



## Full wwPDB EM Validation Report ⓘ

Mar 19, 2024 – 02:33 PM JST

PDB ID : 5GL1  
EMDB ID : EMD-9521  
Title : Structure of RyR1 in an open state  
Authors : Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.  
Deposited on : 2016-07-07  
Resolution : 5.70 Å (reported)

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

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with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev70  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.36

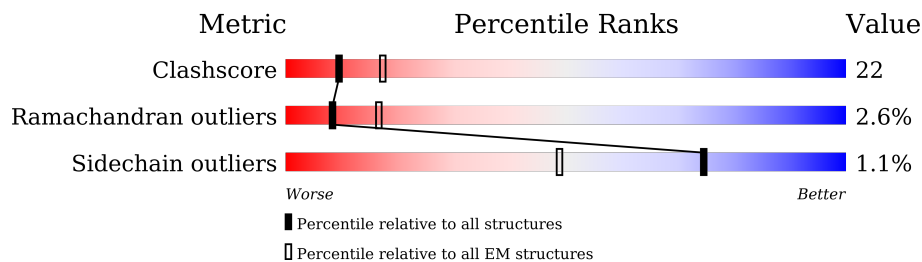
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 5.70 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for  $\geq 3$ , 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 EM map (all-atom inclusion  $< 40\%$ ). The numeric value is given above the bar.

Mol	Chain	Length	Quality of chain
1	A	5037	
1	C	5037	
1	E	5037	
1	G	5037	
2	B	108	
2	D	108	
2	F	108	
2	H	108	

## 2 Entry composition i

There are 3 unique types of molecules in this entry. The entry contains 110704 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

- Molecule 1 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	3645	26843	17063	4667	4956	157	0	0
1	C	3645	26843	17063	4667	4956	157	0	0
1	E	3645	26843	17063	4667	4956	157	0	0
1	G	3645	26843	17063	4667	4956	157	0	0

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	107	832	527	146	155	4	0	0
2	D	107	832	527	146	155	4	0	0
2	F	107	832	527	146	155	4	0	0
2	H	107	832	527	146	155	4	0	0

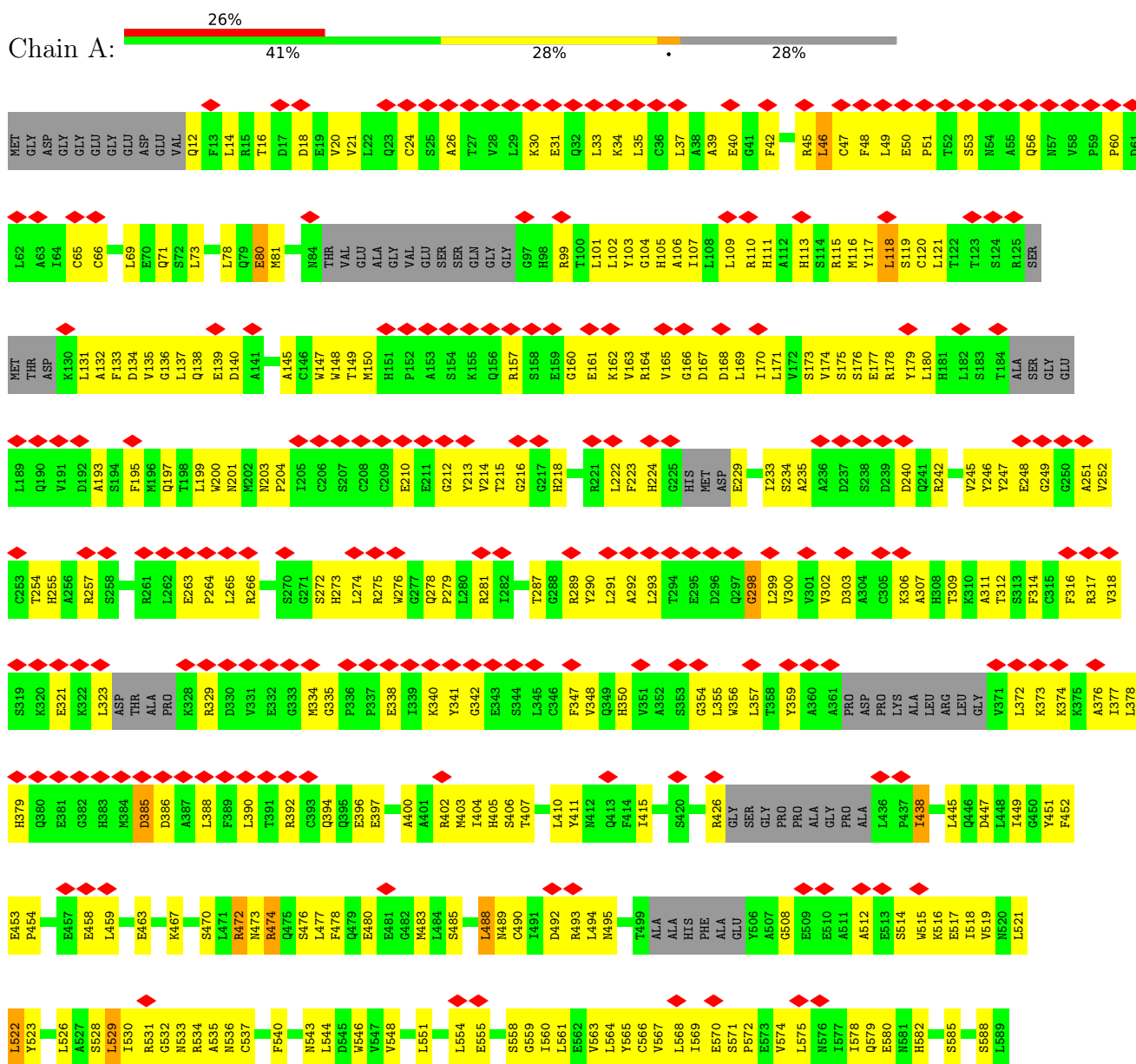
- Molecule 3 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total	Zn	0
			1	1	
3	C	1	Total	Zn	0
			1	1	
3	E	1	Total	Zn	0
			1	1	
3	G	1	Total	Zn	0
			1	1	

### 3 Residue-property plots

These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion in map density. Residues are color-coded according to the number of geometric quality criteria for which they contain at least one outlier: green = 0, yellow = 1, orange = 2 and red = 3 or more. A red diamond above a residue indicates a poor fit to the EM map for this residue (all-atom inclusion < 40%). Stretches of 2 or more consecutive residues without any outlier are shown as a green connector. Residues present in the sample, but not in the model, are shown in grey.

#### • Molecule 1: Ryanodine receptor 1



L590	D891	K592	H593	G594	R595	N596	H597	K598	V599	V602	L603	L606	C607	M610	G611	V614	M617	Q618	L619	I621	T622	L625	P627	G628	R629	E630	L631	L632	L633	Q634	T635	M636	L637	I638	N639	Y640	V641	T642	S643	I644	R645	N646	I648	F649	V650	G651	ARG	ALA	GLU	GLY									
SER	THR	GLN	TYR	G660	K661	W662	Y663	D669	L748	E670	V671	F674	L675	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	W702	G703	G704	N705	G706	V707	D710	L711	Y714	G715	F716	D717	H720	H725	V726	A727	R728	T731	S732	P733	G734									
L737	L738	A739	P740	E741	D742	C746	C747	L748	D749	L750	S751	V752	F753	S754	I755	S756	F757	R758	G761	C762	P763	V764	V767	E768	F769	A770	F771	N772	L773	D774	G775	L776	F777	F778	P779	V780	V781	S782	F783	S784	A785	G786	V787	K788	V789	R790	F791	L792	L793	G794	GLY	ARG	HIS	GLY	E799				
F800	K801	F802	L803	P804	P805	G806	G807	H812	E813	A814	V815	L816	P817	R818	E819	R820	L821	R822	L823	E824	P825	I826	K827	E828	Y829	R830	R831	E832	G833	P834	H838	L839	V840	G841	P842	S843	R844	C845	LEU	SER	HIS	THR	ASP	F851	V852	P853	C854	R855	V856	D857	L858	V859	Q860	I861	V862	L863	P864		
P865	H866	L867	E868	R869	I870	P806	R871	E872	H879	E880	A883	L884	T885	R886	I887	E888	Q889	G890	W891	T892	Y893	G894	P895	V896	R897	G898	G899	M900	K901	R902	L903	H904	P905	C906	L907	V908	N909	F910	H911	S912	H913	P914	E915	P916	E917	R918	N919	Y920	I921	L922	Q923	M924	S925	G926	E927	T928	L929	K930	
T931	L932	L933	A934	L935	G936	C937	H938	V939	G940	M941	A942	D943	E944	K945	A946	GLU	ASN	LEU	LYS	THR	LYS	THR	LEU	PRO	LYS	THR	Y959	M960	M961	S962	N963	G964	Y965	K966	A968	P969	L970	D971	L972	S973	H974	V975	R976	L977	T978	P979	A980	T983	L984	L988	N991	G992	V1001						
A1002	Q1003	GLY	TRP	SER	TYR	ALA	VAL	GLN	ILE	PRO	ALA	R1016	Y1024	R1025	L1026	L1027	D1028	E1029	A1030	T1031	K1032	R1033	S1034	M1035	N1036	D1037	S1038	L1039	C1040	Q1041	G964	Y965	V1043	L1044	T1045	L1046	L1047	G1048	Y1049	G1050	Y1051	M1052	I1053	E1054	P1055	PRO	ASP	GLN	GLU	GLY	PRO	PRO	SER	GLN	VAL	GLU	ASN	GLN	SER
ARG	TRP	ASP	R1071	R1072	R1073	I1074	F1075	A1077	K1079	S1080	Y1081	V1083	Q1084	S1085	G1086	R1087	Y1088	F1090	E1091	F1092	E1093	A1094	V1095	T1096	T1097	G1098	E1099	M1100	R1101	V1102	G1103	A1105	R1106	P1107	E1108	L1109	R1110	P1111	D1112	V1113	E1114	L1115	G1116	A1117	D1118	E1119	L1120	V1123	F1124	G1126	H1127	R1128							
G1129	Q1130	R1131	W1132	H1133	L1134	G1135	S1136	E1137	P1138	F1139	G1140	R1141	V1143	Q1144	S1145	G1146	D1147	V1148	C1151	M1152	T1153	D1154	L1155	T1156	M1157	N1158	F1162	T1163	L1164	H1165	G1166	E1167	V1168	L1169	MET	SER	ASP	SER	GLY	SER	THR	A1178	F1179	R1180	E1181	I1182	G1185	D1186	G1187	F1188	L1189	P1190	V1191	D1261	C1192				
S1193	L1194	G1197	Q1198	V1199	H1200	H1201	M1203	L1204	G1205	Q1206	D1207	S1210	L1211	F1213	F1214	A1215	I1216	E1221	G1222	F1223	E1224	P1225	F1226	A1227	M1230	Q1231	V1234	T1235	T1236	W1237	F1238	S1239	K1240	S1241	L1242	P1243	Q1244	F1245	E1246	P1247	E1251	H1252	P1253	H1254	Y1255	E1256	R1259	M1260	D1261	GLY									
THR	VAL	ASP	THR	PRO	PRO	CYS	LEU	ARG	L1272	R1275	T1276	W1277	G1278	S1279	L1283	V1284	E1285	M1286	L1287	F1288	L1289	R1290	L1291	L1292	L1293	P1294	V1295	Q1296	F1297	HIS	GLN	PHE	ARG	CYS	THR	ALA	GLY	ALA	THR	PRO	PRO	LEU	ALA	PRO	PRO	ALA	ALA	ASP	GLU	GLY	ALA	ARG							
ALA	ALA	GLU	PRO	ASP	PRO	ASP	TYR	GLU	ASN	ARG	ARG	SER	ALA	GLY	TRP	GLY	GLU	ALA	GLY	LYS	GLU	GLY	THR	PRO	HIS	ASP	ASN	ARG	ASP	PRO	GLN	ARG	PRO	CYS	THR	ILE	ILE	LEU	ASN	THR	THR	VAL	ARG	ALA	GLU	ASN	GLU	GLY	THR	THR	GLU	GLY	ASN	PRO					
LYS	LYS	ARG	GLY	PHE	LEU	PHE	LYS	ALA	LYS	ALA	ALA	MET	THR	MET	GLN	PRO	PRO	ALA	THR	PRO	ALA	ALA	ALA	VAL	VAL	VAL	PRO	PRO	ALA	ASP	ASN	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR	THR					

SER	C1447	C1448	M1452	Y1457	H1458	G1459	M1462	M1463	F1464	D1465	L1466	S1467	LYS	VAL	N1544	N1545	T1546	K1547	L1548	F1549	P1550	V1554	L1555	P1556	D1477	E1479	Q1480	G1481	H1482	V1483	H1484	S1485	S1486	L1487	K1488	C1489	S1490	M1491	CYS	Y1493	G1497	GLY	ASP	PHE	VAL	SER	PRO	GLN	GLY	ARG	ILE	S1510	H1511	T1512	D1513	L1514	V1515	L1516
L1519	A1520	LEU	ALA	THR	G1525	A1531	M1532	N1537	T1538	F1539	P1544	N1545	T1546	K1547	L1548	F1549	P1550	V1554	L1555	P1556	V1561	I1562	Q1563	F1564	E1565	LEU	GLY	LYS	GLN	ASN	ILE	ILE	MET	PRO	LEU	SER	A1577	L1581	S1582	E1583	R1584	K1585	N1586	P1587	O1589	P1592	L1593	R1594	L1595									
E1596	V1597	Q1598	M1599	L1600	M1601	P1602	V1603	S1604	M1605	S1606	M1607	M1608	P1609	M1610	H1611	M1612	L1613	E1616	T1617	R1618	R1619	A1620	G1621	A1622	R1623	W1626	A1627	V1628	Q1629	C1630	Q1631	D1632	P1633	M1636	M1637	A1638	L1639	H1640	I1641	P1642	E1643	R1646	C1647	M1648	D1649	E1652	L1653	S1654	E1655	R1656	L1657	D1658	L1659	Q1660				
R1661	F1662	H1663	M1664	H1665	T1666	L1667	R1668	L1669	Y1670	A1672	M1673	C1674	L1675	L1676	M1679	R1680	V1681	A1682	H1683	A1684	L1685	C1686	S1687	H1688	V1689	D1689	Q1691	A1692	Q1693	L1694	L1695	H1696	A1697	L1698	E1699	L1703	P1704	G1705	P1706	L1707	R1708	A1709	G1710	Y1711	Y1712	D1713	L1714	S1717	I1718	H1719	L1720	E1721	S1722	L1723				
R1727	R1728	S1729	M1730	L1731	T1732	E1733	I1734	I1735	L1738	L1739	T1742	L1747	F1748	P1749	P1750	GLY	ARG	L1761	P1763	G1766	V1767	T1768	T1769	S1770	R1771	R1772	H1775	P1779	P1780	V1783	A1784	ALA	LEU	PRO	ALA	VAL	ALA	GLY	GLY	VAL	ALA	ALA	GLY	VAL	ALA	ALA	ALA	ALA	ALA									
ARG	L1796	P1800	A1801	I1802	E1805	A1806	R1807	R1808	D1809	K1810	M1813	M1814	L1815	V1819	R1820	D1821	G1822	Q1823	H1825	A1826	R1827	D1828	P1829	V1830	S1833	V1834	F1835	F1836	Q1837	F1838	V1839	V1840	L1841	L1842	K1843	L1844	V1845	S1846	T1847	L1848	L1849	V1850	M1851	G1852	F1854	D1855	E1857	L1858	V1859	K1860	Q1861							
I1862	L1863	K1864	M1865	I1866	I1867	P1868	E1869	VAL	PHE	THR	GLU	GLU	GLU	M1941	L1942	L1943	E1944	Y1945	F1946	C1947	D1948	Q1949	F1950	L1951	V1955	L1958	F1961	A1962	V1966	Q1973	R1974	S1975	R1976	TYR	ALA	LEU	LEU	LEU	MET	ARG	LYS	GLY	ALA	ALA	PHE	THR	MET	SER	ALA	ALA	ALA	GLY	GLU	GLU	GLU	THR	ALA	ARG
THR	ARG	PHE	ARG	SER	PRO	PRO	GLN	GLU	GLN	ILE	ASN	MET	VAL	HIS	PHE	LYS	ASP	LYS	ALA	ASP	GLY	ASP	PRO	PRO	PRO	ASP	ILE	GLN	ASP	GLM	ASP	GLU	GLN	ASP	PHE	HIS	GLN	ASP	LEU	LEU	ALA	HIS	GLY	ILE	GLN	LEU	MET	SER	ALA	ALA	GLY	GLU	GLU	GLU	THR	ALA	ARG	
GLU	GLU	T2057	S2058	L2059	R2062	L2063	R2064	S2065	L2066	T2069	V2070	R2071	L2072	VAL	LYS	LYS	LYS	GLY	Y2142	P2146	D2151	L2155	L2156	E2157	C2158	L2159	I2162	R2163	L2166	I2167	V2168	MET	GLY	PRO	Q2173	E2174	F2251	D2252	H2253	L2254	L2258	E2259	N2260	S2261	G2262	L2263	GLY	LEU	GLY	MET	GLN	GLN	GLY					
S2192	L2123	R2124	E2125	R2126	Q2127	Y2128	D2129	G2130	L2131	L2134	L2135	R2136	A2137	L2138	P2139	R2140	A2141	Y2142	P2146	D2151	L2155	L2156	E2157	C2158	L2159	I2162	R2163	L2166	I2167	V2168	MET	GLY	PRO	Q2173	E2174	F2251	D2252	H2253	L2254	L2258	E2259	N2260	S2261	G2262	L2263	GLY	LEU	GLY	MET	GLN	GLN	GLY						
L2201	G2202	M2203	H2204	E2205	E2209	V2210	M2211	V2212	M2213	V2214	L2215	G2216	GLY	GLY	GLU	THR	LYS	GLU	ILE	ARG	PHE	V2229	C2232	C2233	R2234	F2235	L2236	C2237	V2238	F2239	R2244	Q2245	N2246	G2247	R2248	S2249	M2250	F2251	D2252	H2253	L2254	L2258	E2259	N2260	S2261	G2262	L2263	GLY	LEU	GLY	MET	GLN	GLN	GLY				
S2271	P2272	V2275	A2276	V2280	L2281	N2284	E2285	L2286	A2287	L2288	L2290	Q2291	E2292	Q2293	D2294	L2295	E2296	K2297	V2298	V2299	S2300	Y2301	L2302	A2303	L2306	C2307	V2308	F2309	L2307	GLN	SER	CYS	PRO	MET	LEU	LEU	ALA	LYS	GLY	TVR	PRO	ASP	ILE	GLY	TRP	ASN	P2325	C2326	G2327	G2328	E2329	R2330	Y2331	L2332	D2333			



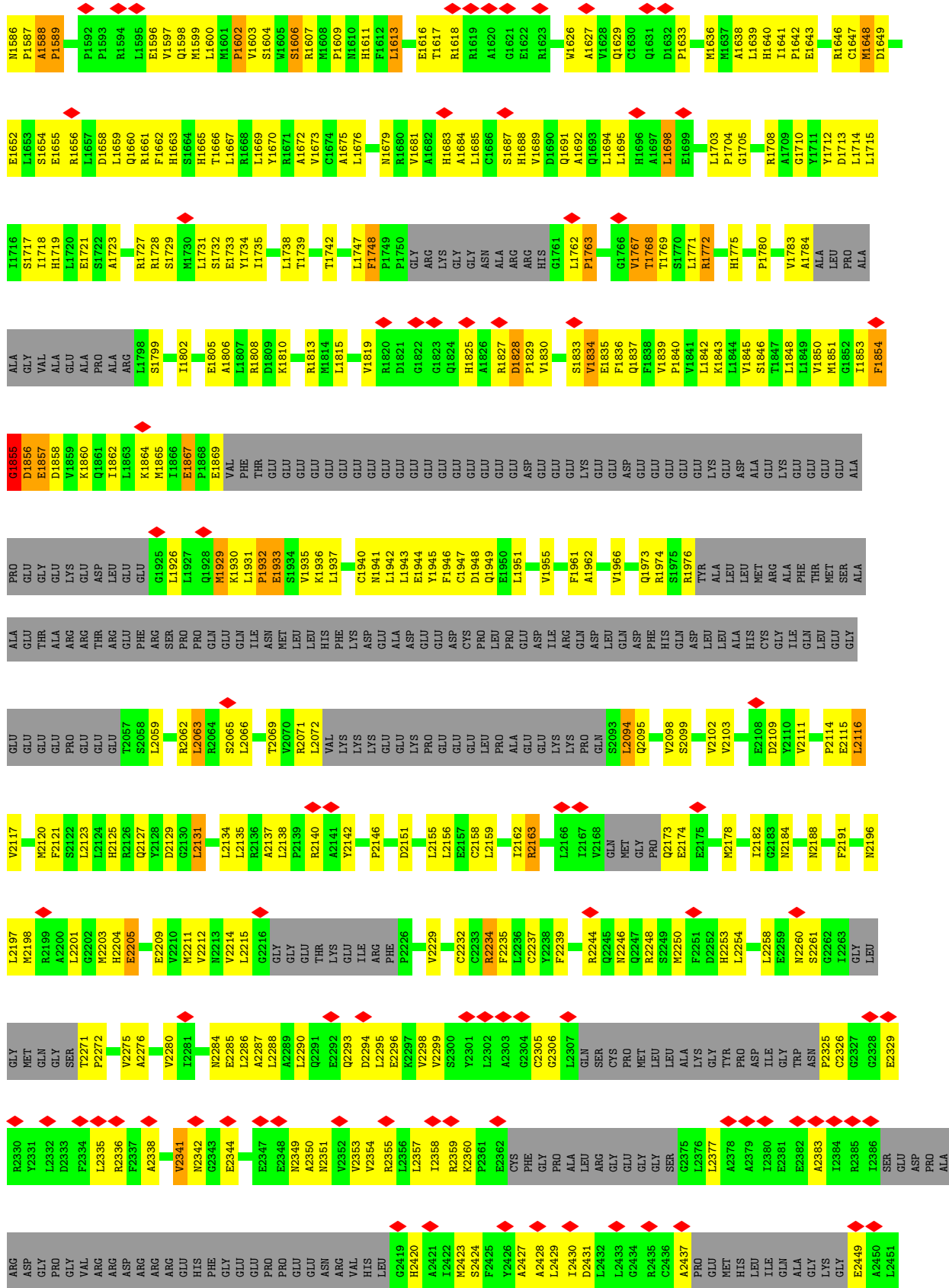








GLY	T731	ARG	S925	GLN	L988	GLN	V1123	G1187	H1254	PRO	LYS	R1438	ILE
ARG	S732	HIS	G926	VAL	L989	VAL	F1124	F1188	Y1255	PRO	ASP	V1439	S1510
GLY	E799	GLY	G926	ASN	N991	ASN	L1189	L1189	E1256	ALA	ALA	F1440	H1511
E799	F900	F900	E927	GLN	V1001	GLN	G1126	P1190	R1259	ASP	THR	A1441	T1512
F900	F802	F802	T928	SER	A1002	SER	R1127	V1191	R1259	GLY	THR	GLY	D1513
F802	F804	F804	L929	TRP	Q1003	TRP	G1129	C1192	D1261	ALA	ALA	GLN	L1514
F804	P805	P805	K930	ALA	GLY	ALA	R1131	L1194	GLY	ALA	ARG	PRO	V1515
P805	P806	P806	T931	TRP	GLY	TRP	W1132	W1132	THR	ALA	ALA	SER	I1516
P806	G507	G507	L932	VAL	R1071	VAL	L1133	G1196	THR	GLU	GLU	G1447	L1519
G507	HB12	HB12	L933	GLN	V1072	GLN	L1134	G1197	THR	GLU	GLU	V1448	V1520
HB12	E813	E813	L933	TYR	R1073	TYR	L1134	Q1198	THR	ASP	ASP	W1452	ASP
E813	A814	A814	A934	SER	F1075	SER	G1135	V1199	PRO	PRO	PRO	W1457	LEU
A814	V815	V815	L935	ALA	R1076	ALA	S1136	G1200	PRO	ASP	ASP	Y1457	ALA
V815	L816	L816	T931	VAL	A1077	VAL	R1131	H201	THR	TYR	TYR	H1458	THR
L816	P817	P817	L932	GLN	E1077	GLN	L1133	L1202	GLY	GLY	GLY	H1458	THR
P817	E868	E868	L933	ASP	K1079	ASP	L1134	L1203	THR	ALA	ALA	Q1459	THR
E868	E869	E869	A934	ILE	H938	ILE	G1135	L1204	THR	ALA	ALA	H1459	THR
E869	I870	I870	A934	PRO	P806	PRO	S1136	G1205	THR	GLY	GLY	G1447	THR
I870	H879	H879	L935	ALA	R1016	ALA	R1141	Q1206	THR	ARG	ARG	W1457	THR
H879	E880	E880	T931	ALA	R1016	ALA	P1142	Q1206	THR	ARG	ARG	H1457	THR
E880	A883	A883	L932	VAL	Y1024	VAL	Q1144	D1207	THR	ARG	ARG	H1457	THR
A883	L884	L884	L932	GLN	R1025	GLN	S1145	S1210	THR	ARG	ARG	H1457	THR
L884	T885	T885	L932	ASP	A1030	ASP	G1146	L1211	THR	ARG	ARG	H1457	THR
T885	R886	R886	L932	LEU	L1026	LEU	G1147	R1212	THR	ARG	ARG	H1457	THR
R886	I887	I887	L932	LEU	L1027	LEU	V1147	F1214	THR	ARG	ARG	H1457	THR
I887	E888	E888	L932	LEU	D1028	LEU	C1151	A1215	THR	ARG	ARG	H1457	THR
E888	P825	P825	L932	ASP	F1090	ASP	M1152	A1215	THR	ARG	ARG	H1457	THR
P825	A826	A826	L932	ASN	F1092	ASN	I1153	C1217	THR	ARG	ARG	H1457	THR
A826	K827	K827	L932	LEU	A1094	LEU	D1154	E1285	THR	ARG	ARG	H1457	THR
K827	E828	E828	L932	LYS	K1032	LYS	L1155	F1288	THR	ARG	ARG	H1457	THR
E828	Y829	Y829	L932	LYS	K1032	LYS	T1156	L1289	THR	ARG	ARG	H1457	THR
Y829	T892	T892	L932	THR	A1033	THR	E1157	R1290	THR	ARG	ARG	H1457	THR
T892	Y893	Y893	L932	LYS	S1034	LYS	M1158	L1291	THR	ARG	ARG	H1457	THR
Y893	G894	G894	L932	LEU	T1097	LEU	F1162	S1292	THR	ARG	ARG	H1457	THR
G894	P895	P895	L932	PRO	E1099	PRO	L1164	L1293	THR	ARG	ARG	H1457	THR
P895	V896	V896	L932	LYS	D1037	LYS	G1166	F1296	THR	ARG	ARG	H1457	THR
V896	R897	R897	L932	Y959	S1038	Y959	E1167	A1227	THR	ARG	ARG	H1457	THR
R897	D898	D898	L932	M960	L1039	M960	V1168	M1230	THR	ARG	ARG	H1457	THR
D898	D899	D899	L932	H961	L1039	H961	G1166	Q1231	THR	ARG	ARG	H1457	THR
D899	N900	N900	L932	S962	C1040	S962	E1167	V1234	THR	ARG	ARG	H1457	THR
N900	K901	K901	L932	M963	Q1041	M963	L1169	P1236	THR	ARG	ARG	H1457	THR
K901	R902	R902	L932	G964	A1042	G964	ME1	W1237	THR	ARG	ARG	H1457	THR
R902	L903	L903	L932	S965	V1043	S965	SER	F1238	THR	ARG	ARG	H1457	THR
L903	H904	H904	L932	K966	R1044	K966	ASP	W1237	THR	ARG	ARG	H1457	THR
H904	P905	P905	L932	L1046	T1045	L1046	SER	F1239	THR	ARG	ARG	H1457	THR
P905	C906	C906	L932	L1047	T1045	L1047	GLY	K1240	THR	ARG	ARG	H1457	THR
C906	Y908	Y908	L932	A968	L1047	A968	SER	S1241	THR	ARG	ARG	H1457	THR
Y908	N909	N909	L932	L1048	Y1049	L1048	GLU	L1242	THR	ARG	ARG	H1457	THR
N909	F910	F910	L932	Y1049	L1049	Y1049	THR	P1243	THR	ARG	ARG	H1457	THR
F910	H911	H911	L932	Y1051	G1050	Y1051	A1178	F1244	THR	ARG	ARG	H1457	THR
H911	S912	S912	L932	M1052	G1050	M1052	F1179	G1244	THR	ARG	ARG	H1457	THR
S912	L913	L913	L932	I1053	L1047	I1053	A1117	E1246	THR	ARG	ARG	H1457	THR
L913	V975	V975	L932	H974	D1112	H974	L1180	P1247	THR	ARG	ARG	H1457	THR
V975	R976	R976	L932	L1120	D1112	L1120	E1182	H1251	THR	ARG	ARG	H1457	THR
R976	L977	L977	L932	L1120	L1120	L1120	G1185	E1252	THR	ARG	ARG	H1457	THR
L977	T978	T978	L932	L1120	L1120	L1120	D1186	P1253	THR	ARG	ARG	H1457	THR
T978	P979	P979	L932	L1120	L1120	L1120	G1185	H1252	THR	ARG	ARG	H1457	THR
P979	R980	R980	L932	L1120	L1120	L1120	D1186	H1252	THR	ARG	ARG	H1457	THR
R980	T983	T983	L932	L1120	L1120	L1120	D1186	H1252	THR	ARG	ARG	H1457	THR
T983	L984	L984	L932	L1120	L1120	L1120	D1186	H1252	THR	ARG	ARG	H1457	THR
L984	Q923	Q923	L932	L1120	L1120	L1120	D1186	H1252	THR	ARG	ARG	H1457	THR
Q923			L932	L1120	L1120	L1120	D1186	H1252	THR	ARG	ARG	H1457	THR



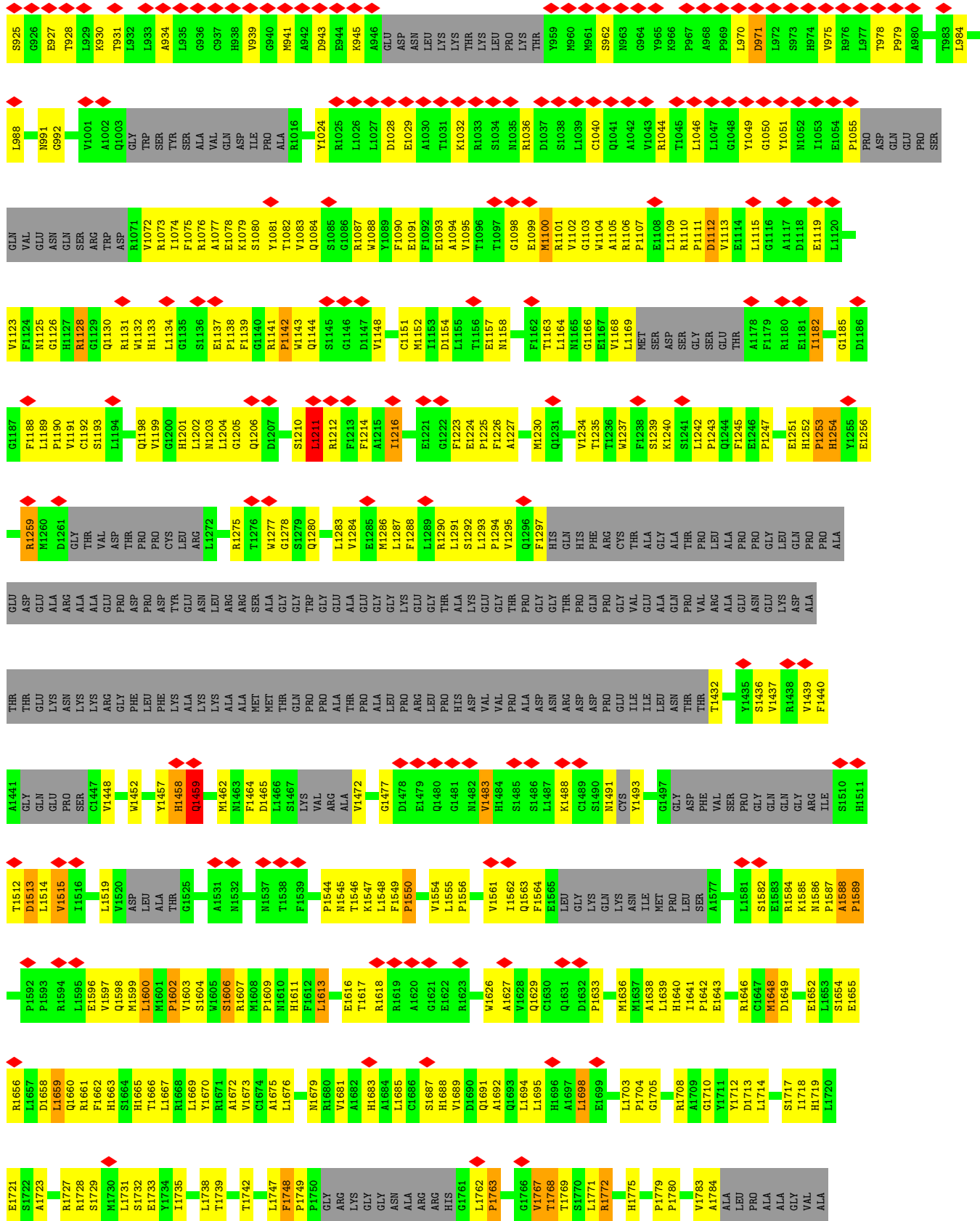


A4129	A4130	A4131	PHE	GLN	GLU	P4135	A4136	A4137	A4138	F4141	M4000	M4001	K4002	L4003	A4004	Q4005	S4007	S4008	Q4009	I4010	E4011	L4012	L4013	L4017	D4018	P4084	R4085	G4086	D4092	M4097	D4098	S4099	Q4100	LYS	Q4102	F4103	T4104	G4105	P4177	L4178	I4181	E4182	L4183	M4184	G4185	S4187	R4188	R4189	T4190	E4191	R4192	I4193											
V4055	E4056	M4057	I4058	L4059	K4060	F4061	F4062	D4063	M4064	PHE	LEU	LYS	LYS	LYS	ASP	I4071	V4072	G4073	S4074	E4075	A4076	F4077	Q4078	T4082	D4083	P4084	R4085	G4086	D4092	M4097	D4098	S4099	Q4100	LYS	Q4102	F4103	T4104	G4105	P4177	L4178	I4181	E4182	L4183	M4184	G4185	S4187	R4188	R4189	T4190	E4191	R4192	I4193											
V3986	D3987	A3988	V3989	V3990	G3991	F3992	L3993	H3994	V3995	F3996	M4000	M4001	K4002	L4003	A4004	Q4005	S4007	S4008	Q4009	I4010	E4011	L4012	L4013	L4017	D4018	P4084	R4085	G4086	D4092	M4097	D4098	S4099	Q4100	LYS	Q4102	F4103	T4104	G4105	P4177	L4178	I4181	E4182	L4183	M4184	G4185	S4187	R4188	R4189	T4190	E4191	R4192	I4193											
G3908	N3909	T3910	N3914	I3915	I3916	I3917	C3918	T3919	V3920	D3921	V3922	L3923	L3924	R3925	L3926	Q3927	I3930	F3933	Y3934	W3935	Y3936	Y3937	S3938	D3941	E3944	K3953	S3956	V3957	A3958	K3959	Q3960	F3962	N3963	S3964	L3965	T3966	E3967	Y3968	L3969	Q3970	G3971	F3972	Q3977	L3980	A3981	H3982	S3983	R3984	L3985														
C3839	S3840	V3841	L3842	D3843	L3844	R3849	F3852	ALA	GLU	GLY	LEU	GLY	GLY	MET	VAL	ASN	GLU	ASP	GLY	THR	VAL	ILE	ASN	ARG	GLN	ASN	GLY	GLU	VAL	MET	LYS	VAL	D3877	D3878	F3879	F3880	T3881	Q3882	D3883	L3884	F3885	R3886	L3887	Q3888	Q3889	L3890	L3891	C3892	E3893	F3899	Q3900	N3901	Y3902	T3905	Q3906	T3907							
E3757	M3758	E3759	K3760	Q3761	R3762	L3763	L3764	Y3765	Q3766	Q3767	S3768	R3769	L3770	H3771	T3772	R3773	G3774	A3775	A3776	H3778	Y3779	L3780	Q3781	S3784	A3785	C3786	K3787	E3789	M3793	V3794	T3797	L3805	N3806	G3807	G3808	N3809	A3810	E3811	V3812	Q3813	Q3814	K3815	L3820	K3821	D3822	F3828	L3835	M3836	Q3837	T3838													
GLU	GLU	GLU	GLU	GLU	GLU	VAL	GLU	K3694	L3698	L3701	V3702	H3703	L3704	E3712	K3713	S3714	K3715	L3716	D3717	D3719	A3724	D3727	I3728	M3729	A3730	K3731	S3732	C3733	HIS	L3654	E3655	K3658	A3659	G3660	K3661	L3662	E3665	H3667	D3666	H3668	F3669	E3670	L3674	D3675	L3677	A3680	GLY	GLN	K3756	K3756													
LYS	SER	LYS	LYS	ALA	VAL	TRP	HIS	LYS	LEU	SER	LYS	GLN	ARG	ARG	ALA	VAL	VAL	VAL	ALA	CYS	PHE	VAL	MET	THR	PRO	LEU	LEU	GLY	ARG	GLU	GLU	GLY	GLU	GLY	GLY	GLY	GLY	GLY	ASN	GLY	GLY	ALA	GLU	GLU	GLU	VAL	E3750	V3751	S3752	F3753	E3754	E3755	K3756										
E3651	F3652	L3653	Q3654	Q3655	N3656	L3657	H3658	L3659	Q3660	K3662	P3667	S3668	L3669	R3670	M3671	ALA	LEU	TYR	ARG	GLY	LEU	LEU	PRO	GLY	ARG	GLU	GLU	ASP	ASP	GLU	GLY	ILE	VAL	ARG	ARG	ARG	VAL	VAL	GLN	LEU	TYR	HIS	LEU	LEU	GLN	THR	THR	GLU	HIS	PRO	TYR												
S9489	D9490	Q9491	GLU	ARG	T9494	K3495	K3496	K3497	D8501	R8502	Y3503	S3504	VAL	GLN	THR	SER	LEU	ILE	VAL	ALA	T3513	L3514	K3515	K3516	M3517	L3518	P3519	I3620	L3381	E3382	A3383	K3384	A3387	E3388	E3389	G3390	E3391	V3394	R3395	D3396	L3470	THR	ALA	ASP	SER	LYS	SER	LYS	LYS	M3478	D3404	A3479	L3405	L3406	A3481	A3407	L3408	D3483	A3484	Q3485	S3486	G3487	G3488
E3352	L3353	L3354	H3355	S3356	H3357	F3358	I3359	P3360	T3361	I3362	G3363	ARG	LEU	ARG	K3367	R3368	V3307	T3308	S3309	D3310	H3311	L3312	H3313	SER	LEU	G3317	N3318	I3319	L3320	V3324	N3325	N3326	L3327	G3328	I3329	D3330	E3331	A3332	T3333	K3334	H3335	K3336	R3337	L3338	A3339	VAL	PHE	D3404	ALA	ALA	GLN	PRO	ILE	V3346	S3347	R3348	A3349	R3350	P3351				
V3417	D3418	N3419	N3419	N3420	A3421	H3422	W3423	L3424	THR	GLU	P3427	N3428	A3429	N3430	A3431	E3432	E3433	L3434	F3435	ARG	M3437	Y3444	W3445	S3446	K3447	S3448	H3449	N3450	A3387	E3388	E3389	G3390	E3391	V3394	R3395	D3396	L3470	THR	ALA	ASP	SER	LYS	SER	VAL	LEU	C3402	R3403	D3404	ALA	ALA	L3405	L3406	A3481	A3407	L3408	D3483	A3484	Q3485	S3486	G3487	G3488		

















Q981	Q982	T983	L984	L988	N991	V1001	A1002	Q1003	GLY	TRP	SER	TTR	SER	ALA	VAL	GLN	ASP	ASP	PRO	PRO	ILE	ALA	R1016	Y1024	R1025	L1026	L1027	D1028	E1029	A1030	T1031	K1032	L1033	S1034	M1035	R1036	D1037	S1038	L1039	C1040	Q1041	A1042	V1043	R1044	T1045	L1046	L1047	G1048	Y1049	G1050	Y1051	N1052	I1053	E1054	PRO	ASP	V856	D857	T858	V859	Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	R870	R871	E872	K873	H879	E880	A883	L884	T885	R886	L887	E888	Q889	W891	T892	W893	G894	P895	V896	R897	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	A785	V908	N909	F910	H911	S912	L913	P914	E915	E917	R918	N919	Y920	L792	L793	G794	GLY	ARG	HIS	GLY	E799	F800	K801	F802	L803	P804	P805	H806	G807	H812	E813	A814	W815	L816	P817	R818	E819	R820	L821	R822	L823	E824	P825	T826	K827	W828	W829	R830	R831	E832	G833	P834	P837	H838	L839	W840	C841	P842	S843	R844	C845	LEU	SER	HIS	THR	THR	ASP	F851	W852	K853	C854	P855	V856	D857	T858	V859	Q860	I861	V862	L863	P864	P865	H866	L867	E868	R869	R870	R871	E872	K873	H879	E880	A883	L884	T885	R886	L887	E888	Q889	W891	T892	W893	G894	P895	V896	R897	D898	D899	N900	K901	R902	L903	H904	P905	C906	L907	A785	V908	N909	F910	H911	S912	L913	P914	E915	E917	R918	N919	Y920	F649	V650	G651	ALA	ALA	GLY	SER	TYR	G660	H661	H662	D669	E670	V671	F674	T676	A677	L682	R683	V684	G685	L688	T689	E690	G691	P696	G697	G698	G699	E700	G701	H702	G703	G704	N705	G706	L638	N639	D710	L711	V714	G715	F716	D717	H720	H725	V726	S585	S588	L589	L590	D591	K592	H593	G594	H595	N596	H597	K598	V599	V602	L603	L606	C607	N610	G611	V612	A613	V614	N617	G618	D619	L620	T622	E623	N624	L625	P627	G628	R629	E630	L631	L632	L633	G634	T635	N636	L637	L638	N639	G640	V641	T642	S643	T644	G645	P646	N647	L648	E517	L518	V519	N520	L521	L522	Y523	L526	A527	S528	L529	L530	R531	G532	N533	R534	A535	N536	C537	F540	N543	L544	D545	W546	V547	V548	L551	L554	E555	S558	G559	L560	L561	E562	V563	L564	Y497	Y498	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	E451	F452	E453	P454	P455	S456	E457	E458	L459	E463	K467	S470	L471	R472	N473	R474	Q475	S476	F477	F478	Q479	E480	E481	G482	N483	L484	S485	L488	N489	C490	T491	D492	R493	L494	N495	Y496	Y497	T498	T499	ALA	ALA	HIS	PHE	ALA	GLU	Y506	A507	G508	E509	E510	A511	A512	E513	S514	W515	K516	I377	L378	H379	Q380	E381	G382	H383	N384	D385	D386	A387	L388	F389	L390	T391	R392	C393	Q394	G395	E396	E397	A400	A401	R402	M403	I404	G341	G342	E343	S344	I339	K340	P341	L280	R281	D282	T287	G288	R289	Y290	L291	L222	Q221	L223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	D240	Q241	R242	V245	Y246	Y247	E248	G249	G250	A251	V252	T253	T254	H255	A256	R257	S258	R261	L262	E263	P264	W200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	L222	F223	H224	G225	L299	V300	V301	D303	A304	C305	K306	A307	H308	T309	K310	A311	S312	F314	C315	F316	R317	V318	S319	K320	E321	K322	L323	THR	ALA	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	G335	P336	R337	E338	I339	K340	G341	G342	E343	S344	I339	K340	P341	L280	R281	D282	T287	G288	R289	Y290	L291	L222	Q221	L223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	D240	Q241	R242	V245	Y246	Y247	E248	G249	G250	A251	V252	T253	T254	H255	A256	R257	S258	R261	L262	E263	P264	W200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	L222	F223	H224	G225	L299	V300	V301	D303	A304	C305	K306	A307	H308	T309	K310	A311	S312	F314	C315	F316	R317	V318	S319	K320	E321	K322	L323	THR	ALA	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	G335	P336	R337	E338	I339	K340	G341	G342	E343	S344	I339	K340	P341	L280	R281	D282	T287	G288	R289	Y290	L291	L222	Q221	L223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	D240	Q241	R242	V245	Y246	Y247	E248	G249	G250	A251	V252	T253	T254	H255	A256	R257	S258	R261	L262	E263	P264	W200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	L222	F223	H224	G225	L299	V300	V301	D303	A304	C305	K306	A307	H308	T309	K310	A311	S312	F314	C315	F316	R317	V318	S319	K320	E321	K322	L323	THR	ALA	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	G335	P336	R337	E338	I339	K340	G341	G342	E343	S344	I339	K340	P341	L280	R281	D282	T287	G288	R289	Y290	L291	L222	Q221	L223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	D240	Q241	R242	V245	Y246	Y247	E248	G249	G250	A251	V252	T253	T254	H255	A256	R257	S258	R261	L262	E263	P264	W200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	L222	F223	H224	G225	L299	V300	V301	D303	A304	C305	K306	A307	H308	T309	K310	A311	S312	F314	C315	F316	R317	V318	S319	K320	E321	K322	L323	THR	ALA	ALA	PRO	K328	R329	D330	V331	E332	G333	M334	G335	P336	R337	E338	I339	K340	G341	G342	E343	S344	I339	K340	P341	L280	R281	D282	T287	G288	R289	Y290	L291	L222	Q221	L223	H224	G225	HIS	MET	ASP	E229	T233	S234	A235	A236	D237	S238	D239	D240	Q241	R242	V245	Y246	Y247	E248	G249	G250	A251	V252	T253	T254	H255	A256	R257	S258	R261	L262	E263	P264	W200	N201	N202	N203	P204	I205	C206	S207	C208	C209	E210	E211	G212	Y213	V214	T215	G216	G217	H218	R221	L222	F223	H224	G225	L299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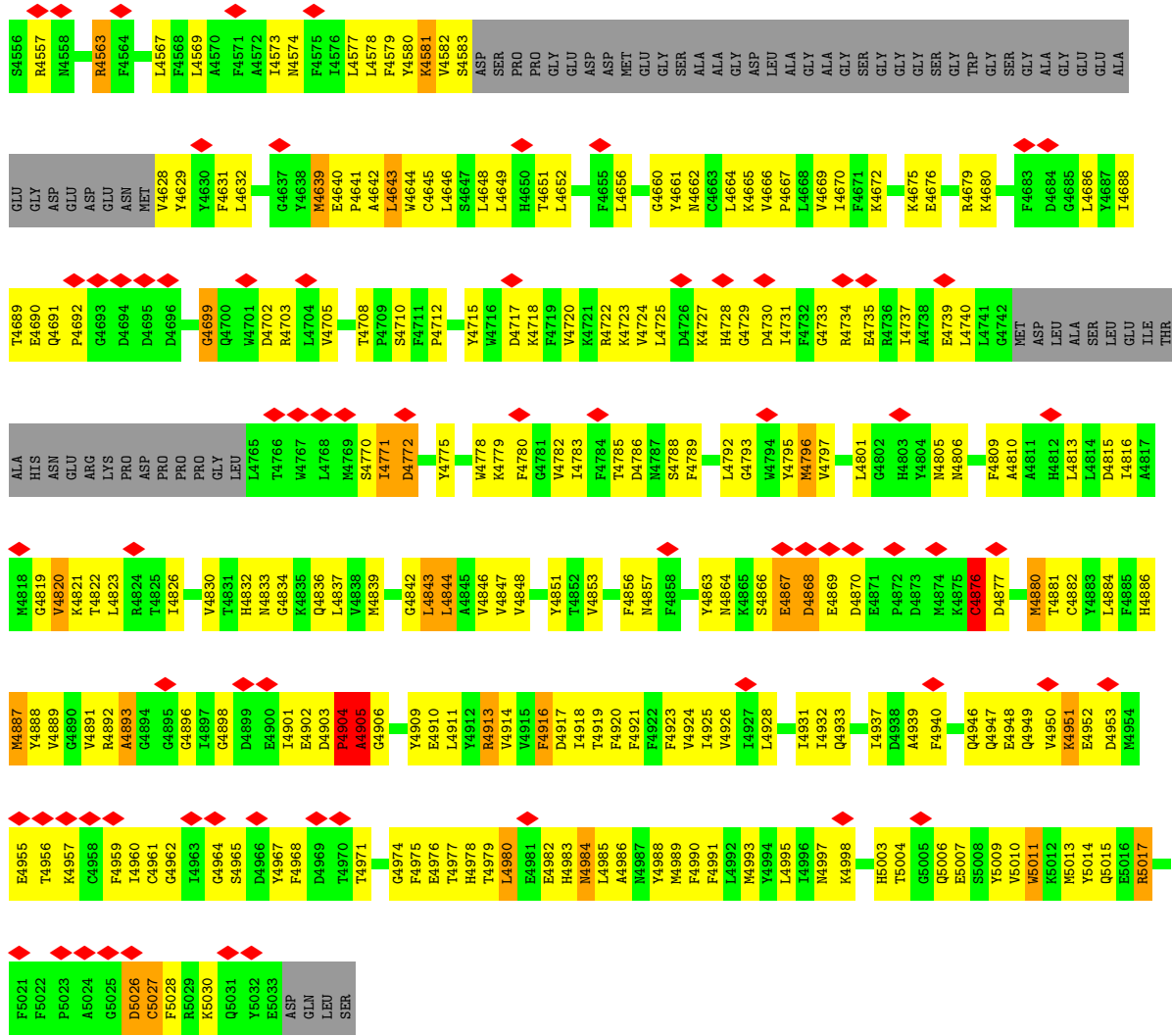




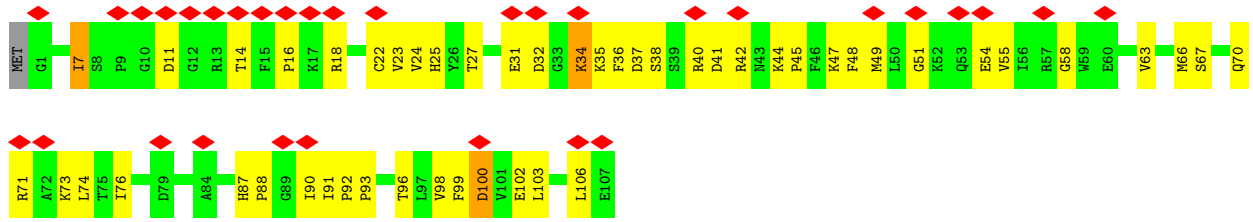




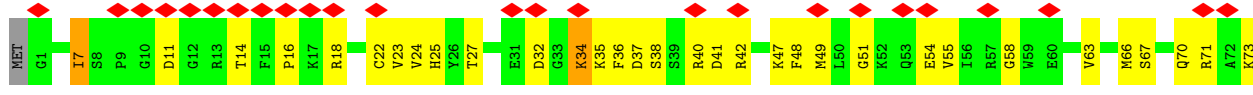




● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

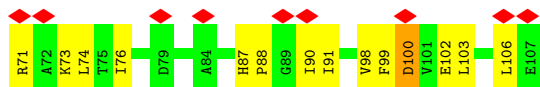


● Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

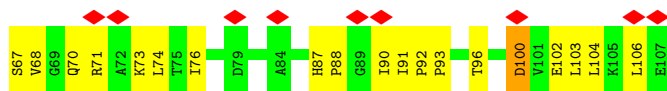
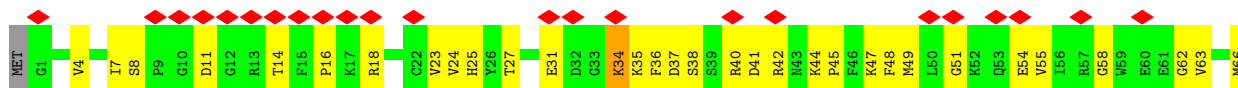




- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	30000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.243	Depositor
Minimum map value	-0.085	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.012	Depositor
Recommended contour level	0.075	Depositor
Map size (Å)	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

## 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:  
ZN

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z  >5	RMSZ	# Z  >5
1	A	1.21	41/27312 (0.2%)	1.12	151/37004 (0.4%)
1	C	1.20	39/27312 (0.1%)	1.12	154/37004 (0.4%)
1	E	1.21	35/27312 (0.1%)	1.12	158/37004 (0.4%)
1	G	1.21	38/27312 (0.1%)	1.11	145/37004 (0.4%)
2	B	0.91	1/851 (0.1%)	0.93	2/1146 (0.2%)
2	D	0.91	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	F	0.91	1/851 (0.1%)	0.92	2/1146 (0.2%)
2	H	0.93	1/851 (0.1%)	0.90	0/1146
All	All	1.20	157/112652 (0.1%)	1.11	614/152600 (0.4%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	36
1	C	0	35
1	E	0	36
1	G	0	34
All	All	0	141

All (157) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	80	GLU	CG-CD	11.12	1.68	1.51
1	G	3661	TRP	CB-CG	10.06	1.68	1.50
1	A	3661	TRP	CB-CG	9.81	1.68	1.50
1	G	1976	ARG	NE-CZ	9.78	1.45	1.33
1	A	741	GLU	CG-CD	9.74	1.66	1.51
1	E	5011	TRP	CB-CG	-9.37	1.33	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	5011	TRP	CB-CG	-9.29	1.33	1.50
1	C	5011	TRP	CB-CG	-9.22	1.33	1.50
1	E	3661	TRP	CB-CG	9.18	1.66	1.50
1	C	3661	TRP	CB-CG	9.15	1.66	1.50
1	G	1976	ARG	CD-NE	9.10	1.61	1.46
1	A	2926	LEU	CA-C	-8.45	1.30	1.52
1	G	80	GLU	CD-OE1	8.35	1.34	1.25
1	E	80	GLU	CG-CD	8.15	1.64	1.51
1	E	1976	ARG	NE-CZ	7.84	1.43	1.33
1	A	1976	ARG	CD-NE	7.76	1.59	1.46
1	G	4050	GLU	CD-OE2	7.70	1.34	1.25
1	C	1976	ARG	CD-NE	7.52	1.59	1.46
1	C	80	GLU	CG-CD	7.51	1.63	1.51
1	E	3670	GLU	CD-OE1	-7.43	1.17	1.25
1	C	3670	GLU	CD-OE1	-7.37	1.17	1.25
1	A	3670	GLU	CD-OE1	-7.35	1.17	1.25
1	G	5011	TRP	CB-CG	-7.22	1.37	1.50
1	C	1976	ARG	NE-CZ	7.17	1.42	1.33
1	G	741	GLU	CG-CD	7.17	1.62	1.51
1	G	3670	GLU	CD-OE1	-6.91	1.18	1.25
1	C	741	GLU	CG-CD	6.89	1.62	1.51
1	G	4215	ARG	CD-NE	6.87	1.58	1.46
1	C	1784	ALA	N-CA	6.79	1.59	1.46
1	E	4644	TRP	CB-CG	6.71	1.62	1.50
1	A	4644	TRP	CB-CG	6.66	1.62	1.50
1	C	4644	TRP	CB-CG	6.66	1.62	1.50
1	A	1784	ALA	N-CA	6.59	1.59	1.46
1	A	1867	GLU	CD-OE1	-6.54	1.18	1.25
1	E	80	GLU	CD-OE1	6.54	1.32	1.25
1	A	1976	ARG	NE-CZ	6.53	1.41	1.33
1	E	741	GLU	CG-CD	6.52	1.61	1.51
1	A	80	GLU	CG-CD	6.46	1.61	1.51
1	E	1867	GLU	CD-OE1	-6.44	1.18	1.25
1	C	1867	GLU	CD-OE1	-6.38	1.18	1.25
1	G	1867	GLU	CD-OE1	-6.29	1.18	1.25
1	G	3299	GLY	N-CA	6.27	1.55	1.46
1	G	4909	TYR	CB-CG	6.26	1.61	1.51
1	A	1973	GLN	CG-CD	6.22	1.65	1.51
1	G	1973	GLN	CG-CD	6.20	1.65	1.51
1	G	4644	TRP	CB-CG	6.18	1.61	1.50
1	A	700	GLU	CD-OE1	6.13	1.32	1.25
1	A	4822	THR	CB-CG2	-6.11	1.32	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4822	THR	CB-CG2	-6.11	1.32	1.52
1	E	4909	TYR	CB-CG	6.08	1.60	1.51
1	E	4967	TYR	CB-CG	-6.07	1.42	1.51
1	A	4967	TYR	CB-CG	-6.03	1.42	1.51
1	G	4967	TYR	CB-CG	-6.03	1.42	1.51
1	C	4967	TYR	CB-CG	-6.00	1.42	1.51
1	A	4191	GLU	CG-CD	5.99	1.60	1.51
1	E	4191	GLU	CG-CD	5.96	1.60	1.51
1	C	700	GLU	CD-OE1	5.96	1.32	1.25
1	C	1973	GLN	CG-CD	5.95	1.64	1.51
1	C	4909	TYR	CB-CG	5.94	1.60	1.51
1	G	700	GLU	CD-OE1	5.92	1.32	1.25
1	E	1973	GLN	CG-CD	5.89	1.64	1.51
1	A	1933	GLU	CG-CD	5.88	1.60	1.51
2	H	100	ASP	CB-CG	5.87	1.64	1.51
1	G	623	GLU	CG-CD	5.86	1.60	1.51
1	E	700	GLU	CD-OE1	5.84	1.32	1.25
1	E	1784	ALA	N-CA	5.83	1.58	1.46
1	G	4699	GLY	N-CA	-5.83	1.37	1.46
1	E	4699	GLY	N-CA	-5.81	1.37	1.46
2	F	100	ASP	CB-CG	5.79	1.64	1.51
2	D	100	ASP	CB-CG	5.78	1.63	1.51
2	B	100	ASP	CB-CG	5.77	1.63	1.51
1	G	3665	GLU	CG-CD	5.76	1.60	1.51
1	C	1933	GLU	CG-CD	5.75	1.60	1.51
1	C	4191	GLU	CG-CD	5.73	1.60	1.51
1	G	4932	ILE	N-CA	-5.72	1.34	1.46
1	A	3299	GLY	N-CA	5.70	1.54	1.46
1	C	3299	GLY	N-CA	5.68	1.54	1.46
1	G	3916	ILE	N-CA	-5.68	1.34	1.46
1	A	4699	GLY	N-CA	-5.68	1.37	1.46
1	A	4909	TYR	CB-CG	5.67	1.60	1.51
1	C	4699	GLY	N-CA	-5.66	1.37	1.46
1	E	3916	ILE	N-CA	-5.63	1.35	1.46
1	E	1933	GLU	CG-CD	5.62	1.60	1.51
1	C	3916	ILE	N-CA	-5.61	1.35	1.46
1	E	3299	GLY	N-CA	5.61	1.54	1.46
1	E	1976	ARG	CD-NE	5.59	1.55	1.46
1	A	3665	GLU	CG-CD	5.59	1.60	1.51
1	A	3916	ILE	N-CA	-5.58	1.35	1.46
1	E	4876	CYS	CB-SG	-5.57	1.72	1.81
1	G	4191	GLU	CG-CD	5.56	1.60	1.51

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	1933	GLU	CG-CD	5.52	1.60	1.51
1	A	4545	GLU	CG-CD	5.50	1.60	1.51
1	C	3665	GLU	CG-CD	5.50	1.60	1.51
1	G	2577	ILE	N-CA	5.50	1.57	1.46
1	A	2577	ILE	N-CA	5.50	1.57	1.46
1	C	2577	ILE	N-CA	5.49	1.57	1.46
1	A	741	GLU	CD-OE1	5.47	1.31	1.25
1	G	1670	TYR	CG-CD1	-5.47	1.32	1.39
1	E	3665	GLU	CG-CD	5.46	1.60	1.51
1	A	4876	CYS	CB-SG	-5.43	1.73	1.81
1	A	4962	GLY	N-CA	-5.42	1.38	1.46
1	E	2577	ILE	N-CA	5.42	1.57	1.46
1	C	4876	CYS	CB-SG	-5.41	1.73	1.81
1	C	4962	GLY	N-CA	-5.39	1.38	1.46
1	E	4962	GLY	N-CA	-5.39	1.38	1.46
1	C	1670	TYR	CG-CD1	-5.38	1.32	1.39
1	C	2205	GLU	CG-CD	5.38	1.60	1.51
1	G	714	TYR	CG-CD2	5.28	1.46	1.39
1	C	714	TYR	CG-CD2	5.27	1.46	1.39
1	E	4215	ARG	CD-NE	5.26	1.55	1.46
1	A	714	TYR	CG-CD2	5.24	1.46	1.39
1	E	1670	TYR	CG-CD1	-5.23	1.32	1.39
1	E	2855	TYR	CG-CD1	5.21	1.46	1.39
1	G	3164	SER	N-CA	5.20	1.56	1.46
1	A	1670	TYR	CG-CD1	-5.19	1.32	1.39
1	E	1728	ARG	CZ-NH1	5.19	1.39	1.33
1	A	1836	PHE	CB-CG	-5.19	1.42	1.51
1	E	714	TYR	CG-CD2	5.18	1.45	1.39
1	G	1836	PHE	CB-CG	-5.18	1.42	1.51
1	A	2855	TYR	CG-CD1	5.18	1.45	1.39
1	A	529	LEU	CA-CB	-5.18	1.41	1.53
1	C	1836	PHE	CB-CG	-5.18	1.42	1.51
1	E	1836	PHE	CB-CG	-5.17	1.42	1.51
1	G	3525	CYS	CA-CB	-5.17	1.42	1.53
1	E	529	LEU	CA-CB	-5.16	1.41	1.53
1	G	4554	TYR	CB-CG	5.15	1.59	1.51
1	C	117	TYR	CE1-CZ	-5.14	1.31	1.38
1	A	1728	ARG	CZ-NH1	5.14	1.39	1.33
1	A	4888	TYR	CE2-CZ	-5.14	1.31	1.38
1	G	2855	TYR	CG-CD1	5.14	1.45	1.39
1	C	529	LEU	CA-CB	-5.14	1.42	1.53
1	G	4863	TYR	CG-CD2	-5.11	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4050	GLU	CD-OE1	5.11	1.31	1.25
1	C	5011	TRP	CG-CD1	-5.11	1.29	1.36
1	A	3525	CYS	CA-CB	-5.11	1.42	1.53
1	C	4976	GLU	N-CA	5.10	1.56	1.46
1	G	529	LEU	CA-CB	-5.10	1.42	1.53
1	A	2094	LEU	N-CA	5.09	1.56	1.46
1	A	4554	TYR	CB-CG	5.09	1.59	1.51
1	C	2855	TYR	CG-CD1	5.09	1.45	1.39
1	A	5011	TRP	CG-CD1	-5.08	1.29	1.36
1	A	4976	GLU	N-CA	5.07	1.56	1.46
1	E	3525	CYS	CA-CB	-5.07	1.42	1.53
1	E	2094	LEU	N-CA	5.07	1.56	1.46
1	G	80	GLU	CB-CG	5.07	1.61	1.52
1	E	4554	TYR	CB-CG	5.06	1.59	1.51
1	G	4876	CYS	CB-SG	-5.05	1.73	1.81
1	C	1728	ARG	CZ-NH1	5.04	1.39	1.33
1	A	4575	PHE	CB-CG	5.04	1.59	1.51
1	C	4554	TYR	CB-CG	5.04	1.59	1.51
1	C	4215	ARG	CD-NE	5.04	1.55	1.46
1	C	4575	PHE	CB-CG	5.04	1.59	1.51
1	E	2381	GLU	CD-OE2	-5.02	1.20	1.25
1	C	3525	CYS	CA-CB	-5.01	1.43	1.53
1	G	4962	GLY	N-CA	-5.01	1.38	1.46
1	C	1976	ARG	CZ-NH1	5.00	1.39	1.33
1	A	4932	ILE	N-CA	-5.00	1.36	1.46

