



# Full wwPDB X-ray Structure Validation Report ⓘ

May 16, 2020 – 12:45 am BST

PDB ID : 5M59  
Title : Crystal structure of Chaetomium thermophilum Brr2 helicase core in complex with Prp8 Jab1 domain  
Authors : Absmeier, E.; Becke, C.; Wollenhaupt, J.; Santos, K.F.; Wahl, M.C.  
Deposited on : 2016-10-20  
Resolution : 3.20 Å(reported)

This is a Full wwPDB X-ray Structure Validation Report for a publicly released PDB entry.

We welcome your comments at [validation@mail.wwpdb.org](mailto:validation@mail.wwpdb.org)

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

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

MolProbity : 4.02b-467  
Mogul : 1.8.5 (274361), CSD as541be (2020)  
Xtriage (Phenix) : 1.13  
EDS : 2.11  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
Refmac : 5.8.0158  
CCP4 : 7.0.044 (Gargrove)  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.11

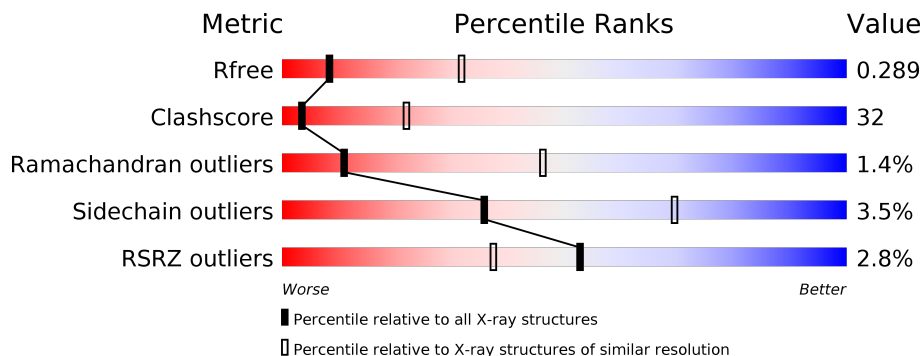
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*X-RAY DIFFRACTION*

The reported resolution of this entry is 3.20 Å.

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



Metric	Whole archive (#Entries)	Similar resolution (#Entries, resolution range(Å))
$R_{free}$	130704	1133 (3.20-3.20)
Clashscore	141614	1253 (3.20-3.20)
Ramachandran outliers	138981	1234 (3.20-3.20)
Sidechain outliers	138945	1233 (3.20-3.20)
RSRZ outliers	127900	1095 (3.20-3.20)

The table below summarises the geometric issues observed across the polymeric chains and their fit to the electron density. The red, orange, yellow and green segments on the lower bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 2, 1 and 0 types of geometric quality criteria 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 electron density. The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	B	276	
1	D	276	
1	F	276	
1	H	276	
2	A	1772	
2	C	1772	

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Mol	Chain	Length	Quality of chain
2	E	1772	
2	G	1772	

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

Mol	Type	Chain	Res	Chirality	Geometry	Clashes	Electron density
3	ACT	E	2201	-	-	X	-

## 2 Entry composition i

There are 4 unique types of molecules in this entry. The entry contains 63679 atoms, of which 12 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Putative pre-mRNA splicing factor.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
1	B	266	Total 2116	C 1352	N 362	O 392	S 10	0	0	0
1	D	263	Total 2093	C 1339	N 359	O 385	S 10	0	0	0
1	F	265	Total 2116	C 1353	N 362	O 391	S 10	0	0	0
1	H	267	Total 2125	C 1358	N 364	O 393	S 10	0	0	0

There are 12 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
B	2034	GLY	-	expression tag	UNP G0SFL3
B	2035	ALA	-	expression tag	UNP G0SFL3
B	2036	MET	-	expression tag	UNP G0SFL3
D	2034	GLY	-	expression tag	UNP G0SFL3
D	2035	ALA	-	expression tag	UNP G0SFL3
D	2036	MET	-	expression tag	UNP G0SFL3
F	2034	GLY	-	expression tag	UNP G0SFL3
F	2035	ALA	-	expression tag	UNP G0SFL3
F	2036	MET	-	expression tag	UNP G0SFL3
H	2034	GLY	-	expression tag	UNP G0SFL3
H	2035	ALA	-	expression tag	UNP G0SFL3
H	2036	MET	-	expression tag	UNP G0SFL3

- Molecule 2 is a protein called Pre-mRNA splicing helicase-like protein.

Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	A	1738	Total 13917	C 8891	N 2369	O 2592	S 65	0	0	0
2	C	1702	Total 13628	C 8709	N 2319	O 2536	S 64	0	0	0

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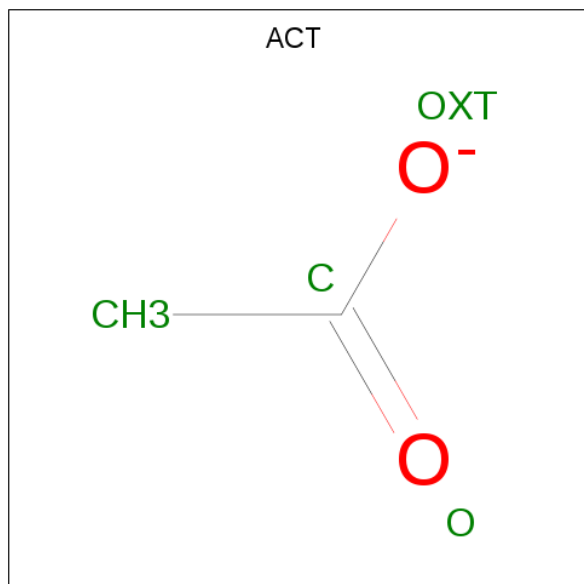
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Mol	Chain	Residues	Atoms					ZeroOcc	AltConf	Trace
			Total	C	N	O	S			
2	E	1740	13925	8896	2372	2592	65	0	0	0
2	G	1710	13701	8753	2336	2547	65	0	0	0

There are 16 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	422	GLY	-	expression tag	UNP G0S0B9
A	423	ALA	-	expression tag	UNP G0S0B9
A	424	GLU	-	expression tag	UNP G0S0B9
A	425	PHE	-	expression tag	UNP G0S0B9
C	422	GLY	-	expression tag	UNP G0S0B9
C	423	ALA	-	expression tag	UNP G0S0B9
C	424	GLU	-	expression tag	UNP G0S0B9
C	425	PHE	-	expression tag	UNP G0S0B9
E	422	GLY	-	expression tag	UNP G0S0B9
E	423	ALA	-	expression tag	UNP G0S0B9
E	424	GLU	-	expression tag	UNP G0S0B9
E	425	PHE	-	expression tag	UNP G0S0B9
G	422	GLY	-	expression tag	UNP G0S0B9
G	423	ALA	-	expression tag	UNP G0S0B9
G	424	GLU	-	expression tag	UNP G0S0B9
G	425	PHE	-	expression tag	UNP G0S0B9

- Molecule 3 is ACETATE ION (three-letter code: ACT) (formula: C<sub>2</sub>H<sub>3</sub>O<sub>2</sub>).



Mol	Chain	Residues	Atoms				ZeroOcc	AltConf
3	A	1	Total	C	H	O	0	0
			7	2	3	2		
3	C	1	Total	C	H	O	0	0
			7	2	3	2		
3	E	1	Total	C	H	O	0	0
			7	2	3	2		
3	G	1	Total	C	H	O	0	0
			7	2	3	2		

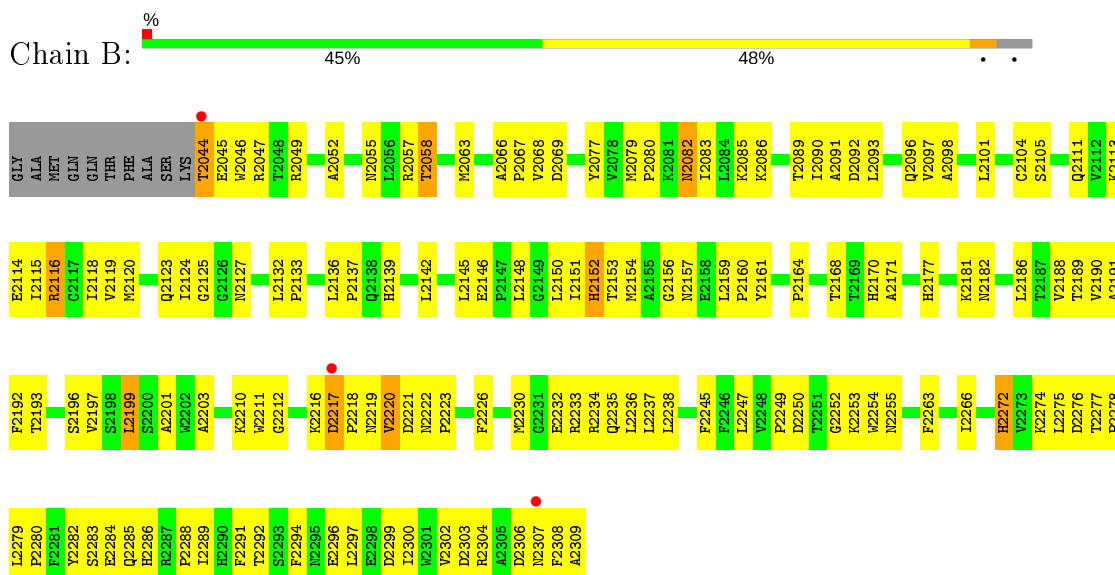
- Molecule 4 is water.

Mol	Chain	Residues	Atoms		ZeroOcc	AltConf
4	A	12	Total	O	0	0
			12	12		
4	D	2	Total	O	0	0
			2	2		
4	C	5	Total	O	0	0
			5	5		
4	F	1	Total	O	0	0
			1	1		
4	E	7	Total	O	0	0
			7	7		
4	G	3	Total	O	0	0
			3	3		

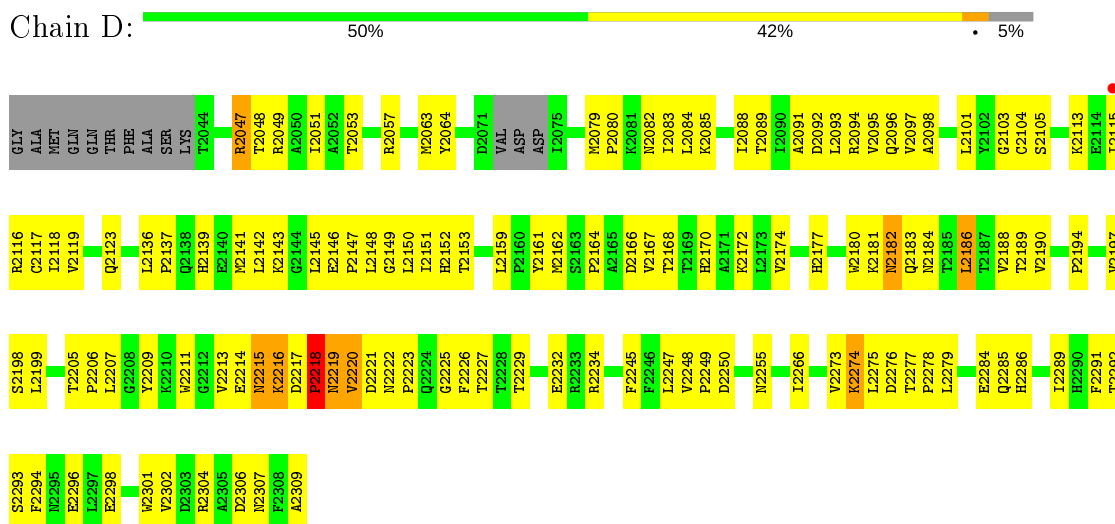
### 3 Residue-property plots

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

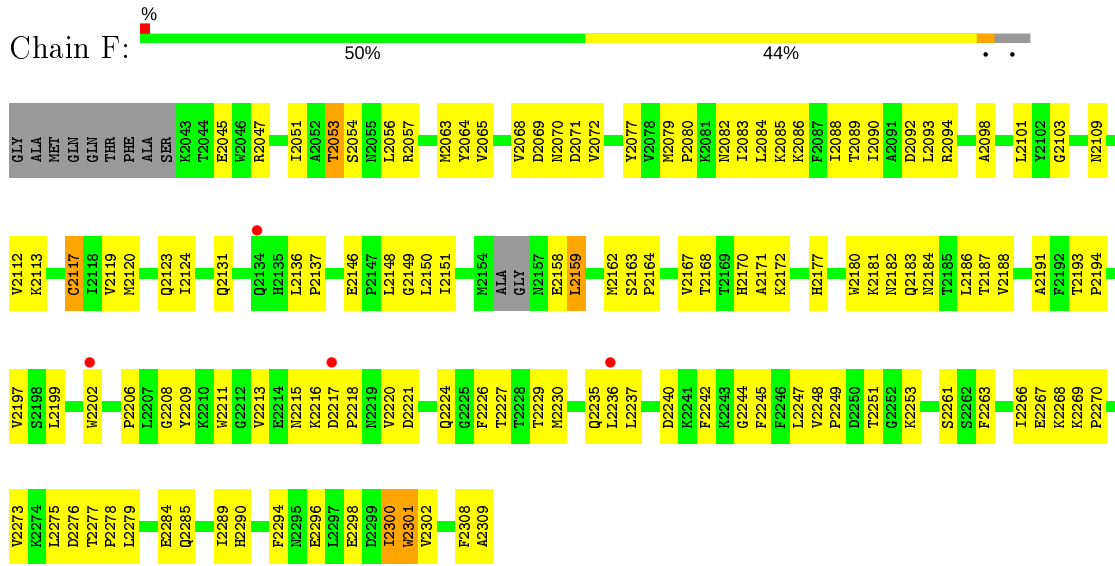
- Molecule 1: Putative pre-mRNA splicing factor



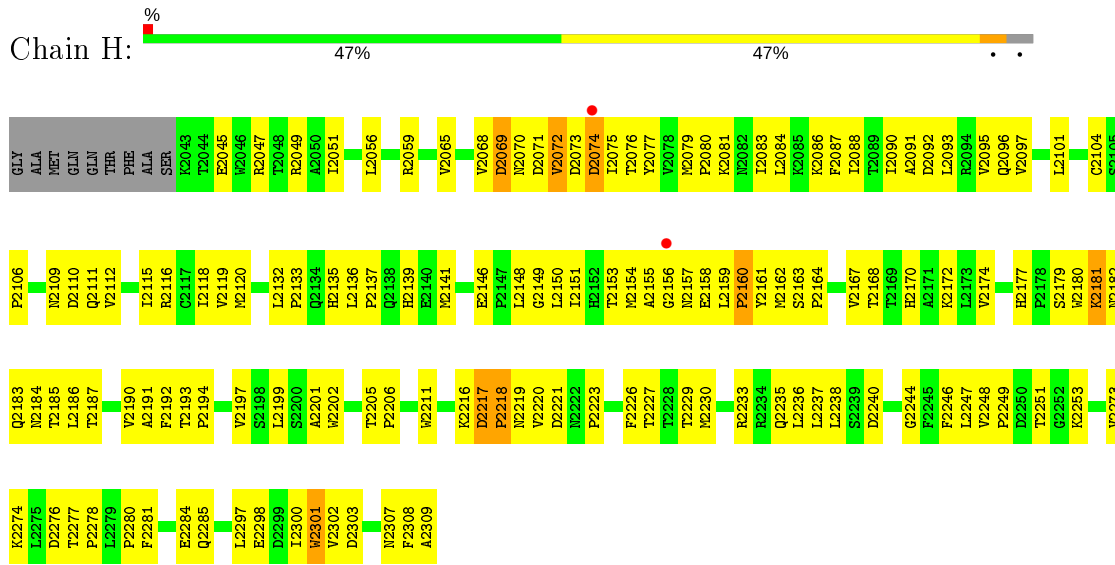
- Molecule 1: Putative pre-mRNA splicing factor



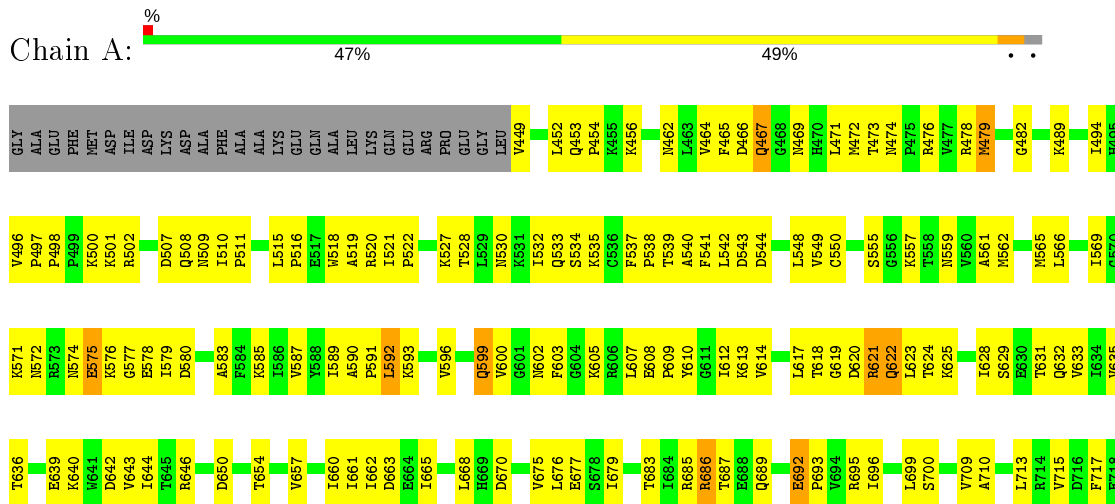
- Molecule 1: Putative pre-mRNA splicing factor



• Molecule 1: Putative pre-mRNA splicing factor

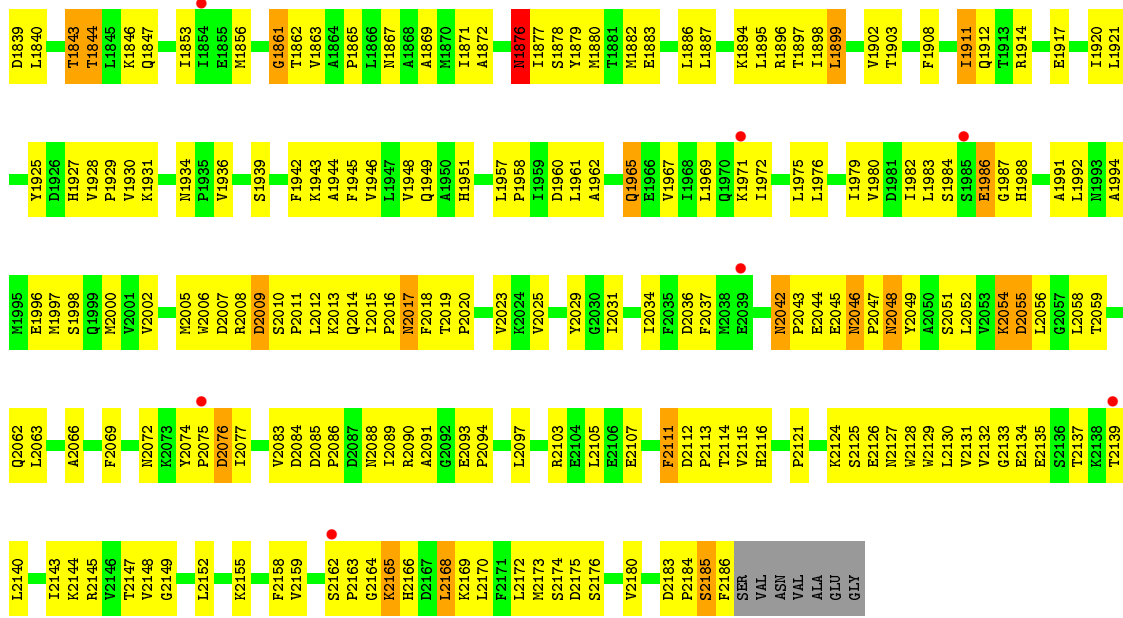


• Molecule 2: Pre-mRNA splicing helicase-like protein

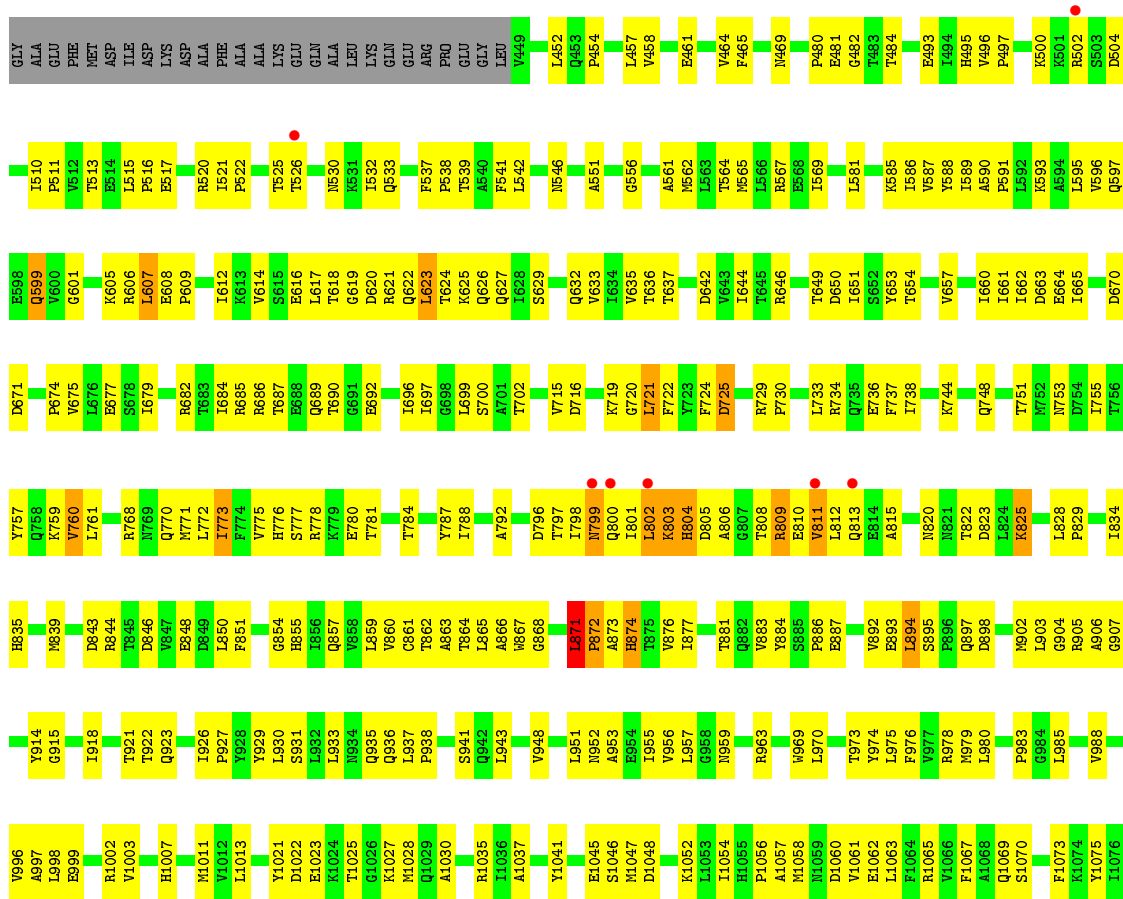




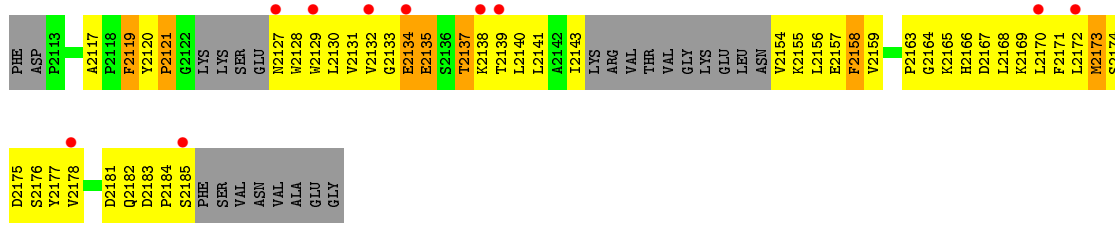
K1748	L1676	S1581	I1504	R1426	T1351	W1271	W1175	E1102	Q1029	I939	A866	K791	K719
D1749	S1677	H1586	A1505	A1427	E1352	I1272	S1176	E1103	A1030	E940	L871	A792	F723
G1750	Q1678	F1587	L1508	Y1429	L1353	L1273	P1177	P1104	T1031	S941	L872	D796	Y722
S1752	D1680	P1588	L1508	Y1430	P1358	V1274	Y1181	K1107	R1035	L943	P872	T797	F724
R1753	K1681	S1589	Q1514	I1431	L1359	D1276	P1182	L1108	R1036	V944	T875	I798	D725
G1754	E1682	L1590	M1515	P1432	P1360	C1277	T1183	M1109	A1037	S945	V876	N799	G726
V1755	L1583	M1591	G1516	F1433	V1361	D1278	P1185	W1110	A1038	R946	L877	Q800	
L1756	V1684	Y1517	I1518	G1434	S1362	G1279	C1184	L1111	S1038	L947	L878	R801	R729
M1757	K1685	M1594	I1518	E1435	A1363	I1282	I1188	L1112	H1039	N952	T881	L802	P730
L1758	Y1688	A1595	Y1519	L1436	L1364	L1283	I1188	Q1113	Y1040	A953	R882	K803	L733
P1759	K1689	K1596	E1520	V1437	K1365	L1284	K1191	L1113	Y1041	A954	R883	D805	R734
A1760	M1689	P1597	I1521	V1437	A1366	H1285	M1195	K1120	H1044	V956	V884	D805	Q735
V1761	T1598	T1598	V1522	R1440	A1366	D1286	P1195	L1121	E1045	P886	R884	E807	E736
Y1766	Y1599	Y1599	S1523	F1441	Y1369	V1287	M1199	E1122	P886	R809	R884	T808	F737
L1770	L1697	A1601	R1524	L1448	L1372	F1289	W1199	G1123	E1046	R887	R888	R809	I738
R1774	R1700	I1602	R1525	E1456	Y1373	I1289	W1199	L1124	S1046	R961	R888	E810	K744
P1775	D1701	Q1609	T1529	E1457	P1374	L1290	F1203	L1125	D1048	N962	G889	E810	A745
L1780	L1706	P1610	R1530	I1457	M1375	R1291	D1204	L1126	K1052	V967	V892	A816	I746
L1784	L1706	V1613	T1533	I1458	W1376	R1291	D1205	L1132	H1055	L970	R898	K747	K747
P1785	F1708	F1614	E1534	K1459	Q1377	D1293	D1206	G1133	P1056	L971	L894	Q748	Q748
F1788	T1708	V1615	L1535	L1460	Q1378	L1294	P1207	R1133	A1057	G971	S895	L749	L749
I1792	T1709	V1615	P1536	T1461	F1379	D1294	R1208	T1134	P896	Q871	S896	K750	K750
M1796	A1710	M1537	M1537	T1464	K1381	H3302	M1210	Q1135	K1058	T822	Q897	T751	T751
I1797	R1618	R1538	R1538	T1466	I1382	T1303	M1211	S1136	M1059	D823	R898	P752	P752
E1798	K1619	I1539	I1539	T1466	Q1383	V1304	L1213	A1137	D1060	T973	E899	P752	P752
S1799	Q1620	V1540	V1540	D1467	T1384	F1304	L1214	G1138	L824	N754	L824	W754	W754
G1800	V1713	G1541	G1541	L1468	Q1385	T1307	G1215	R1139	V1061	R825	R825	D754	D754
E1801	R1622	L1542	L1542	K1469	T1386	I1308	M1216	L1140	E1062	F976	M902	I755	I755
I1804	A1625	V1543	S1543	L1470	L1386	P1309	K1221	L1141	F1064	R878	G894	W756	W756
K1815	A1625	V1544	V1544	L1471	L1390	I1310	L1226	L1142	A1065	P979	R905	Y757	Y757
L1816	R1626	R1545	S1545	E1472	Y1391	P1315	L1226	A1143	V1066	L980	R908	Q758	Q758
A1818	T1630	T1630	L1546	Q1473	M1392	P1316	L1226	E1147	A1068	L980	R908	W760	W760
M1819	T1630	T1630	L1546	D1475	T1393	P1316	L1226	I1147	Q1069	L985	Q910	H763	H763
S1821	E1638	D1639	I1552	L1476	D1394	F1319	F1230	G1146	E1072	Y986	Y911	V764	V764
L1825	D1639	D1639	I1552	I1477	D1394	I1320	P1231	C1146	E1072	Y992	H835	G765	G765
Q1826	L1642	L1642	I1556	L1478	L1398	I1320	R1232	L1149	F1073	D995	R836	Q766	Q766
D1827	L1642	L1642	I1556	A1479	L1399	I1320	V1233	K1150	K1074	D995	R837	W767	W767
P1828	V1646	V1646	K1559	T1480	V1399	I1323	E1234	K1151	Y1075	D995	I918	R768	R768
A1830	D1647	D1647	K1559	P1481	A1401	I1323	I1235	G1152	I1076	V996	R920	W769	W769
L1831	Q1648	Q1648	H1561	P1481	P1402	R1326	Q1236	W1153	P1077	E999	T921	Q770	Q770
P1820	I1649	I1649	D1562	V1486	A1402	W1327	P1241	A1154	E999	Q1000	T922	M771	M771
S1821	L1653	L1653	D1562	L1487	K1407	M1328	M1242	S1185	L1084	K1001	Q923	L772	L772
L1825	E1658	E1658	H1568	S1488	K1407	H1329	M1243	K1158	E1085	R1002	Q923	V775	V775
Q1826	E1663	E1663	H1568	R1489	L1415	H1329	T1243	M1163	E1085	R1002	Q923	R777	R777
D1827	S1666	S1666	L1570	R1489	L1415	S1330	R1244	K1164	P1094	S931	Y928	K779	K779
P1828	G1670	G1670	L1571	W1491	L1416	E1331	R1244	C1185	P1096	S931	Y928	E780	E780
T1829	G1670	G1670	L1571	W1491	L1416	E1331	R1244	K1185	P1096	S931	Y928	Q857	Q857
H1830	Y1671	Y1671	V1573	W1491	H1418	F1338	L1247	L1161	Y1097	L933	Y928	W858	W858
L1837	Y1672	Y1672	P1574	W1491	H1418	F1338	L1247	L1161	Y1097	L933	Y928	C861	C861
S1838	S1747	S1747	L1577	E1501	W1419	F1347	T1254	E1168	K1098	T1025	Q935	T862	T862
				L1501	W1419	P1348	T1254	M1171	E1099	G1026	Q935	T862	T862
				F1503	D1423	P1349	M1256	M1171	S1100	L937	Q936	R789	R789
						H1350		T1174	I1101	M1028	P938	L865	L865



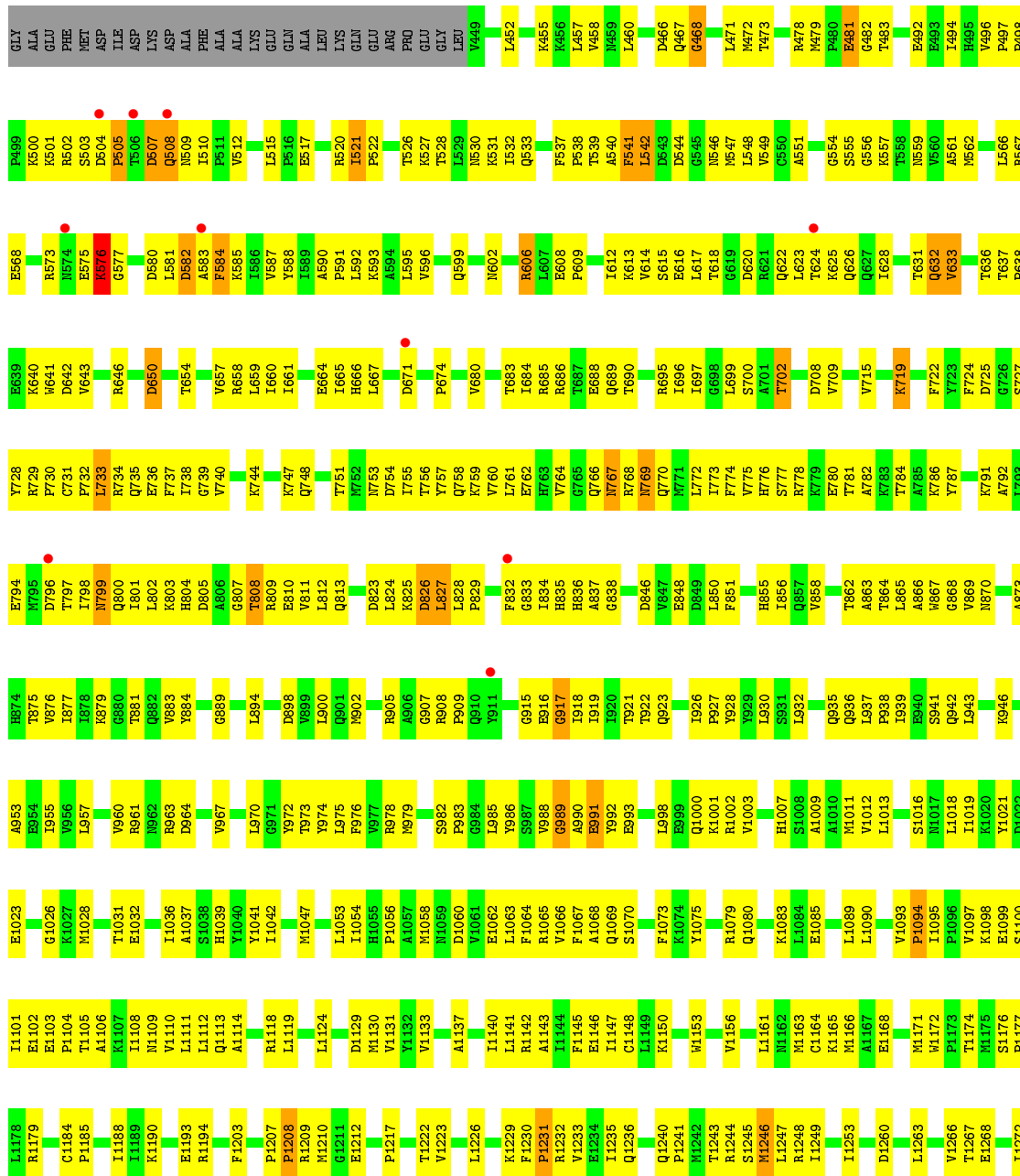
• Molecule 2: Pre-mRNA splicing helicase-like protein



E2045	P1077	V1223	V1304	S1389	L1460	F4528	A1595	K1687	K1762	T1844	E1907	V1980	E2046
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P2047	E1146	L1226	P1309	L1591	G1462	R1590	P1597	M1689	Y1766	K1846	S1909	L1982	N2048
N2048	E1081	L1227	P1300	M1592	E1463	T1591	T1598	M1690	K1767	Q1847	S1910	L1983	N2049
Y2049	E1082	S1228	L1310	T1393	T1464	Q1532	L1599	G1691	K1768	L1848	I1911	S1985	A2050
A2050	K1083	L1449	S1311	G1393	L1467	E1533	L1600	A1692	K1769	A1851	Q1912	S1986	S2051
S2051	L1084	K1229	E1312	M1396	D1468	E1534	A1601	A1692	F1769	R1852	T1913	I1986	S2052
L2052	E1085	F1230	F1313	V1397	L1468	L1535	L1602	R1700	L1770	R1853	I1920	G1987	V2053
V2053	A1086	P1231	M1314	L1398	K1469	L1536	T1603	D1701	M1771	I1853	L1921	HIS	L2054
L2056	A1087	R1232	P1315	A1401	L1470	M1537	Q1604	E1702	E1772	E1854	A1924	LEU	L2055
G2057	K1088	V1233	P1316	A1401	L1471	L1538	L1604	C1703	A1773	E1855	A1925	ASN	G2057
L2058	L1089	E1234	M1317	P1402	L1472	L1539	P1607	M1704	L1774	M1856	I1924	L1922	L2058
Q2062	L1090	L1235	F1318	T1403	E1472	L1540	D1608	M1704	P1775	D1857	Y1925	L1992	L2059
M2062	V1093	Q1240	F1319	G1404	L1476	G1541	Q1609	F1708	V1776	E1858	V1928	M1993	L2060
L2063	K1098	P1241	I1320	K1407	L1477	L1542	V1613	T1709	E1777	D1859	I1928	A1994	Q2062
A2064	E1099	P1242	I1323	T1408	L1478	S1543	F1614	A1710	L1780	E1860	P1929	M1995	Q2063
Q2065	S1100	M1245	I1326	V1409	A1479	S1544	F1615	R1711	L1780	G1861	V1930	M1996	L2064
F2069	I1101	R1244	R1326	C1410	T1480	S1545	V1616	L1712	L1784	T1862	LVS	E1996	Q2065
T2070	E1102	S1245	M1327	G1410	P1481	L1546	S1617	V1713	P1785	V1863	MET	M1997	Q2066
N2071	E1103	M1246	M1328	F1413	L1482	R1550	R1618	V1714	P1785	A1864	ASN	N1998	F2069
N2072	P1104	I1249	M1329	F1414	Q1483	D1551	K1619	V1715	F1788	P1865	N1994	M2000	T2070
K2073	L1105	E1250	H1329	L1415	M1484	D1552	Q1620	M1716	G1717	L1866	P1935	V2001	G2057
Y2074	A1106	L1251	S1330	L1416	D1485	I1552	T1621	G1717	E1791	N1867	V1936	V2002	G2057
P2075	K1107	L1252	E1331	R1417	V1487	L1556	R1622	T1718	I1792	A1868	S1939	Q2003	L2058
D2076	I1108	T1252	I1342	R1417	S1488	D1557	L1622	F1721	S1793	M1870	Y1942	M2005	F2069
T2077	M1109	T1253	L1343	A1420	R1489	K1559	L1629	E1722	K1794	I1871	F1942	Q2006	T2070
L2078	P1177	T1254	L1343	K1421	R1489	K1559	R1629	G1723	T1795	A1872	K1943	D2007	T2077
E2080	L1178	T1254	E1352	K1422	W1491	L1559	R1640	E1723	K1795	A1872	K1943	D2007	T2077
F2081	L1111	D1260	L1352	K1422	W1491	L1559	R1640	K1724	M1796	A1873	F1944	S2010	L2078
GLU	Q1112	H1264	L1353	K1422	W1491	L1559	R1640	Y1728	M1796	A1873	F1945	S2010	L2079
VAL	Q1113	G1265	L1354	R1426	R1493	Y1563	V1644	Y1728	M1797	A1874	F1946	P2011	L2079
ASP	A1114	G1265	L1355	V1427	R1493	Y1564	V1645	Y1728	E1798	A1875	V1946	L2012	E2080
ASP	Y1115	G1265	L1356	V1428	R1494	M1565	V1646	P1732	S1799	A1876	L1947	L2012	F2081
PRO	Y1116	G1266	L1357	Y1429	R1494	M1566	V1646	P1732	E1800	A1876	V1948	K2013	GLU
PRO	L1119	G1266	L1358	Y1431	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	VAL
A2091	K1120	G1267	L1359	A1431	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
GLY	L1121	G1267	L1360	A1431	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
GLU	A1125	G1267	L1361	F1433	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
PRO	L1126	G1267	L1362	F1433	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
ALA	M1127	G1267	L1363	E1434	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
TYR	A1128	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
LEU	M1129	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
LYS	V1131	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
ILE	Y1132	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
D2033	V1133	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
I2101	T1134	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
E2102	Q1135	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
R2103	Q1136	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
E2104	S1136	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
L2105	A1137	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
H2100	G1138	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
I2101	G1139	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
E2107	I1140	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
D2108	L1141	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
E2109	R1142	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP
E2110	L1143	G1267	L1364	E1435	R1494	M1566	V1646	P1732	E1800	A1877	Q1949	K2013	ASP



● Molecule 2: Pre-mRNA splicing helicase-like protein



L1378	D1368	Q1442	M1526	P1597	I1683	Y1765	H1856	M1934	P2011	L2079	V2154
V1274	Y1369	D1443	H1527	T1598	Y1684	Y1766	D1857	K1943	L2012	V2083	K2155
D1276	D1275	V1444	F1528	Y1599	H1685	K1767	T1862	L2084	I2015	D2084	E2157
G1279	L1372	Q1445	I1529	L1600	H1686	F1768	L1862	Q1949	N2016	D2085	F2158
H1285	L1373	K1446	R1530	A1601	L1687	L1769	L1866	A1950	N2017	P2086	F2159
D1286	L1374	K1449	T1531	I1602	Y1688	H1771	H1867	H1951	F2018	D2087	V2160
V1287	L1375	S1449	Q1532	T1603	Y1689	E1772	A1868	F1952	L2019	N2088	F2161
R1291	W1376	H1450	P1536	V1613	A1692	I1693	A1869	L1957	P2020	I2089	F2162
L1294	L1481	L1451	L1460	F1614	I1693	A1773	A1870	L1958	E2021	P2090	V2163
E1305	T1393	Q1384	L1542	L1615	L1696	L1774	M1870	R1959	V2022	A2091	G2164
F1306	D1394	R1452	S1543	V1616	L1697	P1775	I1871	I1959	V2023	G2092	K2165
F1307	M1395	Q1385	S1544	S1617	L1698	V1776	A1872	D1960	K2024	E2093	H2166
V1308	M1396	T1386	L1546	R1618	S1699	E1777	Y1875	K1963	V2025	P2094	D2167
P1309	V1397	W1376	G1541	L1618	R1700	L1784	Y1875	K1964	A2026	L2097	L2168
I1310	F1397	L1451	L1542	Q1620	D1701	L1785	Y1879	D1964	Y2029	K2098	K2169
E1311	V1399	L1481	S1543	L1621	M1880	D1786	M1880	Q1965	G2030	L2097	L2169
E1312	A1400	Q1385	L1544	R1622	V1702	D1787	T1881	E1966	G2031	K2098	S2174
P1313	A1401	T1307	S1545	A1623	L1706	F1788	E1882	V1967	I2031	I2101	D2175
M1314	P1402	V1308	L1546	A1624	D1707	V1789	E1883	L1968	E2032	E2102	S2176
P1315	L1471	P1309	A1547	T1625	F1708	V1789	M1884	L1969	V2033	R2103	Y2177
P1316	L1471	V1309	M1548	A1625	T1709	I1792	L1887	Q1970	D2033	E2104	V2180
P1317	L1471	K1407	I1552	L1629	A1710	K1793	S1888	K1971	I2034	L2034	V2180
F1318	L1477	T1408	E1553	L1633	H1711	S1793	L1889	L1972	F2035	F2035	A2191
F1319	L1478	F1319	E1554	L1634	L1712	I1797	L1890	I1973	F2036	GLU	GLY
I1320	A1479	I1320	W1555	A1634	V1713	I1797	S1890	S1974	D2037	GLU	
I1323	A1411	A1411	I1556	A1634	V1714	I1804	H1891	L1975	M2038	D2108	D2183
S1324	A1412	A1412	D1557	A1634	F1714	I1804	H1891	L1975	E2039	E2109	F2184
W1327	F1413	F1413	D1557	D1639	I1715	T1808	K1892	L1976	Q2040	E2109	N2189
M1328	L1415	L1415	M1565	K1651	M1716	S1893	L1893	L1976	N2041	P2113	V2190
M1331	L1417	L1417	F1566	F1641	G1717	K1894	K1894	A1978	N2042	P2121	A2191
T1332	H1418	H1418	S1567	F1641	T1718	Y1811	L1895	I1979	P2043	V2115	GLU
R1333	K1421	K1421	V1570	V1646	Q1719	F1812	R1896	I1980	E2044	H2116	GLY
M1334	K1422	K1422	R1571	F1646	F1720	F1813	R1897	D1981	E2045	F2119	
P1335	D1423	D1423	P1572	E1663	F1721	R1814	I1898	I1982	N2046	N2046	
V1336	A1426	A1426	P1574	A1664	E1722	R1815	I1898	L1982	P2047	L2120	
S1337	A1427	A1427	L1575	L1665	G1723	R1816	I1901	S1984	N2048	L2121	
F1338	A1427	A1427	L1577	L1666	K1724	L1816	V1902	S1985	Y2049	E2126	
I1342	Y1429	Y1429	L1577	L1667	E1725	M1819	V1906	E1986	S2051	M2127	
F1347	I1430	I1430	S1581	G1670	H1726	P1820	T1906	G1987	N2052	W2128	
E1352	A1431	A1431	V1570	Y1671	Y1728	Y1728	E1907	L1988	V2053	L1989	
L1353	P1432	P1432	P1574	Y1672	Y1731	Y1731	F1908	M1909	K2054	A1991	
L1354	F1433	F1433	L1574	E1673	A1743	Q1826	E1909	E1909	L2058	L1992	
D1355	P1433	P1433	L1575	E1673	L1744	Q1826	E1909	E1909	T2059	H1993	
D1356	P1433	P1433	L1577	E1673	L1744	Q1826	E1909	E1909	Q2060	A1994	
L1359	H1509	H1509	L1577	E1673	P1746	Q1826	E1909	E1909	L2063	M1997	
L1364	F1432	F1432	S1581	E1673	R1751	Q1826	E1909	E1909	L2063	S1998	
	P1432	P1432	H1586	E1673	R1751	Q1826	E1909	E1909	N2068	L1998	
	F1433	F1433	F1587	E1673	R1752	Q1826	E1909	E1909	F2069	L1998	
	Y1517	Y1517	P1588	E1673	R1753	Q1826	E1909	E1909	T2070	K2143	
	Q1434	Q1434	S1589	E1673	R1753	Q1826	E1909	E1909	N2071	R2144	
	L1436	L1436	S1590	E1673	G1754	Q1826	E1909	E1909	N2072	R2145	
	V1437	V1437	L1590	E1673	V1755	Q1826	E1909	E1909	K2073	W2146	
	D1438	D1438	M1591	E1673	L1756	Q1826	E1909	E1909	N2005	K2075	
	R1440	R1440	M1591	E1673	M1757	Q1826	E1909	E1909	W2006	W2074	
	F1441	F1441	M1594	E1673	L1758	Q1826	E1909	E1909	D2007	P2075	
			A1595	E1673	R1763	Q1826	E1909	E1909	R2008	D2076	
			K1596	E1673	I1681	Q1826	E1909	E1909	D2009	L2077	
				E1673	E1855	Q1826	E1909	E1909	S2010	T2078	

• Molecule 2: Pre-mRNA splicing helicase-like protein



GLY	L448	E461	E462	L463	V464	F465	D466	Q467	G468	N469	H470	L471	H472	T473	P475	K489	G490	Y491	E492	E493	K500	K501	R502	S503	D504
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S1524	V1485	F1306	L1213	Y1132	P1056	E988	E887	E810	V740	A583	T506	P505
R1525	K1486	T1307	L1214	V1133	A1057	W969	E897	V811	V741	F584	D507	T506
M1526	L1460	V1308	M1216	G1138	M1058	L970	V892	L812	D742	F585	Q508	T506
F1528	T1461	P1309	P1217	K1139	N1059	T973	V893	Q814	I746	R588	N509	T506
I1529	G1462	S1310	K1218	I1140	V1061	Y974	E894	E814	L749	V587		
R1530	L1463	L1311	L1219	L1141	I1062	L975	S895	S817	L750	V588		
T1531	T1464	P1312	A1219	L1142	E1063	F976	D898	V819	K750	T589		
T1465	T1465	M1314	V1223	A1143	F1064	V977	V899	V818	V751	T590		
L1466	L1466	Y1318	C1224	I1144	K1065	R978	N902	N820	N752	L592		
D1467	A1400	F1319	V1227	F1145	V1066	N979	L903	N821	N753	L593		
L1468	F1319	F1401	V1227	E1146	E1067	L980	L903	T822	D754	P516		
K1469	P1402	L1320	V1227	L1147	A1068	R981	G904	D823	I755	E517		
L1470	T1403	S1321	P1231	C1148	Q1069		R905	L824	D670	E518		
L1471	G1404	V1322	R1232	L1149	E1072	L985	A906	K925	D671	A519		
L1472	S1405	I1323	I1235	W1153	F1073	V986	G907	D826	R672	R520		
G1474	G1406	M1328	Q1236	A1154	K1074	Y992	R908	L827	P674	P522		
D1475	V1409	M1328	Q1236	S1155	Y1075	E993	D812	L828	W63	F523		
L1476	G1410	E1331	Q1240	V1156	I1076	D894	T913	P829	H63	R606		
L1477	A1411	M1334	P1241	L1159	P1077		T914	F832	V764	L607		
L1478	E1412	M1334	M1242	L1159	V1078	E999	T914	G833	T683	E608		
A1479	F1413	P1335	T1243	A1160	K1079	K1000	G917	G834	R684	P609		
T1480	A1414	V1336	R1244	L1161	Q1080	K1001	I918	I834	R685	T528		
P1481	L1415	S1337	S1245	M1162	E1081	R1002	I919	H835	R686	L529		
L1482	L1416	F1338	M1246	M1163	E1082	V1003	I920	H836	T687	N530		
Q1483	R1417	L1343	L1247	K1164	K1083	H1007	T921	M839	T690	L52		
L1484	H1418	L1343	L1248	K1165	L1084		T921	S940	H691	Q533		
D1485	W1419	I1249	I1249	E1085	E1085		T921	R841	L772	F537		
L1486	A1420	E1352	E1250	E1168	L1089	M1011	I926	D842	F774	P538		
L1487	K1421	L1353	L1251	R1170	L1090	S1016	I929	R843	H775	T539		
S1488	D1423	D1355	M1256	M1171	L1090	M1017	I930	R844	H776	A540		
R1489	A1424	L1356	E1262	W1174	V1093	L1018	S931	D846	S777	F541		
Q1490	G1425	Q1357	E1262	P1173	V1093	L1018	S931	D846	R778	L542		
W1491	R1426	P1358	E1267	T1174	K1098	Y1021	I934	E848	E780	M547		
K1492	A1427	L1359	V1266	M1175	E1099	Y1021	I934	E848	E781	L548		
L1493	V1428	P1360	T1267	S1176	A1100	K1027	Q936	F851	A782	V549		
E1494	Y1429	V1361	W1271	P1177	S1100	M1028	Q936	F851	A782	K557		
K1495	I1430	S1362	L1272	Q1180	E1102	M1029	L937	H855	T784	E630		
N1496	A1431	A1363	L1273	Y1181	E1103	E1032	P938	I856	A785	B630		
Q1497	F1432	L1364	L1274	P1182	P1104	E1032	P938	Q857	A785	T631		
T1498	F1433	K1365	V1274	T1183	L1105	L1033	L943	V858	D716	A661		
V1500	Q1434	A1366	L1283	C1184	A1106	L1033	L943	V858	R789	T624		
E1501	E1435	K1367	L1283	C1184	K1107	I1036	L951	C861	K719	K625		
L1502	L1436	D1368	F1284	P1185	A1037	A1037	N952	T862	A792	Q626		
F1503	V1437	Y1369	H1285	A1186	E1038	A953	A953	A863	F722	K627		
I1504	D1438	V1377	D1286	E1187	H1039	E954	E954	T864	Y723	L628		
H1509	F1441	Q1377	V1287	I1188	Y1040	I955	I955	L865	F724	I569		
Q1514	Q1442	M1380	F1288	K1191	Y1041	V956	V956	V869	D725	G570		
M1515	Q1445	K1381	L1289	K1191	I1042	L957	L957	V869	G726	K571		
G1516	Q1382	I1382	L1290	M1195	S1117	G958	G958	N870	S727	N572		
V1517	L1451	Q1384	R1291	S1117	M1047	N959	N959	L871	S727	R573		
L1518	L1452	Q1385	K1292	L1196	D1196	V960	V960	P872	Y728	N574		
Y1519	G1453	T1386	L1294	V1197	T1049	R961	R961	A873	R729	E575		
V1522	G1454	F1387	T1303	D1206	K1052	R963	R963	V876	Q735	E578		
V1523	E1456	M1388	V1304	P1208	L1055	G966	G966	L877	E736	I579		
		S1389	R1209	E1305	H1055	V967	V967	Y884	G739	D580		
										L581		
										L582		

L2172	D2181	S2051	G1987	E1917	Q1887	L1774	M1690	A1601
M2173	D2182	L2052	H1988	E1918	L1848	P1775	M1693	I1602
D2176	D2183	V2053	L1989	G1919	S1849	S1778	I1693	T1603
Y2177	D2184	K2054	A1991	K1922	A1851	H1779	Y1694	Q1604
	S2185	D2055	L1992	R1923	L1854	L1780	Y1695	L1605
	SER	L2056	M1993	I1924	E1855	H1781	L1696	S1606
	VAL	M1995	A1994	Y1925	M1856	L1784	I1697	P1607
	VAL	E1996	M1995	Y1928	D1857	P1785	W1704	D1608
	VAL	M1997	E1996	V1928	E1858	F1788	E1705	Q1609
	ALA	S1998	S1998	V1929	E1859	F1789	L1706	V1613
	GLU	Q1999	Q1999	W1930	E1860	V1789	D1707	P1616
	GLY	M2000	M2000	K1931	G1861	T1790	F1708	S1617
		V2001	V2001	V1936	T1862	E1791	T1709	R1618
		Q2002	Q2002	W1937	A1863	I1792	A1710	R1622
		Q2003	Q2003	M1937	A1864	S1793	H1711	A1625
		M2005	M2005	A2004	P1865	T1794	L1712	L1629
		E2006	E2006	S1939	L1866	H1795	V1713	T1630
		D2007	D2007	K1943	M1867	M1796	V1714	A1631
		R2008	R2008	V1946	A1868	I1797	T1718	C1632
		S2010	S2010	W1947	M1870	E1798	Q1719	D1639
		P2011	P2011	Y1948	L1871	S1799	F1720	R1640
		L2012	L2012	Q1949	Y1874	G1800	F1721	F1641
		K2013	K2013	A1950	Y1875	D1802	E1722	D1648
		Q2014	Q2014	H1951	M1876	A1803	F1723	I1649
		I2015	I2015	F1952	Y1877	I1804	K1724	L1652
		P2016	P2016	S1953	S1878	D1802	E1722	L1653
		N2017	N2017	R1954	Y1879	A1803	F1723	D1654
		F2018	F2018	I1959	M1880	I1809	R1727	H1655
		D2019	D2019	I1959	A1883	F1812	Y1728	V1656
		V2020	V2020	D1960	M1884	Y1813	Y1729	Q1657
		K2021	K2021	L1961	F1885	R1814	P1732	E1658
		A2022	A2022	A1962	L1886	R1815	E1735	G1670
		K2023	K2023	K1963	L1887	L1816	E1735	Y1671
		N2024	N2024	D1964	L1887	M1819	A1743	Y1672
		A2025	A2025	Q1965	S1888	P1820	L1744	H1673
		K2026	K2026	E1966	L1889	S1821	P1746	E1674
		I2027	I2027	V1967	S1890	Y1822	P1746	A1675
		A2028	A2028	I1968	H1891	L1825	S1747	L1676
		G2029	G2029	L1969	K1892	Q1826	K1748	Q1677
		D2030	D2030	Q1970	S1893	D1827	D1749	Q1678
		I2031	I2031	K1971	K1894	D1827	G1750	S1679
		D2033	D2033	I1972	L1895	T1828	G1750	D1680
		I2034	I2034	L1973	R1896	T1828	A1751	K1681
		F2035	F2035	S1974	T1897	T1829	A1751	R1682
		D2036	D2036	L1975	L1898	T1829	S1752	L1683
		F2037	F2037	L1976	L1899	T1829	S1752	V1684
		M2038	M2038	S1977	E1900	S1834	V1755	K1685
		E2039	E2039	I1978	I1901	Q1835	V1755	H1686
		Q2040	Q2040	I1979	V1902	L1837	L1758	L1687
		M2041	M2041	I1979	V1902	L1837	L1758	Y1688
		N2042	N2042	V1980	E1907	S1838	Y1766	K1681
		P2043	P2043	D1981	F1908	R1837	Y1766	R1682
		E2044	E2044	I1982	F1908	L1840	K1768	L1683
		E2045	E2045	L1983	Q1912	L1841	F1769	V1684
		M2046	M2046	S1984	Q1913	E1842	V1841	K1685
		P2047	P2047	S1985	T1913	T1843	L1770	H1686
		N2048	N2048	E1986	R1914	K1846	E1772	L1687
GLU								Y1688
PHE								
ASP								
T2114								
Y2115								
H2116								
A2117								
L2118								
F2119								
Y2120								
F2121								
S2125								
E2126								
M2127								
W2128								
TRP								
LEU								
VAL								
VAL								
GLY								
GLU								
GLY								
PRO								
ASP								
ILE								
THR								
LEU								
GLU								
GLU								
E2081								
E2082								
V2083								
D2084								
D2085								
P2086								
D2087								
M2088								
I2089								
K2090								
A2091								
G2092								
D2093								
F2094								
A2095								
Y2096								
L2097								
K2098								
L2099								
H2100								
I2101								
E2102								
R2103								
LYS								
HIS								
D2167								
L2168								
R2169								
L2170								
F2171								

## 4 Data and refinement statistics

Property	Value	Source
Space group	P 1 21 1	Depositor
Cell constants a, b, c, $\alpha$ , $\beta$ , $\gamma$	92.54Å 269.59Å 231.69Å 90.00° 90.10° 90.00°	Depositor
Resolution (Å)	49.13 – 3.20 49.52 – 3.20	Depositor EDS
% Data completeness (in resolution range)	99.0 (49.13-3.20) 99.0 (49.52-3.20)	Depositor EDS
$R_{merge}$	(Not available)	Depositor
$R_{sym}$	(Not available)	Depositor
$\langle I/\sigma(I) \rangle$ <sup>1</sup>	1.15 (at 3.19Å)	Xtrriage
Refinement program	PHENIX 1.9_1692	Depositor
R, $R_{free}$	0.244 , 0.287 0.248 , 0.289	Depositor DCC
$R_{free}$ test set	9222 reflections (5.00%)	wwPDB-VP
Wilson B-factor (Å <sup>2</sup> )	93.4	Xtrriage
Anisotropy	0.312	Xtrriage
Bulk solvent $k_{sol}$ (e/Å <sup>3</sup> ), $B_{sol}$ (Å <sup>2</sup> )	0.29 , 60.4	EDS
L-test for twinning <sup>2</sup>	$\langle  L  \rangle = 0.45$ , $\langle L^2 \rangle = 0.28$	Xtrriage
Estimated twinning fraction	0.044 for h,-k,-l	Xtrriage
$F_o, F_c$ correlation	0.91	EDS
Total number of atoms	63679	wwPDB-VP
Average B, all atoms (Å <sup>2</sup> )	88.0	wwPDB-VP

Xtrriage's analysis on translational NCS is as follows: *The largest off-origin peak in the Patterson function is 1.98% of the height of the origin peak. No significant pseudotranslation is detected.*

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

<sup>2</sup> Theoretical values of  $\langle |L| \rangle$ ,  $\langle L^2 \rangle$  for acentric reflections are 0.5, 0.333 respectively for untwinned datasets, and 0.375, 0.2 for perfectly twinned datasets.



