



Full wwPDB EM Validation Report ⓘ

Mar 8, 2026 – 04:23 AM UTC

PDB ID : 8BH3 / pdb_00008bh3
EMDB ID : EMD-16044
Title : DNA-PK Ku80 mediated dimer bound to PAXX
Authors : Hardwick, S.W.; Chaplin, A.K.
Deposited on : 2022-10-28
Resolution : 4.55 Å(reported)

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

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

A user guide is available at

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

with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at

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

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

EMDB validation analysis : 0.0.1.dev132
MolProbity : 4-5-2 with Phenix2.0
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

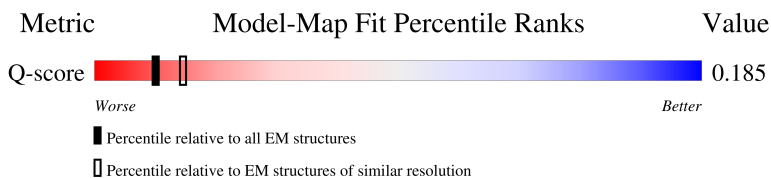
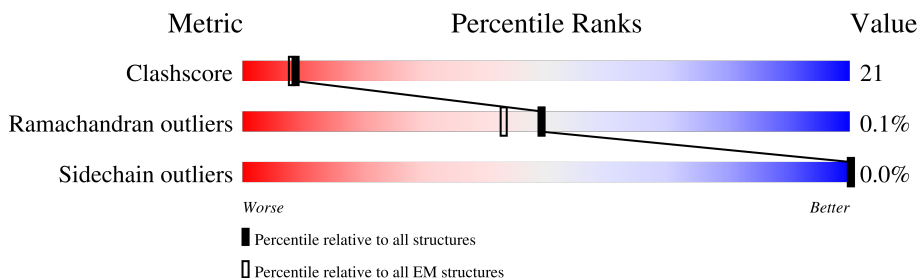
1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

ELECTRON MICROSCOPY

The reported resolution of this entry is 4.55 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.



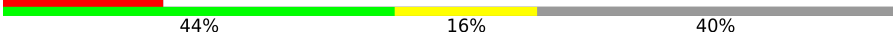
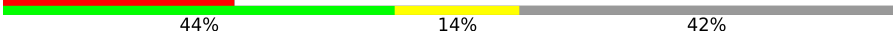
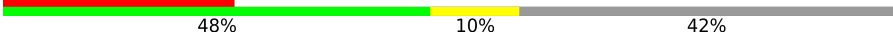
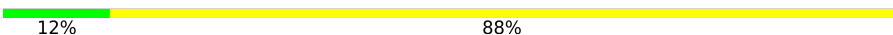
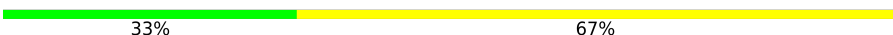
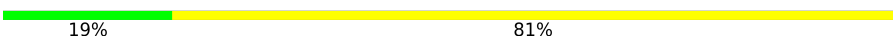
Metric	Whole archive (#Entries)	EM structures (#Entries)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	2458 (4.05 - 5.04)

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	4128	
1	S	4128	
2	B	609	
2	T	609	

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Mol	Chain	Length	Quality of chain
3	C	732	
3	L	732	
4	D	204	
4	M	204	
5	G	336	
5	H	336	
5	P	336	
5	Q	336	
6	I	911	
6	R	911	
7	j	25	
8	i	27	
9	d	26	
10	e	28	

2 Entry composition

There are 10 unique types of molecules in this entry. The entry contains 89245 atoms, of which 0 are hydrogens and 0 are deuteriums.

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

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

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3550	Total	C	N	O	S	0	0
			27927	17939	4728	5074	186		
1	S	3540	Total	C	N	O	S	0	0
			27999	18001	4725	5087	186		

- Molecule 2 is a protein called X-ray repair cross-complementing protein 6.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	507	Total	C	N	O	S	0	0
			4038	2587	686	747	18		
2	T	502	Total	C	N	O	S	0	0
			4014	2569	680	747	18		

- Molecule 3 is a protein called X-ray repair cross-complementing protein 5.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	668	Total	C	N	O	S	0	0
			5292	3382	884	1000	26		
3	L	652	Total	C	N	O	S	0	0
			5174	3304	871	973	26		

- Molecule 4 is a protein called Protein PAXX.

Mol	Chain	Residues	Atoms					AltConf	Trace
4	D	147	Total	C	N	O	S	0	0
			1075	689	183	197	6		
4	M	164	Total	C	N	O	S	0	0
			1195	754	207	228	6		

- Molecule 5 is a protein called DNA repair protein XRCC4.

Mol	Chain	Residues	Atoms					AltConf	Trace
5	G	201	Total	C	N	O	S	0	0
			1628	1031	278	312	7		
5	H	194	Total	C	N	O	S	0	0
			1589	1009	271	302	7		
5	P	201	Total	C	N	O	S	0	0
			1628	1031	278	312	7		
5	Q	194	Total	C	N	O	S	0	0
			1589	1009	271	302	7		

- Molecule 6 is a protein called DNA ligase 4.

Mol	Chain	Residues	Atoms					AltConf	Trace
6	I	246	Total	C	N	O	S	0	0
			1977	1256	336	372	13		
6	R	246	Total	C	N	O	S	0	0
			1958	1240	332	373	13		

- Molecule 7 is a DNA chain called DNA (25-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
7	j	25	Total	C	N	O	P	0	0
			509	244	86	154	25		

- Molecule 8 is a DNA chain called DNA (27-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
8	i	27	Total	C	N	O	P	0	0
			552	265	102	158	27		

- Molecule 9 is a DNA chain called DNA (26-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
9	d	26	Total	C	N	O	P	0	0
			528	253	89	160	26		

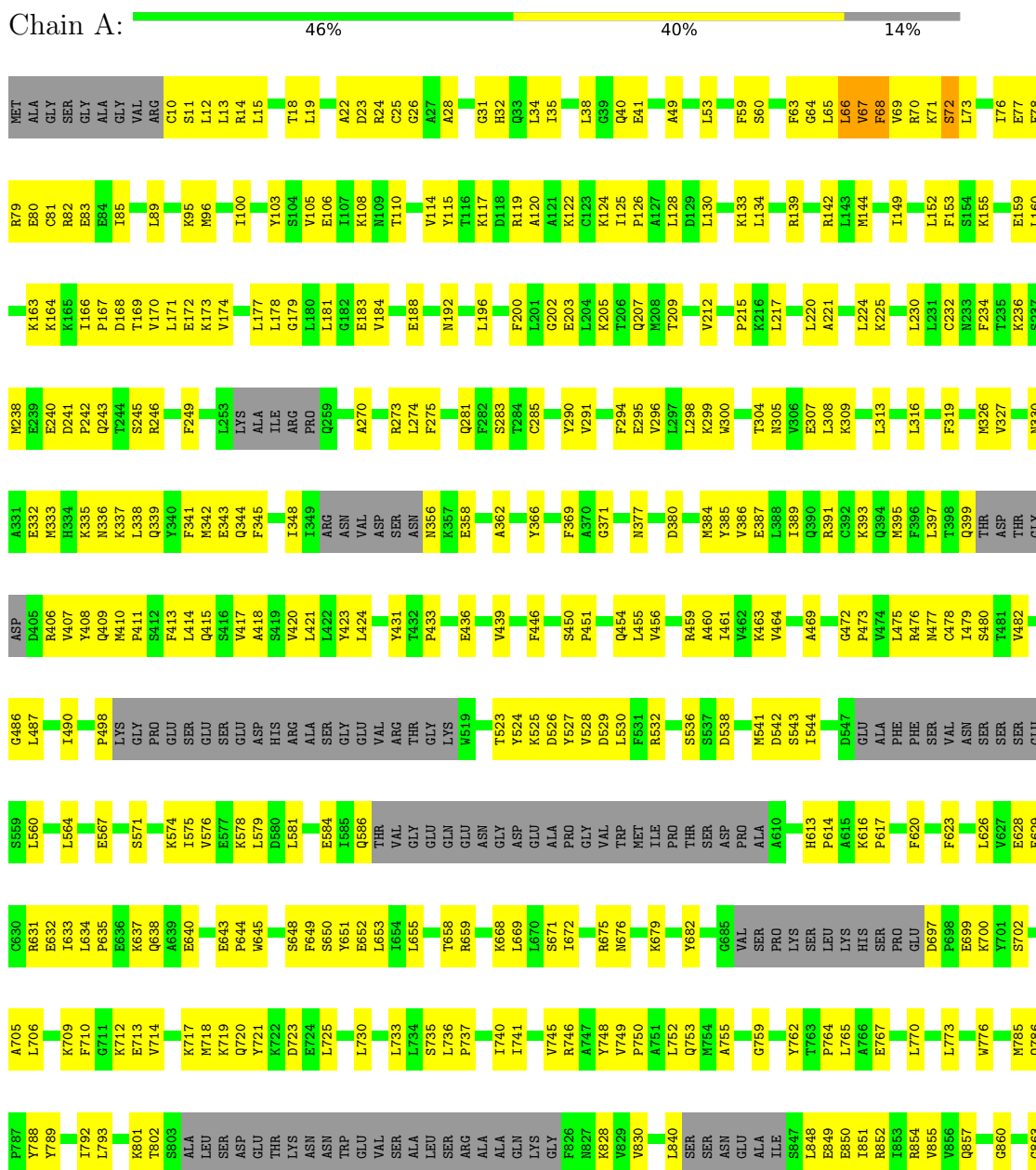
- Molecule 10 is a DNA chain called DNA (28-MER).

