



Full wwPDB EM Validation Report ⓘ

Jan 20, 2026 – 01:21 pm GMT

PDB ID : 9QCS / pdb_00009qcs
EMDB ID : EMD-53026
Title : Ku80 mediated DNA-PK dimer bound to 153 bp H2AX nucleosome
Authors : Hall, C.; Chaplin, A.K.
Deposited on : 2025-03-05
Resolution : 4.38 Å(reported)

This is a Full wwPDB EM Validation Report for a publicly released PDB entry.

We welcome your comments at validation@mail.wwpdb.org

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

<http://www.wwpdb.org/validation/2017/FAQs#types>.

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

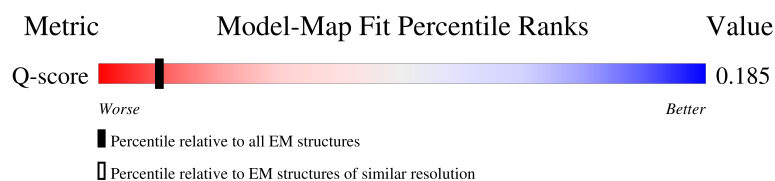
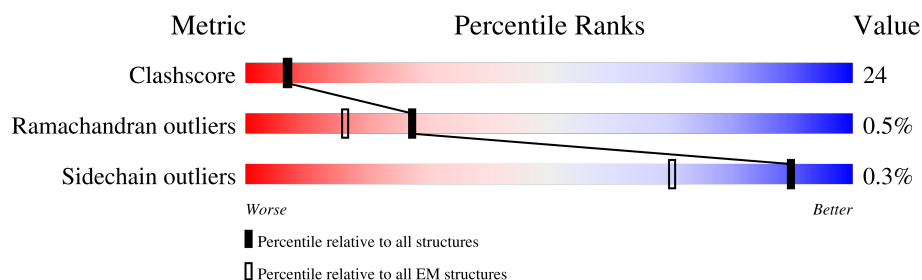
EMDB validation analysis : 0.0.1.dev129
MolProbity : 4-5-2 with Phenix2.0
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.47

1 Overall quality at a glance

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

The reported resolution of this entry is 4.38 Å.

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



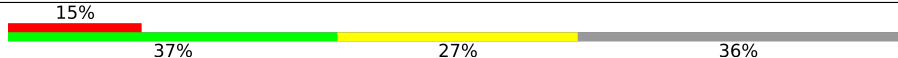
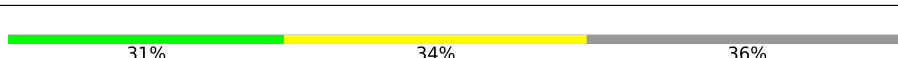
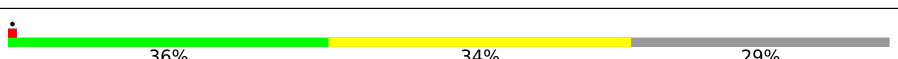
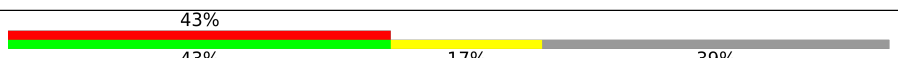
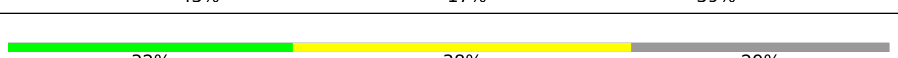
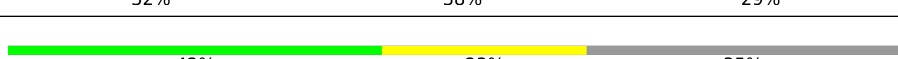
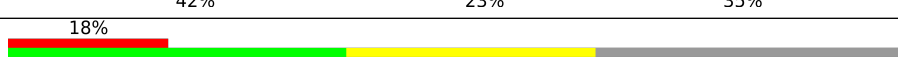
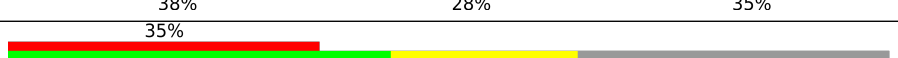
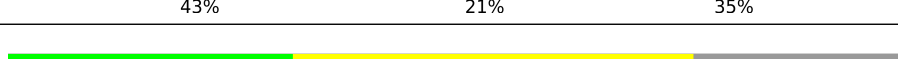
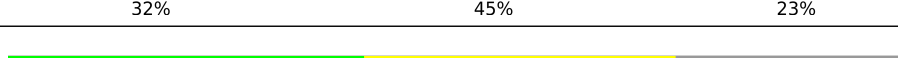
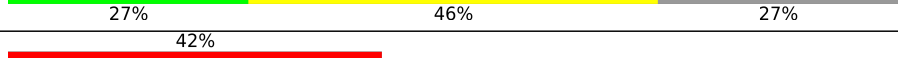
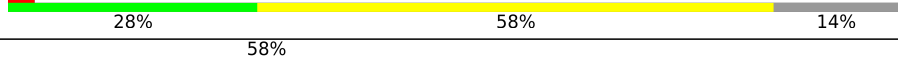
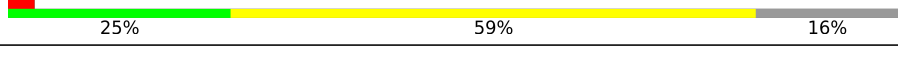
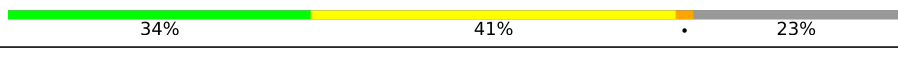
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	210492	15764	-
Ramachandran outliers	207382	16835	-
Sidechain outliers	206894	16415	-
Q-score	-	25397	3702 (3.88 - 4.88)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for ≥ 3 , 2, 1 and 0 types of geometric quality criteria respectively. A grey segment represents the fraction of residues that are not modelled. The numeric value for each fraction is indicated below the corresponding segment, with a dot representing fractions $\leq 5\%$. The upper red bar (where present) indicates the fraction of residues that have poor fit to the EM map (all-atom inclusion $< 40\%$). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	O	4128	
1	o	4128	
2	D	126	
2	H	126	

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Mol	Chain	Length	Quality of chain
2	d	126	
2	h	126	
3	C	143	
3	G	143	
3	c	143	
3	g	143	
4	A	136	
4	E	136	
4	a	136	
4	e	136	
5	B	103	
5	F	103	
5	b	103	
5	f	103	
6	I	153	
6	i	153	
7	J	153	
7	j	153	
8	K	609	
8	M	609	
9	L	732	
9	N	732	

2 Entry composition [i](#)

There are 9 unique types of molecules in this entry. The entry contains 94128 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called DNA-dependent protein kinase catalytic subunit.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	O	3510	Total	C	N	O	S	0	0
			27567	17688	4624	5079	176		
1	o	3506	Total	C	N	O	S	0	0
			27886	17906	4702	5095	183		

- Molecule 2 is a protein called Histone H2B type 1-J.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	D	93	Total	C	N	O	S	0	0
			714	451	126	135	2		
2	H	93	Total	C	N	O	S	0	0
			717	452	127	136	2		
2	d	92	Total	C	N	O	S	0	0
			698	437	125	134	2		
2	h	92	Total	C	N	O	S	0	0
			698	438	123	135	2		

- Molecule 3 is a protein called Histone H2AX.

Mol	Chain	Residues	Atoms				AltConf	Trace
3	C	92	Total	C	N	O	0	0
			702	442	138	122		
3	G	92	Total	C	N	O	0	0
			703	442	138	123		
3	c	101	Total	C	N	O	0	0
			761	479	147	135		
3	g	87	Total	C	N	O	0	0
			652	411	127	114		

- Molecule 4 is a protein called Histone H3.1.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	A	96	Total	C	N	O	S	0	0
			794	500	154	136	4		
4	E	88	Total	C	N	O	S	0	0
			711	451	132	124	4		
4	a	89	Total	C	N	O	S	0	0
			732	462	139	127	4		
4	e	88	Total	C	N	O	S	0	0
			709	450	129	126	4		

- Molecule 5 is a protein called Histone H4.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	B	79	Total	C	N	O		0	0
			624	394	122	108			
5	F	77	Total	C	N	O	S	0	0
			612	385	119	107	1		
5	b	75	Total	C	N	O	S	0	0
			590	375	113	101	1		
5	f	76	Total	C	N	O	S	0	0
			610	387	118	104	1		

- Molecule 6 is a DNA chain called 153 bp DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	i	131	Total	C	N	O	P	0	0
			2691	1275	504	783	129		
6	I	131	Total	C	N	O	P	0	0
			2691	1275	504	783	129		

- Molecule 7 is a DNA chain called 153 bp DNA.

Mol	Chain	Residues	Atoms					AltConf	Trace
7	j	129	Total	C	N	O	P	0	0
			2624	1247	481	769	127		
7	J	129	Total	C	N	O	P	0	0
			2624	1247	481	769	127		

- Molecule 8 is a protein called X-ray repair cross-complementing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
8	K	471	Total	C	N	O	S	0	0
			3705	2379	609	699	18		

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Mol	Chain	Residues	Atoms					AltConf	Trace
8	M	471	Total	C	N	O	S	0	0
			3742	2395	626	703	18		

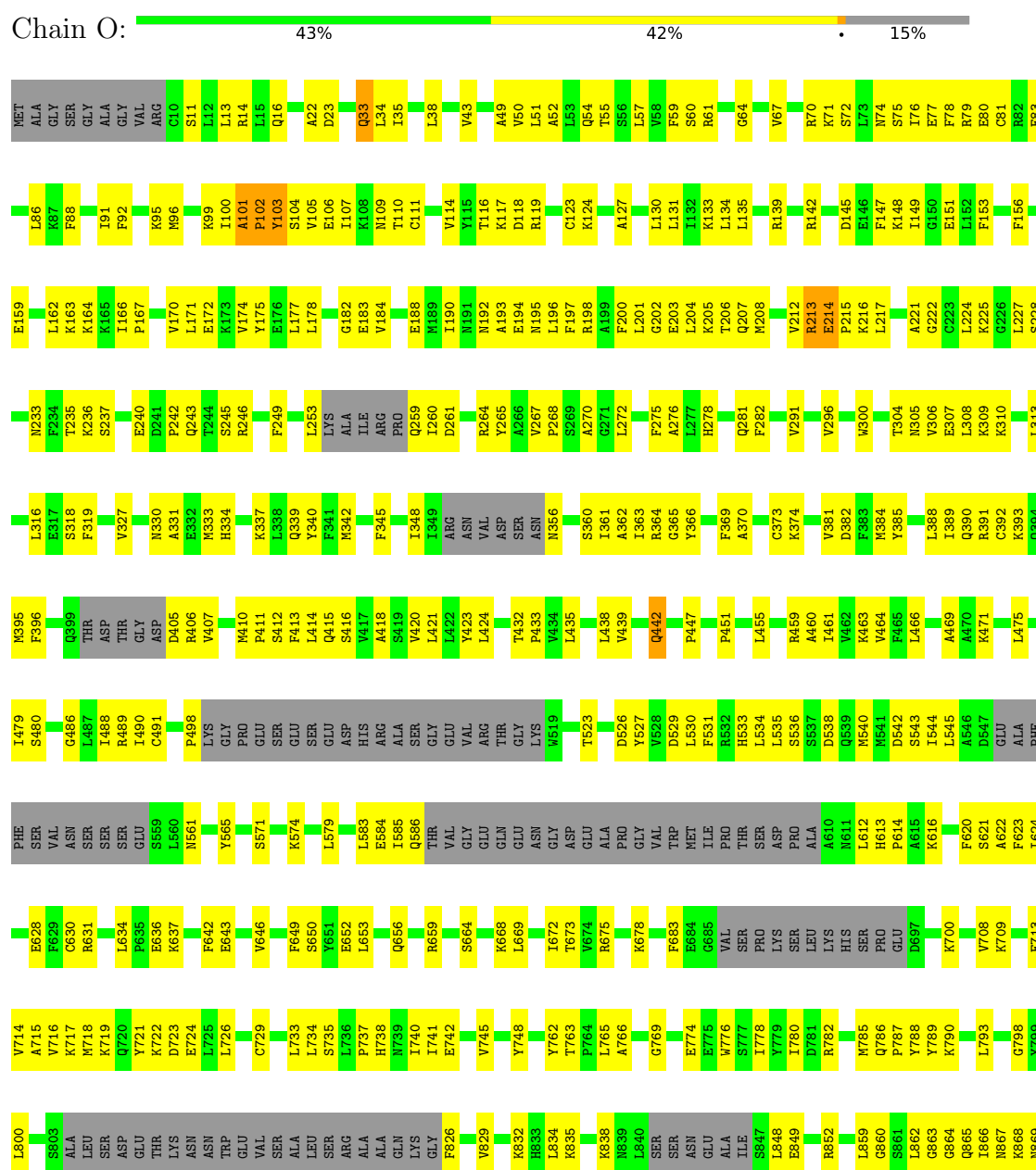
- Molecule 9 is a protein called X-ray repair cross-complementing protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
9	L	614	Total	C	N	O	S	0	0
			4774	3043	796	909	26		
9	N	612	Total	C	N	O	S	0	0
			4797	3062	793	916	26		

3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map 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 diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). 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: DNA-dependent protein kinase catalytic subunit



T1924	E1925	MET	ALA	GLY	ASN	F1778	Q1779	THR	A1619	GLY	H1477	M1403	K1334	C1286	K1193	L1111	R1026	T946	L870
E1925	ALA	GLY	ASN	THR	GLY	F1782	Q1779	GLY	T1620	SER	S1478	K1404	V1337	Y1267	F1194	A1112	R1026	Q947	LEU
MET	ALA	GLY	ASN	THR	GLY	F1782	Q1779	GLY	T1621	SER	V1479	A1405	V1338	M1288	P1196	A1113	R1034	Q948	THR
ALA	GLY	ASN	THR	THR	GLY	F1783	Q1779	GLY	T1622	SER	L1483	A1406	V1339	I1271	L1197	A1114	S1039	A955	THR
GLY	ASN	THR	THR	THR	GLY	F1784	Q1779	GLY	T1623	SER	L1486	A1407	R1340	R1274	R1202	A1115	S1040	P956	SER
ASN	THR	THR	THR	THR	GLY	F1785	Q1779	GLY	T1624	VAL	L1487	A1408	I1341	T1275	R1202	A1116	S1041	P957	SER
GLY	ASN	THR	THR	THR	GLY	F1786	Q1779	GLY	T1625	VAL	Y1488	A1409	E1342	T1276	R1202	A1117	S1042	P958	ASP
GLN	ASN	THR	THR	THR	GLY	F1787	Q1779	GLY	T1626	ILE	K1489	A1410	E1343	T1277	R1202	A1118	K1043	P959	GLU
LEU	ASN	THR	THR	THR	GLY	F1788	Q1779	GLY	T1627	ILE	K1490	A1411	E1344	T1278	R1202	A1119	K1044	P960	MET
E1935	E1935	GLY	ASN	THR	GLY	F1789	Q1779	GLY	T1628	ILE	I1491	A1412	T1346	A1278	R1202	A1120	Q1043	P961	THR
Y1940	Y1940	GLY	ASN	THR	GLY	F1790	Q1779	GLY	T1629	ILE	A1492	A1413	T1347	A1279	R1202	A1121	Q1044	P962	THR
M1946	M1946	GLY	ASN	THR	GLY	F1791	Q1779	GLY	T1630	ILE	PRO	A1414	T1348	A1280	R1202	A1122	Q1045	P963	THR
I1949	I1949	GLY	ASN	THR	GLY	F1792	Q1779	GLY	T1631	ILE	GLY	A1415	T1349	A1281	R1202	A1123	Q1046	P964	THR
S1950	S1950	GLY	ASN	THR	GLY	F1793	Q1779	GLY	T1632	ILE	ASP	A1416	T1350	A1282	R1202	A1124	Q1047	P965	THR
Y1951	Y1951	GLY	ASN	THR	GLY	F1794	Q1779	GLY	T1633	ILE	GLU	A1417	T1351	A1283	R1202	A1125	Q1048	P966	THR
C1953	C1953	GLY	ASN	THR	GLY	F1795	Q1779	GLY	T1634	ILE	GLU	A1418	T1352	A1284	R1202	A1126	Q1049	P967	THR
C1954	C1954	GLY	ASN	THR	GLY	F1796	Q1779	GLY	T1635	ILE	GLU	A1419	T1353	A1285	R1202	A1127	Q1050	P968	THR
V1955	V1955	GLY	ASN	THR	GLY	F1797	Q1779	GLY	T1636	ILE	GLU	A1420	T1354	A1286	R1202	A1128	Q1051	P969	THR
F1956	F1956	GLY	ASN	THR	GLY	F1798	Q1779	GLY	T1637	ILE	GLU	A1421	T1355	A1287	R1202	A1129	Q1052	P970	THR
F1961	F1961	GLY	ASN	THR	GLY	F1799	Q1779	GLY	T1638	ILE	GLU	A1422	T1356	A1288	R1202	A1130	Q1053	P971	THR
Y1962	Y1962	GLY	ASN	THR	GLY	F1800	Q1779	GLY	T1639	ILE	GLU	A1423	T1357	A1289	R1202	A1131	Q1054	P972	THR
Q1963	Q1963	GLY	ASN	THR	GLY	F1801	Q1779	GLY	T1640	ILE	GLU	A1424	T1358	A1290	R1202	A1132	Q1055	P973	THR
PHE	PHE	GLY	ASN	THR	GLY	F1802	Q1779	GLY	T1641	ILE	GLU	A1425	T1359	A1291	R1202	A1133	Q1056	P974	THR
LEU	LEU	GLY	ASN	THR	GLY	F1803	Q1779	GLY	T1642	ILE	GLU	A1426	T1360	A1292	R1202	A1134	Q1057	P975	THR
PHE	PHE	GLY	ASN	THR	GLY	F1804	Q1779	GLY	T1643	ILE	GLU	A1427	T1361	A1293	R1202	A1135	Q1058	P976	THR
PHE	PHE	GLY	ASN	THR	GLY	F1805	Q1779	GLY	T1644	ILE	GLU	A1428	T1362	A1294	R1202	A1136	Q1059	P977	THR
PHE	PHE	GLY	ASN	THR	GLY	F1806	Q1779	GLY	T1645	ILE	GLU	A1429	T1363	A1295	R1202	A1137	Q1060	P978	THR
PHE	PHE	GLY	ASN	THR	GLY	F1807	Q1779	GLY	T1646	ILE	GLU	A1430	T1364	A1296	R1202	A1138	Q1061	P979	THR
PHE	PHE	GLY	ASN	THR	GLY	F1808	Q1779	GLY	T1647	ILE	GLU	A1431	T1365	A1297	R1202	A1139	Q1062	P980	THR
PHE	PHE	GLY	ASN	THR	GLY	F1809	Q1779	GLY	T1648	ILE	GLU	A1432	T1366	A1298	R1202	A1140	Q1063	P981	THR
PHE	PHE	GLY	ASN	THR	GLY	F1810	Q1779	GLY	T1649	ILE	GLU	A1433	T1367	A1299	R1202	A1141	Q1064	P982	THR
PHE	PHE	GLY	ASN	THR	GLY	F1811	Q1779	GLY	T1650	ILE	GLU	A1434	T1368	A1300	R1202	A1142	Q1065	P983	THR
PHE	PHE	GLY	ASN	THR	GLY	F1812	Q1779	GLY	T1651	ILE	GLU	A1435	T1369	A1301	R1202	A1143	Q1066	P984	THR
PHE	PHE	GLY	ASN	THR	GLY	F1813	Q1779	GLY	T1652	ILE	GLU	A1436	T1370	A1302	R1202	A1144	Q1067	P985	THR
PHE	PHE	GLY	ASN	THR	GLY	F1814	Q1779	GLY	T1653	ILE	GLU	A1437	T1371	A1303	R1202	A1145	Q1068	P986	THR
PHE	PHE	GLY	ASN	THR	GLY	F1815	Q1779	GLY	T1654	ILE	GLU	A1438	T1372	A1304	R1202	A1146	Q1069	P987	THR
PHE	PHE	GLY	ASN	THR	GLY	F1816	Q1779	GLY	T1655	ILE	GLU	A1439	T1373	A1305	R1202	A1147	Q1070	P988	THR
PHE	PHE	GLY	ASN	THR	GLY	F1817	Q1779	GLY	T1656	ILE	GLU	A1440	T1374	A1306	R1202	A1148	Q1071	P989	THR
PHE	PHE	GLY	ASN	THR	GLY	F1818	Q1779	GLY	T1657	ILE	GLU	A1441	T1375	A1307	R1202	A1149	Q1072	P990	THR
PHE	PHE	GLY	ASN	THR	GLY	F1819	Q1779	GLY	T1658	ILE	GLU	A1442	T1376	A1308	R1202	A1150	Q1073	P991	THR
PHE	PHE	GLY	ASN	THR	GLY	F1820	Q1779	GLY	T1659	ILE	GLU	A1443	T1377	A1309	R1202	A1151	Q1074	P992	THR
PHE	PHE	GLY	ASN	THR	GLY	F1821	Q1779	GLY	T1660	ILE	GLU	A1444	T1378	A1310	R1202	A1152	Q1075	P993	THR
PHE	PHE	GLY	ASN	THR	GLY	F1822	Q1779	GLY	T1661	ILE	GLU	A1445	T1379	A1311	R1202	A1153	Q1076	P994	THR
PHE	PHE	GLY	ASN	THR	GLY	F1823	Q1779	GLY	T1662	ILE	GLU	A1446	T1380	A1312	R1202	A1154	Q1077	P995	THR
PHE	PHE	GLY	ASN	THR	GLY	F1824	Q1779	GLY	T1663	ILE	GLU	A1447	T1381	A1313	R1202	A1155	Q1078	P996	THR
PHE	PHE	GLY	ASN	THR	GLY	F1825	Q1779	GLY	T1664	ILE	GLU	A1448	T1382	A1314	R1202	A1156	Q1079	P997	THR
PHE	PHE	GLY	ASN	THR	GLY	F1826	Q1779	GLY	T1665	ILE	GLU	A1449	T1383	A1315	R1202	A1157	Q1080	P998	THR
PHE	PHE	GLY	ASN	THR	GLY	F1827	Q1779	GLY	T1666	ILE	GLU	A1450	T1384	A1316	R1202	A1158	Q1081	P999	THR
PHE	PHE	GLY	ASN	THR	GLY	F1828	Q1779	GLY	T1667	ILE	GLU	A1451	T1385	A1317	R1202	A1159	Q1082	P1000	THR
PHE	PHE	GLY	ASN	THR	GLY	F1829	Q1779	GLY	T1668	ILE	GLU	A1452	T1386	A1318	R1202	A1160	Q1083	P1001	THR
PHE	PHE	GLY	ASN	THR	GLY	F1830	Q1779	GLY	T1669	ILE	GLU	A1453	T1387	A1319	R1202	A1161	Q1084	P1002	THR
PHE	PHE	GLY	ASN	THR	GLY	F1831	Q1779	GLY	T1670	ILE	GLU	A1454	T1388	A1320	R1202	A1162	Q1085	P1003	THR
PHE	PHE	GLY	ASN	THR	GLY	F1832	Q1779	GLY	T1671	ILE	GLU	A1455	T1389	A1321	R1202	A1163	Q1086	P1004	THR
PHE	PHE	GLY	ASN	THR	GLY	F1833	Q1779	GLY	T1672	ILE	GLU	A1456	T1390	A1322	R1202	A1164	Q1087	P1005	THR
PHE	PHE	GLY	ASN	THR	GLY	F1834	Q1779	GLY	T1673	ILE	GLU	A1457	T1391	A1323	R1202	A1165	Q1088	P1006	THR
PHE	PHE	GLY	ASN	THR	GLY	F1835	Q1779	GLY	T1674	ILE	GLU	A1458	T1392	A1324	R1202	A1166	Q1089	P1007	THR
PHE	PHE	GLY	ASN	THR	GLY	F1836	Q1779	GLY	T1675	ILE	GLU	A1459	T1393	A1325	R1202	A1167	Q1090	P1008	THR
PHE	PHE	GLY	ASN	THR	GLY	F1837	Q1779	GLY	T1676	ILE	GLU	A1460	T1394	A1326	R1202	A1168	Q1091	P1009	THR
PHE	PHE	GLY	ASN	THR	GLY	F1838	Q1779	GLY	T1677	ILE	GLU	A1461	T1395	A1327	R1202	A1169	Q1092	P1010	THR
PHE	PHE	GLY	ASN	THR	GLY	F1839	Q1779	GLY	T1678	ILE	GLU	A1462	T1396	A1328	R1202	A1170	Q1093	P1011	THR
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PHE	PHE	GLY	ASN	THR	GLY	F1841	Q1779	GLY	T1680	ILE	GLU	A1464	T1398	A1330	R1202	A1172	Q1095	P1013	THR
PHE	PHE	GLY	ASN	THR	GLY	F1842	Q1779	GLY	T1681	ILE	GLU	A1465	T1399	A1331	R1202	A1173	Q1096	P1014	THR
PHE	PHE	GLY	ASN	THR	GLY	F1843	Q1779	GLY	T1682	ILE	GLU	A1466	T1400	A1332	R1202	A1174	Q1097	P1015	THR
PHE	PHE	GLY	ASN	THR	GLY	F1844	Q1779	GLY	T1683	ILE	GLU	A1467	T1401	A1333	R1202	A1175	Q1098	P1016	THR
PHE	PHE	GLY	ASN	THR	GLY	F1845	Q1779	GLY	T1684	ILE	GLU	A1468	T1402	A1334	R1202	A1176	Q1099	P1017	THR
PHE	PHE	GLY	ASN	THR	GLY	F1846	Q1779	GLY	T1685	ILE	GLU	A1469	T1403	A1335	R1202	A1177	Q1100	P1018	THR
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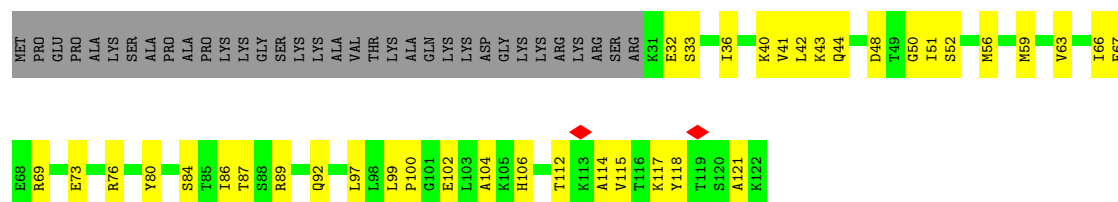




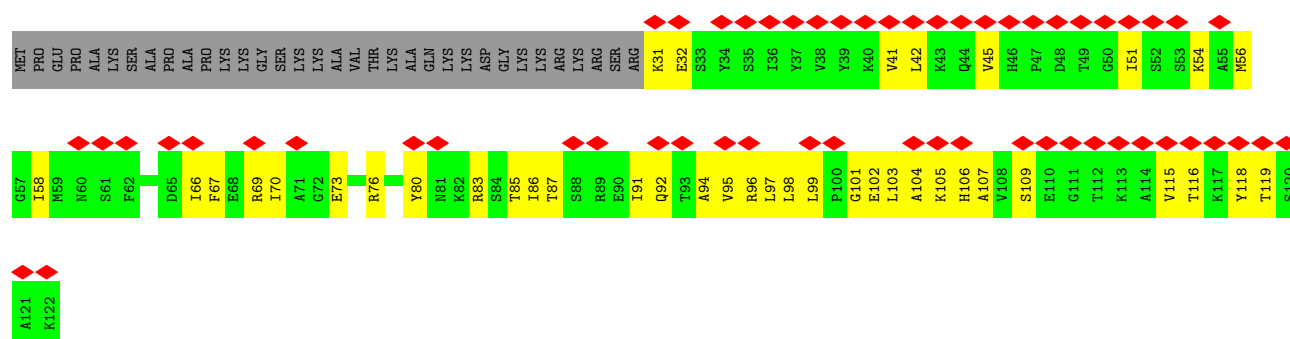
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H3501	Q3328	Y3168	K2991	GLU	S2810	LYS	SER	N2514	T2438
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TYR	SER	LEU	ASN	I2942	P2853	ASP	ALA	D2571	Y2474
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S3546	L3463	Q3130	Q3037	A2956	D2861	GLY	TRP	I2480	I2480
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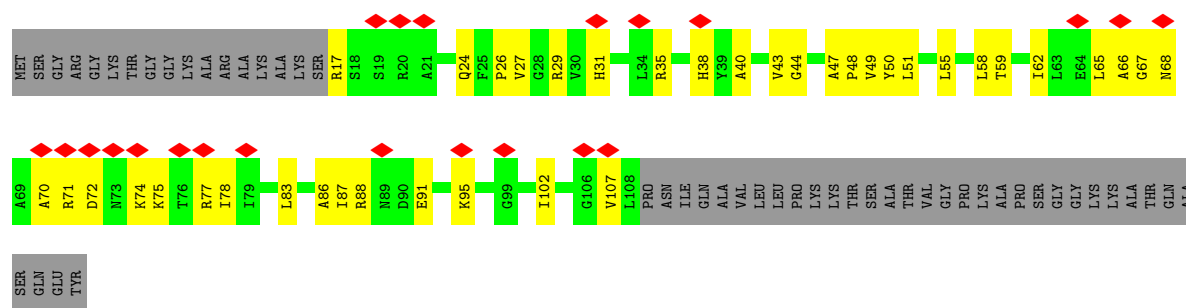
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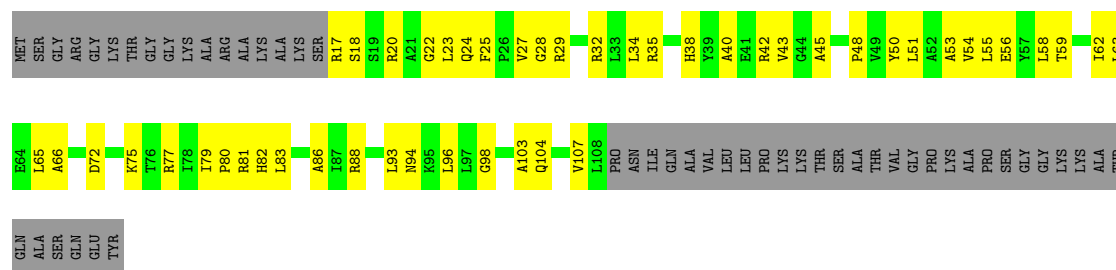
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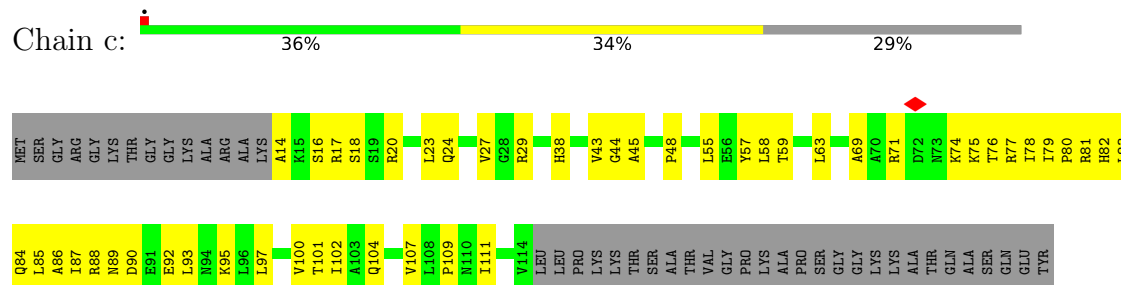
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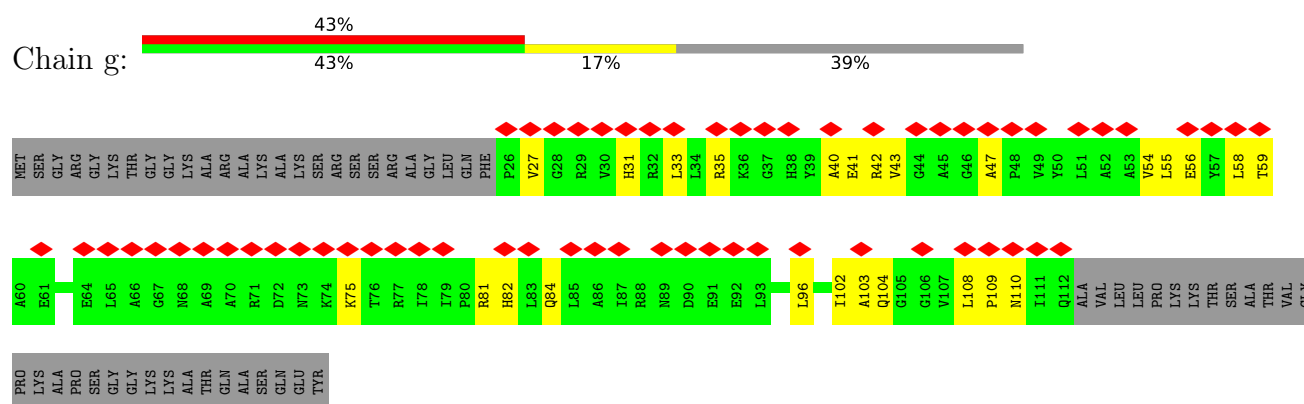
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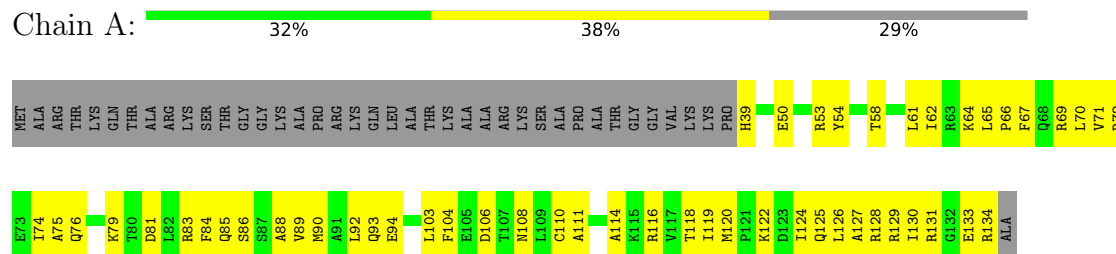
- Molecule 3: Histone H2AX



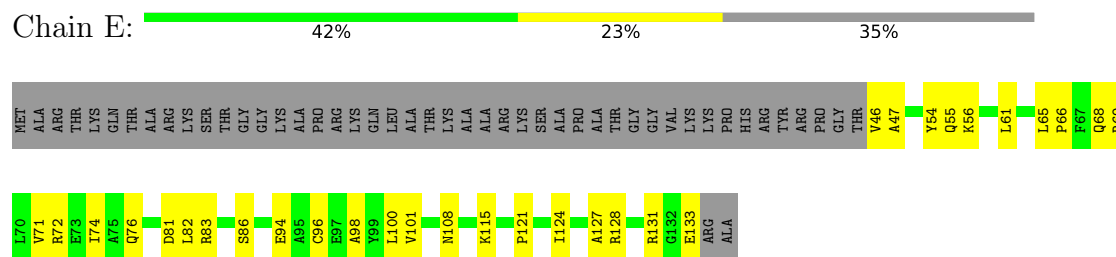
- Molecule 3: Histone H2AX



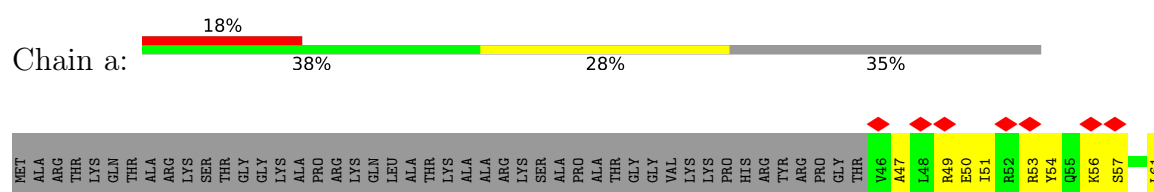
- Molecule 4: Histone H3.1

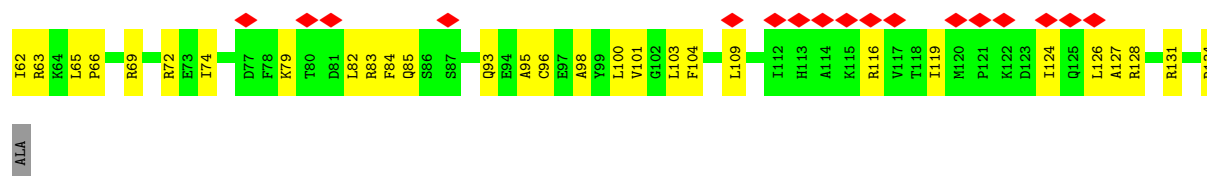


- Molecule 4: Histone H3.1

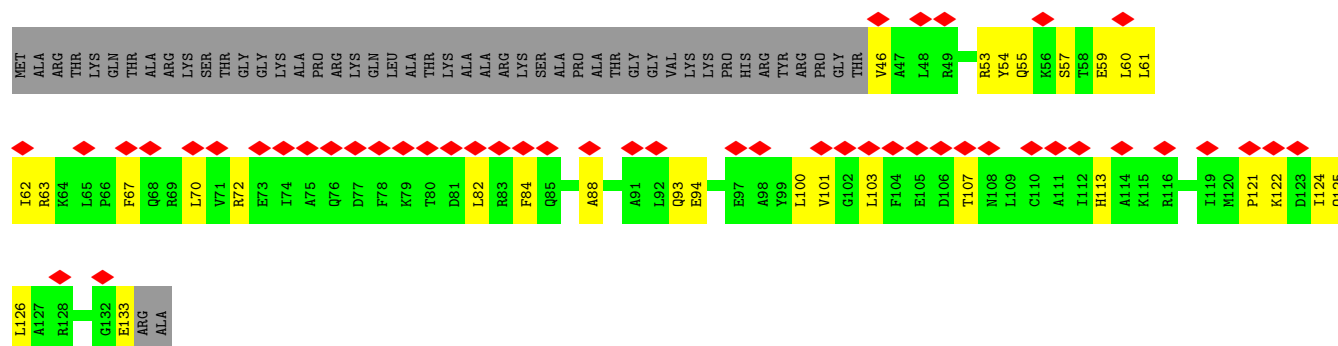
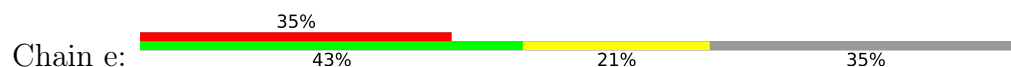


- Molecule 4: Histone H3.1

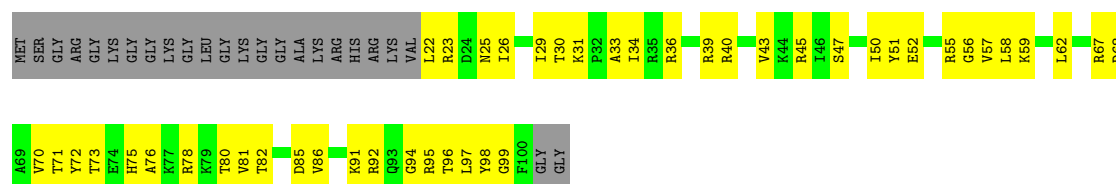




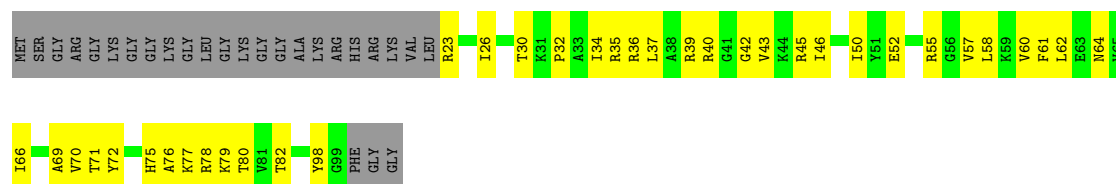
• Molecule 4: Histone H3.1



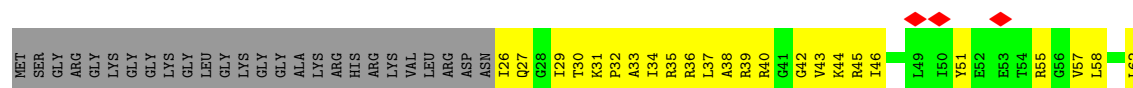
• Molecule 5: Histone H4

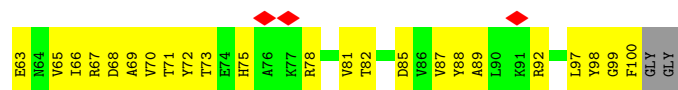


• Molecule 5: Histone H4

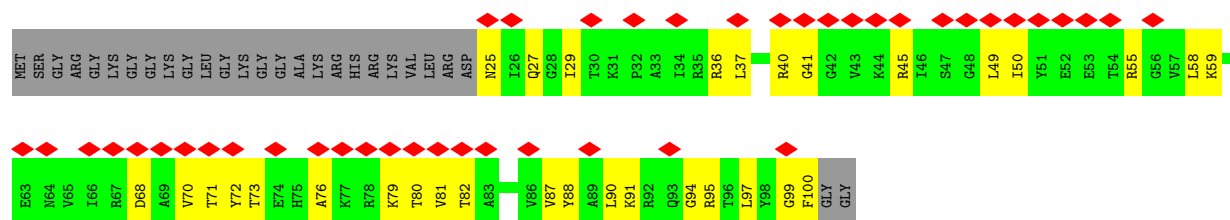
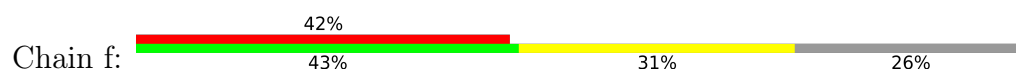


• Molecule 5: Histone H4

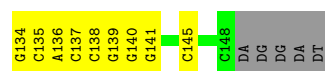
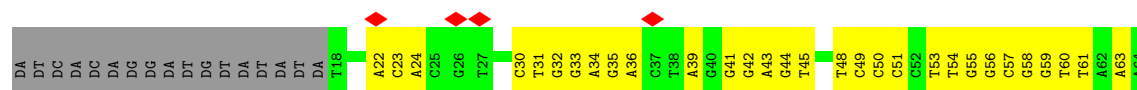




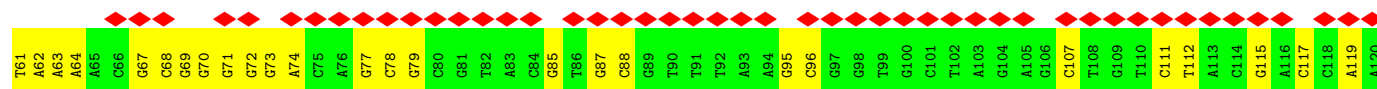
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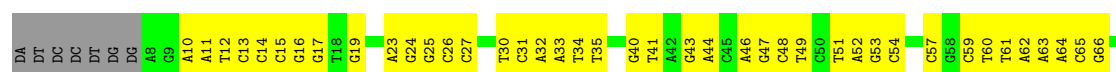
• Molecule 6: 153 bp DNA



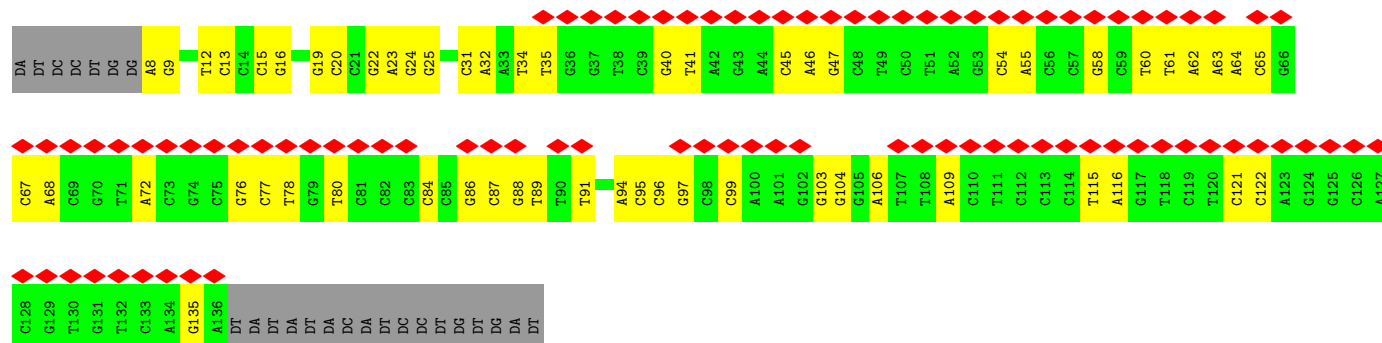
• Molecule 6: 153 bp DNA



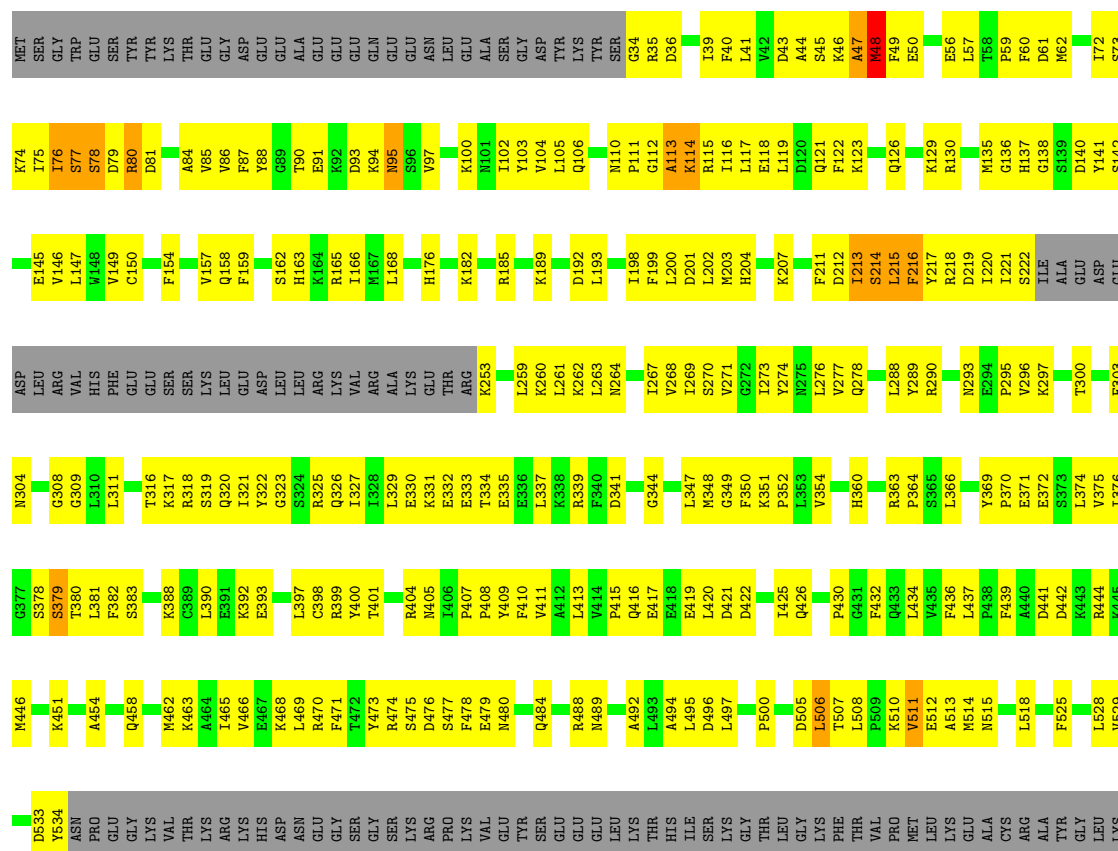
• Molecule 7: 153 bp DNA



- Molecule 7: 153 bp DNA



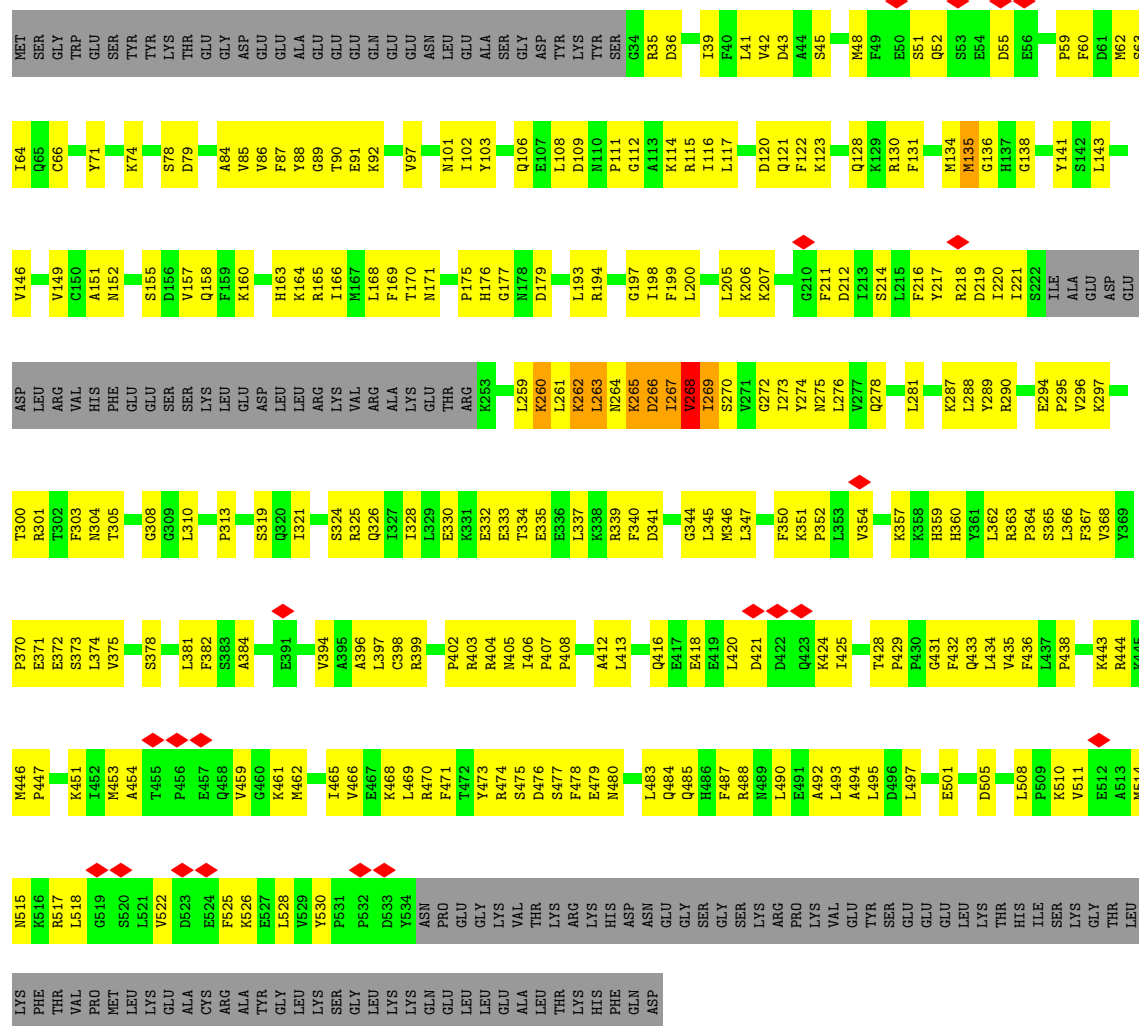
- Molecule 8: X-ray repair cross-complementing protein 6



SER
GLY
LEU
LYS
LYS
GLN
GLU
LEU
LEU
GLU
ALA
THR
LYS
HIS
PHE
GLN
ASP

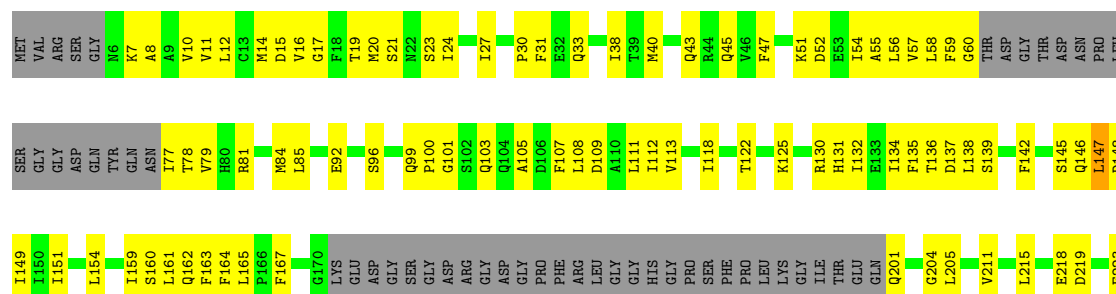
• Molecule 8: X-ray repair cross-complementing protein 6

Chain M:



• Molecule 9: X-ray repair cross-complementing protein 5

Chain L:





4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	27712	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	48.59	Depositor
Minimum defocus (nm)	700	Depositor
Maximum defocus (nm)	2200	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	0.809	Depositor
Minimum map value	-0.255	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.023	Depositor
Recommended contour level	0.12	Depositor
Map size (Å)	692.16, 692.16, 692.16	wwPDB
Map dimensions	420, 420, 420	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.6479999, 1.6479999, 1.6479999	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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	O	0.21	0/28108	0.47	0/38054
1	o	0.13	0/28434	0.34	0/38434
2	D	0.14	0/724	0.36	0/973
2	H	0.16	0/727	0.35	0/977
2	d	0.16	0/708	0.40	0/953
2	h	0.15	0/708	0.43	0/953
3	C	0.10	0/711	0.32	0/960
3	G	0.18	0/712	0.32	0/961
3	c	0.11	0/771	0.32	0/1043
3	g	0.11	0/659	0.25	0/891
4	A	0.21	0/805	0.37	0/1079
4	E	0.10	0/719	0.27	0/965
4	a	0.10	0/740	0.31	0/991
4	e	0.11	0/717	0.27	0/963
5	B	0.13	0/631	0.34	0/849
5	F	0.12	0/618	0.36	0/829
5	b	0.14	0/597	0.39	0/803
5	f	0.18	0/617	0.36	0/827
6	I	0.29	0/3020	0.44	0/4661
6	i	0.30	0/3020	0.47	0/4661
7	J	0.30	0/2940	0.44	0/4530
7	j	0.31	0/2940	0.48	0/4530
8	K	0.24	0/3779	0.50	0/5109
8	M	0.23	0/3816	0.47	0/5152
9	L	0.17	0/4855	0.37	0/6561
9	N	0.15	0/4880	0.37	0/6589
All	All	0.20	0/96956	0.41	0/133298

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	O	27567	0	27400	1460	0
1	o	27886	0	28085	1238	0
2	D	714	0	733	55	0
2	H	717	0	733	44	0
2	d	698	0	697	41	0
2	h	698	0	702	38	0
3	C	702	0	730	43	0
3	G	703	0	733	46	0
3	c	761	0	791	61	0
3	g	652	0	689	29	0
4	A	794	0	831	58	0
4	E	711	0	744	33	0
4	a	732	0	772	48	0
4	e	709	0	737	32	0
5	B	624	0	647	49	0
5	F	612	0	650	36	0
5	b	590	0	619	63	0
5	f	610	0	653	35	0
6	I	2691	0	1472	61	0
6	i	2691	0	1472	112	0
7	J	2624	0	1449	62	0
7	j	2624	0	1449	126	0
8	K	3705	0	3702	280	0
8	M	3742	0	3760	264	0
9	L	4774	0	4682	272	0
9	N	4797	0	4729	217	0
All	All	94128	0	89661	4356	0

The all-atom clashscore is defined as the number of clashes found per 1000 atoms (including hydrogen atoms). The all-atom clashscore for this structure is 24.

