



Full wwPDB EM Validation Report ⓘ

Mar 27, 2026 – 04:31 PM UTC

PDB ID : 9PQX / pdb_00009pqx
EMDB ID : EMD-71792
Title : Structure of M. tuberculosis type-I FAS in the apo state
Authors : Mazhab-Jafari, M.T.; Samani, E.K.
Deposited on : 2025-07-23
Resolution : 2.83 Å(reported)
Based on initial model : 6GJC

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

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

A user guide is available at

<https://www.wwpdb.org/validation/2017/EMValidationReportHelp>
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

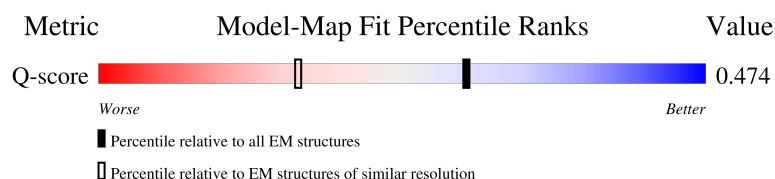
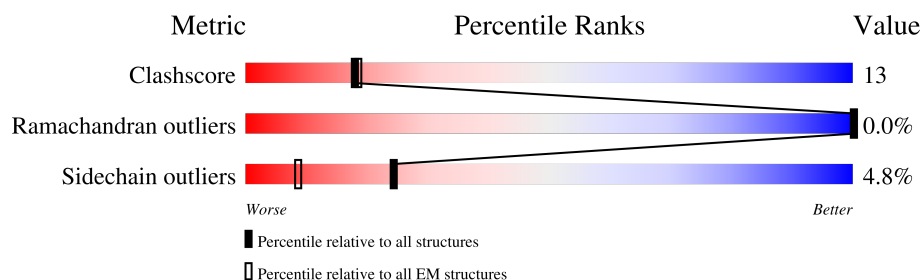
EMDB validation analysis : 0.0.1.dev132
Mogul : 2022.3.0, CSD as543be (2022)
MolProbity : 4-5-2 with Phenix2.0
Buster-report : wwPDB partial adaption of 1.1.7 (2018)
Percentile statistics : 20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics : 202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ : 1.9.13
Ideal geometry (proteins) : Engh & Huber (2001)
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP) : 2.49

1 Overall quality at a glance

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

The reported resolution of this entry is 2.83 Å.

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



Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	11847 (2.33 - 3.33)

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

Mol	Chain	Length	Quality of chain
1	A	3069	 5% 63% 25% • 10%
1	B	3069	 5% 63% 26% • 10%
1	C	3069	 5% 61% 27% • 10%
1	D	3069	 5% 63% 26% • 10%

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Mol	Chain	Length	Quality of chain
1	E	3069	5% 63% 26% • 10%
1	F	3069	5% 62% 26% • 10%

2 Entry composition [i](#)

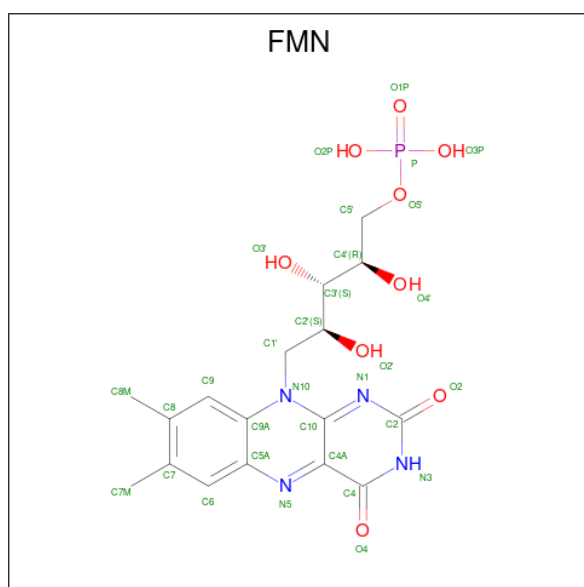
There are 2 unique types of molecules in this entry. The entry contains 124914 atoms, of which 0 are hydrogens and 0 are deuteriums.

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 3-oxoacyl-ACP synthase.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	2770	Total	C	N	O	S	0	0
			20787	13071	3700	3951	65		
1	B	2770	Total	C	N	O	S	0	0
			20788	13072	3700	3951	65		
1	C	2770	Total	C	N	O	S	0	0
			20779	13067	3700	3947	65		
1	D	2770	Total	C	N	O	S	0	0
			20801	13078	3703	3955	65		
1	E	2770	Total	C	N	O	S	0	0
			20782	13068	3699	3950	65		
1	F	2770	Total	C	N	O	S	0	0
			20791	13073	3700	3953	65		

- Molecule 2 is FLAVIN MONONUCLEOTIDE (CCD ID: FMN) (formula: $C_{17}H_{21}N_4O_9P$) (labeled as "Ligand of Interest" by depositor).

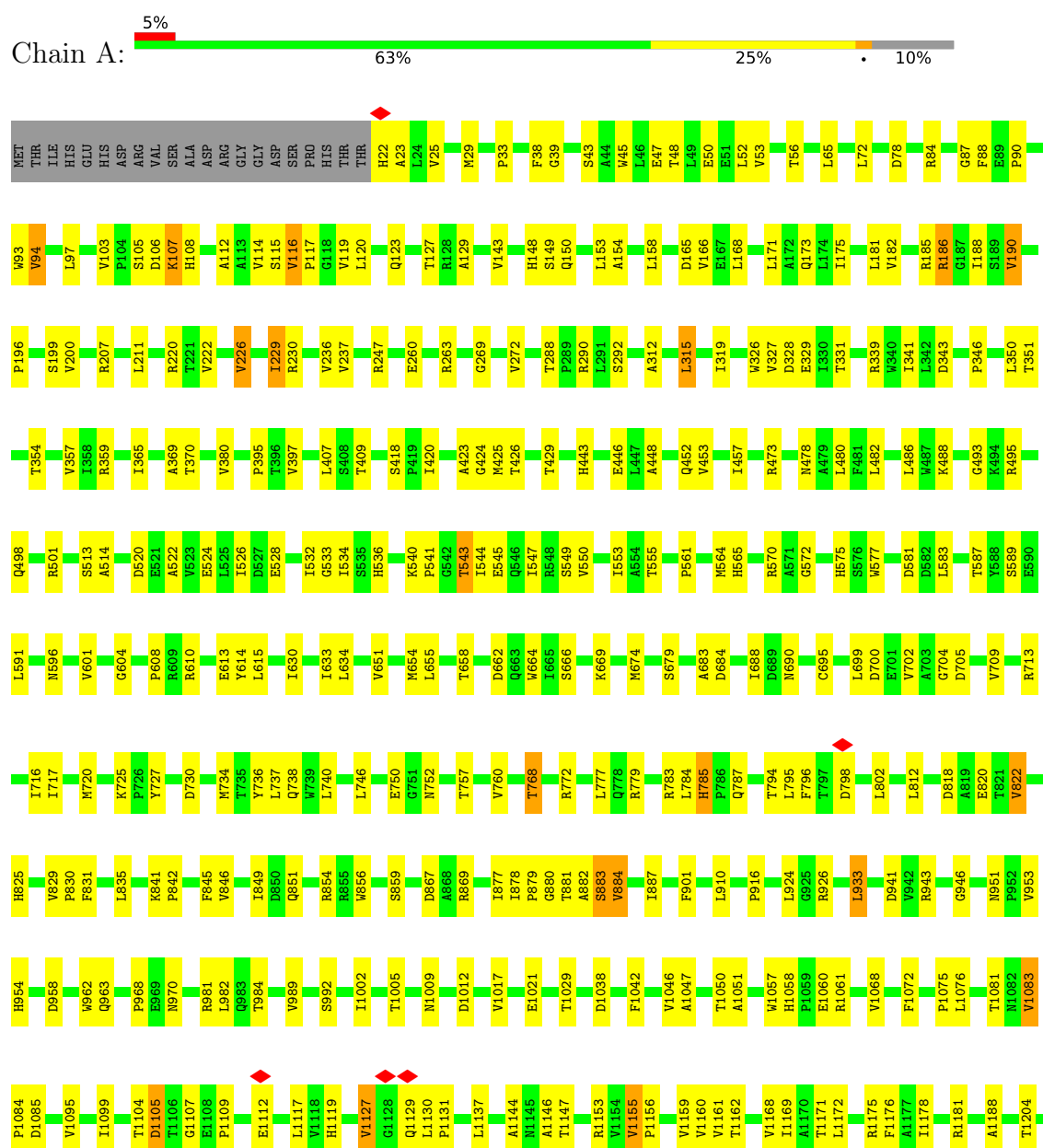


Mol	Chain	Residues	Atoms					AltConf
2	A	1	Total 31	C 17	N 4	O 9	P 1	0
2	B	1	Total 31	C 17	N 4	O 9	P 1	0
2	C	1	Total 31	C 17	N 4	O 9	P 1	0
2	D	1	Total 31	C 17	N 4	O 9	P 1	0
2	E	1	Total 31	C 17	N 4	O 9	P 1	0
2	F	1	Total 31	C 17	N 4	O 9	P 1	0

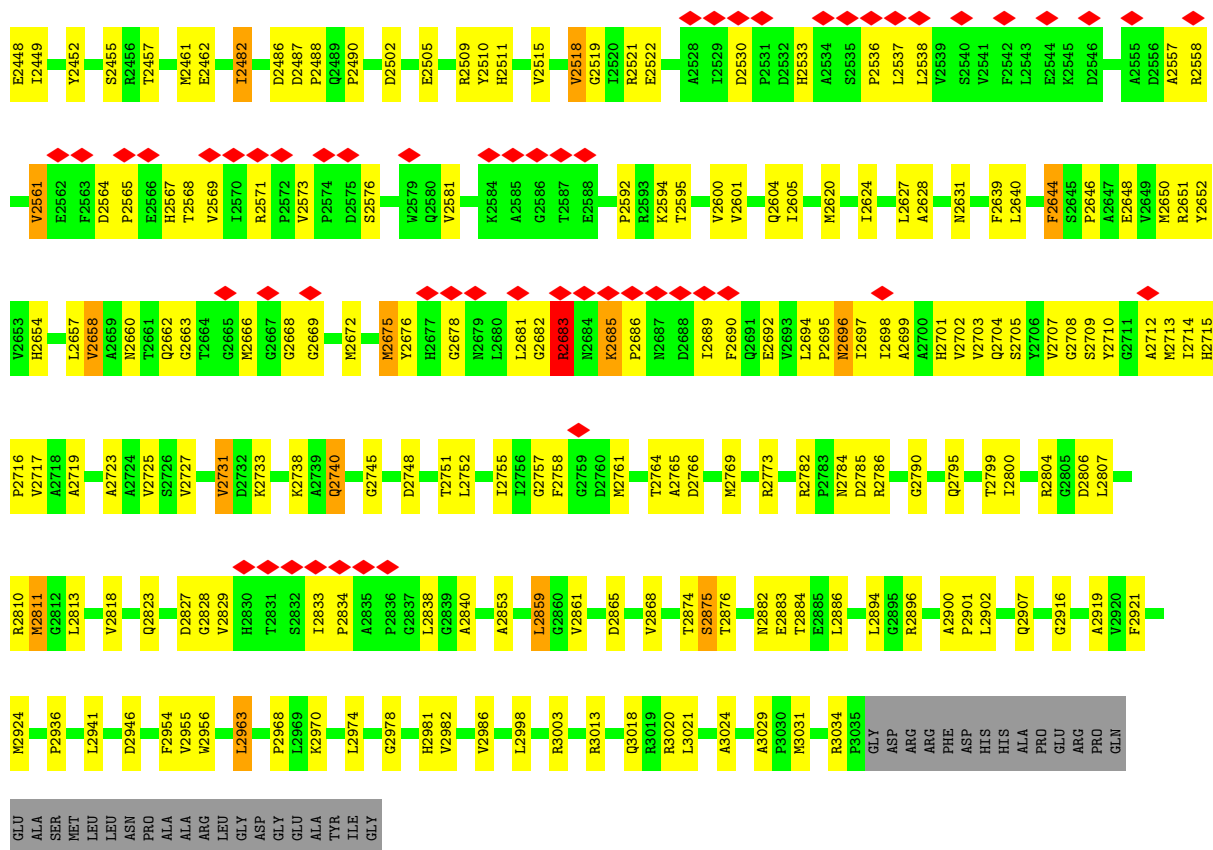
3 Residue-property plots [i](#)

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: 3-oxoacyl-ACP synthase



S2345	L2271	V2186	R2044	GLY	THR	ALA	ASP	A1709	I1617	G1530	S1524	C1447	A1323	R1207
E2360	S2274	D2187	L2050	GLY	VAL	ALA	ALA	H1710	R1618	G1530	Y1525		S1324	R1208
R2367	ASN	L2189	W2051	THR	VAL	THR	THR	S1711	D1619	Y1526	Y1526	A1456	R1325	R1209
S2368	ARG	S2200	L2052	ILE	ALA	ALA	ALA	V1713	L1620	A1527	A1527	L1457	R1326	R1210
P2369	GLY	S2205	D2053	ASP	LEU	THR	THR	N1717	E1624	G1530	G1530	R1460	F1223	
I2370	MET	L2206	D2054		GLY	THR	THR	A1718	P1625			V1461	V1226	
D2373	GLY	H2207	L2058		THR	THR	THR	E1719	L1626	R1533	R1533	F1462	S1227	
L2378	GLY	D2210	E2067		GLY	THR	THR	L1725	D1627	G1534	G1534	H1463	E1246	
A2379	S2283	A2211	A1963		GLY	THR	THR	D1729	A1631	E1536	E1536	M1468	S1247	
L2383	A2289	Q2212	E1968		THR	THR	THR	T1750	D1632			H1469	V1260	
L2388	A2290	T1970	F1969		VAL	THR	THR	D1731	R1640	E1539	E1539	D1470		
K2391	L2293	G1975	G1975		GLY	THR	THR	PR0	R1641			I1471	V1280	
A2392	D2294	R1976	R1976		GLY	THR	THR	PR0	F1642	V1542	V1542	I1472	M1253	
R2393	A2295	E1977	E1977		ALA	THR	THR	PR0	A1642	E1543	E1543	P1473	L1254	
E2394	V2296	L2216	L2216		VAL	THR	THR	PR0	E1643	R1544	R1544	D1474	L1255	
Q2395	V2297	L1980	L1980		GLY	THR	THR	PR0	E1651	R1545	R1545	D1475	S1256	
M2396	Q2093	H1985	H1985		THR	THR	THR	PR0	L1652	R1546	R1546	E1476	Q1260	
S2397	F2220	G1986	G1986		GLY	THR	THR	PR0	L1653	E1547	E1547	L1477	H1261	
A2398	A2221	L1987	L1987		GLY	THR	THR	PR0	Q1656	L1548	L1548	G1478	A1262	
A2399	A2222	L1988	L1988		ALA	THR	THR	PR0	F1657	T1549	T1549	R1479	V1263	
A2400	R2223	L1989	L1989		VAL	THR	THR	PR0		G1550	G1550	S1480	V1269	
A2401	Q2224	G1989	G1989		GLY	THR	THR	PR0	V1661	G1551	G1551	N1481	P1273	
V2402	V2225	Q1990	Q1990		ALA	THR	THR	PR0	R1662	R1552	R1552	I1482	A1274	
D2403	Q2227	L1991	L1991		ALA	THR	THR	PR0	W1663	R1553	R1553	R1483	R1275	
E2404	D2228	G1992	G1992		VAL	THR	THR	PR0	I1664	S1554	S1554	L1484	L1276	
D2405	L2229	L1993	L1993		GLY	THR	THR	PR0	T1666	F1555	F1555	A1485	V1277	
A2406	S2230	D1994	D1994		VAL	THR	THR	PR0	I1556	L1557	L1557	R1488	T1280	
E2407	E2231	L1995	L1995		ASP	THR	THR	PR0	L1670	G1560	G1560	Q1491	F1283	
L2412	A2232	D1996	D1996		VAL	THR	THR	PR0	I1671	I1561	I1561	T1492	L1284	
L2415	R2235	P1996	P1996		GLY	THR	THR	PR0	I1672	D1562	D1562	D1493	Q1408	
P2418		V1997	V1997		ALA	THR	THR	PR0	A1675			L1494		
P2419	T2129	A1998	A1998		ALA	THR	THR	PR0	E1682	H1566	H1566	D1495	M1411	
R2420	L2137	A1999	A1999		VAL	THR	THR	PR0	E1686	S1567	S1567	D1496	R1288	
P2428	Q2141	L2000	L2000		ALA	THR	THR	PR0	I1687	R1568	R1568	D1497	V1293	
Q2429	A2142	D2005	D2005		VAL	THR	THR	PR0	E1688			D1498	V1297	
W2430	L2151	S2006	S2006		ALA	THR	THR	PR0	V1689	R1571	R1571	E1501	E1298	
L2433	D2152	L2008	L2008		ARG	THR	THR	PR0	K1690	V1572	V1572	F1502	V1299	
D2434	E2153	L2009	L2009		GLY	THR	THR	PR0	P1693	G1573	G1573	G1505	V1300	
V2435	Y2159	L2010	L2010		THR	THR	THR	PR0	T1694	V1574	V1574	F1502	G1301	
V2438	A2167	L2011	L2011		VAL	THR	THR	PR0	V1695			G1505	I1302	
D2439	R2168	W2020	W2020		SER	THR	THR	PR0	I1696	R1578	R1578	I1506	E1307	
L2440	Y2169	L2023	L2023		VAL	THR	THR	PR0	A1696	A1589	A1589	A1507	I1308	
V2441	A2171	W2024	W2024		LEU	THR	THR	PR0	G1697			A1434	V1309	
V2442	N2179	V2027	V2027		GLY	THR	THR	PR0	L1698	R1597	R1597	S1509	D1310	
G2446	W2180	V2035	V2035		ALA	THR	THR	PR0	M1701	Y1598	Y1598	T1510	V1311	
		D2037	D2037		ALA	THR	THR	PR0	T1702	I1599	I1599	G1511	V1315	
		R2039	R2039		GLY	THR	THR	PR0	L1703	P1600	P1600	G1512	G1440	
					GLY	THR	THR	PR0	P1706	N1601	N1601	F1513	E1441	
					GLY	THR	THR	PR0	E1707	L1602	L1602	L1514	L1319	
					GLY	THR	THR	PR0	Y1708	T1608	T1608	E1515	A1444	
					GLY	THR	THR	PR0		F1613	F1613	N1518		
					GLY	THR	THR	PR0				F1519		
					GLY	THR	THR	PR0				N1520		
					GLY	THR	THR	PR0				L1521		



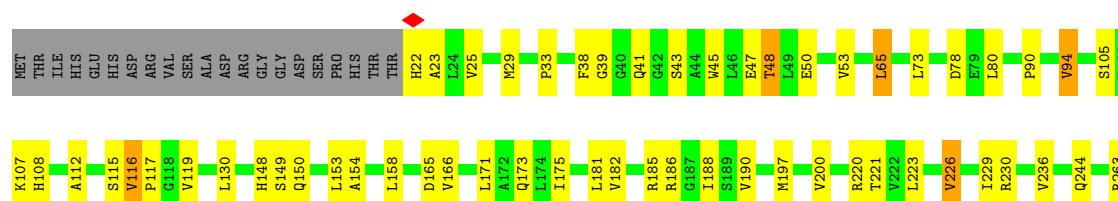
• Molecule 1: 3-oxoacyl-ACP synthase



V2027	ALA	GLY	GLY	V1689	A1589	L1514	V1439	P1337	N1231	A1124	D1012	V853	R741
F2028	LEU	ALA	ASP	K1090	I1594	E1515	G1440	G1338	H1234	R1125	A1012	R854	V744
V2035	PRO	GLY	ASP	P1693			E1441	G1340		V1126	V1017		E745
R2039	GLY	ALA	PHE	V1695	R1597	N1518	A1444	G1342	S1247	V1127	T1020	S859	L746
R2044	GLY	LEU	ASP	A1696	I1599	F1519	L1445	H1343	V1250	G1128	T1024	D867	E750
	SER	ALA	ALA		P1600	N1520	A1446			Q1129			
	GLY	ALA	ALA	T1702	P1601	L1521	C1447	M1346	M1253	P1131	T1027	T877	T757
D2054	GLY	LEU	ALA	K1703	L1602	S1524	I1451	G1347	S1256	M1027	M1027	G880	V760
I2058	ALA	ARG	THR	L1705	R1611	Y1526	A1456	M1348		L1137	T1029	T881	
D2059	THR	SER	LEU	P1706	T1614	A1527	L1457	E1349	H1261	T1138	D1038	A882	T768
	ILE	LEU	LEU	E1707	I1614	G1530		R1358	A1282	V1139	D1039	S883	L778
A2066	ASP	THR	ILE	Y1708	R1618	R1533	M1460	R1359	T1263	A1144	S1039	V884	L777
G2071	GLY	LYS	LEU	V1715	D1619	G1534	V1461	V1360	T1286	H1145	P1040		Q778
L1966	LEU	ALA	SER				G1465	D1362		A1146	E1041		R779
S2087	GLY	ARG	ALA	E1719	P1622	L1535			R1271	T1147	F1042	T888	
R2092	SER	THR	LYS	D1729	A1623	E1536	H1469	D1365	R1275	T1149	V1046	P901	R783
Q2093	SER	TYR	MET	T1730	E1624	A1537	D1470	K1366	L1277		A1047		H784
I2094	ARG	PRO	LYS	D1731	P1625	L1538	I1471	F1367	V1276	R1153	T1050	T906	H785
	ASP	ILE	ASP		L1626	E1539	V1472	T1368	G1278	V1154	T1051		P786
	ASP	TYR	GLN	PRO	D1627	V1542	F1473			V1155	A1051	L910	D788
R2101	GLY	GLY	ILE	GLU	L1637	E1543	R1474	F1374	M1279	P1156	H1058	P916	T794
R1976	ALA	ILE	ILE	PRO				S1375		V1157	P1059		L795
E2107	MET	VAL	GLU	GLU	A1631	R1544	D1475	V1376	L1284	V1158	P1059	L924	F796
G1978	GLY	LEU	GLU	PRO	D1632	R1545	E1476			V1159	P1084	E1060	
V1979	HIS	LEU	LEU	GLU	Y1633	R1546	L1477	D1381	V1287		A1086	G925	T797
L1980	ASP	ASP	ASP	GLU		R1547	G1478	R1382	R1288	V1160	L1087	R926	D798
	ASP	SER	SER	ASP	V1636	E1547	R1479			T1162	V1068		P805
	GLU	ILE	ILE	GLU	L1637	L1548	S1480	I1387	V1293	V1168	F1072	L933	
R1985	ASN	GLU	GLU	PRO		T1549		I1388		I1169		L937	L812
L1986	ALA	ASP	ALA	VAL	R1640	G1550	N1481	H1393	V1297	A1170	T1081		D818
V1987	LEU	ILE	ILE	ALA	P1641	G1551	Y1482		G1301	T1171	N1082	R943	
L1988	ALA	THR	THR	GLU	R1642	R1552	R1483	H1396	I1302	L1172	V1083		
Q1990	ASP	ARG	ARG	SER	E1643	R1553	L1484	P1397	E1307	E1173	P1084	G946	V822
L1991	GLY	THR	THR	PRO	M1644	S1554	A1485	D1398		E1174	A1086	R947	Q823
L1992	ALA	VAL	VAL	ALA	A1645	S1554		G1399	T1308	R1175	P1085		G823
G1993	SER	LEU	SER	PRO	R1646	F1555	R1488	V1400	V1309	F1176	L1087	N951	L824
L1994	VAL	PRO	ARG	VAL		I1556		L1401	D1310	A1177	V1088	V953	H825
D1994	ASN	ARG	ARG	VAL	L1652	L1557	Q1491	Y1402	V1311	I1178	V1095	H954	V829
D1995	GLY	ASN	GLN	SER	F1657	G1560	T1492	T1404	V1315	R1181	I1099	P958	P830
P1996	ILE	LYS	LYS	GLU		I1561	D1493	Q1405		T1182	I1099		F831
V1997	ASP	ARG	ARG	ALA	R1661	D1562	L1494	F1406	L1319	A1188	T1104	T834	T834
H1998	VAL	LEU	LEU	ALA	V1662	D1562	D1495	T1407	V1320		D1105	L835	L835
A1999	ALA	VAL	VAL	PRO	W1663	H1566	D1496	Q1408	M1321	T1204	T1106	C836	C836
L2000	ALA	ILE	ASP	ALA	I1664	S1567	A1497	V1409	S1322		G1107	P968	L839
L2001	SER	ALA	GLY	PRO	T1666	R1568	D1498	A1410	A1323	R1207	E1108	P969	G840
P2001	ALA	ALA	GLY	ALA				M1411	S1324	R1208	P1109	N970	K841
A2003	SER	LEU	GLU	SER	L1670	R1571	A1501	A1417	A1325	R1209	V1110	T974	P842
A2004	VAL	VAL	VAL	ALA	F1671	E1576	F1502	Q1418	R1326		V1111		V843
D2005	LYS	ASN	LYS	ASN	I1672			V1419	L1327	F1223	E1112	L982	R844
S2006	THR	GLY	GLY	GLY	F1684	G1505	I1506	T1433	V1333	V1226	G1113	L991	F845
E2007	ALA	ILE	ALA	PRO	V1685	A1507	L1507		A1335		L1114		I849
L2008	SER	VAL	THR	ARG	E1686	E1508	S1509		F1336			T1002	D850
I2009	LEU	ASP	LEU	PRO	I1687	D1582		S1438					
D2010	ASP				G1688	M1585							
L2011						A1587							
E2015						D1588							

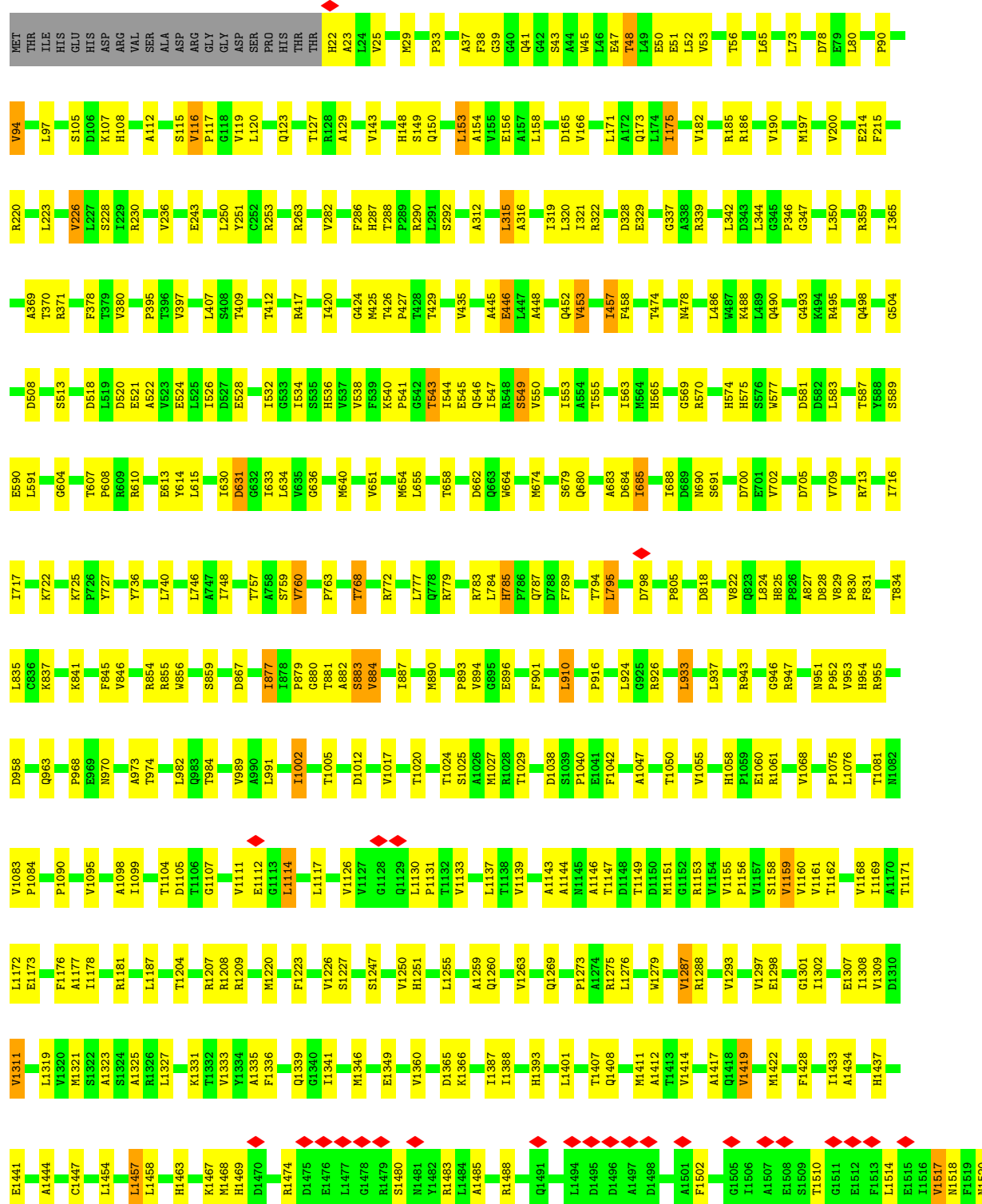


• Molecule 1: 3-oxoacyl-ACP synthase

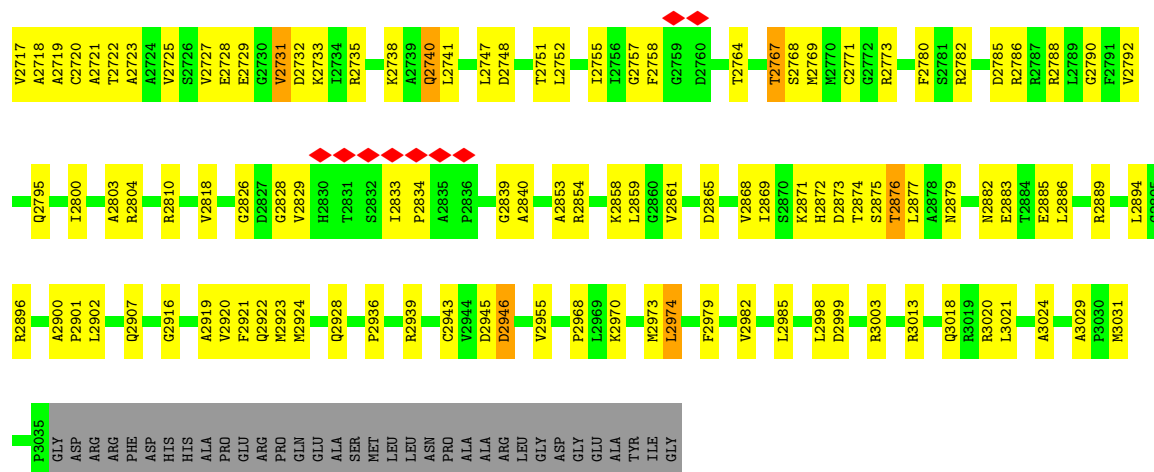


PRO	P1662	F1665	D1498	M1411	I1169	L1087	N970	K841	P726	O604	L519	T412
GLU	W1663	H1666	A1501	T1412	A1170	G1088	T974	P842	Y727	T607	D520	R417
GLU	E1665	S1567	A1501	T1413	G1089	G1089	T974	P843	T735	P608	E521	F286
GLU	P1666	R1568	F1502	V1414	E1173	P1090	L982	F845	T736	R609	A522	H287
PRO	Q1667	R1571	G1505	A1417	E1174	V1095	T984	B855	Q738	R610	E524	T288
VAL	L1668	I1506	I1506	Q1418	R1175	A1098	T984	B855	Q739	E613	L526	P289
ALA	L1669	I1507	I1507	V1419	F1176	A1099	T984	B855	Q739	E613	L526	R290
GLU	Q1670	E1508	S1509	M1422	A1177	I1099	V989	S859	L740	Y614	E528	L291
PRO	L1672	S1509	S1509	F1428	I1178	V1103	A990	H866	L746	L615	L529	S292
ALA	A1675	T1510	T1510	F1428	R1181	D1105	L991	D867	A747	M628	L529	A312
ASP	G1678	E1511	E1511	I1433	L1187	T1106	I1002	I877	I748	P629	I532	T429
VAL	E1682	F1513	F1513	A1434	D1189	G1107	T1006	I878	T757	I630	G533	L315
SER	L1683	L1514	L1514	H1437	P1190	E1108	T1006	I879	A758	D631	E533	A316
GLU	I1599	E1515	E1515	E1441	G1194	P1109	D1012	P879	S855	I534	I534	I319
ALA	P1600	I1516	I1516	E1441	G1194	V1111	D1012	G890	S759	I633	H536	L320
PRO	L1601	V1517	S1322	E1444	G1194	E1111	V1017	T881	V760	L634	V537	I321
ALA	L1602	M1518	A1323	A1444	T1204	E1112	V1017	A882	P763	V635	V538	R322
VAL	G1688	F1603	A1446	L1445	T1204	L1113	T1020	V894	T768	G636	K540	A448
ALA	V1689	M1520	C1447	C1447	T1204	L1114	E1021	V894	T768	M640	P541	L326
ALA	T1608	L1521	V1448	V1448	R1207	L1117	E1021	I887	Q452	I651	G542	V827
ALA	A1694	Q1525	T1449	T1449	R1209	V1126	T1024	I887	T772	V651	T543	D328
SER	R1618	Y1526	V1454	L1454	M1220	V1127	A1026	M890	M776	I544	E545	E329
SER	L1619	E1528	L1454	L1454	G1223	G1128	M1027	P893	I457	M654	E545	I457
GLY	L1620	I1528	L1457	L1457	F1223	Q1129	R1028	V894	F458	L655	Q546	F458
GLY	A1529	F1336	L1458	L1458	V1226	P1130	D1038	T895	I547	T658	I547	R461
PRO	G1530	P1337	L1458	L1458	S1227	P1131	S1039	F901	Q464	D622	I553	Q464
ARG	E1534	I1341	H1463	H1463	S1247	V1133	E1041	L910	T474	M674	T555	T474
ARG	F1534	K1467	M1468	M1468	V1250	G1129	F1042	P916	Q476	S679	E556	Q476
LEU	L1535	H1469	H1469	H1469	H1251	L1130	A1047	L924	N478	Q680	V557	T351
LEU	E1536	D1470	D1470	D1470	G1252	L1144	N1048	G925	L480	D684	K560	T354
ASP	L1537	R1474	R1474	R1474	M1253	A1144	T1050	R926	K488	I685	I563	R359
ALA	L1538	R1474	R1474	R1474	L1255	A1146	T1055	L933	Q490	I688	H565	T370
ALA	E1541	D1475	D1475	D1475	Q1260	T1147	L1053	L933	Q490	I688	L489	R371
ALA	E1542	E1476	E1476	E1476	Q1260	D1148	T1054	L937	G493	N690	R570	R371
LEU	R1544	G1477	G1477	G1477	V1263	D1149	T1055	L937	G493	H574	H574	N376
LEU	L1545	L1478	L1478	L1478	T1264	M1151	H1058	R943	G494	H574	H574	N376
LEU	E1546	R1479	R1479	R1479	A1265	G1152	P1059	R943	R495	H575	H575	F377
LEU	E1547	S1480	S1480	S1480	A1265	R1153	E1060	G946	R495	H575	H575	F377
ILE	F1547	N1481	N1481	N1481	R1271	V1155	R1061	R947	Q498	L699	W577	V380
ALA	L1548	R1482	R1482	R1482	P1273	P1156	R1061	R947	Q498	L699	W577	V380
LEU	E1643	L1484	L1484	L1484	P1273	P1156	R1061	R947	Q498	L699	W577	V380
SER	M1644	A1486	A1486	A1486	A1274	V1157	V1068	N951	G504	V702	D511	P384
ALA	G1550	G1550	G1550	G1550	D1398	V1157	V1068	N951	G504	V702	D511	P384
ALA	E1651	G1551	G1551	G1551	T1404	S1158	V1068	N951	G504	V702	D511	P384
MET	D1729	L1652	L1652	L1652	Q1405	S1158	V1068	N951	G504	V702	D511	P384
ARG	T1730	L1653	L1653	L1653	Q1405	S1158	V1068	N951	G504	V702	D511	P384
ILE	D1731	A1654	A1654	A1654	T1407	V1161	P1075	P953	D608	A703	D582	P395
ASP	G1655	G1655	G1655	G1655	T1407	V1161	P1075	P953	D608	A703	D582	P395
GLU	P1656	GLU	GLU	GLU	T1407	V1161	P1075	P953	D608	A703	D582	P395
ILE	Q1656	GLU	GLU	GLU	T1407	V1161	P1075	P953	D608	A703	D582	P395
GLU	F1657	F1657	F1657	F1657	T1407	V1161	P1075	P953	D608	A703	D582	P395
GLU	P1660	V1661	V1661	V1661	T1407	V1161	P1075	P953	D608	A703	D582	P395
GLU	P1661	V1661	V1661	V1661	T1407	V1161	P1075	P953	D608	A703	D582	P395

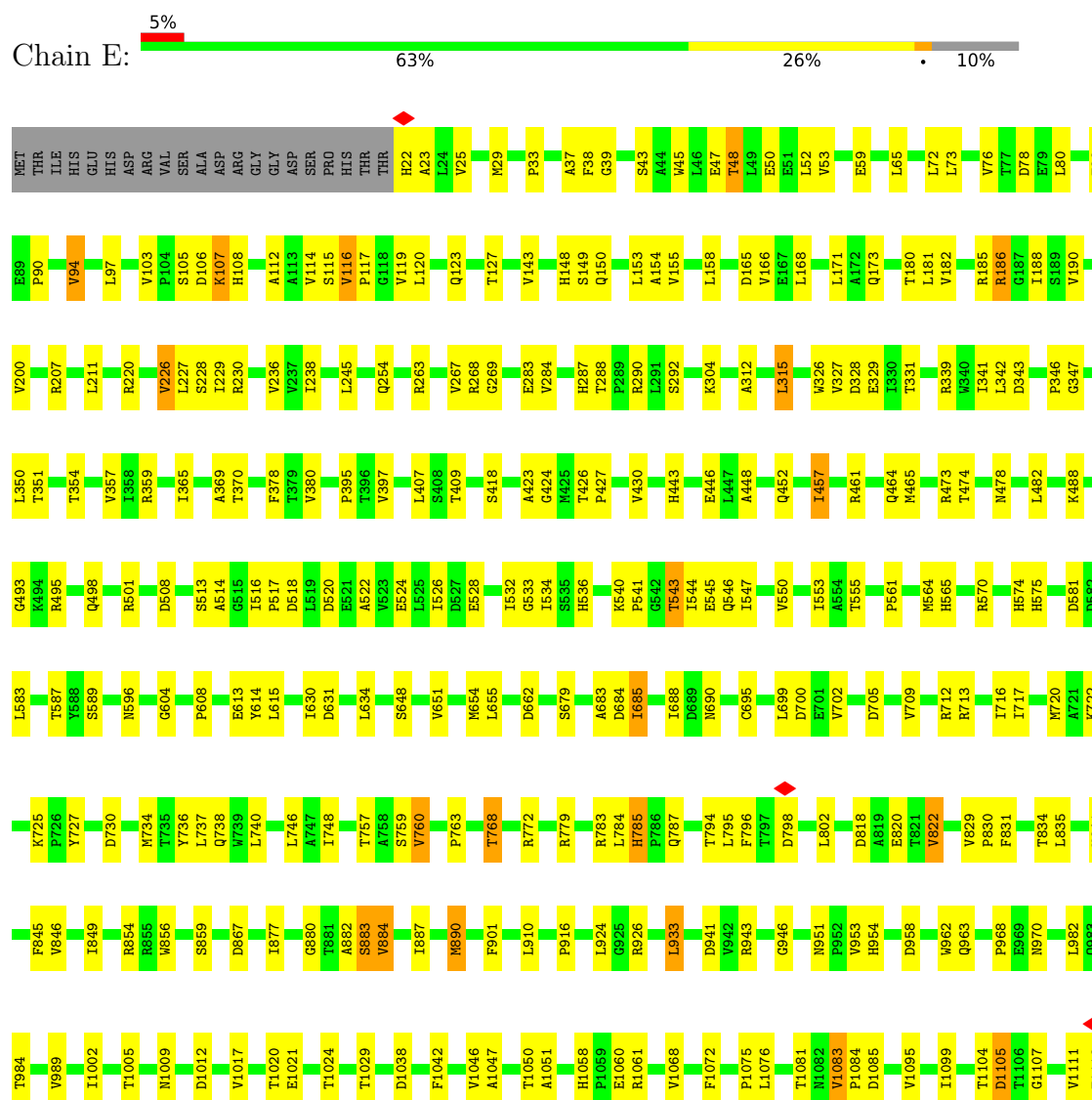




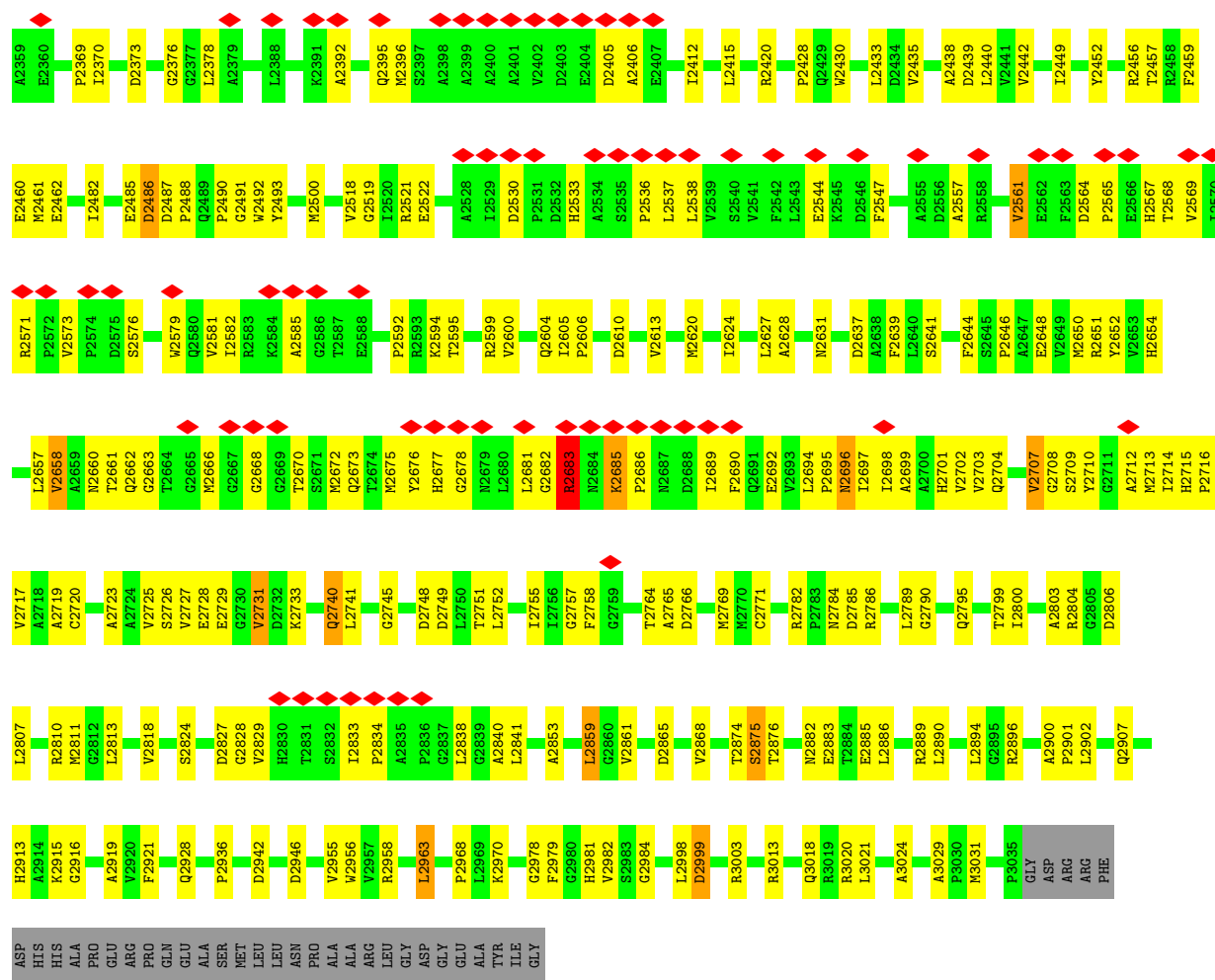
M2850	R2558	Y2452	E2348	PRO	A2177	R2022	VAL	LEU	ASP	PRO	G1697	L1602	L1521
R2851	V2561	T2457	L2353	ASN	A2178	R2022	ALA	GLY	GLY	ASP	L1698	T1608	L1522
E2852	E2562	M2457	E2360	GLY	N2179	V2024	PRO	GLY	ALA	ASP	G1523	S1524	G1523
D2853	D2563	E2460	E2366	PHE	A2188	V2027	SER	TRP	GLU	VAL	N1701	T1702	Q1525
L2854	F2564	M2461	A2366	GLY	L2189	F2028	ALA	ALA	SER	PHE	L1703	R1618	Y1526
V2855	P2565	E2462	A2366	GLY	V2190	F2028	GLY	LYS	ASP	ASP	K1704	D1619	A1527
E2856	E2566	V2463	E2464	GLY	E2191	V2035	SER	HIS	LEU	ALA	P1706	L1620	G1530
G2857	G2663	L2467	P2369	D2283	L2201	D2038	GLY	VAL	LEU	ALA	E1624	E1624	R1533
T2858	T2664	L2370	L2370	A2289	G2202	R2039	ALA	GLU	THR	THR	P1625	P1625	G1534
K2859	K2665	D2373	D2373	K2290	P2203	R2044	THR	VAL	SER	LEU	D1627	L1626	L1535
L2860	L2666	L2378	L2378	L2293	A2211	L2050	ILE	ALA	GLN	ALA	T1712	V1713	E1536
M2861	M2667	A2379	A2379	D2294	T2215	D2054	ASP	GLY	THR	ALA	N1717	E1631	A1537
N2862	N2668	L2388	L2388	A2295	L2216	D2054	THR	THR	LYS	SER	D1632	D1632	L1538
P2863	P2669	E2391	E2391	W2300	F2218	I2058	ARG	GLY	ALA	SER	R1720	W1636	V1542
Q2864	Q2670	A2392	A2392	H2301	A2221	D2059	ALA	ARG	ALA	THR	E1642	E1642	E1543
R2865	R2671	R2393	R2393	A2302	E2221	D2059	GLY	SER	ARG	LEU	L17295	W1636	R1544
S2866	S2672	E2394	E2394	E2303	V2225	E2070	GLY	GLY	THR	LYS	E1639	E1639	R1545
T2867	T2673	Q2395	Q2395	S2304	V2226	G2071	ARG	GLY	TYR	VAL	D1729	E1646	E1546
V2868	V2674	M2396	M2396	S2305	G2227	S2087	PRO	ILE	ARG	PRO	T1730	P1643	E1547
W2869	W2675	S2397	S2397	W2306	D2228	Q2093	ASP	GLY	TYR	ASP	D1731	E1642	L1548
X2870	X2676	A2398	A2398	A2307	D2228	R2092	GLY	GLY	GLN	GLU	T1549	T1549	G1550
Y2871	Y2677	A2399	A2399	A2308	L2229	Q2093	VAL	VAL	GLU	GLU	E1651	E1651	G1551
Z2872	Z2678	A2400	A2400	R2309	S2230	I2094	LEU	HIS	LEU	GLU	L1652	L1652	R1552
A2873	A2679	A2401	A2401	V2310	E2231	E2107	HIS	HIS	ASP	ASP	W1655	W1655	R1553
C2874	C2680	V2402	V2402	S2311	A2232	N2108	GLY	GLY	ILE	ILE	Q1656	Q1656	S1554
D2875	D2681	D2403	D2403	L2312	G2233	E2110	ALA	ALA	ASP	ASP	F1657	F1657	F1555
E2876	E2682	E2404	E2404	A2313	S2234	E2110	LEU	LEU	VAL	VAL	P1660	P1660	L1557
F2877	F2683	E2405	E2405	A2313	R2235	Y2114	ALA	ALA	ARG	ARG	V1661	V1661	G1560
G2878	G2684	D2406	D2406	A2315	A2236	V2121	ASP	ASP	THR	THR	R1662	R1662	R1561
H2879	H2685	A2407	A2407	A2315	E2237	V2121	VAL	VAL	GLY	GLY	W1663	W1663	L1561
I2880	I2686	E2408	E2408	L2316	M2238	G2123	SER	SER	VAL	VAL	I1664	I1664	D1562
J2881	J2687	H2412	H2412	R2321	K2241	A2124	PRO	PRO	ARG	ARG	E1665	E1665	P1563
K2882	K2688	L2415	L2415	G2322	V2242	G2123	ASP	ASP	THR	THR	Q1667	Q1667	V1564
L2883	L2689	M2415	M2415	T2323	R2241	A2124	VAL	VAL	GLY	GLY	P1667	P1667	P1564
M2884	M2690	R2420	R2420	GLY	V2242	I2129	LYS	LYS	VAL	VAL	D1668	D1668	H1565
N2885	N2691	S2428	S2428	LEU	L2243	I2129	GLY	GLY	ASN	ASN	V1567	V1567	S1567
P2886	P2692	T2428	T2428	MET	L2244	L2137	ILE	ILE	LYS	LYS	F1671	F1671	R1568
Q2887	Q2693	V2428	V2428	GLY	L2244	A2142	ASP	ASP	ARG	ARG	I1672	I1672	R1571
R2888	R2694	W2429	W2429	LEU	L2244	A2142	ALA	ALA	PRO	PRO	G1678	G1678	E1576
S2889	S2695	X2430	X2430	LEU	L2244	I2145	VAL	VAL	ILE	ILE	E1682	E1682	R1579
T2890	T2696	Y2430	Y2430	LEU	L2244	E2153	SER	SER	ALA	ALA	E1686	E1686	M1585
V2891	V2697	L2433	L2433	LEU	L2244	E2153	VAL	VAL	GLY	GLY	I1687	I1687	P1586
W2892	W2698	D2434	D2434	LEU	L2244	E2153	ALA	ALA	THR	THR	V1689	V1689	A1589
X2893	X2699	V2435	V2435	LEU	L2244	E2153	ALA	ALA	VAL	VAL	P1693	P1693	T1694
Y2894	Y2700	D2439	D2439	LEU	L2244	E2153	ALA	ALA	VAL	VAL	T1694	T1694	R1597
Z2895	Z2701	L2440	L2440	LEU	L2244	E2153	ALA	ALA	VAL	VAL	V1695	V1695	T1598
A2896	A2702	V2441	V2441	LEU	L2244	E2153	ALA	ALA	VAL	VAL	A1696	A1696	P1600
C2897	C2703	V2442	V2442	LEU	L2244	E2153	ALA	ALA	VAL	VAL			N1601
D2898	D2704	W2442	W2442	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
E2899	E2705	X2446	X2446	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
F2900	F2706	Y2446	Y2446	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
G2901	G2707	Z2446	Z2446	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
H2902	H2708	A2555	A2555	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
I2903	I2709	D2556	D2556	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
J2904	J2710	E2557	E2557	LEU	L2244	E2153	ALA	ALA	VAL	VAL			
K2905	K2711			LEU	L2244	E2153	ALA	ALA	VAL	VAL			
L2906	L2712			LEU	L2244	E2153	ALA	ALA	VAL	VAL			
M2907	M2713			LEU	L2244	E2153	ALA	ALA	VAL	VAL			
N2908	N2714			LEU	L2244	E2153	ALA	ALA	VAL	VAL			
O2909	O2715			LEU	L2244	E2153	ALA	ALA	VAL	VAL			
P2910	P2716			LEU	L2244	E2153	ALA	ALA	VAL	VAL			



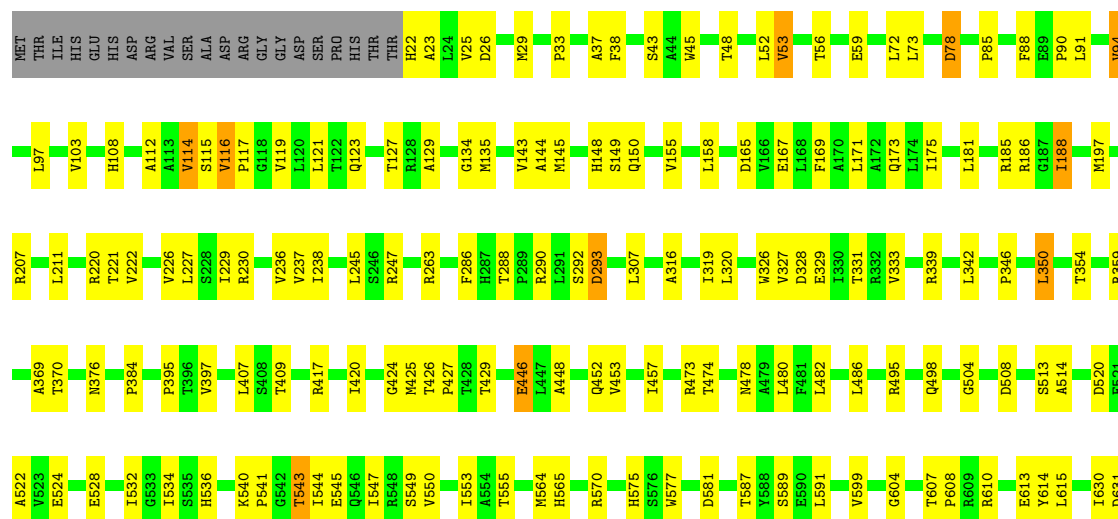
• Molecule 1: 3-oxoacyl-ACP synthase







• Molecule 1: 3-oxoacyl-ACP synthase







4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	113758	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	TFS KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	40	Depositor
Minimum defocus (nm)	600	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	FEI FALCON IV (4k x 4k)	Depositor
Maximum map value	0.517	Depositor
Minimum map value	-0.288	Depositor
Average map value	0.002	Depositor
Map value standard deviation	0.021	Depositor
Recommended contour level	0.05	Depositor
Map size (Å)	372.0, 372.0, 372.0	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	0.93, 0.93, 0.93	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: FMN

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	0.13	0/21209	0.36	3/28918 (0.0%)
1	B	0.13	0/21210	0.38	4/28919 (0.0%)
1	C	0.14	0/21200	0.49	9/28905 (0.0%)
1	D	0.13	0/21223	0.36	5/28935 (0.0%)
1	E	0.21	3/21203 (0.0%)	0.46	13/28909 (0.0%)
1	F	0.13	0/21213	0.36	4/28923 (0.0%)
All	All	0.15	3/127258 (0.0%)	0.41	38/173509 (0.0%)

All (3) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	2223	PRO	CG-CD	-20.42	0.81	1.50
1	E	2223	PRO	CB-CG	10.05	1.99	1.49
1	E	2223	PRO	N-CD	5.72	1.55	1.47

All (38) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	C	1707	GLU	CA-C-N	33.23	170.59	122.40
1	C	1707	GLU	C-N-CA	33.23	170.59	122.40
1	C	1707	GLU	N-CA-C	-27.44	68.80	109.96
1	E	2223	PRO	N-CD-CG	-24.95	65.78	103.20
1	E	1708	TYR	N-CA-C	19.89	135.88	111.02
1	E	2223	PRO	CA-CB-CG	-19.39	67.66	104.50
1	E	1707	GLU	N-CA-C	-16.52	85.49	110.10
1	B	1707	GLU	N-CA-C	-15.89	86.43	110.10
1	E	2223	PRO	N-CA-CB	-15.05	87.45	103.25
1	B	1708	TYR	N-CA-C	13.39	130.27	111.52
1	C	1707	GLU	CB-CA-C	-13.20	88.78	109.89
1	B	1707	GLU	CB-CA-C	-11.48	91.99	109.90

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	E	1707	GLU	CB-CA-C	-10.78	93.09	109.90
1	C	2684	ASN	CB-CA-C	9.96	122.05	109.80
1	E	2223	PRO	CB-CG-CD	-9.25	76.51	106.10
1	C	1397	PRO	CA-N-CD	-9.15	99.19	112.00
1	E	1397	PRO	CA-N-CD	-8.43	100.20	112.00
1	D	1706	PRO	CA-N-CD	-8.30	100.38	112.00
1	E	2223	PRO	CA-N-CD	-8.16	100.58	112.00
1	E	2683	ARG	N-CA-C	-8.10	99.02	110.35
1	F	2683	ARG	N-CA-C	-6.78	98.88	109.25
1	C	2684	ASN	N-CA-C	-6.45	101.10	110.64
1	E	2683	ARG	CB-CA-C	6.44	119.78	109.61
1	C	2109	PRO	CA-N-CD	-6.38	103.07	112.00
1	D	2109	PRO	CA-N-CD	-6.17	103.36	112.00
1	B	2683	ARG	N-CA-C	-6.10	101.51	110.42
1	A	1706	PRO	CA-N-CD	-5.93	103.70	112.00
1	E	2223	PRO	N-CA-C	5.83	124.48	112.47
1	F	1706	PRO	CA-N-CD	-5.58	104.18	112.00
1	F	188	ILE	N-CA-C	-5.43	107.07	111.91
1	C	1708	TYR	N-CA-C	-5.41	105.31	112.24
1	D	2683	ARG	N-CA-C	-5.39	102.66	110.64
1	A	2683	ARG	N-CA-C	-5.33	102.75	110.64
1	D	1706	PRO	CB-CA-C	-5.22	102.95	111.56
1	D	1706	PRO	N-CA-C	5.13	123.05	112.47
1	E	107	LYS	CA-CB-CG	5.09	124.29	114.10
1	F	2202	GLY	N-CA-C	5.08	122.70	112.34
1	A	107	LYS	CA-CB-CG	5.01	124.13	114.10

There are no chirality outliers.