All (614) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	80	GLU	OE1-CD-OE2	-10.92	110.20	123.30
1	A	1212	ARG	NE-CZ-NH1	10.39	125.49	120.30
1	G	4796	MET	CG-SD-CE	10.33	116.73	100.20
1	G	1976	ARG	CD-NE-CZ	10.23	137.93	123.60
1	C	1212	ARG	NE-CZ-NH1	10.17	125.39	120.30
1	G	1212	ARG	NE-CZ-NH1	10.00	125.30	120.30
1	E	1212	ARG	NE-CZ-NH1	9.74	125.17	120.30
1	A	4159	ARG	NE-CZ-NH2	-9.68	115.46	120.30
1	C	4980	LEU	CB-CG-CD2	-9.59	94.70	111.00
1	A	4980	LEU	CB-CG-CD2	-9.55	94.76	111.00
1	E	4980	LEU	CB-CG-CD2	-9.53	94.80	111.00
1	C	3303	PRO	N-CA-CB	9.52	114.72	103.30
1	E	3303	PRO	N-CA-CB	9.46	114.65	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1976	ARG	CD-NE-CZ	9.46	136.84	123.60
1	A	3303	PRO	N-CA-CB	9.35	114.52	103.30
1	C	4159	ARG	NE-CZ-NH2	-9.31	115.64	120.30
1	A	2640	PRO	N-CA-CB	9.29	114.45	103.30
1	C	2640	PRO	N-CA-CB	9.29	114.45	103.30
1	E	2640	PRO	N-CA-CB	9.28	114.44	103.30
1	G	2640	PRO	N-CA-CB	9.27	114.42	103.30
1	A	4909	TYR	CB-CG-CD1	9.25	126.55	121.00
1	G	4112	LEU	CB-CG-CD2	-9.20	95.35	111.00
1	G	4159	ARG	NE-CZ-NH2	-9.20	115.70	120.30
1	E	2497	ASP	CB-CG-OD1	9.13	126.52	118.30
1	G	1076	ARG	NE-CZ-NH1	9.04	124.82	120.30
1	E	4159	ARG	NE-CZ-NH2	-8.99	115.81	120.30
1	A	2567	PRO	N-CA-CB	8.98	114.08	103.30
1	G	4909	TYR	CB-CG-CD1	8.98	126.39	121.00
1	C	4909	TYR	CB-CG-CD1	8.96	126.38	121.00
1	E	2567	PRO	N-CA-CB	8.92	114.00	103.30
1	A	1976	ARG	NE-CZ-NH2	8.92	124.76	120.30
1	E	4909	TYR	CB-CG-CD1	8.85	126.31	121.00
1	G	2497	ASP	CB-CG-OD1	8.85	126.27	118.30
1	C	2497	ASP	CB-CG-OD1	8.81	126.23	118.30
1	E	1076	ARG	NE-CZ-NH1	8.79	124.69	120.30
1	A	1076	ARG	NE-CZ-NH1	8.76	124.68	120.30
1	G	2567	PRO	N-CA-CB	8.75	113.80	103.30
1	C	1076	ARG	NE-CZ-NH1	8.74	124.67	120.30
1	C	3297	PRO	N-CA-CB	8.72	113.76	103.30
1	A	2497	ASP	CB-CG-OD1	8.68	126.11	118.30
1	E	3297	PRO	N-CA-CB	8.65	113.68	103.30
1	C	2567	PRO	N-CA-CB	8.62	113.65	103.30
1	A	3297	PRO	N-CA-CB	8.60	113.61	103.30
1	C	2234	ARG	NE-CZ-NH2	8.52	124.56	120.30
1	E	2234	ARG	NE-CZ-NH2	8.41	124.50	120.30
1	E	4880	MET	CG-SD-CE	8.36	113.58	100.20
1	A	2234	ARG	NE-CZ-NH2	8.34	124.47	120.30
1	G	3303	PRO	N-CA-CB	8.34	113.31	103.30
1	E	3980	LEU	CB-CG-CD1	-8.31	96.88	111.00
1	G	3297	PRO	N-CA-CB	8.24	113.19	103.30
1	G	2234	ARG	NE-CZ-NH2	8.24	124.42	120.30
1	A	3843	ASP	CB-CG-OD1	8.10	125.59	118.30
1	G	66	CYS	CA-CB-SG	8.08	128.55	114.00
1	C	3980	LEU	CB-CG-CD1	-8.07	97.29	111.00
1	A	3980	LEU	CB-CG-CD1	-8.06	97.29	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1976	ARG	CD-NE-CZ	8.06	134.89	123.60
1	C	66	CYS	CA-CB-SG	8.03	128.45	114.00
1	E	3843	ASP	CB-CG-OD1	8.01	125.51	118.30
1	E	386	ASP	CB-CG-OD2	7.99	125.49	118.30
1	A	66	CYS	CA-CB-SG	7.99	128.38	114.00
1	E	4564	PHE	CB-CG-CD2	7.96	126.37	120.80
1	A	4913	ARG	NE-CZ-NH2	-7.95	116.32	120.30
1	C	386	ASP	CB-CG-OD2	7.93	125.44	118.30
1	G	3208	PRO	N-CA-CB	7.91	112.79	103.30
1	E	66	CYS	CA-CB-SG	7.90	128.22	114.00
1	A	386	ASP	CB-CG-OD2	7.84	125.36	118.30
1	G	386	ASP	CB-CG-OD2	7.83	125.35	118.30
1	C	4880	MET	CG-SD-CE	7.82	112.70	100.20
1	C	3843	ASP	CB-CG-OD1	7.76	125.28	118.30
1	G	4913	ARG	NE-CZ-NH2	-7.74	116.43	120.30
1	A	1929	MET	CB-CG-SD	7.69	135.46	112.40
1	C	1929	MET	CB-CG-SD	7.68	135.45	112.40
1	C	1976	ARG	NE-CZ-NH2	7.67	124.14	120.30
1	G	115	ARG	NE-CZ-NH2	-7.66	116.47	120.30
1	G	3843	ASP	CB-CG-OD1	7.64	125.18	118.30
1	A	3208	PRO	N-CA-CB	7.62	112.44	103.30
1	E	3208	PRO	N-CA-CB	7.59	112.41	103.30
1	C	2131	LEU	CB-CG-CD1	7.58	123.88	111.00
1	A	3021	PRO	N-CA-CB	7.56	112.37	103.30
1	C	3208	PRO	N-CA-CB	7.53	112.33	103.30
1	E	3021	PRO	N-CA-CB	7.53	112.33	103.30
1	G	1929	MET	CB-CG-SD	7.52	134.95	112.40
1	G	4643	LEU	CB-CG-CD1	-7.50	98.25	111.00
1	E	1929	MET	CB-CG-SD	7.50	134.89	112.40
1	C	3021	PRO	N-CA-CB	7.48	112.28	103.30
1	G	3021	PRO	N-CA-CB	7.47	112.27	103.30
1	G	4039	MET	CB-CG-SD	7.46	134.79	112.40
1	E	4913	ARG	NE-CZ-NH2	-7.46	116.57	120.30
1	C	1728	ARG	NE-CZ-NH2	-7.45	116.58	120.30
1	A	4202	ARG	NE-CZ-NH2	7.42	124.01	120.30
1	A	4790	LEU	CB-CG-CD2	7.38	123.55	111.00
1	A	2131	LEU	CB-CG-CD1	7.33	123.47	111.00
1	G	2458	ARG	NE-CZ-NH2	-7.33	116.64	120.30
1	A	115	ARG	NE-CZ-NH2	-7.29	116.66	120.30
1	C	4564	PHE	CB-CG-CD2	7.28	125.90	120.80
1	G	3729	MET	CG-SD-CE	7.27	111.83	100.20
1	E	2131	LEU	CB-CG-CD1	7.27	123.36	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4564	PHE	CB-CG-CD2	7.26	125.89	120.80
1	G	3301	PRO	N-CA-CB	7.26	112.02	103.30
1	A	2458	ARG	NE-CZ-NH2	-7.24	116.68	120.30
1	C	4790	LEU	CB-CG-CD2	7.23	123.30	111.00
1	A	2926	LEU	CA-C-N	-7.23	101.30	117.20
1	E	115	ARG	NE-CZ-NH2	-7.22	116.69	120.30
1	E	1855	GLY	N-CA-C	-7.21	95.08	113.10
1	C	1855	GLY	N-CA-C	-7.19	95.13	113.10
1	G	2131	LEU	CB-CG-CD1	7.19	123.22	111.00
1	C	1698	LEU	CB-CG-CD2	-7.18	98.79	111.00
1	A	5017	ARG	NE-CZ-NH2	-7.18	116.71	120.30
1	C	3729	MET	CG-SD-CE	7.18	111.68	100.20
1	G	1855	GLY	N-CA-C	-7.17	95.17	113.10
1	C	3085	PRO	N-CA-CB	7.17	111.90	103.30
1	G	2914	LYS	CD-CE-NZ	7.16	128.17	111.70
1	C	4913	ARG	NE-CZ-NH2	-7.16	116.72	120.30
1	E	2458	ARG	NE-CZ-NH2	-7.16	116.72	120.30
1	E	3729	MET	CG-SD-CE	7.15	111.64	100.20
1	E	5017	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	E	1698	LEU	CB-CG-CD2	-7.12	98.90	111.00
1	A	1855	GLY	N-CA-C	-7.11	95.33	113.10
1	G	1698	LEU	CB-CG-CD2	-7.08	98.96	111.00
1	A	1698	LEU	CB-CG-CD2	-7.07	98.98	111.00
1	A	3085	PRO	N-CA-CB	7.07	111.78	103.30
1	E	1728	ARG	NE-CZ-NH2	-7.06	116.77	120.30
1	C	4202	ARG	NE-CZ-NH2	7.05	123.83	120.30
1	E	4790	LEU	CB-CG-CD2	7.05	122.99	111.00
1	A	1728	ARG	NE-CZ-NH2	-7.03	116.78	120.30
1	G	2769	ASP	CB-CG-OD2	7.03	124.63	118.30
1	E	3085	PRO	N-CA-CB	7.03	111.73	103.30
1	G	3289	PRO	N-CA-CB	7.03	111.73	103.30
1	E	4202	ARG	NE-CZ-NH2	7.03	123.81	120.30
1	G	2711	PRO	N-CA-CB	7.00	111.69	103.30
1	C	2458	ARG	NE-CZ-NH2	-6.99	116.80	120.30
1	G	3085	PRO	N-CA-CB	6.95	111.64	103.30
1	A	1976	ARG	CD-NE-CZ	6.95	133.32	123.60
1	A	4880	MET	CG-SD-CE	6.93	111.28	100.20
1	A	2711	PRO	N-CA-CB	6.92	111.61	103.30
1	A	3729	MET	CG-SD-CE	6.91	111.26	100.20
1	A	5017	ARG	NE-CZ-NH1	6.91	123.75	120.30
1	E	2711	PRO	N-CA-CB	6.89	111.57	103.30
1	A	1867	GLU	OE1-CD-OE2	-6.89	115.03	123.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	5017	ARG	NE-CZ-NH2	-6.88	116.86	120.30
1	C	2711	PRO	N-CA-CB	6.86	111.53	103.30
1	E	80	GLU	OE1-CD-OE2	-6.85	115.08	123.30
1	E	4911	LEU	CB-CG-CD2	6.84	122.63	111.00
1	C	180	LEU	CB-CG-CD1	6.84	122.62	111.00
1	G	3427	PRO	N-CA-CB	6.82	111.49	103.30
1	G	2429	LEU	CB-CG-CD1	6.82	122.60	111.00
1	C	1867	GLU	OE1-CD-OE2	-6.82	115.11	123.30
1	G	1728	ARG	NE-CZ-NH2	-6.82	116.89	120.30
1	C	5017	ARG	NE-CZ-NH1	6.81	123.71	120.30
1	C	115	ARG	NE-CZ-NH2	-6.79	116.90	120.30
1	E	5017	ARG	NE-CZ-NH1	6.79	123.70	120.30
1	G	1974	ARG	NE-CZ-NH2	6.79	123.70	120.30
1	G	5026	ASP	CB-CG-OD1	6.79	124.41	118.30
1	E	1867	GLU	OE1-CD-OE2	-6.76	115.19	123.30
1	G	3188	PRO	N-CA-CB	6.75	111.40	103.30
1	E	4207	MET	CB-CG-SD	6.75	132.63	112.40
1	A	1942	LEU	CB-CG-CD2	-6.74	99.54	111.00
1	G	180	LEU	CB-CG-CD1	6.74	122.45	111.00
1	A	4839	MET	CG-SD-CE	6.72	110.95	100.20
1	C	3289	PRO	N-CA-CB	6.72	111.36	103.30
1	G	3980	LEU	CB-CG-CD1	-6.71	99.59	111.00
1	E	3289	PRO	N-CA-CB	6.71	111.35	103.30
1	A	180	LEU	CB-CG-CD1	6.70	122.39	111.00
1	E	180	LEU	CB-CG-CD1	6.69	122.38	111.00
1	A	3289	PRO	N-CA-CB	6.67	111.31	103.30
1	G	1283	LEU	CB-CG-CD2	6.67	122.33	111.00
1	G	2701	PRO	N-CA-CB	6.67	111.30	103.30
1	C	1283	LEU	CB-CG-CD2	6.66	122.32	111.00
1	C	2701	PRO	N-CA-CB	6.66	111.29	103.30
1	C	3301	PRO	N-CA-CB	6.65	111.28	103.30
1	A	3275	PRO	N-CA-CB	6.64	111.26	103.30
1	C	240	ASP	CB-CG-OD2	6.64	124.27	118.30
1	G	620	LEU	CB-CG-CD1	-6.64	99.72	111.00
1	G	3410	PRO	N-CA-CB	6.63	111.26	103.30
1	A	2701	PRO	N-CA-CB	6.63	111.25	103.30
1	E	3301	PRO	N-CA-CB	6.62	111.25	103.30
1	A	1283	LEU	CB-CG-CD2	6.62	122.25	111.00
1	E	2701	PRO	N-CA-CB	6.62	111.24	103.30
1	C	2769	ASP	CB-CG-OD2	6.61	124.25	118.30
1	E	3275	PRO	N-CA-CB	6.60	111.22	103.30
1	A	3301	PRO	N-CA-CB	6.60	111.22	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	1465	ASP	N-CA-CB	-6.60	98.72	110.60
1	E	1283	LEU	CB-CG-CD2	6.59	122.21	111.00
1	A	1465	ASP	N-CA-CB	-6.59	98.75	110.60
1	G	2234	ARG	NE-CZ-NH1	-6.59	117.01	120.30
1	A	2518	LEU	CA-CB-CG	6.58	130.43	115.30
1	C	2518	LEU	CA-CB-CG	6.58	130.43	115.30
1	C	3275	PRO	N-CA-CB	6.57	111.19	103.30
1	E	1942	LEU	CB-CG-CD2	-6.57	99.84	111.00
1	E	2518	LEU	CA-CB-CG	6.57	130.41	115.30
1	C	3410	PRO	N-CA-CB	6.57	111.18	103.30
1	C	1942	LEU	CB-CG-CD2	-6.55	99.86	111.00
1	C	1465	ASP	N-CA-CB	-6.55	98.82	110.60
1	G	1976	ARG	NE-CZ-NH1	6.54	123.57	120.30
1	E	1465	ASP	N-CA-CB	-6.54	98.83	110.60
1	G	240	ASP	CB-CG-OD2	6.54	124.18	118.30
1	A	3188	PRO	N-CA-CB	6.53	111.14	103.30
1	A	3410	PRO	N-CA-CB	6.52	111.12	103.30
1	E	3410	PRO	N-CA-CB	6.52	111.12	103.30
1	E	2769	ASP	CB-CG-OD2	6.51	124.16	118.30
1	A	240	ASP	CB-CG-OD2	6.51	124.16	118.30
1	E	1211	LEU	CA-CB-CG	6.49	130.23	115.30
1	G	3527	PRO	N-CA-CB	6.49	111.08	103.30
1	E	3188	PRO	N-CA-CB	6.48	111.08	103.30
1	A	488	LEU	CB-CG-CD2	6.47	122.01	111.00
1	A	2454	ARG	NE-CZ-NH2	-6.47	117.06	120.30
1	E	240	ASP	CB-CG-OD2	6.47	124.13	118.30
1	G	2518	LEU	CA-CB-CG	6.47	130.19	115.30
1	G	4911	LEU	CB-CG-CD2	6.46	121.99	111.00
1	G	4207	MET	CB-CG-SD	6.46	131.78	112.40
1	G	3886	ARG	NE-CZ-NH1	6.45	123.53	120.30
1	A	4207	MET	CB-CG-SD	6.44	131.73	112.40
1	C	3188	PRO	N-CA-CB	6.43	111.01	103.30
1	E	3567	PRO	N-CA-CB	6.41	110.99	103.30
1	C	3567	PRO	N-CA-CB	6.41	110.99	103.30
1	A	3567	PRO	N-CA-CB	6.40	110.98	103.30
1	C	1211	LEU	CA-CB-CG	6.40	130.02	115.30
1	E	4202	ARG	NE-CZ-NH1	-6.40	117.10	120.30
1	A	3427	PRO	N-CA-CB	6.40	110.97	103.30
1	E	2234	ARG	NE-CZ-NH1	-6.39	117.11	120.30
1	C	2234	ARG	NE-CZ-NH1	-6.39	117.11	120.30
1	G	1942	LEU	CB-CG-CD2	-6.38	100.16	111.00
1	E	620	LEU	CB-CG-CD1	-6.38	100.16	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2769	ASP	CB-CG-OD2	6.37	124.03	118.30
1	G	1211	LEU	CA-CB-CG	6.37	129.96	115.30
1	G	474	ARG	NE-CZ-NH1	6.37	123.48	120.30
1	C	80	GLU	OE1-CD-OE2	-6.37	115.66	123.30
1	E	488	LEU	CB-CG-CD2	6.36	121.82	111.00
1	G	4843	LEU	CB-CG-CD2	-6.36	100.19	111.00
1	E	3427	PRO	N-CA-CB	6.35	110.92	103.30
1	C	620	LEU	CB-CG-CD1	-6.35	100.20	111.00
1	A	2234	ARG	NE-CZ-NH1	-6.34	117.13	120.30
1	G	1867	GLU	OE1-CD-OE2	-6.34	115.69	123.30
1	A	4951	LYS	CD-CE-NZ	6.34	126.28	111.70
1	E	1976	ARG	NE-CZ-NH1	6.33	123.46	120.30
1	A	4159	ARG	NE-CZ-NH1	6.32	123.46	120.30
1	G	3360	PRO	N-CA-CB	6.32	110.88	103.30
1	A	4112	LEU	CB-CG-CD2	-6.32	100.26	111.00
1	C	3427	PRO	N-CA-CB	6.32	110.88	103.30
1	A	2429	LEU	CB-CG-CD1	6.31	121.72	111.00
1	A	474	ARG	NE-CZ-NH1	6.31	123.45	120.30
1	C	4207	MET	CB-CG-SD	6.30	131.31	112.40
1	E	4112	LEU	CB-CG-CD2	-6.30	100.28	111.00
1	G	5017	ARG	NE-CZ-NH1	6.30	123.45	120.30
1	C	488	LEU	CB-CG-CD2	6.29	121.69	111.00
1	E	3844	LEU	CB-CG-CD1	-6.29	100.31	111.00
1	G	3275	PRO	N-CA-CB	6.29	110.84	103.30
1	G	488	LEU	CB-CG-CD2	6.28	121.68	111.00
1	C	4911	LEU	CB-CG-CD2	6.28	121.68	111.00
1	E	971	ASP	CB-CG-OD2	6.28	123.95	118.30
1	C	4159	ARG	NE-CZ-NH1	6.27	123.43	120.30
1	C	4112	LEU	CB-CG-CD2	-6.26	100.35	111.00
1	E	4639	MET	CG-SD-CE	6.25	110.20	100.20
1	G	4639	MET	CG-SD-CE	6.25	110.20	100.20
1	G	3567	PRO	N-CA-CB	6.24	110.78	103.30
1	G	2454	ARG	NE-CZ-NH2	-6.23	117.19	120.30
1	A	1211	LEU	CA-CB-CG	6.21	129.58	115.30
1	A	620	LEU	CB-CG-CD1	-6.20	100.45	111.00
1	G	4887	MET	CG-SD-CE	6.20	110.12	100.20
1	C	4639	MET	CG-SD-CE	6.16	110.06	100.20
1	G	3886	ARG	NE-CZ-NH2	-6.15	117.22	120.30
1	G	4911	LEU	CA-CB-CG	6.15	129.44	115.30
1	A	4887	MET	CA-CB-CG	6.14	123.75	113.30
1	C	3844	LEU	CB-CG-CD1	-6.14	100.55	111.00
1	E	971	ASP	N-CA-C	6.14	127.58	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	474	ARG	NE-CZ-NH1	6.13	123.37	120.30
1	E	5026	ASP	CB-CG-OD1	6.13	123.82	118.30
1	E	4159	ARG	NE-CZ-NH1	6.13	123.36	120.30
1	C	4191	GLU	OE1-CD-OE2	-6.12	115.95	123.30
1	C	474	ARG	NE-CZ-NH1	6.12	123.36	120.30
1	A	291	LEU	CB-CG-CD1	-6.11	100.61	111.00
1	C	3282	PRO	N-CA-CB	6.11	110.63	103.30
1	A	4639	MET	CG-SD-CE	6.11	109.97	100.20
1	C	4887	MET	CA-CB-CG	6.10	123.68	113.30
1	A	1974	ARG	NE-CZ-NH2	6.09	123.35	120.30
1	G	3282	PRO	N-CA-CB	6.08	110.60	103.30
1	C	2518	LEU	CB-CG-CD2	6.08	121.33	111.00
1	G	291	LEU	CB-CG-CD1	-6.07	100.68	111.00
1	C	472	ARG	NE-CZ-NH2	-6.06	117.27	120.30
1	C	1974	ARG	NE-CZ-NH2	6.06	123.33	120.30
1	A	3844	LEU	CB-CG-CD1	-6.05	100.71	111.00
1	E	3282	PRO	N-CA-CB	6.05	110.56	103.30
1	E	1974	ARG	NE-CZ-NH2	6.05	123.33	120.30
1	A	2518	LEU	CB-CG-CD2	6.05	121.28	111.00
1	G	3985	LEU	CB-CG-CD1	-6.05	100.72	111.00
1	C	4202	ARG	NE-CZ-NH1	-6.03	117.28	120.30
1	G	4112	LEU	CB-CG-CD1	6.03	121.24	111.00
1	C	73	LEU	CB-CG-CD2	-6.02	100.76	111.00
1	E	1659	LEU	CB-CG-CD1	6.02	121.24	111.00
1	E	2518	LEU	CB-CG-CD2	6.02	121.24	111.00
1	A	3282	PRO	N-CA-CB	6.02	110.52	103.30
1	E	472	ARG	NE-CZ-NH2	-6.02	117.29	120.30
1	A	4191	GLU	OE1-CD-OE2	-6.01	116.09	123.30
1	C	1659	LEU	CB-CG-CD1	6.00	121.21	111.00
1	E	4191	GLU	OE1-CD-OE2	-6.00	116.10	123.30
1	G	3062	PRO	N-CA-CB	6.00	110.50	103.30
1	G	4844	LEU	CA-CB-CG	6.00	129.09	115.30
1	E	4951	LYS	CD-CE-NZ	5.99	125.48	111.70
1	C	4951	LYS	CD-CE-NZ	5.99	125.47	111.70
1	A	5026	ASP	CB-CG-OD1	5.98	123.68	118.30
1	E	291	LEU	CB-CG-CD1	-5.98	100.84	111.00
1	C	291	LEU	CB-CG-CD1	-5.97	100.85	111.00
1	A	472	ARG	NE-CZ-NH2	-5.97	117.31	120.30
1	A	1659	LEU	CB-CG-CD1	5.97	121.14	111.00
1	A	625	LEU	CB-CG-CD1	-5.96	100.87	111.00
1	G	1659	LEU	CB-CG-CD1	5.96	121.13	111.00
1	G	2518	LEU	CB-CG-CD2	5.96	121.13	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	971	ASP	N-CA-C	5.96	127.08	111.00
1	E	4215	ARG	NE-CZ-NH1	5.95	123.28	120.30
1	C	4911	LEU	CA-CB-CG	5.95	128.99	115.30
1	E	2546	MET	CB-CG-SD	5.93	130.19	112.40
1	G	522	LEU	CA-CB-CG	5.93	128.93	115.30
1	A	4887	MET	CG-SD-CE	5.92	109.68	100.20
1	A	522	LEU	CA-CB-CG	5.92	128.92	115.30
1	G	3844	LEU	CB-CG-CD1	-5.91	100.95	111.00
1	C	522	LEU	CA-CB-CG	5.91	128.89	115.30
1	C	4039	MET	CG-SD-CE	5.90	109.64	100.20
1	G	625	LEU	CB-CG-CD1	-5.90	100.97	111.00
1	G	73	LEU	CB-CG-CD2	-5.90	100.97	111.00
1	A	4916	PHE	CB-CG-CD1	-5.89	116.67	120.80
1	E	522	LEU	CA-CB-CG	5.89	128.85	115.30
1	C	2454	ARG	NE-CZ-NH1	5.89	123.25	120.30
1	C	971	ASP	N-CA-C	5.89	126.89	111.00
1	E	1976	ARG	CG-CD-NE	5.89	124.16	111.80
1	C	5026	ASP	CB-CG-OD1	5.88	123.59	118.30
1	G	3351	PRO	N-CA-CB	5.88	110.36	103.30
1	G	474	ARG	NE-CZ-NH2	-5.87	117.36	120.30
1	A	4844	LEU	CA-CB-CG	5.87	128.80	115.30
1	A	971	ASP	N-CA-C	5.87	126.85	111.00
1	E	73	LEU	CB-CG-CD2	-5.87	101.03	111.00
1	E	3138	PRO	N-CA-CB	5.85	110.32	103.30
1	E	2429	LEU	CB-CG-CD1	5.85	120.95	111.00
1	A	3773	ARG	NE-CZ-NH2	5.85	123.22	120.30
1	C	3138	PRO	N-CA-CB	5.84	110.31	103.30
1	E	2163	ARG	NE-CZ-NH2	-5.84	117.38	120.30
1	E	3758	MET	CG-SD-CE	5.83	109.53	100.20
1	C	4887	MET	CG-SD-CE	5.82	109.52	100.20
1	C	4844	LEU	CA-CB-CG	5.82	128.68	115.30
1	C	3360	PRO	N-CA-CB	5.81	110.28	103.30
1	G	1076	ARG	NE-CZ-NH2	-5.81	117.39	120.30
1	G	2546	MET	CB-CG-SD	5.81	129.84	112.40
1	C	2429	LEU	CB-CG-CD1	5.81	120.88	111.00
1	A	2631	PRO	N-CA-CB	5.80	110.26	103.30
1	C	2631	PRO	N-CA-CB	5.79	110.25	103.30
1	G	1112	ASP	CB-CG-OD1	5.79	123.52	118.30
1	E	4039	MET	CB-CG-SD	5.79	129.76	112.40
1	G	4980	LEU	CB-CG-CD2	-5.79	101.16	111.00
1	A	1212	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	C	2546	MET	CB-CG-SD	5.77	129.72	112.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1112	ASP	CB-CG-OD1	5.77	123.49	118.30
1	E	2454	ARG	NE-CZ-NH1	5.77	123.18	120.30
1	A	3360	PRO	N-CA-CB	5.76	110.21	103.30
1	A	4039	MET	CG-SD-CE	5.76	109.42	100.20
1	E	3360	PRO	N-CA-CB	5.76	110.21	103.30
1	E	4916	PHE	CB-CG-CD1	-5.76	116.77	120.80
1	A	46	LEU	CB-CG-CD1	5.76	120.79	111.00
1	C	3062	PRO	N-CA-CB	5.75	110.20	103.30
1	C	4916	PHE	CB-CG-CD1	-5.75	116.78	120.80
1	G	1212	ARG	NE-CZ-NH2	-5.74	117.43	120.30
1	E	4887	MET	CA-CB-CG	5.73	123.04	113.30
1	A	2546	MET	CB-CG-SD	5.72	129.57	112.40
1	E	3062	PRO	N-CA-CB	5.72	110.17	103.30
1	A	971	ASP	CB-CG-OD2	5.72	123.45	118.30
1	A	4911	LEU	CA-CB-CG	5.72	128.46	115.30
1	E	625	LEU	CB-CG-CD1	-5.72	101.27	111.00
1	A	3138	PRO	N-CA-CB	5.72	110.16	103.30
1	E	2631	PRO	N-CA-CB	5.72	110.16	103.30
1	A	4991	PHE	CB-CG-CD1	-5.71	116.80	120.80
1	G	472	ARG	NE-CZ-NH2	-5.71	117.44	120.30
1	G	3302	PRO	N-CA-CB	5.70	110.14	103.30
1	G	2631	PRO	N-CA-CB	5.70	110.14	103.30
1	A	3758	MET	CG-SD-CE	5.70	109.32	100.20
1	E	2094	LEU	CB-CG-CD2	5.70	120.69	111.00
1	E	3294	PRO	N-CA-CB	5.70	110.14	103.30
1	A	3294	PRO	N-CA-CB	5.70	110.14	103.30
1	A	4039	MET	CB-CG-SD	5.68	129.43	112.40
1	C	4567	LEU	CB-CG-CD2	5.67	120.63	111.00
1	A	3062	PRO	N-CA-CB	5.66	110.09	103.30
1	C	3294	PRO	N-CA-CB	5.66	110.09	103.30
1	A	4567	LEU	CB-CG-CD2	5.65	120.61	111.00
1	E	4976	GLU	OE1-CD-OE2	5.65	130.08	123.30
1	E	2518	LEU	CB-CG-CD1	-5.65	101.40	111.00
1	C	2094	LEU	CB-CG-CD1	-5.64	101.40	111.00
1	E	2094	LEU	CB-CG-CD1	-5.64	101.40	111.00
1	A	3351	PRO	N-CA-CB	5.64	110.07	103.30
1	C	3758	MET	CG-SD-CE	5.63	109.21	100.20
1	G	971	ASP	CB-CG-OD2	5.63	123.37	118.30
1	A	1112	ASP	CB-CG-OD1	5.62	123.36	118.30
1	C	1076	ARG	NE-CZ-NH2	-5.61	117.49	120.30
1	C	4044	MET	CB-CG-SD	-5.61	95.56	112.40
1	E	4911	LEU	CA-CB-CG	5.61	128.21	115.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4044	MET	CB-CG-SD	-5.61	95.57	112.40
1	C	2094	LEU	CB-CG-CD2	5.61	120.54	111.00
1	C	2116	LEU	CB-CG-CD2	-5.61	101.47	111.00
1	E	4880	MET	CB-CG-SD	5.61	129.22	112.40
1	E	4112	LEU	CB-CG-CD1	5.60	120.53	111.00
1	C	4581	LYS	CD-CE-NZ	5.60	124.58	111.70
1	C	1212	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	E	4039	MET	CG-SD-CE	5.60	109.16	100.20
1	G	3769	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	G	4048	LEU	CB-CG-CD2	5.60	120.52	111.00
1	G	2116	LEU	CB-CG-CD2	-5.59	101.49	111.00
1	G	2094	LEU	CB-CG-CD2	5.59	120.51	111.00
1	C	474	ARG	NE-CZ-NH2	-5.59	117.50	120.30
1	C	1112	ASP	CB-CG-OD1	5.59	123.33	118.30
1	A	2094	LEU	CB-CG-CD1	-5.59	101.50	111.00
1	C	625	LEU	CB-CG-CD1	-5.58	101.51	111.00
1	C	2518	LEU	CB-CG-CD1	-5.57	101.53	111.00
1	G	4202	ARG	NE-CZ-NH2	5.57	123.09	120.30
1	G	4916	PHE	CB-CG-CD1	-5.57	116.90	120.80
1	G	2518	LEU	CB-CG-CD1	-5.57	101.54	111.00
1	A	2518	LEU	CB-CG-CD1	-5.56	101.54	111.00
1	E	46	LEU	CB-CG-CD1	5.56	120.45	111.00
1	E	118	LEU	CB-CG-CD2	-5.56	101.55	111.00
1	C	46	LEU	CB-CG-CD1	5.56	120.45	111.00
1	G	180	LEU	CB-CG-CD2	-5.56	101.55	111.00
1	E	4044	MET	CB-CG-SD	-5.55	95.74	112.40
1	C	2454	ARG	NE-CZ-NH2	-5.55	117.53	120.30
1	A	1076	ARG	NE-CZ-NH2	-5.55	117.53	120.30
1	E	474	ARG	NE-CZ-NH2	-5.54	117.53	120.30
1	C	4679	ARG	NE-CZ-NH1	5.54	123.07	120.30
1	G	2123	LEU	CA-CB-CG	-5.54	102.57	115.30
1	A	2658	PRO	N-CA-CB	5.53	109.94	103.30
1	A	2116	LEU	CB-CG-CD2	-5.53	101.60	111.00
1	A	4909	TYR	CE1-CZ-OH	5.53	135.02	120.10
1	C	4976	GLU	OE1-CD-OE2	5.53	129.93	123.30
1	G	46	LEU	CB-CG-CD1	5.53	120.39	111.00
1	A	2094	LEU	CB-CG-CD2	5.52	120.39	111.00
1	C	3351	PRO	N-CA-CB	5.51	109.92	103.30
1	C	4039	MET	CB-CG-SD	5.51	128.94	112.40
1	A	4581	LYS	CD-CE-NZ	5.51	124.37	111.70
1	C	180	LEU	CB-CG-CD2	-5.51	101.63	111.00
1	E	2454	ARG	NE-CZ-NH2	-5.51	117.55	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	4976	GLU	OE1-CD-OE2	5.50	129.90	123.30
1	A	180	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	G	118	LEU	CB-CG-CD2	-5.49	101.66	111.00
1	G	2658	PRO	N-CA-CB	5.49	109.89	103.30
1	A	4202	ARG	NE-CZ-NH1	-5.49	117.56	120.30
1	E	1076	ARG	NE-CZ-NH2	-5.49	117.56	120.30
1	A	474	ARG	NE-CZ-NH2	-5.48	117.56	120.30
1	G	3294	PRO	N-CA-CB	5.48	109.87	103.30
1	C	971	ASP	CB-CG-OD2	5.48	123.23	118.30
1	E	4567	LEU	CB-CG-CD2	5.47	120.30	111.00
1	G	1976	ARG	CG-CD-NE	5.46	123.27	111.80
1	C	1128	ARG	NE-CZ-NH1	5.46	123.03	120.30
1	E	180	LEU	CB-CG-CD2	-5.46	101.72	111.00
1	C	4649	LEU	CB-CG-CD2	-5.45	101.73	111.00
1	E	632	LEU	CB-CG-CD1	5.44	120.25	111.00
1	E	3351	PRO	N-CA-CB	5.44	109.83	103.30
1	E	22	LEU	CB-CG-CD1	-5.44	101.75	111.00
1	C	4991	PHE	CB-CG-CD1	-5.44	116.99	120.80
1	C	2658	PRO	N-CA-CB	5.44	109.82	103.30
1	E	2658	PRO	N-CA-CB	5.44	109.82	103.30
1	C	632	LEU	CB-CG-CD1	5.43	120.23	111.00
1	A	802	PHE	CB-CG-CD1	-5.42	117.00	120.80
1	E	4887	MET	CG-SD-CE	5.42	108.88	100.20
1	E	3773	ARG	NE-CZ-NH2	5.42	123.01	120.30
1	A	4679	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	C	4112	LEU	CB-CG-CD1	5.42	120.21	111.00
1	A	4215	ARG	NE-CZ-NH1	5.42	123.01	120.30
1	G	773	LEU	CA-CB-CG	5.42	127.76	115.30
1	G	4880	MET	CG-SD-CE	5.42	108.87	100.20
1	A	4112	LEU	CB-CG-CD1	5.41	120.20	111.00
1	G	1548	LEU	CB-CG-CD2	5.41	120.19	111.00
1	E	2116	LEU	CB-CG-CD2	-5.41	101.81	111.00
1	C	3773	ARG	NE-CZ-NH2	5.40	123.00	120.30
1	A	1648	MET	CG-SD-CE	-5.40	91.56	100.20
1	G	1128	ARG	NE-CZ-NH1	5.40	123.00	120.30
1	G	4563	ARG	NE-CZ-NH2	5.40	123.00	120.30
1	C	118	LEU	CB-CG-CD2	-5.39	101.83	111.00
1	A	2115	GLU	N-CA-CB	-5.39	100.90	110.60
1	G	2063	LEU	CB-CG-CD1	-5.39	101.84	111.00
1	E	4632	LEU	CA-CB-CG	5.38	127.67	115.30
1	A	1128	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	C	4215	ARG	NE-CZ-NH1	5.38	122.99	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	4980	LEU	CD1-CG-CD2	5.38	126.64	110.50
1	E	802	PHE	CB-CG-CD1	-5.38	117.04	120.80
1	E	4679	ARG	NE-CZ-NH1	5.38	122.99	120.30
1	E	4822	THR	CA-CB-CG2	-5.37	104.88	112.40
1	G	4703	ARG	NE-CZ-NH1	5.37	122.99	120.30
1	C	1836	PHE	CB-CG-CD1	-5.37	117.04	120.80
1	C	2163	ARG	NE-CZ-NH2	-5.36	117.62	120.30
1	G	632	LEU	CB-CG-CD1	5.36	120.11	111.00
1	A	4649	LEU	CB-CG-CD2	-5.36	101.90	111.00
1	E	1842	LEU	CB-CG-CD1	5.35	120.10	111.00
1	A	632	LEU	CB-CG-CD1	5.35	120.10	111.00
1	E	4649	LEU	CB-CG-CD2	-5.35	101.91	111.00
1	A	118	LEU	CB-CG-CD2	-5.35	101.91	111.00
1	G	22	LEU	CB-CG-CD1	-5.34	101.92	111.00
1	A	4980	LEU	CD1-CG-CD2	5.34	126.52	110.50
1	A	1836	PHE	CB-CG-CD1	-5.34	117.06	120.80
1	A	2454	ARG	NE-CZ-NH1	5.34	122.97	120.30
1	C	1842	LEU	CB-CG-CD1	5.34	120.07	111.00
1	E	2115	GLU	N-CA-CB	-5.33	101.00	110.60
1	E	4980	LEU	CD1-CG-CD2	5.33	126.49	110.50
1	G	4951	LYS	CD-CE-NZ	5.32	123.94	111.70
1	C	2115	GLU	N-CA-CB	-5.32	101.03	110.60
2	F	32	ASP	CB-CG-OD1	5.32	123.08	118.30
1	E	2497	ASP	CB-CG-OD2	-5.31	113.52	118.30
2	B	32	ASP	CB-CG-OD1	5.30	123.07	118.30
1	G	2115	GLU	N-CA-CB	-5.30	101.05	110.60
1	A	2163	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	C	2616	PRO	N-CA-CB	5.30	109.66	103.30
1	E	1548	LEU	CB-CG-CD2	5.30	120.01	111.00
1	E	4814	LEU	CB-CG-CD1	5.30	120.01	111.00
1	E	1212	ARG	NE-CZ-NH2	-5.30	117.65	120.30
1	A	1259	ARG	NE-CZ-NH2	-5.29	117.65	120.30
1	E	4844	LEU	CA-CB-CG	5.29	127.47	115.30
1	A	1842	LEU	CB-CG-CD1	5.29	119.99	111.00
1	C	4885	PHE	CB-CG-CD1	-5.29	117.10	120.80
1	G	4909	TYR	CE1-CZ-OH	5.29	134.38	120.10
1	A	2616	PRO	N-CA-CB	5.29	109.64	103.30
1	C	1548	LEU	CB-CG-CD2	5.28	119.97	111.00
1	A	1548	LEU	CB-CG-CD2	5.27	119.96	111.00
1	E	2063	LEU	CB-CG-CD1	-5.27	102.04	111.00
1	G	802	PHE	CB-CG-CD1	-5.27	117.11	120.80
1	G	2616	PRO	N-CA-CB	5.26	109.62	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	746	CYS	CA-CB-SG	-5.26	104.53	114.00
1	E	4991	PHE	CB-CG-CD1	-5.26	117.12	120.80
1	E	1128	ARG	NE-CZ-NH1	5.26	122.93	120.30
1	A	2926	LEU	O-C-N	5.24	131.08	122.70
1	C	1648	MET	CG-SD-CE	-5.24	91.82	100.20
1	G	1648	MET	CG-SD-CE	-5.24	91.82	100.20
1	C	802	PHE	CB-CG-CD1	-5.23	117.14	120.80
1	G	2094	LEU	CB-CG-CD1	-5.23	102.11	111.00
1	G	1842	LEU	CB-CG-CD1	5.23	119.89	111.00
1	G	4159	ARG	NE-CZ-NH1	5.23	122.92	120.30
1	C	3841	VAL	CG1-CB-CG2	5.23	119.27	110.90
1	C	1259	ARG	NE-CZ-NH2	-5.22	117.69	120.30
1	E	4048	LEU	CB-CG-CD1	-5.21	102.15	111.00
1	C	22	LEU	CB-CG-CD1	-5.21	102.15	111.00
1	G	2163	ARG	NE-CZ-NH2	-5.21	117.70	120.30
1	G	4581	LYS	CD-CE-NZ	5.20	123.67	111.70
1	E	2616	PRO	N-CA-CB	5.20	109.54	103.30
1	C	4800	LEU	CB-CG-CD1	5.20	119.83	111.00
1	E	4796	MET	CG-SD-CE	5.19	108.51	100.20
1	E	3751	VAL	CB-CA-C	-5.19	101.54	111.40
1	E	1259	ARG	NE-CZ-NH2	-5.19	117.71	120.30
1	G	746	CYS	CA-CB-SG	-5.18	104.67	114.00
1	E	1648	MET	CG-SD-CE	-5.17	91.92	100.20
1	A	3780	LEU	CB-CG-CD1	5.17	119.79	111.00
1	G	2712	PRO	N-CA-CB	5.17	109.50	103.30
1	C	4048	LEU	CB-CG-CD1	-5.16	102.22	111.00
1	C	746	CYS	CA-CB-SG	-5.16	104.71	114.00
2	D	32	ASP	CB-CG-OD2	-5.16	113.66	118.30
1	E	3841	VAL	CG1-CB-CG2	5.16	119.16	110.90
1	G	1259	ARG	NE-CZ-NH2	-5.16	117.72	120.30
1	E	4800	LEU	CB-CG-CD1	5.16	119.76	111.00
1	E	773	LEU	CA-CB-CG	5.15	127.16	115.30
1	G	1865	MET	CG-SD-CE	-5.15	91.96	100.20
1	G	4215	ARG	CD-NE-CZ	5.15	130.81	123.60
1	A	3932	ASP	CB-CG-OD2	5.15	122.93	118.30
1	A	3841	VAL	CG1-CB-CG2	5.15	119.13	110.90
1	C	3787	LYS	CD-CE-NZ	5.14	123.53	111.70
1	A	746	CYS	CA-CB-SG	-5.14	104.75	114.00
1	A	2497	ASP	CB-CG-OD2	-5.13	113.68	118.30
1	C	3751	VAL	CB-CA-C	-5.13	101.64	111.40
1	C	773	LEU	CA-CB-CG	5.13	127.10	115.30
1	A	3751	VAL	CB-CA-C	-5.13	101.66	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	G	1836	PHE	CB-CG-CD1	-5.13	117.21	120.80
1	C	3729	MET	CB-CG-SD	-5.12	97.02	112.40
1	E	3780	LEU	CB-CG-CD1	5.12	119.71	111.00
1	E	3926	LEU	CB-CG-CD1	5.12	119.71	111.00
1	G	3519	PRO	N-CA-CB	5.12	109.44	103.30
1	C	3780	LEU	CB-CG-CD1	5.11	119.69	111.00
1	A	2244	ARG	NE-CZ-NH1	-5.11	117.75	120.30
1	A	3729	MET	CB-CG-SD	-5.10	97.09	112.40
2	D	32	ASP	CB-CG-OD1	5.10	122.89	118.30
1	E	4769	MET	CG-SD-CE	5.10	108.36	100.20
1	A	4048	LEU	CB-CG-CD1	-5.10	102.33	111.00
1	G	4643	LEU	CA-CB-CG	5.09	127.02	115.30
1	A	4769	MET	CG-SD-CE	5.09	108.35	100.20
1	A	2920	ARG	NE-CZ-NH1	5.09	122.85	120.30
1	A	2063	LEU	CB-CG-CD1	-5.09	102.35	111.00
1	C	1589	PRO	N-CA-C	5.09	125.32	112.10
1	E	4668	LEU	CB-CG-CD1	-5.08	102.36	111.00
1	A	1589	PRO	N-CA-C	5.08	125.31	112.10
1	A	2336	ARG	NE-CZ-NH2	5.08	122.84	120.30
1	E	1600	LEU	CB-CG-CD1	5.08	119.63	111.00
1	E	4215	ARG	CD-NE-CZ	5.08	130.71	123.60
1	A	4632	LEU	CA-CB-CG	5.08	126.97	115.30
1	E	1589	PRO	N-CA-C	5.07	125.29	112.10
1	C	3926	LEU	CB-CG-CD1	5.07	119.62	111.00
1	C	1106	ARG	NE-CZ-NH2	-5.07	117.77	120.30
1	G	4905	ALA	N-CA-CB	5.07	117.19	110.10
1	C	1976	ARG	CG-CD-NE	5.07	122.44	111.80
1	C	2063	LEU	CB-CG-CD1	-5.06	102.39	111.00
1	C	842	PRO	N-CA-C	5.06	125.26	112.10
1	G	1589	PRO	N-CA-C	5.06	125.27	112.10
1	G	2454	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	C	2920	ARG	NE-CZ-NH1	5.06	122.83	120.30
1	G	1931	LEU	CB-CG-CD1	5.06	119.60	111.00
2	B	32	ASP	CB-CG-OD2	-5.05	113.75	118.30
1	E	1836	PHE	CB-CG-CD1	-5.05	117.26	120.80
2	F	32	ASP	CB-CG-OD2	-5.05	113.75	118.30
1	G	842	PRO	N-CA-C	5.05	125.23	112.10
1	C	773	LEU	CB-CG-CD2	5.05	119.58	111.00
1	A	3926	LEU	CB-CG-CD1	5.04	119.57	111.00
1	G	3787	LYS	CD-CE-NZ	5.03	123.28	111.70
1	G	3751	VAL	CB-CA-C	-5.03	101.84	111.40
1	E	2456	ILE	CG1-CB-CG2	-5.03	100.33	111.40

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	3519	PRO	N-CA-CB	5.03	109.33	103.30
1	E	842	PRO	N-CA-C	5.03	125.17	112.10
1	E	2555	CYS	CA-CB-SG	5.03	123.05	114.00
1	E	3729	MET	CB-CG-SD	-5.03	97.33	112.40
1	G	2497	ASP	CB-CG-OD2	-5.03	113.78	118.30
1	E	4231	MET	CB-CG-SD	5.02	127.47	112.40
1	A	4668	LEU	CB-CG-CD1	-5.01	102.48	111.00
1	C	3519	PRO	N-CA-CB	5.01	109.31	103.30
1	C	4769	MET	CG-SD-CE	5.01	108.22	100.20
1	C	4215	ARG	CD-NE-CZ	5.01	130.61	123.60
1	E	4909	TYR	CE1-CZ-OH	5.01	133.63	120.10
1	A	773	LEU	CB-CG-CD2	5.00	119.51	111.00
1	C	4668	LEU	CB-CG-CD1	-5.00	102.49	111.00

There are no chirality outliers.

All (141) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1100	MET	Peptide
1	A	1251	GLU	Peptide
1	A	1253	PRO	Peptide
1	A	1464	PHE	Peptide
1	A	1588	ALA	Mainchain,Peptide
1	A	1748	PHE	Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1854	PHE	Mainchain,Peptide
1	A	1855	GLY	Peptide
1	A	1856	ASP	Mainchain,Peptide
1	A	1867	GLU	Mainchain,Peptide
1	A	1932	PRO	Peptide
1	A	2567	PRO	Peptide
1	A	31	GLU	Mainchain,Peptide
1	A	329	ARG	Mainchain,Peptide
1	A	4819	GLY	Mainchain,Peptide
1	A	4903	ASP	Mainchain,Peptide
1	A	4904	PRO	Mainchain,Peptide
1	A	4905	ALA	Mainchain,Peptide
1	A	734	GLY	Peptide
1	A	841	GLY	Mainchain,Peptide
1	A	894	GLY	Mainchain,Peptide
1	A	970	LEU	Peptide
1	C	1100	MET	Peptide

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>	<b>Group</b>
1	C	1251	GLU	Peptide
1	C	1253	PRO	Peptide
1	C	1464	PHE	Peptide
1	C	1588	ALA	Mainchain,Peptide
1	C	1748	PHE	Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1854	PHE	Mainchain,Peptide
1	C	1855	GLY	Peptide
1	C	1856	ASP	Mainchain,Peptide
1	C	1867	GLU	Mainchain,Peptide
1	C	1932	PRO	Peptide
1	C	2567	PRO	Peptide
1	C	31	GLU	Mainchain,Peptide
1	C	329	ARG	Peptide
1	C	4819	GLY	Mainchain,Peptide
1	C	4903	ASP	Mainchain,Peptide
1	C	4904	PRO	Mainchain,Peptide
1	C	4905	ALA	Mainchain,Peptide
1	C	734	GLY	Peptide
1	C	841	GLY	Mainchain,Peptide
1	C	894	GLY	Mainchain,Peptide
1	C	970	LEU	Peptide
1	E	1100	MET	Peptide
1	E	1251	GLU	Peptide
1	E	1253	PRO	Peptide
1	E	1464	PHE	Peptide
1	E	1588	ALA	Mainchain,Peptide
1	E	1748	PHE	Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1854	PHE	Mainchain,Peptide
1	E	1855	GLY	Peptide
1	E	1856	ASP	Mainchain,Peptide
1	E	1867	GLU	Mainchain,Peptide
1	E	1932	PRO	Peptide
1	E	2567	PRO	Peptide
1	E	31	GLU	Mainchain,Peptide
1	E	329	ARG	Mainchain,Peptide
1	E	4819	GLY	Mainchain,Peptide
1	E	4903	ASP	Mainchain,Peptide
1	E	4904	PRO	Mainchain,Peptide
1	E	4905	ALA	Mainchain,Peptide
1	E	734	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	E	841	GLY	Mainchain,Peptide
1	E	894	GLY	Mainchain,Peptide
1	E	970	LEU	Peptide
1	G	1100	MET	Peptide
1	G	1253	PRO	Peptide
1	G	1464	PHE	Peptide
1	G	1588	ALA	Mainchain,Peptide
1	G	1748	PHE	Peptide
1	G	1828	ASP	Mainchain,Peptide
1	G	1854	PHE	Mainchain,Peptide
1	G	1855	GLY	Peptide
1	G	1856	ASP	Mainchain,Peptide
1	G	1867	GLU	Mainchain,Peptide
1	G	1932	PRO	Peptide
1	G	31	GLU	Mainchain,Peptide
1	G	329	ARG	Mainchain,Peptide
1	G	4819	GLY	Mainchain,Peptide
1	G	4903	ASP	Mainchain,Peptide
1	G	4904	PRO	Mainchain,Peptide
1	G	4905	ALA	Mainchain,Peptide
1	G	734	GLY	Peptide
1	G	841	GLY	Mainchain,Peptide
1	G	894	GLY	Mainchain,Peptide
1	G	970	LEU	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	A	26843	0	24428	1190	0
1	C	26843	0	24428	1200	0
1	E	26843	0	24428	1194	0
1	G	26843	0	24427	1209	0
2	B	832	0	831	58	0
2	D	832	0	831	54	0
2	F	832	0	831	58	0
2	H	832	0	831	58	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	110704	0	101035	4733	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 22.