All (4356) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:100:ILE:HG23	1:O:103:TYR:HB2	1.12	1.11

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:213:ARG:HB3	1:O:216:LYS:HB2	1.34	1.10
1:o:958:MET:HB2	1:o:961:LEU:HB2	1.34	1.07
1:o:1184:ARG:HH22	1:o:1265:GLU:HB3	1.14	1.06
8:M:261:LEU:HA	8:M:267:ILE:HA	1.09	1.04
1:O:100:ILE:HG23	1:O:103:TYR:CB	1.94	0.96
1:o:380:ASP:O	1:o:383:PHE:HB3	1.68	0.94
8:M:261:LEU:CA	8:M:267:ILE:HA	1.98	0.94
9:L:333:TYR:HE2	9:L:403:PRO:HG3	1.33	0.93
1:O:100:ILE:CG2	1:O:103:TYR:HB2	1.99	0.93
8:K:113:ALA:HA	8:K:116:ILE:HG22	1.54	0.88
9:N:395:TYR:O	9:N:404:GLN:HB2	1.71	0.88
3:G:18:SER:HB2	3:G:27:VAL:H	1.39	0.88
8:M:261:LEU:HA	8:M:267:ILE:CA	2.01	0.88
1:o:3183:ILE:HG13	1:o:3238:MET:HE2	1.54	0.88
1:O:2223:VAL:HG21	1:O:2238:ILE:HD11	1.58	0.85
1:O:131:LEU:HD22	1:O:177:LEU:HD11	1.60	0.83
2:D:38:VAL:HB	2:D:59:MET:HE3	1.61	0.83
1:O:1539:SER:HG	1:O:1552:HIS:N	1.77	0.82
1:o:950:GLU:HB2	1:o:957:PRO:HB3	1.60	0.82
9:L:461:MET:HB3	9:L:526:SER:HB3	1.61	0.81
3:c:59:THR:HG23	2:d:41:VAL:HG11	1.62	0.81
8:M:267:ILE:HB	8:M:345:LEU:O	1.81	0.81
8:M:121:GLN:HA	8:M:130:ARG:HE	1.44	0.80
1:O:3700:GLU:HA	1:O:3718:ARG:HA	1.61	0.80
1:O:1589:ASN:HB3	1:O:1592:MET:HE2	1.63	0.79
8:M:399:ARG:HG2	8:M:408:PRO:HB2	1.62	0.79
1:O:3103:ILE:HD11	1:O:3138:ILE:HG23	1.61	0.79
2:D:30:ARG:HD3	6:i:123:DG:H21	1.46	0.79
8:K:321:ILE:HG22	8:K:323:GLY:H	1.48	0.79
2:H:96:ARG:HA	2:H:108:VAL:HG11	1.65	0.79
1:o:2428:ASP:HB3	1:o:2431:ARG:HD3	1.65	0.79
8:M:263:LEU:HB2	8:M:267:ILE:H	1.45	0.79
1:o:4055:ASN:HD21	1:o:4091:ALA:HB1	1.49	0.78
1:o:1632:TRP:HE1	1:o:1641:THR:HG22	1.47	0.78
1:O:1754:GLN:HB3	1:O:1785:ILE:HD11	1.64	0.78
1:o:2346:ALA:HA	1:o:2349:LEU:HD12	1.65	0.78
1:O:3417:ALA:HA	1:O:3446:VAL:HG23	1.65	0.78
1:O:3392:ALA:HB1	1:O:3409:VAL:HG12	1.63	0.78
9:L:652:GLU:HG3	9:L:653:GLN:H	1.47	0.78
1:O:1111:LEU:HD12	1:O:1127:CYS:HB3	1.66	0.77
1:o:3581:PRO:HA	1:o:3617:LEU:HD13	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:b:30:THR:HG21	6:I:64:DA:H3'	1.66	0.77
1:O:3183:ILE:HD13	1:O:3242:MET:HG3	1.66	0.77
1:O:2806:LYS:HG2	1:O:2857:CYS:SG	2.25	0.77
3:c:83:LEU:HD21	2:d:59:MET:HE1	1.67	0.76
1:O:3772:ASN:HD21	1:O:3788:LEU:HB2	1.50	0.76
1:o:2563:LEU:HD13	1:o:2795:GLN:HB3	1.66	0.76
8:K:364:PRO:HB3	9:L:357:MET:HG3	1.65	0.76
7:j:43:DG:OP2	7:j:44:DA:N6	2.17	0.76
1:O:1219:PHE:O	1:O:1222:ASN:HB3	1.86	0.76
8:M:413:LEU:HD22	8:M:432:PHE:HB3	1.66	0.76
1:o:3835:PRO:HA	1:o:3839:TYR:HB2	1.66	0.76
9:L:333:TYR:CE2	9:L:403:PRO:HG3	2.21	0.76
8:M:515:ASN:HA	8:M:518:LEU:HD23	1.67	0.76
1:o:114:VAL:HG13	1:o:119:ARG:HE	1.51	0.75
8:K:94:LYS:HB3	8:K:104:VAL:H	1.50	0.75
1:O:1102:GLU:HG3	1:O:1154:PRO:HA	1.69	0.75
1:O:1364:CYS:SG	1:O:1365:ASN:N	2.59	0.75
1:O:1684:LEU:HB3	1:O:1688:LEU:HD11	1.68	0.75
1:o:487:LEU:HD11	1:o:575:ILE:HD13	1.68	0.75
8:M:263:LEU:H	8:M:268:VAL:HB	1.52	0.75
1:O:908:ASP:HA	1:O:911:LEU:HD23	1.68	0.75
1:o:1348:LEU:HA	1:o:1352:SER:HB2	1.69	0.74
8:M:45:SER:HA	8:M:138:GLY:HA3	1.68	0.74
1:O:1661:PHE:HA	1:O:1665:HIS:HB2	1.69	0.74
1:O:3742:GLY:HA3	1:O:3746:ARG:H	1.52	0.74
5:F:79:LYS:HB3	6:i:104:DG:H3'	1.68	0.74
1:o:3755:GLY:HA2	1:o:3799:ARG:HB3	1.67	0.74
8:M:120:ASP:HA	8:M:123:LYS:HB3	1.69	0.74
9:L:261:ILE:HB	9:L:366:ALA:HA	1.70	0.74
1:o:150:GLY:O	1:o:153:PHE:HB3	1.88	0.74
1:o:1226:GLY:HA2	1:o:1259:LEU:HG	1.68	0.74
1:O:3156:PRO:CB	1:O:3159:ARG:HB2	2.18	0.74
1:o:2421:VAL:O	1:o:2425:ARG:HB2	1.87	0.74
8:K:339:ARG:HA	8:K:405:ASN:HA	1.70	0.74
8:M:474:ARG:HB3	8:M:477:SER:HB3	1.69	0.74
1:o:946:THR:HG21	1:o:2581:LEU:HB2	1.69	0.74
1:O:1605:PHE:HB3	1:O:2042:GLN:HE22	1.51	0.73
1:O:3630:ARG:O	1:O:3634:GLN:NE2	2.21	0.73
8:K:74:LYS:HG3	8:K:79:ASP:HB2	1.70	0.73
1:O:848:LEU:HB3	1:O:852:ARG:HH22	1.53	0.73
8:K:426:GLN:HB2	9:L:434:MET:HE1	1.69	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:134:LEU:HD11	1:O:177:LEU:HD22	1.68	0.73
1:o:3929:MET:HE1	1:o:3940:ILE:HB	1.71	0.73
6:i:123:DG:H22	7:j:30:DT:H1'	1.53	0.73
7:J:116:DA:H61	6:I:37:DC:H42	1.36	0.73
1:O:1477:HIS:HA	1:O:1524:LEU:HD21	1.71	0.73
3:c:43:VAL:HG13	2:d:86:ILE:HB	1.71	0.73
1:o:466:LEU:HD11	1:o:541:MET:HB2	1.70	0.73
9:L:489:ARG:NH2	9:L:492:GLN:OE1	2.22	0.73
1:O:2824:LYS:O	1:O:2829:LYS:NZ	2.22	0.73
1:O:3155:VAL:O	1:O:3157:LEU:N	2.22	0.73
1:O:1406:LEU:HD13	1:O:1415:LEU:HD13	1.70	0.73
8:K:416:GLN:O	8:K:430:PRO:HA	1.89	0.73
1:O:2574:ASN:O	1:O:2787:HIS:ND1	2.21	0.73
4:E:54:TYR:HB3	5:F:40:ARG:HE	1.52	0.72
1:o:3262:LEU:O	1:o:3266:SER:HB3	1.89	0.72
1:O:709:LYS:HE3	1:O:1387:GLY:HA2	1.70	0.72
1:O:3155:VAL:HB	1:O:3157:LEU:HD22	1.69	0.72
1:o:1783:ARG:HH12	1:o:1829:TRP:HB3	1.54	0.72
1:O:3746:ARG:HH12	1:O:3748:HIS:HB3	1.54	0.72
9:N:155:LYS:NZ	9:N:214:SER:OG	2.21	0.72
1:O:925:GLN:HG3	1:O:2800:ARG:HH12	1.53	0.72
1:O:2328:ARG:HH11	1:O:2372:PRO:HD3	1.55	0.72
1:O:3156:PRO:O	1:O:3160:LEU:N	2.21	0.72
6:i:127:DG:N2	7:j:27:DC:N3	2.37	0.72
8:M:446:MET:HE3	8:M:447:PRO:HD2	1.72	0.72
1:O:2426:HIS:O	1:O:2432:GLN:NE2	2.23	0.72
2:H:101:GLY:O	2:H:105:LYS:N	2.23	0.72
1:O:2841:ASN:ND2	1:O:2872:ASP:OD1	2.23	0.72
3:G:93:LEU:HD13	3:G:96:LEU:HD21	1.70	0.72
5:B:72:TYR:OH	5:B:92:ARG:NH1	2.23	0.72
1:O:1580:LEU:HA	1:O:1583:MET:HE3	1.72	0.71
9:L:59:PHE:HA	9:L:78:THR:H	1.55	0.71
1:O:2162:LYS:HA	1:O:2165:LEU:HD12	1.73	0.71
1:o:2940:ARG:HA	1:o:2957:LEU:HD21	1.72	0.71
1:O:131:LEU:HB3	1:O:177:LEU:HD21	1.72	0.71
1:O:3762:GLN:NE2	1:O:3793:VAL:O	2.22	0.71
1:o:2044:ASP:O	1:o:2048:GLY:N	2.23	0.71
8:K:113:ALA:O	8:K:114:LYS:C	2.32	0.71
1:O:2410:GLU:O	1:O:2411:LEU:C	2.31	0.71
1:O:3971:MET:HB3	1:O:3974:MET:HB2	1.71	0.71
1:o:3503:VAL:HG13	1:o:3536:SER:HB2	1.73	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1300:SER:HA	1:O:1304:HIS:HB2	1.72	0.71
8:M:128:GLN:HA	8:M:131:PHE:CE2	2.26	0.71
1:O:1806:ARG:NH2	1:O:1873:TYR:OH	2.24	0.71
8:M:362:LEU:HB2	8:M:436:PHE:HB3	1.70	0.71
1:O:2896:ALA:O	1:O:2900:LEU:HB2	1.91	0.71
4:E:47:ALA:HB2	6:i:85:DG:H5'	1.72	0.71
1:O:1178:ARG:NH1	1:O:1183:CYS:SG	2.64	0.71
8:M:134:MET:HG2	8:M:135:MET:HG3	1.72	0.70
8:M:263:LEU:HB3	8:M:266:ASP:H	1.56	0.70
9:N:623:PHE:O	9:N:672:ASN:ND2	2.23	0.70
2:D:74:ALA:HB1	2:D:90:GLU:HB3	1.73	0.70
1:O:2161:ALA:HA	1:O:2164:TRP:HB2	1.71	0.70
1:O:3796:MET:HE1	1:O:3802:LEU:HB2	1.72	0.70
9:L:247:TRP:CD1	9:L:248:PRO:HD2	2.25	0.70
9:L:362:LEU:HB2	9:L:421:TYR:HB3	1.74	0.70
8:M:193:LEU:HD12	8:M:198:ILE:HD12	1.71	0.70
1:O:3584:LEU:HD13	1:O:3799:ARG:HD3	1.71	0.70
6:i:131:DT:H4'	6:i:132:DC:H5'	1.73	0.70
1:O:860:GLY:HA3	1:O:3136:THR:HG21	1.74	0.70
1:O:899:ARG:NH2	1:O:2533:SER:O	2.25	0.70
1:O:1039:TRP:NE1	1:O:1043:GLN:OE1	2.25	0.70
1:O:3720:ALA:HB3	1:O:3743:HIS:HA	1.73	0.70
9:L:331:MET:O	9:L:334:LYS:NZ	2.24	0.70
8:K:267:ILE:HD11	9:L:534:LYS:HG2	1.74	0.70
8:K:366:LEU:H	8:K:434:LEU:HB3	1.56	0.70
1:O:678:LYS:NZ	1:O:735:SER:O	2.24	0.70
1:O:2307:MET:O	1:O:2359:LYS:NZ	2.23	0.70
7:J:58:DG:H1	6:I:96:DC:H42	1.39	0.70
1:O:1140:LYS:HD2	1:O:1141:LYS:HG3	1.74	0.70
5:B:94:GLY:O	5:B:95:ARG:NH1	2.25	0.70
1:O:1228:GLY:H	1:O:1259:LEU:HD23	1.57	0.70
1:O:2126:MET:HB2	1:O:2164:TRP:HZ2	1.55	0.70
3:G:17:ARG:N	7:j:35:DT:OP2	2.25	0.70
1:O:901:MET:HG3	1:O:903:PRO:HD3	1.73	0.70
9:L:461:MET:SD	9:L:462:SER:N	2.64	0.69
8:M:39:ILE:HG22	8:M:84:ALA:HB3	1.73	0.69
1:O:75:SER:O	1:O:78:PHE:N	2.26	0.69
1:O:3174:ASP:O	1:O:3179:TRP:NE1	2.25	0.69
1:O:3806:LEU:HD23	1:O:3809:THR:HB	1.73	0.69
2:h:102:GLU:H	2:h:106:HIS:HB2	1.57	0.69
1:O:3589:SER:HB2	1:O:3660:ASN:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1686:LEU:HD11	1:o:1738:ASN:HB3	1.75	0.69
1:o:2773:ARG:HG2	1:o:2774:SER:H	1.57	0.69
5:B:76:ALA:HA	2:d:89:ARG:HH21	1.57	0.69
1:o:2268:LYS:HE3	1:o:2314:GLU:HB3	1.75	0.69
1:o:2776:ARG:HD3	1:o:2784:GLN:HG2	1.73	0.69
1:o:2862:SER:HA	1:o:2868:LEU:HB3	1.75	0.69
1:O:535:LEU:O	1:O:561:ASN:ND2	2.25	0.69
1:O:1633:TRP:HB3	1:O:1645:VAL:HG21	1.74	0.69
3:C:24:GLN:HG2	2:H:41:VAL:HB	1.74	0.69
4:a:47:ALA:HB1	5:b:39:ARG:HH12	1.56	0.69
6:i:81:DG:H21	7:j:74:DG:H1	1.40	0.69
8:K:95:ASN:H	8:K:95:ASN:HD22	1.40	0.69
9:L:226:SER:H	9:L:229:GLU:HB2	1.57	0.69
9:N:60:GLY:HA2	9:N:103:GLN:HB3	1.75	0.69
1:O:1229:CYS:HB3	1:O:1233:SER:HB3	1.73	0.69
1:O:1369:MET:SD	1:O:1418:HIS:NE2	2.66	0.69
1:O:3614:TYR:HA	1:O:3617:LEU:HB2	1.75	0.69
8:K:510:LYS:H	8:K:514:MET:HE2	1.56	0.69
8:M:134:MET:O	8:M:136:GLY:N	2.26	0.69
1:O:1151:ARG:NH1	1:O:1163:LEU:O	2.25	0.69
1:O:2333:ARG:HH21	1:O:2336:ILE:HD12	1.58	0.69
1:O:3156:PRO:O	1:O:3159:ARG:N	2.26	0.69
1:O:3278:GLN:HB3	1:O:3282:ARG:HH12	1.57	0.69
3:C:17:ARG:N	7:J:35:DT:OP2	2.26	0.69
3:c:104:GLN:H	4:E:94:GLU:HG2	1.58	0.69
1:o:162:LEU:HG	1:o:164:LYS:H	1.57	0.69
6:i:89:DG:H22	7:j:65:DC:H1'	1.56	0.69
6:i:136:DA:N3	7:j:19:DG:N2	2.41	0.69
9:L:342:VAL:HA	9:L:393:VAL:HG12	1.75	0.69
9:N:526:SER:O	9:N:530:LEU:N	2.26	0.69
1:O:3169:PRO:HG2	1:O:3242:MET:HE1	1.74	0.69
1:O:3931:ALA:O	1:O:3935:GLY:N	2.26	0.69
7:J:89:DT:O4	6:I:64:DA:N6	2.25	0.69
8:K:407:PRO:HG2	9:L:486:ARG:HE	1.58	0.69
1:O:3247:ARG:NH2	1:O:3279:SER:O	2.26	0.69
4:E:69:ARG:NH1	6:i:94:DA:OP2	2.26	0.69
8:K:113:ALA:O	8:K:116:ILE:N	2.26	0.69
8:M:51:SER:HB3	8:M:55:ASP:HA	1.75	0.69
1:O:3156:PRO:O	1:O:3157:LEU:C	2.34	0.68
2:H:76:ARG:HH21	5:f:88:TYR:HB3	1.58	0.68
4:A:65:LEU:HD12	7:j:95:DC:H6	1.58	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1184:ARG:NH2	1:o:1262:ALA:HA	2.07	0.68
1:o:1724:MET:SD	1:o:1725:GLN:HB2	2.34	0.68
1:o:3822:GLN:HA	1:o:3825:LYS:HE3	1.75	0.68
8:K:276:LEU:HA	9:L:431:ARG:HB2	1.75	0.68
9:L:616:LEU:HD22	9:L:639:ILE:HG13	1.75	0.68
1:o:1456:LYS:NZ	1:o:1516:GLU:O	2.25	0.68
4:a:49:ARG:HH11	4:a:53:ARG:HH12	1.42	0.68
9:L:663:GLN:NE2	9:L:667:GLU:OE2	2.24	0.68
1:O:1696:LEU:HD11	1:O:1758:LEU:HD21	1.75	0.68
8:K:333:GLU:HG3	9:L:505:LEU:HD23	1.74	0.68
1:O:172:GLU:HA	1:O:174:VAL:HG12	1.75	0.68
1:O:240:GLU:O	1:O:243:GLN:N	2.26	0.68
1:O:2367:VAL:O	1:O:2371:PHE:N	2.26	0.68
1:O:2965:TYR:HB2	1:O:3005:LEU:HD21	1.75	0.68
2:d:40:LYS:NZ	7:j:125:DG:OP1	2.26	0.68
1:o:358:GLU:HA	1:o:361:ILE:HD12	1.75	0.68
1:o:714:VAL:HA	1:o:717:LYS:HG2	1.76	0.68
1:O:214:GLU:HB2	1:O:215:PRO:HD2	1.76	0.68
1:O:2366:LYS:HD2	1:O:2369:LYS:HZ1	1.58	0.68
1:o:3531:TYR:HB3	1:o:3796:MET:HA	1.73	0.68
1:o:2295:GLN:HG3	1:o:2298:GLU:HG2	1.76	0.68
8:M:443:LYS:HZ3	9:N:267:ILE:HG23	1.59	0.68
1:O:3269:ARG:HE	1:O:3271:ASP:HB2	1.59	0.68
1:o:1071:ASN:HB3	1:o:1074:LYS:HB2	1.73	0.68
1:o:1307:ILE:HG23	1:o:1309:ALA:H	1.59	0.68
9:L:248:PRO:HB2	9:L:262:ALA:HB1	1.74	0.68
9:N:42:VAL:HG22	9:N:54:ILE:HD13	1.74	0.68
9:N:213:ILE:HA	9:N:217:GLY:HA2	1.73	0.68
1:O:331:ALA:O	1:O:334:HIS:ND1	2.27	0.68
1:o:2368:THR:HG21	1:o:2400:VAL:HA	1.74	0.68
1:O:2253:TYR:HB3	1:O:2288:TYR:HE1	1.59	0.68
9:N:17:GLY:HA2	9:N:102:SER:HA	1.75	0.68
1:O:3078:LEU:HA	1:O:3082:TYR:HD2	1.58	0.68
1:O:3879:PRO:HG2	1:O:3882:LEU:HD21	1.76	0.68
1:o:19:LEU:HD22	1:o:34:LEU:HA	1.75	0.68
8:K:93:ASP:HB2	8:K:95:ASN:ND2	2.09	0.68
8:K:110:ASN:O	8:K:115:ARG:NH1	2.27	0.68
8:M:262:LYS:H	8:M:266:ASP:C	2.02	0.68
6:I:61:DT:H2"	6:I:62:DA:C8	2.30	0.67
1:O:2533:SER:O	1:O:2534:ASN:C	2.36	0.67
1:o:1725:GLN:HE22	1:o:1727:ARG:HB2	1.58	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3236:PHE:HB3	1:o:3272:TRP:CZ2	2.30	0.67
1:o:3718:ARG:H	1:o:3743:HIS:HB2	1.60	0.67
8:K:168:LEU:HB2	8:K:200:LEU:HD11	1.77	0.67
1:O:3154:GLN:O	1:O:3155:VAL:C	2.38	0.67
3:C:62:ILE:HG12	3:C:83:LEU:HD11	1.75	0.67
3:C:70:ALA:HB1	3:C:75:LYS:HB3	1.77	0.67
1:o:1102:GLU:OE1	1:o:1151:ARG:NH2	2.27	0.67
1:o:1833:LEU:HB2	1:o:1883:ARG:HH21	1.59	0.67
3:g:103:ALA:HA	4:e:94:GLU:HG2	1.77	0.67
8:K:39:ILE:HG22	8:K:84:ALA:HB3	1.76	0.67
9:L:56:LEU:HB3	9:L:81:ARG:HB3	1.75	0.67
9:L:138:LEU:HB3	9:L:204:GLY:HA3	1.75	0.67
8:M:175:PRO:HD2	8:M:216:PHE:HB3	1.76	0.67
8:K:349:GLY:HA3	9:L:463:LEU:HD13	1.76	0.67
8:K:444:ARG:NH2	9:L:270:GLU:OE2	2.25	0.67
1:O:1230:GLY:O	1:O:1292:LYS:NZ	2.28	0.67
1:O:1473:THR:O	1:O:1475:LEU:N	2.26	0.67
1:O:2243:GLU:HA	1:O:2246:LYS:HE2	1.75	0.67
1:o:240:GLU:HB2	1:o:242:PRO:HD2	1.76	0.67
8:M:378:SER:HA	8:M:381:LEU:HD13	1.75	0.67
1:O:895:ALA:O	1:O:902:LYS:NZ	2.28	0.67
1:O:963:LYS:HE2	1:O:964:ARG:HH22	1.58	0.67
1:O:1579:VAL:HG12	1:O:1583:MET:HE2	1.76	0.67
1:O:3483:MET:HE3	1:O:3510:GLN:HE21	1.60	0.67
3:G:88:ARG:HA	3:G:94:ASN:HD21	1.60	0.67
1:o:1076:LEU:HB3	1:o:1123:THR:HG22	1.75	0.67
1:o:1339:VAL:HG23	1:o:1398:VAL:HG11	1.77	0.67
1:O:3833:ARG:HA	1:O:3877:LYS:HG2	1.76	0.67
1:o:3494:GLN:HB3	1:o:3708:ARG:HG3	1.76	0.67
8:K:79:ASP:O	8:K:81:ASP:N	2.27	0.67
9:L:165:LEU:H	9:L:226:SER:HA	1.60	0.67
9:N:402:ASN:O	9:N:404:GLN:NE2	2.27	0.67
9:N:615:GLN:O	9:N:619:HIS:ND1	2.25	0.67
1:O:174:VAL:HA	1:O:177:LEU:HG	1.77	0.67
1:O:330:ASN:HB2	1:O:333:MET:HE1	1.77	0.67
1:O:1512:SER:HA	1:O:1515:LEU:HD12	1.75	0.67
1:o:2806:LYS:HB2	1:o:2857:CYS:HB2	1.76	0.67
9:L:482:ILE:HD13	9:L:516:LEU:HD13	1.77	0.67
8:M:273:ILE:HG13	8:M:368:VAL:HG22	1.76	0.67
8:M:453:MET:SD	9:N:382:HIS:NE2	2.66	0.67
1:O:912:PRO:O	1:O:915:THR:HG22	1.95	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1626:TRP:HZ2	1:O:1674:THR:HG21	1.60	0.67
1:O:2820:MET:HE1	1:O:2829:LYS:HG3	1.77	0.67
1:O:1016:GLY:HA2	1:O:1019:ASP:HB3	1.76	0.67
1:O:1208:LEU:HA	1:O:1211:VAL:HG22	1.76	0.67
1:O:3613:MET:O	1:O:3617:LEU:N	2.28	0.67
2:D:121:ALA:HB1	3:G:20:ARG:HB3	1.75	0.67
1:o:561:ASN:HB3	1:o:637:LYS:HZ1	1.59	0.67
1:o:730:LEU:HD11	1:o:765:LEU:HD22	1.77	0.67
8:M:48:MET:HB2	8:M:59:PRO:HB2	1.76	0.67
8:K:87:PHE:HE1	8:K:103:TYR:HB3	1.60	0.66
1:O:2165:LEU:HD13	1:O:2202:PRO:HG3	1.76	0.66
1:o:1419:LEU:HB3	1:o:1467:ILE:HD13	1.77	0.66
1:o:1820:VAL:HA	1:o:1824:LEU:HD23	1.77	0.66
1:o:3883:LEU:HB2	1:o:3966:GLN:HB3	1.77	0.66
8:K:79:ASP:C	8:K:81:ASP:H	2.03	0.66
8:M:263:LEU:HB2	8:M:267:ILE:N	2.10	0.66
4:A:58:THR:HA	5:B:40:ARG:HH12	1.59	0.66
1:o:760:LEU:HD13	1:o:798:GLY:HA3	1.78	0.66
1:O:1178:ARG:NH2	1:O:1183:CYS:SG	2.69	0.66
1:o:958:MET:O	1:o:962:TYR:N	2.24	0.66
1:o:2376:ASP:HB3	1:o:2404:ARG:HH21	1.61	0.66
1:o:3144:PHE:HZ	1:o:3161:LEU:HD21	1.59	0.66
8:K:413:LEU:HD22	8:K:432:PHE:HB3	1.77	0.66
9:N:405:VAL:O	9:N:423:GLN:NE2	2.29	0.66
1:O:162:LEU:HG	1:O:164:LYS:HG2	1.78	0.66
1:O:2387:PRO:O	8:K:158:GLN:NE2	2.25	0.66
2:H:51:ILE:HD11	2:H:59:MET:HE1	1.77	0.66
1:o:1238:GLN:HE22	1:o:1292:LYS:HB2	1.61	0.66
1:o:1724:MET:HB3	9:N:622:GLN:OE1	1.95	0.66
1:O:1215:GLU:OE2	1:O:1219:PHE:N	2.29	0.66
1:O:3831:ASP:HB3	1:O:3832:PRO:HD3	1.75	0.66
1:O:1949:ILE:HD11	1:O:2097:LEU:HD12	1.75	0.66
1:O:3867:THR:HG23	1:O:4118:GLY:HA3	1.76	0.66
1:O:3923:ARG:HD3	1:O:4124:TRP:HA	1.76	0.66
4:A:69:ARG:HD2	5:B:22:LEU:HG	1.77	0.66
1:o:939:MET:HB3	1:o:2785:ILE:HD13	1.77	0.66
1:o:1358:LEU:HA	1:o:1361:LYS:HE2	1.78	0.66
8:M:151:ALA:HB2	8:M:193:LEU:HD21	1.78	0.66
1:O:174:VAL:HG23	1:O:177:LEU:HD12	1.77	0.66
1:O:2582:SER:OG	1:O:2583:GLU:N	2.25	0.66
4:A:129:ARG:NH2	4:A:133:GLU:O	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1762:MET:HA	1:o:1765:VAL:HG12	1.77	0.66
1:o:3052:LEU:HD11	1:o:3061:LEU:HD11	1.76	0.66
1:o:3285:HIS:HB2	1:o:3301:LEU:HD11	1.76	0.66
1:o:4090:ARG:NH2	1:o:4109:ASP:OD2	2.29	0.66
9:N:657:ASN:HA	9:N:660:LYS:HG2	1.76	0.66
1:O:370:ALA:HA	1:O:373:CYS:HB3	1.76	0.66
1:O:1946:ASN:HA	1:O:1949:ILE:HD12	1.78	0.66
1:O:3503:VAL:HG22	1:O:3536:SER:HB3	1.78	0.66
1:O:3971:MET:HG3	1:O:3980:MET:HE1	1.77	0.66
5:B:30:THR:HA	5:B:55:ARG:HH21	1.59	0.66
1:o:3864:ARG:HE	1:o:4085:LYS:HA	1.60	0.66
8:K:106:GLN:HB2	8:K:119:LEU:HD21	1.77	0.66
8:K:376:ILE:HB	9:L:540:ILE:HB	1.78	0.66
9:L:315:ARG:HA	9:L:320:ILE:HA	1.78	0.66
1:o:3700:GLU:HG2	1:o:3718:ARG:HD2	1.79	0.65
8:K:512:GLU:HA	8:K:515:ASN:HB2	1.78	0.65
8:K:269:ILE:HD13	8:K:381:LEU:HD11	1.78	0.65
1:O:866:ILE:O	1:O:869:ASN:ND2	2.30	0.65
1:O:1373:VAL:O	1:O:1377:CYS:N	2.29	0.65
1:O:3887:PHE:O	1:O:3891:SER:N	2.30	0.65
1:o:31:GLY:HA3	1:o:77:GLU:HB3	1.78	0.65
5:f:87:VAL:HG13	5:f:97:LEU:HD22	1.77	0.65
8:K:297:LYS:H	9:L:297:LEU:HB2	1.61	0.65
9:N:500:HIS:HB2	9:N:503:GLU:HG2	1.78	0.65
4:a:47:ALA:HB3	5:b:44:LYS:HE3	1.77	0.65
1:O:225:LYS:HD2	1:O:270:ALA:HB1	1.77	0.65
1:O:2361:ILE:HD11	1:O:2393:LEU:HD12	1.77	0.65
1:o:1220:LEU:HD13	1:o:1285:GLU:HB3	1.79	0.65
1:o:2225:HIS:HB2	1:o:2231:PHE:HB2	1.77	0.65
1:o:3048:LYS:HD3	1:o:3061:LEU:HB3	1.78	0.65
9:L:57:VAL:HG13	9:L:79:VAL:HG22	1.78	0.65
9:L:464:ALA:O	9:L:466:LYS:NZ	2.29	0.65
8:M:263:LEU:HB3	8:M:266:ASP:N	2.11	0.65
2:d:102:GLU:OE1	2:d:104:ALA:N	2.29	0.65
1:o:2218:PHE:O	1:o:2222:HIS:ND1	2.27	0.65
8:K:320:GLN:HA	9:L:274:LYS:HZ2	1.62	0.65
9:N:7:LYS:HA	9:N:52:ASP:HA	1.78	0.65
1:O:862:LEU:HB3	1:O:866:ILE:HG21	1.79	0.65
1:O:1258:ASP:HA	1:O:1261:LEU:HD12	1.77	0.65
1:O:3385:LEU:HB3	1:O:3416:LEU:HD12	1.78	0.65
1:o:3741:ARG:HB3	1:o:3745:GLU:HA	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:N:249:CYS:HB2	9:N:338:LYS:HE2	1.78	0.65
1:O:1264:LEU:O	1:O:1268:ASN:ND2	2.30	0.65
1:O:1322:THR:N	1:O:1328:GLU:H	1.95	0.65
1:O:2168:LEU:HD23	1:O:2171:LEU:HD12	1.79	0.65
1:O:2897:LEU:HD13	1:O:2922:ARG:HB2	1.79	0.65
1:O:3156:PRO:HB3	1:O:3159:ARG:HB2	1.78	0.65
3:c:79:ILE:HG22	3:c:81:ARG:H	1.61	0.65
3:c:80:PRO:HA	3:c:83:LEU:HB2	1.78	0.65
3:c:81:ARG:NH1	3:c:107:VAL:O	2.30	0.65
1:O:327:VAL:HG22	1:O:333:MET:HG3	1.78	0.65
1:O:3369:ASP:H	1:O:3372:LYS:HB2	1.62	0.65
1:O:3856:MET:O	1:O:3860:LYS:NZ	2.30	0.65
4:a:134:ARG:HH21	5:b:57:VAL:HG22	1.62	0.65
7:j:102:DG:H2"	7:j:103:DG:C8	2.31	0.65
7:I:15:DC:O2	6:I:140:DG:N2	2.29	0.65
8:K:182:LYS:HG3	8:K:185:ARG:HH21	1.62	0.65
1:O:1446:SER:O	1:O:1449:ALA:HB3	1.97	0.65
1:O:1477:HIS:O	1:O:1478:SER:C	2.40	0.65
1:o:2374:LEU:HB2	1:o:2377:ARG:HH22	1.61	0.65
1:o:2797:VAL:HG23	1:o:2804:ILE:HG21	1.79	0.65
8:K:100:LYS:NZ	8:K:140:ASP:OD2	2.30	0.65
9:L:14:MET:HE1	9:L:16:VAL:HG13	1.79	0.65
4:A:76:GLN:HG3	4:A:81:ASP:H	1.62	0.64
5:B:52:GLU:O	5:B:55:ARG:HB2	1.96	0.64
1:o:1184:ARG:HH21	1:o:1262:ALA:HA	1.62	0.64
7:J:64:DA:H1'	7:J:65:DC:H5	1.61	0.64
8:K:289:TYR:O	8:K:293:ASN:N	2.31	0.64
9:L:21:SER:HA	9:L:100:PRO:HB3	1.79	0.64
9:L:161:LEU:HD13	9:L:163:PHE:HE2	1.63	0.64
1:O:2348:GLN:OE1	1:O:2353:GLN:NE2	2.29	0.64
1:O:105:VAL:HG22	1:O:145:ASP:OD2	1.97	0.64
1:O:1300:SER:OG	1:O:1334:LYS:NZ	2.30	0.64
1:O:3684:SER:HB3	1:O:3687:MET:HB2	1.78	0.64
1:O:3830:SER:HA	1:O:3835:PRO:HG2	1.79	0.64
1:o:616:LYS:NZ	1:o:619:ASP:OD2	2.31	0.64
1:o:1360:LYS:HB3	1:o:1366:THR:HB	1.79	0.64
1:o:2328:ARG:HD3	1:o:2370:SER:HA	1.79	0.64
8:M:341:ASP:OD2	8:M:399:ARG:NH2	2.31	0.64
1:O:213:ARG:HB3	1:O:216:LYS:CB	2.20	0.64
1:O:3002:TYR:CD2	1:O:3007:GLU:HG3	2.32	0.64
1:O:3262:LEU:O	1:O:3266:SER:HB3	1.97	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:33:GLN:HG2	9:L:227:PHE:HB3	1.78	0.64
9:L:57:VAL:HG22	9:L:79:VAL:HG13	1.79	0.64
1:O:2103:HIS:O	1:O:2107:SER:N	2.30	0.64
1:O:3916:TRP:O	1:O:4050:LYS:NZ	2.28	0.64
3:C:62:ILE:HG13	3:C:87:ILE:HD11	1.78	0.64
3:C:77:ARG:HB3	2:H:52:SER:HB3	1.79	0.64
2:H:38:VAL:HA	2:H:41:VAL:HG12	1.79	0.64
6:i:115:DG:H22	7:j:40:DG:H21	1.43	0.64
9:L:407:VAL:HB	9:L:424:LEU:HD11	1.79	0.64
2:D:122:LYS:HE3	3:G:20:ARG:HD2	1.80	0.64
8:K:375:VAL:HG13	9:L:541:GLU:HB3	1.80	0.64
1:O:2478:MET:HB2	1:O:2524:PHE:CE1	2.32	0.64
1:o:1301:ILE:HD13	1:o:1334:LYS:HE3	1.79	0.64
8:K:213:ILE:O	8:K:214:SER:C	2.40	0.64
1:O:196:LEU:HD21	1:O:227:LEU:HD21	1.79	0.64
1:O:385:TYR:HB2	1:O:420:VAL:HG11	1.80	0.64
1:O:390:GLN:NE2	1:O:1685:ASP:OD2	2.30	0.64
1:O:944:LYS:HA	1:O:947:GLN:HE21	1.63	0.64
1:O:1172:LEU:O	1:O:1176:CYS:N	2.31	0.64
1:O:2430:GLU:O	1:O:2433:LYS:N	2.30	0.64
1:O:3410:ILE:HG23	1:O:3453:ALA:HB1	1.78	0.64
1:o:3735:PRO:HB3	1:o:3753:LYS:HG2	1.79	0.64
1:O:2535:THR:O	1:O:2536:LEU:C	2.40	0.64
1:O:3167:ARG:HH11	1:O:3168:TYR:H	1.46	0.64
1:O:3994:ASP:HB2	1:O:3997:LEU:HD23	1.80	0.64
1:o:1625:HIS:HA	1:o:1628:LYS:HD3	1.79	0.64
1:o:1783:ARG:NH1	1:o:1826:THR:O	2.31	0.64
1:o:2430:GLU:HA	1:o:2433:LYS:HD2	1.80	0.64
1:o:2442:MET:HA	1:o:2445:LYS:HD3	1.79	0.64
1:o:2528:GLU:HG2	1:o:2533:SER:H	1.63	0.64
5:b:32:PRO:HB2	5:b:36:ARG:HH21	1.63	0.64
8:M:261:LEU:CA	8:M:268:VAL:H	2.11	0.64
1:O:1686:LEU:HA	1:O:1689:LYS:HD2	1.80	0.64
1:O:2122:LEU:H	1:O:2125:TRP:HA	1.62	0.64
1:o:67:VAL:O	1:o:82:ARG:NH2	2.31	0.64
1:o:1456:LYS:HD2	1:o:1516:GLU:HG3	1.79	0.64
1:o:2865:HIS:HB2	1:o:2868:LEU:HB2	1.80	0.64
8:K:123:LYS:O	8:K:126:GLN:NE2	2.30	0.64
1:o:528:VAL:HB	1:o:633:ILE:HD11	1.79	0.63
1:o:1283:GLY:H	1:o:1286:ALA:HB2	1.64	0.63
9:L:306:LEU:HD23	9:L:309:ASP:HB3	1.78	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:352:GLN:HG3	9:L:354:ARG:H	1.63	0.63
1:O:2855:VAL:HA	1:O:2858:ILE:HD12	1.79	0.63
1:o:529:ASP:O	1:o:533:HIS:ND1	2.22	0.63
1:o:1092:GLU:HG2	1:o:1095:LEU:HG	1.80	0.63
1:o:1723:PRO:HG3	9:N:594:PRO:HG3	1.81	0.63
1:o:2556:SER:HB2	1:o:2799:GLN:HA	1.80	0.63
1:o:2575:PRO:HA	1:o:2786:LYS:HA	1.78	0.63
1:o:2966:SER:N	1:o:3253:SER:OG	2.32	0.63
1:o:23:ASP:HB3	1:o:34:LEU:HD21	1.79	0.63
1:o:1942:CYS:O	1:o:1946:ASN:ND2	2.31	0.63
5:b:45:ARG:HG3	7:J:84:DC:H5'	1.79	0.63
9:N:332:LYS:NZ	9:N:333:TYR:O	2.31	0.63
1:O:1502:SER:OG	1:O:1503:LEU:N	2.31	0.63
1:O:2124:SER:HB2	1:O:2129:LEU:H	1.62	0.63
1:O:2143:ARG:NH2	1:O:2171:LEU:O	2.31	0.63
2:D:34:TYR:HA	2:D:37:TYR:HD2	1.64	0.63
8:K:48:MET:HG3	8:K:60:PHE:HB2	1.80	0.63
8:M:370:PRO:HB2	9:N:438:LEU:HD21	1.80	0.63
1:O:421:LEU:HA	1:O:424:LEU:HB2	1.80	0.63
1:O:3563:ASP:HB3	1:O:3696:ARG:HH21	1.61	0.63
4:A:106:ASP:OD2	4:A:131:ARG:NH2	2.32	0.63
1:o:2349:LEU:HB3	1:o:2360:PHE:HE1	1.62	0.63
8:K:116:ILE:HA	8:K:119:LEU:HB2	1.81	0.63
9:N:660:LYS:HD3	9:N:688:LYS:HD2	1.79	0.63
1:O:2860:ASP:OD1	1:O:2864:GLN:NE2	2.31	0.63
1:O:3007:GLU:O	1:O:3008:TRP:C	2.41	0.63
1:o:1693:VAL:HG22	1:o:1696:LEU:HD23	1.80	0.63
8:M:90:THR:OG1	8:M:135:MET:HB2	1.99	0.63
8:M:263:LEU:O	8:M:264:ASN:C	2.41	0.63
9:N:246:HIS:HB2	9:N:264:TYR:HB2	1.81	0.63
1:O:1910:GLU:HG3	1:O:1911:LEU:H	1.64	0.63
1:O:2353:GLN:HB3	1:O:2360:PHE:HB2	1.80	0.63
1:o:2254:ARG:NH2	1:o:2292:CYS:SG	2.71	0.63
9:L:347:LYS:HG3	9:L:349:SER:H	1.64	0.63
1:O:2534:ASN:O	1:O:2535:THR:C	2.42	0.63
1:o:2304:VAL:HB	1:o:2348:GLN:HG3	1.81	0.63
1:o:2330:VAL:HB	1:o:2333:ARG:HH21	1.64	0.63
9:L:43:GLN:HE22	9:L:239:LYS:HD3	1.64	0.63
1:O:103:TYR:O	1:O:107:ILE:N	2.26	0.63
1:O:4009:PRO:HA	1:O:4012:ASP:HB2	1.81	0.63
5:f:90:LEU:HD22	5:f:97:LEU:HD12	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:407:VAL:HA	1:O:410:MET:HE1	1.81	0.62
1:O:1536:ALA:O	1:O:1555:HIS:ND1	2.31	0.62
1:O:2430:GLU:O	1:O:2431:ARG:C	2.41	0.62
8:M:89:GLY:N	8:M:101:ASN:O	2.32	0.62
1:O:708:VAL:HG12	1:O:740:ILE:HG23	1.80	0.62
1:O:1420:ARG:HE	1:O:1424:THR:HG22	1.64	0.62
1:O:1368:LEU:HA	1:O:1371:VAL:HG22	1.82	0.62
1:O:3153:SER:C	1:O:3155:VAL:H	2.08	0.62
1:o:736:LEU:HB3	1:o:740:ILE:HD11	1.80	0.62
1:o:3577:GLN:HA	1:o:3617:LEU:HD21	1.80	0.62
1:o:3614:TYR:O	1:o:3619:ASP:N	2.32	0.62
8:K:47:ALA:O	8:K:48:MET:C	2.41	0.62
8:M:214:SER:HB2	8:M:221:ILE:HG13	1.82	0.62
9:N:137:ASP:HA	9:N:166:PRO:HD3	1.79	0.62
9:N:457:LEU:HD22	9:N:533:ILE:HG13	1.81	0.62
8:M:48:MET:HG2	8:M:60:PHE:HB2	1.80	0.62
1:O:1627:LYS:HD2	1:O:1670:GLU:HG2	1.82	0.62
1:O:2162:LYS:O	1:O:2165:LEU:HB2	1.99	0.62
1:O:2343:GLU:O	1:O:2347:LYS:N	2.30	0.62
1:O:4055:ASN:HD22	1:O:4058:VAL:HG23	1.64	0.62
1:o:937:MET:O	1:o:941:MET:HG2	2.00	0.62
1:o:1058:SER:HA	1:o:1061:LYS:HE2	1.81	0.62
8:M:175:PRO:HG3	8:M:217:TYR:HA	1.81	0.62
1:O:1453:SER:O	1:O:1457:GLN:NE2	2.32	0.62
1:O:2391:GLY:O	1:O:2431:ARG:NH2	2.32	0.62
1:O:3190:LEU:HD22	1:O:3231:ILE:HG23	1.81	0.62
1:O:3763:ARG:HB3	1:O:4002:MET:HE1	1.80	0.62
4:A:133:GLU:HG3	3:c:95:LYS:HA	1.81	0.62
1:o:3884:LYS:NZ	1:o:3969:ASN:O	2.29	0.62
8:K:45:SER:HA	8:K:138:GLY:HA2	1.81	0.62
8:K:87:PHE:CE1	8:K:103:TYR:HB3	2.34	0.62
1:O:100:ILE:HG22	1:O:104:SER:N	2.14	0.62
1:O:411:PRO:HA	1:O:414:LEU:HD12	1.80	0.62
1:O:3860:LYS:HB3	1:O:4073:ALA:HB2	1.81	0.62
2:D:52:SER:HB3	3:G:77:ARG:HD2	1.81	0.62
3:G:65:LEU:HB3	3:G:86:ALA:HB1	1.82	0.62
4:E:46:VAL:N	7:j:72:DA:OP1	2.33	0.62
1:o:776:TRP:O	1:o:780:ILE:N	2.31	0.62
1:o:1878:ASP:OD1	1:o:1879:VAL:N	2.31	0.62
8:K:372:GLU:HG3	8:K:376:ILE:HA	1.82	0.62
8:M:473:TYR:HD2	9:N:350:GLN:HB3	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:392:CYS:HA	1:O:395:MET:HG3	1.82	0.62
1:O:3239:LYS:NZ	1:O:3265:GLU:OE2	2.32	0.62
4:A:67:PHE:HE1	5:B:62:LEU:HD11	1.65	0.62
1:o:168:ASP:HB2	1:o:171:LEU:HD13	1.82	0.62
1:o:3144:PHE:HB3	1:o:3150:ASN:HD22	1.65	0.62
1:o:3920:ILE:HG12	1:o:3945:ALA:HA	1.82	0.62
9:L:19:THR:OG1	9:L:20:MET:N	2.33	0.62
8:M:466:VAL:HG13	9:N:345:PHE:CG	2.35	0.62
8:M:485:GLN:HG3	9:N:331:MET:HE3	1.82	0.62
1:O:212:VAL:HA	8:K:404:ARG:HH22	1.64	0.62
1:O:3490:VAL:HG23	1:O:3494:GLN:H	1.65	0.62
5:B:45:ARG:HH12	6:i:71:DG:H21	1.45	0.62
1:o:3454:LEU:HA	1:o:3461:ALA:HB1	1.82	0.62
8:K:93:ASP:HB2	8:K:95:ASN:HD21	1.65	0.62
8:K:325:ARG:HH12	9:L:92:GLU:HG3	1.64	0.62
1:O:370:ALA:O	1:O:374:LYS:N	2.33	0.62
1:O:1784:ARG:O	1:O:1787:ARG:N	2.33	0.62
1:O:3259:LEU:O	1:O:3276:TRP:NE1	2.33	0.62
1:O:3528:ALA:HB2	1:O:3705:TYR:HD2	1.65	0.62
1:O:3789:ARG:NH1	1:O:3791:TYR:OH	2.32	0.62
8:K:277:VAL:HA	9:L:430:LEU:HA	1.82	0.62
1:O:3698:GLU:HB3	1:O:3718:ARG:HG2	1.80	0.61
1:o:243:GLN:OE1	1:o:246:ARG:NH1	2.32	0.61
1:o:1196:PRO:HA	1:o:1202:ARG:HE	1.65	0.61
1:o:1357:LYS:O	1:o:1360:LYS:HB2	2.00	0.61
1:o:1428:ILE:HG13	1:o:1431:LEU:HD12	1.82	0.61
1:o:2295:GLN:HE21	1:o:2298:GLU:HG3	1.64	0.61
1:o:2442:MET:HB2	1:o:2445:LYS:HB2	1.82	0.61
7:j:82:DC:H2''	7:j:83:DC:C4	2.36	0.61
9:N:15:ASP:HB3	9:N:20:MET:SD	2.40	0.61
1:O:925:GLN:HB3	1:O:2800:ARG:HH22	1.65	0.61
1:O:2092:GLU:HG3	1:O:2148:LYS:HD3	1.82	0.61
5:F:36:ARG:HH22	7:j:63:DA:H3'	1.65	0.61
1:o:1184:ARG:NH2	1:o:1265:GLU:HB3	2.00	0.61
8:K:303:PHE:HB3	8:K:308:GLY:HA2	1.81	0.61
9:L:684:THR:C	9:L:686:ILE:H	2.07	0.61
8:M:88:TYR:HD1	8:M:141:TYR:HB2	1.65	0.61
9:N:11:VAL:HB	9:N:132:ILE:HG12	1.81	0.61
9:N:27:ILE:HA	9:N:166:PRO:HB3	1.82	0.61
1:O:1076:LEU:HB2	1:O:1123:THR:HG22	1.83	0.61
1:O:1634:ALA:O	1:O:1642:LYS:NZ	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3161:LEU:O	1:O:3166:ASN:N	2.33	0.61
1:o:895:ALA:HB1	1:o:902:LYS:HB3	1.82	0.61
1:o:1117:ASP:OD1	1:o:1118:GLU:N	2.34	0.61
1:o:2891:ARG:HE	1:o:3898:LEU:HB3	1.65	0.61
1:o:3820:MET:HE1	1:o:3882:LEU:HD13	1.82	0.61
7:J:9:DG:N2	6:I:147:DC:O4'	2.33	0.61
8:K:390:LEU:HG	8:K:415:PRO:HB2	1.82	0.61
8:M:260:LYS:HZ2	8:M:260:LYS:H	1.47	0.61
8:M:269:ILE:HG23	8:M:375:VAL:HB	1.82	0.61
8:M:288:LEU:HA	8:M:296:VAL:H	1.64	0.61
1:o:303:HIS:O	1:o:309:LYS:NZ	2.34	0.61
1:O:50:VAL:O	1:O:54:GLN:NE2	2.33	0.61
1:O:1359:LEU:O	1:O:1363:LEU:N	2.33	0.61
1:O:2268:LYS:HD2	1:O:2312:TYR:HD2	1.65	0.61
1:O:3389:VAL:HG11	1:O:3449:LYS:HE3	1.83	0.61
1:O:3921:GLY:O	1:O:3944:HIS:ND1	2.32	0.61
5:B:55:ARG:O	5:B:58:LEU:HB3	2.01	0.61
1:o:2326:ILE:O	1:o:2330:VAL:HG23	2.01	0.61
1:o:2367:VAL:O	1:o:2371:PHE:N	2.29	0.61
1:o:3842:TRP:HA	1:o:3858:MET:HG2	1.83	0.61
2:h:92:GLN:O	2:h:96:ARG:NH1	2.34	0.61
6:i:120:DA:H61	7:j:33:DA:H61	1.48	0.61
6:I:61:DT:H2'	6:I:63:DA:N6	2.16	0.61
9:L:378:SER:O	9:L:382:HIS:ND1	2.34	0.61
1:O:664:SER:OG	1:O:668:LYS:NZ	2.34	0.61
1:o:1132:ASP:OD2	1:o:1136:ARG:NH1	2.33	0.61
1:o:2799:GLN:HG3	1:o:2800:ARG:HD2	1.82	0.61
1:o:3041:LEU:HA	1:o:3044:MET:HE2	1.82	0.61
1:o:3243:ILE:HG21	1:o:3279:SER:HB2	1.82	0.61
2:h:66:ILE:HG12	2:h:106:HIS:HB3	1.82	0.61
6:i:104:DG:H2''	6:i:105:DA:C8	2.36	0.61
9:L:108:LEU:HB3	9:L:145:SER:HB2	1.82	0.61
8:M:39:ILE:H	8:M:166:ILE:HD12	1.64	0.61
8:M:288:LEU:O	9:N:311:ILE:N	2.32	0.61
8:M:290:ARG:HB2	9:N:311:ILE:HB	1.81	0.61
1:o:161:ALA:HA	8:M:313:PRO:HD3	1.82	0.61
2:D:66:ILE:HG22	2:D:69:ARG:HH21	1.66	0.61
9:L:11:VAL:HA	9:L:55:ALA:HB3	1.81	0.61
1:O:57:LEU:HB3	1:O:103:TYR:CZ	2.36	0.61
1:O:100:ILE:O	1:O:101:ALA:C	2.43	0.61
1:O:1224:PHE:HB3	1:O:1228:GLY:N	2.15	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1289:SER:HA	1:O:1292:LYS:HE2	1.82	0.61
1:O:2986:PRO:O	1:O:2991:LYS:NZ	2.33	0.61
8:K:136:GLY:O	8:K:137:HIS:ND1	2.33	0.61
8:K:214:SER:O	8:K:215:LEU:C	2.44	0.61
1:O:997:ASN:HD21	1:O:999:LYS:HE2	1.66	0.61
1:o:2975:ALA:HA	1:o:2981:TRP:HZ2	1.66	0.61
1:o:3007:GLU:HG3	1:o:3255:ALA:HA	1.83	0.61
1:o:3819:THR:OG1	1:o:3820:MET:SD	2.59	0.61
7:j:84:DC:H4'	7:j:85:DC:H5'	1.82	0.61
1:O:787:PRO:O	1:O:790:LYS:NZ	2.34	0.60
1:O:1845:VAL:HA	1:O:1848:ILE:HG22	1.83	0.60
1:o:2382:VAL:HA	1:o:2385:LEU:HG	1.81	0.60
1:o:3506:LEU:O	1:o:3551:ASN:ND2	2.34	0.60
9:L:10:VAL:HA	9:L:131:HIS:HB3	1.83	0.60
9:L:139:SER:HB3	9:L:201:GLN:HG2	1.83	0.60
1:O:2452:ARG:HD2	1:O:2498:ILE:HG13	1.82	0.60
1:O:2542:LEU:HD23	1:O:2545:LEU:HD12	1.83	0.60
1:o:466:LEU:HD13	1:o:545:LEU:HG	1.82	0.60
1:o:2232:ARG:HA	1:o:2235:LEU:HD12	1.83	0.60
8:M:370:PRO:HG2	9:N:438:LEU:HD11	1.84	0.60
1:O:148:LYS:HD2	1:O:148:LYS:O	2.01	0.60
1:O:1071:ASN:HD22	1:O:1074:LYS:HG3	1.67	0.60
4:a:95:ALA:HA	5:b:97:LEU:HD13	1.83	0.60
8:K:77:SER:O	8:K:79:ASP:N	2.33	0.60
1:O:1723:PRO:HB3	9:L:594:PRO:HB3	1.81	0.60
8:K:73:SER:O	8:K:76:ILE:HB	2.01	0.60
9:L:11:VAL:HB	9:L:132:ILE:HG12	1.82	0.60
9:L:154:LEU:HD13	9:L:215:LEU:HD11	1.83	0.60
9:L:254:GLY:HA3	9:L:257:LEU:HB2	1.83	0.60
8:M:87:PHE:O	8:M:103:TYR:N	2.35	0.60
8:M:261:LEU:N	8:M:268:VAL:H	1.98	0.60
8:M:462:MET:HA	8:M:465:ILE:HD12	1.81	0.60
1:O:2826:LEU:HA	1:O:2829:LYS:HE2	1.83	0.60
1:O:3724:GLU:HG3	1:O:3726:VAL:HG13	1.83	0.60
4:E:72:ARG:NH2	4:E:81:ASP:OD1	2.33	0.60
1:o:559:SER:O	1:o:563:LEU:N	2.33	0.60
8:K:212:ASP:O	8:K:213:ILE:C	2.44	0.60
9:L:508:ILE:HG21	9:L:513:TRP:HE3	1.65	0.60
8:M:131:PHE:HA	8:M:134:MET:SD	2.41	0.60
1:O:886:TRP:HH2	1:O:911:LEU:HB3	1.66	0.60
1:O:1071:ASN:HA	1:O:3745:GLU:HG3	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3301:LEU:HD21	1:O:3333:THR:HG22	1.84	0.60
1:O:3820:MET:HE1	1:O:3824:GLU:HG2	1.84	0.60
1:o:3932:MET:SD	1:o:3932:MET:N	2.74	0.60
1:o:4002:MET:HE1	1:o:4047:ALA:HB3	1.84	0.60
2:h:76:ARG:O	2:h:80:TYR:HB2	2.02	0.60
7:J:99:DC:H42	6:I:56:DG:H1	1.48	0.60
8:K:106:GLN:HG2	8:K:119:LEU:HD11	1.84	0.60
3:C:31:HIS:HA	3:C:48:PRO:HB3	1.82	0.60
1:O:859:LEU:HA	1:O:862:LEU:HD12	1.84	0.60
1:O:2534:ASN:O	1:O:2536:LEU:N	2.34	0.60
1:O:2587:GLN:HG3	1:O:2588:GLU:H	1.67	0.60
1:O:3155:VAL:C	1:O:3157:LEU:H	2.09	0.60
1:O:3493:TRP:CH2	1:O:3524:ASN:HB2	2.36	0.60
1:o:1086:TYR:HA	1:o:1089:PHE:HB3	1.82	0.60
1:o:1268:ASN:ND2	1:o:1343:GLU:OE2	2.35	0.60
9:N:15:ASP:HB2	9:N:59:PHE:CZ	2.37	0.60
9:N:33:GLN:HG3	9:N:36:LYS:HE3	1.84	0.60
1:O:3946:PHE:CE2	1:O:4043:LYS:HB3	2.37	0.60
6:I:61:DT:H2"	6:I:62:DA:H8	1.65	0.60
8:K:304:ASN:HB3	8:K:309:GLY:H	1.66	0.60
9:N:230:SER:HB2	9:N:235:CYS:HB2	1.83	0.60
1:O:1750:LEU:HD21	1:O:1759:LEU:HD23	1.84	0.59
1:O:2338:GLU:OE1	1:O:2338:GLU:N	2.34	0.59
1:O:3263:HIS:HB2	1:O:3276:TRP:CE2	2.36	0.59
1:o:3296:GLN:HG2	1:o:3336:ILE:HG22	1.82	0.59
8:K:214:SER:O	8:K:216:PHE:N	2.35	0.59
1:O:923:ASP:OD2	1:O:2800:ARG:NH2	2.35	0.59
1:O:1453:SER:O	1:O:1456:LYS:HG2	2.02	0.59
1:o:731:THR:HG22	1:o:768:VAL:HG21	1.83	0.59
1:o:956:PRO:HA	1:o:962:TYR:HE2	1.67	0.59
1:o:1062:ARG:NH1	1:o:1065:SER:OG	2.35	0.59
9:L:496:HIS:NE2	9:L:503:GLU:OE1	2.35	0.59
1:O:114:VAL:HG13	1:O:119:ARG:HD2	1.84	0.59
1:o:1098:GLN:O	1:o:1151:ARG:NH2	2.35	0.59
1:o:3620:PRO:HB3	1:o:3638:LYS:HG3	1.83	0.59
4:e:62:ILE:HD11	5:f:37:LEU:HD21	1.85	0.59
8:M:305:THR:H	9:N:288:ASP:HA	1.65	0.59
9:N:606:LYS:HE3	9:N:650:SER:H	1.66	0.59
1:o:2964:ASP:HA	1:o:3252:PHE:HB2	1.84	0.59
1:o:3331:GLY:HA2	1:o:3381:ALA:HA	1.84	0.59
1:o:3416:LEU:HG	1:o:3446:VAL:HG12	1.82	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:a:109:LEU:HB3	4:e:126:LEU:HD11	1.85	0.59
8:K:505:ASP:O	8:K:508:LEU:N	2.34	0.59
8:K:506:LEU:HD23	8:K:507:THR:H	1.68	0.59
9:N:210:MET:HA	9:N:213:ILE:HD12	1.84	0.59
1:O:61:ARG:O	1:O:61:ARG:NH1	2.31	0.59
1:O:96:MET:HG2	1:O:100:ILE:CD1	2.32	0.59
3:g:27:VAL:HG12	3:g:31:HIS:CD2	2.38	0.59
7:j:44:DA:C8	7:j:44:DA:H5''	2.36	0.59
6:I:62:DA:H1'	6:I:63:DA:H5'	1.85	0.59
8:K:166:ILE:O	8:K:201:ASP:N	2.31	0.59
1:O:859:LEU:O	1:O:867:ASN:ND2	2.33	0.59
1:O:1305:ASP:HB3	1:O:1307:ILE:HG12	1.85	0.59
1:O:3882:LEU:O	1:O:3885:ARG:N	2.36	0.59
3:C:65:LEU:HD23	3:C:68:ASN:HD21	1.68	0.59
2:H:73:GLU:HG2	2:H:98:LEU:HD11	1.84	0.59
1:o:1102:GLU:HA	1:o:1154:PRO:HB3	1.83	0.59
1:o:1254:LEU:HD22	1:o:1329:ARG:HH12	1.67	0.59
1:o:1407:LYS:HA	1:o:1412:LYS:HD3	1.83	0.59
1:o:2102:LYS:O	1:o:2106:ARG:HG2	2.02	0.59
1:o:3389:VAL:HG13	1:o:3413:TYR:HE1	1.65	0.59
4:e:133:GLU:H	5:f:95:ARG:HH22	1.49	0.59
5:f:88:TYR:HA	5:f:91:LYS:HD3	1.85	0.59
6:i:130:DC:O2	7:j:25:DG:N2	2.33	0.59
8:M:470:ARG:HA	9:N:345:PHE:HB2	1.84	0.59
1:O:785:MET:HA	1:O:788:TYR:CE1	2.38	0.59
3:C:71:ARG:HH22	3:C:78:ILE:HD11	1.68	0.59
1:o:114:VAL:HG22	1:o:119:ARG:HH21	1.67	0.59
1:o:165:LYS:NZ	1:o:168:ASP:O	2.36	0.59
9:N:600:VAL:HA	9:N:603:LYS:HB2	1.82	0.59
1:O:135:LEU:O	1:O:139:ARG:HG2	2.03	0.59
1:O:713:GLU:O	1:O:717:LYS:HG2	2.02	0.59
1:O:1082:PHE:HA	1:O:1085:ILE:HG12	1.84	0.59
1:O:1690:GLY:HA2	1:O:1693:VAL:HG22	1.84	0.59
1:O:2139:PRO:O	1:O:2143:ARG:N	2.32	0.59
1:O:2274:ILE:HD13	1:O:2319:ALA:HB2	1.85	0.59
1:O:3313:SER:HB3	1:O:3316:LEU:HA	1.83	0.59
1:O:3625:LEU:N	1:O:3682:GLU:O	2.35	0.59
1:O:3781:CYS:O	1:O:3785:ALA:N	2.36	0.59
1:o:2395:THR:HG22	1:o:2434:VAL:HG21	1.84	0.59
7:j:101:DA:H2''	7:j:102:DG:C8	2.38	0.59
2:D:36:ILE:HG12	2:D:40:LYS:HE2	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:39:HIS:N	7:j:86:DG:N3	2.51	0.59
4:A:127:ALA:HA	4:A:130:ILE:HD12	1.85	0.59
1:o:386:VAL:O	1:o:389:ILE:HB	2.03	0.59
1:o:1180:GLN:HB2	1:o:1183:CYS:HB3	1.84	0.59
1:o:1729:PHE:HD2	1:o:1735:ARG:HE	1.50	0.59
8:K:112:GLY:O	8:K:114:LYS:N	2.36	0.59
8:K:165:ARG:NH2	8:K:201:ASP:OD1	2.36	0.59
8:M:278:GLN:N	9:N:429:ASP:O	2.29	0.59
1:O:1211:VAL:O	1:O:1215:GLU:N	2.24	0.59
1:O:1649:LEU:HD13	1:O:1652:ILE:HD11	1.85	0.59
1:O:3992:ARG:NH2	1:O:4051:LEU:O	2.32	0.59
1:o:364:ARG:HH21	1:o:412:SER:HB2	1.67	0.59
1:o:447:PRO:HB3	1:o:523:THR:HG22	1.85	0.59
1:o:2092:GLU:OE2	1:o:2148:LYS:NZ	2.35	0.59
1:o:3077:ILE:O	1:o:3081:HIS:ND1	2.30	0.59
1:o:3086:LEU:HB2	1:o:3102:TYR:CE2	2.38	0.59
1:o:3361:GLU:OE2	1:o:3368:GLU:N	2.36	0.59
1:o:3556:ALA:HA	1:o:3559:LYS:HE3	1.85	0.59
8:M:260:LYS:HA	8:M:270:SER:HA	1.84	0.59
1:O:3329:LEU:O	1:O:3333:THR:HG23	2.02	0.58
8:K:73:SER:HA	8:K:76:ILE:HB	1.85	0.58
9:L:274:LYS:NZ	9:L:275:THR:O	2.36	0.58
3:C:107:VAL:HG21	4:a:56:LYS:HE3	1.85	0.58
1:o:2208:ASP:OD1	1:o:2209:GLU:N	2.36	0.58
1:o:4050:LYS:HZ2	1:o:4059:ILE:HD12	1.68	0.58
9:N:204:GLY:HA2	9:N:207:ILE:HD12	1.84	0.58
1:O:214:GLU:CB	1:O:215:PRO:HD2	2.33	0.58
1:O:275:PHE:HA	1:O:282:PHE:HE2	1.67	0.58
1:o:2266:ASN:HA	1:o:2309:PHE:HB3	1.84	0.58
6:i:69:DG:H2"	6:i:70:DG:N7	2.17	0.58
8:K:95:ASN:OD1	8:K:97:VAL:HG23	2.03	0.58
8:K:400:TYR:O	8:K:408:PRO:HA	2.03	0.58
9:L:7:LYS:HE3	9:L:125:LYS:HA	1.85	0.58
1:o:493:LYS:HD2	1:o:522:PRO:HB2	1.84	0.58
1:o:2239:LYS:HG2	1:o:2279:ILE:HG23	1.85	0.58
1:o:3003:ASN:OD1	1:o:3046:ARG:NH1	2.37	0.58
5:f:97:LEU:HD23	5:f:99:GLY:H	1.67	0.58
6:i:112:DT:H2"	6:i:113:DA:C5	2.39	0.58
8:M:143:LEU:HD13	8:M:176:HIS:HB3	1.84	0.58
9:N:426:PHE:O	9:N:427:MET:HG2	2.03	0.58
1:O:3629:ARG:HB2	1:O:3630:ARG:HH12	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:253:LEU:HB3	1:o:268:PRO:HA	1.85	0.58
7:j:88:DG:H2"	7:j:89:DT:H5"	1.86	0.58
8:M:461:LYS:HD3	8:M:528:LEU:HD22	1.84	0.58
1:O:102:PRO:C	1:O:104:SER:N	2.59	0.58
1:O:2124:SER:HB3	1:O:2129:LEU:HD23	1.85	0.58
1:o:440:VAL:HA	1:o:443:ILE:HD12	1.85	0.58
1:o:1361:LYS:NZ	1:o:1411:TYR:OH	2.32	0.58
1:o:2313:LYS:HA	1:o:2316:TYR:CZ	2.39	0.58
1:o:2923:TRP:HZ3	1:o:2942:ILE:HD12	1.68	0.58
1:o:3226:ASP:N	1:o:3229:SER:HG	2.01	0.58
1:o:3735:PRO:HA	1:o:3752:VAL:O	2.04	0.58
1:o:3817:LEU:HD22	1:o:3825:LYS:HB2	1.85	0.58
1:o:3956:PRO:HD2	1:o:4121:TRP:HB2	1.85	0.58
5:b:75:HIS:HB3	2:h:94:ALA:HB2	1.85	0.58
8:K:40:PHE:HB2	8:K:85:VAL:HG23	1.86	0.58
1:O:104:SER:OG	1:O:105:VAL:N	2.37	0.58
1:O:208:MET:HE3	1:O:208:MET:O	2.04	0.58
1:O:3508:LYS:NZ	1:O:3510:GLN:OE1	2.36	0.58
3:c:55:LEU:HD22	2:d:63:VAL:HG13	1.84	0.58
1:o:232:CYS:HB3	1:o:278:HIS:NE2	2.19	0.58
1:o:1192:TYR:HE2	1:o:1275:THR:HG21	1.69	0.58
8:K:476:ASP:OD1	8:K:477:SER:N	2.37	0.58
9:L:408:ALA:HB1	9:L:419:LEU:HD11	1.86	0.58
8:M:207:LYS:NZ	8:M:212:ASP:OD1	2.37	0.58
1:O:202:GLY:HA2	1:O:205:LYS:HD2	1.85	0.58
1:O:3301:LEU:HD11	1:O:3333:THR:HG21	1.86	0.58
8:K:75:ILE:HD11	8:K:111:PRO:HB2	1.86	0.58
8:K:297:LYS:HB3	9:L:297:LEU:HD12	1.86	0.58
8:M:59:PRO:HA	8:M:62:MET:HG3	1.85	0.58
1:O:978:GLN:HE21	1:O:2596:ARG:HH21	1.50	0.58
1:O:1181:THR:O	1:O:1185:HIS:N	2.31	0.58
1:O:1249:SER:OG	1:O:1250:LEU:N	2.32	0.58
1:O:1282:LEU:HG	1:O:1359:LEU:HD13	1.86	0.58
1:O:3387:GLU:O	1:O:3390:GLN:NE2	2.31	0.58
1:O:4038:TRP:O	1:O:4043:LYS:NZ	2.37	0.58
9:L:249:CYS:HB2	9:L:338:LYS:HD2	1.85	0.58
8:M:281:LEU:HA	8:M:483:LEU:HD21	1.85	0.58
1:O:127:ALA:O	1:O:131:LEU:HG	2.04	0.58
1:O:1786:ALA:O	1:O:1794:GLN:NE2	2.37	0.58
1:O:2351:GLN:O	1:O:2352:HIS:ND1	2.37	0.58
2:d:36:ILE:HG21	7:j:125:DG:H5"	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:370:ALA:O	1:o:374:LYS:N	2.36	0.58
1:o:1368:LEU:HB3	1:o:1372:LEU:HD23	1.85	0.58
1:o:1711:ARG:HE	1:o:1757:MET:HB2	1.68	0.58
1:o:1726:SER:H	1:o:1772:HIS:HB2	1.68	0.58
1:o:1764:GLU:O	1:o:1768:ARG:NH1	2.37	0.58
1:o:2859:GLN:HB3	1:o:2892:LEU:HG	1.85	0.58
1:o:3923:ARG:O	1:o:3962:ARG:NH1	2.37	0.58
1:O:213:ARG:CB	1:O:216:LYS:HD2	2.33	0.57
1:O:469:ALA:HA	1:O:475:LEU:HD13	1.84	0.57
1:O:3569:GLN:O	1:O:3573:ASN:ND2	2.37	0.57
1:O:3665:MET:SD	1:O:3666:LEU:HD12	2.44	0.57
3:c:90:ASP:HB2	3:c:93:LEU:HB2	1.86	0.57
2:d:36:ILE:HG12	7:j:125:DG:H3'	1.86	0.57
1:o:658:THR:OG1	1:o:659:ARG:NH1	2.36	0.57
1:o:3312:VAL:HG13	1:o:3326:GLN:HG2	1.85	0.57
1:o:3441:ALA:N	1:o:3478:GLU:OE1	2.37	0.57
6:i:108:DT:H3	7:j:47:DG:H1	1.52	0.57
9:N:675:TRP:HA	9:N:678:VAL:HB	1.85	0.57
1:O:1209:LYS:O	1:O:1212:LEU:HB2	2.04	0.57
1:o:1356:TRP:HD1	1:o:1359:LEU:HD11	1.70	0.57
1:o:1504:ASP:N	1:o:1507:CYS:SG	2.77	0.57
1:o:3535:ILE:HG21	1:o:3795:PRO:HG2	1.86	0.57
4:e:84:PHE:HE1	5:f:81:VAL:HB	1.69	0.57
9:N:151:ILE:O	9:N:155:LYS:HG2	2.04	0.57
1:O:946:THR:HG21	1:O:2581:LEU:HD21	1.85	0.57
1:O:2576:MET:N	1:O:2576:MET:SD	2.78	0.57
1:O:3114:TYR:HE1	1:O:3125:ARG:HB3	1.69	0.57
1:O:3681:LYS:HE3	1:O:3683:CYS:HB2	1.85	0.57
5:B:70:VAL:HA	5:B:73:THR:HG22	1.86	0.57
4:a:51:ILE:HD13	5:b:39:ARG:HA	1.85	0.57
2:h:76:ARG:O	2:h:80:TYR:CB	2.52	0.57
8:M:39:ILE:HD12	8:M:86:VAL:HG21	1.86	0.57
9:N:54:ILE:O	9:N:81:ARG:NH1	2.38	0.57
1:O:405:ASP:OD1	1:O:406:ARG:N	2.36	0.57
1:O:762:TYR:HD2	1:O:765:LEU:HG	1.69	0.57
1:O:881:LYS:HD2	1:O:883:TYR:H	1.69	0.57
1:O:913:ARG:NH2	1:O:2801:ASP:OD1	2.33	0.57
1:O:1417:THR:O	1:O:1421:GLU:N	2.35	0.57
1:O:1483:LEU:HD11	1:O:1515:LEU:HA	1.86	0.57
1:O:3859:TYR:O	1:O:4119:ARG:NH1	2.37	0.57
1:O:3911:ILE:HG23	1:O:3915:HIS:CE1	2.38	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:17:ARG:HG3	7:J:34:DT:H2'	1.85	0.57
3:G:55:LEU:HD23	3:G:58:LEU:HD21	1.86	0.57
3:c:78:ILE:O	2:d:52:SER:OG	2.22	0.57
1:o:160:LEU:HD21	1:o:178:LEU:HD11	1.87	0.57
1:o:3643:HIS:HB3	1:o:3659:PHE:HZ	1.70	0.57
8:M:263:LEU:C	8:M:265:LYS:N	2.61	0.57
8:M:490:LEU:O	8:M:494:ALA:HB3	2.04	0.57
1:o:2154:GLU:OE1	1:o:2158:ARG:NH1	2.34	0.57
1:o:2201:THR:HG1	1:o:2245:TRP:CD1	2.22	0.57
1:o:3095:ASP:HB3	1:o:3098:ARG:HG2	1.86	0.57
1:o:3114:TYR:OH	1:o:3125:ARG:NH1	2.36	0.57
1:o:3443:PRO:HB2	1:o:3478:GLU:HB2	1.85	0.57
9:L:489:ARG:NH1	9:L:508:ILE:HA	2.19	0.57
8:M:359:HIS:O	8:M:360:HIS:ND1	2.38	0.57
8:M:360:HIS:HB3	8:M:438:PRO:HD2	1.86	0.57
1:O:86:LEU:HA	1:O:133:LYS:HZ1	1.69	0.57
1:O:102:PRO:O	1:O:103:TYR:C	2.47	0.57
1:O:410:MET:HA	1:O:413:PHE:HD2	1.70	0.57
1:O:978:GLN:N	1:O:978:GLN:OE1	2.37	0.57
1:O:1756:PRO:HA	1:O:1759:LEU:HD12	1.86	0.57
2:H:35:SER:HB3	2:H:56:MET:SD	2.45	0.57
1:o:111:CYS:SG	1:o:130:LEU:HG	2.44	0.57
1:o:195:ASN:HA	1:o:198:ARG:HE	1.68	0.57
1:o:655:LEU:O	1:o:659:ARG:NH1	2.37	0.57
1:o:750:PRO:O	1:o:754:MET:HE3	2.04	0.57
1:o:1282:LEU:HB2	1:o:1359:LEU:HD13	1.87	0.57
1:o:1416:GLU:HA	1:o:1419:LEU:HD12	1.86	0.57
1:o:3746:ARG:NH1	1:o:3807:GLU:OE1	2.37	0.57
1:o:3771:MET:HE1	1:o:3991:PHE:HZ	1.70	0.57
7:J:25:DG:O6	6:I:128:DG:N2	2.37	0.57
9:L:54:ILE:HB	9:L:81:ARG:HH22	1.69	0.57
9:L:154:LEU:HD23	9:L:159:ILE:HB	1.87	0.57
1:O:650:SER:HA	1:O:653:LEU:HD12	1.86	0.57
1:O:1208:LEU:O	1:O:1212:LEU:N	2.37	0.57
1:O:1298:LEU:HD12	1:O:1367:HIS:HB3	1.85	0.57
1:O:3723:ASP:H	1:O:3741:ARG:HE	1.52	0.57
1:o:1301:ILE:HA	1:o:1334:LYS:HZ1	1.69	0.57
1:o:2467:THR:HG22	1:o:2470:ARG:HH21	1.70	0.57
9:L:24:ILE:HG12	9:L:137:ASP:HB3	1.86	0.57
8:M:217:TYR:O	8:M:219:ASP:N	2.37	0.57
1:O:410:MET:SD	1:O:411:PRO:HD3	2.45	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2550:ILE:O	1:O:2554:PHE:N	2.37	0.57
1:O:2850:PHE:HB3	1:O:2883:SER:HB3	1.87	0.57
1:o:139:ARG:HD3	1:o:142:ARG:HH22	1.69	0.57
1:o:985:GLU:HB3	1:o:989:MET:HE1	1.87	0.57
1:o:1039:TRP:HH2	1:o:2779:ASP:HB2	1.70	0.57
1:o:2371:PHE:HD2	1:o:2374:LEU:HD23	1.69	0.57
1:o:2580:PRO:HB3	1:o:2783:ILE:H	1.70	0.57
1:o:3962:ARG:NH2	1:o:4125:GLU:O	2.38	0.57
6:i:135:DC:H2'	6:i:136:DA:C8	2.40	0.57
7:j:100:DA:H2''	7:j:101:DA:H8	1.69	0.57
8:M:268:VAL:HG12	8:M:269:ILE:HG13	1.87	0.57
8:M:337:LEU:HD12	9:N:489:ARG:HH21	1.68	0.57
8:M:454:ALA:HB3	9:N:379:SER:HB2	1.85	0.57
1:O:2866:ALA:HA	1:O:2869:LEU:HD23	1.85	0.57
1:O:3114:TYR:HB2	1:O:3128:LYS:HD2	1.87	0.57
1:O:4040:PRO:HA	1:O:4043:LYS:HE2	1.87	0.57
1:o:967:PRO:HG3	1:o:1011:GLU:HG2	1.87	0.57
1:o:2254:ARG:HG3	1:o:2294:ILE:HD11	1.86	0.57
1:o:2514:ASN:HB3	1:o:2517:LEU:HB2	1.86	0.57
9:L:24:ILE:HB	9:L:30:PRO:HG2	1.87	0.57
8:M:479:GLU:HB3	9:N:427:MET:HE2	1.87	0.57
1:O:1322:THR:HB	1:O:1324:PRO:HD2	1.86	0.57
1:O:3289:ARG:NH2	1:O:3295:GLU:OE1	2.37	0.57
1:o:3874:ARG:HG2	1:o:4127:TRP:HA	1.86	0.57
1:o:4098:LEU:HD12	1:o:4102:THR:HG23	1.86	0.57
8:K:74:LYS:O	8:K:78:SER:N	2.38	0.57
9:N:251:LEU:HD22	9:N:263:ALA:HB2	1.87	0.57
1:O:149:ILE:O	1:O:153:PHE:N	2.32	0.56
1:O:281:GLN:OE1	1:O:281:GLN:N	2.36	0.56
1:O:1065:SER:O	1:O:1069:HIS:ND1	2.38	0.56
1:O:1620:THR:HA	1:O:1623:LEU:HD12	1.87	0.56
1:O:2577:PHE:O	1:O:2579:HIS:N	2.36	0.56
1:O:3531:TYR:HA	1:O:3534:ILE:HD12	1.85	0.56
1:O:3698:GLU:OE1	1:O:3718:ARG:NH1	2.37	0.56
1:O:3749:PRO:HB2	1:O:3805:TRP:HB3	1.87	0.56
1:O:3946:PHE:HE2	1:O:4043:LYS:HB3	1.70	0.56
2:D:38:VAL:HA	2:D:41:VAL:HG22	1.87	0.56
3:c:57:TYR:OH	2:d:106:HIS:HB3	2.05	0.56
1:o:2393:LEU:O	1:o:2396:LEU:HB2	2.05	0.56
1:o:2773:ARG:HA	1:o:2789:SER:HB2	1.87	0.56
1:o:3515:GLN:OE1	1:o:3557:ARG:NH1	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:63:ARG:NH1	5:f:27:GLN:OE1	2.38	0.56
8:K:478:PHE:HA	8:K:506:LEU:HD11	1.87	0.56
9:L:81:ARG:HE	9:L:84:MET:HE3	1.70	0.56
8:M:135:MET:SD	8:M:136:GLY:N	2.75	0.56
8:M:290:ARG:NH2	9:N:324:SER:OG	2.38	0.56
9:N:155:LYS:NZ	9:N:211:VAL:O	2.37	0.56
9:N:197:ILE:HA	9:N:202:LYS:HG3	1.87	0.56
1:O:1452:VAL:HG13	1:O:1517:LEU:HD11	1.86	0.56
1:O:2436:LEU:HB3	1:O:2472:GLN:HG2	1.87	0.56
1:O:2547:SER:HB3	1:O:2550:ILE:HG12	1.85	0.56
1:O:3779:SER:O	1:O:3783:GLN:NE2	2.38	0.56
1:o:3008:TRP:O	1:o:3011:LEU:HB2	2.05	0.56
9:L:280:ASP:HB2	9:L:288:ASP:HB3	1.88	0.56
1:O:420:VAL:O	1:O:424:LEU:N	2.37	0.56
1:O:832:LYS:HZ1	1:O:835:LYS:HG2	1.70	0.56
1:O:1181:THR:OG1	1:O:1182:GLU:N	2.37	0.56
1:O:2535:THR:O	1:O:2538:ARG:N	2.39	0.56
1:O:3172:LYS:O	1:O:3173:MET:HE2	2.06	0.56
1:O:3503:VAL:HG11	1:O:3532:PRO:HB3	1.87	0.56
1:O:3686:TRP:HE1	1:O:3692:VAL:HB	1.70	0.56
1:O:3911:ILE:O	1:O:3915:HIS:ND1	2.38	0.56
1:O:3916:TRP:CD1	1:O:3960:PRO:HB3	2.40	0.56
1:O:4055:ASN:HD21	1:O:4057:ALA:HB3	1.70	0.56
3:c:75:LYS:HE3	3:c:79:ILE:HD11	1.85	0.56
2:d:51:ILE:HD11	2:d:56:MET:HE3	1.86	0.56
5:F:76:ALA:HB3	5:F:78:ARG:HE	1.69	0.56
1:o:66:LEU:O	1:o:70:ARG:N	2.37	0.56
2:h:97:LEU:HD12	2:h:98:LEU:HB2	1.86	0.56
6:i:42:DG:H21	7:j:114:DC:H5'	1.70	0.56
8:K:303:PHE:H	9:L:290:GLN:HB2	1.71	0.56
9:N:722:GLY:O	9:N:726:ASP:N	2.37	0.56
1:O:1487:VAL:HG11	1:O:1531:LEU:HD21	1.87	0.56
1:O:1759:LEU:HD11	1:O:1797:LEU:HD13	1.88	0.56
1:O:3741:ARG:HA	1:O:3747:GLU:HG2	1.86	0.56
2:D:42:LEU:HD13	3:G:63:LEU:HB3	1.87	0.56
1:o:420:VAL:O	1:o:424:LEU:N	2.36	0.56
1:o:1341:ILE:HG13	1:o:1342:MET:HE2	1.88	0.56
1:o:2723:THR:HA	1:o:2726:LEU:HD13	1.87	0.56
1:o:3247:ARG:HH21	1:o:3286:CYS:HB3	1.69	0.56
1:o:3545:THR:O	1:o:3549:HIS:ND1	2.33	0.56
8:K:95:ASN:H	8:K:95:ASN:ND2	2.03	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:459:ARG:HD2	1:O:544:ILE:HD12	1.87	0.56
1:O:535:LEU:C	1:O:561:ASN:HD21	2.13	0.56
1:O:1672:PHE:HE2	1:O:1709:GLU:HG3	1.71	0.56
1:O:2428:ASP:HB3	1:O:2431:ARG:HB3	1.88	0.56
1:O:2918:PRO:O	1:O:2922:ARG:HG2	2.05	0.56
2:D:59:MET:O	2:D:63:VAL:HG22	2.05	0.56
2:H:58:ILE:HA	5:b:99:GLY:HA2	1.88	0.56
1:o:2477:LEU:HA	1:o:2480:ILE:HD12	1.87	0.56
1:o:3470:GLN:HG3	1:o:3474:ARG:HD3	1.87	0.56
8:K:79:ASP:C	8:K:81:ASP:N	2.62	0.56
9:L:30:PRO:HA	9:L:33:GLN:HB3	1.88	0.56
1:O:307:GLU:HA	1:O:310:LYS:HD3	1.87	0.56
1:O:538:ASP:H	1:O:561:ASN:HD22	1.53	0.56
1:O:1175:HIS:O	1:O:1178:ARG:HG3	2.06	0.56
1:O:2102:LYS:NZ	1:O:2155:GLU:OE2	2.38	0.56
1:O:3593:ARG:NH1	1:O:3657:SER:O	2.37	0.56
3:C:102:ILE:HA	5:b:98:TYR:H	1.69	0.56
1:o:172:GLU:HG3	1:o:220:LEU:HG	1.87	0.56
1:o:759:GLY:O	1:o:799:TYR:OH	2.22	0.56
1:o:1195:VAL:HB	1:o:1203:SER:HB2	1.87	0.56
1:o:1452:VAL:HG22	1:o:1517:LEU:HD11	1.87	0.56
1:o:3680:LEU:HA	1:o:3724:GLU:HB3	1.87	0.56
8:K:45:SER:OG	8:K:140:ASP:O	2.23	0.56
8:M:262:LYS:O	8:M:266:ASP:N	2.38	0.56
8:M:402:PRO:HD2	8:M:406:ILE:HG21	1.85	0.56
8:M:435:VAL:HG22	9:N:353:ARG:HG2	1.88	0.56
1:O:382:ASP:HA	1:O:385:TYR:HB3	1.86	0.56
1:O:1142:HIS:NE2	1:O:1197:LEU:O	2.37	0.56
1:O:1389:VAL:H	1:O:1392:MET:HE2	1.69	0.56
2:H:99:LEU:HB3	2:H:104:ALA:HB1	1.88	0.56
1:o:446:PHE:HA	1:o:449:TYR:CE2	2.41	0.56
1:o:936:SER:HB2	1:o:2790:LEU:HG	1.88	0.56
1:o:1049:GLN:O	1:o:1055:ASN:HB3	2.05	0.56
1:o:2295:GLN:HG2	1:o:2297:SER:H	1.70	0.56
1:o:3052:LEU:HD21	1:o:3061:LEU:HD21	1.87	0.56
6:i:42:DG:C8	6:i:42:DG:H5'	2.40	0.56
6:i:43:DA:H2''	6:i:44:DG:C8	2.41	0.56
9:L:33:GLN:NE2	9:L:227:PHE:O	2.38	0.56
8:M:354:VAL:HB	9:N:473:LEU:HD11	1.87	0.56
1:O:51:LEU:O	1:O:55:THR:HG23	2.06	0.56
1:O:1104:LEU:HD22	1:O:1134:LEU:HD13	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1209:LYS:HA	1:O:1212:LEU:HD12	1.88	0.56
1:O:2538:ARG:NH1	1:O:2561:PHE:O	2.39	0.56
1:o:172:GLU:HB2	1:o:219:VAL:HG12	1.87	0.56
1:o:3925:LEU:HD22	1:o:3964:THR:HG21	1.87	0.56
4:a:54:TYR:HD2	5:b:39:ARG:HB2	1.70	0.56
1:O:894:PHE:HZ	1:O:2787:HIS:HD2	1.52	0.56
1:O:3427:GLU:OE2	1:O:3474:ARG:NH2	2.39	0.56
5:B:91:LYS:HD3	5:B:96:THR:HB	1.88	0.56
1:o:1420:ARG:HH22	1:o:1469:PRO:HD3	1.71	0.56
1:o:1770:GLN:OE1	1:o:1822:ARG:NH2	2.39	0.56
1:o:2366:LYS:HZ3	1:o:2370:SER:HB3	1.71	0.56
1:o:2392:VAL:O	1:o:2395:THR:OG1	2.22	0.56
5:b:67:ARG:HA	5:b:70:VAL:HG12	1.87	0.56
6:I:67:DG:H2'	6:I:68:DC:H5'	1.87	0.56
1:O:1418:HIS:O	1:O:1422:LYS:N	2.35	0.56
1:O:2246:LYS:NZ	1:O:2284:ASP:OD1	2.28	0.56
4:E:100:LEU:HD12	5:F:58:LEU:HG	1.88	0.56
1:o:448:GLN:NE2	1:o:521:VAL:O	2.25	0.56
1:o:2833:THR:O	1:o:2837:LEU:HG	2.06	0.56
5:f:55:ARG:NH1	5:f:55:ARG:O	2.39	0.56
6:i:79:DG:H22	7:j:75:DC:H42	1.52	0.56
8:K:479:GLU:OE1	8:K:484:GLN:NE2	2.29	0.56
9:L:20:MET:HB3	9:L:31:PHE:HD1	1.71	0.56
9:L:411:HIS:ND1	9:L:418:CYS:SG	2.79	0.56
9:L:609:PHE:HD2	9:L:612:ALA:HB2	1.71	0.56
8:M:261:LEU:C	8:M:268:VAL:H	2.13	0.56
1:O:23:ASP:HA	1:O:34:LEU:HD11	1.88	0.55
1:O:1055:ASN:O	1:O:1058:SER:OG	2.24	0.55
1:O:1414:ILE:O	1:O:1418:HIS:ND1	2.38	0.55
1:O:1527:ARG:O	1:O:1531:LEU:N	2.33	0.55
1:O:2368:THR:HG21	1:O:2400:VAL:HG22	1.87	0.55
1:O:3772:ASN:OD1	1:O:3788:LEU:N	2.38	0.55
1:o:207:GLN:HE21	1:o:212:VAL:HG21	1.71	0.55
1:o:1725:GLN:NE2	1:o:1727:ARG:HE	2.05	0.55
1:o:3029:LYS:N	1:o:3033:GLU:OE1	2.39	0.55
1:o:3698:GLU:HG3	1:o:3720:ALA:HB2	1.87	0.55
1:O:994:TRP:HB2	1:O:2781:PRO:HD2	1.87	0.55
1:O:1444:ASP:O	1:O:1447:ARG:HB3	2.04	0.55
1:O:1696:LEU:N	1:O:1697:PRO:HD2	2.21	0.55
1:O:3007:GLU:HB3	1:O:3010:SER:HB3	1.88	0.55
1:O:3701:ILE:HB	1:O:3704:GLN:CD	2.30	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:c:97:LEU:HB3	3:c:100:VAL:HB	1.88	0.55
8:M:490:LEU:O	8:M:494:ALA:CB	2.54	0.55
1:O:91:ILE:HD12	1:O:834:LEU:HD12	1.88	0.55
1:O:1365:ASN:HD21	1:O:1370:ARG:HH12	1.54	0.55
1:O:1625:HIS:HB3	1:O:1628:LYS:HD3	1.88	0.55
1:O:2246:LYS:HZ3	1:O:2283:ASN:HB3	1.71	0.55
1:O:3793:VAL:HG13	1:O:3795:PRO:HD3	1.88	0.55
2:d:76:ARG:NH1	2:d:80:TYR:OH	2.40	0.55
4:E:83:ARG:HH12	7:j:53:DG:H21	1.52	0.55
1:o:1627:LYS:HE2	1:o:1670:GLU:HG3	1.88	0.55
1:o:3486:GLU:HB2	1:o:3513:ALA:HB3	1.88	0.55
6:i:117:DC:H2"	6:i:118:DC:C4	2.41	0.55
6:i:140:DG:N2	7:j:15:DC:O2	2.39	0.55
8:K:90:THR:HA	8:K:137:HIS:HA	1.88	0.55
1:O:124:LYS:HD2	7:j:11:DA:H5"	1.87	0.55
1:O:2535:THR:OG1	1:O:2536:LEU:N	2.39	0.55
1:O:3301:LEU:O	1:O:3302:LYS:HG2	2.06	0.55
1:O:3714:GLU:O	1:O:3718:ARG:NH2	2.38	0.55
1:O:3824:GLU:OE1	1:O:3824:GLU:N	2.39	0.55
1:O:4105:LYS:O	1:O:4109:ASP:N	2.39	0.55
1:o:759:GLY:HA2	1:o:765:LEU:HB2	1.88	0.55
1:o:2254:ARG:NH2	1:o:2293:GLY:O	2.39	0.55
