:PRO:CD	2.94	0.43
10:9:1:MET:HA	10:9:4:ARG:NH2	2.34	0.43
24:Q:56:ARG:O	24:Q:57:HIS:C	2.55	0.43
11:A:2870:C:H5''	25:R:65:LEU:HD21	1.99	0.43
11:A:2334:G:C5'	26:S:13:ARG:HD3	2.48	0.43
26:S:76:LYS:O	26:S:79:ALA:N	2.52	0.43
15:E:101:ARG:HG3	15:E:101:ARG:NH1	2.34	0.43
27:T:11:GLU:O	27:T:14:TYR:CE1	2.72	0.43
27:T:50:ILE:N	27:T:50:ILE:HD12	2.34	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
33:Z:126:VAL:O	33:Z:126:VAL:HG23	2.18	0.43
33:Z:71:VAL:HG12	33:Z:72:ARG:N	2.34	0.43
11:A:1343:G:N2	11:A:1405:U:N3	2.67	0.43
32:Y:17:SER:HB3	32:Y:71:LYS:HB3	2.01	0.43
12:B:56:G:O2'	12:B:57:A:P	2.77	0.43
30:W:50:VAL:HG22	30:W:105:VAL:HG23	1.99	0.43
6:5:59:GLU:HG3	6:5:59:GLU:O	2.19	0.43
11:A:2101:G:C6	11:A:2102:U:C5	3.07	0.43
2:1:45:ASN:HA	11:A:2230:G:O4'	2.19	0.43
11:A:997:G:C2	11:A:998:C:C4	3.06	0.43
29:V:38:LEU:O	29:V:51:VAL:HG12	2.18	0.43
11:A:1335:U:H2'	11:A:1336:A:H8	1.79	0.43
14:D:132:PRO:HG3	14:D:190:TYR:CE1	2.54	0.43
11:A:597:U:H4'	23:P:15:ARG:NE	2.34	0.43
17:G:47:LYS:NZ	17:G:81:LYS:HG3	2.32	0.43
28:U:99:ALA:HB2	28:U:106:PHE:CZ	2.53	0.43
28:U:99:ALA:HB2	28:U:106:PHE:CE1	2.53	0.43
11:A:993:G:C5	11:A:994:C:H5	2.36	0.43
11:A:1131:G:H21	21:N:73:THR:HG22	1.83	0.43
11:A:1131:G:N2	21:N:75:TYR:HB2	2.34	0.43
2:1:23:LYS:O	2:1:29:GLY:O	2.37	0.43
29:V:18:LEU:O	29:V:19:LYS:HB3	2.19	0.43
11:A:259:G:H2'	11:A:260:G:H8	1.84	0.43
11:A:2842:G:H1	11:A:2875:C:H42	1.67	0.43
21:N:128:HIS:CG	21:N:128:HIS:O	2.72	0.43
11:A:1155:A:P	28:U:55:ARG:HD2	2.58	0.43
28:U:55:ARG:CZ	28:U:55:ARG:HB2	2.49	0.43
11:A:1813:G:H4'	14:D:44:ASN:O	2.18	0.43
11:A:1564:C:H2'	11:A:1565:C:C6	2.53	0.43
11:A:64:A:O2'	11:A:65:C:H5'	2.19	0.43
11:A:1908:C:H42	11:A:1922:G:H1	1.67	0.43
11:A:1356:G:O2'	11:A:1357:U:H5'	2.19	0.43
11:A:2661:G:H2'	11:A:2662:A:C8	2.53	0.43
17:G:2:PRO:O	17:G:3:LEU:HB2	2.17	0.43
11:A:1017:G:H2'	11:A:1017:G:N3	2.34	0.43
2:1:3:LYS:CD	11:A:1364:G:N7	2.82	0.43
7:6:5:VAL:HG21	11:A:2283:C:C5'	2.48	0.43
31:X:26:TYR:CD1	31:X:26:TYR:N	2.86	0.43
11:A:695:G:N2	11:A:696:G:H1'	2.34	0.43
14:D:62:TYR:HE1	14:D:64:ILE:HA	1.83	0.43
14:D:83:GLU:O	14:D:92:ILE:HD13	2.19	0.43
24:Q:63:LYS:CE	24:Q:65:PHE:HE1	2.31	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:R:3:HIS:O	25:R:4:LEU:C	2.58	0.43
26:S:68:GLN:C	26:S:70:GLY:H	2.22	0.43
11:A:1666:G:O3'	22:O:6:THR:HG23	2.18	0.43
27:T:29:ARG:HB3	27:T:85:LYS:HA	2.00	0.43
12:B:107:G:O2'	12:B:108:U:H5'	2.18	0.43
11:A:310:A:C4	11:A:312:G:C8	3.07	0.43
17:G:166:ASP:C	17:G:168:GLU:N	2.72	0.43
23:P:18:ARG:O	23:P:20:GLY:N	2.52	0.43
11:A:1829:A:N6	11:A:1977:A:N6	2.66	0.43
14:D:96:HIS:CE1	14:D:102:LYS:CE	3.02	0.43
11:A:1493:C:C4	11:A:2206:G:O2'	2.70	0.43
11:A:2112:G:C2	11:A:2113:U:O4'	2.72	0.43
2:1:32:LYS:HB2	11:A:387:U:O3'	2.18	0.43
11:A:2126:A:O2'	11:A:2127:G:OP2	2.37	0.43
1:0:24:LYS:NZ	11:A:2355:C:O2'	2.46	0.43
11:A:2842:G:H1	11:A:2875:C:N4	2.17	0.43
23:P:85:LEU:O	23:P:89:ALA:HB2	2.19	0.43
11:A:1982:C:H2'	11:A:1983:C:C6	2.54	0.43
27:T:109:GLU:HA	27:T:112:ARG:HD3	1.99	0.43
24:Q:39:PRO:HA	24:Q:99:PRO:HD3	2.01	0.43
11:A:956:G:P	24:Q:87:LYS:HG3	2.58	0.43
11:A:1747:G:H2'	11:A:1747(A):G:C8	2.54	0.43
11:A:2092:U:H4'	11:A:2093:G:C5'	2.47	0.43
15:E:95:ILE:N	15:E:95:ILE:CD1	2.81	0.43
29:V:1:MET:O	29:V:2:PHE:HB2	2.19	0.43
3:2:26:ARG:NH2	11:A:137:C:O2'	2.52	0.43
23:P:33:ARG:O	23:P:34:GLY:C	2.56	0.43
23:P:61:ARG:HG3	23:P:61:ARG:H	1.28	0.43
28:U:14:HIS:HA	28:U:17:ILE:HD13	2.01	0.43
13:C:75:LEU:HD12	13:C:75:LEU:C	2.38	0.43
16:F:39:TRP:CE2	16:F:43:LYS:HE2	2.53	0.43
10:9:30:PRO:O	10:9:32:HIS:N	2.52	0.43
25:R:2:ARG:HH11	25:R:2:ARG:HG3	1.83	0.43
17:G:62:LEU:O	17:G:143:GLU:OE2	2.37	0.43
11:A:1348:G:C2'	11:A:1349:A:H5''	2.49	0.43
11:A:1661:G:C6	11:A:2000:G:N1	2.86	0.43
11:A:2726:U:HO2'	11:A:2727:G:C5'	2.32	0.43
15:E:23:VAL:CA	15:E:184:VAL:O	2.65	0.43
27:T:29:ARG:HD2	27:T:29:ARG:HA	1.77	0.43
33:Z:96:VAL:CG2	33:Z:97:GLU:H	1.95	0.43
11:A:2185:C:H6	11:A:2185:C:OP2	2.02	0.43
11:A:440:G:C8	11:A:440:G:O5'	2.72	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1263:U:C4	11:A:1264:G:C6	3.07	0.43
11:A:83:G:N1	11:A:102:G:H2'	2.34	0.43
28:U:86:ALA:HB2	28:U:116:ALA:HB2	2.01	0.43
11:A:2308:G:N2	17:G:79:ASN:CB	2.82	0.43
11:A:1541:G:O4'	11:A:1541:G:N3	2.52	0.43
13:C:140:PRO:O	13:C:142:ALA:N	2.51	0.43
18:H:163:TYR:O	18:H:164:TYR:O	2.37	0.43
24:Q:44:ALA:N	24:Q:45:GLN:HE21	2.16	0.43
2:1:23:LYS:HB3	2:1:29:GLY:O	2.19	0.43
11:A:195:A:N6	11:A:198:C:OP2	2.52	0.43
11:A:45:C:H2'	11:A:47:C:C6	2.53	0.43
17:G:114:ILE:HG13	17:G:135:LEU:CD2	2.36	0.43
13:C:150:GLY:O	13:C:154:ARG:HG2	2.17	0.43
11:A:2843:G:N2	11:A:2875:C:C4	2.87	0.43
11:A:1604:C:O2'	11:A:1605:C:H5'	2.19	0.43
24:Q:110:THR:OG1	24:Q:112:GLU:HB3	2.18	0.43
11:A:1413:G:H2'	11:A:1414:G:C8	2.54	0.43
1:0:20:ARG:HH11	1:0:20:ARG:CG	2.32	0.43
11:A:212:G:C2'	11:A:213:A:H5'	2.48	0.43
33:Z:108:PRO:C	33:Z:110:GLY:H	2.22	0.43
11:A:1328:G:H4'	11:A:1329:U:C5	2.53	0.43
11:A:2052:G:C6	11:A:2053:G:N7	2.87	0.43
11:A:2351:G:N1	11:A:2365:G:C6	2.87	0.43
11:A:478:A:C6	11:A:480:A:C6	3.07	0.43
11:A:481:G:H1'	11:A:506:G:H22	1.83	0.43
13:C:199:HIS:ND1	13:C:199:HIS:N	2.66	0.43
11:A:1909:C:C2'	11:A:1910:G:H5'	2.49	0.43
23:P:71:VAL:H	23:P:72:PRO:CD	2.31	0.43
18:H:98:LEU:HB2	18:H:125:VAL:CG2	2.49	0.43
13:C:203:GLY:O	13:C:204:ALA:C	2.57	0.43
33:Z:175:VAL:HB	33:Z:176:PRO:CD	2.49	0.43
11:A:1786:A:O2'	11:A:1938:A:N6	2.52	0.43
7:6:54:ILE:OXT	7:6:54:ILE:HG23	2.19	0.42
11:A:2028:U:C2'	11:A:2029:G:O4'	2.63	0.42
11:A:2414:G:H2'	11:A:2414:G:N3	2.34	0.42
11:A:251:A:H2'	11:A:252:G:H5'	2.01	0.42
32:Y:46:LYS:O	32:Y:47:LYS:HG3	2.17	0.42
11:A:1860:G:H2'	11:A:1861:G:C8	2.54	0.42
11:A:1427:A:N6	11:A:1571:A:OP2	2.50	0.42
14:D:35:LYS:HD2	14:D:36:PRO:CA	2.49	0.42
11:A:2524:G:H8	11:A:2524:G:C5'	2.32	0.42
11:A:605:C:N4	11:A:623:G:O6	2.52	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:656:G:C6	11:A:657:U:C4	3.07	0.42
18:H:68:THR:HA	18:H:71:LEU:HG	2.01	0.42
24:Q:50:ALA:C	24:Q:52:VAL:N	2.71	0.42
11:A:348:G:C2	11:A:349:G:C4	3.07	0.42
6:5:3:LYS:HE3	6:5:3:LYS:CA	2.39	0.42
26:S:63:THR:O	26:S:65:VAL:N	2.52	0.42
26:S:76:LYS:O	26:S:77:ALA:C	2.57	0.42
11:A:1759:A:O2'	11:A:1760:A:H5'	2.19	0.42
11:A:2864:G:O2'	11:A:2865:U:H5'	2.18	0.42
27:T:27:THR:O	27:T:47:GLY:O	2.37	0.42
13:C:188:ASN:O	13:C:189:ILE:C	2.57	0.42
13:C:20:TYR:CD1	13:C:20:TYR:N	2.82	0.42
33:Z:151:HIS:HA	33:Z:171:ILE:CG1	2.48	0.42
11:A:1474:C:H5'	11:A:1475:G:P	2.59	0.42
11:A:1475:G:C2	11:A:1517:G:N3	2.86	0.42
11:A:2444:G:OP2	16:F:68:LYS:NZ	2.48	0.42
17:G:130:ASN:CG	17:G:160:VAL:HG13	2.39	0.42
11:A:1776:G:C2	11:A:1777:U:C6	3.07	0.42
18:H:19:VAL:CG1	18:H:20:ALA:N	2.80	0.42
22:O:34:THR:O	22:O:35:VAL:C	2.57	0.42
32:Y:88:LYS:N	32:Y:88:LYS:HD2	2.33	0.42
11:A:723:G:C6	11:A:724:U:C4	3.07	0.42
11:A:455:C:N3	11:A:473:G:H5'	2.34	0.42
11:A:1098:A:H2'	11:A:1099:G:O4'	2.19	0.42
11:A:530:G:H1'	11:A:532:A:N7	2.34	0.42
4:3:50:VAL:C	4:3:52:HIS:N	2.72	0.42
11:A:2442:C:O2	11:A:2442:C:C2'	2.66	0.42
29:V:63:GLY:O	29:V:64:HIS:O	2.36	0.42
11:A:2776:A:H4'	11:A:2778:A:C5'	2.49	0.42
1:0:20:ARG:HH11	1:0:20:ARG:HG2	1.83	0.42
11:A:1113:U:H2'	11:A:1114:G:C8	2.53	0.42
11:A:207:A:H2'	11:A:208:C:C6	2.54	0.42
11:A:960:A:N6	11:A:962:G:C2	2.87	0.42
11:A:410:G:H1	11:A:417:C:N4	2.12	0.42
11:A:816:C:H2'	11:A:817:C:H6	1.83	0.42
11:A:463:G:C6	11:A:467:G:O6	2.72	0.42
11:A:2250:G:N3	11:A:2250:G:O4'	2.52	0.42
11:A:1186:G:H2'	11:A:1187:G:H5'	2.01	0.42
25:R:18:LEU:C	25:R:18:LEU:HD13	2.39	0.42
11:A:654(D):G:H2'	11:A:654(E):G:C8	2.54	0.42
8:7:19:ARG:HD3	11:A:125:G:P	2.59	0.42
11:A:1631(A):A:O2'	11:A:1632:A:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2255:G:C4	11:A:2256:G:C8	3.07	0.42
25:R:69:ASP:OD2	25:R:69:ASP:N	2.52	0.42
9:8:50:LEU:CD1	9:8:51:ALA:N	2.74	0.42
9:8:41:ILE:HD12	11:A:2419:U:OP1	2.18	0.42
11:A:448:U:H1'	16:F:84:VAL:HG13	2.01	0.42
11:A:583:G:OP2	28:U:10:ARG:HD2	2.19	0.42
13:C:76:ALA:HA	13:C:114:VAL:CG2	2.49	0.42
11:A:1244:G:C8	11:A:1244:G:H5'	2.55	0.42
16:F:182:ASN:OD1	16:F:185:ASP:HB2	2.19	0.42
16:F:28:ILE:HG12	16:F:28:ILE:O	2.19	0.42
16:F:31:HIS:O	16:F:33:LEU:N	2.52	0.42
16:F:37:VAL:HG22	16:F:183:VAL:CG2	2.41	0.42
23:P:5:ASP:OD2	23:P:6:LEU:HD23	2.20	0.42
16:F:160:ASN:ND2	16:F:162:LEU:HB2	2.33	0.42
15:E:7:VAL:O	15:E:7:VAL:HG13	2.19	0.42
5:4:10:VAL:CG2	5:4:11:PRO:N	2.82	0.42
17:G:39:ILE:CG1	17:G:92:VAL:HG12	2.49	0.42
24:Q:134:ARG:NH1	33:Z:122:ARG:CZ	2.82	0.42
26:S:93:LYS:HA	26:S:93:LYS:HD2	1.79	0.42
11:A:630:G:H2'	11:A:632:A:OP2	2.19	0.42
11:A:629:G:O2'	11:A:630:G:H5'	2.20	0.42
11:A:2679:A:O2'	11:A:2680:C:H5'	2.19	0.42
22:O:71:ARG:HE	22:O:105:GLU:CD	2.23	0.42
27:T:48:ILE:O	27:T:63:VAL:HA	2.19	0.42
12:B:72:G:O2'	12:B:105:A:N6	2.52	0.42
17:G:166:ASP:O	17:G:169:ALA:N	2.53	0.42
16:F:46:ARG:HG2	16:F:48:THR:HG23	2.00	0.42
29:V:4:ILE:O	29:V:38:LEU:HD23	2.18	0.42
11:A:1336:A:H2'	11:A:1337:G:C8	2.50	0.42
11:A:2307:G:H21	11:A:2308:G:H5'	1.83	0.42
11:A:2165:G:C6	11:A:2166:G:C6	3.07	0.42
24:Q:43:THR:OG1	24:Q:46:GLN:CG	2.64	0.42
11:A:2429:G:OP2	11:A:2430:A:OP2	2.36	0.42
4:3:7:LYS:C	4:3:54:VAL:HG13	2.39	0.42
5:4:35:VAL:HG12	17:G:112:PRO:CG	2.49	0.42
11:A:784:A:O2'	11:A:785:G:H8	2.02	0.42
13:C:63:SER:OG	13:C:160:ARG:HG3	2.20	0.42
13:C:156:ILE:CD1	13:C:160:ARG:NH2	2.83	0.42
11:A:271(Z):C:H1'	11:A:272(C):G:H1'	2.01	0.42
11:A:525:U:O2'	11:A:526:A:H5'	2.19	0.42
11:A:979:G:N2	11:A:985:C:H42	2.16	0.42
11:A:217:G:O6	11:A:431:U:O2	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:202:U:H2'	11:A:203:C:O4'	2.20	0.42
11:A:209:C:C4'	11:A:681:G:H4'	2.50	0.42
15:E:93:VAL:HG21	15:E:180:ASN:HA	2.01	0.42
2:1:70:VAL:CA	2:1:73:LEU:HD12	2.47	0.42
11:A:2252:G:H2'	11:A:2253:G:O4'	2.19	0.42
11:A:841:A:N1	11:A:938:G:C6	2.87	0.42
8:7:30:VAL:HG13	11:A:466:A:H4'	1.97	0.42
11:A:2791:C:H2'	11:A:2791:C:O2	2.19	0.42
11:A:843:G:H2'	11:A:844:C:H6	1.83	0.42
20:K:135:UNK:O	20:K:136:UNK:CB	2.66	0.42
11:A:1911:U:O2'	11:A:1912:A:H5''	2.19	0.42
23:P:69:GLY:O	23:P:70:GLN:C	2.56	0.42
11:A:2748:A:N3	11:A:2748:A:H2'	2.33	0.42
11:A:1835:G:N3	11:A:1835:G:H2'	2.35	0.42
11:A:839:U:O5'	11:A:839:U:H6	2.02	0.42
9:8:30:ARG:O	9:8:31:HIS:CB	2.67	0.42
9:8:52:LYS:O	9:8:55:ALA:HB3	2.18	0.42
11:A:2348:U:C2	11:A:2349:G:C8	3.07	0.42
11:A:565:C:H4'	11:A:1253:A:C2	2.54	0.42
11:A:1251:C:P	28:U:10:ARG:HE	2.39	0.42
11:A:483:A:C1'	32:Y:60:PHE:CZ	2.97	0.42
11:A:691:C:H6	11:A:691:C:O5'	2.02	0.42
11:A:654(V):A:H8	11:A:655:A:C2'	2.30	0.42
16:F:31:HIS:C	16:F:33:LEU:N	2.71	0.42
18:H:37:VAL:HG21	18:H:72:ILE:HD11	2.02	0.42
3:2:21:LEU:HD13	3:2:64:LEU:HB2	2.02	0.42
11:A:71:A:H3'	11:A:71:A:OP2	2.18	0.42
10:9:7:VAL:HG13	10:9:34:GLN:HB3	2.01	0.42
11:A:1275:A:C5	25:R:16:HIS:HB2	2.54	0.42
11:A:2821:A:H2'	11:A:2822:G:O4'	2.20	0.42
11:A:2850:A:N6	11:A:2869:G:H5'	2.34	0.42
25:R:28:LEU:CD2	25:R:29:LEU:N	2.82	0.42
25:R:45:ARG:O	25:R:48:VAL:N	2.52	0.42
17:G:61:ALA:O	17:G:62:LEU:C	2.58	0.42
11:A:2334:G:N3	26:S:18:ILE:HD13	2.35	0.42
26:S:27:SER:C	26:S:28:VAL:CG2	2.86	0.42
9:8:45:GLY:O	9:8:46:ARG:O	2.36	0.42
11:A:1637:A:O2'	11:A:1638:C:H5'	2.20	0.42
27:T:13:ARG:NH2	27:T:15:VAL:CG1	2.82	0.42
33:Z:12:GLY:CA	33:Z:36:LYS:NZ	2.83	0.42
33:Z:125:LEU:HD23	33:Z:164:ALA:O	2.19	0.42
17:G:162:THR:O	17:G:164:GLU:CG	2.64	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:27:ASN:C	17:G:29:TRP:N	2.73	0.42
11:A:85:G:H1	11:A:97:C:H42	1.66	0.42
11:A:1338:G:C2	11:A:1339:G:C4	3.07	0.42
11:A:426:C:O2	11:A:427:U:C6	2.72	0.42
17:G:45:GLU:C	17:G:47:LYS:N	2.71	0.42
24:Q:132:VAL:HG11	33:Z:81:ARG:NE	2.34	0.42
13:C:206:GLY:CA	13:C:210:ARG:HH22	2.17	0.42
2:1:24:ALA:O	2:1:29:GLY:HA2	2.18	0.42
11:A:135:G:C2	11:A:145:G:C2	3.07	0.42
13:C:39:GLU:O	13:C:177:LYS:HA	2.19	0.42
11:A:372:G:O2'	11:A:373:U:P	2.78	0.42
11:A:882:G:N2	11:A:894:C:H42	2.17	0.42
11:A:1173:G:H3'	11:A:1174:A:C5'	2.50	0.42
11:A:871:U:O2	11:A:871:U:H2'	2.18	0.42
21:N:22:THR:N	21:N:61:ARG:HB2	2.33	0.42
21:N:63:THR:HB	21:N:64:GLY:H	1.53	0.42
30:W:28:SER:HA	30:W:70:TYR:CB	2.49	0.42
11:A:2853:C:O2'	11:A:2854:G:H5'	2.18	0.42
11:A:2241:A:H2'	11:A:2242:G:H8	1.84	0.42
12:B:94:C:H2'	12:B:95:C:H6	1.83	0.42
11:A:418:G:C2	11:A:419:C:C6	3.08	0.42
11:A:1620:G:O2'	11:A:1621:U:H5'	2.19	0.42
11:A:1287:A:N3	11:A:1287:A:H2'	2.34	0.42
11:A:2330:G:O2'	11:A:2331:G:H5'	2.19	0.42
7:6:42:TRP:CD2	11:A:2348:U:O2'	2.73	0.42
11:A:1858:G:O2'	11:A:1859:A:H8	2.02	0.42
11:A:769:G:O4'	11:A:1379:A:C6	2.72	0.42
14:D:34:VAL:CG2	14:D:35:LYS:N	2.81	0.42
16:F:97:TYR:N	16:F:97:TYR:CD2	2.87	0.42
3:2:27:GLU:O	3:2:30:ARG:HB3	2.20	0.42
3:2:63:VAL:O	3:2:64:LEU:C	2.57	0.42
11:A:2880:C:O2'	25:R:90:ARG:NH1	2.46	0.42
15:E:83:ASP:O	15:E:84:PHE:CB	2.66	0.42
17:G:138:GLN:HG3	17:G:139:LEU:H	1.83	0.42
11:A:1667:G:C8	11:A:1667:G:OP2	2.62	0.42
11:A:1759:A:O5'	11:A:1759:A:H8	2.01	0.42
27:T:89:VAL:CG1	27:T:91:ARG:HG3	2.46	0.42
33:Z:27:VAL:CG1	33:Z:27:VAL:O	2.66	0.42
11:A:2645:G:C3'	11:A:2646:C:C5'	2.85	0.42
11:A:1210:A:H4'	11:A:1211:U:O5'	2.19	0.42
17:G:120:LEU:O	17:G:122:PRO:N	2.53	0.42
17:G:36:LYS:HG2	17:G:94:LEU:O	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:44:THR:HG22	6:5:45:VAL:N	2.24	0.42
11:A:444:C:C2'	11:A:445:C:O5'	2.67	0.42
14:D:142:VAL:HG23	14:D:192:THR:C	2.39	0.42
11:A:1446:C:N4	11:A:1465:G:H1	2.16	0.42
11:A:1464:C:N3	11:A:1465:G:N7	2.67	0.42
11:A:1541:G:C8	11:A:1542:A:C6	3.07	0.42
32:Y:86:ARG:HB3	32:Y:88:LYS:HZ2	1.80	0.42
32:Y:86:ARG:NH2	32:Y:95:LYS:HZ2	2.16	0.42
11:A:2152:G:H2'	11:A:2153:G:H8	1.84	0.42
11:A:2175:C:C5'	13:C:219:GLY:O	2.62	0.42
33:Z:76:LEU:O	33:Z:77:ASP:HB2	2.18	0.42
1:0:23:VAL:HG22	1:0:38:VAL:CG2	2.49	0.42
29:V:22:VAL:O	29:V:23:GLU:HB2	2.19	0.42
11:A:1360:A:C6	11:A:1372:U:N3	2.86	0.42
15:E:69:LYS:C	15:E:71:GLY:N	2.73	0.42
24:Q:116:GLU:O	24:Q:119:ARG:N	2.52	0.42
16:F:59:TYR:CD2	16:F:59:TYR:N	2.82	0.42
11:A:806:C:O2'	11:A:807:U:H5'	2.19	0.42
21:N:39:ARG:N	28:U:67:ALA:HB1	2.35	0.42
14:D:74:GLY:O	14:D:76:PRO:HD3	2.20	0.42
11:A:1747:G:H2'	11:A:1747(A):G:H8	1.85	0.42
11:A:467:G:H8	11:A:467:G:OP2	2.02	0.42
11:A:412:A:H3'	11:A:413:C:C6	2.55	0.42
23:P:136:GLU:HA	23:P:136:GLU:OE1	2.19	0.42
11:A:500:G:H22	11:A:503:A:P	2.41	0.42
23:P:122:PRO:HG3	23:P:141:ALA:HB3	2.01	0.42
11:A:1478:G:N2	11:A:1479:G:C4	2.87	0.42
1:0:75:LEU:HA	1:0:75:LEU:HD23	1.77	0.42
7:6:15:GLU:HB2	7:6:20:ASN:HB2	2.01	0.42
7:6:11:LEU:O	7:6:24:GLU:O	2.37	0.42
7:6:41:PRO:O	7:6:45:LYS:HB3	2.19	0.42
9:8:6:THR:HG21	9:8:63:PRO:HD3	2.01	0.42
9:8:7:HIS:O	9:8:9:GLY:N	2.51	0.42
11:A:1253:A:N6	29:V:80:GLN:HE22	2.18	0.42
11:A:2361:A:H2'	11:A:2362:G:C8	2.48	0.42
11:A:511:U:H6	11:A:511:U:O5'	2.03	0.42
11:A:813:U:H2'	11:A:814:C:C5	2.53	0.42
11:A:942:G:H5'	23:P:35:HIS:O	2.19	0.42
28:U:17:ILE:N	28:U:17:ILE:HD12	2.33	0.42
31:X:12:VAL:HG12	31:X:27:THR:H	1.83	0.42
16:F:103:LYS:HG2	16:F:106:ARG:NH2	2.34	0.42
11:A:2756:U:O2'	11:A:2757:A:H5''	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:35:LEU:CG	3:2:50:ILE:HG13	2.49	0.42
11:A:2482:G:C8	11:A:2483:C:C5	3.08	0.42
24:Q:51:ARG:HG2	24:Q:52:VAL:N	2.34	0.42
11:A:2819:G:N2	11:A:2828:C:C2	2.87	0.42
26:S:66:ALA:O	26:S:67:ARG:C	2.57	0.42
7:6:30:THR:HG21	11:A:2286:A:OP2	2.19	0.42
23:P:112:LEU:C	23:P:112:LEU:HD13	2.40	0.42
23:P:97:PRO:HD3	23:P:126:VAL:O	2.20	0.42
27:T:50:ILE:HG13	27:T:99:LEU:CD1	2.50	0.42
24:Q:141:GLN:CD	33:Z:72:ARG:CD	2.88	0.42
12:B:104:U:O3'	33:Z:72:ARG:NH1	2.52	0.42
1:0:14:ARG:HH11	1:0:14:ARG:HG3	1.84	0.42
11:A:1406:U:N3	11:A:1597:A:C2	2.87	0.42
17:G:102:PHE:O	17:G:104:GLU:N	2.53	0.42
17:G:34:LEU:CD1	17:G:34:LEU:O	2.65	0.42
16:F:7:TYR:HD2	16:F:16:GLY:HA3	1.83	0.42
11:A:1790:C:H5'	11:A:1791:A:OP1	2.19	0.42
11:A:1971:A:N3	14:D:241:PRO:HD3	2.34	0.42
21:N:28:THR:CG2	21:N:29:LYS:N	2.56	0.42
18:H:19:VAL:CG1	18:H:20:ALA:H	2.32	0.42
11:A:2137:C:O2'	11:A:2138:C:H5'	2.19	0.42
11:A:2166:G:H2'	11:A:2167:U:C6	2.54	0.42
18:H:97:ARG:O	18:H:103:LEU:HD12	2.19	0.42
24:Q:45:GLN:CD	24:Q:45:GLN:H	2.13	0.42
21:N:128:HIS:CD2	21:N:130:HIS:CE1	3.06	0.42
11:A:1373:A:C2'	11:A:1374:G:H5'	2.49	0.42
11:A:2043:C:H2'	11:A:2044:C:C6	2.54	0.42
11:A:2625:G:H2'	11:A:2626:C:O4'	2.19	0.42
11:A:1492:G:C2	11:A:1499:C:O2	2.72	0.42
11:A:1993:U:C5'	15:E:128:SER:HB3	2.50	0.42
11:A:2861:G:C2'	11:A:2862:G:H5'	2.49	0.42
11:A:416:C:O2'	11:A:417:C:H5'	2.19	0.42
1:0:30:VAL:HA	1:0:66:VAL:N	2.34	0.42
11:A:654(S):G:H2'	11:A:654(T):C:O4'	2.20	0.42
29:V:36:PRO:HA	29:V:56:SER:HB2	1.99	0.42
11:A:1907:G:H2'	11:A:1908:C:H6	1.83	0.42
30:W:112:GLY:O	30:W:113:LYS:O	2.37	0.42
7:6:11:LEU:HG	7:6:51:GLU:HG2	2.00	0.42
11:A:2359:C:C4	11:A:2360:A:C5	3.07	0.42
11:A:2331:G:C2	11:A:2385:C:C4	3.07	0.42
11:A:564:C:C4	11:A:565:C:C4	3.07	0.42
3:2:21:LEU:HD13	3:2:64:LEU:CB	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:159:GLY:C	16:F:164:ARG:HH21	2.22	0.42
15:E:82:ARG:HD2	15:E:82:ARG:HA	1.76	0.42
17:G:61:ALA:O	17:G:65:GLY:N	2.52	0.42
23:P:78:PRO:CB	23:P:111:ARG:HH21	2.30	0.42
23:P:121:LYS:O	23:P:123:LEU:N	2.40	0.42
23:P:124:LYS:HD3	23:P:143:GLY:HA3	2.01	0.42
23:P:147:LEU:O	23:P:148:LEU:HB2	2.20	0.42
32:Y:15:VAL:CG1	32:Y:20:TYR:O	2.68	0.42
17:G:129:GLY:HA3	17:G:163:ALA:O	2.20	0.42
21:N:132:ALA:O	21:N:133:GLN:CB	2.65	0.42
11:A:491:G:H2'	11:A:492:A:C8	2.54	0.42
6:5:43:HIS:HA	11:A:2884:U:C5	2.54	0.42
11:A:730:C:O2'	11:A:731:C:H5'	2.19	0.42
11:A:83:G:O2'	11:A:102:G:N2	2.51	0.42
21:N:120:LEU:HD13	21:N:120:LEU:C	2.40	0.42
11:A:1494:A:HO2'	11:A:1496:A:H2	1.68	0.42
12:B:7:G:H3'	12:B:8:U:C5'	2.32	0.42
22:O:35:VAL:CG1	22:O:103:ALA:HB3	2.34	0.42
11:A:2123:G:O4'	13:C:172:HIS:HB2	2.19	0.42
24:Q:34:LEU:HA	24:Q:130:LYS:O	2.20	0.42
2:1:24:ALA:C	2:1:26:ARG:N	2.72	0.42
11:A:2072:G:N2	11:A:2073:C:C2	2.88	0.42
11:A:237:C:O2'	11:A:238:C:H5'	2.20	0.42
11:A:2778:A:O2'	11:A:2780:G:O2'	2.36	0.42
11:A:1346:G:H2'	11:A:1347:G:C8	2.54	0.42
29:V:31:ALA:O	29:V:61:VAL:HG13	2.19	0.42
11:A:635:C:H2'	11:A:636:G:H8	1.83	0.42
11:A:55:G:N3	11:A:55:G:H2'	2.33	0.42
11:A:2053:G:C2	11:A:2054:A:C1'	3.00	0.42
11:A:2669:G:C2	11:A:2670:A:C5	3.08	0.42
24:Q:111:GLU:OE1	24:Q:133:ARG:NH2	2.53	0.42
14:D:215:LEU:HB2	14:D:217:ARG:HG3	2.02	0.42
11:A:1145:C:H2'	11:A:1146:C:C6	2.54	0.42
11:A:402:A:H2'	11:A:403:U:H5'	2.02	0.42
11:A:2565:A:H2'	11:A:2566:A:O4'	2.19	0.42
21:N:65:LYS:HB3	21:N:65:LYS:HZ3	1.83	0.42
11:A:240:G:O2'	11:A:257:A:N6	2.53	0.42
19:J:23:UNK:CB	19:J:92:UNK:CB	2.98	0.42
11:A:27:G:H22	11:A:512:G:H2'	1.77	0.42
23:P:46:LYS:HB3	23:P:47:ASP:H	1.72	0.42
32:Y:63:LYS:HG2	32:Y:64:GLU:N	2.33	0.42
11:A:1851:U:O2'	11:A:1852:C:H5'	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1889:A:N1	11:A:2234:G:H1'	2.35	0.42
31:X:13:LEU:O	31:X:14:SER:HB3	2.20	0.42
3:2:48:HIS:C	3:2:50:ILE:H	2.23	0.42
3:2:50:ILE:HG21	11:A:61:G:H5'	2.02	0.42
10:9:22:ARG:NH1	11:A:2741:A:OP1	2.53	0.42
11:A:321:G:N3	16:F:165:ARG:HD3	2.34	0.42
11:A:2454:G:O2'	11:A:2455:G:C5'	2.66	0.42
25:R:66:VAL:C	25:R:68:ARG:N	2.71	0.42
17:G:58:GLN:HE22	17:G:62:LEU:CD1	2.29	0.42
28:U:109:LEU:HA	28:U:112:ARG:HB2	2.01	0.42
26:S:32:LEU:HG	26:S:32:LEU:H	1.60	0.42
11:A:1759:A:C8	11:A:2696:U:O2	2.72	0.42
11:A:2724:C:H2'	11:A:2725:A:H8	1.81	0.42
27:T:28:VAL:O	27:T:29:ARG:HB2	2.19	0.42
24:Q:140:ALA:CA	33:Z:99:TYR:CD1	3.02	0.42
1:0:12:ASN:HA	1:0:14:ARG:NH1	2.34	0.42
32:Y:76:CYS:O	32:Y:78:ALA:N	2.53	0.42
17:G:171:ALA:O	17:G:172:LEU:C	2.58	0.42
17:G:16:ARG:HD2	17:G:31:VAL:HG21	2.01	0.42
11:A:18:C:H2'	11:A:19:C:C6	2.55	0.42
29:V:51:VAL:HG12	29:V:52:VAL:N	2.33	0.42
11:A:1394:U:C4	11:A:1395:A:C5	3.08	0.42
11:A:2207:G:N3	11:A:2207:G:H5''	2.35	0.42
17:G:150:ASP:OD2	17:G:153:ARG:NH1	2.48	0.42
17:G:44:GLY:O	17:G:47:LYS:HD2	2.18	0.42
11:A:1092:C:N4	11:A:1093:G:C2	2.87	0.42
26:S:106:ARG:O	26:S:107:GLU:HB3	2.19	0.42
11:A:530:G:C6	11:A:2022:U:H5''	2.54	0.42
5:4:30:GLU:C	5:4:31:ILE:HD12	2.40	0.42
22:O:25:LEU:HD11	22:O:40:VAL:CG2	2.50	0.42
11:A:2370:G:H2'	11:A:2371:G:C8	2.55	0.42
17:G:40:ASN:C	17:G:40:ASN:OD1	2.56	0.42
11:A:2267:A:H3'	11:A:2267:A:N3	2.34	0.42
25:R:56:LYS:C	25:R:58:GLY:N	2.73	0.42
11:A:880:G:C2	11:A:881:G:N7	2.87	0.42
14:D:11:PRO:C	14:D:13:ARG:N	2.73	0.42
13:C:1:PRO:O	13:C:3:HIS:N	2.52	0.42
11:A:2439:A:H2'	11:A:2439:A:OP1	2.20	0.42
11:A:1786:A:C5	11:A:1938:A:C2	3.07	0.42
11:A:846:C:H6	11:A:846:C:O5'	2.01	0.42
11:A:2320:A:C2'	11:A:2320:A:N3	2.83	0.42
11:A:769:G:HO2'	11:A:770:G:H5'	1.83	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:C:91:ALA:HB3	13:C:94:VAL:HG22	2.00	0.42
16:F:116:ASP:O	16:F:120:GLU:OE2	2.38	0.42
16:F:122:LYS:CB	16:F:191:ARG:HG3	2.50	0.42
10:9:7:VAL:HG13	10:9:34:GLN:HG2	1.99	0.42
11:A:1654:A:H2	15:E:113:PHE:CE2	2.37	0.42
11:A:2839:G:C4	11:A:2840:C:C5	3.08	0.42
11:A:628:G:C2'	11:A:629:G:C5'	2.95	0.42
15:E:65:GLY:O	15:E:66:HIS:C	2.58	0.42
11:A:2682:U:C1'	15:E:12:THR:HA	2.50	0.42
27:T:12:SER:O	27:T:13:ARG:NH2	2.53	0.42
27:T:91:ARG:O	27:T:117:ASP:CB	2.67	0.42
33:Z:94:GLU:O	33:Z:96:VAL:N	2.52	0.42
11:A:1474:C:H5'	11:A:1475:G:OP1	2.20	0.42
17:G:32:PRO:CB	17:G:162:THR:HB	2.50	0.42
11:A:491:G:H2'	11:A:492:A:H8	1.84	0.42
21:N:125:GLY:HA3	21:N:126:PRO:C	2.40	0.42
28:U:74:LEU:C	28:U:74:LEU:HD12	2.40	0.42
11:A:1316:U:H5'	11:A:1392:A:H1'	2.01	0.42
14:D:102:LYS:C	14:D:103:ARG:HG2	2.39	0.42
11:A:596:G:C6	11:A:597:U:C4	3.08	0.42
11:A:1543:C:C3'	11:A:1544:A:C5'	2.86	0.42
11:A:2110:G:O2'	11:A:2111:C:H5'	2.20	0.42
18:H:121:ILE:HG23	18:H:133:VAL:CG1	2.49	0.42
30:W:11:ARG:O	30:W:11:ARG:NE	2.51	0.42
11:A:2126:A:N6	11:A:2163:C:H4'	2.35	0.42
17:G:109:VAL:C	17:G:111:LEU:H	2.22	0.42
11:A:783:A:C2'	11:A:784:A:O5'	2.68	0.42
11:A:2777:G:H3'	11:A:2777:G:C8	2.55	0.42
11:A:525:U:O5'	11:A:556:G:C5'	2.66	0.42
11:A:1388:G:O6	11:A:1399:C:N4	2.53	0.42
11:A:1128:A:C5	11:A:2518:A:N6	2.87	0.42
11:A:2052:G:O4'	15:E:142:GLY:HA3	2.19	0.42
12:B:71:C:H2'	12:B:71:C:O2	2.18	0.42
4:3:12:PRO:CG	4:3:13:ILE:H	2.27	0.42
31:X:74:PRO:O	31:X:76:ARG:CD	2.68	0.42
11:A:2405:G:H2'	11:A:2411:A:H62	1.81	0.42
33:Z:118:GLN:CD	33:Z:120:ILE:HD11	2.39	0.42
13:C:43:VAL:O	13:C:43:VAL:HG12	2.20	0.42
11:A:2598:A:H5''	14:D:235:GLY:HA3	2.02	0.42
11:A:742:G:H2'	11:A:743:G:C8	2.54	0.42
2:1:33:LYS:H	2:1:33:LYS:HG2	1.53	0.42
7:6:15:GLU:OE2	7:6:18:ARG:NH2	2.53	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:6:23:THR:HG21	11:A:2419:U:H4'	2.02	0.42
11:A:2280:G:C2	11:A:2281:C:C6	3.08	0.42
11:A:487:C:O4'	30:W:56:ALA:HB3	2.19	0.42
11:A:2083:G:H2'	11:A:2084:C:C6	2.55	0.42
14:D:268:ARG:NH1	14:D:269:PHE:CE1	2.83	0.42
14:D:63:ARG:HG2	14:D:63:ARG:HH11	1.82	0.42
11:A:604:G:O2'	11:A:605:C:H5'	2.19	0.42
3:2:50:ILE:N	3:2:50:ILE:CD1	2.82	0.42
11:A:320:A:O2'	11:A:321:G:H3'	2.20	0.42
25:R:32:GLY:O	25:R:115:GLU:HA	2.20	0.42
25:R:63:ARG:NH1	25:R:80:PHE:CD2	2.88	0.42
30:W:88:ARG:HA	30:W:88:ARG:HD2	1.88	0.42
23:P:96:THR:H	23:P:99:LEU:CD2	2.32	0.42
11:A:1670:C:O2'	11:A:1671:U:H5'	2.20	0.42
11:A:2847:U:OP1	27:T:98:LYS:HD3	2.19	0.42
27:T:121:ILE:C	27:T:123:GLN:N	2.73	0.42
27:T:8:LYS:C	27:T:10:VAL:H	2.24	0.42
32:Y:67:LEU:HD23	32:Y:68:HIS:N	2.34	0.42
10:9:9:ARG:NH2	10:9:12:ASP:O	2.53	0.42
6:5:41:PRO:C	6:5:44:THR:HG1	2.15	0.42
11:A:1772:G:H21	11:A:1774:C:H5''	1.85	0.42
21:N:27:ALA:O	21:N:28:THR:C	2.57	0.42
21:N:33:LEU:N	21:N:33:LEU:CD1	2.81	0.42
28:U:57:PHE:O	28:U:59:ARG:N	2.53	0.42
14:D:142:VAL:HA	14:D:194:GLY:N	2.35	0.42
11:A:265:A:C1'	11:A:266:G:O4'	2.66	0.42
11:A:428:A:C2	11:A:429:A:C4	3.08	0.42
17:G:51:ARG:HH11	17:G:53:LEU:HD21	1.85	0.42
11:A:2152:G:C4	11:A:2153:G:C8	3.08	0.42
11:A:1030:G:C6	11:A:1125:G:N2	2.88	0.42
11:A:2133:G:C8	11:A:2133:G:H3'	2.54	0.42
11:A:1601:G:H2'	11:A:1602:U:H5'	2.01	0.42
22:O:8:LEU:HD22	22:O:8:LEU:O	2.19	0.42
13:C:106:GLY:O	13:C:107:TRP:HB3	2.18	0.42
11:A:476:G:H2'	11:A:478:A:OP2	2.20	0.42
33:Z:14:LYS:HB2	33:Z:17:ALA:HB3	2.02	0.42
11:A:954:G:O3'	24:Q:13:GLN:HG2	2.20	0.42
33:Z:30:ASN:ND2	33:Z:32:HIS:HB2	2.35	0.42
11:A:2770:G:C5'	11:A:2771:C:OP2	2.67	0.42
7:6:19:ARG:CG	7:6:20:ASN:N	2.69	0.42
9:8:4:MET:CE	9:8:61:LEU:CD2	2.97	0.42
11:A:1253:A:O2'	11:A:1254:A:H5'	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2292:C:N4	11:A:2340:G:H1	2.17	0.42
11:A:2414:G:C2	11:A:2415:G:N7	2.87	0.42
11:A:669:G:H5''	11:A:670:A:OP2	2.19	0.42
23:P:50:ARG:HG3	23:P:51:PHE:CD1	2.55	0.42
28:U:10:ARG:HA	28:U:13:LYS:CG	2.48	0.42
13:C:115:ALA:O	13:C:116:THR:HG23	2.19	0.42
13:C:115:ALA:O	13:C:149:ILE:HD13	2.20	0.42
16:F:40:GLN:NE2	16:F:184:TYR:CB	2.83	0.42
3:2:54:LYS:NZ	11:A:60:G:H5''	2.35	0.42
3:2:22:GLU:HG2	3:2:64:LEU:HD21	2.02	0.42
3:2:68:ARG:HH22	3:2:72:ALA:CB	2.31	0.42
16:F:139:PHE:CZ	16:F:143:ALA:HB2	2.55	0.42
11:A:2055:C:H2'	11:A:2504:U:C4'	2.50	0.42
6:5:6:VAL:H	11:A:2056:G:H21	1.66	0.42
11:A:2453:A:C2	11:A:2504:U:O2	2.73	0.42
17:G:91:ARG:HD2	17:G:91:ARG:O	2.18	0.42
31:X:49:VAL:HB	31:X:50:LYS:H	1.63	0.42
11:A:2640:G:O5'	11:A:2640:G:H8	2.03	0.42
15:E:167:VAL:HG12	15:E:189:PRO:HD2	2.00	0.42
15:E:201:THR:OG1	15:E:202:LYS:N	2.53	0.42
22:O:104:ARG:HH21	27:T:33:LYS:HE3	1.84	0.42
27:T:88:ILE:HG22	27:T:89:VAL:CG2	2.43	0.42
33:Z:163:LEU:HG	33:Z:164:ALA:N	2.35	0.42
33:Z:3:TYR:N	33:Z:3:TYR:CD1	2.87	0.42
33:Z:65:GLN:HG3	33:Z:65:GLN:H	1.73	0.42
1:0:10:THR:CG2	1:0:11:ARG:N	2.83	0.42
11:A:327:G:C2	11:A:328:U:C2	3.08	0.42
32:Y:8:LYS:CE	32:Y:72:VAL:HG23	2.50	0.42
16:F:10:PRO:HD2	16:F:13:SER:O	2.19	0.42
6:5:57:VAL:O	6:5:58:LEU:HD12	2.20	0.42
11:A:445:C:O2'	11:A:446:G:O4'	2.36	0.42
14:D:242:ARG:HD2	14:D:242:ARG:N	2.34	0.42
11:A:705:A:H1'	14:D:9:TYR:CE1	2.55	0.42
11:A:16:G:O2'	11:A:17:G:H5'	2.20	0.42
11:A:539:G:O2'	11:A:540:C:H5'	2.20	0.42
21:N:54:VAL:O	21:N:122:VAL:HG13	2.20	0.42
24:Q:24:GLY:O	24:Q:26:TYR:O	2.38	0.42
18:H:149:ARG:HG2	18:H:149:ARG:O	2.19	0.42
18:H:164:TYR:HB3	18:H:165:ALA:H	1.54	0.42
11:A:805:G:H21	11:A:829:A:P	2.43	0.42
12:B:17:C:O2'	12:B:18:G:H5'	2.19	0.42
5:4:31:ILE:HG22	5:4:31:ILE:O	2.20	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:D:227:ASN:O	14:D:228:PRO:C	2.58	0.42
11:A:909:A:O2'	11:A:910:A:H5'	2.19	0.42
11:A:2768:C:H5''	21:N:83:LYS:HE3	2.02	0.42
31:X:60:ARG:HG3	31:X:75:ASP:CG	2.37	0.42
11:A:217:G:H2'	11:A:218:A:C8	2.54	0.42
11:A:1065:U:H4'	11:A:1065:U:OP2	2.20	0.42
11:A:2065:C:O2	11:A:2449:U:N3	2.49	0.42
11:A:106:C:O4'	32:Y:2:ARG:HG3	2.20	0.42
11:A:1750:G:HO2'	11:A:1751:C:H5'	1.83	0.42
1:O:25:ARG:C	1:O:26:TYR:CD1	2.93	0.42
18:H:105:LEU:N	18:H:105:LEU:HD23	2.32	0.42
25:R:18:LEU:O	25:R:18:LEU:HD22	2.20	0.42
5:4:46:GLN:CG	5:4:47:GLN:H	2.32	0.42
23:P:71:VAL:HG13	23:P:72:PRO:CD	2.50	0.42
11:A:754:C:H2'	11:A:755:C:C5	2.54	0.42
11:A:2567:G:H2'	11:A:2568:C:H6	1.84	0.42
9:8:55:ALA:O	9:8:56:GLU:C	2.58	0.41
11:A:1259:G:H2'	11:A:1260:G:C8	2.53	0.41
11:A:572:A:H3'	11:A:573:G:O4'	2.20	0.41
11:A:672:C:O2'	11:A:673:C:H5''	2.20	0.41
23:P:23:PRO:C	23:P:33:ARG:CZ	2.88	0.41
11:A:486:C:O2'	30:W:56:ALA:HB1	2.20	0.41
32:Y:56:PRO:O	32:Y:57:GLN:O	2.38	0.41
14:D:264:LYS:O	14:D:267:SER:OG	2.36	0.41
14:D:270:ILE:HG13	14:D:270:ILE:H	1.74	0.41
18:H:40:GLU:O	18:H:41:MET:CB	2.67	0.41
3:2:35:LEU:HD13	3:2:35:LEU:C	2.40	0.41
11:A:2530:A:C2'	11:A:2531:A:H5''	2.49	0.41
11:A:321:G:OP2	16:F:135:LYS:HA	2.20	0.41
11:A:1271:G:N2	11:A:1617:C:O4'	2.52	0.41
11:A:1653:G:O2'	25:R:3:HIS:CB	2.68	0.41
25:R:3:HIS:HB3	25:R:4:LEU:H	1.56	0.41
11:A:1487:G:C4	11:A:1488:G:C8	3.08	0.41
9:8:45:GLY:O	9:8:46:ARG:C	2.59	0.41
11:A:2683:C:H42	11:A:2727:G:N2	2.18	0.41
11:A:2695:C:H2'	11:A:2696:U:C6	2.55	0.41
11:A:2683:C:H42	11:A:2727:G:H21	1.67	0.41
11:A:2773:C:H5''	15:E:164:ARG:CD	2.49	0.41
13:C:21:THR:N	13:C:24:GLU:HB2	2.35	0.41
33:Z:39:VAL:HG23	33:Z:44:PHE:HB2	2.02	0.41
11:A:861:A:H2	12:B:79:C:H1'	1.85	0.41
11:A:1210:A:N3	11:A:1212:G:N2	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:491:G:H2'	11:A:492:A:O4'	2.20	0.41
16:F:11:VAL:C	16:F:13:SER:N	2.72	0.41
26:S:49:VAL:CG1	26:S:50:SER:H	2.02	0.41
14:D:244:ARG:HG2	14:D:245:PRO:CB	2.50	0.41
11:A:1528:A:HO2'	11:A:1528(A):A:C5'	2.33	0.41
11:A:2161:C:O2'	11:A:2162:G:H5'	2.20	0.41
5:4:14:ILE:CD1	5:4:14:ILE:N	2.81	0.41
5:4:33:VAL:HG13	5:4:34:GLU:N	2.36	0.41
11:A:2071:A:H2	11:A:2441:C:C2	2.38	0.41
14:D:227:ASN:O	14:D:230:ASP:N	2.53	0.41
11:A:1805:U:H5''	14:D:250:TRP:CE2	2.54	0.41
11:A:1346:G:C2	11:A:1601:G:C2	3.08	0.41
22:O:90:GLN:O	22:O:92:GLU:N	2.52	0.41
14:D:89:SER:HB2	14:D:159:ALA:HB2	2.01	0.41
11:A:1813:G:H1'	14:D:50:THR:OG1	2.20	0.41
33:Z:109:ALA:C	33:Z:145:GLU:OE1	2.58	0.41
15:E:93:VAL:CG1	15:E:175:VAL:HG23	2.49	0.41
15:E:175:VAL:O	15:E:175:VAL:HG13	2.20	0.41
2:1:34:THR:CG2	2:1:35:THR:N	2.82	0.41
11:A:1747(A):G:H2'	11:A:1748:G:C5'	2.48	0.41
29:V:71:LEU:CD2	29:V:84:LYS:HE2	2.50	0.41
11:A:753:C:H2'	11:A:754:C:H6	1.84	0.41
11:A:1560:G:H2'	11:A:1560:G:N3	2.35	0.41
12:B:85:G:C4	12:B:93:G:C2	3.08	0.41
15:E:181:LEU:CD1	15:E:181:LEU:N	2.82	0.41
11:A:1815:A:OP1	11:A:1815:A:H8	2.02	0.41
25:R:94:TYR:N	25:R:94:TYR:CD2	2.85	0.41
9:8:62:LEU:N	9:8:63:PRO:HD2	2.35	0.41
11:A:2413:G:H2'	11:A:2414:G:C8	2.50	0.41
11:A:483:A:N7	11:A:484:C:C2	2.88	0.41
11:A:2234:G:O2'	11:A:2235:G:H5'	2.19	0.41
14:D:24:ILE:HG12	14:D:25:THR:N	2.35	0.41
13:C:75:LEU:HB2	13:C:93:TYR:HB2	2.02	0.41
16:F:182:ASN:OD1	16:F:185:ASP:CB	2.68	0.41
18:H:38:SER:HA	18:H:39:PRO:HD3	1.78	0.41
10:9:25:VAL:HB	10:9:34:GLN:CB	2.49	0.41
10:9:6:SER:HB2	11:A:2466:C:H5''	2.02	0.41
11:A:2478:A:O2'	11:A:2536:G:N2	2.52	0.41
11:A:2740:A:H2'	11:A:2741:A:O4'	2.20	0.41
11:A:1205:U:H4'	11:A:1206:G:OP2	2.20	0.41
16:F:137:LYS:HE3	16:F:137:LYS:HB2	1.85	0.41
15:E:82:ARG:CG	15:E:82:ARG:NH1	2.76	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:76:LYS:O	26:S:79:ALA:HB3	2.20	0.41
26:S:90:GLY:C	26:S:92:TYR:H	2.24	0.41
15:E:52:LEU:HD23	15:E:75:VAL:HB	2.01	0.41
11:A:2285:C:H42	11:A:2383:G:H1	1.68	0.41
11:A:1669:A:OP2	11:A:2550:G:OP1	2.38	0.41
27:T:124:ASP:CB	27:T:125:ARG:NH1	2.83	0.41
24:Q:141:GLN:OE1	33:Z:72:ARG:CD	2.67	0.41
16:F:7:TYR:CD2	16:F:16:GLY:HA3	2.54	0.41
16:F:8:GLN:HE21	16:F:9:ILE:HB	1.85	0.41
21:N:55:VAL:HG21	21:N:127:ASP:H	1.83	0.41
11:A:1790:C:H2'	11:A:1791:A:C8	2.55	0.41
14:D:8:PRO:HB3	14:D:14:ARG:HB3	1.98	0.41
11:A:1138:G:N2	11:A:1143:A:N1	2.68	0.41
28:U:66:ASN:C	28:U:66:ASN:HD22	2.22	0.41
14:D:112:GLN:N	14:D:115:GLN:NE2	2.46	0.41
14:D:73:VAL:HA	14:D:119:ALA:O	2.20	0.41
14:D:164:GLN:HG2	14:D:165:ILE:O	2.20	0.41
11:A:1579:A:H2'	11:A:1580:A:N9	2.34	0.41
11:A:1548:C:H2'	11:A:1549:C:H6	1.86	0.41
26:S:85:VAL:CG2	26:S:106:ARG:HB2	2.50	0.41
2:1:24:ALA:O	2:1:25:LYS:C	2.58	0.41
17:G:114:ILE:O	17:G:115:ARG:HB2	2.20	0.41
1:0:37:LEU:HG	1:0:59:LEU:C	2.41	0.41
27:T:3:ARG:HD2	27:T:6:LEU:HD13	2.02	0.41
14:D:46:GLN:OE1	14:D:46:GLN:N	2.53	0.41