There are no planarity outliers.

5.2 Too-close contacts ⓘ

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	20787	0	20642	542	0
1	B	20788	0	20644	569	0
1	C	20779	0	20631	600	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	D	20801	0	20661	570	0
1	E	20782	0	20632	569	0
1	F	20791	0	20646	571	0
2	A	31	0	19	4	0
2	B	31	0	19	4	0
2	C	31	0	19	5	0
2	D	31	0	19	4	0
2	E	31	0	19	4	0
2	F	31	0	19	4	0
All	All	124914	0	123970	3306	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 13.

All (3306) 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:C:2677:HIS:HB3	1:C:2683:ARG:NH1	1.62	1.13
1:C:2677:HIS:CB	1:C:2683:ARG:HH12	1.62	1.10
1:C:1705:LEU:O	1:C:1707:GLU:O	1.69	1.09
1:F:2678:GLY:HA2	1:F:2683:ARG:HD3	1.40	1.03
1:F:2681:LEU:HB2	1:F:2683:ARG:HD2	1.44	0.99
1:C:1705:LEU:HG	1:C:1707:GLU:O	1.66	0.96
1:C:2677:HIS:HB3	1:C:2683:ARG:HH12	0.81	0.95
1:E:1705:LEU:O	1:E:1707:GLU:O	1.92	0.87
1:C:1702:THR:HG22	1:C:1708:TYR:HE1	1.40	0.85
1:F:1408:GLN:HE22	1:F:1439:VAL:HG21	1.41	0.84
1:D:1060:GLU:HB2	1:E:185:ARG:HD2	1.58	0.84
1:B:1408:GLN:HE22	1:B:1439:VAL:HG21	1.42	0.83
1:F:229:ILE:HG12	1:F:237:VAL:HG22	1.61	0.82
1:A:2686:PRO:HG2	1:A:2689:ILE:HB	1.62	0.81
1:A:119:VAL:HG23	1:A:150:GLN:HE22	1.45	0.81
1:D:631:ASP:N	1:D:631:ASP:OD1	2.14	0.81
1:E:1397:PRO:HD2	1:E:1398:ASP:H	1.42	0.81
1:C:2716:PRO:HA	1:E:2716:PRO:HA	1.63	0.81
1:D:495:ARG:HB3	1:D:498:GLN:HB2	1.60	0.81
1:B:495:ARG:HB3	1:B:498:GLN:HB2	1.61	0.81
1:E:2686:PRO:HG2	1:E:2689:ILE:HB	1.63	0.80
1:C:631:ASP:N	1:C:631:ASP:OD1	2.13	0.80
1:F:495:ARG:HB3	1:F:498:GLN:HB2	1.64	0.80
1:A:1433:ILE:HG22	1:A:1597:ARG:HA	1.64	0.79