Mol	Chain	Residues	Atoms					AltConf	Trace
10	e	28	Total	C	N	O	P	0	0
			573	275	107	163	28		

3 Residue-property plots

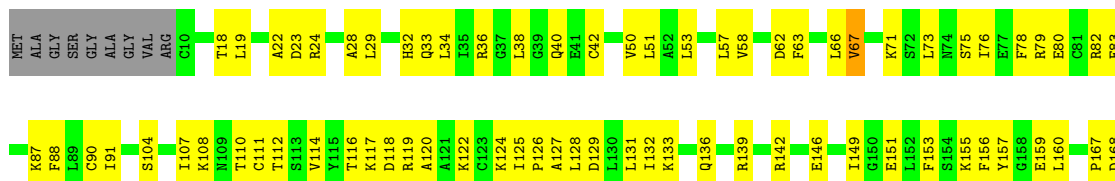
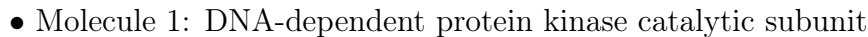
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

- Molecule 1: DNA-dependent protein kinase catalytic subunit



HIS	H1830	H1687	E1760	A1595	G1513	C1432	E1354	E1265	C1183	L1111	V1021	H941	Q864
GLY	C1831	L1688	L1761	M1598	L1514	L1436	G1355	F1270	R1184	H1115	D1022	Q844	Q865
CYS	D1834	K1689	M1762	G1599	L1515	Y1437	W1356	K1271	H1185	A1116	T1024	F944	L870
ILE	A1835	G1690	T1763	M1600	E1516	G1438	K1357	L1271	K1186	L1117	T1024	Q947	L871
THR	V1693	V1693	V1765	M1601	A1517	L1439	L1358	R1274	S1187	D1118	R1025	Q953	THR
GLU	E1838	T1694	R1768	D1602	A1518	D1440	K1360	V1275	E1188	K1119	R1026	Q954	VAL
GLY	F1839	L1695	L1696	S1604	C1525	D1444	K1361	V1276	E1189	S1120	R1034	Q955	THR
N1909	F1840	L1697	E1769	R1605	L1528	R1445	H1367	G1277	K1193	L1121	E1035	Q956	SER
K1913	I1843	F1697	Q1770	R1606	L1529	S1446	K1368	A1278	P1196	G1122	W1039	P957	SER
T1914	V1844	F1699	H1772	E1607	L1532	R1447	M1369	L1279	L1197	T1123	Q1043	H958	ASP
L1915	I1848	THR	V1773	R1608	V1537	L1448	K1370	L1282	M1201	C1127	Q1043	Q959	GLU
I1916	D1849	SER	M1774	Q1611	L1538	V1452	V1371	L1282	R1202	C1128	Q1043	Q960	M879
K1917	V1850	LEU	E1775	K1612	L1539	V1453	L1372	L1290	R1203	C1129	Q1049	Q961	M880
L1918	L1851	GLY	E1776	G1613	THR	A1454	V1373	L1372	S1203	I1131	Q1049	L961	K881
C1919	L1852	GLY	Q1779	Q1614	ALA	A1455	Q1374	V1294	P1204	H1132	S1052	Y962	D857
Y1920	SER	SER	S1780	L1618	SER	K1456	P1379	F1296	M1205	H1133	M1055	K963	R888
D1921	ARG	LEU	L1707	L1618	LEU	Q1457	Y1382	F1297	L1206	L1134	M1055	L972	E889
A1922	PHE	THR	L1707	L1618	GLY	L1458	G1383	L1298	W1207	I1137	S1058	A973	K890
F1923	THR	LEU	L1707	L1618	SER	H1459	F1384	E1299	L1208	I1138	R1062	C974	R891
N1926	LYS	LEU	R1787	H1625	GLN	R1460	N1385	S1300	E1215	E1139	K1061	Q978	L892
MET	LEU	GLY	R1788	H1625	GLY	R1460	N1385	S1300	E1215	E1139	R1062	Q979	F894
ALA	ASN	GLY	R1788	H1625	GLY	R1460	N1385	S1300	E1215	E1139	R1062	Q979	A895
GLY	GLU	GLY	R1788	H1625	GLY	R1460	N1385	S1300	E1215	E1139	R1062	Q979	F898
GLU	SER	GLY	R1788	H1625	GLY	R1460	N1385	S1300	E1215	E1139	R1062	Q979	R899
T1862	T1862	T1793	Q1794	M1632	VAL	I1467	D1387	K1311	G1227	A1148	H1069	Q982	E900
F1863	F1863	I1718	Q1794	M1632	ILE	I1467	D1387	K1311	G1227	A1148	H1069	Q982	M901
D1864	D1864	F1722	G1796	S1637	H1552	L1468	F1389	C1312	G1228	K1149	Y984	Q985	K902
T1868	T1868	P1723	L1797	P1638	S1554	P1469	Q1390	F1313	C1229	K1150	N1071	Q986	P903
L1875	L1875	W1724	L1798	L1639	Y1558	H1477	M1392	THR	G1230	K1151	K1074	L987	V904
I1876	I1876	Q1725	E1799	E1640	F1559	S1478	M1392	THR	G1230	K1151	K1074	L987	I905
D1878	D1878	S1726	S1800	E1640	F1559	S1478	M1392	THR	G1230	K1151	K1074	L987	F910
V1879	V1879	R1727	Y1801	K1642	Y1560	V1479	A1393	ALA	P1232	R1152	R1075	Q988	R913
M1880	M1880	E1728	E1803	K1642	L1562	T1481	A1393	GLY	P1232	R1152	R1075	Q988	V914
Y1881	Y1881	F1729	M1804	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	E916
F1885	F1885	P1730	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	L917
L1877	L1877	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	A918
S1950	S1950	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	L919
V1879	V1879	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	D923
I1952	I1952	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	R924
K1960	K1960	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	Q925
Q1963	Q1963	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	T926
GLY	GLY	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	K927
PHE	PHE	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	V928
LEU	LEU	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	L933
VAL	VAL	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	L934
HIS	HIS	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	H935
ALA	ALA	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	S936
SER	SER	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	M937
LYS	LYS	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	V938
GLU	GLU	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	M939
PRO	PRO	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	F940
LYS	LYS	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	F940
VAL	VAL	P1731	F1805	V1645	F1563	L1483	N1401	ASN	I1235	P1154	L1076	Q990	F940
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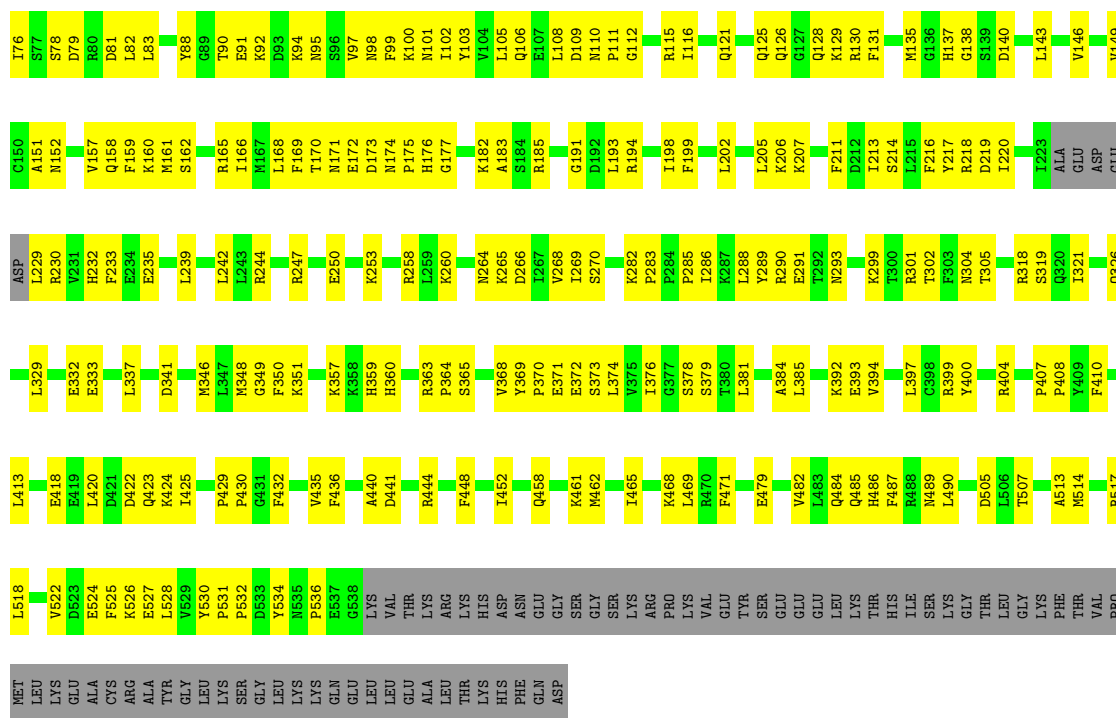