11:A:1783:A:C6	11:A:2587:A:C2	3.08	0.41
1:0:7:LEU:HD21	24:Q:81:VAL:CG2	2.50	0.41
11:A:128:C:C4	11:A:129:C:C5	3.07	0.41
31:X:70:LEU:C	31:X:70:LEU:HD23	2.41	0.41
11:A:1967:C:C4	11:A:1968:G:C5	3.09	0.41
11:A:1445:A:OP1	11:A:1445(A):C:H5	2.03	0.41
7:6:35:GLU:HB3	7:6:51:GLU:OE1	2.20	0.41
11:A:1259:G:O2'	11:A:1260:G:C5'	2.62	0.41
11:A:2292:C:C2	11:A:2341:G:N2	2.89	0.41
11:A:564:C:OP1	29:V:77:ALA:HB2	2.20	0.41
11:A:972:G:H2'	11:A:973:A:C8	2.56	0.41
11:A:483:A:O5'	11:A:483:A:H8	2.02	0.41
11:A:1823:G:C2	11:A:1824:G:C8	3.08	0.41
18:H:41:MET:SD	18:H:53:GLU:O	2.78	0.41
3:2:41:ILE:CG1	3:2:42:GLY:H	1.97	0.41
16:F:157:VAL:HG21	16:F:194:MET:HG2	2.01	0.41
11:A:321:G:C1'	16:F:168:ARG:NH2	2.83	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:R:29:LEU:O	25:R:30:THR:CB	2.68	0.41
11:A:141:A:C8	11:A:1408:C:O2'	2.71	0.41
15:E:203:LYS:O	15:E:203:LYS:HD2	2.21	0.41
11:A:329:G:P	32:Y:71:LYS:HZ1	2.43	0.41
11:A:2101:G:N2	11:A:2189:U:H3	2.16	0.41
11:A:1788:C:C2	11:A:1789:A:C8	3.08	0.41
11:A:2592:G:N7	11:A:2593:U:C5	2.87	0.41
11:A:2137:C:H42	11:A:2154:G:H22	1.65	0.41
26:S:106:ARG:HH11	26:S:106:ARG:CB	2.33	0.41
11:A:907:U:O2'	11:A:908:C:H5'	2.20	0.41
11:A:2842:G:C6	11:A:2876:G:N1	2.88	0.41
11:A:9:U:O2'	11:A:10:G:H8	2.03	0.41
11:A:2582:G:N2	11:A:2583:G:H1'	2.34	0.41
11:A:794:G:C6	11:A:795:C:C4	3.08	0.41
14:D:43:ARG:HB3	14:D:54:ARG:HB3	2.02	0.41
11:A:948:G:C6	11:A:949:C:C4	3.08	0.41
30:W:71:VAL:C	30:W:73:ALA:N	2.73	0.41
11:A:518:G:C6	11:A:519:U:C4	3.09	0.41
33:Z:14:LYS:O	33:Z:16:SER:N	2.53	0.41
12:B:94:C:H2'	12:B:95:C:C6	2.55	0.41
11:A:1186:G:H8	11:A:1186:G:O5'	2.03	0.41
11:A:654(Q):C:O2'	11:A:654(R):C:H5'	2.21	0.41
2:1:15:ALA:HB2	2:1:42:GLN:HG3	2.01	0.41
20:K:34:UNK:O	20:K:38:UNK:CB	2.68	0.41
11:A:355:G:H2'	11:A:356:G:C8	2.56	0.41
32:Y:54:LYS:O	32:Y:55:TYR:C	2.58	0.41
11:A:1561:G:O2'	11:A:1562:A:H5'	2.20	0.41
9:8:53:PRO:C	9:8:55:ALA:N	2.74	0.41
11:A:2361:A:C4	11:A:2362:G:C8	3.09	0.41
11:A:246:C:O5'	11:A:246:C:H6	2.03	0.41
11:A:671:C:OP1	23:P:43:GLY:HA2	2.20	0.41
28:U:20:LEU:CD2	28:U:20:LEU:N	2.79	0.41
2:1:13:ILE:H	2:1:13:ILE:CD1	2.12	0.41
31:X:11:PRO:HG2	31:X:13:LEU:HD21	2.03	0.41
11:A:769:G:C2'	11:A:770:G:H5'	2.49	0.41
16:F:99:TYR:O	16:F:101:LEU:N	2.53	0.41
16:F:31:HIS:HB2	23:P:13:ASN:OD1	2.19	0.41
16:F:45:ARG:NH1	16:F:97:TYR:CE1	2.88	0.41
16:F:163:VAL:O	16:F:164:ARG:C	2.59	0.41
15:E:199:ARG:HG2	15:E:200:GLU:OE2	2.20	0.41
25:R:54:LEU:N	25:R:54:LEU:HD12	2.36	0.41
12:B:42:C:H42	17:G:91:ARG:CZ	2.32	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:G:98:ARG:HD3	17:G:98:ARG:HA	1.83	0.41
23:P:126:VAL:HG13	23:P:145:PRO:CB	2.49	0.41
11:A:1636:C:H4'	11:A:1761:C:O4'	2.20	0.41
11:A:2641:G:OP2	21:N:74:ARG:NH2	2.54	0.41
1:O:48:GLY:CA	1:O:51:VAL:HB	2.50	0.41
16:F:68:LYS:HB3	16:F:69:HIS:CD2	2.55	0.41
11:A:662:G:O2'	11:A:663:G:H5'	2.19	0.41
11:A:1792:G:P	14:D:206:LEU:HB2	2.60	0.41
11:A:1902:C:H1'	14:D:244:ARG:CD	2.50	0.41
14:D:244:ARG:HG2	14:D:245:PRO:N	2.35	0.41
11:A:1012:U:H5	21:N:28:THR:HG21	1.83	0.41
14:D:66:ASP:C	14:D:66:ASP:OD1	2.58	0.41
11:A:220:G:H1	11:A:427:U:H3'	1.84	0.41
11:A:1223:G:C5	11:A:1225:G:OP2	2.73	0.41
28:U:28:ARG:HB3	28:U:38:THR:OG1	2.21	0.41
2:1:24:ALA:HB2	2:1:32:LYS:HZ1	1.84	0.41
4:3:6:VAL:HG12	4:3:56:VAL:HG13	2.02	0.41
11:A:118:A:H5'	11:A:119:A:C8	2.55	0.41
11:A:2070:G:N2	11:A:2442:C:H1'	2.35	0.41
1:O:23:VAL:CA	1:O:38:VAL:HG22	2.45	0.41
11:A:2579:C:O4'	15:E:134:ILE:HG12	2.20	0.41
11:A:2627:G:N2	11:A:2777:G:OP2	2.45	0.41
11:A:1150:C:H2'	11:A:1151:G:O4'	2.19	0.41
18:H:130:ARG:HH11	18:H:130:ARG:HB3	1.83	0.41
15:E:143:ASN:HD22	15:E:143:ASN:N	2.18	0.41
11:A:1458:C:H5'	11:A:1459:G:O4'	2.20	0.41
13:C:28:LEU:C	13:C:28:LEU:CD2	2.89	0.41
11:A:841:A:C6	11:A:938:G:N1	2.88	0.41
11:A:66:C:H2'	11:A:67:U:O4'	2.19	0.41
11:A:519:U:H5''	30:W:25:ARG:CZ	2.49	0.41
11:A:966:G:H5'	11:A:2272:U:H1'	2.03	0.41
11:A:2856:C:O2'	11:A:2857:G:H5'	2.20	0.41
29:V:2:PHE:CE1	29:V:13:ARG:NH1	2.89	0.41
11:A:2603:G:C5	11:A:2604:U:C5	3.08	0.41
11:A:647:G:H3'	11:A:648:G:H8	1.84	0.41
17:G:2:PRO:O	17:G:3:LEU:CB	2.67	0.41
1:O:55:ARG:C	1:O:57:PHE:N	2.71	0.41
7:6:36:LEU:CD2	7:6:36:LEU:C	2.89	0.41
11:A:832:G:H2'	11:A:833:U:C6	2.56	0.41
23:P:23:PRO:CG	23:P:33:ARG:NE	2.83	0.41
13:C:71:GLN:NE2	13:C:157:LYS:HD3	2.33	0.41
16:F:114:VAL:HG21	16:F:181:LEU:HD21	2.02	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:25:VAL:HA	3:2:28:LYS:HB2	2.01	0.41
3:2:33:MET:O	3:2:35:LEU:N	2.53	0.41
11:A:2577:A:O5'	11:A:2577:A:H8	2.04	0.41
11:A:2836:U:H2'	11:A:2837:G:C8	2.55	0.41
11:A:2635:C:H5''	15:E:78:LEU:HD12	2.02	0.41
9:8:17:THR:OG1	9:8:21:LYS:HB2	2.20	0.41
23:P:100:LEU:CB	23:P:106:LEU:HD13	2.44	0.41
11:A:2809:A:N6	11:A:2891:G:H2'	2.36	0.41
11:A:2682:U:H1'	15:E:12:THR:HA	2.03	0.41
27:T:46:GLU:O	27:T:65:LYS:HG2	2.20	0.41
27:T:76:PHE:HB3	27:T:82:LEU:HD21	2.03	0.41
11:A:336:C:H5''	32:Y:7:VAL:CG1	2.51	0.41
32:Y:13:VAL:O	32:Y:24:VAL:HG13	2.20	0.41
32:Y:67:LEU:CG	32:Y:68:HIS:H	2.33	0.41
17:G:29:TRP:C	17:G:31:VAL:N	2.71	0.41
17:G:4:ASP:OD2	17:G:9:ARG:NH2	2.54	0.41
16:F:127:GLU:OE1	16:F:196:LEU:HD12	2.21	0.41
11:A:2106:G:C6	11:A:2184:G:C6	3.08	0.41
16:F:49:ALA:HB1	16:F:92:PRO:CB	2.50	0.41
11:A:1827:C:H2'	11:A:1828:G:C4'	2.50	0.41
11:A:763:G:H2'	11:A:764:A:O5'	2.19	0.41
11:A:1093:G:O3'	18:H:170:ARG:NH2	2.53	0.41
11:A:2111:C:C4	11:A:2145:C:H2'	2.54	0.41
21:N:40:PRO:HA	28:U:64:ARG:HA	2.02	0.41
30:W:12:ILE:HG23	30:W:17:VAL:CG2	2.50	0.41
29:V:58:VAL:HG21	29:V:98:GLU:HG2	2.02	0.41
11:A:802:A:H2'	11:A:803:U:H6	1.76	0.41
11:A:1011:G:C6	11:A:1151:G:C6	3.08	0.41
11:A:2078:C:C4	11:A:2079:U:C4	3.08	0.41
11:A:547:A:O2'	11:A:548:A:H5'	2.20	0.41
11:A:477:A:H2'	11:A:478:A:H8	1.85	0.41
11:A:2312:U:O2'	17:G:40:ASN:ND2	2.52	0.41
11:A:952:G:C4	11:A:966:G:N2	2.89	0.41
11:A:1930:G:N2	11:A:1969:A:C5'	2.83	0.41
11:A:1226:A:N7	11:A:1227:G:H1'	2.36	0.41
11:A:1935:G:C5	11:A:1962:C:C5	3.09	0.41
30:W:80:PRO:O	30:W:100:THR:HG22	2.19	0.41
11:A:11:G:O2'	11:A:12:U:H5'	2.20	0.41
28:U:84:LYS:HA	28:U:84:LYS:HD3	1.92	0.41
11:A:627:A:H8	11:A:627:A:OP1	2.03	0.41
9:8:22:VAL:O	9:8:49:VAL:HG23	2.21	0.41
9:8:41:ILE:HG23	9:8:42:ARG:N	2.35	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2416:C:H5''	23:P:64:LYS:NZ	2.36	0.41
11:A:668:G:H2'	11:A:670:A:H62	1.85	0.41
11:A:483:A:OP2	11:A:484:C:N4	2.54	0.41
32:Y:62:GLU:HB3	32:Y:63:LYS:H	1.73	0.41
11:A:1818:U:H2'	14:D:157:ARG:CD	2.50	0.41
16:F:39:TRP:O	16:F:42:ALA:HB3	2.20	0.41
11:A:2539:C:C2	11:A:2540:C:C5	3.09	0.41
6:5:4:HIS:O	11:A:2056:G:C2	2.73	0.41
15:E:1:MET:H2	15:E:84:PHE:HB2	1.84	0.41
15:E:8:LYS:O	15:E:193:GLY:N	2.53	0.41
11:A:1614:A:H61	30:W:87:PRO:HA	1.86	0.41
22:O:2:ILE:HG22	22:O:3:GLN:N	2.35	0.41
27:T:57:PHE:C	27:T:57:PHE:CD2	2.92	0.41
27:T:66:VAL:HG12	27:T:70:VAL:O	2.20	0.41
13:C:192:PHE:O	13:C:195:ALA:N	2.54	0.41
16:F:72:ARG:CA	16:F:72:ARG:NH1	2.76	0.41
17:G:36:LYS:CG	17:G:94:LEU:O	2.69	0.41
6:5:52:TYR:CE2	11:A:2884:U:O2	2.74	0.41
2:1:5:CYS:HG	2:1:62:VAL:HA	1.86	0.41
11:A:1838:C:C6	11:A:1898:U:C5	3.09	0.41
21:N:35:ARG:O	21:N:37:LYS:N	2.53	0.41
11:A:1317:A:C2	11:A:1336:A:C2	3.09	0.41
17:G:45:GLU:O	17:G:47:LYS:N	2.47	0.41
17:G:54:GLU:C	17:G:56:ALA:N	2.73	0.41
15:E:154:LYS:HA	15:E:154:LYS:HD2	1.90	0.41
28:U:34:LYS:O	28:U:35:ALA:C	2.59	0.41
11:A:179:G:C2	11:A:180:G:C5	3.08	0.41
11:A:780:G:C2	11:A:782:A:C2	3.08	0.41
13:C:222:VAL:O	13:C:224:ILE:HG23	2.20	0.41
11:A:2133:G:C8	11:A:2133:G:C3'	3.03	0.41
11:A:2379:G:H2'	11:A:2380:C:H6	1.78	0.41
21:N:21:LYS:O	21:N:61:ARG:HB2	2.19	0.41
11:A:1142(A):A:H5'	11:A:1142(A):A:H8	1.86	0.41
11:A:2572:A:P	15:E:144:ARG:HB2	2.60	0.41
16:F:78:ILE:HA	16:F:83:PHE:CE1	2.56	0.41
15:E:176:ILE:CG2	15:E:178:GLU:HB3	2.51	0.41
11:A:1948:G:C6	11:A:1949:G:C5	3.08	0.41
11:A:271(B):C:N4	11:A:271(W):G:H21	2.18	0.41
24:Q:6:ARG:O	24:Q:7:MET:CG	2.65	0.41
11:A:2078:C:O2'	11:A:2079:U:H5'	2.20	0.41
1:0:60:PHE:CE2	11:A:2365:G:H4'	2.55	0.41
14:D:210:GLY:C	14:D:212:SER:H	2.24	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:413:C:H2'	11:A:414:C:C6	2.56	0.41
33:Z:150:LEU:C	33:Z:150:LEU:HD23	2.41	0.41
11:A:614(C):A:H4'	11:A:615:G:OP1	2.20	0.41
8:7:19:ARG:HD3	11:A:125:G:OP2	2.20	0.41
11:A:2584:U:O4'	11:A:2584:U:O2	2.38	0.41
11:A:1720:U:C2'	11:A:1721:G:H5''	2.50	0.41
33:Z:103:ARG:CZ	33:Z:136:PHE:CE1	3.03	0.41
4:3:20:LYS:NZ	11:A:970:C:OP1	2.54	0.41
31:X:61:GLY:O	31:X:62:LYS:O	2.38	0.41
7:6:17:LYS:O	7:6:18:ARG:HB3	2.20	0.41
7:6:36:LEU:HD23	7:6:37:ARG:N	2.35	0.41
9:8:8:LYS:O	9:8:12:LYS:HE3	2.20	0.41
11:A:1192:G:C8	11:A:1192:G:O5'	2.73	0.41
11:A:2259:G:N2	11:A:2282:G:C2	2.89	0.41
11:A:2283:C:C5	11:A:2389:G:C2'	3.03	0.41
11:A:1801:G:O2'	11:A:1802:A:H5''	2.20	0.41
11:A:1800:C:OP1	14:D:264:LYS:HE2	2.21	0.41
16:F:117:ARG:CG	16:F:192:LEU:HD13	2.47	0.41
11:A:2754:U:H2'	11:A:2756:U:P	2.61	0.41
11:A:2481:G:O2'	11:A:2482:G:P	2.78	0.41
16:F:162:LEU:HD12	16:F:162:LEU:N	2.33	0.41
11:A:2050:C:C4	11:A:2051:A:C6	3.08	0.41
11:A:2870:C:H2'	11:A:2871:C:C5'	2.50	0.41
25:R:76:VAL:O	25:R:79:LEU:HB3	2.20	0.41
17:G:39:ILE:HG22	17:G:157:ILE:HG12	2.01	0.41
12:B:117:G:H5'	26:S:55:ALA:HB1	2.01	0.41
11:A:1677:A:C2'	11:A:1678:G:C8	2.94	0.41
11:A:1678:G:H22	11:A:1989:G:H1	1.67	0.41
15:E:167:VAL:CG1	15:E:189:PRO:HD2	2.50	0.41
33:Z:7:ALA:HA	33:Z:39:VAL:HG12	2.02	0.41
11:A:2732:G:C2'	11:A:2733:A:H5'	2.51	0.41
32:Y:12:THR:OG1	32:Y:26:LYS:HA	2.20	0.41
17:G:166:ASP:O	17:G:167:GLU:C	2.58	0.41
6:5:58:LEU:O	6:5:59:GLU:HB3	2.20	0.41
2:1:62:VAL:HG21	2:1:67:ILE:HA	2.03	0.41
11:A:1829:A:N3	14:D:15:PHE:HZ	2.17	0.41
14:D:238:GLY:O	14:D:239:ARG:HB3	2.20	0.41
11:A:1005:C:H2'	11:A:1006:C:C5	2.54	0.41
17:G:46:ALA:HA	17:G:51:ARG:HB3	2.03	0.41
11:A:2166:G:O2'	11:A:2167:U:H5'	2.21	0.41
11:A:2115:G:H5'	11:A:2167:U:O2'	2.21	0.41
30:W:14:PRO:O	30:W:15:ARG:C	2.59	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:3:7:LYS:O	4:3:54:VAL:CA	2.63	0.41
11:A:149:A:C2	11:A:150:C:N3	2.88	0.41
11:A:272(J):C:H3'	11:A:274:G:H5''	2.03	0.41
13:C:6:ARG:CZ	13:C:34:THR:HB	2.51	0.41
23:P:85:LEU:HD11	23:P:137:LYS:HD3	2.03	0.41
26:S:40:ILE:HG22	26:S:47:THR:HA	2.03	0.41
11:A:1051:G:H2'	11:A:1052:C:C6	2.56	0.41
11:A:2371:G:N2	11:A:2372:G:C4	2.88	0.41
5:4:47:GLN:HB3	5:4:47:GLN:HE21	1.73	0.41
14:D:134:ARG:NE	14:D:135:PHE:HE1	2.18	0.41
11:A:1558:A:H1'	11:A:1559:G:OP2	2.21	0.41
11:A:355:G:H2'	11:A:356:G:H8	1.86	0.41
14:D:110:GLY:O	14:D:111:LEU:C	2.59	0.41
33:Z:158:PRO:HD2	33:Z:161:VAL:HB	2.01	0.41
9:8:32:LEU:HD22	11:A:2392:A:OP1	2.21	0.41
11:A:2261:C:C1'	11:A:2388:A:H1'	2.51	0.41
11:A:2415:G:H2'	11:A:2416:C:C6	2.56	0.41
32:Y:51:VAL:C	32:Y:53:PRO:HD3	2.41	0.41
11:A:483:A:C1'	32:Y:60:PHE:HZ	2.34	0.41
11:A:2086:U:H2'	11:A:2087:G:C8	2.55	0.41
14:D:276:LYS:HD3	14:D:276:LYS:OXT	2.21	0.41
11:A:621:A:H2'	11:A:622:G:C4'	2.51	0.41
24:Q:50:ALA:O	24:Q:54:MET:HB2	2.20	0.41
24:Q:63:LYS:HE3	24:Q:65:PHE:CE1	2.55	0.41
11:A:1206:G:C2	11:A:1207:C:C6	3.09	0.41
11:A:321:G:C4	16:F:165:ARG:HD3	2.56	0.41
11:A:2007:C:O5'	11:A:2007:C:H6	2.02	0.41
5:4:5:ILE:O	17:G:67:LYS:HG3	2.20	0.41
17:G:39:ILE:HG12	17:G:92:VAL:CG1	2.51	0.41
26:S:13:ARG:O	26:S:14:VAL:HB	2.20	0.41
26:S:14:VAL:O	26:S:16:ASN:N	2.54	0.41
26:S:25:ARG:HD2	26:S:88:ASP:OD1	2.21	0.41
26:S:89:ARG:HB3	26:S:92:TYR:HB3	2.03	0.41
11:A:1637:A:H4'	11:A:2711:A:O2'	2.21	0.41
11:A:2698:U:C4	11:A:2699:C:N4	2.88	0.41
27:T:36:GLU:O	27:T:38:ASN:N	2.54	0.41
33:Z:94:GLU:HA	33:Z:95:PRO:HD2	1.78	0.41
11:A:329:G:H4'	11:A:330:A:OP2	2.21	0.41
17:G:168:GLU:O	17:G:170:ARG:N	2.53	0.41
21:N:10:GLU:OE2	21:N:11:PRO:HD2	2.20	0.41
23:P:16:ARG:CG	23:P:17:LYS:N	2.84	0.41
11:A:18:C:O3'	28:U:23:GLY:CA	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:84:A:N6	11:A:102:G:O2'	2.54	0.41
11:A:1578:U:H2'	11:A:1579:A:C5'	2.35	0.41
11:A:2152:G:N3	11:A:2153:G:C8	2.89	0.41
18:H:94:TYR:CE1	18:H:108:GLY:N	2.89	0.41
24:Q:42:ILE:O	24:Q:42:ILE:HG23	2.21	0.41
2:1:58:ILE:O	2:1:59:THR:HG23	2.20	0.41
11:A:179:G:N1	11:A:180:G:C5	2.89	0.41
11:A:784:A:N6	14:D:229:VAL:HG11	2.35	0.41
8:7:7:PRO:HA	11:A:686:G:C8	2.55	0.41
6:5:34:PRO:HG3	11:A:2885:C:O2'	2.20	0.41
26:S:40:ILE:HG22	26:S:46:VAL:O	2.21	0.41
11:A:2543:G:H2'	11:A:2544:G:C8	2.56	0.41
11:A:1106:G:C6	11:A:1107:G:N3	2.89	0.41
21:N:67:LEU:O	21:N:68:GLU:HG3	2.20	0.41
11:A:371:A:C6	11:A:401:A:C8	3.08	0.41
11:A:1714:G:C5	11:A:1746:G:C6	3.09	0.41
11:A:1701:A:H5''	11:A:1701:A:H8	1.86	0.41
11:A:1934:C:O2'	11:A:1974:C:H5''	2.21	0.41
11:A:2856:C:H2'	11:A:2857:G:C5'	2.51	0.41
18:H:150:ALA:O	18:H:151:ILE:C	2.58	0.41
11:A:2658:C:C5	11:A:2659:G:N7	2.89	0.41
11:A:2333:A:O4'	11:A:2335:A:C4	2.74	0.41
7:6:45:LYS:O	7:6:46:HIS:CB	2.69	0.41
7:6:53:LYS:O	7:6:54:ILE:HG22	2.21	0.41
11:A:244:A:O2'	23:P:74:GLU:N	2.54	0.41
32:Y:50:ARG:HG2	32:Y:58:GLY:CA	2.51	0.41
11:A:1886:C:O2'	11:A:1887:C:H5'	2.21	0.41
11:A:377:C:C2	11:A:398:G:N1	2.89	0.41
14:D:247:ALA:HA	14:D:254:THR:HG22	2.03	0.41
16:F:42:ALA:O	16:F:45:ARG:HG3	2.21	0.41
18:H:52:VAL:HG12	18:H:65:HIS:ND1	2.36	0.41
18:H:68:THR:HG22	18:H:72:ILE:CG1	2.50	0.41
11:A:2468:G:C6	11:A:2481:G:C4	3.09	0.41
24:Q:48:GLU:HG3	24:Q:51:ARG:CD	2.51	0.41
16:F:170:LEU:O	16:F:171:PRO:C	2.59	0.41
11:A:1268:A:C4	11:A:1269:A:C8	3.09	0.41
15:E:7:VAL:HG23	15:E:193:GLY:O	2.20	0.41
25:R:25:ALA:HB1	25:R:51:LEU:CD2	2.51	0.41
25:R:42:LYS:O	25:R:45:ARG:CB	2.69	0.41
25:R:79:LEU:HD13	25:R:80:PHE:N	2.36	0.41
17:G:60:LEU:CD2	17:G:63:ILE:HD11	2.45	0.41
17:G:67:LYS:HA	17:G:68:PRO:HD3	1.78	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
26:S:73:LEU:O	26:S:74:ALA:C	2.60	0.41
26:S:77:ALA:HA	26:S:80:LEU:CD1	2.49	0.41
11:A:1641:A:H2'	11:A:1642:G:O4'	2.20	0.41
15:E:24:THR:HB	15:E:184:VAL:HG23	2.01	0.41
22:O:2:ILE:HA	22:O:2:ILE:HD13	1.75	0.41
27:T:66:VAL:HG12	27:T:71:GLY:HA2	2.02	0.41
27:T:81:PRO:HD2	27:T:82:LEU:HD12	2.03	0.41
22:O:120:GLU:OE1	22:O:122:LEU:HD11	2.20	0.41
13:C:20:TYR:HD1	13:C:20:TYR:H	1.62	0.41
12:B:72:G:H1'	12:B:106:G:N2	2.35	0.41
11:A:2675:A:H5'	22:O:31:LYS:HZ2	1.83	0.41
32:Y:13:VAL:CG1	32:Y:14:LEU:N	2.69	0.41
10:9:9:ARG:HB2	10:9:9:ARG:HH11	1.85	0.41
30:W:50:VAL:HG22	30:W:105:VAL:HG21	2.03	0.41
16:F:126:VAL:HG11	16:F:142:TRP:CH2	2.56	0.41
11:A:2103:C:H2'	11:A:2104:G:H5''	2.02	0.41
11:A:2104:G:N1	11:A:2105:C:N4	2.68	0.41
2:1:5:CYS:O	2:1:9:GLY:HA2	2.21	0.41
11:A:1773:A:C8	11:A:1829:A:C8	3.09	0.41
11:A:1829:A:N3	14:D:15:PHE:CZ	2.89	0.41
21:N:35:ARG:NH2	21:N:42:TRP:CH2	2.88	0.41
21:N:48:MET:CE	21:N:49:GLY:H	2.34	0.41
28:U:83:LEU:CD1	28:U:83:LEU:N	2.83	0.41
21:N:101:HIS:C	21:N:103:VAL:H	2.25	0.41
21:N:103:VAL:O	21:N:105:GLY:N	2.53	0.41
21:N:2:LYS:NZ	28:U:95:LEU:HD21	2.35	0.41
14:D:79:VAL:HB	14:D:114:GLY:H	1.86	0.41
11:A:267:C:H2'	11:A:268:C:C6	2.55	0.41
11:A:1422:G:O2'	11:A:1423:G:H5'	2.21	0.41
17:G:43:LEU:HB3	17:G:45:GLU:CG	2.38	0.41
11:A:2305:A:O2'	17:G:136:ARG:CG	2.69	0.41
18:H:24:VAL:CG1	18:H:25:LYS:N	2.84	0.41
13:C:100:ILE:HG13	13:C:100:ILE:H	1.63	0.41
15:E:132:HIS:CD2	15:E:135:HIS:NE2	2.88	0.41
11:A:460:A:H1'	11:A:470:A:N6	2.36	0.41
18:H:97:ARG:NH2	18:H:99:VAL:HG21	2.33	0.41
11:A:2485:G:C2'	11:A:2486:G:H5'	2.51	0.41
30:W:12:ILE:HG23	30:W:17:VAL:HG22	2.02	0.41
11:A:2077:A:H1'	11:A:2435:A:C1'	2.50	0.41
13:C:151:GLU:O	13:C:151:GLU:HG2	2.21	0.41
13:C:110:PHE:O	13:C:111:ASP:CB	2.69	0.41
11:A:2134:A:C2	11:A:2135:A:N7	2.89	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:1309:G:H1	11:A:1605:C:N4	2.07	0.41
24:Q:116:GLU:O	24:Q:117:ALA:C	2.60	0.41
11:A:1809:A:H2'	11:A:1810:A:H8	1.81	0.41
11:A:1779:U:H2'	11:A:1783:A:H62	1.85	0.41
4:3:18:ASP:HB2	11:A:850:C:C4'	2.43	0.41
11:A:184:C:H2'	11:A:185:U:C6	2.55	0.41
16:F:59:TYR:CD1	16:F:78:ILE:HB	2.56	0.41
11:A:1256:G:C2	11:A:1257:C:C6	3.09	0.41
30:W:64:MET:CB	30:W:69:LEU:HD21	2.51	0.41
11:A:271(U):G:C2'	11:A:271(V):G:H5'	2.51	0.41
11:A:1106:G:C2	11:A:1107:G:H1'	2.55	0.41
24:Q:39:PRO:O	24:Q:40:ALA:HB2	2.21	0.41
11:A:1037:G:C2	11:A:1119:C:O2	2.74	0.41
11:A:1694:C:C1'	11:A:1695:G:N2	2.82	0.41
11:A:65:C:O2'	11:A:66:C:H5'	2.21	0.41
31:X:68:ARG:HG3	31:X:69:TYR:CE1	2.55	0.41
11:A:412:A:H2'	11:A:412:A:N3	2.36	0.41
13:C:124:GLY:CA	13:C:128:GLY:HA3	2.46	0.41
33:Z:118:GLN:O	33:Z:172:ALA:HA	2.21	0.41
11:A:615:G:C6	11:A:616:G:C6	3.08	0.41
11:A:1186:G:H2'	11:A:1187:G:C5'	2.50	0.41
11:A:2606:C:H6	11:A:2606:C:O5'	2.04	0.41
11:A:1643:G:C2	11:A:1644:C:C6	3.09	0.41
11:A:752:A:H4'	11:A:753:C:O5'	2.21	0.41
18:H:98:LEU:HG	18:H:98:LEU:O	2.21	0.41
11:A:1227:G:O2'	11:A:1228:G:H5'	2.21	0.41
11:A:2057:A:H2'	11:A:2058:A:C8	2.56	0.41
5:4:12:ALA:HB2	5:4:29:PRO:HA	2.03	0.41
19:J:127:UNK:O	19:J:131:UNK:N	2.54	0.41
20:K:10:UNK:O	20:K:55:UNK:O	2.38	0.41
15:E:73:GLU:N	15:E:73:GLU:OE2	2.54	0.41
19:J:55:UNK:O	19:J:84:UNK:N	2.54	0.41
7:6:45:LYS:N	7:6:45:LYS:HD2	2.18	0.41
7:6:5:VAL:HG21	11:A:2283:C:H5'	2.03	0.41
9:8:6:THR:CG2	9:8:63:PRO:HD3	2.51	0.41
11:A:2282:G:C5'	11:A:2283:C:O5'	2.69	0.41
11:A:2394:C:OP1	23:P:63:PRO:CD	2.69	0.41
11:A:2082:A:O2'	11:A:2083:G:H5'	2.20	0.41
31:X:12:VAL:HG12	31:X:27:THR:N	2.36	0.41
16:F:42:ALA:C	16:F:44:ARG:N	2.74	0.41
18:H:65:HIS:CE1	18:H:69:ARG:NH2	2.89	0.41
31:X:8:ILE:CD1	31:X:43:VAL:HG22	2.46	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:Q:52:VAL:C	24:Q:54:MET:N	2.70	0.41
25:R:37:THR:O	25:R:41:ALA:HB2	2.20	0.41
5:4:6:HIS:CA	17:G:67:LYS:CE	2.98	0.41
11:A:271(M):G:O2'	11:A:271(O):C:H5'	2.21	0.41
11:A:142(A):C:C2'	11:A:143:G:H5'	2.51	0.41
33:Z:127:LYS:HG3	33:Z:162:GLU:CG	2.51	0.41
11:A:2646:C:OP2	11:A:2732:G:O2'	2.38	0.41
11:A:1518:U:H2'	11:A:1519:G:C4'	2.50	0.41
16:F:65:TRP:CZ3	16:F:72:ARG:HB3	2.56	0.41
32:Y:15:VAL:HG12	32:Y:17:SER:H	1.86	0.41
17:G:174:GLU:CA	17:G:180:PHE:HE1	2.29	0.41
17:G:21:ARG:NH2	17:G:22:ARG:CA	2.71	0.41
11:A:705:A:H2'	11:A:706:A:C8	2.56	0.41
11:A:764:A:C3'	11:A:765:G:H5'	2.47	0.41
11:A:1138:G:H8	11:A:1138:G:O5'	2.03	0.41
21:N:36:GLY:O	21:N:42:TRP:HE3	2.04	0.41
21:N:2:LYS:O	21:N:4:TYR:CZ	2.74	0.41
29:V:35:LEU:N	29:V:35:LEU:CD2	2.81	0.41
11:A:221:A:C4	11:A:266:G:N7	2.89	0.41
11:A:1551:C:O2'	11:A:1552:G:H5'	2.21	0.41
11:A:460:A:H3'	11:A:461:C:C6	2.56	0.41
11:A:472:A:O2'	11:A:508:G:N2	2.51	0.41
14:D:223:GLY:O	14:D:225:ALA:N	2.54	0.41
28:U:55:ARG:HG2	28:U:58:ARG:NE	2.36	0.41
11:A:1599:C:C2	11:A:1600:C:C5	3.09	0.41
27:T:106:SER:O	27:T:107:ASP:OD1	2.38	0.41
11:A:679:C:H2'	11:A:680:G:C8	2.56	0.41
11:A:1358:G:N7	11:A:1371:G:C6	2.89	0.41
11:A:1052:C:O2'	11:A:1053:C:P	2.79	0.41
30:W:20:VAL:CG2	30:W:47:VAL:HG21	2.46	0.41
11:A:2352:A:C4	11:A:2366:A:N1	2.89	0.41
11:A:816:C:H2'	11:A:817:C:C6	2.56	0.41
11:A:2605:U:H2'	11:A:2606:C:C5	2.55	0.41
11:A:1924:C:H2'	11:A:1925:C:C6	2.51	0.41
21:N:16:ILE:HD11	21:N:139:GLU:N	2.34	0.41
29:V:71:LEU:HD21	29:V:84:LYS:HG2	2.01	0.41
11:A:2746:U:H2'	11:A:2747:G:C8	2.55	0.41
18:H:98:LEU:CB	18:H:125:VAL:CG2	2.99	0.41
11:A:592:G:H2'	11:A:592:G:N3	2.36	0.41
11:A:1478:G:H2'	11:A:1479:G:C8	2.55	0.41
16:F:105:VAL:O	16:F:105:VAL:HG12	2.21	0.41
7:6:18:ARG:HD2	7:6:43:CYS:SG	2.61	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:2330:G:C2'	11:A:2331:G:H5'	2.51	0.40
11:A:2358:G:H2'	11:A:2359:C:H6	1.87	0.40
9:8:12:LYS:NZ	11:A:249:C:O2	2.42	0.40
11:A:586:A:N1	11:A:809:G:O2'	2.36	0.40
28:U:32:PHE:O	28:U:36:ARG:CB	2.69	0.40
11:A:2228:G:OP1	14:D:263:ARG:NH1	2.54	0.40
31:X:8:ILE:CD1	31:X:8:ILE:N	2.84	0.40
11:A:2540:C:C2'	11:A:2541:A:H5'	2.52	0.40
24:Q:48:GLU:O	24:Q:50:ALA:N	2.54	0.40
11:A:2055:C:H5'	11:A:2056:G:O5'	2.21	0.40
26:S:68:GLN:O	26:S:70:GLY:N	2.54	0.40
11:A:2346:A:C2	11:A:2383:G:C2	3.09	0.40
15:E:103:ASP:OD1	15:E:201:THR:HA	2.20	0.40
33:Z:7:ALA:H	33:Z:59:LEU:HB3	1.85	0.40
16:F:48:THR:O	16:F:49:ALA:C	2.59	0.40
18:H:136:ILE:CD1	18:H:136:ILE:N	2.83	0.40
28:U:69:CYS:O	28:U:74:LEU:HD12	2.20	0.40
28:U:94:ASN:HD22	28:U:95:LEU:HG	1.86	0.40
17:G:88:ILE:HG22	17:G:89:GLY:N	2.35	0.40
11:A:1464:C:H2'	11:A:1465:G:H8	1.85	0.40
11:A:2121:G:N2	11:A:2176:A:C2	2.86	0.40
18:H:144:VAL:O	18:H:148:ILE:HG12	2.20	0.40
18:H:92:ILE:HG13	18:H:92:ILE:H	1.58	0.40
2:1:86:SER:O	2:1:87:PRO:C	2.57	0.40
4:3:15:TYR:CE2	4:3:52:HIS:ND1	2.89	0.40
11:A:2244:U:H1'	11:A:2434:A:C5	2.56	0.40
11:A:903:C:H2'	11:A:904:C:H6	1.78	0.40
14:D:185:VAL:HG12	14:D:186:HIS:N	2.36	0.40
29:V:17:GLY:O	29:V:18:LEU:HB3	2.21	0.40
29:V:64:HIS:HA	29:V:92:THR:HA	2.03	0.40
11:A:2842:G:C2	11:A:2876:G:C2	3.09	0.40
23:P:115:LEU:N	23:P:115:LEU:HD23	2.36	0.40
8:7:43:THR:O	8:7:44:PRO:C	2.59	0.40
11:A:2776:A:C4'	11:A:2778:A:H5''	2.51	0.40
11:A:525:U:C2'	11:A:526:A:H5'	2.51	0.40
31:X:57:LEU:N	31:X:57:LEU:HD13	2.35	0.40
11:A:1049:C:H2'	11:A:1050:A:H8	1.87	0.40
11:A:1285:G:C5	11:A:1329:U:C4	3.10	0.40
11:A:1324:G:N1	11:A:1328:G:N1	2.69	0.40
2:1:34:THR:O	11:A:2432:A:N1	2.53	0.40
8:7:30:VAL:HA	8:7:33:ARG:NH2	2.37	0.40
11:A:614(B):G:H5''	11:A:614(C):A:OP1	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:W:68:ARG:O	30:W:110:LYS:HB2	2.21	0.40
11:A:2315:G:H2'	11:A:2316:C:H6	1.84	0.40
24:Q:59:ARG:O	24:Q:59:ARG:HD2	2.22	0.40
29:V:43:GLU:O	29:V:44:LYS:CB	2.69	0.40
11:A:1742:G:C6	11:A:1743:C:N3	2.89	0.40
11:A:1034:G:C6	11:A:1035:U:N3	2.89	0.40
11:A:2896:C:O4'	11:A:2896:C:O2	2.39	0.40
21:N:87:LEU:HD13	21:N:87:LEU:C	2.42	0.40
7:6:15:GLU:OE1	7:6:18:ARG:CZ	2.68	0.40
7:6:54:ILE:OXT	7:6:54:ILE:CG2	2.68	0.40
11:A:2282:G:C5'	11:A:2283:C:O4'	2.69	0.40
11:A:2419:U:H2'	11:A:2420:C:C6	2.55	0.40
11:A:580:C:O2'	11:A:581:C:H5'	2.21	0.40
11:A:670:A:H5'	23:P:43:GLY:O	2.21	0.40
23:P:59:LEU:O	23:P:61:ARG:N	2.55	0.40
11:A:1888:G:H5'	11:A:1888:G:N3	2.36	0.40
11:A:659:C:O5'	11:A:659:C:H6	2.04	0.40
16:F:106:ARG:O	16:F:107:LYS:HD3	2.21	0.40
11:A:2743:C:N3	11:A:2762:G:C2	2.89	0.40
24:Q:60:ARG:C	33:Z:177:PRO:HB2	2.42	0.40
16:F:160:ASN:HB3	16:F:163:VAL:CB	2.41	0.40
6:5:2:ALA:N	11:A:2015:A:N3	2.70	0.40
26:S:88:ASP:CG	26:S:89:ARG:N	2.74	0.40
26:S:89:ARG:CG	26:S:92:TYR:HB3	2.52	0.40
9:8:21:LYS:HD2	11:A:651:G:OP2	2.21	0.40
11:A:1666:G:H3'	11:A:1667:G:C8	2.56	0.40
11:A:1762:A:N3	11:A:1762:A:H2'	2.36	0.40
11:A:2726:U:H6	22:O:67:LYS:HZ3	1.69	0.40
33:Z:129:SER:HA	33:Z:130:PRO:HD3	1.73	0.40
1:0:11:ARG:HB3	1:0:14:ARG:HH22	1.87	0.40
11:A:2648:C:C2	11:A:2673:G:C2	3.10	0.40
11:A:1468:C:H2'	11:A:1469:A:C8	2.57	0.40
32:Y:76:CYS:CB	32:Y:77:PRO:HD2	2.51	0.40
17:G:36:LYS:C	17:G:36:LYS:HD2	2.41	0.40
11:A:2100:G:N3	11:A:2100:G:H2'	2.35	0.40
11:A:84:A:H2	11:A:98:G:N3	2.20	0.40
21:N:101:HIS:O	21:N:102:ALA:C	2.60	0.40
14:D:117:VAL:HG23	14:D:129:ASN:N	2.36	0.40
14:D:176:ARG:HG2	14:D:176:ARG:NH1	2.35	0.40
11:A:1576:U:H2'	11:A:1577:C:H6	1.74	0.40
11:A:1440:G:H8	11:A:1440:G:O5'	2.04	0.40
11:A:1528(A):A:H8	11:A:1529:G:N9	2.20	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:V:88:ARG:O	29:V:90:PRO:CD	2.64	0.40
11:A:910:A:H2'	11:A:911:A:C8	2.56	0.40
24:Q:12:GLN:HE21	24:Q:73:PRO:CD	2.24	0.40
11:A:2130:U:O2	11:A:2159:G:C2	2.75	0.40
29:V:95:LEU:HD22	29:V:97:LYS:HG2	2.03	0.40
11:A:270:A:N1	11:A:366:C:O2'	2.43	0.40
11:A:1606:G:H4'	11:A:1608:A:C2	2.56	0.40
11:A:771:G:O2'	11:A:1355:G:C1'	2.69	0.40
14:D:202:LYS:O	14:D:202:LYS:HG3	2.21	0.40
11:A:681:G:H2'	11:A:682:G:H8	1.86	0.40
11:A:2052:G:N1	11:A:2053:G:C5	2.89	0.40
12:B:14:U:O2'	12:B:15:A:OP1	2.35	0.40
11:A:1512:U:C2'	11:A:1512:U:O2	2.62	0.40
8:7:24:THR:C	8:7:28:ARG:NH2	2.75	0.40
13:C:199:HIS:O	13:C:201:PRO:HD3	2.21	0.40
11:A:1907:G:C6	11:A:1924:C:N3	2.89	0.40
11:A:645:C:O2	11:A:645:C:C3'	2.69	0.40
11:A:1197:G:H2'	11:A:1198:U:H6	1.85	0.40
3:2:39:ALA:HB2	3:2:45:SER:HA	2.02	0.40
11:A:2567:G:H2'	11:A:2568:C:C6	2.55	0.40
11:A:271(S):G:C2	11:A:271(T):C:C2	3.09	0.40
11:A:1216:G:C2	11:A:1234:U:H1'	2.56	0.40
9:8:5:LYS:HB3	11:A:254:G:O6	2.21	0.40
11:A:583:G:C6	11:A:584:C:N4	2.90	0.40
11:A:1427:A:C1'	11:A:1428:C:C5	3.04	0.40
14:D:147:LEU:HB2	14:D:155:LEU:HD11	2.03	0.40
16:F:39:TRP:CD1	16:F:101:LEU:HB2	2.56	0.40
16:F:120:GLU:HB3	16:F:122:LYS:NZ	2.37	0.40
16:F:97:TYR:N	16:F:97:TYR:HD2	2.18	0.40
11:A:2741:A:H2'	11:A:2742:C:O4'	2.20	0.40
16:F:167:ALA:HB1	16:F:173:VAL:CG1	2.51	0.40
11:A:1652:A:H2'	11:A:1653:G:C5'	2.47	0.40
11:A:2457:U:H2'	11:A:2458:G:H5'	2.02	0.40
11:A:2458:G:N3	11:A:2490:G:N2	2.69	0.40
15:E:7:VAL:CG1	15:E:27:LEU:HB3	2.52	0.40
25:R:33:ARG:O	25:R:34:ILE:HD13	2.21	0.40
25:R:77:ARG:C	25:R:79:LEU:N	2.73	0.40
11:A:139:G:H3'	11:A:139(A):G:H5''	2.02	0.40
15:E:101:ARG:CD	15:E:171:GLU:HA	2.51	0.40
33:Z:132:ASN:C	33:Z:134:PRO:CD	2.90	0.40
17:G:27:ASN:ND2	17:G:29:TRP:CB	2.83	0.40
6:5:41:PRO:HA	6:5:42:PRO:HD3	1.95	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:5:41:PRO:CG	6:5:44:THR:OG1	2.49	0.40
11:A:2179:C:O2	11:A:2179:C:O4'	2.40	0.40
11:A:1787:A:H4'	11:A:2589:A:H4'	2.04	0.40
6:5:17:ASP:O	6:5:20:ARG:O	2.39	0.40
21:N:47:ALA:C	21:N:49:GLY:N	2.74	0.40
11:A:2307:G:N2	11:A:2308:G:C5'	2.84	0.40
11:A:1547:C:O2'	11:A:1548:C:H5'	2.21	0.40
11:A:723:G:C5	11:A:724:U:C4	3.10	0.40
11:A:1091:G:N2	11:A:1101:U:O2'	2.55	0.40
4:3:52:HIS:N	4:3:52:HIS:CD2	2.85	0.40
11:A:2201:C:C4	11:A:2202:C:N4	2.89	0.40
12:B:21:G:O2'	12:B:22:U:H5'	2.21	0.40
11:A:2133:G:C2	11:A:2157:G:O6	2.75	0.40
29:V:58:VAL:O	29:V:59:ALA:HB2	2.20	0.40
11:A:1355:G:O6	11:A:1377:G:C2	2.75	0.40
15:E:69:LYS:C	15:E:71:GLY:H	2.19	0.40
11:A:222:A:N1	11:A:233:A:H5''	2.37	0.40
16:F:53:THR:CG2	16:F:56:GLU:HG3	2.42	0.40
11:A:978:G:H2'	11:A:979:G:O4'	2.21	0.40
33:Z:109:ALA:O	33:Z:145:GLU:OE2	2.40	0.40
11:A:1330:C:O2	11:A:1330:C:H2'	2.21	0.40
12:B:15:A:H3'	12:B:16:G:C5'	2.51	0.40
11:A:2371:G:N1	11:A:2372:G:C5	2.90	0.40
14:D:76:PRO:HB2	14:D:116:GLN:HE21	1.86	0.40
27:T:110:ILE:HG22	27:T:111:ARG:N	2.36	0.40
22:O:12:ASP:O	22:O:14:THR:N	2.54	0.40
11:A:2667:C:H2'	11:A:2668:G:H8	1.87	0.40
11:A:1930:G:O2'	11:A:1931:U:P	2.79	0.40
11:A:1307:A:C4	11:A:1622:G:N2	2.89	0.40
29:V:13:ARG:CG	29:V:13:ARG:HH11	2.33	0.40
11:A:2704:C:H2'	11:A:2705:A:C8	2.56	0.40
11:A:1434:A:H61	11:A:1558:A:N6	2.19	0.40
11:A:889:C:O2'	11:A:890:A:P	2.79	0.40
11:A:541:C:H2'	11:A:542:C:C6	2.56	0.40
30:W:34:ASN:HA	30:W:34:ASN:HD22	1.65	0.40
11:A:2446:G:H8	11:A:2446:G:O5'	2.03	0.40
11:A:1836:C:O5'	11:A:1836:C:H6	2.04	0.40
7:6:22:ALA:CB	7:6:39:TYR:CZ	3.04	0.40
11:A:2358:G:C2	11:A:2359:C:H1'	2.54	0.40
23:P:23:PRO:HA	23:P:29:LYS:C	2.42	0.40
14:D:267:SER:HA	14:D:270:ILE:HG13	2.02	0.40
11:A:1240:U:HO2'	11:A:1241:A:P	2.45	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:F:25:PRO:HB3	16:F:119:ARG:HB2	2.03	0.40
16:F:198:ALA:HA	16:F:201:VAL:CG1	2.51	0.40
11:A:2881:C:C2	11:A:2882:A:N7	2.90	0.40
5:4:4:GLY:N	5:4:6:HIS:CE1	2.90	0.40
11:A:1485:G:O2'	11:A:1505:C:N4	2.54	0.40
26:S:98:VAL:O	26:S:99:LYS:HB2	2.21	0.40
11:A:2889:C:H2'	11:A:2891:G:O4'	2.22	0.40
11:A:1664:A:N6	11:A:1996:C:H42	2.17	0.40
27:T:22:PHE:O	27:T:23:ARG:HB3	2.20	0.40
13:C:18:LYS:HE3	13:C:20:TYR:CD2	2.56	0.40
33:Z:88:PHE:N	33:Z:88:PHE:CD1	2.90	0.40
17:G:26:GLN:HG2	17:G:27:ASN:H	1.87	0.40
17:G:37:VAL:HG13	17:G:159:VAL:HA	2.03	0.40
11:A:2181:G:O2'	11:A:2182:G:H5'	2.22	0.40
11:A:539:G:H2'	11:A:540:C:C6	2.56	0.40
21:N:47:ALA:HB1	21:N:119:ARG:NH1	2.37	0.40
11:A:2123:G:C4	11:A:2124:G:C8	3.09	0.40
11:A:2122:U:C2	11:A:2123:G:N7	2.89	0.40
11:A:864:G:OP2	24:Q:22:LYS:HG3	2.21	0.40
29:V:69:LYS:HB2	29:V:88:ARG:CD	2.42	0.40
11:A:2037:G:O5'	11:A:2037:G:H8	2.04	0.40
11:A:274:G:C2'	11:A:274:G:N3	2.84	0.40
14:D:187:GLY:C	14:D:189:CYS:H	2.25	0.40
11:A:1062:G:N1	11:A:1063:G:H1'	2.36	0.40
29:V:19:LYS:HZ3	29:V:20:LEU:H	1.69	0.40
29:V:58:VAL:HB	29:V:97:LYS:HB2	2.04	0.40
13:C:152:ILE:O	13:C:156:ILE:HG13	2.21	0.40
8:7:10:ARG:HD3	11:A:771:G:OP1	2.22	0.40
25:R:110:PRO:C	25:R:111:LEU:HD12	2.41	0.40
11:A:271(F):C:C2'	11:A:271(G):C:H5'	2.51	0.40
24:Q:98:LYS:O	24:Q:99:PRO:C	2.60	0.40
11:A:2575:C:H5''	11:A:2576:G:OP2	2.22	0.40
11:A:940:G:C3'	11:A:941:A:H5''	2.52	0.40
11:A:479:A:H1'	11:A:481:G:H5''	2.02	0.40
24:Q:118:LEU:CD1	24:Q:131:ILE:HG23	2.51	0.40
30:W:80:PRO:O	30:W:80:PRO:HG2	2.21	0.40
13:C:61:THR:O	13:C:163:PHE:HE2	2.03	0.40
11:A:405:U:O4'	11:A:405:U:O2	2.38	0.40
11:A:1889:A:H1'	11:A:2087:G:O4'	2.21	0.40
11:A:693:C:C4	11:A:694:U:C4	3.10	0.40
14:D:147:LEU:CG	14:D:183:ARG:HH12	2.29	0.40
16:F:154:VAL:HG22	16:F:191:ARG:O	2.22	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:2:38:GLN:HB3	3:2:44:LEU:HD22	2.04	0.40
11:A:2468:G:H2'	11:A:2476:A:N7	2.36	0.40
11:A:2476:A:H2'	11:A:2476:A:N3	2.35	0.40
11:A:2740:A:C6	11:A:2741:A:C6	3.09	0.40
24:Q:54:MET:O	24:Q:55:VAL:C	2.60	0.40
11:A:296:C:N4	11:A:343:C:N4	2.70	0.40
11:A:2880:C:O2	25:R:92:GLY:HA3	2.21	0.40
11:A:1488:G:C6	11:A:1489:U:C4	3.10	0.40
23:P:110:TYR:CE1	23:P:111:ARG:CZ	3.05	0.40
11:A:2787:C:H1'	15:E:61:ARG:CD	2.51	0.40
31:X:35:THR:O	31:X:39:ILE:HB	2.21	0.40
11:A:2640:G:H5''	21:N:74:ARG:HD2	2.02	0.40
27:T:32:TYR:O	27:T:42:ILE:HA	2.22	0.40
27:T:25:GLY:O	27:T:48:ILE:HG22	2.21	0.40
13:C:171:ILE:HG12	13:C:196:LEU:HD21	2.04	0.40
12:B:73:A:C6	12:B:74:U:C2	3.09	0.40
22:O:31:LYS:HB3	22:O:32:TYR:CE1	2.56	0.40
11:A:1209:G:O3'	11:A:1212:G:H5'	2.22	0.40
2:1:68:PRO:HG2	2:1:69:LYS:H	1.86	0.40
28:U:5:LYS:HE2	28:U:7:GLY:H	1.86	0.40
11:A:1772:G:H2'	11:A:1773:A:H4'	2.02	0.40
11:A:1788:C:C2'	11:A:1789:A:H5'	2.52	0.40
11:A:99:U:H4'	11:A:102:G:H1'	2.03	0.40
32:Y:6:HIS:NE2	32:Y:30:VAL:HG11	2.37	0.40
28:U:92:ARG:NH2	29:V:10:LYS:CA	2.83	0.40
29:V:35:LEU:C	29:V:37:VAL:N	2.75	0.40
14:D:117:VAL:HG21	14:D:128:GLY:C	2.41	0.40
14:D:72:LYS:HB3	14:D:75:ILE:HB	2.03	0.40
24:Q:129:THR:O	24:Q:130:LYS:HB2	2.21	0.40
24:Q:43:THR:O	24:Q:44:ALA:C	2.60	0.40
2:1:86:SER:O	2:1:89:GLU:N	2.43	0.40
4:3:54:VAL:HG12	4:3:55:ARG:N	2.36	0.40
12:B:19:G:H3'	12:B:20:C:H6	1.87	0.40
5:4:35:VAL:CG1	5:4:36:CYS:N	2.84	0.40
11:A:687:C:C5	11:A:688:U:C4	3.10	0.40
11:A:1785:A:C2	11:A:2588:G:N2	2.90	0.40
11:A:980:A:C5	11:A:981:A:C2	3.10	0.40
11:A:203:C:N4	11:A:204:A:C6	2.89	0.40
15:E:98:PRO:HD3	15:E:175:VAL:CG1	2.51	0.40
11:A:383:U:C6	11:A:385:C:C5	3.09	0.40
11:A:2313:C:C3'	11:A:2313:C:C6	3.05	0.40
30:W:29:LEU:HG	30:W:33:ARG:CD	2.52	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:A:966:G:C1'	11:A:2267:A:N6	2.83	0.40
11:A:952:G:C5'	24:Q:16:ARG:HH22	2.35	0.40
10:9:19:ARG:C	10:9:21:GLY:N	2.70	0.40
23:P:52:GLU:HG3	23:P:53:GLY:H	1.87	0.40
11:A:292:C:C2'	11:A:293:U:H5'	2.51	0.40
11:A:1930:G:HO2'	11:A:1931:U:P	2.43	0.40
11:A:2406:U:O4	23:P:72:PRO:HD2	2.22	0.40
11:A:2521:C:H2'	11:A:2521:C:O2	2.22	0.40
11:A:1450:G:H2'	11:A:1450(A):C:H6	1.87	0.40
23:P:80:TYR:HD2	23:P:80:TYR:N	2.19	0.40
30:W:80:PRO:O	30:W:100:THR:CG2	2.70	0.40
16:F:21:ALA:C	16:F:23:ASP:H	2.24	0.40
13:C:191:ALA:HA	13:C:194:ARG:NE	2.37	0.40