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1433:ILE:HG22	1:D:1597:ARG:HA	1.65	0.79
1:C:495:ARG:HB3	1:C:498:GLN:HB2	1.63	0.79
1:A:495:ARG:HB3	1:A:498:GLN:HB2	1.63	0.79
1:F:1624:GLU:HG2	1:F:1625:PRO:HD3	1.64	0.79
1:D:1624:GLU:HG2	1:D:1625:PRO:HD3	1.65	0.79
1:A:2840:ALA:HB3	1:A:2886:LEU:HD11	1.65	0.79
1:A:1060:GLU:HB2	1:B:185:ARG:HD2	1.65	0.79
1:F:1433:ILE:HG22	1:F:1597:ARG:HA	1.65	0.79
1:B:1433:ILE:HG22	1:B:1597:ARG:HA	1.65	0.78
1:C:1624:GLU:HG2	1:C:1625:PRO:HD3	1.65	0.78
1:D:2840:ALA:HB3	1:D:2886:LEU:HD11	1.64	0.78
1:C:1433:ILE:HG22	1:C:1597:ARG:HA	1.64	0.78
1:C:2712:ALA:HB3	1:C:2733:LYS:HZ2	1.49	0.78
1:E:1433:ILE:HG22	1:E:1597:ARG:HA	1.64	0.78
1:F:1271:ARG:O	1:F:1271:ARG:NH1	2.16	0.78
1:B:1705:LEU:O	1:B:1707:GLU:O	2.01	0.77
1:B:2712:ALA:HB3	1:B:2733:LYS:HZ2	1.49	0.77
1:E:2840:ALA:HB3	1:E:2886:LEU:HD11	1.64	0.77
1:B:991:LEU:HD23	1:B:1002:ILE:HD11	1.66	0.77
1:F:991:LEU:HD23	1:F:1002:ILE:HD11	1.67	0.77
1:A:1624:GLU:HG2	1:A:1625:PRO:HD3	1.64	0.77
1:B:1690:LYS:HG2	1:B:1719:GLU:HB3	1.66	0.77
1:E:1624:GLU:HG2	1:E:1625:PRO:HD3	1.64	0.77
1:F:1686:GLU:HG3	1:F:1695:VAL:HB	1.66	0.77
1:C:2840:ALA:HB3	1:C:2886:LEU:HD11	1.64	0.77
1:F:2758:PHE:HB3	1:F:2764:THR:HG21	1.67	0.76
1:B:1624:GLU:HG2	1:B:1625:PRO:HD3	1.66	0.76
1:B:1686:GLU:HG3	1:B:1695:VAL:HB	1.67	0.76
1:B:1060:GLU:HB2	1:C:185:ARG:HD2	1.67	0.76
1:E:1418:GLN:NE2	1:E:1421:GLU:OE1	2.19	0.76
1:F:2840:ALA:HB3	1:F:2886:LEU:HD11	1.68	0.76
1:B:1117:LEU:HD11	1:B:1176:PHE:HB3	1.67	0.75
1:B:2716:PRO:HA	1:F:2716:PRO:HA	1.67	0.75
1:B:2678:GLY:HA2	1:B:2683:ARG:HD3	1.68	0.75
1:E:1060:GLU:HB2	1:F:185:ARG:HG3	1.68	0.75
1:B:2758:PHE:HB3	1:B:2764:THR:HG21	1.68	0.75
1:D:1083:VAL:HG22	1:D:1260:GLN:HE21	1.50	0.75
1:E:495:ARG:HB3	1:E:498:GLN:HB2	1.66	0.75
1:B:1349:GLU:OE1	1:B:1349:GLU:N	2.20	0.74
1:B:2686:PRO:HG2	1:B:2689:ILE:HB	1.69	0.74
1:D:2675:MET:HA	1:D:2685:LYS:HE2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1339:GLN:OE1	1:F:1408:GLN:NE2	2.20	0.74
1:A:397:VAL:HG12	1:A:916:PRO:HB3	1.68	0.74
1:A:2784:ASN:HD22	1:A:2956:TRP:HE1	1.35	0.74
1:B:2231:GLU:HG2	1:B:2235:ARG:HB2	1.69	0.74
1:D:991:LEU:HD23	1:D:1002:ILE:HD11	1.70	0.74
1:E:397:VAL:HG12	1:E:916:PRO:HB3	1.69	0.74
1:A:47:GLU:N	1:A:47:GLU:OE2	2.21	0.73
1:D:185:ARG:HG3	1:F:1060:GLU:HB2	1.69	0.73
1:D:1982:SER:HA	1:D:1985:ARG:HE	1.53	0.73
1:E:47:GLU:N	1:E:47:GLU:OE2	2.20	0.73
1:C:2231:GLU:HG2	1:C:2235:ARG:HB2	1.71	0.73
1:F:2231:GLU:HG2	1:F:2235:ARG:HB2	1.70	0.73
1:F:1117:LEU:HD11	1:F:1176:PHE:HB3	1.69	0.73
1:A:2628:ALA:HA	1:A:2698:ILE:HG23	1.69	0.73
1:A:2716:PRO:HA	1:D:2716:PRO:HA	1.70	0.73
1:C:1397:PRO:HD2	1:C:1398:ASP:H	1.50	0.73
1:F:2788:ARG:NH1	1:F:2945:ASP:OD2	2.21	0.73
1:C:587:THR:HG22	1:C:591:LEU:HG	1.71	0.73
1:C:1058:HIS:HB2	1:C:1061:ARG:HD3	1.70	0.73
1:D:1349:GLU:OE1	1:D:1349:GLU:N	2.20	0.73
1:D:783:ARG:HE	1:D:2415:LEU:HB3	1.54	0.73
1:E:2784:ASN:HD22	1:E:2956:TRP:HE1	1.37	0.73
1:C:47:GLU:OE1	1:C:47:GLU:N	2.21	0.72
1:C:2758:PHE:HB3	1:C:2764:THR:HG21	1.71	0.72
1:D:2686:PRO:HB2	1:D:2689:ILE:HB	1.69	0.72
1:E:963:GLN:OE1	1:E:963:GLN:N	2.22	0.72
1:A:1181:ARG:H	1:A:1181:ARG:HD2	1.53	0.72
1:D:47:GLU:OE1	1:D:47:GLU:N	2.21	0.72
1:D:2712:ALA:HB3	1:D:2733:LYS:HZ2	1.54	0.72
1:E:2628:ALA:HA	1:E:2698:ILE:HG23	1.71	0.72
1:A:1388:ILE:HG13	1:A:1393:HIS:HB2	1.70	0.72
1:F:2678:GLY:HA2	1:F:2683:ARG:HB2	1.69	0.72
1:C:991:LEU:HD23	1:C:1002:ILE:HD11	1.70	0.72
1:F:1638:ARG:NH1	1:F:1638:ARG:HA	2.03	0.72
1:F:2247:VAL:O	1:F:2251:ILE:HG12	1.90	0.72
1:A:2712:ALA:HB3	1:A:2733:LYS:HZ2	1.55	0.72
1:B:1519:PHE:HB3	1:B:1664:ILE:HG22	1.72	0.72
1:B:2840:ALA:HB3	1:B:2886:LEU:HD11	1.71	0.72
1:D:587:THR:HG22	1:D:591:LEU:HG	1.70	0.72
1:B:2678:GLY:HA2	1:B:2683:ARG:HB2	1.71	0.71
1:E:2201:LEU:HD22	1:E:2202:GLY:H	1.55	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2231:GLU:HG2	1:E:2235:ARG:HB2	1.72	0.71
1:F:2201:LEU:HD13	1:F:2203:PRO:HD2	1.70	0.71
1:B:963:GLN:OE1	1:B:963:GLN:N	2.24	0.71
1:B:1339:GLN:OE1	1:B:1408:GLN:NE2	2.23	0.71
1:C:2861:VAL:HG13	1:C:2865:ASP:HB3	1.72	0.71
1:C:2686:PRO:HG2	1:C:2689:ILE:HB	1.71	0.71
1:A:2067:GLU:OE1	1:A:2168:ARG:NH1	2.24	0.71
1:A:2231:GLU:HG2	1:A:2235:ARG:HB2	1.72	0.71
1:B:2247:VAL:O	1:B:2251:ILE:HG12	1.91	0.71
1:A:2442:VAL:HG12	1:A:2818:VAL:HG22	1.73	0.71
1:C:119:VAL:HG23	1:C:150:GLN:HE22	1.55	0.71
1:F:2007:GLU:O	1:F:2011:LEU:HD23	1.91	0.71
1:B:397:VAL:HG12	1:B:916:PRO:HB3	1.72	0.71
1:E:2297:VAL:O	1:E:2301:HIS:ND1	2.23	0.71
1:D:2861:VAL:HG13	1:D:2865:ASP:HB3	1.72	0.70
1:F:119:VAL:HG23	1:F:150:GLN:HE22	1.56	0.70
1:F:397:VAL:HG12	1:F:916:PRO:HB3	1.71	0.70
1:A:207:ARG:O	1:A:211:LEU:HD23	1.91	0.70
1:B:2201:LEU:HD13	1:B:2203:PRO:HD2	1.72	0.70
1:B:2714:ILE:HB	1:B:2729:GLU:OE1	1.91	0.70
1:D:2714:ILE:HB	1:D:2729:GLU:OE2	1.91	0.70
1:F:1519:PHE:HB3	1:F:1664:ILE:HG22	1.73	0.70
1:B:2267:LEU:O	1:B:2311:SER:N	2.23	0.70
1:D:2231:GLU:HG2	1:D:2235:ARG:HB2	1.72	0.70
1:F:2267:LEU:O	1:F:2311:SER:N	2.24	0.70
1:D:2461:MET:HE2	1:D:2461:MET:HA	1.73	0.70
1:D:2758:PHE:HB3	1:D:2764:THR:HG21	1.71	0.70
1:F:1438:SER:OG	1:F:1566:HIS:NE2	2.22	0.70
1:E:2682:GLY:O	1:E:2683:ARG:C	2.35	0.70
1:F:2067:GLU:OE1	1:F:2168:ARG:NH1	2.24	0.70
1:B:167:GLU:O	1:B:171:LEU:HD12	1.92	0.70
1:D:2297:VAL:O	1:D:2301:HIS:ND1	2.24	0.70
1:E:1117:LEU:HD11	1:E:1176:PHE:HB3	1.74	0.70
1:A:587:THR:HG22	1:A:591:LEU:HG	1.74	0.69
1:C:2201:LEU:HD13	1:C:2203:PRO:HD2	1.74	0.69
1:D:29:MET:HA	1:D:29:MET:HE3	1.74	0.69
1:E:2442:VAL:HG12	1:E:2818:VAL:HG22	1.73	0.69
1:C:2681:LEU:HD12	1:C:2683:ARG:HH11	1.57	0.69
1:C:2717:VAL:HA	1:C:2722:THR:HG22	1.74	0.69
1:E:2712:ALA:HB3	1:E:2733:LYS:HZ2	1.57	0.69
1:D:2241:LYS:HA	1:D:2245:TRP:HD1	1.55	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:167:GLU:O	1:F:171:LEU:HD12	1.92	0.69
1:F:2201:LEU:HD22	1:F:2202:GLY:H	1.56	0.69
1:C:2628:ALA:HA	1:C:2698:ILE:HG23	1.74	0.69
1:D:2201:LEU:HD13	1:D:2203:PRO:HD2	1.74	0.69
1:F:2686:PRO:HG2	1:F:2689:ILE:HB	1.73	0.69
1:B:2442:VAL:HG12	1:B:2818:VAL:HG22	1.75	0.69
1:B:2463:VAL:HG12	1:B:2464:GLU:HG3	1.75	0.69
1:F:2786:ARG:NH2	1:F:2946:ASP:OD2	2.26	0.69
1:B:1130:LEU:HD12	1:B:1131:PRO:HD2	1.74	0.69
1:D:1705:LEU:HD12	1:D:1707:GLU:H	1.57	0.69
1:F:29:MET:HA	1:F:29:MET:HE3	1.75	0.69
1:F:2442:VAL:HG12	1:F:2818:VAL:HG22	1.74	0.69
1:F:1130:LEU:HD12	1:F:1131:PRO:HD2	1.75	0.69
1:B:119:VAL:HG23	1:B:150:GLN:HE22	1.58	0.68
1:F:2712:ALA:HB3	1:F:2733:LYS:HZ2	1.58	0.68
1:A:1060:GLU:OE2	1:A:1061:ARG:NH1	2.25	0.68
1:A:2627:LEU:HD12	1:A:2668:GLY:H	1.57	0.68
1:A:2982:VAL:HG23	1:D:2713:MET:HB2	1.75	0.68
1:C:2723:ALA:HB3	1:C:2919:ALA:HB3	1.75	0.68
1:E:1702:THR:HA	1:E:1705:LEU:HD22	1.74	0.68
1:E:2201:LEU:HD13	1:E:2203:PRO:HD2	1.75	0.68
1:F:963:GLN:N	1:F:963:GLN:OE1	2.27	0.68
1:A:1456:ALA:O	1:A:1460:MET:HG2	1.93	0.68
1:C:29:MET:HA	1:C:29:MET:HE3	1.74	0.68
1:C:654:MET:HE1	1:C:690:ASN:HB3	1.74	0.68
1:C:1705:LEU:C	1:C:1707:GLU:O	2.35	0.68
1:D:2769:MET:SD	1:D:2769:MET:N	2.67	0.68
1:F:2332:ILE:H	1:F:2332:ILE:HD12	1.57	0.68
1:C:1159:VAL:HG23	1:C:1172:LEU:HB2	1.76	0.68
1:D:654:MET:HE1	1:D:690:ASN:HB3	1.76	0.68
1:D:951:ASN:HB3	1:D:954:HIS:HB2	1.76	0.68
1:D:2628:ALA:HA	1:D:2698:ILE:HG23	1.75	0.68
1:D:2788:ARG:NH1	1:D:2945:ASP:OD2	2.26	0.68
1:E:168:LEU:HA	1:E:171:LEU:HD23	1.76	0.68
1:A:168:LEU:HA	1:A:171:LEU:HD23	1.76	0.68
1:B:2769:MET:N	1:B:2769:MET:SD	2.67	0.68
1:D:2442:VAL:HG12	1:D:2818:VAL:HG22	1.75	0.68
1:E:1336:PHE:HE1	1:E:1687:ILE:HD12	1.58	0.68
1:E:2007:GLU:O	1:E:2011:LEU:HD23	1.94	0.68
1:B:1060:GLU:OE2	1:B:1061:ARG:NH1	2.26	0.68
1:E:1339:GLN:NE2	1:E:1408:GLN:OE1	2.27	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:397:VAL:HG12	1:C:916:PRO:HB3	1.76	0.68
1:E:1422:MET:HE1	1:E:1725:LEU:HD21	1.75	0.68
1:A:2696:ASN:HB3	1:D:2717:VAL:HG12	1.73	0.67
1:A:2861:VAL:HG13	1:A:2865:ASP:HB3	1.76	0.67
1:C:2217:LEU:HB3	1:C:2269:VAL:HG22	1.77	0.67
1:A:1418:GLN:NE2	1:A:1421:GLU:OE1	2.26	0.67
1:D:1144:ALA:HB3	1:D:1156:PRO:HG2	1.77	0.67
1:A:1339:GLN:OE1	1:A:1408:GLN:NE2	2.28	0.67
1:C:2717:VAL:HG12	1:E:2696:ASN:HB3	1.76	0.67
1:C:2769:MET:N	1:C:2769:MET:SD	2.67	0.67
1:F:2121:VAL:HG22	1:F:2218:PHE:HB2	1.76	0.67
1:A:2153:GLU:OE2	1:A:2153:GLU:N	2.24	0.67
1:A:2703:VAL:HG21	1:A:2713:MET:HE1	1.77	0.67
1:C:2367:ARG:NH1	1:C:2368:SER:OG	2.27	0.67
1:C:2696:ASN:HB3	1:E:2717:VAL:HG12	1.77	0.67
1:D:2241:LYS:HA	1:D:2245:TRP:CD1	2.29	0.67
1:C:951:ASN:HB3	1:C:954:HIS:HB2	1.76	0.67
1:C:2297:VAL:O	1:C:2301:HIS:ND1	2.27	0.67
1:E:1602:LEU:HD21	1:E:1652:LEU:HG	1.75	0.67
1:A:654:MET:HE1	1:A:690:ASN:HB3	1.77	0.67
1:A:1117:LEU:HD11	1:A:1176:PHE:HB3	1.76	0.67
1:E:1388:ILE:HG13	1:E:1393:HIS:HB2	1.77	0.67
1:B:1488:ARG:HG3	1:B:1524:SER:HB2	1.77	0.67
1:F:513:SER:OG	2:F:3101:FMN:O2	2.09	0.67
1:A:1519:PHE:HB3	1:A:1664:ILE:HG22	1.76	0.67
1:C:1144:ALA:HB3	1:C:1156:PRO:HG2	1.76	0.67
1:D:1992:GLY:HA3	1:E:2571:ARG:HG3	1.77	0.67
1:E:1336:PHE:HE2	1:E:1444:ALA:HA	1.59	0.67
1:F:2192:TRP:NE1	1:F:2197:GLN:OE1	2.28	0.67
1:B:513:SER:OG	2:B:3101:FMN:O2	2.10	0.67
1:F:2769:MET:N	1:F:2769:MET:SD	2.68	0.67
1:B:2121:VAL:HG22	1:B:2218:PHE:HB2	1.76	0.66
1:D:397:VAL:HG12	1:D:916:PRO:HB3	1.76	0.66
1:D:2665:GLY:HA2	1:D:2722:THR:HG21	1.75	0.66
1:E:2786:ARG:NH2	1:E:2946:ASP:OD1	2.27	0.66
1:A:2675:MET:HA	1:A:2685:LYS:HD3	1.77	0.66
1:B:2153:GLU:N	1:B:2153:GLU:OE2	2.27	0.66
1:D:448:ALA:O	1:D:452:GLN:NE2	2.27	0.66
1:D:2723:ALA:HB3	1:D:2919:ALA:HB3	1.77	0.66
1:A:448:ALA:O	1:A:452:GLN:NE2	2.29	0.66
1:D:1060:GLU:OE2	1:D:1061:ARG:NH1	2.29	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1600:PRO:HB3	1:D:1652:LEU:HD21	1.77	0.66
1:B:1388:ILE:HG13	1:B:1393:HIS:HB2	1.75	0.66
1:B:2708:GLY:HA3	1:F:2829:VAL:HG23	1.77	0.66
1:C:2683:ARG:O	1:C:2684:ASN:C	2.37	0.66
1:B:2829:VAL:HG23	1:F:2708:GLY:HA3	1.76	0.66
1:D:2519:GLY:O	1:D:2521:ARG:NH1	2.28	0.66
1:C:448:ALA:O	1:C:452:GLN:NE2	2.27	0.66
1:C:2788:ARG:NH1	1:C:2945:ASP:OD2	2.26	0.66
1:F:448:ALA:O	1:F:452:GLN:NE2	2.29	0.66
1:B:1438:SER:OG	1:B:1566:HIS:NE2	2.25	0.66
1:E:2703:VAL:HG21	1:E:2713:MET:HE1	1.76	0.66
1:E:2827:ASP:HB2	1:E:2981:HIS:HB3	1.76	0.66
1:F:2714:ILE:HB	1:F:2729:GLU:OE1	1.96	0.66
1:B:2681:LEU:HB2	1:B:2683:ARG:HD2	1.76	0.66
1:C:2442:VAL:HG12	1:C:2818:VAL:HG22	1.75	0.66
1:D:1602:LEU:HD21	1:D:1652:LEU:HG	1.77	0.66
1:A:2266:ARG:HH22	1:A:2308:ALA:HA	1.60	0.66
1:A:2708:GLY:HA3	1:D:2829:VAL:HG23	1.77	0.66
1:D:2273:GLY:HA3	1:D:2314:HIS:HE1	1.61	0.66
1:A:2717:VAL:HG12	1:D:2696:ASN:HB3	1.77	0.66
1:E:654:MET:HE1	1:E:690:ASN:HB3	1.77	0.66
1:B:2192:TRP:NE1	1:B:2197:GLN:OE1	2.29	0.65
1:C:1117:LEU:HD11	1:C:1176:PHE:HB3	1.77	0.65
1:E:2266:ARG:HH22	1:E:2308:ALA:HA	1.61	0.65
1:D:1159:VAL:HG23	1:D:1172:LEU:HB2	1.76	0.65
1:D:1401:LEU:O	1:D:1407:THR:OG1	2.11	0.65
1:A:2332:ILE:H	1:A:2332:ILE:HD12	1.61	0.65
1:A:2714:ILE:HG23	1:D:2725:VAL:HG22	1.77	0.65
1:D:1488:ARG:HG3	1:D:1524:SER:HB2	1.78	0.65
1:D:1542:VAL:HG11	1:D:1555:PHE:HB2	1.78	0.65
1:F:825:HIS:HD2	1:F:2418:PRO:HA	1.61	0.65
1:A:2571:ARG:HG3	1:C:1992:GLY:HA3	1.79	0.65
1:C:498:GLN:HG3	1:C:532:ILE:HD13	1.77	0.65
1:D:2420:ARG:O	1:D:3018:GLN:NE2	2.28	0.65
1:A:1600:PRO:HB3	1:A:1652:LEU:HD21	1.77	0.65
1:A:2267:LEU:O	1:A:2311:SER:N	2.30	0.65
1:A:2699:ALA:O	1:A:2703:VAL:HG23	1.97	0.65
1:B:825:HIS:HD2	1:B:2418:PRO:HA	1.61	0.65
1:D:150:GLN:HG3	1:D:319:ILE:HD11	1.77	0.65
1:E:283:GLU:HG2	1:E:284:VAL:HG13	1.79	0.65
1:F:2681:LEU:HB2	1:F:2683:ARG:CD	2.25	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1602:LEU:HD21	1:A:1652:LEU:HG	1.79	0.65
1:B:1992:GLY:HA3	1:C:2571:ARG:HG3	1.78	0.65
1:B:2231:GLU:O	1:B:2235:ARG:N	2.27	0.65
1:B:2717:VAL:HG11	1:F:2695:PRO:HB2	1.78	0.65
1:B:2732:ASP:OD1	1:B:2733:LYS:N	2.29	0.65
1:F:2463:VAL:HG12	1:F:2464:GLU:HG3	1.78	0.65
1:B:263:ARG:NH2	1:B:577:TRP:O	2.29	0.65
1:D:2673:GLN:O	1:D:2677:HIS:ND1	2.28	0.65
1:E:1333:VAL:HG11	1:E:1670:LEU:HD21	1.77	0.65
1:F:1600:PRO:HB3	1:F:1652:LEU:HD21	1.79	0.65
1:B:951:ASN:HB3	1:B:954:HIS:HB2	1.78	0.65
1:B:2420:ARG:O	1:B:3018:GLN:NE2	2.28	0.65
1:B:2628:ALA:HA	1:B:2698:ILE:HG23	1.79	0.65
1:E:1336:PHE:CE1	1:E:1687:ILE:HD12	2.31	0.65
1:E:1519:PHE:HB3	1:E:1664:ILE:HG22	1.79	0.65
1:A:610:ARG:NH1	1:A:613:GLU:OE2	2.30	0.65
1:A:1419:VAL:HG11	1:A:1447:CYS:HB3	1.79	0.65
1:A:2519:GLY:O	1:A:2521:ARG:NH1	2.30	0.65
1:F:800:GLY:O	1:F:804:ASN:ND2	2.30	0.65
1:F:2749:ASP:OD1	1:F:2795:GLN:NE2	2.30	0.65
1:A:1992:GLY:HA3	1:B:2571:ARG:HG3	1.80	0.64
1:C:610:ARG:NH1	1:C:613:GLU:OE2	2.30	0.64
1:B:448:ALA:O	1:B:452:GLN:NE2	2.29	0.64
1:C:1418:GLN:NE2	1:C:1719:GLU:OE1	2.27	0.64
1:D:1686:GLU:OE2	1:D:1717:ASN:ND2	2.31	0.64
1:E:1263:VAL:HG23	1:E:1297:VAL:HG21	1.78	0.64
1:E:1992:GLY:HA3	1:F:2571:ARG:HG3	1.79	0.64
1:F:2519:GLY:O	1:F:2521:ARG:NH1	2.31	0.64
1:B:1204:THR:HG23	1:B:1301:GLY:HA2	1.79	0.64
1:C:2519:GLY:O	1:C:2521:ARG:NH1	2.30	0.64
1:F:1024:THR:HG22	1:F:1111:VAL:HG11	1.79	0.64
1:F:1488:ARG:HG3	1:F:1524:SER:HB2	1.78	0.64
1:A:2231:GLU:O	1:A:2235:ARG:N	2.26	0.64
1:D:1130:LEU:HD12	1:D:1131:PRO:HD2	1.78	0.64
1:E:1341:ILE:HD11	1:E:1411:MET:SD	2.38	0.64
1:E:2699:ALA:O	1:E:2703:VAL:HG23	1.97	0.64
1:A:2829:VAL:HG23	1:D:2708:GLY:HA3	1.79	0.64
1:C:1130:LEU:HD12	1:C:1131:PRO:HD2	1.79	0.64
1:E:1397:PRO:HD2	1:E:1398:ASP:N	2.08	0.64
1:F:25:VAL:HG21	1:F:135:MET:HE2	1.79	0.64
1:D:1985:ARG:HG3	1:D:1986:LEU:HD12	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2571:ARG:HG3	1:F:1992:GLY:HA3	1.78	0.64
1:C:2677:HIS:CB	1:C:2683:ARG:NH1	2.38	0.64
1:D:1117:LEU:HD11	1:D:1176:PHE:HB3	1.79	0.64
1:E:2121:VAL:HG22	1:E:2218:PHE:HB2	1.79	0.64
1:A:522:ALA:O	1:A:526:ILE:HG13	1.98	0.64
1:C:783:ARG:HH11	1:C:2415:LEU:HB3	1.61	0.64
1:A:1263:VAL:HG23	1:A:1297:VAL:HG21	1.79	0.64
1:D:2153:GLU:N	1:D:2153:GLU:OE2	2.31	0.64
1:C:2829:VAL:HG23	1:E:2708:GLY:HA3	1.78	0.64
1:F:2627:LEU:HD12	1:F:2668:GLY:H	1.63	0.64
1:A:120:LEU:HD13	1:A:153:LEU:HD13	1.80	0.63
1:B:610:ARG:NH1	1:B:613:GLU:OE2	2.32	0.63
1:D:2121:VAL:HG22	1:D:2218:PHE:HB2	1.79	0.63
1:E:2267:LEU:O	1:E:2311:SER:N	2.30	0.63
1:F:2420:ARG:O	1:F:3018:GLN:NE2	2.29	0.63
1:A:951:ASN:HB3	1:A:954:HIS:HB2	1.79	0.63
1:A:2297:VAL:O	1:A:2301:HIS:ND1	2.32	0.63
1:A:2769:MET:N	1:A:2769:MET:SD	2.70	0.63
1:C:2896:ARG:HH22	1:C:2902:LEU:HD13	1.63	0.63
1:E:2723:ALA:HB3	1:E:2919:ALA:HB3	1.80	0.63
1:F:795:LEU:HD23	1:F:795:LEU:H	1.64	0.63
1:C:2786:ARG:NH2	1:C:2946:ASP:OD1	2.31	0.63
1:D:2740:GLN:HB3	1:D:2804:ARG:HD3	1.80	0.63
1:B:1975:GLY:O	1:B:1979:VAL:HG23	1.99	0.63
1:C:2678:GLY:HA2	1:C:2683:ARG:HD3	1.79	0.63
1:E:951:ASN:HB3	1:E:954:HIS:HB2	1.79	0.63
1:F:263:ARG:NH2	1:F:577:TRP:O	2.30	0.63
1:F:2467:LEU:HD21	1:F:2475:LEU:HD12	1.80	0.63
1:A:2811:MET:HB3	1:A:2813:LEU:HG	1.80	0.63
1:A:2924:MET:HA	1:A:2924:MET:HE2	1.81	0.63
1:B:2699:ALA:O	1:B:2703:VAL:HG23	1.97	0.63
1:E:2207:HIS:NE2	1:E:2210:ASP:OD1	2.27	0.63
1:F:1046:VAL:HG22	1:F:1051:ALA:HB2	1.80	0.63
1:C:1181:ARG:HD2	1:C:1181:ARG:H	1.63	0.63
1:E:2675:MET:HA	1:E:2685:LYS:HD3	1.81	0.63
1:E:2769:MET:N	1:E:2769:MET:SD	2.70	0.63
1:C:1339:GLN:NE2	1:C:1408:GLN:OE1	2.32	0.63
1:C:1397:PRO:HD2	1:C:1398:ASP:N	2.12	0.63
1:E:2231:GLU:O	1:E:2235:ARG:N	2.26	0.63
1:B:1024:THR:HG22	1:B:1111:VAL:HG11	1.79	0.63
1:C:1454:LEU:HA	1:C:1457:LEU:HD23	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1144:ALA:HB3	1:A:1156:PRO:HG2	1.81	0.63
1:C:2231:GLU:O	1:C:2235:ARG:N	2.24	0.63
1:E:1060:GLU:OE2	1:E:1061:ARG:NH1	2.32	0.63
1:F:951:ASN:HB3	1:F:954:HIS:HB2	1.80	0.63
1:B:1633:TYR:O	1:B:1637:LEU:N	2.30	0.62
1:C:795:LEU:HD23	1:C:795:LEU:H	1.64	0.62
1:C:1600:PRO:HB3	1:C:1652:LEU:HD21	1.80	0.62
1:F:1204:THR:HG23	1:F:1301:GLY:HA2	1.81	0.62
1:A:2420:ARG:O	1:A:3018:GLN:NE2	2.31	0.62
1:D:417:ARG:NH2	1:D:508:ASP:OD2	2.32	0.62
1:A:1112:GLU:OE1	1:A:1153:ARG:NH1	2.32	0.62
1:B:2467:LEU:HD21	1:B:2475:LEU:HD12	1.81	0.62
1:F:420:ILE:HD12	1:F:633:ILE:HD11	1.82	0.62
1:F:883:SER:OG	2:F:3101:FMN:O2P	2.17	0.62
1:A:2695:PRO:HB2	1:D:2717:VAL:HG11	1.82	0.62
1:B:587:THR:HG22	1:B:591:LEU:HG	1.80	0.62
1:B:1600:PRO:HB3	1:B:1652:LEU:HD21	1.82	0.62
1:C:2673:GLN:O	1:C:2677:HIS:ND1	2.26	0.62
1:D:795:LEU:HD23	1:D:795:LEU:H	1.64	0.62
1:A:175:ILE:HD13	1:A:319:ILE:HG21	1.80	0.62
1:A:540:LYS:HB3	1:A:565:HIS:HB2	1.81	0.62
1:A:783:ARG:HH11	1:A:2415:LEU:HB3	1.65	0.62
1:B:2766:ASP:HB3	1:B:2769:MET:HE1	1.80	0.62
1:C:2267:LEU:O	1:C:2311:SER:N	2.25	0.62
1:D:2786:ARG:NH2	1:D:2946:ASP:OD1	2.31	0.62
1:E:1112:GLU:OE1	1:E:1153:ARG:NH1	2.32	0.62
1:F:1388:ILE:HG13	1:F:1393:HIS:HB3	1.81	0.62
1:A:1360:VAL:HG21	1:A:1417:ALA:HA	1.82	0.62
1:C:768:THR:HG21	1:C:841:LYS:H	1.64	0.62
1:C:2665:GLY:HA2	1:C:2722:THR:HG21	1.81	0.62
1:C:2740:GLN:HB3	1:C:2804:ARG:HD3	1.81	0.62
1:D:883:SER:OG	2:D:3101:FMN:O2P	2.16	0.62
1:E:424:GLY:HA3	1:E:478:ASN:HD22	1.64	0.62
1:F:540:LYS:HB3	1:F:565:HIS:HB2	1.82	0.62
1:A:424:GLY:HA3	1:A:478:ASN:HD22	1.63	0.62
1:B:1046:VAL:HG22	1:B:1051:ALA:HB2	1.82	0.62
1:D:1112:GLU:OE1	1:D:1153:ARG:NH1	2.33	0.62
1:E:1419:VAL:HG11	1:E:1447:CYS:HB3	1.82	0.62
1:E:2039:ARG:HD3	1:E:2167:ALA:HB3	1.80	0.62
1:A:119:VAL:HG12	1:A:346:PRO:HG3	1.82	0.62
1:A:963:GLN:OE1	1:A:963:GLN:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2201:LEU:HD22	1:B:2202:GLY:H	1.64	0.62
1:C:883:SER:OG	2:C:3101:FMN:O2P	2.17	0.62
1:C:2273:GLY:HA3	1:C:2314:HIS:HE1	1.63	0.62
1:D:615:LEU:HD12	1:D:630:ILE:HG13	1.82	0.62
1:D:2294:ASP:HA	1:D:2297:VAL:HG22	1.82	0.62
1:E:540:LYS:HB3	1:E:565:HIS:HB2	1.82	0.62
1:F:2363:VAL:O	1:F:2367:ARG:NH2	2.32	0.62
1:E:29:MET:HA	1:E:29:MET:HE3	1.82	0.62
1:F:2265:SER:O	1:F:2309:ARG:NH2	2.32	0.62
1:B:795:LEU:HD23	1:B:795:LEU:H	1.64	0.61
1:D:963:GLN:OE1	1:D:963:GLN:N	2.32	0.61
1:F:2628:ALA:HA	1:F:2698:ILE:HG23	1.82	0.61
1:D:23:ALA:HB2	1:D:380:VAL:HG13	1.82	0.61
1:F:587:THR:HG22	1:F:591:LEU:HG	1.81	0.61
1:A:1273:PRO:HD2	1:A:1682:GLU:HG2	1.81	0.61
1:C:23:ALA:HB2	1:C:380:VAL:HG13	1.81	0.61
1:C:1997:VAL:HG13	1:C:2000:LEU:HD12	1.82	0.61
1:D:2217:LEU:HB3	1:D:2269:VAL:HG22	1.82	0.61
1:F:1349:GLU:OE2	1:F:1349:GLU:N	2.26	0.61
1:F:1365:ASP:OD1	1:F:1366:LYS:N	2.34	0.61
1:A:2121:VAL:HG22	1:A:2218:PHE:HB2	1.81	0.61
1:C:2521:ARG:NH2	1:C:2605:ILE:O	2.32	0.61
1:E:1144:ALA:HB3	1:E:1156:PRO:HG2	1.83	0.61
1:A:29:MET:HA	1:A:29:MET:HE3	1.82	0.61
1:B:1112:GLU:OE1	1:B:1153:ARG:NH1	2.33	0.61
1:E:1204:THR:HG23	1:E:1301:GLY:HA2	1.81	0.61
1:B:2124:ALA:O	1:B:2159:TYR:OH	2.17	0.61
1:E:2521:ARG:NH2	1:E:2605:ILE:O	2.33	0.61
1:B:29:MET:HA	1:B:29:MET:HE3	1.81	0.61
1:D:1514:LEU:HD21	1:D:1538:LEU:HD21	1.82	0.61
1:E:1600:PRO:HB3	1:E:1652:LEU:HD21	1.83	0.61
1:F:1175:ARG:NH1	1:F:1188:ALA:O	2.26	0.61
1:C:2121:VAL:HG22	1:C:2218:PHE:HB2	1.82	0.61
1:D:1269:GLN:O	1:D:1712:THR:OG1	2.19	0.61
1:D:2627:LEU:HD12	1:D:2668:GLY:H	1.65	0.61
1:B:1365:ASP:OD1	1:B:1366:LYS:N	2.34	0.61
1:B:2749:ASP:OD1	1:B:2795:GLN:NE2	2.34	0.61
1:C:2420:ARG:O	1:C:3018:GLN:NE2	2.30	0.61
1:C:2487:ASP:HB2	1:C:2488:PRO:HD3	1.83	0.61
1:D:610:ARG:NH1	1:D:613:GLU:OE2	2.33	0.61
1:E:1365:ASP:OD1	1:E:1366:LYS:N	2.34	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1690:LYS:HG2	1:E:1719:GLU:HB3	1.81	0.61
1:A:883:SER:OG	2:A:3101:FMN:O2P	2.18	0.61
1:A:1204:THR:HG23	1:A:1301:GLY:HA2	1.82	0.61
1:B:2627:LEU:HD12	1:B:2668:GLY:H	1.66	0.61
1:C:2039:ARG:HD3	1:C:2167:ALA:HB3	1.82	0.61
1:E:883:SER:OG	2:E:3101:FMN:O2P	2.18	0.61
1:E:2519:GLY:O	1:E:2521:ARG:NH1	2.33	0.61
1:F:1181:ARG:H	1:F:1181:ARG:HD2	1.66	0.61
1:F:2251:ILE:HD12	1:F:2269:VAL:HG21	1.82	0.61
1:F:785:HIS:NE2	1:F:787:GLN:HB3	2.16	0.60
1:A:1365:ASP:OD1	1:A:1366:LYS:N	2.34	0.60
1:B:1706:PRO:O	1:B:1707:GLU:C	2.43	0.60
1:E:1127:VAL:HG23	1:E:1129:GLN:H	1.66	0.60
1:E:1333:VAL:HG22	1:E:1433:ILE:HD11	1.83	0.60
1:F:2231:GLU:O	1:F:2235:ARG:N	2.27	0.60
1:B:1978:GLY:HA3	1:D:1985:ARG:HH22	1.67	0.60
1:D:540:LYS:HB3	1:D:565:HIS:HB2	1.82	0.60
1:D:2452:TYR:CD2	1:D:2461:MET:HG3	2.36	0.60
1:E:76:VAL:HG12	1:E:304:LYS:HE3	1.82	0.60
1:F:1112:GLU:OE1	1:F:1153:ARG:NH1	2.34	0.60
1:A:23:ALA:HB2	1:A:380:VAL:HG13	1.83	0.60
1:A:772:ARG:HD3	1:A:835:LEU:HD13	1.83	0.60
1:A:2123:GLY:HA3	1:A:2221:ALA:HA	1.83	0.60
1:B:2123:GLY:HA3	1:B:2221:ALA:HA	1.84	0.60
1:B:2487:ASP:HB2	1:B:2488:PRO:HD3	1.83	0.60
1:B:2682:GLY:O	1:B:2683:ARG:C	2.42	0.60
1:F:2266:ARG:NE	1:F:2310:VAL:O	2.34	0.60
1:B:951:ASN:HD22	1:B:952:PRO:HD2	1.67	0.60
1:D:933:LEU:HD21	1:D:982:LEU:HB3	1.84	0.60
1:F:1060:GLU:OE1	1:F:1061:ARG:NH1	2.34	0.60
1:A:326:TRP:HE1	1:A:354:THR:HG22	1.65	0.60
1:A:1341:ILE:HD11	1:A:1411:MET:SD	2.42	0.60
1:B:25:VAL:HG11	1:B:135:MET:HE2	1.83	0.60
1:B:1181:ARG:H	1:B:1181:ARG:HD2	1.66	0.60
1:E:2420:ARG:O	1:E:3018:GLN:NE2	2.32	0.60
1:A:2723:ALA:HB3	1:A:2919:ALA:HB3	1.83	0.60
1:C:1686:GLU:OE1	1:C:1717:ASN:ND2	2.35	0.60
1:D:1204:THR:HG23	1:D:1301:GLY:HA2	1.82	0.60
1:E:1181:ARG:H	1:E:1181:ARG:HD2	1.67	0.60
1:C:1388:ILE:HG13	1:C:1393:HIS:HB3	1.84	0.60
1:C:2192:TRP:NE1	1:C:2197:GLN:OE1	2.32	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1181:ARG:H	1:D:1181:ARG:HD2	1.65	0.60
1:D:2869:ILE:HD13	1:D:2973:MET:HB2	1.84	0.60
1:C:1161:VAL:HG23	1:C:1169:ILE:HB	1.84	0.60
1:F:951:ASN:HD22	1:F:952:PRO:HD2	1.67	0.60
1:F:2521:ARG:NH2	1:F:2605:ILE:O	2.35	0.60
1:A:795:LEU:HD23	1:A:795:LEU:H	1.67	0.60
1:C:1204:THR:HG23	1:C:1301:GLY:HA2	1.83	0.60
1:C:2708:GLY:HA3	1:E:2829:VAL:HG23	1.81	0.60
1:E:426:THR:OG1	2:E:3101:FMN:O4	2.20	0.60
1:F:1360:VAL:HG21	1:F:1417:ALA:HA	1.84	0.60
1:F:2740:GLN:HB3	1:F:2804:ARG:HD3	1.83	0.60
1:A:2786:ARG:NH2	1:A:2946:ASP:OD1	2.35	0.59
1:B:2521:ARG:NH2	1:B:2605:ILE:O	2.34	0.59
1:B:2786:ARG:NH2	1:B:2946:ASP:OD1	2.34	0.59
1:C:1273:PRO:HD2	1:C:1682:GLU:HG2	1.84	0.59
1:D:420:ILE:HD12	1:D:633:ILE:HD11	1.83	0.59
1:B:785:HIS:NE2	1:B:787:GLN:HB3	2.17	0.59
1:D:1161:VAL:HG23	1:D:1169:ILE:HB	1.84	0.59
1:E:23:ALA:HB2	1:E:380:VAL:HG13	1.83	0.59
1:E:153:LEU:HB3	1:E:315:LEU:HD11	1.84	0.59
1:B:1161:VAL:HG23	1:B:1169:ILE:HB	1.83	0.59
1:C:1636:TRP:HB3	1:C:1644:MET:HE2	1.84	0.59
1:D:1480:SER:O	1:D:1483:ARG:NH1	2.36	0.59
1:D:1602:LEU:O	1:D:1662:ARG:NH1	2.35	0.59
1:E:2639:PHE:HD1	1:E:2644:PHE:HB3	1.67	0.59
1:F:2875:SER:O	1:F:2875:SER:OG	2.21	0.59
1:A:1046:VAL:HG22	1:A:1051:ALA:HB2	1.84	0.59
1:A:1985:ARG:HH11	1:A:1986:LEU:HD13	1.66	0.59
1:B:540:LYS:HB3	1:B:565:HIS:HB2	1.82	0.59
1:B:1360:VAL:HG21	1:B:1417:ALA:HA	1.84	0.59
1:C:2332:ILE:O	1:C:2336:VAL:HG22	2.03	0.59
1:D:243:GLU:OE2	1:F:1710:HIS:ND1	2.34	0.59
1:E:343:ASP:OD2	1:E:351:THR:OG1	2.20	0.59
1:D:498:GLN:HG3	1:D:532:ILE:HD13	1.83	0.59
1:D:2717:VAL:HA	1:D:2722:THR:HG22	1.83	0.59
1:D:2896:ARG:HH22	1:D:2902:LEU:HD13	1.68	0.59
1:E:1175:ARG:NH1	1:E:1188:ALA:O	2.30	0.59
1:B:933:LEU:HD21	1:B:982:LEU:HB3	1.85	0.59
1:E:2247:VAL:O	1:E:2251:ILE:HG13	2.02	0.59
1:F:1161:VAL:HG23	1:F:1169:ILE:HB	1.83	0.59
1:B:883:SER:OG	2:B:3101:FMN:O2P	2.19	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2740:GLN:HB3	1:B:2804:ARG:HD3	1.84	0.59
1:C:2717:VAL:HG11	1:E:2695:PRO:HB2	1.83	0.59
1:D:1997:VAL:HG13	1:D:2000:LEU:HD12	1.84	0.59
1:E:1360:VAL:HG21	1:E:1417:ALA:HA	1.83	0.59
1:E:2782:ARG:NH1	1:E:2785:ASP:OD2	2.35	0.59
1:B:420:ILE:HD12	1:B:633:ILE:HD11	1.84	0.59
1:C:1618:ARG:HD3	1:C:1626:LEU:HB3	1.84	0.59
1:D:1618:ARG:HB2	1:D:1626:LEU:HD12	1.84	0.59
1:D:1640:ARG:O	1:D:1640:ARG:HG2	2.02	0.59
1:F:768:THR:HG21	1:F:841:LYS:H	1.68	0.59
1:A:1469:HIS:O	1:A:1474:ARG:NH2	2.36	0.59
1:B:23:ALA:HB2	1:B:380:VAL:HG13	1.84	0.59
1:B:2266:ARG:NE	1:B:2310:VAL:O	2.35	0.59
1:C:2303:GLU:HG3	1:C:2305:SER:H	1.68	0.59
1:D:674:MET:HG2	1:D:881:THR:HG22	1.85	0.59
1:F:2487:ASP:HB2	1:F:2488:PRO:HD3	1.85	0.59
1:F:2678:GLY:CA	1:F:2683:ARG:HB2	2.32	0.59
1:A:1269:GLN:O	1:A:1712:THR:OG1	2.21	0.59
1:A:1997:VAL:HG13	1:A:2000:LEU:HD12	1.85	0.59
1:B:2265:SER:O	1:B:2309:ARG:NH2	2.36	0.59
1:C:2677:HIS:C	1:C:2683:ARG:NH1	2.60	0.59
1:D:1273:PRO:HD2	1:D:1682:GLU:HG2	1.84	0.59
1:D:2487:ASP:HB2	1:D:2488:PRO:HD3	1.83	0.59
1:D:3020:ARG:NH2	1:D:3029:ALA:O	2.32	0.59
1:E:1546:ARG:O	1:E:1550:GLY:N	2.36	0.59
1:F:608:PRO:HB3	1:F:901:PHE:HA	1.84	0.59
1:F:1510:THR:HG21	1:F:1534:GLY:HA2	1.85	0.59
1:A:1521:LEU:HB3	1:A:1525:GLN:HB3	1.85	0.58
1:D:263:ARG:NH2	1:D:577:TRP:O	2.30	0.58
1:A:768:THR:HG21	1:A:841:LYS:H	1.66	0.58
1:A:2247:VAL:O	1:A:2251:ILE:HG13	2.02	0.58
1:B:768:THR:HG21	1:B:841:LYS:H	1.69	0.58
1:B:1144:ALA:HB3	1:B:1156:PRO:HG2	1.85	0.58
1:B:1175:ARG:NH1	1:B:1188:ALA:O	2.26	0.58
1:D:1341:ILE:HD11	1:D:1411:MET:SD	2.42	0.58
1:D:1365:ASP:OD1	1:D:1366:LYS:N	2.36	0.58
1:D:2231:GLU:O	1:D:2235:ARG:N	2.28	0.58
1:E:795:LEU:HD23	1:E:795:LEU:H	1.68	0.58
1:E:1480:SER:O	1:E:1483:ARG:NH1	2.36	0.58
1:C:38:PHE:HZ	1:C:158:LEU:HD22	1.68	0.58
1:C:1543:GLU:HB2	1:C:1546:ARG:HH21	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:38:PHE:HZ	1:D:158:LEU:HD22	1.69	0.58
1:D:2668:GLY:O	1:D:2672:MET:HG2	2.03	0.58
1:E:785:HIS:NE2	1:E:787:GLN:HB3	2.18	0.58
1:E:1104:THR:HG22	1:E:1146:ALA:HB3	1.85	0.58
1:F:610:ARG:NH1	1:F:613:GLU:OE2	2.34	0.58
1:F:933:LEU:HD21	1:F:982:LEU:HB3	1.85	0.58
1:B:73:LEU:HD21	1:B:173:GLN:HE21	1.68	0.58
1:B:1162:THR:HG22	1:B:1168:VAL:HA	1.85	0.58
1:C:1469:HIS:O	1:C:1474:ARG:NH2	2.36	0.58
1:D:1546:ARG:O	1:D:1550:GLY:N	2.35	0.58
1:D:2345:SER:OG	1:D:2348:GLU:OE2	2.19	0.58
1:E:448:ALA:O	1:E:452:GLN:NE2	2.29	0.58
1:E:1255:LEU:HD11	1:E:1287:VAL:HG21	1.86	0.58
1:E:2294:ASP:HA	1:E:2297:VAL:HG22	1.83	0.58
1:A:2487:ASP:HB2	1:A:2488:PRO:HD3	1.85	0.58
1:B:2869:ILE:HD13	1:B:2973:MET:HB2	1.85	0.58
1:C:540:LYS:HB3	1:C:565:HIS:HB2	1.84	0.58
1:C:2201:LEU:HD22	1:C:2202:GLY:H	1.69	0.58
1:C:2782:ARG:NH1	1:C:2785:ASP:OD2	2.35	0.58
1:E:2067:GLU:OE1	1:E:2168:ARG:NH1	2.37	0.58
1:E:2223:PRO:CG	1:E:2224:ARG:N	2.66	0.58
1:F:534:ILE:HG22	1:F:536:HIS:H	1.69	0.58
1:F:2123:GLY:HA3	1:F:2221:ALA:HA	1.85	0.58
1:F:2486:ASP:N	1:F:2486:ASP:OD1	2.37	0.58
1:A:1255:LEU:HD11	1:A:1287:VAL:HG21	1.85	0.58
1:A:2592:PRO:HB2	1:A:2594:LYS:HE3	1.86	0.58
1:B:534:ILE:HG22	1:B:536:HIS:H	1.68	0.58
1:C:2717:VAL:N	1:E:2715:HIS:O	2.37	0.58
1:E:543:THR:OG1	1:E:545:GLU:OE1	2.21	0.58
1:E:1434:ALA:HB1	1:E:1444:ALA:HB1	1.84	0.58
1:F:1144:ALA:HB3	1:F:1156:PRO:HG2	1.85	0.58
1:A:2486:ASP:OD1	1:A:2486:ASP:N	2.36	0.58
1:B:2241:LYS:HA	1:B:2245:TRP:CD1	2.39	0.58
1:C:1160:VAL:HG12	1:C:1171:THR:HG23	1.86	0.58
1:C:1534:GLY:O	1:C:1538:LEU:HD22	2.04	0.58
1:D:105:SER:OG	1:D:108:HIS:ND1	2.33	0.58
1:D:2332:ILE:O	1:D:2336:VAL:HG22	2.03	0.58
1:D:2782:ARG:NH1	1:D:2785:ASP:OD2	2.36	0.58
1:D:2790:GLY:HA2	1:D:2876:THR:HG23	1.85	0.58
1:E:2727:VAL:O	1:E:2731:VAL:HG13	2.04	0.58
1:F:2367:ARG:NE	1:F:2367:ARG:H	2.00	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1333:VAL:HG22	1:A:1433:ILE:HD11	1.84	0.58
1:B:2788:ARG:NH1	1:B:2945:ASP:OD2	2.36	0.58
1:C:588:TYR:HB3	1:C:628:MET:HE2	1.85	0.58
1:C:1333:VAL:HG22	1:C:1433:ILE:HD11	1.86	0.58
1:C:1365:ASP:OD1	1:C:1366:LYS:N	2.36	0.58
1:C:1510:THR:HG21	1:C:1534:GLY:HA2	1.85	0.58
1:D:1220:MET:HE2	1:D:1251:HIS:H	1.69	0.58
1:F:2668:GLY:O	1:F:2672:MET:HG2	2.03	0.58
1:A:1127:VAL:HG23	1:A:1129:GLN:H	1.68	0.58
1:C:423:ALA:HB2	1:C:634:LEU:HD12	1.86	0.58
1:C:1112:GLU:OE1	1:C:1153:ARG:NH1	2.37	0.58
1:E:343:ASP:OD1	1:E:343:ASP:N	2.37	0.58
1:F:1542:VAL:HG11	1:F:1555:PHE:HB2	1.85	0.58
1:C:933:LEU:HD21	1:C:982:LEU:HB3	1.86	0.58
1:C:951:ASN:HD22	1:C:952:PRO:HD2	1.69	0.58
1:C:2109:PRO:HD2	1:C:2110:GLU:H	1.69	0.58
1:C:2345:SER:OG	1:C:2348:GLU:OE1	2.21	0.58
1:D:424:GLY:HA3	1:D:478:ASN:HD22	1.68	0.58
1:D:1521:LEU:HB3	1:D:1525:GLN:HB3	1.86	0.58
1:D:2201:LEU:HD22	1:D:2202:GLY:H	1.69	0.58
1:F:2303:GLU:HG3	1:F:2305:SER:H	1.69	0.58
1:B:1072:PHE:HZ	1:B:1261:HIS:HB3	1.69	0.57
1:B:2486:ASP:OD1	1:B:2486:ASP:N	2.37	0.57
1:C:105:SER:OG	1:C:108:HIS:ND1	2.33	0.57
1:C:529:LEU:HD12	1:C:534:ILE:HG13	1.86	0.57
1:D:2678:GLY:HA3	1:D:2685:LYS:HD3	1.85	0.57
1:E:78:ASP:OD1	1:E:78:ASP:N	2.37	0.57
1:E:168:LEU:HA	1:E:171:LEU:CD2	2.34	0.57
1:E:1161:VAL:HG23	1:E:1169:ILE:HB	1.85	0.57
1:F:1342:GLN:HB2	1:F:1401:LEU:HD21	1.86	0.57
1:F:2241:LYS:HA	1:F:2245:TRP:CD1	2.39	0.57
1:A:1480:SER:O	1:A:1483:ARG:NH1	2.37	0.57
1:B:2251:ILE:HD12	1:B:2269:VAL:HG21	1.85	0.57
1:C:1020:THR:O	1:C:1024:THR:HG23	2.04	0.57
1:D:1255:LEU:HD11	1:D:1287:VAL:HG21	1.85	0.57
1:D:2521:ARG:NH2	1:D:2605:ILE:O	2.37	0.57
1:E:520:ASP:O	1:E:524:GLU:HG3	2.04	0.57
1:E:1469:HIS:O	1:E:1474:ARG:NH2	2.37	0.57
1:E:2108:ASN:ND2	1:E:2108:ASN:O	2.37	0.57
1:F:1104:THR:N	1:F:1107:GLY:O	2.37	0.57
1:A:2678:GLY:HA3	1:A:2685:LYS:HD2	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1997:VAL:HG13	1:B:2000:LEU:HD12	1.86	0.57
1:C:1255:LEU:HD11	1:C:1287:VAL:HG21	1.87	0.57
1:D:288:THR:HG22	1:D:290:ARG:H	1.68	0.57
1:D:2648:GLU:OE1	1:D:3013:ARG:NH2	2.36	0.57
1:E:181:LEU:O	1:E:185:ARG:HG2	2.03	0.57
1:E:1020:THR:O	1:E:1024:THR:HG23	2.04	0.57
1:E:1075:PRO:HD2	1:E:1076:LEU:HD12	1.86	0.57
1:F:2673:GLN:O	1:F:2677:HIS:ND1	2.30	0.57
1:A:543:THR:OG1	1:A:545:GLU:OE1	2.22	0.57
1:A:1175:ARG:NH1	1:A:1188:ALA:O	2.30	0.57
1:A:1985:ARG:HH22	1:E:1978:GLY:HA3	1.69	0.57
1:A:2790:GLY:HA2	1:A:2876:THR:HG22	1.85	0.57
1:A:3024:ALA:HB3	1:A:3031:MET:HE3	1.85	0.57
1:B:1693:PRO:HB2	1:B:1696:ALA:HB3	1.86	0.57
1:C:3020:ARG:NH2	1:C:3029:ALA:O	2.37	0.57
1:D:543:THR:OG1	1:D:545:GLU:OE1	2.22	0.57
1:E:2487:ASP:HB2	1:E:2488:PRO:HD3	1.87	0.57
1:A:1081:THR:HG21	1:A:1275:ARG:HG2	1.87	0.57
1:B:2564:ASP:HA	1:B:2583:ARG:HH21	1.69	0.57
1:D:1333:VAL:HG11	1:D:1670:LEU:HD21	1.87	0.57
1:D:2486:ASP:OD1	1:D:2486:ASP:N	2.36	0.57
1:E:1104:THR:N	1:E:1107:GLY:O	2.37	0.57
1:F:2564:ASP:HA	1:F:2583:ARG:HH21	1.69	0.57
1:B:230:ARG:HA	1:B:236:VAL:HG12	1.86	0.57
1:C:713:ARG:O	1:C:717:ILE:HG12	2.05	0.57
1:C:1220:MET:HE2	1:C:1251:HIS:H	1.69	0.57
1:C:2486:ASP:N	1:C:2486:ASP:OD1	2.36	0.57
1:D:2461:MET:HE3	1:D:2467:LEU:HG	1.85	0.57
1:E:39:GLY:HA2	1:E:350:LEU:HD22	1.86	0.57
1:E:1005:THR:OG1	1:E:1017:VAL:O	2.21	0.57
1:F:1104:THR:HG22	1:F:1146:ALA:HB3	1.87	0.57
1:A:1104:THR:HG22	1:A:1146:ALA:HB3	1.87	0.57
1:A:2207:HIS:NE2	1:A:2210:ASP:OD1	2.35	0.57
1:B:575:HIS:HB3	1:B:684:ASP:HB2	1.87	0.57
1:B:1276:LEU:HD23	1:B:1327:LEU:HB3	1.85	0.57
1:B:1510:THR:HG21	1:B:1534:GLY:HA2	1.85	0.57
1:B:2448:GLU:HG2	1:B:2455:SER:HB3	1.87	0.57
1:B:2592:PRO:HB2	1:B:2594:LYS:HE3	1.86	0.57
1:D:45:TRP:HB3	1:D:119:VAL:HG12	1.86	0.57
1:D:1160:VAL:HG12	1:D:1171:THR:HG23	1.85	0.57
1:E:2486:ASP:N	1:E:2486:ASP:OD1	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1997:VAL:HG13	1:F:2000:LEU:HD12	1.87	0.57
1:A:88:PHE:HE2	1:A:173:GLN:HE21	1.52	0.57
1:A:1160:VAL:HG12	1:A:1171:THR:HG23	1.87	0.57
1:A:1578:ARG:NH2	1:A:1651:GLU:OE2	2.38	0.57
1:B:181:LEU:O	1:B:185:ARG:HG2	2.04	0.57
1:D:2039:ARG:HD3	1:D:2167:ALA:HB3	1.86	0.57
1:F:543:THR:OG1	1:F:545:GLU:OE1	2.21	0.57
1:F:2663:GLY:HA2	1:F:2715:HIS:HB3	1.86	0.57
1:F:2678:GLY:HA3	1:F:2685:LYS:HE2	1.86	0.57
1:A:570:ARG:NH1	1:A:662:ASP:O	2.36	0.57
1:B:2668:GLY:O	1:B:2672:MET:HG2	2.05	0.57
1:C:2448:GLU:HG2	1:C:2455:SER:HB3	1.86	0.57
1:D:1104:THR:N	1:D:1107:GLY:O	2.35	0.57
1:D:2058:ILE:HB	1:D:2094:ILE:HD11	1.87	0.57
1:E:2251:ILE:HD13	1:E:2269:VAL:HG21	1.87	0.57
1:F:1405:GLN:HG3	1:F:1465:GLY:HA3	1.86	0.57
1:F:1693:PRO:HB2	1:F:1696:ALA:HB3	1.86	0.57
1:F:2124:ALA:O	1:F:2159:TYR:OH	2.17	0.57
1:F:2207:HIS:NE2	1:F:2210:ASP:OD1	2.36	0.57
1:A:426:THR:OG1	2:A:3101:FMN:O4	2.23	0.57
1:C:2124:ALA:O	1:C:2159:TYR:OH	2.17	0.57
1:D:2393:ARG:HA	1:D:2396:MET:HG3	1.85	0.57
1:E:263:ARG:NH2	1:E:269:GLY:O	2.36	0.57
1:E:2681:LEU:HB2	1:E:2683:ARG:HG3	1.87	0.57
1:F:2692:GLU:HA	1:F:2697:ILE:HG21	1.87	0.57
1:B:543:THR:OG1	1:B:545:GLU:OE1	2.21	0.56
1:C:2123:GLY:HA3	1:C:2221:ALA:HA	1.87	0.56
1:D:725:LYS:NZ	1:D:859:SER:O	2.38	0.56
1:D:1360:VAL:HG21	1:D:1417:ALA:HA	1.87	0.56
1:E:1466:SER:O	1:E:1469:HIS:ND1	2.35	0.56
1:E:2896:ARG:HH22	1:E:2902:LEU:HD13	1.70	0.56
1:F:288:THR:HG22	1:F:290:ARG:H	1.70	0.56
1:A:168:LEU:HA	1:A:171:LEU:CD2	2.34	0.56
1:A:1333:VAL:HG11	1:A:1670:LEU:HD21	1.88	0.56
1:B:2511:HIS:O	1:B:2515:VAL:HG13	2.05	0.56
1:B:2519:GLY:O	1:B:2521:ARG:NH1	2.37	0.56
1:C:1518:ASN:HA	1:C:1661:VAL:HG22	1.87	0.56
1:D:1336:PHE:CZ	1:D:1687:ILE:HD12	2.40	0.56
1:D:2721:ALA:O	1:D:2725:VAL:HG12	2.05	0.56
1:E:107:LYS:NZ	1:E:283:GLU:OE2	2.38	0.56
1:E:501:ARG:NH2	1:E:941:ASP:OD2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:135:MET:N	1:F:135:MET:HE3	2.20	0.56
1:F:498:GLN:HG3	1:F:532:ILE:HD13	1.86	0.56
1:A:520:ASP:O	1:A:524:GLU:HG3	2.06	0.56
1:A:2682:GLY:O	1:A:2683:ARG:C	2.49	0.56
1:B:2654:HIS:HB3	1:B:2657:LEU:HD12	1.87	0.56
1:C:181:LEU:O	1:C:185:ARG:HG2	2.05	0.56
1:C:674:MET:HG2	1:C:881:THR:HG22	1.86	0.56
1:C:1048:ASN:OD1	1:C:1049:GLY:N	2.37	0.56
1:C:2293:LEU:HD21	1:C:2314:HIS:CG	2.41	0.56
1:C:2294:ASP:HA	1:C:2297:VAL:HG22	1.85	0.56
1:C:2648:GLU:OE1	1:C:3013:ARG:NH2	2.36	0.56
1:D:768:THR:HG21	1:D:841:LYS:H	1.70	0.56
1:D:2123:GLY:HA3	1:D:2221:ALA:HA	1.87	0.56
1:D:2266:ARG:HH12	1:D:2366:ALA:HA	1.70	0.56
1:E:783:ARG:HH11	1:E:2415:LEU:HB3	1.69	0.56
1:E:1438:SER:OG	1:E:1566:HIS:NE2	2.26	0.56
1:F:1518:ASN:HA	1:F:1661:VAL:HG22	1.86	0.56
1:A:501:ARG:NH2	1:A:941:ASP:OD2	2.38	0.56
1:A:608:PRO:HB3	1:A:901:PHE:HA	1.88	0.56
1:A:2251:ILE:HD13	1:A:2269:VAL:HG21	1.86	0.56
1:B:608:PRO:HB3	1:B:901:PHE:HA	1.87	0.56
1:B:1083:VAL:HG13	1:B:1085:ASP:H	1.70	0.56
1:B:1456:ALA:O	1:B:1460:MET:HG3	2.05	0.56
1:B:2133:VAL:O	1:B:2137:LEU:HG	2.04	0.56
1:C:608:PRO:HB3	1:C:901:PHE:HA	1.87	0.56
1:C:2174:TRP:CH2	1:C:2209:LYS:HB3	2.41	0.56
1:D:2699:ALA:O	1:D:2703:VAL:HG12	2.06	0.56
1:A:1710:HIS:ND1	1:B:243:GLU:OE2	2.35	0.56
1:B:2058:ILE:HB	1:B:2094:ILE:HD11	1.88	0.56
1:C:39:GLY:HA2	1:C:350:LEU:HD22	1.86	0.56
1:D:951:ASN:HD22	1:D:952:PRO:HD2	1.70	0.56
1:B:1104:THR:N	1:B:1107:GLY:O	2.37	0.56
1:B:1341:ILE:HD11	1:B:1411:MET:SD	2.45	0.56
1:C:2430:TRP:HZ3	1:C:2970:LYS:HG2	1.70	0.56
1:D:2875:SER:O	1:D:2875:SER:OG	2.18	0.56
1:F:1469:HIS:O	1:F:1474:ARG:NH2	2.39	0.56
1:A:1543:GLU:HB2	1:A:1546:ARG:HH21	1.70	0.56
1:B:135:MET:N	1:B:135:MET:HE3	2.21	0.56
1:B:165:ASP:OD1	1:B:165:ASP:N	2.36	0.56
1:B:498:GLN:HG3	1:B:532:ILE:HD13	1.87	0.56
1:C:359:ARG:HD3	1:C:589:SER:HB2	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:794:THR:HB	1:C:2412:ILE:HG21	1.88	0.56
1:D:1454:LEU:HA	1:D:1457:LEU:HD23	1.87	0.56
1:E:2654:HIS:HB3	1:E:2657:LEU:HD12	1.87	0.56
1:F:1333:VAL:HG11	1:F:1670:LEU:HD21	1.87	0.56
1:A:1161:VAL:HG23	1:A:1169:ILE:HB	1.88	0.56
1:A:1336:PHE:CZ	1:A:1687:ILE:HD12	2.41	0.56
1:B:2303:GLU:HG3	1:B:2305:SER:H	1.69	0.56
1:C:1514:LEU:HD13	1:C:1530:GLY:HA3	1.86	0.56
1:D:120:LEU:HD13	1:D:153:LEU:HD13	1.88	0.56
1:D:608:PRO:HB3	1:D:901:PHE:HA	1.88	0.56
1:D:2682:GLY:O	1:D:2683:ARG:C	2.48	0.56
1:E:2153:GLU:OE1	1:E:2153:GLU:N	2.38	0.56
1:E:2332:ILE:O	1:E:2336:VAL:HG13	2.06	0.56
1:F:575:HIS:HB3	1:F:684:ASP:HB2	1.86	0.56
1:F:1333:VAL:HG22	1:F:1433:ILE:HD11	1.87	0.56
1:F:1534:GLY:O	1:F:1538:LEU:HD22	2.06	0.56
1:A:2639:PHE:HD1	1:A:2644:PHE:HB3	1.71	0.56
1:C:263:ARG:NH2	1:C:577:TRP:O	2.29	0.56
1:D:1469:HIS:O	1:D:1474:ARG:NH2	2.39	0.56
1:E:326:TRP:HE1	1:E:354:THR:HG22	1.71	0.56
1:E:2316:LEU:HB2	1:E:2373:ASP:HA	1.86	0.56
1:A:575:HIS:HB3	1:A:684:ASP:HB2	1.87	0.56
1:B:1104:THR:HG22	1:B:1146:ALA:HB3	1.88	0.56
1:C:615:LEU:HD12	1:C:630:ILE:HG13	1.87	0.56
1:C:1081:THR:HG21	1:C:1275:ARG:HG2	1.88	0.56
1:C:1260:GLN:HE21	1:C:1279:TRP:CD1	2.24	0.56
1:C:1695:VAL:HA	1:C:1698:LEU:HD23	1.88	0.56
1:A:2521:ARG:NH2	1:A:2605:ILE:O	2.38	0.55
1:B:1543:GLU:HB2	1:B:1546:ARG:HH21	1.71	0.55
1:B:2690:PHE:CG	1:F:2757:GLY:HA3	2.41	0.55
1:C:2714:ILE:HG23	1:E:2725:VAL:CG1	2.37	0.55
1:D:359:ARG:HD3	1:D:589:SER:HB2	1.87	0.55
1:D:794:THR:HB	1:D:2412:ILE:HG21	1.87	0.55
1:D:1020:THR:O	1:D:1024:THR:HG23	2.06	0.55
1:D:1339:GLN:OE1	1:D:1408:GLN:NE2	2.39	0.55
1:D:2654:HIS:HB3	1:D:2657:LEU:HD12	1.87	0.55
1:E:1543:GLU:HB2	1:E:1546:ARG:HH21	1.70	0.55
1:E:1729:ASP:OD1	1:E:1729:ASP:N	2.35	0.55
1:F:2727:VAL:O	1:F:2731:VAL:HG13	2.06	0.55
1:B:1020:THR:O	1:B:1024:THR:HG23	2.07	0.55
1:C:1514:LEU:HD21	1:C:1534:GLY:HA3	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2293:LEU:HD21	1:D:2314:HIS:CG	2.41	0.55
1:F:713:ARG:O	1:F:717:ILE:HG12	2.06	0.55
1:F:1341:ILE:HD11	1:F:1411:MET:SD	2.46	0.55
1:C:1589:ALA:O	1:C:1642:ARG:NH1	2.40	0.55
1:C:2266:ARG:NE	1:C:2310:VAL:O	2.39	0.55
1:D:1651:GLU:OE2	1:D:1655:TRP:NE1	2.38	0.55
1:F:1480:SER:O	1:F:1483:ARG:NH1	2.40	0.55
1:F:1589:ALA:O	1:F:1642:ARG:NH1	2.39	0.55
1:A:2681:LEU:HB2	1:A:2683:ARG:HG3	1.88	0.55
1:B:2896:ARG:HH22	1:B:2902:LEU:HD13	1.72	0.55
1:D:39:GLY:HA2	1:D:350:LEU:HD22	1.88	0.55
1:D:522:ALA:O	1:D:526:ILE:HG13	2.05	0.55
1:D:2663:GLY:HA2	1:D:2715:HIS:HB3	1.89	0.55
1:E:713:ARG:O	1:E:717:ILE:HG12	2.06	0.55
1:E:2293:LEU:HD11	1:E:2314:HIS:CD2	2.42	0.55
1:F:53:VAL:HG22	1:F:59:GLU:HG3	1.89	0.55
1:F:1162:THR:HG22	1:F:1168:VAL:HA	1.88	0.55
1:F:2654:HIS:HB3	1:F:2657:LEU:HD12	1.89	0.55
1:A:343:ASP:OD2	1:A:351:THR:OG1	2.22	0.55
1:A:488:LYS:HA	1:A:493:GLY:H	1.71	0.55
1:A:1155:VAL:HG13	1:A:1176:PHE:HB2	1.88	0.55
1:A:1589:ALA:O	1:A:1642:ARG:NH1	2.40	0.55
1:B:426:THR:OG1	2:B:3101:FMN:O4	2.23	0.55
1:B:1480:SER:O	1:B:1483:ARG:NH1	2.40	0.55
1:C:343:ASP:OD2	1:C:351:THR:OG1	2.24	0.55
1:D:748:ILE:HD12	1:D:763:PRO:HB2	1.88	0.55
1:D:1139:VAL:HG12	1:D:1161:VAL:HG12	1.88	0.55
1:D:2124:ALA:O	1:D:2159:TYR:OH	2.20	0.55
1:F:679:SER:N	1:F:683:ALA:O	2.38	0.55
1:F:1546:ARG:O	1:F:1550:GLY:N	2.38	0.55
1:F:2393:ARG:HA	1:F:2396:MET:HG3	1.87	0.55
1:A:165:ASP:N	1:A:165:ASP:OD1	2.39	0.55
1:B:474:THR:OG1	1:B:508:ASP:OD1	2.20	0.55
1:B:1333:VAL:HG22	1:B:1433:ILE:HD11	1.88	0.55
1:D:1005:THR:OG1	1:D:1017:VAL:O	2.25	0.55
1:D:2303:GLU:HG3	1:D:2305:SER:H	1.70	0.55
1:E:188:ILE:HD11	1:E:290:ARG:HE	1.70	0.55
1:E:1155:VAL:HG13	1:E:1176:PHE:HB2	1.89	0.55
1:E:2058:ILE:HB	1:E:2094:ILE:HD11	1.89	0.55