## 5 Model quality [i](#)

### 5.1 Standard geometry [i](#)

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

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	B	0.20	0/2175	0.38	0/2962
1	D	0.22	0/2151	0.39	0/2927
1	F	0.21	0/2174	0.39	0/2958
1	H	0.21	0/2184	0.37	0/2973
2	A	0.21	0/14227	0.37	0/19296
2	C	0.21	0/13925	0.38	0/18882
2	E	0.21	0/14234	0.38	0/19306
2	G	0.22	0/13998	0.39	0/18976
All	All	0.21	0/65068	0.38	0/88280

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	D	0	1
2	E	0	1
All	All	0	2

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

All (2) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	D	2217	ASP	Peptide
2	E	1965	GLN	Peptide

## 5.2 Too-close contacts [\(i\)](#)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	B	2116	0	2075	139	0
1	D	2093	0	2057	120	0
1	F	2116	0	2079	124	0
1	H	2125	0	2088	127	0
2	A	13917	0	13956	862	0
2	C	13628	0	13674	959	0
2	E	13925	0	13970	867	0
2	G	13701	0	13768	973	0
3	A	4	3	3	1	0
3	C	4	3	3	1	0
3	E	4	3	3	4	0
3	G	4	3	3	0	0
4	A	12	0	0	0	0
4	C	5	0	0	0	0
4	D	2	0	0	0	0
4	E	7	0	0	0	0
4	F	1	0	0	0	0
4	G	3	0	0	1	0
All	All	63667	12	63679	4086	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 32.

All (4086) 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)
2:E:521:ILE:HD12	2:E:522:PRO:HD3	1.22	1.21
2:C:874:HIS:HA	2:C:907:GLY:HA2	1.28	1.13
2:G:515:LEU:HB3	2:G:516:PRO:HD2	1.18	1.10
2:A:835:HIS:HA	2:A:839:MET:HE1	1.31	1.10
2:C:2040:GLN:HA	2:C:2046:ASN:HB3	1.29	1.10
2:G:1574:PRO:HB2	2:G:1751:ARG:HG2	1.31	1.09
2:C:2000:MET:HE2	2:C:2007:ASP:HA	1.23	1.09
1:B:2253:LYS:HE3	1:B:2279:LEU:HG	1.36	1.07
2:C:813:GLN:HB3	2:C:829:PRO:HA	1.39	1.04

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:797:THR:HB	2:A:801:ILE:HD13	1.38	1.02
2:G:1418:HIS:NE2	2:G:1501:GLU:HB2	1.75	1.02
2:G:2171:PHE:HB3	2:G:2183:ASP:HA	1.42	1.02
2:E:661:ILE:HG12	2:E:697:ILE:HD11	1.42	1.01
2:A:1928:VAL:HG21	2:A:1949:GLN:HB3	1.42	1.00
2:G:1792:ILE:HG21	2:G:1854:ILE:HD11	1.41	0.98
2:E:2050:ALA:HB3	2:E:2054:LYS:HE2	1.42	0.98
2:A:1247:LEU:HD13	2:A:1310:ILE:HG13	1.46	0.97
2:E:674:PRO:HB2	2:E:946:LYS:HD3	1.46	0.97
2:G:1862:THR:HG22	2:G:1863:VAL:HG13	1.45	0.96
2:C:620:ASP:HA	2:C:623:LEU:HB2	1.44	0.96
2:G:2002:VAL:HG21	2:G:2176:SER:HA	1.46	0.95
2:E:1982:ILE:HB	2:E:1991:ALA:HB2	1.48	0.95
2:A:2059:THR:HG23	2:A:2062:GLN:HB2	1.45	0.95
2:A:1792:ILE:HG22	2:A:1865:PRO:HB3	1.47	0.95
2:G:1457:ILE:HG22	2:G:1476:LEU:HD23	1.48	0.95
2:G:841:ARG:HG2	2:G:845:THR:HG23	1.48	0.95
2:G:1632:CYS:HB3	2:G:1639:ASP:HA	1.48	0.94
2:A:1975:LEU:HD11	2:A:1997:MET:HG2	1.50	0.94
2:A:2012:LEU:HD13	2:A:2034:ILE:HD13	1.47	0.94
2:E:877:ILE:HG12	2:E:918:ILE:HD11	1.48	0.94
2:C:1467:ASP:HA	2:C:1470:LEU:HG	1.47	0.94
2:C:1921:LEU:HD21	2:C:1946:VAL:HG21	1.48	0.94
2:G:515:LEU:HB3	2:G:516:PRO:CD	1.98	0.94
2:G:506:THR:HG22	2:G:508:GLN:HG2	1.48	0.94
2:C:561:ALA:HB1	2:C:661:ILE:HD13	1.49	0.93
2:G:2052:LEU:HD12	2:G:2055:ASP:HA	1.50	0.93
2:G:1392:ASN:HA	2:G:1417:ARG:HB3	1.46	0.93
2:C:1903:THR:HG21	2:C:1945:PHE:HA	1.49	0.92
2:A:614:VAL:HG22	2:A:633:VAL:HB	1.52	0.92
2:G:665:ILE:HG22	2:G:700:SER:HB2	1.49	0.92
2:G:1495:LYS:HA	2:G:1498:GLN:HG2	1.51	0.92
2:C:2047:PRO:HB2	2:C:2050:ALA:HA	1.50	0.91
2:C:622:GLN:HG2	2:C:627:GLN:HB2	1.49	0.91
1:D:2218:PRO:HG2	1:D:2223:PRO:HB3	1.51	0.91
2:G:2005:MET:HB2	2:G:2013:LYS:HD3	1.53	0.91
2:C:1791:GLU:HB3	2:C:1797:ILE:HG13	1.52	0.91
2:E:1364:LEU:HD13	2:E:1369:TYR:HB3	1.50	0.91
1:B:2057:ARG:HD2	2:A:1057:ALA:HB1	1.53	0.91
2:E:1353:LEU:HD22	2:E:1570:VAL:HG13	1.50	0.90
1:B:2154:MET:HB3	1:B:2191:ALA:HA	1.52	0.90