There are no symmetry-related clashes.

5.3 Torsion angles

5.3.1 Protein backbone ⓘ

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	0	82/85 (96%)	54 (66%)	20 (24%)	8 (10%)	1	18
2	1	92/98 (94%)	55 (60%)	22 (24%)	15 (16%)	0	6
3	2	69/72 (96%)	43 (62%)	10 (14%)	16 (23%)	0	2
4	3	58/60 (97%)	28 (48%)	15 (26%)	15 (26%)	0	1
5	4	43/71 (61%)	20 (46%)	15 (35%)	8 (19%)	0	4
6	5	57/60 (95%)	33 (58%)	13 (23%)	11 (19%)	0	3
7	6	48/54 (89%)	17 (35%)	14 (29%)	17 (35%)	0	0
8	7	47/49 (96%)	27 (57%)	12 (26%)	8 (17%)	0	5
9	8	62/65 (95%)	34 (55%)	16 (26%)	12 (19%)	0	3
10	9	35/37 (95%)	18 (51%)	9 (26%)	8 (23%)	0	2
13	C	226/229 (99%)	143 (63%)	53 (24%)	30 (13%)	0	10

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
14	D	273/276 (99%)	176 (64%)	63 (23%)	34 (12%)	1	12
15	E	203/206 (98%)	109 (54%)	45 (22%)	49 (24%)	0	1
16	F	206/210 (98%)	120 (58%)	47 (23%)	39 (19%)	0	3
17	G	179/182 (98%)	86 (48%)	52 (29%)	41 (23%)	0	2
18	H	158/180 (88%)	98 (62%)	36 (23%)	24 (15%)	0	7
21	N	137/140 (98%)	75 (55%)	39 (28%)	23 (17%)	0	5
22	O	120/122 (98%)	91 (76%)	17 (14%)	12 (10%)	1	17
23	P	144/150 (96%)	72 (50%)	35 (24%)	37 (26%)	0	1
24	Q	139/141 (99%)	77 (55%)	46 (33%)	16 (12%)	1	13
25	R	115/118 (98%)	68 (59%)	25 (22%)	22 (19%)	0	3
26	S	97/112 (87%)	37 (38%)	35 (36%)	25 (26%)	0	1
27	T	136/146 (93%)	63 (46%)	40 (29%)	33 (24%)	0	1
28	U	115/118 (98%)	69 (60%)	34 (30%)	12 (10%)	1	16
29	V	99/101 (98%)	61 (62%)	19 (19%)	19 (19%)	0	3
30	W	111/113 (98%)	73 (66%)	24 (22%)	14 (13%)	0	11
31	X	91/96 (95%)	55 (60%)	20 (22%)	16 (18%)	0	4
32	Y	99/110 (90%)	37 (37%)	29 (29%)	33 (33%)	0	0
33	Z	174/206 (84%)	87 (50%)	47 (27%)	40 (23%)	0	2
All	All	3415/3607 (95%)	1926 (56%)	852 (25%)	637 (19%)	0	3

All (637) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	0	47	PRO
1	0	55	ARG
1	0	56	ASP
2	1	27	GLU
2	1	45	ASN
2	1	52	ARG
2	1	57	GLU
2	1	84	GLY
2	1	91	LYS
3	2	16	LEU
3	2	18	PRO
3	2	33	MET
3	2	34	GLU

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Mol	Chain	Res	Type
3	2	47	ASN
3	2	68	ARG
3	2	70	GLN
4	3	3	ARG
4	3	13	ILE
4	3	30	ARG
4	3	38	GLU
4	3	43	ILE
5	4	9	LEU
5	4	43	TYR
6	5	24	ALA
6	5	35	GLU
6	5	49	CYS
7	6	16	CYS
7	6	17	LYS
7	6	18	ARG
7	6	23	THR
7	6	27	LYS
7	6	28	ARG
7	6	31	PRO
7	6	46	HIS
7	6	48	VAL
8	7	11	LYS
8	7	45	ALA
9	8	31	HIS
9	8	34	TRP
9	8	35	GLN
9	8	43	GLN
9	8	46	ARG
10	9	10	ILE
10	9	11	CYS
10	9	36	GLN
13	C	78	ALA
13	C	95	GLY
13	C	105	ASP
13	C	107	TRP
13	C	109	ASP
13	C	111	ASP
13	C	135	GLY
13	C	138	PRO
13	C	198	ALA
13	C	199	HIS

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Mol	Chain	Res	Type
14	D	24	ILE
14	D	25	THR
14	D	27	THR
14	D	52	ARG
14	D	153	ALA
14	D	178	PRO
14	D	225	ALA
14	D	226	MET
14	D	246	PRO
15	E	4	ILE
15	E	53	PRO
15	E	54	GLN
15	E	57	LYS
15	E	77	ILE
15	E	81	ILE
15	E	84	PHE
15	E	88	GLY
15	E	90	THR
15	E	127	ASP
15	E	131	ALA
15	E	155	LYS
15	E	168	MET
15	E	178	GLU
15	E	189	PRO
16	F	2	LYS
16	F	3	GLU
16	F	10	PRO
16	F	14	PRO
16	F	24	LEU
16	F	64	ILE
16	F	79	GLY
16	F	81	PRO
16	F	83	PHE
16	F	84	VAL
16	F	89	VAL
16	F	127	GLU
16	F	158	THR
16	F	168	ARG
16	F	169	ASN
16	F	170	LEU
16	F	172	TRP
17	G	3	LEU

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Mol	Chain	Res	Type
17	G	19	LEU
17	G	28	VAL
17	G	47	LYS
17	G	63	ILE
17	G	73	ALA
17	G	81	LYS
17	G	84	LYS
17	G	86	MET
17	G	87	PRO
17	G	96	ARG
17	G	111	LEU
17	G	118	ARG
17	G	126	ASP
17	G	129	GLY
17	G	131	TYR
17	G	144	ILE
17	G	163	ALA
18	H	21	PRO
18	H	24	VAL
18	H	29	PRO
18	H	41	MET
18	H	84	SER
18	H	137	ASP
18	H	159	GLU
18	H	164	TYR
18	H	170	ARG
21	N	5	VAL
21	N	7	LYS
21	N	8	GLN
21	N	42	TRP
21	N	57	ALA
21	N	58	ASP
21	N	63	THR
21	N	130	HIS
21	N	133	GLN
22	O	5	GLN
22	O	18	LYS
22	O	48	PRO
22	O	68	GLU
23	P	9	ASN
23	P	11	GLY
23	P	19	VAL

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Mol	Chain	Res	Type
23	P	33	ARG
23	P	35	HIS
23	P	40	SER
23	P	46	LYS
23	P	47	ASP
23	P	49	ARG
23	P	52	GLU
23	P	57	THR
23	P	64	LYS
23	P	65	ARG
23	P	67	MET
23	P	71	VAL
23	P	76	LYS
23	P	106	LEU
23	P	110	TYR
23	P	122	PRO
24	Q	25	ASP
24	Q	52	VAL
24	Q	54	MET
24	Q	57	HIS
24	Q	88	GLY
25	R	4	LEU
25	R	11	ASN
25	R	30	THR
25	R	45	ARG
25	R	56	LYS
25	R	57	ARG
25	R	58	GLY
25	R	60	LEU
25	R	78	LYS
25	R	103	ARG
25	R	117	VAL
26	S	13	ARG
26	S	23	ARG
26	S	36	TYR
26	S	37	ALA
26	S	59	LYS
26	S	85	VAL
26	S	95	HIS
26	S	100	ALA
26	S	105	ALA
27	T	17	THR

