



# Full wwPDB X-ray Structure Validation Report

Feb 28, 2014 – 12:33 AM GMT

PDB ID : 3PYT  
Title : Crystal structure of a complex containing domain 3 of CrPV IGR IRES RNA bound to the 70S ribosome. This file contains the 50S subunit of the first 70S ribosome.  
Authors : Zhu, J.; Korostelev, A.; Costantino, D.; Noller, H.F.; Kieft, J.S.  
Deposited on : 2010-12-13  
Resolution : 3.40 Å(reported)

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

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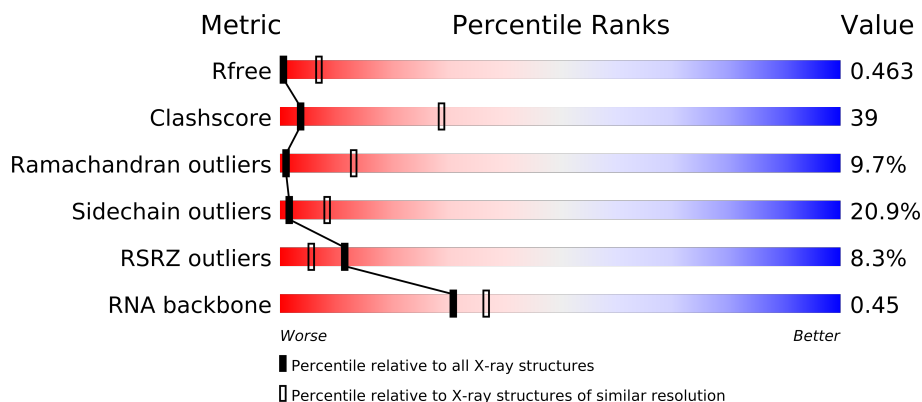
The following versions of software and data (see [references](#)) were used in the production of this report:

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 3.40 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	1017 (3.52-3.28)
Clashscore	79885	1214 (3.50-3.30)
Ramachandran outliers	78287	1177 (3.50-3.30)
Sidechain outliers	78261	1177 (3.50-3.30)
RSRZ outliers	66119	1017 (3.52-3.28)
RNA backbone	1838	1002 (4.02-2.76)

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  $\geq 3$ , 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	A	2879	
2	B	119	
3	C	271	
4	D	204	
5	E	202	
6	F	181	
7	G	159	
8	H	145	
9	I	65	
10	J	137	
11	K	122	
12	L	146	

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Mol	Chain	Length	Quality of chain
13	M	136	
14	N	117	
15	O	98	
16	P	137	
17	Q	116	
18	R	101	
19	S	112	
20	T	92	
21	U	100	
22	V	188	
23	W	76	
24	X	88	
25	Y	62	
26	Z	59	
27	1	30	
28	2	52	
29	3	44	
30	4	48	
31	5	63	

## 2 Entry composition

There are 32 unique types of molecules in this entry. The entry contains 89468 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 RNA chain called 23S ribosomal RNA.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
1	A	2760	Total	C	N	O	P	0	0	0
			59440	26455	11114	19112	2759			

There are 2 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	1142	U	C	SEE REMARK 999	GB AE017221.1
A	2825	U	G	SEE REMARK 999	GB AE017221.1

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

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

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
3	C	271	Total	C	N	O	S	0	0	0
			2105	1329	416	357	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
4	D	204	Total	C	N	O	S	0	0	0
			1564	988	299	271	6			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
5	E	202	Total	C	N	O	S	0	0	0
			1587	1011	297	276	3			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
6	F	181	Total	C	N	O	S	0	0	0
			1475	943	268	260	4			

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

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
7	G	159	Total	C	N	O	S	0	0	0
			1223	773	228	221	1			

- Molecule 8 is a protein called 50S ribosomal protein L9.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
8	H	145	Total	C	N	O	S	0	0	0
			1133	724	200	208	1			

- Molecule 9 is a protein called 50S ribosomal protein L10.

Mol	Chain	Residues	Atoms				ZeroOcc	AltConf	Trace
9	I	32	Total	C	N	O	0	0	0
			254	157	49	48			

- Molecule 10 is a protein called 50S ribosomal protein L13.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
10	J	137	Total	C	N	O	S	0	0	0
			1097	707	205	182	3			

- Molecule 11 is a protein called 50S ribosomal protein L14.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
11	K	122	Total	C	N	O	S	0	0	0
			932	587	171	170	4			

- Molecule 12 is a protein called 50S ribosomal protein L15.

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

- Molecule 13 is a protein called 50S ribosomal protein L16.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
13	M	136	Total	C	N	O	S	0	0	0
			1079	688	204	182	5			

- Molecule 14 is a protein called 50S ribosomal protein L17.

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

- Molecule 15 is a protein called 50S ribosomal protein L18.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
15	O	98	Total	C	N	O		0	0	0
			771	486	154	131				

- Molecule 16 is a protein called 50S ribosomal protein L19.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
16	P	137	Total	C	N	O	S	0	0	0
			1144	713	234	196	1			

- Molecule 17 is a protein called 50S ribosomal protein L20.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
17	Q	116	Total	C	N	O	S	0	0	0
			953	601	201	150	1			

There is a discrepancy between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
Q	?	-	PHE	DELETION	UNP Q72L76

- Molecule 18 is a protein called 50S ribosomal protein L21.

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

- Molecule 19 is a protein called 50S ribosomal protein L22.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
19	S	112	Total	C	N	O	S	0	0	0
			891	560	175	154	2			

- Molecule 20 is a protein called 50S ribosomal protein L23.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
20	T	92	Total	C	N	O		0	0	0
			726	471	131	124				

- Molecule 21 is a protein called 50S ribosomal protein L24.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
21	U	100	Total	C	N	O	S	0	0	0
			776	500	148	124	4			

- Molecule 22 is a protein called 50S ribosomal protein L25.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
22	V	188	Total	C	N	O	S	0	0	0
			1492	950	265	275	2			

- Molecule 23 is a protein called 50S ribosomal protein L27.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
23	W	76	Total	C	N	O	S	0	0	0
			605	376	126	102	1			

- Molecule 24 is a protein called 50S ribosomal protein L28.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
24	X	88	Total	C	N	O		0	0	0
			695	435	141	119				

- Molecule 25 is a protein called 50S ribosomal protein L29.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
25	Y	62	Total	C	N	O	S	0	0	0
			521	325	102	92	2			

- Molecule 26 is a protein called 50S ribosomal protein L30.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
26	Z	59	Total	C	N	O	S	0	0	0
			468	298	90	79	1			

- Molecule 27 is a protein called 50S ribosomal protein L31.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
27	1	30	Total	C	N	O	S	0	0	0
			226	142	36	44	4			

- Molecule 28 is a protein called 50S ribosomal protein L32.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
28	2	52	Total	C	N	O	S	0	0	0
			405	255	79	66	5			

- Molecule 29 is a protein called 50S ribosomal protein L33.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
29	3	44	Total	C	N	O	S	0	0	0
			381	235	77	65	4			

- Molecule 30 is a protein called 50S ribosomal protein L34.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
30	4	48	Total	C	N	O	S	0	0	0
			419	257	104	56	2			

- Molecule 31 is a protein called 50S ribosomal protein L35.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
31	5	63	Total	C	N	O	S	0	0	0
			508	326	101	79	2			

- Molecule 32 is MAGNESIUM ION (three-letter code: MG) (formula: Mg).

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	P	7	Total	Mg	0	0
			7	7		
32	K	9	Total	Mg	0	0
			9	9		
32	B	17	Total	Mg	0	0
			17	17		

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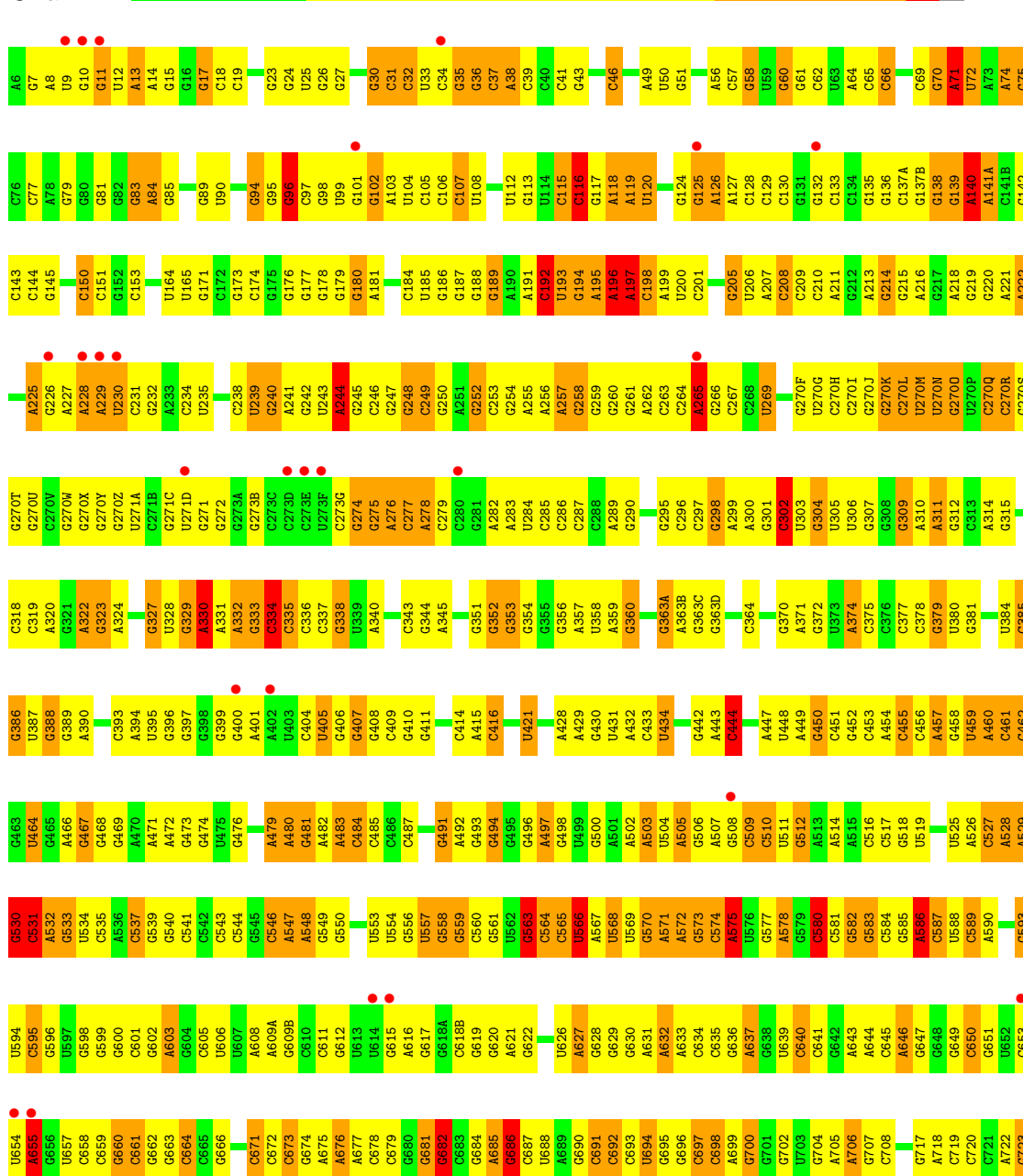
Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
32	6	727	Total 727	Mg 727	0	0
32	A	431	Total 431	Mg 431	0	0
32	2	1	Total 1	Mg 1	0	0
32	F	2	Total 2	Mg 2	0	0

### 3 Residue-property plots

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

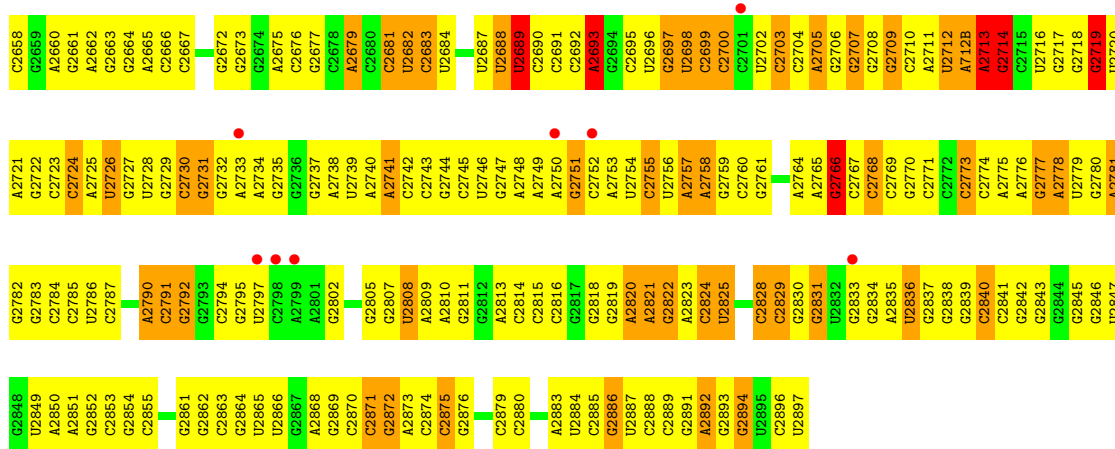
#### • Molecule 1: 23S ribosomal RNA

Chain A:



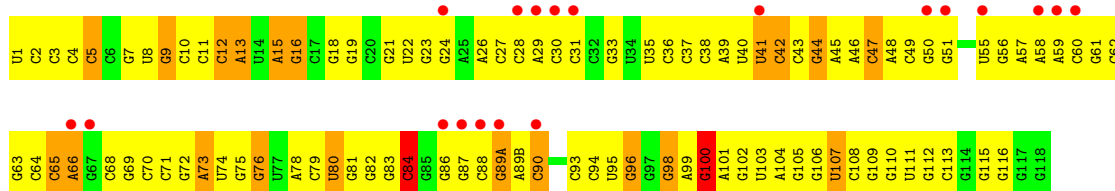
A1614	C1615	C1648	C1649	A1486	G1425	U1300	U1234	A1174	A1111	C985	C982	C790	U724
C1615	C1616	C1548	C1549	G1487	G1426	A1301	G1235	U1175	G1112	C986	G852	C791	G725
C1550	C1551	G1488	G1489	A1366	A1367	G1302	G1236	A1176	U1113	G987	G853	C792	G726
G1552	G1553	U1489	A1490	G1368	G1369	G1303	G1237	A1177	G1114	G988	G854	A793	A727
A1618	A1619	G1490	G1491	G1368	G1369	G1304	G1238	C1054	G1115	G989	C856	G728	G729
G1620	G1621	G1492	G1493	G1370	G1371	A1308	U1240	C1055	G1116	C857	C795	G729	G730
G1622	G1623	G1494	G1495	G1372	G1373	A1309	A1241	C1056	G1117	U858	C796	C730	C731
C1625	C1626	A1496	A1497	U1372	U1373	G1310	A1242	A	C1118	G992	C797	C732	C733
G1627	G1628	U1496	U1497	U1372	U1373	G1311	G1243	G	C1121	G993	G798	C732	C733
G1629	G1630	A1498	A1499	G1374	G1375	G1312	G1244	U	G1122	C994	G799	G733	G734
A1631	A1632	C1498	C1499	G1376	G1377	U1313	G1245	U	C1123	C995	G801	A735	A736
G1633	G1634	G1499	G1500	G1377	G1378	G1314	G1246	G	G1124	G996	A802	C736	C737
A1634	A1635	C1502	C1503	G1378	G1379	C1315	U1249	U	G1125	C998	U803	C737	C738
G1636	G1637	U1503	U1504	A1378	A1379	U1316	U1250	C	G1126	U999	A804	G738	G739
A1638	A1639	G1504	G1505	G1379	G1380	C1317	C1251	U	A1127	A1000	G805	G739	U740
G1640	G1641	C1506	C1507	G1381	G1382	G1318	A1252	U	U1128	G999	C806	G740	G741
A1642	A1643	U1506	U1507	G1382	G1383	G1319	A1253	A	G1129	G999	C807	G741	G742
G1644	G1645	A1508	A1509	G1383	G1384	G1320	U1254	U	U1130	A1001	C808	G742	G743
C1646	C1647	U1509	U1510	A1384	A1385	A1321	U1255	C	G1131	G999	C809	G743	G744
G1648	G1649	G1511	G1512	G1386	G1387	U1322	G1256	A	A1132	C999	U810	A746	A747
A1650	A1651	C1513	C1514	G1387	G1388	G1323	C1257	G	U1133	C999	U811	U747	U748
C1652	C1653	G1448	G1449	G1388	G1389	G1324	G1258	A	G1134	C999	C812	G748	G749
G1654	G1655	U1514	U1515	G1389	G1390	G1325	U1259	C	U1135	C999	C813	C749	C750
C1656	C1657	A1516	A1517	G1390	G1391	U1326	A1260	U	G1136	C999	C814	A750	A751
G1658	G1659	C1517	C1518	G1391	G1392	C1327	A1261	C	G1137	C999	C815	A751	A752
A1660	A1661	U1519	U1520	G1392	G1393	G1328	U1262	A	U1138	C999	C816	A752	A753
C1662	C1663	G1521	G1522	G1393	G1394	U1329	A1263	C	G1139	C999	C817	C753	C754
G1664	G1665	A1523	A1524	G1394	G1395	G1330	A1264	U	U1140	C999	C818	C754	C755
C1666	C1667	U1525	U1526	U1396	U1397	A1331	U1265	C	U1141	C999	C819	C755	C756
A1668	A1669	G1527	G1528	G1397	G1398	G1332	U1266	C	U1142	C999	C820	C756	C757
C1670	C1671	U1529	U1530	G1400	G1401	G1333	U1267	U	A1143	C999	C821	C757	C758
U1602	U1603	G1531	G1532	G1401	G1402	G1334	U1268	U	U1144	C999	C822	C758	C759
A1604	A1605	C1533	C1534	G1402	G1403	G1335	A1269	U	G1145	C999	C823	C759	C760
G1606	G1607	U1535	U1536	G1403	G1404	G1336	U1270	C	U1146	C999	C824	C760	C761
A1608	A1609	A1537	A1538	G1404	G1405	A1337	G1271	U	U1147	C999	C825	C761	C762
C1610	C1611	G1539	G1540	G1405	G1406	G1338	U1272	C	G1148	C999	C826	C762	C763
U1602	U1603	U1541	U1542	G1406	G1407	G1339	A1273	A	U1149	C999	C827	C763	C764
A1604	A1605	G1543	G1544	G1407	G1408	G1340	U1274	G	C1150	C999	C828	C764	C765
C1606	C1607	U1545	U1546	G1408	G1409	G1341	A1275	A	G1151	C999	C829	C765	C766
U1608	U1609	A1547	A1548	G1409	G1410	G1342	U1276	C	C1152	C999	C830	C766	C767
C1610	C1611	G1549	G1550	G1410	G1411	G1343	G1277	U	G1153	C999	C831	C767	C768
U1612	U1613	U1551	U1552	G1411	G1412	G1344	U1278	C	G1154	C999	C832	C768	C769
A1614	A1615	C1553	C1554	G1412	G1413	G1345	U1279	U	G1155	C999	C833	C769	C770
G1616	G1617	U1555	U1556	G1413	G1414	G1346	U1280	C	A1156	C999	C834	C770	C771
C1618	C1619	A1557	A1558	G1414	G1415	G1347	U1281	U	G1157	C999	C835	C771	C772
U1620	U1621	G1559	G1560	G1415	G1416	G1348	U1282	C	G1158	C999	C836	C772	C773
A1622	A1623	C1561	C1562	G1416	G1417	G1349	U1283	A	U1159	C999	C837	C773	C774
G1624	G1625	U1563	U1564	G1417	G1418	A1352	G1284	G	G1160	C999	C838	C774	C775
C1626	C1627	A1565	A1566	G1418	G1419	A1353	U1285	U	C1161	C999	C839	C775	C776
A1628	A1629	G1567	G1568	G1419	G1420	G1354	U1286	C	G1162	C999	C840	C776	C777
C1630	C1631	U1569	U1570	G1420	G1421	G1355	U1287	A	G1163	C999	C841	C777	C778
A1632	A1633	A1571	A1572	U1420	U1421	G1356	U1288	C	G1164	C999	C842	C778	C779
G1634	G1635	C1571	C1572	G1421	G1422	G1357	U1289	U	U1165	C999	C843	C779	C780
C1636	C1637	U1573	U1574	G1422	G1423	A1358	U1290	C	G1166	C999	C844	C780	C781
A1638	A1639	G1575	G1576	G1423	G1424	G1359	C1291	A	U1167	C999	C845	C781	C782
U1640	U1641	U1577	U1578	G1424	G1425	A1360	U1292	C	G1168	C999	C846	C782	C783
C1642	C1643	A1579	A1580	G1425	G1426	G1361	C1293	U	G1169	C999	C847	C783	C784
G1644	G1645	C1581	C1582	U1426	U1427	A1362	G1294	C	G1170	C999	C848	C784	C785
C1646	C1647	U1581	U1582	G1427	G1428	G1363	U1295	A	G1171	C999	C849	C785	C786
A1648	A1649	G1583	G1584	G1428	G1429	A1364	C1296	C	G1172	C999	C850	C786	C787
C1650	C1651	C1585	C1586	G1429	G1430	G1365	U1297	U	G1173	C999	C851	C787	C788
G1652	G1653	U1587	U1588	G1430	G1431	G1366	C1298	C	G1174	C999	C852	C788	C789
C1654	C1655	A1589	A1590	G1431	G1432	A1367	U1299	A	G1175	C999	C853	C789	C790
U1656	U1657	C1591	C1592	G1432	G1433	G1368	U1300	C	G1176	C999	C854	C790	C791
A1658	A1659	G1593	G1594	G1433	G1434	G1369	G1301	U	U1177	C999	C855	C791	C792
C1660	C1661	U1595	U1596	G1434	G1435	G1370	G1302	C	G1178	C999	C856	C792	C793
G1662	G1663	C1597	C1598	G1435	G1436	A1371	A1241	U	C1179	C999	C857	C793	C794
C1664	C1665	U1599	U1600	G1436	G1437	G1372	A1242	C	G1180	C999	C858	C794	C795
A1666	A1667	A1602	A1603	G1437	G1438	G1373	U1243	U	C1181	C999	C859	C795	C796
U1668	U1669	C1604	C1605	G1438	G1439	G1374	G1244	C	G1182	C999	C860	C796	C797
C1670	C1671	G1606	G1607	G1439	G1440	G1375	G1245	U	C1183	C999	C861	C797	C798
U1672	U1673	A1608	A1609	G1440	G1441	G1376	G1246	C	G1184	C999	C862	C798	C799
C1674	C1675	U1609	U1610	G1441	G1442	G1377	U1249	U	C1185	C999	C863	C799	C800
G1676	G1677	A1611	A1612	G1442	G1443	G1378	U1250	C	G1186	C999	C864	C800	C801
C1678	C1679	C1612	C1613	G1443	G1444	G1379	C1251	U	C1187	C999	C865	C801	C802
U1680	U1681	G1614	G1615	G1444	G1445	G1380	A1252	C	G1188	C999	C866	C802	C803
C1682	C1683	A1613	A1614	G1445	G1446	G1381	U1253	U	C1189	C999	C867	C803	C804
G1684	G1685	U1615	U1616	G1446	G1447	G1382	U1254	C	G1190	C999	C868	C804	C805
C1686	C1687	C1616	C1617	G1447	G1448	G1383	U1255	A	U1191	C999	C869	C805	C806
U1688	U1689	A1617	A1618	G1448	G1449	G1384	G1256	C	G1192	C999	C870	C806	C807
C1690	C1691	U1619	U1620	G1449	G1450	G1385	U1257	U	U1193	C999	C871	C807	C808
G1692	G1693	C1618	C1619	G1450	G1451	G1386	C1257	C	G1194	C999	C872	C808	C809
C1694	C1695	A1621	A1622	G1451	G1452	G1387	G1258	U	U1195	C999	C873	C809	C810
U1696	U1697	U1621	U1622	G1452	G1453	G1388	U1259	C	G1196	C999	C874	C810	C811
C1698	C1699	C1620	C1621	G1453	G1454	G1389	A1260	U	G1197	C999	C875	C811	C812
G1699	G1700	A1623	A1624	G1454	G1455	G1390	U1261	C	U1198	C999	C876	C812	C813
C1701	C1702	U1625	U1626	G1455	G1456	G1391	A1262	U	G1199	C999	C877	C813	C814
U1703	U1704	C1623	C1624	G1456	G1457	G1392	U1263	C	U1200	C999	C878	C814	C815
C1705	C1706	A1625	A1626	G1457	G1458	G1393	A1264	U	C1201	C999	C879	C815	C816
U1707	U1708	U1627	U1628	G1458	G1459	G1394	U1265	C	U1202	C999	C880	C816	C817
C1709	C1710	C1625	C1626	G1459	G1460	G1395	U1266	U	U1203	C999	C881	C817	C818
U1711	U1712	A1627	A1628	G1460	G1461	G1396	U1267	C	U1204	C999	C882	C818	C819
C1713	C1714	U1629	U1630	G1461	G1462	G1397	A1268	U	A1143	C999	C883	C819	C820
U1715	U1716	C1627	C1628	G1462	G1463	G1398	U1269	C	G1144	C999	C884	C820	C821
C1717	C1718	A1629	A1630	G1463	G1464	G1399	A1270	U	U1205	C999	C885	C821	C822
U1719	U1720	U1631	U1632	G1464	G1465	G1400	G1271	C	C1145	C999	C886	C822	C823
C1721	C1722	C1629	C1630	G1465	G1466	G1401	U1272	A	G1146	C999	C887	C823	C824
U1723	U1724	A1633	A1634	G1466	G1467	G1402	U1273	C	G1147	C999	C888	C824	C825
C1725	C1726	U1633	U1634										





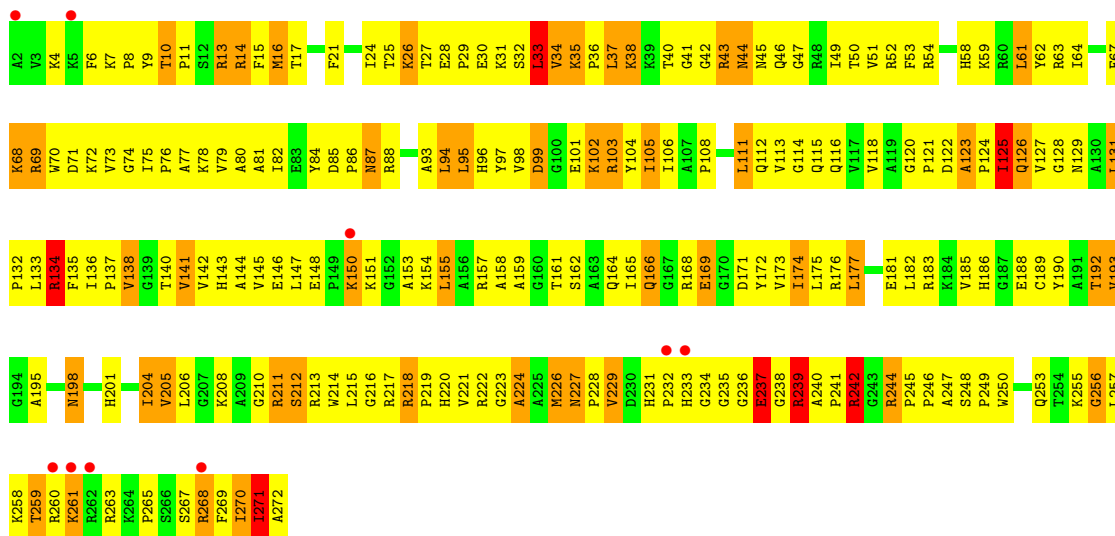
- Molecule 2: 5S ribosomal RNA

Chain B: 



- Molecule 3: 50S ribosomal protein L2

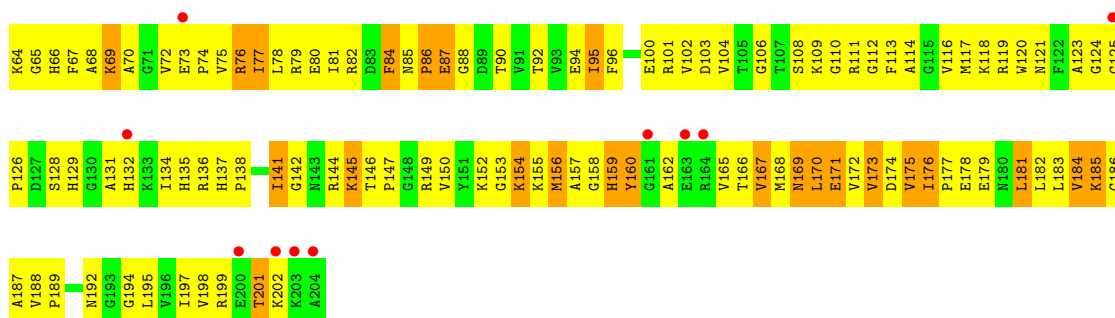
Chain C:



- Molecule 4: 50S ribosomal protein L3

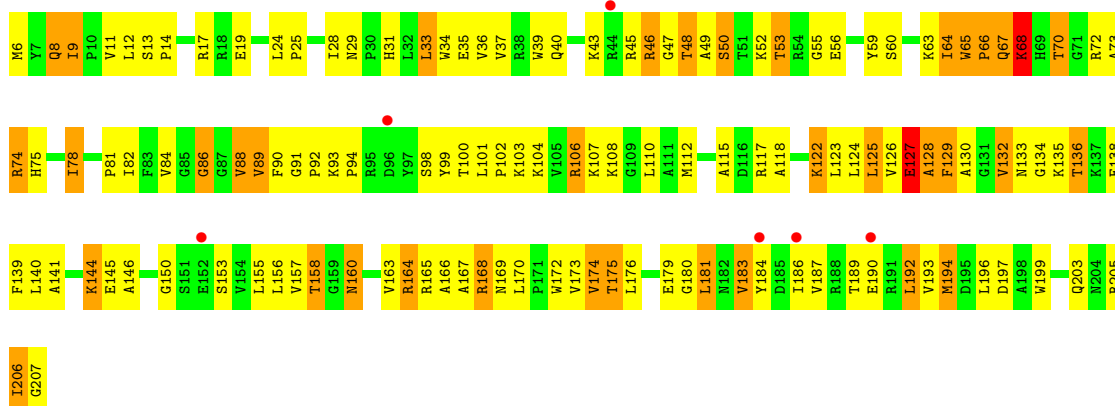
Chain D: 





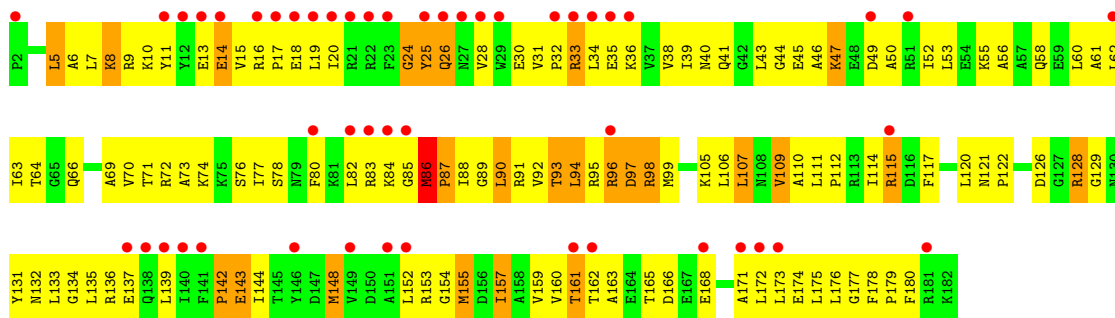
• Molecule 5: 50S ribosomal protein L4

Chain E:



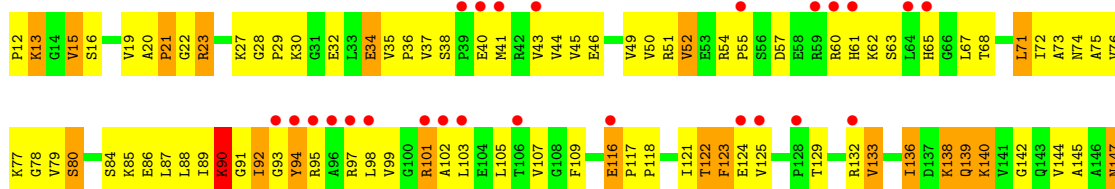
• Molecule 6: 50S ribosomal protein L5

Chain F:



• Molecule 7: 50S ribosomal protein L6

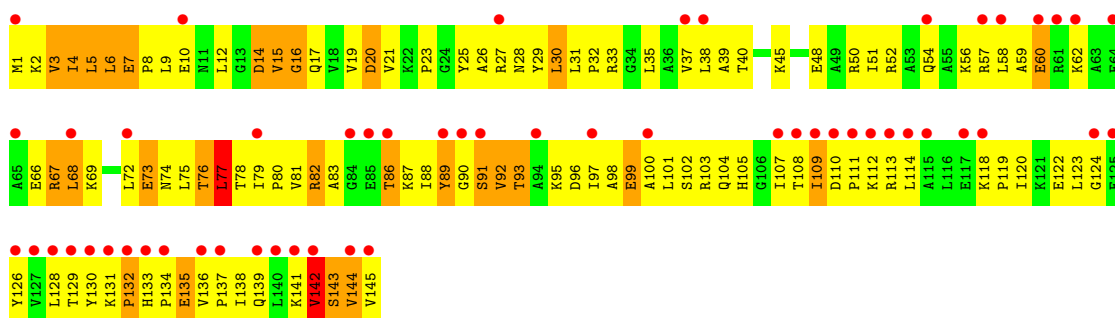
Chain G:





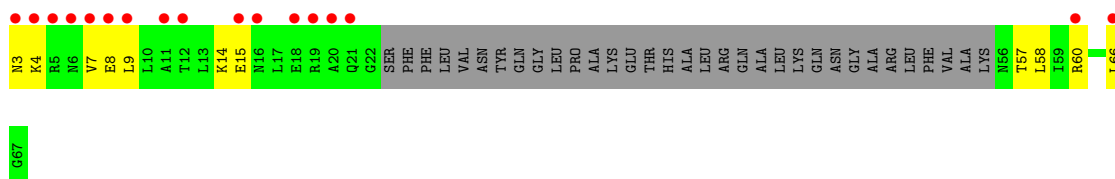
• Molecule 8: 50S ribosomal protein L9

Chain H:



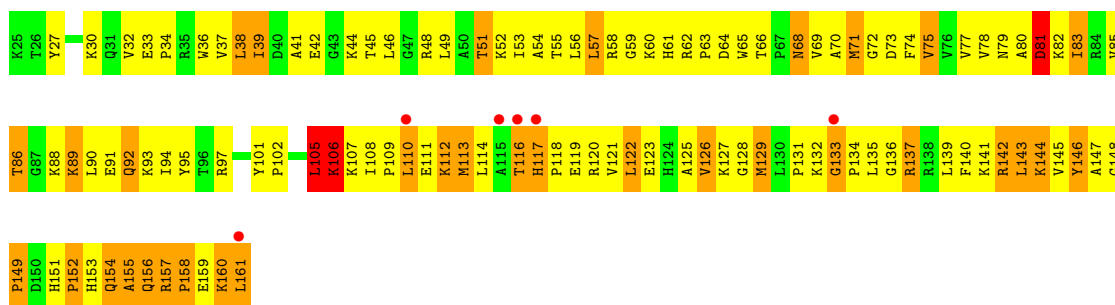
• Molecule 9: 50S ribosomal protein L10

Chain I:



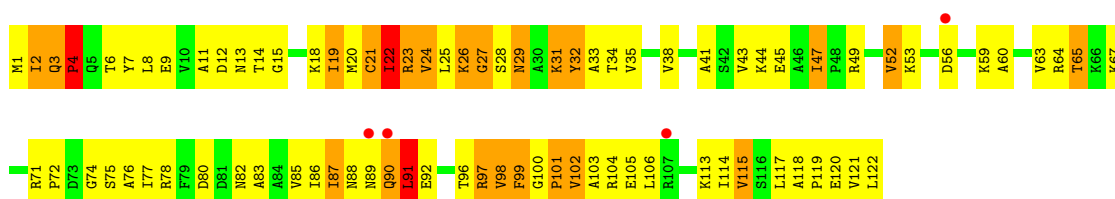
• Molecule 10: 50S ribosomal protein L13

Chain J:



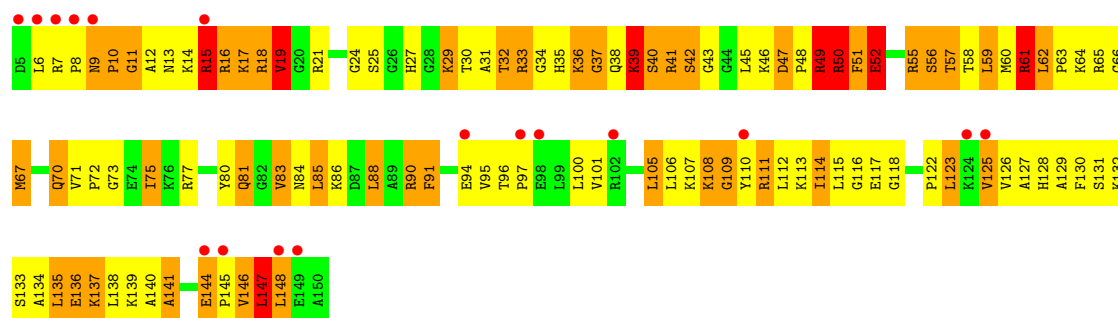
• Molecule 11: 50S ribosomal protein L14

Chain K:



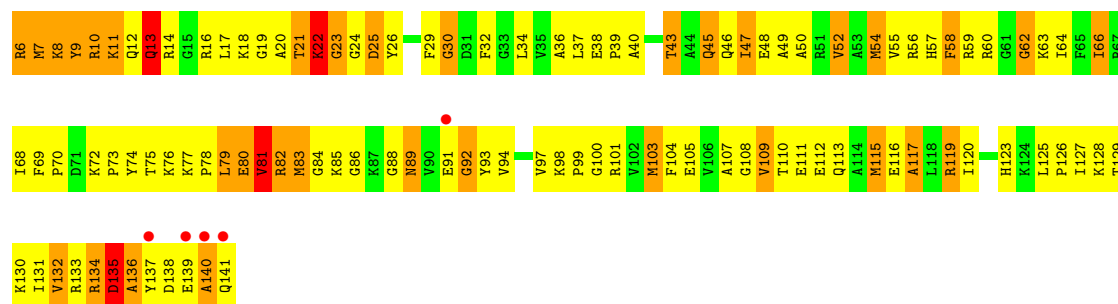
• Molecule 12: 50S ribosomal protein L15

Chain L:



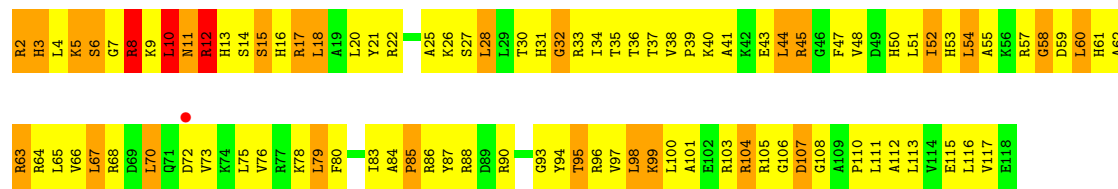
• Molecule 13: 50S ribosomal protein L16

Chain M:



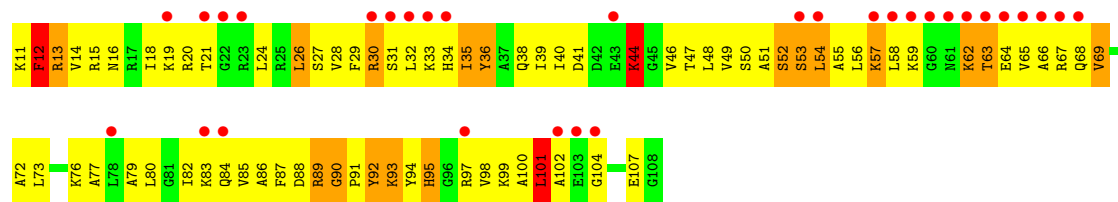
• Molecule 14: 50S ribosomal protein L17

Chain N:



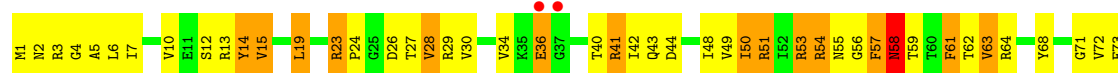
• Molecule 15: 50S ribosomal protein L18

Chain O:



• Molecule 16: 50S ribosomal protein L19

Chain P:

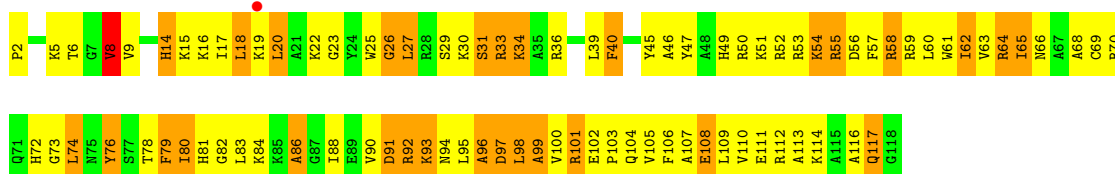






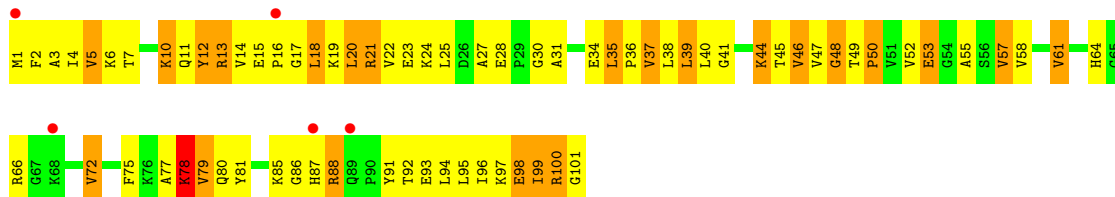
- Molecule 17: 50S ribosomal protein L20

Chain Q:



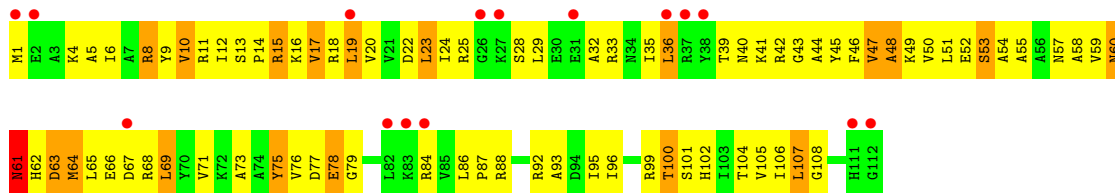
- Molecule 18: 50S ribosomal protein L21

Chain R:



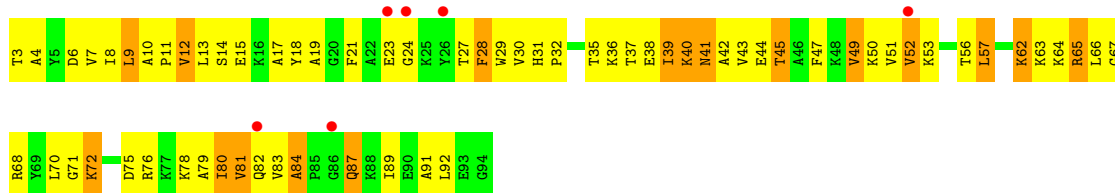
- Molecule 19: 50S ribosomal protein L22

Chain S:



- Molecule 20: 50S ribosomal protein L23

Chain T:



- Molecule 21: 50S ribosomal protein L24

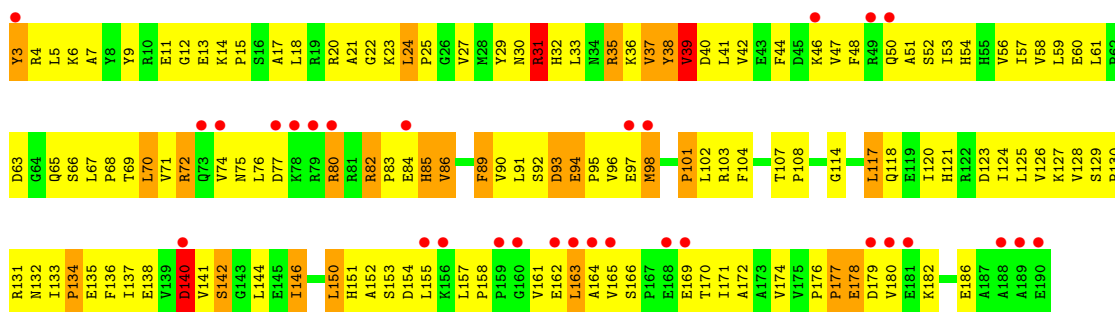
Chain U:





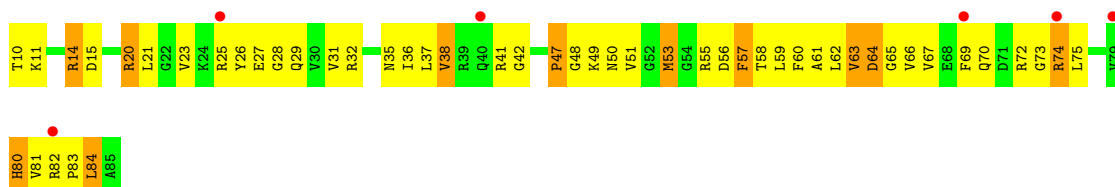
- Molecule 22: 50S ribosomal protein L25

Chain V:



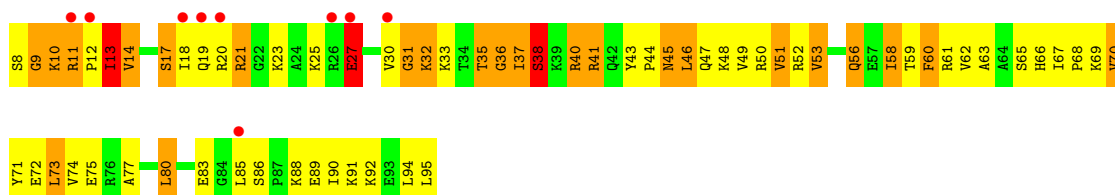
- Molecule 23: 50S ribosomal protein L27

Chain W:



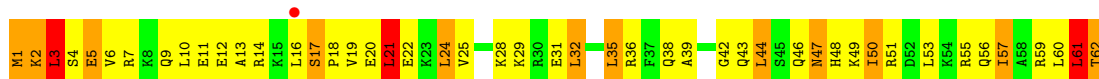
- Molecule 24: 50S ribosomal protein L28

Chain X:



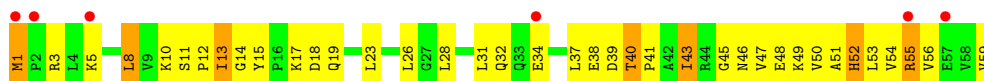
- Molecule 25: 50S ribosomal protein L29

Chain Y:

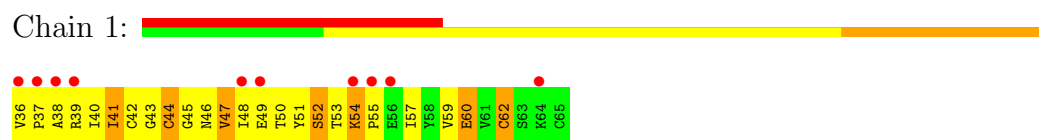


- Molecule 26: 50S ribosomal protein L30

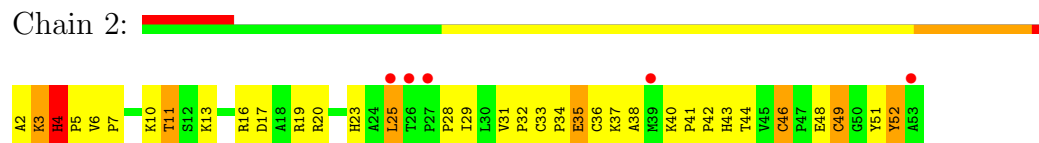
Chain Z:



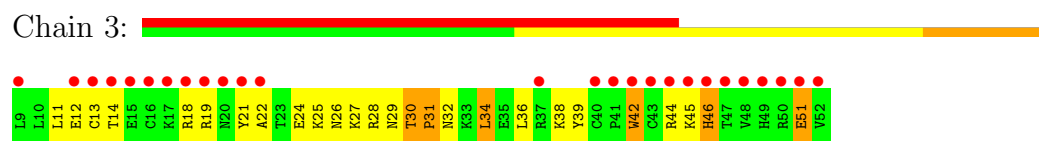
- Molecule 27: 50S ribosomal protein L31



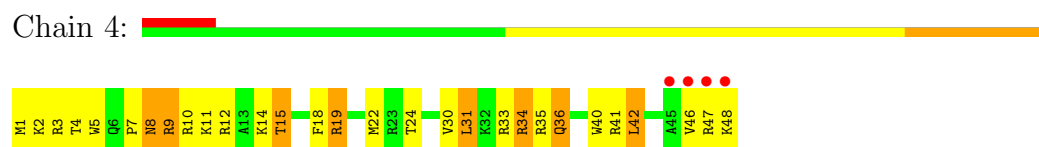
- Molecule 28: 50S ribosomal protein L32



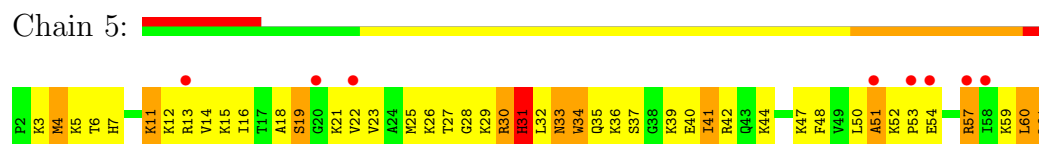
- Molecule 29: 50S ribosomal protein L33



- Molecule 30: 50S ribosomal protein L34



- Molecule 31: 50S ribosomal protein L35



## 4 Data and refinement statistics

Property	Value	Source
Space group	P 21 21 21	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	210.69Å 451.66Å 614.25Å 90.00° 90.00° 90.00°	Depositor
Resolution (Å)	49.52 – 3.40 49.52 – 3.40	Depositor EDS
% Data completeness (in resolution range)	97.5 (49.52-3.40) 97.6 (49.52-3.40)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	2.28 (at 3.40Å)	Xtriage
Refinement program	PHENIX (phenix.refine: 1.6.1_357)	Depositor
R, $R_{free}$	0.228 , 0.266 0.456 , 0.463	Depositor DCC
$R_{free}$ test set	7680 reflections (0.99%)	DCC
Wilson B-factor (Å <sup>2</sup> )	86.0	Xtriage
Anisotropy	0.391	Xtriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.27 , 57.6	EDS
Estimated twinning fraction	No twinning to report.	Xtriage
L-test for twinning	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.27$	Xtriage
Outliers	0 of 775950 reflections	Xtriage
$F_o, F_c$ correlation	0.59	EDS
Total number of atoms	89468	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	89.0	wwPDB-VP

Xtriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.68% of the height of the origin peak. No significant pseudotranslation is detected.*

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

## 5 Model quality

### 5.1 Standard geometry

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

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	$\# Z  > 5$	RMSZ	$\# Z  > 5$
1	A	1.07	153/66570 (0.2%)	1.48	1344/103918 (1.3%)
2	B	0.58	0/2853	1.00	9/4451 (0.2%)
3	C	0.71	1/2155 (0.0%)	0.90	3/2905 (0.1%)
4	D	0.58	0/1597	0.77	0/2153
5	E	0.63	0/1622	0.77	0/2194
6	F	0.28	0/1500	0.49	0/2017
7	G	0.32	0/1246	0.58	0/1682
8	H	0.33	0/1148	0.56	0/1552
9	I	0.25	0/252	0.44	0/333
10	J	0.56	0/1124	0.75	0/1515
11	K	0.57	0/942	0.76	0/1268
12	L	0.74	1/1131 (0.1%)	1.01	1/1504 (0.1%)
13	M	0.61	0/1099	0.83	2/1468 (0.1%)
14	N	0.59	0/974	0.85	0/1302
15	O	0.36	0/779	0.58	0/1036
16	P	0.50	0/1158	0.68	0/1544
17	Q	0.63	0/970	0.81	0/1290
18	R	0.58	0/790	0.73	1/1057 (0.1%)
19	S	0.63	0/902	0.78	0/1209
20	T	0.64	0/740	0.79	0/993
21	U	0.53	0/789	0.76	0/1051
22	V	0.36	0/1524	0.57	0/2068
23	W	0.50	0/613	0.71	0/816
24	X	0.73	0/702	0.98	2/932 (0.2%)
25	Y	0.55	0/523	0.87	1/690 (0.1%)
26	Z	0.52	0/473	0.68	0/634
27	1	0.23	0/229	0.40	0/309
28	2	0.61	0/419	0.80	0/567
29	3	0.28	0/388	0.46	0/518
30	4	0.72	0/427	0.89	0/561
31	5	0.68	0/516	0.88	0/679
All	All	0.94	155/96155 (0.2%)	1.32	1363/144216 (0.9%)

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	E	0	1
12	L	0	5
13	M	0	1
14	N	0	1
17	Q	0	2
All	All	0	10

All (155) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1332	G	N9-C4	-11.02	1.29	1.38
1	A	570	G	C6-O6	9.46	1.32	1.24
1	A	676	A	N9-C4	-9.32	1.32	1.37
1	A	1678	G	N9-C4	-9.10	1.30	1.38
1	A	1783	A	N3-C4	-8.94	1.29	1.34
1	A	1786	A	N3-C4	-8.91	1.29	1.34
1	A	774	A	N9-C4	-8.86	1.32	1.37
1	A	1332	G	C2-N3	-8.54	1.25	1.32
1	A	503	A	N3-C4	-8.11	1.29	1.34
1	A	1971	A	N3-C4	-8.09	1.29	1.34
1	A	761	A	C6-N1	7.89	1.41	1.35
1	A	2028	U	C4-O4	7.87	1.29	1.23
1	A	192	C	N1-C6	-7.77	1.32	1.37
12	L	39	LYS	CB-CG	7.70	1.73	1.52
1	A	675	A	N9-C4	-7.63	1.33	1.37
1	A	1783	A	N9-C4	-7.62	1.33	1.37
1	A	800	A	N9-C4	-7.53	1.33	1.37
1	A	2448	A	N9-C4	-7.52	1.33	1.37
1	A	1786	A	N9-C4	-7.48	1.33	1.37
1	A	1308	A	N9-C4	-7.30	1.33	1.37
1	A	330	A	N9-C4	-7.22	1.33	1.37
1	A	2057	A	N3-C4	-7.15	1.30	1.34
1	A	2057	A	N9-C4	-7.15	1.33	1.37
1	A	2433	A	N3-C4	-7.11	1.30	1.34
1	A	1021	A	N9-C4	-7.07	1.33	1.37
1	A	1786	A	N7-C5	-7.01	1.35	1.39
1	A	655	A	N9-C4	6.99	1.42	1.37
1	A	2518	A	N9-C4	-6.94	1.33	1.37
1	A	1902	C	N3-C4	-6.94	1.29	1.33

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	761	A	C5-C4	6.92	1.43	1.38
1	A	2028	U	C2-N3	6.90	1.42	1.37
1	A	1332	G	N3-C4	-6.83	1.30	1.35
1	A	584	C	N1-C6	-6.74	1.33	1.37
1	A	783	A	N9-C4	-6.72	1.33	1.37
1	A	2010	G	N7-C5	-6.71	1.35	1.39
1	A	2506	U	N1-C2	6.67	1.44	1.38
1	A	528	A	N9-C4	-6.67	1.33	1.37
1	A	764	A	N9-C4	-6.64	1.33	1.37
1	A	2713	A	N9-C4	-6.62	1.33	1.37
1	A	1671	U	C4-O4	6.62	1.28	1.23
1	A	453	C	N1-C6	-6.61	1.33	1.37
1	A	761	A	C6-N6	6.61	1.39	1.33
1	A	2058	A	N3-C4	-6.56	1.30	1.34
1	A	945	A	N7-C5	-6.53	1.35	1.39
1	A	1827	C	N1-C6	-6.49	1.33	1.37
1	A	457	A	N9-C4	-6.48	1.33	1.37
1	A	677	A	N9-C4	-6.44	1.33	1.37
1	A	1977	A	N9-C4	-6.43	1.33	1.37
1	A	734	A	N9-C4	-6.41	1.34	1.37
1	A	568	U	C4-O4	6.32	1.28	1.23
1	A	570	G	C5-C6	6.31	1.48	1.42
1	A	460	A	N9-C4	-6.29	1.34	1.37
1	A	2009	G	C5-C4	-6.29	1.33	1.38
1	A	764	A	C5-C6	-6.29	1.35	1.41
1	A	31	C	N1-C6	-6.26	1.33	1.37
1	A	800	A	N3-C4	-6.25	1.31	1.34
3	C	239	ARG	CG-CD	6.25	1.67	1.51
1	A	1829	A	N9-C4	-6.22	1.34	1.37
1	A	2069	G	N9-C4	-6.22	1.32	1.38
1	A	2510	C	N1-C6	-6.19	1.33	1.37
1	A	575	A	N9-C4	-6.18	1.34	1.37
1	A	808	G	N9-C8	-6.15	1.33	1.37
1	A	2032	G	N9-C8	6.15	1.42	1.37
1	A	1786	A	C5-C6	-6.13	1.35	1.41
1	A	460	A	N3-C4	-6.11	1.31	1.34
1	A	2587	A	N9-C4	-6.11	1.34	1.37
1	A	1313	U	N1-C2	-6.10	1.33	1.38
1	A	265	A	N9-C4	-6.09	1.34	1.37
1	A	1971	A	N9-C4	-6.06	1.34	1.37
1	A	1978	A	N9-C4	-6.02	1.34	1.37
1	A	2453	A	C6-N1	-6.01	1.31	1.35

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2062	A	P-O5'	-6.01	1.53	1.59
1	A	2430	A	N7-C5	-6.01	1.35	1.39
1	A	2497	A	N9-C4	-5.99	1.34	1.37
1	A	676	A	C5-C6	-5.98	1.35	1.41
1	A	1000	A	C6-N1	-5.98	1.31	1.35
1	A	1352	U	C2-N3	-5.95	1.33	1.37
1	A	737	C	N1-C6	-5.94	1.33	1.37
1	A	2496	C	N1-C6	-5.92	1.33	1.37
1	A	2060	A	N9-C4	-5.89	1.34	1.37
1	A	1774	C	P-OP1	5.86	1.58	1.49
1	A	2601	C	N1-C6	-5.84	1.33	1.37
1	A	1991	U	C2-N3	-5.84	1.33	1.37
1	A	2430	A	N3-C4	-5.82	1.31	1.34
1	A	71	A	N9-C4	-5.78	1.34	1.37
1	A	787	U	P-OP1	5.75	1.58	1.49
1	A	1780	A	N9-C4	-5.74	1.34	1.37
1	A	2595	G	C5-C4	-5.74	1.34	1.38
1	A	114(B)	A	N7-C5	-5.72	1.35	1.39
1	A	432	A	N9-C4	-5.72	1.34	1.37
1	A	945	A	C5-C6	-5.72	1.35	1.41
1	A	929	G	N7-C5	-5.71	1.35	1.39
1	A	2005	A	N9-C4	-5.69	1.34	1.37
1	A	676	A	N7-C5	-5.62	1.35	1.39
1	A	1899	G	N9-C8	5.62	1.41	1.37
1	A	1664	A	N9-C4	-5.58	1.34	1.37
1	A	1617	C	N1-C6	-5.58	1.33	1.37
1	A	1678	G	C2-N3	-5.57	1.28	1.32
1	A	1676	A	N3-C4	-5.55	1.31	1.34
1	A	1841	U	C4-O4	5.55	1.28	1.23
1	A	1602	U	C4-O4	5.51	1.28	1.23
1	A	2346	A	N3-C4	-5.51	1.31	1.34
1	A	1571	A	N9-C4	-5.50	1.34	1.37
1	A	1827	C	N3-C4	-5.49	1.30	1.33
1	A	764	A	N7-C5	-5.48	1.35	1.39
1	A	244	A	N3-C4	-5.47	1.31	1.34
1	A	575	A	N3-C4	-5.46	1.31	1.34
1	A	1309	G	N3-C4	-5.46	1.31	1.35
1	A	837	C	C4-C5	-5.42	1.38	1.43
1	A	2430	A	N9-C4	-5.41	1.34	1.37
1	A	114(B)	A	C5-C6	-5.41	1.36	1.41
1	A	677	A	N3-C4	-5.40	1.31	1.34
1	A	824	A	N9-C4	-5.40	1.34	1.37

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2681	C	N3-C4	-5.39	1.30	1.33
1	A	2054	A	N7-C5	-5.35	1.36	1.39
1	A	2595	G	N9-C4	-5.34	1.33	1.38
1	A	2741	A	N9-C4	-5.34	1.34	1.37
1	A	114(B)	A	N9-C4	-5.34	1.34	1.37
1	A	2440	C	N1-C2	-5.32	1.34	1.40
1	A	2018	G	C6-N1	-5.32	1.35	1.39
1	A	2060	A	N3-C4	-5.32	1.31	1.34
1	A	585	G	C6-N1	-5.32	1.35	1.39
1	A	1678	G	N3-C4	-5.30	1.31	1.35
1	A	2440	C	N1-C6	-5.30	1.33	1.37
1	A	1776	G	C8-N7	-5.29	1.27	1.30
1	A	2059	A	C5-C4	-5.26	1.35	1.38
1	A	2433	A	C6-N1	-5.25	1.31	1.35
1	A	2392	A	N7-C5	-5.24	1.36	1.39
1	A	2010	G	C5-C6	-5.24	1.37	1.42
1	A	764	A	N3-C4	-5.23	1.31	1.34
1	A	1675	C	N1-C6	-5.22	1.34	1.37
1	A	2448	A	N3-C4	-5.22	1.31	1.34
1	A	676	A	N3-C4	-5.21	1.31	1.34
1	A	114(B)	A	N3-C4	-5.19	1.31	1.34
1	A	2517	C	N1-C6	-5.18	1.34	1.37
1	A	1671	U	C2-N3	5.14	1.41	1.37
1	A	575	A	C5-C4	-5.11	1.35	1.38
1	A	1571	A	N3-C4	-5.11	1.31	1.34
1	A	196	A	C6-N1	-5.10	1.31	1.35
1	A	836	G	N9-C4	-5.09	1.33	1.38
1	A	1278	A	N3-C4	-5.09	1.31	1.34
1	A	2249	U	C4-O4	5.09	1.27	1.23
1	A	1997	G	C6-N1	-5.09	1.35	1.39
1	A	2009	G	N3-C4	-5.08	1.31	1.35
1	A	2198	A	N9-C4	-5.07	1.34	1.37
1	A	2069	G	N3-C4	-5.06	1.31	1.35
1	A	684	G	N3-C4	-5.06	1.31	1.35
1	A	1264	G	N3-C4	-5.05	1.31	1.35
1	A	2199	A	N3-C4	-5.05	1.31	1.34
1	A	2463	C	N1-C6	-5.05	1.34	1.37
1	A	1941	C	N1-C6	-5.05	1.34	1.37
1	A	802	A	N3-C4	-5.03	1.31	1.34
1	A	1902	C	C2-N3	-5.02	1.31	1.35
1	A	244	A	N9-C4	-5.02	1.34	1.37
1	A	462	C	N3-C4	-5.02	1.30	1.33

All (1363) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	761	A	N1-C6-N6	25.08	133.65	118.60
1	A	1332	G	N3-C4-N9	-22.46	112.52	126.00
1	A	1332	G	N3-C4-C5	21.41	139.31	128.60
1	A	676	A	C2-N3-C4	-19.31	100.94	110.60
1	A	761	A	C6-C5-N7	-17.81	119.83	132.30
1	A	2028	U	N3-C4-C5	-16.41	104.75	114.60
1	A	761	A	C5-N7-C8	-14.95	96.42	103.90
1	A	1678	G	N3-C4-C5	14.81	136.01	128.60
1	A	761	A	C4-C5-N7	14.67	118.03	110.70
1	A	1678	G	N3-C4-N9	-14.62	117.23	126.00
1	A	761	A	N9-C4-C5	-14.12	100.15	105.80
1	A	2501	C	C6-N1-C2	14.00	125.90	120.30
1	A	1962	C	N1-C2-O2	13.58	127.05	118.90
1	A	774	A	C2-N3-C4	-13.36	103.92	110.60
1	A	1899	G	N3-C4-N9	-13.30	118.02	126.00
1	A	2571	C	C6-N1-C2	13.17	125.57	120.30
1	A	1999	C	C6-N1-C2	13.05	125.52	120.30
1	A	2028	U	N3-C4-O4	12.80	128.36	119.40
1	A	676	A	C5-C6-N1	-12.74	111.33	117.70
1	A	1332	G	C2-N3-C4	-12.68	105.56	111.90
1	A	2028	U	C6-N1-C2	-12.61	113.43	121.00
1	A	1786	A	C5-N7-C8	-12.59	97.60	103.90
1	A	676	A	C5-N7-C8	-12.56	97.62	103.90
1	A	761	A	C5-C6-N1	-12.54	111.43	117.70
1	A	1602	U	C6-N1-C2	-12.33	113.61	121.00
1	A	570	G	C5-C6-N1	-12.25	105.37	111.50
1	A	1602	U	N3-C4-C5	-12.24	107.26	114.60
1	A	1671	U	N3-C4-O4	12.21	127.94	119.40
1	A	1671	U	N3-C4-C5	-12.16	107.30	114.60
1	A	945	A	C6-C5-N7	-11.99	123.91	132.30
1	A	1332	G	N3-C2-N2	-11.92	111.56	119.90
1	A	1786	A	N7-C8-N9	11.87	119.74	113.80
1	A	1790	C	N3-C4-C5	11.74	126.59	121.90
1	A	1786	A	C8-N9-C4	-11.73	101.11	105.80
1	A	2571	C	C5-C6-N1	-11.64	115.18	121.00
1	A	1899	G	C2-N3-C4	-11.59	106.10	111.90
1	A	2502	G	N1-C6-O6	11.55	126.83	119.90
1	A	761	A	N7-C8-N9	11.35	119.48	113.80
1	A	570	G	C4-C5-N7	-11.29	106.28	110.80
1	A	570	G	C5-C6-O6	11.20	135.32	128.60
1	A	1899	G	N3-C4-C5	11.10	134.15	128.60
1	A	2829	C	C6-N1-C2	11.08	124.73	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	761	A	C5-C6-N6	-10.97	114.92	123.70
1	A	1332	G	C8-N9-C1'	10.91	141.18	127.00
1	A	2498	C	C6-N1-C2	10.91	124.66	120.30
1	A	210	C	C6-N1-C2	10.74	124.60	120.30
1	A	330	A	C2-N3-C4	-10.69	105.25	110.60
1	A	2579	C	C6-N1-C2	10.60	124.54	120.30
1	A	2502	G	C5-C6-O6	-10.58	122.25	128.60
1	A	676	A	N7-C8-N9	10.57	119.09	113.80
1	A	2456	C	N3-C4-C5	10.57	126.13	121.90
1	A	1786	A	C6-C5-N7	-10.56	124.91	132.30
1	A	847	U	C5-C6-N1	-10.52	117.44	122.70
1	A	678	C	N3-C4-C5	10.50	126.10	121.90
1	A	945	A	N1-C6-N6	10.39	124.83	118.60
1	A	2648	C	C6-N1-C2	10.32	124.43	120.30
1	A	676	A	N3-C4-C5	10.32	134.02	126.80
1	A	1261	C	C6-N1-C2	10.31	124.43	120.30
1	A	761	A	C4-C5-C6	10.24	122.12	117.00
1	A	691	C	C6-N1-C2	10.23	124.39	120.30
1	A	2430	A	C4-C5-C6	10.23	122.12	117.00
1	A	1786	A	C2-N3-C4	-10.22	105.49	110.60
1	A	2010	G	C6-C5-N7	-10.20	124.28	130.40
1	A	676	A	N1-C6-N6	10.05	124.63	118.60
1	A	1790	C	C2-N3-C4	-10.03	114.89	119.90
1	A	1332	G	C4-N9-C1'	-10.01	113.49	126.50
1	A	2330	G	C8-N9-C4	9.97	110.39	106.40
1	A	1021	A	C2-N3-C4	-9.95	105.63	110.60
1	A	444	C	C6-N1-C2	9.94	124.28	120.30
1	A	2689	U	C2-N1-C1'	-9.87	105.86	117.70
1	A	2463	C	C6-N1-C2	9.74	124.20	120.30
1	A	1962	C	C2-N1-C1'	9.71	129.47	118.80
1	A	1898	U	C5-C4-O4	9.64	131.68	125.90
1	A	2871	C	C6-N1-C2	9.63	124.15	120.30
1	A	945	A	C4-N9-C1'	9.62	143.61	126.30
1	A	2044	C	C6-N1-C2	9.57	124.13	120.30
1	A	783	A	N1-C6-N6	9.56	124.34	118.60
1	A	1241	A	C2-N3-C4	-9.56	105.82	110.60
1	A	2713	A	N1-C6-N6	9.54	124.32	118.60
1	A	2689	U	C5-C4-O4	9.53	131.62	125.90
1	A	664	C	C6-N1-C2	9.51	124.11	120.30
1	A	2032	G	C5-N7-C8	-9.50	99.55	104.30
1	A	2043	C	C6-N1-C2	9.47	124.09	120.30
1	A	828	U	N3-C4-O4	-9.40	112.82	119.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2028	U	C4-C5-C6	9.39	125.33	119.70
1	A	2240	C	C6-N1-C2	9.38	124.05	120.30
1	A	2713	A	C5-N7-C8	-9.36	99.22	103.90
1	A	2430	A	N1-C6-N6	9.32	124.19	118.60
1	A	2084	C	C6-N1-C2	9.31	124.03	120.30
1	A	640	C	C6-N1-C2	9.28	124.01	120.30
1	A	679	C	N1-C2-O2	-9.25	113.35	118.90
1	A	2571	C	C2-N3-C4	-9.23	115.28	119.90
1	A	2010	G	C4-C5-N7	9.22	114.49	110.80
1	A	2502	G	C6-C5-N7	-9.21	124.88	130.40
1	A	2619	C	C6-N1-C2	9.19	123.98	120.30
1	A	1614	A	C2-N3-C4	-9.19	106.01	110.60
1	A	330	A	N1-C6-N6	9.18	124.11	118.60
1	A	2084	C	C5-C6-N1	-9.17	116.42	121.00
1	A	2742	C	C6-N1-C2	9.15	123.96	120.30
1	A	580	C	C5-C6-N1	-9.14	116.43	121.00
1	A	676	A	C4-C5-N7	9.11	115.25	110.70
1	A	2430	A	C6-C5-N7	-9.10	125.93	132.30
1	A	2066	C	N3-C4-C5	9.07	125.53	121.90
1	A	560	C	C6-N1-C2	9.04	123.92	120.30
1	A	708	C	C6-N1-C2	8.98	123.89	120.30
1	A	1934	C	C6-N1-C2	8.98	123.89	120.30
1	A	761	A	C2-N3-C4	-8.96	106.12	110.60
1	A	1783	A	N9-C4-C5	8.96	109.39	105.80
1	A	1902	C	N3-C4-N4	-8.95	111.73	118.00
1	A	945	A	C4-C5-C6	8.95	121.48	117.00
1	A	1779	U	C6-N1-C2	8.95	126.37	121.00
1	A	1244	G	C8-N9-C4	8.92	109.97	106.40
1	A	1830	C	N1-C2-O2	-8.91	113.55	118.90
1	A	2391	G	N1-C6-O6	-8.87	114.58	119.90
1	A	528	A	C2-N3-C4	-8.85	106.17	110.60
1	A	676	A	C6-C5-N7	-8.81	126.13	132.30
1	A	2010	G	N1-C6-O6	8.77	125.16	119.90
1	A	945	A	C8-N9-C1'	-8.76	111.94	127.70
1	A	265	A	C5-N7-C8	-8.73	99.54	103.90
1	A	2050	C	N1-C2-O2	-8.72	113.67	118.90
1	A	847	U	C2-N1-C1'	-8.72	107.24	117.70
1	A	783	A	C5-N7-C8	-8.71	99.55	103.90
1	A	1839	G	N3-C4-N9	-8.71	120.78	126.00
1	A	461	C	N1-C2-O2	-8.69	113.69	118.90
1	A	1614	A	C5-C6-N1	-8.69	113.36	117.70
1	A	1572	A	C8-N9-C4	8.68	109.27	105.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	929	G	N1-C6-O6	8.68	125.11	119.90
1	A	2713	A	C2-N3-C4	-8.67	106.27	110.60
1	A	2693	A	N1-C6-N6	-8.65	113.41	118.60
1	A	1325	G	N9-C4-C5	8.63	108.85	105.40
1	A	1332	G	N1-C2-N2	8.63	123.96	116.20
1	A	535	C	C6-N1-C2	8.62	123.75	120.30
1	A	1698	A	N1-C6-N6	8.54	123.72	118.60
1	A	1614	A	C6-C5-N7	-8.54	126.33	132.30
1	A	1788	C	C5-C6-N1	-8.51	116.75	121.00
1	A	330	A	N9-C4-C5	-8.49	102.40	105.80
1	A	2581	G	C8-N9-C4	-8.49	103.00	106.40
1	A	2828	C	C5-C6-N1	-8.47	116.77	121.00
1	A	1683	C	N1-C2-O2	-8.47	113.82	118.90
1	A	2066	C	C2-N3-C4	-8.47	115.67	119.90
1	A	2433	A	N1-C2-N3	8.47	133.53	129.30
1	A	2057	A	N1-C2-N3	8.46	133.53	129.30
1	A	970	C	C6-N1-C2	8.44	123.67	120.30
1	A	1772	G	C8-N9-C4	8.43	109.77	106.40
1	A	2057	A	C2-N3-C4	-8.42	106.39	110.60
1	A	1979	C	N1-C2-O2	-8.42	113.85	118.90
1	A	1261	C	N3-C4-C5	8.42	125.27	121.90
1	A	2430	A	C2-N3-C4	-8.41	106.39	110.60
1	A	783	A	C2-N3-C4	-8.41	106.40	110.60
1	A	397	G	N1-C6-O6	8.40	124.94	119.90
1	A	2699	C	C5-C6-N1	-8.39	116.81	121.00
1	A	671	C	N1-C2-O2	-8.37	113.88	118.90
1	A	2010	G	C8-N9-C4	-8.37	103.05	106.40
1	A	1602	U	N3-C4-O4	8.37	125.26	119.40
1	A	2689	U	N3-C4-O4	-8.37	113.54	119.40
1	A	2505	G	C5-C6-O6	8.36	133.61	128.60
1	A	677	A	C2-N3-C4	-8.35	106.42	110.60
1	A	2544	G	N1-C6-O6	8.35	124.91	119.90
1	A	1253	A	C5-N7-C8	-8.35	99.73	103.90
1	A	655	A	C8-N9-C4	-8.34	102.46	105.80
1	A	1971	A	N1-C6-N6	8.34	123.60	118.60
1	A	2681	C	N3-C4-N4	-8.34	112.16	118.00
1	A	2441	C	C6-N1-C2	8.32	123.63	120.30
1	A	2392	A	C2-N3-C4	-8.31	106.44	110.60
1	A	731	C	C6-N1-C2	8.30	123.62	120.30
1	A	189	G	C8-N9-C4	8.28	109.71	106.40
1	A	1771	C	N1-C2-O2	-8.27	113.94	118.90
1	A	265	A	C2-N3-C4	-8.27	106.47	110.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1999	C	C5-C6-N1	-8.25	116.88	121.00
1	A	2226	C	C6-N1-C2	8.24	123.60	120.30
1	A	2463	C	C5-C6-N1	-8.24	116.88	121.00
1	A	828	U	C5-C4-O4	8.21	130.83	125.90
1	A	807	U	C2-N1-C1'	-8.19	107.87	117.70
1	A	444	C	C5-C6-N1	-8.18	116.91	121.00
1	A	676	A	N3-C4-N9	-8.18	120.85	127.40
1	A	1962	C	C6-N1-C1'	-8.16	111.01	120.80
1	A	1653	G	C8-N9-C4	8.15	109.66	106.40
1	A	2713	A	C4-C5-N7	8.15	114.78	110.70
1	A	574	C	C6-N1-C2	8.15	123.56	120.30
1	A	2506	U	N3-C2-O2	-8.14	116.50	122.20
1	A	2424	C	C6-N1-C2	8.13	123.55	120.30
1	A	1253	A	C4-C5-C6	-8.12	112.94	117.00
1	A	1786	A	N1-C2-N3	8.12	133.36	129.30
1	A	1325	G	C8-N9-C1'	8.11	137.54	127.00
1	A	1800	C	C6-N1-C2	8.11	123.54	120.30
1	A	1614	A	C5-N7-C8	-8.11	99.85	103.90
1	A	764	A	C5-N7-C8	-8.09	99.85	103.90
1	A	814	C	C6-N1-C2	8.09	123.54	120.30
1	A	1204	A	C5-N7-C8	-8.08	99.86	103.90
1	A	141(A)	A	C5-N7-C8	-8.06	99.87	103.90
1	A	840	C	C6-N1-C2	8.05	123.52	120.30
1	A	2081	C	N1-C2-O2	-8.06	114.07	118.90
1	A	2777	G	C8-N9-C4	8.05	109.62	106.40
1	A	1790	C	C5-C6-N1	-8.03	116.99	121.00
1	A	945	A	C5-N7-C8	-8.01	99.89	103.90
1	A	1678	G	C8-N9-C1'	8.00	137.40	127.00
1	A	2596	U	C2-N1-C1'	-8.00	108.11	117.70
1	A	2028	U	C5-C6-N1	7.99	126.70	122.70
1	A	2017	U	N1-C2-N3	7.99	119.69	114.90
1	A	529	A	N1-C6-N6	7.98	123.39	118.60
1	A	1898	U	N3-C4-C5	-7.98	109.81	114.60
1	A	1820	U	C5-C6-N1	-7.98	118.71	122.70
1	A	32	C	N1-C2-O2	-7.96	114.12	118.90
1	A	114(B)	A	C6-C5-N7	-7.95	126.74	132.30
1	A	1614	A	N7-C8-N9	7.93	117.77	113.80
1	A	1678	G	C2-N3-C4	-7.92	107.94	111.90
1	A	535	C	C5-C6-N1	-7.92	117.04	121.00
1	A	2346	A	C2-N3-C4	-7.91	106.64	110.60
1	A	2699	C	C6-N1-C2	7.91	123.46	120.30
1	A	189	G	N9-C4-C5	-7.90	102.24	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2028	U	C2-N3-C4	7.90	131.74	127.00
24	X	35	THR	N-CA-C	7.90	132.33	111.00
1	A	2499	C	C2-N3-C4	-7.90	115.95	119.90
1	A	2524	G	C8-N9-C4	7.89	109.56	106.40
1	A	1786	A	C4-C5-N7	7.89	114.64	110.70
1	A	2010	G	C5-N7-C8	-7.88	100.36	104.30
1	A	298	G	C5-N7-C8	-7.88	100.36	104.30
1	A	2593	U	N3-C4-C5	-7.88	109.87	114.60
1	A	2518	A	C5-N7-C8	-7.87	99.97	103.90
25	Y	21	LEU	CA-CB-CG	7.87	133.39	115.30
1	A	1671	U	C5-C6-N1	7.85	126.62	122.70
1	A	530	G	C8-N9-C4	-7.84	103.26	106.40
1	A	1704	G	C8-N9-C4	7.83	109.53	106.40
1	A	945	A	C4-C5-N7	7.83	114.62	110.70
1	A	1332	G	C5-N7-C8	-7.83	100.39	104.30
1	A	1323	U	N1-C2-O2	-7.83	117.32	122.80
1	A	1899	G	C8-N9-C4	-7.81	103.27	106.40
1	A	566	U	C5-C6-N1	-7.76	118.82	122.70
1	A	783	A	C6-C5-N7	-7.76	126.87	132.30
1	A	1827	C	C2-N3-C4	-7.75	116.02	119.90
1	A	676	A	N1-C2-N3	7.75	133.17	129.30
1	A	1204	A	N7-C8-N9	7.73	117.66	113.80
1	A	2391	G	C5-C6-O6	7.72	133.23	128.60
1	A	2010	G	N7-C8-N9	7.71	116.95	113.10
1	A	929	G	C6-C5-N7	-7.70	125.78	130.40
1	A	1648	C	N1-C2-O2	-7.70	114.28	118.90
1	A	2588	G	N1-C2-N3	7.69	128.52	123.90
1	A	835	A	C8-N9-C4	7.69	108.88	105.80
1	A	570	G	N9-C4-C5	7.68	108.47	105.40
1	A	1994	C	C6-N1-C2	7.68	123.37	120.30
1	A	945	A	N7-C8-N9	7.67	117.64	113.80
1	A	1154	G	N1-C6-O6	-7.67	115.30	119.90
1	A	774	A	N3-C4-C5	7.66	132.16	126.80
1	A	1678	G	C4-N9-C1'	-7.65	116.55	126.50
1	A	83	G	N3-C4-C5	7.65	132.43	128.60
1	A	568	U	N3-C4-C5	-7.65	110.01	114.60
1	A	774	A	C5-C6-N1	-7.65	113.88	117.70
1	A	2689	U	C6-N1-C1'	7.64	131.90	121.20
1	A	779	U	C6-N1-C2	7.64	125.58	121.00
1	A	1627	G	N1-C6-O6	7.63	124.48	119.90
1	A	2091	U	C5-C6-N1	-7.63	118.88	122.70
1	A	2454	G	N7-C8-N9	-7.62	109.29	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	580	C	C2-N3-C4	-7.61	116.09	119.90
1	A	2841	C	C6-N1-C2	7.61	123.34	120.30
1	A	2505	G	C4-C5-N7	-7.60	107.76	110.80
1	A	210	C	C5-C6-N1	-7.60	117.20	121.00
1	A	580	C	C6-N1-C2	7.59	123.33	120.30
1	A	31	C	C6-N1-C2	7.58	123.33	120.30
1	A	2540	C	C5-C6-N1	-7.58	117.21	121.00
1	A	1614	A	N1-C6-N6	7.56	123.14	118.60
2	B	100	G	C8-N9-C4	7.56	109.42	106.40
1	A	1349	A	N1-C6-N6	7.54	123.12	118.60
1	A	2699	C	C2-N1-C1'	-7.54	110.51	118.80
1	A	2626	C	C6-N1-C2	7.52	123.31	120.30
1	A	2081	C	C2-N3-C4	-7.52	116.14	119.90
1	A	771	G	N1-C6-O6	7.50	124.40	119.90
1	A	2250	G	C8-N9-C4	-7.50	103.40	106.40
1	A	1161	C	C6-N1-C2	-7.49	117.30	120.30
1	A	1770	G	N1-C2-N3	7.49	128.39	123.90
1	A	784	A	N1-C6-N6	-7.47	114.12	118.60
1	A	1671	U	C6-N1-C2	-7.47	116.52	121.00
1	A	1686	C	N1-C2-O2	-7.47	114.42	118.90
1	A	764	A	C4-C5-N7	7.45	114.42	110.70
1	A	2588	G	C2-N3-C4	-7.45	108.18	111.90
1	A	557	U	C5-C6-N1	-7.43	118.98	122.70
1	A	1793	C	C6-N1-C2	7.43	123.27	120.30
1	A	530	G	N1-C6-O6	-7.42	115.45	119.90
1	A	2713	A	C6-C5-N7	-7.42	127.11	132.30
1	A	130	C	C6-N1-C2	7.41	123.26	120.30
1	A	512	G	N3-C4-N9	-7.41	121.55	126.00
1	A	2828	C	C2-N3-C4	-7.40	116.20	119.90
1	A	1224	C	N1-C2-O2	-7.39	114.47	118.90
1	A	2634	G	C8-N9-C4	7.38	109.35	106.40
1	A	826	U	C5-C6-N1	-7.38	119.01	122.70
1	A	2346	A	N1-C2-N3	7.37	132.99	129.30
1	A	2430	A	C5-C6-N1	-7.37	114.01	117.70
1	A	1309	G	C8-N9-C1'	-7.37	117.42	127.00
1	A	1254	A	N1-C2-N3	7.36	132.98	129.30
1	A	1769	G	C8-N9-C4	-7.36	103.45	106.40
1	A	298	G	C4-C5-N7	7.36	113.74	110.80
1	A	2032	G	N7-C8-N9	7.36	116.78	113.10
1	A	2719	G	N3-C4-N9	7.35	130.41	126.00
1	A	2595	G	C5-C6-O6	-7.34	124.19	128.60
1	A	1602	U	C4-C5-C6	7.34	124.10	119.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1210	A	C2-N3-C4	-7.33	106.93	110.60
1	A	1252	G	C8-N9-C4	7.33	109.33	106.40
1	A	2056	G	C4-C5-N7	7.33	113.73	110.80
1	A	968	G	C5-C6-O6	-7.32	124.21	128.60
1	A	2648	C	C5-C6-N1	-7.32	117.34	121.00
1	A	640	C	C5-C6-N1	-7.32	117.34	121.00
1	A	1254	A	C6-N1-C2	-7.32	114.21	118.60
1	A	114(B)	A	N1-C6-N6	7.31	122.99	118.60
1	A	2017	U	C4-C5-C6	7.30	124.08	119.70
1	A	2502	G	C4-C5-N7	7.29	113.72	110.80
1	A	1201	C	C6-N1-C2	7.28	123.21	120.30
1	A	2595	G	C8-N9-C4	7.27	109.31	106.40
1	A	1261	C	C5-C6-N1	-7.27	117.36	121.00
1	A	1999	C	C2-N1-C1'	-7.27	110.81	118.80
1	A	2081	C	C5-C6-N1	-7.26	117.37	121.00
1	A	772	C	C6-N1-C2	7.25	123.20	120.30
1	A	570	G	C5-N7-C8	7.24	107.92	104.30
1	A	676	A	C8-N9-C4	-7.24	102.91	105.80
1	A	1698	A	C6-C5-N7	-7.23	127.24	132.30
1	A	1328	G	C6-C5-N7	-7.22	126.06	130.40
1	A	2581	G	N9-C4-C5	7.22	108.29	105.40
1	A	471	A	C8-N9-C4	7.22	108.69	105.80
1	A	2825	U	N3-C4-C5	7.22	118.93	114.60
1	A	783	A	C5-C6-N1	-7.20	114.10	117.70
1	A	2447	G	C4-N9-C1'	-7.20	117.14	126.50
1	A	2007	C	C6-N1-C2	7.20	123.18	120.30
1	A	2700	C	C5-C6-N1	-7.20	117.40	121.00
1	A	2451	A	N9-C4-C5	7.19	108.68	105.80
1	A	529	A	C5-C6-N6	-7.19	117.95	123.70
1	A	808	G	C8-N9-C4	7.19	109.28	106.40
1	A	561	G	C8-N9-C4	7.18	109.27	106.40
1	A	2515	C	N3-C4-C5	7.17	124.77	121.90
1	A	2498	C	C5-C6-N1	-7.17	117.41	121.00
1	A	760	G	C4-C5-N7	7.15	113.66	110.80
1	A	2392	A	C8-N9-C4	-7.15	102.94	105.80
1	A	836	G	N3-C4-C5	7.14	132.17	128.60
1	A	535	C	N3-C4-C5	7.13	124.75	121.90
1	A	698	C	C6-N1-C2	7.12	123.15	120.30
1	A	1698	A	C5-N7-C8	-7.12	100.34	103.90
1	A	746	A	C6-N1-C2	-7.12	114.33	118.60
1	A	2614	A	C6-N1-C2	-7.12	114.33	118.60
1	A	2441	C	N3-C2-O2	7.11	126.87	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	17	G	C5-C6-O6	-7.10	124.34	128.60
1	A	1655	A	C8-N9-C4	7.10	108.64	105.80
1	A	1325	G	C8-N9-C4	-7.09	103.56	106.40
1	A	563	G	N1-C6-O6	-7.09	115.65	119.90
1	A	1982	C	N1-C2-O2	-7.09	114.65	118.90
13	M	81	VAL	N-CA-C	7.08	130.12	111.00
1	A	708	C	C5-C6-N1	-7.08	117.46	121.00
1	A	1602	U	N1-C2-N3	7.07	119.14	114.90
1	A	974(A)	G	C8-N9-C4	-7.07	103.57	106.40
1	A	2571	C	N3-C4-C5	7.06	124.73	121.90
1	A	2249	U	N3-C4-C5	-7.06	110.36	114.60
1	A	2430	A	N1-C2-N3	7.05	132.83	129.30
1	A	1790	C	N3-C4-N4	-7.05	113.07	118.00
1	A	1902	C	C5-C4-N4	7.04	125.12	120.20
1	A	2587	A	C8-N9-C4	7.03	108.61	105.80
1	A	1786	A	N1-C6-N6	7.03	122.82	118.60
1	A	30	G	C8-N9-C4	7.02	109.21	106.40
1	A	979	G	C5-N7-C8	-7.01	100.79	104.30
1	A	2499	C	C5-C6-N1	-7.00	117.50	121.00
1	A	835	A	N7-C8-N9	-6.99	110.30	113.80
1	A	976	C	C5-C6-N1	-6.99	117.51	121.00
1	A	761	A	C4-N9-C1'	6.99	138.87	126.30
1	A	2050	C	C2-N3-C4	-6.97	116.42	119.90
1	A	2386	C	C5-C6-N1	-6.97	117.52	121.00
1	A	1493	C	C2-N1-C1'	6.97	126.46	118.80
1	A	2232	U	N3-C4-C5	-6.96	110.42	114.60
1	A	736	C	C6-N1-C2	6.96	123.08	120.30
1	A	1698	A	C4-C5-N7	6.96	114.18	110.70
1	A	1830	C	N3-C2-O2	6.96	126.77	121.90
1	A	1332	G	C4-C5-C6	-6.95	114.63	118.80
1	A	783	A	N7-C8-N9	6.95	117.28	113.80
1	A	671	C	C4-C5-C6	6.95	120.87	117.40
1	A	1332	G	C5-C6-N1	-6.95	108.03	111.50
1	A	561	G	N7-C8-N9	-6.95	109.63	113.10
1	A	1323	U	N3-C4-O4	6.94	124.26	119.40
1	A	2236	C	C6-N1-C2	6.94	123.08	120.30
1	A	2454	G	C5-N7-C8	6.93	107.77	104.30
1	A	2386	C	C6-N1-C2	6.93	123.07	120.30
1	A	761	A	C8-N9-C1'	-6.93	115.22	127.70
1	A	1332	G	N9-C4-C5	6.93	108.17	105.40
1	A	640	C	N3-C4-C5	6.93	124.67	121.90
1	A	1788	C	C2-N3-C4	-6.93	116.44	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	140	A	N1-C6-N6	6.92	122.75	118.60
1	A	771	G	C5-C6-O6	-6.91	124.45	128.60
1	A	309	G	C5-C6-N1	-6.91	108.05	111.50
1	A	2035	G	N1-C6-O6	-6.90	115.76	119.90
1	A	1786	A	C4-C5-C6	6.90	120.45	117.00
1	A	837	C	C6-N1-C2	-6.89	117.54	120.30
1	A	976	C	C6-N1-C2	6.89	123.06	120.30
1	A	2441	C	N1-C2-O2	-6.89	114.77	118.90
1	A	2044	C	N3-C4-C5	6.88	124.65	121.90
1	A	650	C	C6-N1-C2	6.88	123.05	120.30
1	A	2287	A	C2-N3-C4	-6.88	107.16	110.60
1	A	568	U	C5-C4-O4	6.87	130.02	125.90
1	A	1323	U	C4-C5-C6	6.87	123.83	119.70
1	A	1653	G	N1-C6-O6	6.87	124.02	119.90
1	A	83	G	N3-C4-N9	-6.86	121.88	126.00
1	A	1225	G	C5-C6-O6	6.86	132.72	128.60
1	A	2828	C	C6-N1-C2	6.85	123.04	120.30
1	A	966	G	C8-N9-C4	6.85	109.14	106.40
1	A	2532	G	N1-C6-O6	6.85	124.01	119.90
1	A	2708	G	C8-N9-C4	6.85	109.14	106.40
1	A	1616	A	C6-C5-N7	-6.85	127.51	132.30
1	A	265	A	N7-C8-N9	6.84	117.22	113.80
1	A	1021	A	C5-N7-C8	-6.84	100.48	103.90
1	A	1123	C	C6-N1-C2	6.83	123.03	120.30
1	A	929	G	C5-C6-N1	-6.83	108.08	111.50
1	A	673	C	N3-C4-C5	6.83	124.63	121.90
1	A	1962	C	N3-C2-O2	-6.82	117.13	121.90
1	A	494	G	N1-C6-O6	6.82	123.99	119.90
1	A	1898	U	C6-N1-C1'	6.81	130.73	121.20
1	A	840	C	N3-C4-C5	6.80	124.62	121.90
1	A	678	C	C6-N1-C2	6.80	123.02	120.30
1	A	1962	C	C5-C6-N1	6.80	124.40	121.00
1	A	535	C	C2-N3-C4	-6.80	116.50	119.90
1	A	1675	C	N3-C4-C5	-6.80	119.18	121.90
1	A	1323	U	N1-C2-N3	6.80	118.98	114.90
1	A	141(A)	A	C4-C5-N7	6.79	114.10	110.70
1	A	527	C	N3-C4-N4	-6.79	113.25	118.00
1	A	1982	C	C5-C4-N4	-6.79	115.44	120.20
1	A	330	A	C4-C5-N7	6.78	114.09	110.70
1	A	2447	G	C8-N9-C1'	6.78	135.81	127.00
1	A	1775	U	C5-C6-N1	-6.78	119.31	122.70
1	A	2010	G	C5-C6-O6	-6.78	124.53	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	729	G	C4-C5-N7	6.76	113.50	110.80
1	A	141(A)	A	C2-N3-C4	-6.76	107.22	110.60
1	A	327	G	N1-C6-O6	6.76	123.96	119.90
1	A	1814	G	C8-N9-C4	6.75	109.10	106.40
1	A	2500	U	C5-C6-N1	-6.75	119.32	122.70
1	A	330	A	C6-C5-N7	-6.74	127.58	132.30
1	A	2392	A	N7-C8-N9	6.74	117.17	113.80
1	A	503	A	N1-C2-N3	6.74	132.67	129.30
1	A	2825	U	C4-C5-C6	-6.73	115.66	119.70
1	A	2505	G	N9-C4-C5	6.73	108.09	105.40
1	A	2709	G	N1-C6-O6	6.72	123.94	119.90
1	A	2053	G	N1-C6-O6	6.71	123.93	119.90
1	A	2544	G	C5-C6-O6	-6.71	124.57	128.60
1	A	474	G	N1-C6-O6	-6.71	115.87	119.90
1	A	267	C	C6-N1-C2	6.71	122.98	120.30
1	A	2489	G	N1-C6-O6	6.71	123.92	119.90
1	A	444	C	N1-C2-O2	-6.70	114.88	118.90
1	A	1200	C	N1-C2-O2	-6.70	114.88	118.90
1	A	2053	G	C5-C6-O6	-6.69	124.58	128.60
1	A	187	G	N3-C4-N9	6.69	130.01	126.00
1	A	2555	U	C5-C4-O4	6.69	129.91	125.90
1	A	265	A	C5-C6-N1	-6.69	114.36	117.70
1	A	808	G	N7-C8-N9	-6.68	109.76	113.10
1	A	1652	A	N1-C6-N6	6.68	122.61	118.60
1	A	971	C	N1-C2-O2	-6.68	114.89	118.90
1	A	248	G	C4-C5-N7	6.67	113.47	110.80
1	A	265	A	N1-C6-N6	6.67	122.60	118.60
1	A	659	C	C6-N1-C2	6.67	122.97	120.30
1	A	1648	C	C2-N3-C4	-6.66	116.57	119.90
1	A	129	C	C5-C6-N1	-6.66	117.67	121.00
1	A	697	C	C6-N1-C2	6.65	122.96	120.30
1	A	949	C	N3-C4-C5	6.65	124.56	121.90
1	A	2681	C	C5-C4-N4	6.65	124.86	120.20
1	A	587	C	N3-C4-C5	-6.64	119.24	121.90
1	A	2271	G	N3-C4-N9	6.64	129.98	126.00
1	A	602	G	N7-C8-N9	-6.64	109.78	113.10
1	A	2036	C	C6-N1-C2	-6.63	117.65	120.30
1	A	1615	C	C6-N1-C2	6.62	122.95	120.30
1	A	1634	A	N1-C6-N6	-6.62	114.63	118.60
1	A	807	U	C6-N1-C1'	6.61	130.46	121.20
1	A	1190	G	C4-C5-N7	6.61	113.44	110.80
1	A	2593	U	C6-N1-C2	-6.61	117.03	121.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	782	A	C8-N9-C4	6.61	108.44	105.80
1	A	194	G	C8-N9-C4	6.61	109.04	106.40
1	A	650	C	C5-C6-N1	-6.61	117.70	121.00
1	A	2544	G	C4-C5-N7	6.60	113.44	110.80
1	A	497	A	C8-N9-C4	6.59	108.44	105.80
1	A	2688	U	C5-C4-O4	6.59	129.86	125.90
1	A	2464	C	C6-N1-C2	6.59	122.94	120.30
1	A	2032	G	C4-C5-N7	6.59	113.44	110.80
1	A	1680	U	C5-C4-O4	6.58	129.85	125.90
1	A	774	A	N1-C6-N6	6.57	122.54	118.60
1	A	814	C	C5-C6-N1	-6.57	117.71	121.00
1	A	933	A	C2-N3-C4	-6.57	107.31	110.60
1	A	2037	G	N1-C2-N3	6.57	127.84	123.90
1	A	2830	G	N1-C6-O6	6.57	123.84	119.90
1	A	2828	C	N3-C4-C5	6.56	124.53	121.90
1	A	2438	U	C5-C6-N1	-6.55	119.42	122.70
1	A	2084	C	C2-N3-C4	-6.55	116.63	119.90
1	A	671	C	N3-C4-C5	-6.54	119.28	121.90
1	A	1616	A	N1-C6-N6	6.54	122.53	118.60
1	A	1976	U	N1-C2-N3	6.53	118.82	114.90
1	A	1815	A	N1-C2-N3	6.52	132.56	129.30
1	A	1969	A	C8-N9-C4	-6.52	103.19	105.80
1	A	1698	A	C2-N3-C4	-6.51	107.35	110.60
1	A	2378	A	C8-N9-C4	6.51	108.40	105.80
1	A	933	A	N7-C8-N9	6.50	117.05	113.80
1	A	789	A	C5-C6-N6	-6.50	118.50	123.70
1	A	1204	A	C8-N9-C4	-6.50	103.20	105.80
1	A	561	G	C5-N7-C8	6.49	107.54	104.30
1	A	736	C	N3-C4-C5	6.48	124.49	121.90
1	A	104	U	C5-C6-N1	-6.48	119.46	122.70
1	A	1304	C	C6-N1-C2	6.48	122.89	120.30
1	A	2063	C	N3-C4-C5	-6.48	119.31	121.90
1	A	2626	C	N3-C4-C5	6.48	124.49	121.90
1	A	1329	U	C5-C6-N1	-6.47	119.46	122.70
1	A	2647	U	C5-C6-N1	-6.47	119.46	122.70
2	B	98	G	C8-N9-C1'	-6.47	118.58	127.00
1	A	2045	C	C6-N1-C2	6.47	122.89	120.30
1	A	2540	C	C2-N3-C4	-6.47	116.67	119.90
1	A	265	A	C4-C5-N7	6.46	113.93	110.70
1	A	1190	G	C5-C6-O6	-6.46	124.72	128.60
1	A	512	G	C8-N9-C1'	6.45	135.38	127.00
1	A	729	G	C6-C5-N7	-6.45	126.53	130.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1241	A	C5-C6-N1	-6.45	114.47	117.70
1	A	1499	C	C6-N1-C2	6.45	122.88	120.30
1	A	2707	G	C8-N9-C4	6.45	108.98	106.40
1	A	1352	U	C5-C6-N1	-6.44	119.48	122.70
1	A	2596	U	N3-C4-O4	-6.43	114.90	119.40
1	A	2359	C	C6-N1-C2	6.42	122.87	120.30
1	A	66	C	C6-N1-C2	6.41	122.87	120.30
1	A	1602	U	C5-C6-N1	6.41	125.91	122.70
1	A	2053	G	C4-C5-N7	6.40	113.36	110.80
1	A	809	G	N1-C6-O6	6.39	123.73	119.90
1	A	956	G	C5-C6-N1	-6.39	108.31	111.50
1	A	728	G	C8-N9-C4	6.39	108.95	106.40
1	A	1443	G	N1-C6-O6	6.39	123.73	119.90
1	A	1804	C	C5-C6-N1	-6.39	117.81	121.00
1	A	951	C	C6-N1-C2	6.38	122.85	120.30
1	A	1983	C	N3-C4-C5	6.38	124.45	121.90
1	A	789	A	N1-C6-N6	6.38	122.43	118.60
1	A	2532	G	C6-C5-N7	-6.38	126.57	130.40
1	A	36	G	N7-C8-N9	-6.38	109.91	113.10
1	A	1355	G	N1-C6-O6	-6.37	116.08	119.90
1	A	840	C	C5-C6-N1	-6.37	117.81	121.00
1	A	2502	G	C5-N7-C8	-6.37	101.11	104.30
1	A	1605	C	N1-C2-O2	-6.37	115.08	118.90
1	A	602	G	C8-N9-C4	6.36	108.94	106.40
1	A	692	C	N3-C4-C5	6.36	124.44	121.90
1	A	949	C	C6-N1-C2	6.36	122.84	120.30
1	A	2043	C	C5-C6-N1	-6.35	117.82	121.00
1	A	1128	A	N7-C8-N9	-6.34	110.63	113.80
1	A	2387	U	C5-C6-N1	-6.33	119.53	122.70
1	A	783	A	C4-C5-N7	6.33	113.86	110.70
1	A	1798	U	C5-C6-N1	-6.32	119.54	122.70
1	A	240	G	C5-C6-N1	-6.32	108.34	111.50
1	A	691	C	C5-C6-N1	-6.32	117.84	121.00
1	A	1138	G	N3-C4-N9	6.32	129.79	126.00
1	A	2555	U	N1-C2-N3	6.32	118.69	114.90
1	A	2521	C	C6-N1-C2	6.31	122.82	120.30
1	A	124	G	C8-N9-C4	6.31	108.92	106.40
1	A	2742	C	C5-C6-N1	-6.31	117.85	121.00
1	A	2625	G	C8-N9-C4	6.30	108.92	106.40
1	A	2066	C	C6-N1-C2	6.30	122.82	120.30
1	A	298	G	N7-C8-N9	6.29	116.25	113.10
1	A	686	G	C5-C6-O6	-6.29	124.83	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	298	G	C5-C6-O6	-6.29	124.83	128.60
1	A	704	G	C4-C5-N7	6.29	113.31	110.80
1	A	1663	C	C6-N1-C2	6.28	122.81	120.30
1	A	2501	C	N3-C4-C5	6.28	124.41	121.90
1	A	2206	C	N3-C4-C5	6.28	124.41	121.90
1	A	560	C	C5-C6-N1	-6.27	117.86	121.00
2	B	84	C	C6-N1-C2	-6.27	117.79	120.30
1	A	1188	U	N3-C2-O2	-6.27	117.81	122.20
1	A	1899	G	C5-C6-O6	6.27	132.36	128.60
1	A	1964	G	N3-C4-N9	6.26	129.76	126.00
1	A	933	A	C5-N7-C8	-6.26	100.77	103.90
1	A	2839	G	N1-C6-O6	6.26	123.66	119.90
1	A	596	G	N1-C6-O6	6.26	123.66	119.90
1	A	1323	U	N3-C4-C5	-6.26	110.85	114.60
1	A	1780	A	C2-N3-C4	-6.25	107.47	110.60
1	A	1935	G	N3-C4-C5	6.25	131.73	128.60
1	A	2515	C	C6-N1-C2	6.25	122.80	120.30
1	A	802	A	C8-N9-C1'	-6.25	116.45	127.70
1	A	265	A	C6-C5-N7	-6.24	127.93	132.30
1	A	444	C	C2-N1-C1'	-6.24	111.93	118.80
1	A	2713	A	N9-C4-C5	-6.24	103.31	105.80
2	B	76	G	C5-C6-O6	-6.24	124.86	128.60
1	A	2506	U	N1-C2-O2	6.23	127.16	122.80
1	A	13	A	N1-C6-N6	-6.23	114.86	118.60
1	A	1779	U	C5-C6-N1	-6.22	119.59	122.70
1	A	2578	G	C5-C6-O6	-6.22	124.87	128.60
1	A	2279	G	N1-C6-O6	-6.22	116.17	119.90
1	A	2622	C	N3-C4-C5	6.22	124.39	121.90
1	A	1653	G	N9-C4-C5	-6.21	102.91	105.40
1	A	594	U	N1-C2-N3	6.21	118.63	114.90
1	A	1776	G	C5-C6-N1	6.21	114.60	111.50
1	A	1899	G	N1-C2-N3	6.20	127.62	123.90
1	A	512	G	C5-N7-C8	-6.20	101.20	104.30
1	A	798	G	N1-C2-N3	6.20	127.62	123.90
1	A	2069	G	C8-N9-C4	6.20	108.88	106.40
1	A	1264	G	N1-C2-N3	6.20	127.62	123.90
1	A	1704	G	N7-C8-N9	-6.19	110.00	113.10
1	A	2689	U	C5-C6-N1	-6.19	119.60	122.70
1	A	1674	G	C8-N9-C4	6.18	108.87	106.40
1	A	2005	A	C2-N3-C4	-6.18	107.51	110.60
1	A	956	G	N1-C6-O6	6.18	123.61	119.90
1	A	2700	C	C2-N3-C4	-6.18	116.81	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2506	U	C2-N1-C1'	6.18	125.11	117.70
1	A	528	A	N1-C2-N3	6.18	132.39	129.30
1	A	1675	C	C4-C5-C6	6.17	120.49	117.40
1	A	1821	A	C8-N9-C4	6.17	108.27	105.80
1	A	1937	A	N1-C2-N3	6.17	132.39	129.30
1	A	847	U	C2-N3-C4	-6.17	123.30	127.00
1	A	1792	G	N9-C4-C5	6.17	107.87	105.40
1	A	197	A	N1-C6-N6	6.16	122.30	118.60
1	A	586	A	C8-N9-C4	6.16	108.26	105.80
1	A	945	A	C5-C6-N6	-6.16	118.77	123.70
1	A	2059	A	C8-N9-C4	6.16	108.26	105.80
1	A	564	C	C6-N1-C2	-6.15	117.84	120.30
1	A	458	G	C5-C6-O6	-6.15	124.91	128.60
1	A	114(B)	A	C2-N3-C4	-6.15	107.52	110.60
1	A	1677	A	C8-N9-C4	-6.15	103.34	105.80
1	A	2053	G	N9-C4-C5	-6.15	102.94	105.40
1	A	2440	C	N1-C2-O2	-6.15	115.21	118.90
1	A	678	C	C2-N3-C4	-6.15	116.83	119.90
1	A	786	C	C2-N3-C4	-6.15	116.83	119.90
1	A	1225	G	N1-C6-O6	-6.15	116.21	119.90
1	A	2829	C	C5-C6-N1	-6.15	117.93	121.00
12	L	61	ARG	NE-CZ-NH1	6.14	123.37	120.30
1	A	1010	A	C8-N9-C4	6.14	108.25	105.80
1	A	1678	G	C4-C5-C6	-6.14	115.12	118.80
1	A	509	C	C6-N1-C2	6.13	122.75	120.30
1	A	570	G	C4-C5-C6	6.12	122.47	118.80
1	A	760	G	N3-C4-C5	6.12	131.66	128.60
1	A	787	U	C5-C6-N1	-6.11	119.65	122.70
1	A	1614	A	C4-C5-C6	6.11	120.05	117.00
1	A	2681	C	C5-C6-N1	-6.10	117.95	121.00
1	A	494	G	C5-C6-O6	-6.10	124.94	128.60
1	A	1208	C	C6-N1-C2	6.10	122.74	120.30
1	A	543	C	C6-N1-C2	6.10	122.74	120.30
1	A	1783	A	N3-C4-N9	-6.10	122.52	127.40
1	A	807	U	C5-C6-N1	-6.10	119.65	122.70
1	A	993	G	N9-C4-C5	6.10	107.84	105.40
1	A	1827	C	C5-C6-N1	-6.09	117.95	121.00
1	A	1648	C	C5-C6-N1	-6.09	117.95	121.00
1	A	450	G	C8-N9-C1'	-6.08	119.09	127.00
1	A	2831	G	N3-C4-N9	-6.08	122.36	126.00
1	A	333	G	C8-N9-C1'	-6.07	119.11	127.00
1	A	83	G	C4-N9-C1'	-6.07	118.61	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	333	G	C4-N9-C1'	6.07	134.39	126.50
1	A	1613	G	N1-C6-O6	-6.07	116.26	119.90
1	A	1899	G	N3-C2-N2	-6.07	115.65	119.90
1	A	2066	C	C5-C6-N1	-6.07	117.97	121.00
1	A	2250	G	N1-C6-O6	-6.06	116.26	119.90
1	A	2510	C	C5-C6-N1	-6.06	117.97	121.00
1	A	2453	A	N1-C2-N3	6.06	132.33	129.30
1	A	1983	C	C2-N3-C4	-6.06	116.87	119.90
1	A	528	A	C5-N7-C8	-6.06	100.87	103.90
1	A	1248	G	C5-C6-O6	-6.06	124.96	128.60
1	A	2330	G	N7-C8-N9	-6.06	110.07	113.10
1	A	2033	A	N1-C2-N3	6.05	132.33	129.30
1	A	1899	G	N9-C4-C5	6.05	107.82	105.40
1	A	780	G	C8-N9-C4	6.04	108.82	106.40
1	A	974(B)	C	N3-C4-C5	6.04	124.32	121.90
1	A	201	C	C6-N1-C2	6.04	122.72	120.30
1	A	209	C	C6-N1-C2	6.04	122.72	120.30
1	A	141(A)	A	N7-C8-N9	6.03	116.82	113.80
1	A	2825	U	N3-C4-O4	-6.03	115.18	119.40
1	A	1261	C	C2-N3-C4	-6.03	116.88	119.90
1	A	2454	G	C8-N9-C4	6.03	108.81	106.40
1	A	595	C	C6-N1-C2	6.02	122.71	120.30
1	A	2059	A	C6-N1-C2	-6.02	114.99	118.60
1	A	1677	A	N7-C8-N9	6.02	116.81	113.80
1	A	808	G	C5-N7-C8	6.02	107.31	104.30
1	A	1837	C	C6-N1-C2	-6.02	117.89	120.30
1	A	2032	G	N3-C4-N9	-6.02	122.39	126.00
1	A	2390	U	N3-C2-O2	-6.02	117.99	122.20
1	A	1000	A	C5-C6-N6	6.01	128.51	123.70
1	A	1252	G	N7-C8-N9	-6.01	110.09	113.10
1	A	2626	C	C2-N1-C1'	-6.01	112.19	118.80
1	A	1123	C	C5-C6-N1	-6.01	118.00	121.00
1	A	843	G	N1-C6-O6	6.00	123.50	119.90
1	A	2508	G	C8-N9-C4	6.00	108.80	106.40
1	A	509	C	N3-C4-C5	6.00	124.30	121.90
1	A	1977	A	C2-N3-C4	-6.00	107.60	110.60
1	A	2345	G	C4-C5-N7	-6.00	108.40	110.80
1	A	575	A	C8-N9-C4	5.99	108.20	105.80
1	A	571	A	C4-C5-C6	-5.99	114.01	117.00
1	A	1309	G	C8-N9-C4	5.99	108.79	106.40
1	A	1839	G	N3-C4-C5	5.98	131.59	128.60
1	A	1839	G	C5-C6-O6	5.98	132.19	128.60