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1857:ASP:HA	2:C:1861:GLY:HA2	1.53	0.90
2:E:625:LYS:HB2	2:E:628:ILE:HG22	1.54	0.90
2:G:926:ILE:HG13	2:G:927:PRO:HD3	1.51	0.90
2:C:1854:ILE:H	2:C:1854:ILE:HD12	1.36	0.90
2:E:1774:LEU:HD12	2:E:1775:PRO:HD2	1.54	0.89
2:C:1732:PRO:HG2	2:C:1735:GLU:HG3	1.55	0.89
2:C:1958:PRO:HD2	2:C:1961:LEU:HD12	1.55	0.89
2:G:1546:LEU:HD22	2:G:1552:ILE:HD13	1.54	0.89
2:E:561:ALA:HB1	2:E:661:ILE:HD13	1.55	0.88
1:F:2151:ILE:HG12	1:F:2188:VAL:HB	1.56	0.88
2:C:1571:ARG:HH21	2:C:1744:LEU:HD23	1.36	0.88
2:C:931:SER:HA	2:C:936:GLN:HB2	1.53	0.88
2:G:801:ILE:HD13	2:G:803:LYS:HE3	1.55	0.88
2:G:811:VAL:HG13	2:G:812:LEU:HD12	1.56	0.87
2:A:1530:ARG:HD2	2:A:1537:MET:HB3	1.54	0.87
2:E:517:GLU:HG2	2:E:520:ARG:HH12	1.39	0.87
2:C:2046:ASN:OD1	2:C:2049:TYR:N	2.07	0.87
2:E:782:ALA:HB1	2:E:824:LEU:HD21	1.56	0.87
2:E:1359:LEU:HD13	2:E:1384:THR:HB	1.57	0.86
2:G:1452:ARG:HD2	2:G:1452:ARG:H	1.41	0.86
2:C:1898:ILE:HA	2:C:1901:ILE:HD12	1.58	0.86
2:C:1924:ILE:HD11	2:C:1946:VAL:HB	1.57	0.86
2:A:1714:VAL:HG12	2:A:1755:VAL:HB	1.56	0.86
2:A:2131:VAL:HG22	2:A:2143:ILE:HG13	1.57	0.86
2:E:1393:THR:HG22	2:E:1395:ASN:H	1.41	0.86
2:A:2077:ILE:HG22	2:A:2103:ARG:HA	1.56	0.85
2:G:1249:ILE:HD11	2:G:1320:ILE:HD11	1.58	0.85
2:A:590:ALA:HB3	2:A:596:VAL:HG12	1.57	0.85
2:A:625:LYS:HD3	2:A:644:ILE:HD11	1.58	0.85
2:E:1675:ALA:HA	2:E:1963:LYS:HD3	1.59	0.85
1:B:2288:PRO:HB3	2:A:1174:THR:HG21	1.58	0.85
2:G:1390:LEU:HD23	2:G:1397:VAL:HG21	1.59	0.85
2:G:841:ARG:HA	2:G:844:ARG:HB3	1.58	0.85
2:A:1207:PRO:HG2	2:A:1208:PRO:HD3	1.57	0.85
2:C:773:ILE:HD11	2:C:860:VAL:HG13	1.57	0.85
2:A:620:ASP:HB3	2:A:624:THR:HG22	1.59	0.84
2:A:1574:PRO:HB2	2:A:1751:ARG:HG2	1.59	0.84
2:A:1983:LEU:HD13	2:A:2143:ILE:HG21	1.58	0.84
2:C:1911:ILE:HD11	2:C:1966:GLU:HG2	1.59	0.84
2:C:1558:ALA:HB3	2:C:1563:ILE:HD11	1.60	0.84
2:C:1644:VAL:HG13	2:C:1649:ILE:HD11	1.57	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1714:VAL:HG12	2:E:1755:VAL:HB	1.59	0.84
2:C:1207:PRO:HG2	2:C:1208:PRO:HD3	1.59	0.83
2:C:617:LEU:HD21	2:C:644:ILE:HG13	1.58	0.83
2:G:1392:ASN:HA	2:G:1417:ARG:HD2	1.58	0.83
2:G:1774:LEU:HD12	2:G:1775:PRO:HD2	1.58	0.83
2:A:1958:PRO:HG2	2:A:1961:LEU:HB2	1.58	0.83
2:E:1987:GLY:HA2	2:E:2140:LEU:N	1.94	0.83
2:E:1111:LEU:HD22	2:E:1130:MET:HB2	1.60	0.83
2:C:1415:LEU:HD12	2:C:1502:LEU:HD21	1.61	0.82
2:E:591:PRO:HD2	2:E:595:LEU:HD23	1.59	0.82
2:G:658:ARG:HH12	2:G:692:GLU:HG3	1.44	0.82
2:E:1396:ASN:HB2	2:E:1558:ALA:HB2	1.62	0.82
2:G:1426:ARG:HB2	2:G:1499:THR:HG23	1.62	0.82
2:A:955:ILE:HG22	2:A:1030:ALA:HB2	1.62	0.82
2:C:2040:GLN:CA	2:C:2046:ASN:HB3	2.08	0.82
1:H:2106:PRO:HD2	1:H:2112:VAL:HG13	1.60	0.82
2:A:1394:ASP:HB3	2:A:1417:ARG:HE	1.43	0.81
2:A:872:PRO:HB2	2:A:908:ARG:HG2	1.62	0.81
2:E:2162:SER:HB2	2:E:2163:PRO:HD2	1.63	0.81
2:G:1101:ILE:HG23	2:G:1102:GLU:H	1.44	0.81
2:A:575:GLU:HG3	2:A:576:LYS:HG3	1.62	0.81
2:G:2003:GLN:HE22	2:G:2177:TYR:HA	1.43	0.80
2:G:1457:ILE:HD13	2:G:1457:ILE:H	1.44	0.80
2:E:798:ILE:HA	2:E:801:ILE:HD13	1.62	0.80
2:A:1560:LYS:HA	2:A:1563:ILE:HG12	1.63	0.80
2:C:1364:LEU:HD11	2:C:1416:LEU:HD21	1.62	0.80
1:D:2083:ILE:HD12	1:D:2118:ILE:HG13	1.61	0.80
1:F:2183:GLN:HB3	2:G:1206:ASP:HB3	1.63	0.80
2:G:586:ILE:HB	2:G:633:VAL:HA	1.64	0.80
2:G:501:LYS:HB3	2:G:727:SER:HB2	1.64	0.80
2:A:1460:LEU:HD23	2:A:1479:ALA:HB2	1.62	0.80
2:A:453:GLN:HG3	2:A:454:PRO:HD2	1.64	0.80
2:G:851:PHE:HA	2:G:856:ILE:HG22	1.64	0.80
2:G:519:ALA:HB1	2:G:566:LEU:HD23	1.62	0.79
2:A:877:ILE:HG12	2:A:918:ILE:HB	1.63	0.79
2:G:2144:LYS:HD3	2:G:2156:LEU:HD13	1.64	0.79
2:C:877:ILE:HG12	2:C:918:ILE:HB	1.62	0.79
2:C:665:ILE:HG22	2:C:700:SER:HB2	1.64	0.79
2:E:617:LEU:HD23	2:E:622:GLN:HG3	1.62	0.79
2:G:1959:ILE:HD12	2:G:1959:ILE:H	1.47	0.79
2:A:1856:MET:HA	2:A:1863:VAL:HA	1.63	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1382:ILE:HD12	2:C:1382:ILE:H	1.48	0.79
2:A:1944:ALA:HB1	2:A:1971:LYS:HZ3	1.48	0.79
2:E:932:LEU:HD13	2:E:937:LEU:HD23	1.65	0.79
2:G:493:GLU:HG2	2:G:738:ILE:HG12	1.65	0.79
2:C:586:ILE:HB	2:C:633:VAL:HA	1.65	0.78
2:G:1855:GLU:HB2	2:G:1866:LEU:HD11	1.65	0.78
2:C:1792:ILE:HD13	2:C:1797:ILE:HB	1.65	0.78
2:E:1560:LYS:HA	2:E:1563:ILE:HG12	1.65	0.78
2:E:1968:ILE:HA	2:E:1971:LYS:HB3	1.64	0.78
1:F:2227:THR:HB	1:F:2230:MET:HG3	1.63	0.78
1:B:2119:VAL:HG11	1:B:2137:PRO:HG3	1.65	0.78
2:C:2002:VAL:HG11	2:C:2176:SER:HB2	1.65	0.78
1:F:2068:VAL:HG22	1:F:2069:ASP:H	1.49	0.78
1:F:2300:ILE:O	1:F:2302:VAL:N	2.15	0.78
2:G:690:THR:HG23	2:G:692:GLU:H	1.48	0.78
2:C:1022:ASP:HB3	2:C:1025:THR:HG22	1.66	0.78
2:C:1357:GLN:HG2	2:C:1359:LEU:H	1.49	0.78
2:A:2019:THR:HB	2:A:2020:PRO:HD2	1.66	0.78
2:C:1080:GLN:HA	2:C:1083:LYS:HG3	1.65	0.78
2:E:2077:ILE:HG22	2:E:2103:ARG:HA	1.66	0.78
2:G:2115:VAL:HB	2:G:2125:SER:HB3	1.64	0.78
2:C:2172:LEU:HD11	2:C:2182:GLN:HB2	1.64	0.78
2:A:1064:PHE:HB3	2:A:1109:ASN:HD21	1.47	0.77
2:C:587:VAL:HB	2:C:660:ILE:HG22	1.65	0.77
2:G:1714:VAL:HG12	2:G:1755:VAL:HB	1.65	0.77
2:A:1440:ARG:HE	2:A:1440:ARG:HA	1.49	0.77
2:G:1419:TRP:HH2	2:G:1476:LEU:HB2	1.50	0.77
1:B:2220:VAL:HG22	1:B:2221:ASP:H	1.49	0.77
2:E:800:GLN:HG2	2:E:805:ASP:HB2	1.65	0.77
2:E:1616:PRO:HG3	2:E:1717:GLY:HA3	1.66	0.77
2:A:1571:ARG:HG3	2:A:1572:PRO:HD2	1.66	0.76
2:C:1921:LEU:CD2	2:C:1946:VAL:HG21	2.15	0.76
2:G:1393:THR:O	2:G:1395:ASN:ND2	2.18	0.76
2:A:612:ILE:HG23	2:A:632:GLN:HB2	1.66	0.76
1:B:2068:VAL:HG11	1:B:2235:GLN:HB2	1.66	0.76
2:G:2026:ALA:HB1	2:G:2031:ILE:HD11	1.66	0.76
2:G:737:PHE:HE2	2:G:933:LEU:HD12	1.49	0.76
2:C:1428:VAL:HG13	2:C:1503:PHE:HD1	1.49	0.76
2:E:521:ILE:HD12	2:E:522:PRO:CD	2.12	0.76
2:G:1426:ARG:HG3	2:G:1499:THR:CG2	2.15	0.76
2:E:646:ARG:HA	2:E:957:LEU:HD11	1.67	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1021:TYR:HD1	2:C:1028:MET:HG2	1.51	0.76
2:E:1372:LEU:HD21	2:E:1451:LEU:HD21	1.67	0.76
2:E:2068:ASN:O	2:E:2071:ASN:ND2	2.19	0.76
2:A:2165:LYS:HE3	2:C:1934:ASN:HD22	1.49	0.75
2:C:768:ARG:NH2	2:C:802:LEU:HB3	1.99	0.75
2:E:782:ALA:CB	2:E:824:LEU:HD21	2.15	0.75
2:G:2157:GLU:HG2	2:G:2158:PHE:H	1.51	0.75
1:F:2080:PRO:HD2	1:F:2083:ILE:HD11	1.68	0.75
1:B:2253:LYS:HE3	1:B:2279:LEU:CG	2.16	0.75
1:D:2218:PRO:CG	1:D:2223:PRO:HB3	2.15	0.75
2:E:537:PHE:HB3	2:E:538:PRO:HD3	1.68	0.75
2:C:1426:ARG:HE	2:C:1496:ASN:HB3	1.51	0.75
2:C:1467:ASP:HA	2:C:1470:LEU:CG	2.15	0.75
2:C:1854:ILE:HG13	2:C:1866:LEU:HD13	1.68	0.75
1:D:2250:ASP:HA	1:D:2274:LYS:HD2	1.69	0.75
2:G:1792:ILE:HG22	2:G:1865:PRO:HB3	1.65	0.75
2:G:1894:LYS:H	2:G:1988:HIS:HE1	1.32	0.75
2:E:1987:GLY:HA2	2:E:2140:LEU:H	1.51	0.75
2:G:1042:ILE:HD12	2:G:1140:ILE:HD13	1.68	0.75
2:C:770:GLN:HE21	2:C:854:GLY:HA2	1.51	0.75
2:E:452:LEU:O	2:E:963:ARG:NH1	2.20	0.75
1:F:2101:LEU:HD21	1:F:2151:ILE:HG13	1.67	0.75
2:G:1854:ILE:HD12	2:G:1865:PRO:HA	1.67	0.75
2:G:2053:VAL:HG13	2:G:2056:LEU:HB2	1.69	0.75
2:C:617:LEU:HA	2:C:622:GLN:NE2	2.01	0.75
2:C:1979:ILE:HA	2:C:1982:ILE:HG22	1.66	0.74
2:G:1236:GLN:HA	2:G:1334:MET:HE1	1.68	0.74
2:A:1065:ARG:HH21	2:A:1099:GLU:HB3	1.52	0.74
2:A:1353:LEU:HD22	2:A:1570:VAL:CG1	2.16	0.74
2:A:1596:LYS:HB3	2:A:1597:PRO:HD3	1.68	0.74
2:C:1229:LYS:HD3	2:C:1260:ASP:HB2	1.69	0.74
2:C:1596:LYS:HB3	2:C:1597:PRO:HD3	1.67	0.74
2:G:746:ILE:HD12	2:G:746:ILE:H	1.53	0.74
2:E:881:THR:HG21	2:E:919:ILE:HD11	1.69	0.74
2:G:2102:GLU:HG3	2:G:2103:ARG:H	1.51	0.74
2:A:828:LEU:HB3	2:A:829:PRO:HD3	1.67	0.74
2:E:1400:ALA:HB3	2:E:1565:ASN:HA	1.69	0.74
2:C:797:THR:O	2:C:801:ILE:N	2.19	0.74
2:E:2051:SER:HB2	2:E:2054:LYS:HA	1.69	0.74
2:G:1587:PHE:HB3	2:G:1588:PRO:HD3	1.68	0.74
2:C:660:ILE:HD11	2:C:696:ILE:HG13	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1980:VAL:HA	2:G:1983:LEU:HD23	1.69	0.74
2:G:613:LYS:HD2	2:G:631:THR:HG22	1.70	0.74
2:A:1908:PHE:CZ	2:A:1971:LYS:HG2	2.22	0.74
1:B:2079:MET:HG3	1:B:2080:PRO:HD2	1.68	0.74
2:G:665:ILE:CG2	2:G:700:SER:HB2	2.18	0.74
2:C:2101:ILE:HG13	2:C:2102:GLU:H	1.52	0.74
2:E:1952:PHE:HB3	2:E:2006:TRP:HE3	1.53	0.74
1:B:2297:LEU:HD23	2:A:1120:LYS:HA	1.70	0.73
2:A:1530:ARG:HB2	2:A:1537:MET:HE1	1.70	0.73
2:C:1854:ILE:HD11	2:C:1866:LEU:HB2	1.69	0.73
2:G:1461:THR:HG23	2:G:1462:GLY:H	1.53	0.73
2:A:746:ILE:HD12	2:A:746:ILE:H	1.53	0.73
1:H:2070:ASN:HD21	1:H:2076:THR:HG22	1.52	0.73
2:A:1323:ILE:HG12	2:A:1331:GLU:HG3	1.69	0.73
2:A:798:ILE:HG13	2:A:799:ASN:H	1.53	0.73
2:E:617:LEU:CD2	2:E:622:GLN:HG3	2.17	0.73
2:G:2005:MET:CB	2:G:2013:LYS:HD3	2.17	0.73
2:C:1460:LEU:HD23	2:C:1479:ALA:HB1	1.71	0.73
2:C:2100:HIS:HB2	2:C:2154:VAL:HA	1.69	0.73
1:D:2174:VAL:HG13	1:D:2181:LYS:HB3	1.70	0.73
2:E:729:ARG:HG3	2:E:730:PRO:HD2	1.68	0.73
2:G:1899:LEU:HA	2:G:1902:VAL:HG12	1.70	0.73
2:A:665:ILE:HG22	2:A:700:SER:HB2	1.69	0.73
2:G:1602:ILE:HD13	2:G:1695:VAL:HG21	1.68	0.73
2:G:452:LEU:HD12	2:G:999:GLU:HG2	1.71	0.73
2:C:1966:GLU:HA	2:C:1969:LEU:HD12	1.71	0.73
2:C:753:ASN:HB3	2:C:787:TYR:CE1	2.24	0.73
2:E:1441:PHE:HB2	2:E:1478:LEU:HD12	1.69	0.73
2:G:1392:ASN:ND2	2:G:1417:ARG:O	2.21	0.73
2:C:1571:ARG:NH2	2:C:1743:ALA:O	2.22	0.72
2:E:2049:TYR:HB3	2:E:2053:VAL:HG22	1.71	0.72
2:E:1986:GLU:OE2	2:E:1986:GLU:N	2.22	0.72
2:C:1615:VAL:HG11	2:C:1620:GLN:HB3	1.69	0.72
2:C:607:LEU:HD12	2:C:612:ILE:HD11	1.70	0.72
2:G:2097:LEU:N	2:G:2157:GLU:HB2	2.04	0.72
2:G:1352:GLU:HG2	2:G:1353:LEU:H	1.54	0.72
2:A:1725:GLU:HB3	2:A:1727:ARG:HD3	1.70	0.72
2:A:1055:HIS:HB2	2:A:1056:PRO:HD2	1.70	0.72
2:A:803:LYS:HE2	2:A:803:LYS:HA	1.72	0.72
2:C:2046:ASN:O	2:C:2050:ALA:N	2.23	0.72
2:G:1419:TRP:CH2	2:G:1476:LEU:HB2	2.24	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:2079:MET:HE1	1:H:2151:ILE:HD11	1.70	0.72
2:A:1546:LEU:HD22	2:A:1552:ILE:HD13	1.70	0.72
2:E:1930:VAL:HG13	2:E:1949:GLN:NE2	2.05	0.72
2:C:1959:ILE:H	2:C:1959:ILE:HD12	1.54	0.72
1:D:2057:ARG:NH2	2:C:1062:GLU:OE2	2.23	0.71
2:E:1353:LEU:HD22	2:E:1570:VAL:CG1	2.20	0.71
2:G:1980:VAL:HG13	2:G:1983:LEU:HD21	1.71	0.71
2:C:2005:MET:SD	2:C:2013:LYS:HB3	2.29	0.71
2:E:625:LYS:HB2	2:E:628:ILE:CG2	2.19	0.71
2:E:1452:ARG:HB2	2:E:1455:LYS:HE2	1.71	0.71
2:E:1987:GLY:HA3	2:E:2139:THR:HA	1.72	0.71
1:D:2207:LEU:H	1:D:2207:LEU:HD23	1.54	0.71
2:E:1902:VAL:HG11	2:E:1971:LYS:HE3	1.72	0.71
2:G:1063:LEU:HD23	2:G:1163:MET:HE3	1.72	0.71
2:C:903:LEU:CD1	2:C:933:LEU:HD21	2.20	0.71
1:D:2153:THR:HG22	1:D:2190:VAL:HB	1.72	0.71
2:E:1566:PHE:HB3	2:E:1570:VAL:HG21	1.72	0.71
1:F:2159:LEU:HB2	1:F:2202:TRP:HH2	1.54	0.71
2:G:1037:ALA:HB2	2:G:1047:MET:HG3	1.72	0.71
2:A:801:ILE:HG22	2:A:802:LEU:HD12	1.72	0.71
2:G:1490:GLN:HB3	2:G:1493:ARG:HG2	1.72	0.71
2:A:537:PHE:HB3	2:A:538:PRO:HD3	1.72	0.71
1:D:2220:VAL:HG22	1:D:2221:ASP:H	1.55	0.71
2:G:2046:ASN:O	2:G:2048:ASN:N	2.23	0.71
2:G:2052:LEU:CD1	2:G:2055:ASP:HA	2.20	0.71
2:C:772:LEU:HB2	2:C:873:ALA:HB3	1.71	0.71
2:C:812:LEU:HD12	2:C:855:HIS:CD2	2.26	0.71
2:G:1798:GLU:C	2:G:1863:VAL:HG21	2.11	0.71
2:C:1622:ARG:NH2	2:C:1658:GLU:OE2	2.24	0.71
2:C:775:VAL:HG21	2:C:780:GLU:HG2	1.73	0.71
2:G:1101:ILE:HG12	2:G:1102:GLU:HG2	1.72	0.71
2:C:931:SER:CA	2:C:936:GLN:HB2	2.20	0.70
2:E:2115:VAL:HG11	2:E:2176:SER:HB3	1.73	0.70
2:E:2097:LEU:HB2	2:E:2158:PHE:HE2	1.54	0.70
1:H:2083:ILE:HD11	1:H:2244:GLY:HA3	1.73	0.70
2:A:561:ALA:HB1	2:A:661:ILE:HD13	1.72	0.70
2:C:1791:GLU:HB3	2:C:1797:ILE:CG1	2.20	0.70
2:C:801:ILE:O	2:C:804:HIS:ND1	2.23	0.70
2:C:775:VAL:HG21	2:C:780:GLU:CG	2.21	0.70
1:D:2205:THR:HB	1:D:2206:PRO:HD2	1.71	0.70
2:E:617:LEU:HD22	2:E:640:LYS:HG3	1.73	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1989:LEU:HD23	2:G:1989:LEU:H	1.57	0.70
2:A:2074:TYR:HD1	2:A:2075:PRO:HD2	1.57	0.70
2:A:749:LEU:O	2:A:753:ASN:ND2	2.24	0.70
2:C:1393:THR:O	2:C:1538:ARG:NH2	2.24	0.70
1:B:2057:ARG:HD2	2:A:1057:ALA:CB	2.22	0.70
2:A:2059:THR:CG2	2:A:2062:GLN:HB2	2.19	0.70
2:C:1793:SER:HA	2:C:1865:PRO:HG3	1.74	0.70
2:C:2076:ASP:CB	2:C:2105:LEU:HD22	2.22	0.70
2:C:614:VAL:HG22	2:C:633:VAL:HG21	1.74	0.70
2:E:1722:GLU:HG3	2:E:1724:LYS:HG2	1.71	0.70
2:G:782:ALA:HB2	2:G:824:LEU:HD13	1.73	0.70
1:H:2068:VAL:HG11	1:H:2235:GLN:HA	1.74	0.70
2:C:2183:ASP:N	2:C:2184:PRO:HD3	2.06	0.70
2:E:498:PRO:HD3	2:E:734:ARG:HG3	1.73	0.70
2:E:736:GLU:HB2	2:E:918:ILE:HG21	1.74	0.70
2:C:537:PHE:HB3	2:C:538:PRO:HD3	1.74	0.70
2:G:1392:ASN:CA	2:G:1417:ARG:HD2	2.22	0.70
2:G:825:LYS:HZ1	2:G:847:VAL:HG21	1.57	0.70
2:C:665:ILE:CG2	2:C:700:SER:HB2	2.22	0.70
2:G:1548:ASN:HB3	2:G:1815:ARG:HH12	1.57	0.70
2:E:1460:LEU:HD22	2:E:1479:ALA:HB2	1.74	0.69
2:G:775:VAL:HG22	2:G:776:HIS:H	1.57	0.69
1:H:2159:LEU:HD21	1:H:2191:ALA:HB2	1.74	0.69
2:A:621:ARG:HG2	2:A:622:GLN:H	1.58	0.69
2:C:2132:VAL:HG12	2:C:2133:GLY:H	1.56	0.69
2:C:1711:HIS:CE1	2:C:1747:SER:HB2	2.27	0.69
2:A:1571:ARG:NH2	2:A:1743:ALA:O	2.25	0.69
2:C:1360:PRO:HB3	2:C:1377:GLN:HG2	1.73	0.69
2:G:607:LEU:HB2	2:G:612:ILE:HD11	1.74	0.69
2:A:1457:ILE:HG23	2:A:1476:LEU:HB3	1.73	0.69
2:A:1103:GLU:HB3	2:A:1104:PRO:HD2	1.74	0.69
2:C:1749:ASP:HB3	2:C:1751:ARG:HG2	1.74	0.69
2:C:2031:ILE:HD11	2:C:2040:GLN:HG2	1.75	0.69
2:E:870:ASN:HA	2:E:905:ARG:NH1	2.06	0.69
2:C:1408:THR:HG21	2:C:1440:ARG:HE	1.57	0.69
2:C:525:THR:HG23	2:C:526:THR:HG23	1.75	0.69
2:A:2135:GLU:N	2:A:2135:GLU:OE1	2.26	0.69
2:C:2155:LYS:HG2	2:C:2156:LEU:H	1.56	0.69
2:E:1571:ARG:HG2	2:E:1572:PRO:HD2	1.73	0.69
2:A:660:ILE:HD11	2:A:696:ILE:HG12	1.74	0.69
2:C:690:THR:HG23	2:C:692:GLU:H	1.57	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:828:LEU:HB2	2:E:829:PRO:HD3	1.73	0.69
2:G:2042:ASN:HB2	2:G:2043:PRO:HD2	1.75	0.69
2:G:820:ASN:HD22	2:G:825:LYS:HB3	1.57	0.69
2:A:797:THR:O	2:A:801:ILE:N	2.22	0.69
2:C:1785:PRO:HB2	2:C:1879:TYR:CE1	2.28	0.68
2:C:2134:GLU:HG2	2:C:2168:LEU:HB2	1.75	0.68
2:E:599:GLN:HA	2:E:602:ASN:HB3	1.75	0.68
2:E:478:ARG:HB2	2:E:936:GLN:HE22	1.58	0.68
1:F:2068:VAL:HG11	1:F:2235:GLN:CB	2.24	0.68
2:G:2011:PRO:HG2	2:G:2012:LEU:HD22	1.76	0.68
2:C:595:LEU:HD11	2:C:867:TRP:HE3	1.58	0.68
2:E:731:CYS:SG	2:E:909:PRO:HA	2.33	0.68
2:A:1997:MET:HA	2:A:2000:MET:HE2	1.74	0.68
1:B:2049:ARG:NH1	1:B:2092:ASP:OD2	2.27	0.68
2:C:1574:PRO:HG2	2:C:1751:ARG:HB3	1.76	0.68
1:F:2098:ALA:O	1:F:2123:GLN:NE2	2.26	0.68
2:C:1037:ALA:HB2	2:C:1047:MET:HG3	1.75	0.68
2:E:1968:ILE:HA	2:E:1971:LYS:CB	2.24	0.68
2:G:2034:ILE:HD12	2:G:2074:TYR:CE2	2.28	0.68
2:G:2144:LYS:HD3	2:G:2156:LEU:CD1	2.22	0.68
1:H:2077:TYR:CD1	1:H:2186:LEU:HD11	2.29	0.68
2:A:590:ALA:HB3	2:A:596:VAL:CG1	2.24	0.68
2:A:992:TYR:CE2	2:A:1001:LYS:HD3	2.29	0.68
2:E:2050:ALA:O	2:E:2054:LYS:HG3	1.94	0.68
2:E:1460:LEU:HD22	2:E:1479:ALA:CB	2.24	0.68
2:G:1363:ALA:HB1	2:G:1387:PHE:CE1	2.29	0.68
2:A:2103:ARG:NH1	2:A:2112:ASP:OD2	2.27	0.68
2:A:2147:THR:O	2:A:2152:LEU:HD11	1.92	0.68
1:B:2101:LEU:HD22	1:B:2115:ILE:HD13	1.76	0.68
2:C:1615:VAL:CG1	2:C:1620:GLN:HB3	2.23	0.68
2:C:2137:THR:HG23	2:C:2138:LYS:H	1.58	0.68
2:C:452:LEU:O	2:C:963:ARG:NH1	2.27	0.68
2:G:1820:PRO:HB2	2:G:1825:LEU:HD11	1.74	0.68
2:G:2115:VAL:HB	2:G:2126:GLU:H	1.59	0.68
2:A:2000:MET:SD	2:A:2007:ASP:HA	2.34	0.68
2:A:2074:TYR:CD1	2:A:2075:PRO:HD2	2.29	0.68
2:A:587:VAL:HB	2:A:660:ILE:HG22	1.75	0.68
1:B:2139:HIS:HB3	1:B:2142:LEU:HD12	1.76	0.68
2:E:581:LEU:H	2:E:581:LEU:HD23	1.59	0.68
1:H:2065:VAL:HG21	1:H:2238:LEU:HD13	1.75	0.68
2:C:2031:ILE:HG23	2:C:2037:PHE:HB2	1.76	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:903:LEU:HD13	2:C:933:LEU:HD21	1.74	0.67
2:A:1925:TYR:O	2:A:1931:LYS:NZ	2.27	0.67
2:C:1872:ALA:HA	2:C:1877:ILE:HG22	1.76	0.67
2:C:2182:GLN:HB3	2:C:2184:PRO:HD3	1.76	0.67
1:D:2119:VAL:HG11	1:D:2137:PRO:HG3	1.74	0.67
2:E:2103:ARG:NH1	2:E:2149:GLY:O	2.28	0.67
2:G:1618:ARG:HD3	2:G:1674:GLU:HG3	1.76	0.67
2:G:1784:LEU:CD1	2:G:1840:LEU:HD21	2.24	0.67
2:A:2130:LEU:HD21	2:A:2172:LEU:HD13	1.75	0.67
2:A:574:ASN:ND2	2:A:577:GLY:O	2.27	0.67
2:C:1471:LEU:HD12	2:C:1472:GLU:N	2.10	0.67
1:D:2101:LEU:HD21	1:D:2151:ILE:CD1	2.24	0.67
2:G:1232:ARG:NH1	2:G:1256:ASN:O	2.28	0.67
2:C:1022:ASP:HB3	2:C:1025:THR:CG2	2.24	0.67
2:C:734:ARG:N	2:C:915:GLY:O	2.23	0.67
2:E:1908:PHE:CD1	2:E:1967:VAL:HG13	2.29	0.67
1:H:2162:MET:HE3	1:H:2202:TRP:HB3	1.77	0.67
2:A:1898:ILE:HD11	2:A:1997:MET:SD	2.35	0.67
2:A:585:LYS:NZ	2:A:629:SER:O	2.28	0.67
1:D:2084:LEU:HD21	1:D:2199:LEU:HD11	1.77	0.67
2:E:2002:VAL:HG11	2:E:2176:SER:HA	1.76	0.67
2:E:665:ILE:CG2	2:E:700:SER:HB2	2.25	0.67
2:C:2019:THR:HB	2:C:2020:PRO:HD2	1.77	0.67
2:C:2076:ASP:HB3	2:C:2105:LEU:HD22	1.76	0.67
2:E:1890:SER:HA	2:E:1988:HIS:ND1	2.09	0.67
2:A:1419:TRP:CH2	2:A:1476:LEU:HB2	2.29	0.67
2:C:1429:TYR:HB3	2:C:1478:LEU:CD2	2.25	0.67
2:E:2079:LEU:HD11	2:E:2184:PRO:HG2	1.76	0.67
2:E:825:LYS:HE3	2:E:834:ILE:HG22	1.77	0.67
1:F:2227:THR:N	1:F:2230:MET:SD	2.68	0.67
2:G:1380:ASN:HD21	2:G:1572:PRO:HB3	1.59	0.67
2:A:1232:ARG:NH1	2:A:1256:ASN:O	2.28	0.67
2:G:789:ARG:HD3	2:G:827:LEU:CD1	2.24	0.67
1:B:2057:ARG:NH1	2:A:1062:GLU:OE2	2.28	0.67
2:E:507:ASP:HB3	2:E:531:LYS:HE2	1.77	0.67
2:G:1393:THR:HG22	2:G:1394:ASP:H	1.60	0.67
2:G:1396:ASN:ND2	2:G:1558:ALA:HB2	2.09	0.67
2:A:1207:PRO:CG	2:A:1208:PRO:HD3	2.24	0.66
2:A:835:HIS:HB3	2:A:861:CYS:HB3	1.76	0.66
2:E:1249:ILE:HD11	2:E:1320:ILE:HD11	1.76	0.66
2:E:507:ASP:OD1	2:E:507:ASP:N	2.28	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1067:PHE:CE2	2:G:1112:LEU:HD22	2.30	0.66
1:B:2080:PRO:HG2	1:B:2083:ILE:HG12	1.77	0.66
1:B:2220:VAL:HG13	1:B:2222:ASN:H	1.60	0.66
2:C:2005:MET:HG3	2:C:2178:VAL:HG22	1.76	0.66
2:C:521:ILE:HD12	2:C:521:ILE:H	1.60	0.66
1:F:2124:ILE:HG23	1:F:2131:GLN:HB2	1.77	0.66
2:G:537:PHE:HB3	2:G:538:PRO:HD3	1.77	0.66
2:A:2097:LEU:HB2	2:A:2158:PHE:HE2	1.60	0.66
2:A:532:ILE:HD12	2:A:724:PHE:CD2	2.30	0.66
2:A:753:ASN:HB3	2:A:787:TYR:CE1	2.31	0.66
2:C:1644:VAL:CG1	2:C:1649:ILE:HD11	2.25	0.66
2:E:1103:GLU:HB3	2:E:1104:PRO:HD2	1.77	0.66
2:E:1429:TYR:HB3	2:E:1478:LEU:CD2	2.25	0.66
1:F:2211:TRP:CD2	1:F:2230:MET:HE1	2.31	0.66
1:H:2227:THR:CG2	1:H:2229:THR:HG22	2.25	0.66
2:A:1243:THR:HG23	2:A:1347:PHE:CE1	2.29	0.66
2:C:772:LEU:HD21	2:C:859:LEU:HD23	1.78	0.66
2:A:1124:LEU:H	2:A:1124:LEU:HD12	1.60	0.66
2:A:646:ARG:HA	2:A:957:LEU:HD11	1.77	0.66
2:C:1063:LEU:HD23	2:C:1163:MET:HE3	1.78	0.66
2:C:1576:GLU:OE1	2:C:1753:ARG:NH1	2.29	0.66
2:C:2029:TYR:CE2	2:C:2053:VAL:HG22	2.31	0.66
1:F:2251:THR:HG23	1:F:2253:LYS:H	1.61	0.66
2:G:1249:ILE:CD1	2:G:1320:ILE:HD11	2.26	0.66
2:G:1357:GLN:HG3	2:G:1358:PRO:HD2	1.78	0.66
2:G:590:ALA:HB3	2:G:596:VAL:HG12	1.77	0.66
2:A:1185:PRO:HD2	2:A:1188:ILE:HD11	1.78	0.66
1:B:2111:GLN:OE1	1:B:2111:GLN:N	2.28	0.66
1:B:2101:LEU:HD21	1:B:2151:ILE:HD11	1.76	0.66
2:E:2165:LYS:HG2	2:E:2189:ASN:HA	1.76	0.66
2:G:1422:LYS:HE3	2:G:1424:ALA:H	1.61	0.66
2:G:1587:PHE:HZ	2:G:1616:PRO:HG2	1.60	0.66
2:A:1622:ARG:NH1	2:A:1960:ASP:OD1	2.29	0.66
2:A:608:GLU:N	2:A:609:PRO:HD2	2.11	0.66
2:C:2005:MET:HG3	2:C:2178:VAL:CG2	2.25	0.66
1:F:2180:TRP:O	1:F:2182:ASN:ND2	2.28	0.66
2:G:1894:LYS:H	2:G:1988:HIS:CE1	2.13	0.66
2:A:1460:LEU:HB2	2:A:1479:ALA:HB2	1.77	0.66
2:A:1992:LEU:CD2	2:A:2173:MET:HG3	2.26	0.66
2:C:736:GLU:HB2	2:C:918:ILE:HD12	1.77	0.66
1:F:2086:LYS:HE3	1:F:2278:PRO:HG2	1.76	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1426:ARG:HD3	2:G:1475:ASP:HA	1.76	0.66
2:G:593:LYS:HA	2:G:596:VAL:HG22	1.78	0.66
2:G:760:VAL:O	2:G:764:VAL:HG22	1.96	0.66
2:C:1035:ARG:NH1	2:C:1146:GLU:OE2	2.29	0.66
2:C:1991:ALA:CB	2:C:2141:LEU:HD11	2.26	0.66
2:C:632:GLN:O	2:C:633:VAL:HG22	1.95	0.66
2:E:1853:ILE:HG22	2:E:1854:ILE:HG23	1.77	0.66
2:E:2019:THR:HB	2:E:2020:PRO:HD2	1.78	0.66
2:E:2085:ASP:HB3	2:E:2088:ASN:HB3	1.78	0.66
2:A:1195:MET:SD	2:A:1214:LEU:HA	2.35	0.66
2:C:811:VAL:HG12	2:C:812:LEU:HD23	1.77	0.66
2:G:1353:LEU:O	2:G:1354:LEU:HD22	1.95	0.66
2:A:1724:LYS:HG3	2:A:1725:GLU:HG2	1.77	0.65
2:C:1718:THR:HG21	2:C:1758:LEU:HB3	1.77	0.65
2:E:1920:ILE:HD12	2:E:1920:ILE:H	1.61	0.65
2:G:782:ALA:CB	2:G:824:LEU:HD13	2.26	0.65
2:G:841:ARG:HG2	2:G:845:THR:CG2	2.26	0.65
2:C:482:GLY:HA3	2:C:497:PRO:HG3	1.78	0.65
2:E:1591:MET:CE	2:E:1616:PRO:HG2	2.26	0.65
2:G:1411:ALA:HB2	2:G:1542:LEU:HD11	1.76	0.65
2:G:792:ALA:HB1	2:G:797:THR:HB	1.77	0.65
2:A:1364:LEU:HD23	2:A:1369:TYR:HB3	1.77	0.65
2:E:626:GLN:HG2	2:E:1266:VAL:HG21	1.77	0.65
2:E:1323:ILE:HG12	2:E:1331:GLU:HG3	1.77	0.65
2:E:1576:GLU:OE2	2:E:1753:ARG:NH1	2.29	0.65
2:E:708:ASP:OD2	2:E:978:ARG:NH1	2.29	0.65
2:G:961:ARG:HH22	2:G:1029:GLN:HG3	1.62	0.65
2:G:1224:CYS:HA	2:G:1227:VAL:HG12	1.78	0.65
2:G:1784:LEU:HD11	2:G:1840:LEU:HD21	1.78	0.65
2:C:771:MET:CE	2:C:877:ILE:HD12	2.27	0.65
2:E:2018:PHE:HD2	2:E:2023:VAL:HG12	1.60	0.65
2:G:1428:VAL:HG21	2:G:1484:TRP:HZ2	1.61	0.65
2:A:1504:ILE:HD13	2:A:1540:VAL:HG13	1.78	0.65
2:C:1903:THR:HG21	2:C:1945:PHE:CA	2.23	0.65
2:C:2172:LEU:CD1	2:C:2182:GLN:HB2	2.26	0.65
2:C:607:LEU:CD1	2:C:612:ILE:HD11	2.25	0.65
2:C:581:LEU:CD2	2:C:612:ILE:HG22	2.26	0.65
2:G:1413:PHE:O	2:G:1417:ARG:HG2	1.97	0.65
2:G:1778:SER:O	2:G:1781:HIS:NE2	2.28	0.65
2:G:587:VAL:HB	2:G:660:ILE:HG22	1.78	0.65
2:A:1672:TYR:CD1	2:A:1702:VAL:HG11	2.32	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1404:GLY:H	2:C:1407:LYS:HE2	1.62	0.65
2:C:614:VAL:HG22	2:C:633:VAL:CG2	2.26	0.65
2:E:482:GLY:HA3	2:E:497:PRO:HG3	1.79	0.65
1:H:2303:ASP:OD1	2:G:778:ARG:NH2	2.28	0.65
2:G:2014:GLN:HB3	2:G:2069:PHE:CZ	2.32	0.65
2:G:593:LYS:NZ	2:G:597:GLN:OE1	2.29	0.65
2:G:785:ALA:HB1	2:G:827:LEU:HD21	1.79	0.65
1:D:2248:VAL:HB	1:D:2249:PRO:HD2	1.79	0.65
2:E:1530:ARG:HD3	2:E:1537:MET:HE2	1.77	0.65
2:E:770:GLN:OE1	2:E:770:GLN:N	2.29	0.65
2:G:2095:ALA:O	2:G:2157:GLU:HB3	1.96	0.65
2:G:932:LEU:HD13	2:G:937:LEU:HD23	1.79	0.65
2:A:1983:LEU:HB2	2:A:2140:LEU:HD21	1.77	0.65
2:A:665:ILE:CG2	2:A:700:SER:HB2	2.26	0.65
2:C:973:THR:HG23	2:C:976:PHE:H	1.62	0.65
2:E:2042:ASN:N	2:E:2045:GLU:OE1	2.30	0.65
2:E:2127:ASN:HD22	2:E:2145:ARG:HE	1.44	0.65
2:E:761:LEU:HA	2:E:764:VAL:HG12	1.79	0.65
2:G:1951:HIS:O	2:G:2004:ALA:HB1	1.96	0.65
2:C:1207:PRO:CG	2:C:1208:PRO:HD3	2.26	0.65
2:C:1403:THR:HA	2:C:1407:LYS:CE	2.27	0.65
2:E:460:LEU:HD12	2:E:460:LEU:H	1.61	0.65
1:F:2053:THR:HG22	1:F:2056:LEU:HD13	1.78	0.65
2:G:1084:LEU:HD23	2:G:1084:LEU:H	1.62	0.65
2:G:1392:ASN:HA	2:G:1417:ARG:CB	2.24	0.65
2:G:1894:LYS:HG2	2:G:1990:ASN:HD22	1.62	0.65
2:A:1037:ALA:HB2	2:A:1047:MET:HG3	1.78	0.64
2:A:1390:LEU:HA	2:A:1538:ARG:HH22	1.62	0.64
2:A:621:ARG:HD3	2:A:622:GLN:HE21	1.62	0.64
2:C:1481:PRO:HB2	2:C:1518:ILE:HG23	1.79	0.64
2:E:1312:GLU:HB3	2:E:1313:PRO:HD3	1.80	0.64
2:G:1065:ARG:CZ	2:G:1099:GLU:HG2	2.27	0.64
2:G:1799:SER:N	2:G:1863:VAL:HG11	2.11	0.64
1:B:2304:ARG:NH2	2:A:1135:GLN:OE1	2.29	0.64
2:A:1979:ILE:HG12	2:A:1994:ALA:CB	2.27	0.64
2:A:2111:PHE:HD1	2:A:2113:PRO:HD3	1.62	0.64
2:A:760:VAL:O	2:A:764:VAL:HG22	1.97	0.64
2:C:1353:LEU:HD21	2:C:1381:LYS:HE3	1.78	0.64
1:F:2053:THR:HA	1:F:2056:LEU:HD12	1.78	0.64
2:A:2015:ILE:HD13	2:A:2069:PHE:CE2	2.32	0.64
2:A:613:LYS:H	2:A:632:GLN:HG2	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1793:SER:HA	2:C:1865:PRO:CB	2.26	0.64
2:C:806:ALA:HB3	2:C:808:THR:HG22	1.79	0.64
2:G:1428:VAL:HG11	2:G:1484:TRP:CZ2	2.32	0.64
1:H:2106:PRO:CD	1:H:2112:VAL:HG13	2.27	0.64
1:H:2101:LEU:HD21	1:H:2151:ILE:HD11	1.78	0.64
2:A:1491:TRP:CE3	2:A:1529:ILE:HG12	2.32	0.64
2:A:1685:LYS:O	2:A:1689:ASN:ND2	2.25	0.64
2:G:1426:ARG:HG3	2:G:1499:THR:HG21	1.78	0.64
2:G:1908:PHE:CE1	2:G:1967:VAL:HG13	2.32	0.64
1:H:2119:VAL:HG11	1:H:2137:PRO:HG3	1.79	0.64
2:C:1387:PHE:HB2	2:C:1391:TYR:CZ	2.33	0.64
2:C:1571:ARG:NH2	2:C:1744:LEU:HD23	2.10	0.64
2:C:1972:ILE:HG13	2:C:1973:LEU:N	2.11	0.64
2:C:2042:ASN:OD1	2:C:2045:GLU:HB2	1.98	0.64
2:C:1999:GLN:NE2	2:C:2177:TYR:O	2.28	0.64
1:D:2289:ILE:HD12	1:D:2289:ILE:H	1.62	0.64
1:F:2298:GLU:N	1:F:2298:GLU:OE1	2.29	0.64
2:G:1895:LEU:HD23	2:G:1896:ARG:H	1.62	0.64
2:G:822:THR:CG2	2:G:825:LYS:HD3	2.28	0.64
2:C:1924:ILE:HD11	2:C:1946:VAL:CB	2.28	0.64
2:C:532:ILE:HG23	2:C:533:GLN:HG3	1.80	0.64
2:C:670:ASP:OD1	2:C:671:ASP:N	2.30	0.64
2:C:729:ARG:CG	2:C:730:PRO:HD2	2.28	0.64
2:E:1460:LEU:HD13	2:E:1477:ILE:HG23	1.79	0.64
1:F:2296:GLU:N	1:F:2296:GLU:OE1	2.31	0.64
2:A:1064:PHE:HB3	2:A:1109:ASN:ND2	2.13	0.64
2:C:996:VAL:HG13	2:C:997:ALA:H	1.63	0.64
2:E:540:ALA:HA	2:E:547:MET:HE3	1.78	0.64
2:A:1577:LEU:HD11	2:A:1770:LEU:HD23	1.78	0.64
1:B:2308:PHE:O	2:A:640:LYS:NZ	2.31	0.64
2:E:539:THR:HG23	2:E:719:LYS:HD2	1.79	0.64
2:G:1426:ARG:NH1	2:G:1471:LEU:O	2.31	0.64
2:G:1613:VAL:HG22	2:G:1714:VAL:CG2	2.27	0.64
2:G:1574:PRO:CB	2:G:1751:ARG:HG2	2.20	0.64
2:A:781:THR:HG23	2:A:834:ILE:HD11	1.79	0.64
2:A:786:LYS:HE3	2:A:824:LEU:CD2	2.28	0.64
1:B:2300:ILE:HG13	2:A:1127:MET:HE3	1.78	0.64
1:D:2104:CYS:SG	1:D:2116:ARG:NH2	2.71	0.64
2:G:1458:VAL:CG2	2:G:1477:ILE:HG22	2.28	0.64
2:G:1894:LYS:HE3	2:G:1898:ILE:HG12	1.79	0.64
2:G:2138:LYS:HA	2:G:2138:LYS:HZ3	1.63	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:515:LEU:CB	2:G:516:PRO:HD2	2.12	0.64
2:A:2009:ASP:OD1	2:A:2009:ASP:N	2.24	0.64
2:G:614:VAL:HG22	2:G:633:VAL:CG1	2.28	0.64
1:H:2162:MET:SD	1:H:2167:VAL:HG22	2.38	0.64
2:A:737:PHE:HE2	2:A:933:LEU:HD12	1.63	0.63
2:E:767:ASN:O	2:E:769:ASN:N	2.27	0.63
2:G:1914:ARG:NH1	2:G:1917:GLU:OE1	2.32	0.63
2:C:778:ARG:O	2:C:781:THR:HG22	1.96	0.63
2:E:2047:PRO:HG2	2:E:2049:TYR:CE2	2.33	0.63
2:E:753:ASN:HB3	2:E:787:TYR:CE2	2.33	0.63
1:H:2136:LEU:HD21	1:H:2180:TRP:HE1	1.64	0.63
2:C:1457:ILE:HG22	2:C:1476:LEU:HB3	1.80	0.63
2:C:1467:ASP:HA	2:C:1470:LEU:CD2	2.29	0.63
2:E:2034:ILE:HG12	2:E:2074:TYR:CD2	2.33	0.63
2:G:1875:TYR:CE1	2:G:1976:LEU:HD11	2.33	0.63
2:A:1009:ALA:O	2:A:1012:VAL:HG22	1.99	0.63
2:A:1359:LEU:HG	2:A:1384:THR:HG22	1.80	0.63
2:A:589:ILE:HD12	2:A:662:ILE:CD1	2.29	0.63
2:C:1195:MET:HB3	2:C:1197:VAL:HG22	1.79	0.63
2:C:2002:VAL:HG21	2:C:2176:SER:CB	2.29	0.63
2:G:1241:PRO:HG3	2:G:1821:SER:HB2	1.79	0.63
1:H:2079:MET:HE2	1:H:2115:ILE:HD12	1.79	0.63
2:A:625:LYS:CD	2:A:644:ILE:HD11	2.27	0.63
2:C:1718:THR:CG2	2:C:1758:LEU:HB3	2.28	0.63
2:G:1525:ARG:NH2	2:G:1791:GLU:OE1	2.31	0.63
1:B:2299:ASP:OD1	1:B:2300:ILE:N	2.32	0.63
2:C:1678:GLN:O	2:C:1682:ARG:HG3	1.97	0.63
2:C:2090:ARG:NH2	2:C:2164:GLY:O	2.32	0.63
2:C:2135:GLU:CG	2:C:2139:THR:HG22	2.29	0.63
2:C:480:PRO:HG2	2:C:496:VAL:CG1	2.29	0.63
2:C:562:MET:HE3	2:C:607:LEU:HD21	1.79	0.63
2:A:1911:ILE:HD13	2:A:1912:GLN:H	1.63	0.63
2:C:605:LYS:HA	2:C:605:LYS:HE2	1.81	0.63
2:E:1171:MET:HE3	2:E:1328:MET:HG2	1.80	0.63
2:E:1502:LEU:HD21	2:E:1504:ILE:HG13	1.78	0.63
2:G:471:LEU:HD21	2:G:473:THR:HG23	1.81	0.63
2:G:500:LYS:NZ	2:G:502:ARG:HB2	2.14	0.63
2:G:589:ILE:HD12	2:G:662:ILE:CD1	2.29	0.63
2:G:801:ILE:HD13	2:G:803:LYS:CE	2.29	0.63
2:A:1247:LEU:HD13	2:A:1310:ILE:CG1	2.23	0.63
2:A:454:PRO:HD3	2:A:963:ARG:NH1	2.14	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:620:ASP:CA	2:C:623:LEU:HB2	2.25	0.63
2:A:1428:VAL:HG22	2:A:1477:ILE:HD11	1.81	0.63
2:A:1944:ALA:HB1	2:A:1971:LYS:NZ	2.14	0.63
2:C:1426:ARG:NE	2:C:1496:ASN:HB3	2.14	0.63
2:C:2117:ALA:HA	2:C:2119:PHE:CE1	2.34	0.63
2:C:532:ILE:HG13	2:C:724:PHE:CD2	2.34	0.63
2:E:625:LYS:HD3	2:E:650:ASP:CG	2.19	0.63
2:G:1849:SER:HA	2:G:1854:ILE:HG22	1.80	0.63
2:G:1968:ILE:HA	2:G:1971:LYS:HB2	1.79	0.63
2:A:1774:LEU:HD12	2:A:1775:PRO:HD2	1.80	0.62
2:C:1503:PHE:HD2	2:C:1539:ILE:HG23	1.64	0.62
2:C:581:LEU:HD23	2:C:612:ILE:HG22	1.79	0.62
2:G:1248:ARG:NH2	2:G:1305:GLU:OE1	2.27	0.62
2:G:452:LEU:O	2:G:963:ARG:NH1	2.30	0.62
2:A:725:ASP:OD1	2:A:726:GLY:N	2.32	0.62
1:B:2253:LYS:HZ2	1:B:2278:PRO:HA	1.63	0.62
2:C:2029:TYR:CZ	2:C:2056:LEU:HD22	2.34	0.62
2:C:874:HIS:CA	2:C:907:GLY:HA2	2.19	0.62
1:D:2136:LEU:HD21	1:D:2177:HIS:CG	2.34	0.62
2:E:1743:ALA:HB1	2:E:1752:SER:OG	2.00	0.62
2:E:1893:SER:HB2	2:E:1990:ASN:ND2	2.14	0.62
2:E:1983:LEU:CD2	2:E:2143:ILE:HD13	2.28	0.62
2:G:1555:TRP:HA	2:G:1814:ARG:HH21	1.64	0.62
2:G:532:ILE:HD11	2:G:724:PHE:CG	2.34	0.62
2:A:1235:ILE:HD11	2:A:1334:MET:HB3	1.82	0.62
1:B:2253:LYS:NZ	1:B:2278:PRO:HA	2.14	0.62
2:C:1429:TYR:CD2	2:C:1478:LEU:HD22	2.34	0.62
2:C:2135:GLU:HG2	2:C:2139:THR:HG22	1.81	0.62
2:C:590:ALA:HB3	2:C:596:VAL:HG12	1.81	0.62
2:C:980:LEU:HD23	2:C:998:LEU:HD12	1.80	0.62
1:D:2142:LEU:HA	1:D:2145:LEU:HD12	1.81	0.62
2:E:2138:LYS:O	2:E:2138:LYS:HD2	1.99	0.62
2:E:732:PRO:O	2:E:915:GLY:N	2.31	0.62
2:G:1303:THR:OG1	2:G:1727:ARG:NH2	2.33	0.62
2:G:2045:GLU:O	2:G:2046:ASN:HB2	1.99	0.62
2:G:608:GLU:HB3	2:G:609:PRO:HD3	1.82	0.62
2:A:1458:VAL:CG2	2:A:1477:ILE:HG22	2.29	0.62
2:A:2042:ASN:CG	2:A:2043:PRO:HD2	2.20	0.62
2:C:1357:GLN:HG3	2:C:1358:PRO:HD2	1.82	0.62
2:C:1389:SER:HG	2:C:1564:TYR:HH	1.42	0.62
2:E:2042:ASN:HB2	2:E:2043:PRO:HD2	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2216:LYS:C	1:F:2218:PRO:HD3	2.20	0.62
2:A:453:GLN:CG	2:A:454:PRO:HD2	2.29	0.62
1:B:2253:LYS:HG3	1:B:2279:LEU:HB2	1.81	0.62
2:A:2165:LYS:HE3	2:C:1934:ASN:ND2	2.14	0.62
2:C:541:PHE:O	2:C:567:ARG:NH2	2.32	0.62
2:A:574:ASN:HD21	2:A:578:GLU:HG2	1.64	0.62
2:C:1358:PRO:HB2	2:C:1378:GLN:CB	2.28	0.62
2:C:803:LYS:HB2	2:C:803:LYS:NZ	2.14	0.62
2:E:1432:PRO:HD2	2:E:1436:LEU:HD13	1.80	0.62
2:E:1888:SER:HB2	2:E:1901:ILE:HD13	1.82	0.62
2:E:501:LYS:HG2	2:E:727:SER:HB2	1.80	0.62
2:G:887:GLU:HG3	2:G:1132:TYR:CE1	2.34	0.62
2:G:1428:VAL:HG22	2:G:1477:ILE:HD11	1.81	0.62
2:G:1954:ARG:NH2	2:G:2013:LYS:HB2	2.15	0.62
2:G:561:ALA:HB1	2:G:661:ILE:HD13	1.82	0.62
2:A:625:LYS:HE2	2:A:640:LYS:HE3	1.81	0.62
2:C:1911:ILE:CD1	2:C:1966:GLU:HG2	2.29	0.62
2:E:1056:PRO:HG3	2:E:1153:TRP:CE2	2.34	0.62
2:E:1591:MET:HE1	2:E:1616:PRO:HG2	1.82	0.62
2:E:1718:THR:HA	2:E:1731:TYR:CD2	2.34	0.62
1:H:2300:ILE:HG22	1:H:2302:VAL:H	1.63	0.62
2:A:2093:GLU:HB3	2:A:2094:PRO:HD2	1.82	0.62
1:B:2083:ILE:HD12	1:B:2118:ILE:HG13	1.80	0.62
1:B:2090:ILE:HD11	1:B:2278:PRO:HG2	1.81	0.62
2:C:1210:MET:HE1	2:C:1224:CYS:N	2.15	0.62
2:E:1407:LYS:NZ	2:E:1543:SER:O	2.32	0.62
2:E:532:ILE:HD11	2:E:724:PHE:CD2	2.35	0.62
2:G:1980:VAL:HA	2:G:1983:LEU:CD2	2.29	0.62
2:G:2085:ASP:OD2	2:G:2088:ASN:HB3	1.99	0.62
2:G:2115:VAL:H	2:G:2125:SER:HB3	1.63	0.62
1:H:2059:ARG:NH1	1:H:2193:THR:O	2.33	0.62
2:A:1530:ARG:CD	2:A:1537:MET:HB3	2.26	0.62
2:A:2020:PRO:HA	2:A:2023:VAL:HG22	1.82	0.62
2:C:1386:THR:HG22	2:C:1564:TYR:CD1	2.34	0.62
2:C:1571:ARG:NH1	2:C:1573:VAL:O	2.32	0.62
2:C:649:THR:O	2:C:1586:HIS:ND1	2.32	0.62
2:C:923:GLN:HA	2:C:926:ILE:HD13	1.82	0.62
2:E:936:GLN:O	2:E:938:PRO:HD3	2.00	0.62
2:A:2054:LYS:NZ	2:A:2054:LYS:HB2	2.13	0.62
2:A:772:LEU:HD11	2:A:876:VAL:HG22	1.82	0.62
2:C:1924:ILE:CD1	2:C:1946:VAL:HB	2.29	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2046:ASN:CG	2:E:2047:PRO:HD2	2.21	0.62
2:G:1103:GLU:HB2	2:G:1104:PRO:HD2	1.80	0.62
2:A:1685:LYS:HG3	2:A:1708:PHE:HE1	1.63	0.61
2:C:1067:PHE:CE2	2:C:1112:LEU:HD22	2.34	0.61
2:E:1982:ILE:HD13	2:E:1991:ALA:HB1	1.81	0.61
1:F:2064:TYR:N	1:F:2197:VAL:O	2.33	0.61
2:G:1894:LYS:NZ	2:G:1901:ILE:HD12	2.15	0.61
2:A:500:LYS:HE3	2:A:502:ARG:HB3	1.82	0.61
2:C:1264:HIS:O	2:C:1326:ARG:NH1	2.30	0.61
2:C:1774:LEU:HD12	2:C:1775:PRO:HD2	1.82	0.61
2:C:686:ARG:O	2:C:690:THR:HG22	2.00	0.61
2:G:1792:ILE:HG21	2:G:1854:ILE:CD1	2.25	0.61
2:G:1930:VAL:HG22	2:G:1949:GLN:OE1	2.00	0.61
2:C:1025:THR:HG23	2:C:1027:LYS:HG2	1.82	0.61
2:C:1458:VAL:CG2	2:C:1477:ILE:HG22	2.30	0.61
2:C:1852:ARG:O	2:C:1853:ILE:HG13	1.99	0.61
2:C:663:ASP:HA	2:C:699:LEU:HB2	1.80	0.61
2:C:729:ARG:HH21	2:C:904:GLY:HA2	1.65	0.61
2:E:1203:PHE:HB3	2:E:1232:ARG:NH2	2.15	0.61
2:E:926:ILE:N	2:E:927:PRO:HD2	2.15	0.61
2:G:1433:PHE:HB2	2:G:1436:LEU:HD23	1.80	0.61
2:G:1629:LEU:HD12	2:G:1630:THR:N	2.15	0.61
2:G:822:THR:HG23	2:G:825:LYS:HB2	1.80	0.61
2:C:1358:PRO:HB2	2:C:1378:GLN:HG3	1.83	0.61
2:E:2021:GLU:O	2:E:2024:LYS:HG2	2.00	0.61
2:E:2169:LYS:HD2	2:E:2183:ASP:HB2	1.82	0.61
2:E:541:PHE:HB3	2:E:542:LEU:HD22	1.82	0.61
1:F:2053:THR:HA	1:F:2056:LEU:CD1	2.31	0.61
1:F:2149:GLY:HA2	1:F:2180:TRP:CZ3	2.35	0.61
2:G:1145:PHE:CE1	2:G:1161:LEU:HB2	2.35	0.61
2:G:1794:THR:HG22	2:G:1796:MET:HG2	1.83	0.61
2:G:1836:TYR:CD2	2:G:1837:LEU:HD12	2.34	0.61
2:A:1486:VAL:HA	2:A:1489:ARG:HD3	1.81	0.61
2:A:574:ASN:ND2	2:A:578:GLU:HG2	2.16	0.61
2:C:1491:TRP:CH2	2:C:1796:MET:HG3	2.35	0.61
2:C:1854:ILE:CG2	2:C:1863:VAL:HG22	2.30	0.61
2:E:1421:LYS:O	2:E:1423:ASP:N	2.33	0.61
2:E:654:THR:O	2:E:657:VAL:HG22	2.00	0.61
2:G:1788:PHE:O	2:G:1792:ILE:HG12	2.01	0.61
1:H:2083:ILE:HG23	1:H:2246:PHE:CE1	2.35	0.61
2:A:1998:SER:O	2:A:2002:VAL:HG23	2.01	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1889:LEU:CD1	2:C:1901:ILE:HD13	2.31	0.61
2:C:2045:GLU:O	2:C:2048:ASN:N	2.33	0.61
1:F:2068:VAL:HG11	1:F:2235:GLN:HB2	1.82	0.61
1:F:2092:ASP:OD1	1:F:2093:LEU:N	2.33	0.61
2:G:2025:VAL:CG2	2:G:2056:LEU:HD22	2.31	0.61
1:B:2255:ASN:HB3	1:B:2286:HIS:CD2	2.35	0.61
2:C:1921:LEU:HD22	2:C:1942:PHE:CE2	2.34	0.61
2:C:768:ARG:HH22	2:C:802:LEU:HB3	1.63	0.61
2:G:1685:LYS:HG3	2:G:1708:PHE:HE1	1.66	0.61
2:G:2083:VAL:HA	2:G:2097:LEU:CD1	2.30	0.61
2:G:512:VAL:HG11	2:G:526:THR:O	2.00	0.61
2:G:963:ARG:HD2	2:G:1003:VAL:HG13	1.82	0.61
1:H:2101:LEU:HD11	1:H:2151:ILE:HG13	1.82	0.61
2:A:1613:VAL:HG22	2:A:1714:VAL:CG2	2.30	0.61
2:A:1856:MET:HB3	2:A:1863:VAL:HG12	1.83	0.61
2:C:1600:LEU:O	2:C:1604:GLN:HG2	2.00	0.61
2:C:2017:ASN:OD1	2:C:2065:GLN:NE2	2.33	0.61
1:D:2220:VAL:HG13	1:D:2222:ASN:H	1.65	0.61
2:E:544:ASP:OD1	2:E:567:ARG:NH2	2.26	0.61
2:G:1243:THR:HG22	2:G:1244:ARG:H	1.66	0.61
1:H:2074:ASP:O	1:H:2111:GLN:HB3	2.01	0.61
2:A:1560:LYS:HA	2:A:1563:ILE:CG1	2.30	0.61
2:C:1165:LYS:HD3	2:C:1328:MET:HA	1.83	0.61
2:C:670:ASP:OD2	2:C:897:GLN:NE2	2.33	0.61
2:G:1236:GLN:HA	2:G:1334:MET:CE	2.30	0.61
2:G:1858:GLU:O	2:G:1859:ASP:HB3	2.01	0.61
2:G:828:LEU:N	2:G:829:PRO:HD2	2.16	0.61
2:A:1035:ARG:NH1	2:A:1146:GLU:OE2	2.31	0.61
2:A:2085:ASP:HB3	2:A:2088:ASN:HB3	1.82	0.61
2:E:1978:ALA:C	2:E:1982:ILE:HD11	2.21	0.61
2:G:1426:ARG:CG	2:G:1499:THR:CG2	2.79	0.61
2:A:1747:SER:O	2:A:1749:ASP:N	2.31	0.60
2:C:1429:TYR:HB3	2:C:1478:LEU:HD22	1.83	0.60
2:C:1590:LEU:HD11	2:C:1594:MET:HE2	1.82	0.60
2:E:1398:LEU:HD21	2:E:1552:ILE:HG13	1.82	0.60
2:E:1979:ILE:HG12	2:E:1994:ALA:HB3	1.83	0.60
2:E:760:VAL:HG13	2:E:761:LEU:H	1.66	0.60
2:E:1431:ALA:HB3	2:E:1437:VAL:HG12	1.84	0.60
2:E:1398:LEU:CD2	2:E:1552:ILE:HG13	2.31	0.60
1:H:2090:ILE:HG23	1:H:2280:PRO:HA	1.82	0.60
2:A:1385:GLN:HG2	2:A:1566:PHE:HZ	1.66	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1712:LEU:HA	2:A:1753:ARG:O	2.01	0.60
2:A:1903:THR:HG21	2:A:1945:PHE:HA	1.82	0.60
2:A:837:ALA:HA	2:A:844:ARG:NH1	2.17	0.60
2:C:1082:GLU:OE1	2:C:1126:LEU:HG	2.00	0.60
2:C:457:LEU:HD23	2:C:458:VAL:N	2.16	0.60
2:E:1248:ARG:NH1	2:E:1305:GLU:OE2	2.33	0.60
2:E:2050:ALA:HB3	2:E:2054:LYS:CE	2.25	0.60
2:G:2183:ASP:OD1	2:G:2184:PRO:HD3	2.01	0.60
2:G:533:GLN:OE1	2:G:533:GLN:N	2.33	0.60
2:A:1090:LEU:HD23	2:A:1090:LEU:O	2.00	0.60
1:B:2047:ARG:NH2	2:A:1093:VAL:O	2.34	0.60
2:C:1509:HIS:HD2	2:C:1544:VAL:H	1.48	0.60
2:C:1672:TYR:CE1	2:C:1702:VAL:HG11	2.36	0.60
2:C:1489:ARG:O	2:C:1794:THR:HG21	2.01	0.60
2:C:1854:ILE:HB	2:C:1863:VAL:CG1	2.31	0.60
2:C:773:ILE:CD1	2:C:860:VAL:HG13	2.31	0.60
2:E:585:LYS:HZ3	2:E:632:GLN:HA	1.66	0.60
2:G:1353:LEU:HD12	2:G:1355:ASP:HB2	1.81	0.60
2:G:1426:ARG:CB	2:G:1499:THR:HG23	2.31	0.60
2:G:2171:PHE:HB3	2:G:2183:ASP:CA	2.24	0.60
1:H:2205:THR:HB	1:H:2206:PRO:HD2	1.83	0.60
2:A:1883:GLU:O	2:A:1887:LEU:HG	2.01	0.60
2:E:2097:LEU:HB2	2:E:2158:PHE:CE2	2.34	0.60
1:F:2220:VAL:HG22	1:F:2221:ASP:H	1.66	0.60
2:G:1555:TRP:HA	2:G:1814:ARG:NH2	2.17	0.60
2:A:2005:MET:SD	2:A:2014:GLN:HG3	2.42	0.60
2:C:1145:PHE:CE1	2:C:1161:LEU:HB2	2.37	0.60
2:C:2042:ASN:HB2	2:C:2043:PRO:HD2	1.84	0.60
2:C:798:ILE:HA	2:C:801:ILE:HG22	1.82	0.60
2:C:646:ARG:HA	2:C:957:LEU:HD11	1.83	0.60
2:E:1247:LEU:HD13	2:E:1310:ILE:HG13	1.83	0.60
2:E:1445:GLN:OE1	2:E:1449:SER:OG	2.20	0.60
2:E:1460:LEU:HG	2:E:1467:ASP:OD1	2.01	0.60
2:G:1021:TYR:HD1	2:G:1028:MET:HG2	1.67	0.60
2:G:1401:ALA:O	2:G:1544:VAL:HA	2.02	0.60
2:G:2100:HIS:NE2	2:G:2102:GLU:OE1	2.34	0.60
2:A:1696:LEU:HD22	2:A:1708:PHE:HD2	1.67	0.60
2:A:1879:TYR:CE1	2:A:1880:MET:HG3	2.36	0.60
2:C:1025:THR:HG21	2:C:1027:LYS:NZ	2.17	0.60
2:E:517:GLU:HG2	2:E:520:ARG:NH1	2.12	0.60
2:E:614:VAL:HG12	2:E:633:VAL:HB	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1653:LEU:HD12	2:G:1654:ASP:N	2.17	0.60
2:G:504:ASP:O	2:G:506:THR:N	2.34	0.60
2:G:518:TRP:CZ3	2:G:519:ALA:HB2	2.37	0.60
2:E:1596:LYS:HB2	2:E:1597:PRO:HD3	1.81	0.60
2:E:736:GLU:H	2:E:918:ILE:HG22	1.64	0.60
2:E:870:ASN:HA	2:E:905:ARG:HH12	1.67	0.60
2:G:1452:ARG:N	2:G:1452:ARG:HD2	2.14	0.60
2:G:1980:VAL:O	2:G:1983:LEU:HG	2.02	0.60
2:A:1214:LEU:CD1	2:A:1216:MET:HB2	2.31	0.60
2:A:1912:GLN:O	2:A:1943:LYS:NZ	2.32	0.60
2:A:1982:ILE:HG23	2:A:1991:ALA:HB2	1.83	0.60
2:C:1025:THR:CG2	2:C:1027:LYS:HG2	2.30	0.60
2:C:978:ARG:HA	2:C:978:ARG:HH11	1.66	0.60
2:E:1209:ARG:HA	2:E:1212:GLU:HG2	1.83	0.60
2:G:1185:PRO:HG2	2:G:1188:ILE:HG12	1.82	0.60
2:G:1314:MET:HE2	2:G:1343:LEU:HD11	1.84	0.60
2:G:1849:SER:CA	2:G:1854:ILE:HG22	2.32	0.60
1:B:2276:ASP:OD1	1:B:2277:THR:N	2.33	0.60
2:C:1458:VAL:HG23	2:C:1477:ILE:HG22	1.83	0.60
2:C:1574:PRO:HG2	2:C:1751:ARG:CB	2.32	0.60
2:C:941:SER:HB3	2:C:974:TYR:HD2	1.67	0.60
2:E:1408:THR:HG21	2:E:1440:ARG:NH1	2.16	0.60
2:E:1386:THR:HG22	2:E:1564:TYR:CD2	2.36	0.60
2:E:1979:ILE:HG22	2:E:1983:LEU:HD22	1.84	0.60
2:E:585:LYS:NZ	2:E:631:THR:O	2.35	0.60
2:E:827:LEU:O	2:E:832:PHE:N	2.27	0.60
2:E:978:ARG:HB3	2:E:986:TYR:CE1	2.37	0.60
1:F:2269:LYS:HG3	1:F:2270:PRO:HD2	1.83	0.60
2:G:1606:SER:HB3	2:G:1609:GLN:HB2	1.84	0.60
2:G:1954:ARG:NE	2:G:2004:ALA:O	2.30	0.60
2:A:1586:HIS:HB3	2:A:1589:SER:HB2	1.83	0.59
2:A:466:ASP:OD1	2:A:467:GLN:NE2	2.34	0.59
2:A:777:SER:HB3	2:A:780:GLU:CB	2.31	0.59
2:C:1975:LEU:HD12	2:C:1978:ALA:HB3	1.82	0.59
2:E:1743:ALA:C	2:E:1744:LEU:HD12	2.23	0.59
2:E:808:THR:O	2:E:809:ARG:HG2	2.02	0.59
2:G:1418:HIS:NE2	2:G:1501:GLU:OE1	2.35	0.59
2:G:501:LYS:HE3	2:G:501:LYS:N	2.18	0.59
2:A:1390:LEU:HA	2:A:1538:ARG:NH2	2.16	0.59
2:E:1286:ASP:OD1	2:E:1287:VAL:N	2.36	0.59
2:E:1485:ASP:O	2:E:1489:ARG:HG2	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1982:ILE:HB	2:E:1991:ALA:CB	2.29	0.59
2:G:1517:TYR:HB2	2:G:1780:LEU:HD23	1.84	0.59
2:G:1862:THR:HG22	2:G:1863:VAL:N	2.17	0.59
2:G:578:GLU:HG3	2:G:579:ILE:H	1.66	0.59
2:G:978:ARG:HA	2:G:978:ARG:HH11	1.67	0.59
2:A:557:LYS:N	3:A:2201:ACT:OXT	2.35	0.59
2:A:895:SER:HB3	2:A:897:GLN:NE2	2.16	0.59
2:C:1794:THR:O	2:C:1796:MET:HG2	2.02	0.59
2:C:1793:SER:HA	2:C:1865:PRO:CG	2.32	0.59
2:E:2005:MET:HG2	2:E:2006:TRP:H	1.67	0.59
2:E:2189:ASN:OD1	2:E:2190:VAL:N	2.35	0.59
2:E:775:VAL:HG22	2:E:776:HIS:H	1.67	0.59
2:G:1495:LYS:CA	2:G:1498:GLN:HG2	2.29	0.59
2:A:887:GLU:HG2	2:A:1132:TYR:CE1	2.38	0.59
2:A:1914:ARG:HB2	2:A:1917:GLU:HG3	1.84	0.59
2:E:1964:ASP:O	2:E:1965:GLN:HB3	2.01	0.59
2:E:825:LYS:HD2	2:E:828:LEU:HG	1.84	0.59
2:E:736:GLU:HB2	2:E:918:ILE:CG2	2.32	0.59
2:A:1784:LEU:CD1	2:A:1840:LEU:HD11	2.32	0.59
2:A:763:HIS:HA	2:A:767:ASN:HB2	1.85	0.59
2:C:1629:LEU:HD21	2:C:1669:VAL:HG23	1.83	0.59
2:G:1618:ARG:HD3	2:G:1674:GLU:CG	2.32	0.59
2:G:862:THR:HG23	2:G:864:THR:H	1.67	0.59
2:A:1738:GLN:OE1	2:A:1742:LYS:NZ	2.35	0.59
2:A:1899:LEU:HG	2:A:1997:MET:HE1	1.83	0.59
2:C:1380:ASN:ND2	2:C:1383:GLN:HG2	2.18	0.59
2:C:1673:HIS:CE1	2:C:1675:ALA:HB3	2.37	0.59
2:G:1968:ILE:HA	2:G:1971:LYS:CB	2.33	0.59
2:G:716:ASP:HB3	2:G:719:LYS:HB2	1.84	0.59
2:A:1784:LEU:HD12	2:A:1840:LEU:HD11	1.85	0.59
2:A:775:VAL:HG21	2:A:780:GLU:HG3	1.84	0.59
2:C:1285:HIS:O	2:C:1761:VAL:HG11	2.03	0.59
2:C:1907:GLU:OE1	2:C:1907:GLU:N	2.36	0.59
2:C:2013:LYS:O	2:C:2013:LYS:HD3	2.03	0.59
2:C:2100:HIS:O	2:C:2101:ILE:HG22	2.02	0.59
2:C:626:GLN:HG2	2:C:1266:VAL:HG21	1.85	0.59
2:E:1571:ARG:NH2	2:E:1743:ALA:O	2.36	0.59
2:A:813:GLN:HB3	2:A:829:PRO:HA	1.85	0.59
2:C:522:PRO:HB2	2:C:562:MET:HE1	1.84	0.59
2:E:1434:GLN:NE2	2:E:1438:ASP:OD1	2.36	0.59
2:G:1426:ARG:CG	2:G:1499:THR:HG21	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:2083:ILE:HG22	1:H:2118:ILE:HD12	1.85	0.59
2:A:1415:LEU:HD11	2:A:1476:LEU:HD22	1.83	0.59
1:B:2220:VAL:HG13	1:B:2222:ASN:N	2.18	0.59
2:C:2134:GLU:CD	2:C:2168:LEU:HD13	2.24	0.59
2:C:454:PRO:HD3	2:C:963:ARG:NH1	2.18	0.59
2:C:617:LEU:HB3	2:C:636:THR:HB	1.84	0.59
2:E:1618:ARG:NH1	2:E:1963:LYS:HB3	2.18	0.59
2:E:760:VAL:O	2:E:764:VAL:HG12	2.02	0.59
2:E:772:LEU:O	2:E:772:LEU:HD12	2.02	0.59
1:F:2071:ASP:OD1	1:F:2072:VAL:N	2.35	0.59
1:H:2120:MET:O	1:H:2249:PRO:HD3	2.03	0.59
2:A:1021:TYR:HD1	2:A:1028:MET:HG2	1.68	0.58
2:A:521:ILE:HG23	2:A:522:PRO:HD3	1.85	0.58
2:C:521:ILE:HB	2:C:522:PRO:HD3	1.83	0.58
2:E:1431:ALA:HB3	2:E:1437:VAL:CG1	2.33	0.58
2:G:2183:ASP:CG	2:G:2184:PRO:HD3	2.23	0.58
2:G:630:GLU:HG3	2:G:631:THR:HG23	1.85	0.58
2:A:862:THR:HG23	2:A:864:THR:H	1.69	0.58
2:C:887:GLU:HG2	2:C:1132:TYR:CE1	2.38	0.58
2:C:1391:TYR:HD1	2:C:1413:PHE:HB3	1.68	0.58
2:C:1562:ASP:N	2:C:1562:ASP:OD1	2.33	0.58
2:C:813:GLN:CB	2:C:829:PRO:HA	2.25	0.58
2:C:861:CYS:SG	2:C:865:LEU:HD23	2.43	0.58
2:C:941:SER:HB3	2:C:974:TYR:CD2	2.38	0.58
2:G:1431:ALA:O	2:G:1481:PRO:HD3	2.02	0.58
2:G:1496:ASN:O	2:G:1499:THR:HG22	2.03	0.58
2:A:2134:GLU:HB3	2:A:2168:LEU:HB3	1.84	0.58
1:B:2114:GLU:OE2	1:B:2116:ARG:NH1	2.36	0.58
2:C:1434:GLN:HA	2:C:1437:VAL:HG22	1.84	0.58
2:C:2020:PRO:O	2:C:2023:VAL:HG22	2.04	0.58
2:C:834:ILE:HG23	2:C:839:MET:HE1	1.83	0.58
2:E:1023:GLU:N	2:E:1023:GLU:OE1	2.36	0.58
2:E:1902:VAL:CG1	2:E:1971:LYS:HE3	2.32	0.58
2:E:2102:GLU:CB	2:E:2151:GLU:HG2	2.34	0.58
2:E:1983:LEU:HD21	2:E:2143:ILE:HD13	1.85	0.58
2:E:551:ALA:HB2	2:E:724:PHE:HD2	1.68	0.58
2:G:1529:ILE:O	2:G:1533:THR:HG22	2.03	0.58
1:H:2251:THR:HG23	1:H:2253:LYS:H	1.69	0.58
2:C:1451:LEU:O	2:C:1453:GLY:N	2.36	0.58
2:C:1673:HIS:HA	2:C:1702:VAL:HG21	1.85	0.58
2:C:1902:VAL:HG11	2:C:1971:LYS:HD2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:828:LEU:N	2:C:829:PRO:HD2	2.18	0.58
1:F:2296:GLU:HB2	2:E:1118:ARG:O	2.03	0.58
2:E:580:ASP:OD2	2:E:583:ALA:HB2	2.04	0.58
2:E:761:LEU:HD12	2:E:762:GLU:N	2.18	0.58
1:F:2181:LYS:O	1:F:2183:GLN:N	2.35	0.58
2:G:1422:LYS:HD2	2:G:1423:ASP:H	1.68	0.58
2:G:1400:ALA:HB1	2:G:1544:VAL:O	2.03	0.58
2:G:1792:ILE:HG22	2:G:1865:PRO:CB	2.33	0.58
2:A:992:TYR:CD2	2:A:1001:LYS:HD3	2.37	0.58
2:A:926:ILE:N	2:A:927:PRO:HD2	2.19	0.58
2:C:1525:ARG:NH1	2:C:1791:GLU:OE2	2.36	0.58
2:C:617:LEU:HA	2:C:622:GLN:HE22	1.66	0.58
2:C:686:ARG:NH1	2:C:689:GLN:OE1	2.35	0.58
2:C:926:ILE:N	2:C:927:PRO:HD2	2.19	0.58
1:F:2045:GLU:OE2	1:F:2094:ARG:NH1	2.36	0.58
1:F:2279:LEU:CD2	1:F:2285:GLN:HG3	2.32	0.58
2:G:822:THR:HG21	2:G:825:LYS:HD3	1.85	0.58
2:A:449:VAL:N	2:A:999:GLU:OE2	2.36	0.58
2:C:1598:THR:HG21	2:C:1716:MET:CE	2.33	0.58
2:C:1649:ILE:HG21	2:C:1687:LEU:HD21	1.85	0.58
2:C:2015:ILE:HG23	2:C:2016:PRO:HD2	1.84	0.58
2:C:608:GLU:HB3	2:C:609:PRO:HD3	1.85	0.58
1:D:2047:ARG:NH2	2:C:1093:VAL:O	2.36	0.58
2:E:825:LYS:HE3	2:E:834:ILE:CG2	2.34	0.58
2:A:1065:ARG:NH2	2:A:1099:GLU:HB3	2.15	0.58
1:B:2049:ARG:NH1	1:B:2282:TYR:OH	2.36	0.58
2:C:1401:ALA:O	2:C:1544:VAL:HA	2.03	0.58
2:C:1613:VAL:HG22	2:C:1714:VAL:CG2	2.33	0.58
2:C:2155:LYS:HE3	2:C:2156:LEU:O	2.03	0.58
2:C:2169:LYS:HA	2:C:2185:SER:HA	1.85	0.58
2:C:736:GLU:HB2	2:C:918:ILE:CD1	2.33	0.58
2:E:1124:LEU:H	2:E:1124:LEU:HD12	1.68	0.58
2:G:1722:GLU:OE2	2:G:1724:LYS:HB3	2.04	0.58
2:G:1979:ILE:HD11	2:G:1991:ALA:HB1	1.86	0.58
2:G:1995:MET:HE1	2:G:2173:MET:H	1.67	0.58
2:A:1928:VAL:HG21	2:A:1949:GLN:CB	2.24	0.58
2:C:1427:ALA:HB3	2:C:1476:LEU:HD12	1.84	0.58
2:E:992:TYR:CD2	2:E:1001:LYS:HB2	2.39	0.58
2:G:808:THR:O	2:G:811:VAL:HG12	2.03	0.58
1:H:2109:ASN:HB3	1:H:2112:VAL:HG12	1.84	0.58
2:A:1353:LEU:HD21	2:A:1381:LYS:HE3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:612:ILE:HG23	2:A:632:GLN:CB	2.33	0.58
2:C:1567:SER:O	2:C:1570:VAL:HG22	2.04	0.58
2:C:1958:PRO:CD	2:C:1961:LEU:HD12	2.30	0.58
1:D:2117:CYS:HB2	1:D:2245:PHE:CZ	2.39	0.58
1:F:2082:ASN:ND2	1:F:2083:ILE:HG23	2.19	0.58
2:G:2044:GLU:O	2:G:2045:GLU:HG2	2.04	0.58
2:G:973:THR:HG23	2:G:976:PHE:H	1.69	0.58
2:A:1275:GLU:HB3	2:A:1279:GLY:HA2	1.85	0.58
2:A:1921:LEU:HD12	2:A:1921:LEU:H	1.69	0.58
2:A:737:PHE:CE2	2:A:933:LEU:HD12	2.39	0.58
2:C:1530:ARG:NH1	2:C:1537:MET:O	2.35	0.58
2:C:1546:LEU:HD13	2:C:1552:ILE:HD12	1.84	0.58
2:C:1672:TYR:CD1	2:C:1702:VAL:HG11	2.39	0.58
2:C:1827:ASP:OD2	2:C:1829:THR:OG1	2.22	0.58
2:E:1502:LEU:CD2	2:E:1504:ILE:HG13	2.34	0.58
2:E:615:SER:OG	2:E:631:THR:HG21	2.02	0.58
2:E:970:LEU:O	2:E:973:THR:HG22	2.03	0.58
1:F:2109:ASN:ND2	1:F:2112:VAL:HG23	2.19	0.58
1:F:2277:THR:HG23	1:F:2278:PRO:HD2	1.86	0.58
2:G:1207:PRO:HB2	2:G:1208:PRO:HD3	1.86	0.58
2:G:1677:SER:O	2:G:1681:LYS:HG3	2.04	0.58
2:G:471:LEU:CD2	2:G:473:THR:HG23	2.34	0.58
1:H:2077:TYR:CE1	1:H:2186:LEU:HD11	2.39	0.58
1:H:2086:LYS:O	1:H:2090:ILE:HG12	2.04	0.58
1:H:2216:LYS:O	1:H:2216:LYS:HD3	2.03	0.58
2:A:2034:ILE:HG21	2:A:2074:TYR:CE2	2.38	0.57
2:A:967:VAL:HG21	2:A:1003:VAL:HG22	1.85	0.57
1:B:2309:ALA:OXT	2:A:619:GLY:N	2.37	0.57
2:C:1142:ARG:HG2	2:C:1164:CYS:SG	2.44	0.57
2:C:1233:VAL:CG1	2:C:1253:ILE:HG23	2.34	0.57
1:D:2215:ASN:OD1	1:D:2218:PRO:HD3	2.04	0.57
1:F:2302:VAL:CG2	2:E:1131:VAL:HG21	2.34	0.57
2:E:1487:LEU:HD23	2:E:1488:SER:N	2.19	0.57
2:G:1436:LEU:HD21	2:G:1704:TRP:HB3	1.85	0.57
2:G:1951:HIS:CE1	2:G:2004:ALA:HB2	2.38	0.57
2:A:1766:TYR:O	2:A:1770:LEU:HB2	2.04	0.57
1:B:2045:GLU:HG2	1:B:2046:TRP:N	2.19	0.57
2:C:1089:LEU:CD1	2:C:1119:LEU:HD13	2.35	0.57
2:C:1509:HIS:CD2	2:C:1544:VAL:H	2.22	0.57
1:D:2151:ILE:HG12	1:D:2188:VAL:HB	1.85	0.57
2:E:1573:VAL:HG13	2:E:1746:PRO:HG3	1.84	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1966:GLU:H	2:E:1968:ILE:HG12	1.70	0.57
2:E:478:ARG:HB2	2:E:936:GLN:NE2	2.19	0.57
2:G:1552:ILE:O	2:G:1556:ILE:HG12	2.03	0.57
2:G:646:ARG:HA	2:G:957:LEU:HD11	1.86	0.57
2:G:862:THR:OG1	2:G:863:ALA:N	2.35	0.57
2:G:954:GLU:O	2:G:959:ASN:ND2	2.36	0.57
1:B:2047:ARG:HD3	2:A:1098:LYS:HE3	1.87	0.57
2:A:903:LEU:HD12	2:A:933:LEU:HD21	1.85	0.57
2:C:1618:ARG:NH1	2:C:1960:ASP:OD1	2.37	0.57
2:C:1871:ILE:HD12	2:C:1872:ALA:N	2.19	0.57
2:C:1979:ILE:HD12	2:C:1980:VAL:N	2.18	0.57
2:C:729:ARG:CZ	2:C:733:LEU:HD12	2.34	0.57
2:C:797:THR:OG1	2:C:801:ILE:HB	2.05	0.57
2:C:862:THR:HG23	2:C:864:THR:H	1.69	0.57
1:D:2232:GLU:OE2	1:D:2234:ARG:NH1	2.37	0.57
2:E:1114:ALA:HA	2:E:1119:LEU:HD12	1.85	0.57
2:E:1530:ARG:HB3	2:E:1537:MET:HE1	1.86	0.57
2:G:1185:PRO:HD2	2:G:1188:ILE:HD11	1.86	0.57
2:G:1688:TYR:HB2	2:G:1693:ILE:HD11	1.85	0.57