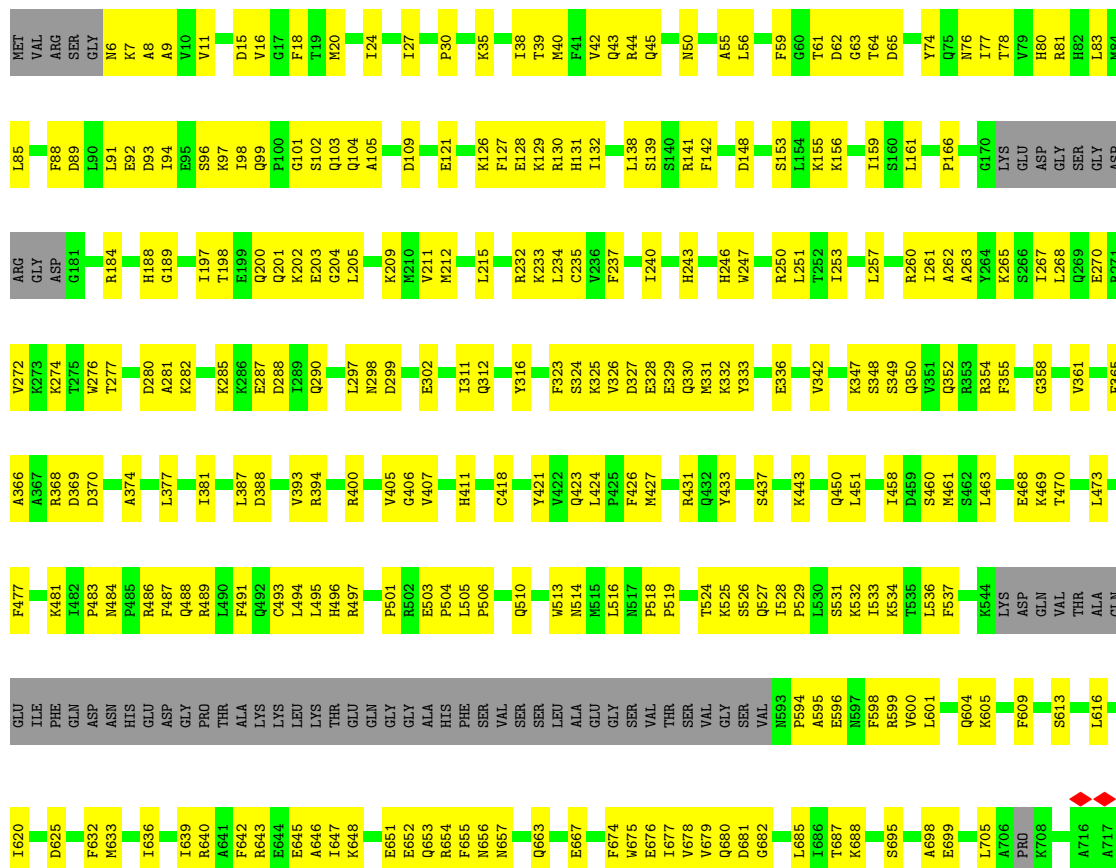
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Y2412	A2346	N2270	L2193	M2126	ALA	VAL	N1926	GLU	F1782	SER	D1444	GLY	L1358
F2413	K2347	S2271	L2194	K2127	THR	GLU	GLY	SER	F1783	NET	R1445	SER	L1359
Q2414	Q2348	V2272	S2195	L2196	GLY	VAL	ALA	T1862	R1783	E1708	T1620	SER	S1446
L2415	L2349	G2273	W2196		ARG	PRO	GLY	F1863	R1784	E1709	L1623	GLN	K1360
K2416	K2350	I2274	W2196		PHE	MET	GLU	D1864	I1785	L1710	L1623	GLY	K1361
S2417	Q2351	Q2275	L2199	G2194	ARG	GLU	ASN			R1711	Q1624	SER	T1366
K2418	H2352	L2276	A2200	N2195	ARG	GLU	GLN	T1867	R1788	R1712	W1625	VAL	H1367
	Q2353	L2277	T2201	L2197	ARG	GLU	LEU	T1868		V1713	W1626	ILE	L1368
V2421	N2354	P2202	Q2354	L2198	GLU	LYS	L1934	T1793	T1793	W1714	K1627	HIS	M1369
	T2355	T2203	T2203	P2139	GLN	TYR	E1935	L1797		Q1715	D1630	F1553	R1370
N2424	K2356	T2279	Q2357	R2143	ARG	TYR	G1872			Q1716	D1630	F1554	H1459
R2425	E2357	M2281	P2206	L2144	ASP	ILE	Y1837			E1873	S1631	H1555	R1460
H2426	D2358	A2282	K2207	L2145	PRO	GLU	R1938			I1718	W1632		N1466
R2427	K2359	N2283	D2208	F2146	THR	ILE	L1939	I1876	M1804	V1719	W1632	Y1558	I1467
	F2360	D2284	E2209	L2146	VAL	ARG	Y1940	D1878	R1806	F1722	L1468		L1375
		L2285	V2210		HIS	LYS		V1879	R1806	F1722	P1469		L1376
E2430	N2365	P2286	L2211	L2149	ASP	GLU	C1947	M1880	LYS	P1723			C1377
R2431	K2366	P2287		V2150	ASP	ALA	A1948	V1881	ASP	M1724			E1378
Q2432	K2367		R2214	I2151	VAL	ARG	S1950		PRO	P1731			P1379
T2368	T2368	Q2291	L2215	T2152	LEU	GLU	V1951		ASP				I1382
C2435	K2369	C2292	L2216	T2153	GLU	ALA			LEU	E1736	L1649	N1567	G1383
L2436	S2370	G2293	H2217	E2154	LEU	ALA	C1954	L1884	ARG	K1651	L1483	E1570	F1384
D2437	F2371	I2284	F2218	E2155	GLU	ALA	L1959	L1885	ASP	M1737	L1484	L1571	N1385
I2438	P2372	Q2295	L2219	V2156	MET	GLY	V1955		PHE				I1386
I2439	F2373		M2220	F2157	ASP	GLY			ASP				
Y2440	L2374	Y2299		R2158	ASP	ASP			PRO				
K2441	A2375	N2305	V2223	P2159	GLU	ASP	L1959	L1885	LEU	E1736	K1651	N1568	
M2442	D2376	A2161	L2224	Q2160	ASN	GLY	K1960	HIS	PRO	N1738	A1650	T1569	
N2443	R2377	N2306	H2225	K2161	LEU	GLY	F1961	ALA	ASP	V1740	K1651	E1570	
P2444	F2378	K2307	P2226	K2162	H2091	SER	Y1962	LYS	LYS	G1742	L1652	L1571	
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L2446		F2309		T2164	M2094	TYR		SER	R1820	M1743	S1664	D1576	
E2450	V2382	K2312	F2231	L2165	R2090	GLY		GLY	R1821	K1744	H1665	L1577	
L2451	F2383	R2332	R2232	S2166	LEU	SER	PHE	GLY	R1822	K1744		A1578	
R2452	E2314	E2314	H2233	P2167	LEU	SER	L1959	ILE	S1823	F1745		V1579	
L2386	L2386	V2315	N2234	L2168	GLY	SER	PHE	ASN	S1824	L1747	P1668	L1580	
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P2457	F2389	E2321	I2238	L2171	ALA	ALA	GLU	GLY	L1827	L1750	F1672	S1586	
		V2322		A2172	ASP	ASP	LYS	SER	H1830	E1751	T1673	Y1675	
E2460	V2392		L2241	A2173	R2106	S2034	ASN	CYS	C1831	Q1754	I1676	N1589	
H2464	T2395	T2326		S2174	L2107	Q2042	LEU	ILE	R1837	S1755	L1684	M1592	
P2465	L2396	L2327	C2244	E2175	L2108	F2043	LEU	THR	F1840	P1756	D1685	V1593	
S2466	C2397	R2328	W2245	N2176	GLY	D2044	ILE	GLU	S1841	M1757	L1686	E1516	
L2398	L2398	Y2329	K2246	GLY	PRO		PHE	GLY		L1759	H1687	V1596	
C2469	E2399	V2330	D2247	G2179	PRO	GLY	GLU	ASN	V1844	E1760	L1688		
R2470	V2400	M2331	C2248	E2180	GLN	GLY	LEU	L1911	V1845	L1761	K1689	M1600	
E2471	L2401	R2333	L2249	G2181	GLU		ILE	T1912		E1764	V1693	D1602	
Q2472	L2402	K2334	P2252	H2183	ASP	TYR	ASP	K1913				Q1603	
M2473	C2403	C2403	Y2253	H2184	SER	SER	LEU	T1914	L1696	E1769	L1696	S1604	
	R2404	L2337	R2254	M2185	VAL	TYR	LYS	L1915	L1851		P1697	F1605	
	V2405	E2338	L2255	W2186	PRO	SER	ARG	K1852	K1852	H1772	F1698	E1607	
	E2406	E2339	L2256	V2187	GLN	SER	TYR	SER	ARG	V1773	F1699	F1608	
H2481	G2407	S2340	F2257	E2188	D2121	GLN	ASN	PHE	THR	E1776	THR	Q1611	
D2482	N2408	L2341	E2189	L2190	L2122	ASP	PHE	LYS	THR	L1777	LEU	K1612	
N2483	T2409		F2260	V2190	P2123	PRO	PRO			F1778	THR	H1613	



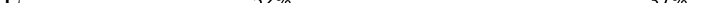


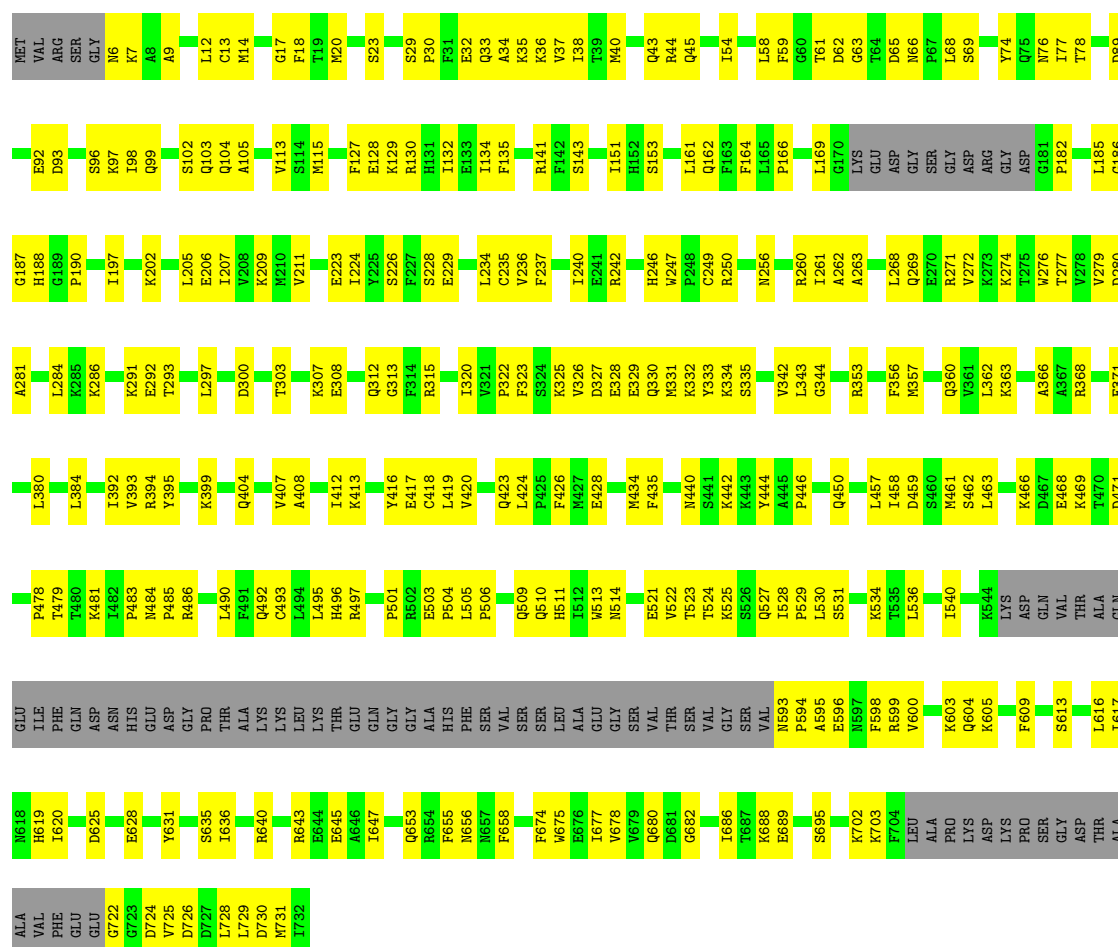
• Molecule 3: X-ray repair cross-complementing protein 5

Chain C: 53% 38% 9%

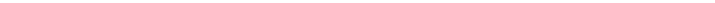


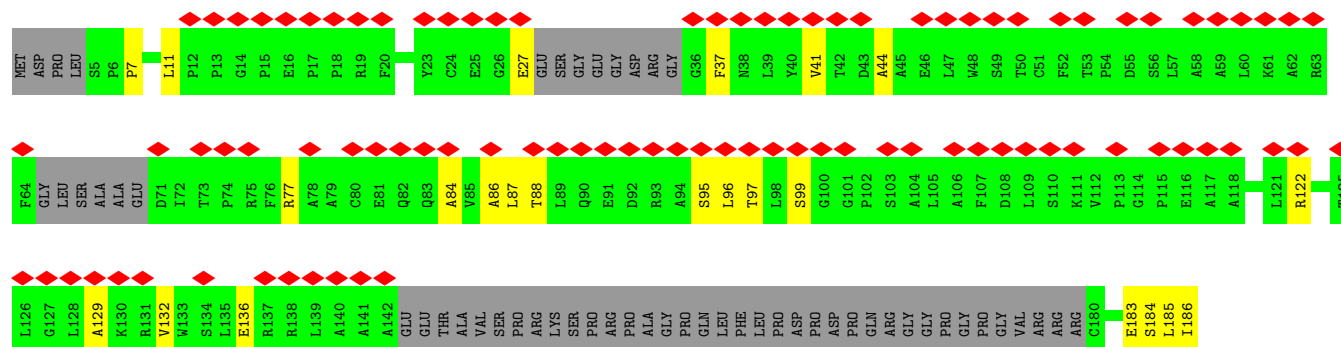
- Molecule 3: X-ray repair cross-complementing protein 5