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2498	C	C2-N3-C4	-5.98	116.91	119.90
1	A	600	G	N1-C6-O6	5.98	123.49	119.90
1	A	1797	C	C6-N1-C2	5.98	122.69	120.30
1	A	114(B)	A	C4-C5-C6	5.98	119.99	117.00
1	A	1804	C	C2-N3-C4	-5.97	116.91	119.90
1	A	1796	U	C5-C6-N1	-5.97	119.71	122.70
1	A	1961	C	C5-C6-N1	-5.97	118.01	121.00
1	A	704	G	N9-C4-C5	-5.97	103.01	105.40
1	A	594	U	N3-C2-O2	-5.97	118.02	122.20
1	A	129	C	C6-N1-C2	5.96	122.69	120.30
1	A	1956	U	C5-C6-N1	-5.96	119.72	122.70
1	A	1980	G	N3-C4-C5	-5.96	125.62	128.60
1	A	2086	U	C5-C4-O4	5.95	129.47	125.90
1	A	2433	A	C4-C5-C6	5.95	119.98	117.00
1	A	929	G	C4-C5-C6	5.95	122.37	118.80
1	A	933	A	C6-C5-N7	-5.95	128.14	132.30
1	A	138	G	C8-N9-C4	-5.95	104.02	106.40
1	A	1164	G	C4-N9-C1'	5.95	134.23	126.50
1	A	2719	G	C6-C5-N7	-5.95	126.83	130.40
1	A	2092	U	C5-C4-O4	5.94	129.47	125.90
1	A	2232	U	C5-C4-O4	5.94	129.47	125.90
1	A	1770	G	C2-N3-C4	-5.93	108.93	111.90
1	A	452	G	C5-C6-O6	-5.93	125.04	128.60
1	A	1790	C	C6-N1-C2	5.93	122.67	120.30
1	A	1000	A	N1-C6-N6	-5.93	115.04	118.60
1	A	570	G	C8-N9-C4	-5.92	104.03	106.40
1	A	529	A	C4-C5-N7	5.92	113.66	110.70
1	A	140	A	C5-N7-C8	-5.92	100.94	103.90
1	A	2070	G	C8-N9-C4	5.92	108.77	106.40
1	A	2544	G	C2-N3-C4	-5.92	108.94	111.90
1	A	1655	A	N1-C6-N6	5.92	122.15	118.60
1	A	1798	U	N1-C2-O2	-5.92	118.66	122.80
1	A	141(A)	A	N1-C6-N6	5.91	122.15	118.60
1	A	1957	C	C6-N1-C2	5.91	122.67	120.30
1	A	2524	G	N7-C8-N9	-5.91	110.14	113.10
1	A	2007	C	C5-C6-N1	-5.91	118.05	121.00
1	A	2719	G	N9-C4-C5	-5.91	103.04	105.40
1	A	1121	C	C6-N1-C2	5.91	122.66	120.30
1	A	1333	C	C5-C4-N4	-5.90	116.07	120.20
1	A	2831	G	N3-C4-C5	5.90	131.55	128.60
1	A	806	C	C6-N1-C2	-5.90	117.94	120.30
1	A	1264	G	N9-C4-C5	5.90	107.76	105.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2593	U	C4-C5-C6	5.90	123.24	119.70
1	A	1769	G	N7-C8-N9	5.89	116.05	113.10
1	A	1901	A	N1-C6-N6	-5.89	115.07	118.60
1	A	2719	G	C8-N9-C1'	-5.89	119.34	127.00
1	A	509	C	C2-N1-C1'	-5.89	112.32	118.80
1	A	530	G	N7-C8-N9	5.89	116.04	113.10
1	A	1313	U	C5-C6-N1	5.88	125.64	122.70
1	A	2593	U	N1-C2-N3	5.88	118.43	114.90
1	A	2719	G	C4-N9-C1'	5.88	134.15	126.50
1	A	1291	C	C6-N1-C2	5.88	122.65	120.30
1	A	840	C	C2-N3-C4	-5.88	116.96	119.90
1	A	2544	G	C6-C5-N7	-5.88	126.87	130.40
1	A	847	U	C6-N1-C1'	5.88	129.43	121.20
1	A	1982	C	N3-C4-N4	5.87	122.11	118.00
3	C	177	LEU	CA-CB-CG	-5.87	101.79	115.30
1	A	1769	G	C6-C5-N7	-5.87	126.88	130.40
1	A	2822	G	C8-N9-C4	5.87	108.75	106.40
1	A	640	C	N3-C4-N4	-5.87	113.89	118.00
1	A	239	U	C2-N1-C1'	-5.86	110.67	117.70
1	A	1617	C	C5-C6-N1	-5.86	118.07	121.00
1	A	968	G	N1-C6-O6	5.86	123.42	119.90
1	A	1250	G	C8-N9-C4	5.86	108.75	106.40
1	A	1666	G	N3-C4-C5	5.86	131.53	128.60
1	A	799	G	C5-C6-N1	5.86	114.43	111.50
1	A	1325	G	C4-N9-C1'	-5.86	118.89	126.50
1	A	2003	G	C8-N9-C4	5.86	108.74	106.40
1	A	2496	C	C2-N3-C4	-5.86	116.97	119.90
1	A	811	U	C5-C6-N1	-5.85	119.77	122.70
1	A	2227	A	C2-N3-C4	-5.85	107.67	110.60
1	A	734	A	C2-N3-C4	-5.85	107.68	110.60
1	A	834	C	C2-N3-C4	-5.85	116.98	119.90
1	A	1614	A	C4-C5-N7	5.84	113.62	110.70
1	A	94	G	C6-C5-N7	-5.84	126.89	130.40
1	A	2032	G	N3-C4-C5	5.84	131.52	128.60
1	A	330	A	N3-C4-C5	5.83	130.88	126.80
1	A	1798	U	C2-N3-C4	-5.83	123.50	127.00
1	A	1253	A	C4-C5-N7	5.83	113.62	110.70
1	A	1965	C	N1-C2-O2	5.83	122.40	118.90
1	A	2281	C	C6-N1-C2	5.83	122.63	120.30
1	A	450	G	C4-C5-C6	5.82	122.29	118.80
1	A	1396	U	C5-C6-N1	-5.82	119.79	122.70
1	A	2392	A	C5-C6-N1	-5.82	114.79	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1609	A	C2-N3-C4	-5.82	107.69	110.60
1	A	138	G	N3-C4-C5	-5.82	125.69	128.60
1	A	1369	G	C5-C6-O6	-5.82	125.11	128.60
1	A	1161	C	C2-N1-C1'	5.82	125.20	118.80
1	A	2053	G	C6-C5-N7	-5.81	126.91	130.40
1	A	2253	G	C8-N9-C1'	-5.81	119.45	127.00
1	A	1655	A	C2-N3-C4	-5.81	107.70	110.60
1	A	248	G	C5-C6-O6	-5.80	125.12	128.60
1	A	1841	U	N3-C4-O4	5.80	123.46	119.40
1	A	2697	G	N1-C6-O6	5.80	123.38	119.90
1	A	1392	A	N1-C6-N6	-5.80	115.12	118.60
1	A	2876	G	C8-N9-C4	5.80	108.72	106.40
1	A	107	C	C6-N1-C2	5.79	122.62	120.30
1	A	655	A	N7-C8-N9	5.79	116.70	113.80
1	A	2280	G	C5-C6-N1	5.79	114.40	111.50
1	A	764	A	N1-C6-N6	5.79	122.08	118.60
1	A	834	C	C5-C6-N1	-5.79	118.10	121.00
2	B	76	G	N1-C6-O6	5.79	123.38	119.90
1	A	379	G	C8-N9-C4	5.79	108.72	106.40
1	A	1248	G	C5-C6-N1	5.79	114.39	111.50
1	A	1674	G	C8-N9-C1'	-5.79	119.47	127.00
1	A	1933	G	N1-C6-O6	-5.79	116.43	119.90
1	A	1324	G	C4-C5-N7	5.78	113.11	110.80
1	A	302	C	C2-N1-C1'	-5.78	112.44	118.80
1	A	377	C	C2-N1-C1'	-5.78	112.44	118.80
1	A	2456	C	C6-N1-C2	5.78	122.61	120.30
1	A	450	G	C4-N9-C1'	5.78	134.01	126.50
1	A	847	U	N1-C2-N3	5.77	118.36	114.90
1	A	979	G	N1-C6-O6	5.77	123.36	119.90
1	A	2250	G	N9-C4-C5	5.77	107.71	105.40
1	A	2875	C	N1-C2-O2	-5.77	115.44	118.90
1	A	2648	C	N1-C2-O2	-5.77	115.44	118.90
1	A	1329	U	C6-N1-C2	5.77	124.46	121.00
1	A	1332	G	N1-C6-O6	5.76	123.36	119.90
1	A	1262	A	C5-C6-N1	5.76	120.58	117.70
1	A	1007	C	C6-N1-C2	5.76	122.60	120.30
1	A	2042	A	N1-C6-N6	5.75	122.05	118.60
1	A	2253	G	C4-N9-C1'	5.75	133.98	126.50
1	A	2700	C	C6-N1-C2	5.75	122.60	120.30
1	A	2050	C	C5-C6-N1	-5.75	118.12	121.00
1	A	587	C	C4-C5-C6	5.75	120.28	117.40
1	A	2486	G	N1-C6-O6	5.75	123.35	119.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	675	A	N3-C4-C5	5.75	130.82	126.80
1	A	675	A	C2-N3-C4	-5.74	107.73	110.60
1	A	2501	C	N1-C2-N3	-5.74	115.18	119.20
1	A	575	A	C2-N3-C4	-5.74	107.73	110.60
1	A	1308	A	C2-N3-C4	-5.74	107.73	110.60
1	A	1333	C	C6-N1-C1'	-5.74	113.91	120.80
1	A	1821	A	N1-C2-N3	5.74	132.17	129.30
1	A	2596	U	C5-C6-N1	-5.74	119.83	122.70
1	A	1376	C	N1-C2-O2	-5.74	115.46	118.90
1	A	2386	C	C2-N3-C4	-5.74	117.03	119.90
1	A	1304	C	N3-C4-C5	5.73	124.19	121.90
1	A	1809	A	C4-C5-C6	5.73	119.87	117.00
1	A	114(B)	A	C5-N7-C8	-5.73	101.04	103.90
1	A	31	C	C5-C6-N1	-5.72	118.14	121.00
1	A	1031	G	C2-N3-C4	-5.72	109.04	111.90
1	A	1617	C	C2-N3-C4	-5.72	117.04	119.90
1	A	2518	A	N7-C8-N9	5.72	116.66	113.80
1	A	1671	U	C4-C5-C6	5.72	123.13	119.70
1	A	807	U	C2-N3-C4	-5.72	123.57	127.00
1	A	2601	C	C5-C6-N1	-5.72	118.14	121.00
1	A	594	U	N3-C4-C5	-5.72	111.17	114.60
1	A	804	A	N1-C2-N3	5.72	132.16	129.30
1	A	2433	A	C2-N3-C4	-5.72	107.74	110.60
1	A	37	C	N3-C4-C5	5.71	124.19	121.90
1	A	2451	A	N1-C6-N6	-5.71	115.17	118.60
1	A	322	A	N9-C4-C5	5.71	108.08	105.80
1	A	71	A	C4-C5-N7	5.71	113.55	110.70
1	A	566	U	C2-N1-C1'	-5.70	110.86	117.70
1	A	1841	U	N1-C2-O2	-5.70	118.81	122.80
1	A	2713	A	N7-C8-N9	5.70	116.65	113.80
1	A	36	G	C5-N7-C8	5.70	107.15	104.30
1	A	71	A	C5-N7-C8	-5.70	101.05	103.90
1	A	330	A	C5-C6-N1	-5.69	114.85	117.70
1	A	1804	C	N1-C2-O2	-5.69	115.48	118.90
1	A	1827	C	N3-C4-C5	5.69	124.18	121.90
1	A	2510	C	C2-N3-C4	-5.69	117.05	119.90
1	A	847	U	C5-C4-O4	5.69	129.31	125.90
1	A	330	A	C8-N9-C4	5.68	108.07	105.80
1	A	1935	G	C8-N9-C4	5.68	108.67	106.40
1	A	1948	G	N1-C6-O6	-5.68	116.49	119.90
1	A	38	A	C5-C6-N1	5.67	120.54	117.70
1	A	836	G	C8-N9-C4	5.67	108.67	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2232	U	C4-C5-C6	5.67	123.10	119.70
1	A	810	U	N3-C2-O2	-5.67	118.23	122.20
1	A	1330	C	N3-C4-C5	5.67	124.17	121.90
1	A	512	G	N3-C4-C5	5.67	131.43	128.60
1	A	2648	C	C2-N1-C1'	-5.67	112.57	118.80
1	A	2392	A	N1-C2-N3	5.66	132.13	129.30
1	A	798	G	N3-C4-N9	5.66	129.40	126.00
1	A	1496	A	C8-N9-C4	-5.66	103.54	105.80
1	A	779	U	C5-C6-N1	-5.66	119.87	122.70
1	A	945	A	O4'-C1'-N9	5.65	112.72	108.20
1	A	1820	U	C6-N1-C2	5.65	124.39	121.00
1	A	1313	U	N3-C4-O4	5.65	123.35	119.40
1	A	2453	A	C2-N3-C4	-5.65	107.78	110.60
13	M	81	VAL	CB-CA-C	-5.65	100.67	111.40
1	A	1982	C	N3-C2-O2	5.65	125.85	121.90
1	A	968	G	C4-C5-N7	5.64	113.06	110.80
1	A	1605	C	C6-N1-C2	-5.64	118.04	120.30
1	A	2032	G	C8-N9-C4	-5.64	104.14	106.40
1	A	964	C	C4-C5-C6	-5.64	114.58	117.40
1	A	974(B)	C	C2-N3-C4	-5.64	117.08	119.90
1	A	1271	G	N3-C4-N9	5.64	129.38	126.00
1	A	484	C	N3-C4-C5	5.63	124.15	121.90
1	A	1899	G	C5-N7-C8	-5.63	101.48	104.30
1	A	1976	U	N3-C2-O2	-5.63	118.26	122.20
1	A	537	C	C6-N1-C2	5.63	122.55	120.30
1	A	1776	G	C8-N9-C4	5.63	108.65	106.40
1	A	2009	G	N9-C4-C5	5.63	107.65	105.40
1	A	330	A	C5-N7-C8	-5.63	101.09	103.90
1	A	580	C	N3-C4-C5	5.63	124.15	121.90
1	A	1655	A	N9-C4-C5	-5.63	103.55	105.80
1	A	1898	U	C2-N1-C1'	-5.63	110.95	117.70
1	A	1979	C	N3-C2-O2	5.63	125.84	121.90
1	A	671	C	N1-C2-N3	5.63	123.14	119.20
1	A	1314	C	C2-N1-C1'	5.63	124.99	118.80
1	A	2035	G	C5-C6-N1	5.63	114.31	111.50
1	A	1031	G	N1-C6-O6	5.62	123.27	119.90
1	A	1021	A	N3-C4-C5	5.62	130.73	126.80
1	A	2640	G	C8-N9-C4	5.62	108.65	106.40
1	A	529	A	C6-C5-N7	-5.62	128.37	132.30
1	A	809	G	C5-C6-N1	-5.62	108.69	111.50
1	A	1671	U	C2-N3-C4	5.62	130.37	127.00
1	A	58	G	C4-N9-C1'	5.62	133.80	126.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1979	C	C2-N1-C1'	-5.62	112.62	118.80
1	A	530	G	C5-C6-O6	5.61	131.97	128.60
1	A	1286	A	C4-C5-C6	5.61	119.81	117.00
1	A	809	G	C4-C5-C6	5.61	122.17	118.80
1	A	1926	U	C2-N1-C1'	-5.61	110.97	117.70
1	A	2073	C	C5-C6-N1	-5.61	118.19	121.00
1	A	2624	G	C8-N9-C4	5.61	108.64	106.40
1	A	760	G	C2-N3-C4	-5.61	109.10	111.90
1	A	1309	G	C4-N9-C1'	5.61	133.79	126.50
1	A	2271	G	C8-N9-C1'	-5.61	119.71	127.00
1	A	2606	C	N1-C2-O2	-5.61	115.54	118.90
1	A	60	G	O4'-C1'-N9	5.60	112.68	108.20
1	A	2324	C	C2-N1-C1'	-5.60	112.64	118.80
1	A	1678	G	C5-N7-C8	-5.60	101.50	104.30
1	A	1007	C	C5-C6-N1	-5.60	118.20	121.00
1	A	434	U	N1-C2-O2	-5.60	118.88	122.80
1	A	1154	G	C5-C6-O6	5.59	131.96	128.60
1	A	1834	U	C2-N1-C1'	5.59	124.41	117.70
1	A	2056	G	C6-C5-N7	-5.59	127.05	130.40
1	A	469	G	C8-N9-C4	5.59	108.63	106.40
1	A	659	C	C5-C6-N1	-5.59	118.21	121.00
1	A	697	C	N3-C4-C5	5.58	124.13	121.90
1	A	773	U	C5-C6-N1	-5.58	119.91	122.70
1	A	1841	U	N3-C4-C5	-5.58	111.25	114.60
1	A	2235	G	C5-C6-O6	-5.58	125.25	128.60
1	A	1341	U	C5-C6-N1	5.58	125.49	122.70
1	A	1385	G	C4-N9-C1'	-5.58	119.25	126.50
1	A	1787	A	C8-N9-C4	5.57	108.03	105.80
1	A	332	A	N1-C2-N3	5.57	132.09	129.30
1	A	1309	G	N1-C2-N3	5.57	127.24	123.90
1	A	2510	C	C6-N1-C2	5.57	122.53	120.30
1	A	2647	U	C6-N1-C2	5.57	124.34	121.00
1	A	192	C	C5-C6-N1	-5.57	118.22	121.00
1	A	700	G	N1-C6-O6	5.57	123.24	119.90
1	A	1842	G	N1-C6-O6	5.57	123.24	119.90
1	A	2450	A	C6-N1-C2	-5.57	115.26	118.60
1	A	180	G	C8-N9-C4	5.56	108.62	106.40
1	A	1769	G	C4-N9-C1'	5.56	133.73	126.50
1	A	2700	C	N1-C2-O2	-5.56	115.56	118.90
1	A	1576	U	N3-C2-O2	-5.56	118.31	122.20
1	A	1839	G	N9-C4-C5	5.56	107.62	105.40
1	A	2614	A	C5-C6-N1	5.56	120.48	117.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1270	C	C2-N1-C1'	-5.56	112.69	118.80
1	A	115	C	C4-C5-C6	5.55	120.18	117.40
1	A	2056	G	N9-C4-C5	-5.55	103.18	105.40
1	A	1443	G	N9-C4-C5	-5.55	103.18	105.40
1	A	847	U	N1-C2-O2	-5.55	118.91	122.80
1	A	1899	G	N7-C8-N9	5.55	115.88	113.10
1	A	512	G	C4-N9-C1'	-5.55	119.29	126.50
1	A	1402	C	C6-N1-C2	-5.55	118.08	120.30
1	A	1260	G	C5-C6-N1	5.54	114.27	111.50
1	A	2072	G	C5-C6-N1	-5.54	108.73	111.50
1	A	214	G	C8-N9-C1'	5.54	134.20	127.00
1	A	587	C	C5-C4-N4	5.54	124.08	120.20
1	A	213	A	C8-N9-C4	5.54	108.02	105.80
1	A	1128	A	C8-N9-C4	5.53	108.01	105.80
1	A	1328	G	C4-C5-N7	5.53	113.01	110.80
1	A	1780	A	N1-C2-N3	5.53	132.07	129.30
1	A	453	C	N3-C4-N4	5.53	121.87	118.00
1	A	2361	A	C8-N9-C4	5.53	108.01	105.80
1	A	794	G	C2-N3-C4	-5.53	109.14	111.90
1	A	1349	A	C4-C5-N7	5.53	113.46	110.70
1	A	1977	A	C8-N9-C4	5.53	108.01	105.80
1	A	2241	A	C2-N3-C4	-5.52	107.84	110.60
1	A	2614	A	C5-C6-N6	-5.52	119.28	123.70
1	A	94	G	N3-C4-C5	-5.52	125.84	128.60
1	A	527	C	N3-C4-C5	5.51	124.11	121.90
1	A	461	C	N3-C2-O2	5.51	125.76	121.90
1	A	83	G	C8-N9-C4	5.51	108.60	106.40
1	A	1976	U	C6-N1-C2	-5.51	117.69	121.00
1	A	1571	A	C8-N9-C4	5.51	108.00	105.80
1	A	664	C	C5-C6-N1	-5.51	118.25	121.00
1	A	844	C	C2-N3-C4	-5.51	117.15	119.90
1	A	789	A	C4-C5-N7	5.50	113.45	110.70
1	A	676	A	C6-N1-C2	5.50	121.90	118.60
1	A	1286	A	N9-C4-C5	5.50	108.00	105.80
1	A	2646	C	N1-C2-O2	-5.50	115.60	118.90
1	A	1840	G	N1-C6-O6	5.50	123.20	119.90
1	A	23	G	N3-C2-N2	-5.50	116.05	119.90
1	A	972	G	N3-C4-N9	5.49	129.30	126.00
1	A	2053	G	C2-N3-C4	-5.49	109.16	111.90
1	A	564	C	N3-C4-C5	-5.49	119.70	121.90
1	A	804	A	C6-N1-C2	-5.49	115.31	118.60
1	A	1616	A	C5-N7-C8	-5.48	101.16	103.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2005	A	N1-C6-N6	5.48	121.89	118.60
1	A	36	G	C4-C5-N7	-5.48	108.61	110.80
1	A	126	A	N1-C6-N6	5.48	121.89	118.60
1	A	571	A	C8-N9-C4	-5.48	103.61	105.80
1	A	408	G	N3-C4-C5	5.48	131.34	128.60
1	A	589	C	N1-C2-O2	-5.48	115.61	118.90
1	A	334	C	N1-C2-O2	-5.47	115.62	118.90
1	A	845	G	C4-N9-C1'	5.47	133.62	126.50
1	A	1190	G	N1-C6-O6	5.47	123.19	119.90
1	A	2076	U	C5-C4-O4	5.47	129.18	125.90
1	A	768	G	C4-C5-C6	5.47	122.08	118.80
1	A	786	C	C5-C6-N1	-5.47	118.26	121.00
1	A	675	A	C5-C6-N1	-5.47	114.97	117.70
1	A	2719	G	C4-C5-N7	5.47	112.99	110.80
1	A	2513	G	N1-C6-O6	-5.47	116.62	119.90
1	A	2634	G	N7-C8-N9	-5.47	110.37	113.10
1	A	512	G	N1-C6-O6	-5.46	116.62	119.90
1	A	94	G	N3-C4-N9	5.46	129.28	126.00
1	A	1309	G	N1-C6-O6	5.46	123.18	119.90
1	A	2556	C	N3-C4-N4	5.46	121.82	118.00
1	A	2244	U	N3-C2-O2	-5.46	118.38	122.20
1	A	2601	C	C6-N1-C2	5.46	122.48	120.30
1	A	2619	C	C5-C6-N1	-5.46	118.27	121.00
3	C	46	GLN	N-CA-C	-5.46	96.27	111.00
1	A	494	G	C8-N9-C4	5.45	108.58	106.40
1	A	1235	G	C5-C6-N1	-5.45	108.77	111.50
1	A	71	A	C2-N3-C4	-5.45	107.88	110.60
1	A	722	A	C2-N3-C4	-5.45	107.88	110.60
1	A	1677	A	N1-C2-N3	5.45	132.02	129.30
1	A	2708	G	C5-C6-N1	-5.45	108.78	111.50
1	A	774	A	N1-C2-N3	5.44	132.02	129.30
1	A	972	G	N3-C4-C5	-5.44	125.88	128.60
1	A	2253	G	C6-C5-N7	-5.44	127.13	130.40
1	A	104	U	C2-N1-C1'	-5.44	111.17	117.70
1	A	1271	G	C8-N9-C1'	-5.44	119.93	127.00
1	A	150	C	C6-N1-C2	5.44	122.47	120.30
1	A	1616	A	C2-N3-C4	-5.43	107.88	110.60
1	A	807	U	N1-C2-N3	5.43	118.16	114.90
1	A	1991	U	C5-C6-N1	-5.43	119.98	122.70
1	A	1763	G	C2-N3-C4	-5.43	109.19	111.90
1	A	1516	U	N3-C2-O2	-5.43	118.40	122.20
1	A	58	G	C8-N9-C1'	-5.42	119.95	127.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2028	U	N1-C2-O2	-5.42	119.00	122.80
1	A	239	U	N1-C2-O2	-5.42	119.00	122.80
1	A	510	C	N1-C2-O2	-5.42	115.65	118.90
1	A	799	G	C5-C6-O6	-5.42	125.35	128.60
1	A	1994	C	C5-C6-N1	-5.42	118.29	121.00
1	A	2675	A	C8-N9-C4	5.41	107.97	105.80
1	A	2502	G	N9-C4-C5	-5.41	103.24	105.40
1	A	2249	U	C6-N1-C2	-5.41	117.76	121.00
1	A	193	U	C5-C6-N1	-5.40	120.00	122.70
1	A	723	G	C8-N9-C4	5.40	108.56	106.40
1	A	208	C	C6-N1-C2	5.40	122.46	120.30
1	A	1789	A	C5-C6-N1	5.40	120.40	117.70
1	A	397	G	C6-C5-N7	-5.40	127.16	130.40
1	A	1496	A	N7-C8-N9	5.40	116.50	113.80
1	A	594	U	C4-C5-C6	5.40	122.94	119.70
1	A	845	G	N3-C4-N9	5.40	129.24	126.00
1	A	124	G	N1-C6-O6	5.39	123.14	119.90
3	C	242	ARG	N-CA-C	-5.39	96.44	111.00
1	A	309	G	N1-C6-O6	5.39	123.13	119.90
1	A	459	U	C5-C6-N1	-5.39	120.01	122.70
1	A	535	C	N1-C2-O2	-5.39	115.67	118.90
1	A	1290	C	C5-C6-N1	-5.39	118.31	121.00
1	A	1683	C	N3-C2-O2	5.38	125.67	121.90
1	A	1628	G	N1-C6-O6	5.38	123.13	119.90
1	A	602	G	C6-C5-N7	5.38	133.63	130.40
1	A	1204	A	C6-C5-N7	-5.38	128.53	132.30
1	A	83	G	C6-N1-C2	5.38	128.33	125.10
1	A	1244	G	N7-C8-N9	-5.38	110.41	113.10
1	A	682	G	N1-C6-O6	-5.38	116.67	119.90
1	A	2061	G	N1-C6-O6	5.38	123.13	119.90
1	A	2496	C	N3-C2-O2	-5.38	118.14	121.90
1	A	1792	G	C8-N9-C4	-5.38	104.25	106.40
1	A	956	G	C8-N9-C4	5.37	108.55	106.40
1	A	1934	C	C2-N1-C1'	-5.37	112.89	118.80
1	A	2044	C	C5-C4-N4	-5.37	116.44	120.20
1	A	2688	U	N3-C4-O4	-5.37	115.64	119.40
1	A	2596	U	C5-C4-O4	5.37	129.12	125.90
1	A	1286	A	C4-C5-N7	-5.37	108.02	110.70
1	A	1264	G	C8-N9-C4	-5.37	104.25	106.40
1	A	1616	A	C4-C5-N7	5.36	113.38	110.70
1	A	2005	A	C8-N9-C4	5.36	107.94	105.80
1	A	1788	C	N3-C4-C5	5.36	124.04	121.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1161	C	C5-C6-N1	5.36	123.68	121.00
1	A	272	G	C4-N9-C1'	-5.36	119.53	126.50
1	A	1385	G	C8-N9-C1'	5.36	133.97	127.00
1	A	746	A	C5-C6-N1	5.36	120.38	117.70
1	A	1555	G	C4-N9-C1'	5.36	133.46	126.50
1	A	2022	U	N1-C2-N3	-5.36	111.69	114.90
1	A	1783	A	N1-C2-N3	5.35	131.98	129.30
1	A	2447	G	C5-C6-O6	-5.35	125.39	128.60
1	A	2507	C	N3-C4-N4	-5.35	114.25	118.00
1	A	1385	G	N3-C4-N9	-5.35	122.79	126.00
1	A	434	U	N3-C2-O2	5.35	125.94	122.20
1	A	773	U	N1-C2-O2	-5.35	119.06	122.80
1	A	797	C	C5-C6-N1	-5.35	118.33	121.00
1	A	208	C	N3-C4-C5	5.34	124.04	121.90
1	A	578	A	N1-C6-N6	-5.34	115.39	118.60
1	A	1163	G	N3-C2-N2	-5.34	116.16	119.90
1	A	1022	G	C8-N9-C4	-5.34	104.27	106.40
1	A	1555	G	N3-C4-N9	5.33	129.20	126.00
1	A	1400	G	N3-C4-C5	-5.33	125.93	128.60
1	A	1496	A	C4-N9-C1'	5.33	135.90	126.30
1	A	2280	G	C2-N3-C4	5.33	114.57	111.90
1	A	1937	A	C2-N3-C4	-5.33	107.93	110.60
1	A	2840	C	C6-N1-C2	5.33	122.43	120.30
1	A	1495	A	N1-C2-N3	-5.33	126.64	129.30
1	A	2507	C	C5-C6-N1	-5.33	118.33	121.00
1	A	1617	C	C6-N1-C2	5.33	122.43	120.30
1	A	211	A	C8-N9-C4	5.32	107.93	105.80
1	A	1791	A	C8-N9-C4	5.32	107.93	105.80
1	A	1191	G	N1-C6-O6	-5.32	116.71	119.90
1	A	1664	A	C2-N3-C4	-5.32	107.94	110.60
1	A	2056	G	C8-N9-C1'	-5.32	120.09	127.00
1	A	583	G	C5-C6-N1	5.32	114.16	111.50
1	A	1200	C	N3-C2-O2	5.32	125.62	121.90
1	A	1671	U	N1-C2-O2	-5.32	119.08	122.80
1	A	1342	A	C4-C5-N7	5.31	113.36	110.70
1	A	2004	G	N1-C6-O6	5.31	123.09	119.90
1	A	661	C	C5-C6-N1	-5.31	118.34	121.00
1	A	1765	C	N1-C2-O2	-5.31	115.71	118.90
1	A	2519	U	C5-C6-N1	-5.31	120.05	122.70
1	A	211	A	N7-C8-N9	-5.31	111.15	113.80
1	A	1775	U	N3-C4-O4	-5.31	115.69	119.40
1	A	1971	A	C5-C6-N6	-5.30	119.46	123.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2345	G	C5-C6-O6	5.30	131.78	128.60
1	A	116	C	C4-C5-C6	5.30	120.05	117.40
1	A	1964	G	C8-N9-C1'	-5.30	120.11	127.00
1	A	1204	A	C4-C5-N7	5.30	113.35	110.70
1	A	126	A	C8-N9-C4	5.30	107.92	105.80
1	A	945	A	N9-C4-C5	-5.30	103.68	105.80
1	A	2688	U	C5-C6-N1	-5.30	120.05	122.70
1	A	772	C	N3-C4-C5	5.29	124.02	121.90
1	A	859	G	C8-N9-C4	5.29	108.52	106.40
1	A	1309	G	C2-N3-C4	-5.29	109.25	111.90
2	B	80	U	C5-C6-N1	-5.29	120.05	122.70
1	A	141(A)	A	C6-C5-N7	-5.29	128.60	132.30
1	A	2075	U	C5-C6-N1	-5.29	120.06	122.70
1	A	1138	G	N3-C4-C5	-5.28	125.96	128.60
1	A	1615	C	N1-C2-O2	-5.28	115.73	118.90
1	A	1942	C	C5-C6-N1	5.28	123.64	121.00
1	A	244	A	C2-N3-C4	-5.28	107.96	110.60
1	A	1614	A	C4-N9-C1'	5.28	135.80	126.30
1	A	2081	C	C6-N1-C2	5.28	122.41	120.30
1	A	2252	G	N1-C2-N3	5.28	127.07	123.90
1	A	2271	G	N3-C2-N2	5.28	123.59	119.90
1	A	2499	C	C4-C5-C6	5.28	120.04	117.40
1	A	94	G	C4-N9-C1'	5.28	133.36	126.50
1	A	531	C	C2-N3-C4	-5.28	117.26	119.90
1	A	2513	G	C5-C6-N1	5.28	114.14	111.50
1	A	32	C	N3-C2-O2	5.27	125.59	121.90
1	A	388	G	N3-C4-N9	-5.27	122.84	126.00
1	A	937	U	C5-C6-N1	-5.27	120.06	122.70
1	A	2783	G	N3-C4-N9	5.27	129.16	126.00
1	A	397	G	C8-N9-C4	5.27	108.51	106.40
1	A	2574	G	N1-C2-N3	5.27	127.06	123.90
1	A	197	A	C5-C6-N6	-5.27	119.49	123.70
1	A	720	C	C6-N1-C2	5.27	122.41	120.30
1	A	738	G	C5-C6-O6	-5.27	125.44	128.60
1	A	845	G	C8-N9-C1'	-5.27	120.15	127.00
1	A	768	G	C8-N9-C1'	-5.26	120.16	127.00
1	A	806	C	C2-N1-C1'	5.26	124.59	118.80
1	A	847	U	N3-C4-O4	-5.26	115.72	119.40
1	A	1824	G	C6-N1-C2	-5.26	121.94	125.10
1	A	979	G	N7-C8-N9	5.26	115.73	113.10
1	A	568	U	C2-N3-C4	5.25	130.15	127.00
1	A	1493	C	C6-N1-C1'	-5.25	114.50	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	801	G	N9-C4-C5	5.25	107.50	105.40
2	B	98	G	C4-N9-C1'	5.25	133.32	126.50
1	A	945	A	C1'-O4'-C4'	-5.25	105.70	109.90
1	A	2501	C	C2-N1-C1'	-5.25	113.03	118.80
1	A	444	C	N3-C2-O2	5.24	125.57	121.90
1	A	1138	G	C4-N9-C1'	5.24	133.31	126.50
1	A	1190	G	C5-N7-C8	-5.24	101.68	104.30
1	A	2392	A	C4-C5-C6	5.24	119.62	117.00
1	A	2464	C	C5-C6-N1	-5.24	118.38	121.00
1	A	1647	G	C8-N9-C4	5.24	108.50	106.40
1	A	1348	G	N1-C6-O6	5.23	123.04	119.90
1	A	2236	C	C5-C6-N1	-5.23	118.39	121.00
1	A	1842	G	C8-N9-C1'	-5.23	120.20	127.00
1	A	996	A	N1-C6-N6	5.23	121.74	118.60
1	A	1558	A	C2-N3-C4	-5.23	107.99	110.60
1	A	1980	G	N3-C4-N9	5.23	129.14	126.00
1	A	474	G	N3-C4-C5	-5.22	125.99	128.60
1	A	723	G	C2-N3-C4	-5.22	109.29	111.90
1	A	1612	C	C4-C5-C6	5.22	120.01	117.40
1	A	2059	A	C5-C6-N1	5.22	120.31	117.70
1	A	1760	A	N1-C6-N6	-5.22	115.47	118.60
1	A	811	U	C2-N1-C1'	-5.22	111.44	117.70
1	A	1790	C	C2-N1-C1'	-5.22	113.06	118.80
1	A	1313	U	N1-C2-O2	-5.22	119.15	122.80
1	A	705	A	C2-N3-C4	-5.21	107.99	110.60
1	A	2091	U	C4-C5-C6	5.21	122.83	119.70
1	A	1204	A	C2-N3-C4	-5.21	107.99	110.60
1	A	1821	A	N7-C8-N9	-5.21	111.19	113.80
1	A	393	C	N1-C2-O2	-5.21	115.77	118.90
1	A	1779	U	C5-C4-O4	-5.21	122.78	125.90
1	A	2595	G	N9-C4-C5	-5.21	103.32	105.40
1	A	2328	A	C8-N9-C4	5.21	107.88	105.80
2	B	100	G	N9-C4-C5	-5.21	103.32	105.40
1	A	1619	G	C8-N9-C4	5.20	108.48	106.40
1	A	1663	C	C5-C6-N1	-5.20	118.40	121.00
1	A	679	C	N3-C2-O2	5.20	125.54	121.90
1	A	1355	G	C5-C6-N1	5.20	114.10	111.50
1	A	116	C	C5-C6-N1	-5.20	118.40	121.00
1	A	959	A	C2-N3-C4	-5.20	108.00	110.60
1	A	1645	G	N1-C6-O6	-5.20	116.78	119.90
1	A	1776	G	N9-C4-C5	-5.20	103.32	105.40
1	A	2241	A	N1-C2-N3	5.20	131.90	129.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2249	U	C5-C4-O4	5.20	129.02	125.90
1	A	773	U	N1-C2-N3	5.19	118.02	114.90
1	A	1409	C	C6-N1-C2	5.19	122.38	120.30
1	A	1690	A	N1-C6-N6	-5.19	115.49	118.60
1	A	298	G	C8-N9-C4	-5.19	104.33	106.40
1	A	407	G	C4-N9-C1'	5.19	133.25	126.50
1	A	1555	G	C8-N9-C1'	-5.18	120.27	127.00
1	A	849	A	C4-C5-N7	5.18	113.29	110.70
1	A	458	G	N3-C4-N9	5.18	129.11	126.00
1	A	774	A	N3-C4-N9	-5.18	123.26	127.40
1	A	1244	G	N9-C4-C5	-5.17	103.33	105.40
1	A	2017	U	C5-C6-N1	-5.17	120.11	122.70
1	A	2450	A	N1-C2-N3	5.17	131.89	129.30
1	A	849	A	N1-C6-N6	5.17	121.70	118.60
1	A	935	C	C6-N1-C2	5.17	122.37	120.30
1	A	1677	A	C5-N7-C8	-5.17	101.32	103.90
1	A	2456	C	C4-C5-C6	-5.17	114.82	117.40
1	A	1245	G	C8-N9-C4	5.17	108.47	106.40
1	A	1769	G	N1-C2-N3	5.17	127.00	123.90
1	A	575	A	N7-C8-N9	-5.16	111.22	113.80
1	A	1681	G	N1-C6-O6	5.16	123.00	119.90
1	A	1783	A	C8-N9-C4	-5.16	103.73	105.80
1	A	2675	A	N3-C4-C5	5.16	130.41	126.80
1	A	96	G	C8-N9-C1'	-5.16	120.29	127.00
1	A	2773	C	C6-N1-C2	5.16	122.36	120.30
1	A	813	U	N1-C2-N3	5.16	117.99	114.90
1	A	1666	G	N3-C4-N9	-5.16	122.91	126.00
1	A	2824	C	C6-N1-C2	5.16	122.36	120.30
1	A	802	A	C8-N9-C4	5.16	107.86	105.80
1	A	1803	A	N7-C8-N9	-5.16	111.22	113.80
1	A	384	U	C5-C6-N1	-5.15	120.12	122.70
1	A	803	U	C4-C5-C6	5.15	122.79	119.70
1	A	2688	U	N3-C2-O2	-5.15	118.59	122.20
1	A	114(B)	A	C4-C5-N7	5.15	113.28	110.70
1	A	2253	G	N1-C6-O6	5.15	122.99	119.90
24	X	27	GLU	N-CA-C	5.15	124.91	111.00
1	A	706	A	C2-N3-C4	-5.15	108.03	110.60
1	A	2395	C	C6-N1-C2	5.15	122.36	120.30
1	A	140	A	N7-C8-N9	5.15	116.37	113.80
1	A	397	G	C2-N3-C4	-5.15	109.33	111.90
1	A	530	G	N1-C2-N2	-5.15	111.57	116.20
1	A	660	G	C8-N9-C4	5.15	108.46	106.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2681	C	C2-N3-C4	-5.15	117.33	119.90
1	A	1832	C	N1-C2-O2	-5.14	115.81	118.90
1	A	460	A	C2-N3-C4	-5.14	108.03	110.60
1	A	1122	G	C4-N9-C1'	-5.14	119.82	126.50
1	A	2584	U	N3-C4-O4	5.14	123.00	119.40
1	A	1841	U	N3-C2-O2	5.14	125.80	122.20
1	A	429	A	C6-N1-C2	-5.13	115.52	118.60
1	A	774	A	C5-N7-C8	-5.13	101.33	103.90
1	A	1157	G	N1-C6-O6	5.13	122.98	119.90
1	A	1670	C	N1-C2-O2	-5.13	115.82	118.90
1	A	2454	G	C4-C5-N7	-5.13	108.75	110.80
1	A	2590	A	N1-C6-N6	5.13	121.68	118.60
1	A	2597	G	N3-C4-C5	5.13	131.17	128.60
2	B	80	U	C2-N1-C1'	-5.13	111.54	117.70
1	A	140	A	C6-C5-N7	-5.13	128.71	132.30
1	A	795	C	C2-N3-C4	-5.13	117.33	119.90
1	A	2555	U	C6-N1-C1'	5.13	128.38	121.20
1	A	1680	U	N3-C2-O2	-5.12	118.61	122.20
1	A	2563	U	C5-C6-N1	-5.12	120.14	122.70
1	A	2002	G	C4-C5-C6	-5.12	115.73	118.80
1	A	979	G	N3-C2-N2	-5.12	116.32	119.90
1	A	378	C	N1-C2-O2	-5.11	115.83	118.90
1	A	387	U	N1-C2-N3	5.11	117.97	114.90
1	A	687	C	N1-C2-O2	-5.11	115.83	118.90
1	A	1902	C	N3-C2-O2	-5.11	118.32	121.90
1	A	2433	A	C6-N1-C2	-5.11	115.53	118.60
1	A	338	G	N3-C4-N9	5.11	129.07	126.00
1	A	572	A	C5-C6-N6	-5.11	119.61	123.70
1	A	1224	C	N3-C2-O2	5.11	125.48	121.90
1	A	2041	U	C2-N3-C4	-5.11	123.93	127.00
1	A	2432	A	C4-C5-C6	5.11	119.56	117.00
1	A	2574	G	C6-N1-C2	-5.11	122.03	125.10
1	A	1309	G	C6-C5-N7	-5.11	127.33	130.40
1	A	1612	C	N1-C2-O2	-5.11	115.83	118.90
1	A	1980	G	C5-C6-N1	5.11	114.06	111.50
1	A	1138	G	C8-N9-C1'	-5.11	120.36	127.00
1	A	1627	G	C6-C5-N7	-5.11	127.33	130.40
1	A	2056	G	C5-N7-C8	-5.11	101.75	104.30
1	A	2581	G	N3-C4-N9	-5.11	122.94	126.00
1	A	559	G	C8-N9-C4	5.11	108.44	106.40
1	A	760	G	N9-C4-C5	-5.11	103.36	105.40
1	A	1778	U	C5-C6-N1	-5.11	120.15	122.70

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1962	C	C2-N3-C4	5.11	122.45	119.90
1	A	1325	G	C6-C5-N7	5.10	133.46	130.40
1	A	1941	C	C6-N1-C2	5.10	122.34	120.30
1	A	970	C	C5-C4-N4	-5.10	116.63	120.20
1	A	987	G	N3-C2-N2	-5.10	116.33	119.90
1	A	1253	A	C5-C6-N1	5.10	120.25	117.70
1	A	1942	C	C6-N1-C2	-5.10	118.26	120.30
1	A	1444	G	C8-N9-C4	5.10	108.44	106.40
1	A	1776	G	N1-C2-N2	-5.09	111.61	116.20
1	A	2032	G	C4-C5-C6	-5.09	115.75	118.80
1	A	2841	C	N3-C4-C5	5.09	123.94	121.90
1	A	1342	A	C5-N7-C8	-5.09	101.36	103.90
1	A	1551	C	C6-N1-C2	-5.09	118.26	120.30
1	A	1573	G	N7-C8-N9	-5.09	110.56	113.10
1	A	2061	G	C6-C5-N7	-5.09	127.35	130.40
1	A	387	U	N1-C2-O2	-5.09	119.24	122.80
1	A	2714	G	C4-N9-C1'	5.09	133.11	126.50
1	A	566	U	C2-N3-C4	-5.08	123.95	127.00
1	A	848	G	N9-C4-C5	-5.08	103.37	105.40
1	A	114(B)	A	C4-N9-C1'	5.08	135.45	126.30
1	A	565	C	N3-C4-C5	-5.08	119.87	121.90
1	A	677	A	N3-C4-C5	5.08	130.36	126.80
1	A	2489	G	C2-N3-C4	-5.08	109.36	111.90
1	A	1137	G	N1-C6-O6	5.08	122.95	119.90
1	A	1662	C	C5-C6-N1	-5.08	118.46	121.00
1	A	1803	A	C8-N9-C4	5.08	107.83	105.80
1	A	640	C	C2-N3-C4	-5.08	117.36	119.90
1	A	2279	G	N3-C4-C5	-5.07	126.06	128.60
1	A	582	G	C8-N9-C4	5.07	108.43	106.40
1	A	738	G	N1-C6-O6	5.07	122.94	119.90
1	A	2544	G	C5-N7-C8	-5.07	101.77	104.30
1	A	2004	G	C2-N3-C4	-5.07	109.37	111.90
1	A	2697	G	C2-N3-C4	-5.07	109.37	111.90
1	A	844	C	C5-C6-N1	-5.07	118.47	121.00
1	A	1332	G	C6-C5-N7	5.07	133.44	130.40
1	A	2432	A	C2-N3-C4	-5.07	108.07	110.60
1	A	2028	U	N1-C2-N3	5.06	117.94	114.90
1	A	2346	A	C8-N9-C4	-5.06	103.78	105.80
1	A	189	G	C8-N9-C1'	-5.06	120.42	127.00
1	A	2035	G	C6-C5-N7	5.06	133.44	130.40
1	A	2084	C	N3-C4-C5	5.06	123.92	121.90
18	R	18	LEU	CA-CB-CG	5.06	126.94	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	1998	G	C8-N9-C4	5.06	108.42	106.40
1	A	120	U	C6-N1-C2	5.05	124.03	121.00
1	A	1807	G	N1-C6-O6	-5.05	116.87	119.90
1	A	2698	U	C5-C4-O4	5.05	128.93	125.90
1	A	70	G	N3-C4-C5	-5.05	126.07	128.60
1	A	1240	U	N3-C4-C5	-5.05	111.57	114.60
1	A	2056	G	C5-C6-O6	-5.05	125.57	128.60
1	A	2391	G	N9-C4-C5	5.05	107.42	105.40
1	A	761	A	N3-C4-N9	5.05	131.44	127.40
1	A	1634	A	N9-C4-C5	5.05	107.82	105.80
1	A	374	A	C8-N9-C4	5.05	107.82	105.80
1	A	2059	A	N7-C8-N9	-5.05	111.28	113.80
1	A	2346	A	N7-C8-N9	5.05	116.33	113.80
1	A	334	C	C3'-C2'-C1'	5.05	105.54	101.50
1	A	675	A	C5-N7-C8	-5.05	101.38	103.90
1	A	681	G	C8-N9-C1'	-5.05	120.44	127.00
1	A	807	U	N3-C4-O4	-5.05	115.87	119.40
1	A	1649	G	C2-N3-C4	-5.05	109.38	111.90
1	A	2426	A	C5-N7-C8	-5.04	101.38	103.90
1	A	2518	A	C2-N3-C4	-5.04	108.08	110.60
1	A	2777	G	N7-C8-N9	-5.04	110.58	113.10
1	A	1210	A	C5-C6-N1	-5.04	115.18	117.70
1	A	1903	G	C8-N9-C4	5.04	108.42	106.40
1	A	2580	U	N1-C2-N3	5.04	117.92	114.90
1	A	19	C	C2-N3-C4	-5.04	117.38	119.90
1	A	1198	U	N1-C2-N3	5.04	117.92	114.90
1	A	543	C	C5-C6-N1	-5.04	118.48	121.00
1	A	1155	A	C8-N9-C4	-5.04	103.79	105.80
1	A	784	A	C4-N9-C1'	-5.03	117.24	126.30
1	A	2538	C	C5-C6-N1	-5.03	118.48	121.00
1	A	1899	G	C8-N9-C1'	5.03	133.54	127.00
1	A	2327	A	C8-N9-C4	5.03	107.81	105.80
1	A	2839	G	C5-C6-O6	-5.03	125.58	128.60
1	A	1558	A	C5-C6-N1	-5.03	115.19	117.70
1	A	1971	A	C4-C5-N7	5.03	113.21	110.70
1	A	2440	C	C2-N1-C1'	-5.03	113.27	118.80
1	A	2597	G	C2-N3-C4	-5.03	109.39	111.90
1	A	835	A	C5-N7-C8	5.02	106.41	103.90
1	A	834	C	N3-C4-N4	-5.02	114.48	118.00
1	A	802	A	C4-N9-C1'	5.02	135.34	126.30
1	A	2766	G	C4-N9-C1'	5.02	133.03	126.50
1	A	1270	C	C6-N1-C1'	5.02	126.82	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	789	A	N9-C4-C5	-5.01	103.79	105.80
1	A	2064	C	C6-N1-C2	-5.01	118.29	120.30
1	A	2555	U	C2-N1-C1'	-5.01	111.68	117.70
1	A	2448	A	C2-N3-C4	-5.01	108.09	110.60
1	A	964	C	N3-C4-C5	5.01	123.91	121.90
1	A	1325	G	N3-C4-N9	-5.01	122.99	126.00
1	A	1948	G	N3-C4-C5	-5.01	126.09	128.60
1	A	2443	C	N1-C2-O2	5.01	121.91	118.90
1	A	2596	U	C6-N1-C2	5.01	124.01	121.00
1	A	815	C	N3-C4-C5	5.01	123.90	121.90
1	A	2056	G	C6-N1-C2	-5.01	122.09	125.10
1	A	2498	C	N1-C2-O2	-5.01	115.89	118.90
1	A	1310	G	C5-C6-O6	-5.01	125.59	128.60
1	A	1330	C	C4-C5-C6	-5.01	114.90	117.40
1	A	1188	U	C6-N1-C2	-5.01	118.00	121.00
1	A	62	C	C6-N1-C2	5.00	122.30	120.30
1	A	2252	G	C8-N9-C4	5.00	108.40	106.40
1	A	1632	A	N1-C6-N6	5.00	121.60	118.60
1	A	1677	A	C2-N3-C4	-5.00	108.10	110.60

There are no chirality outliers.

All (10) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
5	E	47	GLY	Peptide
12	L	29	LYS	Peptide
12	L	37	GLY	Peptide
12	L	39	LYS	Peptide
12	L	52	GLU	Peptide
12	L	9	ASN	Peptide
13	M	7	MET	Peptide
14	N	11	ASN	Peptide
17	Q	33	ARG	Peptide
17	Q	91	ASP	Peptide

## 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	A	59440	0	29964	2613	0
2	B	2551	0	1295	147	0
3	C	2105	0	2182	353	0
4	D	1564	0	1629	224	0
5	E	1587	0	1632	147	0
6	F	1475	0	1537	155	0
7	G	1223	0	1282	114	0
8	H	1133	0	1220	131	0
9	I	254	0	275	8	0
10	J	1097	0	1168	170	0
11	K	932	0	994	95	0
12	L	1114	0	1187	270	0
13	M	1079	0	1127	170	0
14	N	960	0	1021	153	0
15	O	771	0	832	95	0
16	P	1144	0	1211	125	0
17	Q	953	0	1013	150	0
18	R	779	0	852	131	0
19	S	891	0	951	106	0
20	T	726	0	778	88	0
21	U	776	0	870	138	0
22	V	1492	0	1513	174	0
23	W	605	0	628	71	0
24	X	695	0	764	112	0
25	Y	521	0	575	81	0
26	Z	468	0	523	46	0
27	1	226	0	225	23	0
28	2	405	0	420	61	0
29	3	381	0	391	25	0
30	4	419	0	467	50	0
31	5	508	0	576	111	0
32	2	1	0	0	0	0
32	6	727	0	0	0	0
32	A	431	0	0	0	0
32	B	17	0	0	0	0
32	F	2	0	0	0	0
32	K	9	0	0	0	0
32	P	7	0	0	0	0
All	All	89468	0	59102	5703	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 39.

All (5703) close contacts within the same asymmetric unit are listed below.

Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:81:VAL:O	13:M:82:ARG:HG2	1.39	1.19
12:L:57:THR:HG23	12:L:59:LEU:HD22	1.21	1.19
25:Y:2:LYS:HE2	25:Y:2:LYS:H	1.08	1.16
1:A:2389:G:H5''	1:A:2390:U:H5'	1.19	1.16
21:U:7:VAL:HG12	21:U:8:LYS:HG3	1.25	1.16
30:4:8:ASN:HD22	30:4:8:ASN:C	1.46	1.14
12:L:59:LEU:HA	12:L:61:ARG:NE	1.63	1.13
4:D:201:THR:HG22	4:D:202:LYS:H	1.08	1.12
1:A:2015:A:H1'	28:2:2:ALA:HA	1.28	1.12
25:Y:2:LYS:HE2	25:Y:2:LYS:N	1.65	1.11
1:A:1174:A:H3'	1:A:1175:U:H5''	1.24	1.11
1:A:2781:A:H5''	1:A:2782:G:H5'	1.11	1.11
23:W:23:VAL:HA	23:W:38:VAL:HG22	1.26	1.11
1:A:1541:U:H3'	1:A:1542:G:H3'	1.13	1.10
3:C:155:LEU:HD23	3:C:177:LEU:HD21	1.32	1.10
1:A:2272:U:H5''	1:A:2272:U:H6	1.16	1.10
12:L:128:HIS:HA	12:L:147:LEU:HB3	1.14	1.09
1:A:807:U:OP2	12:L:39:LYS:HG3	1.52	1.09
4:D:101:ARG:HD3	4:D:169:ASN:HD21	1.16	1.08
1:A:2439:A:H5'	1:A:2439:A:C8	1.87	1.08
6:F:60:LEU:HD11	6:F:92:VAL:HG11	1.31	1.08
12:L:33:ARG:N	12:L:36:LYS:HE2	1.70	1.07
14:N:12:ARG:HG2	14:N:16:HIS:CD2	1.88	1.07
1:A:2186:G:H2'	1:A:2187:G:H8	1.17	1.07
3:C:10:THR:HG23	3:C:13:ARG:HB3	1.31	1.07
16:P:51:ARG:HG3	16:P:51:ARG:HH11	1.15	1.06
5:E:67:GLN:O	5:E:67:GLN:HG3	1.56	1.06
31:5:30:ARG:O	31:5:31:HIS:HB3	1.52	1.06
12:L:114:ILE:H	12:L:114:ILE:HD12	1.17	1.05
1:A:2502:G:H5'	1:A:2503:A:H5''	1.36	1.05
16:P:54:ARG:HG3	16:P:54:ARG:HH11	1.15	1.05
15:O:11:LYS:HG2	15:O:12:PHE:H	1.18	1.05
10:J:157:ARG:H	10:J:158:PRO:HD3	1.18	1.04
1:A:1899:G:H22	1:A:1902:C:N4	1.56	1.04
4:D:132:HIS:CD2	4:D:135:HIS:NE2	2.27	1.02
12:L:64:LYS:O	12:L:66:GLY:N	1.92	1.02
12:L:57:THR:CG2	12:L:59:LEU:HD22	1.88	1.02
12:L:62:LEU:H	12:L:62:LEU:HD22	1.19	1.02
4:D:201:THR:O	4:D:202:LYS:HD3	1.59	1.01
5:E:164:ARG:HG2	5:E:164:ARG:HH11	1.23	1.01

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:973:A:OP2	18:R:78:LYS:NZ	1.91	1.01
1:A:1021:A:H62	1:A:1141:U:H3	1.04	1.01
12:L:33:ARG:H	12:L:36:LYS:HE2	1.22	1.01
7:G:101:ARG:H	7:G:101:ARG:NE	1.58	1.01
20:T:63:LYS:HD2	20:T:72:LYS:HA	1.05	1.01
19:S:12:ILE:HD13	19:S:17:VAL:HG13	1.40	1.01
30:4:9:ARG:HE	30:4:48:LYS:HB2	1.24	1.00
1:A:676:A:H8	1:A:2069:G:H21	1.06	1.00
1:A:603:A:H61	1:A:655:A:C4'	1.75	1.00
1:A:919:G:H5'	2:B:81:G:H1'	1.44	1.00
6:F:84:LYS:HG3	6:F:85:GLY:H	1.27	1.00
1:A:2579:C:O3'	4:D:131:ALA:HB2	1.61	1.00
12:L:33:ARG:HE	12:L:36:LYS:HD3	1.25	0.99
10:J:157:ARG:H	10:J:158:PRO:CD	1.70	0.99
1:A:1899:G:H22	1:A:1902:C:H41	1.01	0.99
3:C:106:ILE:H	3:C:106:ILE:HD12	1.28	0.99
1:A:1826:G:H4'	3:C:242:ARG:HE	1.27	0.99
10:J:154:GLN:HE21	10:J:155:ALA:HB3	1.28	0.99
1:A:810:U:H3	12:L:36:LYS:HZ3	1.03	0.98
20:T:50:LYS:H	20:T:87:GLN:HE22	1.07	0.98
28:2:20:ARG:HA	28:2:23:HIS:HD2	1.25	0.98
8:H:83:ALA:HB2	8:H:123:LEU:HD12	1.45	0.98
1:A:1544:C:OP1	1:A:1544:C:H6	1.45	0.98
18:R:2:PHE:CE2	18:R:13:ARG:HD3	1.97	0.98
20:T:11:PRO:HA	20:T:28:PHE:HB3	1.43	0.98
17:Q:88:ILE:HB	17:Q:90:VAL:HG12	1.45	0.97
1:A:1614:A:H62	19:S:93:ALA:HB2	1.29	0.97
1:A:2729:G:H1'	4:D:187:ALA:HB2	1.47	0.97
12:L:40:SER:O	12:L:41:ARG:HD3	1.65	0.97
1:A:1541:U:C3'	1:A:1542:G:H3'	1.95	0.97
25:Y:14:ARG:HA	25:Y:17:SER:HB2	1.44	0.97
3:C:87:ASN:H	3:C:87:ASN:HD22	1.06	0.97
10:J:38:LEU:HD23	10:J:157:ARG:HG3	1.46	0.97
21:U:29:GLU:HB3	21:U:38:ILE:HB	1.46	0.97
1:A:1658:C:OP1	4:D:132:HIS:ND1	1.98	0.96
3:C:33:LEU:O	3:C:35:LYS:N	1.98	0.96
1:A:860:U:H5	1:A:917:A:N7	1.61	0.96
20:T:63:LYS:HD2	20:T:72:LYS:CA	1.96	0.96
11:K:119:PRO:HB2	16:P:68:TYR:CE1	2.01	0.96
1:A:252:G:OP2	12:L:50:ARG:NH2	1.98	0.96
12:L:62:LEU:HD22	12:L:62:LEU:N	1.80	0.96
13:M:75:THR:HA	13:M:88:GLY:CA	1.94	0.96

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:35:LEU:HD12	25:Y:53:LEU:HD12	1.45	0.95
25:Y:6:VAL:HG12	25:Y:10:LEU:HD11	1.48	0.94
1:A:1813:G:H1'	3:C:50:THR:HG21	1.46	0.94
4:D:36:ARG:HD3	4:D:85:ASN:HD21	1.29	0.94
1:A:1541:U:H3'	1:A:1542:G:C3'	1.97	0.94
12:L:114:ILE:HD11	12:L:127:ALA:HB3	1.48	0.94
3:C:96:HIS:CD2	3:C:102:LYS:HD3	2.02	0.94
3:C:31:LYS:O	3:C:35:LYS:HB2	1.67	0.94
1:A:197:A:H5'	1:A:197:A:H8	1.30	0.94
18:R:39:LEU:HD12	18:R:47:VAL:HG11	1.49	0.94
17:Q:55:ARG:HA	17:Q:58:ARG:HD2	1.47	0.94
13:M:75:THR:HA	13:M:88:GLY:HA2	1.44	0.94
1:A:94:G:H21	25:Y:47:ASN:ND2	1.64	0.94
1:A:804:A:H5''	1:A:805:G:OP1	1.68	0.93
1:A:1210:A:H8	1:A:1210:A:C5'	1.81	0.93
13:M:74:TYR:CD2	13:M:91:GLU:HB2	2.04	0.93
13:M:74:TYR:HD2	13:M:91:GLU:HB2	1.29	0.93
6:F:128:ARG:HE	6:F:129:GLY:H	1.14	0.93
1:A:1287:A:N7	14:N:107:ASP:HB3	1.84	0.93
1:A:2210:G:N2	1:A:2211:G:H5'	1.84	0.93
17:Q:92:ARG:HG2	18:R:11:GLN:NE2	1.81	0.93
1:A:547:A:H2'	1:A:548:A:C8	2.03	0.93
1:A:1405:U:H2'	1:A:1406:U:C6	2.04	0.93
4:D:201:THR:HG22	4:D:202:LYS:N	1.83	0.93
1:A:140:A:H8	1:A:1408:C:HO2'	0.96	0.92
7:G:101:ARG:HE	7:G:101:ARG:N	1.67	0.92
6:F:38:VAL:HG22	6:F:93:THR:HG23	1.51	0.92
1:A:2439:A:H5'	1:A:2439:A:H8	1.31	0.92
1:A:1209:G:H21	1:A:1210:A:H62	1.15	0.92
20:T:84:ALA:HB3	20:T:87:GLN:HE21	1.34	0.92
4:D:5:LEU:HB2	4:D:51:PHE:HD2	1.34	0.92
13:M:47:ILE:HG22	13:M:48:GLU:N	1.82	0.92
7:G:68:THR:O	7:G:72:ILE:HG12	1.70	0.92
19:S:75:TYR:CE2	19:S:104:THR:HB	2.04	0.92
17:Q:91:ASP:OD1	17:Q:96:ALA:HB2	1.68	0.92
1:A:1405:U:H2'	1:A:1406:U:H6	1.30	0.91
1:A:2219:G:C2'	1:A:2224:G:H5'	2.01	0.91
1:A:1021:A:H8	1:A:1021:A:H3'	1.32	0.91
17:Q:83:LEU:HG	17:Q:88:ILE:HD11	1.50	0.91
1:A:1170:G:H1	1:A:1179:C:H42	1.16	0.91
17:Q:92:ARG:NH2	18:R:11:GLN:H	1.67	0.91
1:A:2681:C:H5	1:A:2725:A:H62	0.96	0.91

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2219:G:H2'	1:A:2224:G:H5'	1.49	0.91
1:A:363(A):G:H2'	1:A:363(B):A:H8	1.34	0.91
1:A:2068:U:N3	1:A:2430:A:H2	1.67	0.91
1:A:2887:U:H2'	1:A:2888:C:H6	1.34	0.91
23:W:23:VAL:HA	23:W:38:VAL:CG2	2.01	0.91
3:C:158:ALA:HB3	3:C:161:THR:HG21	1.50	0.91
5:E:167:ALA:HB1	5:E:173:VAL:HG11	1.52	0.91
1:A:2272:U:C6	1:A:2272:U:H5''	2.06	0.90
1:A:2712:U:H1'	1:A:712(B):A:C8	2.06	0.90
1:A:2267:A:H5''	1:A:2268:A:H5'	1.51	0.90
1:A:141(A):A:H8	1:A:1595:G:H21	1.18	0.90
1:A:2185:C:H2'	1:A:2186:G:C8	2.06	0.90
27:1:59:VAL:HG12	27:1:60:GLU:H	1.34	0.90
19:S:4:LYS:HA	19:S:106:ILE:HG22	1.53	0.90
22:V:48:PHE:HA	22:V:51:ALA:HB3	1.52	0.90
1:A:810:U:H3	12:L:36:LYS:NZ	1.70	0.90
3:C:231:HIS:HD2	3:C:249:PRO:HA	1.35	0.89
8:H:56:LYS:HA	8:H:59:ALA:HB3	1.54	0.89
1:A:2186:G:H2'	1:A:2187:G:C8	2.06	0.89
1:A:1899:G:N2	1:A:1902:C:H41	1.70	0.89
12:L:57:THR:HG23	12:L:59:LEU:CD2	2.02	0.89
1:A:860:U:O2'	1:A:861:A:H5'	1.72	0.89
6:F:76:SER:HB3	6:F:82:LEU:HB3	1.52	0.89
13:M:68:ILE:HD13	13:M:103:MET:HG2	1.55	0.89
22:V:132:ASN:O	22:V:134:PRO:HD3	1.71	0.89
20:T:35:THR:O	20:T:39:ILE:HG12	1.73	0.89
19:S:9:TYR:H	19:S:102:HIS:HD2	1.21	0.89
1:A:2542:A:H5''	1:A:2542:A:N3	1.87	0.89
6:F:5:LEU:HD21	27:1:50:THR:HG23	1.52	0.89
1:A:94:G:H21	25:Y:47:ASN:HD22	1.17	0.88
1:A:1771:C:HO2'	1:A:1786:A:H8	0.94	0.88
1:A:1021:A:H3'	1:A:1021:A:C8	2.08	0.88
30:4:19:ARG:HH11	30:4:19:ARG:HG3	1.37	0.88
26:Z:40:THR:HG23	26:Z:43:ILE:HG12	1.52	0.88
31:5:33:ASN:HD22	31:5:34:TRP:N	1.71	0.88
10:J:105:LEU:HD12	10:J:106:LYS:H	1.36	0.88
1:A:2353:G:N1	1:A:2353:G:C5	2.36	0.88
3:C:70:TRP:HZ3	3:C:146:GLU:OE1	1.57	0.88
28:2:25:LEU:HD12	28:2:25:LEU:H	1.39	0.88
5:E:9:ILE:HD11	5:E:125:LEU:HG	1.55	0.88
15:O:11:LYS:HG2	15:O:12:PHE:N	1.84	0.87
1:A:96:G:H4'	25:Y:48:HIS:CE1	2.09	0.87

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:101:ARG:HD3	4:D:169:ASN:ND2	1.89	0.87
13:M:81:VAL:O	13:M:82:ARG:CG	2.22	0.87
28:2:20:ARG:HA	28:2:23:HIS:CD2	2.09	0.87
6:F:34:LEU:HD23	6:F:161:THR:HG23	1.55	0.87
15:O:24:LEU:HD12	15:O:84:GLN:HB3	1.55	0.87
12:L:59:LEU:HA	12:L:61:ARG:CD	2.05	0.87
1:A:744:G:OP1	4:D:132:HIS:HB3	1.75	0.87
30:4:8:ASN:HD21	30:4:11:LYS:H	1.22	0.87
1:A:1437:C:H2'	1:A:1438:U:H6	1.39	0.87
24:X:73:LEU:HD11	24:X:94:LEU:HB3	1.56	0.87
4:D:49:LEU:HD22	4:D:49:LEU:H	1.38	0.87
2:B:66:A:N6	2:B:107:U:H2'	1.90	0.87
14:N:11:ASN:OD1	14:N:12:ARG:N	2.08	0.86
4:D:120:TRP:CD2	4:D:155:LYS:HD3	2.09	0.86
3:C:87:ASN:HD22	3:C:87:ASN:N	1.71	0.86
1:A:323:G:H5'	5:E:169:ASN:HD21	1.40	0.86
20:T:71:GLY:O	20:T:72:LYS:HG3	1.75	0.86
14:N:10:LEU:HB3	14:N:17:ARG:NE	1.91	0.86
3:C:172:TYR:CD1	3:C:186:HIS:HA	2.09	0.86
21:U:17:SER:HA	21:U:71:LYS:HD2	1.57	0.86
18:R:38:LEU:O	18:R:39:LEU:HD13	1.75	0.86
1:A:1529:A:H62	1:A:1542:G:N2	1.74	0.86
1:A:2439:A:H8	1:A:2439:A:C5'	1.88	0.86
1:A:674:G:H1'	5:E:74:ARG:HD3	1.54	0.86
2:B:79:C:H2'	2:B:80:U:O4'	1.76	0.86
16:P:24:PRO:HA	16:P:49:VAL:HG13	1.55	0.86
1:A:2015:A:C1'	28:2:2:ALA:HA	2.06	0.85
14:N:55:ALA:HA	14:N:80:PHE:CE1	2.11	0.85
21:U:14:LEU:HD23	21:U:15:VAL:N	1.90	0.85
31:5:32:LEU:HD23	31:5:33:ASN:H	1.42	0.85
1:A:197:A:H5'	1:A:197:A:C8	2.12	0.85
1:A:1264:G:H5'	28:2:11:THR:HG21	1.58	0.85
11:K:77:ILE:HD13	16:P:74:ARG:HG3	1.56	0.85
31:5:34:TRP:CG	31:5:35:GLN:N	2.40	0.85
21:U:15:VAL:HG22	21:U:72:VAL:HG12	1.59	0.85
4:D:201:THR:CG2	4:D:202:LYS:H	1.90	0.85
14:N:38:VAL:HB	14:N:39:PRO:HD3	1.56	0.85
8:H:113:ARG:HB2	8:H:130:TYR:CZ	2.11	0.85
8:H:77:LEU:O	8:H:143:SER:HB3	1.76	0.85
1:A:2875:C:H4'	16:P:5:ALA:HB2	1.59	0.85
19:S:29:LEU:HD21	19:S:33:ARG:HE	1.41	0.85
3:C:67:PHE:CE2	3:C:106:ILE:HD11	2.11	0.85

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2377:A:H2'	1:A:2378:A:C8	2.11	0.85
1:A:529:A:H62	1:A:2041:U:H3	1.22	0.85
5:E:164:ARG:HG3	5:E:175:THR:OG1	1.78	0.84
1:A:2781:A:C5'	1:A:2782:G:H5'	2.02	0.84
1:A:2391:G:OP1	31:5:32:LEU:HB2	1.77	0.84
15:O:89:ARG:HG3	15:O:94:TYR:HB2	1.56	0.84
10:J:85:VAL:HG22	10:J:89:LYS:HG3	1.59	0.84
13:M:6:ARG:O	13:M:7:MET:HG3	1.77	0.84
1:A:2307:G:H2'	1:A:2308:G:H5'	1.59	0.84
16:P:62:THR:HG22	16:P:75:ILE:HG13	1.59	0.84
7:G:84:SER:HA	7:G:133:VAL:O	1.77	0.84
1:A:1379:A:H4'	1:A:1380:G:OP2	1.78	0.84
12:L:38:GLN:HG3	12:L:39:LYS:H	1.42	0.84
21:U:81:LYS:CD	21:U:97:ARG:HB3	2.07	0.84
4:D:111:ARG:HD2	4:D:160:TYR:HE1	1.42	0.84
1:A:84:A:H5''	21:U:9:LYS:HD2	1.59	0.84
2:B:80:U:H2'	2:B:81:G:H21	1.42	0.84
19:S:13:SER:HB3	19:S:16:LYS:HD3	1.59	0.84
24:X:11:ARG:HB3	24:X:12:PRO:CD	2.08	0.84
1:A:2562:U:H1'	11:K:23:ARG:HH11	1.42	0.84
1:A:1343:G:H5'	1:A:1343:G:C8	2.12	0.84
25:Y:2:LYS:H	25:Y:2:LYS:CE	1.90	0.84
12:L:33:ARG:HB3	12:L:36:LYS:HG3	1.58	0.84
11:K:35:VAL:HG23	11:K:65:THR:HG23	1.60	0.84
1:A:1544:C:C6	1:A:1544:C:OP1	2.30	0.84
18:R:39:LEU:HB3	18:R:47:VAL:HG21	1.60	0.84
4:D:9:VAL:HG13	4:D:25:VAL:O	1.77	0.84
2:B:11:C:H3'	2:B:12:C:H6	1.42	0.83
1:A:2808:U:H2'	1:A:2809:A:H5'	1.60	0.83
1:A:2786:U:H4'	4:D:65:GLY:O	1.77	0.83
17:Q:83:LEU:HD12	17:Q:113:ALA:HB2	1.61	0.83
25:Y:17:SER:HB3	25:Y:18:PRO:HD3	1.59	0.83
8:H:133:HIS:CD2	8:H:135:GLU:HG2	2.13	0.83
1:A:1858:G:H1'	1:A:1884:A:N6	1.94	0.83
1:A:1495:A:H5''	1:A:1496:A:OP2	1.78	0.83
3:C:79:VAL:HG21	3:C:111:LEU:HD11	1.61	0.83
18:R:27:ALA:HB3	18:R:61:VAL:HG11	1.58	0.83
24:X:27:GLU:HB2	24:X:33:LYS:HA	1.58	0.83
19:S:40:ASN:O	19:S:41:LYS:HG2	1.78	0.83
7:G:46:GLU:HG3	7:G:51:ARG:NE	1.94	0.83
1:A:2267:A:H5''	1:A:2268:A:C5'	2.07	0.83
31:5:33:ASN:HD22	31:5:34:TRP:H	1.21	0.83

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2790:A:H2'	1:A:2791:C:H5''	1.60	0.83
30:4:8:ASN:ND2	30:4:8:ASN:C	2.23	0.83
1:A:2577:A:H5''	1:A:2578:G:H5'	1.59	0.83
30:4:11:LYS:O	30:4:15:THR:HG23	1.78	0.83
17:Q:91:ASP:CG	17:Q:96:ALA:HB2	1.98	0.83
1:A:1210:A:H8	1:A:1210:A:H5''	1.43	0.83
1:A:1264:G:H5'	28:2:11:THR:CG2	2.09	0.83
18:R:35:LEU:HB2	18:R:57:VAL:HG13	1.61	0.83
24:X:13:ILE:HG12	24:X:63:ALA:HB2	1.61	0.83
20:T:9:LEU:HB2	20:T:29:TRP:O	1.79	0.83
24:X:19:GLN:HG3	24:X:41:ARG:HE	1.43	0.83
3:C:132:PRO:HD3	3:C:190:TYR:CZ	2.14	0.83
5:E:101:LEU:HD12	5:E:102:PRO:HD2	1.58	0.83
1:A:2502:G:H5'	1:A:2503:A:C5'	2.08	0.82
25:Y:9:GLN:O	25:Y:12:GLU:HB3	1.78	0.82
1:A:1188:U:O2'	1:A:1189:A:H5'	1.78	0.82
10:J:53:ILE:HG23	10:J:75:VAL:HG11	1.61	0.82
4:D:31:CYS:HB3	4:D:49:LEU:HB3	1.59	0.82
1:A:2009:G:H2'	1:A:2010:G:H5'	1.60	0.82
3:C:106:ILE:N	3:C:106:ILE:HD12	1.95	0.82
18:R:24:LYS:HA	18:R:92:THR:HG23	1.62	0.82
1:A:1587:A:H2'	1:A:1588:C:C6	2.14	0.82
21:U:8:LYS:H	21:U:8:LYS:HZ2	1.24	0.82
12:L:33:ARG:HG2	12:L:34:GLY:N	1.93	0.82
12:L:35:HIS:O	12:L:36:LYS:HB2	1.79	0.82
1:A:242:G:H5''	31:5:63:PRO:HG2	1.62	0.82
1:A:2306:C:H3'	1:A:2307:G:C8	2.15	0.82
17:Q:92:ARG:CD	17:Q:94:ASN:HB3	2.10	0.82
7:G:148:ILE:O	7:G:151:ILE:HG12	1.78	0.82
3:C:21:PHE:HB3	3:C:24:ILE:HD12	1.60	0.82
1:A:1614:A:N6	19:S:87:PRO:HA	1.95	0.81
1:A:1510:A:H2'	1:A:1511:A:C8	2.14	0.81
13:M:75:THR:CA	13:M:88:GLY:HA2	2.08	0.81
1:A:2787:C:H1'	4:D:62:PRO:HB3	1.62	0.81
10:J:142:ARG:HH11	10:J:142:ARG:HG3	1.44	0.81
1:A:603:A:H61	1:A:655:A:H4'	1.45	0.81
1:A:2068:U:H3	1:A:2430:A:H2	0.86	0.81
7:G:19:VAL:HG12	7:G:20:ALA:H	1.43	0.81
1:A:2777:G:H5''	1:A:2778:A:H5'	1.61	0.81
1:A:1055:G:H2'	1:A:1056:G:C8	2.14	0.81
15:O:104:GLY:HA2	15:O:107:GLU:HG2	1.62	0.81
1:A:1110:G:HO2'	1:A:1111:A:H8	0.84	0.81

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
16:P:53:ARG:HH11	16:P:53:ARG:HG2	1.45	0.81
15:O:69:VAL:O	15:O:72:ALA:HB3	1.80	0.81
5:E:64:ILE:O	5:E:64:ILE:HD12	1.80	0.81
11:K:113:LYS:O	11:K:117:LEU:HD12	1.79	0.81
14:N:63:ARG:HB2	14:N:63:ARG:HH11	1.45	0.81
11:K:19:ILE:H	11:K:19:ILE:HD13	1.43	0.81
1:A:2306:C:H3'	1:A:2307:G:H8	1.45	0.81
1:A:910:A:C5	13:M:13:GLN:OE1	2.33	0.81
1:A:1286:A:O2'	1:A:1288:U:OP2	1.98	0.81
15:O:31:SER:HB3	15:O:34:HIS:HB2	1.63	0.81
12:L:114:ILE:HD13	12:L:130:PHE:CD1	2.15	0.81
8:H:92:VAL:HG23	8:H:96:ASP:HB2	1.63	0.81
1:A:848:G:H2'	1:A:849:A:C8	2.16	0.81
20:T:53:LYS:HB3	20:T:82:GLN:HB3	1.61	0.81
1:A:996:A:H4'	17:Q:92:ARG:NH1	1.96	0.81
1:A:2887:U:H2'	1:A:2888:C:C6	2.14	0.81
1:A:2009:G:C2'	1:A:2010:G:H5'	2.11	0.81
2:B:82:G:O2'	2:B:83:G:H5'	1.80	0.81
1:A:2327:A:H2'	1:A:2328:A:C8	2.16	0.80
24:X:13:ILE:HB	24:X:62:VAL:HG23	1.60	0.80
3:C:87:ASN:ND2	3:C:87:ASN:H	1.79	0.80
1:A:661:C:H4'	12:L:18:ARG:HG2	1.62	0.80
15:O:24:LEU:O	15:O:86:ALA:HB3	1.81	0.80
31:5:28:GLY:O	31:5:32:LEU:HD21	1.82	0.80
3:C:233:HIS:HE1	3:C:247:ALA:H	1.29	0.80
22:V:69:THR:HG22	22:V:90:VAL:HA	1.62	0.80
5:E:157:VAL:HB	5:E:194:MET:HB3	1.62	0.80
19:S:29:LEU:CD2	19:S:33:ARG:HE	1.94	0.80
1:A:1487:G:H2'	1:A:1488:G:H8	1.46	0.80
5:E:8:GLN:CD	5:E:8:GLN:H	1.83	0.80
1:A:7:G:H1	1:A:2896:C:H42	1.28	0.80
1:A:1174:A:C3'	1:A:1175:U:H5''	2.10	0.80
4:D:54:GLN:HG2	4:D:76:ARG:HG3	1.64	0.80
10:J:27:TYR:CD2	17:Q:100:VAL:HG11	2.17	0.80
18:R:100:ARG:HG3	18:R:100:ARG:O	1.80	0.80
18:R:66:ARG:HD2	18:R:88:ARG:CZ	2.10	0.80
20:T:24:GLY:HA3	20:T:82:GLN:HE22	1.47	0.80
13:M:58:PHE:HD1	13:M:58:PHE:O	1.65	0.80
1:A:605:C:H1'	1:A:657:U:O2'	1.82	0.80
1:A:733:G:N7	1:A:761:A:C6	2.50	0.80
3:C:8:PRO:HB3	3:C:14:ARG:HB2	1.62	0.79
1:A:1373:A:H2'	1:A:1374:G:O4'	1.82	0.79

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:875:G:H4'	22:V:170:THR:HG21	1.64	0.79
6:F:39:ILE:HG12	6:F:157:ILE:HG22	1.64	0.79
12:L:33:ARG:HB3	12:L:36:LYS:CD	2.12	0.79
1:A:330:A:HO2'	1:A:331:A:H8	1.30	0.79
16:P:54:ARG:CG	16:P:54:ARG:HH11	1.94	0.79
12:L:59:LEU:HA	12:L:61:ARG:HE	1.46	0.79
20:T:41:ASN:O	20:T:45:THR:HG23	1.81	0.79
1:A:1019:U:H3	1:A:114(B):A:N6	1.79	0.79
4:D:51:PHE:CD1	4:D:52:LEU:HD12	2.18	0.79
1:A:363(A):G:H2'	1:A:363(B):A:C8	2.17	0.79
7:G:44:VAL:HG12	7:G:45:VAL:H	1.45	0.79
30:4:8:ASN:ND2	30:4:11:LYS:H	1.81	0.79
1:A:857:C:H4'	23:W:23:VAL:HG21	1.64	0.79
8:H:83:ALA:CB	8:H:123:LEU:HD12	2.13	0.79
8:H:66:GLU:HG2	8:H:67:ARG:NH2	1.96	0.79
17:Q:92:ARG:HB2	17:Q:92:ARG:HH11	1.47	0.79
30:4:19:ARG:CG	30:4:19:ARG:HH11	1.96	0.79
12:L:16:ARG:NH1	12:L:18:ARG:HG3	1.97	0.79
1:A:760:G:C2'	1:A:761:A:H5'	2.13	0.79
21:U:17:SER:CA	21:U:71:LYS:HD2	2.12	0.79
12:L:16:ARG:C	12:L:16:ARG:HE	1.85	0.79
31:5:57:ARG:NH1	31:5:57:ARG:HB2	1.97	0.79
5:E:132:VAL:HG23	5:E:133:ASN:H	1.49	0.79
12:L:59:LEU:CA	12:L:61:ARG:NE	2.45	0.78
1:A:780:G:H21	1:A:783:A:H62	1.27	0.78
16:P:51:ARG:HG3	16:P:51:ARG:NH1	1.94	0.78
5:E:53:THR:HG23	5:E:56:GLU:OE1	1.83	0.78
1:A:2531:A:H5'	7:G:157:TYR:CZ	2.18	0.78
6:F:41:GLN:HB3	6:F:43:LEU:HD13	1.66	0.78
1:A:2219:G:H2'	1:A:2224:G:C5'	2.14	0.78
8:H:100:ALA:HA	8:H:103:ARG:HB2	1.64	0.78
30:4:12:ARG:HG3	30:4:12:ARG:HH11	1.49	0.78
20:T:63:LYS:CD	20:T:72:LYS:HA	2.01	0.78
31:5:62:LEU:HB3	31:5:63:PRO:HD3	1.65	0.78
8:H:5:LEU:HD23	8:H:5:LEU:H	1.47	0.78
30:4:8:ASN:HD22	30:4:9:ARG:N	1.82	0.78
12:L:114:ILE:HD11	12:L:127:ALA:CB	2.12	0.78
7:G:144:VAL:O	7:G:148:ILE:HG12	1.82	0.78
1:A:1209:G:H21	1:A:1210:A:N6	1.81	0.78
7:G:95:ARG:HH22	7:G:97:ARG:NH2	1.82	0.78
6:F:109:VAL:HG11	6:F:142:PRO:HG3	1.66	0.78
2:B:49:C:OP1	15:O:97:ARG:HG3	1.84	0.78