All (4733) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4880:MET:HA	1:G:4578:LEU:HD11	1.26	1.17
1:A:4578:LEU:HD11	1:C:4880:MET:HA	1.18	1.17
1:E:4578:LEU:HD11	1:G:4880:MET:HA	1.25	1.16
1:C:4578:LEU:HD11	1:E:4880:MET:HA	1.17	1.10
1:A:4822:THR:HG22	1:C:4839:MET:SD	1.93	1.08
1:C:4822:THR:HG22	1:E:4839:MET:SD	1.95	1.05
1:A:4931:ILE:HD11	1:G:4940:PHE:CE1	1.96	1.00
1:A:4892:ARG:CZ	1:C:4896:GLY:HA3	1.95	0.97
1:E:1835:GLU:HG3	1:E:1932:PRO:HG2	1.46	0.97
1:C:1835:GLU:HG3	1:C:1932:PRO:HG2	1.45	0.96
1:A:1783:VAL:HG12	2:B:55:VAL:HA	1.47	0.95
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	2.00	0.95
1:E:626:LEU:O	1:E:629:ARG:NH1	1.99	0.95
1:C:626:LEU:O	1:C:629:ARG:NH1	1.99	0.95
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	2.00	0.95
1:A:4839:MET:HE3	1:G:4822:THR:O	1.65	0.95
1:G:1808:ARG:NH1	1:G:1858:ASP:OD2	2.00	0.95
1:A:1835:GLU:HG3	1:A:1932:PRO:HG2	1.46	0.94
1:G:1783:VAL:HG12	2:H:55:VAL:HA	1.47	0.94
1:C:4822:THR:CG2	1:E:4839:MET:SD	2.55	0.94
1:G:4192:ARG:HH11	1:G:5028:PHE:HB3	1.33	0.94
1:A:3970:GLN:NE2	1:A:5003:HIS:O	2.01	0.93
1:G:1835:GLU:HG3	1:G:1932:PRO:HG2	1.45	0.93
1:A:626:LEU:O	1:A:629:ARG:NH1	1.99	0.93
1:A:4921:PHE:CZ	1:G:4892:ARG:HA	2.03	0.93
1:C:1294:PRO:HD2	1:C:1584:ARG:HH11	1.34	0.93
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	2.00	0.93
1:A:1294:PRO:HD2	1:A:1584:ARG:HH11	1.34	0.93
1:C:3970:GLN:NE2	1:C:5003:HIS:O	2.01	0.93
1:G:1294:PRO:HD2	1:G:1584:ARG:HH11	1.34	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4822:THR:CG2	1:C:4839:MET:SD	2.56	0.93
1:C:1783:VAL:HG12	2:D:55:VAL:HA	1.52	0.92
1:E:3970:GLN:NE2	1:E:5003:HIS:O	2.02	0.92
1:E:1294:PRO:HD2	1:E:1584:ARG:HH11	1.34	0.92
1:G:626:LEU:O	1:G:629:ARG:NH1	2.01	0.91
1:C:4892:ARG:CZ	1:E:4896:GLY:HA3	2.01	0.90
1:E:1783:VAL:HG12	2:F:55:VAL:HA	1.54	0.90
1:C:4192:ARG:HH11	1:C:5028:PHE:HB3	1.37	0.89
1:A:4192:ARG:HH11	1:A:5028:PHE:HB3	1.36	0.89
1:C:4892:ARG:HA	1:E:4921:PHE:CZ	2.06	0.89
1:A:4896:GLY:HA3	1:G:4892:ARG:CZ	2.03	0.89
1:A:4839:MET:SD	1:G:4822:THR:HG22	2.12	0.89
1:E:4192:ARG:HH11	1:E:5028:PHE:HB3	1.37	0.88
1:A:2456:ILE:HD11	1:C:178:ARG:HH12	1.38	0.88
1:A:2059:LEU:HD22	1:A:2062:ARG:HH12	1.38	0.88
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.56	0.88
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.56	0.88
1:A:1436:SER:HA	1:A:1515:VAL:O	1.75	0.87
1:E:4826:ILE:HD11	1:G:4839:MET:SD	2.15	0.87
1:C:2059:LEU:HD22	1:C:2062:ARG:HH12	1.38	0.87
1:A:1439:VAL:N	1:A:1513:ASP:O	2.07	0.87
1:E:2173:GLN:HG2	1:E:2174:GLU:H	1.40	0.87
1:G:2173:GLN:HG2	1:G:2174:GLU:H	1.40	0.87
1:A:4839:MET:CE	1:G:4822:THR:O	2.23	0.87
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.56	0.87
1:C:4578:LEU:HD11	1:E:4880:MET:CA	2.05	0.86
1:C:2173:GLN:HG2	1:C:2174:GLU:H	1.40	0.86
1:A:2173:GLN:HG2	1:A:2174:GLU:H	1.40	0.86
1:E:2456:ILE:HD11	1:G:178:ARG:HH12	1.39	0.86
1:A:178:ARG:HH12	1:G:2456:ILE:HD11	1.40	0.86
1:C:2456:ILE:HD11	1:E:178:ARG:HH12	1.41	0.86
1:E:674:PHE:HZ	2:F:71:ARG:CZ	1.88	0.86
1:A:289:ARG:NH1	1:A:303:ASP:OD1	2.09	0.85
1:A:1555:LEU:HD12	1:A:1556:PRO:HD2	1.58	0.85
1:C:2922:LYS:HA	1:C:2925:GLU:CG	2.05	0.85
1:A:2459:SER:O	1:C:131:LEU:HD23	1.77	0.85
1:A:2922:LYS:HA	1:A:2925:GLU:CG	2.06	0.85
1:E:2059:LEU:HD22	1:E:2062:ARG:HH12	1.38	0.85
1:G:2059:LEU:HD22	1:G:2062:ARG:HH12	1.38	0.85
1:G:4708:THR:HG22	1:G:4710:SER:H	1.41	0.85
1:C:674:PHE:HZ	2:D:71:ARG:CZ	1.90	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3772:THR:OG1	1:C:3773:ARG:NH1	2.10	0.85
1:C:1555:LEU:HD12	1:C:1556:PRO:HD2	1.59	0.85
1:C:289:ARG:NH1	1:C:303:ASP:OD1	2.10	0.85
1:A:3772:THR:OG1	1:A:3773:ARG:NH1	2.10	0.84
1:A:4839:MET:HE3	1:G:4826:ILE:HG13	1.59	0.84
1:A:4839:MET:SD	1:G:4822:THR:CG2	2.65	0.84
1:A:4892:ARG:HA	1:C:4921:PHE:CZ	2.11	0.84
1:A:131:LEU:HD23	1:G:2459:SER:O	1.77	0.84
1:C:2922:LYS:O	1:C:2925:GLU:HB2	1.77	0.84
1:E:289:ARG:NH1	1:E:303:ASP:OD1	2.10	0.84
1:E:674:PHE:CZ	2:F:71:ARG:CZ	2.60	0.84
1:G:289:ARG:NH1	1:G:303:ASP:OD1	2.10	0.84
1:G:1555:LEU:HD12	1:G:1556:PRO:HD2	1.59	0.84
1:G:4780:PHE:HA	1:G:4783:ILE:HD12	1.59	0.84
1:C:4708:THR:HG22	1:C:4710:SER:H	1.41	0.84
1:E:3772:THR:OG1	1:E:3773:ARG:NH1	2.10	0.84
1:C:4172:GLU:HG2	1:C:4175:ARG:HH12	1.43	0.83
1:C:2234:ARG:HH12	1:C:2271:THR:N	1.76	0.83
1:E:4708:THR:HG22	1:E:4710:SER:H	1.41	0.83
1:A:4708:THR:HG22	1:A:4710:SER:H	1.41	0.83
1:E:1555:LEU:HD12	1:E:1556:PRO:HD2	1.59	0.83
1:E:2234:ARG:HH12	1:E:2271:THR:N	1.76	0.83
1:E:2459:SER:O	1:G:131:LEU:HD23	1.79	0.82
1:A:2234:ARG:HH12	1:A:2271:THR:N	1.76	0.82
1:A:674:PHE:HZ	2:B:71:ARG:CZ	1.91	0.82
1:C:674:PHE:CZ	2:D:71:ARG:CZ	2.62	0.82
1:C:2921:GLU:O	1:C:2925:GLU:HG2	1.79	0.82
1:C:4578:LEU:CD1	1:E:4880:MET:HA	2.06	0.82
1:A:2922:LYS:O	1:A:2925:GLU:HB2	1.80	0.82
1:G:2234:ARG:HH12	1:G:2271:THR:N	1.76	0.82
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.61	0.82
1:G:4033:GLY:O	1:G:4189:ARG:NH2	2.12	0.82
1:E:495:ASN:ND2	1:E:555:GLU:OE2	2.13	0.81
1:C:4940:PHE:CE1	1:E:4931:ILE:HD11	2.16	0.81
1:G:495:ASN:ND2	1:G:555:GLU:OE2	2.13	0.81
1:C:2459:SER:O	1:E:131:LEU:HD23	1.81	0.81
1:A:4578:LEU:CD1	1:C:4880:MET:HA	2.05	0.81
1:E:702:TRP:HD1	2:F:34:LYS:HZ1	1.27	0.80
1:E:3750:GLU:HA	1:E:3753:PHE:HB3	1.62	0.80
1:C:3750:GLU:HA	1:C:3753:PHE:HB3	1.62	0.80
1:A:674:PHE:CZ	2:B:71:ARG:CZ	2.64	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4033:GLY:O	1:A:4189:ARG:NH2	2.15	0.80
1:A:4578:LEU:HD11	1:C:4880:MET:CA	2.08	0.80
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.62	0.80
1:C:102:LEU:HB2	1:C:105:HIS:CD2	2.17	0.80
1:E:102:LEU:HB2	1:E:105:HIS:CD2	2.17	0.79
1:E:4033:GLY:O	1:E:4189:ARG:NH2	2.15	0.79
1:C:495:ASN:ND2	1:C:555:GLU:OE2	2.14	0.79
1:A:3750:GLU:HA	1:A:3753:PHE:HB3	1.63	0.79
1:G:1032:LYS:HB3	1:G:1036:ARG:HH12	1.48	0.79
1:A:2921:GLU:O	1:A:2925:GLU:HG2	1.82	0.79
1:A:495:ASN:ND2	1:A:555:GLU:OE2	2.14	0.79
1:A:4172:GLU:HG2	1:A:4175:ARG:HH12	1.46	0.79
1:E:4172:GLU:HG2	1:E:4175:ARG:HH12	1.47	0.79
1:G:4033:GLY:HA2	1:G:4189:ARG:HH12	1.46	0.79
1:E:4578:LEU:CD1	1:G:4880:MET:HA	2.08	0.79
1:G:1457:TYR:OH	1:G:1459:GLN:NE2	2.15	0.79
1:A:174:VAL:O	1:G:2452:ARG:NH2	2.16	0.78
1:A:1032:LYS:HB3	1:A:1036:ARG:HH12	1.47	0.78
1:C:4033:GLY:O	1:C:4189:ARG:NH2	2.15	0.78
1:A:102:LEU:HB2	1:A:105:HIS:CD2	2.18	0.78
1:E:3677:LEU:HB2	1:E:3698:LEU:HD12	1.65	0.78
1:G:102:LEU:HB2	1:G:105:HIS:CD2	2.17	0.78
1:G:3772:THR:OG1	1:G:3773:ARG:NH1	2.16	0.78
1:E:675:LEU:HD23	1:E:676:THR:HG23	1.66	0.78
1:A:2463:LEU:N	1:A:2510:TYR:HH	1.81	0.78
1:E:4578:LEU:HD11	1:G:4880:MET:CA	2.10	0.78
1:G:4971:THR:HG23	1:G:4974:GLY:HA3	1.66	0.78
1:A:4880:MET:CA	1:G:4578:LEU:HD11	2.12	0.78
1:G:830:ARG:HD3	1:G:1616:GLU:OE2	1.83	0.78
1:E:830:ARG:HD3	1:E:1616:GLU:OE2	1.84	0.78
1:E:2463:LEU:N	1:E:2510:TYR:HH	1.81	0.78
1:C:2463:LEU:N	1:C:2510:TYR:HH	1.82	0.78
1:E:1032:LYS:HB3	1:E:1036:ARG:HH12	1.48	0.78
1:A:830:ARG:HD3	1:A:1616:GLU:OE2	1.83	0.77
1:C:675:LEU:HD23	1:C:676:THR:HG23	1.66	0.77
1:C:1294:PRO:HD2	1:C:1584:ARG:NH1	1.99	0.77
1:C:3677:LEU:HB2	1:C:3698:LEU:HD12	1.66	0.77
1:E:4780:PHE:HA	1:E:4783:ILE:HD12	1.66	0.77
1:G:1294:PRO:HD2	1:G:1584:ARG:NH1	1.99	0.77
1:G:675:LEU:HD23	1:G:676:THR:HG23	1.66	0.77
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.67	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1294:PRO:HD2	1:E:1584:ARG:NH1	2.00	0.77
1:C:4780:PHE:HA	1:C:4783:ILE:HD12	1.67	0.77
1:G:3970:GLN:NE2	1:G:5003:HIS:O	2.17	0.77
1:A:830:ARG:NH1	1:A:1613:LEU:O	2.18	0.76
1:C:830:ARG:NH1	1:C:1613:LEU:O	2.18	0.76
1:A:1294:PRO:HD2	1:A:1584:ARG:NH1	1.99	0.76
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.66	0.76
1:E:4889:VAL:O	1:E:4893:ALA:N	2.18	0.76
1:G:830:ARG:NH1	1:G:1613:LEU:O	2.18	0.76
1:C:1032:LYS:HB3	1:C:1036:ARG:HH12	1.48	0.76
1:C:830:ARG:HD3	1:C:1616:GLU:OE2	1.84	0.76
1:G:1078:GLU:HA	1:G:1237:TRP:HZ3	1.50	0.76
1:G:2463:LEU:N	1:G:2510:TYR:HH	1.83	0.76
1:A:355:LEU:HD22	1:A:379:HIS:HA	1.65	0.76
1:A:675:LEU:HD23	1:A:676:THR:HG23	1.66	0.76
1:A:1078:GLU:HA	1:A:1237:TRP:HZ3	1.50	0.76
1:G:1933:GLU:OE2	1:G:2111:VAL:HG12	1.84	0.76
1:E:1078:GLU:HA	1:E:1237:TRP:HZ3	1.50	0.76
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.67	0.76
1:A:3677:LEU:HB2	1:A:3698:LEU:HD12	1.66	0.76
1:G:674:PHE:CZ	2:H:71:ARG:CZ	2.69	0.76
1:A:4780:PHE:HA	1:A:4783:ILE:HD12	1.68	0.76
1:A:4880:MET:HA	1:G:4578:LEU:CD1	2.13	0.76
1:G:2924:GLN:HB3	1:G:2928:LYS:HE2	1.68	0.76
1:A:717:ASP:HB2	2:B:7:ILE:HG23	1.69	0.75
1:E:830:ARG:NH1	1:E:1613:LEU:O	2.19	0.75
1:C:717:ASP:HB2	2:D:7:ILE:HG23	1.68	0.75
1:C:1933:GLU:OE2	1:C:2111:VAL:HG12	1.86	0.75
1:A:1933:GLU:OE2	1:A:2111:VAL:HG12	1.86	0.75
1:C:1078:GLU:HA	1:C:1237:TRP:HZ3	1.50	0.75
1:E:1933:GLU:OE2	1:E:2111:VAL:HG12	1.86	0.75
1:G:355:LEU:HD22	1:G:379:HIS:HA	1.66	0.75
1:C:702:TRP:HD1	2:D:34:LYS:HZ1	1.31	0.75
1:C:1931:LEU:O	1:C:1936:LYS:NZ	2.20	0.75
1:C:355:LEU:HD22	1:C:379:HIS:HA	1.68	0.75
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.69	0.75
1:E:717:ASP:HB2	2:F:7:ILE:HG23	1.69	0.75
1:E:1457:TYR:OH	1:E:1459:GLN:NE2	2.19	0.75
1:E:4892:ARG:CZ	1:G:4896:GLY:HA3	2.17	0.74
1:A:1457:TYR:OH	1:A:1459:GLN:NE2	2.19	0.74
1:A:2456:ILE:HD11	1:C:178:ARG:NH1	2.02	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3882:GLN:HB2	1:C:3957:VAL:HG22	1.70	0.74
1:A:1205:GLY:HA3	1:A:1227:ALA:HB3	1.69	0.74
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.69	0.74
1:A:4729:GLY:HA2	1:A:4737:ILE:HG13	1.69	0.74
1:E:42:PHE:HB3	1:E:447:ASP:OD2	1.87	0.74
1:E:355:LEU:HD22	1:E:379:HIS:HA	1.68	0.74
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.70	0.74
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.70	0.74
1:A:3882:GLN:HB2	1:A:3957:VAL:HG22	1.70	0.74
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.69	0.74
1:E:3882:GLN:HB2	1:E:3957:VAL:HG22	1.70	0.74
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.70	0.74
1:E:2456:ILE:HD11	1:G:178:ARG:NH1	2.03	0.73
1:E:3756:LYS:NZ	1:E:4999:ASP:OD1	2.20	0.73
1:G:674:PHE:HZ	2:H:71:ARG:CZ	2.02	0.73
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.21	0.73
1:A:42:PHE:HB3	1:A:447:ASP:OD2	1.87	0.73
1:A:1141:ARG:HH12	1:A:1169:LEU:HD11	1.54	0.73
1:A:1708:ARG:NH2	1:A:1837:GLN:HA	2.04	0.73
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.69	0.73
1:A:4207:MET:HG2	1:A:4208:PRO:HD3	1.71	0.73
1:E:1931:LEU:O	1:E:1936:LYS:NZ	2.19	0.73
1:A:4940:PHE:CE1	1:C:4931:ILE:HD11	2.23	0.73
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.69	0.73
1:C:2456:ILE:HD11	1:E:178:ARG:NH1	2.04	0.73
1:E:1669:LEU:O	1:E:1673:VAL:HG23	1.88	0.73
1:A:2452:ARG:NH2	1:C:174:VAL:O	2.20	0.73
1:C:2452:ARG:NH2	1:E:174:VAL:O	2.21	0.73
1:E:1205:GLY:HA3	1:E:1227:ALA:HB3	1.71	0.73
1:E:4207:MET:HG2	1:E:4208:PRO:HD3	1.71	0.73
1:G:42:PHE:HB3	1:G:447:ASP:OD2	1.88	0.73
1:A:1439:VAL:HB	1:A:1513:ASP:HB2	1.69	0.73
1:C:42:PHE:HB3	1:C:447:ASP:OD2	1.87	0.73
1:E:1075:PHE:HB2	1:E:1192:CYS:HB2	1.71	0.73
1:G:1075:PHE:HB2	1:G:1192:CYS:HB2	1.71	0.73
1:A:4876:CYS:O	1:A:4881:THR:OG1	2.07	0.73
1:C:281:ARG:HG2	1:C:312:THR:HG21	1.71	0.73
1:C:1669:LEU:O	1:C:1673:VAL:HG23	1.89	0.73
1:A:818:ARG:HG2	1:A:1028:ASP:HA	1.71	0.72
1:A:1075:PHE:HB2	1:A:1192:CYS:HB2	1.71	0.72
1:E:4727:LYS:HZ1	1:E:4728:HIS:CE1	2.06	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4036:VAL:O	1:G:4038:GLY:N	2.22	0.72
1:G:4960:ILE:HD11	1:G:4985:LEU:HB2	1.71	0.72
1:A:683:ARG:HH12	1:A:725:HIS:CD2	2.07	0.72
1:C:818:ARG:HG2	1:C:1028:ASP:HA	1.71	0.72
1:C:4876:CYS:O	1:C:4881:THR:OG1	2.06	0.72
1:G:1669:LEU:O	1:G:1673:VAL:HG23	1.89	0.72
1:G:4961:CYS:SG	1:G:4978:HIS:NE2	2.63	0.72
1:A:674:PHE:HB3	2:B:40:ARG:NH1	2.04	0.72
1:C:1087:ARG:HB3	1:C:1223:PHE:CD1	2.25	0.72
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.24	0.72
1:C:1708:ARG:NH2	1:C:1837:GLN:HA	2.04	0.72
1:E:818:ARG:HG2	1:E:1028:ASP:HA	1.72	0.72
1:E:1708:ARG:NH2	1:E:1837:GLN:HA	2.04	0.72
1:E:2452:ARG:NH2	1:G:174:VAL:O	2.23	0.72
1:E:4729:GLY:HA2	1:E:4737:ILE:HG13	1.69	0.72
1:G:1205:GLY:HA3	1:G:1227:ALA:HB3	1.72	0.72
1:A:178:ARG:NH1	1:G:2456:ILE:HD11	2.03	0.72
1:A:1669:LEU:O	1:A:1673:VAL:HG23	1.89	0.72
1:C:1205:GLY:HA3	1:C:1227:ALA:HB3	1.70	0.72
1:E:674:PHE:HB3	2:F:40:ARG:NH1	2.03	0.72
1:E:4876:CYS:O	1:E:4881:THR:OG1	2.05	0.72
1:G:683:ARG:HH12	1:G:725:HIS:CD2	2.08	0.72
1:A:1087:ARG:HB3	1:A:1223:PHE:CD1	2.25	0.72
1:G:818:ARG:HG2	1:G:1028:ASP:HA	1.72	0.72
1:G:1708:ARG:NH2	1:G:1837:GLN:HA	2.03	0.72
1:A:1931:LEU:O	1:A:1936:LYS:NZ	2.20	0.72
1:A:1941:ASN:O	1:A:1944:GLU:HG2	1.90	0.72
1:C:1075:PHE:HB2	1:C:1192:CYS:HB2	1.71	0.72
1:C:1783:VAL:CG1	2:D:55:VAL:HA	2.19	0.72
1:C:4729:GLY:HA2	1:C:4737:ILE:HG13	1.70	0.72
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.55	0.72
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.24	0.72
1:A:281:ARG:HG2	1:A:312:THR:HG21	1.71	0.72
1:A:544:LEU:HD12	1:A:574:VAL:HG13	1.72	0.72
1:G:674:PHE:HB3	2:H:40:ARG:NH1	2.04	0.72
1:G:717:ASP:HB2	2:H:7:ILE:HG23	1.72	0.72
1:A:293:LEU:H	1:A:311:ALA:HB1	1.54	0.71
1:C:674:PHE:HB3	2:D:40:ARG:NH1	2.05	0.71
1:C:2922:LYS:HA	1:C:2925:GLU:HG3	1.70	0.71
1:C:4207:MET:HG2	1:C:4208:PRO:HD3	1.71	0.71
1:E:2921:GLU:O	1:E:2925:GLU:HG2	1.89	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4892:ARG:NH1	1:C:4896:GLY:HA3	2.04	0.71
1:A:4033:GLY:HA2	1:A:4189:ARG:HH12	1.55	0.71
1:C:1032:LYS:HB3	1:C:1036:ARG:NH1	2.05	0.71
1:E:1941:ASN:O	1:E:1944:GLU:HG2	1.90	0.71
1:G:298:GLY:HA3	1:G:377:ILE:HB	1.72	0.71
1:G:1141:ARG:HH12	1:G:1169:LEU:HD11	1.55	0.71
1:A:1032:LYS:HB3	1:A:1036:ARG:NH1	2.05	0.71
1:C:683:ARG:HH12	1:C:725:HIS:CD2	2.07	0.71
1:C:2178:MET:O	1:C:2182:ILE:HG12	1.90	0.71
1:C:1439:VAL:HB	1:C:1513:ASP:HB2	1.71	0.71
1:E:683:ARG:HH12	1:E:725:HIS:CD2	2.07	0.71
1:A:702:TRP:HD1	2:B:34:LYS:HZ1	1.30	0.71
1:C:4643:LEU:HA	1:C:4646:LEU:HB2	1.72	0.71
1:G:3750:GLU:HA	1:G:3753:PHE:HB3	1.72	0.71
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.72	0.71
1:C:1941:ASN:O	1:C:1944:GLU:HG2	1.91	0.71
1:E:544:LEU:HD12	1:E:574:VAL:HG13	1.72	0.71
1:E:1032:LYS:HB3	1:E:1036:ARG:NH1	2.05	0.71
1:G:293:LEU:H	1:G:311:ALA:HB1	1.54	0.71
1:G:1783:VAL:CG1	2:H:55:VAL:HA	2.20	0.71
1:A:2178:MET:O	1:A:2182:ILE:HG12	1.91	0.71
1:C:3756:LYS:NZ	1:C:4999:ASP:OD1	2.20	0.71
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.72	0.71
1:G:1941:ASN:O	1:G:1944:GLU:HG2	1.91	0.71
1:G:4729:GLY:HA2	1:G:4737:ILE:HG13	1.73	0.71
1:G:4913:ARG:HA	1:G:4916:PHE:HB3	1.71	0.71
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.56	0.71
1:E:298:GLY:HA3	1:E:377:ILE:HB	1.72	0.71
1:E:1783:VAL:CG1	2:F:55:VAL:HA	2.19	0.71
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.56	0.71
1:G:674:PHE:CD1	2:H:40:ARG:NH1	2.58	0.71
1:G:1078:GLU:HG2	1:G:1080:SER:H	1.55	0.71
1:C:544:LEU:HD12	1:C:574:VAL:HG13	1.72	0.71
1:E:1078:GLU:HG2	1:E:1080:SER:H	1.55	0.71
1:G:670:GLU:HA	1:G:740:PRO:HB3	1.71	0.71
1:E:293:LEU:H	1:E:311:ALA:HB1	1.54	0.70
1:G:281:ARG:HG2	1:G:312:THR:HG21	1.71	0.70
1:A:670:GLU:HA	1:A:740:PRO:HB3	1.72	0.70
1:A:1078:GLU:HG2	1:A:1080:SER:H	1.55	0.70
1:C:293:LEU:H	1:C:311:ALA:HB1	1.54	0.70
1:C:4138:ASP:O	1:C:4142:ASN:ND2	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4643:LEU:HA	1:E:4646:LEU:HB2	1.72	0.70
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.72	0.70
1:E:4961:CYS:SG	1:E:4978:HIS:NE2	2.61	0.70
1:G:4983:HIS:O	1:G:4985:LEU:N	2.23	0.70
1:A:4643:LEU:HA	1:A:4646:LEU:HB2	1.73	0.70
1:A:298:GLY:HA3	1:A:377:ILE:HB	1.72	0.70
1:A:4138:ASP:O	1:A:4142:ASN:ND2	2.25	0.70
1:E:281:ARG:HG2	1:E:312:THR:HG21	1.72	0.70
1:A:2293:GLN:HA	1:A:2296:GLU:HG2	1.73	0.70
1:C:298:GLY:HA3	1:C:377:ILE:HB	1.72	0.70
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.08	0.70
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.57	0.70
1:A:3966:THR:O	1:A:3970:GLN:HB2	1.92	0.70
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.55	0.70
1:E:702:TRP:CD1	2:F:34:LYS:NZ	2.56	0.70
1:E:737:LEU:HD11	2:F:7:ILE:HG22	1.73	0.70
1:E:2178:MET:O	1:E:2182:ILE:HG12	1.90	0.70
1:A:3970:GLN:HE21	1:A:5004:THR:HA	1.56	0.70
1:C:670:GLU:HA	1:C:740:PRO:HB3	1.72	0.70
1:E:3966:THR:O	1:E:3970:GLN:HB2	1.92	0.70
1:G:544:LEU:HD12	1:G:574:VAL:HG13	1.72	0.70
1:G:1032:LYS:HB3	1:G:1036:ARG:NH1	2.05	0.70
1:C:4033:GLY:HA2	1:C:4189:ARG:HH12	1.57	0.70
1:E:670:GLU:HA	1:E:740:PRO:HB3	1.72	0.70
1:A:737:LEU:HD11	2:B:7:ILE:HG22	1.72	0.70
1:A:2922:LYS:HA	1:A:2925:GLU:HG3	1.74	0.70
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.24	0.70
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.55	0.70
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.57	0.70
1:C:2095:GLN:NE2	1:C:2127:GLN:O	2.25	0.70
1:A:2326:CYS:HA	1:A:2329:GLU:HG2	1.74	0.69
1:G:548:VAL:HG21	1:G:582:HIS:HB3	1.73	0.69
1:C:2326:CYS:HA	1:C:2329:GLU:HG2	1.74	0.69
1:A:1102:VAL:HG22	1:A:1192:CYS:HA	1.75	0.69
1:E:2095:GLN:NE2	1:E:2127:GLN:O	2.25	0.69
1:C:1141:ARG:HH12	1:C:1169:LEU:HD11	1.57	0.69
1:E:4033:GLY:HA2	1:E:4189:ARG:HH12	1.56	0.69
1:A:548:VAL:HG21	1:A:582:HIS:HB3	1.73	0.69
1:C:1078:GLU:HG2	1:C:1080:SER:H	1.55	0.69
1:A:1783:VAL:CG1	2:B:55:VAL:HA	2.21	0.69
1:C:3966:THR:O	1:C:3970:GLN:HB2	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4154:VAL:HG22	1:C:4157:ASP:OD2	1.92	0.69
1:E:4786:ASP:OD2	1:E:4789:PHE:N	2.26	0.69
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.55	0.69
1:A:2095:GLN:NE2	1:A:2127:GLN:O	2.25	0.69
1:A:3756:LYS:NZ	1:A:4999:ASP:OD1	2.20	0.69
1:A:4003:LEU:HB2	1:A:4013:LEU:HD12	1.75	0.69
1:C:548:VAL:HG21	1:C:582:HIS:HB3	1.73	0.69
1:C:1102:VAL:HG22	1:C:1192:CYS:HA	1.75	0.69
1:E:1102:VAL:HG22	1:E:1192:CYS:HA	1.75	0.69
1:E:2326:CYS:HA	1:E:2329:GLU:HG2	1.74	0.69
1:E:2922:LYS:O	1:E:2925:GLU:HB2	1.93	0.69
1:G:3677:LEU:HB2	1:G:3698:LEU:HD12	1.75	0.69
1:C:4961:CYS:SG	1:C:4978:HIS:NE2	2.61	0.69
1:G:1102:VAL:HG22	1:G:1192:CYS:HA	1.75	0.69
1:A:4961:CYS:SG	1:A:4978:HIS:NE2	2.61	0.69
1:E:445:LEU:HD21	1:E:522:LEU:HD12	1.75	0.69
1:E:548:VAL:HG21	1:E:582:HIS:HB3	1.74	0.68
1:G:4923:PHE:O	1:G:4928:LEU:HG	1.94	0.68
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.08	0.68
1:G:4563:ARG:NH1	1:G:4815:ASP:OD1	2.27	0.68
2:B:74:LEU:HB2	2:B:99:PHE:HB2	1.74	0.68
1:C:2293:GLN:HA	1:C:2296:GLU:HG2	1.74	0.68
1:C:3970:GLN:HE21	1:C:5004:THR:HA	1.58	0.68
1:C:4892:ARG:HG3	1:E:4921:PHE:CE1	2.28	0.68
1:C:4971:THR:HG23	1:C:4974:GLY:HA3	1.75	0.68
1:E:2460:LEU:HD12	1:G:178:ARG:NH1	2.08	0.68
1:G:289:ARG:HD2	1:G:303:ASP:HA	1.75	0.68
1:G:674:PHE:HB3	2:H:40:ARG:HH12	1.58	0.68
1:G:2178:MET:O	1:G:2182:ILE:HG12	1.91	0.68
1:G:2326:CYS:HA	1:G:2329:GLU:HG2	1.74	0.68
1:C:674:PHE:HZ	2:D:71:ARG:NE	1.92	0.68
1:C:4148:THR:O	1:C:4151:SER:OG	2.11	0.68
1:E:3970:GLN:HE21	1:E:5004:THR:HA	1.57	0.68
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.75	0.68
1:G:4867:GLU:O	1:G:4869:GLU:N	2.27	0.68
1:G:4986:ALA:O	1:G:4989:MET:HG2	1.93	0.68
1:G:4207:MET:HG2	1:G:4208:PRO:HD3	1.76	0.68
1:A:4154:VAL:HG22	1:A:4157:ASP:OD2	1.92	0.68
1:E:289:ARG:HD2	1:E:303:ASP:HA	1.76	0.68
1:E:674:PHE:HZ	2:F:71:ARG:NE	1.90	0.68
1:E:2293:GLN:HA	1:E:2296:GLU:HG2	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4154:VAL:HG22	1:E:4157:ASP:OD2	1.92	0.68
1:A:4148:THR:O	1:A:4151:SER:OG	2.12	0.68
1:A:4727:LYS:HZ1	1:A:4728:HIS:CE1	2.11	0.68
1:C:4003:LEU:HB2	1:C:4013:LEU:HD12	1.76	0.68
1:C:4230:LYS:NZ	1:C:4960:ILE:O	2.27	0.68
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.26	0.68
2:F:74:LEU:HB2	2:F:99:PHE:HB2	1.75	0.68
1:A:674:PHE:HZ	2:B:71:ARG:NE	1.91	0.68
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.26	0.68
1:C:4655:PHE:O	1:C:4658:ILE:HG13	1.94	0.68
2:D:74:LEU:HB2	2:D:99:PHE:HB2	1.75	0.68
1:A:2059:LEU:HB3	1:A:2062:ARG:NH1	2.09	0.68
1:A:4921:PHE:CE1	1:G:4892:ARG:HG3	2.29	0.68
1:C:702:TRP:CD1	2:D:34:LYS:NZ	2.58	0.68
1:G:1931:LEU:O	1:G:1936:LYS:NZ	2.21	0.68
1:A:168:ASP:OD1	1:A:201:ASN:ND2	2.27	0.67
1:A:2151:ASP:OD1	1:A:2188:ASN:ND2	2.27	0.67
1:A:4867:GLU:O	1:A:4869:GLU:N	2.27	0.67
1:C:289:ARG:HD2	1:C:303:ASP:HA	1.75	0.67
1:E:1708:ARG:HD2	1:E:1837:GLN:HE22	1.59	0.67
1:G:4876:CYS:O	1:G:4881:THR:OG1	2.09	0.67
1:C:4036:VAL:O	1:C:4038:GLY:N	2.27	0.67
1:E:2059:LEU:HB3	1:E:2062:ARG:NH1	2.09	0.67
1:G:2151:ASP:OD1	1:G:2188:ASN:ND2	2.27	0.67
1:A:4230:LYS:NZ	1:A:4960:ILE:O	2.27	0.67
1:E:106:ALA:HB1	1:E:147:TRP:HB3	1.77	0.67
1:E:2151:ASP:OD1	1:E:2188:ASN:ND2	2.27	0.67
1:E:4148:THR:O	1:E:4151:SER:OG	2.11	0.67
1:A:4655:PHE:O	1:A:4658:ILE:HG13	1.95	0.67
1:C:737:LEU:HD11	2:D:7:ILE:HG22	1.74	0.67
1:C:1708:ARG:HD2	1:C:1837:GLN:HE22	1.59	0.67
1:E:4036:VAL:O	1:E:4038:GLY:N	2.27	0.67
1:E:4230:LYS:NZ	1:E:4960:ILE:O	2.27	0.67
1:E:4581:LYS:HD2	1:G:4856:PHE:HZ	1.59	0.67
1:E:4655:PHE:O	1:E:4658:ILE:HG13	1.94	0.67
1:G:3780:LEU:HD11	1:G:3820:LEU:HD21	1.76	0.67
1:C:106:ALA:HB1	1:C:147:TRP:HB3	1.77	0.67
1:C:2151:ASP:OD1	1:C:2188:ASN:ND2	2.27	0.67
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.77	0.67
1:E:975:VAL:HG21	1:E:1044:ARG:HB3	1.75	0.67
1:A:975:VAL:HG21	1:A:1044:ARG:HB3	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4036:VAL:O	1:A:4038:GLY:N	2.27	0.67
1:C:2460:LEU:HD12	1:E:178:ARG:NH1	2.10	0.67
1:E:544:LEU:HD21	1:E:578:ILE:HG13	1.76	0.67
1:E:579:GLN:HB2	1:E:582:HIS:ND1	2.10	0.67
1:G:579:GLN:HB2	1:G:582:HIS:ND1	2.10	0.67
1:G:2059:LEU:HB3	1:G:2062:ARG:NH1	2.09	0.67
1:A:445:LEU:HD21	1:A:522:LEU:HD12	1.76	0.67
1:A:579:GLN:HB2	1:A:582:HIS:ND1	2.10	0.67
1:A:4884:LEU:HA	1:A:4887:MET:HB3	1.77	0.67
1:C:4884:LEU:HA	1:C:4887:MET:HB3	1.77	0.67
1:C:4892:ARG:NH1	1:E:4896:GLY:HA3	2.09	0.67
1:G:717:ASP:OD2	2:H:7:ILE:HA	1.95	0.67
1:A:289:ARG:HD2	1:A:303:ASP:HA	1.75	0.67
1:A:1100:MET:HB2	1:A:1126:GLY:HA3	1.76	0.67
1:C:1457:TYR:OH	1:C:1459:GLN:NE2	2.27	0.67
1:G:975:VAL:HG21	1:G:1044:ARG:HB3	1.76	0.67
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.08	0.67
1:A:544:LEU:HD21	1:A:578:ILE:HG13	1.76	0.67
1:C:975:VAL:HG21	1:C:1044:ARG:HB3	1.76	0.67
2:D:48:PHE:HZ	2:D:63:VAL:HG11	1.59	0.67
1:E:865:PRO:HA	1:E:868:GLU:HB2	1.76	0.67
1:E:4003:LEU:HB2	1:E:4013:LEU:HD12	1.76	0.67
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.77	0.67
1:A:265:LEU:HD12	1:A:279:PRO:HB2	1.76	0.67
1:C:265:LEU:HD12	1:C:279:PRO:HB2	1.75	0.67
1:C:544:LEU:HD21	1:C:578:ILE:HG13	1.76	0.67
1:C:4867:GLU:O	1:C:4869:GLU:N	2.27	0.67
1:E:4867:GLU:O	1:E:4869:GLU:N	2.27	0.67
1:G:1544:PRO:HG2	1:G:1546:THR:HG23	1.77	0.67
1:G:2095:GLN:NE2	1:G:2127:GLN:O	2.28	0.67
1:A:263:GLU:O	1:A:281:ARG:N	2.28	0.66
1:C:445:LEU:HD21	1:C:522:LEU:HD12	1.75	0.66
1:C:2059:LEU:HB3	1:C:2062:ARG:NH1	2.09	0.66
1:E:645:ARG:O	1:E:824:GLU:N	2.28	0.66
1:G:106:ALA:HB1	1:G:147:TRP:HB3	1.77	0.66
1:G:865:PRO:HA	1:G:868:GLU:HB2	1.77	0.66
1:G:4003:LEU:HB2	1:G:4013:LEU:HD12	1.77	0.66
1:A:758:ARG:NH1	1:A:763:PRO:HD3	2.10	0.66
1:A:4971:THR:HG23	1:A:4974:GLY:HA3	1.77	0.66
1:E:1856:ASP:H	1:E:1857:GLU:HB3	1.60	0.66
1:E:2430:ILE:HD13	1:E:2502:MET:HG2	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:263:GLU:O	1:G:281:ARG:N	2.28	0.66
1:G:445:LEU:HD21	1:G:522:LEU:HD12	1.75	0.66
1:A:2460:LEU:HD12	1:C:178:ARG:NH1	2.10	0.66
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	1.77	0.66
1:A:4210:VAL:O	1:A:4214:LYS:N	2.28	0.66
1:C:1856:ASP:H	1:C:1857:GLU:HB3	1.61	0.66
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	1.77	0.66
1:E:4210:VAL:O	1:E:4214:LYS:N	2.28	0.66
1:E:4892:ARG:HA	1:G:4921:PHE:CZ	2.29	0.66
1:A:1513:ASP:C	1:A:1514:LEU:HD12	2.16	0.66
1:C:540:PHE:HA	1:C:543:ASN:HD22	1.61	0.66
1:C:579:GLN:HB2	1:C:582:HIS:ND1	2.10	0.66
1:C:1100:MET:HB2	1:C:1126:GLY:HA3	1.76	0.66
1:A:540:PHE:HA	1:A:543:ASN:HD22	1.61	0.66
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.78	0.66
1:C:1078:GLU:HA	1:C:1237:TRP:CZ3	2.31	0.66
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	1.77	0.66
1:E:252:VAL:HG23	1:E:257:ARG:HE	1.61	0.66
1:E:1100:MET:HB2	1:E:1126:GLY:HA3	1.76	0.66
1:E:4971:THR:HG23	1:E:4974:GLY:HA3	1.77	0.66
2:F:48:PHE:HZ	2:F:63:VAL:HG11	1.59	0.66
1:G:4884:LEU:HA	1:G:4887:MET:HB3	1.78	0.66
1:C:591:ASP:OD2	1:C:1585:LYS:HG3	1.95	0.66
1:E:674:PHE:HB3	2:F:40:ARG:HH12	1.60	0.66
1:A:591:ASP:OD2	1:A:1585:LYS:HG3	1.95	0.66
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.77	0.66
1:C:2430:ILE:HD13	1:C:2502:MET:HG2	1.78	0.66
1:E:3934:TYR:HB2	1:E:3995:VAL:HG13	1.78	0.66
1:E:168:ASP:OD1	1:E:201:ASN:ND2	2.27	0.66
1:G:168:ASP:OD1	1:G:201:ASN:ND2	2.28	0.66
1:G:591:ASP:OD2	1:G:1585:LYS:HG3	1.95	0.66
1:G:1708:ARG:HD2	1:G:1837:GLN:HE22	1.60	0.66
1:A:865:PRO:HA	1:A:868:GLU:HB2	1.78	0.66
1:C:252:VAL:HG23	1:C:257:ARG:HE	1.61	0.66
1:C:263:GLU:O	1:C:281:ARG:N	2.28	0.66
1:E:4933:GLN:HG2	1:G:4926:VAL:HG13	1.76	0.66
1:G:1100:MET:HB2	1:G:1126:GLY:HA3	1.76	0.66
1:A:1544:PRO:HG2	1:A:1546:THR:HG23	1.78	0.65
1:A:1856:ASP:H	1:A:1857:GLU:HB3	1.61	0.65
1:C:628:GLY:O	1:C:630:GLU:N	2.27	0.65
1:C:758:ARG:NH1	1:C:763:PRO:HD3	2.11	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1544:PRO:HG2	1:C:1546:THR:HG23	1.78	0.65
1:C:2862:LEU:HD21	1:C:2929:PHE:HB2	1.78	0.65
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.77	0.65
1:G:4154:VAL:O	1:G:4154:VAL:HG13	1.96	0.65
1:A:3934:TYR:HB2	1:A:3995:VAL:HG13	1.78	0.65
1:A:4839:MET:SD	1:G:4822:THR:HG23	2.35	0.65
1:C:2922:LYS:HA	1:C:2925:GLU:HG2	1.78	0.65
1:C:4727:LYS:HZ1	1:C:4728:HIS:CE1	2.13	0.65
1:G:252:VAL:HG23	1:G:257:ARG:HE	1.61	0.65
1:G:544:LEU:HD21	1:G:578:ILE:HG13	1.77	0.65
1:G:593:HIS:HB3	1:G:596:ASN:ND2	2.12	0.65
1:G:645:ARG:O	1:G:824:GLU:N	2.28	0.65
1:G:1856:ASP:H	1:G:1857:GLU:HB3	1.61	0.65
1:A:645:ARG:O	1:A:824:GLU:N	2.28	0.65
1:A:2430:ILE:HD13	1:A:2502:MET:HG2	1.78	0.65
1:E:758:ARG:NH1	1:E:763:PRO:HD3	2.11	0.65
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.07	0.65
1:G:628:GLY:O	1:G:630:GLU:N	2.27	0.65
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	1.77	0.65
1:A:1708:ARG:HD2	1:A:1837:GLN:HE22	1.60	0.65
1:A:2646:ASN:HA	1:A:2699:ALA:HB1	1.79	0.65
1:C:593:HIS:HB3	1:C:596:ASN:ND2	2.12	0.65
1:A:593:HIS:HB3	1:A:596:ASN:ND2	2.12	0.65
1:A:2862:LEU:HD21	1:A:2929:PHE:HB2	1.78	0.65
1:A:4839:MET:SD	1:G:4822:THR:O	2.54	0.65
1:C:3934:TYR:HB2	1:C:3995:VAL:HG13	1.78	0.65
1:E:591:ASP:OD2	1:E:1585:LYS:HG3	1.95	0.65
1:E:1078:GLU:HA	1:E:1237:TRP:CZ3	2.31	0.65
1:G:2293:GLN:HA	1:G:2296:GLU:HG2	1.77	0.65
1:A:178:ARG:NH1	1:G:2460:LEU:HD12	2.12	0.65
1:A:628:GLY:O	1:A:630:GLU:N	2.27	0.65
1:A:3969:ILE:HG12	1:A:3980:LEU:HD11	1.79	0.65
2:B:48:PHE:HZ	2:B:63:VAL:HG11	1.59	0.65
1:E:18:ASP:HB3	1:E:69:LEU:HD12	1.78	0.65
1:G:3966:THR:O	1:G:3970:GLN:N	2.29	0.65
1:A:451:TYR:O	1:A:474:ARG:NH1	2.30	0.65
1:A:1078:GLU:HA	1:A:1237:TRP:CZ3	2.32	0.65
1:E:540:PHE:HA	1:E:543:ASN:HD22	1.61	0.65
1:G:669:ASP:OD2	1:G:790:ARG:HB2	1.96	0.65
1:G:2430:ILE:HD13	1:G:2502:MET:HG2	1.79	0.65
1:C:3969:ILE:HG12	1:C:3980:LEU:HD11	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1141:ARG:HH12	1:E:1169:LEU:HD11	1.59	0.65
1:E:2862:LEU:HD21	1:E:2929:PHE:HB2	1.79	0.65
1:G:4786:ASP:OD2	1:G:4789:PHE:N	2.29	0.65
1:A:4839:MET:CE	1:G:4826:ILE:HG13	2.27	0.65
1:E:467:LYS:O	1:E:470:SER:OG	2.12	0.65
1:G:540:PHE:HA	1:G:543:ASN:HD22	1.61	0.65
1:G:4107:GLU:HA	1:G:4110:PHE:HB3	1.78	0.65
1:E:669:ASP:OD2	1:E:790:ARG:HB2	1.97	0.65
1:A:669:ASP:OD2	1:A:790:ARG:HB2	1.97	0.64
1:A:4688:ILE:HD12	1:A:4737:ILE:HD12	1.79	0.64
1:C:865:PRO:HA	1:C:868:GLU:HB2	1.77	0.64
1:E:1544:PRO:HG2	1:E:1546:THR:HG23	1.78	0.64
1:E:4884:LEU:HA	1:E:4887:MET:HB3	1.80	0.64
1:G:451:TYR:O	1:G:474:ARG:NH1	2.30	0.64
1:E:263:GLU:O	1:E:281:ARG:N	2.28	0.64
1:E:593:HIS:HB3	1:E:596:ASN:ND2	2.12	0.64
1:A:106:ALA:HB1	1:A:147:TRP:HB3	1.79	0.64
1:A:3914:ASN:HB3	1:A:3917:ILE:HD12	1.79	0.64
1:C:4688:ILE:HD12	1:C:4737:ILE:HD12	1.79	0.64
1:E:451:TYR:O	1:E:474:ARG:NH1	2.31	0.64
1:E:628:GLY:O	1:E:630:GLU:N	2.27	0.64
1:G:4643:LEU:HA	1:G:4646:LEU:HB2	1.80	0.64
1:A:131:LEU:HB3	1:G:2460:LEU:HD21	1.80	0.64
1:A:1115:LEU:HD21	1:A:1123:VAL:HG21	1.80	0.64
1:A:2922:LYS:HA	1:A:2925:GLU:HG2	1.77	0.64
1:C:2646:ASN:HA	1:C:2699:ALA:HB1	1.78	0.64
1:E:3969:ILE:HG12	1:E:3980:LEU:HD11	1.80	0.64
1:G:18:ASP:HB3	1:G:69:LEU:HD12	1.79	0.64
1:G:1436:SER:HA	1:G:1515:VAL:O	1.98	0.64
1:A:674:PHE:HB3	2:B:40:ARG:HH12	1.62	0.64
1:A:4027:LEU:O	1:A:4031:LEU:HD13	1.98	0.64
1:C:168:ASP:OD1	1:C:201:ASN:ND2	2.28	0.64
1:C:669:ASP:OD2	1:C:790:ARG:HB2	1.97	0.64
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	1.80	0.64
1:E:638:ILE:HG22	1:E:639:ASN:H	1.62	0.64
1:E:4688:ILE:HD12	1:E:4737:ILE:HD12	1.79	0.64
1:G:3914:ASN:HB3	1:G:3917:ILE:HD12	1.78	0.64
1:A:116:MET:HG2	1:A:139:GLU:HG3	1.80	0.64
1:C:3914:ASN:HB3	1:C:3917:ILE:HD12	1.79	0.64
1:G:467:LYS:O	1:G:470:SER:OG	2.12	0.64
1:G:638:ILE:HG22	1:G:639:ASN:H	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.80	0.64
1:A:252:VAL:HG23	1:A:257:ARG:HE	1.61	0.64
1:C:2453:ILE:O	1:C:2456:ILE:HG22	1.98	0.64
1:E:4823:LEU:HA	1:E:4826:ILE:HD12	1.79	0.64
1:G:1078:GLU:HB3	1:G:1081:TYR:CD2	2.33	0.64
1:A:4892:ARG:HG3	1:C:4921:PHE:CE1	2.33	0.64
1:C:1115:LEU:HD21	1:C:1123:VAL:HG21	1.80	0.64
1:E:1078:GLU:HB3	1:E:1081:TYR:CD2	2.33	0.64
1:E:2453:ILE:O	1:E:2456:ILE:HG22	1.98	0.64
1:G:116:MET:HG2	1:G:139:GLU:HG3	1.80	0.64
1:G:758:ARG:NH1	1:G:763:PRO:HD3	2.13	0.64
1:G:4933:GLN:O	1:G:4937:ILE:HG12	1.98	0.64
1:A:674:PHE:CD1	2:B:40:ARG:NH1	2.64	0.64
1:C:451:TYR:O	1:C:474:ARG:NH1	2.31	0.64
1:C:1143:TRP:HB3	1:C:1164:LEU:HD11	1.80	0.64
1:A:2922:LYS:C	1:A:2925:GLU:HB2	2.18	0.64
1:A:4035:VAL:HG23	1:A:4036:VAL:H	1.63	0.64
1:C:116:MET:HG2	1:C:139:GLU:HG3	1.80	0.64
1:A:1078:GLU:HB3	1:A:1081:TYR:CD2	2.33	0.63
1:C:4210:VAL:O	1:C:4214:LYS:N	2.28	0.63
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.80	0.63
1:E:1115:LEU:HD21	1:E:1123:VAL:HG21	1.80	0.63
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	1.80	0.63
1:E:2460:LEU:HD21	1:G:131:LEU:HB3	1.80	0.63
1:E:3702:VAL:HG21	1:E:3773:ARG:HB3	1.80	0.63
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.80	0.63
1:G:2453:ILE:O	1:G:2456:ILE:HG22	1.98	0.63
1:G:2646:ASN:HA	1:G:2699:ALA:HB1	1.81	0.63
1:E:3889:GLN:NE2	1:E:3963:ASN:OD1	2.32	0.63
1:G:3783:ILE:O	1:G:3831:SER:OG	2.11	0.63
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.31	0.63
1:A:2453:ILE:O	1:A:2456:ILE:HG22	1.98	0.63
1:A:3878:ASP:O	1:A:3881:THR:OG1	2.14	0.63
1:A:4986:ALA:O	1:A:4989:MET:HG2	1.99	0.63
1:C:18:ASP:HB3	1:C:69:LEU:HD12	1.79	0.63
1:C:212:GLY:HA2	1:C:341:TYR:H	1.63	0.63
1:C:638:ILE:HG22	1:C:639:ASN:H	1.62	0.63
1:C:4035:VAL:HG23	1:C:4036:VAL:H	1.63	0.63
1:E:1143:TRP:HB3	1:E:1164:LEU:HD11	1.80	0.63
1:E:3892:CYS:HB3	1:E:3900:GLN:HE21	1.63	0.63
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4986:ALA:O	1:E:4989:MET:HG2	1.99	0.63
1:G:1104:TRP:HB3	1:G:1188:PHE:HB3	1.81	0.63
1:G:1143:TRP:HB3	1:G:1164:LEU:HD11	1.79	0.63
1:C:263:GLU:HB2	1:C:281:ARG:HB2	1.81	0.63
1:C:646:PRO:HD2	1:C:779:PRO:HG2	1.79	0.63
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.81	0.63
1:C:674:PHE:CD1	2:D:40:ARG:NH1	2.62	0.63
1:C:4027:LEU:O	1:C:4031:LEU:HD13	1.97	0.63
1:E:1104:TRP:HB3	1:E:1188:PHE:HB3	1.81	0.63
1:G:4715:TYR:CE2	1:G:4717:ASP:HB2	2.34	0.63
1:G:4983:HIS:C	1:G:4985:LEU:H	2.01	0.63
1:A:646:PRO:HD2	1:A:779:PRO:HG2	1.80	0.63
1:C:603:LEU:HD23	1:C:606:LEU:HD12	1.80	0.63
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.80	0.63
1:C:3963:ASN:O	1:C:3966:THR:OG1	2.14	0.63
1:C:4889:VAL:O	1:C:4893:ALA:N	2.22	0.63
1:E:603:LEU:HD23	1:E:606:LEU:HD12	1.81	0.63
1:E:2646:ASN:HA	1:E:2699:ALA:HB1	1.80	0.63
1:E:4656:LEU:O	1:E:4659:ILE:HG22	1.97	0.63
1:G:2862:LEU:HD21	1:G:2929:PHE:HB2	1.80	0.63
1:E:3914:ASN:HB3	1:E:3917:ILE:HD12	1.79	0.63
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.80	0.63
1:G:1115:LEU:HD21	1:G:1123:VAL:HG21	1.80	0.63
1:G:4881:THR:HA	1:G:4884:LEU:HG	1.81	0.63
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.80	0.63
1:C:224:HIS:HB2	1:C:247:TYR:CD1	2.34	0.63
1:E:4035:VAL:HG23	1:E:4036:VAL:H	1.63	0.63
1:A:170:ILE:HG12	1:A:197:GLN:HB3	1.79	0.63
1:A:1729:SER:HB2	1:A:2163:ARG:NH1	2.14	0.63
1:A:4656:LEU:O	1:A:4659:ILE:HG22	1.98	0.63
1:C:4656:LEU:O	1:C:4659:ILE:HG22	1.98	0.63
1:E:212:GLY:HA2	1:E:341:TYR:H	1.64	0.63
1:E:263:GLU:HB2	1:E:281:ARG:HB2	1.81	0.63
1:G:170:ILE:HG12	1:G:197:GLN:HB3	1.81	0.63
1:G:603:LEU:HD23	1:G:606:LEU:HD12	1.81	0.63
1:G:674:PHE:CB	2:H:40:ARG:HH12	2.12	0.63
1:G:1729:SER:HB2	1:G:2163:ARG:NH1	2.14	0.63
1:A:3889:GLN:NE2	1:A:3963:ASN:OD1	2.32	0.62
1:A:4868:ASP:OD1	1:A:4869:GLU:N	2.32	0.62
1:A:4889:VAL:O	1:A:4893:ALA:N	2.22	0.62
1:A:4931:ILE:HD11	1:G:4940:PHE:CD1	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1078:GLU:HB3	1:C:1081:TYR:CD2	2.33	0.62
1:C:4124:ASN:OD1	1:C:4125:PHE:N	2.32	0.62
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.31	0.62
1:A:224:HIS:HB2	1:A:247:TYR:CD1	2.34	0.62
1:A:1835:GLU:CG	1:A:1932:PRO:HG2	2.27	0.62
1:C:1104:TRP:HB3	1:C:1188:PHE:HB3	1.81	0.62
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.81	0.62
1:E:3962:PHE:O	1:E:3966:THR:HG23	1.99	0.62
1:G:2071:ARG:NH2	1:G:3666:ASP:OD2	2.32	0.62
1:G:3926:LEU:O	1:G:3930:ILE:HG12	1.99	0.62
1:G:4956:THR:O	1:G:4965:SER:N	2.32	0.62
1:A:603:LEU:HD23	1:A:606:LEU:HD12	1.81	0.62
1:A:1143:TRP:HB3	1:A:1164:LEU:HD11	1.79	0.62
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.81	0.62
1:C:2460:LEU:HD21	1:E:131:LEU:HB3	1.80	0.62
1:E:1436:SER:HA	1:E:1515:VAL:O	1.99	0.62
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.80	0.62
1:E:4027:LEU:O	1:E:4031:LEU:HD13	1.98	0.62
1:E:4868:ASP:OD1	1:E:4869:GLU:N	2.32	0.62
1:G:1078:GLU:HA	1:G:1237:TRP:CZ3	2.32	0.62
1:A:669:ASP:HB3	1:A:788:LYS:HZ1	1.64	0.62
1:A:1104:TRP:HB3	1:A:1188:PHE:HB3	1.81	0.62
1:C:3702:VAL:HG21	1:C:3773:ARG:HB3	1.81	0.62
1:C:3962:PHE:O	1:C:3966:THR:HG23	1.99	0.62
1:C:4986:ALA:O	1:C:4989:MET:HG2	1.99	0.62
1:E:116:MET:HG2	1:E:139:GLU:HG3	1.80	0.62
1:G:224:HIS:HB2	1:G:247:TYR:CD1	2.34	0.62
1:G:3884:LEU:O	1:G:3887:PHE:HB3	1.98	0.62
1:G:3900:GLN:NE2	1:G:3967:GLU:O	2.31	0.62
1:G:4160:LEU:O	1:G:4164:LEU:N	2.32	0.62
1:G:4853:VAL:O	1:G:4857:ASN:ND2	2.31	0.62
1:A:263:GLU:HB2	1:A:281:ARG:HB2	1.82	0.62
1:G:1853:ILE:O	1:G:1854:PHE:HB2	1.99	0.62
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.82	0.62
1:C:2452:ARG:NH2	1:E:177:GLU:OE2	2.33	0.62
1:E:1729:SER:HB2	1:E:2163:ARG:NH1	2.14	0.62
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.81	0.62
1:E:1087:ARG:HB3	1:E:1223:PHE:HD1	1.64	0.62
1:E:2071:ARG:NH2	1:E:3666:ASP:OD2	2.33	0.62
1:G:212:GLY:HA2	1:G:341:TYR:H	1.64	0.62
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4901:ILE:HD13	1:G:4913:ARG:HH21	1.65	0.62
1:A:2071:ARG:NH2	1:A:3666:ASP:OD2	2.33	0.62
1:E:170:ILE:HG12	1:E:197:GLN:HB3	1.81	0.62
1:E:224:HIS:HB2	1:E:247:TYR:CD1	2.34	0.62
1:E:646:PRO:HD2	1:E:779:PRO:HG2	1.80	0.62
1:G:646:PRO:HD2	1:G:779:PRO:HG2	1.80	0.62
1:G:3892:CYS:HB3	1:G:3900:GLN:HE21	1.65	0.62
1:A:554:LEU:HD13	1:A:1596:GLU:HB3	1.82	0.62
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	1.81	0.62
1:A:3962:PHE:O	1:A:3966:THR:HG23	1.99	0.62
1:C:554:LEU:HD13	1:C:1596:GLU:HB3	1.82	0.62
1:C:645:ARG:O	1:C:824:GLU:N	2.28	0.62
1:E:554:LEU:HD13	1:E:1596:GLU:HB3	1.82	0.62
1:E:1827:ARG:HG3	1:E:1827:ARG:O	2.00	0.62
1:E:1853:ILE:O	1:E:1854:PHE:HB2	1.99	0.62
1:G:263:GLU:HB2	1:G:281:ARG:HB2	1.81	0.62
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	1.81	0.62
1:C:1158:ASN:HB3	1:C:1182:ILE:H	1.65	0.62
1:C:1853:ILE:O	1:C:1854:PHE:HB2	1.99	0.62
1:C:2460:LEU:CD1	1:E:178:ARG:NH1	2.62	0.62
1:A:212:GLY:HA2	1:A:341:TYR:H	1.63	0.61
1:A:702:TRP:CD1	2:B:34:LYS:NZ	2.58	0.61
1:A:892:THR:H	1:A:902:ARG:HA	1.65	0.61
1:G:478:PHE:CZ	1:G:483:MET:HB2	2.35	0.61
1:G:4688:ILE:HD12	1:G:4737:ILE:HD12	1.82	0.61
2:H:27:THR:HA	2:H:38:SER:HA	1.82	0.61
1:A:168:ASP:HB3	1:A:199:LEU:HD22	1.82	0.61
1:A:2930:LEU:HB3	1:A:2937:VAL:HG21	1.82	0.61
1:A:4581:LYS:HD2	1:C:4856:PHE:HZ	1.65	0.61
1:E:3965:LEU:HD23	1:E:3968:TYR:HD2	1.65	0.61
1:G:264:PRO:HG3	1:G:274:LEU:HD11	1.82	0.61
1:G:554:LEU:HD13	1:G:1596:GLU:HB3	1.82	0.61
1:A:3702:VAL:HG21	1:A:3773:ARG:HB3	1.81	0.61
1:C:674:PHE:HB3	2:D:40:ARG:HH12	1.64	0.61
1:C:1827:ARG:O	1:C:1827:ARG:HG3	2.01	0.61
1:C:4023:MET:O	1:C:4026:MET:HG2	2.00	0.61
1:E:748:LEU:HD11	1:E:753:PRO:HA	1.82	0.61
1:E:2460:LEU:CD1	1:G:178:ARG:NH1	2.63	0.61
1:A:264:PRO:HG3	1:A:274:LEU:HD11	1.82	0.61
1:C:1729:SER:HB2	1:C:2163:ARG:NH1	2.15	0.61
1:E:478:PHE:CZ	1:E:483:MET:HB2	2.36	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2930:LEU:HB3	1:E:2937:VAL:HG21	1.80	0.61
1:A:4124:ASN:OD1	1:A:4125:PHE:N	2.32	0.61
1:A:4856:PHE:HZ	1:G:4581:LYS:HD2	1.64	0.61
1:C:2237:CYS:HB2	1:C:2275:VAL:HG22	1.83	0.61
1:C:3892:CYS:HB3	1:C:3900:GLN:HE21	1.64	0.61
1:E:264:PRO:HG3	1:E:274:LEU:HD11	1.83	0.61
1:E:2237:CYS:HB2	1:E:2275:VAL:HG22	1.82	0.61
1:G:1158:ASN:HB3	1:G:1182:ILE:H	1.65	0.61
1:A:3892:CYS:HB3	1:A:3900:GLN:HE21	1.64	0.61
1:C:467:LYS:O	1:C:470:SER:OG	2.13	0.61
1:C:1835:GLU:CG	1:C:1932:PRO:HG2	2.26	0.61
1:C:2071:ARG:NH2	1:C:3666:ASP:OD2	2.33	0.61
1:G:1827:ARG:HG3	1:G:1827:ARG:O	2.01	0.61
1:G:4555:LEU:HD22	1:G:4660:GLY:HA3	1.82	0.61
1:G:4847:VAL:HG21	1:G:4928:LEU:HD11	1.83	0.61
1:G:4868:ASP:OD1	1:G:4869:GLU:N	2.32	0.61
1:A:1815:LEU:HD11	1:A:1845:VAL:HG21	1.83	0.61
1:A:3965:LEU:HD23	1:A:3968:TYR:HD2	1.65	0.61
1:A:4023:MET:O	1:A:4026:MET:HG2	2.00	0.61
1:C:478:PHE:CZ	1:C:483:MET:HB2	2.35	0.61
1:C:892:THR:H	1:C:902:ARG:HA	1.65	0.61
1:E:1835:GLU:CG	1:E:1932:PRO:HG2	2.26	0.61
1:E:4063:ASP:HA	1:E:4170:ILE:HG12	1.83	0.61
1:G:214:VAL:HA	1:G:341:TYR:CE1	2.36	0.61
1:G:4190:ILE:HD11	1:G:5026:ASP:HB2	1.81	0.61
1:A:18:ASP:HB3	1:A:69:LEU:HD12	1.81	0.61
1:A:178:ARG:NH1	1:G:2460:LEU:CD1	2.64	0.61
1:A:1827:ARG:HG3	1:A:1827:ARG:O	2.01	0.61
1:C:264:PRO:HG3	1:C:274:LEU:HD11	1.83	0.61
1:C:3889:GLN:NE2	1:C:3963:ASN:OD1	2.32	0.61
1:C:3965:LEU:HD23	1:C:3968:TYR:HD2	1.65	0.61
1:C:4172:GLU:HG2	1:C:4175:ARG:NH1	2.15	0.61
1:E:892:THR:H	1:E:902:ARG:HA	1.65	0.61
1:E:1825:HIS:ND1	1:E:1825:HIS:O	2.34	0.61
1:G:748:LEU:HD11	1:G:753:PRO:HA	1.83	0.61
1:G:892:THR:H	1:G:902:ARG:HA	1.65	0.61
1:A:214:VAL:HA	1:A:341:TYR:CE1	2.36	0.61
1:A:4031:LEU:HD11	1:A:4044:MET:SD	2.41	0.61
1:G:1835:GLU:CG	1:G:1932:PRO:HG2	2.26	0.61
1:G:4642:ALA:O	1:G:4646:LEU:N	2.32	0.61
2:H:48:PHE:HZ	2:H:63:VAL:HG11	1.64	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:478:PHE:CZ	1:A:483:MET:HB2	2.36	0.61
1:A:1856:ASP:H	1:A:1858:ASP:H	1.49	0.61
1:A:2460:LEU:HD21	1:C:131:LEU:HB3	1.82	0.61
1:A:4063:ASP:HA	1:A:4170:ILE:HG12	1.83	0.61
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.83	0.61
1:C:1815:LEU:HD11	1:C:1845:VAL:HG21	1.83	0.61
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	2.01	0.61
1:G:1815:LEU:HD11	1:G:1845:VAL:HG21	1.82	0.61
1:C:1825:HIS:ND1	1:C:1825:HIS:O	2.33	0.60
1:C:1856:ASP:H	1:C:1858:ASP:H	1.49	0.60
1:C:4063:ASP:HA	1:C:4170:ILE:HG12	1.83	0.60
1:E:1158:ASN:HB3	1:E:1182:ILE:H	1.65	0.60
1:E:4023:MET:O	1:E:4026:MET:HG2	2.00	0.60
1:G:887:ILE:HG21	1:G:962:SER:HB2	1.83	0.60
1:C:170:ILE:HG12	1:C:197:GLN:HB3	1.81	0.60
1:C:2930:LEU:HB3	1:C:2937:VAL:HG21	1.81	0.60
1:E:533:ASN:OD1	1:E:534:ARG:N	2.34	0.60
1:E:2452:ARG:NH2	1:G:177:GLU:OE2	2.34	0.60
1:G:533:ASN:OD1	1:G:534:ARG:N	2.34	0.60
1:G:3968:TYR:HB2	1:G:3969:ILE:HD12	1.83	0.60
1:A:1853:ILE:O	1:A:1854:PHE:HB2	1.99	0.60
1:C:4031:LEU:HD11	1:C:4044:MET:SD	2.41	0.60
1:G:1825:HIS:ND1	1:G:1825:HIS:O	2.34	0.60
1:G:1856:ASP:H	1:G:1858:ASP:H	1.49	0.60
1:A:1854:PHE:HB3	1:A:1855:GLY:HA2	1.84	0.60
1:A:2237:CYS:HB2	1:A:2275:VAL:HG22	1.82	0.60
1:C:748:LEU:HD11	1:C:753:PRO:HA	1.82	0.60
1:E:214:VAL:HA	1:E:341:TYR:CE1	2.36	0.60
1:E:299:LEU:HB2	1:E:378:LEU:HG	1.84	0.60
1:E:3771:HIS:HD2	1:E:3812:VAL:HG22	1.65	0.60
1:G:2204:HIS:HB3	1:G:2239:PHE:CE2	2.37	0.60
1:G:4030:LEU:HD23	1:G:4044:MET:HE3	1.83	0.60
1:A:1205:GLY:HA2	1:A:1225:PRO:HB2	1.83	0.60
1:A:3771:HIS:HD2	1:A:3812:VAL:HG22	1.64	0.60
1:A:4715:TYR:CE2	1:A:4717:ASP:HB2	2.36	0.60
1:C:1854:PHE:HB3	1:C:1855:GLY:HA2	1.83	0.60
1:E:37:LEU:HD11	1:E:47:CYS:SG	2.42	0.60
1:E:5006:GLN:HA	1:E:5009:TYR:CE2	2.37	0.60
1:G:1854:PHE:HB3	1:G:1855:GLY:HA2	1.84	0.60
1:G:4836:GLN:O	1:G:4839:MET:HG2	2.01	0.60
1:A:748:LEU:HD11	1:A:753:PRO:HA	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:748:LEU:HD13	1:A:755:ILE:HG13	1.84	0.60
1:A:1825:HIS:ND1	1:A:1825:HIS:O	2.34	0.60
1:A:2204:HIS:HB3	1:A:2239:PHE:CE2	2.37	0.60
1:C:168:ASP:HB3	1:C:199:LEU:HD22	1.83	0.60
1:C:299:LEU:HB2	1:C:378:LEU:HG	1.83	0.60
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.83	0.60
1:E:674:PHE:CD1	2:F:40:ARG:NH1	2.65	0.60
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.83	0.60
1:E:2204:HIS:HB3	1:E:2239:PHE:CE2	2.37	0.60
1:E:2460:LEU:HD21	1:G:131:LEU:CB	2.31	0.60
1:E:4031:LEU:HD11	1:E:4044:MET:SD	2.41	0.60
1:G:4898:GLY:HA2	1:G:4901:ILE:HG22	1.84	0.60
1:A:299:LEU:HB2	1:A:378:LEU:HG	1.83	0.60
1:C:533:ASN:OD1	1:C:534:ARG:N	2.34	0.60
1:C:4715:TYR:CE2	1:C:4717:ASP:HB2	2.36	0.60
1:C:4868:ASP:OD1	1:C:4869:GLU:N	2.32	0.60
1:E:812:HIS:HA	1:E:821:LEU:HD13	1.84	0.60
1:E:2924:GLN:O	1:E:2928:LYS:HB2	2.02	0.60
1:E:4715:TYR:CE2	1:E:4717:ASP:HB2	2.36	0.60
1:C:748:LEU:HD13	1:C:755:ILE:HG13	1.84	0.60
1:C:2204:HIS:HB3	1:C:2239:PHE:CE2	2.37	0.60
1:G:669:ASP:HB3	1:G:788:LYS:NZ	2.16	0.60
1:A:467:LYS:O	1:A:470:SER:OG	2.13	0.60
1:A:533:ASN:OD1	1:A:534:ARG:N	2.34	0.60
1:A:1130:GLN:HE21	1:A:1132:TRP:HE1	1.50	0.60
1:A:2924:GLN:HB3	1:A:2928:LYS:HE2	1.83	0.60
1:A:3938:SER:HB2	1:A:4002:LYS:NZ	2.17	0.60
1:C:214:VAL:HA	1:C:341:TYR:CE1	2.36	0.60
1:C:5006:GLN:HA	1:C:5009:TYR:CE2	2.37	0.60
1:E:215:THR:HG22	1:E:273:HIS:HA	1.84	0.60
1:E:1815:LEU:HD11	1:E:1845:VAL:HG21	1.83	0.60
1:E:1856:ASP:H	1:E:1858:ASP:H	1.50	0.60
1:E:4689:THR:OG1	1:E:4690:GLU:OE1	2.20	0.60
1:G:37:LEU:HD11	1:G:47:CYS:SG	2.42	0.60
1:G:4948:GLU:O	1:G:4952:GLU:N	2.33	0.60
1:A:669:ASP:HB3	1:A:788:LYS:NZ	2.17	0.59
1:A:887:ILE:HG21	1:A:962:SER:HB2	1.84	0.59
1:A:1158:ASN:HB3	1:A:1182:ILE:H	1.65	0.59
1:C:37:LEU:HD11	1:C:47:CYS:SG	2.42	0.59
1:C:4689:THR:OG1	1:C:4690:GLU:OE1	2.20	0.59
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.02	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:669:ASP:HB3	1:E:788:LYS:NZ	2.17	0.59
1:A:1514:LEU:HD12	1:A:1514:LEU:N	2.17	0.59
1:C:3771:HIS:HD2	1:C:3812:VAL:HG22	1.65	0.59
1:E:700:GLU:HG3	1:E:707:VAL:HB	1.84	0.59
1:E:1854:PHE:HB3	1:E:1855:GLY:HA2	1.84	0.59
1:E:3959:LYS:HE3	1:E:4018:ASP:HB3	1.84	0.59
1:E:4192:ARG:NH1	1:E:5028:PHE:HB3	2.14	0.59
1:G:2237:CYS:HB2	1:G:2275:VAL:HG22	1.83	0.59
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.83	0.59
1:A:1729:SER:O	1:A:1732:SER:OG	2.19	0.59
1:A:3959:LYS:HE3	1:A:4018:ASP:HB3	1.85	0.59
1:A:4896:GLY:HA3	1:G:4892:ARG:NH1	2.17	0.59
1:A:5009:TYR:O	1:A:5013:MET:HG2	2.03	0.59
1:C:1087:ARG:HB3	1:C:1223:PHE:HD1	1.65	0.59
1:E:276:TRP:HA	1:E:316:PHE:HB2	1.85	0.59
1:E:396:GLU:OE2	1:E:474:ARG:HG2	2.03	0.59
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.83	0.59
1:G:674:PHE:HD1	2:H:40:ARG:HH12	1.47	0.59
1:A:37:LEU:HD11	1:A:47:CYS:SG	2.41	0.59
1:A:80:GLU:OE2	1:G:3935:TRP:O	2.20	0.59
1:A:210:GLU:HB2	1:A:213:TYR:HD2	1.67	0.59
1:A:638:ILE:HG22	1:A:639:ASN:H	1.67	0.59
1:A:2460:LEU:CD1	1:C:178:ARG:NH1	2.65	0.59
1:A:3986:TRP:HZ2	1:A:4040:ILE:HG13	1.66	0.59
1:A:5006:GLN:HA	1:A:5009:TYR:CE2	2.37	0.59
1:C:812:HIS:HA	1:C:821:LEU:HD13	1.84	0.59
1:E:3938:SER:HB2	1:E:4002:LYS:NZ	2.17	0.59
1:E:4141:PHE:HE1	1:E:4178:LEU:HA	1.67	0.59
1:G:215:THR:HG22	1:G:273:HIS:HA	1.84	0.59
1:G:669:ASP:HB3	1:G:788:LYS:HZ1	1.68	0.59
1:G:700:GLU:HG3	1:G:707:VAL:HB	1.85	0.59
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	2.03	0.59
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.85	0.59
1:C:210:GLU:HB2	1:C:213:TYR:HD2	1.67	0.59
1:C:669:ASP:HB3	1:C:788:LYS:NZ	2.17	0.59
1:E:717:ASP:OD2	2:F:7:ILE:HA	2.02	0.59
1:E:4940:PHE:CE1	1:G:4931:ILE:HD11	2.38	0.59
1:G:35:LEU:HD11	1:G:49:LEU:HD13	1.84	0.59
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.83	0.59
1:G:1806:ALA:O	1:G:1810:LYS:HG2	2.02	0.59
1:G:4573:ILE:O	1:G:4577:LEU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4979:THR:O	1:G:4984:ASN:N	2.30	0.59
1:C:396:GLU:OE2	1:C:474:ARG:HG2	2.03	0.59