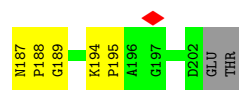
Chain L:  52% 37% 11%



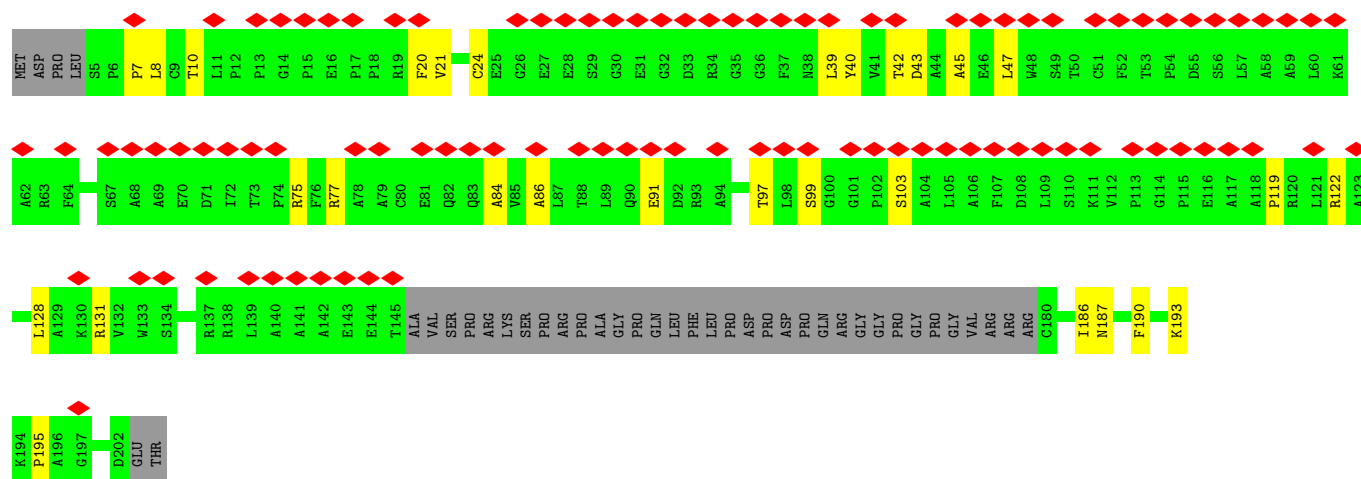
- Molecule 4: Protein PAXX

Chain D:  46% 58% 14% 28%

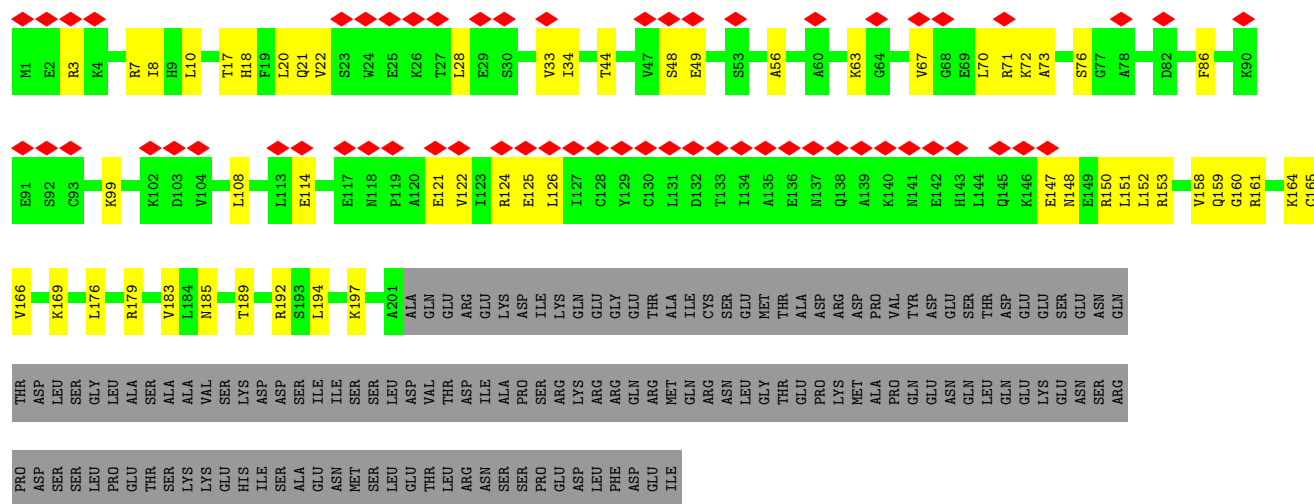
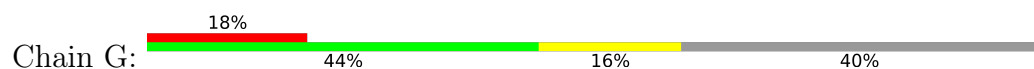




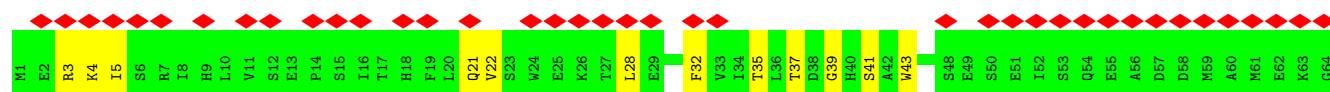
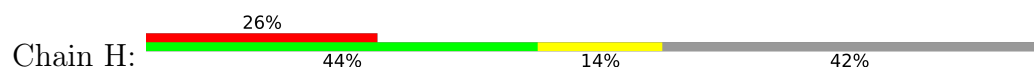
• Molecule 4: Protein PAXX

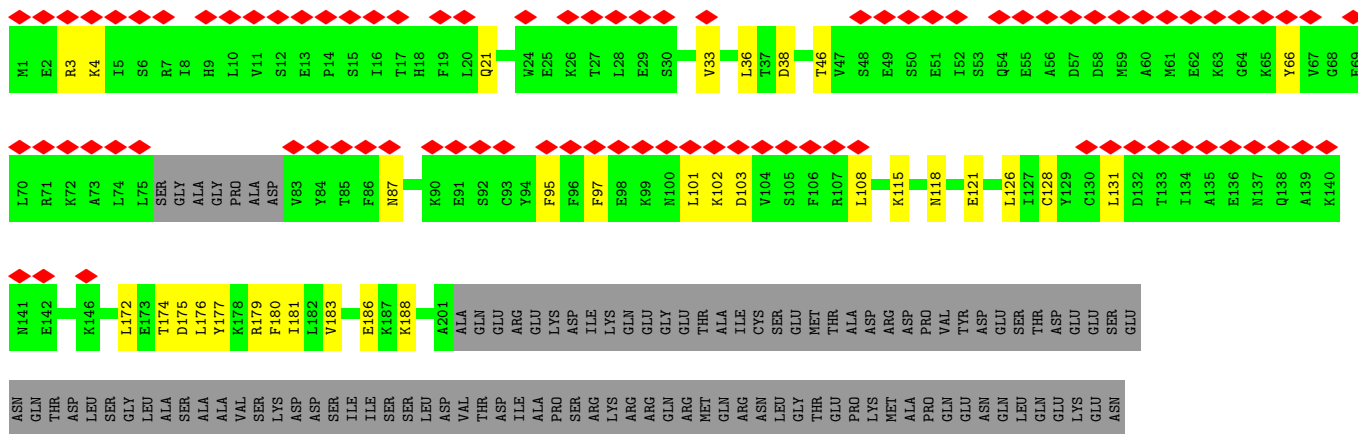


• Molecule 5: DNA repair protein XRCC4



• Molecule 5: DNA repair protein XRCC4



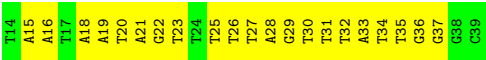




Chain d:

19%

81%



● Molecule 10: DNA (28-MER)

Chain e:

25%

75%



4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	35211	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/\text{\AA}^2$)	52.1	Depositor
Minimum defocus (nm)	800	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	130000	Depositor
Image detector	GATAN K3 BIOQUANTUM (6k x 4k)	Depositor
Maximum map value	0.940	Depositor
Minimum map value	-0.499	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.024	Depositor
Recommended contour level	0.061	Depositor
Map size (Å)	704.16003, 704.16003, 704.16003	wwPDB
Map dimensions	540, 540, 540	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.304, 1.304, 1.304	Depositor

5 Model quality [i](#)

5.1 Standard geometry [i](#)

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

Mol	Chain	Bond lengths		Bond angles	
		RMSZ	# Z >5	RMSZ	# Z >5
1	A	0.16	0/28471	0.37	1/38509 (0.0%)
1	S	0.15	0/28549	0.36	1/38591 (0.0%)
2	B	0.14	0/4118	0.33	0/5556
2	T	0.13	0/4092	0.32	0/5516
3	C	0.11	0/5393	0.29	0/7273
3	L	0.10	0/5272	0.28	0/7107
4	D	0.08	0/1101	0.23	0/1500
4	M	0.10	0/1223	0.27	0/1665
5	G	0.10	0/1657	0.27	0/2228
5	H	0.09	0/1616	0.23	0/2170
5	P	0.08	0/1657	0.24	0/2228
5	Q	0.11	0/1616	0.25	0/2170
6	I	0.11	0/2021	0.33	0/2727
6	R	0.11	0/1999	0.31	0/2697
7	j	0.20	0/570	0.37	0/876
8	i	0.24	0/620	0.43	0/953
9	d	0.25	0/591	0.44	0/908
10	e	0.21	0/644	0.39	0/990
All	All	0.14	0/91210	0.34	2/123664 (0.0%)

There are no bond length outliers.

All (2) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	A	2294	ILE	N-CA-C	-5.99	105.85	111.48
1	S	2294	ILE	N-CA-C	-5.46	105.29	110.42

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	27927	0	27803	1297	0
1	S	27999	0	28062	1232	0
2	B	4038	0	4071	223	0
2	T	4014	0	4065	192	0
3	C	5292	0	5264	237	0
3	L	5174	0	5164	223	0
4	D	1075	0	1060	21	0
4	M	1195	0	1157	21	0
5	G	1628	0	1620	45	0
5	H	1589	0	1587	37	0
5	P	1628	0	1620	22	0
5	Q	1589	0	1587	24	0
6	I	1977	0	1923	95	0
6	R	1958	0	1905	74	0
7	j	509	0	271	31	0
8	i	552	0	301	30	0
9	d	528	0	282	29	0
10	e	573	0	312	30	0
All	All	89245	0	88054	3664	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 21.