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Mol	Chain	Res	Type
27	T	24	PRO
27	T	32	TYR
27	T	33	LYS
27	T	69	GLY
27	T	80	SER
27	T	84	GLN
27	T	103	ARG
27	T	107	ASP
27	T	112	ARG
27	T	129	ARG
28	U	5	LYS
28	U	9	VAL
28	U	87	GLY
28	U	91	ASP
29	V	16	PRO
29	V	18	LEU
29	V	24	LYS
29	V	27	ALA
29	V	46	VAL
29	V	50	PRO
29	V	53	GLU
29	V	64	HIS
30	W	6	ILE
30	W	18	ARG
30	W	63	ASP
30	W	73	ALA
30	W	99	ARG
31	X	19	ALA
31	X	49	VAL
31	X	62	LYS
31	X	66	LEU
31	X	93	GLU
32	Y	5	MET
32	Y	17	SER
32	Y	38	ILE
32	Y	42	VAL
32	Y	46	LYS
32	Y	51	VAL
32	Y	53	PRO
32	Y	56	PRO
32	Y	57	GLN
32	Y	64	GLU

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Mol	Chain	Res	Type
32	Y	66	PRO
32	Y	74	PRO
32	Y	76	CYS
32	Y	77	PRO
32	Y	78	ALA
33	Z	7	ALA
33	Z	23	LYS
33	Z	27	VAL
33	Z	28	MET
33	Z	40	ASP
33	Z	45	ASP
33	Z	46	LYS
33	Z	53	ILE
33	Z	77	ASP
33	Z	81	ARG
33	Z	96	VAL
33	Z	150	LEU
33	Z	151	HIS
33	Z	152	ALA
33	Z	163	LEU
33	Z	166	SER
33	Z	177	PRO
1	0	43	THR
1	0	64	ASP
1	0	73	GLY
2	1	14	VAL
2	1	15	ALA
2	1	31	GLY
2	1	36	GLY
2	1	53	VAL
2	1	73	LEU
3	2	26	ARG
3	2	49	LYS
4	3	16	PRO
4	3	29	ARG
4	3	57	GLU
5	4	20	ASN
5	4	44	THR
6	5	3	LYS
6	5	25	LEU
6	5	45	VAL
6	5	57	VAL

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Mol	Chain	Res	Type
7	6	19	ARG
7	6	20	ASN
7	6	52	VAL
8	7	32	LYS
9	8	3	LYS
9	8	8	LYS
10	9	13	LYS
10	9	25	VAL
10	9	33	LYS
13	C	2	LYS
13	C	39	GLU
13	C	48	GLY
13	C	62	VAL
13	C	77	ILE
13	C	99	ILE
13	C	115	ALA
13	C	149	ILE
13	C	160	ARG
13	C	179	SER
14	D	3	VAL
14	D	111	LEU
14	D	234	GLY
14	D	242	ARG
14	D	267	SER
14	D	273	ARG
15	E	19	ARG
15	E	29	GLY
15	E	35	GLN
15	E	64	LYS
15	E	66	HIS
15	E	69	LYS
15	E	80	GLU
15	E	117	MET
15	E	124	GLY
15	E	130	GLY
15	E	145	LYS
15	E	179	GLU
15	E	199	ARG
15	E	204	ALA
16	F	11	VAL
16	F	21	ALA
16	F	43	LYS

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Mol	Chain	Res	Type
16	F	62	ARG
16	F	85	GLY
16	F	88	VAL
16	F	100	THR
16	F	119	ARG
16	F	126	VAL
16	F	132	VAL
16	F	133	ASN
16	F	134	GLY
16	F	179	GLU
17	G	10	LYS
17	G	45	GLU
17	G	80	PHE
17	G	101	ILE
17	G	132	ASN
17	G	139	LEU
17	G	167	GLU
17	G	176	LEU
18	H	30	LYS
18	H	45	VAL
18	H	46	GLU
18	H	62	LYS
18	H	108	GLY
18	H	109	PHE
18	H	138	LYS
21	N	19	GLU
21	N	36	GLY
21	N	46	VAL
21	N	50	ASP
21	N	59	LYS
22	O	9	GLU
22	O	26	LYS
22	O	35	VAL
22	O	91	LEU
23	P	15	ARG
23	P	21	ARG
23	P	34	GLY
23	P	83	VAL
23	P	108	LYS
23	P	149	GLU
24	Q	20	ALA
24	Q	30	GLY

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Mol	Chain	Res	Type
24	Q	87	LYS
24	Q	119	ARG
24	Q	135	ASP
25	R	29	LEU
25	R	42	LYS
25	R	43	GLU
25	R	46	GLY
25	R	86	ARG
26	S	15	ARG
26	S	17	ARG
26	S	24	LEU
26	S	28	VAL
26	S	29	PHE
26	S	94	TYR
26	S	97	ARG
26	S	104	GLY
27	T	4	GLY
27	T	28	VAL
27	T	57	PHE
27	T	91	ARG
27	T	95	ARG
27	T	100	TYR
27	T	104	ASN
27	T	135	ALA
28	U	33	ARG
28	U	90	VAL
28	U	94	ASN
28	U	95	LEU
29	V	20	LEU
29	V	44	LYS
29	V	67	GLY
29	V	79	VAL
29	V	97	LYS
30	W	65	LEU
31	X	4	ALA
31	X	12	VAL
32	Y	7	VAL
32	Y	8	LYS
32	Y	13	VAL
32	Y	37	VAL
32	Y	39	VAL
32	Y	61	ILE

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Mol	Chain	Res	Type
33	Z	52	SER
33	Z	80	ARG
33	Z	95	PRO
33	Z	128	VAL
33	Z	139	VAL
33	Z	168	GLU
1	0	57	PHE
1	0	83	PRO
2	1	83	GLU
3	2	30	ARG
3	2	58	ALA
3	2	64	LEU
4	3	2	PRO
4	3	42	ALA
5	4	8	LYS
5	4	26	SER
5	4	28	LYS
6	5	11	THR
6	5	59	GLU
7	6	33	LYS
7	6	34	LEU
7	6	49	HIS
9	8	61	LEU
13	C	49	ILE
13	C	121	GLY
13	C	141	LYS
13	C	196	LEU
13	C	197	GLU
13	C	204	ALA
13	C	217	THR
14	D	32	SER
14	D	127	VAL
14	D	188	GLU
14	D	236	GLY
14	D	239	ARG
15	E	2	LYS
15	E	60	ASN
15	E	135	HIS
15	E	136	ARG
15	E	172	VAL
15	E	185	LYS
16	F	42	ALA

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Mol	Chain	Res	Type
16	F	49	ALA
16	F	146	ALA
16	F	164	ARG
16	F	171	PRO
17	G	46	ALA
17	G	64	THR
17	G	82	LEU
17	G	115	ARG
17	G	130	ASN
17	G	147	ASP
18	H	20	ALA
18	H	42	ARG
21	N	45	ASN
21	N	108	PRO
21	N	127	ASP
21	N	138	LEU
22	O	73	ASP
23	P	13	ASN
23	P	23	PRO
23	P	70	GLN
23	P	81	GLN
23	P	107	LYS
23	P	125	VAL
24	Q	21	THR
24	Q	71	ASP
24	Q	96	VAL
24	Q	137	TYR
25	R	14	SER
25	R	63	ARG
25	R	108	GLY
26	S	78	LEU
26	S	107	GLU
27	T	12	SER
27	T	36	GLU
27	T	37	GLY
27	T	41	ARG
28	U	93	LYS
29	V	59	ALA
30	W	35	ILE
30	W	74	ALA
30	W	111	HIS
31	X	9	LEU

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Mol	Chain	Res	Type
31	X	15	GLU
31	X	21	PHE
32	Y	3	VAL
32	Y	14	LEU
32	Y	82	PRO
32	Y	99	CYS
33	Z	29	TYR
33	Z	51	ALA
33	Z	73	GLN
33	Z	113	ALA
33	Z	134	PRO
2	1	63	ALA
2	1	64	ALA
4	3	49	LYS
4	3	51	ALA
7	6	43	CYS
8	7	2	LYS
8	7	9	ARG
8	7	44	PRO
9	8	25	MET
9	8	40	GLU
10	9	31	LYS
14	D	74	GLY
14	D	196	VAL
14	D	260	ARG
15	E	61	ARG
15	E	121	ASN
15	E	167	VAL
16	F	82	ILE
16	F	190	GLU
17	G	43	LEU
17	G	53	LEU
17	G	75	LYS
17	G	155	MET
18	H	67	LEU
18	H	154	PRO
21	N	44	PRO
22	O	13	ASN
22	O	51	ALA
23	P	12	ALA
23	P	20	GLY
23	P	25	SER

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Mol	Chain	Res	Type
24	Q	99	PRO
25	R	68	ARG
25	R	75	LEU
27	T	15	VAL
27	T	46	GLU
27	T	97	ALA
29	V	51	VAL
30	W	41	LYS
30	W	42	ARG
30	W	59	VAL
31	X	94	GLY
32	Y	27	VAL
32	Y	62	GLU
3	2	17	SER
4	3	12	PRO
6	5	4	HIS
6	5	14	ALA
8	7	16	HIS
9	8	29	LYS
9	8	33	ASN
13	C	200	LYS
14	D	12	SER
14	D	28	GLU
14	D	156	ALA
15	E	27	LEU
15	E	45	THR
15	E	52	LEU
15	E	86	PRO
16	F	9	ILE
16	F	25	PRO
17	G	121	ASN
17	G	138	GLN
18	H	47	GLU
23	P	31	ALA
24	Q	49	ALA
25	R	67	LEU
26	S	14	VAL
26	S	22	GLY
26	S	75	GLU
27	T	131	ALA
28	U	92	ARG
29	V	49	THR

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Mol	Chain	Res	Type
29	V	89	GLN
30	W	53	SER
30	W	91	GLY
31	X	6	ASP
31	X	14	SER
31	X	17	ALA
31	X	32	PRO
32	Y	26	LYS
32	Y	101	LYS
33	Z	82	ARG
33	Z	176	PRO
7	6	9	LEU
8	7	37	LYS
10	9	20	HIS
13	C	148	ASN
14	D	33	LEU
14	D	36	PRO
14	D	159	ALA
15	E	55	ASN
15	E	72	VAL
15	E	173	VAL
15	E	196	VAL
17	G	97	ASP
17	G	117	PHE
18	H	93	GLY
21	N	40	PRO
21	N	134	ARG
26	S	73	LEU
27	T	23	ARG
27	T	83	ILE
28	U	102	GLU
32	Y	22	GLY
32	Y	50	ARG
32	Y	92	ASN
3	2	42	GLY
13	C	132	GLY
14	D	42	GLY
15	E	56	PRO
15	E	190	GLY
18	H	92	ILE
21	N	64	GLY
22	O	115	VAL

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Mol	Chain	Res	Type
28	U	100	VAL
29	V	22	VAL
29	V	48	GLY
32	Y	75	ILE
33	Z	15	PRO
33	Z	22	GLY
33	Z	120	ILE
33	Z	141	VAL
33	Z	165	VAL
14	D	41	GLY
14	D	244	ARG
23	P	104	GLY
26	S	90	GLY
27	T	30	VAL
33	Z	90	VAL
33	Z	133	ILE
33	Z	158	PRO
3	2	63	VAL
5	4	19	GLY
14	D	35	LYS
18	H	128	PRO
21	N	95	PRO
26	S	49	VAL
27	T	102	ILE
27	T	110	ILE
33	Z	61	LEU
33	Z	74	VAL
3	2	41	ILE
4	3	11	SER
4	3	50	VAL
17	G	114	ILE
23	P	146	VAL
27	T	88	ILE
31	X	8	ILE
15	E	112	GLY
14	D	245	PRO

5.3.2 Protein sidechains ⓘ

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	0	66/67 (98%)	52 (79%)	14 (21%)	1	10
2	1	78/83 (94%)	59 (76%)	19 (24%)	1	7
3	2	66/67 (98%)	49 (74%)	17 (26%)	1	6
4	3	51/52 (98%)	44 (86%)	7 (14%)	5	31
5	4	39/63 (62%)	26 (67%)	13 (33%)	0	3
6	5	51/52 (98%)	47 (92%)	4 (8%)	18	65
7	6	49/52 (94%)	41 (84%)	8 (16%)	3	22
8	7	41/42 (98%)	32 (78%)	9 (22%)	1	9
9	8	53/55 (96%)	45 (85%)	8 (15%)	4	27
10	9	34/34 (100%)	30 (88%)	4 (12%)	8	39
13	C	180/181 (99%)	157 (87%)	23 (13%)	6	35
14	D	217/218 (100%)	180 (83%)	37 (17%)	3	20
15	E	165/166 (99%)	142 (86%)	23 (14%)	5	31
16	F	165/166 (99%)	152 (92%)	13 (8%)	18	64
17	G	155/156 (99%)	130 (84%)	25 (16%)	3	23
18	H	132/148 (89%)	118 (89%)	14 (11%)	10	46
21	N	117/119 (98%)	103 (88%)	14 (12%)	7	38
22	O	100/100 (100%)	90 (90%)	10 (10%)	11	50
23	P	112/116 (97%)	88 (79%)	24 (21%)	1	10
24	Q	111/111 (100%)	91 (82%)	20 (18%)	2	16
25	R	100/101 (99%)	86 (86%)	14 (14%)	5	30
26	S	77/88 (88%)	66 (86%)	11 (14%)	5	29
27	T	120/127 (94%)	99 (82%)	21 (18%)	3	18
28	U	92/94 (98%)	84 (91%)	8 (9%)	15	59
29	V	82/82 (100%)	66 (80%)	16 (20%)	2	13
30	W	91/92 (99%)	79 (87%)	12 (13%)	6	33
31	X	74/78 (95%)	67 (90%)	7 (10%)	12	52
32	Y	84/91 (92%)	68 (81%)	16 (19%)	2	14
33	Z	155/179 (87%)	127 (82%)	28 (18%)	2	16
All	All	2857/2980 (96%)	2418 (85%)	439 (15%)	4	25

All (439) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	0	11	ARG
1	0	12	ASN
1	0	14	ARG
1	0	20	ARG
1	0	27	GLU
1	0	31	VAL
1	0	47	PRO
1	0	56	ASP
1	0	60	PHE
1	0	62	LEU
1	0	64	ASP
1	0	71	ASP
1	0	78	TYR
1	0	84	LEU
2	1	7	ILE
2	1	11	ARG
2	1	13	ILE
2	1	30	VAL
2	1	33	LYS
2	1	37	ILE
2	1	38	SER
2	1	39	LYS
2	1	45	ASN
2	1	46	LEU
2	1	49	VAL
2	1	57	GLU
2	1	69	LYS
2	1	75	GLU
2	1	80	LEU
2	1	82	LEU
2	1	83	GLU
2	1	92	LYS
2	1	95	LEU
3	2	3	LEU
3	2	7	ARG
3	2	9	GLN
3	2	10	LEU
3	2	17	SER
3	2	21	LEU
3	2	33	MET
3	2	34	GLU
3	2	35	LEU
3	2	38	GLN

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Mol	Chain	Res	Type
3	2	43	GLN
3	2	44	LEU
3	2	51	ARG
3	2	57	ILE
3	2	60	LEU
3	2	64	LEU
3	2	68	ARG
4	3	28	LEU
4	3	31	LEU
4	3	35	ARG
4	3	38	GLU
4	3	40	THR
4	3	46	ASN
4	3	52	HIS
5	4	5	ILE
5	4	6	HIS
5	4	8	LYS
5	4	9	LEU
5	4	10	VAL
5	4	20	ASN
5	4	22	ILE
5	4	25	TYR
5	4	27	THR
5	4	32	TYR
5	4	34	GLU
5	4	35	VAL
5	4	47	GLN
6	5	3	LYS
6	5	51	TYR
6	5	56	LYS
6	5	57	VAL
7	6	10	LEU
7	6	31	PRO
7	6	42	TRP
7	6	43	CYS
7	6	45	LYS
7	6	49	HIS
7	6	52	VAL
7	6	53	LYS
8	7	1	MET
8	7	8	ASN
8	7	14	LYS

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Mol	Chain	Res	Type
8	7	21	ARG
8	7	24	THR
8	7	41	ARG
8	7	44	PRO
8	7	47	ARG
8	7	48	LYS
9	8	30	ARG
9	8	34	TRP
9	8	44	LYS
9	8	47	LYS
9	8	48	PHE
9	8	56	GLU
9	8	61	LEU
9	8	64	TYR
10	9	1	MET
10	9	14	CYS
10	9	28	GLU
10	9	29	ASN
13	C	3	HIS
13	C	6	ARG
13	C	12	GLU
13	C	14	VAL
13	C	17	ASN
13	C	30	LYS
13	C	36	LYS
13	C	40	THR
13	C	52	ARG
13	C	55	ASP
13	C	70	LYS
13	C	71	GLN
13	C	72	VAL
13	C	85	GLU
13	C	108	MET
13	C	111	ASP
13	C	113	VAL
13	C	139	ASN
13	C	155	GLU
13	C	168	THR
13	C	183	GLU
13	C	199	HIS
13	C	227	HIS
14	D	10	THR

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Mol	Chain	Res	Type
14	D	24	ILE
14	D	28	GLU
14	D	33	LEU
14	D	35	LYS
14	D	37	LEU
14	D	43	ARG
14	D	52	ARG
14	D	59	LYS
14	D	61	LEU
14	D	63	ARG
14	D	64	ILE
14	D	65	ILE
14	D	88	ARG
14	D	92	ILE
14	D	94	LEU
14	D	95	LEU
14	D	103	ARG
14	D	106	ILE
14	D	122	ASP
14	D	131	LEU
14	D	157	ARG
14	D	166	GLN
14	D	174	ILE
14	D	183	ARG
14	D	200	ASP
14	D	212	SER
14	D	221	VAL
14	D	242	ARG
14	D	246	PRO
14	D	252	TRP
14	D	257	LEU
14	D	260	ARG
14	D	267	SER
14	D	271	ILE
14	D	273	ARG
14	D	275	LYS
15	E	35	GLN
15	E	36	ARG
15	E	42	ASP
15	E	51	PHE
15	E	55	ASN
15	E	57	LYS

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Mol	Chain	Res	Type
15	E	58	ARG
15	E	61	ARG
15	E	67	PHE
15	E	69	LYS
15	E	76	ARG
15	E	79	ARG
15	E	82	ARG
15	E	95	ILE
15	E	121	ASN
15	E	127	ASP
15	E	135	HIS
15	E	169	ASN
15	E	171	GLU
15	E	181	LEU
15	E	188	VAL
15	E	192	ASN
15	E	202	LYS
16	F	17	ARG
16	F	28	ILE
16	F	44	ARG
16	F	83	PHE
16	F	88	VAL
16	F	97	TYR
16	F	122	LYS
16	F	138	GLU
16	F	139	PHE
16	F	149	ASP
16	F	160	ASN
16	F	164	ARG
16	F	169	ASN
17	G	12	TYR
17	G	21	ARG
17	G	29	TRP
17	G	33	ARG
17	G	34	LEU
17	G	36	LYS
17	G	45	GLU
17	G	52	ILE
17	G	58	GLN
17	G	60	LEU
17	G	67	LYS
17	G	71	THR

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Mol	Chain	Res	Type
17	G	80	PHE
17	G	82	LEU
17	G	87	PRO
17	G	103	LEU
17	G	125	PHE
17	G	133	LEU
17	G	135	LEU
17	G	139	LEU
17	G	146	TYR
17	G	153	ARG
17	G	162	THR
17	G	166	ASP
17	G	176	LEU
18	H	41	MET
18	H	43	VAL
18	H	53	GLU
18	H	54	ARG
18	H	65	HIS
18	H	92	ILE
18	H	104	GLU
18	H	122	THR
18	H	139	GLN
18	H	143	GLN
18	H	152	ARG
18	H	153	LYS
18	H	157	TYR
18	H	163	TYR
21	N	1	MET
21	N	4	TYR
21	N	19	GLU
21	N	25	ARG
21	N	26	LEU
21	N	32	THR
21	N	34	LEU
21	N	45	ASN
21	N	48	MET
21	N	56	ASN
21	N	63	THR
21	N	65	LYS
21	N	99	LEU
21	N	127	ASP
22	O	4	PRO

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Mol	Chain	Res	Type
22	O	8	LEU
22	O	10	VAL
22	O	23	ARG
22	O	32	TYR
22	O	48	PRO
22	O	92	GLU
22	O	99	PHE
22	O	104	ARG
22	O	105	GLU
23	P	16	ARG
23	P	18	ARG
23	P	19	VAL
23	P	27	HIS
23	P	33	ARG
23	P	35	HIS
23	P	40	SER
23	P	45	LEU
23	P	52	GLU
23	P	55	ARG
23	P	56	SER
23	P	59	LEU
23	P	61	ARG
23	P	62	LEU
23	P	68	GLN
23	P	70	GLN
23	P	79	ARG
23	P	85	LEU
23	P	91	PHE
23	P	100	LEU
23	P	101	VAL
23	P	108	LYS
23	P	110	TYR
23	P	130	PHE
24	Q	1	MET
24	Q	6	ARG
24	Q	25	ASP
24	Q	37	LEU
24	Q	45	GLN
24	Q	56	ARG
24	Q	58	PHE
24	Q	59	ARG
24	Q	65	PHE

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Mol	Chain	Res	Type
24	Q	74	TYR
24	Q	82	ARG
24	Q	89	ASN
24	Q	94	VAL
24	Q	97	VAL
24	Q	99	PRO
24	Q	104	PHE
24	Q	125	LEU
24	Q	132	VAL
24	Q	133	ARG
24	Q	138	ASP
25	R	2	ARG
25	R	5	LYS
25	R	8	ARG
25	R	13	HIS
25	R	18	LEU
25	R	29	LEU
25	R	36	THR
25	R	44	LEU
25	R	71	GLN
25	R	77	ARG
25	R	97	VAL
25	R	99	LYS
25	R	100	LEU
25	R	113	LEU
26	S	11	LYS
26	S	12	PHE
26	S	15	ARG
26	S	18	ILE
26	S	29	PHE
26	S	36	TYR
26	S	54	LEU
26	S	57	LYS
26	S	63	THR
26	S	97	ARG
26	S	106	ARG
27	T	6	LEU
27	T	24	PRO
27	T	29	ARG
27	T	32	TYR
27	T	38	ASN
27	T	39	ARG

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Mol	Chain	Res	Type
27	T	41	ARG
27	T	48	ILE
27	T	57	PHE
27	T	58	ASN
27	T	61	PHE
27	T	65	LYS
27	T	66	VAL
27	T	72	VAL
27	T	78	LEU
27	T	82	LEU
27	T	90	GLN
27	T	99	LEU
27	T	102	ILE
27	T	124	ASP
27	T	128	GLU
28	U	8	VAL
28	U	18	LEU
28	U	20	LEU
28	U	56	ASP
28	U	66	ASN
28	U	74	LEU
28	U	108	GLU
28	U	114	LYS
29	V	13	ARG
29	V	14	VAL
29	V	16	PRO
29	V	18	LEU
29	V	19	LYS
29	V	20	LEU
29	V	21	ARG
29	V	35	LEU
29	V	39	LEU
29	V	50	PRO
29	V	61	VAL
29	V	71	LEU
29	V	75	PHE
29	V	89	GLN
29	V	95	LEU
29	V	99	ILE
30	W	11	ARG
30	W	17	VAL
30	W	34	ASN

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Mol	Chain	Res	Type
30	W	36	LEU
30	W	51	LEU
30	W	52	GLU
30	W	71	VAL
30	W	77	ASP
30	W	88	ARG
30	W	92	ARG
30	W	102	HIS
30	W	103	ILE
31	X	28	PHE
31	X	39	ILE
31	X	48	LYS
31	X	57	LEU
31	X	66	LEU
31	X	68	ARG
31	X	76	ARG
32	Y	2	ARG
32	Y	6	HIS
32	Y	7	VAL
32	Y	32	PRO
32	Y	49	VAL
32	Y	50	ARG
32	Y	53	PRO
32	Y	55	TYR
32	Y	56	PRO
32	Y	62	GLU
32	Y	67	LEU
32	Y	73	ARG
32	Y	75	ILE
32	Y	76	CYS
32	Y	77	PRO
32	Y	83	THR
33	Z	6	LYS
33	Z	18	LEU
33	Z	28	MET
33	Z	31	ARG
33	Z	41	LEU
33	Z	42	VAL
33	Z	43	GLU
33	Z	44	PHE
33	Z	61	LEU
33	Z	65	GLN

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Mol	Chain	Res	Type
33	Z	69	THR
33	Z	70	LEU
33	Z	72	ARG
33	Z	76	LEU
33	Z	79	ARG
33	Z	81	ARG
33	Z	97	GLU
33	Z	103	ARG
33	Z	104	PHE
33	Z	123	ASP
33	Z	127	LYS
33	Z	132	ASN
33	Z	134	PRO
33	Z	150	LEU
33	Z	154	ASP
33	Z	163	LEU
33	Z	166	SER
33	Z	171	ILE

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (94) such sidechains are listed below:

Mol	Chain	Res	Type
1	0	50	ASN
1	0	70	GLN
2	1	45	ASN
2	1	66	HIS
3	2	9	GLN
3	2	43	GLN
4	3	19	GLN
4	3	46	ASN
5	4	20	ASN
5	4	40	HIS
5	4	46	GLN
5	4	47	GLN
6	5	43	HIS
7	6	20	ASN
7	6	32	ASN
8	7	8	ASN
9	8	35	GLN
10	9	29	ASN
10	9	32	HIS
10	9	36	GLN

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Mol	Chain	Res	Type
13	C	57	ASN
13	C	172	HIS
14	D	96	HIS
14	D	115	GLN
14	D	116	GLN
14	D	126	GLN
14	D	166	GLN
14	D	186	HIS
14	D	201	HIS
15	E	48	GLN
15	E	54	GLN
15	E	55	ASN
15	E	121	ASN
15	E	129	HIS
15	E	132	HIS
15	E	143	ASN
15	E	169	ASN
15	E	192	ASN
16	F	8	GLN
16	F	29	ASN
16	F	31	HIS
16	F	40	GLN
16	F	69	HIS
16	F	75	HIS
16	F	133	ASN
16	F	160	ASN
16	F	169	ASN
16	F	204	ASN
17	G	27	ASN
17	G	58	GLN
17	G	66	GLN
17	G	123	ASN
18	H	147	ASN
21	N	45	ASN
21	N	56	ASN
21	N	94	HIS
21	N	130	HIS
21	N	131	GLN
22	O	5	GLN
23	P	38	GLN
23	P	81	GLN
23	P	84	ASN

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Mol	Chain	Res	Type
23	P	128	HIS
24	Q	12	GLN
24	Q	45	GLN
25	R	3	HIS
25	R	13	HIS
25	R	23	ASN
25	R	61	HIS
26	S	38	GLN
27	T	38	ASN
27	T	43	GLN
27	T	55	ASN
27	T	58	ASN
27	T	123	GLN
28	U	49	HIS
28	U	66	ASN
28	U	81	HIS
28	U	94	ASN
28	U	117	GLN
29	V	11	GLN
29	V	80	GLN
30	W	34	ASN
30	W	40	ASN
30	W	61	ASN
31	X	41	ASN
31	X	55	ASN
31	X	82	GLN
31	X	87	GLN
32	Y	6	HIS
33	Z	30	ASN
33	Z	54	HIS
33	Z	85	HIS
33	Z	118	GLN

5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
11	A	2900/2915 (99%)	647 (22%)	55 (1%)
12	B	118/122 (96%)	29 (24%)	1 (0%)
All	All	3018/3037 (99%)	676 (22%)	56 (1%)

All (676) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
11	A	10	G
11	A	15	G
11	A	27	G
11	A	32	C
11	A	34	C
11	A	45	C
11	A	49	A
11	A	50	U
11	A	61	G
11	A	63	U
11	A	69	C
11	A	71	A
11	A	72	U
11	A	74	A
11	A	75	G
11	A	76	C
11	A	82	G
11	A	84	A
11	A	85	G
11	A	88	G
11	A	90	U
11	A	92	A
11	A	94	C
11	A	95	G
11	A	96	G
11	A	100	G
11	A	102	G
11	A	112	U
11	A	118	A
11	A	119	A
11	A	120	U
11	A	129	C
11	A	139(A)	G
11	A	141	A
11	A	146	G
11	A	153	C
11	A	155	U
11	A	174	C
11	A	181	A
11	A	182	A
11	A	196	A
11	A	197	A
11	A	198	C

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Mol	Chain	Res	Type
11	A	199	A
11	A	204	A
11	A	205	G
11	A	215	G
11	A	221	A
11	A	222	A
11	A	229	A
11	A	230	U
11	A	233	A
11	A	244	A
11	A	245	G
11	A	248	G
11	A	266	G
11	A	267	C
11	A	271(K)	U
11	A	271(L)	U
11	A	271(M)	G
11	A	271(N)	U
11	A	271(O)	C
11	A	271(P)	C
11	A	271(R)	G
11	A	272(A)	U
11	A	272(B)	G
11	A	272(I)	U
11	A	274	G
11	A	276	A
11	A	284	U
11	A	288	C
11	A	299	A
11	A	310	A
11	A	312	G
11	A	323	G
11	A	329	G
11	A	330	A
11	A	331	A
11	A	332	A
11	A	333	G
11	A	338	G
11	A	343	C
11	A	344	G
11	A	349	G
11	A	352	G

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Mol	Chain	Res	Type
11	A	353	G
11	A	356	G
11	A	358	U
11	A	362	U
11	A	363	G
11	A	363(F)	A
11	A	364	C
11	A	372	G
11	A	386	G
11	A	387	U
11	A	388	G
11	A	394	A
11	A	396	G
11	A	405	U
11	A	406	G
11	A	411	G
11	A	412	A
11	A	418	G
11	A	428	A
11	A	435	C
11	A	444	C
11	A	448	U
11	A	451	C
11	A	456	C
11	A	457	A
11	A	467	G
11	A	470	A
11	A	472	A
11	A	473	G
11	A	480	A
11	A	481	G
11	A	482	A
11	A	483	A
11	A	485	C
11	A	494	G
11	A	505	A
11	A	508	G
11	A	509	C
11	A	512	G
11	A	525	U
11	A	527	C
11	A	528	A

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Mol	Chain	Res	Type
11	A	530	G
11	A	531	C
11	A	532	A
11	A	533	G
11	A	537	C
11	A	556	G
11	A	561	G
11	A	562	U
11	A	563	G
11	A	572	A
11	A	573	G
11	A	575	A
11	A	586	A
11	A	588	U
11	A	592	G
11	A	599	G
11	A	603	A
11	A	604	G
11	A	607	U
11	A	613	G
11	A	614(B)	G
11	A	614(C)	A
11	A	615	G
11	A	620	G
11	A	627	A
11	A	629	G
11	A	637	A
11	A	645	C
11	A	646	A
11	A	651	G
11	A	653	A
11	A	654	A
11	A	654(J)	A
11	A	654(K)	C
11	A	656	G
11	A	668	G
11	A	669	G
11	A	670	A
11	A	673	C
11	A	686	G
11	A	695	G
11	A	708	C

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Mol	Chain	Res	Type
11	A	717	G
11	A	719	C
11	A	722	A
11	A	730	C
11	A	748	G
11	A	753	C
11	A	765	G
11	A	776	G
11	A	782	A
11	A	784	A
11	A	785	G
11	A	790	C
11	A	791	C
11	A	792	G
11	A	805	G
11	A	812	C
11	A	819	A
11	A	827	U
11	A	828	U
11	A	830	G
11	A	846	C
11	A	848	G
11	A	857	C
11	A	859	G
11	A	865	C
11	A	866	A
11	A	878	A
11	A	889	C
11	A	890	A
11	A	896	A
11	A	897	C
11	A	904	C
11	A	910	A
11	A	917	A
11	A	926	A
11	A	932	G
11	A	933	A
11	A	935	C
11	A	941	A
11	A	945	A
11	A	946	G
11	A	958	U

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Mol	Chain	Res	Type
11	A	959	A
11	A	961	C
11	A	964	C
11	A	965	C
11	A	974	G
11	A	975	C
11	A	980	A
11	A	983	A
11	A	985	C
11	A	991	C
11	A	996	A
11	A	1005	C
11	A	1011	G
11	A	1012	U
11	A	1013	C
11	A	1022	G
11	A	1025	G
11	A	1026	U
11	A	1027	A
11	A	1033	U
11	A	1039	G
11	A	1045	A
11	A	1047	G
11	A	1048	A
11	A	1051	G
11	A	1053	C
11	A	1059	G
11	A	1061	U
11	A	1062	G
11	A	1065	U
11	A	1067	A
11	A	1068	G
11	A	1069	A
11	A	1070	A
11	A	1071	G
11	A	1072	C
11	A	1073	A
11	A	1079	C
11	A	1087	G
11	A	1088	A
11	A	1091	G
11	A	1098	A

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Mol	Chain	Res	Type
11	A	1103	A
11	A	1107	G
11	A	1108	U
11	A	1111	A
11	A	1112	G
11	A	1114	G
11	A	1129	A
11	A	1130	U
11	A	1135	C
11	A	1136	G
11	A	1142	U
11	A	1143	A
11	A	1152	C
11	A	1154	G
11	A	1155	A
11	A	1157	G
11	A	1167	U
11	A	1170	G
11	A	1171	G
11	A	1174	A
11	A	1175	U
11	A	1176	G
11	A	1177	A
11	A	1178	C
11	A	1194	A
11	A	1195	G
11	A	1204	A
11	A	1205	U
11	A	1210	A
11	A	1211	U
11	A	1212	G
11	A	1218	C
11	A	1221	C
11	A	1223	G
11	A	1227	G
11	A	1238	G
11	A	1244	G
11	A	1250	G
11	A	1253	A
11	A	1255	U
11	A	1256	G
11	A	1265	A

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Mol	Chain	Res	Type
11	A	1271	G
11	A	1272	A
11	A	1273	U
11	A	1289	C
11	A	1292	U
11	A	1300	U
11	A	1301	A
11	A	1302	A
11	A	1314	C
11	A	1319	G
11	A	1321	A
11	A	1332	G
11	A	1338	G
11	A	1343	G
11	A	1349	A
11	A	1359	A
11	A	1364	G
11	A	1365	A
11	A	1378	A
11	A	1379	A
11	A	1380	G
11	A	1384	A
11	A	1385	G
11	A	1386	C
11	A	1396	U
11	A	1398	C
11	A	1404	C
11	A	1407	C
11	A	1416	G
11	A	1419	A
11	A	1420	U
11	A	1421	G
11	A	1427	A
11	A	1428	C
11	A	1433	U
11	A	1437	C
11	A	1445	A
11	A	1449	A
11	A	1453	U
11	A	1455	G
11	A	1459	G
11	A	1460	A

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Mol	Chain	Res	Type
11	A	1461	G
11	A	1467	C
11	A	1471	A
11	A	1475	G
11	A	1478	G
11	A	1482	G
11	A	1485	G
11	A	1488	G
11	A	1490	A
11	A	1493	C
11	A	1494	A
11	A	1495	A
11	A	1497	U
11	A	1499	C
11	A	1502	C
11	A	1505	C
11	A	1509	C
11	A	1509(A)	A
11	A	1512	U
11	A	1517	G
11	A	1528(A)	A
11	A	1541	G
11	A	1542	A
11	A	1544	A
11	A	1554	A
11	A	1558	A
11	A	1559	G
11	A	1569	A
11	A	1575	C
11	A	1578	U
11	A	1579	A
11	A	1580	A
11	A	1584	C
11	A	1586	A
11	A	1587	A
11	A	1591	G
11	A	1598	C
11	A	1603	A
11	A	1608	A
11	A	1614	A
11	A	1615	C
11	A	1616	A

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Mol	Chain	Res	Type
11	A	1617	C
11	A	1618	A
11	A	1634	A
11	A	1640	C
11	A	1648	C
11	A	1653	G
11	A	1654	A
11	A	1666	G
11	A	1674	G
11	A	1688	U
11	A	1694	C
11	A	1695	G
11	A	1698	A
11	A	1699	G
11	A	1700	A
11	A	1703	G
11	A	1717	G
11	A	1718	G
11	A	1721	G
11	A	1722	A
11	A	1739	U
11	A	1740	G
11	A	1742	G
11	A	1748	G
11	A	1756	G
11	A	1763	G
11	A	1764	G
11	A	1773	A
11	A	1780	A
11	A	1781	C
11	A	1782	C
11	A	1791	A
11	A	1799	G
11	A	1800	C
11	A	1801	G
11	A	1816	G
11	A	1817	G
11	A	1820	U
11	A	1821	A
11	A	1833	U
11	A	1835	G
11	A	1838	C

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Mol	Chain	Res	Type
11	A	1839	G
11	A	1847	A
11	A	1848	A
11	A	1858	G
11	A	1865	G
11	A	1866	C
11	A	1878	G
11	A	1881	C
11	A	1882	C
11	A	1885	A
11	A	1888	G
11	A	1900	A
11	A	1902	C
11	A	1903	G
11	A	1906	G
11	A	1912	A
11	A	1913	A
11	A	1929	G
11	A	1930	G
11	A	1936	A
11	A	1938	A
11	A	1944	U
11	A	1948	G
11	A	1955	U
11	A	1956	U
11	A	1962	C
11	A	1963	U
11	A	1967	C
11	A	1969	A
11	A	1970	A
11	A	1971	A
11	A	1972	A
11	A	1987	G
11	A	1992	G
11	A	1993	U
11	A	1997	G
11	A	2023	G
11	A	2029	G
11	A	2031	A
11	A	2034	U
11	A	2036	C
11	A	2041	U

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Mol	Chain	Res	Type
11	A	2043	C
11	A	2055	C
11	A	2056	G
11	A	2060	A
11	A	2061	G
11	A	2062	A
11	A	2069	G
11	A	2093	G
11	A	2096	U
11	A	2100	G
11	A	2102	U
11	A	2103	C
11	A	2104	G
11	A	2107	C
11	A	2108	C
11	A	2109	U
11	A	2111	C
11	A	2116	G
11	A	2117	A
11	A	2118	U
11	A	2127	G
11	A	2128	C
11	A	2129	C
11	A	2131	G
11	A	2132	U
11	A	2133	G
11	A	2145	C
11	A	2146	C
11	A	2147	G
11	A	2156	G
11	A	2160	G
11	A	2165	G
11	A	2172	U
11	A	2173	A
11	A	2174	C
11	A	2179	C
11	A	2180	U
11	A	2183	C
11	A	2185	C
11	A	2186	G
11	A	2187	G
11	A	2189	U

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Mol	Chain	Res	Type
11	A	2190	G
11	A	2192	G
11	A	2193	G
11	A	2198	A
11	A	2200	C
11	A	2203	U
11	A	2207	G
11	A	2208	A
11	A	2218	U
11	A	2219	G
11	A	2225	A
11	A	2238	G
11	A	2269	A
11	A	2275	C
11	A	2283	C
11	A	2287	A
11	A	2305	A
11	A	2307	G
11	A	2308	G
11	A	2311	A
11	A	2312	U
11	A	2313	C
11	A	2319	G
11	A	2320	A
11	A	2327	A
11	A	2336	A
11	A	2342	C
11	A	2343	C
11	A	2345	G
11	A	2347	C
11	A	2350	C
11	A	2361	A
11	A	2383	G
11	A	2385	C
11	A	2390	U
11	A	2392	A
11	A	2399	G
11	A	2402	C
11	A	2405	G
11	A	2406	U
11	A	2423	U
11	A	2424	C

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Mol	Chain	Res	Type
11	A	2425	A
11	A	2427	C
11	A	2429	G
11	A	2430	A
11	A	2434	A
11	A	2439	A
11	A	2441	C
11	A	2448	A
11	A	2465	C
11	A	2469	A
11	A	2470	G
11	A	2476	A
11	A	2477	C
11	A	2478	A
11	A	2482	G
11	A	2494	G
11	A	2497	A
11	A	2505	G
11	A	2509	G
11	A	2518	A
11	A	2521	C
11	A	2524	G
11	A	2529	G
11	A	2543	G
11	A	2554	U
11	A	2566	A
11	A	2567	G
11	A	2572	A
11	A	2573	C
11	A	2578	G
11	A	2582	G
11	A	2586	C
11	A	2593	U
11	A	2602	A
11	A	2609	U
11	A	2610	C
11	A	2611	U
11	A	2612	C
11	A	2615	U
11	A	2630	G
11	A	2639	A
11	A	2641	G

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Mol	Chain	Res	Type
11	A	2646	C
11	A	2653	U
11	A	2654	A
11	A	2655	G
11	A	2657	A
11	A	2670	A
11	A	2673	G
11	A	2675	A
11	A	2682	U
11	A	2690	C
11	A	2691	C
11	A	2703	C
11	A	2712	U
11	A	2712(A)	A
11	A	2713	A
11	A	2720	U
11	A	2726	U
11	A	2732	G
11	A	2733	A
11	A	2750	A
11	A	2751	G
11	A	2752	C
11	A	2757	A
11	A	2759	G
11	A	2761	G
11	A	2762	G
11	A	2763	G
11	A	2765	A
11	A	2766	G
11	A	2777	G
11	A	2778	A
11	A	2779	U
11	A	2780	G
11	A	2781	A
11	A	2787	C
11	A	2789	C
11	A	2790	A
11	A	2791	C
11	A	2794	C
11	A	2801	A
11	A	2801(A)	A
11	A	2802	G

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Mol	Chain	Res	Type
11	A	2803	C
11	A	2808	U
11	A	2811	G
11	A	2813	A
11	A	2817	G
11	A	2818	G
11	A	2820	A
11	A	2821	A
11	A	2833	G
11	A	2834	G
11	A	2835	A
11	A	2849	U
11	A	2872	G
11	A	2879	C
11	A	2883	A
11	A	2893	G
12	B	2	C
12	B	8	U
12	B	12	C
12	B	13	A
12	B	15	A
12	B	16	G
12	B	17	C
12	B	19	G
12	B	21	G
12	B	25	A
12	B	26	A
12	B	32	C
12	B	35	U
12	B	39	A
12	B	40	U
12	B	41	U
12	B	42	C
12	B	43	C
12	B	45	A
12	B	53	A
12	B	57	A
12	B	68	C
12	B	73	A
12	B	75	G
12	B	81	G
12	B	88	C

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Mol	Chain	Res	Type
12	B	101	G
12	B	110	G
12	B	113	G

All (56) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
11	A	49	A
11	A	71	A
11	A	74	A
11	A	83	G
11	A	197	A
11	A	199	A
11	A	214	G
11	A	221	A
11	A	265	A
11	A	331	A
11	A	332	A
11	A	363(F)	A
11	A	387	U
11	A	481	G
11	A	587	C
11	A	603	A
11	A	614(A)	U
11	A	614(C)	A
11	A	752	A
11	A	764	A
11	A	790	C
11	A	856	C
11	A	1052	C
11	A	1060	U
11	A	1068	G
11	A	1069	A
11	A	1210	A
11	A	1300	U
11	A	1301	A
11	A	1378	A
11	A	1427	A
11	A	1541	G
11	A	1558	A
11	A	1603	A
11	A	1653	G

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Mol	Chain	Res	Type
11	A	1693	U
11	A	1799	G
11	A	1819	A
11	A	1820	U
11	A	1966	A
11	A	1970	A
11	A	1992	G
11	A	2033	A
11	A	2110	G
11	A	2126	A
11	A	2131	G
11	A	2179	C
11	A	2282	G
11	A	2391	G
11	A	2422	A
11	A	2481	G
11	A	2610	C
11	A	2689	U
11	A	2756	U
11	A	2762	G
12	B	56	G

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

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

5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

5.6 Ligand geometry ⓘ

There are no ligands in this entry.