1:o:3354:ASP:H	1:o:3357:ARG:HB3	1.71	0.55
1:o:3730:ALA:HA	1:o:3734:ARG:HA	1.88	0.55
1:o:3959:MET:HG2	1:o:4116:ILE:HD11	1.86	0.55
8:K:316:THR:OG1	8:K:318:ARG:NH2	2.30	0.55
1:o:1037:LEU:HD21	1:o:1059:LEU:HD12	1.89	0.55
1:o:2090:ARG:N	1:o:2180:GLU:OE1	2.40	0.55
1:o:2572:TYR:HE1	1:o:2791:ILE:HD11	1.70	0.55
4:a:47:ALA:HB1	5:b:39:ARG:NH1	2.22	0.55
4:a:69:ARG:NH2	7:J:94:DA:OP2	2.33	0.55
4:e:72:ARG:NH2	4:e:82:LEU:O	2.40	0.55
9:N:655:PHE:HA	9:N:658:PHE:HB2	1.87	0.55
1:O:1342:MET:O	1:O:1346:THR:HG23	2.06	0.55
1:O:1590:THR:HA	1:O:1593:VAL:HG22	1.89	0.55
1:O:2281:MET:HE1	1:O:2287:PRO:HA	1.89	0.55
1:O:2551:GLU:HA	1:O:2554:PHE:HB3	1.88	0.55
5:F:37:LEU:HD23	5:F:40:ARG:HD2	1.89	0.55
1:o:3922:ASP:HB3	1:o:3927:ASN:HB2	1.89	0.55
8:K:378:SER:O	8:K:379:SER:C	2.49	0.55
9:L:20:MET:HB3	9:L:31:PHE:CD1	2.42	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:335:SER:OG	9:L:399:LYS:O	2.24	0.55
8:M:74:LYS:O	8:M:78:SER:N	2.39	0.55
1:O:942:LEU:O	1:O:946:THR:HG23	2.07	0.55
1:O:1104:LEU:O	1:O:1108:MET:HG2	2.07	0.55
1:O:2410:GLU:O	1:O:2412:TYR:N	2.40	0.55
1:O:3483:MET:HE1	1:O:3514:VAL:H	1.72	0.55
2:D:58:ILE:HA	5:B:99:GLY:HA2	1.88	0.55
4:A:85:GLN:HG3	5:B:82:THR:HG22	1.88	0.55
1:o:2953:THR:OG1	1:o:2994:TRP:NE1	2.39	0.55
7:j:30:DT:H2''	7:j:31:DC:C4	2.40	0.55
8:M:262:LYS:CB	8:M:268:VAL:HB	2.37	0.55
8:M:446:MET:SD	9:N:363:LYS:NZ	2.80	0.55
9:N:20:MET:HE1	9:N:136:THR:HA	1.88	0.55
1:O:2165:LEU:HD23	1:O:2193:ILE:HD12	1.89	0.55
1:O:2342:CYS:O	1:O:2345:VAL:HB	2.07	0.55
1:O:3611:GLU:HA	1:O:3614:TYR:HB2	1.89	0.55
1:O:3813:LYS:HG2	1:O:3925:LEU:HB3	1.89	0.55
1:O:3871:PHE:CG	1:O:4117:LEU:HB2	2.40	0.55
2:d:99:LEU:N	2:d:100:PRO:HD2	2.21	0.55
1:o:2405:VAL:HG13	1:o:2441:LYS:HD2	1.88	0.55
1:o:3518:VAL:HG13	1:o:3558:ILE:HD11	1.88	0.55
1:o:3582:GLU:HG2	1:o:3672:LYS:HD2	1.89	0.55
1:O:956:PRO:HB2	1:O:957:PRO:HD3	1.87	0.55
1:O:2771:LEU:HD23	1:O:2773:ARG:H	1.70	0.55
1:O:3130:GLN:HB3	1:O:3178:ILE:HG12	1.87	0.55
1:o:1055:ASN:ND2	1:o:1057:LYS:HB2	2.21	0.55
1:o:2304:VAL:HA	1:o:2307:MET:HG2	1.88	0.55
1:o:2571:ASP:O	1:o:2787:HIS:ND1	2.40	0.55
4:a:126:LEU:HD13	4:e:113:HIS:HB2	1.89	0.55
2:h:42:LEU:HA	2:h:45:VAL:HG22	1.89	0.55
7:J:15:DC:H2''	7:J:16:DG:C8	2.42	0.55
8:M:514:MET:HA	8:M:517:ARG:HE	1.72	0.55
1:O:489:ARG:NH1	1:O:527:TYR:OH	2.40	0.55
1:O:3007:GLU:O	1:O:3010:SER:N	2.40	0.55
1:o:2392:VAL:HA	1:o:2431:ARG:HH12	1.72	0.55
1:o:3681:LYS:HE2	1:o:3684:SER:HB2	1.88	0.55
1:o:3754:GLY:HA2	1:o:3800:LEU:HD12	1.89	0.55
1:o:3795:PRO:HA	1:o:3801:GLY:HA2	1.89	0.55
2:h:31:LYS:HZ2	2:h:32:GLU:HG2	1.72	0.55
6:i:60:DT:H3	7:j:94:DA:H61	1.53	0.55
8:K:276:LEU:O	9:L:431:ARG:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:M:505:ASP:OD1	8:M:508:LEU:N	2.40	0.55
1:O:64:GLY:HA2	1:O:67:VAL:HG22	1.88	0.54
1:O:418:ALA:HB2	1:O:464:VAL:HG12	1.88	0.54
1:O:2294:ILE:HG13	1:O:2295:GLN:H	1.72	0.54
4:A:64:LYS:HG2	4:A:93:GLN:NE2	2.22	0.54
2:d:112:THR:O	2:d:115:VAL:HG22	2.07	0.54
1:o:827:ASN:OD1	1:o:828:LYS:NZ	2.40	0.54
1:o:892:LEU:HD11	1:o:941:MET:HE1	1.89	0.54
1:o:928:VAL:HG21	1:o:2769:VAL:HG11	1.90	0.54
1:o:2443:MET:SD	1:o:2443:MET:N	2.79	0.54
8:M:259:LEU:HD22	8:M:344:GLY:HA2	1.89	0.54
1:O:1658:SER:O	1:O:1662:ASN:ND2	2.40	0.54
1:O:1676:ILE:HG12	1:O:1713:VAL:HG11	1.89	0.54
1:O:1718:ILE:HA	1:O:1721:HIS:HD1	1.73	0.54
1:O:3154:GLN:O	1:O:3159:ARG:NH2	2.40	0.54
1:O:3590:ASN:HA	1:O:3593:ARG:HE	1.72	0.54
1:o:646:VAL:HG11	1:o:680:ILE:HD11	1.89	0.54
1:o:3959:MET:HG3	1:o:4124:TRP:HZ2	1.72	0.54
3:g:33:LEU:HB3	2:h:67:PHE:CZ	2.41	0.54
2:h:116:THR:O	2:h:119:THR:HG22	2.06	0.54
6:i:97:DG:N2	7:j:57:DC:O3'	2.40	0.54
9:L:230:SER:HA	9:L:235:CYS:HB2	1.89	0.54
9:L:313:GLY:HA2	9:L:323:PHE:H	1.73	0.54
1:O:1301:ILE:HG21	1:O:1371:VAL:HB	1.89	0.54
1:O:1537:VAL:HA	1:O:1554:SER:HA	1.89	0.54
1:O:1916:ILE:HG21	1:O:1951:VAL:HG21	1.89	0.54
1:O:3113:ASN:O	1:O:3117:ILE:HD12	2.07	0.54
1:O:3150:ASN:HB2	1:O:3153:SER:HB2	1.90	0.54
1:O:3446:VAL:O	1:O:3450:MET:HG3	2.07	0.54
2:D:92:GLN:HE22	2:D:96:ARG:HH22	1.56	0.54
4:E:65:LEU:HD22	6:i:96:DC:H41	1.71	0.54
1:o:387:GLU:O	1:o:390:GLN:HG3	2.07	0.54
1:o:531:PHE:HA	1:o:534:LEU:HD12	1.89	0.54
1:o:1783:ARG:NH1	1:o:1829:TRP:HB3	2.21	0.54
1:o:2220:MET:HE1	1:o:2238:ILE:HG13	1.90	0.54
1:o:3443:PRO:HD2	1:o:3478:GLU:HG3	1.89	0.54
6:i:51:DC:O2	7:j:104:DG:N2	2.31	0.54
7:J:88:DG:H2''	7:J:89:DT:H5''	1.90	0.54
6:I:25:DC:H2''	6:I:26:DG:C8	2.42	0.54
8:K:94:LYS:H	8:K:103:TYR:HA	1.72	0.54
1:O:1766:LEU:HA	1:O:1773:VAL:HG21	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2588:GLU:HA	1:O:2776:ARG:HA	1.88	0.54
1:O:2967:GLU:O	1:O:2971:GLN:HG2	2.08	0.54
1:o:305:ASN:O	1:o:308:LEU:N	2.35	0.54
1:o:1037:LEU:HD13	1:o:1056:THR:HG22	1.90	0.54
1:o:1111:LEU:HG	1:o:1115:HIS:CE1	2.42	0.54
1:o:2168:LEU:HA	1:o:2171:LEU:HD12	1.89	0.54
1:o:2560:ASN:HD22	1:o:2795:GLN:HB2	1.72	0.54
1:o:3179:TRP:HZ3	1:o:3238:MET:HE1	1.71	0.54
1:o:3950:THR:O	1:o:4068:HIS:ND1	2.39	0.54
9:N:85:LEU:HD12	9:N:86:PRO:HD2	1.89	0.54
1:O:1507:CYS:HA	1:O:1510:LEU:HD12	1.89	0.54
1:O:3738:ILE:HD11	1:O:3752:VAL:HG12	1.89	0.54
4:A:69:ARG:NH2	7:j:94:DA:OP2	2.40	0.54
5:B:67:ARG:NH1	5:B:68:ASP:OD1	2.40	0.54
1:o:2863:CYS:HB3	1:o:2892:LEU:HD11	1.89	0.54
1:o:3842:TRP:CD1	1:o:3858:MET:HB3	2.42	0.54
5:b:71:THR:HG21	2:h:97:LEU:HD23	1.89	0.54
8:M:121:GLN:NE2	8:M:134:MET:SD	2.80	0.54
1:O:1093:GLU:OE1	1:O:1093:GLU:N	2.35	0.54
1:O:1715:GLU:HA	1:O:1718:ILE:HG12	1.90	0.54
1:O:3313:SER:OG	1:O:3319:ASN:O	2.24	0.54
1:O:3795:PRO:HA	1:O:3801:GLY:HA3	1.89	0.54
2:D:77:LEU:HD13	2:D:93:THR:HB	1.89	0.54
1:o:1583:MET:O	1:o:1586:SER:OG	2.22	0.54
1:o:2347:LYS:O	1:o:2351:GLN:N	2.41	0.54
1:o:3045:ILE:HA	1:o:3048:LYS:HD2	1.89	0.54
1:O:1428:ILE:HA	1:O:1431:LEU:HB2	1.88	0.54
1:O:2219:LEU:O	1:O:2223:VAL:N	2.41	0.54
1:O:2314:GLU:OE1	1:O:2314:GLU:N	2.40	0.54
1:O:3946:PHE:HZ	1:O:4047:ALA:HB2	1.73	0.54
1:o:1297:PHE:O	1:o:1370:ARG:NH2	2.41	0.54
1:o:1922:ALA:O	1:o:1941:HIS:ND1	2.41	0.54
6:I:63:DA:H2"	6:I:64:DA:C5	2.43	0.54
1:O:542:ASP:HA	1:O:545:LEU:HB2	1.89	0.54
1:O:782:ARG:HH22	1:O:3168:TYR:HE1	1.55	0.54
1:O:886:TRP:CE3	1:O:964:ARG:HG3	2.43	0.54
1:O:1092:GLU:HG3	1:O:1095:LEU:HD12	1.89	0.54
1:O:1490:GLY:C	1:O:1492:ALA:H	2.15	0.54
1:O:2461:PHE:HB2	1:O:2473:MET:HE1	1.89	0.54
5:F:80:THR:HG23	6:i:104:DG:H4'	1.89	0.54
1:o:865:GLN:OE1	1:o:3171:ALA:O	2.26	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1528:LEU:HD13	1:o:1567:ILE:HG12	1.90	0.54
1:o:4104:VAL:O	1:o:4108:MET:HG3	2.07	0.54
7:j:11:DA:H2"	7:j:12:DT:C5	2.43	0.54
9:L:663:GLN:NE2	9:L:703:LYS:O	2.41	0.54
1:O:100:ILE:HG22	1:O:100:ILE:O	2.08	0.54
1:O:334:HIS:HA	1:O:337:LYS:HD3	1.90	0.54
1:O:4092:GLN:HG3	1:O:4106:CYS:SG	2.48	0.54
1:O:4104:VAL:HA	1:O:4107:LEU:HD12	1.90	0.54
3:C:91:GLU:HA	3:C:95:LYS:HE2	1.87	0.54
1:o:2452:ARG:HH11	1:o:2497:GLU:HB2	1.73	0.54
1:o:3327:ASN:HB3	1:o:3384:HIS:O	2.08	0.54
1:o:3485:LYS:O	1:o:3488:SER:HB2	2.08	0.54
1:o:4098:LEU:HD11	1:o:4103:GLN:HB2	1.90	0.54
5:f:55:ARG:HH11	5:f:58:LEU:HB2	1.71	0.54
7:J:22:DG:H2"	7:J:23:DA:N7	2.23	0.54
8:K:94:LYS:N	8:K:103:TYR:HA	2.23	0.54
8:K:217:TYR:O	8:K:220:ILE:N	2.40	0.54
8:K:420:LEU:HA	8:K:426:GLN:HA	1.89	0.54
9:N:533:ILE:O	9:N:537:PHE:N	2.40	0.54
1:O:2533:SER:O	1:O:2535:THR:N	2.40	0.54
1:O:3156:PRO:C	1:O:3158:LYS:N	2.64	0.54
4:A:86:SER:O	4:A:90:MET:HG2	2.08	0.54
1:o:1111:LEU:HG	1:o:1115:HIS:HE1	1.72	0.54
1:o:2123:PRO:HA	1:o:2127:LYS:HG2	1.88	0.54
1:o:3048:LYS:HB3	1:o:3061:LEU:HD22	1.90	0.54
1:o:3737:ARG:HH21	1:o:3749:PRO:HB2	1.73	0.54
7:j:130:DT:H2"	7:j:131:DG:C8	2.42	0.54
9:N:406:GLY:HA2	9:N:424:LEU:HB2	1.89	0.54
9:N:677:ILE:HA	9:N:680:GLN:HB3	1.90	0.54
1:O:333:MET:N	1:O:333:MET:SD	2.78	0.53
1:O:1288:SER:O	1:O:1292:LYS:N	2.29	0.53
1:O:1651:LYS:O	1:O:1655:ILE:HD12	2.08	0.53
1:O:2218:PHE:O	1:O:2222:HIS:ND1	2.41	0.53
1:O:2346:ALA:HA	1:O:2349:LEU:HB2	1.90	0.53
1:o:327:VAL:HA	1:o:330:ASN:HB2	1.89	0.53
1:o:718:MET:HE2	1:o:726:LEU:HD11	1.90	0.53
1:o:893:SER:O	1:o:944:LYS:NZ	2.39	0.53
1:o:897:PRO:HG3	1:o:2787:HIS:HB3	1.88	0.53
1:o:1115:HIS:CD2	1:o:1182:GLU:HB3	2.43	0.53
1:o:2337:LEU:HD12	1:o:2338:GLU:HG3	1.89	0.53
1:o:2817:LEU:HD13	1:o:2865:HIS:CG	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:j:84:DC:HI'	7:j:85:DC:C2	2.43	0.53
8:K:168:LEU:HB3	8:K:202:LEU:HB2	1.90	0.53
9:L:20:MET:HE1	9:L:136:THR:HB	1.89	0.53
9:N:87:ASP:O	9:N:91:LEU:N	2.30	0.53
9:N:656:ASN:ND2	9:N:690:GLU:OE2	2.40	0.53
1:O:13:LEU:HB2	1:O:59:PHE:CZ	2.43	0.53
1:O:2985:GLU:OE2	1:O:2991:LYS:NZ	2.31	0.53
1:O:3795:PRO:HA	1:O:3801:GLY:CA	2.39	0.53
1:o:392:CYS:HB3	1:o:438:LEU:HD21	1.89	0.53
8:K:40:PHE:HD2	8:K:85:VAL:HB	1.73	0.53
1:O:13:LEU:HB2	1:O:59:PHE:CE1	2.42	0.53
1:O:151:GLU:OE1	1:O:151:GLU:N	2.40	0.53
1:O:1536:ALA:HB3	1:O:1555:HIS:HB2	1.90	0.53
1:O:1840:PHE:O	1:O:1844:VAL:HG23	2.08	0.53
1:O:2965:TYR:HB3	1:O:3001:CYS:SG	2.48	0.53
5:B:56:GLY:O	5:B:59:LYS:HB3	2.08	0.53
1:o:1039:TRP:CH2	1:o:2779:ASP:HB2	2.44	0.53
1:o:2133:LEU:HD11	1:o:2171:LEU:HD11	1.90	0.53
1:o:2173:ALA:HA	1:o:2215:LEU:HD21	1.90	0.53
1:o:3155:VAL:H	1:o:3158:LYS:HE3	1.73	0.53
6:I:69:DG:H2'	6:I:70:DG:C8	2.43	0.53
8:K:288:LEU:HA	8:K:295:PRO:HA	1.89	0.53
8:K:383:SER:HB3	9:L:438:LEU:HD11	1.90	0.53
1:O:1505:LEU:HA	1:O:1508:LYS:HD2	1.90	0.53
1:O:1794:GLN:O	1:O:1798:LEU:HG	2.08	0.53
1:O:1820:VAL:HA	1:O:1824:LEU:HD22	1.89	0.53
1:O:2376:ASP:OD1	1:O:2404:ARG:NH2	2.40	0.53
1:O:2510:LEU:O	1:O:2518:GLN:NE2	2.39	0.53
1:O:2988:GLU:HA	1:O:2991:LYS:HE2	1.91	0.53
2:D:99:LEU:HD12	2:D:103:LEU:HB3	1.89	0.53
3:G:66:ALA:HB1	3:G:82:HIS:HE1	1.73	0.53
3:G:80:PRO:HA	3:G:83:LEU:HD12	1.91	0.53
4:A:122:LYS:O	4:A:125:GLN:HG3	2.08	0.53
1:o:3545:THR:OG1	1:o:3546:SER:N	2.40	0.53
3:g:56:GLU:HG2	2:h:41:VAL:HG22	1.91	0.53
8:K:321:ILE:HG12	8:K:326:GLN:HG2	1.90	0.53
8:K:473:TYR:HB3	9:L:350:GLN:HB3	1.88	0.53
8:M:165:ARG:HE	8:M:199:PHE:HB2	1.73	0.53
8:M:480:ASN:HB3	8:M:483:LEU:HB2	1.90	0.53
1:O:1372:LEU:HD21	1:O:1403:MET:HE1	1.91	0.53
1:O:2300:PHE:HA	1:O:2303:LEU:HD12	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2533:SER:HB3	1:O:2538:ARG:HH21	1.73	0.53
1:O:2897:LEU:HD21	1:O:2923:TRP:CD2	2.43	0.53
1:o:132:ILE:HB	1:o:173:LYS:NZ	2.24	0.53
1:o:738:HIS:O	1:o:742:GLU:HG3	2.08	0.53
1:o:990:GLN:HB3	1:o:2781:PRO:HG3	1.89	0.53
1:o:3595:GLU:O	1:o:3601:VAL:N	2.41	0.53
8:K:60:PHE:HZ	8:K:122:PHE:HD2	1.56	0.53
9:L:483:PRO:HG2	9:L:488:GLN:HE22	1.74	0.53
9:N:140:SER:O	9:N:201:GLN:NE2	2.41	0.53
1:O:918:ALA:HB1	1:O:972:LEU:HD11	1.90	0.53
1:O:3455:LYS:HD3	1:O:3489:SER:HA	1.89	0.53
3:C:26:PRO:HD2	3:C:29:ARG:HH12	1.74	0.53
2:H:86:ILE:HD12	2:H:90:GLU:HB3	1.89	0.53
3:G:32:ARG:NE	7:j:33:DA:OP1	2.31	0.53
1:o:213:ARG:HH22	8:M:339:ARG:HG2	1.73	0.53
1:o:2213:ASN:ND2	1:o:2248:CYS:O	2.42	0.53
1:o:2331:MET:SD	1:o:2335:ASN:N	2.82	0.53
1:o:4055:ASN:HB2	1:o:4095:GLU:HA	1.91	0.53
4:a:57:SER:O	5:b:40:ARG:NH1	2.40	0.53
8:K:112:GLY:O	8:K:113:ALA:C	2.52	0.53
1:O:197:PHE:HA	1:O:200:PHE:CE2	2.44	0.53
1:O:1260:LEU:HD22	1:O:1293:ALA:HB2	1.91	0.53
1:O:1426:GLN:OE1	1:O:1426:GLN:N	2.41	0.53
1:O:1733:THR:HG23	1:O:1736:PHE:H	1.72	0.53
1:O:4120:THR:HG21	1:O:4126:PRO:HB3	1.89	0.53
2:H:93:THR:O	2:H:97:LEU:HG	2.08	0.53
4:E:72:ARG:HG3	7:j:54:DC:H5"	1.91	0.53
1:o:1173:LEU:HB2	1:o:1191:PHE:CE1	2.44	0.53
1:o:1271:ILE:O	1:o:1274:ARG:NH1	2.33	0.53
1:o:3113:ASN:O	1:o:3117:ILE:N	2.39	0.53
1:o:3295:GLU:HA	1:o:3298:LEU:HD12	1.89	0.53
1:o:3567:VAL:HG21	1:o:3696:ARG:HH12	1.74	0.53
4:e:46:VAL:HG23	6:I:85:DG:H4'	1.91	0.53
7:J:35:DT:H3	6:I:119:DA:H2	1.55	0.53
8:K:113:ALA:C	8:K:115:ARG:N	2.65	0.53
8:K:217:TYR:O	8:K:221:ILE:N	2.35	0.53
9:L:40:MET:O	9:L:43:GLN:NE2	2.40	0.53
8:M:60:PHE:O	8:M:64:ILE:HG12	2.08	0.53
1:O:863:GLY:HA3	1:O:3167:ARG:NE	2.23	0.53
1:O:1769:GLU:HB2	1:O:1772:HIS:CD2	2.43	0.53
1:O:1871:MET:HE1	1:O:1940:TYR:N	2.24	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2254:ARG:NE	1:O:2292:CYS:O	2.32	0.53
1:o:1066:LEU:HA	1:o:1069:HIS:ND1	2.23	0.53
1:o:2349:LEU:HB3	1:o:2360:PHE:CE1	2.44	0.53
1:o:2386:LEU:HB3	1:o:2387:PRO:HD3	1.91	0.53
1:o:2474:TYR:O	1:o:2478:MET:HG2	2.09	0.53
1:o:3392:ALA:HB1	1:o:3409:VAL:HA	1.91	0.53
8:K:505:ASP:O	8:K:506:LEU:C	2.50	0.53
8:M:325:ARG:NH1	8:M:326:GLN:O	2.42	0.53
8:M:347:LEU:HA	8:M:398:CYS:HA	1.91	0.53
8:M:522:VAL:O	8:M:526:LYS:NZ	2.42	0.53
1:O:327:VAL:HA	1:O:333:MET:HE2	1.91	0.53
1:O:997:ASN:OD1	1:O:998:ASN:N	2.42	0.53
1:O:1300:SER:HA	1:O:1304:HIS:HB2	1.90	0.53
1:O:2883:SER:O	1:O:2885:GLN:NE2	2.38	0.53
3:G:81:ARG:NH1	3:G:107:VAL:O	2.37	0.53
5:B:47:SER:HB2	5:B:50:ILE:HG12	1.90	0.53
1:o:955:ALA:C	1:o:957:PRO:HD3	2.33	0.53
1:o:1038:LYS:HD2	1:o:1042:LYS:HZ2	1.72	0.53
1:o:1623:LEU:HD22	1:o:1671:VAL:HG11	1.90	0.53
1:o:2219:LEU:O	1:o:2223:VAL:HG23	2.08	0.53
1:o:2281:MET:HG2	1:o:2325:LEU:HD13	1.90	0.53
1:o:2438:ILE:O	1:o:2442:MET:HE1	2.09	0.53
8:K:397:LEU:HD13	8:K:437:LEU:HD13	1.90	0.53
8:K:492:ALA:HB2	8:K:500:PRO:HB3	1.90	0.53
9:L:109:ASP:HA	9:L:112:ILE:HD12	1.91	0.53
8:M:262:LYS:N	8:M:266:ASP:O	2.41	0.53
8:M:459:VAL:HA	8:M:462:MET:HE2	1.90	0.53
8:M:493:LEU:HD23	9:N:323:PHE:CD1	2.44	0.53
9:N:396:ALA:HA	9:N:404:GLN:HE21	1.73	0.53
1:O:79:ARG:NH2	1:O:124:LYS:HB3	2.24	0.53
1:O:741:ILE:HD13	1:O:776:TRP:NE1	2.24	0.53
1:O:1603:GLN:HA	1:O:1606:ARG:HG2	1.91	0.53
1:O:2142:ILE:HA	1:O:2145:PHE:HD2	1.74	0.53
1:O:3289:ARG:NE	1:O:3291:GLN:OE1	2.40	0.53
1:O:3909:ALA:O	1:O:3984:MET:HE1	2.09	0.53
1:o:19:LEU:HB3	1:o:34:LEU:HD23	1.90	0.53
1:o:939:MET:HG3	1:o:2783:ILE:HD13	1.90	0.53
1:o:1333:SER:O	1:o:1337:VAL:HG23	2.09	0.53
1:o:1675:TYR:OH	1:o:1693:VAL:HA	2.09	0.53
1:o:3182:ILE:O	1:o:3186:ARG:HG2	2.09	0.53
1:o:3833:ARG:HA	1:o:3877:LYS:HE3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:4011:PHE:O	1:o:4015:ASN:ND2	2.41	0.53
4:e:70:LEU:HD12	5:f:25:ASN:HB3	1.90	0.53
8:K:47:ALA:O	8:K:49:PHE:N	2.42	0.53
9:L:613:SER:HA	9:L:616:LEU:HD12	1.90	0.53
9:L:632:PHE:CZ	9:L:678:VAL:HG22	2.43	0.53
8:M:41:LEU:HG	8:M:88:TYR:CE2	2.43	0.53
8:M:86:VAL:O	8:M:86:VAL:HG12	2.09	0.53
8:M:108:LEU:HD13	8:M:157:VAL:HG22	1.89	0.53
1:O:337:LYS:HB3	1:O:369:PHE:HE1	1.74	0.52
1:O:2257:PHE:HA	1:O:2260:PHE:CE2	2.44	0.52
1:O:3311:ASN:HB3	1:O:3314:SER:HA	1.91	0.52
1:O:3589:SER:O	1:O:3593:ARG:NE	2.43	0.52
1:O:3794:VAL:O	1:O:3801:GLY:HA2	2.09	0.52
1:o:1128:CYS:HA	1:o:1131:ILE:HG12	1.92	0.52
1:o:1611:GLN:HE21	1:o:1614:GLN:HG3	1.74	0.52
1:o:3007:GLU:HA	1:o:3257:LYS:HE2	1.91	0.52
1:o:4082:ARG:NH2	1:o:4083:GLY:O	2.42	0.52
6:i:42:DG:N2	7:j:114:DC:O4'	2.43	0.52
6:l:126:DC:H1'	6:l:127:DG:H5'	1.91	0.52
8:K:480:ASN:O	8:K:484:GLN:NE2	2.42	0.52
8:K:495:LEU:HG	8:K:497:LEU:HG	1.91	0.52
9:L:417:GLU:N	9:L:417:GLU:OE1	2.42	0.52
8:M:259:LEU:HB3	8:M:344:GLY:HA2	1.91	0.52
8:M:303:PHE:HD1	8:M:310:LEU:HD13	1.74	0.52
8:M:367:PHE:CZ	8:M:429:PRO:HB2	2.44	0.52
9:N:230:SER:HA	9:N:234:LEU:HB3	1.90	0.52
1:O:643:GLU:HA	1:O:646:VAL:HG23	1.91	0.52
1:O:1165:LEU:O	1:O:1168:LEU:HG	2.09	0.52
1:O:2342:CYS:O	1:O:2346:ALA:N	2.30	0.52
1:O:3546:SER:O	1:O:3550:LYS:NZ	2.40	0.52
1:O:3680:LEU:HD23	1:O:3724:GLU:HB3	1.90	0.52
1:o:143:LEU:HD12	1:o:182:GLY:HA2	1.91	0.52
1:o:391:ARG:O	1:o:395:MET:N	2.41	0.52
1:o:894:PHE:HB2	1:o:907:LEU:HD11	1.91	0.52
4:a:72:ARG:HG2	4:a:84:PHE:CD2	2.44	0.52
7:j:116:DA:H2''	7:j:117:DG:C8	2.44	0.52
8:K:39:ILE:HA	8:K:84:ALA:O	2.08	0.52
9:L:489:ARG:HH11	9:L:508:ILE:HA	1.73	0.52
1:O:384:MET:O	1:O:388:LEU:HG	2.09	0.52
1:O:1529:VAL:O	1:O:1533:LEU:HG	2.10	0.52
1:O:2361:ILE:HA	1:O:2364:LEU:HD12	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2776:ARG:NE	1:O:2782:ASP:OD2	2.36	0.52
1:O:4127:TRP:CD1	1:O:4128:MET:HG2	2.44	0.52
2:D:100:PRO:HD2	2:D:103:LEU:HB2	1.91	0.52
4:A:62:ILE:HA	5:B:33:ALA:HB1	1.91	0.52
1:o:911:LEU:HD22	1:o:961:LEU:HD23	1.92	0.52
1:o:2936:TYR:O	1:o:2940:ARG:HG3	2.09	0.52
9:L:147:LEU:O	9:L:151:ILE:N	2.33	0.52
8:M:335:GLU:HB2	8:M:405:ASN:CG	2.35	0.52
8:M:484:GLN:O	8:M:488:ARG:HG2	2.09	0.52
1:O:1297:PHE:O	1:O:1301:ILE:HG12	2.10	0.52
1:O:1793:THR:O	1:O:1797:LEU:HG	2.10	0.52
1:O:2209:GLU:HG3	1:O:2248:CYS:SG	2.50	0.52
1:O:2333:ARG:NH2	1:O:2338:GLU:OE2	2.42	0.52
1:O:3145:ILE:HG23	1:O:3146:SER:H	1.73	0.52
4:A:119:ILE:C	4:A:120:MET:HE2	2.34	0.52
1:o:542:ASP:OD1	1:o:543:SER:N	2.41	0.52
1:o:737:PRO:HD2	1:o:740:ILE:HD11	1.90	0.52
1:o:2094:MET:HA	1:o:2097:LEU:HD13	1.90	0.52
1:o:2270:ASN:ND2	1:o:2306:ASN:OD1	2.41	0.52
1:o:2395:THR:O	1:o:2399:GLU:N	2.30	0.52
1:o:3953:LEU:HB3	1:o:3955:VAL:HG22	1.91	0.52
7:j:100:DA:H2''	7:j:101:DA:C8	2.45	0.52
7:J:96:DC:H1'	7:J:97:DG:N7	2.24	0.52
8:K:413:LEU:HB3	8:K:432:PHE:CD1	2.44	0.52
8:M:335:GLU:O	8:M:405:ASN:ND2	2.42	0.52
9:N:212:MET:HE1	9:N:223:GLU:HB2	1.91	0.52
9:N:267:ILE:HB	9:N:361:VAL:HB	1.90	0.52
1:O:649:PHE:O	1:O:652:GLU:HG3	2.10	0.52
1:O:1357:LYS:HE3	1:O:1411:TYR:H	1.74	0.52
1:O:2197:THR:OG1	1:O:2721:GLY:N	2.43	0.52
1:O:3589:SER:OG	1:O:3664:ASN:ND2	2.32	0.52
1:O:3991:PHE:O	1:O:3992:ARG:NE	2.42	0.52
2:D:30:ARG:NH1	7:j:31:DC:O2	2.42	0.52
2:D:34:TYR:HA	2:D:37:TYR:CD2	2.45	0.52
5:F:35:ARG:HG2	5:F:46:ILE:HG21	1.91	0.52
1:o:903:PRO:HB3	1:o:2819:GLU:HB2	1.91	0.52
1:o:1064:TYR:CG	1:o:1106:ILE:HG13	2.45	0.52
1:o:1083:ASN:HA	1:o:1133:HIS:CD2	2.44	0.52
1:o:2344:LEU:O	1:o:2347:LYS:HG2	2.10	0.52
1:o:2348:GLN:NE2	1:o:2351:GLN:OE1	2.42	0.52
1:o:3482:LEU:HB3	1:o:3486:GLU:HG3	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:M:194:ARG:NH2	8:M:219:ASP:O	2.43	0.52
9:N:11:VAL:HG21	9:N:118:ILE:HD11	1.91	0.52
1:O:935:HIS:CD2	1:O:2773:ARG:HH12	2.28	0.52
1:O:4092:GLN:NE2	1:O:4094:PRO:O	2.42	0.52
4:E:127:ALA:O	4:E:131:ARG:N	2.42	0.52
1:o:931:CYS:HB2	1:o:984:TYR:CE1	2.45	0.52
1:o:1139:GLU:OE2	1:o:1193:LYS:NZ	2.43	0.52
1:o:1303:MET:N	1:o:1303:MET:SD	2.83	0.52
1:o:2443:MET:HB3	1:o:2479:TRP:CZ2	2.45	0.52
1:o:3521:ILE:HG22	1:o:3529:ILE:HD11	1.92	0.52
4:e:82:LEU:HB3	5:f:81:VAL:HG23	1.90	0.52
6:i:23:DC:H2"	6:i:24:DA:N7	2.25	0.52
6:i:108:DT:H2"	6:i:109:DG:C8	2.44	0.52
8:K:154:PHE:HD2	8:K:198:ILE:HD13	1.74	0.52
8:M:262:LYS:H	8:M:267:ILE:CA	2.22	0.52
9:N:165:LEU:HD11	9:N:205:LEU:HD13	1.92	0.52
1:O:1034:ARG:NH2	1:O:1088:GLU:OE2	2.43	0.52
1:O:1824:LEU:O	1:O:1827:LEU:N	2.43	0.52
1:O:2327:LEU:O	1:O:2333:ARG:NH1	2.42	0.52
1:O:2380:ASN:ND2	8:K:192:ASP:HB2	2.23	0.52
3:G:35:ARG:HH11	3:G:43:VAL:HG12	1.75	0.52
1:o:200:PHE:HB3	1:o:224:LEU:HD13	1.92	0.52
1:o:1513:GLY:O	1:o:1516:GLU:HG2	2.10	0.52
1:o:3522:THR:HG21	1:o:3558:ILE:HG23	1.90	0.52
6:I:73:DG:N2	6:I:74:DA:N7	2.55	0.52
1:O:392:CYS:O	1:O:395:MET:HG3	2.09	0.52
1:O:865:GLN:N	1:O:3170:ASP:OD2	2.43	0.52
1:O:868:LYS:HE3	1:O:3173:MET:HG3	1.91	0.52
1:O:1206:LEU:O	1:O:1210:ASP:N	2.36	0.52
1:O:1370:ARG:O	1:O:1374:GLN:NE2	2.41	0.52
1:O:1920:TYR:O	1:O:1921:ASP:C	2.52	0.52
1:O:2168:LEU:HB2	1:O:2193:ILE:HD11	1.92	0.52
1:O:3931:ALA:O	1:O:3935:GLY:CA	2.58	0.52
1:o:658:THR:HG1	1:o:659:ARG:NH1	2.07	0.52
1:o:1413:ASP:OD1	1:o:1414:ILE:N	2.42	0.52
1:o:2814:SER:HA	1:o:2865:HIS:NE2	2.24	0.52
1:o:3157:LEU:HA	1:o:3160:LEU:HB2	1.92	0.52
1:o:3667:LEU:HA	1:o:3670:MET:SD	2.50	0.52
1:o:3859:TYR:HB3	1:o:4119:ARG:HE	1.75	0.52
5:b:26:ILE:HD12	5:b:29:ILE:HG13	1.91	0.52
8:M:260:LYS:HB3	8:M:269:ILE:C	2.35	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:N:40:MET:HG2	9:N:238:LYS:HB3	1.91	0.52
1:O:996:THR:HG21	1:O:1039:TRP:HD1	1.75	0.52
1:O:3091:LEU:HD21	1:O:3142:ILE:HD12	1.92	0.52
1:O:3378:TYR:HD1	1:O:3419:PHE:HE1	1.57	0.52
1:O:3940:ILE:HG13	1:O:3941:ASP:H	1.75	0.52
1:o:1153:LEU:HD12	1:o:1154:PRO:HD2	1.92	0.52
1:o:2133:LEU:HD21	1:o:2171:LEU:HD11	1.91	0.52
1:o:2187:VAL:HG23	1:o:2728:LEU:HD21	1.91	0.52
1:o:2477:LEU:HD22	1:o:2502:ALA:HA	1.92	0.52
1:o:2824:LYS:O	1:o:2829:LYS:NZ	2.43	0.52
1:o:3424:LEU:O	1:o:3475:TYR:OH	2.23	0.52
1:o:3742:GLY:N	1:o:3746:ARG:O	2.43	0.52
8:M:112:GLY:HA2	9:N:318:SER:HA	1.92	0.52
1:O:374:LYS:HA	1:O:381:VAL:HG22	1.92	0.52
1:O:938:VAL:HA	1:O:941:MET:HG3	1.92	0.52
1:O:984:TYR:HA	1:O:987:LEU:HB2	1.91	0.52
1:O:3285:HIS:O	1:O:3288:SER:OG	2.22	0.52
1:O:3483:MET:SD	1:O:3513:ALA:HB3	2.49	0.52
2:D:89:ARG:O	2:D:92:GLN:HG3	2.10	0.52
3:c:77:ARG:HH21	2:d:52:SER:HB3	1.75	0.52
1:o:2219:LEU:O	1:o:2223:VAL:N	2.42	0.52
1:o:4006:VAL:HG11	1:o:4009:PRO:HG3	1.92	0.52
5:b:73:THR:HG21	5:b:81:VAL:HG12	1.91	0.52
6:i:22:DA:H1'	6:i:23:DC:H5	1.74	0.52
8:K:263:LEU:HD22	8:K:347:LEU:HD22	1.92	0.52
8:K:397:LEU:HD11	8:K:410:PHE:HB3	1.90	0.52
8:K:471:PHE:H	9:L:345:PHE:HB2	1.75	0.52
9:L:14:MET:HE3	9:L:58:LEU:HD22	1.91	0.52
9:L:359:ASN:OD1	9:L:360:GLN:N	2.43	0.52
9:N:513:TRP:O	9:N:517:ASN:N	2.42	0.52
1:O:583:LEU:HD11	1:O:612:LEU:HB2	1.91	0.51
1:O:1322:THR:HG23	1:O:1328:GLU:N	2.26	0.51
1:O:1583:MET:HE1	1:O:1625:HIS:CG	2.45	0.51
1:O:1622:ILE:O	1:O:1626:TRP:N	2.42	0.51
1:O:2376:ASP:HB2	1:O:2377:ARG:HH11	1.74	0.51
1:O:3491:PRO:HD2	1:O:3494:GLN:NE2	2.25	0.51
1:O:4054:ALA:HA	1:O:4096:SER:HA	1.91	0.51
2:D:95:VAL:HG11	3:G:54:VAL:HG11	1.91	0.51
4:A:66:PRO:O	5:B:25:ASN:OD1	2.28	0.51
1:o:915:THR:HA	1:o:934:LEU:HD11	1.91	0.51
1:o:1049:GLN:HG3	1:o:1054:VAL:HG13	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1416:GLU:O	1:o:1419:LEU:HB2	2.10	0.51
1:o:1725:GLN:HE21	1:o:1727:ARG:HE	1.58	0.51
1:o:2302:ALA:O	1:o:2306:ASN:ND2	2.43	0.51
1:o:2724:ASP:N	1:o:2724:ASP:OD1	2.41	0.51
1:o:3530:VAL:HG12	1:o:3562:LEU:HD13	1.92	0.51
1:o:3901:ARG:HG3	1:o:3970:LEU:HD12	1.92	0.51
1:o:4045:CYS:HA	1:o:4048:LYS:HG2	1.92	0.51
2:h:91:ILE:HG13	2:h:95:VAL:HG21	1.92	0.51
7:J:64:DA:H1'	7:J:65:DC:C5	2.44	0.51
8:K:320:GLN:HG2	9:L:274:LYS:HG3	1.93	0.51
9:L:108:LEU:HD23	9:L:111:LEU:HD12	1.92	0.51
8:M:149:VAL:HA	8:M:152:ASN:HD21	1.75	0.51
8:M:319:SER:N	9:N:277:THR:O	2.42	0.51
1:O:363:ILE:O	1:O:416:SER:OG	2.23	0.51
1:O:717:LYS:HB3	1:O:721:TYR:CZ	2.46	0.51
1:O:935:HIS:HD2	1:O:2773:ARG:HH12	1.58	0.51
1:O:978:GLN:O	1:O:982:GLN:N	2.24	0.51
1:O:1830:HIS:ND1	1:O:1830:HIS:O	2.41	0.51
1:O:2776:ARG:HH22	1:O:2784:GLN:HB2	1.74	0.51
1:O:2821:ASP:HA	1:O:2829:LYS:HD2	1.92	0.51
1:O:3582:GLU:HA	1:O:3585:PHE:HB3	1.92	0.51
1:O:3684:SER:HB3	1:O:3688:SER:H	1.74	0.51
1:O:3882:LEU:O	1:O:3883:LEU:C	2.53	0.51
2:D:77:LEU:HA	2:D:80:TYR:CD2	2.44	0.51
4:A:103:LEU:HD11	4:A:124:ILE:HG23	1.91	0.51
1:o:491:CYS:SG	1:o:622:ALA:HB1	2.49	0.51
1:o:584:GLU:HB2	1:o:613:HIS:HB3	1.91	0.51
1:o:1100:VAL:H	1:o:1151:ARG:NH2	2.08	0.51
7:J:77:DC:H2''	7:J:78:DT:C5	2.45	0.51
9:L:457:LEU:HD13	9:L:529:PRO:HB2	1.92	0.51
8:M:112:GLY:O	8:M:114:LYS:N	2.40	0.51
8:M:295:PRO:O	8:M:297:LYS:NZ	2.32	0.51
8:M:487:PHE:HA	8:M:490:LEU:HD12	1.92	0.51
1:O:104:SER:O	1:O:105:VAL:C	2.53	0.51
1:O:374:LYS:HD2	1:O:423:TYR:HD2	1.74	0.51
1:O:583:LEU:HB2	1:O:614:PRO:HA	1.92	0.51
1:O:738:HIS:O	1:O:742:GLU:N	2.43	0.51
1:O:3951:GLN:N	1:O:4063:GLU:OE2	2.43	0.51
1:o:296:VAL:HA	1:o:299:LYS:HG2	1.92	0.51
1:o:344:GLN:O	1:o:348:ILE:HG12	2.11	0.51
1:o:3501:HIS:HE2	1:o:3763:ARG:HG2	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3761:ASP:O	1:o:3765:GLU:HG2	2.10	0.51
1:o:3793:VAL:HG23	1:o:3803:ILE:HA	1.92	0.51
7:J:76:DG:N2	6:I:79:DG:H1	2.09	0.51
8:K:468:LYS:HB2	8:K:518:LEU:HD12	1.91	0.51
8:M:39:ILE:HG12	8:M:166:ILE:HD12	1.93	0.51
9:N:640:ARG:NH2	9:N:681:ASP:O	2.44	0.51
1:O:1400:VAL:HG12	1:O:1404:LYS:HE2	1.92	0.51
1:O:1727:ARG:NH2	1:O:1770:GLN:O	2.42	0.51
1:O:2429:ASP:O	1:O:2432:GLN:N	2.42	0.51
1:O:3840:LYS:HA	1:O:3843:LEU:HB2	1.93	0.51
5:F:57:VAL:HA	5:F:60:VAL:HG12	1.91	0.51
1:o:165:LYS:HZ3	1:o:167:PRO:HG2	1.76	0.51
1:o:1378:GLU:HB2	1:o:1381:SER:HB2	1.93	0.51
1:o:2336:ILE:HG13	1:o:2338:GLU:H	1.73	0.51
1:o:3450:MET:HG3	1:o:3464:LYS:HD2	1.92	0.51
6:i:31:DT:H3	7:j:123:DA:H2	1.58	0.51
8:K:59:PRO:HA	8:K:62:MET:SD	2.50	0.51
8:K:115:ARG:O	8:K:119:LEU:N	2.43	0.51
8:K:189:LYS:O	8:K:193:LEU:HD23	2.10	0.51
8:K:360:HIS:HA	9:L:267:ILE:HD13	1.92	0.51
8:M:35:ARG:HB3	8:M:160:LYS:HB3	1.93	0.51
1:O:683:PHE:O	1:O:700:LYS:NZ	2.33	0.51
1:O:895:ALA:HA	1:O:904:VAL:HA	1.92	0.51
1:O:1358:LEU:O	1:O:1362:ASP:N	2.37	0.51
1:O:2094:MET:HB2	1:O:2097:LEU:HD13	1.93	0.51
1:O:2402:LEU:O	1:O:2405:VAL:HG23	2.11	0.51
1:O:2776:ARG:HH12	1:O:2784:GLN:HB2	1.76	0.51
1:O:3552:LYS:HA	1:O:3555:VAL:HG22	1.93	0.51
1:O:3569:GLN:HB2	1:O:3800:LEU:CD1	2.41	0.51
1:O:3679:ASN:OD1	1:O:3725:ARG:NH2	2.40	0.51
2:D:38:VAL:HG21	2:D:51:ILE:HD13	1.92	0.51
4:A:111:ALA:HB1	4:A:116:ARG:HB3	1.93	0.51
1:o:3559:LYS:HA	1:o:3562:LEU:HG	1.92	0.51
9:L:643:ARG:HH11	9:L:646:ALA:HB3	1.75	0.51
8:M:492:ALA:HB2	8:M:501:GLU:H	1.75	0.51
9:N:652:GLU:O	9:N:656:ASN:HB2	2.10	0.51
1:O:1034:ARG:HA	1:O:1085:ILE:HG22	1.93	0.51
1:O:2037:SER:HA	1:O:2040:MET:SD	2.50	0.51
1:O:3635:THR:O	1:O:3638:LYS:NZ	2.42	0.51
1:O:3704:GLN:OE1	1:O:3704:GLN:N	2.41	0.51
2:H:74:ALA:HB1	2:H:86:ILE:HG12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:A:75:ALA:O	4:A:79:LYS:N	2.32	0.51
1:o:19:LEU:HD21	1:o:37:GLY:HA3	1.92	0.51
1:o:1341:ILE:HB	1:o:1368:LEU:HD21	1.93	0.51
1:o:2473:MET:O	1:o:2477:LEU:HG	2.10	0.51
1:o:3718:ARG:O	1:o:3743:HIS:N	2.44	0.51
7:j:103:DG:H4'	7:j:104:DG:OP1	2.10	0.51
7:J:20:DC:OP2	9:N:275:THR:OG1	2.29	0.51
7:J:91:DT:H3	6:I:64:DA:H2	1.58	0.51
6:I:139:DG:N3	8:M:403:ARG:NH2	2.59	0.51
8:K:176:HIS:CD2	8:K:182:LYS:HE2	2.46	0.51
9:N:347:LYS:HG2	9:N:389:MET:HE1	1.93	0.51
1:O:200:PHE:CE1	1:O:228:SER:HB3	2.46	0.51
1:O:304:THR:HA	1:O:309:LYS:HD3	1.93	0.51
1:O:864:GLY:O	1:O:868:LYS:N	2.43	0.51
1:O:2348:GLN:HB2	1:O:2352:HIS:HE1	1.76	0.51
1:O:3155:VAL:C	1:O:3157:LEU:N	2.69	0.51
1:O:3301:LEU:HB2	1:O:3303:THR:O	2.11	0.51
1:O:3499:ILE:O	1:O:3503:VAL:N	2.37	0.51
1:O:3859:TYR:CD1	1:O:4119:ARG:HD2	2.45	0.51
4:A:83:ARG:NH2	6:i:53:DT:O4'	2.44	0.51
4:A:118:THR:HB	5:B:45:ARG:HB2	1.93	0.51
5:F:30:THR:HG21	7:j:64:DA:H3'	1.93	0.51
1:o:1431:LEU:HB3	1:o:1447:ARG:HH12	1.75	0.51
1:o:2563:LEU:HD11	1:o:2791:ILE:HB	1.93	0.51
1:o:2975:ALA:HB1	1:o:2994:TRP:CD2	2.46	0.51
1:o:3733:ARG:NH2	1:o:4014:LYS:O	2.44	0.51
1:o:3753:LYS:HD3	1:o:3758:LEU:HD21	1.93	0.51
8:K:35:ARG:HD3	8:K:159:PHE:CE2	2.46	0.51
8:K:142:SER:HA	8:K:182:LYS:HE3	1.91	0.51
8:K:352:PRO:HD3	9:L:464:ALA:HB2	1.93	0.51
8:K:477:SER:OG	8:K:478:PHE:N	2.38	0.51
8:M:52:GLN:HB3	8:M:59:PRO:HG2	1.91	0.51
9:N:56:LEU:HD11	9:N:58:LEU:HB3	1.91	0.51
1:O:463:LYS:HA	1:O:466:LEU:HD12	1.93	0.51
1:O:1525:CYS:O	1:O:1529:VAL:N	2.28	0.51
1:O:3147:LYS:O	1:O:3148:GLN:C	2.54	0.51
1:O:3572:ILE:HG22	1:O:3800:LEU:HD22	1.93	0.51
2:D:110:GLU:HG3	3:G:53:ALA:HB1	1.93	0.51
3:c:102:ILE:HG22	5:F:98:TYR:HB2	1.92	0.51
1:o:469:ALA:HA	1:o:475:LEU:HB2	1.92	0.51
1:o:1725:GLN:NE2	1:o:1727:ARG:H	2.08	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:123:DG:H2''	6:i:124:DA:C8	2.46	0.51
6:I:139:DG:O3'	8:M:404:ARG:NH2	2.38	0.51
8:K:463:LYS:HZ1	9:L:386:ASP:HB3	1.76	0.51
9:L:684:THR:O	9:L:686:ILE:N	2.43	0.51
1:O:364:ARG:HG2	1:O:415:GLN:HE21	1.75	0.51
1:O:1633:TRP:CD2	1:O:1674:THR:HG23	2.46	0.51
1:O:2890:ILE:HD11	1:O:2929:LEU:HB2	1.92	0.51
1:O:3445:LEU:O	1:O:3449:LYS:HD3	2.11	0.51
1:O:3547:THR:HA	1:O:3550:LYS:HB2	1.92	0.51
1:O:3686:TRP:HZ2	1:O:3692:VAL:HG23	1.76	0.51
1:O:3738:ILE:HG22	1:O:3740:ILE:HG12	1.93	0.51
4:E:54:TYR:CZ	5:F:36:ARG:HD3	2.46	0.51
1:o:2101:VAL:HG12	1:o:2156:VAL:HG11	1.91	0.51
1:o:2253:TYR:H	1:o:2256:ILE:HD13	1.76	0.51
1:o:2589:TYR:HB3	1:o:2775:TYR:HB3	1.93	0.51
1:o:2794:LEU:HD21	1:o:2808:LEU:HD11	1.92	0.51
1:o:2960:GLU:HG3	1:o:2965:TYR:HD1	1.76	0.51
1:o:3010:SER:O	1:o:3043:TYR:OH	2.29	0.51
1:o:3912:CYS:HA	1:o:3915:HIS:CE1	2.46	0.51
4:e:61:LEU:HD23	5:f:36:ARG:HB3	1.93	0.51
9:L:146:GLN:HB3	9:L:149:ILE:HB	1.92	0.51
9:L:332:LYS:O	9:L:333:TYR:C	2.53	0.51
8:M:300:THR:HA	9:N:293:THR:HA	1.92	0.51
8:M:490:LEU:HA	9:N:323:PHE:HZ	1.75	0.51
9:N:54:ILE:HB	9:N:86:PRO:HG3	1.93	0.51
9:N:296:CYS:SG	9:N:303:THR:OG1	2.56	0.51
1:O:265:TYR:HE1	1:O:308:LEU:HD22	1.76	0.51
1:O:786:GLN:HA	1:O:789:TYR:CE2	2.46	0.51
1:O:1473:THR:HB	1:O:1477:HIS:CE1	2.45	0.51
1:O:1776:GLU:O	1:O:1779:GLN:NE2	2.44	0.51
1:O:2145:PHE:O	1:O:2149:LEU:HG	2.10	0.51
3:C:51:LEU:HD13	2:H:70:ILE:HG21	1.93	0.51
1:o:128:LEU:HG	1:o:171:LEU:HG	1.93	0.51
1:o:1294:VAL:HG11	1:o:1364:CYS:HB2	1.93	0.51
1:o:3546:SER:O	1:o:3550:LYS:NZ	2.41	0.51
1:o:3700:GLU:OE2	1:o:3718:ARG:NH1	2.43	0.51
1:o:3859:TYR:CE2	1:o:3956:PRO:HD3	2.46	0.51
1:o:3940:ILE:HG13	1:o:3941:ASP:H	1.76	0.51
3:g:42:ARG:NH1	7:J:115:DT:O2	2.44	0.51
8:K:203:MET:HG3	8:K:204:HIS:N	2.26	0.51
8:K:489:ASN:HA	8:K:500:PRO:HG3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:196:LEU:HD21	1:O:227:LEU:HD11	1.92	0.50
1:O:960:GLN:O	1:O:964:ARG:HG2	2.11	0.50
1:O:3177:ASN:OD1	1:O:3178:ILE:HD12	2.10	0.50
1:O:4069:GLU:HG2	1:O:4070:LYS:HD3	1.92	0.50
3:C:38:HIS:CG	3:g:40:ALA:HA	2.46	0.50
1:o:1783:ARG:CZ	1:o:1830:HIS:HB2	2.41	0.50
1:o:1827:LEU:O	1:o:1831:CYS:N	2.38	0.50
1:o:1925:GLU:HB3	1:o:1941:HIS:HE1	1.76	0.50
1:o:3833:ARG:HG3	1:o:3834:ALA:H	1.76	0.50
7:J:34:DT:H4'	6:I:122:DT:H4'	1.93	0.50
9:L:81:ARG:NH2	9:L:84:MET:O	2.44	0.50
8:M:164:LYS:HD2	8:M:197:GLY:HA3	1.93	0.50
9:N:207:ILE:HA	9:N:210:MET:HG2	1.94	0.50
9:N:632:PHE:HZ	9:N:678:VAL:HA	1.76	0.50
1:O:915:THR:OG1	1:O:968:VAL:HG11	2.10	0.50
1:O:1137:ILE:HA	1:O:1140:LYS:HB2	1.93	0.50
1:O:1164:CYS:SG	1:O:1165:LEU:N	2.84	0.50
1:O:1392:MET:O	1:O:1396:PRO:HD3	2.11	0.50
1:O:1721:HIS:O	9:L:593:ASN:HB2	2.11	0.50
1:O:3584:LEU:O	1:O:3588:TRP:N	2.35	0.50
1:O:3626:GLY:O	1:O:3630:ARG:NH1	2.37	0.50
1:O:3993:SER:OG	1:O:3994:ASP:N	2.41	0.50
1:O:4055:ASN:HB2	1:O:4092:GLN:NE2	2.26	0.50
4:A:86:SER:N	6:i:53:DT:OP1	2.31	0.50
3:c:20:ARG:NH2	6:i:35:DG:OP1	2.44	0.50
1:o:131:LEU:HB3	1:o:177:LEU:HD11	1.94	0.50
1:o:4093:GLU:HG2	1:o:4094:PRO:HD3	1.92	0.50
6:i:114:DC:H1'	6:i:115:DG:O4'	2.12	0.50
8:K:35:ARG:NE	8:K:80:ARG:HG3	2.26	0.50
8:K:113:ALA:O	8:K:117:LEU:N	2.34	0.50
8:K:123:LYS:H	8:K:126:GLN:NE2	2.09	0.50
9:N:6:ASN:N	9:N:128:GLU:OE2	2.43	0.50
1:O:109:ASN:OD1	1:O:148:LYS:HE2	2.11	0.50
1:O:864:GLY:HA2	1:O:867:ASN:HB2	1.93	0.50
1:O:978:GLN:HA	1:O:981:ARG:HG2	1.93	0.50
1:O:2213:ASN:HA	1:O:2216:LEU:HD12	1.93	0.50
1:O:2796:ALA:O	1:O:2800:ARG:HG2	2.12	0.50
1:O:3180:ASP:O	1:O:3184:THR:OG1	2.25	0.50
3:C:102:ILE:HG22	5:b:98:TYR:HB2	1.94	0.50
3:c:84:GLN:HA	3:c:87:ILE:HG12	1.92	0.50
1:o:131:LEU:HB2	1:o:173:LYS:HD2	1.92	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:486:GLY:O	1:o:490:ILE:HG12	2.12	0.50
1:o:3065:ILE:HD11	1:o:3086:LEU:HD13	1.94	0.50
1:o:3588:TRP:CD1	1:o:3609:MET:HE2	2.45	0.50
1:o:3898:LEU:HB2	1:o:3901:ARG:HH21	1.76	0.50
4:a:65:LEU:HD22	7:J:96:DC:H41	1.76	0.50
6:i:67:DG:H2''	6:i:68:DC:H5'	1.93	0.50
7:J:115:DT:H2''	7:J:116:DA:H5''	1.92	0.50
8:K:289:TYR:HE1	9:L:309:ASP:HB2	1.76	0.50
8:K:465:ILE:HG23	8:K:518:LEU:HD11	1.93	0.50
8:M:121:GLN:HG2	8:M:130:ARG:HB3	1.94	0.50
1:O:102:PRO:O	1:O:104:SER:N	2.45	0.50
1:O:1371:VAL:O	1:O:1374:GLN:HB2	2.10	0.50
1:O:3252:PHE:HA	1:O:3287:ARG:NH2	2.26	0.50
1:O:3913:ILE:HD13	1:O:3987:ALA:HB3	1.93	0.50
1:O:4046:TYR:HB3	1:O:4059:ILE:HD11	1.94	0.50
3:G:18:SER:O	3:G:22:GLY:N	2.44	0.50
1:o:1412:LYS:O	1:o:1415:LEU:HB3	2.12	0.50
1:o:2205:VAL:O	1:o:2207:LYS:N	2.44	0.50
1:o:2538:ARG:HH21	1:o:2561:PHE:HB3	1.75	0.50
6:i:77:DG:O6	7:j:78:DT:N3	2.44	0.50
8:K:471:PHE:HB3	9:L:345:PHE:H	1.76	0.50
8:M:171:ASN:HB3	8:M:205:LEU:HD11	1.93	0.50
8:M:259:LEU:HB2	8:M:345:LEU:HD23	1.92	0.50
9:N:33:GLN:HB3	9:N:227:PHE:HB3	1.93	0.50
9:N:601:LEU:O	9:N:605:LYS:HB2	2.11	0.50
1:O:72:SER:HA	1:O:119:ARG:HH12	1.76	0.50
1:O:849:GLU:OE1	1:O:849:GLU:N	2.33	0.50
1:O:1955:VAL:HG23	1:O:1956:PHE:CD2	2.47	0.50
1:O:2428:ASP:O	1:O:2429:ASP:C	2.54	0.50
1:O:3702:PRO:HB2	1:O:3794:VAL:HG11	1.92	0.50
1:O:3917:ILE:HA	1:O:4050:LYS:HE2	1.93	0.50
2:D:52:SER:H	2:D:55:ALA:HB3	1.76	0.50
1:o:327:VAL:HG21	1:o:369:PHE:HE1	1.76	0.50
1:o:2376:ASP:OD1	1:o:2376:ASP:N	2.45	0.50
6:i:85:DG:H21	7:j:71:DT:H5'	1.77	0.50
6:i:145:DC:N3	7:j:10:DA:N6	2.59	0.50
9:N:209:LYS:HE3	9:N:213:ILE:HD11	1.94	0.50
1:O:291:VAL:HG13	1:O:340:TYR:CZ	2.46	0.50
1:O:356:ASN:OD1	1:O:406:ARG:NH2	2.45	0.50
1:O:860:GLY:CA	1:O:3136:THR:HG21	2.41	0.50
1:O:881:LYS:NZ	1:O:3933:GLU:O	2.33	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1423:ILE:HG12	1:O:1425:ALA:H	1.77	0.50
1:O:1774:MET:HB3	1:O:1777:LEU:HG	1.93	0.50
1:O:3723:ASP:HB2	1:O:3725:ARG:NH1	2.26	0.50
3:C:65:LEU:HD22	3:C:86:ALA:HB1	1.93	0.50
4:A:74:ILE:HD12	5:B:62:LEU:HD22	1.93	0.50
1:o:1342:MET:O	1:o:1346:THR:HG23	2.10	0.50
1:o:1849:ASP:OD1	1:o:1850:VAL:N	2.43	0.50
1:o:2360:PHE:CZ	1:o:2364:LEU:HD11	2.47	0.50
7:j:23:DA:H2''	7:j:24:DG:C8	2.46	0.50
7:j:107:DT:H2'	7:j:108:DT:H72	1.92	0.50
8:K:378:SER:O	8:K:380:THR:N	2.45	0.50
8:K:454:ALA:HA	9:L:375:VAL:HG13	1.91	0.50
1:O:70:ARG:HH22	1:O:81:CYS:HB3	1.75	0.50
1:O:718:MET:HB3	1:O:729:CYS:SG	2.51	0.50
1:O:1601:LEU:HD22	1:O:1655:ILE:HD13	1.92	0.50
1:O:1670:GLU:OE1	1:O:1670:GLU:N	2.38	0.50
1:O:1764:GLU:O	1:O:1768:ARG:NH1	2.45	0.50
1:O:2893:LEU:HD11	1:O:2922:ARG:HB3	1.93	0.50
1:O:3390:GLN:HA	1:O:3393:GLU:HG2	1.92	0.50
1:o:73:LEU:HB2	1:o:78:PHE:HD2	1.76	0.50
1:o:1211:VAL:HA	1:o:1214:GLU:HG2	1.93	0.50
1:o:1414:ILE:O	1:o:1418:HIS:N	2.39	0.50
1:o:1948:ALA:HA	1:o:1951:VAL:HG22	1.94	0.50
1:o:2321:GLU:HG2	1:o:2366:LYS:HD3	1.93	0.50
1:o:2569:SER:HB2	1:o:2572:TYR:HB2	1.93	0.50
1:o:3003:ASN:HD21	1:o:3046:ARG:HD3	1.76	0.50
1:o:3124:SER:O	1:o:3128:LYS:HG2	2.11	0.50
4:a:119:ILE:HB	5:b:43:VAL:HG21	1.94	0.50
9:L:404:GLN:HG3	9:L:421:TYR:OH	2.11	0.50
1:O:908:ASP:OD1	1:O:908:ASP:N	2.44	0.50
1:O:1483:LEU:HG	1:O:1514:LEU:HG	1.93	0.50
1:O:1642:LYS:HD2	1:O:1684:LEU:HD21	1.92	0.50
1:O:2169:LEU:O	1:O:2173:ALA:N	2.40	0.50
1:O:2796:ALA:O	1:O:2799:GLN:NE2	2.45	0.50
1:O:3002:TYR:O	1:O:3006:ALA:N	2.44	0.50
1:O:3090:TYR:HB3	1:O:3095:ASP:HB2	1.93	0.50
1:O:3151:LEU:O	1:O:3152:SER:C	2.53	0.50
2:D:59:MET:HA	2:D:62:PHE:CD2	2.47	0.50
3:c:55:LEU:HD23	3:c:58:LEU:HD21	1.94	0.50
3:c:109:PRO:HA	4:E:55:GLN:HB3	1.93	0.50
1:o:391:ARG:HA	1:o:394:GLN:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:661:PRO:O	1:o:721:TYR:OH	2.23	0.50
1:o:864:GLY:HA2	1:o:867:ASN:HB2	1.94	0.50
1:o:1166:LEU:HB2	1:o:1199:PRO:HD2	1.93	0.50
1:o:2379:MET:HA	1:o:2382:VAL:HG22	1.92	0.50
1:o:3911:ILE:HD12	1:o:3937:VAL:HG13	1.93	0.50
7:j:69:DC:H2"	7:j:70:DG:C5	2.47	0.50
8:K:85:VAL:HG13	8:K:105:LEU:HB3	1.93	0.50
8:K:512:GLU:O	8:K:513:ALA:C	2.53	0.50
8:M:333:GLU:OE1	9:N:497:ARG:NH2	2.45	0.50
8:M:397:LEU:HA	8:M:412:ALA:HA	1.93	0.50
1:O:1180:GLN:HB3	1:O:1183:CYS:HB3	1.94	0.50
1:O:2533:SER:HB2	1:O:2565:MET:HE3	1.93	0.50
1:O:3153:SER:C	1:O:3155:VAL:N	2.69	0.50
5:B:78:ARG:HB3	7:j:105:DG:OP1	2.11	0.50
1:o:1756:PRO:O	1:o:1760:GLU:HG2	2.11	0.50
1:o:2414:GLN:OE1	1:o:2414:GLN:N	2.40	0.50
1:o:2837:LEU:HD22	1:o:2871:LEU:HB2	1.94	0.50
1:o:2986:PRO:HB2	1:o:2991:LYS:HG3	1.94	0.50
1:o:3443:PRO:HA	1:o:3446:VAL:HG22	1.94	0.50
1:o:3467:ARG:NH1	1:o:4000:ASN:OD1	2.45	0.50
1:o:3581:PRO:HD3	1:o:3674:SER:HB3	1.93	0.50
1:o:3911:ILE:HG21	1:o:3928:PHE:HE1	1.77	0.50
3:g:103:ALA:HB2	5:f:100:PHE:HA	1.94	0.50
8:K:475:SER:OG	8:K:476:ASP:N	2.45	0.50
8:K:525:PHE:O	8:K:529:VAL:HG22	2.11	0.50
9:L:16:VAL:HB	9:L:101:GLY:HA3	1.94	0.50
9:N:357:MET:O	9:N:423:GLN:HB3	2.12	0.50
9:N:647:ILE:HA	9:N:652:GLU:HB3	1.94	0.50
1:O:76:ILE:HG23	1:O:79:ARG:HD3	1.94	0.49
1:O:103:TYR:HA	1:O:106:GLU:HB3	1.93	0.49
1:O:111:CYS:O	1:O:130:LEU:HD11	2.12	0.49
1:O:535:LEU:HD11	1:O:565:TYR:CD1	2.47	0.49
1:O:669:LEU:HD13	1:O:672:ILE:HD11	1.94	0.49
1:O:1224:PHE:CE2	1:O:1287:GLN:HG2	2.47	0.49
1:O:1567:ILE:O	1:O:1571:LEU:HG	2.12	0.49
1:O:1952:ILE:HG12	1:O:1956:PHE:HE1	1.76	0.49
1:O:3008:TRP:O	1:O:3047:SER:OG	2.27	0.49
1:O:3746:ARG:NH1	1:O:3748:HIS:HB3	2.23	0.49
3:C:47:ALA:HA	2:H:91:ILE:HG21	1.93	0.49
2:H:101:GLY:H	2:H:104:ALA:HB3	1.77	0.49
1:o:117:LYS:HD3	1:o:119:ARG:HH22	1.75	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:473:PRO:HG3	1:o:1558:TYR:HD1	1.76	0.49
1:o:945:ALA:HB1	1:o:955:ALA:HB1	1.94	0.49
1:o:1715:GLU:HA	1:o:1718:ILE:HG12	1.94	0.49
1:o:2133:LEU:HD22	1:o:2146:LEU:HD22	1.93	0.49
1:o:3251:ASN:HB2	1:o:3254:LEU:HD21	1.94	0.49
1:o:4049:ARG:HG2	1:o:4054:ALA:HB2	1.93	0.49
5:b:26:ILE:HD13	5:b:58:LEU:HD23	1.94	0.49
7:j:110:DC:H2''	7:j:111:DT:O4'	2.13	0.49
6:I:71:DG:H2''	6:I:72:DG:C8	2.46	0.49
8:K:43:ASP:OD1	8:K:43:ASP:N	2.43	0.49
9:L:497:ARG:HD3	9:L:501:PRO:HA	1.94	0.49
1:O:714:VAL:HG12	1:O:733:LEU:HD11	1.93	0.49
1:O:907:LEU:HB3	1:O:937:MET:HE1	1.94	0.49
1:O:1606:ARG:HD2	1:O:2042:GLN:CD	2.37	0.49
1:O:2100:LEU:O	1:O:2104:MET:N	2.39	0.49
1:O:2251:ILE:O	1:O:2253:TYR:N	2.45	0.49
1:O:2388:LYS:NZ	8:K:157:VAL:O	2.37	0.49
1:O:3717:VAL:HG13	1:O:3743:HIS:H	1.77	0.49
1:O:3918:LEU:O	1:O:3946:PHE:HD1	1.96	0.49
4:A:65:LEU:HD12	7:j:95:DC:C6	2.42	0.49
1:o:119:ARG:HA	1:o:122:LYS:HG2	1.93	0.49
1:o:1151:ARG:HG3	1:o:1163:LEU:HD12	1.94	0.49
1:o:3387:GLU:O	1:o:3390:GLN:HG2	2.11	0.49
1:o:3706:ASP:OD1	1:o:3708:ARG:NH1	2.45	0.49
4:a:49:ARG:HD2	4:a:50:GLU:N	2.27	0.49
5:b:68:ASP:O	5:b:71:THR:HB	2.12	0.49
3:g:81:ARG:NH1	4:e:55:GLN:O	2.45	0.49
6:i:134:DG:OP1	9:L:402:ASN:N	2.39	0.49
7:j:15:DC:OP2	9:L:431:ARG:NH2	2.44	0.49
7:J:86:DG:H1'	7:J:87:DC:O4'	2.12	0.49
8:K:507:THR:OG1	8:K:508:LEU:N	2.45	0.49
9:L:660:LYS:HG2	9:L:687:THR:HA	1.94	0.49
8:M:92:LYS:HE3	8:M:135:MET:N	2.26	0.49
9:N:295:TYR:HB2	9:N:310:ILE:HD12	1.94	0.49
1:O:190:ILE:HG23	1:O:235:THR:HG21	1.94	0.49
1:O:345:PHE:HB3	1:O:366:TYR:CE1	2.46	0.49
1:O:486:GLY:O	1:O:490:ILE:HG12	2.11	0.49
1:O:1041:ILE:HD11	1:O:1056:THR:HG21	1.92	0.49
1:O:2184:TYR:HE1	1:O:2734:ARG:HB2	1.78	0.49
1:O:2422:GLN:OE1	1:O:2425:ARG:NH2	2.45	0.49
1:O:3003:ASN:OD1	1:O:3046:ARG:NH1	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3259:LEU:HB3	1:O:3276:TRP:HE1	1.78	0.49
1:O:3413:TYR:HD2	1:O:3453:ALA:HB2	1.77	0.49
1:O:3629:ARG:HB2	1:O:3630:ARG:NH1	2.27	0.49
1:O:3950:THR:HG21	1:O:4064:LEU:HD23	1.93	0.49
3:c:18:SER:HA	3:c:23:LEU:HB2	1.94	0.49
1:o:1417:THR:O	1:o:1421:GLU:N	2.44	0.49
1:o:2246:LYS:HE2	1:o:2283:ASN:HB3	1.94	0.49
1:o:2894:GLU:OE2	1:o:3901:ARG:NH1	2.44	0.49
1:o:3901:ARG:HH11	1:o:3971:MET:HB3	1.77	0.49
5:b:58:LEU:HG	5:b:62:LEU:HD13	1.93	0.49
3:g:75:LYS:HB3	3:g:82:HIS:CE1	2.48	0.49
7:J:40:DG:H2''	7:J:41:DT:OP2	2.12	0.49
6:I:55:DG:C8	6:I:55:DG:H5'	2.47	0.49
8:M:90:THR:HG21	8:M:103:TYR:HB2	1.92	0.49
9:N:109:ASP:HA	9:N:112:ILE:HD12	1.95	0.49
1:O:862:LEU:HD22	1:O:866:ILE:HD13	1.95	0.49
1:O:1018:VAL:HG12	1:O:1074:LYS:HG2	1.93	0.49
1:O:1954:CYS:SG	1:O:1955:VAL:HG22	2.53	0.49
1:O:2442:MET:HE1	1:O:2446:LEU:HD22	1.95	0.49
4:E:71:VAL:HA	4:E:74:ILE:HG22	1.95	0.49
1:o:358:GLU:HG3	1:o:359:LEU:HD12	1.94	0.49
1:o:850:GLU:HA	1:o:853:ILE:HG12	1.93	0.49
1:o:893:SER:H	1:o:944:LYS:HZ3	1.59	0.49
1:o:1347:THR:O	1:o:1352:SER:N	2.43	0.49
1:o:2288:TYR:HE2	1:o:2296:SER:HA	1.77	0.49
1:o:2978:LYS:O	1:o:2981:TRP:NE1	2.46	0.49
1:o:3114:TYR:HA	1:o:3117:ILE:HB	1.94	0.49
1:o:3778:ASP:HB3	1:o:3781:CYS:HB2	1.94	0.49
4:a:116:ARG:NH2	4:e:113:HIS:O	2.45	0.49
2:h:70:ILE:O	2:h:73:GLU:HG3	2.11	0.49
8:K:35:ARG:HE	8:K:80:ARG:HG3	1.77	0.49
9:L:465:LYS:O	9:L:474:GLU:N	2.45	0.49
1:O:245:SER:O	1:O:249:PHE:N	2.39	0.49
1:O:1588:ASP:OD1	1:O:1589:ASN:N	2.44	0.49
1:O:2412:TYR:O	1:O:2415:LEU:HG	2.13	0.49
1:O:2513:GLU:OE1	1:O:2513:GLU:N	2.45	0.49
1:O:3784:ARG:HB3	1:O:3786:LEU:HD13	1.93	0.49
2:D:117:LYS:NZ	3:G:20:ARG:O	2.46	0.49
1:o:1914:THR:HG22	9:L:728:LEU:HD21	1.93	0.49
1:o:2129:LEU:HB3	1:o:2146:LEU:HD11	1.94	0.49
5:b:78:ARG:HH22	7:J:106:DA:P	2.36	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:g:103:ALA:H	2:h:58:ILE:HD11	1.77	0.49
6:I:42:DG:H2''	6:I:43:DA:C8	2.47	0.49
8:K:260:LYS:HA	8:K:270:SER:HA	1.94	0.49
9:N:628:GLU:O	9:N:631:TYR:N	2.44	0.49
9:N:731:MET:SD	9:N:731:MET:N	2.79	0.49
1:O:123:CYS:HB2	1:O:127:ALA:HB2	1.95	0.49
1:O:242:PRO:O	1:O:245:SER:HB2	2.12	0.49
1:O:793:LEU:HD23	1:O:869:ASN:HB2	1.95	0.49
1:O:985:GLU:HA	1:O:988:VAL:HG22	1.94	0.49
1:O:1569:THR:OG1	1:O:1603:GLN:NE2	2.38	0.49
1:O:1714:LEU:HB3	1:O:1761:LEU:HD11	1.93	0.49
1:O:2135:ASN:ND2	1:O:2137:ILE:O	2.46	0.49
1:O:3691:LYS:HA	1:O:3722:PHE:HZ	1.77	0.49
1:O:3895:GLU:OE1	1:O:3895:GLU:N	2.35	0.49
3:G:104:GLN:NE2	4:A:94:GLU:OE1	2.46	0.49
3:c:57:TYR:CZ	2:d:106:HIS:HB3	2.47	0.49
4:E:121:PRO:HD3	5:F:50:ILE:HG12	1.95	0.49
1:o:433:PRO:HB3	1:o:2047:THR:HG22	1.95	0.49
1:o:473:PRO:HG3	1:o:1558:TYR:CD1	2.48	0.49
1:o:1414:ILE:HG12	1:o:1418:HIS:CE1	2.47	0.49
1:o:3481:SER:O	1:o:3485:LYS:NZ	2.46	0.49
1:o:3884:LYS:HE3	1:o:3971:MET:HA	1.94	0.49
6:I:132:DC:H5''	9:N:265:LYS:HG3	1.94	0.49
8:K:87:PHE:HE2	8:K:105:LEU:HD22	1.77	0.49
8:M:117:LEU:HD11	8:M:495:LEU:HA	1.94	0.49
8:M:141:TYR:N	8:M:179:ASP:OD2	2.46	0.49
1:O:99:LYS:C	1:O:101:ALA:H	2.20	0.49
1:O:221:ALA:O	1:O:224:LEU:HG	2.13	0.49
1:O:798:GLY:O	1:O:800:LEU:N	2.45	0.49
1:O:1568:ASN:O	1:O:1572:LEU:HG	2.11	0.49
1:O:1626:TRP:CZ2	1:O:1674:THR:HG21	2.44	0.49
1:O:2345:VAL:O	1:O:2349:LEU:N	2.43	0.49
1:O:2768:GLN:OE1	1:O:2769:VAL:N	2.44	0.49
1:O:3167:ARG:NH1	1:O:3168:TYR:O	2.46	0.49
1:O:4055:ASN:ND2	1:O:4058:VAL:HG23	2.28	0.49
4:E:76:GLN:NE2	4:E:81:ASP:O	2.42	0.49
1:o:2361:ILE:HD12	1:o:2393:LEU:HB3	1.94	0.49
1:o:3572:ILE:HG21	1:o:3797:THR:HG21	1.94	0.49
6:i:35:DG:H2''	6:i:36:DA:H5''	1.94	0.49
7:J:76:DG:H2''	7:J:77:DC:C6	2.48	0.49
8:K:147:LEU:HA	8:K:150:CYS:SG	2.53	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:496:HIS:O	9:L:500:HIS:N	2.32	0.49
8:M:97:VAL:O	8:M:97:VAL:HG12	2.13	0.49
8:M:304:ASN:ND2	8:M:308:GLY:O	2.45	0.49
1:O:675:ARG:NH2	1:O:735:SER:HB2	2.28	0.49
1:O:1189:GLU:O	1:O:1193:LYS:HG2	2.11	0.49
1:O:1338:VAL:O	1:O:1341:ILE:HG12	2.13	0.49
1:O:1685:ASP:OD1	1:O:1686:LEU:N	2.46	0.49
1:O:3040:TYR:HB2	1:O:3044:MET:HE1	1.94	0.49
1:O:3586:LYS:HE2	1:O:3668:LEU:HG	1.95	0.49
1:o:217:LEU:HD13	1:o:221:ALA:HB2	1.95	0.49
1:o:989:MET:HA	1:o:992:ILE:HG12	1.94	0.49
1:o:1632:TRP:CE2	1:o:1645:VAL:HG11	2.47	0.49
1:o:2234:ASN:O	1:o:2238:ILE:HG12	2.12	0.49
1:o:3052:LEU:HB3	1:o:3092:LEU:HD22	1.95	0.49
1:o:3130:GLN:HB3	1:o:3178:ILE:HG12	1.94	0.49
8:M:102:ILE:HD11	8:M:146:VAL:HG22	1.95	0.49
8:M:206:LYS:HD3	8:M:211:PHE:CD2	2.48	0.49
1:O:183:GLU:HG2	1:O:184:VAL:H	1.78	0.49
1:O:236:LYS:HD3	1:O:237:SER:H	1.77	0.49
1:O:571:SER:HA	1:O:574:LYS:HG2	1.95	0.49
1:O:579:LEU:HD21	1:O:623:PHE:HB2	1.95	0.49
1:O:1206:LEU:O	1:O:1209:LYS:N	2.46	0.49
1:O:1290:LEU:H	1:O:1290:LEU:HD12	1.78	0.49
1:O:1296:PHE:HA	1:O:1299:GLU:HG2	1.95	0.49
1:O:2394:LYS:O	1:O:2398:LEU:HG	2.13	0.49
1:O:3585:PHE:HD1	1:O:3613:MET:HE2	1.78	0.49
1:O:3872:ARG:O	1:O:3876:SER:OG	2.24	0.49
1:O:3923:ARG:NH1	1:O:4123:GLY:O	2.46	0.49
1:o:74:ASN:HA	1:o:122:LYS:HE2	1.94	0.49
1:o:174:VAL:O	1:o:177:LEU:HB2	2.13	0.49
1:o:655:LEU:O	1:o:659:ARG:HG2	2.11	0.49
1:o:3086:LEU:HB2	1:o:3102:TYR:HE2	1.77	0.49
1:o:3274:VAL:HG22	1:o:3308:ASP:HB2	1.95	0.49
1:o:3527:GLN:HE22	1:o:3700:GLU:H	1.61	0.49
4:a:83:ARG:HE	6:I:53:DT:H4'	1.78	0.49
4:a:127:ALA:C	4:a:131:ARG:HE	2.20	0.49
5:b:34:ILE:HA	5:b:37:LEU:HD12	1.93	0.49
9:L:12:LEU:HB2	9:L:57:VAL:H	1.78	0.49
8:M:289:TYR:HB2	8:M:294:GLU:H	1.77	0.49
1:O:360:SER:HA	1:O:363:ILE:HD12	1.95	0.49
1:O:621:SER:O	1:O:624:ILE:HG12	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1369:MET:HB2	1:O:1418:HIS:CG	2.48	0.49
1:O:1577:LEU:HA	1:O:1580:LEU:HD12	1.95	0.49
1:O:2121:ASP:HA	1:O:2126:MET:HG2	1.95	0.49
1:O:3950:THR:HB	1:O:4063:GLU:OE1	2.13	0.49
1:o:851:ILE:HD13	1:o:854:ARG:HH22	1.78	0.49
1:o:1278:ALA:HB2	1:o:1352:SER:HB3	1.95	0.49
1:o:1361:LYS:HA	1:o:1365:ASN:HA	1.93	0.49
1:o:1741:ASP:O	1:o:1744:LYS:HG2	2.12	0.49
1:o:3420:CYS:HB3	1:o:3446:VAL:HG21	1.95	0.49
1:o:3860:LYS:HE2	1:o:4072:PRO:HB2	1.94	0.49
5:b:92:ARG:O	5:b:92:ARG:NE	2.45	0.49
5:f:97:LEU:HA	5:f:100:PHE:CE1	2.48	0.49
6:i:34:DA:H2''	6:i:35:DG:C8	2.48	0.49
7:j:40:DG:H2''	7:j:41:DT:OP2	2.11	0.49
7:J:121:DC:O2	7:J:122:DC:N4	2.46	0.49
8:K:219:ASP:OD1	8:K:220:ILE:HG13	2.13	0.49
8:M:261:LEU:C	8:M:268:VAL:N	2.70	0.49
8:M:478:PHE:HE2	9:N:343:LEU:HD13	1.78	0.49
1:O:77:GLU:O	1:O:80:GLU:HG2	2.12	0.48
1:O:100:ILE:O	1:O:103:TYR:N	2.46	0.48
1:O:345:PHE:CZ	1:O:365:GLY:HA3	2.48	0.48
1:O:471:LYS:O	1:O:475:LEU:N	2.37	0.48
1:O:1693:VAL:HB	1:O:1696:LEU:HD23	1.94	0.48
1:O:1765:VAL:HA	1:O:1768:ARG:HH12	1.78	0.48
1:O:1785:ILE:HD12	1:O:1788:ARG:HD3	1.94	0.48
1:O:2397:CYS:O	1:O:2401:VAL:HG23	2.13	0.48
1:O:3531:TYR:HB2	1:O:3532:PRO:HD3	1.95	0.48
1:O:3531:TYR:HD1	1:O:3796:MET:HG3	1.77	0.48
1:O:3792:SER:O	1:O:3803:ILE:HG13	2.12	0.48
3:C:102:ILE:HD12	2:H:58:ILE:HD13	1.94	0.48
5:B:78:ARG:NH2	5:B:80:THR:OG1	2.46	0.48
1:o:1724:MET:HA	1:o:1768:ARG:HE	1.76	0.48
1:o:1730:PRO:HG2	1:o:1733:THR:HG21	1.94	0.48
7:J:12:DT:H2''	7:J:13:DC:H5	1.78	0.48
7:J:31:DC:H2''	7:J:32:DA:C4	2.48	0.48
8:K:441:ASP:HB2	9:L:270:GLU:HG2	1.95	0.48
9:L:118:ILE:O	9:L:122:THR:HG23	2.13	0.48
8:M:260:LYS:HB3	8:M:270:SER:N	2.28	0.48
8:M:275:ASN:OD1	8:M:278:GLN:NE2	2.46	0.48
9:N:319:ASP:OD1	9:N:320:ILE:N	2.46	0.48
9:N:489:ARG:NH1	9:N:507:PRO:O	2.45	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1060:PHE:HA	1:O:1063:LEU:HD12	1.95	0.48
1:O:2533:SER:O	1:O:2538:ARG:N	2.40	0.48
1:O:2956:ALA:O	1:O:2959:ALA:N	2.46	0.48
2:D:59:MET:HA	2:D:62:PHE:CE2	2.48	0.48
2:d:89:ARG:O	2:d:92:GLN:HG3	2.13	0.48
1:o:1712:ARG:HH21	1:o:1716:GLN:HB3	1.77	0.48
1:o:2187:VAL:HB	1:o:2728:LEU:HD11	1.95	0.48
1:o:3915:HIS:NE2	1:o:3961:PHE:HA	2.28	0.48
1:o:4054:ALA:HA	1:o:4096:SER:HA	1.95	0.48
7:j:63:DA:H2''	7:j:64:DA:C8	2.48	0.48
7:J:99:DC:N4	6:I:56:DG:H1	2.10	0.48
8:K:318:ARG:HH21	9:L:278:VAL:HG13	1.78	0.48
1:O:763:THR:O	1:O:766:ALA:N	2.47	0.48
1:O:1202:ARG:H	1:O:1206:LEU:HD12	1.78	0.48
1:O:1220:LEU:O	1:O:1224:PHE:N	2.41	0.48
1:O:2197:THR:HG1	1:O:2721:GLY:N	2.12	0.48
1:O:2429:ASP:O	1:O:2430:GLU:C	2.55	0.48
1:O:2461:PHE:CB	1:O:2473:MET:HE1	2.44	0.48
1:O:2785:ILE:HG13	1:O:2789:SER:HB2	1.95	0.48
1:O:2898:LEU:HB3	1:O:2899:ARG:CZ	2.42	0.48
1:O:2953:THR:HG22	1:O:2994:TRP:HE1	1.78	0.48
1:O:3052:LEU:HD13	1:O:3056:GLU:O	2.13	0.48
1:O:3300:VAL:HG13	1:O:3337:ILE:HG13	1.95	0.48
1:O:3360:LEU:HA	1:O:3363:SER:HB3	1.95	0.48
1:O:3463:LEU:HA	1:O:3498:TRP:CZ2	2.48	0.48
1:O:4083:GLY:HA3	1:O:4088:ASN:HD22	1.78	0.48
4:A:64:LYS:H	7:j:95:DC:P	2.35	0.48
4:E:74:ILE:HD13	5:F:66:ILE:HD11	1.94	0.48
5:F:52:GLU:HA	5:F:55:ARG:HB2	1.95	0.48
1:o:176:GLU:H	1:o:223:CYS:HB3	1.79	0.48
1:o:1452:VAL:HA	1:o:1517:LEU:HD21	1.94	0.48
1:o:2307:MET:HB3	1:o:2319:ALA:HB3	1.95	0.48
1:o:2427:ARG:HH21	1:o:2465:PRO:HG2	1.79	0.48
1:o:4047:ALA:HA	1:o:4050:LYS:HD2	1.95	0.48
7:j:10:DA:H8	7:j:11:DA:N7	2.11	0.48
7:J:121:DC:H1'	7:J:122:DC:C4	2.48	0.48
9:N:640:ARG:NH2	9:N:682:GLY:HA2	2.28	0.48
1:O:717:LYS:NZ	1:O:1120:SER:OG	2.46	0.48
1:O:734:LEU:HD23	1:O:769:GLY:HA2	1.95	0.48
1:O:986:PRO:O	1:O:990:GLN:HB2	2.13	0.48
1:O:1282:LEU:HD12	1:O:1359:LEU:HD22	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1389:VAL:HG22	1:O:1391:VAL:H	1.78	0.48
1:O:1714:LEU:HD23	1:O:1717:LEU:HD12	1.95	0.48
1:O:1824:LEU:O	1:O:1825:LEU:C	2.55	0.48
1:O:2362:VAL:O	1:O:2366:LYS:HG2	2.13	0.48
1:O:3236:PHE:HE1	1:O:3265:GLU:HG3	1.77	0.48
3:c:88:ARG:HH22	3:c:97:LEU:HB2	1.78	0.48
1:o:38:LEU:HB3	1:o:84:GLU:OE1	2.13	0.48
1:o:847:SER:N	1:o:850:GLU:OE2	2.47	0.48
1:o:932:GLU:HB3	1:o:2793:PRO:HB3	1.96	0.48
1:o:972:LEU:HA	1:o:975:ASP:HB3	1.95	0.48
1:o:1725:GLN:OE1	1:o:1728:GLU:N	2.47	0.48
1:o:2375:ALA:HB3	1:o:2404:ARG:HD3	1.96	0.48
1:o:3135:LEU:HA	1:o:3138:ILE:HG22	1.96	0.48
1:o:4082:ARG:HH12	1:o:4089:ILE:HG22	1.78	0.48
8:K:510:LYS:N	8:K:514:MET:HE2	2.27	0.48
8:K:512:GLU:HG2	8:K:513:ALA:N	2.28	0.48
9:L:529:PRO:HA	9:L:532:LYS:HD3	1.96	0.48
9:L:684:THR:C	9:L:686:ILE:N	2.71	0.48
1:O:67:VAL:HG12	1:O:70:ARG:HE	1.77	0.48
1:O:348:ILE:HG13	1:O:362:ALA:HB2	1.94	0.48
1:O:947:GLN:HG2	1:O:2577:PHE:CE1	2.48	0.48
1:O:3041:LEU:HA	1:O:3044:MET:HE2	1.94	0.48
1:O:3129:LEU:HA	1:O:3132:VAL:HG22	1.96	0.48
1:O:3809:THR:HG1	1:O:3930:VAL:C	2.21	0.48
1:o:13:LEU:HB2	1:o:59:PHE:CZ	2.48	0.48
1:o:443:ILE:HB	1:o:489:ARG:HH22	1.79	0.48
1:o:698:PRO:HD2	1:o:1442:GLN:HG3	1.95	0.48
1:o:738:HIS:HB2	1:o:780:ILE:HD11	1.95	0.48
1:o:934:LEU:HA	1:o:937:MET:HG2	1.96	0.48
1:o:1833:LEU:HB2	1:o:1883:ARG:NH2	2.26	0.48
1:o:2140:LEU:HA	1:o:2143:ARG:HD3	1.94	0.48
1:o:3008:TRP:HB2	1:o:3011:LEU:HD12	1.95	0.48
1:o:3442:TYR:HB3	1:o:3443:PRO:HD3	1.96	0.48
1:o:3691:LYS:HD2	1:o:3721:GLY:HA2	1.95	0.48
4:a:61:LEU:HB2	5:b:37:LEU:HG	1.95	0.48
2:h:69:ARG:CZ	2:h:102:GLU:HG3	2.43	0.48
6:i:94:DA:H2"	6:i:95:DG:C8	2.49	0.48
9:L:19:THR:O	9:L:23:SER:N	2.47	0.48
9:N:601:LEU:HD22	9:N:612:ALA:HB2	1.95	0.48
1:O:956:PRO:HA	1:O:959:TYR:HD2	1.78	0.48
1:O:1348:LEU:O	1:O:1352:SER:OG	2.29	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1408:MET:HE2	1:O:1408:MET:N	2.29	0.48
1:O:1605:PHE:HB3	1:O:2042:GLN:NE2	2.24	0.48
1:O:2104:MET:HB3	1:O:2123:PRO:HG3	1.96	0.48
1:O:3568:ILE:HD11	1:O:3699:LEU:HD22	1.95	0.48
1:O:3837:CYS:O	1:O:3841:ASP:HB3	2.13	0.48
4:A:90:MET:HA	4:A:93:GLN:OE1	2.13	0.48