1:F:2723:ALA:HB3	1:F:2919:ALA:HB3	1.89	0.55
1:A:651:VAL:HG13	1:A:877:ILE:HD13	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1159:VAL:HG13	1:A:1172:LEU:HB2	1.89	0.55
1:B:725:LYS:NZ	1:B:859:SER:O	2.40	0.55
1:C:1412:ALA:HB1	1:C:1457:LEU:HD11	1.89	0.55
1:D:772:ARG:HD3	1:D:835:LEU:HD13	1.88	0.55
1:E:38:PHE:HZ	1:E:158:LEU:HD22	1.71	0.55
1:E:1081:THR:HG21	1:E:1275:ARG:HG2	1.89	0.55
1:E:2241:LYS:HA	1:E:2245:TRP:CD1	2.41	0.55
1:F:1020:THR:O	1:F:1024:THR:HG23	2.07	0.55
1:A:1546:ARG:O	1:A:1550:GLY:N	2.36	0.55
1:A:2008:LEU:HA	1:A:2011:LEU:HD23	1.88	0.55
1:A:2654:HIS:HB3	1:A:2657:LEU:HD12	1.87	0.55
1:C:65:LEU:HD13	1:C:166:VAL:HG12	1.89	0.55
1:D:713:ARG:O	1:D:717:ILE:HG12	2.06	0.55
1:D:2316:LEU:HB2	1:D:2373:ASP:HA	1.88	0.55
1:D:2871:LYS:NZ	1:D:2873:ASP:OD1	2.40	0.55
1:A:343:ASP:OD1	1:A:343:ASP:N	2.38	0.55
1:C:1139:VAL:HG12	1:C:1161:VAL:HG12	1.88	0.55
1:C:2654:HIS:HB3	1:C:2657:LEU:HD12	1.88	0.55
1:E:700:ASP:OD1	1:E:854:ARG:NH1	2.38	0.55
1:F:426:THR:OG1	2:F:3101:FMN:O4	2.24	0.55
1:F:1972:GLN:HA	1:F:1976:ARG:HH12	1.72	0.55
1:A:78:ASP:OD1	1:A:78:ASP:N	2.36	0.55
1:A:2294:ASP:HA	1:A:2297:VAL:HG22	1.88	0.55
1:B:700:ASP:OD1	1:B:854:ARG:NH1	2.37	0.55
1:B:1546:ARG:O	1:B:1550:GLY:N	2.37	0.55
1:C:748:ILE:HD12	1:C:763:PRO:HB2	1.88	0.55
1:C:2218:PHE:HE2	1:C:2353:LEU:HD21	1.72	0.55
1:D:1518:ASN:HA	1:D:1661:VAL:HG22	1.89	0.55
1:E:119:VAL:HG12	1:E:346:PRO:HG3	1.89	0.55
1:E:359:ARG:HD3	1:E:589:SER:HB2	1.89	0.55
1:F:230:ARG:HA	1:F:236:VAL:HG12	1.89	0.55
1:F:2872:HIS:N	1:F:2883:GLU:OE2	2.35	0.55
1:B:1336:PHE:CZ	1:B:1687:ILE:HD12	2.42	0.54
1:B:1469:HIS:O	1:B:1474:ARG:NH2	2.40	0.54
1:B:2672:MET:HE3	1:F:2672:MET:HE3	1.89	0.54
1:B:2782:ARG:NH1	1:B:2785:ASP:OD2	2.39	0.54
1:C:2690:PHE:CD2	1:E:2757:GLY:HA3	2.42	0.54
1:E:522:ALA:O	1:E:526:ILE:HG13	2.06	0.54
1:E:1160:VAL:HG12	1:E:1171:THR:HG23	1.88	0.54
1:F:1083:VAL:HG13	1:F:1085:ASP:H	1.71	0.54
1:F:2367:ARG:H	1:F:2367:ARG:HE	1.55	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:713:ARG:O	1:A:717:ILE:HG12	2.06	0.54
1:A:1153:ARG:HB3	1:A:1178:ILE:HB	1.90	0.54
1:B:1333:VAL:HG11	1:B:1670:LEU:HD21	1.89	0.54
1:B:1518:ASN:HA	1:B:1661:VAL:HG22	1.88	0.54
1:B:2452:TYR:O	1:B:2457:THR:OG1	2.25	0.54
1:C:2704:GLN:OE1	1:E:2981:HIS:NE2	2.41	0.54
1:C:2919:ALA:O	1:C:2923:MET:HG3	2.07	0.54
1:F:165:ASP:N	1:F:165:ASP:OD1	2.35	0.54
1:A:1514:LEU:HD23	1:A:1530:GLY:HA3	1.88	0.54
1:A:2568:THR:HG21	1:A:2581:VAL:HG23	1.89	0.54
1:A:2727:VAL:O	1:A:2731:VAL:HG13	2.08	0.54
1:B:2332:ILE:O	1:B:2336:VAL:HG13	2.07	0.54
1:B:2678:GLY:CA	1:B:2683:ARG:HB2	2.36	0.54
1:C:1341:ILE:HD11	1:C:1411:MET:SD	2.48	0.54
1:C:1480:SER:O	1:C:1483:ARG:NH1	2.41	0.54
1:C:2180:MET:HE2	1:C:2180:MET:HA	1.88	0.54
1:D:785:HIS:NE2	1:D:787:GLN:HB3	2.23	0.54
1:D:1686:GLU:HG3	1:D:1695:VAL:HB	1.89	0.54
1:D:2087:SER:OG	1:D:2092:ARG:O	2.25	0.54
1:E:488:LYS:HA	1:E:493:GLY:H	1.72	0.54
1:E:2841:LEU:HD23	1:E:2890:LEU:HG	1.89	0.54
1:F:2698:ILE:O	1:F:2702:VAL:HG23	2.07	0.54
1:A:785:HIS:NE2	1:A:787:GLN:HB3	2.22	0.54
1:B:1506:ILE:HG21	1:B:1538:LEU:HD11	1.90	0.54
1:B:2003:ALA:O	1:B:2007:GLU:HG2	2.08	0.54
1:B:2875:SER:O	1:B:2875:SER:OG	2.21	0.54
1:C:2433:LEU:HB3	1:C:2435:VAL:HG12	1.90	0.54
1:C:2727:VAL:O	1:C:2731:VAL:HG13	2.07	0.54
1:D:1081:THR:HG21	1:D:1275:ARG:HG2	1.88	0.54
1:D:1311:VAL:HG13	1:D:1323:ALA:HB3	1.90	0.54
1:D:2919:ALA:O	1:D:2923:MET:HG3	2.07	0.54
1:E:186:ARG:HB2	1:E:188:ILE:HG12	1.90	0.54
1:E:495:ARG:NH1	1:E:528:GLU:OE2	2.40	0.54
1:F:78:ASP:OD1	1:F:78:ASP:N	2.39	0.54
1:F:1633:TYR:O	1:F:1637:LEU:N	2.32	0.54
1:C:223:LEU:O	1:C:244:GLN:NE2	2.36	0.54
1:C:343:ASP:OD1	1:C:343:ASP:N	2.41	0.54
1:C:1104:THR:HG23	1:C:1109:PRO:HG3	1.88	0.54
1:C:1712:THR:O	1:C:1713:VAL:C	2.50	0.54
1:D:783:ARG:NH1	1:D:828:ASP:OD1	2.40	0.54
1:D:2681:LEU:HB2	1:D:2683:ARG:HG3	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1083:VAL:HG13	1:E:1085:ASP:H	1.71	0.54
1:E:1542:VAL:HG11	1:E:1555:PHE:HB2	1.89	0.54
1:C:1546:ARG:O	1:C:1550:GLY:N	2.35	0.54
1:E:2790:GLY:HA2	1:E:2876:THR:HG22	1.89	0.54
1:F:1452:TYR:HD2	1:F:1585:MET:HE1	1.72	0.54
1:A:90:PRO:O	1:A:94:VAL:HG12	2.08	0.54
1:C:426:THR:OG1	2:C:3101:FMN:O4	2.24	0.54
1:C:543:THR:OG1	1:C:545:GLU:OE1	2.24	0.54
1:C:1703:LEU:HD11	1:C:1713:VAL:HB	1.89	0.54
1:D:1434:ALA:HB1	1:D:1444:ALA:HB1	1.89	0.54
1:E:474:THR:OG1	1:E:508:ASP:OD1	2.20	0.54
1:F:495:ARG:NH1	1:F:528:GLU:OE2	2.41	0.54
1:F:2118:VAL:HG21	1:F:2212:GLN:HB2	1.90	0.54
1:F:2293:LEU:HD11	1:F:2314:HIS:CD2	2.43	0.54
1:F:2297:VAL:O	1:F:2301:HIS:ND1	2.40	0.54
1:F:2511:HIS:O	1:F:2515:VAL:HG13	2.08	0.54
1:A:181:LEU:O	1:A:185:ARG:HG2	2.07	0.54
1:A:1083:VAL:HG13	1:A:1085:ASP:H	1.71	0.54
1:B:2604:GLN:HA	1:B:2795:GLN:HG2	1.90	0.54
1:C:575:HIS:HB3	1:C:684:ASP:HB2	1.89	0.54
1:C:825:HIS:HD2	1:C:2418:PRO:HA	1.73	0.54
1:C:1360:VAL:HG21	1:C:1417:ALA:HA	1.90	0.54
1:C:1468:MET:HB2	1:C:1657:PHE:HZ	1.72	0.54
1:C:1521:LEU:HB3	1:C:1525:GLN:HB3	1.90	0.54
1:C:1701:ASN:HA	1:C:1704:LYS:HE3	1.89	0.54
1:D:1695:VAL:HA	1:D:1698:LEU:HD23	1.90	0.54
1:E:267:VAL:HG12	1:E:268:ARG:H	1.72	0.54
1:E:604:GLY:HA2	1:E:882:ALA:HB3	1.88	0.54
1:E:1589:ALA:O	1:E:1642:ARG:NH1	2.41	0.54
1:B:1311:VAL:HG13	1:B:1323:ALA:HB3	1.90	0.54
1:B:1599:ILE:HG21	1:B:1666:THR:OG1	2.08	0.54
1:C:679:SER:N	1:C:683:ALA:O	2.38	0.54
1:D:90:PRO:O	1:D:94:VAL:HG12	2.07	0.54
1:D:702:VAL:HG11	1:D:716:ILE:HD11	1.90	0.54
1:D:1669:LEU:HD12	1:D:1678:GLY:HA2	1.89	0.54
1:E:106:ASP:OD1	1:E:106:ASP:N	2.41	0.54
1:E:165:ASP:OD1	1:E:165:ASP:N	2.40	0.54
1:E:608:PRO:HB3	1:E:901:PHE:HA	1.89	0.54
1:E:748:ILE:HD12	1:E:763:PRO:HB2	1.90	0.54
1:A:263:ARG:NH2	1:A:269:GLY:O	2.40	0.54
1:A:933:LEU:HD21	1:A:982:LEU:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1510:THR:HG21	1:A:1534:GLY:HA2	1.89	0.54
1:A:1695:VAL:HA	1:A:1698:LEU:HD23	1.88	0.54
1:B:1365:ASP:HA	1:B:1368:THR:HG22	1.90	0.54
1:B:2568:THR:HG21	1:B:2581:VAL:HG23	1.90	0.54
1:C:772:ARG:HD3	1:C:835:LEU:HD13	1.89	0.54
1:C:1346:MET:HE3	1:C:1414:VAL:HG21	1.89	0.54
1:D:435:VAL:HG13	1:D:445:ALA:HB1	1.90	0.54
1:E:679:SER:N	1:E:683:ALA:O	2.41	0.54
1:E:2042:SER:OG	1:E:2958:ARG:NH2	2.41	0.54
1:E:2433:LEU:HB3	1:E:2435:VAL:HG12	1.90	0.54
1:B:207:ARG:O	1:B:211:LEU:HG	2.08	0.53
1:B:2610:ASP:O	1:B:2613:VAL:HG12	2.08	0.53
1:D:1204:THR:HG21	1:D:1302:ILE:HG12	1.90	0.53
1:E:933:LEU:HD21	1:E:982:LEU:HB3	1.90	0.53
1:F:23:ALA:H	1:F:26:ASP:HB2	1.73	0.53
1:F:37:ALA:N	1:F:342:LEU:O	2.30	0.53
1:A:2875:SER:O	1:A:2875:SER:OG	2.22	0.53
1:B:2159:TYR:CD1	1:B:2175:LEU:HD11	2.43	0.53
1:B:2698:ILE:O	1:B:2702:VAL:HG23	2.08	0.53
1:C:2573:VAL:HG12	1:C:2576:SER:H	1.72	0.53
1:D:2267:LEU:O	1:D:2311:SER:N	2.27	0.53
1:E:1507:ALA:HB2	1:E:1514:LEU:HB2	1.91	0.53
1:F:2573:VAL:HG12	1:F:2576:SER:H	1.72	0.53
1:A:2241:LYS:HA	1:A:2245:TRP:CD1	2.42	0.53
1:A:2692:GLU:HA	1:A:2697:ILE:HG21	1.90	0.53
1:B:1419:VAL:HG11	1:B:1447:CYS:HB3	1.90	0.53
1:B:1702:THR:HG22	1:B:1708:TYR:HE2	1.73	0.53
1:C:1301:GLY:O	1:C:1308:ILE:N	2.31	0.53
1:C:1703:LEU:HD22	1:C:1711:SER:HB2	1.89	0.53
1:D:1419:VAL:HG11	1:D:1447:CYS:HB3	1.89	0.53
1:E:1153:ARG:HB3	1:E:1178:ILE:HB	1.90	0.53
1:F:1153:ARG:HB3	1:F:1178:ILE:HB	1.91	0.53
1:A:2027:VAL:HG22	1:A:2179:ASN:HB2	1.90	0.53
1:A:2440:LEU:HD11	1:A:2859:LEU:HD11	1.91	0.53
1:B:230:ARG:HB2	1:B:323:LYS:HZ1	1.73	0.53
1:B:2087:SER:OG	1:B:2092:ARG:O	2.27	0.53
1:B:2293:LEU:HD11	1:B:2314:HIS:CD2	2.44	0.53
1:C:655:LEU:HG	1:C:887:ILE:HD12	1.89	0.53
1:C:1576:GLU:O	1:C:1579:ARG:HG3	2.09	0.53
1:F:655:LEU:HD13	1:F:688:ILE:HD11	1.91	0.53
1:A:230:ARG:HA	1:A:236:VAL:HG12	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1005:THR:OG1	1:A:1017:VAL:O	2.24	0.53
1:A:2761:MET:HG2	1:D:2687:ASN:O	2.08	0.53
1:C:2456:ARG:O	1:C:2460:GLU:HG2	2.08	0.53
1:C:2695:PRO:HB2	1:E:2717:VAL:HG11	1.90	0.53
1:D:2266:ARG:HH22	1:D:2366:ALA:HA	1.72	0.53
1:E:1518:ASN:HA	1:E:1661:VAL:HG22	1.91	0.53
1:E:1636:TRP:HB3	1:E:1640:ARG:NH1	2.23	0.53
1:E:1997:VAL:HG13	1:E:2000:LEU:HD12	1.90	0.53
1:E:2396:MET:HE2	1:E:2396:MET:C	2.33	0.53
1:F:1419:VAL:HG11	1:F:1447:CYS:HB3	1.89	0.53
1:B:794:THR:HB	1:B:2412:ILE:HG21	1.89	0.53
1:C:2682:GLY:HA3	1:E:2538:LEU:HG	1.91	0.53
1:E:1510:THR:HG21	1:E:1534:GLY:HA2	1.91	0.53
1:A:1075:PRO:HD2	1:A:1076:LEU:HD12	1.89	0.53
1:A:1085:ASP:OD2	1:A:1256:SER:OG	2.25	0.53
1:A:1311:VAL:HG13	1:A:1323:ALA:HB3	1.91	0.53
1:D:2006:SER:O	1:D:2009:ILE:HG13	2.08	0.53
1:D:2180:MET:HE2	1:D:2180:MET:HA	1.90	0.53
1:D:2218:PHE:HE2	1:D:2353:LEU:HD21	1.73	0.53
1:E:2370:ILE:HD12	1:E:2370:ILE:O	2.09	0.53
1:F:1336:PHE:CZ	1:F:1687:ILE:HD12	2.44	0.53
1:F:1365:ASP:HA	1:F:1368:THR:HG22	1.91	0.53
1:A:604:GLY:HA2	1:A:882:ALA:HB3	1.90	0.53
1:A:2240:MET:HE2	1:A:2240:MET:HA	1.91	0.53
1:A:2428:PRO:HB3	1:A:2968:PRO:HB2	1.91	0.53
1:C:90:PRO:O	1:C:94:VAL:HG12	2.07	0.53
1:C:725:LYS:NZ	1:C:859:SER:O	2.41	0.53
1:C:2071:GLY:HA3	1:C:2169:TYR:HA	1.90	0.53
1:D:575:HIS:HB3	1:D:684:ASP:HB2	1.89	0.53
1:E:2678:GLY:HA3	1:E:2685:LYS:HD2	1.91	0.53
1:F:1521:LEU:HB3	1:F:1525:GLN:HB3	1.91	0.53
1:F:2006:SER:O	1:F:2009:ILE:HG13	2.08	0.53
1:B:1589:ALA:O	1:B:1642:ARG:NH1	2.42	0.53
1:C:2769:MET:O	1:C:2773:ARG:HG3	2.08	0.53
1:D:534:ILE:HG22	1:D:536:HIS:H	1.72	0.53
1:E:1514:LEU:HD23	1:E:1530:GLY:HA3	1.91	0.53
1:E:2652:TYR:O	1:E:2810:ARG:NH2	2.42	0.53
1:E:2875:SER:O	1:E:2875:SER:OG	2.20	0.53
1:F:2782:ARG:NH1	1:F:2785:ASP:OD2	2.39	0.53
1:A:926:ARG:NH1	1:A:962:TRP:O	2.38	0.53
1:A:2758:PHE:HD1	1:A:2761:MET:HE2	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:655:LEU:HD22	1:B:887:ILE:HD12	1.90	0.53
1:B:2639:PHE:HD1	1:B:2644:PHE:HB3	1.74	0.53
1:C:2241:LYS:HA	1:C:2245:TRP:CD1	2.44	0.53
1:D:1153:ARG:HB3	1:D:1178:ILE:HB	1.90	0.53
1:D:1247:SER:H	1:D:1288:ARG:HH12	1.57	0.53
1:E:88:PHE:HE2	1:E:173:GLN:HE21	1.57	0.53
1:E:2440:LEU:HD11	1:E:2859:LEU:HD11	1.90	0.53
1:E:2666:MET:HE1	1:E:2672:MET:HE1	1.89	0.53
1:E:3020:ARG:NH2	1:E:3029:ALA:O	2.39	0.53
1:F:1081:THR:HG21	1:F:1275:ARG:HG2	1.91	0.53
1:F:1083:VAL:HG22	1:F:1084:PRO:HD2	1.90	0.53
1:F:1247:SER:H	1:F:1288:ARG:HH12	1.57	0.53
1:A:1072:PHE:HZ	1:A:1261:HIS:HB3	1.74	0.52
1:A:1441:GLU:OE1	1:A:1601:ASN:ND2	2.42	0.52
1:A:1507:ALA:HB2	1:A:1514:LEU:HB2	1.91	0.52
1:A:1518:ASN:HA	1:A:1661:VAL:HG22	1.91	0.52
1:C:534:ILE:HG22	1:C:536:HIS:H	1.74	0.52
1:D:655:LEU:HG	1:D:887:ILE:HD12	1.90	0.52
1:D:1058:HIS:HB2	1:D:1061:ARG:HD3	1.90	0.52
1:E:446:GLU:HG2	1:E:478:ASN:HB2	1.91	0.52
1:E:1311:VAL:HG13	1:E:1323:ALA:HB3	1.91	0.52
1:E:1672:ILE:HD12	1:F:220:ARG:HE	1.74	0.52
1:F:1518:ASN:HB2	1:F:1527:ALA:HB3	1.91	0.52
1:A:1083:VAL:HG22	1:A:1084:PRO:HD2	1.92	0.52
1:A:2300:TRP:NE1	1:A:2369:PRO:HD3	2.24	0.52
1:A:2316:LEU:HB2	1:A:2373:ASP:HA	1.90	0.52
1:B:359:ARG:HD3	1:B:589:SER:HB2	1.92	0.52
1:B:1247:SER:H	1:B:1288:ARG:HH12	1.57	0.52
1:B:1407:THR:O	1:B:1411:MET:HG2	2.10	0.52
1:B:2573:VAL:HG12	1:B:2576:SER:H	1.75	0.52
1:B:2682:GLY:HA3	1:F:2538:LEU:HG	1.90	0.52
1:C:522:ALA:O	1:C:526:ILE:HG13	2.09	0.52
1:C:2087:SER:OG	1:C:2092:ARG:O	2.27	0.52
1:D:73:LEU:HD21	1:D:173:GLN:HE21	1.75	0.52
1:D:230:ARG:HA	1:D:236:VAL:HG12	1.90	0.52
1:D:1467:LYS:HD3	1:D:1576:GLU:HB3	1.91	0.52
1:F:90:PRO:O	1:F:94:VAL:HG12	2.09	0.52
1:F:359:ARG:HD3	1:F:589:SER:HB2	1.91	0.52
1:A:288:THR:HG22	1:A:290:ARG:H	1.75	0.52
1:A:2640:LEU:HD22	1:A:3031:MET:HG2	1.90	0.52
1:B:495:ARG:NH1	1:B:528:GLU:OE2	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:1153:ARG:HB3	1:B:1178:ILE:HB	1.90	0.52
1:B:2297:VAL:O	1:B:2301:HIS:ND1	2.35	0.52
1:B:2692:GLU:HA	1:B:2697:ILE:HG21	1.91	0.52
1:B:2695:PRO:HB2	1:F:2717:VAL:HG11	1.90	0.52
1:C:288:THR:HG22	1:C:290:ARG:H	1.74	0.52
1:C:1204:THR:HG21	1:C:1302:ILE:HG12	1.90	0.52
1:C:1485:ALA:HB2	1:C:1557:LEU:HD12	1.90	0.52
1:E:725:LYS:NZ	1:E:859:SER:O	2.41	0.52
1:E:2537:LEU:HD11	1:E:2595:THR:HG22	1.91	0.52
1:F:700:ASP:OD1	1:F:854:ARG:NH1	2.37	0.52
1:F:725:LYS:NZ	1:F:859:SER:O	2.42	0.52
1:A:2433:LEU:HB3	1:A:2435:VAL:HG12	1.92	0.52
1:B:2725:VAL:HG22	1:F:2714:ILE:HG23	1.91	0.52
1:C:1566:HIS:HB3	1:C:1660:PRO:HA	1.90	0.52
1:C:2058:ILE:HB	1:C:2094:ILE:HD11	1.90	0.52
1:D:215:PHE:HD1	1:D:251:TYR:HD2	1.56	0.52
1:D:426:THR:OG1	2:D:3101:FMN:O4	2.23	0.52
1:D:2573:VAL:HG12	1:D:2576:SER:H	1.73	0.52
1:E:1083:VAL:HG22	1:E:1084:PRO:HD2	1.91	0.52
1:E:1706:PRO:O	1:E:1707:GLU:C	2.49	0.52
1:E:2180:MET:HE2	1:E:2180:MET:HA	1.92	0.52
1:F:655:LEU:HG	1:F:887:ILE:HD12	1.91	0.52
1:F:748:ILE:HD12	1:F:763:PRO:HB2	1.90	0.52
1:A:1599:ILE:HG21	1:A:1666:THR:OG1	2.09	0.52
1:A:2332:ILE:O	1:A:2336:VAL:HG13	2.09	0.52
1:A:2695:PRO:HD3	1:D:2666:MET:HG2	1.91	0.52
1:B:90:PRO:O	1:B:94:VAL:HG12	2.08	0.52
1:C:495:ARG:NH1	1:C:528:GLU:OE2	2.43	0.52
1:D:1158:SER:OG	1:D:1173:GLU:OE2	2.25	0.52
1:D:2071:GLY:HA3	1:D:2169:TYR:HA	1.91	0.52
1:D:2396:MET:SD	1:D:2397:SER:N	2.82	0.52
1:D:2751:THR:O	1:D:2755:ILE:HG12	2.09	0.52
1:D:2769:MET:O	1:D:2773:ARG:HG3	2.10	0.52
1:E:2573:VAL:HG12	1:E:2576:SER:H	1.74	0.52
1:E:2648:GLU:OE1	1:E:3013:ARG:NH2	2.37	0.52
1:F:116:VAL:HG22	1:F:117:PRO:HD3	1.92	0.52
1:F:794:THR:HB	1:F:2412:ILE:HG21	1.91	0.52
1:F:2294:ASP:HA	1:F:2297:VAL:HG22	1.91	0.52
1:B:417:ARG:NH2	1:B:508:ASP:OD1	2.43	0.52
1:C:2452:TYR:O	1:C:2457:THR:OG1	2.27	0.52
1:D:458:PHE:HE2	1:D:490:GLN:HG2	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2720:CYS:HB2	1:D:2979:PHE:H	1.75	0.52
1:D:2741:LEU:HD23	1:D:2803:ALA:HB2	1.92	0.52
1:E:288:THR:HG22	1:E:290:ARG:H	1.75	0.52
1:F:2999:ASP:N	1:F:2999:ASP:OD1	2.43	0.52
1:B:1083:VAL:HG22	1:B:1084:PRO:HD2	1.90	0.52
1:C:538:VAL:HG22	1:C:563:ILE:HB	1.92	0.52
1:F:1629:ILE:HG12	1:F:1640:ARG:HH22	1.75	0.52
1:A:65:LEU:HD12	1:A:166:VAL:HG12	1.92	0.52
1:A:84:ARG:HD3	1:A:87:GLY:HA2	1.91	0.52
1:A:2537:LEU:HD11	1:A:2595:THR:HG22	1.91	0.52
1:A:2823:GLN:HG2	1:D:2738:LYS:HE2	1.92	0.52
1:A:2882:ASN:OD1	1:A:2883:GLU:N	2.43	0.52
1:B:2367:ARG:H	1:B:2367:ARG:NE	2.08	0.52
1:C:2790:GLY:HA2	1:C:2876:THR:HG22	1.91	0.52
1:D:1576:GLU:O	1:D:1579:ARG:HG3	2.09	0.52
1:E:1633:TYR:O	1:E:1637:LEU:N	2.39	0.52
1:E:2978:GLY:N	1:E:2982:VAL:O	2.42	0.52
1:F:1105:ASP:OD1	1:F:1105:ASP:N	2.43	0.52
1:F:2720:CYS:HB2	1:F:2979:PHE:H	1.74	0.52
1:F:2751:THR:O	1:F:2755:ILE:HG12	2.08	0.52
1:A:794:THR:HB	1:A:2412:ILE:HG21	1.92	0.52
1:A:1690:LYS:HG2	1:A:1719:GLU:HB3	1.92	0.52
1:B:1471:ILE:HD12	1:B:1472:VAL:HG23	1.92	0.52
1:B:2713:MET:HB2	1:F:2982:VAL:HG23	1.91	0.52
1:D:1025:SER:O	1:D:1029:THR:HG23	2.10	0.52
1:D:1412:ALA:HB1	1:D:1457:LEU:HD11	1.91	0.52
1:D:2028:PHE:HD2	1:D:2178:ALA:HB2	1.74	0.52
1:E:2066:ALA:HB1	1:E:2101:ARG:HD2	1.92	0.52
1:A:423:ALA:HB2	1:A:634:LEU:HD12	1.92	0.52
1:A:1542:VAL:HG11	1:A:1555:PHE:HB2	1.90	0.52
1:A:2538:LEU:HG	1:D:2682:GLY:HA3	1.91	0.52
1:B:73:LEU:HD21	1:B:173:GLN:NE2	2.25	0.52
1:B:2727:VAL:O	1:B:2731:VAL:HG13	2.09	0.52
1:C:41:GLN:HE22	1:C:115:SER:HB3	1.75	0.52
1:C:1024:THR:HG22	1:C:1111:VAL:HG11	1.92	0.52
1:D:321:ILE:HG13	1:D:322:ARG:N	2.25	0.52
1:D:544:ILE:HG13	1:D:583:LEU:HD23	1.91	0.52
1:D:1301:GLY:O	1:D:1308:ILE:N	2.30	0.52
1:D:1520:ASN:HB2	1:D:1525:GLN:HG2	1.92	0.52
1:E:2646:PRO:O	1:E:2650:MET:HG2	2.10	0.52
1:F:73:LEU:HD21	1:F:173:GLN:NE2	2.25	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1338:GLY:C	1:F:1411:MET:HE1	2.35	0.52
1:F:2003:ALA:O	1:F:2007:GLU:HG2	2.09	0.52
1:A:700:ASP:OD1	1:A:854:ARG:NH1	2.37	0.51
1:A:2006:SER:O	1:A:2009:ILE:HG13	2.10	0.51
1:A:2573:VAL:HG12	1:A:2576:SER:H	1.73	0.51
1:A:2717:VAL:HG11	1:D:2695:PRO:HB2	1.92	0.51
1:B:1403:LEU:HD23	1:B:1404:THR:N	2.25	0.51
1:B:1542:VAL:HG11	1:B:1555:PHE:HB2	1.92	0.51
1:B:2703:VAL:HG21	1:B:2713:MET:HE1	1.92	0.51
1:D:37:ALA:N	1:D:342:LEU:O	2.31	0.51
1:D:1729:ASP:OD1	1:D:1729:ASP:N	2.43	0.51
1:D:2428:PRO:HB3	1:D:2968:PRO:HB2	1.93	0.51
1:D:2433:LEU:HB3	1:D:2435:VAL:HG12	1.91	0.51
1:E:2240:MET:HE2	1:E:2240:MET:HA	1.91	0.51
1:E:2522:GLU:OE2	1:E:2599:ARG:NE	2.43	0.51
1:F:740:LEU:HD13	1:F:777:LEU:HD23	1.92	0.51
1:F:1592:ASP:HA	1:F:1595:ILE:HD12	1.92	0.51
1:F:2604:GLN:HA	1:F:2795:GLN:HG2	1.91	0.51
1:A:2782:ARG:NH1	1:A:2785:ASP:OD2	2.41	0.51
1:B:1672:ILE:HD12	1:C:220:ARG:HE	1.75	0.51
1:B:2446:GLY:HA2	1:B:2800:ILE:HA	1.91	0.51
1:C:1467:LYS:HD3	1:C:1576:GLU:HB3	1.92	0.51
1:C:2701:HIS:CE1	1:C:2704:GLN:HE21	2.28	0.51
1:E:112:ALA:O	1:E:116:VAL:HG13	2.10	0.51
1:E:1365:ASP:HA	1:E:1368:THR:HG22	1.92	0.51
1:F:2180:MET:HE2	1:F:2180:MET:HA	1.92	0.51
1:F:2370:ILE:HD12	1:F:2370:ILE:O	2.10	0.51
1:F:2440:LEU:HD11	1:F:2859:LEU:HD21	1.90	0.51
1:F:2568:THR:HG21	1:F:2581:VAL:HG23	1.92	0.51
1:A:498:GLN:HG3	1:A:532:ILE:HD13	1.91	0.51
1:A:513:SER:OG	2:A:3101:FMN:O2	2.24	0.51
1:A:1130:LEU:HD22	1:A:1131:PRO:HD2	1.92	0.51
1:A:1422:MET:HE2	1:A:1428:PHE:HD1	1.75	0.51
1:A:2393:ARG:HA	1:A:2396:MET:HE3	1.92	0.51
1:B:836:CYS:HB2	1:B:843:VAL:HG11	1.92	0.51
1:E:768:THR:HG21	1:E:841:LYS:H	1.75	0.51
1:E:2568:THR:HG21	1:E:2581:VAL:HG23	1.92	0.51
1:F:1585:MET:HB3	1:F:1646:ARG:HH21	1.74	0.51
1:F:2224:ARG:HH11	1:F:2224:ARG:HA	1.76	0.51
1:F:2316:LEU:HB2	1:F:2373:ASP:HA	1.92	0.51
1:F:2741:LEU:HD23	1:F:2803:ALA:HB2	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2811:MET:O	1:F:3013:ARG:NH1	2.44	0.51
1:B:570:ARG:NH1	1:B:662:ASP:O	2.38	0.51
1:B:604:GLY:HA2	1:B:882:ALA:HB3	1.92	0.51
1:B:1348:MET:HE2	1:B:1348:MET:HA	1.93	0.51
1:B:2370:ILE:HD12	1:B:2370:ILE:O	2.11	0.51
1:C:458:PHE:HE2	1:C:490:GLN:HG2	1.75	0.51
1:C:476:GLN:NE2	1:C:508:ASP:OD2	2.44	0.51
1:C:1419:VAL:HG11	1:C:1447:CYS:HB3	1.92	0.51
1:C:2006:SER:O	1:C:2009:ILE:HG13	2.09	0.51
1:C:2690:PHE:CG	1:E:2757:GLY:HA3	2.46	0.51
1:C:2751:THR:O	1:C:2755:ILE:HG12	2.10	0.51
1:D:1104:THR:HG22	1:D:1146:ALA:HB3	1.93	0.51
1:D:1510:THR:HG21	1:D:1534:GLY:HA2	1.93	0.51
1:D:2314:HIS:NE2	1:D:2316:LEU:HD22	2.26	0.51
1:E:90:PRO:O	1:E:94:VAL:HG12	2.09	0.51
1:E:1687:ILE:HG23	1:E:1718:ALA:HB3	1.92	0.51
1:E:2114:TYR:HB3	1:E:2142:ALA:HB2	1.92	0.51
1:F:1311:VAL:HG13	1:F:1323:ALA:HB3	1.91	0.51
1:A:2293:LEU:HD11	1:A:2314:HIS:CD2	2.45	0.51
1:B:2999:ASP:N	1:B:2999:ASP:OD1	2.44	0.51
1:C:326:TRP:HE1	1:C:354:THR:HG22	1.75	0.51
1:C:1158:SER:OG	1:C:1173:GLU:OE2	2.25	0.51
1:C:1669:LEU:HD12	1:C:1678:GLY:HA2	1.92	0.51
1:C:2446:GLY:HA2	1:C:2800:ILE:HA	1.92	0.51
1:D:1599:ILE:HG21	1:D:1666:THR:OG1	2.10	0.51
1:E:2027:VAL:HG22	1:E:2179:ASN:HB2	1.93	0.51
1:E:2485:GLU:HB2	1:E:2493:TYR:CD2	2.45	0.51
1:F:424:GLY:HA3	1:F:478:ASN:HD22	1.75	0.51
1:A:666:SER:HB2	1:A:669:LYS:HG3	1.92	0.51
1:A:2430:TRP:HZ3	1:A:2970:LYS:HG2	1.76	0.51
1:B:2008:LEU:HA	1:B:2011:LEU:HD23	1.92	0.51
1:B:2224:ARG:HA	1:B:2224:ARG:HH11	1.76	0.51
1:D:1589:ALA:O	1:D:1642:ARG:NH1	2.44	0.51
1:E:2896:ARG:NH2	1:E:2901:PRO:O	2.44	0.51
1:F:1348:MET:HE2	1:F:1348:MET:HA	1.93	0.51
1:F:2107:GLU:OE1	1:F:2107:GLU:HA	2.10	0.51
1:F:2452:TYR:O	1:F:2457:THR:OG1	2.28	0.51
1:B:2660:ASN:OD1	1:B:2662:GLN:HG2	2.11	0.51
1:B:2714:ILE:HG23	1:F:2725:VAL:CG1	2.41	0.51
1:C:2882:ASN:OD1	1:C:2883:GLU:N	2.44	0.51
1:D:65:LEU:HD12	1:D:166:VAL:HG12	1.91	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:679:SER:N	1:D:683:ALA:O	2.37	0.51
1:D:779:ARG:HD2	1:D:831:PHE:CE2	2.46	0.51
1:E:2430:TRP:HZ3	1:E:2970:LYS:HG2	1.75	0.51
1:F:1024:THR:HA	1:F:1111:VAL:HG12	1.93	0.51
1:F:2087:SER:OG	1:F:2092:ARG:O	2.28	0.51
1:F:2113:ARG:HG3	1:F:2114:TYR:CD1	2.46	0.51
1:F:2357:CYS:O	1:F:2362:LYS:NZ	2.40	0.51
1:F:2790:GLY:HA2	1:F:2876:THR:HG22	1.92	0.51
1:A:725:LYS:NZ	1:A:859:SER:O	2.43	0.51
1:A:1276:LEU:HA	1:A:1327:LEU:HA	1.93	0.51
1:A:2757:GLY:HA3	1:D:2690:PHE:CG	2.46	0.51
1:B:116:VAL:HG22	1:B:117:PRO:HD3	1.93	0.51
1:B:424:GLY:HA3	1:B:478:ASN:HD22	1.76	0.51
1:B:2838:LEU:HD12	1:B:2886:LEU:HD12	1.91	0.51
1:C:1175:ARG:NH1	1:C:1188:ALA:O	2.27	0.51
1:C:2610:ASP:O	1:C:2613:VAL:HG12	2.11	0.51
1:D:226:VAL:HG11	1:D:288:THR:HG23	1.91	0.51
1:E:423:ALA:HB2	1:E:634:LEU:HD12	1.92	0.51
1:E:2639:PHE:O	1:E:2644:PHE:HB2	2.10	0.51
1:F:1456:ALA:O	1:F:1460:MET:HG3	2.11	0.51
1:F:1599:ILE:HG21	1:F:1666:THR:OG1	2.10	0.51
1:F:2332:ILE:O	1:F:2336:VAL:HG13	2.11	0.51
1:A:38:PHE:HZ	1:A:158:LEU:HD22	1.74	0.51
1:A:2715:HIS:O	1:D:2717:VAL:N	2.44	0.51
1:C:772:ARG:O	1:C:776:MET:HG3	2.11	0.51
1:C:1223:PHE:O	1:C:1227:SER:OG	2.28	0.51
1:C:1662:ARG:NE	1:C:1665:GLU:OE2	2.37	0.51
1:D:984:THR:HG22	1:D:989:VAL:HG22	1.93	0.51
1:F:1223:PHE:O	1:F:1227:SER:OG	2.29	0.51
1:A:112:ALA:O	1:A:116:VAL:HG13	2.11	0.51
1:A:2631:ASN:HB3	1:A:2702:VAL:HG21	1.93	0.51
1:B:679:SER:N	1:B:683:ALA:O	2.39	0.51
1:B:1585:MET:HB3	1:B:1646:ARG:HH21	1.76	0.51
1:B:2567:HIS:ND1	1:B:2567:HIS:O	2.44	0.51
1:B:2811:MET:O	1:B:3013:ARG:NH1	2.44	0.51
1:C:45:TRP:HB3	1:C:119:VAL:HG12	1.92	0.51
1:C:1336:PHE:CZ	1:C:1687:ILE:HD12	2.45	0.51
1:C:2070:GLU:OE2	1:C:2108:ASN:ND2	2.40	0.51
1:D:446:GLU:HG2	1:D:478:ASN:HB2	1.93	0.51
1:D:2522:GLU:HG2	1:D:2601:VAL:HG12	1.93	0.51
1:D:2882:ASN:OD1	1:D:2883:GLU:N	2.43	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1441:GLU:OE1	1:E:1601:ASN:ND2	2.44	0.51
1:E:2044:ARG:HB3	1:E:2955:VAL:HG22	1.91	0.51
1:E:2265:SER:O	1:E:2309:ARG:NH2	2.43	0.51
1:F:924:LEU:HD12	1:F:924:LEU:O	2.11	0.51
1:F:1348:MET:SD	1:F:1381:ARG:HG2	2.51	0.51
1:F:2945:ASP:N	1:F:2945:ASP:OD1	2.44	0.51
1:A:446:GLU:HG2	1:A:478:ASN:HB2	1.92	0.50
1:A:924:LEU:O	1:A:924:LEU:HD12	2.11	0.50
1:A:1104:THR:N	1:A:1107:GLY:O	2.43	0.50
1:A:2740:GLN:HB3	1:A:2804:ARG:HD3	1.93	0.50
1:B:2751:THR:O	1:B:2755:ILE:HG12	2.11	0.50
1:C:1564:PRO:O	1:C:1567:SER:OG	2.28	0.50
1:C:2483:ARG:HH12	1:C:2495:THR:HG23	1.76	0.50
1:D:541:PRO:HG2	1:D:547:ILE:HG12	1.93	0.50
1:E:1085:ASP:OD2	1:E:1256:SER:OG	2.25	0.50
1:F:1209:ARG:NH2	1:F:1307:GLU:OE1	2.41	0.50
1:B:1081:THR:HG21	1:B:1275:ARG:HG2	1.93	0.50
1:B:1521:LEU:HB3	1:B:1525:GLN:HB3	1.91	0.50
1:C:836:CYS:HB2	1:C:843:VAL:HG11	1.93	0.50
1:C:2999:ASP:N	1:C:2999:ASP:OD1	2.41	0.50
1:D:41:GLN:HE22	1:D:115:SER:HB3	1.77	0.50
1:D:2727:VAL:O	1:D:2731:VAL:HG13	2.11	0.50
1:E:655:LEU:HG	1:E:887:ILE:HD12	1.93	0.50
1:E:794:THR:HB	1:E:2412:ILE:HG21	1.93	0.50
1:E:1162:THR:HG22	1:E:1168:VAL:HA	1.92	0.50
1:E:1247:SER:H	1:E:1288:ARG:HH12	1.60	0.50
1:E:1271:ARG:O	1:E:1271:ARG:NH1	2.35	0.50
1:E:2557:ALA:O	1:E:2561:VAL:HG23	2.11	0.50
1:A:2646:PRO:O	1:A:2650:MET:HG2	2.10	0.50
1:B:924:LEU:HD12	1:B:924:LEU:O	2.12	0.50
1:B:1396:HIS:ND1	1:B:1398:ASP:OD1	2.43	0.50
1:D:112:ALA:O	1:D:116:VAL:HG13	2.11	0.50
1:D:165:ASP:N	1:D:165:ASP:OD1	2.38	0.50
1:D:2999:ASP:OD1	1:D:2999:ASP:N	2.42	0.50
1:E:867:ASP:OD1	1:E:867:ASP:N	2.43	0.50
1:E:2223:PRO:HG3	1:E:2224:ARG:H	1.75	0.50
1:E:2764:THR:OG1	1:E:2765:ALA:N	2.44	0.50
1:E:2806:ASP:OD2	1:E:2806:ASP:N	2.44	0.50
1:F:226:VAL:HG11	1:F:288:THR:HG23	1.91	0.50
1:F:549:SER:O	1:F:553:ILE:HG12	2.12	0.50
1:F:1403:LEU:HD23	1:F:1404:THR:N	2.26	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1705:LEU:HD12	1:F:1707:GLU:H	1.77	0.50
1:F:2557:ALA:O	1:F:2561:VAL:HG23	2.11	0.50
1:F:2567:HIS:ND1	1:F:2567:HIS:O	2.43	0.50
1:F:2674:THR:HG22	1:F:2685:LYS:HE3	1.94	0.50
1:A:1336:PHE:HE1	1:A:1415:ALA:HB1	1.75	0.50
1:A:1729:ASP:OD1	1:A:1729:ASP:N	2.35	0.50
1:A:2652:TYR:O	1:A:2810:ARG:NH2	2.45	0.50
1:A:3020:ARG:NH2	1:A:3029:ALA:O	2.41	0.50
1:B:175:ILE:HD12	1:B:176:GLY:N	2.27	0.50
1:B:547:ILE:HG21	1:B:587:THR:HG21	1.92	0.50
1:B:2180:MET:HA	1:B:2180:MET:HE2	1.93	0.50
1:B:2557:ALA:O	1:B:2561:VAL:HG23	2.11	0.50
1:B:2652:TYR:O	1:B:2810:ARG:NH2	2.45	0.50
1:C:1025:SER:O	1:C:1029:THR:HG23	2.11	0.50
1:C:1404:THR:O	1:C:1407:THR:HG22	2.12	0.50
1:C:1520:ASN:HB2	1:C:1525:GLN:HG2	1.94	0.50
1:D:1346:MET:HE3	1:D:1414:VAL:HG21	1.93	0.50
1:D:2924:MET:O	1:D:2928:GLN:HG3	2.12	0.50
1:E:65:LEU:HD12	1:E:166:VAL:HG12	1.93	0.50
1:E:1276:LEU:HA	1:E:1327:LEU:HA	1.93	0.50
1:E:2118:VAL:HG21	1:E:2212:GLN:HB2	1.94	0.50
1:E:2567:HIS:ND1	1:E:2567:HIS:O	2.45	0.50
1:E:2627:LEU:HD12	1:E:2668:GLY:H	1.76	0.50
1:F:425:MET:HB3	1:F:429:THR:H	1.76	0.50
1:F:836:CYS:HB2	1:F:843:VAL:HG11	1.94	0.50
1:F:1690:LYS:HG2	1:F:1719:GLU:HB3	1.94	0.50
1:A:115:SER:O	1:A:119:VAL:HG22	2.11	0.50
1:A:1162:THR:HG22	1:A:1168:VAL:HA	1.92	0.50
1:A:2648:GLU:HB3	1:A:2811:MET:HE3	1.94	0.50
1:B:45:TRP:HB3	1:B:119:VAL:HG12	1.93	0.50
1:B:549:SER:O	1:B:553:ILE:HG12	2.12	0.50
1:B:1024:THR:HA	1:B:1111:VAL:HG12	1.93	0.50
1:B:1126:VAL:HG22	1:B:1277:VAL:HA	1.94	0.50
1:C:570:ARG:NH1	1:C:662:ASP:O	2.41	0.50
1:C:1542:VAL:HG11	1:C:1555:PHE:HB2	1.93	0.50
1:C:2027:VAL:HG22	1:C:2179:ASN:HB2	1.94	0.50
1:D:2872:HIS:N	1:D:2883:GLU:OE2	2.41	0.50
1:E:1467:LYS:HZ3	1:E:1576:GLU:HG3	1.76	0.50
1:E:2314:HIS:NE2	1:E:2316:LEU:HD22	2.27	0.50
1:E:2631:ASN:HB3	1:E:2702:VAL:HG21	1.93	0.50
1:E:2720:CYS:HB2	1:E:2979:PHE:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2293:LEU:HD21	1:F:2314:HIS:CD2	2.47	0.50
1:F:2639:PHE:HD1	1:F:2644:PHE:HB3	1.76	0.50
1:A:1422:MET:SD	1:A:1725:LEU:HD21	2.52	0.50
1:B:654:MET:HE1	1:B:690:ASN:HB3	1.92	0.50
1:B:1368:THR:HG21	1:B:1376:VAL:HG12	1.93	0.50
1:B:2011:LEU:HD12	1:E:2024:VAL:HG12	1.94	0.50
1:B:2590:ARG:NH2	1:F:2681:LEU:HA	2.26	0.50
1:B:2723:ALA:HB3	1:B:2919:ALA:HB3	1.94	0.50
1:C:1247:SER:H	1:C:1288:ARG:HH12	1.58	0.50
1:C:2244:LEU:HD11	1:C:2295:ALA:HB3	1.94	0.50
1:D:604:GLY:HA2	1:D:882:ALA:HB3	1.93	0.50
1:D:2188:ALA:HA	1:D:2191:GLU:HG2	1.92	0.50
1:E:2428:PRO:HB3	1:E:2968:PRO:HB2	1.93	0.50
1:E:2882:ASN:OD1	1:E:2883:GLU:N	2.44	0.50
1:F:604:GLY:HA2	1:F:882:ALA:HB3	1.92	0.50
1:F:2694:LEU:O	1:F:2697:ILE:HG22	2.12	0.50
1:A:1693:PRO:HB2	1:A:1696:ALA:HB3	1.93	0.50
1:A:2050:LEU:HD21	1:A:2098:LEU:HD21	1.93	0.50
1:B:112:ALA:O	1:B:116:VAL:HG13	2.10	0.50
1:B:740:LEU:HD13	1:B:777:LEU:HD23	1.93	0.50
1:B:2741:LEU:HD23	1:B:2803:ALA:HB2	1.94	0.50
1:C:78:ASP:OD1	1:C:78:ASP:N	2.40	0.50
1:C:1005:THR:OG1	1:C:1017:VAL:O	2.25	0.50
1:E:2303:GLU:HG3	1:E:2305:SER:H	1.77	0.50
1:E:2670:THR:OG1	1:E:2749:ASP:OD2	2.23	0.50
1:F:547:ILE:HG21	1:F:587:THR:HG21	1.93	0.50
1:A:495:ARG:NH1	1:A:528:GLU:OE2	2.44	0.50
1:A:2682:GLY:HA3	1:D:2538:LEU:HG	1.92	0.50
1:B:1405:GLN:HG3	1:B:1465:GLY:HA3	1.94	0.50
1:B:2430:TRP:HZ3	1:B:2970:LYS:HB3	1.76	0.50
1:C:1047:ALA:N	1:C:1050:THR:O	2.37	0.50
1:C:1311:VAL:HG13	1:C:1323:ALA:HB3	1.93	0.50
1:D:1441:GLU:OE1	1:D:1601:ASN:ND2	2.45	0.50
1:E:2491:GLY:HA3	1:E:2500:MET:HE1	1.93	0.50
1:F:1276:LEU:HA	1:F:1327:LEU:HA	1.94	0.50
1:A:581:ASP:OD1	1:A:614:TYR:OH	2.24	0.50
1:B:1271:ARG:O	1:B:1271:ARG:HD3	2.12	0.50
1:B:1518:ASN:HB2	1:B:1527:ALA:HB3	1.92	0.50
1:C:43:SER:OG	1:C:346:PRO:O	2.30	0.50
1:C:446:GLU:HG2	1:C:478:ASN:HB2	1.94	0.50
1:C:544:ILE:HG13	1:C:583:LEU:HD23	1.94	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:604:GLY:HA2	1:C:882:ALA:HB3	1.93	0.50
1:C:717:ILE:HD12	1:C:727:TYR:CD2	2.47	0.50
1:C:2853:ALA:HB2	1:C:2894:LEU:HD22	1.93	0.50
1:D:251:TYR:HD1	1:D:251:TYR:O	1.95	0.50
1:D:1534:GLY:O	1:D:1538:LEU:HD22	2.12	0.50
1:D:2678:GLY:HA2	1:D:2683:ARG:HB2	1.94	0.50
1:F:1204:THR:HG21	1:F:1302:ILE:HG12	1.92	0.50
1:A:226:VAL:HG11	1:A:288:THR:HG23	1.93	0.49
1:B:134:GLY:C	1:B:135:MET:HE3	2.37	0.49
1:B:1703:LEU:HD23	1:B:1708:TYR:CD2	2.47	0.49
1:B:2393:ARG:HA	1:B:2396:MET:HE3	1.94	0.49
1:C:488:LYS:HG3	1:C:493:GLY:HA3	1.94	0.49
1:C:1104:THR:HG22	1:C:1146:ALA:HB3	1.93	0.49
1:D:1388:ILE:HG13	1:D:1393:HIS:HB2	1.94	0.49
1:D:1585:MET:HB3	1:D:1646:ARG:HH21	1.77	0.49
1:E:570:ARG:NH1	1:E:662:ASP:O	2.41	0.49
1:E:2592:PRO:HB2	1:E:2594:LYS:HE3	1.93	0.49
1:A:171:LEU:HD12	1:A:312:ALA:HA	1.94	0.49
1:A:2557:ALA:O	1:A:2561:VAL:HG23	2.12	0.49
1:B:188:ILE:HD11	1:B:291:LEU:HD11	1.93	0.49
1:B:2433:LEU:HB3	1:B:2435:VAL:HG12	1.94	0.49
1:C:73:LEU:HD21	1:C:173:GLN:NE2	2.27	0.49
1:C:321:ILE:HG13	1:C:322:ARG:N	2.26	0.49
1:C:424:GLY:HA3	1:C:478:ASN:HD22	1.76	0.49
1:D:115:SER:O	1:D:119:VAL:HG22	2.12	0.49
1:E:105:SER:OG	1:E:108:HIS:ND1	2.36	0.49
1:E:2456:ARG:O	1:E:2460:GLU:HG3	2.12	0.49
1:F:2661:THR:HG22	1:F:2733:LYS:HZ1	1.77	0.49
1:B:1204:THR:HG21	1:B:1302:ILE:HG12	1.93	0.49
1:B:1338:GLY:C	1:B:1411:MET:HE1	2.38	0.49
1:B:1348:MET:SD	1:B:1381:ARG:HG2	2.52	0.49
1:B:1401:LEU:O	1:B:1407:THR:HB	2.12	0.49
1:B:2207:HIS:HE2	1:B:2210:ASP:HA	1.77	0.49
1:B:2367:ARG:H	1:B:2367:ARG:HE	1.60	0.49
1:C:112:ALA:O	1:C:116:VAL:HG13	2.12	0.49
1:C:541:PRO:HG2	1:C:547:ILE:HG12	1.94	0.49
1:C:1434:ALA:HB1	1:C:1444:ALA:HB1	1.94	0.49
1:C:2440:LEU:HD21	1:C:2859:LEU:HD21	1.94	0.49
1:C:2924:MET:O	1:C:2928:GLN:HG3	2.11	0.49
1:D:2610:ASP:O	1:D:2613:VAL:HG12	2.12	0.49
1:E:2123:GLY:HA3	1:E:2221:ALA:HA	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2978:GLY:HA3	1:E:2982:VAL:HG13	1.94	0.49
1:F:45:TRP:HB3	1:F:119:VAL:HG12	1.94	0.49
1:F:1085:ASP:OD2	1:F:1256:SER:OG	2.26	0.49
1:F:2561:VAL:HG13	1:F:2564:ASP:HB2	1.95	0.49
1:A:679:SER:N	1:A:683:ALA:O	2.45	0.49
1:A:2604:GLN:HA	1:A:2795:GLN:HG2	1.93	0.49
1:A:2896:ARG:HH12	1:A:2902:LEU:HD13	1.78	0.49
1:B:958:ASP:OD1	1:B:958:ASP:N	2.45	0.49
1:B:1534:GLY:O	1:B:1538:LEU:HD22	2.13	0.49
1:B:2207:HIS:NE2	1:B:2210:ASP:OD1	2.46	0.49
1:B:2882:ASN:OD1	1:B:2883:GLU:N	2.46	0.49
1:C:1083:VAL:HG22	1:C:1084:PRO:HD2	1.95	0.49
1:C:1729:ASP:OD1	1:C:1729:ASP:N	2.44	0.49
1:C:2293:LEU:HD11	1:C:2314:HIS:NE2	2.27	0.49
1:D:538:VAL:HG22	1:D:563:ILE:HB	1.94	0.49
1:D:1454:LEU:HD12	1:D:1457:LEU:HD21	1.92	0.49
1:D:1566:HIS:HB3	1:D:1660:PRO:HA	1.93	0.49
1:E:148:HIS:CG	1:E:149:SER:H	2.31	0.49
1:E:1469:HIS:CE1	1:E:1470:ASP:HB2	2.47	0.49
1:E:1471:ILE:HD12	1:E:1472:VAL:HG23	1.95	0.49
1:E:1695:VAL:HA	1:E:1698:LEU:HD23	1.94	0.49
1:A:655:LEU:HG	1:A:887:ILE:HD12	1.93	0.49
1:A:1697:GLY:O	1:A:1701:ASN:ND2	2.44	0.49
1:A:2648:GLU:OE1	1:A:3013:ARG:NH2	2.39	0.49
1:A:2660:ASN:HD21	1:A:2662:GLN:HE21	1.60	0.49
1:A:2806:ASP:OD2	1:A:2806:ASP:N	2.44	0.49
1:B:2678:GLY:HA2	1:B:2683:ARG:CD	2.40	0.49
1:B:2694:LEU:O	1:B:2697:ILE:HG22	2.13	0.49
1:C:226:VAL:HG11	1:C:288:THR:HG23	1.94	0.49
1:C:1705:LEU:O	1:C:1707:GLU:C	2.50	0.49
1:C:1978:GLY:HA3	1:F:1985:ARG:HH22	1.77	0.49
1:C:2109:PRO:HD2	1:C:2110:GLU:N	2.27	0.49
1:C:2714:ILE:HB	1:C:2729:GLU:OE1	2.12	0.49
1:C:2872:HIS:N	1:C:2883:GLU:OE2	2.41	0.49
1:D:73:LEU:HD21	1:D:173:GLN:NE2	2.27	0.49
1:D:220:ARG:HE	1:F:1672:ILE:HD12	1.77	0.49
1:E:107:LYS:C	1:E:107:LYS:HD3	2.38	0.49
1:E:226:VAL:HG11	1:E:288:THR:HG23	1.95	0.49
1:E:2300:TRP:NE1	1:E:2369:PRO:HD3	2.28	0.49
1:F:2885:GLU:O	1:F:2889:ARG:HG3	2.13	0.49
1:A:2044:ARG:HB3	1:A:2955:VAL:HG22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2714:ILE:HG23	1:D:2725:VAL:CG2	2.43	0.49
1:B:2054:ASP:OD1	1:B:2054:ASP:N	2.45	0.49
1:B:2690:PHE:CD2	1:F:2757:GLY:HA3	2.47	0.49
1:C:115:SER:O	1:C:119:VAL:HG22	2.12	0.49
1:C:785:HIS:NE2	1:C:787:GLN:HB3	2.28	0.49
1:C:1651:GLU:OE2	1:C:1655:TRP:NE1	2.39	0.49
1:D:250:LEU:HD23	1:D:253:ARG:NH2	2.27	0.49
1:E:1208:ARG:HA	1:E:1298:GLU:HG2	1.95	0.49
1:E:2824:SER:HA	1:E:2984:GLY:HA2	1.94	0.49
1:F:1441:GLU:OE1	1:F:1601:ASN:ND2	2.46	0.49
1:A:123:GLN:O	1:A:127:THR:HG23	2.13	0.49
1:A:1365:ASP:HA	1:A:1368:THR:HG22	1.93	0.49
1:A:1663:TRP:O	1:A:1666:THR:HG22	2.13	0.49
1:A:2751:THR:O	1:A:2755:ILE:HG12	2.13	0.49
1:B:145:MET:HG2	1:B:155:VAL:HG13	1.94	0.49
1:B:1087:LEU:HD12	1:B:1087:LEU:H	1.78	0.49
1:B:2637:ASP:O	1:B:2641:SER:HB3	2.12	0.49
1:C:924:LEU:HD12	1:C:924:LEU:O	2.13	0.49
1:F:123:GLN:O	1:F:127:THR:HG23	2.13	0.49
1:F:446:GLU:HG2	1:F:478:ASN:HB2	1.95	0.49
1:A:1438:SER:OG	1:A:1566:HIS:NE2	2.29	0.49
1:A:2561:VAL:HG13	1:A:2564:ASP:HB2	1.95	0.49
1:B:425:MET:HB3	1:B:429:THR:H	1.78	0.49
1:B:2044:ARG:HB3	1:B:2955:VAL:HG22	1.93	0.49
1:C:425:MET:HB3	1:C:429:THR:H	1.78	0.49
1:C:779:ARG:HD2	1:C:831:PHE:CE2	2.48	0.49
1:E:924:LEU:HD12	1:E:924:LEU:O	2.11	0.49
1:E:2107:GLU:OE1	1:E:2107:GLU:HA	2.12	0.49
1:E:2216:LEU:HD21	1:E:2218:PHE:HE1	1.77	0.49
1:E:2998:LEU:O	1:E:3003:ARG:NH2	2.46	0.49
1:F:112:ALA:O	1:F:116:VAL:HG13	2.13	0.49
1:F:547:ILE:CG2	1:F:587:THR:HG21	2.43	0.49
1:F:1618:ARG:HH12	1:F:1622:PRO:HA	1.77	0.49
1:F:2806:ASP:OD2	1:F:2806:ASP:N	2.45	0.49
1:A:359:ARG:HD3	1:A:589:SER:HB2	1.94	0.49
1:A:1247:SER:H	1:A:1288:ARG:HH12	1.61	0.49
1:A:2438:ALA:HA	1:A:2806:ASP:OD2	2.13	0.49
1:B:123:GLN:O	1:B:127:THR:HG23	2.12	0.49
1:B:543:THR:O	1:B:547:ILE:HG13	2.13	0.49
1:B:2719:ALA:HB1	1:F:2694:LEU:HD13	1.94	0.49
1:C:867:ASP:OD1	1:C:867:ASP:N	2.44	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2315:ALA:HB1	1:C:2374:LEU:HD12	1.94	0.49
1:C:2896:ARG:NH2	1:C:2901:PRO:O	2.45	0.49
1:D:185:ARG:NE	1:F:1060:GLU:OE2	2.46	0.49
1:D:397:VAL:HG11	1:D:910:LEU:HD21	1.95	0.49
1:D:1223:PHE:O	1:D:1227:SER:OG	2.28	0.49
1:E:785:HIS:CE1	1:E:787:GLN:HB3	2.48	0.49
1:E:1422:MET:HG2	1:E:1428:PHE:HD1	1.78	0.49
1:F:1333:VAL:HG21	1:F:1670:LEU:HD21	1.94	0.49
1:A:199:SER:HA	1:A:237:VAL:HG12	1.95	0.49
1:A:634:LEU:HD23	1:A:634:LEU:H	1.78	0.49
1:B:115:SER:O	1:B:119:VAL:HG22	2.12	0.49
1:B:425:MET:HE1	1:B:636:GLY:HA2	1.93	0.49
1:B:1155:VAL:HG13	1:B:1176:PHE:HB2	1.95	0.49
1:B:2113:ARG:HG3	1:B:2114:TYR:CD1	2.48	0.49
1:C:1153:ARG:HB3	1:C:1178:ILE:HB	1.95	0.49
1:C:2114:TYR:CD2	1:C:2137:LEU:HD23	2.48	0.49
1:D:2271:LEU:HB2	1:D:2314:HIS:HB2	1.94	0.49
1:E:120:LEU:HD22	1:E:153:LEU:HD13	1.95	0.49
1:F:221:THR:OG1	1:F:247:ARG:NH2	2.44	0.49
1:F:541:PRO:HG2	1:F:547:ILE:HG12	1.95	0.49
1:F:1058:HIS:HB2	1:F:1061:ARG:HD3	1.94	0.49
1:F:2637:ASP:O	1:F:2641:SER:HB3	2.13	0.49
1:A:2265:SER:O	1:A:2309:ARG:NH2	2.45	0.48
1:B:397:VAL:HG11	1:B:910:LEU:HD21	1.94	0.48
1:B:1209:ARG:NH2	1:B:1307:GLU:OE1	2.42	0.48
1:B:1388:ILE:HB	1:E:2262:ASP:HB2	1.95	0.48
1:C:73:LEU:HD21	1:C:173:GLN:HE21	1.77	0.48
1:C:1276:LEU:HA	1:C:1327:LEU:HA	1.94	0.48
1:D:197:MET:HE3	1:D:286:PHE:H	1.78	0.48
1:E:2740:GLN:HB3	1:E:2804:ARG:HD3	1.95	0.48
1:F:115:SER:O	1:F:119:VAL:HG22	2.13	0.48
1:F:207:ARG:O	1:F:211:LEU:HG	2.13	0.48
1:F:397:VAL:HG11	1:F:910:LEU:HD21	1.94	0.48
1:F:543:THR:O	1:F:547:ILE:HG13	2.13	0.48
1:F:1987:VAL:O	1:F:1988:LEU:HD23	2.12	0.48
1:A:543:THR:O	1:A:547:ILE:HG13	2.14	0.48
1:A:1686:GLU:CD	1:A:1696:ALA:HB2	2.38	0.48
1:A:2738:LYS:NZ	1:D:2732:ASP:OD2	2.35	0.48
1:D:2483:ARG:HH12	1:D:2495:THR:HG23	1.78	0.48
1:E:123:GLN:O	1:E:127:THR:HG23	2.14	0.48
1:F:1401:LEU:O	1:F:1407:THR:HB	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2483:ARG:HH12	1:F:2495:THR:HG23	1.78	0.48
1:A:534:ILE:HG22	1:A:536:HIS:H	1.77	0.48
1:A:655:LEU:HD13	1:A:688:ILE:HD11	1.95	0.48
1:A:734:MET:HG2	1:A:738:GLN:HE21	1.76	0.48
1:A:2054:ASP:N	1:A:2054:ASP:OD1	2.46	0.48
1:A:2087:SER:OG	1:A:2092:ARG:O	2.32	0.48
1:B:1284:LEU:HD12	1:B:1319:LEU:HB3	1.94	0.48
1:D:1333:VAL:HG22	1:D:1433:ILE:HD11	1.94	0.48
1:D:1982:SER:HA	1:D:1985:ARG:NE	2.24	0.48
1:E:1301:GLY:O	1:E:1308:ILE:N	2.36	0.48
1:F:425:MET:HE1	1:F:636:GLY:HA2	1.95	0.48
1:F:2652:TYR:O	1:F:2810:ARG:NH2	2.46	0.48
1:A:106:ASP:N	1:A:106:ASP:OD1	2.44	0.48
1:A:2383:LEU:HB3	1:A:2388:LEU:HD21	1.94	0.48
1:B:1027:MET:SD	1:B:1114:LEU:HB3	2.53	0.48
1:B:1729:ASP:OD1	1:B:1729:ASP:N	2.44	0.48
1:B:2483:ARG:HH12	1:B:2495:THR:HG23	1.77	0.48
1:B:2694:LEU:HD13	1:F:2719:ALA:HB1	1.94	0.48
1:C:22:HIS:ND1	1:C:378:PHE:O	2.40	0.48
1:C:1162:THR:HG22	1:C:1168:VAL:HA	1.95	0.48
1:C:2107:GLU:HA	1:C:2107:GLU:OE2	2.12	0.48
1:C:2293:LEU:O	1:C:2297:VAL:HG13	2.13	0.48
1:D:1333:VAL:HG21	1:D:1670:LEU:HD21	1.95	0.48
1:E:574:HIS:HA	1:E:685:ILE:HG22	1.95	0.48
1:E:575:HIS:HB3	1:E:684:ASP:HB2	1.94	0.48
1:E:1204:THR:HG21	1:E:1302:ILE:HG12	1.95	0.48
1:E:2012:VAL:HG23	1:E:2016:LEU:HD12	1.95	0.48
1:E:2054:ASP:OD1	1:E:2054:ASP:N	2.46	0.48
1:E:2405:ASP:OD2	1:E:2406:ALA:N	2.46	0.48
1:F:1139:VAL:HG12	1:F:1161:VAL:HG12	1.94	0.48
1:A:1047:ALA:N	1:A:1050:THR:O	2.38	0.48
1:A:1208:ARG:HA	1:A:1298:GLU:HG2	1.95	0.48
1:A:2296:VAL:HB	1:A:2312:LEU:HD21	1.96	0.48
1:A:2567:HIS:O	1:A:2567:HIS:ND1	2.46	0.48
1:B:547:ILE:CG2	1:B:587:THR:HG21	2.43	0.48
1:B:1441:GLU:OE1	1:B:1601:ASN:ND2	2.46	0.48
1:B:1514:LEU:HD22	1:B:1530:GLY:HA3	1.96	0.48
1:B:2293:LEU:HD21	1:B:2314:HIS:CD2	2.49	0.48
1:B:2978:GLY:N	1:B:2982:VAL:O	2.45	0.48
1:B:3020:ARG:NH2	1:B:3029:ALA:O	2.44	0.48
1:D:717:ILE:HD12	1:D:727:TYR:CD2	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:924:LEU:O	1:D:924:LEU:HD12	2.12	0.48
1:D:1422:MET:SD	1:D:1725:LEU:HD21	2.54	0.48
1:D:1651:GLU:O	1:D:1655:TRP:HD1	1.96	0.48
1:D:2027:VAL:HG22	1:D:2179:ASN:HB2	1.95	0.48
1:D:2266:ARG:HG3	1:D:2309:ARG:C	2.39	0.48
1:D:2652:TYR:O	1:D:2810:ARG:NH2	2.47	0.48
1:D:2718:ALA:H	1:D:2722:THR:HG22	1.78	0.48
1:F:2699:ALA:O	1:F:2703:VAL:HG23	2.14	0.48
1:A:1338:GLY:C	1:A:1411:MET:HE1	2.39	0.48
1:B:2561:VAL:HG13	1:B:2564:ASP:HB2	1.95	0.48
1:C:2266:ARG:HH22	1:C:2366:ALA:HA	1.78	0.48
1:C:2341:VAL:HG21	1:C:2378:LEU:HB2	1.96	0.48
1:D:818:ASP:O	1:D:822:VAL:HG12	2.14	0.48
1:D:1027:MET:SD	1:D:1114:LEU:HB3	2.53	0.48
1:E:1521:LEU:HB3	1:E:1525:GLN:HB3	1.94	0.48
1:E:2190:VAL:HG11	1:E:2253:GLY:HA3	1.96	0.48
1:E:2244:LEU:HD11	1:E:2295:ALA:HB3	1.96	0.48
1:E:2452:TYR:O	1:E:2457:THR:OG1	2.31	0.48
1:E:2741:LEU:HD23	1:E:2803:ALA:HB2	1.95	0.48
1:F:73:LEU:HD21	1:F:173:GLN:HE21	1.77	0.48
1:F:238:ILE:HD12	1:F:245:LEU:HD22	1.95	0.48
1:F:293:ASP:OD1	1:F:293:ASP:N	2.43	0.48
1:F:717:ILE:HD12	1:F:727:TYR:CD2	2.49	0.48
1:A:550:VAL:HB	1:A:564:MET:HE2	1.96	0.48
1:A:2180:MET:HE2	1:A:2180:MET:HA	1.95	0.48
1:A:2764:THR:OG1	1:A:2765:ALA:N	2.47	0.48
1:B:2673:GLN:HG2	1:B:2677:HIS:CE1	2.47	0.48
1:C:171:LEU:HD11	1:C:312:ALA:HA	1.95	0.48
1:D:43:SER:OG	1:D:346:PRO:O	2.30	0.48
1:D:1024:THR:HG22	1:D:1111:VAL:HG22	1.95	0.48
1:E:395:PRO:HB2	1:E:407:LEU:HD11	1.95	0.48
1:E:2114:TYR:CD2	1:E:2137:LEU:HD23	2.49	0.48
1:E:2293:LEU:HD21	1:E:2314:HIS:CD2	2.49	0.48
1:E:2637:ASP:O	1:E:2641:SER:HB3	2.14	0.48
1:F:134:GLY:C	1:F:135:MET:HE3	2.39	0.48
1:F:482:LEU:HG	1:F:514:ALA:O	2.13	0.48
1:F:1027:MET:SD	1:F:1114:LEU:HB3	2.53	0.48
1:F:1975:GLY:HA3	1:F:1976:ARG:NH2	2.27	0.48
1:A:2452:TYR:O	1:A:2457:THR:OG1	2.31	0.48
1:B:446:GLU:HG2	1:B:478:ASN:HB2	1.95	0.48
1:B:1618:ARG:NH1	1:B:1618:ARG:O	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2392:ALA:O	1:D:2395:GLN:HG3	2.14	0.48