1:C:3670:GLU:O	1:C:3674:ILE:HG12	2.03	0.59
1:E:2768:PHE:HA	1:E:2771:ILE:HD12	1.84	0.59
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.85	0.59
1:G:5009:TYR:O	1:G:5013:MET:HG2	2.01	0.59
1:A:3893:GLU:HA	1:A:3967:GLU:OE2	2.01	0.59
1:G:4919:THR:O	1:G:4923:PHE:HB2	2.01	0.59
1:A:3670:GLU:O	1:A:3674:ILE:HG12	2.03	0.59
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.38	0.59
1:A:4141:PHE:HE1	1:A:4178:LEU:HA	1.67	0.59
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.03	0.59
1:A:4901:ILE:HD13	1:A:4913:ARG:HH21	1.68	0.59
1:C:1130:GLN:HE21	1:C:1132:TRP:HE1	1.51	0.59
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.85	0.59
1:C:3893:GLU:HA	1:C:3967:GLU:OE2	2.01	0.59
1:C:3938:SER:HB2	1:C:4002:LYS:NZ	2.17	0.59
1:C:3986:TRP:HZ2	1:C:4040:ILE:HG13	1.67	0.59
1:E:35:LEU:HD11	1:E:49:LEU:HD13	1.85	0.59
1:C:700:GLU:HG3	1:C:707:VAL:HB	1.85	0.59
1:C:1105:ALA:HB1	1:C:1109:LEU:HD21	1.85	0.59
1:C:3839:CYS:HB2	1:C:3881:THR:HG22	1.85	0.59
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.38	0.59
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.38	0.59
1:E:3986:TRP:HZ2	1:E:4040:ILE:HG13	1.67	0.59
1:G:299:LEU:HB2	1:G:378:LEU:HG	1.83	0.59
1:G:2924:GLN:O	1:G:2928:LYS:HB2	2.03	0.59
1:G:4035:VAL:HG23	1:G:4036:VAL:H	1.67	0.59
1:G:4689:THR:OG1	1:G:4690:GLU:OE1	2.20	0.59
1:A:195:PHE:HE2	1:G:2358:ILE:HG21	1.67	0.59
1:A:696:PRO:HD2	1:A:829:TYR:HE2	1.67	0.59
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.03	0.59
1:A:2768:PHE:HA	1:A:2771:ILE:HD12	1.85	0.59
1:C:4933:GLN:O	1:C:4937:ILE:HG12	2.03	0.59
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.02	0.59
1:A:544:LEU:HD11	1:A:578:ILE:HB	1.85	0.58
1:A:2288:LEU:O	1:A:3849:ARG:HD3	2.03	0.58
1:A:3781:GLN:O	1:A:3784:SER:OG	2.19	0.58
1:C:215:THR:HG22	1:C:273:HIS:HA	1.85	0.58
1:C:696:PRO:HD2	1:C:829:TYR:HE2	1.67	0.58
1:C:2460:LEU:HD21	1:E:131:LEU:CB	2.33	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4141:PHE:HE1	1:C:4178:LEU:HA	1.67	0.58
1:E:248:GLU:HG3	1:E:372:LEU:HD11	1.85	0.58
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.03	0.58
1:E:3839:CYS:HB2	1:E:3881:THR:HG22	1.85	0.58
1:G:248:GLU:HG3	1:G:372:LEU:HD11	1.85	0.58
1:G:396:GLU:OE2	1:G:474:ARG:HG2	2.03	0.58
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.03	0.58
1:G:4039:MET:HA	1:G:4042:ARG:HE	1.67	0.58
1:A:131:LEU:CB	1:G:2460:LEU:HD21	2.32	0.58
1:A:396:GLU:OE2	1:A:474:ARG:HG2	2.03	0.58
1:A:633:LEU:HD21	1:A:1639:LEU:HD13	1.83	0.58
1:A:812:HIS:HA	1:A:821:LEU:HD13	1.84	0.58
1:A:4190:ILE:HD11	1:A:5026:ASP:HB2	1.85	0.58
1:A:4689:THR:OG1	1:A:4690:GLU:OE1	2.20	0.58
1:C:633:LEU:HD21	1:C:1639:LEU:HD13	1.84	0.58
1:C:1205:GLY:HA2	1:C:1225:PRO:HB2	1.85	0.58
1:C:3959:LYS:HE3	1:C:4018:ASP:HB3	1.85	0.58
1:E:618:GLN:OE1	1:E:1675:ALA:HB2	2.03	0.58
1:G:702:TRP:HE1	2:H:34:LYS:HZ1	1.50	0.58
1:G:812:HIS:HA	1:G:821:LEU:HD13	1.84	0.58
1:G:2294:ASP:O	1:G:2298:VAL:HG23	2.03	0.58
1:G:4007:SER:O	1:G:4010:ILE:HG12	2.02	0.58
1:A:4192:ARG:NH1	1:A:5028:PHE:HB3	2.14	0.58
1:C:887:ILE:HG21	1:C:962:SER:HB2	1.84	0.58
1:C:2288:LEU:O	1:C:3849:ARG:HD3	2.02	0.58
1:C:3781:GLN:O	1:C:3784:SER:OG	2.19	0.58
1:E:3963:ASN:O	1:E:3966:THR:OG1	2.14	0.58
1:G:633:LEU:HD21	1:G:1639:LEU:HD13	1.84	0.58
1:G:1846:SER:O	1:G:1850:VAL:HG23	2.03	0.58
1:A:1806:ALA:O	1:A:1810:LYS:HG2	2.03	0.58
1:A:2452:ARG:NH2	1:C:177:GLU:OE2	2.36	0.58
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.03	0.58
1:C:3926:LEU:O	1:C:3930:ILE:HG12	2.04	0.58
1:C:4581:LYS:HD2	1:E:4856:PHE:HZ	1.66	0.58
1:C:5009:TYR:O	1:C:5013:MET:HG2	2.03	0.58
1:E:633:LEU:HD21	1:E:1639:LEU:HD13	1.84	0.58
1:E:1105:ALA:HB1	1:E:1109:LEU:HD21	1.86	0.58
1:E:1130:GLN:HE21	1:E:1132:TRP:HE1	1.51	0.58
1:G:3889:GLN:NE2	1:G:3963:ASN:OD1	2.31	0.58
1:G:4889:VAL:O	1:G:4893:ALA:N	2.30	0.58
1:A:215:THR:HG22	1:A:273:HIS:HA	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:618:GLN:OE1	1:A:1675:ALA:HB2	2.03	0.58
1:A:2294:ASP:O	1:A:2298:VAL:HG23	2.04	0.58
1:A:2460:LEU:HD21	1:C:131:LEU:CB	2.33	0.58
1:E:748:LEU:HD13	1:E:755:ILE:HG13	1.84	0.58
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.84	0.58
1:E:2288:LEU:O	1:E:3849:ARG:HD3	2.02	0.58
1:G:544:LEU:HD11	1:G:578:ILE:HB	1.85	0.58
1:G:737:LEU:HD11	2:H:7:ILE:HG22	1.85	0.58
1:A:248:GLU:HG3	1:A:372:LEU:HD11	1.86	0.58
1:A:276:TRP:HA	1:A:316:PHE:HB2	1.85	0.58
1:A:1735:ILE:HD12	1:A:1771:LEU:HD12	1.86	0.58
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.85	0.58
1:A:3839:CYS:HB2	1:A:3881:THR:HG22	1.85	0.58
1:A:4770:SER:O	1:A:4772:ASP:N	2.33	0.58
1:C:544:LEU:HD11	1:C:578:ILE:HB	1.85	0.58
1:C:618:GLN:OE1	1:C:1675:ALA:HB2	2.03	0.58
1:E:1806:ALA:O	1:E:1810:LYS:HG2	2.03	0.58
1:E:3670:GLU:O	1:E:3674:ILE:HG12	2.03	0.58
1:G:276:TRP:HA	1:G:316:PHE:HB2	1.84	0.58
1:G:696:PRO:HD2	1:G:829:TYR:HE2	1.67	0.58
1:G:1735:ILE:HD12	1:G:1771:LEU:HD12	1.85	0.58
1:G:2344:GLU:OE2	1:G:2508:ARG:NH2	2.36	0.58
1:G:4910:GLU:HA	1:G:4913:ARG:HG2	1.86	0.58
1:A:674:PHE:CB	2:B:40:ARG:HH12	2.17	0.58
1:C:276:TRP:HA	1:C:316:PHE:HB2	1.85	0.58
1:C:3984:ARG:NH1	1:E:160:GLY:O	2.36	0.58
1:E:4190:ILE:HD11	1:E:5026:ASP:HB2	1.85	0.58
1:A:700:GLU:HG3	1:A:707:VAL:HB	1.85	0.58
1:A:1943:LEU:HA	1:A:1946:PHE:HD2	1.69	0.58
1:C:1439:VAL:HG22	1:C:1562:ILE:HG13	1.86	0.58
1:C:1806:ALA:O	1:C:1810:LYS:HG2	2.02	0.58
1:E:561:LEU:HD21	1:E:598:LYS:HB3	1.86	0.58
1:E:674:PHE:CB	2:F:40:ARG:HH12	2.16	0.58
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.03	0.58
1:G:402:ARG:NH1	1:G:405:HIS:HD2	2.02	0.58
1:G:618:GLN:OE1	1:G:1675:ALA:HB2	2.03	0.58
1:G:623:GLU:OE1	2:H:88:PRO:HA	2.03	0.58
1:G:1130:GLN:HE21	1:G:1132:TRP:HE1	1.51	0.58
1:G:1783:VAL:CG1	2:H:55:VAL:HG12	2.34	0.58
1:G:2125:HIS:NE2	1:G:2129:ASP:OD2	2.37	0.58
1:G:2768:PHE:HA	1:G:2771:ILE:HD12	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:35:LEU:HD11	1:A:49:LEU:HD13	1.84	0.58
1:A:302:VAL:HG21	1:A:306:LYS:HD3	1.86	0.58
1:A:1256:GLU:HG2	1:A:1278:GLY:O	2.04	0.58
1:C:35:LEU:HD11	1:C:49:LEU:HD13	1.85	0.58
1:C:103:TYR:O	1:C:160:GLY:N	2.33	0.58
1:C:4901:ILE:HD13	1:C:4913:ARG:HH21	1.69	0.58
1:E:402:ARG:NH1	1:E:405:HIS:HD2	2.02	0.58
1:G:3931:SER:O	1:G:3934:TYR:HB3	2.04	0.58
1:A:1087:ARG:HB3	1:A:1223:PHE:HD1	1.64	0.58
1:G:4839:MET:O	1:G:4843:LEU:N	2.29	0.58
1:C:2294:ASP:O	1:C:2298:VAL:HG23	2.04	0.57
1:E:4901:ILE:HD13	1:E:4913:ARG:HH21	1.69	0.57
1:E:5009:TYR:O	1:E:5013:MET:HG2	2.03	0.57
1:G:2336:ARG:NH1	1:G:2428:ALA:HA	2.19	0.57
1:A:607:CYS:O	1:A:618:GLN:NE2	2.37	0.57
1:A:1439:VAL:HG22	1:A:1562:ILE:HG13	1.86	0.57
1:A:3963:ASN:O	1:A:3966:THR:OG1	2.14	0.57
1:C:1256:GLU:HG2	1:C:1278:GLY:O	2.04	0.57
1:C:1846:SER:O	1:C:1850:VAL:HG23	2.03	0.57
1:E:696:PRO:HD2	1:E:829:TYR:HE2	1.68	0.57
1:E:2294:ASP:O	1:E:2298:VAL:HG23	2.04	0.57
1:E:3781:GLN:O	1:E:3784:SER:OG	2.19	0.57
1:A:103:TYR:O	1:A:160:GLY:N	2.32	0.57
1:A:1846:SER:O	1:A:1850:VAL:HG23	2.03	0.57
1:A:2344:GLU:OE2	1:A:2508:ARG:NH2	2.37	0.57
1:A:3926:LEU:O	1:A:3930:ILE:HG12	2.04	0.57
1:A:4904:PRO:HA	1:A:4905:ALA:C	2.24	0.57
1:C:248:GLU:HG3	1:C:372:LEU:HD11	1.85	0.57
1:C:2344:GLU:OE2	1:C:2508:ARG:NH2	2.38	0.57
1:E:544:LEU:HD11	1:E:578:ILE:HB	1.85	0.57
1:E:607:CYS:HB3	1:E:618:GLN:HE21	1.69	0.57
1:G:1131:ARG:NH1	1:G:1137:GLU:OE1	2.38	0.57
1:G:3897:ASN:HA	1:G:3900:GLN:HB2	1.86	0.57
1:A:4898:GLY:H	1:G:4892:ARG:HH12	1.52	0.57
1:A:4933:GLN:O	1:A:4937:ILE:HG12	2.05	0.57
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.15	0.57
1:C:1735:ILE:HD12	1:C:1771:LEU:HD12	1.86	0.57
1:C:4190:ILE:HD11	1:C:5026:ASP:HB2	1.85	0.57
1:C:4836:GLN:O	1:C:4839:MET:HG2	2.04	0.57
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.87	0.57
1:E:4821:LYS:HD3	1:E:4947:GLN:NE2	2.20	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1205:GLY:HA2	1:G:1225:PRO:HB2	1.87	0.57
1:G:2870:GLU:OE2	1:G:2939:ARG:NH2	2.38	0.57
1:A:1783:VAL:CG1	2:B:55:VAL:HG12	2.34	0.57
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.86	0.57
1:G:748:LEU:HD13	1:G:755:ILE:HG13	1.85	0.57
1:G:4893:ALA:HB1	1:G:4896:GLY:HA2	1.86	0.57
1:C:402:ARG:NH1	1:C:405:HIS:HD2	2.02	0.57
1:C:4822:THR:O	1:C:4825:THR:HB	2.04	0.57
1:G:302:VAL:HG21	1:G:306:LYS:HD3	1.86	0.57
1:G:565:TYR:O	1:G:569:ILE:HG12	2.05	0.57
1:G:1105:ALA:HB1	1:G:1109:LEU:HD21	1.85	0.57
1:G:4010:ILE:HA	1:G:4013:LEU:HB3	1.85	0.57
1:A:607:CYS:HB3	1:A:618:GLN:HE21	1.69	0.57
1:A:717:ASP:OD2	2:B:7:ILE:HA	2.04	0.57
1:A:880:GLU:HB3	1:A:967:PRO:HG2	1.86	0.57
1:A:1457:TYR:CG	1:A:1458:HIS:N	2.73	0.57
1:A:4893:ALA:HB1	1:A:4896:GLY:HA2	1.87	0.57
1:C:561:LEU:HD21	1:C:598:LYS:HB3	1.86	0.57
1:C:3878:ASP:O	1:C:3881:THR:OG1	2.14	0.57
1:C:4904:PRO:HA	1:C:4905:ALA:C	2.24	0.57
1:E:3878:ASP:O	1:E:3881:THR:OG1	2.14	0.57
1:E:3926:LEU:O	1:E:3930:ILE:HG12	2.03	0.57
1:E:4888:TYR:OH	1:G:4898:GLY:CA	2.53	0.57
1:G:3761:GLN:HA	1:G:3764:LEU:HD12	1.87	0.57
1:A:402:ARG:NH1	1:A:405:HIS:HD2	2.02	0.57
1:C:1457:TYR:CG	1:C:1458:HIS:N	2.73	0.57
1:C:2768:PHE:HA	1:C:2771:ILE:HD12	1.84	0.57
1:C:4793:GLY:HA2	1:C:4796:MET:HG2	1.86	0.57
1:C:4910:GLU:OE2	1:C:4914:VAL:HG21	2.04	0.57
1:E:1131:ARG:NH1	1:E:1137:GLU:OE1	2.38	0.57
1:G:561:LEU:HD21	1:G:598:LYS:HB3	1.87	0.57
1:G:1617:THR:O	1:G:1618:ARG:NH2	2.38	0.57
1:A:229:GLU:HA	1:A:249:GLY:HA2	1.87	0.57
1:A:4793:GLY:HA2	1:A:4796:MET:HG2	1.87	0.57
1:E:103:TYR:OH	1:E:167:ASP:OD2	2.23	0.57
1:E:1439:VAL:HG22	1:E:1562:ILE:HG13	1.86	0.57
1:E:4770:SER:O	1:E:4772:ASP:N	2.33	0.57
1:E:4910:GLU:OE2	1:E:4914:VAL:HG21	2.04	0.57
1:E:4933:GLN:O	1:E:4937:ILE:HG12	2.03	0.57
1:G:210:GLU:HB2	1:G:213:TYR:HD2	1.68	0.57
1:G:1439:VAL:HG22	1:G:1562:ILE:HG13	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4154:VAL:HG22	1:G:4157:ASP:OD2	2.04	0.57
1:A:1695:LEU:HA	1:A:1698:LEU:HD13	1.87	0.57
1:C:921:ASN:O	1:C:925:SER:N	2.26	0.57
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.16	0.57
1:E:643:SER:HA	1:E:782:SER:HA	1.87	0.57
1:E:4836:GLN:O	1:E:4839:MET:HG2	2.05	0.57
1:G:1256:GLU:HG2	1:G:1278:GLY:O	2.04	0.57
1:G:4192:ARG:NH1	1:G:5028:PHE:HB3	2.13	0.57
1:G:4924:VAL:HG13	1:G:4928:LEU:HD12	1.87	0.57
1:A:1131:ARG:NH1	1:A:1137:GLU:OE1	2.38	0.56
1:A:1731:LEU:HA	1:A:1772:ARG:HD3	1.87	0.56
1:A:2098:VAL:O	1:A:2102:VAL:HG23	2.05	0.56
1:A:4822:THR:O	1:A:4825:THR:HB	2.05	0.56
1:C:103:TYR:OH	1:C:167:ASP:OD2	2.23	0.56
1:C:476:SER:O	1:C:480:GLU:HG3	2.05	0.56
1:E:533:ASN:HB3	1:E:536:ASN:HD22	1.70	0.56
1:E:2344:GLU:OE2	1:E:2508:ARG:NH2	2.38	0.56
1:G:1719:HIS:CD2	1:G:1802:ILE:HG23	2.40	0.56
1:A:216:GLY:HA3	1:A:264:PRO:HD3	1.86	0.56
1:A:1439:VAL:O	1:A:1513:ASP:N	2.31	0.56
1:C:302:VAL:HG21	1:C:306:LYS:HD3	1.87	0.56
1:C:3935:TRP:HB2	1:E:76:ARG:HG3	1.87	0.56
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.06	0.56
1:E:210:GLU:HB2	1:E:213:TYR:HD2	1.67	0.56
1:E:216:GLY:HA3	1:E:264:PRO:HD3	1.87	0.56
1:E:607:CYS:O	1:E:618:GLN:NE2	2.37	0.56
1:G:229:GLU:HA	1:G:249:GLY:HA2	1.87	0.56
1:G:1491:ASN:O	1:G:1493:TYR:N	2.38	0.56
1:G:1731:LEU:HA	1:G:1772:ARG:HD3	1.87	0.56
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.17	0.56
1:A:476:SER:O	1:A:480:GLU:HG3	2.05	0.56
1:A:565:TYR:O	1:A:569:ILE:HG12	2.05	0.56
1:A:1105:ALA:HB1	1:A:1109:LEU:HD21	1.86	0.56
1:A:2059:LEU:HB3	1:A:2062:ARG:HH12	1.68	0.56
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.05	0.56
1:A:4154:VAL:HG13	1:A:4160:LEU:HD22	1.87	0.56
1:A:4567:LEU:HD12	1:A:4815:ASP:OD2	2.05	0.56
1:A:4853:VAL:O	1:A:4857:ASN:ND2	2.38	0.56
1:C:607:CYS:O	1:C:618:GLN:NE2	2.37	0.56
1:C:674:PHE:CB	2:D:40:ARG:HH12	2.18	0.56
1:C:1943:LEU:HA	1:C:1946:PHE:HD2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4567:LEU:HD12	1:C:4815:ASP:OD2	2.05	0.56
1:C:4832:HIS:NE2	1:C:4939:ALA:HB1	2.21	0.56
1:E:476:SER:O	1:E:480:GLU:HG3	2.05	0.56
1:E:565:TYR:O	1:E:569:ILE:HG12	2.05	0.56
1:E:1256:GLU:HG2	1:E:1278:GLY:O	2.04	0.56
1:E:1617:THR:O	1:E:1618:ARG:NH2	2.38	0.56
1:E:1862:ILE:O	1:E:1865:MET:HB3	2.06	0.56
1:E:2059:LEU:HB3	1:E:2062:ARG:HH12	1.68	0.56
1:E:4181:ILE:HG12	1:E:4195:PHE:HE1	1.70	0.56
1:E:4853:VAL:O	1:E:4857:ASN:ND2	2.38	0.56
1:E:4904:PRO:HA	1:E:4905:ALA:C	2.24	0.56
1:G:476:SER:O	1:G:480:GLU:HG3	2.05	0.56
1:G:643:SER:HA	1:G:782:SER:HA	1.87	0.56
1:G:1457:TYR:CG	1:G:1458:HIS:N	2.73	0.56
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.05	0.56
1:G:4904:PRO:HA	1:G:4905:ALA:C	2.25	0.56
1:A:561:LEU:HD21	1:A:598:LYS:HB3	1.86	0.56
1:C:1083:VAL:HG11	1:C:1088:TRP:CZ2	2.41	0.56
1:C:1719:HIS:CD2	1:C:1802:ILE:HG23	2.40	0.56
1:C:4192:ARG:NH1	1:C:5028:PHE:HB3	2.15	0.56
1:E:1457:TYR:CG	1:E:1458:HIS:N	2.73	0.56
1:E:3935:TRP:HB2	1:G:76:ARG:HG3	1.87	0.56
1:E:3984:ARG:NH1	1:G:160:GLY:O	2.35	0.56
1:G:3794:VAL:O	1:G:3797:THR:OG1	2.20	0.56
1:A:103:TYR:OH	1:A:167:ASP:OD2	2.24	0.56
1:A:1719:HIS:CD2	1:A:1802:ILE:HG23	2.40	0.56
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.06	0.56
1:C:607:CYS:HB3	1:C:618:GLN:HE21	1.70	0.56
1:C:1714:LEU:HA	1:C:1717:SER:HB3	1.88	0.56
1:C:4181:ILE:HG12	1:C:4195:PHE:HE1	1.71	0.56
1:E:224:HIS:HB3	1:E:229:GLU:HG2	1.88	0.56
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.06	0.56
1:G:1695:LEU:HA	1:G:1698:LEU:HD13	1.87	0.56
1:G:4107:GLU:O	1:G:4111:LEU:N	2.38	0.56
1:A:1294:PRO:HB3	1:A:1547:LYS:HB3	1.88	0.56
1:C:533:ASN:HB3	1:C:536:ASN:HD22	1.70	0.56
1:C:643:SER:HA	1:C:782:SER:HA	1.87	0.56
1:C:1491:ASN:O	1:C:1493:TYR:N	2.38	0.56
1:E:302:VAL:HG21	1:E:306:LYS:HD3	1.86	0.56
1:E:1083:VAL:HG11	1:E:1088:TRP:CZ2	2.40	0.56
1:E:1735:ILE:HD12	1:E:1771:LEU:HD12	1.86	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.15	0.56
1:G:103:TYR:OH	1:G:167:ASP:OD2	2.23	0.56
1:G:607:CYS:O	1:G:618:GLN:NE2	2.38	0.56
1:G:1943:LEU:HA	1:G:1946:PHE:HD2	1.71	0.56
1:G:4145:VAL:HG13	1:G:4194:TYR:HB2	1.87	0.56
1:G:4181:ILE:HG12	1:G:4195:PHE:HE1	1.69	0.56
1:G:4864:ASN:HB2	1:G:4902:GLU:HG3	1.88	0.56
1:A:643:SER:HA	1:A:782:SER:HA	1.88	0.56
1:A:4910:GLU:OE2	1:A:4914:VAL:HG21	2.06	0.56
1:C:717:ASP:OD2	2:D:7:ILE:HA	2.05	0.56
1:C:2125:HIS:NE2	1:C:2129:ASP:OD2	2.39	0.56
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.06	0.56
1:E:4898:GLY:HA2	1:E:4901:ILE:HG22	1.87	0.56
1:G:150:MET:SD	1:G:169:LEU:HD22	2.45	0.56
1:G:216:GLY:HA3	1:G:264:PRO:HD3	1.86	0.56
1:G:4574:ASN:ND2	1:G:4813:LEU:HD23	2.21	0.56
1:A:1714:LEU:HA	1:A:1717:SER:HB3	1.88	0.56
1:A:4172:GLU:HG2	1:A:4175:ARG:NH1	2.20	0.56
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.86	0.56
1:C:224:HIS:HB3	1:C:229:GLU:HG2	1.88	0.56
1:C:2098:VAL:O	1:C:2102:VAL:HG23	2.06	0.56
1:C:2212:VAL:HG22	1:C:2260:ASN:HD21	1.71	0.56
1:C:3980:LEU:HD22	1:C:3985:LEU:HD22	1.87	0.56
1:E:1205:GLY:HA2	1:E:1225:PRO:HB2	1.88	0.56
1:E:1731:LEU:HA	1:E:1772:ARG:HD3	1.87	0.56
1:E:2125:HIS:NE2	1:E:2129:ASP:OD2	2.39	0.56
1:E:3793:MET:O	1:E:3797:THR:HG23	2.06	0.56
1:E:3965:LEU:O	1:E:3969:ILE:HD12	2.06	0.56
1:G:224:HIS:HB3	1:G:229:GLU:HG2	1.88	0.56
1:G:3814:GLN:HG3	1:G:3815:LYS:N	2.19	0.56
1:A:670:GLU:HB3	1:A:788:LYS:H	1.71	0.56
1:A:921:ASN:O	1:A:925:SER:N	2.26	0.56
1:A:1491:ASN:O	1:A:1493:TYR:N	2.38	0.56
1:C:565:TYR:O	1:C:569:ILE:HG12	2.05	0.56
1:C:1617:THR:O	1:C:1618:ARG:NH2	2.39	0.56
1:E:150:MET:SD	1:E:169:LEU:HD22	2.45	0.56
1:E:229:GLU:HA	1:E:249:GLY:HA2	1.87	0.56
1:E:2098:VAL:O	1:E:2102:VAL:HG23	2.06	0.56
1:E:2212:VAL:HG22	1:E:2260:ASN:HD21	1.71	0.56
1:E:4007:SER:O	1:E:4010:ILE:HG12	2.05	0.56
1:G:1856:ASP:N	1:G:1857:GLU:HB3	2.21	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1862:ILE:O	1:G:1865:MET:HB3	2.06	0.56
1:G:3902:TYR:HE1	1:G:3908:GLY:H	1.54	0.56
1:A:1617:THR:O	1:A:1618:ARG:NH2	2.38	0.56
1:A:4007:SER:O	1:A:4010:ILE:HG12	2.06	0.56
1:C:1585:LYS:HB3	1:C:1587:PRO:HD2	1.88	0.56
1:C:1695:LEU:HA	1:C:1698:LEU:HD13	1.87	0.56
1:C:1856:ASP:N	1:C:1857:GLU:HB3	2.21	0.56
1:C:2137:ALA:HA	1:C:2140:ARG:NH1	2.22	0.56
1:E:1491:ASN:O	1:E:1493:TYR:N	2.38	0.56
1:G:490:CYS:O	1:G:494:LEU:HG	2.06	0.56
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.06	0.56
1:G:4720:VAL:HA	1:G:4723:LYS:HE2	1.88	0.56
1:A:224:HIS:HB3	1:A:229:GLU:HG2	1.88	0.55
1:A:526:LEU:O	1:A:530:ILE:HG13	2.07	0.55
1:C:880:GLU:HB3	1:C:967:PRO:HG2	1.87	0.55
1:C:1131:ARG:NH1	1:C:1137:GLU:OE1	2.38	0.55
1:C:2358:ILE:HG21	1:E:195:PHE:HE2	1.71	0.55
1:C:3793:MET:O	1:C:3797:THR:HG23	2.06	0.55
1:C:3965:LEU:O	1:C:3969:ILE:HD12	2.05	0.55
1:C:4007:SER:O	1:C:4010:ILE:HG12	2.06	0.55
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.05	0.55
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.88	0.55
1:A:1708:ARG:HH11	1:A:1712:TYR:HE2	1.54	0.55
1:A:2276:ALA:O	1:A:2280:VAL:HG23	2.06	0.55
2:B:37:ASP:OD1	2:B:38:SER:N	2.39	0.55
1:C:1839:VAL:HB	1:C:1840:PRO:HD3	1.89	0.55
1:C:2059:LEU:HB3	1:C:2062:ARG:HH12	1.69	0.55
1:C:2191:PHE:HE1	1:C:2239:PHE:HD1	1.54	0.55
1:C:2336:ARG:NH1	1:C:2428:ALA:HA	2.21	0.55
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.46	0.55
1:C:3806:ASN:OD1	1:C:3807:GLY:N	2.40	0.55
1:C:4230:LYS:HD2	1:C:4959:PHE:O	2.07	0.55
1:E:2137:ALA:HA	1:E:2140:ARG:NH1	2.21	0.55
1:E:2276:ALA:O	1:E:2280:VAL:HG23	2.06	0.55
1:E:4832:HIS:NE2	1:E:4939:ALA:HB1	2.22	0.55
2:H:49:MET:N	2:H:54:GLU:OE2	2.40	0.55
1:A:533:ASN:HB3	1:A:536:ASN:HD22	1.71	0.55
1:A:1245:PHE:HA	1:A:1604:SER:HA	1.88	0.55
1:A:2212:VAL:HG22	1:A:2260:ASN:HD21	1.71	0.55
1:A:4898:GLY:HA2	1:A:4901:ILE:HG22	1.88	0.55
1:C:229:GLU:HA	1:C:249:GLY:HA2	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:826:ILE:HG22	1:C:827:LYS:HG2	1.89	0.55
1:C:4893:ALA:HB1	1:C:4896:GLY:HA2	1.89	0.55
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.87	0.55
2:F:87:HIS:CE1	2:F:90:ILE:HD13	2.42	0.55
1:G:526:LEU:O	1:G:530:ILE:HG13	2.06	0.55
1:G:607:CYS:HB3	1:G:618:GLN:HE21	1.70	0.55
1:G:1125:ASN:ND2	1:G:1130:GLN:O	2.27	0.55
1:A:2137:ALA:HA	1:A:2140:ARG:NH1	2.21	0.55
1:C:150:MET:SD	1:C:169:LEU:HD22	2.46	0.55
1:E:490:CYS:O	1:E:494:LEU:HG	2.07	0.55
1:E:1719:HIS:CD2	1:E:1802:ILE:HG23	2.40	0.55
1:E:1856:ASP:N	1:E:1857:GLU:HB3	2.21	0.55
1:E:4230:LYS:HD2	1:E:4959:PHE:O	2.06	0.55
1:E:4241:THR:O	1:E:4244:GLU:HB3	2.06	0.55
1:E:4888:TYR:OH	1:G:4898:GLY:O	2.23	0.55
1:G:2098:VAL:O	1:G:2102:VAL:HG23	2.06	0.55
1:A:490:CYS:O	1:A:494:LEU:HG	2.07	0.55
1:A:2336:ARG:NH1	1:A:2428:ALA:HA	2.21	0.55
1:A:3760:LYS:O	1:A:3764:LEU:HG	2.07	0.55
1:A:3793:MET:O	1:A:3797:THR:HG23	2.06	0.55
1:A:4181:ILE:HG12	1:A:4195:PHE:HE1	1.71	0.55
1:C:526:LEU:O	1:C:530:ILE:HG13	2.07	0.55
1:C:1930:LYS:O	1:C:1931:LEU:HD12	2.07	0.55
1:C:2758:PHE:HD2	1:C:2809:ILE:HD13	1.72	0.55
1:C:4853:VAL:O	1:C:4857:ASN:ND2	2.38	0.55
2:D:87:HIS:CE1	2:D:90:ILE:HD13	2.42	0.55
1:E:2191:PHE:HE1	1:E:2239:PHE:HD1	1.54	0.55
1:E:2336:ARG:NH1	1:E:2428:ALA:HA	2.22	0.55
1:E:2556:LEU:HD23	1:E:2559:LEU:HD12	1.88	0.55
1:E:4154:VAL:HG13	1:E:4160:LEU:HD22	1.88	0.55
1:G:166:GLY:O	1:G:201:ASN:ND2	2.40	0.55
1:G:533:ASN:HB3	1:G:536:ASN:HD22	1.71	0.55
1:G:1649:ASP:OD1	1:G:1652:GLU:HB2	2.06	0.55
1:G:1937:LEU:HD12	1:G:2116:LEU:HD12	1.88	0.55
1:G:3805:LEU:HB3	1:G:3890:LEU:HB3	1.89	0.55
1:G:4782:VAL:O	1:G:4785:THR:OG1	2.17	0.55
1:A:1141:ARG:HH12	1:A:1169:LEU:CD1	2.19	0.55
1:A:1667:LEU:HD23	1:A:1710:GLY:HA3	1.89	0.55
1:A:2125:HIS:NE2	1:A:2129:ASP:OD2	2.39	0.55
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.46	0.55
1:A:3984:ARG:NH1	1:C:160:GLY:O	2.38	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4839:MET:CE	1:G:4826:ILE:CG1	2.84	0.55
1:C:490:CYS:O	1:C:494:LEU:HG	2.06	0.55
1:C:1731:LEU:HA	1:C:1772:ARG:HD3	1.87	0.55
1:C:1862:ILE:O	1:C:1865:MET:HB3	2.06	0.55
1:C:2556:LEU:HD23	1:C:2559:LEU:HD12	1.88	0.55
1:E:826:ILE:HG22	1:E:827:LYS:HG2	1.89	0.55
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.46	0.55
1:E:4567:LEU:HD12	1:E:4815:ASP:OD2	2.06	0.55
1:G:212:GLY:O	1:G:340:LYS:HA	2.07	0.55
1:G:1083:VAL:HG11	1:G:1088:TRP:CZ2	2.41	0.55
1:A:1862:ILE:O	1:A:1865:MET:HB3	2.06	0.55
1:A:2556:LEU:HD23	1:A:2559:LEU:HD12	1.88	0.55
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.05	0.55
1:C:4849:TYR:O	1:C:4853:VAL:HG23	2.06	0.55
1:G:1585:LYS:HB3	1:G:1587:PRO:HD2	1.88	0.55
1:G:1714:LEU:HA	1:G:1717:SER:HB3	1.88	0.55
1:A:3806:ASN:OD1	1:A:3807:GLY:N	2.40	0.55
1:A:4077:PHE:CZ	1:A:4125:PHE:HA	2.42	0.55
1:C:2276:ALA:O	1:C:2280:VAL:HG23	2.06	0.55
1:C:4154:VAL:HG13	1:C:4160:LEU:HD22	1.88	0.55
1:C:4241:THR:O	1:C:4244:GLU:HB3	2.07	0.55
1:C:4898:GLY:HA2	1:C:4901:ILE:HG22	1.87	0.55
1:E:887:ILE:HG21	1:E:962:SER:HB2	1.89	0.55
1:E:1783:VAL:CG1	2:F:55:VAL:HG12	2.37	0.55
1:E:1930:LYS:O	1:E:1931:LEU:HD12	2.07	0.55
1:G:1143:TRP:HB3	1:G:1164:LEU:CD1	2.37	0.55
2:H:25:HIS:O	2:H:102:GLU:N	2.35	0.55
1:A:212:GLY:O	1:A:340:LYS:HA	2.07	0.55
1:A:1083:VAL:HG11	1:A:1088:TRP:CZ2	2.42	0.55
1:A:1856:ASP:N	1:A:1857:GLU:HB3	2.21	0.55
1:A:3965:LEU:O	1:A:3969:ILE:HD12	2.07	0.55
1:C:216:GLY:HA3	1:C:264:PRO:HD3	1.87	0.55
1:C:915:GLU:HB3	1:C:923:GLN:HB2	1.89	0.55
1:C:4864:ASN:HB2	1:C:4902:GLU:HG3	1.89	0.55
1:E:669:ASP:HB3	1:E:788:LYS:HZ1	1.72	0.55
1:E:702:TRP:HD1	2:F:34:LYS:NZ	2.01	0.55
1:E:915:GLU:HB3	1:E:923:GLN:HB2	1.88	0.55
1:E:1143:TRP:HB3	1:E:1164:LEU:CD1	2.37	0.55
1:E:2924:GLN:HB3	1:E:2928:LYS:HE2	1.89	0.55
1:G:1245:PHE:HA	1:G:1604:SER:HA	1.89	0.55
1:G:1712:TYR:HD2	1:G:1840:PRO:HB2	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1930:LYS:O	1:G:1931:LEU:HD12	2.07	0.55
1:G:2212:VAL:HG22	1:G:2260:ASN:HD21	1.72	0.55
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.88	0.55
1:A:512:ALA:O	1:A:515:TRP:HB3	2.07	0.55
1:A:915:GLU:HB3	1:A:923:GLN:HB2	1.89	0.55
1:C:790:ARG:HA	1:C:1627:ALA:HA	1.89	0.55
1:C:5027:CYS:HB3	1:C:5030:LYS:HB3	1.89	0.55
1:E:1695:LEU:HA	1:E:1698:LEU:HD13	1.87	0.55
1:E:1714:LEU:HA	1:E:1717:SER:HB3	1.88	0.55
1:E:1810:LYS:HD3	1:E:1813:ARG:HH12	1.72	0.55
1:E:3760:LYS:O	1:E:3764:LEU:HG	2.07	0.55
1:E:5027:CYS:HB3	1:E:5030:LYS:HB3	1.89	0.55
2:F:37:ASP:OD1	2:F:38:SER:N	2.39	0.55
1:G:1839:VAL:HB	1:G:1840:PRO:HD3	1.89	0.55
1:A:1930:LYS:O	1:A:1931:LEU:HD12	2.07	0.54
1:C:1245:PHE:HA	1:C:1604:SER:HA	1.88	0.54
1:E:512:ALA:O	1:E:515:TRP:HB3	2.06	0.54
1:E:674:PHE:HD1	2:F:40:ARG:HH12	1.52	0.54
1:E:1585:LYS:HB3	1:E:1587:PRO:HD2	1.88	0.54
1:E:1714:LEU:O	1:E:1718:ILE:HG12	2.07	0.54
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.07	0.54
1:G:880:GLU:HB3	1:G:967:PRO:HG2	1.87	0.54
1:G:915:GLU:HB3	1:G:923:GLN:HB2	1.89	0.54
1:G:1708:ARG:HH11	1:G:1712:TYR:HE2	1.55	0.54
1:G:2191:PHE:HE1	1:G:2239:PHE:HD1	1.53	0.54
1:G:2276:ALA:O	1:G:2280:VAL:HG23	2.06	0.54
2:H:37:ASP:OD1	2:H:38:SER:N	2.41	0.54
2:H:67:SER:N	2:H:70:GLN:OE1	2.33	0.54
1:A:1243:PRO:HB3	1:A:1606:SER:HA	1.90	0.54
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.89	0.54
1:A:4832:HIS:NE2	1:A:4939:ALA:HB1	2.22	0.54
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.07	0.54
1:C:670:GLU:HB3	1:C:788:LYS:H	1.71	0.54
1:C:1143:TRP:HB3	1:C:1164:LEU:CD1	2.37	0.54
1:E:645:ARG:HD3	1:E:826:ILE:HG13	1.90	0.54
1:E:1245:PHE:HA	1:E:1604:SER:HA	1.89	0.54
1:E:3806:ASN:OD1	1:E:3807:GLY:N	2.40	0.54
1:E:4849:TYR:O	1:E:4853:VAL:HG23	2.06	0.54
1:G:826:ILE:HG22	1:G:827:LYS:HG2	1.89	0.54
1:G:1739:THR:O	1:G:1742:THR:OG1	2.20	0.54
1:G:2059:LEU:HB3	1:G:2062:ARG:HH12	1.69	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2137:ALA:HA	1:G:2140:ARG:NH1	2.22	0.54
1:G:3774:GLY:HA2	1:G:3815:LYS:NZ	2.22	0.54
1:A:4241:THR:O	1:A:4244:GLU:HB3	2.06	0.54
1:A:4666:VAL:HB	1:A:4667:PRO:HD3	1.89	0.54
1:C:37:LEU:HB2	1:C:200:TRP:CZ3	2.43	0.54
1:C:834:PRO:HD2	1:C:838:HIS:HE2	1.73	0.54
1:C:1111:PRO:HG3	1:C:1609:PRO:HG3	1.89	0.54
1:C:1714:LEU:O	1:C:1718:ILE:HG12	2.08	0.54
2:D:37:ASP:OD1	2:D:38:SER:N	2.40	0.54
1:E:622:THR:HB	1:E:626:LEU:HD12	1.89	0.54
1:E:4077:PHE:CZ	1:E:4125:PHE:HA	2.42	0.54
1:E:4928:LEU:O	1:E:4931:ILE:HG22	2.08	0.54
1:G:739:ALA:O	1:G:741:GLU:N	2.40	0.54
1:G:834:PRO:HD2	1:G:838:HIS:HE2	1.72	0.54
1:G:1111:PRO:HG3	1:G:1609:PRO:HG3	1.89	0.54
1:A:4849:TYR:O	1:A:4853:VAL:HG23	2.06	0.54
1:C:645:ARG:HD3	1:C:826:ILE:HG13	1.89	0.54
1:C:1294:PRO:HB3	1:C:1547:LYS:HB3	1.89	0.54
1:C:2496:PRO:HB3	1:C:2552:ARG:HD2	1.90	0.54
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.07	0.54
1:E:526:LEU:O	1:E:530:ILE:HG13	2.07	0.54
1:E:1943:LEU:HA	1:E:1946:PHE:HD2	1.71	0.54
1:E:4864:ASN:HB2	1:E:4902:GLU:HG3	1.90	0.54
1:G:512:ALA:O	1:G:515:TRP:HB3	2.07	0.54
1:G:4222:VAL:HG11	1:G:4950:VAL:HA	1.89	0.54
1:G:4580:TYR:HB2	1:G:4631:PHE:HD1	1.73	0.54
1:A:37:LEU:HB2	1:A:200:TRP:CZ3	2.42	0.54
1:A:1438:ARG:HA	1:A:1514:LEU:HA	1.90	0.54
1:A:1585:LYS:HB3	1:A:1587:PRO:HD2	1.88	0.54
1:A:1810:LYS:HD3	1:A:1813:ARG:HH12	1.71	0.54
1:A:2191:PHE:HE1	1:A:2239:PHE:HD1	1.54	0.54
1:C:166:GLY:O	1:C:201:ASN:ND2	2.40	0.54
1:C:1810:LYS:HD3	1:C:1813:ARG:HH12	1.72	0.54
1:C:4077:PHE:CZ	1:C:4125:PHE:HA	2.42	0.54
1:E:1667:LEU:HD23	1:E:1710:GLY:HA3	1.89	0.54
1:G:670:GLU:HB3	1:G:788:LYS:H	1.71	0.54
1:G:1714:LEU:O	1:G:1718:ILE:HG12	2.07	0.54
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.08	0.54
1:G:4844:LEU:HD11	1:G:4891:VAL:HG13	1.88	0.54
1:A:645:ARG:HD3	1:A:826:ILE:HG13	1.90	0.54
1:A:650:VAL:O	1:A:777:PHE:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1240:LYS:HZ3	1:A:1242:LEU:HB2	1.73	0.54
1:A:1714:LEU:O	1:A:1718:ILE:HG12	2.07	0.54
1:A:2515:GLN:NE2	1:A:2608:MET:O	2.40	0.54
1:C:512:ALA:O	1:C:515:TRP:HB3	2.07	0.54
1:E:103:TYR:O	1:E:160:GLY:N	2.33	0.54
1:E:670:GLU:HB3	1:E:788:LYS:H	1.71	0.54
1:E:790:ARG:HA	1:E:1627:ALA:HA	1.89	0.54
1:E:834:PRO:HD2	1:E:838:HIS:HE2	1.73	0.54
1:E:1649:ASP:OD1	1:E:1652:GLU:HB2	2.07	0.54
1:G:37:LEU:HB2	1:G:200:TRP:CZ3	2.42	0.54
1:G:645:ARG:HD3	1:G:826:ILE:HG13	1.90	0.54
1:G:1294:PRO:HB3	1:G:1547:LYS:HB3	1.90	0.54
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.07	0.54
1:G:4770:SER:O	1:G:4772:ASP:N	2.33	0.54
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.43	0.54
1:G:5009:TYR:O	1:G:5013:MET:N	2.39	0.54
2:H:58:GLY:HA3	2:H:76:ILE:HG23	1.90	0.54
1:A:3980:LEU:HD22	1:A:3985:LEU:HD22	1.88	0.54
1:A:4720:VAL:HA	1:A:4723:LYS:NZ	2.23	0.54
1:C:116:MET:HA	1:C:139:GLU:HA	1.90	0.54
1:C:563:VAL:O	1:C:567:VAL:HG23	2.08	0.54
1:C:622:THR:HB	1:C:626:LEU:HD12	1.90	0.54
1:C:1808:ARG:HB2	1:C:1854:PHE:CE1	2.43	0.54
1:C:3930:ILE:HG22	1:C:3995:VAL:HG11	1.89	0.54
1:E:212:GLY:O	1:E:340:LYS:HA	2.08	0.54
1:G:103:TYR:O	1:G:160:GLY:N	2.33	0.54
1:G:622:THR:HB	1:G:626:LEU:HD12	1.90	0.54
1:G:688:LEU:HG	1:G:710:ASP:HB3	1.90	0.54
1:G:1808:ARG:HB2	1:G:1854:PHE:CE1	2.43	0.54
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.89	0.54
2:H:87:HIS:CE1	2:H:90:ILE:HD13	2.43	0.54
1:A:559:GLY:O	1:A:563:VAL:HG23	2.08	0.54
1:A:1046:LEU:O	1:A:1050:GLY:N	2.41	0.54
1:A:1143:TRP:HB3	1:A:1164:LEU:CD1	2.37	0.54
1:A:4782:VAL:O	1:A:4785:THR:OG1	2.20	0.54
1:A:4921:PHE:CE2	1:G:4892:ARG:HA	2.43	0.54
2:B:87:HIS:CE1	2:B:90:ILE:HD13	2.42	0.54
1:C:212:GLY:O	1:C:340:LYS:HA	2.07	0.54
1:C:1205:GLY:HA3	1:C:1227:ALA:H	1.73	0.54
2:D:38:SER:HB3	2:D:41:ASP:CG	2.28	0.54
1:E:166:GLY:O	1:E:201:ASN:ND2	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1243:PRO:HB3	1:E:1606:SER:HA	1.90	0.54
1:E:1292:SER:HB2	1:E:1602:PRO:HG3	1.90	0.54
1:E:3930:ILE:HG22	1:E:3995:VAL:HG11	1.89	0.54
1:E:4793:GLY:HA2	1:E:4796:MET:HG2	1.90	0.54
2:F:38:SER:HB3	2:F:41:ASP:CG	2.28	0.54
1:G:1729:SER:O	1:G:1732:SER:OG	2.19	0.54
1:A:116:MET:HA	1:A:139:GLU:HA	1.90	0.54
1:A:150:MET:SD	1:A:169:LEU:HD22	2.47	0.54
1:A:166:GLY:O	1:A:201:ASN:ND2	2.40	0.54
1:A:826:ILE:HG22	1:A:827:LYS:HG2	1.90	0.54
1:A:1649:ASP:OD1	1:A:1652:GLU:HB2	2.07	0.54
1:A:1937:LEU:HD12	1:A:2116:LEU:HD12	1.90	0.54
1:C:559:GLY:O	1:C:563:VAL:HG23	2.08	0.54
1:C:705:ASN:OD1	1:C:706:GLY:N	2.41	0.54
1:C:1125:ASN:ND2	1:C:1130:GLN:O	2.26	0.54
1:C:1805:GLU:OE1	1:C:1808:ARG:NE	2.35	0.54
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.89	0.54
1:E:688:LEU:HG	1:E:710:ASP:HB3	1.90	0.54
1:E:4044:MET:HA	1:E:4047:MET:HG2	1.90	0.54
1:E:4666:VAL:HB	1:E:4667:PRO:HD3	1.90	0.54
1:G:1141:ARG:HH12	1:G:1169:LEU:CD1	2.20	0.54
1:G:1243:PRO:HB3	1:G:1606:SER:HA	1.90	0.54
1:G:1810:LYS:HD3	1:G:1813:ARG:HH12	1.72	0.54
1:A:790:ARG:HA	1:A:1627:ALA:HA	1.89	0.54
1:A:4044:MET:HA	1:A:4047:MET:HG2	1.90	0.54
1:A:4161:ARG:HA	1:A:4164:LEU:HB3	1.90	0.54
1:A:5027:CYS:HB3	1:A:5030:LYS:HB3	1.89	0.54
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.08	0.54
1:C:3767:GLN:OE1	1:C:3809:ASN:ND2	2.34	0.54
1:E:705:ASN:OD1	1:E:706:GLY:N	2.41	0.54
1:E:1457:TYR:CZ	1:E:1459:GLN:NE2	2.76	0.54
1:E:1712:TYR:HD2	1:E:1840:PRO:HB2	1.73	0.54
1:E:2758:PHE:HD2	1:E:2809:ILE:HD13	1.72	0.54
1:E:3935:TRP:O	1:G:80:GLU:OE2	2.26	0.54
1:G:705:ASN:OD1	1:G:706:GLY:N	2.41	0.54
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.81	0.54
1:G:2927:LEU:HD22	1:G:2937:VAL:HG11	1.90	0.54
1:C:1783:VAL:CG1	2:D:55:VAL:HG12	2.38	0.53
1:C:4044:MET:HA	1:C:4047:MET:HG2	1.90	0.53
1:C:4699:GLY:HA2	1:C:4702:ASP:HB2	1.90	0.53
1:C:4798:MET:SD	1:C:4801:LEU:HD12	2.48	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4823:LEU:HA	1:C:4826:ILE:HD12	1.90	0.53
2:D:18:ARG:NH1	2:D:51:GLY:HA3	2.24	0.53
2:D:25:HIS:CG	2:D:40:ARG:HE	2.27	0.53
1:E:650:VAL:O	1:E:777:PHE:N	2.40	0.53
1:E:1839:VAL:HB	1:E:1840:PRO:HD3	1.90	0.53
1:E:1937:LEU:HD12	1:E:2116:LEU:HD12	1.91	0.53
1:E:4581:LYS:HZ3	1:G:4877:ASP:HA	1.73	0.53
1:A:45:ARG:NH2	1:A:139:GLU:OE2	2.42	0.53
1:A:1808:ARG:HB2	1:A:1854:PHE:CE1	2.43	0.53
1:A:2758:PHE:HD2	1:A:2809:ILE:HD13	1.72	0.53
1:A:4230:LYS:HD2	1:A:4959:PHE:O	2.08	0.53
1:A:4823:LEU:HA	1:A:4826:ILE:HD12	1.90	0.53
1:C:45:ARG:NH2	1:C:139:GLU:OE2	2.42	0.53
1:C:1243:PRO:HB3	1:C:1606:SER:HA	1.90	0.53
1:C:1292:SER:HB2	1:C:1602:PRO:HG3	1.91	0.53
1:C:1562:ILE:HG12	1:C:1563:GLN:O	2.09	0.53
1:E:739:ALA:O	1:E:741:GLU:N	2.42	0.53
1:E:1808:ARG:HB2	1:E:1854:PHE:CE1	2.43	0.53
1:E:3767:GLN:OE1	1:E:3809:ASN:ND2	2.34	0.53
1:G:2095:GLN:HG3	1:G:2127:GLN:OE1	2.08	0.53
1:G:2099:SER:O	1:G:2103:VAL:HG23	2.08	0.53
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.89	0.53
1:A:1292:SER:HB2	1:A:1602:PRO:HG3	1.90	0.53
1:A:1712:TYR:HD2	1:A:1840:PRO:HB2	1.73	0.53
1:A:1839:VAL:HB	1:A:1840:PRO:HD3	1.90	0.53
1:C:400:ALA:O	1:C:404:ILE:HG13	2.09	0.53
1:C:650:VAL:O	1:C:777:PHE:N	2.41	0.53
1:C:1436:SER:HA	1:C:1515:VAL:O	2.08	0.53
1:C:1649:ASP:OD1	1:C:1652:GLU:HB2	2.07	0.53
1:C:1830:VAL:HG12	1:C:1834:VAL:HA	1.90	0.53
1:C:1833:SER:O	1:C:1835:GLU:N	2.41	0.53
1:C:3760:LYS:O	1:C:3764:LEU:HG	2.07	0.53
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.73	0.53
1:C:4720:VAL:HA	1:C:4723:LYS:NZ	2.23	0.53
1:E:110:ARG:HG2	1:E:117:TYR:CD1	2.44	0.53
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.73	0.53
1:E:3980:LEU:HD22	1:E:3985:LEU:HD22	1.89	0.53
1:G:102:LEU:HB2	1:G:105:HIS:HD2	1.72	0.53
1:G:110:ARG:HG2	1:G:117:TYR:CD1	2.43	0.53
1:G:790:ARG:HA	1:G:1627:ALA:HA	1.89	0.53
1:G:1562:ILE:HG12	1:G:1563:GLN:O	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1667:LEU:HD23	1:G:1710:GLY:HA3	1.90	0.53
1:G:1830:VAL:HG12	1:G:1834:VAL:HA	1.90	0.53
1:G:2214:VAL:HG11	1:G:2229:VAL:HG21	1.90	0.53
1:G:3984:ARG:O	1:G:3986:TRP:N	2.41	0.53
1:A:3930:ILE:HG22	1:A:3995:VAL:HG11	1.89	0.53
2:B:38:SER:HB3	2:B:41:ASP:CG	2.28	0.53
1:C:138:GLN:HG2	1:C:140:ASP:H	1.73	0.53
1:C:739:ALA:O	1:C:741:GLU:N	2.41	0.53
1:C:1141:ARG:HH12	1:C:1169:LEU:CD1	2.21	0.53
1:E:37:LEU:HB2	1:E:200:TRP:CZ3	2.43	0.53
1:E:1125:ASN:ND2	1:E:1130:GLN:O	2.27	0.53
1:E:1294:PRO:HB3	1:E:1547:LYS:HB3	1.91	0.53
1:E:1439:VAL:O	1:E:1512:THR:HB	2.08	0.53
1:E:1477:GLY:HA2	1:E:1483:VAL:HA	1.90	0.53
1:E:1729:SER:O	1:E:1732:SER:OG	2.19	0.53
1:E:4956:THR:O	1:E:4965:SER:N	2.42	0.53
1:G:116:MET:HA	1:G:139:GLU:HA	1.90	0.53
1:G:314:PHE:HE1	1:G:378:LEU:HD21	1.73	0.53
1:G:3905:THR:HG23	1:G:3907:THR:HG23	1.90	0.53
1:G:4242:ILE:O	1:G:4246:GLN:HG2	2.09	0.53
1:A:563:VAL:O	1:A:567:VAL:HG23	2.08	0.53
1:A:705:ASN:OD1	1:A:706:GLY:N	2.41	0.53
1:A:1679:ASN:O	1:A:1683:HIS:ND1	2.41	0.53
1:A:4798:MET:SD	1:A:4801:LEU:HD12	2.49	0.53
1:E:638:ILE:HG22	1:E:639:ASN:N	2.24	0.53
1:E:2099:SER:O	1:E:2103:VAL:HG23	2.09	0.53
1:E:4849:TYR:HA	1:E:4852:THR:HG22	1.90	0.53
1:G:45:ARG:NH2	1:G:139:GLU:OE2	2.42	0.53
1:G:1046:LEU:O	1:G:1050:GLY:N	2.41	0.53
1:G:1240:LYS:O	1:G:1607:ARG:HA	2.09	0.53
1:G:4251:ILE:HG22	1:G:4557:ARG:HH11	1.74	0.53
1:A:24:CYS:SG	1:A:26:ALA:HB2	2.49	0.53
1:A:622:THR:HB	1:A:626:LEU:HD12	1.90	0.53
1:A:2099:SER:O	1:A:2103:VAL:HG23	2.08	0.53
1:A:2496:PRO:HB3	1:A:2552:ARG:HD2	1.90	0.53
2:B:16:PRO:HD3	2:B:66:MET:O	2.09	0.53
1:C:1641:ILE:HG23	1:C:1643:GLU:O	2.09	0.53
1:C:1667:LEU:HD23	1:C:1710:GLY:HA3	1.90	0.53
1:C:1712:TYR:HD2	1:C:1840:PRO:HB2	1.73	0.53
1:C:2099:SER:O	1:C:2103:VAL:HG23	2.09	0.53
1:C:4161:ARG:HA	1:C:4164:LEU:HB3	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:138:GLN:HG2	1:E:140:ASP:H	1.73	0.53
1:E:563:VAL:O	1:E:567:VAL:HG23	2.08	0.53
1:E:2496:PRO:HB3	1:E:2552:ARG:HD2	1.91	0.53
1:E:4161:ARG:HA	1:E:4164:LEU:HB3	1.90	0.53
1:E:4699:GLY:HA2	1:E:4702:ASP:HB2	1.91	0.53
1:G:33:LEU:HD21	1:G:51:PRO:HB3	1.91	0.53
1:G:674:PHE:HZ	2:H:71:ARG:NE	2.05	0.53
1:A:400:ALA:O	1:A:404:ILE:HG13	2.09	0.53
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.73	0.53
1:A:4928:LEU:O	1:A:4931:ILE:HG22	2.08	0.53
1:C:4928:LEU:O	1:C:4931:ILE:HG22	2.08	0.53
1:E:314:PHE:HE1	1:E:378:LEU:HD21	1.74	0.53
1:E:1079:LYS:NZ	1:E:1107:PRO:HB2	2.23	0.53
1:E:1830:VAL:HG12	1:E:1834:VAL:HA	1.91	0.53
1:E:2095:GLN:HG3	1:E:2127:GLN:OE1	2.08	0.53
1:E:2515:GLN:NE2	1:E:2608:MET:O	2.40	0.53
1:G:563:VAL:O	1:G:567:VAL:HG23	2.07	0.53
1:G:636:ASN:OD1	1:G:637:LEU:N	2.42	0.53
1:G:1205:GLY:HA3	1:G:1227:ALA:H	1.74	0.53
1:G:4666:VAL:HB	1:G:4667:PRO:HD3	1.91	0.53
1:A:314:PHE:HE1	1:A:378:LEU:HD21	1.73	0.53
1:A:1111:PRO:HG3	1:A:1609:PRO:HG3	1.89	0.53
1:A:1562:ILE:HG12	1:A:1563:GLN:O	2.09	0.53
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.09	0.53
1:A:4864:ASN:HB2	1:A:4902:GLU:HG3	1.89	0.53
1:C:638:ILE:HG22	1:C:639:ASN:N	2.24	0.53
1:C:688:LEU:HG	1:C:710:ASP:HB3	1.90	0.53
1:C:1079:LYS:NZ	1:C:1107:PRO:HB2	2.24	0.53
1:C:1477:GLY:HA2	1:C:1483:VAL:HA	1.90	0.53
1:C:2924:GLN:HB3	1:C:2928:LYS:HE2	1.91	0.53
1:E:45:ARG:NH2	1:E:139:GLU:OE2	2.42	0.53
1:E:559:GLY:O	1:E:563:VAL:HG23	2.08	0.53
1:E:1111:PRO:HG3	1:E:1609:PRO:HG3	1.90	0.53
1:E:1259:ARG:NH2	1:E:1599:MET:O	2.42	0.53
1:E:1805:GLU:OE1	1:E:1808:ARG:NE	2.35	0.53
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.91	0.53
1:E:4154:VAL:HG13	1:E:4154:VAL:O	2.08	0.53
1:G:400:ALA:O	1:G:404:ILE:HG13	2.09	0.53
1:G:717:ASP:CG	2:H:7:ILE:HA	2.29	0.53
1:G:1641:ILE:HG23	1:G:1643:GLU:O	2.09	0.53
1:G:4702:ASP:O	1:G:4705:VAL:HG12	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:18:ARG:NH1	2:H:51:GLY:HA3	2.23	0.53
1:A:597:HIS:NE2	1:A:598:LYS:NZ	2.57	0.53
1:A:4699:GLY:HA2	1:A:4702:ASP:HB2	1.89	0.53
1:A:4821:LYS:HD3	1:A:4947:GLN:NE2	2.24	0.53
2:B:25:HIS:CG	2:B:40:ARG:HE	2.27	0.53
1:C:1072:VAL:HB	1:C:1607:ARG:HH12	1.74	0.53
2:D:16:PRO:HD3	2:D:66:MET:O	2.09	0.53
1:G:597:HIS:NE2	1:G:598:LYS:NZ	2.57	0.53
1:G:650:VAL:O	1:G:777:PHE:N	2.41	0.53
1:G:2205:GLU:O	1:G:2209:GLU:HG2	2.09	0.53
1:G:2515:GLN:NE2	1:G:2608:MET:O	2.40	0.53
1:G:4004:ALA:HB3	1:G:4110:PHE:HZ	1.73	0.53
1:G:4217:PHE:HZ	1:G:4234:PHE:HA	1.74	0.53
1:A:636:ASN:ND2	2:B:35:LYS:HD3	2.24	0.53
1:A:674:PHE:HD1	2:B:40:ARG:HH12	1.52	0.53
1:A:1125:ASN:ND2	1:A:1130:GLN:O	2.27	0.53
1:A:1805:GLU:OE1	1:A:1808:ARG:NE	2.35	0.53
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.82	0.53
1:A:2214:VAL:HG11	1:A:2229:VAL:HG21	1.91	0.53
1:C:110:ARG:HG2	1:C:117:TYR:CD1	2.44	0.53
1:C:2515:GLN:NE2	1:C:2608:MET:O	2.40	0.53
1:C:4965:SER:HA	1:C:4975:PHE:CD1	2.44	0.53
1:E:4004:ALA:HB3	1:E:4110:PHE:HZ	1.74	0.53
2:F:18:ARG:NH1	2:F:51:GLY:HA3	2.24	0.53
1:G:24:CYS:SG	1:G:26:ALA:HB2	2.49	0.53
1:G:2553:TYR:HD1	1:G:2556:LEU:HD12	1.74	0.53
1:G:3771:HIS:HD2	1:G:3812:VAL:HG22	1.72	0.53
1:G:3827:GLY:O	1:G:3831:SER:N	2.41	0.53
1:A:33:LEU:HD21	1:A:51:PRO:HB3	1.91	0.52
1:A:110:ARG:HG2	1:A:117:TYR:CD1	2.43	0.52
1:A:138:GLN:HG2	1:A:140:ASP:H	1.73	0.52
1:A:1294:PRO:HG3	1:A:1549:PHE:HE1	1.75	0.52
1:A:3916:ILE:HA	1:A:3919:THR:HG22	1.91	0.52
1:A:3935:TRP:HB2	1:C:76:ARG:HG3	1.89	0.52
1:A:4154:VAL:HG13	1:A:4154:VAL:O	2.09	0.52
1:C:669:ASP:HB3	1:C:788:LYS:HZ1	1.72	0.52
1:C:1516:ILE:O	1:C:1530:THR:OG1	2.26	0.52
1:C:1705:GLY:O	1:C:1708:ARG:HB3	2.09	0.52
1:C:1729:SER:O	1:C:1732:SER:OG	2.19	0.52
1:C:4666:VAL:HB	1:C:4667:PRO:HD3	1.90	0.52
1:E:116:MET:HA	1:E:139:GLU:HA	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4720:VAL:HA	1:E:4723:LYS:NZ	2.23	0.52
2:F:25:HIS:CG	2:F:40:ARG:HE	2.27	0.52
1:G:1072:VAL:HB	1:G:1607:ARG:HH12	1.74	0.52
1:G:1079:LYS:NZ	1:G:1107:PRO:HB2	2.24	0.52
1:G:1259:ARG:NH2	1:G:1599:MET:O	2.42	0.52
1:G:3882:GLN:HB2	1:G:3957:VAL:HG22	1.91	0.52
1:G:3903:LEU:HD22	1:G:3915:ILE:HD12	1.91	0.52
1:G:4648:LEU:HA	1:G:4651:THR:HB	1.91	0.52
1:A:688:LEU:HG	1:A:710:ASP:HB3	1.90	0.52
1:A:1641:ILE:HG23	1:A:1643:GLU:O	2.09	0.52
2:B:18:ARG:NH1	2:B:51:GLY:HA3	2.24	0.52
1:C:24:CYS:SG	1:C:26:ALA:HB2	2.49	0.52
1:C:4821:LYS:HD3	1:C:4947:GLN:NE2	2.23	0.52
1:E:1046:LEU:O	1:E:1050:GLY:N	2.42	0.52
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.82	0.52
1:E:4893:ALA:HB1	1:E:4896:GLY:HA2	1.91	0.52
1:G:37:LEU:HB2	1:G:200:TRP:HZ3	1.75	0.52
1:G:614:VAL:O	1:G:614:VAL:HG13	2.09	0.52
1:G:2377:LEU:HD12	1:G:2468:GLY:HA2	1.92	0.52
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.09	0.52
2:H:25:HIS:CG	2:H:40:ARG:HE	2.26	0.52
1:A:37:LEU:HB2	1:A:200:TRP:HZ3	1.74	0.52
1:A:739:ALA:O	1:A:741:GLU:N	2.42	0.52
1:A:1259:ARG:NH2	1:A:1599:MET:O	2.42	0.52
1:C:1046:LEU:O	1:C:1050:GLY:N	2.41	0.52
1:C:4154:VAL:HG13	1:C:4154:VAL:O	2.09	0.52
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.92	0.52
1:E:638:ILE:HB	1:E:1636:MET:HB2	1.91	0.52
1:E:857:ASP:O	1:E:991:ASN:ND2	2.42	0.52
1:E:4965:SER:HA	1:E:4975:PHE:CD1	2.44	0.52
1:G:1252:HIS:ND1	1:G:1253:PRO:HD2	2.24	0.52
1:G:1856:ASP:H	1:G:1858:ASP:N	2.07	0.52
1:A:1202:LEU:HD21	1:A:1204:LEU:HG	1.90	0.52
1:A:1240:LYS:O	1:A:1607:ARG:HA	2.09	0.52
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.92	0.52
1:A:4956:THR:O	1:A:4965:SER:N	2.43	0.52
1:C:33:LEU:HD21	1:C:51:PRO:HB3	1.91	0.52
1:C:404:ILE:HG12	1:C:478:PHE:HD2	1.74	0.52
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.92	0.52
1:C:617:ASN:O	1:C:621:ILE:HG12	2.10	0.52
1:C:1294:PRO:HG3	1:C:1549:PHE:HE1	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2205:GLU:O	1:C:2209:GLU:HG2	2.09	0.52
1:C:2922:LYS:C	1:C:2925:GLU:HB2	2.30	0.52
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.91	0.52
1:C:4810:ALA:O	1:C:4813:LEU:HG	2.10	0.52
1:E:617:ASN:O	1:E:621:ILE:HG12	2.10	0.52
1:E:1205:GLY:HA3	1:E:1227:ALA:H	1.75	0.52
1:E:3916:ILE:HA	1:E:3919:THR:HG22	1.92	0.52
1:G:138:GLN:HG2	1:G:140:ASP:H	1.74	0.52
1:G:617:ASN:O	1:G:621:ILE:HG12	2.10	0.52
1:G:2758:PHE:HD2	1:G:2809:ILE:HD13	1.73	0.52
1:G:3793:MET:O	1:G:3797:THR:HG23	2.09	0.52
1:A:1247:PRO:HA	1:A:1602:PRO:HA	1.92	0.52
1:A:1830:VAL:HG12	1:A:1834:VAL:HA	1.91	0.52
1:A:4221:VAL:O	1:A:4225:GLY:N	2.43	0.52
1:C:622:THR:O	1:C:626:LEU:N	2.42	0.52
1:C:857:ASP:O	1:C:991:ASN:ND2	2.43	0.52
1:C:1259:ARG:NH2	1:C:1599:MET:O	2.42	0.52
1:C:1688:HIS:O	1:C:1688:HIS:ND1	2.43	0.52
1:E:33:LEU:HD21	1:E:51:PRO:HB3	1.92	0.52
1:E:1141:ARG:HH12	1:E:1169:LEU:CD1	2.22	0.52
1:E:1562:ILE:HG12	1:E:1563:GLN:O	2.09	0.52
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.91	0.52
2:F:25:HIS:O	2:F:102:GLU:N	2.39	0.52
1:G:638:ILE:HG22	1:G:639:ASN:N	2.24	0.52
1:G:1477:GLY:HA2	1:G:1483:VAL:HA	1.91	0.52
1:G:2059:LEU:HD22	1:G:2062:ARG:NH1	2.19	0.52
1:G:3841:VAL:HG12	1:G:3843:ASP:H	1.74	0.52
1:A:614:VAL:HG13	1:A:614:VAL:O	2.10	0.52
1:A:636:ASN:OD1	1:A:637:LEU:N	2.42	0.52
1:A:834:PRO:HD2	1:A:838:HIS:HE2	1.73	0.52
1:A:1692:ALA:HA	1:A:1695:LEU:HD12	1.92	0.52
1:A:3877:ASP:O	1:A:3880:PHE:HB3	2.10	0.52
1:C:716:PHE:H	1:C:738:LEU:HD13	1.75	0.52
1:C:1240:LYS:O	1:C:1607:ARG:HA	2.09	0.52
1:C:1856:ASP:H	1:C:1858:ASP:N	2.08	0.52
1:C:3877:ASP:O	1:C:3880:PHE:HB3	2.10	0.52
1:C:4892:ARG:HH12	1:E:4898:GLY:H	1.57	0.52
1:E:1240:LYS:O	1:E:1607:ARG:HA	2.09	0.52
1:E:4146:LEU:O	1:E:4150:LEU:HG	2.09	0.52
1:G:1103:GLY:HA3	1:G:1123:VAL:HA	1.92	0.52
1:A:716:PHE:H	1:A:738:LEU:HD13	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1252:HIS:ND1	1:A:1253:PRO:HD2	2.24	0.52
1:A:1477:GLY:HA2	1:A:1483:VAL:HA	1.90	0.52
1:A:4965:SER:HA	1:A:4975:PHE:CD1	2.45	0.52
1:E:299:LEU:HD23	1:E:357:LEU:HD13	1.92	0.52
1:E:1210:SER:HA	1:E:1214:PHE:HB3	1.92	0.52
1:E:1294:PRO:HG3	1:E:1549:PHE:HE1	1.75	0.52
1:E:2205:GLU:O	1:E:2209:GLU:HG2	2.09	0.52
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.45	0.52
1:E:4172:GLU:HG2	1:E:4175:ARG:NH1	2.20	0.52
1:G:857:ASP:O	1:G:991:ASN:ND2	2.43	0.52
1:G:1292:SER:HB2	1:G:1602:PRO:HG3	1.91	0.52
1:G:1692:ALA:HA	1:G:1695:LEU:HD12	1.92	0.52
1:G:1931:LEU:CD2	1:G:1935:VAL:HG11	2.39	0.52
1:A:617:ASN:O	1:A:621:ILE:HG12	2.10	0.52
1:A:1079:LYS:NZ	1:A:1107:PRO:HB2	2.25	0.52
1:A:1103:GLY:HA3	1:A:1123:VAL:HA	1.92	0.52
1:A:1931:LEU:CD2	1:A:1935:VAL:HG11	2.40	0.52
1:A:2205:GLU:O	1:A:2209:GLU:HG2	2.09	0.52
1:A:2377:LEU:HD12	1:A:2468:GLY:HA2	1.92	0.52
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.45	0.52
1:C:1937:LEU:HD12	1:C:2116:LEU:HD12	1.91	0.52
1:C:4583:SER:N	1:C:4628:VAL:O	2.41	0.52
1:E:1072:VAL:HB	1:E:1607:ARG:HH12	1.74	0.52
1:E:1688:HIS:ND1	1:E:1688:HIS:O	2.43	0.52
1:E:1705:GLY:O	1:E:1708:ARG:HB3	2.09	0.52
1:E:2924:GLN:O	1:E:2928:LYS:CB	2.58	0.52
1:G:404:ILE:HG12	1:G:478:PHE:HD2	1.74	0.52
1:G:1805:GLU:OE1	1:G:1808:ARG:NE	2.35	0.52
1:G:3813:GLN:NE2	1:G:3890:LEU:O	2.40	0.52
1:G:4210:VAL:O	1:G:4214:LYS:N	2.39	0.52
1:A:638:ILE:HB	1:A:1636:MET:HB2	1.91	0.52
1:A:1072:VAL:HB	1:A:1607:ARG:HH12	1.75	0.52
1:A:1240:LYS:NZ	1:A:1242:LEU:O	2.43	0.52
1:A:2755:ILE:HD13	1:A:2810:LYS:HG2	1.92	0.52
1:A:4839:MET:HE3	1:G:4826:ILE:CG1	2.35	0.52
1:C:614:VAL:HG13	1:C:614:VAL:O	2.09	0.52
1:C:1240:LYS:NZ	1:C:1242:LEU:O	2.43	0.52
1:C:1247:PRO:HA	1:C:1602:PRO:HA	1.91	0.52
1:C:1658:ASP:OD1	1:C:1661:ARG:NH2	2.43	0.52
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.82	0.52
1:C:2377:LEU:HD12	1:C:2468:GLY:HA2	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:24:CYS:SG	1:E:26:ALA:HB2	2.49	0.52
1:E:252:VAL:HA	1:E:255:HIS:ND1	2.25	0.52
1:E:1252:HIS:ND1	1:E:1253:PRO:HD2	2.25	0.52
1:E:1641:ILE:HG23	1:E:1643:GLU:O	2.09	0.52
1:E:1931:LEU:CD2	1:E:1935:VAL:HG11	2.40	0.52
1:E:2214:VAL:HG11	1:E:2229:VAL:HG21	1.92	0.52
1:E:2377:LEU:HD12	1:E:2468:GLY:HA2	1.92	0.52
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	1.92	0.52
1:E:4795:TYR:O	1:E:4812:HIS:HE1	1.92	0.52
1:G:233:ILE:HD12	1:G:242:ARG:HB3	1.92	0.52
1:G:299:LEU:HD23	1:G:357:LEU:HD13	1.92	0.52
1:G:921:ASN:O	1:G:925:SER:N	2.26	0.52
1:G:4039:MET:HG3	1:G:4040:ILE:N	2.25	0.52
1:G:4150:LEU:O	1:G:4154:VAL:HG12	2.09	0.52
1:G:4583:SER:N	1:G:4628:VAL:O	2.41	0.52
1:A:3985:LEU:O	1:A:3988:ALA:HB3	2.10	0.52
1:C:4844:LEU:O	1:C:4848:VAL:HG23	2.10	0.52
1:E:3877:ASP:O	1:E:3880:PHE:HB3	2.09	0.52
1:E:4651:THR:HG23	1:E:4799:SER:HB3	1.90	0.52
1:G:252:VAL:HA	1:G:255:HIS:ND1	2.25	0.52
1:G:265:LEU:HD22	1:G:309:THR:HG23	1.92	0.52
1:G:1294:PRO:HG3	1:G:1549:PHE:HE1	1.75	0.52
1:G:1833:SER:O	1:G:1835:GLU:N	2.42	0.52
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.45	0.52
1:G:4077:PHE:CZ	1:G:4125:PHE:HA	2.44	0.52
1:A:828:GLU:O	1:A:840:VAL:HG23	2.11	0.51
1:A:4651:THR:HG23	1:A:4799:SER:HB3	1.92	0.51
1:A:4795:TYR:O	1:A:4812:HIS:HE1	1.93	0.51
1:C:314:PHE:HE1	1:C:378:LEU:HD21	1.74	0.51
1:C:523:TYR:CE1	1:C:560:ILE:HG12	2.45	0.51
1:C:597:HIS:NE2	1:C:598:LYS:NZ	2.57	0.51
1:C:793:LEU:HB3	1:C:812:HIS:HB2	1.91	0.51
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.45	0.51
1:C:4770:SER:O	1:C:4772:ASP:N	2.34	0.51
1:C:4956:THR:O	1:C:4965:SER:N	2.43	0.51
1:E:233:ILE:HD12	1:E:242:ARG:HB3	1.92	0.51
1:E:404:ILE:HG12	1:E:478:PHE:HD2	1.75	0.51
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.91	0.51
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.92	0.51
1:G:793:LEU:HB3	1:G:812:HIS:HB2	1.91	0.51
1:G:1734:TYR:OH	1:G:1948:ASP:OD1	2.18	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2922:LYS:O	1:G:2925:GLU:HB2	2.10	0.51
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.92	0.51