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:125:LEU:HD22	22:V:164:ALA:HB3	1.66	0.78
4:D:111:ARG:HA	14:N:2:ARG:HH11	1.49	0.78
1:A:1520:U:H2'	1:A:1521:G:O4'	1.84	0.78
17:Q:82:GLY:HA3	17:Q:113:ALA:HB1	1.64	0.78
3:C:27:THR:HG23	3:C:27:THR:O	1.83	0.78
10:J:81:ASP:CG	10:J:147:ALA:HB1	2.04	0.77
10:J:93:LYS:HE3	10:J:95:TYR:HE1	1.49	0.77
1:A:1437:C:H2'	1:A:1438:U:C6	2.19	0.77
1:A:662:G:OP1	12:L:18:ARG:HD2	1.83	0.77
1:A:1658:C:OP1	4:D:132:HIS:CE1	2.37	0.77
2:B:15:A:H5'	2:B:16:G:C8	2.19	0.77
3:C:33:LEU:O	3:C:36:PRO:HD2	1.84	0.77
18:R:34:GLU:O	18:R:36:PRO:HD3	1.84	0.77
1:A:860:U:C5	1:A:917:A:N7	2.52	0.77
1:A:1546:A:N7	1:A:154(B):C:O2	2.18	0.77
12:L:147:LEU:HD13	12:L:148:LEU:O	1.84	0.77
20:T:49:VAL:HG21	20:T:83:VAL:HG12	1.67	0.77
21:U:44:ILE:HG22	21:U:45:VAL:H	1.49	0.77
1:A:1963:U:O2	1:A:1963:U:H2'	1.84	0.77
1:A:380:U:C2	24:X:20:ARG:NH2	2.52	0.77
25:Y:6:VAL:O	25:Y:10:LEU:HG	1.85	0.77
1:A:528:A:H2	1:A:2043:C:C5'	1.98	0.77
1:A:528:A:H8	1:A:528:A:H3'	1.49	0.77
14:N:2:ARG:C	14:N:4:LEU:H	1.87	0.77
3:C:125:ILE:O	3:C:125:ILE:HG22	1.85	0.77
11:K:99:PHE:N	11:K:99:PHE:HD1	1.81	0.77
25:Y:1:MET:SD	25:Y:5:GLU:HG2	2.25	0.77
1:A:1046:A:H3'	1:A:1047:G:H5''	1.66	0.77
1:A:2781:A:H5''	1:A:2782:G:C5'	2.05	0.77
3:C:233:HIS:CE1	3:C:247:ALA:H	2.03	0.77
13:M:76:LYS:N	13:M:88:GLY:HA2	1.99	0.77
6:F:128:ARG:NE	6:F:129:GLY:H	1.81	0.77
21:U:50:ARG:HD3	21:U:51:VAL:H	1.48	0.77
17:Q:98:LEU:O	17:Q:100:VAL:N	2.17	0.77
1:A:2353:G:O6	1:A:2353:G:C5	2.38	0.77
1:A:389:G:N1	12:L:71:VAL:HG23	2.01	0.77
6:F:77:ILE:HG22	6:F:80:PHE:H	1.50	0.77
12:L:33:ARG:HB3	12:L:36:LYS:CG	2.15	0.76
1:A:1210:A:C8	1:A:1210:A:C5'	2.67	0.76
1:A:2598:A:OP1	3:C:235:GLY:HA3	1.84	0.76
1:A:2688:U:H3'	1:A:2688:U:O2	1.85	0.76
1:A:2393:A:H5''	12:L:62:LEU:HD12	1.66	0.76

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1019:U:H2'	1:A:1020:A:H8	1.50	0.76
31:5:62:LEU:HB3	31:5:63:PRO:CD	2.15	0.76
1:A:1683:C:H42	1:A:1705:G:H1	1.31	0.76
3:C:28:GLU:HB3	3:C:29:PRO:HD3	1.67	0.76
16:P:42:ILE:HD12	16:P:42:ILE:O	1.86	0.76
3:C:238:GLY:O	3:C:239:ARG:C	2.22	0.76
26:Z:43:ILE:N	26:Z:43:ILE:HD13	2.01	0.76
18:R:27:ALA:CB	18:R:61:VAL:HG11	2.14	0.76
1:A:256:A:C2'	1:A:257:A:H5'	2.15	0.76
3:C:166:GLN:HE21	3:C:166:GLN:CA	1.97	0.76
1:A:114(B):A:H4'	10:J:48:ARG:HH22	1.51	0.76
23:W:36:ILE:HD12	23:W:58:THR:HG21	1.65	0.76
1:A:270(H):C:H2'	1:A:270(I):C:H6	1.49	0.76
3:C:10:THR:HG23	3:C:13:ARG:CB	2.11	0.76
31:5:22:VAL:HB	31:5:54:GLU:HG3	1.68	0.76
1:A:1475:G:N2	1:A:1519:G:C4	2.54	0.76
23:W:56:ASP:O	23:W:57:PHE:HB2	1.85	0.76
18:R:40:LEU:HD23	18:R:47:VAL:HG23	1.68	0.76
5:E:34:TRP:HB2	12:L:10:PRO:O	1.86	0.76
1:A:65:C:H2'	1:A:66:C:C6	2.20	0.76
21:U:42:VAL:HG12	21:U:65:ALA:HB3	1.66	0.76
1:A:2250:G:C6	13:M:82:ARG:HD2	2.21	0.76
16:P:56:GLY:O	16:P:59:THR:HG22	1.84	0.76
17:Q:91:ASP:OD2	17:Q:96:ALA:HB2	1.85	0.76
4:D:4:ILE:HG12	4:D:28:ALA:HB1	1.68	0.76
14:N:51:LEU:HD23	14:N:66:VAL:HG22	1.66	0.76
7:G:30:LYS:HE2	7:G:80:SER:O	1.86	0.76
10:J:38:LEU:CD2	10:J:157:ARG:HG3	2.16	0.76
21:U:81:LYS:HD3	21:U:97:ARG:H	1.51	0.76
4:D:5:LEU:HB2	4:D:51:PHE:CD2	2.21	0.76
11:K:90:GLN:O	11:K:91:LEU:HB2	1.85	0.76
5:E:103:LYS:HA	5:E:106:ARG:HG3	1.68	0.75
23:W:53:MET:HB2	23:W:59:LEU:HD23	1.68	0.75
21:U:2:ARG:HG2	21:U:3:VAL:HG23	1.67	0.75
3:C:182:LEU:H	3:C:272:ALA:HB3	1.51	0.75
10:J:118:PRO:O	10:J:121:VAL:HG22	1.86	0.75
1:A:2439:A:C8	1:A:2439:A:C5'	2.63	0.75
1:A:1434:A:H61	1:A:1558:A:N6	1.84	0.75
21:U:47:LYS:HA	21:U:60:PHE:CE2	2.21	0.75
25:Y:46:GLN:HB2	25:Y:49:LYS:NZ	2.01	0.75
16:P:26:ASP:HB2	16:P:90:GLN:O	1.86	0.75
3:C:77:ALA:HB2	3:C:97:TYR:HA	1.68	0.75

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1110:G:O2'	1:A:1111:A:H8	1.65	0.75
1:A:733:G:N7	1:A:761:A:N6	2.34	0.75
2:B:78:A:C2	2:B:99:A:C4	2.73	0.75
1:A:773:U:C4'	3:C:47:GLY:HA3	2.17	0.75
1:A:330:A:O2'	1:A:331:A:H8	1.69	0.75
1:A:1679:U:C2'	1:A:1680:U:H5'	2.17	0.75
1:A:580:C:H2'	1:A:581:C:H6	1.52	0.75
25:Y:1:MET:HE1	25:Y:5:GLU:HG2	1.69	0.75
1:A:557:U:H2'	1:A:558:G:H8	1.49	0.75
4:D:111:ARG:HA	14:N:2:ARG:HD3	1.69	0.75
1:A:388:G:OP1	24:X:33:LYS:HB3	1.86	0.75
24:X:27:GLU:CD	24:X:33:LYS:HE3	2.07	0.75
6:F:114:ILE:HB	6:F:117:PHE:HB2	1.68	0.75
1:A:2593:U:H2'	1:A:2594:C:C6	2.22	0.75
15:O:15:ARG:O	15:O:19:LYS:HG3	1.87	0.75
7:G:101:ARG:H	7:G:101:ARG:HE	0.82	0.75
7:G:92:ILE:HG22	7:G:93:GLY:N	2.02	0.75
12:L:114:ILE:HD13	12:L:130:PHE:CE1	2.21	0.75
1:A:1021:A:N6	1:A:1141:U:H3	1.83	0.75
3:C:72:LYS:HD2	3:C:75:ILE:HD12	1.68	0.75
20:T:31:HIS:ND1	20:T:32:PRO:HD2	2.00	0.75
2:B:75:G:H21	22:V:85:HIS:HE1	1.33	0.75
14:N:97:VAL:HA	14:N:113:LEU:O	1.87	0.75
2:B:21:G:H1	2:B:62:C:H42	1.34	0.75
5:E:183:VAL:O	5:E:187:VAL:HG23	1.86	0.75
3:C:155:LEU:CD2	3:C:177:LEU:HD21	2.14	0.75
1:A:2210:G:H3'	1:A:2210:G:N3	2.01	0.75
4:D:5:LEU:N	4:D:5:LEU:HD23	2.00	0.75
2:B:15:A:H5'	2:B:16:G:H8	1.52	0.75
14:N:54:LEU:HD22	14:N:66:VAL:HG23	1.69	0.75
1:A:1401:G:H2'	1:A:1402:C:C6	2.21	0.75
1:A:2637:U:H5''	4:D:82:ARG:NH2	2.00	0.75
8:H:2:LYS:HG3	8:H:39:ALA:HB3	1.69	0.75
1:A:1418:G:H8	1:A:1418:G:O5'	1.70	0.75
3:C:106:ILE:H	3:C:106:ILE:CD1	2.00	0.75
20:T:28:PHE:N	20:T:28:PHE:CD1	2.55	0.75
24:X:11:ARG:HH11	24:X:11:ARG:HG3	1.52	0.75
1:A:380:U:O2'	24:X:20:ARG:HB3	1.86	0.75
1:A:1679:U:H2'	1:A:1680:U:H5'	1.69	0.75
21:U:7:VAL:HG12	21:U:8:LYS:CG	2.12	0.74
1:A:1543:A:H3'	1:A:1543:A:H8	1.51	0.74
6:F:128:ARG:HE	6:F:129:GLY:N	1.84	0.74

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:27:VAL:HG23	21:U:27:VAL:O	1.86	0.74
1:A:773:U:H4'	3:C:47:GLY:HA3	1.67	0.74
1:A:547:A:H2'	1:A:548:A:H8	1.48	0.74
1:A:2747:G:O6	1:A:2755:C:H5''	1.87	0.74
11:K:31:LYS:HB3	11:K:32:TYR:CE1	2.23	0.74
22:V:58:VAL:HA	22:V:67:LEU:O	1.87	0.74
20:T:30:VAL:HG12	20:T:31:HIS:N	2.02	0.74
11:K:119:PRO:HB2	16:P:68:TYR:HE1	1.53	0.74
24:X:11:ARG:HH12	24:X:61:ARG:H	1.35	0.74
1:A:911:A:H2'	13:M:9:TYR:OH	1.87	0.74
13:M:120:ILE:O	13:M:123:HIS:HB2	1.87	0.74
11:K:98:VAL:HG11	11:K:114:ILE:HG23	1.69	0.74
10:J:105:LEU:CD1	10:J:106:LYS:H	1.99	0.74
1:A:528:A:H2	1:A:2043:C:H5'	1.51	0.74
3:C:132:PRO:HG3	3:C:190:TYR:CE1	2.23	0.74
1:A:1401:G:H2'	1:A:1402:C:H6	1.51	0.74
21:U:63:LYS:HG3	21:U:64:GLU:H	1.53	0.74
18:R:13:ARG:HD2	18:R:13:ARG:C	2.08	0.74
2:B:66:A:H61	2:B:107:U:H2'	1.50	0.74
18:R:64:HIS:CD2	18:R:92:THR:HG22	2.22	0.74
7:G:95:ARG:HH22	7:G:97:ARG:HH21	1.34	0.74
19:S:9:TYR:H	19:S:102:HIS:CD2	2.04	0.74
1:A:966:G:H2'	1:A:967:C:H6	1.52	0.74
1:A:2815:C:O2'	28:2:43:HIS:HD2	1.69	0.74
4:D:170:LEU:N	4:D:170:LEU:HD23	2.03	0.74
3:C:231:HIS:CD2	3:C:249:PRO:HA	2.21	0.74
1:A:2208:U:O2'	1:A:2209:C:H5'	1.87	0.74
1:A:1952:A:C5	11:K:22:ILE:HD11	2.22	0.74
1:A:1541:U:H5''	1:A:1543:A:P	2.27	0.73
3:C:76:PRO:HB3	3:C:116:GLN:HE21	1.53	0.73
5:E:101:LEU:O	5:E:106:ARG:NH1	2.20	0.73
31:5:51:ALA:H	31:5:54:GLU:HB2	1.52	0.73
21:U:30:VAL:HG23	21:U:37:VAL:HG12	1.71	0.73
1:A:2015:A:H1'	28:2:2:ALA:CA	2.13	0.73
12:L:7:ARG:O	12:L:10:PRO:HD3	1.87	0.73
16:P:89:VAL:O	16:P:90:GLN:HB2	1.87	0.73
1:A:2101:G:H2'	1:A:2102:U:H5'	1.70	0.73
3:C:201:HIS:O	3:C:204:ILE:HG13	1.89	0.73
1:A:322:A:H3'	5:E:169:ASN:ND2	2.03	0.73
15:O:51:ALA:HB1	15:O:72:ALA:HB1	1.68	0.73
12:L:16:ARG:O	12:L:16:ARG:NE	2.19	0.73
1:A:2286:A:H4'	1:A:2287:A:O4'	1.88	0.73

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:971:C:H2'	1:A:972:G:H5'	1.69	0.73
24:X:37:ILE:HG23	24:X:38:SER:N	2.02	0.73
13:M:141:GLN:H	22:V:53:ILE:HB	1.53	0.73
1:A:71:A:H2	20:T:31:HIS:CE1	2.07	0.73
18:R:40:LEU:H	18:R:47:VAL:HG22	1.53	0.73
1:A:330:A:H2	1:A:1210:A:H2'	1.53	0.73
22:V:30:ASN:OD1	22:V:33:LEU:HB3	1.88	0.73
1:A:1388:G:H2'	1:A:1389:G:H8	1.54	0.73
1:A:1270:C:H5''	1:A:1271:G:O5'	1.88	0.73
25:Y:35:LEU:CD1	25:Y:53:LEU:HD12	2.19	0.73
1:A:2210:G:H21	1:A:2211:G:C5'	2.01	0.73
6:F:36:LYS:HB3	6:F:160:VAL:HB	1.69	0.73
12:L:16:ARG:NH2	12:L:18:ARG:H	1.87	0.73
1:A:105:C:H2'	1:A:106:C:H6	1.53	0.73
2:B:8:U:H5''	15:O:15:ARG:HH22	1.51	0.73
1:A:1022:G:H8	10:J:92:GLN:HE22	1.37	0.73
1:A:1019:U:H3	1:A:114(B):A:H62	1.36	0.73
1:A:65:C:H2'	1:A:66:C:H6	1.54	0.73
17:Q:5:LYS:HG2	17:Q:6:THR:N	2.03	0.73
1:A:286:C:H2'	1:A:287:C:H6	1.54	0.73
8:H:5:LEU:N	8:H:5:LEU:HD23	2.03	0.73
3:C:176:ARG:HG2	3:C:176:ARG:HH11	1.54	0.73
13:M:20:ALA:HB1	13:M:99:PRO:O	1.89	0.73
1:A:941:A:H4'	12:L:35:HIS:CE1	2.24	0.72
1:A:2392:A:H2	1:A:2424:C:H42	1.35	0.72
1:A:1156:A:C8	17:Q:51:LYS:HD2	2.24	0.72
12:L:33:ARG:HB3	12:L:36:LYS:HD3	1.69	0.72
1:A:954:G:C5	1:A:955:C:C5	2.77	0.72
23:W:42:GLY:HA2	23:W:57:PHE:CD2	2.24	0.72
22:V:179:ASP:OD1	22:V:180:VAL:HG13	1.89	0.72
10:J:63:PRO:O	17:Q:64:ARG:HD2	1.89	0.72
1:A:2846:G:H2'	1:A:2847:U:H6	1.54	0.72
1:A:2353:G:H5''	23:W:32:ARG:NH2	2.05	0.72
1:A:1871:A:H2'	1:A:1872:A:C8	2.23	0.72
1:A:2210:G:H21	1:A:2211:G:H5'	1.52	0.72
1:A:1639:U:C2'	1:A:1640:C:H5''	2.19	0.72
1:A:2658:C:H4'	7:G:158:HIS:CE1	2.24	0.72
31:5:30:ARG:O	31:5:31:HIS:CB	2.30	0.72
18:R:2:PHE:HE2	18:R:13:ARG:HD3	1.50	0.72
13:M:76:LYS:H	13:M:88:GLY:HA2	1.54	0.72
1:A:1045:A:H5''	1:A:1047:G:O4'	1.89	0.72
1:A:1331:A:HO2'	1:A:1332:G:H8	1.34	0.72

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:88:LEU:HB3	7:G:90:LYS:HD3	1.69	0.72
2:B:18:G:H1	2:B:65:C:H42	1.37	0.72
10:J:38:LEU:HD12	10:J:39:ILE:N	2.04	0.72
3:C:131:LEU:HA	3:C:190:TYR:CE2	2.23	0.72
1:A:534:U:O2'	17:Q:49:HIS:CD2	2.43	0.72
1:A:300:A:OP1	21:U:84:ARG:NH2	2.21	0.72
20:T:57:LEU:CD1	20:T:78:LYS:HB2	2.20	0.72
1:A:2687:U:C4	1:A:2688:U:C5	2.78	0.72
5:E:89:VAL:HG12	5:E:90:PHE:N	2.04	0.72
3:C:31:LYS:HG3	3:C:33:LEU:HG	1.72	0.72
1:A:1966:A:H4'	1:A:1967:C:OP1	1.89	0.72
1:A:1348:G:H2'	1:A:1349:A:H5''	1.71	0.72
18:R:38:LEU:O	18:R:52:VAL:HG12	1.89	0.72
28:2:33:CYS:HG	28:2:49:CYS:HG	1.31	0.72
1:A:2850:A:OP2	1:A:2866:U:H5	1.72	0.72
10:J:160:LYS:HE3	10:J:161:LEU:H	1.54	0.72
16:P:51:ARG:HH11	16:P:51:ARG:CG	1.99	0.72
5:E:67:GLN:O	5:E:67:GLN:CG	2.35	0.72
20:T:84:ALA:HB3	20:T:87:GLN:NE2	2.04	0.72
17:Q:79:PHE:CD1	17:Q:79:PHE:C	2.62	0.72
12:L:45:LEU:HD23	12:L:46:LYS:N	2.05	0.72
1:A:330:A:C2	1:A:1210:A:H2'	2.25	0.72
12:L:16:ARG:HH21	12:L:17:LYS:HA	1.54	0.72
1:A:256:A:O2'	1:A:257:A:H5'	1.90	0.72
3:C:30:GLU:HG3	3:C:63:ARG:CZ	2.19	0.72
1:A:1007:C:O2'	10:J:131:PRO:HA	1.90	0.72
12:L:61:ARG:C	12:L:62:LEU:HD13	2.11	0.71
1:A:917:A:H5'	1:A:918:A:OP2	1.91	0.71
1:A:528:A:C8	1:A:528:A:H3'	2.25	0.71
1:A:1495:A:N3	1:A:1496:A:C2	2.58	0.71
1:A:1332:G:N2	1:A:1610:A:C8	2.57	0.71
18:R:20:LEU:HD23	18:R:94:LEU:HB2	1.72	0.71
12:L:132:LYS:H	12:L:132:LYS:HD3	1.55	0.71
21:U:8:LYS:HD2	21:U:13:VAL:HG21	1.71	0.71
3:C:87:ASN:ND2	3:C:87:ASN:N	2.29	0.71
25:Y:28:LYS:HE3	25:Y:56:GLN:HE22	1.55	0.71
2:B:70:C:H2'	2:B:71:C:H6	1.55	0.71
6:F:5:LEU:CD2	6:F:6:ALA:H	2.04	0.71
7:G:85:LYS:HD3	7:G:86:GLU:OE2	1.90	0.71
5:E:205:ARG:O	5:E:206:ILE:HG23	1.90	0.71
18:R:5:VAL:CG1	18:R:14:VAL:HG21	2.20	0.71
3:C:231:HIS:CD2	3:C:232:PRO:HD2	2.25	0.71

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:11:ARG:HB2	24:X:13:ILE:HG22	1.71	0.71
1:A:1329:U:H5''	1:A:1330:C:H5	1.54	0.71
1:A:1799:G:H8	3:C:181:GLU:OE1	1.73	0.71
21:U:76:CYS:HB3	21:U:77:PRO:HD2	1.70	0.71
1:A:2092:U:C5	1:A:2226:C:OP2	2.42	0.71
4:D:11:MET:HE3	4:D:186:GLY:HA2	1.72	0.71
18:R:13:ARG:HD2	18:R:14:VAL:N	2.06	0.71
1:A:813:U:H2'	1:A:814:C:C6	2.24	0.71
12:L:114:ILE:N	12:L:114:ILE:HD12	1.99	0.71
1:A:2294:C:H2'	1:A:2295:C:C6	2.24	0.71
10:J:38:LEU:HD23	10:J:157:ARG:CG	2.20	0.71
12:L:50:ARG:HD2	12:L:51:PHE:N	2.04	0.71
4:D:36:ARG:HD3	4:D:85:ASN:ND2	2.06	0.71
1:A:2353:G:O6	1:A:2353:G:N1	2.23	0.71
3:C:133:LEU:C	3:C:135:PHE:H	1.93	0.71
22:V:39:VAL:HG21	22:V:44:PHE:HB2	1.72	0.71
13:M:66:ILE:HG22	13:M:104:PHE:CD2	2.25	0.71
6:F:25:TYR:CD1	6:F:30:GLU:HB3	2.25	0.71
23:W:72:ARG:CZ	23:W:75:LEU:HD13	2.21	0.71
1:A:2346:A:H5''	1:A:2383:G:H1'	1.73	0.71
1:A:404:C:H4'	1:A:405:U:H5'	1.72	0.71
6:F:174:GLU:HG2	6:F:180:PHE:CE1	2.26	0.71
1:A:1778:U:H2'	1:A:1784:A:N6	2.05	0.71
1:A:2768:C:C4	1:A:2769:C:C5	2.79	0.71
1:A:105:C:H2'	1:A:106:C:C6	2.25	0.71
11:K:101:PRO:O	11:K:102:VAL:HG13	1.90	0.71
22:V:13:GLU:HB3	22:V:18:LEU:HD11	1.72	0.71
1:A:960:A:H5''	1:A:961:C:OP2	1.90	0.71
1:A:2415:G:H1'	12:L:67:MET:HE1	1.73	0.71
4:D:101:ARG:HH21	4:D:171:GLU:HB3	1.54	0.71
12:L:33:ARG:HG2	12:L:34:GLY:H	1.56	0.71
1:A:2784:C:H1'	4:D:37:ARG:HH12	1.55	0.71
1:A:1528:A:C2	1:A:1529:A:C2	2.79	0.71
14:N:7:GLY:O	14:N:8:ARG:HB3	1.91	0.71
21:U:81:LYS:HD3	21:U:97:ARG:HB3	1.72	0.71
3:C:25:THR:HG21	3:C:81:ALA:HA	1.72	0.71
30:4:9:ARG:NE	30:4:48:LYS:HB2	2.04	0.71
3:C:70:TRP:C	3:C:70:TRP:CD1	2.64	0.71
17:Q:92:ARG:CG	18:R:11:GLN:NE2	2.53	0.71
17:Q:79:PHE:HD1	17:Q:79:PHE:C	1.93	0.70
1:A:784:A:H5'	1:A:785:G:OP1	1.90	0.70
21:U:8:LYS:N	21:U:8:LYS:HZ2	1.88	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:120:TRP:CE3	4:D:155:LYS:HD3	2.26	0.70
3:C:121:PRO:HB3	3:C:135:PHE:CE2	2.25	0.70
1:A:863:A:OP1	13:M:21:THR:HB	1.90	0.70
1:A:1794:U:H2'	1:A:1795:C:H6	1.56	0.70
1:A:333:G:C6	1:A:334:C:N4	2.59	0.70
1:A:861:A:H2'	1:A:862:G:H5'	1.73	0.70
25:Y:6:VAL:HG12	25:Y:10:LEU:CD1	2.22	0.70
1:A:1386:C:H2'	1:A:1387:C:H6	1.54	0.70
1:A:2631:G:N3	1:A:2810:A:H2	1.88	0.70
10:J:154:GLN:NE2	10:J:155:ALA:HB3	2.03	0.70
14:N:2:ARG:C	14:N:4:LEU:N	2.43	0.70
16:P:53:ARG:HG2	16:P:53:ARG:NH1	2.03	0.70
1:A:1358:G:O2'	1:A:1359:A:H5''	1.90	0.70
4:D:108:SER:O	4:D:162:ALA:HA	1.91	0.70
1:A:1309:G:H3'	30:4:9:ARG:NH1	2.05	0.70
12:L:97:PRO:HD3	12:L:126:VAL:HG12	1.72	0.70
5:E:63:LYS:NZ	5:E:67:GLN:HE21	1.88	0.70
11:K:99:PHE:CD1	11:K:99:PHE:N	2.52	0.70
10:J:69:VAL:HG13	10:J:71:MET:HG3	1.73	0.70
1:A:2639:A:H2'	1:A:2640:G:H5'	1.74	0.70
1:A:828:U:H3'	1:A:828:U:O2	1.91	0.70
6:F:50:ALA:O	6:F:53:LEU:HB3	1.92	0.70
12:L:85:LEU:HA	12:L:88:LEU:HB2	1.73	0.70
1:A:1541:U:O3'	1:A:1543:A:OP1	2.10	0.70
1:A:140:A:H8	1:A:1408:C:O2'	1.70	0.70
4:D:77:ILE:HD13	4:D:195:LEU:HD12	1.74	0.70
1:A:126:A:O5'	30:4:19:ARG:HG2	1.92	0.70
28:2:40:LYS:NZ	28:2:49:CYS:HB3	2.06	0.70
1:A:774:A:H2	1:A:787:U:HO2'	1.37	0.70
1:A:547:A:C6	1:A:548:A:C6	2.80	0.70
1:A:1596:A:C2'	1:A:1597:A:H5'	2.20	0.70
26:Z:28:LEU:N	26:Z:28:LEU:HD12	2.06	0.70
23:W:49:LYS:HB2	23:W:80:HIS:HB3	1.74	0.70
24:X:31:GLY:O	24:X:32:LYS:HB2	1.91	0.70
1:A:1396:U:O2	1:A:1396:U:H2'	1.90	0.70
1:A:1543:A:H3'	1:A:1543:A:C8	2.26	0.70
1:A:1411:C:H2'	1:A:1412:A:H8	1.57	0.70
31:5:52:LYS:H	31:5:53:PRO:HD2	1.57	0.70
22:V:37:VAL:HG23	22:V:38:TYR:N	2.06	0.70
8:H:62:LYS:HB2	8:H:133:HIS:CE1	2.27	0.70
12:L:14:LYS:O	12:L:15:ARG:HB2	1.90	0.70
7:G:30:LYS:HB2	7:G:79:VAL:HA	1.74	0.70

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1728:G:H8	1:A:1728:G:O5'	1.75	0.70
19:S:59:VAL:HG12	19:S:60:ASN:OD1	1.92	0.70
1:A:116:C:H2'	1:A:117:G:C8	2.27	0.70
1:A:729:G:OP2	3:C:13:ARG:NH1	2.25	0.70
22:V:23:LYS:HB3	22:V:38:TYR:HD1	1.55	0.70
1:A:301:G:C4	1:A:302:C:C5	2.80	0.70
1:A:1170:G:H1	1:A:1179:C:N4	1.89	0.69
1:A:1639:U:H2'	1:A:1640:C:H5''	1.74	0.69
18:R:25:LEU:H	18:R:92:THR:HG21	1.57	0.69
1:A:1857:G:N2	1:A:1886:C:N4	2.40	0.69
1:A:2731:G:C6	1:A:2732:G:O6	2.45	0.69
21:U:81:LYS:NZ	21:U:98:VAL:HG12	2.07	0.69
14:N:2:ARG:O	14:N:4:LEU:N	2.25	0.69
5:E:203:GLN:HA	5:E:206:ILE:O	1.92	0.69
1:A:826:U:H4'	12:L:55:ARG:HB2	1.72	0.69
11:K:25:LEU:HB2	11:K:38:VAL:O	1.91	0.69
1:A:990:A:H5''	1:A:991:C:P	2.32	0.69
12:L:49:ARG:CG	12:L:50:ARG:H	2.04	0.69
23:W:72:ARG:HB3	23:W:75:LEU:HD12	1.73	0.69
7:G:77:LYS:HA	7:G:80:SER:HB2	1.75	0.69
13:M:23:GLY:HA3	13:M:98:LYS:HB2	1.74	0.69
1:A:1607:C:H4'	1:A:1608:A:O5'	1.92	0.69
1:A:314:A:O2'	1:A:315:G:H5'	1.92	0.69
18:R:91:TYR:CD2	18:R:91:TYR:O	2.44	0.69
10:J:142:ARG:NH1	10:J:142:ARG:HG3	2.07	0.69
3:C:35:LYS:HE2	3:C:103:ARG:HA	1.74	0.69
14:N:52:ILE:HG21	14:N:94:TYR:CG	2.27	0.69
12:L:101:VAL:HB	12:L:106:LEU:HB3	1.74	0.69
1:A:603:A:N6	1:A:655:A:H4'	2.07	0.69
1:A:1826:G:OP1	3:C:233:HIS:HD2	1.74	0.69
25:Y:31:GLU:O	25:Y:35:LEU:HB2	1.92	0.69
31:5:22:VAL:HG12	31:5:50:LEU:HD12	1.73	0.69
7:G:98:LEU:HD12	7:G:99:VAL:N	2.06	0.69
28:2:41:PRO:HG2	28:2:44:THR:HG21	1.73	0.69
1:A:861:A:C2'	1:A:862:G:H5'	2.22	0.69
12:L:112:LEU:HD23	12:L:113:LYS:N	2.07	0.69
15:O:87:PHE:CE1	15:O:102:ALA:HB2	2.28	0.69
22:V:53:ILE:HG22	22:V:71:VAL:O	1.92	0.69
7:G:19:VAL:HG12	7:G:20:ALA:N	2.07	0.69
18:R:91:TYR:O	18:R:91:TYR:CG	2.45	0.69
5:E:46:ARG:HG2	5:E:46:ARG:HH11	1.57	0.69
4:D:11:MET:HB2	4:D:23:VAL:O	1.93	0.69

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:77:ALA:CB	3:C:97:TYR:HA	2.22	0.69
3:C:96:HIS:HD2	3:C:102:LYS:HD3	1.57	0.69
1:A:2787:C:C1'	4:D:62:PRO:HB3	2.22	0.69
4:D:46:ALA:HB2	4:D:82:ARG:HA	1.72	0.69
1:A:2285:C:H2'	1:A:2286:A:H5''	1.73	0.69
1:A:277:C:H3'	1:A:278:A:H5''	1.72	0.69
1:A:1909:C:C2	1:A:1922:G:N2	2.61	0.69
1:A:2415:G:H4'	12:L:66:GLY:CA	2.23	0.69
12:L:33:ARG:HE	12:L:36:LYS:CD	2.04	0.69
1:A:1021:A:H2'	1:A:1023:U:H5'	1.73	0.69
18:R:79:VAL:HG13	18:R:79:VAL:O	1.91	0.69
1:A:1021:A:C3'	1:A:1021:A:C8	2.75	0.69
17:Q:108:GLU:HG3	18:R:44:LYS:HG2	1.72	0.69
5:E:39:TRP:O	5:E:43:LYS:HG2	1.93	0.69
1:A:1046:A:N3	9:I:4:LYS:HD3	2.08	0.69
31:5:50:LEU:O	31:5:51:ALA:HB2	1.93	0.69
3:C:25:THR:CG2	3:C:82:ILE:H	2.04	0.69
23:W:42:GLY:HA2	23:W:57:PHE:CE2	2.27	0.69
1:A:1606:G:H5''	1:A:1607:C:OP1	1.92	0.69
1:A:2433:A:H5''	1:A:2434:A:P	2.32	0.69
16:P:1:MET:C	16:P:3:ARG:H	1.96	0.69
3:C:228:PRO:HD3	3:C:234:GLY:O	1.93	0.69
1:A:1537:C:H2'	1:A:1538:G:O4'	1.93	0.69
1:A:1290:C:H2'	1:A:1291:C:H6	1.57	0.69
1:A:2402:C:H5'	1:A:2403:C:OP2	1.92	0.69
1:A:993:G:C5	1:A:994:C:H5	2.10	0.69
18:R:47:VAL:O	18:R:49:THR:O	2.11	0.69
1:A:1404:C:O2	1:A:1404:C:H2'	1.92	0.69
21:U:81:LYS:HD3	21:U:97:ARG:N	2.08	0.69
21:U:78:ALA:HB3	21:U:81:LYS:HE3	1.75	0.69
8:H:66:GLU:HG2	8:H:67:ARG:CZ	2.23	0.69
16:P:88:ILE:HD12	16:P:89:VAL:H	1.58	0.69
3:C:226:MET:C	3:C:227:ASN:HD22	1.95	0.69
1:A:94:G:N2	25:Y:47:ASN:ND2	2.39	0.69
22:V:136:PHE:C	22:V:137:ILE:HD12	2.13	0.69
1:A:760:G:H2'	1:A:761:A:H5'	1.72	0.69
3:C:25:THR:HG21	3:C:81:ALA:CA	2.22	0.69
1:A:1386:C:OP2	1:A:1396:U:H5	1.75	0.69
5:E:199:TRP:O	5:E:203:GLN:HG2	1.92	0.69
4:D:167:VAL:HG22	4:D:170:LEU:HD21	1.74	0.68
31:5:31:HIS:C	31:5:33:ASN:N	2.45	0.68
2:B:11:C:H3'	2:B:12:C:C6	2.26	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:31:HIS:ND1	12:L:13:ASN:HB2	2.07	0.68
1:A:2364:C:C2'	1:A:2365:G:H5'	2.22	0.68
7:G:102:ALA:HB2	7:G:116:GLU:HA	1.75	0.68
21:U:29:GLU:CB	21:U:38:ILE:HB	2.21	0.68
14:N:57:ARG:HG2	14:N:58:GLY:H	1.56	0.68
1:A:2724:C:OP1	4:D:118:LYS:HE3	1.92	0.68
18:R:98:GLU:HG2	18:R:100:ARG:HD3	1.73	0.68
1:A:2636:U:H4'	4:D:80:GLU:CD	2.13	0.68
1:A:270(J):G:HO2'	1:A:270(K):G:H8	1.41	0.68
6:F:84:LYS:O	6:F:86:MET:HG3	1.93	0.68
1:A:2305:A:H5''	6:F:134:GLY:HA3	1.76	0.68
1:A:651:G:OP1	31:5:19:SER:HB3	1.93	0.68
1:A:999:U:H5''	1:A:1154:G:O6	1.93	0.68
19:S:65:LEU:HB2	19:S:68:ARG:HE	1.57	0.68
12:L:62:LEU:O	12:L:62:LEU:HD23	1.93	0.68
25:Y:1:MET:CE	25:Y:5:GLU:HG2	2.24	0.68
1:A:603:A:C2	1:A:655:A:N3	2.61	0.68
1:A:1786:A:H4'	1:A:1787:A:OP2	1.92	0.68
25:Y:9:GLN:C	25:Y:12:GLU:HB3	2.12	0.68
23:W:36:ILE:HG23	23:W:58:THR:HG23	1.76	0.68
5:E:36:VAL:O	5:E:40:GLN:HG3	1.93	0.68
7:G:27:LYS:HG2	7:G:32:GLU:HG3	1.76	0.68
1:A:1899:G:O2'	1:A:1900:A:OP2	2.10	0.68
19:S:73:ALA:O	19:S:106:ILE:HG12	1.94	0.68
22:V:22:GLY:O	22:V:41:LEU:HB2	1.93	0.68
1:A:329:G:OP2	21:U:71:LYS:HE3	1.94	0.68
12:L:109:GLY:O	12:L:111:ARG:N	2.27	0.68
16:P:100:TYR:HB3	16:P:103:ARG:NH1	2.08	0.68
1:A:987:G:C2'	1:A:988:A:H5'	2.23	0.68
11:K:2:ILE:HG12	11:K:8:LEU:HD11	1.73	0.68
1:A:2740:A:H2'	1:A:2741:A:C8	2.29	0.68
1:A:918:A:N3	2:B:80:U:O2'	2.27	0.68
1:A:2209:C:O2	1:A:2216:G:C2	2.47	0.68
1:A:357:A:H2'	1:A:358:U:H6	1.58	0.68
1:A:1946:U:H2'	1:A:1947:C:H6	1.59	0.68
1:A:1566:A:OP1	3:C:211:ARG:NH1	2.27	0.68
20:T:51:VAL:HG11	20:T:81:VAL:HG12	1.76	0.68
1:A:1343:G:H8	1:A:1343:G:H5'	1.56	0.68
1:A:2469:A:H2	1:A:2481:G:H21	1.42	0.68
1:A:1310:G:OP2	30:4:9:ARG:NH1	2.27	0.68
12:L:146:VAL:HG13	12:L:147:LEU:HD12	1.74	0.68
16:P:54:ARG:HG3	16:P:54:ARG:NH1	1.96	0.68

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:Q:90:VAL:HG13	17:Q:91:ASP:H	1.59	0.68
18:R:40:LEU:C	18:R:45:THR:HB	2.15	0.68
1:A:847:U:OP2	1:A:929:G:O6	2.12	0.68
4:D:120:TRP:CD1	4:D:155:LYS:HB3	2.27	0.68
13:M:8:LYS:HG3	13:M:9:TYR:H	1.59	0.68
13:M:54:MET:HG2	13:M:64:ILE:HD13	1.74	0.68
21:U:17:SER:OG	21:U:18:GLY:N	2.25	0.68
12:L:126:VAL:HA	12:L:145:PRO:HG2	1.75	0.68
31:5:32:LEU:HD23	31:5:33:ASN:N	2.08	0.68
1:A:273(G):C:H2'	1:A:274:G:H5''	1.74	0.68
13:M:32:PHE:HZ	13:M:111:GLU:HG2	1.58	0.68
18:R:38:LEU:HD23	18:R:39:LEU:N	2.09	0.67
1:A:1654:A:OP1	14:N:2:ARG:N	2.27	0.67
24:X:13:ILE:HG12	24:X:63:ALA:CB	2.23	0.67
10:J:157:ARG:HG2	10:J:157:ARG:O	1.93	0.67
6:F:86:MET:H	6:F:87:PRO:CD	2.08	0.67
4:D:2:LYS:HE2	4:D:95:ILE:O	1.95	0.67
6:F:41:GLN:HG2	6:F:155:MET:HB3	1.76	0.67
1:A:2637:U:H5''	4:D:82:ARG:HH21	1.57	0.67
1:A:492:A:H2'	1:A:493:G:O4'	1.95	0.67
2:B:30:C:H2'	2:B:31:C:H5'	1.77	0.67
1:A:603:A:N6	1:A:655:A:C4'	2.55	0.67
3:C:242:ARG:HG2	3:C:242:ARG:HH11	1.59	0.67
31:5:50:LEU:O	31:5:51:ALA:CB	2.42	0.67
14:N:99:LYS:H	14:N:99:LYS:CD	2.05	0.67
16:P:86:ILE:O	16:P:86:ILE:HG12	1.93	0.67
1:A:1658:C:OP1	4:D:132:HIS:O	2.13	0.67
1:A:1141:U:OP2	10:J:86:THR:CG2	2.43	0.67
1:A:322:A:H3'	5:E:169:ASN:HD21	1.57	0.67
3:C:132:PRO:O	3:C:136:ILE:HD12	1.95	0.67
11:K:102:VAL:HG23	11:K:121:VAL:HA	1.76	0.67
1:A:1862:G:H2'	1:A:1863:G:H8	1.60	0.67
3:C:70:TRP:CZ3	3:C:146:GLU:OE1	2.45	0.67
1:A:910:A:H62	13:M:12:GLN:HA	1.59	0.67
1:A:335:C:H2'	1:A:336:C:H6	1.59	0.67
1:A:2275:C:H6	1:A:2275:C:H5'	1.60	0.67
14:N:44:LEU:HD13	14:N:44:LEU:O	1.95	0.67
16:P:51:ARG:HD3	16:P:62:THR:HG23	1.77	0.67
6:F:129:GLY:HA3	6:F:163:ALA:HB3	1.76	0.67
22:V:30:ASN:O	22:V:32:HIS:N	2.27	0.67
3:C:79:VAL:HG12	3:C:113:VAL:HA	1.77	0.67
18:R:28:GLU:OE1	18:R:31:ALA:HB2	1.95	0.67

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
29:3:30:THR:HG22	29:3:31:PRO:HD2	1.75	0.67
12:L:38:GLN:HG3	12:L:39:LYS:N	2.10	0.67
8:H:79:ILE:HG22	8:H:81:VAL:HG23	1.74	0.67
1:A:1158:C:O2'	1:A:1159:U:H5'	1.95	0.67
17:Q:79:PHE:O	17:Q:83:LEU:HD13	1.95	0.67
1:A:1858:G:HO2'	1:A:1859:A:H8	1.41	0.67
31:5:57:ARG:NE	31:5:57:ARG:HA	2.10	0.67
10:J:160:LYS:HE3	10:J:161:LEU:N	2.08	0.67
1:A:2840:C:H4'	14:N:53:HIS:CD2	2.30	0.67
29:3:42:TRP:HA	29:3:42:TRP:CE3	2.28	0.67
1:A:2036:C:H6	1:A:2036:C:H5'	1.60	0.67
1:A:2322:A:H3'	1:A:2323:G:H8	1.60	0.67
1:A:807:U:OP2	12:L:39:LYS:CG	2.38	0.67
3:C:166:GLN:N	3:C:166:GLN:HE21	1.93	0.67
1:A:540:G:H2'	1:A:541:C:H6	1.59	0.67
1:A:2389:G:H5''	1:A:2390:U:C5'	2.11	0.67
3:C:145:VAL:HG12	3:C:146:GLU:O	1.94	0.67
22:V:94:GLU:CD	22:V:94:GLU:H	1.99	0.67
22:V:132:ASN:C	22:V:134:PRO:HD3	2.14	0.67
1:A:580:C:H2'	1:A:581:C:C6	2.30	0.67
10:J:101:TYR:HB3	10:J:102:PRO:HD2	1.77	0.67
1:A:2871:C:H5''	1:A:2872:G:OP1	1.94	0.67
30:4:11:LYS:HD2	30:4:15:THR:CG2	2.25	0.67
17:Q:92:ARG:HH11	17:Q:92:ARG:CB	2.08	0.67
24:X:62:VAL:HG22	24:X:63:ALA:N	2.10	0.67
1:A:971:C:H2'	1:A:972:G:C5'	2.25	0.67
1:A:534:U:O2'	17:Q:49:HIS:HD2	1.78	0.67
6:F:7:LEU:HD23	6:F:10:LYS:HD2	1.75	0.67
1:A:2705:A:H2	14:N:64:ARG:NH1	1.93	0.67
1:A:7:G:H2'	1:A:8:A:C8	2.30	0.66
1:A:2593:U:H2'	1:A:2594:C:H6	1.58	0.66
1:A:978:G:C2'	1:A:979:G:H5'	2.25	0.66
10:J:157:ARG:N	10:J:158:PRO:HD3	2.02	0.66
6:F:5:LEU:HD23	6:F:6:ALA:H	1.60	0.66
14:N:9:LYS:C	14:N:10:LEU:HG	2.14	0.66
1:A:1858:G:O2'	1:A:1859:A:H8	1.77	0.66
1:A:2758:A:C4	7:G:67:LEU:HD21	2.30	0.66
13:M:134:ARG:O	13:M:136:ALA:N	2.27	0.66
1:A:2661:G:O2'	1:A:2662:A:H5'	1.95	0.66
1:A:1546:A:C8	1:A:154(B):C:O2	2.48	0.66
1:A:1141:U:OP2	10:J:86:THR:HG23	1.94	0.66
1:A:1813:G:C1'	3:C:50:THR:HG21	2.22	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:10:LYS:O	24:X:11:ARG:HG2	1.95	0.66
1:A:2277:G:H5''	13:M:85:LYS:HB2	1.76	0.66
1:A:1683:C:N4	1:A:1705:G:H1	1.93	0.66
1:A:227:A:H5'	1:A:228:A:C2	2.30	0.66
1:A:966:G:C4	1:A:967:C:C5	2.83	0.66
15:O:34:HIS:CE1	15:O:54:LEU:HB3	2.30	0.66
22:V:24:LEU:HD11	22:V:86:VAL:HG22	1.77	0.66
1:A:796:C:H2'	1:A:797:C:C6	2.31	0.66
1:A:1856:G:N2	1:A:1886:C:O2	2.28	0.66
1:A:1536:A:H5''	1:A:1537:C:OP2	1.94	0.66
1:A:609(B):G:N2	1:A:619:G:H1'	2.09	0.66
18:R:7:THR:HG23	18:R:22:VAL:HG11	1.76	0.66
1:A:1746:G:C2	1:A:1747:G:C8	2.84	0.66
1:A:752:A:H3'	30:4:1:MET:HE3	1.78	0.66
3:C:108:PRO:HB3	3:C:143:HIS:CE1	2.31	0.66
6:F:105:LYS:HZ3	27:1:52:SER:HB2	1.61	0.66
1:A:2785:C:H2'	1:A:2786:U:O4'	1.96	0.66
21:U:2:ARG:O	21:U:4:LYS:N	2.24	0.66
1:A:814:C:H41	12:L:27:HIS:CD2	2.14	0.66
6:F:94:LEU:HD12	6:F:99:MET:HA	1.78	0.66
19:S:22:ASP:HA	19:S:25:ARG:HH12	1.61	0.66
1:A:481:G:C4	1:A:507:A:C2	2.84	0.66
1:A:1019:U:N3	1:A:114(B):A:N6	2.43	0.66
6:F:84:LYS:HG3	6:F:85:GLY:N	2.07	0.66
1:A:1614:A:H62	19:S:93:ALA:CB	2.05	0.66
8:H:111:PRO:HG2	8:H:112:LYS:HE2	1.77	0.66
1:A:9:U:C4	1:A:2629:A:C6	2.83	0.66
2:B:21:G:H1	2:B:62:C:N4	1.93	0.66
28:2:40:LYS:HZ3	28:2:49:CYS:HB3	1.59	0.66
7:G:98:LEU:HD12	7:G:99:VAL:H	1.60	0.66
7:G:55:PRO:HG2	7:G:61:HIS:CE1	2.29	0.66
1:A:2729:G:H2'	1:A:2730:C:H6	1.61	0.66
12:L:18:ARG:NH1	12:L:18:ARG:HB3	2.10	0.66
1:A:18:C:O3'	17:Q:23:GLY:HA2	1.96	0.66
1:A:2773:C:OP1	4:D:166:THR:OG1	2.13	0.66
1:A:2780:G:H4'	1:A:2781:A:OP2	1.95	0.66
24:X:11:ARG:HH12	24:X:61:ARG:N	1.94	0.66
30:4:12:ARG:HG3	30:4:12:ARG:NH1	2.10	0.66
1:A:2599:G:C8	3:C:237:GLU:HG3	2.31	0.66
1:A:328:U:H4'	21:U:68:HIS:ND1	2.11	0.66
1:A:1248:G:OP1	17:Q:2:PRO:HD2	1.96	0.66
3:C:238:GLY:O	3:C:239:ARG:O	2.13	0.66

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:85:PRO:O	14:N:87:TYR:N	2.29	0.66
1:A:1218:C:O2'	1:A:1219:G:H5'	1.95	0.66
1:A:737:C:C2'	1:A:738:G:H5'	2.26	0.66
3:C:257:LEU:HD23	3:C:257:LEU:C	2.17	0.66
8:H:102:SER:HA	8:H:107:ILE:O	1.95	0.66
17:Q:88:ILE:HD12	17:Q:90:VAL:CG1	2.26	0.66
27:1:50:THR:HG22	27:1:51:TYR:H	1.59	0.66
1:A:125:G:H4'	1:A:126:A:OP2	1.95	0.66
14:N:4:LEU:O	14:N:6:SER:N	2.28	0.66
5:E:101:LEU:HD12	5:E:102:PRO:CD	2.27	0.66
11:K:80:ASP:OD2	16:P:71:GLY:HA3	1.94	0.66
12:L:58:THR:O	12:L:61:ARG:NE	2.26	0.65
17:Q:57:PHE:O	17:Q:58:ARG:C	2.34	0.65
6:F:70:VAL:HG12	6:F:90:LEU:HD22	1.77	0.65
13:M:60:ARG:H	22:V:179:ASP:CG	1.99	0.65
1:A:588:U:H2'	1:A:589:C:C6	2.31	0.65
1:A:1710:C:O2'	1:A:1711:C:H5'	1.95	0.65
21:U:6:HIS:HD2	21:U:35:TYR:CE1	2.14	0.65
17:Q:92:ARG:HD3	17:Q:94:ASN:HB3	1.78	0.65
1:A:106:C:H1'	21:U:2:ARG:HE	1.60	0.65
1:A:773:U:H5'	3:C:47:GLY:HA3	1.78	0.65
1:A:1153:C:H5'	17:Q:76:TYR:HE2	1.60	0.65
1:A:987:G:H2'	1:A:988:A:H5'	1.77	0.65
1:A:226:G:N2	1:A:228:A:H62	1.92	0.65
1:A:2093:G:H1	1:A:2196:C:H42	1.44	0.65
1:A:1754:C:OP1	16:P:96:ARG:NH1	2.25	0.65
12:L:61:ARG:HA	12:L:62:LEU:HD13	1.77	0.65
8:H:68:LEU:O	8:H:138:ILE:HD13	1.95	0.65
20:T:30:VAL:HG11	20:T:39:ILE:CD1	2.27	0.65
21:U:81:LYS:HZ3	21:U:98:VAL:N	1.93	0.65
20:T:57:LEU:HD11	20:T:78:LYS:HB2	1.78	0.65
1:A:662:G:P	12:L:18:ARG:HD2	2.36	0.65
16:P:27:THR:CG2	16:P:90:GLN:HB3	2.26	0.65
18:R:21:ARG:CZ	18:R:91:TYR:HE1	2.09	0.65
1:A:17:G:H4'	17:Q:25:TRP:CH2	2.31	0.65
4:D:30:PRO:O	4:D:32:PRO:HD3	1.96	0.65
1:A:1430:C:H2'	1:A:1431:U:C6	2.31	0.65
1:A:430:G:H5''	1:A:431:U:OP2	1.96	0.65
10:J:74:PHE:CE1	10:J:142:ARG:HD2	2.30	0.65
24:X:46:LEU:CD2	24:X:61:ARG:HE	2.10	0.65
1:A:865:C:H4'	1:A:866:A:N7	2.11	0.65
1:A:1165:U:H2'	1:A:1166:C:C6	2.31	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:21:ARG:CZ	18:R:91:TYR:CE1	2.79	0.65
4:D:158:GLY:O	4:D:159:HIS:C	2.34	0.65
21:U:13:VAL:HG11	21:U:72:VAL:HB	1.79	0.65
5:E:164:ARG:HG2	5:E:164:ARG:NH1	2.01	0.65
22:V:134:PRO:O	22:V:136:PHE:N	2.30	0.65
13:M:58:PHE:CD1	13:M:58:PHE:O	2.47	0.65
1:A:2636:U:H4'	4:D:80:GLU:OE1	1.95	0.65
1:A:828:U:O2	1:A:828:U:C2'	2.42	0.65
1:A:2889:C:H2'	1:A:2891:G:C8	2.31	0.65
16:P:64:ARG:HD2	16:P:73:GLU:HG2	1.78	0.65
15:O:38:GLN:HB3	15:O:47:THR:HG21	1.79	0.65
24:X:32:LYS:HG2	24:X:33:LYS:H	1.62	0.65
1:A:1478:G:HO2'	1:A:1558:A:H2	1.44	0.65
3:C:125:ILE:CG2	3:C:125:ILE:O	2.44	0.65
22:V:180:VAL:C	22:V:182:LYS:H	2.00	0.65
30:4:35:ARG:HG3	30:4:42:LEU:HD11	1.79	0.65
10:J:127:LYS:HB2	10:J:140:PHE:CE1	2.32	0.65
1:A:197:A:C5'	1:A:197:A:H8	2.06	0.65
1:A:1210:A:H8	1:A:1210:A:H5'	1.62	0.65
1:A:1596:A:H2'	1:A:1597:A:H5'	1.77	0.65
13:M:48:GLU:O	13:M:52:VAL:HG12	1.96	0.65
14:N:9:LYS:HE2	14:N:43:GLU:OE2	1.97	0.65
1:A:912:C:H2'	1:A:912:C:O2	1.96	0.65
1:A:828:U:O2	1:A:828:U:C3'	2.45	0.65
29:3:42:TRP:HA	29:3:42:TRP:HE3	1.61	0.65
1:A:2846:G:H2'	1:A:2847:U:C6	2.31	0.65
10:J:90:LEU:O	10:J:111:GLU:HG3	1.97	0.65
4:D:52:LEU:O	4:D:76:ARG:N	2.30	0.65
24:X:27:GLU:CB	24:X:33:LYS:HG3	2.26	0.65
1:A:1434:A:H61	1:A:1558:A:H62	1.44	0.65
1:A:277:C:H5'	1:A:278:A:OP2	1.97	0.65
1:A:979:G:H3'	1:A:980:A:H5''	1.79	0.65
24:X:30:VAL:HG12	24:X:30:VAL:O	1.97	0.65
12:L:75:ILE:HD12	12:L:75:ILE:H	1.61	0.65
10:J:80:ALA:O	10:J:83:ILE:CG1	2.45	0.65
10:J:80:ALA:O	10:J:83:ILE:HG12	1.97	0.65
3:C:244:ARG:HB2	3:C:245:PRO:CD	2.26	0.65
20:T:39:ILE:O	20:T:43:VAL:HG12	1.96	0.65
3:C:172:TYR:HD1	3:C:186:HIS:HA	1.57	0.65
14:N:38:VAL:HB	14:N:39:PRO:CD	2.26	0.65
14:N:100:LEU:HD21	14:N:113:LEU:HB2	1.79	0.65
1:A:2476:A:C2	1:A:2477:C:C6	2.85	0.65

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:68:ASN:H	10:J:68:ASN:ND2	1.95	0.65
1:A:1288:U:C2	1:A:1327:C:O2	2.50	0.65
5:E:31:HIS:CG	12:L:13:ASN:HB2	2.32	0.65
11:K:87:ILE:HG13	11:K:91:LEU:HD12	1.78	0.65
4:D:32:PRO:HA	4:D:90:THR:HG22	1.78	0.65
1:A:1614:A:H61	19:S:88:ARG:H	1.45	0.64
1:A:2219:G:O2'	1:A:2224:G:H5'	1.96	0.64
2:B:103:U:O2'	2:B:104:A:H5'	1.96	0.64
3:C:172:TYR:HD1	3:C:185:VAL:O	1.79	0.64
1:A:2815:C:O2'	28:2:43:HIS:CD2	2.50	0.64
1:A:1006:C:H1'	10:J:129:MET:HB3	1.79	0.64
1:A:1971:A:C2	3:C:241:PRO:HD3	2.31	0.64
1:A:114(B):A:H4'	10:J:48:ARG:NH2	2.11	0.64
21:U:29:GLU:HB3	21:U:38:ILE:CB	2.26	0.64
1:A:2698:U:H2'	1:A:2699:C:C6	2.33	0.64
22:V:51:ALA:HB1	22:V:57:ILE:HD11	1.77	0.64
16:P:90:GLN:NE2	16:P:90:GLN:HA	2.12	0.64
1:A:2346:A:H5''	1:A:2383:G:C1'	2.27	0.64
1:A:1162:G:C2'	1:A:1163:G:H5'	2.28	0.64
1:A:2394:C:OP1	12:L:63:PRO:HD2	1.97	0.64
1:A:2852:G:O2'	1:A:2853:C:H5'	1.97	0.64
16:P:84:GLN:HE21	16:P:84:GLN:HA	1.62	0.64
5:E:127:GLU:O	5:E:129:PHE:N	2.28	0.64
1:A:565:C:H2'	1:A:566:U:O5'	1.95	0.64
12:L:95:VAL:HG23	12:L:125:VAL:HG23	1.78	0.64
1:A:1411:C:H2'	1:A:1412:A:C8	2.32	0.64
3:C:223:GLY:HA3	3:C:231:HIS:CE1	2.32	0.64
7:G:140:LYS:O	7:G:144:VAL:HG23	1.96	0.64
1:A:1486:A:N6	1:A:1504:C:H42	1.95	0.64
22:V:5:LEU:HG	22:V:47:VAL:HG21	1.78	0.64
15:O:12:PHE:HE1	15:O:16:ASN:HD21	1.45	0.64
10:J:157:ARG:N	10:J:158:PRO:CD	2.51	0.64
1:A:990:A:H5''	1:A:991:C:OP2	1.96	0.64
21:U:89:PHE:H	21:U:90:LEU:HD23	1.62	0.64
17:Q:114:LYS:O	17:Q:117:GLN:HB2	1.97	0.64
7:G:54:ARG:HB3	7:G:65:HIS:CD2	2.33	0.64
1:A:855:G:H5''	1:A:856:C:OP2	1.97	0.64
1:A:2886:G:O2'	1:A:2887:U:H5'	1.98	0.64
5:E:9:ILE:HD11	5:E:125:LEU:CG	2.28	0.64
24:X:13:ILE:HG23	24:X:14:VAL:H	1.63	0.64
24:X:45:ASN:HD21	24:X:47:GLN:HE21	1.45	0.64
3:C:134:ARG:HG3	3:C:135:PHE:CD1	2.32	0.64

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:952:G:P	13:M:16:ARG:HH22	2.21	0.64
13:M:37:LEU:HG	13:M:128:LYS:O	1.97	0.64
13:M:22:LYS:HD3	13:M:22:LYS:O	1.98	0.64
2:B:31:C:O2	2:B:31:C:H2'	1.98	0.64
1:A:2190:G:H2'	1:A:2191:G:H8	1.61	0.64
1:A:1833:U:C2	1:A:1834:U:C5	2.86	0.64
4:D:47:VAL:HG21	4:D:86:PRO:HD3	1.78	0.64
6:F:174:GLU:HG2	6:F:180:PHE:CD1	2.33	0.64
5:E:13:SER:OG	5:E:14:PRO:HD2	1.97	0.64
2:B:2:C:H2'	2:B:3:C:C6	2.33	0.64
1:A:588:U:H1'	5:E:90:PHE:CD1	2.33	0.64
7:G:54:ARG:HB3	7:G:65:HIS:HD2	1.63	0.64
5:E:181:LEU:HD21	5:E:186:ILE:HD11	1.80	0.64
22:V:9:TYR:CZ	22:V:61:LEU:HD13	2.33	0.64
10:J:148:GLY:HA3	10:J:149:PRO:O	1.98	0.64
1:A:60:G:H4'	1:A:61:G:P	2.37	0.64
14:N:11:ASN:O	14:N:12:ARG:HB2	1.98	0.64
18:R:41:GLY:HA3	18:R:45:THR:OG1	1.98	0.64
1:A:1493:C:C4	1:A:2210:G:O2'	2.51	0.64
1:A:2892:A:H2'	1:A:2893:G:H5'	1.80	0.64
1:A:1669:A:O3'	1:A:2549:G:H5'	1.98	0.64
21:U:76:CYS:SG	21:U:77:PRO:HD3	2.38	0.64
22:V:120:ILE:HD13	22:V:120:ILE:N	2.12	0.64
13:M:80:GLU:HA	13:M:80:GLU:OE2	1.97	0.64
1:A:2846:G:C5	1:A:2847:U:C5	2.85	0.64
20:T:44:GLU:OE2	20:T:50:LYS:HG2	1.97	0.64
31:5:11:LYS:HD2	31:5:64:TYR:CZ	2.33	0.64
1:A:242:G:C5'	31:5:63:PRO:HG2	2.27	0.64
12:L:45:LEU:HD23	12:L:46:LYS:H	1.61	0.64
1:A:1495:A:N3	1:A:1495:A:H2'	2.13	0.64
1:A:626:U:O2	12:L:105:LEU:HB3	1.98	0.64
1:A:992:C:O3'	18:R:72:VAL:HG11	1.98	0.64
12:L:58:THR:C	12:L:61:ARG:HE	2.01	0.63
12:L:62:LEU:CD2	31:5:25:MET:HB2	2.28	0.63
8:H:82:ARG:C	8:H:89:TYR:HB2	2.19	0.63
4:D:1:MET:HB3	4:D:84:PHE:HB2	1.80	0.63
6:F:71:THR:HG22	6:F:89:GLY:O	1.98	0.63
24:X:46:LEU:HD21	24:X:61:ARG:HE	1.62	0.63
12:L:16:ARG:CZ	12:L:18:ARG:H	2.10	0.63
1:A:222:A:H5''	1:A:421:U:OP1	1.98	0.63
13:M:10:ARG:HB3	13:M:11:LYS:HG2	1.79	0.63
10:J:57:LEU:O	10:J:72:GLY:HA3	1.97	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:143:HIS:HD2	3:C:144:ALA:CB	2.12	0.63
19:S:4:LYS:HD3	19:S:6:ILE:HD11	1.80	0.63
1:A:528:A:C2	1:A:2043:C:C5'	2.80	0.63
1:A:2820:A:O4'	14:N:5:LYS:HG3	1.97	0.63
31:5:52:LYS:N	31:5:52:LYS:HD3	2.12	0.63
3:C:25:THR:O	3:C:25:THR:HG23	1.99	0.63
1:A:302:C:H2'	1:A:303:U:C6	2.34	0.63
1:A:2461:C:O2	1:A:2461:C:H2'	1.99	0.63
22:V:121:HIS:HB3	22:V:123:ASP:O	1.98	0.63
1:A:2185:C:H2'	1:A:2186:G:H8	1.63	0.63
12:L:50:ARG:HB2	31:5:60:LEU:HD11	1.81	0.63
1:A:1439:A:C2	1:A:1553:A:C5	2.86	0.63
15:O:36:TYR:N	15:O:36:TYR:CD1	2.66	0.63
24:X:23:LYS:O	24:X:23:LYS:HG3	1.98	0.63
28:2:36:CYS:SG	28:2:37:LYS:N	2.72	0.63
1:A:2655:G:N2	1:A:2664:G:C5	2.67	0.63
1:A:2849:U:H4'	1:A:2868:A:C2	2.33	0.63
1:A:140:A:C8	1:A:1408:C:O2'	2.49	0.63
10:J:80:ALA:O	10:J:82:LYS:N	2.32	0.63
4:D:117:MET:CE	4:D:124:GLY:HA3	2.28	0.63
31:5:26:LYS:HA	31:5:48:PHE:HE2	1.64	0.63
1:A:1930:G:N2	1:A:1968:G:H2'	2.14	0.63
15:O:11:LYS:O	15:O:12:PHE:HB3	1.99	0.63
1:A:1899:G:N2	1:A:1902:C:C5	2.66	0.63
25:Y:14:ARG:HA	25:Y:17:SER:CB	2.23	0.63
3:C:237:GLU:OE2	3:C:237:GLU:O	2.17	0.63
22:V:24:LEU:CB	22:V:41:LEU:HG	2.28	0.63
1:A:2432:A:H2'	1:A:2433:A:C8	2.33	0.63
17:Q:30:LYS:O	17:Q:31:SER:CB	2.46	0.63
12:L:91:PHE:N	12:L:91:PHE:CD1	2.66	0.63
3:C:35:LYS:CE	3:C:103:ARG:HA	2.29	0.63
4:D:51:PHE:HB3	4:D:77:ILE:HD12	1.80	0.63
6:F:105:LYS:NZ	27:1:52:SER:HB2	2.13	0.63
6:F:8:LYS:HD3	6:F:9:ARG:HG3	1.80	0.63
23:W:50:ASN:C	23:W:62:LEU:HB2	2.19	0.63
7:G:94:TYR:HD1	7:G:94:TYR:H	1.44	0.63
1:A:2036:C:C6	1:A:2036:C:H5'	2.34	0.63
18:R:22:VAL:HG12	18:R:23:GLU:N	2.13	0.63
1:A:1132:A:O2'	1:A:1133:U:H5'	1.98	0.63
1:A:1726:G:H2'	1:A:1727:U:C6	2.34	0.63
13:M:43:THR:HG23	13:M:46:GLN:OE1	1.98	0.63
25:Y:2:LYS:HA	25:Y:5:GLU:CD	2.19	0.63

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2541:A:H5''	1:A:2542:A:OP2	1.99	0.63
1:A:2543:G:H2'	1:A:2544:G:C8	2.34	0.63
1:A:379:G:H1	24:X:20:ARG:HH22	1.45	0.63
1:A:1558:A:H1'	1:A:1559:G:OP2	1.98	0.63
13:M:43:THR:HG23	13:M:46:GLN:CD	2.19	0.63
1:A:310:A:OP1	21:U:18:GLY:HA2	1.99	0.63
1:A:1141:U:H6	10:J:86:THR:OG1	1.80	0.63
1:A:2712:U:H1'	1:A:712(B):A:H8	1.64	0.63
4:D:37:ARG:O	4:D:45:THR:HA	1.99	0.63
1:A:1476:C:H6	1:A:1476:C:H3'	1.63	0.63
22:V:5:LEU:HD23	22:V:6:LYS:N	2.12	0.63
29:3:38:LYS:HG2	29:3:39:TYR:H	1.63	0.63
22:V:104:PHE:HB3	22:V:141:VAL:HG11	1.81	0.63
22:V:108:PRO:HA	22:V:142:SER:O	1.99	0.63
16:P:48:ILE:H	16:P:48:ILE:HD12	1.63	0.63
12:L:138:LEU:HD11	12:L:144:GLU:HB3	1.81	0.62
1:A:2335:A:O2'	1:A:2336:A:H5''	1.98	0.62
1:A:114(B):A:C4	1:A:1144:G:C8	2.87	0.62
10:J:93:LYS:CE	10:J:95:TYR:HE1	2.12	0.62
6:F:32:PRO:HB2	6:F:172:LEU:HD22	1.80	0.62
1:A:2747:G:C6	1:A:2754:U:C5	2.86	0.62
15:O:72:ALA:O	15:O:76:LYS:HG3	1.99	0.62
18:R:66:ARG:HD2	18:R:88:ARG:NH1	2.13	0.62
3:C:235:GLY:O	3:C:237:GLU:N	2.32	0.62
1:A:1794:U:H2'	1:A:1795:C:C6	2.34	0.62
1:A:336:C:H2'	1:A:336:C:O2	1.98	0.62
1:A:229:A:H5'	1:A:230:U:H5'	1.80	0.62
2:B:93:C:H2'	2:B:94:C:H6	1.65	0.62
20:T:49:VAL:HG23	20:T:50:LYS:N	2.13	0.62
5:E:53:THR:N	5:E:56:GLU:OE1	2.32	0.62
1:A:2597:G:O2'	1:A:2598:A:H5'	1.98	0.62
14:N:54:LEU:HD23	14:N:62:ALA:HB1	1.80	0.62
1:A:483:A:H4'	21:U:49:VAL:HG23	1.81	0.62
1:A:795:C:H2'	1:A:796:C:H6	1.64	0.62
1:A:1449:G:H2'	1:A:1450:C:C6	2.34	0.62
21:U:13:VAL:CG1	21:U:72:VAL:HB	2.28	0.62
8:H:130:TYR:O	8:H:132:PRO:HD3	1.99	0.62
1:A:1156:A:H4'	1:A:1157:G:OP2	1.98	0.62
12:L:91:PHE:HD1	12:L:91:PHE:N	1.96	0.62
10:J:94:ILE:HG21	10:J:107:LYS:HB3	1.82	0.62
12:L:49:ARG:HG3	12:L:50:ARG:H	1.63	0.62
3:C:31:LYS:O	3:C:35:LYS:CB	2.46	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:19:GLN:CG	24:X:41:ARG:HE	2.10	0.62
24:X:19:GLN:HG3	24:X:41:ARG:NE	2.13	0.62
14:N:50:HIS:O	14:N:54:LEU:HB2	1.99	0.62
1:A:2371:G:O2'	29:3:45:LYS:HB3	2.00	0.62
19:S:36:LEU:HD12	19:S:48:ALA:HA	1.80	0.62
12:L:59:LEU:HA	12:L:61:ARG:HD2	1.80	0.62
28:2:20:ARG:CA	28:2:23:HIS:HD2	2.08	0.62
18:R:5:VAL:HG21	18:R:35:LEU:HG	1.80	0.62
18:R:6:LYS:HG3	18:R:11:GLN:HG2	1.80	0.62
13:M:47:ILE:CG2	13:M:48:GLU:N	2.56	0.62
2:B:13:A:C8	23:W:74:ARG:NH2	2.68	0.62
1:A:257:A:H2'	1:A:258:G:O5'	1.99	0.62
1:A:2485:G:H5''	13:M:46:GLN:HE21	1.63	0.62
1:A:2212:A:H1'	1:A:2215:G:C4	2.34	0.62
3:C:155:LEU:HD23	3:C:177:LEU:CD2	2.20	0.62
6:F:76:SER:HB2	6:F:83:ARG:C	2.19	0.62
17:Q:83:LEU:HA	17:Q:86:ALA:HB3	1.82	0.62
1:A:2090:G:H21	24:X:45:ASN:HD21	1.46	0.62
1:A:1055:G:H2'	1:A:1056:G:H8	1.63	0.62
1:A:2101:G:C2'	1:A:2102:U:H5'	2.30	0.62
10:J:114:LEU:HA	10:J:118:PRO:HB3	1.81	0.62
1:A:2218:G:O2'	1:A:2219:G:H5'	2.00	0.62
13:M:21:THR:O	13:M:23:GLY:N	2.33	0.62
17:Q:30:LYS:O	17:Q:31:SER:HB3	1.99	0.62
4:D:149:ARG:HG3	4:D:150:VAL:N	2.15	0.62
1:A:2847:U:OP1	16:P:98:LYS:HD3	2.00	0.62
8:H:79:ILE:HB	8:H:144:VAL:HA	1.82	0.62
18:R:39:LEU:CB	18:R:47:VAL:HG21	2.30	0.62
4:D:111:ARG:HD2	4:D:160:TYR:CE1	2.30	0.62
1:A:1586:A:N6	1:A:1587:A:C2	2.67	0.62
29:3:34:LEU:O	29:3:34:LEU:HD22	2.00	0.62
1:A:903:C:H2'	1:A:904:C:H6	1.65	0.62
1:A:2262:U:H2'	1:A:2263:C:H6	1.65	0.62
8:H:88:ILE:HG12	8:H:123:LEU:HA	1.82	0.62
14:N:52:ILE:CD1	14:N:79:LEU:HD21	2.29	0.62
1:A:2401:U:H2'	1:A:2402:C:H5''	1.81	0.62
1:A:1010:A:H1'	1:A:1153:C:H1'	1.82	0.62
18:R:22:VAL:CG1	18:R:23:GLU:N	2.62	0.62
22:V:117:LEU:HG	22:V:117:LEU:O	2.00	0.62
1:A:924:C:H2'	1:A:925:C:C6	2.35	0.62
31:5:23:VAL:CG1	31:5:47:LYS:HB3	2.30	0.62
14:N:55:ALA:HA	14:N:80:PHE:HE1	1.59	0.62

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:558:G:OP1	10:J:134:PRO:HD2	2.00	0.62
1:A:1331:A:O2'	1:A:1332:G:H8	1.82	0.62
16:P:26:ASP:HB3	16:P:92:GLY:H	1.64	0.62
13:M:119:ARG:HG2	13:M:120:ILE:HD13	1.82	0.62
17:Q:16:LYS:O	17:Q:20:LEU:HD22	2.00	0.62
12:L:30:THR:HG22	12:L:31:ALA:N	2.15	0.62
7:G:109:PHE:CE2	7:G:152:ARG:NH1	2.68	0.62
20:T:14:SER:O	20:T:17:ALA:N	2.33	0.61
18:R:64:HIS:CD2	18:R:92:THR:CG2	2.83	0.61
3:C:166:GLN:NE2	3:C:166:GLN:HA	2.15	0.61
14:N:99:LYS:HA	14:N:112:ALA:CB	2.30	0.61
4:D:117:MET:HE2	4:D:124:GLY:HA3	1.82	0.61
15:O:41:ASP:OD2	15:O:44:LYS:HD3	2.00	0.61
1:A:1981:A:H5''	1:A:1982:C:OP2	2.00	0.61
3:C:95:LEU:HD12	3:C:95:LEU:O	2.00	0.61
17:Q:92:ARG:NH2	18:R:11:GLN:N	2.44	0.61
12:L:50:ARG:HG3	31:5:7:HIS:CD2	2.35	0.61
21:U:81:LYS:NZ	21:U:97:ARG:HD3	2.14	0.61
15:O:39:ILE:HG13	15:O:73:LEU:HD13	1.81	0.61
1:A:2273:A:O2'	1:A:2274:A:H5'	1.99	0.61
22:V:39:VAL:HG23	22:V:40:ASP:N	2.14	0.61
5:E:117:ARG:NH2	5:E:187:VAL:HA	2.14	0.61
1:A:357:A:H2'	1:A:358:U:C6	2.35	0.61
1:A:1216:G:OP1	17:Q:8:VAL:HG12	2.00	0.61
17:Q:15:LYS:O	17:Q:19:LYS:HG3	2.00	0.61
1:A:2064:C:H2'	1:A:2065:C:C6	2.36	0.61
1:A:2086:U:OP2	3:C:263:ARG:HD3	2.01	0.61
1:A:942:G:H5'	12:L:35:HIS:HB3	1.81	0.61
1:A:1141:U:H6	10:J:86:THR:HG1	1.45	0.61
20:T:50:LYS:H	20:T:87:GLN:NE2	1.89	0.61
1:A:1812:A:C2'	1:A:1813:G:H5'	2.30	0.61
2:B:104:A:O4'	22:V:29:TYR:HE1	1.83	0.61
22:V:29:TYR:HA	22:V:33:LEU:O	2.00	0.61
14:N:4:LEU:O	14:N:4:LEU:HD23	1.99	0.61
1:A:2808:U:C2'	1:A:2809:A:H5'	2.30	0.61
1:A:2531:A:H5'	7:G:157:TYR:CE1	2.35	0.61
16:P:26:ASP:HB3	16:P:92:GLY:N	2.15	0.61
3:C:40:THR:HG22	3:C:41:GLY:N	2.14	0.61
1:A:1541:U:O2	1:A:1541:U:H2'	1.98	0.61
10:J:77:VAL:HB	10:J:145:VAL:HG22	1.82	0.61
4:D:132:HIS:CG	4:D:135:HIS:NE2	2.68	0.61
8:H:92:VAL:O	8:H:120:ILE:HD12	2.01	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1264:G:C5'	28:2:11:THR:HG21	2.31	0.61
1:A:783:A:H2'	1:A:785:G:OP1	2.00	0.61
15:O:14:VAL:HG12	15:O:18:ILE:HD11	1.82	0.61
1:A:1024:G:H8	1:A:1024:G:O5'	1.83	0.61
17:Q:83:LEU:HD12	17:Q:113:ALA:CB	2.28	0.61
1:A:2728:U:O2	1:A:2729:G:C8	2.54	0.61
12:L:47:ASP:OD1	12:L:49:ARG:HG2	2.01	0.61
24:X:13:ILE:HD12	24:X:13:ILE:C	2.21	0.61
7:G:139:GLN:HG3	7:G:140:LYS:N	2.14	0.61
1:A:628:G:H5''	31:5:18:ALA:CB	2.30	0.61
1:A:2365:G:O6	31:5:39:LYS:HE3	2.01	0.61
1:A:2854:G:H2'	1:A:2855:C:H6	1.65	0.61
1:A:1336:A:OP1	20:T:64:LYS:HD3	2.01	0.61
20:T:14:SER:O	20:T:15:GLU:C	2.39	0.61
6:F:32:PRO:CB	6:F:172:LEU:HD22	2.30	0.61
3:C:134:ARG:HD3	3:C:135:PHE:CE1	2.36	0.61
7:G:144:VAL:HA	7:G:147:ASN:HB2	1.81	0.61
4:D:46:ALA:CB	4:D:82:ARG:HA	2.30	0.61
10:J:65:TRP:O	17:Q:64:ARG:NH1	2.33	0.61
21:U:59:GLY:HA3	21:U:61:ILE:HG12	1.83	0.61
22:V:127:LYS:HD3	22:V:162:GLU:OE1	2.01	0.61
4:D:176:ILE:HB	4:D:181:LEU:HB2	1.82	0.61
1:A:1018:C:N3	1:A:1019:U:C5	2.69	0.61
1:A:2758:A:C5	7:G:67:LEU:HD21	2.36	0.61
15:O:51:ALA:HB1	15:O:72:ALA:CB	2.31	0.61
11:K:19:ILE:HD13	11:K:19:ILE:N	2.15	0.61
1:A:966:G:C6	1:A:967:C:N4	2.69	0.61
13:M:8:LYS:CG	13:M:9:TYR:H	2.13	0.61
1:A:737:C:H2'	1:A:738:G:H5'	1.83	0.61
1:A:1232:G:H2'	1:A:1233:C:H6	1.65	0.61
1:A:249:C:O2	31:5:12:LYS:HE3	2.00	0.61
14:N:103:ARG:NH1	14:N:110:PRO:HG3	2.15	0.61
16:P:29:ARG:HD2	16:P:44:ASP:OD2	2.01	0.61
12:L:61:ARG:CA	12:L:62:LEU:HD13	2.30	0.61
1:A:2329:G:H2'	1:A:2330:G:C8	2.35	0.61
1:A:1448:G:N3	1:A:1529:A:H2	1.98	0.61
3:C:155:LEU:N	3:C:155:LEU:CD1	2.63	0.61
6:F:84:LYS:CG	6:F:85:GLY:H	2.09	0.61
1:A:2731:G:C6	1:A:2732:G:C6	2.88	0.61
3:C:158:ALA:O	3:C:161:THR:HG23	2.01	0.61
1:A:2712:U:O2'	1:A:712(B):A:H5''	2.01	0.61
1:A:528:A:C2	1:A:2043:C:H4'	2.36	0.61

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:67:LEU:HD22	14:N:76:VAL:HG11	1.81	0.61
2:B:75:G:H21	22:V:85:HIS:CE1	2.18	0.61
1:A:1162:G:H2'	1:A:1163:G:H5'	1.82	0.61
1:A:1973:G:H2'	1:A:1974:C:H6	1.65	0.61
11:K:11:ALA:HB3	11:K:85:VAL:HG23	1.81	0.61
2:B:28:C:H2'	2:B:29:A:H8	1.66	0.61
1:A:858:U:C2	1:A:2268:A:C2	2.88	0.61
1:A:861:A:H2'	1:A:862:G:C5'	2.31	0.61
1:A:1899:G:HO2'	1:A:1900:A:P	2.23	0.61
1:A:1142:U:H5''	1:A:114(B):A:H5'	1.82	0.61
8:H:92:VAL:CG2	8:H:97:ILE:HG12	2.31	0.61
20:T:30:VAL:CG1	20:T:31:HIS:N	2.64	0.61
24:X:86:SER:O	24:X:90:ILE:HG12	2.00	0.61
18:R:64:HIS:HD2	18:R:92:THR:HG22	1.65	0.61
1:A:628:G:H5''	31:5:18:ALA:HB2	1.83	0.61
2:B:111:U:O2	2:B:112:G:C8	2.54	0.61
2:B:45:A:H1'	6:F:95:ARG:NH2	2.15	0.61
22:V:177:PRO:O	22:V:178:GLU:HB3	2.01	0.61
10:J:113:MET:O	10:J:116:THR:O	2.19	0.61
8:H:82:ARG:HB3	8:H:89:TYR:CD1	2.35	0.61
17:Q:102:GLU:HG3	18:R:2:PHE:CD1	2.36	0.61
1:A:2723:C:H4'	14:N:2:ARG:NH2	2.16	0.61
20:T:57:LEU:N	20:T:57:LEU:HD12	2.16	0.61
23:W:56:ASP:O	23:W:57:PHE:CB	2.48	0.61
22:V:74:VAL:HG22	22:V:86:VAL:HG13	1.83	0.61
1:A:637:A:OP2	12:L:115:LEU:HB2	1.99	0.61
1:A:706:A:H2'	1:A:707:G:O4'	2.01	0.61
13:M:116:GLU:OE1	13:M:116:GLU:HA	1.99	0.61
3:C:242:ARG:HG2	3:C:242:ARG:NH1	2.15	0.60
31:5:11:LYS:O	31:5:11:LYS:HE2	2.00	0.60
1:A:1208:C:C4	1:A:1209:G:N7	2.69	0.60
1:A:966:G:H2'	1:A:967:C:C6	2.34	0.60
1:A:2531:A:C5'	7:G:157:TYR:CZ	2.84	0.60
1:A:2279:G:O6	23:W:14:ARG:HD2	2.01	0.60
25:Y:2:LYS:HA	25:Y:5:GLU:OE2	2.00	0.60
1:A:1178:C:O2'	1:A:1179:C:H5'	2.00	0.60
10:J:94:ILE:CG2	10:J:107:LYS:HB3	2.30	0.60
17:Q:88:ILE:HG13	17:Q:88:ILE:O	1.99	0.60
4:D:59:VAL:HG12	4:D:59:VAL:O	1.99	0.60
1:A:558:G:P	10:J:134:PRO:HD2	2.42	0.60
1:A:1152:C:H5''	17:Q:80:ILE:HG22	1.82	0.60
1:A:2485:G:C5'	13:M:46:GLN:HE21	2.14	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2233:U:H2'	1:A:2234:G:C8	2.35	0.60
1:A:692:C:O2'	1:A:693:C:H5'	2.01	0.60
19:S:45:TYR:HD2	19:S:46:PHE:CD1	2.19	0.60
6:F:148:MET:HA	6:F:148:MET:HE3	1.82	0.60
1:A:943:U:OP2	12:L:38:GLN:CD	2.39	0.60
15:O:12:PHE:C	15:O:12:PHE:CD1	2.74	0.60
25:Y:18:PRO:O	25:Y:22:GLU:HG3	2.02	0.60
6:F:128:ARG:NH2	6:F:161:THR:O	2.34	0.60
3:C:186:HIS:CD2	3:C:188:GLU:H	2.20	0.60
1:A:2842:G:H1	1:A:2875:C:H42	1.47	0.60
1:A:1963:U:C2'	1:A:1963:U:O2	2.50	0.60
3:C:227:ASN:HD22	3:C:227:ASN:N	1.98	0.60
15:O:93:LYS:NZ	15:O:93:LYS:HB2	2.16	0.60
7:G:168:PRO:O	7:G:170:ARG:HG3	2.01	0.60
14:N:30:THR:HG22	14:N:31:HIS:ND1	2.16	0.60
1:A:448:U:H1'	5:E:84:VAL:HG21	1.83	0.60
4:D:16:ARG:O	4:D:18:ASP:N	2.34	0.60
2:B:83:G:H5''	26:Z:52:HIS:CE1	2.36	0.60
10:J:85:VAL:CG2	10:J:89:LYS:HG3	2.30	0.60
1:A:2727:G:C4	1:A:2728:U:C5	2.90	0.60
31:5:60:LEU:O	31:5:62:LEU:HB2	2.01	0.60
2:B:46:A:H2'	2:B:47:C:C6	2.36	0.60
1:A:322:A:O4'	1:A:340:A:H1'	2.01	0.60
1:A:2090:G:H21	24:X:45:ASN:ND2	2.00	0.60
1:A:1510:A:H2'	1:A:1511:A:H8	1.64	0.60
7:G:43:VAL:HG12	7:G:52:VAL:HG22	1.83	0.60
1:A:282:A:C5	1:A:359:A:C2	2.89	0.60
1:A:2365:G:H4'	23:W:60:PHE:CZ	2.36	0.60
2:B:2:C:H2'	2:B:3:C:H6	1.67	0.60
1:A:2739:U:O2	1:A:2739:U:H2'	2.00	0.60
1:A:1526:G:C6	1:A:1527:G:C2	2.90	0.60
16:P:74:ARG:HD3	16:P:76:PHE:CE2	2.36	0.60
10:J:86:THR:O	10:J:89:LYS:HG2	2.01	0.60
20:T:63:LYS:NZ	20:T:72:LYS:HB3	2.16	0.60
20:T:28:PHE:HD1	20:T:28:PHE:N	1.97	0.60
12:L:49:ARG:CG	12:L:50:ARG:N	2.62	0.60
1:A:1210:A:C8	1:A:1210:A:H5''	2.29	0.60
22:V:33:LEU:HD23	22:V:90:VAL:HG21	1.84	0.60
14:N:9:LYS:O	14:N:10:LEU:HD23	2.02	0.60
1:A:1105:U:O2'	1:A:1106:G:H5'	2.02	0.60
12:L:84:ASN:HA	12:L:115:LEU:O	2.00	0.60
14:N:79:LEU:HD23	14:N:83:ILE:HB	1.84	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:246:PRO:HD2	3:C:255:LYS:HB3	1.84	0.60
1:A:924:C:H2'	1:A:925:C:H6	1.66	0.60
4:D:7:VAL:HA	4:D:194:GLY:O	2.02	0.60
1:A:860:U:O2'	1:A:861:A:C5'	2.48	0.60
12:L:38:GLN:CG	12:L:39:LYS:H	2.11	0.60
15:O:38:GLN:HB3	15:O:47:THR:CG2	2.31	0.60
1:A:1121:C:H6	1:A:1121:C:O5'	1.85	0.60
8:H:88:ILE:CG2	8:H:90:GLY:H	2.14	0.60
1:A:1209:G:N2	1:A:1210:A:H62	1.95	0.60
1:A:1046:A:H3'	1:A:1047:G:C5'	2.31	0.60
15:O:33:LYS:O	15:O:54:LEU:HG	2.02	0.60
1:A:783:A:H3'	1:A:783:A:C8	2.36	0.60
21:U:2:ARG:N	21:U:4:LYS:HZ2	1.99	0.60
6:F:143:GLU:H	6:F:143:GLU:CD	2.04	0.60
5:E:50:SER:HA	5:E:92:PRO:O	2.00	0.60
2:B:56:G:H4'	2:B:57:A:C8	2.36	0.60
1:A:631:A:H2'	1:A:632:A:O4'	2.01	0.60
10:J:143:LEU:C	10:J:143:LEU:HD13	2.22	0.60
15:O:90:GLY:O	15:O:92:TYR:N	2.35	0.60
1:A:1019:U:H2'	1:A:1020:A:C8	2.36	0.60
12:L:50:ARG:HB2	31:5:60:LEU:CD1	2.32	0.60
1:A:1812:A:O2'	1:A:1813:G:H5'	2.02	0.60
6:F:161:THR:HG21	6:F:172:LEU:HD23	1.82	0.60
23:W:31:VAL:HG23	23:W:32:ARG:O	2.02	0.60
1:A:1328:G:H2'	1:A:1330:C:C5	2.37	0.60
3:C:166:GLN:NE2	3:C:166:GLN:CA	2.65	0.60
1:A:2284:C:H1'	1:A:2325:G:C2	2.37	0.60
13:M:37:LEU:HD23	13:M:37:LEU:N	2.16	0.60
1:A:639:U:H2'	1:A:640:C:C6	2.36	0.60
1:A:1153:C:H5'	17:Q:76:TYR:CE2	2.37	0.60
1:A:997:G:C2'	1:A:998:C:H5'	2.32	0.60
1:A:1335:U:O2'	1:A:1336:A:H5'	2.02	0.60
1:A:1356:G:C5	1:A:1357:U:C5	2.89	0.60
1:A:1543:A:N7	1:A:1545:A:H5''	2.16	0.60
31:5:33:ASN:HA	31:5:36:LYS:HD3	1.83	0.60
10:J:38:LEU:HD12	10:J:39:ILE:H	1.66	0.60
1:A:568:U:O4	18:R:78:LYS:CE	2.50	0.60
6:F:9:ARG:HD3	6:F:13:GLU:OE1	2.01	0.60
1:A:1946:U:H2'	1:A:1947:C:C6	2.36	0.60
17:Q:18:LEU:HD11	17:Q:31:SER:H	1.67	0.60
19:S:24:ILE:HG21	19:S:36:LEU:HD21	1.81	0.60
1:A:2621:A:OP1	4:D:119:ARG:NH2	2.35	0.60

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:886:C:O2'	1:A:887:A:H4'	2.02	0.60
1:A:1514:U:H2'	1:A:1515:C:H6	1.67	0.60
3:C:124:PRO:HG2	3:C:129:ASN:ND2	2.17	0.60
1:A:958:U:OP2	13:M:14:ARG:NH1	2.35	0.60
25:Y:35:LEU:HD12	25:Y:53:LEU:CD1	2.28	0.60
25:Y:57:ILE:HG22	25:Y:61:LEU:HD22	1.83	0.60
1:A:1593:G:H2'	1:A:1594:G:C8	2.37	0.60
27:1:59:VAL:HG12	27:1:60:GLU:N	2.14	0.60
1:A:1503:U:C2	1:A:1504:C:C5	2.89	0.60
5:E:192:LEU:HD22	5:E:194:MET:HG2	1.82	0.60
21:U:42:VAL:HG23	21:U:67:LEU:HD11	1.83	0.60
16:P:89:VAL:HG22	16:P:89:VAL:O	2.01	0.60
1:A:1953:A:H2	1:A:2549:G:N3	2.00	0.60
1:A:753:C:OP1	30:4:1:MET:HE3	2.01	0.60
13:M:43:THR:OG1	13:M:45:GLN:HG2	2.02	0.60
1:A:2718:G:H2'	1:A:2719:G:H8	1.67	0.60
1:A:1893:C:C5	1:A:1894:C:C5	2.89	0.60
1:A:630:G:N2	1:A:632:A:H3'	2.17	0.60
12:L:35:HIS:O	12:L:36:LYS:CB	2.49	0.60
3:C:108:PRO:HB3	3:C:143:HIS:HE1	1.67	0.60
13:M:75:THR:HA	13:M:88:GLY:HA3	1.81	0.60
4:D:2:LYS:HD3	4:D:95:ILE:HB	1.82	0.60
21:U:20:TYR:CE1	21:U:42:VAL:HA	2.37	0.60
1:A:773:U:C5'	3:C:47:GLY:HA3	2.31	0.60
5:E:117:ARG:HD2	5:E:190:GLU:O	2.02	0.60
21:U:30:VAL:CG2	21:U:37:VAL:HG12	2.32	0.60
12:L:62:LEU:HD13	12:L:62:LEU:N	2.17	0.59
1:A:1543:A:C8	1:A:1545:A:O4'	2.55	0.59
8:H:123:LEU:HD23	8:H:124:GLY:N	2.17	0.59
3:C:34:VAL:O	3:C:35:LYS:HD3	2.02	0.59
6:F:134:GLY:C	6:F:135:LEU:HD12	2.22	0.59
1:A:1343:G:C5'	1:A:1343:G:C8	2.84	0.59
1:A:1386:C:OP2	1:A:1396:U:C5	2.55	0.59
1:A:1711:C:O2'	1:A:1712:C:H5'	2.02	0.59
4:D:181:LEU:HD21	16:P:7:ILE:CG2	2.32	0.59
3:C:43:ARG:HB2	3:C:49:ILE:HA	1.84	0.59
1:A:2056:G:N2	28:2:4:HIS:O	2.35	0.59
16:P:57:PHE:O	16:P:59:THR:N	2.36	0.59
1:A:2655:G:N2	1:A:2664:G:C4	2.70	0.59
3:C:80:ALA:HB3	3:C:94:LEU:HD13	1.82	0.59
1:A:136:G:C5	1:A:137(A):C:C5	2.90	0.59
1:A:1870:C:H2'	1:A:1870:C:O2	2.01	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1188:U:H4'	18:R:79:VAL:HG22	1.84	0.59
3:C:85:ASP:OD2	3:C:86:PRO:HD2	2.03	0.59
3:C:33:LEU:HD23	3:C:33:LEU:N	2.16	0.59
22:V:72:ARG:HG2	22:V:89:PHE:HB2	1.84	0.59
26:Z:40:THR:CG2	26:Z:43:ILE:HG12	2.28	0.59
1:A:557:U:H2'	1:A:558:G:C8	2.32	0.59
22:V:24:LEU:CD1	22:V:85:HIS:HA	2.32	0.59
6:F:36:LYS:HD3	6:F:160:VAL:HG21	1.83	0.59
1:A:781:A:H2	1:A:1776:G:N3	2.01	0.59
22:V:13:GLU:HB3	22:V:18:LEU:CD1	2.33	0.59
12:L:140:ALA:O	12:L:141:ALA:HB2	2.02	0.59
1:A:184:C:H2'	1:A:185:U:H6	1.66	0.59
24:X:53:VAL:HG22	24:X:74:VAL:HG13	1.85	0.59
1:A:2051:A:H4'	4:D:141:ILE:HG23	1.83	0.59
16:P:51:ARG:O	16:P:61:PHE:HA	2.02	0.59
1:A:1187:G:H5''	18:R:81:TYR:CE2	2.37	0.59
1:A:1159:U:H2'	1:A:1160:G:H8	1.67	0.59
18:R:55:ALA:HA	18:R:101:GLY:O	2.02	0.59
24:X:45:ASN:O	24:X:63:ALA:HA	2.01	0.59
1:A:1475:G:N2	1:A:1519:G:C5	2.69	0.59
22:V:41:LEU:HD21	22:V:83:PRO:HG2	1.83	0.59
15:O:20:ARG:HH12	23:W:47:PRO:HB2	1.68	0.59
1:A:1516:U:H2'	1:A:1517:G:C8	2.37	0.59
1:A:2393:A:H5'	12:L:60:MET:O	2.02	0.59
1:A:1268:A:H2'	1:A:1269:A:O5'	2.03	0.59
1:A:919:G:N2	1:A:2269:A:OP2	2.36	0.59
15:O:27:SER:HA	15:O:88:ASP:HB3	1.84	0.59
8:H:87:LYS:HA	8:H:122:GLU:HA	1.84	0.59
2:B:103:U:O2'	22:V:72:ARG:HG3	2.03	0.59
1:A:528:A:C2	1:A:2042:A:H2'	2.37	0.59
31:5:22:VAL:CG1	31:5:50:LEU:HD12	2.32	0.59
1:A:1478:G:C2	1:A:1479:G:C8	2.90	0.59
1:A:389:G:H1	12:L:71:VAL:H	1.50	0.59
28:2:48:GLU:O	28:2:49:CYS:HB2	2.03	0.59
1:A:825:C:O2	12:L:55:ARG:NH2	2.34	0.59
27:1:38:ALA:HA	27:1:55:PRO:HA	1.84	0.59
11:K:86:ILE:H	11:K:86:ILE:HD12	1.68	0.59
1:A:1817:G:OP1	3:C:88:ARG:NH2	2.31	0.59
6:F:55:LYS:HD2	6:F:58:GLN:HE21	1.65	0.59
1:A:1188:U:C2'	1:A:1189:A:H5'	2.32	0.59
8:H:88:ILE:HG12	8:H:123:LEU:CA	2.32	0.59
3:C:86:PRO:HD2	3:C:87:ASN:ND2	2.18	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
25:Y:28:LYS:HE3	25:Y:56:GLN:NE2	2.17	0.59
19:S:75:TYR:CE2	19:S:104:THR:CB	2.84	0.59
2:B:16:G:C6	2:B:69:G:C2	2.91	0.59
1:A:1786:A:H1'	1:A:1938:A:N6	2.18	0.59
26:Z:40:THR:HG23	26:Z:43:ILE:CG1	2.28	0.59
2:B:66:A:C5	2:B:108:C:C5	2.91	0.59
1:A:1332:G:N2	1:A:1609:A:O2'	2.34	0.59
1:A:270(I):C:O2	1:A:270(I):C:H2'	2.01	0.59
1:A:1218:C:C2'	1:A:1219:G:H5'	2.33	0.59
1:A:184:C:H2'	1:A:185:U:C6	2.38	0.59
19:S:52:GLU:HA	19:S:52:GLU:OE2	2.02	0.59
4:D:175:VAL:O	4:D:177:PRO:HD3	2.03	0.59
17:Q:65:ILE:O	17:Q:66:ASN:C	2.40	0.59
1:A:2774:C:H2'	1:A:2775:A:O4'	2.03	0.59
10:J:141:LYS:O	10:J:144:LYS:HE3	2.02	0.59
1:A:2438:U:O3'	1:A:2439:A:H3'	2.02	0.59
15:O:12:PHE:O	15:O:15:ARG:HG3	2.03	0.59
12:L:46:LYS:HG2	12:L:52:GLU:OE1	2.03	0.59
1:A:2542:A:OP1	1:A:2542:A:H4'	2.02	0.59
1:A:83:G:N1	1:A:102:G:O2'	1.97	0.59
12:L:18:ARG:HB3	12:L:18:ARG:CZ	2.32	0.59
12:L:105:LEU:HD12	12:L:105:LEU:H	1.66	0.59
1:A:2443:C:O2'	1:A:2444:G:H5'	2.03	0.59
1:A:207:A:H2'	1:A:208:C:O4'	2.02	0.59
1:A:2879:C:H4'	1:A:2880:C:OP1	2.01	0.59
7:G:89:ILE:HG22	7:G:89:ILE:O	2.03	0.59
12:L:33:ARG:CG	12:L:34:GLY:N	2.65	0.59
24:X:11:ARG:HB3	24:X:12:PRO:HD2	1.83	0.59
24:X:45:ASN:HD22	24:X:46:LEU:N	2.01	0.59
15:O:36:TYR:HD1	15:O:36:TYR:N	2.00	0.59
1:A:2469:A:H2	1:A:2481:G:N2	2.00	0.59
1:A:2100:G:N2	1:A:2101:G:H1'	2.17	0.59
7:G:86:GLU:HG2	7:G:164:TYR:O	2.02	0.59
2:B:30:C:OP2	15:O:32:LEU:HD11	2.03	0.59
1:A:747:U:OP2	28:2:3:LYS:HD3	2.03	0.59
2:B:81:G:C6	2:B:82:G:C5	2.91	0.59
4:D:167:VAL:HG11	4:D:189:PRO:HD3	1.84	0.59
18:R:49:THR:HB	18:R:50:PRO:HD2	1.83	0.59
3:C:75:ILE:O	3:C:118:VAL:HG23	2.02	0.59
22:V:92:SER:HB2	22:V:94:GLU:OE2	2.03	0.59
20:T:29:TRP:CZ3	20:T:78:LYS:HG3	2.38	0.59
7:G:23:ARG:N	7:G:23:ARG:HD3	2.18	0.59