1:E:1454:LEU:HA	1:E:1457:LEU:HD23	1.95	0.48
1:E:1994:ASP:OD1	1:E:1994:ASP:N	2.47	0.48
1:E:2050:LEU:HD21	1:E:2098:LEU:HD21	1.96	0.48
1:E:2874:THR:OG1	1:E:2913:HIS:ND1	2.45	0.48
1:A:2998:LEU:O	1:A:3003:ARG:NH2	2.46	0.48
1:B:238:ILE:HD12	1:B:245:LEU:HD22	1.95	0.48
1:B:713:ARG:O	1:B:717:ILE:HG12	2.14	0.48
1:B:2039:ARG:HD3	1:B:2167:ALA:HB3	1.94	0.48
1:C:1419:VAL:HG21	1:C:1447:CYS:HB3	1.96	0.48
1:E:2243:LEU:O	1:E:2247:VAL:HG13	2.13	0.48
1:F:2462:GLU:HG2	1:F:2936:PRO:HB3	1.96	0.48
1:A:185:ARG:HD2	1:C:1060:GLU:HB3	1.95	0.48
1:A:473:ARG:NH1	1:A:1012:ASP:O	2.46	0.48
1:A:1119:HIS:HD2	1:A:1283:PHE:CE2	2.31	0.48
1:A:1672:ILE:HD12	1:B:220:ARG:HE	1.78	0.48
1:A:2703:VAL:HA	1:A:2707:VAL:HG22	1.94	0.48
1:B:1333:VAL:HG21	1:B:1670:LEU:HD21	1.94	0.48
1:C:634:LEU:HD23	1:C:634:LEU:H	1.78	0.48
1:C:1706:PRO:HA	1:C:1709:ALA:HB2	1.96	0.48
1:C:2358:ASP:OD1	1:C:2358:ASP:N	2.35	0.48
1:C:2811:MET:HB3	1:C:2813:LEU:HG	1.95	0.48
1:D:1276:LEU:HD23	1:D:1327:LEU:HB3	1.96	0.48
1:E:395:PRO:HB3	1:E:409:THR:HG22	1.96	0.48
1:E:534:ILE:HG22	1:E:536:HIS:H	1.78	0.48
1:E:2344:TYR:OH	1:E:2376:GLY:N	2.46	0.48
1:E:2604:GLN:HA	1:E:2795:GLN:HG2	1.96	0.48
1:F:175:ILE:HD13	1:F:319:ILE:HG21	1.95	0.48
1:A:615:LEU:HD12	1:A:630:ILE:HG13	1.96	0.47
1:A:1058:HIS:HB2	1:A:1061:ARG:HD3	1.96	0.47
1:A:1299:ARG:HA	1:A:1309:VAL:HG23	1.95	0.47
1:A:2648:GLU:HG2	1:A:2651:ARG:NH1	2.29	0.47
1:B:522:ALA:HB3	1:B:553:ILE:HD12	1.96	0.47
1:B:2242:VAL:O	1:B:2246:ALA:HB3	2.14	0.47
1:C:2538:LEU:HG	1:E:2682:GLY:HA3	1.95	0.47
1:C:2741:LEU:HD23	1:C:2803:ALA:HB2	1.96	0.47
1:D:2022:ARG:HB3	1:D:2022:ARG:NH1	2.29	0.47
1:E:1299:ARG:HA	1:E:1309:VAL:HG23	1.96	0.47
1:E:2482:ILE:HG23	1:E:2492:TRP:HB3	1.96	0.47
1:F:1966:LEU:HA	1:F:1969:PHE:CD2	2.49	0.47
1:F:2770:MET:HG2	1:F:2789:LEU:HD11	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:229:ILE:HG12	1:A:237:VAL:HG22	1.96	0.47
1:A:867:ASP:N	1:A:867:ASP:OD1	2.44	0.47
1:A:1204:THR:HG21	1:A:1302:ILE:HG12	1.95	0.47
1:A:2020:TRP:O	1:A:2024:VAL:HG22	2.14	0.47
1:B:482:LEU:HG	1:B:514:ALA:O	2.14	0.47
1:C:1223:PHE:HA	1:C:1226:VAL:HG22	1.96	0.47
1:C:1338:GLY:C	1:C:1411:MET:HE1	2.39	0.47
1:C:2153:GLU:H	1:C:2153:GLU:CD	2.22	0.47
1:C:2718:ALA:H	1:C:2722:THR:HG22	1.79	0.47
1:C:2728:GLU:O	1:C:2731:VAL:HG22	2.14	0.47
1:D:425:MET:HB3	1:D:429:THR:H	1.77	0.47
1:D:1703:LEU:HD11	1:D:1713:VAL:HB	1.96	0.47
1:E:37:ALA:N	1:E:342:LEU:O	2.27	0.47
1:E:544:ILE:HG13	1:E:583:LEU:HD22	1.96	0.47
1:E:1119:HIS:HD2	1:E:1283:PHE:CE2	2.31	0.47
1:E:2485:GLU:HB2	1:E:2493:TYR:HD2	1.78	0.47
1:F:1155:VAL:HG13	1:F:1176:PHE:HB2	1.96	0.47
1:F:1640:ARG:HG2	1:F:1643:GLU:HB3	1.95	0.47
1:F:1994:ASP:OD1	1:F:1994:ASP:N	2.48	0.47
1:A:39:GLY:HA2	1:A:350:LEU:HD22	1.96	0.47
1:A:547:ILE:CG2	1:A:587:THR:HG21	2.44	0.47
1:A:1301:GLY:O	1:A:1308:ILE:N	2.36	0.47
1:A:2321:ARG:O	1:A:2329:ASN:ND2	2.48	0.47
1:D:520:ASP:O	1:D:524:GLU:HG3	2.14	0.47
1:D:2044:ARG:HB3	1:D:2955:VAL:HG22	1.96	0.47
1:E:182:VAL:O	1:E:186:ARG:HG2	2.14	0.47
1:E:1689:VAL:HA	1:E:1719:GLU:HG2	1.96	0.47
1:F:43:SER:OG	1:F:346:PRO:O	2.31	0.47
1:F:777:LEU:O	1:F:781:GLU:HG3	2.14	0.47
1:A:796:PHE:HB3	1:A:802:LEU:HD12	1.95	0.47
1:A:1336:PHE:CE1	1:A:1415:ALA:HB1	2.49	0.47
1:A:1434:ALA:HB1	1:A:1444:ALA:HB1	1.96	0.47
1:B:1266:THR:OG1	1:B:1271:ARG:NH2	2.46	0.47
1:B:2107:GLU:OE2	1:B:2107:GLU:HA	2.15	0.47
1:B:2658:VAL:O	1:B:2709:SER:HB2	2.15	0.47
1:C:417:ARG:NH2	1:C:474:THR:OG1	2.46	0.47
1:C:695:CYS:O	1:C:699:LEU:HG	2.14	0.47
1:C:1484:LEU:HD12	1:C:1529:ALA:HB2	1.97	0.47
1:D:495:ARG:NH1	1:D:528:GLU:OE2	2.48	0.47
1:D:740:LEU:HD13	1:D:777:LEU:HD23	1.95	0.47
1:D:1662:ARG:NE	1:D:1665:GLU:OE2	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2440:LEU:HD21	1:D:2859:LEU:HD21	1.96	0.47
1:D:2723:ALA:HB1	1:D:2920:VAL:HG23	1.96	0.47
1:E:119:VAL:HG21	1:E:150:GLN:HE22	1.79	0.47
1:F:2869:ILE:HG13	1:F:2902:LEU:HD13	1.97	0.47
1:A:1966:LEU:HA	1:A:1969:PHE:CD2	2.49	0.47
1:A:2293:LEU:HD11	1:A:2314:HIS:HD2	1.79	0.47
1:B:1160:VAL:HG12	1:B:1171:THR:HG23	1.97	0.47
1:B:2467:LEU:HB3	1:B:2472:VAL:HG23	1.96	0.47
1:B:2748:ASP:HB2	1:B:2916:GLY:H	1.79	0.47
1:C:371:ARG:HB2	1:C:371:ARG:CZ	2.45	0.47
1:C:488:LYS:HA	1:C:493:GLY:H	1.78	0.47
1:C:1087:LEU:H	1:C:1087:LEU:HD12	1.79	0.47
1:C:1271:ARG:O	1:C:1271:ARG:HD3	2.14	0.47
1:C:1599:ILE:HG21	1:C:1666:THR:OG1	2.13	0.47
1:C:2663:GLY:HA2	1:C:2715:HIS:HB3	1.97	0.47
1:D:1276:LEU:HA	1:D:1327:LEU:HA	1.97	0.47
1:E:1676:ALA:HB2	1:F:222:VAL:HG12	1.96	0.47
1:E:2544:GLU:HG2	1:E:2585:ALA:HA	1.97	0.47
1:F:1301:GLY:O	1:F:1308:ILE:N	2.31	0.47
1:F:1506:ILE:HG21	1:F:1538:LEU:HD11	1.95	0.47
1:F:1576:GLU:O	1:F:1579:ARG:HG3	2.15	0.47
1:A:341:ILE:HD11	1:A:365:ILE:HG13	1.94	0.47
1:B:541:PRO:HG2	1:B:547:ILE:HG12	1.97	0.47
1:B:2216:LEU:HD21	1:B:2218:PHE:CE1	2.50	0.47
1:B:2973:MET:HE3	1:B:2985:LEU:HD21	1.96	0.47
1:C:22:HIS:HB2	1:C:25:VAL:HB	1.97	0.47
1:C:818:ASP:O	1:C:822:VAL:HG12	2.15	0.47
1:C:1636:TRP:HE3	1:C:1644:MET:HE1	1.78	0.47
1:E:227:LEU:HA	1:E:238:ILE:HG22	1.97	0.47
1:E:1284:LEU:HD12	1:E:1319:LEU:HB3	1.96	0.47
1:E:2224:ARG:HG3	1:E:2226:VAL:HG23	1.95	0.47
1:F:188:ILE:HD11	1:F:290:ARG:HD3	1.95	0.47
1:F:2242:VAL:O	1:F:2246:ALA:HB3	2.14	0.47
1:A:541:PRO:HG2	1:A:547:ILE:HG12	1.97	0.47
1:A:1566:HIS:ND1	1:A:1657:PHE:O	2.41	0.47
1:A:1717:ASN:N	1:A:1717:ASN:OD1	2.46	0.47
1:A:2713:MET:HB2	1:D:2982:VAL:HG23	1.97	0.47
1:A:2725:VAL:CG1	1:D:2714:ILE:HG23	2.45	0.47
1:B:33:PRO:O	1:B:339:ARG:N	2.45	0.47
1:B:78:ASP:OD1	1:B:78:ASP:N	2.46	0.47
1:B:494:LYS:HB3	1:B:494:LYS:HE2	1.64	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:727:TYR:CD1	1:B:849:ILE:HD11	2.50	0.47
1:B:2313:ALA:HB1	1:B:2370:ILE:HD11	1.97	0.47
1:B:2620:MET:O	1:B:2624:ILE:HG12	2.14	0.47
1:C:165:ASP:OD1	1:C:165:ASP:N	2.37	0.47
1:C:182:VAL:O	1:C:186:ARG:HG2	2.14	0.47
1:C:197:MET:HE3	1:C:286:PHE:H	1.77	0.47
1:C:350:LEU:O	1:C:354:THR:OG1	2.20	0.47
1:C:543:THR:OG1	1:C:544:ILE:N	2.47	0.47
1:C:1109:PRO:HB3	1:C:1153:ARG:HD3	1.95	0.47
1:C:1151:MET:HE1	1:C:1177:ALA:HB1	1.96	0.47
1:C:2054:ASP:N	1:C:2054:ASP:OD1	2.46	0.47
1:D:48:THR:HG21	1:D:347:GLY:H	1.79	0.47
1:D:846:VAL:HG13	1:D:856:TRP:HB3	1.97	0.47
1:D:2054:ASP:N	1:D:2054:ASP:OD1	2.46	0.47
1:D:2537:LEU:HD23	1:D:2537:LEU:HA	1.78	0.47
1:D:2558:ARG:NH2	1:D:2561:VAL:HG23	2.29	0.47
1:E:1223:PHE:HA	1:E:1226:VAL:HG22	1.97	0.47
1:E:1468:MET:HB2	1:E:1657:PHE:HZ	1.79	0.47
1:E:1693:PRO:HB2	1:E:1696:ALA:HB3	1.97	0.47
1:E:2087:SER:OG	1:E:2092:ARG:O	2.33	0.47
1:E:2561:VAL:HG13	1:E:2564:ASP:HB2	1.96	0.47
1:F:395:PRO:HB2	1:F:407:LEU:HD11	1.97	0.47
1:F:829:VAL:HB	1:F:830:PRO:HD3	1.96	0.47
1:F:1566:HIS:ND1	1:F:1657:PHE:O	2.38	0.47
1:F:2027:VAL:HG22	1:F:2179:ASN:HB2	1.96	0.47
1:F:2216:LEU:HD21	1:F:2218:PHE:CE1	2.49	0.47
1:F:2499:GLU:N	1:F:2499:GLU:OE2	2.48	0.47
1:A:829:VAL:HB	1:A:830:PRO:HD3	1.97	0.47
1:B:2243:LEU:O	1:B:2247:VAL:HG13	2.15	0.47
1:B:2806:ASP:OD2	1:B:2806:ASP:N	2.45	0.47
1:C:2216:LEU:HD23	1:C:2218:PHE:HE1	1.79	0.47
1:C:2321:ARG:HH11	1:C:2345:SER:HB3	1.79	0.47
1:D:171:LEU:HD11	1:D:312:ALA:HA	1.95	0.47
1:D:2107:GLU:HA	1:D:2107:GLU:OE2	2.14	0.47
1:D:2109:PRO:HD2	1:D:2110:GLU:H	1.78	0.47
1:E:717:ILE:HD12	1:E:727:TYR:CD2	2.50	0.47
1:E:1072:PHE:HZ	1:E:1261:HIS:HB3	1.79	0.47
1:E:1223:PHE:O	1:E:1227:SER:OG	2.32	0.47
1:E:1966:LEU:HA	1:E:1969:PHE:CD1	2.50	0.47
1:F:717:ILE:HG23	1:F:727:TYR:HD2	1.79	0.47
1:F:2054:ASP:N	1:F:2054:ASP:OD1	2.45	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2243:LEU:O	1:F:2247:VAL:HG13	2.15	0.47
1:F:2882:ASN:OD1	1:F:2883:GLU:N	2.48	0.47
1:F:2973:MET:HE3	1:F:2985:LEU:HD21	1.97	0.47
1:A:2107:GLU:HA	1:A:2107:GLU:OE2	2.14	0.47
1:A:2452:TYR:HE2	1:A:2461:MET:HE3	1.80	0.47
1:B:417:ARG:NH2	1:B:474:THR:OG1	2.48	0.47
1:B:425:MET:N	1:B:429:THR:OG1	2.48	0.47
1:B:543:THR:OG1	1:B:544:ILE:N	2.48	0.47
1:B:550:VAL:HB	1:B:564:MET:HE2	1.96	0.47
1:B:2266:ARG:HH22	1:B:2366:ALA:HA	1.80	0.47
1:B:2266:ARG:HH12	1:B:2366:ALA:HA	1.80	0.47
1:C:1708:TYR:O	1:C:1709:ALA:C	2.56	0.47
1:D:2592:PRO:HB2	1:D:2594:LYS:HE3	1.97	0.47
1:E:207:ARG:O	1:E:211:LEU:HG	2.15	0.47
1:A:1520:ASN:HB2	1:A:1525:GLN:HG2	1.97	0.47
1:B:2223:PRO:O	1:B:2224:ARG:HG2	2.15	0.47
1:B:2853:ALA:HB2	1:B:2894:LEU:HD22	1.97	0.47
1:C:395:PRO:HB2	1:C:407:LEU:HD11	1.97	0.47
1:C:420:ILE:HD12	1:C:633:ILE:HD11	1.97	0.47
1:C:520:ASP:O	1:C:524:GLU:HG3	2.15	0.47
1:C:943:ARG:CZ	1:C:946:GLY:HA2	2.45	0.47
1:C:1422:MET:HE3	1:C:1428:PHE:HD1	1.80	0.47
1:C:2930:LEU:HD23	1:C:2969:LEU:HD13	1.97	0.47
1:D:78:ASP:OD1	1:D:78:ASP:N	2.40	0.47
1:D:316:ALA:O	1:D:320:LEU:HB2	2.15	0.47
1:D:943:ARG:CZ	1:D:946:GLY:HA2	2.45	0.47
1:D:1047:ALA:N	1:D:1050:THR:O	2.36	0.47
1:D:1223:PHE:HA	1:D:1226:VAL:HG22	1.97	0.47
1:D:2247:VAL:O	1:D:2251:ILE:HG13	2.15	0.47
1:E:2660:ASN:HD21	1:E:2662:GLN:HE21	1.62	0.47
1:F:188:ILE:O	1:F:188:ILE:HG22	2.15	0.47
1:A:153:LEU:HD12	1:A:154:ALA:H	1.80	0.46
1:A:190:VAL:HB	1:A:196:PRO:HD3	1.97	0.46
1:A:549:SER:O	1:A:553:ILE:HG12	2.15	0.46
1:A:1485:ALA:HB2	1:A:1557:LEU:HD12	1.96	0.46
1:A:2214:PRO:HD2	1:A:2257:ILE:HD11	1.96	0.46
1:B:943:ARG:HG2	1:B:1017:VAL:HG23	1.96	0.46
1:B:2614:TRP:O	1:B:3031:MET:HB2	2.15	0.46
1:C:425:MET:N	1:C:429:THR:OG1	2.44	0.46
1:C:2748:ASP:HB2	1:C:2916:GLY:H	1.80	0.46
1:C:2766:ASP:HB2	1:C:2769:MET:HE1	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2826:GLY:O	1:C:2839:GLY:HA3	2.15	0.46
1:D:2242:VAL:O	1:D:2246:ALA:HB3	2.16	0.46
1:D:2728:GLU:O	1:D:2731:VAL:HG22	2.16	0.46
1:E:230:ARG:HG2	1:E:236:VAL:HG12	1.97	0.46
1:E:1047:ALA:N	1:E:1050:THR:O	2.38	0.46
1:E:1518:ASN:HB2	1:E:1527:ALA:HB3	1.96	0.46
1:E:2438:ALA:HA	1:E:2806:ASP:OD2	2.15	0.46
1:F:1012:ASP:OD1	1:F:1012:ASP:N	2.48	0.46
1:F:1407:THR:O	1:F:1411:MET:HG2	2.14	0.46
1:A:544:ILE:HG13	1:A:583:LEU:HD22	1.97	0.46
1:A:717:ILE:HD12	1:A:727:TYR:CD2	2.50	0.46
1:A:736:TYR:O	1:A:740:LEU:HG	2.16	0.46
1:A:2666:MET:HG2	1:D:2695:PRO:HD3	1.98	0.46
1:B:1038:ASP:O	1:B:1042:PHE:HB2	2.16	0.46
1:B:1139:VAL:HG12	1:B:1161:VAL:HG12	1.96	0.46
1:B:1336:PHE:CE1	1:B:1687:ILE:HD12	2.50	0.46
1:B:1966:LEU:HA	1:B:1969:PHE:CD2	2.50	0.46
1:C:1038:ASP:O	1:C:1042:PHE:HB2	2.16	0.46
1:C:2266:ARG:HG2	1:C:2311:SER:OG	2.15	0.46
1:D:1468:MET:HB2	1:D:1657:PHE:HZ	1.80	0.46
1:D:1987:VAL:C	1:D:1988:LEU:HD23	2.40	0.46
1:E:615:LEU:HD12	1:E:630:ILE:HG13	1.97	0.46
1:E:1046:VAL:HG22	1:E:1051:ALA:HB2	1.98	0.46
1:E:1488:ARG:HG3	1:E:1524:SER:HB2	1.98	0.46
1:E:2074:HIS:O	1:E:2078:THR:HG23	2.16	0.46
1:F:474:THR:OG1	1:F:508:ASP:OD2	2.28	0.46
1:F:522:ALA:HB3	1:F:553:ILE:HD12	1.98	0.46
1:F:1729:ASP:OD1	1:F:1729:ASP:N	2.44	0.46
1:A:1223:PHE:HA	1:A:1226:VAL:HG22	1.97	0.46
1:A:2452:TYR:HA	1:A:2518:VAL:HG22	1.97	0.46
1:B:2393:ARG:HA	1:B:2396:MET:HG3	1.97	0.46
1:B:2757:GLY:HA3	1:F:2690:PHE:CD2	2.51	0.46
1:C:397:VAL:HG11	1:C:910:LEU:HD21	1.96	0.46
1:C:1441:GLU:OE1	1:C:1601:ASN:ND2	2.48	0.46
1:C:2666:MET:HG2	1:E:2695:PRO:HD3	1.96	0.46
1:C:2922:GLN:HB2	1:C:2974:LEU:HD21	1.97	0.46
1:D:570:ARG:NH1	1:D:662:ASP:O	2.40	0.46
1:D:2446:GLY:HA2	1:D:2800:ILE:HA	1.97	0.46
1:D:2658:VAL:O	1:D:2709:SER:HB2	2.15	0.46
1:D:2826:GLY:O	1:D:2839:GLY:HA3	2.14	0.46
1:E:2242:VAL:O	1:E:2246:ALA:HB3	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:119:VAL:HG12	1:F:346:PRO:HG3	1.98	0.46
1:F:1618:ARG:NH1	1:F:1618:ARG:O	2.48	0.46
1:F:1636:TRP:HB3	1:F:1640:ARG:NH1	2.30	0.46
1:F:2978:GLY:N	1:F:2982:VAL:O	2.48	0.46
1:A:1401:LEU:O	1:A:1407:THR:HB	2.14	0.46
1:A:2367:ARG:NH1	1:A:2368:SER:OG	2.48	0.46
1:B:1644:MET:SD	1:B:1645:ALA:N	2.88	0.46
1:C:119:VAL:HG12	1:C:346:PRO:HG3	1.96	0.46
1:C:319:ILE:HG23	1:C:320:LEU:HG	1.96	0.46
1:C:1966:LEU:HA	1:C:1969:PHE:CD2	2.50	0.46
1:C:2066:ALA:HB1	1:C:2101:ARG:HD2	1.96	0.46
1:C:2652:TYR:O	1:C:2810:ARG:NH2	2.48	0.46
1:C:2875:SER:O	1:C:2875:SER:OG	2.24	0.46
1:D:651:VAL:HG13	1:D:877:ILE:HD13	1.97	0.46
1:D:1564:PRO:O	1:D:1567:SER:OG	2.32	0.46
1:E:541:PRO:HG2	1:E:547:ILE:HG12	1.97	0.46
1:E:2658:VAL:O	1:E:2709:SER:HB2	2.15	0.46
1:F:867:ASP:N	1:F:867:ASP:OD1	2.47	0.46
1:F:2313:ALA:HB1	1:F:2370:ILE:HD11	1.96	0.46
1:A:182:VAL:O	1:A:186:ARG:HG2	2.16	0.46
1:A:717:ILE:HG23	1:A:727:TYR:HD2	1.81	0.46
1:A:2216:LEU:HD21	1:A:2218:PHE:CE1	2.51	0.46
1:A:2370:ILE:O	1:A:2370:ILE:HD12	2.16	0.46
1:A:2757:GLY:HA3	1:D:2690:PHE:CD2	2.50	0.46
1:A:2896:ARG:HE	1:A:2900:ALA:HB3	1.81	0.46
1:B:2136:ARG:HE	1:B:2136:ARG:HB3	1.54	0.46
1:C:230:ARG:HG2	1:C:236:VAL:HG12	1.97	0.46
1:C:316:ALA:HA	1:C:319:ILE:HG22	1.97	0.46
1:C:2658:VAL:O	1:C:2709:SER:HB2	2.15	0.46
1:E:115:SER:O	1:E:119:VAL:HG22	2.15	0.46
1:E:1404:THR:O	1:E:1407:THR:HG22	2.16	0.46
1:E:1442:TYR:OH	1:E:1464:ARG:NH1	2.49	0.46
1:E:2129:ILE:H	1:E:2129:ILE:HD12	1.79	0.46
1:F:2223:PRO:O	1:F:2224:ARG:HG2	2.15	0.46
1:F:2518:VAL:HG12	1:F:2606:PRO:HB3	1.97	0.46
1:F:2703:VAL:HA	1:F:2707:VAL:HG13	1.97	0.46
1:F:2712:ALA:HB3	1:F:2733:LYS:NZ	2.28	0.46
1:A:105:SER:OG	1:A:108:HIS:ND1	2.40	0.46
1:A:1336:PHE:CE2	1:A:1444:ALA:HA	2.51	0.46
1:A:1471:ILE:HD12	1:A:1472:VAL:HG23	1.98	0.46
1:A:2129:ILE:HD12	1:A:2129:ILE:H	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2242:VAL:O	1:A:2246:ALA:HB3	2.15	0.46
1:A:2620:MET:O	1:A:2624:ILE:HG12	2.15	0.46
1:A:2896:ARG:HH22	1:A:2902:LEU:HD13	1.80	0.46
1:B:107:LYS:HE2	1:B:107:LYS:HA	1.98	0.46
1:B:2703:VAL:HA	1:B:2707:VAL:HG13	1.98	0.46
1:C:581:ASP:OD1	1:C:614:TYR:OH	2.19	0.46
1:C:2247:VAL:O	1:C:2251:ILE:HG13	2.15	0.46
1:D:156:GLU:HG3	1:D:315:LEU:HD21	1.97	0.46
1:D:1972:GLN:HA	1:D:1976:ARG:HH12	1.81	0.46
1:D:2005:ASP:O	1:D:2009:ILE:HG23	2.16	0.46
1:E:1368:THR:HG21	1:E:1376:VAL:HG12	1.96	0.46
1:E:2392:ALA:O	1:E:2395:GLN:HG3	2.16	0.46
1:F:2005:ASP:O	1:F:2009:ILE:HG23	2.15	0.46
1:F:2703:VAL:HG21	1:F:2713:MET:HE1	1.98	0.46
1:A:116:VAL:HG22	1:A:117:PRO:HD3	1.97	0.46
1:A:1012:ASP:N	1:A:1012:ASP:OD1	2.49	0.46
1:A:2244:LEU:HD23	1:A:2245:TRP:CZ3	2.51	0.46
1:B:52:LEU:HD11	1:B:369:ALA:HA	1.98	0.46
1:B:1223:PHE:O	1:B:1227:SER:OG	2.28	0.46
1:B:3021:LEU:HA	1:B:3031:MET:HE1	1.97	0.46
1:C:425:MET:HE1	1:C:636:GLY:HA2	1.98	0.46
1:C:1098:ALA:HB1	1:C:1143:ALA:HB2	1.98	0.46
1:C:1711:SER:C	1:C:1713:VAL:H	2.24	0.46
1:C:2685:LYS:HD2	1:C:2685:LYS:HA	1.70	0.46
1:D:228:SER:HB3	1:D:287:HIS:HB2	1.97	0.46
1:D:395:PRO:HB2	1:D:407:LEU:HD11	1.97	0.46
1:D:825:HIS:CD2	1:D:827:ALA:H	2.33	0.46
1:D:1038:ASP:O	1:D:1042:PHE:HB2	2.16	0.46
1:D:2415:LEU:HD22	1:D:2503:GLU:HB2	1.97	0.46
1:D:2430:TRP:HZ3	1:D:2970:LYS:HG2	1.81	0.46
1:D:2646:PRO:O	1:D:2650:MET:HG2	2.16	0.46
1:E:171:LEU:HD12	1:E:312:ALA:HA	1.96	0.46
1:F:654:MET:HE1	1:F:690:ASN:HB3	1.97	0.46
1:F:1087:LEU:H	1:F:1087:LEU:HD12	1.81	0.46
1:A:395:PRO:HB2	1:A:407:LEU:HD11	1.98	0.46
1:A:395:PRO:HB3	1:A:409:THR:HG22	1.96	0.46
1:A:501:ARG:NH2	1:A:533:GLY:O	2.49	0.46
1:B:119:VAL:HG12	1:B:346:PRO:HG3	1.98	0.46
1:B:221:THR:OG1	1:B:247:ARG:NH2	2.45	0.46
1:B:350:LEU:HD23	1:B:350:LEU:HA	1.81	0.46
1:B:1404:THR:O	1:B:1407:THR:HG22	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:2273:GLY:O	1:B:2317:ILE:HG13	2.16	0.46
1:B:2699:ALA:HB3	1:B:2715:HIS:CE1	2.51	0.46
1:C:48:THR:HG21	1:C:347:GLY:H	1.80	0.46
1:C:1488:ARG:HB3	1:C:1554:SER:HA	1.97	0.46
1:C:1663:TRP:HA	1:C:1666:THR:HG22	1.97	0.46
1:D:474:THR:OG1	1:D:508:ASP:OD2	2.29	0.46
1:D:513:SER:OG	2:D:3101:FMN:O2	2.17	0.46
1:D:543:THR:O	1:D:547:ILE:HG13	2.16	0.46
1:D:1422:MET:HE3	1:D:1428:PHE:HD1	1.79	0.46
1:D:2109:PRO:HD2	1:D:2110:GLU:N	2.30	0.46
1:E:543:THR:O	1:E:547:ILE:HG13	2.16	0.46
1:E:772:ARG:HG2	1:E:835:LEU:HG	1.97	0.46
1:E:1401:LEU:O	1:E:1407:THR:HB	2.16	0.46
1:E:1975:GLY:HA3	1:E:1976:ARG:NH2	2.30	0.46
1:E:2853:ALA:HB2	1:E:2894:LEU:HD22	1.98	0.46
1:F:2058:ILE:HB	1:F:2094:ILE:HD11	1.97	0.46
1:A:1518:ASN:HB2	1:A:1527:ALA:HB3	1.97	0.46
1:A:2874:THR:HG22	1:A:2876:THR:HG23	1.96	0.46
1:B:1640:ARG:HG2	1:B:1640:ARG:O	2.16	0.46
1:C:117:PRO:HG3	1:C:173:GLN:HA	1.98	0.46
1:C:829:VAL:HB	1:C:830:PRO:HD3	1.98	0.46
1:C:2028:PHE:HD2	1:C:2178:ALA:HB2	1.81	0.46
1:C:2242:VAL:O	1:C:2246:ALA:HB3	2.16	0.46
1:C:2313:ALA:HB1	1:C:2370:ILE:HD11	1.98	0.46
1:D:22:HIS:HB2	1:D:25:VAL:HB	1.98	0.46
1:D:223:LEU:HD22	1:D:290:ARG:HH12	1.81	0.46
1:D:1309:VAL:HG12	1:D:1325:ALA:HB3	1.97	0.46
1:D:1331:LYS:HG3	1:D:1331:LYS:O	2.15	0.46
1:D:2696:ASN:HB2	1:D:2715:HIS:ND1	2.31	0.46
1:D:2853:ALA:HB2	1:D:2894:LEU:HD22	1.98	0.46
1:E:926:ARG:NH1	1:E:962:TRP:O	2.43	0.46
1:F:326:TRP:HE1	1:F:354:THR:HG22	1.81	0.46
1:F:702:VAL:HG11	1:F:716:ILE:HD11	1.98	0.46
1:F:746:LEU:HD13	1:F:845:PHE:HB3	1.98	0.46
1:F:2396:MET:C	1:F:2396:MET:HE2	2.40	0.46
1:A:1368:THR:HG21	1:A:1376:VAL:HG12	1.98	0.46
1:A:2522:GLU:HA	1:A:2601:VAL:HG12	1.98	0.46
1:B:1223:PHE:HA	1:B:1226:VAL:HG22	1.98	0.46
1:B:2768:SER:HB2	1:B:2769:MET:SD	2.56	0.46
1:C:33:PRO:O	1:C:339:ARG:N	2.45	0.46
1:C:1088:VAL:HG21	1:C:1253:MET:HE3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1151:MET:C	1:C:1151:MET:HE2	2.41	0.46
1:C:1517:VAL:HG12	1:C:1566:HIS:HB2	1.98	0.46
1:C:2998:LEU:O	1:C:3003:ARG:NH2	2.49	0.46
1:D:680:GLN:HG3	1:D:855:ARG:HA	1.98	0.46
1:D:2293:LEU:HD11	1:D:2314:HIS:NE2	2.31	0.46
1:D:2748:ASP:HB2	1:D:2916:GLY:H	1.81	0.46
1:E:116:VAL:HG22	1:E:117:PRO:HD3	1.97	0.46
1:E:513:SER:OG	2:E:3101:FMN:O2	2.23	0.46
1:E:2752:LEU:HD23	1:E:2755:ILE:HD11	1.98	0.46
1:F:1335:ALA:HB3	1:F:1686:GLU:HB2	1.98	0.46
1:F:1396:HIS:ND1	1:F:1398:ASP:OD1	2.48	0.46
1:F:2768:SER:HB2	1:F:2769:MET:SD	2.56	0.46
1:A:2039:ARG:HD3	1:A:2167:ALA:HB3	1.98	0.45
1:A:2710:TYR:HE1	1:D:2828:GLY:HA3	1.80	0.45
1:B:850:ASP:N	1:B:850:ASP:OD1	2.49	0.45
1:B:1105:ASP:OD2	1:B:1105:ASP:N	2.48	0.45
1:B:2223:PRO:HG3	1:B:2243:LEU:HD11	1.98	0.45
1:B:2727:VAL:HG21	1:B:2923:MET:HE1	1.97	0.45
1:C:515:GLY:HA2	1:C:546:GLN:HE22	1.81	0.45
1:C:655:LEU:HD13	1:C:688:ILE:HD11	1.98	0.45
1:C:984:THR:HG22	1:C:989:VAL:HG22	1.97	0.45
1:C:1104:THR:N	1:C:1107:GLY:O	2.35	0.45
1:C:1519:PHE:HB3	1:C:1664:ILE:HG13	1.97	0.45
1:C:1633:TYR:O	1:C:1637:LEU:HB2	2.16	0.45
1:C:2052:LEU:HD21	1:C:2963:LEU:HD23	1.98	0.45
1:C:2677:HIS:NE2	1:E:2676:TYR:OH	2.48	0.45
1:C:2699:ALA:O	1:C:2703:VAL:HG23	2.16	0.45
1:C:2720:CYS:HB2	1:C:2979:PHE:H	1.81	0.45
1:C:2828:GLY:HA3	1:E:2710:TYR:HE1	1.80	0.45
1:D:1972:GLN:O	1:D:1976:ARG:HG2	2.17	0.45
1:D:2114:TYR:CD2	1:D:2137:LEU:HD23	2.51	0.45
1:E:33:PRO:O	1:E:339:ARG:N	2.47	0.45
1:E:1717:ASN:OD1	1:E:1717:ASN:N	2.47	0.45
1:F:327:VAL:O	1:F:331:THR:HG23	2.17	0.45
1:F:2044:ARG:HB3	1:F:2955:VAL:HG22	1.97	0.45
1:A:1488:ARG:HG3	1:A:1524:SER:HB2	1.98	0.45
1:A:2271:LEU:O	1:A:2314:HIS:ND1	2.49	0.45
1:A:2392:ALA:O	1:A:2395:GLN:HG3	2.15	0.45
1:B:327:VAL:O	1:B:331:THR:HG23	2.16	0.45
1:B:395:PRO:HB3	1:B:409:THR:HG22	1.99	0.45
1:B:2114:TYR:HB3	1:B:2142:ALA:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:574:HIS:HA	1:C:685:ILE:HG22	1.98	0.45
1:C:1276:LEU:HD23	1:C:1327:LEU:HB3	1.98	0.45
1:C:1671:PHE:HD2	1:C:1708:TYR:CE1	2.33	0.45
1:C:2731:VAL:O	1:C:2735:ARG:HG3	2.16	0.45
1:D:119:VAL:HG21	1:D:150:GLN:HE22	1.79	0.45
1:D:409:THR:OG1	1:D:631:ASP:O	2.28	0.45
1:D:1485:ALA:HB2	1:D:1557:LEU:HD12	1.97	0.45
1:D:1717:ASN:HB3	1:D:1720:ARG:HB3	1.98	0.45
1:D:1966:LEU:HA	1:D:1969:PHE:CD1	2.51	0.45
1:D:2648:GLU:HG2	1:D:2651:ARG:NH1	2.32	0.45
1:D:2731:VAL:O	1:D:2735:ARG:HG3	2.16	0.45
1:E:546:GLN:O	1:E:550:VAL:HG23	2.16	0.45
1:E:2271:LEU:O	1:E:2314:HIS:ND1	2.46	0.45
1:E:2748:ASP:HB2	1:E:2916:GLY:H	1.81	0.45
1:E:2811:MET:O	1:E:3013:ARG:NH1	2.49	0.45
1:F:2114:TYR:CD2	1:F:2137:LEU:HD23	2.51	0.45
1:F:2433:LEU:HB3	1:F:2435:VAL:HG12	1.97	0.45
1:A:2113:ARG:HE	1:A:2114:TYR:HE1	1.64	0.45
1:B:375:ARG:HG2	1:B:375:ARG:HH11	1.81	0.45
1:C:1600:PRO:HG2	1:C:1603:VAL:O	2.16	0.45
1:C:2561:VAL:O	1:C:2565:PRO:HD3	2.16	0.45
1:D:1220:MET:HE3	1:D:1220:MET:HB3	1.85	0.45
1:D:2176:VAL:HG21	1:D:2189:LEU:HD21	1.99	0.45
1:D:2922:GLN:HB2	1:D:2974:LEU:HD21	1.99	0.45
1:E:1690:LYS:CG	1:E:1719:GLU:HB3	2.45	0.45
1:E:2052:LEU:HD11	1:E:2963:LEU:HD23	1.98	0.45
1:E:2216:LEU:HD21	1:E:2218:PHE:CE1	2.51	0.45
1:E:2620:MET:O	1:E:2624:ILE:HG12	2.16	0.45
1:F:2300:TRP:NE1	1:F:2369:PRO:HD3	2.30	0.45
1:F:2321:ARG:O	1:F:2329:ASN:ND2	2.49	0.45
1:F:2321:ARG:HH11	1:F:2345:SER:HB3	1.82	0.45
1:A:2052:LEU:HD11	1:A:2963:LEU:HD23	1.98	0.45
1:A:2216:LEU:HD21	1:A:2218:PHE:HE1	1.80	0.45
1:A:2223:PRO:HG3	1:A:2243:LEU:HD11	1.98	0.45
1:A:2243:LEU:O	1:A:2247:VAL:HG13	2.17	0.45
1:A:2668:GLY:O	1:A:2672:MET:HG2	2.16	0.45
1:B:1158:SER:OG	1:B:1173:GLU:OE2	2.26	0.45
1:B:1336:PHE:CE2	1:B:1444:ALA:HA	2.51	0.45
1:B:1400:VAL:HG22	1:B:1406:PHE:HD2	1.81	0.45
1:C:2604:GLN:HA	1:C:2795:GLN:HG2	1.98	0.45
1:C:2723:ALA:HB1	1:C:2920:VAL:HG23	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:829:VAL:HB	1:D:830:PRO:HD3	1.99	0.45
1:E:50:GLU:HG2	1:E:97:LEU:HD23	1.98	0.45
1:E:473:ARG:NH1	1:E:1012:ASP:O	2.47	0.45
1:E:655:LEU:HD13	1:E:688:ILE:HD11	1.98	0.45
1:E:829:VAL:HB	1:E:830:PRO:HD3	1.98	0.45
1:E:1640:ARG:HG2	1:E:1640:ARG:O	2.15	0.45
1:F:1309:VAL:HG12	1:F:1325:ALA:HB3	1.98	0.45
1:F:1400:VAL:HG22	1:F:1406:PHE:HD2	1.82	0.45
1:F:1602:LEU:HD23	1:F:1602:LEU:H	1.81	0.45
1:A:1388:ILE:HA	1:A:1393:HIS:HA	1.98	0.45
1:B:1663:TRP:O	1:B:1666:THR:HG22	2.17	0.45
1:C:543:THR:O	1:C:547:ILE:HG13	2.16	0.45
1:D:33:PRO:HB3	1:D:143:VAL:HG11	1.98	0.45
1:D:546:GLN:O	1:D:550:VAL:HG23	2.16	0.45
1:D:2703:VAL:HA	1:D:2707:VAL:HG13	1.99	0.45
1:E:397:VAL:HG11	1:E:910:LEU:HD21	1.99	0.45
1:E:2145:ILE:HD13	1:E:2193:ILE:HG12	1.99	0.45
1:E:2915:LYS:HE2	1:E:2915:LYS:HB2	1.81	0.45
1:E:3024:ALA:HB3	1:E:3031:MET:HE2	1.99	0.45
1:F:1160:VAL:HG12	1:F:1171:THR:HG23	1.98	0.45
1:F:1368:THR:HG21	1:F:1376:VAL:HG12	1.99	0.45
1:A:2341:VAL:HG21	1:A:2378:LEU:HB2	1.99	0.45
1:B:182:VAL:O	1:B:186:ARG:HG2	2.16	0.45
1:B:229:ILE:HG13	1:B:237:VAL:HG22	1.98	0.45
1:B:293:ASP:N	1:B:293:ASP:OD1	2.45	0.45
1:C:1686:GLU:HG3	1:C:1695:VAL:HB	1.99	0.45
1:C:2020:TRP:O	1:C:2024:VAL:HG22	2.16	0.45
1:D:56:THR:HG21	1:D:129:ALA:HB1	1.97	0.45
1:D:150:GLN:O	1:D:150:GLN:HG2	2.17	0.45
1:D:2604:GLN:HA	1:D:2795:GLN:HG2	1.98	0.45
1:D:2678:GLY:HA3	1:D:2685:LYS:CD	2.47	0.45
1:E:117:PRO:HG3	1:E:173:GLN:HA	1.99	0.45
1:E:717:ILE:HG23	1:E:727:TYR:HD2	1.81	0.45
1:E:2113:ARG:HG3	1:E:2114:TYR:CD1	2.52	0.45
1:E:2663:GLY:HA2	1:E:2715:HIS:HB3	1.99	0.45
1:E:2728:GLU:HG3	1:E:2729:GLU:N	2.30	0.45
1:E:2896:ARG:HE	1:E:2900:ALA:HB3	1.81	0.45
1:F:1640:ARG:HG2	1:F:1640:ARG:O	2.17	0.45
1:F:2266:ARG:HH22	1:F:2366:ALA:HA	1.81	0.45
1:F:2430:TRP:HZ3	1:F:2970:LYS:HB3	1.81	0.45
1:F:2750:LEU:HD22	1:F:2795:GLN:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:97:LEU:HD13	1:A:103:VAL:HG11	1.99	0.45
1:A:107:LYS:C	1:A:107:LYS:HD3	2.42	0.45
1:A:117:PRO:HG3	1:A:173:GLN:HA	1.98	0.45
1:A:420:ILE:HD12	1:A:633:ILE:HD11	1.97	0.45
1:A:1690:LYS:CG	1:A:1719:GLU:HB3	2.47	0.45
1:A:2462:GLU:HG2	1:A:2936:PRO:HB3	1.98	0.45
1:B:818:ASP:O	1:B:822:VAL:HG12	2.17	0.45
1:B:867:ASP:OD1	1:B:867:ASP:N	2.49	0.45
1:B:1445:LEU:HD12	1:B:1451:ILE:HG21	1.98	0.45
1:B:1594:ILE:HD11	1:B:1598:TYR:HB2	1.98	0.45
1:B:2071:GLY:HA3	1:B:2169:TYR:HA	1.99	0.45
1:B:2316:LEU:HB2	1:B:2373:ASP:HA	1.98	0.45
1:C:521:GLU:HA	1:C:524:GLU:HG3	1.98	0.45
1:C:736:TYR:CD1	1:C:784:LEU:HD21	2.51	0.45
1:D:51:GLU:HG3	1:D:371:ARG:HH22	1.82	0.45
1:D:1994:ASP:OD1	1:D:1994:ASP:N	2.47	0.45
1:D:2874:THR:HB	1:D:2879:ASN:HD21	1.81	0.45
1:E:48:THR:HG21	1:E:347:GLY:H	1.81	0.45
1:E:1012:ASP:OD1	1:E:1012:ASP:N	2.48	0.45
1:E:2124:ALA:O	1:E:2159:TYR:OH	2.30	0.45
1:E:2610:ASP:O	1:E:2613:VAL:HG12	2.17	0.45
1:E:2713:MET:HE3	1:E:2713:MET:HB3	1.81	0.45
1:F:880:GLY:O	1:F:884:VAL:HG22	2.17	0.45
1:F:1585:MET:HE3	1:F:1586:PRO:HD2	1.99	0.45
1:F:1703:LEU:HD11	1:F:1713:VAL:HB	1.98	0.45
1:F:2145:ILE:HD11	1:F:2192:TRP:CZ3	2.52	0.45
1:A:2261:ARG:CZ	1:A:2261:ARG:HB2	2.46	0.45
1:A:2853:ALA:HB2	1:A:2894:LEU:HD22	1.98	0.45
1:B:67:GLY:O	1:B:71:LEU:HD13	2.17	0.45
1:B:798:ASP:OD2	1:B:798:ASP:N	2.49	0.45
1:B:1085:ASP:OD2	1:B:1256:SER:OG	2.30	0.45
1:B:2005:ASP:O	1:B:2009:ILE:HG13	2.17	0.45
1:B:2244:LEU:HD23	1:B:2245:TRP:CZ3	2.51	0.45
1:C:2114:TYR:HB3	1:C:2142:ALA:HB2	1.99	0.45
1:D:867:ASP:OD1	1:D:867:ASP:N	2.47	0.45
1:D:2004:PRO:HA	1:D:2007:GLU:HG2	1.98	0.45
1:E:1266:THR:OG1	1:E:1271:ARG:NH2	2.49	0.45
1:F:705:ASP:O	1:F:709:VAL:HG23	2.17	0.45
1:F:720:MET:SD	1:F:727:TYR:HB2	2.57	0.45
1:F:1618:ARG:HD3	1:F:1626:LEU:HB3	1.98	0.45
1:F:2052:LEU:HD21	1:F:2963:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2658:VAL:O	1:F:2709:SER:HB2	2.16	0.45
1:F:2660:ASN:OD1	1:F:2662:GLN:HG2	2.17	0.45
1:A:982:LEU:HD23	1:A:982:LEU:HA	1.84	0.45
1:A:2188:ALA:O	1:A:2189:LEU:C	2.60	0.45
1:A:2838:LEU:HD12	1:A:2886:LEU:HD12	1.98	0.45
1:B:744:VAL:HG21	1:B:805:PRO:HB2	1.98	0.45
1:B:2145:ILE:HD11	1:B:2192:TRP:HZ3	1.81	0.45
1:B:2790:GLY:HA2	1:B:2876:THR:HG22	1.99	0.45
1:C:1717:ASN:HB3	1:C:1720:ARG:HB3	1.99	0.45
1:C:2129:ILE:H	1:C:2129:ILE:HD12	1.82	0.45
1:D:1162:THR:HG22	1:D:1168:VAL:HA	1.97	0.45
1:D:1632:ASP:OD1	1:D:1632:ASP:N	2.50	0.45
1:E:501:ARG:NH2	1:E:533:GLY:O	2.50	0.45
1:E:1626:LEU:O	1:E:1626:LEU:HD13	2.17	0.45
1:E:2341:VAL:HG21	1:E:2378:LEU:HB2	1.98	0.45
1:F:197:MET:HE3	1:F:286:PHE:H	1.81	0.45
1:A:1207:ARG:HD2	1:A:1207:ARG:HA	1.78	0.45
1:A:1602:LEU:HD23	1:A:1602:LEU:H	1.81	0.45
1:A:1703:LEU:HD11	1:A:1713:VAL:HB	1.98	0.45
1:A:2978:GLY:N	1:A:2982:VAL:O	2.50	0.45
1:B:2027:VAL:HG22	1:B:2179:ASN:HB2	1.99	0.45
1:B:2568:THR:HB	1:B:2583:ARG:HG2	1.99	0.45
1:C:1149:THR:HG21	1:C:1187:LEU:HD13	1.99	0.45
1:C:1507:ALA:HB2	1:C:1514:LEU:HB2	1.99	0.45
1:C:2243:LEU:O	1:C:2247:VAL:HG13	2.17	0.45
1:C:2592:PRO:HB2	1:C:2594:LYS:HE3	1.98	0.45
1:C:2767:THR:HG22	1:C:2771:CYS:SG	2.57	0.45
1:D:1208:ARG:HA	1:D:1298:GLU:OE1	2.17	0.45
1:D:1602:LEU:H	1:D:1602:LEU:HD23	1.81	0.45
1:D:2336:VAL:HB	1:D:2341:VAL:HG13	1.99	0.45
1:D:2397:SER:HA	1:D:2401:ALA:HB2	1.98	0.45
1:D:2557:ALA:HB1	1:D:2579:TRP:HB2	1.99	0.45
1:E:1276:LEU:HD23	1:E:1327:LEU:HB3	1.99	0.45
1:E:2108:ASN:ND2	1:E:2108:ASN:C	2.75	0.45
1:F:818:ASP:O	1:F:822:VAL:HG12	2.17	0.45
1:F:943:ARG:HG2	1:F:1017:VAL:HG23	1.99	0.45
1:F:1223:PHE:HA	1:F:1226:VAL:HG22	1.98	0.45
1:F:2145:ILE:HD11	1:F:2192:TRP:HZ3	1.82	0.45
1:F:2727:VAL:HG21	1:F:2923:MET:HE1	1.99	0.45
1:A:482:LEU:HG	1:A:514:ALA:O	2.17	0.44
1:A:746:LEU:HD13	1:A:845:PHE:HB3	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1276:LEU:HD23	1:A:1327:LEU:HB3	1.98	0.44
1:A:1368:THR:HG23	1:A:1374:PHE:O	2.17	0.44
1:A:1975:GLY:HA3	1:A:1976:ARG:NH2	2.32	0.44
1:B:1012:ASP:N	1:B:1012:ASP:OD1	2.50	0.44
1:B:2871:LYS:HZ2	1:B:2873:ASP:CG	2.26	0.44
1:B:2885:GLU:O	1:B:2889:ARG:HG3	2.17	0.44
1:C:1110:VAL:HG13	1:C:1111:VAL:HG13	1.99	0.44
1:D:182:VAL:O	1:D:186:ARG:HG2	2.16	0.44
1:D:783:ARG:HD3	1:D:783:ARG:HA	1.71	0.44
1:D:893:PRO:HG2	1:D:896:GLU:HB2	1.99	0.44
1:E:153:LEU:HD12	1:E:154:ALA:N	2.32	0.44
1:F:148:HIS:CG	1:F:149:SER:H	2.35	0.44
1:F:1638:ARG:HA	1:F:1638:ARG:HH11	1.82	0.44
1:A:522:ALA:HB3	1:A:553:ILE:HD12	1.98	0.44
1:B:371:ARG:CZ	1:B:371:ARG:HB2	2.46	0.44
1:B:717:ILE:HD12	1:B:727:TYR:CD2	2.52	0.44
1:B:1276:LEU:HA	1:B:1327:LEU:HA	1.98	0.44
1:B:1632:ASP:OD1	1:B:1632:ASP:N	2.51	0.44
1:B:2396:MET:SD	1:B:2397:SER:N	2.90	0.44
1:C:1308:ILE:HD13	1:C:1326:ARG:HD3	1.99	0.44
1:C:1518:ASN:HB2	1:C:1527:ALA:HB3	1.99	0.44
1:C:2681:LEU:HB2	1:C:2683:ARG:HD3	1.99	0.44
1:D:153:LEU:HD12	1:D:154:ALA:H	1.82	0.44
1:D:982:LEU:HD23	1:D:982:LEU:HA	1.88	0.44
1:D:1663:TRP:HA	1:D:1666:THR:HG22	1.99	0.44
1:D:1975:GLY:HA3	1:D:1976:ARG:NH2	2.32	0.44
1:D:2701:HIS:CE1	1:D:2704:GLN:HE21	2.36	0.44
1:F:88:PHE:CZ	1:F:117:PRO:HB2	2.52	0.44
1:F:2592:PRO:HB2	1:F:2594:LYS:HE3	1.98	0.44
1:F:2853:ALA:HB2	1:F:2894:LEU:HD22	1.98	0.44
1:A:1223:PHE:O	1:A:1227:SER:OG	2.31	0.44
1:A:2658:VAL:O	1:A:2709:SER:HB2	2.17	0.44
1:A:2827:ASP:HB2	1:A:2981:HIS:HB3	1.99	0.44
1:B:22:HIS:HB2	1:B:25:VAL:HB	1.98	0.44
1:B:829:VAL:HB	1:B:830:PRO:HD3	1.99	0.44
1:B:1058:HIS:HB2	1:B:1061:ARG:HD3	1.98	0.44
1:B:2183:TYR:H	1:E:2015:GLU:CD	2.24	0.44
1:C:532:ILE:HD11	1:C:534:ILE:HG12	1.99	0.44
1:C:2982:VAL:HG23	1:E:2713:MET:HB2	1.99	0.44
1:D:837:LYS:HB2	1:D:837:LYS:HE3	1.77	0.44
1:D:2896:ARG:NH2	1:D:2901:PRO:O	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:22:HIS:ND1	1:E:378:PHE:O	2.45	0.44
1:E:1024:THR:HG22	1:E:1111:VAL:HG22	1.99	0.44
1:F:395:PRO:HB3	1:F:409:THR:HG22	1.98	0.44
1:A:186:ARG:HB2	1:A:188:ILE:HG12	2.00	0.44
1:A:984:THR:HG22	1:A:989:VAL:HG22	1.98	0.44
1:A:2312:LEU:HD12	1:A:2312:LEU:HA	1.78	0.44
1:A:2448:GLU:HG2	1:A:2455:SER:HB3	1.99	0.44
1:B:1047:ALA:N	1:B:1050:THR:O	2.38	0.44
1:B:1358:ARG:NH1	1:B:1362:ASP:OD1	2.50	0.44
1:B:1387:ILE:HG22	1:E:2261:ARG:HD3	1.99	0.44
1:C:534:ILE:HD13	1:C:534:ILE:HA	1.86	0.44
1:C:2710:TYR:HE1	1:E:2828:GLY:HA3	1.81	0.44
1:C:2752:LEU:HD23	1:C:2755:ILE:HD11	2.00	0.44
1:C:2973:MET:HE3	1:C:2973:MET:HB3	1.88	0.44
1:D:22:HIS:HB3	1:D:378:PHE:HA	1.98	0.44
1:D:779:ARG:HD2	1:D:831:PHE:CD2	2.52	0.44
1:D:1522:ARG:N	1:D:1664:ILE:HD11	2.32	0.44
1:E:2136:ARG:NH1	1:E:2351:ALA:HB2	2.33	0.44
1:F:543:THR:OG1	1:F:544:ILE:N	2.50	0.44
1:F:1038:ASP:O	1:F:1042:PHE:HB2	2.18	0.44
1:F:2557:ALA:HB1	1:F:2579:TRP:HB2	1.99	0.44
1:F:2614:TRP:O	1:F:3031:MET:HB2	2.17	0.44
1:A:750:GLU:N	1:A:750:GLU:OE1	2.51	0.44
1:A:841:LYS:HD2	1:A:842:PRO:HD2	2.00	0.44
1:A:1057:TRP:HB2	1:A:1137:LEU:HD22	1.99	0.44
1:A:2200:SER:HA	1:A:2205:SER:HA	1.99	0.44
1:B:37:ALA:N	1:B:342:LEU:O	2.31	0.44
1:B:473:ARG:NH1	1:B:1012:ASP:O	2.50	0.44
1:B:746:LEU:HD13	1:B:845:PHE:HB3	2.00	0.44
1:B:880:GLY:O	1:B:884:VAL:HG22	2.16	0.44
1:B:2015:GLU:CD	1:E:2183:TYR:H	2.24	0.44
1:B:2392:ALA:O	1:B:2395:GLN:HG3	2.18	0.44
1:B:2827:ASP:HB2	1:B:2981:HIS:HB3	2.00	0.44
1:C:171:LEU:HD23	1:C:171:LEU:HA	1.79	0.44
1:C:328:ASP:OD1	1:C:329:GLU:N	2.51	0.44
1:C:926:ARG:HH11	1:C:937:LEU:HD21	1.83	0.44
1:C:1502:PHE:CD1	1:C:1502:PHE:C	2.96	0.44
1:C:1651:GLU:O	1:C:1655:TRP:HD1	1.99	0.44
1:C:2757:GLY:HA3	1:E:2690:PHE:CG	2.53	0.44
1:D:1388:ILE:HA	1:D:1393:HIS:HA	1.99	0.44
1:D:2300:TRP:NE1	1:D:2369:PRO:HD3	2.32	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:730:ASP:O	1:E:734:MET:HG3	2.18	0.44
1:E:746:LEU:HD23	1:E:746:LEU:HA	1.74	0.44
1:F:798:ASP:OD2	1:F:798:ASP:N	2.50	0.44
1:F:2314:HIS:NE2	1:F:2316:LEU:HD22	2.32	0.44
1:A:148:HIS:CG	1:A:149:SER:H	2.35	0.44
1:A:2486:ASP:HA	1:A:2490:PRO:HA	2.00	0.44
1:A:2502:ASP:HB3	1:A:2505:GLU:HG3	2.00	0.44
1:B:1109:PRO:HB3	1:B:1153:ARG:HD3	1.99	0.44
1:B:1309:VAL:HG12	1:B:1325:ALA:HB3	1.99	0.44
1:B:1985:ARG:HH22	1:D:1978:GLY:HA3	1.83	0.44
1:B:2712:ALA:HB3	1:B:2733:LYS:NZ	2.27	0.44
1:C:651:VAL:HG13	1:C:877:ILE:HD13	1.98	0.44
1:C:1027:MET:SD	1:C:1114:LEU:HB3	2.57	0.44
1:C:2068:ARG:NH2	1:C:2166:HIS:HA	2.33	0.44
1:C:2259:ALA:HA	1:C:2309:ARG:CZ	2.48	0.44
1:C:2462:GLU:HG2	1:C:2936:PRO:HB3	1.99	0.44
1:C:2672:MET:HA	1:C:2675:MET:HG2	1.99	0.44
1:D:2639:PHE:HD1	1:D:2644:PHE:HB3	1.82	0.44
1:E:482:LEU:HG	1:E:514:ALA:O	2.17	0.44
1:E:736:TYR:O	1:E:740:LEU:HG	2.18	0.44
1:E:890:MET:HE3	1:E:890:MET:HB3	1.81	0.44
1:F:943:ARG:CZ	1:F:946:GLY:HA2	2.48	0.44
1:F:1110:VAL:HG12	1:F:1111:VAL:HG13	1.99	0.44
1:F:2491:GLY:HA3	1:F:2500:MET:HE1	1.99	0.44
1:A:752:ASN:HB3	1:A:869:ARG:HB2	2.00	0.44
1:A:2446:GLY:HA2	1:A:2800:ILE:HA	2.00	0.44
1:B:2672:MET:HA	1:B:2675:MET:HG2	1.99	0.44
1:C:841:LYS:HD2	1:C:842:PRO:HD2	1.98	0.44
1:C:1012:ASP:OD1	1:C:1012:ASP:N	2.49	0.44
1:C:1271:ARG:HA	1:C:1272:PRO:HD3	1.90	0.44
1:C:2332:ILE:H	1:C:2332:ILE:HD12	1.83	0.44
1:D:746:LEU:HD23	1:D:746:LEU:HA	1.76	0.44
1:D:1098:ALA:HB1	1:D:1143:ALA:HB2	1.99	0.44
1:D:1502:PHE:CD1	1:D:1502:PHE:C	2.95	0.44
1:E:547:ILE:HG23	1:E:564:MET:HE1	2.00	0.44
1:F:376:ASN:HB3	1:F:384:PRO:HD3	1.99	0.44
1:F:802:LEU:HD12	1:F:802:LEU:O	2.17	0.44
1:F:851:GLN:H	1:F:851:GLN:CD	2.21	0.44
1:F:2039:ARG:HD3	1:F:2167:ALA:HB3	2.00	0.44
1:F:2244:LEU:HD23	1:F:2245:TRP:CZ3	2.52	0.44
1:F:2731:VAL:O	1:F:2735:ARG:HG2	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:730:ASP:O	1:A:734:MET:HG3	2.18	0.44
1:A:1342:GLN:OE1	1:A:1407:THR:OG1	2.24	0.44
1:A:1468:MET:HB2	1:A:1657:PHE:HZ	1.81	0.44
1:A:1626:LEU:O	1:A:1626:LEU:HD13	2.18	0.44
1:B:943:ARG:CZ	1:B:946:GLY:HA2	2.48	0.44
1:B:1566:HIS:ND1	1:B:1657:PHE:O	2.38	0.44
1:B:2300:TRP:NE1	1:B:2369:PRO:HD3	2.32	0.44
1:C:395:PRO:HB3	1:C:409:THR:HG22	2.00	0.44
1:C:789:PHE:CE1	1:C:2507:VAL:HG21	2.53	0.44
1:C:1105:ASP:OD1	1:C:1105:ASP:N	2.50	0.44
1:C:2438:ALA:HA	1:C:2806:ASP:OD1	2.18	0.44
1:C:2681:LEU:HD12	1:C:2683:ARG:NH1	2.26	0.44
1:C:2713:MET:HB2	1:E:2982:VAL:HG23	1.99	0.44
1:D:783:ARG:NH2	1:D:2503:GLU:OE1	2.51	0.44
1:D:1099:ILE:HD11	1:D:1176:PHE:CD2	2.53	0.44
1:E:238:ILE:HD12	1:E:245:LEU:HD22	1.99	0.44
1:E:522:ALA:HB3	1:E:553:ILE:HD12	2.00	0.44
1:E:1457:LEU:HG	1:E:1458:LEU:N	2.32	0.44
1:F:1336:PHE:CE1	1:F:1415:ALA:HB1	2.52	0.44
1:F:2341:VAL:HG21	1:F:2378:LEU:HB2	2.00	0.44
1:F:2568:THR:HB	1:F:2583:ARG:HG2	2.00	0.44
1:A:33:PRO:O	1:A:339:ARG:N	2.47	0.44
1:A:2293:LEU:HD21	1:A:2314:HIS:CD2	2.53	0.44
1:A:2334:ALA:O	1:A:2337:GLU:HG2	2.17	0.44
1:A:2676:TYR:OH	1:D:2677:HIS:NE2	2.50	0.44
1:B:2631:ASN:ND2	1:B:2702:VAL:HG21	2.33	0.44
1:B:2732:ASP:OD1	1:B:2732:ASP:C	2.61	0.44
1:B:2896:ARG:HE	1:B:2900:ALA:HB3	1.83	0.44
1:C:2694:LEU:HD13	1:E:2719:ALA:HB1	1.98	0.44
1:C:2703:VAL:HA	1:C:2707:VAL:HG13	1.99	0.44
1:C:2718:ALA:H	1:C:2722:THR:CG2	2.31	0.44
1:D:123:GLN:O	1:D:127:THR:HG23	2.18	0.44
1:D:655:LEU:HD13	1:D:688:ILE:HD11	2.00	0.44
1:D:798:ASP:OD2	1:D:798:ASP:N	2.50	0.44
1:D:880:GLY:O	1:D:884:VAL:HG22	2.17	0.44
1:D:1075:PRO:HD2	1:D:1076:LEU:HD22	2.00	0.44
1:D:2313:ALA:HB1	1:D:2370:ILE:HD11	1.99	0.44
1:E:150:GLN:O	1:E:150:GLN:HG2	2.17	0.44
1:F:1358:ARG:NH1	1:F:1362:ASP:OD1	2.51	0.44
1:A:397:VAL:HG11	1:A:910:LEU:HD21	1.99	0.43
1:A:547:ILE:HG21	1:A:587:THR:HG21	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2058:ILE:HB	1:A:2094:ILE:HD11	2.00	0.43
1:B:1110:VAL:HG12	1:B:1111:VAL:HG13	2.00	0.43
1:B:2757:GLY:HA3	1:F:2690:PHE:CG	2.53	0.43
1:C:2266:ARG:HH12	1:C:2366:ALA:HA	1.83	0.43
1:C:2646:PRO:O	1:C:2650:MET:HG2	2.18	0.43
1:C:2806:ASP:OD1	1:C:2806:ASP:N	2.49	0.43
1:D:543:THR:OG1	1:D:544:ILE:N	2.51	0.43
1:E:581:ASP:OD1	1:E:614:TYR:OH	2.22	0.43
1:E:1354:SER:HB2	1:E:1421:GLU:HG3	2.00	0.43
1:F:186:ARG:HD3	1:F:290:ARG:HG2	2.00	0.43
1:F:2748:ASP:HB2	1:F:2916:GLY:H	1.81	0.43
1:F:2896:ARG:HE	1:F:2900:ALA:HB3	1.83	0.43
1:A:56:THR:HG21	1:A:129:ALA:HB1	1.99	0.43
1:A:263:ARG:NH2	1:A:577:TRP:O	2.52	0.43
1:A:746:LEU:HD23	1:A:746:LEU:HA	1.79	0.43
1:A:798:ASP:N	1:A:798:ASP:OD1	2.50	0.43
1:B:1602:LEU:HD23	1:B:1602:LEU:H	1.82	0.43
1:C:1711:SER:C	1:C:1713:VAL:N	2.76	0.43
1:C:2648:GLU:HG2	1:C:2651:ARG:NH1	2.33	0.43
1:D:1105:ASP:OD2	1:D:1105:ASP:N	2.50	0.43
1:D:2462:GLU:HG2	1:D:2936:PRO:HB3	2.00	0.43
1:D:2530:ASP:HB2	1:D:2533:HIS:CD2	2.53	0.43
1:D:2549:PHE:CZ	1:D:2581:VAL:HG12	2.53	0.43
1:D:2678:GLY:HA2	1:D:2683:ARG:CG	2.48	0.43
1:D:2686:PRO:O	1:D:2689:ILE:HG22	2.18	0.43
1:E:461:ARG:HA	1:E:464:GLN:HG2	2.00	0.43
1:E:1566:HIS:ND1	1:E:1657:PHE:O	2.41	0.43
1:F:1492:ILE:HB	1:F:1545:ARG:HG2	2.00	0.43
1:A:50:GLU:HG2	1:A:97:LEU:HD23	1.99	0.43
1:A:779:ARG:HD2	1:A:831:PHE:CD2	2.53	0.43
1:A:1284:LEU:HD12	1:A:1319:LEU:HB3	1.99	0.43
1:B:651:VAL:HG13	1:B:877:ILE:HD13	2.00	0.43
1:B:1485:ALA:HB2	1:B:1557:LEU:HD12	2.00	0.43
1:B:2294:ASP:O	1:B:2298:SER:HB3	2.19	0.43
1:B:2826:GLY:O	1:B:2839:GLY:HA3	2.18	0.43
1:C:22:HIS:HB3	1:C:378:PHE:HA	1.99	0.43
1:C:880:GLY:O	1:C:884:VAL:HG22	2.17	0.43
1:C:2145:ILE:HD11	1:C:2192:TRP:HZ3	1.84	0.43
1:C:2499:GLU:OE1	1:C:2499:GLU:N	2.51	0.43
1:D:328:ASP:OD1	1:D:329:GLU:N	2.51	0.43
1:D:1149:THR:HG21	1:D:1187:LEU:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:2129:ILE:H	1:D:2129:ILE:HD12	1.82	0.43
1:D:2234:SER:O	1:D:2237:GLU:HG3	2.17	0.43
1:D:2685:LYS:O	1:D:2686:PRO:C	2.61	0.43
1:D:2998:LEU:O	1:D:3003:ARG:NH2	2.50	0.43
1:E:1105:ASP:OD2	1:E:1105:ASP:N	2.51	0.43
1:E:1602:LEU:HD23	1:E:1602:LEU:H	1.83	0.43
1:E:2223:PRO:CG	1:E:2224:ARG:H	2.31	0.43
1:F:350:LEU:HD23	1:F:350:LEU:HA	1.79	0.43
1:F:615:LEU:HD12	1:F:630:ILE:HG13	2.00	0.43
1:F:1632:ASP:N	1:F:1632:ASP:OD1	2.51	0.43
1:A:88:PHE:HA	1:A:93:TRP:CH2	2.53	0.43
1:A:2101:ARG:O	1:A:2101:ARG:HD3	2.17	0.43
1:A:2941:LEU:HD12	1:A:2941:LEU:HA	1.90	0.43
1:B:783:ARG:HB3	1:B:2418:PRO:HD3	2.00	0.43
1:B:1088:VAL:HG21	1:B:1253:MET:HE3	1.99	0.43
1:B:1099:ILE:HD11	1:B:1176:PHE:CD2	2.53	0.43
1:B:2334:ALA:O	1:B:2337:GLU:HG2	2.18	0.43
1:C:116:VAL:HG22	1:C:117:PRO:HD3	1.99	0.43
1:C:148:HIS:CG	1:C:149:SER:H	2.37	0.43
1:C:223:LEU:HD22	1:C:290:ARG:HH12	1.82	0.43
1:C:434:ILE:HG13	1:C:894:VAL:HG11	2.01	0.43
1:C:2336:VAL:HB	1:C:2341:VAL:HG13	1.99	0.43
1:C:2530:ASP:HB2	1:C:2533:HIS:CD2	2.53	0.43
1:D:1099:ILE:HD13	1:D:1117:LEU:HD21	2.01	0.43
1:D:1619:ASP:OD1	1:D:1620:LEU:N	2.52	0.43
1:D:2003:ALA:O	1:D:2007:GLU:HG2	2.18	0.43
1:D:2243:LEU:O	1:D:2247:VAL:HG13	2.17	0.43
1:E:1485:ALA:HB2	1:E:1557:LEU:HD12	2.00	0.43
1:E:2334:ALA:O	1:E:2337:GLU:HG2	2.17	0.43
1:F:2188:ALA:O	1:F:2191:GLU:HG3	2.18	0.43
1:F:2440:LEU:HD12	1:F:2440:LEU:HA	1.88	0.43
1:F:3020:ARG:NH2	1:F:3029:ALA:O	2.48	0.43
1:A:45:TRP:HB3	1:A:119:VAL:HG12	2.00	0.43
1:A:796:PHE:HZ	1:A:812:LEU:HB2	1.84	0.43
1:A:1287:VAL:HG13	1:A:1315:VAL:HG21	2.00	0.43
1:A:1388:ILE:HB	1:F:2262:ASP:CG	2.42	0.43
1:A:2828:GLY:HA3	1:D:2710:TYR:HE1	1.82	0.43
1:B:746:LEU:HD23	1:B:746:LEU:HA	1.80	0.43
1:B:2998:LEU:O	1:B:3003:ARG:NH2	2.50	0.43
1:C:1422:MET:SD	1:C:1725:LEU:HD21	2.58	0.43
1:C:2040:TRP:O	1:C:2044:ARG:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2146:ALA:O	1:C:2175:LEU:HA	2.19	0.43
1:C:2300:TRP:NE1	1:C:2369:PRO:HD3	2.34	0.43
1:D:581:ASP:OD1	1:D:614:TYR:OH	2.24	0.43
1:D:679:SER:OG	1:D:680:GLN:N	2.52	0.43
1:D:1518:ASN:HB2	1:D:1527:ALA:HB3	2.01	0.43
1:D:2245:TRP:HA	1:D:2248:GLN:HG2	1.99	0.43