1:A:622:THR:HG21	1:A:1681:VAL:HG13	1.93	0.51
1:A:622:THR:O	1:A:626:LEU:N	2.42	0.51
1:A:1205:GLY:HA3	1:A:1227:ALA:H	1.75	0.51
1:A:2059:LEU:HD22	1:A:2062:ARG:NH1	2.18	0.51
1:A:3767:GLN:OE1	1:A:3809:ASN:ND2	2.34	0.51
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.91	0.51
1:C:2755:ILE:HD13	1:C:2810:LYS:HG2	1.93	0.51
1:E:400:ALA:O	1:E:404:ILE:HG13	2.09	0.51
1:E:597:HIS:NE2	1:E:598:LYS:NZ	2.57	0.51
1:E:614:VAL:O	1:E:614:VAL:HG13	2.10	0.51
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.08	0.51
1:G:1240:LYS:NZ	1:G:1242:LEU:HB2	2.25	0.51
1:G:2556:LEU:HD23	1:G:2559:LEU:HD12	1.91	0.51
1:G:3750:GLU:O	1:G:3754:GLU:N	2.43	0.51
1:G:4031:LEU:HD23	1:G:4153:HIS:CD2	2.45	0.51
1:A:255:HIS:HB3	1:A:257:ARG:HG2	1.93	0.51
1:A:407:THR:HA	1:A:410:LEU:HG	1.92	0.51
1:A:4146:LEU:O	1:A:4150:LEU:HG	2.09	0.51
1:C:252:VAL:HG23	1:C:257:ARG:NE	2.26	0.51
1:C:638:ILE:HB	1:C:1636:MET:HB2	1.90	0.51
1:C:4004:ALA:HB3	1:C:4110:PHE:HZ	1.75	0.51
1:C:4146:LEU:O	1:C:4150:LEU:HG	2.10	0.51
1:E:675:LEU:O	1:E:676:THR:OG1	2.27	0.51
1:E:1103:GLY:HA3	1:E:1123:VAL:HA	1.92	0.51
1:E:2358:ILE:HG21	1:G:195:PHE:HE2	1.75	0.51
1:E:3698:LEU:O	1:E:3702:VAL:HG23	2.10	0.51
1:E:3729:MET:HE2	1:E:3770:LEU:HD13	1.91	0.51
1:G:1240:LYS:NZ	1:G:1242:LEU:O	2.43	0.51
1:G:4150:LEU:HB3	1:G:4160:LEU:HD21	1.92	0.51
2:H:16:PRO:HD3	2:H:66:MET:O	2.10	0.51
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.46	0.51
1:A:4844:LEU:O	1:A:4848:VAL:HG23	2.10	0.51
1:C:407:THR:HA	1:C:410:LEU:HG	1.93	0.51
1:C:3750:GLU:O	1:C:3754:GLU:N	2.43	0.51
1:C:3905:THR:HG23	1:C:3907:THR:HG23	1.91	0.51
1:C:4177:TYR:HA	1:C:4199:GLU:OE2	2.10	0.51
1:C:4795:TYR:O	1:C:4812:HIS:HE1	1.93	0.51
1:C:4826:ILE:HG12	1:E:4839:MET:HE3	1.93	0.51
1:E:37:LEU:HB2	1:E:200:TRP:HZ3	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4782:VAL:O	1:E:4785:THR:OG1	2.21	0.51
1:E:4798:MET:SD	1:E:4801:LEU:HD12	2.50	0.51
1:G:1202:LEU:HD21	1:G:1204:LEU:HG	1.92	0.51
1:G:3670:GLU:O	1:G:3674:ILE:HG12	2.11	0.51
1:G:4645:CYS:O	1:G:4649:LEU:N	2.39	0.51
1:A:233:ILE:HD12	1:A:242:ARG:HB3	1.92	0.51
1:A:1856:ASP:H	1:A:1858:ASP:N	2.07	0.51
1:A:2358:ILE:HG21	1:C:195:PHE:HE2	1.76	0.51
1:A:3727:ASP:O	1:A:3730:ALA:HB3	2.11	0.51
2:B:25:HIS:O	2:B:102:GLU:N	2.38	0.51
2:B:27:THR:HA	2:B:38:SER:HA	1.92	0.51
2:B:58:GLY:HA3	2:B:76:ILE:HG23	1.92	0.51
1:C:1205:GLY:HA3	1:C:1227:ALA:CB	2.40	0.51
1:C:1931:LEU:CD2	1:C:1935:VAL:HG11	2.40	0.51
1:C:3698:LEU:O	1:C:3702:VAL:HG23	2.10	0.51
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.92	0.51
1:E:523:TYR:CE1	1:E:560:ILE:HG12	2.46	0.51
1:E:1240:LYS:NZ	1:E:1242:LEU:HB2	2.25	0.51
1:E:1658:ASP:OD1	1:E:1661:ARG:NH2	2.43	0.51
1:E:1692:ALA:HA	1:E:1695:LEU:HD12	1.92	0.51
1:E:1708:ARG:HH11	1:E:1712:TYR:HE2	1.57	0.51
1:E:1833:SER:O	1:E:1835:GLU:N	2.42	0.51
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.46	0.51
1:E:2495:VAL:HA	1:E:2498:HIS:HD2	1.76	0.51
1:E:4177:TYR:HA	1:E:4199:GLU:OE2	2.10	0.51
1:G:559:GLY:O	1:G:563:VAL:HG23	2.10	0.51
1:G:1688:HIS:ND1	1:G:1688:HIS:O	2.44	0.51
1:A:793:LEU:HB3	1:A:812:HIS:HB2	1.91	0.51
1:A:2305:CYS:HB2	1:A:2325:PRO:HG2	1.93	0.51
1:A:3729:MET:HE2	1:A:3770:LEU:HD13	1.92	0.51
1:C:1202:LEU:HD21	1:C:1204:LEU:HG	1.92	0.51
1:C:1210:SER:HA	1:C:1214:PHE:HB3	1.93	0.51
1:C:1708:ARG:HH11	1:C:1712:TYR:HE2	1.58	0.51
1:C:2553:TYR:HD1	1:C:2556:LEU:HD12	1.76	0.51
1:E:102:LEU:HB2	1:E:105:HIS:HD2	1.72	0.51
1:E:636:ASN:OD1	1:E:637:LEU:N	2.43	0.51
1:E:1247:PRO:HA	1:E:1602:PRO:HA	1.91	0.51
1:E:2244:ARG:HH11	1:E:2248:ARG:HH21	1.58	0.51
1:E:4107:GLU:HA	1:E:4110:PHE:HB3	1.93	0.51
1:E:4844:LEU:O	1:E:4848:VAL:HG23	2.11	0.51
1:G:638:ILE:HB	1:G:1636:MET:HB2	1.92	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1210:SER:HA	1:G:1214:PHE:HB3	1.93	0.51
1:G:4146:LEU:O	1:G:4150:LEU:HG	2.09	0.51
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.46	0.51
1:A:132:ALA:HB1	1:A:193:ALA:O	2.11	0.51
1:A:4580:TYR:HB2	1:A:4631:PHE:HD1	1.76	0.51
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.46	0.51
1:C:173:SER:O	1:C:177:GLU:HA	2.11	0.51
1:C:1115:LEU:HD21	1:C:1123:VAL:HG11	1.93	0.51
1:C:1962:ALA:O	1:C:1966:VAL:HG23	2.11	0.51
1:C:3729:MET:HE2	1:C:3770:LEU:HD13	1.92	0.51
2:D:58:GLY:HA3	2:D:76:ILE:HG23	1.92	0.51
1:E:1240:LYS:NZ	1:E:1242:LEU:O	2.43	0.51
2:F:16:PRO:HD3	2:F:66:MET:O	2.09	0.51
1:G:255:HIS:HB3	1:G:257:ARG:HG2	1.93	0.51
1:A:265:LEU:HD22	1:A:309:THR:HG23	1.93	0.51
1:A:299:LEU:HD23	1:A:357:LEU:HD13	1.92	0.51
1:A:523:TYR:CE1	1:A:560:ILE:HG12	2.45	0.51
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.93	0.51
1:A:1240:LYS:NZ	1:A:1242:LEU:HB2	2.25	0.51
1:A:1658:ASP:OD1	1:A:1661:ARG:NH2	2.43	0.51
1:A:3750:GLU:O	1:A:3754:GLU:N	2.43	0.51
1:C:1780:PRO:HB2	2:D:42:ARG:NH2	2.25	0.51
1:C:3727:ASP:O	1:C:3730:ALA:HB3	2.11	0.51
1:C:3839:CYS:SG	1:C:3840:SER:N	2.84	0.51
1:C:3935:TRP:O	1:E:80:GLU:OE2	2.28	0.51
1:C:4107:GLU:HA	1:C:4110:PHE:HB3	1.93	0.51
1:C:4651:THR:HG23	1:C:4799:SER:HB3	1.92	0.51
1:C:4892:ARG:HH22	1:E:4920:PHE:HD2	1.57	0.51
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.93	0.51
1:G:625:LEU:HB3	1:G:632:LEU:HD23	1.93	0.51
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.92	0.51
1:G:4241:THR:O	1:G:4244:GLU:HB3	2.10	0.51
1:G:4665:LYS:O	1:G:4669:VAL:N	2.40	0.51
1:A:252:VAL:HG23	1:A:257:ARG:NE	2.25	0.51
1:A:252:VAL:HA	1:A:255:HIS:ND1	2.25	0.51
1:A:404:ILE:HG12	1:A:478:PHE:HD2	1.75	0.51
1:A:4004:ALA:HB3	1:A:4110:PHE:HZ	1.74	0.51
1:A:4905:ALA:N	1:A:4906:GLY:HA3	2.26	0.51
1:C:37:LEU:HB2	1:C:200:TRP:HZ3	1.75	0.51
1:C:265:LEU:HD22	1:C:309:THR:HG23	1.93	0.51
1:C:1079:LYS:HZ2	1:C:1107:PRO:HB2	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1103:GLY:HA3	1:C:1123:VAL:HA	1.92	0.51
1:C:1240:LYS:HZ3	1:C:1242:LEU:HB2	1.76	0.51
1:E:132:ALA:HB1	1:E:193:ALA:O	2.11	0.51
1:E:793:LEU:HB3	1:E:812:HIS:HB2	1.91	0.51
1:E:921:ASN:O	1:E:925:SER:N	2.26	0.51
1:E:1115:LEU:HD21	1:E:1123:VAL:HG11	1.93	0.51
1:E:1202:LEU:HD21	1:E:1204:LEU:HG	1.92	0.51
1:E:1962:ALA:O	1:E:1966:VAL:HG23	2.11	0.51
1:G:264:PRO:O	1:G:266:ARG:N	2.44	0.51
1:G:523:TYR:CE1	1:G:560:ILE:HG12	2.46	0.51
1:G:1658:ASP:OD1	1:G:1661:ARG:NH2	2.43	0.51
1:G:3847:PHE:HE1	1:G:3946:GLN:HG2	1.75	0.51
1:G:4905:ALA:N	1:G:4906:GLY:HA3	2.26	0.51
1:A:638:ILE:HG22	1:A:639:ASN:N	2.25	0.51
1:A:1833:SER:O	1:A:1835:GLU:N	2.41	0.51
1:C:255:HIS:HB3	1:C:257:ARG:HG2	1.93	0.51
1:C:276:TRP:CD1	1:C:318:VAL:HG23	2.46	0.51
1:C:1252:HIS:ND1	1:C:1253:PRO:HD2	2.25	0.51
1:C:2059:LEU:HD22	1:C:2062:ARG:NH1	2.18	0.51
1:E:1856:ASP:H	1:E:1858:ASP:N	2.08	0.51
1:E:2254:LEU:O	1:E:2258:LEU:HG	2.11	0.51
1:E:2819:TRP:CH2	1:E:2881:ASN:HB2	2.46	0.51
1:E:3750:GLU:O	1:E:3754:GLU:N	2.43	0.51
1:E:4822:THR:O	1:E:4825:THR:HB	2.11	0.51
1:G:173:SER:O	1:G:177:GLU:HA	2.11	0.51
1:G:716:PHE:H	1:G:738:LEU:HD13	1.74	0.51
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.93	0.51
1:A:1077:ALA:HB2	1:A:1190:PRO:HG2	1.94	0.50
1:A:2553:TYR:HD1	1:A:2556:LEU:HD12	1.76	0.50
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.91	0.50
1:A:4151:SER:HA	1:A:4160:LEU:HD21	1.94	0.50
1:C:252:VAL:HA	1:C:255:HIS:ND1	2.25	0.50
1:C:299:LEU:HD23	1:C:357:LEU:HD13	1.92	0.50
1:C:828:GLU:O	1:C:840:VAL:HG23	2.10	0.50
1:C:1240:LYS:NZ	1:C:1242:LEU:HB2	2.26	0.50
1:C:1679:ASN:O	1:C:1683:HIS:ND1	2.41	0.50
1:C:4580:TYR:HB2	1:C:4631:PHE:HD1	1.76	0.50
1:C:4721:LYS:HD3	1:C:4741:LEU:HB3	1.93	0.50
1:C:4905:ALA:N	1:C:4906:GLY:HA3	2.25	0.50
1:E:622:THR:HG21	1:E:1681:VAL:HG13	1.94	0.50
1:E:1810:LYS:HD2	1:E:1813:ARG:HH22	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2553:TYR:HD1	1:E:2556:LEU:HD12	1.76	0.50
1:E:3839:CYS:SG	1:E:3840:SER:N	2.84	0.50
2:F:27:THR:HA	2:F:38:SER:HA	1.93	0.50
1:G:252:VAL:HG23	1:G:257:ARG:NE	2.25	0.50
1:G:626:LEU:HB2	1:G:627:PRO:HD3	1.93	0.50
1:G:1115:LEU:HD21	1:G:1123:VAL:HG11	1.93	0.50
1:G:1247:PRO:HA	1:G:1602:PRO:HA	1.91	0.50
1:G:1810:LYS:HD2	1:G:1813:ARG:HH22	1.76	0.50
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.10	0.50
1:G:2819:TRP:CH2	1:G:2881:ASN:HB2	2.47	0.50
1:G:2890:LYS:HE3	1:G:2894:LEU:HD11	1.93	0.50
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.44	0.50
1:A:2819:TRP:CH2	1:A:2881:ASN:HB2	2.46	0.50
1:A:3753:PHE:O	1:A:3757:GLU:N	2.44	0.50
1:A:4177:TYR:HA	1:A:4199:GLU:OE2	2.10	0.50
1:A:4676:GLU:O	1:A:4680:LYS:HG3	2.11	0.50
1:C:1768:THR:O	1:C:1769:THR:OG1	2.22	0.50
1:C:2062:ARG:O	1:C:2065:SER:OG	2.22	0.50
1:C:2254:LEU:O	1:C:2258:LEU:HG	2.11	0.50
1:E:1735:ILE:CD1	1:E:1771:LEU:HD12	2.42	0.50
1:E:3935:TRP:CB	1:G:76:ARG:HG3	2.41	0.50
2:F:58:GLY:HA3	2:F:76:ILE:HG23	1.92	0.50
1:G:394:GLN:HB3	1:G:397:GLU:HG2	1.93	0.50
1:G:588:SER:O	1:G:592:LYS:HG3	2.12	0.50
1:G:3835:LEU:O	1:G:3839:CYS:N	2.43	0.50
1:G:4221:VAL:O	1:G:4225:GLY:N	2.44	0.50
1:G:4876:CYS:HA	1:G:4882:CYS:HB3	1.93	0.50
1:A:173:SER:O	1:A:177:GLU:HA	2.11	0.50
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.91	0.50
1:C:1692:ALA:HA	1:C:1695:LEU:HD12	1.92	0.50
1:C:2214:VAL:HG11	1:C:2229:VAL:HG21	1.92	0.50
1:C:2495:VAL:HA	1:C:2498:HIS:HD2	1.76	0.50
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.44	0.50
1:C:3835:LEU:HD22	1:C:3884:LEU:CD1	2.41	0.50
1:C:3916:ILE:HA	1:C:3919:THR:HG22	1.93	0.50
1:E:173:SER:O	1:E:177:GLU:HA	2.11	0.50
1:E:252:VAL:HG23	1:E:257:ARG:NE	2.26	0.50
1:G:1029:GLU:HA	1:G:1032:LYS:HB2	1.93	0.50
1:G:1253:PRO:O	1:G:1254:HIS:HB2	2.11	0.50
1:G:4578:LEU:HG	1:G:4578:LEU:O	2.12	0.50
1:A:394:GLN:HB3	1:A:397:GLU:HG2	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:588:SER:O	1:A:592:LYS:HG3	2.11	0.50
1:A:1166:GLY:HA3	1:A:1216:ILE:HD12	1.93	0.50
1:A:1962:ALA:O	1:A:1966:VAL:HG23	2.11	0.50
1:A:4573:ILE:O	1:A:4577:LEU:HB2	2.11	0.50
1:C:622:THR:HG21	1:C:1681:VAL:HG13	1.93	0.50
1:C:716:PHE:N	1:C:738:LEU:HD13	2.27	0.50
1:E:218:HIS:HE1	1:E:392:ARG:HB2	1.76	0.50
1:E:1163:THR:HG22	1:E:1168:VAL:HA	1.93	0.50
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.45	0.50
1:E:3774:GLY:HA2	1:E:3815:LYS:NZ	2.26	0.50
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.46	0.50
1:G:132:ALA:HB1	1:G:193:ALA:O	2.11	0.50
1:G:622:THR:HG21	1:G:1681:VAL:HG13	1.93	0.50
1:G:828:GLU:O	1:G:840:VAL:HG23	2.11	0.50
1:G:1163:THR:HG22	1:G:1168:VAL:HA	1.93	0.50
1:G:5013:MET:O	1:G:5017:ARG:N	2.40	0.50
1:A:276:TRP:CD1	1:A:318:VAL:HG23	2.47	0.50
1:A:1253:PRO:O	1:A:1254:HIS:HB2	2.12	0.50
1:A:1705:GLY:O	1:A:1708:ARG:HB3	2.11	0.50
1:A:3698:LEU:O	1:A:3702:VAL:HG23	2.10	0.50
1:A:4583:SER:N	1:A:4628:VAL:O	2.41	0.50
1:C:102:LEU:HB2	1:C:105:HIS:HD2	1.72	0.50
1:C:218:HIS:HE1	1:C:392:ARG:HB2	1.76	0.50
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.43	0.50
1:C:588:SER:O	1:C:592:LYS:HG3	2.11	0.50
1:C:1514:LEU:HD12	1:C:1514:LEU:N	2.26	0.50
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.46	0.50
1:C:2819:TRP:CH2	1:C:2881:ASN:HB2	2.47	0.50
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.46	0.50
1:E:716:PHE:H	1:E:738:LEU:HD13	1.75	0.50
1:E:3727:ASP:O	1:E:3730:ALA:HB3	2.11	0.50
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.77	0.50
1:E:4905:ALA:N	1:E:4906:GLY:HA3	2.26	0.50
1:G:110:ARG:HG2	1:G:117:TYR:CE1	2.47	0.50
1:A:716:PHE:N	1:A:738:LEU:HD13	2.27	0.50
1:A:1115:LEU:HD21	1:A:1123:VAL:HG11	1.94	0.50
1:A:1210:SER:HA	1:A:1214:PHE:HB3	1.94	0.50
1:A:1688:HIS:ND1	1:A:1688:HIS:O	2.44	0.50
1:A:3835:LEU:HD22	1:A:3884:LEU:CD1	2.42	0.50
1:A:3935:TRP:O	1:C:80:GLU:OE2	2.29	0.50
1:C:675:LEU:O	1:C:676:THR:OG1	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.93	0.50
1:C:3774:GLY:HA2	1:C:3815:LYS:NZ	2.26	0.50
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.30	0.50
1:C:3935:TRP:CB	1:E:76:ARG:HG3	2.42	0.50
1:C:4221:VAL:O	1:C:4225:GLY:N	2.44	0.50
1:E:42:PHE:HB2	1:E:403:MET:SD	2.52	0.50
1:E:265:LEU:HD22	1:E:309:THR:HG23	1.94	0.50
1:E:276:TRP:CD1	1:E:318:VAL:HG23	2.46	0.50
1:E:622:THR:O	1:E:626:LEU:N	2.42	0.50
1:E:828:GLU:O	1:E:840:VAL:HG23	2.10	0.50
1:E:4906:GLY:H	1:E:4910:GLU:HG3	1.76	0.50
1:G:118:LEU:HA	1:G:137:LEU:HD23	1.94	0.50
1:G:622:THR:O	1:G:626:LEU:N	2.42	0.50
1:G:1679:ASN:O	1:G:1683:HIS:ND1	2.40	0.50
1:G:1962:ALA:O	1:G:1966:VAL:HG23	2.11	0.50
1:G:2254:LEU:O	1:G:2258:LEU:HG	2.11	0.50
1:G:4172:GLU:HG2	1:G:4175:ARG:HH12	1.76	0.50
1:G:4182:GLU:HB2	1:G:4983:HIS:CE1	2.47	0.50
1:G:4984:ASN:O	1:G:4985:LEU:HB3	2.11	0.50
1:A:118:LEU:HA	1:A:137:LEU:HD23	1.94	0.50
1:A:218:HIS:HE1	1:A:392:ARG:HB2	1.76	0.50
1:A:702:TRP:HD1	2:B:34:LYS:NZ	2.04	0.50
1:A:1828:ASP:HB3	1:A:1829:PRO:C	2.32	0.50
1:A:4836:GLN:O	1:A:4839:MET:HG2	2.11	0.50
1:C:3753:PHE:O	1:C:3757:GLU:N	2.44	0.50
1:C:4906:GLY:H	1:C:4910:GLU:HG3	1.77	0.50
1:E:625:LEU:HB3	1:E:632:LEU:HD23	1.94	0.50
1:E:716:PHE:N	1:E:738:LEU:HD13	2.27	0.50
1:E:1166:GLY:HA3	1:E:1216:ILE:HD12	1.94	0.50
1:E:1783:VAL:HG12	2:F:54:GLU:O	2.12	0.50
1:E:4221:VAL:O	1:E:4225:GLY:N	2.44	0.50
1:E:4676:GLU:O	1:E:4680:LYS:HG3	2.12	0.50
1:G:150:MET:HG2	1:G:171:LEU:HD23	1.94	0.50
1:G:702:TRP:CD1	2:H:34:LYS:NZ	2.79	0.50
1:G:2495:VAL:HA	1:G:2498:HIS:HD2	1.77	0.50
1:A:472:ARG:NE	1:A:532:GLY:O	2.45	0.50
1:A:764:VAL:O	1:A:764:VAL:HG12	2.12	0.50
1:A:1780:PRO:HB2	2:B:42:ARG:NH2	2.27	0.50
1:A:2095:GLN:HG3	1:A:2127:GLN:OE1	2.11	0.50
1:A:2254:LEU:O	1:A:2258:LEU:HG	2.12	0.50
1:A:4145:VAL:HG13	1:A:4194:TYR:HD2	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4810:ALA:O	1:A:4813:LEU:HG	2.11	0.50
1:C:233:ILE:HD12	1:C:242:ARG:HB3	1.92	0.50
1:C:4676:GLU:O	1:C:4680:LYS:HG3	2.12	0.50
1:C:4905:ALA:H	1:C:4906:GLY:HA3	1.77	0.50
1:E:407:THR:HA	1:E:410:LEU:HG	1.93	0.50
1:E:588:SER:O	1:E:592:LYS:HG3	2.11	0.50
1:E:1029:GLU:HA	1:E:1032:LYS:HB2	1.94	0.50
1:E:1685:LEU:O	1:E:1689:VAL:HG12	2.12	0.50
1:E:2059:LEU:HD22	1:E:2062:ARG:NH1	2.18	0.50
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.77	0.50
1:G:1166:GLY:HA3	1:G:1216:ILE:HD12	1.94	0.50
1:G:3698:LEU:HB3	1:G:3773:ARG:HE	1.77	0.50
1:G:3727:ASP:O	1:G:3730:ALA:HB3	2.11	0.50
1:A:173:SER:HG	1:A:175:SER:HG	1.57	0.50
1:A:1685:LEU:O	1:A:1689:VAL:HG12	2.12	0.50
1:A:2517:PHE:O	1:A:2521:VAL:HG23	2.12	0.50
1:C:132:ALA:HB1	1:C:193:ALA:O	2.11	0.50
1:C:3985:LEU:O	1:C:3988:ALA:HB3	2.11	0.50
1:C:4979:THR:O	1:C:4984:ASN:N	2.30	0.50
1:E:118:LEU:HA	1:E:137:LEU:HD23	1.94	0.50
1:E:255:HIS:HB3	1:E:257:ARG:HG2	1.93	0.50
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.30	0.50
1:G:1663:HIS:CE1	1:G:1667:LEU:HD11	2.47	0.50
1:G:1705:GLY:O	1:G:1708:ARG:HB3	2.11	0.50
1:G:2496:PRO:HB3	1:G:2552:ARG:HD2	1.92	0.50
1:G:4834:GLY:O	1:G:4837:LEU:HB3	2.12	0.50
1:A:626:LEU:HB2	1:A:627:PRO:HD3	1.93	0.49
1:A:1024:TYR:HB3	1:A:1032:LYS:HD3	1.94	0.49
1:A:1767:VAL:C	1:A:1768:THR:HG1	2.15	0.49
1:A:3774:GLY:HA2	1:A:3815:LYS:NZ	2.27	0.49
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.30	0.49
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.77	0.49
1:A:4107:GLU:HA	1:A:4110:PHE:HB3	1.93	0.49
1:C:472:ARG:NE	1:C:532:GLY:O	2.45	0.49
1:C:1457:TYR:C	1:C:1458:HIS:CG	2.86	0.49
1:C:1810:LYS:HD2	1:C:1813:ARG:HH22	1.76	0.49
1:C:1933:GLU:O	1:C:1936:LYS:HB2	2.12	0.49
1:C:3921:ASP:O	1:C:3924:LEU:HB2	2.12	0.49
1:E:626:LEU:HB2	1:E:627:PRO:HD3	1.93	0.49
1:E:2173:GLN:HG2	1:E:2174:GLU:N	2.19	0.49
1:E:3753:PHE:O	1:E:3757:GLU:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4892:ARG:HH22	1:G:4920:PHE:HD2	1.60	0.49
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.94	0.49
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.30	0.49
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.46	0.49
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.45	0.49
1:G:4137:ARG:HD2	1:G:4177:TYR:CZ	2.45	0.49
1:G:4946:GLN:HA	1:G:4949:GLN:HB3	1.94	0.49
1:A:1810:LYS:HD2	1:A:1813:ARG:HH22	1.76	0.49
1:A:2214:VAL:HG11	1:A:2229:VAL:CG2	2.42	0.49
2:B:74:LEU:HD23	2:B:76:ILE:HD11	1.94	0.49
1:C:34:LYS:HB2	1:C:53:SER:HB2	1.94	0.49
1:C:702:TRP:HD1	2:D:34:LYS:NZ	2.04	0.49
1:C:1077:ALA:HB2	1:C:1190:PRO:HG2	1.94	0.49
1:C:1663:HIS:CE1	1:C:1667:LEU:HD11	2.47	0.49
1:E:764:VAL:O	1:E:764:VAL:HG12	2.12	0.49
1:E:1679:ASN:O	1:E:1683:HIS:ND1	2.41	0.49
1:E:1933:GLU:O	1:E:1936:LYS:HB2	2.13	0.49
1:E:2671:GLU:CB	1:E:2913:ALA:H	2.26	0.49
1:E:3835:LEU:HD22	1:E:3884:LEU:CD1	2.42	0.49
2:F:54:GLU:HG3	2:F:55:VAL:HG13	1.94	0.49
1:G:407:THR:HA	1:G:410:LEU:HG	1.93	0.49
1:G:1448:VAL:HG13	1:G:1554:VAL:HA	1.94	0.49
1:A:2890:LYS:HE3	1:A:2894:LEU:HD11	1.94	0.49
1:A:3905:THR:HG23	1:A:3907:THR:HG23	1.92	0.49
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.92	0.49
1:A:5006:GLN:O	1:A:5010:VAL:HG23	2.12	0.49
1:C:42:PHE:HB2	1:C:403:MET:SD	2.52	0.49
1:C:118:LEU:HA	1:C:137:LEU:HD23	1.94	0.49
1:C:119:SER:O	1:C:136:GLY:N	2.31	0.49
1:C:597:HIS:HB2	1:C:1665:HIS:CD2	2.48	0.49
1:C:1253:PRO:O	1:C:1254:HIS:HB2	2.12	0.49
2:D:27:THR:HA	2:D:38:SER:HA	1.93	0.49
1:E:150:MET:HG2	1:E:171:LEU:HD23	1.95	0.49
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.43	0.49
1:E:636:ASN:ND2	2:F:35:LYS:HD3	2.27	0.49
1:E:1663:HIS:CE1	1:E:1667:LEU:HD11	2.48	0.49
1:E:1767:VAL:C	1:E:1768:THR:HG1	2.15	0.49
1:E:2517:PHE:O	1:E:2521:VAL:HG23	2.13	0.49
1:E:2890:LYS:HE3	1:E:2894:LEU:HD11	1.94	0.49
1:G:2517:PHE:O	1:G:2521:VAL:HG23	2.13	0.49
1:G:3716:LEU:N	1:G:3789:GLU:OE2	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4842:GLY:O	1:G:4846:VAL:HG23	2.13	0.49
1:A:42:PHE:HB2	1:A:403:MET:SD	2.53	0.49
1:A:245:VAL:HG12	1:A:376:ALA:HB3	1.95	0.49
1:A:2173:GLN:OE1	1:A:2173:GLN:N	2.46	0.49
1:C:394:GLN:HB3	1:C:397:GLU:HG2	1.93	0.49
1:C:1029:GLU:HA	1:C:1032:LYS:HB2	1.93	0.49
1:C:1245:PHE:HD2	1:C:1290:ARG:HH11	1.61	0.49
1:C:2890:LYS:HE3	1:C:2894:LEU:HD11	1.94	0.49
1:C:4573:ILE:O	1:C:4577:LEU:HB2	2.11	0.49
1:E:1077:ALA:HB2	1:E:1190:PRO:HG2	1.95	0.49
1:E:1253:PRO:O	1:E:1254:HIS:HB2	2.12	0.49
1:G:516:LYS:HG3	1:G:517:GLU:N	2.27	0.49
1:G:2173:GLN:OE1	1:G:2173:GLN:N	2.45	0.49
1:A:1029:GLU:HA	1:A:1032:LYS:HB2	1.93	0.49
1:A:1457:TYR:C	1:A:1458:HIS:CG	2.86	0.49
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.46	0.49
1:A:4677:LEU:HA	1:A:4680:LYS:HD2	1.95	0.49
1:C:110:ARG:HG2	1:C:117:TYR:CE1	2.48	0.49
1:C:342:GLY:N	1:C:390:LEU:O	2.46	0.49
1:C:1685:LEU:O	1:C:1689:VAL:HG12	2.13	0.49
1:C:1767:VAL:C	1:C:1768:THR:HG1	2.16	0.49
1:C:4151:SER:HA	1:C:4160:LEU:HD21	1.94	0.49
1:C:4730:ASP:OD1	1:C:4731:ILE:N	2.46	0.49
1:E:597:HIS:HB2	1:E:1665:HIS:CD2	2.47	0.49
1:E:1245:PHE:HD2	1:E:1290:ARG:HH11	1.61	0.49
1:E:2173:GLN:OE1	1:E:2173:GLN:N	2.45	0.49
1:E:3905:THR:HG23	1:E:3907:THR:HG23	1.93	0.49
1:E:5006:GLN:O	1:E:5010:VAL:HG23	2.12	0.49
1:G:42:PHE:HB2	1:G:403:MET:SD	2.52	0.49
1:G:1762:LEU:HD12	1:G:1763:PRO:HD2	1.94	0.49
1:G:2125:HIS:CE1	1:G:3724:ALA:HB1	2.48	0.49
1:G:4905:ALA:H	1:G:4906:GLY:HA3	1.78	0.49
1:A:597:HIS:HB2	1:A:1665:HIS:CD2	2.48	0.49
1:A:639:ASN:ND2	1:A:676:THR:OG1	2.45	0.49
1:A:1933:GLU:O	1:A:1936:LYS:HB2	2.12	0.49
1:A:2420:HIS:ND1	1:A:2423:MET:SD	2.75	0.49
1:A:3662:ILE:O	1:A:3662:ILE:HG22	2.13	0.49
1:C:264:PRO:O	1:C:266:ARG:N	2.44	0.49
1:C:1024:TYR:HB3	1:C:1032:LYS:HD3	1.95	0.49
1:C:1556:PRO:HA	1:C:1561:VAL:HG23	1.93	0.49
1:C:1783:VAL:HG12	2:D:54:GLU:O	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4642:ALA:O	1:C:4646:LEU:N	2.44	0.49
1:C:4677:LEU:HD23	1:C:4711:PHE:CE1	2.48	0.49
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	1.95	0.49
1:E:472:ARG:NE	1:E:532:GLY:O	2.46	0.49
1:E:1074:ILE:HA	1:E:1193:SER:HA	1.95	0.49
1:G:34:LYS:HB2	1:G:53:SER:HB2	1.94	0.49
1:G:245:VAL:HG12	1:G:376:ALA:HB3	1.95	0.49
1:G:472:ARG:NE	1:G:532:GLY:O	2.46	0.49
1:G:1141:ARG:NH1	1:G:1169:LEU:HD11	2.26	0.49
1:G:1685:LEU:O	1:G:1689:VAL:HG12	2.12	0.49
1:G:1933:GLU:O	1:G:1936:LYS:HB2	2.12	0.49
1:G:2244:ARG:HH11	1:G:2248:ARG:HH21	1.60	0.49
1:G:2883:HIS:HE1	1:G:2904:LEU:O	1.95	0.49
1:G:4567:LEU:HD12	1:G:4815:ASP:OD2	2.12	0.49
1:A:110:ARG:HG2	1:A:117:TYR:CE1	2.48	0.49
1:A:452:PHE:O	1:A:528:SER:OG	2.31	0.49
1:A:1245:PHE:HD2	1:A:1290:ARG:HH11	1.61	0.49
1:A:1734:TYR:OH	1:A:1948:ASP:OD1	2.19	0.49
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.78	0.49
1:A:3921:ASP:O	1:A:3924:LEU:HB2	2.12	0.49
1:A:4730:ASP:OD1	1:A:4731:ILE:N	2.45	0.49
1:A:4920:PHE:HD2	1:G:4892:ARG:HH22	1.61	0.49
2:B:49:MET:N	2:B:54:GLU:OE2	2.46	0.49
1:C:1828:ASP:HB3	1:C:1829:PRO:C	2.32	0.49
1:C:2095:GLN:HG3	1:C:2127:GLN:OE1	2.11	0.49
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.77	0.49
2:D:74:LEU:HD23	2:D:76:ILE:HD11	1.94	0.49
1:E:1277:TRP:HB2	1:E:1562:ILE:O	2.13	0.49
1:E:1712:TYR:CD2	1:E:1840:PRO:HB2	2.48	0.49
1:E:4573:ILE:O	1:E:4577:LEU:HB2	2.13	0.49
1:E:4574:ASN:ND2	1:E:4813:LEU:HD23	2.27	0.49
1:G:218:HIS:HE1	1:G:392:ARG:HB2	1.76	0.49
1:G:1457:TYR:C	1:G:1458:HIS:CG	2.86	0.49
1:G:1556:PRO:HA	1:G:1561:VAL:HG23	1.93	0.49
1:G:2173:GLN:HG2	1:G:2174:GLU:N	2.20	0.49
1:G:4031:LEU:HD11	1:G:4044:MET:SD	2.53	0.49
1:G:4843:LEU:O	1:G:4847:VAL:HG23	2.13	0.49
1:A:1735:ILE:CD1	1:A:1771:LEU:HD12	2.42	0.49
1:A:3839:CYS:SG	1:A:3840:SER:N	2.84	0.49
1:A:4906:GLY:H	1:A:4910:GLU:HG3	1.77	0.49
1:C:150:MET:HG2	1:C:171:LEU:HD23	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:245:VAL:HG12	1:C:376:ALA:HB3	1.95	0.49
1:C:636:ASN:OD1	1:C:637:LEU:N	2.43	0.49
1:C:1130:GLN:NE2	1:C:1132:TRP:HE1	2.11	0.49
1:C:3891:LEU:HB3	1:C:3899:PHE:HE2	1.77	0.49
1:E:516:LYS:HG3	1:E:517:GLU:N	2.27	0.49
1:E:1457:TYR:C	1:E:1458:HIS:CG	2.86	0.49
1:E:1739:THR:O	1:E:1742:THR:OG1	2.21	0.49
1:E:4055:VAL:HA	1:E:4058:ILE:HG12	1.95	0.49
1:E:4677:LEU:HA	1:E:4680:LYS:HD2	1.94	0.49
1:E:4721:LYS:HD3	1:E:4741:LEU:HB3	1.94	0.49
1:E:4905:ALA:H	1:E:4906:GLY:HA3	1.78	0.49
1:G:276:TRP:CD1	1:G:318:VAL:HG23	2.47	0.49
1:G:451:TYR:HD2	1:G:452:PHE:CE2	2.31	0.49
1:G:458:GLU:HG2	1:G:458:GLU:O	2.13	0.49
1:G:1077:ALA:HB2	1:G:1190:PRO:HG2	1.94	0.49
1:G:4027:LEU:O	1:G:4031:LEU:HD13	2.13	0.49
1:G:4666:VAL:O	1:G:4670:ILE:HG12	2.13	0.49
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.94	0.49
2:H:23:VAL:HG12	2:H:104:LEU:HD12	1.95	0.49
1:A:34:LYS:HB2	1:A:53:SER:HB2	1.93	0.49
1:A:625:LEU:HB3	1:A:632:LEU:HD23	1.94	0.49
1:A:636:ASN:HD21	2:B:35:LYS:HD3	1.78	0.49
1:A:1457:TYR:CZ	1:A:1459:GLN:NE2	2.81	0.49
1:A:2244:ARG:HH11	1:A:2248:ARG:HH21	1.59	0.49
1:A:2495:VAL:HA	1:A:2498:HIS:HD2	1.77	0.49
1:A:2671:GLU:CB	1:A:2913:ALA:H	2.26	0.49
1:A:4877:ASP:O	1:G:4581:LYS:CE	2.61	0.49
1:C:626:LEU:HB2	1:C:627:PRO:HD3	1.93	0.49
1:C:1166:GLY:HA3	1:C:1216:ILE:HD12	1.95	0.49
1:C:1448:VAL:HG13	1:C:1554:VAL:HA	1.94	0.49
1:C:2671:GLU:CB	1:C:2913:ALA:H	2.26	0.49
1:E:3985:LEU:O	1:E:3988:ALA:HB3	2.11	0.49
1:E:4242:ILE:O	1:E:4246:GLN:HG2	2.13	0.49
1:E:4888:TYR:OH	1:G:4898:GLY:HA3	2.13	0.49
1:G:1240:LYS:HZ3	1:G:1242:LEU:HB2	1.78	0.49
1:G:3835:LEU:HD21	1:G:3880:PHE:HE2	1.77	0.49
1:G:3927:GLN:NE2	1:G:3988:ALA:O	2.36	0.49
1:A:162:LYS:HB2	1:A:164:ARG:HH12	1.77	0.49
1:A:635:THR:OG1	1:A:1638:ALA:O	2.26	0.49
1:A:1074:ILE:HA	1:A:1193:SER:HA	1.95	0.49
1:A:1448:VAL:HG13	1:A:1554:VAL:HA	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3996:PHE:CE2	1:A:4019:LEU:HD22	2.48	0.49
1:A:4886:HIS:O	1:A:4891:VAL:N	2.42	0.49
1:A:4905:ALA:H	1:A:4906:GLY:HA3	1.78	0.49
1:C:1084:GLN:NE2	1:C:1185:GLY:O	2.46	0.49
1:C:1712:TYR:CD2	1:C:1840:PRO:HB2	2.48	0.49
1:C:4581:LYS:CE	1:E:4877:ASP:O	2.61	0.49
1:E:312:THR:O	1:E:314:PHE:N	2.41	0.49
1:E:394:GLN:HB3	1:E:397:GLU:HG2	1.94	0.49
1:E:1780:PRO:HB2	2:F:42:ARG:NH2	2.28	0.49
1:E:3921:ASP:O	1:E:3924:LEU:HB2	2.12	0.49
1:E:4727:LYS:NZ	1:E:4728:HIS:CE1	2.80	0.49
1:G:312:THR:O	1:G:314:PHE:N	2.41	0.49
1:G:1073:ARG:C	1:G:1074:ILE:HG13	2.33	0.49
1:G:1093:GLU:HA	1:G:1148:VAL:HG13	1.95	0.49
1:G:3713:LYS:O	1:G:3715:LYS:N	2.46	0.49
1:G:4217:PHE:CZ	1:G:4234:PHE:HA	2.48	0.49
1:G:4230:LYS:NZ	1:G:4960:ILE:O	2.45	0.49
1:A:516:LYS:HG3	1:A:517:GLU:N	2.28	0.48
1:C:674:PHE:HD1	2:D:40:ARG:HH12	1.50	0.48
1:C:1074:ILE:HA	1:C:1193:SER:HA	1.95	0.48
1:C:1735:ILE:CD1	1:C:1771:LEU:HD12	2.42	0.48
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.46	0.48
1:C:3713:LYS:O	1:C:3715:LYS:N	2.46	0.48
1:C:4141:PHE:CE1	1:C:4178:LEU:HA	2.48	0.48
1:C:4145:VAL:HG13	1:C:4194:TYR:HD2	1.77	0.48
1:E:459:LEU:HD11	1:E:463:GLU:OE1	2.12	0.48
1:E:4181:ILE:HG12	1:E:4195:PHE:CE1	2.48	0.48
1:E:4887:MET:HA	1:E:4891:VAL:HG23	1.95	0.48
1:G:1245:PHE:HD2	1:G:1290:ARG:HH11	1.61	0.48
1:G:1780:PRO:HB2	2:H:42:ARG:NH2	2.28	0.48
1:G:4034:ASN:HD21	1:G:4040:ILE:CG2	2.26	0.48
1:A:473:ASN:O	1:A:477:LEU:HG	2.13	0.48
1:A:1663:HIS:CE1	1:A:1667:LEU:HD11	2.47	0.48
1:A:3713:LYS:O	1:A:3715:LYS:N	2.46	0.48
1:A:4721:LYS:HD3	1:A:4741:LEU:HB3	1.95	0.48
1:C:458:GLU:O	1:C:458:GLU:HG2	2.13	0.48
1:C:473:ASN:O	1:C:477:LEU:HG	2.13	0.48
1:C:764:VAL:O	1:C:764:VAL:HG12	2.12	0.48
1:C:1277:TRP:HB2	1:C:1562:ILE:O	2.13	0.48
1:E:1556:PRO:HA	1:E:1561:VAL:HG23	1.94	0.48
1:E:3713:LYS:O	1:E:3715:LYS:N	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1712:TYR:CD2	1:G:1840:PRO:HB2	2.48	0.48
1:G:1767:VAL:C	1:G:1768:THR:HG1	2.16	0.48
1:G:1828:ASP:HB3	1:G:1829:PRO:C	2.33	0.48
2:H:38:SER:HB3	2:H:41:ASP:CG	2.33	0.48
1:A:264:PRO:O	1:A:266:ARG:N	2.43	0.48
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	1.96	0.48
1:A:1712:TYR:CD2	1:A:1840:PRO:HB2	2.48	0.48
1:A:3935:TRP:CB	1:C:76:ARG:HG3	2.44	0.48
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	1.95	0.48
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.13	0.48
2:B:54:GLU:HG3	2:B:55:VAL:HG13	1.94	0.48
1:C:452:PHE:O	1:C:528:SER:OG	2.31	0.48
1:C:5006:GLN:O	1:C:5010:VAL:HG23	2.13	0.48
2:D:54:GLU:HG3	2:D:55:VAL:HG13	1.94	0.48
1:E:34:LYS:HB2	1:E:53:SER:HB2	1.94	0.48
1:E:473:ASN:O	1:E:477:LEU:HG	2.13	0.48
1:E:1295:VAL:O	1:E:1547:LYS:HA	2.13	0.48
1:E:1448:VAL:HG13	1:E:1554:VAL:HA	1.93	0.48
1:E:2214:VAL:HG11	1:E:2229:VAL:CG2	2.44	0.48
2:F:49:MET:N	2:F:54:GLU:OE2	2.46	0.48
1:G:1074:ILE:HA	1:G:1193:SER:HA	1.95	0.48
1:G:2214:VAL:HG11	1:G:2229:VAL:CG2	2.44	0.48
1:A:195:PHE:HE2	1:G:2358:ILE:CG2	2.27	0.48
1:A:1079:LYS:HZ2	1:A:1107:PRO:HB2	1.78	0.48
1:A:4234:PHE:CZ	1:A:4988:TYR:HB2	2.49	0.48
1:A:4642:ALA:O	1:A:4646:LEU:N	2.44	0.48
1:A:4677:LEU:HD23	1:A:4711:PHE:CE1	2.49	0.48
1:C:1830:VAL:HG13	1:C:1837:GLN:HB3	1.95	0.48
1:C:2214:VAL:HG11	1:C:2229:VAL:CG2	2.43	0.48
1:C:2517:PHE:O	1:C:2521:VAL:HG23	2.13	0.48
1:C:4677:LEU:HA	1:C:4680:LYS:HD2	1.94	0.48
1:E:235:ALA:HB2	1:E:257:ARG:HD3	1.95	0.48
1:E:245:VAL:HG12	1:E:376:ALA:HB3	1.95	0.48
1:E:452:PHE:O	1:E:528:SER:OG	2.31	0.48
1:E:4141:PHE:CE1	1:E:4178:LEU:HA	2.48	0.48
1:E:4730:ASP:OD1	1:E:4731:ILE:N	2.46	0.48
1:G:597:HIS:HB2	1:G:1665:HIS:CD2	2.48	0.48
1:G:1024:TYR:HB3	1:G:1032:LYS:HD3	1.94	0.48
1:G:2754:PHE:CZ	1:G:2930:LEU:HD23	2.48	0.48
1:A:458:GLU:HG2	1:A:458:GLU:O	2.13	0.48
1:A:1093:GLU:HA	1:A:1148:VAL:HG13	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4039:MET:HA	1:A:4042:ARG:HH11	1.78	0.48
1:A:4839:MET:HB3	1:G:4823:LEU:CD1	2.44	0.48
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.95	0.48
1:C:1293:LEU:HD23	1:C:1584:ARG:CG	2.44	0.48
1:C:4702:ASP:OD1	1:C:4778:TRP:NE1	2.31	0.48
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.95	0.48
2:D:25:HIS:O	2:D:102:GLU:N	2.39	0.48
1:E:1073:ARG:C	1:E:1074:ILE:HG13	2.34	0.48
1:E:1112:ASP:OD1	1:E:1606:SER:HB3	2.14	0.48
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.46	0.48
1:E:4979:THR:O	1:E:4984:ASN:N	2.30	0.48
1:G:636:ASN:HD21	2:H:35:LYS:HD3	1.79	0.48
1:G:764:VAL:O	1:G:764:VAL:HG12	2.13	0.48
1:G:1277:TRP:HB2	1:G:1562:ILE:O	2.13	0.48
1:G:2305:CYS:HB2	1:G:2325:PRO:HG2	1.96	0.48
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.46	0.48
1:G:3729:MET:HE2	1:G:3770:LEU:HD22	1.96	0.48
1:G:4921:PHE:CD1	1:G:4925:ILE:HG13	2.49	0.48
1:G:4951:LYS:O	1:G:4955:GLU:HG2	2.13	0.48
1:G:5027:CYS:HB3	1:G:5030:LYS:HB3	1.95	0.48
1:A:1739:THR:O	1:A:1742:THR:OG1	2.21	0.48
1:C:625:LEU:HB3	1:C:632:LEU:HD23	1.95	0.48
1:C:791:PHE:HB2	1:C:1626:TRP:HB2	1.95	0.48
1:C:2173:GLN:N	1:C:2173:GLN:OE1	2.46	0.48
1:C:2358:ILE:CG2	1:E:195:PHE:HE2	2.27	0.48
1:C:4782:VAL:O	1:C:4785:THR:OG1	2.21	0.48
1:E:519:VAL:HG22	1:E:523:TYR:CE2	2.48	0.48
1:E:3811:GLU:HA	1:E:3814:GLN:HG2	1.95	0.48
1:E:4039:MET:HA	1:E:4042:ARG:HH11	1.78	0.48
1:G:452:PHE:O	1:G:528:SER:OG	2.32	0.48
1:G:519:VAL:HG22	1:G:523:TYR:CE2	2.49	0.48
1:G:1098:GLY:HA3	1:G:1198:GLN:HE21	1.78	0.48
1:G:1112:ASP:OD1	1:G:1606:SER:HB3	2.14	0.48
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	1.96	0.48
1:G:2142:TYR:HE1	1:G:2196:ASN:HD22	1.62	0.48
1:G:3729:MET:CE	1:G:3770:LEU:HD22	2.44	0.48
1:G:4141:PHE:HE1	1:G:4178:LEU:HA	1.78	0.48
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.95	0.48
1:A:160:GLY:O	1:G:3984:ARG:NH1	2.43	0.48
1:A:519:VAL:HG22	1:A:523:TYR:CE2	2.48	0.48
1:A:1073:ARG:C	1:A:1074:ILE:HG13	2.34	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1830:VAL:HG13	1:A:1837:GLN:HB3	1.96	0.48
1:C:355:LEU:HB2	1:C:378:LEU:HB3	1.96	0.48
1:C:1098:GLY:HA3	1:C:1198:GLN:HE21	1.78	0.48
1:C:3835:LEU:O	1:C:3839:CYS:N	2.46	0.48
1:E:107:ILE:H	1:E:148:TRP:H	1.62	0.48
1:E:720:HIS:HB2	1:E:728:ARG:O	2.14	0.48
1:E:1828:ASP:HB3	1:E:1829:PRO:C	2.33	0.48
1:G:1735:ILE:CD1	1:G:1771:LEU:HD12	2.43	0.48
1:G:2383:ALA:HB1	1:G:2423:MET:SD	2.54	0.48
1:G:3768:SER:O	1:G:3772:THR:HG23	2.13	0.48
1:G:3810:ALA:HA	1:G:3813:GLN:HB2	1.94	0.48
1:G:4730:ASP:OD1	1:G:4731:ILE:N	2.46	0.48
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.42	0.48
1:A:3882:GLN:HE22	1:A:3956:SER:HB3	1.78	0.48
1:C:235:ALA:HB2	1:C:257:ARG:HD3	1.95	0.48
1:C:1295:VAL:O	1:C:1547:LYS:HA	2.14	0.48
1:C:2870:GLU:OE2	1:C:2939:ARG:NH2	2.47	0.48
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.96	0.48
1:C:3662:ILE:HG22	1:C:3662:ILE:O	2.14	0.48
1:C:4055:VAL:HA	1:C:4058:ILE:HG12	1.95	0.48
1:C:4242:ILE:O	1:C:4246:GLN:HG2	2.13	0.48
1:C:4727:LYS:NZ	1:C:4728:HIS:CE1	2.80	0.48
1:E:1084:GLN:NE2	1:E:1185:GLY:O	2.46	0.48
1:E:1762:LEU:HD12	1:E:1763:PRO:HD2	1.96	0.48
1:E:3662:ILE:HG22	1:E:3662:ILE:O	2.14	0.48
1:E:4580:TYR:HB2	1:E:4631:PHE:HD1	1.78	0.48
1:E:4778:TRP:O	1:E:4782:VAL:HG23	2.14	0.48
1:G:1295:VAL:O	1:G:1547:LYS:HA	2.14	0.48
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.96	0.48
1:G:3780:LEU:HG	1:G:3828:PHE:CE1	2.48	0.48
1:G:3835:LEU:HD22	1:G:3884:LEU:HD13	1.95	0.48
1:A:342:GLY:N	1:A:390:LEU:O	2.46	0.48
1:A:451:TYR:HD2	1:A:452:PHE:CE2	2.32	0.48
1:A:593:HIS:HB3	1:A:596:ASN:HD22	1.79	0.48
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.95	0.48
1:A:4578:LEU:HG	1:A:4578:LEU:O	2.14	0.48
1:A:4727:LYS:NZ	1:A:4728:HIS:CE1	2.80	0.48
1:A:4821:LYS:HD3	1:A:4947:GLN:HE22	1.79	0.48
1:A:4839:MET:HB3	1:G:4823:LEU:HD12	1.96	0.48
1:C:215:THR:O	1:C:218:HIS:HB3	2.14	0.48
1:C:593:HIS:HB3	1:C:596:ASN:HD22	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1073:ARG:C	1:C:1074:ILE:HG13	2.33	0.48
1:C:1093:GLU:HA	1:C:1148:VAL:HG13	1.96	0.48
1:C:4234:PHE:CZ	1:C:4988:TYR:HB2	2.49	0.48
1:E:110:ARG:HG2	1:E:117:TYR:CE1	2.48	0.48
1:E:355:LEU:HB2	1:E:378:LEU:HB3	1.96	0.48
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	1.96	0.48
1:E:4039:MET:HA	1:E:4042:ARG:HE	1.79	0.48
1:E:4945:ASP:O	1:E:4949:GLN:HB2	2.14	0.48
2:F:74:LEU:HD23	2:F:76:ILE:HD11	1.95	0.48
1:G:178:ARG:HD3	1:G:195:PHE:CE1	2.49	0.48
1:G:785:ALA:HA	1:G:1633:PRO:HD3	1.96	0.48
1:G:791:PHE:HB2	1:G:1626:TRP:HB2	1.95	0.48
1:G:2671:GLU:CB	1:G:2913:ALA:H	2.27	0.48
1:G:2735:PHE:HD2	1:G:2891:LYS:HD2	1.78	0.48
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.36	0.48
1:G:3980:LEU:HA	1:G:3983:SER:HB2	1.96	0.48
1:G:4779:LYS:O	1:G:4783:ILE:HG13	2.13	0.48
1:G:4844:LEU:O	1:G:4848:VAL:HG23	2.14	0.48
1:A:1556:PRO:HA	1:A:1561:VAL:HG23	1.94	0.48
1:A:3953:LYS:O	1:A:3957:VAL:HG23	2.14	0.48
1:A:4242:ILE:O	1:A:4246:GLN:HG2	2.13	0.48
1:A:4672:LYS:O	1:A:4676:GLU:HG3	2.14	0.48
1:A:4826:ILE:HG12	1:C:4839:MET:HE3	1.96	0.48
1:C:1511:HIS:CE1	1:C:1532:ASN:HD21	2.31	0.48
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	1.96	0.48
1:C:2121:PHE:CE1	1:C:3701:LEU:HD12	2.49	0.48
1:C:4039:MET:HA	1:C:4042:ARG:HH11	1.78	0.48
2:D:49:MET:N	2:D:54:GLU:OE2	2.46	0.48
1:E:342:GLY:N	1:E:390:LEU:O	2.46	0.48
1:E:4677:LEU:HD23	1:E:4711:PHE:CE1	2.49	0.48
1:G:3980:LEU:HB3	1:G:3985:LEU:HD22	1.96	0.48
1:A:119:SER:O	1:A:136:GLY:N	2.31	0.47
1:A:215:THR:O	1:A:218:HIS:HB3	2.14	0.47
1:A:1931:LEU:HD22	1:A:1935:VAL:HG11	1.96	0.47
1:A:2159:LEU:O	1:A:2162:ILE:HG22	2.14	0.47
1:A:3835:LEU:O	1:A:3839:CYS:N	2.46	0.47
1:A:3923:LEU:HD12	1:A:3961:VAL:HG12	1.96	0.47
1:A:4055:VAL:HA	1:A:4058:ILE:HG12	1.95	0.47
1:A:4141:PHE:CE1	1:A:4178:LEU:HA	2.48	0.47
1:A:4702:ASP:O	1:A:4705:VAL:HG12	2.14	0.47
1:A:4702:ASP:OD1	1:A:4778:TRP:NE1	2.32	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3780:LEU:HD11	1:C:3820:LEU:HD21	1.96	0.47
1:C:3811:GLU:HA	1:C:3814:GLN:HG2	1.96	0.47
1:C:3996:PHE:CE2	1:C:4019:LEU:HD22	2.49	0.47
1:E:451:TYR:HD2	1:E:452:PHE:CE2	2.31	0.47
1:E:639:ASN:ND2	1:E:676:THR:OG1	2.45	0.47
1:E:1130:GLN:NE2	1:E:1132:TRP:HE1	2.11	0.47
1:E:4234:PHE:CZ	1:E:4988:TYR:HB2	2.49	0.47
1:E:4833:ASN:OD1	1:E:4836:GLN:HG2	2.14	0.47
1:G:107:ILE:H	1:G:148:TRP:H	1.62	0.47
1:G:636:ASN:ND2	2:H:35:LYS:HD3	2.28	0.47
1:G:2295:LEU:HD22	1:G:2335:LEU:CD2	2.44	0.47
1:G:3996:PHE:CE2	1:G:4019:LEU:HD22	2.49	0.47
1:A:489:ASN:HB3	1:A:493:ARG:HH22	1.78	0.47
1:A:1112:ASP:OD1	1:A:1606:SER:HB3	2.14	0.47
1:A:1762:LEU:HD12	1:A:1763:PRO:HD2	1.95	0.47
1:A:2121:PHE:CE1	1:A:3701:LEU:HD12	2.49	0.47
1:A:2351:ASN:O	1:A:2355:ARG:HG2	2.14	0.47
1:A:2353:VAL:HG12	1:A:2357:LEU:HD11	1.97	0.47
1:A:4898:GLY:HA3	1:G:4888:TYR:OH	2.14	0.47
1:C:16:THR:OG1	1:C:99:ARG:O	2.21	0.47
1:C:107:ILE:H	1:C:148:TRP:H	1.62	0.47
1:C:178:ARG:HD3	1:C:195:PHE:CE1	2.49	0.47
1:C:4181:ILE:HG12	1:C:4195:PHE:CE1	2.48	0.47
1:C:4826:ILE:CG1	1:E:4839:MET:CE	2.92	0.47
1:E:489:ASN:HB3	1:E:493:ARG:HH22	1.78	0.47
1:E:682:LEU:HG	1:E:682:LEU:O	2.14	0.47
1:E:1024:TYR:HB3	1:E:1032:LYS:HD3	1.95	0.47
1:E:1098:GLY:HA3	1:E:1198:GLN:HE21	1.79	0.47
1:E:1293:LEU:HD23	1:E:1584:ARG:CG	2.44	0.47
1:E:4024:VAL:HA	1:E:4027:LEU:HD12	1.97	0.47
1:G:489:ASN:HB3	1:G:493:ARG:HH22	1.79	0.47
1:G:931:THR:HA	1:G:934:ALA:HB3	1.96	0.47
1:G:1084:GLN:NE2	1:G:1185:GLY:O	2.47	0.47
1:G:1252:HIS:CG	1:G:1253:PRO:HD2	2.49	0.47
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.95	0.47
1:G:3775:ALA:O	1:G:3779:VAL:HG23	2.14	0.47
1:A:229:GLU:HG3	1:A:248:GLU:C	2.34	0.47
1:A:2295:LEU:HD22	1:A:2335:LEU:CD2	2.44	0.47
1:A:4039:MET:HA	1:A:4042:ARG:HE	1.79	0.47
1:A:4137:ARG:HD2	1:A:4177:TYR:CZ	2.50	0.47
1:C:531:ARG:HG2	1:C:566:CYS:SG	2.55	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:720:HIS:HB2	1:C:728:ARG:O	2.14	0.47
1:C:1739:THR:O	1:C:1742:THR:OG1	2.21	0.47
1:C:4003:LEU:CB	1:C:4013:LEU:HD12	2.44	0.47
1:C:4563:ARG:NH1	1:C:4815:ASP:OD1	2.47	0.47
1:C:4645:CYS:O	1:C:4649:LEU:N	2.45	0.47
1:E:531:ARG:HG2	1:E:566:CYS:SG	2.55	0.47
1:E:1088:TRP:CZ3	1:E:1226:PHE:HD1	2.33	0.47
1:E:2870:GLU:OE2	1:E:2939:ARG:NH2	2.47	0.47
1:E:3835:LEU:O	1:E:3839:CYS:N	2.47	0.47
1:E:4145:VAL:HG13	1:E:4194:TYR:HD2	1.78	0.47
1:G:531:ARG:HG2	1:G:566:CYS:SG	2.54	0.47
1:G:3970:GLN:HE21	1:G:5004:THR:HA	1.77	0.47
1:G:4234:PHE:HZ	1:G:4988:TYR:HB2	1.77	0.47
1:A:150:MET:HG2	1:A:171:LEU:HD23	1.95	0.47
1:A:178:ARG:HD3	1:A:195:PHE:CE1	2.49	0.47
1:A:355:LEU:HB2	1:A:378:LEU:HB3	1.96	0.47
1:A:857:ASP:O	1:A:991:ASN:ND2	2.47	0.47
1:A:1205:GLY:HA3	1:A:1227:ALA:CB	2.40	0.47
1:A:1729:SER:O	1:A:1733:GLU:HG2	2.14	0.47
1:A:1961:PHE:CZ	1:A:2063:LEU:HD22	2.49	0.47
1:A:2870:GLU:OE2	1:A:2939:ARG:NH2	2.47	0.47
1:C:451:TYR:HD2	1:C:452:PHE:CE2	2.31	0.47
1:C:489:ASN:HB3	1:C:493:ARG:HH22	1.78	0.47
1:C:519:VAL:HG22	1:C:523:TYR:CE2	2.48	0.47
1:C:1762:LEU:HD12	1:C:1763:PRO:HD2	1.96	0.47
1:C:4039:MET:HA	1:C:4042:ARG:HE	1.79	0.47
1:C:4826:ILE:CG1	1:E:4839:MET:HE3	2.44	0.47
1:C:4888:TYR:OH	1:E:4898:GLY:HA3	2.15	0.47
1:E:862:VAL:HA	1:E:930:LYS:NZ	2.30	0.47
1:E:2121:PHE:CE1	1:E:3701:LEU:HD12	2.49	0.47
1:E:3501:ASP:HA	1:G:1224:GLU:OE2	2.13	0.47
1:E:4642:ALA:O	1:E:4646:LEU:N	2.44	0.47
1:G:355:LEU:HB2	1:G:378:LEU:HB3	1.97	0.47
1:G:473:ASN:O	1:G:477:LEU:HG	2.13	0.47
1:G:1457:TYR:CZ	1:G:1459:GLN:NE2	2.82	0.47
1:G:2351:ASN:O	1:G:2355:ARG:HG2	2.14	0.47
1:G:3677:LEU:O	1:G:3698:LEU:N	2.47	0.47
1:G:3959:LYS:HE3	1:G:4018:ASP:HB3	1.96	0.47
1:G:4192:ARG:NH1	1:G:5028:PHE:HD2	2.12	0.47
1:G:4230:LYS:HD2	1:G:4959:PHE:O	2.14	0.47
1:G:5011:TRP:O	1:G:5015:GLN:HG2	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:177:GLU:OE2	1:G:2452:ARG:NH2	2.46	0.47
1:A:758:ARG:NE	1:A:804:PRO:HG3	2.29	0.47
1:A:1514:LEU:N	1:A:1514:LEU:CD1	2.77	0.47
1:C:459:LEU:HD11	1:C:463:GLU:OE1	2.13	0.47
1:C:636:ASN:ND2	2:D:35:LYS:HD3	2.28	0.47
1:C:639:ASN:ND2	1:C:676:THR:OG1	2.45	0.47
1:C:1432:THR:N	1:C:1519:LEU:O	2.48	0.47
1:C:2295:LEU:HD22	1:C:2335:LEU:CD2	2.44	0.47
1:C:2351:ASN:O	1:C:2355:ARG:HG2	2.14	0.47
1:C:3902:TYR:HE1	1:C:3908:GLY:H	1.62	0.47
1:C:4578:LEU:O	1:C:4578:LEU:HG	2.15	0.47
2:D:87:HIS:HB3	2:D:91:ILE:H	1.80	0.47
1:E:1729:SER:O	1:E:1733:GLU:HG2	2.14	0.47
1:E:3780:LEU:HD11	1:E:3820:LEU:HD21	1.96	0.47
1:E:3882:GLN:HE22	1:E:3956:SER:HB3	1.78	0.47
1:E:4672:LYS:O	1:E:4676:GLU:HG3	2.14	0.47
1:E:4886:HIS:O	1:E:4890:GLY:N	2.48	0.47
1:G:2353:VAL:HG12	1:G:2357:LEU:HD11	1.96	0.47
1:G:3190:LEU:O	1:G:3194:LEU:N	2.46	0.47
1:G:3835:LEU:HD22	1:G:3884:LEU:CD1	2.44	0.47
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.80	0.47
1:G:4580:TYR:HB2	1:G:4631:PHE:CD1	2.49	0.47
1:A:39:ALA:HA	1:A:48:PHE:CE2	2.50	0.47
1:A:134:ASP:OD1	1:A:135:VAL:N	2.48	0.47
1:A:682:LEU:O	1:A:682:LEU:HG	2.14	0.47
1:A:720:HIS:HB2	1:A:728:ARG:O	2.14	0.47
1:A:1084:GLN:NE2	1:A:1185:GLY:O	2.48	0.47
1:A:1295:VAL:O	1:A:1547:LYS:HA	2.14	0.47
1:A:3811:GLU:HA	1:A:3814:GLN:HG2	1.96	0.47
1:A:4181:ILE:HG12	1:A:4195:PHE:CE1	2.48	0.47
1:A:4207:MET:HG2	1:A:4208:PRO:CD	2.42	0.47
1:A:4642:ALA:O	1:A:4646:LEU:HG	2.15	0.47
1:C:516:LYS:HG3	1:C:517:GLU:N	2.28	0.47
1:C:931:THR:HA	1:C:934:ALA:HB3	1.97	0.47
1:C:1112:ASP:OD1	1:C:1606:SER:HB3	2.14	0.47
1:C:1457:TYR:CZ	1:C:1459:GLN:NE2	2.83	0.47
1:C:2244:ARG:HH11	1:C:2248:ARG:HH21	1.60	0.47
1:C:4672:LYS:O	1:C:4676:GLU:HG3	2.14	0.47
1:C:4945:ASP:O	1:C:4949:GLN:HB2	2.14	0.47
1:E:229:GLU:HG3	1:E:248:GLU:C	2.34	0.47
1:E:892:THR:N	1:E:902:ARG:HA	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1093:GLU:HA	1:E:1148:VAL:HG13	1.96	0.47
1:E:2351:ASN:O	1:E:2355:ARG:HG2	2.14	0.47
1:E:2383:ALA:HB1	1:E:2423:MET:SD	2.55	0.47
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	1.95	0.47
1:E:4822:THR:HG22	1:G:4839:MET:SD	2.55	0.47
1:G:1072:VAL:HB	1:G:1607:ARG:NH1	2.30	0.47
1:G:4666:VAL:HA	1:G:4669:VAL:HG12	1.95	0.47
1:A:102:LEU:HB2	1:A:105:HIS:HD2	1.72	0.47
1:A:249:GLY:O	1:A:252:VAL:HG12	2.15	0.47
1:A:1277:TRP:HB2	1:A:1562:ILE:O	2.13	0.47
1:A:1294:PRO:CB	1:A:1547:LYS:HB3	2.45	0.47
1:A:1432:THR:N	1:A:1519:LEU:O	2.48	0.47
1:A:2173:GLN:HG2	1:A:2174:GLU:N	2.20	0.47
1:A:2437:ALA:HB1	1:A:2454:ARG:CZ	2.45	0.47
1:A:4877:ASP:O	1:G:4581:LYS:HE2	2.15	0.47
1:A:4877:ASP:HA	1:G:4581:LYS:HZ3	1.80	0.47
1:C:102:LEU:HB2	1:C:105:HIS:NE2	2.29	0.47
1:C:682:LEU:HG	1:C:682:LEU:O	2.14	0.47
1:C:758:ARG:NE	1:C:804:PRO:HG3	2.30	0.47
1:C:862:VAL:HA	1:C:930:LYS:NZ	2.30	0.47
1:C:943:ASP:HB3	1:C:1050:GLY:HA3	1.96	0.47
1:C:1072:VAL:HB	1:C:1607:ARG:NH1	2.30	0.47
1:C:1106:ARG:HE	1:C:1188:PHE:HE1	1.62	0.47
1:C:1516:ILE:C	1:C:1530:THR:OG1	2.52	0.47
1:C:1961:PHE:CZ	1:C:2063:LEU:HD22	2.50	0.47
1:C:3938:SER:HB2	1:C:4002:LYS:HZ2	1.79	0.47
1:E:1775:HIS:ND1	1:E:1775:HIS:O	2.48	0.47
1:E:1830:VAL:HG13	1:E:1837:GLN:HB3	1.95	0.47
1:E:2159:LEU:O	1:E:2162:ILE:HG22	2.15	0.47
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.95	0.47
1:E:3996:PHE:CE2	1:E:4019:LEU:HD22	2.48	0.47
1:E:4137:ARG:HD2	1:E:4177:TYR:CZ	2.49	0.47
1:G:215:THR:O	1:G:218:HIS:HB3	2.14	0.47
1:G:235:ALA:HB2	1:G:257:ARG:HD3	1.96	0.47
1:G:342:GLY:N	1:G:390:LEU:O	2.47	0.47
1:G:1130:GLN:NE2	1:G:1132:TRP:HE1	2.11	0.47
1:G:1293:LEU:HD23	1:G:1584:ARG:CG	2.45	0.47
1:G:1830:VAL:HG13	1:G:1837:GLN:HB3	1.96	0.47
1:G:2117:VAL:O	1:G:2120:MET:HB2	2.15	0.47
1:G:2159:LEU:O	1:G:2162:ILE:HG22	2.14	0.47
1:G:3938:SER:HB2	1:G:4002:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4579:PHE:HB3	1:G:4632:LEU:O	2.14	0.47
1:G:4699:GLY:HA2	1:G:4702:ASP:HB2	1.96	0.47
1:G:4810:ALA:O	1:G:4813:LEU:HG	2.15	0.47
1:G:4826:ILE:O	1:G:4830:VAL:HG23	2.15	0.47
1:A:1101:ARG:HG3	1:A:1193:SER:OG	2.15	0.47
1:A:2383:ALA:HB1	1:A:2423:MET:SD	2.55	0.47
1:A:2427:ALA:O	1:A:2430:ILE:HG22	2.14	0.47
1:A:4945:ASP:O	1:A:4949:GLN:HB2	2.14	0.47
1:C:449:ILE:O	1:C:453:GLU:HG2	2.15	0.47
1:C:1101:ARG:HG3	1:C:1193:SER:OG	2.15	0.47
1:C:3882:GLN:HE22	1:C:3956:SER:HB3	1.78	0.47
1:C:3953:LYS:O	1:C:3957:VAL:HG23	2.14	0.47
1:C:4702:ASP:O	1:C:4705:VAL:HG12	2.15	0.47
1:C:4833:ASN:OD1	1:C:4836:GLN:HG2	2.14	0.47
1:E:1432:THR:N	1:E:1519:LEU:O	2.48	0.47
1:E:2353:VAL:HG12	1:E:2357:LEU:HD11	1.97	0.47
1:E:2437:ALA:HB1	1:E:2454:ARG:CZ	2.44	0.47
1:G:134:ASP:OD1	1:G:135:VAL:N	2.48	0.47
1:G:675:LEU:O	1:G:676:THR:OG1	2.27	0.47
1:G:943:ASP:HB3	1:G:1050:GLY:HA3	1.96	0.47
1:G:1088:TRP:CZ3	1:G:1226:PHE:HD1	2.33	0.47
1:G:1931:LEU:HD22	1:G:1935:VAL:HG11	1.97	0.47
1:G:2198:MET:HE3	1:G:2203:MET:SD	2.55	0.47
1:G:4672:LYS:O	1:G:4676:GLU:HG3	2.15	0.47
1:G:4906:GLY:H	1:G:4910:GLU:HG3	1.80	0.47
2:H:87:HIS:HB3	2:H:91:ILE:H	1.79	0.47
1:A:1072:VAL:HB	1:A:1607:ARG:NH1	2.30	0.47
1:A:1768:THR:C	1:A:1769:THR:HG1	2.15	0.47
1:A:1775:HIS:ND1	1:A:1775:HIS:O	2.48	0.47
1:A:4778:TRP:O	1:A:4782:VAL:HG23	2.14	0.47
1:C:39:ALA:HA	1:C:48:PHE:CE2	2.49	0.47
1:C:134:ASP:OD1	1:C:135:VAL:N	2.48	0.47
1:C:737:LEU:HD11	2:D:7:ILE:CG2	2.44	0.47
1:C:1088:TRP:CZ3	1:C:1226:PHE:HD1	2.33	0.47
1:C:1775:HIS:ND1	1:C:1775:HIS:O	2.48	0.47
1:C:2159:LEU:O	1:C:2162:ILE:HG22	2.15	0.47
1:C:2353:VAL:HG12	1:C:2357:LEU:HD11	1.97	0.47
1:C:2437:ALA:HB1	1:C:2454:ARG:CZ	2.45	0.47
1:C:3923:LEU:HD12	1:C:3961:VAL:HG12	1.97	0.47
1:C:4913:ARG:O	1:C:4916:PHE:HB3	2.15	0.47
1:E:178:ARG:HD3	1:E:195:PHE:CE1	2.50	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:458:GLU:O	1:E:458:GLU:HG2	2.13	0.47
1:E:758:ARG:NE	1:E:804:PRO:HG3	2.30	0.47
1:E:1931:LEU:HD22	1:E:1935:VAL:HG11	1.97	0.47
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.31	0.47
1:E:2295:LEU:HD22	1:E:2335:LEU:CD2	2.44	0.47
1:E:3992:PHE:HB2	1:E:4023:MET:CE	2.45	0.47
1:E:4207:MET:HG2	1:E:4208:PRO:CD	2.42	0.47
1:G:449:ILE:O	1:G:453:GLU:HG2	2.15	0.47
1:G:758:ARG:NE	1:G:804:PRO:HG3	2.30	0.47
1:G:2427:ALA:O	1:G:2430:ILE:HG22	2.15	0.47
1:A:449:ILE:O	1:A:453:GLU:HG2	2.15	0.47
1:A:2211:MET:O	1:A:2215:LEU:HG	2.15	0.47
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.15	0.47
1:C:149:THR:HG23	1:C:174:VAL:HG22	1.97	0.47
1:C:229:GLU:HG3	1:C:248:GLU:C	2.34	0.47
1:C:1734:TYR:OH	1:C:1948:ASP:OD1	2.19	0.47
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.15	0.47
1:C:3655:GLU:O	1:C:3658:LYS:HB3	2.16	0.47
1:C:4137:ARG:HD2	1:C:4177:TYR:CZ	2.49	0.47
1:C:4778:TRP:O	1:C:4782:VAL:HG23	2.15	0.47
1:E:215:THR:O	1:E:218:HIS:HB3	2.14	0.47
1:E:1154:ASP:HB3	1:E:1157:GLU:HB3	1.97	0.47
1:E:1961:PHE:CZ	1:E:2063:LEU:HD22	2.49	0.47
1:E:2211:MET:O	1:E:2215:LEU:HG	2.15	0.47
1:E:4003:LEU:CB	1:E:4013:LEU:HD12	2.45	0.47
1:G:4642:ALA:O	1:G:4646:LEU:HG	2.15	0.47
1:A:737:LEU:HD11	2:B:7:ILE:CG2	2.43	0.46
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.50	0.46
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.97	0.46
1:A:4581:LYS:CE	1:C:4877:ASP:O	2.63	0.46
1:C:1154:ASP:HB3	1:C:1157:GLU:HB3	1.97	0.46
1:C:1931:LEU:HD22	1:C:1935:VAL:HG11	1.97	0.46
1:E:102:LEU:HB2	1:E:105:HIS:NE2	2.29	0.46
1:E:264:PRO:O	1:E:266:ARG:N	2.43	0.46
1:E:737:LEU:HB3	1:E:738:LEU:H	1.56	0.46
1:E:791:PHE:HB2	1:E:1626:TRP:HB2	1.95	0.46
1:E:1106:ARG:HE	1:E:1188:PHE:HE1	1.63	0.46
1:E:3780:LEU:HG	1:E:3828:PHE:CE1	2.51	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.98	0.46
1:E:4702:ASP:O	1:E:4705:VAL:HG12	2.15	0.46
1:G:39:ALA:HA	1:G:48:PHE:CE2	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:149:THR:HG23	1:G:174:VAL:HG22	1.97	0.46
1:G:229:GLU:HG3	1:G:248:GLU:C	2.35	0.46
1:G:3804:ILE:O	1:G:3809:ASN:ND2	2.48	0.46
1:G:3906:GLN:HB3	1:G:3912:THR:HA	1.96	0.46
1:G:3916:ILE:O	1:G:3919:THR:HG22	2.15	0.46
1:G:4024:VAL:O	1:G:4027:LEU:HB2	2.15	0.46