All (3664) 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)
6:R:814:ARG:H	6:R:850:ALA:H	1.08	0.95
2:T:318:ARG:HB2	2:T:329:LEU:O	1.68	0.94
1:A:174:VAL:O	1:A:177:LEU:HB2	1.69	0.92
2:T:400:TYR:O	2:T:408:PRO:HA	1.68	0.92
1:A:67:VAL:HB	1:A:85:ILE:HD13	1.54	0.89
1:A:3510:GLN:HB3	1:A:3515:GLN:HE22	1.38	0.86
1:S:73:LEU:H	1:S:82:ARG:HH22	1.21	0.86
1:S:4090:ARG:HH22	1:S:4106:CYS:HA	1.40	0.86
1:A:2254:ARG:NH2	1:A:2292:CYS:SG	2.49	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3464:LYS:HD2	1:A:3997:LEU:HD11	1.60	0.84
1:S:3580:ASN:H	1:S:3734:ARG:HH22	1.23	0.84
1:S:2122:LEU:HB2	1:S:2126:MET:HE2	1.60	0.84
1:A:1228:GLY:HA2	1:A:1256:TRP:HE1	1.42	0.83
1:A:2121:ASP:HB3	1:A:2127:LYS:HG2	1.59	0.83
1:S:3667:LEU:HA	1:S:3670:MET:HE3	1.61	0.83
1:S:2225:HIS:HB2	1:S:2231:PHE:HB2	1.61	0.82
6:I:814:ARG:H	6:I:850:ALA:H	1.24	0.82
1:S:380:ASP:O	1:S:383:PHE:HB3	1.80	0.82
6:R:814:ARG:H	6:R:850:ALA:N	1.77	0.81
1:S:2440:TYR:HA	1:S:2443:MET:HE1	1.62	0.81
2:B:407:PRO:HG2	3:C:486:ARG:HE	1.46	0.80
1:S:2331:MET:HE1	1:S:2337:LEU:H	1.46	0.80
1:S:450:SER:HB3	1:S:453:MET:HE1	1.63	0.80
2:T:260:LYS:HG2	2:T:268:VAL:HG12	1.64	0.80
1:A:1076:LEU:HB3	1:A:1123:THR:HG22	1.64	0.80
1:S:3266:SER:HB3	1:S:3273:LEU:HA	1.63	0.80
1:S:360:SER:HA	1:S:363:ILE:HD12	1.64	0.80
1:A:366:TYR:HD2	1:A:384:MET:HE1	1.48	0.79
1:S:71:LYS:HB3	1:S:82:ARG:HH21	1.47	0.79
1:S:2254:ARG:HE	1:S:2294:ILE:HG13	1.45	0.79
2:T:171:ASN:HB3	2:T:205:LEU:HB3	1.65	0.79
1:S:901:MET:HG2	1:S:903:PRO:HD3	1.63	0.79
1:A:1848:ILE:HG12	1:A:1915:LEU:HD11	1.65	0.78
4:M:7:PRO:HB3	4:M:77:ARG:HE	1.48	0.78
2:T:74:LYS:HZ3	2:T:81:ASP:H	1.31	0.78
1:A:2291:GLN:NE2	1:A:2292:CYS:SG	2.57	0.78
1:S:459:ARG:HG2	1:S:540:MET:HE2	1.64	0.78
2:B:291:GLU:HB3	6:I:690:VAL:HG23	1.64	0.78
3:L:297:LEU:HD12	3:L:303:THR:HB	1.66	0.78
1:S:1104:LEU:HD23	1:S:1134:LEU:HD13	1.66	0.78
1:A:972:LEU:HD22	1:A:984:TYR:HE2	1.48	0.78
1:A:1917:LYS:HE3	3:L:726:ASP:HA	1.65	0.78
1:A:4008:GLU:HG3	1:A:4011:PHE:HB2	1.66	0.77
2:B:479:GLU:HB2	3:C:427:MET:HE3	1.66	0.77
1:S:2785:ILE:HD12	1:S:2790:LEU:HD21	1.67	0.77
1:S:2399:GLU:HA	1:S:2402:LEU:HD23	1.66	0.77
1:A:3173:MET:HE3	1:A:3174:ASP:H	1.50	0.77
1:A:114:VAL:HA	1:A:119:ARG:HH21	1.49	0.76
1:A:1017:ILE:HG21	1:A:1066:LEU:HD21	1.67	0.76
1:S:3809:THR:OG1	1:S:3929:MET:SD	2.41	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1261:LEU:HD11	1:A:1337:VAL:HG22	1.67	0.76
1:S:1848:ILE:HG12	1:S:1915:LEU:HD11	1.67	0.76
1:S:3915:HIS:HB2	1:S:3920:ILE:HB	1.68	0.76
1:S:3090:TYR:HB3	1:S:3095:ASP:HB2	1.67	0.76
1:A:2742:MET:SD	10:e:44:DG:N1	2.59	0.76
5:H:159:GLN:HG3	6:I:843:LEU:HD21	1.68	0.76
1:S:1300:SER:HA	1:S:1304:HIS:HB2	1.66	0.75
1:A:3929:MET:HG2	1:A:3940:ILE:HG13	1.68	0.75
6:R:800:GLU:HA	6:R:805:TRP:HB2	1.68	0.75
2:B:95:ASN:HD21	2:B:99:PHE:H	1.34	0.75
1:A:1201:ASN:HD21	1:A:1206:LEU:HB2	1.51	0.74
1:S:736:LEU:HB3	1:S:740:ILE:HD11	1.69	0.74
2:B:213:ILE:HG12	2:B:231:VAL:HA	1.69	0.74
1:S:364:ARG:HA	1:S:415:GLN:HE22	1.52	0.74
8:i:35:DT:H2''	8:i:36:DA:H5'	1.68	0.74
3:L:689:GLU:HA	3:L:695:SER:HB3	1.69	0.74
3:L:20:MET:HB2	3:L:30:PRO:HB2	1.70	0.74
6:R:695:PRO:HA	6:R:717:LYS:HZ1	1.52	0.74
1:S:531:PHE:HA	1:S:534:LEU:HB2	1.70	0.74
1:A:1145:LEU:HB3	1:A:1165:LEU:HB2	1.70	0.74
1:S:1023:SER:HA	1:S:1026:ARG:HE	1.51	0.74
1:A:990:GLN:HB3	1:A:2781:PRO:HD3	1.70	0.74
1:A:1196:PRO:HG3	1:A:1203:SER:HB2	1.68	0.74
2:B:230:ARG:HG3	2:B:232:HIS:H	1.51	0.74
1:S:2424:MET:O	1:S:2432:GLN:NE2	2.20	0.74
2:T:32:TYR:N	8:i:35:DT:OP1	2.21	0.73
1:A:935:HIS:HD2	1:A:987:LEU:HD11	1.54	0.73
3:C:330:GLN:HE22	3:C:331:MET:HE3	1.54	0.73
1:S:753:GLN:NE2	1:S:791:ASP:O	2.21	0.73
2:T:34:GLY:HA2	2:T:160:LYS:HG3	1.69	0.73
2:B:318:ARG:HH22	2:B:331:LYS:HA	1.53	0.73
2:T:258:ARG:NH2	8:i:35:DT:OP2	2.21	0.73
1:S:67:VAL:HB	1:S:71:LYS:HD3	1.71	0.73
1:S:4055:ASN:HB2	1:S:4095:GLU:HA	1.71	0.73
1:A:128:LEU:HA	1:A:173:LYS:HZ1	1.54	0.72
1:A:1414:ILE:O	1:A:1418:HIS:ND1	2.22	0.72
1:S:3357:ARG:O	1:S:3360:LEU:HB3	1.88	0.72
6:I:800:GLU:HA	6:I:805:TRP:HB2	1.70	0.72
2:T:218:ARG:HH22	2:T:229:LEU:HA	1.53	0.72
3:C:139:SER:HB3	3:C:201:GLN:HE21	1.54	0.72
1:A:76:ILE:O	1:A:79:ARG:N	2.22	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1107:TYR:HD2	1:S:1134:LEU:HD11	1.54	0.72
2:T:173:ASP:HB2	2:T:216:PHE:HB3	1.69	0.72
1:A:2317:ALA:HA	1:A:2366:LYS:HE3	1.72	0.72
1:A:2440:TYR:HA	1:A:2443:MET:HE1	1.71	0.72
1:S:1372:LEU:O	1:S:1375:THR:HB	1.89	0.72
1:A:2380:ASN:ND2	2:B:192:ASP:OD1	2.21	0.72
3:L:328:GLU:OE2	2:T:486:HIS:ND1	2.23	0.71
2:B:474:ARG:NH1	2:B:475:SER:OG	2.23	0.71
5:Q:33:VAL:HG22	5:Q:46:THR:HG22	1.71	0.71
1:S:3835:PRO:HA	1:S:3839:TYR:HB2	1.70	0.71
7:j:17:DT:H3	8:i:41:DT:H3	1.37	0.71
1:S:1915:LEU:HD13	1:S:1918:LEU:HD12	1.71	0.71
1:S:3506:LEU:HD21	1:S:3554:PHE:HB2	1.72	0.71
1:A:82:ARG:HA	1:A:85:ILE:HD12	1.71	0.71
1:A:2121:ASP:HA	1:A:2126:MET:HE3	1.71	0.71
6:I:814:ARG:H	6:I:850:ALA:N	1.87	0.71
1:A:879:MET:HG3	1:A:881:LYS:H	1.55	0.71
1:S:754:MET:HA	1:S:757:LYS:HG2	1.73	0.71
1:S:1368:LEU:HB3	1:S:1372:LEU:HD23	1.71	0.71
2:B:346:MET:HB3	2:B:399:ARG:HB3	1.71	0.71
1:A:1514:LEU:HA	1:A:1517:LEU:HD12	1.72	0.71
2:B:263:LEU:HB2	2:B:267:ILE:HB	1.72	0.71
10:e:28:DT:H2'	10:e:29:DA:C8	2.26	0.71
1:A:1452:VAL:HG22	1:A:1517:LEU:HD11	1.71	0.71
1:A:2228:ARG:HA	1:A:2231:PHE:HB3	1.71	0.71
1:S:3677:PRO:HB2	1:S:3682:GLU:HB2	1.73	0.70
1:S:2375:ALA:HB3	1:S:2404:ARG:HD3	1.71	0.70
1:A:469:ALA:HA	1:A:475:LEU:HD12	1.74	0.70
1:A:1915:LEU:HD13	1:A:1918:LEU:HD12	1.73	0.70
1:A:3493:TRP:H	1:A:3709:GLY:HA2	1.57	0.70
5:H:99:LYS:HE2	5:H:108:LEU:HB3	1.73	0.70