2:A:1504:ILE:CD1	2:A:1540:VAL:HG13	2.34	0.57
2:A:786:LYS:HE3	2:A:824:LEU:HD21	1.84	0.57
2:E:1184:CYS:SG	2:E:1188:ILE:HD11	2.44	0.57
2:E:1411:ALA:HB1	2:E:1504:ILE:HD13	1.85	0.57
2:G:1286:ASP:OD1	2:G:1287:VAL:N	2.37	0.57
2:G:1380:ASN:HB3	2:G:1383:GLN:OE1	2.05	0.57
2:G:1354:LEU:CD2	2:G:1385:GLN:HB2	2.34	0.57
2:G:1426:ARG:O	2:G:1500:VAL:HA	2.04	0.57
2:G:1648:GLN:C	2:G:1649:ILE:HD12	2.24	0.57
2:G:572:ASN:ND2	2:G:584:PHE:HB3	2.19	0.57
2:C:1054:ILE:CD1	2:C:1144:ILE:HG23	2.35	0.57
2:C:1431:ALA:HB1	2:C:1432:PRO:HD2	1.86	0.57
2:C:633:VAL:O	2:C:633:VAL:HG23	2.04	0.57
2:G:1058:MET:HE3	2:G:1063:LEU:HD13	1.87	0.57
1:B:2132:LEU:HB3	1:B:2133:PRO:HD2	1.87	0.57
2:C:1060:ASP:OD1	2:C:1061:VAL:N	2.36	0.57
2:C:2003:GLN:HG3	2:C:2178:VAL:HG23	1.87	0.57
2:E:2079:LEU:HA	2:E:2101:ILE:HG22	1.85	0.57
2:E:590:ALA:O	2:E:638:PRO:HD3	2.05	0.57
1:F:2068:VAL:HG11	1:F:2235:GLN:CG	2.33	0.57
2:G:1406:GLY:O	2:G:1409:VAL:HG22	2.05	0.57
2:G:1744:LEU:O	2:G:1746:PRO:HD3	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1774:LEU:HD12	2:G:1775:PRO:CD	2.31	0.57
2:G:530:ASN:HB3	2:G:533:GLN:OE1	2.05	0.57
2:A:1979:ILE:HG12	2:A:1994:ALA:HB1	1.86	0.57
2:A:2012:LEU:HD13	2:A:2034:ILE:CD1	2.28	0.57
2:C:1380:ASN:O	2:C:1384:THR:HG23	2.04	0.57
2:C:480:PRO:HG2	2:C:496:VAL:HG13	1.87	0.57
2:E:1207:PRO:HB2	2:E:1208:PRO:HD3	1.86	0.57
2:E:500:LYS:HZ2	2:E:502:ARG:HG2	1.68	0.57
2:G:1434:GLN:O	2:G:1437:VAL:HG22	2.04	0.57
2:G:1836:TYR:HD2	2:G:1837:LEU:HD12	1.70	0.57
1:H:2084:LEU:CD2	1:H:2199:LEU:HD11	2.34	0.57
2:A:1067:PHE:CE2	2:A:1112:LEU:HD22	2.39	0.57
2:A:1303:THR:OG1	2:A:1727:ARG:NH2	2.37	0.57
2:A:518:TRP:O	2:A:610:TYR:OH	2.19	0.57
2:A:757:TYR:OH	2:A:796:ASP:OD2	2.18	0.57
1:B:2063:MET:HB3	1:B:2197:VAL:CG2	2.35	0.57
2:C:685:ARG:NH1	2:C:969:TRP:HB2	2.20	0.57
2:E:1274:VAL:HG11	2:E:1308:VAL:HG11	1.87	0.57
2:E:804:HIS:O	2:E:807:GLY:N	2.35	0.57
2:G:1431:ALA:HB3	2:G:1437:VAL:HG12	1.86	0.57
2:G:1860:GLU:OE2	2:G:1861:GLY:N	2.33	0.57
2:G:2066:ALA:O	2:G:2070:THR:N	2.29	0.57
2:C:1065:ARG:NH1	2:C:1099:GLU:HG2	2.19	0.57
2:C:1579:ILE:HD11	2:C:1763:ARG:HH11	1.68	0.57
2:E:562:MET:CE	2:E:606:ARG:HD2	2.34	0.57
1:F:2211:TRP:O	1:F:2215:ASN:HB2	2.04	0.57
1:H:2154:MET:O	1:H:2156:GLY:N	2.37	0.57
2:A:1044:HIS:CE1	2:A:1045:GLU:HG3	2.40	0.57
2:A:1598:THR:HG21	2:A:1716:MET:CE	2.34	0.57
2:A:1676:LEU:O	2:A:1681:LYS:HE3	2.05	0.57
2:A:1678:GLN:N	2:A:1678:GLN:OE1	2.35	0.57
2:A:1972:ILE:O	2:A:1976:LEU:HD13	2.04	0.57
2:A:580:ASP:OD2	2:A:583:ALA:HB2	2.05	0.57
2:A:771:MET:HB3	2:A:875:THR:HB	1.87	0.57
2:A:801:ILE:HG13	2:A:804:HIS:CE1	2.40	0.57
2:C:1854:ILE:CD1	2:C:1866:LEU:HB2	2.35	0.57
2:E:1037:ALA:HB2	2:E:1047:MET:HG3	1.87	0.57
2:G:2033:ASP:HB2	2:G:2036:ASP:HB3	1.86	0.57
2:G:590:ALA:HB3	2:G:596:VAL:CG1	2.35	0.57
1:H:2162:MET:CE	1:H:2202:TRP:HB3	2.34	0.57
1:H:2227:THR:HG22	1:H:2229:THR:HG22	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1419:TRP:HH2	2:A:1476:LEU:HB2	1.68	0.56
2:A:1962:ALA:O	2:A:1965:GLN:HB3	2.04	0.56
2:C:1715:VAL:HG22	2:C:1739:MET:HE3	1.86	0.56
2:E:1396:ASN:ND2	2:E:1556:ILE:O	2.38	0.56
2:E:557:LYS:HE2	3:E:2201:ACT:H2	1.86	0.56
2:E:778:ARG:HG2	2:E:836:HIS:HB2	1.87	0.56
2:E:963:ARG:NH2	2:E:1023:GLU:O	2.38	0.56
2:G:1552:ILE:HA	2:G:1555:TRP:HB3	1.86	0.56
2:G:1598:THR:HG23	2:G:1714:VAL:HG21	1.86	0.56
2:G:884:TYR:OH	2:G:1079:ARG:NH1	2.33	0.56
2:G:943:LEU:HD22	2:G:973:THR:OG1	2.05	0.56
2:A:1155:SER:O	2:A:1159:LEU:HD13	2.05	0.56
2:A:1272:ILE:O	2:A:1285:HIS:HA	2.04	0.56
2:A:2046:ASN:N	2:A:2047:PRO:HD2	2.21	0.56
2:A:801:ILE:O	2:A:804:HIS:ND1	2.38	0.56
1:B:2101:LEU:CD2	1:B:2151:ILE:HD11	2.34	0.56
1:D:2276:ASP:OD1	1:D:2277:THR:N	2.33	0.56
1:D:2296:GLU:HG2	2:C:1120:LYS:N	2.20	0.56
2:E:1866:LEU:O	2:E:1868:ALA:N	2.37	0.56
2:E:608:GLU:HB3	2:E:609:PRO:HD3	1.86	0.56
2:E:921:THR:OG1	2:E:922:THR:N	2.38	0.56
2:G:2031:ILE:HG21	2:G:2037:PHE:HD1	1.69	0.56
2:A:473:THR:HG21	2:A:985:LEU:HD22	1.87	0.56
2:C:1721:PHE:HB2	2:C:1728:TYR:CE1	2.41	0.56
2:C:690:THR:HG23	2:C:692:GLU:HG3	1.88	0.56
2:G:2100:HIS:ND1	2:G:2153:ASN:OD1	2.34	0.56
2:G:529:LEU:HD21	2:G:533:GLN:HB2	1.87	0.56
2:C:1025:THR:HG21	2:C:1027:LYS:HZ3	1.68	0.56
2:C:1065:ARG:O	2:C:1069:GLN:HG3	2.05	0.56
2:C:1713:VAL:CG2	2:C:1743:ALA:HB2	2.36	0.56
2:C:2131:VAL:HG11	2:C:2170:LEU:HG	1.88	0.56
2:E:1616:PRO:CG	2:E:1717:GLY:HA3	2.33	0.56
2:E:2049:TYR:HB3	2:E:2053:VAL:CG2	2.36	0.56
2:G:1441:PHE:HB2	2:G:1478:LEU:HD22	1.86	0.56
2:G:1995:MET:CE	2:G:2173:MET:HB2	2.35	0.56
2:A:1143:ALA:O	2:A:1147:ILE:HG13	2.06	0.56
2:A:1465:THR:HG23	2:A:1466:THR:H	1.70	0.56
2:C:1171:MET:HE1	2:C:1180:GLN:HE21	1.70	0.56
2:G:1311:SER:OG	2:G:1313:PRO:HD2	2.06	0.56
2:G:835:HIS:HB3	2:G:861:CYS:HB3	1.87	0.56
2:A:1397:VAL:HG23	2:A:1562:ASP:O	2.05	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:789:ARG:HA	2:A:792:ALA:HB2	1.87	0.56
1:B:2253:LYS:HB3	1:B:2286:HIS:NE2	2.21	0.56
2:C:1360:PRO:HA	2:C:1378:GLN:HA	1.87	0.56
2:C:515:LEU:O	2:C:520:ARG:HD2	2.06	0.56
2:E:1100:SER:HB2	2:E:1106:ALA:HB2	1.88	0.56
2:E:1104:PRO:O	2:E:1108:ILE:HG12	2.05	0.56
2:E:1063:LEU:HD23	2:E:1163:MET:HE3	1.87	0.56
2:G:1685:LYS:HG3	2:G:1708:PHE:CE1	2.40	0.56
2:G:1996:GLU:O	2:G:2000:MET:HG3	2.05	0.56
2:G:515:LEU:HD22	2:G:537:PHE:HZ	1.71	0.56
2:G:686:ARG:O	2:G:690:THR:HG22	2.06	0.56
1:H:2101:LEU:HD21	1:H:2151:ILE:CD1	2.36	0.56
2:A:1251:LEU:HB3	2:A:1304:VAL:HG12	1.88	0.56
2:A:1489:ARG:HA	2:A:1525:ARG:NH1	2.20	0.56
2:A:1530:ARG:HD3	2:A:1537:MET:HE2	1.87	0.56
2:A:2148:VAL:HA	2:A:2152:LEU:HD12	1.88	0.56
2:A:473:THR:HG21	2:A:985:LEU:CD2	2.35	0.56
2:C:493:GLU:HG2	2:C:738:ILE:HG12	1.86	0.56
1:D:2220:VAL:HG22	1:D:2221:ASP:N	2.21	0.56
2:E:1554:GLU:OE2	2:E:1814:ARG:NH2	2.37	0.56
2:E:798:ILE:HD12	2:E:801:ILE:HD13	1.87	0.56
1:F:2101:LEU:HD21	1:F:2151:ILE:CG1	2.35	0.56
2:G:2115:VAL:HB	2:G:2126:GLU:N	2.19	0.56
2:E:1194:ARG:NH1	2:G:2137:THR:OG1	2.39	0.56
1:H:2101:LEU:HD22	1:H:2115:ILE:HD13	1.87	0.56
2:A:1399:VAL:HG13	2:A:1407:LYS:HE3	1.86	0.56
2:A:961:ARG:HE	2:A:1600:LEU:CD1	2.17	0.56
2:A:2169:LYS:HD3	2:A:2185:SER:HA	1.88	0.56
2:C:562:MET:SD	2:C:606:ARG:NH1	2.70	0.56
2:C:835:HIS:ND1	2:C:865:LEU:HB2	2.21	0.56
2:E:1429:TYR:HB3	2:E:1478:LEU:HD22	1.86	0.56
2:E:1975:LEU:O	2:E:1979:ILE:HG13	2.06	0.56
2:G:1312:GLU:HB2	2:G:1313:PRO:HD3	1.88	0.56
2:G:642:ASP:O	2:G:646:ARG:HG3	2.05	0.56
1:H:2139:HIS:CE1	1:H:2141:MET:HG2	2.41	0.56
1:B:2294:PHE:CD1	2:A:1119:LEU:HD21	2.41	0.56
2:A:1839:ASP:O	2:A:1843:THR:OG1	2.23	0.56
2:A:1914:ARG:HB2	2:A:1917:GLU:CG	2.36	0.56
2:C:1272:ILE:O	2:C:1285:HIS:HA	2.04	0.56
2:C:2012:LEU:HD21	2:C:2032:ASN:O	2.06	0.56
2:C:771:MET:HE3	2:C:877:ILE:HD12	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1065:ARG:NH2	2:E:1099:GLU:HG3	2.20	0.56
2:E:1768:LYS:O	2:E:1772:GLU:HG2	2.06	0.56
2:E:2005:MET:HG2	2:E:2006:TRP:N	2.21	0.56
2:E:587:VAL:HG21	2:E:641:TRP:CH2	2.40	0.56
2:E:660:ILE:HD11	2:E:696:ILE:HG12	1.87	0.56
2:E:963:ARG:N	2:E:1026:GLY:O	2.37	0.56
2:G:1456:GLU:N	2:G:1456:GLU:OE1	2.39	0.56
2:A:1688:TYR:OH	2:A:1710:ALA:HB2	2.06	0.56
2:A:2051:SER:O	2:A:2054:LYS:HG3	2.05	0.56
2:A:2090:ARG:HG3	2:A:2164:GLY:H	1.71	0.56
2:A:624:THR:O	2:A:628:ILE:HG13	2.06	0.56
2:C:1732:PRO:HG2	2:C:1735:GLU:CG	2.33	0.56
2:C:770:GLN:NE2	2:C:851:PHE:O	2.39	0.56
1:D:2098:ALA:O	1:D:2123:GLN:NE2	2.36	0.56
1:D:2190:VAL:HG22	1:D:2199:LEU:CD2	2.36	0.56
2:E:1552:ILE:O	2:E:1556:ILE:HG12	2.06	0.56
2:E:851:PHE:CD2	2:E:856:ILE:HG21	2.41	0.56
2:A:1390:LEU:HD23	2:A:1410:CYS:O	2.05	0.56
2:A:1969:LEU:HD21	2:A:2121:PRO:HB2	1.88	0.56
2:A:465:PHE:CD2	2:A:471:LEU:HD22	2.41	0.56
2:A:910:GLN:OE1	2:A:910:GLN:N	2.38	0.56
2:C:1700:ARG:NH2	2:C:1735:GLU:OE1	2.38	0.56
2:C:1911:ILE:HD11	2:C:1966:GLU:CG	2.35	0.56
2:C:2002:VAL:HG21	2:C:2176:SER:HB2	1.88	0.56
2:C:622:GLN:CG	2:C:627:GLN:HB2	2.29	0.56
2:C:725:ASP:OD1	2:C:725:ASP:N	2.36	0.56
2:C:798:ILE:O	2:C:800:GLN:N	2.37	0.56
2:E:2093:GLU:N	2:E:2160:VAL:HG21	2.21	0.56
2:E:876:VAL:H	2:E:917:GLY:HA2	1.70	0.56
2:G:1426:ARG:HG3	2:G:1499:THR:HG23	1.84	0.56
2:G:1679:SER:O	2:G:1683:ILE:HG13	2.06	0.56
2:G:654:THR:O	2:G:657:VAL:HG22	2.06	0.56
2:G:936:GLN:O	2:G:938:PRO:HD3	2.05	0.56
2:A:1065:ARG:O	2:A:1069:GLN:HG3	2.06	0.55
2:A:1713:VAL:HG11	2:A:1739:MET:O	2.06	0.55
2:A:926:ILE:O	2:A:930:LEU:HG	2.06	0.55
2:C:454:PRO:HB3	2:C:1003:VAL:HG12	1.89	0.55
2:C:1391:TYR:CB	2:C:1417:ARG:HB2	2.36	0.55
2:E:1972:ILE:O	2:E:1976:LEU:HD13	2.06	0.55
2:G:1457:ILE:CG2	2:G:1476:LEU:HD23	2.29	0.55
2:G:1504:ILE:CD1	2:G:1540:VAL:HG13	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1924:ILE:HG22	2:G:1946:VAL:CG2	2.36	0.55
2:G:1930:VAL:C	2:G:1931:LYS:HD2	2.27	0.55
2:G:2020:PRO:O	2:G:2023:VAL:HG22	2.05	0.55
2:G:639:GLU:OE1	2:G:639:GLU:N	2.38	0.55
2:A:2148:VAL:HG13	2:A:2149:GLY:H	1.71	0.55
1:B:2079:MET:HG3	1:B:2080:PRO:CD	2.37	0.55
2:C:1460:LEU:HD23	2:C:1479:ALA:CB	2.35	0.55
2:C:1566:PHE:HB3	2:C:1570:VAL:HG21	1.87	0.55
2:C:1852:ARG:HB3	2:C:1886:LEU:HD13	1.89	0.55
2:C:565:MET:O	2:C:569:ILE:HG12	2.06	0.55
1:D:2105:SER:OG	1:D:2113:LYS:HG2	2.05	0.55
2:E:1073:PHE:HE1	2:E:1133:VAL:HA	1.68	0.55
2:E:813:GLN:NE2	2:E:855:HIS:O	2.39	0.55
2:G:2135:GLU:O	2:G:2137:THR:N	2.40	0.55
2:A:1609:GLN:HG3	2:A:1711:HIS:ND1	2.21	0.55
2:C:532:ILE:HD11	2:C:551:ALA:CB	2.37	0.55
2:C:936:GLN:O	2:C:938:PRO:HD3	2.07	0.55
2:C:970:LEU:O	2:C:973:THR:HG22	2.06	0.55
2:E:1919:GLY:O	2:E:1923:ARG:N	2.38	0.55
2:E:702:THR:CG2	2:E:935:GLN:HG2	2.37	0.55
2:G:1894:LYS:CE	2:G:1898:ILE:HG12	2.35	0.55
2:G:2042:ASN:HB2	2:G:2043:PRO:CD	2.35	0.55
2:C:626:GLN:HG2	2:C:1266:VAL:CG2	2.36	0.55
2:C:799:ASN:OD1	2:C:800:GLN:N	2.39	0.55
2:E:1724:LYS:HG3	2:E:1725:GLU:HG3	1.87	0.55
2:E:2034:ILE:HG12	2:E:2074:TYR:CE2	2.42	0.55
2:E:556:GLY:N	3:E:2201:ACT:OXT	2.39	0.55
2:E:549:VAL:HG12	2:E:722:PHE:HD2	1.72	0.55
2:A:1992:LEU:HD22	2:A:2173:MET:HG3	1.88	0.55
2:C:1788:PHE:O	2:C:1792:ILE:HG12	2.06	0.55
2:E:1241:PRO:HG3	2:E:1821:SER:HB2	1.89	0.55
2:E:736:GLU:OE1	2:E:759:LYS:NZ	2.34	0.55
1:F:2220:VAL:HG22	1:F:2221:ASP:N	2.21	0.55
2:G:1048:ASP:OD1	2:G:1052:LYS:HE3	2.06	0.55
2:G:1063:LEU:HD23	2:G:1163:MET:CE	2.37	0.55
2:G:1861:GLY:O	2:G:1862:THR:OG1	2.21	0.55
2:A:2015:ILE:HD13	2:A:2069:PHE:CD2	2.41	0.55
2:A:2091:ALA:HB2	2:A:2162:SER:O	2.06	0.55
1:B:2216:LYS:C	1:B:2218:PRO:HD3	2.27	0.55
2:C:620:ASP:OD2	2:C:1326:ARG:HD3	2.06	0.55
1:D:2309:ALA:HB1	2:C:618:THR:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1090:LEU:HD21	2:E:1098:LYS:HD3	1.89	0.55
2:E:1445:GLN:NE2	2:E:1457:ILE:O	2.39	0.55
1:F:2227:THR:HB	1:F:2230:MET:CG	2.34	0.55
2:G:740:VAL:HG12	2:G:742:ASP:H	1.72	0.55
2:G:970:LEU:O	2:G:973:THR:HG22	2.06	0.55
2:A:789:ARG:HA	2:A:792:ALA:CB	2.36	0.55
2:A:826:ASP:O	2:A:829:PRO:HD2	2.06	0.55
2:C:1364:LEU:O	2:C:1364:LEU:HD13	2.06	0.55
2:C:1793:SER:HA	2:C:1865:PRO:HB3	1.88	0.55
2:E:1064:PHE:HB3	2:E:1109:ASN:HD21	1.72	0.55
2:E:1445:GLN:HE22	2:E:1457:ILE:H	1.54	0.55
2:E:532:ILE:HD11	2:E:724:PHE:CG	2.41	0.55
1:F:2068:VAL:HG11	1:F:2235:GLN:HG3	1.88	0.55
2:G:1425:GLY:HA2	2:G:1501:GLU:CD	2.27	0.55
2:G:1468:LEU:HD12	2:G:1469:LYS:N	2.22	0.55
2:G:1924:ILE:HG22	2:G:1946:VAL:HG22	1.88	0.55
2:G:500:LYS:HZ3	2:G:502:ARG:HB2	1.72	0.55
2:G:573:ARG:HG2	2:G:579:ILE:HA	1.88	0.55
2:G:967:VAL:HG13	2:G:1002:ARG:CB	2.36	0.55
2:A:1185:PRO:HD2	2:A:1188:ILE:CD1	2.36	0.55
2:A:1696:LEU:HD22	2:A:1708:PHE:CD2	2.41	0.55
2:C:1104:PRO:O	2:C:1108:ILE:HG12	2.06	0.55
2:C:1615:VAL:HG13	2:C:1616:PRO:HD2	1.89	0.55
2:C:607:LEU:HB3	2:C:612:ILE:HD11	1.89	0.55
2:C:654:THR:O	2:C:657:VAL:HG22	2.05	0.55
2:E:1658:GLU:OE1	2:E:1959:ILE:HG21	2.06	0.55
2:E:2102:GLU:HB2	2:E:2151:GLU:HG2	1.88	0.55
1:F:2136:LEU:HD21	1:F:2180:TRP:HE1	1.71	0.55
2:G:1495:LYS:HA	2:G:1498:GLN:CG	2.32	0.55
1:H:2101:LEU:HD11	1:H:2151:ILE:CG1	2.36	0.55
2:A:521:ILE:N	2:A:522:PRO:HD2	2.22	0.55
1:B:2136:LEU:HD11	1:B:2177:HIS:HB3	1.89	0.55
2:C:1233:VAL:HG13	2:C:1253:ILE:HG23	1.89	0.55
2:C:1992:LEU:HD13	2:C:2132:VAL:HG21	1.87	0.55
2:E:2090:ARG:HH22	2:E:2191:ALA:HB3	1.72	0.55
2:E:953:ALA:O	2:E:957:LEU:HD13	2.06	0.55
1:F:2047:ARG:NH2	2:E:1093:VAL:O	2.38	0.55
1:F:2146:GLU:O	1:F:2148:LEU:HD13	2.06	0.55
2:G:2090:ARG:HG2	2:G:2091:ALA:H	1.72	0.55
2:G:2135:GLU:OE1	2:G:2168:LEU:HB3	2.07	0.55
2:G:501:LYS:HG2	2:G:727:SER:O	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:760:VAL:HA	2:G:771:MET:SD	2.46	0.55
1:H:2253:LYS:NZ	1:H:2285:GLN:HG3	2.22	0.55
2:A:1390:LEU:HD12	2:A:1397:VAL:HG11	1.88	0.55
2:A:788:ILE:O	2:A:792:ALA:HB2	2.07	0.55
2:C:1177:PRO:HG2	2:C:1199:TRP:CD2	2.42	0.55
2:C:1848:LEU:O	2:C:1853:ILE:HB	2.07	0.55
2:E:1243:THR:HG22	2:E:1245:SER:H	1.72	0.55
2:E:1249:ILE:CD1	2:E:1320:ILE:HD11	2.37	0.55
2:E:1272:ILE:O	2:E:1285:HIS:HA	2.06	0.55
2:E:1546:LEU:HD22	2:E:1552:ILE:HD13	1.89	0.55
2:G:1213:LEU:HD23	2:G:1213:LEU:O	2.07	0.55
2:A:840:SER:OG	2:A:843:ASP:OD1	2.25	0.54
2:C:1121:LEU:HB2	2:C:1127:MET:HE1	1.89	0.54
2:C:1460:LEU:HD12	2:C:1461:THR:N	2.21	0.54
2:E:1247:LEU:HD13	2:E:1310:ILE:CG1	2.37	0.54
2:E:2141:LEU:HD23	2:E:2159:VAL:O	2.07	0.54
2:E:522:PRO:HB3	2:E:606:ARG:HD3	1.89	0.54
1:F:2309:ALA:HB1	2:E:618:THR:HA	1.89	0.54
2:G:1972:ILE:HG23	2:G:1973:LEU:HD12	1.90	0.54
2:G:778:ARG:HG3	2:G:836:HIS:CG	2.42	0.54
2:A:1383:GLN:HG2	2:A:1409:VAL:CG2	2.38	0.54
2:A:1702:VAL:HG12	2:A:1706:LEU:HB2	1.89	0.54
2:A:2075:PRO:HA	2:A:2103:ARG:HH21	1.73	0.54
2:C:1107:LYS:O	2:C:1111:LEU:HG	2.06	0.54
2:C:1517:TYR:O	2:C:1521:ILE:HG13	2.07	0.54
2:C:1609:GLN:HG3	2:C:1711:HIS:ND1	2.23	0.54
2:E:851:PHE:HA	2:E:856:ILE:CG2	2.36	0.54
2:G:1074:LYS:HD2	2:G:1075:TYR:CE1	2.41	0.54
2:G:1323:ILE:HG12	2:G:1331:GLU:HG3	1.89	0.54
2:A:1243:THR:HG23	2:A:1347:PHE:CZ	2.43	0.54
2:A:1975:LEU:O	2:A:1979:ILE:HG13	2.08	0.54
2:A:650:ASP:O	2:A:654:THR:HG23	2.08	0.54
2:A:881:THR:CG2	2:A:893:GLU:HG3	2.37	0.54
2:C:2002:VAL:HG21	2:C:2176:SER:HB3	1.89	0.54
2:E:1615:VAL:HG13	2:E:1616:PRO:HD2	1.88	0.54
2:E:1774:LEU:HD12	2:E:1775:PRO:CD	2.31	0.54
2:E:478:ARG:H	2:E:936:GLN:HE22	1.54	0.54
2:E:792:ALA:HA	2:E:798:ILE:HG22	1.89	0.54
2:G:1353:LEU:C	2:G:1354:LEU:HD13	2.28	0.54
2:G:1523:VAL:HG11	2:G:1555:TRP:HE1	1.72	0.54
2:G:1899:LEU:HA	2:G:1902:VAL:CG1	2.36	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1785:PRO:HG3	2:A:1844:THR:HG22	1.90	0.54
2:A:2183:ASP:N	2:A:2184:PRO:HD3	2.21	0.54
2:A:532:ILE:HG23	2:A:724:PHE:CE2	2.42	0.54
2:A:789:ARG:HB3	2:A:832:PHE:CE2	2.42	0.54
2:C:1429:TYR:HD2	2:C:1478:LEU:HD22	1.73	0.54
2:C:1525:ARG:O	2:C:1529:ILE:HG12	2.08	0.54
2:C:1680:ASP:O	2:C:1684:VAL:HG23	2.07	0.54
2:C:2079:LEU:HD22	2:C:2080:GLU:N	2.23	0.54
2:C:953:ALA:O	2:C:957:LEU:HD13	2.08	0.54
2:E:1639:ASP:OD1	2:E:1667:HIS:ND1	2.36	0.54
1:F:2149:GLY:HA2	1:F:2180:TRP:CH2	2.43	0.54
2:G:1032:GLU:O	2:G:1036:ILE:HG13	2.07	0.54
2:G:1632:CYS:CB	2:G:1639:ASP:HA	2.30	0.54
1:H:2170:HIS:ND1	1:H:2187:THR:OG1	2.39	0.54
2:A:1732:PRO:HG2	2:A:1735:GLU:HG3	1.90	0.54
2:C:1070:SER:HB2	2:C:1073:PHE:CE2	2.43	0.54
2:C:1686:HIS:O	2:C:1690:ASN:HB2	2.06	0.54
2:E:1590:LEU:HD21	2:E:1594:MET:CE	2.37	0.54
2:E:683:THR:O	2:E:686:ARG:HG2	2.08	0.54
2:E:851:PHE:HA	2:E:856:ILE:HG22	1.89	0.54
2:G:1747:SER:OG	2:G:1749:ASP:OD1	2.26	0.54
2:G:2171:PHE:CB	2:G:2183:ASP:HA	2.29	0.54
2:A:1254:THR:HG22	2:A:1301:GLU:HA	1.89	0.54
2:A:804:HIS:HA	2:A:809:ARG:HD2	1.90	0.54
2:C:1357:GLN:O	2:C:1359:LEU:HD22	2.08	0.54
2:C:1492:LYS:HE3	2:C:1796:MET:CE	2.38	0.54
2:C:2076:ASP:HB2	2:C:2105:LEU:HD22	1.89	0.54
2:C:532:ILE:HD11	2:C:551:ALA:HB1	1.90	0.54
2:C:614:VAL:HG13	2:C:633:VAL:HG23	1.88	0.54
2:G:1191:LYS:HE2	2:G:1216:MET:HE3	1.88	0.54
2:G:1972:ILE:CG2	2:G:1973:LEU:HD12	2.38	0.54
2:A:2007:ASP:OD1	2:A:2008:ARG:HG2	2.07	0.54
2:A:543:ASP:OD1	2:A:544:ASP:N	2.39	0.54
2:C:1372:LEU:O	2:C:1447:ARG:NH2	2.34	0.54
2:C:1444:TRP:O	2:C:1448:LEU:HB3	2.08	0.54
2:C:1947:LEU:HD21	2:C:1961:LEU:HD22	1.89	0.54
2:C:729:ARG:HG2	2:C:730:PRO:HD2	1.89	0.54
2:C:792:ALA:O	2:C:796:ASP:HB3	2.08	0.54
2:E:1721:PHE:HB2	2:E:1728:TYR:CE1	2.42	0.54
2:E:786:LYS:HG2	2:E:827:LEU:HD11	1.87	0.54
2:G:978:ARG:HB3	2:G:986:TYR:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1063:LEU:HD23	2:A:1163:MET:HE1	1.88	0.54
2:A:2048:ASN:O	2:A:2052:LEU:HB2	2.07	0.54
2:C:1219:ALA:HB1	2:C:1223:VAL:HG23	1.90	0.54
2:C:1860:GLU:C	2:C:1862:THR:H	2.12	0.54
2:C:1867:ASN:OD1	2:C:1868:ALA:N	2.41	0.54
1:D:2101:LEU:HD11	1:D:2151:ILE:CG1	2.38	0.54
2:E:1021:TYR:HD1	2:E:1028:MET:HG2	1.73	0.54
2:E:1401:ALA:O	2:E:1544:VAL:HA	2.08	0.54
2:E:877:ILE:HG12	2:E:918:ILE:CD1	2.29	0.54
2:G:1820:PRO:HB2	2:G:1825:LEU:CD1	2.38	0.54
2:G:580:ASP:OD2	2:G:583:ALA:HB2	2.08	0.54
2:A:1430:ILE:HD12	2:A:1503:PHE:CZ	2.43	0.54
2:A:1591:MET:HG2	2:A:1620:GLN:CD	2.28	0.54
2:C:1854:ILE:H	2:C:1854:ILE:CD1	2.10	0.54
2:C:1979:ILE:HG22	2:C:1994:ALA:HB3	1.90	0.54
2:C:777:SER:HB3	2:C:780:GLU:HB3	1.90	0.54
2:E:1090:LEU:O	2:E:1098:LYS:NZ	2.40	0.54
2:E:1246:MET:HG3	2:E:1247:LEU:N	2.22	0.54
2:E:1373:TYR:HB3	2:E:1376:TRP:HB2	1.90	0.54
2:E:1973:LEU:HD12	2:E:1974:SER:N	2.23	0.54
1:F:2068:VAL:HG22	1:F:2069:ASP:N	2.20	0.54
2:G:1798:GLU:CA	2:G:1863:VAL:HG21	2.37	0.54
2:G:2167:ASP:C	2:G:2168:LEU:HD23	2.28	0.54
2:A:1249:ILE:CD1	2:A:1320:ILE:HD11	2.37	0.54
1:B:2193:THR:OG1	1:B:2196:SER:O	2.19	0.54
1:B:2300:ILE:HG13	2:A:1127:MET:CE	2.38	0.54
2:C:1249:ILE:HD13	2:C:1320:ILE:HD11	1.89	0.54
2:C:1403:THR:HA	2:C:1407:LYS:HE2	1.90	0.54
2:C:510:ILE:HG23	2:C:511:PRO:HD2	1.90	0.54
2:E:1143:ALA:O	2:E:1147:ILE:HG13	2.08	0.54
2:E:1460:LEU:HD13	2:E:1477:ILE:CG2	2.37	0.54
2:E:508:GLN:O	2:E:510:ILE:N	2.41	0.54
2:E:862:THR:HG23	2:E:864:THR:H	1.73	0.54
2:G:1380:ASN:OD1	2:G:1381:LYS:N	2.36	0.54
2:G:1428:VAL:HG11	2:G:1484:TRP:CE2	2.43	0.54
2:A:837:ALA:HA	2:A:844:ARG:HH12	1.73	0.53
2:C:1646:VAL:O	2:C:1650:ARG:N	2.40	0.53
2:C:1652:LEU:CD2	2:C:1683:ILE:HG23	2.38	0.53
2:C:2157:GLU:O	2:C:2159:VAL:N	2.42	0.53
2:C:542:LEU:HA	2:C:567:ARG:NH2	2.23	0.53
2:G:1291:ARG:HH11	2:G:1294:LEU:HD11	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1274:VAL:HG11	2:G:1308:VAL:HG11	1.89	0.53
2:G:1352:GLU:HG2	2:G:1353:LEU:N	2.23	0.53
2:G:1785:PRO:HB2	2:G:1879:TYR:CE1	2.42	0.53
1:H:2079:MET:CE	1:H:2151:ILE:HD11	2.38	0.53
2:A:1358:PRO:HB2	2:A:1378:GLN:HG3	1.91	0.53
2:A:1722:GLU:HG2	2:A:1724:LYS:HG2	1.90	0.53
2:C:999:GLU:O	2:C:1003:VAL:HG23	2.08	0.53
2:C:1431:ALA:HB3	2:C:1437:VAL:HG12	1.90	0.53
2:C:1983:LEU:HD12	2:C:1984:SER:N	2.23	0.53
2:C:636:THR:OG1	2:C:637:THR:N	2.41	0.53
2:C:955:ILE:HG22	2:C:1030:ALA:HB2	1.90	0.53
2:E:1670:GLY:O	2:E:1696:LEU:HA	2.08	0.53
2:E:2132:VAL:HG23	2:E:2156:LEU:HD11	1.90	0.53
1:F:2159:LEU:HB2	1:F:2202:TRP:CH2	2.40	0.53
1:H:2092:ASP:HB3	1:H:2095:VAL:HG22	1.89	0.53
2:A:1460:LEU:HD12	2:A:1467:ASP:OD2	2.08	0.53
2:A:1503:PHE:HD2	2:A:1539:ILE:HG23	1.73	0.53
2:E:1613:VAL:HG22	2:E:1714:VAL:CG2	2.38	0.53
2:E:2041:MET:N	2:E:2045:GLU:OE1	2.41	0.53
2:E:2131:VAL:HG22	2:E:2143:ILE:CG1	2.37	0.53
2:G:1161:LEU:HG	2:G:1165:LYS:HE3	1.90	0.53
2:G:1195:MET:O	2:G:1197:VAL:N	2.42	0.53
2:G:1357:GLN:CG	2:G:1358:PRO:HD2	2.37	0.53
2:G:1354:LEU:HD21	2:G:1385:GLN:HB2	1.90	0.53
2:G:1732:PRO:HG2	2:G:1735:GLU:CB	2.38	0.53
2:G:1907:GLU:OE1	2:G:1907:GLU:N	2.37	0.53
2:G:541:PHE:C	2:G:542:LEU:HD12	2.28	0.53
2:G:616:GLU:O	2:G:627:GLN:NE2	2.41	0.53
2:A:1060:ASP:OD1	2:A:1061:VAL:N	2.41	0.53
2:A:2017:ASN:CG	2:A:2058:LEU:HD13	2.29	0.53
2:C:1121:LEU:HB2	2:C:1127:MET:CE	2.38	0.53
2:C:1517:TYR:HB2	2:C:1780:LEU:HD22	1.90	0.53
2:E:1354:LEU:HB3	2:E:1356:LEU:HG	1.90	0.53
2:E:1455:LYS:HD2	2:E:1475:ASP:OD2	2.09	0.53
2:E:2131:VAL:HG22	2:E:2143:ILE:HD12	1.91	0.53
2:E:530:ASN:OD1	2:E:532:ILE:HG22	2.09	0.53
2:E:988:VAL:HG13	2:E:1001:LYS:HD2	1.89	0.53
1:F:2064:TYR:O	1:F:2199:LEU:N	2.38	0.53
2:G:1894:LYS:HZ3	2:G:1901:ILE:HD12	1.71	0.53
2:G:2071:ASN:O	2:G:2072:ASN:HB3	2.08	0.53
2:G:463:LEU:HD23	2:G:463:LEU:O	2.08	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:796:ASP:HB3	2:G:798:ILE:HG12	1.91	0.53
2:A:1386:THR:O	2:A:1390:LEU:HD13	2.08	0.53
2:A:1721:PHE:HB2	2:A:1728:TYR:CE1	2.44	0.53
2:A:1722:GLU:OE1	2:A:1722:GLU:N	2.40	0.53
2:A:777:SER:HB3	2:A:780:GLU:HB3	1.91	0.53
2:C:1352:GLU:OE1	2:C:1352:GLU:N	2.39	0.53
2:C:2132:VAL:HG12	2:C:2133:GLY:N	2.23	0.53
2:C:2139:THR:C	2:C:2140:LEU:HD12	2.29	0.53
2:C:805:ASP:N	2:C:805:ASP:OD1	2.42	0.53
2:E:1466:THR:O	2:E:1470:LEU:HD13	2.08	0.53
2:E:900:LEU:HD11	2:E:932:LEU:HD11	1.89	0.53
1:F:2080:PRO:HG3	1:F:2242:PHE:CE2	2.44	0.53
2:G:828:LEU:HA	2:G:832:PHE:O	2.07	0.53
2:A:1394:ASP:HA	2:A:1538:ARG:CZ	2.38	0.53
2:C:1552:ILE:HG12	2:C:1811:TYR:CE1	2.44	0.53
2:C:1964:ASP:O	2:C:1968:ILE:HG12	2.09	0.53
2:E:1311:SER:OG	2:E:1313:PRO:HD2	2.09	0.53
2:E:2011:PRO:HB2	2:E:2034:ILE:HG23	1.89	0.53
2:G:1653:LEU:HD12	2:G:1654:ASP:HB2	1.90	0.53
2:G:1732:PRO:HG2	2:G:1735:GLU:HB2	1.91	0.53
2:G:1799:SER:OG	2:G:1802:ASP:HB2	2.08	0.53
1:H:2220:VAL:HG22	1:H:2221:ASP:N	2.23	0.53
2:A:620:ASP:OD2	2:A:623:LEU:HB2	2.09	0.53
2:C:1387:PHE:HB2	2:C:1391:TYR:CE1	2.44	0.53
2:C:2182:GLN:C	2:C:2184:PRO:HD3	2.29	0.53
2:E:1142:ARG:HD2	2:E:1168:GLU:OE2	2.08	0.53
2:E:941:SER:HB2	2:E:974:TYR:HD2	1.72	0.53
1:F:2164:PRO:HG3	1:F:2226:PHE:CZ	2.44	0.53
1:F:2164:PRO:HG3	1:F:2226:PHE:CE1	2.42	0.53
1:H:2300:ILE:HD12	2:G:1127:MET:SD	2.49	0.53
2:G:1860:GLU:CD	2:G:1861:GLY:H	2.10	0.53
2:G:2033:ASP:HB2	2:G:2036:ASP:CB	2.38	0.53
2:G:2066:ALA:O	2:G:2070:THR:OG1	2.25	0.53
2:G:926:ILE:CG1	2:G:927:PRO:HD3	2.31	0.53
2:A:1715:VAL:HG22	2:A:1739:MET:HE1	1.91	0.53
2:A:1936:VAL:HG13	2:A:1939:SER:OG	2.09	0.53
2:A:878:ILE:HB	2:A:919:ILE:HD12	1.91	0.53
2:C:1464:THR:HA	2:C:1467:ASP:OD1	2.09	0.53
2:C:775:VAL:HG22	2:C:776:HIS:H	1.73	0.53
2:C:737:PHE:CZ	2:C:930:LEU:HD23	2.44	0.53
2:E:686:ARG:O	2:E:690:THR:HB	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:773:ILE:HG13	2:E:877:ILE:HB	1.90	0.53
2:G:1165:LYS:HB2	2:G:1328:MET:HE1	1.91	0.53
2:G:1768:LYS:O	2:G:1772:GLU:HG2	2.08	0.53
2:G:1892:LYS:HA	2:G:1988:HIS:CE1	2.44	0.53
2:G:529:LEU:HD23	2:G:530:ASN:O	2.09	0.53
2:G:825:LYS:HE3	2:G:828:LEU:HD12	1.91	0.53
2:G:993:GLU:O	2:G:994:ASP:HB3	2.09	0.53
2:A:654:THR:O	2:A:657:VAL:HG22	2.09	0.53
2:A:663:ASP:HA	2:A:699:LEU:HB2	1.89	0.53
1:B:2124:ILE:HG22	1:B:2263:PHE:CE2	2.44	0.53
2:C:775:VAL:HG21	2:C:780:GLU:HG3	1.89	0.53
2:C:775:VAL:CG2	2:C:780:GLU:HG2	2.39	0.53
1:D:2101:LEU:HD22	1:D:2115:ILE:HG21	1.91	0.53
2:E:1722:GLU:OE2	2:E:1724:LYS:HE3	2.08	0.53
2:E:2046:ASN:C	2:E:2048:ASN:H	2.12	0.53
2:E:533:GLN:NE2	2:E:559:ASN:HB2	2.23	0.53
1:F:2211:TRP:CG	1:F:2230:MET:HE1	2.44	0.53
2:G:1073:PHE:CE1	2:G:1133:VAL:HA	2.44	0.53
2:G:1990:ASN:HA	2:G:1993:ASN:ND2	2.24	0.53
2:G:2005:MET:HB2	2:G:2013:LYS:CD	2.31	0.53
2:A:521:ILE:CG2	2:A:522:PRO:HD3	2.38	0.53
2:A:617:LEU:HD23	2:A:644:ILE:HG13	1.91	0.53
2:A:978:ARG:HB3	2:A:986:TYR:CE1	2.43	0.53
1:B:2069:ASP:OD1	1:B:2069:ASP:N	2.42	0.53
2:C:2172:LEU:N	2:C:2172:LEU:HD12	2.24	0.53
2:E:1073:PHE:CE1	2:E:1133:VAL:HG22	2.44	0.53
2:E:1674:GLU:N	2:E:1674:GLU:OE2	2.33	0.53
2:E:593:LYS:HA	2:E:596:VAL:HG22	1.89	0.53
2:G:1243:THR:HG22	2:G:1244:ARG:N	2.24	0.53
2:G:1353:LEU:HD13	2:G:1353:LEU:O	2.09	0.53
2:G:1411:ALA:O	2:G:1415:LEU:HD23	2.09	0.53
2:G:2101:ILE:O	2:G:2151:GLU:HA	2.09	0.53
2:A:1235:ILE:HG13	2:A:1334:MET:HE3	1.91	0.52
2:A:1996:GLU:O	2:A:2000:MET:HG3	2.09	0.52
2:A:2131:VAL:HG22	2:A:2143:ILE:CG1	2.35	0.52
2:C:1054:ILE:HA	2:C:1058:MET:SD	2.48	0.52
2:C:1676:LEU:O	2:C:1681:LYS:HE3	2.08	0.52
2:C:1994:ALA:HA	2:C:1997:MET:CG	2.39	0.52
2:C:2062:GLN:O	2:C:2065:GLN:HG2	2.09	0.52
2:E:1089:LEU:HD11	2:E:1119:LEU:HB3	1.91	0.52
2:E:1887:LEU:HD23	2:E:1888:SER:N	2.24	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1619:LYS:HD2	2:E:1914:ARG:HD2	1.90	0.52
2:E:1978:ALA:O	2:E:1982:ILE:HD11	2.10	0.52
2:E:2048:ASN:C	2:E:2050:ALA:H	2.12	0.52
1:F:2120:MET:O	1:F:2249:PRO:HD3	2.09	0.52
2:G:1393:THR:HG22	2:G:1394:ASP:N	2.23	0.52
2:G:1889:LEU:O	2:G:1988:HIS:NE2	2.43	0.52
2:G:540:ALA:HA	2:G:547:MET:HE3	1.91	0.52
1:B:2288:PRO:CB	2:A:1174:THR:HG21	2.35	0.52
2:A:1713:VAL:HG23	2:A:1743:ALA:HB2	1.91	0.52
2:A:2006:TRP:HB2	2:A:2009:ASP:OD2	2.09	0.52
2:C:1881:THR:HG1	2:C:1906:THR:HG1	1.58	0.52
2:C:2036:ASP:O	2:C:2040:GLN:HB2	2.09	0.52
2:C:2087:ASP:OD1	2:C:2087:ASP:N	2.42	0.52
1:D:2092:ASP:HB3	1:D:2095:VAL:HG12	1.91	0.52
2:E:1068:ALA:HB3	2:E:1105:THR:HG23	1.91	0.52
2:E:1243:THR:HG22	2:E:1244:ARG:N	2.24	0.52
2:E:1487:LEU:HD23	2:E:1488:SER:HB3	1.91	0.52
2:E:498:PRO:HD3	2:E:734:ARG:CG	2.39	0.52
1:F:2101:LEU:HD21	1:F:2151:ILE:CD1	2.39	0.52
2:G:2025:VAL:HG22	2:G:2056:LEU:HD22	1.91	0.52
1:H:2132:LEU:HB3	1:H:2133:PRO:HD2	1.92	0.52
2:A:1853:ILE:HG22	2:A:1869:ALA:HB2	1.92	0.52
2:A:2170:LEU:O	2:A:2184:PRO:HD2	2.09	0.52
2:C:1509:HIS:CD2	2:C:1544:VAL:HG22	2.44	0.52
2:C:2002:VAL:CG1	2:C:2176:SER:HB2	2.36	0.52
2:C:931:SER:O	2:C:937:LEU:N	2.42	0.52
2:E:1893:SER:HB2	2:E:1990:ASN:CG	2.29	0.52
2:E:804:HIS:HD1	2:E:807:GLY:HA2	1.73	0.52
1:F:2065:VAL:HG21	1:F:2236:LEU:O	2.08	0.52
2:G:1090:LEU:HD23	2:G:1090:LEU:O	2.09	0.52
2:G:596:VAL:HB	2:G:635:VAL:HG12	1.90	0.52
2:G:724:PHE:HB3	2:G:728:TYR:CD1	2.44	0.52
1:H:2247:LEU:HB3	1:H:2273:VAL:HG11	1.91	0.52
2:A:1235:ILE:HD11	2:A:1334:MET:CB	2.39	0.52
2:A:1685:LYS:HG3	2:A:1708:PHE:CE1	2.42	0.52
1:D:2302:VAL:HG11	2:C:1128:ALA:HA	1.91	0.52
2:C:1925:TYR:HA	2:C:1928:VAL:HG22	1.91	0.52
2:E:1235:ILE:O	2:E:1236:GLN:HG3	2.10	0.52
2:E:1434:GLN:O	2:E:1437:VAL:HG22	2.10	0.52
2:E:1679:SER:O	2:E:1683:ILE:HG13	2.09	0.52
2:G:1143:ALA:O	2:G:1147:ILE:HG13	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1490:GLN:OE1	2:G:1492:LYS:N	2.42	0.52
2:G:2046:ASN:CB	2:G:2047:PRO:HD2	2.39	0.52
2:G:844:ARG:O	2:G:848:GLU:HG3	2.09	0.52
1:H:2157:ASN:OD1	1:H:2158:GLU:N	2.31	0.52
2:A:744:LYS:O	2:A:748:GLN:HG3	2.09	0.52
2:C:1054:ILE:HD13	2:C:1144:ILE:HG23	1.92	0.52
2:C:1468:LEU:HD11	2:C:1494:ARG:NH2	2.25	0.52
2:C:1992:LEU:HD13	2:C:2132:VAL:CG2	2.38	0.52
2:C:871:LEU:N	2:C:872:PRO:CD	2.73	0.52
2:G:1142:ARG:HD2	2:G:1168:GLU:OE2	2.09	0.52
2:G:1490:GLN:OE1	2:G:1492:LYS:HG2	2.09	0.52
2:G:581:LEU:HD22	2:G:612:ILE:HG22	1.90	0.52
2:G:636:THR:OG1	2:G:640:LYS:HB3	2.09	0.52
2:A:1205:LEU:HD23	2:A:1210:MET:HB2	1.92	0.52
2:A:1586:HIS:CE1	2:A:1588:PRO:HG2	2.45	0.52
2:A:1908:PHE:CE2	2:A:1971:LYS:HE2	2.44	0.52
2:A:2083:VAL:HG22	2:A:2097:LEU:HD13	1.92	0.52
2:A:2169:LYS:CE	2:A:2185:SER:HB3	2.38	0.52
2:A:775:VAL:HG11	2:A:781:THR:CA	2.39	0.52
2:A:809:ARG:O	2:A:813:GLN:HB2	2.09	0.52
2:A:844:ARG:O	2:A:848:GLU:HG3	2.10	0.52
1:B:2288:PRO:HB3	2:A:1174:THR:CG2	2.35	0.52
2:C:1025:THR:HG23	2:C:1027:LYS:H	1.75	0.52
2:C:1254:THR:HG22	2:C:1301:GLU:HG3	1.92	0.52
2:C:1490:GLN:O	2:C:1490:GLN:HG2	2.10	0.52
2:C:921:THR:OG1	2:C:922:THR:N	2.42	0.52
2:E:1445:GLN:HA	2:E:1457:ILE:HD12	1.92	0.52
1:F:2193:THR:HB	1:F:2194:PRO:HD2	1.90	0.52
1:F:2247:LEU:HB3	1:F:2273:VAL:CG1	2.40	0.52
2:G:2115:VAL:CB	2:G:2126:GLU:H	2.22	0.52
2:G:647:LYS:HA	2:G:1039:HIS:CD2	2.45	0.52
2:G:736:GLU:CG	2:G:918:ILE:HG13	2.39	0.52
1:H:2217:ASP:CB	1:H:2218:PRO:CD	2.88	0.52
1:H:2202:TRP:CZ3	1:H:2233:ARG:HG3	2.44	0.52
1:H:2309:ALA:HB1	2:G:618:THR:OG1	2.10	0.52
2:A:1032:GLU:OE1	2:A:1035:ARG:NH2	2.43	0.52
2:A:1496:ASN:O	2:A:1499:THR:OG1	2.24	0.52
2:A:1679:SER:O	2:A:1683:ILE:HG13	2.10	0.52
2:A:1928:VAL:CG2	2:A:1949:GLN:HB3	2.28	0.52
2:A:805:ASP:OD1	2:A:806:ALA:N	2.43	0.52
2:C:1142:ARG:HD2	2:C:1168:GLU:OE2	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1184:CYS:SG	2:C:1188:ILE:HD11	2.49	0.52
2:C:1214:LEU:CD1	2:C:1216:MET:HB2	2.40	0.52
2:E:1067:PHE:CE2	2:E:1112:LEU:HD22	2.44	0.52
2:E:1412:GLU:O	2:E:1416:LEU:HD13	2.08	0.52
2:E:1431:ALA:O	2:E:1481:PRO:HD3	2.09	0.52
2:E:2091:ALA:HB2	2:E:2191:ALA:N	2.24	0.52
2:G:1820:PRO:O	2:G:1825:LEU:HG	2.10	0.52
2:G:1936:VAL:HG13	2:G:1939:SER:CB	2.39	0.52
2:G:2115:VAL:HB	2:G:2125:SER:CB	2.37	0.52
2:G:736:GLU:HG3	2:G:918:ILE:HG13	1.92	0.52
2:A:1460:LEU:CD1	2:A:1467:ASP:HB3	2.40	0.52
2:A:772:LEU:O	2:A:772:LEU:HD12	2.10	0.52
1:B:2297:LEU:HD12	1:B:2297:LEU:O	2.10	0.52
2:C:1357:GLN:CG	2:C:1358:PRO:HD2	2.39	0.52
2:C:1913:THR:HG22	2:C:1943:LYS:NZ	2.25	0.52
2:C:2048:ASN:O	2:C:2049:TYR:HB2	2.10	0.52
2:C:834:ILE:HG23	2:C:839:MET:CE	2.40	0.52
2:C:975:LEU:O	2:C:979:MET:HG3	2.10	0.52
2:C:980:LEU:HD23	2:C:998:LEU:CD1	2.39	0.52
2:E:1368:ASP:OD1	2:E:1369:TYR:N	2.43	0.52
2:E:2091:ALA:HB2	2:E:2191:ALA:H	1.75	0.52
1:F:2063:MET:HA	1:F:2197:VAL:HG13	1.91	0.52
1:F:2211:TRP:CE3	1:F:2230:MET:HE1	2.45	0.52
2:G:1428:VAL:HG21	2:G:1484:TRP:CZ2	2.45	0.52
2:G:1592:LEU:HD23	2:G:1592:LEU:O	2.10	0.52
2:G:2098:LYS:HA	2:G:2155:LYS:HA	1.92	0.52
2:A:1235:ILE:HG13	2:A:1334:MET:CE	2.40	0.52
2:A:621:ARG:CD	2:A:622:GLN:HE21	2.21	0.52
1:B:2091:ALA:CB	1:B:2153:THR:HG21	2.40	0.52
2:C:715:VAL:CG1	2:C:720:GLY:HA3	2.40	0.52
2:C:985:LEU:HD23	2:C:985:LEU:O	2.09	0.52
2:E:1243:THR:HG23	2:E:1347:PHE:CZ	2.45	0.52
2:E:1468:LEU:HD12	2:E:1469:LYS:N	2.24	0.52
2:E:650:ASP:O	2:E:654:THR:HG23	2.10	0.52
2:E:898:ASP:O	2:E:902:MET:HG3	2.09	0.52
2:G:1089:LEU:O	2:G:1093:VAL:HG13	2.10	0.52
2:G:1504:ILE:HD13	2:G:1540:VAL:HG13	1.92	0.52
2:G:1504:ILE:HD12	2:G:1540:VAL:O	2.10	0.52
2:G:1613:VAL:HG13	2:G:1714:VAL:HG23	1.91	0.52
2:G:1718:THR:CG2	2:G:1758:LEU:HB3	2.39	0.52
2:G:2115:VAL:N	2:G:2125:SER:HB3	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:872:PRO:HB2	2:A:908:ARG:CG	2.38	0.52
2:C:1396:ASN:OD1	2:C:1530:ARG:NH1	2.41	0.52
2:C:835:HIS:HB3	2:C:861:CYS:HB3	1.90	0.52
2:E:562:MET:HG2	2:E:606:ARG:NH2	2.25	0.52
2:G:1247:LEU:HD13	2:G:1310:ILE:CG1	2.40	0.52
2:G:1855:GLU:HB2	2:G:1866:LEU:CD1	2.36	0.52
2:G:615:SER:OG	2:G:631:THR:HG21	2.10	0.52
2:A:686:ARG:HA	2:A:689:GLN:HG2	1.91	0.51
2:C:1503:PHE:CD2	2:C:1539:ILE:HG23	2.45	0.51
2:C:2031:ILE:HD12	2:C:2031:ILE:N	2.25	0.51
2:E:1898:ILE:O	2:E:1902:VAL:HG12	2.10	0.51
2:E:1934:ASN:ND2	2:E:1934:ASN:O	2.43	0.51
2:E:832:PHE:HA	2:E:858:VAL:HG13	1.91	0.51
1:F:2227:THR:CG2	1:F:2229:THR:HG22	2.40	0.51
2:G:1359:LEU:HD21	2:G:1363:ALA:HB2	1.92	0.51
2:G:1928:VAL:HB	2:G:1949:GLN:OE1	2.11	0.51
2:G:1982:ILE:HD13	2:G:1986:GLU:HG3	1.92	0.51
2:G:509:ASN:O	2:G:528:THR:OG1	2.28	0.51
2:G:647:LYS:HG2	2:G:1039:HIS:CD2	2.45	0.51
2:A:1587:PHE:HB3	2:A:1588:PRO:HD3	1.92	0.51
2:A:496:VAL:HB	2:A:735:GLN:HG3	1.92	0.51
2:A:572:ASN:O	2:A:579:ILE:HD12	2.10	0.51
2:A:456:LYS:HD3	2:A:992:TYR:OH	2.10	0.51
2:C:1007:HIS:HE1	2:C:1023:GLU:HG3	1.74	0.51
1:D:2101:LEU:HD11	1:D:2151:ILE:HG13	1.92	0.51
2:E:1401:ALA:HB1	2:E:1402:PRO:HD2	1.90	0.51
2:E:1396:ASN:ND2	2:E:1557:ASP:O	2.37	0.51
2:E:585:LYS:NZ	2:E:632:GLN:HA	2.26	0.51
2:E:665:ILE:HG22	2:E:700:SER:HB2	1.91	0.51
1:F:2082:ASN:HD21	1:F:2244:GLY:H	1.58	0.51
2:G:1180:GLN:O	2:G:1182:PRO:HD3	2.10	0.51
2:G:1184:CYS:SG	2:G:1188:ILE:HD11	2.50	0.51
2:G:1242:MET:HG3	2:G:1248:ARG:HB3	1.92	0.51
2:G:1426:ARG:CG	2:G:1499:THR:HG23	2.40	0.51
2:G:2141:LEU:HD22	2:G:2141:LEU:O	2.10	0.51
2:G:657:VAL:O	2:G:658:ARG:HD2	2.10	0.51
2:A:1108:ILE:HG23	2:A:1133:VAL:HG21	1.93	0.51
2:A:1152:GLY:HA2	2:A:1282:ILE:HB	1.93	0.51
2:A:515:LEU:O	2:A:520:ARG:NH1	2.43	0.51
2:A:799:ASN:O	2:A:803:LYS:HD2	2.10	0.51
2:C:1358:PRO:HB2	2:C:1378:GLN:CG	2.40	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2155:LYS:HG2	2:C:2156:LEU:N	2.25	0.51
1:D:2309:ALA:CB	2:C:618:THR:HA	2.41	0.51
2:E:1509:HIS:HB3	2:E:1543:SER:OG	2.11	0.51
2:E:1908:PHE:CE1	2:E:1967:VAL:HG13	2.45	0.51
2:E:1982:ILE:HD12	2:E:1982:ILE:H	1.73	0.51
2:E:622:GLN:O	2:E:625:LYS:HB3	2.11	0.51
2:E:757:TYR:O	2:E:761:LEU:HG	2.11	0.51
2:G:1591:MET:HA	2:G:1591:MET:CE	2.39	0.51
2:A:2105:LEU:O	2:A:2105:LEU:HD12	2.10	0.51
1:B:2300:ILE:HG22	1:B:2302:VAL:H	1.74	0.51
2:C:1056:PRO:HG3	2:C:1153:TRP:CE2	2.46	0.51
2:C:1391:TYR:HB2	2:C:1417:ARG:HB2	1.93	0.51
2:C:1451:LEU:HA	2:C:1454:GLY:O	2.11	0.51
2:C:1386:THR:HG22	2:C:1564:TYR:CE1	2.45	0.51
2:C:777:SER:HB3	2:C:780:GLU:CB	2.41	0.51
2:C:976:PHE:CE2	2:C:980:LEU:HD11	2.45	0.51
1:D:2147:PRO:O	1:D:2148:LEU:HD12	2.11	0.51
2:E:1652:LEU:HD12	2:E:1652:LEU:N	2.25	0.51
2:E:1677:SER:O	2:E:1681:LYS:HG3	2.11	0.51
2:G:1676:LEU:O	2:G:1681:LYS:HE3	2.10	0.51
2:G:1713:VAL:HG23	2:G:1743:ALA:HB2	1.91	0.51
2:G:2034:ILE:HD12	2:G:2074:TYR:HE2	1.72	0.51
2:G:2113:PRO:HA	2:G:2126:GLU:OE2	2.11	0.51
2:G:506:THR:HG22	2:G:508:GLN:CG	2.32	0.51
2:G:591:PRO:HD2	2:G:595:LEU:HD23	1.90	0.51
1:H:2160:PRO:HB2	1:H:2161:TYR:CD2	2.45	0.51
2:A:1138:GLY:O	2:A:1142:ARG:HG3	2.10	0.51
2:A:1827:ASP:OD1	2:A:1829:THR:OG1	2.19	0.51
1:B:2153:THR:HA	1:B:2190:VAL:HB	1.91	0.51
1:B:2296:GLU:HB3	2:A:1120:LYS:HG3	1.92	0.51
1:D:2301:TRP:HZ3	2:C:1124:LEU:HD23	1.75	0.51
2:C:1230:PHE:CZ	2:C:1330:SER:HB2	2.45	0.51
2:C:1587:PHE:N	2:C:1588:PRO:HD2	2.25	0.51
2:C:1993:ASN:O	2:C:1997:MET:HG2	2.10	0.51
1:D:2289:ILE:HD12	1:D:2289:ILE:N	2.25	0.51
2:E:1109:ASN:OD1	2:E:1113:GLN:NE2	2.36	0.51
2:E:1629:LEU:HD11	2:E:1664:ALA:HA	1.92	0.51
2:E:1711:HIS:CD2	2:E:1752:SER:HA	2.45	0.51
2:G:1072:GLU:OE1	2:G:1072:GLU:N	2.43	0.51
2:G:1622:ARG:NH2	2:G:1658:GLU:OE2	2.41	0.51
2:G:1883:GLU:O	2:G:1886:LEU:HD23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1073:PHE:CD2	2:A:1108:ILE:HG21	2.46	0.51
2:A:1811:TYR:CZ	2:A:1815:ARG:HD3	2.45	0.51
2:A:1799:SER:OG	2:A:1861:GLY:O	2.24	0.51
2:A:2135:GLU:OE2	2:A:2169:LYS:HG3	2.10	0.51
2:A:620:ASP:HB3	2:A:624:THR:CG2	2.34	0.51
2:A:472:MET:CE	2:A:928:TYR:HA	2.41	0.51
2:C:1428:VAL:HG13	2:C:1503:PHE:CD1	2.36	0.51
2:C:1492:LYS:HE3	2:C:1796:MET:HE1	1.92	0.51
2:C:1791:GLU:CB	2:C:1797:ILE:HG13	2.33	0.51
2:C:2107:GLU:HG2	2:C:2108:ASP:N	2.25	0.51
1:D:2214:GLU:O	1:D:2216:LYS:N	2.43	0.51
2:E:685:ARG:O	2:E:689:GLN:HG2	2.11	0.51
2:G:1359:LEU:HD23	2:G:1360:PRO:O	2.10	0.51
2:G:1796:MET:HA	2:G:1796:MET:CE	2.40	0.51
2:G:1976:LEU:O	2:G:1980:VAL:HG23	2.11	0.51
2:G:2096:TYR:HA	2:G:2157:GLU:CB	2.41	0.51
2:G:2171:PHE:CD2	2:G:2183:ASP:HA	2.45	0.51
2:G:709:VAL:HG22	2:G:974:TYR:CE1	2.46	0.51
2:G:992:TYR:CG	2:G:1001:LYS:HD3	2.45	0.51
1:H:2186:LEU:HD13	1:H:2201:ALA:HB1	1.92	0.51
1:B:2250:ASP:CB	1:B:2272:HIS:HB3	2.41	0.51
2:C:1711:HIS:HA	2:C:1745:GLN:O	2.10	0.51
2:C:1906:THR:HA	2:C:1909:GLU:HG3	1.91	0.51
2:C:1994:ALA:HA	2:C:1997:MET:HG2	1.92	0.51
2:C:2031:ILE:HG21	2:C:2037:PHE:HD1	1.76	0.51
1:F:2170:HIS:ND1	1:F:2187:THR:OG1	2.42	0.51
2:G:1401:ALA:HB1	2:G:1402:PRO:HD2	1.93	0.51
2:G:1574:PRO:HD2	2:G:1750:GLY:O	2.10	0.51
2:G:751:THR:O	2:G:755:ILE:HG13	2.10	0.51
2:A:1243:THR:HG22	2:A:1244:ARG:N	2.25	0.51
2:A:1792:ILE:HG22	2:A:1865:PRO:CB	2.30	0.51
2:A:578:GLU:HG3	2:A:579:ILE:N	2.25	0.51
2:A:746:ILE:N	2:A:746:ILE:HD12	2.25	0.51
2:C:976:PHE:CD1	2:C:1002:ARG:HD3	2.46	0.51
2:C:1244:ARG:NH1	2:C:1343:LEU:HB2	2.26	0.51
2:C:1387:PHE:HA	2:C:1390:LEU:HB2	1.91	0.51
2:E:1586:HIS:HB3	2:E:1589:SER:HB2	1.92	0.51
2:E:2085:ASP:N	2:E:2086:PRO:HD3	2.25	0.51
2:G:1820:PRO:CB	2:G:1825:LEU:HD11	2.40	0.51
2:G:1674:GLU:HB2	2:G:1963:LYS:NZ	2.25	0.51
2:A:2025:VAL:HG11	2:A:2055:ASP:HB3	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:469:ASN:ND2	2:A:670:ASP:OD2	2.44	0.51
2:C:1086:LEU:O	2:C:1090:LEU:N	2.43	0.51
2:C:1895:LEU:O	2:C:1898:ILE:HG22	2.11	0.51
2:C:846:ASP:O	2:C:850:LEU:HG	2.10	0.51
2:E:2079:LEU:H	2:E:2079:LEU:HD23	1.76	0.51
2:E:798:ILE:HD12	2:E:801:ILE:CD1	2.41	0.51
1:F:2054:SER:O	1:F:2057:ARG:HG2	2.10	0.51
2:G:975:LEU:O	2:G:979:MET:HG3	2.10	0.51
1:H:2084:LEU:HD21	1:H:2199:LEU:HD11	1.92	0.51
2:A:1042:ILE:HD11	2:A:1140:ILE:HA	1.92	0.51
2:A:1360:PRO:HA	2:A:1378:GLN:HA	1.91	0.51
2:A:1642:LEU:HD21	2:A:1646:VAL:HG12	1.93	0.51
2:A:482:GLY:HA3	2:A:497:PRO:HG3	1.93	0.51
2:A:530:ASN:OD1	2:A:532:ILE:HG12	2.11	0.51
2:A:751:THR:O	2:A:755:ILE:HG13	2.11	0.51
1:B:2255:ASN:HB3	1:B:2286:HIS:CG	2.46	0.51
2:C:1101:ILE:HD12	2:C:1101:ILE:O	2.11	0.51
2:C:601:GLY:O	2:C:605:LYS:HG2	2.11	0.51
2:C:760:VAL:HG12	2:C:761:LEU:HD12	1.93	0.51
2:E:2131:VAL:HG22	2:E:2143:ILE:HG13	1.92	0.51
2:E:472:MET:HG3	2:E:928:TYR:HD1	1.76	0.51
2:G:1892:LYS:HA	2:G:1988:HIS:NE2	2.25	0.51
2:G:2007:ASP:OD1	2:G:2008:ARG:N	2.39	0.51
2:G:516:PRO:HB3	2:G:518:TRP:NE1	2.25	0.51
1:H:2065:VAL:HG11	1:H:2236:LEU:O	2.11	0.51
1:H:2227:THR:HG21	1:H:2229:THR:HG22	1.93	0.51
1:H:2297:LEU:O	1:H:2297:LEU:HD12	2.10	0.51
2:A:1231:PRO:HG3	2:A:1327:TRP:CD1	2.46	0.50
2:A:1573:VAL:HG11	2:A:1746:PRO:HB3	1.93	0.50
2:A:1774:LEU:HD12	2:A:1775:PRO:CD	2.41	0.50
2:A:970:LEU:O	2:A:973:THR:HG22	2.11	0.50
1:B:2104:CYS:HB3	1:B:2145:LEU:HD23	1.92	0.50
2:C:1665:LEU:HD22	2:C:1687:LEU:HD23	1.93	0.50
2:C:1952:PHE:HB3	2:C:2006:TRP:HE3	1.75	0.50
2:C:2034:ILE:HA	2:C:2037:PHE:HB3	1.93	0.50
2:C:629:SER:HB2	2:C:653:TYR:CZ	2.46	0.50
2:C:822:THR:HG22	2:C:823:ASP:O	2.11	0.50
2:C:820:ASN:HB2	2:C:843:ASP:OD2	2.11	0.50
2:E:1064:PHE:HB3	2:E:1109:ASN:ND2	2.25	0.50
2:E:1310:ILE:HD13	2:E:1318:TYR:OH	2.11	0.50
2:E:504:ASP:N	2:E:505:PRO:HD3	2.25	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1101:ILE:HG23	2:G:1102:GLU:N	2.21	0.50
2:G:1625:ALA:HA	2:G:1697:ILE:HD12	1.92	0.50
2:G:2026:ALA:CB	2:G:2031:ILE:HD11	2.36	0.50
2:G:657:VAL:C	2:G:658:ARG:HD2	2.31	0.50
1:H:2045:GLU:O	1:H:2049:ARG:HG3	2.11	0.50
2:A:1539:ILE:HD12	2:A:1539:ILE:N	2.26	0.50
2:A:1559:LYS:O	2:A:1563:ILE:HG23	2.11	0.50
2:A:1598:THR:HG21	2:A:1716:MET:HE2	1.93	0.50
2:C:1952:PHE:HB3	2:C:2006:TRP:CE3	2.46	0.50
2:C:585:LYS:O	2:C:657:VAL:HA	2.11	0.50
1:D:2092:ASP:CB	1:D:2095:VAL:HG12	2.40	0.50
2:E:1093:VAL:HG11	2:E:1110:VAL:HG13	1.92	0.50
2:E:1352:GLU:O	2:E:1354:LEU:HD12	2.11	0.50
2:E:775:VAL:HG11	2:E:781:THR:HB	1.92	0.50
2:G:1007:HIS:O	2:G:1011:MET:HG2	2.12	0.50
1:H:2300:ILE:HG23	2:G:1127:MET:SD	2.50	0.50
2:G:1247:LEU:HD13	2:G:1310:ILE:HG13	1.92	0.50
2:G:1396:ASN:HD21	2:G:1558:ALA:HB2	1.73	0.50
2:G:1652:LEU:N	2:G:1652:LEU:HD12	2.27	0.50
2:G:1706:LEU:HD11	2:G:1708:PHE:CD2	2.46	0.50
2:G:1867:ASN:O	2:G:1871:ILE:HG13	2.12	0.50
2:G:2015:ILE:H	2:G:2015:ILE:HD12	1.77	0.50
2:G:959:ASN:HD22	2:G:959:ASN:H	1.58	0.50
1:D:2284:GLU:HG2	2:C:1174:THR:HG21	1.93	0.50
2:C:1857:ASP:HA	2:C:1861:GLY:CA	2.34	0.50
2:C:1972:ILE:O	2:C:1976:LEU:HG	2.10	0.50
2:C:1993:ASN:O	2:C:1997:MET:HE3	2.11	0.50
2:C:2029:TYR:CD2	2:C:2053:VAL:HG22	2.46	0.50
2:C:454:PRO:HD3	2:C:963:ARG:HH12	1.76	0.50
2:E:1497:VAL:O	2:E:1500:VAL:HG22	2.10	0.50
2:E:1633:LEU:HD12	2:E:1634:ALA:N	2.26	0.50
2:E:2071:ASN:HD21	2:E:2073:LYS:HB2	1.75	0.50
2:G:1155:SER:O	2:G:1159:LEU:HD13	2.11	0.50
2:G:1902:VAL:CG2	2:G:1971:LYS:HE3	2.42	0.50
2:A:1104:PRO:O	2:A:1108:ILE:HG12	2.12	0.50
2:A:1876:ASN:O	2:A:1876:ASN:ND2	2.44	0.50
2:A:2045:GLU:C	2:A:2047:PRO:HD2	2.31	0.50
1:B:2216:LYS:O	1:B:2217:ASP:HB2	2.11	0.50
2:C:1276:ASP:HB3	2:C:1283:LEU:HD11	1.94	0.50
2:C:1438:ASP:HA	2:C:1441:PHE:HB3	1.93	0.50
2:C:1685:LYS:HD2	2:C:1686:HIS:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1897:THR:O	2:C:1901:ILE:HG13	2.11	0.50
2:C:1996:GLU:O	2:C:2000:MET:HG3	2.11	0.50
2:C:504:ASP:N	2:C:504:ASP:OD1	2.42	0.50
2:C:607:LEU:HD12	2:C:612:ILE:CD1	2.37	0.50
2:C:872:PRO:HD3	2:C:905:ARG:HG3	1.93	0.50
2:E:2169:LYS:HG3	2:E:2184:PRO:O	2.11	0.50
2:G:1525:ARG:O	2:G:1529:ILE:HG23	2.11	0.50
2:G:2169:LYS:HA	2:G:2185:SER:HB3	1.94	0.50
2:G:501:LYS:HD2	2:G:501:LYS:O	2.10	0.50
2:G:687:THR:HG23	2:G:692:GLU:O	2.10	0.50
2:G:809:ARG:O	2:G:813:GLN:HG2	2.10	0.50
2:A:1353:LEU:HD22	2:A:1570:VAL:HG11	1.92	0.50
2:A:1428:VAL:HG13	2:A:1477:ILE:CD1	2.41	0.50
2:A:1504:ILE:HD12	2:A:1540:VAL:O	2.11	0.50
1:B:2247:LEU:HD23	1:B:2275:LEU:HA	1.92	0.50
2:C:1434:GLN:O	2:C:1437:VAL:HG22	2.12	0.50
1:D:2284:GLU:HG2	2:C:1174:THR:CG2	2.42	0.50
2:E:1539:ILE:HB	2:E:1556:ILE:CG2	2.42	0.50
2:E:1668:GLY:HA2	2:E:1693:ILE:HG22	1.92	0.50
2:E:2142:ALA:CB	2:E:2158:PHE:HA	2.42	0.50
2:E:501:LYS:CG	2:E:727:SER:HB2	2.42	0.50
2:E:503:SER:C	2:E:505:PRO:HD3	2.32	0.50
2:E:555:SER:N	3:E:2201:ACT:OXT	2.45	0.50
2:E:617:LEU:CD2	2:E:640:LYS:HG3	2.40	0.50
2:E:803:LYS:O	2:E:803:LYS:HG2	2.11	0.50
2:E:826:ASP:OD1	2:E:826:ASP:N	2.45	0.50
2:G:1530:ARG:HH21	2:G:1539:ILE:HG13	1.77	0.50
2:G:1785:PRO:HB2	2:G:1879:TYR:CZ	2.47	0.50
2:G:1895:LEU:CD2	2:G:1896:ARG:H	2.25	0.50
1:H:2047:ARG:HD3	2:G:1098:LYS:HE3	1.93	0.50
1:B:2296:GLU:HG3	2:A:1119:LEU:HA	1.93	0.50
2:A:464:VAL:HG21	2:A:945:SER:HB3	1.92	0.50
2:A:777:SER:HB3	2:A:780:GLU:HB2	1.92	0.50
2:C:1383:GLN:O	2:C:1387:PHE:HB3	2.10	0.50
2:C:1468:LEU:HD23	2:C:1468:LEU:O	2.12	0.50
2:C:1713:VAL:HG23	2:C:1743:ALA:HB2	1.93	0.50
2:C:803:LYS:C	2:C:803:LYS:HD3	2.32	0.50
1:D:2301:TRP:HA	2:C:778:ARG:HD2	1.93	0.50
2:E:1530:ARG:HB3	2:E:1537:MET:CE	2.41	0.50
2:E:2139:THR:HG22	2:E:2140:LEU:N	2.26	0.50
2:E:623:LEU:HD12	2:E:623:LEU:O	2.12	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1720:PHE:CE1	2:G:1729:ILE:HD11	2.47	0.50
2:G:1863:VAL:O	2:G:1863:VAL:HG23	2.11	0.50
2:G:2034:ILE:HD12	2:G:2074:TYR:CD2	2.46	0.50
2:G:514:GLU:C	2:G:515:LEU:HD12	2.32	0.50
2:G:722:PHE:HB3	2:G:724:PHE:CE2	2.46	0.50
2:G:772:LEU:O	2:G:772:LEU:HD12	2.11	0.50
2:G:452:LEU:CD1	2:G:999:GLU:HG2	2.41	0.50
2:A:1359:LEU:HD12	2:A:1359:LEU:O	2.11	0.50
2:A:1487:LEU:HD23	2:A:1488:SER:N	2.27	0.50
2:A:1969:LEU:CD2	2:A:2121:PRO:HG2	2.41	0.50
2:C:1504:ILE:HD12	2:C:1504:ILE:N	2.27	0.50
1:D:2218:PRO:HD2	1:D:2219:ASN:N	2.27	0.50
2:E:1675:ALA:HA	2:E:1963:LYS:CD	2.37	0.50
2:E:1793:SER:HB2	2:E:1870:MET:SD	2.52	0.50
2:E:1983:LEU:HD21	2:E:2143:ILE:CD1	2.42	0.50
2:E:784:THR:OG1	2:E:879:LYS:HE2	2.12	0.50
2:G:1461:THR:HG23	2:G:1462:GLY:N	2.25	0.50
2:G:1657:GLN:NE2	2:G:1677:SER:HB3	2.27	0.50
2:G:1827:ASP:OD1	2:G:1829:THR:OG1	2.24	0.50
2:G:607:LEU:CB	2:G:612:ILE:HD11	2.40	0.50
2:G:843:ASP:O	2:G:847:VAL:HG23	2.12	0.50
1:H:2083:ILE:CG2	1:H:2118:ILE:HD12	2.42	0.50
2:A:1203:PHE:HB3	2:A:1232:ARG:HH21	1.77	0.50
2:A:1247:LEU:CD1	2:A:1310:ILE:HG13	2.31	0.50
2:A:1428:VAL:HG13	2:A:1477:ILE:HD11	1.94	0.50
2:A:1487:LEU:HD23	2:A:1488:SER:HB3	1.93	0.50
2:A:2128:TRP:CD1	2:A:2148:VAL:HG12	2.47	0.50
2:A:494:ILE:HD12	2:A:494:ILE:N	2.26	0.50
2:A:618:THR:HA	2:A:640:LYS:HE2	1.94	0.50
2:A:710:ALA:HB3	2:A:717:PHE:HE1	1.77	0.50
2:A:781:THR:HG23	2:A:834:ILE:CD1	2.42	0.50
2:C:1070:SER:HB2	2:C:1073:PHE:CD2	2.47	0.50
2:C:1378:GLN:N	2:C:1378:GLN:OE1	2.43	0.50
2:C:1525:ARG:HD3	2:C:1791:GLU:OE2	2.12	0.50
2:C:772:LEU:O	2:C:876:VAL:HA	2.12	0.50
2:E:1788:PHE:O	2:E:1792:ILE:HG12	2.11	0.50
2:E:2051:SER:HB2	2:E:2054:LYS:CA	2.41	0.50
2:E:955:ILE:HG12	2:E:960:VAL:HG13	1.94	0.50
2:G:1073:PHE:HE1	2:G:1133:VAL:HA	1.76	0.50
2:G:1460:LEU:HD22	2:G:1483:GLN:CD	2.33	0.50
2:G:2171:PHE:HD2	2:G:2183:ASP:HA	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2172:LEU:H	2:G:2172:LEU:HD23	1.76	0.50
2:G:785:ALA:CB	2:G:827:LEU:HD21	2.41	0.50
2:G:926:ILE:N	2:G:927:PRO:CD	2.75	0.50
2:G:952:ASN:O	2:G:956:VAL:HG23	2.12	0.50
2:A:1276:ASP:HB3	2:A:1283:LEU:HD11	1.94	0.50
2:A:1251:LEU:HB3	2:A:1304:VAL:CG1	2.41	0.50
2:A:1372:LEU:C	2:A:1374:PRO:HD3	2.32	0.50
2:A:1375:ASN:OD1	2:A:1376:TRP:N	2.43	0.50
2:A:2000:MET:HB3	2:A:2005:MET:O	2.12	0.50
2:C:1460:LEU:HD12	2:C:1461:THR:H	1.77	0.50
2:C:2050:ALA:HB3	2:C:2053:VAL:HG23	1.93	0.50
1:D:2309:ALA:HB1	2:C:618:THR:OG1	2.12	0.50
2:E:2015:ILE:HD11	2:E:2034:ILE:HG22	1.92	0.50
2:E:680:VAL:O	2:E:684:ILE:HG12	2.11	0.50
2:E:661:ILE:CG1	2:E:697:ILE:HD11	2.29	0.50
2:E:760:VAL:HG13	2:E:761:LEU:N	2.25	0.50
2:E:772:LEU:CD1	2:E:876:VAL:HG13	2.42	0.50
1:F:2236:LEU:HD23	1:F:2237:LEU:N	2.27	0.50
2:G:1413:PHE:O	2:G:1416:LEU:HD12	2.11	0.50
2:G:1578:HIS:C	2:G:1579:ILE:HD12	2.32	0.50
2:G:1886:LEU:CD1	2:G:1887:LEU:HD22	2.41	0.50
2:G:2072:ASN:ND2	2:G:2072:ASN:O	2.45	0.50
2:G:841:ARG:CG	2:G:845:THR:HG23	2.32	0.50
2:G:953:ALA:O	2:G:957:LEU:HD13	2.11	0.50
1:H:2149:GLY:HA2	1:H:2180:TRP:CZ3	2.47	0.50
2:A:1184:CYS:SG	2:A:1188:ILE:HD11	2.51	0.49
2:A:1412:GLU:O	2:A:1416:LEU:HD13	2.12	0.49
2:A:1434:GLN:O	2:A:1437:VAL:HG22	2.12	0.49
2:A:1700:ARG:NH2	2:A:1735:GLU:OE2	2.45	0.49
2:A:918:ILE:HD12	2:A:918:ILE:N	2.27	0.49
2:C:1243:THR:HG22	2:C:1244:ARG:N	2.27	0.49
2:C:1747:SER:OG	2:C:1748:LYS:N	2.45	0.49
2:C:2078:THR:CB	2:C:2103:ARG:HA	2.42	0.49
2:C:871:LEU:N	2:C:872:PRO:HD2	2.26	0.49
2:E:1890:SER:HA	2:E:1988:HIS:CE1	2.47	0.49
2:E:2130:LEU:HB3	2:E:2156:LEU:HD22	1.94	0.49
2:E:562:MET:HE1	2:E:606:ARG:HD2	1.93	0.49
1:H:2097:VAL:HG22	1:H:2153:THR:OG1	2.11	0.49
2:A:466:ASP:N	2:A:466:ASP:OD1	2.44	0.49
2:A:471:LEU:HD23	2:A:940:GLU:HG3	1.93	0.49
2:C:1021:TYR:CD1	2:C:1028:MET:HG2	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1487:LEU:HD23	2:C:1488:SER:N	2.27	0.49
2:C:1853:ILE:HG23	2:C:1854:ILE:HD12	1.94	0.49
2:C:1855:GLU:HG3	2:C:1856:MET:N	2.27	0.49
2:C:1928:VAL:HG11	2:C:1949:GLN:HB3	1.94	0.49
2:C:1996:GLU:O	2:C:1999:GLN:HB3	2.12	0.49
2:C:590:ALA:HB3	2:C:596:VAL:CG1	2.42	0.49
2:C:616:GLU:HA	2:C:635:VAL:O	2.11	0.49
2:C:642:ASP:O	2:C:646:ARG:HG3	2.11	0.49
2:C:532:ILE:HG13	2:C:724:PHE:CE2	2.47	0.49
1:D:2214:GLU:HG2	1:D:2216:LYS:HZ1	1.76	0.49
2:E:1070:SER:HB2	2:E:1073:PHE:CD2	2.47	0.49
2:E:660:ILE:HG13	2:E:696:ILE:HG23	1.94	0.49
2:E:764:VAL:CG1	2:E:802:LEU:HB2	2.42	0.49
2:G:1433:PHE:HB2	2:G:1436:LEU:CD2	2.42	0.49
2:G:2081:PHE:HB2	2:G:2099:ILE:CG1	2.42	0.49
2:G:2085:ASP:N	2:G:2086:PRO:HD3	2.26	0.49
2:G:532:ILE:HG22	2:G:533:GLN:OE1	2.12	0.49
2:G:802:LEU:HD12	2:G:805:ASP:HB3	1.92	0.49
2:A:1392:ASN:O	2:A:1393:THR:OG1	2.22	0.49
2:A:2017:ASN:O	2:A:2017:ASN:ND2	2.45	0.49
2:C:2173:MET:HG3	2:C:2174:SER:N	2.27	0.49
2:E:1291:ARG:HB2	2:E:1294:LEU:HB2	1.94	0.49
2:E:1816:LEU:HD11	2:E:1836:TYR:HE2	1.77	0.49
2:E:2141:LEU:N	2:E:2141:LEU:HD12	2.27	0.49
2:E:770:GLN:HE22	2:E:908:ARG:NH1	2.10	0.49
1:F:2171:ALA:HB1	1:F:2213:VAL:HG23	1.94	0.49
2:G:1016:SER:O	2:G:1018:LEU:N	2.46	0.49
2:G:1914:ARG:HE	2:G:1960:ASP:HB3	1.75	0.49
2:G:547:MET:HG2	2:G:697:ILE:CD1	2.42	0.49
2:G:762:GLU:O	2:G:766:GLN:HB3	2.11	0.49
1:H:2092:ASP:OD2	1:H:2095:VAL:HG22	2.12	0.49
2:A:1236:GLN:O	2:A:1252:THR:N	2.38	0.49
2:A:1286:ASP:OD1	2:A:1287:VAL:N	2.45	0.49
2:A:1979:ILE:HG12	2:A:1994:ALA:HB3	1.93	0.49
2:A:533:GLN:NE2	2:A:559:ASN:HB2	2.27	0.49
2:C:1517:TYR:HB2	2:C:1780:LEU:CD2	2.43	0.49
2:C:1859:ASP:O	2:C:1860:GLU:HB3	2.13	0.49
2:C:2044:GLU:OE1	2:C:2044:GLU:N	2.45	0.49
2:C:461:GLU:O	2:C:464:VAL:HG12	2.11	0.49
2:C:650:ASP:O	2:C:654:THR:HG23	2.13	0.49
2:E:1506:ASP:HA	2:E:1542:LEU:HB2	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1587:PHE:HB3	2:E:1588:PRO:HD3	1.95	0.49
2:E:2035:PHE:HA	2:E:2038:MET:HG2	1.95	0.49
2:E:2132:VAL:CG2	2:E:2156:LEU:HD11	2.41	0.49
2:E:2115:VAL:HG13	2:E:2177:TYR:CZ	2.47	0.49
2:E:467:GLN:O	2:E:471:LEU:HB2	2.12	0.49
2:E:724:PHE:HB3	2:E:728:TYR:CD2	2.48	0.49