1:G:4920:PHE:O	1:G:4924:VAL:HB	2.15	0.46
2:H:38:SER:HB3	2:H:41:ASP:OD2	2.14	0.46
1:A:195:PHE:CE2	1:G:2358:ILE:HG21	2.50	0.46
1:A:634:GLN:HG3	1:A:1640:HIS:CE1	2.50	0.46
1:A:943:ASP:HB3	1:A:1050:GLY:HA3	1.96	0.46
1:A:1093:GLU:HA	1:A:1148:VAL:HG22	1.97	0.46
1:A:3780:LEU:HG	1:A:3828:PHE:CE1	2.50	0.46
1:C:1729:SER:O	1:C:1733:GLU:HG2	2.15	0.46
1:C:2383:ALA:HB1	1:C:2423:MET:SD	2.55	0.46
1:C:3501:ASP:HA	1:E:1224:GLU:OE2	2.15	0.46
2:D:88:PRO:O	2:D:90:ILE:HD12	2.16	0.46
1:E:593:HIS:HB3	1:E:596:ASN:HD22	1.79	0.46
1:E:1072:VAL:HB	1:E:1607:ARG:NH1	2.30	0.46
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.16	0.46
1:E:4822:THR:O	1:E:4826:ILE:HG13	2.15	0.46
1:G:634:GLN:HG3	1:G:1640:HIS:CE1	2.50	0.46
1:G:1294:PRO:CB	1:G:1547:LYS:HB3	2.46	0.46
1:G:2553:TYR:CD1	1:G:2556:LEU:HD12	2.50	0.46
1:G:4023:MET:O	1:G:4026:MET:HG2	2.15	0.46
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.14	0.46
1:G:4991:PHE:O	1:G:4995:LEU:HG	2.16	0.46
1:A:350:HIS:O	1:A:354:GLY:HA2	2.15	0.46
1:A:791:PHE:HB2	1:A:1626:TRP:HB2	1.95	0.46
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.97	0.46
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	1.97	0.46
1:A:3655:GLU:O	1:A:3658:LYS:HB3	2.16	0.46
1:A:4039:MET:CA	1:A:4042:ARG:HH11	2.29	0.46
1:C:824:GLU:CD	1:C:825:PRO:HD2	2.36	0.46
1:C:3780:LEU:HG	1:C:3828:PHE:CE1	2.50	0.46
1:C:4574:ASN:ND2	1:C:4813:LEU:HD23	2.31	0.46
1:E:489:ASN:HB3	1:E:493:ARG:NH2	2.30	0.46
1:E:634:GLN:HG3	1:E:1640:HIS:CE1	2.50	0.46
1:E:931:THR:HA	1:E:934:ALA:HB3	1.97	0.46
1:E:1439:VAL:O	1:E:1513:ASP:N	2.44	0.46
1:E:2059:LEU:CD2	1:E:2062:ARG:HH12	2.20	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2305:CYS:HB2	1:E:2325:PRO:HG2	1.97	0.46
1:E:3655:GLU:O	1:E:3658:LYS:HB3	2.15	0.46
1:E:3923:LEU:HD12	1:E:3961:VAL:HG12	1.97	0.46
1:E:3953:LYS:O	1:E:3957:VAL:HG23	2.14	0.46
1:E:3986:TRP:HD1	1:E:4047:MET:SD	2.39	0.46
1:E:4039:MET:CA	1:E:4042:ARG:HH11	2.29	0.46
2:F:87:HIS:HB3	2:F:91:ILE:H	1.80	0.46
1:G:249:GLY:O	1:G:252:VAL:HG12	2.15	0.46
1:G:1951:LEU:O	1:G:1955:VAL:HG23	2.16	0.46
1:G:2437:ALA:HB1	1:G:2454:ARG:CZ	2.44	0.46
1:G:4239:GLU:OE2	1:G:5014:TYR:HE1	1.98	0.46
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.16	0.46
1:G:4976:GLU:O	1:G:4980:LEU:N	2.48	0.46
2:H:54:GLU:HG3	2:H:55:VAL:HG13	1.97	0.46
1:A:531:ARG:HG2	1:A:566:CYS:SG	2.55	0.46
1:A:824:GLU:CD	1:A:825:PRO:HD2	2.36	0.46
1:A:3780:LEU:HD11	1:A:3820:LEU:HD21	1.96	0.46
1:A:4674:GLU:OE2	1:A:4712:PRO:HA	2.15	0.46
1:C:2427:ALA:O	1:C:2430:ILE:HG22	2.14	0.46
1:E:1141:ARG:NH1	1:E:1169:LEU:HD11	2.28	0.46
1:E:1294:PRO:CB	1:E:1547:LYS:HB3	2.46	0.46
1:E:2290:LEU:HD11	1:E:2349:ASN:OD1	2.16	0.46
1:E:2427:ALA:O	1:E:2430:ILE:HG22	2.15	0.46
1:E:4151:SER:HA	1:E:4160:LEU:HD21	1.96	0.46
1:G:1775:HIS:ND1	1:G:1775:HIS:O	2.48	0.46
1:G:2173:GLN:CG	1:G:2174:GLU:H	2.21	0.46
1:A:107:ILE:H	1:A:148:TRP:H	1.63	0.46
1:A:149:THR:HG23	1:A:174:VAL:HG22	1.97	0.46
1:A:1130:GLN:NE2	1:A:1132:TRP:HE1	2.11	0.46
1:A:3992:PHE:HB2	1:A:4023:MET:CE	2.45	0.46
1:C:792:LEU:HB3	1:C:799:GLU:O	2.16	0.46
1:C:2211:MET:O	1:C:2215:LEU:HG	2.15	0.46
1:C:2305:CYS:HB2	1:C:2325:PRO:HG2	1.97	0.46
1:C:4886:HIS:O	1:C:4891:VAL:N	2.42	0.46
1:E:39:ALA:HA	1:E:48:PHE:CE2	2.50	0.46
1:E:134:ASP:OD1	1:E:135:VAL:N	2.48	0.46
1:E:449:ILE:O	1:E:453:GLU:HG2	2.16	0.46
1:E:785:ALA:HA	1:E:1633:PRO:HD3	1.98	0.46
1:E:1252:HIS:CG	1:E:1253:PRO:HD2	2.50	0.46
1:E:3902:TYR:HE1	1:E:3908:GLY:H	1.62	0.46
1:E:4642:ALA:O	1:E:4646:LEU:HG	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:682:LEU:O	1:G:682:LEU:HG	2.16	0.46
1:G:1106:ARG:HE	1:G:1188:PHE:HE1	1.63	0.46
1:G:1961:PHE:CZ	1:G:2063:LEU:HD22	2.51	0.46
1:G:2062:ARG:O	1:G:2065:SER:OG	2.21	0.46
1:G:2290:LEU:HD11	1:G:2349:ASN:OD1	2.16	0.46
1:G:4059:LEU:HA	1:G:4062:PHE:HD2	1.79	0.46
1:G:4725:LEU:O	1:G:4734:ARG:NH2	2.49	0.46
1:A:489:ASN:HB3	1:A:493:ARG:NH2	2.30	0.46
1:A:785:ALA:HA	1:A:1633:PRO:HD3	1.97	0.46
1:A:2553:TYR:CD1	1:A:2556:LEU:HD12	2.51	0.46
1:A:3775:ALA:O	1:A:3779:VAL:HG23	2.15	0.46
1:A:3989:VAL:HG13	1:A:4023:MET:HE2	1.98	0.46
1:A:4979:THR:O	1:A:4984:ASN:N	2.30	0.46
1:C:249:GLY:O	1:C:252:VAL:HG12	2.15	0.46
1:C:892:THR:N	1:C:902:ARG:HA	2.30	0.46
1:C:1128:ARG:N	1:C:1142:PRO:HB3	2.31	0.46
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.50	0.46
1:C:3775:ALA:O	1:C:3779:VAL:HG23	2.16	0.46
1:C:3986:TRP:HD1	1:C:4047:MET:SD	2.39	0.46
1:C:3992:PHE:HB2	1:C:4023:MET:CE	2.45	0.46
1:C:4039:MET:CA	1:C:4042:ARG:HH11	2.29	0.46
1:E:21:VAL:CG2	1:E:203:ASN:HB3	2.46	0.46
1:E:1951:LEU:O	1:E:1955:VAL:HG23	2.16	0.46
1:E:2358:ILE:CG2	1:G:195:PHE:HE2	2.29	0.46
1:E:4583:SER:N	1:E:4628:VAL:O	2.42	0.46
1:E:4674:GLU:OE2	1:E:4712:PRO:HA	2.16	0.46
1:E:4913:ARG:O	1:E:4916:PHE:HB3	2.15	0.46
1:G:102:LEU:HB2	1:G:105:HIS:NE2	2.29	0.46
1:G:1729:SER:O	1:G:1733:GLU:HG2	2.15	0.46
1:G:1783:VAL:HG12	2:H:54:GLU:O	2.16	0.46
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.96	0.46
1:G:3934:TYR:HD1	1:G:3999:MET:HG2	1.80	0.46
1:G:4207:MET:HG2	1:G:4208:PRO:CD	2.44	0.46
1:G:5004:THR:O	1:G:5007:GLU:HG2	2.16	0.46
2:H:76:ILE:O	2:H:96:THR:HG23	2.16	0.46
1:A:312:THR:O	1:A:314:PHE:N	2.41	0.46
1:A:675:LEU:O	1:A:676:THR:OG1	2.27	0.46
1:A:1098:GLY:HA3	1:A:1198:GLN:HE21	1.79	0.46
1:A:1779:PRO:HA	1:A:1780:PRO:HD3	1.78	0.46
1:A:1840:PRO:O	1:A:1843:LYS:HB3	2.16	0.46
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4207:MET:HG2	1:C:4208:PRO:CD	2.42	0.46
1:C:4642:ALA:O	1:C:4646:LEU:HG	2.15	0.46
1:C:4888:TYR:OH	1:E:4898:GLY:CA	2.64	0.46
1:C:4980:LEU:HA	1:C:4984:ASN:HA	1.98	0.46
1:E:792:LEU:HB3	1:E:799:GLU:O	2.16	0.46
1:E:1101:ARG:HG3	1:E:1193:SER:OG	2.15	0.46
1:E:2173:GLN:CG	1:E:2174:GLU:H	2.22	0.46
1:E:2499:LYS:O	1:E:2503:VAL:HG23	2.15	0.46
1:G:489:ASN:HB3	1:G:493:ARG:NH2	2.31	0.46
1:G:862:VAL:HA	1:G:930:LYS:NZ	2.31	0.46
1:G:2431:ASP:HB2	1:G:2501:SER:CB	2.46	0.46
1:G:4712:PRO:O	1:G:4718:LYS:HD2	2.16	0.46
1:G:4887:MET:HA	1:G:4891:VAL:HG23	1.97	0.46
1:G:4914:VAL:O	1:G:4918:ILE:HG13	2.15	0.46
1:A:107:ILE:HD12	1:A:109:LEU:HD21	1.98	0.46
1:A:2198:MET:HE3	1:A:2203:MET:SD	2.56	0.46
1:A:3777:GLU:O	1:A:3781:GLN:HG3	2.16	0.46
1:A:3902:TYR:HE1	1:A:3908:GLY:H	1.62	0.46
1:A:4666:VAL:O	1:A:4670:ILE:HG12	2.15	0.46
2:B:87:HIS:HB3	2:B:91:ILE:H	1.80	0.46
1:C:21:VAL:CG2	1:C:203:ASN:HB3	2.46	0.46
1:C:223:PHE:O	1:C:388:LEU:HD23	2.16	0.46
1:C:1141:ARG:NH1	1:C:1169:LEU:HD11	2.27	0.46
1:E:14:LEU:HD12	1:E:163:VAL:HG12	1.97	0.46
1:E:1768:THR:O	1:E:1769:THR:OG1	2.23	0.46
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.96	0.46
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.42	0.46
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.51	0.46
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.50	0.46
1:G:3906:GLN:HG2	1:G:3909:ASN:HB2	1.98	0.46
1:G:3996:PHE:HE2	1:G:4019:LEU:HD22	1.80	0.46
1:A:21:VAL:CG2	1:A:203:ASN:HB3	2.46	0.46
1:A:276:TRP:CD1	1:A:276:TRP:O	2.69	0.46
1:A:1082:THR:HG22	1:A:1189:LEU:HG	1.98	0.46
1:A:2350:ALA:O	1:A:2354:VAL:HG23	2.16	0.46
1:A:4929:LEU:O	1:A:4933:GLN:HG3	2.15	0.46
2:B:88:PRO:O	2:B:90:ILE:HD12	2.16	0.46
1:C:564:LEU:O	1:C:568:LEU:HG	2.16	0.46
1:C:2059:LEU:CD2	1:C:2062:ARG:HH12	2.20	0.46
1:C:2350:ALA:O	1:C:2354:VAL:HG23	2.16	0.46
1:C:2553:TYR:CD1	1:C:2556:LEU:HD12	2.51	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3938:SER:OG	1:E:80:GLU:OE1	2.30	0.46
2:F:88:PRO:O	2:F:90:ILE:HD12	2.16	0.46
1:G:223:PHE:O	1:G:388:LEU:HD23	2.16	0.46
1:G:792:LEU:HB3	1:G:799:GLU:O	2.16	0.46
1:G:1101:ARG:HG3	1:G:1193:SER:OG	2.15	0.46
1:G:1432:THR:N	1:G:1519:LEU:O	2.49	0.46
1:G:1638:ALA:HA	1:G:1649:ASP:HA	1.98	0.46
1:G:3937:TYR:O	1:G:3941:ASP:N	2.47	0.46
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.51	0.46
1:A:649:PHE:HB3	1:A:776:LEU:HB3	1.98	0.46
1:A:1128:ARG:N	1:A:1142:PRO:HB3	2.31	0.46
1:A:1293:LEU:HD23	1:A:1584:ARG:CG	2.45	0.46
1:A:4003:LEU:CB	1:A:4013:LEU:HD12	2.44	0.46
1:A:4717:ASP:O	1:A:4720:VAL:HG23	2.16	0.46
1:A:4888:TYR:OH	1:C:4898:GLY:HA3	2.16	0.46
1:C:690:GLU:CG	1:C:1459:GLN:OE1	2.64	0.46
1:C:2460:LEU:HD12	1:E:178:ARG:CZ	2.45	0.46
1:C:4717:ASP:O	1:C:4720:VAL:HG23	2.16	0.46
1:C:4951:LYS:O	1:C:4955:GLU:HG2	2.16	0.46
1:E:292:ALA:HB3	1:E:302:VAL:HG11	1.98	0.46
1:E:350:HIS:O	1:E:354:GLY:HA2	2.16	0.46
1:E:1093:GLU:HA	1:E:1148:VAL:HG22	1.97	0.46
1:E:2250:MET:HA	1:E:2253:HIS:HD2	1.81	0.46
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.47	0.46
1:E:3916:ILE:O	1:E:3920:VAL:HG23	2.16	0.46
1:E:3938:SER:OG	1:G:80:GLU:OE1	2.27	0.46
1:E:4951:LYS:O	1:E:4955:GLU:HG2	2.16	0.46
1:G:445:LEU:CD2	1:G:522:LEU:HD12	2.44	0.46
1:G:2211:MET:O	1:G:2215:LEU:HG	2.16	0.46
1:A:459:LEU:HD11	1:A:463:GLU:OE1	2.15	0.45
1:A:1638:ALA:HA	1:A:1649:ASP:HA	1.97	0.45
1:A:3724:ALA:O	1:A:3727:ASP:HB2	2.16	0.45
1:A:3977:GLN:HE22	1:A:4033:GLY:H	1.63	0.45
1:A:3986:TRP:HD1	1:A:4047:MET:SD	2.39	0.45
1:A:4712:PRO:O	1:A:4718:LYS:HD2	2.16	0.45
2:B:44:LYS:HA	2:B:45:PRO:HD3	1.86	0.45
1:C:276:TRP:CD1	1:C:276:TRP:O	2.69	0.45
1:C:489:ASN:HB3	1:C:493:ARG:NH2	2.30	0.45
1:C:1294:PRO:CB	1:C:1547:LYS:HB3	2.45	0.45
1:C:1713:ASP:OD1	1:C:1714:LEU:N	2.49	0.45
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2883:HIS:HE1	1:C:2904:LEU:O	1.99	0.45
1:C:3989:VAL:HG13	1:C:4023:MET:HE2	1.98	0.45
1:C:4712:PRO:O	1:C:4718:LYS:HD2	2.15	0.45
1:E:249:GLY:O	1:E:252:VAL:HG12	2.15	0.45
1:E:824:GLU:CD	1:E:825:PRO:HD2	2.36	0.45
1:E:2553:TYR:CD1	1:E:2556:LEU:HD12	2.51	0.45
1:E:2819:TRP:HH2	1:E:2881:ASN:HB2	1.81	0.45
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.99	0.45
1:E:4578:LEU:CD1	1:G:4880:MET:CA	2.85	0.45
1:E:4648:LEU:O	1:E:4652:LEU:N	2.47	0.45
1:E:4810:ALA:O	1:E:4813:LEU:HG	2.16	0.45
1:G:14:LEU:HD12	1:G:163:VAL:HG12	1.98	0.45
1:G:1598:GLN:O	1:G:1600:LEU:N	2.49	0.45
1:G:2499:LYS:O	1:G:2503:VAL:HG23	2.15	0.45
1:G:4821:LYS:HD3	1:G:4947:GLN:NE2	2.31	0.45
1:G:4832:HIS:NE2	1:G:4939:ALA:HB1	2.31	0.45
2:H:88:PRO:O	2:H:90:ILE:HD12	2.16	0.45
1:A:2431:ASP:HB2	1:A:2501:SER:CB	2.46	0.45
1:A:2883:HIS:HE1	1:A:2904:LEU:O	1.99	0.45
1:C:649:PHE:HB3	1:C:776:LEU:HB3	1.98	0.45
1:C:2290:LEU:HD11	1:C:2349:ASN:OD1	2.16	0.45
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.97	0.45
1:C:4581:LYS:HD2	1:E:4856:PHE:CZ	2.50	0.45
1:E:1224:GLU:HA	1:E:1225:PRO:HD3	1.64	0.45
1:E:2431:ASP:HB2	1:E:2501:SER:CB	2.46	0.45
1:G:16:THR:OG1	1:G:99:ARG:O	2.20	0.45
1:G:21:VAL:CG2	1:G:203:ASN:HB3	2.46	0.45
1:G:833:GLY:HA3	1:G:838:HIS:CD2	2.52	0.45
1:G:1660:GLN:NE2	1:G:1704:PRO:HB2	2.31	0.45
1:G:2350:ALA:O	1:G:2354:VAL:HG23	2.16	0.45
1:G:3371:LYS:O	1:G:3375:GLU:N	2.44	0.45
1:G:3936:TYR:HD2	1:G:3937:TYR:CE2	2.34	0.45
1:G:4209:GLN:HG3	1:G:4213:SER:HB2	1.99	0.45
1:G:4727:LYS:NZ	1:G:4728:HIS:CE1	2.84	0.45
1:A:750:LEU:O	1:A:751:SER:OG	2.33	0.45
1:A:792:LEU:HB3	1:A:799:GLU:O	2.16	0.45
1:A:1713:ASP:OD1	1:A:1714:LEU:N	2.49	0.45
1:A:2290:LEU:HD11	1:A:2349:ASN:OD1	2.16	0.45
1:A:3698:LEU:O	1:A:3701:LEU:HB3	2.17	0.45
1:A:3916:ILE:O	1:A:3920:VAL:HG23	2.17	0.45
1:A:4234:PHE:HZ	1:A:4988:TYR:HB2	1.81	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1090:PHE:CE1	1:C:1151:CYS:HB3	2.51	0.45
1:C:1438:ARG:HA	1:C:1514:LEU:HA	1.98	0.45
1:C:2117:VAL:O	1:C:2120:MET:HB2	2.16	0.45
1:C:2198:MET:HE3	1:C:2203:MET:SD	2.56	0.45
1:C:3724:ALA:O	1:C:3727:ASP:HB2	2.17	0.45
1:C:4024:VAL:HA	1:C:4027:LEU:HD12	1.98	0.45
1:C:4578:LEU:CD1	1:E:4880:MET:CA	2.83	0.45
1:C:4674:GLU:OE2	1:C:4712:PRO:HA	2.16	0.45
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.51	0.45
1:E:1840:PRO:O	1:E:1843:LYS:HB3	2.16	0.45
1:E:2883:HIS:HE1	1:E:2904:LEU:O	1.99	0.45
1:E:3775:ALA:O	1:E:3779:VAL:HG23	2.15	0.45
1:E:3977:GLN:HE22	1:E:4033:GLY:H	1.64	0.45
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.52	0.45
1:G:459:LEU:HD11	1:G:463:GLU:OE1	2.15	0.45
1:G:1093:GLU:HA	1:G:1148:VAL:HG22	1.98	0.45
1:G:2420:HIS:ND1	1:G:2423:MET:SD	2.76	0.45
1:G:3434:LEU:O	1:G:3437:MET:N	2.49	0.45
1:G:3655:GLU:O	1:G:3658:LYS:HB3	2.15	0.45
1:A:119:SER:OG	1:A:136:GLY:O	2.25	0.45
1:A:223:PHE:O	1:A:388:LEU:HD23	2.16	0.45
1:A:1106:ARG:HE	1:A:1188:PHE:HE1	1.63	0.45
1:A:2248:ARG:HA	1:A:2286:LEU:HD22	1.99	0.45
1:C:478:PHE:CD1	1:C:529:LEU:HD21	2.51	0.45
1:C:785:ALA:HA	1:C:1633:PRO:HD3	1.97	0.45
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.31	0.45
1:C:2745:VAL:HB	1:C:2814:LYS:HB3	1.98	0.45
1:E:478:PHE:CD1	1:E:529:LEU:HD21	2.52	0.45
1:E:558:SER:O	1:E:561:LEU:HB3	2.16	0.45
1:E:2062:ARG:O	1:E:2065:SER:OG	2.21	0.45
1:E:2745:VAL:HB	1:E:2814:LYS:HB3	1.98	0.45
1:E:3698:LEU:O	1:E:3701:LEU:HB3	2.17	0.45
1:E:4563:ARG:NH1	1:E:4815:ASP:OD1	2.47	0.45
2:F:58:GLY:HA3	2:F:76:ILE:CG2	2.46	0.45
1:G:720:HIS:HB2	1:G:728:ARG:O	2.16	0.45
1:G:1154:ASP:HB3	1:G:1157:GLU:HB3	1.97	0.45
1:G:1729:SER:HB2	1:G:2163:ARG:HH11	1.81	0.45
1:G:4213:SER:O	1:G:4217:PHE:N	2.42	0.45
1:G:4886:HIS:O	1:G:4891:VAL:N	2.45	0.45
1:A:833:GLY:HA3	1:A:838:HIS:CD2	2.52	0.45
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.63	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.16	0.45
1:A:4980:LEU:HA	1:A:4984:ASN:HA	1.98	0.45
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.52	0.45
1:C:634:GLN:HG3	1:C:1640:HIS:CE1	2.50	0.45
1:C:737:LEU:HB3	1:C:738:LEU:H	1.56	0.45
1:C:1834:VAL:HG13	1:C:1835:GLU:N	2.32	0.45
1:E:943:ASP:HB3	1:E:1050:GLY:HA3	1.97	0.45
1:E:1240:LYS:HZ3	1:E:1242:LEU:HB2	1.80	0.45
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.89	0.45
1:E:2117:VAL:O	1:E:2120:MET:HB2	2.17	0.45
1:E:3724:ALA:O	1:E:3727:ASP:HB2	2.16	0.45
1:E:4823:LEU:HA	1:E:4826:ILE:CD1	2.44	0.45
1:E:4929:LEU:O	1:E:4933:GLN:HG3	2.17	0.45
1:G:478:PHE:CD1	1:G:529:LEU:HD21	2.52	0.45
1:G:593:HIS:HB3	1:G:596:ASN:HD22	1.79	0.45
1:G:1079:LYS:HZ2	1:G:1107:PRO:HB2	1.81	0.45
1:G:1840:PRO:O	1:G:1843:LYS:HB3	2.16	0.45
1:G:2059:LEU:CD2	1:G:2062:ARG:HH12	2.20	0.45
1:G:2250:MET:HA	1:G:2253:HIS:HD2	1.81	0.45
1:A:372:LEU:O	1:A:374:LYS:N	2.50	0.45
1:A:564:LEU:O	1:A:568:LEU:HG	2.16	0.45
1:A:1660:GLN:NE2	1:A:1704:PRO:HB2	2.31	0.45
1:A:2142:TYR:HE1	1:A:2196:ASN:HD22	1.64	0.45
1:A:4024:VAL:HA	1:A:4027:LEU:HD12	1.97	0.45
1:A:4578:LEU:HG	1:C:4880:MET:HB2	1.99	0.45
1:A:4579:PHE:HB3	1:A:4632:LEU:O	2.17	0.45
1:C:274:LEU:HA	1:C:278:GLN:NE2	2.32	0.45
1:C:445:LEU:CD2	1:C:522:LEU:HD12	2.44	0.45
1:C:839:LEU:HD22	1:C:1075:PHE:CE1	2.52	0.45
1:C:1082:THR:HG22	1:C:1189:LEU:HG	1.98	0.45
1:C:1093:GLU:HA	1:C:1148:VAL:HG22	1.98	0.45
1:C:1598:GLN:O	1:C:1600:LEU:N	2.49	0.45
1:C:2271:THR:HA	1:C:2272:PRO:HD2	1.85	0.45
1:C:3969:ILE:CG1	1:C:3980:LEU:HD11	2.46	0.45
1:C:4579:PHE:HB3	1:C:4632:LEU:O	2.17	0.45
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.16	0.45
1:C:4915:VAL:HA	1:C:4918:ILE:HD12	1.97	0.45
2:D:67:SER:N	2:D:70:GLN:OE1	2.37	0.45
1:E:24:CYS:HB3	1:E:200:TRP:CE3	2.52	0.45
1:E:149:THR:HG23	1:E:174:VAL:HG22	1.98	0.45
1:E:274:LEU:HA	1:E:278:GLN:NE2	2.32	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:649:PHE:HB3	1:E:776:LEU:HB3	1.98	0.45
1:E:833:GLY:HA3	1:E:838:HIS:CD2	2.52	0.45
1:E:839:LEU:HD22	1:E:1075:PHE:CE1	2.52	0.45
1:E:2460:LEU:HD12	1:G:178:ARG:CZ	2.46	0.45
1:E:3777:GLU:O	1:E:3781:GLN:HG3	2.16	0.45
1:E:4702:ASP:OD1	1:E:4778:TRP:NE1	2.31	0.45
1:E:4712:PRO:O	1:E:4718:LYS:HD2	2.16	0.45
1:G:1713:ASP:OD1	1:G:1714:LEU:N	2.49	0.45
1:G:4000:MET:O	1:G:4004:ALA:N	2.49	0.45
1:G:4735:GLU:O	1:G:4739:GLU:N	2.48	0.45
1:A:24:CYS:HB3	1:A:200:TRP:CE3	2.52	0.45
1:A:758:ARG:HA	1:A:763:PRO:HA	1.97	0.45
1:A:1090:PHE:CE1	1:A:1151:CYS:HB3	2.52	0.45
1:A:1292:SER:O	1:A:1294:PRO:HD3	2.17	0.45
1:A:1294:PRO:CD	1:A:1584:ARG:HH11	2.19	0.45
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.17	0.45
1:A:4214:LYS:HE2	1:A:4985:LEU:HD23	1.98	0.45
1:C:312:THR:O	1:C:314:PHE:N	2.41	0.45
1:C:533:ASN:OD1	1:C:535:ALA:N	2.41	0.45
1:C:599:VAL:O	1:C:602:VAL:HB	2.17	0.45
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.17	0.45
1:C:1840:PRO:O	1:C:1843:LYS:HB3	2.16	0.45
1:C:2114:PRO:O	1:C:3704:HIS:NE2	2.40	0.45
1:C:2431:ASP:HB2	1:C:2501:SER:CB	2.46	0.45
1:C:2556:LEU:HD23	1:C:2559:LEU:CD1	2.47	0.45
1:C:3698:LEU:O	1:C:3701:LEU:HB3	2.17	0.45
1:C:3777:GLU:O	1:C:3781:GLN:HG3	2.16	0.45
1:C:3916:ILE:O	1:C:3920:VAL:HG23	2.17	0.45
1:C:3996:PHE:O	1:C:4000:MET:HG2	2.17	0.45
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.99	0.45
1:C:4234:PHE:HZ	1:C:4988:TYR:HB2	1.82	0.45
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.32	0.45
1:E:1079:LYS:HZ2	1:E:1107:PRO:HB2	1.80	0.45
1:E:1805:GLU:O	1:E:1808:ARG:HG2	2.17	0.45
1:E:4924:VAL:HA	1:E:4928:LEU:HD12	1.99	0.45
1:G:350:HIS:O	1:G:354:GLY:HA2	2.17	0.45
1:G:533:ASN:OD1	1:G:535:ALA:N	2.41	0.45
1:G:558:SER:O	1:G:561:LEU:HB3	2.17	0.45
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.49	0.45
1:G:4039:MET:HG3	1:G:4040:ILE:H	1.81	0.45
1:G:4108:ILE:O	1:G:4111:LEU:HB3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4733:GLY:O	1:G:4737:ILE:HG12	2.17	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:2244:ARG:NH1	1:A:2285:GLU:OE1	2.50	0.45
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.99	0.45
1:A:4574:ASN:ND2	1:A:4813:LEU:HD23	2.31	0.45
1:C:24:CYS:HB3	1:C:200:TRP:CE3	2.52	0.45
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.32	0.45
1:C:438:ILE:HG23	1:C:518:ILE:HD11	1.98	0.45
1:C:558:SER:O	1:C:561:LEU:HB3	2.16	0.45
1:C:768:PHE:HB3	1:C:771:PHE:HE2	1.82	0.45
1:C:941:MET:HA	1:C:1051:TYR:HD1	1.82	0.45
1:C:2819:TRP:HH2	1:C:2881:ASN:HB2	1.81	0.45
1:C:4143:VAL:O	1:C:4147:LEU:HG	2.17	0.45
1:C:4648:LEU:O	1:C:4652:LEU:N	2.47	0.45
1:E:564:LEU:O	1:E:568:LEU:HG	2.16	0.45
1:E:662:TRP:CZ3	1:E:814:ALA:HB2	2.52	0.45
1:E:1128:ARG:N	1:E:1142:PRO:HB3	2.31	0.45
1:E:1713:ASP:OD1	1:E:1714:LEU:N	2.50	0.45
1:E:4666:VAL:O	1:E:4670:ILE:HG12	2.16	0.45
1:E:4915:VAL:HA	1:E:4918:ILE:HD12	1.98	0.45
1:G:1848:LEU:O	1:G:1851:MET:HG2	2.17	0.45
1:G:2232:CYS:O	1:G:2235:PHE:HB3	2.17	0.45
1:G:4786:ASP:OD2	1:G:4788:SER:HB3	2.16	0.45
1:G:4946:GLN:O	1:G:4950:VAL:HG23	2.17	0.45
1:A:102:LEU:HB2	1:A:105:HIS:NE2	2.31	0.45
1:A:1130:GLN:HB2	1:A:1138:PRO:HA	1.99	0.45
1:A:1951:LEU:O	1:A:1955:VAL:HG23	2.16	0.45
1:A:2232:CYS:O	1:A:2235:PHE:HB3	2.17	0.45
1:A:4648:LEU:O	1:A:4652:LEU:N	2.47	0.45
1:A:4802:GLY:HA2	1:A:4809:PHE:HB2	1.99	0.45
1:C:887:ILE:CG2	1:C:962:SER:HB2	2.47	0.45
1:C:2173:GLN:HG2	1:C:2174:GLU:N	2.19	0.45
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.16	0.45
1:C:4666:VAL:O	1:C:4670:ILE:HG12	2.16	0.45
2:D:58:GLY:HA3	2:D:76:ILE:CG2	2.47	0.45
1:E:223:PHE:O	1:E:388:LEU:HD23	2.16	0.45
1:E:234:SER:O	1:E:242:ARG:HG2	2.17	0.45
1:E:445:LEU:CD2	1:E:522:LEU:HD12	2.44	0.45
1:E:2296:GLU:HA	1:E:2299:VAL:HG22	1.99	0.45
1:E:2350:ALA:O	1:E:2354:VAL:HG23	2.17	0.45
1:E:4579:PHE:HB3	1:E:4632:LEU:O	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:107:ILE:HD12	1:G:109:LEU:HD21	1.99	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.32	0.45
1:G:290:TYR:HB2	1:G:307:ALA:CB	2.47	0.45
1:G:438:ILE:HG23	1:G:518:ILE:HD11	1.98	0.45
1:G:716:PHE:N	1:G:738:LEU:HD13	2.31	0.45
1:G:824:GLU:CD	1:G:825:PRO:HD2	2.36	0.45
1:G:1205:GLY:HA3	1:G:1227:ALA:CB	2.43	0.45
1:G:1234:VAL:HG12	1:G:1235:THR:O	2.17	0.45
1:G:1805:GLU:O	1:G:1808:ARG:HG2	2.17	0.45
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.99	0.45
1:G:3997:ALA:HB1	1:G:4057:MET:HB2	1.99	0.45
1:A:16:THR:OG1	1:A:99:ARG:O	2.18	0.45
1:A:1234:VAL:HG12	1:A:1235:THR:O	2.17	0.45
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.99	0.45
1:A:3936:TYR:HD2	1:A:3937:TYR:CD2	2.35	0.45
1:A:4181:ILE:HD11	1:A:4193:ILE:HD11	1.99	0.45
2:B:58:GLY:HA3	2:B:76:ILE:CG2	2.47	0.45
1:C:234:SER:O	1:C:242:ARG:HG2	2.17	0.45
1:C:275:ARG:HA	1:C:338:GLU:OE1	2.17	0.45
1:C:290:TYR:HB2	1:C:307:ALA:CB	2.47	0.45
1:C:788:LYS:HD3	1:C:1629:GLN:OE1	2.17	0.45
1:C:1660:GLN:NE2	1:C:1704:PRO:HB2	2.32	0.45
1:C:3977:GLN:HE22	1:C:4033:GLY:H	1.63	0.45
1:C:4921:PHE:HA	1:C:4925:ILE:CG1	2.47	0.45
1:E:275:ARG:HA	1:E:338:GLU:OE1	2.17	0.45
1:E:276:TRP:CD1	1:E:276:TRP:O	2.69	0.45
1:E:768:PHE:HB3	1:E:771:PHE:HE2	1.82	0.45
1:E:856:VAL:O	1:E:991:ASN:ND2	2.48	0.45
1:E:1074:ILE:HB	1:E:1239:SER:OG	2.17	0.45
1:E:1158:ASN:ND2	1:E:1182:ILE:O	2.50	0.45
1:E:1638:ALA:HA	1:E:1649:ASP:HA	1.98	0.45
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.98	0.45
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.98	0.45
1:E:3936:TYR:HD2	1:E:3937:TYR:CD2	2.35	0.45
1:E:4717:ASP:O	1:E:4720:VAL:HG23	2.17	0.45
1:E:4980:LEU:HA	1:E:4984:ASN:HA	1.98	0.45
1:G:24:CYS:HB3	1:G:200:TRP:CE3	2.52	0.45
1:G:119:SER:O	1:G:136:GLY:N	2.31	0.45
1:G:941:MET:HA	1:G:1051:TYR:HD1	1.82	0.45
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.99	0.45
1:G:4648:LEU:O	1:G:4652:LEU:N	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4851:TYR:HB3	1:G:4916:PHE:CZ	2.52	0.45
1:A:478:PHE:CD1	1:A:529:LEU:HD21	2.52	0.44
1:A:714:TYR:HB2	1:A:757:PHE:CD2	2.52	0.44
1:A:788:LYS:HD3	1:A:1629:GLN:OE1	2.17	0.44
1:A:839:LEU:HD22	1:A:1075:PHE:CE1	2.52	0.44
1:A:1598:GLN:O	1:A:1600:LEU:N	2.49	0.44
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.17	0.44
1:A:2117:VAL:O	1:A:2120:MET:HB2	2.17	0.44
1:A:2250:MET:HA	1:A:2253:HIS:HD2	1.81	0.44
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.51	0.44
1:A:4143:VAL:O	1:A:4147:LEU:HG	2.17	0.44
1:A:4881:THR:HA	1:A:4884:LEU:HG	1.99	0.44
1:A:4892:ARG:HH22	1:C:4920:PHE:HD2	1.63	0.44
1:A:4991:PHE:O	1:A:4995:LEU:HG	2.17	0.44
1:C:73:LEU:O	1:C:105:HIS:HB3	2.17	0.44
1:C:350:HIS:O	1:C:354:GLY:HA2	2.17	0.44
1:C:530:ILE:HG12	1:C:540:PHE:HE2	1.82	0.44
1:C:662:TRP:CZ3	1:C:814:ALA:HB2	2.52	0.44
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.82	0.44
1:C:1074:ILE:HB	1:C:1239:SER:OG	2.18	0.44
1:C:1087:ARG:HH11	1:C:1223:PHE:HE1	1.65	0.44
1:C:2248:ARG:HA	1:C:2286:LEU:HD22	1.98	0.44
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.52	0.44
1:C:4581:LYS:HE2	1:E:4877:ASP:O	2.17	0.44
1:C:4821:LYS:HD3	1:C:4947:GLN:HE22	1.80	0.44
1:C:4997:ASN:OD1	1:C:4998:LYS:N	2.50	0.44
2:D:11:ASP:OD1	2:D:67:SER:HB2	2.18	0.44
2:D:22:CYS:O	2:D:47:LYS:HA	2.17	0.44
1:E:107:ILE:HD12	1:E:109:LEU:HD21	1.99	0.44
1:E:748:LEU:HD13	1:E:755:ILE:CG1	2.47	0.44
1:E:1090:PHE:CE1	1:E:1151:CYS:HB3	2.51	0.44
1:E:4039:MET:HG3	1:E:4040:ILE:N	2.32	0.44
2:F:74:LEU:O	2:F:98:VAL:HA	2.17	0.44
1:G:839:LEU:HD22	1:G:1075:PHE:CE1	2.52	0.44
1:G:1128:ARG:N	1:G:1142:PRO:HB3	2.31	0.44
1:G:1143:TRP:HE3	1:G:1144:GLN:O	2.01	0.44
2:H:11:ASP:OD1	2:H:67:SER:HB2	2.17	0.44
2:H:74:LEU:HD23	2:H:76:ILE:HD11	1.99	0.44
1:A:103:TYR:CE2	1:A:157:ARG:HB3	2.52	0.44
1:A:599:VAL:O	1:A:602:VAL:HB	2.17	0.44
1:A:941:MET:HA	1:A:1051:TYR:HD1	1.83	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1141:ARG:NH1	1:A:1169:LEU:HD11	2.26	0.44
1:A:2059:LEU:CD2	1:A:2062:ARG:HH12	2.20	0.44
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.52	0.44
1:A:3906:GLN:HG2	1:A:3909:ASN:HB2	2.00	0.44
1:A:4892:ARG:HH12	1:C:4898:GLY:H	1.64	0.44
1:C:292:ALA:HB3	1:C:302:VAL:HG11	1.99	0.44
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.17	0.44
1:C:2250:MET:HA	1:C:2253:HIS:HD2	1.81	0.44
1:C:3835:LEU:HD22	1:C:3884:LEU:HD11	2.00	0.44
1:C:4991:PHE:O	1:C:4995:LEU:HG	2.17	0.44
1:E:233:ILE:O	1:E:257:ARG:HD2	2.17	0.44
1:E:2244:ARG:NH1	1:E:2285:GLU:OE1	2.50	0.44
1:E:2248:ARG:HA	1:E:2286:LEU:HD22	1.98	0.44
1:E:3811:GLU:O	1:E:3814:GLN:HG3	2.18	0.44
1:E:4056:GLU:O	1:E:4060:LYS:HG2	2.18	0.44
2:F:22:CYS:O	2:F:47:LYS:HA	2.18	0.44
1:G:276:TRP:CD1	1:G:276:TRP:O	2.70	0.44
1:G:639:ASN:ND2	1:G:676:THR:OG1	2.46	0.44
1:G:1158:ASN:ND2	1:G:1182:ILE:O	2.50	0.44
1:G:4686:LEU:HD13	1:G:4692:PRO:HD3	2.00	0.44
1:A:35:LEU:HD12	1:A:35:LEU:O	2.17	0.44
1:A:161:GLU:OE1	1:G:3984:ARG:NH1	2.51	0.44
1:A:274:LEU:HA	1:A:278:GLN:NE2	2.32	0.44
1:A:561:LEU:CD2	1:A:598:LYS:HB3	2.48	0.44
1:A:887:ILE:CG2	1:A:962:SER:HB2	2.47	0.44
1:A:1729:SER:HB2	1:A:2163:ARG:HH11	1.81	0.44
1:A:3996:PHE:O	1:A:4000:MET:HG2	2.17	0.44
1:A:4645:CYS:O	1:A:4649:LEU:N	2.45	0.44
1:A:4887:MET:HA	1:A:4891:VAL:HG23	1.99	0.44
1:A:4924:VAL:HA	1:A:4928:LEU:HD12	1.99	0.44
1:C:35:LEU:HD12	1:C:35:LEU:O	2.18	0.44
1:C:107:ILE:HD12	1:C:109:LEU:HD21	1.99	0.44
1:C:561:LEU:CD2	1:C:598:LYS:HB3	2.48	0.44
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.99	0.44
1:C:1951:LEU:O	1:C:1955:VAL:HG23	2.16	0.44
1:C:2244:ARG:NH1	1:C:2285:GLU:OE1	2.50	0.44
1:C:3811:GLU:O	1:C:3814:GLN:HG3	2.18	0.44
1:E:290:TYR:HB2	1:E:307:ALA:CB	2.48	0.44
1:E:2271:THR:HA	1:E:2272:PRO:HD2	1.85	0.44
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.17	0.44
1:E:2420:HIS:ND1	1:E:2423:MET:SD	2.76	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2556:LEU:HD23	1:E:2559:LEU:CD1	2.48	0.44
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.51	0.44
1:E:3996:PHE:O	1:E:4000:MET:HG2	2.17	0.44
1:G:121:LEU:O	1:G:133:PHE:HB3	2.18	0.44
1:G:203:ASN:OD1	1:G:204:PRO:HD2	2.18	0.44
1:G:674:PHE:HD1	2:H:40:ARG:NH1	2.09	0.44
1:G:1090:PHE:CE1	1:G:1151:CYS:HB3	2.51	0.44
1:G:1294:PRO:CD	1:G:1584:ARG:HH11	2.19	0.44
1:G:2558:VAL:O	1:G:2561:LEU:HG	2.16	0.44
1:G:2825:LYS:HA	1:G:2935:TYR:CD1	2.52	0.44
1:G:4041:ALA:O	1:G:4044:MET:HB3	2.18	0.44
1:G:4251:ILE:HG22	1:G:4557:ARG:NH1	2.32	0.44
1:A:558:SER:O	1:A:561:LEU:HB3	2.17	0.44
1:A:593:HIS:HA	1:A:1597:VAL:HB	1.99	0.44
1:A:1848:LEU:O	1:A:1851:MET:HG2	2.18	0.44
1:A:4856:PHE:CZ	1:G:4581:LYS:HD2	2.47	0.44
1:C:233:ILE:O	1:C:257:ARG:HD2	2.17	0.44
1:C:1439:VAL:O	1:C:1513:ASP:N	2.49	0.44
1:C:4842:GLY:O	1:C:4846:VAL:HG23	2.18	0.44
1:C:4881:THR:HA	1:C:4884:LEU:HG	2.00	0.44
1:E:533:ASN:OD1	1:E:535:ALA:N	2.42	0.44
1:E:567:VAL:O	1:E:571:SER:OG	2.27	0.44
1:E:599:VAL:O	1:E:602:VAL:HB	2.17	0.44
1:E:685:GLY:O	1:E:780:VAL:HB	2.17	0.44
1:E:1848:LEU:O	1:E:1851:MET:HG2	2.18	0.44
1:E:3980:LEU:HA	1:E:3983:SER:OG	2.17	0.44
1:E:4881:THR:HA	1:E:4884:LEU:HG	1.98	0.44
1:G:274:LEU:HA	1:G:278:GLN:NE2	2.32	0.44
1:G:292:ALA:HB3	1:G:302:VAL:HG11	1.99	0.44
1:G:564:LEU:O	1:G:568:LEU:HG	2.16	0.44
1:G:599:VAL:O	1:G:602:VAL:HB	2.17	0.44
1:G:1834:VAL:HG13	1:G:1835:GLU:N	2.32	0.44
1:G:2500:ALA:HA	1:G:2556:LEU:HD21	1.99	0.44
1:A:530:ILE:HG12	1:A:540:PHE:HE2	1.83	0.44
1:A:931:THR:O	1:A:935:LEU:N	2.44	0.44
1:A:4888:TYR:OH	1:C:4898:GLY:CA	2.65	0.44
2:B:11:ASP:OD1	2:B:67:SER:HB2	2.18	0.44
1:C:173:SER:HG	1:C:175:SER:HG	1.63	0.44
1:C:714:TYR:HB2	1:C:757:PHE:CD2	2.53	0.44
1:C:1930:LYS:HG2	1:C:1931:LEU:N	2.33	0.44
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3839:CYS:SG	1:C:3922:TYR:CE1	3.11	0.44
1:C:3936:TYR:HD2	1:C:3937:TYR:CD2	2.35	0.44
1:C:4851:TYR:HB3	1:C:4916:PHE:CZ	2.53	0.44
1:E:73:LEU:O	1:E:105:HIS:HB3	2.17	0.44
1:E:788:LYS:HD3	1:E:1629:GLN:OE1	2.17	0.44
1:E:4844:LEU:HD11	1:E:4891:VAL:HG13	1.99	0.44
1:E:4931:ILE:O	1:E:4935:LEU:HB2	2.18	0.44
2:F:7:ILE:HD12	2:F:71:ARG:HG2	2.00	0.44
1:G:35:LEU:HD12	1:G:35:LEU:O	2.18	0.44
1:G:685:GLY:O	1:G:780:VAL:HB	2.18	0.44
1:G:4218:ILE:HG22	1:G:4950:VAL:HG13	2.00	0.44
1:A:275:ARG:HA	1:A:338:GLU:OE1	2.17	0.44
1:A:662:TRP:CZ3	1:A:814:ALA:HB2	2.52	0.44
1:A:685:GLY:O	1:A:780:VAL:HB	2.17	0.44
1:A:892:THR:N	1:A:902:ARG:HA	2.30	0.44
1:A:1158:ASN:ND2	1:A:1182:ILE:O	2.50	0.44
1:A:3811:GLU:O	1:A:3814:GLN:HG3	2.18	0.44
1:A:3969:ILE:CG1	1:A:3980:LEU:HD11	2.46	0.44
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.47	0.44
1:C:4056:GLU:O	1:C:4060:LYS:HG2	2.17	0.44
1:C:4181:ILE:HD11	1:C:4193:ILE:HD11	2.00	0.44
1:C:4826:ILE:HG13	1:E:4839:MET:HE1	1.99	0.44
2:D:7:ILE:HD12	2:D:71:ARG:HG2	2.00	0.44
1:E:1598:GLN:O	1:E:1600:LEU:N	2.49	0.44
1:G:234:SER:O	1:G:242:ARG:HG2	2.16	0.44
1:G:372:LEU:O	1:G:374:LYS:N	2.51	0.44
1:G:892:THR:N	1:G:902:ARG:HA	2.30	0.44
1:G:1292:SER:O	1:G:1294:PRO:HD3	2.18	0.44
1:G:4816:ILE:HG13	1:G:4823:LEU:HD22	2.00	0.44
1:G:4921:PHE:HA	1:G:4925:ILE:HG12	2.00	0.44
1:A:235:ALA:HB2	1:A:257:ARG:HD3	1.99	0.44
1:A:314:PHE:HB3	1:A:348:VAL:CG1	2.48	0.44
1:A:2296:GLU:HA	1:A:2299:VAL:HG22	1.99	0.44
1:A:2819:TRP:HH2	1:A:2881:ASN:HB2	1.82	0.44
1:A:4056:GLU:O	1:A:4060:LYS:HG2	2.17	0.44
1:A:4582:VAL:HB	1:A:4628:VAL:HG12	2.00	0.44
1:C:758:ARG:HA	1:C:763:PRO:HA	1.99	0.44
1:C:1158:ASN:ND2	1:C:1182:ILE:O	2.50	0.44
1:C:1201:HIS:CD2	1:C:1202:LEU:H	2.35	0.44
1:C:1638:ALA:HA	1:C:1649:ASP:HA	1.99	0.44
1:C:1848:LEU:O	1:C:1851:MET:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2142:TYR:HE1	1:C:2196:ASN:HD22	1.65	0.44
1:C:2431:ASP:HB2	1:C:2501:SER:HA	2.00	0.44
1:E:35:LEU:HD12	1:E:35:LEU:O	2.18	0.44
1:E:50:GLU:CD	1:E:51:PRO:HD2	2.38	0.44
1:E:438:ILE:HG23	1:E:518:ILE:HD11	1.98	0.44
1:E:941:MET:HA	1:E:1051:TYR:HD1	1.83	0.44
1:E:1292:SER:O	1:E:1294:PRO:HD3	2.18	0.44
1:E:1660:GLN:NE2	1:E:1704:PRO:HB2	2.32	0.44
1:E:2232:CYS:O	1:E:2235:PHE:HB3	2.17	0.44
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.53	0.44
1:E:4234:PHE:HZ	1:E:4988:TYR:HB2	1.82	0.44
1:E:4910:GLU:HA	1:E:4913:ARG:HG2	1.99	0.44
1:G:50:GLU:CD	1:G:51:PRO:HD2	2.38	0.44
1:G:275:ARG:HA	1:G:338:GLU:OE1	2.18	0.44
1:G:593:HIS:HA	1:G:1597:VAL:HB	1.99	0.44
1:G:887:ILE:CG2	1:G:962:SER:HB2	2.47	0.44
1:G:2248:ARG:HA	1:G:2286:LEU:HD22	1.99	0.44
1:G:2902:HIS:H	1:G:2905:LEU:HD12	1.83	0.44
1:A:104:GLY:HA2	1:A:150:MET:O	2.18	0.44
1:A:119:SER:HB2	1:A:145:ALA:HB1	2.00	0.44
1:A:121:LEU:O	1:A:133:PHE:HB3	2.18	0.44
1:A:233:ILE:O	1:A:257:ARG:HD2	2.17	0.44
1:A:1143:TRP:HE3	1:A:1144:GLN:O	2.01	0.44
1:A:1154:ASP:HB3	1:A:1157:GLU:HB3	1.98	0.44
1:A:1687:SER:OG	2:B:36:PHE:HB2	2.18	0.44
1:A:1834:VAL:HG13	1:A:1835:GLU:N	2.32	0.44
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.31	0.44
1:A:2358:ILE:CG2	1:C:195:PHE:HE2	2.30	0.44
1:A:4563:ARG:NH1	1:A:4815:ASP:OD1	2.47	0.44
1:A:4581:LYS:HZ3	1:C:4877:ASP:HA	1.83	0.44
1:A:4715:TYR:CG	1:A:4715:TYR:O	2.71	0.44
1:A:4791:TYR:OH	1:A:4815:ASP:HA	2.18	0.44
1:C:14:LEU:HD12	1:C:163:VAL:HG12	1.99	0.44
1:C:672:VAL:O	1:C:680:THR:OG1	2.30	0.44
1:C:833:GLY:HA3	1:C:838:HIS:CD2	2.52	0.44
1:C:1234:VAL:HG12	1:C:1235:THR:O	2.18	0.44
1:C:2232:CYS:O	1:C:2235:PHE:HB3	2.17	0.44
1:C:4931:ILE:O	1:C:4935:LEU:HB2	2.18	0.44
1:C:4984:ASN:O	1:C:4985:LEU:HB2	2.18	0.44
2:D:74:LEU:O	2:D:98:VAL:HA	2.18	0.44
1:E:663:TYR:OH	1:E:802:PHE:O	2.30	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1234:VAL:HG12	1:E:1235:THR:O	2.17	0.44
1:E:1858:ASP:O	1:E:1862:ILE:HG12	2.18	0.44
1:E:4791:TYR:OH	1:E:4815:ASP:HA	2.18	0.44
2:F:67:SER:N	2:F:70:GLN:OE1	2.37	0.44
1:G:1082:THR:HG22	1:G:1189:LEU:HG	1.98	0.44
1:G:1687:SER:HG	2:H:36:PHE:HB2	1.83	0.44
1:G:2114:PRO:O	1:G:3704:HIS:NE2	2.39	0.44
1:A:445:LEU:HD23	1:A:521:LEU:HG	2.00	0.44
1:A:862:VAL:HA	1:A:930:LYS:NZ	2.33	0.44
1:A:1074:ILE:HB	1:A:1239:SER:OG	2.18	0.44
1:A:3496:LYS:O	1:A:3513:THR:N	2.51	0.44
1:A:3838:THR:O	1:A:3839:CYS:SG	2.76	0.44
1:A:4910:GLU:HA	1:A:4913:ARG:HG2	2.00	0.44
1:A:4997:ASN:OD1	1:A:4998:LYS:N	2.50	0.44
2:B:22:CYS:O	2:B:47:LYS:HA	2.17	0.44
2:B:67:SER:N	2:B:70:GLN:OE1	2.37	0.44
1:C:411:TYR:O	1:C:415:ILE:HG13	2.18	0.44
1:C:635:THR:OG1	1:C:1638:ALA:O	2.31	0.44
1:C:1655:GLU:OE1	1:C:1655:GLU:N	2.50	0.44
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.99	0.44
1:C:2197:LEU:O	1:C:2201:LEU:HG	2.18	0.44
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.51	0.44
1:C:4582:VAL:HB	1:C:4628:VAL:HG12	2.00	0.44
1:C:4929:LEU:O	1:C:4933:GLN:HG3	2.17	0.44
1:E:569:ILE:HG22	1:E:570:GLU:OE2	2.18	0.44
1:E:1205:GLY:HA3	1:E:1227:ALA:CB	2.43	0.44
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	2.00	0.44
1:E:4251:ILE:HG12	1:E:4553:ASN:HB3	2.00	0.44
2:F:11:ASP:OD1	2:F:67:SER:HB2	2.17	0.44
1:G:71:GLN:O	1:G:107:ILE:HA	2.18	0.44
1:G:73:LEU:O	1:G:105:HIS:HB3	2.17	0.44
1:G:662:TRP:CZ3	1:G:814:ALA:HB2	2.52	0.44
1:G:788:LYS:HD3	1:G:1629:GLN:OE1	2.17	0.44
1:G:1074:ILE:HB	1:G:1239:SER:OG	2.17	0.44
1:G:2244:ARG:NH1	1:G:2285:GLU:OE1	2.50	0.44
1:G:4676:GLU:O	1:G:4680:LYS:HG3	2.17	0.44
1:A:35:LEU:HD13	1:A:49:LEU:HB3	2.00	0.43
1:A:292:ALA:HB3	1:A:302:VAL:HG11	1.99	0.43
1:A:1655:GLU:OE1	1:A:1655:GLU:N	2.51	0.43
1:A:1783:VAL:HG11	2:B:55:VAL:HG12	1.99	0.43
1:A:2460:LEU:HD12	1:C:178:ARG:CZ	2.48	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4251:ILE:HG12	1:A:4553:ASN:HB3	1.99	0.43
1:C:2296:GLU:HA	1:C:2299:VAL:HG22	1.99	0.43
1:C:2924:GLN:O	1:C:2928:LYS:HB2	2.18	0.43
1:C:3916:ILE:O	1:C:3919:THR:HG22	2.18	0.43
1:C:4251:ILE:HG12	1:C:4553:ASN:HB3	2.00	0.43
1:C:4924:VAL:HA	1:C:4928:LEU:HD12	2.00	0.43
1:E:21:VAL:HG12	1:E:65:CYS:O	2.18	0.43
1:E:1201:HIS:CD2	1:E:1202:LEU:H	2.35	0.43
1:E:1586:ASN:O	1:E:1588:ALA:N	2.49	0.43
1:E:1655:GLU:OE1	1:E:1655:GLU:N	2.51	0.43
1:E:1666:THR:O	1:E:1669:LEU:HB3	2.18	0.43
1:E:1834:VAL:HG13	1:E:1835:GLU:N	2.31	0.43
1:E:3838:THR:O	1:E:3839:CYS:SG	2.76	0.43
1:E:4842:GLY:O	1:E:4846:VAL:HG23	2.18	0.43
1:G:21:VAL:HG23	1:G:203:ASN:HB3	1.99	0.43
1:G:748:LEU:HD13	1:G:755:ILE:CG1	2.47	0.43
1:G:1655:GLU:N	1:G:1655:GLU:OE1	2.51	0.43
1:G:1808:ARG:HB2	1:G:1854:PHE:HE1	1.83	0.43
1:G:2137:ALA:HA	1:G:2140:ARG:HH11	1.82	0.43
1:G:4715:TYR:O	1:G:4715:TYR:CG	2.70	0.43
1:A:222:LEU:HB3	1:A:388:LEU:HD22	2.00	0.43
1:A:438:ILE:HG23	1:A:518:ILE:HD11	1.99	0.43
1:A:768:PHE:HB3	1:A:771:PHE:HE2	1.82	0.43
1:A:1858:ASP:O	1:A:1862:ILE:HG12	2.17	0.43
1:A:3501:ASP:HA	1:C:1224:GLU:OE2	2.18	0.43
1:A:3839:CYS:SG	1:A:3922:TYR:CE1	3.11	0.43
1:A:4251:ILE:HG22	1:A:4557:ARG:NH1	2.33	0.43
1:C:104:GLY:HA2	1:C:150:MET:O	2.19	0.43
1:C:1224:GLU:HA	1:C:1225:PRO:HD3	1.63	0.43
1:C:2137:ALA:HA	1:C:2140:ARG:HH11	1.83	0.43
1:C:3970:GLN:HE21	1:C:5004:THR:CA	2.30	0.43
1:C:4214:LYS:HE2	1:C:4985:LEU:HD23	1.99	0.43
1:C:4888:TYR:OH	1:E:4898:GLY:O	2.36	0.43
1:E:21:VAL:HG23	1:E:203:ASN:HB3	1.99	0.43
1:E:706:GLY:H	1:E:711:LEU:HD22	1.83	0.43
1:E:714:TYR:HB2	1:E:757:PHE:CD2	2.53	0.43
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.82	0.43
1:E:984:LEU:O	1:E:988:LEU:HG	2.18	0.43
1:E:1082:THR:HG22	1:E:1189:LEU:HG	1.98	0.43
1:E:2142:TYR:HE1	1:E:2196:ASN:HD22	1.65	0.43
1:E:2338:ALA:O	1:E:2349:ASN:ND2	2.51	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4735:GLU:O	1:E:4739:GLU:N	2.50	0.43
1:G:314:PHE:HB3	1:G:348:VAL:CG1	2.49	0.43
1:G:454:PRO:HA	1:G:455:PRO:HD3	1.87	0.43
1:G:530:ILE:HG12	1:G:540:PHE:HE2	1.83	0.43
1:G:649:PHE:HB3	1:G:776:LEU:HB3	1.98	0.43
1:G:1858:ASP:O	1:G:1862:ILE:HG12	2.17	0.43
1:G:3786:CYS:SG	1:G:3794:VAL:HG22	2.58	0.43
1:G:3840:SER:OG	1:G:3878:ASP:OD1	2.26	0.43
1:A:21:VAL:HG23	1:A:203:ASN:HB3	1.99	0.43
1:A:290:TYR:HB2	1:A:307:ALA:CB	2.47	0.43
1:A:1201:HIS:CD2	1:A:1202:LEU:H	2.35	0.43
1:A:1224:GLU:OE2	1:G:3501:ASP:CB	2.67	0.43
1:A:2197:LEU:O	1:A:2201:LEU:HG	2.19	0.43
1:A:2556:LEU:HD23	1:A:2559:LEU:CD1	2.47	0.43
1:A:3835:LEU:HD22	1:A:3884:LEU:HD11	2.01	0.43
1:C:203:ASN:OD1	1:C:204:PRO:HD2	2.18	0.43
1:C:276:TRP:CZ3	1:C:338:GLU:HB3	2.54	0.43
1:C:748:LEU:HD13	1:C:755:ILE:CG1	2.47	0.43
1:C:1292:SER:O	1:C:1294:PRO:HD3	2.17	0.43
1:C:3496:LYS:O	1:C:3513:THR:N	2.51	0.43
1:C:3716:LEU:N	1:C:3789:GLU:OE2	2.51	0.43
1:C:3980:LEU:HA	1:C:3983:SER:OG	2.18	0.43
1:C:4578:LEU:HG	1:E:4880:MET:HB2	1.99	0.43
1:C:4826:ILE:HG12	1:E:4839:MET:CE	2.47	0.43
1:C:4834:GLY:O	1:C:4837:LEU:HB3	2.18	0.43
2:D:38:SER:O	2:D:41:ASP:HB2	2.18	0.43
2:D:73:LYS:HA	2:D:99:PHE:O	2.19	0.43
1:E:121:LEU:O	1:E:133:PHE:HB3	2.18	0.43
1:E:530:ILE:HG12	1:E:540:PHE:HE2	1.83	0.43
1:E:758:ARG:HA	1:E:763:PRO:HA	2.00	0.43
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.17	0.43
1:E:2198:MET:HE3	1:E:2203:MET:SD	2.58	0.43
1:E:3496:LYS:O	1:E:3513:THR:N	2.52	0.43
1:G:69:LEU:HD13	1:G:101:LEU:HD11	2.00	0.43
1:G:3914:ASN:OD1	1:G:3916:ILE:HB	2.18	0.43
1:G:4801:LEU:O	1:G:4805:ASN:N	2.45	0.43
1:G:4913:ARG:O	1:G:4917:ASP:N	2.46	0.43
1:A:234:SER:O	1:A:242:ARG:HG2	2.19	0.43
1:A:1087:ARG:HH11	1:A:1223:PHE:HE1	1.65	0.43
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.17	0.43
1:A:3980:LEU:HA	1:A:3983:SER:OG	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4951:LYS:O	1:A:4955:GLU:HG2	2.18	0.43
1:A:4984:ASN:O	1:A:4985:LEU:HB2	2.18	0.43
2:B:7:ILE:HD12	2:B:71:ARG:HG2	2.00	0.43
1:C:758:ARG:HH12	1:C:763:PRO:HD3	1.82	0.43
1:C:2173:GLN:CG	1:C:2174:GLU:H	2.21	0.43
1:C:2793:PRO:O	1:C:2796:THR:OG1	2.29	0.43
1:C:3906:GLN:HG2	1:C:3909:ASN:HB2	2.00	0.43
1:E:314:PHE:HB3	1:E:348:VAL:CG1	2.48	0.43
1:E:788:LYS:HB2	1:E:1629:GLN:HG3	2.00	0.43
1:E:1143:TRP:HE3	1:E:1144:GLN:O	2.01	0.43
1:E:2142:TYR:CE2	1:E:2197:LEU:HB2	2.54	0.43
1:E:3839:CYS:SG	1:E:3922:TYR:CE1	3.11	0.43
1:E:3969:ILE:CG1	1:E:3980:LEU:HD11	2.46	0.43
1:E:4984:ASN:O	1:E:4985:LEU:HB2	2.18	0.43
1:E:4991:PHE:O	1:E:4995:LEU:HG	2.18	0.43
2:F:73:LYS:HA	2:F:99:PHE:O	2.19	0.43
1:G:411:TYR:O	1:G:415:ILE:HG13	2.18	0.43
1:G:1666:THR:O	1:G:1669:LEU:HB3	2.19	0.43
1:G:1768:THR:O	1:G:1769:THR:OG1	2.23	0.43
1:G:3969:ILE:CD1	1:G:3980:LEU:HD11	2.48	0.43
1:G:4661:TYR:HA	1:G:4664:LEU:HB3	2.00	0.43
1:G:4887:MET:HA	1:G:4891:VAL:CG2	2.48	0.43
1:A:411:TYR:O	1:A:415:ILE:HG13	2.18	0.43
1:A:569:ILE:HG22	1:A:570:GLU:OE2	2.18	0.43
1:A:660:GLY:HA2	1:A:750:LEU:HD22	2.00	0.43
1:A:748:LEU:HD13	1:A:755:ILE:CG1	2.47	0.43
1:A:858:THR:HG21	1:A:992:GLY:HA2	2.01	0.43
1:A:1074:ILE:HG22	1:A:1075:PHE:N	2.34	0.43
1:A:2745:VAL:HB	1:A:2814:LYS:HB3	1.99	0.43
1:A:2902:HIS:H	1:A:2905:LEU:HD12	1.83	0.43
1:C:50:GLU:CD	1:C:51:PRO:HD2	2.38	0.43
1:C:121:LEU:O	1:C:133:PHE:HB3	2.18	0.43
1:C:706:GLY:H	1:C:711:LEU:HD22	1.83	0.43
1:C:1078:GLU:HB2	1:C:1235:THR:OG1	2.19	0.43
1:C:1152:MET:SD	1:C:1223:PHE:HD2	2.42	0.43
1:C:4202:ARG:O	1:C:4206:GLU:HG2	2.19	0.43
1:C:4580:TYR:HB2	1:C:4631:PHE:CD1	2.53	0.43
1:C:4715:TYR:O	1:C:4715:TYR:CG	2.71	0.43
1:E:71:GLN:O	1:E:107:ILE:HA	2.18	0.43
1:E:411:TYR:O	1:E:415:ILE:HG13	2.19	0.43
1:E:758:ARG:HH12	1:E:763:PRO:HD3	1.82	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1040:CYS:O	1:E:1044:ARG:N	2.52	0.43
1:G:21:VAL:HG12	1:G:65:CYS:O	2.18	0.43
1:G:35:LEU:HD13	1:G:49:LEU:HB3	2.00	0.43
1:G:103:TYR:CE2	1:G:157:ARG:HB3	2.54	0.43
1:G:178:ARG:HB2	1:G:193:ALA:HB1	2.01	0.43
1:G:317:ARG:HG3	1:G:356:TRP:CH2	2.53	0.43
1:G:768:PHE:HB3	1:G:771:PHE:HE2	1.82	0.43
1:G:864:PRO:HG2	1:G:867:LEU:HD12	2.01	0.43
1:G:1091:GLU:HB2	1:G:1203:ASN:O	2.18	0.43
1:G:1201:HIS:CD2	1:G:1202:LEU:H	2.35	0.43
1:G:1685:LEU:HD23	1:G:1685:LEU:HA	1.75	0.43
1:G:2155:LEU:HD13	1:G:2188:ASN:OD1	2.19	0.43
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.18	0.43
1:G:2296:GLU:HA	1:G:2299:VAL:HG22	1.99	0.43
1:G:3962:PHE:HZ	1:G:3992:PHE:CE2	2.36	0.43
1:G:4552:LEU:O	1:G:4555:LEU:HB3	2.18	0.43
1:A:706:GLY:H	1:A:711:LEU:HD22	1.83	0.43
1:A:1040:CYS:O	1:A:1044:ARG:N	2.52	0.43
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	2.01	0.43
1:A:2142:TYR:CE2	1:A:2197:LEU:HB2	2.54	0.43
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	2.00	0.43
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.47	0.43
1:A:3716:LEU:N	1:A:3789:GLU:OE2	2.51	0.43
1:A:4010:ILE:HA	1:A:4013:LEU:HB3	2.01	0.43
1:A:4581:LYS:HD2	1:C:4856:PHE:CZ	2.50	0.43
1:A:4813:LEU:HD12	1:A:4814:LEU:N	2.34	0.43
1:C:119:SER:HB2	1:C:145:ALA:HB1	2.01	0.43
1:C:569:ILE:HG22	1:C:570:GLU:OE2	2.18	0.43
1:C:1143:TRP:HE3	1:C:1144:GLN:O	2.01	0.43
1:C:1666:THR:O	1:C:1669:LEU:HB3	2.19	0.43
1:E:276:TRP:CZ3	1:E:338:GLU:HB3	2.54	0.43
1:E:372:LEU:O	1:E:374:LYS:N	2.50	0.43
1:E:572:PRO:O	1:E:575:LEU:HB2	2.19	0.43
1:E:623:GLU:OE1	2:F:88:PRO:HA	2.18	0.43
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	2.00	0.43
1:E:1130:GLN:HB2	1:E:1138:PRO:HA	2.00	0.43
1:E:2155:LEU:HD13	1:E:2188:ASN:OD1	2.18	0.43
1:E:2902:HIS:H	1:E:2905:LEU:HD12	1.83	0.43
1:E:3835:LEU:HD22	1:E:3884:LEU:HD11	2.00	0.43
1:E:4143:VAL:O	1:E:4147:LEU:HG	2.17	0.43
1:E:4251:ILE:HG22	1:E:4557:ARG:NH1	2.33	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4997:ASN:OD1	1:E:4998:LYS:N	2.51	0.43
1:G:1297:PHE:HB2	1:G:1545:ASN:HA	2.01	0.43
1:G:1930:LYS:HG2	1:G:1931:LEU:N	2.33	0.43
1:G:4013:LEU:O	1:G:4017:LEU:HG	2.18	0.43
1:G:4036:VAL:HG12	1:G:4037:ASN:N	2.34	0.43
1:A:287:THR:O	1:A:405:HIS:CE1	2.72	0.43
1:A:548:VAL:O	1:A:551:LEU:HG	2.18	0.43
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.83	0.43
1:A:2123:LEU:HA	1:A:2123:LEU:HD23	1.77	0.43
1:A:2137:ALA:HA	1:A:2140:ARG:HH11	1.83	0.43
1:A:2338:ALA:O	1:A:2349:ASN:ND2	2.51	0.43
1:C:633:LEU:HD22	1:C:1663:HIS:HD2	1.84	0.43
1:C:2142:TYR:CE2	1:C:2197:LEU:HB2	2.53	0.43
1:C:3756:LYS:O	1:C:3760:LYS:HB2	2.18	0.43
1:C:3758:MET:HG3	1:C:3759:GLU:N	2.34	0.43
1:E:104:GLY:HA2	1:E:150:MET:O	2.18	0.43
1:E:1074:ILE:HG22	1:E:1075:PHE:N	2.34	0.43
1:E:1091:GLU:HB2	1:E:1203:ASN:O	2.18	0.43
1:E:1514:LEU:HD12	1:E:1514:LEU:N	2.34	0.43
1:E:1930:LYS:HG2	1:E:1931:LEU:N	2.34	0.43
1:E:3716:LEU:N	1:E:3789:GLU:OE2	2.51	0.43
1:E:3906:GLN:HG2	1:E:3909:ASN:HB2	2.01	0.43
1:E:4202:ARG:O	1:E:4206:GLU:HG2	2.19	0.43
1:E:4715:TYR:CG	1:E:4715:TYR:O	2.71	0.43
2:F:38:SER:O	2:F:41:ASP:HB2	2.18	0.43
1:G:561:LEU:CD2	1:G:598:LYS:HB3	2.48	0.43
1:G:569:ILE:HG22	1:G:570:GLU:OE2	2.19	0.43
1:G:714:TYR:HB2	1:G:757:PHE:CD2	2.53	0.43
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.82	0.43
1:G:1040:CYS:O	1:G:1044:ARG:N	2.51	0.43
1:G:2142:TYR:HE1	1:G:2196:ASN:ND2	2.17	0.43
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.54	0.43
1:G:4988:TYR:O	1:G:4991:PHE:HB3	2.17	0.43
1:A:80:GLU:OE1	1:G:3938:SER:OG	2.35	0.43
1:A:1088:TRP:CZ3	1:A:1226:PHE:HD1	2.36	0.43
1:A:1691:GLN:O	1:A:1695:LEU:HG	2.19	0.43
1:A:4833:ASN:OD1	1:A:4836:GLN:HG2	2.19	0.43
1:C:21:VAL:HG12	1:C:65:CYS:O	2.18	0.43
1:C:71:GLN:O	1:C:107:ILE:HA	2.18	0.43
1:C:222:LEU:HB3	1:C:388:LEU:HD22	2.00	0.43
1:C:593:HIS:HA	1:C:1597:VAL:HB	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:984:LEU:O	1:C:988:LEU:HG	2.19	0.43
1:C:1687:SER:OG	2:D:36:PHE:HB2	2.19	0.43
1:C:1808:ARG:HB2	1:C:1854:PHE:HE1	1.82	0.43
1:C:4251:ILE:HG22	1:C:4557:ARG:NH1	2.33	0.43
1:C:4910:GLU:HA	1:C:4913:ARG:HG2	2.00	0.43
1:E:245:VAL:HG21	1:E:300:VAL:HA	2.01	0.43
1:E:287:THR:O	1:E:405:HIS:CE1	2.72	0.43
1:E:317:ARG:HG3	1:E:356:TRP:CH2	2.54	0.43
1:E:660:GLY:HA2	1:E:750:LEU:HD22	2.00	0.43
1:E:1835:GLU:OE2	1:E:1935:VAL:HG23	2.18	0.43
1:E:3756:LYS:O	1:E:3760:LYS:HB2	2.19	0.43
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.53	0.43
1:E:4041:ALA:O	1:E:4044:MET:HB3	2.19	0.43
1:E:4645:CYS:O	1:E:4649:LEU:N	2.45	0.43
1:G:1459:GLN:HE21	1:G:1459:GLN:HB2	1.60	0.43
1:G:1676:LEU:HG	1:G:1721:GLU:OE2	2.18	0.43
1:G:1835:GLU:OE2	1:G:1935:VAL:HG23	2.18	0.43
1:G:2360:LYS:HA	1:G:2360:LYS:HD2	1.89	0.43
1:G:3935:TRP:HZ2	1:G:3994:HIS:HE1	1.66	0.43
1:G:4976:GLU:HB2	1:G:4980:LEU:HD12	1.99	0.43
1:G:4983:HIS:C	1:G:4985:LEU:N	2.67	0.43
1:A:717:ASP:CG	2:B:7:ILE:HA	2.39	0.43
1:A:788:LYS:HB2	1:A:1629:GLN:HG3	2.00	0.43
1:C:372:LEU:O	1:C:374:LYS:N	2.51	0.43
1:C:685:GLY:O	1:C:780:VAL:HB	2.18	0.43
1:C:1723:ALA:O	1:C:1727:ARG:HB2	2.19	0.43
1:C:2155:LEU:HD13	1:C:2188:ASN:OD1	2.19	0.43
1:C:2902:HIS:H	1:C:2905:LEU:HD12	1.83	0.43
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.24	0.43
1:C:4039:MET:HG3	1:C:4040:ILE:N	2.34	0.43
1:C:4802:GLY:HA2	1:C:4809:PHE:HB2	2.00	0.43
1:E:60:PRO:O	1:E:290:TYR:OH	2.33	0.43
1:E:203:ASN:OD1	1:E:204:PRO:HD2	2.18	0.43
1:E:702:TRP:HZ2	1:E:1640:HIS:HD1	1.67	0.43
1:E:1087:ARG:HH11	1:E:1223:PHE:HE1	1.65	0.43
1:E:1848:LEU:HD12	1:E:1851:MET:SD	2.59	0.43
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.18	0.43
1:E:4851:TYR:HB3	1:E:4916:PHE:CZ	2.53	0.43
1:G:104:GLY:HA2	1:G:150:MET:O	2.19	0.43
1:G:572:PRO:O	1:G:575:LEU:HB2	2.19	0.43
1:G:758:ARG:HH12	1:G:763:PRO:HD3	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1078:GLU:HB2	1:G:1235:THR:OG1	2.18	0.43
1:G:1110:ARG:HB2	1:G:1113:VAL:HG23	2.01	0.43
1:G:1152:MET:SD	1:G:1223:PHE:HD2	2.42	0.43
1:G:2424:SER:HA	1:G:2427:ALA:HB3	2.00	0.43
1:G:3877:ASP:O	1:G:3880:PHE:HB3	2.19	0.43
1:G:4555:LEU:HD11	1:G:4656:LEU:HG	1.99	0.43
1:G:4737:ILE:O	1:G:4740:LEU:HB3	2.19	0.43
1:A:21:VAL:HG12	1:A:65:CYS:O	2.18	0.43
1:A:116:MET:HE2	1:A:139:GLU:OE2	2.19	0.43
1:A:179:TYR:OH	1:G:2359:ARG:CZ	2.66	0.43
1:A:317:ARG:HG3	1:A:356:TRP:CH2	2.53	0.43
1:A:864:PRO:HG2	1:A:867:LEU:HD12	2.01	0.43
1:A:1930:LYS:HG2	1:A:1931:LEU:N	2.33	0.43
1:A:4039:MET:HG3	1:A:4040:ILE:N	2.34	0.43
1:A:4843:LEU:O	1:A:4847:VAL:HG23	2.18	0.43
2:B:73:LYS:HA	2:B:99:PHE:O	2.19	0.43
1:C:287:THR:O	1:C:405:HIS:CE1	2.72	0.43