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:33:G:C2	2:B:50:G:C2	2.91	0.59
1:A:910:A:C6	1:A:911:A:C6	2.91	0.59
6:F:133:LEU:HD23	6:F:133:LEU:N	2.18	0.59
1:A:1433:U:O2'	1:A:1434:A:H5'	2.03	0.59
1:A:2705:A:C2	14:N:64:ARG:NH1	2.71	0.59
16:P:109:GLU:O	16:P:112:ARG:HG3	2.03	0.59
2:B:82:G:C2'	2:B:83:G:H5'	2.33	0.59
16:P:74:ARG:HD3	16:P:76:PHE:CZ	2.37	0.59
10:J:89:LYS:O	10:J:90:LEU:C	2.39	0.59
1:A:94:G:N2	25:Y:47:ASN:HD22	1.97	0.59
1:A:2378:A:O2'	15:O:21:THR:HG21	2.03	0.59
19:S:29:LEU:HD21	19:S:33:ARG:NE	2.16	0.59
1:A:1858:G:O2'	1:A:1859:A:C8	2.53	0.59
6:F:131:TYR:HE2	6:F:133:LEU:HB3	1.68	0.59
1:A:971:C:C2'	1:A:972:G:H5'	2.32	0.59
17:Q:65:ILE:O	17:Q:68:ALA:N	2.35	0.59
3:C:260:ARG:O	3:C:261:LYS:O	2.21	0.59
19:S:62:HIS:C	19:S:64:MET:H	2.06	0.59
1:A:2506:U:H5	1:A:2507:C:C5	2.21	0.59
1:A:1850:G:C6	1:A:1851:U:C4	2.91	0.59
10:J:114:LEU:HD21	10:J:121:VAL:HG21	1.83	0.58
4:D:11:MET:CB	4:D:24:THR:HA	2.33	0.58
12:L:33:ARG:O	12:L:35:HIS:O	2.20	0.58
5:E:63:LYS:HZ3	5:E:67:GLN:NE2	2.01	0.58
15:O:89:ARG:O	15:O:90:GLY:O	2.21	0.58
3:C:108:PRO:CG	3:C:143:HIS:HE1	2.15	0.58
1:A:1826:G:H4'	3:C:242:ARG:NE	2.08	0.58
1:A:2729:G:H2'	1:A:2730:C:C6	2.37	0.58
26:Z:17:LYS:C	26:Z:17:LYS:HD3	2.23	0.58
31:5:14:VAL:CG1	31:5:22:VAL:HG13	2.33	0.58
3:C:25:THR:HG22	3:C:82:ILE:O	2.02	0.58
1:A:1778:U:H2'	1:A:1784:A:H62	1.66	0.58
16:P:124:ASP:O	16:P:128:GLU:HB2	2.02	0.58
1:A:2038:G:H2'	1:A:2039:C:H6	1.68	0.58
5:E:158:THR:HG23	5:E:160:ASN:N	2.17	0.58
23:W:23:VAL:HB	23:W:26:TYR:CE2	2.38	0.58
12:L:33:ARG:CG	12:L:34:GLY:H	2.16	0.58
1:A:1971:A:N3	3:C:241:PRO:HD3	2.18	0.58
19:S:12:ILE:HG12	19:S:13:SER:N	2.18	0.58
1:A:1266:G:O5'	19:S:15:ARG:NH2	2.36	0.58
4:D:57:LYS:HG3	4:D:58:ARG:N	2.18	0.58
1:A:2808:U:H2'	1:A:2809:A:C5'	2.33	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:953:A:OP2	13:M:16:ARG:NH2	2.35	0.58
10:J:81:ASP:OD2	10:J:147:ALA:HB1	2.02	0.58
13:M:134:ARG:NE	13:M:134:ARG:HA	2.18	0.58
13:M:43:THR:OG1	13:M:46:GLN:HG3	2.03	0.58
1:A:2317:C:H2'	1:A:2318:G:C5'	2.32	0.58
1:A:2272:U:H6	1:A:2272:U:C5'	2.03	0.58
2:B:7:G:H5''	15:O:29:PHE:CE2	2.38	0.58
1:A:1141:U:P	10:J:86:THR:HG21	2.44	0.58
12:L:49:ARG:HG3	31:5:60:LEU:HD21	1.84	0.58
6:F:43:LEU:O	6:F:88:ILE:HG23	2.03	0.58
13:M:140:ALA:HB3	22:V:53:ILE:HG12	1.85	0.58
23:W:70:GLN:OE1	23:W:72:ARG:HD3	2.03	0.58
1:A:142:G:H1'	20:T:37:THR:CG2	2.33	0.58
1:A:528:A:C8	1:A:528:A:C3'	2.87	0.58
1:A:556:G:H2'	1:A:557:U:C6	2.38	0.58
8:H:15:VAL:HG12	8:H:16:GLY:H	1.68	0.58
1:A:270(H):C:H2'	1:A:270(I):C:C6	2.35	0.58
1:A:1389:G:H2'	1:A:1390:U:C6	2.38	0.58
1:A:830:G:H4'	1:A:831:G:OP2	2.04	0.58
1:A:1845:G:OP1	3:C:258:LYS:HE3	2.04	0.58
5:E:14:PRO:HD3	5:E:128:ALA:HB2	1.86	0.58
1:A:185:U:H2'	1:A:186:G:C8	2.37	0.58
1:A:188:G:H2'	1:A:189:G:H5'	1.85	0.58
6:F:165:THR:OG1	6:F:168:GLU:HG3	2.02	0.58
1:A:1459:G:H2'	1:A:1459:G:N3	2.18	0.58
1:A:1916:A:H2'	1:A:1917:U:O4'	2.02	0.58
2:B:116:G:H4'	15:O:55:ALA:O	2.03	0.58
28:2:4:HIS:HB3	28:2:5:PRO:HD3	1.84	0.58
10:J:118:PRO:HD2	10:J:119:GLU:OE1	2.04	0.58
1:A:1190:G:H5''	12:L:35:HIS:HA	1.84	0.58
3:C:108:PRO:HG3	3:C:143:HIS:CE1	2.38	0.58
11:K:24:VAL:HB	11:K:33:ALA:HB2	1.86	0.58
3:C:133:LEU:C	3:C:135:PHE:N	2.57	0.58
10:J:66:THR:O	10:J:69:VAL:HG12	2.03	0.58
1:A:225:A:N6	1:A:226:G:N1	2.50	0.58
1:A:1991:U:H2'	1:A:1992:G:H5'	1.85	0.58
1:A:2511:U:O3'	4:D:123:ALA:HB3	2.04	0.58
1:A:2335:A:C8	1:A:2337:G:C5	2.91	0.58
4:D:57:LYS:HG3	4:D:58:ARG:H	1.67	0.58
26:Z:40:THR:OG1	26:Z:41:PRO:HD2	2.04	0.58
1:A:61:G:H5'	25:Y:50:ILE:HG21	1.86	0.58
2:B:28:C:H2'	2:B:29:A:C8	2.39	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2183:C:O2	1:A:2183:C:H2'	2.04	0.58
1:A:1901:A:N3	1:A:1901:A:H2'	2.19	0.58
1:A:1996:C:H4'	1:A:1997:G:OP1	2.03	0.58
12:L:111:ARG:HG3	12:L:128:HIS:CB	2.33	0.58
4:D:23:VAL:HA	4:D:184:VAL:O	2.03	0.58
16:P:64:ARG:HA	16:P:72:VAL:O	2.03	0.58
19:S:86:LEU:HD12	19:S:87:PRO:HD2	1.86	0.58
6:F:88:ILE:HD11	6:F:90:LEU:CD2	2.33	0.58
1:A:1858:G:H1'	1:A:1884:A:H62	1.68	0.58
2:B:48:A:H4'	15:O:95:HIS:CD2	2.38	0.58
1:A:389:G:H22	12:L:72:PRO:HD3	1.69	0.58
1:A:1006:C:C2	1:A:1138:G:N2	2.71	0.58
12:L:55:ARG:CG	12:L:56:SER:N	2.63	0.58
1:A:1529:A:C8	1:A:1530:G:C8	2.91	0.58
1:A:727:A:C2	3:C:9:TYR:CD2	2.92	0.58
1:A:2392:A:OP1	31:5:32:LEU:HB3	2.04	0.58
17:Q:95:LEU:HD13	18:R:4:ILE:HG23	1.85	0.58
1:A:1343:G:C5'	1:A:1343:G:H8	2.16	0.58
11:K:35:VAL:HG11	11:K:103:ALA:HB3	1.85	0.58
18:R:64:HIS:HD2	18:R:92:THR:CG2	2.17	0.58
1:A:954:G:H5''	13:M:13:GLN:CG	2.34	0.58
1:A:661:C:C4'	12:L:18:ARG:HG2	2.33	0.58
1:A:2188:C:H2'	1:A:2189:U:O4'	2.04	0.58
1:A:997:G:O2'	1:A:998:C:H5'	2.04	0.58
17:Q:25:TRP:C	17:Q:25:TRP:CD1	2.76	0.58
1:A:903:C:H2'	1:A:904:C:C6	2.38	0.58
17:Q:20:LEU:HB2	17:Q:39:LEU:HD11	1.85	0.58
10:J:146:TYR:N	10:J:146:TYR:CD1	2.71	0.58
1:A:2828:C:O2'	1:A:2829:C:H5'	2.03	0.58
18:R:52:VAL:HG13	18:R:55:ALA:HB3	1.84	0.58
1:A:2531:A:H4'	7:G:157:TYR:CD2	2.39	0.58
3:C:25:THR:CG2	3:C:82:ILE:N	2.66	0.58
1:A:991:C:C5	1:A:1185:C:C4	2.92	0.58
1:A:991:C:C5	1:A:1185:C:N4	2.72	0.58
1:A:2853:C:H2'	1:A:2854:G:H8	1.69	0.58
1:A:1449:G:H2'	1:A:1450:C:H6	1.69	0.58
2:B:45:A:H2'	2:B:45:A:N3	2.19	0.58
1:A:530:G:N1	1:A:2022:U:OP1	2.36	0.58
4:D:84:PHE:CZ	4:D:86:PRO:HG3	2.38	0.58
1:A:322:A:OP2	5:E:169:ASN:HB2	2.04	0.58
1:A:1859:A:C6	1:A:1884:A:C8	2.92	0.58
1:A:2287:A:O2'	1:A:2288:A:O5'	2.22	0.58

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:356:G:H2'	1:A:357:A:C8	2.39	0.58
1:A:907:U:O2'	13:M:101:ARG:NH2	2.36	0.58
1:A:270(M):U:H3'	1:A:270(N):U:H5''	1.84	0.58
10:J:57:LEU:HD21	10:J:143:LEU:HB2	1.85	0.58
4:D:132:HIS:HA	4:D:135:HIS:CE1	2.37	0.58
18:R:40:LEU:H	18:R:47:VAL:CG2	2.15	0.58
24:X:11:ARG:HB3	24:X:12:PRO:HD3	1.85	0.58
1:A:952:G:OP1	13:M:16:ARG:NH2	2.35	0.58
3:C:166:GLN:HE21	3:C:166:GLN:HA	1.68	0.58
21:U:2:ARG:C	21:U:4:LYS:H	2.06	0.58
13:M:37:LEU:O	13:M:99:PRO:HB3	2.03	0.58
5:E:46:ARG:CG	5:E:46:ARG:HH11	2.17	0.58
1:A:2485:G:H5''	13:M:46:GLN:NE2	2.19	0.58
1:A:1547:C:H2'	1:A:1548:C:H6	1.68	0.58
7:G:38:SER:HB3	7:G:41:MET:HG2	1.86	0.58
22:V:11:GLU:HG3	22:V:12:GLY:N	2.19	0.58
26:Z:23:LEU:HD12	26:Z:23:LEU:N	2.19	0.58
1:A:2604:U:O2	1:A:2604:U:H2'	2.03	0.58
1:A:1448:G:H2'	1:A:149(B):A:C8	2.39	0.57
1:A:1543:A:H5'	1:A:1544:C:O5'	2.02	0.57
1:A:587:C:N4	12:L:33:ARG:HB2	2.19	0.57
1:A:603:A:N1	1:A:655:A:N3	2.52	0.57
2:B:50:G:C5	2:B:51:G:C8	2.91	0.57
2:B:78:A:C2	2:B:99:A:C5	2.91	0.57
17:Q:5:LYS:HG2	17:Q:6:THR:H	1.68	0.57
3:C:253:GLN:OE1	3:C:255:LYS:HD3	2.04	0.57
1:A:1051:G:C6	1:A:1052:C:N3	2.72	0.57
1:A:2058:A:N6	1:A:2059:A:N6	2.52	0.57
5:E:179:GLU:CD	5:E:179:GLU:H	2.06	0.57
14:N:11:ASN:O	14:N:12:ARG:NH1	2.32	0.57
1:A:1899:G:N2	1:A:1902:C:N4	2.37	0.57
8:H:88:ILE:HD11	8:H:123:LEU:HG	1.87	0.57
31:5:62:LEU:C	31:5:64:TYR:H	2.08	0.57
1:A:72:U:O4	1:A:112:U:H4'	2.03	0.57
23:W:31:VAL:O	23:W:64:ASP:HA	2.04	0.57
14:N:63:ARG:HB2	14:N:63:ARG:NH1	2.18	0.57
1:A:2755:C:O2'	1:A:2756:U:H2'	2.05	0.57
7:G:67:LEU:O	7:G:71:LEU:HD23	2.04	0.57
20:T:52:VAL:HG23	20:T:82:GLN:O	2.03	0.57
3:C:268:ARG:HD2	3:C:269:PHE:CE1	2.38	0.57
3:C:267:SER:O	3:C:269:PHE:N	2.36	0.57
1:A:1680:U:O2	1:A:1763:G:H3'	2.04	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2850:A:OP2	1:A:2866:U:C5	2.54	0.57
1:A:2401:U:C2'	1:A:2402:C:H5''	2.33	0.57
1:A:311:A:C6	1:A:328:U:C4	2.93	0.57
1:A:1028:A:N6	1:A:1125:G:H2'	2.19	0.57
1:A:1973:G:H2'	1:A:1974:C:C6	2.39	0.57
1:A:1149:G:H2'	1:A:1150:C:C6	2.40	0.57
3:C:218:ARG:HB3	3:C:219:PRO:HD2	1.86	0.57
4:D:73:GLU:OE2	4:D:74:PRO:HD2	2.04	0.57
8:H:118:LYS:HG2	8:H:119:PRO:N	2.18	0.57
14:N:10:LEU:HB3	14:N:17:ARG:CD	2.35	0.57
1:A:2723:C:O3'	14:N:2:ARG:NH2	2.34	0.57
1:A:83:G:H1	1:A:102:G:HO2'	0.59	0.57
3:C:133:LEU:HD13	3:C:173:VAL:HG11	1.85	0.57
1:A:1104:C:O2'	1:A:1105:U:H5'	2.05	0.57
8:H:8:PRO:HB3	8:H:14:ASP:OD1	2.03	0.57
22:V:179:ASP:CG	22:V:180:VAL:HG13	2.24	0.57
29:3:38:LYS:HD3	29:3:46:HIS:ND1	2.18	0.57
1:A:2716:U:O2'	1:A:2717:G:H5'	2.03	0.57
1:A:484:C:H2'	1:A:485:C:C6	2.39	0.57
21:U:14:LEU:HD23	21:U:15:VAL:C	2.25	0.57
8:H:88:ILE:HG22	8:H:90:GLY:H	1.69	0.57
17:Q:105:VAL:HG11	18:R:40:LEU:HD13	1.87	0.57
3:C:32:SER:O	3:C:33:LEU:O	2.22	0.57
2:B:43:C:H4'	6:F:98:ARG:HH12	1.70	0.57
4:D:54:GLN:OE1	4:D:55:ASN:N	2.37	0.57
1:A:1326:U:O2'	1:A:2010:G:H1'	2.03	0.57
16:P:53:ARG:HH11	16:P:53:ARG:CG	2.17	0.57
31:5:57:ARG:HH11	31:5:57:ARG:HB2	1.68	0.57
1:A:686:G:O6	30:4:12:ARG:HG3	2.04	0.57
16:P:1:MET:C	16:P:3:ARG:N	2.57	0.57
19:S:55:ALA:O	19:S:58:ALA:HB3	2.05	0.57
1:A:415:A:H2'	1:A:416:C:H6	1.70	0.57
1:A:1275:A:C4	14:N:16:HIS:CE1	2.93	0.57
2:B:7:G:H1'	15:O:38:GLN:NE2	2.19	0.57
21:U:29:GLU:HA	21:U:29:GLU:OE2	2.03	0.57
13:M:68:ILE:HD13	13:M:103:MET:CG	2.32	0.57
5:E:65:TRP:CZ3	5:E:72:ARG:HB3	2.39	0.57
1:A:2639:A:C2'	1:A:2640:G:H5'	2.35	0.57
1:A:774:A:H2	1:A:787:U:O2'	1.88	0.57
1:A:1857:G:N2	1:A:1886:C:C4	2.72	0.57
1:A:2036:C:H6	1:A:2036:C:C5'	2.18	0.57
1:A:2854:G:H2'	1:A:2855:C:C6	2.39	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:173:G:H2'	1:A:174:C:C6	2.40	0.57
25:Y:36:ARG:HA	25:Y:39:ALA:CB	2.34	0.57
1:A:1773:A:H2'	1:A:1774:C:H5'	1.87	0.57
3:C:141:VAL:HG23	3:C:162:SER:OG	2.04	0.57
1:A:399:G:H2'	1:A:400:G:H5'	1.86	0.57
1:A:496:G:H1'	19:S:61:ASN:HD21	1.68	0.57
4:D:11:MET:HB2	4:D:24:THR:HA	1.87	0.57
1:A:244:A:C2	1:A:255:A:C4	2.93	0.57
26:Z:26:LEU:HD21	26:Z:46:ASN:HB2	1.86	0.57
3:C:186:HIS:HD2	3:C:188:GLU:HB2	1.70	0.57
14:N:57:ARG:HD2	14:N:59:ASP:OD2	2.05	0.57
24:X:9:GLY:O	24:X:13:ILE:HG21	2.05	0.57
1:A:2565:A:H5''	1:A:2566:A:OP2	2.04	0.57
1:A:390:A:C5	12:L:71:VAL:HG21	2.40	0.57
3:C:182:LEU:H	3:C:272:ALA:CB	2.16	0.57
1:A:1788:C:OP1	3:C:222:ARG:NH2	2.37	0.57
19:S:43:GLY:O	19:S:47:VAL:HG23	2.03	0.57
16:P:126:ALA:O	16:P:128:GLU:N	2.37	0.57
1:A:1550:C:H2'	1:A:1551:C:H6	1.70	0.57
1:A:289:A:H2'	1:A:290:G:O4'	2.05	0.57
12:L:101:VAL:HG23	12:L:107:LYS:H	1.70	0.57
5:E:63:LYS:NZ	5:E:67:GLN:NE2	2.53	0.57
1:A:1158:C:C2'	1:A:1159:U:H5'	2.35	0.57
3:C:71:ASP:OD2	3:C:103:ARG:NH2	2.37	0.57
7:G:151:ILE:HD13	7:G:151:ILE:N	2.20	0.57
1:A:1312:U:H4'	1:A:1313:U:O5'	2.04	0.57
1:A:356:G:H2'	1:A:357:A:H8	1.69	0.57
1:A:226:G:N2	1:A:228:A:N6	2.52	0.57
1:A:165:U:N3	1:A:171:G:C8	2.72	0.57
11:K:49:ARG:HA	11:K:53:LYS:NZ	2.20	0.57
5:E:59:TYR:HB3	5:E:78:ILE:HD12	1.87	0.57
16:P:80:SER:C	16:P:82:LEU:H	2.08	0.57
1:A:1027:A:N6	1:A:1126:A:C4	2.73	0.57
1:A:1171:G:H2'	1:A:1173:G:O4'	2.05	0.57
1:A:1828:G:OP2	3:C:239:ARG:NH1	2.38	0.57
17:Q:69:CYS:CB	17:Q:79:PHE:HD2	2.18	0.57
1:A:2517:C:C6	1:A:2542:A:C2	2.92	0.57
19:S:29:LEU:O	19:S:33:ARG:HD2	2.04	0.57
14:N:47:PHE:CE2	14:N:51:LEU:HD11	2.40	0.57
1:A:1856:G:H2'	1:A:1857:G:O4'	2.05	0.57
1:A:564:C:O2'	1:A:565:C:H5'	2.05	0.57
1:A:1193:G:O2'	1:A:1194:A:H5'	2.05	0.57

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
30:4:5:TRP:NE1	30:4:7:PRO:HG3	2.20	0.57
1:A:2023:G:H5'	1:A:2617:C:H4'	1.87	0.57
4:D:101:ARG:HB3	4:D:169:ASN:ND2	2.20	0.57
1:A:2392:A:OP2	31:5:31:HIS:CE1	2.58	0.57
1:A:2320:A:N3	1:A:2320:A:H2'	2.19	0.57
8:H:109:ILE:N	8:H:109:ILE:HD13	2.20	0.57
8:H:82:ARG:HB3	8:H:89:TYR:CG	2.39	0.57
1:A:993:G:C4	1:A:994:C:H5	2.22	0.57
17:Q:92:ARG:HD2	17:Q:95:LEU:HG	1.86	0.57
12:L:41:ARG:NH2	12:L:45:LEU:HD12	2.20	0.57
23:W:28:GLY:HA2	23:W:66:VAL:CG1	2.35	0.57
15:O:36:TYR:HD1	15:O:36:TYR:H	1.52	0.57
1:A:2531:A:H2	1:A:2658:C:O2	1.88	0.57
8:H:15:VAL:O	8:H:17:GLN:N	2.37	0.57
1:A:1478:G:O2'	1:A:1558:A:H2	1.88	0.57
1:A:2476:A:H2'	1:A:2476:A:N3	2.20	0.57
13:M:26:TYR:CD1	13:M:26:TYR:O	2.58	0.57
1:A:2197:U:O3'	1:A:2198:A:H8	1.88	0.57
25:Y:38:GLN:HB3	25:Y:44:LEU:O	2.05	0.57
1:A:296:C:O2'	1:A:297:C:H5'	2.04	0.57
21:U:15:VAL:HG13	21:U:17:SER:HB3	1.87	0.57
1:A:1139:G:OP1	10:J:125:ALA:HB2	2.05	0.57
10:J:49:LEU:O	10:J:53:ILE:HG13	2.05	0.57
10:J:74:PHE:CZ	10:J:142:ARG:HD2	2.40	0.57
18:R:2:PHE:O	18:R:41:GLY:HA2	2.04	0.57
3:C:35:LYS:HZ1	3:C:104:TYR:H	1.53	0.57
1:A:84:A:C5'	21:U:9:LYS:HD2	2.31	0.57
1:A:1504:C:O2'	1:A:1505:C:O5'	2.23	0.57
1:A:2688:U:C5	1:A:2720:U:OP2	2.57	0.57
7:G:73:ALA:O	7:G:77:LYS:HG2	2.05	0.57
18:R:20:LEU:O	18:R:20:LEU:HD23	2.05	0.57
1:A:2347:C:OP1	29:3:39:TYR:HE1	1.88	0.57
1:A:880:G:H2'	1:A:881:G:C8	2.39	0.57
1:A:2464:C:C2	1:A:2487:G:N2	2.73	0.57
1:A:219:G:N3	1:A:234:C:O2'	2.36	0.57
12:L:62:LEU:HD23	31:5:25:MET:HB2	1.87	0.56
4:D:21:VAL:HG12	4:D:23:VAL:HG13	1.85	0.56
12:L:33:ARG:H	12:L:36:LYS:CE	2.06	0.56
6:F:86:MET:N	6:F:87:PRO:CD	2.66	0.56
8:H:68:LEU:HD21	8:H:107:ILE:HD11	1.87	0.56
17:Q:98:LEU:O	17:Q:101:ARG:O	2.23	0.56
12:L:52:GLU:HA	12:L:52:GLU:OE1	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:81:LYS:CG	21:U:97:ARG:HB3	2.34	0.56
1:A:380:U:O2	24:X:20:ARG:NH2	2.38	0.56
5:E:89:VAL:HG12	5:E:90:PHE:H	1.68	0.56
1:A:627:A:C6	1:A:637:A:C8	2.93	0.56
1:A:974(B):C:OP2	1:A:974(B):C:H4'	2.05	0.56
3:C:70:TRP:CH2	3:C:150:LYS:HA	2.41	0.56
27:1:40:ILE:HG23	27:1:59:VAL:HG21	1.86	0.56
1:A:142:G:H1'	20:T:37:THR:HG21	1.86	0.56
1:A:1388:G:H4'	1:A:1525:G:O2'	2.05	0.56
1:A:284:U:H2'	1:A:285:C:C6	2.40	0.56
1:A:1607:C:N4	1:A:1621:U:H3'	2.20	0.56
21:U:68:HIS:O	21:U:70:SER:N	2.37	0.56
13:M:62:GLY:O	22:V:178:GLU:HG2	2.05	0.56
11:K:14:THR:HG22	11:K:14:THR:O	2.05	0.56
1:A:1797:C:O2'	3:C:259:THR:HG23	2.04	0.56
1:A:1757:U:C2'	1:A:1758:G:OP1	2.53	0.56
22:V:17:ALA:HA	22:V:20:ARG:NH1	2.20	0.56
23:W:35:ASN:HD22	23:W:35:ASN:H	1.53	0.56
1:A:747:U:C4	28:2:2:ALA:N	2.73	0.56
3:C:68:LYS:O	3:C:70:TRP:CE3	2.57	0.56
13:M:47:ILE:HD11	13:M:68:ILE:HD12	1.87	0.56
21:U:95:LYS:HD3	21:U:99:CYS:O	2.05	0.56
1:A:1495:A:C2	1:A:1496:A:C2	2.93	0.56
18:R:61:VAL:HG23	18:R:61:VAL:O	2.04	0.56
3:C:24:ILE:CD1	3:C:84:TYR:HB2	2.35	0.56
11:K:19:ILE:HB	11:K:41:ALA:HB1	1.87	0.56
8:H:6:LEU:O	8:H:7:GLU:HB2	2.05	0.56
1:A:2476:A:H2	1:A:2477:C:C6	2.24	0.56
1:A:2476:A:N1	1:A:2477:C:C4	2.73	0.56
1:A:2287:A:C4	1:A:2289:G:C8	2.93	0.56
7:G:94:TYR:OH	7:G:160:LYS:HD3	2.05	0.56
1:A:1793:C:H2'	1:A:1794:U:C6	2.40	0.56
22:V:38:TYR:O	22:V:38:TYR:CD1	2.59	0.56
1:A:270(K):G:H2'	1:A:270(L):C:O4'	2.04	0.56
22:V:5:LEU:HD23	22:V:6:LYS:H	1.69	0.56
5:E:181:LEU:CD2	5:E:186:ILE:HD11	2.35	0.56
1:A:229:A:H5'	1:A:230:U:C5'	2.35	0.56
14:N:30:THR:HG22	14:N:31:HIS:CE1	2.41	0.56
4:D:100:GLU:O	4:D:172:VAL:HG23	2.05	0.56
1:A:2038:G:H2'	1:A:2039:C:C6	2.39	0.56
1:A:2317:C:H2'	1:A:2318:G:H5'	1.85	0.56
5:E:108:LYS:O	5:E:112:MET:HG3	2.04	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:461:C:C2'	1:A:462:C:H5'	2.36	0.56
1:A:459:U:H4'	30:4:40:TRP:CZ3	2.41	0.56
1:A:1015:G:C2'	1:A:1016:G:H5'	2.34	0.56
12:L:81:GLN:HG2	12:L:106:LEU:HD22	1.87	0.56
1:A:2846:G:OP2	16:P:54:ARG:HB2	2.06	0.56
1:A:2730:C:O2'	1:A:2731:G:H5'	2.04	0.56
5:E:155:LEU:HD12	5:E:174:VAL:HB	1.87	0.56
31:5:51:ALA:C	31:5:52:LYS:HD3	2.26	0.56
13:M:40:ALA:HB2	13:M:127:ILE:HD12	1.88	0.56
22:V:179:ASP:CG	22:V:180:VAL:H	2.08	0.56
5:E:88:VAL:HG13	5:E:89:VAL:O	2.05	0.56
1:A:2641:G:OP1	10:J:97:ARG:HD3	2.05	0.56
1:A:1164:G:C6	1:A:1165:U:C4	2.94	0.56
19:S:62:HIS:O	19:S:64:MET:N	2.38	0.56
16:P:23:ARG:HH11	16:P:23:ARG:CG	2.19	0.56
1:A:2020:A:OP1	17:Q:27:LEU:HB2	2.06	0.56
1:A:24:G:O2'	19:S:77:ASP:HB3	2.05	0.56
1:A:1169:G:H1	1:A:1180:C:H42	1.54	0.56
10:J:53:ILE:O	10:J:57:LEU:HD22	2.04	0.56
1:A:2338:G:O2'	1:A:2339:G:H5'	2.05	0.56
4:D:4:ILE:CG1	4:D:28:ALA:HB1	2.36	0.56
13:M:68:ILE:HG21	13:M:103:MET:HG3	1.88	0.56
1:A:2681:C:C5	1:A:2725:A:N6	2.63	0.56
1:A:1771:C:H1'	1:A:1786:A:C8	2.41	0.56
3:C:172:TYR:HD1	3:C:185:VAL:C	2.08	0.56
14:N:55:ALA:O	14:N:57:ARG:O	2.24	0.56
1:A:2598:A:H2'	1:A:2599:G:O5'	2.05	0.56
12:L:136:GLU:O	12:L:137:LYS:C	2.44	0.56
1:A:565:C:C2'	1:A:566:U:O5'	2.53	0.56
3:C:52:ARG:HB3	3:C:53:PHE:CD2	2.40	0.56
4:D:134:ILE:HA	4:D:137:HIS:CD2	2.40	0.56
1:A:241:A:H5'	1:A:243:U:H1'	1.86	0.56
1:A:2681:C:H5	1:A:2725:A:N6	1.82	0.56
22:V:24:LEU:HG	22:V:24:LEU:O	2.04	0.56
3:C:30:GLU:HG3	3:C:63:ARG:NH2	2.20	0.56
12:L:132:LYS:HD3	12:L:132:LYS:N	2.20	0.56
1:A:640:C:H2'	1:A:641:C:C6	2.41	0.56
11:K:14:THR:HG22	11:K:52:VAL:HB	1.87	0.56
1:A:914:C:H3'	1:A:914:C:H6	1.71	0.56
12:L:61:ARG:CD	31:5:13:ARG:HD2	2.36	0.56
12:L:59:LEU:CA	12:L:61:ARG:HE	2.13	0.56
1:A:729:G:C8	3:C:208:LYS:HD3	2.41	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1266:G:C6	19:S:16:LYS:HD2	2.40	0.56
8:H:97:ILE:O	8:H:101:LEU:HB2	2.05	0.56
2:B:40:U:O2'	2:B:41:U:H5'	2.06	0.56
25:Y:46:GLN:HB2	25:Y:49:LYS:HZ3	1.70	0.56
6:F:7:LEU:HA	6:F:10:LYS:HB2	1.86	0.56
1:A:880:G:H2'	1:A:881:G:H8	1.71	0.56
2:B:115:G:H5'	15:O:50:SER:OG	2.05	0.56
1:A:1317:A:C6	1:A:1318:C:C4	2.93	0.56
1:A:2836:U:C4	1:A:2883:A:N6	2.74	0.56
1:A:176:G:C2'	1:A:177:G:H5'	2.36	0.56
31:5:29:LYS:HB2	31:5:44:LYS:HB3	1.86	0.56
25:Y:60:LEU:C	25:Y:62:THR:H	2.09	0.56
1:A:142:G:H4'	20:T:35:THR:HG21	1.87	0.56
1:A:84:A:H2	1:A:98:G:N3	2.03	0.56
1:A:1478:G:N3	1:A:1479:G:C8	2.74	0.56
7:G:85:LYS:O	7:G:132:ARG:HA	2.06	0.56
4:D:149:ARG:CG	4:D:150:VAL:N	2.69	0.56
1:A:1168:G:C2	1:A:1182:A:C2	2.94	0.56
1:A:2415:G:O3'	12:L:66:GLY:HA3	2.06	0.56
1:A:973:A:O4'	1:A:1188:U:C6	2.58	0.56
17:Q:102:GLU:HG3	18:R:2:PHE:CE1	2.41	0.56
21:U:81:LYS:HZ1	21:U:98:VAL:HG12	1.70	0.56
1:A:83:G:C4	1:A:102:G:N2	2.74	0.56
24:X:65:SER:OG	24:X:66:HIS:CD2	2.59	0.56
1:A:2599:G:N7	3:C:237:GLU:HG3	2.20	0.56
1:A:2688:U:O2	1:A:2688:U:C3'	2.54	0.56
1:A:300:A:P	21:U:84:ARG:NH2	2.78	0.56
21:U:76:CYS:HB3	21:U:77:PRO:CD	2.35	0.56
1:A:637:A:P	12:L:116:GLY:HA2	2.46	0.56
1:A:1538:G:H2'	1:A:1539:G:C8	2.41	0.56
1:A:871:U:H4'	13:M:69:PHE:CE2	2.41	0.56
1:A:2709:G:O2'	1:A:2710:C:H5'	2.04	0.56
1:A:191:A:H2'	1:A:192:C:C6	2.40	0.56
1:A:2301:C:H2'	1:A:2302:G:H8	1.70	0.56
1:A:1900:A:N1	1:A:1970:A:C6	2.74	0.56
1:A:1022:G:O2'	1:A:1023:U:OP2	2.15	0.56
1:A:2727:G:C5	1:A:2728:U:H5	2.23	0.56
1:A:1592:C:H2'	1:A:1593:G:H8	1.71	0.56
1:A:2787:C:H1'	4:D:62:PRO:CB	2.36	0.56
1:A:363(C):G:H2'	1:A:363(D):G:H8	1.70	0.56
1:A:712(B):A:H5''	1:A:2713:A:OP2	2.06	0.56
26:Z:43:ILE:N	26:Z:43:ILE:CD1	2.69	0.56

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2307:G:O5'	1:A:2307:G:H8	1.89	0.56
1:A:1587:A:H2'	1:A:1588:C:H6	1.66	0.56
1:A:1512:G:C6	1:A:1513:C:N3	2.73	0.56
3:C:265:PRO:C	3:C:267:SER:H	2.08	0.56
3:C:61:LEU:CB	3:C:63:ARG:NH1	2.69	0.56
1:A:270(O):G:O2'	1:A:270(Q):C:H5'	2.06	0.56
19:S:95:ILE:HG13	19:S:95:ILE:O	2.06	0.56
6:F:76:SER:HB2	6:F:83:ARG:N	2.21	0.55
3:C:44:ASN:CG	3:C:45:ASN:N	2.59	0.55
1:A:848:G:N9	1:A:933:A:H8	2.05	0.55
1:A:2309:A:N6	1:A:2310:A:N1	2.54	0.55
21:U:81:LYS:CE	21:U:97:ARG:HB3	2.35	0.55
4:D:26:ILE:N	4:D:26:ILE:HD13	2.21	0.55
1:A:1487:G:C4	1:A:1488:G:C8	2.95	0.55
7:G:19:VAL:CG1	7:G:20:ALA:H	2.17	0.55
1:A:9:U:N3	1:A:2629:A:N6	2.53	0.55
10:J:62:ARG:HH21	10:J:64:ASP:CG	2.10	0.55
28:2:33:CYS:SG	28:2:40:LYS:HE3	2.47	0.55
1:A:1028:A:N3	1:A:2486:G:O2'	2.30	0.55
1:A:530:G:C5	1:A:2022:U:H5''	2.41	0.55
10:J:51:THR:HG22	10:J:52:LYS:N	2.21	0.55
1:A:2098:U:O2'	1:A:2099:U:O5'	2.24	0.55
1:A:533:G:N3	17:Q:45:TYR:CE1	2.74	0.55
1:A:2416:C:H2'	1:A:2417:C:H6	1.72	0.55
26:Z:52:HIS:H	26:Z:52:HIS:CD2	2.23	0.55
1:A:1530:G:N1	1:A:1542:G:N2	2.55	0.55
1:A:1210:A:C8	1:A:1210:A:H5'	2.40	0.55
23:W:50:ASN:O	23:W:62:LEU:HB2	2.05	0.55
13:M:43:THR:O	13:M:46:GLN:HB2	2.07	0.55
19:S:24:ILE:HG21	19:S:36:LEU:CD2	2.35	0.55
1:A:1130:U:O2	4:D:149:ARG:NH2	2.39	0.55
1:A:2097:C:O2'	1:A:2098:U:H5'	2.06	0.55
5:E:122:LYS:HD2	5:E:122:LYS:N	2.20	0.55
16:P:36:GLU:OE2	16:P:41:ARG:HD3	2.06	0.55
1:A:1204:A:N1	1:A:1241:A:H2	2.03	0.55
1:A:49:A:H4'	1:A:50:U:H5''	1.87	0.55
8:H:58:LEU:C	8:H:60:GLU:H	2.09	0.55
13:M:78:PRO:O	13:M:79:LEU:HB2	2.05	0.55
1:A:1543:A:C3'	1:A:1543:A:C8	2.88	0.55
1:A:806:C:OP2	12:L:39:LYS:HD3	2.06	0.55
19:S:86:LEU:HD12	19:S:87:PRO:CD	2.36	0.55
3:C:231:HIS:HD2	3:C:249:PRO:CA	2.13	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:71:A:C2	20:T:31:HIS:CE1	2.92	0.55
24:X:40:ARG:HG2	24:X:41:ARG:N	2.22	0.55
20:T:23:GLU:HA	20:T:23:GLU:OE1	2.05	0.55
10:J:101:TYR:HB3	10:J:102:PRO:CD	2.36	0.55
21:U:90:LEU:HG	21:U:91:GLU:N	2.21	0.55
24:X:17:SER:HA	24:X:44:PRO:HD3	1.88	0.55
5:E:63:LYS:HZ1	5:E:67:GLN:HE21	1.51	0.55
1:A:2727:G:C5	1:A:2728:U:C5	2.94	0.55
31:5:62:LEU:C	31:5:64:TYR:N	2.60	0.55
1:A:125:G:OP2	30:4:19:ARG:NH1	2.38	0.55
24:X:11:ARG:O	24:X:12:PRO:C	2.44	0.55
1:A:1495:A:C5'	1:A:1496:A:OP2	2.51	0.55
1:A:2746:U:O3'	7:G:138:LYS:HD3	2.06	0.55
1:A:1046:A:H2	9:I:8:GLU:OE1	1.90	0.55
10:J:59:GLY:O	10:J:65:TRP:HE3	1.89	0.55
1:A:328:U:H4'	21:U:68:HIS:CE1	2.40	0.55
24:X:67:ILE:HB	24:X:68:PRO:HD3	1.87	0.55
4:D:24:THR:HB	4:D:186:GLY:HA2	1.88	0.55
10:J:37:VAL:HG12	10:J:38:LEU:H	1.72	0.55
1:A:114(B):A:C5	1:A:1144:G:C5	2.95	0.55
10:J:88:LYS:O	10:J:89:LYS:C	2.44	0.55
1:A:848:G:C4	1:A:933:A:H8	2.25	0.55
1:A:2723:C:C2'	1:A:2724:C:O5'	2.54	0.55
1:A:1332:G:N2	1:A:1610:A:H8	2.03	0.55
16:P:27:THR:HG22	16:P:90:GLN:HB3	1.88	0.55
1:A:115:C:C2'	1:A:116:C:H5'	2.36	0.55
1:A:2364:C:O2'	1:A:2365:G:H5'	2.07	0.55
1:A:1336:A:H2'	1:A:1337:G:C8	2.42	0.55
31:5:29:LYS:HB3	31:5:29:LYS:NZ	2.21	0.55
23:W:23:VAL:HB	23:W:26:TYR:HE2	1.71	0.55
28:2:17:ASP:O	28:2:20:ARG:HB2	2.07	0.55
1:A:242:G:N7	31:5:5:LYS:HG2	2.22	0.55
1:A:1414:G:H2'	1:A:1415:U:H6	1.70	0.55
1:A:848:G:O6	1:A:929:G:H2'	2.07	0.55
14:N:8:ARG:HD3	14:N:43:GLU:OE1	2.06	0.55
1:A:1506:C:H2'	1:A:1508:A:C8	2.42	0.55
1:A:2277:G:H5''	13:M:85:LYS:CB	2.35	0.55
21:U:2:ARG:HG2	21:U:3:VAL:N	2.22	0.55
16:P:28:VAL:HA	16:P:89:VAL:HG12	1.89	0.55
1:A:1270:C:H5''	1:A:1271:G:C5'	2.37	0.55
1:A:1138:G:O2'	10:J:128:GLY:HA3	2.06	0.55
5:E:206:ILE:O	5:E:206:ILE:HD12	2.06	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:76:CYS:CB	21:U:77:PRO:CD	2.85	0.55
1:A:18:C:OP1	17:Q:26:GLY:HA2	2.05	0.55
31:5:26:LYS:HA	31:5:48:PHE:CE2	2.41	0.55
1:A:461:C:O2'	1:A:462:C:H5'	2.07	0.55
6:F:137:GLU:HG2	6:F:152:LEU:HD22	1.87	0.55
11:K:76:ALA:HB3	16:P:75:ILE:HB	1.88	0.55
29:3:25:LYS:HD3	31:5:34:TRP:CZ3	2.41	0.55
8:H:142:VAL:HG12	8:H:143:SER:H	1.72	0.55
2:B:90:C:OP2	13:M:16:ARG:HD2	2.07	0.55
22:V:44:PHE:CE2	22:V:86:VAL:HG11	2.41	0.55
1:A:2284:C:H2'	1:A:2285:C:H5'	1.89	0.55
1:A:2284:C:C2'	1:A:2285:C:H5'	2.36	0.55
1:A:2037:G:C6	1:A:2038:G:C6	2.95	0.55
24:X:48:LYS:NZ	24:X:50:ARG:NH1	2.55	0.55
19:S:54:ALA:HB1	19:S:107:LEU:HD22	1.88	0.55
1:A:810:U:O5'	1:A:810:U:H6	1.89	0.55
1:A:1276:A:H1'	14:N:16:HIS:HE1	1.71	0.55
8:H:77:LEU:HD12	8:H:101:LEU:HD13	1.88	0.55
1:A:1414:G:C5	1:A:1415:U:C5	2.95	0.55
4:D:52:LEU:HB2	4:D:76:ARG:HB2	1.88	0.55
31:5:52:LYS:N	31:5:53:PRO:HD2	2.21	0.55
1:A:1476:C:C5	1:A:1477:A:N7	2.75	0.55
14:N:100:LEU:N	14:N:100:LEU:HD23	2.21	0.55
1:A:864:G:O2'	1:A:865:C:H5'	2.06	0.55
1:A:1152:C:HO2'	17:Q:76:TYR:HE2	1.55	0.55
4:D:181:LEU:HD21	16:P:7:ILE:HG23	1.88	0.55
14:N:31:HIS:O	14:N:33:ARG:N	2.39	0.55
1:A:1917:U:C2'	1:A:1918:A:H5'	2.36	0.55
1:A:2356:C:O3'	23:W:20:ARG:HD3	2.07	0.55
1:A:1338:G:C2'	1:A:1339:G:H5'	2.36	0.55
4:D:114:ALA:O	4:D:157:ALA:HB1	2.07	0.55
10:J:127:LYS:HB2	10:J:140:PHE:HE1	1.71	0.55
1:A:72:U:C4	1:A:112:U:H4'	2.42	0.55
3:C:25:THR:O	3:C:27:THR:HB	2.07	0.55
1:A:2636:U:H4'	4:D:80:GLU:OE2	2.07	0.55
1:A:2468:G:O2'	1:A:2476:A:N7	2.40	0.55
1:A:1757:U:H2'	1:A:1758:G:OP1	2.07	0.55
11:K:26:LYS:O	11:K:27:GLY:O	2.24	0.55
1:A:1445:C:C2	1:A:1446:C:C5	2.95	0.55
1:A:1175:U:H2'	1:A:1176:G:H8	1.72	0.55
10:J:143:LEU:O	10:J:144:LYS:HD2	2.06	0.55
3:C:15:PHE:O	3:C:205:VAL:HG11	2.07	0.55

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:666:G:H5''	12:L:47:ASP:O	2.07	0.55
3:C:76:PRO:CB	3:C:116:GLN:HE21	2.19	0.55
25:Y:53:LEU:O	25:Y:57:ILE:HG13	2.07	0.55
2:B:71:C:C2	2:B:72:G:C8	2.95	0.55
22:V:3:TYR:CD1	22:V:3:TYR:N	2.74	0.55
1:A:932:G:H4'	1:A:933:A:O5'	2.06	0.55
4:D:111:ARG:CD	4:D:160:TYR:HE1	2.15	0.55
24:X:10:LYS:O	24:X:11:ARG:CB	2.55	0.55
24:X:11:ARG:NH1	24:X:61:ARG:N	2.55	0.55
1:A:1487:G:N3	1:A:1488:G:C8	2.74	0.55
22:V:24:LEU:HB3	22:V:41:LEU:HG	1.88	0.55
1:A:481:G:OP1	1:A:481:G:H4'	2.06	0.55
18:R:1:MET:H2	18:R:16:PRO:HD3	1.72	0.55
12:L:135:LEU:HD13	12:L:139:LYS:HB2	1.89	0.55
2:B:83:G:C2	2:B:84:C:C6	2.95	0.54
2:B:84:C:O2	2:B:84:C:H2'	2.06	0.54
1:A:1022:G:H22	1:A:114(B):A:H2	1.54	0.54
17:Q:92:ARG:HD2	17:Q:95:LEU:H	1.72	0.54
1:A:1777:U:C2'	1:A:1778:U:H5'	2.37	0.54
1:A:628:G:H2'	1:A:629:G:C8	2.42	0.54
7:G:118:PRO:O	7:G:121:ILE:HG22	2.07	0.54
1:A:2399:G:H2'	1:A:2400:G:O4'	2.07	0.54
4:D:11:MET:HE3	4:D:24:THR:HB	1.90	0.54
1:A:1657:C:H2'	1:A:1658:C:H6	1.72	0.54
8:H:88:ILE:HG12	8:H:123:LEU:N	2.22	0.54
18:R:2:PHE:HE2	18:R:13:ARG:CD	2.18	0.54
13:M:75:THR:C	13:M:88:GLY:HA2	2.28	0.54
1:A:2711:A:OP1	1:A:712(B):A:OP1	2.25	0.54
16:P:24:PRO:HA	16:P:49:VAL:CG1	2.33	0.54
1:A:2842:G:H1	1:A:2875:C:N4	2.05	0.54
3:C:136:ILE:HG23	3:C:137:PRO:HD2	1.88	0.54
15:O:65:VAL:O	15:O:69:VAL:HG12	2.06	0.54
3:C:148:GLU:HB2	3:C:151:LYS:HD2	1.89	0.54
1:A:1348:G:C2'	1:A:1349:A:H5''	2.35	0.54
1:A:2346:A:C2	1:A:2383:G:C2	2.95	0.54
22:V:37:VAL:O	22:V:38:TYR:HB3	2.07	0.54
1:A:2243:U:H2'	1:A:2244:U:C6	2.42	0.54
1:A:1638:C:H4'	1:A:2710:C:O2	2.07	0.54
1:A:749:C:O2	1:A:1618:A:H2'	2.07	0.54
10:J:112:LYS:O	10:J:116:THR:HG23	2.07	0.54
8:H:88:ILE:HG22	8:H:90:GLY:N	2.22	0.54
1:A:994:C:O2'	1:A:996:A:OP1	2.25	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
24:X:62:VAL:CG2	24:X:63:ALA:N	2.70	0.54
18:R:28:GLU:O	18:R:61:VAL:HG21	2.07	0.54
18:R:58:VAL:HG12	18:R:97:LYS:HB2	1.88	0.54
1:A:784:A:C5	3:C:229:VAL:HG21	2.43	0.54
8:H:7:GLU:CD	8:H:8:PRO:HD2	2.28	0.54
10:J:65:TRP:HA	10:J:71:MET:HE1	1.89	0.54
7:G:86:GLU:HG2	7:G:86:GLU:O	2.07	0.54
1:A:1921:G:O2'	1:A:1922:G:H5'	2.08	0.54
17:Q:62:ILE:HD12	17:Q:76:TYR:CE1	2.42	0.54
1:A:1918:A:O2'	1:A:1920:C:N4	2.40	0.54
26:Z:23:LEU:CD1	26:Z:23:LEU:N	2.70	0.54
1:A:464:U:H4'	30:4:5:TRP:CZ3	2.43	0.54
1:A:2079:U:H2'	1:A:2080:G:O5'	2.06	0.54
1:A:1115:G:O2'	1:A:1116:C:H5'	2.07	0.54
1:A:1762:A:H8	1:A:1762:A:O5'	1.91	0.54
12:L:32:THR:HB	12:L:36:LYS:HB2	1.89	0.54
1:A:195:A:OP1	12:L:46:LYS:HE2	2.07	0.54
1:A:1257:C:OP1	5:E:72:ARG:NH1	2.40	0.54
1:A:783:A:C3'	1:A:783:A:C8	2.89	0.54
1:A:1670:C:OP2	1:A:2550:G:OP1	2.25	0.54
6:F:10:LYS:O	6:F:14:GLU:HB3	2.08	0.54
19:S:22:ASP:HA	19:S:25:ARG:NH1	2.21	0.54
13:M:69:PHE:CD1	13:M:70:PRO:HD2	2.42	0.54
1:A:914:C:H5	1:A:915:C:C6	2.25	0.54
1:A:1268:A:C2'	1:A:1269:A:O5'	2.56	0.54
3:C:108:PRO:HG3	3:C:143:HIS:HE1	1.73	0.54
1:A:1813:G:O2'	3:C:50:THR:HG21	2.07	0.54
31:5:57:ARG:CA	31:5:57:ARG:CZ	2.84	0.54
3:C:25:THR:HG22	3:C:82:ILE:H	1.73	0.54
21:U:47:LYS:HA	21:U:60:PHE:CZ	2.42	0.54
13:M:38:GLU:HB2	13:M:127:ILE:CG1	2.38	0.54
14:N:93:GLY:O	14:N:117:VAL:HG11	2.07	0.54
1:A:1231:G:O2'	1:A:1232:G:H5'	2.08	0.54
1:A:399:G:C2'	1:A:400:G:H5'	2.38	0.54
1:A:1027:A:C2	1:A:2488:A:H5'	2.43	0.54
1:A:898:C:H2'	1:A:899:A:O4'	2.07	0.54
1:A:2097:C:C2'	1:A:2098:U:H5'	2.37	0.54
1:A:263:C:H2'	1:A:264:C:O4'	2.07	0.54
20:T:75:ASP:O	20:T:76:ARG:HG3	2.07	0.54
12:L:33:ARG:CB	12:L:36:LYS:HD3	2.38	0.54
17:Q:88:ILE:HG22	18:R:47:VAL:O	2.07	0.54
1:A:1746:G:C2	1:A:1747:G:N7	2.76	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:573:G:O2'	1:A:574:C:H3'	2.07	0.54
23:W:27:GLU:HB2	23:W:69:PHE:HD1	1.72	0.54
1:A:57:C:H2'	1:A:58:G:O4'	2.08	0.54
21:U:8:LYS:HZ3	21:U:8:LYS:C	2.09	0.54
16:P:56:GLY:C	16:P:57:PHE:O	2.45	0.54
3:C:126:GLN:HG2	3:C:127:VAL:N	2.22	0.54
6:F:40:ASN:O	6:F:155:MET:HB2	2.08	0.54
1:A:1568:G:OP2	3:C:63:ARG:NH2	2.38	0.54
1:A:752:A:H3'	30:4:1:MET:CE	2.37	0.54
1:A:185:U:H2'	1:A:186:G:H8	1.73	0.54
1:A:1241:A:N6	1:A:1242:A:C6	2.76	0.54
1:A:2607:G:H2'	1:A:2608:G:O4'	2.06	0.54
5:E:150:GLY:HA2	5:E:172:TRP:CD2	2.41	0.54
3:C:210:GLY:HA2	3:C:213:ARG:HG3	1.89	0.54
1:A:1543:A:C8	1:A:1545:A:H5''	2.42	0.54
1:A:1022:G:H8	10:J:92:GLN:NE2	2.05	0.54
1:A:1141:U:H4'	1:A:114(B):A:O4'	2.06	0.54
1:A:2579:C:O4'	4:D:134:ILE:HG12	2.08	0.54
14:N:107:ASP:OD2	14:N:107:ASP:C	2.44	0.54
1:A:1414:G:C4	1:A:1415:U:C5	2.96	0.54
19:S:29:LEU:HD21	19:S:33:ARG:HH21	1.73	0.54
1:A:528:A:OP2	10:J:134:PRO:HB3	2.08	0.54
7:G:84:SER:CA	7:G:133:VAL:O	2.53	0.54
1:A:2894:G:H2'	1:A:2894:G:N3	2.23	0.54
1:A:1496:A:N7	1:A:1498:C:N3	2.55	0.54
1:A:81:G:H21	21:U:2:ARG:NH2	2.05	0.54
1:A:1726:G:C2	1:A:1735:U:O2	2.61	0.54
1:A:1204:A:N1	1:A:1241:A:C2	2.75	0.54
1:A:1403:C:H5''	1:A:1471:A:H1'	1.90	0.54
26:Z:10:LYS:HB3	26:Z:53:LEU:HD23	1.89	0.54
14:N:96:ARG:HD3	14:N:98:LEU:HD21	1.90	0.54
1:A:1971:A:C5	3:C:241:PRO:HG3	2.43	0.54
25:Y:28:LYS:HG3	25:Y:60:LEU:HD12	1.90	0.54
1:A:1407:C:H2'	1:A:1408:C:C6	2.43	0.54
1:A:1408:C:H42	1:A:1594:G:H1	1.55	0.54
1:A:1589:C:H2'	1:A:1589:C:O2	2.08	0.54
16:P:89:VAL:O	16:P:90:GLN:CB	2.55	0.54
1:A:282:A:N6	1:A:284:U:C2	2.76	0.54
1:A:2852:G:H2'	1:A:2853:C:C6	2.43	0.54
4:D:176:ILE:O	4:D:176:ILE:HG22	2.06	0.54
19:S:45:TYR:C	19:S:45:TYR:CD2	2.81	0.54
1:A:482:A:C2	1:A:506:G:C5	2.96	0.54

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:Q:47:TYR:C	17:Q:47:TYR:CD2	2.80	0.54
1:A:1689:A:H62	1:A:1698:A:H2	1.56	0.54
1:A:2602:A:H4'	1:A:2602:A:OP2	2.08	0.54
10:J:90:LEU:H	10:J:90:LEU:HD12	1.73	0.54
20:T:71:GLY:C	20:T:72:LYS:HG3	2.28	0.54
6:F:86:MET:N	6:F:87:PRO:HD3	2.23	0.54
3:C:142:VAL:HG23	3:C:193:VAL:HA	1.90	0.54
8:H:68:LEU:C	8:H:138:ILE:HD13	2.27	0.54
17:Q:92:ARG:NE	17:Q:94:ASN:HB3	2.23	0.54
1:A:253:C:H2'	1:A:254:G:O4'	2.08	0.54
1:A:1812:A:O2'	3:C:45:ASN:HB3	2.08	0.54
4:D:50:GLY:HA2	4:D:78:LEU:HB3	1.89	0.54
22:V:102:LEU:HD21	22:V:124:ILE:CD1	2.38	0.54
3:C:133:LEU:O	3:C:135:PHE:N	2.40	0.54
1:A:2658:C:H4'	7:G:158:HIS:NE2	2.23	0.54
13:M:21:THR:C	13:M:23:GLY:N	2.60	0.54
11:K:63:VAL:HB	11:K:102:VAL:HG12	1.90	0.54
1:A:226:G:C2	1:A:228:A:N6	2.76	0.54
7:G:13:LYS:O	7:G:15:VAL:HG13	2.08	0.54
1:A:1717:G:C6	1:A:1743:G:C6	2.96	0.54
13:M:83:MET:HG3	13:M:83:MET:O	2.08	0.54
25:Y:3:LEU:O	25:Y:4:SER:C	2.47	0.53
17:Q:92:ARG:HH22	18:R:11:GLN:H	1.53	0.53
22:V:94:GLU:HB2	22:V:95:PRO:HD2	1.89	0.53
3:C:186:HIS:CD2	3:C:188:GLU:HB2	2.43	0.53
11:K:103:ALA:HB1	11:K:105:GLU:OE1	2.08	0.53
1:A:1329:U:H5''	1:A:1330:C:C5	2.40	0.53
1:A:2478:A:H2'	1:A:2479:G:O4'	2.07	0.53
1:A:1538:G:H2'	1:A:1539:G:H8	1.73	0.53
1:A:1647:G:H3'	1:A:1647:G:OP2	2.09	0.53
1:A:89:G:C4	1:A:90:U:C5	2.96	0.53
1:A:531:C:H4'	1:A:532:A:H5''	1.89	0.53
1:A:2771:C:O2	1:A:2771:C:H2'	2.07	0.53
13:M:55:VAL:HG22	13:M:56:ARG:N	2.23	0.53
2:B:81:G:C5	2:B:82:G:C8	2.96	0.53
1:A:819:A:C4	1:A:1189:A:C2	2.95	0.53
3:C:33:LEU:C	3:C:35:LYS:N	2.61	0.53
27:1:51:TYR:O	27:1:52:SER:HB2	2.07	0.53
1:A:2352:A:H2'	1:A:2353:G:H5'	1.90	0.53
1:A:2723:C:OP2	4:D:109:LYS:NZ	2.40	0.53
7:G:12:PRO:HB2	7:G:49:VAL:HA	1.91	0.53
5:E:132:VAL:HG23	5:E:133:ASN:N	2.22	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2598:A:C2'	1:A:2599:G:O5'	2.56	0.53
6:F:111:LEU:HB2	6:F:112:PRO:HD3	1.89	0.53
1:A:988:A:C2'	1:A:989:G:O5'	2.56	0.53
1:A:1025:G:C4	1:A:1135:C:H1'	2.43	0.53
1:A:49:A:H5''	1:A:51:G:O4'	2.07	0.53
1:A:2527:C:C4	1:A:2528:U:C5	2.96	0.53
12:L:125:VAL:HG11	12:L:138:LEU:HD22	1.89	0.53
12:L:125:VAL:O	12:L:145:PRO:HD2	2.09	0.53
1:A:943:U:OP2	12:L:38:GLN:OE1	2.26	0.53
1:A:2420:C:OP1	31:5:34:TRP:HA	2.08	0.53
1:A:2296:U:O2	1:A:2333:A:N3	2.42	0.53
1:A:1209:G:N2	1:A:1210:A:N6	2.52	0.53
1:A:275:G:OP2	1:A:363(A):G:N2	2.42	0.53
2:B:73:A:C4	2:B:104:A:C2	2.96	0.53
24:X:27:GLU:HB2	24:X:33:LYS:CA	2.37	0.53
1:A:2592:G:C5	1:A:2593:U:C5	2.97	0.53
1:A:1389:G:O2'	1:A:1390:U:H5'	2.08	0.53
13:M:20:ALA:O	13:M:21:THR:O	2.26	0.53
1:A:575:A:N3	1:A:575:A:H2'	2.23	0.53
1:A:2213:U:H5''	1:A:2215:G:OP2	2.08	0.53
1:A:2039:C:H2'	1:A:2040:C:H6	1.72	0.53
1:A:2493:U:C4	1:A:2494:G:C8	2.95	0.53
12:L:113:LYS:HA	12:L:129:ALA:O	2.08	0.53
12:L:80:TYR:CD1	12:L:111:ARG:HB3	2.43	0.53
3:C:11:PRO:O	3:C:13:ARG:N	2.40	0.53
1:A:1252:G:C2	1:A:1253:A:C2	2.96	0.53
1:A:2338:G:C2'	1:A:2339:G:H5'	2.38	0.53
17:Q:90:VAL:HG13	17:Q:91:ASP:N	2.22	0.53
17:Q:98:LEU:O	17:Q:99:ALA:C	2.47	0.53
3:C:86:PRO:HD2	3:C:87:ASN:HD21	1.73	0.53
13:M:89:ASN:C	13:M:92:GLY:H	2.12	0.53
22:V:97:GLU:HB3	22:V:125:LEU:HD21	1.89	0.53
1:A:2821:A:OP2	14:N:5:LYS:NZ	2.37	0.53
1:A:379:G:N1	24:X:20:ARG:NH2	2.55	0.53
7:G:21:PRO:HB2	7:G:23:ARG:NH1	2.24	0.53
1:A:2638:G:OP2	4:D:82:ARG:NH2	2.42	0.53
1:A:2862:G:C6	1:A:2863:C:C4	2.96	0.53
1:A:2279:G:N2	1:A:2280:G:H1'	2.23	0.53
1:A:1451:C:N3	1:A:1459:G:O6	2.42	0.53
1:A:2564:A:OP1	1:A:2648:C:H4'	2.09	0.53
1:A:553:U:O2'	1:A:554:U:H5'	2.08	0.53
2:B:35:U:O2'	2:B:36:C:H5'	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
28:2:4:HIS:HB3	28:2:5:PRO:CD	2.39	0.53
1:A:1190:G:H2'	1:A:1191:G:C8	2.43	0.53
1:A:2419:U:O4	31:5:30:ARG:NH1	2.42	0.53
1:A:993:G:C5	1:A:994:C:C5	2.94	0.53
6:F:19:LEU:HD11	6:F:172:LEU:HD13	1.90	0.53
1:A:2633:G:O2'	4:D:61:ARG:HD3	2.08	0.53
30:4:19:ARG:NH1	30:4:19:ARG:HB3	2.23	0.53
24:X:27:GLU:CB	24:X:33:LYS:HA	2.34	0.53
25:Y:9:GLN:HG3	25:Y:12:GLU:OE1	2.08	0.53
1:A:2746:U:H2'	1:A:2747:G:O5'	2.09	0.53
1:A:1486:A:H2'	1:A:1487:G:H8	1.73	0.53
1:A:9:U:C4	1:A:2629:A:N6	2.77	0.53
3:C:267:SER:O	3:C:270:ILE:HG13	2.08	0.53
3:C:148:GLU:HB2	3:C:151:LYS:CD	2.38	0.53
1:A:276:A:N7	1:A:278:A:H8	2.06	0.53
17:Q:62:ILE:HD11	17:Q:93:LYS:HG2	1.91	0.53
25:Y:42:GLY:O	25:Y:44:LEU:N	2.32	0.53
1:A:812:C:H5'	12:L:25:SER:O	2.08	0.53
13:M:29:PHE:O	13:M:30:GLY:O	2.27	0.53
4:D:170:LEU:N	4:D:170:LEU:CD2	2.72	0.53
15:O:28:VAL:HG21	15:O:87:PHE:CE1	2.44	0.53
5:E:164:ARG:CG	5:E:164:ARG:NH1	2.70	0.53
17:Q:92:ARG:HG2	18:R:11:GLN:HE21	1.70	0.53
22:V:48:PHE:CZ	22:V:52:SER:HA	2.43	0.53
15:O:52:SER:O	15:O:53:SER:HB2	2.08	0.53
11:K:97:ARG:N	11:K:117:LEU:HD22	2.23	0.53
14:N:66:VAL:HG13	14:N:70:LEU:HD12	1.91	0.53
1:A:828:U:H4'	1:A:831:G:N1	2.24	0.53
1:A:628:G:H2'	1:A:629:G:H8	1.73	0.53
1:A:492:A:C2'	1:A:493:G:H5'	2.39	0.53
30:4:1:MET:O	30:4:2:LYS:C	2.47	0.53
1:A:2436:G:C5	1:A:2437:U:C5	2.97	0.53
4:D:173:VAL:HG12	4:D:174:ASP:H	1.73	0.53
21:U:75:ILE:HG13	21:U:79:CYS:HA	1.91	0.53
10:J:119:GLU:OE1	10:J:119:GLU:N	2.29	0.53
1:A:2334:G:H4'	1:A:2335:A:OP2	2.09	0.53
19:S:86:LEU:C	19:S:86:LEU:HD12	2.27	0.53
4:D:6:GLY:HA2	4:D:51:PHE:CE2	2.43	0.53
7:G:123:PHE:HB3	7:G:133:VAL:HG13	1.91	0.53
24:X:12:PRO:O	24:X:14:VAL:HG23	2.08	0.53
13:M:43:THR:HG1	13:M:45:GLN:HG2	1.72	0.53
1:A:2228:G:OP2	3:C:263:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
17:Q:73:GLY:O	17:Q:74:LEU:HB3	2.09	0.53
20:T:12:VAL:CG1	20:T:28:PHE:HA	2.39	0.53
1:A:1493:C:O2	1:A:1493:C:H2'	2.08	0.53
7:G:35:VAL:HG21	7:G:75:ALA:HB2	1.90	0.53
26:Z:26:LEU:HB2	26:Z:28:LEU:HD13	1.91	0.53
24:X:11:ARG:CG	24:X:61:ARG:O	2.56	0.53
1:A:2755:C:HO2'	1:A:2756:U:H6	1.57	0.53
11:K:19:ILE:HG22	11:K:43:VAL:HA	1.89	0.53
1:A:1684:C:C2	1:A:1705:G:N2	2.77	0.53
16:P:89:VAL:CG2	16:P:89:VAL:O	2.57	0.53
1:A:336:C:C2'	1:A:336:C:O2	2.57	0.53
1:A:681:G:C2'	1:A:682:G:O5'	2.56	0.53
1:A:270(J):G:O2'	1:A:270(K):G:H8	1.91	0.53
14:N:44:LEU:HD13	14:N:44:LEU:C	2.28	0.53
1:A:226:G:H21	1:A:228:A:N6	2.07	0.53
1:A:1336:A:H2'	1:A:1337:G:H8	1.73	0.53
15:O:67:ARG:HG3	15:O:100:ALA:HB1	1.90	0.53
1:A:2557:G:H2'	1:A:2558:C:C6	2.44	0.53
1:A:2026:C:C2	1:A:2027:G:C8	2.97	0.53
24:X:77:ALA:HA	24:X:80:LEU:HB2	1.91	0.53
1:A:833:U:H2'	1:A:834:C:C6	2.44	0.53
1:A:197:A:C8	1:A:197:A:C5'	2.87	0.53
2:B:71:C:C4	2:B:72:G:N7	2.77	0.53
26:Z:26:LEU:HD21	26:Z:46:ASN:CB	2.38	0.53
24:X:11:ARG:HG3	24:X:61:ARG:O	2.09	0.53
1:A:2562:U:H2'	1:A:2563:U:H5'	1.90	0.53
24:X:27:GLU:CG	24:X:33:LYS:HG3	2.38	0.53
1:A:582:G:OP1	17:Q:14:HIS:HD2	1.92	0.53
12:L:85:LEU:H	12:L:85:LEU:CD2	2.22	0.53
1:A:634:C:H2'	1:A:635:C:C6	2.44	0.53
1:A:1798:U:H5''	3:C:259:THR:O	2.09	0.53
27:1:43:GLY:O	27:1:44:CYS:HB3	2.08	0.53
6:F:49:ASP:HB3	6:F:52:ILE:HG12	1.91	0.53
9:I:9:LEU:HD23	9:I:9:LEU:O	2.09	0.53
1:A:860:U:C4	1:A:2268:A:C8	2.96	0.53
1:A:114(B):A:O2'	1:A:1143:A:H3'	2.08	0.53
17:Q:102:GLU:N	17:Q:103:PRO:CD	2.72	0.53
13:M:89:ASN:O	13:M:92:GLY:N	2.40	0.53
1:A:7:G:N2	1:A:2897:U:C4	2.77	0.53
1:A:270(H):C:C4	1:A:270(I):C:H5	2.26	0.53
7:G:94:TYR:CD1	7:G:94:TYR:N	2.77	0.53
12:L:132:LYS:O	12:L:136:GLU:HG2	2.09	0.53

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:54:ARG:NH2	7:G:62:LYS:HE2	2.24	0.53
1:A:2459:A:C2	1:A:2460:U:H1'	2.44	0.53
23:W:35:ASN:N	23:W:35:ASN:HD22	2.07	0.53
1:A:2709:G:C2'	1:A:2710:C:H5'	2.39	0.53
5:E:139:PHE:HB2	5:E:166:ALA:HB1	1.90	0.53
16:P:55:ASN:H	16:P:59:THR:HB	1.73	0.52
8:H:81:VAL:HG11	8:H:90:GLY:HA3	1.90	0.52
20:T:11:PRO:HG2	20:T:13:LEU:HD21	1.92	0.52
20:T:28:PHE:HD1	20:T:28:PHE:H	1.56	0.52
7:G:52:VAL:O	7:G:52:VAL:HG12	2.06	0.52
3:C:27:THR:CG2	3:C:27:THR:O	2.54	0.52
2:B:21:G:H2'	2:B:22:U:H6	1.74	0.52
1:A:2636:U:H2'	1:A:2637:U:H6	1.74	0.52
11:K:1:MET:HE2	11:K:32:TYR:CG	2.44	0.52
13:M:38:GLU:HB2	13:M:127:ILE:HG12	1.91	0.52
7:G:94:TYR:CZ	7:G:160:LYS:HD3	2.44	0.52
12:L:105:LEU:N	12:L:105:LEU:HD12	2.24	0.52
18:R:72:VAL:HG23	18:R:72:VAL:O	2.09	0.52
2:B:113:C:O2'	15:O:46:VAL:HG13	2.09	0.52
1:A:466:A:O3'	30:4:33:ARG:NH1	2.43	0.52
20:T:66:LEU:HD23	20:T:67:GLY:N	2.24	0.52
8:H:92:VAL:CG2	8:H:96:ASP:HB2	2.36	0.52
1:A:993:G:C4	1:A:994:C:C5	2.96	0.52
17:Q:79:PHE:CD1	17:Q:83:LEU:HD13	2.45	0.52
18:R:5:VAL:HG12	18:R:14:VAL:HG21	1.92	0.52
4:D:6:GLY:HA2	4:D:51:PHE:HE2	1.74	0.52
20:T:43:VAL:HG23	20:T:47:PHE:CD1	2.44	0.52
19:S:32:ALA:O	19:S:33:ARG:C	2.46	0.52
1:A:2723:C:H2'	1:A:2724:C:O5'	2.09	0.52
1:A:2756:U:H4'	1:A:2757:A:OP1	2.09	0.52
1:A:1105:U:C2	1:A:1106:G:C8	2.97	0.52
13:M:134:ARG:NH1	13:M:138:ASP:OD1	2.38	0.52
1:A:1429:G:H2'	1:A:1430:C:C6	2.44	0.52
1:A:1773:A:C2'	1:A:1774:C:H5'	2.40	0.52
1:A:1027:A:C6	1:A:1126:A:C4	2.97	0.52
1:A:1015:G:H2'	1:A:1016:G:H5'	1.91	0.52
1:A:1235:G:C6	1:A:1236:G:N1	2.76	0.52
4:D:128:SER:OG	4:D:129:HIS:N	2.38	0.52
1:A:238:C:O2'	1:A:608:A:H1'	2.08	0.52
1:A:2315:G:H2'	1:A:2316:C:C6	2.43	0.52
15:O:28:VAL:O	15:O:92:TYR:HE1	1.92	0.52
1:A:568:U:O4	18:R:78:LYS:NZ	2.42	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1615:C:C2	19:S:87:PRO:HG2	2.44	0.52
12:L:48:PRO:O	12:L:49:ARG:O	2.28	0.52
24:X:9:GLY:O	24:X:13:ILE:CG2	2.57	0.52
1:A:1858:G:H1'	1:A:1884:A:H61	1.69	0.52
1:A:1505:C:H2'	1:A:1506:C:C6	2.44	0.52
11:K:115:VAL:O	11:K:118:ALA:HB3	2.09	0.52
1:A:908:C:OP1	13:M:22:LYS:HD2	2.09	0.52
17:Q:76:TYR:CZ	17:Q:80:ILE:HG12	2.44	0.52
19:S:25:ARG:HH11	19:S:25:ARG:HB2	1.75	0.52
1:A:271(C):G:N7	1:A:421:U:H2'	2.25	0.52
1:A:151:C:C2	1:A:176:G:N2	2.77	0.52
1:A:2584:U:H5''	1:A:2585:U:OP2	2.08	0.52
30:4:11:LYS:HD2	30:4:15:THR:HG21	1.91	0.52
1:A:2780:G:OP2	10:J:141:LYS:HD3	2.08	0.52
6:F:83:ARG:HG3	6:F:84:LYS:N	2.25	0.52
18:R:38:LEU:C	18:R:39:LEU:HD13	2.29	0.52
25:Y:6:VAL:CG1	25:Y:10:LEU:HD11	2.30	0.52
1:A:1813:G:H1'	3:C:50:THR:CG2	2.31	0.52
1:A:1589:C:C2	1:A:1590:U:C5	2.97	0.52
1:A:363(C):G:O2'	1:A:363(D):G:H5'	2.10	0.52
1:A:2886:G:N2	1:A:2887:U:C2	2.78	0.52
1:A:1785:A:O2'	1:A:1786:A:H2'	2.10	0.52
1:A:103:A:O5'	1:A:103:A:H8	1.92	0.52
24:X:14:VAL:HG12	24:X:14:VAL:O	2.10	0.52
7:G:46:GLU:O	7:G:49:VAL:HG22	2.09	0.52
3:C:58:HIS:HD2	3:C:59:LYS:O	1.92	0.52
1:A:270(H):C:C5	1:A:270(I):C:H5	2.28	0.52
1:A:1184:G:C5	1:A:1185:C:C5	2.98	0.52
1:A:1922:G:H2'	1:A:1923:U:O4'	2.10	0.52
13:M:133:ARG:O	13:M:134:ARG:HB2	2.08	0.52
1:A:1709:U:H2'	1:A:1710:C:C6	2.44	0.52
1:A:2093:G:H1	1:A:2196:C:N4	2.08	0.52
19:S:45:TYR:O	19:S:45:TYR:CG	2.62	0.52
1:A:2443:C:C2'	1:A:2444:G:H5'	2.39	0.52
1:A:77:C:O3'	25:Y:7:ARG:NH1	2.43	0.52
28:2:4:HIS:CB	28:2:5:PRO:HD3	2.39	0.52
1:A:1543:A:H5'	1:A:1544:C:P	2.49	0.52
3:C:108:PRO:CB	3:C:143:HIS:HE1	2.23	0.52
18:R:2:PHE:CE2	18:R:13:ARG:CD	2.85	0.52
3:C:77:ALA:HB1	3:C:96:HIS:O	2.09	0.52
6:F:25:TYR:OH	6:F:32:PRO:HD3	2.10	0.52
1:A:2713:A:H3'	1:A:2714:G:C5'	2.39	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:133:HIS:HD2	8:H:135:GLU:HG2	1.72	0.52
1:A:1104:C:C4	1:A:1105:U:H5	2.28	0.52
1:A:1109:C:N4	1:A:1110:G:C2	2.78	0.52
7:G:44:VAL:HG12	7:G:45:VAL:N	2.20	0.52
8:H:66:GLU:HB3	8:H:67:ARG:NH1	2.23	0.52
1:A:389:G:H1	12:L:71:VAL:HG23	1.75	0.52
1:A:1952:A:C6	11:K:22:ILE:CD1	2.93	0.52
1:A:2460:U:C4	1:A:2461:C:C5	2.97	0.52
1:A:544:C:H6	1:A:544:C:O5'	1.93	0.52
22:V:68:PRO:O	22:V:91:LEU:HB2	2.09	0.52
4:D:201:THR:C	4:D:202:LYS:HD3	2.29	0.52
31:5:33:ASN:O	31:5:34:TRP:HB3	2.09	0.52
15:O:12:PHE:C	15:O:12:PHE:HD1	2.12	0.52
1:A:966:G:C5	1:A:967:C:C5	2.98	0.52
1:A:1324:G:C5	1:A:1328:G:O6	2.63	0.52
31:5:57:ARG:CB	31:5:57:ARG:CZ	2.87	0.52
3:C:174:ILE:N	3:C:174:ILE:CD1	2.72	0.52
1:A:598:G:H5'	12:L:15:ARG:HB3	1.91	0.52
12:L:10:PRO:CD	12:L:11:GLY:N	2.69	0.52
21:U:19:LYS:HB3	21:U:20:TYR:CD1	2.44	0.52
1:A:773:U:H4'	3:C:47:GLY:CA	2.39	0.52
1:A:1467:C:H42	1:A:1525:G:H1	1.58	0.52
7:G:88:LEU:O	7:G:162:ILE:HA	2.09	0.52
1:A:2865:U:C5	1:A:2866:U:C4	2.98	0.52
1:A:988:A:H2'	1:A:989:G:O5'	2.10	0.52
24:X:48:LYS:NZ	24:X:50:ARG:CZ	2.72	0.52
9:I:14:LYS:HA	9:I:14:LYS:HE2	1.91	0.52
1:A:811:U:OP2	12:L:24:GLY:HA2	2.10	0.52
1:A:370:G:H4'	1:A:371:A:OP2	2.09	0.52
1:A:491:G:O6	19:S:49:LYS:HD3	2.10	0.52
28:2:3:LYS:O	28:2:4:HIS:C	2.48	0.52
1:A:114(B):A:C4'	10:J:48:ARG:HH22	2.21	0.52
10:J:95:TYR:HB2	10:J:108:ILE:O	2.10	0.52
23:W:66:VAL:HG12	23:W:67:VAL:N	2.25	0.52
1:A:1439:A:C8	1:A:1440:G:C8	2.98	0.52
10:J:69:VAL:O	10:J:70:ALA:HB3	2.10	0.52
12:L:86:LYS:HB3	12:L:118:GLY:HA3	1.91	0.52
21:U:59:GLY:C	21:U:61:ILE:H	2.12	0.52
23:W:14:ARG:CZ	23:W:14:ARG:CB	2.86	0.52
1:A:2058:A:C6	1:A:2059:A:N6	2.78	0.52
16:P:81:PRO:C	16:P:82:LEU:HD23	2.29	0.52
1:A:527:C:O2	1:A:527:C:O4'	2.28	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:29:TYR:C	8:H:32:PRO:HD2	2.30	0.52
1:A:948:G:N2	1:A:970:C:O2	2.42	0.52
12:L:47:ASP:OD1	12:L:49:ARG:N	2.42	0.52
24:X:73:LEU:HG	24:X:73:LEU:O	2.08	0.52
14:N:10:LEU:CB	14:N:17:ARG:NE	2.70	0.52
1:A:1344:G:H5'	1:A:1384:A:C6	2.44	0.52
24:X:19:GLN:O	24:X:20:ARG:HG3	2.10	0.52
1:A:780:G:H21	1:A:783:A:N6	2.03	0.52
1:A:389:G:C6	12:L:71:VAL:HG23	2.44	0.52
16:P:88:ILE:HG13	16:P:89:VAL:N	2.24	0.52
10:J:59:GLY:O	10:J:65:TRP:CE3	2.63	0.52
1:A:277:C:H3'	1:A:278:A:C5'	2.40	0.52
4:D:179:GLU:HB3	4:D:181:LEU:HD22	1.92	0.52
23:W:14:ARG:HB2	23:W:14:ARG:CZ	2.40	0.52
1:A:2317:C:C2'	1:A:2318:G:H5'	2.40	0.52
1:A:2028:U:O4	1:A:2033:A:OP1	2.27	0.52
6:F:18:GLU:HG2	6:F:175:LEU:HD22	1.91	0.52
16:P:75:ILE:HG22	16:P:75:ILE:O	2.10	0.52
1:A:568:U:O4	18:R:78:LYS:HE2	2.09	0.52
4:D:137:HIS:HB3	4:D:138:PRO:HD2	1.90	0.52
25:Y:16:LEU:HB2	25:Y:20:GLU:HG3	1.92	0.52
19:S:19:LEU:HB3	28:2:25:LEU:HD11	1.90	0.52
8:H:113:ARG:HB2	8:H:130:TYR:CE1	2.42	0.52
1:A:84:A:C2	1:A:98:G:N3	2.78	0.52
13:M:8:LYS:HG3	13:M:9:TYR:N	2.24	0.52
1:A:1952:A:C5	11:K:22:ILE:CD1	2.93	0.52
1:A:2287:A:C6	1:A:2289:G:C4	2.98	0.52
1:A:1993:U:H4'	4:D:128:SER:CB	2.40	0.52
24:X:52:ARG:O	24:X:56:GLN:O	2.27	0.52
1:A:1636:C:H2'	1:A:1637:A:C8	2.45	0.52
12:L:128:HIS:CA	12:L:147:LEU:HB3	2.10	0.52
6:F:92:VAL:HG13	6:F:92:VAL:O	2.09	0.52
17:Q:90:VAL:O	17:Q:92:ARG:N	2.43	0.52
6:F:161:THR:C	6:F:163:ALA:H	2.11	0.52
1:A:322:A:OP1	5:E:168:ARG:HD3	2.10	0.52
2:B:73:A:C4	2:B:74:U:C6	2.98	0.52
24:X:86:SER:HB3	24:X:89:GLU:HB2	1.92	0.52
14:N:63:ARG:HA	14:N:80:PHE:CE2	2.45	0.52
1:A:1680:U:C2'	1:A:1681:G:O5'	2.58	0.52
13:M:20:ALA:HB2	13:M:99:PRO:HB2	1.91	0.52
28:2:52:TYR:O	28:2:52:TYR:CD1	2.63	0.52
1:A:2215:G:H8	1:A:2215:G:OP2	1.93	0.52

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2506:U:C5	1:A:2507:C:H5	2.27	0.52
8:H:1:MET:HG3	8:H:23:PRO:HG3	1.92	0.52
1:A:2046:G:O5'	28:2:19:ARG:HA	2.09	0.52
21:U:8:LYS:HD2	21:U:13:VAL:CG2	2.40	0.51
21:U:8:LYS:H	21:U:8:LYS:NZ	2.02	0.51
12:L:114:ILE:H	12:L:114:ILE:CD1	2.01	0.51
3:C:31:LYS:O	3:C:36:PRO:HD3	2.11	0.51
6:F:69:ALA:O	6:F:90:LEU:HD13	2.10	0.51
21:U:95:LYS:HE2	21:U:100:ALA:HB2	1.91	0.51
3:C:265:PRO:C	3:C:267:SER:N	2.62	0.51
1:A:2480:C:N4	1:A:2481:G:C6	2.78	0.51
21:U:63:LYS:HG3	21:U:64:GLU:N	2.23	0.51
1:A:286:C:H2'	1:A:287:C:C6	2.39	0.51
1:A:909:A:C2	1:A:912:C:C6	2.98	0.51
1:A:2432:A:H5''	1:A:2433:A:OP2	2.09	0.51
1:A:480:A:OP2	21:U:46:LYS:HE2	2.09	0.51
1:A:1893:C:C6	1:A:1894:C:C5	2.99	0.51
6:F:18:GLU:HG2	6:F:175:LEU:CD2	2.40	0.51
1:A:699:A:H2'	1:A:700:G:O4'	2.09	0.51
16:P:64:ARG:HD2	16:P:73:GLU:CG	2.40	0.51
4:D:132:HIS:CD2	4:D:135:HIS:CE1	2.97	0.51
6:F:76:SER:HB2	6:F:83:ARG:CA	2.40	0.51
3:C:127:VAL:HA	3:C:193:VAL:CG1	2.40	0.51
7:G:35:VAL:HG21	7:G:75:ALA:CB	2.41	0.51
1:A:2352:A:C2'	1:A:2353:G:H5'	2.40	0.51
1:A:95:G:N2	1:A:96:G:H1'	2.25	0.51
1:A:1567:A:H5''	3:C:58:HIS:CD2	2.45	0.51
1:A:1487:G:O2'	1:A:1488:G:H5'	2.10	0.51
3:C:25:THR:HG21	3:C:82:ILE:N	2.26	0.51
1:A:2482:G:H2'	1:A:2483:C:O4'	2.11	0.51
1:A:1390:U:O2'	1:A:1391:U:H5'	2.10	0.51
1:A:1568:G:H5''	3:C:61:LEU:HD22	1.92	0.51
1:A:975:G:H1'	1:A:990:A:C2	2.45	0.51
1:A:1862:G:H2'	1:A:1863:G:C8	2.43	0.51
1:A:480:A:N3	1:A:480:A:H2'	2.25	0.51
1:A:17:G:H4'	17:Q:25:TRP:CZ3	2.45	0.51
5:E:110:LEU:HD11	5:E:181:LEU:HD13	1.92	0.51
1:A:2345:G:OP2	29:3:39:TYR:HA	2.09	0.51
1:A:1232:G:C5	1:A:1233:C:C5	2.98	0.51
1:A:2689:U:P	1:A:2719:G:H22	2.34	0.51
1:A:2027:G:H2'	1:A:2028:U:O4'	2.10	0.51
1:A:2734:A:H2'	1:A:2735:G:H5'	1.93	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:771:G:H2'	1:A:772:C:H6	1.76	0.51
21:U:11:ASP:OD1	21:U:12:THR:N	2.43	0.51
1:A:1932:A:H2'	1:A:1933:G:O4'	2.11	0.51
1:A:851:U:O2	1:A:928:G:C2	2.63	0.51
1:A:2330:G:O2'	23:W:41:ARG:HB2	2.09	0.51
17:Q:106:PHE:O	17:Q:110:VAL:HG23	2.11	0.51
1:A:142:G:H2'	1:A:143:C:C6	2.46	0.51
1:A:1439:A:H2'	1:A:1440:G:H5'	1.92	0.51
3:C:185:VAL:HG12	3:C:186:HIS:N	2.25	0.51
21:U:9:LYS:O	21:U:27:VAL:HG21	2.10	0.51
18:R:28:GLU:HB2	18:R:31:ALA:CB	2.40	0.51
3:C:168:ARG:O	3:C:169:GLU:HB2	2.10	0.51
25:Y:9:GLN:HA	25:Y:12:GLU:HB3	1.92	0.51
1:A:2745:C:C4	1:A:2746:U:C4	2.98	0.51
5:E:31:HIS:O	5:E:34:TRP:HB3	2.10	0.51
1:A:2850:A:C4	1:A:2851:A:C8	2.99	0.51
1:A:2862:G:C5	1:A:2863:C:C5	2.98	0.51
1:A:1131:G:N2	1:A:1132:A:C4	2.79	0.51
1:A:2065:C:H2'	1:A:2066:C:C6	2.44	0.51
1:A:616:A:C4	5:E:180:GLY:HA2	2.45	0.51
13:M:84:GLY:HA3	23:W:10:THR:CG2	2.41	0.51
1:A:270(S):G:H2'	1:A:270(T):G:C8	2.45	0.51
1:A:643:A:C2	1:A:644:A:C4	2.98	0.51
1:A:2727:G:C4	1:A:2728:U:H5	2.29	0.51
4:D:1:MET:O	4:D:2:LYS:O	2.28	0.51
1:A:1414:G:C6	1:A:1415:U:C4	2.98	0.51
23:W:51:VAL:HG21	23:W:80:HIS:HA	1.91	0.51
1:A:1047:G:H1'	1:A:1110:G:N2	2.25	0.51
1:A:335:C:C2	1:A:336:C:C5	2.98	0.51
22:V:38:TYR:O	22:V:38:TYR:CG	2.63	0.51
1:A:2065:C:H2'	1:A:2066:C:H6	1.74	0.51
24:X:67:ILE:N	24:X:68:PRO:HD2	2.25	0.51
1:A:2026:C:C4	1:A:2027:G:N7	2.79	0.51
1:A:1017:G:C2	1:A:1146:C:O2	2.63	0.51
1:A:2822:G:H2'	1:A:2823:A:H5''	1.92	0.51
1:A:273(B):G:C2	1:A:364:C:N3	2.78	0.51
1:A:1376:C:N4	1:A:1377:G:C6	2.79	0.51
1:A:1839:G:C8	1:A:1927:A:H1'	2.46	0.51
1:A:1759:A:C8	1:A:2696:U:H1'	2.45	0.51
10:J:90:LEU:HA	10:J:110:LEU:HD13	1.92	0.51
1:A:137(B):G:H2'	1:A:139:G:N7	2.25	0.51
5:E:124:LEU:HD12	5:E:125:LEU:O	2.11	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1495:A:H2'	1:A:1496:A:N3	2.26	0.51
7:G:20:ALA:HB3	7:G:23:ARG:O	2.10	0.51
1:A:2776:A:H4'	1:A:2777:G:H5''	1.91	0.51
13:M:16:ARG:C	13:M:17:LEU:HD23	2.31	0.51
12:L:16:ARG:NH2	12:L:18:ARG:N	2.57	0.51
1:A:2287:A:O2'	1:A:2288:A:P	2.69	0.51
1:A:2289:G:N3	1:A:2289:G:H2'	2.25	0.51
1:A:2364:C:H2'	1:A:2365:G:O4'	2.09	0.51
14:N:84:ALA:O	14:N:85:PRO:C	2.47	0.51
1:A:2459:A:C4	1:A:2460:U:C6	2.99	0.51
19:S:45:TYR:CD2	19:S:45:TYR:O	2.63	0.51
1:A:270(Q):C:O2'	1:A:270(R):C:C6	2.64	0.51
1:A:270(Q):C:O2'	1:A:270(R):C:H6	1.93	0.51
15:O:79:ALA:O	15:O:80:LEU:HD23	2.11	0.51
1:A:1127:A:H2'	1:A:1128:A:H5''	1.91	0.51
22:V:152:ALA:C	22:V:154:ASP:H	2.14	0.51
1:A:1173:G:H3'	1:A:1174:A:C5'	2.41	0.51
10:J:119:GLU:CD	10:J:119:GLU:H	2.08	0.51
16:P:98:LYS:HB3	16:P:100:TYR:CE1	2.46	0.51
1:A:577:G:OP1	1:A:2502:G:H2'	2.11	0.51
6:F:85:GLY:C	6:F:86:MET:HG3	2.30	0.51
31:5:6:THR:HG21	31:5:64:TYR:HD1	1.75	0.51
1:A:2219:G:C2'	1:A:2224:G:C5'	2.77	0.51
1:A:142:G:C1'	20:T:37:THR:HG21	2.40	0.51
1:A:954:G:H5''	13:M:13:GLN:HG3	1.91	0.51
5:E:53:THR:HG23	5:E:56:GLU:CD	2.30	0.51
24:X:51:VAL:HG13	24:X:53:VAL:HG23	1.93	0.51
25:Y:38:GLN:HB3	25:Y:44:LEU:HB3	1.92	0.51
1:A:2648:C:H2'	1:A:2649:U:C6	2.45	0.51
3:C:198:ASN:C	3:C:198:ASN:HD22	2.13	0.51
1:A:1677:A:H2'	1:A:1678:G:O4'	2.10	0.51
12:L:126:VAL:CA	12:L:145:PRO:HG2	2.41	0.51
4:D:24:THR:HG21	4:D:188:VAL:CG1	2.41	0.51
3:C:76:PRO:HA	3:C:118:VAL:HG23	1.92	0.51
1:A:330:A:O2'	1:A:331:A:C8	2.55	0.51
2:B:40:U:O2	2:B:43:C:C6	2.63	0.51
2:B:103:U:C2'	2:B:104:A:H5'	2.41	0.51
1:A:955:C:OP1	13:M:85:LYS:HE2	2.10	0.51
18:R:98:GLU:HG2	18:R:100:ARG:CD	2.38	0.51
1:A:1478:G:O2'	1:A:1558:A:C2	2.64	0.51
28:2:52:TYR:CD1	28:2:52:TYR:C	2.82	0.51
5:E:199:TRP:CZ2	5:E:203:GLN:NE2	2.79	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2225:A:H1'	1:A:2226:C:OP2	2.11	0.51
3:C:94:LEU:C	3:C:94:LEU:HD22	2.31	0.51
1:A:2302:G:C2'	1:A:2303:G:H5'	2.41	0.51
1:A:2078:C:O2'	1:A:2079:U:H5'	2.10	0.51
18:R:75:PHE:C	18:R:75:PHE:CD1	2.84	0.51
1:A:510:C:H2'	1:A:511:U:O4'	2.11	0.51
1:A:900:A:C4	1:A:901:A:C8	2.98	0.51
6:F:121:ASN:ND2	6:F:122:PRO:HD2	2.26	0.51
1:A:2415:G:H1'	12:L:67:MET:CE	2.41	0.51
1:A:861:A:N3	2:B:79:C:O2'	2.38	0.51
15:O:11:LYS:CG	15:O:12:PHE:N	2.65	0.51
1:A:1971:A:N3	3:C:240:ALA:HA	2.25	0.51
1:A:243:U:C2'	1:A:244:A:H5'	2.41	0.51
1:A:2886:G:H2'	1:A:2887:U:H6	1.75	0.51
22:V:137:ILE:N	22:V:137:ILE:HD12	2.26	0.51
14:N:59:ASP:OD1	14:N:61:HIS:HB3	2.11	0.51
1:A:1046:A:H8	1:A:1046:A:O5'	1.93	0.51
2:B:50:G:OP2	15:O:62:LYS:HD3	2.10	0.51
3:C:25:THR:HG22	3:C:82:ILE:N	2.26	0.51
1:A:1952:A:C6	1:A:1953:A:C6	2.98	0.51
1:A:2287:A:C5	1:A:2289:G:N7	2.79	0.51
11:K:100:GLY:O	11:K:101:PRO:O	2.29	0.51
19:S:45:TYR:CD2	19:S:46:PHE:CD1	2.99	0.51
1:A:1451:C:H42	1:A:1459:G:H1	1.57	0.51
1:A:2744:G:N2	1:A:2761:G:C4	2.79	0.51
1:A:298:G:OP2	21:U:85:VAL:HG22	2.11	0.51
10:J:32:VAL:HG12	10:J:33:GLU:N	2.26	0.51
12:L:64:LYS:HB2	31:5:25:MET:HG3	1.93	0.51
1:A:2361:A:OP1	31:5:27:THR:OG1	2.25	0.51
1:A:1173:G:H1'	1:A:1177:A:H61	1.75	0.51
10:J:53:ILE:HD12	10:J:122:LEU:HD11	1.93	0.51
4:D:106:GLY:HA3	4:D:189:PRO:HB2	1.91	0.51
8:H:101:LEU:O	8:H:107:ILE:HG22	2.11	0.51
1:A:2305:A:C4	6:F:154:GLY:HA3	2.46	0.51
24:X:11:ARG:CB	24:X:12:PRO:CD	2.86	0.51
1:A:1343:G:O2'	1:A:1344:G:H5'	2.11	0.51
25:Y:9:GLN:CA	25:Y:12:GLU:HB3	2.41	0.51
14:N:99:LYS:HD2	14:N:99:LYS:N	2.26	0.51
1:A:2638:G:P	4:D:82:ARG:HH22	2.34	0.51
13:M:22:LYS:HD3	13:M:22:LYS:C	2.32	0.51
1:A:1568:G:P	3:C:63:ARG:HH22	2.34	0.51
13:M:111:GLU:O	13:M:115:MET:HB2	2.10	0.51