5.7 Other polymers ⓘ

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

6 Fit of model and data ⓘ

6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å²)	Q<0.9	
1	0	84/85 (98%)	3.80	60 (71%)	0 1	104, 116, 128, 137	0
2	1	94/98 (95%)	1.48	28 (29%)	1 1	41, 71, 107, 111	0
3	2	71/72 (98%)	2.93	40 (56%)	0 1	84, 115, 128, 130	0
4	3	60/60 (100%)	2.50	29 (48%)	1 1	106, 122, 132, 148	0
5	4	45/71 (63%)	5.42	38 (84%)	0 1	107, 169, 196, 198	0
6	5	59/60 (98%)	1.83	22 (37%)	1 1	89, 116, 175, 187	0
7	6	50/54 (92%)	3.50	42 (84%)	0 1	78, 119, 146, 152	0
8	7	49/49 (100%)	1.25	13 (26%)	1 2	59, 77, 144, 152	0
9	8	64/65 (98%)	1.58	24 (37%)	1 1	80, 104, 124, 138	0
10	9	37/37 (100%)	5.15	30 (81%)	0 1	104, 117, 124, 128	0
11	A	2901/2915 (99%)	5.14	2477 (85%)	0 1	31, 100, 192, 200	0
12	B	119/122 (97%)	7.68	118 (99%)	0 0	103, 142, 169, 175	0
13	C	228/229 (99%)	3.81	169 (74%)	0 1	92, 122, 168, 178	0
14	D	275/276 (99%)	1.37	73 (26%)	1 2	30, 67, 96, 110	0
15	E	205/206 (99%)	2.90	126 (61%)	0 1	67, 106, 143, 154	0
16	F	208/210 (99%)	1.76	73 (35%)	1 1	61, 123, 160, 167	0
17	G	181/182 (99%)	4.00	140 (77%)	0 1	103, 128, 146, 163	0
18	H	160/180 (88%)	3.50	113 (70%)	0 1	131, 155, 174, 176	0
19	J	0/173	-	-	-	-	-
20	K	0/147	-	-	-	-	-
21	N	139/140 (99%)	3.58	96 (69%)	0 1	103, 123, 148, 155	0
22	O	122/122 (100%)	4.10	108 (88%)	0 1	60, 80, 96, 105	0
23	P	146/150 (97%)	2.33	74 (50%)	0 1	71, 113, 133, 140	0
24	Q	141/141 (100%)	3.26	90 (63%)	0 1	73, 106, 130, 159	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å ²)	Q<0.9
25	R	117/118 (99%)	2.01	48 (41%) 1 1	81, 105, 123, 143	0
26	S	99/112 (88%)	3.85	67 (67%) 0 1	96, 133, 155, 162	0
27	T	138/146 (94%)	3.86	121 (87%) 0 1	72, 112, 166, 181	0
28	U	117/118 (99%)	2.73	64 (54%) 0 1	87, 120, 141, 147	0
29	V	101/101 (100%)	3.71	68 (67%) 0 1	105, 144, 159, 164	0
30	W	113/113 (100%)	1.47	28 (24%) 1 2	81, 109, 132, 136	0
31	X	93/96 (96%)	3.57	73 (78%) 0 1	96, 108, 124, 128	0
32	Y	101/110 (91%)	1.79	33 (32%) 1 1	124, 145, 165, 170	0
33	Z	176/206 (85%)	4.06	127 (72%) 0 1	107, 133, 161, 164	0
All	All	6493/6964 (93%)	4.01	4612 (71%) 0 1	30, 111, 168, 200	0

All (4612) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
11	A	1051	G	25.2
11	A	2758	A	21.4
11	A	2114	A	20.7
11	A	2792	G	19.8
11	A	2466	C	18.9
11	A	885	C	18.7
11	A	2763	G	18.6
11	A	2172	U	18.4
11	A	904	C	18.3
11	A	2480	C	18.2
11	A	2139	C	17.6
12	B	43	C	17.5
11	A	2293	C	17.3
12	B	54	G	17.3
11	A	1462	C	17.2
11	A	654(E)	G	17.1
11	A	2465	C	17.1
11	A	654(M)	C	17.1
11	A	2308	G	17.1
11	A	2481	G	17.0
11	A	2670	A	17.0
11	A	654(H)	G	16.8
11	A	2880	C	16.8
11	A	1079	C	16.5
11	A	2527	C	16.5

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Mol	Chain	Res	Type	RSRZ
11	A	2295	C	16.5
11	A	2468	G	16.4
11	A	2791	C	16.4
11	A	538	G	16.3
12	B	93	G	16.3
12	B	71	C	16.3
11	A	1714	G	16.2
11	A	2316	C	16.1
11	A	913	U	16.0
11	A	2113	U	15.9
11	A	2178	C	15.8
11	A	2168	G	15.8
11	A	2169	A	15.8
11	A	2179	C	15.8
12	B	46	A	15.7
11	A	2526	G	15.7
11	A	654(G)	C	15.6
11	A	1103	A	15.4
11	A	547	A	15.4
11	A	1052	C	15.3
11	A	2119	A	15.2
11	A	2170	A	15.2
11	A	1436	G	15.2
11	A	2107	C	15.2
11	A	1543	C	15.1
11	A	2108	C	15.1
11	A	1004	C	15.1
11	A	1016	G	14.9
11	A	2464	C	14.9
11	A	2294	C	14.9
11	A	1532	C	14.8
11	A	2538	C	14.8
11	A	626	U	14.8
11	A	2652	C	14.8
33	Z	7	ALA	14.7
12	B	53	A	14.7
11	A	1011	G	14.7
12	B	103	G	14.7
11	A	2833	G	14.5
11	A	646	A	14.5
11	A	867	C	14.4
11	A	654(F)	C	14.4

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Mol	Chain	Res	Type	RSRZ
11	A	2131	G	14.4
11	A	2353	G	14.3
12	B	45	A	14.3
11	A	1104	C	14.3
11	A	1455	G	14.2
11	A	2668	G	14.2
11	A	2801	A	14.2
11	A	2875	C	14.2
11	A	1717	G	14.2
11	A	637	A	14.0
11	A	2292	C	14.0
11	A	2467	C	14.0
11	A	580	C	14.0
11	A	1414	G	14.0
11	A	1517	G	13.9
12	B	62	C	13.9
12	B	86	G	13.9
11	A	2893	G	13.9
11	A	1053	C	13.9
11	A	2528	U	13.8
11	A	2852	G	13.8
11	A	2666	C	13.8
11	A	2659	G	13.7
17	G	112	PRO	13.7
17	G	161	THR	13.7
11	A	1587	A	13.7
11	A	2759	G	13.6
11	A	501	A	13.5
11	A	2667	C	13.5
11	A	1947	C	13.5
11	A	1713	U	13.5
11	A	2297	C	13.5
11	A	2876	G	13.5
11	A	1042	G	13.5
11	A	1119	C	13.5
11	A	2790	A	13.4
11	A	1102	C	13.4
11	A	1434	A	13.3
18	H	159	GLU	13.3
11	A	1047	G	13.3
12	B	55	U	13.3
11	A	2118	U	13.2

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Mol	Chain	Res	Type	RSRZ
11	A	915	C	13.2
11	A	2877	G	13.2
11	A	2539	C	13.2
11	A	2859	G	13.1
12	B	15	A	13.1
11	A	2799	C	13.1
17	G	169	ALA	13.0
11	A	1151	G	13.0
11	A	1150	C	13.0
11	A	1747(A)	G	13.0
11	A	2878	U	12.9
11	A	1461	G	12.9
11	A	1143	A	12.9
11	A	1149	G	12.9
12	B	47	C	12.9
11	A	1914	C	12.8
11	A	2669	G	12.8
11	A	1013	C	12.8
11	A	2768	C	12.8
11	A	2159	G	12.7
11	A	549	G	12.7
11	A	2769	C	12.7
12	B	41	U	12.7
11	A	868	U	12.7
11	A	2143	C	12.6
12	B	106	G	12.6
11	A	2109	U	12.6
11	A	653	A	12.6
11	A	2346	A	12.6
11	A	2373	G	12.6
5	4	36	CYS	12.6
10	9	14	CYS	12.5
11	A	1005	C	12.5
11	A	1106	G	12.5
11	A	647	G	12.5
11	A	1012	U	12.5
11	A	2296	U	12.4
11	A	2150	U	12.4
26	S	77	ALA	12.4
11	A	886	C	12.4
11	A	2537	U	12.4
11	A	347	A	12.4

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Mol	Chain	Res	Type	RSRZ
11	A	1177	A	12.4
11	A	1501	C	12.3
11	A	2319	G	12.3
11	A	869	G	12.3
12	B	23	G	12.3
11	A	537	C	12.3
11	A	2705	A	12.3
11	A	2762	G	12.3
27	T	83	ILE	12.2
11	A	1751	C	12.2
11	A	2160	G	12.2
11	A	879	G	12.1
12	B	57	A	12.1
11	A	1588	C	12.1
11	A	2862	G	12.0
11	A	2245	U	12.0
11	A	1747	G	12.0
11	A	2289	G	12.0
11	A	1015	G	12.0
1	O	80	HIS	11.9
11	A	1505	C	11.9
11	A	1584	C	11.9
11	A	1589	C	11.9
11	A	654(L)	G	11.9
11	A	2385	C	11.8
11	A	2309	A	11.8
12	B	94	C	11.8
11	A	308	G	11.8
11	A	1973	G	11.8
11	A	625	G	11.7
11	A	1437	C	11.7
11	A	2752	C	11.7
11	A	2896	C	11.7
22	O	87	ILE	11.7
11	A	2372	G	11.7
13	C	183	GLU	11.7
11	A	654(Q)	C	11.7
11	A	627	A	11.6
11	A	2325	G	11.6
11	A	2171	A	11.6
11	A	2557	G	11.6
11	A	638	G	11.5

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Mol	Chain	Res	Type	RSRZ
11	A	2370	G	11.5
11	A	139	G	11.5
11	A	889	C	11.5
11	A	1848	A	11.5
11	A	309	G	11.4
11	A	2747	G	11.4
12	B	22	U	11.4
11	A	1050	A	11.4
11	A	2484	G	11.4
11	A	1533	G	11.4
11	A	1541	G	11.4
11	A	1032	A	11.3
11	A	2158	A	11.3
11	A	1044	G	11.3
10	9	11	CYS	11.3
11	A	856	C	11.3
11	A	2344	U	11.3
11	A	2894	G	11.3
11	A	2134	A	11.3
12	B	105	A	11.2
13	C	158	ALA	11.2
11	A	1518	U	11.2
11	A	1411	C	11.2
12	B	42	C	11.2
29	V	48	GLY	11.2
17	G	164	GLU	11.2
11	A	914	C	11.1
11	A	2477	C	11.1
11	A	839	U	11.1
11	A	1415	U	11.1
11	A	654(R)	C	11.1
12	B	67	G	11.1
17	G	110	ALA	11.1
28	U	112	ARG	11.1
11	A	1140	C	11.1
11	A	2324	C	11.1
11	A	2851	A	11.1
11	A	1674	G	11.1
21	N	63	THR	11.1
11	A	2350	C	11.1
33	Z	55	HIS	11.0
11	A	1516	C	11.0

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Mol	Chain	Res	Type	RSRZ
12	B	52	A	11.0
11	A	616	G	11.0
11	A	2834	G	10.9
11	A	221	A	10.9
11	A	2456	C	10.9
11	A	1745	C	10.9
11	A	2127	G	10.9
11	A	2485	G	10.9
18	H	166	GLY	10.9
11	A	2115	G	10.9
11	A	2474	C	10.9
33	Z	6	LYS	10.8
12	B	12	C	10.8
12	B	85	G	10.8
11	A	2703	C	10.8
26	S	82	ILE	10.8
11	A	1081	U	10.8
11	A	2853	C	10.8
11	A	1413	G	10.8
11	A	2854	G	10.8
11	A	1582	C	10.7
11	A	2743	C	10.7
32	Y	76	CYS	10.7
11	A	1410	G	10.7
11	A	1412	A	10.7
32	Y	99	CYS	10.7
23	P	86	LYS	10.7
11	A	496	G	10.7
11	A	1055	G	10.7
11	A	2377	A	10.7
12	B	87	G	10.7
11	A	1445	A	10.7
11	A	2793	G	10.6
11	A	579	G	10.6
11	A	1155	A	10.6
24	Q	32	TYR	10.6
11	A	1504	C	10.6
11	A	2702	U	10.6
11	A	2110	G	10.6
26	S	78	LEU	10.6
22	O	115	VAL	10.5
5	4	22	ILE	10.5

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Mol	Chain	Res	Type	RSRZ
11	A	2861	G	10.5
11	A	1719	G	10.5
11	A	2469	A	10.5
11	A	2180	U	10.5
11	A	1076	C	10.5
18	H	164	TYR	10.5
11	A	137	C	10.4
11	A	322	A	10.4
11	A	2734	A	10.4
11	A	2881	C	10.4
11	A	2430	A	10.4
11	A	306	U	10.4
11	A	1915	U	10.4
11	A	2662	A	10.4
11	A	2130	U	10.4
11	A	1586	A	10.4
11	A	1677	A	10.4
11	A	2323	G	10.3
3	2	33	MET	10.3
11	A	1750	G	10.3
11	A	2479	G	10.3
12	B	63	G	10.3
10	9	32	HIS	10.3
11	A	1169	G	10.2
11	A	1911	U	10.2
15	E	175	VAL	10.2
18	H	165	ALA	10.2
11	A	551	G	10.2
11	A	1561	G	10.2
11	A	644	A	10.2
12	B	107	G	10.1
11	A	654(J)	A	10.1
11	A	2470	G	10.1
11	A	2427	C	10.1
11	A	2374	C	10.1
17	G	71	THR	10.1
11	A	406	G	10.1
11	A	2653	U	10.1
11	A	1475	G	10.0
11	A	2315	G	10.0
11	A	2760	C	10.0
11	A	135	G	10.0

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Mol	Chain	Res	Type	RSRZ
11	A	2473	U	10.0
11	A	1590	U	10.0
11	A	2563	U	10.0
11	A	2855	C	10.0
11	A	2383	G	10.0
11	A	880	G	10.0
11	A	925	C	10.0
11	A	1509	C	10.0
29	V	42	GLY	10.0
11	A	2334	G	9.9
11	A	1492	G	9.9
11	A	2116	G	9.9
10	9	34	GLN	9.9
13	C	159	GLY	9.9
11	A	1456	G	9.9
11	A	1560	G	9.9
11	A	2389	G	9.9
11	A	2369	A	9.9
11	A	654(P)	C	9.9
11	A	2739	U	9.9
33	Z	60	GLU	9.9
33	Z	69	THR	9.9
11	A	1408	C	9.9
12	B	116	G	9.9
4	3	58	VAL	9.9
11	A	2387	U	9.9
11	A	2342	C	9.9
11	A	1480	G	9.9
5	4	23	GLU	9.8
11	A	118	A	9.8
11	A	1054	A	9.8
11	A	1178	C	9.8
11	A	2835	A	9.8
12	B	72	G	9.8
15	E	71	GLY	9.8
17	G	133	LEU	9.8
11	A	2146	C	9.8
11	A	2860	A	9.8
11	A	1038	C	9.8
11	A	641	C	9.8
13	C	131	LEU	9.8
11	A	619	G	9.7

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Mol	Chain	Res	Type	RSRZ
11	A	975(A)	G	9.7
11	A	2663	G	9.7
11	A	1487	G	9.7
11	A	2423	U	9.7
11	A	615	G	9.7
25	R	91	GLN	9.7
11	A	654(N)	G	9.7
33	Z	39	VAL	9.7
11	A	1478	G	9.7
11	A	2895	U	9.7
11	A	602	G	9.7
11	A	1110	G	9.7
12	B	51	G	9.7
11	A	1111	A	9.7
13	C	133	PRO	9.7
11	A	1043	C	9.6
11	A	1176	G	9.7
12	B	14	U	9.7
17	G	163	ALA	9.6
24	Q	138	ASP	9.6
12	B	84	C	9.6
27	T	65	LYS	9.6
11	A	1476	C	9.6
11	A	865	C	9.6
11	A	1435	G	9.6
11	A	2133	G	9.6
12	B	110	G	9.6
11	A	1718	G	9.6
22	O	14	THR	9.6
11	A	2897	U	9.6
11	A	1450	G	9.6
11	A	2151	G	9.6
11	A	2288	A	9.6
11	A	1663	C	9.6
1	0	65	GLY	9.5
33	Z	29	TYR	9.5
11	A	1468	C	9.5
11	A	2132	U	9.5
11	A	2754	U	9.5
11	A	1581	G	9.5
11	A	2375	G	9.5
21	N	36	GLY	9.5

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Mol	Chain	Res	Type	RSRZ
33	Z	65	GLN	9.5
11	A	2751	G	9.5
11	A	1739	U	9.5
11	A	556	G	9.5
11	A	2310	A	9.4
11	A	2531	A	9.4
11	A	1445(A)	C	9.4
11	A	1105	U	9.4
11	A	241	A	9.4
11	A	1457	A	9.4
11	A	888	C	9.4
11	A	2879	C	9.4
11	A	1676	A	9.4
11	A	2311	A	9.4
11	A	2138	C	9.3
12	B	58	A	9.3
11	A	1538	G	9.3
11	A	905	U	9.3
11	A	2530	A	9.3
13	C	121	GLY	9.3
11	A	2154	G	9.3
11	A	2326	C	9.3
11	A	2748	A	9.3
11	A	2832	U	9.3
5	4	44	THR	9.3
33	Z	121	HIS	9.3
11	A	640	C	9.3
33	Z	148	ASP	9.3
13	C	150	GLY	9.3
5	4	18	CYS	9.3
11	A	1233	C	9.3
11	A	1452	A	9.3
11	A	1542	A	9.3
29	V	15	GLU	9.2
11	A	1490	A	9.2
24	Q	28	ALA	9.2
17	G	70	VAL	9.2
11	A	926	A	9.2
17	G	165	THR	9.2
11	A	1583	A	9.2
5	4	16	CYS	9.2
11	A	1709	U	9.2

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Mol	Chain	Res	Type	RSRZ
11	A	1531	C	9.2
11	A	2341	G	9.2
11	A	1320	C	9.1
11	A	1085	A	9.1
26	S	109	GLY	9.1
11	A	2683	C	9.1
11	A	906	G	9.1
11	A	2795	G	9.1
26	S	93	LYS	9.1
1	O	82	ARG	9.1
23	P	95	VAL	9.1
29	V	47	VAL	9.1
11	A	363	G	9.1
12	B	60	C	9.1
11	A	2161	C	9.1
21	N	3	THR	9.1
18	H	150	ALA	9.1
11	A	1021	A	9.1
11	A	1470	G	9.1
17	G	128	ARG	9.1
11	A	269	U	9.0
11	A	2651	C	9.0
12	B	24	G	9.0
22	O	16	ALA	9.0
11	A	916	G	9.0
11	A	2770	G	9.0
11	A	1883	G	9.0
29	V	41	GLY	9.0
11	A	1409	C	9.0
11	A	1463	C	9.0
12	B	10	C	9.0
11	A	648	G	9.0
11	A	1318	C	9.0
11	A	2352	A	9.0
12	B	98	G	9.0
33	Z	68	PRO	9.0
11	A	307	G	9.0
11	A	1284	A	9.0
11	A	962	G	8.9
15	E	176	ILE	8.9
11	A	1712	C	8.9
11	A	1896	G	8.9

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Mol	Chain	Res	Type	RSRZ
13	C	88	GLU	8.9
11	A	2221	G	8.9
11	A	852	G	8.9
11	A	521	G	8.9
11	A	1174	A	8.9
11	A	1556	C	8.9
11	A	2388	A	8.9
11	A	2476	A	8.9
11	A	2660	A	8.9
11	A	1147	C	8.9
33	Z	12	GLY	8.8
11	A	1910	G	8.8
11	A	2303	G	8.8
23	P	81	GLN	8.8
10	9	1	MET	8.8
7	6	30	THR	8.8
11	A	1526	G	8.8
29	V	35	LEU	8.8
11	A	1141	U	8.8
11	A	1077	A	8.8
11	A	1745(A)	C	8.8
12	B	48	A	8.8
33	Z	3	TYR	8.8
26	S	11	LYS	8.8
11	A	291	C	8.8
24	Q	109	VAL	8.8
29	V	16	PRO	8.8
11	A	884	C	8.8
11	A	1163	G	8.8
11	A	1575	C	8.8
11	A	2284	C	8.7
11	A	639	U	8.7
10	9	2	LYS	8.7
11	A	1002	G	8.7
12	B	20	C	8.7
15	E	182	LEU	8.7
30	W	111	HIS	8.7
33	Z	8	TYR	8.7
11	A	2629	A	8.7
11	A	548	A	8.7
17	G	130	ASN	8.7
11	A	134	C	8.7

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Mol	Chain	Res	Type	RSRZ
11	A	2767	C	8.7
33	Z	64	GLY	8.7
26	S	97	ARG	8.7
11	A	1046	A	8.7
17	G	74	LYS	8.7
11	A	2688	U	8.7
11	A	2664	G	8.7
10	9	4	ARG	8.7
11	A	2163	C	8.7
11	A	2726	U	8.7
11	A	1515	G	8.7
11	A	878	A	8.6
11	A	1460	A	8.6
11	A	2749	A	8.6
11	A	2455	G	8.6
11	A	2144	U	8.6
11	A	645	C	8.6
22	O	12	ASP	8.6
13	C	122	ALA	8.6
11	A	2320	A	8.6
22	O	36	GLY	8.6
11	A	1721	G	8.6
11	A	2125	G	8.6
5	4	46	GLN	8.6
11	A	6	A	8.6
5	4	41	PRO	8.5
27	T	85	LYS	8.5
11	A	651	G	8.5
26	S	108	GLY	8.5
13	C	99	ILE	8.5
29	V	101	GLY	8.5
11	A	2386	C	8.5
5	4	5	ILE	8.5
11	A	1540	U	8.5
11	A	277	C	8.5
11	A	898	C	8.5
11	A	1477	A	8.5
11	A	2794	C	8.5
21	N	136	GLU	8.5
11	A	1932	A	8.5
11	A	203	C	8.5
1	0	27	GLU	8.5

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Mol	Chain	Res	Type	RSRZ
33	Z	4	ARG	8.5
18	H	47	GLU	8.5
11	A	593	G	8.5
11	A	2060	A	8.5
11	A	2520	C	8.5
13	C	167	LYS	8.5
11	A	1319	G	8.5
1	0	33	ALA	8.4
11	A	2856	C	8.4
33	Z	20	ARG	8.4
33	Z	14	LYS	8.4
33	Z	38	TYR	8.4
24	Q	137	TYR	8.4
17	G	66	GLN	8.4
11	A	803	U	8.4
12	B	40	U	8.4
11	A	2864	G	8.4
12	B	35	U	8.4
11	A	899	A	8.4
11	A	136	G	8.4
11	A	971	C	8.4
11	A	1118	C	8.4
13	C	84	LYS	8.4
29	V	49	THR	8.4
11	A	2299	G	8.4
13	C	30	LYS	8.4
11	A	2111	C	8.4
11	A	2874	C	8.4
17	G	168	GLU	8.3
1	0	70	GLN	8.3
11	A	817	C	8.3
11	A	1074	G	8.3
11	A	1090	U	8.3
15	E	30	PRO	8.3
11	A	1041	C	8.3
17	G	36	LYS	8.3
11	A	712	G	8.3
22	O	61	VAL	8.3
11	A	2808	U	8.3
11	A	2735	G	8.2
3	2	27	GLU	8.2
11	A	2232	U	8.2

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Mol	Chain	Res	Type	RSRZ
11	A	678	C	8.2
11	A	2551	C	8.2
33	Z	123	ASP	8.2
11	A	1755	A	8.2
11	A	2314	C	8.2
26	S	57	LYS	8.2
11	A	907	U	8.2
11	A	2687	U	8.2
13	C	78	ALA	8.2
27	T	26	ASP	8.2
31	X	79	ALA	8.2
11	A	652	C	8.2
11	A	2149	G	8.2
13	C	198	ALA	8.2
11	A	890	A	8.2
11	A	2129	C	8.2
13	C	197	GLU	8.2
26	S	22	GLY	8.2
7	6	38	LYS	8.2
11	A	2356	C	8.2
11	A	2322	A	8.2
11	A	634	C	8.2
11	A	603	A	8.2
13	C	127	LEU	8.2
10	9	35	ARG	8.2
11	A	1464	C	8.2
11	A	2027	G	8.2
11	A	22	C	8.1
11	A	2291	U	8.1
11	A	344	G	8.1
11	A	1022	G	8.1
11	A	2550	G	8.1
11	A	2600	A	8.1
11	A	1530	C	8.1
16	F	7	TYR	8.1
17	G	127	GLY	8.1
11	A	11	G	8.1
11	A	781	A	8.1
22	O	86	ILE	8.1
11	A	2328	A	8.1
33	Z	17	ALA	8.1
11	A	2376	A	8.1

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Mol	Chain	Res	Type	RSRZ
13	C	13	LYS	8.1
11	A	1459	G	8.1
11	A	2046	G	8.1
11	A	1547	C	8.1
11	A	1209	G	8.1
11	A	276	A	8.0
29	V	31	ALA	8.0
11	A	2285	C	8.0
11	A	2273	A	8.0
24	Q	139	GLU	8.0
11	A	143(A)	C	8.0
11	A	209	C	8.0
12	B	26	A	8.0
5	4	43	TYR	8.0
11	A	153	C	8.0
11	A	2690	C	8.0
11	A	654(A)	G	8.0
11	A	892	G	8.0
11	A	1442	G	8.0
22	O	93	PRO	8.0
27	T	94	ALA	8.0
21	N	22	THR	8.0
13	C	154	ARG	8.0
11	A	1286	A	8.0
11	A	2850	A	8.0
22	O	95	GLY	8.0
11	A	348	G	8.0
11	A	968	G	8.0
33	Z	81	ARG	8.0
11	A	1474	C	8.0
11	A	1694	C	8.0
18	H	149	ARG	8.0
1	0	79	VAL	8.0
4	3	5	LYS	8.0
5	4	45	GLY	8.0
11	A	140	G	8.0
11	A	2863	C	8.0
12	B	61	G	7.9
11	A	706	A	7.9
11	A	1752	C	7.9
13	C	85	GLU	7.9
11	A	2584	U	7.9

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Mol	Chain	Res	Type	RSRZ
26	S	83	LYS	7.9
11	A	1056	G	7.9
11	A	1469	A	7.9
28	U	105	VAL	7.9
11	A	404	C	7.9
11	A	483	A	7.9
21	N	123	TYR	7.9
11	A	859	G	7.9
11	A	1519	G	7.9
11	A	1916	A	7.9
21	N	38	HIS	7.9
11	A	1125	G	7.9
11	A	2552	U	7.9
29	V	45	THR	7.9
29	V	99	ILE	7.9
11	A	1443	G	7.9
11	A	2181	G	7.9
5	4	19	GLY	7.9
11	A	2145	C	7.9
11	A	2244	U	7.9
11	A	996	A	7.9
22	O	81	ASP	7.8
11	A	1670	C	7.8
11	A	349	G	7.8
11	A	636	G	7.8
11	A	195	A	7.8
11	A	2882	A	7.8
27	T	32	TYR	7.8
11	A	2562	U	7.8
11	A	2671	A	7.8
11	A	1059	G	7.8
11	A	2782	G	7.8
11	A	293	U	7.8
17	G	111	LEU	7.8
22	O	75	SER	7.8
27	T	68	TYR	7.7
11	A	1403	C	7.7
11	A	2333	A	7.7
23	P	96	THR	7.7
11	A	1045	A	7.7
11	A	1191	G	7.7
11	A	1447	G	7.7

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Mol	Chain	Res	Type	RSRZ
11	A	1627	G	7.7
18	H	151	ILE	7.7
11	A	2839	G	7.7
33	Z	56	VAL	7.7
11	A	1525	G	7.7
11	A	1764	G	7.7
29	V	18	LEU	7.7
30	W	109	GLU	7.7
11	A	2393	A	7.7
16	F	49	ALA	7.7
17	G	108	ASN	7.7
11	A	1109	C	7.7
11	A	1711	C	7.7
22	O	11	ALA	7.7
24	Q	132	VAL	7.7
24	Q	24	GLY	7.7
11	A	863	A	7.7
22	O	79	PHE	7.7
11	A	202	U	7.7
11	A	2682	U	7.7
17	G	146	TYR	7.7
11	A	654(K)	C	7.7
22	O	111	PHE	7.7
33	Z	169	GLU	7.7
1	0	28	GLY	7.6
21	N	138	LEU	7.6
11	A	679	C	7.6
12	B	36	C	7.6
28	U	75	ASN	7.6
11	A	2126	A	7.6
11	A	2698	U	7.6
29	V	74	LYS	7.6
11	A	1987	G	7.6
11	A	2367	G	7.6
22	O	92	GLU	7.6
11	A	1467	C	7.6
11	A	1744	C	7.6
33	Z	130	PRO	7.6
11	A	585	G	7.6
17	G	69	ALA	7.6
11	A	1881	C	7.6
17	G	25	TYR	7.6

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Mol	Chain	Res	Type	RSRZ
12	B	56	G	7.6
31	X	95	LEU	7.6
13	C	96	GLY	7.6
11	A	248	G	7.6
11	A	2661	G	7.6
11	A	866	A	7.6
11	A	2135	A	7.6
11	A	2645	G	7.6
11	A	654(B)	C	7.6
11	A	197	A	7.5
18	H	53	GLU	7.5
11	A	2300	G	7.5
11	A	2487	G	7.5
23	P	11	GLY	7.5
11	A	802	A	7.5
11	A	2380	C	7.5
11	A	2841	C	7.5
11	A	1591	G	7.5
11	A	2847	U	7.5
11	A	271(H)	G	7.5
11	A	1003	G	7.5
11	A	1897	G	7.5
12	B	11	C	7.5
18	H	50	VAL	7.5
18	H	70	THR	7.5
11	A	1084	A	7.5
11	A	305	U	7.5
12	B	21	G	7.5
11	A	284	U	7.5
11	A	2182	G	7.5
11	A	896	A	7.5
11	A	1669	A	7.5
11	A	2164	C	7.5
11	A	2429	G	7.4
11	A	2722	G	7.4
33	Z	28	MET	7.4
11	A	1014	U	7.4
11	A	912	C	7.4
11	A	2842	G	7.4
3	2	42	GLY	7.4
13	C	3	HIS	7.4
11	A	2349	G	7.4

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Mol	Chain	Res	Type	RSRZ
22	O	13	ASN	7.4
21	N	26	LEU	7.4
11	A	2026	C	7.4
11	A	2471	C	7.4
28	U	102	GLU	7.4
11	A	1964	G	7.4
11	A	2400	G	7.4
11	A	1078	U	7.4
11	A	8	A	7.4
11	A	881	G	7.4
11	A	1157	G	7.4
11	A	1416	G	7.4
11	A	1749	A	7.4
11	A	1337	G	7.4
9	8	31	HIS	7.4
11	A	1520	G	7.4
15	E	17	ASP	7.4
11	A	1330	C	7.4
28	U	43	GLY	7.4
27	T	89	VAL	7.4
11	A	643	A	7.4
11	A	1252	G	7.4
11	A	1506	C	7.3
13	C	47	LEU	7.3
11	A	2809	A	7.3
11	A	1089	G	7.3
11	A	1421	G	7.3
11	A	2840	C	7.3
11	A	2167	U	7.3
11	A	2329	G	7.3
31	X	27	THR	7.3
11	A	1722	A	7.3
11	A	1993	U	7.3
11	A	994	C	7.3
11	A	2008	C	7.3
24	Q	48	GLU	7.3
26	S	26	LEU	7.3
13	C	134	ARG	7.3
11	A	499	U	7.3
11	A	1971	A	7.3
11	A	275	G	7.3
11	A	2838	G	7.3

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Mol	Chain	Res	Type	RSRZ
13	C	135	GLY	7.3
24	Q	117	ALA	7.3
11	A	1956	U	7.3
11	A	2488	A	7.3
11	A	2340	G	7.3
11	A	2780	G	7.3
18	H	119	GLU	7.3
11	A	410	G	7.3
11	A	1080	C	7.3
18	H	31	GLY	7.2
13	C	81	GLU	7.2
33	Z	170	THR	7.2
25	R	71	GLN	7.2
31	X	17	ALA	7.2
11	A	545	C	7.2
11	A	227	A	7.2
11	A	1473	G	7.2
11	A	2807	G	7.2
11	A	2395	C	7.2
26	S	86	ALA	7.2
11	A	562	U	7.2
11	A	1992	G	7.2
11	A	1548	C	7.2
11	A	835	A	7.2
11	A	1489	U	7.2
11	A	2260	C	7.2
11	A	2482	G	7.2
11	A	2830	G	7.2
11	A	1144	G	7.2
11	A	2701	C	7.2
17	G	104	GLU	7.2
1	0	35	ASN	7.2
11	A	1218	C	7.1
13	C	136	LEU	7.1
33	Z	54	HIS	7.1
13	C	89	ALA	7.1
10	9	5	ALA	7.1
11	A	836	G	7.1
11	A	1628	G	7.1
26	S	87	PHE	7.1
11	A	1491	G	7.1
33	Z	11	GLU	7.1

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Mol	Chain	Res	Type	RSRZ
11	A	924	C	7.1
11	A	2723	C	7.1
33	Z	73	GLN	7.1
11	A	199	A	7.1
11	A	558	G	7.1
11	A	1484	G	7.1
11	A	624	C	7.1
11	A	659	C	7.1
11	A	2236	C	7.1
11	A	2870	C	7.1
29	V	46	VAL	7.1
11	A	2483	C	7.1
12	B	44	G	7.1
7	6	53	LYS	7.1
11	A	1217	C	7.1
11	A	1952	A	7.1
11	A	918	A	7.1
11	A	2331	G	7.1
11	A	323	G	7.0
11	A	536	A	7.0
11	A	1017	G	7.0
11	A	1472	A	7.0
11	A	1967	C	7.0
11	A	2338	G	7.0
11	A	2498	C	7.0
11	A	2096	U	7.0
5	4	33	VAL	7.0
11	A	2128	C	7.0
18	H	167	GLU	7.0
24	Q	1	MET	7.0
33	Z	13	GLU	7.0
11	A	2873	A	7.0
18	H	73	ALA	7.0
11	A	568	U	7.0
11	A	192	C	7.0
11	A	270	A	7.0
11	A	1637	A	7.0
11	A	541	C	7.0
11	A	1096	A	7.0
11	A	1960	A	7.0
11	A	2757	A	7.0
11	A	146	G	7.0

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Mol	Chain	Res	Type	RSRZ
11	A	1824	G	7.0
22	O	112	MET	7.0
15	E	193	GLY	7.0
12	B	97	G	7.0
11	A	1211	U	7.0
3	2	34	GLU	7.0
11	A	1562	A	7.0
11	A	2532	G	7.0
27	T	99	LEU	7.0
11	A	1289	C	6.9
12	B	92	C	6.9
26	S	92	TYR	6.9
11	A	2153	G	6.9
5	4	47	GLN	6.9
11	A	1710	C	6.9
11	A	2699	C	6.9
12	B	13	A	6.9
1	0	34	GLY	6.9
11	A	2736	G	6.9
15	E	18	ASP	6.9
22	O	114	ILE	6.9
11	A	1007	C	6.9
11	A	2195	C	6.9
18	H	63	SER	6.9
33	Z	109	ALA	6.9
11	A	1465	G	6.9
11	A	2578	G	6.9
11	A	1027	A	6.9
11	A	2038	G	6.9
12	B	33	G	6.9
7	6	17	LYS	6.9
18	H	57	ASP	6.9
11	A	2152	G	6.9
11	A	2673	G	6.9
15	E	31	CYS	6.9
11	A	1329	U	6.9
11	A	1898	U	6.9
11	A	2517	C	6.9
11	A	2655	G	6.9
23	P	10	PRO	6.9
11	A	650	C	6.9
11	A	1536	C	6.9