1:o:720:GLN:OE1	1:o:1026:ARG:NH1	2.46	0.48
1:o:897:PRO:HD3	1:o:2787:HIS:HD2	1.79	0.48
1:o:994:TRP:CE2	1:o:1000:LYS:HB2	2.49	0.48
1:o:1436:LEU:HD23	1:o:1510:LEU:HB3	1.95	0.48
1:o:1632:TRP:HE1	1:o:1641:THR:CG2	2.20	0.48
1:o:2275:GLN:NE2	1:o:2275:GLN:O	2.44	0.48
1:o:3606:ILE:HG22	1:o:3610:TYR:HB2	1.95	0.48
4:e:61:LEU:O	5:f:36:ARG:NH2	2.46	0.48
8:K:47:ALA:O	8:K:50:GLU:HG2	2.13	0.48
8:K:392:LYS:NZ	9:L:459:ASP:HB3	2.29	0.48
8:M:462:MET:HB3	8:M:525:PHE:CE1	2.48	0.48
1:O:385:TYR:O	1:O:389:ILE:HG12	2.13	0.48
1:O:1766:LEU:O	1:O:1822:ARG:NH1	2.45	0.48
1:O:2157:PHE:HB3	1:O:2164:TRP:CD1	2.49	0.48
1:O:2371:PHE:CD2	1:O:2374:LEU:HB2	2.49	0.48
1:O:2958:LEU:O	1:O:2962:ARG:HG2	2.14	0.48
3:G:23:LEU:HD22	3:G:56:GLU:HG3	1.95	0.48
1:o:2517:LEU:HA	1:o:2520:ILE:HG22	1.95	0.48
1:o:3622:ALA:HB3	1:o:3630:ARG:HE	1.77	0.48
1:o:3676:PRO:HG3	1:o:3681:LYS:HG2	1.96	0.48
1:o:3693:GLU:HA	1:o:3720:ALA:HB1	1.96	0.48
1:o:3818:ASN:O	1:o:3889:ARG:NH1	2.46	0.48
1:o:3856:MET:SD	1:o:3856:MET:N	2.87	0.48
4:e:103:LEU:O	4:e:107:THR:HG23	2.14	0.48
6:i:118:DC:N4	7:j:34:DT:O4	2.46	0.48
8:K:217:TYR:O	8:K:218:ARG:C	2.55	0.48
8:K:271:VAL:HG12	8:K:370:PRO:HA	1.96	0.48
8:K:288:LEU:HD13	8:K:293:ASN:HA	1.95	0.48
9:L:14:MET:HB2	9:L:135:PHE:CE2	2.49	0.48
8:M:177:GLY:HA3	8:M:216:PHE:HE2	1.79	0.48
8:M:406:ILE:HG13	8:M:407:PRO:HD2	1.96	0.48
1:O:584:GLU:CD	1:O:585:ILE:H	2.21	0.48
1:O:3483:MET:O	1:O:3486:GLU:HG2	2.14	0.48
1:O:4040:PRO:O	1:O:4044:ILE:HG12	2.12	0.48
5:F:23:ARG:HB3	5:F:26:ILE:HG12	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:175:TYR:HE2	1:o:220:LEU:HD23	1.78	0.48
1:o:447:PRO:HD3	1:o:527:TYR:OH	2.13	0.48
1:o:635:PRO:HG3	1:o:675:ARG:HH22	1.77	0.48
1:o:1053:PRO:O	1:o:1058:SER:OG	2.30	0.48
1:o:1101:PHE:HB2	1:o:1151:ARG:NH1	2.29	0.48
1:o:1346:THR:HG22	1:o:1402:LEU:HA	1.96	0.48
1:o:2155:GLU:H	1:o:2155:GLU:CD	2.22	0.48
1:o:3583:LEU:HD13	1:o:3734:ARG:HD2	1.94	0.48
6:i:41:DG:N2	6:i:42:DG:O6	2.47	0.48
7:J:122:DC:O2	6:I:33:DG:N2	2.46	0.48
8:K:34:GLY:N	8:K:162:SER:HG	2.11	0.48
8:K:446:MET:HE2	9:L:363:LYS:HG2	1.96	0.48
9:L:17:GLY:HA2	9:L:103:GLN:O	2.14	0.48
9:L:160:SER:OG	9:L:223:GLU:OE1	2.32	0.48
9:L:161:LEU:HD13	9:L:163:PHE:CE2	2.46	0.48
8:M:42:VAL:HG22	8:M:169:PHE:HB2	1.96	0.48
8:M:151:ALA:HA	8:M:193:LEU:HD11	1.95	0.48
9:N:280:ASP:OD2	9:N:282:LYS:NZ	2.46	0.48
9:N:500:HIS:ND1	9:N:503:GLU:OE2	2.37	0.48
1:O:96:MET:HG2	1:O:100:ILE:HG13	1.96	0.48
1:O:175:TYR:HB3	1:O:227:LEU:HB2	1.96	0.48
1:O:242:PRO:HB2	1:O:246:ARG:HH12	1.79	0.48
1:O:724:GLU:OE2	1:O:2600:THR:N	2.39	0.48
1:O:1961:PHE:HB3	9:N:729:LEU:HD11	1.95	0.48
1:O:2101:VAL:O	1:O:2104:MET:HB2	2.13	0.48
1:O:2533:SER:C	1:O:2535:THR:N	2.72	0.48
1:O:3575:LEU:HD21	1:O:3687:MET:HG3	1.95	0.48
2:D:40:LYS:HE3	3:G:24:GLN:HB3	1.96	0.48
3:c:63:LEU:HD22	2:d:42:LEU:HB2	1.95	0.48
2:d:114:ALA:O	2:d:118:TYR:N	2.43	0.48
1:o:943:GLY:O	1:o:946:THR:OG1	2.25	0.48
1:o:1776:GLU:O	1:o:1779:GLN:NE2	2.46	0.48
1:o:3171:ALA:HA	1:o:3179:TRP:HZ2	1.79	0.48
1:o:3609:MET:HE3	1:o:3799:ARG:HH22	1.79	0.48
1:o:3878:VAL:O	1:o:3965:ARG:NH2	2.45	0.48
1:o:3958:LEU:HD13	1:o:4064:LEU:HD11	1.96	0.48
1:o:4115:ASN:OD1	1:o:4116:ILE:N	2.47	0.48
5:b:65:VAL:HA	5:b:68:ASP:HB2	1.96	0.48
3:g:81:ARG:HH21	3:g:109:PRO:HD3	1.78	0.48
2:h:97:LEU:O	2:h:104:ALA:HB2	2.14	0.48
6:i:88:DC:H42	7:j:65:DC:H42	1.59	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:K:74:LYS:HE2	8:K:79:ASP:HB3	1.96	0.48
8:K:363:ARG:HH12	9:L:359:ASN:HB3	1.79	0.48
8:M:416:GLN:HE21	9:N:354:ARG:HD2	1.79	0.48
9:N:44:ARG:HB2	9:N:238:LYS:C	2.39	0.48
9:N:248:PRO:HB2	9:N:262:ALA:HB1	1.96	0.48
1:O:656:GLN:HA	1:O:659:ARG:HB2	1.96	0.48
1:O:776:TRP:C	1:O:785:MET:HE1	2.39	0.48
1:O:1139:GLU:HA	1:O:1142:HIS:HB2	1.95	0.48
1:O:1437:TYR:CD1	1:O:1503:LEU:HB3	2.49	0.48
1:O:2128:PHE:HD1	1:O:2129:LEU:HD22	1.79	0.48
1:O:2435:CYS:O	1:O:2439:ILE:HG12	2.13	0.48
1:O:3011:LEU:HD23	1:O:3047:SER:HB2	1.94	0.48
1:O:3265:GLU:O	1:O:3268:THR:OG1	2.30	0.48
1:O:3557:ARG:O	1:O:3561:LYS:NZ	2.45	0.48
3:C:17:ARG:HB3	3:C:27:VAL:HB	1.96	0.48
4:A:104:PHE:O	4:A:108:ASN:ND2	2.47	0.48
5:F:66:ILE:O	5:F:70:VAL:N	2.37	0.48
1:o:643:GLU:HA	1:o:646:VAL:HG13	1.94	0.48
1:o:1265:GLU:HG3	1:o:1340:ARG:HH11	1.79	0.48
1:o:1801:VAL:O	1:o:1804:MET:HG3	2.14	0.48
1:o:2398:LEU:O	1:o:2402:LEU:N	2.45	0.48
1:o:2938:VAL:O	1:o:2942:ILE:HG12	2.14	0.48
1:o:3575:LEU:HD13	1:o:3752:VAL:HG11	1.96	0.48
1:o:3643:HIS:HB3	1:o:3659:PHE:CZ	2.49	0.48
1:o:3878:VAL:HG11	1:o:4127:TRP:HD1	1.79	0.48
5:b:68:ASP:HB3	5:b:89:ALA:HB1	1.95	0.48
6:i:118:DC:H2"	6:i:119:DA:C8	2.48	0.48
9:L:146:GLN:O	9:L:148:ASP:N	2.47	0.48
8:M:266:ASP:OD1	8:M:347:LEU:N	2.47	0.48
9:N:726:ASP:HA	9:N:729:LEU:HB2	1.96	0.48
1:O:170:VAL:HG23	1:O:171:LEU:HD22	1.95	0.47
1:O:993:HIS:ND1	1:O:2779:ASP:OD1	2.43	0.47
1:O:1339:VAL:HG23	1:O:1398:VAL:HG11	1.96	0.47
1:O:3085:GLU:OE1	1:O:3085:GLU:N	2.36	0.47
1:O:3582:GLU:O	1:O:3586:LYS:HG2	2.13	0.47
2:d:40:LYS:HA	2:d:43:LYS:HB2	1.96	0.47
4:E:61:LEU:HD22	5:F:36:ARG:HD2	1.96	0.47
1:o:1250:LEU:O	1:o:1254:LEU:HG	2.14	0.47
1:o:1661:PHE:H	1:o:1665:HIS:CG	2.32	0.47
1:o:2560:ASN:ND2	1:o:2795:GLN:HB2	2.29	0.47
1:o:3034:PRO:HD2	1:o:3037:GLN:HB2	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3049:LEU:HD12	1:o:3052:LEU:HD12	1.96	0.47
1:o:3502:MET:HB2	1:o:3514:VAL:HG11	1.94	0.47
3:g:104:GLN:HG3	2:h:54:LYS:HG3	1.95	0.47
8:K:80:ARG:HA	8:K:110:ASN:ND2	2.29	0.47
9:L:130:ARG:O	9:L:160:SER:N	2.43	0.47
9:L:361:VAL:HG13	9:L:420:VAL:HG13	1.95	0.47
9:L:676:GLU:O	9:L:679:VAL:HG12	2.14	0.47
1:O:584:GLU:O	1:O:613:HIS:N	2.45	0.47
1:O:780:ILE:HB	1:O:785:MET:HE3	1.96	0.47
1:O:899:ARG:HD3	1:O:2568:MET:HB3	1.96	0.47
1:O:1413:ASP:OD1	1:O:1414:ILE:N	2.38	0.47
1:O:3563:ASP:HB3	1:O:3696:ARG:NH2	2.29	0.47
4:A:67:PHE:CE1	5:B:62:LEU:HD21	2.49	0.47
3:c:107:VAL:HG21	5:F:40:ARG:HB2	1.95	0.47
1:o:418:ALA:HB2	1:o:464:VAL:HG12	1.95	0.47
1:o:460:ALA:O	1:o:464:VAL:HG13	2.14	0.47
1:o:1019:ASP:OD1	1:o:1019:ASP:N	2.46	0.47
1:o:2449:VAL:O	1:o:2452:ARG:HG2	2.14	0.47
1:o:3916:TRP:HH2	1:o:4103:GLN:HE21	1.63	0.47
5:b:88:TYR:CZ	2:h:80:TYR:HE2	2.32	0.47
2:h:51:ILE:HD12	2:h:56:MET:HB2	1.96	0.47
7:j:103:DG:H2''	7:j:104:DG:O5'	2.14	0.47
9:L:405:VAL:HB	9:L:426:PHE:CE2	2.49	0.47
8:M:85:VAL:HG23	8:M:106:GLN:HB3	1.95	0.47
8:M:111:PRO:HA	8:M:115:ARG:HH11	1.79	0.47
9:N:10:VAL:HB	9:N:54:ILE:HA	1.95	0.47
1:O:1069:HIS:HD2	1:O:3741:ARG:HD3	1.78	0.47
1:O:1483:LEU:HD13	1:O:1515:LEU:HD23	1.95	0.47
1:O:1490:GLY:C	1:O:1492:ALA:N	2.69	0.47
1:O:1504:ASP:OD1	1:O:1505:LEU:N	2.48	0.47
1:O:2185:MET:O	1:O:2189:ILE:HG12	2.14	0.47
1:O:2196:TRP:CD1	1:O:2200:ALA:HB3	2.49	0.47
1:O:2514:ASN:HD22	1:O:2517:LEU:HG	1.79	0.47
1:O:3469:LEU:HA	1:O:3472:ILE:HD12	1.96	0.47
2:D:58:ILE:HG12	5:B:99:GLY:HA2	1.95	0.47
3:C:43:VAL:HG22	2:H:85:THR:HG23	1.96	0.47
4:A:39:HIS:HB2	7:j:86:DG:H21	1.78	0.47
3:c:45:ALA:N	7:j:115:DT:O5'	2.46	0.47
5:F:34:ILE:HA	5:F:37:LEU:HB2	1.95	0.47
1:o:1475:LEU:HG	1:o:1524:LEU:HD22	1.95	0.47
1:o:1487:VAL:HG23	1:o:1562:LEU:HD12	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1801:VAL:HA	1:o:1804:MET:HG3	1.97	0.47
4:a:103:LEU:HD21	4:a:124:ILE:HG23	1.96	0.47
5:b:67:ARG:O	5:b:70:VAL:HG12	2.14	0.47
3:g:59:THR:HG22	2:h:41:VAL:HG11	1.97	0.47
6:i:39:DA:H1'	7:j:116:DA:H2	1.79	0.47
8:K:145:GLU:O	8:K:149:VAL:HG23	2.13	0.47
8:M:301:ARG:HG2	9:N:294:VAL:HG22	1.96	0.47
8:M:325:ARG:HH22	8:M:328:ILE:HD12	1.77	0.47
9:N:700:GLU:HA	9:N:703:LYS:HG2	1.95	0.47
1:O:16:GLN:HG2	1:O:59:PHE:HB3	1.95	0.47
1:O:1375:THR:HG23	1:O:1395:LEU:HD11	1.96	0.47
1:O:1782:PHE:HB3	1:O:1827:LEU:HB3	1.96	0.47
1:O:1785:ILE:HA	1:O:1788:ARG:HG2	1.95	0.47
1:O:2211:LEU:O	1:O:2215:LEU:HG	2.15	0.47
1:O:3166:ASN:HB3	1:O:3186:ARG:CZ	2.44	0.47
1:O:3631:LYS:O	1:O:3635:THR:OG1	2.26	0.47
1:O:3811:THR:HA	1:O:3929:MET:HA	1.95	0.47
2:D:37:TYR:HA	2:D:40:LYS:HE3	1.96	0.47
2:D:116:THR:O	2:D:119:THR:OG1	2.26	0.47
4:A:70:LEU:HB2	5:B:25:ASN:HB3	1.96	0.47
5:B:22:LEU:O	5:B:23:ARG:NE	2.46	0.47
3:c:111:ILE:HD13	5:F:42:GLY:HA3	1.96	0.47
4:E:124:ILE:O	4:E:128:ARG:HG3	2.14	0.47
1:o:3487:ILE:HG13	1:o:3516:HIS:HB2	1.95	0.47
1:o:3498:TRP:O	1:o:3502:MET:HG2	2.14	0.47
1:o:3836:PRO:HG2	1:o:3877:LYS:HG3	1.95	0.47
4:e:122:LYS:O	4:e:125:GLN:HG3	2.12	0.47
6:i:118:DC:N3	6:i:119:DA:N6	2.62	0.47
7:j:51:DT:H1'	7:j:52:DA:N7	2.30	0.47
6:I:136:DA:H2''	6:I:137:DC:H5'	1.95	0.47
9:L:336:GLU:HG2	9:L:339:CYS:SG	2.54	0.47
8:M:370:PRO:HG3	8:M:382:PHE:CD2	2.50	0.47
9:N:252:THR:O	9:N:340:PHE:HB3	2.14	0.47
1:O:49:ALA:H	1:O:52:ALA:HB3	1.80	0.47
1:O:261:ASP:OD1	1:O:261:ASP:N	2.47	0.47
1:O:905:ILE:HG12	1:O:2811:SER:HB2	1.96	0.47
1:O:1098:GLN:HG3	1:O:1099:PHE:HD1	1.79	0.47
1:O:1184:ARG:NH2	1:O:1265:GLU:OE1	2.40	0.47
1:O:1473:THR:O	1:O:1474:ASP:C	2.57	0.47
1:O:1512:SER:O	1:O:1515:LEU:HB2	2.14	0.47
1:O:1724:MET:HE1	9:L:619:HIS:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2304:VAL:HG13	1:O:2348:GLN:HG2	1.95	0.47
1:O:3005:LEU:O	1:O:3007:GLU:N	2.48	0.47
1:O:3012:GLU:O	1:O:3015:SER:OG	2.31	0.47
1:O:3238:MET:O	1:O:3242:MET:HG2	2.14	0.47
1:O:3455:LYS:HA	1:O:3455:LYS:HD2	1.69	0.47
4:A:39:HIS:HB2	7:j:86:DG:N2	2.29	0.47
5:B:67:ARG:NH1	2:d:97:LEU:O	2.48	0.47
3:c:27:VAL:HG13	3:c:48:PRO:HB2	1.96	0.47
1:o:301:CYS:HA	1:o:309:LYS:HA	1.96	0.47
1:o:538:ASP:HA	1:o:541:MET:HG2	1.96	0.47
1:o:745:VAL:O	1:o:749:VAL:HG23	2.14	0.47
1:o:917:LEU:O	1:o:921:ALA:HB2	2.14	0.47
1:o:1418:HIS:HA	1:o:1421:GLU:HB2	1.97	0.47
1:o:1786:ALA:HB3	1:o:1830:HIS:HD2	1.80	0.47
1:o:1961:PHE:HE2	1:o:2104:MET:HB3	1.79	0.47
1:o:2395:THR:HA	1:o:2398:LEU:HB2	1.96	0.47
1:o:2429:ASP:OD1	1:o:2429:ASP:N	2.47	0.47
1:o:2850:PHE:HB3	1:o:2883:SER:HB2	1.95	0.47
1:o:3166:ASN:HB2	1:o:3186:ARG:HH22	1.78	0.47
5:b:36:ARG:HA	5:b:39:ARG:HG2	1.96	0.47
6:i:30:DC:O2	7:j:125:DG:N2	2.47	0.47
8:K:105:LEU:HG	8:K:106:GLN:H	1.78	0.47
8:K:259:LEU:HB3	8:K:273:ILE:HD11	1.96	0.47
8:K:330:GLU:HG3	8:K:332:GLU:H	1.80	0.47
8:M:330:GLU:O	8:M:334:THR:HG23	2.15	0.47
9:N:225:TYR:HB3	9:N:229:GLU:HB3	1.96	0.47
1:O:195:ASN:O	1:O:198:ARG:HG3	2.15	0.47
1:O:369:PHE:O	1:O:373:CYS:N	2.37	0.47
1:O:1393:ALA:O	1:O:1396:PRO:HD2	2.14	0.47
1:O:1440:ASP:OD1	1:O:1440:ASP:N	2.47	0.47
1:O:1569:THR:HG22	1:O:1573:LYS:NZ	2.30	0.47
1:O:2328:ARG:O	1:O:2333:ARG:HB2	2.14	0.47
1:O:2345:VAL:O	1:O:2348:GLN:NE2	2.47	0.47
1:o:866:ILE:O	1:o:869:ASN:ND2	2.32	0.47
1:o:2387:PRO:HD2	8:M:158:GLN:HG2	1.96	0.47
1:o:2481:HIS:CE1	1:o:2530:ARG:HG3	2.49	0.47
1:o:2975:ALA:HB1	1:o:2994:TRP:CE2	2.50	0.47
1:o:3148:GLN:HE21	1:o:3158:LYS:HD3	1.79	0.47
1:o:3980:MET:O	1:o:3984:MET:HG2	2.14	0.47
5:b:34:ILE:HG21	5:b:51:TYR:HB3	1.96	0.47
8:K:533:ASP:OD1	8:K:534:TYR:N	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:482:ILE:HD12	9:L:515:MET:SD	2.55	0.47
8:M:62:MET:SD	8:M:205:LEU:HD13	2.54	0.47
8:M:108:LEU:HD12	8:M:108:LEU:O	2.15	0.47
9:N:44:ARG:HG2	9:N:238:LYS:HE3	1.95	0.47
1:O:117:LYS:HG3	1:O:118:ASP:H	1.80	0.47
1:O:163:LYS:HB3	8:K:300:THR:HG23	1.96	0.47
1:O:955:ALA:HB3	1:O:956:PRO:HD3	1.97	0.47
1:O:1101:PHE:O	1:O:1105:VAL:HG22	2.15	0.47
1:O:1267:TYR:O	1:O:1271:ILE:HG12	2.15	0.47
1:O:1271:ILE:HG21	1:O:1278:ALA:HB2	1.95	0.47
1:O:1333:SER:O	1:O:1337:VAL:HG23	2.14	0.47
1:O:1754:GLN:HB2	1:O:1797:LEU:HD11	1.96	0.47
1:O:1772:HIS:CE1	1:O:1773:VAL:HG13	2.49	0.47
1:O:2309:PHE:HB2	1:O:2316:TYR:HD2	1.80	0.47
1:O:2461:PHE:O	1:O:2464:HIS:HB2	2.14	0.47
1:O:2897:LEU:HD21	1:O:2923:TRP:CE2	2.50	0.47
1:O:3100:LYS:HA	1:O:3103:ILE:HG22	1.97	0.47
1:O:3114:TYR:CE1	1:O:3125:ARG:HB3	2.49	0.47
1:O:3156:PRO:HB2	1:O:3159:ARG:HB2	1.97	0.47
1:O:3324:ARG:HG3	1:O:3392:ALA:HB2	1.96	0.47
1:O:3763:ARG:HA	1:O:3766:GLN:CD	2.39	0.47
1:O:3910:LEU:HA	1:O:3913:ILE:HG22	1.97	0.47
1:O:4114:PRO:O	1:O:4117:LEU:HG	2.15	0.47
3:C:40:ALA:HB1	3:C:43:VAL:HB	1.96	0.47
2:H:94:ALA:HA	2:H:97:LEU:HD12	1.96	0.47
5:B:26:ILE:HG22	5:B:58:LEU:HD23	1.95	0.47
3:c:55:LEU:O	3:c:59:THR:HG22	2.14	0.47
1:o:418:ALA:HB1	1:o:463:LYS:HB3	1.97	0.47
1:o:463:LYS:HB3	1:o:463:LYS:HE2	1.72	0.47
1:o:714:VAL:HG23	1:o:733:LEU:HD11	1.96	0.47
1:o:1049:GLN:C	1:o:1055:ASN:HB3	2.40	0.47
1:o:1082:PHE:HA	1:o:1085:ILE:HG12	1.96	0.47
1:o:1104:LEU:HA	1:o:1134:LEU:HD13	1.97	0.47
1:o:1840:PHE:O	1:o:1844:VAL:HG23	2.15	0.47
1:o:2172:ALA:HB3	1:o:2215:LEU:HD13	1.96	0.47
1:o:3005:LEU:HD13	1:o:3253:SER:HB3	1.97	0.47
1:o:3088:LEU:HD21	1:o:3185:ASN:HD21	1.80	0.47
1:o:3271:ASP:OD1	1:o:3271:ASP:N	2.48	0.47
1:o:3731:SER:H	1:o:3735:PRO:HD2	1.79	0.47
4:a:63:ARG:NH2	6:I:63:DA:H5"	2.30	0.47
7:J:12:DT:C2	7:J:13:DC:N4	2.83	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:J:94:DA:H2''	7:J:95:DC:H5''	1.96	0.47
6:I:111:DC:O2	6:I:112:DT:N3	2.47	0.47
8:K:462:MET:HE3	9:L:380:LEU:HA	1.95	0.47
9:L:497:ARG:NH1	9:L:501:PRO:O	2.47	0.47
9:L:509:GLN:HG2	9:L:512:ILE:HG12	1.96	0.47
8:M:45:SER:OG	8:M:48:MET:HE1	2.15	0.47
9:N:147:LEU:O	9:N:151:ILE:HG13	2.15	0.47
1:O:1015:ASP:O	1:O:1018:VAL:N	2.36	0.47
1:O:1066:LEU:HA	1:O:1069:HIS:ND1	2.29	0.47
1:O:1091:GLU:OE1	1:O:1091:GLU:N	2.47	0.47
1:O:2396:LEU:HA	1:O:2399:GLU:CD	2.39	0.47
1:O:2961:ALA:O	1:O:3989:ARG:NH1	2.32	0.47
1:O:3980:MET:O	1:O:3984:MET:HG2	2.15	0.47
3:C:55:LEU:HD22	2:H:63:VAL:HG13	1.96	0.47
1:o:541:MET:HA	1:o:544:ILE:HB	1.97	0.47
1:o:1506:SER:O	1:o:1509:GLN:HG2	2.15	0.47
1:o:1779:GLN:O	1:o:1783:ARG:HG2	2.15	0.47
1:o:1833:LEU:HA	1:o:1836:LEU:HD12	1.97	0.47
1:o:1864:ASP:HA	1:o:1867:ILE:HD12	1.97	0.47
1:o:2183:HIS:HA	1:o:2186:VAL:HB	1.96	0.47
1:o:2478:MET:HE1	1:o:2524:PHE:CD2	2.50	0.47
1:o:2959:ALA:HB1	1:o:2967:GLU:HG3	1.97	0.47
1:o:3908:HIS:CE1	1:o:3967:PHE:CE2	3.02	0.47
5:b:87:VAL:HG11	5:b:100:PHE:HB2	1.96	0.47
6:i:108:DT:H3	7:j:47:DG:H22	1.62	0.47
7:j:25:DG:H4'	9:L:247:TRP:CZ2	2.49	0.47
7:J:135:DG:O6	6:I:21:DG:N2	2.48	0.47
8:K:376:ILE:N	9:L:540:ILE:O	2.47	0.47
8:K:505:ASP:C	8:K:507:THR:N	2.72	0.47
8:M:301:ARG:HH12	9:N:302:GLU:HG3	1.80	0.47
1:O:636:GLU:HG2	1:O:637:LYS:HD2	1.96	0.47
1:O:1102:GLU:H	1:O:1102:GLU:CD	2.23	0.47
1:O:1533:LEU:HA	1:O:1592:MET:HE1	1.97	0.47
1:O:1590:THR:HB	1:O:1632:TRP:CZ2	2.50	0.47
1:O:1916:ILE:HG13	1:O:1917:LYS:N	2.30	0.47
1:O:2410:GLU:C	1:O:2412:TYR:N	2.73	0.47
1:O:2466:SER:OG	1:O:2469:CYS:SG	2.72	0.47
1:O:2584:CYS:SG	1:O:2585:GLU:N	2.88	0.47
1:O:3153:SER:O	1:O:3155:VAL:N	2.47	0.47
1:O:3380:ARG:NH1	1:O:3383:GLN:OE1	2.48	0.47
1:O:3945:ALA:N	1:O:3948:SER:OG	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:114:ALA:O	2:H:117:LYS:HG2	2.15	0.47
3:G:25:PHE:CZ	3:G:59:THR:HG21	2.50	0.47
1:o:96:MET:O	1:o:99:LYS:NZ	2.48	0.47
1:o:115:TYR:HB2	1:o:130:LEU:HD21	1.97	0.47
1:o:539:GLN:O	1:o:540:MET:HE2	2.14	0.47
1:o:925:GLN:HE21	1:o:2800:ARG:HH12	1.62	0.47
1:o:3183:ILE:HG13	1:o:3242:MET:HE2	1.96	0.47
1:o:3184:THR:HA	1:o:3187:CYS:SG	2.55	0.47
1:o:3190:LEU:HD23	1:o:3193:ILE:HD12	1.97	0.47
1:o:3281:CYS:SG	1:o:3329:LEU:HD11	2.55	0.47
1:o:3476:PRO:O	1:o:3480:LEU:HG	2.14	0.47
1:o:3831:ASP:HB3	1:o:3832:PRO:HD3	1.97	0.47
4:a:63:ARG:HB2	4:a:66:PRO:HD2	1.97	0.47
4:a:128:ARG:HD2	5:b:57:VAL:HG13	1.97	0.47
7:J:45:DC:H2"	7:J:46:DA:C8	2.50	0.47
8:K:451:LYS:NZ	9:L:413:LYS:O	2.48	0.47
9:N:529:PRO:O	9:N:533:ILE:HG12	2.14	0.47
1:O:832:LYS:HG3	1:O:834:LEU:H	1.80	0.47
1:O:1650:ALA:HA	1:O:1695:LEU:HD11	1.96	0.47
1:O:1864:ASP:O	1:O:1867:ILE:HG12	2.15	0.47
1:O:2455:LEU:HA	1:O:2458:VAL:HB	1.95	0.47
1:O:3370:SER:OG	1:O:3371:GLU:N	2.48	0.47
1:O:3913:ILE:HB	1:O:3984:MET:SD	2.55	0.47
2:D:69:ARG:HH12	3:G:98:GLY:HA3	1.79	0.47
2:D:108:VAL:HA	3:G:50:TYR:OH	2.14	0.47
4:A:62:ILE:HB	5:B:29:ILE:HD12	1.97	0.47
1:o:1373:VAL:O	1:o:1376:LEU:HB2	2.14	0.47
1:o:1458:LEU:HD11	1:o:1466:ASN:HD21	1.79	0.47
1:o:2891:ARG:CZ	1:o:3895:GLU:HA	2.44	0.47
1:o:3505:LEU:HD13	1:o:4005:PHE:HZ	1.80	0.47
1:o:3965:ARG:HG2	1:o:4128:MET:O	2.15	0.47
5:b:68:ASP:OD1	2:h:97:LEU:HB2	2.14	0.47
5:f:79:LYS:O	5:f:80:THR:OG1	2.28	0.47
9:L:249:CYS:SG	9:L:250:ARG:N	2.88	0.47
9:L:656:ASN:HB3	9:L:687:THR:O	2.15	0.47
8:M:474:ARG:C	8:M:475:SER:HG	2.22	0.47
8:M:475:SER:OG	8:M:476:ASP:N	2.48	0.47
9:N:57:VAL:HG13	9:N:79:VAL:HA	1.96	0.47
9:N:340:PHE:HA	9:N:394:ARG:O	2.14	0.47
1:O:1437:TYR:HD1	1:O:1503:LEU:HB3	1.80	0.46
1:O:2216:LEU:HA	1:O:2219:LEU:HD12	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2343:GLU:HA	1:O:2346:ALA:HB3	1.97	0.46
1:O:2599:SER:OG	1:O:2600:THR:N	2.47	0.46
1:O:2860:ASP:CG	1:O:2864:GLN:HE22	2.23	0.46
1:O:3582:GLU:O	1:O:3586:LYS:N	2.37	0.46
1:O:3701:ILE:HB	1:O:3704:GLN:NE2	2.30	0.46
1:O:3792:SER:N	1:O:3804:GLU:OE2	2.48	0.46
3:C:38:HIS:CD2	3:g:40:ALA:HA	2.49	0.46
1:o:1331:ASN:ND2	1:o:1334:LYS:HE2	2.30	0.46
1:o:3064:PHE:HE2	1:o:3078:LEU:HD21	1.79	0.46
5:b:31:LYS:HB2	5:b:51:TYR:CD2	2.50	0.46
5:f:91:LYS:HG2	5:f:97:LEU:H	1.80	0.46
8:K:117:LEU:HG	8:K:495:LEU:HD12	1.96	0.46
8:K:411:VAL:HG12	8:K:436:PHE:HA	1.96	0.46
9:L:531:SER:HA	9:L:534:LYS:HE2	1.96	0.46
8:M:109:ASP:OD1	8:M:115:ARG:NE	2.48	0.46
8:M:269:ILE:HG21	8:M:378:SER:OG	2.15	0.46
8:M:350:PHE:CZ	8:M:394:VAL:HB	2.49	0.46
8:M:351:LYS:HD2	9:N:464:ALA:HB2	1.96	0.46
8:M:488:ARG:HD3	8:M:501:GLU:HG3	1.97	0.46
1:O:101:ALA:HB3	1:O:102:PRO:HD3	1.98	0.46
1:O:741:ILE:HD13	1:O:776:TRP:HE1	1.79	0.46
1:O:1105:VAL:O	1:O:1108:MET:HB2	2.14	0.46
1:O:2429:ASP:O	1:O:2432:GLN:HB2	2.15	0.46
1:O:2817:LEU:HD22	1:O:2865:HIS:ND1	2.30	0.46
1:O:2964:ASP:OD1	1:O:2965:TYR:N	2.49	0.46
1:O:3559:LYS:HD2	1:O:3562:LEU:HD21	1.97	0.46
1:O:3681:LYS:HE2	1:O:3684:SER:OG	2.16	0.46
3:C:67:GLY:O	3:C:71:ARG:HG2	2.15	0.46
3:c:69:ALA:HB3	3:c:82:HIS:HB3	1.97	0.46
1:o:384:MET:O	1:o:388:LEU:N	2.35	0.46
1:o:1101:PHE:HB2	1:o:1151:ARG:HH12	1.80	0.46
1:o:1142:HIS:O	1:o:1146:ASN:N	2.32	0.46
1:o:1411:TYR:O	1:o:1414:ILE:HG22	2.16	0.46
1:o:1413:ASP:HA	1:o:1416:GLU:HG2	1.97	0.46
1:o:1921:ASP:OD1	1:o:1921:ASP:N	2.49	0.46
1:o:2344:LEU:HG	1:o:2347:LYS:HE2	1.97	0.46
1:o:2425:ARG:NH2	1:o:2460:GLU:OE2	2.48	0.46
1:o:2504:ASP:O	1:o:2508:GLN:HG2	2.15	0.46
1:o:2825:THR:HG23	1:o:2828:GLU:H	1.79	0.46
1:o:3999:THR:HA	1:o:4002:MET:HE2	1.96	0.46
4:e:63:ARG:NH2	7:J:63:DA:H1'	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:j:25:DG:H2'	7:j:26:DC:C4	2.50	0.46
7:j:80:DT:H2''	7:j:81:DC:OP2	2.14	0.46
8:K:46:LYS:O	8:K:47:ALA:C	2.59	0.46
8:K:470:ARG:HA	9:L:345:PHE:HB2	1.97	0.46
9:L:496:HIS:CE1	9:L:500:HIS:HB2	2.50	0.46
1:O:1437:TYR:CE2	1:O:1489:LYS:CB	2.98	0.46
1:O:1618:LEU:O	1:O:1622:ILE:HG12	2.16	0.46
1:O:2216:LEU:O	1:O:2220:MET:HG2	2.16	0.46
1:O:3527:GLN:HB2	1:O:3705:TYR:CE2	2.50	0.46
1:O:4098:LEU:HD13	1:O:4102:THR:HB	1.97	0.46
2:D:122:LYS:HG3	3:G:20:ARG:HH11	1.80	0.46
3:G:42:ARG:HB3	6:i:115:DG:H4'	1.97	0.46
1:o:178:LEU:HB2	1:o:227:LEU:HD13	1.96	0.46
1:o:1135:CYS:HA	1:o:1194:PHE:HZ	1.79	0.46
1:o:1685:ASP:HB3	1:o:1688:LEU:HG	1.98	0.46
1:o:2168:LEU:HG	1:o:2193:ILE:HD11	1.96	0.46
1:o:2212:ALA:O	1:o:2216:LEU:HG	2.16	0.46
1:o:2449:VAL:HG23	1:o:2452:ARG:HE	1.80	0.46
1:o:3593:ARG:HH21	1:o:3660:ASN:HB3	1.79	0.46
1:o:3817:LEU:HB3	1:o:3825:LYS:HZ3	1.78	0.46
4:e:53:ARG:O	4:e:57:SER:OG	2.25	0.46
6:i:120:DA:H2''	6:i:121:DT:OP2	2.15	0.46
7:j:72:DA:H5'	7:j:72:DA:C8	2.51	0.46
8:K:200:LEU:O	8:K:222:SER:OG	2.32	0.46
1:O:1178:ARG:HB3	1:O:1180:GLN:HG2	1.98	0.46
1:O:2965:TYR:O	1:O:2969:ALA:N	2.39	0.46
1:O:3110:PHE:HA	1:O:3113:ASN:HD21	1.81	0.46
1:O:3263:HIS:HB2	1:O:3276:TRP:CD2	2.50	0.46
4:A:50:GLU:HG3	4:A:53:ARG:HH22	1.79	0.46
3:c:16:SER:O	3:c:20:ARG:N	2.43	0.46
5:F:78:ARG:NH1	5:F:82:THR:OG1	2.48	0.46
1:o:374:LYS:HD2	1:o:381:VAL:HG21	1.98	0.46
1:o:1296:PHE:HA	1:o:1299:GLU:HG2	1.96	0.46
1:o:1483:LEU:HD13	1:o:1515:LEU:HG	1.97	0.46
1:o:1925:GLU:HB3	1:o:1941:HIS:CE1	2.51	0.46
1:o:2142:ILE:HA	1:o:2145:PHE:HD2	1.79	0.46
1:o:2442:MET:HG3	1:o:2446:LEU:HD13	1.98	0.46
1:o:2815:GLY:HA2	1:o:2818:LYS:HG2	1.96	0.46
1:o:3578:LEU:HD11	1:o:3681:LYS:HD2	1.98	0.46
1:o:3606:ILE:HG21	1:o:3646:LYS:HD3	1.98	0.46
4:a:63:ARG:NH2	5:b:33:ALA:HB2	2.29	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:b:26:ILE:HA	5:b:29:ILE:HG12	1.98	0.46
5:b:72:TYR:HA	5:b:75:HIS:CE1	2.51	0.46
3:g:54:VAL:HG21	2:h:107:ALA:O	2.15	0.46
8:M:346:MET:HB2	8:M:399:ARG:HB3	1.97	0.46
9:N:43:GLN:HB2	9:N:47:PHE:CE2	2.51	0.46
9:N:303:THR:HB	9:N:306:LEU:HB3	1.98	0.46
9:N:307:LYS:HD3	9:N:310:ILE:O	2.16	0.46
1:O:2443:MET:N	1:O:2444:PRO:HD2	2.31	0.46
1:O:2517:LEU:O	1:O:2521:ILE:HG12	2.15	0.46
5:B:85:ASP:OD1	5:B:86:VAL:N	2.48	0.46
1:o:1799:GLU:OE2	1:o:1806:ARG:NH2	2.49	0.46
1:o:1917:LYS:HD2	9:L:725:VAL:HB	1.98	0.46
1:o:2425:ARG:NE	1:o:2460:GLU:OE1	2.49	0.46
1:o:2987:THR:HG23	1:o:2990:GLU:H	1.81	0.46
1:o:3867:THR:HG23	1:o:4117:LEU:HB2	1.97	0.46
4:a:96:CYS:HB2	5:b:58:LEU:HD11	1.96	0.46
7:j:26:DC:H1'	7:j:27:DC:C2	2.51	0.46
7:j:111:DT:H3'	7:j:112:DC:H3'	1.96	0.46
8:K:204:HIS:HA	8:K:211:PHE:CE2	2.50	0.46
8:M:421:ASP:OD1	8:M:425:ILE:N	2.48	0.46
9:N:643:ARG:HD2	9:N:659:LEU:HD22	1.98	0.46
1:O:233:ASN:OD1	1:O:278:HIS:NE2	2.49	0.46
1:O:1261:LEU:HG	1:O:1337:VAL:HG22	1.96	0.46
1:O:1412:LYS:O	1:O:1416:GLU:N	2.30	0.46
1:O:1770:GLN:N	1:O:1770:GLN:OE1	2.49	0.46
1:O:1923:PHE:HB3	1:O:1925:GLU:OE1	2.15	0.46
1:O:2443:MET:HE1	1:O:2479:TRP:CE3	2.51	0.46
1:O:3066:ASP:O	1:O:3070:HIS:ND1	2.49	0.46
3:c:16:SER:HA	6:i:34:DA:H5''	1.97	0.46
2:d:102:GLU:OE2	2:d:104:ALA:HB2	2.16	0.46
1:o:165:LYS:NZ	1:o:172:GLU:OE2	2.40	0.46
1:o:1413:ASP:O	1:o:1416:GLU:HG2	2.16	0.46
1:o:3125:ARG:O	1:o:3129:LEU:HG	2.15	0.46
1:o:4125:GLU:HG2	1:o:4128:MET:HE1	1.98	0.46
7:J:76:DG:N1	6:I:79:DG:O6	2.42	0.46
8:K:215:LEU:O	8:K:217:TYR:N	2.48	0.46
8:K:381:LEU:HB3	9:L:537:PHE:CD2	2.50	0.46
9:L:167:PHE:HE1	9:L:205:LEU:HD22	1.81	0.46
1:O:745:VAL:HG11	1:O:788:TYR:OH	2.16	0.46
1:O:1378:GLU:HG2	1:O:1380:ALA:H	1.80	0.46
1:O:3325:ASP:O	1:O:3328:ILE:HG22	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3716:HIS:O	1:O:3718:ARG:HD2	2.16	0.46
5:F:46:ILE:N	6:i:84:DC:OP1	2.45	0.46
1:o:468:LEU:HD13	1:o:478:CYS:SG	2.56	0.46
2:h:115:VAL:O	2:h:118:TYR:HB3	2.16	0.46
7:j:75:DC:H2''	7:j:76:DG:H8	1.79	0.46
8:K:262:LYS:NZ	8:K:344:GLY:HA3	2.30	0.46
8:K:334:THR:HA	8:K:337:LEU:HG	1.98	0.46
9:L:623:PHE:CE2	9:L:669:LYS:HE3	2.51	0.46
8:M:149:VAL:HA	8:M:152:ASN:ND2	2.30	0.46
1:O:678:LYS:HE2	1:O:737:PRO:HA	1.98	0.46
1:O:762:TYR:CD2	1:O:765:LEU:HG	2.51	0.46
1:O:2976:LEU:O	1:O:2979:GLN:NE2	2.49	0.46
1:O:3370:SER:OG	1:O:3371:GLU:OE1	2.34	0.46
1:O:3499:ILE:HA	1:O:3502:MET:HE3	1.97	0.46
1:O:3500:SER:HA	1:O:3503:VAL:HG12	1.97	0.46
2:H:31:LYS:HB3	6:I:125:DG:H4'	1.97	0.46
2:H:84:SER:O	2:H:85:THR:C	2.59	0.46
1:o:411:PRO:HG3	1:o:457:CYS:HB3	1.97	0.46
1:o:1378:GLU:HG2	1:o:1450:ALA:HB1	1.98	0.46
1:o:2269:ASP:N	1:o:2269:ASP:OD1	2.46	0.46
1:o:3011:LEU:HB3	1:o:3047:SER:HB2	1.97	0.46
1:o:3103:ILE:O	1:o:3107:ILE:HG13	2.15	0.46
1:o:3792:SER:OG	1:o:3804:GLU:OE1	2.32	0.46
5:b:45:ARG:HH22	6:I:71:DG:N2	2.14	0.46
6:i:115:DG:H1	7:j:40:DG:H21	1.63	0.46
8:K:36:ASP:OD1	8:K:163:HIS:ND1	2.44	0.46
8:K:511:VAL:O	8:K:515:ASN:N	2.48	0.46
9:L:347:LYS:NZ	9:L:387:LEU:O	2.49	0.46
9:L:464:ALA:HB1	9:L:473:LEU:HB3	1.97	0.46
8:M:163:HIS:CD2	8:M:165:ARG:H	2.34	0.46
8:M:418:GLU:HA	8:M:428:THR:O	2.15	0.46
1:O:1372:LEU:O	1:O:1375:THR:HB	2.16	0.46
1:O:1769:GLU:O	1:O:1822:ARG:NH1	2.49	0.46
1:O:2162:LYS:HB3	1:O:2200:ALA:HB1	1.97	0.46
1:O:2394:LYS:HB3	1:O:2431:ARG:HH21	1.80	0.46
1:O:2866:ALA:O	1:O:2869:LEU:HB2	2.16	0.46
2:H:38:VAL:HG11	2:H:59:MET:SD	2.56	0.46
1:o:79:ARG:HG3	1:o:126:PRO:HG2	1.97	0.46
1:o:195:ASN:HA	1:o:198:ARG:NE	2.29	0.46
1:o:584:GLU:N	1:o:613:HIS:O	2.46	0.46
1:o:2507:ILE:HA	1:o:2510:LEU:HG	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:4012:ASP:HB2	1:o:4038:TRP:HB2	1.98	0.46
4:a:83:ARG:CZ	7:J:103:DG:H21	2.29	0.46
7:J:103:DG:H2''	7:J:104:DG:C8	2.51	0.46
8:K:78:SER:O	8:K:79:ASP:C	2.59	0.46
8:K:95:ASN:ND2	8:K:102:ILE:O	2.48	0.46
8:K:399:ARG:HH22	9:L:517:ASN:HD22	1.62	0.46
9:L:96:SER:C	9:L:99:GLN:HE22	2.23	0.46
9:L:691:ALA:HB1	9:L:694:SER:HB3	1.97	0.46
8:M:55:ASP:OD1	8:M:55:ASP:N	2.49	0.46
8:M:289:TYR:HD1	9:N:310:ILE:HG22	1.81	0.46
1:O:313:LEU:HA	1:O:316:LEU:HD12	1.98	0.46
1:O:488:ILE:HG21	1:O:2039:GLU:OE1	2.16	0.46
1:O:1374:GLN:HA	1:O:1377:CYS:HB3	1.98	0.46
1:O:3066:ASP:HA	1:O:3069:MET:HG3	1.98	0.46
1:O:3123:GLN:HA	1:O:3126:LEU:HD12	1.98	0.46
1:O:3485:LYS:O	1:O:3489:SER:HB2	2.15	0.46
1:O:3793:VAL:HG23	1:O:3803:ILE:HB	1.98	0.46
2:H:95:VAL:HG12	2:H:108:VAL:HG12	1.97	0.46
3:G:75:LYS:HZ1	3:G:79:ILE:HB	1.81	0.46
1:o:919:LEU:HA	1:o:972:LEU:HD21	1.98	0.46
1:o:1010:LEU:HA	1:o:1013:ILE:HG12	1.98	0.46
1:o:1034:ARG:HB2	1:o:1085:ILE:HG22	1.98	0.46
1:o:1412:LYS:NZ	1:o:1416:GLU:HB3	2.31	0.46
1:o:2257:PHE:HA	1:o:2260:PHE:CE2	2.51	0.46
1:o:2386:LEU:HD22	1:o:2418:LYS:HB3	1.97	0.46
1:o:2449:VAL:HG23	1:o:2452:ARG:HH21	1.81	0.46
1:o:2829:LYS:HB2	1:o:2829:LYS:HE2	1.78	0.46
1:o:3176:MET:HA	1:o:3179:TRP:HB2	1.97	0.46
4:a:63:ARG:HD2	7:J:94:DA:H4'	1.98	0.46
8:K:215:LEU:C	8:K:217:TYR:N	2.74	0.46
8:K:335:GLU:OE2	8:K:404:ARG:NH2	2.49	0.46
8:M:78:SER:OG	8:M:79:ASP:N	2.47	0.46
8:M:360:HIS:NE2	8:M:443:LYS:HD2	2.31	0.46
8:M:368:VAL:O	8:M:431:GLY:HA3	2.16	0.46
1:O:99:LYS:C	1:O:101:ALA:N	2.74	0.45
1:O:909:VAL:HG12	1:O:2807:GLN:NE2	2.31	0.45
1:O:919:LEU:HD13	1:O:968:VAL:HG23	1.97	0.45
1:O:1525:CYS:HA	1:O:1528:LEU:HB3	1.97	0.45
1:O:2260:PHE:HE2	1:O:2299:TYR:CE2	2.34	0.45
1:O:2938:VAL:O	1:O:2942:ILE:HG12	2.16	0.45
1:O:3686:TRP:O	1:O:3686:TRP:HD1	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3970:LEU:O	1:O:3971:MET:HE2	2.15	0.45
3:c:17:ARG:HA	3:c:20:ARG:HB2	1.99	0.45
3:c:107:VAL:HG11	4:E:101:VAL:HG11	1.98	0.45
1:o:157:TYR:HA	1:o:160:LEU:HG	1.97	0.45
1:o:1184:ARG:HD2	1:o:1185:HIS:N	2.31	0.45
1:o:1231:GLN:N	1:o:1232:PRO:HD3	2.31	0.45
1:o:1416:GLU:HB2	1:o:1466:ASN:HB2	1.99	0.45
1:o:1783:ARG:O	1:o:1787:ARG:NH1	2.49	0.45
1:o:2225:HIS:HB3	1:o:2227:LYS:HE2	1.98	0.45
1:o:3686:TRP:HB3	1:o:3687:MET:HE2	1.97	0.45
2:h:103:LEU:HD23	2:h:103:LEU:HA	1.82	0.45
6:i:140:DG:H2"	6:i:141:DG:C8	2.51	0.45
8:K:319:SER:O	9:L:277:THR:N	2.40	0.45
8:K:439:PHE:N	8:K:442:ASP:OD2	2.49	0.45
8:K:494:ALA:HA	9:L:321:VAL:HG11	1.97	0.45
8:M:364:PRO:HB3	9:N:357:MET:HA	1.98	0.45
1:O:2400:VAL:O	1:O:2404:ARG:HG2	2.16	0.45
1:O:2792:THR:OG1	1:O:2793:PRO:HD3	2.16	0.45
1:O:3188:PHE:O	1:O:3192:LYS:HG2	2.15	0.45
1:O:3705:TYR:O	1:O:3712:LEU:HD21	2.16	0.45
4:A:61:LEU:HD22	5:B:36:ARG:HB3	1.99	0.45
1:o:127:ALA:O	1:o:131:LEU:HG	2.16	0.45
1:o:135:LEU:HD13	1:o:177:LEU:HA	1.98	0.45
1:o:970:LEU:HA	1:o:988:VAL:HG11	1.97	0.45
1:o:1154:PRO:HG2	1:o:1157:PHE:HB3	1.98	0.45
1:o:3619:ASP:N	1:o:3619:ASP:OD1	2.47	0.45
1:o:3692:VAL:O	1:o:3721:GLY:N	2.36	0.45
4:a:100:LEU:HG	5:b:58:LEU:HD13	1.98	0.45
8:K:215:LEU:O	8:K:216:PHE:C	2.58	0.45
9:L:636:ILE:HG13	9:L:640:ARG:HH11	1.81	0.45
8:M:522:VAL:HG12	8:M:526:LYS:HZ1	1.81	0.45
9:N:155:LYS:HZ3	9:N:215:LEU:HG	1.80	0.45
9:N:396:ALA:HB1	9:N:401:ALA:HB3	1.98	0.45
1:O:832:LYS:NZ	1:O:835:LYS:H	2.15	0.45
1:O:1189:GLU:HA	1:O:1192:TYR:CE2	2.51	0.45
1:O:1471:GLN:H	1:O:1471:GLN:CD	2.24	0.45
1:O:1718:ILE:HA	1:O:1721:HIS:ND1	2.30	0.45
1:O:2360:PHE:CZ	1:O:2364:LEU:HD11	2.51	0.45
1:O:2840:PHE:HA	1:O:2843:PHE:CD2	2.52	0.45
1:O:2970:LYS:O	1:O:2973:ASP:N	2.50	0.45
1:O:3297:VAL:HG21	1:O:3344:GLU:HG3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3946:PHE:CZ	1:O:4047:ALA:HB2	2.51	0.45
3:G:42:ARG:C	6:i:115:DG:H5''	2.41	0.45
4:A:110:CYS:HB3	4:A:126:LEU:HD23	1.98	0.45
3:c:24:GLN:HG3	2:d:40:LYS:HD2	1.99	0.45
1:o:444:ASP:HB2	1:o:489:ARG:NH1	2.32	0.45
1:o:851:ILE:HD13	1:o:854:ARG:NH2	2.30	0.45
1:o:994:TRP:CE2	1:o:2581:LEU:HD21	2.52	0.45
1:o:1173:LEU:HD13	1:o:1191:PHE:CE2	2.52	0.45
1:o:2452:ARG:HA	1:o:2455:LEU:HG	1.98	0.45
1:o:3144:PHE:CZ	1:o:3161:LEU:HD21	2.46	0.45
6:i:127:DG:H1'	6:i:128:DG:O4'	2.17	0.45
7:j:94:DA:H2''	7:j:95:DC:H5''	1.97	0.45
7:J:61:DT:H1'	7:J:62:DA:C8	2.50	0.45
7:J:109:DA:H61	6:I:46:DA:H2	1.64	0.45
8:K:320:GLN:H	8:K:327:ILE:HB	1.80	0.45
9:L:269:GLN:OE1	9:L:269:GLN:N	2.49	0.45
9:N:595:ALA:HA	9:N:598:PHE:CE2	2.51	0.45
1:O:80:GLU:HA	1:O:83:GLU:CD	2.41	0.45
1:O:207:GLN:HB3	1:O:217:LEU:HD13	1.97	0.45
1:O:533:HIS:HA	1:O:536:SER:OG	2.17	0.45
1:O:1017:ILE:O	1:O:1077:GLY:HA3	2.17	0.45
1:O:1486:LEU:HD11	1:O:1514:LEU:HD23	1.99	0.45
1:O:1755:SER:HB2	1:O:1758:LEU:HD13	1.98	0.45
1:O:2161:ALA:HB1	1:O:2196:TRP:CZ2	2.52	0.45
1:O:2326:ILE:O	1:O:2330:VAL:HG13	2.16	0.45
1:O:2394:LYS:HB3	1:O:2431:ARG:NH2	2.31	0.45
1:O:2776:ARG:NH2	1:O:2782:ASP:O	2.49	0.45
1:O:2783:ILE:O	1:O:2783:ILE:HG13	2.16	0.45
1:O:3119:VAL:HG13	1:O:3120:LEU:HG	1.97	0.45
1:O:3179:TRP:HB3	1:O:3242:MET:SD	2.57	0.45
1:O:3185:ASN:HB3	1:O:3189:PHE:CZ	2.52	0.45
1:O:3312:VAL:O	1:O:3316:LEU:N	2.40	0.45
1:O:3662:ILE:O	1:O:3665:MET:HG3	2.16	0.45
1:O:3828:TYR:HA	1:O:3832:PRO:HD2	1.97	0.45
1:O:3957:GLU:OE1	1:O:3959:MET:N	2.49	0.45
2:D:100:PRO:HD3	3:G:96:LEU:HB3	1.97	0.45
3:C:27:VAL:HG11	3:C:49:VAL:HG22	1.98	0.45
3:G:28:GLY:HA3	7:j:33:DA:H2'	1.98	0.45
5:B:68:ASP:O	5:B:71:THR:HB	2.16	0.45
1:o:229:SER:HA	1:o:278:HIS:NE2	2.32	0.45
1:o:871:LEU:HD21	1:o:3125:ARG:HG3	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:944:LYS:O	1:o:948:MET:N	2.38	0.45
1:o:1345:THR:HG21	1:o:1368:LEU:HD22	1.99	0.45
1:o:1554:SER:N	1:o:1557:GLU:OE2	2.49	0.45
1:o:2154:GLU:HA	1:o:2157:PHE:CZ	2.52	0.45
1:o:2187:VAL:HA	1:o:2190:VAL:HG22	1.97	0.45
1:o:2274:ILE:HA	1:o:2277:LEU:HD12	1.97	0.45
1:o:3033:GLU:HB3	1:o:3034:PRO:HD3	1.98	0.45
7:j:123:DA:H2"	7:j:124:DG:C5	2.51	0.45
8:K:296:VAL:HA	9:L:297:LEU:HD13	1.98	0.45
9:L:112:ILE:HG12	9:L:146:GLN:HE22	1.82	0.45
9:L:698:ALA:O	9:L:702:LYS:HB3	2.16	0.45
8:M:365:SER:HB3	8:M:433:GLN:OE1	2.17	0.45
8:M:492:ALA:HA	8:M:497:LEU:HD12	1.98	0.45
1:O:217:LEU:HD11	1:O:221:ALA:HB2	1.99	0.45
1:O:461:ILE:HA	1:O:464:VAL:HG22	1.97	0.45
1:O:630:CYS:HA	1:O:634:LEU:HD23	1.97	0.45
1:O:1711:ARG:O	1:O:1715:GLU:HG2	2.16	0.45
1:O:2313:LYS:HA	1:O:2316:TYR:CZ	2.52	0.45
1:O:3083:SER:HA	1:O:3086:LEU:HD12	1.99	0.45
1:O:3920:ILE:HG21	1:O:3942:PHE:HD1	1.81	0.45
3:G:72:ASP:N	3:G:72:ASP:OD1	2.49	0.45
4:A:58:THR:HA	5:B:40:ARG:NH1	2.30	0.45
1:o:162:LEU:HD21	1:o:164:LYS:HE2	1.99	0.45
1:o:697:ASP:HB2	1:o:700:LYS:HE3	1.99	0.45
1:o:911:LEU:O	1:o:915:THR:OG1	2.24	0.45
1:o:1201:ASN:HB3	1:o:1207:TRP:HD1	1.80	0.45
1:o:1287:GLN:HG3	1:o:1289:SER:H	1.81	0.45
1:o:2254:ARG:HH12	1:o:2293:GLY:H	1.65	0.45
1:o:2428:ASP:HB3	1:o:2431:ARG:HB2	1.98	0.45
1:o:3725:ARG:HE	1:o:3741:ARG:HH22	1.64	0.45
1:o:3789:ARG:HH11	1:o:3936:GLY:HA3	1.81	0.45
4:a:79:LYS:HB2	4:a:82:LEU:HD11	1.98	0.45
7:j:32:DA:H2"	7:j:33:DA:N7	2.31	0.45
8:K:351:LYS:HE3	8:K:351:LYS:HB3	1.75	0.45
8:K:363:ARG:NH1	9:L:359:ASN:HB3	2.31	0.45
9:L:407:VAL:HG12	9:L:422:VAL:HB	1.98	0.45
8:M:451:LYS:HA	8:M:451:LYS:HD2	1.84	0.45
1:O:188:GLU:O	1:O:192:ASN:ND2	2.38	0.45
1:O:412:SER:HA	1:O:415:GLN:CD	2.42	0.45
1:O:960:GLN:HA	1:O:963:LYS:HB2	1.98	0.45
1:O:1802:TYR:OH	1:O:1806:ARG:NH2	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2812:LEU:O	1:O:2816:ILE:HG12	2.17	0.45
1:O:3815:LEU:O	1:O:3819:THR:OG1	2.29	0.45
2:H:112:THR:HA	2:H:115:VAL:HG12	1.98	0.45
3:G:25:PHE:HZ	3:G:59:THR:HG21	1.82	0.45
5:F:30:THR:HB	7:j:64:DA:OP1	2.16	0.45
1:o:475:LEU:O	1:o:479:ILE:HG12	2.16	0.45
1:o:1273:GLU:HB3	1:o:1275:THR:HG22	1.99	0.45
1:o:1911:LEU:HA	1:o:1913:LYS:HZ3	1.81	0.45
1:o:2104:MET:O	1:o:2107:SER:OG	2.29	0.45
1:o:2168:LEU:HD11	1:o:2189:ILE:HB	1.98	0.45
1:o:2276:LEU:O	1:o:2280:VAL:N	2.44	0.45
1:o:2474:TYR:HA	1:o:2477:LEU:HD12	1.98	0.45
1:o:2810:SER:HA	1:o:2861:ILE:HG22	1.98	0.45
7:j:90:DT:H2''	7:j:91:DT:O4'	2.17	0.45
7:J:54:DC:N3	7:J:55:DA:N6	2.65	0.45
8:K:379:SER:O	8:K:380:THR:C	2.59	0.45
9:L:512:ILE:HA	9:L:515:MET:HG3	1.99	0.45
8:M:340:PHE:CD1	8:M:408:PRO:HD3	2.51	0.45
9:N:251:LEU:HD12	9:N:251:LEU:HA	1.85	0.45
9:N:338:LYS:HB2	9:N:398:ASP:HA	1.99	0.45
1:O:713:GLU:O	1:O:716:VAL:HG22	2.17	0.45
1:O:1134:LEU:O	1:O:1137:ILE:HG22	2.16	0.45
1:O:1238:GLN:O	1:O:1311:LYS:HG3	2.17	0.45
1:O:2995:GLU:O	1:O:2999:LEU:HG	2.17	0.45
1:O:3328:ILE:O	1:O:3332:THR:OG1	2.30	0.45
1:O:3374:ILE:HG13	1:O:3375:ALA:N	2.31	0.45
1:O:3547:THR:O	1:O:3551:ASN:N	2.40	0.45
1:O:3771:MET:O	1:O:3775:LEU:HG	2.17	0.45
2:D:118:TYR:HA	2:D:121:ALA:HB3	1.98	0.45
2:H:32:GLU:HB3	7:J:32:DA:H5''	1.97	0.45
3:c:83:LEU:HB3	3:c:102:ILE:HD13	1.99	0.45
5:F:61:PHE:O	5:F:64:ASN:HB2	2.17	0.45
1:o:1087:ARG:H	1:o:1087:ARG:HD2	1.80	0.45
1:o:2137:ILE:H	1:o:2137:ILE:HD12	1.82	0.45
1:o:3567:VAL:HG21	1:o:3696:ARG:NH1	2.32	0.45
5:b:65:VAL:O	5:b:69:ALA:N	2.40	0.45
7:j:23:DA:H4'	9:L:400:ARG:HH22	1.81	0.45
7:j:134:DA:H1'	7:j:135:DG:H5'	1.99	0.45
8:K:90:THR:OG1	8:K:135:MET:HB3	2.17	0.45
8:K:290:ARG:HH21	9:L:310:ILE:C	2.25	0.45
9:L:135:PHE:HB2	9:L:227:PHE:CE1	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:L:610:GLU:H	9:L:610:GLU:CD	2.25	0.45
9:L:653:GLN:HA	9:L:656:ASN:HB2	1.99	0.45
8:M:48:MET:N	8:M:48:MET:SD	2.90	0.45
8:M:476:ASP:O	9:N:427:MET:HB3	2.16	0.45
9:N:138:LEU:HD22	9:N:201:GLN:HB3	1.98	0.45
9:N:333:TYR:CE2	9:N:335:SER:HB3	2.51	0.45
9:N:620:ILE:HD11	9:N:639:ILE:HD11	1.99	0.45
1:O:222:GLY:O	1:O:225:LYS:HB3	2.17	0.45
1:O:961:LEU:O	1:O:965:THR:N	2.41	0.45
1:O:1172:LEU:HD11	1:O:1187:SER:HB2	1.99	0.45
1:O:1231:GLN:HA	1:O:1292:LYS:HD3	1.99	0.45
1:O:1249:SER:O	1:O:1253:THR:N	2.45	0.45
1:O:1274:ARG:NH1	1:O:1351:THR:O	2.48	0.45
1:O:1294:VAL:HA	1:O:1297:PHE:HD2	1.81	0.45
1:O:1565:GLU:HG2	1:O:1566:THR:N	2.32	0.45
1:O:1708:GLU:CD	1:O:1708:GLU:H	2.25	0.45
1:O:1717:LEU:O	1:O:1721:HIS:ND1	2.47	0.45
1:O:1739:TYR:O	1:O:1743:MET:HG2	2.17	0.45
1:O:2269:ASP:N	1:O:2269:ASP:OD1	2.50	0.45
1:O:2821:ASP:OD1	1:O:2821:ASP:N	2.48	0.45
1:O:2988:GLU:H	1:O:2988:GLU:CD	2.25	0.45
1:O:3033:GLU:H	1:O:3033:GLU:CD	2.25	0.45
1:O:3582:GLU:O	1:O:3585:PHE:HB3	2.17	0.45
1:O:3607:GLU:HA	1:O:3610:TYR:HB2	1.99	0.45
1:O:3684:SER:CB	1:O:3687:MET:HB2	2.46	0.45
3:G:45:ALA:C	3:G:48:PRO:HD2	2.41	0.45
1:o:261:ASP:HB3	1:o:265:TYR:H	1.81	0.45
1:o:286:LEU:HD13	1:o:319:PHE:CE1	2.51	0.45
1:o:435:LEU:HA	1:o:438:LEU:HD12	1.99	0.45
1:o:582:THR:HG23	1:o:615:ALA:HB3	1.98	0.45
1:o:1265:GLU:HG3	1:o:1340:ARG:NH1	2.31	0.45
1:o:2133:LEU:HD13	1:o:2146:LEU:HD22	1.98	0.45
1:o:2338:GLU:HG2	1:o:2341:LEU:HD23	1.99	0.45
1:o:3143:SER:HA	1:o:3147:LYS:HD3	1.99	0.45
1:o:3256:MET:O	1:o:3260:LYS:HG2	2.17	0.45
1:o:3306:LEU:HG	1:o:3307:LEU:HG	1.99	0.45
1:o:3746:ARG:NH1	1:o:3747:GLU:O	2.50	0.45
1:o:3838:GLU:O	1:o:3842:TRP:HB2	2.17	0.45
1:o:3913:ILE:HG12	1:o:3987:ALA:HB3	1.99	0.45
1:o:4004:VAL:HG23	1:o:4005:PHE:H	1.81	0.45
4:e:101:VAL:HG13	5:f:41:GLY:HA2	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:109:DG:N2	7:j:46:DA:H62	2.15	0.45
6:I:42:DG:H2'	6:I:43:DA:N7	2.31	0.45
8:K:261:LEU:HD23	8:K:271:VAL:HG21	1.99	0.45
8:M:164:LYS:HB3	8:M:197:GLY:O	2.16	0.45
8:M:351:LYS:HB3	8:M:397:LEU:HD22	1.97	0.45
1:O:391:ARG:NH1	1:O:1734:PRO:HA	2.32	0.45
1:O:675:ARG:HG2	1:O:675:ARG:HH11	1.82	0.45
1:O:1406:LEU:O	1:O:1412:LYS:HB3	2.17	0.45
1:O:1710:LEU:HA	1:O:1713:VAL:HG22	1.98	0.45
1:O:3276:TRP:HZ3	1:O:3306:LEU:HD22	1.82	0.45
1:O:3696:ARG:HG2	1:O:3697:ASN:H	1.82	0.45
1:O:4126:PRO:HD2	1:O:4127:TRP:CZ3	2.52	0.45
3:G:25:PHE:N	3:G:56:GLU:OE2	2.43	0.45
4:A:118:THR:HG23	4:A:120:MET:HE3	1.98	0.45
5:B:31:LYS:NZ	5:B:51:TYR:OH	2.50	0.45
3:c:63:LEU:HB3	2:d:42:LEU:HD13	1.98	0.45
5:F:57:VAL:HG13	5:F:58:LEU:HD22	1.98	0.45
1:o:49:ALA:O	1:o:53:LEU:N	2.49	0.45
1:o:956:PRO:N	1:o:957:PRO:HD3	2.32	0.45
1:o:1366:THR:O	1:o:1368:LEU:N	2.50	0.45
1:o:2160:TYR:HB3	1:o:2164:TRP:CD1	2.52	0.45
1:o:2205:VAL:O	1:o:2205:VAL:HG13	2.17	0.45
1:o:2940:ARG:HD2	1:o:2961:ALA:HB2	1.98	0.45
1:o:3633:ILE:HG13	1:o:3634:GLN:N	2.32	0.45
1:o:3716:HIS:O	1:o:3743:HIS:ND1	2.48	0.45
1:o:3878:VAL:HG11	1:o:4127:TRP:CD1	2.52	0.45
1:o:3963:LEU:HD22	1:o:4112:THR:HG22	1.98	0.45
4:a:103:LEU:HD12	4:a:131:ARG:HH22	1.81	0.45
3:g:81:ARG:O	3:g:84:GLN:HG3	2.16	0.45
5:f:68:ASP:HA	5:f:71:THR:HG22	1.99	0.45
6:i:30:DC:H1'	6:i:31:DT:C2	2.51	0.45
8:K:525:PHE:HA	8:K:528:LEU:HB3	1.99	0.45
9:L:135:PHE:HB3	9:L:164:PHE:HB2	1.99	0.45
9:L:313:GLY:HA2	9:L:323:PHE:N	2.32	0.45
9:L:443:LYS:HG3	9:L:444:TYR:CD2	2.51	0.45
8:M:89:GLY:O	8:M:138:GLY:HA2	2.16	0.45
8:M:305:THR:HA	9:N:290:GLN:CD	2.42	0.45
8:M:384:ALA:HB2	9:N:446:PRO:HG3	1.99	0.45
9:N:199:GLU:OE2	9:N:200:GLN:NE2	2.50	0.45
1:O:628:GLU:O	1:O:631:ARG:HG2	2.17	0.45
1:O:1413:ASP:O	1:O:1416:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1751:GLU:O	1:O:1788:ARG:NH1	2.49	0.45
1:O:2389:PHE:O	1:O:2394:LYS:HD2	2.17	0.45
1:O:3582:GLU:OE1	1:O:3586:LYS:NZ	2.49	0.45
1:O:3750:PHE:CD1	1:O:3804:GLU:HA	2.52	0.45
3:C:35:ARG:NH1	6:I:117:DC:OP2	2.45	0.45
3:G:29:ARG:HB2	7:j:33:DA:H5"	1.99	0.45
4:A:128:ARG:HH21	5:B:57:VAL:HG13	1.82	0.45
4:A:133:GLU:HA	3:c:95:LYS:HG2	1.99	0.45
2:d:99:LEU:HG	2:d:102:GLU:O	2.17	0.45
4:E:108:ASN:HD21	5:F:43:VAL:HA	1.82	0.45
1:o:12:LEU:HD13	1:o:56:SER:HB3	1.99	0.45
1:o:83:GLU:HB3	1:o:126:PRO:HG3	1.98	0.45
1:o:1066:LEU:HD11	1:o:1078:ALA:HB2	1.99	0.45
1:o:1102:GLU:HG3	1:o:1154:PRO:HB3	1.97	0.45
1:o:1184:ARG:CZ	1:o:1262:ALA:HA	2.47	0.45
1:o:2162:LYS:HA	1:o:2200:ALA:HB2	1.98	0.45
1:o:2412:TYR:HB2	1:o:2446:LEU:HD11	1.98	0.45
1:o:2806:LYS:HE3	1:o:2856:SER:OG	2.17	0.45
1:o:3675:LYS:HD3	1:o:3676:PRO:HD2	1.99	0.45
1:o:3901:ARG:HD2	1:o:3971:MET:HG2	1.99	0.45
5:b:65:VAL:O	5:b:68:ASP:HB2	2.17	0.45
6:i:43:DA:H2"	6:i:44:DG:H8	1.79	0.45
6:i:58:DG:C6	6:i:59:DG:C6	3.05	0.45
6:i:127:DG:H2"	6:i:128:DG:OP2	2.17	0.45
7:j:71:DT:O2	7:j:72:DA:N6	2.47	0.45
7:J:24:DG:N2	6:I:131:DT:O2	2.48	0.45
8:K:41:LEU:HB3	8:K:88:TYR:CE1	2.52	0.45
8:K:363:ARG:HB2	8:K:436:PHE:CE2	2.51	0.45
9:L:665:LYS:HA	9:L:668:ILE:HG22	1.99	0.45
9:N:20:MET:HE2	9:N:137:ASP:OD1	2.18	0.45
9:N:598:PHE:HD1	9:N:612:ALA:HB1	1.82	0.45
1:O:11:SER:HA	1:O:14:ARG:HE	1.81	0.44
1:O:110:THR:O	1:O:114:VAL:HG23	2.17	0.44
1:O:201:LEU:HD22	1:O:249:PHE:CE2	2.51	0.44
1:O:447:PRO:HG3	1:O:526:ASP:OD2	2.17	0.44
1:O:1275:THR:HG23	1:O:1276:VAL:HG23	1.98	0.44
1:O:1349:LEU:HD22	1:O:1405:ALA:HB1	1.99	0.44
1:O:1458:LEU:O	1:O:1463:LEU:N	2.43	0.44
1:O:2724:ASP:N	1:O:2724:ASP:OD1	2.50	0.44
1:O:3152:SER:O	1:O:3153:SER:C	2.60	0.44
1:O:3382:PHE:HD1	1:O:3419:PHE:HE2	1.64	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3701:ILE:HD11	1:O:3717:VAL:H	1.81	0.44
2:D:40:LYS:HD2	3:G:24:GLN:OE1	2.17	0.44
4:A:54:TYR:HD2	5:B:39:ARG:HB2	1.82	0.44
1:o:763:THR:OG1	1:o:764:PRO:HD3	2.17	0.44
1:o:782:ARG:NH2	1:o:3168:TYR:OH	2.50	0.44
1:o:1406:LEU:O	1:o:1412:LYS:HB2	2.17	0.44
1:o:1415:LEU:O	1:o:1418:HIS:HB2	2.17	0.44
1:o:1524:LEU:HD12	1:o:1527:ARG:HD3	2.00	0.44
1:o:1724:MET:HA	1:o:1768:ARG:HH21	1.81	0.44
1:o:1910:GLU:HB3	9:L:732:ILE:HA	1.99	0.44
1:o:2216:LEU:O	1:o:2220:MET:HG2	2.17	0.44
1:o:2383:PHE:HZ	1:o:2411:LEU:HD13	1.82	0.44
1:o:2919:ASP:OD1	1:o:2920:VAL:N	2.50	0.44
1:o:3069:MET:HA	1:o:3075:LYS:HD3	1.99	0.44
1:o:3692:VAL:HG11	1:o:3696:ARG:HE	1.81	0.44
1:o:3842:TRP:HD1	1:o:3858:MET:HB3	1.82	0.44
3:g:104:GLN:H	4:e:94:GLU:HG2	1.81	0.44
4:e:63:ARG:HH22	7:J:63:DA:H1'	1.82	0.44
6:i:85:DG:H2''	6:i:86:DT:H5''	1.98	0.44
6:I:132:DC:P	8:M:444:ARG:HH12	2.40	0.44
8:K:316:THR:HG21	8:K:331:LYS:NZ	2.32	0.44
9:L:38:ILE:HD11	9:L:135:PHE:CZ	2.52	0.44
8:M:276:LEU:HA	9:N:431:ARG:HB3	1.98	0.44
8:M:490:LEU:HD23	9:N:323:PHE:CZ	2.52	0.44
9:N:77:ILE:HG13	9:N:113:VAL:HG21	1.99	0.44
1:O:80:GLU:O	1:O:83:GLU:HG2	2.17	0.44
1:O:868:LYS:HZ2	1:O:3174:ASP:CG	2.23	0.44
1:O:2208:ASP:HA	1:O:2211:LEU:HD12	1.98	0.44
1:O:2411:LEU:O	1:O:2412:TYR:C	2.61	0.44
1:O:3643:HIS:HB3	1:O:3659:PHE:CZ	2.52	0.44
1:O:3796:MET:HB2	1:O:3800:LEU:HB3	1.99	0.44
2:D:74:ALA:HA	2:D:77:LEU:HD12	1.98	0.44
3:C:38:HIS:CE1	3:g:41:GLU:H	2.35	0.44
2:H:109:SER:O	2:H:112:THR:OG1	2.28	0.44
4:A:92:LEU:HD21	5:B:62:LEU:HG	1.99	0.44
5:B:45:ARG:HH12	6:i:71:DG:N2	2.15	0.44
1:o:417:VAL:HA	1:o:420:VAL:HG22	1.99	0.44
1:o:898:PHE:HB2	1:o:901:MET:O	2.18	0.44
1:o:1289:SER:HA	1:o:1292:LYS:HG2	1.99	0.44
1:o:1389:VAL:HB	1:o:1392:MET:SD	2.57	0.44
1:o:2225:HIS:NE2	1:o:2234:ASN:OD1	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:2379:MET:N	1:o:2379:MET:SD	2.90	0.44
1:o:2892:LEU:HA	1:o:2895:GLU:HG2	1.99	0.44
1:o:3170:ASP:O	1:o:3179:TRP:NE1	2.50	0.44
1:o:3467:ARG:HD2	1:o:4000:ASN:ND2	2.33	0.44
1:o:3999:THR:HG21	1:o:4048:LYS:HE3	1.97	0.44
8:K:74:LYS:HE2	8:K:79:ASP:CB	2.46	0.44
8:K:409:TYR:HA	8:K:439:PHE:HZ	1.82	0.44
9:L:77:ILE:HG13	9:L:105:ALA:HB1	1.99	0.44
9:L:251:LEU:HB2	9:L:261:ILE:HG12	1.98	0.44
8:M:324:SER:H	9:N:87:ASP:CG	2.24	0.44
9:N:135:PHE:HA	9:N:164:PHE:HB2	1.97	0.44
1:O:43:VAL:HG11	1:O:829:VAL:HA	1.99	0.44
1:O:124:LYS:HZ2	7:j:11:DA:P	2.40	0.44
1:O:460:ALA:O	1:O:463:LYS:HG2	2.16	0.44
1:O:3153:SER:HB2	1:O:3155:VAL:HG23	1.99	0.44
1:O:3165:THR:O	1:O:3186:ARG:NH1	2.50	0.44
1:O:3545:THR:O	1:O:3549:HIS:ND1	2.39	0.44
1:o:701:TYR:HA	1:o:704:PHE:CD2	2.52	0.44
1:o:786:GLN:HA	1:o:789:TYR:CE2	2.52	0.44
1:o:1265:GLU:HB2	1:o:1340:ARG:HD2	2.00	0.44
1:o:2808:LEU:HD23	1:o:2812:LEU:HD23	2.00	0.44
1:o:2852:PRO:HB3	1:o:2885:GLN:NE2	2.32	0.44
1:o:3083:SER:HA	1:o:3102:TYR:CE2	2.53	0.44
1:o:3252:PHE:HB3	1:o:3289:ARG:HH21	1.81	0.44
1:o:3730:ALA:HB2	1:o:3734:ARG:HH11	1.82	0.44
1:o:3856:MET:HA	1:o:3859:TYR:CD2	2.52	0.44
5:f:49:LEU:HD23	5:f:49:LEU:H	1.83	0.44
6:i:50:DC:H4'	6:i:51:DC:H5'	2.00	0.44
6:i:78:DC:H2''	6:i:79:DG:N7	2.32	0.44
8:K:492:ALA:O	8:K:496:ASP:N	2.43	0.44
9:L:393:VAL:HG23	9:L:421:TYR:HE1	1.82	0.44
8:M:35:ARG:HB2	8:M:160:LYS:HD3	1.98	0.44
8:M:324:SER:N	9:N:87:ASP:OD2	2.47	0.44
8:M:332:GLU:O	8:M:335:GLU:HG3	2.17	0.44
9:N:108:LEU:HD22	9:N:147:LEU:HD13	1.99	0.44
9:N:209:LYS:HD3	9:N:221:LEU:HD22	1.98	0.44
1:O:167:PRO:HB3	1:O:171:LEU:HG	2.00	0.44
1:O:342:MET:HA	1:O:345:PHE:HB2	1.99	0.44
1:O:540:MET:SD	1:O:543:SER:OG	2.75	0.44
1:O:2220:MET:HE2	1:O:2220:MET:HB3	1.86	0.44
1:O:2272:VAL:O	1:O:2276:LEU:HG	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3227:ILE:O	1:O:3231:ILE:HG12	2.17	0.44
1:O:3407:ALA:HB1	1:O:3410:ILE:HD12	1.99	0.44
1:O:3474:ARG:NH2	1:O:3475:TYR:OH	2.51	0.44
3:G:18:SER:OG	3:G:23:LEU:O	2.32	0.44
1:o:72:SER:HA	1:o:119:ARG:NH1	2.33	0.44
1:o:463:LYS:HG2	1:o:544:ILE:HG21	1.98	0.44
1:o:1069:HIS:NE2	1:o:3745:GLU:HB2	2.32	0.44
1:o:1115:HIS:NE2	1:o:1182:GLU:HB3	2.33	0.44
1:o:1190:LEU:HA	1:o:1193:LYS:HG2	1.99	0.44
1:o:1191:PHE:O	1:o:1195:VAL:HG23	2.18	0.44
1:o:1568:ASN:O	1:o:1572:LEU:HG	2.17	0.44
1:o:1611:GLN:OE1	1:o:1613:HIS:ND1	2.50	0.44
1:o:1766:LEU:HD13	1:o:1778:PHE:CG	2.53	0.44
1:o:2289:ASP:OD2	1:o:2291:GLN:NE2	2.51	0.44
1:o:2774:SER:OG	1:o:2784:GLN:O	2.28	0.44
7:j:75:DC:H2"	7:j:76:DG:H5'	1.99	0.44
8:K:388:LYS:HA	8:K:388:LYS:HD2	1.86	0.44
8:K:417:GLU:HB3	8:K:419:GLU:HG3	1.98	0.44
8:M:337:LEU:HA	9:N:489:ARG:HE	1.82	0.44
8:M:352:PRO:HA	8:M:394:VAL:HG22	1.99	0.44
8:M:363:ARG:NH2	8:M:366:LEU:HD11	2.32	0.44
9:N:116:ASP:O	9:N:119:GLN:HG2	2.17	0.44
9:N:310:ILE:O	9:N:310:ILE:HG13	2.16	0.44
9:N:518:PRO:HA	9:N:519:PRO:HD3	1.86	0.44
1:O:100:ILE:CG2	1:O:100:ILE:O	2.65	0.44
1:O:339:GLN:OE1	1:O:339:GLN:N	2.50	0.44
1:O:620:PHE:O	1:O:624:ILE:HG23	2.18	0.44
1:O:2122:LEU:HB2	1:O:2126:MET:H	1.82	0.44
1:O:3000:ASP:O	1:O:3004:HIS:ND1	2.51	0.44
1:O:3551:ASN:HA	1:O:3554:PHE:CD2	2.52	0.44
1:O:4050:LYS:HD2	1:O:4059:ILE:HD13	1.99	0.44
1:O:4054:ALA:O	1:O:4103:GLN:NE2	2.51	0.44
3:C:38:HIS:ND1	3:g:41:GLU:HG2	2.32	0.44
3:C:66:ALA:HB1	3:C:78:ILE:HD12	1.98	0.44
1:o:785:MET:HB2	1:o:792:ILE:HD11	2.00	0.44
1:o:1305:ASP:OD2	1:o:1383:GLY:HA2	2.17	0.44
1:o:1508:LYS:NZ	1:o:1562:LEU:O	2.49	0.44
1:o:2442:MET:CG	1:o:2446:LEU:HD13	2.47	0.44
1:o:2478:MET:HE2	1:o:2478:MET:HA	2.00	0.44
1:o:3420:CYS:HB2	1:o:3446:VAL:HG11	2.00	0.44
5:b:39:ARG:HD3	5:b:46:ILE:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:j:14:DC:H2''	7:j:15:DC:C6	2.52	0.44
7:J:8:DA:H3'	7:J:9:DG:N7	2.32	0.44
8:K:469:LEU:HB2	8:K:518:LEU:HD13	1.99	0.44
9:L:393:VAL:HG23	9:L:421:TYR:CE1	2.53	0.44
8:M:511:VAL:O	8:M:515:ASN:HB2	2.18	0.44
9:N:155:LYS:NZ	9:N:215:LEU:HG	2.32	0.44
9:N:209:LYS:NZ	9:N:220:GLY:HA3	2.33	0.44
9:N:230:SER:HB2	9:N:235:CYS:H	1.83	0.44
9:N:274:LYS:NZ	9:N:277:THR:OG1	2.42	0.44
1:O:907:LEU:HB3	1:O:937:MET:CE	2.46	0.44
1:O:1727:ARG:NH2	1:O:1771:GLN:HB3	2.32	0.44
1:O:2375:ALA:HB3	1:O:2404:ARG:HD3	2.00	0.44
1:O:3048:LYS:HB3	1:O:3061:LEU:HD13	2.00	0.44
2:D:84:SER:N	7:j:43:DG:OP1	2.32	0.44
3:C:59:THR:O	3:C:62:ILE:HG22	2.17	0.44
3:c:71:ARG:NH1	2:d:48:ASP:O	2.44	0.44
4:E:96:CYS:SG	5:F:62:LEU:HD12	2.57	0.44
1:o:147:PHE:HA	1:o:183:GLU:HG3	1.99	0.44
1:o:164:LYS:HD3	6:I:138:DC:OP2	2.17	0.44
1:o:1592:MET:O	1:o:1596:VAL:HG13	2.18	0.44
1:o:1633:TRP:HB3	1:o:1674:THR:HG23	1.99	0.44
1:o:2773:ARG:NH1	1:o:2774:SER:O	2.51	0.44
1:o:2963:SER:OG	1:o:3251:ASN:HA	2.17	0.44
1:o:3179:TRP:CZ3	1:o:3238:MET:HE1	2.51	0.44
1:o:3424:LEU:O	1:o:3428:GLU:N	2.50	0.44
7:J:60:DT:O4'	6:I:95:DG:N2	2.51	0.44
8:K:270:SER:OG	8:K:371:GLU:O	2.33	0.44
8:K:290:ARG:N	9:L:309:ASP:O	2.51	0.44
8:K:325:ARG:HH22	9:L:92:GLU:HG3	1.83	0.44
8:K:348:MET:H	8:K:398:CYS:HA	1.81	0.44
9:L:15:ASP:H	9:L:20:MET:CE	2.31	0.44
9:N:478:PRO:HD2	9:N:482:ILE:HD11	1.99	0.44
9:N:722:GLY:N	9:N:724:ASP:OD1	2.51	0.44
1:O:57:LEU:O	1:O:60:SER:OG	2.26	0.44
1:O:451:PRO:O	1:O:455:LEU:HG	2.18	0.44
1:O:715:ALA:O	1:O:718:MET:HG3	2.18	0.44
1:O:959:TYR:HD1	1:O:1007:VAL:HG21	1.83	0.44
1:O:2126:MET:HB2	1:O:2160:TYR:CZ	2.53	0.44
1:O:2503:LYS:O	1:O:2507:ILE:HG12	2.17	0.44
1:O:3187:CYS:HA	1:O:3190:LEU:HD12	2.00	0.44
1:O:3269:ARG:NE	1:O:3271:ASP:HB2	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3467:ARG:O	1:O:3471:ILE:HG12	2.18	0.44
1:O:3582:GLU:HB3	1:O:3586:LYS:HZ3	1.81	0.44
5:B:34:ILE:HD12	5:B:51:TYR:HB3	2.00	0.44
2:d:66:ILE:HA	2:d:69:ARG:HE	1.82	0.44
1:o:200:PHE:HE2	1:o:227:LEU:HD23	1.83	0.44
1:o:374:LYS:O	1:o:378:ALA:HB2	2.17	0.44
1:o:1400:VAL:HA	1:o:1403:MET:HE2	2.00	0.44
1:o:2486:ASP:OD1	1:o:2486:ASP:N	2.45	0.44
1:o:3296:GLN:HG3	1:o:3337:ILE:HG13	1.99	0.44
6:i:119:DA:H2"	6:i:120:DA:C8	2.52	0.44
8:K:318:ARG:N	8:K:329:LEU:O	2.45	0.44
9:L:51:LYS:HA	9:L:85:LEU:HD11	2.00	0.44
9:L:218:GLU:OE2	9:L:219:ASP:HB2	2.18	0.44
1:O:393:LYS:HA	1:O:396:PHE:CE1	2.52	0.44
1:O:1178:ARG:N	1:O:1184:ARG:HG3	2.33	0.44
1:O:1431:LEU:HD22	1:O:1448:LEU:HD21	1.99	0.44
1:O:3100:LYS:O	1:O:3103:ILE:HG22	2.17	0.44
1:O:3469:LEU:HD13	1:O:3505:LEU:HD11	1.99	0.44
1:O:3708:ARG:O	1:O:3710:LYS:N	2.51	0.44
2:D:52:SER:O	2:D:56:MET:N	2.47	0.44
4:A:67:PHE:CE1	5:B:62:LEU:HD11	2.49	0.44
3:c:55:LEU:O	3:c:58:LEU:HG	2.18	0.44
1:o:293:LEU:HA	1:o:296:VAL:HG22	2.00	0.44
1:o:479:ILE:HG13	1:o:567:GLU:HG2	2.00	0.44
1:o:534:LEU:O	1:o:537:SER:OG	2.26	0.44
1:o:914:VAL:HG11	1:o:937:MET:HE1	1.99	0.44
1:o:956:PRO:HB3	1:o:1004:GLN:HE21	1.83	0.44
1:o:2371:PHE:CD2	1:o:2374:LEU:HD23	2.51	0.44
1:o:2593:SER:HB2	1:o:2769:VAL:HB	1.99	0.44
1:o:3009:LYS:HA	1:o:3009:LYS:HD2	1.78	0.44
6:I:77:DG:N7	6:I:78:DC:N4	2.65	0.44
9:L:496:HIS:HE1	9:L:503:GLU:O	2.01	0.44
9:L:528:ILE:HB	9:L:529:PRO:HD3	2.00	0.44
9:L:617:ILE:HD11	9:L:662:LEU:HD13	2.00	0.44
8:M:372:GLU:HB2	8:M:375:VAL:O	2.18	0.44
8:M:396:ALA:O	8:M:413:LEU:HB2	2.18	0.44
1:O:1816:ARG:NE	9:L:625:ASP:O	2.51	0.44
1:O:2886:GLN:H	1:O:2886:GLN:CD	2.26	0.44
3:c:20:ARG:HB3	2:d:121:ALA:HA	1.99	0.44
3:c:82:HIS:HA	3:c:85:LEU:HD12	2.00	0.44
1:o:265:TYR:CG	1:o:308:LEU:HD11	2.53	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:864:GLY:HA3	1:o:3129:LEU:HB3	1.99	0.44
1:o:1034:ARG:HD2	1:o:1084:ASN:O	2.18	0.44
1:o:1100:VAL:HG12	1:o:1137:ILE:HD12	2.00	0.44
1:o:1172:LEU:O	1:o:1176:CYS:N	2.51	0.44
1:o:1177:GLY:H	1:o:1184:ARG:HB2	1.82	0.44
1:o:2036:LEU:O	1:o:2040:MET:HG2	2.18	0.44
1:o:2405:VAL:HG22	1:o:2441:LYS:HE3	2.00	0.44
1:o:3424:LEU:HB3	1:o:3475:TYR:CE2	2.52	0.44
1:o:3591:ASP:HB2	1:o:3609:MET:HE1	1.99	0.44
1:o:3681:LYS:HB2	1:o:3724:GLU:HG2	2.00	0.44
1:o:3947:GLY:HA3	1:o:4063:GLU:O	2.18	0.44
6:i:83:DA:H2"	6:i:84:DC:N4	2.33	0.44
7:j:66:DG:C8	7:j:66:DG:H5"	2.53	0.44
8:K:322:TYR:HE2	9:L:47:PHE:HA	1.82	0.44
8:K:489:ASN:OD1	9:L:331:MET:HG2	2.17	0.44
9:L:503:GLU:HG2	9:L:504:PRO:HD2	1.99	0.44
8:M:413:LEU:HB3	8:M:432:PHE:CD2	2.53	0.44
9:N:633:MET:O	9:N:636:ILE:HG12	2.18	0.44
1:O:1651:LYS:NZ	1:O:2045:PHE:O	2.51	0.43
1:O:2269:ASP:O	1:O:2272:VAL:HG22	2.17	0.43
5:F:45:ARG:HD2	5:F:45:ARG:HA	1.73	0.43
1:o:1149:LYS:HD2	1:o:1149:LYS:HA	1.61	0.43
1:o:1712:ARG:O	1:o:1715:GLU:HG2	2.18	0.43
1:o:2955:SER:OG	1:o:2971:GLN:OE1	2.31	0.43
1:o:3462:ARG:HE	1:o:3462:ARG:HB3	1.68	0.43
1:o:3586:LYS:HB3	1:o:3586:LYS:HE3	1.84	0.43
8:K:421:ASP:OD1	8:K:425:ILE:N	2.31	0.43
8:K:484:GLN:O	8:K:488:ARG:HG2	2.18	0.43
9:L:610:GLU:O	9:L:613:SER:OG	2.27	0.43
9:N:208:VAL:O	9:N:211:VAL:HB	2.17	0.43
9:N:463:LEU:HD11	9:N:477:PHE:CE2	2.53	0.43
1:O:217:LEU:HD21	1:O:267:VAL:HG11	2.00	0.43
1:O:242:PRO:HB2	1:O:246:ARG:NH1	2.33	0.43
1:O:275:PHE:HE2	1:O:319:PHE:HB2	1.83	0.43
1:O:1295:ALA:O	1:O:1298:LEU:HB3	2.17	0.43