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:226:G:H21	1:A:228:A:H62	1.56	0.51
1:A:1471:A:C2	1:A:1472:A:C8	2.99	0.51
1:A:1717:G:C5	1:A:1743:G:C2	2.99	0.51
15:O:98:VAL:O	15:O:101:LEU:HB3	2.11	0.51
6:F:121:ASN:HD22	6:F:122:PRO:HD2	1.75	0.51
1:A:433:C:C4	1:A:434:U:O4	2.64	0.51
1:A:13:A:N3	1:A:15:G:C6	2.79	0.51
1:A:374:A:H3'	1:A:375:C:H6	1.75	0.51
4:D:146:THR:HA	4:D:147:PRO:C	2.31	0.51
1:A:860:U:O2	1:A:860:U:O4'	2.28	0.51
1:A:2320:A:C8	1:A:2333:A:N6	2.79	0.51
1:A:1657:C:H2'	1:A:1658:C:C6	2.46	0.51
8:H:129:THR:HA	8:H:138:ILE:O	2.10	0.51
17:Q:92:ARG:HD2	17:Q:95:LEU:N	2.25	0.51
18:R:47:VAL:O	18:R:48:GLY:C	2.50	0.51
12:L:47:ASP:CB	12:L:51:PHE:HB2	2.40	0.51
1:A:848:G:C4	1:A:933:A:C8	2.99	0.51
8:H:135:GLU:HG3	8:H:135:GLU:O	2.09	0.51
15:O:58:LEU:HD12	15:O:58:LEU:N	2.26	0.51
16:P:27:THR:O	16:P:89:VAL:HG13	2.11	0.51
16:P:27:THR:HG23	16:P:90:GLN:HB3	1.93	0.51
1:A:2101:G:H2'	1:A:2102:U:C5'	2.39	0.51
13:M:21:THR:O	13:M:22:LYS:C	2.48	0.51
19:S:36:LEU:HD12	19:S:48:ALA:CA	2.41	0.51
1:A:1851:U:C4	1:A:1852:C:C4	2.99	0.51
1:A:1471:A:C2	1:A:1472:A:N9	2.79	0.51
29:3:11:LEU:O	29:3:24:GLU:HB2	2.11	0.51
1:A:245:G:H2'	1:A:246:C:H6	1.75	0.51
1:A:718:A:O5'	1:A:718:A:H8	1.93	0.51
1:A:762:U:H4'	1:A:763:G:O5'	2.10	0.51
1:A:2342:C:O2'	1:A:2374:C:H5''	2.11	0.50
8:H:82:ARG:HB3	8:H:89:TYR:HB2	1.94	0.50
3:C:24:ILE:HD11	3:C:84:TYR:HB2	1.93	0.50
1:A:1105:U:H2'	1:A:1106:G:H8	1.75	0.50
5:E:68:LYS:C	5:E:70:THR:H	2.14	0.50
14:N:73:VAL:O	14:N:76:VAL:HG22	2.11	0.50
25:Y:46:GLN:HB2	25:Y:49:LYS:HZ1	1.73	0.50
1:A:2287:A:C5	1:A:2289:G:C5	2.99	0.50
13:M:19:GLY:O	13:M:98:LYS:HD3	2.11	0.50
13:M:20:ALA:HA	13:M:98:LYS:HB3	1.92	0.50
22:V:23:LYS:HB3	22:V:38:TYR:CD1	2.40	0.50
19:S:59:VAL:HG12	19:S:60:ASN:N	2.25	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1909:C:N3	1:A:1922:G:C2	2.79	0.50
2:B:30:C:H1'	2:B:58:A:N1	2.27	0.50
25:Y:36:ARG:HA	25:Y:39:ALA:HB3	1.93	0.50
1:A:1403:C:H5''	1:A:1471:A:C1'	2.41	0.50
27:1:47:VAL:HG12	27:1:49:GLU:OE1	2.11	0.50
1:A:36:G:C5	1:A:37:C:C5	2.99	0.50
5:E:93:LYS:HB3	5:E:94:PRO:HD2	1.92	0.50
25:Y:1:MET:CE	25:Y:4:SER:HB2	2.40	0.50
4:D:11:MET:CE	4:D:186:GLY:HA2	2.41	0.50
25:Y:17:SER:HB3	25:Y:18:PRO:CD	2.37	0.50
3:C:72:LYS:HE2	3:C:101:GLU:HG2	1.93	0.50
23:W:31:VAL:HG11	23:W:67:VAL:HG23	1.93	0.50
19:S:29:LEU:CG	19:S:33:ARG:HE	2.24	0.50
24:X:13:ILE:HA	24:X:66:HIS:ND1	2.26	0.50
1:A:1508:A:N6	1:A:1509:A:C6	2.79	0.50
1:A:1045:A:H4'	1:A:1046:A:H5''	1.93	0.50
1:A:761:A:H8	1:A:761:A:O5'	1.94	0.50
31:5:57:ARG:HB2	31:5:57:ARG:CZ	2.41	0.50
1:A:2687:U:H2'	1:A:2688:U:O4'	2.12	0.50
14:N:99:LYS:CD	14:N:99:LYS:N	2.74	0.50
1:A:1290:C:H2'	1:A:1291:C:C6	2.42	0.50
13:M:54:MET:O	13:M:57:HIS:HB3	2.10	0.50
2:B:45:A:H1'	6:F:95:ARG:CZ	2.41	0.50
1:A:2572:A:H62	4:D:145:LYS:HG3	1.76	0.50
11:K:49:ARG:HA	11:K:53:LYS:HZ2	1.76	0.50
8:H:76:THR:HG22	8:H:141:LYS:HB2	1.92	0.50
1:A:1641:A:H2'	1:A:1642:G:O4'	2.11	0.50
8:H:57:ARG:O	8:H:57:ARG:HG2	2.11	0.50
21:U:14:LEU:HD23	21:U:14:LEU:C	2.31	0.50
10:J:49:LEU:O	10:J:49:LEU:HD12	2.11	0.50
16:P:56:GLY:O	16:P:59:THR:CG2	2.55	0.50
12:L:50:ARG:HB2	31:5:60:LEU:HD21	1.93	0.50
12:L:50:ARG:HH11	12:L:50:ARG:HB3	1.76	0.50
13:M:88:GLY:C	13:M:89:ASN:CG	2.67	0.50
11:K:34:THR:HG23	11:K:35:VAL:N	2.27	0.50
1:A:1324:G:N2	1:A:1331:A:C4	2.79	0.50
1:A:598:G:H5'	12:L:15:ARG:HG2	1.93	0.50
2:B:60:C:C2	2:B:61:G:C8	2.99	0.50
28:2:35:GLU:HB2	28:2:49:CYS:SG	2.51	0.50
7:G:86:GLU:N	7:G:86:GLU:OE2	2.42	0.50
21:U:76:CYS:SG	21:U:77:PRO:CD	2.99	0.50
1:A:1856:G:C2	1:A:1887:C:N3	2.79	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
18:R:72:VAL:HG23	18:R:85:LYS:HB3	1.92	0.50
1:A:1354:A:C8	1:A:1355:G:C8	3.00	0.50
1:A:1516:U:H2'	1:A:1517:G:H8	1.75	0.50
1:A:414:C:H2'	1:A:415:A:H8	1.75	0.50
1:A:1204:A:N6	1:A:1240:U:O2'	2.44	0.50
1:A:1118:C:H5''	22:V:80:ARG:NH2	2.26	0.50
1:A:1050:A:C2	1:A:2751:G:C5	2.99	0.50
8:H:25:TYR:CD1	8:H:30:LEU:HD11	2.47	0.50
1:A:2703:C:O2'	1:A:2704:C:H5'	2.11	0.50
30:4:10:ARG:NE	30:4:14:LYS:HD2	2.26	0.50
4:D:11:MET:CE	4:D:186:GLY:CA	2.90	0.50
10:J:37:VAL:HG12	10:J:38:LEU:N	2.26	0.50
1:A:1022:G:C6	1:A:1140:C:C4	2.99	0.50
1:A:2579:C:O2'	4:D:131:ALA:HB3	2.12	0.50
6:F:88:ILE:HD12	6:F:89:GLY:N	2.26	0.50
22:V:163:LEU:CD2	22:V:163:LEU:H	2.25	0.50
24:X:10:LYS:O	24:X:11:ARG:HB2	2.10	0.50
1:A:2750:A:C2	1:A:2753:A:H2	2.28	0.50
1:A:1502:C:H2'	1:A:1503:U:C6	2.46	0.50
1:A:1502:C:H6	1:A:1502:C:H3'	1.76	0.50
2:B:49:C:H6	2:B:49:C:O5'	1.95	0.50
1:A:1476:C:C6	1:A:1476:C:H3'	2.45	0.50
1:A:786:C:C2'	1:A:787:U:H5'	2.42	0.50
29:3:38:LYS:HG2	29:3:39:TYR:N	2.27	0.50
2:B:55:U:O2'	2:B:56:G:H5'	2.11	0.50
1:A:189:G:H2'	1:A:205:G:N2	2.27	0.50
1:A:2506:U:C5	1:A:2507:C:C5	3.00	0.50
1:A:2078:C:C2'	1:A:2079:U:H5'	2.41	0.50
1:A:1678:G:N3	1:A:1678:G:H2'	2.27	0.50
1:A:2726:U:H5'	1:A:2726:U:O2	2.11	0.50
13:M:81:VAL:C	13:M:82:ARG:HG2	2.25	0.50
12:L:97:PRO:HA	12:L:112:LEU:HD12	1.92	0.50
1:A:1899:G:N2	1:A:1902:C:C4	2.80	0.50
6:F:82:LEU:HD22	6:F:87:PRO:HG3	1.92	0.50
1:A:1487:G:H2'	1:A:1488:G:C8	2.36	0.50
15:O:62:LYS:O	15:O:65:VAL:HB	2.11	0.50
31:5:14:VAL:HG13	31:5:22:VAL:HG13	1.93	0.50
1:A:1478:G:N2	1:A:1479:G:C4	2.79	0.50
3:C:25:THR:HG21	3:C:82:ILE:H	1.74	0.50
3:C:181:GLU:HA	3:C:272:ALA:HB3	1.92	0.50
16:P:28:VAL:HA	16:P:89:VAL:CG1	2.41	0.50
22:V:39:VAL:CG2	22:V:44:PHE:HB2	2.39	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:282:A:C4	1:A:359:A:C2	2.99	0.50
1:A:636:G:OP1	12:L:132:LYS:HD3	2.11	0.50
10:J:80:ALA:O	10:J:83:ILE:HG13	2.11	0.50
22:V:5:LEU:CG	22:V:47:VAL:HG21	2.42	0.50
1:A:2001:A:H2'	1:A:2002:G:O4'	2.12	0.50
1:A:2836:U:H2'	1:A:2837:G:C8	2.47	0.50
10:J:51:THR:O	10:J:54:ALA:HB3	2.11	0.50
25:Y:7:ARG:NE	25:Y:11:GLU:OE2	2.44	0.50
1:A:1382:G:O2'	1:A:1383:C:H5'	2.12	0.50
10:J:156:GLN:O	10:J:157:ARG:HB2	2.12	0.50
8:H:142:VAL:O	8:H:143:SER:HB2	2.12	0.50
1:A:994:C:OP1	17:Q:53:ARG:NH2	2.45	0.50
27:1:50:THR:HG22	27:1:51:TYR:N	2.26	0.50
1:A:2305:A:H3'	1:A:2306:C:H5''	1.93	0.50
1:A:2785:C:O2'	4:D:66:HIS:CD2	2.64	0.50
1:A:1511:A:H2'	1:A:1512:G:C8	2.45	0.50
31:5:57:ARG:NE	31:5:57:ARG:CA	2.71	0.50
12:L:13:ASN:O	12:L:14:LYS:C	2.50	0.50
22:V:4:ARG:HD3	22:V:60:GLU:HG3	1.94	0.50
10:J:62:ARG:NH2	10:J:64:ASP:OD2	2.40	0.50
1:A:2862:G:C4	1:A:2863:C:C5	2.99	0.50
1:A:1775:U:H2'	1:A:1776:G:O5'	2.12	0.50
1:A:794:G:H2'	1:A:795:C:C6	2.47	0.50
6:F:17:PRO:HA	6:F:20:ILE:HG12	1.92	0.50
1:A:1831:G:C5	1:A:1832:C:C5	3.00	0.50
22:V:63:ASP:HB3	22:V:65:GLN:HG3	1.94	0.50
6:F:28:VAL:O	6:F:31:VAL:HG12	2.11	0.50
1:A:310:A:P	21:U:18:GLY:HA2	2.52	0.50
1:A:518:G:H4'	19:S:18:ARG:NH1	2.27	0.50
6:F:72:ARG:HB3	6:F:87:PRO:HD2	1.94	0.50
8:H:77:LEU:HD21	8:H:104:GLN:HB2	1.93	0.50
17:Q:79:PHE:HE2	17:Q:106:PHE:CZ	2.30	0.50
1:A:1408:C:C2	1:A:1595:G:N2	2.80	0.50
6:F:88:ILE:HD12	6:F:89:GLY:H	1.77	0.50
1:A:1439:A:C2	1:A:1553:A:C4	2.99	0.50
14:N:4:LEU:C	14:N:6:SER:H	2.15	0.50
1:A:1104:C:C4	1:A:1105:U:C5	3.00	0.50
14:N:99:LYS:H	14:N:99:LYS:HD2	1.75	0.50
8:H:2:LYS:HB3	8:H:20:ASP:OD1	2.12	0.50
17:Q:17:ILE:HG23	17:Q:39:LEU:HD12	1.93	0.50
2:B:5:C:O2	2:B:116:G:N2	2.44	0.50
1:A:915:C:O2'	2:B:100:G:H5'	2.12	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2302:G:O2'	1:A:2303:G:H5'	2.11	0.50
1:A:1241:A:N7	1:A:1242:A:C4	2.80	0.50
19:S:42:ARG:HH11	19:S:42:ARG:HG2	1.76	0.50
27:1:45:GLY:O	27:1:46:ASN:HB2	2.11	0.50
1:A:1897:G:H2'	1:A:1898:U:O4'	2.11	0.50
1:A:673:C:H5''	5:E:81:PRO:HD2	1.94	0.50
1:A:806:C:OP1	12:L:39:LYS:HB3	2.11	0.50
2:B:7:G:H1'	15:O:38:GLN:HE21	1.75	0.50
1:A:1658:C:H2'	1:A:1659:U:C6	2.47	0.50
1:A:1188:U:H2'	1:A:1189:A:C5'	2.42	0.50
12:L:49:ARG:O	12:L:50:ARG:C	2.50	0.50
1:A:849:A:O2'	26:Z:17:LYS:HE3	2.12	0.50
24:X:11:ARG:NH1	24:X:11:ARG:HG3	2.23	0.50
1:A:8:A:H2'	1:A:9:U:C6	2.47	0.50
12:L:10:PRO:HD2	12:L:11:GLY:N	2.26	0.50
1:A:909:A:C4	1:A:912:C:C5	2.99	0.50
20:T:64:LYS:HG2	20:T:65:ARG:HH21	1.77	0.50
1:A:270(O):G:C6	1:A:270(Q):C:N4	2.80	0.50
13:M:55:VAL:CG2	13:M:56:ARG:N	2.74	0.50
16:P:78:LEU:O	16:P:78:LEU:HD13	2.11	0.50
1:A:1040:C:H2'	1:A:1041:C:C6	2.46	0.50
3:C:69:ARG:NH2	3:C:128:GLY:O	2.44	0.50
1:A:1345:C:O2'	1:A:1346:G:H5'	2.11	0.50
1:A:1815:A:P	3:C:54:ARG:HH22	2.35	0.50
1:A:2393:A:H5''	12:L:62:LEU:HB3	1.93	0.50
1:A:1540:G:H3'	1:A:1541:U:H6	1.75	0.50
2:B:7:G:H2'	2:B:8:U:O4'	2.12	0.50
10:J:39:ILE:O	10:J:78:VAL:HG22	2.11	0.50
1:A:1971:A:C4	3:C:241:PRO:HG3	2.47	0.50
18:R:13:ARG:HH11	18:R:13:ARG:HG3	1.77	0.50
18:R:38:LEU:HD12	18:R:57:VAL:HG12	1.94	0.50
12:L:52:GLU:CA	12:L:52:GLU:OE1	2.60	0.50
4:D:4:ILE:HD11	4:D:28:ALA:O	2.11	0.50
1:A:2276:G:O2'	1:A:2277:G:H5'	2.11	0.50
1:A:270(H):C:C4	1:A:270(I):C:C5	3.00	0.50
1:A:270(H):C:C2	1:A:270(I):C:C5	3.00	0.50
3:C:182:LEU:O	3:C:271:ILE:HG13	2.12	0.50
1:A:2480:C:H2'	1:A:2481:G:H5'	1.92	0.50
1:A:1396:U:O2	1:A:1396:U:C2'	2.52	0.50
1:A:681:G:H2'	1:A:682:G:O5'	2.12	0.50
14:N:93:GLY:C	14:N:95:THR:H	2.15	0.50
1:A:409:C:O2'	1:A:410:G:H5'	2.11	0.50

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:962:G:H2'	1:A:963:U:O4'	2.12	0.50
1:A:351:G:H5''	1:A:352:G:OP1	2.11	0.50
14:N:25:ALA:O	14:N:26:LYS:C	2.49	0.50
1:A:1292:U:H2'	1:A:1293:C:C6	2.47	0.50
8:H:45:LYS:HA	8:H:48:GLU:HG2	1.93	0.50
1:A:2577:A:H5''	1:A:2578:G:C5'	2.36	0.49
1:A:1813:G:O2'	3:C:50:THR:CG2	2.60	0.49
20:T:35:THR:HG22	20:T:36:LYS:H	1.77	0.49
1:A:2366:A:H2'	1:A:2367:G:O4'	2.11	0.49
1:A:85:G:N3	1:A:103:A:C2	2.80	0.49
1:A:2563:U:H4'	11:K:28:SER:HA	1.94	0.49
1:A:2893:G:H5''	1:A:2894:G:O4'	2.12	0.49
8:H:133:HIS:NE2	8:H:135:GLU:HG2	2.27	0.49
1:A:1109:C:N4	1:A:1110:G:N2	2.59	0.49
11:K:43:VAL:HG23	11:K:56:ASP:O	2.12	0.49
1:A:2657:A:H5''	1:A:2658:C:OP2	2.12	0.49
28:2:52:TYR:O	28:2:52:TYR:HD1	1.95	0.49
1:A:1152:C:H5''	17:Q:80:ILE:CG2	2.41	0.49
13:M:134:ARG:HE	13:M:134:ARG:HA	1.77	0.49
3:C:94:LEU:HD22	3:C:95:LEU:N	2.27	0.49
26:Z:23:LEU:CD1	26:Z:50:VAL:HG11	2.42	0.49
1:A:1796:U:H4'	3:C:256:GLY:HA2	1.94	0.49
22:V:68:PRO:HG2	22:V:91:LEU:O	2.12	0.49
6:F:171:ALA:O	6:F:175:LEU:HG	2.11	0.49
1:A:27:G:C4	1:A:512:G:N2	2.80	0.49
14:N:65:LEU:O	14:N:68:ARG:HB2	2.12	0.49
1:A:2567:G:H2'	1:A:2568:C:C6	2.47	0.49
1:A:46:C:H42	1:A:179:G:H1	1.60	0.49
2:B:63:G:H2'	2:B:64:C:C6	2.46	0.49
1:A:1753:G:N1	1:A:1756:G:C2	2.80	0.49
4:D:171:GLU:HG2	4:D:185:LYS:HG2	1.94	0.49
6:F:60:LEU:O	6:F:64:THR:HG22	2.11	0.49
4:D:36:ARG:HH11	4:D:85:ASN:ND2	2.10	0.49
19:S:8:ARG:HA	19:S:102:HIS:HA	1.94	0.49
1:A:1771:C:O2'	1:A:1786:A:H8	1.76	0.49
1:A:955:C:H5''	13:M:85:LYS:HE2	1.94	0.49
1:A:7:G:H2'	1:A:8:A:O4'	2.11	0.49
1:A:2531:A:H4'	7:G:157:TYR:CE2	2.47	0.49
1:A:1833:U:C2'	1:A:1834:U:H5'	2.41	0.49
1:A:2584:U:O5'	1:A:2584:U:H6	1.94	0.49
1:A:2721:A:H1'	1:A:2873:A:O2'	2.12	0.49
1:A:2297:C:H2'	1:A:2298:A:H8	1.77	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:82:ARG:O	23:W:84:LEU:HD23	2.12	0.49
3:C:145:VAL:HG12	3:C:146:GLU:N	2.28	0.49
3:C:142:VAL:HG22	3:C:143:HIS:N	2.27	0.49
3:C:67:PHE:HB3	3:C:153:ALA:H	1.77	0.49
1:A:2729:G:C5	1:A:2730:C:C5	2.99	0.49
25:Y:6:VAL:C	25:Y:10:LEU:HG	2.33	0.49
1:A:1493:C:H4'	1:A:1494:A:OP1	2.11	0.49
1:A:548:A:H2'	1:A:549:G:H5'	1.94	0.49
6:F:41:GLN:HB2	6:F:90:LEU:HB2	1.94	0.49
1:A:2605:U:H2'	1:A:2606:C:C6	2.47	0.49
28:2:25:LEU:HD12	28:2:25:LEU:N	2.18	0.49
9:I:4:LYS:O	9:I:4:LYS:HG2	2.11	0.49
8:H:15:VAL:HG12	8:H:16:GLY:N	2.27	0.49
8:H:5:LEU:HD22	8:H:19:VAL:HG12	1.94	0.49
3:C:270:ILE:C	3:C:271:ILE:HG12	2.33	0.49
1:A:334:C:HO2'	1:A:335:C:P	2.34	0.49
1:A:334:C:O2'	1:A:335:C:P	2.70	0.49
11:K:2:ILE:CD1	11:K:82:ASN:HD22	2.26	0.49
1:A:479:A:H4'	1:A:480:A:O5'	2.11	0.49
12:L:75:ILE:CD1	12:L:75:ILE:H	2.21	0.49
31:5:26:LYS:HG2	31:5:48:PHE:CD2	2.47	0.49
1:A:1131:G:C2	1:A:1132:A:C5	3.00	0.49
1:A:2065:C:O2'	1:A:2066:C:H5'	2.11	0.49
2:B:28:C:H2'	2:B:29:A:O4'	2.12	0.49
1:A:553:U:C2'	1:A:554:U:H5'	2.42	0.49
1:A:466:A:H5''	1:A:467:G:OP2	2.12	0.49
1:A:772:C:H2'	1:A:772:C:O2	2.11	0.49
13:M:137:TYR:HB3	22:V:76:LEU:HD21	1.93	0.49
16:P:61:PHE:CE2	16:P:76:PHE:HB2	2.47	0.49
1:A:2295:C:N3	1:A:2296:U:H5	2.10	0.49
17:Q:53:ARG:O	17:Q:56:ASP:HB2	2.12	0.49
18:R:4:ILE:HD13	18:R:13:ARG:HA	1.93	0.49
20:T:30:VAL:HG11	20:T:39:ILE:HD13	1.94	0.49
1:A:1512:G:C2	1:A:1513:C:C2	3.01	0.49
11:K:97:ARG:H	11:K:117:LEU:CD2	2.25	0.49
1:A:1359:A:C8	1:A:1372:U:O4	2.65	0.49
7:G:95:ARG:NH1	7:G:97:ARG:HE	2.11	0.49
3:C:25:THR:HG21	3:C:81:ALA:CB	2.43	0.49
1:A:257:A:C2'	1:A:258:G:O5'	2.60	0.49
3:C:182:LEU:N	3:C:272:ALA:HB3	2.22	0.49
1:A:2479:G:H5''	1:A:2537:U:O4'	2.13	0.49
1:A:1953:A:C2	1:A:2549:G:N3	2.80	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:179:ASP:CG	22:V:180:VAL:N	2.65	0.49
11:K:121:VAL:O	16:P:43:GLN:NE2	2.44	0.49
12:L:115:LEU:HA	12:L:134:ALA:CB	2.42	0.49
1:A:1746:G:N3	1:A:1747:G:C8	2.80	0.49
17:Q:46:ALA:O	17:Q:47:TYR:C	2.50	0.49
1:A:337:C:H2'	1:A:338:G:O5'	2.13	0.49
1:A:1570:A:H2'	1:A:1571:A:C8	2.47	0.49
1:A:2328:A:H2'	1:A:2329:G:O4'	2.12	0.49
1:A:1268:A:C2	1:A:2013:A:C4	3.01	0.49
1:A:587:C:C4	12:L:33:ARG:HB2	2.48	0.49
1:A:2338:G:C2	1:A:2339:G:C8	3.00	0.49
20:T:50:LYS:N	20:T:87:GLN:HE22	1.91	0.49
25:Y:57:ILE:HA	25:Y:60:LEU:HB2	1.93	0.49
13:M:141:GLN:NE2	22:V:89:PHE:HD1	2.10	0.49
23:W:64:ASP:OD1	23:W:64:ASP:N	2.46	0.49
8:H:130:TYR:C	8:H:132:PRO:HD3	2.33	0.49
6:F:133:LEU:HD23	6:F:133:LEU:H	1.78	0.49
3:C:166:GLN:HB2	3:C:174:ILE:HG22	1.94	0.49
3:C:40:THR:CG2	3:C:41:GLY:N	2.75	0.49
1:A:2738:A:C2	1:A:2739:U:N1	2.80	0.49
1:A:1442:G:C2	1:A:1550:C:O2	2.65	0.49
16:P:41:ARG:HB3	16:P:41:ARG:HH11	1.78	0.49
1:A:25:U:H2'	1:A:26:G:C8	2.47	0.49
7:G:78:GLY:O	7:G:136:ILE:HG22	2.13	0.49
1:A:107:C:C2'	1:A:108:U:H5'	2.42	0.49
1:A:601:C:H4'	5:E:104:LYS:HE2	1.95	0.49
1:A:1818:U:H2'	3:C:157:ARG:HG3	1.94	0.49
26:Z:3:ARG:NH1	26:Z:59:VAL:HG11	2.27	0.49
21:U:71:LYS:HB2	21:U:71:LYS:NZ	2.27	0.49
12:L:80:TYR:CE1	12:L:111:ARG:HG2	2.48	0.49
16:P:54:ARG:CG	16:P:54:ARG:NH1	2.61	0.49
1:A:1899:G:N2	1:A:1902:C:H5	2.09	0.49
8:H:128:LEU:O	8:H:139:GLN:HA	2.12	0.49
18:R:44:LYS:HB3	18:R:46:VAL:HG13	1.95	0.49
31:5:7:HIS:HB2	31:5:60:LEU:HB3	1.95	0.49
22:V:102:LEU:HD23	22:V:137:ILE:HB	1.95	0.49
1:A:932:G:OP1	1:A:932:G:H3'	2.12	0.49
1:A:380:U:H2'	1:A:380:U:O2	2.12	0.49
15:O:56:LEU:HG	15:O:57:LYS:HB3	1.94	0.49
1:A:1434:A:H2'	1:A:1435:G:C8	2.48	0.49
1:A:1682:G:H2'	1:A:1683:C:C6	2.47	0.49
5:E:153:SER:OG	5:E:190:GLU:HG3	2.13	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:40:ALA:CB	13:M:127:ILE:HD12	2.41	0.49
10:J:68:ASN:HD22	10:J:68:ASN:H	1.59	0.49
1:A:571:A:C8	1:A:2030:A:N6	2.80	0.49
15:O:20:ARG:HH12	23:W:48:GLY:H	1.60	0.49
4:D:72:VAL:O	4:D:73:GLU:C	2.50	0.49
1:A:2831:G:O4'	1:A:2883:A:C2	2.65	0.49
1:A:57:C:O5'	1:A:57:C:H6	1.95	0.49
1:A:963:U:H2'	1:A:964:C:H6	1.77	0.49
1:A:963:U:H2'	1:A:964:C:C6	2.47	0.49
1:A:2473:U:C4	1:A:2474:C:C4	3.00	0.49
1:A:2105:C:H2'	1:A:2106:G:C8	2.47	0.49
1:A:127:A:H5''	1:A:128:C:C6	2.47	0.49
1:A:1368:G:C2	1:A:1369:G:C8	3.00	0.49
20:T:3:THR:HA	20:T:6:ASP:OD2	2.13	0.49
1:A:2495:G:C2'	1:A:2496:C:O5'	2.60	0.49
12:L:57:THR:CG2	12:L:59:LEU:CD2	2.75	0.49
11:K:71:ARG:NH2	11:K:77:ILE:HG21	2.27	0.49
16:P:58:ASN:HD22	16:P:58:ASN:C	2.16	0.49
1:A:1902:C:H2'	1:A:1903:G:O5'	2.13	0.49
1:A:1187:G:H8	1:A:1187:G:O5'	1.96	0.49
6:F:83:ARG:HG3	6:F:84:LYS:H	1.77	0.49
1:A:2681:C:O2	1:A:2681:C:O5'	2.31	0.49
3:C:120:GLY:HA2	3:C:190:TYR:OH	2.13	0.49
1:A:661:C:O3'	12:L:18:ARG:HG2	2.13	0.49
8:H:5:LEU:N	8:H:5:LEU:CD2	2.76	0.49
21:U:42:VAL:CG1	21:U:65:ALA:HB3	2.41	0.49
11:K:88:ASN:ND2	11:K:90:GLN:HB3	2.28	0.49
1:A:105:C:C2	1:A:106:C:C5	3.00	0.49
1:A:2593:U:C2	1:A:2594:C:C5	3.01	0.49
3:C:61:LEU:HB3	3:C:63:ARG:NH1	2.28	0.49
3:C:30:GLU:HG3	3:C:63:ARG:NE	2.27	0.49
18:R:12:TYR:CD2	18:R:12:TYR:N	2.81	0.49
17:Q:50:ARG:HH12	18:R:72:VAL:HG12	1.77	0.49
1:A:1726:G:H2'	1:A:1727:U:H6	1.73	0.49
16:P:50:ILE:HA	16:P:99:LEU:CD1	2.43	0.49
12:L:50:ARG:HB2	31:5:60:LEU:CD2	2.42	0.49
1:A:137(B):G:C4	1:A:139:G:N7	2.81	0.49
1:A:929:G:O5'	1:A:929:G:H8	1.96	0.49
1:A:2875:C:C4'	16:P:5:ALA:HB2	2.36	0.49
1:A:2307:G:O5'	1:A:2307:G:C8	2.66	0.49
21:U:27:VAL:O	21:U:27:VAL:CG2	2.58	0.49
1:A:2784:C:H2'	1:A:2785:C:C6	2.47	0.49

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1496:A:C8	1:A:1577:C:O2'	2.65	0.49
1:A:1511:A:O2'	1:A:1512:G:H5'	2.12	0.49
11:K:88:ASN:N	11:K:92:GLU:O	2.39	0.49
1:A:852:G:H2'	1:A:853:G:C8	2.48	0.49
1:A:1444:G:N2	1:A:1548:C:C2	2.81	0.49
1:A:1241:A:N6	1:A:1242:A:N1	2.60	0.49
1:A:851:U:O2'	26:Z:45:GLY:HA3	2.13	0.49
1:A:1678:G:C2'	1:A:1678:G:N3	2.74	0.49
2:B:86:G:H2'	2:B:87:G:C8	2.48	0.49
1:A:1665:A:H4'	11:K:67:LYS:HB2	1.95	0.49
1:A:2261:C:O2'	1:A:2262:U:H5'	2.12	0.49
1:A:2846:G:P	16:P:54:ARG:HB2	2.52	0.49
1:A:556:G:H2'	1:A:557:U:H6	1.77	0.49
1:A:2563:U:O2	1:A:2565:A:H8	1.96	0.49
1:A:379:G:C2	24:X:20:ARG:NH2	2.81	0.49
1:A:1567:A:C8	3:C:84:TYR:CE2	3.01	0.49
15:O:53:SER:O	15:O:56:LEU:HB3	2.13	0.49
28:2:40:LYS:CD	28:2:46:CYS:HB3	2.43	0.49
4:D:112:GLY:O	4:D:159:HIS:HA	2.13	0.49
14:N:103:ARG:HH12	14:N:110:PRO:HG3	1.78	0.49
1:A:2026:C:N3	1:A:2027:G:C8	2.81	0.49
30:4:36:GLN:HG2	30:4:36:GLN:O	2.09	0.49
19:S:78:GLU:OE2	19:S:99:ARG:HD3	2.13	0.49
1:A:231:C:N4	1:A:232:G:N1	2.61	0.49
3:C:212:SER:O	3:C:217:ARG:HG3	2.13	0.49
1:A:1465:G:C2	1:A:1466:G:C8	3.01	0.49
11:K:9:GLU:O	11:K:83:ALA:HA	2.13	0.49
8:H:51:ILE:HG22	8:H:52:ARG:N	2.28	0.49
1:A:1542:G:OP2	1:A:1543:A:OP1	2.30	0.49
6:F:56:ALA:O	6:F:60:LEU:HB2	2.12	0.49
1:A:727:A:H2	3:C:9:TYR:CD2	2.30	0.49
2:B:7:G:H5''	15:O:29:PHE:CD2	2.47	0.49
13:M:141:GLN:OE1	22:V:97:GLU:O	2.31	0.49
24:X:45:ASN:ND2	24:X:47:GLN:HE21	2.11	0.49
7:G:43:VAL:HG12	7:G:52:VAL:CG2	2.43	0.49
6:F:111:LEU:HA	6:F:114:ILE:HD11	1.95	0.49
1:A:1842:G:H1'	3:C:255:LYS:HZ3	1.78	0.49
1:A:569:U:C4	1:A:570:G:C6	3.00	0.49
24:X:49:VAL:HG11	24:X:70:VAL:HG11	1.94	0.49
1:A:2025:C:H2'	1:A:2026:C:C6	2.48	0.49
30:4:18:PHE:CE2	30:4:22:MET:HG3	2.48	0.49
6:F:64:THR:HG23	6:F:66:GLN:N	2.28	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:114(B):A:C4	1:A:1144:G:N7	2.81	0.48
8:H:98:ALA:O	8:H:109:ILE:HD11	2.13	0.48
17:Q:69:CYS:SG	17:Q:79:PHE:CD2	3.06	0.48
14:N:38:VAL:CB	14:N:39:PRO:HD3	2.36	0.48
7:G:67:LEU:HG	7:G:71:LEU:HD23	1.95	0.48
1:A:966:G:C4	1:A:967:C:H5	2.30	0.48
1:A:1401:G:C5	1:A:1402:C:C5	3.01	0.48
1:A:2100:G:H21	1:A:2101:G:H1'	1.76	0.48
1:A:2863:C:O2'	1:A:2864:G:H5'	2.12	0.48
11:K:2:ILE:CD1	11:K:82:ASN:ND2	2.76	0.48
1:A:493:G:H2'	1:A:494:G:O4'	2.13	0.48
21:U:68:HIS:C	21:U:70:SER:H	2.16	0.48
1:A:444:C:OP2	17:Q:2:PRO:HD3	2.12	0.48
16:P:84:GLN:HG3	16:P:85:LYS:HG3	1.95	0.48
23:W:11:LYS:O	23:W:14:ARG:NH2	2.40	0.48
12:L:135:LEU:O	12:L:139:LYS:HB2	2.13	0.48
16:P:50:ILE:HA	16:P:99:LEU:HD11	1.94	0.48
4:D:102:VAL:HA	4:D:199:ARG:O	2.13	0.48
1:A:2250:G:H5''	1:A:2250:G:N3	2.28	0.48
4:D:170:LEU:HB3	4:D:185:LYS:HB2	1.95	0.48
1:A:2334:G:C4	15:O:12:PHE:HZ	2.32	0.48
2:B:7:G:H4'	15:O:29:PHE:CG	2.48	0.48
17:Q:92:ARG:O	17:Q:94:ASN:N	2.46	0.48
19:S:75:TYR:CD2	19:S:104:THR:HB	2.46	0.48
1:A:2712:U:O2'	1:A:2713:A:H5'	2.13	0.48
1:A:2746:U:H4'	7:G:138:LYS:HD3	1.95	0.48
1:A:1323:U:H2'	1:A:1324:G:H5'	1.95	0.48
22:V:150:LEU:HD23	22:V:171:ILE:HB	1.94	0.48
6:F:131:TYR:CD2	6:F:133:LEU:HD22	2.48	0.48
7:G:44:VAL:O	7:G:50:VAL:HG13	2.12	0.48
1:A:2477:C:O2'	1:A:2478:A:P	2.70	0.48
1:A:2102:U:C4	1:A:2103:C:N4	2.81	0.48
1:A:588:U:C2	1:A:589:C:C5	3.01	0.48
12:L:132:LYS:CD	12:L:132:LYS:N	2.76	0.48
1:A:814:C:C5	12:L:27:HIS:NE2	2.81	0.48
1:A:1164:G:H5'	1:A:1165:U:OP2	2.12	0.48
1:A:2718:G:H2'	1:A:2719:G:C8	2.48	0.48
5:E:78:ILE:H	5:E:78:ILE:HG13	1.27	0.48
1:A:2032:G:H21	4:D:146:THR:HG23	1.77	0.48
17:Q:36:ARG:HD3	17:Q:40:PHE:CZ	2.49	0.48
1:A:611:C:C2	1:A:612:G:C8	3.02	0.48
10:J:133:GLY:O	10:J:137:ARG:HG2	2.12	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:270(Z):G:C2	1:A:271(A):U:O4	2.66	0.48
1:A:1937:A:N7	1:A:1939:U:H2'	2.28	0.48
1:A:2388:A:C8	1:A:2389:G:C5	3.02	0.48
21:U:8:LYS:NZ	21:U:8:LYS:CA	2.76	0.48
30:4:8:ASN:ND2	30:4:9:ARG:N	2.56	0.48
3:C:155:LEU:N	3:C:155:LEU:HD12	2.28	0.48
1:A:2272:U:C6	1:A:2272:U:C5'	2.88	0.48
1:A:1188:U:C2'	1:A:1189:A:C5'	2.91	0.48
18:R:77:ALA:O	18:R:79:VAL:N	2.46	0.48
6:F:128:ARG:HH21	6:F:129:GLY:C	2.16	0.48
4:D:61:ARG:HB3	4:D:62:PRO:HD2	1.95	0.48
26:Z:26:LEU:HB2	26:Z:28:LEU:CD1	2.43	0.48
8:H:132:PRO:O	8:H:134:PRO:HD3	2.12	0.48
4:D:111:ARG:CD	4:D:160:TYR:CE1	2.92	0.48
1:A:2893:G:H3'	1:A:2894:G:H5'	1.95	0.48
1:A:2396:G:N3	1:A:2421:G:C2	2.81	0.48
22:V:151:HIS:O	22:V:171:ILE:HG12	2.14	0.48
3:C:267:SER:C	3:C:269:PHE:H	2.17	0.48
2:B:78:A:N3	2:B:99:A:C5	2.81	0.48
1:A:1386:C:H2'	1:A:1387:C:C6	2.43	0.48
1:A:814:C:O2'	1:A:815:C:H5'	2.13	0.48
1:A:637:A:OP1	12:L:133:SER:HB3	2.13	0.48
31:5:39:LYS:HA	31:5:42:ARG:NH1	2.27	0.48
17:Q:62:ILE:O	17:Q:63:VAL:C	2.49	0.48
1:A:2853:C:O2'	1:A:2854:G:H5'	2.13	0.48
1:A:2190:G:H2'	1:A:2191:G:C8	2.45	0.48
1:A:2465:C:O2	1:A:2486:G:C2	2.66	0.48
2:B:56:G:H4'	2:B:57:A:H8	1.79	0.48
1:A:1015:G:O2'	1:A:1016:G:H5'	2.13	0.48
1:A:2557:G:H2'	1:A:2558:C:H6	1.78	0.48
13:M:130:LYS:HZ2	22:V:80:ARG:HE	1.60	0.48
1:A:1881:C:H2'	1:A:1882:C:H6	1.78	0.48
1:A:2062:A:O2'	1:A:2063:C:H5'	2.13	0.48
1:A:1929:G:H5''	1:A:1929:G:N3	2.28	0.48
1:A:725:G:C6	1:A:726:G:N1	2.82	0.48
5:E:118:ALA:HB2	5:E:123:LEU:HD23	1.96	0.48
1:A:649:G:H2'	1:A:650:C:C6	2.48	0.48
13:M:131:ILE:HG22	13:M:132:VAL:N	2.28	0.48
1:A:1309:G:H3'	30:4:9:ARG:HH12	1.78	0.48
16:P:54:ARG:HA	16:P:59:THR:OG1	2.14	0.48
1:A:1122:G:N3	1:A:1122:G:H2'	2.29	0.48
1:A:1141:U:OP2	10:J:86:THR:HG21	2.14	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
19:S:18:ARG:HG2	19:S:18:ARG:HH11	1.78	0.48
18:R:3:ALA:HB1	18:R:38:LEU:HD21	1.95	0.48
3:C:33:LEU:HD23	3:C:33:LEU:H	1.78	0.48
22:V:102:LEU:HD21	22:V:124:ILE:HD11	1.96	0.48
22:V:128:VAL:CG2	22:V:132:ASN:HB2	2.43	0.48
21:U:9:LYS:O	21:U:27:VAL:CG2	2.61	0.48
1:A:442:G:C4'	5:E:46:ARG:HD3	2.44	0.48
7:G:102:ALA:CB	7:G:116:GLU:HA	2.41	0.48
1:A:226:G:N2	1:A:227:A:C2	2.82	0.48
1:A:2461:C:O2	1:A:2461:C:C2'	2.52	0.48
1:A:1301:A:H2'	1:A:1301:A:N3	2.28	0.48
1:A:30:G:H2'	1:A:31:C:C6	2.49	0.48
1:A:447:A:C4	1:A:473:G:N7	2.82	0.48
22:V:155:LEU:O	22:V:157:LEU:HD12	2.13	0.48
26:Z:8:LEU:HD13	26:Z:31:LEU:HD12	1.94	0.48
25:Y:1:MET:O	25:Y:1:MET:SD	2.71	0.48
1:A:857:C:C2	1:A:858:U:C5	3.02	0.48
4:D:24:THR:HG21	4:D:188:VAL:HG12	1.95	0.48
19:S:14:PRO:O	19:S:16:LYS:N	2.46	0.48
8:H:86:THR:HG22	8:H:86:THR:O	2.14	0.48
1:A:2210:G:C3'	1:A:2210:G:N3	2.75	0.48
20:T:35:THR:HG22	20:T:36:LYS:N	2.28	0.48
22:V:58:VAL:HG11	22:V:66:SER:HB2	1.95	0.48
28:2:35:GLU:OE2	28:2:51:TYR:HA	2.12	0.48
1:A:566:U:H2'	1:A:567:A:O4'	2.14	0.48
16:P:80:SER:C	16:P:82:LEU:N	2.67	0.48
1:A:176:G:O2'	1:A:177:G:H5'	2.14	0.48
6:F:74:LYS:HA	6:F:74:LYS:HE3	1.95	0.48
1:A:1582:C:O5'	1:A:1582:C:H6	1.97	0.48
1:A:343:C:O2'	1:A:344:G:H5'	2.14	0.48
1:A:247:G:H4'	1:A:386:G:C5	2.49	0.48
1:A:1188:U:H2'	1:A:1189:A:O5'	2.13	0.48
12:L:50:ARG:HD2	12:L:51:PHE:CA	2.44	0.48
22:V:30:ASN:HA	22:V:89:PHE:HE2	1.78	0.48
1:A:71:A:OP2	1:A:113:G:H5'	2.14	0.48
1:A:2516:G:C6	1:A:2517:C:N4	2.81	0.48
24:X:10:LYS:O	24:X:11:ARG:CG	2.61	0.48
7:G:46:GLU:HG3	7:G:51:ARG:CZ	2.43	0.48
1:A:1503:U:H2'	1:A:1504:C:C6	2.49	0.48
1:A:2277:G:C5'	13:M:85:LYS:HB2	2.43	0.48
14:N:72:ASP:O	14:N:76:VAL:HG13	2.13	0.48
3:C:30:GLU:CG	3:C:63:ARG:NH2	2.77	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2631:G:N3	1:A:2810:A:C2	2.77	0.48
1:A:795:C:O5'	1:A:795:C:H6	1.97	0.48
1:A:1152:C:O2'	1:A:1153:C:H5'	2.14	0.48
1:A:739:G:H4'	1:A:740:U:OP1	2.14	0.48
1:A:2190:G:C4	1:A:2191:G:C8	3.02	0.48
1:A:2739:U:O2	1:A:2739:U:C2'	2.54	0.48
3:C:122:ASP:CG	3:C:123:ALA:N	2.67	0.48
1:A:861:A:C2	1:A:917:A:C4	3.01	0.48
20:T:12:VAL:HG12	20:T:28:PHE:HA	1.95	0.48
1:A:2728:U:H2'	1:A:2728:U:O2	2.13	0.48
1:A:2729:G:H1'	4:D:187:ALA:CB	2.31	0.48
1:A:194:G:H2'	1:A:195:A:O4'	2.13	0.48
4:D:36:ARG:NH1	4:D:86:PRO:HD2	2.28	0.48
1:A:1407:C:H2'	1:A:1408:C:H6	1.77	0.48
1:A:141(A):A:N6	1:A:1596:A:H5'	2.29	0.48
4:D:51:PHE:C	4:D:51:PHE:CD1	2.86	0.48
6:F:8:LYS:HD3	6:F:9:ARG:CG	2.44	0.48
14:N:17:ARG:O	14:N:20:LEU:HB3	2.14	0.48
19:S:29:LEU:HD22	19:S:69:LEU:HD11	1.96	0.48
24:X:46:LEU:C	24:X:46:LEU:HD23	2.34	0.48
31:5:21:LYS:HA	31:5:54:GLU:OE2	2.14	0.48
7:G:29:PRO:HD2	7:G:79:VAL:O	2.13	0.48
3:C:182:LEU:HD23	3:C:182:LEU:HA	1.55	0.48
23:W:37:LEU:HG	23:W:60:PHE:HA	1.96	0.48
14:N:85:PRO:HA	14:N:88:ARG:HH11	1.78	0.48
13:M:70:PRO:HA	13:M:94:VAL:O	2.14	0.48
4:D:176:ILE:N	4:D:176:ILE:CD1	2.76	0.48
1:A:1917:U:O2'	1:A:1918:A:H5'	2.13	0.48
9:I:57:THR:HG23	9:I:60:ARG:HH12	1.77	0.48
1:A:1523:U:H2'	1:A:1524:G:H8	1.77	0.48
12:L:61:ARG:HD3	31:5:13:ARG:HD2	1.96	0.48
12:L:32:THR:HG21	12:L:37:GLY:HA2	1.94	0.48
10:J:157:ARG:O	10:J:158:PRO:C	2.51	0.48
20:T:44:GLU:HG2	20:T:49:VAL:O	2.14	0.48
17:Q:106:PHE:O	17:Q:109:LEU:N	2.46	0.48
25:Y:24:LEU:HD22	25:Y:60:LEU:CD1	2.43	0.48
3:C:45:ASN:C	3:C:45:ASN:OD1	2.50	0.48
1:A:1639:U:H4'	1:A:2699:C:H4'	1.94	0.48
22:V:126:VAL:HG12	22:V:163:LEU:HA	1.96	0.48
1:A:2352:A:C4	1:A:2366:A:C2	3.02	0.48
12:L:18:ARG:C	12:L:19:VAL:HG22	2.33	0.48
1:A:1799:G:H8	3:C:181:GLU:CD	2.16	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:78:A:H61	2:B:98:G:H1'	1.79	0.48
2:B:75:G:HO2'	22:V:85:HIS:CD2	2.31	0.48
22:V:82:ARG:HG2	22:V:83:PRO:HD2	1.96	0.48
1:A:2470:G:C6	1:A:2471:C:C5	3.02	0.48
1:A:2549:G:C2'	1:A:2550:G:H5'	2.43	0.48
1:A:1467:C:C2'	1:A:1468:C:H5'	2.43	0.48
1:A:1909:C:C2	1:A:1922:G:C2	3.01	0.48
14:N:84:ALA:HB3	14:N:85:PRO:HD3	1.94	0.48
1:A:2717:G:C6	1:A:2718:G:C5	3.02	0.48
1:A:415:A:H2'	1:A:416:C:C6	2.48	0.48
3:C:52:ARG:CB	3:C:53:PHE:CD2	2.97	0.48
1:A:516:C:P	28:2:13:LYS:HZ1	2.37	0.48
1:A:2410:G:H2'	1:A:2411:A:O4'	2.14	0.48
4:D:104:VAL:HG11	4:D:188:VAL:HG21	1.96	0.48
1:A:2292:C:N4	1:A:2293:C:N4	2.62	0.48
1:A:1593:G:C6	1:A:1594:G:C6	3.02	0.48
1:A:849:A:H5''	1:A:850:C:OP2	2.13	0.48
1:A:528:A:O2'	1:A:529:A:H5'	2.13	0.48
8:H:15:VAL:C	8:H:17:GLN:H	2.17	0.48
12:L:27:HIS:C	12:L:27:HIS:CD2	2.87	0.48
14:N:52:ILE:CG2	14:N:94:TYR:CG	2.97	0.48
1:A:2394:C:P	12:L:63:PRO:HD2	2.54	0.48
22:V:9:TYR:CG	22:V:35:ARG:NH1	2.82	0.48
14:N:28:LEU:HD23	14:N:28:LEU:HA	1.69	0.48
16:P:105:LEU:O	16:P:107:ASP:CG	2.52	0.48
4:D:3:GLY:HA3	4:D:81:ILE:HD13	1.96	0.48
5:E:126:VAL:O	5:E:196:LEU:HG	2.13	0.48
1:A:685:A:H1'	1:A:688:U:O4	2.14	0.48
22:V:165:VAL:HG23	22:V:166:SER:O	2.13	0.48
1:A:631:A:OP1	12:L:64:LYS:HE3	2.13	0.48
1:A:2846:G:C5	1:A:2847:U:C4	3.02	0.48
1:A:1012:U:O4	10:J:48:ARG:HA	2.13	0.48
1:A:1022:G:N2	1:A:114(B):A:H2	2.12	0.48
10:J:116:THR:OG1	10:J:117:HIS:N	2.46	0.48
10:J:95:TYR:CD2	10:J:113:MET:HG3	2.49	0.48
3:C:143:HIS:HD2	3:C:144:ALA:HB2	1.79	0.48
25:Y:60:LEU:O	25:Y:62:THR:N	2.47	0.48
22:V:53:ILE:CG2	22:V:71:VAL:O	2.62	0.48
1:A:96:G:O5'	25:Y:48:HIS:HE1	1.96	0.48
1:A:1264:G:H5'	28:2:11:THR:HG23	1.92	0.48
11:K:97:ARG:H	11:K:117:LEU:HD22	1.79	0.48
1:A:732:C:H2'	1:A:733:G:H5'	1.96	0.48

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:36:ALA:HA	21:U:67:LEU:O	2.13	0.48
2:B:75:G:N1	2:B:102:G:N2	2.62	0.48
2:B:21:G:N2	2:B:62:C:N3	2.58	0.48
1:A:1387:C:C2	1:A:1388:G:C8	3.02	0.48
13:M:60:ARG:HA	22:V:179:ASP:HB2	1.96	0.48
22:V:13:GLU:CD	22:V:13:GLU:H	2.18	0.48
12:L:85:LEU:HD23	12:L:117:GLU:O	2.14	0.48
4:D:117:MET:CE	4:D:136:ARG:HA	2.44	0.48
1:A:2039:C:C2	1:A:2040:C:C5	3.02	0.48
12:L:135:LEU:HD22	12:L:135:LEU:HA	1.53	0.48
1:A:2744:G:C2	1:A:2761:G:C6	3.01	0.48
20:T:4:ALA:C	20:T:6:ASP:H	2.16	0.48
11:K:9:GLU:OE1	11:K:18:LYS:HE2	2.14	0.48
17:Q:34:LYS:HA	17:Q:34:LYS:HE3	1.96	0.48
11:K:3:GLN:HG3	11:K:4:PRO:HD2	1.96	0.48
14:N:14:SER:O	14:N:15:SER:C	2.52	0.48
1:A:2393:A:C5'	12:L:62:LEU:HD12	2.42	0.47
1:A:1175:U:H2'	1:A:1176:G:C8	2.49	0.47
3:C:15:PHE:O	3:C:205:VAL:CG1	2.61	0.47
1:A:2683:C:OP1	16:P:55:ASN:ND2	2.41	0.47
17:Q:113:ALA:HA	17:Q:116:ALA:HB3	1.96	0.47
12:L:41:ARG:HD2	12:L:41:ARG:HA	1.50	0.47
6:F:161:THR:C	6:F:163:ALA:N	2.68	0.47
1:A:2886:G:H2'	1:A:2887:U:C6	2.48	0.47
1:A:1578:U:H2'	1:A:1578:U:O2	2.14	0.47
1:A:954:G:C6	1:A:955:C:C5	3.02	0.47
14:N:67:LEU:O	14:N:70:LEU:O	2.31	0.47
2:B:21:G:H2'	2:B:22:U:C6	2.48	0.47
1:A:2550:G:C6	1:A:2551:C:C4	3.01	0.47
28:2:33:CYS:HB2	28:2:34:PRO:HD2	1.95	0.47
1:A:828:U:H2'	1:A:828:U:O2	2.14	0.47
6:F:11:TYR:HB2	6:F:176:LEU:HD21	1.96	0.47
12:L:140:ALA:O	12:L:141:ALA:CB	2.62	0.47
1:A:1424:G:H2'	1:A:1425:G:O4'	2.14	0.47
8:H:12:LEU:N	8:H:12:LEU:HD22	2.28	0.47
1:A:630:G:N2	1:A:633:A:OP2	2.33	0.47
12:L:57:THR:OG1	12:L:58:THR:N	2.46	0.47
1:A:1542:G:P	1:A:1543:A:OP1	2.72	0.47
1:A:1545:A:O2'	1:A:1546:A:H5'	2.13	0.47
12:L:111:ARG:HD2	12:L:128:HIS:CD2	2.49	0.47
15:O:12:PHE:O	15:O:12:PHE:HD1	1.97	0.47
8:H:88:ILE:CG2	8:H:89:TYR:N	2.77	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
31:5:60:LEU:N	31:5:60:LEU:HD23	2.29	0.47
12:L:51:PHE:HB3	12:L:52:GLU:H	1.37	0.47
25:Y:13:ALA:O	25:Y:17:SER:OG	2.22	0.47
4:D:52:LEU:CB	4:D:76:ARG:HB2	2.44	0.47
26:Z:43:ILE:H	26:Z:43:ILE:HD13	1.76	0.47
23:W:51:VAL:N	23:W:62:LEU:HD12	2.29	0.47
24:X:10:LYS:O	24:X:13:ILE:CG2	2.62	0.47
1:A:1512:G:C2	1:A:1513:C:O2	2.67	0.47
6:F:131:TYR:CE2	6:F:133:LEU:HB3	2.48	0.47
1:A:2862:G:H2'	1:A:2863:C:H6	1.78	0.47
14:N:101:ALA:HB2	28:2:44:THR:HB	1.96	0.47
1:A:1923:U:H2'	1:A:1924:C:C6	2.49	0.47
1:A:1832:C:H2'	1:A:1833:U:O4'	2.14	0.47
4:D:16:ARG:O	4:D:17:ASP:C	2.52	0.47
1:A:414:C:H2'	1:A:415:A:C8	2.48	0.47
1:A:2770:G:H5''	1:A:2771:C:OP2	2.14	0.47
1:A:2744:G:H1'	1:A:2761:G:H22	1.79	0.47
10:J:33:GLU:HA	10:J:34:PRO:HD3	1.75	0.47
1:A:374:A:C2	1:A:401:A:C4	3.02	0.47
1:A:1381:G:H2'	1:A:1382:G:H5'	1.95	0.47
1:A:1368:G:O2'	1:A:1369:G:H5'	2.15	0.47
1:A:2019:A:O4'	17:Q:34:LYS:HD2	2.14	0.47
1:A:2359:C:H2'	1:A:2360:A:C8	2.49	0.47
1:A:1281:G:C5	1:A:1282:U:C5	3.01	0.47
5:E:11:VAL:O	5:E:12:LEU:HD12	2.14	0.47
1:A:2495:G:H2'	1:A:2496:C:O5'	2.14	0.47
12:L:59:LEU:C	12:L:59:LEU:HD23	2.35	0.47
1:A:674:G:C1'	5:E:74:ARG:HD3	2.35	0.47
1:A:664:C:H4'	1:A:941:A:OP1	2.14	0.47
16:P:61:PHE:N	16:P:61:PHE:CD2	2.81	0.47
1:A:2419:U:OP2	31:5:41:ILE:CD1	2.62	0.47
8:H:69:LYS:HD2	8:H:138:ILE:HG23	1.95	0.47
30:4:19:ARG:CB	30:4:19:ARG:HH11	2.27	0.47
3:C:131:LEU:HD11	3:C:136:ILE:HG13	1.97	0.47
1:A:1486:A:C6	1:A:1504:C:N4	2.75	0.47
15:O:49:VAL:HG11	15:O:76:LYS:HB2	1.95	0.47
1:A:910:A:C4	13:M:13:GLN:OE1	2.66	0.47
1:A:582:G:OP1	17:Q:14:HIS:CD2	2.67	0.47
1:A:1820:U:O2	3:C:201:HIS:HB3	2.14	0.47
18:R:19:LYS:HA	18:R:94:LEU:O	2.13	0.47
14:N:88:ARG:C	14:N:90:ARG:H	2.17	0.47
1:A:1997:G:O2'	1:A:1998:G:H5'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
13:M:24:GLY:HA2	13:M:101:ARG:HA	1.96	0.47
1:A:1796:U:H2'	1:A:1797:C:C6	2.49	0.47
1:A:1127:A:C2'	1:A:1128:A:H5''	2.43	0.47
8:H:26:ALA:HA	8:H:30:LEU:HB2	1.95	0.47
1:A:1265:A:H5'	1:A:1267:U:H1'	1.95	0.47
5:E:28:ILE:O	5:E:28:ILE:HG13	2.14	0.47
12:L:62:LEU:HD21	31:5:25:MET:HB2	1.96	0.47
12:L:62:LEU:CD1	31:5:27:THR:HG22	2.45	0.47
21:U:14:LEU:HD23	21:U:15:VAL:CA	2.43	0.47
21:U:17:SER:CB	21:U:71:LYS:HD2	2.43	0.47
10:J:123:GLU:C	10:J:125:ALA:H	2.16	0.47
12:L:97:PRO:O	12:L:101:VAL:HG12	2.15	0.47
4:D:11:MET:HE3	4:D:186:GLY:CA	2.41	0.47
1:A:1970:A:H4'	1:A:1971:A:OP1	2.14	0.47
8:H:143:SER:O	8:H:145:VAL:N	2.46	0.47
18:R:6:LYS:CG	18:R:11:GLN:HG2	2.43	0.47
6:F:129:GLY:HA3	6:F:163:ALA:CB	2.44	0.47
5:E:174:VAL:HG21	5:E:189:THR:HG21	1.95	0.47
2:B:106:G:C6	2:B:107:U:C4	3.03	0.47
1:A:2305:A:O2'	6:F:136:ARG:NE	2.48	0.47
7:G:151:ILE:H	7:G:151:ILE:HD13	1.79	0.47
10:J:135:LEU:O	10:J:139:LEU:HG	2.14	0.47
1:A:627:A:H4'	1:A:628:G:OP1	2.14	0.47
13:M:32:PHE:CZ	13:M:111:GLU:HG2	2.45	0.47
6:F:7:LEU:HD22	6:F:176:LEU:HD22	1.96	0.47
1:A:2094:G:C2	1:A:2196:C:C2	3.02	0.47
1:A:904:C:H2'	1:A:905:U:C6	2.49	0.47
6:F:62:LEU:HB3	6:F:143:GLU:HG3	1.97	0.47
1:A:1919:A:H5''	1:A:1920:C:OP2	2.14	0.47
13:M:26:TYR:HD1	13:M:26:TYR:O	1.97	0.47
5:E:150:GLY:HA2	5:E:172:TRP:CE3	2.49	0.47
17:Q:97:ASP:CG	17:Q:97:ASP:O	2.52	0.47
14:N:104:ARG:CB	14:N:104:ARG:HH11	2.28	0.47
20:T:27:THR:HB	20:T:80:ILE:HB	1.94	0.47
1:A:270(G):U:H3	1:A:270(U):G:H1	1.63	0.47
1:A:2439:A:O2'	1:A:2440:C:OP2	2.25	0.47
16:P:64:ARG:HD2	16:P:73:GLU:OE2	2.14	0.47
6:F:73:ALA:HB3	6:F:76:SER:OG	2.14	0.47
8:H:101:LEU:HD23	8:H:109:ILE:HG13	1.97	0.47
1:A:1159:U:H2'	1:A:1160:G:C8	2.47	0.47
17:Q:98:LEU:O	17:Q:101:ARG:N	2.47	0.47
1:A:1412:A:H2'	1:A:1413:G:O4'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2887:U:C2	1:A:2888:C:C5	3.02	0.47
1:A:850:C:O2'	26:Z:46:ASN:ND2	2.47	0.47
23:W:62:LEU:O	23:W:63:VAL:HG13	2.15	0.47
3:C:176:ARG:CG	3:C:176:ARG:HH11	2.26	0.47
13:M:60:ARG:H	22:V:179:ASP:CB	2.26	0.47
1:A:118:A:C8	1:A:119:A:C8	3.02	0.47
1:A:540:G:C5	1:A:541:C:C5	3.02	0.47
1:A:540:G:C4	1:A:541:C:C6	3.02	0.47
18:R:12:TYR:CZ	18:R:22:VAL:HG22	2.49	0.47
7:G:40:GLU:O	7:G:55:PRO:HG3	2.13	0.47
1:A:1832:C:N4	1:A:1833:U:C4	2.82	0.47
1:A:1833:U:N3	1:A:1834:U:C5	2.83	0.47
1:A:1850:G:C5	1:A:1851:U:C5	3.02	0.47
3:C:141:VAL:HG22	3:C:141:VAL:O	2.14	0.47
1:A:2025:C:C2	1:A:2026:C:C5	3.02	0.47
8:H:28:ASN:C	8:H:32:PRO:HG2	2.34	0.47
1:A:433:C:H2'	1:A:434:U:C6	2.49	0.47
22:V:63:ASP:C	22:V:65:GLN:H	2.17	0.47
3:C:6:PHE:HD1	3:C:16:MET:O	1.97	0.47
19:S:17:VAL:O	19:S:18:ARG:C	2.51	0.47
25:Y:20:GLU:O	25:Y:21:LEU:C	2.52	0.47
4:D:92:THR:O	4:D:95:ILE:HG12	2.14	0.47
1:A:197:A:C8	1:A:197:A:C4'	2.98	0.47
1:A:2697:G:C2	1:A:2711:A:C2	3.03	0.47
14:N:10:LEU:HB3	14:N:17:ARG:CZ	2.44	0.47
3:C:185:VAL:HG12	3:C:186:HIS:H	1.80	0.47
8:H:113:ARG:O	8:H:131:LYS:N	2.47	0.47
1:A:2790:A:H2'	1:A:2791:C:C5'	2.39	0.47
15:O:39:ILE:O	15:O:39:ILE:HG22	2.14	0.47
1:A:967:C:O2'	1:A:968:G:H5'	2.14	0.47
22:V:24:LEU:HD12	22:V:85:HIS:HA	1.94	0.47
1:A:2189:U:O2	1:A:2189:U:H2'	2.15	0.47
1:A:319:C:H2'	1:A:320:A:C8	2.49	0.47
1:A:826:U:H2'	1:A:828:U:O4'	2.14	0.47
16:P:1:MET:O	16:P:3:ARG:N	2.48	0.47
1:A:1945:G:H2'	1:A:1946:U:C6	2.50	0.47
13:M:10:ARG:HA	13:M:10:ARG:HD3	1.71	0.47
1:A:1992:G:H8	1:A:1992:G:OP1	1.96	0.47
1:A:2837:G:C6	1:A:2838:G:C5	3.03	0.47
1:A:2734:A:C8	1:A:2735:G:C8	3.02	0.47
18:R:87:HIS:CD2	18:R:87:HIS:O	2.67	0.47
1:A:2813:A:H2'	1:A:2814:C:O4'	2.14	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:F:33:ARG:HD3	6:F:162:THR:HG21	1.96	0.47
1:A:1196:C:H1'	1:A:1226:A:N3	2.29	0.47
12:L:61:ARG:HD2	31:5:13:ARG:HD2	1.96	0.47
1:A:306:U:H2'	1:A:307:G:O4'	2.14	0.47
26:Z:19:GLN:HE22	26:Z:52:HIS:CE1	2.32	0.47
4:D:167:VAL:CG1	4:D:189:PRO:HD3	2.44	0.47
1:A:1190:G:H2'	1:A:1191:G:H8	1.79	0.47
4:D:137:HIS:CB	4:D:138:PRO:HD2	2.44	0.47
17:Q:54:LYS:O	17:Q:55:ARG:C	2.51	0.47
12:L:40:SER:C	12:L:41:ARG:HD3	2.32	0.47
25:Y:17:SER:O	25:Y:21:LEU:N	2.23	0.47
2:B:44:G:N3	2:B:47:C:N4	2.62	0.47
3:C:158:ALA:C	3:C:161:THR:HG23	2.35	0.47
22:V:30:ASN:HB3	22:V:90:VAL:HB	1.97	0.47
19:S:8:ARG:O	19:S:9:TYR:HB2	2.15	0.47
4:D:120:TRP:NE1	4:D:155:LYS:HB3	2.28	0.47
21:U:81:LYS:HD2	21:U:96:ILE:CD1	2.43	0.47
14:N:4:LEU:C	14:N:6:SER:N	2.68	0.47
1:A:2791:C:H4'	1:A:2792:G:OP1	2.14	0.47
1:A:1109:C:H42	1:A:1110:G:N2	2.12	0.47
5:E:65:TRP:HB3	5:E:66:PRO:HD2	1.96	0.47
1:A:1327:C:H2'	1:A:1328:G:O4'	2.15	0.47
15:O:34:HIS:ND1	15:O:54:LEU:HB3	2.28	0.47
1:A:1476:C:C2'	1:A:1477:A:H5'	2.45	0.47
23:W:36:ILE:HG23	23:W:58:THR:CG2	2.44	0.47
6:F:106:LEU:HD12	6:F:110:ALA:HB3	1.95	0.47
7:G:92:ILE:HD12	7:G:92:ILE:N	2.29	0.47
14:N:113:LEU:HA	14:N:113:LEU:HD12	1.49	0.47
11:K:12:ASP:HA	11:K:98:VAL:HA	1.95	0.47
21:U:76:CYS:O	21:U:77:PRO:C	2.51	0.47
1:A:333:G:C4	1:A:334:C:C5	3.02	0.47
1:A:115:C:O2'	1:A:116:C:H5'	2.15	0.47
1:A:198:C:O5'	1:A:198:C:H6	1.98	0.47
1:A:1788:C:H2'	1:A:1789:A:O4'	2.14	0.47
1:A:2372:G:O2'	29:3:46:HIS:CE1	2.67	0.47
14:N:96:ARG:HD2	14:N:115:GLU:OE1	2.15	0.47
8:H:75:LEU:HG	8:H:76:THR:O	2.15	0.47
1:A:1905:C:O2'	1:A:1929:G:H1'	2.15	0.47
14:N:13:HIS:CE1	14:N:15:SER:HB3	2.50	0.47
1:A:1769:G:C5	1:A:1984:G:C6	3.03	0.47
7:G:34:GLU:O	7:G:36:PRO:HD3	2.15	0.47
19:S:79:GLY:C	19:S:100:THR:HG22	2.35	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
27:1:39:ARG:O	27:1:57:ILE:HB	2.15	0.47
10:J:58:ARG:O	10:J:60:LYS:N	2.48	0.47
1:A:500:G:N2	1:A:502:A:H3'	2.29	0.47
1:A:2330:G:C2'	1:A:2331:G:H5'	2.44	0.47
1:A:861:A:H2'	1:A:862:G:O4'	2.14	0.47
2:B:83:G:C6	2:B:84:C:C5	3.03	0.47
8:H:69:LYS:HD3	8:H:138:ILE:HG12	1.96	0.47
1:A:94:G:N3	25:Y:47:ASN:ND2	2.62	0.47
27:1:40:ILE:HG23	27:1:59:VAL:CG2	2.45	0.47
3:C:248:SER:HB2	3:C:250:TRP:CE3	2.49	0.47
26:Z:28:LEU:N	26:Z:28:LEU:CD1	2.76	0.47
8:H:110:ASP:OD2	8:H:113:ARG:HG3	2.14	0.47
24:X:46:LEU:HD21	24:X:61:ARG:HG3	1.96	0.47
1:A:1056:G:N2	1:A:1104:C:N3	2.63	0.47
1:A:1314:C:OP1	1:A:1332:G:H5''	2.15	0.47
1:A:2629:A:H2'	1:A:2629:A:N3	2.29	0.47
11:K:90:GLN:HG3	11:K:90:GLN:O	2.14	0.47
16:P:88:ILE:CD1	16:P:89:VAL:H	2.27	0.47
7:G:92:ILE:O	7:G:93:GLY:C	2.53	0.47
22:V:85:HIS:ND1	22:V:85:HIS:C	2.68	0.47
1:A:2663:G:C5	1:A:2664:G:C5	3.02	0.47
1:A:1894:C:H2'	1:A:1895:C:H6	1.80	0.47
3:C:260:ARG:HG2	3:C:260:ARG:O	2.15	0.47
1:A:1920:C:H2'	1:A:1920:C:O2	2.14	0.47
1:A:1678:G:H22	1:A:1989:G:H22	1.63	0.47
1:A:2298:A:H2'	1:A:2299:G:O4'	2.15	0.47
7:G:105:LEU:N	7:G:105:LEU:HD23	2.30	0.47
1:A:1790:C:H2'	1:A:1791:A:C5	2.49	0.47
5:E:156:LEU:HD12	5:E:193:VAL:HG12	1.97	0.47
1:A:2193:G:O2'	1:A:2194:G:H5'	2.14	0.47
10:J:151:HIS:CD2	10:J:151:HIS:C	2.87	0.47
1:A:1668:A:N7	1:A:1674:G:C6	2.83	0.47
1:A:747:U:N3	28:2:2:ALA:N	2.63	0.47
1:A:1021:A:H8	1:A:1022:G:H5''	1.80	0.47
18:R:47:VAL:HG11	18:R:50:PRO:O	2.15	0.47
4:D:57:LYS:CG	4:D:58:ARG:N	2.78	0.47
5:E:173:VAL:HG12	5:E:174:VAL:N	2.29	0.47
14:N:60:LEU:HA	14:N:63:ARG:HB3	1.95	0.47
1:A:84:A:H4'	1:A:85:G:O5'	2.15	0.47
5:E:66:PRO:HB3	5:E:68:LYS:NZ	2.30	0.47
1:A:2476:A:C2'	1:A:2476:A:N3	2.77	0.47
1:A:302:C:H2'	1:A:303:U:H6	1.76	0.47

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
14:N:84:ALA:N	14:N:85:PRO:HD2	2.30	0.47
1:A:1027:A:C6	1:A:1126:A:C5	3.03	0.47
1:A:2079:U:H2'	1:A:2080:G:O4'	2.15	0.47
1:A:26:G:C6	1:A:27:G:N1	2.83	0.47
1:A:1570:A:H4'	3:C:38:LYS:HE2	1.96	0.47
2:B:87:G:N2	2:B:89(A):G:C8	2.83	0.47
1:A:270(F):G:H2'	1:A:270(G):U:O4'	2.14	0.47
1:A:1751:C:H2'	1:A:1752:C:C6	2.50	0.47
21:U:17:SER:HB2	21:U:71:LYS:HD2	1.98	0.47
10:J:143:LEU:C	10:J:143:LEU:CD1	2.82	0.47
2:B:81:G:C6	2:B:82:G:N7	2.83	0.47
1:A:2291:U:O2'	1:A:2374:C:O2	2.32	0.47
1:A:1826:G:OP1	3:C:233:HIS:CD2	2.63	0.47
31:5:11:LYS:N	31:5:61:LEU:HD21	2.30	0.47
1:A:1812:A:C2	1:A:1813:G:C4	3.03	0.47
3:C:134:ARG:HG3	3:C:135:PHE:HD1	1.79	0.47
1:A:2745:C:C4	1:A:2746:U:C5	3.03	0.47
31:5:22:VAL:CB	31:5:54:GLU:HG3	2.41	0.47
12:L:10:PRO:CD	12:L:11:GLY:H	2.26	0.47
14:N:48:VAL:O	14:N:51:LEU:N	2.48	0.47
1:A:781:A:H2'	1:A:1777:U:O2'	2.15	0.47
1:A:627:A:C5	1:A:637:A:N7	2.83	0.47
12:L:85:LEU:H	12:L:85:LEU:HD22	1.79	0.47
1:A:987:G:H2'	1:A:988:A:C5'	2.45	0.47
1:A:60:G:C6	1:A:74:A:N6	2.83	0.47
1:A:164:U:C4	1:A:165:U:C4	3.03	0.47
1:A:1301:A:H2	1:A:1626:G:N3	2.12	0.47
1:A:1421:G:C2	1:A:1422:G:C8	3.02	0.47
1:A:735:A:C8	1:A:736:C:C5	3.03	0.47
1:A:769:G:C2'	1:A:770:G:H5'	2.45	0.47
1:A:2416:C:O5'	1:A:2416:C:H6	1.97	0.46
1:A:2416:C:C4	1:A:2417:C:C5	3.03	0.46
8:H:82:ARG:HB3	8:H:89:TYR:CB	2.45	0.46
4:D:86:PRO:HB2	4:D:87:GLU:H	1.38	0.46
21:U:81:LYS:CD	21:U:96:ILE:HG13	2.45	0.46
1:A:1884:A:C2	1:A:1885:A:C8	3.03	0.46
3:C:79:VAL:HG11	3:C:111:LEU:CD1	2.45	0.46
1:A:1486:A:N1	1:A:1504:C:C4	2.83	0.46
7:G:20:ALA:HB1	7:G:21:PRO:HD2	1.95	0.46
1:A:1313:U:H4'	1:A:1332:G:H4'	1.98	0.46
5:E:52:LYS:HB3	5:E:56:GLU:HB2	1.96	0.46
1:A:2590:A:O2'	1:A:2591:C:H5'	2.14	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:69:VAL:CG1	10:J:71:MET:HG3	2.42	0.46
1:A:1728:G:C8	1:A:1728:G:H3'	2.50	0.46
5:E:46:ARG:HB3	5:E:46:ARG:CZ	2.45	0.46
21:U:6:HIS:CD2	21:U:35:TYR:CE1	3.00	0.46
1:A:2228:G:P	3:C:263:ARG:HH21	2.38	0.46
13:M:116:GLU:O	13:M:117:ALA:C	2.54	0.46
1:A:2837:G:C5	1:A:2838:G:N7	2.84	0.46
1:A:1471:A:N7	1:A:1522:G:C6	2.83	0.46
13:M:77:LYS:NZ	13:M:84:GLY:O	2.42	0.46
3:C:198:ASN:C	3:C:198:ASN:ND2	2.69	0.46
1:A:298:G:P	21:U:85:VAL:HG22	2.55	0.46
26:Z:3:ARG:HH11	26:Z:59:VAL:HG11	1.79	0.46
1:A:769:G:O2'	1:A:770:G:H5'	2.15	0.46
13:M:125:LEU:N	13:M:125:LEU:HD23	2.30	0.46
20:T:40:LYS:O	20:T:42:ALA:N	2.47	0.46
21:U:31:LEU:HA	21:U:32:PRO:HD3	1.74	0.46
4:D:103:ASP:OD2	4:D:201:THR:HA	2.15	0.46
1:A:2014:A:H2'	1:A:2015:A:C8	2.50	0.46
1:A:1169:G:H1	1:A:1180:C:N4	2.12	0.46
19:S:14:PRO:C	19:S:16:LYS:N	2.66	0.46
17:Q:83:LEU:CG	17:Q:88:ILE:HD11	2.34	0.46
3:C:31:LYS:HE2	3:C:102:LYS:NZ	2.29	0.46
1:A:1503:U:C2	1:A:1504:C:H5	2.33	0.46
1:A:9:U:N3	1:A:2629:A:C6	2.83	0.46
18:R:66:ARG:HD2	18:R:88:ARG:NE	2.29	0.46
1:A:1476:C:C6	1:A:1476:C:C3'	2.98	0.46
21:U:50:ARG:CD	21:U:51:VAL:H	2.25	0.46
3:C:235:GLY:C	3:C:237:GLU:H	2.17	0.46
2:B:21:G:H2'	2:B:22:U:O4'	2.14	0.46
1:A:2477:C:O2'	1:A:2478:A:OP2	2.33	0.46
11:K:21:CYS:SG	11:K:22:ILE:N	2.88	0.46
1:A:2287:A:H62	1:A:2344:U:H3	1.63	0.46
3:C:176:ARG:HG2	3:C:176:ARG:NH1	2.27	0.46
1:A:1349:A:N6	1:A:1598:C:N4	2.62	0.46
1:A:2850:A:H2'	1:A:2851:A:O4'	2.16	0.46
1:A:2226:C:O5'	1:A:2226:C:H6	1.98	0.46
1:A:1734:C:H2'	1:A:1735:U:O4'	2.16	0.46
1:A:2038:G:C5	1:A:2039:C:C5	3.03	0.46
31:5:29:LYS:O	31:5:29:LYS:HG2	2.15	0.46
1:A:2435:A:H2'	1:A:2436:G:O5'	2.15	0.46
5:E:139:PHE:CB	5:E:166:ALA:HB1	2.44	0.46
1:A:771:G:C4	1:A:772:C:C5	3.03	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1678:G:H22	1:A:1989:G:N2	2.13	0.46
1:A:1381:G:C2'	1:A:1382:G:H5'	2.46	0.46
16:P:105:LEU:HA	16:P:105:LEU:HD23	1.70	0.46
26:Z:38:GLU:N	26:Z:38:GLU:OE1	2.49	0.46
1:A:2331:G:H8	1:A:2331:G:O5'	1.98	0.46
4:D:103:ASP:OD1	4:D:201:THR:HG23	2.16	0.46
1:A:1542:G:H3'	1:A:1542:G:P	2.55	0.46
3:C:155:LEU:H	3:C:155:LEU:HD13	1.80	0.46
1:A:2846:G:H2'	1:A:2847:U:O4'	2.14	0.46
6:F:25:TYR:CZ	6:F:32:PRO:HD3	2.51	0.46
1:A:2543:G:O4'	1:A:2766:G:H5'	2.15	0.46
1:A:1438:U:O2'	1:A:1439:A:H5'	2.15	0.46
14:N:9:LYS:C	14:N:10:LEU:CG	2.82	0.46
21:U:96:ILE:HD11	21:U:99:CYS:HB2	1.97	0.46
1:A:1496:A:C8	1:A:1498:C:N3	2.84	0.46
31:5:51:ALA:H	31:5:54:GLU:CB	2.24	0.46
8:H:8:PRO:HA	8:H:14:ASP:HA	1.98	0.46
22:V:74:VAL:CG2	22:V:86:VAL:HG13	2.45	0.46
28:2:52:TYR:C	28:2:52:TYR:HD1	2.18	0.46
1:A:575:A:OP2	1:A:2499:C:O2'	2.31	0.46
4:D:117:MET:HE1	4:D:136:ARG:HA	1.97	0.46
1:A:2738:A:C2	1:A:2739:U:H1'	2.50	0.46
1:A:1894:C:C2	1:A:1895:C:C5	3.04	0.46
13:M:36:ALA:O	13:M:100:GLY:N	2.40	0.46
1:A:1761:C:H5''	1:A:1762:A:OP2	2.16	0.46
1:A:1717:G:O6	1:A:1743:G:C6	2.69	0.46
15:O:35:ILE:CG1	15:O:101:LEU:HD23	2.46	0.46
1:A:723:G:H2'	1:A:724:U:O4'	2.15	0.46
1:A:476:G:O4'	1:A:505:A:C2	2.68	0.46
13:M:125:LEU:HB3	13:M:126:PRO:HD2	1.97	0.46
22:V:131:ARG:HD2	22:V:131:ARG:H	1.80	0.46
1:A:270(W):G:C4	1:A:270(X):G:C8	3.03	0.46
1:A:38:A:H2'	1:A:39:C:C6	2.50	0.46
1:A:896:A:H1'	22:V:176:PRO:HG3	1.98	0.46
1:A:2330:G:H1'	23:W:41:ARG:HB3	1.96	0.46
1:A:1590:U:O2	1:A:1591:G:C8	2.68	0.46
13:M:47:ILE:HG22	13:M:48:GLU:H	1.73	0.46
13:M:141:GLN:OE1	22:V:72:ARG:CZ	2.63	0.46
24:X:13:ILE:O	24:X:14:VAL:HB	2.16	0.46
31:5:57:ARG:HA	31:5:57:ARG:CZ	2.45	0.46
25:Y:49:LYS:H	25:Y:49:LYS:HD2	1.80	0.46
22:V:24:LEU:HD11	22:V:85:HIS:HA	1.96	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:816:C:O2'	1:A:817:C:H5'	2.16	0.46
14:N:52:ILE:HG21	14:N:94:TYR:CB	2.44	0.46
1:A:444:C:H4'	5:E:49:ALA:HB2	1.96	0.46
6:F:55:LYS:HD2	6:F:58:GLN:NE2	2.29	0.46
25:Y:36:ARG:HA	25:Y:39:ALA:HB2	1.98	0.46
1:A:533:G:N3	17:Q:45:TYR:HE1	2.11	0.46
1:A:2078:C:H2'	1:A:2079:U:C6	2.51	0.46
1:A:948:G:C2	1:A:970:C:O2	2.68	0.46
1:A:245:G:C5	1:A:246:C:C5	3.04	0.46
1:A:653:C:O5'	1:A:653:C:H6	1.96	0.46
1:A:353:G:H2'	1:A:354:G:H8	1.80	0.46
18:R:45:THR:O	18:R:46:VAL:HG22	2.16	0.46
31:5:7:HIS:CB	31:5:60:LEU:HB3	2.46	0.46
1:A:363(B):A:C2	1:A:363(C):G:C5	3.04	0.46
3:C:175:LEU:HD23	3:C:175:LEU:HA	1.76	0.46
21:U:81:LYS:HD3	21:U:97:ARG:CB	2.42	0.46
11:K:28:SER:O	11:K:29:ASN:HB3	2.15	0.46
1:A:2807:G:N1	1:A:2893:G:O6	2.48	0.46
31:5:22:VAL:HB	31:5:54:GLU:CG	2.43	0.46
23:W:36:ILE:HD12	23:W:58:THR:CG2	2.42	0.46
12:L:10:PRO:HD2	12:L:11:GLY:H	1.81	0.46
14:N:54:LEU:CD2	14:N:62:ALA:HB1	2.45	0.46
1:A:580:C:O2'	1:A:581:C:H5'	2.15	0.46
1:A:2287:A:C2	1:A:2289:G:C8	3.04	0.46
1:A:997:G:H2'	1:A:998:C:H5'	1.97	0.46
12:L:75:ILE:HD12	12:L:75:ILE:N	2.30	0.46
15:O:14:VAL:O	15:O:18:ILE:HG12	2.16	0.46
1:A:1024:G:OP2	1:A:1025:G:H3'	2.15	0.46
4:D:181:LEU:HD12	4:D:181:LEU:HA	1.73	0.46
1:A:188:G:C2'	1:A:189:G:H5'	2.45	0.46
1:A:1203:G:H3'	1:A:1204:A:C5'	2.45	0.46
3:C:159:ALA:HB1	3:C:198:ASN:O	2.16	0.46
26:Z:5:LYS:HE2	26:Z:34:GLU:OE1	2.16	0.46
13:M:73:PRO:HB3	13:M:93:TYR:CE2	2.50	0.46
1:A:2416:C:C2	1:A:2417:C:C5	3.03	0.46
25:Y:1:MET:SD	25:Y:5:GLU:OE2	2.73	0.46
4:D:169:ASN:C	4:D:169:ASN:HD22	2.19	0.46
6:F:60:LEU:HA	6:F:63:ILE:HD11	1.97	0.46
10:J:36:TRP:CD1	10:J:36:TRP:N	2.81	0.46
3:C:105:ILE:HD13	3:C:106:ILE:N	2.30	0.46
1:A:1828:G:OP2	3:C:239:ARG:CZ	2.64	0.46
18:R:5:VAL:HG11	18:R:14:VAL:HG21	1.98	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
6:F:126:ASP:O	6:F:128:ARG:N	2.42	0.46
1:A:380:U:H4'	24:X:21:ARG:O	2.15	0.46
18:R:24:LYS:HA	18:R:92:THR:CG2	2.41	0.46
1:A:2276:G:C2'	1:A:2277:G:H5'	2.45	0.46
18:R:100:ARG:O	18:R:100:ARG:CG	2.56	0.46
1:A:732:C:C2'	1:A:733:G:H5'	2.45	0.46
1:A:2406:U:O4	12:L:70:GLN:HB3	2.16	0.46
6:F:77:ILE:CG2	6:F:80:PHE:H	2.23	0.46
1:A:497:A:C6	1:A:498:G:C5	3.04	0.46
6:F:111:LEU:HA	6:F:114:ILE:CD1	2.45	0.46
1:A:2100:G:N2	1:A:2101:G:N3	2.63	0.46
5:E:89:VAL:O	5:E:91:GLY:N	2.44	0.46
1:A:1289:C:H2'	1:A:1290:C:C6	2.51	0.46
14:N:85:PRO:HA	14:N:88:ARG:NH1	2.30	0.46
1:A:1844:C:O3'	3:C:258:LYS:NZ	2.45	0.46
1:A:923:C:O2'	1:A:924:C:H5'	2.16	0.46
6:F:58:GLN:O	6:F:61:ALA:HB3	2.15	0.46
16:P:41:ARG:CB	16:P:41:ARG:HH11	2.29	0.46
20:T:18:TYR:N	20:T:18:TYR:CD1	2.83	0.46
22:V:144:LEU:HB3	22:V:174:VAL:HG21	1.97	0.46
21:U:71:LYS:HZ3	21:U:71:LYS:HB2	1.81	0.46
12:L:101:VAL:CB	12:L:106:LEU:HB3	2.43	0.46
1:A:2335:A:N7	1:A:2337:G:C5	2.84	0.46
15:O:87:PHE:CD1	15:O:102:ALA:HB2	2.50	0.46
3:C:105:ILE:HD11	3:C:192:THR:HG21	1.98	0.46
1:A:1826:G:C4'	3:C:242:ARG:HE	2.13	0.46
3:C:44:ASN:CG	3:C:45:ASN:H	2.17	0.46
4:D:5:LEU:C	4:D:51:PHE:HE2	2.18	0.46
4:D:59:VAL:C	4:D:61:ARG:H	2.19	0.46
2:B:10:C:N3	2:B:11:C:C5	2.83	0.46
22:V:134:PRO:C	22:V:136:PHE:N	2.69	0.46
1:A:2784:C:H2'	1:A:2785:C:H6	1.81	0.46
20:T:23:GLU:HG3	20:T:24:GLY:H	1.80	0.46
7:G:28:GLY:HA3	7:G:79:VAL:HB	1.96	0.46
11:K:31:LYS:HB3	11:K:32:TYR:CD1	2.50	0.46
5:E:205:ARG:C	5:E:206:ILE:HG13	2.36	0.46
11:K:63:VAL:HG23	11:K:64:ARG:HG3	1.97	0.46
3:C:257:LEU:HD23	3:C:258:LYS:O	2.15	0.46
19:S:24:ILE:CG2	19:S:36:LEU:HD21	2.46	0.46
11:K:86:ILE:N	11:K:86:ILE:HD12	2.30	0.46
1:A:26:G:H1'	1:A:514:A:N6	2.31	0.46
1:A:79:G:H1	1:A:107:C:H42	1.62	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:844:C:C2'	1:A:845:G:H5'	2.46	0.46
13:M:97:VAL:O	13:M:97:VAL:HG12	2.14	0.46
5:E:33:LEU:HD12	5:E:33:LEU:HA	1.68	0.46
5:E:74:ARG:HG2	5:E:74:ARG:O	2.14	0.46
1:A:1657:C:O2'	1:A:1658:C:H5'	2.16	0.46
1:A:1144:G:C4	1:A:1145:C:C5	3.03	0.46
1:A:1614:A:C6	19:S:87:PRO:HB3	2.50	0.46
3:C:36:PRO:HA	3:C:62:TYR:O	2.16	0.46
3:C:74:GLY:O	3:C:76:PRO:HD3	2.16	0.46
14:N:9:LYS:HG2	14:N:43:GLU:OE2	2.16	0.46
1:A:2562:U:C2'	1:A:2563:U:H5'	2.45	0.46
6:F:133:LEU:HD21	6:F:157:ILE:HG13	1.98	0.46
1:A:1519:G:O2'	1:A:1520:U:H5'	2.16	0.46
14:N:47:PHE:O	14:N:51:LEU:HD12	2.16	0.46
11:K:88:ASN:HB3	11:K:92:GLU:H	1.80	0.46
7:G:92:ILE:CG2	7:G:93:GLY:N	2.74	0.46
1:A:912:C:C2'	1:A:912:C:O2	2.63	0.46
1:A:2092:U:C4	1:A:2226:C:OP2	2.68	0.46
29:3:44:ARG:O	29:3:45:LYS:HG2	2.15	0.46
13:M:24:GLY:HA2	13:M:100:GLY:O	2.16	0.46
1:A:2836:U:C5	1:A:2883:A:N6	2.84	0.46
1:A:1687:G:H2'	1:A:1688:U:H6	1.81	0.46
30:4:31:LEU:HD12	30:4:31:LEU:HA	1.68	0.46
1:A:2408:U:H6	1:A:2408:U:O5'	1.99	0.46
28:2:32:PRO:HA	28:2:38:ALA:O	2.15	0.46
1:A:2084:C:O2'	1:A:2085:C:H5'	2.16	0.46
2:B:76:G:OP1	22:V:15:PRO:HG3	2.15	0.46
16:P:13:ARG:C	16:P:15:VAL:H	2.19	0.46
10:J:38:LEU:C	10:J:39:ILE:HG12	2.36	0.46
10:J:109:PRO:HG2	10:J:112:LYS:HB2	1.98	0.46
10:J:110:LEU:O	10:J:113:MET:HB2	2.15	0.46
8:H:88:ILE:CG1	8:H:123:LEU:HA	2.45	0.46
17:Q:79:PHE:O	17:Q:79:PHE:CD1	2.69	0.46
20:T:14:SER:OG	20:T:17:ALA:HB2	2.16	0.46
1:A:95:G:HO2'	25:Y:48:HIS:CE1	2.28	0.46
14:N:39:PRO:O	14:N:40:LYS:C	2.54	0.46
1:A:1577:C:H5''	1:A:1578:U:OP2	2.16	0.46
7:G:138:LYS:O	7:G:139:GLN:C	2.54	0.46
1:A:1503:U:N3	1:A:1504:C:N4	2.64	0.46
1:A:8:A:C5	1:A:9:U:C4	3.04	0.46
16:P:88:ILE:CG1	16:P:89:VAL:N	2.78	0.46
2:B:19:G:N2	2:B:65:C:C2	2.83	0.46