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Mol	Chain	Res	Type	RSRZ
11	A	7	G	6.9
31	X	18	TYR	6.9
17	G	35	GLU	6.9
11	A	2686	G	6.8
11	A	2761	G	6.8
12	B	117	G	6.8
18	H	111	HIS	6.8
13	C	184	LYS	6.8
21	N	62	VAL	6.8
32	Y	79	CYS	6.8
1	O	71	ASP	6.8
11	A	1031	G	6.8
17	G	79	ASN	6.8
24	Q	29	PHE	6.8
11	A	1893	C	6.8
11	A	604	G	6.8
11	A	2502	G	6.8
11	A	280	C	6.8
11	A	365	C	6.8
11	A	2173	A	6.8
12	B	95	C	6.8
13	C	180	PHE	6.8
27	T	27	THR	6.8
11	A	1485	G	6.8
11	A	2472	G	6.8
11	A	2844	G	6.8
31	X	4	ALA	6.8
11	A	403	U	6.8
11	A	875	G	6.8
11	A	2868	A	6.8
12	B	70	C	6.8
11	A	1440	G	6.8
11	A	2339	G	6.8
33	Z	92	SER	6.8
11	A	1508	A	6.8
10	9	31	LYS	6.8
13	C	200	LYS	6.8
11	A	2390	U	6.8
24	Q	61	GLY	6.8
11	A	1479	G	6.8
11	A	2525	G	6.8
31	X	10	ALA	6.8

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Mol	Chain	Res	Type	RSRZ
24	Q	62	GLY	6.8
11	A	2846	G	6.8
21	N	24	GLY	6.8
11	A	2051	A	6.8
13	C	181	PRO	6.8
11	A	337	C	6.7
11	A	2710	C	6.7
3	2	36	ARG	6.7
12	B	25	A	6.7
25	R	63	ARG	6.7
3	2	38	GLN	6.7
11	A	1336	A	6.7
11	A	1343	G	6.7
4	3	38	GLU	6.7
11	A	2283	C	6.7
11	A	1954	G	6.7
11	A	2206	G	6.7
12	B	32	C	6.7
21	N	25	ARG	6.7
11	A	2354	G	6.7
11	A	2697	G	6.7
11	A	1502	C	6.7
21	N	92	ALA	6.7
11	A	2112	G	6.7
1	0	62	LEU	6.7
10	9	13	LYS	6.7
11	A	591	C	6.7
11	A	1190	G	6.7
11	A	2106	G	6.7
33	Z	133	ILE	6.7
13	C	104	LEU	6.7
24	Q	116	GLU	6.7
11	A	154	G	6.7
11	A	1173	G	6.7
11	A	1853	A	6.7
28	U	85	LYS	6.7
28	U	107	ALA	6.7
11	A	1692	U	6.7
21	N	28	THR	6.7
31	X	11	PRO	6.7
5	4	20	ASN	6.6
11	A	1900	A	6.6

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Mol	Chain	Res	Type	RSRZ
11	A	188	G	6.6
11	A	749	C	6.6
11	A	1444	G	6.6
11	A	1989	G	6.6
11	A	2553	G	6.6
11	A	1083	U	6.6
11	A	823	G	6.6
11	A	1339	G	6.6
11	A	2343	C	6.6
11	A	271(A)	A	6.6
11	A	421	U	6.6
11	A	830	G	6.6
11	A	1592	C	6.6
11	A	2409	G	6.6
11	A	2818	G	6.6
13	C	55	ASP	6.6
11	A	997	G	6.6
11	A	1488	G	6.6
11	A	2162	G	6.6
11	A	2302	G	6.6
12	B	17	C	6.6
11	A	713	G	6.6
11	A	1529	G	6.6
7	6	12	GLU	6.6
11	A	485	C	6.6
15	E	53	PRO	6.6
11	A	2706	G	6.6
28	U	83	LEU	6.6
5	4	35	VAL	6.6
12	B	34	U	6.6
11	A	1765	C	6.6
11	A	2510	C	6.6
28	U	103	PRO	6.6
33	Z	101	PRO	6.6
15	E	98	PRO	6.6
29	V	43	GLU	6.6
11	A	1509(B)	A	6.6
13	C	129	ARG	6.6
11	A	2424	C	6.6
11	A	2570	G	6.6
21	N	23	LEU	6.6
5	4	11	PRO	6.6

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Mol	Chain	Res	Type	RSRZ
17	G	83	ARG	6.6
31	X	94	GLY	6.6
11	A	1107	G	6.5
11	A	1527	G	6.5
11	A	1955	U	6.5
11	A	2884	U	6.5
13	C	179	SER	6.5
11	A	376	C	6.5
11	A	352	G	6.5
4	3	55	ARG	6.5
23	P	112	LEU	6.5
33	Z	27	VAL	6.5
11	A	2738	A	6.5
12	B	4	C	6.5
11	A	1170	G	6.5
21	N	67	LEU	6.5
11	A	2448	A	6.5
11	A	2778	A	6.5
22	O	80	ASP	6.5
11	A	198	C	6.5
13	C	83	ILE	6.5
5	4	12	ALA	6.5
21	N	50	ASP	6.5
29	V	2	PHE	6.5
11	A	2120	G	6.5
12	B	19	G	6.5
11	A	796	C	6.5
27	T	101	PHE	6.5
11	A	748	G	6.5
15	E	26	ILE	6.5
11	A	139(A)	G	6.5
11	A	2529	G	6.5
11	A	2837	G	6.5
11	A	2764	A	6.5
18	H	120	GLY	6.5
11	A	2463	C	6.5
13	C	208	PHE	6.5
33	Z	166	SER	6.5
11	A	947	G	6.5
13	C	86	ALA	6.5
11	A	2849	U	6.5
21	N	49	GLY	6.5

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Mol	Chain	Res	Type	RSRZ
33	Z	58	VAL	6.5
21	N	128	HIS	6.5
11	A	1805	U	6.4
11	A	1841	U	6.4
31	X	93	GLU	6.4
11	A	1746	G	6.4
11	A	2332	U	6.4
11	A	720	C	6.4
11	A	2317	C	6.4
10	9	20	HIS	6.4
11	A	649	G	6.4
11	A	1117	G	6.4
11	A	2121	G	6.4
1	0	76	GLY	6.4
11	A	1495	A	6.4
11	A	115	C	6.4
11	A	1988	C	6.4
11	A	2521	C	6.4
31	X	38	GLU	6.4
11	A	853	G	6.4
11	A	2290	G	6.4
12	B	119	G	6.4
11	A	887	A	6.4
11	A	2650	U	6.4
12	B	74	U	6.4
21	N	53	VAL	6.4
11	A	540	C	6.4
7	6	54	ILE	6.4
11	A	1138	G	6.4
13	C	155	GLU	6.4
10	9	9	ARG	6.4
11	A	1482	G	6.4
11	A	190	A	6.4
11	A	2287	A	6.4
22	O	15	GLY	6.4
22	O	37	ASP	6.4
23	P	146	VAL	6.4
24	Q	123	HIS	6.4
11	A	2318	G	6.4
26	S	106	ARG	6.4
31	X	46	ALA	6.4
11	A	635	C	6.4

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Mol	Chain	Res	Type	RSRZ
17	G	132	ASN	6.4
11	A	333	G	6.4
11	A	900	A	6.4
12	B	111	G	6.4
26	S	79	ALA	6.4
6	5	7	PRO	6.4
11	A	1028	A	6.4
11	A	1381	G	6.4
11	A	1006	C	6.4
11	A	1894	C	6.4
21	N	132	ALA	6.4
24	Q	140	ALA	6.4
11	A	1073	A	6.3
11	A	2366	A	6.3
11	A	2533	A	6.3
18	H	66	GLY	6.3
11	A	331	A	6.3
11	A	984	A	6.3
11	A	2286	A	6.3
27	T	28	VAL	6.3
12	B	108	U	6.3
11	A	2737	G	6.3
18	H	65	HIS	6.3
27	T	91	ARG	6.3
33	Z	61	LEU	6.3
11	A	2892	A	6.3
11	A	2141	G	6.3
4	3	2	PRO	6.3
11	A	414	C	6.3
11	A	1373	A	6.3
22	O	85	VAL	6.3
24	Q	115	MET	6.3
11	A	2685	G	6.3
11	A	2068	U	6.3
27	T	47	GLY	6.3
22	O	4	PRO	6.3
1	0	54	GLY	6.3
11	A	1507	A	6.3
11	A	966	G	6.3
11	A	2524	G	6.3
17	G	129	GLY	6.3
27	T	25	GLY	6.3

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Mol	Chain	Res	Type	RSRZ
11	A	133	C	6.3
13	C	186	ALA	6.3
18	H	79	VAL	6.3
33	Z	116	VAL	6.3
11	A	2478	A	6.3
11	A	2497	A	6.3
16	F	17	ARG	6.3
12	B	75	G	6.3
15	E	68	ALA	6.3
27	T	20	PRO	6.3
11	A	1503	U	6.3
11	A	1856	G	6.3
11	A	292	C	6.3
11	A	995	C	6.3
4	3	36	VAL	6.3
11	A	2579	C	6.2
21	N	93	THR	6.2
17	G	113	ARG	6.2
32	Y	80	GLY	6.2
11	A	824	A	6.2
11	A	592	G	6.2
11	A	1804	C	6.2
27	T	67	SER	6.2
33	Z	59	LEU	6.2
21	N	35	ARG	6.2
11	A	1596	A	6.2
21	N	41	ASP	6.2
11	A	1629	U	6.2
11	A	654(O)	G	6.2
11	A	2379	G	6.2
11	A	2452	C	6.2
17	G	85	GLY	6.2
11	A	911	A	6.2
11	A	1545	A	6.2
11	A	721	C	6.2
11	A	1299	G	6.2
16	F	181	LEU	6.2
31	X	6	ASP	6.2
11	A	2637	U	6.2
11	A	2654	A	6.2
11	A	1314	C	6.2
11	A	1840	G	6.2

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Mol	Chain	Res	Type	RSRZ
11	A	1968	G	6.2
21	N	33	LEU	6.2
11	A	1834	U	6.2
33	Z	57	ILE	6.2
11	A	578	A	6.2
11	A	654	A	6.2
11	A	2335	A	6.2
12	B	73	A	6.2
21	N	34	LEU	6.2
11	A	2571	C	6.2
14	D	124	PRO	6.2
29	V	39	LEU	6.2
11	A	1057	A	6.2
11	A	1128	A	6.2
11	A	1535	A	6.2
12	B	102	A	6.2
25	R	93	GLY	6.2
11	A	2700	C	6.2
11	A	2805	G	6.2
11	A	2843	G	6.2
11	A	1766	U	6.2
11	A	1393	A	6.2
11	A	1528(A)	A	6.2
17	G	167	GLU	6.2
11	A	1961	C	6.2
11	A	2368	C	6.2
11	A	1071	G	6.2
11	A	1839	G	6.2
11	A	2545	G	6.2
11	A	1951	U	6.2
11	A	2503	A	6.1
27	T	116	ALA	6.1
11	A	1200	C	6.1
11	A	1638	C	6.1
12	B	114	C	6.1
11	A	418	G	6.1
11	A	2581	G	6.1
11	A	1023	U	6.1
11	A	1433	U	6.1
11	A	1534	U	6.1
1	0	81	VAL	6.1
11	A	1449	A	6.1

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Mol	Chain	Res	Type	RSRZ
33	Z	82	ARG	6.1
11	A	2261	C	6.1
1	O	69	PHE	6.1
11	A	145	G	6.1
11	A	2307	G	6.1
11	A	2431	U	6.1
11	A	2438	U	6.1
27	T	37	GLY	6.1
31	X	7	VAL	6.1
11	A	2883	A	6.1
32	Y	77	PRO	6.1
11	A	2142	C	6.1
17	G	60	LEU	6.1
5	4	7	PRO	6.1
11	A	1513	C	6.1
11	A	682	G	6.1
11	A	864	G	6.1
11	A	1524	G	6.1
7	6	29	ASN	6.1
11	A	1279	G	6.1
11	A	2321	G	6.1
11	A	191	A	6.1
11	A	821	A	6.1
29	V	86	GLY	6.1
11	A	510	C	6.1
11	A	1578	U	6.1
11	A	171	G	6.1
11	A	989	G	6.1
13	C	87	GLU	6.1
11	A	1098	A	6.1
11	A	2336	A	6.1
17	G	26	GLN	6.1
11	A	2558	C	6.1
11	A	2489	G	6.1
11	A	1977	A	6.1
1	O	67	VAL	6.1
11	A	1058	G	6.1
33	Z	15	PRO	6.1
30	W	58	ALA	6.1
11	A	2050	C	6.1
27	T	48	ILE	6.0
11	A	607	U	6.0

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Mol	Chain	Res	Type	RSRZ
26	S	101	LEU	6.0
11	A	819	A	6.0
11	A	2327	A	6.0
11	A	1942	C	6.0
11	A	321	G	6.0
11	A	2425	A	6.0
11	A	825	C	6.0
11	A	2680	C	6.0
17	G	166	ASP	6.0
11	A	2259	G	6.0
15	E	29	GLY	6.0
27	T	96	ARG	6.0
13	C	128	GLY	6.0
11	A	577	G	6.0
11	A	707	G	6.0
11	A	1024	G	6.0
11	A	2362	G	6.0
11	A	2017	U	6.0
13	C	151	GLU	6.0
24	Q	33	GLY	6.0
11	A	1496	A	6.0
11	A	336	C	6.0
17	G	114	ILE	6.0
11	A	125	G	6.0
11	A	1256	G	6.0
11	A	1647	G	6.0
11	A	2867	G	6.0
13	C	11	LEU	6.0
28	U	82	GLY	6.0
4	3	39	ASP	6.0
11	A	2437	U	6.0
21	N	31	ALA	6.0
26	S	91	PRO	6.0
11	A	1471	A	6.0
11	A	1236	G	5.9
18	H	132	ARG	5.9
11	A	1921	G	5.9
6	5	57	VAL	5.9
22	O	73	ASP	5.9
31	X	5	TYR	5.9
11	A	1067	A	5.9
11	A	1466	G	5.9

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Mol	Chain	Res	Type	RSRZ
11	A	2831	G	5.9
13	C	227	HIS	5.9
11	A	1450(A)	C	5.9
11	A	147	U	5.9
11	A	271(N)	U	5.9
11	A	1953	A	5.9
17	G	30	GLU	5.9
11	A	2848	G	5.9
11	A	366	C	5.9
31	X	9	LEU	5.9
11	A	2675	A	5.9
11	A	946	G	5.9
11	A	1537	G	5.9
11	A	1458	C	5.9
24	Q	113	GLN	5.9
11	A	1833	U	5.9
1	0	5	LYS	5.9
10	9	33	LYS	5.9
11	A	1887	C	5.9
11	A	1438	U	5.9
10	9	30	PRO	5.9
11	A	820	A	5.9
11	A	725	G	5.9
11	A	848	G	5.9
11	A	1391	U	5.9
11	A	2858	C	5.9
11	A	1740	G	5.9
11	A	1742	G	5.9
11	A	1940	U	5.9
18	H	113	VAL	5.9
17	G	177	GLY	5.9
13	C	68	LEU	5.9
17	G	173	LEU	5.9
11	A	544	G	5.9
11	A	808	G	5.9
13	C	103	ILE	5.9
11	A	1439	A	5.8
11	A	1884	A	5.8
11	A	557	U	5.8
11	A	1563	G	5.8
11	A	1985	G	5.8
11	A	2037	G	5.8

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Mol	Chain	Res	Type	RSRZ
11	A	2672	G	5.8
15	E	56	PRO	5.8
29	V	17	GLY	5.8
22	O	52	VAL	5.8
27	T	66	VAL	5.8
33	Z	151	HIS	5.8
11	A	144	C	5.8
26	S	74	ALA	5.8
11	A	1392	A	5.8
11	A	2566	A	5.8
24	Q	27	VAL	5.8
11	A	60	G	5.8
11	A	882	G	5.8
11	A	1446	C	5.8
12	B	100	A	5.8
11	A	559	G	5.8
11	A	2237	G	5.8
11	A	2428	G	5.8
13	C	82	LYS	5.8
11	A	1247	A	5.8
11	A	2801(A)	A	5.8
11	A	724	U	5.8
11	A	1976	U	5.8
29	V	6	LYS	5.8
11	A	2513	G	5.8
12	B	68	C	5.8
29	V	96	ILE	5.8
11	A	415	A	5.8
11	A	261	G	5.8
11	A	677	A	5.8
11	A	871	U	5.8
11	A	1175	U	5.8
11	A	2796	U	5.8
11	A	719	C	5.8
29	V	60	GLU	5.8
11	A	631	A	5.8
11	A	1156	A	5.8
11	A	1913	A	5.8
15	E	67	PHE	5.8
15	E	24	THR	5.8
11	A	1152	C	5.8
11	A	2202	C	5.8

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Mol	Chain	Res	Type	RSRZ
11	A	2220	G	5.8
11	A	2490	G	5.8
12	B	79	C	5.8
13	C	156	ILE	5.8
11	A	822	U	5.8
11	A	2628	C	5.8
11	A	1283	G	5.8
11	A	2371	G	5.8
10	9	3	VAL	5.8
15	E	102	VAL	5.8
11	A	1312	U	5.8
26	S	27	SER	5.8
33	Z	66	SER	5.8
13	C	130	ILE	5.8
33	Z	18	LEU	5.7
12	B	37	C	5.7
11	A	272(B)	G	5.7
11	A	2345	G	5.7
11	A	2365	G	5.7
25	R	92	GLY	5.7
11	A	1597	A	5.7
11	A	2243	U	5.7
26	S	73	LEU	5.7
11	A	801	G	5.7
11	A	1998	G	5.7
1	0	77	ARG	5.7
11	A	119	A	5.7
17	G	109	VAL	5.7
18	H	42	ARG	5.7
11	A	527	C	5.7
27	T	15	VAL	5.7
3	2	30	ARG	5.7
11	A	21	A	5.7
11	A	283	A	5.7
11	A	332	A	5.7
11	A	2556	C	5.7
11	A	1576	U	5.7
11	A	1189	A	5.7
11	A	106	C	5.7
11	A	1108	U	5.7
11	A	2665	A	5.7
15	E	23	VAL	5.7

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Mol	Chain	Res	Type	RSRZ
1	0	72	ARG	5.7
11	A	542	C	5.7
11	A	2043	C	5.7
11	A	2312	U	5.7
11	A	224	G	5.7
11	A	1422	G	5.7
11	A	1899	G	5.7
15	E	66	HIS	5.7
24	Q	46	GLN	5.7
11	A	417	C	5.7
11	A	1549	C	5.7
3	2	37	PHE	5.7
13	C	196	LEU	5.7
11	A	630	G	5.7
11	A	1448	G	5.7
24	Q	131	ILE	5.7
28	U	81	HIS	5.7
11	A	654(T)	C	5.7
11	A	1298	C	5.7
11	A	2561	A	5.7
11	A	2564	A	5.7
11	A	2829	C	5.7
11	A	36	G	5.7
11	A	716	A	5.7
11	A	1603	A	5.7
11	A	1904	G	5.7
13	C	56	GLN	5.6
11	A	393	C	5.6
11	A	1886	C	5.6
11	A	2676	C	5.6
15	E	197	ILE	5.6
11	A	1095	A	5.6
12	B	39	A	5.6
21	N	18	ALA	5.6
33	Z	171	ILE	5.6
4	3	40	THR	5.6
11	A	1061	U	5.6
16	F	192	LEU	5.6
17	G	116	ASP	5.6
11	A	502	A	5.6
11	A	1048	A	5.6
11	A	2536	G	5.6

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Mol	Chain	Res	Type	RSRZ
11	A	2753	A	5.6
21	N	106	MET	5.6
22	O	100	GLY	5.6
33	Z	26	GLY	5.6
21	N	107	LEU	5.6
26	S	102	ALA	5.6
13	C	132	GLY	5.6
11	A	870	A	5.6
11	A	2391	G	5.6
11	A	1113	U	5.6
11	A	2559	C	5.6
27	T	92	GLY	5.6
29	V	57	VAL	5.6
11	A	345	A	5.6
11	A	2268	A	5.6
11	A	2542	A	5.6
26	S	85	VAL	5.6
29	V	50	PRO	5.6
17	G	162	THR	5.6
11	A	1082	U	5.6
11	A	1394	U	5.6
5	4	15	ILE	5.6
11	A	1146	C	5.6
31	X	26	TYR	5.6
11	A	1070	A	5.6
30	W	103	ILE	5.6
31	X	29	TRP	5.6
11	A	1093	G	5.6
11	A	1512	U	5.6
22	O	19	ILE	5.6
11	A	1551	C	5.6
11	A	2742	C	5.6
29	V	5	VAL	5.6
11	A	2176	A	5.6
27	T	88	ILE	5.6
11	A	10	G	5.6
11	A	715	G	5.6
11	A	1441	G	5.6
11	A	1748	G	5.6
11	A	2165	G	5.6
4	3	45	GLY	5.6
5	4	6	HIS	5.6

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Mol	Chain	Res	Type	RSRZ
11	A	1743	C	5.6
11	A	2461	C	5.6
11	A	2658	C	5.6
11	A	718	A	5.6
11	A	974	G	5.6
11	A	1087	G	5.6
11	A	1335	U	5.6
11	A	2811	G	5.6
13	C	191	ALA	5.6
31	X	92	LEU	5.6
11	A	2313	C	5.6
11	A	1970	A	5.6
28	U	111	GLU	5.6
11	A	271(D)	G	5.6
11	A	978	G	5.6
11	A	1034	G	5.6
11	A	1539	G	5.6
11	A	2410	G	5.6
31	X	28	PHE	5.6
11	A	249	C	5.5
11	A	683	C	5.5
11	A	1498	C	5.5
11	A	1934	C	5.5
27	T	71	GLY	5.5
10	9	12	ASP	5.5
14	D	122	ASP	5.5
24	Q	122	GLY	5.5
11	A	1075	C	5.5
11	A	497	A	5.5
11	A	933	A	5.5
11	A	1528	A	5.5
11	A	1609	A	5.5
12	B	104	U	5.5
11	A	2447	G	5.5
11	A	2694	G	5.5
15	E	178	GLU	5.5
11	A	2084	C	5.5
11	A	498	G	5.5
31	X	71	GLY	5.5
11	A	976	C	5.5
15	E	205	ALA	5.5
11	A	1481	U	5.5

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Mol	Chain	Res	Type	RSRZ
18	H	162	ILE	5.5
11	A	388	G	5.5
11	A	2857	G	5.5
11	A	142(A)	C	5.5
11	A	409	C	5.5
1	0	83	PRO	5.5
11	A	851	U	5.5
11	A	1494	A	5.5
11	A	1936	A	5.5
23	P	14	LYS	5.5
24	Q	30	GLY	5.5
11	A	2505	G	5.5
12	B	69	G	5.5
6	5	22	HIS	5.5
11	A	983	A	5.5
11	A	1959	G	5.5
11	A	2148	G	5.5
31	X	31	HIS	5.5
11	A	2586	C	5.5
11	A	1030	G	5.5
11	A	2219	G	5.5
11	A	2337	G	5.5
11	A	2348	U	5.5
12	B	112	U	5.5
9	8	65	GLU	5.5
11	A	722	A	5.5
11	A	761	A	5.5
11	A	2077	A	5.5
28	U	108	GLU	5.5
21	N	54	VAL	5.5
11	A	874	G	5.5
11	A	1511	C	5.5
11	A	2063	C	5.5
11	A	2657	A	5.5
11	A	2781	A	5.5
11	A	500	G	5.4
11	A	1037	G	5.4
22	O	60	ALA	5.4
11	A	420	C	5.4
5	4	24	THR	5.4
11	A	1241	A	5.4
11	A	2453	A	5.4

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Mol	Chain	Res	Type	RSRZ
11	A	2765	A	5.4
24	Q	49	ALA	5.4
29	V	1	MET	5.4
23	P	84	ASN	5.4
11	A	2192	G	5.4
11	A	402	A	5.4
11	A	2304	G	5.4
11	A	486	C	5.4
11	A	1072	C	5.4
11	A	1123	C	5.4
11	A	1895	C	5.4
11	A	1941	C	5.4
11	A	2085	C	5.4
11	A	1029	A	5.4
11	A	2298	A	5.4
11	A	2422	A	5.4
17	G	141	PHE	5.4
11	A	267	C	5.4
11	A	2501	C	5.4
21	N	32	THR	5.4
11	A	1086	A	5.4
17	G	75	LYS	5.4
27	T	45	PHE	5.4
27	T	41	ARG	5.4
11	A	193	U	5.4
11	A	680	G	5.4
11	A	873	G	5.4
11	A	2544	G	5.4
13	C	12	GLU	5.4
27	T	14	TYR	5.4
15	E	183	LEU	5.4
25	R	6	SER	5.4
26	S	75	GLU	5.4
11	A	1557	C	5.4
11	A	2721	A	5.4
33	Z	134	PRO	5.4
18	H	69	ARG	5.4
31	X	30	VAL	5.4
11	A	2707	G	5.4
1	0	56	ASP	5.4
11	A	1544	A	5.4
11	A	2013	A	5.4

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Mol	Chain	Res	Type	RSRZ
24	Q	56	ARG	5.4
1	0	61	ALA	5.4
11	A	1112	G	5.4
11	A	1208	C	5.4
11	A	2175	C	5.4
11	A	2282	G	5.4
3	2	31	GLU	5.4
12	B	96	U	5.4
10	9	10	ILE	5.3
5	4	8	LYS	5.3
21	N	89	LYS	5.3
27	T	79	HIS	5.3
11	A	2744	G	5.3
21	N	116	LEU	5.3
11	A	141	A	5.3
11	A	2019	A	5.3
27	T	60	THR	5.3
18	H	26	VAL	5.3
17	G	103	LEU	5.3
15	E	14	ILE	5.3
17	G	6	ALA	5.3
11	A	654(I)	C	5.3
11	A	1091	G	5.3
11	A	2147	G	5.3
11	A	2565	A	5.3
11	A	2630	G	5.3
11	A	2766	G	5.3
13	C	193	ILE	5.3
11	A	902	C	5.3
11	A	1417	C	5.3
11	A	1242	A	5.3
11	A	2378	A	5.3
15	E	12	THR	5.3
11	A	1924	C	5.3
11	A	1114	G	5.3
11	A	1826	G	5.3
33	Z	172	ALA	5.3
11	A	2462	U	5.3
4	3	52	HIS	5.3
12	B	109	C	5.3
11	A	2495	G	5.3
15	E	83	ASP	5.3

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Mol	Chain	Res	Type	RSRZ
18	H	32	GLU	5.3
11	A	2560	C	5.3
11	A	1340	U	5.3
11	A	1946	U	5.3
11	A	1290	C	5.3
25	R	108	GLY	5.3
24	Q	34	LEU	5.3
14	D	199	ALA	5.3
27	T	86	ILE	5.3
13	C	149	ILE	5.3
17	G	99	MET	5.3
21	N	1	MET	5.3
28	U	88	ILE	5.3
11	A	1546	C	5.3
11	A	2704	C	5.3
22	O	64	ARG	5.3
12	B	83	G	5.3
24	Q	127	ILE	5.3
11	A	1001	A	5.2
31	X	32	PRO	5.2
1	0	37	LEU	5.2
11	A	408	G	5.2
11	A	654(C)	G	5.2
17	G	140	ILE	5.2
16	F	182	ASN	5.2
21	N	39	ARG	5.2
27	T	42	ILE	5.2
11	A	1008	C	5.2
11	A	61	G	5.2
11	A	552	G	5.2
11	A	977	G	5.2
11	A	1552	G	5.2
11	A	2486	G	5.2
15	E	11	MET	5.2
11	A	969	U	5.2
11	A	1920	C	5.2
11	A	2788	C	5.2
17	G	72	ARG	5.2
18	H	59	ARG	5.2
11	A	1666	G	5.2
11	A	2845	G	5.2
15	E	52	LEU	5.2

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Mol	Chain	Res	Type	RSRZ
17	G	76	SER	5.2
11	A	65	C	5.2
11	A	1317	A	5.2
11	A	2117	A	5.2
11	A	131	G	5.2
15	E	76	ARG	5.2
17	G	178	PHE	5.2
31	X	64	LYS	5.2
11	A	664	C	5.2
11	A	917	A	5.2
22	O	84	ALA	5.2
11	A	1281	G	5.2
13	C	107	TRP	5.2
11	A	2301	C	5.2
11	A	2755	C	5.2
12	B	38	C	5.2
26	S	23	ARG	5.2
29	V	3	ALA	5.2
14	D	165	ILE	5.2
11	A	98	G	5.2
11	A	351	G	5.2
11	A	465	G	5.2
11	A	972	G	5.2
11	A	1401	G	5.2
11	A	1288	U	5.2
11	A	1497	U	5.2
11	A	2086	U	5.2
33	Z	100	VAL	5.2
3	2	26	ARG	5.2
7	6	50	ARG	5.2
11	A	90	U	5.2
11	A	855	G	5.2
11	A	2588	G	5.2
24	Q	67	ARG	5.2
11	A	1124	C	5.2
11	A	1668	A	5.2
11	A	2392	A	5.2
1	0	52	GLY	5.1
11	A	399	G	5.1
11	A	1255	U	5.1
17	G	100	TRP	5.1
11	A	605	C	5.1

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Mol	Chain	Res	Type	RSRZ
12	B	3	C	5.1
11	A	1523	U	5.1
13	C	194	ARG	5.1
15	E	107	THR	5.1
11	A	539	G	5.1
17	G	118	ARG	5.1
21	N	61	ARG	5.1
3	2	41	ILE	5.1
11	A	32	C	5.1
11	A	698	C	5.1
11	A	897	C	5.1
29	V	4	ILE	5.1
29	V	14	VAL	5.1
13	C	126	LYS	5.1
11	A	1514	U	5.1
17	G	22	ARG	5.1
11	A	214	G	5.1
11	A	628	G	5.1
12	B	99	G	5.1
11	A	1020	A	5.1
21	N	14	VAL	5.1
11	A	494	G	5.1
11	A	2631	G	5.1
11	A	2727	G	5.1
11	A	1129	A	5.1
11	A	2836	U	5.1
11	A	329	G	5.1
11	A	506	G	5.1
11	A	522	G	5.1
11	A	2156	G	5.1
11	A	2166	G	5.1
11	A	2642	G	5.1
11	A	965	C	5.1
1	0	84	LEU	5.1
11	A	681	G	5.1
1	0	74	ARG	5.1
17	G	47	LYS	5.1
28	U	71	GLN	5.1
11	A	2516	G	5.1
11	A	104	U	5.1
11	A	1315	C	5.1
11	A	2140	C	5.1

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Mol	Chain	Res	Type	RSRZ
12	B	29	A	5.1
31	X	16	LYS	5.1
11	A	1923	U	5.1
11	A	2408	U	5.1
11	A	2741	A	5.1
12	B	30	C	5.1
13	C	148	ASN	5.1
14	D	138	VAL	5.1
11	A	59	U	5.0
11	A	200	U	5.0
11	A	523	C	5.0
11	A	1224	C	5.0
11	A	2493	U	5.0
23	P	94	GLU	5.0
11	A	843	G	5.0
11	A	2817	G	5.0
22	O	63	VAL	5.0
11	A	487	C	5.0
11	A	509	C	5.0
11	A	1852	C	5.0
11	A	2691	C	5.0
13	C	52	ARG	5.0
11	A	2871	C	5.0
21	N	137	LYS	5.0
30	W	110	LYS	5.0
11	A	1849	G	5.0
11	A	2649	U	5.0
23	P	65	ARG	5.0
24	Q	134	ARG	5.0
27	T	100	TYR	5.0
14	D	126	GLN	5.0
7	6	16	CYS	5.0
16	F	193	VAL	5.0
7	6	27	LYS	5.0
11	A	642	G	5.0
11	A	86	C	5.0
11	A	142	A	5.0
11	A	543	C	5.0
11	A	658	C	5.0
11	A	923	C	5.0
11	A	1451	C	5.0
17	G	105	LYS	5.0

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Mol	Chain	Res	Type	RSRZ
11	A	927	G	5.0
21	N	15	LEU	5.0
16	F	130	ALA	5.0
23	P	142	GLY	5.0
24	Q	141	GLN	5.0
17	G	172	LEU	5.0
26	S	56	LEU	5.0
11	A	714	U	5.0
11	A	272(C)	G	5.0
11	A	780	G	5.0
11	A	2184	G	5.0
11	A	2407	G	5.0
11	A	2523	G	5.0
11	A	2709	G	5.0
15	E	5	LEU	5.0
11	A	751	A	5.0
18	H	128	PRO	5.0
24	Q	7	MET	5.0
11	A	274	G	5.0
11	A	416	C	5.0
11	A	1253	A	5.0
11	A	1830	C	5.0
13	C	49	ILE	5.0
6	5	51	TYR	5.0
11	A	1142	U	5.0
18	H	28	GLY	5.0
33	Z	30	ASN	5.0
11	A	876	C	5.0
11	A	2681	C	5.0
16	F	102	PRO	5.0
18	H	25	LYS	5.0
27	T	98	LYS	5.0
11	A	1341	U	5.0
11	A	2585	U	5.0
11	A	687	C	4.9
11	A	1062	G	4.9
11	A	1814	G	4.9
11	A	2382	G	4.9
13	C	199	HIS	4.9
11	A	2865	U	4.9
12	B	77	U	4.9
11	A	1121	C	4.9

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Mol	Chain	Res	Type	RSRZ
11	A	1580	A	4.9
18	H	105	LEU	4.9
11	A	1130	U	4.9
11	A	1282	U	4.9
11	A	1326	U	4.9
11	A	2449	U	4.9
27	T	95	ARG	4.9
11	A	28	A	4.9
11	A	973	A	4.9
11	A	1237	A	4.9
11	A	1493	C	4.9
11	A	2518	A	4.9
11	A	2625	G	4.9
11	A	2646	C	4.9
12	B	18	G	4.9
11	A	2272	U	4.9
10	9	29	ASN	4.9
9	8	21	LYS	4.9
11	A	1741	A	4.9
11	A	2039	C	4.9
12	B	27	C	4.9
11	A	520	G	4.9
27	T	90	GLN	4.9
11	A	2786	U	4.9
11	A	2866	U	4.9
11	A	1509(A)	A	4.9
11	A	1577	C	4.9
16	F	100	THR	4.9
11	A	564	C	4.9
11	A	717	G	4.9
11	A	723	G	4.9
11	A	2088	G	4.9
29	V	87	HIS	4.9
16	F	154	VAL	4.9
24	Q	104	PHE	4.9
11	A	1313	U	4.9
11	A	2522	U	4.9
11	A	726	G	4.9
11	A	1398	C	4.9
11	A	1402	C	4.9
11	A	2398	U	4.9
11	A	2281	C	4.9

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Mol	Chain	Res	Type	RSRZ
11	A	654(S)	G	4.8
11	A	2052	G	4.8
26	S	94	TYR	4.8
14	D	254	THR	4.8
23	P	126	VAL	4.8
27	T	87	ASP	4.8
11	A	1249	U	4.8
11	A	2587	A	4.8
12	B	66	A	4.8
11	A	934	G	4.8
11	A	1122	G	4.8
11	A	1510	G	4.8
11	A	1651	G	4.8
27	T	29	ARG	4.8
14	D	136	ILE	4.8
11	A	235	U	4.8
11	A	752	A	4.8
11	A	1066	U	4.8
11	A	1331	A	4.8
11	A	1574	C	4.8
11	A	51	G	4.8
11	A	1816	G	4.8
12	B	50	G	4.8
22	O	101	PRO	4.8
25	R	25	ALA	4.8
11	A	1019	U	4.8
11	A	1009	A	4.8
11	A	1859	A	4.8
11	A	2057	A	4.8
29	V	44	LYS	4.8
22	O	9	GLU	4.8
11	A	489	G	4.8
11	A	2100	G	4.8
11	A	2157	G	4.8
13	C	209	LEU	4.8
22	O	102	VAL	4.8
31	X	19	ALA	4.8
18	H	80	SER	4.8
3	2	39	ALA	4.8
12	B	90	A	4.8
12	B	9	G	4.8
28	U	78	THR	4.8

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Mol	Chain	Res	Type	RSRZ
17	G	157	ILE	4.8
18	H	72	ILE	4.8
3	2	35	LEU	4.8
24	Q	58	PHE	4.8
11	A	572	A	4.8
11	A	1039	G	4.8
11	A	2802	G	4.8
11	A	826	U	4.8
33	Z	154	ASP	4.8
17	G	95	ARG	4.8
27	T	73	GLU	4.8
11	A	654(U)	A	4.8
11	A	1040	C	4.8
11	A	1486	A	4.8
15	E	99	GLY	4.8
11	A	82	G	4.8
11	A	1338	G	4.8
22	O	113	LYS	4.8
33	Z	80	ARG	4.8
15	E	15	PHE	4.8
11	A	1126	A	4.8
11	A	296	C	4.8
11	A	795	C	4.8
5	4	39	CYS	4.8
11	A	883	G	4.8
11	A	931	G	4.8
11	A	1243	G	4.8
11	A	2330	G	4.8
11	A	2872	G	4.8
33	Z	25	PRO	4.8
5	4	32	TYR	4.8
11	A	310	A	4.8
11	A	1269	A	4.8
15	E	69	LYS	4.8
11	A	2045	C	4.8
24	Q	26	TYR	4.8
11	A	2819	G	4.8
22	O	35	VAL	4.8
17	G	97	ASP	4.7
11	A	1064	C	4.7
3	2	28	LYS	4.7
11	A	2061	G	4.7

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Mol	Chain	Res	Type	RSRZ
11	A	2396	G	4.7
24	Q	54	MET	4.7
11	A	1100	C	4.7
11	A	2177	C	4.7
24	Q	135	ASP	4.7
11	A	48	G	4.7
11	A	1699	G	4.7
5	4	34	GLU	4.7
12	B	78	A	4.7
23	P	127	ALA	4.7
5	4	42	PHE	4.7
11	A	1405	U	4.7
22	O	33	ALA	4.7
11	A	300	A	4.7
11	A	766	C	4.7
11	A	908	C	4.7
13	C	101	GLN	4.7
11	A	709	U	4.7
24	Q	23	GLY	4.7
33	Z	44	PHE	4.7
29	V	95	LEU	4.7
11	A	2779	U	4.7
4	3	54	VAL	4.7
11	A	629	G	4.7
11	A	1945	G	4.7
11	A	2124	G	4.7
15	E	137	HIS	4.7
1	0	21	LEU	4.7
22	O	22	ILE	4.7
11	A	495	G	4.7
11	A	620	G	4.7
11	A	1334	G	4.7
11	A	484	C	4.7
18	H	54	ARG	4.7
21	N	37	LYS	4.7
13	C	137	LEU	4.7
11	A	654(D)	G	4.7
11	A	1115	G	4.7
11	A	1801	G	4.7
18	H	86	GLU	4.7
11	A	750	A	4.7
11	A	1698	A	4.7

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Mol	Chain	Res	Type	RSRZ
11	A	893	C	4.7
11	A	1720	U	4.7
11	A	1820	U	4.7
11	A	2174	C	4.7
18	H	30	LYS	4.7
25	R	97	VAL	4.7
11	A	173	G	4.7
11	A	2633	G	4.7
17	G	171	ALA	4.7
11	A	470	A	4.7
11	A	1782	C	4.7
28	U	116	ALA	4.7
26	S	38	GLN	4.6
11	A	1593	G	4.6
12	B	59	A	4.6
11	A	316	C	4.6
11	A	810	U	4.6
11	A	1327	C	4.6
11	A	2136	C	4.6
13	C	97	GLU	4.6
18	H	96	ALA	4.6
6	5	33	CYS	4.6
6	5	36	CYS	4.6
11	A	1154	G	4.6
11	A	1664	A	4.6
11	A	2514	U	4.6
11	A	2577	A	4.6
26	S	16	ASN	4.6
11	A	357	A	4.6
11	A	800	A	4.6
2	1	63	ALA	4.6
3	2	70	GLN	4.6
32	Y	96	ILE	4.6
11	A	324	A	4.6
11	A	742	G	4.6
11	A	1142(A)	A	4.6
11	A	2406	U	4.6
27	T	104	ASN	4.6
18	H	163	TYR	4.6
11	A	1207	C	4.6
11	A	1836	C	4.6
11	A	1994	C	4.6