1:D:2321:ARG:HH11	1:D:2345:SER:HB3	1.83	0.43
1:E:105:SER:HG	1:E:108:HIS:HD1	1.63	0.43
1:E:1130:LEU:HD22	1:E:1131:PRO:HD2	2.01	0.43
1:E:1209:ARG:NH2	1:E:1307:GLU:OE1	2.44	0.43
1:E:2486:ASP:HA	1:E:2490:PRO:HA	2.01	0.43
1:E:2703:VAL:HA	1:E:2707:VAL:HG13	2.00	0.43
1:F:570:ARG:NH1	1:F:662:ASP:O	2.40	0.43
1:F:1099:ILE:HD11	1:F:1176:PHE:CD2	2.54	0.43
1:F:2631:ASN:ND2	1:F:2702:VAL:HG21	2.34	0.43
1:F:2998:LEU:O	1:F:3003:ARG:NH2	2.49	0.43
1:A:654:MET:O	1:A:658:THR:HG22	2.19	0.43
1:A:674:MET:HG2	1:A:881:THR:HG22	2.01	0.43
1:A:818:ASP:O	1:A:822:VAL:HG12	2.17	0.43
1:A:1099:ILE:HD11	1:A:1176:PHE:CD2	2.54	0.43
1:A:1105:ASP:OD2	1:A:1105:ASP:N	2.51	0.43
1:B:395:PRO:HB2	1:B:407:LEU:HD11	1.99	0.43
1:B:569:GLY:HA3	1:B:664:TRP:HH2	1.84	0.43
1:B:2262:ASP:CG	1:E:1388:ILE:HB	2.44	0.43
1:B:2530:ASP:HB2	1:B:2533:HIS:CD2	2.53	0.43
1:C:221:THR:HG23	1:C:244:GLN:NE2	2.34	0.43
1:C:444:TRP:CZ2	1:C:476:GLN:HG2	2.53	0.43
1:C:717:ILE:HG23	1:C:727:TYR:HD2	1.83	0.43
1:C:1619:ASP:OD1	1:C:1620:LEU:N	2.51	0.43
1:C:1693:PRO:HB2	1:C:1696:ALA:HB3	2.01	0.43
1:C:1702:THR:HG22	1:C:1708:TYR:CE1	2.33	0.43
1:C:2631:ASN:OD1	1:C:2662:GLN:NE2	2.52	0.43
1:D:640:MET:HE1	1:D:879:PRO:HA	2.01	0.43
1:E:779:ARG:HD2	1:E:831:PHE:CD2	2.53	0.43
1:E:984:THR:HG22	1:E:989:VAL:HG22	1.99	0.43
1:E:1514:LEU:HD23	1:E:1514:LEU:HA	1.87	0.43
1:F:1336:PHE:HE1	1:F:1415:ALA:HB1	1.84	0.43
1:F:1637:LEU:HD12	1:F:1644:MET:HE3	2.01	0.43
1:A:2530:ASP:HB2	1:A:2533:HIS:CD2	2.54	0.43
1:A:2752:LEU:HD23	1:A:2755:ILE:HD11	2.00	0.43
1:B:120:LEU:HD22	1:B:153:LEU:HD13	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:B:121:LEU:HD13	1:B:169:PHE:CZ	2.53	0.43
1:B:326:TRP:HE1	1:B:354:THR:HG22	1.83	0.43
1:B:2557:ALA:HB1	1:B:2579:TRP:HB2	1.99	0.43
1:C:547:ILE:HG21	1:C:587:THR:HG21	2.01	0.43
1:C:680:GLN:HG3	1:C:855:ARG:HA	2.00	0.43
1:C:1099:ILE:HD11	1:C:1176:PHE:CD2	2.53	0.43
1:C:1632:ASP:N	1:C:1632:ASP:OD1	2.49	0.43
1:D:395:PRO:HB3	1:D:409:THR:HG22	2.00	0.43
1:D:547:ILE:HG21	1:D:587:THR:HG21	2.00	0.43
1:D:1335:ALA:HB3	1:D:1686:GLU:HB2	2.00	0.43
1:D:2332:ILE:H	1:D:2332:ILE:HD12	1.84	0.43
1:D:2561:VAL:O	1:D:2565:PRO:HD3	2.18	0.43
1:D:2767:THR:HG22	1:D:2771:CYS:SG	2.59	0.43
1:D:2780:PHE:HB3	1:D:2792:VAL:HG21	2.00	0.43
1:E:488:LYS:HA	1:E:488:LYS:HD2	1.85	0.43
1:E:798:ASP:OD1	1:E:798:ASP:N	2.51	0.43
1:E:1632:ASP:N	1:E:1632:ASP:OD1	2.51	0.43
1:F:837:LYS:HE2	1:F:837:LYS:HB2	1.77	0.43
1:F:1047:ALA:N	1:F:1050:THR:O	2.39	0.43
1:F:1403:LEU:HD23	1:F:1404:THR:H	1.84	0.43
1:F:2152:ASP:OD1	1:F:2155:ARG:HG3	2.19	0.43
1:F:2153:GLU:H	1:F:2153:GLU:CD	2.25	0.43
1:F:2391:LYS:O	1:F:2394:GLU:HG3	2.19	0.43
1:A:108:HIS:O	1:A:114:VAL:HG11	2.18	0.43
1:A:716:ILE:HG22	1:A:720:MET:HE3	2.01	0.43
1:A:2896:ARG:NH2	1:A:2901:PRO:O	2.51	0.43
1:B:43:SER:OG	1:B:346:PRO:O	2.33	0.43
1:B:85:PRO:HG2	1:B:108:HIS:HD2	1.84	0.43
1:C:1321:MET:HE2	1:C:1321:MET:HB3	1.81	0.43
1:C:1445:LEU:O	1:C:1449:THR:OG1	2.29	0.43
1:C:1604:PRO:HG3	1:C:1665:GLU:HB2	2.00	0.43
1:C:2370:ILE:HD12	1:C:2370:ILE:O	2.19	0.43
1:D:1987:VAL:O	1:D:1988:LEU:HD23	2.19	0.43
1:D:2059:ASP:OD1	1:D:2059:ASP:N	2.52	0.43
1:D:2393:ARG:HB2	1:D:2396:MET:HE3	1.99	0.43
1:E:53:VAL:HG13	1:E:59:GLU:HG3	2.01	0.43
1:E:327:VAL:O	1:E:331:THR:HG23	2.19	0.43
1:E:634:LEU:HD23	1:E:634:LEU:H	1.83	0.43
1:E:1021:GLU:O	1:E:1024:THR:OG1	2.24	0.43
1:E:1038:ASP:O	1:E:1042:PHE:HB2	2.18	0.43
1:E:1058:HIS:HB2	1:E:1061:ARG:HD3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1271:ARG:O	1:E:1271:ARG:HD3	2.18	0.43
1:E:2244:LEU:HD23	1:E:2245:TRP:CZ3	2.53	0.43
1:E:2811:MET:HE2	1:E:2811:MET:HB3	1.89	0.43
1:F:1109:PRO:HB3	1:F:1153:ARG:HD3	1.99	0.43
1:F:2033:ALA:HB1	1:F:2174:TRP:HE1	1.84	0.43
1:F:2209:LYS:HB3	1:F:2209:LYS:HE3	1.75	0.43
1:A:43:SER:OG	1:A:346:PRO:O	2.36	0.43
1:A:740:LEU:HD13	1:A:777:LEU:HD23	2.00	0.43
1:A:1502:PHE:C	1:A:1502:PHE:CD1	2.97	0.43
1:A:2114:TYR:HB3	1:A:2142:ALA:HB2	2.01	0.43
1:A:2186:VAL:HG11	1:A:2249:ARG:HG3	2.00	0.43
1:C:654:MET:O	1:C:658:THR:HG22	2.19	0.43
1:C:2244:LEU:HD23	1:C:2245:TRP:CZ3	2.53	0.43
1:C:2639:PHE:HD1	1:C:2644:PHE:HB3	1.83	0.43
1:C:2874:THR:O	1:C:2875:SER:HB3	2.18	0.43
1:D:116:VAL:HG22	1:D:117:PRO:HD3	1.99	0.43
1:D:488:LYS:HA	1:D:493:GLY:H	1.84	0.43
1:D:1084:PRO:HG2	1:D:1260:GLN:NE2	2.34	0.43
1:D:2640:LEU:HD23	1:D:3020:ARG:HD2	2.00	0.43
1:D:2692:GLU:HA	1:D:2697:ILE:HG21	2.00	0.43
1:D:2768:SER:HB2	1:D:2769:MET:SD	2.58	0.43
1:D:2945:ASP:OD1	1:D:2945:ASP:N	2.52	0.43
1:E:2293:LEU:O	1:E:2297:VAL:HG13	2.19	0.43
1:E:2321:ARG:O	1:E:2329:ASN:ND2	2.52	0.43
1:F:890:MET:HE2	1:F:890:MET:HA	2.00	0.43
1:F:1388:ILE:HA	1:F:1393:HIS:HA	2.00	0.43
1:F:2446:GLY:HA2	1:F:2800:ILE:HA	2.00	0.43
1:A:695:CYS:O	1:A:699:LEU:HG	2.18	0.43
1:A:825:HIS:HD2	1:A:2418:PRO:HA	1.84	0.43
1:A:878:ILE:N	1:A:879:PRO:HD3	2.34	0.43
1:A:1619:ASP:OD1	1:A:1620:LEU:N	2.52	0.43
1:A:2884:THR:HG23	1:A:2954:PHE:CE2	2.54	0.43
1:B:117:PRO:HG3	1:B:173:GLN:HA	2.00	0.43
1:B:2145:ILE:HD11	1:B:2192:TRP:CZ3	2.54	0.43
1:B:2448:GLU:OE1	1:B:2458:ARG:NH2	2.40	0.43
1:B:2462:GLU:HG2	1:B:2936:PRO:HB3	2.00	0.43
1:C:48:THR:HG21	1:C:347:GLY:N	2.33	0.43
1:C:427:PRO:CD	2:C:3101:FMN:H6	2.49	0.43
1:C:640:MET:HE1	1:C:879:PRO:HA	2.00	0.43
1:C:1021:GLU:O	1:C:1024:THR:OG1	2.26	0.43
1:C:2670:THR:OG1	1:C:2749:ASP:OD2	2.24	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:700:ASP:OD1	1:D:854:ARG:NH1	2.41	0.43
1:D:717:ILE:HG23	1:D:727:TYR:HD2	1.84	0.43
1:D:1972:GLN:HA	1:D:1976:ARG:NH1	2.33	0.43
1:E:2358:ASP:OD1	1:E:2358:ASP:N	2.39	0.43
1:E:2561:VAL:O	1:E:2565:PRO:HD3	2.19	0.43
1:F:2066:ALA:HB1	1:F:2101:ARG:HG2	2.01	0.43
1:F:2223:PRO:HG3	1:F:2243:LEU:HD11	2.01	0.43
1:F:2273:GLY:O	1:F:2317:ILE:HG13	2.19	0.43
1:F:2648:GLU:HB3	1:F:2811:MET:HE1	1.99	0.43
1:A:1653:LEU:HD23	1:A:1653:LEU:HA	1.92	0.42
1:B:197:MET:HE1	1:B:286:PHE:HB2	2.00	0.42
1:B:453:VAL:HA	1:B:486:LEU:HD21	2.00	0.42
1:B:839:LEU:HD13	1:B:839:LEU:HA	1.82	0.42
1:B:2874:THR:OG1	1:B:2913:HIS:ND1	2.47	0.42
1:C:153:LEU:HB3	1:C:315:LEU:HD11	2.00	0.42
1:C:1087:LEU:HD22	1:C:1161:VAL:HG21	2.01	0.42
1:C:2392:ALA:O	1:C:2395:GLN:HG3	2.19	0.42
1:C:2679:ASN:O	1:E:2536:PRO:HA	2.18	0.42
1:C:2714:ILE:HG12	1:E:2725:VAL:HG13	2.01	0.42
1:D:48:THR:HG21	1:D:347:GLY:N	2.34	0.42
1:D:705:ASP:O	1:D:709:VAL:HG23	2.18	0.42
1:D:736:TYR:CD1	1:D:784:LEU:HD21	2.53	0.42
1:D:1112:GLU:HB3	1:D:1181:ARG:HH21	1.84	0.42
1:D:2393:ARG:CB	1:D:2396:MET:HE3	2.49	0.42
1:D:2701:HIS:O	1:D:2704:GLN:HG2	2.19	0.42
1:E:47:GLU:O	1:E:50:GLU:HG3	2.19	0.42
1:E:705:ASP:O	1:E:709:VAL:HG23	2.18	0.42
1:E:2261:ARG:HG2	1:E:2261:ARG:HH11	1.83	0.42
1:E:3003:ARG:H	1:E:3003:ARG:HG2	1.59	0.42
1:F:417:ARG:NH2	1:F:474:THR:OG1	2.51	0.42
1:F:2334:ALA:O	1:F:2337:GLU:HG2	2.19	0.42
1:F:2869:ILE:HD13	1:F:2973:MET:HB2	2.01	0.42
1:A:704:GLY:C	1:A:851:GLN:HE22	2.26	0.42
1:A:736:TYR:CD1	1:A:784:LEU:HD21	2.54	0.42
1:A:1038:ASP:O	1:A:1042:PHE:HB2	2.18	0.42
1:A:1109:PRO:HB3	1:A:1153:ARG:HD3	2.02	0.42
1:B:1618:ARG:HH12	1:B:1622:PRO:HA	1.84	0.42
1:C:150:GLN:HG3	1:C:319:ILE:HD11	2.01	0.42
1:C:1099:ILE:HD13	1:C:1117:LEU:HD21	2.01	0.42
1:C:2183:TYR:H	1:D:2015:GLU:CD	2.27	0.42
1:D:33:PRO:O	1:D:339:ARG:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1672:ILE:HD12	1:E:220:ARG:HH11	1.84	0.42
1:D:2452:TYR:HA	1:D:2518:VAL:HG22	2.00	0.42
1:E:418:SER:HB3	1:E:443:HIS:CD2	2.54	0.42
1:E:1502:PHE:CD1	1:E:1502:PHE:C	2.97	0.42
1:E:2766:ASP:HB2	1:E:2769:MET:HE1	2.02	0.42
1:F:119:VAL:CG2	1:F:150:GLN:HE22	2.29	0.42
1:F:651:VAL:HG13	1:F:877:ILE:HD13	2.00	0.42
1:A:846:VAL:HG13	1:A:856:TRP:HB3	2.01	0.42
1:A:1613:PHE:O	1:A:1617:ILE:HG23	2.19	0.42
1:A:2037:ASP:OD1	1:A:2786:ARG:NH2	2.52	0.42
1:A:2313:ALA:HB1	1:A:2370:ILE:HD11	2.02	0.42
1:A:2536:PRO:HA	1:D:2679:ASN:O	2.19	0.42
1:B:88:PHE:CZ	1:B:117:PRO:HB2	2.54	0.42
1:B:654:MET:O	1:B:658:THR:HG22	2.19	0.42
1:B:729:GLY:HA3	1:B:734:MET:HE3	2.02	0.42
1:B:1231:ASN:HB3	1:B:1234:HIS:HD2	1.85	0.42
1:B:2003:ALA:O	1:B:2006:SER:OG	2.25	0.42
1:B:2341:VAL:HG21	1:B:2378:LEU:HB2	2.01	0.42
1:B:2705:SER:O	1:B:3034:ARG:NH2	2.52	0.42
1:B:2720:CYS:HB2	1:B:2979:PHE:H	1.84	0.42
1:C:105:SER:HG	1:C:108:HIS:HD1	1.61	0.42
1:C:504:GLY:HA3	1:C:947:ARG:HG3	2.00	0.42
1:C:1457:LEU:HG	1:C:1458:LEU:N	2.34	0.42
1:C:2780:PHE:HB3	1:C:2792:VAL:HG21	2.00	0.42
1:D:453:VAL:HA	1:D:486:LEU:HD21	2.00	0.42
1:D:521:GLU:HA	1:D:524:GLU:HG3	2.00	0.42
1:D:1707:GLU:HG3	1:D:1708:TYR:CD1	2.54	0.42
1:D:2718:ALA:H	1:D:2722:THR:CG2	2.32	0.42
1:D:2752:LEU:HD23	1:D:2755:ILE:HD11	2.02	0.42
1:E:1099:ILE:HD11	1:E:1176:PHE:CD2	2.55	0.42
1:E:2293:LEU:HD21	1:E:2314:HIS:CG	2.54	0.42
1:E:2462:GLU:HG2	1:E:2936:PRO:HB3	2.00	0.42
1:E:2648:GLU:HG2	1:E:2651:ARG:NH1	2.33	0.42
1:E:2838:LEU:HD12	1:E:2886:LEU:HD12	2.00	0.42
1:F:425:MET:N	1:F:429:THR:OG1	2.52	0.42
1:F:779:ARG:HD2	1:F:831:PHE:CE2	2.55	0.42
1:F:1368:THR:HG23	1:F:1374:PHE:O	2.20	0.42
1:F:1457:LEU:HG	1:F:1458:LEU:N	2.34	0.42
1:A:222:VAL:HG11	1:C:1675:ALA:HB1	2.00	0.42
1:A:820:GLU:OE1	1:A:820:GLU:N	2.27	0.42
1:A:1368:THR:HG21	1:A:1376:VAL:H	1.84	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2725:VAL:HG13	1:D:2714:ILE:HG12	2.00	0.42
1:B:1335:ALA:HB3	1:B:1686:GLU:HB2	2.02	0.42
1:B:1985:ARG:HD2	1:B:1986:LEU:HD12	2.01	0.42
1:B:2152:ASP:OD1	1:B:2155:ARG:HG3	2.18	0.42
1:B:2286:TYR:HD2	1:B:2316:LEU:HD12	1.84	0.42
1:B:2389:ALA:O	1:B:2393:ARG:HG2	2.19	0.42
1:B:2482:ILE:HD12	1:B:2482:ILE:HA	1.89	0.42
1:B:2881:PRO:HB3	1:B:2947:GLU:HG3	2.02	0.42
1:C:1103:VAL:HA	1:C:1109:PRO:HD3	2.01	0.42
1:C:1700:THR:O	1:C:1704:LYS:HG3	2.19	0.42
1:C:1975:GLY:HA3	1:C:1976:ARG:NH2	2.34	0.42
1:D:2452:TYR:O	1:D:2457:THR:OG1	2.36	0.42
1:E:52:LEU:HD11	1:E:369:ALA:HA	2.01	0.42
1:E:818:ASP:O	1:E:822:VAL:HG12	2.19	0.42
1:E:1977:GLU:O	1:E:1980:LEU:HG	2.20	0.42
1:E:2692:GLU:HA	1:E:2697:ILE:HG21	2.01	0.42
1:F:97:LEU:HD13	1:F:103:VAL:HG11	2.01	0.42
1:F:550:VAL:HB	1:F:564:MET:HE2	2.01	0.42
1:F:783:ARG:HB3	1:F:2418:PRO:HD3	2.01	0.42
1:F:877:ILE:HG22	1:F:879:PRO:HD3	2.01	0.42
1:F:1068:VAL:HG11	1:F:1226:VAL:HG21	2.00	0.42
1:F:2392:ALA:O	1:F:2395:GLN:HG3	2.19	0.42
1:F:2452:TYR:CD2	1:F:2461:MET:HG3	2.54	0.42
1:F:2705:SER:O	1:F:3034:ARG:NH2	2.52	0.42
1:F:3021:LEU:HA	1:F:3031:MET:HE1	2.02	0.42
1:A:1675:ALA:HB1	1:B:222:VAL:HG11	2.01	0.42
1:A:2071:GLY:HA3	1:A:2169:TYR:HA	2.01	0.42
1:A:2669:GLY:O	1:A:2672:MET:HG3	2.18	0.42
1:B:1321:MET:HE2	1:B:1321:MET:HB3	1.80	0.42
1:B:2259:ALA:HA	1:B:2309:ARG:CZ	2.50	0.42
1:B:2725:VAL:CG2	1:F:2714:ILE:HG12	2.48	0.42
1:C:1021:GLU:OE2	1:C:1021:GLU:N	2.35	0.42
1:C:1048:ASN:OD1	1:C:1048:ASN:C	2.62	0.42
1:C:1209:ARG:HB2	1:C:1297:VAL:HG22	2.02	0.42
1:C:2440:LEU:HD23	1:C:2440:LEU:HA	1.89	0.42
1:C:2757:GLY:HA3	1:E:2690:PHE:CD2	2.54	0.42
1:D:22:HIS:ND1	1:D:378:PHE:O	2.42	0.42
1:D:457:ILE:H	1:D:457:ILE:HG12	1.68	0.42
1:D:789:PHE:CE1	1:D:2507:VAL:HG21	2.54	0.42
1:D:2439:ASP:OD1	1:D:2439:ASP:N	2.53	0.42
1:E:716:ILE:HG22	1:E:720:MET:HE3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:796:PHE:HB3	1:E:802:LEU:HD12	2.01	0.42
1:E:846:VAL:HG13	1:E:856:TRP:HB3	2.00	0.42
1:F:38:PHE:HZ	1:F:158:LEU:HD22	1.85	0.42
1:F:2293:LEU:C	1:F:2295:ALA:H	2.28	0.42
1:F:2530:ASP:HB2	1:F:2533:HIS:CD2	2.54	0.42
1:A:47:GLU:O	1:A:50:GLU:HG3	2.19	0.42
1:A:327:VAL:O	1:A:331:THR:HG23	2.20	0.42
1:A:1640:ARG:HB2	1:A:1643:GLU:HB3	2.01	0.42
1:A:1656:GLN:O	1:A:1656:GLN:NE2	2.51	0.42
1:A:1994:ASP:OD1	1:A:1994:ASP:N	2.47	0.42
1:A:2314:HIS:NE2	1:A:2316:LEU:HD22	2.34	0.42
1:B:229:ILE:HG22	1:B:324:VAL:HG12	2.02	0.42
1:B:636:GLY:HA3	2:B:3101:FMN:O4'	2.18	0.42
1:B:779:ARG:HD2	1:B:831:PHE:CD2	2.55	0.42
1:C:457:ILE:H	1:C:457:ILE:HG12	1.66	0.42
1:C:2223:PRO:HG3	1:C:2243:LEU:HD11	2.01	0.42
1:D:532:ILE:HD11	1:D:534:ILE:HG12	2.01	0.42
1:D:746:LEU:HD13	1:D:845:PHE:HB3	2.02	0.42
1:D:759:SER:OG	1:D:760:VAL:N	2.53	0.42
1:D:2070:GLU:OE2	1:D:2108:ASN:ND2	2.52	0.42
1:D:2391:LYS:O	1:D:2394:GLU:HG3	2.19	0.42
1:D:2615:GLY:HA3	1:D:3031:MET:O	2.20	0.42
1:D:2907:GLN:OE1	1:D:2921:PHE:HB3	2.18	0.42
1:E:108:HIS:O	1:E:114:VAL:HG11	2.20	0.42
1:F:581:ASP:OD1	1:F:614:TYR:OH	2.24	0.42
1:F:1231:ASN:HB3	1:F:1234:HIS:HD2	1.85	0.42
1:F:1490:SER:OG	1:F:1491:GLN:OE1	2.25	0.42
1:F:2259:ALA:HA	1:F:2309:ARG:CZ	2.49	0.42
1:F:2561:VAL:O	1:F:2565:PRO:HD3	2.20	0.42
1:F:2974:LEU:HB2	1:F:2986:VAL:HB	2.02	0.42
1:A:943:ARG:CZ	1:A:946:GLY:HA2	2.50	0.42
1:A:1209:ARG:NH2	1:A:1307:GLU:OE1	2.45	0.42
1:A:1404:THR:O	1:A:1407:THR:HG22	2.20	0.42
1:A:1488:ARG:O	1:A:1488:ARG:HG2	2.20	0.42
1:A:2511:HIS:O	1:A:2515:VAL:HG13	2.20	0.42
1:A:2690:PHE:CD2	1:D:2757:GLY:HA3	2.55	0.42
1:B:72:LEU:HD22	1:B:72:LEU:HA	1.93	0.42
1:B:251:TYR:CD1	1:B:251:TYR:C	2.98	0.42
1:B:581:ASP:OD1	1:B:614:TYR:OH	2.27	0.42
1:B:1209:ARG:HB2	1:B:1297:VAL:HG22	2.01	0.42
1:B:2315:ALA:HB1	1:B:2374:LEU:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:188:ILE:HD12	1:C:291:LEU:HD21	2.00	0.42
1:C:736:TYR:O	1:C:740:LEU:HG	2.20	0.42
1:C:1075:PRO:HD2	1:C:1076:LEU:HD22	2.01	0.42
1:C:1482:TYR:CG	1:C:1564:PRO:HG3	2.54	0.42
1:C:2197:GLN:HB3	1:C:2209:LYS:HG2	2.01	0.42
1:C:2393:ARG:NH1	1:C:2396:MET:SD	2.93	0.42
1:D:117:PRO:HG3	1:D:173:GLN:HA	2.00	0.42
1:D:968:PRO:HG2	1:D:970:ASN:OD1	2.20	0.42
1:D:2114:TYR:HB3	1:D:2142:ALA:HB2	2.02	0.42
1:E:426:THR:HB	1:E:427:PRO:HD3	2.01	0.42
1:E:2392:ALA:O	1:E:2396:MET:HG3	2.19	0.42
1:E:2701:HIS:O	1:E:2704:GLN:HG2	2.19	0.42
1:E:3021:LEU:HA	1:E:3031:MET:HE1	2.02	0.42
1:F:85:PRO:HG2	1:F:108:HIS:HD2	1.84	0.42
1:F:2266:ARG:HH12	1:F:2366:ALA:HA	1.85	0.42
1:A:171:LEU:CD1	1:A:312:ALA:HA	2.50	0.42
1:A:968:PRO:HG2	1:A:970:ASN:OD1	2.20	0.42
1:A:2663:GLY:HA2	1:A:2715:HIS:HB3	2.00	0.42
1:A:2974:LEU:HB2	1:A:2986:VAL:HB	2.00	0.42
1:B:1602:LEU:HD21	1:B:1652:LEU:HG	2.02	0.42
1:C:513:SER:OG	2:C:3101:FMN:O2	2.26	0.42
1:C:1388:ILE:HB	1:D:2262:ASP:CG	2.44	0.42
1:C:2101:ARG:O	1:C:2101:ARG:HD3	2.19	0.42
1:C:2595:THR:OG1	1:C:2596:LYS:N	2.53	0.42
1:C:2725:VAL:HG22	1:E:2714:ILE:HG23	2.00	0.42
1:D:107:LYS:HE2	1:D:107:LYS:HA	2.01	0.42
1:D:427:PRO:CD	2:D:3101:FMN:H6	2.49	0.42
1:D:1276:LEU:HD13	1:D:1279:TRP:CD1	2.55	0.42
1:E:746:LEU:HD13	1:E:845:PHE:HB3	2.02	0.42
1:E:1139:VAL:HG12	1:E:1161:VAL:HG12	2.00	0.42
1:E:1151:MET:SD	1:E:1151:MET:C	3.03	0.42
1:E:1302:ILE:HA	1:E:1307:GLU:HA	2.01	0.42
1:E:2101:ARG:O	1:E:2101:ARG:HD3	2.20	0.42
1:E:2113:ARG:HG3	1:E:2114:TYR:HD1	1.83	0.42
1:F:407:LEU:HB2	1:F:906:ILE:HD11	2.02	0.42
1:F:737:LEU:HD11	1:F:741:ARG:HE	1.85	0.42
1:F:1279:TRP:HD1	1:F:1325:ALA:HB2	1.85	0.42
1:F:1600:PRO:HG2	1:F:1603:VAL:O	2.20	0.42
1:F:2146:ALA:O	1:F:2175:LEU:HA	2.20	0.42
1:F:2238:MET:HE2	1:F:2238:MET:HB2	1.89	0.42
1:F:2317:ILE:C	1:F:2317:ILE:HD12	2.45	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1253:MET:HA	1:A:1256:SER:HB3	2.02	0.42
1:A:1689:VAL:HA	1:A:1719:GLU:HG2	2.01	0.42
1:A:2392:ALA:O	1:A:2396:MET:HG3	2.20	0.42
1:A:2561:VAL:O	1:A:2565:PRO:HD3	2.20	0.42
1:B:148:HIS:CG	1:B:149:SER:H	2.38	0.42
1:B:1302:ILE:HA	1:B:1307:GLU:HA	2.02	0.42
1:B:1576:GLU:O	1:B:1579:ARG:HG3	2.20	0.42
1:B:2129:ILE:H	1:B:2129:ILE:HD12	1.85	0.42
1:B:2430:TRP:CZ3	1:B:2970:LYS:HB3	2.54	0.42
1:B:2518:VAL:HG12	1:B:2606:PRO:HB3	2.02	0.42
1:C:679:SER:OG	1:C:680:GLN:N	2.53	0.42
1:C:2038:ASP:OD2	1:C:2943:CYS:HA	2.19	0.42
1:C:2252:GLY:O	1:C:2256:THR:OG1	2.26	0.42
1:C:2694:LEU:H	1:C:2694:LEU:HG	1.66	0.42
1:D:33:PRO:HB2	1:D:337:GLY:O	2.20	0.42
1:D:365:ILE:HD12	1:D:365:ILE:HA	1.89	0.42
1:D:654:MET:O	1:D:658:THR:HG22	2.19	0.42
1:E:180:THR:HA	1:E:284:VAL:HG11	2.01	0.42
1:E:943:ARG:CZ	1:E:946:GLY:HA2	2.50	0.42
1:E:1072:PHE:CE1	1:E:1214:ILE:HD11	2.55	0.42
1:E:2907:GLN:OE1	1:E:2921:PHE:HB3	2.19	0.42
1:F:145:MET:HG2	1:F:155:VAL:HG13	2.01	0.42
1:F:2827:ASP:HB2	1:F:2981:HIS:HB3	2.01	0.42
1:A:418:SER:HB3	1:A:443:HIS:CD2	2.55	0.42
1:A:981:ARG:HB2	1:A:992:SER:OG	2.20	0.42
1:A:1618:ARG:HD2	1:A:1618:ARG:HA	1.73	0.42
1:A:2769:MET:O	1:A:2773:ARG:HG3	2.20	0.42
1:B:65:LEU:HD12	1:B:166:VAL:HG12	2.02	0.42
1:B:1336:PHE:HA	1:B:1337:PRO:HD3	1.89	0.42
1:B:2066:ALA:HB1	1:B:2101:ARG:HG2	2.01	0.42
1:B:2561:VAL:O	1:B:2565:PRO:HD3	2.20	0.42
1:B:2713:MET:HE3	1:B:2713:MET:HB3	1.94	0.42
1:C:376:ASN:HB3	1:C:384:PRO:HD3	2.02	0.42
1:C:428:THR:HA	1:C:866:HIS:CE1	2.55	0.42
1:C:557:VAL:HG11	1:C:560:LYS:HD2	2.01	0.42
1:C:1387:ILE:C	1:C:1387:ILE:HD12	2.44	0.42
1:C:1514:LEU:HD13	1:C:1514:LEU:HA	1.86	0.42
1:C:2262:ASP:CG	1:D:1388:ILE:HB	2.45	0.42
1:C:2915:LYS:HB2	1:C:2915:LYS:HE2	1.83	0.42
2:C:3101:FMN:HM73	2:C:3101:FMN:HM81	1.87	0.42
1:D:547:ILE:CG2	1:D:587:THR:HG21	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1012:ASP:OD1	1:D:1012:ASP:N	2.49	0.42
1:D:1259:ALA:HB2	1:D:1321:MET:HE1	2.01	0.42
1:D:1668:ASP:O	1:D:1672:ILE:HG12	2.20	0.42
1:E:97:LEU:HD13	1:E:103:VAL:HG11	2.02	0.42
1:E:228:SER:OG	1:E:229:ILE:HG23	2.20	0.42
1:E:473:ARG:HG2	1:E:1009:ASN:HD21	1.85	0.42
1:E:1398:ASP:N	1:E:1398:ASP:OD1	2.50	0.42
1:F:734:MET:HG2	1:F:738:GLN:HG3	2.02	0.42
1:F:958:ASP:OD1	1:F:958:ASP:N	2.53	0.42
1:F:1374:PHE:HZ	1:F:1409:VAL:HG21	1.85	0.42
1:F:2129:ILE:HD12	1:F:2129:ILE:H	1.84	0.42
1:F:2273:GLY:HA3	1:F:2314:HIS:HE1	1.84	0.42
1:F:2486:ASP:HA	1:F:2490:PRO:HA	2.02	0.42
1:A:220:ARG:HE	1:A:247:ARG:NH1	2.17	0.41
1:A:473:ARG:HG2	1:A:1009:ASN:HD21	1.85	0.41
1:B:168:LEU:HD23	1:B:171:LEU:HD13	2.01	0.41
1:B:841:LYS:HD2	1:B:842:PRO:HD2	2.02	0.41
1:B:2332:ILE:HD12	1:B:2332:ILE:H	1.85	0.41
1:B:2663:GLY:HA2	1:B:2715:HIS:HB3	2.02	0.41
1:B:2710:TYR:HE1	1:F:2828:GLY:HA3	1.85	0.41
1:C:107:LYS:HE2	1:C:107:LYS:HA	2.01	0.41
1:C:2547:PHE:CD1	1:C:2582:ILE:HA	2.55	0.41
1:D:52:LEU:HD11	1:D:369:ALA:HA	2.02	0.41
1:D:175:ILE:HD13	1:D:175:ILE:HA	1.87	0.41
1:D:504:GLY:HA3	1:D:947:ARG:HG3	2.02	0.41
1:D:2334:ALA:O	1:D:2337:GLU:HG2	2.20	0.41
1:E:38:PHE:HD2	1:E:155:VAL:HG23	1.85	0.41
1:E:171:LEU:CD1	1:E:312:ALA:HA	2.50	0.41
1:E:561:PRO:HA	1:E:596:ASN:HB2	2.02	0.41
1:E:779:ARG:HD2	1:E:831:PHE:CE2	2.55	0.41
1:E:982:LEU:HD23	1:E:982:LEU:HA	1.85	0.41
1:E:1126:VAL:HG22	1:E:1277:VAL:HA	2.02	0.41
1:E:1388:ILE:HA	1:E:1393:HIS:HA	2.02	0.41
1:E:2459:PHE:CZ	1:E:2928:GLN:HB3	2.55	0.41
1:E:2673:GLN:HG2	1:E:2677:HIS:CE1	2.54	0.41
1:F:425:MET:H	1:F:448:ALA:HB2	1.85	0.41
1:F:636:GLY:HA3	2:F:3101:FMN:O4'	2.20	0.41
1:F:2136:ARG:NH1	1:F:2351:ALA:HB2	2.34	0.41
1:F:2318:GLY:HA2	1:F:2375:THR:HG23	2.02	0.41
1:A:1076:LEU:HD21	1:A:1210:ARG:HD3	2.02	0.41
1:A:1492:ILE:HB	1:A:1545:ARG:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2124:ALA:O	1:A:2159:TYR:OH	2.29	0.41
1:A:2907:GLN:OE1	1:A:2921:PHE:HB3	2.19	0.41
1:B:699:LEU:HD12	1:B:854:ARG:HA	2.02	0.41
1:B:2701:HIS:CE1	1:B:2704:GLN:HE21	2.37	0.41
1:B:2747:LEU:HD23	1:B:2796:GLY:C	2.45	0.41
1:C:785:HIS:CE1	1:C:787:GLN:HB3	2.55	0.41
1:C:1334:TYR:CE1	1:C:1422:MET:HE1	2.56	0.41
1:C:1517:VAL:HA	1:C:1660:PRO:HB3	2.02	0.41
1:C:2549:PHE:CZ	1:C:2581:VAL:HG12	2.54	0.41
1:C:2692:GLU:HA	1:C:2697:ILE:HG21	2.02	0.41
1:C:2963:LEU:HB3	1:C:2967:PHE:HB3	2.01	0.41
1:D:47:GLU:O	1:D:50:GLU:HG3	2.20	0.41
1:D:148:HIS:CG	1:D:149:SER:H	2.37	0.41
1:D:569:GLY:HA3	1:D:664:TRP:HH2	1.85	0.41
1:D:2039:ARG:HA	1:D:2039:ARG:HD2	1.87	0.41
1:D:2460:GLU:HB2	1:D:2464:GLU:OE1	2.20	0.41
1:D:2547:PHE:CD1	1:D:2582:ILE:HA	2.56	0.41
1:E:695:CYS:O	1:E:699:LEU:HG	2.20	0.41
1:E:759:SER:OG	1:E:760:VAL:N	2.53	0.41
1:E:1577:PHE:CE2	1:E:1654:ALA:HA	2.55	0.41
1:E:2518:VAL:HG12	1:E:2606:PRO:HB3	2.02	0.41
1:E:2661:THR:O	1:E:2726:SER:HB2	2.20	0.41
1:E:2745:GLY:HA3	1:E:2799:THR:HA	2.02	0.41
1:F:52:LEU:HD11	1:F:369:ALA:HA	2.02	0.41
1:F:654:MET:O	1:F:658:THR:HG22	2.20	0.41
1:F:779:ARG:HD2	1:F:831:PHE:CD2	2.55	0.41
1:F:1377:LEU:O	1:F:1381:ARG:HB2	2.21	0.41
1:F:1977:GLU:O	1:F:1980:LEU:HG	2.20	0.41
1:F:1985:ARG:HH11	1:F:1986:LEU:HD23	1.84	0.41
1:F:2438:ALA:HA	1:F:2806:ASP:OD2	2.20	0.41
1:F:2861:VAL:HG13	1:F:2865:ASP:HB3	2.02	0.41
1:F:2881:PRO:HB3	1:F:2947:GLU:HG3	2.03	0.41
1:A:153:LEU:HB3	1:A:315:LEU:HD11	2.01	0.41
1:A:1632:ASP:OD1	1:A:1632:ASP:N	2.50	0.41
1:A:2482:ILE:HD11	1:A:2510:TYR:CZ	2.55	0.41
1:A:2558:ARG:NH2	1:A:2561:VAL:O	2.53	0.41
1:B:1068:VAL:HG11	1:B:1226:VAL:HG21	2.02	0.41
1:B:1502:PHE:CD1	1:B:1502:PHE:C	2.98	0.41
1:B:1977:GLU:O	1:B:1980:LEU:HG	2.20	0.41
1:B:2538:LEU:HG	1:F:2682:GLY:HA3	2.01	0.41
1:C:150:GLN:O	1:C:150:GLN:HG2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:968:PRO:HG2	1:C:970:ASN:OD1	2.20	0.41
1:C:1302:ILE:HA	1:C:1307:GLU:HA	2.03	0.41
1:C:1388:ILE:HA	1:C:1393:HIS:HA	2.02	0.41
1:C:1618:ARG:HA	1:C:1618:ARG:HD2	1.78	0.41
1:C:2052:LEU:HD23	1:C:2052:LEU:HA	1.87	0.41
1:D:1038:ASP:HB3	1:D:1040:PRO:HD2	2.02	0.41
1:D:1083:VAL:HG22	1:D:1084:PRO:HD2	2.03	0.41
1:D:1209:ARG:NH2	1:D:1307:GLU:OE1	2.44	0.41
1:D:2370:ILE:HD12	1:D:2370:ILE:O	2.21	0.41
1:E:45:TRP:HB3	1:E:119:VAL:HG12	2.01	0.41
1:E:516:ILE:HA	1:E:517:PRO:HD3	1.90	0.41
1:E:1165:ASP:OD1	1:E:1165:ASP:N	2.52	0.41
1:E:1220:MET:HE2	1:E:1251:HIS:H	1.85	0.41
1:E:1618:ARG:O	1:E:1618:ARG:NH1	2.46	0.41
1:E:2262:ASP:OD2	1:E:2265:SER:HB3	2.20	0.41
1:F:33:PRO:HB3	1:F:143:VAL:HG11	2.01	0.41
1:F:33:PRO:O	1:F:339:ARG:N	2.47	0.41
1:F:108:HIS:O	1:F:114:VAL:HG11	2.20	0.41
1:F:504:GLY:HA3	1:F:947:ARG:HG3	2.02	0.41
1:F:1209:ARG:HB2	1:F:1297:VAL:HG22	2.03	0.41
1:F:1641:PRO:O	1:F:1644:MET:HG3	2.20	0.41
1:F:2726:SER:O	1:F:2729:GLU:HG2	2.20	0.41
1:A:572:GLY:HA3	2:A:3101:FMN:HM83	2.02	0.41
1:A:1021:GLU:OE1	1:A:1021:GLU:N	2.35	0.41
1:A:2141:GLY:HA2	1:A:2171:ALA:HB2	2.02	0.41
1:A:2694:LEU:HD13	1:D:2719:ALA:HB1	2.02	0.41
1:A:2766:ASP:HB2	1:A:2769:MET:HE1	2.01	0.41
1:B:737:LEU:HD11	1:B:741:ARG:HE	1.85	0.41
1:B:779:ARG:HD2	1:B:831:PHE:CE2	2.55	0.41
1:B:2039:ARG:HA	1:B:2039:ARG:HD2	1.92	0.41
1:B:2438:ALA:HA	1:B:2806:ASP:OD2	2.19	0.41
1:B:2752:LEU:HD23	1:B:2755:ILE:HD11	2.02	0.41
1:C:549:SER:O	1:C:553:ILE:HG13	2.20	0.41
1:C:1076:LEU:HB3	1:C:1265:ALA:HB1	2.01	0.41
1:C:1190:PRO:HD2	1:C:1282:ARG:HH22	1.85	0.41
1:C:1207:ARG:HD2	1:C:1207:ARG:HA	1.77	0.41
1:C:1407:THR:O	1:C:1411:MET:HG2	2.20	0.41
1:C:1594:ILE:HD12	1:C:1594:ILE:HA	1.90	0.41
1:C:2059:ASP:OD1	1:C:2059:ASP:N	2.51	0.41
1:C:2557:ALA:HB1	1:C:2579:TRP:HB2	2.01	0.41
1:C:2675:MET:HG3	1:C:2676:TYR:N	2.34	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2719:ALA:HB1	1:E:2694:LEU:HD13	2.01	0.41
1:D:1514:LEU:HD12	1:D:1530:GLY:HA3	2.03	0.41
1:D:1697:GLY:O	1:D:1701:ASN:ND2	2.43	0.41
1:D:2631:ASN:HB3	1:D:2702:VAL:HG21	2.01	0.41
1:E:727:TYR:CD1	1:E:849:ILE:HD11	2.55	0.41
1:E:820:GLU:H	1:E:820:GLU:CD	2.21	0.41
1:E:1336:PHE:CE2	1:E:1444:ALA:HA	2.46	0.41
1:E:1368:THR:HG21	1:E:1376:VAL:H	1.84	0.41
1:E:2751:THR:O	1:E:2755:ILE:HG12	2.19	0.41
1:F:453:VAL:HA	1:F:486:LEU:HD21	2.02	0.41
1:F:1419:VAL:HG21	1:F:1447:CYS:HB3	2.02	0.41
1:F:1577:PHE:CE2	1:F:1654:ALA:HA	2.55	0.41
1:F:1690:LYS:CG	1:F:1719:GLU:HB3	2.50	0.41
1:F:2174:TRP:CH2	1:F:2209:LYS:HG2	2.55	0.41
1:F:2561:VAL:HG11	1:F:2570:ILE:HG12	2.03	0.41
1:A:260:GLU:HG2	1:A:272:VAL:HG11	2.03	0.41
1:A:453:VAL:HA	1:A:486:LEU:HD21	2.01	0.41
1:A:488:LYS:HA	1:A:488:LYS:HD2	1.85	0.41
1:A:543:THR:OG1	1:A:544:ILE:N	2.53	0.41
1:A:727:TYR:CD1	1:A:849:ILE:HD11	2.55	0.41
1:A:1310:ASP:C	1:A:1310:ASP:OD1	2.64	0.41
1:A:2321:ARG:HH11	1:A:2345:SER:HB3	1.85	0.41
1:B:97:LEU:HD13	1:B:103:VAL:HG11	2.02	0.41
1:B:1038:ASP:HB3	1:B:1040:PRO:HD2	2.02	0.41
1:B:1149:THR:O	1:B:1182:THR:OG1	2.35	0.41
1:B:1388:ILE:HA	1:B:1393:HIS:HA	2.02	0.41
1:B:2008:LEU:HA	1:B:2011:LEU:CD2	2.50	0.41
1:B:2151:LEU:HD12	1:B:2151:LEU:HA	1.84	0.41
1:B:2828:GLY:HA3	1:F:2710:TYR:HE1	1.85	0.41
1:C:47:GLU:O	1:C:50:GLU:HG3	2.19	0.41
1:C:893:PRO:HG2	1:C:896:GLU:HB2	2.02	0.41
1:C:2005:ASP:O	1:C:2009:ILE:HG23	2.21	0.41
1:C:2234:SER:O	1:C:2237:GLU:HG3	2.21	0.41
1:C:2695:PRO:HD3	1:E:2666:MET:HG2	2.02	0.41
1:D:50:GLU:HG2	1:D:97:LEU:HD23	2.01	0.41
1:D:1517:VAL:HG12	1:D:1566:HIS:HB2	2.03	0.41
1:D:2238:MET:HE2	1:D:2238:MET:HB2	1.70	0.41
1:E:409:THR:OG1	1:E:631:ASP:O	2.36	0.41
1:E:534:ILE:HD13	1:E:534:ILE:HA	1.89	0.41
1:E:651:VAL:HG13	1:E:877:ILE:HD13	2.03	0.41
1:E:1207:ARG:HA	1:E:1207:ARG:HD2	1.78	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1332:THR:HG22	1:F:1683:ARG:HB2	2.03	0.41
1:F:2672:MET:HG2	1:F:2672:MET:H	1.65	0.41
1:A:561:PRO:HA	1:A:596:ASN:HB2	2.02	0.41
1:A:1977:GLU:O	1:A:1980:LEU:HG	2.21	0.41
1:A:2509:ARG:HG2	1:A:2510:TYR:CE2	2.55	0.41
1:B:56:THR:HG21	1:B:129:ALA:HB1	2.03	0.41
1:B:119:VAL:HG23	1:B:150:GLN:NE2	2.30	0.41
1:B:796:PHE:HZ	1:B:812:LEU:HB2	1.85	0.41
1:B:1287:VAL:HG13	1:B:1315:VAL:HG21	2.02	0.41
1:B:1368:THR:HG23	1:B:1374:PHE:O	2.21	0.41
1:B:1419:VAL:HG21	1:B:1447:CYS:HB3	2.02	0.41
1:B:1582:ASP:O	1:B:1587:ARG:NH2	2.53	0.41
1:B:2317:ILE:HD12	1:B:2317:ILE:C	2.45	0.41
1:B:2915:LYS:HE2	1:B:2915:LYS:HB2	1.81	0.41
1:B:2941:LEU:HD23	1:B:2941:LEU:HA	1.94	0.41
1:C:1038:ASP:HB3	1:C:1040:PRO:HD2	2.02	0.41
1:C:1165:ASP:OD1	1:C:1165:ASP:N	2.52	0.41
1:C:1332:THR:HG22	1:C:1683:ARG:HB2	2.02	0.41
1:C:1398:ASP:N	1:C:1398:ASP:OD1	2.53	0.41
1:C:1626:LEU:HD22	1:C:1629:ILE:HD12	2.03	0.41
1:C:2297:VAL:O	1:C:2301:HIS:CE1	2.74	0.41
1:C:2558:ARG:NH2	1:C:2561:VAL:HG23	2.35	0.41
1:D:2189:LEU:HD23	1:D:2189:LEU:HA	1.93	0.41
1:D:2885:GLU:O	1:D:2889:ARG:HG3	2.20	0.41
1:D:2896:ARG:HE	1:D:2900:ALA:HB3	1.86	0.41
1:E:457:ILE:H	1:E:457:ILE:HG12	1.62	0.41
1:E:736:TYR:CD1	1:E:784:LEU:HD21	2.56	0.41
1:E:2058:ILE:HG23	1:E:2098:LEU:HD22	2.02	0.41
1:F:962:TRP:HB3	1:F:973:ALA:HB1	2.03	0.41
1:F:968:PRO:HG2	1:F:970:ASN:OD1	2.20	0.41
1:F:1618:ARG:HH11	1:F:1618:ARG:HA	1.86	0.41
1:A:425:MET:N	1:A:429:THR:OG1	2.46	0.41
1:A:1260:GLN:O	1:A:1263:VAL:HG12	2.19	0.41
1:A:2005:ASP:O	1:A:2009:ILE:HG23	2.20	0.41
1:A:2719:ALA:HB1	1:D:2694:LEU:HD13	2.03	0.41
1:B:229:ILE:CG1	1:B:237:VAL:HG22	2.51	0.41
1:B:926:ARG:HH11	1:B:937:LEU:HD21	1.86	0.41
1:B:982:LEU:HD23	1:B:982:LEU:HA	1.85	0.41
1:B:2028:PHE:HD2	1:B:2178:ALA:HB2	1.86	0.41
1:C:1985:ARG:HD3	1:C:1985:ARG:HA	1.76	0.41
1:C:2827:ASP:HB2	1:C:2981:HIS:HB3	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1693:PRO:HB2	1:D:1696:ALA:HB3	2.02	0.41
1:D:2393:ARG:HA	1:D:2396:MET:HE3	2.02	0.41
1:D:2558:ARG:HH21	1:D:2561:VAL:HG23	1.86	0.41
1:D:2973:MET:HE3	1:D:2973:MET:HB3	1.85	0.41
1:E:430:VAL:O	1:E:461:ARG:HD3	2.20	0.41
1:E:2452:TYR:HE1	1:E:2461:MET:HE3	1.85	0.41
1:E:2530:ASP:HB2	1:E:2533:HIS:CD2	2.55	0.41
1:E:2547:PHE:CD1	1:E:2582:ILE:HA	2.56	0.41
1:E:2557:ALA:HB1	1:E:2579:TRP:HB2	2.02	0.41
1:E:2861:VAL:HG13	1:E:2865:ASP:HB3	2.02	0.41
2:E:3101:FMN:H9	2:E:3101:FMN:H1'2	1.84	0.41
1:F:181:LEU:O	1:F:185:ARG:HD3	2.21	0.41
1:F:591:LEU:HD13	1:F:599:VAL:HG21	2.02	0.41
1:F:1669:LEU:HD12	1:F:1678:GLY:HA2	2.02	0.41
1:F:2390:ALA:HA	1:F:2393:ARG:HG2	2.03	0.41
1:A:705:ASP:O	1:A:709:VAL:HG23	2.20	0.41
1:A:877:ILE:C	1:A:879:PRO:HD3	2.46	0.41
1:A:2396:MET:SD	1:A:2397:SER:N	2.93	0.41
1:B:33:PRO:HB3	1:B:143:VAL:HG11	2.02	0.41
1:B:520:ASP:O	1:B:524:GLU:HG3	2.21	0.41
1:C:130:LEU:HD12	1:C:344:LEU:HD11	2.02	0.41
1:C:1055:VAL:HG21	1:C:1090:PRO:HB2	2.03	0.41
1:C:1668:ASP:O	1:C:1672:ILE:HG12	2.21	0.41
1:D:574:HIS:HA	1:D:685:ILE:HG22	2.02	0.41
1:D:890:MET:HE3	1:D:890:MET:HB3	1.94	0.41
1:D:1546:ARG:HD3	1:D:1551:GLY:HA2	2.02	0.41
1:D:2680:LEU:HD23	1:D:2680:LEU:HA	1.83	0.41
1:E:547:ILE:CG2	1:E:587:THR:HG21	2.51	0.41
1:E:1310:ASP:C	1:E:1310:ASP:OD1	2.63	0.41
1:E:1686:GLU:CD	1:E:1696:ALA:HB2	2.46	0.41
1:F:144:ALA:HB1	1:F:333:VAL:HG22	2.02	0.41
1:F:227:LEU:HA	1:F:238:ILE:HG22	2.02	0.41
1:F:921:SER:HB3	1:F:935:VAL:HG22	2.02	0.41
1:F:1158:SER:OG	1:F:1173:GLU:OE2	2.26	0.41
1:F:1271:ARG:HH11	1:F:1271:ARG:C	2.16	0.41
1:F:2537:LEU:HD23	1:F:2537:LEU:HA	1.80	0.41
1:F:2595:THR:OG1	1:F:2596:LYS:N	2.54	0.41
1:F:2874:THR:OG1	1:F:2913:HIS:ND1	2.47	0.41
1:F:2896:ARG:NH2	1:F:2901:PRO:O	2.54	0.41
1:A:880:GLY:O	1:A:884:VAL:HG22	2.21	0.41
1:A:1302:ILE:HA	1:A:1307:GLU:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1309:VAL:HG12	1:A:1325:ALA:HB3	2.03	0.41
1:A:1404:THR:O	1:A:1408:GLN:HG2	2.21	0.41
1:A:2074:HIS:O	1:A:2078:THR:HG23	2.20	0.41
1:A:2114:TYR:CD2	1:A:2137:LEU:HD23	2.56	0.41
1:A:2122:THR:HG22	1:A:2219:PRO:HA	2.02	0.41
1:A:2391:LYS:O	1:A:2394:GLU:HG3	2.21	0.41
1:A:2393:ARG:HA	1:A:2396:MET:HG3	2.02	0.41
1:B:504:GLY:HA3	1:B:947:ARG:HG3	2.02	0.41
1:B:717:ILE:HG23	1:B:727:TYR:HD2	1.86	0.41
1:B:750:GLU:OE1	1:B:750:GLU:N	2.54	0.41
1:B:968:PRO:HG2	1:B:970:ASN:OD1	2.20	0.41
1:B:1388:ILE:HB	1:E:2262:ASP:CG	2.46	0.41
1:B:1611:ARG:HA	1:B:1614:ILE:HG12	2.03	0.41
1:B:1684:PHE:O	1:B:1715:VAL:HA	2.21	0.41
1:B:2224:ARG:HA	1:B:2224:ARG:NH1	2.35	0.41
1:B:2321:ARG:HH11	1:B:2345:SER:HB3	1.86	0.41
1:B:2537:LEU:HD23	1:B:2537:LEU:HA	1.80	0.41
1:B:2974:LEU:HB2	1:B:2986:VAL:HB	2.03	0.41
1:C:746:LEU:HD13	1:C:845:PHE:HB3	2.03	0.41
1:C:1374:PHE:HZ	1:C:1409:VAL:HG21	1.86	0.41
1:C:1519:PHE:O	1:C:1664:ILE:HG12	2.20	0.41
1:C:2145:ILE:HD11	1:C:2192:TRP:CZ3	2.56	0.41
1:C:2428:PRO:HB3	1:C:2968:PRO:HB2	2.03	0.41
1:C:2833:ILE:N	1:C:2834:PRO:HD2	2.36	0.41
1:D:50:GLU:HB2	1:D:94:VAL:HG23	2.02	0.41
1:D:1585:MET:SD	1:D:1586:PRO:HD2	2.61	0.41
1:D:2038:ASP:OD2	1:D:2943:CYS:HA	2.20	0.41
1:D:2293:LEU:C	1:D:2295:ALA:H	2.28	0.41
1:D:2341:VAL:HG21	1:D:2378:LEU:HB2	2.01	0.41
1:E:22:HIS:HB2	1:E:25:VAL:HB	2.03	0.41
1:E:328:ASP:OD1	1:E:329:GLU:N	2.54	0.41
1:E:543:THR:OG1	1:E:544:ILE:N	2.54	0.41
1:E:1273:PRO:HD2	1:E:1682:GLU:HG2	2.03	0.41
1:E:1368:THR:HG23	1:E:1374:PHE:O	2.20	0.41
1:E:1467:LYS:HD3	1:E:1576:GLU:HB3	2.03	0.41
1:E:2036:PHE:HE1	1:E:2942:ASP:HB3	1.86	0.41
1:E:2332:ILE:H	1:E:2332:ILE:HD12	1.86	0.41
1:F:121:LEU:HD13	1:F:169:PHE:CZ	2.56	0.41
1:F:316:ALA:O	1:F:320:LEU:HB2	2.21	0.41
1:F:841:LYS:HD2	1:F:842:PRO:HD2	2.02	0.41
1:F:1207:ARG:HA	1:F:1207:ARG:HD2	1.77	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1209:ARG:HA	1:F:1209:ARG:HD3	1.91	0.41
1:F:1485:ALA:HB2	1:F:1557:LEU:HD12	2.03	0.41
1:F:1684:PHE:O	1:F:1715:VAL:HA	2.20	0.41
1:F:2224:ARG:HA	1:F:2224:ARG:NH1	2.34	0.41
1:F:2833:ILE:N	1:F:2834:PRO:HD2	2.36	0.41
1:F:2896:ARG:HH12	1:F:2902:LEU:HD21	1.86	0.41
1:A:2058:ILE:HG23	1:A:2098:LEU:HD22	2.02	0.41
1:A:2678:GLY:HA2	1:A:2683:ARG:CG	2.51	0.41
1:A:2701:HIS:O	1:A:2704:GLN:HG2	2.21	0.41
1:A:2745:GLY:HA3	1:A:2799:THR:HA	2.02	0.41
1:A:2833:ILE:N	1:A:2834:PRO:HD2	2.36	0.41
1:B:2188:ALA:O	1:B:2191:GLU:HG3	2.20	0.41
1:B:2675:MET:HG3	1:B:2676:TYR:N	2.36	0.41
1:C:153:LEU:HD12	1:C:154:ALA:N	2.36	0.41
1:C:547:ILE:CG2	1:C:587:THR:HG21	2.50	0.41
1:C:759:SER:OG	1:C:760:VAL:N	2.53	0.41
1:C:1209:ARG:NH2	1:C:1307:GLU:OE1	2.43	0.41
1:C:1697:GLY:O	1:C:1701:ASN:ND2	2.45	0.41
1:C:1994:ASP:OD1	1:C:1994:ASP:N	2.46	0.41
1:C:2334:ALA:O	1:C:2337:GLU:HG2	2.21	0.41
1:E:149:SER:HG	1:E:287:HIS:CE1	2.29	0.41
1:E:350:LEU:O	1:E:354:THR:OG1	2.26	0.41
1:E:1488:ARG:O	1:E:1488:ARG:HG2	2.20	0.41
1:E:2568:THR:OG1	1:E:2569:VAL:N	2.54	0.41
1:E:2833:ILE:N	1:E:2834:PRO:HD2	2.36	0.41
1:F:56:THR:HG21	1:F:129:ALA:HB1	2.03	0.41
1:F:117:PRO:HG3	1:F:173:GLN:HA	2.03	0.41
1:F:453:VAL:HG12	1:F:486:LEU:HD21	2.03	0.41
1:F:926:ARG:HH11	1:F:937:LEU:HD21	1.85	0.41
1:F:2902:LEU:HA	1:F:2902:LEU:HD23	1.84	0.41
1:A:22:HIS:HB2	1:A:25:VAL:HB	2.03	0.40
1:A:785:HIS:CE1	1:A:787:GLN:HB3	2.56	0.40
1:B:457:ILE:H	1:B:457:ILE:HG12	1.66	0.40
1:B:515:GLY:HA2	1:B:546:GLN:NE2	2.36	0.40
1:B:1207:ARG:HD2	1:B:1207:ARG:HA	1.77	0.40
1:B:1520:ASN:HB2	1:B:1525:GLN:HG2	2.02	0.40
1:C:735:THR:OG1	1:C:738:GLN:HG2	2.22	0.40
1:C:890:MET:HE3	1:C:890:MET:HB3	1.95	0.40
1:C:1053:LEU:HD23	1:C:1053:LEU:HA	1.97	0.40
1:D:528:GLU:O	1:D:532:ILE:HG23	2.21	0.40
1:D:748:ILE:HG13	1:D:805:PRO:HG3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:1521:LEU:C	1:D:1664:ILE:HD11	2.45	0.40
1:E:341:ILE:HD11	1:E:365:ILE:HG13	2.03	0.40
1:E:1253:MET:HA	1:E:1256:SER:HB3	2.02	0.40
1:E:1336:PHE:HA	1:E:1337:PRO:HD3	1.88	0.40
1:E:1441:GLU:HG3	1:E:1598:TYR:HE1	1.85	0.40
1:E:2223:PRO:HG3	1:E:2224:ARG:N	2.32	0.40
1:E:2238:MET:HE2	1:E:2238:MET:HB2	1.84	0.40
1:F:328:ASP:OD1	1:F:329:GLU:N	2.54	0.40
1:F:520:ASP:O	1:F:524:GLU:HG3	2.21	0.40
1:F:1321:MET:HB3	1:F:1321:MET:HE2	1.78	0.40
1:F:1404:THR:O	1:F:1407:THR:HG22	2.21	0.40
1:F:1703:LEU:HD23	1:F:1703:LEU:HA	1.94	0.40
1:F:2767:THR:HG22	1:F:2771:CYS:SG	2.61	0.40
1:A:52:LEU:HD11	1:A:369:ALA:HA	2.02	0.40
1:A:2748:ASP:HB2	1:A:2916:GLY:H	1.85	0.40
1:B:328:ASP:OD1	1:B:329:GLU:N	2.55	0.40
1:B:699:LEU:HD11	1:B:853:VAL:HG22	2.02	0.40
1:B:788:ASP:OD2	1:B:2416:PRO:HA	2.22	0.40
1:B:1253:MET:HA	1:B:1256:SER:HB3	2.03	0.40
1:B:1293:VAL:HG12	1:B:1315:VAL:HG22	2.03	0.40
1:B:2217:LEU:HD22	1:B:2254:LEU:HD12	2.04	0.40
1:B:2393:ARG:CB	1:B:2396:MET:HE3	2.51	0.40
1:B:2477:TRP:CZ2	1:B:2613:VAL:HG22	2.56	0.40
1:B:2767:THR:HG22	1:B:2771:CYS:SG	2.61	0.40
1:B:2935:ILE:HG21	1:B:2957:VAL:HG21	2.03	0.40
1:C:1653:LEU:HD23	1:C:1653:LEU:HA	1.93	0.40
1:C:2500:MET:HE2	1:C:2500:MET:HA	2.03	0.40
1:D:153:LEU:HD12	1:D:154:ALA:N	2.36	0.40
1:D:825:HIS:HD2	1:D:827:ALA:H	1.68	0.40
1:D:1457:LEU:HG	1:D:1458:LEU:N	2.37	0.40
1:D:2723:ALA:CB	1:D:2920:VAL:HG23	2.51	0.40
1:D:3020:ARG:NH1	1:D:3024:ALA:HB2	2.35	0.40
1:E:48:THR:HG21	1:E:347:GLY:N	2.36	0.40
1:E:880:GLY:O	1:E:884:VAL:HG22	2.21	0.40
1:E:1309:VAL:HG12	1:E:1325:ALA:HB3	2.02	0.40
1:E:2758:PHE:HB3	1:E:2764:THR:HG21	2.04	0.40
1:E:2999:ASP:OD1	1:E:2999:ASP:N	2.54	0.40
1:F:486:LEU:HD23	1:F:486:LEU:HA	1.87	0.40
1:F:1287:VAL:HG13	1:F:1315:VAL:HG21	2.02	0.40
1:F:1343:HIS:CD2	1:F:1346:MET:HG2	2.57	0.40
1:A:486:LEU:HD23	1:A:486:LEU:HA	1.94	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:528:GLU:O	1:A:532:ILE:HG23	2.21	0.40
1:A:575:HIS:CE1	1:A:664:TRP:HZ3	2.40	0.40
1:A:2300:TRP:CZ3	1:A:2307:ALA:HA	2.57	0.40
1:B:551:ILE:HD13	1:B:590:GLU:HB2	2.03	0.40
1:B:1124:ALA:HA	1:B:1172:LEU:HD23	2.03	0.40
1:B:1343:HIS:CD2	1:B:1346:MET:HG2	2.56	0.40
1:B:2296:VAL:HG12	1:B:2312:LEU:HD21	2.03	0.40
1:B:2833:ILE:N	1:B:2834:PRO:HD2	2.36	0.40
1:C:461:ARG:HD3	1:C:464:GLN:HE21	1.87	0.40
1:C:1194:GLY:H	1:C:1280:THR:HB	1.86	0.40
1:C:1600:PRO:HG3	1:C:1652:LEU:HD11	2.03	0.40
1:C:1706:PRO:O	1:C:1707:GLU:C	2.49	0.40
1:D:549:SER:O	1:D:553:ILE:HG13	2.21	0.40
1:D:926:ARG:HH11	1:D:937:LEU:HD21	1.86	0.40
1:D:973:ALA:HB3	1:D:982:LEU:HD12	2.04	0.40
1:D:1055:VAL:HG21	1:D:1090:PRO:HB2	2.03	0.40
1:D:1151:MET:HE1	1:D:1177:ALA:HB1	2.02	0.40
1:D:1207:ARG:HA	1:D:1207:ARG:HD2	1.79	0.40
1:D:2902:LEU:HD12	1:D:2902:LEU:HA	1.94	0.40
1:E:968:PRO:HG2	1:E:970:ASN:OD1	2.20	0.40
1:E:1611:ARG:HA	1:E:1614:ILE:HG12	2.03	0.40
1:E:2039:ARG:HA	1:E:2039:ARG:HD2	1.93	0.40
1:E:2152:ASP:OD1	1:E:2152:ASP:N	2.54	0.40
1:E:2885:GLU:O	1:E:2889:ARG:HG3	2.21	0.40
1:F:426:THR:HB	1:F:427:PRO:HD3	2.04	0.40
1:F:1279:TRP:CD1	1:F:1325:ALA:HB2	2.55	0.40
1:F:1467:LYS:HB2	1:F:1467:LYS:HE3	1.84	0.40
1:F:2068:ARG:NH1	1:F:2165:ASP:O	2.54	0.40
1:F:2977:LEU:H	1:F:2977:LEU:HD22	1.87	0.40
1:A:328:ASP:OD1	1:A:329:GLU:N	2.54	0.40
1:A:779:ARG:HD2	1:A:831:PHE:CE2	2.56	0.40
1:A:2293:LEU:C	1:A:2295:ALA:H	2.29	0.40
1:A:2568:THR:OG1	1:A:2569:VAL:N	2.54	0.40
1:A:2705:SER:O	1:A:3034:ARG:NH2	2.54	0.40
1:B:407:LEU:HB2	1:B:906:ILE:HD11	2.03	0.40
1:B:1374:PHE:HZ	1:B:1409:VAL:HG21	1.86	0.40
1:B:2059:ASP:OD1	1:B:2059:ASP:N	2.54	0.40
1:B:2452:TYR:CD2	1:B:2461:MET:HG3	2.57	0.40
1:C:50:GLU:HB2	1:C:94:VAL:HG23	2.04	0.40
1:C:425:MET:HG2	1:C:428:THR:HG23	2.03	0.40
1:C:699:LEU:O	1:C:703:ALA:N	2.52	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1387:ILE:HD11	1:C:1406:PHE:CZ	2.57	0.40
1:C:2884:THR:HG23	1:C:2954:PHE:CE2	2.57	0.40
1:C:2885:GLU:O	1:C:2889:ARG:HG3	2.21	0.40
1:C:2945:ASP:OD1	1:C:2945:ASP:N	2.53	0.40
1:C:3003:ARG:H	1:C:3003:ARG:HG2	1.63	0.40
1:C:3031:MET:H	1:C:3031:MET:HG2	1.75	0.40
1:D:214:GLU:OE2	1:D:251:TYR:OH	2.37	0.40
1:D:425:MET:HE1	1:D:636:GLY:HA2	2.04	0.40
1:D:2300:TRP:CZ3	1:D:2307:ALA:HA	2.56	0.40
1:D:2833:ILE:N	1:D:2834:PRO:HD2	2.36	0.40
1:E:2644:PHE:CZ	1:E:2813:LEU:HD13	2.57	0.40
1:E:2694:LEU:O	1:E:2697:ILE:HG22	2.22	0.40
1:F:813:LEU:HD11	1:F:820:GLU:HG3	2.04	0.40
1:F:1124:ALA:HA	1:F:1172:LEU:HD23	2.03	0.40
1:F:1454:LEU:HA	1:F:1457:LEU:HD23	2.03	0.40
1:F:2747:LEU:HD23	1:F:2796:GLY:C	2.46	0.40
1:A:615:LEU:HD12	1:A:615:LEU:HA	1.92	0.40
1:B:38:PHE:HZ	1:B:158:LEU:HD22	1.86	0.40
1:B:175:ILE:HD12	1:B:175:ILE:C	2.46	0.40
1:B:1279:TRP:CD1	1:B:1325:ALA:HB2	2.56	0.40
1:B:1618:ARG:HA	1:B:1618:ARG:HH11	1.87	0.40
1:B:1994:ASP:OD1	1:B:1994:ASP:N	2.48	0.40
1:B:2266:ARG:HG2	1:B:2311:SER:OG	2.22	0.40
1:B:2660:ASN:ND2	1:B:2703:VAL:HG22	2.37	0.40
1:B:2907:GLN:OE1	1:B:2921:PHE:HB3	2.20	0.40
1:C:1541:GLU:O	1:C:1544:ARG:HG2	2.22	0.40
1:C:2152:ASP:OD1	1:C:2152:ASP:N	2.54	0.40
1:C:2748:ASP:CB	1:C:2916:GLY:H	2.35	0.40
1:C:2770:MET:HG2	1:C:2789:LEU:HD11	2.03	0.40
1:D:1617:ILE:HD11	1:D:1626:LEU:HG	2.03	0.40
1:D:1686:GLU:CD	1:D:1696:ALA:HB2	2.47	0.40
1:D:2482:ILE:HD12	1:D:2482:ILE:HA	1.89	0.40
1:D:2595:THR:OG1	1:D:2596:LYS:N	2.53	0.40
1:E:1566:HIS:HB3	1:E:1660:PRO:HA	2.04	0.40
1:E:2439:ASP:OD1	1:E:2439:ASP:N	2.55	0.40
1:E:2599:ARG:NH1	1:E:2771:CYS:SG	2.93	0.40
1:F:473:ARG:NH1	1:F:1012:ASP:O	2.54	0.40
1:F:759:SER:OG	1:F:760:VAL:N	2.54	0.40
1:F:788:ASP:OD2	1:F:2416:PRO:HA	2.22	0.40
1:F:1336:PHE:HA	1:F:1337:PRO:HD3	1.91	0.40
1:F:1336:PHE:CE2	1:F:1444:ALA:HA	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2134:VAL:HG13	1:F:2144:VAL:HG11	2.04	0.40
1:F:2315:ALA:HB1	1:F:2374:LEU:HD12	2.02	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	2762/3069 (90%)	2629 (95%)	133 (5%)	0	100	100
1	B	2762/3069 (90%)	2643 (96%)	119 (4%)	0	100	100
1	C	2762/3069 (90%)	2630 (95%)	132 (5%)	0	100	100
1	D	2762/3069 (90%)	2633 (95%)	129 (5%)	0	100	100
1	E	2762/3069 (90%)	2630 (95%)	132 (5%)	0	100	100
1	F	2762/3069 (90%)	2636 (95%)	125 (4%)	1 (0%)	100	100
All	All	16572/18414 (90%)	15801 (95%)	770 (5%)	1 (0%)	100	100