1:S:131:LEU:HD22	1:S:177:LEU:HD11	1.73	0.70
1:A:972:LEU:HD22	1:A:984:TYR:CE2	2.27	0.70
1:A:2287:PRO:HB3	1:A:2326:ILE:HD12	1.73	0.70
1:S:863:GLY:HA3	1:S:3168:TYR:HB2	1.71	0.70
1:A:3171:ALA:HA	1:A:3179:TRP:HZ2	1.57	0.70
1:S:1184:ARG:NH2	1:S:1262:ALA:O	2.24	0.70
1:S:867:ASN:HB3	1:S:3129:LEU:HD13	1.74	0.70
1:S:3236:PHE:HD2	1:S:3269:ARG:HH22	1.40	0.70
1:S:1000:LYS:HG3	1:S:1004:GLN:HE21	1.56	0.70
2:B:299:LYS:HB2	2:B:301:ARG:HH21	1.56	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2776:ARG:NH2	1:S:2782:ASP:OD2	2.25	0.69
1:S:3796:MET:H	1:S:3801:GLY:HA2	1.55	0.69
1:A:95:LYS:O	1:A:96:MET:HE2	1.92	0.69
1:A:2514:ASN:HD22	1:A:2517:LEU:HG	1.58	0.69
5:G:161:ARG:HH22	6:I:847:PHE:HB3	1.57	0.69
1:A:3281:CYS:O	1:A:3285:HIS:ND1	2.25	0.69
3:C:680:GLN:NE2	3:C:681:ASP:OD2	2.25	0.69
3:L:188:HIS:HE1	3:L:478:PRO:HD2	1.57	0.69
3:L:327:ASP:OD1	6:R:711:ASN:ND2	2.21	0.69
1:S:2254:ARG:HH22	1:S:2292:CYS:HB2	1.55	0.69
3:C:647:ILE:HA	3:C:652:GLU:HG2	1.75	0.69
3:L:605:LYS:HB2	3:L:609:PHE:HZ	1.57	0.69
1:A:755:ALA:O	1:A:759:GLY:N	2.25	0.69
1:A:3444:ALA:HB1	1:A:3482:LEU:HD21	1.74	0.69
1:A:3838:GLU:HG2	1:A:4122:GLU:HB3	1.74	0.69
1:S:36:ARG:O	1:S:40:GLN:NE2	2.26	0.69
2:T:171:ASN:HB2	2:T:207:LYS:HB2	1.74	0.69
1:S:2278:GLY:O	1:S:2282:ALA:N	2.25	0.69
1:A:741:ILE:HG23	1:A:748:TYR:HD2	1.58	0.69
5:P:179:ARG:NH2	6:R:804:SER:OG	2.26	0.69
1:S:2869:LEU:HB2	1:S:2899:ARG:HH21	1.58	0.69
1:S:2962:ARG:NH2	1:S:2967:GLU:OE1	2.26	0.69
5:G:147:GLU:OE1	5:H:148:ASN:ND2	2.25	0.69
1:S:645:TRP:O	1:S:649:PHE:HB3	1.92	0.69
1:A:998:ASN:OD1	1:A:999:LYS:NZ	2.26	0.69
6:R:666:VAL:HA	6:R:701:ILE:HB	1.73	0.69
1:S:3244:ASP:OD1	1:S:3282:ARG:NH2	2.26	0.69
1:S:2893:LEU:HD22	1:S:2926:LEU:HG	1.75	0.68
5:G:161:ARG:NH1	5:G:165:CYS:SG	2.66	0.68
1:A:935:HIS:CD2	1:A:987:LEU:HD11	2.28	0.68
1:A:1685:ASP:HB3	1:A:1688:LEU:HG	1.74	0.68
2:T:81:ASP:O	2:T:110:ASN:ND2	2.26	0.68
1:A:2527:HIS:HB3	1:A:2530:ARG:HD3	1.75	0.68
6:I:665:CYS:HB3	6:I:700:VAL:HA	1.76	0.68
1:A:38:LEU:HD11	1:A:85:ILE:HG13	1.75	0.68
3:C:93:ASP:HA	3:C:97:LYS:HG2	1.76	0.68
5:H:41:SER:HA	5:H:123:ILE:HD11	1.74	0.68
1:A:3256:MET:SD	1:A:3287:ARG:NH2	2.66	0.68
1:A:2104:MET:HE1	1:A:2122:LEU:HD13	1.74	0.68
1:A:2391:GLY:O	1:A:2431:ARG:NH2	2.27	0.68
1:A:3266:SER:HA	1:A:3272:TRP:CD1	2.29	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:916:GLU:HA	1:S:919:LEU:HB3	1.74	0.68
1:A:1477:HIS:HB3	1:A:1481:THR:HG23	1.76	0.68
3:L:18:PHE:HB2	3:L:102:SER:HA	1.76	0.68
1:A:1183:CYS:SG	1:A:1186:LYS:NZ	2.67	0.68
1:A:2278:GLY:O	1:A:2282:ALA:N	2.24	0.68
1:S:2354:ASN:ND2	1:S:2357:GLU:OE2	2.26	0.68
1:S:3110:PHE:HD1	1:S:3128:LYS:HZ3	1.42	0.68
1:A:919:LEU:HD22	1:A:972:LEU:HD12	1.75	0.67
1:S:2383:PHE:HB3	1:S:2418:LYS:HE3	1.76	0.67
6:I:666:VAL:HA	6:I:701:ILE:HB	1.76	0.67
1:A:1820:VAL:HA	1:A:1824:LEU:HD23	1.77	0.67
1:A:2920:VAL:HG12	1:A:2947:ILE:HG23	1.77	0.67
1:S:2281:MET:HE1	1:S:2329:TYR:HB2	1.77	0.67
1:S:2416:LYS:NZ	2:T:97:VAL:O	2.27	0.67
1:A:63:PHE:O	1:A:67:VAL:HG12	1.94	0.67
1:A:2357:GLU:HA	1:A:2360:PHE:HB3	1.75	0.67
1:A:3450:MET:HE2	1:A:3464:LYS:HB2	1.76	0.67
3:L:6:ASN:HB3	3:L:128:GLU:HB2	1.76	0.67
1:S:73:LEU:H	1:S:82:ARG:NH2	1.92	0.67
1:A:2375:ALA:HB3	1:A:2404:ARG:HD3	1.77	0.67
1:S:1751:GLU:O	1:S:1754:GLN:NE2	2.27	0.67
2:T:191:GLY:HA2	2:T:194:ARG:HE	1.59	0.67
2:T:95:ASN:HD21	2:T:99:PHE:H	1.40	0.67
1:A:10:CYS:SG	1:A:11:SER:N	2.68	0.67
2:B:294:GLU:HB3	3:C:298:ASN:HD21	1.60	0.67
3:C:272:VAL:HG22	3:C:274:LYS:H	1.60	0.67
3:L:423:GLN:NE2	3:L:424:LEU:O	2.28	0.67
1:A:1483:LEU:HD21	1:A:1515:LEU:HD23	1.76	0.67
1:A:3750:PHE:HB3	1:A:3802:LEU:HD11	1.75	0.67
6:I:663:GLU:HB3	6:I:697:THR:HA	1.77	0.67
3:L:7:LYS:O	3:L:128:GLU:N	2.27	0.67
1:S:1750:LEU:HD21	1:S:1759:LEU:HD23	1.77	0.67
6:I:746:MET:HE3	6:I:751:LYS:HA	1.76	0.66
6:I:813:PHE:HA	6:I:850:ALA:O	1.95	0.66
4:M:186:ILE:HG13	2:T:242:LEU:HD23	1.77	0.66
1:S:718:MET:HE2	1:S:726:LEU:HD11	1.77	0.66
1:S:2090:ARG:NH2	1:S:2091:HIS:O	2.28	0.66
1:S:2372:PRO:O	1:S:2404:ARG:NH1	2.28	0.66
1:A:188:GLU:O	1:A:192:ASN:ND2	2.28	0.66
1:A:332:GLU:OE2	1:A:336:ASN:ND2	2.28	0.66
1:A:366:TYR:CD2	1:A:384:MET:HE1	2.30	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:139:ARG:HA	1:S:142:ARG:HH21	1.59	0.66
1:S:2208:ASP:OD1	1:S:2209:GLU:N	2.28	0.66
1:S:2281:MET:HE2	1:S:2326:ILE:HA	1.76	0.66
1:S:2824:LYS:O	1:S:2829:LYS:NZ	2.27	0.66
1:A:933:LEU:HD22	1:A:2797:VAL:HG21	1.77	0.66
1:A:2362:VAL:HG12	1:A:2366:LYS:HZ2	1.61	0.66
1:A:174:VAL:HA	1:A:177:LEU:HD23	1.78	0.66
3:C:687:THR:HB	3:C:699:GLU:HG3	1.78	0.66
3:L:291:LYS:NZ	3:L:292:GLU:O	2.29	0.66
1:S:1651:LYS:HD2	1:S:1654:GLN:HE21	1.61	0.66
1:A:1725:GLN:HE22	1:A:1769:GLU:HB2	1.61	0.66
5:H:87:ASN:HB3	5:H:97:PHE:HA	1.76	0.66
1:S:3506:LEU:HD22	1:S:3555:VAL:HG13	1.76	0.66
1:A:168:ASP:H	1:A:171:LEU:HD12	1.61	0.66
1:A:3625:LEU:HD22	1:A:3630:ARG:HE	1.61	0.66
3:C:727:ASP:OD2	1:S:1960:LYS:NZ	2.26	0.66
1:A:71:LYS:O	1:A:73:LEU:N	2.29	0.66
1:S:90:CYS:HA	1:S:136:GLN:HE22	1.60	0.66
3:C:368:ARG:HE	3:C:369:ASP:H	1.44	0.66
1:S:50:VAL:HG13	1:S:51:LEU:HG	1.76	0.66
1:A:2395:THR:OG1	1:A:2431:ARG:NE	2.28	0.66
1:S:175:TYR:HB2	1:S:223:CYS:HB3	1.77	0.66
1:A:1000:LYS:HA	1:A:1004:GLN:HE21	1.61	0.66
1:A:1840:PHE:HD1	1:A:1880:MET:HE2	1.61	0.66
1:A:3142:ILE:O	1:A:3147:LYS:NZ	2.28	0.66
1:A:3758:LEU:HB2	1:A:3795:PRO:HB3	1.78	0.66
1:A:3806:LEU:HD23	1:A:3808:ASN:H	1.61	0.66
4:M:75:ARG:NH2	4:M:103:SER:O	2.29	0.66
1:A:527:TYR:O	1:A:530:LEU:HB3	1.96	0.65
1:A:1279:LEU:HD22	1:A:1356:TRP:HE1	1.60	0.65
1:A:1727:ARG:HH12	1:A:1772:HIS:HB2	1.61	0.65
2:B:272:GLY:N	2:B:369:TYR:O	2.28	0.65