1:C:1287:LEU:HD13	1:C:1556:PRO:HD3	2.01	0.43
1:C:4836:GLN:HB3	1:C:4935:LEU:HD11	2.00	0.43
1:C:4887:MET:HA	1:C:4891:VAL:HG23	1.99	0.43
1:E:103:TYR:CE2	1:E:157:ARG:HB3	2.54	0.43
1:E:178:ARG:HB2	1:E:193:ALA:HB1	2.01	0.43
1:E:222:LEU:HB3	1:E:388:LEU:HD22	2.00	0.43
1:E:445:LEU:HD23	1:E:521:LEU:HG	2.01	0.43
1:E:647:ASN:N	1:E:822:ARG:O	2.52	0.43
1:E:717:ASP:CG	2:F:7:ILE:HA	2.39	0.43
1:E:737:LEU:HD11	2:F:7:ILE:CG2	2.44	0.43
1:E:1152:MET:SD	1:E:1223:PHE:HD2	2.42	0.43
1:E:1294:PRO:O	1:E:1584:ARG:NE	2.52	0.43
1:E:1440:PHE:CB	1:E:1512:THR:HG22	2.49	0.43
1:E:1691:GLN:O	1:E:1695:LEU:HG	2.19	0.43
1:E:3758:MET:HG3	1:E:3759:GLU:N	2.34	0.43
1:E:4181:ILE:HD11	1:E:4193:ILE:HD11	2.01	0.43
1:E:4826:ILE:HD11	1:G:4839:MET:CE	2.48	0.43
1:E:4836:GLN:HB3	1:E:4935:LEU:HD11	2.01	0.43
1:E:4892:ARG:HG3	1:G:4921:PHE:CE1	2.54	0.43
1:E:4920:PHE:O	1:E:4924:VAL:HB	2.19	0.43
1:G:145:ALA:HA	1:G:175:SER:HB3	2.01	0.43
1:G:317:ARG:N	1:G:347:PHE:O	2.52	0.43
1:G:758:ARG:HA	1:G:763:PRO:HA	2.01	0.43
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1762:LEU:HD21	1:G:1860:LYS:NZ	2.34	0.43
1:G:2123:LEU:HD23	1:G:2123:LEU:HA	1.72	0.43
1:G:2197:LEU:O	1:G:2201:LEU:HG	2.19	0.43
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	2.00	0.43
1:G:4183:ILE:HD13	1:G:4193:ILE:HD13	2.01	0.43
1:A:50:GLU:CD	1:A:51:PRO:HD2	2.38	0.42
1:A:1078:GLU:HB2	1:A:1235:THR:OG1	2.18	0.42
1:A:2500:ALA:HA	1:A:2556:LEU:HD21	2.01	0.42
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	2.19	0.42
1:A:3758:MET:HG3	1:A:3759:GLU:N	2.34	0.42
1:A:4059:LEU:HA	1:A:4062:PHE:HD2	1.84	0.42
1:A:4218:ILE:HG22	1:A:4950:VAL:HG13	2.01	0.42
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.19	0.42
2:B:38:SER:O	2:B:41:ASP:HB2	2.18	0.42
1:C:21:VAL:HG23	1:C:203:ASN:HB3	1.99	0.42
1:C:445:LEU:HD23	1:C:521:LEU:HG	2.01	0.42
1:C:717:ASP:CG	2:D:7:ILE:HA	2.39	0.42
1:C:788:LYS:HB2	1:C:1629:GLN:HG3	2.00	0.42
1:C:1074:ILE:HG22	1:C:1075:PHE:N	2.34	0.42
1:C:1294:PRO:O	1:C:1584:ARG:NE	2.52	0.42
1:C:1845:VAL:HG13	1:C:1854:PHE:HE2	1.84	0.42
1:C:1855:GLY:O	1:C:1858:ASP:HB2	2.19	0.42
1:C:2458:ARG:O	1:C:2464:ASP:N	2.52	0.42
1:C:4059:LEU:HA	1:C:4062:PHE:HD2	1.84	0.42
1:C:4208:PRO:HG2	1:C:4210:VAL:HG23	2.01	0.42
1:C:4791:TYR:OH	1:C:4815:ASP:HA	2.19	0.42
1:E:317:ARG:N	1:E:347:PHE:O	2.52	0.42
1:E:561:LEU:CD2	1:E:598:LYS:HB3	2.48	0.42
1:E:1723:ALA:O	1:E:1727:ARG:HB2	2.19	0.42
1:E:4010:ILE:HA	1:E:4013:LEU:HB3	2.01	0.42
1:G:233:ILE:O	1:G:257:ARG:HD2	2.18	0.42
1:G:642:THR:OG1	1:G:1617:THR:HG21	2.19	0.42
1:G:984:LEU:O	1:G:988:LEU:HG	2.18	0.42
1:G:1087:ARG:HH11	1:G:1223:PHE:HE1	1.65	0.42
1:G:1130:GLN:HB2	1:G:1138:PRO:HA	2.00	0.42
1:G:1294:PRO:O	1:G:1584:ARG:NE	2.52	0.42
1:G:2094:LEU:O	1:G:2098:VAL:HG23	2.19	0.42
1:G:2556:LEU:HD23	1:G:2559:LEU:CD1	2.49	0.42
1:G:3724:ALA:O	1:G:3727:ASP:HB2	2.19	0.42
1:G:3933:PHE:O	1:G:3937:TYR:HD2	2.01	0.42
1:G:4033:GLY:HA2	1:G:4189:ARG:NH1	2.25	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4582:VAL:HB	1:G:4628:VAL:HG12	2.01	0.42
1:A:984:LEU:O	1:A:988:LEU:HG	2.19	0.42
1:A:1152:MET:SD	1:A:1223:PHE:HD2	2.42	0.42
1:A:2155:LEU:HD13	1:A:2188:ASN:OD1	2.19	0.42
1:A:4851:TYR:HB3	1:A:4916:PHE:CZ	2.54	0.42
1:A:4898:GLY:CA	1:G:4888:TYR:OH	2.67	0.42
1:A:4920:PHE:O	1:A:4924:VAL:HB	2.20	0.42
1:C:548:VAL:O	1:C:551:LEU:HG	2.18	0.42
1:C:771:PHE:HE1	1:C:1472:VAL:HG13	1.84	0.42
1:C:1586:ASN:O	1:C:1588:ALA:N	2.49	0.42
1:C:1768:THR:C	1:C:1769:THR:HG1	2.20	0.42
1:C:1858:ASP:O	1:C:1862:ILE:HG12	2.18	0.42
1:C:2424:SER:HA	1:C:2427:ALA:HB3	2.01	0.42
1:C:2500:ALA:HA	1:C:2556:LEU:HD21	2.00	0.42
1:E:514:SER:O	1:E:518:ILE:HG13	2.19	0.42
1:E:548:VAL:O	1:E:551:LEU:HG	2.18	0.42
1:E:607:CYS:HB2	1:E:1672:ALA:HB1	2.01	0.42
1:E:771:PHE:HE1	1:E:1472:VAL:HG13	1.84	0.42
1:E:1087:ARG:HD2	1:E:1223:PHE:CE1	2.54	0.42
1:E:1689:VAL:HG22	1:E:1694:LEU:HD11	2.01	0.42
1:E:2137:ALA:HA	1:E:2140:ARG:HH11	1.83	0.42
1:E:2197:LEU:O	1:E:2201:LEU:HG	2.18	0.42
1:E:4055:VAL:O	1:E:4059:LEU:HG	2.19	0.42
1:G:340:LYS:HG3	1:G:342:GLY:N	2.35	0.42
1:G:660:GLY:HA2	1:G:750:LEU:HD22	2.01	0.42
1:G:828:GLU:HG3	1:G:840:VAL:HG21	2.01	0.42
1:G:1687:SER:OG	2:H:36:PHE:HB2	2.20	0.42
1:G:4141:PHE:CE1	1:G:4178:LEU:HA	2.54	0.42
1:A:178:ARG:CZ	1:G:2460:LEU:HD12	2.49	0.42
1:A:203:ASN:OD1	1:A:204:PRO:HD2	2.18	0.42
1:A:533:ASN:OD1	1:A:535:ALA:N	2.42	0.42
1:A:1835:GLU:OE2	1:A:1935:VAL:HG23	2.18	0.42
1:A:3916:ILE:O	1:A:3919:THR:HG22	2.19	0.42
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.19	0.42
1:A:4582:VAL:HG12	1:A:4629:TYR:HD1	1.85	0.42
1:A:4717:ASP:O	1:A:4719:PHE:N	2.48	0.42
1:C:314:PHE:HB3	1:C:348:VAL:CG1	2.49	0.42
1:C:1091:GLU:HB2	1:C:1203:ASN:O	2.18	0.42
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	2.00	0.42
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.93	0.42
1:E:520:ASN:HB2	1:E:556:ALA:HB1	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:593:HIS:HA	1:E:1597:VAL:HB	2.00	0.42
1:E:633:LEU:HD22	1:E:1663:HIS:HD2	1.85	0.42
1:E:887:ILE:CG2	1:E:962:SER:HB2	2.48	0.42
1:E:1227:ALA:HA	1:E:1230:MET:HG2	2.01	0.42
1:E:1459:GLN:HE21	1:E:1459:GLN:HB2	1.54	0.42
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	2.00	0.42
1:E:2431:ASP:HB2	1:E:2501:SER:HA	2.01	0.42
1:E:3916:ILE:O	1:E:3919:THR:HG22	2.19	0.42
1:E:4034:ASN:HD21	1:E:4040:ILE:CG2	2.33	0.42
1:E:4041:ALA:O	1:E:4045:VAL:HG23	2.20	0.42
1:E:4073:GLY:H	1:E:4128:PHE:HE2	1.68	0.42
1:E:4214:LYS:HE2	1:E:4985:LEU:HD23	1.99	0.42
1:E:4710:SER:OG	1:E:4772:ASP:OD2	2.35	0.42
1:G:245:VAL:HG21	1:G:300:VAL:HA	2.01	0.42
1:G:670:GLU:O	1:G:787:VAL:HG13	2.19	0.42
1:G:788:LYS:HB2	1:G:1629:GLN:HG3	2.00	0.42
1:G:927:GLU:O	1:G:930:LYS:HB2	2.19	0.42
1:G:1074:ILE:HG22	1:G:1075:PHE:N	2.34	0.42
1:G:4013:LEU:O	1:G:4017:LEU:N	2.52	0.42
1:G:4118:ASP:O	1:G:4120:ASN:N	2.52	0.42
1:G:4832:HIS:CE1	1:G:4833:ASN:HB2	2.54	0.42
2:H:7:ILE:HG13	2:H:73:LYS:N	2.35	0.42
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.20	0.42
1:A:14:LEU:HD12	1:A:163:VAL:HG12	2.00	0.42
1:A:71:GLN:O	1:A:107:ILE:HA	2.18	0.42
1:A:359:TYR:OH	1:A:385:ASP:OD2	2.28	0.42
1:A:737:LEU:HB3	1:A:738:LEU:H	1.56	0.42
1:A:1676:LEU:HG	1:A:1721:GLU:OE2	2.19	0.42
2:B:92:PRO:HA	2:B:93:PRO:HD3	1.91	0.42
1:C:35:LEU:HD13	1:C:49:LEU:HB3	2.00	0.42
1:C:103:TYR:CE2	1:C:157:ARG:HB3	2.54	0.42
1:C:245:VAL:HG21	1:C:300:VAL:HA	2.01	0.42
1:C:1040:CYS:O	1:C:1044:ARG:N	2.52	0.42
1:C:1130:GLN:HB2	1:C:1138:PRO:HA	2.00	0.42
1:C:1864:LYS:NZ	1:C:1869:GLU:C	2.73	0.42
1:C:2338:ALA:O	1:C:2349:ASN:ND2	2.52	0.42
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.19	0.42
1:C:4653:VAL:O	1:C:4657:CYS:N	2.45	0.42
1:C:4920:PHE:O	1:C:4924:VAL:HB	2.19	0.42
1:E:1133:HIS:CE1	1:E:1134:LEU:HG	2.55	0.42
1:E:1687:SER:OG	2:F:36:PHE:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2359:ARG:CZ	1:G:179:TYR:OH	2.67	0.42
1:G:1227:ALA:HA	1:G:1230:MET:HG2	2.01	0.42
1:G:1855:GLY:O	1:G:1858:ASP:HB2	2.19	0.42
1:G:2142:TYR:CE2	1:G:2197:LEU:HB2	2.54	0.42
1:G:2806:ARG:HB3	1:G:2810:LYS:HE3	2.01	0.42
1:G:4137:ARG:HD2	1:G:4177:TYR:CE2	2.55	0.42
1:G:4997:ASN:OD1	1:G:4998:LYS:N	2.52	0.42
1:A:771:PHE:HE1	1:A:1472:VAL:HG13	1.84	0.42
1:A:1119:GLU:C	1:A:1133:HIS:HE2	2.22	0.42
1:A:1452:TRP:HB3	1:A:1550:PRO:HA	2.02	0.42
1:A:2258:LEU:HA	1:A:2261:SER:OG	2.20	0.42
1:A:2431:ASP:HB2	1:A:2501:SER:HA	2.01	0.42
1:A:3718:GLU:HG3	1:A:3719:ASP:N	2.35	0.42
1:A:4073:GLY:H	1:A:4128:PHE:HE2	1.67	0.42
1:A:4826:ILE:CG1	1:C:4839:MET:CE	2.98	0.42
1:A:5004:THR:O	1:A:5007:GLU:HG2	2.20	0.42
2:B:42:ARG:C	2:B:44:LYS:H	2.23	0.42
2:B:74:LEU:O	2:B:98:VAL:HA	2.18	0.42
1:C:702:TRP:HZ2	1:C:1640:HIS:HD1	1.68	0.42
1:C:1835:GLU:OE2	1:C:1935:VAL:HG23	2.18	0.42
1:C:1857:GLU:O	1:C:1860:LYS:HB2	2.20	0.42
1:C:3811:GLU:HG2	1:C:3812:VAL:N	2.35	0.42
2:D:16:PRO:HG3	2:D:106:LEU:HD21	2.02	0.42
1:E:35:LEU:HD13	1:E:49:LEU:HB3	2.00	0.42
1:E:1808:ARG:HB2	1:E:1854:PHE:HE1	1.84	0.42
1:G:287:THR:O	1:G:405:HIS:CE1	2.72	0.42
1:G:514:SER:O	1:G:518:ILE:HG13	2.19	0.42
1:G:548:VAL:O	1:G:551:LEU:HG	2.19	0.42
1:G:580:GLU:HB3	1:G:620:LEU:HD11	2.02	0.42
1:G:1799:SER:HA	1:G:1800:PRO:HD2	1.92	0.42
1:G:2819:TRP:HH2	1:G:2881:ASN:HB2	1.84	0.42
1:G:2879:ALA:HB2	1:G:2920:ARG:HA	2.00	0.42
1:G:3968:TYR:O	1:G:3976:ASN:ND2	2.52	0.42
1:G:4219:PHE:O	1:G:4223:ASN:HB2	2.19	0.42
1:G:4789:PHE:O	1:G:4793:GLY:N	2.46	0.42
1:A:178:ARG:HB2	1:A:193:ALA:HB1	2.01	0.42
1:A:216:GLY:HA3	1:A:264:PRO:CD	2.50	0.42
1:A:245:VAL:HG21	1:A:300:VAL:HA	2.00	0.42
1:A:276:TRP:CZ3	1:A:338:GLU:HB3	2.54	0.42
1:A:1834:VAL:HG13	1:A:1835:GLU:H	1.85	0.42
1:A:2745:VAL:CG2	1:A:2818:ALA:HB2	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.55	0.42
1:A:3756:LYS:O	1:A:3760:LYS:HB2	2.19	0.42
1:A:3970:GLN:HE21	1:A:5004:THR:CA	2.29	0.42
1:A:4888:TYR:OH	1:C:4898:GLY:O	2.38	0.42
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.86	0.42
1:C:1110:ARG:HB2	1:C:1113:VAL:HG23	2.00	0.42
1:C:1459:GLN:HE21	1:C:1459:GLN:HB2	1.56	0.42
1:C:1676:LEU:HG	1:C:1721:GLU:OE2	2.19	0.42
1:C:1819:VAL:HG22	1:C:1926:LEU:HD13	2.01	0.42
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.54	0.42
1:C:3732:SER:HB2	1:C:3766:GLN:HB3	2.02	0.42
1:C:4876:CYS:HB2	1:C:4877:ASP:H	1.54	0.42
1:C:4944:ARG:O	1:C:4947:GLN:HB2	2.20	0.42
1:C:4978:HIS:ND1	1:C:4982:GLU:OE1	2.53	0.42
1:E:864:PRO:HG2	1:E:867:LEU:HD12	2.01	0.42
1:E:1297:PHE:HB2	1:E:1545:ASN:HA	2.01	0.42
1:E:2460:LEU:HD21	1:G:131:LEU:HB2	2.01	0.42
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.55	0.42
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.20	0.42
1:E:4826:ILE:HG12	1:G:4839:MET:HE1	2.00	0.42
1:E:4941:GLY:O	1:E:4945:ASP:HB2	2.19	0.42
1:G:276:TRP:CZ3	1:G:338:GLU:HB3	2.54	0.42
1:G:706:GLY:H	1:G:711:LEU:HD22	1.84	0.42
1:G:1087:ARG:HD2	1:G:1223:PHE:CE1	2.55	0.42
1:G:1723:ALA:O	1:G:1727:ARG:HB2	2.19	0.42
1:G:2338:ALA:O	1:G:2349:ASN:ND2	2.52	0.42
1:G:2458:ARG:O	1:G:2464:ASP:N	2.53	0.42
1:G:3806:ASN:OD1	1:G:3807:GLY:N	2.52	0.42
1:G:4048:LEU:HA	1:G:4051:SER:OG	2.20	0.42
1:G:4055:VAL:O	1:G:4059:LEU:HG	2.19	0.42
1:G:4582:VAL:HG12	1:G:4629:TYR:HD1	1.84	0.42
1:G:4639:MET:HG3	1:G:4640:GLU:N	2.34	0.42
1:G:4792:LEU:O	1:G:4795:TYR:HB3	2.19	0.42
1:A:317:ARG:N	1:A:347:PHE:O	2.52	0.42
1:A:828:GLU:HG3	1:A:840:VAL:HG21	2.01	0.42
1:A:910:PHE:CG	1:A:918:ARG:HB3	2.55	0.42
1:A:1091:GLU:HB2	1:A:1203:ASN:O	2.19	0.42
1:A:1762:LEU:HD21	1:A:1860:LYS:NZ	2.34	0.42
1:A:2430:ILE:HG23	1:A:2501:SER:HB2	2.01	0.42
1:A:4710:SER:OG	1:A:4772:ASP:OD2	2.36	0.42
1:A:4914:VAL:O	1:A:4918:ILE:HG13	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4921:PHE:HA	1:A:4925:ILE:CG1	2.49	0.42
1:C:178:ARG:HB2	1:C:193:ALA:HB1	2.01	0.42
1:C:647:ASN:N	1:C:822:ARG:O	2.52	0.42
1:C:660:GLY:HA2	1:C:750:LEU:HD22	2.01	0.42
1:C:758:ARG:HD3	1:C:761:GLY:HA2	2.02	0.42
1:C:1087:ARG:HD2	1:C:1223:PHE:CE1	2.54	0.42
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.92	0.42
1:C:2123:LEU:HD23	1:C:2123:LEU:HA	1.77	0.42
1:C:3651:ASN:HA	1:C:3654:LEU:HD12	2.02	0.42
1:C:4073:GLY:H	1:C:4128:PHE:HE2	1.68	0.42
1:C:4717:ASP:O	1:C:4719:PHE:N	2.48	0.42
1:E:145:ALA:HA	1:E:175:SER:HB3	2.02	0.42
1:E:175:SER:OG	1:E:176:SER:N	2.53	0.42
1:E:1099:GLU:H	1:E:1198:GLN:NE2	2.18	0.42
1:E:1110:ARG:HB2	1:E:1113:VAL:HG23	2.01	0.42
1:E:1768:THR:C	1:E:1769:THR:HG1	2.18	0.42
1:E:4208:PRO:HG2	1:E:4210:VAL:HG23	2.02	0.42
1:G:102:LEU:HD23	1:G:162:LYS:HA	2.01	0.42
1:G:222:LEU:HB3	1:G:388:LEU:HD22	2.00	0.42
1:G:771:PHE:HE1	1:G:1472:VAL:HG13	1.84	0.42
1:G:1848:LEU:HD12	1:G:1851:MET:SD	2.59	0.42
1:G:2431:ASP:HB2	1:G:2501:SER:HA	2.00	0.42
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.55	0.42
1:G:4090:LYS:CB	1:G:4112:LEU:HD21	2.50	0.42
1:G:4949:GLN:NE2	1:G:4953:ASP:OD1	2.52	0.42
2:H:92:PRO:HA	2:H:93:PRO:HD3	1.89	0.42
1:A:175:SER:OG	1:A:176:SER:N	2.53	0.42
1:A:514:SER:O	1:A:518:ILE:HG13	2.19	0.42
1:A:537:CYS:HB3	1:A:571:SER:HB3	2.02	0.42
1:A:647:ASN:N	1:A:822:ARG:O	2.53	0.42
1:A:1689:VAL:HG22	1:A:1694:LEU:HD11	2.01	0.42
1:A:3651:ASN:HA	1:A:3654:LEU:HD12	2.02	0.42
1:A:4202:ARG:O	1:A:4206:GLU:HG2	2.19	0.42
1:A:4208:PRO:HG2	1:A:4210:VAL:HG23	2.01	0.42
1:A:4834:GLY:O	1:A:4837:LEU:HB3	2.20	0.42
1:A:5011:TRP:O	1:A:5015:GLN:HG2	2.20	0.42
1:C:116:MET:HE2	1:C:139:GLU:OE2	2.20	0.42
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.55	0.42
1:C:1654:SER:HB2	1:C:1704:PRO:HB3	2.02	0.42
1:C:1762:LEU:HD21	1:C:1860:LYS:NZ	2.35	0.42
1:C:2094:LEU:O	1:C:2098:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2258:LEU:HA	1:C:2261:SER:OG	2.20	0.42
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.68	0.42
1:C:3838:THR:C	1:C:3839:CYS:SG	2.98	0.42
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.19	0.42
1:E:670:GLU:O	1:E:787:VAL:HG13	2.19	0.42
1:E:1654:SER:HB2	1:E:1704:PRO:HB3	2.02	0.42
1:E:1779:PRO:HA	1:E:1780:PRO:HD3	1.78	0.42
1:E:1819:VAL:HG22	1:E:1926:LEU:HD13	2.02	0.42
1:E:1834:VAL:HG13	1:E:1835:GLU:H	1.84	0.42
1:E:2437:ALA:HB1	1:E:2454:ARG:NE	2.35	0.42
1:E:4717:ASP:O	1:E:4719:PHE:N	2.48	0.42
1:E:4887:MET:HA	1:E:4891:VAL:CG2	2.49	0.42
1:G:78:LEU:HA	1:G:81:MET:HG2	2.02	0.42
1:G:119:SER:HB2	1:G:145:ALA:HB1	2.01	0.42
1:G:633:LEU:HD22	1:G:1663:HIS:HD2	1.84	0.42
1:G:1133:HIS:CE1	1:G:1134:LEU:HG	2.55	0.42
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.93	0.42
1:G:1748:PHE:HA	1:G:1749:PRO:HD2	1.75	0.42
1:G:1783:VAL:HG11	2:H:55:VAL:HG12	2.02	0.42
1:G:2110:TYR:O	1:G:2110:TYR:CD2	2.73	0.42
1:G:2199:ARG:NE	1:G:2249:SER:OG	2.51	0.42
1:G:2258:LEU:HA	1:G:2261:SER:OG	2.20	0.42
1:G:4088:ILE:O	1:G:4123:ILE:N	2.45	0.42
1:G:4990:PHE:O	1:G:4993:MET:HG2	2.19	0.42
1:A:69:LEU:HD13	1:A:101:LEU:HD11	2.00	0.42
1:A:145:ALA:HA	1:A:175:SER:HB3	2.02	0.42
1:A:1245:PHE:CE2	1:A:1646:ARG:NH1	2.88	0.42
1:A:1287:LEU:HD13	1:A:1556:PRO:HD3	2.02	0.42
1:A:1654:SER:HB2	1:A:1704:PRO:HB3	2.02	0.42
1:A:1666:THR:O	1:A:1669:LEU:HB3	2.19	0.42
1:A:1855:GLY:O	1:A:1858:ASP:HB2	2.19	0.42
1:A:2094:LEU:O	1:A:2098:VAL:HG23	2.19	0.42
1:A:4839:MET:HE2	1:G:4826:ILE:CG1	2.50	0.42
1:A:4887:MET:HA	1:A:4891:VAL:CG2	2.50	0.42
1:C:102:LEU:HD23	1:C:162:LYS:HA	2.02	0.42
1:C:317:ARG:HG3	1:C:356:TRP:CH2	2.54	0.42
1:C:572:PRO:O	1:C:575:LEU:HB2	2.19	0.42
1:C:1099:GLU:H	1:C:1198:GLN:NE2	2.18	0.42
1:C:1729:SER:HB2	1:C:2163:ARG:HH11	1.82	0.42
1:C:4036:VAL:HG12	1:C:4037:ASN:N	2.35	0.42
1:C:4943:LEU:O	1:C:4947:GLN:HG2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:454:PRO:HA	1:E:455:PRO:HD3	1.86	0.42
1:E:1078:GLU:HB2	1:E:1235:THR:OG1	2.18	0.42
1:E:1855:GLY:O	1:E:1858:ASP:HB2	2.19	0.42
1:E:1856:ASP:H	1:E:1857:GLU:CB	2.30	0.42
1:E:2258:LEU:HA	1:E:2261:SER:OG	2.20	0.42
1:E:2358:ILE:HG21	1:G:195:PHE:CE2	2.55	0.42
1:E:3811:GLU:HG2	1:E:3812:VAL:N	2.35	0.42
1:E:3838:THR:C	1:E:3839:CYS:SG	2.98	0.42
1:E:3933:PHE:O	1:E:3937:TYR:HD2	2.03	0.42
1:E:4636:THR:O	1:E:4639:MET:HE2	2.20	0.42
1:E:4943:LEU:O	1:E:4947:GLN:HG2	2.20	0.42
1:G:828:GLU:OE2	1:G:831:ARG:HA	2.20	0.42
1:G:975:VAL:HG21	1:G:1044:ARG:CB	2.47	0.42
1:G:1616:GLU:HG3	1:G:1617:THR:HG23	2.02	0.42
1:G:1864:LYS:NZ	1:G:1869:GLU:C	2.73	0.42
1:G:2745:VAL:HB	1:G:2814:LYS:HB3	2.00	0.42
1:G:3703:LEU:HD23	1:G:3703:LEU:O	2.19	0.42
1:A:246:TYR:CE2	1:A:373:LYS:HD3	2.54	0.42
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	2.00	0.42
1:A:1133:HIS:CE1	1:A:1134:LEU:HG	2.55	0.42
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.93	0.42
1:A:1808:ARG:HB2	1:A:1854:PHE:HE1	1.83	0.42
1:A:1945:TYR:O	1:A:1949:GLN:HG2	2.20	0.42
1:A:2424:SER:HA	1:A:2427:ALA:HB3	2.01	0.42
1:A:3881:THR:O	1:A:3885:PHE:HD2	2.03	0.42
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.53	0.42
1:A:4041:ALA:O	1:A:4044:MET:HB3	2.19	0.42
1:A:4823:LEU:HG	1:A:4826:ILE:HD12	2.01	0.42
1:A:4842:GLY:O	1:A:4846:VAL:HG23	2.20	0.42
1:C:828:GLU:HG3	1:C:840:VAL:HG21	2.01	0.42
1:C:927:GLU:O	1:C:930:LYS:HB2	2.20	0.42
1:C:1288:PHE:O	1:C:1603:VAL:HG13	2.20	0.42
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	2.01	0.42
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	2.20	0.42
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.54	0.42
1:C:4041:ALA:O	1:C:4045:VAL:HG23	2.20	0.42
1:E:119:SER:HB2	1:E:145:ALA:HB1	2.01	0.42
1:E:1783:VAL:HG11	2:F:55:VAL:HG12	2.01	0.42
1:E:2463:LEU:N	1:E:2510:TYR:OH	2.50	0.42
1:E:2806:ARG:HB3	1:E:2810:LYS:HE3	2.02	0.42
1:E:4154:VAL:HA	1:E:4155:PRO:HD2	1.88	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:537:CYS:HB3	1:G:571:SER:HB3	2.02	0.42
1:G:612:VAL:HA	1:G:2167:ILE:HG23	2.02	0.42
1:G:1452:TRP:HB3	1:G:1550:PRO:HA	2.02	0.42
1:G:1748:PHE:HE1	1:G:2072:LEU:C	2.23	0.42
1:G:1857:GLU:O	1:G:1860:LYS:HB2	2.20	0.42
1:G:3774:GLY:HA2	1:G:3815:LYS:HZ1	1.85	0.42
1:G:3980:LEU:HA	1:G:3983:SER:CB	2.50	0.42
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.20	0.42
1:G:5006:GLN:O	1:G:5010:VAL:HG23	2.19	0.42
1:A:2359:ARG:CZ	1:C:179:TYR:OH	2.68	0.41
1:A:2449:GLU:O	1:A:2452:ARG:HB2	2.20	0.41
1:A:4041:ALA:O	1:A:4045:VAL:HG23	2.20	0.41
1:C:40:GLU:OE2	1:C:406:SER:HB2	2.20	0.41
1:C:246:TYR:CE2	1:C:373:LYS:HD3	2.55	0.41
1:C:346:CYS:O	1:C:388:LEU:HB2	2.19	0.41
1:C:582:HIS:O	1:C:585:SER:HB2	2.20	0.41
1:C:1245:PHE:CE2	1:C:1646:ARG:NH1	2.88	0.41
1:C:1294:PRO:CD	1:C:1584:ARG:HH11	2.19	0.41
1:C:1297:PHE:HB2	1:C:1545:ASN:HA	2.02	0.41
1:C:1457:TYR:O	1:C:1458:HIS:CG	2.73	0.41
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.55	0.41
1:C:2558:VAL:O	1:C:2561:LEU:HG	2.20	0.41
1:C:2887:GLY:O	1:C:2891:LYS:HG3	2.20	0.41
1:C:3881:THR:O	1:C:3885:PHE:HD2	2.03	0.41
1:C:4710:SER:OG	1:C:4772:ASP:OD2	2.36	0.41
1:C:4892:ARG:CZ	1:E:4896:GLY:CA	2.87	0.41
1:E:78:LEU:HA	1:E:81:MET:HG2	2.02	0.41
1:E:1119:GLU:C	1:E:1133:HIS:HE2	2.22	0.41
1:E:1452:TRP:HB3	1:E:1550:PRO:HA	2.02	0.41
1:E:2458:ARG:O	1:E:2464:ASP:N	2.53	0.41
1:E:4208:PRO:HB2	1:E:4209:GLN:H	1.61	0.41
1:E:5011:TRP:O	1:E:5015:GLN:HG2	2.20	0.41
1:G:445:LEU:HD23	1:G:521:LEU:HG	2.01	0.41
1:G:582:HIS:O	1:G:585:SER:HB2	2.20	0.41
1:G:758:ARG:HD3	1:G:761:GLY:HA2	2.01	0.41
1:G:910:PHE:CG	1:G:918:ARG:HB3	2.55	0.41
1:G:1457:TYR:O	1:G:1458:HIS:CG	2.73	0.41
1:G:1834:VAL:HG13	1:G:1835:GLU:H	1.85	0.41
1:G:2123:LEU:HD23	1:G:2126:ARG:HD2	2.02	0.41
1:G:2336:ARG:HH11	1:G:2431:ASP:HB3	1.84	0.41
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4164:LEU:O	1:G:4168:GLU:N	2.53	0.41
2:H:38:SER:O	2:H:41:ASP:HB2	2.19	0.41
1:A:73:LEU:O	1:A:105:HIS:HB3	2.19	0.41
1:A:1294:PRO:O	1:A:1584:ARG:NE	2.52	0.41
1:A:1845:VAL:HG13	1:A:1854:PHE:HE2	1.84	0.41
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.55	0.41
1:A:2458:ARG:O	1:A:2464:ASP:N	2.52	0.41
1:A:3732:SER:HB2	1:A:3766:GLN:HB3	2.01	0.41
1:A:4034:ASN:HD21	1:A:4040:ILE:CG2	2.33	0.41
1:A:4036:VAL:HG12	1:A:4037:ASN:N	2.36	0.41
1:A:4055:VAL:O	1:A:4059:LEU:HG	2.20	0.41
1:A:4058:ILE:HG13	1:A:4059:LEU:N	2.35	0.41
1:C:165:VAL:HG13	1:C:204:PRO:HD3	2.01	0.41
1:C:317:ARG:N	1:C:347:PHE:O	2.52	0.41
1:C:537:CYS:HB3	1:C:571:SER:HB3	2.02	0.41
1:C:670:GLU:O	1:C:787:VAL:HG13	2.19	0.41
1:C:768:PHE:HB3	1:C:771:PHE:CE2	2.56	0.41
1:C:864:PRO:HG2	1:C:867:LEU:HD12	2.02	0.41
1:C:1119:GLU:C	1:C:1133:HIS:HE2	2.21	0.41
1:C:1514:LEU:N	1:C:1514:LEU:CD1	2.84	0.41
1:C:4010:ILE:HA	1:C:4013:LEU:HB3	2.01	0.41
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.36	0.41
1:C:4055:VAL:O	1:C:4059:LEU:HG	2.20	0.41
1:C:4636:THR:O	1:C:4639:MET:HE2	2.20	0.41
1:C:4866:SER:O	1:C:4868:ASP:N	2.53	0.41
1:C:5011:TRP:O	1:C:5015:GLN:HG2	2.20	0.41
1:E:927:GLU:O	1:E:930:LYS:HB2	2.19	0.41
1:E:1245:PHE:CE2	1:E:1646:ARG:NH1	2.88	0.41
1:E:2868:SER:O	1:E:2872:GLN:N	2.48	0.41
1:E:3651:ASN:HA	1:E:3654:LEU:HD12	2.02	0.41
1:E:3718:GLU:HG3	1:E:3719:ASP:N	2.35	0.41
1:E:4059:LEU:HA	1:E:4062:PHE:HD2	1.84	0.41
1:E:4062:PHE:O	1:E:4170:ILE:HG21	2.20	0.41
1:E:4183:ILE:HD13	1:E:4193:ILE:HD13	2.03	0.41
1:E:4691:GLN:HA	1:E:4692:PRO:HD2	1.86	0.41
1:G:246:TYR:CE2	1:G:373:LYS:HD3	2.55	0.41
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	2.00	0.41
1:G:1603:VAL:HG12	1:G:1604:SER:O	2.20	0.41
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.55	0.41
1:G:2430:ILE:HG23	1:G:2501:SER:HB2	2.01	0.41
1:G:2887:GLY:O	1:G:2891:LYS:HG3	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3839:CYS:HB2	1:G:3881:THR:HG22	2.02	0.41
1:G:3969:ILE:HG12	1:G:3980:LEU:HD11	2.03	0.41
1:G:4720:VAL:HG12	1:G:4724:VAL:HG23	2.00	0.41
1:A:758:ARG:HH12	1:A:763:PRO:HD3	1.83	0.41
1:A:828:GLU:OE2	1:A:831:ARG:HA	2.20	0.41
1:A:1856:ASP:N	1:A:1858:ASP:H	2.18	0.41
1:A:1864:LYS:NZ	1:A:1869:GLU:C	2.73	0.41
1:A:2299:VAL:O	1:A:2360:LYS:HE2	2.21	0.41
1:A:2868:SER:O	1:A:2872:GLN:N	2.48	0.41
1:A:3811:GLU:HG2	1:A:3812:VAL:N	2.34	0.41
1:A:3838:THR:C	1:A:3839:CYS:SG	2.99	0.41
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.35	0.41
1:A:4943:LEU:O	1:A:4947:GLN:HG2	2.20	0.41
1:A:4978:HIS:ND1	1:A:4982:GLU:OE1	2.53	0.41
1:C:607:CYS:HB2	1:C:1672:ALA:HB1	2.02	0.41
1:C:828:GLU:OE2	1:C:831:ARG:HA	2.20	0.41
1:C:1246:GLU:HA	1:C:1247:PRO:HD3	1.90	0.41
1:C:1647:CYS:O	1:C:1648:MET:HG3	2.20	0.41
1:C:1691:GLN:O	1:C:1695:LEU:HG	2.19	0.41
1:C:4566:ALA:HA	1:C:4569:LEU:HD12	2.03	0.41
1:E:582:HIS:O	1:E:585:SER:HB2	2.20	0.41
1:E:1667:LEU:HD23	1:E:1710:GLY:C	2.41	0.41
1:E:1676:LEU:HG	1:E:1721:GLU:OE2	2.20	0.41
1:E:2500:ALA:HA	1:E:2556:LEU:HD21	2.01	0.41
1:E:2515:GLN:O	1:E:2518:LEU:HB3	2.20	0.41
1:E:2745:VAL:CG2	1:E:2818:ALA:HB2	2.50	0.41
1:E:4834:GLY:O	1:E:4837:LEU:HB3	2.20	0.41
1:E:4863:TYR:HD2	1:E:4876:CYS:SG	2.44	0.41
1:E:4866:SER:O	1:E:4868:ASP:N	2.54	0.41
1:E:5011:TRP:O	1:E:5014:TYR:HB3	2.20	0.41
1:G:165:VAL:HG13	1:G:204:PRO:HD3	2.02	0.41
1:G:696:PRO:HD2	1:G:829:TYR:CE2	2.52	0.41
1:G:702:TRP:HZ2	1:G:1640:HIS:HD1	1.67	0.41
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	2.02	0.41
1:G:3556:ASN:O	1:G:3560:GLN:N	2.54	0.41
1:G:4161:ARG:HA	1:G:4164:LEU:HB3	2.03	0.41
1:G:4710:SER:OG	1:G:4772:ASP:OD2	2.33	0.41
1:A:445:LEU:CD2	1:A:522:LEU:HD12	2.44	0.41
1:A:684:VAL:HG22	1:A:781:VAL:HG13	2.02	0.41
1:A:2558:VAL:O	1:A:2561:LEU:HG	2.20	0.41
1:A:4880:MET:CA	1:G:4578:LEU:CD1	2.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:669:ASP:CB	1:C:788:LYS:NZ	2.83	0.41
1:C:4058:ILE:HG13	1:C:4059:LEU:N	2.35	0.41
1:C:4218:ILE:HG22	1:C:4950:VAL:HG13	2.02	0.41
1:C:4823:LEU:HG	1:C:4826:ILE:HD12	2.02	0.41
1:E:858:THR:HG21	1:E:992:GLY:HA2	2.02	0.41
1:E:870:ILE:HA	1:E:873:LYS:HB3	2.02	0.41
1:E:1585:LYS:HD3	1:E:1596:GLU:OE2	2.21	0.41
1:E:1748:PHE:HE1	1:E:2072:LEU:C	2.23	0.41
1:E:3881:THR:O	1:E:3885:PHE:HD2	2.03	0.41
1:E:4036:VAL:HG12	1:E:4037:ASN:N	2.36	0.41
1:E:4174:PHE:HA	1:E:4177:TYR:CD2	2.56	0.41
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.56	0.41
1:E:4218:ILE:HG22	1:E:4950:VAL:HG13	2.01	0.41
1:E:4251:ILE:HG22	1:E:4557:ARG:HH11	1.85	0.41
1:E:4944:ARG:O	1:E:4947:GLN:HB2	2.20	0.41
1:G:78:LEU:O	1:G:81:MET:HG2	2.21	0.41
1:G:216:GLY:HA3	1:G:264:PRO:CD	2.49	0.41
1:G:647:ASN:N	1:G:822:ARG:O	2.52	0.41
1:G:768:PHE:HB3	1:G:771:PHE:CE2	2.56	0.41
1:G:856:VAL:O	1:G:991:ASN:ND2	2.50	0.41
1:G:879:HIS:NE2	1:G:906:CYS:O	2.53	0.41
1:G:1585:LYS:HD3	1:G:1596:GLU:OE2	2.20	0.41
1:G:1845:VAL:HG13	1:G:1854:PHE:HE2	1.85	0.41
1:G:2862:LEU:HD11	1:G:2929:PHE:HD1	1.85	0.41
1:G:4006:ASP:HB2	1:G:4009:GLN:HG2	2.02	0.41
1:G:4866:SER:O	1:G:4868:ASP:N	2.53	0.41
1:A:12:GLN:O	1:A:165:VAL:HG23	2.21	0.41
1:A:102:LEU:HD23	1:A:162:LYS:HA	2.03	0.41
1:A:340:LYS:HG3	1:A:342:GLY:N	2.35	0.41
1:A:515:TRP:HA	1:A:518:ILE:HD12	2.02	0.41
1:A:633:LEU:HD22	1:A:1663:HIS:HD2	1.84	0.41
1:A:975:VAL:HG21	1:A:1044:ARG:CB	2.47	0.41
1:A:1719:HIS:CG	1:A:1802:ILE:HG23	2.56	0.41
1:A:1819:VAL:HG22	1:A:1926:LEU:HD13	2.02	0.41
1:A:1848:LEU:HD12	1:A:1851:MET:SD	2.60	0.41
2:B:16:PRO:HG3	2:B:106:LEU:HD21	2.03	0.41
1:C:78:LEU:HA	1:C:81:MET:HG2	2.02	0.41
1:C:642:THR:OG1	1:C:1617:THR:HG21	2.20	0.41
1:C:879:HIS:NE2	1:C:906:CYS:O	2.53	0.41
1:C:1834:VAL:HG13	1:C:1835:GLU:H	1.84	0.41
1:C:2349:ASN:O	1:C:2353:VAL:HG23	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4041:ALA:O	1:C:4044:MET:HB3	2.19	0.41
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.56	0.41
1:C:4863:TYR:HD2	1:C:4876:CYS:SG	2.44	0.41
1:E:669:ASP:CB	1:E:788:LYS:NZ	2.83	0.41
1:E:768:PHE:HB3	1:E:771:PHE:CE2	2.56	0.41
1:E:945:LYS:HA	1:E:1049:TYR:HA	2.03	0.41
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.56	0.41
1:E:1287:LEU:HD13	1:E:1556:PRO:HD3	2.01	0.41
1:E:1729:SER:HB2	1:E:2163:ARG:HH11	1.82	0.41
1:E:1762:LEU:HD21	1:E:1860:LYS:NZ	2.34	0.41
1:E:2094:LEU:O	1:E:2098:VAL:HG23	2.21	0.41
1:E:2430:ILE:HG23	1:E:2501:SER:HB2	2.01	0.41
1:E:2887:GLY:O	1:E:2891:LYS:HG3	2.20	0.41
1:E:5004:THR:O	1:E:5007:GLU:HG2	2.21	0.41
1:G:40:GLU:OE2	1:G:406:SER:HB2	2.20	0.41
1:G:1072:VAL:HG22	1:G:1196:PRO:HD3	2.03	0.41
1:G:1099:GLU:H	1:G:1198:GLN:NE2	2.18	0.41
1:G:1245:PHE:CE2	1:G:1646:ARG:NH1	2.88	0.41
1:G:1691:GLN:O	1:G:1695:LEU:HG	2.19	0.41
1:G:2299:VAL:O	1:G:2360:LYS:HE2	2.20	0.41
1:G:3977:GLN:NE2	1:G:4030:LEU:O	2.54	0.41
2:H:4:VAL:HG21	2:H:62:GLY:HA3	2.01	0.41
1:A:607:CYS:HB2	1:A:1672:ALA:HB1	2.01	0.41
1:A:768:PHE:HB3	1:A:771:PHE:CE2	2.56	0.41
1:A:1723:ALA:O	1:A:1727:ARG:HB2	2.20	0.41
1:A:3922:TYR:HA	1:A:3925:ARG:HG2	2.02	0.41
1:A:3933:PHE:O	1:A:3937:TYR:HD2	2.03	0.41
1:A:4653:VAL:O	1:A:4657:CYS:N	2.46	0.41
1:A:4866:SER:O	1:A:4868:ASP:N	2.54	0.41
1:C:69:LEU:HD13	1:C:101:LEU:HD11	2.01	0.41
1:C:340:LYS:HG3	1:C:342:GLY:N	2.36	0.41
1:C:514:SER:O	1:C:518:ILE:HG13	2.20	0.41
1:C:515:TRP:HA	1:C:518:ILE:HD12	2.02	0.41
1:C:580:GLU:HB3	1:C:620:LEU:HD11	2.03	0.41
1:C:1616:GLU:HG3	1:C:1617:THR:HG23	2.02	0.41
1:C:1689:VAL:HG22	1:C:1694:LEU:HD11	2.01	0.41
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.21	0.41
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.86	0.41
1:C:4137:ARG:HD2	1:C:4177:TYR:CE2	2.56	0.41
1:C:4582:VAL:HG12	1:C:4629:TYR:HD1	1.85	0.41
1:C:4735:GLU:O	1:C:4739:GLU:N	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:40:GLU:OE2	1:E:406:SER:HB2	2.20	0.41
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.56	0.41
1:E:642:THR:OG1	1:E:1617:THR:HG21	2.20	0.41
1:E:758:ARG:HD3	1:E:761:GLY:HA2	2.03	0.41
1:E:826:ILE:O	1:E:828:GLU:N	2.54	0.41
1:E:828:GLU:HG3	1:E:840:VAL:HG21	2.02	0.41
1:E:1457:TYR:O	1:E:1458:HIS:CG	2.73	0.41
1:E:1857:GLU:O	1:E:1860:LYS:HB2	2.20	0.41
1:E:1945:TYR:O	1:E:1949:GLN:HG2	2.21	0.41
1:E:2349:ASN:O	1:E:2353:VAL:HG23	2.21	0.41
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	2.20	0.41
1:E:4578:LEU:HG	1:E:4578:LEU:O	2.20	0.41
1:E:4580:TYR:HB2	1:E:4631:PHE:CD1	2.56	0.41
1:G:485:SER:O	1:G:488:LEU:HB3	2.21	0.41
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.56	0.41
1:G:1856:ASP:H	1:G:1857:GLU:CB	2.31	0.41
1:G:1959:ALA:O	1:G:1962:ALA:HB3	2.20	0.41
1:G:4157:ASP:O	1:G:4161:ARG:NE	2.53	0.41
1:G:4820:VAL:HG12	1:G:4821:LYS:H	1.85	0.41
1:A:40:GLU:OE2	1:A:406:SER:HB2	2.20	0.41
1:A:120:CYS:HA	1:A:135:VAL:HA	2.03	0.41
1:A:879:HIS:NE2	1:A:906:CYS:O	2.53	0.41
1:A:1288:PHE:O	1:A:1603:VAL:HG13	2.21	0.41
1:A:1293:LEU:HB3	1:A:1584:ARG:HE	1.86	0.41
1:A:1297:PHE:HB2	1:A:1545:ASN:HA	2.03	0.41
1:A:1857:GLU:O	1:A:1860:LYS:HB2	2.20	0.41
1:A:2349:ASN:O	1:A:2353:VAL:HG23	2.21	0.41
1:A:4137:ARG:HD2	1:A:4177:TYR:CE2	2.56	0.41
1:A:4183:ILE:HD13	1:A:4193:ILE:HD13	2.03	0.41
1:A:4581:LYS:HE2	1:C:4877:ASP:O	2.21	0.41
1:A:4931:ILE:O	1:A:4935:LEU:HB2	2.19	0.41
1:C:485:SER:O	1:C:488:LEU:HB3	2.21	0.41
1:C:1293:LEU:HB3	1:C:1584:ARG:HE	1.86	0.41
1:C:1676:LEU:O	1:C:1676:LEU:HD23	2.21	0.41
1:C:1748:PHE:HE1	1:C:2072:LEU:C	2.24	0.41
1:C:1848:LEU:HD12	1:C:1851:MET:SD	2.60	0.41
1:C:2284:ASN:HA	1:C:2287:ALA:HB3	2.02	0.41
1:C:2806:ARG:HB3	1:C:2810:LYS:HE3	2.02	0.41
1:C:4034:ASN:HD21	1:C:4040:ILE:CG2	2.32	0.41
1:C:4174:PHE:HA	1:C:4177:TYR:CD2	2.56	0.41
1:C:4813:LEU:HD12	1:C:4814:LEU:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4875:LYS:O	1:C:4877:ASP:N	2.54	0.41
1:C:5011:TRP:O	1:C:5014:TYR:HB3	2.20	0.41
2:D:92:PRO:HA	2:D:93:PRO:HD3	1.91	0.41
1:E:165:VAL:HG13	1:E:204:PRO:HD3	2.02	0.41
1:E:537:CYS:HB3	1:E:571:SER:HB3	2.03	0.41
1:E:580:GLU:HB3	1:E:620:LEU:HD11	2.03	0.41
1:E:590:LEU:HD13	1:E:599:VAL:HB	2.03	0.41
1:E:910:PHE:CG	1:E:918:ARG:HB3	2.55	0.41
1:E:1616:GLU:HG3	1:E:1617:THR:HG23	2.02	0.41
1:E:1864:LYS:NZ	1:E:1869:GLU:C	2.73	0.41
1:E:1944:GLU:HA	1:E:1947:CYS:SG	2.61	0.41
1:E:2114:PRO:O	1:E:3704:HIS:NE2	2.40	0.41
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.55	0.41
1:E:2284:ASN:HA	1:E:2287:ALA:HB3	2.02	0.41
1:E:3732:SER:HB2	1:E:3766:GLN:HB3	2.03	0.41
1:E:4666:VAL:HA	1:E:4669:VAL:HG12	2.03	0.41
2:F:16:PRO:HG3	2:F:106:LEU:HD21	2.02	0.41
1:G:39:ALA:HB3	1:G:137:LEU:HD11	2.03	0.41
1:G:515:TRP:HA	1:G:518:ILE:HD12	2.02	0.41
1:G:843:SER:HA	1:G:1197:GLY:HA2	2.03	0.41
1:G:1077:ALA:HB3	1:G:1189:LEU:HB3	2.03	0.41
1:G:1819:VAL:HG22	1:G:1926:LEU:HD13	2.02	0.41
1:G:1937:LEU:HD11	1:G:2115:GLU:OE1	2.21	0.41
1:G:2293:GLN:O	1:G:2296:GLU:HG2	2.21	0.41
1:G:3659:ALA:O	1:G:3663:LEU:HG	2.20	0.41
1:G:3718:GLU:HG3	1:G:3719:ASP:N	2.36	0.41
1:G:3722:TYR:HE2	1:G:3797:THR:HG22	1.86	0.41
1:G:3838:THR:C	1:G:3839:CYS:SG	2.99	0.41
1:G:4234:PHE:CZ	1:G:4988:TYR:HB2	2.55	0.41
1:A:356:TRP:O	1:A:378:LEU:HA	2.21	0.41
1:A:758:ARG:HD3	1:A:761:GLY:HA2	2.02	0.41
1:A:856:VAL:O	1:A:991:ASN:ND2	2.48	0.41
1:A:1094:ALA:HB1	1:A:1143:TRP:CZ3	2.56	0.41
1:A:1230:MET:HB2	1:A:1828:ASP:OD1	2.20	0.41
1:A:1275:ARG:HG2	1:A:1564:PHE:CD2	2.56	0.41
1:A:1585:LYS:HD3	1:A:1596:GLU:OE2	2.20	0.41
1:A:2284:ASN:HA	1:A:2287:ALA:HB3	2.02	0.41
1:A:2335:LEU:HB2	1:A:2432:LEU:HD11	2.03	0.41
1:A:3984:ARG:O	1:A:3984:ARG:HG2	2.21	0.41
1:A:4062:PHE:O	1:A:4170:ILE:HG21	2.20	0.41
1:A:4118:ASP:O	1:A:4120:ASN:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:145:ALA:HA	1:C:175:SER:HB3	2.01	0.41
1:C:1077:ALA:HB3	1:C:1189:LEU:HB3	2.03	0.41
1:C:2299:VAL:O	1:C:2360:LYS:HE2	2.20	0.41
1:C:2745:VAL:CG2	1:C:2818:ALA:HB2	2.50	0.41
1:C:2754:PHE:CZ	1:C:2930:LEU:HD23	2.56	0.41
1:C:3888:LEU:HA	1:C:3888:LEU:HD23	1.84	0.41
1:C:4666:VAL:HA	1:C:4669:VAL:HG12	2.03	0.41
1:E:67:PHE:HA	1:E:110:ARG:O	2.21	0.41
1:E:69:LEU:HD13	1:E:101:LEU:HD11	2.01	0.41
1:E:246:TYR:CE2	1:E:373:LYS:HD3	2.55	0.41
1:E:684:VAL:HG22	1:E:781:VAL:HG13	2.02	0.41
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.56	0.41
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.62	0.41
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.20	0.41
1:E:4914:VAL:O	1:E:4918:ILE:HG13	2.21	0.41
1:G:116:MET:HE2	1:G:139:GLU:OE2	2.21	0.41
1:G:1287:LEU:HD13	1:G:1556:PRO:HD3	2.02	0.41
1:G:1654:SER:HB2	1:G:1704:PRO:HB3	2.02	0.41
1:G:1965:TYR:CE1	1:G:2063:LEU:HD11	2.56	0.41
1:G:2349:ASN:O	1:G:2353:VAL:HG23	2.20	0.41
1:G:2761:TYR:CZ	1:G:2862:LEU:HD13	2.55	0.41
1:G:3976:ASN:O	1:G:3979:SER:HB3	2.20	0.41
1:G:4796:MET:HG3	1:G:4797:VAL:N	2.35	0.41
1:A:78:LEU:HD12	1:A:81:MET:SD	2.61	0.41
1:A:78:LEU:O	1:A:81:MET:HG2	2.21	0.41
1:A:121:LEU:HD12	1:A:136:GLY:HA3	2.03	0.41
1:A:178:ARG:CZ	1:G:2456:ILE:HD11	2.51	0.41
1:A:485:SER:O	1:A:488:LEU:HB3	2.21	0.41
1:A:572:PRO:O	1:A:575:LEU:HB2	2.19	0.41
1:A:582:HIS:O	1:A:585:SER:HB2	2.20	0.41
1:A:642:THR:OG1	1:A:1617:THR:HG21	2.20	0.41
1:A:670:GLU:O	1:A:787:VAL:HG13	2.20	0.41
1:A:1077:ALA:HB3	1:A:1189:LEU:HB3	2.03	0.41
1:A:1110:ARG:HB2	1:A:1113:VAL:HG23	2.02	0.41
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.56	0.41
1:A:1457:TYR:O	1:A:1458:HIS:CG	2.74	0.41
1:A:1586:ASN:O	1:A:1588:ALA:N	2.49	0.41
1:A:1667:LEU:HD23	1:A:1710:GLY:C	2.42	0.41
1:A:1679:ASN:HB3	1:A:1799:SER:H	1.86	0.41
1:A:2114:PRO:O	1:A:3704:HIS:NE2	2.40	0.41
1:A:2204:HIS:ND1	1:A:2250:MET:SD	2.94	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2456:ILE:HD11	1:C:178:ARG:CZ	2.51	0.41
1:A:2554:LEU:HD11	1:A:2595:LEU:HA	2.03	0.41
1:A:2887:GLY:O	1:A:2891:LYS:HG3	2.20	0.41
1:A:4580:TYR:HB2	1:A:4631:PHE:CD1	2.53	0.41
1:A:4863:TYR:HD2	1:A:4876:CYS:SG	2.44	0.41
1:A:4876:CYS:HA	1:A:4882:CYS:HB3	2.03	0.41
1:A:4944:ARG:O	1:A:4947:GLN:HB2	2.20	0.41
1:C:454:PRO:HA	1:C:455:PRO:HD3	1.86	0.41
1:C:684:VAL:HG22	1:C:781:VAL:HG13	2.03	0.41
1:C:856:VAL:O	1:C:991:ASN:ND2	2.50	0.41
1:C:1024:TYR:CD1	1:C:1032:LYS:HG2	2.56	0.41
1:C:1072:VAL:HG22	1:C:1196:PRO:HD3	2.03	0.41
1:C:1230:MET:HB2	1:C:1828:ASP:OD1	2.21	0.41
1:C:1275:ARG:HG2	1:C:1564:PHE:CD2	2.56	0.41
1:C:1667:LEU:HD23	1:C:1710:GLY:C	2.41	0.41
1:C:1945:TYR:O	1:C:1949:GLN:HG2	2.21	0.41
1:C:2359:ARG:CZ	1:E:179:TYR:OH	2.68	0.41
1:C:2420:HIS:ND1	1:C:2423:MET:SD	2.76	0.41
1:C:2430:ILE:HG23	1:C:2501:SER:HB2	2.01	0.41
1:C:3984:ARG:O	1:C:3984:ARG:HG2	2.21	0.41
1:C:4062:PHE:O	1:C:4170:ILE:HG21	2.20	0.41
1:C:4887:MET:HA	1:C:4891:VAL:CG2	2.51	0.41
1:C:4914:VAL:O	1:C:4918:ILE:HG13	2.21	0.41
1:C:4991:PHE:CE2	1:C:4995:LEU:HD11	2.56	0.41
1:C:5004:THR:O	1:C:5007:GLU:HG2	2.20	0.41
1:E:121:LEU:HD12	1:E:136:GLY:HA3	2.02	0.41
1:E:635:THR:OG1	1:E:1638:ALA:O	2.31	0.41
1:E:671:VAL:HG12	1:E:673:PRO:HG3	2.03	0.41
1:E:1077:ALA:HB3	1:E:1189:LEU:HB3	2.03	0.41
1:E:1275:ARG:HG2	1:E:1564:PHE:CD2	2.56	0.41
1:E:1288:PHE:O	1:E:1603:VAL:HG13	2.21	0.41
1:E:1676:LEU:HD23	1:E:1676:LEU:O	2.21	0.41
1:E:1719:HIS:CG	1:E:1802:ILE:HG23	2.55	0.41
1:E:1829:PRO:HB3	1:E:1834:VAL:H	1.86	0.41
1:E:2754:PHE:CZ	1:E:2930:LEU:HD23	2.56	0.41
1:E:3888:LEU:HA	1:E:3888:LEU:HD23	1.84	0.41
1:E:3981:ALA:HA	1:E:3986:TRP:HH2	1.86	0.41
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.35	0.41
1:E:4566:ALA:HA	1:E:4569:LEU:HD12	2.03	0.41
1:E:4570:ALA:HB2	1:E:4650:HIS:CE1	2.56	0.41
1:E:4875:LYS:O	1:E:4877:ASP:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4977:THR:HA	1:E:4981:GLU:OE1	2.21	0.41
1:E:5022:PHE:HD1	1:E:5022:PHE:HA	1.75	0.41
2:F:42:ARG:C	2:F:44:LYS:H	2.24	0.41
1:G:607:CYS:HB2	1:G:1672:ALA:HB1	2.02	0.41
1:G:635:THR:OG1	1:G:1638:ALA:O	2.32	0.41
1:G:750:LEU:O	1:G:751:SER:OG	2.33	0.41
1:G:826:ILE:O	1:G:828:GLU:N	2.54	0.41
1:G:1094:ALA:HB1	1:G:1143:TRP:CZ3	2.56	0.41
1:G:2101:MET:SD	1:G:2104:ARG:HD2	2.61	0.41
1:G:2515:GLN:O	1:G:2518:LEU:HB3	2.20	0.41
1:G:2745:VAL:CG2	1:G:2818:ALA:HB2	2.51	0.41
1:G:3957:VAL:O	1:G:3961:VAL:HG23	2.20	0.41
1:G:4063:ASP:HA	1:G:4170:ILE:HG12	2.03	0.41
1:G:4722:ARG:O	1:G:4725:LEU:HG	2.21	0.41
1:G:4727:LYS:HZ1	1:G:4728:HIS:CE1	2.38	0.41
1:G:4968:PHE:HB2	1:G:4975:PHE:HD1	1.86	0.41
2:H:44:LYS:HA	2:H:45:PRO:HD3	1.90	0.41
1:A:580:GLU:HB3	1:A:620:LEU:HD11	2.03	0.41
1:A:1087:ARG:HD2	1:A:1223:PHE:CE1	2.55	0.41
1:A:1099:GLU:H	1:A:1198:GLN:NE2	2.19	0.41
1:C:426:ARG:NH2	1:C:508:GLY:O	2.54	0.41
1:C:870:ILE:HA	1:C:873:LYS:HB3	2.03	0.41
1:C:1094:ALA:HB1	1:C:1143:TRP:CZ3	2.56	0.41
1:C:1452:TRP:HB3	1:C:1550:PRO:HA	2.03	0.41
1:C:1937:LEU:O	1:C:1940:CYS:SG	2.69	0.41
1:C:1944:GLU:HA	1:C:1947:CYS:SG	2.61	0.41
1:C:2204:HIS:ND1	1:C:2250:MET:SD	2.94	0.41
1:C:2456:ILE:HD11	1:E:178:ARG:HH22	1.87	0.41
1:C:3901:ASN:O	1:C:3905:THR:HG22	2.21	0.41
1:C:4108:ILE:O	1:C:4111:LEU:HB3	2.21	0.41
1:C:4118:ASP:O	1:C:4120:ASN:N	2.54	0.41
1:E:485:SER:O	1:E:488:LEU:HB3	2.21	0.41
1:E:636:ASN:HD21	2:F:35:LYS:HD3	1.85	0.41
1:E:1094:ALA:HB1	1:E:1143:TRP:CZ3	2.56	0.41
1:E:1293:LEU:HB3	1:E:1584:ARG:HE	1.87	0.41
1:E:1959:ALA:O	1:E:1962:ALA:HB3	2.22	0.41
1:E:1966:VAL:O	1:E:1966:VAL:HG12	2.21	0.41
1:E:3712:GLU:O	1:E:3713:LYS:HD2	2.21	0.41
1:E:4137:ARG:HD2	1:E:4177:TYR:CE2	2.56	0.41
1:E:4802:GLY:HA2	1:E:4809:PHE:HB2	2.02	0.41
1:E:4892:ARG:NH1	1:G:4896:GLY:HA3	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4978:HIS:ND1	1:E:4982:GLU:OE1	2.53	0.41
1:G:175:SER:OG	1:G:176:SER:N	2.53	0.41
1:G:1275:ARG:HG2	1:G:1564:PHE:CD2	2.56	0.41
1:G:1779:PRO:HA	1:G:1780:PRO:HD3	1.79	0.41
1:G:2251:PHE:HA	1:G:2254:LEU:HG	2.03	0.41
1:G:2550:LEU:O	1:G:2554:LEU:N	2.54	0.41
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.56	0.41
1:G:3662:ILE:HG22	1:G:3662:ILE:O	2.21	0.41
1:G:3838:THR:O	1:G:3839:CYS:SG	2.76	0.41
1:G:4569:LEU:O	1:G:4573:ILE:HG13	2.20	0.41
1:G:4662:ASN:O	1:G:4667:PRO:HD3	2.20	0.41
2:H:31:GLU:HG2	2:H:96:THR:HB	2.02	0.41
1:A:272:SER:HB2	1:A:335:GLY:HA3	2.03	0.40
1:A:1748:PHE:HE1	1:A:2072:LEU:C	2.24	0.40
1:A:2550:LEU:O	1:A:2554:LEU:N	2.54	0.40
1:A:2754:PHE:CZ	1:A:2930:LEU:HD23	2.56	0.40
1:A:4174:PHE:HA	1:A:4177:TYR:CD2	2.56	0.40
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.56	0.40
1:C:1679:ASN:HB3	1:C:1799:SER:H	1.86	0.40
1:C:2550:LEU:O	1:C:2554:LEU:N	2.54	0.40
1:C:3933:PHE:O	1:C:3937:TYR:HD2	2.03	0.40
1:E:1603:VAL:HG12	1:E:1604:SER:O	2.20	0.40
1:E:2204:HIS:ND1	1:E:2250:MET:SD	2.94	0.40
1:E:2251:PHE:HA	1:E:2254:LEU:HG	2.03	0.40
1:E:4118:ASP:O	1:E:4120:ASN:N	2.54	0.40
1:E:4823:LEU:HG	1:E:4826:ILE:HD12	2.02	0.40
1:E:4932:ILE:O	1:E:4935:LEU:HB3	2.20	0.40
2:F:28:GLY:HA2	2:F:99:PHE:CD1	2.57	0.40
1:G:67:PHE:HA	1:G:110:ARG:O	2.21	0.40
1:G:78:LEU:HD12	1:G:81:MET:SD	2.61	0.40
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.56	0.40
1:G:2281:ILE:HD11	1:G:2337:PHE:HB3	2.02	0.40
1:G:3839:CYS:SG	1:G:3840:SER:N	2.94	0.40
1:G:3981:ALA:HA	1:G:3986:TRP:HH2	1.86	0.40
1:G:4691:GLN:HA	1:G:4692:PRO:HD2	1.88	0.40
1:G:4847:VAL:HG11	1:G:4924:VAL:HG22	2.02	0.40
1:G:4978:HIS:ND1	1:G:4982:GLU:OE1	2.54	0.40
1:A:165:VAL:HG13	1:A:204:PRO:HD3	2.03	0.40
1:A:826:ILE:O	1:A:828:GLU:N	2.54	0.40
1:A:843:SER:HA	1:A:1197:GLY:HA2	2.03	0.40
1:A:1046:LEU:HA	1:A:1049:TYR:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1603:VAL:HG12	1:A:1604:SER:O	2.22	0.40
1:A:1676:LEU:O	1:A:1676:LEU:HD23	2.21	0.40
1:A:1685:LEU:HA	1:A:1685:LEU:HD23	1.76	0.40
1:A:1829:PRO:HB3	1:A:1834:VAL:H	1.86	0.40
1:A:1944:GLU:HA	1:A:1947:CYS:SG	2.61	0.40
1:A:2199:ARG:NE	1:A:2249:SER:OG	2.52	0.40
1:A:2251:PHE:HA	1:A:2254:LEU:HG	2.03	0.40
1:A:3712:GLU:O	1:A:3713:LYS:HD2	2.21	0.40
1:A:3805:LEU:HB3	1:A:3890:LEU:HB3	2.03	0.40
1:A:4666:VAL:HA	1:A:4669:VAL:HG12	2.02	0.40
1:A:4839:MET:CB	1:G:4823:LEU:CD1	2.99	0.40
1:C:123:THR:HB	1:C:125:ARG:HH21	1.86	0.40
1:C:905:PRO:HB2	1:C:917:GLU:HB3	2.04	0.40
1:C:1100:MET:HE1	1:C:1199:VAL:O	2.22	0.40
1:C:1457:TYR:O	1:C:1458:HIS:ND1	2.54	0.40
1:C:2449:GLU:O	1:C:2452:ARG:HB2	2.20	0.40
1:C:3985:LEU:O	1:C:3989:VAL:HG23	2.21	0.40
1:E:78:LEU:O	1:E:81:MET:HG2	2.22	0.40
1:E:224:HIS:N	1:E:229:GLU:O	2.42	0.40
1:E:321:GLU:HG2	1:E:323:LEU:HG	2.03	0.40
1:E:828:GLU:OE2	1:E:831:ARG:HA	2.20	0.40
1:E:1679:ASN:HB3	1:E:1799:SER:H	1.86	0.40
1:E:1748:PHE:HA	1:E:1749:PRO:HD2	1.76	0.40
1:E:2198:MET:HB3	1:E:2239:PHE:HE1	1.86	0.40
1:E:2199:ARG:NE	1:E:2249:SER:OG	2.52	0.40
1:E:2335:LEU:HB2	1:E:2432:LEU:HD11	2.02	0.40
1:E:2449:GLU:O	1:E:2452:ARG:HB2	2.20	0.40
1:E:3985:LEU:O	1:E:3989:VAL:HG23	2.21	0.40
1:E:4175:ARG:O	1:E:4178:LEU:HB3	2.21	0.40
1:E:4582:VAL:HB	1:E:4628:VAL:HG12	2.03	0.40
1:E:4669:VAL:O	1:E:4672:LYS:HB3	2.22	0.40
1:G:321:GLU:HG2	1:G:323:LEU:HG	2.03	0.40
1:G:356:TRP:O	1:G:378:LEU:HA	2.21	0.40
1:G:426:ARG:NH2	1:G:508:GLY:O	2.54	0.40
1:G:497:TYR:HB2	1:G:515:TRP:CH2	2.57	0.40
1:G:1293:LEU:HB3	1:G:1584:ARG:HE	1.86	0.40
1:G:1945:TYR:O	1:G:1949:GLN:HG2	2.21	0.40
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.22	0.40
1:G:4770:SER:OG	1:G:4771:ILE:N	2.53	0.40
1:A:131:LEU:HB2	1:G:2460:LEU:HD21	2.02	0.40
1:A:321:GLU:HG2	1:A:323:LEU:HG	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:598:LYS:HD3	1:A:598:LYS:HA	1.87	0.40
1:A:1841:VAL:O	1:A:1845:VAL:HG23	2.21	0.40
1:A:2293:GLN:CA	1:A:2296:GLU:HG2	2.47	0.40
1:A:3775:ALA:HA	1:A:3778:MET:HG2	2.03	0.40
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.21	0.40
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.87	0.40
1:A:4175:ARG:O	1:A:4178:LEU:HB3	2.21	0.40
1:A:4578:LEU:CD1	1:C:4880:MET:CA	2.83	0.40
1:A:4636:THR:O	1:A:4639:MET:HE2	2.21	0.40
1:A:4675:LYS:O	1:A:4679:ARG:HG2	2.21	0.40
2:B:31:GLU:HG2	2:B:96:THR:HB	2.02	0.40
1:C:39:ALA:HB3	1:C:137:LEU:HD11	2.03	0.40
1:C:175:SER:OG	1:C:176:SER:N	2.53	0.40
1:C:216:GLY:HA3	1:C:264:PRO:CD	2.50	0.40
1:C:831:ARG:O	1:C:837:PRO:HA	2.22	0.40
1:C:1133:HIS:CE1	1:C:1134:LEU:HG	2.55	0.40
1:C:1585:LYS:HD3	1:C:1596:GLU:OE2	2.21	0.40
1:C:3805:LEU:HB3	1:C:3890:LEU:HB3	2.03	0.40
1:C:4183:ILE:HD13	1:C:4193:ILE:HD13	2.03	0.40
1:C:4570:ALA:HB2	1:C:4650:HIS:CE1	2.57	0.40
1:C:4669:VAL:O	1:C:4672:LYS:HB3	2.21	0.40
1:E:57:ASN:OD1	1:E:308:HIS:ND1	2.54	0.40
1:E:102:LEU:HD23	1:E:162:LYS:HA	2.02	0.40
1:E:1864:LYS:HZ2	1:E:1869:GLU:C	2.25	0.40
1:E:2281:ILE:HD11	1:E:2337:PHE:CG	2.56	0.40
1:E:2424:SER:HA	1:E:2427:ALA:HB3	2.02	0.40
1:E:2550:LEU:O	1:E:2554:LEU:N	2.54	0.40
1:E:2558:VAL:O	1:E:2561:LEU:HG	2.21	0.40
1:E:2858:GLN:HA	1:E:2859:PRO:HD2	1.93	0.40
1:E:3805:LEU:HB3	1:E:3890:LEU:HB3	2.03	0.40
1:E:3945:GLU:O	1:E:3948:LYS:HB2	2.22	0.40
1:E:4108:ILE:O	1:E:4111:LEU:HB3	2.21	0.40
1:E:4991:PHE:CE2	1:E:4995:LEU:HD11	2.56	0.40
1:G:590:LEU:HD13	1:G:599:VAL:HB	2.04	0.40
1:G:725:HIS:ND1	1:G:725:HIS:O	2.54	0.40
1:G:870:ILE:HA	1:G:873:LYS:HB3	2.03	0.40
1:G:905:PRO:HB2	1:G:917:GLU:HB3	2.03	0.40
1:G:1288:PHE:O	1:G:1603:VAL:HG13	2.21	0.40
1:G:1681:VAL:O	1:G:1684:ALA:HB3	2.21	0.40
1:G:2207:VAL:O	1:G:2211:MET:HG2	2.22	0.40
1:G:2251:PHE:CD1	1:G:2254:LEU:HD12	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2554:LEU:HD11	1:G:2595:LEU:HA	2.04	0.40
1:G:4820:VAL:HG12	1:G:4821:LYS:N	2.36	0.40
1:A:251:ALA:O	1:A:254:THR:OG1	2.33	0.40
1:A:426:ARG:NH2	1:A:508:GLY:O	2.54	0.40
1:A:1647:CYS:O	1:A:1648:MET:HG3	2.20	0.40
1:A:1681:VAL:O	1:A:1684:ALA:HB3	2.22	0.40
1:A:1958:LEU:HD11	1:A:3657:TYR:CE2	2.57	0.40
1:A:2101:MET:SD	1:A:2104:ARG:HD2	2.61	0.40
1:A:2251:PHE:CD1	1:A:2254:LEU:HD12	2.57	0.40
1:A:2515:GLN:O	1:A:2518:LEU:HB3	2.20	0.40
1:A:4826:ILE:CG1	1:C:4839:MET:HE3	2.52	0.40
1:A:4991:PHE:CE2	1:A:4995:LEU:HD11	2.56	0.40
1:C:120:CYS:HA	1:C:135:VAL:HA	2.04	0.40
1:C:1216:ILE:HG22	1:C:1217:CYS:N	2.37	0.40
1:C:1862:ILE:HG23	1:C:1865:MET:HE2	2.03	0.40
1:C:2131:LEU:O	1:C:2134:LEU:HB3	2.22	0.40
1:C:2554:LEU:HD11	1:C:2595:LEU:HA	2.03	0.40
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.56	0.40
1:C:3838:THR:O	1:C:3839:CYS:SG	2.76	0.40
1:C:3922:TYR:HA	1:C:3925:ARG:HG2	2.03	0.40
1:C:3989:VAL:O	1:C:3993:LEU:HG	2.22	0.40
1:C:4818:MET:O	1:C:4820:VAL:HA	2.22	0.40
1:E:1024:TYR:CD1	1:E:1032:LYS:HG2	2.56	0.40
1:E:1457:TYR:O	1:E:1458:HIS:ND1	2.55	0.40
1:E:1719:HIS:CD2	1:E:1800:PRO:HG2	2.57	0.40
1:E:1845:VAL:HG13	1:E:1854:PHE:HE2	1.85	0.40
1:E:2251:PHE:CD1	1:E:2254:LEU:HD12	2.57	0.40
1:E:2299:VAL:O	1:E:2360:LYS:HE2	2.20	0.40
1:E:4733:GLY:O	1:E:4737:ILE:HG12	2.21	0.40
1:E:4995:LEU:HD21	1:E:5007:GLU:HB2	2.02	0.40
1:G:669:ASP:CB	1:G:788:LYS:NZ	2.83	0.40
1:G:1719:HIS:CD2	1:G:1800:PRO:HG2	2.56	0.40
1:G:1944:GLU:HA	1:G:1947:CYS:SG	2.61	0.40
1:G:1966:VAL:O	1:G:1966:VAL:HG12	2.21	0.40
1:G:2204:HIS:ND1	1:G:2250:MET:SD	2.94	0.40
1:G:3801:GLY:HA3	1:G:3887:PHE:HE1	1.86	0.40
1:G:4989:MET:HG3	1:G:4990:PHE:N	2.37	0.40
1:A:33:LEU:HD23	1:A:35:LEU:HD23	2.03	0.40
1:A:1719:HIS:CD2	1:A:1800:PRO:HG2	2.56	0.40
1:A:3901:ASN:O	1:A:3905:THR:HG22	2.21	0.40
1:A:4995:LEU:HD21	1:A:5007:GLU:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5011:TRP:O	1:A:5014:TYR:HB3	2.20	0.40
1:C:78:LEU:O	1:C:81:MET:HG2	2.22	0.40
1:C:248:GLU:HG2	1:C:252:VAL:HG11	2.03	0.40
1:C:321:GLU:HG2	1:C:323:LEU:HG	2.03	0.40
1:C:590:LEU:HD13	1:C:599:VAL:HB	2.04	0.40
1:C:1073:ARG:O	1:C:1074:ILE:HG13	2.22	0.40
1:C:1275:ARG:HG2	1:C:1564:PHE:HB3	2.03	0.40
1:C:1681:VAL:O	1:C:1684:ALA:HB3	2.22	0.40
1:C:1694:LEU:HB3	1:C:1715:LEU:HD12	2.04	0.40
1:C:2515:GLN:O	1:C:2518:LEU:HB3	2.20	0.40
1:C:3712:GLU:O	1:C:3713:LYS:HD2	2.21	0.40
1:C:3718:GLU:HG3	1:C:3719:ASP:N	2.35	0.40
1:C:4175:ARG:O	1:C:4178:LEU:HB3	2.21	0.40
1:C:4977:THR:HA	1:C:4981:GLU:OE1	2.21	0.40
1:E:216:GLY:HA3	1:E:264:PRO:CD	2.50	0.40
1:E:426:ARG:NH2	1:E:508:GLY:O	2.54	0.40
1:E:598:LYS:HD3	1:E:598:LYS:HA	1.87	0.40
1:E:975:VAL:HG21	1:E:1044:ARG:CB	2.47	0.40
1:E:1046:LEU:HA	1:E:1049:TYR:HB2	2.04	0.40
1:E:1230:MET:HB2	1:E:1828:ASP:OD1	2.22	0.40
1:E:2456:ILE:HD11	1:G:178:ARG:CZ	2.52	0.40
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	2.02	0.40
1:E:4058:ILE:HG13	1:E:4059:LEU:N	2.35	0.40
1:G:123:THR:HB	1:G:125:ARG:HH21	1.86	0.40
1:G:737:LEU:HB3	1:G:738:LEU:H	1.50	0.40
1:G:831:ARG:O	1:G:837:PRO:HA	2.22	0.40
1:G:1201:HIS:CD2	1:G:1202:LEU:N	2.89	0.40
1:G:1667:LEU:HD23	1:G:1710:GLY:C	2.41	0.40
1:G:1719:HIS:CG	1:G:1802:ILE:HG23	2.56	0.40