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:98:LEU:HB2	7:G:125:VAL:CG2	2.46	0.46
17:Q:62:ILE:HD13	17:Q:62:ILE:N	2.30	0.46
17:Q:111:GLU:HA	17:Q:114:LYS:HB2	1.98	0.46
1:A:1239:G:C6	1:A:1240:U:C4	3.04	0.46
1:A:1465:G:N2	1:A:1466:G:H1'	2.30	0.46
23:W:55:ARG:NH1	23:W:55:ARG:HB3	2.31	0.46
1:A:2257:U:O2'	1:A:2258:C:H5'	2.15	0.46
1:A:1360:A:C5'	1:A:1361:G:OP2	2.64	0.46
10:J:119:GLU:O	10:J:123:GLU:HG3	2.16	0.46
1:A:806:C:O5'	1:A:806:C:H6	1.99	0.46
8:H:88:ILE:HG13	8:H:144:VAL:CG1	2.46	0.46
17:Q:72:HIS:CE1	17:Q:107:ALA:HA	2.51	0.46
18:R:2:PHE:HE2	18:R:13:ARG:CG	2.29	0.46
1:A:323:G:H5'	5:E:169:ASN:ND2	2.21	0.46
5:E:68:LYS:H	5:E:70:THR:HG22	1.81	0.46
12:L:16:ARG:C	12:L:16:ARG:NE	2.61	0.46
1:A:733:G:H8	1:A:733:G:O5'	1.99	0.46
1:A:2636:U:C2	1:A:2637:U:C5	3.04	0.46
1:A:2467:C:H4'	13:M:123:HIS:ND1	2.31	0.46
1:A:1728:G:C8	1:A:1728:G:O5'	2.63	0.46
6:F:16:ARG:O	6:F:20:ILE:HG12	2.16	0.46
1:A:979:G:H3'	1:A:980:A:C5'	2.46	0.46
1:A:2661:G:H2'	1:A:2662:A:O4'	2.16	0.46
19:S:47:VAL:HA	19:S:50:VAL:HG12	1.98	0.46
18:R:1:MET:N	18:R:16:PRO:HD3	2.31	0.46
1:A:1717:G:C5	1:A:1743:G:N1	2.84	0.46
1:A:2582:G:C2	1:A:2583:G:C8	3.04	0.46
1:A:1984:G:H2'	1:A:1985:G:O5'	2.15	0.46
1:A:696:G:H2'	1:A:697:C:H6	1.81	0.46
1:A:2620:C:C4'	4:D:156:MET:HG3	2.46	0.46
1:A:1603:A:OP1	1:A:1604:C:OP2	2.34	0.46
1:A:1455:G:C2	1:A:1456:G:C8	3.03	0.46
12:L:62:LEU:O	12:L:62:LEU:CD2	2.62	0.45
1:A:857:C:N3	1:A:858:U:C4	2.84	0.45
1:A:860:U:C5	1:A:2268:A:C8	3.05	0.45
1:A:918:A:H5''	1:A:919:G:OP2	2.16	0.45
26:Z:15:TYR:HB3	26:Z:19:GLN:NE2	2.31	0.45
3:C:208:LYS:HG3	3:C:211:ARG:H	1.80	0.45
1:A:2392:A:H2	1:A:2424:C:N4	2.08	0.45
1:A:1971:A:H5''	1:A:1971:A:H8	1.80	0.45
17:Q:83:LEU:HD12	17:Q:83:LEU:N	2.31	0.45
3:C:97:TYR:HB2	3:C:101:GLU:O	2.16	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:92:SER:O	22:V:93:ASP:HB3	2.16	0.45
14:N:40:LYS:HB2	14:N:40:LYS:HE3	1.73	0.45
24:X:11:ARG:C	24:X:13:ILE:N	2.64	0.45
4:D:25:VAL:C	4:D:26:ILE:HD13	2.37	0.45
1:A:2809:A:C2	1:A:2892:A:C4	3.04	0.45
2:B:50:G:OP1	15:O:63:THR:OG1	2.34	0.45
5:E:65:TRP:HZ3	5:E:73:ALA:O	1.99	0.45
1:A:662:G:OP1	12:L:18:ARG:NH1	2.49	0.45
8:H:5:LEU:HD23	8:H:17:GLN:O	2.16	0.45
3:C:26:LYS:HE3	3:C:26:LYS:HB2	1.69	0.45
1:A:359:A:C8	1:A:360:G:C8	3.05	0.45
1:A:534:U:C2'	17:Q:49:HIS:HD2	2.29	0.45
10:J:160:LYS:HD2	10:J:160:LYS:HA	1.58	0.45
11:K:38:VAL:HG23	11:K:38:VAL:O	2.15	0.45
1:A:1749:A:H2'	1:A:1750:G:O4'	2.15	0.45
1:A:2738:A:C6	1:A:2739:U:C5	3.04	0.45
1:A:886:C:C2'	1:A:887:A:H4'	2.46	0.45
1:A:164:U:C4	1:A:165:U:O4	2.69	0.45
5:E:29:ASN:N	5:E:112:MET:HE1	2.32	0.45
1:A:1204:A:C2	1:A:1241:A:N1	2.84	0.45
1:A:1993:U:H4'	4:D:128:SER:HB3	1.97	0.45
1:A:2584:U:O5'	1:A:2584:U:C6	2.68	0.45
18:R:75:PHE:O	18:R:75:PHE:HD1	1.98	0.45
1:A:2104:G:H2'	1:A:2105:C:C6	2.52	0.45
1:A:31:C:C4	1:A:32:C:C5	3.05	0.45
1:A:1975:G:H2'	1:A:1976:U:H6	1.81	0.45
2:B:95:U:H2'	2:B:96:G:C8	2.51	0.45
1:A:2490:G:H4'	1:A:2491:U:OP1	2.15	0.45
5:E:135:LYS:O	5:E:136:THR:C	2.54	0.45
1:A:2330:G:H1'	23:W:41:ARG:CB	2.46	0.45
4:D:188:VAL:HA	4:D:189:PRO:HD3	1.67	0.45
15:O:29:PHE:CD2	15:O:92:TYR:OH	2.69	0.45
10:J:157:ARG:O	10:J:159:GLU:N	2.49	0.45
1:A:2730:C:C2'	1:A:2731:G:H5'	2.46	0.45
4:D:55:ASN:O	4:D:59:VAL:HG23	2.16	0.45
20:T:39:ILE:H	20:T:39:ILE:HG12	1.55	0.45
19:S:20:VAL:O	19:S:23:LEU:HB2	2.15	0.45
1:A:85:G:N3	1:A:103:A:H2	2.14	0.45
1:A:2892:A:C2'	1:A:2893:G:H5'	2.46	0.45
21:U:50:ARG:HD3	21:U:51:VAL:N	2.25	0.45
21:U:42:VAL:CG2	21:U:67:LEU:HD11	2.46	0.45
14:N:99:LYS:HA	14:N:112:ALA:HB2	1.98	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:87:LEU:CD2	7:G:164:TYR:HD1	2.30	0.45
1:A:635:C:O2'	1:A:639:U:OP1	2.32	0.45
1:A:978:G:C2	1:A:986:C:C2	3.05	0.45
1:A:1230:C:H2'	1:A:1231:G:H8	1.81	0.45
5:E:84:VAL:C	5:E:86:GLY:H	2.20	0.45
1:A:969:U:H2'	1:A:970:C:C6	2.51	0.45
1:A:13:A:N1	1:A:525:U:C2	2.84	0.45
1:A:374:A:H3'	1:A:375:C:C6	2.51	0.45
13:M:34:LEU:HD12	13:M:130:LYS:O	2.16	0.45
1:A:1360:A:H5'	1:A:1361:G:OP2	2.16	0.45
16:P:101:PHE:C	16:P:101:PHE:CD2	2.89	0.45
4:D:14:ILE:HD12	4:D:14:ILE:C	2.36	0.45
1:A:1417:C:H42	1:A:1581:G:H1	1.64	0.45
1:A:153:C:OP1	24:X:92:LYS:HE2	2.16	0.45
31:5:23:VAL:HG12	31:5:47:LYS:HB3	1.97	0.45
12:L:62:LEU:CD1	12:L:62:LEU:N	2.79	0.45
10:J:112:LYS:O	10:J:116:THR:CG2	2.65	0.45
30:4:19:ARG:NH1	30:4:19:ARG:HG3	2.16	0.45
24:X:91:LYS:HA	24:X:94:LEU:HD23	1.99	0.45
1:A:2308:G:HO2'	1:A:2310:A:P	2.39	0.45
3:C:132:PRO:CG	3:C:190:TYR:CE1	2.97	0.45
1:A:2009:G:O2'	1:A:2010:G:H5'	2.16	0.45
1:A:2753:A:H2'	1:A:2754:U:H5'	1.98	0.45
7:G:19:VAL:HG13	7:G:43:VAL:CG2	2.47	0.45
1:A:1332:G:H22	1:A:1610:A:H8	1.63	0.45
5:E:53:THR:C	5:E:55:GLY:H	2.19	0.45
1:A:908:C:O2'	1:A:909:A:H5'	2.16	0.45
1:A:2661:G:C6	1:A:2662:A:C2	3.04	0.45
12:L:122:PRO:HB3	12:L:141:ALA:O	2.16	0.45
5:E:160:ASN:OD1	5:E:163:VAL:HG23	2.15	0.45
1:A:476:G:H4'	1:A:502:A:N1	2.32	0.45
1:A:220:G:N1	1:A:428:A:OP2	2.35	0.45
1:A:537:C:H2'	1:A:539:G:O4'	2.17	0.45
6:F:44:GLY:O	6:F:47:LYS:HB2	2.17	0.45
5:E:144:LYS:C	5:E:146:ALA:H	2.20	0.45
1:A:309:G:O3'	21:U:18:GLY:HA2	2.16	0.45
21:U:8:LYS:HB2	21:U:8:LYS:HE2	1.55	0.45
1:A:804:A:C5'	1:A:805:G:OP1	2.54	0.45
15:O:11:LYS:O	15:O:12:PHE:CB	2.64	0.45
3:C:105:ILE:HD13	3:C:106:ILE:H	1.80	0.45
8:H:88:ILE:HG13	8:H:144:VAL:HG11	1.99	0.45
22:V:56:VAL:HG12	22:V:57:ILE:N	2.31	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:13:A:O4'	23:W:74:ARG:NH2	2.49	0.45
1:A:2308:G:O2'	1:A:2310:A:P	2.74	0.45
1:A:910:A:H2'	1:A:2264:C:O2'	2.15	0.45
5:E:157:VAL:HG21	5:E:194:MET:HE3	1.97	0.45
21:U:20:TYR:CD1	21:U:20:TYR:N	2.84	0.45
1:A:2476:A:C2	1:A:2477:C:C5	3.04	0.45
1:A:1030:G:OP2	13:M:128:LYS:HG2	2.16	0.45
13:M:38:GLU:C	13:M:127:ILE:HD11	2.37	0.45
22:V:180:VAL:C	22:V:182:LYS:N	2.65	0.45
1:A:814:C:H2'	1:A:815:C:H6	1.81	0.45
11:K:2:ILE:HD11	11:K:82:ASN:ND2	2.32	0.45
1:A:327:G:O2'	1:A:328:U:H5'	2.17	0.45
1:A:1930:G:O2'	1:A:1931:U:P	2.75	0.45
1:A:2347:C:H4'	29:3:39:TYR:CE1	2.52	0.45
11:K:26:LYS:HB3	11:K:27:GLY:H	1.68	0.45
1:A:245:G:C4	1:A:246:C:C5	3.04	0.45
26:Z:3:ARG:NH1	26:Z:59:VAL:CG1	2.79	0.45
26:Z:8:LEU:HA	26:Z:8:LEU:HD23	1.74	0.45
1:A:735:A:H3'	1:A:736:C:H6	1.81	0.45
22:V:140:ASP:N	22:V:140:ASP:OD2	2.50	0.45
11:K:7:TYR:HE1	11:K:20:MET:HE3	1.81	0.45
1:A:1021:A:N6	1:A:1141:U:N3	2.54	0.45
1:A:1827:C:O2'	1:A:1828:G:H5'	2.17	0.45
31:5:11:LYS:HD2	31:5:64:TYR:CE2	2.50	0.45
1:A:243:U:H2'	1:A:244:A:H5'	1.97	0.45
2:B:46:A:C5	2:B:47:C:C4	3.05	0.45
4:D:59:VAL:O	4:D:61:ARG:N	2.50	0.45
16:P:24:PRO:O	16:P:94:ALA:HB2	2.16	0.45
24:X:9:GLY:O	24:X:10:LYS:O	2.35	0.45
15:O:57:LYS:HB3	15:O:58:LEU:HD12	1.98	0.45
10:J:66:THR:HB	10:J:71:MET:HE3	1.98	0.45
1:A:1871:A:O2'	1:A:1872:A:H5'	2.16	0.45
12:L:55:ARG:HG3	12:L:56:SER:N	2.31	0.45
14:N:94:TYR:C	14:N:117:VAL:HG12	2.37	0.45
19:S:36:LEU:HD11	19:S:47:VAL:HB	1.97	0.45
24:X:68:PRO:O	24:X:70:VAL:N	2.50	0.45
22:V:14:LYS:HB2	22:V:17:ALA:HB3	1.98	0.45
1:A:503:A:C4	1:A:506:G:N7	2.85	0.45
27:1:41:ILE:HD13	27:1:47:VAL:HG13	1.97	0.45
1:A:1345:C:C2'	1:A:1346:G:H5'	2.46	0.45
1:A:2410:G:C2	1:A:2411:A:H1'	2.52	0.45
10:J:151:HIS:NE2	10:J:153:HIS:HA	2.32	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:57:THR:HG21	12:L:59:LEU:HD22	1.89	0.45
19:S:14:PRO:O	19:S:15:ARG:C	2.54	0.45
3:C:127:VAL:HA	3:C:193:VAL:HG12	1.96	0.45
8:H:107:ILE:HD12	8:H:108:THR:H	1.82	0.45
20:T:12:VAL:HG22	20:T:17:ALA:HB2	1.99	0.45
1:A:1614:A:C6	19:S:87:PRO:HA	2.50	0.45
1:A:1404:C:C2'	1:A:1405:U:H5'	2.46	0.45
5:E:155:LEU:HD12	5:E:174:VAL:O	2.17	0.45
1:A:2712:U:H5''	1:A:2712:U:O2	2.15	0.45
2:B:12:C:O2'	23:W:74:ARG:HG2	2.16	0.45
24:X:11:ARG:NH1	24:X:11:ARG:CG	2.79	0.45
24:X:13:ILE:HG23	24:X:14:VAL:N	2.29	0.45
1:A:2630:G:H1'	1:A:2894:G:H1'	1.99	0.45
2:B:48:A:H2'	2:B:49:C:C6	2.51	0.45
10:J:70:ALA:HB2	10:J:135:LEU:HD11	1.99	0.45
5:E:46:ARG:CG	5:E:46:ARG:NH1	2.79	0.45
1:A:1010:A:H5'	17:Q:62:ILE:HG21	1.98	0.45
1:A:1230:C:O2'	1:A:1231:G:H5'	2.17	0.45
5:E:179:GLU:CD	5:E:179:GLU:N	2.69	0.45
4:D:67:PHE:CD1	4:D:74:PRO:HB3	2.50	0.45
1:A:511:U:C5	1:A:512:G:C5	3.05	0.45
1:A:2744:G:N3	1:A:2761:G:C2	2.85	0.45
1:A:1685:C:O2'	1:A:1686:C:H5'	2.16	0.45
1:A:2380:C:O5'	1:A:2380:C:H6	1.99	0.45
17:Q:84:LYS:HA	17:Q:84:LYS:HD3	1.89	0.45
12:L:21:ARG:HG2	12:L:21:ARG:H	1.57	0.45
1:A:586:A:N1	1:A:809:G:O2'	2.37	0.45
1:A:2415:G:O2'	1:A:2416:C:H5'	2.16	0.45
1:A:1309:G:H3'	30:4:9:ARG:HH11	1.80	0.45
1:A:1180:C:O2'	1:A:1181:C:H5'	2.17	0.45
3:C:17:THR:H	3:C:205:VAL:HG12	1.80	0.45
12:L:40:SER:O	12:L:41:ARG:CD	2.52	0.45
6:F:70:VAL:HG12	6:F:90:LEU:CD2	2.44	0.45
19:S:75:TYR:C	19:S:75:TYR:CD2	2.89	0.45
19:S:4:LYS:CD	19:S:6:ILE:HD11	2.47	0.45
2:B:10:C:C2	2:B:11:C:C5	3.05	0.45
15:O:84:GLN:C	15:O:86:ALA:H	2.20	0.45
1:A:2311:A:O2'	1:A:2312:U:O4'	2.34	0.45
1:A:2747:G:C6	1:A:2754:U:C6	3.05	0.45
7:G:74:ASN:ND2	7:G:138:LYS:HD2	2.31	0.45
8:H:4:ILE:HA	8:H:17:GLN:O	2.16	0.45
1:A:1478:G:C2	1:A:1479:G:C5	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
21:U:44:ILE:HG22	21:U:45:VAL:N	2.25	0.45
1:A:2468:G:C2	1:A:2481:G:N3	2.85	0.45
16:P:3:ARG:HD2	16:P:6:LEU:HD23	1.97	0.45
17:Q:61:TRP:O	17:Q:62:ILE:C	2.55	0.45
1:A:2869:G:C6	1:A:2870:C:C4	3.04	0.45
1:A:738:G:H2'	1:A:739:G:C8	2.52	0.45
3:C:244:ARG:HB2	3:C:245:PRO:HD3	1.99	0.45
29:3:18:ARG:HB3	29:3:19:ARG:H	1.52	0.45
17:Q:17:ILE:HA	17:Q:20:LEU:HD23	1.98	0.45
14:N:31:HIS:C	14:N:33:ARG:H	2.19	0.45
1:A:136:G:C4	1:A:137(A):C:C5	3.05	0.45
1:A:1612:C:H4'	30:4:5:TRP:O	2.17	0.45
1:A:234:C:H2'	1:A:235:U:C6	2.52	0.45
1:A:644:A:C2	1:A:646:A:C4	3.04	0.45
11:K:3:GLN:CB	11:K:4:PRO:HD2	2.47	0.45
1:A:260:G:N2	1:A:261:G:H1'	2.32	0.45
10:J:36:TRP:CZ2	10:J:74:PHE:CD2	3.05	0.45
1:A:819:A:OP2	1:A:1187:G:N2	2.30	0.45
1:A:2579:C:O2'	4:D:131:ALA:CB	2.64	0.45
1:A:1826:G:H2'	1:A:1827:C:H6	1.82	0.45
27:1:40:ILE:HD12	27:1:40:ILE:N	2.32	0.45
19:S:23:LEU:HD22	28:2:25:LEU:HD13	1.99	0.45
1:A:1439:A:C2'	1:A:1440:G:H5'	2.47	0.45
11:K:35:VAL:HG11	11:K:103:ALA:CB	2.46	0.45
1:A:1104:C:C2'	1:A:1105:U:H5'	2.47	0.45
1:A:1314:C:C2'	1:A:1315:C:H5'	2.47	0.45
1:A:733:G:C5	1:A:761:A:C6	3.05	0.45
21:U:19:LYS:HB3	21:U:20:TYR:CE1	2.52	0.45
1:A:295:G:H4'	21:U:2:ARG:NH1	2.32	0.45
11:K:104:ARG:HG2	11:K:121:VAL:HG12	1.99	0.45
1:A:318:C:O2'	1:A:319:C:H5'	2.16	0.45
16:P:84:GLN:HG3	16:P:85:LYS:CG	2.47	0.45
1:A:887:A:N3	1:A:889:C:C5	2.84	0.45
26:Z:23:LEU:HD12	26:Z:50:VAL:HG11	1.99	0.45
1:A:165:U:H2'	1:A:171:G:O4'	2.16	0.45
16:P:41:ARG:NH1	16:P:41:ARG:CB	2.80	0.45
1:A:1751:C:H2'	1:A:1752:C:H6	1.82	0.45
17:Q:59:ARG:HE	17:Q:59:ARG:HB2	1.53	0.45
4:D:125:GLY:HA2	4:D:126:PRO:HD3	1.74	0.45
1:A:2679:A:H4'	4:D:165:VAL:HG11	1.99	0.45
6:F:60:LEU:HA	6:F:63:ILE:HG12	1.99	0.45
1:A:1275:A:C5	14:N:16:HIS:ND1	2.85	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:142:VAL:CG2	3:C:192:THR:O	2.65	0.45
8:H:143:SER:O	8:H:145:VAL:HG23	2.17	0.45
22:V:125:LEU:HD23	22:V:126:VAL:N	2.32	0.45
22:V:101:PRO:O	22:V:102:LEU:HD23	2.16	0.45
22:V:137:ILE:HG22	22:V:138:GLU:N	2.31	0.45
20:T:51:VAL:HG11	20:T:81:VAL:CG1	2.45	0.45
14:N:2:ARG:HD2	14:N:2:ARG:HA	1.44	0.45
18:R:30:GLY:HA2	18:R:61:VAL:O	2.16	0.45
1:A:1502:C:C6	1:A:1502:C:H3'	2.52	0.45
2:B:61:G:C6	2:B:62:C:C4	3.05	0.45
16:P:34:VAL:O	16:P:40:THR:HA	2.17	0.45
22:V:18:LEU:O	22:V:21:ALA:HB3	2.17	0.45
19:S:60:ASN:OD1	19:S:60:ASN:N	2.50	0.45
18:R:7:THR:CG2	18:R:22:VAL:HG11	2.44	0.45
24:X:70:VAL:O	24:X:74:VAL:HG23	2.17	0.45
1:A:2300:G:C6	1:A:2301:C:C4	3.05	0.45
19:S:42:ARG:NH1	19:S:42:ARG:HG2	2.32	0.45
1:A:2082:A:H2'	1:A:2083:G:O4'	2.15	0.45
1:A:1214:A:H2'	1:A:1215:G:O4'	2.17	0.45
1:A:1260:G:H2'	1:A:1261:C:O4'	2.17	0.45
1:A:1394:U:C5	1:A:1395:A:C5	3.04	0.45
1:A:2416:C:N3	1:A:2417:C:C5	2.85	0.45
12:L:33:ARG:NE	12:L:36:LYS:HD3	2.10	0.45
1:A:2846:G:C6	1:A:2847:U:C4	3.04	0.45
31:5:32:LEU:HD23	31:5:32:LEU:N	2.32	0.45
3:C:233:HIS:HE1	3:C:247:ALA:N	2.06	0.45
1:A:2766:G:H5''	1:A:2767:C:OP2	2.16	0.45
3:C:175:LEU:HD12	3:C:185:VAL:HG21	1.99	0.45
1:A:497:A:C5	1:A:498:G:C8	3.05	0.45
1:A:581:C:H2'	1:A:582:G:H8	1.81	0.45
22:V:25:PRO:O	22:V:85:HIS:HB2	2.17	0.45
16:P:34:VAL:HG21	16:P:43:GLN:HB2	1.99	0.45
1:A:1789:A:OP1	3:C:222:ARG:HG3	2.16	0.45
13:M:111:GLU:OE2	13:M:133:ARG:CZ	2.65	0.45
1:A:17:G:H2'	1:A:18:C:C6	2.52	0.45
11:K:59:LYS:O	11:K:86:ILE:HG23	2.16	0.45
1:A:1126:A:O5'	1:A:1126:A:H8	2.00	0.45
1:A:2079:U:C2'	1:A:2080:G:O5'	2.64	0.45
1:A:1889:A:H2'	1:A:1890:A:O4'	2.17	0.45
16:P:114:LEU:HA	16:P:114:LEU:HD23	1.56	0.45
1:A:1632:A:H8	1:A:1632:A:O5'	2.00	0.45
1:A:1632:A:C6	1:A:1633:G:C6	3.05	0.45

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:838:C:C4	1:A:839:U:C5	3.05	0.45
1:A:1564:C:O2'	1:A:1565:C:H5'	2.17	0.45
1:A:606:U:H4'	1:A:658:C:H4'	1.99	0.45
20:T:63:LYS:HE3	20:T:72:LYS:HG2	1.98	0.44
1:A:603:A:C2	1:A:655:A:C2	3.06	0.44
3:C:142:VAL:HG23	3:C:192:THR:O	2.17	0.44
17:Q:79:PHE:O	17:Q:79:PHE:HD1	1.98	0.44
17:Q:92:ARG:HD2	17:Q:95:LEU:CG	2.46	0.44
3:C:77:ALA:HB2	3:C:97:TYR:CG	2.53	0.44
20:T:43:VAL:HG11	20:T:81:VAL:HG11	1.99	0.44
6:F:5:LEU:HD22	6:F:6:ALA:H	1.81	0.44
23:W:49:LYS:HB2	23:W:80:HIS:CB	2.46	0.44
14:N:57:ARG:CD	14:N:59:ASP:OD2	2.64	0.44
21:U:81:LYS:HZ3	21:U:97:ARG:HD3	1.80	0.44
24:X:13:ILE:HD12	24:X:13:ILE:O	2.17	0.44
3:C:131:LEU:HG	3:C:136:ILE:HD11	1.99	0.44
1:A:1475:G:C2	1:A:1476:C:O2	2.70	0.44
5:E:117:ARG:HH21	5:E:187:VAL:HA	1.82	0.44
21:U:63:LYS:CG	21:U:64:GLU:N	2.80	0.44
1:A:2550:G:C5	1:A:2551:C:C5	3.05	0.44
7:G:90:LYS:O	7:G:94:TYR:HB2	2.17	0.44
1:A:795:C:H2'	1:A:796:C:C6	2.47	0.44
1:A:1184:G:C6	1:A:1185:C:C4	3.04	0.44
1:A:1922:G:C6	1:A:1923:U:N3	2.84	0.44
16:P:96:ARG:HB2	16:P:96:ARG:CZ	2.47	0.44
23:W:14:ARG:O	23:W:15:ASP:HB2	2.17	0.44
14:N:27:SER:O	14:N:31:HIS:N	2.50	0.44
24:X:68:PRO:O	24:X:71:TYR:N	2.49	0.44
1:A:900:A:H2'	1:A:901:A:O4'	2.17	0.44
16:P:107:ASP:H	16:P:110:ILE:HG13	1.82	0.44
8:H:12:LEU:H	8:H:12:LEU:HD22	1.81	0.44
30:4:3:ARG:HA	30:4:3:ARG:HD3	1.74	0.44
15:O:64:GLU:O	15:O:68:GLN:HG3	2.17	0.44
4:D:8:LYS:HG2	4:D:192:ASN:HD22	1.81	0.44
12:L:66:GLY:O	12:L:67:MET:HB2	2.17	0.44
25:Y:3:LEU:O	25:Y:5:GLU:N	2.50	0.44
1:A:312:G:H2'	1:A:312:G:N3	2.32	0.44
12:L:33:ARG:O	12:L:34:GLY:C	2.55	0.44
1:A:1902:C:H2'	1:A:1903:G:O4'	2.17	0.44
6:F:73:ALA:H	6:F:87:PRO:HD2	1.82	0.44
3:C:164:GLN:O	3:C:175:LEU:HD23	2.17	0.44
22:V:74:VAL:HG22	22:V:86:VAL:CG1	2.47	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2476:A:N1	1:A:2477:C:C5	2.85	0.44
1:A:1389:G:C2	1:A:1390:U:C2	3.05	0.44
1:A:56:A:C2	1:A:115:C:O2	2.70	0.44
16:P:3:ARG:HB3	16:P:6:LEU:HB3	1.99	0.44
1:A:571:A:H4'	1:A:572:A:OP1	2.17	0.44
22:V:108:PRO:HG3	22:V:141:VAL:HG22	1.99	0.44
1:A:1203:G:H3'	1:A:1204:A:H5''	1.99	0.44
1:A:262:A:O2'	1:A:263:C:H5'	2.17	0.44
26:Z:18:ASP:N	26:Z:18:ASP:OD1	2.49	0.44
29:3:13:CYS:O	29:3:21:TYR:HA	2.17	0.44
31:5:15:LYS:CG	31:5:16:ILE:N	2.80	0.44
1:A:2795:G:H3'	1:A:2797:U:C5'	2.47	0.44
1:A:1540:G:C2	1:A:1541:U:C2	3.05	0.44
1:A:1540:G:C4	1:A:1541:U:C6	3.04	0.44
1:A:2295:C:C4	1:A:2296:U:H5	2.36	0.44
10:J:110:LEU:HD22	10:J:110:LEU:O	2.17	0.44
17:Q:72:HIS:HE1	17:Q:107:ALA:HA	1.82	0.44
17:Q:79:PHE:HE1	17:Q:83:LEU:CD2	2.29	0.44
21:U:29:GLU:O	21:U:38:ILE:N	2.40	0.44
13:M:140:ALA:HB3	22:V:53:ILE:CG1	2.46	0.44
1:A:142:G:H2'	1:A:143:C:H6	1.81	0.44
1:A:1284:A:H2'	1:A:1285:G:O4'	2.17	0.44
5:E:37:VAL:HG23	5:E:183:VAL:HG22	1.99	0.44
1:A:1777:U:O2'	1:A:1778:U:H5'	2.17	0.44
1:A:2427:C:H5''	1:A:2428:G:OP1	2.17	0.44
1:A:2401:U:O2'	1:A:2402:C:H5''	2.16	0.44
3:C:221:VAL:HG22	3:C:226:MET:HE3	1.98	0.44
21:U:91:GLU:HB3	21:U:92:ASN:H	1.65	0.44
1:A:1217:C:OP1	17:Q:15:LYS:HE2	2.17	0.44
19:S:45:TYR:HD2	19:S:46:PHE:CE1	2.34	0.44
2:B:26:A:N7	2:B:27:C:C4	2.85	0.44
1:A:2572:A:C8	4:D:144:ARG:HB3	2.52	0.44
26:Z:50:VAL:O	26:Z:54:VAL:HG22	2.17	0.44
1:A:1471:A:C2	1:A:1472:A:C4	3.05	0.44
1:A:273(B):G:C2	1:A:364:C:C2	3.05	0.44
1:A:724:U:H2'	1:A:725:G:O4'	2.18	0.44
20:T:18:TYR:O	20:T:19:ALA:C	2.56	0.44
26:Z:32:GLN:OE1	26:Z:32:GLN:HA	2.17	0.44
1:A:1987:G:H2'	1:A:1988:C:H6	1.83	0.44
1:A:443:A:H1'	1:A:1201:C:O4'	2.18	0.44
26:Z:11:SER:OG	26:Z:13:ILE:HG13	2.17	0.44
17:Q:78:THR:O	17:Q:81:HIS:HB3	2.17	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:487:C:H1'	19:S:53:SER:HB2	1.98	0.44
1:A:1655:A:C8	1:A:1656:C:C5	3.05	0.44
1:A:2794:C:N4	1:A:2802:G:H1	2.15	0.44
3:C:155:LEU:H	3:C:155:LEU:CD1	2.29	0.44
4:D:24:THR:HG22	4:D:186:GLY:H	1.82	0.44
10:J:95:TYR:N	10:J:108:ILE:O	2.40	0.44
1:A:2210:G:N2	1:A:2211:G:C5'	2.60	0.44
1:A:1299:G:H3'	1:A:1639:U:O4	2.16	0.44
2:B:10:C:C4	2:B:11:C:C5	3.06	0.44
2:B:68:C:H2'	2:B:69:G:O4'	2.16	0.44
1:A:2723:C:O5'	1:A:2723:C:H6	2.00	0.44
18:R:28:GLU:HB2	18:R:31:ALA:HB2	1.99	0.44
11:K:96:THR:O	11:K:97:ARG:C	2.56	0.44
1:A:956:G:OP1	13:M:86:GLY:N	2.49	0.44
23:W:53:MET:HA	23:W:58:THR:O	2.17	0.44
1:A:483:A:H2'	1:A:483:A:N3	2.33	0.44
7:G:91:GLY:O	7:G:92:ILE:O	2.35	0.44
1:A:1401:G:C5	1:A:1402:C:C4	3.06	0.44
1:A:2467:C:C2'	1:A:2468:G:H5'	2.47	0.44
1:A:2467:C:C5'	13:M:123:HIS:CE1	3.00	0.44
1:A:909:A:H2'	1:A:912:C:H5	1.83	0.44
14:N:79:LEU:CD2	14:N:83:ILE:HB	2.46	0.44
1:A:997:G:OP1	17:Q:93:LYS:HD2	2.17	0.44
10:J:80:ALA:C	10:J:82:LYS:H	2.21	0.44
22:V:121:HIS:CE1	22:V:169:GLU:OE2	2.71	0.44
1:A:1773:A:C5	1:A:1829:A:H1'	2.52	0.44
1:A:1425:G:N2	1:A:1573:G:N7	2.65	0.44
14:N:13:HIS:HE1	14:N:15:SER:HB3	1.82	0.44
6:F:45:GLU:C	6:F:47:LYS:H	2.20	0.44
20:T:89:ILE:HG22	20:T:91:ALA:HB3	1.99	0.44
1:A:2248:C:C2'	1:A:2249:U:H5'	2.47	0.44
1:A:2230:G:C6	1:A:2231:C:C4	3.05	0.44
18:R:95:LEU:HD23	18:R:96:ILE:N	2.33	0.44
30:4:10:ARG:HE	30:4:14:LYS:HD2	1.82	0.44
16:P:63:VAL:O	16:P:73:GLU:HA	2.17	0.44
5:E:63:LYS:CE	5:E:67:GLN:HB3	2.48	0.44
1:A:1902:C:C2'	1:A:1903:G:O5'	2.65	0.44
12:L:46:LYS:HG2	12:L:52:GLU:CD	2.38	0.44
13:M:141:GLN:N	22:V:53:ILE:HB	2.29	0.44
30:4:19:ARG:NH1	30:4:19:ARG:CG	2.65	0.44
1:A:2376:A:H2'	1:A:2377:A:O4'	2.18	0.44
1:A:2757:A:H2'	1:A:2758:A:H5'	2.00	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:23:ARG:H	7:G:23:ARG:HD3	1.83	0.44
1:A:8:A:C5	1:A:9:U:O4	2.71	0.44
8:H:6:LEU:HD23	8:H:6:LEU:N	2.32	0.44
1:A:1434:A:C2	1:A:1435:G:C4	3.05	0.44
1:A:2596:U:C2'	1:A:2597:G:H5'	2.47	0.44
3:C:182:LEU:N	3:C:272:ALA:CB	2.80	0.44
22:V:24:LEU:HB2	22:V:41:LEU:HG	1.97	0.44
8:H:2:LYS:HG3	8:H:39:ALA:CB	2.44	0.44
1:A:2469:A:C2	1:A:2470:G:C5	3.05	0.44
5:E:46:ARG:HB3	5:E:46:ARG:NH1	2.32	0.44
1:A:1746:G:N2	1:A:1747:G:C4	2.85	0.44
21:U:46:LYS:O	21:U:48:ALA:N	2.50	0.44
13:M:43:THR:HG1	13:M:46:GLN:HG3	1.81	0.44
1:A:2001:A:H4'	1:A:2689:U:O2'	2.16	0.44
1:A:2051:A:H4'	4:D:141:ILE:CG2	2.48	0.44
1:A:2572:A:P	4:D:144:ARG:HB2	2.57	0.44
1:A:77:C:OP1	25:Y:59:ARG:HD3	2.16	0.44
1:A:646:A:H2'	1:A:647:G:O5'	2.17	0.44
1:A:2823:A:C5	1:A:2824:C:C5	3.05	0.44
10:J:32:VAL:HG12	10:J:33:GLU:O	2.17	0.44
1:A:1422:G:C6	1:A:1423:G:C5	3.06	0.44
12:L:100:LEU:H	12:L:100:LEU:HD22	1.82	0.44
16:P:14:TYR:HD1	16:P:14:TYR:H	1.64	0.44
1:A:1001:A:H2'	1:A:1002:G:O4'	2.16	0.44
4:D:153:GLY:O	4:D:154:LYS:C	2.55	0.44
1:A:307:G:N1	1:A:310:A:OP2	2.50	0.44
8:H:68:LEU:O	8:H:72:LEU:HB2	2.17	0.44
12:L:50:ARG:CD	12:L:51:PHE:N	2.79	0.44
20:T:35:THR:HB	20:T:38:GLU:H	1.83	0.44
14:N:2:ARG:O	14:N:3:HIS:CG	2.71	0.44
24:X:27:GLU:HB3	24:X:33:LYS:HG3	1.97	0.44
1:A:379:G:C5	1:A:380:U:C5	3.05	0.44
1:A:1587:A:C5	1:A:1588:C:C4	3.06	0.44
5:E:68:LYS:O	5:E:70:THR:N	2.49	0.44
1:A:661:C:H5''	12:L:18:ARG:HD3	2.00	0.44
6:F:131:TYR:HD2	6:F:133:LEU:HD22	1.82	0.44
1:A:1477:A:C4	1:A:1478:G:C8	3.06	0.44
3:C:25:THR:HG21	3:C:81:ALA:HB1	2.00	0.44
1:A:947:G:N3	1:A:984:A:H2	2.16	0.44
12:L:84:ASN:HB3	12:L:86:LYS:HG2	2.00	0.44
1:A:2705:A:H2'	1:A:2706:G:O4'	2.18	0.44
1:A:2889:C:H2'	1:A:2891:G:H8	1.83	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2853:C:H2'	1:A:2854:G:C8	2.51	0.44
7:G:62:LYS:O	7:G:63:SER:C	2.56	0.44
25:Y:50:ILE:O	25:Y:51:ARG:C	2.55	0.44
1:A:903:C:O2'	1:A:904:C:H5'	2.17	0.44
1:A:2039:C:H2'	1:A:2040:C:C6	2.50	0.44
1:A:1027:A:N6	1:A:1126:A:N9	2.66	0.44
5:E:112:MET:HA	5:E:115:ALA:HB3	1.99	0.44
1:A:192:C:H5''	1:A:193:U:OP2	2.17	0.44
1:A:621:A:H5'	1:A:622:G:OP2	2.17	0.44
1:A:298:G:H5''	1:A:299:A:OP1	2.18	0.44
22:V:146:ILE:HG23	22:V:174:VAL:HG12	1.99	0.44
19:S:63:ASP:C	19:S:63:ASP:OD2	2.56	0.44
30:4:9:ARG:O	30:4:10:ARG:C	2.52	0.44
2:B:82:G:C4	2:B:83:G:C8	3.06	0.44
3:C:145:VAL:HB	3:C:155:LEU:HB2	1.99	0.44
4:D:24:THR:HG23	4:D:184:VAL:HG23	1.99	0.44
1:A:2293:C:H5''	15:O:89:ARG:NH1	2.33	0.44
3:C:238:GLY:C	3:C:239:ARG:O	2.53	0.44
2:B:41:U:OP1	2:B:42:C:H5	1.99	0.44
27:1:60:GLU:CD	27:1:60:GLU:N	2.71	0.44
2:B:71:C:N3	2:B:72:G:C8	2.86	0.44
2:B:9:G:C6	2:B:10:C:C4	3.06	0.44
23:W:31:VAL:HG13	23:W:65:GLY:O	2.17	0.44
1:A:99:U:C6	1:A:102:G:N1	2.85	0.44
18:R:88:ARG:HG3	18:R:88:ARG:H	1.59	0.44
24:X:23:LYS:O	24:X:23:LYS:CG	2.65	0.44
14:N:79:LEU:HD23	14:N:79:LEU:HA	1.71	0.44
21:U:68:HIS:C	21:U:70:SER:N	2.71	0.44
1:A:853:G:H1	1:A:924:C:H42	1.65	0.44
1:A:189:G:C8	1:A:189:G:H3'	2.53	0.44
1:A:2572:A:H2'	4:D:144:ARG:HG3	2.00	0.44
1:A:914:C:C5	1:A:915:C:C6	3.05	0.44
1:A:36:G:H4'	1:A:451:C:C2	2.53	0.44
1:A:1523:U:H2'	1:A:1524:G:C8	2.53	0.44
1:A:2462:U:H2'	1:A:2463:C:O4'	2.18	0.44
10:J:41:ALA:O	10:J:44:LYS:HG2	2.17	0.44
1:A:960:A:H61	13:M:82:ARG:NH2	2.15	0.44
1:A:1530:G:C6	1:A:1531:C:C4	3.06	0.44
14:N:11:ASN:O	14:N:12:ARG:CB	2.64	0.44
3:C:10:THR:CG2	3:C:13:ARG:CB	2.90	0.44
17:Q:105:VAL:CG1	18:R:40:LEU:HD13	2.47	0.44
17:Q:104:GLN:HB3	18:R:44:LYS:CE	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:242:G:C8	31:5:5:LYS:HG2	2.53	0.44
12:L:49:ARG:O	12:L:51:PHE:N	2.50	0.44
4:D:84:PHE:CD2	4:D:84:PHE:C	2.91	0.44
22:V:92:SER:HB2	22:V:94:GLU:CD	2.38	0.44
8:H:110:ASP:HB3	8:H:111:PRO:HD2	1.99	0.44
1:A:1884:A:C4	1:A:1885:A:C8	3.06	0.44
1:A:1497:U:H5'	1:A:1498:C:H5	1.83	0.44
1:A:385:C:HO2'	1:A:390:A:H2	1.65	0.44
1:A:256:A:H2'	1:A:257:A:H5'	1.97	0.44
1:A:2469:A:C8	1:A:2482:G:C4	3.06	0.44
1:A:1389:G:C2	1:A:1399:C:O2	2.71	0.44
6:F:178:PHE:O	6:F:180:PHE:CD1	2.71	0.44
11:K:25:LEU:HD23	11:K:25:LEU:HA	1.69	0.44
14:N:78:LYS:O	14:N:83:ILE:HG12	2.18	0.44
1:A:2275:C:H6	1:A:2275:C:C5'	2.29	0.44
1:A:1930:G:O2'	1:A:1931:U:OP2	2.31	0.44
1:A:136:G:H2'	1:A:137(A):C:H6	1.83	0.44
1:A:532:A:C8	1:A:2021:C:C5	3.06	0.44
1:A:772:C:C2'	1:A:772:C:O2	2.65	0.44
1:A:1382:G:H4'	1:A:1573:G:C2	2.53	0.44
1:A:1665:A:H2'	1:A:1666:G:O4'	2.18	0.44
1:A:270(F):G:C6	1:A:270(G):U:C4	3.05	0.44
29:3:36:LEU:HD23	29:3:36:LEU:N	2.32	0.44
1:A:1693:U:H4'	1:A:1694:C:OP2	2.18	0.44
24:X:35:THR:HB	24:X:36:GLY:H	1.49	0.44
22:V:75:ASN:O	22:V:84:GLU:HB2	2.18	0.44
1:A:2672:G:H2'	1:A:2673:G:O5'	2.17	0.44
1:A:2676:C:C2'	1:A:2677:G:H5'	2.47	0.44
26:Z:1:MET:HB3	26:Z:39:ASP:HB3	2.00	0.44
6:F:72:ARG:HD3	6:F:86:MET:HA	2.00	0.44
8:H:81:VAL:HG12	8:H:90:GLY:N	2.33	0.44
12:L:47:ASP:HB3	12:L:51:PHE:CB	2.47	0.44
1:A:1414:G:H2'	1:A:1415:U:C6	2.51	0.44
4:D:50:GLY:HA3	4:D:75:VAL:HG11	2.00	0.44
23:W:73:GLY:O	23:W:74:ARG:C	2.56	0.44
19:S:23:LEU:HD12	19:S:23:LEU:HA	1.79	0.44
1:A:2722:G:C5	1:A:2723:C:C4	3.06	0.44
1:A:2563:U:O2	1:A:2565:A:C8	2.71	0.44
15:O:104:GLY:HA2	15:O:107:GLU:CG	2.40	0.44
1:A:966:G:C5	1:A:967:C:H5	2.35	0.44
1:A:2074:U:O2'	1:A:2597:G:H1'	2.18	0.44
22:V:58:VAL:CG1	22:V:66:SER:HB2	2.48	0.44

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1820:U:H4'	1:A:1821:A:OP2	2.18	0.44
10:J:66:THR:HB	10:J:69:VAL:HG11	2.00	0.44
1:A:118:A:N3	1:A:178:G:H1'	2.33	0.44
1:A:2464:C:C2	1:A:2487:G:C2	3.06	0.44
13:M:73:PRO:HA	13:M:93:TYR:CD2	2.53	0.44
11:K:20:MET:O	11:K:20:MET:HG3	2.16	0.44
10:J:41:ALA:HB3	10:J:79:ASN:O	2.17	0.44
1:A:1855:G:N1	1:A:1888:G:C8	2.86	0.44
12:L:94:GLU:O	12:L:96:THR:HG23	2.18	0.44
13:M:135:ASP:N	13:M:135:ASP:OD1	2.50	0.44
10:J:122:LEU:O	10:J:126:VAL:HG22	2.18	0.43
3:C:9:TYR:CZ	3:C:13:ARG:HD3	2.52	0.43
11:K:77:ILE:HD12	16:P:73:GLU:O	2.18	0.43
12:L:83:VAL:O	12:L:114:ILE:HA	2.18	0.43
1:A:2335:A:C8	1:A:2337:G:N7	2.86	0.43
1:A:1266:G:O6	19:S:16:LYS:HD2	2.18	0.43
8:H:114:LEU:HD21	8:H:128:LEU:HD13	1.99	0.43
1:A:2396:G:H4'	24:X:31:GLY:HA2	2.00	0.43
20:T:9:LEU:O	20:T:10:ALA:HB2	2.18	0.43
1:A:2209:C:C2	1:A:2216:G:N1	2.86	0.43
1:A:2100:G:C2	1:A:2101:G:C4	3.05	0.43
1:A:1387:C:N4	1:A:1400:G:H1	2.16	0.43
17:Q:62:ILE:CD1	17:Q:93:LYS:HG2	2.48	0.43
6:F:16:ARG:HB3	6:F:17:PRO:HD3	1.99	0.43
21:U:90:LEU:HD12	21:U:91:GLU:HG3	2.00	0.43
17:Q:29:SER:C	17:Q:30:LYS:HG2	2.37	0.43
1:A:2511:U:O4	1:A:2575:C:N3	2.50	0.43
4:D:173:VAL:O	4:D:174:ASP:C	2.56	0.43
1:A:646:A:H2'	1:A:647:G:O4'	2.17	0.43
10:J:137:ARG:HG2	10:J:137:ARG:H	1.50	0.43
1:A:270(F):G:C5	1:A:270(G):U:C5	3.06	0.43
1:A:2313:C:H4'	6:F:91:ARG:HG3	2.00	0.43
1:A:671:C:H2'	1:A:672:C:H6	1.83	0.43
10:J:107:LYS:O	10:J:108:ILE:HD13	2.18	0.43
1:A:603:A:H2	1:A:655:A:N3	2.14	0.43
17:Q:79:PHE:CE1	17:Q:83:LEU:CD1	3.02	0.43
18:R:49:THR:O	18:R:50:PRO:C	2.56	0.43
1:A:242:G:H5'	31:5:63:PRO:CB	2.48	0.43
27:1:42:CYS:HB3	27:1:59:VAL:HB	2.00	0.43
22:V:3:TYR:O	22:V:57:ILE:HA	2.18	0.43
22:V:94:GLU:CD	22:V:94:GLU:N	2.66	0.43
3:C:172:TYR:CE1	3:C:186:HIS:HA	2.50	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
3:C:134:ARG:HD3	3:C:135:PHE:HE1	1.82	0.43
22:V:151:HIS:HA	22:V:170:THR:HA	2.00	0.43
5:E:53:THR:C	5:E:55:GLY:N	2.70	0.43
3:C:25:THR:O	3:C:26:LYS:C	2.57	0.43
1:A:2549:G:H2'	1:A:2550:G:H5'	2.00	0.43
1:A:285:C:H2'	1:A:286:C:C6	2.54	0.43
3:C:61:LEU:HA	3:C:61:LEU:HD13	1.51	0.43
1:A:825:C:H4'	1:A:2428:G:N7	2.33	0.43
1:A:442:G:H4'	5:E:46:ARG:HD3	1.99	0.43
1:A:1789:A:OP1	3:C:221:VAL:HA	2.18	0.43
3:C:222:ARG:NH1	3:C:224:ALA:HB3	2.33	0.43
1:A:566:U:H3	1:A:575:A:H61	1.66	0.43
22:V:120:ILE:HG12	22:V:172:ALA:HA	1.99	0.43
1:A:853:G:H1	1:A:924:C:N4	2.17	0.43
2:B:5:C:O2'	2:B:27:C:H1'	2.18	0.43
1:A:2828:C:C2'	1:A:2829:C:H5'	2.48	0.43
1:A:150:C:H2'	1:A:151:C:C6	2.53	0.43
20:T:75:ASP:C	20:T:76:ARG:HG3	2.39	0.43
1:A:2734:A:C2'	1:A:2735:G:H5'	2.48	0.43
16:P:14:TYR:CD1	16:P:14:TYR:N	2.85	0.43
22:V:70:LEU:H	22:V:70:LEU:HD23	1.83	0.43
1:A:1177:A:H5''	1:A:1178:C:OP2	2.17	0.43
1:A:1188:U:C2'	1:A:1189:A:O5'	2.66	0.43
6:F:86:MET:O	6:F:87:PRO:O	2.36	0.43
4:D:35:GLN:HG2	4:D:36:ARG:N	2.33	0.43
1:A:1786:A:H2	1:A:2606:C:H1'	1.82	0.43
3:C:172:TYR:CD1	3:C:186:HIS:CA	2.93	0.43
1:A:83:G:N2	1:A:84:A:N6	2.66	0.43
1:A:2274:A:C5	1:A:2276:G:C8	3.06	0.43
1:A:588:U:H2'	1:A:589:C:H6	1.81	0.43
10:J:160:LYS:O	10:J:161:LEU:HD23	2.18	0.43
1:A:332:A:C4	1:A:335:C:C4	3.06	0.43
1:A:978:G:O2'	1:A:979:G:H5'	2.18	0.43
1:A:737:C:H2'	1:A:738:G:C5'	2.47	0.43
1:A:1526:G:O2'	1:A:1527:G:H5'	2.18	0.43
4:D:172:VAL:HG13	4:D:182:LEU:HD11	2.00	0.43
16:P:23:ARG:NH1	16:P:23:ARG:CG	2.82	0.43
3:C:52:ARG:CZ	3:C:53:PHE:CE2	3.02	0.43
1:A:2096:U:H2'	1:A:2097:C:C6	2.53	0.43
1:A:1338:G:H2'	1:A:1339:G:H5'	2.00	0.43
1:A:2231:C:H2'	1:A:2232:U:O4'	2.18	0.43
31:5:37:SER:OG	31:5:40:GLU:HG2	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:747:U:O2	1:A:2014:A:H1'	2.18	0.43
4:D:101:ARG:HB3	4:D:169:ASN:HD22	1.82	0.43
1:A:1019:U:C2	1:A:1020:A:N7	2.86	0.43
31:5:59:LYS:O	31:5:62:LEU:HG	2.19	0.43
2:B:46:A:H2'	2:B:47:C:H6	1.81	0.43
22:V:31:ARG:CZ	22:V:94:GLU:HG3	2.49	0.43
1:A:2768:C:C5	1:A:2769:C:C5	3.06	0.43
1:A:1454:U:O4'	14:N:63:ARG:HD3	2.19	0.43
1:A:2790:A:C2	1:A:2791:C:H2'	2.54	0.43
1:A:951:C:C2'	1:A:952:G:H5'	2.49	0.43
1:A:954:G:C4	1:A:955:C:C6	3.06	0.43
1:A:874:G:H2'	1:A:875:G:O4'	2.19	0.43
31:5:53:PRO:O	31:5:57:ARG:NH1	2.51	0.43
7:G:95:ARG:HH12	7:G:97:ARG:HE	1.67	0.43
1:A:1478:G:H2'	1:A:1479:G:H8	1.83	0.43
1:A:498:G:O2'	21:U:47:LYS:HD3	2.18	0.43
6:F:112:PRO:HB3	27:1:62:CYS:O	2.17	0.43
14:N:100:LEU:H	14:N:112:ALA:HA	1.83	0.43
1:A:2636:U:H2'	1:A:2637:U:C6	2.53	0.43
7:G:86:GLU:O	7:G:87:LEU:HD23	2.17	0.43
1:A:775:G:C4	1:A:794:G:C8	3.05	0.43
1:A:117:G:H5''	1:A:118:A:OP2	2.18	0.43
1:A:1607:C:N4	1:A:1622:G:OP2	2.46	0.43
1:A:997:G:OP1	17:Q:93:LYS:CD	2.66	0.43
1:A:2275:C:H5'	1:A:2275:C:C6	2.48	0.43
1:A:753:C:H2'	1:A:754:C:H6	1.83	0.43
5:E:127:GLU:O	5:E:127:GLU:OE2	2.37	0.43
22:V:7:ALA:HB3	22:V:61:LEU:HD23	2.01	0.43
1:A:229:A:H5'	1:A:230:U:O5'	2.16	0.43
6:F:153:ARG:HB3	6:F:153:ARG:NH1	2.32	0.43
1:A:2409:G:C6	1:A:2410:G:C5	3.06	0.43
16:P:105:LEU:O	16:P:106:SER:C	2.56	0.43
1:A:537:C:O5'	1:A:537:C:H6	2.02	0.43
1:A:1854:A:H62	1:A:1888:G:H8	1.65	0.43
1:A:2650:U:H6	1:A:2650:U:O5'	2.01	0.43
16:P:87:ASP:N	16:P:87:ASP:OD1	2.51	0.43
1:A:2075:U:H2'	1:A:2238:G:N2	2.34	0.43
1:A:690:G:H2'	1:A:691:C:O4'	2.19	0.43
3:C:78:LYS:HG2	3:C:114:GLY:O	2.18	0.43
1:A:2666:C:C6	1:A:2667:C:C6	3.07	0.43
1:A:1462:C:C4	1:A:1463:C:C4	3.06	0.43
1:A:836:G:C5	1:A:837:C:C4	3.05	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:38:C:H2'	2:B:39:A:H8	1.83	0.43
1:A:1173:G:O5'	1:A:1173:G:H8	2.01	0.43
15:O:89:ARG:HG2	15:O:89:ARG:O	2.18	0.43
1:A:2727:G:C2	1:A:2728:U:C5	3.07	0.43
1:A:2731:G:H2'	1:A:2732:G:C8	2.54	0.43
1:A:252:G:O2'	1:A:253:C:H5'	2.18	0.43
25:Y:53:LEU:O	25:Y:56:GLN:HB2	2.19	0.43
1:A:2713:A:H3'	1:A:2714:G:H5'	1.99	0.43
22:V:30:ASN:O	22:V:31:ARG:C	2.56	0.43
22:V:54:HIS:CG	22:V:101:PRO:HG3	2.53	0.43
2:B:106:G:C2'	2:B:107:U:H5'	2.49	0.43
3:C:132:PRO:HD3	3:C:190:TYR:CE1	2.52	0.43
1:A:1509:A:O2'	1:A:1510:A:OP1	2.27	0.43
1:A:1324:G:C4	1:A:1328:G:O6	2.71	0.43
1:A:661:C:O3'	12:L:18:ARG:HD2	2.18	0.43
2:B:59:A:H2'	2:B:60:C:O4'	2.17	0.43
28:2:28:PRO:O	28:2:29:ILE:HD13	2.19	0.43
1:A:589:C:H2'	1:A:590:A:C8	2.52	0.43
7:G:86:GLU:O	7:G:86:GLU:CG	2.65	0.43
1:A:494:G:N2	19:S:57:ASN:HD21	2.16	0.43
1:A:570:G:O6	1:A:2499:C:OP1	2.37	0.43
22:V:178:GLU:O	22:V:178:GLU:HG3	2.18	0.43
1:A:1356:G:C4	1:A:1357:U:C6	3.06	0.43
1:A:880:G:H1	1:A:897:C:H42	1.66	0.43
1:A:270(S):G:H2'	1:A:270(T):G:H8	1.82	0.43
31:5:15:LYS:HG3	31:5:16:ILE:N	2.33	0.43
27:1:53:THR:C	27:1:54:LYS:HD2	2.39	0.43
1:A:2261:C:H1'	1:A:2388:A:N3	2.33	0.43
1:A:673:C:C2'	1:A:674:G:H5'	2.49	0.43
1:A:2319:G:O6	1:A:2334:G:OP2	2.37	0.43
10:J:89:LYS:O	10:J:91:GLU:N	2.51	0.43
19:S:14:PRO:C	19:S:16:LYS:H	2.22	0.43
8:H:82:ARG:CA	8:H:89:TYR:HB2	2.48	0.43
25:Y:10:LEU:O	25:Y:13:ALA:HB3	2.18	0.43
14:N:57:ARG:HG2	14:N:58:GLY:N	2.29	0.43
4:D:111:ARG:CA	14:N:2:ARG:HH11	2.26	0.43
1:A:2286:A:C8	1:A:2287:A:C6	3.06	0.43
28:2:40:LYS:HD3	28:2:46:CYS:HB3	1.99	0.43
1:A:814:C:H2'	1:A:815:C:C6	2.53	0.43
1:A:301:G:C6	1:A:302:C:N4	2.86	0.43
28:2:41:PRO:O	28:2:44:THR:OG1	2.19	0.43
1:A:198:C:H5'	1:A:2244:U:OP1	2.18	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
11:K:2:ILE:HD12	11:K:2:ILE:HA	1.75	0.43
1:A:1748:G:C2	1:A:1749:A:C4	3.07	0.43
17:Q:117:GLN:OE1	17:Q:117:GLN:HA	2.17	0.43
1:A:2458:G:H21	1:A:2459:A:N6	2.16	0.43
1:A:1471:A:C5	1:A:1522:G:N1	2.86	0.43
1:A:644:A:N1	1:A:646:A:C4	2.86	0.43
5:E:12:LEU:HD11	5:E:17:ARG:HG2	2.01	0.43
1:A:697:C:C2	1:A:698:C:C5	3.07	0.43
1:A:1262:A:N3	28:2:10:LYS:HE3	2.34	0.43
28:2:6:VAL:HG13	28:2:7:PRO:HD2	2.00	0.43
1:A:200:U:O4	1:A:250:G:N2	2.52	0.43
14:N:18:LEU:HD11	14:N:22:ARG:NE	2.33	0.43
1:A:2250:G:C5	13:M:82:ARG:HD2	2.53	0.43
10:J:143:LEU:C	10:J:144:LYS:HD2	2.39	0.43
1:A:1528:A:N1	1:A:1529:A:C2	2.87	0.43
18:R:77:ALA:C	18:R:79:VAL:N	2.72	0.43
6:F:86:MET:H	6:F:87:PRO:HD2	1.79	0.43
8:H:126:TYR:HB2	8:H:142:VAL:HG21	1.99	0.43
22:V:163:LEU:HD23	22:V:163:LEU:N	2.34	0.43
23:W:31:VAL:HG21	23:W:61:ALA:HB2	2.00	0.43
23:W:49:LYS:N	23:W:80:HIS:ND1	2.55	0.43
1:A:557:U:C2	1:A:558:G:C8	3.07	0.43
21:U:100:ALA:O	21:U:101:LYS:HB3	2.18	0.43
4:D:110:GLY:O	14:N:5:LYS:NZ	2.48	0.43
1:A:1502:C:C6	1:A:1502:C:C3'	3.01	0.43
1:A:1313:U:C2'	1:A:1313:U:O2	2.65	0.43
3:C:181:GLU:HA	3:C:272:ALA:CB	2.48	0.43
11:K:102:VAL:HB	11:K:106:LEU:CD1	2.48	0.43
12:L:88:LEU:HA	12:L:88:LEU:HD12	1.39	0.43
1:A:988:A:H8	1:A:988:A:O5'	2.00	0.43
3:C:257:LEU:CD2	3:C:257:LEU:C	2.86	0.43
19:S:45:TYR:CD2	19:S:46:PHE:CE1	3.06	0.43
24:X:67:ILE:HB	24:X:68:PRO:CD	2.49	0.43
1:A:1850:G:C4	1:A:1851:U:C5	3.07	0.43
1:A:880:G:N2	1:A:898:C:C4	2.86	0.43
1:A:298:G:P	21:U:85:VAL:CG2	3.06	0.43
1:A:1955:U:O4	1:A:2554:U:H5	2.01	0.43
14:N:36:THR:HG23	14:N:41:ALA:HB2	2.00	0.43
1:A:1206:G:C6	1:A:1207:C:C4	3.06	0.43
12:L:59:LEU:N	12:L:61:ARG:HE	2.16	0.43
1:A:858:U:O2	1:A:2268:A:N3	2.51	0.43
12:L:126:VAL:HG23	12:L:145:PRO:HG2	2.00	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1253:A:C3'	1:A:1254:A:H5'	2.48	0.43
1:A:593:G:H4'	31:5:62:LEU:CD1	2.48	0.43
3:C:36:PRO:O	3:C:37:LEU:HB2	2.18	0.43
3:C:50:THR:HG23	3:C:51:VAL:N	2.32	0.43
1:A:2634:G:H5'	4:D:61:ARG:NH1	2.33	0.43
1:A:2713:A:C3'	1:A:2714:G:C5'	2.96	0.43
24:X:45:ASN:HD22	24:X:46:LEU:H	1.64	0.43
6:F:120:LEU:HD13	6:F:133:LEU:HD13	2.01	0.43
1:A:1401:G:C4	1:A:1402:C:C5	3.07	0.43
1:A:2207:C:H2'	1:A:2208:U:O4'	2.19	0.43
1:A:2101:G:C6	1:A:2102:U:C4	3.06	0.43
1:A:2864:G:C6	1:A:2865:U:N3	2.87	0.43
1:A:319:C:C2	1:A:333:G:N2	2.87	0.43
29:3:30:THR:CG2	29:3:31:PRO:HD2	2.48	0.43
1:A:2460:U:C2	1:A:2461:C:C6	3.07	0.43
17:Q:18:LEU:HA	17:Q:18:LEU:HD12	1.77	0.43
1:A:914:C:H3'	1:A:914:C:C6	2.53	0.43
13:M:30:GLY:CA	13:M:107:ALA:HB2	2.48	0.43
1:A:2744:G:H1'	1:A:2761:G:N2	2.33	0.43
1:A:2703:C:C2'	1:A:2704:C:H5'	2.49	0.43
1:A:2194:G:C6	1:A:2195:C:C4	3.06	0.43
1:A:697:C:N3	1:A:698:C:C5	2.87	0.43
11:K:7:TYR:CE1	11:K:20:MET:HB3	2.54	0.43
1:A:702:G:C2	1:A:731:C:C2	3.07	0.43
1:A:1629:U:H2'	1:A:1630:G:O4'	2.19	0.43
1:A:2612:C:H2'	1:A:2613:U:O5'	2.19	0.43
1:A:2415:G:H4'	12:L:67:MET:N	2.34	0.43
1:A:310:A:N1	1:A:312:G:H1'	2.34	0.43
3:C:16:MET:HE2	3:C:211:ARG:HD3	2.01	0.43
3:C:205:VAL:O	3:C:206:LEU:C	2.55	0.43
1:A:2295:C:N3	1:A:2296:U:C5	2.87	0.43
2:B:7:G:H5''	15:O:29:PHE:CZ	2.53	0.43
25:Y:24:LEU:CD2	25:Y:28:LYS:HG2	2.49	0.43
25:Y:60:LEU:HA	25:Y:60:LEU:HD23	1.49	0.43
1:A:1210:A:H4'	1:A:1211:U:O5'	2.18	0.43
19:S:75:TYR:C	19:S:75:TYR:HD2	2.22	0.43
1:A:1640:C:H5'	1:A:1640:C:H6	1.84	0.43
20:T:30:VAL:HG21	20:T:79:ALA:HB3	2.00	0.43
24:X:90:ILE:O	24:X:94:LEU:HD22	2.18	0.43
1:A:1263:U:O2'	28:2:11:THR:HG23	2.19	0.43
1:A:528:A:C2'	1:A:529:A:O5'	2.66	0.43
24:X:45:ASN:C	24:X:45:ASN:HD22	2.22	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:37:ARG:HA	4:D:42:ASP:OD2	2.19	0.43
12:L:70:GLN:O	12:L:71:VAL:C	2.56	0.43
1:A:1166:C:H42	1:A:1183:G:H1	1.67	0.43
3:C:221:VAL:HG22	3:C:226:MET:CE	2.49	0.43
19:S:57:ASN:O	19:S:58:ALA:C	2.56	0.43
1:A:1449:G:C4	1:A:1450:C:C5	3.07	0.43
1:A:958:U:H5'	13:M:14:ARG:HH11	1.83	0.43
24:X:51:VAL:HG12	24:X:58:ILE:HG12	2.00	0.43
1:A:189:G:C8	1:A:189:G:C3'	3.02	0.43
1:A:2564:A:C2	1:A:2647:U:H4'	2.54	0.43
1:A:32:C:O2'	1:A:33:U:H5'	2.19	0.43
1:A:844:C:O2'	1:A:845:G:H5'	2.19	0.43
1:A:1964:G:H4'	1:A:1965:C:OP2	2.19	0.43
11:K:72:PRO:C	11:K:74:GLY:H	2.21	0.43
1:A:869:G:C4	1:A:870:A:C8	3.07	0.43
1:A:1370:C:H2'	1:A:1371:G:C5'	2.49	0.43
5:E:138:GLU:O	5:E:141:ALA:HB3	2.18	0.43
1:A:310:A:OP1	21:U:17:SER:O	2.37	0.43
12:L:107:LYS:C	12:L:109:GLY:H	2.22	0.43
12:L:80:TYR:CE1	12:L:111:ARG:CG	3.02	0.43
1:A:1899:G:H21	1:A:1902:C:H5	1.67	0.43
1:A:2579:C:H2'	1:A:2580:U:O4'	2.19	0.43
3:C:32:SER:O	3:C:36:PRO:HD2	2.18	0.43
22:V:57:ILE:HG22	22:V:59:LEU:HG	2.01	0.43
22:V:48:PHE:CE2	22:V:71:VAL:HG21	2.54	0.43
3:C:231:HIS:CG	3:C:232:PRO:HD2	2.52	0.43
1:A:2767:C:C2'	1:A:2768:C:H5'	2.49	0.43
3:C:172:TYR:CD1	3:C:185:VAL:O	2.66	0.43
21:U:81:LYS:HD2	21:U:96:ILE:HD12	2.00	0.43
1:A:1344:G:H5'	1:A:1384:A:N1	2.34	0.43
1:A:1046:A:C3'	1:A:1047:G:C5'	2.96	0.43
1:A:1111:A:N3	1:A:1112:G:H1'	2.34	0.43
1:A:954:G:H5''	13:M:13:GLN:HG2	1.99	0.43
14:N:100:LEU:HG	14:N:112:ALA:HA	2.01	0.43
1:A:1952:A:C6	11:K:22:ILE:HD11	2.53	0.43
1:A:1748:G:O2'	1:A:1749:A:H5'	2.19	0.43
1:A:1832:C:C4	1:A:1833:U:C5	3.07	0.43
1:A:1232:G:C4	1:A:1233:C:C5	3.07	0.43
14:N:32:GLY:C	14:N:33:ARG:HD2	2.38	0.43
1:A:2604:U:O2	1:A:2604:U:C2'	2.67	0.43
1:A:173:G:H2'	1:A:174:C:H6	1.83	0.43
8:H:25:TYR:CE1	8:H:30:LEU:HD11	2.53	0.43

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1905:C:O4'	1:A:1928:A:H2	2.02	0.43
24:X:59:THR:OG1	24:X:60:PHE:N	2.51	0.43
1:A:1718:G:N2	1:A:1742:C:C2	2.86	0.43
2:B:79:C:H6	2:B:79:C:O5'	2.02	0.42
3:C:70:TRP:O	3:C:70:TRP:HD1	2.01	0.42
15:O:88:ASP:O	15:O:90:GLY:N	2.50	0.42
1:A:1903:G:OP2	3:C:241:PRO:HB3	2.19	0.42
10:J:154:GLN:O	10:J:155:ALA:HB2	2.19	0.42
17:Q:72:HIS:ND1	17:Q:110:VAL:HG21	2.34	0.42
1:A:322:A:P	5:E:169:ASN:HB2	2.58	0.42
2:B:104:A:O4'	22:V:29:TYR:CE1	2.68	0.42
1:A:1859:A:N6	1:A:1884:A:C8	2.87	0.42
14:N:50:HIS:CD2	14:N:50:HIS:C	2.92	0.42
1:A:2101:G:N2	1:A:2189:U:C2	2.87	0.42
1:A:1871:A:H2'	1:A:1872:A:H8	1.80	0.42
1:A:333:G:C6	1:A:334:C:C4	3.07	0.42
12:L:115:LEU:HA	12:L:134:ALA:HB2	2.01	0.42
1:A:302:C:O2'	1:A:303:U:H5'	2.19	0.42
1:A:570:G:C5	1:A:2030:A:C2	3.07	0.42
1:A:758:C:O2	1:A:1981:A:H2	2.02	0.42
1:A:2737:G:C6	1:A:2738:A:N7	2.86	0.42
1:A:2506:U:H5	1:A:2507:C:H5	1.60	0.42
1:A:1991:U:H2'	1:A:1992:G:C5'	2.48	0.42
1:A:880:G:H1	1:A:897:C:N4	2.17	0.42
1:A:2836:U:H2'	1:A:2837:G:H8	1.84	0.42
6:F:137:GLU:HB3	6:F:139:LEU:HG	2.01	0.42
18:R:75:PHE:O	18:R:75:PHE:CD1	2.72	0.42
1:A:447:A:C4	1:A:473:G:C8	3.07	0.42
22:V:70:LEU:CD2	22:V:70:LEU:N	2.82	0.42
22:V:129:SER:OG	22:V:130:PRO:HD2	2.19	0.42
1:A:69:C:O2'	1:A:70:G:H5'	2.19	0.42
27:1:48:ILE:H	27:1:48:ILE:HD12	1.83	0.42
12:L:62:LEU:HD21	31:5:25:MET:O	2.20	0.42
12:L:107:LYS:O	12:L:109:GLY:N	2.50	0.42
1:A:805:G:H4'	1:A:806:C:OP2	2.19	0.42
14:N:107:ASP:OD2	14:N:108:GLY:N	2.52	0.42
1:A:1591:G:H2'	1:A:1592:C:C6	2.54	0.42
26:Z:40:THR:HG23	26:Z:43:ILE:CD1	2.49	0.42
1:A:1586:A:H2'	1:A:1587:A:H5'	2.01	0.42
1:A:2753:A:C2'	1:A:2754:U:H5'	2.49	0.42
13:M:16:ARG:O	13:M:17:LEU:HD23	2.18	0.42
20:T:21:PHE:O	20:T:23:GLU:O	2.37	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:8:A:C6	1:A:9:U:O4	2.72	0.42
6:F:133:LEU:CD2	6:F:133:LEU:N	2.83	0.42
20:T:41:ASN:HD22	20:T:41:ASN:N	2.17	0.42
1:A:1480:G:C2	1:A:1481:U:C2	3.07	0.42
14:N:48:VAL:HA	14:N:51:LEU:HD12	2.02	0.42
3:C:182:LEU:HB3	3:C:271:ILE:HG13	2.01	0.42
1:A:2591:C:H2'	1:A:2592:G:C8	2.54	0.42
1:A:2471:C:H2'	1:A:2472:G:O4'	2.18	0.42
1:A:864:G:C6	1:A:865:C:N4	2.87	0.42
1:A:2640:G:H2'	1:A:2641:G:O4'	2.19	0.42
12:L:85:LEU:CA	12:L:88:LEU:HB2	2.45	0.42
14:N:79:LEU:HA	14:N:83:ILE:HG13	2.00	0.42
1:A:2402:C:C3'	1:A:2403:C:H5'	2.49	0.42
1:A:1003:G:O2'	1:A:1010:A:N1	2.45	0.42
29:3:18:ARG:HH22	29:3:44:ARG:HB2	1.83	0.42
1:A:2737:G:C4	1:A:2738:A:C8	3.07	0.42
1:A:2718:G:C2'	1:A:2719:G:O5'	2.67	0.42
1:A:1443:G:H1	1:A:1548:C:H42	1.67	0.42
16:P:82:LEU:N	16:P:82:LEU:HD23	2.34	0.42
1:A:1005:C:O2'	10:J:51:THR:HG21	2.19	0.42
1:A:2744:G:N2	1:A:2761:G:C5	2.88	0.42
1:A:719:C:O5'	1:A:719:C:H6	2.02	0.42
30:4:36:GLN:O	30:4:36:GLN:CG	2.68	0.42
1:A:2016:U:H1'	28:2:6:VAL:HG13	2.01	0.42
19:S:10:VAL:HG23	19:S:101:SER:O	2.18	0.42
1:A:517:C:OP1	28:2:16:ARG:NH2	2.52	0.42
3:C:147:LEU:HD13	3:C:155:LEU:CD1	2.50	0.42
1:A:1019:U:O2'	1:A:1021:A:C2	2.70	0.42
12:L:49:ARG:HG3	31:5:60:LEU:CD2	2.47	0.42
3:C:35:LYS:H	3:C:36:PRO:HD2	1.84	0.42
1:A:1409:C:C2	1:A:1594:G:N2	2.88	0.42
2:B:43:C:H2'	2:B:44:G:H5''	2.01	0.42
7:G:72:ILE:O	7:G:75:ALA:N	2.52	0.42
22:V:48:PHE:CE1	22:V:52:SER:HA	2.55	0.42
14:N:2:ARG:O	14:N:3:HIS:CD2	2.72	0.42
11:K:23:ARG:HG3	11:K:24:VAL:N	2.33	0.42
1:A:2809:A:N1	1:A:2892:A:C4	2.88	0.42
15:O:51:ALA:HB3	15:O:73:LEU:HG	2.01	0.42
1:A:953:A:C2'	1:A:954:G:H5'	2.50	0.42
1:A:1285:G:O6	1:A:1329:U:C2	2.73	0.42
5:E:34:TRP:CE3	5:E:35:GLU:HG2	2.53	0.42
1:A:483:A:H1'	21:U:47:LYS:O	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:60:GLU:OE1	22:V:66:SER:HB3	2.19	0.42
1:A:2208:U:O4'	3:C:151:LYS:HE3	2.19	0.42
11:K:22:ILE:HD13	11:K:22:ILE:HA	1.46	0.42
24:X:23:LYS:HE2	24:X:23:LYS:HB3	1.74	0.42
24:X:23:LYS:HB3	24:X:37:ILE:CG1	2.49	0.42
1:A:205:G:O2'	1:A:206:U:OP2	2.34	0.42
1:A:399:G:H2'	1:A:400:G:C5'	2.50	0.42
1:A:1647:G:H3'	1:A:1647:G:P	2.59	0.42
1:A:89:G:C5	1:A:90:U:C5	3.08	0.42
1:A:32:C:C2'	1:A:33:U:H5'	2.49	0.42
1:A:1668:A:C8	1:A:1674:G:C6	3.07	0.42
1:A:443:A:N7	5:E:45:ARG:HG2	2.34	0.42
1:A:2666:C:H5''	1:A:2667:C:OP2	2.18	0.42
7:G:103:LEU:O	7:G:103:LEU:HG	2.18	0.42
26:Z:12:PRO:O	26:Z:14:GLY:N	2.52	0.42
1:A:1297:C:H2'	1:A:1298:C:H6	1.83	0.42
3:C:147:LEU:HA	3:C:147:LEU:HD12	1.77	0.42
1:A:2342:C:O2	1:A:2374:C:H4'	2.19	0.42
17:Q:79:PHE:CE2	17:Q:106:PHE:CE1	3.07	0.42
18:R:4:ILE:CD1	18:R:13:ARG:HA	2.49	0.42
4:D:52:LEU:O	4:D:75:VAL:HA	2.19	0.42
22:V:72:ARG:HA	22:V:72:ARG:HD3	1.78	0.42
19:S:8:ARG:NH1	19:S:9:TYR:HE2	2.16	0.42
1:A:2304:G:H5'	1:A:2305:A:OP2	2.19	0.42
3:C:120:GLY:HA2	3:C:121:PRO:HD3	1.79	0.42
1:A:1372:U:H2'	1:A:1373:A:H8	1.85	0.42
8:H:8:PRO:HD3	8:H:15:VAL:CG2	2.50	0.42
1:A:1475:G:C2	1:A:1476:C:C2	3.08	0.42
1:A:1434:A:C5	1:A:1560:G:N2	2.87	0.42
1:A:582:G:H2'	1:A:583:G:C8	2.54	0.42
11:K:32:TYR:N	11:K:32:TYR:CD1	2.87	0.42
1:A:1775:U:C2'	1:A:1776:G:O5'	2.67	0.42
1:A:828:U:H4'	1:A:831:G:C2	2.55	0.42
1:A:991:C:C6	1:A:1185:C:N3	2.86	0.42
1:A:2433:A:H5''	1:A:2434:A:OP2	2.18	0.42
6:F:20:ILE:O	6:F:24:GLY:HA2	2.19	0.42
1:A:1754:C:P	16:P:96:ARG:HH12	2.40	0.42
17:Q:17:ILE:HA	17:Q:20:LEU:CD2	2.50	0.42
3:C:123:ALA:HB1	3:C:124:PRO:HD2	2.02	0.42
2:B:116:G:H8	2:B:116:G:O5'	2.02	0.42
19:S:5:ALA:HB2	19:S:54:ALA:HA	2.00	0.42
1:A:2024:G:H2'	1:A:2025:C:H6	1.85	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
22:V:76:LEU:HD12	22:V:76:LEU:H	1.83	0.42
16:P:50:ILE:HD12	16:P:50:ILE:HA	1.83	0.42
8:H:9:LEU:HB3	8:H:12:LEU:HD23	2.01	0.42
1:A:768:G:C4	1:A:769:G:C8	3.08	0.42
20:T:8:ILE:HD12	20:T:8:ILE:N	2.34	0.42
1:A:1225:G:OP1	18:R:86:GLY:HA3	2.20	0.42
1:A:2496:C:OP1	13:M:81:VAL:HG12	2.19	0.42
10:J:126:VAL:O	10:J:127:LYS:C	2.58	0.42
1:A:2267:A:H5''	1:A:2268:A:H5''	1.95	0.42
16:P:51:ARG:CD	16:P:62:THR:HG23	2.48	0.42
29:3:25:LYS:HD3	31:5:34:TRP:HZ3	1.83	0.42
1:A:2392:A:OP2	31:5:31:HIS:HE1	2.03	0.42
10:J:142:ARG:HH11	10:J:142:ARG:CG	2.21	0.42
31:5:60:LEU:O	31:5:61:LEU:C	2.57	0.42
4:D:34:VAL:HG11	4:D:78:LEU:CD1	2.49	0.42
1:A:2712:U:HO2'	1:A:712(B):A:H5''	1.83	0.42
2:B:10:C:N4	2:B:11:C:N4	2.68	0.42
2:B:13:A:N6	2:B:70:C:H5'	2.35	0.42
2:B:73:A:C5	2:B:104:A:N3	2.88	0.42
3:C:223:GLY:HA3	3:C:231:HIS:ND1	2.34	0.42
1:A:2542:A:O2'	1:A:2543:G:OP2	2.31	0.42
30:4:19:ARG:NH1	30:4:19:ARG:CB	2.83	0.42
1:A:1999:C:OP1	1:A:2723:C:O2'	2.36	0.42
1:A:2722:G:H2'	1:A:2723:C:C6	2.55	0.42
24:X:46:LEU:HD23	24:X:46:LEU:O	2.19	0.42
1:A:2396:G:C2	1:A:2421:G:C2	3.07	0.42
1:A:2755:C:O2'	1:A:2756:U:H6	2.02	0.42
1:A:1504:C:O2'	1:A:1505:C:C6	2.72	0.42
12:L:70:GLN:O	12:L:73:GLY:N	2.52	0.42
14:N:51:LEU:HD22	14:N:70:LEU:HD11	2.00	0.42
1:A:581:C:H2'	1:A:582:G:C8	2.53	0.42
10:J:135:LEU:O	10:J:136:GLY:C	2.56	0.42
1:A:442:G:O4'	5:E:46:ARG:HD3	2.19	0.42
1:A:2617:C:O2'	1:A:2618:G:H5'	2.18	0.42
15:O:30:ARG:C	15:O:30:ARG:HD2	2.39	0.42
1:A:646:A:C2'	1:A:647:G:O5'	2.68	0.42
10:J:32:VAL:CG1	10:J:33:GLU:N	2.83	0.42
13:M:34:LEU:HD11	13:M:129:THR:HB	2.02	0.42
1:A:1928:A:H5''	1:A:1929:G:OP2	2.20	0.42
1:A:1864:U:OP1	1:A:2410:G:O2'	2.36	0.42
4:D:3:GLY:HA3	4:D:81:ILE:HG21	2.02	0.42
1:A:2690:C:OP2	14:N:14:SER:HB3	2.19	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:64:LYS:HA	4:D:64:LYS:HD2	1.85	0.42
1:A:876:C:H2'	1:A:877:U:H5'	2.01	0.42
30:4:30:VAL:O	30:4:34:ARG:HG2	2.19	0.42
1:A:1958:C:C2'	1:A:1959:G:H5'	2.50	0.42
29:3:14:THR:HG22	29:3:51:GLU:O	2.20	0.42
1:A:631:A:OP2	31:5:47:LYS:NZ	2.39	0.42
3:C:10:THR:CG2	3:C:13:ARG:HB3	2.23	0.42
1:A:2293:C:H2'	1:A:2294:C:C6	2.54	0.42
1:A:1021:A:N6	1:A:1141:U:C2	2.88	0.42
8:H:123:LEU:HD11	8:H:145:VAL:OXT	2.19	0.42
1:A:94:G:C2	25:Y:47:ASN:ND2	2.88	0.42
2:B:42:C:O2	6:F:93:THR:N	2.47	0.42
4:D:59:VAL:C	4:D:61:ARG:N	2.71	0.42
22:V:92:SER:HB2	22:V:94:GLU:OE1	2.19	0.42
1:A:2306:C:C4	1:A:2311:A:N6	2.87	0.42
1:A:1495:A:C4	1:A:1496:A:C2	3.07	0.42
3:C:24:ILE:HD13	3:C:84:TYR:HB2	2.00	0.42
1:A:390:A:N6	12:L:71:VAL:HG22	2.35	0.42
22:V:39:VAL:HG21	22:V:44:PHE:CD2	2.55	0.42
1:A:912:C:C2	1:A:913:U:C5	3.08	0.42
18:R:93:GLU:O	18:R:94:LEU:HD23	2.20	0.42
19:S:66:GLU:O	19:S:68:ARG:N	2.52	0.42
1:A:17:G:H2'	1:A:18:C:H6	1.85	0.42
1:A:1833:U:H2'	1:A:1834:U:H5'	2.01	0.42
22:V:9:TYR:CE1	22:V:61:LEU:HD13	2.54	0.42
1:A:2465:C:C2	1:A:2486:G:C2	3.07	0.42
1:A:1517:G:C2	1:A:1518:C:C2	3.07	0.42
1:A:496:G:C1'	19:S:61:ASN:HD21	2.31	0.42
29:3:11:LEU:HG	29:3:26:ASN:HB2	2.01	0.42
1:A:1465:G:C2	1:A:1466:G:N9	2.88	0.42
1:A:2017:U:O2	28:2:10:LYS:HB2	2.20	0.42
1:A:1362:C:C6	1:A:1362:C:H3'	2.54	0.42
27:1:36:VAL:HB	27:1:37:PRO:HD2	2.02	0.42
1:A:11:G:H2'	1:A:12:U:O4'	2.19	0.42
8:H:37:VAL:CG1	8:H:38:LEU:N	2.82	0.42
1:A:1049:C:O2	1:A:1113:U:H4'	2.19	0.42
17:Q:22:LYS:HD3	17:Q:22:LYS:HA	1.56	0.42
21:U:71:LYS:CB	21:U:71:LYS:NZ	2.83	0.42
1:A:860:U:HO2'	1:A:861:A:H5'	1.80	0.42
23:W:25:ARG:HD2	23:W:29:GLN:OE1	2.19	0.42
1:A:1542:G:H4'	1:A:1543:A:O4'	2.19	0.42
6:F:60:LEU:HA	6:F:63:ILE:CG1	2.49	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
10:J:36:TRP:HB2	10:J:156:GLN:HB2	2.01	0.42
4:D:132:HIS:NE2	4:D:135:HIS:NE2	2.66	0.42
1:A:1021:A:H3'	1:A:1022:G:H5''	2.01	0.42
1:A:114(B):A:N3	1:A:1144:G:C8	2.87	0.42
3:C:143:HIS:C	3:C:143:HIS:CD2	2.92	0.42
17:Q:95:LEU:O	17:Q:98:LEU:HG	2.20	0.42
18:R:47:VAL:HG12	18:R:49:THR:O	2.20	0.42
1:A:549:G:H2'	1:A:550:G:O4'	2.20	0.42
1:A:1592:C:H2'	1:A:1593:G:C8	2.53	0.42
23:W:70:GLN:HG2	23:W:72:ARG:HG2	2.01	0.42
21:U:96:ILE:HD11	21:U:99:CYS:SG	2.60	0.42
1:A:952:G:C6	1:A:966:G:C6	3.08	0.42
1:A:2687:U:N3	1:A:2688:U:C6	2.86	0.42
1:A:1799:G:O2'	3:C:181:GLU:OE2	2.37	0.42
6:F:106:LEU:O	6:F:111:LEU:HG	2.20	0.42
1:A:1006:C:O2'	1:A:1007:C:H5'	2.19	0.42
14:N:79:LEU:HD23	14:N:83:ILE:HG13	2.01	0.42
1:A:998:C:H2'	1:A:999:U:O4'	2.19	0.42
1:A:987:G:C6	1:A:988:A:C4	3.08	0.42
13:M:43:THR:HA	13:M:94:VAL:HG12	2.02	0.42
16:P:112:ARG:HE	16:P:112:ARG:HB2	1.42	0.42
1:A:1442:G:C2	1:A:1443:G:C4	3.08	0.42
1:A:1127:A:H2'	1:A:1128:A:C5'	2.49	0.42
1:A:259:G:C2	1:A:260:G:C8	3.07	0.42
1:A:2587:A:H8	1:A:2587:A:O5'	2.02	0.42
13:M:112:GLU:H	13:M:112:GLU:CD	2.23	0.42
22:V:46:LYS:O	22:V:50:GLN:OE1	2.38	0.42
10:J:61:HIS:CE1	10:J:73:ASP:OD2	2.73	0.42
1:A:265:A:H1'	1:A:266:G:O4'	2.19	0.42
1:A:35:G:H1'	1:A:454:A:N3	2.35	0.42
1:A:1278:A:O3'	14:N:34:ILE:HD12	2.19	0.42
3:C:4:LYS:NZ	3:C:4:LYS:CB	2.82	0.42
13:M:81:VAL:HG12	13:M:81:VAL:O	2.19	0.42
1:A:2361:A:H5'	31:5:27:THR:OG1	2.20	0.42
1:A:587:C:O2	12:L:33:ARG:HD3	2.19	0.42
3:C:33:LEU:CD2	3:C:33:LEU:N	2.81	0.42
1:A:547:A:C5	1:A:548:A:C6	3.08	0.42
1:A:2885:C:H2'	1:A:2886:G:O5'	2.19	0.42
5:E:167:ALA:O	5:E:168:ARG:C	2.58	0.42
2:B:73:A:C8	2:B:74:U:C5	3.08	0.42
22:V:97:GLU:O	22:V:98:MET:HB3	2.19	0.42
26:Z:26:LEU:HD13	26:Z:47:VAL:HG22	2.02	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
23:W:66:VAL:O	23:W:81:VAL:HA	2.19	0.42
5:E:9:ILE:HD13	5:E:9:ILE:O	2.19	0.42
7:G:144:VAL:CA	7:G:147:ASN:HB2	2.48	0.42
13:M:8:LYS:CG	13:M:9:TYR:N	2.78	0.42
1:A:911:A:C2'	13:M:9:TYR:OH	2.65	0.42
1:A:1359:A:N7	1:A:1372:U:C4	2.87	0.42
13:M:21:THR:C	13:M:23:GLY:H	2.22	0.42
1:A:1856:G:C2	1:A:1887:C:C2	3.08	0.42
1:A:1862:G:C2	1:A:1863:G:C5	3.08	0.42
1:A:2322:A:H3'	1:A:2323:G:C8	2.48	0.42
18:R:22:VAL:CG1	18:R:23:GLU:H	2.33	0.42
1:A:692:C:C2'	1:A:693:C:H5'	2.50	0.42
7:G:169:VAL:O	7:G:170:ARG:HB2	2.19	0.42
1:A:1547:C:H2'	1:A:1548:C:C6	2.52	0.42
1:A:459:U:H4'	30:4:40:TRP:CH2	2.55	0.42
1:A:262:A:C2'	1:A:263:C:H5'	2.48	0.42
1:A:1716:U:O2'	1:A:1717:G:H5'	2.20	0.42
1:A:2583:G:H3'	1:A:2584:U:C5	2.55	0.42
1:A:1625:C:H2'	1:A:1626:G:O4'	2.19	0.42
1:A:869:G:H2'	1:A:870:A:H8	1.84	0.42
26:Z:49:LYS:HA	26:Z:49:LYS:HD3	1.43	0.42
9:I:15:GLU:HG3	9:I:66:LEU:HG	2.02	0.42
1:A:2692:C:H2'	1:A:2693:A:O4'	2.20	0.42
12:L:126:VAL:HG23	12:L:145:PRO:CG	2.50	0.42
4:D:12:THR:O	4:D:23:VAL:O	2.38	0.42
1:A:2846:G:N7	1:A:2847:U:C5	2.88	0.42
16:P:57:PHE:C	16:P:59:THR:H	2.22	0.42
16:P:73:GLU:OE2	16:P:103:ARG:NE	2.51	0.42
1:A:2320:A:C5	1:A:2333:A:C5	3.08	0.42
10:J:77:VAL:HG12	10:J:78:VAL:N	2.35	0.42
18:R:77:ALA:O	18:R:79:VAL:HB	2.20	0.42
18:R:13:ARG:NH1	18:R:13:ARG:HG3	2.35	0.42
1:A:546:C:N4	1:A:547:A:C6	2.88	0.42
13:M:141:GLN:OXT	22:V:53:ILE:O	2.37	0.42
6:F:5:LEU:O	6:F:8:LYS:HB3	2.20	0.42
1:A:528:A:H2'	1:A:529:A:O5'	2.20	0.42
19:S:40:ASN:C	19:S:41:LYS:HG2	2.40	0.42
1:A:1512:G:C5	1:A:1513:C:C4	3.08	0.42
9:I:4:LYS:HG3	9:I:7:VAL:HB	2.02	0.42
18:R:58:VAL:HB	18:R:98:GLU:HB2	2.01	0.42
1:A:1478:G:C2	1:A:1479:G:N7	2.88	0.42
1:A:1799:G:C8	3:C:181:GLU:CD	2.93	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
7:G:92:ILE:HG22	7:G:93:GLY:H	1.80	0.42
1:A:1468:C:H2'	1:A:1469:A:H8	1.84	0.42
13:M:39:PRO:O	13:M:40:ALA:HB2	2.20	0.42
1:A:2641:G:OP1	10:J:97:ARG:CD	2.67	0.42
1:A:2433:A:H5''	1:A:2434:A:OP1	2.20	0.42
1:A:519:U:H5''	19:S:25:ARG:HH21	1.85	0.42
24:X:68:PRO:O	24:X:69:LYS:C	2.57	0.42
1:A:1901:A:N3	1:A:1901:A:C2'	2.81	0.42
1:A:171:G:H2'	1:A:171:G:N3	2.34	0.42
1:A:1203:G:O6	1:A:1204:A:N6	2.53	0.42
1:A:231:C:C5	1:A:232:G:C6	3.08	0.42
1:A:2405:G:O2'	1:A:2411:A:N6	2.52	0.42
1:A:1581:G:H8	1:A:1581:G:O5'	2.03	0.42
24:X:92:LYS:HA	24:X:92:LYS:HD2	1.92	0.42
2:B:37:C:C5	2:B:38:C:C4	3.08	0.42
14:N:34:ILE:HA	14:N:34:ILE:HD13	1.84	0.42
3:C:215:LEU:HA	3:C:215:LEU:HD23	1.61	0.42
31:5:4:MET:H	31:5:4:MET:HG2	1.61	0.42
1:A:1835:G:C4	1:A:1836:C:C5	3.08	0.42
1:A:2845:G:C2	1:A:2846:G:C5	3.07	0.42
1:A:2846:G:C8	1:A:2847:U:C5	3.08	0.42
10:J:36:TRP:HB2	10:J:156:GLN:CB	2.50	0.42
1:A:1022:G:C5	1:A:1140:C:N4	2.88	0.42
25:Y:28:LYS:HD3	25:Y:28:LYS:HA	1.84	0.42
1:A:139:G:N3	1:A:141(A):A:N1	2.68	0.42
1:A:1787:A:H2'	1:A:1787:A:N3	2.34	0.42
26:Z:43:ILE:O	26:Z:47:VAL:HG23	2.20	0.42
19:S:69:LEU:HA	19:S:108:GLY:O	2.19	0.42
21:U:81:LYS:HD3	21:U:96:ILE:HG13	2.01	0.42
31:5:22:VAL:CG2	31:5:54:GLU:HG3	2.50	0.42
18:R:34:GLU:O	18:R:36:PRO:CD	2.63	0.42
1:A:390:A:C6	12:L:71:VAL:CG2	3.03	0.42
7:G:77:LYS:HA	7:G:80:SER:CB	2.47	0.42
1:A:1467:C:O2'	1:A:1468:C:H5'	2.20	0.42
10:J:160:LYS:C	10:J:161:LEU:HD23	2.40	0.42
1:A:2350:C:H5''	31:5:42:ARG:HD3	2.00	0.42
21:U:68:HIS:ND1	21:U:70:SER:HB3	2.35	0.42
2:B:93:C:C2	2:B:94:C:C5	3.07	0.42
1:A:2183:C:O2	1:A:2183:C:C2'	2.67	0.42
1:A:1983:C:O2'	1:A:1984:G:H5'	2.20	0.42
1:A:2258:C:H4'	1:A:2259:G:OP2	2.19	0.42
1:A:1975:G:H2'	1:A:1976:U:C6	2.55	0.42