2:E:468:GLY:HA2	2:E:942:GLN:NE2	2.27	0.49
1:F:2103:GLY:O	1:F:2146:GLU:N	2.36	0.49
1:F:2289:ILE:HG23	1:F:2290:HIS:CD2	2.46	0.49
2:G:1884:MET:HG3	2:G:1885:PHE:H	1.78	0.49
2:G:1886:LEU:HD12	2:G:1887:LEU:HD13	1.94	0.49
2:G:1962:ALA:O	2:G:1965:GLN:HB3	2.12	0.49
2:G:2046:ASN:HB3	2:G:2047:PRO:HD2	1.94	0.49
2:G:2102:GLU:HG3	2:G:2103:ARG:N	2.25	0.49
2:G:2116:HIS:CD2	2:G:2118:PRO:HD3	2.47	0.49
2:G:617:LEU:HD11	2:G:634:ILE:HD13	1.93	0.49
2:A:1458:VAL:HG21	2:A:1470:LEU:HD22	1.94	0.49
2:C:1075:TYR:O	2:C:1077:PRO:HD3	2.11	0.49
2:C:1178:LEU:HA	2:C:1181:TYR:HD2	1.77	0.49
2:C:1326:ARG:HG3	2:C:1327:TRP:CD1	2.47	0.49
2:C:1889:LEU:HD12	2:C:1901:ILE:HD13	1.94	0.49
2:C:589:ILE:HD12	2:C:662:ILE:CD1	2.42	0.49
2:E:1354:LEU:HD13	2:E:1385:GLN:NE2	2.27	0.49
2:E:2039:GLU:O	2:E:2045:GLU:HG2	2.12	0.49
2:E:481:GLU:OE1	2:E:481:GLU:N	2.45	0.49
2:G:1356:LEU:HD12	2:G:1384:THR:HG22	1.93	0.49
2:G:2115:VAL:CG2	2:G:2126:GLU:H	2.26	0.49
2:G:746:ILE:N	2:G:746:ILE:HD12	2.25	0.49
2:G:908:ARG:O	2:G:912:ASP:N	2.33	0.49
2:G:917:GLY:C	2:G:918:ILE:HD12	2.32	0.49
1:H:2193:THR:HB	1:H:2194:PRO:HD2	1.95	0.49
2:A:1394:ASP:CB	2:A:1417:ARG:HE	2.19	0.49
2:A:1432:PRO:HB2	2:A:1433:PHE:CD1	2.47	0.49
2:A:1464:THR:O	2:A:1468:LEU:HD23	2.11	0.49
2:A:1587:PHE:HB3	2:A:1588:PRO:CD	2.42	0.49
2:A:1801:GLU:OE1	2:A:1801:GLU:N	2.45	0.49
2:A:1792:ILE:CG2	2:A:1865:PRO:HB3	2.33	0.49
2:A:776:HIS:ND1	2:A:883:VAL:HG22	2.27	0.49
2:A:930:LEU:O	2:A:934:ASN:HB2	2.13	0.49
1:B:2253:LYS:CG	1:B:2279:LEU:HD12	2.43	0.49
2:C:1476:LEU:HD23	2:C:1477:ILE:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2134:GLU:OE1	2:C:2135:GLU:N	2.34	0.49
2:C:593:LYS:O	2:C:596:VAL:HG22	2.13	0.49
2:E:1673:HIS:CE1	2:E:1676:LEU:HB2	2.48	0.49
2:E:1678:GLN:O	2:E:1682:ARG:HG3	2.13	0.49
2:E:1894:LYS:HB2	2:E:1897:THR:HG23	1.95	0.49
2:E:2071:ASN:HD22	2:E:2071:ASN:H	1.60	0.49
1:F:2267:GLU:HG2	1:F:2268:LYS:N	2.28	0.49
2:G:1430:ILE:HD12	2:G:1503:PHE:CE1	2.47	0.49
2:G:1415:LEU:HD13	2:G:1502:LEU:HD13	1.95	0.49
2:G:2127:ASN:OD1	2:G:2145:ARG:NH2	2.44	0.49
1:H:2056:LEU:HA	1:H:2059:ARG:HG3	1.95	0.49
2:A:1161:LEU:HG	2:A:1165:LYS:HE3	1.93	0.49
2:A:1285:HIS:O	2:A:1761:VAL:HG11	2.12	0.49
2:A:1461:THR:HB	2:A:1467:ASP:OD1	2.13	0.49
2:A:899:VAL:HG21	2:A:929:TYR:HE2	1.78	0.49
1:B:2159:LEU:HD21	1:B:2161:TYR:CZ	2.47	0.49
2:C:1089:LEU:HD12	2:C:1119:LEU:HD13	1.95	0.49
2:E:1390:LEU:HD21	2:E:1397:VAL:HG11	1.94	0.49
2:E:1710:ALA:O	2:E:1743:ALA:HA	2.13	0.49
2:G:1437:VAL:HG11	2:G:1480:THR:HG22	1.93	0.49
2:G:1456:GLU:OE2	2:G:1474:GLY:HA2	2.13	0.49
2:G:1816:LEU:HD11	2:G:1825:LEU:HD23	1.94	0.49
2:G:1998:SER:O	2:G:2001:VAL:HG12	2.13	0.49
2:G:2015:ILE:HD12	2:G:2015:ILE:N	2.28	0.49
2:A:476:ARG:HH22	2:A:478:ARG:NH1	2.11	0.49
2:A:642:ASP:O	2:A:646:ARG:HG3	2.12	0.49
2:A:550:CYS:HB2	2:A:723:TYR:HA	1.95	0.49
2:A:775:VAL:HG11	2:A:781:THR:HA	1.95	0.49
1:B:2105:SER:HB3	1:B:2113:LYS:HD2	1.95	0.49
1:D:2275:LEU:HD21	2:C:1317:ASN:CG	2.33	0.49
2:E:1616:PRO:O	2:E:1700:ARG:HG2	2.12	0.49
2:E:773:ILE:N	2:E:773:ILE:HD12	2.28	0.49
2:G:1289:ILE:HD12	2:G:1289:ILE:N	2.27	0.49
2:G:1855:GLU:O	2:G:1864:ALA:HB3	2.12	0.49
2:G:1924:ILE:O	2:G:1928:VAL:HG13	2.12	0.49
2:G:2051:SER:O	2:G:2052:LEU:HG	2.13	0.49
2:G:798:ILE:HG23	2:G:804:HIS:CD2	2.47	0.49
2:G:903:LEU:HD22	2:G:933:LEU:HD13	1.94	0.49
2:G:739:GLY:HA2	2:G:921:THR:O	2.13	0.49
2:A:1431:ALA:HB3	2:A:1437:VAL:HG12	1.95	0.49
2:A:1465:THR:HG23	2:A:1466:THR:N	2.28	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1517:TYR:O	2:A:1521:ILE:HG13	2.12	0.49
2:A:1843:THR:O	2:A:1846:LYS:HG2	2.12	0.49
2:A:1967:VAL:O	2:A:1971:LYS:HG3	2.11	0.49
2:C:1127:MET:O	2:C:1131:VAL:HG23	2.13	0.49
2:C:1314:MET:HE3	2:C:1343:LEU:HD21	1.94	0.49
2:C:1428:VAL:HG12	2:C:1500:VAL:HG21	1.95	0.49
1:D:2296:GLU:HG2	2:C:1120:LYS:HB3	1.94	0.49
2:E:1245:SER:O	2:E:1310:ILE:N	2.43	0.49
2:E:1570:VAL:HG12	2:E:1570:VAL:O	2.13	0.49
2:E:1920:ILE:HD12	2:E:1920:ILE:N	2.28	0.49
2:E:532:ILE:HD13	2:E:728:TYR:CD1	2.47	0.49
2:E:739:GLY:HA2	2:E:921:THR:O	2.13	0.49
2:E:702:THR:HB	2:E:935:GLN:HG3	1.94	0.49
2:G:1142:ARG:HG2	2:G:1164:CYS:SG	2.53	0.49
2:G:1792:ILE:CG2	2:G:1865:PRO:HB3	2.38	0.49
2:G:2040:GLN:HG3	2:G:2045:GLU:OE1	2.13	0.49
2:G:729:ARG:HH12	2:G:904:GLY:HA2	1.77	0.49
2:A:1457:ILE:HG23	2:A:1476:LEU:CB	2.40	0.49
2:A:510:ILE:HD13	2:A:534:SER:HB3	1.94	0.49
2:A:543:ASP:OD2	2:A:719:LYS:HD2	2.12	0.49
1:B:2164:PRO:HG2	1:B:2221:ASP:O	2.12	0.49
2:C:1712:LEU:HA	2:C:1753:ARG:O	2.13	0.49
2:C:1574:PRO:HG2	2:C:1751:ARG:HA	1.94	0.49
2:C:2078:THR:OG1	2:C:2104:GLU:O	2.31	0.49
2:C:660:ILE:CD1	2:C:696:ILE:HG13	2.41	0.49
2:C:943:LEU:HD22	2:C:973:THR:OG1	2.13	0.49
1:D:2174:VAL:CG1	1:D:2181:LYS:HB3	2.40	0.49
1:D:2255:ASN:HB3	1:D:2286:HIS:CG	2.48	0.49
2:E:1274:VAL:HG21	2:E:1306:PHE:CE2	2.48	0.49
2:E:1577:LEU:O	2:E:1577:LEU:HD12	2.12	0.49
2:E:1591:MET:HE3	2:E:1616:PRO:HG2	1.94	0.49
2:E:1581:SER:OG	2:E:1763:ARG:HD2	2.13	0.49
2:E:1793:SER:HA	2:E:1870:MET:HE1	1.95	0.49
2:E:2046:ASN:CB	2:E:2047:PRO:HD2	2.43	0.49
2:E:526:THR:C	2:E:528:THR:H	2.17	0.49
2:G:1426:ARG:CD	2:G:1499:THR:HG21	2.43	0.49
2:G:2064:ALA:O	2:G:2067:ALA:HB3	2.13	0.49
2:G:636:THR:OG1	2:G:637:THR:N	2.46	0.49
1:H:2091:ALA:CB	1:H:2153:THR:HG21	2.43	0.49
1:H:2248:VAL:O	1:H:2273:VAL:HG13	2.12	0.49
2:A:1075:TYR:O	2:A:1077:PRO:HD3	2.12	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:2043:PRO:O	2:A:2046:ASN:HB3	2.13	0.48
2:A:2128:TRP:CZ3	2:A:2174:SER:HB3	2.48	0.48
2:A:775:VAL:HG22	2:A:776:HIS:H	1.77	0.48
1:D:2301:TRP:CZ3	2:C:1124:LEU:HD23	2.48	0.48
2:C:1206:ASP:HB2	2:C:1208:PRO:HD2	1.95	0.48
2:C:1471:LEU:HD13	2:C:1496:ASN:HB2	1.93	0.48
2:C:1579:ILE:CD1	2:C:1763:ARG:HH11	2.25	0.48
2:C:1766:TYR:O	2:C:1770:LEU:HD13	2.13	0.48
2:C:1860:GLU:OE2	2:C:1862:THR:OG1	2.29	0.48
2:C:1486:VAL:HG13	2:C:1876:ASN:OD1	2.13	0.48
2:E:1148:CYS:SG	2:E:1156:VAL:HG12	2.53	0.48
2:E:883:VAL:HG12	2:E:884:TYR:N	2.29	0.48
1:F:2247:LEU:HB3	1:F:2273:VAL:HG11	1.95	0.48
2:G:523:PHE:O	2:G:526:THR:OG1	2.31	0.48
2:G:708:ASP:OD1	2:G:981:ARG:HG3	2.11	0.48
2:G:777:SER:HB3	2:G:780:GLU:HB2	1.95	0.48
2:A:1365:LYS:HG3	2:A:1366:ALA:N	2.27	0.48
2:A:1383:GLN:CD	2:A:1409:VAL:HG21	2.33	0.48
2:A:1495:LYS:O	2:A:1499:THR:HG23	2.14	0.48
2:A:1626:ARG:O	2:A:1630:THR:HG23	2.13	0.48
2:A:822:THR:HG22	2:A:823:ASP:O	2.13	0.48
2:A:881:THR:HG22	2:A:893:GLU:HG3	1.93	0.48
2:C:1854:ILE:HB	2:C:1863:VAL:HG13	1.95	0.48
2:C:1854:ILE:CG1	2:C:1866:LEU:HD13	2.41	0.48
2:C:2131:VAL:O	2:C:2143:ILE:HA	2.13	0.48
2:E:1058:MET:HG3	2:E:1062:GLU:HB2	1.94	0.48
2:E:1305:GLU:OE1	2:E:1727:ARG:NH1	2.42	0.48
2:E:684:ILE:HG13	2:E:972:TYR:HD2	1.77	0.48
1:F:2227:THR:HG22	1:F:2229:THR:HG22	1.95	0.48
2:G:1127:MET:O	2:G:1131:VAL:HG23	2.13	0.48
1:H:2284:GLU:HG2	2:G:1174:THR:CG2	2.43	0.48
2:G:1522:VAL:O	2:G:1526:MET:HG2	2.13	0.48
2:G:1657:GLN:HG2	2:G:1680:ASP:OD2	2.13	0.48
2:G:1875:TYR:CZ	2:G:1976:LEU:HD21	2.48	0.48
2:G:2048:ASN:ND2	2:G:2051:SER:HA	2.28	0.48
2:G:521:ILE:HB	2:G:522:PRO:HD3	1.93	0.48
2:G:620:ASP:O	2:G:624:THR:HG23	2.13	0.48
2:G:725:ASP:OD1	2:G:727:SER:OG	2.18	0.48
1:H:2217:ASP:HB3	1:H:2218:PRO:CD	2.43	0.48
2:A:1843:THR:O	2:A:1847:GLN:HG3	2.13	0.48
2:A:2046:ASN:N	2:A:2047:PRO:CD	2.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:786:LYS:HE3	2:A:824:LEU:HD23	1.95	0.48
1:B:2171:ALA:CB	1:B:2212:GLY:HA3	2.43	0.48
2:C:1598:THR:O	2:C:1602:ILE:HG13	2.13	0.48
2:C:1649:ILE:N	2:C:1649:ILE:HD12	2.28	0.48
2:C:1854:ILE:HG22	2:C:1863:VAL:HG22	1.94	0.48
2:C:1991:ALA:HB1	2:C:2141:LEU:HD11	1.94	0.48
2:E:889:GLY:HA3	2:E:1075:TYR:O	2.12	0.48
2:E:508:GLN:O	2:E:510:ILE:HG13	2.13	0.48
2:E:664:GLU:HG3	2:E:666:HIS:CE1	2.48	0.48
2:E:826:ASP:C	2:E:829:PRO:HD2	2.34	0.48
2:G:1354:LEU:O	2:G:1356:LEU:HG	2.13	0.48
2:G:1429:TYR:HA	2:G:1504:ILE:HG23	1.95	0.48
2:G:1566:PHE:HB3	2:G:1570:VAL:HG21	1.95	0.48
2:G:1673:HIS:CE1	2:G:1676:LEU:HD13	2.49	0.48
2:G:1670:GLY:O	2:G:1696:LEU:HD12	2.13	0.48
2:G:1936:VAL:HG13	2:G:1939:SER:HB3	1.94	0.48
2:G:1999:GLN:HE22	2:G:2173:MET:HB3	1.78	0.48
2:G:2005:MET:HE1	2:G:2009:ASP:HB3	1.95	0.48
2:G:848:GLU:OE2	2:G:869:VAL:HG11	2.14	0.48
2:G:737:PHE:CE2	2:G:933:LEU:HD12	2.38	0.48
1:H:2184:ASN:O	1:H:2184:ASN:ND2	2.47	0.48
1:H:2170:HIS:HE2	1:H:2185:THR:HG23	1.78	0.48
2:A:1573:VAL:CG1	2:A:1746:PRO:HB3	2.43	0.48
2:A:2148:VAL:O	2:A:2152:LEU:HG	2.13	0.48
2:A:613:LYS:O	2:A:631:THR:HB	2.14	0.48
2:A:802:LEU:O	2:A:803:LYS:HE2	2.13	0.48
2:C:1048:ASP:O	2:C:1052:LYS:HG3	2.14	0.48
2:C:1527:HIS:O	2:C:1531:THR:HG23	2.12	0.48
2:C:1820:PRO:HB3	2:C:1825:LEU:HD23	1.94	0.48
2:C:2029:TYR:CE2	2:C:2056:LEU:HD22	2.48	0.48
2:C:2042:ASN:HD21	2:C:2045:GLU:HG3	1.77	0.48
1:D:2146:GLU:HG3	1:D:2148:LEU:CD1	2.44	0.48
2:E:1359:LEU:H	2:E:1384:THR:HG21	1.79	0.48
2:E:1997:MET:O	2:E:2001:VAL:HG23	2.13	0.48
2:E:659:LEU:HA	2:E:695:ARG:O	2.13	0.48
2:E:804:HIS:ND1	2:E:807:GLY:HA2	2.28	0.48
2:E:733:LEU:HD23	2:E:915:GLY:O	2.13	0.48
2:G:1656:VAL:HA	2:G:1680:ASP:OD1	2.12	0.48
2:G:775:VAL:HG21	2:G:780:GLU:HB3	1.96	0.48
2:G:836:HIS:CE1	2:G:839:MET:HG2	2.49	0.48
2:G:851:PHE:HA	2:G:856:ILE:CG2	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:469:ASN:HD21	2:G:895:SER:CB	2.25	0.48
2:A:1120:LYS:O	2:A:1121:LEU:HD23	2.13	0.48
2:A:1423:ASP:OD1	2:A:1423:ASP:N	2.46	0.48
2:A:1577:LEU:HA	2:A:1754:GLY:O	2.14	0.48
2:A:1986:GLU:O	2:A:1988:HIS:N	2.44	0.48
1:B:2120:MET:O	1:B:2249:PRO:HD3	2.13	0.48
2:C:1460:LEU:HD23	2:C:1483:GLN:HG3	1.96	0.48
2:C:1431:ALA:O	2:C:1481:PRO:HD3	2.13	0.48
2:C:1874:TYR:HD2	2:C:1875:TYR:CE1	2.31	0.48
2:C:1921:LEU:HD21	2:C:1946:VAL:CG2	2.33	0.48
2:C:2071:ASN:OD1	2:C:2072:ASN:N	2.46	0.48
2:C:2168:LEU:HA	2:C:2185:SER:OG	2.14	0.48
2:C:737:PHE:CZ	2:C:933:LEU:HD22	2.48	0.48
1:D:2149:GLY:HA3	1:D:2186:LEU:O	2.14	0.48
2:E:1042:ILE:HD12	2:E:1140:ILE:HD13	1.95	0.48
2:E:926:ILE:N	2:E:927:PRO:CD	2.76	0.48
2:G:1930:VAL:HG22	2:G:1949:GLN:CD	2.34	0.48
2:G:1995:MET:HE2	2:G:2173:MET:HB2	1.94	0.48
2:G:814:GLU:HA	2:G:817:SER:OG	2.13	0.48
2:G:789:ARG:HD3	2:G:827:LEU:HD12	1.94	0.48
2:A:1293:ASP:OD1	2:A:1293:ASP:N	2.43	0.48
2:A:1530:ARG:HB2	2:A:1537:MET:CE	2.39	0.48
2:A:1856:MET:CB	2:A:1863:VAL:HG12	2.43	0.48
2:A:516:PRO:HD2	2:A:519:ALA:HB3	1.96	0.48
2:A:789:ARG:NH1	2:A:790:ASP:OD1	2.46	0.48
1:D:2085:LYS:O	1:D:2089:THR:HG23	2.14	0.48
1:D:2162:MET:HG2	1:D:2167:VAL:HG23	1.94	0.48
1:D:2164:PRO:HG3	1:D:2226:PHE:CD1	2.49	0.48
2:E:620:ASP:O	2:E:623:LEU:HG	2.14	0.48
2:G:1885:PHE:HD1	2:G:1901:ILE:HG22	1.78	0.48
2:G:2169:LYS:C	2:G:2185:SER:HB3	2.34	0.48
2:G:976:PHE:CE1	2:G:1002:ARG:HD3	2.48	0.48
1:H:2181:LYS:O	1:H:2183:GLN:N	2.44	0.48
2:A:1233:VAL:CG1	2:A:1253:ILE:HG23	2.43	0.48
2:A:1399:VAL:CG1	2:A:1542:LEU:HD22	2.44	0.48
2:A:1780:LEU:O	2:A:1784:LEU:HG	2.14	0.48
2:A:1882:MET:O	2:A:1886:LEU:HG	2.14	0.48
2:A:521:ILE:N	2:A:522:PRO:CD	2.77	0.48
2:A:585:LYS:O	2:A:657:VAL:HA	2.14	0.48
2:A:952:ASN:O	2:A:956:VAL:HG23	2.13	0.48
2:C:1067:PHE:CZ	2:C:1112:LEU:HD22	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1246:MET:HB2	2:C:1768:LYS:HZ2	1.79	0.48
2:C:1816:LEU:HD21	2:C:1836:TYR:CD2	2.49	0.48
2:C:2155:LYS:C	2:C:2156:LEU:HD12	2.34	0.48
2:C:2127:ASN:N	2:C:2175:ASP:OD2	2.46	0.48
2:C:952:ASN:O	2:C:956:VAL:HG23	2.13	0.48
2:E:666:HIS:HA	2:E:939:ILE:HD13	1.95	0.48
2:G:1517:TYR:HB3	2:G:1779:HIS:HB2	1.96	0.48
2:A:1059:ASN:ND2	2:A:1061:VAL:HG12	2.29	0.48
2:A:1415:LEU:O	2:A:1415:LEU:HD23	2.14	0.48
2:A:1491:TRP:HB3	2:A:1529:ILE:HD13	1.95	0.48
2:A:1609:GLN:HB2	2:A:1711:HIS:HB3	1.95	0.48
1:B:2068:VAL:CG1	1:B:2235:GLN:HB2	2.41	0.48
2:C:1185:PRO:HG2	2:C:1188:ILE:HG12	1.96	0.48
2:C:1210:MET:O	2:C:1214:LEU:HG	2.14	0.48
2:C:1994:ALA:HA	2:C:1997:MET:HB2	1.96	0.48
2:C:469:ASN:HD21	2:C:895:SER:HA	1.78	0.48
2:C:798:ILE:HG22	2:C:799:ASN:N	2.29	0.48
1:D:2103:GLY:O	1:D:2146:GLU:HG2	2.14	0.48
1:D:2119:VAL:HG22	1:D:2247:LEU:HB2	1.96	0.48
2:E:1342:ILE:HD12	2:E:1342:ILE:N	2.28	0.48
2:E:1445:GLN:NE2	2:E:1457:ILE:HB	2.28	0.48
2:E:1872:ALA:HB2	2:E:1882:MET:HG3	1.96	0.48
2:E:2059:THR:HG22	2:E:2060:GLN:N	2.29	0.48
2:E:501:LYS:HG3	2:E:501:LYS:O	2.13	0.48
2:E:588:TYR:HD2	2:E:661:ILE:HD12	1.78	0.48
1:F:2276:ASP:OD1	1:F:2277:THR:N	2.45	0.48
2:G:2061:ALA:O	2:G:2065:GLN:HG3	2.14	0.48
2:G:2081:PHE:HD2	2:G:2097:LEU:HD11	1.79	0.48
2:G:547:MET:HG2	2:G:697:ILE:HD12	1.96	0.48
2:G:705:ASN:O	2:G:709:VAL:HG23	2.14	0.48
2:A:826:ASP:C	2:A:829:PRO:HD2	2.34	0.48
1:D:2293:SER:HB2	2:C:1175:MET:HE2	1.95	0.48
2:C:1379:PHE:CE1	2:C:1384:THR:HG22	2.48	0.48
2:C:1976:LEU:O	2:C:1980:VAL:HG23	2.13	0.48
2:C:541:PHE:C	2:C:542:LEU:HD22	2.34	0.48
2:C:751:THR:O	2:C:755:ILE:HG13	2.12	0.48
1:D:2152:HIS:NE2	1:D:2166:ASP:OD1	2.47	0.48
1:D:2245:PHE:HB3	2:C:1316:PRO:HG2	1.96	0.48
2:E:918:ILE:HD12	2:E:918:ILE:O	2.14	0.48
2:G:1058:MET:CE	2:G:1063:LEU:HD13	2.44	0.48
2:G:2014:GLN:OE1	2:G:2014:GLN:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2018:PHE:CE2	2:G:2023:VAL:HG12	2.49	0.48
2:G:775:VAL:HG22	2:G:776:HIS:N	2.24	0.48
1:H:2070:ASN:HD22	1:H:2235:GLN:CD	2.17	0.48
2:A:1788:PHE:O	2:A:1792:ILE:HG12	2.14	0.48
2:A:507:ASP:OD1	2:A:508:GLN:N	2.47	0.48
1:B:2164:PRO:HG3	1:B:2226:PHE:CZ	2.49	0.48
2:C:1143:ALA:O	2:C:1147:ILE:HG13	2.14	0.48
2:C:1678:GLN:N	2:C:1678:GLN:OE1	2.38	0.48
2:C:1854:ILE:HD13	2:C:1863:VAL:CG1	2.44	0.48
2:C:835:HIS:CE1	2:C:865:LEU:HD13	2.48	0.48
2:E:455:LYS:HG2	2:E:1000:GLN:NE2	2.28	0.48
2:E:1324:SER:OG	2:E:1327:TRP:HB2	2.13	0.48
2:E:1594:MET:HE2	2:E:1757:MET:HB3	1.96	0.48
2:E:1685:LYS:HG3	2:E:1708:PHE:HE1	1.79	0.48
2:E:1892:LYS:HD3	2:E:1892:LYS:HA	1.72	0.48
2:E:791:LYS:HA	2:E:794:GLU:HB3	1.95	0.48
2:E:873:ALA:O	2:E:907:GLY:N	2.26	0.48
1:F:2084:LEU:O	1:F:2088:ILE:HG13	2.13	0.48
1:F:2120:MET:HB2	1:F:2248:VAL:HG12	1.96	0.48
2:G:1293:ASP:OD1	2:G:1293:ASP:N	2.45	0.48
2:G:1551:ASP:O	2:G:1555:TRP:HB2	2.14	0.48
2:A:541:PHE:O	2:A:542:LEU:HD23	2.14	0.47
1:B:2044:THR:OG1	1:B:2045:GLU:N	2.45	0.47
2:C:1291:ARG:NH1	2:C:1293:ASP:OD2	2.47	0.47
2:C:2173:MET:CG	2:C:2174:SER:H	2.26	0.47
2:C:721:LEU:HD12	2:C:722:PHE:N	2.28	0.47
2:E:1185:PRO:HG2	2:E:1188:ILE:HD13	1.95	0.47
2:E:1266:VAL:HG12	2:E:1267:THR:HG23	1.96	0.47
2:E:1414:ALA:HB1	2:E:1502:LEU:HD11	1.96	0.47
2:E:754:ASP:O	2:E:758:GLN:HG2	2.14	0.47
2:E:846:ASP:O	2:E:850:LEU:HG	2.13	0.47
2:E:941:SER:HB2	2:E:974:TYR:CD2	2.49	0.47
2:E:990:ALA:O	2:E:993:GLU:HG2	2.14	0.47
2:G:1060:ASP:OD1	2:G:1061:VAL:N	2.47	0.47
2:G:1068:ALA:HB3	2:G:1105:THR:HG23	1.96	0.47
2:G:2096:TYR:HA	2:G:2157:GLU:HB2	1.96	0.47
1:H:2069:ASP:OD1	1:H:2069:ASP:N	2.45	0.47
2:A:1591:MET:HG2	2:A:1620:GLN:NE2	2.30	0.47
2:A:2063:LEU:HD23	2:A:2063:LEU:O	2.13	0.47
2:C:1598:THR:HG21	2:C:1716:MET:HE2	1.96	0.47
2:C:1959:ILE:N	2:C:1959:ILE:HD12	2.25	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:481:GLU:HG2	2:C:482:GLY:N	2.30	0.47
2:E:1145:PHE:CE1	2:E:1161:LEU:HB2	2.49	0.47
2:E:1663:GLU:O	2:E:1666:SER:OG	2.25	0.47
2:E:744:LYS:O	2:E:748:GLN:HB2	2.14	0.47
1:F:2086:LYS:O	1:F:2090:ILE:HD13	2.14	0.47
2:G:1266:VAL:HG23	2:G:1267:THR:HG23	1.95	0.47
2:G:1578:HIS:HB2	2:G:1755:VAL:HG22	1.95	0.47
2:G:1880:MET:O	2:G:1883:GLU:HB3	2.14	0.47
2:G:572:ASN:HD22	2:G:584:PHE:HB3	1.79	0.47
1:H:2079:MET:HG3	1:H:2080:PRO:HD2	1.95	0.47
1:H:2277:THR:HG23	1:H:2278:PRO:HD2	1.96	0.47
2:A:2165:LYS:HD2	2:A:2166:HIS:N	2.29	0.47
2:C:1137:ALA:O	2:C:1141:LEU:HD23	2.13	0.47
1:D:2298:GLU:HG3	2:C:1170:ARG:HH22	1.80	0.47
2:C:1185:PRO:HD2	2:C:1188:ILE:HD11	1.95	0.47
2:C:1204:ASP:OD2	2:C:1232:ARG:NH1	2.26	0.47
2:C:521:ILE:HB	2:C:522:PRO:CD	2.44	0.47
1:F:2284:GLU:HG2	2:E:1174:THR:CG2	2.44	0.47
1:F:2284:GLU:HG2	2:E:1174:THR:HG23	1.95	0.47
2:E:1573:VAL:CG1	2:E:1746:PRO:HG3	2.45	0.47
2:E:640:LYS:O	2:E:643:VAL:HG12	2.13	0.47
1:F:2159:LEU:N	1:F:2159:LEU:HD13	2.29	0.47
2:G:1272:ILE:O	2:G:1285:HIS:HA	2.14	0.47
2:G:1464:THR:HG21	2:G:1486:VAL:HG22	1.96	0.47
2:G:1895:LEU:CG	2:G:1896:ARG:H	2.26	0.47
2:G:2115:VAL:CB	2:G:2125:SER:HB3	2.38	0.47
2:A:1275:GLU:HB2	2:A:1319:PHE:HB2	1.96	0.47
2:A:2034:ILE:O	2:A:2037:PHE:HB3	2.14	0.47
2:A:500:LYS:HD2	2:A:501:LYS:H	1.78	0.47
2:A:941:SER:HB3	2:A:974:TYR:HD2	1.78	0.47
1:B:2217:ASP:N	1:B:2218:PRO:CD	2.78	0.47
2:C:1276:ASP:OD1	2:C:1279:GLY:N	2.45	0.47
2:C:1895:LEU:HD11	2:C:1997:MET:CE	2.45	0.47
2:C:660:ILE:HD11	2:C:696:ILE:CG1	2.43	0.47
2:C:696:ILE:HD12	2:C:696:ILE:N	2.29	0.47
2:C:895:SER:HB2	2:C:897:GLN:NE2	2.29	0.47
2:G:1799:SER:H	2:G:1863:VAL:HG11	1.78	0.47
2:G:1482:LEU:HD11	2:G:1876:ASN:OD1	2.14	0.47
2:G:2034:ILE:O	2:G:2038:MET:N	2.47	0.47
2:G:581:LEU:HB3	2:G:632:GLN:NE2	2.29	0.47
2:G:903:LEU:HD22	2:G:933:LEU:CD1	2.44	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1093:VAL:HB	2:A:1113:GLN:OE1	2.15	0.47
2:A:1501:GLU:O	2:A:1538:ARG:N	2.35	0.47
2:A:1508:LEU:HD11	2:A:1555:TRP:HZ3	1.79	0.47
1:B:2082:ASN:ND2	1:B:2083:ILE:HG23	2.29	0.47
1:B:2220:VAL:HG22	1:B:2221:ASP:N	2.24	0.47
2:C:1314:MET:HE1	2:C:1343:LEU:HG	1.96	0.47
2:C:1470:LEU:HD12	2:C:1470:LEU:C	2.35	0.47
2:C:1491:TRP:CZ3	2:C:1525:ARG:HD2	2.50	0.47
2:C:1792:ILE:HD13	2:C:1797:ILE:CB	2.41	0.47
2:C:2134:GLU:OE1	2:C:2168:LEU:HD22	2.14	0.47
2:C:516:PRO:O	2:C:520:ARG:HG3	2.14	0.47
2:C:715:VAL:HG13	2:C:720:GLY:HA3	1.96	0.47
1:D:2209:TYR:O	1:D:2213:VAL:HG23	2.14	0.47
2:E:1538:ARG:C	2:E:1539:ILE:HD12	2.34	0.47
2:E:581:LEU:N	2:E:581:LEU:HD23	2.27	0.47
2:E:590:ALA:HB1	2:E:595:LEU:HD23	1.96	0.47
2:E:671:ASP:O	2:E:674:PRO:HD2	2.14	0.47
2:G:1552:ILE:O	2:G:1555:TRP:HB3	2.15	0.47
2:G:1966:GLU:O	2:G:1969:LEU:HB2	2.15	0.47
2:G:586:ILE:HB	2:G:633:VAL:CA	2.40	0.47
2:G:976:PHE:HA	2:G:979:MET:HE2	1.95	0.47
2:A:623:LEU:CD1	2:A:1326:ARG:HD2	2.45	0.47
2:A:1481:PRO:O	2:A:1522:VAL:HG11	2.15	0.47
2:A:1594:MET:O	2:A:1598:THR:HG23	2.14	0.47
2:A:565:MET:O	2:A:569:ILE:HG13	2.15	0.47
2:A:923:GLN:O	2:A:926:ILE:HG12	2.15	0.47
1:B:2285:GLN:O	1:B:2288:PRO:HD3	2.13	0.47
2:C:1613:VAL:HG22	2:C:1714:VAL:HG22	1.96	0.47
2:C:1768:LYS:O	2:C:1772:GLU:HG2	2.15	0.47
2:C:1777:GLU:OE2	2:C:1815:ARG:NH2	2.48	0.47
2:E:2012:LEU:HD21	2:E:2031:ILE:HG21	1.97	0.47
2:E:725:ASP:OD1	2:E:727:SER:OG	2.21	0.47
2:G:1456:GLU:HG2	2:G:1456:GLU:O	2.14	0.47
2:G:1502:LEU:HD23	2:G:1502:LEU:C	2.35	0.47
2:G:1586:HIS:HB3	2:G:1589:SER:HB2	1.96	0.47
2:G:1676:LEU:HG	2:G:1680:ASP:HB2	1.95	0.47
2:G:1854:ILE:CD1	2:G:1865:PRO:HA	2.42	0.47
2:G:1897:THR:O	2:G:1900:GLU:HG2	2.14	0.47
1:H:2077:TYR:OH	1:H:2184:ASN:HB2	2.13	0.47
2:A:1042:ILE:HD12	2:A:1143:ALA:CB	2.45	0.47
2:A:1520:GLU:HG3	2:A:1555:TRP:CZ2	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1429:TYR:HE1	2:C:1506:ASP:HB2	1.79	0.47
2:C:2031:ILE:CD1	2:C:2040:GLN:HG2	2.42	0.47
2:C:797:THR:HG23	2:C:801:ILE:HG21	1.96	0.47
2:E:1031:THR:HG22	2:E:1032:GLU:N	2.30	0.47
2:E:1331:GLU:HG2	2:E:1332:THR:N	2.29	0.47
2:E:2029:TYR:OH	2:E:2053:VAL:HG21	2.15	0.47
2:E:472:MET:SD	2:E:928:TYR:HA	2.54	0.47
2:E:576:LYS:HG2	2:E:577:GLY:H	1.79	0.47
2:G:1165:LYS:HB2	2:G:1328:MET:CE	2.45	0.47
2:G:1314:MET:HE2	2:G:1343:LEU:CD1	2.44	0.47
2:G:1430:ILE:HD12	2:G:1503:PHE:HE1	1.80	0.47
2:G:1943:LYS:O	2:G:1947:LEU:HG	2.15	0.47
2:G:2026:ALA:HB1	2:G:2031:ILE:CD1	2.41	0.47
2:G:2083:VAL:HG12	2:G:2084:ASP:N	2.29	0.47
2:G:570:GLY:HA2	2:G:573:ARG:HH22	1.80	0.47
2:G:614:VAL:HG22	2:G:633:VAL:HG13	1.96	0.47
2:G:999:GLU:O	2:G:1003:VAL:HG23	2.15	0.47
2:A:1379:PHE:HB3	2:A:1383:GLN:HB2	1.97	0.47
2:A:1715:VAL:HG23	2:A:1740:PHE:CE1	2.49	0.47
2:A:532:ILE:HG23	2:A:724:PHE:CD2	2.50	0.47
2:A:806:ALA:HB3	2:A:808:THR:HG22	1.95	0.47
2:A:926:ILE:N	2:A:927:PRO:CD	2.77	0.47
2:A:936:GLN:O	2:A:938:PRO:HD3	2.14	0.47
2:C:1222:THR:O	2:C:1226:LEU:HD13	2.15	0.47
1:D:2276:ASP:HA	2:C:1319:PHE:CE1	2.50	0.47
2:C:1491:TRP:HZ3	2:C:1525:ARG:HD2	1.79	0.47
2:C:539:THR:HG21	2:C:719:LYS:O	2.15	0.47
2:C:797:THR:O	2:C:801:ILE:HG22	2.15	0.47
2:E:1539:ILE:N	2:E:1539:ILE:HD12	2.29	0.47
2:E:1621:THR:HG21	2:E:1699:SER:HB3	1.96	0.47
2:E:1574:PRO:HB2	2:E:1751:ARG:HG2	1.97	0.47
2:E:775:VAL:HG22	2:E:776:HIS:N	2.29	0.47
2:G:1085:GLU:O	2:G:1089:LEU:HD13	2.15	0.47
2:G:1468:LEU:HD12	2:G:1469:LYS:HG3	1.96	0.47
2:G:1686:HIS:O	2:G:1690:ASN:HB2	2.15	0.47
2:G:1885:PHE:CD1	2:G:1901:ILE:HG22	2.50	0.47
2:A:1289:ILE:HD12	2:A:1289:ILE:O	2.15	0.47
2:A:1460:LEU:HD11	2:A:1467:ASP:HB3	1.95	0.47
2:A:1535:LEU:HB2	2:A:1536:PRO:HD2	1.97	0.47
1:B:2159:LEU:HA	1:B:2160:PRO:HD3	1.79	0.47
2:C:1082:GLU:OE2	2:C:1107:LYS:NZ	2.33	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:2021:GLU:N	2:C:2021:GLU:OE1	2.44	0.47
2:C:2106:GLU:O	2:C:2107:GLU:HB2	2.15	0.47
2:C:2183:ASP:N	2:C:2184:PRO:CD	2.76	0.47
1:F:2298:GLU:HB3	2:E:1118:ARG:HD2	1.97	0.47
2:E:1619:LYS:HG2	2:E:1960:ASP:OD2	2.14	0.47
2:E:2131:VAL:HG22	2:E:2143:ILE:CD1	2.44	0.47
2:G:455:LYS:HG2	2:G:1000:GLN:NE2	2.30	0.47
2:G:1463:GLU:HG3	2:G:1466:THR:OG1	2.15	0.47
2:G:1798:GLU:HB3	2:G:1863:VAL:HG21	1.97	0.47
2:G:650:ASP:O	2:G:654:THR:HG23	2.15	0.47
2:G:832:PHE:O	2:G:856:ILE:HD11	2.14	0.47
2:A:1242:MET:HE1	2:A:1307:THR:CG2	2.44	0.47
2:A:1392:ASN:OD1	2:A:1393:THR:HG23	2.15	0.47
2:A:1792:ILE:O	2:A:1865:PRO:HG3	2.14	0.47
2:A:1928:VAL:HG23	2:A:1929:PRO:HD2	1.97	0.47
2:A:2072:ASN:HB3	2:A:2111:PHE:HZ	1.80	0.47
2:C:1971:LYS:NZ	2:C:2001:VAL:HG11	2.29	0.47
2:C:1983:LEU:HD12	2:C:1983:LEU:C	2.35	0.47
2:C:2131:VAL:CG1	2:C:2171:PHE:H	2.28	0.47
2:E:2012:LEU:HD21	2:E:2031:ILE:CG2	2.45	0.47
2:E:2189:ASN:O	2:E:2190:VAL:HG13	2.15	0.47
2:E:521:ILE:N	2:E:522:PRO:CD	2.78	0.47
2:E:585:LYS:O	2:E:657:VAL:HA	2.15	0.47
2:E:796:ASP:O	2:E:797:THR:OG1	2.31	0.47
1:F:2289:ILE:HG23	1:F:2290:HIS:HD2	1.80	0.47
2:G:1392:ASN:CA	2:G:1417:ARG:HB3	2.32	0.47
2:G:1914:ARG:O	2:G:1917:GLU:HG2	2.14	0.47
2:G:2025:VAL:HA	2:G:2028:LYS:CB	2.45	0.47
2:G:539:THR:HG22	2:G:547:MET:HE1	1.97	0.47
2:A:1291:ARG:HG3	2:A:1294:LEU:HB2	1.97	0.47
2:A:892:VAL:HG22	2:A:893:GLU:N	2.30	0.47
2:A:878:ILE:HB	2:A:919:ILE:CD1	2.45	0.47
2:C:521:ILE:N	2:C:521:ILE:HD12	2.27	0.47
1:D:2309:ALA:HB1	2:C:618:THR:CA	2.44	0.47
1:D:2083:ILE:HD12	1:D:2118:ILE:CG1	2.39	0.47
2:E:1887:LEU:HD23	2:E:1888:SER:H	1.79	0.47
2:E:1897:THR:O	2:E:1901:ILE:HG13	2.14	0.47
2:E:1907:GLU:N	2:E:1907:GLU:OE1	2.48	0.47
2:E:562:MET:O	2:E:566:LEU:HG	2.15	0.47
1:F:2309:ALA:HB1	2:E:618:THR:OG1	2.15	0.47
2:G:1027:LYS:HB2	2:G:1027:LYS:NZ	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1056:PRO:HG3	2:G:1153:TRP:CE2	2.49	0.47
2:G:471:LEU:HD21	2:G:473:THR:CG2	2.45	0.47
2:G:521:ILE:N	2:G:522:PRO:HD2	2.29	0.47
2:A:1025:THR:OG1	2:A:1027:LYS:HD3	2.15	0.46
2:A:1390:LEU:CD2	2:A:1410:CYS:HB3	2.45	0.46
2:A:2148:VAL:HA	2:A:2152:LEU:CD1	2.44	0.46
2:A:474:ASN:ND2	2:A:931:SER:OG	2.38	0.46
2:C:1171:MET:HG3	2:C:1328:MET:HE3	1.96	0.46
2:C:1688:TYR:OH	2:C:1710:ALA:HB2	2.15	0.46
2:C:738:ILE:HD11	2:C:759:LYS:HE3	1.95	0.46
1:D:2096:GLN:HG2	1:D:2153:THR:O	2.15	0.46
2:E:967:VAL:HG12	2:E:1002:ARG:HH21	1.79	0.46
2:E:1477:ILE:HD12	2:E:1477:ILE:N	2.30	0.46
2:E:1641:PHE:HD2	2:E:1669:VAL:HG22	1.80	0.46
2:E:983:PRO:O	2:E:988:VAL:HB	2.15	0.46
2:G:865:LEU:HD23	2:G:865:LEU:O	2.15	0.46
2:G:954:GLU:HB3	2:G:960:VAL:HG11	1.97	0.46
2:A:1390:LEU:CD1	2:A:1397:VAL:HG11	2.45	0.46
2:A:1586:HIS:HB3	2:A:1589:SER:CB	2.45	0.46
2:A:510:ILE:HD12	2:A:510:ILE:N	2.30	0.46
2:A:532:ILE:HG13	2:A:555:SER:OG	2.15	0.46
2:A:953:ALA:O	2:A:957:LEU:HD13	2.15	0.46
2:A:999:GLU:O	2:A:1003:VAL:HG23	2.15	0.46
1:B:2164:PRO:HG3	1:B:2226:PHE:CE1	2.51	0.46
2:C:1063:LEU:HD23	2:C:1163:MET:CE	2.43	0.46
2:C:1312:GLU:N	2:C:1313:PRO:HD2	2.31	0.46
2:C:1615:VAL:CG1	2:C:1616:PRO:HD2	2.45	0.46
2:C:1975:LEU:HD12	2:C:1978:ALA:CB	2.44	0.46
2:C:2129:TRP:HE3	2:C:2130:LEU:HD23	1.79	0.46
2:C:651:ILE:HD12	2:C:654:THR:OG1	2.14	0.46
1:D:2080:PRO:HB2	1:D:2082:ASN:OD1	2.15	0.46
2:E:1744:LEU:O	2:E:1746:PRO:HD3	2.16	0.46
2:E:1979:ILE:O	2:E:1983:LEU:HB2	2.15	0.46
2:E:1983:LEU:HD23	2:E:2143:ILE:HD13	1.96	0.46
2:E:801:ILE:HD12	2:E:801:ILE:N	2.30	0.46
2:G:1639:ASP:O	2:G:1641:PHE:N	2.48	0.46
2:G:1959:ILE:HD12	2:G:1959:ILE:N	2.24	0.46
2:G:2025:VAL:HG11	2:G:2056:LEU:HD13	1.98	0.46
1:H:2083:ILE:HD11	1:H:2244:GLY:CA	2.42	0.46
2:A:1969:LEU:HD23	2:A:2121:PRO:HG2	1.97	0.46
2:A:527:LYS:HG3	2:A:528:THR:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:639:GLU:O	2:A:643:VAL:HG23	2.15	0.46
2:A:804:HIS:CA	2:A:809:ARG:HD2	2.46	0.46
1:B:2186:LEU:HD22	1:B:2201:ALA:HB1	1.96	0.46
1:B:2090:ILE:CG2	1:B:2254:TRP:HZ2	2.27	0.46
2:C:1613:VAL:HG13	2:C:1714:VAL:HG23	1.97	0.46
2:C:1998:SER:O	2:C:2002:VAL:HG23	2.15	0.46
2:C:951:LEU:O	2:C:955:ILE:HG13	2.16	0.46
2:E:976:PHE:CE1	2:E:1002:ARG:HD3	2.50	0.46
2:E:1838:SER:HA	2:E:1841:VAL:HG12	1.98	0.46
2:E:478:ARG:CB	2:E:936:GLN:HE22	2.27	0.46
2:G:1711:HIS:CE1	2:G:1747:SER:HB3	2.50	0.46
2:G:1894:LYS:HE3	2:G:1898:ILE:CG1	2.43	0.46
2:G:539:THR:HG22	2:G:547:MET:CE	2.45	0.46
2:G:809:ARG:HH11	2:G:855:HIS:CD2	2.33	0.46
1:H:2136:LEU:HD11	1:H:2177:HIS:HB3	1.98	0.46
2:A:1048:ASP:OD1	2:A:1052:LYS:HE3	2.15	0.46
2:A:1331:GLU:HG2	2:A:1332:THR:N	2.30	0.46
2:A:1358:PRO:HA	2:A:1384:THR:HG21	1.98	0.46
2:A:1428:VAL:CG2	2:A:1477:ILE:HD11	2.46	0.46
2:A:2155:LYS:HG3	2:A:2155:LYS:O	2.15	0.46
2:A:2169:LYS:HD3	2:A:2185:SER:HB3	1.98	0.46
2:A:596:VAL:HB	2:A:635:VAL:HG12	1.97	0.46
2:A:548:LEU:HD22	2:A:709:VAL:HG12	1.98	0.46
2:A:729:ARG:HG3	2:A:730:PRO:HD2	1.96	0.46
2:A:943:LEU:HD23	2:A:975:LEU:HD23	1.98	0.46
2:C:1358:PRO:CB	2:C:1378:GLN:HG3	2.44	0.46
2:C:1464:THR:HG21	2:C:1874:TYR:HE1	1.79	0.46
2:C:1713:VAL:HG11	2:C:1739:MET:O	2.14	0.46
2:C:2079:LEU:HD23	2:C:2100:HIS:O	2.16	0.46
1:D:2049:ARG:O	1:D:2053:THR:HG23	2.15	0.46
1:D:2296:GLU:OE1	1:D:2296:GLU:N	2.49	0.46
2:E:1390:LEU:HD23	2:E:1397:VAL:HG21	1.97	0.46
2:E:1982:ILE:CD1	2:E:1982:ILE:H	2.26	0.46
2:E:2140:LEU:HD23	2:E:2140:LEU:C	2.36	0.46
2:E:554:GLY:H	3:E:2201:ACT:CH3	2.29	0.46
2:E:575:GLU:O	2:E:576:LYS:HG2	2.16	0.46
2:E:642:ASP:O	2:E:646:ARG:HG3	2.15	0.46
2:E:751:THR:O	2:E:755:ILE:HG13	2.15	0.46
2:E:766:GLN:OE1	2:E:766:GLN:N	2.49	0.46
1:F:2227:THR:HG22	1:F:2229:THR:H	1.81	0.46
2:G:1392:ASN:HA	2:G:1417:ARG:CD	2.37	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1555:TRP:HE3	2:G:1814:ARG:HD2	1.80	0.46
2:G:2141:LEU:HD13	2:G:2141:LEU:N	2.30	0.46
1:H:2164:PRO:O	1:H:2168:THR:HG23	2.16	0.46
2:A:1672:TYR:OH	2:A:1681:LYS:HD3	2.15	0.46
2:A:1713:VAL:CG2	2:A:1743:ALA:HB2	2.45	0.46
2:A:2011:PRO:O	2:A:2034:ILE:HD11	2.16	0.46
2:A:625:LYS:HE2	2:A:640:LYS:CE	2.44	0.46
2:C:1494:ARG:HB2	2:C:1497:VAL:HG21	1.98	0.46
2:C:2173:MET:HG3	2:C:2174:SER:H	1.79	0.46
2:C:564:THR:HG21	2:C:697:ILE:CD1	2.45	0.46
2:C:976:PHE:HA	2:C:979:MET:HE2	1.98	0.46
1:D:2146:GLU:O	1:D:2148:LEU:HD13	2.15	0.46
2:E:1142:ARG:HG2	2:E:1164:CYS:SG	2.56	0.46
2:E:1972:ILE:HG23	2:E:1973:LEU:N	2.30	0.46
2:E:2183:ASP:N	2:E:2183:ASP:OD1	2.48	0.46
2:E:862:THR:OG1	2:E:863:ALA:N	2.49	0.46
2:G:1062:GLU:O	2:G:1066:VAL:HG23	2.14	0.46
2:G:1353:LEU:CD1	2:G:1355:ASP:HB2	2.44	0.46
2:G:1571:ARG:CG	2:G:1572:PRO:HD2	2.45	0.46
2:G:2081:PHE:HB2	2:G:2099:ILE:HG13	1.98	0.46
2:G:2167:ASP:O	2:G:2168:LEU:HD23	2.16	0.46
2:G:967:VAL:HG13	2:G:1002:ARG:HB3	1.98	0.46
1:H:2136:LEU:CD1	1:H:2179:SER:HB2	2.45	0.46
2:A:1063:LEU:HD23	2:A:1163:MET:CE	2.46	0.46
2:A:1107:LYS:O	2:A:1111:LEU:HG	2.16	0.46
2:A:1804:ILE:HG23	2:A:1837:LEU:HD22	1.98	0.46
2:A:1920:ILE:N	2:A:1920:ILE:HD12	2.30	0.46
2:A:2127:ASN:HB2	2:A:2175:ASP:OD2	2.15	0.46
2:A:539:THR:O	2:A:695:ARG:NH2	2.48	0.46
2:A:767:ASN:O	2:A:769:ASN:N	2.49	0.46
2:C:1487:LEU:HD23	2:C:1488:SER:CB	2.44	0.46
2:C:564:THR:HG21	2:C:697:ILE:HG13	1.97	0.46
2:C:784:THR:O	2:C:788:ILE:HG13	2.16	0.46
1:D:2279:LEU:HD12	1:D:2279:LEU:N	2.31	0.46
2:E:1418:HIS:O	2:E:1422:LYS:HB2	2.15	0.46
2:E:2037:PHE:O	2:E:2041:MET:HB2	2.15	0.46
2:E:548:LEU:HD22	2:E:709:VAL:HG12	1.98	0.46
2:G:1383:GLN:HA	2:G:1386:THR:OG1	2.16	0.46
2:G:1503:PHE:HD2	2:G:1539:ILE:HG23	1.81	0.46
2:G:1976:LEU:O	2:G:1979:ILE:HG22	2.15	0.46
2:G:865:LEU:HD11	2:G:871:LEU:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:2090:ILE:O	1:H:2281:PHE:HB2	2.15	0.46
2:A:1577:LEU:HD23	2:A:1577:LEU:H	1.81	0.46
2:A:2020:PRO:HA	2:A:2023:VAL:CG2	2.46	0.46
2:A:789:ARG:HB3	2:A:832:PHE:HE2	1.81	0.46
2:A:865:LEU:HD21	2:A:871:LEU:HD12	1.97	0.46
1:B:2211:TRP:HZ2	1:B:2223:PRO:HB2	1.81	0.46
1:B:2253:LYS:HD2	1:B:2279:LEU:H	1.81	0.46
2:C:1246:MET:HB2	2:C:1768:LYS:NZ	2.30	0.46
2:C:1254:THR:CG2	2:C:1301:GLU:HG3	2.46	0.46
2:C:1391:TYR:CD1	2:C:1413:PHE:HB3	2.49	0.46
2:C:1929:PRO:HG3	2:C:2006:TRP:CZ2	2.51	0.46
2:C:2049:TYR:O	2:C:2053:VAL:HG23	2.16	0.46
2:C:996:VAL:HG13	2:C:997:ALA:N	2.30	0.46
1:D:2119:VAL:HG11	1:D:2137:PRO:CG	2.44	0.46
2:E:1400:ALA:HA	2:E:1543:SER:O	2.15	0.46
2:E:1786:ASP:O	2:E:1789:VAL:HG12	2.16	0.46
2:E:1884:MET:O	2:E:1887:LEU:HD22	2.16	0.46
2:E:2093:GLU:HB3	2:E:2094:PRO:HD2	1.96	0.46
2:E:2102:GLU:HB3	2:E:2151:GLU:HG2	1.97	0.46
2:E:2162:SER:O	2:E:2190:VAL:HG21	2.16	0.46
2:E:466:ASP:N	2:E:466:ASP:OD1	2.45	0.46
2:E:761:LEU:HA	2:E:764:VAL:CG1	2.45	0.46
2:E:877:ILE:HA	2:E:918:ILE:HD12	1.98	0.46
2:G:1420:ALA:C	2:G:1421:LYS:HG3	2.35	0.46
2:G:1428:VAL:HG22	2:G:1477:ILE:CD1	2.45	0.46
2:G:1710:ALA:O	2:G:1743:ALA:HA	2.16	0.46
2:G:1819:ASN:ND2	2:G:1822:TYR:HB2	2.29	0.46
2:G:1989:LEU:H	2:G:1989:LEU:CD2	2.25	0.46
2:G:2097:LEU:H	2:G:2157:GLU:HB2	1.80	0.46
2:G:514:GLU:HG2	2:G:515:LEU:HD13	1.97	0.46
2:G:764:VAL:HG12	2:G:769:ASN:O	2.15	0.46
2:A:1181:TYR:CD1	2:A:1226:LEU:HD11	2.51	0.46
2:A:1670:GLY:O	2:A:1696:LEU:HA	2.15	0.46
2:A:1879:TYR:CZ	2:A:1880:MET:HG3	2.51	0.46
2:A:533:GLN:HE21	2:A:559:ASN:HB2	1.81	0.46
2:A:621:ARG:HG2	2:A:622:GLN:HE21	1.81	0.46
2:A:866:ALA:O	2:A:905:ARG:NH2	2.48	0.46
2:A:975:LEU:HG	2:A:979:MET:CE	2.46	0.46
1:B:2096:GLN:O	1:B:2125:GLY:HA3	2.16	0.46
2:C:1180:GLN:HE22	2:C:1328:MET:H	1.63	0.46
2:C:1944:ALA:O	2:C:1948:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:605:LYS:CA	2:C:605:LYS:HE2	2.44	0.46
2:C:622:GLN:HG2	2:C:627:GLN:CB	2.35	0.46
2:E:1307:THR:HG21	2:E:1765:TYR:CE1	2.50	0.46
2:E:1587:PHE:N	2:E:1588:PRO:HD2	2.30	0.46
2:E:1646:VAL:O	2:E:1650:ARG:HG2	2.16	0.46
2:E:1986:GLU:HG2	2:E:1986:GLU:O	2.15	0.46
2:E:2115:VAL:HG22	2:E:2126:GLU:HG2	1.98	0.46
2:E:2142:ALA:HB3	2:E:2158:PHE:HA	1.98	0.46
2:E:549:VAL:CG2	2:E:699:LEU:HD22	2.46	0.46
2:E:568:GLU:HG3	2:E:584:PHE:HD2	1.80	0.46
2:E:804:HIS:ND1	2:E:804:HIS:O	2.45	0.46
2:E:848:GLU:OE2	2:E:869:VAL:HG21	2.16	0.46
2:E:875:THR:HA	2:E:916:GLU:HB2	1.98	0.46
2:G:1579:ILE:N	2:G:1579:ILE:HD12	2.31	0.46
2:G:1603:THR:HB	2:G:1640:ARG:NH1	2.30	0.46
2:G:2060:GLN:O	2:G:2063:LEU:HG	2.15	0.46
2:G:930:LEU:O	2:G:934:ASN:HB2	2.15	0.46
1:H:2079:MET:HE2	1:H:2115:ILE:CD1	2.45	0.46
2:A:1336:VAL:HG12	2:A:1338:PHE:CE1	2.51	0.46
2:A:1401:ALA:HB1	2:A:1402:PRO:HD2	1.98	0.46
2:A:1840:LEU:O	2:A:1844:THR:OG1	2.34	0.46
2:A:797:THR:CB	2:A:801:ILE:HD13	2.26	0.46
2:A:862:THR:OG1	2:A:863:ALA:N	2.49	0.46
2:A:871:LEU:H	2:A:905:ARG:HD3	1.80	0.46
2:C:1354:LEU:HB2	2:C:1356:LEU:HD21	1.96	0.46
2:C:1629:LEU:HD21	2:C:1669:VAL:CG2	2.46	0.46
2:C:1784:LEU:HD22	2:C:1788:PHE:CZ	2.51	0.46
2:C:2182:GLN:HB3	2:C:2184:PRO:CD	2.44	0.46
2:C:581:LEU:HD21	2:C:612:ILE:HG22	1.97	0.46
2:C:744:LYS:O	2:C:748:GLN:HG3	2.16	0.46
2:C:768:ARG:HH21	2:C:802:LEU:HD22	1.81	0.46
2:C:881:THR:HB	2:C:929:TYR:OH	2.16	0.46
2:C:980:LEU:CD2	2:C:998:LEU:HD12	2.46	0.46
1:D:2048:THR:O	1:D:2051:ILE:HG13	2.16	0.46
1:D:2218:PRO:HG2	1:D:2223:PRO:CB	2.33	0.46
2:E:1525:ARG:O	2:E:1529:ILE:HG13	2.16	0.46
2:E:612:ILE:HG21	2:E:633:VAL:HG21	1.97	0.46
2:E:810:GLU:HA	2:E:812:LEU:HD22	1.98	0.46
1:F:2085:LYS:O	1:F:2089:THR:HG23	2.16	0.46
1:F:2209:TYR:O	1:F:2213:VAL:HG23	2.16	0.46
2:G:1017:ASN:O	2:G:1033:LEU:HD23	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1310:ILE:HD13	2:G:1318:TYR:OH	2.16	0.46
2:G:1442:GLN:O	2:G:1445:GLN:HG2	2.16	0.46
2:G:1491:TRP:HA	2:G:1497:VAL:HG11	1.98	0.46
2:G:1590:LEU:HD11	2:G:1594:MET:HE2	1.98	0.46
2:G:1404:GLY:HA3	2:G:1744:LEU:HD21	1.98	0.46
2:G:2082:GLU:HB3	2:G:2098:LYS:NZ	2.31	0.46
2:G:467:GLN:O	2:G:471:LEU:HB2	2.16	0.46
2:G:613:LYS:CD	2:G:631:THR:HG22	2.42	0.46
2:G:821:ASN:N	2:G:843:ASP:OD2	2.40	0.46
2:G:892:VAL:HG22	2:G:893:GLU:N	2.31	0.46
2:G:951:LEU:O	2:G:955:ILE:HG13	2.16	0.46
2:G:976:PHE:HA	2:G:979:MET:CE	2.46	0.46
2:A:1365:LYS:HB2	2:A:1365:LYS:HE3	1.81	0.46
2:A:592:LEU:O	2:A:596:VAL:HG13	2.16	0.46
2:C:1432:PRO:HG2	2:C:1436:LEU:HD12	1.97	0.46
2:C:1895:LEU:HD11	2:C:1997:MET:SD	2.56	0.46
2:C:2029:TYR:OH	2:C:2056:LEU:HD22	2.16	0.46
2:C:2130:LEU:HD22	2:C:2143:ILE:CG2	2.46	0.46
2:C:522:PRO:HB2	2:C:562:MET:CE	2.47	0.46
1:D:2092:ASP:OD2	1:D:2094:ARG:N	2.35	0.46
1:D:2277:THR:HG23	1:D:2278:PRO:HD2	1.97	0.46
2:E:1009:ALA:O	2:E:1012:VAL:HG22	2.16	0.46
2:E:2127:ASN:OD1	2:E:2147:THR:HG22	2.16	0.46
2:E:2129:TRP:CD1	2:E:2143:ILE:HD11	2.51	0.46
2:E:776:HIS:CE1	2:E:894:LEU:HD11	2.51	0.46
2:E:737:PHE:CZ	2:E:930:LEU:HD23	2.51	0.46
2:G:1402:PRO:HG2	2:G:1405:SER:OG	2.16	0.46
2:G:1922:LYS:HD3	2:G:1937:TRP:CH2	2.51	0.46
2:G:2067:ALA:HA	2:G:2070:THR:OG1	2.15	0.46
2:A:1465:THR:HA	2:A:1468:LEU:HD23	1.98	0.45
2:A:1715:VAL:HG13	2:A:1739:MET:CE	2.45	0.45
2:A:975:LEU:O	2:A:979:MET:HE2	2.16	0.45
1:B:2232:GLU:O	1:B:2232:GLU:HG3	2.16	0.45
2:C:1356:LEU:HD22	2:C:1356:LEU:N	2.31	0.45
2:C:1487:LEU:HD23	2:C:1488:SER:HB2	1.97	0.45
2:E:1386:THR:HG22	2:E:1564:TYR:CE2	2.51	0.45
2:E:1673:HIS:CD2	2:E:1675:ALA:HB3	2.51	0.45
2:E:1928:VAL:HB	2:E:1929:PRO:HD2	1.98	0.45
2:E:764:VAL:HG11	2:E:802:LEU:HB2	1.96	0.45
2:G:1080:GLN:OE1	2:G:1083:LYS:HD2	2.16	0.45
2:G:1426:ARG:HB2	2:G:1499:THR:CG2	2.40	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1483:GLN:O	2:G:1487:LEU:HB3	2.16	0.45
2:G:1816:LEU:HD21	2:G:1836:TYR:CE2	2.51	0.45
2:G:529:LEU:CD2	2:G:533:GLN:HB2	2.45	0.45
2:A:1460:LEU:HD23	2:A:1479:ALA:CB	2.40	0.45
2:A:636:THR:OG1	2:A:640:LYS:HB3	2.17	0.45
2:A:976:PHE:CE2	2:A:980:LEU:HD11	2.51	0.45
2:C:1251:LEU:HB3	2:C:1304:VAL:HG13	1.97	0.45
2:C:1711:HIS:NE2	2:C:1747:SER:HB2	2.31	0.45
2:C:898:ASP:O	2:C:902:MET:HG3	2.16	0.45
2:E:1429:TYR:CE1	2:E:1506:ASP:HB2	2.51	0.45
2:E:1567:SER:O	2:E:1570:VAL:HG23	2.16	0.45
2:E:1613:VAL:HG22	2:E:1714:VAL:HG22	1.98	0.45
2:E:546:ASN:O	2:E:715:VAL:HG13	2.17	0.45
2:E:754:ASP:OD1	2:E:787:TYR:OH	2.33	0.45
2:E:774:PHE:CE1	2:E:866:ALA:HB2	2.51	0.45
2:E:775:VAL:CG2	2:E:780:GLU:HG2	2.46	0.45
2:E:807:GLY:O	2:E:810:GLU:HB2	2.16	0.45
2:G:1544:VAL:O	2:G:1546:LEU:HD12	2.17	0.45
2:G:1683:ILE:O	2:G:1687:LEU:HD13	2.16	0.45
2:G:1912:GLN:O	2:G:1943:LYS:NZ	2.50	0.45
2:G:2135:GLU:OE1	2:G:2169:LYS:N	2.46	0.45
2:G:749:LEU:O	2:G:753:ASN:ND2	2.32	0.45
1:B:2275:LEU:HD21	2:A:1335:PRO:CB	2.46	0.45
2:A:1480:THR:HB	2:A:1481:PRO:HD2	1.98	0.45
2:A:1571:ARG:CG	2:A:1572:PRO:HD2	2.41	0.45
2:A:1618:ARG:O	2:A:1621:THR:OG1	2.27	0.45
2:A:1650:ARG:HD3	2:A:1653:LEU:HB2	1.98	0.45
2:A:675:VAL:O	2:A:679:ILE:HG13	2.16	0.45
1:B:2098:ALA:HA	1:B:2151:ILE:O	2.16	0.45
1:B:2203:ALA:HB2	1:B:2234:ARG:CD	2.46	0.45
2:C:1800:GLY:O	2:C:1803:ALA:HB3	2.17	0.45
1:D:2064:TYR:O	1:D:2198:SER:HA	2.17	0.45
2:E:1146:GLU:O	2:E:1150:LYS:HG2	2.16	0.45
2:E:1598:THR:O	2:E:1602:ILE:HG13	2.17	0.45
2:E:1718:THR:HG21	2:E:1758:LEU:HB3	1.98	0.45
2:E:2167:ASP:C	2:E:2168:LEU:HD12	2.36	0.45
2:E:2174:SER:OG	2:E:2177:TYR:O	2.34	0.45
2:E:501:LYS:O	2:E:502:ARG:HD2	2.17	0.45
2:G:1075:TYR:O	2:G:1077:PRO:HD3	2.15	0.45
2:G:1425:GLY:O	2:G:1426:ARG:HG2	2.17	0.45
2:G:1919:GLY:O	2:G:1922:LYS:HB3	2.15	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:518:TRP:CE3	2:G:519:ALA:HB2	2.51	0.45
2:G:626:GLN:O	2:G:630:GLU:HG2	2.15	0.45
2:A:1397:VAL:O	2:A:1540:VAL:HG23	2.17	0.45
2:A:1525:ARG:O	2:A:1529:ILE:HG13	2.17	0.45
2:A:544:ASP:OD1	2:A:571:LYS:HE3	2.16	0.45
2:A:775:VAL:HG22	2:A:776:HIS:N	2.31	0.45
2:A:804:HIS:HA	2:A:809:ARG:CD	2.46	0.45
2:C:500:LYS:HE2	2:C:502:ARG:HG2	1.98	0.45
2:C:682:ARG:O	2:C:685:ARG:HB3	2.15	0.45
1:D:2218:PRO:CD	1:D:2219:ASN:N	2.78	0.45
1:D:2227:THR:HG22	1:D:2229:THR:H	1.81	0.45
2:E:1520:GLU:OE2	2:E:1811:TYR:N	2.50	0.45
2:E:1906:THR:HA	2:E:1909:GLU:HG3	1.97	0.45
2:E:1920:ILE:O	2:E:1924:ILE:HG13	2.16	0.45
2:E:457:LEU:HD23	2:E:458:VAL:N	2.31	0.45
2:E:613:LYS:O	2:E:631:THR:HB	2.17	0.45
2:E:729:ARG:NH1	2:E:733:LEU:HD12	2.32	0.45
2:G:1247:LEU:CD1	2:G:1310:ILE:HG13	2.47	0.45
2:G:1583:THR:O	2:G:1584:ILE:HD13	2.17	0.45
2:G:1785:PRO:HB3	2:G:1848:LEU:HD13	1.99	0.45
2:G:1983:LEU:C	2:G:1983:LEU:HD12	2.37	0.45
2:G:1988:HIS:HB3	2:G:1990:ASN:CG	2.36	0.45
2:G:557:LYS:NZ	4:G:2301:HOH:O	2.49	0.45
2:G:918:ILE:HD12	2:G:918:ILE:N	2.31	0.45
1:H:2070:ASN:HD21	1:H:2076:THR:CG2	2.27	0.45
2:A:1191:LYS:HE2	2:A:1195:MET:HE3	1.98	0.45
2:A:2009:ASP:HB2	2:A:2013:LYS:HD3	1.98	0.45
2:A:1983:LEU:CD1	2:A:2143:ILE:HG21	2.39	0.45
2:A:591:PRO:O	2:A:592:LEU:HD12	2.16	0.45
2:A:835:HIS:HB3	2:A:861:CYS:CB	2.46	0.45
2:A:772:LEU:CD1	2:A:876:VAL:HG22	2.45	0.45
2:C:1342:ILE:HG22	2:C:1821:SER:OG	2.17	0.45
2:C:1735:GLU:O	2:C:1739:MET:HG3	2.16	0.45
2:C:803:LYS:HZ2	2:C:803:LYS:HB2	1.80	0.45
2:C:895:SER:OG	2:C:898:ASP:OD2	2.34	0.45
1:D:2139:HIS:CE1	1:D:2141:MET:HB2	2.52	0.45
1:D:2294:PHE:CE2	2:C:1119:LEU:HD21	2.51	0.45
2:E:1268:GLU:OE2	2:E:1327:TRP:NE1	2.49	0.45
2:E:625:LYS:HD3	2:E:650:ASP:OD2	2.16	0.45
2:E:883:VAL:HG12	2:E:884:TYR:H	1.81	0.45
2:G:1274:VAL:HA	2:G:1319:PHE:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1718:THR:HG23	2:G:1758:LEU:HB3	1.97	0.45
2:G:1816:LEU:HD21	2:G:1836:TYR:HE2	1.81	0.45
2:G:1862:THR:CG2	2:G:1863:VAL:HG13	2.33	0.45
2:G:2083:VAL:HA	2:G:2097:LEU:HD13	1.98	0.45
2:G:603:PHE:HA	2:G:606:ARG:HB2	1.99	0.45
1:H:2084:LEU:HD22	1:H:2199:LEU:HD11	1.97	0.45
2:A:2077:ILE:HG23	2:A:2103:ARG:HG3	1.99	0.45
2:A:908:ARG:HD2	2:A:911:TYR:HD2	1.81	0.45
2:C:1382:ILE:H	2:C:1382:ILE:CD1	2.23	0.45
2:C:1369:TYR:HB3	2:C:1416:LEU:HD11	1.98	0.45
2:C:1799:SER:HA	2:C:1862:THR:OG1	2.17	0.45
2:C:1881:THR:OG1	2:C:1906:THR:OG1	2.32	0.45
2:C:684:ILE:HA	2:C:687:THR:HB	1.98	0.45
1:D:2097:VAL:O	1:D:2152:HIS:HA	2.16	0.45
2:E:1013:LEU:HB3	2:E:1019:ILE:HG12	1.97	0.45
2:E:1065:ARG:O	2:E:1069:GLN:HG3	2.16	0.45
2:E:1233:VAL:CG1	2:E:1253:ILE:HG23	2.47	0.45
2:E:1629:LEU:HD21	2:E:1669:VAL:HB	1.98	0.45
2:E:1804:ILE:O	2:E:1808:THR:HG23	2.17	0.45
2:E:1826:GLN:OE1	2:E:1826:GLN:N	2.33	0.45
2:E:2015:ILE:HA	2:E:2016:PRO:HD3	1.87	0.45
2:E:2048:ASN:O	2:E:2049:TYR:HB2	2.16	0.45
2:E:481:GLU:OE1	2:E:482:GLY:N	2.48	0.45
2:E:576:LYS:CG	2:E:577:GLY:H	2.28	0.45
2:G:1115:TYR:CZ	2:G:1170:ARG:HD2	2.51	0.45
2:G:1235:ILE:HG21	2:G:1322:VAL:HG21	1.97	0.45
2:G:2018:PHE:HE2	2:G:2023:VAL:HG12	1.82	0.45
2:G:2141:LEU:HD13	2:G:2141:LEU:H	1.81	0.45
2:A:1394:ASP:HA	2:A:1538:ARG:NH1	2.31	0.45
2:A:1625:ALA:HA	2:A:1697:ILE:CD1	2.47	0.45
2:C:1022:ASP:CB	2:C:1025:THR:HG22	2.40	0.45
2:C:886:PRO:HB2	2:C:1132:TYR:HB2	1.99	0.45
2:C:1578:HIS:HB2	2:C:1755:VAL:HG22	1.99	0.45
2:C:1866:LEU:O	2:C:1870:MET:HG2	2.17	0.45
2:C:771:MET:HE1	2:C:877:ILE:HD12	1.99	0.45
1:D:2101:LEU:HD21	1:D:2151:ILE:HD12	1.98	0.45
2:E:1875:TYR:CE1	2:E:1976:LEU:HB3	2.52	0.45
2:E:2090:ARG:NH2	2:E:2191:ALA:HB3	2.31	0.45
2:E:504:ASP:HA	2:E:507:ASP:OD2	2.17	0.45
2:E:665:ILE:HG23	2:E:700:SER:HB2	1.99	0.45
1:F:2191:ALA:O	1:F:2197:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1138:GLY:O	2:G:1142:ARG:HG3	2.16	0.45
2:G:1363:ALA:HB1	2:G:1387:PHE:HE1	1.76	0.45
2:G:1785:PRO:O	2:G:1789:VAL:HG23	2.17	0.45
2:G:1796:MET:HA	2:G:1796:MET:HE2	1.97	0.45
2:G:1992:LEU:O	2:G:1996:GLU:HG3	2.16	0.45
2:G:2051:SER:C	2:G:2052:LEU:HG	2.37	0.45
2:G:2083:VAL:HG12	2:G:2084:ASP:H	1.82	0.45
2:G:2169:LYS:O	2:G:2170:LEU:HB2	2.16	0.45
1:H:2168:THR:O	1:H:2172:LYS:HG3	2.17	0.45
2:A:1984:SER:C	2:A:1986:GLU:H	2.20	0.45
2:A:973:THR:HG23	2:A:976:PHE:H	1.82	0.45
1:B:2157:ASN:O	1:B:2157:ASN:ND2	2.50	0.45
1:B:2226:PHE:HA	1:B:2230:MET:HE1	1.99	0.45
2:C:1185:PRO:HG2	2:C:1188:ILE:CD1	2.47	0.45
2:C:1591:MET:HE3	2:C:1616:PRO:HG2	1.99	0.45
2:C:2002:VAL:CB	2:C:2176:SER:HB2	2.47	0.45
2:C:591:PRO:CG	2:C:664:GLU:HB2	2.47	0.45
1:D:2207:LEU:H	1:D:2207:LEU:CD2	2.26	0.45
2:E:1236:GLN:HA	2:E:1334:MET:CE	2.47	0.45
2:E:1528:PHE:O	2:E:1532:GLN:HG2	2.17	0.45
2:E:2052:LEU:N	2:E:2052:LEU:HD12	2.31	0.45
2:E:581:LEU:HG	2:E:582:ASP:OD1	2.16	0.45
2:E:985:LEU:HD23	2:E:985:LEU:O	2.17	0.45
2:G:1246:MET:C	2:G:1247:LEU:HD12	2.37	0.45
2:G:1354:LEU:HD21	2:G:1385:GLN:CB	2.45	0.45
2:G:1979:ILE:O	2:G:1983:LEU:N	2.42	0.45
2:G:573:ARG:HG2	2:G:579:ILE:CA	2.46	0.45
2:G:641:TRP:HD1	2:G:679:ILE:HD13	1.81	0.45
1:H:2170:HIS:O	1:H:2174:VAL:HG23	2.16	0.45
2:A:1241:PRO:HG3	2:A:1821:SER:HB2	1.99	0.45
2:A:1460:LEU:HA	2:A:1460:LEU:HD13	1.71	0.45
2:A:1911:ILE:HD13	2:A:1912:GLN:N	2.31	0.45
1:B:2280:PRO:HD2	1:B:2283:SER:HB2	1.99	0.45
2:C:1435:GLU:O	2:C:1439:LEU:HB2	2.17	0.45
2:C:1744:LEU:O	2:C:1746:PRO:HD3	2.17	0.45
2:C:2050:ALA:O	2:C:2051:SER:HB2	2.17	0.45
2:C:588:TYR:CE2	2:C:599:GLN:HG2	2.51	0.45
2:E:1613:VAL:HG13	2:E:1714:VAL:HG23	1.98	0.45
2:G:1049:THR:O	2:G:1053:LEU:HD13	2.17	0.45
2:G:1240:GLN:HB2	2:G:1248:ARG:HG2	1.98	0.45
2:G:1283:LEU:HD12	2:G:1283:LEU:N	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1303:THR:O	2:G:1727:ARG:HD2	2.17	0.45
2:G:1584:ILE:HG22	2:G:1586:HIS:H	1.81	0.45
2:G:1952:PHE:O	2:G:2005:MET:HA	2.17	0.45
2:G:565:MET:O	2:G:569:ILE:HG13	2.17	0.45
2:G:876:VAL:CG2	2:G:906:ALA:HB2	2.47	0.45
2:A:1149:LEU:HD21	2:A:1271:TRP:CZ3	2.51	0.45
2:A:1426:ARG:NH2	2:A:1472:GLU:HA	2.32	0.45
2:A:1543:SER:OG	2:A:1546:LEU:HD11	2.16	0.45
2:A:1570:VAL:O	2:A:1570:VAL:HG12	2.16	0.45
1:B:2080:PRO:HG2	1:B:2083:ILE:CG1	2.46	0.45
1:B:2289:ILE:O	1:B:2292:THR:HG22	2.17	0.45
2:C:1289:ILE:HD12	2:C:1289:ILE:O	2.17	0.45
2:C:2181:ASP:OD1	2:C:2181:ASP:N	2.50	0.45
2:C:513:THR:HG22	2:C:520:ARG:HH21	1.82	0.45
2:C:883:VAL:HG12	2:C:884:TYR:N	2.32	0.45
2:E:1222:THR:O	2:E:1226:LEU:HB2	2.17	0.45
2:E:1394:ASP:OD1	2:E:1417:ARG:HD3	2.17	0.45
2:E:1624:THR:HG22	2:E:1697:ILE:HD13	2.00	0.45
2:E:2129:TRP:CZ3	2:E:2175:ASP:HB3	2.52	0.45
1:F:2309:ALA:CB	2:E:618:THR:HA	2.47	0.45
2:E:650:ASP:N	2:E:650:ASP:OD1	2.49	0.45
2:E:923:GLN:O	2:E:926:ILE:HG12	2.16	0.45
1:F:2247:LEU:HD23	1:F:2275:LEU:HA	1.99	0.45
1:H:2190:VAL:HG22	1:H:2199:LEU:HD21	1.98	0.45
2:A:1481:PRO:HB2	2:A:1518:ILE:HG23	1.99	0.44
2:A:1774:LEU:HA	2:A:1775:PRO:HD3	1.83	0.44
2:A:713:LEU:HB2	2:A:715:VAL:HG23	1.98	0.44
1:B:2237:LEU:HD12	1:B:2238:LEU:H	1.82	0.44
1:D:2220:VAL:HG13	1:D:2222:ASN:N	2.31	0.44
2:E:1080:GLN:OE1	2:E:1083:LYS:HD3	2.17	0.44
2:E:1163:MET:O	2:E:1166:MET:HB3	2.16	0.44
2:E:1184:CYS:HB2	2:E:1226:LEU:HD21	1.99	0.44
2:E:1246:MET:O	2:E:1247:LEU:HD12	2.17	0.44
2:E:1418:HIS:HB2	2:E:1502:LEU:HD12	1.98	0.44
2:E:1587:PHE:HB3	2:E:1588:PRO:CD	2.46	0.44
2:E:1676:LEU:O	2:E:1681:LYS:HE3	2.16	0.44
2:E:1855:GLU:HB3	2:E:1866:LEU:HD12	1.99	0.44
1:F:2158:GLU:C	1:F:2159:LEU:HD13	2.37	0.44
2:G:967:VAL:HG13	2:G:1002:ARG:HB2	1.98	0.44
1:H:2302:VAL:HG11	2:G:1128:ALA:HA	1.98	0.44
2:G:1397:VAL:HG12	2:G:1398:LEU:N	2.31	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1641:PHE:HE2	2:G:1695:VAL:CG2	2.30	0.44
1:H:2075:ILE:HA	1:H:2111:GLN:O	2.17	0.44
1:H:2307:ASN:OD1	2:G:672:ARG:NH1	2.50	0.44
2:A:1206:ASP:OD2	2:A:1209:ARG:HB2	2.17	0.44
2:A:2085:ASP:N	2:A:2086:PRO:HD3	2.31	0.44
2:A:621:ARG:CG	2:A:622:GLN:H	2.25	0.44
2:A:797:THR:O	2:A:801:ILE:HB	2.17	0.44
2:A:936:GLN:HE21	2:A:936:GLN:HB3	1.56	0.44
2:C:1148:CYS:SG	2:C:1156:VAL:HG12	2.57	0.44
2:C:1149:LEU:HD21	2:C:1271:TRP:CZ3	2.52	0.44
2:C:1386:THR:O	2:C:1390:LEU:HG	2.17	0.44
2:C:1426:ARG:O	2:C:1500:VAL:HA	2.16	0.44
2:C:1486:VAL:HG23	2:C:1487:LEU:H	1.82	0.44
2:C:1652:LEU:N	2:C:1652:LEU:HD12	2.31	0.44
2:C:1913:THR:HG22	2:C:1943:LYS:HZ1	1.83	0.44
2:C:482:GLY:CA	2:C:497:PRO:HG3	2.47	0.44
2:E:1095:ILE:N	2:E:1095:ILE:HD12	2.33	0.44
2:E:1919:GLY:HA2	2:E:1922:LYS:HB2	1.98	0.44
2:E:2019:THR:O	2:E:2023:VAL:HG13	2.16	0.44
2:E:832:PHE:CD2	2:E:858:VAL:HG11	2.53	0.44
2:G:1082:GLU:CD	2:G:1126:LEU:HG	2.38	0.44
2:G:1894:LYS:CG	2:G:1990:ASN:HD22	2.28	0.44
1:H:2150:LEU:C	1:H:2150:LEU:HD12	2.37	0.44
2:A:1008:SER:O	2:A:1012:VAL:HG13	2.17	0.44
2:A:955:ILE:CG2	2:A:1030:ALA:HB2	2.42	0.44
2:A:1514:GLN:HG3	2:A:1515:MET:H	1.83	0.44
2:A:1539:ILE:HB	2:A:1556:ILE:CG2	2.47	0.44
2:A:2115:VAL:HG12	2:A:2126:GLU:CG	2.48	0.44
2:C:1138:GLY:O	2:C:1142:ARG:HG3	2.17	0.44
2:C:1268:GLU:CD	2:C:1326:ARG:HH11	2.21	0.44
2:C:1946:VAL:O	2:C:1949:GLN:HB2	2.17	0.44
2:C:2031:ILE:CG2	2:C:2037:PHE:HB2	2.46	0.44
2:C:2003:GLN:CG	2:C:2178:VAL:HG23	2.47	0.44
2:C:562:MET:CE	2:C:607:LEU:HD21	2.48	0.44
2:C:781:THR:HG23	2:C:834:ILE:CD1	2.47	0.44
2:C:881:THR:CG2	2:C:921:THR:HB	2.47	0.44
2:E:1124:LEU:N	2:E:1124:LEU:HD12	2.31	0.44
2:E:1987:GLY:CA	2:E:2139:THR:HA	2.45	0.44
2:E:580:ASP:HB3	2:E:583:ALA:CB	2.48	0.44
2:G:1445:GLN:HA	2:G:1457:ILE:HD11	1.98	0.44
2:G:1438:ASP:HB3	2:G:1459:LYS:CE	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1982:ILE:HG21	2:G:1990:ASN:OD1	2.17	0.44
2:G:898:ASP:O	2:G:902:MET:HG3	2.17	0.44
2:A:1391:TYR:O	2:A:1417:ARG:HD2	2.17	0.44
2:A:1537:MET:HE2	2:A:1539:ILE:HD11	1.99	0.44
2:A:1942:PHE:O	2:A:1946:VAL:HG12	2.18	0.44
1:B:2189:THR:O	1:B:2199:LEU:HA	2.18	0.44
2:C:1089:LEU:HD11	2:C:1119:LEU:HD13	1.98	0.44
2:C:1205:LEU:HD13	2:C:1210:MET:HB2	1.99	0.44
2:C:1851:ALA:O	2:C:1853:ILE:N	2.50	0.44
2:C:1954:ARG:O	2:C:1954:ARG:HD3	2.17	0.44
2:C:757:TYR:HE1	2:C:792:ALA:HA	1.83	0.44
1:D:2168:THR:O	1:D:2172:LYS:HG3	2.17	0.44
1:D:2207:LEU:N	1:D:2207:LEU:HD23	2.28	0.44
1:D:2285:GLN:OE1	1:D:2285:GLN:N	2.47	0.44
2:E:1920:ILE:HA	2:E:1923:ARG:HG2	1.99	0.44
2:E:2141:LEU:HD22	2:E:2168:LEU:HD21	1.99	0.44
2:E:617:LEU:HB3	2:E:636:THR:HB	1.99	0.44
2:E:772:LEU:HD12	2:E:876:VAL:HG13	2.00	0.44
2:E:775:VAL:HG21	2:E:780:GLU:CG	2.47	0.44
2:E:884:TYR:OH	2:E:1079:ARG:NH1	2.49	0.44
2:E:961:ARG:HB3	2:E:961:ARG:NH1	2.32	0.44
2:G:1148:CYS:SG	2:G:1156:VAL:HG12	2.58	0.44
2:G:1365:LYS:O	2:G:1367:LYS:HG2	2.17	0.44
2:G:1639:ASP:OD1	2:G:1639:ASP:N	2.51	0.44
2:G:1862:THR:CG2	2:G:1863:VAL:N	2.80	0.44
1:H:2119:VAL:HG22	1:H:2247:LEU:HB2	1.99	0.44
2:A:1419:TRP:CZ3	2:A:1476:LEU:HB2	2.52	0.44
2:A:593:LYS:HA	2:A:596:VAL:HG22	1.98	0.44
1:B:2079:MET:CE	1:B:2115:ILE:HG21	2.48	0.44
2:C:1396:ASN:HB3	2:C:1556:ILE:HG22	1.99	0.44
2:C:1477:ILE:HD11	2:C:1484:TRP:HZ3	1.83	0.44
2:C:1533:THR:OG1	2:C:1535:LEU:HG	2.16	0.44
2:C:1594:MET:C	2:C:1597:PRO:HD2	2.38	0.44
2:C:1708:PHE:O	2:C:1742:LYS:HG3	2.17	0.44
2:C:2031:ILE:HG23	2:C:2037:PHE:CB	2.44	0.44
2:C:607:LEU:N	2:C:607:LEU:HD23	2.32	0.44
1:D:2053:THR:HA	1:D:2093:LEU:HD21	1.99	0.44