6:R:812:MET:HE1	6:R:844:GLU:HB3	1.77	0.65
1:A:1052:SER:O	1:A:1055:ASN:ND2	2.28	0.65
3:C:407:VAL:HB	3:C:424:LEU:HD11	1.78	0.65
4:D:11:LEU:HD13	4:D:87:LEU:HD22	1.77	0.65
1:A:1673:THR:HA	1:A:1676:ILE:HD12	1.78	0.65
1:S:1037:LEU:HD11	1:S:1056:THR:HG22	1.79	0.65
1:A:1326:GLU:HG3	1:A:1329:ARG:HG2	1.78	0.65
1:A:3720:ALA:HB3	1:A:3743:HIS:HA	1.77	0.65
1:S:469:ALA:HA	1:S:475:LEU:HD12	1.76	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:974:CYS:HB3	1:S:1028:PHE:HD2	1.61	0.65
1:A:2331:MET:O	1:A:2334:LYS:NZ	2.28	0.65
2:B:468:LYS:O	2:B:517:ARG:NE	2.29	0.65
3:C:678:VAL:O	3:C:682:GLY:N	2.29	0.65
1:A:2333:ARG:HH12	1:A:2371:PHE:HE1	1.43	0.65
1:S:893:SER:O	1:S:944:LYS:NZ	2.29	0.65
1:A:978:GLN:HE22	1:A:2597:PHE:HA	1.60	0.65
1:A:1382:ILE:HD11	1:A:1385:ASN:HD22	1.62	0.65
1:A:3585:PHE:HE2	1:A:3664:ASN:HA	1.62	0.65
2:B:121:GLN:O	2:B:130:ARG:NH1	2.30	0.65
1:A:1407:LYS:HA	1:A:1412:LYS:HD2	1.78	0.65
1:A:1726:SER:OG	1:A:1727:ARG:NH1	2.29	0.65
3:L:268:LEU:O	2:T:444:ARG:NH2	2.30	0.65
1:S:1910:GLU:O	1:S:1913:LYS:NZ	2.30	0.65
1:S:3163:THR:O	1:S:3167:ARG:NH1	2.29	0.65
2:T:88:TYR:HH	2:T:170:THR:HG1	1.43	0.65
1:A:925:GLN:HG3	1:A:2800:ARG:HH12	1.63	0.65
1:A:3422:GLN:OE1	1:A:3423:GLN:NE2	2.30	0.65
1:S:174:VAL:HA	1:S:177:LEU:HD12	1.79	0.65
1:S:2401:VAL:O	1:S:2441:LYS:NZ	2.30	0.65
1:A:2196:TRP:HB2	1:A:2199:LEU:HB2	1.77	0.64
3:L:313:GLY:N	2:T:286:ILE:O	2.29	0.64
1:S:2252:PRO:O	1:S:2291:GLN:NE2	2.30	0.64
1:S:2388:LYS:NZ	2:T:157:VAL:O	2.28	0.64
1:S:3193:ILE:HD13	1:S:3196:LYS:HZ3	1.61	0.64
1:S:3741:ARG:HA	1:S:3747:GLU:HA	1.79	0.64
1:A:1649:LEU:HD13	1:A:1652:ILE:HD11	1.80	0.64
2:B:218:ARG:HA	2:B:221:ILE:HG12	1.79	0.64
3:C:688:LYS:NZ	3:C:695:SER:OG	2.30	0.64
1:A:2161:ALA:HA	1:A:2164:TRP:HB2	1.79	0.64
3:L:315:ARG:HH11	3:L:320:ILE:HG13	1.62	0.64
1:S:915:THR:HA	1:S:934:LEU:HD11	1.79	0.64
1:S:2135:ASN:ND2	1:S:2137:ILE:O	2.31	0.64
1:A:1488:TYR:HD1	1:A:1559:PHE:HZ	1.45	0.64
4:M:24:CYS:HB3	4:M:39:LEU:HD23	1.79	0.64
6:R:743:MET:HE2	6:R:746:MET:HB3	1.79	0.64
2:T:76:ILE:HG21	2:T:247:ARG:HA	1.77	0.64
1:A:1611:GLN:HE21	1:A:1614:GLN:HG2	1.62	0.64
3:L:308:GLU:O	2:T:290:ARG:NH2	2.29	0.64
1:S:919:LEU:HG	1:S:920:THR:HG23	1.79	0.64
1:A:3380:ARG:O	1:A:3384:HIS:ND1	2.31	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:6:ASN:HB3	3:C:128:GLU:HB2	1.78	0.64
3:L:44:ARG:NH2	3:L:45:GLN:OE1	2.30	0.64
1:S:3675:LYS:NZ	1:S:3676:PRO:O	2.31	0.64
1:S:4083:GLY:HA3	1:S:4088:ASN:HB3	1.77	0.64
1:A:71:LYS:HA	1:A:78:PHE:CG	2.32	0.64
1:A:637:LYS:O	1:A:679:LYS:NZ	2.30	0.64
6:I:814:ARG:N	6:I:850:ALA:H	1.94	0.64
2:T:513:ALA:HB1	2:T:517:ARG:HH12	1.63	0.64
10:e:43:DT:H2''	10:e:44:DG:C5	2.33	0.64
1:A:3958:LEU:HG	1:A:4115:ASN:HD22	1.63	0.64
1:S:709:LYS:NZ	1:S:1332:TYR:OH	2.30	0.64
1:A:2869:LEU:O	1:A:2899:ARG:NH1	2.31	0.64
2:B:210:GLY:HA2	2:B:233:PHE:HA	1.80	0.64
1:S:128:LEU:HD11	1:S:170:VAL:HB	1.80	0.64
1:S:2532:PRO:O	1:S:2538:ARG:NH1	2.30	0.64
1:S:1397:ASP:OD1	1:S:1398:VAL:N	2.30	0.64
1:S:3369:ASP:OD2	1:S:3372:LYS:NZ	2.31	0.64
1:A:2466:SER:OG	1:A:2469:CYS:SG	2.55	0.63
3:C:676:GLU:HG3	3:C:677:ILE:HD12	1.80	0.63
1:S:174:VAL:O	1:S:177:LEU:HB2	1.98	0.63
1:A:675:ARG:NH1	1:A:735:SER:O	2.29	0.63
1:A:3581:PRO:HB3	1:A:3629:ARG:HG3	1.79	0.63
1:A:3822:GLN:HA	1:A:3825:LYS:HB3	1.80	0.63
2:B:203:MET:HE2	2:B:239:LEU:HG	1.80	0.63
3:L:522:VAL:HA	3:L:525:LYS:HD2	1.80	0.63
1:S:1425:ALA:HB2	1:S:1467:ILE:HG13	1.79	0.63
1:S:3620:PRO:O	1:S:3630:ARG:NH1	2.31	0.63
1:S:3996:GLY:O	1:S:4000:ASN:ND2	2.31	0.63
2:T:418:GLU:HB2	2:T:430:PRO:HB3	1.80	0.63
1:A:487:LEU:HD11	1:A:575:ILE:HG21	1.79	0.63
1:A:538:ASP:HA	1:A:541:MET:HG3	1.79	0.63
1:A:2168:LEU:HA	1:A:2171:LEU:HD12	1.80	0.63
2:B:173:ASP:HB2	2:B:216:PHE:HB3	1.80	0.63
6:I:816:HIS:N	6:I:851:LYS:H	1.95	0.63
3:L:497:ARG:HD3	3:L:501:PRO:HA	1.80	0.63
1:S:529:ASP:OD1	1:S:530:LEU:N	2.32	0.63
1:S:2425:ARG:NH1	1:S:2457:PRO:O	2.32	0.63
1:S:2595:TRP:O	1:S:2765:GLN:NE2	2.31	0.63
1:S:3730:ALA:HA	1:S:3734:ARG:HA	1.80	0.63
1:A:406:ARG:O	1:A:409:GLN:NE2	2.31	0.63
3:L:643:ARG:NH2	3:L:656:ASN:OD1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3069:MET:HA	1:S:3075:LYS:HB2	1.79	0.63
1:S:3176:MET:HA	1:S:3179:TRP:HB2	1.79	0.63
1:A:1538:LEU:N	1:A:1553:PHE:O	2.27	0.63
1:A:2935:GLU:HG3	1:A:2938:VAL:HG22	1.81	0.63
5:G:22:VAL:HG21	5:G:71:ARG:HH22	1.61	0.63
6:I:746:MET:O	6:I:751:LYS:NZ	2.30	0.63
3:L:291:LYS:NZ	2:T:301:ARG:O	2.32	0.63
3:L:636:ILE:O	3:L:640:ARG:HG2	1.98	0.63
6:R:818:VAL:H	6:R:851:LYS:HB3	1.63	0.63
1:S:4055:ASN:HD21	1:S:4091:ALA:HB1	1.62	0.63
1:A:1949:ILE:HD13	1:A:2096:PRO:HB2	1.80	0.63
1:A:2573:PRO:O	1:A:2786:LYS:NZ	2.30	0.63
1:A:3236:PHE:HD2	1:A:3269:ARG:HH22	1.47	0.63
6:R:715:SER:O	6:R:745:HIS:NE2	2.32	0.63
1:S:28:ALA:O	1:S:32:HIS:ND1	2.32	0.63
1:S:261:ASP:HB3	1:S:265:TYR:HA	1.81	0.63
1:S:2924:VAL:HG11	1:S:2989:ALA:HB1	1.80	0.63
1:S:3962:ARG:HH22	1:S:4125:GLU:HB3	1.64	0.63
1:A:2376:ASP:OD1	1:A:2377:ARG:NH1	2.31	0.63
1:A:3090:TYR:HB3	1:A:3095:ASP:HB2	1.80	0.63
2:B:258:ARG:HH12	10:e:33:DA:H3'	1.63	0.63
3:L:250:ARG:HH22	2:T:536:PRO:HB2	1.63	0.63
1:S:2723:THR:HA	1:S:2726:LEU:HD13	1.81	0.63
2:B:91:GLU:OE1	2:B:137:HIS:N	2.32	0.63
5:H:175:ASP:OD2	6:I:783:ASN:ND2	2.32	0.63
3:L:521:GLU:HG3	3:L:525:LYS:HE3	1.80	0.63
1:S:2339:GLU:OE2	1:S:2377:ARG:NH2	2.31	0.63
1:S:3000:ASP:O	1:S:3004:HIS:ND1	2.31	0.63
7:j:19:DA:H1'	7:j:20:DT:H5'	1.80	0.63
1:A:2348:GLN:OE1	1:A:2353:GLN:NE2	2.32	0.62
1:S:2253:TYR:H	1:S:2256:ILE:HD13	1.63	0.62
1:A:1795:VAL:HG23	1:A:1835:ALA:HB1	1.81	0.62
1:A:1843:ILE:HD11	1:A:1880:MET:HE1	1.80	0.62