1:O:1576:ASP:OD1	1:O:1576:ASP:N	2.49	0.43
1:O:2275:GLN:O	1:O:2279:ILE:HG12	2.19	0.43
1:O:3590:ASN:OD1	1:O:3593:ARG:NH2	2.50	0.43
2:D:90:GLU:HG3	5:F:75:HIS:NE2	2.32	0.43
4:A:120:MET:HG3	4:A:122:LYS:HE3	2.00	0.43
1:o:142:ARG:HB2	1:o:182:GLY:HA2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:176:GLU:HB3	1:o:223:CYS:HA	2.00	0.43
1:o:955:ALA:N	1:o:956:PRO:HD3	2.33	0.43
1:o:1412:LYS:HD2	1:o:1415:LEU:HD23	2.00	0.43
1:o:1428:ILE:HD13	1:o:1451:VAL:HG21	1.99	0.43
1:o:2321:GLU:HA	1:o:2366:LYS:HG2	2.01	0.43
3:g:55:LEU:HD21	2:h:67:PHE:HB2	2.00	0.43
6:i:60:DT:H2''	6:i:61:DT:C5	2.53	0.43
6:i:122:DT:H2''	6:i:123:DG:C8	2.53	0.43
7:j:59:DC:H1'	7:j:60:DT:C2	2.54	0.43
8:K:165:ARG:NH2	8:K:222:SER:OG	2.51	0.43
8:K:274:TYR:HE2	8:K:369:TYR:HB2	1.82	0.43
9:L:352:GLN:HG2	9:L:354:ARG:CZ	2.48	0.43
9:L:598:PHE:O	9:L:602:VAL:HG23	2.18	0.43
8:M:303:PHE:HA	8:M:310:LEU:HD13	1.99	0.43
8:M:370:PRO:HG3	8:M:382:PHE:HD2	1.82	0.43
9:N:676:GLU:HG2	9:N:677:ILE:N	2.33	0.43
1:O:13:LEU:HD12	1:O:16:GLN:HE21	1.82	0.43
1:O:669:LEU:O	1:O:672:ILE:HG12	2.19	0.43
1:O:745:VAL:HA	1:O:748:TYR:CD2	2.53	0.43
1:O:1016:GLY:O	1:O:1026:ARG:HG2	2.18	0.43
1:O:1876:ILE:HA	1:O:1879:VAL:HG22	2.00	0.43
1:O:2098:THR:O	1:O:2102:LYS:HG2	2.19	0.43
1:O:2220:MET:HG3	1:O:2259:LYS:NZ	2.33	0.43
1:O:2925:GLU:O	1:O:2929:LEU:HG	2.18	0.43
1:O:2953:THR:OG1	1:O:2954:GLN:OE1	2.36	0.43
1:O:3048:LYS:O	1:O:3052:LEU:HD23	2.18	0.43
1:O:3380:ARG:O	1:O:3384:HIS:ND1	2.51	0.43
2:D:96:ARG:NH2	5:F:71:THR:OG1	2.45	0.43
3:C:43:VAL:HG21	2:H:86:ILE:HG22	2.00	0.43
3:c:55:LEU:HD21	2:d:67:PHE:HB2	2.00	0.43
3:c:104:GLN:N	4:E:94:GLU:HG2	2.29	0.43
1:o:1420:ARG:NH1	1:o:1467:ILE:O	2.52	0.43
1:o:1556:GLY:HA2	1:o:1559:PHE:CD2	2.53	0.43
1:o:2806:LYS:HD2	1:o:2853:PRO:HA	2.00	0.43
1:o:3869:THR:HA	1:o:3872:ARG:NE	2.34	0.43
4:a:65:LEU:HB2	4:a:66:PRO:HD3	2.00	0.43
5:b:27:GLN:OE1	5:b:27:GLN:N	2.46	0.43
5:b:82:THR:HG23	5:b:85:ASP:H	1.82	0.43
5:b:92:ARG:HG2	2:h:103:LEU:HD12	2.01	0.43
6:i:95:DG:N1	7:j:60:DT:O2	2.51	0.43
6:i:139:DG:H2''	6:i:140:DG:OP2	2.16	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:j:96:DC:H2''	7:j:97:DG:C8	2.53	0.43
8:K:264:ASN:HB2	9:L:530:LEU:HD22	2.00	0.43
9:L:84:MET:SD	9:L:85:LEU:N	2.91	0.43
9:L:432:GLN:HB3	9:L:433:TYR:H	1.65	0.43
9:L:632:PHE:HZ	9:L:678:VAL:HG22	1.81	0.43
8:M:335:GLU:OE1	8:M:405:ASN:ND2	2.50	0.43
9:N:251:LEU:HD13	9:N:263:ALA:HB2	1.99	0.43
9:N:440:ASN:HD21	9:N:442:LYS:HB3	1.83	0.43
1:O:785:MET:O	1:O:785:MET:HG2	2.18	0.43
1:O:1249:SER:HB2	1:O:1313:PHE:HA	2.01	0.43
1:O:1910:GLU:CG	1:O:1911:LEU:H	2.30	0.43
1:O:2246:LYS:NZ	1:O:2283:ASN:HB3	2.34	0.43
1:O:2828:GLU:HA	1:O:2831:ASN:HD21	1.82	0.43
1:O:3577:GLN:OE1	1:O:3629:ARG:HG3	2.18	0.43
2:D:30:ARG:HD3	6:i:123:DG:N2	2.24	0.43
1:o:114:VAL:O	1:o:119:ARG:HB2	2.18	0.43
1:o:754:MET:HA	1:o:757:LYS:HG2	2.00	0.43
1:o:785:MET:HA	1:o:788:TYR:CE1	2.53	0.43
1:o:932:GLU:CD	1:o:2772:TYR:H	2.24	0.43
1:o:1456:LYS:NZ	1:o:1520:ALA:HB2	2.33	0.43
1:o:1866:GLN:O	1:o:1870:LYS:HG2	2.17	0.43
1:o:1877:LEU:HA	1:o:1880:MET:HB3	2.01	0.43
1:o:2398:LEU:HA	1:o:2401:VAL:HG22	2.00	0.43
1:o:2419:ASP:O	1:o:2422:GLN:HG2	2.18	0.43
1:o:3256:MET:N	1:o:3256:MET:SD	2.91	0.43
6:i:33:DG:H1'	6:i:34:DA:H5'	1.98	0.43
7:j:95:DC:H2''	7:j:96:DC:OP2	2.17	0.43
8:K:350:PHE:HB2	9:L:461:MET:SD	2.59	0.43
8:M:134:MET:O	8:M:135:MET:C	2.61	0.43
1:O:1431:LEU:O	1:O:1434:VAL:HG22	2.19	0.43
1:O:2165:LEU:O	1:O:2169:LEU:HG	2.18	0.43
1:O:2494:ASP:HA	1:O:2497:GLU:CD	2.42	0.43
1:O:3623:PRO:HB2	1:O:3685:PRO:HG3	2.01	0.43
1:o:201:LEU:HD21	1:o:246:ARG:HB3	1.99	0.43
1:o:220:LEU:O	1:o:224:LEU:HG	2.18	0.43
1:o:647:TYR:CD1	1:o:699:GLU:HB2	2.53	0.43
1:o:726:LEU:HG	1:o:730:LEU:HD23	2.00	0.43
1:o:1649:LEU:HA	1:o:1652:ILE:HD12	2.01	0.43
1:o:2923:TRP:CZ3	1:o:2942:ILE:HD12	2.52	0.43
1:o:3614:TYR:CE1	1:o:3619:ASP:HA	2.53	0.43
1:o:4083:GLY:HA2	1:o:4114:PRO:HG3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:i:73:DG:H21	6:i:74:DA:H62	1.67	0.43
8:K:75:ILE:C	8:K:78:SER:H	2.26	0.43
8:K:374:LEU:HG	8:K:375:VAL:HG23	2.01	0.43
9:L:11:VAL:N	9:L:131:HIS:O	2.47	0.43
9:L:134:ILE:HB	9:L:163:PHE:CE1	2.53	0.43
9:L:484:ASN:ND2	9:L:486:ARG:HB3	2.34	0.43
8:M:91:GLU:N	8:M:101:ASN:HA	2.33	0.43
9:N:253:ILE:HD11	9:N:342:VAL:HB	2.00	0.43
9:N:703:LYS:HA	9:N:703:LYS:HD2	1.75	0.43
1:O:67:VAL:O	1:O:70:ARG:HG2	2.19	0.43
1:O:114:VAL:O	1:O:119:ARG:HB2	2.17	0.43
1:O:145:ASP:O	1:O:147:PHE:N	2.43	0.43
1:O:1069:HIS:HA	1:O:3741:ARG:NH1	2.34	0.43
1:O:2328:ARG:HD3	1:O:2371:PHE:HA	2.01	0.43
1:O:3393:GLU:OE2	1:O:3413:TYR:OH	2.35	0.43
1:O:3506:LEU:HD21	1:O:3555:VAL:HG12	2.00	0.43
1:O:4008:GLU:OE2	1:O:4011:PHE:HB2	2.19	0.43
1:O:4055:ASN:ND2	1:O:4057:ALA:HB3	2.33	0.43
3:G:103:ALA:N	5:B:98:TYR:O	2.47	0.43
4:A:111:ALA:O	4:A:116:ARG:N	2.52	0.43
1:o:571:SER:HA	1:o:574:LYS:HE2	2.01	0.43
1:o:781:ASP:OD1	1:o:781:ASP:N	2.51	0.43
1:o:1157:PHE:HE2	1:o:1163:LEU:HD22	1.84	0.43
1:o:1504:ASP:OD1	1:o:1505:LEU:N	2.49	0.43
1:o:2127:LYS:HE3	1:o:2160:TYR:CZ	2.53	0.43
1:o:2168:LEU:HD12	1:o:2171:LEU:HB2	2.01	0.43
1:o:2435:CYS:O	1:o:2439:ILE:HG12	2.18	0.43
1:o:3100:LYS:HA	1:o:3103:ILE:HG22	2.01	0.43
1:o:3239:LYS:HB3	1:o:3262:LEU:HD11	2.00	0.43
1:o:3568:ILE:HG12	1:o:3699:LEU:HD11	2.00	0.43
1:o:4092:GLN:HG2	1:o:4093:GLU:N	2.34	0.43
5:b:26:ILE:HG13	5:b:55:ARG:HG2	2.00	0.43
2:h:91:ILE:HA	2:h:95:VAL:HG23	2.01	0.43
2:h:105:LYS:O	2:h:109:SER:HB2	2.18	0.43
6:i:113:DA:H2''	6:i:114:DC:C5	2.54	0.43
7:j:59:DC:H1'	7:j:60:DT:N3	2.33	0.43
8:K:44:ALA:N	8:K:88:TYR:O	2.51	0.43
8:K:458:GLN:O	8:K:462:MET:HG3	2.18	0.43
9:L:131:HIS:HD1	9:L:160:SER:HB3	1.83	0.43
9:L:622:GLN:OE1	9:L:628:GLU:HG2	2.19	0.43
8:M:92:LYS:HB2	8:M:135:MET:HA	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:N:650:SER:O	9:N:653:GLN:NE2	2.43	0.43
1:O:156:PHE:HA	1:O:159:GLU:HB3	2.01	0.43
1:O:860:GLY:C	1:O:3136:THR:HG21	2.43	0.43
1:O:933:LEU:HD12	1:O:933:LEU:HA	1.83	0.43
1:O:1844:VAL:HG11	1:O:1910:GLU:HG2	2.00	0.43
1:O:2815:GLY:HA2	1:O:2818:LYS:HE3	2.00	0.43
1:O:3448:GLU:OE2	1:O:3482:LEU:HB3	2.18	0.43
3:c:74:LYS:HD2	3:c:74:LYS:HA	1.81	0.43
5:F:32:PRO:HB2	7:j:64:DA:OP2	2.18	0.43
1:o:1070:PRO:HG3	1:o:3743:HIS:CE1	2.53	0.43
1:o:2440:TYR:HA	1:o:2476:ILE:HD11	2.00	0.43
1:o:2524:PHE:CZ	1:o:2530:ARG:HG2	2.53	0.43
1:o:3041:LEU:O	1:o:3045:ILE:HG12	2.19	0.43
1:o:3867:THR:HA	1:o:4117:LEU:O	2.19	0.43
1:o:3974:MET:HE1	1:o:3978:GLY:H	1.84	0.43
5:b:35:ARG:O	5:b:39:ARG:HG2	2.19	0.43
4:e:133:GLU:HA	5:f:95:ARG:HH12	1.84	0.43
5:f:45:ARG:HH12	7:J:72:DA:H2	1.67	0.43
6:i:55:DG:O6	7:j:99:DC:N4	2.52	0.43
7:J:67:DC:H2''	7:J:68:DA:H5'	2.00	0.43
6:I:25:DC:H2''	6:I:26:DG:N9	2.33	0.43
8:K:329:LEU:HD23	8:K:334:THR:HG22	2.00	0.43
9:L:405:VAL:H	9:L:426:PHE:HZ	1.67	0.43
9:N:251:LEU:HD11	9:N:340:PHE:HB2	1.99	0.43
1:O:363:ILE:O	1:O:366:TYR:HB2	2.19	0.43
1:O:395:MET:HE1	1:O:410:MET:HE3	2.01	0.43
1:O:675:ARG:HH22	1:O:735:SER:HB2	1.82	0.43
1:O:826:PHE:O	1:O:834:LEU:HD22	2.19	0.43
1:O:935:HIS:ND1	1:O:987:LEU:HD21	2.34	0.43
1:O:1292:LYS:HE2	1:O:1292:LYS:HB3	1.73	0.43
1:O:1386:ILE:HG13	1:O:1387:GLY:H	1.83	0.43
1:O:1471:GLN:NE2	1:O:1478:SER:H	2.17	0.43
1:O:1615:GLY:O	1:O:1619:ALA:N	2.34	0.43
1:O:1914:THR:OG1	1:O:1915:LEU:N	2.51	0.43
1:O:2142:ILE:HA	1:O:2145:PHE:HB2	1.99	0.43
1:O:3463:LEU:HA	1:O:3498:TRP:HZ2	1.84	0.43
1:O:3606:ILE:HB	1:O:3647:GLY:HA3	2.01	0.43
2:D:92:GLN:OE1	2:D:96:ARG:NH1	2.51	0.43
1:o:197:PHE:O	1:o:201:LEU:HG	2.19	0.43
1:o:366:TYR:HE2	1:o:384:MET:HG3	1.83	0.43
1:o:1911:LEU:HA	1:o:1913:LYS:NZ	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:2563:LEU:HD22	1:o:2795:GLN:OE1	2.18	0.43
4:e:54:TYR:HB3	4:e:61:LEU:HD21	2.00	0.43
6:i:48:DT:H2''	6:i:49:DC:H5'	2.01	0.43
8:K:129:LYS:NZ	8:K:130:ARG:HE	2.17	0.43
8:K:270:SER:H	8:K:375:VAL:HB	1.83	0.43
8:K:420:LEU:HG	8:K:426:GLN:HG2	2.00	0.43
9:L:45:GLN:HG3	9:L:54:ILE:HD11	1.99	0.43
9:L:298:ASN:HB2	9:L:301:ASP:HB2	1.99	0.43
1:O:96:MET:SD	1:O:99:LYS:CB	3.07	0.43
1:O:345:PHE:HB3	1:O:366:TYR:HE1	1.84	0.43
1:O:642:PHE:HZ	1:O:673:THR:HG23	1.83	0.43
1:O:962:TYR:HB3	1:O:966:PHE:CE2	2.54	0.43
1:O:2428:ASP:HB3	1:O:2431:ARG:HD2	2.01	0.43
1:O:2977:ASN:HA	1:O:2979:GLN:HE22	1.84	0.43
1:O:3472:ILE:HG12	1:O:3479:THR:HB	2.00	0.43
1:O:3514:VAL:O	1:O:3518:VAL:HG13	2.19	0.43
1:O:3643:HIS:HB3	1:O:3659:PHE:HZ	1.84	0.43
1:O:4057:ALA:HA	1:O:4060:THR:HG22	1.99	0.43
2:D:59:MET:SD	2:D:60:ASN:N	2.92	0.43
3:C:44:GLY:H	6:I:115:DG:P	2.42	0.43
5:B:75:HIS:CE1	2:d:89:ARG:HG2	2.54	0.43
1:o:320:LEU:HA	1:o:323:VAL:HG22	2.01	0.43
1:o:745:VAL:HA	1:o:748:TYR:HD2	1.84	0.43
1:o:1365:ASN:O	1:o:1369:MET:HE1	2.18	0.43
1:o:1513:GLY:O	1:o:1517:LEU:HG	2.18	0.43
5:f:29:ILE:CG2	5:f:55:ARG:HE	2.32	0.43
6:i:57:DC:H1'	7:j:97:DG:H22	1.84	0.43
6:i:65:DA:H2''	6:i:66:DC:O4'	2.19	0.43
6:i:130:DC:H5'	9:L:273:LYS:NZ	2.33	0.43
7:j:123:DA:H2''	7:j:124:DG:N7	2.34	0.43
9:L:622:GLN:HG2	9:L:631:TYR:CD2	2.54	0.43
8:M:102:ILE:HG13	8:M:149:VAL:HG21	2.01	0.43
8:M:522:VAL:HA	8:M:525:PHE:HB3	2.01	0.43
9:N:285:LYS:HZ3	9:N:285:LYS:HG2	1.65	0.43
9:N:450:GLN:HB3	9:N:537:PHE:CZ	2.53	0.43
1:O:35:ILE:HD12	1:O:38:LEU:HD23	2.00	0.43
1:O:455:LEU:HB2	1:O:459:ARG:HH22	1.83	0.43
1:O:529:ASP:OD1	1:O:530:LEU:N	2.51	0.43
1:O:933:LEU:HD13	1:O:2793:PRO:HB2	2.01	0.43
1:O:1001:PHE:HZ	1:O:1044:ILE:HD12	1.83	0.43
1:O:1750:LEU:HD11	1:O:1759:LEU:HG	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1825:LEU:HA	1:O:1828:LEU:HB2	2.00	0.43
1:O:1916:ILE:HD13	1:O:1951:VAL:HG21	2.01	0.43
1:O:2786:LYS:HB2	1:O:2789:SER:H	1.84	0.43
1:O:3193:ILE:O	1:O:3197:LEU:N	2.52	0.43
1:O:3289:ARG:HE	1:O:3291:GLN:HB3	1.83	0.43
1:O:3410:ILE:HD11	1:O:3456:LEU:HD23	2.01	0.43
2:D:43:LYS:HG3	2:D:47:PRO:HB3	2.00	0.43
2:H:84:SER:OG	2:H:85:THR:N	2.52	0.43
4:A:119:ILE:HG12	5:B:43:VAL:HG11	1.99	0.43
3:c:92:GLU:HB3	2:d:99:LEU:HD22	2.01	0.43
1:o:154:SER:O	1:o:158:GLY:N	2.37	0.43
1:o:1042:LYS:HG3	1:o:1043:GLN:N	2.34	0.43
1:o:1164:CYS:SG	1:o:1165:LEU:N	2.92	0.43
1:o:1696:LEU:N	1:o:1697:PRO:HD2	2.34	0.43
1:o:2133:LEU:HD23	1:o:2167:PRO:HB2	2.01	0.43
1:o:3107:ILE:HG12	1:o:3135:LEU:HD11	2.00	0.43
1:o:3547:THR:O	1:o:3551:ASN:N	2.43	0.43
1:o:3563:ASP:C	1:o:3564:GLN:HG3	2.44	0.43
1:o:3789:ARG:H	1:o:3789:ARG:HG2	1.63	0.43
1:o:4039:TYR:O	1:o:4043:LYS:HG2	2.18	0.43
5:f:70:VAL:O	5:f:73:THR:HG22	2.19	0.43
6:I:135:DC:H2''	6:I:136:DA:O5'	2.18	0.43
8:K:74:LYS:CG	8:K:79:ASP:HB2	2.46	0.43
8:K:422:ASP:OD1	8:K:422:ASP:N	2.51	0.43
8:K:512:GLU:O	8:K:515:ASN:N	2.52	0.43
9:L:346:CYS:SG	9:L:390:VAL:HG23	2.58	0.43
9:L:664:GLU:HA	9:L:667:GLU:HG2	2.01	0.43
8:M:263:LEU:N	8:M:268:VAL:HB	2.28	0.43
9:N:42:VAL:HG11	9:N:94:ILE:HD11	2.01	0.43
9:N:377:LEU:HD23	9:N:377:LEU:HA	1.91	0.43
1:O:835:LYS:O	1:O:838:LYS:HG2	2.19	0.42
1:O:1144:SER:HA	1:O:1147:LYS:NZ	2.34	0.42
1:O:1711:ARG:HD2	1:O:1711:ARG:HA	1.74	0.42
1:O:2533:SER:HA	1:O:2538:ARG:HB2	2.02	0.42
1:O:2970:LYS:O	1:O:2971:GLN:C	2.61	0.42
3:C:50:TYR:CE2	2:H:92:GLN:HA	2.54	0.42
4:A:64:LYS:HG2	4:A:93:GLN:HE22	1.81	0.42
1:o:11:SER:O	1:o:14:ARG:HG3	2.19	0.42
1:o:574:LYS:O	1:o:577:GLU:HG2	2.19	0.42
1:o:764:PRO:O	1:o:767:GLU:HG2	2.18	0.42
1:o:982:GLN:O	1:o:2589:TYR:OH	2.32	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1070:PRO:HG3	1:o:3743:HIS:CG	2.54	0.42
1:o:1184:ARG:HD2	1:o:1184:ARG:C	2.44	0.42
1:o:1696:LEU:HD21	1:o:1749:ALA:HB1	2.01	0.42
1:o:2101:VAL:O	1:o:2104:MET:HG3	2.19	0.42
1:o:2353:GLN:HB3	1:o:2360:PHE:HB2	2.00	0.42
4:a:62:ILE:HG22	4:a:93:GLN:HE22	1.84	0.42
3:g:40:ALA:HB3	2:h:86:ILE:HG12	2.01	0.42
7:j:74:DG:H2''	7:j:75:DC:C5	2.54	0.42
7:j:105:DG:H1'	7:j:106:DA:N7	2.33	0.42
9:L:308:GLU:OE1	9:L:308:GLU:N	2.52	0.42
9:L:609:PHE:CD2	9:L:612:ALA:HB2	2.51	0.42
8:M:217:TYR:HA	8:M:220:ILE:HD13	2.01	0.42
9:N:197:ILE:HG23	9:N:202:LYS:HD3	2.00	0.42
9:N:404:GLN:HB3	9:N:421:TYR:OH	2.19	0.42
1:O:22:ALA:HB1	1:O:33:GLN:OE1	2.19	0.42
1:O:74:ASN:OD1	1:O:75:SER:N	2.52	0.42
1:O:105:VAL:HG22	1:O:145:ASP:CG	2.44	0.42
1:O:253:LEU:HD11	1:O:259:GLN:C	2.44	0.42
1:O:616:LYS:HD2	1:O:616:LYS:HA	1.87	0.42
1:O:865:GLN:HB2	1:O:3170:ASP:CG	2.44	0.42
1:O:1573:LYS:HE2	1:O:1573:LYS:HB2	1.88	0.42
1:O:1582:LEU:HD21	1:O:1597:LEU:HG	2.01	0.42
1:O:2270:ASN:O	1:O:2274:ILE:HG13	2.19	0.42
1:O:2522:ARG:NH1	1:O:2560:ASN:OD1	2.52	0.42
1:O:2852:PRO:HB3	1:O:2885:GLN:NE2	2.34	0.42
1:O:3119:VAL:HA	1:O:3125:ARG:NH1	2.34	0.42
1:O:3531:TYR:O	1:O:3535:ILE:HG12	2.18	0.42
1:O:3859:TYR:HA	1:O:4119:ARG:HD2	2.01	0.42
2:D:103:LEU:HG	3:G:96:LEU:CD2	2.49	0.42
4:E:82:LEU:HD23	4:E:82:LEU:HA	1.92	0.42
1:o:42:CYS:SG	1:o:88:PHE:HB2	2.58	0.42
1:o:893:SER:H	1:o:944:LYS:NZ	2.18	0.42
1:o:985:GLU:HA	1:o:988:VAL:HG22	2.01	0.42
1:o:1013:ILE:HG13	1:o:1014:LEU:N	2.35	0.42
1:o:1359:LEU:O	1:o:1362:ASP:HB2	2.20	0.42
1:o:2278:GLY:O	1:o:2282:ALA:N	2.51	0.42
1:o:2494:ASP:O	1:o:2498:ILE:HG13	2.19	0.42
1:o:2773:ARG:HH11	1:o:2785:ILE:HG22	1.84	0.42
1:o:2844:LEU:HD22	1:o:2879:GLY:HA3	2.01	0.42
1:o:3713:PRO:HG2	1:o:3716:HIS:CE1	2.54	0.42
1:o:3963:LEU:HB3	1:o:4116:ILE:HD13	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3998:LEU:HD12	1:o:4051:LEU:HD21	1.99	0.42
6:i:32:DG:H2'	6:i:33:DG:C8	2.54	0.42
7:J:80:DT:H6	7:J:80:DT:H2'	1.71	0.42
8:K:441:ASP:N	8:K:441:ASP:OD1	2.52	0.42
9:L:107:PHE:CZ	9:L:142:PHE:HB3	2.53	0.42
9:L:109:ASP:O	9:L:113:VAL:HG23	2.18	0.42
9:N:44:ARG:HH21	9:N:48:ALA:HB2	1.84	0.42
9:N:635:SER:O	9:N:639:ILE:HG12	2.19	0.42
1:O:96:MET:HG2	1:O:100:ILE:HD12	2.01	0.42
1:O:103:TYR:O	1:O:106:GLU:HB3	2.19	0.42
1:O:268:PRO:O	1:O:272:LEU:HG	2.19	0.42
1:O:529:ASP:O	1:O:533:HIS:N	2.42	0.42
1:O:945:ALA:O	1:O:946:THR:C	2.60	0.42
1:O:1049:GLN:O	1:O:1055:ASN:HB3	2.20	0.42
1:O:1251:GLN:HA	1:O:1254:LEU:HD12	2.00	0.42
1:O:1772:HIS:ND1	1:O:1773:VAL:HG13	2.34	0.42
1:O:2253:TYR:HB3	1:O:2288:TYR:CE1	2.47	0.42
1:O:2481:HIS:NE2	1:O:2530:ARG:HG3	2.34	0.42
1:O:2522:ARG:O	1:O:2526:SER:OG	2.28	0.42
1:O:3256:MET:O	1:O:3260:LYS:HD3	2.20	0.42
1:O:3570:ASP:HA	1:O:3573:ASN:HD21	1.84	0.42
1:O:3705:TYR:CD1	1:O:3712:LEU:HG	2.54	0.42
4:A:72:ARG:NE	6:i:54:DT:OP2	2.52	0.42
1:o:1071:ASN:H	1:o:1075:ARG:NH1	2.18	0.42
1:o:1300:SER:O	1:o:1334:LYS:NZ	2.53	0.42
1:o:1396:PRO:O	1:o:1400:VAL:HG23	2.20	0.42
1:o:3006:ALA:HB3	1:o:3255:ALA:N	2.34	0.42
1:o:3031:TRP:HD1	1:o:3044:MET:HE3	1.83	0.42
1:o:3622:ALA:HB2	1:o:3633:ILE:HD11	2.02	0.42
4:a:51:ILE:HG23	5:b:42:GLY:HA2	2.00	0.42
4:a:74:ILE:HG22	5:b:66:ILE:HG21	2.01	0.42
3:g:108:LEU:HD22	3:g:110:ASN:HB2	2.01	0.42
7:j:81:DC:H6	7:j:81:DC:H2'	1.65	0.42
8:K:142:SER:O	8:K:146:VAL:HG23	2.20	0.42
8:K:317:LYS:HD3	8:K:317:LYS:HA	1.83	0.42
8:K:444:ARG:N	9:L:266:SER:O	2.47	0.42
8:M:134:MET:HE3	8:M:134:MET:HB3	1.80	0.42
1:O:723:ASP:OD1	1:O:723:ASP:N	2.52	0.42
1:O:921:ALA:HB3	1:O:927:LYS:HB2	2.01	0.42
1:O:963:LYS:HB3	1:O:964:ARG:NH2	2.34	0.42
1:O:1114:ALA:O	1:O:1115:HIS:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1331:ASN:C	1:O:1331:ASN:HD22	2.25	0.42
1:O:2340:SER:O	1:O:2343:GLU:HB2	2.19	0.42
1:O:2369:LYS:HB2	1:O:2369:LYS:HE2	1.87	0.42
1:O:3557:ARG:HE	1:O:3558:ILE:HG13	1.84	0.42
3:C:26:PRO:HG3	2:H:37:TYR:CZ	2.54	0.42
2:H:88:SER:O	2:H:91:ILE:HG22	2.19	0.42
4:A:88:ALA:HB2	5:B:82:THR:C	2.44	0.42
3:c:38:HIS:ND1	3:c:38:HIS:O	2.52	0.42
3:c:101:THR:HG21	4:E:98:ALA:HB1	2.01	0.42
2:d:84:SER:N	6:i:43:DA:OP1	2.39	0.42
1:o:451:PRO:O	1:o:455:LEU:HG	2.20	0.42
1:o:573:LEU:HD22	1:o:649:PHE:HD1	1.84	0.42
1:o:1675:TYR:CZ	1:o:1679:LEU:HD11	2.55	0.42
1:o:1910:GLU:O	1:o:1913:LYS:NZ	2.51	0.42
1:o:1949:ILE:O	1:o:1952:ILE:HG22	2.18	0.42
1:o:2310:VAL:HG13	1:o:2316:TYR:HE2	1.84	0.42
1:o:3135:LEU:O	1:o:3139:GLN:HG2	2.20	0.42
1:o:3148:GLN:O	1:o:3153:SER:OG	2.37	0.42
1:o:3369:ASP:HB3	1:o:3372:LYS:HE2	2.00	0.42
1:o:3836:PRO:O	1:o:3873:LYS:HB3	2.20	0.42
8:K:93:ASP:HB3	8:K:102:ILE:H	1.84	0.42
8:K:304:ASN:O	8:K:308:GLY:N	2.42	0.42
9:L:509:GLN:HB2	9:L:511:HIS:CE1	2.55	0.42
8:M:112:GLY:H	8:M:115:ARG:HD3	1.84	0.42
8:M:207:LYS:H	8:M:211:PHE:HB2	1.84	0.42
9:N:212:MET:HA	9:N:215:LEU:HB2	2.01	0.42
9:N:660:LYS:HA	9:N:687:THR:HG22	2.02	0.42
1:O:118:ASP:OD1	9:L:297:LEU:HG	2.19	0.42
1:O:142:ARG:HH11	1:O:182:GLY:HA2	1.85	0.42
1:O:213:ARG:O	1:O:216:LYS:HB2	2.19	0.42
1:O:475:LEU:O	1:O:479:ILE:HG12	2.18	0.42
1:O:1596:VAL:HG22	1:O:1600:MET:HE2	2.02	0.42
1:O:1611:GLN:OE1	1:O:1614:GLN:HB2	2.18	0.42
1:O:1784:ARG:O	1:O:1785:ILE:C	2.63	0.42
1:O:2382:VAL:O	1:O:2386:LEU:HG	2.20	0.42
1:O:2815:GLY:HA2	1:O:2818:LYS:HG2	2.01	0.42
1:O:3625:LEU:HB3	1:O:3630:ARG:CZ	2.49	0.42
1:O:3714:GLU:OE1	1:O:3714:GLU:N	2.39	0.42
1:O:3890:MET:HE3	1:O:3932:MET:HB2	2.00	0.42
4:A:84:PHE:HA	5:B:81:VAL:HB	2.02	0.42
3:c:17:ARG:HG2	6:i:34:DA:OP1	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:265:TYR:HB3	1:o:308:LEU:HD21	2.00	0.42
1:o:865:GLN:HG3	1:o:3168:TYR:HB3	2.02	0.42
1:o:865:GLN:HA	1:o:868:LYS:NZ	2.34	0.42
1:o:913:ARG:O	1:o:916:GLU:HG3	2.19	0.42
1:o:1108:MET:HE2	1:o:1178:ARG:HH22	1.84	0.42
1:o:2126:MET:HE3	1:o:2126:MET:HB3	1.64	0.42
1:o:2145:PHE:O	1:o:2149:LEU:HD23	2.19	0.42
1:o:2323:LEU:HD23	1:o:2323:LEU:HA	1.83	0.42
1:o:3151:LEU:HD23	1:o:3151:LEU:H	1.84	0.42
1:o:3674:SER:O	1:o:3674:SER:OG	2.37	0.42
1:o:4056:PRO:HA	1:o:4059:ILE:HB	2.01	0.42
7:J:13:DC:N3	6:I:141:DG:N2	2.64	0.42
8:K:217:TYR:HD1	8:K:220:ILE:HD12	1.83	0.42
9:L:154:LEU:HA	9:L:159:ILE:HD12	2.01	0.42
1:O:1301:ILE:N	1:O:1303:MET:SD	2.93	0.42
1:O:1379:PRO:HB3	1:O:1385:ASN:HB3	2.02	0.42
1:O:1417:THR:O	1:O:1420:ARG:HB2	2.20	0.42
1:O:1714:LEU:O	1:O:1718:ILE:HG23	2.19	0.42
1:O:2260:PHE:O	1:O:2270:ASN:HB2	2.18	0.42
1:O:2530:ARG:N	1:O:2530:ARG:HD2	2.35	0.42
1:O:2567:SER:HA	1:O:2572:TYR:CG	2.54	0.42
1:O:3262:LEU:HD22	1:O:3276:TRP:HD1	1.84	0.42
1:O:3483:MET:HE3	1:O:3511:ALA:HB3	2.01	0.42
1:O:3717:VAL:HG13	1:O:3743:HIS:N	2.35	0.42
1:O:3797:THR:HG23	1:O:3800:LEU:HB2	2.00	0.42
3:c:76:THR:C	2:d:50:GLY:H	2.28	0.42
1:o:337:LYS:HA	1:o:341:PHE:HD1	1.84	0.42
1:o:933:LEU:HB2	1:o:2793:PRO:HB2	2.02	0.42
1:o:946:THR:OG1	1:o:947:GLN:NE2	2.49	0.42
1:o:1157:PHE:CE2	1:o:1163:LEU:HD22	2.54	0.42
1:o:1231:GLN:HB3	1:o:1235:ILE:HG13	2.00	0.42
1:o:1718:ILE:HD11	1:o:1761:LEU:HD22	2.00	0.42
1:o:3627:ALA:H	1:o:3677:PRO:HG2	1.85	0.42
1:o:3859:TYR:CZ	1:o:3956:PRO:HD3	2.54	0.42
4:e:121:PRO:HD3	5:f:50:ILE:HG12	2.02	0.42
7:j:98:DC:H2"	7:j:99:DC:H5"	2.02	0.42
8:K:94:LYS:HB2	8:K:103:TYR:CD2	2.54	0.42
8:K:311:LEU:HD12	8:K:311:LEU:HA	1.88	0.42
9:L:253:ILE:HD11	9:L:342:VAL:HB	2.01	0.42
9:L:612:ALA:O	9:L:616:LEU:HG	2.20	0.42
9:L:682:GLY:O	9:L:683:ILE:C	2.62	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:M:71:TYR:HB3	8:M:116:ILE:HD13	2.01	0.42
8:M:287:LYS:HA	8:M:287:LYS:HD3	1.91	0.42
8:M:352:PRO:HA	8:M:394:VAL:HG13	2.02	0.42
8:M:454:ALA:HB2	9:N:375:VAL:HG13	2.02	0.42
9:N:489:ARG:O	9:N:492:GLN:HG2	2.19	0.42
9:N:493:CYS:HB2	9:N:506:PRO:HG3	2.01	0.42
1:O:88:PHE:HA	1:O:91:ILE:HG12	2.01	0.42
1:O:200:PHE:HA	1:O:203:GLU:HB3	2.01	0.42
1:O:204:LEU:HD12	1:O:224:LEU:HD11	2.02	0.42
1:O:1093:GLU:HA	1:O:1096:VAL:HG12	2.02	0.42
1:O:1219:PHE:CE1	1:O:1281:VAL:HG12	2.54	0.42
1:O:3459:ASN:O	1:O:3463:LEU:HG	2.19	0.42
1:O:3529:ILE:HD12	1:O:3532:PRO:HB2	2.01	0.42
1:O:3625:LEU:HB3	1:O:3630:ARG:NH1	2.35	0.42
2:H:97:LEU:HD22	5:f:72:TYR:CD1	2.55	0.42
4:A:94:GLU:HB3	5:B:97:LEU:HD21	2.02	0.42
2:d:41:VAL:HA	2:d:44:GLN:OE1	2.19	0.42
1:o:618:LYS:HD2	1:o:2034:SER:HB2	2.01	0.42
1:o:867:ASN:HB2	1:o:3129:LEU:HD13	2.01	0.42
1:o:958:MET:HE3	1:o:958:MET:HB3	1.87	0.42
1:o:1424:THR:C	1:o:1426:GLN:H	2.27	0.42
1:o:1848:ILE:HD11	1:o:1912:THR:HG22	2.00	0.42
1:o:1936:ARG:HA	1:o:1939:LEU:HD12	2.02	0.42
1:o:3457:ASN:HB2	1:o:3708:ARG:HG2	2.01	0.42
1:o:3532:PRO:HA	1:o:3535:ILE:HG12	2.01	0.42
1:o:4085:LYS:O	1:o:4089:ILE:HG12	2.19	0.42
7:j:16:DG:H2"	7:j:17:DG:H8	1.85	0.42
8:K:46:LYS:O	8:K:48:MET:N	2.53	0.42
8:K:407:PRO:HD2	9:L:486:ARG:HH21	1.85	0.42
8:K:505:ASP:O	8:K:507:THR:N	2.52	0.42
9:L:426:PHE:H	9:L:429:ASP:CB	2.33	0.42
8:M:263:LEU:HD22	8:M:267:ILE:HG23	2.02	0.42
9:N:212:MET:SD	9:N:220:GLY:HA2	2.59	0.42
1:O:498:PRO:HD2	1:O:2601:VAL:HG11	2.02	0.42
1:O:715:ALA:HA	1:O:718:MET:HG3	2.02	0.42
1:O:1112:ALA:HB1	1:O:1180:GLN:HG3	2.00	0.42
1:O:1142:HIS:CD2	1:O:1197:LEU:HD12	2.54	0.42
1:O:1308:ALA:HB3	1:O:1312:CYS:HB3	2.01	0.42
1:O:2300:PHE:O	1:O:2304:VAL:HG23	2.19	0.42
1:O:2420:PHE:CE2	1:O:2439:ILE:HD11	2.55	0.42
1:O:3588:TRP:CD1	1:O:3609:MET:HG2	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3705:TYR:HA	1:O:3712:LEU:HD11	2.02	0.42
2:D:84:SER:O	3:G:40:ALA:HB1	2.19	0.42
2:H:77:LEU:HD13	2:H:97:LEU:HD12	2.02	0.42
4:A:71:VAL:HG11	4:A:89:VAL:HG13	2.02	0.42
1:o:144:MET:N	1:o:144:MET:SD	2.93	0.42
1:o:1105:VAL:HG21	1:o:1154:PRO:HB2	2.01	0.42
1:o:1149:LYS:O	1:o:1163:LEU:N	2.52	0.42
1:o:1819:PHE:O	1:o:1823:SER:OG	2.28	0.42
1:o:2522:ARG:NH2	1:o:2560:ASN:HB3	2.34	0.42
1:o:3545:THR:HG23	1:o:3548:GLY:H	1.85	0.42
1:o:3772:ASN:O	1:o:3787:GLN:NE2	2.46	0.42
1:o:4081:ALA:HA	1:o:4115:ASN:HB3	2.02	0.42
4:a:85:GLN:HG3	6:I:53:DT:OP1	2.20	0.42
4:a:98:ALA:HB3	5:b:97:LEU:HD11	2.02	0.42
4:a:127:ALA:O	4:a:131:ARG:NE	2.45	0.42
6:I:58:DG:H2''	6:I:59:DG:C8	2.55	0.42
6:I:133:DG:H1'	9:N:400:ARG:HH12	1.84	0.42
8:K:341:ASP:HB3	8:K:401:THR:HG21	2.02	0.42
8:K:510:LYS:O	8:K:511:VAL:C	2.63	0.42
8:M:64:ILE:HG21	8:M:122:PHE:C	2.44	0.42
8:M:357:LYS:NZ	9:N:480:THR:HG21	2.35	0.42
8:M:465:ILE:HA	8:M:468:LYS:HE3	2.01	0.42
9:N:621:GLU:O	9:N:671:LEU:HD11	2.20	0.42
9:N:623:PHE:CZ	9:N:632:PHE:HB2	2.55	0.42
1:O:718:MET:HA	1:O:721:TYR:HB2	2.02	0.42
1:O:1296:PHE:O	1:O:1300:SER:N	2.53	0.42
1:O:1445:ARG:O	1:O:1448:LEU:HB2	2.20	0.42
1:O:1529:VAL:O	1:O:1532:LEU:HB2	2.20	0.42
1:O:1922:ALA:O	1:O:1924:THR:HG23	2.20	0.42
1:O:1955:VAL:HG23	1:O:1956:PHE:CE2	2.54	0.42
1:O:2034:SER:O	1:O:2037:SER:N	2.52	0.42
1:O:2122:LEU:N	1:O:2125:TRP:HA	2.33	0.42
1:O:2491:THR:O	1:O:2496:GLN:NE2	2.53	0.42
1:O:2894:GLU:HG2	1:O:3973:PRO:HG3	2.01	0.42
1:O:3477:GLU:OE1	1:O:3477:GLU:N	2.33	0.42
1:O:3758:LEU:HD13	1:O:3793:VAL:HG21	2.01	0.42
1:o:132:ILE:HB	1:o:173:LYS:HZ3	1.84	0.42
1:o:526:ASP:OD1	1:o:526:ASP:N	2.43	0.42
1:o:933:LEU:HD22	1:o:2794:LEU:HA	2.02	0.42
1:o:3229:SER:N	1:o:3232:ARG:HH21	2.18	0.42
1:o:3696:ARG:HD2	1:o:3697:ASN:N	2.35	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3988:LEU:HG	1:o:4100:GLU:HG2	2.02	0.42
4:a:96:CYS:HB2	5:b:58:LEU:HD21	2.01	0.42
6:i:56:DG:H2''	6:i:57:DC:C2	2.55	0.42
6:i:131:DT:H3'	6:i:131:DT:OP2	2.20	0.42
8:K:268:VAL:H	9:L:539:LEU:HD21	1.85	0.42
9:L:164:PHE:HE1	9:L:225:TYR:HB2	1.84	0.42
9:L:346:CYS:N	9:L:390:VAL:O	2.49	0.42
9:L:457:LEU:O	9:L:461:MET:HG3	2.20	0.42
9:L:646:ALA:HA	9:L:651:GLU:HG3	2.01	0.42
8:M:339:ARG:HB2	8:M:405:ASN:ND2	2.35	0.42
8:M:351:LYS:C	8:M:394:VAL:HG13	2.45	0.42
1:O:1397:ASP:HA	1:O:1460:ARG:HH12	1.85	0.42
1:O:2346:ALA:O	1:O:2349:LEU:HB2	2.20	0.42
1:O:2375:ALA:HA	1:O:2378:PHE:HD2	1.84	0.42
1:O:2576:MET:HE3	1:O:2790:LEU:HD23	2.02	0.42
1:O:2842:ARG:O	1:O:2846:THR:OG1	2.32	0.42
1:O:3301:LEU:C	1:O:3303:THR:H	2.27	0.42
1:O:3585:PHE:CD1	1:O:3613:MET:HE2	2.54	0.42
1:O:4070:LYS:HE2	1:O:4070:LYS:HB2	1.93	0.42
5:F:77:LYS:HE3	5:F:77:LYS:HB3	1.91	0.42
1:o:28:ALA:HA	1:o:77:GLU:HG3	2.02	0.42
1:o:565:TYR:CE1	1:o:642:PHE:HB2	2.55	0.42
1:o:881:LYS:HZ2	1:o:3119:VAL:HG22	1.85	0.42
1:o:1261:LEU:HD21	1:o:1337:VAL:HG22	2.02	0.42
1:o:3717:VAL:HA	1:o:3743:HIS:HB3	2.02	0.42
1:o:3924:HIS:ND1	1:o:3926:ASN:HB2	2.35	0.42
3:g:102:ILE:HB	2:h:58:ILE:HG13	2.02	0.42
4:e:67:PHE:HB3	4:e:93:GLN:HE21	1.85	0.42
6:i:67:DG:N7	7:j:88:DG:N2	2.68	0.42
7:j:16:DG:OP2	8:K:278:GLN:NE2	2.53	0.42
8:K:321:ILE:HG23	8:K:326:GLN:HA	2.01	0.42
8:K:514:MET:O	8:K:518:LEU:CB	2.68	0.42
9:L:7:LYS:HB2	9:L:125:LYS:O	2.19	0.42
9:L:8:ALA:H	9:L:52:ASP:HA	1.85	0.42
9:L:261:ILE:HD11	9:L:364:VAL:HG13	2.01	0.42
9:L:484:ASN:HD21	9:L:486:ARG:HB3	1.84	0.42
9:L:663:GLN:HG2	9:L:686:ILE:HD12	2.02	0.42
8:M:372:GLU:HG2	8:M:373:SER:H	1.85	0.42
1:O:194:GLU:O	1:O:197:PHE:HB2	2.20	0.41
1:O:203:GLU:O	1:O:206:THR:OG1	2.30	0.41
1:O:491:CYS:HB3	1:O:622:ALA:HB1	2.01	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:974:CYS:SG	1:O:1024:THR:HG22	2.60	0.41
1:O:2160:TYR:HD2	1:O:2164:TRP:CE2	2.38	0.41
1:O:3839:TYR:HB2	1:O:3840:LYS:HD2	2.02	0.41
2:D:31:LYS:HB2	6:i:125:DG:H4'	2.01	0.41
3:C:74:LYS:NZ	9:N:335:SER:O	2.53	0.41
2:H:31:LYS:HD3	2:H:31:LYS:HA	1.85	0.41
3:c:44:GLY:HA3	2:d:87:THR:HG22	2.01	0.41
4:E:82:LEU:HD23	5:F:79:LYS:O	2.20	0.41
1:o:272:LEU:HD13	1:o:312:ALA:HB2	2.01	0.41
1:o:749:VAL:HB	1:o:750:PRO:HD3	2.02	0.41
1:o:794:PRO:HA	1:o:870:LEU:HD12	2.01	0.41
1:o:1483:LEU:HD11	1:o:1514:LEU:HB3	2.02	0.41
1:o:3252:PHE:CE1	1:o:3289:ARG:HG2	2.55	0.41
1:o:3278:GLN:HB3	1:o:3282:ARG:NH1	2.35	0.41
1:o:3780:ALA:HB1	1:o:3784:ARG:HH22	1.85	0.41
5:b:36:ARG:HH22	6:I:63:DA:H3'	1.85	0.41
6:i:95:DG:C8	6:i:95:DG:H5'	2.54	0.41
7:j:48:DC:H2''	7:j:49:DT:C6	2.55	0.41
8:K:47:ALA:O	8:K:50:GLU:N	2.53	0.41
8:K:113:ALA:O	8:K:115:ARG:N	2.53	0.41
9:L:666:VAL:HA	9:L:669:LYS:HB2	2.02	0.41
8:M:168:LEU:HD23	8:M:200:LEU:HB3	2.02	0.41
8:M:339:ARG:NH1	8:M:405:ASN:H	2.18	0.41
8:M:372:GLU:HG2	8:M:373:SER:N	2.35	0.41
8:M:420:LEU:HB2	8:M:424:LYS:HA	2.01	0.41
9:N:137:ASP:HB3	9:N:227:PHE:HE2	1.85	0.41
1:O:117:LYS:HD2	1:O:117:LYS:HA	1.91	0.41
1:O:164:LYS:HA	1:O:164:LYS:HD3	1.83	0.41
1:O:265:TYR:O	1:O:268:PRO:HD2	2.19	0.41
1:O:432:THR:N	1:O:433:PRO:HD2	2.34	0.41
1:O:1202:ARG:N	1:O:1206:LEU:HD12	2.35	0.41
1:O:1455:CYS:O	1:O:1458:LEU:HB2	2.20	0.41
1:O:2100:LEU:O	1:O:2104:MET:HG2	2.20	0.41
1:O:2307:MET:HB3	1:O:2348:GLN:OE1	2.20	0.41
1:O:3257:LYS:HA	1:O:3260:LYS:HB2	2.02	0.41
1:O:3681:LYS:HG2	1:O:3683:CYS:H	1.85	0.41
1:O:4127:TRP:HD1	1:O:4128:MET:HE3	1.85	0.41
2:D:67:PHE:CD1	3:G:51:LEU:HD22	2.56	0.41
3:C:72:ASP:OD1	3:C:72:ASP:N	2.52	0.41
2:d:114:ALA:O	2:d:117:LYS:HG2	2.19	0.41
1:o:532:ARG:O	1:o:536:SER:OG	2.30	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:1373:VAL:HG11	1:o:1418:HIS:HD2	1.84	0.41
1:o:1531:LEU:HD23	1:o:1531:LEU:HA	1.85	0.41
1:o:2242:VAL:O	1:o:2249:LEU:HD11	2.21	0.41
1:o:2328:ARG:HB2	1:o:2370:SER:HB2	2.01	0.41
1:o:2940:ARG:HH22	1:o:3981:TYR:HD1	1.68	0.41
1:o:3475:TYR:O	1:o:3479:THR:OG1	2.35	0.41
1:o:4055:ASN:HB3	1:o:4058:VAL:HB	2.01	0.41
4:a:98:ALA:HA	4:a:101:VAL:HG22	2.03	0.41
5:b:71:THR:HG23	2:h:94:ALA:O	2.19	0.41
6:i:59:DG:N2	7:j:95:DC:O2	2.51	0.41
6:i:81:DG:H2''	6:i:82:DT:OP2	2.20	0.41
6:i:114:DC:H6	6:i:114:DC:H2'	1.66	0.41
6:i:128:DG:N2	7:j:26:DC:C2	2.88	0.41
8:K:72:ILE:O	8:K:76:ILE:N	2.53	0.41
8:K:463:LYS:NZ	9:L:386:ASP:HB3	2.34	0.41
9:L:164:PHE:CE1	9:L:225:TYR:HB2	2.55	0.41
9:L:346:CYS:O	9:L:390:VAL:N	2.53	0.41
8:M:92:LYS:HE3	8:M:135:MET:CA	2.50	0.41
9:N:27:ILE:HG23	9:N:166:PRO:HG3	2.01	0.41
1:O:741:ILE:HG21	1:O:776:TRP:CE2	2.55	0.41
1:O:1206:LEU:O	1:O:1207:TRP:C	2.63	0.41
1:O:2264:ASP:N	1:O:2265:PRO:HD3	2.35	0.41
1:O:2860:ASP:O	1:O:2863:CYS:N	2.53	0.41
1:O:3375:ALA:O	1:O:3379:GLN:HG2	2.19	0.41
1:O:3607:GLU:O	1:O:3610:TYR:HB2	2.20	0.41
3:C:47:ALA:HB3	3:C:48:PRO:HD3	2.03	0.41
4:A:119:ILE:O	4:A:120:MET:HE2	2.20	0.41
1:o:49:ALA:HB3	1:o:52:ALA:HB3	2.02	0.41
1:o:204:LEU:O	1:o:208:MET:HB3	2.19	0.41
1:o:647:TYR:HD1	1:o:703:CYS:SG	2.43	0.41
1:o:1017:ILE:HG22	1:o:1018:VAL:HG13	2.00	0.41
1:o:1934:LEU:HA	1:o:1937:ARG:HD2	2.02	0.41
1:o:2036:LEU:HA	1:o:2039:GLU:HG2	2.01	0.41
1:o:2461:PHE:HB2	1:o:2473:MET:SD	2.61	0.41
1:o:3050:LYS:NZ	1:o:3181:ASP:OD1	2.39	0.41
5:f:55:ARG:HH12	5:f:59:LYS:N	2.18	0.41
6:i:44:DG:H2''	6:i:45:DT:C6	2.55	0.41
9:L:16:VAL:HG23	9:L:60:GLY:C	2.45	0.41
9:L:666:VAL:HG11	9:L:678:VAL:HG11	2.02	0.41
8:M:434:LEU:HB3	8:M:436:PHE:CE1	2.55	0.41
8:M:469:LEU:HD23	8:M:517:ARG:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
9:N:168:SER:HB2	9:N:226:SER:N	2.35	0.41
1:O:738:HIS:HB2	1:O:780:ILE:HD11	2.02	0.41
1:O:1196:PRO:O	1:O:1197:LEU:HB2	2.20	0.41
1:O:1586:SER:HB3	1:O:1632:TRP:HH2	1.85	0.41
1:O:1629:CYS:O	1:O:1633:TRP:NE1	2.52	0.41
1:O:1935:GLU:OE1	1:O:1935:GLU:N	2.48	0.41
1:O:2723:THR:O	1:O:2726:LEU:HB2	2.20	0.41
1:O:3773:GLY:O	1:O:3777:GLN:NE2	2.31	0.41
1:O:3995:PRO:O	1:O:3999:THR:HG23	2.20	0.41
2:D:31:LYS:H	2:D:31:LYS:HD2	1.85	0.41
3:C:49:VAL:HG11	2:H:118:TYR:CD1	2.55	0.41
3:C:50:TYR:CE1	2:H:92:GLN:HG2	2.55	0.41
2:d:33:SER:O	2:d:36:ILE:HG22	2.21	0.41
1:o:139:ARG:HE	1:o:142:ARG:HH12	1.68	0.41
1:o:345:PHE:HE1	1:o:363:ILE:HA	1.84	0.41
1:o:790:LYS:HA	1:o:869:ASN:HB3	2.02	0.41
1:o:942:LEU:O	1:o:946:THR:HG23	2.21	0.41
1:o:990:GLN:HG3	1:o:2777:HIS:CE1	2.55	0.41
1:o:1730:PRO:HA	1:o:1731:PRO:HD3	1.95	0.41
1:o:1786:ALA:HB3	1:o:1830:HIS:CD2	2.55	0.41
1:o:2816:ILE:O	1:o:2820:MET:HG2	2.19	0.41
1:o:2893:LEU:HD23	1:o:2893:LEU:HA	1.97	0.41
1:o:3966:GLN:HA	1:o:3969:ASN:HB2	2.02	0.41
4:a:128:ARG:HD3	4:a:134:ARG:NE	2.35	0.41
6:i:77:DG:H5''	6:i:78:DC:C5	2.55	0.41
6:i:115:DG:H1	7:j:40:DG:N2	2.17	0.41
6:I:87:DG:H4'	6:I:88:DC:OP1	2.20	0.41
9:L:27:ILE:O	9:L:30:PRO:HD3	2.21	0.41
9:L:461:MET:O	9:L:522:VAL:HG23	2.20	0.41
1:O:523:THR:HG23	1:O:526:ASP:OD1	2.19	0.41
1:O:713:GLU:HA	1:O:716:VAL:HG22	2.03	0.41
1:O:848:LEU:HB3	1:O:852:ARG:NH2	2.30	0.41
1:O:966:PHE:O	1:O:970:LEU:HG	2.20	0.41
1:O:1042:LYS:HE3	1:O:1042:LYS:HB3	1.88	0.41
1:O:1137:ILE:HA	1:O:1137:ILE:HD12	1.96	0.41
1:O:1881:TYR:CG	1:O:1950:SER:HB3	2.55	0.41
1:O:2203:THR:HG22	1:O:2247:ASP:OD2	2.20	0.41
1:O:2529:THR:HB	1:O:2530:ARG:HH11	1.85	0.41
1:O:4039:TYR:HE2	1:O:4066:LEU:HD21	1.86	0.41
3:c:92:GLU:O	3:c:95:LYS:HB2	2.19	0.41
4:E:68:GLN:O	4:E:71:VAL:HG22	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:382:ASP:O	1:o:386:VAL:N	2.31	0.41
1:o:713:GLU:C	1:o:717:LYS:HZ2	2.29	0.41
1:o:945:ALA:HA	1:o:949:PRO:HA	2.03	0.41
1:o:992:ILE:HB	1:o:1036:PHE:HD2	1.85	0.41
1:o:1396:PRO:HB3	1:o:1457:GLN:NE2	2.35	0.41
1:o:2155:GLU:HA	1:o:2158:ARG:HD3	2.03	0.41
1:o:3271:ASP:HA	1:o:3314:SER:HB2	2.01	0.41
1:o:3467:ARG:HH22	1:o:3474:ARG:CZ	2.34	0.41
1:o:3502:MET:HE1	1:o:3521:ILE:HD12	2.02	0.41
1:o:3506:LEU:HD11	1:o:3515:GLN:HB3	2.01	0.41
1:o:3589:SER:HA	1:o:3592:VAL:HG12	2.02	0.41
3:g:58:LEU:HD11	2:h:106:HIS:HD2	1.85	0.41
4:e:88:ALA:HB2	5:f:82:THR:HA	2.03	0.41
6:i:63:DA:C8	6:i:65:DA:N1	2.89	0.41
7:j:31:DC:H2''	7:j:32:DA:N7	2.36	0.41
7:J:25:DG:H21	6:I:131:DT:H5'	1.86	0.41
8:K:41:LEU:HD13	8:K:86:VAL:O	2.20	0.41
8:K:56:GLU:H	8:K:56:GLU:CD	2.28	0.41
8:K:466:VAL:HG22	9:L:345:PHE:CZ	2.56	0.41
9:L:131:HIS:NE2	9:L:162:GLN:HG2	2.34	0.41
8:M:134:MET:C	8:M:135:MET:HG3	2.46	0.41
8:M:413:LEU:HB3	8:M:432:PHE:HD2	1.85	0.41
9:N:107:PHE:CE1	9:N:108:LEU:HG	2.56	0.41
1:O:260:ILE:HD12	1:O:260:ILE:HA	1.93	0.41
1:O:361:ILE:HD13	1:O:364:ARG:HD2	2.02	0.41
1:O:745:VAL:HG21	1:O:788:TYR:CZ	2.55	0.41
1:O:1289:SER:HA	1:O:1292:LYS:HB3	2.02	0.41
1:O:2950:LYS:HB2	1:O:2953:THR:HG23	2.01	0.41
1:O:3186:ARG:NH1	1:O:3238:MET:SD	2.94	0.41
1:O:3306:LEU:C	1:O:3308:ASP:H	2.28	0.41
1:O:3419:PHE:O	1:O:3422:GLN:HG3	2.20	0.41
1:O:3729:MET:SD	1:O:3737:ARG:HB2	2.60	0.41
1:O:3873:LYS:C	1:O:3877:LYS:HZ3	2.29	0.41
1:O:4047:ALA:HA	1:O:4050:LYS:HG2	2.03	0.41
3:c:63:LEU:HD13	2:d:42:LEU:HB2	2.02	0.41
4:E:86:SER:HB2	7:j:53:DG:OP1	2.20	0.41
1:o:660:LEU:HD12	1:o:660:LEU:HA	1.92	0.41
1:o:992:ILE:HG13	1:o:993:HIS:N	2.35	0.41
1:o:1373:VAL:HG21	1:o:1418:HIS:HB3	2.02	0.41
1:o:1505:LEU:HD12	1:o:1506:SER:N	2.36	0.41
1:o:2184:TYR:HA	1:o:2734:ARG:HH21	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:2238:ILE:HD13	1:o:2241:LEU:HD21	2.02	0.41
1:o:2295:GLN:OE1	1:o:2295:GLN:N	2.53	0.41
1:o:2366:LYS:NZ	1:o:2370:SER:HB3	2.35	0.41
1:o:2962:ARG:NH2	1:o:2967:GLU:OE2	2.49	0.41
1:o:3506:LEU:HD22	1:o:3518:VAL:HG11	2.03	0.41
1:o:3880:ALA:HA	1:o:3966:GLN:HE22	1.86	0.41
1:o:4057:ALA:HB1	1:o:4082:ARG:HA	2.01	0.41
2:h:101:GLY:HA3	2:h:106:HIS:ND1	2.36	0.41
6:i:60:DT:H3	7:j:94:DA:N6	2.18	0.41
7:j:31:DC:H2''	7:j:32:DA:C5	2.56	0.41
8:K:36:ASP:H	8:K:81:ASP:CG	2.29	0.41
8:K:75:ILE:O	8:K:76:ILE:C	2.63	0.41
8:K:207:LYS:HA	8:K:207:LYS:HD3	1.69	0.41
8:K:261:LEU:O	8:K:268:VAL:HA	2.21	0.41
9:L:530:LEU:O	9:L:534:LYS:HG3	2.20	0.41
8:M:177:GLY:HA3	8:M:216:PHE:CE2	2.55	0.41
1:O:76:ILE:O	1:O:79:ARG:HB3	2.21	0.41
1:O:190:ILE:O	1:O:193:ALA:HB3	2.19	0.41
1:O:392:CYS:HA	1:O:395:MET:CG	2.50	0.41
1:O:406:ARG:HA	1:O:406:ARG:HD2	1.85	0.41
1:O:523:THR:HG23	1:O:526:ASP:CG	2.46	0.41
1:O:962:TYR:HB2	1:O:1007:VAL:HG11	2.01	0.41
1:O:1019:ASP:HA	1:O:1020:PRO:HD3	1.92	0.41
1:O:1108:MET:HE1	1:O:1131:ILE:HD12	2.02	0.41
1:O:1380:ALA:HA	1:O:1384:PHE:HA	2.03	0.41
1:O:2833:THR:HG21	1:O:2867:ALA:HB1	2.02	0.41
1:O:3462:ARG:NH2	1:O:3707:GLY:O	2.54	0.41
1:O:3871:PHE:O	1:O:3875:GLU:HG3	2.21	0.41
5:B:80:THR:N	7:j:105:DG:OP1	2.45	0.41
3:c:83:LEU:HD23	3:c:83:LEU:HA	1.84	0.41
3:c:86:ALA:HA	3:c:89:ASN:OD1	2.21	0.41
3:c:87:ILE:HG13	3:c:88:ARG:HG2	2.02	0.41
1:o:15:LEU:O	1:o:19:LEU:HG	2.20	0.41
1:o:173:LYS:HA	1:o:223:CYS:SG	2.61	0.41
1:o:411:PRO:HA	1:o:414:LEU:HD12	2.03	0.41
1:o:683:PHE:HA	1:o:704:PHE:CZ	2.56	0.41
1:o:1069:HIS:HE2	1:o:3745:GLU:CD	2.29	0.41
1:o:1166:LEU:HA	1:o:1198:LEU:HD22	2.03	0.41
1:o:2097:LEU:O	1:o:2101:VAL:HG23	2.21	0.41
1:o:2185:MET:O	1:o:2189:ILE:HG12	2.21	0.41
1:o:2384:PHE:HA	8:M:155:SER:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:2950:LYS:HB2	1:o:2953:THR:OG1	2.21	0.41
1:o:3179:TRP:HB3	1:o:3242:MET:HE1	2.02	0.41
1:o:3247:ARG:HA	1:o:3286:CYS:SG	2.60	0.41
1:o:3496:ILE:HG13	1:o:3521:ILE:HD13	2.03	0.41
1:o:3580:ASN:OD1	1:o:3583:LEU:N	2.49	0.41
1:o:3629:ARG:O	1:o:3633:ILE:HG12	2.21	0.41
1:o:3705:TYR:HE2	1:o:3714:GLU:HG3	1.86	0.41
1:o:3814:ASP:N	1:o:3814:ASP:OD1	2.53	0.41
4:a:74:ILE:HD13	5:b:63:GLU:HG3	2.02	0.41
4:a:85:GLN:HA	6:l:53:DT:H5''	2.01	0.41
3:g:31:HIS:ND1	3:g:35:ARG:HD3	2.36	0.41
2:h:83:ARG:O	2:h:85:THR:N	2.53	0.41
4:e:121:PRO:O	4:e:124:ILE:HG12	2.20	0.41
4:e:133:GLU:N	5:f:95:ARG:HH22	2.17	0.41
6:i:110:DT:H1'	6:i:111:DC:H5'	2.03	0.41
7:j:23:DA:H2''	7:j:24:DG:O5'	2.21	0.41
8:K:462:MET:HB3	8:K:525:PHE:CE2	2.56	0.41
8:K:514:MET:O	8:K:518:LEU:HB2	2.20	0.41
9:L:235:CYS:O	9:L:236:VAL:C	2.63	0.41
9:L:327:ASP:HB3	9:L:331:MET:HE1	2.03	0.41
8:M:36:ASP:HA	8:M:163:HIS:HB2	2.02	0.41
8:M:289:TYR:CD2	8:M:294:GLU:HB3	2.56	0.41
8:M:301:ARG:NH1	9:N:300:ASP:OD2	2.54	0.41
8:M:321:ILE:HG12	8:M:326:GLN:HA	2.01	0.41
9:N:532:LYS:HE3	9:N:532:LYS:HB3	1.94	0.41
9:N:727:ASP:HA	9:N:731:MET:SD	2.60	0.41
1:O:116:THR:O	1:O:116:THR:HG22	2.19	0.41
1:O:178:LEU:HB2	1:O:227:LEU:HD13	2.02	0.41
1:O:240:GLU:O	1:O:243:GLN:HG2	2.21	0.41
1:O:616:LYS:HE2	1:O:2034:SER:HA	2.02	0.41
1:O:963:LYS:HE2	1:O:964:ARG:NH2	2.31	0.41
1:O:1291:LEU:HD11	1:O:1363:LEU:HA	2.03	0.41
1:O:1349:LEU:HD11	1:O:1409:SER:HB3	2.03	0.41
1:O:1771:GLN:HA	1:O:1775:GLU:HG2	2.03	0.41
1:O:1788:ARG:O	1:O:1794:GLN:NE2	2.34	0.41
1:O:1805:PHE:CE2	1:O:1869:LYS:HD3	2.55	0.41
1:O:3314:SER:HB2	1:O:3318:LYS:HG3	2.03	0.41
1:O:3353:GLU:OE2	1:O:3358:ARG:NH1	2.50	0.41
1:O:4125:GLU:HA	1:O:4127:TRP:CZ3	2.56	0.41
3:c:75:LYS:HG2	3:c:77:ARG:HB2	2.03	0.41
4:E:56:LYS:HA	4:E:56:LYS:HD2	1.74	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:F:35:ARG:CZ	5:F:39:ARG:HE	2.34	0.41
1:o:44:LEU:O	1:o:47:SER:OG	2.37	0.41
1:o:118:ASP:O	1:o:121:ALA:HB3	2.21	0.41
1:o:173:LYS:O	1:o:176:GLU:HG2	2.21	0.41
1:o:386:VAL:HG22	1:o:431:TYR:HE2	1.86	0.41
1:o:979:VAL:O	1:o:982:GLN:HG2	2.20	0.41
1:o:994:TRP:NE1	1:o:2581:LEU:HD21	2.36	0.41
1:o:1015:ASP:OD2	1:o:1029:CYS:HB2	2.20	0.41
1:o:1322:THR:HB	1:o:1323:SER:H	1.68	0.41
1:o:1326:GLU:HB3	1:o:1329:ARG:HE	1.85	0.41
1:o:1713:VAL:HA	1:o:1716:GLN:CD	2.46	0.41
1:o:1782:PHE:HA	1:o:1785:ILE:HG12	2.02	0.41
1:o:3238:MET:HE2	1:o:3242:MET:HE2	2.01	0.41
1:o:3958:LEU:HD13	1:o:4064:LEU:HD21	2.01	0.41
4:e:61:LEU:HD13	5:f:40:ARG:HD2	2.03	0.41
6:i:130:DC:N3	6:i:131:DT:C4	2.88	0.41
8:K:34:GLY:N	8:K:162:SER:OG	2.54	0.41
8:K:74:LYS:HA	8:K:79:ASP:OD2	2.20	0.41
8:K:141:TYR:CD1	8:K:176:HIS:HD2	2.38	0.41
8:K:297:LYS:O	9:L:295:TYR:HA	2.21	0.41
8:K:354:VAL:N	8:K:393:GLU:OE2	2.35	0.41
9:L:211:VAL:O	9:L:215:LEU:HG	2.20	0.41
8:M:63:SER:HA	8:M:66:CYS:SG	2.61	0.41
8:M:433:GLN:OE1	8:M:434:LEU:N	2.54	0.41
9:N:699:GLU:HG3	9:N:703:LYS:HD3	2.03	0.41
1:O:276:ALA:HA	1:O:318:SER:OG	2.21	0.41
1:O:296:VAL:HG12	1:O:300:TRP:NE1	2.36	0.41
1:O:531:PHE:O	1:O:534:LEU:HB2	2.21	0.41
1:O:722:LYS:O	1:O:726:LEU:HB2	2.21	0.41
1:O:1000:LYS:O	1:O:1002:GLU:N	2.52	0.41
1:O:1114:ALA:C	1:O:1116:ALA:H	2.27	0.41
1:O:1220:LEU:HB2	1:O:1224:PHE:CE2	2.56	0.41
1:O:1378:GLU:HG2	1:O:1380:ALA:N	2.35	0.41
1:O:1411:TYR:O	1:O:1415:LEU:HG	2.21	0.41
1:O:1449:ALA:HA	1:O:1452:VAL:HB	2.03	0.41
1:O:1554:SER:OG	1:O:1555:HIS:N	2.54	0.41
1:O:1849:ASP:OD1	1:O:1850:VAL:N	2.53	0.41
1:O:2303:LEU:HD13	1:O:2323:LEU:HD21	2.02	0.41
1:O:2410:GLU:O	1:O:2413:PHE:N	2.54	0.41
1:O:2536:LEU:H	1:O:2536:LEU:HG	1.63	0.41
1:O:2785:ILE:HD12	1:O:2785:ILE:HA	1.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:3269:ARG:NH1	1:O:3272:TRP:HB2	2.36	0.41
1:O:3283:LEU:HD11	1:O:3287:ARG:HH12	1.85	0.41
1:O:3326:GLN:O	1:O:3329:LEU:HG	2.20	0.41
1:O:3340:ALA:O	1:O:3344:GLU:N	2.54	0.41
1:O:3679:ASN:CG	1:O:3680:LEU:H	2.29	0.41
1:O:3842:TRP:CZ2	1:O:4119:ARG:HA	2.56	0.41
1:O:3975:LYS:HA	1:O:3975:LYS:HD3	1.77	0.41
1:O:4073:ALA:O	1:O:4077:TYR:N	2.47	0.41
3:C:58:LEU:HD21	2:H:66:ILE:HG21	2.03	0.41
2:H:35:SER:O	2:H:38:VAL:HG12	2.21	0.41
2:H:42:LEU:HD22	2:H:51:ILE:HB	2.03	0.41
5:B:72:TYR:OH	2:d:73:GLU:OE2	2.32	0.41
3:c:81:ARG:HD2	4:E:56:LYS:HZ2	1.86	0.41
1:o:124:LYS:HB2	1:o:126:PRO:HD2	2.02	0.41
1:o:262:LEU:HD21	7:J:9:DG:H5'	2.03	0.41
1:o:478:CYS:SG	1:o:479:ILE:N	2.94	0.41
1:o:734:LEU:HD11	1:o:768:VAL:HB	2.02	0.41
1:o:935:HIS:CE1	1:o:987:LEU:HD21	2.56	0.41
1:o:1173:LEU:HD22	1:o:1191:PHE:CZ	2.55	0.41
1:o:1558:TYR:CZ	1:o:1562:LEU:HD11	2.56	0.41
1:o:1565:GLU:O	1:o:1569:THR:OG1	2.36	0.41
1:o:1642:LYS:HD3	1:o:1684:LEU:HD21	2.03	0.41
1:o:2175:GLU:HG3	1:o:2186:VAL:HG22	2.03	0.41
1:o:2381:ALA:O	1:o:2384:PHE:HB3	2.21	0.41
1:o:2418:LYS:HA	1:o:2418:LYS:HD3	1.81	0.41
1:o:2461:PHE:C	1:o:2464:HIS:HD1	2.29	0.41
1:o:2467:THR:HG22	1:o:2470:ARG:NH2	2.34	0.41
1:o:2485:ARG:HA	1:o:2499:PHE:CE2	2.56	0.41
1:o:2816:ILE:HD12	1:o:2816:ILE:HA	1.92	0.41
1:o:2820:MET:O	1:o:2824:LYS:N	2.53	0.41
1:o:2897:LEU:O	1:o:2901:LEU:N	2.54	0.41
1:o:3266:SER:HB2	1:o:3272:TRP:CD1	2.56	0.41
1:o:3318:LYS:HD2	1:o:3322:ALA:HB2	2.03	0.41
1:o:3610:TYR:CD2	1:o:3646:LYS:HB2	2.56	0.41
1:o:3619:ASP:O	1:o:3633:ILE:HB	2.21	0.41
1:o:3759:ARG:HH21	1:o:4008:GLU:H	1.68	0.41
1:o:3864:ARG:NH2	1:o:4086:ASP:OD1	2.54	0.41
1:o:4041:ARG:HA	1:o:4044:ILE:HG12	2.03	0.41
1:o:4046:TYR:CZ	1:o:4062:ASP:HB2	2.56	0.41
3:g:35:ARG:HA	3:g:43:VAL:HG21	2.02	0.41
3:g:75:LYS:HB3	3:g:82:HIS:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:e:100:LEU:HD13	5:f:58:LEU:HD11	2.02	0.41
6:i:137:DC:H2'	6:i:138:DC:C6	2.55	0.41
7:J:19:DG:H8	7:J:19:DG:OP1	2.04	0.41
7:J:24:DG:N2	6:I:131:DT:O4'	2.54	0.41
8:K:329:LEU:HD12	8:K:329:LEU:HA	1.97	0.41
9:L:284:LEU:O	9:L:285:LYS:HE2	2.21	0.41
9:L:306:LEU:HG	9:L:308:GLU:H	1.85	0.41
8:M:220:ILE:H	8:M:220:ILE:HD12	1.86	0.41
8:M:276:LEU:HD23	8:M:276:LEU:H	1.85	0.41
8:M:339:ARG:CZ	8:M:405:ASN:H	2.34	0.41
8:M:373:SER:OG	8:M:374:LEU:N	2.50	0.41
9:N:438:LEU:HD12	9:N:438:LEU:O	2.20	0.41
9:N:528:ILE:HB	9:N:529:PRO:HD3	2.03	0.41
9:N:665:LYS:O	9:N:669:LYS:N	2.54	0.41
9:N:674:PHE:HB2	9:N:675:TRP:H	1.72	0.41
1:O:135:LEU:HD23	1:O:135:LEU:HA	1.92	0.41
1:O:1097:GLU:OE2	1:O:1151:ARG:NE	2.54	0.41
1:O:1191:PHE:O	1:O:1195:VAL:HG23	2.21	0.41
1:O:1953:CYS:HA	1:O:2103:HIS:CE1	2.56	0.41
1:O:2452:ARG:NH1	1:O:2497:GLU:OE2	2.54	0.41
1:O:3071:GLY:C	1:O:3075:LYS:HZ2	2.29	0.41
1:O:3526:PRO:O	1:O:3530:VAL:HG13	2.20	0.41
1:O:3658:ASP:O	1:O:3662:ILE:HG12	2.21	0.41
2:D:56:MET:O	2:D:60:ASN:ND2	2.54	0.41
2:D:67:PHE:HE1	3:G:51:LEU:HD13	1.85	0.41
1:o:370:ALA:HA	1:o:373:CYS:HB3	2.02	0.41
1:o:452:LYS:HE2	1:o:452:LYS:HB2	1.84	0.41
1:o:643:GLU:O	1:o:646:VAL:HG22	2.21	0.41
1:o:1610:ASN:OD1	1:o:1610:ASN:N	2.54	0.41
1:o:1766:LEU:HD21	1:o:1775:GLU:HG2	2.03	0.41
1:o:2365:ASN:HD22	1:o:2396:LEU:HG	1.86	0.41
1:o:3833:ARG:HH22	1:o:4122:GLU:HB2	1.86	0.41
1:o:4039:TYR:CD2	1:o:4042:GLN:HG2	2.55	0.41
7:j:61:DT:C2	7:j:62:DA:N7	2.89	0.41
8:K:379:SER:O	8:K:382:PHE:N	2.53	0.41
9:L:17:GLY:N	9:L:60:GLY:HA3	2.35	0.41
9:L:312:GLN:HE22	9:L:324:SER:C	2.29	0.41
9:L:457:LEU:HD22	9:L:533:ILE:HG13	2.01	0.41
8:M:43:ASP:HB2	8:M:48:MET:HE2	2.01	0.41
8:M:212:ASP:OD1	8:M:212:ASP:N	2.54	0.41
8:M:272:GLY:N	8:M:371:GLU:HB3	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
8:M:274:TYR:CE1	8:M:367:PHE:HD2	2.38	0.41
9:N:148:ASP:N	9:N:148:ASP:OD1	2.53	0.41
9:N:594:PRO:HG2	9:N:619:HIS:NE2	2.36	0.41
1:O:306:VAL:HA	1:O:309:LYS:NZ	2.36	0.40
1:O:584:GLU:CD	1:O:586:GLN:H	2.29	0.40
1:O:996:THR:O	1:O:1044:ILE:HD11	2.21	0.40
1:O:1069:HIS:CD2	1:O:3741:ARG:HD3	2.55	0.40
1:O:1716:GLN:O	1:O:1719:VAL:HG12	2.21	0.40
1:O:1917:LYS:HE3	9:N:729:LEU:HD13	2.02	0.40
1:O:2034:SER:O	1:O:2037:SER:HB3	2.21	0.40
1:O:2211:LEU:HD23	1:O:2214:ARG:HH22	1.86	0.40
1:O:2424:MET:HA	1:O:2432:GLN:HE22	1.85	0.40
1:O:2428:ASP:O	1:O:2431:ARG:HB3	2.21	0.40
1:O:2586:PHE:HD1	1:O:2778:GLY:HA3	1.86	0.40
1:O:3170:ASP:HB2	1:O:3174:ASP:OD2	2.21	0.40
1:O:3244:ASP:HA	1:O:3247:ARG:NH1	2.36	0.40
2:D:62:PHE:CZ	3:G:62:ILE:HD13	2.56	0.40
2:H:54:LYS:HA	2:H:54:LYS:HD3	1.82	0.40
4:E:128:ARG:HG2	4:E:133:GLU:C	2.47	0.40
1:o:584:GLU:O	1:o:613:HIS:N	2.55	0.40
1:o:1009:LEU:O	1:o:1013:ILE:HG12	2.21	0.40
1:o:1456:LYS:HE2	1:o:1456:LYS:HA	2.04	0.40
1:o:2560:ASN:OD1	1:o:2799:GLN:HB3	2.20	0.40
1:o:2995:GLU:O	1:o:2999:LEU:HG	2.22	0.40
1:o:3610:TYR:OH	1:o:3641:ASP:HA	2.21	0.40
1:o:3874:ARG:CZ	1:o:4126:PRO:HB2	2.51	0.40
1:o:3916:TRP:HZ2	1:o:4056:PRO:HA	1.86	0.40
1:o:3949:ALA:HB1	1:o:3957:GLU:OE1	2.21	0.40
1:o:4054:ALA:H	1:o:4103:GLN:NE2	2.18	0.40
5:b:92:ARG:HH21	3:g:96:LEU:HD11	1.86	0.40
6:i:107:DC:H2'	6:i:108:DT:C5	2.56	0.40
8:K:35:ARG:HD3	8:K:159:PHE:HE2	1.86	0.40
8:K:91:GLU:H	8:K:137:HIS:H	1.68	0.40
8:K:118:GLU:O	8:K:121:GLN:HG2	2.21	0.40
8:K:444:ARG:HA	8:K:444:ARG:HD3	1.93	0.40
9:L:271:ARG:HD3	9:L:271:ARG:HA	1.83	0.40
9:L:345:PHE:HA	9:L:391:ALA:HA	2.02	0.40
9:L:510:GLN:HG3	9:L:514:ASN:HD21	1.86	0.40
1:O:264:ARG:HA	1:O:305:ASN:HD21	1.86	0.40
1:O:435:LEU:O	1:O:438:LEU:HG	2.21	0.40
1:O:719:LYS:HZ2	1:O:719:LYS:HG3	1.72	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:774:GLU:O	1:O:778:ILE:HG12	2.21	0.40
1:O:1087:ARG:HG3	1:O:1090:ARG:NH2	2.36	0.40
1:O:1153:LEU:HA	1:O:1154:PRO:HD3	1.86	0.40
1:O:1205:ASN:O	1:O:1206:LEU:C	2.63	0.40
1:O:1437:TYR:HE2	1:O:1489:LYS:CB	2.33	0.40
1:O:1479:VAL:HG21	1:O:1521:PHE:HD2	1.85	0.40
1:O:1565:GLU:O	1:O:1569:THR:OG1	2.27	0.40
1:O:1951:VAL:HG22	1:O:1956:PHE:CZ	2.56	0.40
1:O:2388:LYS:NZ	8:K:159:PHE:O	2.54	0.40
1:O:2510:LEU:HB3	1:O:2557:LEU:CD1	2.51	0.40
1:O:2824:LYS:C	1:O:2829:LYS:HZ3	2.29	0.40
3:C:88:ARG:O	3:C:95:LYS:NZ	2.50	0.40
4:A:134:ARG:HD2	3:c:95:LYS:NZ	2.36	0.40
3:c:14:ALA:HB3	7:j:122:DC:H4'	2.01	0.40
1:o:478:CYS:O	1:o:482:VAL:HG13	2.21	0.40
1:o:488:ILE:HG21	1:o:2040:MET:HE3	2.03	0.40
1:o:493:LYS:HE3	1:o:493:LYS:HB3	1.82	0.40
1:o:978:GLN:O	1:o:981:ARG:HG3	2.21	0.40
1:o:1526:GLU:HG3	1:o:1581:GLU:OE1	2.21	0.40
1:o:1816:ARG:HG2	9:N:625:ASP:HB3	2.04	0.40
1:o:4039:TYR:HD2	1:o:4042:GLN:HG2	1.85	0.40
4:a:63:ARG:HH22	5:b:36:ARG:NH2	2.19	0.40
4:a:79:LYS:HA	4:a:79:LYS:HD2	1.91	0.40
4:a:119:ILE:HG22	5:b:46:ILE:HA	2.03	0.40
3:g:47:ALA:HB2	2:h:87:THR:C	2.46	0.40
2:h:54:LYS:O	2:h:58:ILE:HG12	2.21	0.40
5:f:94:GLY:O	5:f:95:ARG:HB2	2.22	0.40
7:j:12:DT:H2''	7:j:13:DC:C5	2.57	0.40
7:j:15:DC:H4'	7:j:16:DG:H5'	2.02	0.40
7:j:110:DC:OP2	7:j:110:DC:H2'	2.22	0.40
6:I:129:DC:H2''	6:I:130:DC:C6	2.56	0.40
8:K:253:LYS:HB2	9:L:433:TYR:CD1	2.56	0.40
8:M:479:GLU:C	9:N:426:PHE:HB3	2.46	0.40
1:O:13:LEU:O	1:O:16:GLN:HG3	2.20	0.40
1:O:92:PHE:HD1	1:O:95:LYS:HE3	1.86	0.40
1:O:105:VAL:HG22	1:O:145:ASP:CB	2.51	0.40
1:O:197:PHE:O	1:O:201:LEU:HG	2.21	0.40
1:O:584:GLU:N	1:O:613:HIS:O	2.54	0.40
1:O:1141:LYS:NZ	1:O:1144:SER:HB3	2.35	0.40
1:O:1709:GLU:O	1:O:1712:ARG:HG2	2.20	0.40
1:O:1851:LEU:HD11	1:O:1918:LEU:HB2	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:1952:ILE:HG12	1:O:1956:PHE:CE1	2.56	0.40
1:O:2542:LEU:HD22	1:O:2558:ALA:HA	2.04	0.40
1:O:2964:ASP:OD1	1:O:3253:SER:OG	2.33	0.40
1:O:3074:GLN:O	1:O:3077:ILE:HG12	2.21	0.40
1:O:3245:SER:O	1:O:3249:GLN:HG2	2.21	0.40
1:O:3259:LEU:C	1:O:3276:TRP:HE1	2.29	0.40
1:O:3266:SER:HB2	1:O:3272:TRP:C	2.46	0.40
1:O:3297:VAL:HG12	1:O:3349:ALA:HB2	2.03	0.40
1:O:3733:ARG:HH22	1:O:4014:LYS:HD3	1.87	0.40
2:H:81:ASN:HB3	5:f:76:ALA:HA	2.03	0.40
3:G:34:LEU:HD13	3:G:43:VAL:HG21	2.03	0.40
3:G:59:THR:HA	3:G:62:ILE:HG22	2.03	0.40
4:A:85:GLN:HA	6:i:53:DT:H5''	2.04	0.40
3:c:29:ARG:HD2	2:d:32:GLU:OE1	2.21	0.40
4:E:65:LEU:HB3	4:E:66:PRO:HD3	2.02	0.40
1:o:678:LYS:HB3	1:o:678:LYS:HE2	1.78	0.40
1:o:2235:LEU:O	1:o:2239:LYS:HG3	2.21	0.40
1:o:3578:LEU:HD23	1:o:3578:LEU:HA	1.88	0.40
4:a:104:PHE:CD2	5:b:38:ALA:HA	2.57	0.40
4:e:59:GLU:HG3	4:e:60:LEU:H	1.87	0.40
7:J:47:DG:H1	6:I:107:DC:H42	1.70	0.40
8:K:344:GLY:N	8:K:401:THR:OG1	2.52	0.40
9:L:295:TYR:H	9:L:304:GLU:CD	2.28	0.40
9:L:437:SER:OG	9:L:438:LEU:N	2.54	0.40
8:M:262:LYS:H	8:M:267:ILE:HA	1.86	0.40
8:M:471:PHE:CD1	8:M:510:LYS:HE2	2.56	0.40
9:N:106:ASP:OD1	9:N:108:LEU:N	2.52	0.40
9:N:362:LEU:HD21	9:N:395:TYR:CZ	2.55	0.40
9:N:593:ASN:HB2	9:N:594:PRO:HD3	2.04	0.40
1:O:71:LYS:HE3	1:O:119:ARG:HD3	2.04	0.40
1:O:166:ILE:HD12	1:O:166:ILE:H	1.86	0.40
1:O:345:PHE:CD1	1:O:362:ALA:HA	2.56	0.40
1:O:1234:GLY:HA2	1:O:1237:ALA:HB3	2.04	0.40
1:O:1343:GLU:O	1:O:1346:THR:OG1	2.30	0.40
1:O:1486:LEU:O	1:O:1487:VAL:C	2.64	0.40
1:O:1555:HIS:HB3	1:O:1559:PHE:CZ	2.56	0.40
1:O:1913:LYS:HD2	1:O:1913:LYS:HA	1.96	0.40
1:O:2313:LYS:HA	1:O:2316:TYR:CE1	2.56	0.40
1:O:2330:VAL:HG23	1:O:2330:VAL:O	2.21	0.40
1:O:2340:SER:HA	1:O:2343:GLU:HB2	2.02	0.40
1:O:2571:ASP:OD1	1:O:2571:ASP:N	2.42	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:O:2785:ILE:HG13	1:O:2789:SER:CB	2.51	0.40
1:O:2799:GLN:H	1:O:2799:GLN:HG3	1.78	0.40
1:O:3357:ARG:O	1:O:3361:GLU:HG3	2.22	0.40
1:O:3756:GLU:C	1:O:3758:LEU:H	2.29	0.40
4:A:114:ALA:HB1	4:E:115:LYS:HZ3	1.86	0.40
5:F:69:ALA:O	5:F:72:TYR:HB2	2.22	0.40
1:o:684:GLU:OE2	1:o:700:LYS:HD3	2.21	0.40
1:o:764:PRO:HA	1:o:767:GLU:HG2	2.04	0.40
1:o:957:PRO:HD2	1:o:958:MET:SD	2.61	0.40
1:o:958:MET:O	1:o:959:TYR:C	2.64	0.40
1:o:1060:PHE:HD2	1:o:1099:PHE:HD2	1.67	0.40
1:o:1627:LYS:HG2	1:o:1670:GLU:CD	2.47	0.40
1:o:2225:HIS:HD2	1:o:2231:PHE:HD1	1.69	0.40
1:o:2454:LEU:HD12	1:o:2454:LEU:HA	1.92	0.40
8:K:57:LEU:HG	8:K:61:ASP:HB2	2.03	0.40
8:K:60:PHE:HZ	8:K:122:PHE:CD2	2.38	0.40
8:K:165:ARG:CZ	8:K:199:PHE:HB2	2.51	0.40
8:K:474:ARG:O	8:K:476:ASP:N	2.54	0.40
9:L:601:LEU:HD23	9:L:609:PHE:HZ	1.87	0.40
8:M:480:ASN:N	9:N:426:PHE:HB3	2.36	0.40
8:M:526:LYS:HB3	8:M:530:TYR:CZ	2.56	0.40
9:N:154:LEU:HG	9:N:159:ILE:HB	2.03	0.40
9:N:235:CYS:O	9:N:237:PHE:N	2.55	0.40
1:O:57:LEU:HD22	1:O:103:TYR:CD2	2.56	0.40
1:O:439:VAL:O	1:O:442:GLN:HG3	2.22	0.40
1:O:479:ILE:HG13	1:O:480:SER:N	2.35	0.40
1:O:1102:GLU:HA	1:O:1154:PRO:HB3	2.03	0.40
1:O:1117:ASP:OD1	1:O:1117:ASP:N	2.51	0.40
1:O:1325:GLN:O	1:O:1327:GLY:N	2.54	0.40
1:O:1525:CYS:O	1:O:1528:LEU:HB3	2.20	0.40
1:O:2575:PRO:HA	1:O:2785:ILE:O	2.20	0.40
1:O:3062:LEU:HD13	1:O:3089:LEU:HD21	2.04	0.40
1:O:3614:TYR:CD1	1:O:3617:LEU:HD12	2.57	0.40
1:O:3909:ALA:HB1	1:O:3984:MET:HE3	2.04	0.40
1:O:4053:GLY:O	1:O:4096:SER:OG	2.33	0.40
1:O:4054:ALA:H	1:O:4103:GLN:NE2	2.19	0.40
1:o:1474:ASP:OD1	1:o:1474:ASP:N	2.46	0.40
1:o:2363:CYS:O	1:o:2367:VAL:HG22	2.22	0.40
1:o:2440:TYR:O	1:o:2443:MET:HE1	2.21	0.40
1:o:3238:MET:HE3	1:o:3238:MET:O	2.22	0.40
1:o:3487:ILE:HD11	1:o:3517:SER:HB3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:o:3701:ILE:HG12	1:o:3750:PHE:HZ	1.85	0.40
1:o:3875:GLU:HA	1:o:3965:ARG:HH12	1.86	0.40
1:o:3923:ARG:HH21	1:o:4123:GLY:HA3	1.86	0.40
5:b:31:LYS:CG	5:b:32:PRO:HD3	2.51	0.40
6:i:84:DC:H6	6:i:84:DC:H2'	1.75	0.40
9:L:345:PHE:CD1	9:L:391:ALA:HB2	2.56	0.40
8:M:168:LEU:HD13	8:M:170:THR:HG23	2.04	0.40
8:M:462:MET:O	8:M:466:VAL:HG23	2.22	0.40
9:N:46:VAL:HG21	9:N:86:PRO:O	2.22	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	O	3434/4128 (83%)	3001 (87%)	414 (12%)	19 (1%)	22	59
1	o	3428/4128 (83%)	3172 (92%)	254 (7%)	2 (0%)	48	83
2	D	91/126 (72%)	82 (90%)	9 (10%)	0	100	100
2	H	91/126 (72%)	84 (92%)	7 (8%)	0	100	100
2	d	90/126 (71%)	78 (87%)	12 (13%)	0	100	100
2	h	90/126 (71%)	70 (78%)	19 (21%)	1 (1%)	12	46
3	C	90/143 (63%)	82 (91%)	8 (9%)	0	100	100
3	G	90/143 (63%)	86 (96%)	3 (3%)	1 (1%)	12	46
3	c	99/143 (69%)	92 (93%)	7 (7%)	0	100	100
3	g	85/143 (59%)	82 (96%)	3 (4%)	0	100	100
4	A	94/136 (69%)	86 (92%)	8 (8%)	0	100	100
4	E	86/136 (63%)	79 (92%)	7 (8%)	0	100	100
4	a	87/136 (64%)	83 (95%)	4 (5%)	0	100	100