2:E:1161:LEU:HG	2:E:1165:LYS:HE3	1.99	0.44
2:E:1443:ASP:O	2:E:1446:LYS:HB3	2.17	0.44
2:E:1429:TYR:CD2	2:E:1478:LEU:HD22	2.53	0.44
2:E:2049:TYR:CB	2:E:2053:VAL:HG22	2.45	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:537:PHE:CE1	2:E:541:PHE:HD2	2.35	0.44
2:E:826:ASP:O	2:E:829:PRO:HD2	2.17	0.44
1:F:2240:ASP:N	1:F:2240:ASP:OD1	2.47	0.44
2:G:1849:SER:HB2	2:G:1854:ILE:CG2	2.47	0.44
2:G:683:THR:O	2:G:687:THR:OG1	2.27	0.44
2:A:1274:VAL:HG11	2:A:1308:VAL:HG11	1.99	0.44
2:A:1720:PHE:O	2:A:1728:TYR:HA	2.17	0.44
2:A:1840:LEU:C	2:A:1840:LEU:HD13	2.38	0.44
2:A:1898:ILE:O	2:A:1902:VAL:HG12	2.18	0.44
2:A:733:LEU:HD11	2:A:917:GLY:N	2.33	0.44
2:A:816:ALA:O	2:A:819:VAL:HG12	2.18	0.44
1:B:2127:ASN:N	1:B:2127:ASN:OD1	2.49	0.44
1:B:2284:GLU:HG3	1:B:2291:PHE:CZ	2.52	0.44
2:C:1089:LEU:O	2:C:1093:VAL:HG13	2.18	0.44
2:C:1136:SER:O	2:C:1140:ILE:HG12	2.16	0.44
2:C:1480:THR:H	2:C:1483:GLN:HE21	1.65	0.44
2:C:1798:GLU:N	2:C:1798:GLU:OE2	2.51	0.44
2:C:1979:ILE:CG2	2:C:1994:ALA:HB3	2.48	0.44
2:C:2015:ILE:HG12	2:C:2069:PHE:CD2	2.53	0.44
2:C:877:ILE:HA	2:C:918:ILE:O	2.18	0.44
2:C:892:VAL:HG22	2:C:893:GLU:N	2.32	0.44
2:E:1100:SER:CB	2:E:1106:ALA:HB2	2.46	0.44
2:E:1426:ARG:HG2	2:E:1500:VAL:HG12	1.99	0.44
2:E:1683:ILE:O	2:E:1687:LEU:HD13	2.18	0.44
2:E:1784:LEU:N	2:E:1785:PRO:CD	2.81	0.44
2:E:798:ILE:HG13	2:E:801:ILE:HB	2.00	0.44
2:E:943:LEU:HD22	2:E:973:THR:OG1	2.17	0.44
1:F:2148:LEU:O	1:F:2186:LEU:N	2.49	0.44
2:G:1988:HIS:HB3	2:G:1990:ASN:OD1	2.17	0.44
2:G:825:LYS:HD2	2:G:825:LYS:HA	1.82	0.44
1:H:2298:GLU:OE2	2:G:1118:ARG:NE	2.49	0.44
2:A:1750:GLY:C	2:A:1751:ARG:HG3	2.38	0.44
2:A:454:PRO:HD3	2:A:963:ARG:CZ	2.48	0.44
2:A:509:ASN:O	2:A:511:PRO:HD3	2.18	0.44
2:A:729:ARG:CG	2:A:730:PRO:HD2	2.48	0.44
2:A:836:HIS:H	2:A:839:MET:HE2	1.83	0.44
2:C:1090:LEU:O	2:C:1090:LEU:HD23	2.18	0.44
2:C:1598:THR:HG21	2:C:1716:MET:HE3	1.99	0.44
2:C:1618:ARG:HG3	2:C:1673:HIS:ND1	2.33	0.44
2:C:1913:THR:HA	2:C:1943:LYS:HZ1	1.83	0.44
2:C:736:GLU:OE1	2:C:759:LYS:NZ	2.40	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1000:GLN:O	2:E:1003:VAL:HB	2.18	0.44
2:E:1137:ALA:O	2:E:1141:LEU:HG	2.17	0.44
2:E:1819:ASN:ND2	2:E:1822:TYR:HB2	2.33	0.44
2:E:593:LYS:HE3	2:E:616:GLU:OE2	2.17	0.44
2:E:802:LEU:HD12	2:E:803:LYS:N	2.33	0.44
1:F:2109:ASN:HD22	1:F:2112:VAL:HG23	1.81	0.44
1:F:2162:MET:SD	1:F:2167:VAL:HG22	2.58	0.44
2:G:1065:ARG:O	2:G:1069:GLN:HG3	2.17	0.44
2:G:1451:LEU:HD22	2:G:1452:ARG:HH21	1.83	0.44
2:G:1799:SER:OG	2:G:1802:ASP:N	2.50	0.44
2:G:2103:ARG:O	2:G:2105:LEU:HD12	2.18	0.44
2:A:1171:MET:HE1	2:A:1328:MET:HB3	2.00	0.44
2:A:2031:ILE:HG22	2:A:2036:ASP:O	2.17	0.44
2:A:2111:PHE:CD1	2:A:2113:PRO:HD3	2.49	0.44
2:A:596:VAL:O	2:A:600:VAL:HG23	2.18	0.44
2:A:668:LEU:HD23	2:A:676:LEU:HB2	2.00	0.44
2:C:1715:VAL:HG23	2:C:1740:PHE:CE1	2.52	0.44
2:C:811:VAL:O	2:C:815:ALA:N	2.42	0.44
2:E:1063:LEU:HD23	2:E:1163:MET:CE	2.47	0.44
2:E:1185:PRO:HG2	2:E:1188:ILE:CD1	2.48	0.44
2:E:1457:ILE:HD13	2:E:1476:LEU:HD23	1.99	0.44
2:E:512:VAL:HG22	2:E:520:ARG:HG3	2.00	0.44
2:E:799:ASN:O	2:E:803:LYS:N	2.22	0.44
1:F:2193:THR:HB	1:F:2194:PRO:CD	2.48	0.44
2:G:1491:TRP:CZ2	2:G:1532:GLN:HG3	2.53	0.44
2:G:1889:LEU:HD12	2:G:1889:LEU:N	2.32	0.44
2:G:519:ALA:HA	2:G:610:TYR:OH	2.18	0.44
1:H:2091:ALA:HB2	1:H:2153:THR:HG21	1.99	0.44
2:A:1085:GLU:OE2	2:A:1122:GLU:N	2.41	0.44
2:A:1242:MET:HE1	2:A:1307:THR:HG22	2.00	0.44
2:A:1428:VAL:HG22	2:A:1477:ILE:CG1	2.47	0.44
2:A:1581:SER:HB2	2:A:1760:ALA:HA	1.99	0.44
2:A:1979:ILE:O	2:A:1982:ILE:HG22	2.18	0.44
2:A:472:MET:HE2	2:A:928:TYR:HA	2.00	0.44
2:A:687:THR:HG23	2:A:692:GLU:O	2.17	0.44
2:A:738:ILE:HD13	2:A:755:ILE:HG21	2.00	0.44
2:C:1617:SER:HB3	2:C:1620:GLN:HB2	2.00	0.44
2:C:1881:THR:OG1	2:C:1907:GLU:OE1	2.36	0.44
2:C:1911:ILE:O	2:C:1913:THR:HG23	2.17	0.44
2:C:1979:ILE:HD13	2:C:2130:LEU:CD1	2.48	0.44
2:C:593:LYS:HE2	2:C:597:GLN:OE1	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2079:MET:CE	1:D:2115:ILE:HG21	2.48	0.44
2:E:998:LEU:O	2:E:1002:ARG:HG3	2.18	0.44
2:E:1073:PHE:CD1	2:E:1133:VAL:HG22	2.53	0.44
1:F:2284:GLU:OE2	2:E:1174:THR:HG23	2.17	0.44
2:E:1276:ASP:OD1	2:E:1279:GLY:N	2.49	0.44
2:E:1560:LYS:HA	2:E:1563:ILE:CG1	2.43	0.44
2:E:526:THR:O	2:E:527:LYS:HB2	2.18	0.44
2:E:590:ALA:O	2:E:637:THR:HA	2.17	0.44
2:E:835:HIS:CE1	2:E:865:LEU:HB2	2.52	0.44
2:E:989:GLY:C	2:E:991:GLU:H	2.21	0.44
2:G:1241:PRO:CG	2:G:1821:SER:HB2	2.48	0.44
2:G:1861:GLY:O	2:G:1862:THR:CB	2.64	0.44
2:G:2083:VAL:CG1	2:G:2086:PRO:HG3	2.48	0.44
2:G:2093:GLU:HA	2:G:2094:PRO:HD3	1.81	0.44
2:G:541:PHE:HB3	2:G:542:LEU:HD12	2.00	0.44
2:G:727:SER:C	2:G:729:ARG:H	2.21	0.44
2:A:1397:VAL:HB	2:A:1562:ASP:HB3	2.00	0.43
2:A:1497:VAL:O	2:A:1500:VAL:HG12	2.17	0.43
2:A:1622:ARG:NH2	2:A:1658:GLU:OE1	2.51	0.43
2:A:1903:THR:HG22	2:A:1971:LYS:NZ	2.33	0.43
2:A:1982:ILE:HG23	2:A:1991:ALA:CB	2.48	0.43
2:A:2129:TRP:CZ3	2:A:2175:ASP:HB3	2.53	0.43
2:A:562:MET:O	2:A:566:LEU:HG	2.18	0.43
2:C:1403:THR:HA	2:C:1407:LYS:HE3	1.98	0.43
2:C:1858:GLU:O	2:C:1860:GLU:N	2.51	0.43
2:C:1881:THR:HG23	2:C:1884:MET:CE	2.48	0.43
2:C:1913:THR:HA	2:C:1943:LYS:NZ	2.33	0.43
2:C:588:TYR:HB3	2:C:635:VAL:HG22	2.00	0.43
2:C:729:ARG:HG3	2:C:730:PRO:HD2	2.00	0.43
2:C:844:ARG:O	2:C:848:GLU:HG3	2.17	0.43
2:E:1398:LEU:HD21	2:E:1552:ILE:CG1	2.47	0.43
2:E:1622:ARG:HH22	2:E:1658:GLU:CD	2.21	0.43
2:E:1784:LEU:O	2:E:1788:PHE:N	2.44	0.43
2:E:1843:THR:O	2:E:1847:GLN:HG3	2.18	0.43
2:E:1952:PHE:HB3	2:E:2006:TRP:CE3	2.43	0.43
1:F:2056:LEU:HD11	1:F:2093:LEU:CD2	2.48	0.43
1:F:2164:PRO:O	1:F:2168:THR:HG23	2.17	0.43
2:G:1515:MET:O	2:G:1518:ILE:HG12	2.18	0.43
2:G:1743:ALA:C	2:G:1744:LEU:HD12	2.38	0.43
2:G:2096:TYR:HD1	2:G:2156:LEU:HA	1.82	0.43
1:H:2308:PHE:CE1	2:G:639:GLU:HB3	2.52	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:2104:CYS:SG	1:H:2116:ARG:NH2	2.91	0.43
1:H:2216:LYS:C	1:H:2216:LYS:HD3	2.39	0.43
2:A:1061:VAL:HG13	2:A:1062:GLU:N	2.33	0.43
2:A:1191:LYS:NZ	2:A:1214:LEU:O	2.38	0.43
2:A:1429:TYR:HA	2:A:1504:ILE:HG23	2.00	0.43
2:A:1541:GLY:O	2:A:1542:LEU:HD23	2.18	0.43
2:A:1784:LEU:O	2:A:1788:PHE:N	2.46	0.43
2:A:1934:ASN:O	2:A:1934:ASN:ND2	2.51	0.43
2:A:2054:LYS:HD3	2:A:2054:LYS:C	2.39	0.43
2:A:2132:VAL:HG12	2:A:2170:LEU:HD23	2.01	0.43
2:A:621:ARG:CG	2:A:622:GLN:HE21	2.32	0.43
2:A:746:ILE:H	2:A:746:ILE:CD1	2.28	0.43
1:B:2303:ASP:OD1	2:A:778:ARG:NH2	2.39	0.43
2:C:1085:GLU:HA	2:C:1088:LYS:HE2	2.00	0.43
2:C:1249:ILE:CD1	2:C:1320:ILE:HD11	2.47	0.43
2:C:2167:ASP:O	2:C:2168:LEU:HD12	2.17	0.43
2:E:2020:PRO:HA	2:E:2023:VAL:HG22	2.00	0.43
2:E:2075:PRO:O	2:E:2180:VAL:HG11	2.18	0.43
2:G:1556:ILE:HG22	2:G:1556:ILE:O	2.17	0.43
2:G:1862:THR:O	2:G:1863:VAL:HG22	2.17	0.43
2:G:593:LYS:HE2	2:G:616:GLU:OE2	2.18	0.43
2:A:1085:GLU:O	2:A:1089:LEU:HB2	2.17	0.43
2:A:1154:ALA:O	2:A:1158:LYS:HG3	2.18	0.43
2:A:1837:LEU:O	2:A:1837:LEU:HD23	2.17	0.43
1:B:2151:ILE:HG23	1:B:2188:VAL:HB	2.00	0.43
2:C:1037:ALA:CB	2:C:1047:MET:HG3	2.47	0.43
2:C:1843:THR:O	2:C:1847:GLN:HG3	2.18	0.43
2:C:862:THR:OG1	2:C:863:ALA:N	2.48	0.43
1:D:2284:GLU:HG3	1:D:2291:PHE:CD1	2.54	0.43
2:E:1398:LEU:HD21	2:E:1552:ILE:CD1	2.48	0.43
2:E:1992:LEU:C	2:E:1992:LEU:HD23	2.39	0.43
2:E:2127:ASN:ND2	2:E:2145:ARG:HE	2.15	0.43
2:E:2141:LEU:HB3	2:E:2159:VAL:HG22	2.00	0.43
1:F:2119:VAL:HG11	1:F:2137:PRO:HG3	2.00	0.43
1:F:2086:LYS:CE	1:F:2278:PRO:HG2	2.44	0.43
2:G:1033:LEU:CD1	2:G:1047:MET:HE3	2.48	0.43
2:G:1249:ILE:HD11	2:G:1320:ILE:CD1	2.39	0.43
2:G:1251:LEU:HB3	2:G:1304:VAL:HG13	2.00	0.43
2:G:1784:LEU:HB2	2:G:1785:PRO:HD3	2.01	0.43
2:G:1792:ILE:O	2:G:1865:PRO:HG3	2.17	0.43
2:G:540:ALA:HA	2:G:695:ARG:HH22	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1084:LEU:C	2:A:1084:LEU:HD12	2.38	0.43
2:A:1401:ALA:O	2:A:1544:VAL:HA	2.18	0.43
2:A:1465:THR:HG23	2:A:1466:THR:HG23	1.99	0.43
2:A:2075:PRO:HG2	2:A:2180:VAL:HG21	2.01	0.43
2:A:577:GLY:O	2:A:578:GLU:HG2	2.18	0.43
2:A:971:GLY:HA3	2:A:1002:ARG:NH1	2.33	0.43
1:B:2101:LEU:HD21	1:B:2151:ILE:CD1	2.45	0.43
1:B:2250:ASP:HB3	1:B:2272:HIS:HB3	1.99	0.43
2:C:1468:LEU:HD21	2:C:1494:ARG:NH1	2.34	0.43
2:C:1860:GLU:HG2	2:C:1862:THR:HB	2.00	0.43
2:C:2032:ASN:N	2:C:2036:ASP:OD1	2.50	0.43
2:C:2156:LEU:N	2:C:2156:LEU:HD12	2.33	0.43
2:C:729:ARG:HH12	2:C:906:ALA:HB3	1.82	0.43
2:E:1007:HIS:O	2:E:1011:MET:HG2	2.18	0.43
2:E:1129:ASP:O	2:E:1133:VAL:HG23	2.17	0.43
2:G:1273:LEU:HD23	2:G:1285:HIS:CB	2.48	0.43
2:G:1382:ILE:O	2:G:1386:THR:HG23	2.18	0.43
2:G:1425:GLY:HA2	2:G:1501:GLU:OE1	2.18	0.43
2:G:1766:TYR:O	2:G:1770:LEU:HD13	2.18	0.43
2:G:1914:ARG:NE	2:G:1960:ASP:HB3	2.33	0.43
2:A:1441:PHE:CD1	2:A:1459:LYS:HB2	2.53	0.43
2:A:1718:THR:O	2:A:1731:TYR:N	2.49	0.43
2:A:1815:ARG:NH1	2:A:1818:ALA:HB3	2.33	0.43
2:A:803:LYS:CA	2:A:803:LYS:HE2	2.45	0.43
2:C:1188:ILE:HG21	2:C:1219:ALA:HB2	1.99	0.43
2:C:1274:VAL:HA	2:C:1319:PHE:O	2.18	0.43
2:C:1387:PHE:HB2	2:C:1391:TYR:OH	2.18	0.43
2:C:1441:PHE:HB2	2:C:1478:LEU:HD12	1.99	0.43
2:C:541:PHE:O	2:C:567:ARG:HD2	2.18	0.43
1:D:2053:THR:HG22	1:D:2093:LEU:CD2	2.49	0.43
1:D:2177:HIS:HB2	1:D:2180:TRP:HB2	2.00	0.43
2:E:1090:LEU:CD2	2:E:1098:LYS:HD3	2.48	0.43
2:E:1891:HIS:O	2:E:1892:LYS:HB2	2.18	0.43
1:F:2308:PHE:O	2:E:640:LYS:HD3	2.18	0.43
2:E:777:SER:HB3	2:E:780:GLU:HB3	2.00	0.43
1:F:2208:GLY:HA2	1:F:2230:MET:HE3	2.00	0.43
1:H:2284:GLU:HG2	2:G:1174:THR:HG23	2.01	0.43
2:G:1925:TYR:O	2:G:1928:VAL:HG22	2.19	0.43
2:G:590:ALA:O	2:G:638:PRO:HD3	2.19	0.43
2:G:752:MET:HG3	2:G:920:ILE:HG21	2.00	0.43
2:A:1241:PRO:CG	2:A:1821:SER:HB2	2.49	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1533:THR:CG2	2:A:1535:LEU:HG	2.48	0.43
2:A:1610:PRO:O	2:A:1710:ALA:HB1	2.19	0.43
2:A:1872:ALA:HB2	2:A:1882:MET:HG3	2.01	0.43
2:A:593:LYS:O	2:A:596:VAL:HG22	2.18	0.43
2:A:660:ILE:CD1	2:A:696:ILE:HG12	2.46	0.43
2:C:1430:ILE:HD12	2:C:1503:PHE:CZ	2.53	0.43
2:C:1559:LYS:O	2:C:1563:ILE:HG12	2.18	0.43
2:C:1596:LYS:HB3	2:C:1597:PRO:CD	2.45	0.43
2:C:2011:PRO:O	2:C:2014:GLN:HG2	2.18	0.43
2:C:2131:VAL:HG12	2:C:2132:VAL:N	2.33	0.43
2:C:2130:LEU:HD22	2:C:2143:ILE:HG21	2.01	0.43
2:C:541:PHE:HB3	2:C:542:LEU:HD22	2.00	0.43
2:C:684:ILE:HD12	2:C:684:ILE:N	2.34	0.43
2:C:851:PHE:CD1	2:C:871:LEU:HD12	2.52	0.43
1:D:2092:ASP:CG	1:D:2095:VAL:HG12	2.39	0.43
1:D:2182:ASN:OD1	1:D:2183:GLN:N	2.48	0.43
1:D:2306:ASP:O	1:D:2307:ASN:HB2	2.18	0.43
2:E:1890:SER:O	2:E:1893:SER:OG	2.24	0.43
2:E:1985:SER:HB3	2:E:1988:HIS:CD2	2.53	0.43
2:E:2015:ILE:O	2:E:2018:PHE:HB2	2.18	0.43
2:E:2026:ALA:O	2:E:2031:ILE:HB	2.19	0.43
1:F:2077:TYR:HA	1:F:2113:LYS:O	2.19	0.43
1:F:2124:ILE:CG2	1:F:2131:GLN:HB2	2.48	0.43
2:G:1084:LEU:H	2:G:1084:LEU:CD2	2.31	0.43
2:G:1354:LEU:HD23	2:G:1385:GLN:HB2	2.01	0.43
1:H:2084:LEU:O	1:H:2088:ILE:HG13	2.18	0.43
1:H:2065:VAL:CG2	1:H:2238:LEU:HD13	2.47	0.43
2:A:1428:VAL:HG22	2:A:1477:ILE:CD1	2.47	0.43
2:A:2062:GLN:O	2:A:2066:ALA:N	2.51	0.43
1:B:2253:LYS:HA	1:B:2253:LYS:HD3	1.74	0.43
2:C:1837:LEU:O	2:C:1841:VAL:HG12	2.18	0.43
2:C:2045:GLU:HB3	2:C:2046:ASN:H	1.55	0.43
2:C:530:ASN:ND2	2:C:532:ILE:HG22	2.34	0.43
2:C:729:ARG:HH22	2:C:906:ALA:CB	2.32	0.43
2:C:866:ALA:O	2:C:905:ARG:NH1	2.49	0.43
2:C:948:VAL:HG12	2:C:1013:LEU:HD21	2.01	0.43
1:D:2170:HIS:O	1:D:2174:VAL:HG23	2.19	0.43
2:E:1746:PRO:HB3	2:E:1751:ARG:O	2.19	0.43
2:E:1912:GLN:O	2:E:1943:LYS:NZ	2.50	0.43
2:E:2115:VAL:HG13	2:E:2177:TYR:CE2	2.53	0.43
2:G:1438:ASP:HB3	2:G:1459:LYS:HE3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1670:GLY:O	2:G:1696:LEU:HA	2.18	0.43
2:G:1889:LEU:HD12	2:G:1889:LEU:H	1.84	0.43
2:G:2012:LEU:HD22	2:G:2012:LEU:N	2.33	0.43
2:G:1989:LEU:HB3	2:G:2139:THR:HG21	2.01	0.43
2:G:578:GLU:HG3	2:G:579:ILE:N	2.32	0.43
1:H:2163:SER:O	1:H:2167:VAL:HG23	2.19	0.43
2:A:1533:THR:HG22	2:A:1535:LEU:HG	2.01	0.43
2:A:1715:VAL:HG22	2:A:1739:MET:CE	2.48	0.43
2:A:1758:LEU:O	2:A:1758:LEU:HD12	2.19	0.43
2:A:1967:VAL:CG1	2:A:1971:LYS:HE3	2.49	0.43
2:A:2010:SER:OG	2:A:2012:LEU:HD23	2.18	0.43
2:A:2016:PRO:HG3	2:A:2116:HIS:CE1	2.54	0.43
2:A:685:ARG:O	2:A:689:GLN:HG2	2.19	0.43
2:A:995:ASP:OD2	2:A:1000:GLN:N	2.51	0.43
1:B:2044:THR:N	2:A:1098:LYS:HZ1	2.17	0.43
1:B:2091:ALA:HB2	1:B:2153:THR:HG21	2.00	0.43
1:B:2164:PRO:O	1:B:2168:THR:HG23	2.19	0.43
1:B:2306:ASP:O	1:B:2307:ASN:HB2	2.19	0.43
2:C:1106:ALA:O	2:C:1110:VAL:HG23	2.18	0.43
2:C:1774:LEU:HD12	2:C:1775:PRO:CD	2.49	0.43
2:C:1854:ILE:HB	2:C:1863:VAL:HG11	2.01	0.43
2:C:2031:ILE:HA	2:C:2036:ASP:OD1	2.19	0.43
2:C:686:ARG:HH21	2:C:959:ASN:HA	1.84	0.43
1:F:2302:VAL:HG22	2:E:1131:VAL:HG21	2.00	0.43
1:F:2276:ASP:OD1	2:E:1333:ARG:NH1	2.51	0.43
2:E:2156:LEU:HD12	2:E:2156:LEU:O	2.19	0.43
2:E:623:LEU:O	2:E:624:THR:OG1	2.21	0.43
2:E:975:LEU:O	2:E:979:MET:HG3	2.19	0.43
1:F:2150:LEU:O	1:F:2150:LEU:HD12	2.19	0.43
2:G:1187:GLU:HG2	2:G:1188:ILE:N	2.34	0.43
2:G:1982:ILE:CG2	2:G:1991:ALA:HB2	2.49	0.43
2:G:565:MET:CE	2:G:633:VAL:HG21	2.47	0.43
2:G:628:ILE:HD12	2:G:628:ILE:C	2.39	0.43
2:G:735:GLN:OE1	2:G:933:LEU:HB3	2.19	0.43
1:H:2081:LYS:HE2	1:H:2240:ASP:OD1	2.19	0.43
2:A:2042:ASN:OD1	2:A:2043:PRO:HD2	2.19	0.43
2:A:2029:TYR:HH	2:A:2051:SER:HG	1.58	0.43
2:A:2084:ASP:N	2:A:2084:ASP:OD1	2.52	0.43
2:A:2130:LEU:O	2:A:2143:ILE:HA	2.17	0.43
2:A:2162:SER:HA	2:A:2163:PRO:HD3	1.82	0.43
2:A:2169:LYS:NZ	2:A:2185:SER:HB3	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:898:ASP:O	2:A:902:MET:HG3	2.18	0.43
1:B:2266:ILE:O	1:B:2266:ILE:HG12	2.19	0.43
2:C:1481:PRO:HB2	2:C:1518:ILE:CG2	2.45	0.43
2:C:556:GLY:HA2	3:C:2201:ACT:OXT	2.18	0.43
2:C:657:VAL:O	2:C:657:VAL:HG23	2.19	0.43
2:E:1418:HIS:HA	2:E:1422:LYS:HG3	1.99	0.43
2:E:1600:LEU:HA	2:E:1603:THR:OG1	2.19	0.43
2:E:1998:SER:O	2:E:2002:VAL:HG12	2.19	0.43
2:E:778:ARG:NH1	2:E:838:GLY:HA2	2.33	0.43
2:E:856:ILE:O	2:E:858:VAL:N	2.51	0.43
2:E:961:ARG:HB3	2:E:961:ARG:CZ	2.49	0.43
1:F:2163:SER:O	1:F:2167:VAL:HG23	2.18	0.43
2:G:1497:VAL:HG13	2:G:1498:GLN:OE1	2.19	0.43
2:G:1886:LEU:HG	2:G:1887:LEU:HD22	2.00	0.43
2:G:2058:LEU:HD23	2:G:2062:GLN:HE22	1.84	0.43
2:G:2120:TYR:HA	2:G:2121:PRO:HD3	1.89	0.43
2:G:823:ASP:OD1	2:G:824:LEU:HG	2.19	0.43
2:A:1101:ILE:O	2:A:1101:ILE:HD12	2.19	0.43
2:A:1181:TYR:HA	2:A:1182:PRO:HD3	1.88	0.43
2:A:1647:ASP:OD1	2:A:1648:GLN:HG2	2.19	0.43
2:A:1792:ILE:HD13	2:A:1797:ILE:HB	2.01	0.43
2:A:1975:LEU:CD1	2:A:1997:MET:HG2	2.34	0.43
2:A:2185:SER:O	2:A:2186:PHE:HB2	2.19	0.43
2:A:776:HIS:NE2	2:A:894:LEU:HD11	2.33	0.43
2:A:885:SER:O	2:A:889:GLY:N	2.51	0.43
1:B:2160:PRO:O	1:B:2233:ARG:NH2	2.52	0.43
1:B:2210:LYS:HB3	1:B:2210:LYS:NZ	2.34	0.43
2:C:1545:SER:OG	2:C:1568:PRO:HB3	2.18	0.43
2:C:2090:ARG:HH22	2:C:2165:LYS:HA	1.84	0.43
2:C:851:PHE:HZ	2:C:873:ALA:HB1	1.82	0.43
2:E:1094:PRO:HG2	2:E:1172:TRP:CZ2	2.54	0.43
2:E:1102:GLU:N	2:E:1102:GLU:OE1	2.51	0.43
2:E:1179:ARG:NE	2:E:1193:GLU:OE1	2.45	0.43
2:E:1315:PRO:HA	2:E:1316:PRO:HD3	1.89	0.43
1:F:2275:LEU:HD21	2:E:1317:ASN:ND2	2.34	0.43
2:E:1715:VAL:HB	2:E:1756:LEU:HD12	2.01	0.43
2:E:1804:ILE:HG23	2:E:1837:LEU:CD1	2.49	0.43
2:E:2083:VAL:O	2:E:2086:PRO:HG3	2.18	0.43
2:E:833:GLY:CA	2:E:856:ILE:HD11	2.49	0.43
2:E:737:PHE:CE2	2:E:930:LEU:HD23	2.54	0.43
2:G:1107:LYS:O	2:G:1111:LEU:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1149:LEU:HD21	2:G:1271:TRP:CZ3	2.54	0.43
2:G:1283:LEU:HD12	2:G:1283:LEU:H	1.83	0.43
2:G:1464:THR:HA	2:G:1467:ASP:HB2	2.00	0.43
2:G:1509:HIS:HB3	2:G:1543:SER:OG	2.19	0.43
2:G:1618:ARG:NH2	2:G:1914:ARG:HH21	2.16	0.43
2:G:1678:GLN:OE1	2:G:1678:GLN:N	2.48	0.43
2:G:1682:ARG:HA	2:G:1685:LYS:HB3	2.00	0.43
2:G:2054:LYS:HG3	2:G:2054:LYS:O	2.18	0.43
2:G:877:ILE:HA	2:G:918:ILE:O	2.19	0.43
2:G:993:GLU:O	2:G:994:ASP:CB	2.67	0.43
1:B:2302:VAL:HG21	2:A:1127:MET:HB3	2.01	0.42
2:A:2056:LEU:HD22	2:A:2056:LEU:N	2.34	0.42
2:A:2133:GLY:O	2:A:2168:LEU:HB2	2.19	0.42
1:F:2051:ILE:HG21	2:E:1099:GLU:HG2	2.01	0.42
2:E:541:PHE:O	2:E:567:ARG:HD2	2.19	0.42
1:F:2309:ALA:HB1	2:E:618:THR:CA	2.49	0.42
2:G:1171:MET:CE	2:G:1328:MET:HB3	2.49	0.42
2:G:1792:ILE:HG22	2:G:1865:PRO:CG	2.49	0.42
2:G:2025:VAL:HA	2:G:2028:LYS:HB2	2.00	0.42
2:G:564:THR:HG21	2:G:697:ILE:HG13	2.01	0.42
2:G:877:ILE:HG12	2:G:918:ILE:HB	2.01	0.42
2:G:926:ILE:HD12	2:G:927:PRO:N	2.34	0.42
1:H:2211:TRP:CZ2	1:H:2226:PHE:HB2	2.54	0.42
1:H:2253:LYS:HZ2	1:H:2285:GLN:HG3	1.83	0.42
2:A:1249:ILE:HD11	2:A:1320:ILE:HD11	2.01	0.42
2:A:1351:THR:CG2	2:A:1565:ASN:H	2.32	0.42
2:A:1460:LEU:HB2	2:A:1479:ALA:CB	2.44	0.42
2:A:1615:VAL:CG2	2:A:1621:THR:HG22	2.49	0.42
2:A:1914:ARG:HA	2:A:1914:ARG:NE	2.34	0.42
2:A:2076:ASP:O	2:A:2077:ILE:HG23	2.19	0.42
2:A:1983:LEU:CB	2:A:2140:LEU:HD21	2.46	0.42
2:A:2143:ILE:HG12	2:A:2144:LYS:N	2.34	0.42
2:A:760:VAL:HG21	2:A:858:VAL:HG21	2.01	0.42
2:C:1507:ASP:N	2:C:1542:LEU:O	2.52	0.42
2:C:1581:SER:HB2	2:C:1760:ALA:HA	2.00	0.42
2:C:1586:HIS:CE1	2:C:1588:PRO:HG2	2.54	0.42
1:D:2101:LEU:HD22	1:D:2115:ILE:CG2	2.49	0.42
1:D:2289:ILE:HA	1:D:2292:THR:HG23	2.00	0.42
2:E:1016:SER:CB	2:E:1018:LEU:HD13	2.49	0.42
2:E:1054:ILE:HG23	2:E:1058:MET:HE2	1.99	0.42
2:E:1590:LEU:HD21	2:E:1594:MET:HE1	2.00	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1812:PHE:O	2:E:1816:LEU:HB2	2.17	0.42
2:E:1981:ASP:O	2:E:1984:SER:OG	2.27	0.42
2:E:2141:LEU:CD2	2:E:2168:LEU:HD21	2.49	0.42
2:E:479:MET:HE2	2:E:483:THR:HG21	2.00	0.42
2:E:585:LYS:HG2	2:E:632:GLN:HA	2.01	0.42
2:E:688:GLU:OE1	2:E:972:TYR:OH	2.32	0.42
1:F:2149:GLY:HA3	1:F:2186:LEU:O	2.19	0.42
2:G:1404:GLY:CA	2:G:1744:LEU:HD21	2.50	0.42
2:G:585:LYS:O	2:G:657:VAL:HA	2.20	0.42
2:G:913:THR:HG1	2:G:914:TYR:HD1	1.67	0.42
2:A:1067:PHE:CD1	2:A:1140:ILE:HG21	2.55	0.42
2:A:1107:LYS:HE3	2:A:1126:LEU:CD1	2.49	0.42
2:A:1820:PRO:HB3	2:A:1825:LEU:HD23	2.01	0.42
2:A:2002:VAL:HG21	2:A:2176:SER:HA	2.00	0.42
1:B:2170:HIS:HE1	1:B:2186:LEU:HA	1.83	0.42
2:C:1103:GLU:HB3	2:C:1104:PRO:HD2	2.00	0.42
2:C:1213:LEU:HD23	2:C:1213:LEU:C	2.39	0.42
2:C:1223:VAL:O	2:C:1227:VAL:HG12	2.19	0.42
2:C:1254:THR:HG22	2:C:1301:GLU:HA	2.02	0.42
2:C:1677:SER:O	2:C:1681:LYS:HG3	2.19	0.42
2:C:1948:VAL:HG12	2:C:1952:PHE:CZ	2.54	0.42
2:C:677:GLU:OE2	2:C:941:SER:HB2	2.19	0.42
2:C:983:PRO:HA	2:C:988:VAL:HG23	2.01	0.42
2:E:1712:LEU:HD13	2:E:1753:ARG:HB2	2.01	0.42
2:E:1714:VAL:HA	2:E:1755:VAL:O	2.19	0.42
2:E:2115:VAL:HG12	2:E:2116:HIS:N	2.33	0.42
2:E:2154:VAL:HG12	2:E:2155:LYS:N	2.33	0.42
2:E:2127:ASN:HB2	2:E:2175:ASP:OD2	2.19	0.42
2:E:521:ILE:H	2:E:521:ILE:HG13	1.49	0.42
2:E:593:LYS:O	2:E:596:VAL:HG22	2.19	0.42
2:E:657:VAL:O	2:E:658:ARG:HG3	2.20	0.42
2:E:674:PRO:HB2	2:E:946:LYS:CD	2.33	0.42
2:E:778:ARG:HH21	2:E:837:ALA:HB3	1.85	0.42
2:G:1103:GLU:CB	2:G:1104:PRO:HD2	2.46	0.42
2:G:1185:PRO:HG2	2:G:1188:ILE:CG1	2.48	0.42
2:G:1219:ALA:O	2:G:1223:VAL:HG23	2.19	0.42
2:G:1361:VAL:HG23	2:G:1377:GLN:O	2.19	0.42
2:G:1851:ALA:HB1	2:G:1883:GLU:OE1	2.19	0.42
2:G:903:LEU:CD2	2:G:933:LEU:HD13	2.49	0.42
1:H:2190:VAL:HG13	1:H:2197:VAL:HG11	2.01	0.42
2:A:1136:SER:O	2:A:1140:ILE:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1407:LYS:HZ3	2:A:1407:LYS:CA	2.32	0.42
2:A:1514:GLN:HG3	2:A:1515:MET:N	2.34	0.42
2:A:1519:TYR:O	2:A:1523:VAL:HG23	2.19	0.42
2:A:1895:LEU:HD23	2:A:1895:LEU:C	2.39	0.42
2:A:1948:VAL:O	2:A:1951:HIS:HB3	2.20	0.42
2:A:608:GLU:N	2:A:609:PRO:CD	2.79	0.42
2:A:535:LYS:HB3	2:A:724:PHE:HZ	1.84	0.42
2:A:943:LEU:O	2:A:947:LEU:N	2.52	0.42
1:B:2085:LYS:O	1:B:2089:THR:HG23	2.19	0.42
1:B:2146:GLU:O	1:B:2148:LEU:HD13	2.19	0.42
1:D:2304:ARG:NH2	2:C:1135:GLN:OE1	2.50	0.42
2:C:1458:VAL:O	2:C:1477:ILE:HA	2.19	0.42
1:D:2137:PRO:CB	1:D:2273:VAL:HG21	2.49	0.42
2:E:1062:GLU:O	2:E:1066:VAL:HG23	2.20	0.42
2:E:1441:PHE:CB	2:E:1478:LEU:HD12	2.43	0.42
2:E:587:VAL:HB	2:E:660:ILE:HG22	2.00	0.42
1:F:2217:ASP:N	1:F:2218:PRO:HD3	2.34	0.42
2:G:1054:ILE:HG23	2:G:1058:MET:HE2	2.01	0.42
2:G:1720:PHE:CZ	2:G:1729:ILE:HD11	2.54	0.42
2:G:2025:VAL:HG21	2:G:2056:LEU:HD22	2.01	0.42
2:G:670:ASP:OD1	2:G:671:ASP:N	2.52	0.42
2:C:1354:LEU:CB	2:C:1356:LEU:HD21	2.49	0.42
2:C:1763:ARG:HH22	2:C:1767:LYS:NZ	2.18	0.42
2:C:1920:ILE:O	2:C:1924:ILE:HG23	2.19	0.42
2:E:1471:LEU:O	2:E:1471:LEU:HD23	2.19	0.42
2:E:1614:PHE:HA	2:E:1698:ALA:O	2.19	0.42
2:E:1965:GLN:O	2:E:1966:GLU:HB2	2.20	0.42
2:E:562:MET:HE3	2:E:606:ARG:HD2	2.01	0.42
2:E:684:ILE:HG13	2:E:972:TYR:CD2	2.54	0.42
2:G:1274:VAL:HG21	2:G:1306:PHE:CE2	2.54	0.42
2:G:1959:ILE:CD1	2:G:1959:ILE:H	2.22	0.42
2:G:633:VAL:O	2:G:633:VAL:HG13	2.20	0.42
1:H:2156:GLY:H	1:H:2192:PHE:HB2	1.84	0.42
2:A:1185:PRO:O	2:A:1188:ILE:HG12	2.19	0.42
2:A:1360:PRO:HG2	2:A:1362:SER:OG	2.19	0.42
2:A:1505:ALA:HB1	2:A:1519:TYR:OH	2.19	0.42
2:A:1894:LYS:HB3	2:A:1896:ARG:HH11	1.84	0.42
2:A:2090:ARG:HG3	2:A:2164:GLY:N	2.34	0.42
2:A:589:ILE:HD12	2:A:662:ILE:HD12	2.00	0.42
2:A:646:ARG:HD3	2:A:1038:SER:O	2.19	0.42
1:B:2079:MET:HE2	1:B:2115:ILE:HG21	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1045:GLU:HG2	2:C:1046:SER:N	2.34	0.42
2:C:1163:MET:O	2:C:1166:MET:HB3	2.19	0.42
2:C:1206:ASP:CG	2:C:1209:ARG:HG2	2.40	0.42
2:C:1229:LYS:NZ	2:C:1260:ASP:OD2	2.34	0.42
2:C:1323:ILE:HG12	2:C:1331:GLU:HG3	2.02	0.42
2:C:1429:TYR:CE1	2:C:1506:ASP:HB2	2.54	0.42
2:C:1737:LEU:CD1	2:C:1774:LEU:HD22	2.49	0.42
2:C:2006:TRP:CG	2:C:2007:ASP:N	2.86	0.42
2:C:517:GLU:HA	2:C:520:ARG:HD3	2.02	0.42
2:C:546:ASN:C	2:C:715:VAL:HG22	2.40	0.42
2:C:926:ILE:HG22	2:C:927:PRO:N	2.35	0.42
2:E:1406:GLY:O	2:E:1409:VAL:HG22	2.18	0.42
2:E:1895:LEU:HD12	2:E:1895:LEU:N	2.34	0.42
2:E:1928:VAL:O	2:E:1931:LYS:NZ	2.52	0.42
2:E:2058:LEU:HB2	2:E:2063:LEU:CD2	2.50	0.42
1:F:2206:PRO:O	1:F:2209:TYR:HB3	2.19	0.42
1:F:2294:PHE:HE2	2:E:1119:LEU:HD21	1.85	0.42
2:G:1791:GLU:HB3	2:G:1797:ILE:HB	2.00	0.42
2:G:2015:ILE:HG23	2:G:2016:PRO:HD2	2.02	0.42
2:G:2170:LEU:HD23	2:G:2170:LEU:C	2.39	0.42
2:G:464:VAL:HG22	2:G:465:PHE:N	2.34	0.42
2:G:614:VAL:HG22	2:G:633:VAL:HG11	1.98	0.42
2:G:617:LEU:CD1	2:G:634:ILE:HD13	2.50	0.42
2:G:812:LEU:HD22	2:G:855:HIS:CE1	2.55	0.42
1:H:2183:GLN:NE2	1:H:2183:GLN:O	2.53	0.42
2:A:1146:GLU:O	2:A:1150:LYS:HG2	2.20	0.42
2:A:1230:PHE:CD1	2:A:1231:PRO:HD2	2.55	0.42
2:A:1440:ARG:CA	2:A:1440:ARG:HE	2.27	0.42
2:A:1638:GLU:HG2	2:A:1639:ASP:OD1	2.19	0.42
2:A:1980:VAL:O	2:A:1984:SER:HB2	2.19	0.42
2:A:2054:LYS:HZ2	2:A:2054:LYS:HB2	1.81	0.42
2:A:2115:VAL:HG12	2:A:2126:GLU:HG2	2.01	0.42
1:B:2086:LYS:O	1:B:2090:ILE:HG13	2.19	0.42
1:B:2219:ASN:O	1:B:2220:VAL:HB	2.20	0.42
2:C:1308:VAL:HA	2:C:1309:PRO:HD3	1.92	0.42
2:C:1437:VAL:O	2:C:1441:PHE:HB2	2.20	0.42
2:C:1854:ILE:CB	2:C:1863:VAL:HG13	2.49	0.42
2:C:1971:LYS:O	2:C:1975:LEU:N	2.47	0.42
2:C:2078:THR:CB	2:C:2104:GLU:H	2.32	0.42
2:E:1185:PRO:O	2:E:1188:ILE:HG12	2.20	0.42
2:E:1441:PHE:O	2:E:1445:GLN:HB3	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1548:ASN:O	2:E:1548:ASN:ND2	2.53	0.42
2:E:800:GLN:NE2	2:E:800:GLN:O	2.53	0.42
2:G:1422:LYS:HD2	2:G:1423:ASP:N	2.34	0.42
2:G:1427:ALA:N	2:G:1475:ASP:O	2.45	0.42
2:G:1880:MET:HA	2:G:1883:GLU:HB3	2.01	0.42
2:G:522:PRO:HG3	2:G:566:LEU:HD21	2.02	0.42
2:G:976:PHE:O	2:G:980:LEU:HG	2.20	0.42
2:A:1348:PRO:HA	2:A:1349:PRO:HD3	1.89	0.42
2:A:2044:GLU:H	2:A:2044:GLU:HG2	1.64	0.42
2:A:2077:ILE:HG22	2:A:2103:ARG:CA	2.37	0.42
2:A:479:MET:HE3	2:A:479:MET:HA	2.00	0.42
2:A:881:THR:OG1	2:A:921:THR:HB	2.20	0.42
1:B:2066:ALA:HA	1:B:2067:PRO:HD3	1.79	0.42
1:B:2284:GLU:HG3	1:B:2291:PHE:CE1	2.54	0.42
2:C:1491:TRP:CG	2:C:1529:ILE:HD12	2.55	0.42
2:C:1535:LEU:O	2:C:1535:LEU:HD12	2.20	0.42
1:D:2091:ALA:HB2	1:D:2097:VAL:HG21	2.01	0.42
2:E:1032:GLU:O	2:E:1036:ILE:HG13	2.19	0.42
2:E:1487:LEU:HD23	2:E:1487:LEU:C	2.40	0.42
2:E:1504:ILE:HG12	2:E:1540:VAL:HB	2.00	0.42
2:E:542:LEU:HD22	2:E:542:LEU:N	2.34	0.42
2:E:590:ALA:HB3	2:E:596:VAL:HG12	2.01	0.42
2:E:665:ILE:C	2:E:667:LEU:H	2.24	0.42
2:E:823:ASP:O	2:E:824:LEU:HB3	2.19	0.42
2:G:1784:LEU:HD23	2:G:1784:LEU:HA	1.91	0.42
2:G:1675:ALA:HA	2:G:1963:LYS:HD3	2.01	0.42
2:G:1983:LEU:HD12	2:G:1984:SER:N	2.35	0.42
2:G:1954:ARG:HH22	2:G:2013:LYS:HB2	1.84	0.42
2:G:2138:LYS:HA	2:G:2138:LYS:NZ	2.31	0.42
2:G:2140:LEU:O	2:G:2140:LEU:HD22	2.20	0.42
2:G:634:ILE:HD12	2:G:634:ILE:O	2.20	0.42
2:A:1408:THR:HB	2:A:1440:ARG:NH2	2.34	0.42
2:A:1567:SER:O	2:A:1570:VAL:HG23	2.19	0.42
2:A:1638:GLU:HG2	2:A:1639:ASP:N	2.35	0.42
2:A:2052:LEU:HD23	2:A:2052:LEU:C	2.40	0.42
2:A:687:THR:HG23	2:A:693:PRO:HA	2.02	0.42
1:B:2181:LYS:O	1:B:2182:ASN:HB2	2.20	0.42
1:B:2300:ILE:CG2	1:B:2302:VAL:H	2.32	0.42
2:C:976:PHE:CE1	2:C:1002:ARG:HD3	2.54	0.42
2:C:1206:ASP:OD2	2:C:1209:ARG:NE	2.52	0.42
2:C:1310:ILE:HD13	2:C:1318:TYR:OH	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1971:LYS:HZ3	2:C:2001:VAL:HG11	1.83	0.42
2:C:2137:THR:HG23	2:C:2138:LYS:N	2.32	0.42
2:C:484:THR:CG2	2:C:495:HIS:HB2	2.50	0.42
2:C:651:ILE:HA	2:C:654:THR:OG1	2.20	0.42
1:D:2098:ALA:HA	1:D:2151:ILE:O	2.19	0.42
2:E:967:VAL:HG13	2:E:1002:ARG:HB2	2.02	0.42
2:E:1085:GLU:O	2:E:1089:LEU:HB2	2.20	0.42
2:E:1815:ARG:HD2	2:E:1815:ARG:HA	1.83	0.42
2:E:2071:ASN:O	2:E:2072:ASN:HB2	2.20	0.42
2:E:549:VAL:HG12	2:E:722:PHE:CD2	2.53	0.42
2:G:1825:LEU:HD12	2:G:1825:LEU:C	2.40	0.42
2:G:1884:MET:HG3	2:G:1885:PHE:N	2.34	0.42
2:G:1974:SER:O	2:G:1978:ALA:HB2	2.20	0.42
2:G:521:ILE:HB	2:G:522:PRO:CD	2.50	0.42
2:G:765:GLY:HA2	2:G:799:ASN:O	2.20	0.42
2:G:827:LEU:HG	2:G:832:PHE:HB2	2.02	0.42
1:H:2072:VAL:O	1:H:2072:VAL:HG13	2.19	0.42
2:A:1383:GLN:NE2	2:A:1409:VAL:HG21	2.35	0.42
2:A:1398:LEU:HD23	2:A:1398:LEU:C	2.40	0.42
2:A:1586:HIS:ND1	2:A:1589:SER:OG	2.44	0.42
2:A:1598:THR:HG21	2:A:1716:MET:HE3	2.01	0.42
2:A:1642:LEU:CD2	2:A:1646:VAL:HG12	2.49	0.42
2:A:1716:MET:HB2	2:A:1716:MET:HE3	1.94	0.42
2:A:2077:ILE:CG2	2:A:2103:ARG:HG3	2.50	0.42
2:A:2130:LEU:CD2	2:A:2172:LEU:HD13	2.45	0.42
2:A:736:GLU:CG	2:A:918:ILE:HG13	2.50	0.42
2:C:1129:ASP:O	2:C:1133:VAL:HG23	2.20	0.42
2:C:1180:GLN:NE2	2:C:1328:MET:HB3	2.35	0.42
2:C:1240:GLN:HA	2:C:1241:PRO:HD2	1.93	0.42
2:C:1398:LEU:HD23	2:C:1398:LEU:C	2.38	0.42
2:C:1574:PRO:HG2	2:C:1751:ARG:CA	2.49	0.42
2:C:1584:ILE:HG22	2:C:1586:HIS:H	1.84	0.42
2:C:1722:GLU:OE2	2:C:1724:LYS:HB2	2.20	0.42
2:C:1794:THR:C	2:C:1795:LYS:HD2	2.39	0.42
2:C:825:LYS:HE3	2:C:834:ILE:CG2	2.50	0.42
1:D:2152:HIS:CE1	1:D:2189:THR:HG22	2.55	0.42
2:E:1060:ASP:OD1	2:E:1060:ASP:N	2.52	0.42
2:E:1314:MET:HA	2:E:1315:PRO:HD2	1.95	0.42
2:E:1336:VAL:HG12	2:E:1338:PHE:CE1	2.55	0.42
2:E:1615:VAL:CG1	2:E:1616:PRO:HD2	2.50	0.42
2:E:1792:ILE:HD13	2:E:1797:ILE:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1555:TRP:HA	2:E:1814:ARG:NH2	2.35	0.42
2:E:2058:LEU:HB2	2:E:2063:LEU:HD21	2.01	0.42
2:E:802:LEU:HD12	2:E:802:LEU:C	2.40	0.42
2:G:1033:LEU:HD11	2:G:1047:MET:HE3	2.02	0.42
2:G:1504:ILE:HA	2:G:1540:VAL:HG13	2.02	0.42
2:G:1571:ARG:NH2	2:G:1752:SER:OG	2.53	0.42
2:G:2011:PRO:CG	2:G:2012:LEU:HD22	2.46	0.42
2:G:2023:VAL:O	2:G:2026:ALA:HB3	2.19	0.42
2:G:685:ARG:HD2	2:G:969:TRP:HA	2.02	0.42
2:G:746:ILE:H	2:G:746:ILE:CD1	2.27	0.42
1:H:2300:ILE:HG21	2:G:1131:VAL:CG2	2.50	0.42
2:A:1095:ILE:HA	2:A:1096:PRO:HD3	1.93	0.41
2:A:1213:LEU:HD23	2:A:1213:LEU:C	2.40	0.41
2:A:1171:MET:CE	2:A:1328:MET:HB3	2.50	0.41
2:A:1364:LEU:N	2:A:1364:LEU:HD12	2.34	0.41
2:A:1519:TYR:O	2:A:1522:VAL:HG22	2.20	0.41
2:A:2094:PRO:HA	2:A:2159:VAL:HG22	2.02	0.41
2:A:549:VAL:HG12	2:A:722:PHE:HB2	2.02	0.41
1:B:2101:LEU:CD2	1:B:2115:ILE:HD13	2.48	0.41
1:D:2057:ARG:NH1	2:C:1057:ALA:O	2.53	0.41
2:C:1687:LEU:HA	2:C:1687:LEU:HD12	1.88	0.41
2:C:1852:ARG:HB3	2:C:1886:LEU:CD1	2.49	0.41
2:C:2021:GLU:O	2:C:2024:LYS:HB3	2.20	0.41
2:C:2120:TYR:HA	2:C:2121:PRO:HD3	1.94	0.41
2:C:757:TYR:CE1	2:C:792:ALA:HA	2.55	0.41
2:E:1190:LYS:O	2:E:1194:ARG:HD3	2.20	0.41
2:E:1210:MET:HE1	2:E:1223:VAL:HG12	2.02	0.41
2:E:1622:ARG:O	2:E:1625:ALA:HB3	2.19	0.41
2:E:1979:ILE:O	2:E:1983:LEU:HD13	2.20	0.41
2:E:674:PRO:HB3	2:E:943:LEU:HD12	2.02	0.41
2:E:492:GLU:O	2:E:738:ILE:HA	2.19	0.41
2:E:988:VAL:HA	2:E:1001:LYS:HE2	2.02	0.41
1:F:2053:THR:HA	1:F:2093:LEU:HD21	2.01	0.41
2:G:1093:VAL:HB	2:G:1113:GLN:OE1	2.19	0.41
2:G:1596:LYS:N	2:G:1597:PRO:CD	2.82	0.41
1:H:2088:ILE:HD13	1:H:2197:VAL:HG21	2.01	0.41
2:A:756:THR:O	2:A:760:VAL:HG12	2.20	0.41
2:A:472:MET:HE1	2:A:928:TYR:HA	2.01	0.41
1:B:2236:LEU:HD23	1:B:2237:LEU:N	2.35	0.41
2:C:1353:LEU:HD23	2:C:1353:LEU:C	2.41	0.41
2:C:1908:PHE:CZ	2:C:1967:VAL:HG13	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:596:VAL:HB	2:C:635:VAL:HG12	2.01	0.41
2:C:675:VAL:O	2:C:679:ILE:HG13	2.20	0.41
2:C:702:THR:O	2:C:935:GLN:HG3	2.20	0.41
2:C:768:ARG:HH21	2:C:802:LEU:HB3	1.83	0.41
2:C:808:THR:HG23	2:C:809:ARG:N	2.35	0.41
1:F:2276:ASP:HA	2:E:1319:PHE:CE1	2.55	0.41
2:E:1820:PRO:HB2	2:E:1825:LEU:O	2.19	0.41
2:E:1857:ASP:HB3	2:E:1862:THR:CG2	2.50	0.41
2:E:1968:ILE:CA	2:E:1971:LYS:HB3	2.41	0.41
2:E:457:LEU:C	2:E:457:LEU:HD23	2.41	0.41
2:E:665:ILE:HG12	2:E:665:ILE:O	2.20	0.41
2:E:926:ILE:O	2:E:930:LEU:HG	2.19	0.41
2:G:1672:TYR:CE2	2:G:1681:LYS:HG2	2.56	0.41
2:G:1812:PHE:O	2:G:1816:LEU:HB2	2.20	0.41
2:G:963:ARG:O	2:G:967:VAL:HG23	2.19	0.41
1:H:2093:LEU:N	1:H:2093:LEU:HD22	2.35	0.41
1:H:2146:GLU:O	1:H:2148:LEU:HD13	2.18	0.41
1:B:2245:PHE:CD2	2:A:1316:PRO:HB3	2.55	0.41
2:A:1979:ILE:HG22	2:A:1983:LEU:HD21	2.01	0.41
2:A:2017:ASN:ND2	2:A:2058:LEU:HD22	2.35	0.41
2:A:2137:THR:HG22	2:A:2139:THR:HG23	2.01	0.41
2:A:2145:ARG:NH2	2:A:2175:ASP:OD2	2.52	0.41
2:A:599:GLN:HA	2:A:602:ASN:HB3	2.02	0.41
2:A:926:ILE:CG1	2:A:927:PRO:HD3	2.49	0.41
2:C:1487:LEU:C	2:C:1487:LEU:HD23	2.41	0.41
2:C:1682:ARG:HA	2:C:1685:LYS:HE3	2.02	0.41
2:C:1936:VAL:O	2:C:1939:SER:OG	2.30	0.41
2:C:2015:ILE:HG12	2:C:2069:PHE:HD2	1.85	0.41
2:E:1097:VAL:HG22	2:E:1097:VAL:O	2.19	0.41
2:E:1054:ILE:HG22	2:E:1153:TRP:HZ3	1.84	0.41
2:E:1559:LYS:O	2:E:1561:HIS:N	2.51	0.41
2:E:1977:SER:C	2:E:1979:ILE:H	2.22	0.41
2:E:1985:SER:HB3	2:E:1988:HIS:HD2	1.86	0.41
2:E:812:LEU:HD23	2:E:812:LEU:H	1.85	0.41
1:F:2217:ASP:N	1:F:2218:PRO:CD	2.82	0.41
1:F:2248:VAL:HB	1:F:2249:PRO:HD2	2.02	0.41
2:G:1354:LEU:N	2:G:1354:LEU:HD13	2.35	0.41
2:G:1922:LYS:HD3	2:G:1937:TRP:CZ3	2.56	0.41
2:G:1968:ILE:HD12	2:G:1969:LEU:N	2.35	0.41
2:G:1976:LEU:HD12	2:G:1976:LEU:C	2.40	0.41
2:G:2098:LYS:N	2:G:2155:LYS:HG3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:489:LYS:O	2:G:489:LYS:HG3	2.20	0.41
1:H:2301:TRP:HA	2:G:778:ARG:NH1	2.35	0.41
1:H:2220:VAL:O	1:H:2223:PRO:HD3	2.21	0.41
2:A:1195:MET:HE3	2:A:1214:LEU:O	2.20	0.41
2:C:1093:VAL:HB	2:C:1113:GLN:OE1	2.21	0.41
2:C:1219:ALA:HB1	2:C:1223:VAL:CG2	2.50	0.41
2:C:1573:VAL:HG13	2:C:1746:PRO:HB3	2.02	0.41
2:C:1852:ARG:NH1	2:C:1866:LEU:HD21	2.35	0.41
2:C:2034:ILE:HD12	2:C:2034:ILE:H	1.85	0.41
2:C:894:LEU:HD23	2:C:895:SER:H	1.85	0.41
2:C:983:PRO:O	2:C:988:VAL:HG23	2.21	0.41
1:D:2159:LEU:C	1:D:2161:TYR:H	2.24	0.41
1:D:2182:ASN:CG	1:D:2183:GLN:H	2.24	0.41
2:E:1207:PRO:CB	2:E:1208:PRO:HD3	2.49	0.41
2:E:1411:ALA:CB	2:E:1504:ILE:HD13	2.50	0.41
2:E:1522:VAL:O	2:E:1526:MET:HG2	2.20	0.41
2:E:1501:GLU:O	2:E:1537:MET:HA	2.19	0.41
2:E:1777:GLU:OE1	2:E:1815:ARG:NE	2.53	0.41
2:E:1983:LEU:HD12	2:E:1991:ALA:HB3	2.02	0.41
2:E:1969:LEU:HD21	2:E:2121:PRO:HG2	2.02	0.41
2:E:460:LEU:HD12	2:E:460:LEU:N	2.31	0.41
2:E:500:LYS:NZ	2:E:502:ARG:HG2	2.35	0.41
2:G:1191:LYS:O	2:G:1195:MET:HG2	2.20	0.41
2:G:1457:ILE:HG12	2:G:1457:ILE:O	2.20	0.41
2:G:1758:LEU:O	2:G:1758:LEU:HD12	2.20	0.41
2:G:1840:LEU:HD23	2:G:1841:VAL:N	2.35	0.41
2:G:1924:ILE:HD12	2:G:1924:ILE:N	2.36	0.41
2:G:633:VAL:O	2:G:633:VAL:HG22	2.21	0.41
1:H:2096:GLN:HG2	1:H:2153:THR:O	2.21	0.41
1:H:2220:VAL:HG13	1:H:2223:PRO:N	2.36	0.41
2:A:1862:THR:O	2:A:1862:THR:HG23	2.20	0.41
2:A:2114:THR:HA	2:A:2125:SER:HA	2.03	0.41
2:A:599:GLN:HG2	2:A:603:PHE:CE2	2.55	0.41
2:A:621:ARG:HB3	2:A:623:LEU:HG	2.02	0.41
2:C:1687:LEU:HG	2:C:1692:ALA:HB3	2.01	0.41
2:C:1860:GLU:HG2	2:C:1862:THR:H	1.86	0.41
2:C:1968:ILE:HG22	2:C:2120:TYR:CE2	2.55	0.41
2:C:834:ILE:HA	2:C:860:VAL:O	2.20	0.41
2:C:974:TYR:CZ	2:C:978:ARG:HD3	2.55	0.41
1:D:2146:GLU:HA	1:D:2147:PRO:HD3	1.93	0.41
2:E:1678:GLN:CD	2:E:1678:GLN:H	2.22	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1804:ILE:HG23	2:E:1837:LEU:HD11	2.03	0.41
2:E:2053:VAL:O	2:E:2053:VAL:HG12	2.20	0.41
2:E:2017:ASN:O	2:E:2058:LEU:HD11	2.21	0.41
2:E:526:THR:OG1	2:E:528:THR:O	2.38	0.41
2:E:988:VAL:O	2:E:990:ALA:N	2.53	0.41
1:F:2263:PHE:HA	1:F:2266:ILE:HG22	2.01	0.41
2:G:1460:LEU:HD13	2:G:1479:ALA:CB	2.50	0.41
2:G:1914:ARG:NH2	2:G:1960:ASP:O	2.53	0.41
2:G:2152:LEU:HD22	2:G:2152:LEU:N	2.35	0.41
2:G:673:GLY:N	2:G:674:PRO:CD	2.83	0.41
2:G:825:LYS:NZ	2:G:847:VAL:HG21	2.29	0.41
2:G:985:LEU:O	2:G:985:LEU:HD23	2.20	0.41
2:A:1277:CYS:HB3	2:A:1315:PRO:HB2	2.03	0.41
2:A:1408:THR:HB	2:A:1440:ARG:HH22	1.86	0.41
2:A:1663:GLU:O	2:A:1666:SER:HB3	2.20	0.41
2:A:1702:VAL:HG12	2:A:1702:VAL:O	2.20	0.41
2:A:1877:ILE:HG22	2:A:1878:SER:N	2.36	0.41
2:A:1930:VAL:HB	2:A:1949:GLN:NE2	2.34	0.41
2:A:828:LEU:C	2:A:830:TYR:H	2.24	0.41
1:B:2063:MET:HB3	1:B:2197:VAL:HG23	2.01	0.41
1:B:2077:TYR:HA	1:B:2113:LYS:O	2.19	0.41
2:C:1205:LEU:O	2:C:1205:LEU:HD12	2.21	0.41
2:C:1408:THR:CG2	2:C:1440:ARG:HE	2.28	0.41
2:C:1434:GLN:HG2	2:C:1480:THR:HG21	2.02	0.41
2:C:2012:LEU:N	2:C:2012:LEU:HD22	2.36	0.41
2:C:2033:ASP:OD1	2:C:2035:PHE:HB2	2.21	0.41
2:C:671:ASP:O	2:C:674:PRO:HD2	2.21	0.41
1:D:2063:MET:HG2	1:D:2197:VAL:HB	2.01	0.41
2:E:1517:TYR:O	2:E:1521:ILE:HG13	2.20	0.41
2:E:1688:TYR:OH	2:E:1710:ALA:HB2	2.21	0.41
2:E:1950:ALA:HB1	2:E:1957:LEU:HD11	2.02	0.41
2:E:756:THR:O	2:E:760:VAL:HG12	2.20	0.41
2:G:1598:THR:O	2:G:1602:ILE:HG13	2.20	0.41
2:G:1629:LEU:HD12	2:G:1630:THR:HG23	2.03	0.41
2:G:1899:LEU:HB3	2:G:1997:MET:HE1	2.02	0.41
1:H:2072:VAL:HG22	1:H:2072:VAL:O	2.21	0.41
1:H:2253:LYS:NZ	1:H:2285:GLN:O	2.53	0.41
2:A:1101:ILE:H	2:A:1101:ILE:HG13	1.78	0.41
2:A:1207:PRO:HG3	2:A:1221:LYS:HD3	2.03	0.41
2:A:1426:ARG:NH2	2:A:1472:GLU:O	2.54	0.41
2:A:1440:ARG:HA	2:A:1440:ARG:NE	2.26	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:A:1709:THR:OG1	2:A:1744:LEU:HB2	2.20	0.41
2:A:978:ARG:HH11	2:A:978:ARG:HA	1.85	0.41
2:C:1230:PHE:CD1	2:C:1231:PRO:HD2	2.56	0.41
1:D:2150:LEU:HD12	1:D:2150:LEU:C	2.41	0.41
2:E:1229:LYS:HD3	2:E:1263:LEU:HD12	2.03	0.41
2:E:1430:ILE:HD12	2:E:1503:PHE:CZ	2.55	0.41
2:E:1586:HIS:CE1	2:E:1588:PRO:HG2	2.56	0.41
2:E:1712:LEU:HD12	2:E:1713:VAL:H	1.84	0.41
2:E:1855:GLU:N	2:E:1866:LEU:HD12	2.36	0.41
2:E:1879:TYR:CE1	2:E:1880:MET:HG3	2.55	0.41
2:E:496:VAL:N	2:E:735:GLN:O	2.37	0.41
2:E:881:THR:CG2	2:E:919:ILE:HD11	2.42	0.41
2:E:978:ARG:NH2	2:E:982:SER:OG	2.54	0.41
2:E:985:LEU:C	2:E:985:LEU:HD23	2.41	0.41
2:G:1478:LEU:N	2:G:1478:LEU:HD12	2.35	0.41
2:G:2171:PHE:HB3	2:G:2182:GLN:C	2.41	0.41
2:G:461:GLU:O	2:G:464:VAL:HG12	2.21	0.41
2:G:764:VAL:HA	2:G:767:ASN:O	2.21	0.41
2:G:797:THR:OG1	2:G:800:GLN:HB2	2.20	0.41
2:A:1176:SER:HA	2:A:1177:PRO:HD3	1.88	0.41
2:A:1468:LEU:HG	2:A:1469:LYS:N	2.36	0.41
2:A:1712:LEU:HD12	2:A:1754:GLY:HA2	2.03	0.41
2:A:510:ILE:CD1	2:A:534:SER:HB3	2.50	0.41
2:A:808:THR:HG23	2:A:809:ARG:N	2.35	0.41
1:B:2247:LEU:HD23	1:B:2275:LEU:CA	2.50	0.41
1:B:2274:LYS:HE3	1:B:2274:LYS:HB2	1.83	0.41
2:C:1116:ILE:HG22	2:C:1172:TRP:CD1	2.55	0.41
2:C:1235:ILE:HG22	2:C:1253:ILE:HG12	2.03	0.41
2:C:1607:PRO:HA	2:C:1640:ARG:NH1	2.36	0.41
2:C:1652:LEU:HD23	2:C:1683:ILE:HG23	2.01	0.41
2:C:1796:MET:O	2:C:1797:ILE:HD13	2.21	0.41
2:C:677:GLU:OE1	2:C:943:LEU:HB2	2.21	0.41
2:E:1439:LEU:O	2:E:1442:GLN:HB3	2.19	0.41
2:E:1718:THR:O	2:E:1719:GLN:HG3	2.21	0.41
2:E:1841:VAL:O	2:E:1845:LEU:HG	2.21	0.41
2:E:2004:ALA:CB	2:E:2119:PHE:HB2	2.51	0.41
2:E:2049:TYR:CD1	2:E:2053:VAL:HG22	2.55	0.41
2:E:517:GLU:HA	2:E:520:ARG:NH1	2.35	0.41
2:E:549:VAL:HG22	2:E:699:LEU:HD22	2.02	0.41
2:E:781:THR:HG23	2:E:834:ILE:HD11	2.01	0.41
2:G:1142:ARG:NH2	2:G:1168:GLU:OE2	2.49	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1489:ARG:HG3	2:G:1490:GLN:N	2.36	0.41
2:G:1514:GLN:HB3	2:G:1515:MET:H	1.66	0.41
2:G:1732:PRO:HG2	2:G:1735:GLU:HB3	2.03	0.41
2:G:1713:VAL:CG2	2:G:1743:ALA:HB2	2.50	0.41
2:G:1862:THR:C	2:G:1863:VAL:HG22	2.41	0.41
2:G:500:LYS:O	2:G:502:ARG:N	2.54	0.41
2:G:639:GLU:O	2:G:643:VAL:HG12	2.20	0.41
2:G:771:MET:HE2	2:G:773:ILE:HD11	2.03	0.41
2:A:1817:LEU:N	2:A:1817:LEU:HD12	2.35	0.41
2:A:1976:LEU:HA	2:A:1979:ILE:HD12	2.03	0.41
2:A:789:ARG:O	2:A:792:ALA:HB3	2.21	0.41
2:A:798:ILE:HG13	2:A:799:ASN:N	2.29	0.41
2:C:1415:LEU:CD1	2:C:1502:LEU:HD21	2.43	0.41
2:C:1804:ILE:O	2:C:1808:THR:HG23	2.21	0.41
2:C:1979:ILE:C	2:C:1979:ILE:HD12	2.41	0.41
2:C:2005:MET:HG3	2:C:2178:VAL:HG21	2.00	0.41
2:C:521:ILE:N	2:C:522:PRO:HD2	2.36	0.41
2:C:546:ASN:O	2:C:715:VAL:HG13	2.21	0.41
2:E:1229:LYS:HD3	2:E:1260:ASP:HB2	2.01	0.41
2:E:2097:LEU:HD23	2:E:2097:LEU:C	2.40	0.41
2:E:592:LEU:HD12	2:E:867:TRP:CD2	2.56	0.41
1:F:2079:MET:HA	1:F:2080:PRO:HD3	1.85	0.41
2:G:456:LYS:HB3	2:G:992:TYR:OH	2.21	0.41
2:G:548:LEU:HD22	2:G:709:VAL:HG12	2.03	0.41
2:G:784:THR:O	2:G:788:ILE:HG13	2.21	0.41
2:A:1460:LEU:CD2	2:A:1479:ALA:HB2	2.40	0.41
2:A:1796:MET:CE	2:A:1796:MET:HA	2.51	0.41
2:A:1914:ARG:HB2	2:A:1917:GLU:CD	2.41	0.41
2:A:1957:LEU:HB3	2:A:1958:PRO:HD2	2.02	0.41
2:A:621:ARG:HG2	2:A:622:GLN:N	2.31	0.41
2:A:498:PRO:HB3	2:A:733:LEU:C	2.41	0.41
1:B:2096:GLN:HG2	1:B:2153:THR:O	2.20	0.41
2:C:1382:ILE:N	2:C:1382:ILE:HD12	2.25	0.41
2:C:1460:LEU:CD2	2:C:1483:GLN:HG3	2.50	0.41
2:C:1509:HIS:NE2	2:C:1544:VAL:HG13	2.36	0.41
2:C:1511:LEU:HD12	2:C:1511:LEU:C	2.41	0.41
2:C:1672:TYR:OH	2:C:1681:LYS:HD3	2.20	0.41
2:C:2182:GLN:CB	2:C:2184:PRO:HD3	2.49	0.41
2:C:616:GLU:HG3	2:C:616:GLU:O	2.20	0.41
2:C:621:ARG:O	2:C:624:THR:OG1	2.28	0.41
2:C:775:VAL:HG22	2:C:776:HIS:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2164:PRO:HG3	1:D:2226:PHE:CE1	2.56	0.41
1:D:2309:ALA:HB1	2:C:619:GLY:H	1.86	0.41
2:E:482:GLY:CA	2:E:497:PRO:HG3	2.50	0.41
2:E:515:LEU:HD12	2:E:515:LEU:O	2.21	0.41
2:E:617:LEU:HA	2:E:622:GLN:NE2	2.35	0.41
2:E:498:PRO:HB3	2:E:733:LEU:C	2.41	0.41
2:E:747:LYS:HE2	2:E:751:THR:OG1	2.21	0.41
2:G:1336:VAL:HG12	2:G:1338:PHE:CE1	2.56	0.41
2:G:1527:HIS:HB3	2:G:1809:PHE:CE2	2.56	0.41
2:G:2058:LEU:HD23	2:G:2062:GLN:NE2	2.36	0.41
2:G:549:VAL:HG22	2:G:699:LEU:CD2	2.51	0.41
2:G:574:ASN:HB3	2:G:575:GLU:H	1.57	0.41
2:G:960:VAL:HG21	2:G:966:GLY:HA2	2.02	0.41
1:H:2071:ASP:C	1:H:2073:ASP:H	2.25	0.41
2:A:1458:VAL:HG22	2:A:1477:ILE:HG22	2.00	0.41
2:A:1546:LEU:HD22	2:A:1552:ILE:CD1	2.46	0.41
2:A:1715:VAL:HB	2:A:1756:LEU:HD12	2.03	0.41
2:A:679:ILE:O	2:A:683:THR:HG23	2.20	0.41
2:A:806:ALA:CB	2:A:808:THR:HG22	2.50	0.41
1:B:2080:PRO:HG2	1:B:2083:ILE:CD1	2.51	0.41
1:B:2284:GLU:OE2	2:A:1174:THR:OG1	2.39	0.41
2:C:1007:HIS:O	2:C:1011:MET:HG2	2.20	0.41
2:C:1109:ASN:O	2:C:1113:GLN:HG3	2.21	0.41
2:C:1115:TYR:OH	2:C:1170:ARG:HD2	2.21	0.41
2:C:1390:LEU:O	2:C:1538:ARG:NH1	2.39	0.41
2:C:1401:ALA:HB1	2:C:1402:PRO:HD2	2.03	0.41
2:C:1398:LEU:CD1	2:C:1552:ILE:HG22	2.50	0.41
2:C:1868:ALA:HB1	2:C:1882:MET:SD	2.60	0.41
1:D:2211:TRP:HE1	1:D:2225:GLY:HA3	1.86	0.41
2:E:1501:GLU:HG3	2:E:1536:PRO:O	2.21	0.41
2:E:1672:TYR:HD2	2:E:1702:VAL:HG21	1.85	0.41
2:E:539:THR:HG23	2:E:719:LYS:CD	2.49	0.41
2:E:590:ALA:HB1	2:E:591:PRO:HD2	2.03	0.41
2:G:1054:ILE:HG22	2:G:1153:TRP:HZ3	1.86	0.41
2:G:1209:ARG:O	2:G:1213:LEU:HB2	2.21	0.41
2:G:1396:ASN:O	2:G:1396:ASN:ND2	2.54	0.41
2:G:2000:MET:CE	2:G:2007:ASP:HB3	2.50	0.41
2:G:474:ASN:HA	2:G:475:PRO:HD3	1.92	0.41
2:G:565:MET:HE2	2:G:607:LEU:HD11	2.03	0.41
2:G:651:ILE:HA	2:G:654:THR:OG1	2.21	0.41
2:G:771:MET:O	2:G:858:VAL:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:776:HIS:CE1	2:G:894:LEU:HD11	2.56	0.41
1:H:2087:PHE:CE2	1:H:2153:THR:HG23	2.56	0.41
1:H:2218:PRO:O	1:H:2220:VAL:N	2.51	0.41
2:A:1598:THR:O	2:A:1602:ILE:HG13	2.21	0.40
2:A:1712:LEU:HD12	2:A:1753:ARG:O	2.21	0.40
2:A:2046:ASN:HA	2:A:2049:TYR:HB2	2.02	0.40
2:A:2112:ASP:N	2:A:2113:PRO:CD	2.84	0.40
2:A:677:GLU:OE1	2:A:973:THR:OG1	2.38	0.40
2:A:759:LYS:HD3	2:A:759:LYS:HA	1.93	0.40
2:A:843:ASP:O	2:A:847:VAL:HG23	2.21	0.40
2:A:910:GLN:H	2:A:910:GLN:CD	2.23	0.40
2:A:975:LEU:HG	2:A:979:MET:HE2	2.03	0.40
2:C:1379:PHE:HE1	2:C:1384:THR:HG22	1.85	0.40
2:C:1421:LYS:HG2	2:C:1422:LYS:N	2.36	0.40
2:C:716:ASP:O	2:C:720:GLY:N	2.43	0.40
2:C:788:ILE:O	2:C:792:ALA:HB2	2.21	0.40
1:D:2276:ASP:HA	2:C:1319:PHE:CZ	2.57	0.40
2:E:1053:LEU:HD22	2:E:1069:GLN:OE1	2.21	0.40
2:E:1235:ILE:O	2:E:1334:MET:HE3	2.21	0.40
2:E:1766:TYR:O	2:E:1770:LEU:HB2	2.21	0.40
2:E:581:LEU:CD2	2:E:581:LEU:H	2.28	0.40
2:E:722:PHE:HB3	2:E:724:PHE:CZ	2.57	0.40
2:E:811:VAL:HG12	2:E:811:VAL:O	2.22	0.40
2:E:823:ASP:OD1	2:E:824:LEU:N	2.54	0.40
2:G:1596:LYS:HB3	2:G:1597:PRO:HD3	2.02	0.40
2:G:2183:ASP:N	2:G:2183:ASP:OD1	2.43	0.40
2:G:514:GLU:O	2:G:515:LEU:HD12	2.20	0.40
2:A:1072:GLU:OE1	2:A:1072:GLU:N	2.53	0.40
1:B:2047:ARG:CD	2:A:1098:LYS:HE3	2.50	0.40
2:A:1177:PRO:HG2	2:A:1199:TRP:CD2	2.56	0.40
2:A:1430:ILE:HD12	2:A:1503:PHE:HZ	1.86	0.40
2:A:1535:LEU:O	2:A:1535:LEU:HD12	2.21	0.40
2:A:1972:ILE:HG12	2:A:2124:LYS:HE2	2.03	0.40
2:A:1871:ILE:HD11	2:A:1984:SER:HB2	2.03	0.40
2:A:562:MET:CE	2:A:607:LEU:HD21	2.51	0.40
2:A:709:VAL:HG22	2:A:974:TYR:CE1	2.57	0.40
1:B:2077:TYR:HE2	1:B:2234:ARG:HD3	1.86	0.40
1:B:2097:VAL:O	1:B:2152:HIS:HA	2.21	0.40
1:B:2192:PHE:HD1	1:B:2197:VAL:HG12	1.85	0.40
1:B:2253:LYS:HG3	1:B:2279:LEU:HD12	2.03	0.40
2:C:1461:THR:HG23	2:C:1462:GLY:N	2.36	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:C:1586:HIS:HB3	2:C:1589:SER:HB2	2.03	0.40
2:C:1644:VAL:HG13	2:C:1649:ILE:CD1	2.38	0.40
2:C:1858:GLU:OE1	2:C:1859:ASP:N	2.54	0.40
2:C:2074:TYR:HD1	2:C:2075:PRO:HD2	1.85	0.40
2:C:2079:LEU:HA	2:C:2101:ILE:CG2	2.51	0.40
2:C:2129:TRP:CE3	2:C:2130:LEU:HD23	2.55	0.40
2:C:771:MET:N	2:C:857:GLN:O	2.54	0.40
2:C:937:LEU:HA	2:C:938:PRO:HD3	1.92	0.40
2:E:1176:SER:HA	2:E:1177:PRO:HD3	1.87	0.40
2:E:1556:ILE:O	2:E:1556:ILE:HG22	2.20	0.40
2:E:479:MET:CE	2:E:483:THR:HG21	2.51	0.40
2:G:1273:LEU:HD23	2:G:1285:HIS:HB2	2.02	0.40
2:G:1591:MET:HA	2:G:1591:MET:HE2	2.02	0.40
2:G:1714:VAL:HA	2:G:1755:VAL:O	2.20	0.40
2:G:1875:TYR:O	2:G:1877:ILE:N	2.54	0.40
2:G:1886:LEU:C	2:G:1886:LEU:HD12	2.42	0.40
2:G:685:ARG:NH1	2:G:959:ASN:O	2.53	0.40
1:H:2227:THR:O	1:H:2230:MET:HG2	2.21	0.40
1:B:2297:LEU:CD2	2:A:1120:LYS:HA	2.44	0.40
2:A:1040:TYR:O	2:A:1139:ARG:HD2	2.21	0.40
2:A:1142:ARG:HD2	2:A:1168:GLU:OE2	2.21	0.40
2:A:1380:ASN:O	2:A:1384:THR:HG23	2.21	0.40
2:A:1386:THR:HG22	2:A:1564:TYR:CE2	2.56	0.40
2:A:1784:LEU:N	2:A:1785:PRO:CD	2.84	0.40
2:A:1867:ASN:O	2:A:1871:ILE:HG13	2.21	0.40
2:A:1908:PHE:O	2:A:1911:ILE:HB	2.22	0.40
2:A:1914:ARG:HA	2:A:1914:ARG:HE	1.87	0.40
2:A:2148:VAL:HG13	2:A:2149:GLY:N	2.33	0.40
2:A:955:ILE:HG22	2:A:1030:ALA:CB	2.42	0.40
1:B:2052:ALA:CB	1:B:2093:LEU:HG	2.51	0.40
1:B:2101:LEU:HG	1:B:2151:ILE:HG13	2.02	0.40
1:B:2300:ILE:N	1:B:2300:ILE:HD12	2.37	0.40
2:C:1476:LEU:HD23	2:C:1476:LEU:C	2.42	0.40
2:C:1546:LEU:C	2:C:1773:ALA:HB1	2.42	0.40
2:C:1895:LEU:HD11	2:C:1997:MET:HE1	2.04	0.40
2:C:561:ALA:O	2:C:565:MET:HG3	2.21	0.40
2:E:1481:PRO:HB3	2:E:1519:TYR:HA	2.03	0.40
2:E:1928:VAL:HG21	2:E:1949:GLN:OE1	2.20	0.40
2:E:494:ILE:HB	2:E:737:PHE:HB2	2.04	0.40
2:E:740:VAL:HG21	2:E:748:GLN:HG3	2.03	0.40
2:E:792:ALA:CA	2:E:798:ILE:HG22	2.51	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2117:CYS:HB2	1:F:2245:PHE:CE2	2.56	0.40
2:G:1207:PRO:CB	2:G:1208:PRO:HD3	2.51	0.40
2:G:1216:MET:HA	2:G:1217:PRO:HD3	1.90	0.40
2:G:1426:ARG:HD2	2:G:1499:THR:HG21	2.02	0.40
2:G:1601:ALA:O	2:G:1605:LEU:HB2	2.22	0.40
2:G:1801:GLU:O	2:G:1804:ILE:HB	2.21	0.40
2:G:1995:MET:O	2:G:1999:GLN:HG3	2.21	0.40
2:G:2097:LEU:O	2:G:2156:LEU:N	2.54	0.40
2:G:2169:LYS:CA	2:G:2185:SER:HB3	2.51	0.40
2:G:624:THR:HA	2:G:627:GLN:OE1	2.22	0.40
2:G:738:ILE:HD11	2:G:759:LYS:HE3	2.03	0.40
1:H:2047:ARG:O	1:H:2051:ILE:HG13	2.21	0.40
1:H:2274:LYS:HE2	1:H:2276:ASP:HB2	2.02	0.40
2:A:1587:PHE:N	2:A:1588:PRO:HD2	2.36	0.40
2:A:472:MET:HG3	2:A:474:ASN:OD1	2.21	0.40
2:A:540:ALA:HA	2:A:695:ARG:HH22	1.86	0.40
2:A:978:ARG:NH1	2:A:978:ARG:HA	2.36	0.40
1:B:2055:ASN:HA	1:B:2058:THR:HG23	2.03	0.40
2:C:1328:MET:HG3	2:C:1329:HIS:N	2.36	0.40
2:C:1460:LEU:HD13	2:C:1467:ASP:CB	2.51	0.40
2:C:1571:ARG:NH1	2:C:1575:LEU:HB2	2.37	0.40
2:C:1780:LEU:HD13	2:C:1780:LEU:O	2.21	0.40
2:C:1815:ARG:NH2	2:C:1819:ASN:HB2	2.36	0.40
2:C:1871:ILE:O	2:C:1875:TYR:HD1	2.05	0.40
2:C:2010:SER:HA	2:C:2011:PRO:HD3	1.84	0.40
2:C:825:LYS:HG3	2:C:828:LEU:HB2	2.03	0.40
1:D:2084:LEU:O	1:D:2088:ILE:HG13	2.21	0.40
2:E:1016:SER:HB2	2:E:1018:LEU:HD13	2.02	0.40
2:E:1094:PRO:HG2	2:E:1172:TRP:CE2	2.57	0.40
2:E:2006:TRP:CG	2:E:2007:ASP:N	2.89	0.40
2:E:825:LYS:CE	2:E:834:ILE:HG22	2.49	0.40
1:F:2177:HIS:HB2	1:F:2180:TRP:CD1	2.57	0.40
2:G:1116:ILE:HG22	2:G:1172:TRP:CD1	2.56	0.40
2:G:1455:LYS:HD2	2:G:1475:ASP:CG	2.42	0.40
2:G:1501:GLU:H	2:G:1501:GLU:HG3	1.58	0.40
2:G:1570:VAL:HG12	2:G:1570:VAL:O	2.21	0.40
2:G:1649:ILE:HD12	2:G:1649:ILE:N	2.36	0.40
2:G:1800:GLY:O	2:G:1804:ILE:HG12	2.22	0.40
2:G:1801:GLU:HA	2:G:1804:ILE:HG12	2.03	0.40
2:G:1843:THR:O	2:G:1846:LYS:HG2	2.21	0.40
1:F:2261:SER:O	2:G:1891:HIS:HB3	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:2237:LEU:C	1:H:2238:LEU:HD12	2.41	0.40
2:A:1567:SER:OG	2:A:1568:PRO:HD2	2.22	0.40
2:A:2089:ILE:HD12	2:A:2089:ILE:C	2.41	0.40
2:A:2169:LYS:HD3	2:A:2185:SER:CB	2.51	0.40
2:A:605:LYS:HB3	2:A:605:LYS:HE2	1.93	0.40
2:C:1025:THR:HG21	2:C:1027:LYS:HG2	2.02	0.40
2:C:1435:GLU:OE1	2:C:1704:TRP:HB2	2.22	0.40
2:C:716:ASP:OD1	2:C:719:LYS:HG2	2.22	0.40
1:D:2051:ILE:C	1:D:2051:ILE:HD12	2.42	0.40
1:D:2146:GLU:HG3	1:D:2148:LEU:HD11	2.03	0.40
2:E:1230:PHE:HA	2:E:1231:PRO:HD3	1.90	0.40
2:E:1706:LEU:HD11	2:E:1708:PHE:CD2	2.57	0.40
2:G:1176:SER:HA	2:G:1177:PRO:HD3	1.91	0.40
2:G:1425:GLY:C	2:G:1426:ARG:HG2	2.41	0.40
2:G:1587:PHE:HB3	2:G:1588:PRO:CD	2.46	0.40
2:G:566:LEU:HA	2:G:569:ILE:HB	2.04	0.40
2:G:491:TYR:CD1	2:G:755:ILE:HD11	2.56	0.40
2:G:893:GLU:HG3	2:G:929:TYR:OH	2.21	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 X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	B	264/276 (96%)	241 (91%)	19 (7%)	4 (2%)	10	44
1	D	259/276 (94%)	239 (92%)	13 (5%)	7 (3%)	5	30
1	F	261/276 (95%)	237 (91%)	22 (8%)	2 (1%)	19	58
1	H	265/276 (96%)	243 (92%)	13 (5%)	9 (3%)	3	24
2	A	1736/1772 (98%)	1619 (93%)	105 (6%)	12 (1%)	22	61
2	C	1686/1772 (95%)	1537 (91%)	130 (8%)	19 (1%)	14	51