All (1) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	F	2203	PRO

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	2132/2359 (90%)	2038 (96%)	94 (4%)	25	49
1	B	2132/2359 (90%)	2038 (96%)	94 (4%)	25	49
1	C	2129/2359 (90%)	2010 (94%)	119 (6%)	19	40
1	D	2135/2359 (90%)	2025 (95%)	110 (5%)	21	43
1	E	2130/2359 (90%)	2022 (95%)	108 (5%)	21	44
1	F	2133/2359 (90%)	2038 (96%)	95 (4%)	24	48
All	All	12791/14154 (90%)	12171 (95%)	620 (5%)	24	46

All (620) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	48	THR
1	A	53	VAL
1	A	72	LEU
1	A	94	VAL
1	A	116	VAL
1	A	143	VAL
1	A	186	ARG
1	A	190	VAL
1	A	200	VAL
1	A	226	VAL
1	A	229	ILE
1	A	292	SER
1	A	315	LEU
1	A	357	VAL
1	A	370	THR
1	A	457	ILE
1	A	480	LEU
1	A	543	THR
1	A	555	THR
1	A	601	VAL
1	A	702	VAL
1	A	737	LEU
1	A	757	THR
1	A	760	VAL
1	A	768	THR
1	A	785	HIS
1	A	822	VAL
1	A	883	SER
1	A	884	VAL
1	A	933	LEU

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Mol	Chain	Res	Type
1	A	953	VAL
1	A	958	ASP
1	A	1002	ILE
1	A	1029	THR
1	A	1068	VAL
1	A	1083	VAL
1	A	1095	VAL
1	A	1105	ASP
1	A	1127	VAL
1	A	1147	THR
1	A	1155	VAL
1	A	1246	GLU
1	A	1250	VAL
1	A	1277	VAL
1	A	1280	THR
1	A	1287	VAL
1	A	1293	VAL
1	A	1297	VAL
1	A	1311	VAL
1	A	1319	LEU
1	A	1327	LEU
1	A	1393	HIS
1	A	1439	VAL
1	A	1457	LEU
1	A	1461	VAL
1	A	1463	HIS
1	A	1574	VAL
1	A	1608	THR
1	A	1656	GLN
1	A	1661	VAL
1	A	1670	LEU
1	A	1689	VAL
1	A	1698	LEU
1	A	1708	TYR
1	A	1717	ASN
1	A	1997	VAL
1	A	2023	LEU
1	A	2035	VAL
1	A	2094	ILE
1	A	2151	LEU
1	A	2189	LEU
1	A	2213	THR

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Mol	Chain	Res	Type
1	A	2215	THR
1	A	2320	THR
1	A	2449	ILE
1	A	2482	ILE
1	A	2518	VAL
1	A	2561	VAL
1	A	2600	VAL
1	A	2644	PHE
1	A	2658	VAL
1	A	2675	MET
1	A	2683	ARG
1	A	2685	LYS
1	A	2696	ASN
1	A	2731	VAL
1	A	2740	GLN
1	A	2807	LEU
1	A	2811	MET
1	A	2859	LEU
1	A	2868	VAL
1	A	2875	SER
1	A	2963	LEU
1	A	3021	LEU
1	B	48	THR
1	B	53	VAL
1	B	72	LEU
1	B	78	ASP
1	B	83	VAL
1	B	91	LEU
1	B	94	VAL
1	B	110	THR
1	B	114	VAL
1	B	116	VAL
1	B	226	VAL
1	B	288	THR
1	B	292	SER
1	B	307	LEU
1	B	350	LEU
1	B	370	THR
1	B	446	GLU
1	B	457	ILE
1	B	480	LEU
1	B	543	THR

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Mol	Chain	Res	Type
1	B	555	THR
1	B	607	THR
1	B	628	MET
1	B	631	ASP
1	B	634	LEU
1	B	680	GLN
1	B	685	ILE
1	B	691	SER
1	B	702	VAL
1	B	722	LYS
1	B	757	THR
1	B	760	VAL
1	B	768	THR
1	B	785	HIS
1	B	795	LEU
1	B	822	VAL
1	B	824	LEU
1	B	834	THR
1	B	839	LEU
1	B	883	SER
1	B	884	VAL
1	B	888	THR
1	B	933	LEU
1	B	953	VAL
1	B	958	ASP
1	B	974	THR
1	B	1029	THR
1	B	1083	VAL
1	B	1095	VAL
1	B	1137	LEU
1	B	1147	THR
1	B	1155	VAL
1	B	1157	VAL
1	B	1250	VAL
1	B	1263	VAL
1	B	1287	VAL
1	B	1293	VAL
1	B	1297	VAL
1	B	1311	VAL
1	B	1319	LEU
1	B	1322	SER
1	B	1327	LEU

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Mol	Chain	Res	Type
1	B	1382	ASP
1	B	1393	HIS
1	B	1419	VAL
1	B	1457	LEU
1	B	1461	VAL
1	B	1538	LEU
1	B	1661	VAL
1	B	1689	VAL
1	B	1705	LEU
1	B	1708	TYR
1	B	1997	VAL
1	B	2035	VAL
1	B	2094	ILE
1	B	2144	VAL
1	B	2215	THR
1	B	2344	TYR
1	B	2444	VAL
1	B	2482	ILE
1	B	2561	VAL
1	B	2601	VAL
1	B	2644	PHE
1	B	2658	VAL
1	B	2683	ARG
1	B	2685	LYS
1	B	2707	VAL
1	B	2731	VAL
1	B	2740	GLN
1	B	2807	LEU
1	B	2871	LYS
1	B	2875	SER
1	B	2974	LEU
1	B	2982	VAL
1	C	48	THR
1	C	53	VAL
1	C	65	LEU
1	C	80	LEU
1	C	94	VAL
1	C	116	VAL
1	C	175	ILE
1	C	190	VAL
1	C	200	VAL
1	C	226	VAL

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Mol	Chain	Res	Type
1	C	229	ILE
1	C	282	VAL
1	C	292	SER
1	C	315	LEU
1	C	322	ARG
1	C	370	THR
1	C	412	THR
1	C	428	THR
1	C	446	GLU
1	C	453	VAL
1	C	457	ILE
1	C	480	LEU
1	C	516	ILE
1	C	518	ASP
1	C	543	THR
1	C	549	SER
1	C	555	THR
1	C	590	GLU
1	C	607	THR
1	C	631	ASP
1	C	685	ILE
1	C	691	SER
1	C	702	VAL
1	C	722	LYS
1	C	737	LEU
1	C	757	THR
1	C	760	VAL
1	C	768	THR
1	C	785	HIS
1	C	795	LEU
1	C	797	THR
1	C	822	VAL
1	C	824	LEU
1	C	834	THR
1	C	839	LEU
1	C	883	SER
1	C	884	VAL
1	C	910	LEU
1	C	933	LEU
1	C	953	VAL
1	C	955	ARG
1	C	958	ASP

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Mol	Chain	Res	Type
1	C	974	THR
1	C	1002	ILE
1	C	1068	VAL
1	C	1095	VAL
1	C	1110	VAL
1	C	1126	VAL
1	C	1133	VAL
1	C	1147	THR
1	C	1155	VAL
1	C	1159	VAL
1	C	1250	VAL
1	C	1263	VAL
1	C	1280	THR
1	C	1287	VAL
1	C	1293	VAL
1	C	1297	VAL
1	C	1309	VAL
1	C	1311	VAL
1	C	1319	LEU
1	C	1322	SER
1	C	1327	LEU
1	C	1407	THR
1	C	1419	VAL
1	C	1437	HIS
1	C	1457	LEU
1	C	1463	HIS
1	C	1517	VAL
1	C	1538	LEU
1	C	1565	PHE
1	C	1608	THR
1	C	1661	VAL
1	C	1689	VAL
1	C	1698	LEU
1	C	1705	LEU
1	C	1708	TYR
1	C	1710	HIS
1	C	1711	SER
1	C	1712	THR
1	C	2035	VAL
1	C	2045	GLU
1	C	2050	LEU
1	C	2068	ARG

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Mol	Chain	Res	Type
1	C	2094	ILE
1	C	2191	GLU
1	C	2215	THR
1	C	2225	VAL
1	C	2316	LEU
1	C	2344	TYR
1	C	2405	ASP
1	C	2449	ILE
1	C	2482	ILE
1	C	2500	MET
1	C	2601	VAL
1	C	2644	PHE
1	C	2658	VAL
1	C	2685	LYS
1	C	2707	VAL
1	C	2731	VAL
1	C	2747	LEU
1	C	2767	THR
1	C	2858	LYS
1	C	2868	VAL
1	C	2869	ILE
1	C	2877	LEU
1	C	2963	LEU
1	C	2969	LEU
1	C	2974	LEU
1	D	48	THR
1	D	53	VAL
1	D	80	LEU
1	D	94	VAL
1	D	116	VAL
1	D	153	LEU
1	D	175	ILE
1	D	190	VAL
1	D	200	VAL
1	D	226	VAL
1	D	282	VAL
1	D	292	SER
1	D	315	LEU
1	D	344	LEU
1	D	370	THR
1	D	412	THR
1	D	446	GLU

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Mol	Chain	Res	Type
1	D	453	VAL
1	D	457	ILE
1	D	518	ASP
1	D	543	THR
1	D	549	SER
1	D	555	THR
1	D	590	GLU
1	D	607	THR
1	D	631	ASP
1	D	634	LEU
1	D	685	ILE
1	D	691	SER
1	D	722	LYS
1	D	757	THR
1	D	760	VAL
1	D	768	THR
1	D	785	HIS
1	D	795	LEU
1	D	824	LEU
1	D	834	THR
1	D	877	ILE
1	D	883	SER
1	D	884	VAL
1	D	894	VAL
1	D	910	LEU
1	D	933	LEU
1	D	953	VAL
1	D	955	ARG
1	D	958	ASP
1	D	974	THR
1	D	1002	ILE
1	D	1068	VAL
1	D	1095	VAL
1	D	1114	LEU
1	D	1126	VAL
1	D	1133	VAL
1	D	1137	LEU
1	D	1147	THR
1	D	1155	VAL
1	D	1159	VAL
1	D	1250	VAL
1	D	1263	VAL

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Mol	Chain	Res	Type
1	D	1287	VAL
1	D	1293	VAL
1	D	1297	VAL
1	D	1311	VAL
1	D	1319	LEU
1	D	1387	ILE
1	D	1419	VAL
1	D	1437	HIS
1	D	1457	LEU
1	D	1463	HIS
1	D	1517	VAL
1	D	1538	LEU
1	D	1585	MET
1	D	1608	THR
1	D	1661	VAL
1	D	1689	VAL
1	D	1698	LEU
1	D	1997	VAL
1	D	2024	VAL
1	D	2035	VAL
1	D	2050	LEU
1	D	2094	ILE
1	D	2145	ILE
1	D	2191	GLU
1	D	2215	THR
1	D	2225	VAL
1	D	2316	LEU
1	D	2344	TYR
1	D	2449	ILE
1	D	2482	ILE
1	D	2500	MET
1	D	2518	VAL
1	D	2644	PHE
1	D	2658	VAL
1	D	2683	ARG
1	D	2685	LYS
1	D	2707	VAL
1	D	2731	VAL
1	D	2740	GLN
1	D	2747	LEU
1	D	2767	THR
1	D	2854	ARG

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Mol	Chain	Res	Type
1	D	2858	LYS
1	D	2868	VAL
1	D	2876	THR
1	D	2877	LEU
1	D	2939	ARG
1	D	2946	ASP
1	D	2974	LEU
1	D	2985	LEU
1	D	3021	LEU
1	E	43	SER
1	E	48	THR
1	E	72	LEU
1	E	73	LEU
1	E	80	LEU
1	E	94	VAL
1	E	116	VAL
1	E	143	VAL
1	E	186	ARG
1	E	190	VAL
1	E	200	VAL
1	E	226	VAL
1	E	254	GLN
1	E	292	SER
1	E	315	LEU
1	E	357	VAL
1	E	370	THR
1	E	457	ILE
1	E	465	MET
1	E	518	ASP
1	E	532	ILE
1	E	543	THR
1	E	555	THR
1	E	613	GLU
1	E	648	SER
1	E	685	ILE
1	E	702	VAL
1	E	712	ARG
1	E	722	LYS
1	E	737	LEU
1	E	738	GLN
1	E	757	THR
1	E	760	VAL

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Mol	Chain	Res	Type
1	E	768	THR
1	E	785	HIS
1	E	822	VAL
1	E	834	THR
1	E	883	SER
1	E	884	VAL
1	E	890	MET
1	E	933	LEU
1	E	953	VAL
1	E	958	ASP
1	E	1002	ILE
1	E	1029	THR
1	E	1068	VAL
1	E	1083	VAL
1	E	1095	VAL
1	E	1105	ASP
1	E	1126	VAL
1	E	1147	THR
1	E	1155	VAL
1	E	1246	GLU
1	E	1250	VAL
1	E	1280	THR
1	E	1287	VAL
1	E	1293	VAL
1	E	1297	VAL
1	E	1311	VAL
1	E	1319	LEU
1	E	1327	LEU
1	E	1393	HIS
1	E	1419	VAL
1	E	1457	LEU
1	E	1461	VAL
1	E	1463	HIS
1	E	1464	ARG
1	E	1574	VAL
1	E	1661	VAL
1	E	1666	THR
1	E	1670	LEU
1	E	1689	VAL
1	E	1690	LYS
1	E	1698	LEU
1	E	1705	LEU

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Mol	Chain	Res	Type
1	E	1717	ASN
1	E	1997	VAL
1	E	2023	LEU
1	E	2035	VAL
1	E	2094	ILE
1	E	2108	ASN
1	E	2145	ILE
1	E	2151	LEU
1	E	2169	TYR
1	E	2191	GLU
1	E	2215	THR
1	E	2223	PRO
1	E	2320	THR
1	E	2344	TYR
1	E	2449	ILE
1	E	2486	ASP
1	E	2561	VAL
1	E	2600	VAL
1	E	2658	VAL
1	E	2683	ARG
1	E	2685	LYS
1	E	2696	ASN
1	E	2707	VAL
1	E	2731	VAL
1	E	2740	GLN
1	E	2789	LEU
1	E	2800	ILE
1	E	2807	LEU
1	E	2859	LEU
1	E	2868	VAL
1	E	2875	SER
1	E	2963	LEU
1	E	2999	ASP
1	F	22	HIS
1	F	48	THR
1	F	53	VAL
1	F	72	LEU
1	F	78	ASP
1	F	91	LEU
1	F	94	VAL
1	F	114	VAL
1	F	116	VAL

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Mol	Chain	Res	Type
1	F	292	SER
1	F	293	ASP
1	F	307	LEU
1	F	350	LEU
1	F	370	THR
1	F	446	GLU
1	F	457	ILE
1	F	480	LEU
1	F	543	THR
1	F	555	THR
1	F	607	THR
1	F	631	ASP
1	F	634	LEU
1	F	680	GLN
1	F	685	ILE
1	F	691	SER
1	F	702	VAL
1	F	757	THR
1	F	760	VAL
1	F	768	THR
1	F	785	HIS
1	F	795	LEU
1	F	822	VAL
1	F	824	LEU
1	F	834	THR
1	F	839	LEU
1	F	883	SER
1	F	884	VAL
1	F	888	THR
1	F	910	LEU
1	F	933	LEU
1	F	953	VAL
1	F	958	ASP
1	F	974	THR
1	F	1029	THR
1	F	1083	VAL
1	F	1095	VAL
1	F	1105	ASP
1	F	1126	VAL
1	F	1137	LEU
1	F	1147	THR
1	F	1155	VAL

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Mol	Chain	Res	Type
1	F	1157	VAL
1	F	1204	THR
1	F	1250	VAL
1	F	1263	VAL
1	F	1287	VAL
1	F	1293	VAL
1	F	1297	VAL
1	F	1311	VAL
1	F	1319	LEU
1	F	1322	SER
1	F	1419	VAL
1	F	1457	LEU
1	F	1458	LEU
1	F	1463	HIS
1	F	1538	LEU
1	F	1661	VAL
1	F	1689	VAL
1	F	1997	VAL
1	F	2035	VAL
1	F	2094	ILE
1	F	2215	THR
1	F	2320	THR
1	F	2349	MET
1	F	2444	VAL
1	F	2482	ILE
1	F	2516	GLN
1	F	2561	VAL
1	F	2641	SER
1	F	2644	PHE
1	F	2658	VAL
1	F	2683	ARG
1	F	2684	ASN
1	F	2707	VAL
1	F	2714	ILE
1	F	2731	VAL
1	F	2740	GLN
1	F	2764	THR
1	F	2807	LEU
1	F	2858	LYS
1	F	2875	SER
1	F	2945	ASP
1	F	2974	LEU

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Mol	Chain	Res	Type
1	F	2999	ASP
1	F	3021	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (84) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	150	GLN
1	A	265	ASN
1	A	490	GLN
1	A	574	HIS
1	A	775	GLN
1	A	807	GLN
1	A	985	HIS
1	A	1234	HIS
1	A	1339	GLN
1	A	1378	HIS
1	A	1408	GLN
1	A	1601	ASN
1	A	1656	GLN
1	A	2580	GLN
1	A	2673	GLN
1	A	2696	ASN
1	A	2784	ASN
1	A	2795	GLN
1	A	2981	HIS
1	A	3002	GLN
1	B	150	GLN
1	B	173	GLN
1	B	265	ASN
1	B	490	GLN
1	B	680	GLN
1	B	951	ASN
1	B	954	HIS
1	B	1234	HIS
1	B	1339	GLN
1	B	1408	GLN
1	B	1601	ASN
1	B	2074	HIS
1	B	2662	GLN
1	B	2673	GLN
1	B	2795	GLN
1	B	2938	ASN

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Mol	Chain	Res	Type
1	C	41	GLN
1	C	265	ASN
1	C	476	GLN
1	C	951	ASN
1	C	954	HIS
1	C	1234	HIS
1	C	2074	HIS
1	C	2580	GLN
1	C	2696	ASN
1	C	3002	GLN
1	D	173	GLN
1	D	265	ASN
1	D	807	GLN
1	D	951	ASN
1	D	954	HIS
1	D	985	HIS
1	D	1234	HIS
1	D	1260	GLN
1	D	1408	GLN
1	D	1463	HIS
1	D	2166	HIS
1	D	2580	GLN
1	D	2696	ASN
1	D	2704	GLN
1	D	2784	ASN
1	D	2879	ASN
1	E	265	ASN
1	E	460	ASN
1	E	738	GLN
1	E	1145	ASN
1	E	1234	HIS
1	E	1304	GLN
1	E	1378	HIS
1	E	1425	GLN
1	E	2580	GLN
1	E	2696	ASN
1	E	2784	ASN
1	E	2953	HIS
1	E	3002	GLN
1	F	92	GLN
1	F	150	GLN
1	F	265	ASN

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Mol	Chain	Res	Type
1	F	951	ASN
1	F	954	HIS
1	F	1234	HIS
1	F	1408	GLN
1	F	2662	GLN
1	F	2823	GLN

5.3.3 RNA ⓘ

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates ⓘ

There are no oligosaccharides in this entry.

5.6 Ligand geometry ⓘ

6 ligands are modelled in this entry.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z > 2$	Counts	RMSZ	$\# Z > 2$
2	FMN	D	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.25	8 (16%)
2	FMN	B	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	A	3101	-	33,33,33	1.06	2 (6%)	48,50,50	1.26	8 (16%)
2	FMN	E	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	F	3101	-	33,33,33	1.06	2 (6%)	48,50,50	1.28	8 (16%)
2	FMN	C	3101	-	33,33,33	1.07	2 (6%)	48,50,50	1.24	8 (16%)

In the following table, the Chirals column lists the number of chiral outliers, the number of chiral centers analysed, the number of these observed in the model and the number defined in the Chemical Component Dictionary. Similar counts are reported in the Torsion and Rings columns. '-' means no outliers of that kind were identified.

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
2	FMN	D	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	B	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	A	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	E	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	F	3101	-	-	2/18/18/18	0/3/3/3
2	FMN	C	3101	-	-	2/18/18/18	0/3/3/3

All (12) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
2	B	3101	FMN	C4A-N5	3.49	1.38	1.30
2	D	3101	FMN	C4A-N5	3.49	1.38	1.30
2	E	3101	FMN	C4A-N5	3.47	1.38	1.30
2	C	3101	FMN	C4A-N5	3.45	1.38	1.30
2	F	3101	FMN	C4A-N5	3.43	1.38	1.30
2	A	3101	FMN	C4A-N5	3.43	1.38	1.30
2	C	3101	FMN	C10-N1	2.45	1.38	1.33
2	D	3101	FMN	C10-N1	2.42	1.38	1.33
2	A	3101	FMN	C10-N1	2.34	1.37	1.33
2	E	3101	FMN	C10-N1	2.34	1.37	1.33
2	B	3101	FMN	C10-N1	2.31	1.37	1.33
2	F	3101	FMN	C10-N1	2.30	1.37	1.33

All (48) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	F	3101	FMN	C4-N3-C2	-3.27	119.83	125.64
2	A	3101	FMN	C4-N3-C2	-3.25	119.86	125.64
2	E	3101	FMN	C4-N3-C2	-3.23	119.91	125.64
2	B	3101	FMN	C4-N3-C2	-3.21	119.95	125.64
2	D	3101	FMN	C4-N3-C2	-3.18	119.99	125.64
2	C	3101	FMN	C4-N3-C2	-3.17	120.02	125.64
2	F	3101	FMN	C4A-C10-N10	2.82	120.52	116.48
2	B	3101	FMN	C4A-C10-N10	2.78	120.47	116.48
2	E	3101	FMN	C4A-C10-N10	2.75	120.42	116.48
2	E	3101	FMN	C5A-C9A-N10	2.72	120.43	117.97
2	D	3101	FMN	C4A-C10-N10	2.71	120.36	116.48

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Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	A	3101	FMN	C4A-C10-N10	2.71	120.36	116.48
2	C	3101	FMN	C4A-C10-N10	2.66	120.29	116.48
2	B	3101	FMN	C5A-C9A-N10	2.63	120.35	117.97
2	A	3101	FMN	C5A-C9A-N10	2.62	120.34	117.97
2	F	3101	FMN	C5A-C9A-N10	2.58	120.31	117.97
2	D	3101	FMN	C4A-C4-N3	2.58	119.81	113.25
2	C	3101	FMN	C4A-C4-N3	2.56	119.78	113.25
2	E	3101	FMN	C4A-C4-N3	2.56	119.77	113.25
2	F	3101	FMN	C4A-C4-N3	2.55	119.76	113.25
2	A	3101	FMN	C4A-C4-N3	2.55	119.75	113.25
2	B	3101	FMN	C4A-C4-N3	2.54	119.73	113.25
2	A	3101	FMN	O4-C4-C4A	-2.45	120.07	126.53
2	D	3101	FMN	C4'-C3'-C2'	-2.43	109.53	113.57
2	F	3101	FMN	O4-C4-C4A	-2.42	120.13	126.53
2	D	3101	FMN	O4-C4-C4A	-2.42	120.15	126.53
2	E	3101	FMN	O4-C4-C4A	-2.42	120.15	126.53
2	C	3101	FMN	O4-C4-C4A	-2.41	120.16	126.53
2	C	3101	FMN	C4'-C3'-C2'	-2.40	109.58	113.57
2	B	3101	FMN	O4-C4-C4A	-2.39	120.22	126.53
2	C	3101	FMN	C5A-C9A-N10	2.39	120.13	117.97
2	D	3101	FMN	C5A-C9A-N10	2.38	120.12	117.97
2	B	3101	FMN	C4'-C3'-C2'	-2.38	109.62	113.57
2	B	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	D	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	F	3101	FMN	C10-C4A-N5	-2.36	119.98	124.81
2	E	3101	FMN	C9A-C5A-N5	-2.34	119.97	122.45
2	C	3101	FMN	C10-C4A-N5	-2.32	120.06	124.81
2	E	3101	FMN	C10-C4A-N5	-2.32	120.07	124.81
2	A	3101	FMN	C10-C4A-N5	-2.29	120.14	124.81
2	F	3101	FMN	C4'-C3'-C2'	-2.26	109.80	113.57
2	B	3101	FMN	C9A-C5A-N5	-2.21	120.11	122.45
2	A	3101	FMN	C4'-C3'-C2'	-2.21	109.89	113.57
2	E	3101	FMN	C4'-C3'-C2'	-2.20	109.91	113.57
2	F	3101	FMN	C9A-C5A-N5	-2.17	120.15	122.45
2	A	3101	FMN	C9A-C5A-N5	-2.17	120.15	122.45
2	D	3101	FMN	C9A-C5A-N5	-2.11	120.22	122.45
2	C	3101	FMN	C9A-C5A-N5	-2.10	120.22	122.45

There are no chirality outliers.

All (12) torsion outliers are listed below:

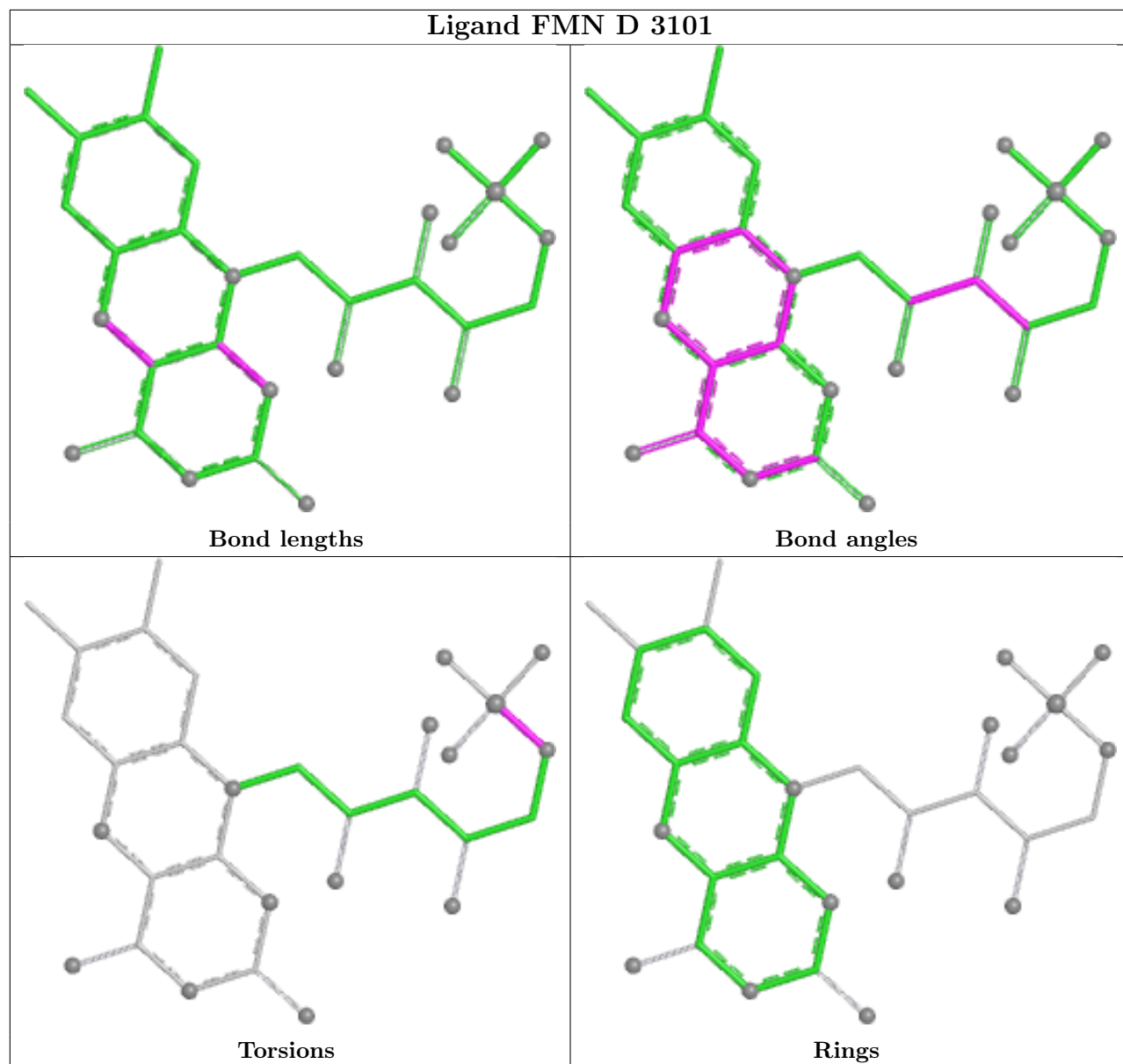
Mol	Chain	Res	Type	Atoms
2	A	3101	FMN	C5'-O5'-P-O1P
2	B	3101	FMN	C5'-O5'-P-O1P
2	E	3101	FMN	C5'-O5'-P-O1P
2	F	3101	FMN	C5'-O5'-P-O1P
2	C	3101	FMN	C5'-O5'-P-O1P
2	D	3101	FMN	C5'-O5'-P-O1P
2	A	3101	FMN	C5'-O5'-P-O2P
2	B	3101	FMN	C5'-O5'-P-O2P
2	E	3101	FMN	C5'-O5'-P-O2P
2	F	3101	FMN	C5'-O5'-P-O2P
2	C	3101	FMN	C5'-O5'-P-O2P
2	D	3101	FMN	C5'-O5'-P-O2P

There are no ring outliers.

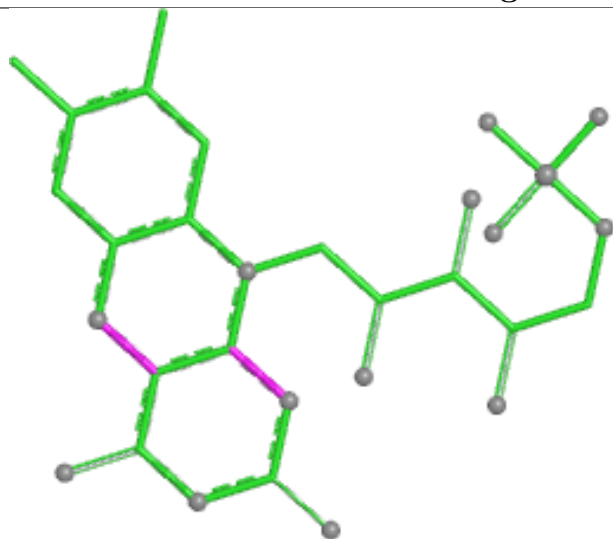
6 monomers are involved in 25 short contacts:

Mol	Chain	Res	Type	Clashes	Symm-Clashes
2	D	3101	FMN	4	0
2	B	3101	FMN	4	0
2	A	3101	FMN	4	0
2	E	3101	FMN	4	0
2	F	3101	FMN	4	0
2	C	3101	FMN	5	0

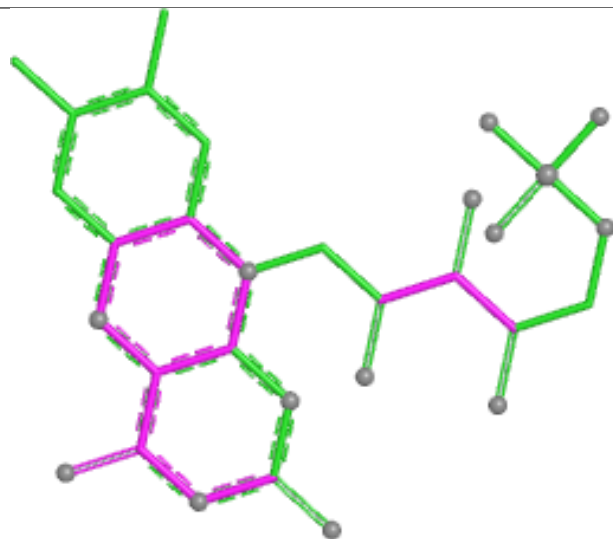
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier. The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.