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
4	e	86/136 (63%)	79 (92%)	7 (8%)	0	100	100
5	B	77/103 (75%)	71 (92%)	6 (8%)	0	100	100
5	F	75/103 (73%)	72 (96%)	3 (4%)	0	100	100
5	b	73/103 (71%)	64 (88%)	9 (12%)	0	100	100
5	f	74/103 (72%)	62 (84%)	12 (16%)	0	100	100
8	K	467/609 (77%)	401 (86%)	53 (11%)	13 (3%)	4	25
8	M	467/609 (77%)	385 (82%)	75 (16%)	7 (2%)	8	39
9	L	604/732 (82%)	505 (84%)	94 (16%)	5 (1%)	16	53
9	N	600/732 (82%)	517 (86%)	81 (14%)	2 (0%)	37	72
All	All	10378/12970 (80%)	9233 (89%)	1095 (11%)	50 (0%)	27	63

All (50) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	O	1474	ASP
1	O	1478	SER
1	O	3151	LEU
1	o	956	PRO
8	K	113	ALA
8	M	135	MET
8	M	262	LYS
8	M	265	LYS
8	M	268	VAL
1	O	214	GLU
1	O	2265	PRO
1	O	2534	ASN
1	O	2535	THR
1	O	3008	TRP
1	O	3154	GLN
1	O	3156	PRO
8	K	80	ARG
8	K	215	LEU
9	L	236	VAL
9	L	683	ILE
8	M	218	ARG
9	N	236	VAL
1	O	101	ALA
1	O	2266	ASN
2	h	99	LEU