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	E	1736/1772 (98%)	1580 (91%)	127 (7%)	29 (2%)	9	42
2	G	1698/1772 (96%)	1537 (90%)	131 (8%)	30 (2%)	8	41
All	All	7905/8192 (96%)	7233 (92%)	560 (7%)	112 (1%)	11	46

All (112) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	B	2217	ASP
1	B	2220	VAL
2	A	575	GLU
2	A	1748	LYS
1	D	2218	PRO
2	C	872	PRO
2	C	1452	ARG
2	C	1852	ARG
2	C	2047	PRO
2	C	2101	ILE
2	C	2158	PHE
1	F	2301	TRP
2	E	509	ASN
2	E	1422	LYS
2	E	2010	SER
2	E	2046	ASN
2	E	2113	PRO
1	H	2074	ASP
1	H	2155	ALA
1	H	2217	ASP
1	H	2218	PRO
2	G	501	LYS
2	G	505	PRO
2	G	1452	ARG
2	G	1859	ASP
2	G	1862	THR
2	G	2072	ASN
2	G	2136	SER
2	A	621	ARG
2	A	768	ARG
2	A	798	ILE
2	A	1861	GLY
1	D	2182	ASN
1	D	2215	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	799	ASN
2	C	2121	PRO
2	C	2173	MET
2	E	768	ARG
2	E	917	GLY
2	E	1915	ARG
2	E	1929	PRO
2	E	2045	GLU
2	E	2053	VAL
2	E	2161	PRO
2	G	994	ASP
2	G	1017	ASN
2	G	1365	LYS
2	G	1640	ARG
2	G	1799	SER
2	G	1985	SER
2	G	2002	VAL
2	G	2053	VAL
2	G	2170	LEU
1	B	2156	GLY
2	A	2107	GLU
1	D	2219	ASN
2	C	2137	THR
2	E	1966	GLU
1	H	2182	ASN
2	G	516	PRO
2	G	1196	ASP
2	G	1421	LYS
2	G	1860	GLU
2	G	1876	ASN
2	G	2121	PRO
2	C	1860	GLU
2	C	2051	SER
2	E	468	GLY
2	E	505	PRO
2	E	767	ASN
2	E	989	GLY
2	E	1094	PRO
2	E	1462	GLY
2	E	2050	ALA
1	H	2072	VAL
1	H	2219	ASN