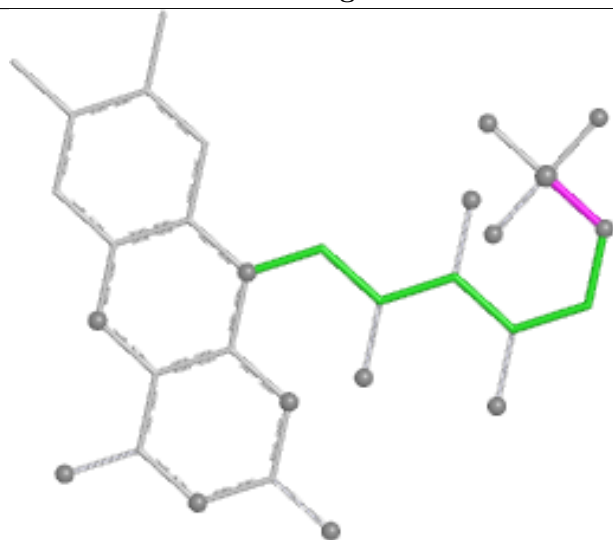
Ligand FMN B 3101



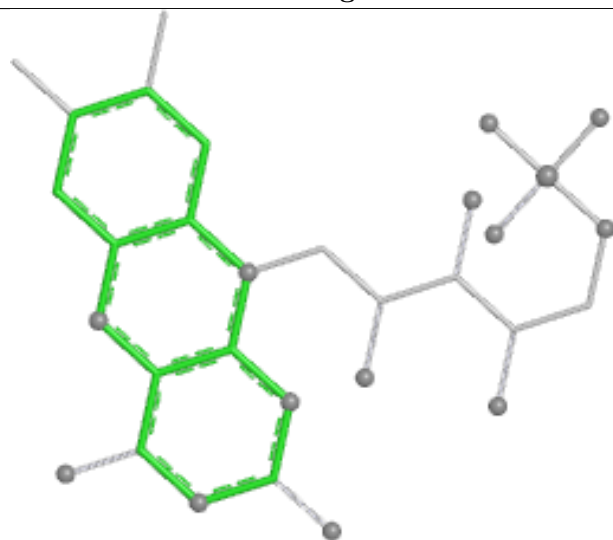
Bond lengths



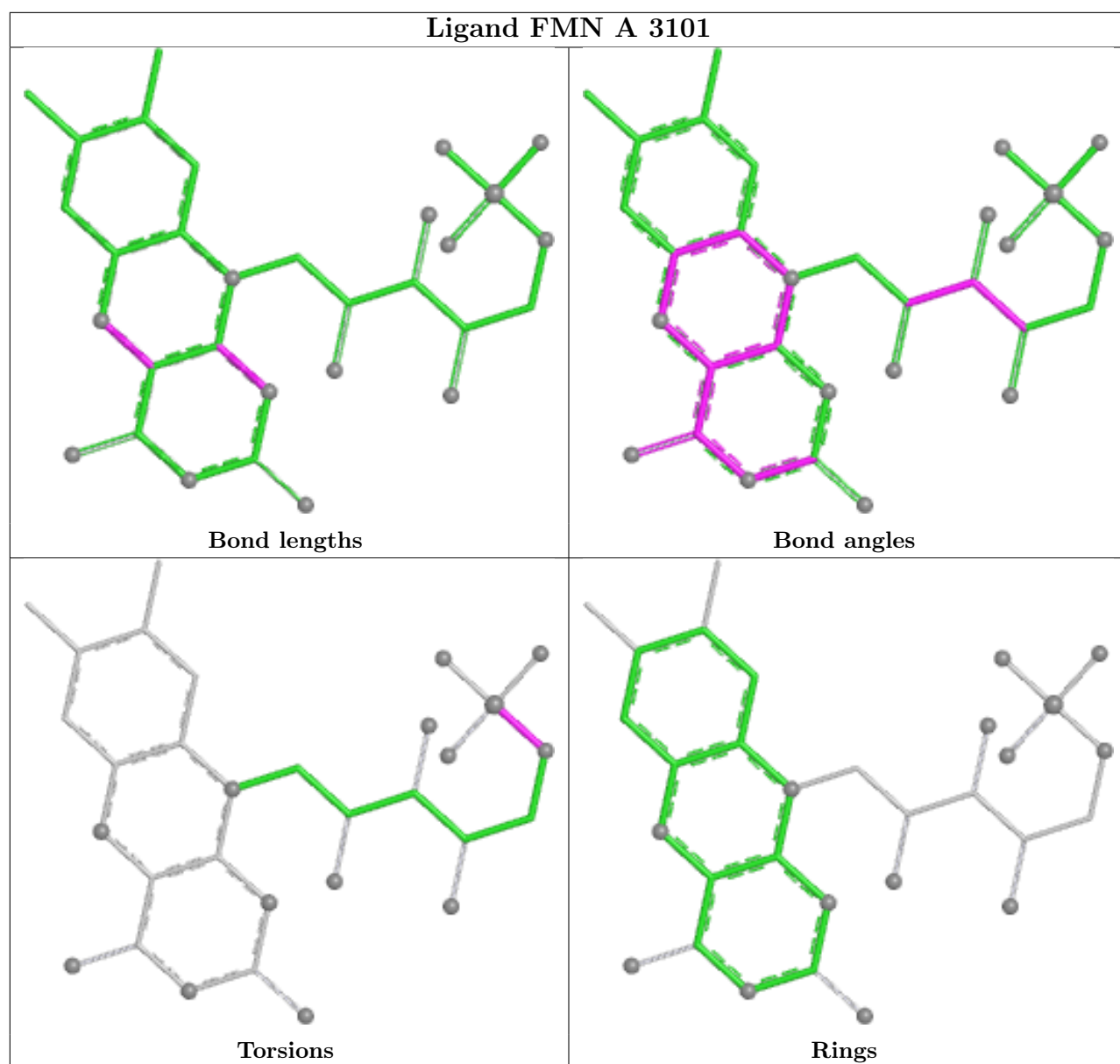
Bond angles

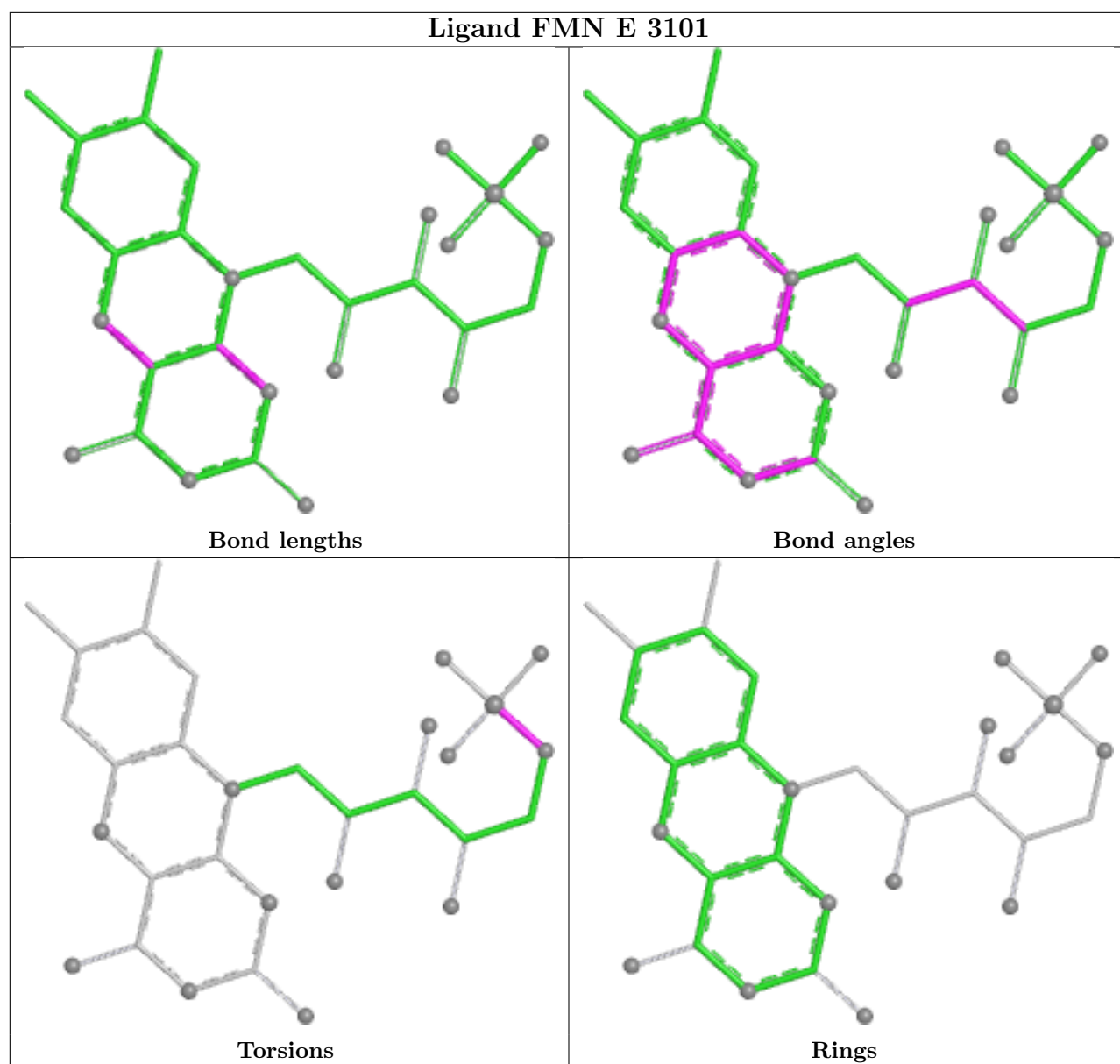


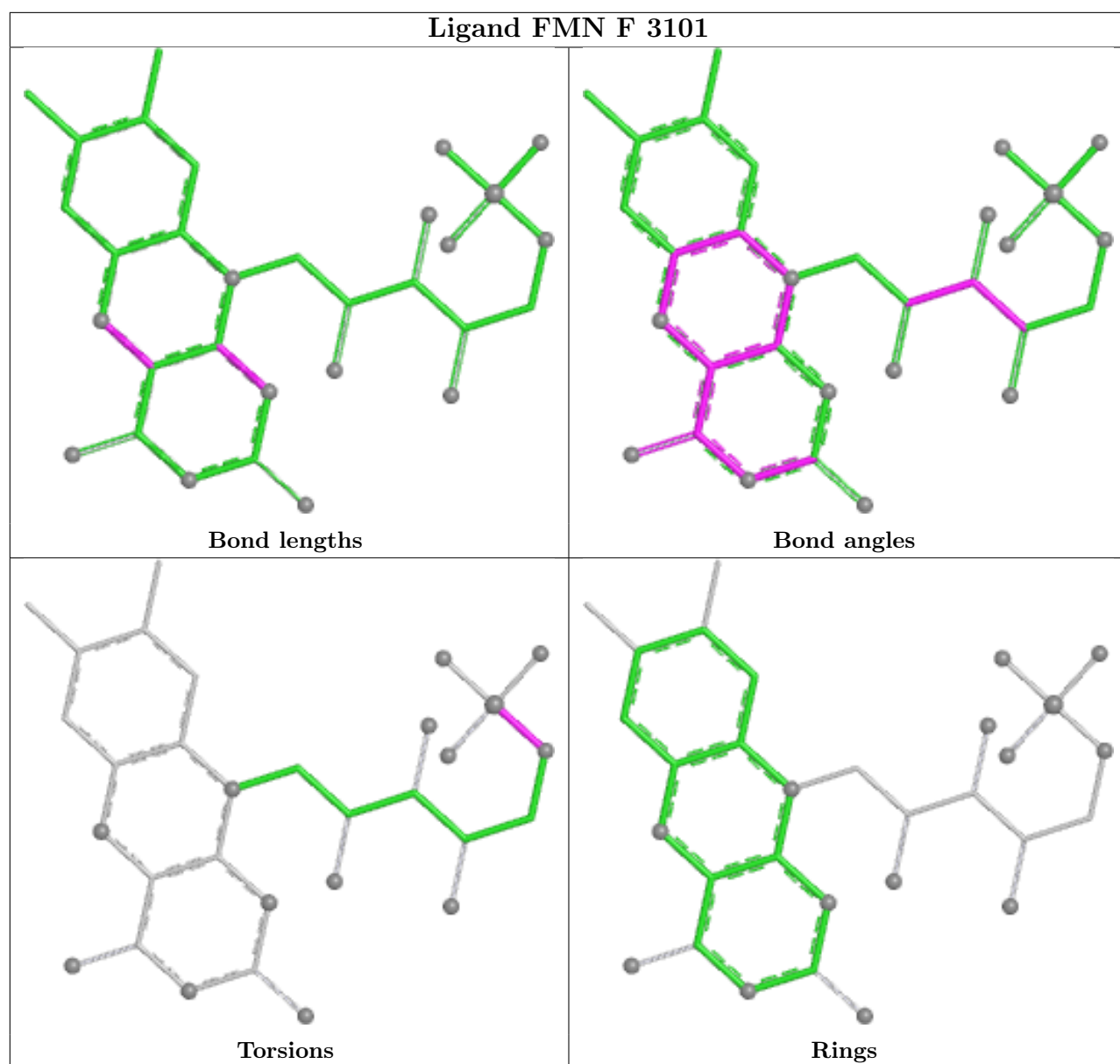
Torsions

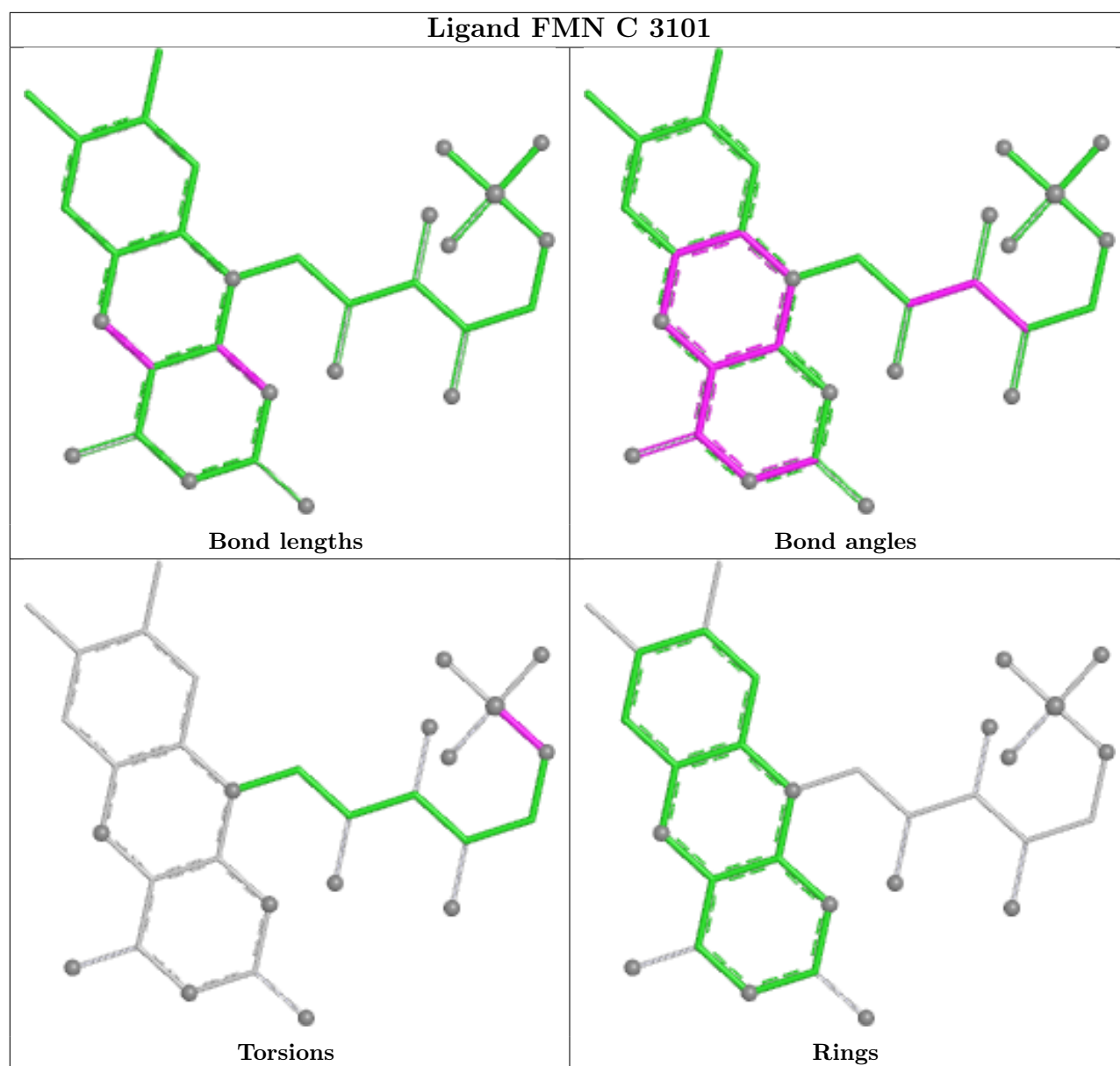


Rings









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.

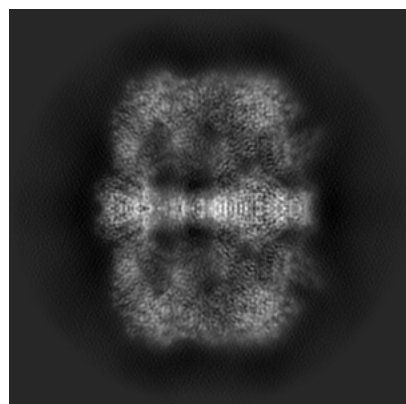
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-71792. These allow visual inspection of the internal detail of the map and identification of artifacts.

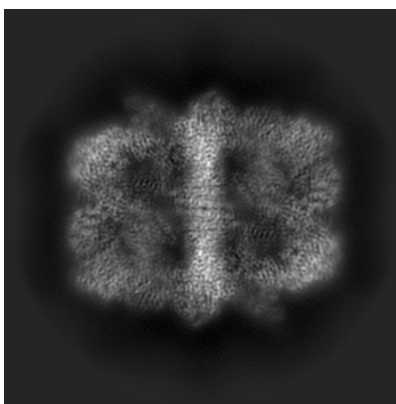
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

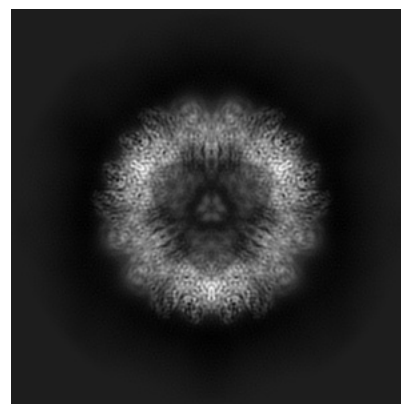
6.1.1 Primary map



X

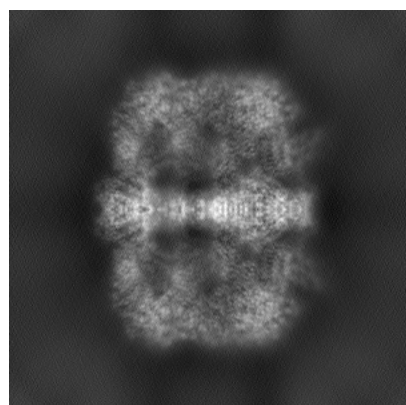


Y

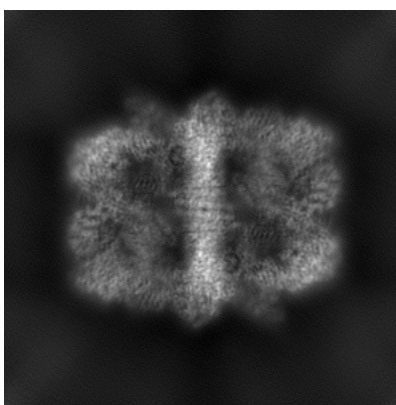


Z

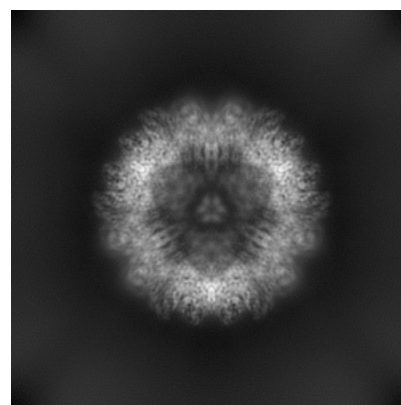
6.1.2 Raw map



X



Y

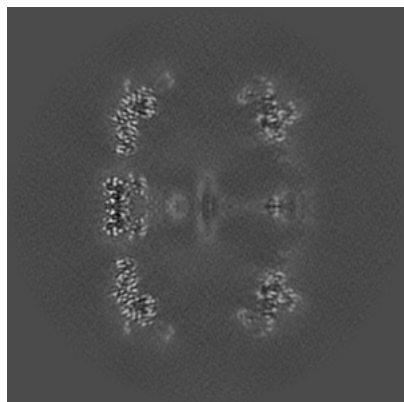


Z

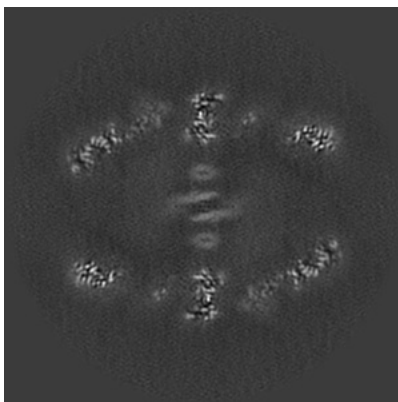
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

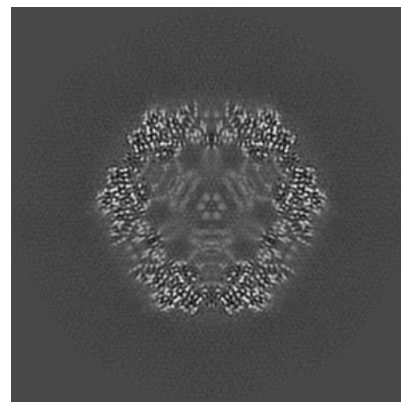
6.2.1 Primary map



X Index: 200

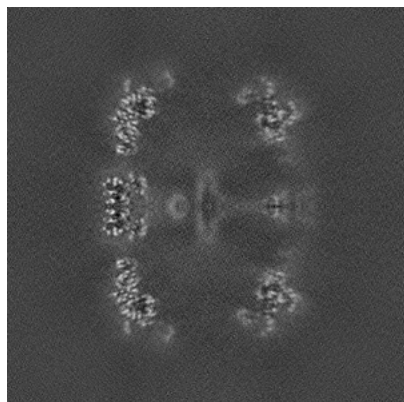


Y Index: 200

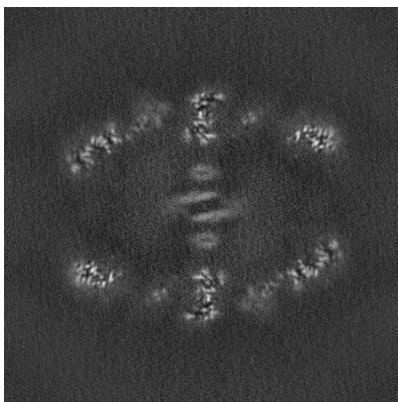


Z Index: 200

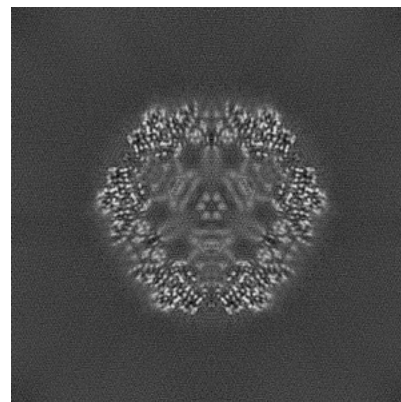
6.2.2 Raw map



X Index: 200



Y Index: 200

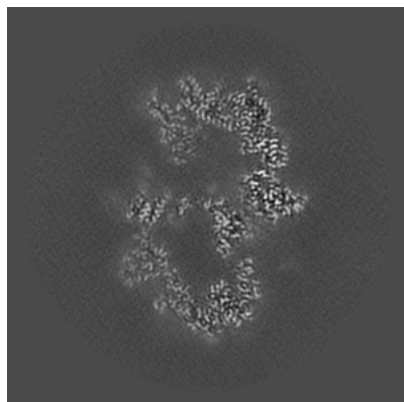


Z Index: 200

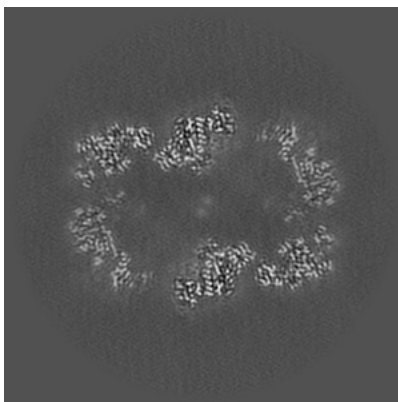
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

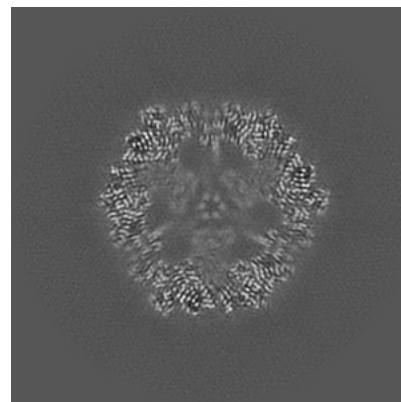
6.3.1 Primary map



X Index: 135

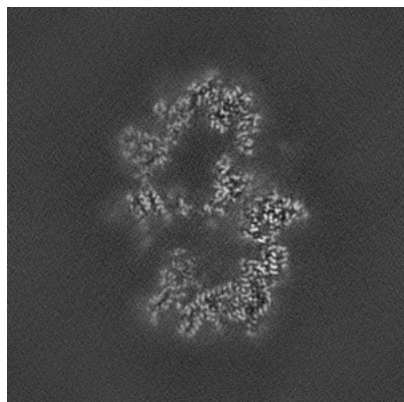


Y Index: 248

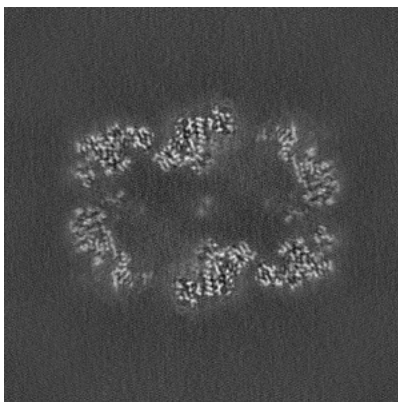


Z Index: 204

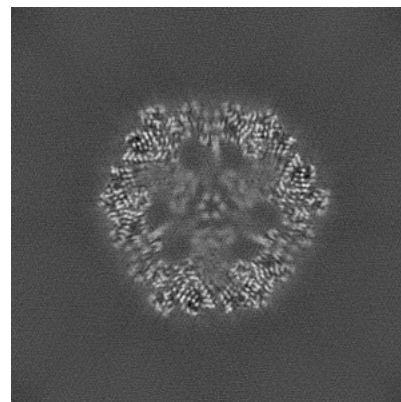
6.3.2 Raw map



X Index: 265



Y Index: 248

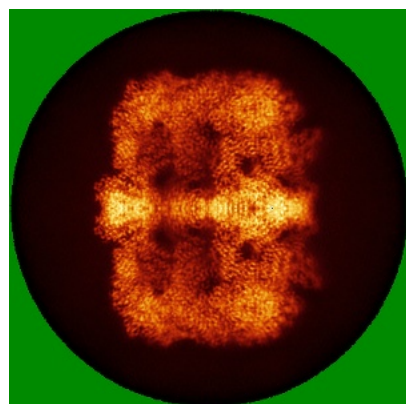


Z Index: 204

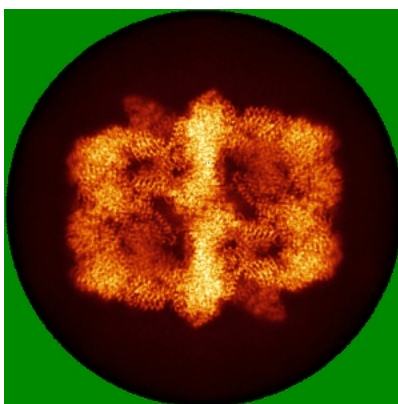
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map



X

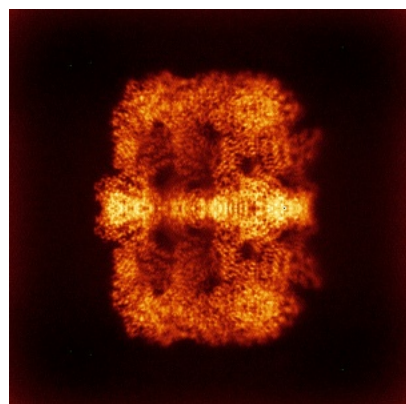


Y

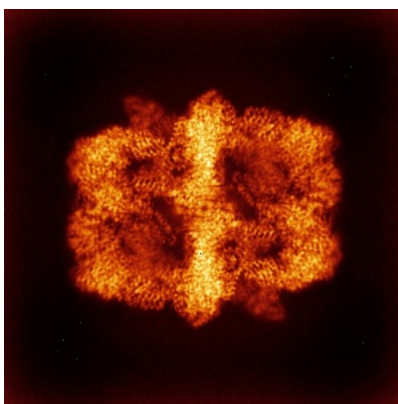


Z

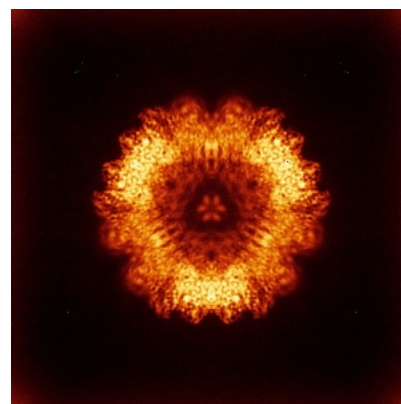
6.4.2 Raw map



X



Y

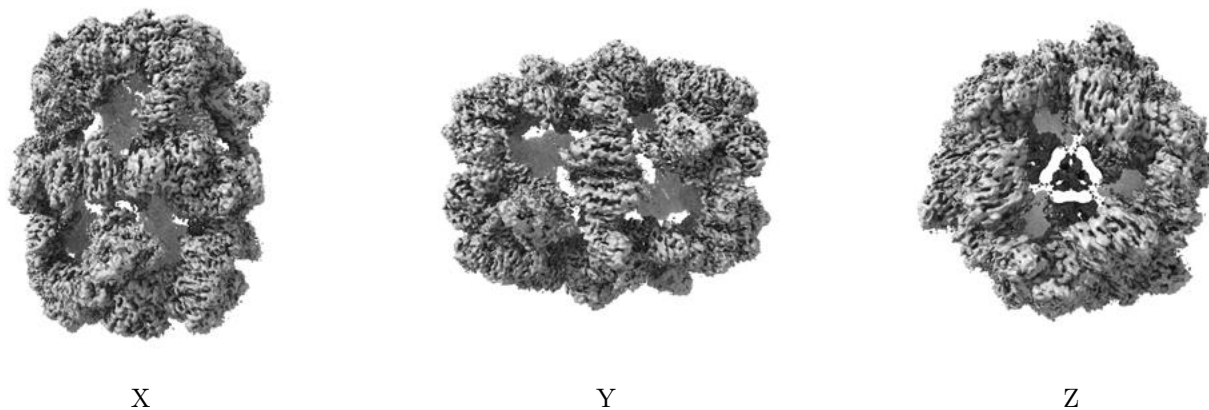


Z

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

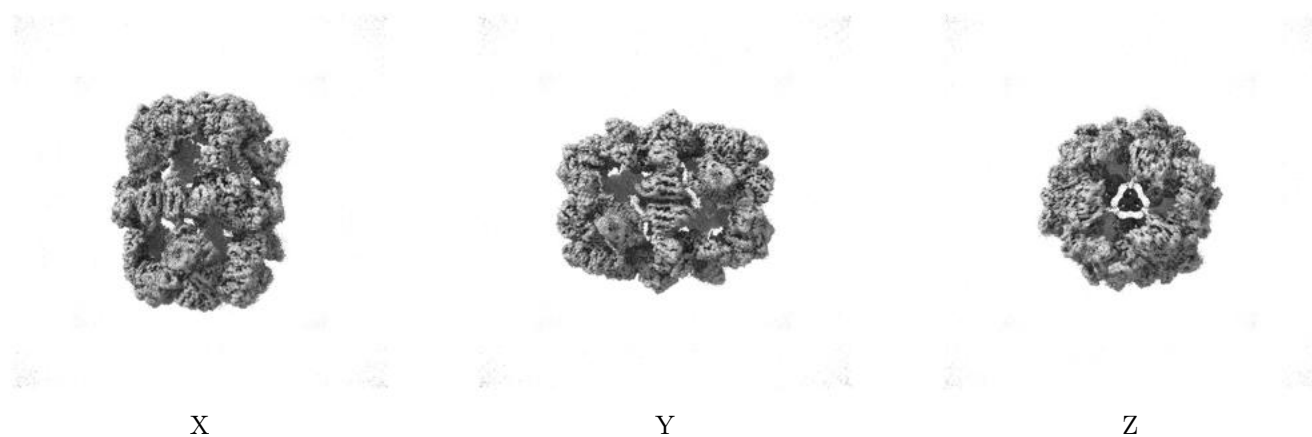
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.05. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

6.5.2 Raw map



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

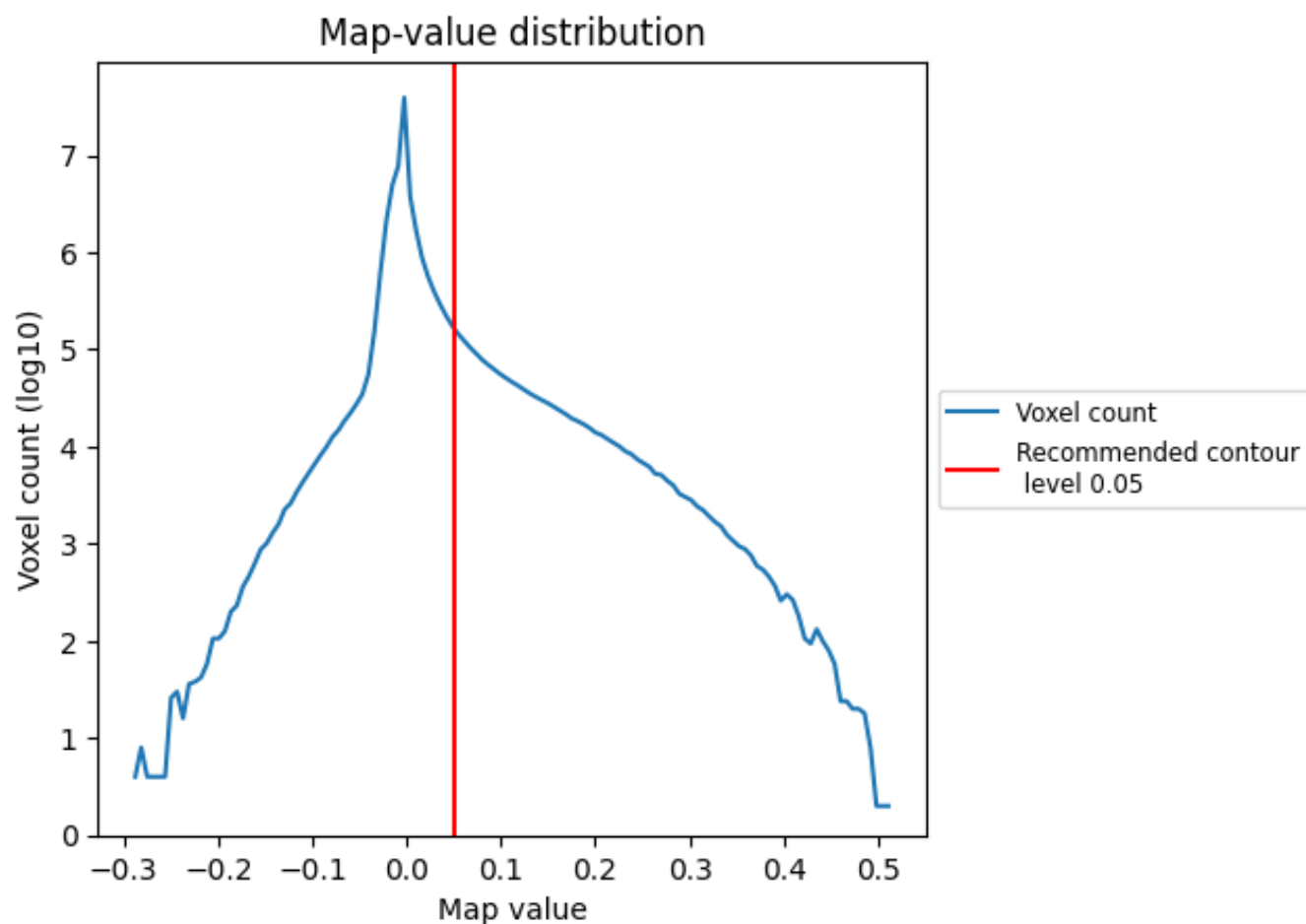
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

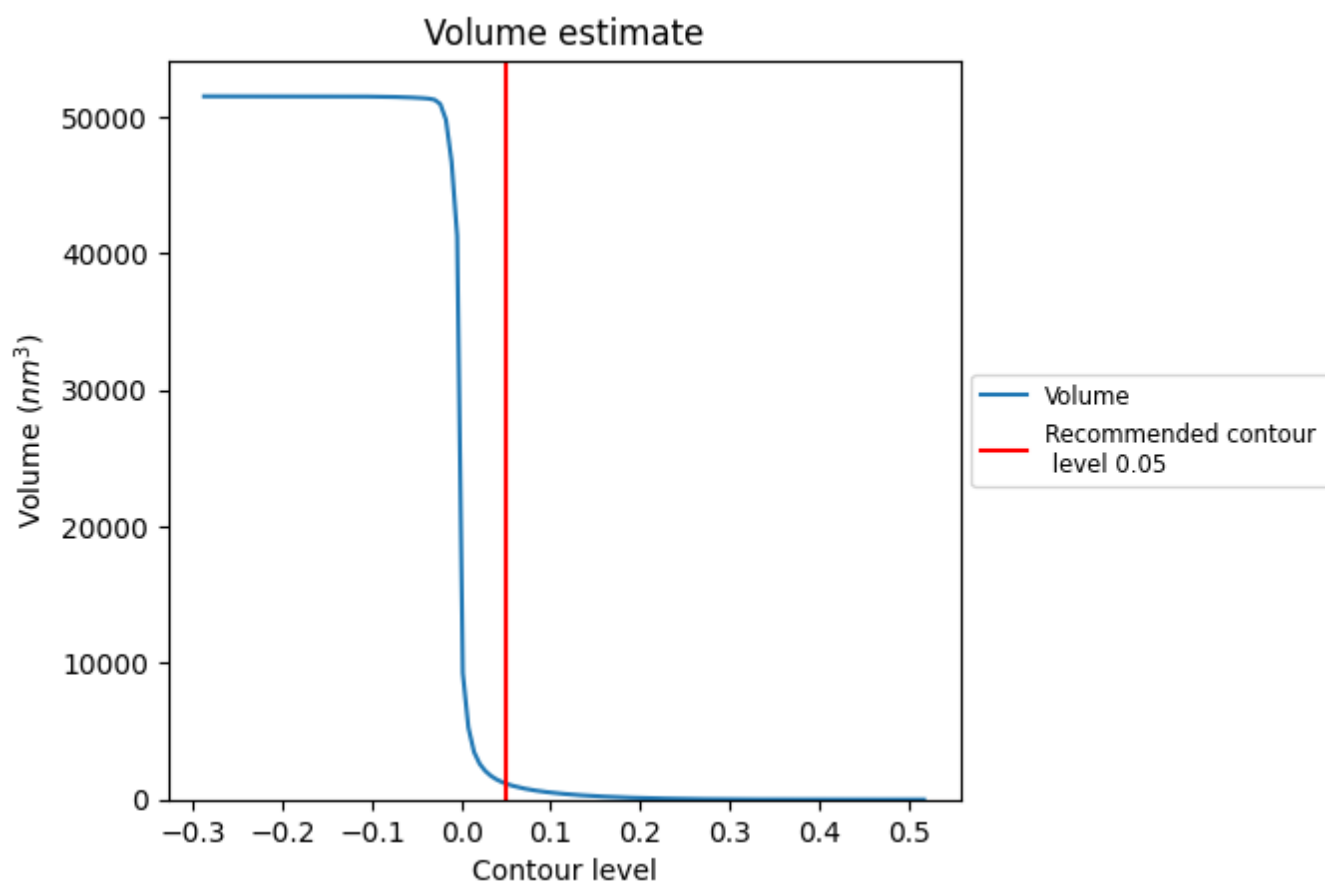
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution [i](#)



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

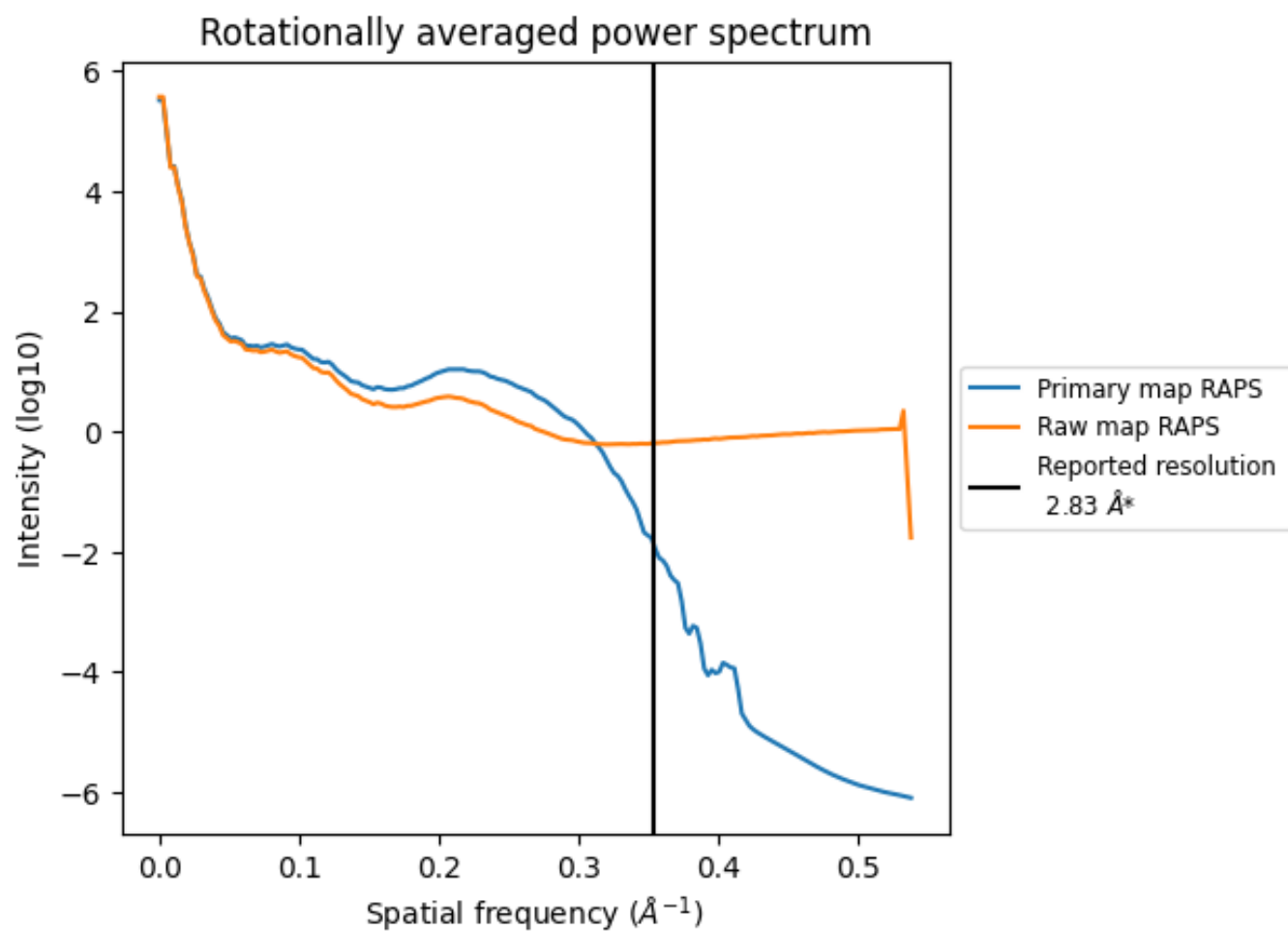
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1168 nm³; this corresponds to an approximate mass of 1055 kDa.

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

7.3 Rotationally averaged power spectrum ⓘ

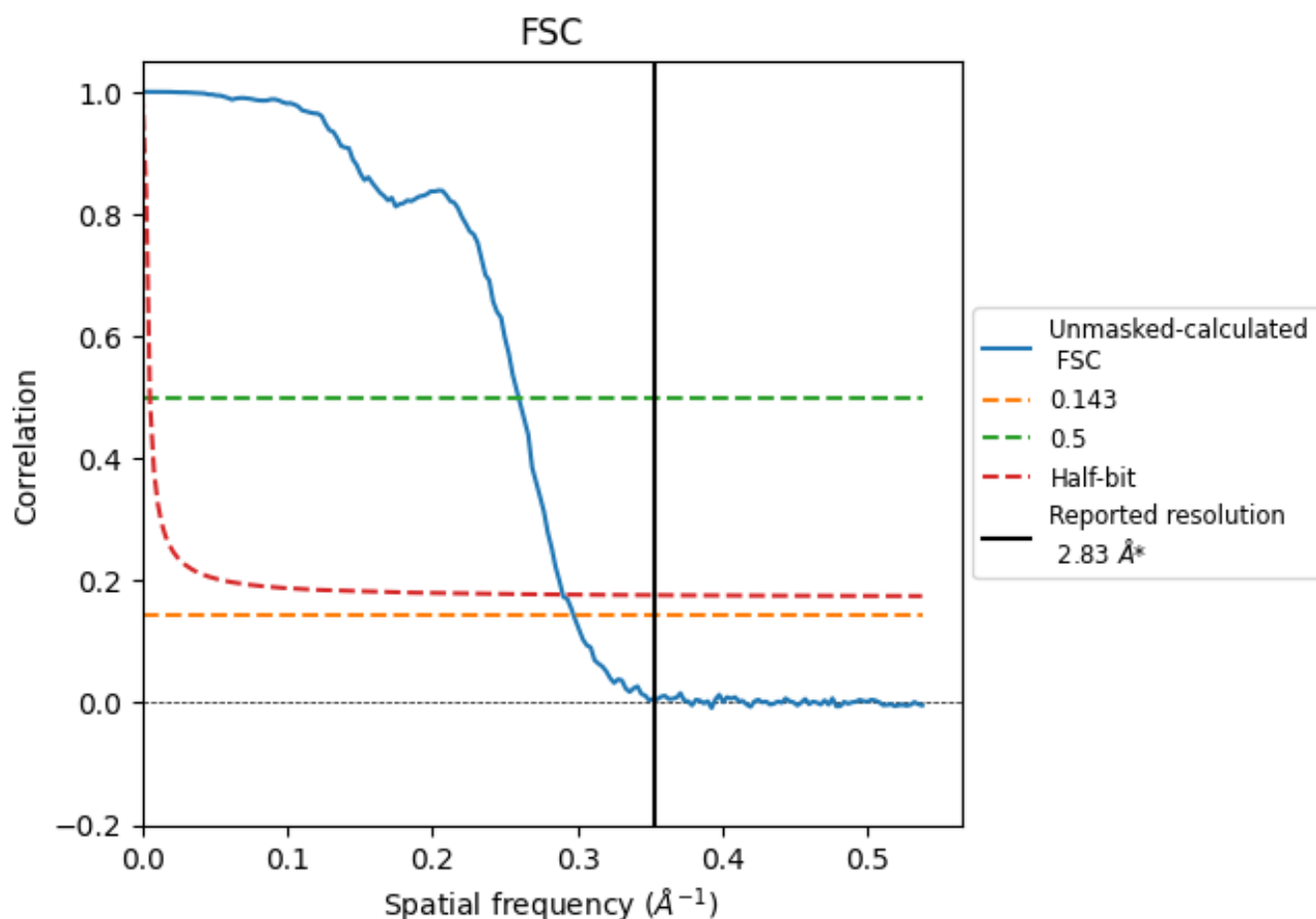


*Reported resolution corresponds to spatial frequency of $0.353 \text{ \AA}^{-1}$

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of $0.353 \text{ \AA}^{-1}$

8.2 Resolution estimates [i](#)

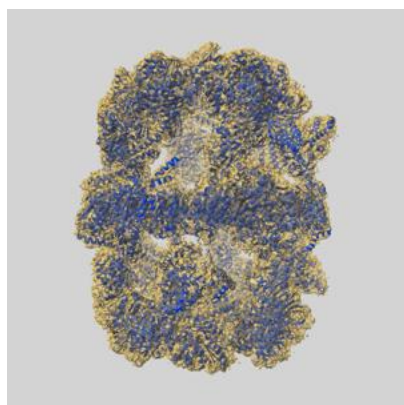
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	2.83	-	-
Author-provided FSC curve	-	-	-
Unmasked-calculated*	3.36	3.86	3.45

*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 3.36 differs from the reported value 2.83 by more than 10 %

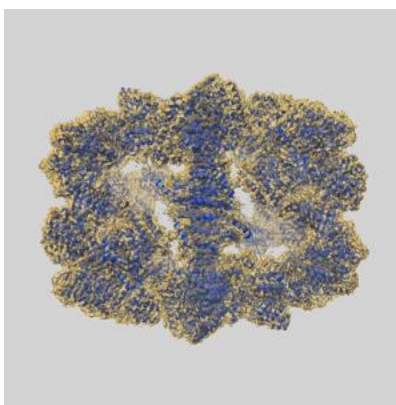
9 Map-model fit [i](#)

This section contains information regarding the fit between EMDB map EMD-71792 and PDB model 9PQX. Per-residue inclusion information can be found in section [3](#) on page [6](#).

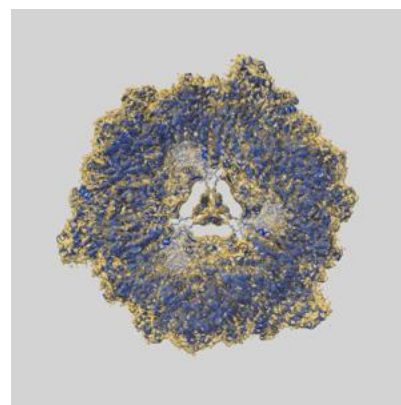
9.1 Map-model overlay [i](#)



X



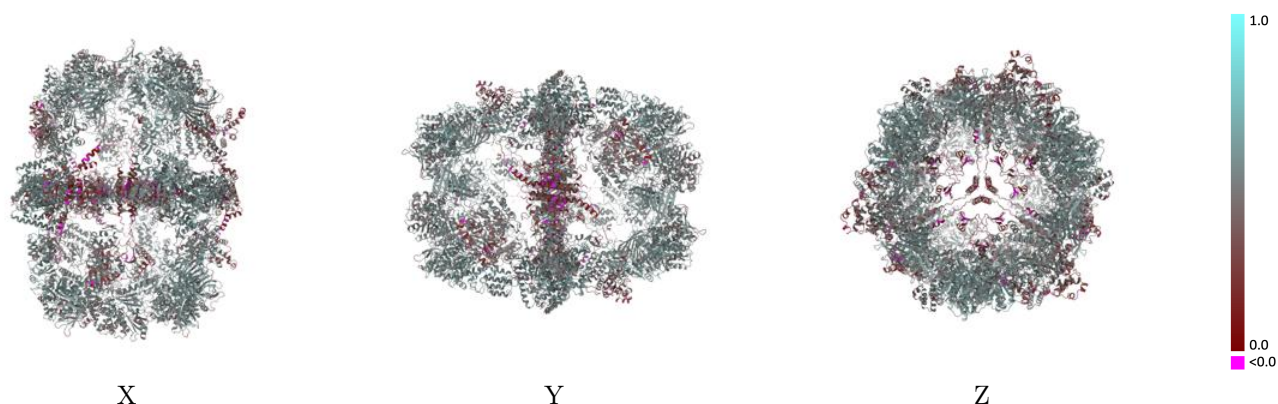
Y



Z

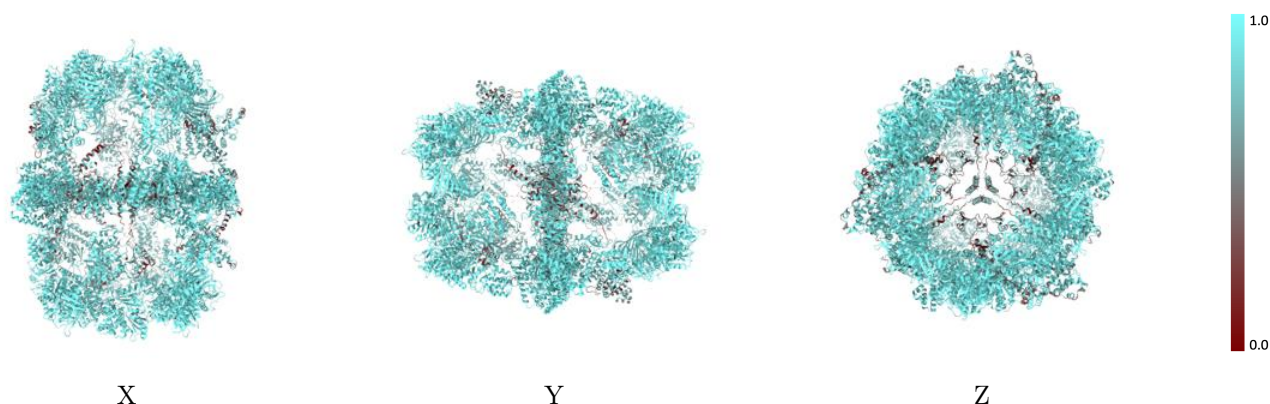
The images above show the 3D surface view of the map at the recommended contour level 0.05 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



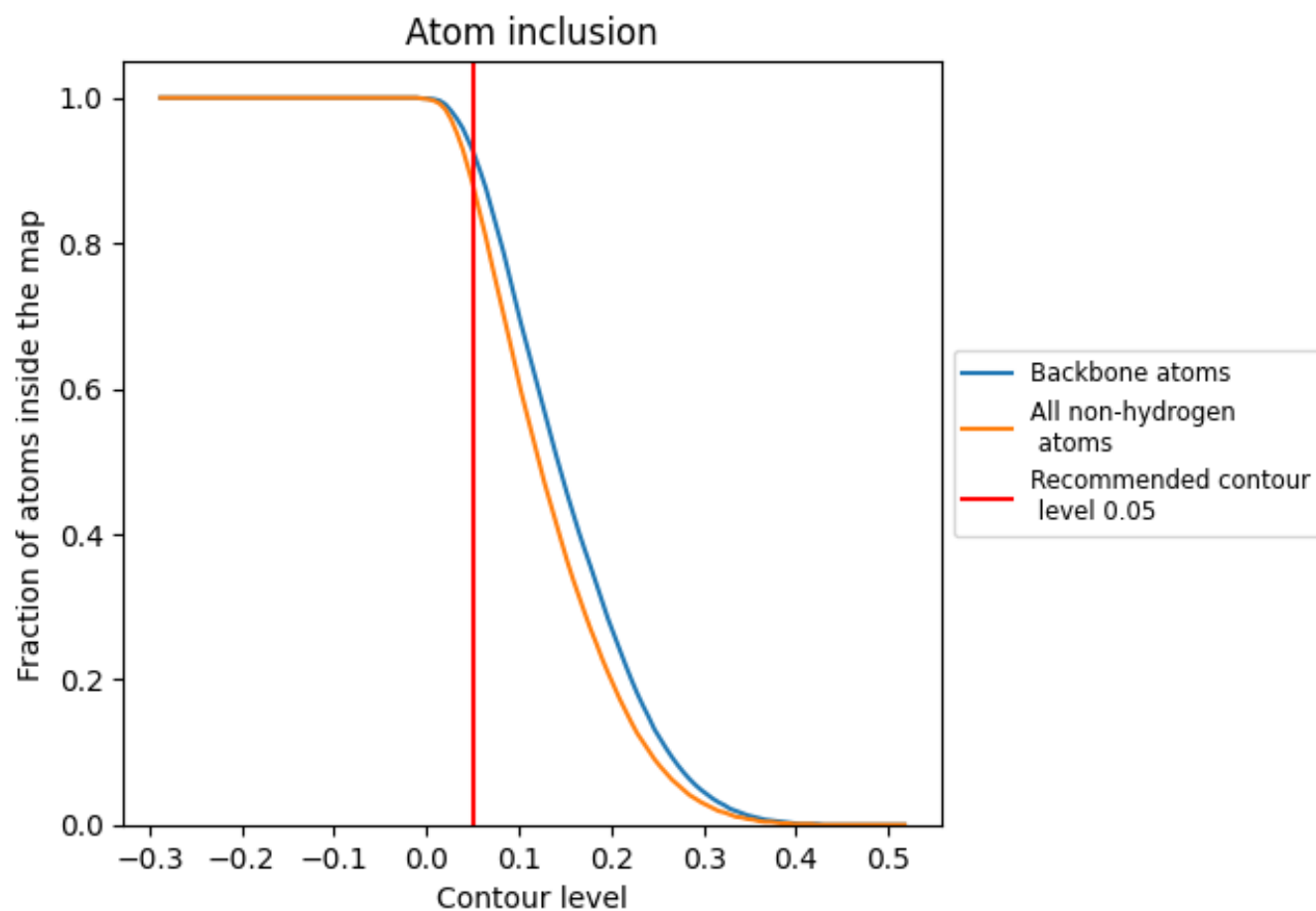
The images above show the model with each residue coloured according its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions 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 (0.05).

9.4 Atom inclusion [i](#)



At the recommended contour level, 93% of all backbone atoms, 88% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary ⓘ

The table lists the average atom inclusion at the recommended contour level (0.05) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.8820	0.4740
A	0.8820	0.4750
B	0.8800	0.4730
C	0.8830	0.4740
D	0.8820	0.4730
E	0.8820	0.4730
F	0.8820	0.4740

1.0

0.0

<0.0