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Mol	Chain	Res	Type	RSRZ
11	A	2515	C	4.6
11	A	2803	C	4.6
16	F	115	ALA	4.6
26	S	31	SER	4.6
11	A	384	U	4.6
11	A	1453	U	4.6
11	A	1226	A	4.6
11	A	2305	A	4.6
11	A	2451	A	4.6
21	N	43	THR	4.6
11	A	1983	C	4.6
33	Z	128	VAL	4.6
33	Z	178	GLU	4.6
31	X	78	LYS	4.6
11	A	2262	U	4.6
18	H	56	SER	4.6
27	T	124	ASP	4.6
11	A	1986	A	4.6
2	1	26	ARG	4.6
11	A	2804	C	4.6
26	S	39	ILE	4.6
11	A	2580	U	4.6
11	A	407	G	4.6
11	A	1860	G	4.6
11	A	1922	G	4.6
11	A	2640	G	4.6
11	A	128	C	4.6
11	A	1957	C	4.6
12	B	2	C	4.6
27	T	123	GLN	4.6
33	Z	21	ALA	4.6
11	A	71	A	4.6
13	C	35	ALA	4.6
16	F	6	VAL	4.6
11	A	281	G	4.6
11	A	986	C	4.6
11	A	1145	C	4.6
11	A	1325	G	4.6
31	X	15	GLU	4.6
1	0	64	ASP	4.6
6	5	43	HIS	4.6
21	N	11	PRO	4.6

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Mol	Chain	Res	Type	RSRZ
22	O	24	VAL	4.6
11	A	1210	A	4.6
22	O	103	ALA	4.6
11	A	81	G	4.5
11	A	1866	C	4.5
11	A	2421	G	4.5
11	A	2787	C	4.5
12	B	115	G	4.5
15	E	191	PRO	4.5
10	9	16	VAL	4.5
11	A	2511	U	4.5
13	C	71	GLN	4.5
16	F	183	VAL	4.5
11	A	117	G	4.5
11	A	560	C	4.5
24	Q	110	THR	4.5
11	A	2519	U	4.5
21	N	55	VAL	4.5
28	U	113	ALA	4.5
11	A	299	A	4.5
11	A	2810	A	4.5
4	3	47	VAL	4.5
11	A	96	G	4.5
11	A	102	G	4.5
11	A	353	G	4.5
11	A	1550	C	4.5
16	F	141	ALA	4.5
11	A	667	U	4.5
29	V	97	LYS	4.5
27	T	70	VAL	4.5
18	H	29	PRO	4.5
22	O	55	GLY	4.5
11	A	1918	A	4.5
11	A	444	C	4.5
11	A	992	C	4.5
11	A	1703	G	4.5
11	A	2191	G	4.5
12	B	7	G	4.5
11	A	1035	U	4.5
13	C	31	GLU	4.5
11	A	2267	A	4.5
23	P	93	GLY	4.5

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Mol	Chain	Res	Type	RSRZ
11	A	1857	G	4.5
17	G	37	VAL	4.5
33	Z	83	PRO	4.5
11	A	1213	A	4.5
21	N	56	ASN	4.5
11	A	272(J)	C	4.5
12	B	31	C	4.5
11	A	290	G	4.5
11	A	2089	U	4.5
21	N	51	PHE	4.5
13	C	64	LEU	4.5
31	X	12	VAL	4.5
11	A	782	A	4.5
11	A	2450	A	4.5
29	V	40	LEU	4.5
11	A	77	C	4.5
1	0	30	VAL	4.5
11	A	271(M)	G	4.5
11	A	809	G	4.5
11	A	818	G	4.5
11	A	1328	G	4.5
11	A	1639	U	4.5
11	A	2569	G	4.5
24	Q	112	GLU	4.5
18	H	88	LEU	4.5
27	T	56	GLY	4.5
29	V	76	LYS	4.5
11	A	268	C	4.5
11	A	674	G	4.5
11	A	999	U	4.5
11	A	2475	C	4.5
2	1	34	THR	4.5
11	A	981	A	4.5
11	A	1553	A	4.5
11	A	1919	A	4.5
9	8	37	SER	4.5
11	A	1153	C	4.5
11	A	2815	C	4.5
4	3	48	GLU	4.5
11	A	396	G	4.5
11	A	1595	G	4.5
11	A	2018	G	4.5

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Mol	Chain	Res	Type	RSRZ
23	P	117	GLU	4.5
26	S	24	LEU	4.4
26	S	98	VAL	4.4
11	A	1088	A	4.4
26	S	76	LYS	4.4
11	A	967	C	4.4
11	A	2492	U	4.4
11	A	2745	C	4.4
11	A	2885	C	4.4
11	A	304	G	4.4
11	A	1186	G	4.4
12	B	16	G	4.4
13	C	5	LYS	4.4
17	G	55	LYS	4.4
31	X	13	LEU	4.4
11	A	64	A	4.4
23	P	145	PRO	4.4
11	A	288	C	4.4
11	A	2540	C	4.4
11	A	194	G	4.4
15	E	51	PHE	4.4
31	X	3	THR	4.4
11	A	105	C	4.4
11	A	711	G	4.4
11	A	1131	G	4.4
12	B	118	G	4.4
11	A	1148	A	4.4
11	A	1273	U	4.4
13	C	29	VAL	4.4
11	A	838	C	4.4
11	A	1120	G	4.4
11	A	1753	G	4.4
12	B	76	G	4.4
11	A	901	A	4.4
11	A	2647	U	4.4
11	A	844	C	4.4
11	A	1116	C	4.4
16	F	47	GLY	4.4
22	O	20	MET	4.4
11	A	27	G	4.4
11	A	79	G	4.4
11	A	88	G	4.4

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Mol	Chain	Res	Type	RSRZ
11	A	271(V)	G	4.4
11	A	1418	G	4.4
11	A	1831	G	4.4
7	6	18	ARG	4.4
11	A	1760	A	4.4
11	A	2632	A	4.4
23	P	78	PRO	4.4
11	A	271(C)	C	4.4
11	A	1185	C	4.4
11	A	1251	C	4.4
11	A	2066	C	4.4
11	A	2512	C	4.4
33	Z	168	GLU	4.4
29	V	69	LYS	4.4
23	P	82	GLY	4.4
11	A	1036	G	4.4
11	A	1280	G	4.4
12	B	89	G	4.4
23	P	83	VAL	4.4
1	0	25	ARG	4.4
11	A	143	G	4.4
11	A	271(W)	G	4.4
11	A	338	G	4.4
11	A	2535	G	4.4
14	D	201	HIS	4.4
11	A	1101	U	4.4
33	Z	119	GLU	4.4
11	A	2496	C	4.4
13	C	195	ALA	4.4
18	H	74	ASN	4.4
22	O	99	PHE	4.4
17	G	5	VAL	4.4
11	A	1768	U	4.4
11	A	271	A	4.4
11	A	1010	A	4.4
15	E	75	VAL	4.4
11	A	2684	U	4.3
11	A	2015	A	4.3
13	C	91	ALA	4.3
17	G	120	LEU	4.3
1	0	20	ARG	4.3
11	A	2155	G	4.3

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Mol	Chain	Res	Type	RSRZ
11	A	2543	G	4.3
15	E	169	ASN	4.3
11	A	1065	U	4.3
11	A	2384	G	4.3
11	A	2869	G	4.3
16	F	200	GLU	4.3
23	P	99	LEU	4.3
11	A	271(G)	C	4.3
11	A	2347	C	4.3
22	O	110	GLY	4.3
21	N	119	ARG	4.3
11	A	1266	G	4.3
11	A	196	A	4.3
11	A	2740	A	4.3
11	A	2813	A	4.3
11	A	392	C	4.3
12	B	5	C	4.3
12	B	64	C	4.3
11	A	2413	G	4.3
21	N	48	MET	4.3
11	A	1832	C	4.3
11	A	121	G	4.3
11	A	2458	G	4.3
11	A	746	A	4.3
24	Q	133	ARG	4.3
15	E	57	LYS	4.3
29	V	84	LYS	4.3
11	A	228	A	4.3
11	A	1099	G	4.3
11	A	2251	G	4.3
22	O	62	VAL	4.3
11	A	611	C	4.3
11	A	1297	C	4.3
4	3	53	LEU	4.3
11	A	2122	U	4.3
32	Y	66	PRO	4.3
33	Z	95	PRO	4.3
1	0	68	GLU	4.3
15	E	126	PRO	4.3
11	A	1171	G	4.3
11	A	1225	G	4.3
11	A	1358	G	4.3

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Mol	Chain	Res	Type	RSRZ
11	A	1389	G	4.3
12	B	81	G	4.3
5	4	4	GLY	4.3
11	A	963	U	4.3
11	A	1018	C	4.3
21	N	68	GLU	4.3
11	A	301	G	4.2
11	A	2258	C	4.2
11	A	2648	C	4.2
13	C	63	SER	4.2
15	E	41	LYS	4.2
33	Z	122	ARG	4.2
11	A	272(E)	G	4.2
11	A	704	G	4.2
11	A	2750	A	4.2
13	C	173	ALA	4.2
17	G	131	TYR	4.2
11	A	504	U	4.2
15	E	184	VAL	4.2
11	A	1230	C	4.2
21	N	126	PRO	4.2
15	E	58	ARG	4.2
22	O	51	ALA	4.2
11	A	2256	G	4.2
11	A	2491	U	4.2
11	A	2137	C	4.2
10	9	37	GLY	4.2
11	A	988	A	4.2
11	A	1342	A	4.2
11	A	377	C	4.2
32	Y	39	VAL	4.2
33	Z	35	ARG	4.2
22	O	2	ILE	4.2
11	A	2583	G	4.2
11	A	998	C	4.2
31	X	8	ILE	4.2
27	T	63	VAL	4.2
2	1	31	GLY	4.2
9	8	16	ILE	4.2
11	A	73	A	4.2
11	A	1608	A	4.2
11	A	1912	A	4.2

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Mol	Chain	Res	Type	RSRZ
29	V	38	LEU	4.2
11	A	2773	C	4.2
3	2	61	LEU	4.2
4	3	43	ILE	4.2
7	6	21	TYR	4.2
27	T	40	THR	4.2
11	A	114	U	4.2
11	A	1693	U	4.2
11	A	2534	A	4.2
13	C	202	GLU	4.2
24	Q	114	ALA	4.2
22	O	5	GLN	4.2
27	T	84	GLN	4.2
27	T	103	ARG	4.2
11	A	656	G	4.2
11	A	2023	G	4.2
11	A	1049	C	4.2
28	U	115	ALA	4.2
5	4	21	VAL	4.2
11	A	49	A	4.2
11	A	2014	A	4.2
15	E	180	ASN	4.2
11	A	272	G	4.2
11	A	1667	G	4.2
11	A	2187	G	4.2
18	H	91	GLY	4.2
18	H	67	LEU	4.1
11	A	778	G	4.1
11	A	1063	G	4.1
11	A	982	C	4.1
13	C	108	MET	4.1
11	A	340	A	4.1
11	A	1274	A	4.1
33	Z	98	MET	4.1
9	8	35	GLN	4.1
11	A	1025	G	4.1
11	A	1950	G	4.1
3	2	16	LEU	4.1
13	C	125	SER	4.1
16	F	1	MET	4.1
11	A	877	U	4.1
3	2	29	LYS	4.1

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Mol	Chain	Res	Type	RSRZ
11	A	1182	A	4.1
17	G	106	LEU	4.1
11	A	132	G	4.1
11	A	1909	C	4.1
11	A	1948	G	4.1
14	D	166	GLN	4.1
15	E	100	GLU	4.1
28	U	92	ARG	4.1
11	A	2123	G	4.1
11	A	2183	C	4.1
11	A	2599	G	4.1
27	T	17	THR	4.1
29	V	94	LEU	4.1
4	3	3	ARG	4.1
23	P	143	GLY	4.1
6	5	37	LYS	4.1
11	A	764	A	4.1
25	R	60	LEU	4.1
21	N	27	ALA	4.1
11	A	673	C	4.1
11	A	1790	C	4.1
11	A	1855	G	4.1
11	A	2381	C	4.1
29	V	61	VAL	4.1
15	E	33	VAL	4.1
31	X	45	THR	4.1
11	A	213	A	4.1
11	A	107	C	4.1
11	A	1257	C	4.1
11	A	1559	G	4.1
11	A	1607	C	4.1
11	A	2049	G	4.1
28	U	98	LEU	4.1
11	A	1097	U	4.1
28	U	38	THR	4.1
11	A	1384	A	4.1
13	C	14	VAL	4.1
17	G	91	ARG	4.1
17	G	179	PRO	4.1
14	D	61	LEU	4.1
23	P	88	LEU	4.1
33	Z	77	ASP	4.1

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Mol	Chain	Res	Type	RSRZ
11	A	837	C	4.1
11	A	1181	C	4.1
11	A	475	U	4.1
11	A	860	U	4.1
11	A	2656	U	4.1
4	3	57	GLU	4.1
23	P	89	ALA	4.1
15	E	148	GLY	4.1
16	F	190	GLU	4.1
11	A	2248	C	4.1
11	A	2789	C	4.1
12	B	6	C	4.1
11	A	1835	G	4.1
13	C	138	PRO	4.1
27	T	97	ALA	4.1
11	A	2541	A	4.1
15	E	117	MET	4.0
11	A	1223	G	4.0
2	1	65	SER	4.0
27	T	19	LEU	4.0
26	S	107	GLU	4.0
16	F	119	ARG	4.0
11	A	76	C	4.0
11	A	319	C	4.0
11	A	1397	U	4.0
11	A	1800	C	4.0
22	O	94	ARG	4.0
11	A	1301	A	4.0
11	A	2572	A	4.0
13	C	105	ASP	4.0
11	A	155	U	4.0
11	A	930	U	4.0
22	O	8	LEU	4.0
11	A	62	C	4.0
11	A	2420	C	4.0
17	G	117	PHE	4.0
32	Y	23	ARG	4.0
22	O	44	LYS	4.0
23	P	138	LEU	4.0
11	A	849	A	4.0
21	N	122	VAL	4.0
21	N	66	LYS	4.0

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Mol	Chain	Res	Type	RSRZ
24	Q	8	LYS	4.0
24	Q	125	LEU	4.0
11	A	302	C	4.0
11	A	113	G	4.0
11	A	326	G	4.0
28	U	117	GLN	4.0
17	G	67	LYS	4.0
2	1	79	GLY	4.0
11	A	2432	A	4.0
11	A	1199	U	4.0
11	A	1991	U	4.0
27	T	78	LEU	4.0
11	A	2394	C	4.0
11	A	2724	C	4.0
18	H	109	PHE	4.0
4	3	1	MET	4.0
11	A	613	G	4.0
11	A	2358	G	4.0
27	T	136	GLN	4.0
33	Z	124	ILE	4.0
11	A	223	A	4.0
11	A	2711	A	4.0
29	V	90	PRO	4.0
11	A	1659	U	4.0
15	E	97	LYS	4.0
28	U	73	GLY	4.0
11	A	343	C	4.0
1	0	32	ARG	4.0
26	S	13	ARG	4.0
11	A	2194	G	4.0
12	B	101	G	4.0
17	G	57	ALA	4.0
31	X	82	GLN	4.0
23	P	8	PRO	4.0
25	R	110	PRO	4.0
17	G	78	SER	4.0
12	B	1	U	4.0
5	4	40	HIS	4.0
13	C	39	GLU	4.0
26	S	67	ARG	4.0
21	N	75	TYR	4.0
11	A	598	G	4.0

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Mol	Chain	Res	Type	RSRZ
11	A	1997	G	4.0
11	A	2592	G	4.0
12	B	82	G	4.0
11	A	1302	A	4.0
11	A	2058	A	4.0
1	0	19	LYS	4.0
5	4	38	LYS	4.0
11	A	569	U	4.0
27	T	49	VAL	4.0
26	S	89	ARG	4.0
6	5	6	VAL	4.0
11	A	14	A	4.0
11	A	363(A)	A	4.0
11	A	1000	A	4.0
11	A	2274	A	4.0
26	S	20	ARG	4.0
33	Z	88	PHE	4.0
22	O	74	GLY	4.0
11	A	1838	C	4.0
21	N	16	ILE	4.0
13	C	98	GLU	4.0
23	P	124	LYS	4.0
25	R	9	LYS	4.0
11	A	2228	G	3.9
28	U	64	ARG	3.9
23	P	87	ASP	3.9
11	A	765	G	3.9
11	A	2242	G	3.9
11	A	2271	G	3.9
24	Q	120	ILE	3.9
11	A	335	C	3.9
11	A	1399	C	3.9
11	A	1660	C	3.9
25	R	22	ARG	3.9
27	T	31	SER	3.9
11	A	503	A	3.9
11	A	1630	G	3.9
13	C	100	ILE	3.9
11	A	762	U	3.9
11	A	2696	U	3.9
11	A	477	A	3.9
11	A	512	G	3.9

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Mol	Chain	Res	Type	RSRZ
31	X	72	LYS	3.9
1	0	51	VAL	3.9
27	T	44	ASP	3.9
11	A	2040	C	3.9
13	C	168	THR	3.9
15	E	36	ARG	3.9
3	2	19	VAL	3.9
11	A	29	U	3.9
16	F	14	PRO	3.9
11	A	75	G	3.9
11	A	513	A	3.9
11	A	1606	G	3.9
11	A	1813	G	3.9
11	A	2020	A	3.9
11	A	2235	G	3.9
11	A	2435	A	3.9
11	A	2602	A	3.9
15	E	65	GLY	3.9
17	G	34	LEU	3.9
33	Z	143	GLY	3.9
33	Z	152	ALA	3.9
11	A	95	G	3.9
11	A	122	G	3.9
11	A	2351	G	3.9
11	A	2725	A	3.9
13	C	95	GLY	3.9
11	A	1270	C	3.9
25	R	66	VAL	3.9
29	V	62	LEU	3.9
11	A	2576	G	3.9
16	F	2	LYS	3.9
15	E	8	LYS	3.9
22	O	10	VAL	3.9
11	A	505	A	3.9
11	A	1972	A	3.9
11	A	250	G	3.9
11	A	1704	G	3.9
11	A	2607	G	3.9
23	P	109	GLY	3.9
11	A	816	C	3.9
11	A	1793	C	3.9
14	D	96	HIS	3.9

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Mol	Chain	Res	Type	RSRZ
11	A	346	A	3.9
11	A	471	A	3.9
11	A	1322	A	3.9
11	A	1665	A	3.9
11	A	1969	A	3.9
11	A	798	G	3.9
11	A	1219	G	3.9
11	A	1935	G	3.9
11	A	2891	G	3.9
21	N	117	PHE	3.9
11	A	279	C	3.8
11	A	1316	U	3.8
11	A	829	A	3.8
11	A	1652	A	3.8
11	A	1876	A	3.8
27	T	50	ILE	3.8
11	A	55	G	3.8
11	A	952	G	3.8
11	A	2643	G	3.8
15	E	32	PRO	3.8
24	Q	105	GLU	3.8
11	A	2507	C	3.8
3	2	65	ASN	3.8
18	H	27	LYS	3.8
21	N	45	ASN	3.8
2	1	11	ARG	3.8
11	A	1769	G	3.8
11	A	1828	G	3.8
11	A	2777	G	3.8
12	B	113	G	3.8
11	A	2575	C	3.8
23	P	15	ARG	3.8
11	A	482	A	3.8
25	R	16	HIS	3.8
11	A	259	G	3.8
11	A	2718	G	3.8
11	A	1179	C	3.8
11	A	2036	C	3.8
21	N	102	ALA	3.8
21	N	77	GLY	3.8
11	A	1966	A	3.8
13	C	94	VAL	3.8

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Mol	Chain	Res	Type	RSRZ
11	A	271(R)	G	3.8
11	A	1620	G	3.8
11	A	2009	G	3.8
11	A	2627	G	3.8
33	Z	43	GLU	3.8
21	N	69	GLN	3.8
2	1	80	LEU	3.8
11	A	1754	C	3.8
25	R	77	ARG	3.8
11	A	1248	G	3.8
11	A	2756	U	3.8
27	T	72	VAL	3.8
18	H	155	SER	3.8
11	A	608	A	3.8
11	A	50	U	3.8
11	A	2224	G	3.8
11	A	2708	G	3.8
11	A	2720	U	3.8
7	6	47	THR	3.8
11	A	1295	C	3.8
31	X	76	ARG	3.8
11	A	1060	U	3.8
11	A	247	G	3.8
11	A	1377	G	3.8
23	P	144	GLU	3.8
11	A	935	C	3.8
11	A	1806	C	3.8
16	F	25	PRO	3.8
11	A	330	A	3.8
13	C	16	PRO	3.8
13	C	51	PRO	3.8
11	A	1094	U	3.8
22	O	32	TYR	3.8
11	A	1264	G	3.8
1	0	60	PHE	3.8
11	A	364	C	3.8
11	A	2078	C	3.8
11	A	2028	U	3.8
27	T	138	ALA	3.7
28	U	114	LYS	3.7
11	A	463	G	3.7
11	A	2087	G	3.7

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Mol	Chain	Res	Type	RSRZ
11	A	894	C	3.7
11	A	2021	C	3.7
24	Q	59	ARG	3.7
32	Y	58	GLY	3.7
11	A	606	U	3.7
1	0	73	GLY	3.7
1	0	15	ASP	3.7
14	D	202	LYS	3.7
11	A	1238	G	3.7
11	A	2083	G	3.7
11	A	2263	C	3.7
18	H	141	VAL	3.7
11	A	789	A	3.7
11	A	1323	U	3.7
11	A	1419	A	3.7
27	T	43	GLN	3.7
11	A	285	C	3.7
11	A	756	C	3.7
11	A	949	C	3.7
11	A	1617	C	3.7
16	F	112	MET	3.7
26	S	72	ALA	3.7
11	A	405	U	3.7
11	A	1937	A	3.7
18	H	154	PRO	3.7
2	1	64	ALA	3.7
29	V	75	PHE	3.7
33	Z	76	LEU	3.7
14	D	173	VAL	3.7
21	N	65	LYS	3.7
9	8	63	PRO	3.7
11	A	528	A	3.7
11	A	1127	A	3.7
27	T	64	ARG	3.7
27	T	114	LEU	3.7
11	A	1206	G	3.7
11	A	2024	G	3.7
11	A	2446	G	3.7
15	E	16	ARG	3.7
25	R	7	GLY	3.7
31	X	37	THR	3.7
31	X	77	LYS	3.7

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Mol	Chain	Res	Type	RSRZ
2	1	60	PHE	3.7
11	A	363(F)	A	3.7
11	A	2247	A	3.7
1	0	49	LYS	3.7
31	X	35	THR	3.7
11	A	1763	G	3.7
14	D	139	GLY	3.7
24	Q	88	GLY	3.7
11	A	757	U	3.7
14	D	95	LEU	3.7
11	A	289	A	3.7
11	A	567	A	3.7
11	A	945	A	3.7
11	A	1885	A	3.7
11	A	23	G	3.7
11	A	1370	C	3.7
11	A	1432	C	3.7
11	A	1965	C	3.7
22	O	45	GLU	3.7
27	T	77	PRO	3.7
13	C	32	LEU	3.7
6	5	47	PRO	3.7
11	A	708	C	3.7
11	A	1092	C	3.7
11	A	1636	C	3.7
11	A	2306	C	3.7
33	Z	23	LYS	3.7
11	A	2031	A	3.7
2	1	93	GLU	3.7
3	2	20	GLU	3.7
3	2	22	GLU	3.7
21	N	88	GLU	3.7
22	O	65	THR	3.7
25	R	8	ARG	3.7
11	A	1861	G	3.7
11	A	2604	U	3.7
2	1	24	ALA	3.6
13	C	67	GLY	3.6
26	S	30	ARG	3.6
25	R	95	THR	3.6
26	S	12	PHE	3.6
27	T	57	PHE	3.6

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Mol	Chain	Res	Type	RSRZ
11	A	1234	U	3.6
11	A	1995	U	3.6
11	A	2419	U	3.6
11	A	2695	C	3.6
15	E	109	LYS	3.6
11	A	1388	G	3.6
33	Z	70	LEU	3.6
14	D	209	ALA	3.6
17	G	142	PRO	3.6
18	H	148	ILE	3.6
29	V	30	GLY	3.6
11	A	282	A	3.6
24	Q	15	GLY	3.6
33	Z	62	PRO	3.6
11	A	584	C	3.6
11	A	1203	G	3.6
31	X	22	ALA	3.6
26	S	84	GLN	3.6
33	Z	99	TYR	3.6
24	Q	95	ALA	3.6
27	T	5	ALA	3.6
7	6	46	HIS	3.6
11	A	858	U	3.6
11	A	1818	U	3.6
11	A	2457	U	3.6
12	B	91	C	3.6
11	A	570	G	3.6
11	A	1568	G	3.6
11	A	1678	G	3.6
17	G	45	GLU	3.6
11	A	670	A	3.6
11	A	861	A	3.6
11	A	1220	A	3.6
13	C	169	GLY	3.6
32	Y	35	TYR	3.6
1	0	85	ALA	3.6
24	Q	25	ASP	3.6
24	Q	64	ILE	3.6
18	H	46	GLU	3.6
29	V	73	SER	3.6
11	A	657	U	3.6
25	R	18	LEU	3.6

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Mol	Chain	Res	Type	RSRZ
18	H	60	ARG	3.6
29	V	32	THR	3.6
18	H	85	LYS	3.6
27	T	22	PHE	3.6
11	A	15	G	3.6
11	A	295	G	3.6
11	A	488	G	3.6
11	A	920	G	3.6
11	A	1187	G	3.6
11	A	1069	A	3.6
33	Z	79	ARG	3.6
18	H	145	ALA	3.6
11	A	2011	U	3.6
7	6	39	TYR	3.6
11	A	445	C	3.6
11	A	1815	A	3.6
11	A	2731	G	3.6
18	H	106	THR	3.6
11	A	2500	U	3.6
1	0	75	LEU	3.6
2	1	54	ALA	3.6
9	8	32	LEU	3.6
11	A	903	C	3.6
11	A	271(S)	G	3.6
11	A	411	G	3.6
15	E	129	HIS	3.6
17	G	94	LEU	3.6
25	R	67	LEU	3.6
15	E	177	PRO	3.6
21	N	79	PRO	3.6
4	3	37	LEU	3.5
11	A	987	G	3.5
11	A	1423	G	3.5
13	C	27	ARG	3.5
17	G	84	LYS	3.5
27	T	130	ALA	3.5
11	A	453	C	3.5
11	A	1865	G	3.5
13	C	144	THR	3.5
32	Y	68	HIS	3.5
22	O	59	LYS	3.5
29	V	63	GLY	3.5

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Mol	Chain	Res	Type	RSRZ
7	6	26	ASN	3.5
25	R	65	LEU	3.5
33	Z	147	GLY	3.5
11	A	432	A	3.5
11	A	508	G	3.5
11	A	1215	G	3.5
11	A	1395	A	3.5
18	H	138	LYS	3.5
18	H	152	ARG	3.5
11	A	772	C	3.5
11	A	1827	C	3.5
12	B	49	C	3.5
13	C	36	LYS	3.5
11	A	2239	G	3.5
11	A	2674	G	3.5
22	O	47	ILE	3.5
5	4	31	ILE	3.5
12	B	65	C	3.5
23	P	76	LYS	3.5
11	A	457	A	3.5
11	A	480	A	3.5
33	Z	9	TYR	3.5
7	6	13	CYS	3.5
11	A	2238	G	3.5
13	C	92	ASP	3.5
11	A	1565	C	3.5
23	P	125	VAL	3.5
18	H	153	LYS	3.5
25	R	79	LEU	3.5
27	T	11	GLU	3.5
27	T	117	ASP	3.5
11	A	710	G	3.5
11	A	2783	G	3.5
15	E	181	LEU	3.5
31	X	44	GLU	3.5
11	A	2401	U	3.5
12	B	80	U	3.5
17	G	160	VAL	3.5
18	H	146	ALA	3.5
25	R	106	GLY	3.5
11	A	854	G	3.5
11	A	2618	G	3.5

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Mol	Chain	Res	Type	RSRZ
22	O	34	THR	3.5
28	U	99	ALA	3.5
15	E	74	PRO	3.5
18	H	112	PRO	3.5
11	A	37	C	3.5
11	A	595	C	3.5
11	A	1708	C	3.5
11	A	1996	C	3.5
24	Q	136	ALA	3.5
11	A	350	U	3.5
21	N	131	GLN	3.5
25	R	78	LYS	3.5
3	2	40	SER	3.5
21	N	91	LEU	3.4
25	R	72	ASP	3.4
11	A	827	U	3.4
11	A	1180	C	3.4
11	A	1222	C	3.4
13	C	161	ILE	3.4
22	O	43	VAL	3.4
11	A	1285	G	3.4
7	6	51	GLU	3.4
23	P	12	ALA	3.4
11	A	156	U	3.4
11	A	2827	C	3.4
22	O	66	LYS	3.4
23	P	91	PHE	3.4
23	P	128	HIS	3.4
22	O	18	LYS	3.4
11	A	763	G	3.4
2	1	61	ARG	3.4
32	Y	98	VAL	3.4
11	A	185	U	3.4
11	A	174	C	3.4
11	A	334	C	3.4
12	B	28	C	3.4
10	9	7	VAL	3.4
27	T	129	ARG	3.4
11	A	979	G	3.4
11	A	1888	G	3.4
11	A	1933	G	3.4
13	C	17	ASN	3.4

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Mol	Chain	Res	Type	RSRZ
1	0	3	HIS	3.4
13	C	210	ARG	3.4
11	A	231	C	3.4
15	E	88	GLY	3.4
18	H	48	GLY	3.4
26	S	90	GLY	3.4
33	Z	139	VAL	3.4
1	0	39	ARG	3.4
11	A	78	A	3.4
22	O	28	SER	3.4
11	A	950	G	3.4
28	U	86	ALA	3.4
11	A	230	U	3.4
6	5	23	HIS	3.4
25	R	20	LEU	3.4
11	A	2007	C	3.4
17	G	80	PHE	3.4
29	V	89	GLN	3.4
9	8	20	GLY	3.4
11	A	92	A	3.4
11	A	2199	A	3.4
11	A	271(Y)	U	3.4
11	A	474	G	3.4
11	A	1794	U	3.4
11	A	2093	G	3.4
11	A	2197	U	3.4
11	A	2746	U	3.4
11	A	87	C	3.4
11	A	476	G	3.4
11	A	1851	U	3.4
11	A	2090	G	3.4
21	N	21	LYS	3.4
15	E	13	ARG	3.4
21	N	135	PRO	3.4
11	A	127	A	3.4
11	A	727	A	3.4
11	A	2609	U	3.4
22	O	3	GLN	3.4
17	G	126	ASP	3.4
24	Q	51	ARG	3.4
28	U	19	LYS	3.4
11	A	2196	C	3.4

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Mol	Chain	Res	Type	RSRZ
13	C	123	VAL	3.4
18	H	136	ILE	3.4
25	R	82	GLU	3.4
21	N	20	GLY	3.4
13	C	34	THR	3.4
14	D	123	ALA	3.4
30	W	67	ASP	3.4
11	A	318	C	3.3
11	A	1675	C	3.3
31	X	56	THR	3.3
14	D	238	GLY	3.3
15	E	147	PRO	3.3
11	A	705	A	3.3
11	A	1812	A	3.3
22	O	27	GLY	3.3
32	Y	6	HIS	3.3
26	S	33	LYS	3.3
29	V	19	LYS	3.3
33	Z	173	ALA	3.3
11	A	124	G	3.3
11	A	327	G	3.3
11	A	429	A	3.3
7	6	43	CYS	3.3
17	G	125	PHE	3.3
11	A	1929	G	3.3
17	G	101	ILE	3.3
11	A	116	C	3.3
11	A	1600	C	3.3
11	A	2073	C	3.3
2	1	86	SER	3.3
11	A	586	A	3.3
11	A	1654	A	3.3
16	F	16	GLY	3.3
24	Q	96	VAL	3.3
30	W	74	ALA	3.3
11	A	383	U	3.3
11	A	597	U	3.3
11	A	895	U	3.3
11	A	2041	U	3.3
13	C	41	VAL	3.3
17	G	98	ARG	3.3
18	H	104	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
6	5	9	LYS	3.3
22	O	118	ALA	3.3
11	A	356	G	3.3
11	A	1771	C	3.3
22	O	72	PRO	3.3
11	A	1616	A	3.3
11	A	2227	A	3.3
11	A	2433	A	3.3
9	8	25	MET	3.3
27	T	6	LEU	3.3
31	X	86	GLY	3.3
11	A	30	G	3.3
11	A	1426	G	3.3
11	A	2567	G	3.3
11	A	1658	C	3.3
11	A	9	U	3.3
25	R	109	ALA	3.3
30	W	53	SER	3.3
11	A	386	G	3.3
11	A	451	C	3.3
11	A	1196	C	3.3
11	A	654(V)	A	3.3
30	W	86	LEU	3.3
24	Q	57	HIS	3.3
28	U	16	LYS	3.3
11	A	1980	G	3.3
11	A	2022	U	3.3
24	Q	130	LYS	3.3
25	R	14	SER	3.3
30	W	112	GLY	3.3
31	X	50	LYS	3.3
22	O	21	CYS	3.3
11	A	468	G	3.3
11	A	845	G	3.3
11	A	1216	G	3.3
11	A	13	A	3.3
11	A	427	U	3.3
11	A	2776	A	3.3
27	T	93	ARG	3.3
24	Q	108	GLY	3.3
23	P	121	LYS	3.3
7	6	24	GLU	3.3

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Mol	Chain	Res	Type	RSRZ
18	H	157	TYR	3.3
11	A	12	U	3.3
11	A	93	G	3.3
11	A	187	G	3.3
11	A	217	G	3.3
11	A	1697	G	3.3
11	A	1254	A	3.3
13	C	40	THR	3.2
27	T	76	PHE	3.2
32	Y	65	ALA	3.2
13	C	53	ARG	3.2
7	6	40	CYS	3.2
11	A	389	G	3.2
11	A	787	U	3.2
11	A	1068	G	3.2
11	A	1648	C	3.2
11	A	1803	A	3.2
21	N	118	LYS	3.2
24	Q	60	ARG	3.2
1	0	18	ALA	3.2
28	U	41	ALA	3.2
18	H	118	PRO	3.2
1	0	17	GLN	3.2
11	A	66	C	3.2
11	A	245	G	3.2
11	A	857	C	3.2
11	A	961	C	3.2
18	H	41	MET	3.2
24	Q	121	ALA	3.2
6	5	52	TYR	3.2
21	N	52	VAL	3.2
11	A	2189	U	3.2
15	E	124	GLY	3.2
11	A	663	G	3.2
11	A	1365	A	3.2
11	A	1555	G	3.2
11	A	1642	G	3.2
32	Y	95	LYS	3.2
24	Q	73	PRO	3.2
13	C	7	TYR	3.2
11	A	1406	U	3.2
11	A	462	C	3.2

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Mol	Chain	Res	Type	RSRZ
11	A	1657	C	3.2
11	A	397	G	3.2
11	A	655	A	3.2
11	A	784	A	3.2
10	9	36	GLN	3.2
14	D	210	GLY	3.2
11	A	1778	U	3.2
11	A	57	C	3.2
11	A	970	C	3.2
11	A	1375	C	3.2
15	E	81	ILE	3.2
11	A	58	G	3.2
11	A	2246	G	3.2
33	Z	117	LEU	3.2
15	E	157	ALA	3.2
2	1	30	VAL	3.2
1	0	53	MET	3.2
3	2	67	LYS	3.2
27	T	80	SER	3.2
24	Q	129	THR	3.2
11	A	1564	C	3.2
11	A	1646	C	3.2
11	A	255	A	3.2
11	A	257	A	3.2
22	O	82	ASN	3.2
25	R	89	ASP	3.2
11	A	315	G	3.2
11	A	1239	G	3.2
22	O	108	GLU	3.2
24	Q	3	MET	3.2
26	S	29	PHE	3.2
16	F	61	GLY	3.2
11	A	1499	C	3.2
11	A	225	A	3.2
26	S	66	ALA	3.2
33	Z	74	VAL	3.2
11	A	328	U	3.2
11	A	464	U	3.2
11	A	1033	U	3.2
11	A	1931	U	3.2
15	E	199	ARG	3.2
16	F	118	ALA	3.2

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Mol	Chain	Res	Type	RSRZ
24	Q	119	ARG	3.2
29	V	36	PRO	3.2
18	H	55	PRO	3.2
23	P	54	GLY	3.2
11	A	2506	U	3.2
13	C	207	THR	3.2
22	O	96	THR	3.2
26	S	55	ALA	3.2
28	U	42	ALA	3.2
28	U	8	VAL	3.2
15	E	106	GLY	3.2
31	X	24	GLY	3.2
11	A	850	C	3.2
11	A	2229	C	3.2
24	Q	4	PRO	3.1
11	A	89	G	3.1
11	A	452	G	3.1
11	A	921	G	3.1
7	6	10	LEU	3.1
11	A	380	U	3.1
13	C	10	LEU	3.1
22	O	78	ARG	3.1
31	X	84	ALA	3.1
6	5	17	ASP	3.1
13	C	65	PRO	3.1
1	0	57	PHE	3.1
3	2	72	ALA	3.1
7	6	9	LEU	3.1
11	A	840	C	3.1
15	E	156	MET	3.1
28	U	109	LEU	3.1
11	A	126	A	3.1
11	A	447	A	3.1
11	A	1847	A	3.1
23	P	7	ARG	3.1
18	H	89	ILE	3.1
29	V	37	VAL	3.1
25	R	99	LYS	3.1
17	G	151	ALA	3.1
11	A	909	A	3.1
11	A	1631(A)	A	3.1
24	Q	101	ARG	3.1

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Mol	Chain	Res	Type	RSRZ
15	E	77	ILE	3.1
17	G	92	VAL	3.1
31	X	43	VAL	3.1
11	A	226	G	3.1
11	A	2091	U	3.1
11	A	2509	G	3.1
14	D	42	GLY	3.1
16	F	85	GLY	3.1
7	6	14	THR	3.1
14	D	7	LYS	3.1
17	G	10	LYS	3.1
18	H	143	GLN	3.1
28	U	18	LEU	3.1
33	Z	150	LEU	3.1
11	A	184	C	3.1
11	A	786	C	3.1
11	A	834	C	3.1
11	A	1618	A	3.1
11	A	1901	A	3.1
11	A	1902	C	3.1
11	A	2715	C	3.1
21	N	42	TRP	3.1
11	A	518	G	3.1
25	R	15	SER	3.1
5	4	29	PRO	3.1
7	6	19	ARG	3.1
28	U	40	PHE	3.1
11	A	31	C	3.1
11	A	271(B)	C	3.1
11	A	422	A	3.1
21	N	40	PRO	3.1
17	G	134	GLY	3.1
11	A	272(D)	G	3.1
11	A	928	G	3.1
11	A	1235	G	3.1
11	A	1263	U	3.1
23	P	6	LEU	3.1
13	C	2	LYS	3.1
11	A	590	A	3.1
11	A	985	C	3.1
11	A	2198	A	3.1
11	A	958	U	3.1

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Mol	Chain	Res	Type	RSRZ
11	A	1963	U	3.1
11	A	2047	U	3.1
16	F	197	ASP	3.1
33	Z	40	ASP	3.1
16	F	176	LEU	3.1
31	X	40	LYS	3.1
11	A	342	G	3.1
11	A	1260	G	3.1
18	H	158	HIS	3.1
27	T	51	ARG	3.1
11	A	208	C	3.1
11	A	1204	A	3.1
11	A	2185	C	3.1
33	Z	131	ARG	3.1
5	4	27	THR	3.1
15	E	198	VAL	3.1
11	A	1633	G	3.1
13	C	58	VAL	3.1
10	9	21	GLY	3.1
14	D	275	LYS	3.1
33	Z	135	GLU	3.1
11	A	222	A	3.1
11	A	363(E)	U	3.1
17	G	19	LEU	3.1
11	A	271(X)	G	3.1
11	A	582	G	3.1
14	D	109	ASP	3.1
14	D	194	GLY	3.1
15	E	55	ASN	3.1
7	6	20	ASN	3.1
11	A	129	C	3.1
11	A	461	C	3.1
11	A	1571	A	3.1
11	A	2824	C	3.1
22	O	54	GLU	3.1
27	T	133	GLU	3.1
3	2	25	VAL	3.0
11	A	63	U	3.0
11	A	872	A	3.0
11	A	975	C	3.0
29	V	34	GLU	3.0
11	A	1981	A	3.0