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Mol	Chain	Res	Type
8	K	379	SER
8	K	511	VAL
9	L	147	LEU
9	N	674	PHE
1	O	948	MET
1	O	2429	ASP
3	G	38	HIS
1	o	1723	PRO
8	K	48	MET
8	K	78	SER
8	K	213	ILE
8	K	214	SER
8	K	216	PHE
9	L	685	LEU
8	M	266	ASP
1	O	103	TYR
1	O	2411	LEU
1	O	3006	ALA
8	K	47	ALA
8	K	506	LEU
8	M	263	LEU
8	K	114	LYS
9	L	247	TRP
1	O	1491	ILE
1	O	102	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	O	3005/3671 (82%)	2983 (99%)	22 (1%)	81	87
1	o	3077/3671 (84%)	3076 (100%)	1 (0%)	100	100
2	D	76/105 (72%)	76 (100%)	0	100	100
2	H	76/105 (72%)	76 (100%)	0	100	100
2	d	73/105 (70%)	73 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
2	h	74/105 (70%)	74 (100%)	0	100	100
3	C	68/106 (64%)	68 (100%)	0	100	100
3	G	69/106 (65%)	69 (100%)	0	100	100
3	c	75/106 (71%)	75 (100%)	0	100	100
3	g	64/106 (60%)	64 (100%)	0	100	100
4	A	84/111 (76%)	84 (100%)	0	100	100
4	E	75/111 (68%)	75 (100%)	0	100	100
4	a	78/111 (70%)	78 (100%)	0	100	100
4	e	75/111 (68%)	75 (100%)	0	100	100
5	B	62/79 (78%)	62 (100%)	0	100	100
5	F	63/79 (80%)	63 (100%)	0	100	100
5	b	59/79 (75%)	59 (100%)	0	100	100
5	f	63/79 (80%)	63 (100%)	0	100	100
8	K	410/548 (75%)	406 (99%)	4 (1%)	73	82
8	M	416/548 (76%)	412 (99%)	4 (1%)	73	82
9	L	514/649 (79%)	514 (100%)	0	100	100
9	N	525/649 (81%)	525 (100%)	0	100	100
All	All	9081/11340 (80%)	9050 (100%)	31 (0%)	90	92