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Mol	Chain	Res	Type
2	G	728	TYR
2	G	960	VAL
2	G	1231	PRO
2	G	1364	LEU
2	A	1987	GLY
1	D	2194	PRO
1	D	2220	VAL
2	C	874	HIS
2	C	2163	PRO
2	E	576	LYS
2	E	1313	PRO
2	E	1965	GLN
2	G	1616	PRO
2	G	2047	PRO
1	B	2252	GLY
2	A	1876	ASN
2	E	868	GLY
1	H	2160	PRO
1	H	2181	LYS
2	A	996	VAL
2	C	1241	PRO
2	E	1208	PRO
2	E	2180	VAL
2	G	468	GLY
2	A	1231	PRO
2	E	1217	PRO
2	A	2046	ASN
1	F	2300	ILE
2	E	1231	PRO
2	C	811	VAL
2	E	1616	PRO
2	G	819	VAL
1	D	2266	ILE
2	C	868	GLY
2	C	871	LEU
2	C	1669	VAL

### 5.3.2 Protein sidechains [i](#)

In the following table, the Percentiles column shows the percent sidechain outliers of the chain as a percentile score with respect to all X-ray entries followed by that with respect to entries of similar resolution.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	B	234/241 (97%)	225 (96%)	9 (4%)	33	67
1	D	231/241 (96%)	224 (97%)	7 (3%)	41	73
1	F	235/241 (98%)	227 (97%)	8 (3%)	37	70
1	H	235/241 (98%)	231 (98%)	4 (2%)	60	83
2	A	1534/1562 (98%)	1475 (96%)	59 (4%)	33	67
2	C	1503/1562 (96%)	1439 (96%)	64 (4%)	29	64
2	E	1537/1562 (98%)	1486 (97%)	51 (3%)	38	71
2	G	1511/1562 (97%)	1469 (97%)	42 (3%)	43	74
All	All	7020/7212 (97%)	6776 (96%)	244 (4%)	36	69

All (244) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	B	2044	THR
1	B	2058	THR
1	B	2082	ASN
1	B	2116	ARG
1	B	2123	GLN
1	B	2150	LEU
1	B	2152	HIS
1	B	2199	LEU
1	B	2272	HIS
2	A	452	LEU
2	A	462	ASN
2	A	467	GLN
2	A	479	MET
2	A	489	LYS
2	A	592	LEU
2	A	599	GLN
2	A	622	GLN
2	A	686	ARG
2	A	692	GLU
2	A	749	LEU
2	A	766	GLN
2	A	800	GLN
2	A	801	ILE
2	A	803	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	A	824	LEU
2	A	935	GLN
2	A	936	GLN
2	A	1041	TYR
2	A	1044	HIS
2	A	1174	THR
2	A	1209	ARG
2	A	1294	LEU
2	A	1329	HIS
2	A	1407	LYS
2	A	1423	ASP
2	A	1436	LEU
2	A	1456	GLU
2	A	1460	LEU
2	A	1468	LEU
2	A	1470	LEU
2	A	1473	GLN
2	A	1475	ASP
2	A	1519	TYR
2	A	1525	ARG
2	A	1609	GLN
2	A	1812	PHE
2	A	1830	HIS
2	A	1843	THR
2	A	1844	THR
2	A	1876	ASN
2	A	1897	THR
2	A	1899	LEU
2	A	1911	ILE
2	A	1927	HIS
2	A	1965	GLN
2	A	1986	GLU
2	A	2009	ASP
2	A	2017	ASN
2	A	2018	PHE
2	A	2042	ASN
2	A	2048	ASN
2	A	2054	LYS
2	A	2055	ASP
2	A	2076	ASP
2	A	2111	PHE
2	A	2165	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	A	2168	LEU
2	A	2185	SER
1	D	2047	ARG
1	D	2143	LYS
1	D	2184	ASN
1	D	2186	LEU
1	D	2216	LYS
1	D	2218	PRO
1	D	2274	LYS
2	C	465	PHE
2	C	599	GLN
2	C	607	LEU
2	C	623	LEU
2	C	625	LYS
2	C	721	LEU
2	C	725	ASP
2	C	760	VAL
2	C	773	ILE
2	C	802	LEU
2	C	803	LYS
2	C	804	HIS
2	C	809	ARG
2	C	810	GLU
2	C	825	LYS
2	C	871	LEU
2	C	894	LEU
2	C	914	TYR
2	C	1041	TYR
2	C	1195	MET
2	C	1299	GLU
2	C	1343	LEU
2	C	1356	LEU
2	C	1359	LEU
2	C	1379	PHE
2	C	1380	ASN
2	C	1407	LYS
2	C	1410	CYS
2	C	1451	LEU
2	C	1452	ARG
2	C	1486	VAL
2	C	1515	MET
2	C	1519	TYR

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	C	1550	ARG
2	C	1598	THR
2	C	1645	GLU
2	C	1685	LYS
2	C	1690	ASN
2	C	1758	LEU
2	C	1780	LEU
2	C	1795	LYS
2	C	1798	GLU
2	C	1859	ASP
2	C	1862	THR
2	C	1885	PHE
2	C	1889	LEU
2	C	1924	ILE
2	C	1954	ARG
2	C	1977	SER
2	C	1986	GLU
2	C	2018	PHE
2	C	2052	LEU
2	C	2058	LEU
2	C	2063	LEU
2	C	2074	TYR
2	C	2079	LEU
2	C	2087	ASP
2	C	2106	GLU
2	C	2119	PHE
2	C	2128	TRP
2	C	2134	GLU
2	C	2135	GLU
2	C	2158	PHE
2	C	2166	HIS
1	F	2053	THR
1	F	2070	ASN
1	F	2117	CYS
1	F	2159	LEU
1	F	2172	LYS
1	F	2184	ASN
1	F	2224	GLN
1	F	2301	TRP
2	E	473	THR
2	E	481	GLU
2	E	507	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	E	508	GLN
2	E	521	ILE
2	E	541	PHE
2	E	542	LEU
2	E	573	ARG
2	E	576	LYS
2	E	582	ASP
2	E	584	PHE
2	E	606	ARG
2	E	632	GLN
2	E	633	VAL
2	E	650	ASP
2	E	702	THR
2	E	719	LYS
2	E	733	LEU
2	E	769	ASN
2	E	799	ASN
2	E	808	THR
2	E	826	ASP
2	E	827	LEU
2	E	964	ASP
2	E	991	GLU
2	E	1039	HIS
2	E	1041	TYR
2	E	1101	ILE
2	E	1240	GLN
2	E	1246	MET
2	E	1423	ASP
2	E	1519	TYR
2	E	1758	LEU
2	E	1816	LEU
2	E	1879	TYR
2	E	1891	HIS
2	E	1930	VAL
2	E	1934	ASN
2	E	1982	ILE
2	E	2009	ASP
2	E	2033	ASP
2	E	2045	GLU
2	E	2054	LYS
2	E	2070	THR
2	E	2071	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	E	2073	LYS
2	E	2074	TYR
2	E	2078	THR
2	E	2088	ASN
2	E	2138	LYS
2	E	2190	VAL
1	H	2069	ASP
1	H	2110	ASP
1	H	2135	HIS
1	H	2301	TRP
2	G	501	LYS
2	G	509	ASN
2	G	671	ASP
2	G	912	ASP
2	G	959	ASN
2	G	994	ASP
2	G	1041	TYR
2	G	1126	LEU
2	G	1195	MET
2	G	1262	GLU
2	G	1354	LEU
2	G	1369	TYR
2	G	1392	ASN
2	G	1396	ASN
2	G	1416	LEU
2	G	1421	LYS
2	G	1457	ILE
2	G	1498	GLN
2	G	1499	THR
2	G	1501	GLU
2	G	1502	LEU
2	G	1519	TYR
2	G	1608	ASP
2	G	1639	ASP
2	G	1640	ARG
2	G	1722	GLU
2	G	1860	GLU
2	G	1874	TYR
2	G	1895	LEU
2	G	1969	LEU
2	G	1979	ILE
2	G	2025	VAL

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	G	2044	GLU
2	G	2052	LEU
2	G	2070	THR
2	G	2115	VAL
2	G	2127	ASN
2	G	2135	GLU
2	G	2140	LEU
2	G	2141	LEU
2	G	2153	ASN
2	G	2181	ASP

Some sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (26) such sidechains are listed below:

<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	B	2082	ASN
2	A	800	GLN
2	A	813	GLN
2	C	622	GLN
2	C	770	GLN
2	C	855	HIS
2	C	1180	GLN
2	C	1483	GLN
2	C	1509	HIS
2	C	1934	ASN
1	F	2182	ASN
1	F	2184	ASN
1	F	2290	HIS
2	E	769	ASN
2	E	800	GLN
2	E	936	GLN
2	E	1673	HIS
2	E	2071	ASN
2	E	2127	ASN
1	H	2070	ASN
1	H	2183	GLN
2	G	959	ASN
2	G	1396	ASN
2	G	1673	HIS
2	G	1988	HIS
2	G	2003	GLN



### 5.3.3 RNA [i](#)

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 carbohydrates in this entry.

## 5.6 Ligand geometry [i](#)

4 ligands are modelled in this entry.

In the following table, the Counts columns list the number of bonds (or angles) for which Mogul statistics could be retrieved, the number of bonds (or angles) that are observed in the model and the number of bonds (or angles) that are defined in the Chemical Component Dictionary. The Link column lists molecule types, if any, to which the group is linked. The Z score for a bond length (or angle) is the number of standard deviations the observed value is removed from the expected value. A bond length (or angle) with  $|Z| > 2$  is considered an outlier worth inspection. RMSZ is the root-mean-square of all Z scores of the bond lengths (or angles).

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
3	ACT	A	2201	-	1,3,3	1.35	0	0,3,3	0.00	-
3	ACT	G	2201	-	1,3,3	1.39	0	0,3,3	0.00	-
3	ACT	E	2201	-	1,3,3	1.33	0	0,3,3	0.00	-
3	ACT	C	2201	-	1,3,3	1.32	0	0,3,3	0.00	-

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

3 monomers are involved in 6 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	A	2201	ACT	1	0
3	E	2201	ACT	4	0

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Mol	Chain	Res	Type	Clashes	Symm-Clashes
3	C	2201	ACT	1	0

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

## 5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

## 6 Fit of model and data

### 6.1 Protein, DNA and RNA chains

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

Mol	Chain	Analysed	<RSRZ>	#RSRZ>2	OWAB(Å <sup>2</sup> )	Q<0.9
1	B	266/276 (96%)	-0.05	3 (1%) 80 69	54, 76, 110, 128	0
1	D	263/276 (95%)	-0.06	1 (0%) 92 89	56, 73, 101, 130	0
1	F	265/276 (96%)	-0.02	4 (1%) 73 61	53, 83, 117, 143	0
1	H	267/276 (96%)	-0.01	2 (0%) 87 81	54, 77, 111, 132	0
2	A	1738/1772 (98%)	0.01	25 (1%) 75 63	39, 73, 123, 171	0
2	C	1702/1772 (96%)	0.12	60 (3%) 44 28	49, 86, 159, 209	0
2	E	1740/1772 (98%)	0.06	24 (1%) 75 63	48, 80, 132, 205	0
2	G	1710/1772 (96%)	0.27	106 (6%) 20 11	48, 92, 171, 209	0
All	All	7951/8192 (97%)	0.09	225 (2%) 53 37	39, 81, 154, 209	0

All (225) RSRZ outliers are listed below:

Mol	Chain	Res	Type	RSRZ
2	G	2171	PHE	4.9
2	G	2142	ALA	4.6
2	C	2170	LEU	4.6
2	A	1985	SER	4.5
2	G	2088	ASN	4.5
2	G	1475	ASP	4.5
2	G	2038	MET	4.4
1	B	2217	ASP	4.4
2	G	1838	SER	4.4
2	G	2096	TYR	4.1
2	C	1416	LEU	4.1
2	G	800	GLN	4.1
2	G	2155	LYS	4.1
2	G	2003	GLN	4.0
2	G	2039	GLU	4.0
2	E	796	ASP	3.9

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	A	800	GLN	3.9
2	C	1504	ILE	3.9
2	G	2101	ILE	3.9
2	G	1361	VAL	3.9
2	C	2185	SER	3.9
2	E	508	GLN	3.8
2	G	2172	LEU	3.8
2	G	1541	GLY	3.8
2	C	2127	ASN	3.8
2	G	2042	ASN	3.7
2	G	1428	VAL	3.7
2	G	2094	PRO	3.7
2	A	2075	PRO	3.7
2	G	2153	ASN	3.7
2	G	1427	ALA	3.7
2	A	809	ARG	3.6
2	G	1384	THR	3.6
2	C	1987	GLY	3.5
2	C	1856	MET	3.5
2	E	2084	ASP	3.5
2	G	2041	MET	3.5
2	G	2100	HIS	3.5
2	C	2035	PHE	3.4
2	G	1501	GLU	3.4
2	G	803	LYS	3.4
2	G	1495	LYS	3.4
2	C	1502	LEU	3.4
2	C	2072	ASN	3.4
2	A	832	PHE	3.4
2	C	1362	SER	3.3
2	E	2161	PRO	3.3
2	G	2089	ILE	3.3
2	G	2170	LEU	3.3
2	C	2110	GLU	3.2
2	G	2151	GLU	3.2
2	G	2181	ASP	3.2
2	C	1867	ASN	3.2
2	G	2173	MET	3.2
2	G	1476	LEU	3.1
2	C	1495	LYS	3.1
2	C	1865	PRO	3.1
2	G	857	GLN	3.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	C	1098	LYS	3.1
2	G	1365	LYS	3.1
2	G	1502	LEU	3.1
2	G	2034	ILE	3.1
2	G	1499	THR	3.0
2	C	800	GLN	3.0
2	E	506	THR	3.0
2	G	502	ARG	3.0
2	C	813	GLN	3.0
2	A	810	GLU	3.0
2	C	1413	PHE	3.0
2	A	804	HIS	3.0
2	C	1420	ALA	2.9
2	A	829	PRO	2.9
2	C	1891	HIS	2.9
2	C	2108	ASP	2.9
2	G	1809	PHE	2.9
2	C	1902	VAL	2.9
2	G	1834	SER	2.8
2	G	2084	ASP	2.8
2	A	2039	GLU	2.8
2	G	1417	ARG	2.8
2	G	812	LEU	2.8
2	C	1379	PHE	2.7
2	C	1852	ARG	2.7
2	G	1397	VAL	2.7
2	G	2014	GLN	2.7
2	G	2141	LEU	2.7
2	G	1473	GLN	2.7
2	G	2159	VAL	2.7
2	G	1362	SER	2.7
2	G	1360	PRO	2.7
2	G	1410	CYS	2.7
2	G	805	ASP	2.7
2	E	2034	ILE	2.7
2	G	1415	LEU	2.6
2	G	2152	LEU	2.6
2	A	858	VAL	2.6
1	F	2236	LEU	2.6
2	G	2158	PHE	2.6
1	F	2134	GLN	2.6
2	G	1421	LYS	2.6

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	A	1364	LEU	2.6
2	A	1854	ILE	2.6
2	G	1561	HIS	2.6
2	G	2093	GLU	2.6
2	G	2156	LEU	2.6
2	E	2103	ARG	2.6
2	G	2047	PRO	2.6
2	G	1098	LYS	2.5
2	A	833	GLY	2.5
1	H	2074	ASP	2.5
2	E	2098	LYS	2.5
2	G	2060	GLN	2.5
2	C	1422	LYS	2.5
2	C	1219	ALA	2.5
2	G	1484	TRP	2.5
2	G	2081	PHE	2.5
2	G	1841	VAL	2.5
2	G	1540	VAL	2.5
2	E	911	TYR	2.5
2	G	1695	VAL	2.5
2	A	1971	LYS	2.5
2	C	1367	LYS	2.5
2	C	811	VAL	2.5
2	C	2073	LYS	2.5
2	G	828	LEU	2.5
2	C	2178	VAL	2.4
2	G	1388	ASN	2.4
2	G	1539	ILE	2.4
2	G	2035	PHE	2.4
2	A	801	ILE	2.4
2	G	1837	LEU	2.4
2	G	832	PHE	2.4
2	G	1399	VAL	2.4
2	G	2065	GLN	2.4
2	G	1385	GLN	2.4
2	C	1536	PRO	2.4
2	G	1857	ASP	2.4
2	C	1501	GLU	2.4
2	G	1398	LEU	2.4
2	C	526	THR	2.3
1	H	2156	GLY	2.3
2	C	1994	ALA	2.3

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	E	1649	ILE	2.3
2	G	1861	GLY	2.3
2	C	1949	GLN	2.3
2	C	802	LEU	2.3
2	C	1540	VAL	2.3
2	C	2075	PRO	2.3
2	A	828	LEU	2.3
1	B	2044	THR	2.3
2	E	2041	MET	2.3
2	G	1451	LEU	2.3
2	G	2097	LEU	2.3
2	A	813	GLN	2.3
2	G	2128	TRP	2.3
2	G	2176	SER	2.3
2	C	1410	CYS	2.3
2	C	2129	TRP	2.2
2	G	1392	ASN	2.2
2	G	514	GLU	2.2
2	C	1417	ARG	2.2
2	G	834	ILE	2.2
2	E	2176	SER	2.2
2	G	2175	ASP	2.2
2	A	2139	THR	2.2
2	C	1894	LYS	2.2
2	G	1869	ALA	2.2
2	C	1388	ASN	2.2
2	E	1427	ALA	2.2
2	A	1448	LEU	2.2
2	G	1453	GLY	2.2
2	E	1692	ALA	2.2
2	G	873	ALA	2.2
2	C	1426	ARG	2.2
2	C	2138	LYS	2.2
2	G	1858	GLU	2.2
2	G	2006	TRP	2.2
2	C	502	ARG	2.2
2	G	1504	ILE	2.2
2	C	2006	TRP	2.2
1	D	2115	ILE	2.2
2	G	2154	VAL	2.2
2	C	1845	LEU	2.1
2	G	1503	PHE	2.1

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>RSRZ</b>
2	G	804	HIS	2.1
2	E	671	ASP	2.1
2	E	574	ASN	2.1
2	G	811	VAL	2.1
2	E	2109	GLU	2.1
2	A	857	GLN	2.1
2	G	1629	LEU	2.1
2	A	2162	SER	2.1
2	C	1893	SER	2.1
2	E	832	PHE	2.1
2	C	1359	LEU	2.1
2	C	1899	LEU	2.1
2	A	805	ASP	2.1
2	C	1855	GLU	2.1
2	G	2009	ASP	2.1
2	G	1416	LEU	2.1
2	E	1813	TYR	2.1
2	G	508	GLN	2.1
2	G	808	THR	2.1
2	A	803	LYS	2.1
2	E	2072	ASN	2.1
2	G	1560	LYS	2.1
2	C	2132	VAL	2.0
2	C	2172	LEU	2.0
2	C	2069	PHE	2.0
2	E	2165	LYS	2.0
1	F	2217	ASP	2.0
2	E	504	ASP	2.0
2	C	1397	VAL	2.0
1	B	2307	ASN	2.0
2	C	2139	THR	2.0
2	E	624	THR	2.0
2	G	1798	GLU	2.0
2	A	856	ILE	2.0
2	C	2134	GLU	2.0
2	G	770	GLN	2.0
2	G	2145	ARG	2.0
1	F	2202	TRP	2.0
2	A	826	ASP	2.0
2	E	583	ALA	2.0
2	C	799	ASN	2.0



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

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

## 6.3 Carbohydrates [i](#)

There are no carbohydrates in this entry.

## 6.4 Ligands [i](#)

In the following table, the Atoms column lists the number of modelled atoms in the group and the number defined in the chemical component dictionary. The B-factors column lists the minimum, median, 95<sup>th</sup> percentile and maximum values of B factors of atoms in the group. The column labelled 'Q< 0.9' lists the number of atoms with occupancy less than 0.9.

Mol	Type	Chain	Res	Atoms	RSCC	RSR	B-factors( $\text{\AA}^2$ )	Q<0.9
3	ACT	C	2201	4/4	0.62	0.36	80,91,97,98	0
3	ACT	E	2201	4/4	0.85	0.27	87,92,111,111	0
3	ACT	G	2201	4/4	0.85	0.24	84,89,104,104	0
3	ACT	A	2201	4/4	0.88	0.20	63,68,81,81	0

## 6.5 Other polymers [i](#)

There are no such residues in this entry.