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Mol	Chain	Res	Type	RSRZ
11	A	2082	A	3.0
15	E	25	VAL	3.0
27	T	34	VAL	3.0
31	X	80	ILE	3.0
11	A	1346	G	3.0
13	C	182	PRO	3.0
13	C	216	THR	3.0
17	G	68	PRO	3.0
28	U	4	ALA	3.0
11	A	243	U	3.0
11	A	1685	C	3.0
11	A	2593	U	3.0
13	C	120	MET	3.0
6	5	24	ALA	3.0
14	D	81	ALA	3.0
14	D	149	PRO	3.0
15	E	131	ALA	3.0
21	N	64	GLY	3.0
31	X	41	ASN	3.0
11	A	511	U	3.0
23	P	80	TYR	3.0
13	C	80	GLY	3.0
18	H	98	LEU	3.0
30	W	90	ARG	3.0
11	A	16	G	3.0
11	A	701	G	3.0
11	A	2549	G	3.0
11	A	2079	U	3.0
11	A	697	C	3.0
11	A	2355	C	3.0
13	C	185	LEU	3.0
16	F	173	VAL	3.0
24	Q	35	VAL	3.0
7	6	11	LEU	3.0
21	N	130	HIS	3.0
11	A	186	G	3.0
17	G	27	ASN	3.0
15	E	28	ALA	3.0
3	2	32	LEU	3.0
11	A	53	A	3.0
11	A	1383	C	3.0
11	A	1662	C	3.0

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Mol	Chain	Res	Type	RSRZ
11	A	2417	C	3.0
14	D	133	LEU	3.0
17	G	135	LEU	3.0
23	P	113	LYS	3.0
25	R	21	TYR	3.0
14	D	251	GLY	3.0
24	Q	63	LYS	3.0
11	A	1939	U	3.0
11	A	2075	U	3.0
11	A	777	A	3.0
11	A	1272	A	3.0
11	A	1892	C	3.0
14	D	160	GLY	3.0
17	G	38	VAL	3.0
18	H	87	LEU	3.0
11	A	431	U	3.0
11	A	2603	G	3.0
11	A	2812	G	3.0
21	N	4	TYR	3.0
14	D	219	PRO	3.0
17	G	138	GLN	3.0
9	8	46	ARG	3.0
16	F	123	LEU	3.0
11	A	2771	C	3.0
16	F	31	HIS	3.0
32	Y	64	GLU	3.0
22	O	40	VAL	3.0
14	D	26	LYS	3.0
17	G	150	ASP	3.0
11	A	176	G	3.0
11	A	240	G	3.0
11	A	622	G	3.0
11	A	2595	G	3.0
17	G	93	THR	3.0
31	X	83	VAL	3.0
6	5	21	SER	3.0
33	Z	49	ARG	3.0
33	Z	67	LEU	3.0
1	0	66	VAL	3.0
11	A	672	C	3.0
9	8	17	THR	3.0
9	8	64	TYR	3.0

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Mol	Chain	Res	Type	RSRZ
21	N	98	VAL	3.0
8	7	26	GLY	3.0
17	G	39	ILE	3.0
3	2	18	PRO	3.0
11	A	563	G	3.0
11	A	1271	G	3.0
26	S	95	HIS	3.0
33	Z	37	VAL	3.0
8	7	22	MET	3.0
11	A	359	A	3.0
11	A	423	A	3.0
11	A	788	A	3.0
11	A	1837	C	3.0
17	G	73	ALA	3.0
22	O	76	ALA	3.0
21	N	133	GLN	2.9
11	A	2249	U	2.9
26	S	14	VAL	2.9
9	8	12	LYS	2.9
11	A	2772	C	2.9
18	H	24	VAL	2.9
28	U	31	SER	2.9
27	T	33	LYS	2.9
18	H	34	GLU	2.9
25	R	107	ASP	2.9
11	A	730	C	2.9
11	A	2820	A	2.9
11	A	2074	U	2.9
27	T	125	ARG	2.9
15	E	140	SER	2.9
22	O	69	ILE	2.9
11	A	957	A	2.9
15	E	110	GLY	2.9
21	N	125	GLY	2.9
11	A	1332	G	2.9
11	A	1344	G	2.9
11	A	1132	A	2.9
11	A	1634	A	2.9
16	F	177	ALA	2.9
2	1	29	GLY	2.9
22	O	116	SER	2.9
29	V	12	TYR	2.9

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Mol	Chain	Res	Type	RSRZ
16	F	101	LEU	2.9
31	X	85	PRO	2.9
6	5	19	ARG	2.9
11	A	841	A	2.9
11	A	1700	A	2.9
11	A	1671	U	2.9
11	A	1917	U	2.9
7	6	22	ALA	2.9
15	E	60	ASN	2.9
17	G	8	LYS	2.9
29	V	13	ARG	2.9
16	F	156	LEU	2.9
23	P	85	LEU	2.9
28	U	76	TYR	2.9
11	A	1164	G	2.9
11	A	2230	G	2.9
11	A	2397	G	2.9
11	A	2608	G	2.9
18	H	61	HIS	2.9
21	N	29	LYS	2.9
25	R	96	ARG	2.9
31	X	60	ARG	2.9
32	Y	73	ARG	2.9
1	0	63	VAL	2.9
11	A	40	C	2.9
11	A	378	C	2.9
11	A	1572	A	2.9
11	A	1701	A	2.9
11	A	1890	A	2.9
11	A	1944	U	2.9
32	Y	102	CYS	2.9
15	E	27	LEU	2.9
32	Y	32	PRO	2.9
11	A	1231	G	2.9
11	A	1250	G	2.9
11	A	2277	G	2.9
32	Y	34	LYS	2.9
7	6	31	PRO	2.9
11	A	1333	C	2.9
11	A	1684	C	2.9
11	A	2363	C	2.9
15	E	179	GLU	2.9

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Mol	Chain	Res	Type	RSRZ
16	F	69	HIS	2.9
15	E	59	VAL	2.9
15	E	150	VAL	2.9
21	N	114	ARG	2.9
25	R	5	LYS	2.9
28	U	32	PHE	2.9
11	A	20	C	2.9
11	A	320	A	2.9
11	A	1268	A	2.9
11	A	2508	G	2.9
23	P	122	PRO	2.9
23	P	32	THR	2.9
3	2	23	LYS	2.9
18	H	160	LYS	2.9
25	R	19	ALA	2.9
1	0	31	VAL	2.8
16	F	54	ARG	2.8
11	A	152	G	2.8
11	A	271(T)	C	2.8
11	A	2679	A	2.8
23	P	149	GLU	2.8
15	E	54	GLN	2.8
27	T	62	THR	2.8
27	T	55	ASN	2.8
5	4	37	SER	2.8
13	C	160	ARG	2.8
15	E	90	THR	2.8
21	N	111	PRO	2.8
25	R	115	GLU	2.8
27	T	46	GLU	2.8
11	A	67	U	2.8
11	A	207	A	2.8
11	A	813	U	2.8
11	A	1427	A	2.8
11	A	2099	U	2.8
33	Z	112	ARG	2.8
11	A	960	A	2.8
11	A	2693	A	2.8
7	6	49	HIS	2.8
8	7	28	ARG	2.8
27	T	3	ARG	2.8
15	E	62	PRO	2.8

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Mol	Chain	Res	Type	RSRZ
28	U	6	THR	2.8
2	1	27	GLU	2.8
7	6	25	LYS	2.8
8	7	1	MET	2.8
14	D	248	SER	2.8
29	V	98	GLU	2.8
16	F	8	GLN	2.8
11	A	84	A	2.8
11	A	256	A	2.8
11	A	390	A	2.8
11	A	1879	C	2.8
11	A	2816	C	2.8
21	N	90	MET	2.8
10	9	27	CYS	2.8
16	F	75	HIS	2.8
15	E	162	ALA	2.8
30	W	87	PRO	2.8
10	9	19	ARG	2.8
25	R	50	HIS	2.8
11	A	450	G	2.8
11	A	797	C	2.8
11	A	2784	C	2.8
21	N	103	VAL	2.8
11	A	799	G	2.8
10	9	22	ARG	2.8
17	G	33	ARG	2.8
23	P	123	LEU	2.8
14	D	39	LYS	2.8
17	G	54	GLU	2.8
29	V	100	ARG	2.8
30	W	25	ARG	2.8
11	A	265	A	2.8
11	A	1354	A	2.8
11	A	2589	A	2.8
11	A	212	G	2.8
11	A	623	G	2.8
8	7	49	ARG	2.8
22	O	119	PRO	2.8
2	1	62	VAL	2.8
18	H	161	GLY	2.8
17	G	139	LEU	2.8
11	A	385	C	2.8

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Mol	Chain	Res	Type	RSRZ
11	A	1428	C	2.8
11	A	469	G	2.8
11	A	596	G	2.8
11	A	1643	G	2.8
11	A	2080	G	2.8
15	E	96	PHE	2.8
18	H	93	GLY	2.8
31	X	20	GLY	2.8
11	A	1784	A	2.8
11	A	846	C	2.8
27	T	122	ASP	2.8
14	D	227	ASN	2.8
11	A	1372	U	2.8
11	A	2460	U	2.8
14	D	20	ASP	2.8
18	H	77	LYS	2.8
33	Z	103	ARG	2.8
11	A	614(C)	A	2.8
11	A	1379	A	2.8
11	A	1791	A	2.8
11	A	1404	C	2.8
11	A	1598	C	2.8
11	A	2264	C	2.8
24	Q	31	ASP	2.8
9	8	28	GLY	2.8
11	A	932	G	2.8
11	A	2732	G	2.8
33	Z	157	LEU	2.8
27	T	120	ARG	2.8
18	H	64	LEU	2.7
11	A	632	A	2.7
11	A	1265	A	2.7
11	A	1554	A	2.7
11	A	2828	C	2.7
11	A	473	G	2.7
11	A	939	G	2.7
11	A	1622	G	2.7
11	A	2094	G	2.7
11	A	2405	G	2.7
23	P	77	ARG	2.7
27	T	81	PRO	2.7
13	C	223	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
16	F	26	ALA	2.7
14	D	106	ILE	2.7
11	A	1689	A	2.7
15	E	168	MET	2.7
11	A	2610	C	2.7
11	A	1232	G	2.7
15	E	4	ILE	2.7
16	F	150	GLY	2.7
7	6	41	PRO	2.7
17	G	4	ASP	2.7
22	O	7	TYR	2.7
11	A	2062	A	2.7
11	A	271(Z)	C	2.7
11	A	612	C	2.7
11	A	2025	C	2.7
13	C	6	ARG	2.7
14	D	167	GLY	2.7
15	E	149	ARG	2.7
15	E	151	TYR	2.7
17	G	21	ARG	2.7
24	Q	66	ILE	2.7
11	A	80	G	2.7
11	A	178	G	2.7
11	A	948	G	2.7
11	A	1136	G	2.7
11	A	1192	G	2.7
28	U	101	ARG	2.7
32	Y	7	VAL	2.7
1	0	59	LEU	2.7
17	G	43	LEU	2.7
27	T	132	LYS	2.7
17	G	115	ARG	2.7
11	A	2103	C	2.7
17	G	40	ASN	2.7
15	E	189	PRO	2.7
11	A	68	G	2.7
11	A	1324	G	2.7
11	A	2504	U	2.7
23	P	5	ASP	2.7
24	Q	22	LYS	2.7
8	7	41	ARG	2.7
28	U	33	ARG	2.7

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Mol	Chain	Res	Type	RSRZ
11	A	515	A	2.7
13	C	57	ASN	2.7
18	H	33	LEU	2.7
33	Z	115	GLY	2.7
2	1	12	PRO	2.7
11	A	1400	G	2.7
1	0	46	LYS	2.7
17	G	64	THR	2.7
33	Z	111	VAL	2.7
33	Z	174	VAL	2.7
11	A	1293	C	2.7
16	F	111	ALA	2.7
14	D	115	GLN	2.7
6	5	54	GLY	2.7
11	A	2010	G	2.7
13	C	178	ALA	2.7
6	5	11	THR	2.7
27	T	39	ARG	2.7
27	T	115	ARG	2.7
11	A	2098	U	2.7
11	A	400	G	2.7
11	A	686	G	2.7
11	A	514	A	2.7
27	T	121	ILE	2.7
11	A	448	U	2.7
12	B	8	U	2.7
28	U	53	ARG	2.7
3	2	50	ILE	2.7
11	A	391	G	2.7
11	A	769	G	2.7
11	A	1650	G	2.7
11	A	1903	G	2.7
17	G	175	LEU	2.7
24	Q	68	ILE	2.7
26	S	60	GLY	2.7
14	D	162	SER	2.7
22	O	56	ASP	2.7
18	H	51	ARG	2.7
31	X	42	ALA	2.7
31	X	87	GLN	2.7
33	Z	85	HIS	2.7
11	A	1420	U	2.6

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Mol	Chain	Res	Type	RSRZ
11	A	2612	C	2.6
17	G	44	GLY	2.6
18	H	108	GLY	2.6
15	E	195	LEU	2.6
11	A	956	G	2.6
11	A	1906	G	2.6
11	A	1930	G	2.6
11	A	2032	G	2.6
27	T	1	MET	2.6
1	0	36	ILE	2.6
9	8	36	LYS	2.6
23	P	148	LEU	2.6
31	X	89	ILE	2.6
11	A	1938	A	2.6
11	A	1767	C	2.6
11	A	2065	C	2.6
9	8	34	TRP	2.6
13	C	60	GLY	2.6
11	A	2733	A	2.6
11	A	964	C	2.6
11	A	1999	C	2.6
27	T	58	ASN	2.6
31	X	91	ALA	2.6
23	P	107	LYS	2.6
27	T	35	LYS	2.6
11	A	1846	G	2.6
14	D	77	ALA	2.6
11	A	272(F)	C	2.6
22	O	98	VAL	2.6
27	T	38	ASN	2.6
27	T	59	THR	2.6
7	6	6	ARG	2.6
4	3	41	PRO	2.6
11	A	785	G	2.6
11	A	2624	G	2.6
26	S	45	GLY	2.6
2	1	53	VAL	2.6
11	A	204	A	2.6
11	A	1569	A	2.6
11	A	1579	A	2.6
14	D	142	VAL	2.6
11	A	2573	C	2.6

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Mol	Chain	Res	Type	RSRZ
11	A	2594	C	2.6
14	D	105	ILE	2.6
16	F	164	ARG	2.6
27	T	61	PHE	2.6
32	Y	49	VAL	2.6
11	A	70	G	2.6
11	A	260	G	2.6
11	A	1364	G	2.6
11	A	2494	G	2.6
27	T	24	PRO	2.6
7	6	8	LYS	2.6
15	E	163	GLU	2.6
27	T	134	GLU	2.6
11	A	1908	C	2.6
11	A	2097	C	2.6
33	Z	140	ASP	2.6
9	8	33	ASN	2.6
27	T	74	ARG	2.6
13	C	38	ASP	2.6
15	E	84	PHE	2.6
21	N	94	HIS	2.6
24	Q	47	ILE	2.6
11	A	83	G	2.6
13	C	45	ALA	2.6
11	A	52	A	2.6
11	A	181	A	2.6
11	A	1367	A	2.6
14	D	128	GLY	2.6
15	E	194	GLY	2.6
27	T	109	GLU	2.6
11	A	535	C	2.6
23	P	134	ALA	2.6
16	F	124	LEU	2.6
21	N	2	LYS	2.6
30	W	59	VAL	2.6
33	Z	118	GLN	2.6
11	A	1184	G	2.6
32	Y	19	LYS	2.6
11	A	311	A	2.6
11	A	1353	A	2.6
8	7	31	LEU	2.6
11	A	691	C	2.6

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Mol	Chain	Res	Type	RSRZ
11	A	1958	C	2.6
11	A	2364	C	2.6
16	F	114	VAL	2.6
11	A	85	G	2.6
11	A	189	G	2.6
11	A	254	G	2.6
11	A	1425	G	2.6
11	A	2634	G	2.6
22	O	88	ASN	2.6
11	A	575	A	2.6
11	A	1246	A	2.6
11	A	1877	A	2.6
2	1	84	GLY	2.6
11	A	692	C	2.6
11	A	1631	C	2.6
11	A	2105	C	2.6
13	C	124	GLY	2.6
17	G	65	GLY	2.6
13	C	215	THR	2.6
15	E	72	VAL	2.6
26	S	96	GLY	2.6
10	9	18	ARG	2.5
11	A	362	U	2.6
11	A	1300	U	2.6
11	A	2257	U	2.6
17	G	58	GLN	2.6
33	Z	144	LEU	2.6
11	A	1212	G	2.5
28	U	106	PHE	2.5
13	C	218	MET	2.5
3	2	10	LEU	2.5
13	C	54	SER	2.5
18	H	71	LEU	2.5
29	V	51	VAL	2.5
15	E	47	VAL	2.5
11	A	35	G	2.5
11	A	360	G	2.5
11	A	1227	G	2.5
11	A	2222	G	2.5
11	A	2641	G	2.5
11	A	2644	G	2.5
16	F	91	GLY	2.5

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Mol	Chain	Res	Type	RSRZ
31	X	14	SER	2.5
11	A	211	A	2.5
27	T	30	VAL	2.5
1	0	40	GLN	2.5
11	A	2774	C	2.5
15	E	204	ALA	2.5
3	2	14	ARG	2.5
28	U	80	ILE	2.5
9	8	10	ALA	2.5
11	A	1758	G	2.5
17	G	53	LEU	2.5
1	0	55	ARG	2.5
14	D	62	TYR	2.5
24	Q	55	VAL	2.5
11	A	158	U	2.5
11	A	2555	U	2.5
13	C	206	GLY	2.5
14	D	56	GLY	2.5
17	G	82	LEU	2.5
4	3	6	VAL	2.5
11	A	266	G	2.5
11	A	696	G	2.5
11	A	794	G	2.5
11	A	1168	G	2.5
11	A	2574	G	2.5
11	A	1599	C	2.5
15	E	160	TYR	2.5
28	U	44	ASN	2.5
32	Y	22	GLY	2.5
22	O	57	VAL	2.5
33	Z	5	LEU	2.5
23	P	17	LYS	2.5
28	U	89	GLU	2.5
16	F	76	GLY	2.5
17	G	24	GLY	2.5
17	G	89	GLY	2.5
18	H	139	GLN	2.5
23	P	120	ALA	2.5
5	4	10	VAL	2.5
11	A	251	A	2.5
11	A	959	A	2.5
33	Z	19	ARG	2.5

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Mol	Chain	Res	Type	RSRZ
18	H	52	VAL	2.5
11	A	242	G	2.5
11	A	1162	G	2.5
11	A	1978	A	2.5
11	A	2445	G	2.5
15	E	201	THR	2.5
23	P	75	ILE	2.5
24	Q	118	LEU	2.5
11	A	531	C	2.5
11	A	1363	C	2.5
13	C	113	VAL	2.5
13	C	166	ASP	2.5
18	H	142	GLY	2.5
33	Z	127	LYS	2.5
27	T	112	ARG	2.5
14	D	84	TYR	2.5
25	R	74	LYS	2.5
28	U	84	LYS	2.5
30	W	64	MET	2.5
33	Z	110	GLY	2.5
26	S	100	ALA	2.5
11	A	123	G	2.5
11	A	442	G	2.5
11	A	910	A	2.5
11	A	941	A	2.5
16	F	71	GLY	2.5
11	A	1345	C	2.5
17	G	86	MET	2.5
22	O	90	GLN	2.5
29	V	56	SER	2.5
18	H	90	LYS	2.5
14	D	231	HIS	2.5
17	G	96	ARG	2.5
11	A	2823	A	2.5
11	A	458	G	2.5
11	A	2436	G	2.5
11	A	1240	U	2.5
13	C	90	GLY	2.5
14	D	94	LEU	2.5
14	D	137	PRO	2.5
18	H	92	ILE	2.5
15	E	127	ASP	2.5

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Mol	Chain	Res	Type	RSRZ
22	O	89	ASN	2.5
13	C	228	SER	2.5
26	S	17	ARG	2.5
28	U	77	SER	2.5
11	A	1614	A	2.5
11	A	2059	A	2.5
11	A	1707	G	2.5
24	Q	13	GLN	2.5
17	G	158	ALA	2.5
22	O	53	LYS	2.5
31	X	25	LYS	2.5
33	Z	105	VAL	2.5
11	A	991	C	2.5
23	P	114	ILE	2.5
23	P	92	GLU	2.4
28	U	104	GLN	2.4
11	A	229	A	2.4
13	C	114	VAL	2.4
15	E	196	VAL	2.4
15	E	130	GLY	2.4
11	A	220	G	2.4
11	A	1429	G	2.4
11	A	1984	G	2.4
3	2	68	ARG	2.4
13	C	187	ASP	2.4
23	P	46	LYS	2.4
27	T	137	LYS	2.4
11	A	675	A	2.4
18	H	62	LYS	2.4
11	A	177	G	2.4
14	D	69	ARG	2.4
31	X	39	ILE	2.4
1	0	6	GLY	2.4
8	7	27	GLY	2.4
16	F	144	LYS	2.4
14	D	52	ARG	2.4
14	D	54	ARG	2.4
11	A	1632	A	2.4
18	H	49	VAL	2.4
11	A	435	C	2.4
11	A	533	G	2.4
11	A	733	G	2.4

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Mol	Chain	Res	Type	RSRZ
11	A	938	G	2.4
11	A	1258	C	2.4
33	Z	72	ARG	2.4
14	D	141	VAL	2.4
16	F	96	ASP	2.4
13	C	79	LYS	2.4
11	A	271(J)	C	2.4
11	A	583	G	2.4
11	A	1776	G	2.4
22	O	49	ARG	2.4
29	V	92	THR	2.4
15	E	141	ILE	2.4
15	E	146	THR	2.4
23	P	13	ASN	2.4
11	A	412	A	2.4
13	C	50	ASP	2.4
18	H	38	SER	2.4
11	A	183	C	2.4
11	A	234	C	2.4
11	A	1691	C	2.4
14	D	44	ASN	2.4
23	P	55	ARG	2.4
15	E	9	VAL	2.4
17	G	7	LEU	2.4
27	T	107	ASP	2.4
32	Y	69	ALA	2.4
9	8	5	LYS	2.4
11	A	303	U	2.4
23	P	110	TYR	2.4
16	F	175	THR	2.4
11	A	662	G	2.4
11	A	1625	C	2.4
11	A	2719	G	2.4
24	Q	5	ARG	2.4
13	C	213	TYR	2.4
27	T	106	SER	2.4
5	4	30	GLU	2.4
11	A	990	A	2.4
31	X	55	ASN	2.4
22	O	50	GLY	2.4
30	W	91	GLY	2.4
6	5	53	ALA	2.4

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Mol	Chain	Res	Type	RSRZ
11	A	154(A)	C	2.4
11	A	264	C	2.4
22	O	71	ARG	2.4
29	V	66	ARG	2.4
16	F	9	ILE	2.4
31	X	34	ALA	2.4
33	Z	162	GLU	2.4
11	A	1943	U	2.4
11	A	1287	A	2.4
11	A	1785	A	2.4
11	A	2439	A	2.4
18	H	134	SER	2.4
15	E	44	TYR	2.4
25	R	69	ASP	2.4
31	X	75	ASP	2.4
11	A	210	C	2.4
11	A	398	G	2.4
11	A	1601	G	2.4
11	A	2069	G	2.4
33	Z	120	ILE	2.4
8	7	4	THR	2.4
30	W	52	GLU	2.4
33	Z	153	SER	2.4
32	Y	70	SER	2.3
11	A	2441	C	2.3
17	G	88	ILE	2.3
22	O	48	PRO	2.3
23	P	111	ARG	2.3
24	Q	111	GLU	2.3
11	A	438	G	2.3
11	A	666	G	2.3
11	A	1193	G	2.3
11	A	2252	G	2.3
11	A	1706	U	2.3
21	N	12	ARG	2.3
15	E	89	ASP	2.3
7	6	52	VAL	2.3
16	F	103	LYS	2.3
29	V	29	PRO	2.3
29	V	55	ALA	2.3
11	A	45	C	2.3
7	6	23	THR	2.3

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Mol	Chain	Res	Type	RSRZ
11	A	232	G	2.3
11	A	2072	G	2.3
14	D	127	VAL	2.3
22	O	1	MET	2.3
28	U	35	ALA	2.3
22	O	17	ARG	2.3
11	A	1825	A	2.3
13	C	157	LYS	2.3
15	E	166	THR	2.3
27	T	135	ALA	2.3
28	U	69	CYS	2.3
30	W	89	ALA	2.3
11	A	130	C	2.3
11	A	2064	C	2.3
28	U	59	ARG	2.3
31	X	81	VAL	2.3
1	0	13	GLY	2.3
31	X	58	HIS	2.3
15	E	34	VAL	2.3
25	R	98	LEU	2.3
11	A	783	A	2.3
11	A	1780	A	2.3
24	Q	103	MET	2.3
27	T	126	ALA	2.3
33	Z	90	VAL	2.3
33	Z	137	ILE	2.3
13	C	117	PRO	2.3
11	A	41	C	2.3
11	A	69	C	2.3
16	F	117	ARG	2.3
4	3	9	VAL	2.3
7	6	48	VAL	2.3
11	A	271(Q)	G	2.3
11	A	862	G	2.3
4	3	44	ARG	2.3
9	8	13	ARG	2.3
14	D	157	ARG	2.3
16	F	208	GLY	2.3
3	2	71	ASN	2.3
7	6	15	GLU	2.3
15	E	203	LYS	2.3
11	A	262	A	2.3

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Mol	Chain	Res	Type	RSRZ
11	A	507	A	2.3
17	G	12	TYR	2.3
14	D	93	ALA	2.3
24	Q	17	LEU	2.3
33	Z	163	LEU	2.3
15	E	125	GLY	2.3
27	T	69	GLY	2.3
11	A	237	C	2.3
11	A	790	C	2.3
13	C	116	THR	2.3
18	H	68	THR	2.3
13	C	42	GLU	2.3
11	A	1949	G	2.3
18	H	135	GLY	2.3
21	N	81	GLY	2.3
28	U	56	ASP	2.3
15	E	138	PRO	2.3
11	A	1789	A	2.3
11	A	1810	A	2.3
11	A	2621	A	2.3
13	C	176	GLY	2.3
14	D	230	ASP	2.3
15	E	70	ALA	2.3
7	6	5	VAL	2.3
18	H	36	PRO	2.3
27	T	10	VAL	2.3
11	A	732	C	2.3
11	A	2231	C	2.3
17	G	51	ARG	2.3
14	D	114	GLY	2.3
23	P	47	ASP	2.3
26	S	46	VAL	2.3
30	W	45	TYR	2.3
11	A	954	G	2.3
11	A	1424	G	2.3
11	A	1792	G	2.3
11	A	443	A	2.3
11	A	2775	A	2.3
11	A	2620	C	2.3
11	A	2730	C	2.3
16	F	166	ALA	2.3
23	P	9	ASN	2.3

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Mol	Chain	Res	Type	RSRZ
11	A	937	U	2.3
31	X	90	GLU	2.3
6	5	12	SER	2.3
11	A	215	G	2.3
15	E	119	ARG	2.3
24	Q	102	VAL	2.3
33	Z	46	LYS	2.3
11	A	1854	A	2.3
16	F	198	ALA	2.3
25	R	62	ALA	2.3
30	W	38	TYR	2.3
7	6	7	ILE	2.3
11	A	2615	U	2.3
11	A	370	G	2.3
17	G	181	ARG	2.3
25	R	26	LYS	2.3
11	A	466	A	2.3
11	A	1359	A	2.3
31	X	61	GLY	2.3
4	3	10	LYS	2.3
11	A	272(H)	C	2.3
11	A	2692	C	2.3
21	N	80	GLY	2.3
24	Q	52	VAL	2.3
30	W	73	ALA	2.3
1	0	58	THR	2.3
15	E	38	THR	2.3
11	A	491	G	2.2
11	A	1296	G	2.2
11	A	2104	G	2.2
26	S	68	GLN	2.2
27	T	102	ILE	2.2
33	Z	165	VAL	2.2
11	A	460	A	2.2
11	A	271(L)	U	2.2
11	A	1205	U	2.2
11	A	1615	C	2.2
11	A	2626	C	2.2
21	N	121	LYS	2.2
28	U	26	GLY	2.2
11	A	553	G	2.2
11	A	2414	G	2.2

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Mol	Chain	Res	Type	RSRZ
21	N	85	ILE	2.2
16	F	87	GLY	2.2
33	Z	156	LYS	2.2
11	A	609	A	2.2
11	A	1321	A	2.2
22	O	6	THR	2.2
13	C	112	ALA	2.2
16	F	12	LEU	2.2
17	G	41	GLN	2.2
27	T	16	ARG	2.2
11	A	413	C	2.2
11	A	1362	C	2.2
13	C	44	HIS	2.2
16	F	204	ASN	2.2
11	A	298	G	2.2
11	A	599	G	2.2
11	A	1374	G	2.2
17	G	9	ARG	2.2
22	O	107	ARG	2.2
11	A	454	A	2.2
14	D	110	GLY	2.2
10	9	8	LYS	2.2
11	A	759	G	2.2
11	A	1259	G	2.2
33	Z	84	GLU	2.2
15	E	39	PRO	2.2
15	E	86	PRO	2.2
16	F	10	PRO	2.2
17	G	123	ASN	2.2
18	H	82	GLY	2.2
29	V	81	TYR	2.2
32	Y	38	ILE	2.2
3	2	24	LEU	2.2
23	P	141	ALA	2.2
26	S	88	ASP	2.2
11	A	2006	C	2.2
11	A	2240	C	2.2
11	A	2402	C	2.2
16	F	30	PRO	2.2
21	N	86	PRO	2.2
26	S	35	ILE	2.2
13	C	23	ASP	2.2

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Mol	Chain	Res	Type	RSRZ
17	G	50	ALA	2.2
18	H	78	GLY	2.2
22	O	109	LYS	2.2
11	A	1682	G	2.2
11	A	2279	G	2.2
30	W	30	GLU	2.2
32	Y	40	GLU	2.2
14	D	189	CYS	2.2
11	A	1366	A	2.2
17	G	124	SER	2.2
2	1	94	LEU	2.2
11	A	828	U	2.2
17	G	56	ALA	2.2
27	T	105	LEU	2.2
11	A	1604	C	2.2
11	A	1781	C	2.2
14	D	265	PRO	2.2
25	R	47	PHE	2.2
29	V	59	ALA	2.2
11	A	1807	G	2.2
13	C	142	ALA	2.2
22	O	41	ALA	2.2
30	W	60	ASN	2.2
32	Y	17	SER	2.2
24	Q	128	LYS	2.2
2	1	13	ILE	2.2
11	A	955	C	2.2
11	A	1905	C	2.2
11	A	2254	C	2.2
11	A	2785	C	2.2
13	C	24	GLU	2.2
13	C	153	ILE	2.2
13	C	118	ASP	2.2
13	C	226	PRO	2.2
32	Y	16	ALA	2.2
33	Z	36	LYS	2.2
11	A	2886	G	2.2
17	G	52	ILE	2.2
30	W	39	THR	2.2
11	A	2613	U	2.2
3	2	12	GLU	2.2
11	A	693	C	2.2

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Mol	Chain	Res	Type	RSRZ
11	A	2416	C	2.2
11	A	2440	C	2.2
18	H	137	ASP	2.2
23	P	116	GLY	2.2
23	P	118	GLY	2.2
10	9	6	SER	2.2
28	U	90	VAL	2.2
27	T	127	ALA	2.2
16	F	28	ILE	2.2
11	A	325	G	2.2
11	A	747	U	2.2
11	A	942	G	2.2
11	A	1772	G	2.2
11	A	2190	G	2.2
11	A	2596	U	2.2
2	1	39	LYS	2.2
14	D	261	LYS	2.2
17	G	102	PHE	2.2
18	H	122	THR	2.2
33	Z	63	ASP	2.2
4	3	60	GLU	2.2
31	X	63	LYS	2.2
7	6	42	TRP	2.2
11	A	530	G	2.2
11	A	2821	A	2.2
21	N	19	GLU	2.2
33	Z	50	GLN	2.2
3	2	47	ASN	2.1
11	A	246	C	2.1
11	A	753	C	2.1
17	G	46	ALA	2.1
18	H	116	GLU	2.1
23	P	136	GLU	2.1
24	Q	39	PRO	2.1
29	V	20	LEU	2.1
27	T	53	ARG	2.1
11	A	56	A	2.1
11	A	339	U	2.1
13	C	140	PRO	2.1
11	A	699	A	2.1
11	A	776	G	2.1
11	A	1347	G	2.1

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Mol	Chain	Res	Type	RSRZ
11	A	1928	A	2.1
14	D	80	ALA	2.1
16	F	27	GLU	2.1
23	P	119	GLU	2.1
29	V	93	GLU	2.1
17	G	49	ASP	2.1
11	A	287	C	2.1
11	A	1291	C	2.1
17	G	122	PRO	2.1
31	X	49	VAL	2.1
9	8	61	LEU	2.1
18	H	127	GLU	2.1
23	P	147	LEU	2.1
7	6	37	ARG	2.1
6	5	18	ALA	2.1
14	D	232	PRO	2.1
16	F	109	GLY	2.1
11	A	430	G	2.1
11	A	919	G	2.1
11	A	1623	G	2.1
11	A	2005	A	2.1
13	C	177	LYS	2.1
22	O	106	LEU	2.1
28	U	91	ASP	2.1
8	7	21	ARG	2.1
16	F	131	GLY	2.1
16	F	66	PRO	2.1
22	O	30	ALA	2.1
22	O	46	ALA	2.1
25	R	39	PRO	2.1
26	S	37	ALA	2.1
16	F	48	THR	2.1
22	O	120	GLU	2.1
33	Z	93	ASP	2.1
14	D	74	GLY	2.1
11	A	1396	U	2.1
24	Q	6	ARG	2.1
13	C	170	ALA	2.1
22	O	83	ALA	2.1
11	A	374	A	2.1
11	A	1889	A	2.1
11	A	2639	A	2.1

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Mol	Chain	Res	Type	RSRZ
11	A	669	G	2.1
22	O	68	GLU	2.1
22	O	105	GLU	2.1
32	Y	18	GLY	2.1
28	U	58	ARG	2.1
11	A	436	C	2.1
11	A	661	C	2.1
13	C	192	PHE	2.1
13	C	217	THR	2.1
33	Z	102	LEU	2.1
11	A	1673	U	2.1
11	A	2554	U	2.1
14	D	211	ARG	2.1
9	8	62	LEU	2.1
15	E	1	MET	2.1
18	H	22	GLY	2.1
11	A	792	G	2.1
11	A	1361	G	2.1
17	G	137	GLU	2.1
33	Z	145	GLU	2.1
15	E	192	ASN	2.1
18	H	147	ASN	2.1
11	A	150	C	2.1
13	C	66	HIS	2.1
26	S	18	ILE	2.1
4	3	59	VAL	2.1
13	C	102	LYS	2.1
11	A	779	U	2.1
14	D	168	ARG	2.1
15	E	82	ARG	2.1
11	A	1360	A	2.1
18	H	140	LYS	2.1
31	X	62	LYS	2.1
11	A	561	G	2.1
11	A	1822	G	2.1
21	N	10	GLU	2.1
21	N	6	PRO	2.1
21	N	44	PRO	2.1
11	A	1683	C	2.1
11	A	2499	C	2.1
15	E	7	VAL	2.1
24	Q	75	THR	2.1

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Mol	Chain	Res	Type	RSRZ
26	S	50	SER	2.1
11	A	943	U	2.1
11	A	1352	U	2.1
11	A	2218	U	2.1
13	C	204	ALA	2.1
24	Q	71	ASP	2.1
27	T	18	ASP	2.1
11	A	258	G	2.1
11	A	610	G	2.1
11	A	1661	G	2.1
11	A	2822	G	2.1
15	E	61	ARG	2.1
28	U	46	ALA	2.1
27	T	82	LEU	2.1
8	7	2	LYS	2.1
2	1	89	GLU	2.1
17	G	77	ILE	2.1
11	A	774	A	2.1
28	U	7	GLY	2.1
11	A	446	G	2.1
11	A	1369	G	2.1
13	C	115	ALA	2.1
17	G	87	PRO	2.1
18	H	23	ARG	2.1
8	7	24	THR	2.1
9	8	60	LEU	2.1
27	T	119	LYS	2.1
18	H	16	SER	2.1
8	7	25	PRO	2.1
13	C	61	THR	2.1
16	F	138	GLU	2.1
18	H	21	PRO	2.1
25	R	104	ARG	2.1
3	2	53	LEU	2.1
15	E	139	GLY	2.1
30	W	105	VAL	2.1
11	A	689	A	2.1
11	A	2042	A	2.1
14	D	252	TRP	2.1
16	F	128	ALA	2.1
27	T	2	ASN	2.1
1	0	41	ARG	2.1

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Mol	Chain	Res	Type	RSRZ
11	A	690	G	2.1
11	A	1653	G	2.1
11	A	1681	G	2.1
16	F	64	ILE	2.1
17	G	48	GLU	2.1
11	A	1926	U	2.1
11	A	2636	U	2.1
28	U	13	LYS	2.1
13	C	9	ALA	2.1
4	3	50	VAL	2.1
14	D	113	VAL	2.1
30	W	88	ARG	2.1
27	T	21	GLU	2.1
11	A	472	A	2.0
23	P	139	LYS	2.0
3	2	45	SER	2.0
4	3	18	ASP	2.0
11	A	271(U)	G	2.0
11	A	493	G	2.0
11	A	1811	G	2.0
11	A	2454	G	2.0
21	N	129	PRO	2.0
23	P	48	PRO	2.0
11	A	807	U	2.0
11	A	1761	C	2.0
11	A	2016	U	2.0
32	Y	57	GLN	2.0
33	Z	89	PHE	2.0
14	D	197	GLY	2.0
30	W	6	ILE	2.0
2	1	87	PRO	2.0
13	C	172	HIS	2.0
24	Q	18	LYS	2.0
31	X	47	PHE	2.0
11	A	633	A	2.0
11	A	100	G	2.0
11	A	668	G	2.0
11	A	741	G	2.0
11	A	743	G	2.0
11	A	2101	G	2.0
22	O	25	LEU	2.0
26	S	54	LEU	2.0

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Mol	Chain	Res	Type	RSRZ
33	Z	24	LEU	2.0
11	A	34	C	2.0
11	A	387	U	2.0
11	A	441	U	2.0
11	A	459	U	2.0
11	A	1990	C	2.0
27	T	75	ILE	2.0
28	U	97	ASP	2.0
13	C	62	VAL	2.0
4	3	11	SER	2.0
11	A	218	A	2.0
17	G	81	LYS	2.0
26	S	70	GLY	2.0
24	Q	12	GLN	2.0
18	H	12	PRO	2.0
2	1	96	LYS	2.0
11	A	379	G	2.0
11	A	940	G	2.0
11	A	1303	G	2.0
11	A	2280	G	2.0
11	A	2404	C	2.0
11	A	2728	U	2.0
22	O	67	LYS	2.0
29	V	79	VAL	2.0
5	4	9	LEU	2.0
13	C	211	SER	2.0
16	F	194	MET	2.0
30	W	19	LEU	2.0
11	A	529	A	2.0
11	A	1821	A	2.0
22	O	70	LYS	2.0
14	D	99	ASP	2.0
13	C	201	PRO	2.0
11	A	1368	G	2.0
11	A	1382	G	2.0
11	A	1619	G	2.0
11	A	1779	U	2.0
11	A	455	C	2.0
18	H	40	GLU	2.0
23	P	19	VAL	2.0
26	S	42	ASP	2.0
33	Z	113	ALA	2.0

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Mol	Chain	Res	Type	RSRZ
17	G	29	TRP	2.0
22	O	42	SER	2.0
3	2	2	LYS	2.0
28	U	30	LYS	2.0
11	A	1566	A	2.0
11	A	1802	A	2.0
11	A	2033	A	2.0
11	A	2361	A	2.0
26	S	81	GLY	2.0

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

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

6.3 Carbohydrates ⓘ

There are no carbohydrates in this entry.

6.4 Ligands ⓘ

There are no ligands in this entry.

6.5 Other polymers ⓘ

There are no such residues in this entry.