All (31) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	O	33	GLN
1	O	213	ARG
1	O	442	GLN
1	O	958	MET
1	O	959	TYR
1	O	960	GLN
1	O	963	LYS
1	O	1474	ASP
1	O	1477	HIS
1	O	1479	VAL
1	O	1486	LEU
1	O	1487	VAL
1	O	1491	ILE
1	O	1921	ASP

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Mol	Chain	Res	Type
1	O	2410	GLU
1	O	2536	LEU
1	O	3145	ILE
1	O	3146	SER
1	O	3150	ASN
1	O	3153	SER
1	O	3154	GLN
1	O	3157	LEU
1	o	958	MET
8	K	48	MET
8	K	76	ILE
8	K	77	SER
8	K	95	ASN
8	M	260	LYS
8	M	267	ILE
8	M	268	VAL
8	M	269	ILE

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (15) such sidechains are listed below:

Mol	Chain	Res	Type
1	O	613	HIS
1	O	960	GLN
1	O	3105	ASN
1	O	3148	GLN
3	C	94	ASN
4	E	85	GLN
1	o	192	ASN
1	o	3664	ASN
1	o	3908	HIS
9	L	450	GLN
9	L	488	GLN
9	L	517	ASN
8	M	110	ASN
8	M	405	ASN
9	N	350	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

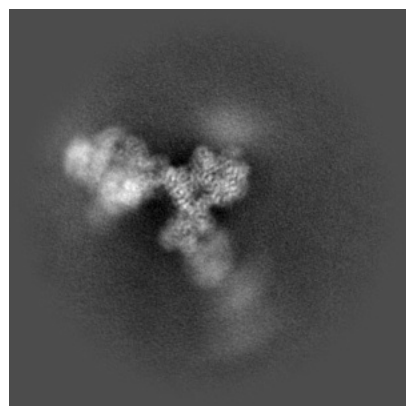
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-53026. These allow visual inspection of the internal detail of the map and identification of artifacts.

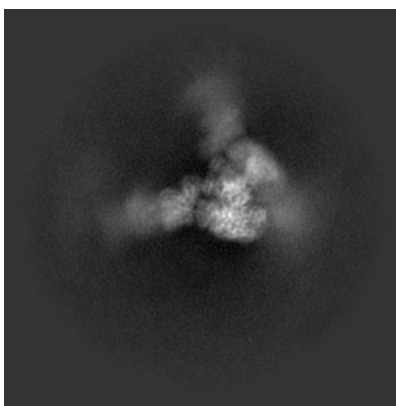
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

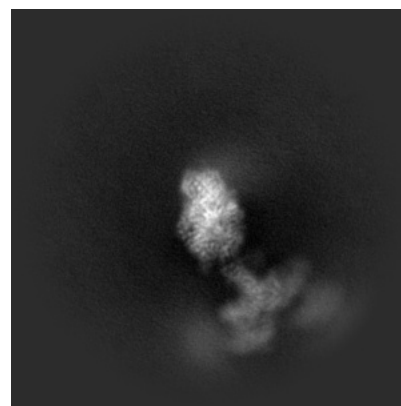
6.1.1 Primary map



X

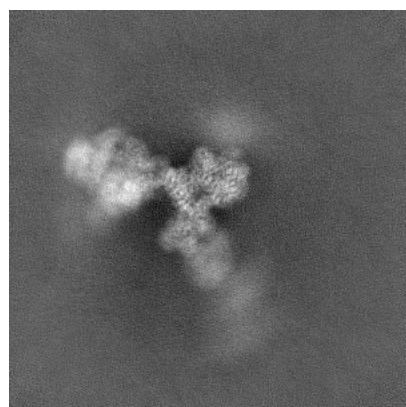


Y

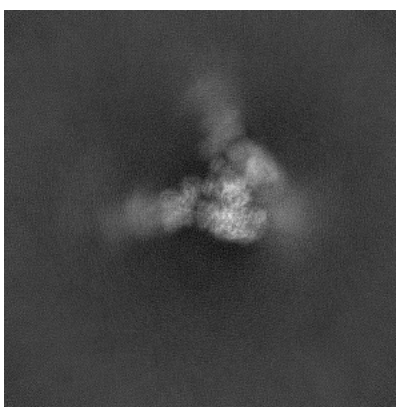


Z

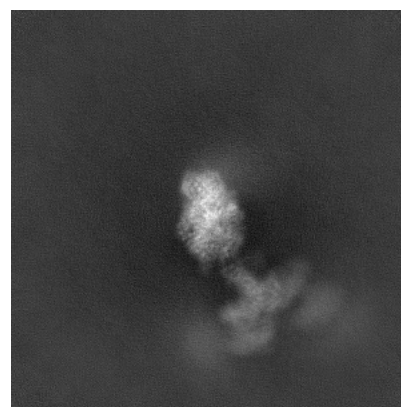
6.1.2 Raw map



X



Y

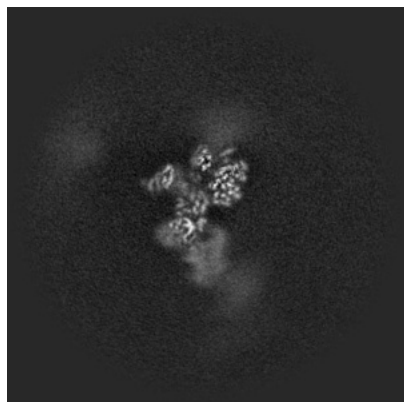


Z

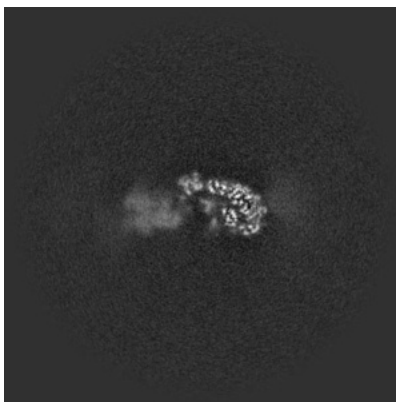
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

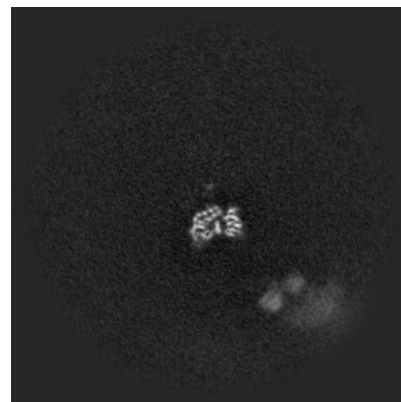
6.2.1 Primary map



X Index: 210

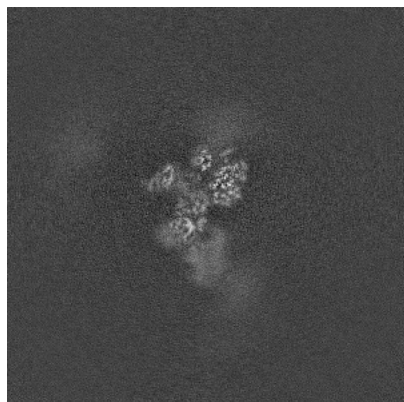


Y Index: 210

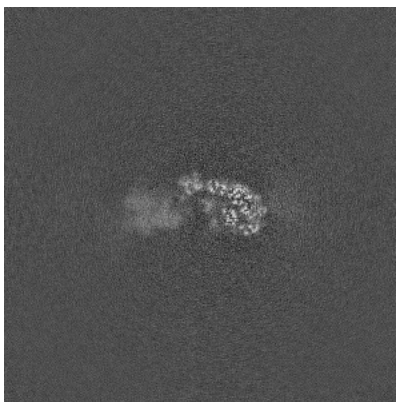


Z Index: 210

6.2.2 Raw map



X Index: 210



Y Index: 210

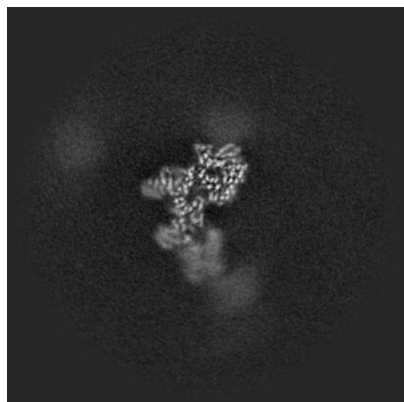


Z Index: 210

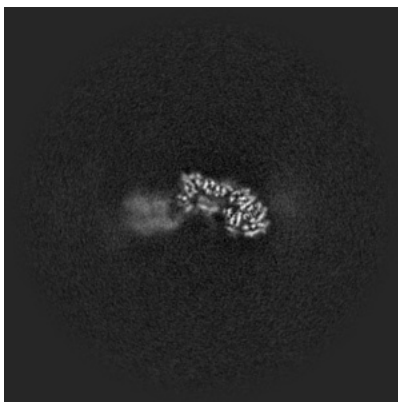
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

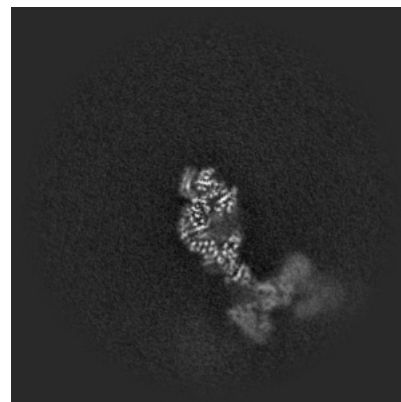
6.3.1 Primary map



X Index: 203



Y Index: 206

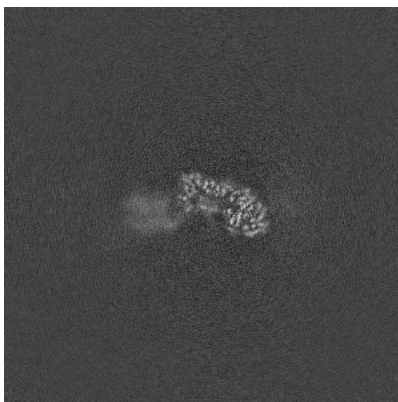


Z Index: 238

6.3.2 Raw map



X Index: 202



Y Index: 206

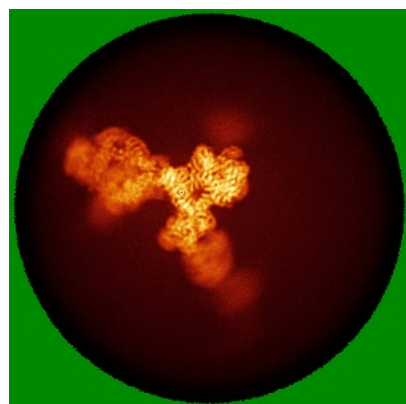


Z Index: 238

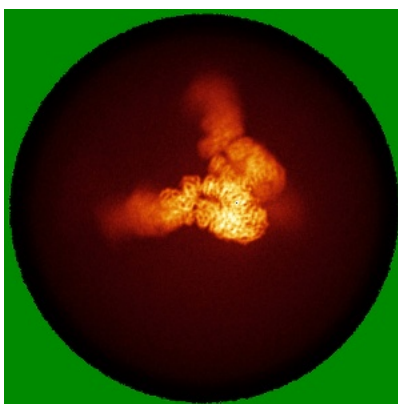
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) [i](#)

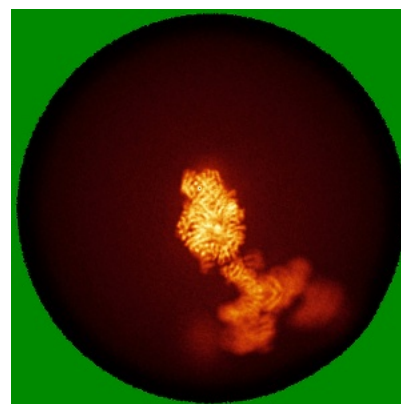
6.4.1 Primary map



X

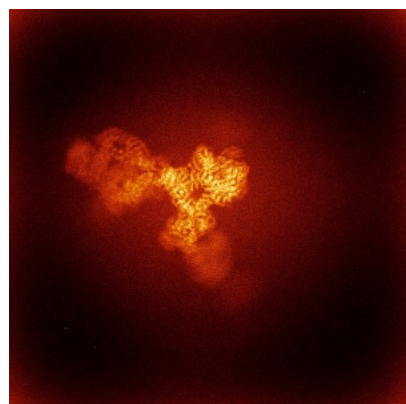


Y

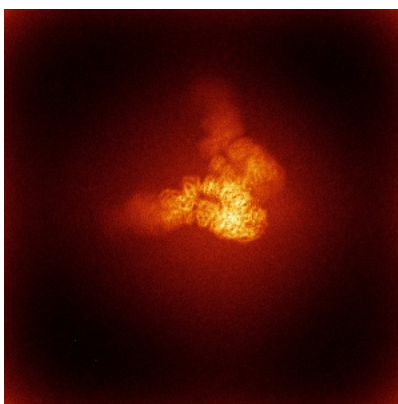


Z

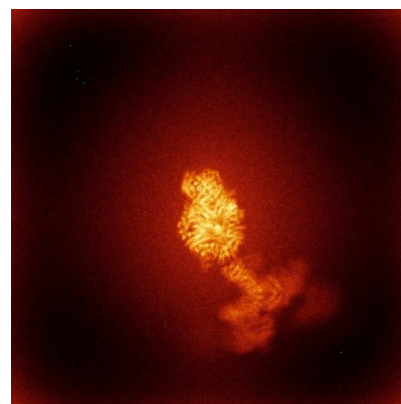
6.4.2 Raw map



X



Y

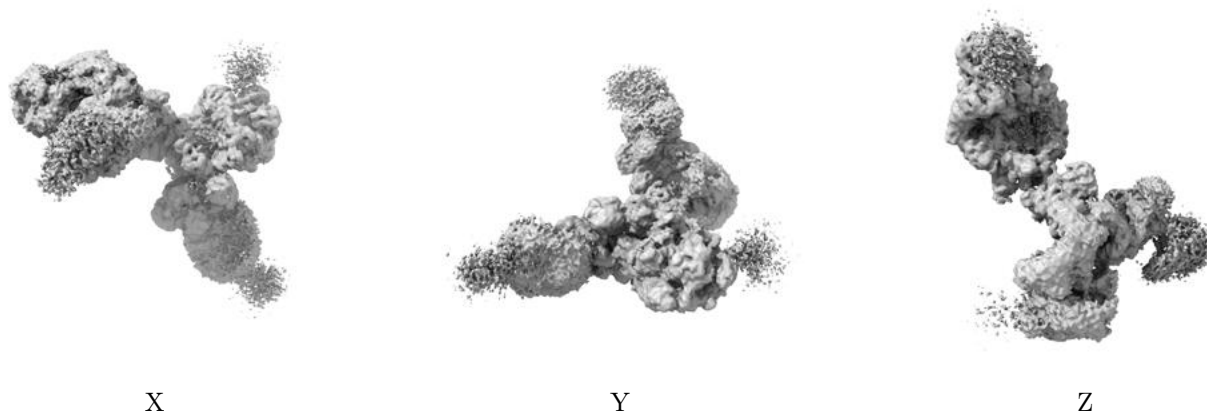


Z

The images above show the map standard deviation projections with false color in three orthogonal directions. Minimum values are shown in green, max in blue, and dark to light orange shades represent small to large values respectively.

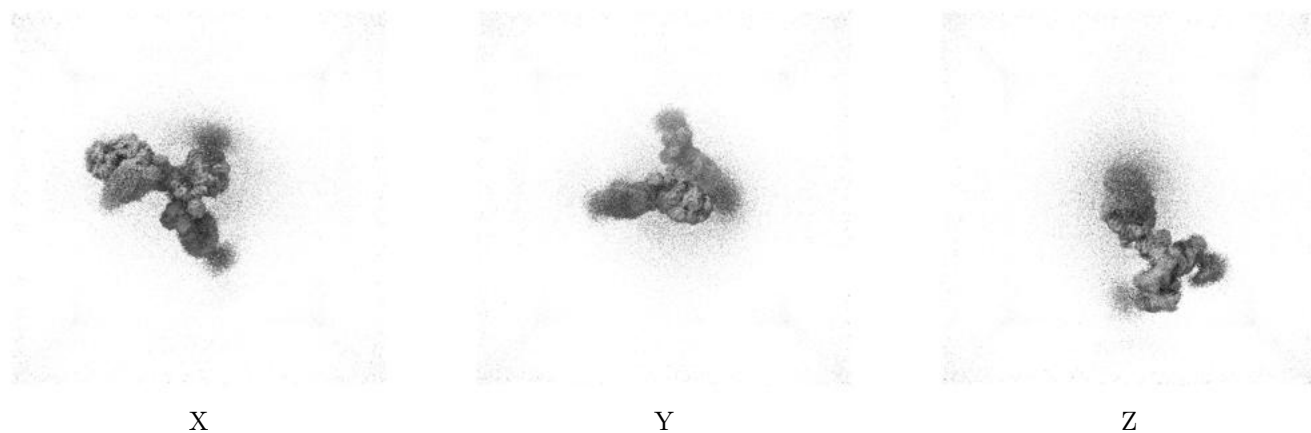
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.12. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



These images show the 3D surface of the raw map. The raw map's contour level was selected so that its surface encloses the same volume as the primary map does at its recommended contour level.

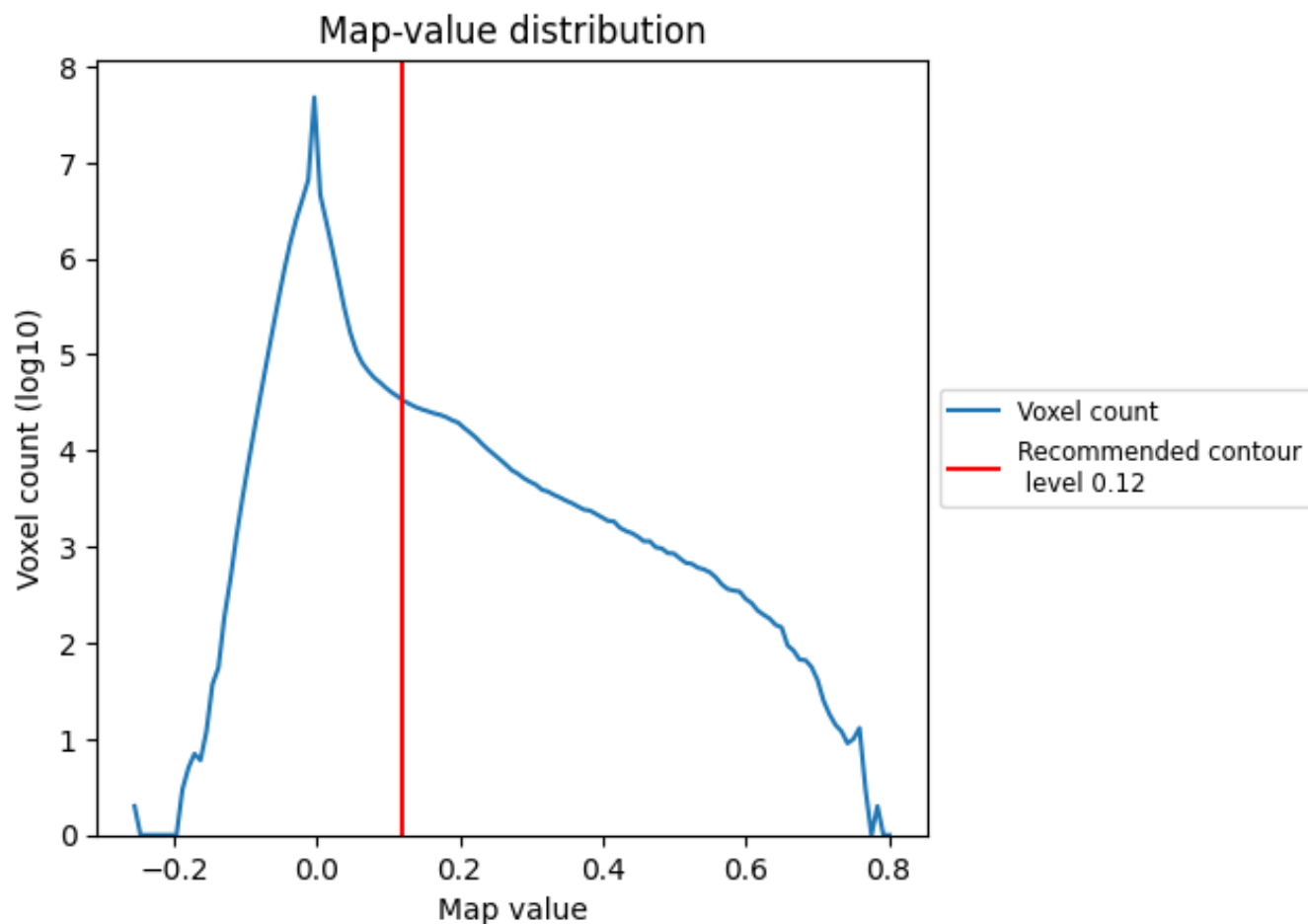
6.6 Mask visualisation [i](#)

This section was not generated. No masks/segmentation were deposited.

7 Map analysis [i](#)

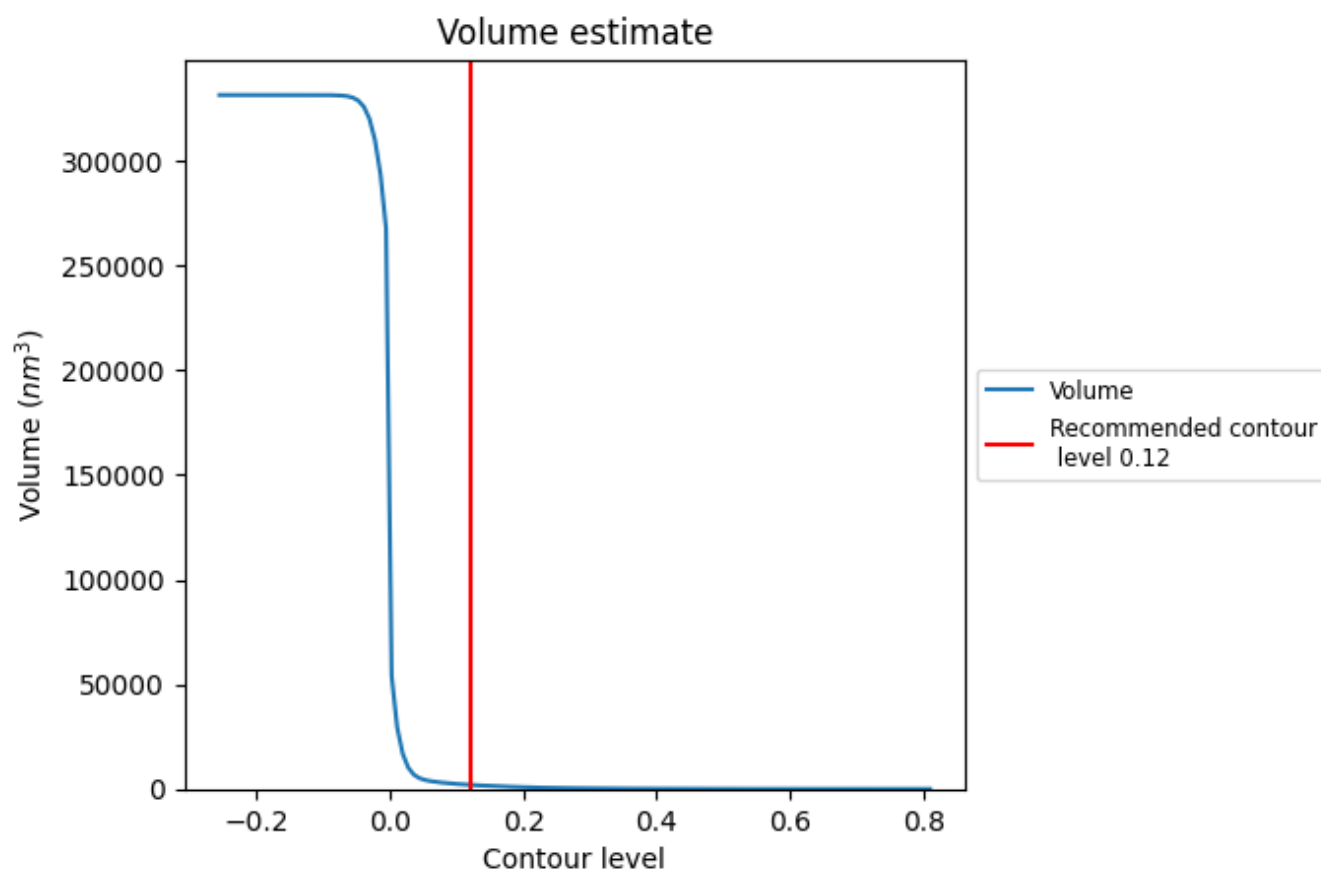
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



The map-value distribution is plotted in 128 intervals along the x-axis. The y-axis is logarithmic. A spike in this graph at zero usually indicates that the volume has been masked.

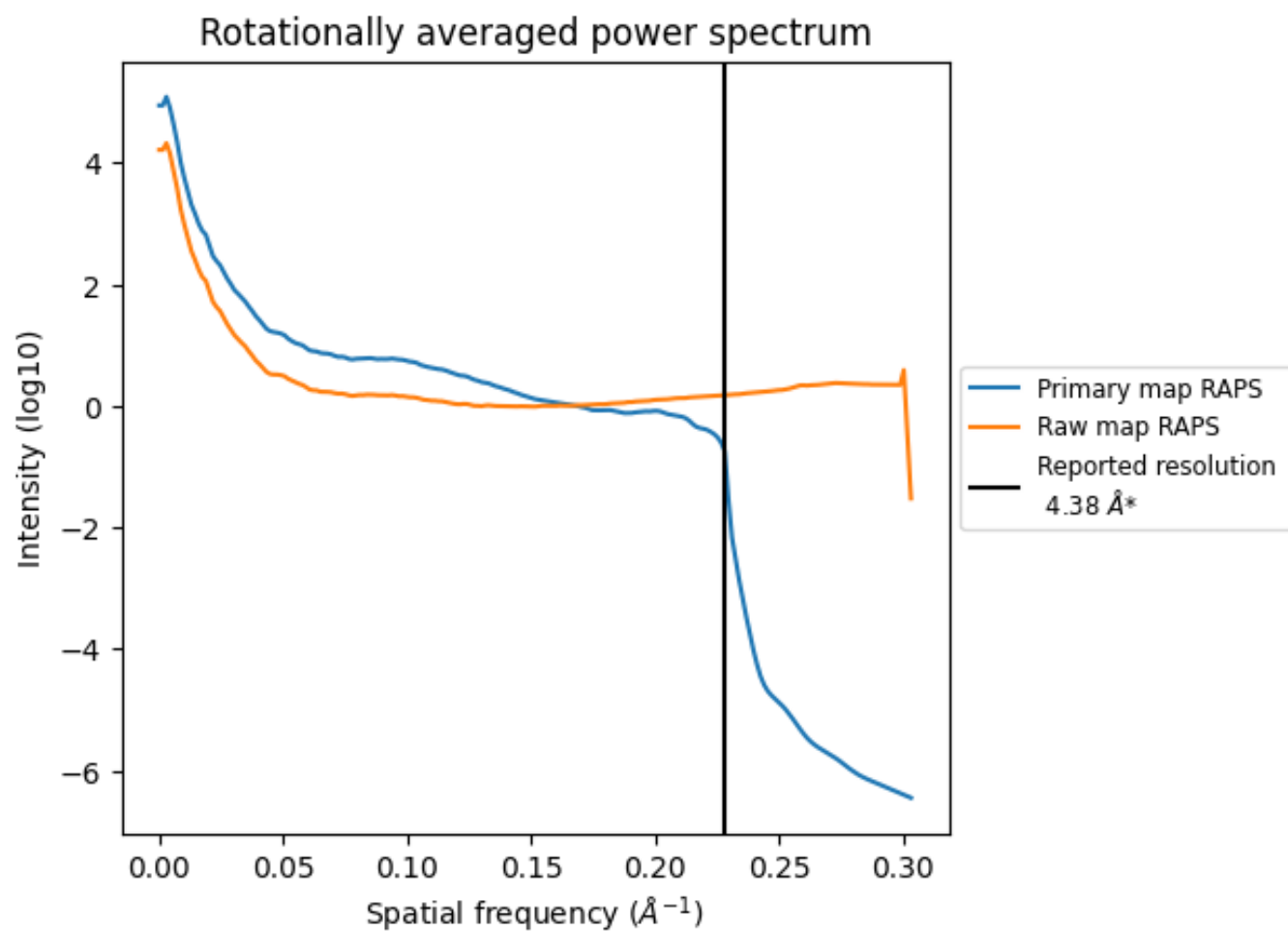
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1965 nm^3 ; this corresponds to an approximate mass of 1775 kDa.

The volume estimate graph shows how the enclosed volume varies with the contour level. The recommended contour level is shown as a vertical line and the intersection between the line and the curve gives the volume of the enclosed surface at the given level.

7.3 Rotationally averaged power spectrum ⓘ

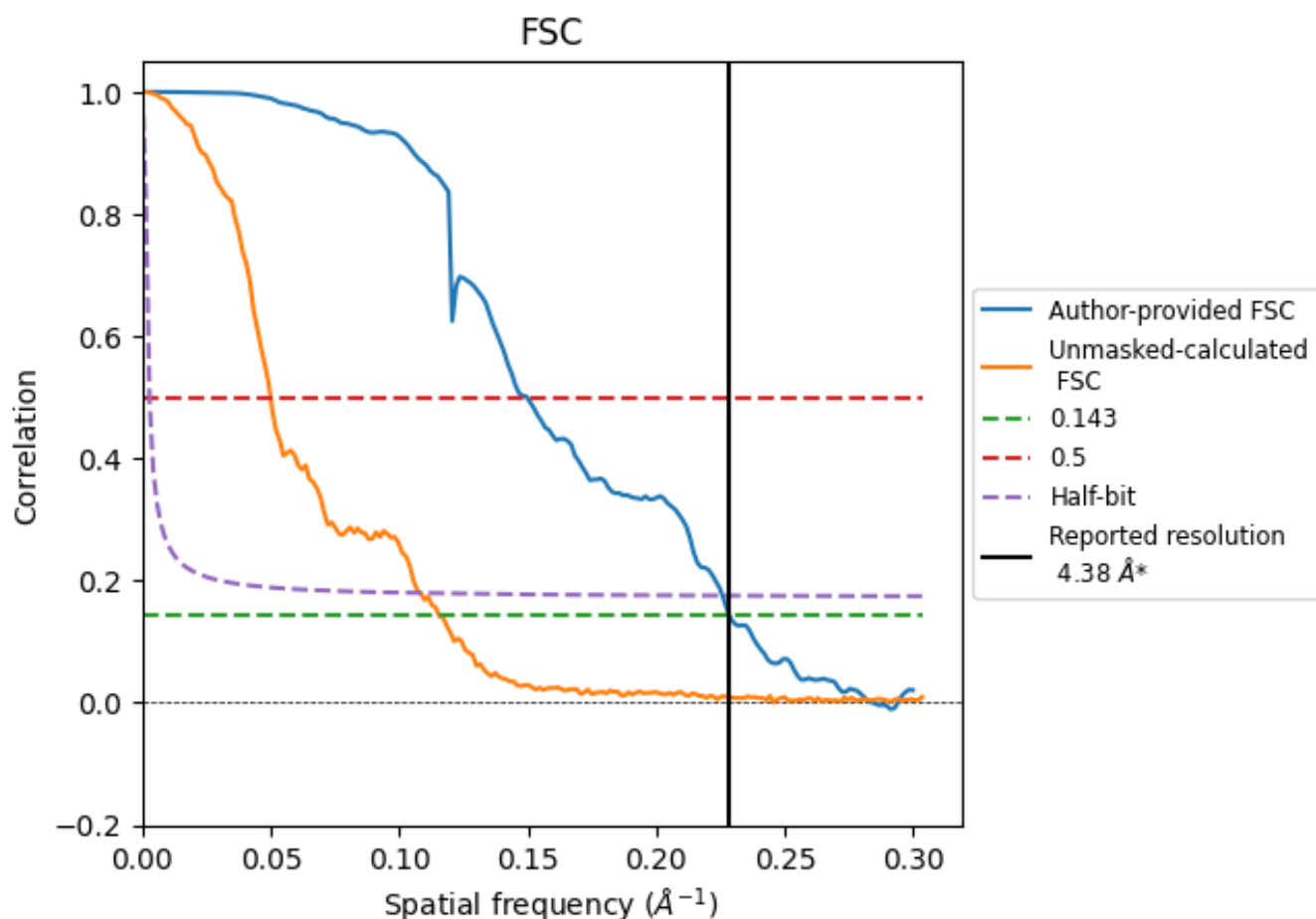


*Reported resolution corresponds to spatial frequency of 0.228 Å⁻¹

8 Fourier-Shell correlation [i](#)

Fourier-Shell Correlation (FSC) is the most commonly used method to estimate the resolution of single-particle and subtomogram-averaged maps. The shape of the curve depends on the imposed symmetry, mask and whether or not the two 3D reconstructions used were processed from a common reference. The reported resolution is shown as a black line. A curve is displayed for the half-bit criterion in addition to lines showing the 0.143 gold standard cut-off and 0.5 cut-off.

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.228 $\text{\AA}^{-1}$

8.2 Resolution estimates [i](#)

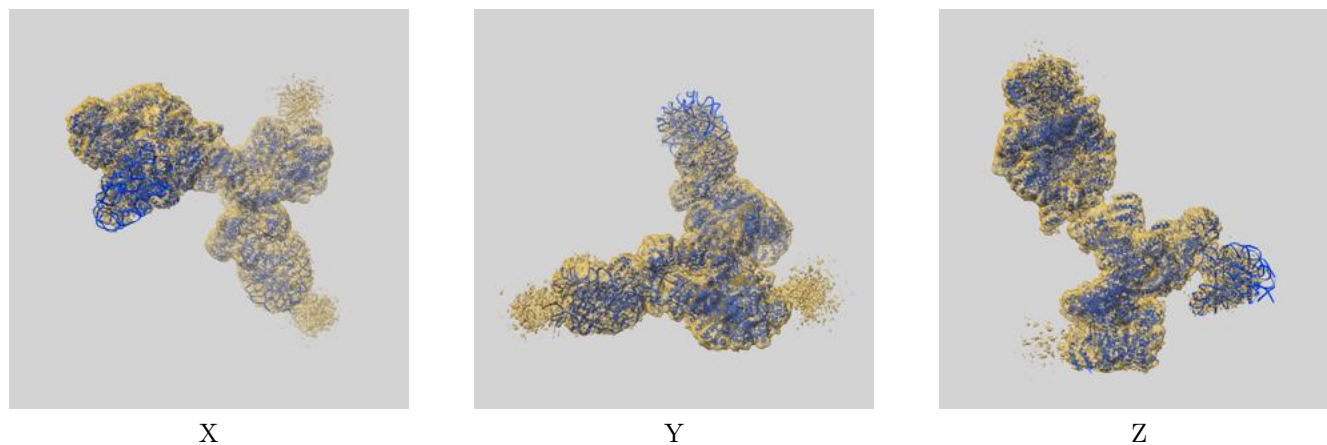
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.38	-	-
Author-provided FSC curve	4.38	6.68	4.43
Unmasked-calculated*	8.67	20.04	9.23

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 8.67 differs from the reported value 4.38 by more than 10 %

9 Map-model fit [i](#)

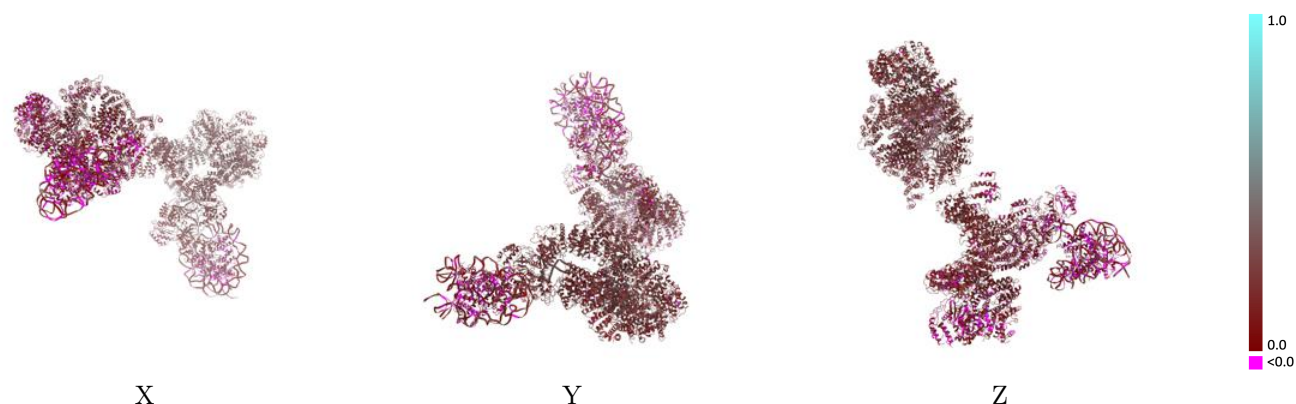
This section contains information regarding the fit between EMDB map EMD-53026 and PDB model 9QCS. Per-residue inclusion information can be found in section [3](#) on page [7](#).

9.1 Map-model overlay [i](#)



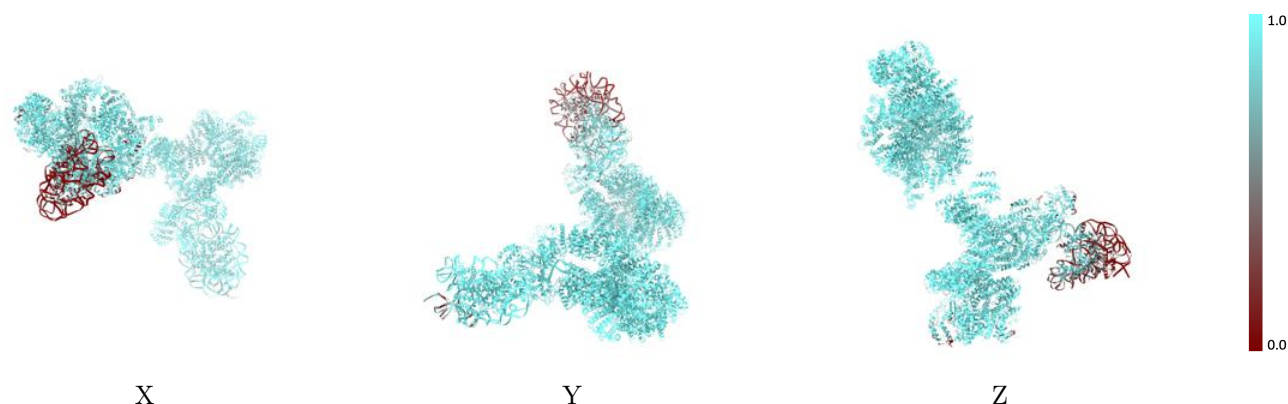
The images above show the 3D surface view of the map at the recommended contour level 0.12 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

9.2 Q-score mapped to coordinate model [i](#)



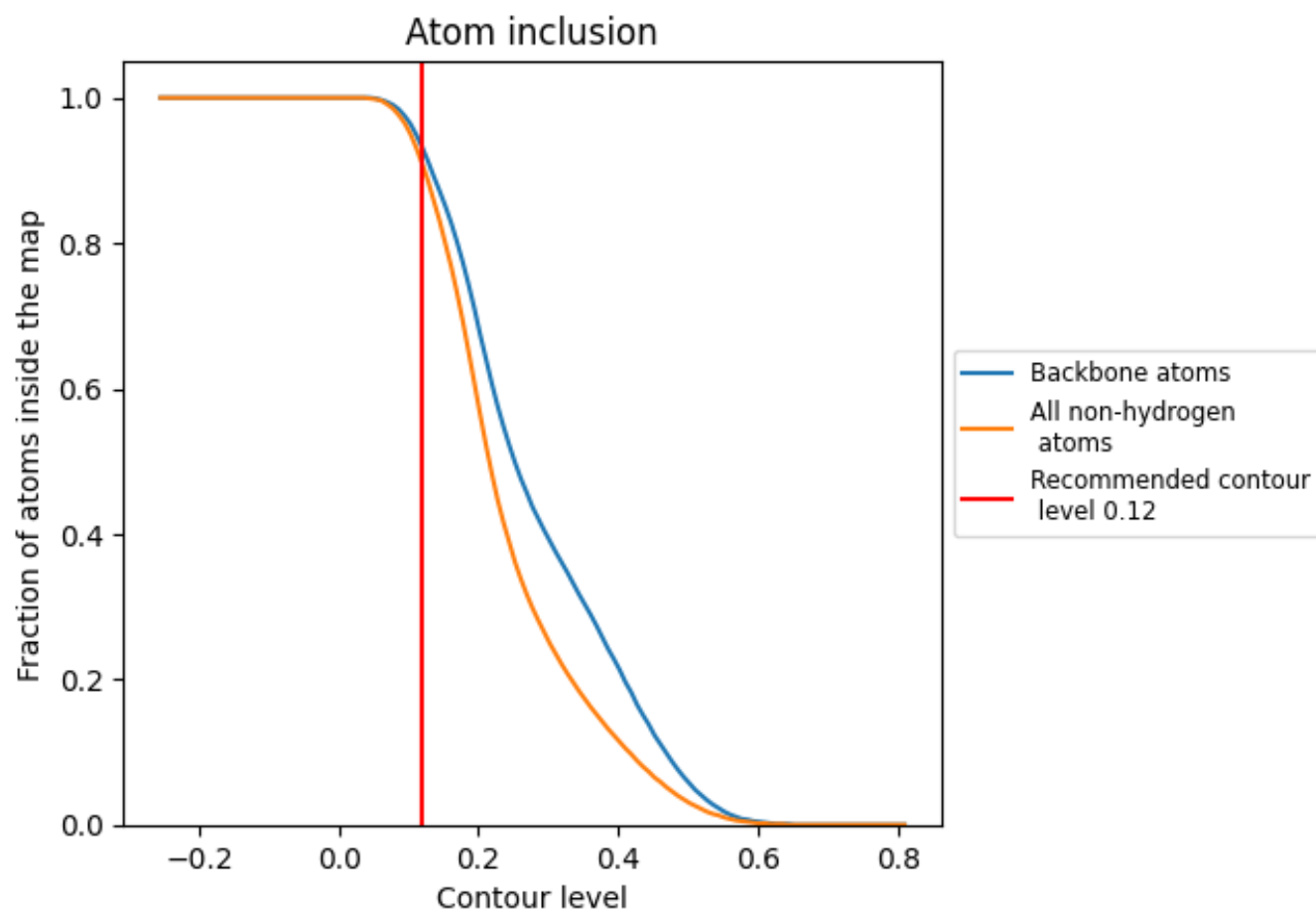
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions at which atoms can be resolved. Low Q-score values may therefore be expected for many entries.

9.3 Atom inclusion mapped to coordinate model [i](#)



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.12).

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 91% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.12) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9080	 0.1850
A	 0.9960	 0.1090
B	 1.0000	 0.1320
C	 0.6740	 0.0840
D	 1.0000	 0.1480
E	 1.0000	 0.1000
F	 0.9980	 0.1110
G	 0.9990	 0.1390
H	 0.6470	 0.0800
I	 0.3430	 0.1470
J	 0.3270	 0.1340
K	 0.9960	 0.2520
L	 0.9970	 0.2150
M	 0.9210	 0.1300
N	 0.9070	 0.1360
O	 0.9880	 0.2520
a	 0.6640	 0.0750
b	 0.8460	 0.0750
c	 0.9580	 0.0840
d	 0.9490	 0.0870
e	 0.4060	 0.1060
f	 0.4100	 0.0880
g	 0.2960	 0.0590
h	 0.3350	 0.0820
i	 0.9120	 0.1730
j	 0.9130	 0.1690
o	 0.9670	 0.1660