There are no symmetry-related clashes.

## 5.3 Torsion angles [i](#)

### 5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3483/5037 (69%)	3132 (90%)	258 (7%)	93 (3%)	5	31
1	C	3483/5037 (69%)	3133 (90%)	254 (7%)	96 (3%)	5	30
1	E	3483/5037 (69%)	3134 (90%)	255 (7%)	94 (3%)	5	31
1	G	3483/5037 (69%)	3137 (90%)	252 (7%)	94 (3%)	5	31
2	B	105/108 (97%)	95 (90%)	9 (9%)	1 (1%)	15	54
2	D	105/108 (97%)	95 (90%)	9 (9%)	1 (1%)	15	54
2	F	105/108 (97%)	96 (91%)	8 (8%)	1 (1%)	15	54
2	H	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
All	All	14352/20580 (70%)	12919 (90%)	1053 (7%)	380 (3%)	8	31

All (380) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	806	PRO
1	A	900	ASN
1	A	914	PRO
1	A	916	PRO
1	A	971	ASP
1	A	1211	LEU
1	A	1216	ILE
1	A	1459	GLN
1	A	1763	PRO
1	A	1767	VAL
1	A	2341	VAL
1	A	3714	SER
1	A	4012	LEU
1	A	4037	ASN
1	A	4083	ASP
1	A	4084	PRO
1	A	4820	VAL
1	A	4868	ASP
1	A	4904	PRO
1	C	806	PRO
1	C	914	PRO
1	C	916	PRO
1	C	971	ASP
1	C	1211	LEU
1	C	1216	ILE
1	C	1459	GLN
1	C	1763	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	1767	VAL
1	C	2341	VAL
1	C	3714	SER
1	C	4012	LEU
1	C	4037	ASN
1	C	4083	ASP
1	C	4084	PRO
1	C	4820	VAL
1	C	4868	ASP
1	C	4904	PRO
1	E	806	PRO
1	E	914	PRO
1	E	916	PRO
1	E	971	ASP
1	E	1211	LEU
1	E	1216	ILE
1	E	1459	GLN
1	E	1763	PRO
1	E	1767	VAL
1	E	2341	VAL
1	E	4012	LEU
1	E	4037	ASN
1	E	4083	ASP
1	E	4084	PRO
1	E	4820	VAL
1	E	4868	ASP
1	E	4904	PRO
1	G	806	PRO
1	G	914	PRO
1	G	916	PRO
1	G	971	ASP
1	G	1211	LEU
1	G	1216	ILE
1	G	1459	GLN
1	G	1763	PRO
1	G	1767	VAL
1	G	2341	VAL
1	G	3714	SER
1	G	3985	LEU
1	G	4012	LEU
1	G	4037	ASN
1	G	4083	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	4084	PRO
1	G	4771	ILE
1	G	4820	VAL
1	G	4868	ASP
1	G	4904	PRO
1	A	334	MET
1	A	385	ASP
1	A	767	VAL
1	A	770	ALA
1	A	826	ILE
1	A	895	PRO
1	A	1483	VAL
1	A	1488	LYS
1	A	1582	SER
1	A	3844	LEU
1	A	3941	ASP
1	A	3944	GLU
1	A	4119	GLU
1	A	4770	SER
1	A	4771	ILE
1	A	4772	ASP
1	A	4870	ASP
1	A	4985	LEU
1	A	5027	CYS
1	C	334	MET
1	C	385	ASP
1	C	767	VAL
1	C	770	ALA
1	C	826	ILE
1	C	895	PRO
1	C	900	ASN
1	C	1483	VAL
1	C	1488	LYS
1	C	1582	SER
1	C	3844	LEU
1	C	3941	ASP
1	C	3944	GLU
1	C	4119	GLU
1	C	4770	SER
1	C	4771	ILE
1	C	4772	ASP
1	C	4870	ASP

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	4985	LEU
1	C	5027	CYS
1	E	334	MET
1	E	385	ASP
1	E	767	VAL
1	E	770	ALA
1	E	826	ILE
1	E	895	PRO
1	E	900	ASN
1	E	1483	VAL
1	E	1488	LYS
1	E	1582	SER
1	E	3714	SER
1	E	3844	LEU
1	E	3944	GLU
1	E	4119	GLU
1	E	4770	SER
1	E	4771	ILE
1	E	4772	ASP
1	E	4870	ASP
1	E	4985	LEU
1	E	5027	CYS
1	G	334	MET
1	G	385	ASP
1	G	767	VAL
1	G	770	ALA
1	G	826	ILE
1	G	895	PRO
1	G	900	ASN
1	G	1483	VAL
1	G	1488	LYS
1	G	1582	SER
1	G	4119	GLU
1	G	4870	ASP
1	G	4984	ASN
1	G	5027	CYS
1	A	30	LYS
1	A	611	GLY
1	A	682	LEU
1	A	690	GLU
1	A	834	PRO
1	A	1206	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	1254	HIS
1	A	1280	GLN
1	A	1606	SER
1	A	1772	ARG
1	A	1834	VAL
1	A	1857	GLU
1	A	2246	ASN
1	A	2466	LEU
1	A	3719	ASP
1	A	4158	PRO
1	A	4208	PRO
1	A	4867	GLU
1	A	4876	CYS
1	A	4893	ALA
1	C	30	LYS
1	C	611	GLY
1	C	682	LEU
1	C	690	GLU
1	C	834	PRO
1	C	1206	GLN
1	C	1254	HIS
1	C	1280	GLN
1	C	1512	THR
1	C	1606	SER
1	C	1772	ARG
1	C	1834	VAL
1	C	1857	GLU
1	C	2246	ASN
1	C	2466	LEU
1	C	3719	ASP
1	C	4158	PRO
1	C	4208	PRO
1	C	4867	GLU
1	C	4876	CYS
1	C	4893	ALA
1	E	30	LYS
1	E	611	GLY
1	E	682	LEU
1	E	690	GLU
1	E	834	PRO
1	E	1206	GLN
1	E	1254	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	1280	GLN
1	E	1462	MET
1	E	1606	SER
1	E	1772	ARG
1	E	1834	VAL
1	E	1857	GLU
1	E	2246	ASN
1	E	2466	LEU
1	E	3719	ASP
1	E	3941	ASP
1	E	4158	PRO
1	E	4208	PRO
1	E	4867	GLU
1	E	4876	CYS
1	G	30	LYS
1	G	611	GLY
1	G	682	LEU
1	G	690	GLU
1	G	834	PRO
1	G	1206	GLN
1	G	1254	HIS
1	G	1280	GLN
1	G	1606	SER
1	G	1747	LEU
1	G	1772	ARG
1	G	1834	VAL
1	G	1857	GLU
1	G	2246	ASN
1	G	2466	LEU
1	G	3659	ALA
1	G	3719	ASP
1	G	3844	LEU
1	G	3944	GLU
1	G	4158	PRO
1	G	4208	PRO
1	G	4772	ASP
1	G	4867	GLU
1	G	4876	CYS
1	G	4893	ALA
1	A	56	GLN
1	A	701	GLY
1	A	827	LYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	852	VAL
1	A	885	THR
1	A	1095	VAL
1	A	1284	VAL
1	A	1286	MET
1	A	1462	MET
1	A	1747	LEU
1	A	2546	MET
1	A	2826	ALA
1	A	3659	ALA
1	A	4905	ALA
1	C	56	GLN
1	C	701	GLY
1	C	827	LYS
1	C	828	GLU
1	C	852	VAL
1	C	885	THR
1	C	1095	VAL
1	C	1284	VAL
1	C	1286	MET
1	C	1462	MET
1	C	1747	LEU
1	C	2306	GLY
1	C	2546	MET
1	C	2826	ALA
1	C	3659	ALA
1	E	56	GLN
1	E	701	GLY
1	E	827	LYS
1	E	828	GLU
1	E	852	VAL
1	E	885	THR
1	E	1095	VAL
1	E	1284	VAL
1	E	1286	MET
1	E	1747	LEU
1	E	2306	GLY
1	E	2546	MET
1	E	2826	ALA
1	E	3659	ALA
1	E	4905	ALA
1	G	56	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	G	701	GLY
1	G	720	HIS
1	G	827	LYS
1	G	828	GLU
1	G	852	VAL
1	G	885	THR
1	G	1095	VAL
1	G	1284	VAL
1	G	1286	MET
1	G	1462	MET
1	G	2306	GLY
1	G	2546	MET
1	G	3941	ASP
1	G	4207	MET
1	G	4905	ALA
1	A	298	GLY
1	A	676	THR
1	A	720	HIS
1	A	802	PHE
1	A	828	GLU
1	A	1139	PHE
1	A	1182	ILE
1	A	1550	PRO
1	A	2109	ASP
1	A	4207	MET
1	C	298	GLY
1	C	676	THR
1	C	720	HIS
1	C	802	PHE
1	C	1139	PHE
1	C	1182	ILE
1	C	1550	PRO
1	C	2109	ASP
1	C	4207	MET
1	C	4905	ALA
1	E	298	GLY
1	E	676	THR
1	E	720	HIS
1	E	802	PHE
1	E	908	VAL
1	E	1139	PHE
1	E	1182	ILE

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	1550	PRO
1	E	2109	ASP
1	E	4207	MET
1	E	4893	ALA
1	G	298	GLY
1	G	676	THR
1	G	736	HIS
1	G	802	PHE
1	G	1139	PHE
1	G	1182	ILE
1	G	1515	VAL
1	G	1550	PRO
1	G	2109	ASP
1	A	1613	LEU
1	A	2306	GLY
1	C	581	ASN
1	C	1515	VAL
1	C	1613	LEU
1	C	1768	THR
1	E	1515	VAL
1	E	1613	LEU
1	E	1768	THR
1	G	1613	LEU
1	A	908	VAL
1	A	1602	PRO
1	C	908	VAL
1	C	1602	PRO
1	E	1589	PRO
1	E	1602	PRO
1	G	908	VAL
1	G	1589	PRO
1	G	1602	PRO
1	G	3808	GLY
1	A	1589	PRO
1	C	60	PRO
1	C	1589	PRO
1	E	60	PRO
1	A	60	PRO
1	A	438	ILE
1	A	1142	PRO
1	A	1437	VAL
1	C	438	ILE

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Mol	Chain	Res	Type
1	C	1142	PRO
1	C	1437	VAL
1	E	438	ILE
1	E	1142	PRO
1	E	1437	VAL
1	G	60	PRO
1	G	438	ILE
1	G	740	PRO
1	G	1142	PRO
1	G	1437	VAL
1	A	740	PRO
1	C	740	PRO
1	E	740	PRO
1	A	4035	VAL
2	B	7	ILE
2	D	7	ILE
2	F	7	ILE

### 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 PDB entries followed by that with respect to all EM entries.

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2502/4276 (58%)	2472 (99%)	30 (1%)	71	83
1	C	2504/4276 (59%)	2476 (99%)	28 (1%)	73	84
1	E	2501/4276 (58%)	2472 (99%)	29 (1%)	71	83
1	G	2501/4276 (58%)	2474 (99%)	27 (1%)	73	84
2	B	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	D	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	F	89/90 (99%)	88 (99%)	1 (1%)	73	84
2	H	89/90 (99%)	88 (99%)	1 (1%)	73	84
All	All	10364/17464 (59%)	10246 (99%)	118 (1%)	74	84

All (118) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	46	LEU
1	A	454	PRO
1	A	806	PRO
1	A	865	PRO
1	A	892	THR
1	A	914	PRO
1	A	916	PRO
1	A	928	THR
1	A	939	VAL
1	A	978	THR
1	A	979	PRO
1	A	1055	PRO
1	A	1211	LEU
1	A	1458	HIS
1	A	1459	GLN
1	A	1929	MET
1	A	2135	LEU
1	A	2518	LEU
1	A	2555	CYS
1	A	2914	LYS
1	A	2925	GLU
1	A	3814	GLN
1	A	3824	LYS
1	A	3835	LEU
1	A	3987	ASP
1	A	4039	MET
1	A	4082	THR
1	A	4106	PRO
1	A	4207	MET
1	A	4215	ARG
2	B	34	LYS
1	C	454	PRO
1	C	806	PRO
1	C	859	VAL
1	C	865	PRO
1	C	892	THR
1	C	914	PRO
1	C	916	PRO
1	C	928	THR
1	C	939	VAL
1	C	978	THR
1	C	979	PRO
1	C	1055	PRO

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	1211	LEU
1	C	1458	HIS
1	C	1459	GLN
1	C	1929	MET
1	C	2135	LEU
1	C	2518	LEU
1	C	2555	CYS
1	C	2914	LYS
1	C	3814	GLN
1	C	3835	LEU
1	C	3987	ASP
1	C	4039	MET
1	C	4082	THR
1	C	4106	PRO
1	C	4207	MET
1	C	4215	ARG
2	D	34	LYS
1	E	454	PRO
1	E	806	PRO
1	E	865	PRO
1	E	892	THR
1	E	914	PRO
1	E	916	PRO
1	E	928	THR
1	E	939	VAL
1	E	978	THR
1	E	979	PRO
1	E	1055	PRO
1	E	1211	LEU
1	E	1458	HIS
1	E	1459	GLN
1	E	1513	ASP
1	E	1659	LEU
1	E	1929	MET
1	E	2135	LEU
1	E	2518	LEU
1	E	2555	CYS
1	E	2914	LYS
1	E	3814	GLN
1	E	3835	LEU
1	E	3987	ASP
1	E	4039	MET

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Mol	Chain	Res	Type
1	E	4082	THR
1	E	4106	PRO
1	E	4207	MET
1	E	4215	ARG
2	F	34	LYS
1	G	454	PRO
1	G	806	PRO
1	G	859	VAL
1	G	865	PRO
1	G	892	THR
1	G	914	PRO
1	G	916	PRO
1	G	928	THR
1	G	939	VAL
1	G	978	THR
1	G	979	PRO
1	G	1055	PRO
1	G	1211	LEU
1	G	1458	HIS
1	G	1459	GLN
1	G	1513	ASP
1	G	1929	MET
1	G	2135	LEU
1	G	2139	PRO
1	G	2518	LEU
1	G	2555	CYS
1	G	3824	LYS
1	G	4039	MET
1	G	4082	THR
1	G	4106	PRO
1	G	4207	MET
1	G	4215	ARG
2	H	34	LYS

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (155) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	113	HIS
1	A	201	ASN
1	A	224	HIS
1	A	278	GLN
1	A	379	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	380	GLN
1	A	405	HIS
1	A	536	ASN
1	A	543	ASN
1	A	596	ASN
1	A	678	GLN
1	A	725	HIS
1	A	1127	HIS
1	A	1130	GLN
1	A	1201	HIS
1	A	1203	ASN
1	A	1459	GLN
1	A	1532	ASN
1	A	1631	GLN
1	A	1719	HIS
1	A	2184	ASN
1	A	2196	ASN
1	A	2253	HIS
1	A	2260	ASN
1	A	2498	HIS
1	A	2856	ASN
1	A	3771	HIS
1	A	3837	GLN
1	A	3882	GLN
1	A	3895	HIS
1	A	3896	ASN
1	A	3900	GLN
1	A	3906	GLN
1	A	3970	GLN
1	A	3994	HIS
1	A	3998	HIS
1	A	4857	ASN
1	A	4947	GLN
2	B	87	HIS
1	C	113	HIS
1	C	201	ASN
1	C	224	HIS
1	C	278	GLN
1	C	379	HIS
1	C	380	GLN
1	C	405	HIS
1	C	536	ASN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	C	543	ASN
1	C	596	ASN
1	C	678	GLN
1	C	725	HIS
1	C	1127	HIS
1	C	1130	GLN
1	C	1201	HIS
1	C	1203	ASN
1	C	1459	GLN
1	C	1532	ASN
1	C	1631	GLN
1	C	1719	HIS
1	C	2184	ASN
1	C	2196	ASN
1	C	2253	HIS
1	C	2260	ASN
1	C	2498	HIS
1	C	2856	ASN
1	C	3699	HIS
1	C	3771	HIS
1	C	3837	GLN
1	C	3882	GLN
1	C	3895	HIS
1	C	3896	ASN
1	C	3900	GLN
1	C	3906	GLN
1	C	3970	GLN
1	C	3994	HIS
1	C	3998	HIS
1	C	4947	GLN
2	D	87	HIS
1	E	113	HIS
1	E	201	ASN
1	E	224	HIS
1	E	278	GLN
1	E	379	HIS
1	E	380	GLN
1	E	405	HIS
1	E	536	ASN
1	E	543	ASN
1	E	596	ASN
1	E	678	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	E	725	HIS
1	E	1127	HIS
1	E	1130	GLN
1	E	1201	HIS
1	E	1203	ASN
1	E	1459	GLN
1	E	1631	GLN
1	E	1719	HIS
1	E	2184	ASN
1	E	2196	ASN
1	E	2253	HIS
1	E	2260	ASN
1	E	2498	HIS
1	E	2856	ASN
1	E	3699	HIS
1	E	3771	HIS
1	E	3837	GLN
1	E	3882	GLN
1	E	3895	HIS
1	E	3896	ASN
1	E	3900	GLN
1	E	3906	GLN
1	E	3970	GLN
1	E	3994	HIS
1	E	3998	HIS
1	E	4857	ASN
1	E	4947	GLN
2	F	87	HIS
1	G	113	HIS
1	G	201	ASN
1	G	224	HIS
1	G	278	GLN
1	G	379	HIS
1	G	380	GLN
1	G	405	HIS
1	G	536	ASN
1	G	543	ASN
1	G	596	ASN
1	G	678	GLN
1	G	725	HIS
1	G	1127	HIS
1	G	1130	GLN

*Continued on next page...*

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Mol	Chain	Res	Type
1	G	1201	HIS
1	G	1203	ASN
1	G	1459	GLN
1	G	1631	GLN
1	G	1719	HIS
1	G	2184	ASN
1	G	2196	ASN
1	G	2253	HIS
1	G	2260	ASN
1	G	2498	HIS
1	G	2856	ASN
1	G	3771	HIS
1	G	3809	ASN
1	G	3896	ASN
1	G	3970	GLN
1	G	3994	HIS
1	G	3998	HIS
1	G	4034	ASN
1	G	4142	ASN
1	G	4728	HIS
1	G	4886	HIS
1	G	4947	GLN
1	G	4984	ASN
2	H	87	HIS

### 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 monosaccharides in this entry.

### 5.6 Ligand geometry [i](#)

Of 4 ligands modelled in this entry, 4 are monoatomic - leaving 0 for Mogul analysis.



There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

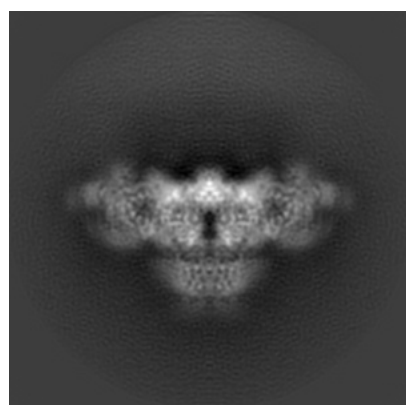
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-9521. These allow visual inspection of the internal detail of the map and identification of artifacts.

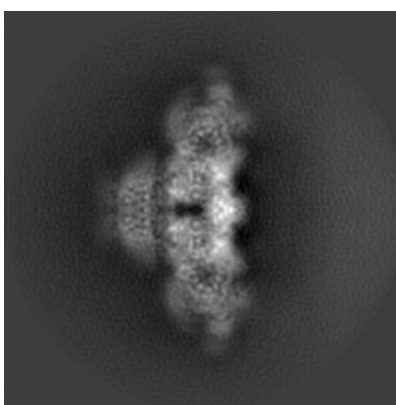
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

### 6.1 Orthogonal projections [i](#)

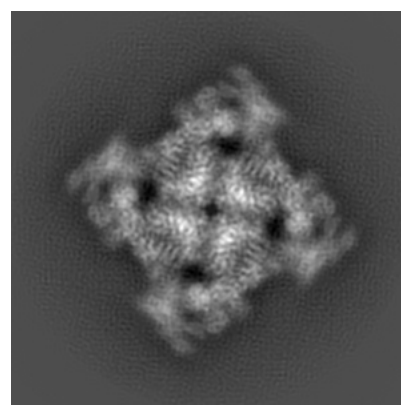
#### 6.1.1 Primary map



X



Y

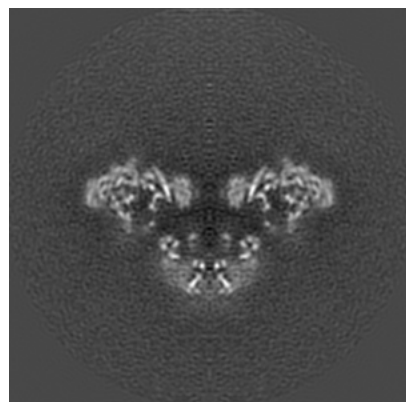


Z

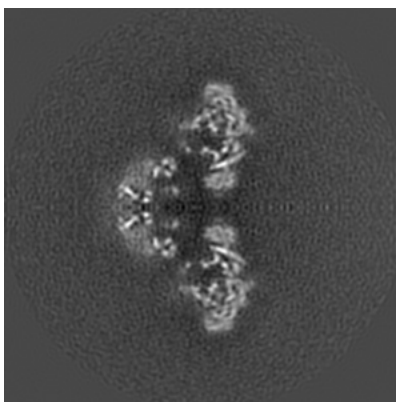
The images above show the map projected in three orthogonal directions.

### 6.2 Central slices [i](#)

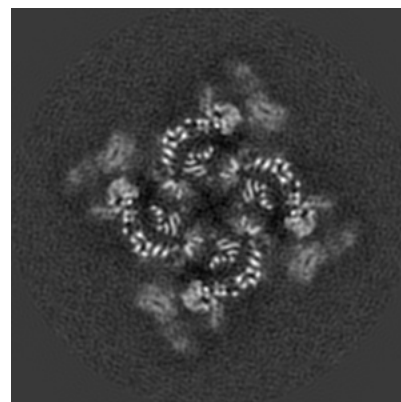
#### 6.2.1 Primary map



X Index: 180



Y Index: 180

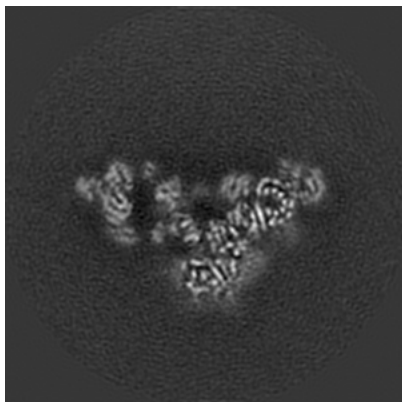


Z Index: 180

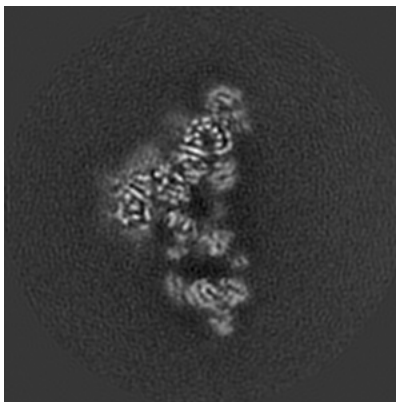
The images above show central slices of the map in three orthogonal directions.

## 6.3 Largest variance slices [i](#)

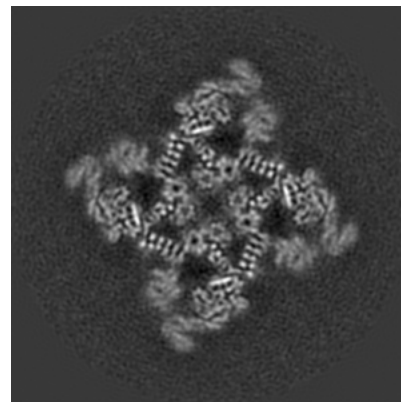
### 6.3.1 Primary map



X Index: 169



Y Index: 191

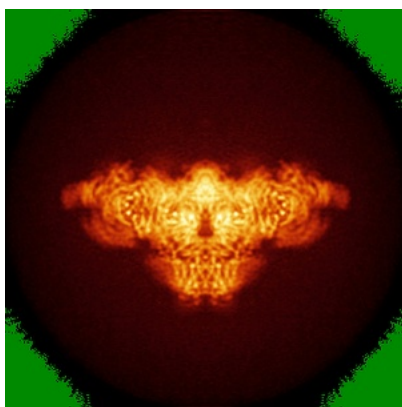


Z Index: 190

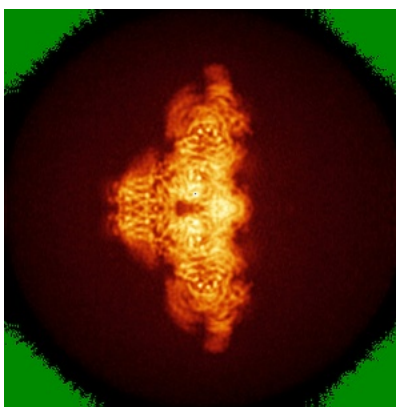
The images above show the largest variance slices of the map in three orthogonal directions.

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

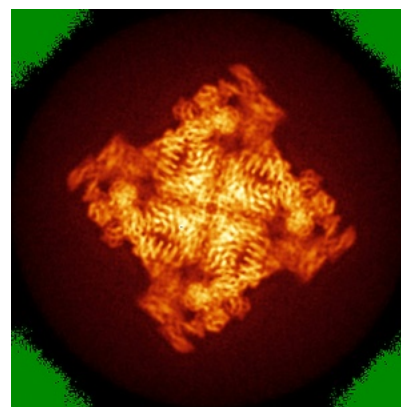
### 6.4.1 Primary map



X



Y



Z

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

## 6.5 Orthogonal surface views [i](#)

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.075. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

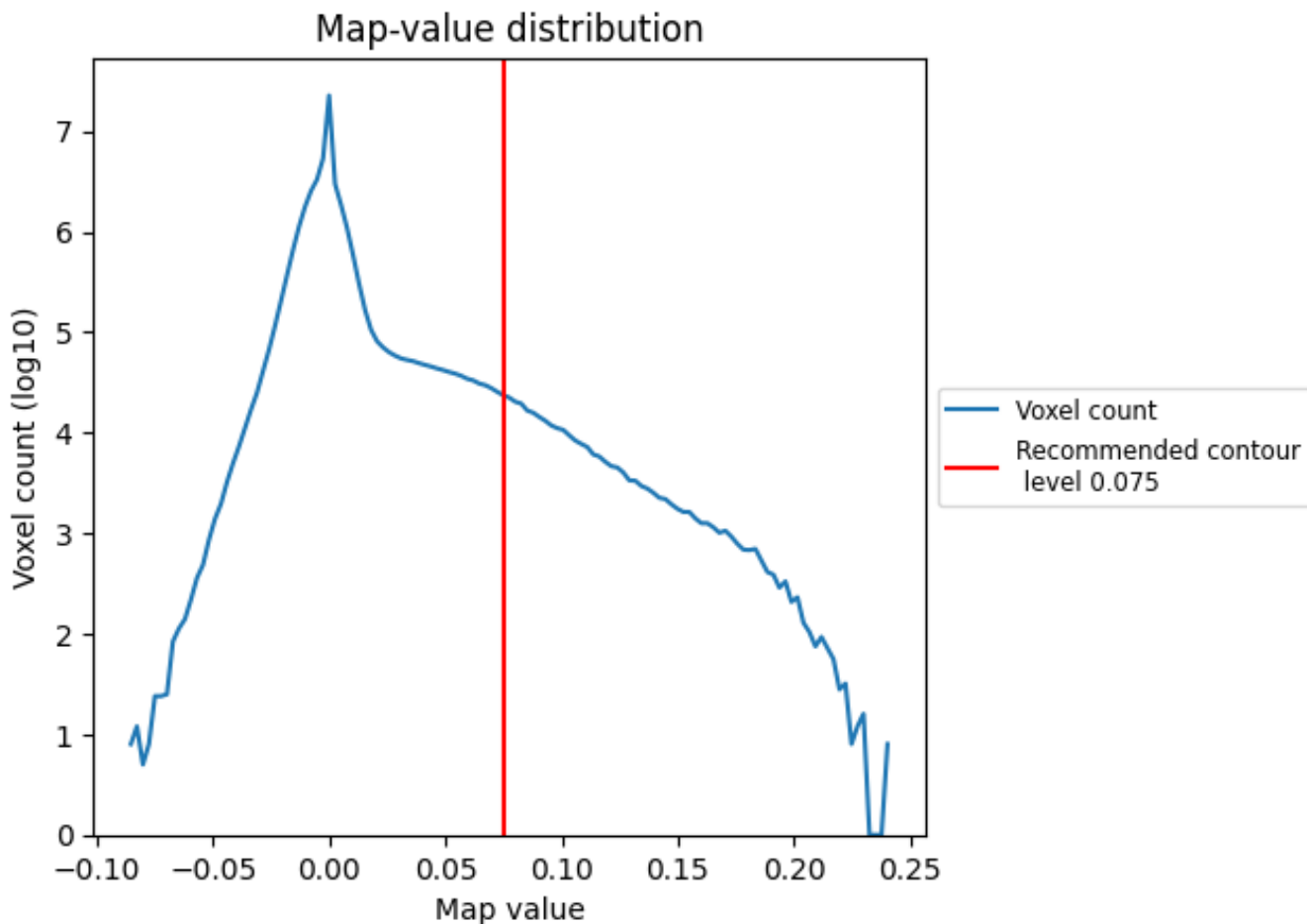
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

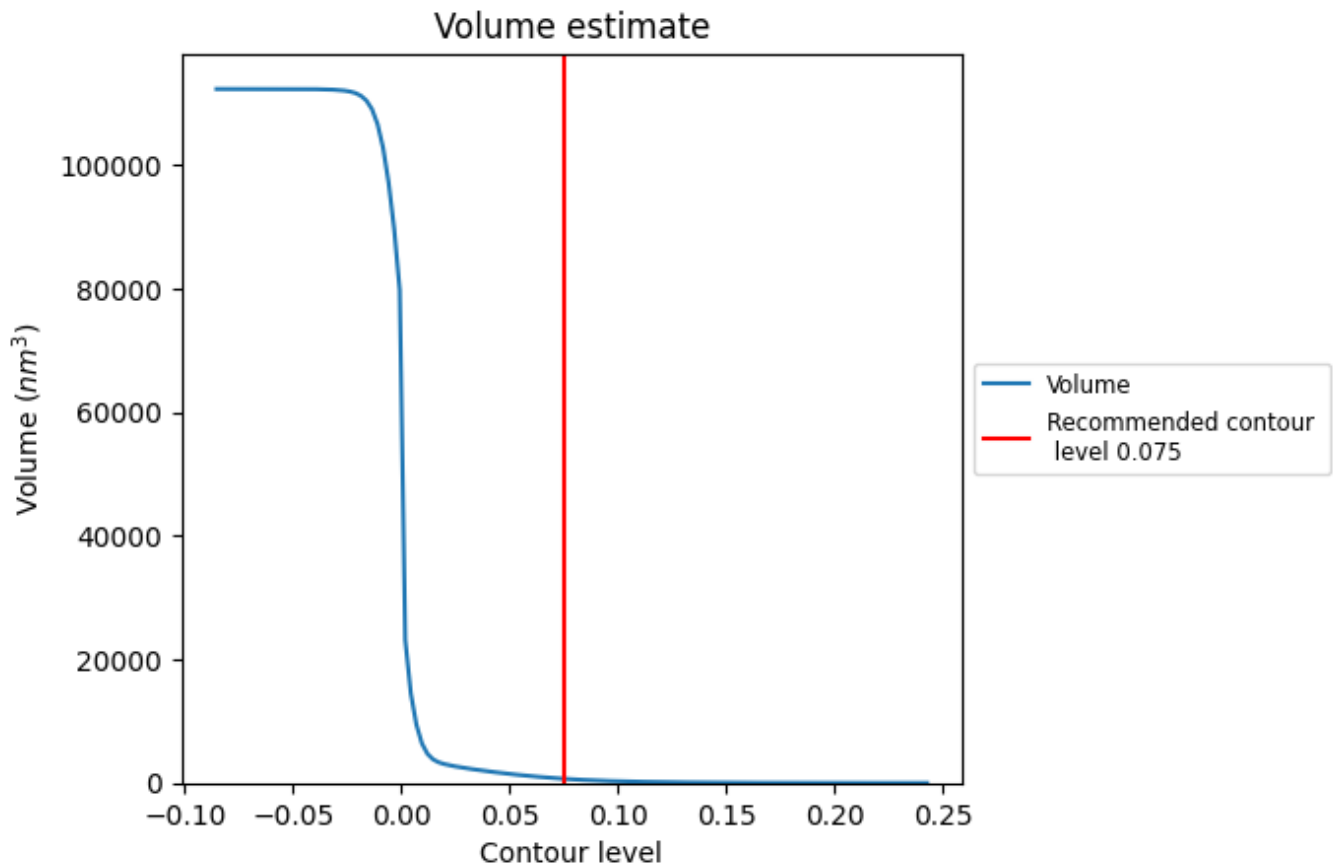
This section contains the results of statistical analysis of the map.

### 7.1 Map-value distribution [i](#)



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

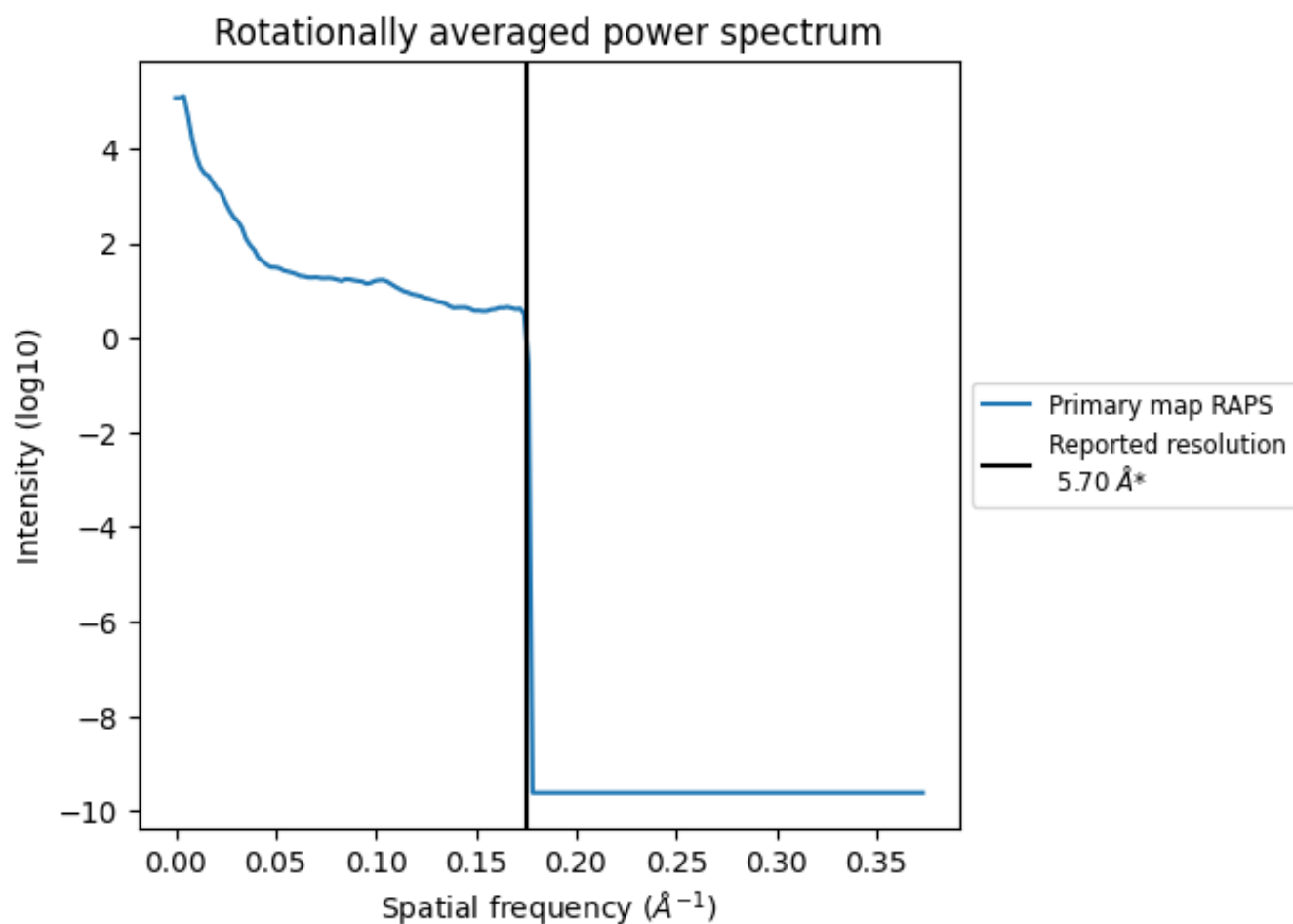
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 679 nm<sup>3</sup>; this corresponds to an approximate mass of 613 kDa.

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

### 7.3 Rotationally averaged power spectrum [\(i\)](#)



\*Reported resolution corresponds to spatial frequency of 0.175 Å<sup>-1</sup>

## 8 Fourier-Shell correlation

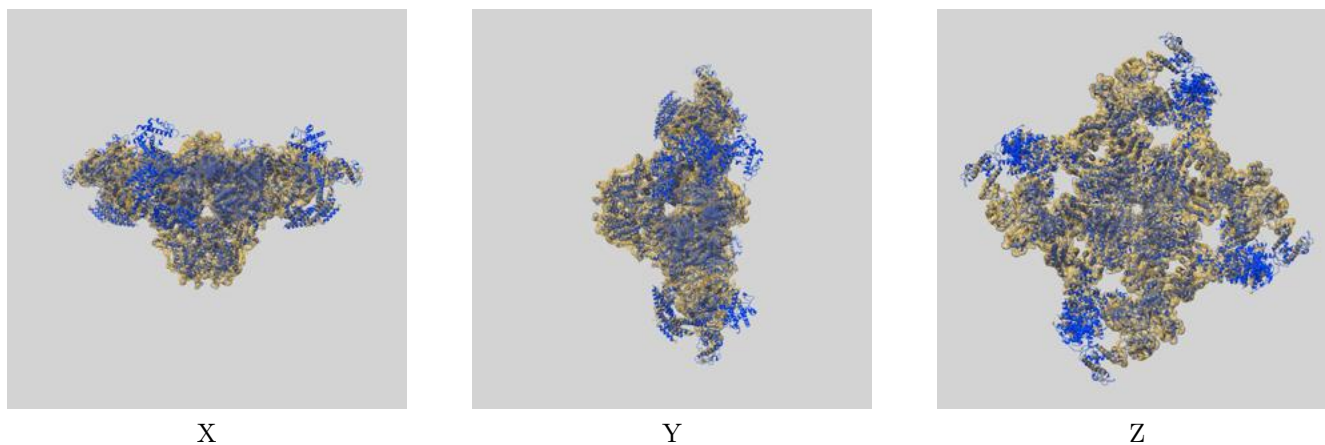
This section was not generated. No FSC curve or half-maps provided.



## 9 Map-model fit [i](#)

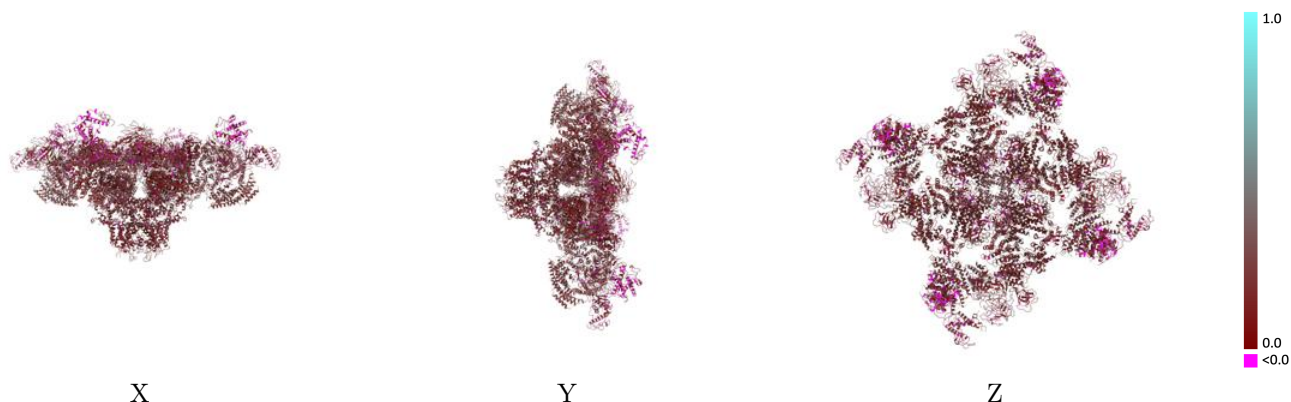
This section contains information regarding the fit between EMDB map EMD-9521 and PDB model 5GL1. Per-residue inclusion information can be found in section [3](#) on page [4](#).

### 9.1 Map-model overlay [i](#)



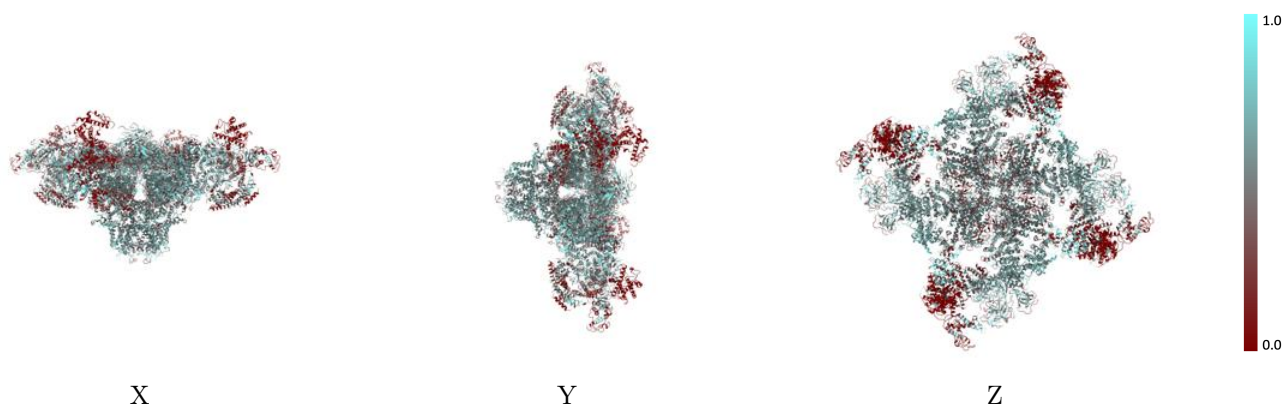
The images above show the 3D surface view of the map at the recommended contour level 0.075 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



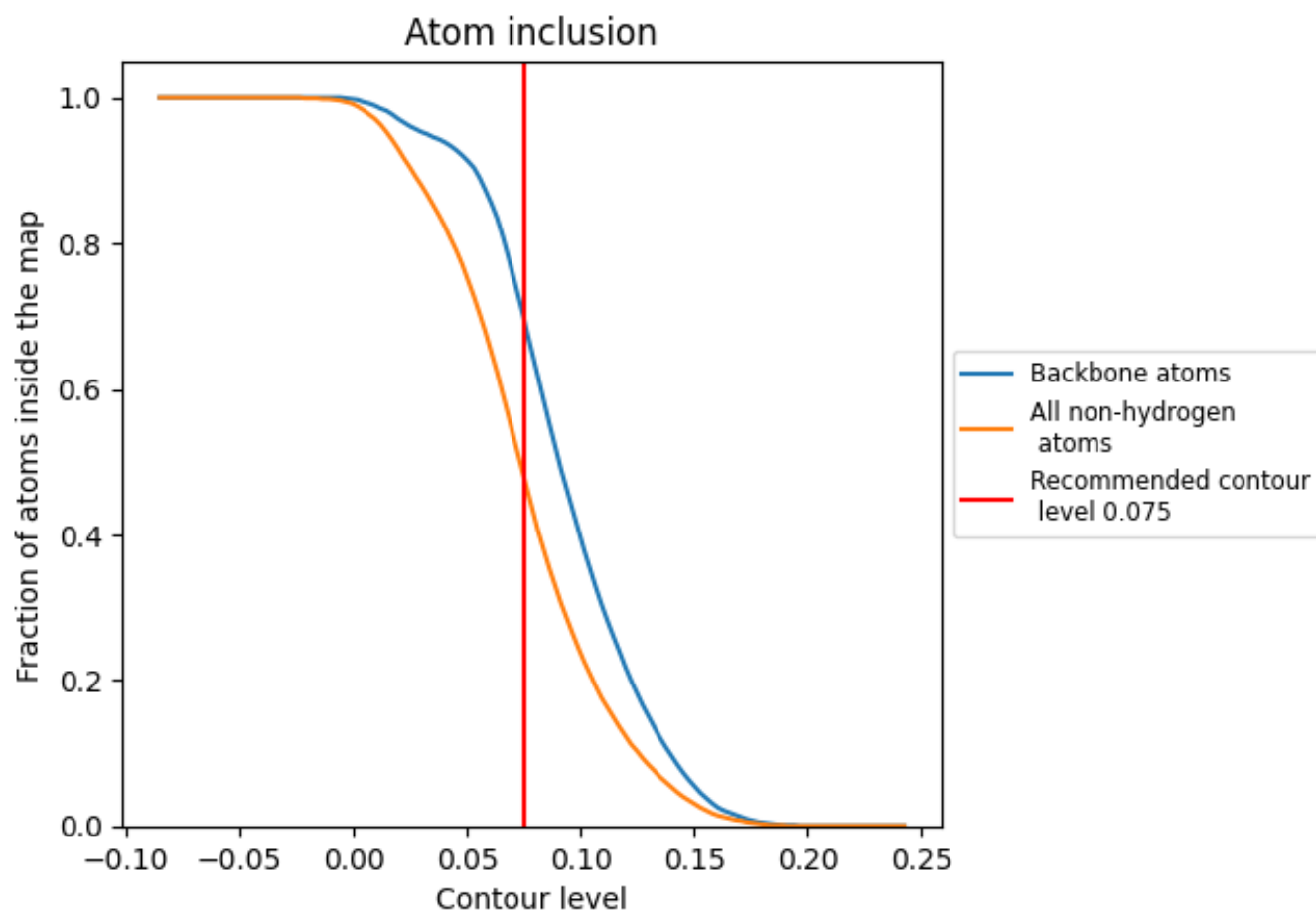
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.075).

## 9.4 Atom inclusion [i](#)



At the recommended contour level, 70% of all backbone atoms, 48% of all non-hydrogen atoms, are inside the map.

## 9.5 Map-model fit summary [i](#)

The table lists the average atom inclusion at the recommended contour level (0.075) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.4830	0.2010
A	0.4820	0.2020
B	0.4990	0.2060
C	0.4820	0.2010
D	0.4990	0.2080
E	0.4820	0.2010
F	0.5000	0.2050
G	0.4820	0.2010
H	0.4970	0.2040