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:1461:G:C2'	1:A:1462:C:H5'	2.49	0.42
1:A:1835:G:H2'	1:A:1835:G:N3	2.35	0.42
25:Y:32:LEU:HD23	25:Y:32:LEU:HA	1.71	0.42
1:A:132:G:C2'	1:A:133:C:H5'	2.50	0.42
3:C:214:TRP:C	3:C:216:GLY:H	2.21	0.42
1:A:449:A:C2'	1:A:450:G:H5'	2.50	0.42
1:A:563:G:C4	1:A:2018:G:C2	3.08	0.42
26:Z:48:GLU:O	26:Z:51:ALA:HB2	2.19	0.42
13:M:110:THR:OG1	13:M:113:GLN:HB2	2.20	0.42
31:5:23:VAL:HG11	31:5:47:LYS:HD3	2.01	0.41
1:A:2415:G:H2'	1:A:2416:C:C6	2.54	0.41
30:4:10:ARG:HG3	30:4:14:LYS:HD2	2.02	0.41
1:A:1170:G:N2	1:A:1180:C:N3	2.68	0.41
1:A:577:G:O6	1:A:578:A:N6	2.53	0.41
1:A:1188:U:C4'	18:R:79:VAL:HG22	2.50	0.41
3:C:242:ARG:HH11	3:C:242:ARG:H	1.67	0.41
25:Y:25:VAL:HG21	25:Y:61:LEU:HD13	2.02	0.41
6:F:161:THR:CG2	6:F:172:LEU:HD23	2.48	0.41
1:A:2884:U:H2'	1:A:2885:C:H5'	2.02	0.41
22:V:163:LEU:HD23	22:V:163:LEU:H	1.84	0.41
19:S:9:TYR:N	19:S:102:HIS:CD2	2.83	0.41
23:W:32:ARG:HA	23:W:64:ASP:HB3	2.02	0.41
4:D:49:LEU:HD13	4:D:49:LEU:N	2.35	0.41
1:A:2842:G:H2'	1:A:2843:G:O4'	2.20	0.41
1:A:526:A:O2'	1:A:2043:C:O2	2.34	0.41
13:M:6:ARG:HB2	13:M:6:ARG:HE	1.60	0.41
1:A:2305:A:H1'	6:F:135:LEU:O	2.20	0.41
21:U:81:LYS:CE	21:U:97:ARG:HD3	2.50	0.41
1:A:1496:A:C8	1:A:1498:C:C4	3.08	0.41
3:C:133:LEU:HG	3:C:189:CYS:O	2.19	0.41
1:A:662:G:H5'	12:L:18:ARG:HA	2.01	0.41
21:U:43:ASN:OD1	21:U:64:GLU:HA	2.19	0.41
1:A:559:G:H22	17:Q:49:HIS:CD2	2.38	0.41
12:L:86:LYS:HB3	12:L:117:GLU:O	2.20	0.41
1:A:637:A:OP1	12:L:133:SER:CB	2.68	0.41
1:A:1164:G:C5	1:A:1165:U:C4	3.08	0.41
1:A:540:G:C4	1:A:541:C:C5	3.08	0.41
1:A:2749:A:H4'	7:G:62:LYS:HB3	2.01	0.41
1:A:855:G:C6	1:A:856:C:C4	3.08	0.41
1:A:2663:G:C5	1:A:2664:G:N7	2.88	0.41
17:Q:20:LEU:H	17:Q:20:LEU:HD22	1.85	0.41
1:A:1526:G:H2'	1:A:1527:G:C8	2.55	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:137(A):C:H2'	1:A:137(A):C:O2	2.19	0.41
4:D:144:ARG:HB3	4:D:145:LYS:H	1.50	0.41
1:A:1444:G:C2	1:A:1548:C:C2	3.08	0.41
1:A:1773:A:N7	1:A:1829:A:H1'	2.35	0.41
17:Q:27:LEU:HD23	17:Q:27:LEU:O	2.20	0.41
1:A:1317:A:C6	1:A:1318:C:N4	2.88	0.41
1:A:2357:U:OP1	23:W:20:ARG:HD3	2.20	0.41
1:A:2436:G:C4	1:A:2437:U:C6	3.08	0.41
1:A:1635:G:H2'	1:A:1636:C:C6	2.55	0.41
10:J:30:LYS:O	10:J:32:VAL:HG23	2.20	0.41
1:A:2063:C:O2	1:A:2450:A:N1	2.53	0.41
1:A:1983:C:C2'	1:A:1984:G:H5'	2.50	0.41
20:T:40:LYS:C	20:T:42:ALA:N	2.73	0.41
11:K:6:THR:O	11:K:20:MET:HA	2.20	0.41
11:K:122:LEU:HA	11:K:122:LEU:HD23	1.80	0.41
12:L:77:ARG:O	12:L:77:ARG:HG3	2.20	0.41
3:C:70:TRP:O	3:C:70:TRP:CD1	2.72	0.41
6:F:72:ARG:HG2	6:F:87:PRO:O	2.20	0.41
8:H:92:VAL:HG22	8:H:93:THR:O	2.20	0.41
1:A:993:G:C6	1:A:994:C:C5	3.08	0.41
3:C:35:LYS:HA	3:C:64:ILE:HD12	2.01	0.41
5:E:173:VAL:CG1	5:E:174:VAL:N	2.82	0.41
1:A:2712:U:O2'	1:A:712(B):A:C5'	2.67	0.41
22:V:30:ASN:CG	22:V:90:VAL:HB	2.41	0.41
14:N:21:TYR:OH	14:N:43:GLU:HG2	2.21	0.41
14:N:55:ALA:CA	14:N:80:PHE:CE1	2.94	0.41
19:S:29:LEU:HG	19:S:29:LEU:O	2.19	0.41
1:A:528:A:C2	1:A:2043:C:O5'	2.73	0.41
3:C:137:PRO:O	3:C:138:VAL:C	2.58	0.41
1:A:2746:U:H2'	1:A:2747:G:C5'	2.50	0.41
15:O:66:ALA:HA	15:O:69:VAL:HG13	2.01	0.41
15:O:69:VAL:HA	15:O:72:ALA:HB2	2.02	0.41
8:H:14:ASP:H	8:H:17:GLN:NE2	2.17	0.41
3:C:28:GLU:HB3	3:C:29:PRO:CD	2.46	0.41
3:C:140:THR:O	3:C:165:ILE:HD12	2.19	0.41
11:K:88:ASN:O	11:K:91:LEU:HA	2.20	0.41
1:A:2287:A:HO2'	1:A:2288:A:C5'	2.32	0.41
1:A:286:C:O5'	1:A:286:C:H6	2.02	0.41
10:J:62:ARG:HA	10:J:63:PRO:HD3	1.89	0.41
1:A:1348:G:H1	1:A:1598:C:H42	1.67	0.41
1:A:781:A:C2	1:A:1776:G:N3	2.85	0.41
19:S:35:ILE:O	19:S:36:LEU:C	2.58	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:111:U:H2'	2:B:112:G:H8	1.84	0.41
4:D:96:PHE:O	4:D:175:VAL:HG11	2.19	0.41
5:E:107:LYS:O	5:E:108:LYS:C	2.59	0.41
16:P:41:ARG:NH1	16:P:41:ARG:HB2	2.35	0.41
15:O:30:ARG:HB3	15:O:35:ILE:HD12	2.02	0.41
14:N:65:LEU:HA	14:N:65:LEU:HD12	1.38	0.41
2:B:95:U:C2	2:B:96:G:N7	2.88	0.41
2:B:95:U:N3	2:B:96:G:N7	2.68	0.41
8:H:3:VAL:HG12	8:H:37:VAL:O	2.20	0.41
16:P:19:LEU:HG	16:P:19:LEU:H	1.29	0.41
1:A:1690:A:H5''	1:A:1691:C:OP2	2.20	0.41
7:G:142:GLY:O	7:G:145:ALA:HB3	2.20	0.41
1:A:822:U:O2'	1:A:823:G:H5'	2.20	0.41
1:A:1309:G:O5'	1:A:1309:G:H8	2.03	0.41
4:D:103:ASP:OD2	4:D:168:MET:HE2	2.21	0.41
10:J:143:LEU:HD13	10:J:144:LYS:N	2.35	0.41
1:A:1541:U:O2	1:A:1541:U:C2'	2.66	0.41
4:D:188:VAL:HG23	4:D:189:PRO:HD2	2.02	0.41
10:J:156:GLN:O	10:J:157:ARG:CB	2.68	0.41
1:A:1826:G:P	3:C:233:HIS:HD2	2.43	0.41
8:H:86:THR:C	8:H:87:LYS:HG3	2.40	0.41
1:A:2711:A:OP1	1:A:712(B):A:P	2.79	0.41
14:N:3:HIS:C	14:N:5:LYS:N	2.72	0.41
1:A:1510:A:C2	1:A:1511:A:C4	3.08	0.41
7:G:73:ALA:O	7:G:76:VAL:HB	2.20	0.41
21:U:2:ARG:CG	21:U:3:VAL:N	2.83	0.41
1:A:2477:C:HO2'	1:A:2478:A:P	2.40	0.41
22:V:179:ASP:O	22:V:182:LYS:HB2	2.20	0.41
1:A:2864:G:C2	1:A:2865:U:O2	2.73	0.41
1:A:815:C:H2'	1:A:816:C:C6	2.56	0.41
1:A:814:C:H5	12:L:27:HIS:CD2	2.39	0.41
1:A:278:A:O2'	1:A:279:C:O4'	2.35	0.41
3:C:245:PRO:HA	3:C:246:PRO:HD3	1.89	0.41
19:S:36:LEU:CD1	19:S:47:VAL:HB	2.49	0.41
1:A:693:C:C2'	1:A:694:U:O5'	2.69	0.41
1:A:2737:G:C5	1:A:2738:A:N7	2.88	0.41
1:A:2717:G:C6	1:A:2718:G:N7	2.89	0.41
16:P:77:PRO:HB2	16:P:80:SER:HB2	2.01	0.41
1:A:2816:C:O2	1:A:2883:A:O2'	2.38	0.41
1:A:2521:C:O2'	1:A:2564:A:N3	2.47	0.41
1:A:2743:C:H2'	1:A:2744:G:O4'	2.20	0.41
8:H:76:THR:HG22	8:H:141:LYS:CB	2.49	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:46:C:N4	1:A:179:G:H1	2.18	0.41
1:A:30:G:C5	1:A:31:C:C4	3.08	0.41
4:D:3:GLY:C	4:D:81:ILE:HD13	2.40	0.41
1:A:2358:G:C5	1:A:2359:C:C5	3.08	0.41
1:A:1686:C:N4	1:A:1687:G:C6	2.88	0.41
1:A:2523:G:H2'	1:A:2524:G:H5'	2.02	0.41
1:A:75:G:H4'	25:Y:55:ARG:NH2	2.35	0.41
8:H:136:VAL:O	8:H:136:VAL:HG12	2.20	0.41
8:H:95:LYS:O	8:H:99:GLU:N	2.46	0.41
1:A:122(A):C:H2'	1:A:1222:C:H6	1.85	0.41
1:A:1824:G:C2'	1:A:1825:A:H5'	2.51	0.41
1:A:468:G:H5''	5:E:60:SER:HB2	2.00	0.41
1:A:1121:C:H2'	1:A:1122:G:O4'	2.20	0.41
10:J:90:LEU:HA	10:J:110:LEU:HB3	2.01	0.41
6:F:84:LYS:O	6:F:87:PRO:HD3	2.21	0.41
25:Y:61:LEU:HD12	25:Y:61:LEU:HA	1.49	0.41
4:D:5:LEU:CB	4:D:51:PHE:HD2	2.17	0.41
4:D:55:ASN:C	4:D:57:LYS:N	2.74	0.41
1:A:2769:C:H2'	1:A:2769:C:O2	2.20	0.41
23:W:81:VAL:O	23:W:83:PRO:HD3	2.20	0.41
1:A:83:G:N2	1:A:84:A:H62	2.19	0.41
1:A:2562:U:H2'	1:A:2563:U:C5'	2.50	0.41
24:X:31:GLY:O	24:X:32:LYS:CB	2.63	0.41
15:O:34:HIS:HB3	15:O:36:TYR:CE1	2.55	0.41
1:A:686:G:O6	30:4:12:ARG:NH1	2.51	0.41
11:K:114:ILE:O	11:K:118:ALA:N	2.52	0.41
1:A:947:G:N2	1:A:971:C:C2	2.89	0.41
1:A:2663:G:C6	1:A:2664:G:C5	3.08	0.41
1:A:1356:G:C6	1:A:1357:U:C4	3.07	0.41
1:A:1798:U:C5'	3:C:259:THR:O	2.69	0.41
19:S:71:VAL:HA	19:S:107:LEU:HD12	2.03	0.41
1:A:2025:C:N3	1:A:2026:C:C4	2.89	0.41
13:M:84:GLY:HA3	23:W:10:THR:HG23	2.02	0.41
11:K:3:GLN:CG	11:K:4:PRO:HD2	2.50	0.41
20:T:27:THR:HA	20:T:80:ILE:HA	2.02	0.41
1:A:2194:G:C5	1:A:2195:C:C5	3.08	0.41
22:V:77:ASP:HB2	22:V:84:GLU:CG	2.50	0.41
1:A:14:A:H8	1:A:14:A:O5'	2.03	0.41
17:Q:60:LEU:C	17:Q:60:LEU:HD13	2.41	0.41
3:C:98:VAL:HG23	3:C:99:ASP:N	2.35	0.41
1:A:1366:A:H2'	1:A:1367:A:O4'	2.20	0.41
1:A:394:A:O2'	1:A:395:U:H5'	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:2056:G:C8	1:A:2577:A:C6	3.08	0.41
10:J:122:LEU:HA	10:J:122:LEU:HD22	1.88	0.41
12:L:32:THR:CA	12:L:36:LYS:HE2	2.51	0.41
1:A:2846:G:C4	1:A:2847:U:C5	3.09	0.41
3:C:143:HIS:CD2	3:C:144:ALA:N	2.88	0.41
8:H:98:ALA:HA	8:H:109:ILE:HG13	2.01	0.41
17:Q:83:LEU:H	17:Q:83:LEU:HD12	1.86	0.41
18:R:38:LEU:HD23	18:R:39:LEU:H	1.84	0.41
18:R:49:THR:HB	18:R:50:PRO:CD	2.48	0.41
1:A:1413:G:C2'	1:A:1414:G:H5'	2.50	0.41
4:D:4:ILE:HG13	4:D:5:LEU:N	2.36	0.41
13:M:47:ILE:O	13:M:50:ALA:N	2.52	0.41
1:A:2697:G:H2'	1:A:2698:U:O4'	2.20	0.41
2:B:73:A:N6	2:B:104:A:H1'	2.35	0.41
22:V:103:ARG:HG3	22:V:136:PHE:CD1	2.54	0.41
1:A:1497:U:O4'	1:A:1497:U:O2	2.38	0.41
3:C:120:GLY:O	3:C:131:LEU:HB3	2.19	0.41
1:A:1285:G:C5	1:A:1329:U:C4	3.08	0.41
21:U:2:ARG:HH11	21:U:2:ARG:HG3	1.85	0.41
1:A:2470:G:C2	1:A:2471:C:C6	3.09	0.41
1:A:2188:C:H2'	1:A:2189:U:C1'	2.51	0.41
13:M:60:ARG:H	22:V:179:ASP:HB2	1.85	0.41
1:A:998:C:OP2	17:Q:93:LYS:NZ	2.53	0.41
1:A:571:A:C5	1:A:575:A:C8	3.08	0.41
1:A:693:C:H2'	1:A:694:U:H6	1.85	0.41
1:A:2039:C:C2	1:A:2040:C:C6	3.09	0.41
1:A:464:U:C4'	30:4:5:TRP:CZ3	3.03	0.41
10:J:52:LYS:O	10:J:55:THR:N	2.54	0.41
6:F:52:ILE:HG23	6:F:153:ARG:HH22	1.84	0.41
1:A:30:G:C6	1:A:31:C:C4	3.09	0.41
1:A:2194:G:H2'	1:A:2195:C:H6	1.86	0.41
10:J:151:HIS:CD2	10:J:152:PRO:C	2.94	0.41
17:Q:60:LEU:O	17:Q:60:LEU:HD22	2.20	0.41
1:A:1772:G:N1	1:A:1980:G:C6	2.89	0.41
1:A:2262:U:H4'	1:A:2328:A:C2	2.55	0.41
21:U:8:LYS:N	21:U:8:LYS:NZ	2.62	0.41
10:J:121:VAL:HG23	10:J:122:LEU:N	2.36	0.41
26:Z:52:HIS:HD2	26:Z:52:HIS:H	1.64	0.41
12:L:91:PHE:CE2	12:L:95:VAL:HG12	2.56	0.41
1:A:1019:U:H5'	1:A:1121:C:H1'	2.01	0.41
10:J:45:THR:HB	10:J:48:ARG:HG3	2.02	0.41
8:H:79:ILE:HG22	8:H:81:VAL:CG2	2.45	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
8:H:82:ARG:CB	8:H:89:TYR:HB2	2.50	0.41
8:H:97:ILE:HG21	8:H:114:LEU:HD11	2.01	0.41
17:Q:53:ARG:HA	17:Q:56:ASP:HB2	2.02	0.41
17:Q:54:LYS:O	17:Q:56:ASP:N	2.53	0.41
1:A:194:G:C2'	1:A:195:A:H5'	2.50	0.41
13:M:141:GLN:HA	22:V:72:ARG:HA	2.02	0.41
22:V:56:VAL:O	22:V:57:ILE:HD12	2.20	0.41
5:E:124:LEU:CD1	5:E:125:LEU:O	2.68	0.41
1:A:1323:U:C2'	1:A:1324:G:H5'	2.50	0.41
1:A:1479:G:C4	1:A:1480:G:C8	3.08	0.41
1:A:2287:A:C6	1:A:2289:G:C5	3.09	0.41
1:A:2861:G:C4	1:A:2862:G:C8	3.08	0.41
1:A:781:A:C2	1:A:1776:G:H2'	2.55	0.41
14:N:79:LEU:HD23	14:N:83:ILE:CB	2.51	0.41
13:M:111:GLU:OE2	13:M:133:ARG:NH2	2.54	0.41
1:A:2705:A:H3'	1:A:2706:G:H8	1.85	0.41
1:A:1131:G:N2	1:A:1132:A:N3	2.69	0.41
1:A:2213:U:H6	1:A:2213:U:O5'	2.03	0.41
15:O:44:LYS:NZ	15:O:44:LYS:CB	2.83	0.41
1:A:1230:C:H2'	1:A:1231:G:C8	2.56	0.41
1:A:1355:G:H2'	1:A:1356:G:O4'	2.20	0.41
1:A:1800:C:OP2	3:C:183:ARG:NH2	2.54	0.41
3:C:53:PHE:CE1	3:C:220:HIS:HA	2.56	0.41
1:A:2837:G:C6	1:A:2838:G:N7	2.89	0.41
22:V:91:LEU:CD2	22:V:96:VAL:HG11	2.49	0.41
1:A:646:A:N3	1:A:646:A:H5'	2.36	0.41
29:3:13:CYS:HB2	29:3:22:ALA:HB3	2.03	0.41
1:A:1888:G:H5''	1:A:1888:G:N3	2.36	0.41
1:A:2523:G:C2'	1:A:2524:G:H5'	2.51	0.41
8:H:136:VAL:N	8:H:137:PRO:HD3	2.36	0.41
1:A:1320:C:H4'	1:A:1321:A:OP1	2.21	0.41
1:A:2088:G:H2'	1:A:2089:U:O4'	2.20	0.41
13:M:108:GLY:O	13:M:109:VAL:HG13	2.21	0.41
21:U:39:VAL:O	21:U:40:GLU:CD	2.59	0.41
1:A:2441:C:H4'	1:A:2441:C:OP1	2.20	0.41
1:A:1173:G:H3'	1:A:1174:A:H5''	2.02	0.41
2:B:82:G:H2'	2:B:83:G:H8	1.85	0.41
4:D:104:VAL:HG22	4:D:198:VAL:HG13	2.01	0.41
10:J:110:LEU:CD2	10:J:110:LEU:O	2.68	0.41
1:A:603:A:H2	1:A:655:A:C2	2.38	0.41
18:R:35:LEU:C	18:R:37:VAL:N	2.73	0.41
4:D:84:PHE:O	4:D:84:PHE:CG	2.74	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
4:D:87:GLU:O	4:D:88:GLY:C	2.54	0.41
1:A:1589:C:C2'	1:A:1589:C:O2	2.69	0.41
2:B:69:G:C6	2:B:70:C:C4	3.09	0.41
23:W:72:ARG:CZ	23:W:75:LEU:CD1	2.96	0.41
1:A:71:A:H4'	1:A:72:U:H5''	2.01	0.41
1:A:2768:C:N4	1:A:2769:C:C4	2.88	0.41
23:W:50:ASN:HD22	23:W:83:PRO:HD3	1.85	0.41
1:A:2310:A:H2'	1:A:2311:A:H5'	2.03	0.41
1:A:2819:G:H2'	1:A:2821:A:N7	2.34	0.41
3:C:168:ARG:HA	3:C:173:VAL:HA	2.01	0.41
1:A:2753:A:H2'	1:A:2754:U:C5'	2.51	0.41
15:O:51:ALA:O	15:O:52:SER:O	2.38	0.41
1:A:1434:A:H2'	1:A:1435:G:H8	1.86	0.41
14:N:67:LEU:HD22	14:N:67:LEU:HA	1.91	0.41
22:V:182:LYS:O	22:V:186:GLU:HB2	2.21	0.41
1:A:2861:G:O2'	1:A:2862:G:H5'	2.20	0.41
14:N:53:HIS:HB2	14:N:94:TYR:CE1	2.56	0.41
17:Q:76:TYR:O	17:Q:80:ILE:HB	2.19	0.41
7:G:16:SER:HB2	7:G:27:LYS:HB2	2.01	0.41
1:A:479:A:N3	1:A:481:G:H5''	2.36	0.41
14:N:85:PRO:C	14:N:87:TYR:N	2.74	0.41
1:A:2738:A:C2	1:A:2739:U:C1'	3.03	0.41
1:A:1203:G:C6	1:A:1204:A:C6	3.08	0.41
1:A:1116:C:H2'	1:A:1117:G:O4'	2.21	0.41
15:O:99:LYS:O	15:O:100:ALA:C	2.58	0.41
8:H:73:GLU:C	8:H:75:LEU:H	2.23	0.41
1:A:269:U:C4	1:A:271(A):U:C2	3.09	0.41
1:A:1583:A:H8	1:A:1583:A:O5'	2.04	0.41
1:A:239:U:O2'	1:A:240:G:H5'	2.20	0.41
1:A:306:U:H6	1:A:306:U:H3'	1.86	0.41
3:C:150:LYS:HA	3:C:150:LYS:HE3	2.01	0.41
18:R:47:VAL:CG1	18:R:50:PRO:O	2.69	0.41
1:A:748:G:C8	1:A:750:A:C8	3.09	0.41
2:B:41:U:H5	6:F:70:VAL:H	1.68	0.41
5:E:167:ALA:O	5:E:170:LEU:HB2	2.21	0.41
23:W:70:GLN:HG2	23:W:72:ARG:CG	2.51	0.41
1:A:528:A:N1	1:A:2043:C:O5'	2.54	0.41
1:A:2752:C:C2'	1:A:2753:A:H5'	2.51	0.41
1:A:1105:U:C2'	1:A:1106:G:H5'	2.50	0.41
3:C:7:LYS:HG3	3:C:8:PRO:HD2	2.03	0.41
6:F:106:LEU:HA	6:F:110:ALA:HB3	2.01	0.41
10:J:136:GLY:O	10:J:139:LEU:HB2	2.20	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:333:G:C2'	1:A:334:C:H5'	2.51	0.41
1:A:2631:G:C6	1:A:2632:A:C5	3.08	0.41
1:A:301:G:H4'	1:A:301:G:OP1	2.20	0.41
1:A:304:G:H2'	1:A:305:U:O4'	2.21	0.41
14:N:52:ILE:HD12	14:N:79:LEU:HD21	2.02	0.41
19:S:65:LEU:HB2	19:S:68:ARG:NE	2.27	0.41
1:A:2870:C:H2'	1:A:2871:C:O4'	2.21	0.41
13:M:45:GLN:O	13:M:49:ALA:HB2	2.21	0.41
2:B:112:G:N3	2:B:112:G:H2'	2.36	0.41
1:A:2621:A:H5'	4:D:119:ARG:HH22	1.85	0.41
1:A:1515:C:O2	1:A:1515:C:H2'	2.21	0.41
1:A:914:C:C3'	1:A:914:C:C6	3.04	0.41
1:A:260:G:C2	1:A:261:G:H1'	2.56	0.41
1:A:2615:U:N1	28:2:7:PRO:HA	2.35	0.41
1:A:1801:G:N3	1:A:1801:G:H2'	2.36	0.41
1:A:2446:G:N2	1:A:2449:U:O2	2.53	0.41
8:H:78:THR:O	8:H:80:PRO:HD3	2.21	0.41
6:F:107:LEU:HD13	6:F:177:GLY:O	2.21	0.41
11:K:13:ASN:C	11:K:15:GLY:N	2.74	0.41
1:A:41:C:H2'	1:A:43:G:O4'	2.20	0.41
14:N:116:LEU:HA	14:N:116:LEU:HD23	1.68	0.41
1:A:2415:G:C2	1:A:2416:C:C2	3.09	0.41
1:A:2415:G:H4'	12:L:66:GLY:HA3	2.01	0.41
25:Y:1:MET:HE1	25:Y:4:SER:HB2	2.02	0.41
1:A:1173:G:C8	1:A:1173:G:OP2	2.73	0.41
10:J:120:ARG:O	10:J:121:VAL:C	2.58	0.41
1:A:2292:C:H6	1:A:2292:C:O5'	2.04	0.41
1:A:2293:C:H2'	1:A:2294:C:H6	1.85	0.41
15:O:28:VAL:HG21	15:O:87:PHE:HE1	1.86	0.41
1:A:2291:U:H2'	1:A:2292:C:C6	2.56	0.41
10:J:36:TRP:CH2	10:J:74:PHE:CD2	3.09	0.41
1:A:1188:U:H2'	1:A:1189:A:H5'	2.01	0.41
6:F:72:ARG:HG2	6:F:86:MET:O	2.21	0.41
20:T:49:VAL:HG21	20:T:83:VAL:CG1	2.45	0.41
20:T:83:VAL:O	20:T:84:ALA:C	2.58	0.41
8:H:77:LEU:HD23	8:H:105:HIS:HE1	1.86	0.41
17:Q:79:PHE:CE2	17:Q:106:PHE:CZ	3.09	0.41
17:Q:107:ALA:O	17:Q:110:VAL:HB	2.20	0.41
4:D:4:ILE:HG13	4:D:5:LEU:O	2.21	0.41
2:B:13:A:H8	23:W:74:ARG:NH2	2.19	0.41
23:W:72:ARG:O	23:W:73:GLY:C	2.60	0.41
1:A:2306:C:N4	1:A:2311:A:N6	2.68	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:65:TRP:CH2	5:E:75:HIS:HD2	2.38	0.41
1:A:761:A:C8	1:A:761:A:C3'	3.04	0.41
3:C:25:THR:O	3:C:27:THR:CB	2.68	0.41
6:F:111:LEU:N	6:F:112:PRO:CD	2.84	0.41
22:V:85:HIS:HD1	22:V:85:HIS:C	2.24	0.41
28:2:29:ILE:O	28:2:42:PRO:HD3	2.21	0.41
28:2:42:PRO:HB2	28:2:43:HIS:CD2	2.55	0.41
1:A:2188:C:C4	1:A:2189:U:C6	3.09	0.41
1:A:2287:A:C4	1:A:2289:G:N7	2.89	0.41
24:X:23:LYS:HB3	24:X:37:ILE:HG12	2.02	0.41
1:A:284:U:H2'	1:A:285:C:H6	1.85	0.41
10:J:66:THR:HB	10:J:69:VAL:CG1	2.50	0.41
28:2:40:LYS:NZ	28:2:49:CYS:CB	2.81	0.41
1:A:2346:A:H5''	1:A:2383:G:O4'	2.20	0.41
1:A:991:C:H2'	1:A:991:C:O2	2.21	0.41
1:A:278:A:C2	1:A:279:C:C2	3.09	0.41
1:A:278:A:O2'	1:A:279:C:C1'	2.69	0.41
1:A:1946:U:C2	1:A:1947:C:C5	3.09	0.41
21:U:46:LYS:C	21:U:48:ALA:N	2.74	0.41
3:C:257:LEU:HD23	3:C:258:LYS:N	2.36	0.41
22:V:120:ILE:H	22:V:172:ALA:HA	1.86	0.41
1:A:1131:G:C2	1:A:1132:A:C4	3.09	0.41
1:A:1335:U:H2'	1:A:1336:A:O5'	2.21	0.41
1:A:1232:G:H2'	1:A:1233:C:C6	2.51	0.41
11:K:60:ALA:HB2	11:K:86:ILE:HA	2.02	0.41
1:A:189:G:H1'	1:A:207:A:H61	1.85	0.41
16:P:126:ALA:C	16:P:128:GLU:H	2.23	0.41
1:A:414:C:O2'	1:A:415:A:H5'	2.20	0.41
6:F:139:LEU:HA	6:F:144:ILE:HG21	2.03	0.41
7:G:117:PRO:HA	7:G:118:PRO:HD2	1.90	0.41
1:A:503:A:C6	1:A:506:G:C6	3.09	0.41
13:M:29:PHE:N	13:M:105:GLU:OE2	2.53	0.41
15:O:98:VAL:HG23	15:O:99:LYS:N	2.36	0.41
1:A:1993:U:H4'	4:D:128:SER:HB2	2.03	0.41
15:O:79:ALA:C	15:O:80:LEU:HD23	2.41	0.41
8:H:30:LEU:O	8:H:31:LEU:C	2.58	0.41
1:A:1464:C:H2'	1:A:1465:G:H8	1.85	0.41
22:V:157:LEU:HA	22:V:158:PRO:HD2	1.92	0.41
10:J:151:HIS:CG	10:J:151:HIS:O	2.73	0.41
1:A:768:G:C6	1:A:769:G:C5	3.08	0.41
13:M:72:LYS:O	13:M:93:TYR:HA	2.20	0.41
1:A:2230:G:O3'	24:X:43:TYR:HB2	2.21	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:876:C:C2'	1:A:877:U:H5'	2.51	0.41
11:K:47:ILE:HD12	11:K:47:ILE:HA	1.61	0.41
1:A:618(B):C:O2	1:A:618(B):C:H2'	2.20	0.41
18:R:99:ILE:HD13	18:R:99:ILE:N	2.36	0.41
1:A:2489:G:O2'	1:A:2518:A:N6	2.52	0.41
1:A:660:G:H5'	5:E:99:TYR:CD2	2.56	0.41
14:N:105:ARG:HG2	14:N:106:GLY:N	2.34	0.41
26:Z:55:ARG:HA	26:Z:55:ARG:HD3	1.45	0.41
1:A:2515:C:O2	1:A:2570:G:C2	2.74	0.41
21:U:52:SER:HA	21:U:53:PRO:HD3	1.92	0.41
4:D:183:LEU:HA	4:D:183:LEU:HD12	1.79	0.41
18:R:10:LYS:HE3	18:R:10:LYS:HB2	1.83	0.41
20:T:92:LEU:HD23	20:T:92:LEU:HA	1.91	0.41
23:W:26:TYR:HB2	23:W:29:GLN:NE2	2.37	0.41
12:L:148:LEU:HD13	12:L:148:LEU:H	1.86	0.41
12:L:36:LYS:HE3	12:L:36:LYS:HB3	1.84	0.41
31:5:32:LEU:CD2	31:5:33:ASN:N	2.82	0.41
8:H:88:ILE:HG12	8:H:122:GLU:C	2.42	0.41
17:Q:92:ARG:HD3	17:Q:94:ASN:CB	2.49	0.41
1:A:1652:A:OP1	14:N:9:LYS:HD2	2.21	0.41
1:A:528:A:C2	1:A:2043:C:C4'	3.04	0.41
11:K:35:VAL:HG23	11:K:65:THR:CG2	2.41	0.41
1:A:2786:U:OP1	4:D:69:LYS:HE3	2.21	0.41
1:A:1884:A:N3	1:A:1885:A:C8	2.89	0.41
1:A:1577:C:H2'	1:A:1578:U:C1'	2.51	0.41
1:A:1586:A:C2'	1:A:1587:A:H5'	2.50	0.41
1:A:2755:C:O5'	1:A:2755:C:H6	2.04	0.41
7:G:21:PRO:HB2	7:G:22:GLY:H	1.71	0.41
5:E:130:ALA:O	5:E:132:VAL:N	2.54	0.41
1:A:1684:C:C2	1:A:1705:G:C2	3.08	0.41
5:E:37:VAL:HG22	5:E:184:TYR:HA	2.03	0.41
1:A:1418:G:C8	1:A:1418:G:O5'	2.61	0.41
1:A:2428:G:H5''	1:A:2429:G:O5'	2.20	0.41
1:A:304:G:N2	1:A:314:A:C4	2.89	0.41
1:A:641:C:O2'	1:A:2350:C:OP1	2.30	0.41
1:A:572:A:H2'	1:A:573:G:O4'	2.21	0.41
21:U:89:PHE:HD1	21:U:89:PHE:HA	1.68	0.41
22:V:107:THR:HA	22:V:108:PRO:HD3	1.77	0.41
4:D:96:PHE:HA	4:D:100:GLU:OE1	2.20	0.41
1:A:2097:C:H6	1:A:2097:C:O5'	2.04	0.41
7:G:121:ILE:O	7:G:122:THR:HG23	2.21	0.41
1:A:245:G:C4	1:A:246:C:C6	3.09	0.41

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:718:A:H2'	1:A:719:C:H5'	2.03	0.41
8:H:54:GLN:HA	8:H:57:ARG:HB3	2.03	0.41
1:A:1838:C:HO2'	1:A:1898:U:H5	1.68	0.41
1:A:1416:G:O2'	1:A:1417:C:P	2.78	0.41
1:A:663:G:O3'	12:L:21:ARG:NH1	2.53	0.41
22:V:129:SER:HA	22:V:130:PRO:HD3	1.90	0.41
3:C:98:VAL:CG2	3:C:99:ASP:N	2.84	0.41
1:A:196:A:H2'	1:A:196:A:N3	2.36	0.41
1:A:2626:C:H2'	1:A:2627:G:O4'	2.21	0.41
4:D:68:ALA:C	4:D:70:ALA:H	2.25	0.41
1:A:960:A:H2	1:A:2495:G:N3	2.19	0.40
12:L:59:LEU:HD23	12:L:59:LEU:O	2.20	0.40
1:A:2013:A:N6	1:A:2014:A:C6	2.89	0.40
1:A:1448:G:N2	1:A:149(B):A:N6	2.69	0.40
1:A:1541:U:H5''	1:A:1543:A:OP2	2.19	0.40
1:A:1191:G:OP1	12:L:35:HIS:CE1	2.74	0.40
16:P:62:THR:HA	16:P:74:ARG:O	2.20	0.40
25:Y:29:LYS:HD3	25:Y:57:ILE:HG21	2.02	0.40
25:Y:60:LEU:C	25:Y:62:THR:N	2.74	0.40
4:D:34:VAL:HG11	4:D:78:LEU:HD12	2.03	0.40
22:V:30:ASN:O	22:V:33:LEU:N	2.53	0.40
20:T:31:HIS:HA	20:T:32:PRO:HD3	1.92	0.40
5:E:106:ARG:H	5:E:106:ARG:HG2	1.46	0.40
5:E:39:TRP:CH2	5:E:106:ARG:NE	2.89	0.40
1:A:2776:A:C2	1:A:2778:A:C4	3.09	0.40
1:A:732:C:H2'	1:A:733:G:C5'	2.51	0.40
3:C:81:ALA:O	3:C:93:ALA:HA	2.20	0.40
3:C:165:ILE:C	3:C:166:GLN:HE21	2.24	0.40
1:A:1386:C:C2	1:A:1387:C:C5	3.08	0.40
1:A:1389:G:N2	1:A:1390:U:C2	2.89	0.40
5:E:89:VAL:CG1	5:E:90:PHE:H	2.28	0.40
1:A:1728:G:C8	1:A:1728:G:C3'	3.04	0.40
1:A:2840:C:H5''	14:N:53:HIS:CG	2.56	0.40
1:A:978:G:H2'	1:A:979:G:H5'	1.99	0.40
1:A:737:C:O2'	1:A:738:G:H5'	2.21	0.40
1:A:1833:U:H2'	1:A:1834:U:H6	1.86	0.40
15:O:13:ARG:HG3	15:O:14:VAL:H	1.85	0.40
1:A:2280:G:C2'	1:A:2281:C:H5'	2.52	0.40
1:A:2738:A:H2'	1:A:2739:U:O5'	2.21	0.40
1:A:136:G:C4	1:A:137(A):C:C6	3.10	0.40
3:C:162:SER:HB2	3:C:195:ALA:CB	2.51	0.40
2:B:100:G:H2'	2:B:101:A:O4'	2.21	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
1:A:466:A:C3'	1:A:467:G:H5'	2.50	0.40
1:A:608:A:C4	1:A:621:A:C6	3.09	0.40
1:A:273(B):G:N2	1:A:364:C:C2	2.89	0.40
1:A:878:A:C6	1:A:900:A:N7	2.89	0.40
1:A:1465:G:H21	1:A:1466:G:H1'	1.85	0.40
1:A:1769:G:C6	1:A:1984:G:C6	3.09	0.40
1:A:270(X):G:O2'	1:A:270(Y):G:H5'	2.21	0.40
1:A:1416:G:O2'	1:A:1417:C:H6	2.04	0.40
11:K:7:TYR:CZ	11:K:44:LYS:HG3	2.56	0.40
18:R:99:ILE:HD13	18:R:99:ILE:H	1.86	0.40
1:A:2006:C:O5'	1:A:2006:C:H6	2.04	0.40
1:A:2760:C:H2'	1:A:2760:C:O2	2.21	0.40
5:E:140:LEU:HD12	5:E:140:LEU:HA	1.90	0.40
1:A:144:C:H2'	1:A:145:G:H8	1.86	0.40
21:U:73:ARG:HH22	21:U:82:PRO:HD3	1.86	0.40
1:A:180:G:N1	1:A:214:G:N7	2.62	0.40
1:A:1484:G:H2'	1:A:1485:G:H8	1.85	0.40
1:A:2508:G:H2'	1:A:2509:G:O4'	2.20	0.40
1:A:2388:A:H8	1:A:2389:G:C5	2.40	0.40
1:A:1448:G:H1'	1:A:1528:A:N1	2.36	0.40
12:L:90:ARG:C	12:L:91:PHE:HD1	2.24	0.40
20:T:63:LYS:HZ1	20:T:72:LYS:HB3	1.85	0.40
31:5:7:HIS:CD2	31:5:60:LEU:HD13	2.56	0.40
4:D:61:ARG:HB2	4:D:63:LEU:HB2	2.04	0.40
2:B:16:G:O6	2:B:69:G:C2	2.74	0.40
14:N:59:ASP:OD2	14:N:59:ASP:N	2.53	0.40
1:A:2792:G:C6	1:A:2805:G:N1	2.90	0.40
1:A:380:U:O2	1:A:381:G:C8	2.74	0.40
1:A:1509:A:O3'	1:A:1510:A:O4'	2.39	0.40
28:2:31:VAL:HG13	28:2:42:PRO:HG3	2.02	0.40
1:A:2285:C:H5	29:3:27:LYS:HZ2	1.69	0.40
24:X:23:LYS:HE2	24:X:37:ILE:HD11	2.03	0.40
22:V:36:LYS:C	22:V:37:VAL:CG1	2.88	0.40
1:A:1607:C:N4	1:A:1621:U:C3'	2.84	0.40
4:D:158:GLY:O	4:D:159:HIS:O	2.38	0.40
1:A:958:U:C2'	1:A:959:A:OP2	2.69	0.40
8:H:27:ARG:HD2	24:X:71:TYR:CE1	2.56	0.40
1:A:2575:C:H5'	4:D:144:ARG:HG2	2.02	0.40
19:S:107:LEU:N	19:S:107:LEU:HD13	2.36	0.40
13:M:83:MET:CG	13:M:83:MET:O	2.70	0.40
1:A:2823:A:OP1	4:D:113:PHE:HB2	2.21	0.40
1:A:1926:U:O2	1:A:1929:G:C2	2.75	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
5:E:144:LYS:O	5:E:146:ALA:N	2.44	0.40
1:A:455:C:N3	1:A:472:A:H2'	2.36	0.40
1:A:2052:G:O4'	4:D:142:GLY:HA3	2.21	0.40
1:A:2415:G:H4'	12:L:67:MET:H	1.86	0.40
2:B:83:G:N2	2:B:84:C:H1'	2.36	0.40
1:A:674:G:H2'	1:A:804:A:H61	1.85	0.40
12:L:32:THR:C	12:L:36:LYS:HE2	2.36	0.40
1:A:578:A:H5'	1:A:1254:A:OP1	2.21	0.40
20:T:62:LYS:C	20:T:63:LYS:HD3	2.42	0.40
8:H:79:ILE:H	8:H:145:VAL:HG23	1.87	0.40
17:Q:79:PHE:CE1	17:Q:83:LEU:HD13	2.57	0.40
1:A:748:G:OP2	19:S:88:ARG:HG3	2.21	0.40
1:A:2727:G:C6	1:A:2728:U:C5	3.08	0.40
1:A:2682:U:O4	1:A:2728:U:H1'	2.21	0.40
1:A:1411:C:O2'	1:A:1412:A:H5'	2.21	0.40
4:D:6:GLY:CA	4:D:51:PHE:HE2	2.33	0.40
20:T:7:VAL:HG13	20:T:30:VAL:HG13	2.02	0.40
1:A:2378:A:H4'	15:O:84:GLN:NE2	2.35	0.40
1:A:2305:A:C5'	6:F:134:GLY:HA3	2.48	0.40
1:A:2722:G:O2'	14:N:5:LYS:HB2	2.22	0.40
1:A:1649:G:C6	1:A:2009:G:C6	3.09	0.40
1:A:2746:U:C2'	1:A:2747:G:O5'	2.69	0.40
3:C:8:PRO:CB	3:C:14:ARG:HB2	2.42	0.40
1:A:865:C:C4'	1:A:866:A:N7	2.82	0.40
13:M:127:ILE:HG23	13:M:128:LYS:N	2.36	0.40
1:A:588:U:C2	5:E:90:PHE:CE1	3.10	0.40
1:A:588:U:H1'	5:E:90:PHE:HB3	2.04	0.40
1:A:2861:G:C2	1:A:2862:G:C8	3.09	0.40
1:A:830:G:C8	1:A:2448:A:C2	3.09	0.40
1:A:2244:U:H1'	1:A:2434:A:C4	2.55	0.40
2:B:3:C:H2'	2:B:4:C:C6	2.57	0.40
1:A:1335:U:OP2	20:T:65:ARG:NH1	2.54	0.40
12:L:122:PRO:O	12:L:123:LEU:HB3	2.22	0.40
1:A:1051:G:C5	1:A:1052:C:N3	2.89	0.40
4:D:67:PHE:HB3	4:D:72:VAL:O	2.20	0.40
18:R:15:GLU:HB3	18:R:16:PRO:HD2	2.04	0.40
11:K:18:LYS:HG3	11:K:45:GLU:OE2	2.22	0.40
1:A:1687:G:H2'	1:A:1688:U:C6	2.56	0.40
16:P:113:LYS:O	16:P:114:LEU:HD23	2.21	0.40
1:A:2615:U:C2	28:2:7:PRO:HA	2.56	0.40
1:A:2552:U:H6	1:A:2552:U:O5'	2.04	0.40
1:A:799:G:N1	1:A:800:A:N6	2.70	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
12:L:6:LEU:HD12	12:L:8:PRO:HD2	2.01	0.40
12:L:107:LYS:C	12:L:108:LYS:HG2	2.41	0.40
12:L:112:LEU:HD23	12:L:112:LEU:C	2.42	0.40
3:C:206:LEU:HA	3:C:211:ARG:HE	1.86	0.40
15:O:26:LEU:HD23	15:O:38:GLN:O	2.21	0.40
10:J:91:GLU:HA	10:J:111:GLU:OE2	2.21	0.40
1:A:243:U:OP1	31:5:6:THR:CG2	2.70	0.40
6:F:41:GLN:HG2	6:F:155:MET:CB	2.48	0.40
2:B:72:G:N2	2:B:103:U:C5	2.90	0.40
3:C:232:PRO:HG3	3:C:248:SER:O	2.21	0.40
19:S:29:LEU:HD21	19:S:33:ARG:NH2	2.36	0.40
4:D:9:VAL:CG2	4:D:10:GLY:N	2.85	0.40
1:A:2791:C:H2'	1:A:2791:C:O2	2.21	0.40
1:A:380:U:C2'	24:X:20:ARG:HE	2.35	0.40
1:A:379:G:N2	24:X:20:ARG:NH2	2.70	0.40
15:O:73:LEU:O	15:O:77:ALA:N	2.54	0.40
5:E:64:ILE:HG23	5:E:65:TRP:NE1	2.36	0.40
1:A:953:A:O2'	1:A:954:G:H5'	2.21	0.40
21:U:2:ARG:NH1	21:U:2:ARG:HG3	2.35	0.40
1:A:1679:U:C3'	1:A:1680:U:H5'	2.52	0.40
1:A:1389:G:H2'	1:A:1390:U:H6	1.85	0.40
1:A:286:C:C2	1:A:287:C:C5	3.09	0.40
28:2:51:TYR:CZ	28:2:52:TYR:CE1	3.09	0.40
1:A:814:C:H41	12:L:27:HIS:HD2	1.64	0.40
12:L:131:SER:HB3	12:L:134:ALA:H	1.86	0.40
14:N:45:ARG:HG3	14:N:95:THR:CG2	2.51	0.40
14:N:84:ALA:N	14:N:85:PRO:CD	2.84	0.40
1:A:189:G:H1'	1:A:207:A:N6	2.36	0.40
1:A:2436:G:C4	1:A:2437:U:C5	3.10	0.40
1:A:1234:U:H2'	1:A:1235:G:O4'	2.22	0.40
1:A:337:C:C2'	1:A:338:G:O5'	2.70	0.40
1:A:2075:U:C4	1:A:2238:G:C6	3.09	0.40
8:H:35:LEU:N	8:H:35:LEU:HD23	2.36	0.40
6:F:96:ARG:HB2	6:F:97:ASP:H	1.63	0.40
1:A:1341:U:H4'	20:T:56:THR:O	2.21	0.40
2:B:80:U:C2	2:B:81:G:N2	2.90	0.40
11:K:75:SER:HB2	16:P:75:ILE:O	2.21	0.40
16:P:57:PHE:CD2	16:P:58:ASN:N	2.89	0.40
20:T:62:LYS:O	20:T:63:LYS:HD3	2.22	0.40
1:A:1615:C:O2'	1:A:1617:C:H5''	2.22	0.40
31:5:62:LEU:HA	31:5:62:LEU:HD23	1.32	0.40
13:M:74:TYR:CE2	13:M:91:GLU:HB2	2.52	0.40

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Atom-1	Atom-2	Distance(Å)	Clash(Å)
2:B:41:U:O4	6:F:71:THR:HA	2.21	0.40
1:A:2516:G:C6	1:A:2517:C:C4	3.09	0.40
1:A:2517:C:C5	1:A:2542:A:C2	3.10	0.40
1:A:848:G:N9	1:A:933:A:C8	2.89	0.40
4:D:37:ARG:NH1	4:D:42:ASP:OD1	2.55	0.40
3:C:121:PRO:CB	3:C:135:PHE:CE2	3.00	0.40
1:A:2758:A:C2	1:A:2759:G:C1'	3.05	0.40
1:A:1503:U:H2'	1:A:1504:C:H6	1.87	0.40
13:M:85:LYS:HD2	13:M:86:GLY:H	1.85	0.40
21:U:41:GLY:O	21:U:42:VAL:C	2.60	0.40
1:A:2284:C:H1'	1:A:2325:G:N2	2.37	0.40
1:A:1270:C:H5''	1:A:1271:G:H5'	2.04	0.40
28:2:40:LYS:HE2	28:2:46:CYS:HB3	2.04	0.40
5:E:199:TRP:CZ3	5:E:203:GLN:HG3	2.57	0.40
5:E:203:GLN:OE1	5:E:207:GLY:CA	2.69	0.40
6:F:178:PHE:HA	6:F:179:PRO:HD3	1.68	0.40
6:F:173:LEU:HB2	6:F:180:PHE:HZ	1.87	0.40
1:A:774:A:C2'	1:A:775:G:OP2	2.68	0.40
1:A:998:C:C2'	1:A:999:U:O5'	2.69	0.40
13:M:138:ASP:HB3	13:M:139:GLU:H	1.55	0.40
6:F:11:TYR:HE2	6:F:16:ARG:HH21	1.69	0.40
1:A:1162:G:O4'	18:R:23:GLU:HG3	2.21	0.40
1:A:2811:G:C6	1:A:2891:G:N2	2.90	0.40
2:B:28:C:H3'	2:B:28:C:C6	2.57	0.40
19:S:44:ALA:O	19:S:46:PHE:N	2.54	0.40
1:A:136:G:C6	1:A:137(A):C:C5	3.10	0.40
1:A:460:A:H2'	1:A:461:C:O4'	2.21	0.40
1:A:270(Q):C:O2'	1:A:270(R):C:P	2.79	0.40
6:F:15:VAL:HG22	6:F:175:LEU:HB3	2.03	0.40
1:A:2695:C:H2'	1:A:2696:U:C6	2.55	0.40
1:A:245:G:N3	1:A:246:C:C6	2.89	0.40
1:A:1632:A:N6	1:A:1633:G:N1	2.70	0.40
2:B:1:U:O2	2:B:1:U:H2'	2.21	0.40
16:P:10:VAL:C	16:P:12:SER:N	2.75	0.40
1:A:2404:C:C4	1:A:2414:G:N1	2.89	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	
3	C	269/271 (99%)	213 (79%)	36 (13%)	20 (7%)	2	22
4	D	202/204 (99%)	154 (76%)	34 (17%)	14 (7%)	2	24
5	E	200/202 (99%)	152 (76%)	32 (16%)	16 (8%)	1	19
6	F	179/181 (99%)	136 (76%)	31 (17%)	12 (7%)	2	25
7	G	157/159 (99%)	112 (71%)	35 (22%)	10 (6%)	2	26
8	H	143/145 (99%)	95 (66%)	29 (20%)	19 (13%)	0	7
9	I	28/65 (43%)	25 (89%)	3 (11%)	0	100	100
10	J	135/137 (98%)	97 (72%)	26 (19%)	12 (9%)	1	16
11	K	120/122 (98%)	100 (83%)	11 (9%)	9 (8%)	2	22
12	L	144/146 (99%)	87 (60%)	31 (22%)	26 (18%)	0	3
13	M	134/136 (98%)	86 (64%)	28 (21%)	20 (15%)	0	4
14	N	115/117 (98%)	91 (79%)	13 (11%)	11 (10%)	1	14
15	O	96/98 (98%)	57 (59%)	23 (24%)	16 (17%)	0	4
16	P	135/137 (98%)	101 (75%)	18 (13%)	16 (12%)	1	9
17	Q	114/116 (98%)	78 (68%)	22 (19%)	14 (12%)	1	8
18	R	99/101 (98%)	70 (71%)	20 (20%)	9 (9%)	1	15
19	S	110/112 (98%)	88 (80%)	17 (16%)	5 (4%)	4	38
20	T	90/92 (98%)	69 (77%)	16 (18%)	5 (6%)	3	30
21	U	98/100 (98%)	55 (56%)	24 (24%)	19 (19%)	0	2
22	V	186/188 (99%)	135 (73%)	34 (18%)	17 (9%)	1	15
23	W	74/76 (97%)	61 (82%)	10 (14%)	3 (4%)	4	42
24	X	86/88 (98%)	57 (66%)	16 (19%)	13 (15%)	0	4
25	Y	60/62 (97%)	45 (75%)	8 (13%)	7 (12%)	1	9
26	Z	57/59 (97%)	49 (86%)	7 (12%)	1 (2%)	13	65
27	1	28/30 (93%)	15 (54%)	7 (25%)	6 (21%)	0	2
28	2	50/52 (96%)	40 (80%)	6 (12%)	4 (8%)	1	19

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
29	3	42/44 (96%)	26 (62%)	11 (26%)	5 (12%)	1	9
30	4	46/48 (96%)	42 (91%)	3 (6%)	1 (2%)	10	60
31	5	61/63 (97%)	43 (70%)	12 (20%)	6 (10%)	1	13
All	All	3258/3351 (97%)	2379 (73%)	563 (17%)	316 (10%)	1	13

All (316) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
3	C	26	LYS
3	C	33	LEU
3	C	34	VAL
3	C	236	GLY
3	C	237	GLU
3	C	271	ILE
4	D	2	LYS
4	D	17	ASP
5	E	89	VAL
5	E	128	ALA
5	E	168	ARG
6	F	86	MET
6	F	87	PRO
7	G	92	ILE
7	G	165	ALA
8	H	10	GLU
8	H	82	ARG
8	H	132	PRO
8	H	142	VAL
8	H	143	SER
10	J	149	PRO
10	J	155	ALA
10	J	157	ARG
11	K	4	PRO
11	K	27	GLY
11	K	29	ASN
11	K	91	LEU
11	K	101	PRO
12	L	11	GLY
12	L	15	ARG
12	L	17	LYS
12	L	36	LYS
12	L	39	LYS

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Mol	Chain	Res	Type
12	L	49	ARG
12	L	50	ARG
12	L	65	ARG
12	L	110	TYR
12	L	141	ALA
12	L	147	LEU
13	M	8	LYS
13	M	13	GLN
13	M	18	LYS
13	M	21	THR
13	M	25	ASP
13	M	30	GLY
13	M	82	ARG
13	M	134	ARG
13	M	135	ASP
14	N	3	HIS
14	N	5	LYS
14	N	6	SER
14	N	12	ARG
14	N	86	ARG
15	O	12	PHE
15	O	35	ILE
15	O	44	LYS
15	O	52	SER
15	O	53	SER
15	O	59	LYS
16	P	58	ASN
16	P	89	VAL
16	P	90	GLN
16	P	107	ASP
16	P	136	GLN
17	Q	9	VAL
17	Q	31	SER
17	Q	33	ARG
17	Q	99	ALA
18	R	35	LEU
18	R	78	LYS
21	U	7	VAL
21	U	49	VAL
21	U	76	CYS
21	U	88	LYS
22	V	31	ARG

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Mol	Chain	Res	Type
22	V	93	ASP
22	V	177	PRO
23	W	47	PRO
24	X	10	LYS
24	X	11	ARG
24	X	32	LYS
24	X	85	LEU
25	Y	3	LEU
25	Y	44	LEU
26	Z	13	ILE
27	1	44	CYS
27	1	52	SER
28	2	4	HIS
28	2	35	GLU
28	2	49	CYS
29	3	28	ARG
29	3	51	GLU
31	5	31	HIS
31	5	34	TRP
31	5	51	ALA
31	5	62	LEU
3	C	169	GLU
3	C	261	LYS
3	C	268	ARG
4	D	29	GLY
4	D	86	PRO
5	E	19	GLU
5	E	68	LYS
5	E	132	VAL
6	F	26	GLN
6	F	96	ARG
6	F	115	ARG
7	G	21	PRO
7	G	138	LYS
8	H	15	VAL
8	H	16	GLY
8	H	74	ASN
8	H	91	SER
8	H	92	VAL
10	J	81	ASP
10	J	89	LYS
12	L	32	THR

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Mol	Chain	Res	Type
12	L	137	LYS
13	M	47	ILE
13	M	136	ALA
13	M	140	ALA
14	N	8	ARG
15	O	57	LYS
15	O	82	ILE
15	O	90	GLY
15	O	95	HIS
16	P	2	ASN
16	P	36	GLU
16	P	57	PHE
16	P	97	ALA
16	P	106	SER
16	P	115	ARG
16	P	126	ALA
16	P	127	ALA
17	Q	54	LYS
17	Q	98	LEU
17	Q	117	GLN
18	R	46	VAL
18	R	100	ARG
19	S	61	ASN
19	S	63	ASP
21	U	3	VAL
21	U	11	ASP
21	U	17	SER
21	U	69	ALA
21	U	98	VAL
22	V	80	ARG
22	V	135	GLU
22	V	178	GLU
23	W	74	ARG
24	X	13	ILE
25	Y	43	GLN
25	Y	61	LEU
3	C	35	LYS
3	C	42	GLY
3	C	43	ARG
3	C	115	GLN
3	C	125	ILE
3	C	134	ARG

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Mol	Chain	Res	Type
4	D	159	HIS
5	E	66	PRO
5	E	86	GLY
5	E	145	GLU
5	E	176	LEU
6	F	14	GLU
6	F	148	MET
7	G	80	SER
7	G	155	SER
8	H	30	LEU
8	H	77	LEU
8	H	99	GLU
8	H	144	VAL
10	J	152	PRO
12	L	12	ALA
12	L	42	SER
12	L	43	GLY
12	L	52	GLU
12	L	90	ARG
12	L	136	GLU
13	M	10	ARG
13	M	22	LYS
13	M	54	MET
14	N	32	GLY
15	O	83	LYS
15	O	85	VAL
15	O	89	ARG
15	O	91	PRO
17	Q	93	LYS
17	Q	96	ALA
18	R	61	VAL
20	T	72	LYS
21	U	42	VAL
21	U	90	LEU
21	U	99	CYS
22	V	38	TYR
22	V	117	LEU
22	V	142	SER
22	V	153	SER
23	W	57	PHE
24	X	56	GLN
24	X	83	GLU

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Mol	Chain	Res	Type
25	Y	17	SER
28	2	46	CYS
29	3	31	PRO
29	3	32	ASN
29	3	46	HIS
31	5	3	LYS
3	C	37	LEU
3	C	224	ALA
3	C	239	ARG
3	C	256	GLY
4	D	60	ASN
4	D	87	GLU
4	D	178	GLU
4	D	185	LYS
5	E	48	THR
5	E	127	GLU
6	F	24	GLY
6	F	25	TYR
6	F	46	ALA
7	G	107	VAL
8	H	7	GLU
8	H	60	GLU
10	J	156	GLN
10	J	158	PRO
11	K	21	CYS
11	K	97	ARG
12	L	47	ASP
12	L	70	GLN
12	L	109	GLY
15	O	62	LYS
16	P	4	GLY
18	R	48	GLY
18	R	53	GLU
19	S	48	ALA
19	S	64	MET
20	T	40	LYS
20	T	41	ASN
20	T	87	GLN
21	U	39	VAL
21	U	80	GLY
22	V	39	VAL
22	V	101	PRO

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Mol	Chain	Res	Type
24	X	9	GLY
27	1	41	ILE
27	1	54	LYS
27	1	62	CYS
30	4	47	ARG
31	5	61	LEU
4	D	69	LYS
4	D	94	GLU
5	E	134	GLY
7	G	15	VAL
7	G	90	LYS
8	H	86	THR
8	H	93	THR
10	J	75	VAL
10	J	105	LEU
10	J	106	LYS
11	K	120	GLU
12	L	108	LYS
13	M	117	ALA
14	N	10	LEU
14	N	45	ARG
14	N	85	PRO
16	P	14	TYR
17	Q	58	ARG
17	Q	86	ALA
19	S	67	ASP
21	U	47	LYS
22	V	140	ASP
24	X	36	GLY
24	X	38	SER
24	X	53	VAL
25	Y	47	ASN
4	D	201	THR
5	E	144	LYS
8	H	76	THR
11	K	22	ILE
13	M	62	GLY
15	O	101	LEU
22	V	114	GLY
22	V	133	ILE
22	V	134	PRO
4	D	61	ARG

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Mol	Chain	Res	Type
5	E	206	ILE
10	J	133	GLY
12	L	19	VAL
13	M	23	GLY
17	Q	26	GLY
17	Q	65	ILE
22	V	37	VAL
21	U	18	GLY
21	U	41	GLY
21	U	55	TYR
21	U	96	ILE
24	X	31	GLY
3	C	123	ALA
4	D	30	PRO
5	E	25	PRO
14	N	58	GLY
16	P	81	PRO
18	R	50	PRO
20	T	84	ALA
6	F	109	VAL
6	F	142	PRO
12	L	10	PRO
13	M	81	VAL
13	M	92	GLY
17	Q	8	VAL
18	R	17	GLY
25	Y	50	ILE
7	G	52	VAL
12	L	125	VAL
24	X	14	VAL
27	1	47	VAL

### 5.3.2 Protein sidechains ⓘ

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
3	C	213/213 (100%)	164 (77%)	49 (23%)	<b>1</b> <b>6</b>

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
4	D	165/165 (100%)	129 (78%)	36 (22%)	1	7
5	E	161/161 (100%)	124 (77%)	37 (23%)	1	6
6	F	155/155 (100%)	132 (85%)	23 (15%)	4	25
7	G	132/132 (100%)	108 (82%)	24 (18%)	2	13
8	H	122/122 (100%)	103 (84%)	19 (16%)	4	23
9	I	27/53 (51%)	25 (93%)	2 (7%)	20	65
10	J	116/116 (100%)	84 (72%)	32 (28%)	0	3
11	K	100/100 (100%)	78 (78%)	22 (22%)	1	7
12	L	112/112 (100%)	75 (67%)	37 (33%)	0	2
13	M	106/106 (100%)	82 (77%)	24 (23%)	1	6
14	N	100/100 (100%)	75 (75%)	25 (25%)	1	5
15	O	77/77 (100%)	63 (82%)	14 (18%)	2	13
16	P	121/121 (100%)	96 (79%)	25 (21%)	2	8
17	Q	92/92 (100%)	71 (77%)	21 (23%)	1	6
18	R	82/82 (100%)	63 (77%)	19 (23%)	1	6
19	S	91/91 (100%)	65 (71%)	26 (29%)	0	3
20	T	74/74 (100%)	60 (81%)	14 (19%)	2	12
21	U	84/84 (100%)	66 (79%)	18 (21%)	1	8
22	V	163/163 (100%)	142 (87%)	21 (13%)	6	32
23	W	61/61 (100%)	52 (85%)	9 (15%)	4	25
24	X	73/73 (100%)	50 (68%)	23 (32%)	0	3
25	Y	58/58 (100%)	46 (79%)	12 (21%)	2	8
26	Z	51/51 (100%)	43 (84%)	8 (16%)	4	23
27	1	27/27 (100%)	26 (96%)	1 (4%)	45	85
28	2	45/45 (100%)	40 (89%)	5 (11%)	9	40
29	3	43/43 (100%)	38 (88%)	5 (12%)	8	37
30	4	41/41 (100%)	29 (71%)	12 (29%)	0	3
31	5	53/53 (100%)	42 (79%)	11 (21%)	2	8
All	All	2745/2771 (99%)	2171 (79%)	574 (21%)	1	8

All (574) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
3	C	10	THR
3	C	13	ARG
3	C	14	ARG
3	C	16	MET
3	C	33	LEU
3	C	38	LYS
3	C	44	ASN
3	C	61	LEU
3	C	68	LYS
3	C	69	ARG
3	C	73	VAL
3	C	87	ASN
3	C	94	LEU
3	C	95	LEU
3	C	99	ASP
3	C	102	LYS
3	C	103	ARG
3	C	105	ILE
3	C	111	LEU
3	C	112	GLN
3	C	125	ILE
3	C	126	GLN
3	C	131	LEU
3	C	134	ARG
3	C	138	VAL
3	C	141	VAL
3	C	150	LYS
3	C	154	LYS
3	C	155	LEU
3	C	166	GLN
3	C	171	ASP
3	C	174	ILE
3	C	192	THR
3	C	193	VAL
3	C	198	ASN
3	C	204	ILE
3	C	205	VAL
3	C	211	ARG
3	C	212	SER
3	C	218	ARG
3	C	226	MET
3	C	227	ASN
3	C	229	VAL

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Mol	Chain	Res	Type
3	C	237	GLU
3	C	242	ARG
3	C	244	ARG
3	C	259	THR
3	C	270	ILE
3	C	271	ILE
4	D	1	MET
4	D	4	ILE
4	D	5	LEU
4	D	9	VAL
4	D	16	ARG
4	D	18	ASP
4	D	33	VAL
4	D	34	VAL
4	D	40	GLU
4	D	45	THR
4	D	49	LEU
4	D	54	GLN
4	D	57	LYS
4	D	76	ARG
4	D	77	ILE
4	D	79	ARG
4	D	84	PHE
4	D	95	ILE
4	D	116	VAL
4	D	121	ASN
4	D	141	ILE
4	D	145	LYS
4	D	152	LYS
4	D	154	LYS
4	D	156	MET
4	D	160	TYR
4	D	167	VAL
4	D	169	ASN
4	D	170	LEU
4	D	171	GLU
4	D	173	VAL
4	D	175	VAL
4	D	176	ILE
4	D	181	LEU
4	D	184	VAL
4	D	197	ILE

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Mol	Chain	Res	Type
5	E	6	MET
5	E	8	GLN
5	E	9	ILE
5	E	24	LEU
5	E	33	LEU
5	E	46	ARG
5	E	48	THR
5	E	50	SER
5	E	53	THR
5	E	64	ILE
5	E	65	TRP
5	E	67	GLN
5	E	68	LYS
5	E	70	THR
5	E	74	ARG
5	E	78	ILE
5	E	82	ILE
5	E	88	VAL
5	E	98	SER
5	E	100	THR
5	E	106	ARG
5	E	122	LYS
5	E	125	LEU
5	E	127	GLU
5	E	129	PHE
5	E	136	THR
5	E	158	THR
5	E	160	ASN
5	E	164	ARG
5	E	165	ARG
5	E	174	VAL
5	E	175	THR
5	E	181	LEU
5	E	183	VAL
5	E	192	LEU
5	E	194	MET
5	E	197	ASP
6	F	5	LEU
6	F	8	LYS
6	F	26	GLN
6	F	33	ARG
6	F	35	GLU

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Mol	Chain	Res	Type
6	F	47	LYS
6	F	78	SER
6	F	86	MET
6	F	90	LEU
6	F	93	THR
6	F	94	LEU
6	F	97	ASP
6	F	98	ARG
6	F	107	LEU
6	F	115	ARG
6	F	128	ARG
6	F	132	ASN
6	F	143	GLU
6	F	155	MET
6	F	157	ILE
6	F	159	VAL
6	F	161	THR
6	F	166	ASP
7	G	13	LYS
7	G	23	ARG
7	G	34	GLU
7	G	37	VAL
7	G	57	ASP
7	G	60	ARG
7	G	71	LEU
7	G	90	LYS
7	G	94	TYR
7	G	101	ARG
7	G	116	GLU
7	G	122	THR
7	G	123	PHE
7	G	124	GLU
7	G	129	THR
7	G	133	VAL
7	G	136	ILE
7	G	139	GLN
7	G	140	LYS
7	G	147	ASN
7	G	151	ILE
7	G	158	HIS
7	G	162	ILE
7	G	163	TYR

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Mol	Chain	Res	Type
8	H	3	VAL
8	H	4	ILE
8	H	5	LEU
8	H	6	LEU
8	H	14	ASP
8	H	20	ASP
8	H	21	VAL
8	H	33	ARG
8	H	40	THR
8	H	50	ARG
8	H	67	ARG
8	H	68	LEU
8	H	73	GLU
8	H	77	LEU
8	H	89	TYR
8	H	91	SER
8	H	109	ILE
8	H	135	GLU
8	H	142	VAL
9	I	3	ASN
9	I	58	LEU
10	J	38	LEU
10	J	39	ILE
10	J	42	GLU
10	J	46	LEU
10	J	51	THR
10	J	56	LEU
10	J	57	LEU
10	J	68	ASN
10	J	71	MET
10	J	81	ASP
10	J	83	ILE
10	J	86	THR
10	J	92	GLN
10	J	105	LEU
10	J	106	LYS
10	J	110	LEU
10	J	112	LYS
10	J	113	MET
10	J	116	THR
10	J	117	HIS
10	J	122	LEU

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Mol	Chain	Res	Type
10	J	126	VAL
10	J	129	MET
10	J	132	LYS
10	J	137	ARG
10	J	142	ARG
10	J	143	LEU
10	J	144	LYS
10	J	146	TYR
10	J	154	GLN
10	J	160	LYS
10	J	161	LEU
11	K	2	ILE
11	K	3	GLN
11	K	4	PRO
11	K	19	ILE
11	K	22	ILE
11	K	23	ARG
11	K	24	VAL
11	K	26	LYS
11	K	31	LYS
11	K	32	TYR
11	K	47	ILE
11	K	52	VAL
11	K	65	THR
11	K	78	ARG
11	K	87	ILE
11	K	89	ASN
11	K	90	GLN
11	K	91	LEU
11	K	98	VAL
11	K	99	PHE
11	K	102	VAL
11	K	115	VAL
12	L	9	ASN
12	L	15	ARG
12	L	16	ARG
12	L	18	ARG
12	L	19	VAL
12	L	29	LYS
12	L	33	ARG
12	L	39	LYS
12	L	40	SER

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Mol	Chain	Res	Type
12	L	41	ARG
12	L	42	SER
12	L	49	ARG
12	L	50	ARG
12	L	51	PHE
12	L	52	GLU
12	L	55	ARG
12	L	56	SER
12	L	57	THR
12	L	59	LEU
12	L	61	ARG
12	L	62	LEU
12	L	67	MET
12	L	75	ILE
12	L	81	GLN
12	L	83	VAL
12	L	85	LEU
12	L	88	LEU
12	L	91	PHE
12	L	105	LEU
12	L	111	ARG
12	L	114	ILE
12	L	123	LEU
12	L	135	LEU
12	L	144	GLU
12	L	146	VAL
12	L	147	LEU
12	L	148	LEU
13	M	6	ARG
13	M	9	TYR
13	M	11	LYS
13	M	13	GLN
13	M	22	LYS
13	M	25	ASP
13	M	43	THR
13	M	45	GLN
13	M	52	VAL
13	M	58	PHE
13	M	59	ARG
13	M	63	LYS
13	M	66	ILE
13	M	79	LEU

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Mol	Chain	Res	Type
13	M	80	GLU
13	M	81	VAL
13	M	83	MET
13	M	89	ASN
13	M	103	MET
13	M	109	VAL
13	M	115	MET
13	M	119	ARG
13	M	132	VAL
13	M	135	ASP
14	N	2	ARG
14	N	8	ARG
14	N	10	LEU
14	N	12	ARG
14	N	15	SER
14	N	17	ARG
14	N	18	LEU
14	N	28	LEU
14	N	35	THR
14	N	37	THR
14	N	44	LEU
14	N	52	ILE
14	N	54	LEU
14	N	60	LEU
14	N	63	ARG
14	N	67	LEU
14	N	70	LEU
14	N	75	LEU
14	N	79	LEU
14	N	95	THR
14	N	98	LEU
14	N	99	LYS
14	N	104	ARG
14	N	107	ASP
14	N	111	LEU
15	O	12	PHE
15	O	13	ARG
15	O	26	LEU
15	O	30	ARG
15	O	36	TYR
15	O	40	ILE
15	O	44	LYS

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Mol	Chain	Res	Type
15	O	48	LEU
15	O	54	LEU
15	O	63	THR
15	O	69	VAL
15	O	92	TYR
15	O	93	LYS
15	O	101	LEU
16	P	15	VAL
16	P	19	LEU
16	P	23	ARG
16	P	28	VAL
16	P	30	VAL
16	P	41	ARG
16	P	50	ILE
16	P	51	ARG
16	P	53	ARG
16	P	54	ARG
16	P	58	ASN
16	P	61	PHE
16	P	63	VAL
16	P	75	ILE
16	P	84	GLN
16	P	85	LYS
16	P	86	ILE
16	P	87	ASP
16	P	88	ILE
16	P	89	VAL
16	P	99	LEU
16	P	100	TYR
16	P	112	ARG
16	P	113	LYS
16	P	115	ARG
17	Q	8	VAL
17	Q	14	HIS
17	Q	18	LEU
17	Q	20	LEU
17	Q	27	LEU
17	Q	34	LYS
17	Q	40	PHE
17	Q	52	ARG
17	Q	55	ARG
17	Q	62	ILE

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Mol	Chain	Res	Type
17	Q	64	ARG
17	Q	70	ARG
17	Q	74	LEU
17	Q	76	TYR
17	Q	79	PHE
17	Q	80	ILE
17	Q	92	ARG
17	Q	97	ASP
17	Q	101	ARG
17	Q	108	GLU
17	Q	112	ARG
18	R	5	VAL
18	R	10	LYS
18	R	12	TYR
18	R	13	ARG
18	R	18	LEU
18	R	20	LEU
18	R	21	ARG
18	R	37	VAL
18	R	39	LEU
18	R	44	LYS
18	R	53	GLU
18	R	57	VAL
18	R	72	VAL
18	R	78	LYS
18	R	79	VAL
18	R	80	GLN
18	R	88	ARG
18	R	98	GLU
18	R	99	ILE
19	S	1	MET
19	S	8	ARG
19	S	10	VAL
19	S	11	ARG
19	S	15	ARG
19	S	17	VAL
19	S	19	LEU
19	S	23	LEU
19	S	28	SER
19	S	36	LEU
19	S	39	THR
19	S	47	VAL

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Mol	Chain	Res	Type
19	S	51	LEU
19	S	53	SER
19	S	60	ASN
19	S	61	ASN
19	S	69	LEU
19	S	75	TYR
19	S	76	VAL
19	S	78	GLU
19	S	84	ARG
19	S	92	ARG
19	S	96	ILE
19	S	100	THR
19	S	105	VAL
19	S	107	LEU
20	T	9	LEU
20	T	12	VAL
20	T	28	PHE
20	T	39	ILE
20	T	45	THR
20	T	49	VAL
20	T	52	VAL
20	T	57	LEU
20	T	62	LYS
20	T	65	ARG
20	T	68	ARG
20	T	70	LEU
20	T	80	ILE
20	T	81	VAL
21	U	4	LYS
21	U	6	HIS
21	U	8	LYS
21	U	9	LYS
21	U	30	VAL
21	U	31	LEU
21	U	32	PRO
21	U	60	PHE
21	U	61	ILE
21	U	62	GLU
21	U	63	LYS
21	U	67	LEU
21	U	71	LYS
21	U	76	CYS

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Mol	Chain	Res	Type
21	U	89	PHE
21	U	90	LEU
21	U	97	ARG
21	U	98	VAL
22	V	3	TYR
22	V	24	LEU
22	V	27	VAL
22	V	31	ARG
22	V	35	ARG
22	V	39	VAL
22	V	42	VAL
22	V	70	LEU
22	V	72	ARG
22	V	82	ARG
22	V	85	HIS
22	V	86	VAL
22	V	89	PHE
22	V	94	GLU
22	V	98	MET
22	V	118	GLN
22	V	140	ASP
22	V	146	ILE
22	V	150	LEU
22	V	161	VAL
22	V	163	LEU
23	W	14	ARG
23	W	20	ARG
23	W	21	LEU
23	W	38	VAL
23	W	53	MET
23	W	63	VAL
23	W	64	ASP
23	W	80	HIS
23	W	84	LEU
24	X	8	SER
24	X	13	ILE
24	X	17	SER
24	X	18	ILE
24	X	21	ARG
24	X	25	LYS
24	X	27	GLU
24	X	37	ILE

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Mol	Chain	Res	Type
24	X	38	SER
24	X	40	ARG
24	X	41	ARG
24	X	45	ASN
24	X	46	LEU
24	X	51	VAL
24	X	58	ILE
24	X	60	PHE
24	X	70	VAL
24	X	72	GLU
24	X	73	LEU
24	X	75	GLU
24	X	80	LEU
24	X	88	LYS
24	X	95	LEU
25	Y	1	MET
25	Y	2	LYS
25	Y	3	LEU
25	Y	5	GLU
25	Y	19	VAL
25	Y	21	LEU
25	Y	24	LEU
25	Y	32	LEU
25	Y	35	LEU
25	Y	57	ILE
25	Y	61	LEU
25	Y	62	THR
26	Z	1	MET
26	Z	8	LEU
26	Z	37	LEU
26	Z	40	THR
26	Z	43	ILE
26	Z	52	HIS
26	Z	55	ARG
26	Z	56	VAL
27	1	60	GLU
28	2	3	LYS
28	2	4	HIS
28	2	11	THR
28	2	25	LEU
28	2	52	TYR
29	3	12	GLU

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Mol	Chain	Res	Type
29	3	29	ASN
29	3	30	THR
29	3	34	LEU
29	3	42	TRP
30	4	4	THR
30	4	8	ASN
30	4	9	ARG
30	4	15	THR
30	4	19	ARG
30	4	24	THR
30	4	31	LEU
30	4	34	ARG
30	4	36	GLN
30	4	41	ARG
30	4	42	LEU
30	4	46	VAL
31	5	4	MET
31	5	11	LYS
31	5	19	SER
31	5	30	ARG
31	5	31	HIS
31	5	33	ASN
31	5	41	ILE
31	5	57	ARG
31	5	60	LEU
31	5	62	LEU
31	5	64	TYR

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (86) such sidechains are listed below:

Mol	Chain	Res	Type
3	C	58	HIS
3	C	87	ASN
3	C	116	GLN
3	C	126	GLN
3	C	166	GLN
3	C	186	HIS
3	C	198	ASN
3	C	220	HIS
3	C	227	ASN
3	C	231	HIS
3	C	233	HIS

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Mol	Chain	Res	Type
4	D	60	ASN
4	D	66	HIS
4	D	85	ASN
4	D	132	HIS
4	D	143	ASN
4	D	169	ASN
4	D	192	ASN
5	E	67	GLN
5	E	75	HIS
5	E	160	ASN
5	E	169	ASN
6	F	58	GLN
6	F	108	ASN
6	F	121	ASN
6	F	132	ASN
7	G	65	HIS
7	G	147	ASN
8	H	17	GLN
8	H	104	GLN
8	H	133	HIS
9	I	3	ASN
9	I	56	ASN
10	J	61	HIS
10	J	68	ASN
10	J	79	ASN
10	J	151	HIS
10	J	153	HIS
10	J	154	GLN
11	K	82	ASN
12	L	70	GLN
13	M	45	GLN
14	N	3	HIS
14	N	16	HIS
14	N	53	HIS
14	N	61	HIS
14	N	71	GLN
14	N	91	GLN
16	P	58	ASN
16	P	84	GLN
16	P	90	GLN
17	Q	14	HIS
17	Q	49	HIS

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Mol	Chain	Res	Type
17	Q	72	HIS
17	Q	75	ASN
18	R	11	GLN
18	R	64	HIS
18	R	87	HIS
19	S	34	ASN
19	S	57	ASN
19	S	61	ASN
19	S	102	HIS
20	T	31	HIS
20	T	41	ASN
20	T	55	ASN
20	T	82	GLN
20	T	87	GLN
21	U	6	HIS
22	V	73	GLN
22	V	121	HIS
23	W	35	ASN
23	W	50	ASN
24	X	45	ASN
24	X	56	GLN
24	X	66	HIS
25	Y	47	ASN
25	Y	56	GLN
26	Z	19	GLN
26	Z	46	ASN
26	Z	52	HIS
28	2	22	HIS
28	2	23	HIS
28	2	43	HIS
29	3	29	ASN
30	4	8	ASN
31	5	33	ASN

### 5.3.3 RNA ⓘ

Mol	Chain	Analysed	Backbone Outliers	Pucker Outliers
1	A	2755/2879 (95%)	584 (21%)	27 (0%)
2	B	118/119 (99%)	26 (22%)	0
All	All	2873/2998 (95%)	610 (21%)	27 (0%)

All (610) RNA backbone outliers are listed below:

Mol	Chain	Res	Type
1	A	10	G
1	A	11	G
1	A	34	C
1	A	35	G
1	A	46	C
1	A	64	A
1	A	71	A
1	A	72	U
1	A	74	A
1	A	75	G
1	A	84	A
1	A	96	G
1	A	97	C
1	A	101	G
1	A	102	G
1	A	116	C
1	A	118	A
1	A	119	A
1	A	120	U
1	A	125	G
1	A	135	G
1	A	138	G
1	A	139	G
1	A	140	A
1	A	181	A
1	A	192	C
1	A	195	A
1	A	196	A
1	A	197	A
1	A	198	C
1	A	199	A
1	A	205	G
1	A	215	G
1	A	216	A
1	A	218	A
1	A	221	A
1	A	222	A
1	A	225	A
1	A	228	A
1	A	229	A
1	A	230	U
1	A	244	A
1	A	248	G

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Mol	Chain	Res	Type
1	A	249	C
1	A	252	G
1	A	257	A
1	A	258	G
1	A	265	A
1	A	269	U
1	A	270(K)	G
1	A	270(L)	C
1	A	270(M)	U
1	A	270(N)	U
1	A	270(O)	G
1	A	270(Q)	C
1	A	270(R)	C
1	A	271(D)	U
1	A	271	G
1	A	274	G
1	A	275	G
1	A	276	A
1	A	277	C
1	A	278	A
1	A	283	A
1	A	302	C
1	A	304	G
1	A	311	A
1	A	323	G
1	A	324	A
1	A	329	G
1	A	330	A
1	A	334	C
1	A	335	C
1	A	345	A
1	A	352	G
1	A	353	G
1	A	360	G
1	A	363(A)	G
1	A	372	G
1	A	386	G
1	A	396	G
1	A	405	U
1	A	406	G
1	A	407	G
1	A	411	G

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Mol	Chain	Res	Type
1	A	416	C
1	A	421	U
1	A	444	C
1	A	455	C
1	A	456	C
1	A	457	A
1	A	464	U
1	A	467	G
1	A	480	A
1	A	481	G
1	A	483	A
1	A	491	G
1	A	504	U
1	A	505	A
1	A	508	G
1	A	509	C
1	A	530	G
1	A	531	C
1	A	532	A
1	A	533	G
1	A	546	C
1	A	547	A
1	A	548	A
1	A	558	G
1	A	563	G
1	A	566	U
1	A	573	G
1	A	575	A
1	A	580	C
1	A	586	A
1	A	593	G
1	A	595	C
1	A	599	G
1	A	603	A
1	A	609(A)	A
1	A	615	G
1	A	617	G
1	A	620	G
1	A	627	A
1	A	632	A
1	A	637	A
1	A	645	C

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Mol	Chain	Res	Type
1	A	646	A
1	A	654	U
1	A	655	A
1	A	682	G
1	A	686	G
1	A	694	U
1	A	695	G
1	A	717	G
1	A	730	C
1	A	739	G
1	A	746	A
1	A	747	U
1	A	775	G
1	A	776	G
1	A	777	A
1	A	782	A
1	A	784	A
1	A	785	G
1	A	787	U
1	A	792	G
1	A	805	G
1	A	812	C
1	A	819	A
1	A	822	U
1	A	827	U
1	A	828	U
1	A	832	G
1	A	846	C
1	A	855	G
1	A	857	C
1	A	859	G
1	A	868	U
1	A	869	G
1	A	878	A
1	A	887	A
1	A	889	C
1	A	890	A
1	A	896	A
1	A	897	C
1	A	910	A
1	A	914	C
1	A	915	C

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Mol	Chain	Res	Type
1	A	917	A
1	A	919	G
1	A	932	G
1	A	933	A
1	A	934	G
1	A	938	G
1	A	941	A
1	A	946	G
1	A	948	G
1	A	957	A
1	A	958	U
1	A	959	A
1	A	961	C
1	A	964	C
1	A	974(A)	G
1	A	974(B)	C
1	A	975	G
1	A	979	G
1	A	983	A
1	A	989	G
1	A	990	A
1	A	991	C
1	A	996	A
1	A	1005	C
1	A	1009	A
1	A	1010	A
1	A	1011	G
1	A	1012	U
1	A	1013	C
1	A	1020	A
1	A	1022	G
1	A	1023	U
1	A	1025	G
1	A	1026	U
1	A	1030	G
1	A	1033	U
1	A	1046	A
1	A	1047	G
1	A	1053	C
1	A	1105	U
1	A	1110	G
1	A	1112	G

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Mol	Chain	Res	Type
1	A	1122	G
1	A	1126	A
1	A	1129	A
1	A	1130	U
1	A	1135	C
1	A	1136	G
1	A	1139	G
1	A	1142	U
1	A	114(B)	A
1	A	1143	A
1	A	1144	G
1	A	1151	G
1	A	1155	A
1	A	1156	A
1	A	1174	A
1	A	1175	U
1	A	1177	A
1	A	1178	C
1	A	1190	G
1	A	1205	U
1	A	1210	A
1	A	1211	U
1	A	1212	G
1	A	1220	A
1	A	1221	C
1	A	1227	G
1	A	1236	G
1	A	1248	G
1	A	1253	A
1	A	1256	G
1	A	1269	A
1	A	1271	G
1	A	1272	A
1	A	1273	U
1	A	1287	A
1	A	1288	U
1	A	1289	C
1	A	1300	U
1	A	1301	A
1	A	1310	G
1	A	1313	U
1	A	1314	C

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Mol	Chain	Res	Type
1	A	1317	A
1	A	1329	U
1	A	1332	G
1	A	1338	G
1	A	1343	G
1	A	1344	G
1	A	1345	C
1	A	1349	A
1	A	1352	U
1	A	1359	A
1	A	1360	A
1	A	1365	A
1	A	1368	G
1	A	1380	G
1	A	1384	A
1	A	1385	G
1	A	1396	U
1	A	1405	U
1	A	1416	G
1	A	1417	C
1	A	1420	U
1	A	1427	A
1	A	1428	C
1	A	1434	A
1	A	144(B)	A
1	A	1453	A
1	A	1458	C
1	A	1459	G
1	A	1467	C
1	A	1469	A
1	A	1483	G
1	A	1490	A
1	A	1493	C
1	A	1494	A
1	A	1495	A
1	A	1496	A
1	A	1497	U
1	A	1505	C
1	A	1509	A
1	A	1510	A
1	A	1519	G
1	A	1535	U

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Mol	Chain	Res	Type
1	A	1537	C
1	A	1542	G
1	A	1543	A
1	A	1544	C
1	A	1545	A
1	A	1547	C
1	A	1558	A
1	A	1559	G
1	A	1565	C
1	A	1566	A
1	A	1569	A
1	A	1578	U
1	A	1585	C
1	A	1586	A
1	A	1588	C
1	A	1598	C
1	A	1599	C
1	A	1608	A
1	A	1609	A
1	A	1610	A
1	A	1616	A
1	A	1617	C
1	A	1618	A
1	A	1631	A
1	A	1639	U
1	A	1640	C
1	A	1644	C
1	A	1647	G
1	A	1648	C
1	A	1651	G
1	A	1654	A
1	A	1669	A
1	A	1674	G
1	A	1677	A
1	A	1680	U
1	A	1681	G
1	A	1690	A
1	A	1696	G
1	A	1703	G
1	A	1727	U
1	A	1729	A
1	A	1743	G

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Mol	Chain	Res	Type
1	A	1750	G
1	A	1756	G
1	A	1761	C
1	A	1763	G
1	A	1764	G
1	A	1767	C
1	A	1773	A
1	A	1778	U
1	A	1787	A
1	A	1791	A
1	A	1800	C
1	A	1801	G
1	A	1811	G
1	A	1813	G
1	A	1816	G
1	A	1829	A
1	A	1835	G
1	A	1838	C
1	A	1840	G
1	A	1847	A
1	A	1870	C
1	A	1887	C
1	A	1888	G
1	A	1889	A
1	A	1896	G
1	A	1900	A
1	A	1902	C
1	A	1903	G
1	A	1906	G
1	A	1913	A
1	A	1914	C
1	A	1929	G
1	A	1930	G
1	A	1936	A
1	A	1938	A
1	A	1939	U
1	A	1955	U
1	A	1956	U
1	A	1960	A
1	A	1963	U
1	A	1964	G
1	A	1966	A

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Mol	Chain	Res	Type
1	A	1967	C
1	A	1970	A
1	A	1971	A
1	A	1972	A
1	A	1974	C
1	A	1975	G
1	A	1981	A
1	A	1982	C
1	A	1985	G
1	A	1991	U
1	A	1992	G
1	A	1993	U
1	A	1997	G
1	A	2007	C
1	A	2010	G
1	A	2020	A
1	A	2023	G
1	A	2031	A
1	A	2032	G
1	A	2033	A
1	A	2034	U
1	A	2036	C
1	A	2043	C
1	A	2049	G
1	A	2051	A
1	A	2055	C
1	A	2056	G
1	A	2060	A
1	A	2061	G
1	A	2062	A
1	A	2063	C
1	A	2067	G
1	A	2069	G
1	A	2079	U
1	A	2080	G
1	A	2086	U
1	A	2099	U
1	A	2183	C
1	A	2189	U
1	A	2190	G
1	A	2198	A
1	A	2211	G

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Mol	Chain	Res	Type
1	A	2212	A
1	A	2213	U
1	A	2215	G
1	A	2225	A
1	A	2226	C
1	A	2227	A
1	A	2228	G
1	A	2235	G
1	A	2238	G
1	A	2239	G
1	A	2267	A
1	A	2268	A
1	A	2269	A
1	A	2272	U
1	A	2273	A
1	A	2275	C
1	A	2278	A
1	A	2283	C
1	A	2287	A
1	A	2288	A
1	A	2305	A
1	A	2306	C
1	A	2307	G
1	A	2309	A
1	A	2310	A
1	A	2319	G
1	A	2320	A
1	A	2322	A
1	A	2325	G
1	A	2334	G
1	A	2336	A
1	A	2343	C
1	A	2346	A
1	A	2347	C
1	A	2350	C
1	A	2358	G
1	A	2361	A
1	A	2365	G
1	A	2379	G
1	A	2383	G
1	A	2384	G
1	A	2385	C

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Mol	Chain	Res	Type
1	A	2388	A
1	A	2389	G
1	A	2394	C
1	A	2402	C
1	A	2403	C
1	A	2405	G
1	A	2406	U
1	A	2410	G
1	A	2413	G
1	A	2414	G
1	A	2422	A
1	A	2423	U
1	A	2424	C
1	A	2425	A
1	A	2429	G
1	A	2430	A
1	A	2431	U
1	A	2434	A
1	A	2436	G
1	A	2439	A
1	A	2440	C
1	A	2441	C
1	A	2448	A
1	A	2468	G
1	A	2469	A
1	A	2470	G
1	A	2474	C
1	A	2476	A
1	A	2477	C
1	A	2478	A
1	A	2484	G
1	A	2491	U
1	A	2496	C
1	A	2502	G
1	A	2503	A
1	A	2505	G
1	A	2515	C
1	A	2518	A
1	A	2520	C
1	A	2525	G
1	A	2529	G
1	A	2532	G

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Mol	Chain	Res	Type
1	A	2535	G
1	A	2541	A
1	A	2542	A
1	A	2543	G
1	A	2550	G
1	A	2554	U
1	A	2566	A
1	A	2567	G
1	A	2574	G
1	A	2585	U
1	A	2593	U
1	A	2599	G
1	A	2602	A
1	A	2603	G
1	A	2604	U
1	A	2609	U
1	A	2612	C
1	A	2613	U
1	A	2615	U
1	A	2617	C
1	A	2621	A
1	A	2636	U
1	A	2637	U
1	A	2638	G
1	A	2647	U
1	A	2657	A
1	A	2660	A
1	A	2665	A
1	A	2679	A
1	A	2682	U
1	A	2683	C
1	A	2684	U
1	A	2689	U
1	A	2691	C
1	A	2693	A
1	A	2700	C
1	A	2702	U
1	A	2703	C
1	A	2705	A
1	A	2707	G
1	A	2712	U
1	A	712(B)	A

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Mol	Chain	Res	Type
1	A	2713	A
1	A	2714	G
1	A	2719	G
1	A	2724	C
1	A	2726	U
1	A	2730	C
1	A	2731	G
1	A	2733	A
1	A	2748	A
1	A	2751	G
1	A	2755	C
1	A	2757	A
1	A	2758	A
1	A	2764	A
1	A	2765	A
1	A	2766	G
1	A	2768	C
1	A	2778	A
1	A	2779	U
1	A	2781	A
1	A	2790	A
1	A	2791	C
1	A	2792	G
1	A	2808	U
1	A	2818	G
1	A	2820	A
1	A	2821	A
1	A	2825	U
1	A	2833	G
1	A	2834	G
1	A	2835	A
1	A	2836	U
1	A	2872	G
1	A	2874	C
1	A	2886	G
1	A	2892	A
1	A	2894	G
2	B	5	C
2	B	9	G
2	B	12	C
2	B	13	A
2	B	15	A

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Mol	Chain	Res	Type
2	B	16	G
2	B	23	G
2	B	24	G
2	B	41	U
2	B	42	C
2	B	44	G
2	B	47	C
2	B	65	C
2	B	66	A
2	B	73	A
2	B	84	C
2	B	88	C
2	B	89(A)	G
2	B	89(B)	A
2	B	90	C
2	B	96	G
2	B	100	G
2	B	105	G
2	B	107	U
2	B	109	G
2	B	110	G

All (27) RNA pucker outliers are listed below:

Mol	Chain	Res	Type
1	A	196	A
1	A	257	A
1	A	385	C
1	A	479	A
1	A	685	A
1	A	746	A
1	A	791	C
1	A	974(A)	G
1	A	1022	G
1	A	1210	A
1	A	1343	G
1	A	1379	A
1	A	1558	A
1	A	1608	A
1	A	1609	A
1	A	1617	C
1	A	1786	A

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Mol	Chain	Res	Type
1	A	1936	A
1	A	2062	A
1	A	2225	A
1	A	2272	U
1	A	2275	C
1	A	2405	G
1	A	2433	A
1	A	2439	A
1	A	2542	A
1	A	2778	A

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

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

## 5.5 Carbohydrates ⓘ

There are no carbohydrates in this entry.

## 5.6 Ligand geometry ⓘ

Of 1194 ligands modelled in this entry, 1194 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

## 5.7 Other polymers ⓘ

There are no such residues in this entry.

## 5.8 Polymer linkage issues

There are no chain breaks in this entry.

## 6 Fit of model and data ⓘ

### 6.1 Protein, DNA and RNA chains ⓘ

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	A	2760/2879 (95%)	0.09	85 (3%) 47 19	27, 65, 180, 398	0
2	B	119/119 (100%)	0.85	19 (15%) 3 2	77, 129, 182, 232	0
3	C	271/271 (100%)	0.22	9 (3%) 44 18	25, 58, 109, 175	0
4	D	204/204 (100%)	0.42	12 (5%) 22 8	36, 73, 146, 341	0
5	E	202/202 (100%)	0.25	6 (2%) 48 20	31, 73, 155, 246	0
6	F	181/181 (100%)	1.43	49 (27%) 1 1	102, 182, 254, 314	0
7	G	159/159 (100%)	0.99	26 (16%) 2 2	85, 143, 221, 343	0
8	H	145/145 (100%)	2.07	55 (37%) 1 1	67, 243, 391, 482	0
9	I	32/65 (49%)	2.56	17 (53%) 0 1	171, 246, 347, 355	0
10	J	137/137 (100%)	0.60	6 (4%) 33 13	51, 81, 142, 201	0
11	K	122/122 (100%)	0.29	4 (3%) 44 18	42, 70, 111, 150	0
12	L	146/146 (100%)	0.79	17 (11%) 5 3	34, 97, 166, 309	0
13	M	136/136 (100%)	0.35	5 (3%) 39 15	49, 89, 199, 370	0
14	N	117/117 (100%)	0.45	1 (0%) 81 47	45, 73, 137, 249	0
15	O	98/98 (100%)	1.94	31 (31%) 1 1	82, 137, 197, 223	0
16	P	137/137 (100%)	0.36	11 (8%) 12 6	58, 93, 185, 250	0
17	Q	116/116 (100%)	0.15	1 (0%) 81 47	35, 75, 124, 239	0
18	R	101/101 (100%)	0.19	5 (4%) 28 10	41, 105, 164, 264	0
19	S	112/112 (100%)	0.72	15 (13%) 4 2	44, 59, 137, 254	0
20	T	92/92 (100%)	0.65	6 (6%) 18 7	45, 77, 129, 170	0
21	U	100/100 (100%)	1.79	40 (40%) 1 1	62, 104, 257, 396	0
22	V	188/188 (100%)	0.87	30 (15%) 3 2	83, 138, 195, 245	0
23	W	76/76 (100%)	0.74	6 (7%) 13 6	58, 84, 139, 261	0
24	X	88/88 (100%)	0.89	9 (10%) 7 4	37, 74, 153, 322	0

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Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
25	Y	62/62 (100%)	0.18	1 (1%) 68 32	57, 98, 209, 292	0
26	Z	59/59 (100%)	0.72	6 (10%) 7 4	43, 81, 156, 299	0
27	1	30/30 (100%)	1.52	10 (33%) 1 1	184, 253, 295, 311	0
28	2	52/52 (100%)	0.77	5 (9%) 8 4	26, 71, 187, 233	0
29	3	44/44 (100%)	4.92	26 (59%) 0 0	139, 249, 299, 320	0
30	4	48/48 (100%)	0.69	4 (8%) 11 5	33, 43, 93, 194	0
31	5	63/63 (100%)	1.00	8 (12%) 4 3	45, 68, 131, 215	0
All	All	6197/6349 (97%)	0.49	525 (8%) 11 5	25, 79, 224, 482	0

All (525) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
29	3	16	CYS	20.2
8	H	108	THR	17.1
29	3	43	CYS	13.0
29	3	13	CYS	11.7
29	3	41	PRO	11.1
9	I	5	ARG	11.1
29	3	15	GLU	10.8
29	3	49	HIS	10.3
15	O	59	LYS	10.1
29	3	14	THR	10.0
15	O	61	ASN	9.5
29	3	47	THR	9.5
8	H	127	VAL	9.4
8	H	128	LEU	9.4
29	3	17	LYS	9.2
29	3	48	VAL	9.1
2	B	30	C	8.6
1	A	2799	A	8.6
15	O	58	LEU	8.6
29	3	44	ARG	8.5
15	O	60	GLY	8.4
7	G	95	ARG	8.3
2	B	31	C	8.3
22	V	190	GLU	8.2
15	O	64	GLU	8.1
8	H	129	THR	7.5
2	B	88	C	7.5
29	3	42	TRP	7.5

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Mol	Chain	Res	Type	RSRZ
8	H	112	LYS	7.3
2	B	87	G	7.3
8	H	114	LEU	7.3
15	O	34	HIS	7.3
9	I	21	GLN	7.2
29	3	52	VAL	7.2
1	A	1053	C	7.2
29	3	51	GLU	7.1
21	U	50	ARG	7.0
29	3	40	CYS	7.0
29	3	19	ARG	6.9
1	A	229	A	6.9
6	F	139	LEU	6.8
8	H	62	LYS	6.8
21	U	52	SER	6.8
1	A	2798	C	6.7
29	3	50	ARG	6.7
8	H	111	PRO	6.5
29	3	21	TYR	6.4
12	L	102	ARG	6.3
8	H	137	PRO	6.2
8	H	140	LEU	6.2
15	O	67	ARG	6.1
29	3	20	ASN	6.0
6	F	146	TYR	6.0
21	U	53	PRO	5.9
1	A	1535	U	5.9
8	H	109	ILE	5.9
15	O	62	LYS	5.8
9	I	8	GLU	5.8
21	U	62	GLU	5.8
3	C	2	ALA	5.8
8	H	61	ARG	5.8
28	2	39	MET	5.6
21	U	87	LYS	5.6
2	B	51	G	5.6
21	U	55	TYR	5.6
29	3	45	LYS	5.5
6	F	162	THR	5.5
15	O	68	GLN	5.5
27	1	55	PRO	5.4
1	A	2797	U	5.4

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Mol	Chain	Res	Type	RSRZ
21	U	91	GLU	5.4
13	M	140	ALA	5.3
6	F	2	PRO	5.3
29	3	18	ARG	5.3
8	H	125	GLU	5.3
6	F	32	PRO	5.2
1	A	1026	U	5.2
8	H	60	GLU	5.1
2	B	67	G	5.1
6	F	19	LEU	5.1
19	S	1	MET	5.0
1	A	1741	C	5.0
15	O	21	THR	5.0
7	G	97	ARG	5.0
7	G	170	ARG	5.0
15	O	22	GLY	5.0
21	U	2	ARG	4.9
21	U	51	VAL	4.9
1	A	1414	G	4.9
16	P	137	LYS	4.9
4	D	204	ALA	4.8
15	O	65	VAL	4.8
8	H	58	LEU	4.8
15	O	32	LEU	4.8
6	F	21	ARG	4.8
8	H	139	GLN	4.8
9	I	9	LEU	4.8
27	1	39	ARG	4.8
7	G	96	ALA	4.8
26	Z	57	GLU	4.7
6	F	33	ARG	4.7
27	1	56	GLU	4.7
6	F	35	GLU	4.7
6	F	27	ASN	4.7
21	U	23	ARG	4.6
1	A	615	G	4.6
7	G	55	PRO	4.6
15	O	63	THR	4.6
21	U	28	LYS	4.6
12	L	5	ASP	4.6
19	S	112	GLY	4.6
7	G	41	MET	4.6

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Mol	Chain	Res	Type	RSRZ
4	D	203	LYS	4.6
15	O	97	ARG	4.6
6	F	138	GLN	4.6
12	L	6	LEU	4.6
13	M	141	GLN	4.6
5	E	152	GLU	4.5
6	F	26	GLN	4.5
21	U	68	HIS	4.4
6	F	13	GLU	4.4
15	O	103	GLU	4.4
6	F	11	TYR	4.4
21	U	5	MET	4.4
20	T	26	TYR	4.4
22	V	189	ALA	4.4
8	H	1	MET	4.4
1	A	1742	C	4.4
1	A	653	C	4.4
7	G	40	GLU	4.3
8	H	115	ALA	4.3
2	B	89(A)	G	4.2
7	G	64	LEU	4.2
19	S	2	GLU	4.2
6	F	14	GLU	4.2
22	V	140	ASP	4.2
9	I	15	GLU	4.2
1	A	1051	G	4.2
1	A	1052	C	4.2
22	V	163	LEU	4.1
7	G	101	ARG	4.1
12	L	94	GLU	4.1
8	H	134	PRO	4.1
30	4	48	LYS	4.1
15	O	66	ALA	4.1
15	O	54	LEU	4.1
6	F	168	GLU	4.0
1	A	265	A	4.0
8	H	68	LEU	4.0
6	F	34	LEU	4.0
27	1	37	PRO	4.0
9	I	20	ALA	4.0
12	L	149	GLU	4.0
8	H	85	GLU	3.9

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Mol	Chain	Res	Type	RSRZ
9	I	6	ASN	3.9
31	5	54	GLU	3.9
21	U	61	ILE	3.9
10	J	116	THR	3.9
8	H	133	HIS	3.9
7	G	103	LEU	3.9
19	S	31	GLU	3.9
21	U	40	GLU	3.9
7	G	125	VAL	3.8
10	J	115	ALA	3.8
8	H	38	LEU	3.8
12	L	9	ASN	3.8
8	H	132	PRO	3.8
6	F	28	VAL	3.8
6	F	85	GLY	3.8
12	L	8	PRO	3.8
6	F	18	GLU	3.8
6	F	83	ARG	3.8
15	O	31	SER	3.8
19	S	84	ARG	3.8
8	H	117	GLU	3.8
7	G	102	ALA	3.8
29	3	22	ALA	3.8
24	X	27	GLU	3.8
19	S	82	LEU	3.8
1	A	2602	A	3.8
9	I	7	VAL	3.7
24	X	19	GLN	3.7
21	U	22	GLY	3.7
9	I	4	LYS	3.7
16	P	109	GLU	3.7
24	X	11	ARG	3.7
1	A	273(E)	C	3.7
6	F	29	TRP	3.7
6	F	140	ILE	3.6
6	F	20	ILE	3.6
28	2	53	ALA	3.6
8	H	10	GLU	3.6
27	1	49	GLU	3.6
1	A	2191	G	3.6
22	V	77	ASP	3.6
9	I	19	ARG	3.6

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Mol	Chain	Res	Type	RSRZ
6	F	151	ALA	3.6
9	I	66	LEU	3.6
15	O	57	LYS	3.6
6	F	12	TYR	3.6
15	O	83	LYS	3.6
7	G	39	PRO	3.5
3	C	268	ARG	3.5
22	V	73	GLN	3.5
19	S	37	ARG	3.5
7	G	60	ARG	3.5
24	X	85	LEU	3.5
6	F	171	ALA	3.5
26	Z	34	GLU	3.5
22	V	156	LYS	3.5
6	F	16	ARG	3.5
1	A	11	G	3.4
22	V	80	ARG	3.4
6	F	181	ARG	3.4
12	L	124	LYS	3.4
22	V	188	ALA	3.4
21	U	38	ILE	3.4
1	A	2833	G	3.4
24	X	26	ARG	3.4
8	H	54	GLN	3.4
29	3	12	GLU	3.4
26	Z	1	MET	3.4
27	1	36	VAL	3.4
8	H	144	VAL	3.4
6	F	115	ARG	3.4
12	L	125	VAL	3.4
21	U	14	LEU	3.3
29	3	46	HIS	3.3
13	M	91	GLU	3.3
1	A	1534	G	3.3
22	V	162	GLU	3.3
30	4	46	VAL	3.3
10	J	117	HIS	3.3
15	O	33	LYS	3.3
21	U	4	LYS	3.3
8	H	72	LEU	3.3
8	H	126	TYR	3.3
18	R	1	MET	3.3

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Mol	Chain	Res	Type	RSRZ
8	H	65	ALA	3.3
7	G	61	HIS	3.3
20	T	24	GLY	3.3
6	F	141	PHE	3.3
6	F	36	LYS	3.3
2	B	58	A	3.2
5	E	190	GLU	3.2
1	A	1642	G	3.2
21	U	26	LYS	3.2
22	V	84	GLU	3.2
22	V	179	ASP	3.2
27	1	54	LYS	3.2
9	I	3	ASN	3.2
2	B	59	A	3.1
12	L	98	GLU	3.1
8	H	57	ARG	3.1
6	F	51	ARG	3.1
1	A	1056	G	3.1
5	E	44	ARG	3.1
1	A	280	C	3.1
1	A	614	U	3.1
20	T	82	GLN	3.1
1	A	1494	A	3.1
1	A	2356	C	3.1
11	K	90	GLN	3.1
21	U	41	GLY	3.1
8	H	64	GLU	3.1
20	T	23	GLU	3.1
8	H	79	ILE	3.0
1	A	654	U	3.0
9	I	12	THR	3.0
1	A	1055	G	3.0
21	U	34	LYS	3.0
21	U	88	LYS	3.0
3	C	262	ARG	3.0
3	C	261	LYS	3.0
6	F	152	LEU	3.0
9	I	11	ALA	3.0
1	A	1743	G	2.9
6	F	172	LEU	2.9
8	H	118	LYS	2.9
6	F	84	LYS	2.9

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Mol	Chain	Res	Type	RSRZ
8	H	131	LYS	2.9
8	H	142	VAL	2.9
30	4	45	ALA	2.9
7	G	65	HIS	2.9
15	O	53	SER	2.9
22	V	79	ARG	2.9
18	R	16	PRO	2.9
15	O	102	ALA	2.9
8	H	86	THR	2.9
21	U	54	LYS	2.9
1	A	1644	C	2.9
2	B	29	A	2.9
21	U	63	LYS	2.9
22	V	168	GLU	2.9
6	F	22	ARG	2.9
4	D	125	GLY	2.9
16	P	78	LEU	2.9
21	U	47	LYS	2.9
15	O	43	GLU	2.9
2	B	55	U	2.9
2	B	28	C	2.8
6	F	80	PHE	2.8
1	A	2733	A	2.8
2	B	66	A	2.8
21	U	39	VAL	2.8
8	H	94	ALA	2.8
14	N	72	ASP	2.8
7	G	116	GLU	2.8
1	A	9	U	2.8
7	G	124	GLU	2.8
1	A	866	A	2.8
6	F	25	TYR	2.8
1	A	271(D)	U	2.8
1	A	1420	U	2.8
1	A	1643	G	2.8
25	Y	16	LEU	2.8
1	A	1920	C	2.8
1	A	2701	C	2.8
22	V	160	GLY	2.8
1	A	1050	A	2.8
1	A	2591	C	2.8
31	5	51	ALA	2.8

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Mol	Chain	Res	Type	RSRZ
1	A	1043	C	2.7
26	Z	55	ARG	2.7
7	G	132	ARG	2.7
1	A	1032	A	2.7
19	S	27	LYS	2.7
7	G	43	VAL	2.7
1	A	2378	A	2.7
1	A	867	C	2.7
16	P	116	ALA	2.7
5	E	96	ASP	2.7
8	H	107	ILE	2.7
11	K	56	ASP	2.7
21	U	24	VAL	2.7
1	A	1533	C	2.7
6	F	49	ASP	2.7
2	B	50	G	2.7
8	H	130	TYR	2.7
12	L	148	LEU	2.7
15	O	84	GLN	2.6
1	A	132	G	2.6
1	A	508	G	2.6
22	V	164	ALA	2.6
1	A	34	C	2.6
1	A	1033	U	2.6
3	C	233	HIS	2.6
12	L	7	ARG	2.6
7	G	98	LEU	2.6
1	A	400	G	2.6
2	B	86	G	2.6
1	A	101	G	2.6
22	V	97	GLU	2.6
6	F	23	PHE	2.6
21	U	15	VAL	2.6
28	2	27	PRO	2.6
6	F	96	ARG	2.6
22	V	74	VAL	2.6
2	B	60	C	2.6
8	H	37	VAL	2.6
1	A	273(F)	U	2.6
1	A	1044	G	2.6
1	A	2379	G	2.6
1	A	2750	A	2.6

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Mol	Chain	Res	Type	RSRZ
24	X	12	PRO	2.6
1	A	2752	C	2.6
6	F	62	LEU	2.6
4	D	164	ARG	2.5
2	B	90	C	2.5
7	G	93	GLY	2.5
4	D	200	GLU	2.5
31	5	53	PRO	2.5
22	V	49	ARG	2.5
8	H	145	VAL	2.5
1	A	1921	G	2.5
21	U	59	GLY	2.5
22	V	78	LYS	2.5
4	D	1	MET	2.5
5	E	186	ILE	2.5
1	A	2355	C	2.5
3	C	150	LYS	2.5
1	A	226	G	2.5
12	L	15	ARG	2.5
12	L	144	GLU	2.4
1	A	1127	A	2.4
4	D	161	GLY	2.4
10	J	161	LEU	2.4
8	H	136	VAL	2.4
1	A	1174	A	2.4
19	S	83	LYS	2.4
1	A	1303	G	2.4
8	H	84	GLY	2.4
8	H	124	GLY	2.4
15	O	30	ARG	2.4
21	U	35	TYR	2.4
21	U	25	GLY	2.4
1	A	10	G	2.4
24	X	20	ARG	2.4
4	D	132	HIS	2.4
8	H	91	SER	2.4
20	T	86	GLY	2.4
26	Z	5	LYS	2.4
1	A	1573	G	2.4
1	A	2318	G	2.4
16	P	106	SER	2.4
24	X	18	ILE	2.4

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Mol	Chain	Res	Type	RSRZ
19	S	36	LEU	2.4
1	A	125	G	2.4
18	R	68	LYS	2.4
5	E	184	TYR	2.3
6	F	137	GLU	2.3
15	O	19	LYS	2.3
22	V	159	PRO	2.3
23	W	25	ARG	2.3
29	3	37	ARG	2.3
22	V	98	MET	2.3
20	T	52	VAL	2.3
8	H	89	TYR	2.3
1	A	899	A	2.3
7	G	59	ARG	2.3
19	S	67	ASP	2.3
7	G	106	THR	2.3
11	K	107	ARG	2.3
30	4	47	ARG	2.3
16	P	36	GLU	2.3
1	A	1426	G	2.3
1	A	1769	G	2.3
12	L	97	PRO	2.3
15	O	23	ARG	2.3
16	P	105	LEU	2.3
19	S	38	TYR	2.3
22	V	181	GLU	2.3
23	W	40	GLN	2.3
27	1	64	LYS	2.3
6	F	149	VAL	2.3
3	C	5	LYS	2.3
8	H	113	ARG	2.3
1	A	2627	G	2.2
1	A	228	A	2.2
8	H	110	ASP	2.2
26	Z	2	PRO	2.2
28	2	26	THR	2.2
19	S	26	GLY	2.2
27	1	48	ILE	2.2
7	G	94	TYR	2.2
8	H	97	ILE	2.2
10	J	133	GLY	2.2
6	F	17	PRO	2.2

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Mol	Chain	Res	Type	RSRZ
1	A	1217	C	2.2
1	A	1754	C	2.2
18	R	89	GLN	2.2
31	5	20	GLY	2.2
7	G	128	PRO	2.2
4	D	73	GLU	2.2
10	J	110	LEU	2.2
22	V	155	LEU	2.2
9	I	60	ARG	2.2
4	D	163	GLU	2.2
1	A	655	A	2.2
21	U	45	VAL	2.2
12	L	110	TYR	2.2
3	C	260	ARG	2.2
31	5	57	ARG	2.2
23	W	69	PHE	2.2
1	A	1629	U	2.2
8	H	100	ALA	2.2
21	U	21	LYS	2.2
1	A	1304	C	2.2
1	A	2255	G	2.2
2	B	24	G	2.2
1	A	273(D)	C	2.1
16	P	37	GLY	2.1
29	3	9	LEU	2.1
31	5	58	ILE	2.1
1	A	230	U	2.1
16	P	95	ARG	2.1
1	A	951	C	2.1
6	F	82	LEU	2.1
8	H	27	ARG	2.1
4	D	202	LYS	2.1
22	V	46	LYS	2.1
22	V	180	VAL	2.1
22	V	50	GLN	2.1
16	P	112	ARG	2.1
15	O	78	LEU	2.1
2	B	41	U	2.1
9	I	18	GLU	2.1
21	U	86	ARG	2.1
1	A	1536	A	2.1
4	D	15	PHE	2.1

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Mol	Chain	Res	Type	RSRZ
6	F	161	THR	2.1
13	M	137	TYR	2.1
21	U	89	PHE	2.1
24	X	30	VAL	2.1
8	H	141	LYS	2.1
23	W	74	ARG	2.1
22	V	3	TYR	2.1
21	U	29	GLU	2.1
22	V	165	VAL	2.1
28	2	25	LEU	2.1
16	P	113	LYS	2.1
17	Q	19	LYS	2.1
21	U	44	ILE	2.1
1	A	1544	C	2.1
21	U	71	LYS	2.1
23	W	79	VAL	2.1
19	S	19	LEU	2.1
11	K	89	ASN	2.1
18	R	87	HIS	2.1
6	F	173	LEU	2.0
13	M	139	GLU	2.0
19	S	111	HIS	2.0
8	H	90	GLY	2.0
21	U	3	VAL	2.0
12	L	145	PRO	2.0
27	1	38	ALA	2.0
23	W	82	ARG	2.0
1	A	1574	C	2.0
31	5	13	ARG	2.0
9	I	16	ASN	2.0
1	A	402	A	2.0
22	V	169	GLU	2.0
31	5	22	VAL	2.0
15	O	104	GLY	2.0
3	C	232	PRO	2.0

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

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



## 6.3 Carbohydrates

There are no carbohydrates in this entry.

## 6.4 Ligands

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

Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
32	MG	A	2990	1/1	0.20	-	47,47,47,47	0
32	MG	A	3034	1/1	0.16	-	92,92,92,92	0
32	MG	6	694	1/1	0.17	-	87,87,87,87	0
32	MG	6	988	1/1	0.60	-	78,78,78,78	0
32	MG	6	513	1/1	0.39	-	71,71,71,71	0
32	MG	6	573	1/1	0.51	-	87,87,87,87	0
32	MG	6	1038	1/1	1.00	-	87,87,87,87	0
32	MG	6	417	1/1	0.76	-	101,101,101,101	0
32	MG	6	1088	1/1	1.60	-	80,80,80,80	0
32	MG	6	556	1/1	0.20	-	54,54,54,54	0
32	MG	B	143	1/1	0.29	-	56,56,56,56	0
32	MG	6	1033	1/1	0.16	-	75,75,75,75	0
32	MG	A	3087	1/1	0.39	-	56,56,56,56	0
32	MG	A	3215	1/1	0.30	-	101,101,101,101	0
32	MG	A	2925	1/1	0.20	-	34,34,34,34	0
32	MG	A	3220	1/1	0.70	-	75,75,75,75	0
32	MG	6	1022	1/1	0.16	-	62,62,62,62	0
32	MG	6	407	1/1	0.63	-	105,105,105,105	0
32	MG	6	1169	1/1	0.32	-	69,69,69,69	0
32	MG	6	1153	1/1	1.80	-	92,92,92,92	0
32	MG	6	655	1/1	0.21	-	82,82,82,82	0
32	MG	6	964	1/1	0.62	-	79,79,79,79	0
32	MG	6	255	1/1	0.21	-	59,59,59,59	0
32	MG	6	430	1/1	0.36	-	94,94,94,94	0
32	MG	6	498	1/1	0.77	-	69,69,69,69	0
32	MG	A	3309	1/1	0.35	-	98,98,98,98	0
32	MG	6	954	1/1	0.22	-	108,108,108,108	0
32	MG	6	514	1/1	0.61	-	90,90,90,90	0
32	MG	6	342	1/1	0.25	-	101,101,101,101	0
32	MG	A	2907	1/1	0.39	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	B	393	1/1	1.09	-	70,70,70,70	0
32	MG	6	428	1/1	0.25	-	59,59,59,59	0
32	MG	6	219	1/1	0.43	-	46,46,46,46	0
32	MG	6	177	1/1	0.14	-	58,58,58,58	0
32	MG	6	327	1/1	0.94	-	70,70,70,70	0
32	MG	6	1097	1/1	0.38	-	105,105,105,105	0
32	MG	A	3201	1/1	0.53	-	68,68,68,68	0
32	MG	6	790	1/1	0.08	-	37,37,37,37	0
32	MG	A	3297	1/1	0.79	-	72,72,72,72	0
32	MG	6	340	1/1	0.58	-	85,85,85,85	0
32	MG	6	548	1/1	0.47	-	99,99,99,99	0
32	MG	6	456	1/1	0.28	-	69,69,69,69	0
32	MG	6	465	1/1	0.20	-	64,64,64,64	0
32	MG	6	58	1/1	0.24	-	35,35,35,35	0
32	MG	A	2988	1/1	0.35	-	58,58,58,58	0
32	MG	A	3248	1/1	0.25	-	73,73,73,73	0
32	MG	6	265	1/1	0.59	-	45,45,45,45	0
32	MG	6	1130	1/1	0.82	-	98,98,98,98	0
32	MG	6	648	1/1	0.80	-	86,86,86,86	0
32	MG	A	369	1/1	0.18	-	90,90,90,90	0
32	MG	6	915	1/1	0.15	-	63,63,63,63	0
32	MG	6	566	1/1	0.47	-	80,80,80,80	0
32	MG	A	3060	1/1	0.30	-	56,56,56,56	0
32	MG	6	621	1/1	0.28	-	89,89,89,89	0
32	MG	6	726	1/1	0.44	-	112,112,112,112	0
32	MG	6	305	1/1	0.27	-	106,106,106,106	0
32	MG	6	210	1/1	0.36	-	45,45,45,45	0
32	MG	A	2958	1/1	0.48	-	43,43,43,43	0
32	MG	A	3032	1/1	0.27	-	76,76,76,76	0
32	MG	6	93	1/1	0.47	-	35,35,35,35	0
32	MG	6	220	1/1	1.00	-	93,93,93,93	0
32	MG	6	1138	1/1	0.33	-	101,101,101,101	0
32	MG	6	1072	1/1	0.18	-	78,78,78,78	0
32	MG	B	330	1/1	0.38	-	83,83,83,83	0
32	MG	A	3187	1/1	0.51	-	52,52,52,52	0
32	MG	6	503	1/1	0.21	-	67,67,67,67	0
32	MG	6	412	1/1	0.29	-	102,102,102,102	0
32	MG	A	3107	1/1	0.94	-	68,68,68,68	0
32	MG	6	356	1/1	0.23	-	89,89,89,89	0
32	MG	A	3237	1/1	0.24	-	61,61,61,61	0
32	MG	6	940	1/1	1.08	-	87,87,87,87	0
32	MG	A	42	1/1	0.15	-	28,28,28,28	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3120	1/1	0.38	-	87,87,87,87	0
32	MG	A	3234	1/1	0.21	-	22,22,22,22	0
32	MG	6	206	1/1	0.31	-	41,41,41,41	0
32	MG	A	3082	1/1	0.27	-	102,102,102,102	0
32	MG	6	658	1/1	0.25	-	78,78,78,78	0
32	MG	A	3083	1/1	0.18	-	69,69,69,69	0
32	MG	A	3153	1/1	0.91	-	67,67,67,67	0
32	MG	6	1055	1/1	1.17	-	82,82,82,82	0
32	MG	6	642	1/1	0.23	-	60,60,60,60	0
32	MG	6	616	1/1	0.16	-	71,71,71,71	0
32	MG	A	2920	1/1	0.08	-	29,29,29,29	0
32	MG	6	775	1/1	0.70	-	100,100,100,100	0
32	MG	A	367	1/1	0.72	-	67,67,67,67	0
32	MG	6	761	1/1	0.40	-	106,106,106,106	0
32	MG	A	3242	1/1	0.34	-	82,82,82,82	0
32	MG	6	392	1/1	0.67	-	72,72,72,72	0
32	MG	6	34	1/1	0.14	-	45,45,45,45	0
32	MG	6	1006	1/1	0.09	-	91,91,91,91	0
32	MG	6	193	1/1	0.83	-	66,66,66,66	0
32	MG	6	1074	1/1	0.41	-	100,100,100,100	0
32	MG	A	2995	1/1	0.18	-	65,65,65,65	0
32	MG	6	524	1/1	0.50	-	110,110,110,110	0
32	MG	6	767	1/1	0.55	-	86,86,86,86	0
32	MG	6	764	1/1	0.32	-	91,91,91,91	0
32	MG	A	3144	1/1	0.17	-	67,67,67,67	0
32	MG	A	2926	1/1	0.64	-	32,32,32,32	0
32	MG	A	3240	1/1	0.23	-	60,60,60,60	0
32	MG	6	1191	1/1	0.11	-	96,96,96,96	0
32	MG	6	804	1/1	0.11	-	39,39,39,39	0
32	MG	A	3066	1/1	0.15	-	109,109,109,109	0
32	MG	A	3188	1/1	0.30	-	40,40,40,40	0
32	MG	6	815	1/1	0.24	-	72,72,72,72	0
32	MG	A	2951	1/1	0.18	-	52,52,52,52	0
32	MG	6	11	1/1	0.32	-	7,7,7,7	0
32	MG	6	7	1/1	0.10	-	9,9,9,9	0
32	MG	6	820	1/1	0.24	-	44,44,44,44	0
32	MG	6	771	1/1	0.66	-	83,83,83,83	0
32	MG	6	183	1/1	0.51	-	69,69,69,69	0
32	MG	6	898	1/1	0.39	-	51,51,51,51	0
32	MG	6	192	1/1	0.67	-	77,77,77,77	0
32	MG	6	547	1/1	0.17	-	79,79,79,79	0
32	MG	A	3112	1/1	0.48	-	77,77,77,77	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3113	1/1	0.46	-	109,109,109,109	0
32	MG	A	2933	1/1	0.37	-	10,10,10,10	0
32	MG	6	1189	1/1	0.42	-	90,90,90,90	0
32	MG	A	2967	1/1	0.53	-	45,45,45,45	0
32	MG	6	782	1/1	0.38	-	117,117,117,117	0
32	MG	A	3174	1/1	0.21	-	80,80,80,80	0
32	MG	6	2	1/1	0.16	-	10,10,10,10	0
32	MG	6	907	1/1	0.13	-	39,39,39,39	0
32	MG	6	171	1/1	0.36	-	63,63,63,63	0
32	MG	A	3073	1/1	0.25	-	68,68,68,68	0
32	MG	A	3217	1/1	0.20	-	68,68,68,68	0
32	MG	6	1118	1/1	0.75	-	52,52,52,52	0
32	MG	A	3311	1/1	0.48	-	103,103,103,103	0
32	MG	A	3186	1/1	0.29	-	56,56,56,56	0
32	MG	6	243	1/1	0.26	-	82,82,82,82	0
32	MG	6	1071	1/1	0.55	-	87,87,87,87	0
32	MG	6	240	1/1	0.14	-	56,56,56,56	0
32	MG	6	38	1/1	0.13	-	17,17,17,17	0
32	MG	A	3159	1/1	0.49	-	78,78,78,78	0
32	MG	A	2916	1/1	0.30	-	25,25,25,25	0
32	MG	6	742	1/1	0.80	-	42,42,42,42	0
32	MG	6	357	1/1	0.31	-	41,41,41,41	0
32	MG	A	3105	1/1	0.79	-	86,86,86,86	0
32	MG	6	622	1/1	1.75	-	100,100,100,100	0
32	MG	A	3111	1/1	0.55	-	85,85,85,85	0
32	MG	A	3092	1/1	0.25	-	65,65,65,65	0
32	MG	A	2987	1/1	0.46	-	70,70,70,70	0
32	MG	A	3238	1/1	0.17	-	62,62,62,62	0
32	MG	6	427	1/1	0.15	-	65,65,65,65	0
32	MG	6	995	1/1	0.48	-	83,83,83,83	0
32	MG	6	90	1/1	0.16	-	39,39,39,39	0
32	MG	6	3	1/1	0.13	-	7,7,7,7	0
32	MG	A	3274	1/1	0.36	-	61,61,61,61	0
32	MG	6	749	1/1	0.82	-	83,83,83,83	0
32	MG	6	452	1/1	1.71	-	85,85,85,85	0
32	MG	6	620	1/1	0.28	-	99,99,99,99	0
32	MG	6	249	1/1	0.30	-	41,41,41,41	0
32	MG	6	1093	1/1	0.09	-	59,59,59,59	0
32	MG	6	270	1/1	0.14	-	44,44,44,44	0
32	MG	A	2912	1/1	0.23	-	8,8,8,8	0
32	MG	6	971	1/1	0.13	-	87,87,87,87	0
32	MG	P	712	1/1	0.12	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	B	734	1/1	0.25	-	89,89,89,89	0
32	MG	6	801	1/1	0.12	-	51,51,51,51	0
32	MG	6	291	1/1	0.26	-	63,63,63,63	0
32	MG	6	667	1/1	0.39	-	89,89,89,89	0
32	MG	6	697	1/1	0.54	-	74,74,74,74	0
32	MG	6	162	1/1	0.13	-	47,47,47,47	0
32	MG	6	725	1/1	0.55	-	82,82,82,82	0
32	MG	6	1098	1/1	1.27	-	110,110,110,110	0
32	MG	A	3155	1/1	0.71	-	85,85,85,85	0
32	MG	6	6	1/1	0.11	-	4,4,4,4	0
32	MG	6	998	1/1	0.18	-	76,76,76,76	0
32	MG	6	61	1/1	0.11	-	36,36,36,36	0
32	MG	6	1181	1/1	1.15	-	72,72,72,72	0
32	MG	A	5	1/1	0.44	-	16,16,16,16	0
32	MG	A	3314	1/1	0.79	-	94,94,94,94	0
32	MG	6	857	1/1	0.12	-	63,63,63,63	0
32	MG	6	47	1/1	0.21	-	24,24,24,24	0
32	MG	6	203	1/1	0.27	-	80,80,80,80	0
32	MG	6	731	1/1	0.28	-	85,85,85,85	0
32	MG	A	3230	1/1	0.17	-	48,48,48,48	0
32	MG	6	896	1/1	1.17	-	80,80,80,80	0
32	MG	A	3001	1/1	0.54	-	55,55,55,55	0
32	MG	6	868	1/1	0.41	-	93,93,93,93	0
32	MG	6	217	1/1	1.38	-	88,88,88,88	0
32	MG	6	250	1/1	0.32	-	67,67,67,67	0
32	MG	A	3227	1/1	0.31	-	83,83,83,83	0
32	MG	A	169	1/1	0.09	-	42,42,42,42	0
32	MG	6	502	1/1	0.85	-	70,70,70,70	0
32	MG	6	680	1/1	0.58	-	94,94,94,94	0
32	MG	A	3167	1/1	0.61	-	74,74,74,74	0
32	MG	6	991	1/1	0.17	-	76,76,76,76	0
32	MG	A	2898	1/1	0.37	-	14,14,14,14	0
32	MG	6	574	1/1	0.28	-	75,75,75,75	0
32	MG	6	45	1/1	0.33	-	41,41,41,41	0
32	MG	6	918	1/1	0.15	-	66,66,66,66	0
32	MG	6	561	1/1	0.33	-	60,60,60,60	0
32	MG	6	469	1/1	0.40	-	80,80,80,80	0
32	MG	6	23	1/1	0.15	-	27,27,27,27	0
32	MG	6	873	1/1	0.33	-	67,67,67,67	0
32	MG	6	186	1/1	1.10	-	55,55,55,55	0
32	MG	6	717	1/1	0.17	-	83,83,83,83	0
32	MG	6	961	1/1	0.29	-	44,44,44,44	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	191	1/1	0.12	-	70,70,70,70	0
32	MG	6	280	1/1	0.15	-	73,73,73,73	0
32	MG	6	272	1/1	0.30	-	74,74,74,74	0
32	MG	6	413	1/1	0.15	-	60,60,60,60	0
32	MG	6	883	1/1	0.37	-	68,68,68,68	0
32	MG	A	3076	1/1	0.61	-	86,86,86,86	0
32	MG	K	927	1/1	0.35	-	91,91,91,91	0
32	MG	A	3271	1/1	1.05	-	86,86,86,86	0
32	MG	6	672	1/1	0.18	-	73,73,73,73	0
32	MG	6	967	1/1	0.36	-	101,101,101,101	0
32	MG	A	3304	1/1	0.17	-	74,74,74,74	0
32	MG	A	3219	1/1	0.54	-	111,111,111,111	0
32	MG	A	159	1/1	0.18	-	49,49,49,49	0
32	MG	6	537	1/1	1.11	-	59,59,59,59	0
32	MG	6	617	1/1	0.30	-	66,66,66,66	0
32	MG	A	3123	1/1	1.13	-	56,56,56,56	0
32	MG	6	569	1/1	0.36	-	79,79,79,79	0
32	MG	A	3247	1/1	0.44	-	54,54,54,54	0
32	MG	6	957	1/1	0.40	-	74,74,74,74	0
32	MG	A	3252	1/1	0.29	-	95,95,95,95	0
32	MG	A	3048	1/1	0.65	-	66,66,66,66	0
32	MG	6	123	1/1	0.35	-	28,28,28,28	0
32	MG	A	3094	1/1	0.18	-	78,78,78,78	0
32	MG	6	24	1/1	0.12	-	14,14,14,14	0
32	MG	6	720	1/1	1.04	-	80,80,80,80	0
32	MG	6	945	1/1	0.51	-	67,67,67,67	0
32	MG	6	559	1/1	0.58	-	84,84,84,84	0
32	MG	6	640	1/1	0.28	-	70,70,70,70	0
32	MG	6	1148	1/1	0.30	-	122,122,122,122	0
32	MG	6	477	1/1	0.30	-	103,103,103,103	0
32	MG	A	3023	1/1	0.75	-	62,62,62,62	0
32	MG	A	3029	1/1	0.33	-	59,59,59,59	0
32	MG	6	1054	1/1	0.65	-	78,78,78,78	0
32	MG	6	60	1/1	0.81	-	39,39,39,39	0
32	MG	A	3062	1/1	0.33	-	61,61,61,61	0
32	MG	6	81	1/1	0.22	-	66,66,66,66	0
32	MG	6	10	1/1	0.15	-	27,27,27,27	0
32	MG	6	294	1/1	0.15	-	60,60,60,60	0
32	MG	6	516	1/1	1.56	-	125,125,125,125	0
32	MG	6	704	1/1	0.74	-	74,74,74,74	0
32	MG	6	481	1/1	0.57	-	77,77,77,77	0
32	MG	6	952	1/1	0.54	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	370	1/1	0.24	-	94,94,94,94	0
32	MG	6	382	1/1	0.19	-	67,67,67,67	0
32	MG	A	3306	1/1	0.90	-	80,80,80,80	0
32	MG	6	276	1/1	0.14	-	89,89,89,89	0
32	MG	6	570	1/1	1.28	-	65,65,65,65	0
32	MG	A	3176	1/1	0.62	-	85,85,85,85	0
32	MG	6	707	1/1	0.32	-	74,74,74,74	0
32	MG	6	838	1/1	0.29	-	66,66,66,66	0
32	MG	A	3172	1/1	0.48	-	68,68,68,68	0
32	MG	6	649	1/1	0.29	-	77,77,77,77	0
32	MG	6	1127	1/1	0.15	-	82,82,82,82	0
32	MG	A	3150	1/1	0.19	-	56,56,56,56	0
32	MG	A	3165	1/1	0.66	-	88,88,88,88	0
32	MG	6	322	1/1	0.38	-	78,78,78,78	0
32	MG	6	576	1/1	0.08	-	62,62,62,62	0
32	MG	6	719	1/1	0.55	-	132,132,132,132	0
32	MG	A	3102	1/1	0.97	-	87,87,87,87	0
32	MG	6	85	1/1	0.29	-	51,51,51,51	0
32	MG	6	905	1/1	0.65	-	63,63,63,63	0
32	MG	6	468	1/1	0.42	-	73,73,73,73	0
32	MG	A	3299	1/1	0.26	-	86,86,86,86	0
32	MG	A	3149	1/1	0.31	-	79,79,79,79	0
32	MG	K	766	1/1	0.46	-	81,81,81,81	0
32	MG	A	3260	1/1	0.61	-	64,64,64,64	0
32	MG	6	293	1/1	0.12	-	67,67,67,67	0
32	MG	6	582	1/1	0.17	-	66,66,66,66	0
32	MG	6	638	1/1	0.40	-	68,68,68,68	0
32	MG	A	3249	1/1	0.20	-	52,52,52,52	0
32	MG	A	3043	1/1	0.77	-	87,87,87,87	0
32	MG	6	1070	1/1	0.16	-	61,61,61,61	0
32	MG	6	202	1/1	0.13	-	70,70,70,70	0
32	MG	6	1135	1/1	0.10	-	97,97,97,97	0
32	MG	A	3177	1/1	0.51	-	99,99,99,99	0
32	MG	A	3145	1/1	0.23	-	83,83,83,83	0
32	MG	B	819	1/1	0.45	-	84,84,84,84	0
32	MG	6	541	1/1	0.67	-	85,85,85,85	0
32	MG	6	577	1/1	2.17	-	88,88,88,88	0
32	MG	6	439	1/1	0.61	-	75,75,75,75	0
32	MG	A	2899	1/1	0.30	-	13,13,13,13	0
32	MG	A	3067	1/1	0.49	-	75,75,75,75	0
32	MG	A	3098	1/1	0.60	-	88,88,88,88	0
32	MG	6	1060	1/1	0.22	-	92,92,92,92	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3205	1/1	0.23	-	41,41,41,41	0
32	MG	A	2982	1/1	0.19	-	59,59,59,59	0
32	MG	6	200	1/1	0.24	-	61,61,61,61	0
32	MG	6	1012	1/1	0.33	-	74,74,74,74	0
32	MG	A	3254	1/1	0.20	-	92,92,92,92	0
32	MG	6	745	1/1	0.90	-	83,83,83,83	0
32	MG	A	3277	1/1	0.60	-	83,83,83,83	0
32	MG	6	246	1/1	0.11	-	85,85,85,85	0
32	MG	6	1195	1/1	0.44	-	89,89,89,89	0
32	MG	6	320	1/1	0.10	-	53,53,53,53	0
32	MG	A	3085	1/1	0.24	-	59,59,59,59	0
32	MG	6	832	1/1	0.15	-	49,49,49,49	0
32	MG	6	529	1/1	0.33	-	67,67,67,67	0
32	MG	6	827	1/1	0.15	-	37,37,37,37	0
32	MG	6	1041	1/1	1.23	-	73,73,73,73	0
32	MG	A	3212	1/1	0.25	-	48,48,48,48	0
32	MG	6	637	1/1	0.18	-	68,68,68,68	0
32	MG	A	3071	1/1	0.28	-	61,61,61,61	0
32	MG	6	174	1/1	0.09	-	63,63,63,63	0
32	MG	A	2971	1/1	0.29	-	70,70,70,70	0
32	MG	A	2930	1/1	0.25	-	34,34,34,34	0
32	MG	6	1086	1/1	0.81	-	68,68,68,68	0
32	MG	A	3135	1/1	0.45	-	100,100,100,100	0
32	MG	6	814	1/1	0.12	-	64,64,64,64	0
32	MG	B	889	1/1	0.29	-	101,101,101,101	0
32	MG	6	534	1/1	0.47	-	71,71,71,71	0
32	MG	6	1183	1/1	0.23	-	84,84,84,84	0
32	MG	A	3058	1/1	0.38	-	91,91,91,91	0
32	MG	6	968	1/1	0.12	-	82,82,82,82	0
32	MG	6	545	1/1	3.27	-	101,101,101,101	0
32	MG	A	2997	1/1	0.31	-	45,45,45,45	0
32	MG	6	248	1/1	0.13	-	58,58,58,58	0
32	MG	A	3228	1/1	0.56	-	74,74,74,74	0
32	MG	A	2960	1/1	0.22	-	54,54,54,54	0
32	MG	6	497	1/1	0.64	-	38,38,38,38	0
32	MG	6	691	1/1	0.19	-	71,71,71,71	0
32	MG	A	157	1/1	0.33	-	65,65,65,65	0
32	MG	6	542	1/1	1.79	-	114,114,114,114	0
32	MG	6	550	1/1	0.24	-	75,75,75,75	0
32	MG	A	3224	1/1	0.60	-	91,91,91,91	0
32	MG	6	189	1/1	0.20	-	33,33,33,33	0
32	MG	6	137	1/1	0.21	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3124	1/1	0.18	-	59,59,59,59	0
32	MG	6	1001	1/1	0.60	-	81,81,81,81	0
32	MG	6	925	1/1	0.37	-	42,42,42,42	0
32	MG	A	3070	1/1	0.14	-	89,89,89,89	0
32	MG	6	401	1/1	0.13	-	99,99,99,99	0
32	MG	6	1192	1/1	0.48	-	99,99,99,99	0
32	MG	6	757	1/1	0.57	-	77,77,77,77	0
32	MG	6	525	1/1	0.53	-	69,69,69,69	0
32	MG	6	562	1/1	0.98	-	111,111,111,111	0
32	MG	6	68	1/1	0.24	-	30,30,30,30	0
32	MG	6	21	1/1	0.10	-	18,18,18,18	0
32	MG	6	675	1/1	0.21	-	85,85,85,85	0
32	MG	6	1027	1/1	0.32	-	128,128,128,128	0
32	MG	6	1080	1/1	0.80	-	63,63,63,63	0
32	MG	A	3198	1/1	0.55	-	51,51,51,51	0
32	MG	6	935	1/1	0.75	-	96,96,96,96	0
32	MG	A	3140	1/1	0.15	-	89,89,89,89	0
32	MG	6	560	1/1	0.76	-	67,67,67,67	0
32	MG	6	527	1/1	0.20	-	99,99,99,99	0
32	MG	6	609	1/1	0.23	-	77,77,77,77	0
32	MG	6	999	1/1	0.21	-	88,88,88,88	0
32	MG	6	491	1/1	0.49	-	67,67,67,67	0
32	MG	6	1021	1/1	0.52	-	85,85,85,85	0
32	MG	6	825	1/1	0.13	-	53,53,53,53	0
32	MG	6	372	1/1	0.20	-	59,59,59,59	0
32	MG	6	425	1/1	0.35	-	93,93,93,93	0
32	MG	A	3255	1/1	0.22	-	63,63,63,63	0
32	MG	6	446	1/1	1.16	-	66,66,66,66	0
32	MG	6	1190	1/1	0.32	-	81,81,81,81	0
32	MG	6	96	1/1	0.40	-	54,54,54,54	0
32	MG	6	776	1/1	0.54	-	101,101,101,101	0
32	MG	6	1147	1/1	0.48	-	69,69,69,69	0
32	MG	6	975	1/1	2.11	-	105,105,105,105	0
32	MG	6	103	1/1	0.13	-	29,29,29,29	0
32	MG	A	3008	1/1	0.16	-	90,90,90,90	0
32	MG	6	112	1/1	0.23	-	50,50,50,50	0
32	MG	6	854	1/1	0.24	-	78,78,78,78	0
32	MG	6	1160	1/1	1.49	-	85,85,85,85	0
32	MG	6	531	1/1	0.23	-	72,72,72,72	0
32	MG	6	522	1/1	0.21	-	98,98,98,98	0
32	MG	6	473	1/1	0.65	-	64,64,64,64	0
32	MG	6	197	1/1	0.29	-	48,48,48,48	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3207	1/1	0.31	-	38,38,38,38	0
32	MG	6	164	1/1	0.24	-	47,47,47,47	0
32	MG	A	2970	1/1	0.36	-	45,45,45,45	0
32	MG	6	786	1/1	0.59	-	106,106,106,106	0
32	MG	6	318	1/1	0.20	-	48,48,48,48	0
32	MG	6	598	1/1	0.46	-	90,90,90,90	0
32	MG	P	689	1/1	1.47	-	117,117,117,117	0
32	MG	6	897	1/1	0.22	-	34,34,34,34	0
32	MG	6	1063	1/1	1.20	-	78,78,78,78	0
32	MG	6	36	1/1	0.19	-	30,30,30,30	0
32	MG	A	3284	1/1	0.36	-	70,70,70,70	0
32	MG	A	3028	1/1	0.87	-	87,87,87,87	0
32	MG	A	3196	1/1	0.37	-	75,75,75,75	0
32	MG	6	75	1/1	0.18	-	27,27,27,27	0
32	MG	6	890	1/1	0.17	-	112,112,112,112	0
32	MG	6	94	1/1	0.14	-	41,41,41,41	0
32	MG	B	480	1/1	0.22	-	83,83,83,83	0
32	MG	A	2906	1/1	0.23	-	23,23,23,23	0
32	MG	A	3266	1/1	0.30	-	70,70,70,70	0
32	MG	6	275	1/1	0.20	-	68,68,68,68	0
32	MG	6	702	1/1	0.37	-	71,71,71,71	0
32	MG	A	2979	1/1	0.14	-	41,41,41,41	0
32	MG	6	632	1/1	0.78	-	65,65,65,65	0
32	MG	A	3279	1/1	1.22	-	87,87,87,87	0
32	MG	A	2991	1/1	0.31	-	54,54,54,54	0
32	MG	A	3021	1/1	0.28	-	65,65,65,65	0
32	MG	6	1025	1/1	0.69	-	78,78,78,78	0
32	MG	A	3280	1/1	0.30	-	65,65,65,65	0
32	MG	A	3282	1/1	0.12	-	115,115,115,115	0
32	MG	6	416	1/1	0.45	-	67,67,67,67	0
32	MG	6	828	1/1	0.31	-	42,42,42,42	0
32	MG	A	2946	1/1	0.15	-	32,32,32,32	0
32	MG	6	1039	1/1	0.21	-	84,84,84,84	0
32	MG	6	894	1/1	0.20	-	72,72,72,72	0
32	MG	6	730	1/1	0.34	-	98,98,98,98	0
32	MG	6	610	1/1	0.21	-	90,90,90,90	0
32	MG	6	924	1/1	0.18	-	58,58,58,58	0
32	MG	6	234	1/1	0.18	-	77,77,77,77	0
32	MG	A	3253	1/1	0.15	-	64,64,64,64	0
32	MG	6	618	1/1	0.37	-	70,70,70,70	0
32	MG	6	1132	1/1	0.73	-	110,110,110,110	0
32	MG	6	708	1/1	0.23	-	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3122	1/1	0.18	-	54,54,54,54	0
32	MG	6	841	1/1	0.10	-	46,46,46,46	0
32	MG	A	3096	1/1	0.13	-	77,77,77,77	0
32	MG	A	2944	1/1	0.77	-	39,39,39,39	0
32	MG	6	364	1/1	0.85	-	97,97,97,97	0
32	MG	6	347	1/1	0.28	-	51,51,51,51	0
32	MG	6	254	1/1	0.22	-	43,43,43,43	0
32	MG	A	490	1/1	0.45	-	51,51,51,51	0
32	MG	6	663	1/1	1.10	-	62,62,62,62	0
32	MG	A	3270	1/1	0.36	-	98,98,98,98	0
32	MG	A	3080	1/1	1.08	-	87,87,87,87	0
32	MG	A	3269	1/1	0.65	-	80,80,80,80	0
32	MG	A	3125	1/1	0.37	-	75,75,75,75	0
32	MG	6	1014	1/1	1.04	-	97,97,97,97	0
32	MG	A	3038	1/1	0.38	-	58,58,58,58	0
32	MG	K	1173	1/1	0.60	-	81,81,81,81	0
32	MG	6	385	1/1	0.51	-	100,100,100,100	0
32	MG	K	1009	1/1	0.29	-	104,104,104,104	0
32	MG	6	1187	1/1	0.15	-	70,70,70,70	0
32	MG	6	881	1/1	0.45	-	63,63,63,63	0
32	MG	A	2921	1/1	0.49	-	31,31,31,31	0
32	MG	6	472	1/1	0.34	-	64,64,64,64	0
32	MG	6	435	1/1	0.58	-	87,87,87,87	0
32	MG	6	309	1/1	0.50	-	63,63,63,63	0
32	MG	A	3100	1/1	0.50	-	60,60,60,60	0
32	MG	6	198	1/1	0.25	-	91,91,91,91	0
32	MG	A	4	1/1	0.30	-	23,23,23,23	0
32	MG	6	951	1/1	0.54	-	85,85,85,85	0
32	MG	6	1121	1/1	0.80	-	81,81,81,81	0
32	MG	6	959	1/1	0.65	-	63,63,63,63	0
32	MG	6	983	1/1	0.79	-	63,63,63,63	0
32	MG	A	2952	1/1	0.15	-	50,50,50,50	0
32	MG	A	3303	1/1	0.36	-	67,67,67,67	0
32	MG	6	1134	1/1	0.84	-	98,98,98,98	0
32	MG	A	3095	1/1	0.31	-	78,78,78,78	0
32	MG	6	1067	1/1	0.23	-	67,67,67,67	0
32	MG	6	578	1/1	0.62	-	77,77,77,77	0
32	MG	6	334	1/1	0.26	-	79,79,79,79	0
32	MG	A	2924	1/1	0.18	-	37,37,37,37	0
32	MG	6	718	1/1	0.37	-	94,94,94,94	0
32	MG	6	772	1/1	0.86	-	103,103,103,103	0
32	MG	6	1028	1/1	0.13	-	52,52,52,52	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	138	1/1	0.30	-	42,42,42,42	0
32	MG	A	3199	1/1	0.35	-	57,57,57,57	0
32	MG	A	3156	1/1	0.35	-	80,80,80,80	0
32	MG	6	376	1/1	0.15	-	76,76,76,76	0
32	MG	6	762	1/1	0.59	-	97,97,97,97	0
32	MG	6	221	1/1	0.46	-	93,93,93,93	0
32	MG	6	1154	1/1	0.72	-	73,73,73,73	0
32	MG	6	713	1/1	0.34	-	107,107,107,107	0
32	MG	B	1073	1/1	0.18	-	79,79,79,79	0
32	MG	A	3041	1/1	0.34	-	80,80,80,80	0
32	MG	A	3161	1/1	0.26	-	62,62,62,62	0
32	MG	A	3090	1/1	0.50	-	70,70,70,70	0
32	MG	6	834	1/1	0.15	-	59,59,59,59	0
32	MG	A	3236	1/1	0.25	-	52,52,52,52	0
32	MG	A	3169	1/1	0.62	-	76,76,76,76	0
32	MG	B	422	1/1	1.09	-	109,109,109,109	0
32	MG	A	3288	1/1	0.71	-	85,85,85,85	0
32	MG	A	3053	1/1	0.66	-	62,62,62,62	0
32	MG	A	2969	1/1	0.23	-	61,61,61,61	0
32	MG	6	1059	1/1	0.74	-	121,121,121,121	0
32	MG	6	892	1/1	0.64	-	120,120,120,120	0
32	MG	A	3013	1/1	0.30	-	69,69,69,69	0
32	MG	6	64	1/1	0.12	-	23,23,23,23	0
32	MG	A	3302	1/1	0.62	-	47,47,47,47	0
32	MG	6	1076	1/1	0.14	-	63,63,63,63	0
32	MG	6	683	1/1	0.57	-	78,78,78,78	0
32	MG	6	259	1/1	0.21	-	70,70,70,70	0
32	MG	A	2977	1/1	0.30	-	41,41,41,41	0
32	MG	A	3263	1/1	0.32	-	62,62,62,62	0
32	MG	6	508	1/1	0.57	-	67,67,67,67	0
32	MG	6	1090	1/1	0.19	-	66,66,66,66	0
32	MG	6	1110	1/1	0.19	-	87,87,87,87	0
32	MG	6	521	1/1	0.12	-	108,108,108,108	0
32	MG	6	980	1/1	0.21	-	82,82,82,82	0
32	MG	6	750	1/1	0.20	-	94,94,94,94	0
32	MG	6	173	1/1	0.49	-	52,52,52,52	0
32	MG	6	884	1/1	0.44	-	71,71,71,71	0
32	MG	A	2901	1/1	0.10	-	5,5,5,5	0
32	MG	A	2919	1/1	0.18	-	47,47,47,47	0
32	MG	6	268	1/1	0.55	-	73,73,73,73	0
32	MG	6	735	1/1	0.36	-	81,81,81,81	0
32	MG	A	3063	1/1	0.54	-	56,56,56,56	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	K	904	1/1	0.65	-	98,98,98,98	0
32	MG	6	232	1/1	0.15	-	68,68,68,68	0
32	MG	6	700	1/1	0.14	-	62,62,62,62	0
32	MG	A	3003	1/1	0.18	-	61,61,61,61	0
32	MG	6	88	1/1	0.32	-	37,37,37,37	0
32	MG	A	3287	1/1	1.51	-	76,76,76,76	0
32	MG	A	3020	1/1	0.44	-	67,67,67,67	0
32	MG	6	229	1/1	2.00	-	88,88,88,88	0
32	MG	6	121	1/1	0.43	-	64,64,64,64	0
32	MG	6	57	1/1	0.39	-	43,43,43,43	0
32	MG	6	822	1/1	0.62	-	54,54,54,54	0
32	MG	6	711	1/1	0.17	-	87,87,87,87	0
32	MG	A	3292	1/1	0.65	-	74,74,74,74	0
32	MG	A	273	1/1	0.74	-	77,77,77,77	0
32	MG	6	1140	1/1	0.72	-	83,83,83,83	0
32	MG	A	555	1/1	0.41	-	69,69,69,69	0
32	MG	A	2947	1/1	0.31	-	28,28,28,28	0
32	MG	6	778	1/1	0.45	-	90,90,90,90	0
32	MG	6	40	1/1	0.08	-	7,7,7,7	0
32	MG	6	269	1/1	0.18	-	70,70,70,70	0
32	MG	A	3030	1/1	0.55	-	67,67,67,67	0
32	MG	6	500	1/1	0.27	-	100,100,100,100	0
32	MG	6	260	1/1	0.13	-	87,87,87,87	0
32	MG	6	486	1/1	0.29	-	63,63,63,63	0
32	MG	A	3044	1/1	1.05	-	65,65,65,65	0
32	MG	6	692	1/1	0.17	-	66,66,66,66	0
32	MG	6	1048	1/1	0.65	-	53,53,53,53	0
32	MG	6	887	1/1	0.13	-	65,65,65,65	0
32	MG	A	2998	1/1	0.27	-	48,48,48,48	0
32	MG	6	128	1/1	0.10	-	70,70,70,70	0
32	MG	A	3313	1/1	0.17	-	68,68,68,68	0
32	MG	A	3291	1/1	0.13	-	67,67,67,67	0
32	MG	6	152	1/1	0.78	-	57,57,57,57	0
32	MG	6	160	1/1	0.23	-	67,67,67,67	0
32	MG	6	158	1/1	0.15	-	42,42,42,42	0
32	MG	A	3117	1/1	0.31	-	101,101,101,101	0
32	MG	6	1163	1/1	0.36	-	61,61,61,61	0
32	MG	6	533	1/1	0.15	-	94,94,94,94	0
32	MG	6	965	1/1	0.23	-	119,119,119,119	0
32	MG	A	2959	1/1	0.50	-	17,17,17,17	0
32	MG	6	313	1/1	0.08	-	61,61,61,61	0
32	MG	6	792	1/1	0.24	-	24,24,24,24	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	43	1/1	0.25	-	17,17,17,17	0
32	MG	A	3222	1/1	0.49	-	56,56,56,56	0
32	MG	A	3285	1/1	0.37	-	84,84,84,84	0
32	MG	6	962	1/1	0.12	-	92,92,92,92	0
32	MG	A	2908	1/1	0.28	-	16,16,16,16	0
32	MG	B	990	1/1	0.23	-	131,131,131,131	0
32	MG	6	511	1/1	0.15	-	76,76,76,76	0
32	MG	6	1113	1/1	0.12	-	74,74,74,74	0
32	MG	6	681	1/1	0.14	-	124,124,124,124	0
32	MG	6	1077	1/1	1.69	-	104,104,104,104	0
32	MG	P	1095	1/1	2.02	-	90,90,90,90	0
32	MG	6	1089	1/1	1.01	-	77,77,77,77	0
32	MG	A	3241	1/1	0.23	-	91,91,91,91	0
32	MG	A	2980	1/1	0.67	-	54,54,54,54	0
32	MG	A	3061	1/1	0.34	-	40,40,40,40	0
32	MG	A	3138	1/1	0.38	-	76,76,76,76	0
32	MG	6	374	1/1	0.23	-	48,48,48,48	0
32	MG	6	324	1/1	0.36	-	70,70,70,70	0
32	MG	A	2961	1/1	0.40	-	30,30,30,30	0
32	MG	A	3114	1/1	0.34	-	64,64,64,64	0
32	MG	6	543	1/1	0.15	-	68,68,68,68	0
32	MG	6	441	1/1	0.29	-	79,79,79,79	0
32	MG	6	552	1/1	0.73	-	67,67,67,67	0
32	MG	6	278	1/1	0.63	-	51,51,51,51	0
32	MG	A	3031	1/1	1.16	-	102,102,102,102	0
32	MG	6	893	1/1	0.28	-	108,108,108,108	0
32	MG	6	668	1/1	0.35	-	116,116,116,116	0
32	MG	6	101	1/1	0.07	-	53,53,53,53	0
32	MG	F	630	1/1	0.38	-	102,102,102,102	0
32	MG	A	3049	1/1	0.32	-	56,56,56,56	0
32	MG	A	3118	1/1	0.42	-	52,52,52,52	0
32	MG	A	2934	1/1	0.34	-	26,26,26,26	0
32	MG	A	2949	1/1	0.27	-	47,47,47,47	0
32	MG	6	986	1/1	3.65	-	103,103,103,103	0
32	MG	6	1142	1/1	0.14	-	58,58,58,58	0
32	MG	6	489	1/1	0.75	-	78,78,78,78	0
32	MG	A	3301	1/1	0.32	-	70,70,70,70	0
32	MG	A	3168	1/1	0.36	-	50,50,50,50	0
32	MG	6	908	1/1	0.18	-	57,57,57,57	0
32	MG	6	1032	1/1	0.48	-	129,129,129,129	0
32	MG	6	306	1/1	0.54	-	90,90,90,90	0
32	MG	A	2932	1/1	0.21	-	36,36,36,36	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3006	1/1	0.32	-	83,83,83,83	0
32	MG	6	928	1/1	1.06	-	101,101,101,101	0
32	MG	A	3078	1/1	0.45	-	65,65,65,65	0
32	MG	6	671	1/1	0.63	-	67,67,67,67	0
32	MG	6	654	1/1	0.45	-	70,70,70,70	0
32	MG	A	3265	1/1	1.55	-	60,60,60,60	0
32	MG	6	73	1/1	0.32	-	30,30,30,30	0
32	MG	6	891	1/1	0.36	-	68,68,68,68	0
32	MG	A	2984	1/1	0.16	-	53,53,53,53	0
32	MG	A	2939	1/1	0.16	-	42,42,42,42	0
32	MG	6	886	1/1	0.34	-	45,45,45,45	0
32	MG	A	3091	1/1	0.58	-	83,83,83,83	0
32	MG	A	3308	1/1	0.41	-	66,66,66,66	0
32	MG	6	1126	1/1	0.25	-	52,52,52,52	0
32	MG	6	212	1/1	0.30	-	35,35,35,35	0
32	MG	6	102	1/1	0.45	-	41,41,41,41	0
32	MG	A	2956	1/1	0.47	-	55,55,55,55	0
32	MG	6	867	1/1	0.18	-	133,133,133,133	0
32	MG	B	488	1/1	0.22	-	100,100,100,100	0
32	MG	6	1091	1/1	2.02	-	141,141,141,141	0
32	MG	6	666	1/1	0.13	-	77,77,77,77	0
32	MG	6	856	1/1	0.45	-	46,46,46,46	0
32	MG	A	3243	1/1	0.17	-	114,114,114,114	0
32	MG	A	3134	1/1	0.27	-	54,54,54,54	0
32	MG	6	645	1/1	0.84	-	109,109,109,109	0
32	MG	6	1042	1/1	1.08	-	83,83,83,83	0
32	MG	6	861	1/1	0.63	-	59,59,59,59	0
32	MG	6	335	1/1	0.10	-	62,62,62,62	0
32	MG	6	851	1/1	0.29	-	85,85,85,85	0
32	MG	6	564	1/1	0.20	-	96,96,96,96	0
32	MG	6	437	1/1	0.24	-	51,51,51,51	0
32	MG	6	179	1/1	0.20	-	37,37,37,37	0
32	MG	A	2922	1/1	0.29	-	37,37,37,37	0
32	MG	6	656	1/1	0.18	-	95,95,95,95	0
32	MG	6	1066	1/1	0.31	-	77,77,77,77	0
32	MG	6	136	1/1	0.21	-	78,78,78,78	0
32	MG	F	607	1/1	0.20	-	115,115,115,115	0
32	MG	6	375	1/1	0.33	-	55,55,55,55	0
32	MG	A	3055	1/1	0.54	-	114,114,114,114	0
32	MG	6	16	1/1	0.14	-	7,7,7,7	0
32	MG	6	580	1/1	0.38	-	78,78,78,78	0
32	MG	6	505	1/1	0.17	-	146,146,146,146	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	459	1/1	0.33	-	81,81,81,81	0
32	MG	A	3088	1/1	0.37	-	63,63,63,63	0
32	MG	6	895	1/1	0.27	-	80,80,80,80	0
32	MG	A	3143	1/1	0.57	-	75,75,75,75	0
32	MG	6	902	1/1	0.64	-	108,108,108,108	0
32	MG	A	2978	1/1	0.48	-	62,62,62,62	0
32	MG	A	3295	1/1	0.24	-	42,42,42,42	0
32	MG	A	3290	1/1	0.67	-	67,67,67,67	0
32	MG	A	3214	1/1	0.36	-	69,69,69,69	0
32	MG	6	1075	1/1	0.79	-	78,78,78,78	0
32	MG	6	1114	1/1	0.21	-	30,30,30,30	0
32	MG	A	3104	1/1	0.58	-	90,90,90,90	0
32	MG	6	835	1/1	0.24	-	38,38,38,38	0
32	MG	6	167	1/1	0.41	-	56,56,56,56	0
32	MG	A	3047	1/1	0.57	-	41,41,41,41	0
32	MG	6	976	1/1	2.34	-	108,108,108,108	0
32	MG	A	3000	1/1	1.07	-	69,69,69,69	0
32	MG	A	3175	1/1	0.43	-	84,84,84,84	0
32	MG	6	398	1/1	0.48	-	70,70,70,70	0
32	MG	A	3185	1/1	0.13	-	42,42,42,42	0
32	MG	6	551	1/1	0.20	-	67,67,67,67	0
32	MG	6	1101	1/1	0.59	-	109,109,109,109	0
32	MG	6	591	1/1	0.43	-	63,63,63,63	0
32	MG	A	2981	1/1	0.29	-	67,67,67,67	0
32	MG	6	818	1/1	0.14	-	65,65,65,65	0
32	MG	6	1179	1/1	0.92	-	126,126,126,126	0
32	MG	A	2915	1/1	0.39	-	21,21,21,21	0
32	MG	A	2903	1/1	0.23	-	18,18,18,18	0
32	MG	A	2999	1/1	0.99	-	74,74,74,74	0
32	MG	A	3296	1/1	1.56	-	68,68,68,68	0
32	MG	A	3294	1/1	0.26	-	65,65,65,65	0
32	MG	6	1136	1/1	0.43	-	103,103,103,103	0
32	MG	6	979	1/1	1.05	-	73,73,73,73	0
32	MG	6	267	1/1	0.06	-	68,68,68,68	0
32	MG	A	3209	1/1	0.41	-	94,94,94,94	0
32	MG	6	166	1/1	0.30	-	85,85,85,85	0
32	MG	A	3221	1/1	0.94	-	66,66,66,66	0
32	MG	A	3004	1/1	0.27	-	87,87,87,87	0
32	MG	6	28	1/1	0.19	-	22,22,22,22	0
32	MG	A	3191	1/1	0.49	-	115,115,115,115	0
32	MG	6	939	1/1	0.41	-	90,90,90,90	0
32	MG	6	277	1/1	0.25	-	74,74,74,74	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors(Å <sup>2</sup> )	Q<0.9
32	MG	6	977	1/1	2.75	-	102,102,102,102	0
32	MG	6	298	1/1	0.24	-	69,69,69,69	0
32	MG	A	3239	1/1	0.90	-	119,119,119,119	0
32	MG	A	3109	1/1	1.01	-	78,78,78,78	0
32	MG	6	673	1/1	0.21	-	116,116,116,116	0
32	MG	6	227	1/1	0.11	-	43,43,43,43	0
32	MG	6	644	1/1	0.20	-	95,95,95,95	0
32	MG	6	989	1/1	0.42	-	61,61,61,61	0
32	MG	6	705	1/1	0.37	-	73,73,73,73	0
32	MG	A	3012	1/1	0.25	-	60,60,60,60	0
32	MG	6	1034	1/1	1.02	-	80,80,80,80	0
32	MG	6	752	1/1	0.31	-	68,68,68,68	0
32	MG	A	3261	1/1	0.40	-	104,104,104,104	0
32	MG	6	1185	1/1	0.25	-	104,104,104,104	0
32	MG	A	3133	1/1	1.17	-	87,87,87,87	0
32	MG	A	3300	1/1	0.27	-	64,64,64,64	0
32	MG	A	3015	1/1	0.78	-	58,58,58,58	0
32	MG	A	3210	1/1	0.24	-	48,48,48,48	0
32	MG	6	793	1/1	0.15	-	30,30,30,30	0
32	MG	6	803	1/1	0.14	-	60,60,60,60	0
32	MG	6	396	1/1	0.55	-	106,106,106,106	0
32	MG	6	315	1/1	0.24	-	79,79,79,79	0
32	MG	6	794	1/1	0.17	-	51,51,51,51	0
32	MG	6	432	1/1	0.24	-	54,54,54,54	0
32	MG	6	919	1/1	0.17	-	54,54,54,54	0
32	MG	A	2940	1/1	0.22	-	17,17,17,17	0
32	MG	A	3216	1/1	0.22	-	53,53,53,53	0
32	MG	B	391	1/1	0.42	-	71,71,71,71	0
32	MG	A	3272	1/1	0.42	-	58,58,58,58	0
32	MG	6	397	1/1	0.63	-	72,72,72,72	0
32	MG	6	150	1/1	0.16	-	34,34,34,34	0
32	MG	K	985	1/1	0.20	-	49,49,49,49	0
32	MG	6	876	1/1	0.60	-	70,70,70,70	0
32	MG	6	728	1/1	0.14	-	80,80,80,80	0
32	MG	6	535	1/1	0.92	-	81,81,81,81	0
32	MG	6	70	1/1	0.11	-	57,57,57,57	0
32	MG	6	934	1/1	0.21	-	104,104,104,104	0
32	MG	6	1087	1/1	0.89	-	108,108,108,108	0
32	MG	A	3244	1/1	0.34	-	60,60,60,60	0
32	MG	A	3011	1/1	0.69	-	63,63,63,63	0
32	MG	6	314	1/1	0.58	-	97,97,97,97	0
32	MG	6	1152	1/1	0.27	-	78,78,78,78	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3164	1/1	1.10	-	72,72,72,72	0
32	MG	A	2964	1/1	0.58	-	24,24,24,24	0
32	MG	6	448	1/1	0.11	-	59,59,59,59	0
32	MG	6	119	1/1	0.21	-	58,58,58,58	0
32	MG	A	3119	1/1	0.54	-	89,89,89,89	0
32	MG	6	601	1/1	0.28	-	64,64,64,64	0
32	MG	6	624	1/1	0.31	-	96,96,96,96	0
32	MG	6	484	1/1	0.24	-	72,72,72,72	0
32	MG	A	3050	1/1	0.55	-	67,67,67,67	0
32	MG	6	423	1/1	0.50	-	75,75,75,75	0
32	MG	6	209	1/1	0.18	-	64,64,64,64	0
32	MG	6	781	1/1	2.02	-	83,83,83,83	0
32	MG	A	974	1/1	0.22	-	44,44,44,44	0
32	MG	6	350	1/1	0.30	-	71,71,71,71	0
32	MG	6	623	1/1	0.15	-	71,71,71,71	0
32	MG	A	3116	1/1	0.59	-	77,77,77,77	0
32	MG	6	466	1/1	1.07	-	85,85,85,85	0
32	MG	A	2935	1/1	0.59	-	29,29,29,29	0
32	MG	6	76	1/1	0.15	-	42,42,42,42	0
32	MG	6	1049	1/1	0.50	-	74,74,74,74	0
32	MG	A	2929	1/1	0.22	-	28,28,28,28	0
32	MG	6	506	1/1	0.39	-	89,89,89,89	0
32	MG	6	148	1/1	0.17	-	37,37,37,37	0
32	MG	6	787	1/1	0.19	-	90,90,90,90	0
32	MG	A	3046	1/1	0.15	-	86,86,86,86	0
32	MG	A	3022	1/1	0.38	-	82,82,82,82	0
32	MG	6	695	1/1	1.85	-	78,78,78,78	0
32	MG	6	512	1/1	0.25	-	61,61,61,61	0
32	MG	6	1004	1/1	0.51	-	91,91,91,91	0
32	MG	A	3064	1/1	0.30	-	86,86,86,86	0
32	MG	A	3097	1/1	0.55	-	75,75,75,75	0
32	MG	6	606	1/1	0.28	-	81,81,81,81	0
32	MG	A	3106	1/1	0.46	-	46,46,46,46	0
32	MG	6	526	1/1	0.38	-	76,76,76,76	0
32	MG	6	1050	1/1	0.24	-	134,134,134,134	0
32	MG	A	3142	1/1	0.44	-	84,84,84,84	0
32	MG	A	2973	1/1	0.17	-	59,59,59,59	0
32	MG	A	2914	1/1	0.15	-	24,24,24,24	0
32	MG	6	339	1/1	0.17	-	99,99,99,99	0
32	MG	6	415	1/1	0.18	-	107,107,107,107	0
32	MG	6	487	1/1	0.45	-	82,82,82,82	0
32	MG	6	1103	1/1	0.68	-	72,72,72,72	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	451	1/1	0.93	-	65,65,65,65	0
32	MG	6	1158	1/1	0.70	-	117,117,117,117	0
32	MG	6	476	1/1	0.21	-	71,71,71,71	0
32	MG	6	846	1/1	0.13	-	39,39,39,39	0
32	MG	6	97	1/1	0.28	-	40,40,40,40	0
32	MG	A	3139	1/1	0.31	-	78,78,78,78	0
32	MG	6	1180	1/1	3.04	-	115,115,115,115	0
32	MG	A	3267	1/1	0.16	-	80,80,80,80	0
32	MG	6	540	1/1	0.71	-	72,72,72,72	0
32	MG	6	1120	1/1	0.15	-	66,66,66,66	0
32	MG	A	3208	1/1	0.32	-	60,60,60,60	0
32	MG	A	3084	1/1	0.54	-	73,73,73,73	0
32	MG	6	1123	1/1	0.15	-	107,107,107,107	0
32	MG	A	3182	1/1	0.21	-	22,22,22,22	0
32	MG	6	739	1/1	0.70	-	97,97,97,97	0
32	MG	6	866	1/1	0.44	-	80,80,80,80	0
32	MG	6	296	1/1	0.32	-	75,75,75,75	0
32	MG	6	1036	1/1	0.26	-	88,88,88,88	0
32	MG	K	251	1/1	0.64	-	72,72,72,72	0
32	MG	2	1040	1/1	0.72	-	64,64,64,64	0
32	MG	A	3017	1/1	0.24	-	60,60,60,60	0
32	MG	A	3171	1/1	0.21	-	64,64,64,64	0
32	MG	B	592	1/1	0.54	-	112,112,112,112	0
32	MG	6	140	1/1	0.14	-	49,49,49,49	0
32	MG	A	3298	1/1	0.30	-	118,118,118,118	0
32	MG	6	1129	1/1	0.47	-	97,97,97,97	0
32	MG	6	847	1/1	0.58	-	61,61,61,61	0
32	MG	A	3293	1/1	1.00	-	62,62,62,62	0
32	MG	A	3115	1/1	0.37	-	57,57,57,57	0
32	MG	A	3075	1/1	0.39	-	83,83,83,83	0
32	MG	A	3077	1/1	0.27	-	73,73,73,73	0
32	MG	6	235	1/1	0.26	-	76,76,76,76	0
32	MG	6	643	1/1	0.47	-	67,67,67,67	0
32	MG	6	127	1/1	0.19	-	48,48,48,48	0
32	MG	A	3068	1/1	0.17	-	72,72,72,72	0
32	MG	6	184	1/1	0.21	-	63,63,63,63	0
32	MG	A	3278	1/1	0.15	-	78,78,78,78	0
32	MG	A	3202	1/1	0.68	-	64,64,64,64	0
32	MG	A	2986	1/1	0.35	-	36,36,36,36	0
32	MG	A	3283	1/1	0.46	-	77,77,77,77	0
32	MG	A	3037	1/1	0.41	-	94,94,94,94	0
32	MG	A	3027	1/1	0.24	-	57,57,57,57	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	P	929	1/1	0.40	-	81,81,81,81	0
32	MG	6	1194	1/1	3.57	-	117,117,117,117	0
32	MG	6	1023	1/1	0.34	-	79,79,79,79	0
32	MG	A	2927	1/1	0.27	-	41,41,41,41	0
32	MG	6	426	1/1	0.20	-	48,48,48,48	0
32	MG	A	3200	1/1	0.20	-	81,81,81,81	0
32	MG	6	759	1/1	0.83	-	81,81,81,81	0
32	MG	6	317	1/1	1.16	-	67,67,67,67	0
32	MG	6	1137	1/1	0.76	-	106,106,106,106	0
32	MG	6	172	1/1	0.16	-	50,50,50,50	0
32	MG	6	611	1/1	0.20	-	114,114,114,114	0
32	MG	6	262	1/1	0.13	-	70,70,70,70	0
32	MG	6	252	1/1	0.31	-	33,33,33,33	0
32	MG	A	3147	1/1	0.69	-	68,68,68,68	0
32	MG	6	956	1/1	0.54	-	56,56,56,56	0
32	MG	A	2938	1/1	0.23	-	22,22,22,22	0
32	MG	6	214	1/1	0.65	-	74,74,74,74	0
32	MG	A	2953	1/1	0.30	-	35,35,35,35	0
32	MG	A	3251	1/1	0.21	-	37,37,37,37	0
32	MG	A	3045	1/1	0.74	-	67,67,67,67	0
32	MG	A	3223	1/1	0.46	-	48,48,48,48	0
32	MG	A	2996	1/1	0.30	-	59,59,59,59	0
32	MG	A	2917	1/1	0.30	-	49,49,49,49	0
32	MG	6	338	1/1	0.15	-	79,79,79,79	0
32	MG	6	1062	1/1	0.91	-	85,85,85,85	0
32	MG	6	733	1/1	0.40	-	107,107,107,107	0
32	MG	A	3007	1/1	0.15	-	91,91,91,91	0
32	MG	A	3024	1/1	0.25	-	62,62,62,62	0
32	MG	6	557	1/1	0.98	-	86,86,86,86	0
32	MG	6	462	1/1	0.14	-	53,53,53,53	0
32	MG	A	3129	1/1	0.11	-	72,72,72,72	0
32	MG	6	743	1/1	0.29	-	81,81,81,81	0
32	MG	6	223	1/1	0.31	-	69,69,69,69	0
32	MG	6	554	1/1	0.54	-	61,61,61,61	0
32	MG	6	795	1/1	0.20	-	10,10,10,10	0
32	MG	6	913	1/1	0.69	-	90,90,90,90	0
32	MG	A	3235	1/1	0.49	-	24,24,24,24	0
32	MG	6	79	1/1	0.19	-	25,25,25,25	0
32	MG	A	3289	1/1	1.17	-	87,87,87,87	0
32	MG	6	821	1/1	0.10	-	46,46,46,46	0
32	MG	6	586	1/1	0.15	-	109,109,109,109	0
32	MG	A	3189	1/1	0.40	-	45,45,45,45	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	336	1/1	0.24	-	49,49,49,49	0
32	MG	6	755	1/1	0.31	-	58,58,58,58	0
32	MG	6	1007	1/1	0.23	-	103,103,103,103	0
32	MG	6	239	1/1	0.38	-	76,76,76,76	0
32	MG	A	2942	1/1	0.59	-	33,33,33,33	0
32	MG	6	1053	1/1	0.76	-	69,69,69,69	0
32	MG	A	3262	1/1	0.76	-	75,75,75,75	0
32	MG	6	1111	1/1	0.15	-	75,75,75,75	0
32	MG	A	3128	1/1	1.02	-	79,79,79,79	0
32	MG	6	365	1/1	0.35	-	51,51,51,51	0
32	MG	6	238	1/1	0.41	-	35,35,35,35	0
32	MG	6	377	1/1	0.17	-	79,79,79,79	0
32	MG	P	770	1/1	0.82	-	92,92,92,92	0
32	MG	A	2913	1/1	0.45	-	17,17,17,17	0
32	MG	6	495	1/1	0.23	-	79,79,79,79	0
32	MG	6	242	1/1	0.22	-	59,59,59,59	0
32	MG	6	419	1/1	0.16	-	112,112,112,112	0
32	MG	A	3057	1/1	0.75	-	74,74,74,74	0
32	MG	6	288	1/1	0.16	-	51,51,51,51	0
32	MG	P	1037	1/1	0.17	-	74,74,74,74	0
32	MG	A	2928	1/1	0.30	-	32,32,32,32	0
32	MG	A	3016	1/1	0.44	-	62,62,62,62	0
32	MG	A	3121	1/1	1.20	-	95,95,95,95	0
32	MG	6	211	1/1	0.43	-	56,56,56,56	0
32	MG	A	3074	1/1	0.20	-	75,75,75,75	0
32	MG	A	3193	1/1	0.41	-	52,52,52,52	0
32	MG	A	3273	1/1	0.34	-	63,63,63,63	0
32	MG	6	501	1/1	0.65	-	71,71,71,71	0
32	MG	6	1046	1/1	0.66	-	96,96,96,96	0
32	MG	A	3009	1/1	0.15	-	47,47,47,47	0
32	MG	6	331	1/1	0.20	-	71,71,71,71	0
32	MG	6	420	1/1	0.35	-	61,61,61,61	0
32	MG	6	1168	1/1	0.64	-	45,45,45,45	0
32	MG	6	216	1/1	0.15	-	31,31,31,31	0
32	MG	6	953	1/1	0.20	-	75,75,75,75	0
32	MG	A	3203	1/1	0.19	-	80,80,80,80	0
32	MG	6	906	1/1	0.13	-	60,60,60,60	0
32	MG	6	244	1/1	0.08	-	62,62,62,62	0
32	MG	A	3002	1/1	0.30	-	57,57,57,57	0
32	MG	6	445	1/1	0.16	-	56,56,56,56	0
32	MG	A	3162	1/1	0.23	-	94,94,94,94	0
32	MG	6	1085	1/1	0.35	-	68,68,68,68	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	970	1/1	0.14	-	100,100,100,100	0
32	MG	A	3099	1/1	0.73	-	63,63,63,63	0
32	MG	A	3014	1/1	0.15	-	68,68,68,68	0
32	MG	6	100	1/1	0.07	-	52,52,52,52	0
32	MG	A	3025	1/1	0.12	-	53,53,53,53	0
32	MG	A	3141	1/1	0.24	-	68,68,68,68	0
32	MG	6	872	1/1	0.34	-	74,74,74,74	0
32	MG	6	129	1/1	0.37	-	45,45,45,45	0
32	MG	A	3194	1/1	0.53	-	53,53,53,53	0
32	MG	6	134	1/1	0.24	-	2,2,2,2	0
32	MG	6	363	1/1	0.10	-	66,66,66,66	0
32	MG	A	3310	1/1	0.55	-	124,124,124,124	0
32	MG	A	3211	1/1	0.14	-	69,69,69,69	0
32	MG	A	3190	1/1	0.64	-	88,88,88,88	0
32	MG	6	411	1/1	0.20	-	79,79,79,79	0
32	MG	A	2911	1/1	0.22	-	38,38,38,38	0
32	MG	A	3218	1/1	0.29	-	65,65,65,65	0
32	MG	A	3036	1/1	0.20	-	65,65,65,65	0
32	MG	A	2968	1/1	0.22	-	47,47,47,47	0
32	MG	6	1064	1/1	0.12	-	33,33,33,33	0
32	MG	6	22	1/1	0.14	-	17,17,17,17	0
32	MG	6	434	1/1	0.17	-	67,67,67,67	0
32	MG	6	729	1/1	0.82	-	61,61,61,61	0
32	MG	6	972	1/1	0.56	-	72,72,72,72	0
32	MG	A	2950	1/1	0.23	-	37,37,37,37	0
32	MG	6	969	1/1	0.44	-	94,94,94,94	0
32	MG	6	510	1/1	0.18	-	70,70,70,70	0
32	MG	6	865	1/1	0.11	-	56,56,56,56	0
32	MG	A	3166	1/1	1.20	-	71,71,71,71	0
32	MG	6	568	1/1	0.71	-	101,101,101,101	0
32	MG	P	981	1/1	0.23	-	75,75,75,75	0
32	MG	6	66	1/1	0.09	-	38,38,38,38	0
32	MG	6	696	1/1	0.29	-	128,128,128,128	0
32	MG	6	366	1/1	0.81	-	89,89,89,89	0
32	MG	A	3132	1/1	0.28	-	77,77,77,77	0
32	MG	6	418	1/1	1.65	-	93,93,93,93	0
32	MG	A	3158	1/1	0.18	-	105,105,105,105	0
32	MG	A	2918	1/1	0.37	-	29,29,29,29	0
32	MG	6	344	1/1	0.55	-	65,65,65,65	0
32	MG	A	2989	1/1	0.57	-	56,56,56,56	0
32	MG	K	383	1/1	0.23	-	76,76,76,76	0
32	MG	A	3086	1/1	0.47	-	69,69,69,69	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3256	1/1	0.71	-	76,76,76,76	0
32	MG	6	1069	1/1	0.64	-	84,84,84,84	0
32	MG	6	170	1/1	0.53	-	68,68,68,68	0
32	MG	A	2962	1/1	0.20	-	47,47,47,47	0
32	MG	A	3010	1/1	0.60	-	58,58,58,58	0
32	MG	A	3081	1/1	0.45	-	68,68,68,68	0
32	MG	A	3072	1/1	0.67	-	67,67,67,67	0
32	MG	6	279	1/1	0.27	-	93,93,93,93	0
32	MG	6	911	1/1	0.32	-	130,130,130,130	0
32	MG	6	228	1/1	0.27	-	67,67,67,67	0
32	MG	6	875	1/1	0.46	-	66,66,66,66	0
32	MG	A	2993	1/1	0.55	-	46,46,46,46	0
32	MG	A	2941	1/1	0.33	-	72,72,72,72	0
32	MG	A	3039	1/1	0.56	-	70,70,70,70	0
32	MG	6	660	1/1	1.18	-	99,99,99,99	0
32	MG	6	709	1/1	1.11	-	88,88,88,88	0
32	MG	6	224	1/1	0.39	-	67,67,67,67	0
32	MG	A	3160	1/1	0.60	-	106,106,106,106	0
32	MG	6	931	1/1	0.16	-	54,54,54,54	0
32	MG	A	3276	1/1	1.23	-	119,119,119,119	0
32	MG	6	84	1/1	0.11	-	40,40,40,40	0
32	MG	A	2943	1/1	0.17	-	14,14,14,14	0
32	MG	A	3178	1/1	0.67	-	93,93,93,93	0
32	MG	6	507	1/1	0.26	-	92,92,92,92	0
32	MG	A	3103	1/1	0.39	-	99,99,99,99	0
32	MG	6	126	1/1	0.25	-	40,40,40,40	0
32	MG	6	440	1/1	0.81	-	65,65,65,65	0
32	MG	6	15	1/1	0.10	-	6,6,6,6	0
32	MG	A	3183	1/1	0.56	-	20,20,20,20	0
32	MG	A	2948	1/1	0.27	-	38,38,38,38	0
32	MG	6	463	1/1	0.34	-	70,70,70,70	0
32	MG	6	32	1/1	0.25	-	15,15,15,15	0
32	MG	A	3127	1/1	0.21	-	67,67,67,67	0
32	MG	A	3229	1/1	0.69	-	81,81,81,81	0
32	MG	6	1106	1/1	0.74	-	73,73,73,73	0
32	MG	6	1144	1/1	0.13	-	30,30,30,30	0
32	MG	A	168	1/1	0.14	-	37,37,37,37	0
32	MG	6	225	1/1	0.18	-	48,48,48,48	0
32	MG	6	409	1/1	0.10	-	68,68,68,68	0
32	MG	6	389	1/1	0.48	-	66,66,66,66	0
32	MG	A	3026	1/1	0.32	-	63,63,63,63	0
32	MG	A	2955	1/1	0.16	-	42,42,42,42	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	1119	1/1	0.44	-	95,95,95,95	0
32	MG	6	199	1/1	0.16	-	55,55,55,55	0
32	MG	6	710	1/1	0.46	-	71,71,71,71	0
32	MG	6	91	1/1	0.19	-	32,32,32,32	0
32	MG	6	1084	1/1	0.25	-	96,96,96,96	0
32	MG	6	141	1/1	0.15	-	29,29,29,29	0
32	MG	6	1145	1/1	0.17	-	95,95,95,95	0
32	MG	6	789	1/1	0.14	-	9,9,9,9	0
32	MG	6	791	1/1	0.19	-	27,27,27,27	0
32	MG	6	722	1/1	0.12	-	88,88,88,88	0
32	MG	A	3130	1/1	0.17	-	67,67,67,67	0
32	MG	6	358	1/1	0.22	-	103,103,103,103	0
32	MG	6	748	1/1	0.89	-	62,62,62,62	0
32	MG	A	2909	1/1	0.51	-	31,31,31,31	0
32	MG	B	337	1/1	0.44	-	87,87,87,87	0
32	MG	A	2976	1/1	0.15	-	48,48,48,48	0
32	MG	A	3019	1/1	0.61	-	64,64,64,64	0
32	MG	6	1177	1/1	0.44	-	52,52,52,52	0
32	MG	6	1149	1/1	0.30	-	90,90,90,90	0
32	MG	6	836	1/1	0.36	-	78,78,78,78	0
32	MG	6	271	1/1	0.15	-	69,69,69,69	0
32	MG	A	3259	1/1	0.34	-	79,79,79,79	0
32	MG	A	3154	1/1	0.14	-	89,89,89,89	0
32	MG	6	346	1/1	0.18	-	75,75,75,75	0
32	MG	6	831	1/1	0.40	-	99,99,99,99	0
32	MG	6	515	1/1	0.53	-	64,64,64,64	0
32	MG	A	2963	1/1	0.18	-	75,75,75,75	0
32	MG	A	3305	1/1	0.31	-	89,89,89,89	0
32	MG	A	2936	1/1	0.57	-	53,53,53,53	0
32	MG	6	662	1/1	1.46	-	74,74,74,74	0
32	MG	6	575	1/1	0.15	-	79,79,79,79	0
32	MG	6	741	1/1	0.36	-	93,93,93,93	0
32	MG	A	3181	1/1	0.24	-	26,26,26,26	0
32	MG	A	2904	1/1	0.46	-	24,24,24,24	0
32	MG	6	1065	1/1	0.32	-	97,97,97,97	0
32	MG	6	253	1/1	0.80	-	74,74,74,74	0
32	MG	A	3137	1/1	2.05	-	68,68,68,68	0
32	MG	A	3079	1/1	0.31	-	61,61,61,61	0
32	MG	6	699	1/1	0.36	-	84,84,84,84	0
32	MG	A	2905	1/1	0.67	-	27,27,27,27	0
32	MG	6	1083	1/1	0.24	-	101,101,101,101	0
32	MG	A	3232	1/1	0.32	-	62,62,62,62	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	777	1/1	1.91	-	108,108,108,108	0
32	MG	6	585	1/1	0.20	-	74,74,74,74	0
32	MG	6	634	1/1	0.72	-	106,106,106,106	0
32	MG	6	595	1/1	0.39	-	59,59,59,59	0
32	MG	A	3250	1/1	0.39	-	77,77,77,77	0
32	MG	6	859	1/1	0.16	-	65,65,65,65	0
32	MG	6	520	1/1	0.56	-	80,80,80,80	0
32	MG	6	1051	1/1	0.75	-	113,113,113,113	0
32	MG	A	3005	1/1	0.17	-	37,37,37,37	0
32	MG	A	3069	1/1	0.41	-	67,67,67,67	0
32	MG	6	1122	1/1	0.32	-	102,102,102,102	0
32	MG	6	181	1/1	0.16	-	47,47,47,47	0
32	MG	A	3146	1/1	0.18	-	72,72,72,72	0
32	MG	6	131	1/1	0.25	-	63,63,63,63	0
32	MG	A	3257	1/1	0.51	-	81,81,81,81	0
32	MG	A	3286	1/1	0.29	-	62,62,62,62	0
32	MG	A	3065	1/1	0.58	-	59,59,59,59	0
32	MG	6	813	1/1	0.12	-	87,87,87,87	0
32	MG	A	3054	1/1	0.48	-	63,63,63,63	0
32	MG	6	153	1/1	0.26	-	70,70,70,70	0
32	MG	6	1079	1/1	1.12	-	75,75,75,75	0
32	MG	A	3056	1/1	0.32	-	60,60,60,60	0
32	MG	6	565	1/1	0.33	-	71,71,71,71	0
32	MG	6	1081	1/1	0.80	-	79,79,79,79	0
32	MG	6	823	1/1	0.24	-	48,48,48,48	0
32	MG	6	360	1/1	0.47	-	99,99,99,99	0
32	MG	B	1125	1/1	0.34	-	78,78,78,78	0
32	MG	6	1005	1/1	1.13	-	80,80,80,80	0
32	MG	6	1078	1/1	0.27	-	49,49,49,49	0
32	MG	6	647	1/1	0.27	-	86,86,86,86	0
32	MG	6	1178	1/1	0.16	-	60,60,60,60	0
32	MG	6	627	1/1	0.11	-	92,92,92,92	0
32	MG	A	3281	1/1	0.33	-	71,71,71,71	0
32	MG	6	307	1/1	0.19	-	85,85,85,85	0
32	MG	6	1052	1/1	0.32	-	98,98,98,98	0
32	MG	A	3126	1/1	0.46	-	78,78,78,78	0
32	MG	6	106	1/1	0.11	-	38,38,38,38	0
32	MG	6	572	1/1	0.20	-	115,115,115,115	0
32	MG	6	992	1/1	0.26	-	120,120,120,120	0
32	MG	6	1170	1/1	0.55	-	73,73,73,73	0
32	MG	A	3152	1/1	0.25	-	75,75,75,75	0
32	MG	A	3089	1/1	0.26	-	83,83,83,83	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3312	1/1	0.48	-	74,74,74,74	0
32	MG	6	903	1/1	0.11	-	64,64,64,64	0
32	MG	A	3264	1/1	0.14	-	53,53,53,53	0
32	MG	6	538	1/1	0.20	-	85,85,85,85	0
32	MG	A	3213	1/1	0.18	-	59,59,59,59	0
32	MG	A	2923	1/1	0.34	-	42,42,42,42	0
32	MG	A	1172	1/1	0.74	-	121,121,121,121	0
32	MG	A	3204	1/1	0.64	-	63,63,63,63	0
32	MG	6	261	1/1	0.14	-	49,49,49,49	0
32	MG	K	612	1/1	0.59	-	78,78,78,78	0
32	MG	A	3108	1/1	0.48	-	71,71,71,71	0
32	MG	6	917	1/1	0.58	-	87,87,87,87	0
32	MG	A	2910	1/1	0.14	-	4,4,4,4	0
32	MG	6	371	1/1	0.43	-	70,70,70,70	0
32	MG	A	3163	1/1	0.58	-	83,83,83,83	0
32	MG	A	3136	1/1	0.34	-	78,78,78,78	0
32	MG	6	877	1/1	0.36	-	117,117,117,117	0
32	MG	6	144	1/1	0.24	-	59,59,59,59	0
32	MG	6	182	1/1	0.62	-	44,44,44,44	0
32	MG	6	773	1/1	1.20	-	117,117,117,117	0
32	MG	6	282	1/1	0.39	-	76,76,76,76	0
32	MG	B	308	1/1	0.32	-	75,75,75,75	0
32	MG	6	175	1/1	0.11	-	46,46,46,46	0
32	MG	6	493	1/1	0.56	-	77,77,77,77	0
32	MG	A	3170	1/1	0.68	-	75,75,75,75	0
32	MG	6	806	1/1	0.16	-	28,28,28,28	0
32	MG	6	348	1/1	0.26	-	77,77,77,77	0
32	MG	6	264	1/1	0.12	-	99,99,99,99	0
32	MG	A	2931	1/1	0.13	-	43,43,43,43	0
32	MG	A	3151	1/1	0.53	-	129,129,129,129	0
32	MG	A	3040	1/1	0.15	-	64,64,64,64	0
32	MG	A	3179	1/1	0.84	-	72,72,72,72	0
32	MG	A	2945	1/1	0.34	-	47,47,47,47	0
32	MG	A	2902	1/1	0.17	-	7,7,7,7	0
32	MG	A	2994	1/1	0.64	-	45,45,45,45	0
32	MG	6	464	1/1	0.13	-	70,70,70,70	0
32	MG	6	156	1/1	0.47	-	56,56,56,56	0
32	MG	6	706	1/1	0.20	-	143,143,143,143	0
32	MG	6	955	1/1	0.68	-	81,81,81,81	0
32	MG	6	693	1/1	0.56	-	59,59,59,59	0
32	MG	A	3051	1/1	0.18	-	46,46,46,46	0
32	MG	6	1013	1/1	0.47	-	81,81,81,81	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3052	1/1	0.21	-	60,60,60,60	0
32	MG	6	14	1/1	0.17	-	5,5,5,5	0
32	MG	6	715	1/1	0.18	-	68,68,68,68	0
32	MG	A	3246	1/1	0.61	-	47,47,47,47	0
32	MG	A	3231	1/1	0.20	-	66,66,66,66	0
32	MG	6	117	1/1	0.72	-	44,44,44,44	0
32	MG	A	2954	1/1	0.33	-	35,35,35,35	0
32	MG	A	3258	1/1	0.16	-	57,57,57,57	0
32	MG	6	1162	1/1	0.57	-	68,68,68,68	0
32	MG	A	3033	1/1	0.36	-	44,44,44,44	0
32	MG	A	3157	1/1	0.35	-	68,68,68,68	0
32	MG	A	3206	1/1	0.55	-	74,74,74,74	0
32	MG	6	12	1/1	0.15	-	24,24,24,24	0
32	MG	A	3275	1/1	0.34	-	91,91,91,91	0
32	MG	6	414	1/1	0.18	-	89,89,89,89	0
32	MG	A	3018	1/1	0.22	-	77,77,77,77	0
32	MG	6	870	1/1	0.12	-	48,48,48,48	0
32	MG	A	3131	1/1	0.18	-	64,64,64,64	0
32	MG	6	1176	1/1	0.93	-	69,69,69,69	0
32	MG	6	626	1/1	0.17	-	85,85,85,85	0
32	MG	A	2966	1/1	0.09	-	37,37,37,37	0
32	MG	6	1092	1/1	0.39	-	74,74,74,74	0
32	MG	6	295	1/1	0.41	-	49,49,49,49	0
32	MG	6	936	1/1	0.14	-	72,72,72,72	0
32	MG	6	1100	1/1	0.72	-	51,51,51,51	0
32	MG	6	155	1/1	0.19	-	54,54,54,54	0
32	MG	A	2974	1/1	0.18	-	40,40,40,40	0
32	MG	6	567	1/1	0.66	-	83,83,83,83	0
32	MG	6	352	1/1	0.58	-	48,48,48,48	0
32	MG	6	95	1/1	0.07	-	24,24,24,24	0
32	MG	A	3225	1/1	1.00	-	54,54,54,54	0
32	MG	A	2983	1/1	0.36	-	60,60,60,60	0
32	MG	6	878	1/1	0.09	-	58,58,58,58	0
32	MG	A	3180	1/1	0.21	-	19,19,19,19	0
32	MG	A	2957	1/1	0.20	-	40,40,40,40	0
32	MG	6	599	1/1	0.17	-	70,70,70,70	0
32	MG	A	3093	1/1	0.26	-	53,53,53,53	0
32	MG	6	808	1/1	0.09	-	38,38,38,38	0
32	MG	6	304	1/1	0.80	-	79,79,79,79	0
32	MG	6	297	1/1	0.34	-	36,36,36,36	0
32	MG	6	247	1/1	0.92	-	62,62,62,62	0
32	MG	A	3148	1/1	0.85	-	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	A	3110	1/1	0.64	-	91,91,91,91	0
32	MG	6	1188	1/1	0.21	-	155,155,155,155	0
32	MG	6	453	1/1	0.35	-	63,63,63,63	0
32	MG	6	941	1/1	0.15	-	54,54,54,54	0
32	MG	A	3059	1/1	0.34	-	76,76,76,76	0
32	MG	6	553	1/1	1.62	-	50,50,50,50	0
32	MG	6	807	1/1	0.11	-	26,26,26,26	0
32	MG	6	653	1/1	0.17	-	72,72,72,72	0
32	MG	A	3042	1/1	0.54	-	89,89,89,89	0
32	MG	6	614	1/1	0.72	-	63,63,63,63	0
32	MG	6	1	1/1	0.11	-	7,7,7,7	0
32	MG	6	455	1/1	0.58	-	72,72,72,72	0
32	MG	A	3233	1/1	0.60	-	44,44,44,44	0
32	MG	6	916	1/1	0.19	-	69,69,69,69	0
32	MG	6	25	1/1	0.09	-	22,22,22,22	0
32	MG	6	590	1/1	0.38	-	87,87,87,87	0
32	MG	A	3184	1/1	0.24	-	27,27,27,27	0
32	MG	A	2992	1/1	0.20	-	57,57,57,57	0
32	MG	6	926	1/1	0.19	-	60,60,60,60	0
32	MG	6	1029	1/1	0.15	-	86,86,86,86	0
32	MG	6	724	1/1	2.17	-	91,91,91,91	0
32	MG	6	912	1/1	1.74	-	78,78,78,78	0
32	MG	A	3307	1/1	0.44	-	83,83,83,83	0
32	MG	A	3226	1/1	0.24	-	45,45,45,45	0
32	MG	6	345	1/1	0.16	-	77,77,77,77	0
32	MG	6	619	1/1	0.11	-	90,90,90,90	0
32	MG	6	942	1/1	0.29	-	143,143,143,143	0
32	MG	6	899	1/1	0.15	-	81,81,81,81	0
32	MG	6	845	1/1	0.25	-	83,83,83,83	0
32	MG	6	263	1/1	0.48	-	51,51,51,51	0
32	MG	A	2937	1/1	0.50	-	50,50,50,50	0
32	MG	A	3245	1/1	0.63	-	82,82,82,82	0
32	MG	6	833	1/1	0.16	-	80,80,80,80	0
32	MG	6	744	1/1	0.18	-	83,83,83,83	0
32	MG	6	443	1/1	0.17	-	80,80,80,80	0
32	MG	B	406	1/1	0.19	-	105,105,105,105	0
32	MG	6	665	1/1	1.50	-	82,82,82,82	0
32	MG	6	404	1/1	0.63	-	56,56,56,56	0
32	MG	6	1015	1/1	0.95	-	41,41,41,41	0
32	MG	6	1124	1/1	0.54	-	102,102,102,102	0
32	MG	A	2972	1/1	0.25	-	52,52,52,52	0
32	MG	6	615	1/1	0.28	-	82,82,82,82	0

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Mol	Type	Chain	Res	Atoms	RSR	LLDF	B-factors( $\text{\AA}^2$ )	Q<0.9
32	MG	6	231	1/1	0.59	-	35,35,35,35	0
32	MG	A	3035	1/1	0.26	-	93,93,93,93	0
32	MG	6	1156	1/1	0.43	-	72,72,72,72	0
32	MG	6	368	1/1	0.15	-	79,79,79,79	0
32	MG	6	381	1/1	0.58	-	65,65,65,65	0
32	MG	A	3195	1/1	0.34	-	45,45,45,45	0
32	MG	A	2965	1/1	0.48	-	51,51,51,51	0
32	MG	6	72	1/1	0.12	-	25,25,25,25	0
32	MG	6	588	1/1	0.46	-	69,69,69,69	0
32	MG	A	3173	1/1	0.65	-	102,102,102,102	0
32	MG	6	54	1/1	0.18	-	43,43,43,43	0
32	MG	A	3101	1/1	0.23	-	70,70,70,70	0
32	MG	A	2975	1/1	0.42	-	40,40,40,40	0
32	MG	6	885	1/1	0.36	-	70,70,70,70	0
32	MG	6	479	1/1	0.60	-	58,58,58,58	0
32	MG	A	2985	1/1	0.66	-	54,54,54,54	0
32	MG	6	147	1/1	0.61	-	64,64,64,64	0
32	MG	A	3192	1/1	0.30	-	76,76,76,76	0
32	MG	A	3197	1/1	0.17	-	53,53,53,53	0
32	MG	6	600	1/1	0.27	-	110,110,110,110	0
32	MG	A	2900	1/1	0.37	-	12,12,12,12	0
32	MG	6	424	1/1	0.20	-	72,72,72,72	0
32	MG	A	3268	1/1	0.33	-	116,116,116,116	0
32	MG	6	56	1/1	0.29	-	22,22,22,22	0
32	MG	6	1107	1/1	0.36	-	91,91,91,91	0
32	MG	6	46	1/1	0.29	-	31,31,31,31	0
32	MG	6	149	1/1	0.60	-	53,53,53,53	0
32	MG	6	388	1/1	0.08	-	66,66,66,66	0
32	MG	6	532	1/1	0.48	-	40,40,40,40	0
32	MG	6	949	1/1	0.15	-	40,40,40,40	0

## 6.5 Other polymers ⓘ

There are no such residues in this entry.