1:A:3369:ASP:OD2	1:A:3372:LYS:NZ	2.31	0.62
3:C:65:ASP:HB3	3:C:78:THR:HG23	1.80	0.62
6:I:816:HIS:H	6:I:850:ALA:HA	1.64	0.62
3:L:344:GLY:HA3	2:T:471:PHE:HE1	1.64	0.62
6:R:814:ARG:N	6:R:850:ALA:H	1.90	0.62
7:j:22:DG:H1	8:i:35:DT:H3	1.46	0.62
1:A:736:LEU:HD12	1:A:740:ILE:HG21	1.81	0.62
1:A:1603:GLN:OE1	1:A:1606:ARG:NH2	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:663:GLU:HB3	6:R:697:THR:HA	1.82	0.62
1:S:1490:GLY:O	1:S:1502:SER:N	2.31	0.62
1:S:3603:LYS:H	1:S:3606:ILE:HB	1.64	0.62
1:A:139:ARG:HA	1:A:142:ARG:HH21	1.64	0.62
1:A:3945:ALA:HB3	1:A:3948:SER:HB3	1.81	0.62
2:B:171:ASN:HB2	2:B:207:LYS:HB2	1.81	0.62
1:S:850:GLU:HB2	1:S:854:ARG:HH21	1.64	0.62
1:S:1583:MET:HG2	1:S:1625:HIS:HB3	1.81	0.62
1:S:2512:ASP:N	1:S:2518:GLN:OE1	2.33	0.62
1:S:3052:LEU:HD11	1:S:3061:LEU:HD21	1.80	0.62
9:d:19:DA:H1'	9:d:20:DT:H5'	1.81	0.62
1:S:3266:SER:HA	1:S:3272:TRP:CD1	2.35	0.62
2:T:260:LYS:HG2	2:T:268:VAL:CG1	2.30	0.62
1:A:762:TYR:HD2	1:A:765:LEU:HG	1.64	0.62
1:A:1594:SER:O	1:A:1598:ASN:ND2	2.33	0.62
1:A:3266:SER:HB3	1:A:3273:LEU:HA	1.82	0.62
1:A:3725:ARG:HB3	1:A:3739:ILE:HD12	1.80	0.62
5:H:37:THR:HG22	5:H:39:GLY:H	1.64	0.62
6:I:798:ASP:HB3	6:I:802:ARG:HH12	1.65	0.62
1:A:67:VAL:CB	1:A:85:ILE:HD13	2.26	0.62
1:A:1512:SER:HA	1:A:1515:LEU:HD12	1.82	0.62
3:L:62:ASP:HA	3:L:103:GLN:HG2	1.81	0.62
1:S:2586:PHE:HB3	1:S:2776:ARG:HB3	1.80	0.62
7:j:36:DG:H2''	7:j:37:DG:H5''	1.81	0.62
1:A:767:GLU:OE1	1:A:854:ARG:NE	2.33	0.62
1:A:1396:PRO:HB3	1:A:1457:GLN:HE21	1.64	0.62
6:I:884:ARG:HE	6:I:886:PHE:HE1	1.46	0.62
1:S:87:LYS:HE3	1:S:831:LEU:HB2	1.82	0.62
7:j:23:DT:H2'	7:j:24:DT:H71	1.82	0.62
1:A:1605:PHE:O	1:A:1608:ARG:NH2	2.33	0.62
2:B:479:GLU:HA	3:C:426:PHE:HB3	1.82	0.62
3:L:269:GLN:O	3:L:271:ARG:NH1	2.33	0.62
1:S:390:GLN:HE22	1:S:1737:ASN:HB2	1.65	0.62
1:S:782:ARG:HH11	1:S:786:GLN:HB2	1.65	0.62
1:S:865:GLN:HA	1:S:868:LYS:HZ3	1.64	0.62
1:A:645:TRP:HB3	1:A:649:PHE:HB2	1.81	0.62
3:C:246:HIS:HB2	3:C:262:ALA:HB1	1.81	0.62
5:H:4:LYS:HG2	5:H:75:LEU:HA	1.81	0.62
3:L:13:CYS:HB3	3:L:134:ILE:HG13	1.81	0.62
4:M:91:GLU:N	4:M:91:GLU:OE1	2.32	0.62
6:R:746:MET:O	6:R:751:LYS:NZ	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3119:VAL:HA	1:S:3125:ARG:HE	1.64	0.62
1:S:3172:LYS:HD2	1:S:3248:LYS:HB3	1.80	0.62
1:S:3680:LEU:HD12	1:S:3724:GLU:HB3	1.81	0.62
1:A:1019:ASP:O	1:A:1026:ARG:NH2	2.32	0.61
1:A:2365:ASN:HD22	1:A:2396:LEU:HG	1.65	0.61
2:B:59:PRO:HA	2:B:62:MET:SD	2.40	0.61
1:S:1011:GLU:HA	1:S:1014:LEU:HG	1.80	0.61
1:S:4041:ARG:HA	1:S:4044:ILE:HG12	1.80	0.61
1:A:477:ASN:OD1	1:A:478:CYS:N	2.32	0.61
1:A:1412:LYS:O	1:A:1416:GLU:N	2.25	0.61
1:A:2372:PRO:O	1:A:2404:ARG:NH1	2.33	0.61
6:R:654:LYS:N	6:R:660:GLU:OE2	2.33	0.61
1:S:477:ASN:OD1	1:S:478:CYS:N	2.33	0.61
1:S:675:ARG:HA	1:S:678:LYS:HE2	1.82	0.61
7:j:37:DG:H2''	7:j:38:DG:H5'	1.82	0.61
1:A:337:LYS:HG2	1:A:369:PHE:HZ	1.66	0.61
1:A:802:THR:OG1	1:A:852:ARG:NH2	2.33	0.61
1:A:1505:LEU:HA	1:A:1508:LYS:HE2	1.82	0.61
1:A:2484:TYR:HB3	1:A:2499:PHE:HB2	1.81	0.61
2:B:165:ARG:NH1	4:D:185:LEU:O	2.33	0.61
1:S:832:LYS:HG3	1:S:834:LEU:H	1.66	0.61
1:A:1102:GLU:HA	1:A:1154:PRO:HB3	1.83	0.61
1:A:1370:ARG:O	1:A:1374:GLN:NE2	2.34	0.61
1:A:2271:SER:HA	1:A:2274:ILE:HD12	1.82	0.61
1:A:3831:ASP:HB3	1:A:3832:PRO:HD3	1.83	0.61
3:L:274:LYS:NZ	2:T:321:ILE:O	2.34	0.61
1:S:2548:PRO:HB3	1:S:2847:THR:HA	1.82	0.61
8:i:41:DT:H2''	8:i:42:DA:C8	2.35	0.61
1:A:1849:ASP:OD1	1:A:1850:VAL:N	2.33	0.61
1:A:2322:VAL:O	1:A:2326:ILE:HG12	2.01	0.61
1:A:3996:GLY:O	1:A:4000:ASN:ND2	2.32	0.61
2:B:36:ASP:OD2	2:B:165:ARG:NH2	2.33	0.61
2:B:485:GLN:O	2:B:489:ASN:ND2	2.33	0.61
3:C:81:ARG:NH2	3:C:85:LEU:O	2.34	0.61
2:T:105:LEU:HD23	2:T:106:GLN:HG3	1.83	0.61
1:A:889:GLU:OE2	1:A:3889:ARG:NH2	2.34	0.61
1:A:993:HIS:ND1	1:A:2779:ASP:OD1	2.34	0.61
1:A:1751:GLU:O	1:A:1788:ARG:NH1	2.34	0.61
1:A:2389:PHE:HB3	1:A:2393:LEU:HB2	1.82	0.61
2:B:495:LEU:HD23	2:B:497:LEU:HD11	1.81	0.61
6:I:864:ILE:HD12	6:I:904:GLN:HB3	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2313:LYS:HA	1:S:2316:TYR:CZ	2.36	0.61
1:A:1919:CYS:O	1:A:1922:ALA:HB3	2.01	0.61
6:R:716:ASN:HA	6:R:745:HIS:HE2	1.65	0.61
1:S:1415:LEU:O	1:S:1419:LEU:N	2.31	0.61
1:S:2223:VAL:HG22	1:S:2231:PHE:HE1	1.65	0.61
1:A:801:LYS:NZ	1:A:3114:TYR:O	2.34	0.61
1:A:71:LYS:C	1:A:73:LEU:N	2.56	0.61
1:A:850:GLU:HB2	1:A:854:ARG:HH12	1.65	0.61
2:B:428:THR:HG23	3:C:354:ARG:HH12	1.64	0.61
3:C:643:ARG:NH2	3:C:687:THR:O	2.34	0.61
3:C:687:THR:HG22	3:C:688:LYS:H	1.66	0.61
6:I:812:MET:N	6:I:848:HIS:HB2	2.14	0.61
1:S:1663:THR:HG22	1:S:1664:SER:H	1.65	0.61
1:S:3262:LEU:HD22	1:S:3272:TRP:HZ2	1.66	0.61
1:S:3962:ARG:NH1	1:S:4124:TRP:O	2.32	0.61
2:T:381:LEU:HD23	2:T:385:LEU:HD23	1.83	0.61
10:e:37:DT:H2'	10:e:38:DT:C6	2.36	0.61
1:A:1082:PHE:HA	1:A:1085:ILE:HG12	1.82	0.60
1:A:1156:GLY:O	1:A:1171:TRP:NE1	2.33	0.60
1:A:1722:PHE:O	1:A:1768:ARG:NH1	2.31	0.60
1:A:2367:VAL:O	1:A:2371:PHE:N	2.34	0.60
1:A:3628:PHE:HB2	1:A:3675:LYS:H	1.66	0.60
2:B:339:ARG:HH22	2:B:404:ARG:HB3	1.65	0.60
4:M:119:PRO:HA	4:M:122:ARG:HG2	1.83	0.60
1:S:2281:MET:HE2	1:S:2326:ILE:HD13	1.83	0.60
1:A:682:TYR:O	1:A:700:LYS:NZ	2.32	0.60
1:A:2512:ASP:HB2	1:A:2518:GLN:HG2	1.83	0.60
3:C:96:SER:O	3:C:99:GLN:NE2	2.32	0.60
4:D:84:ALA:HB1	4:D:99:SER:HB2	1.82	0.60
1:S:1406:LEU:HD23	1:S:1415:LEU:HD22	1.83	0.60
1:S:1483:LEU:HD13	1:S:1515:LEU:HD23	1.83	0.60
1:S:3172:LYS:O	1:S:3173:MET:HE2	2.01	0.60
1:A:852:ARG:HD3	1:A:3111:MET:HE2	1.82	0.60
1:A:1413:ASP:OD1	1:A:1414:ILE:N	2.33	0.60
1:A:1574:ASN:HD21	1:A:1577:LEU:HB2	1.66	0.60
1:A:3879:PRO:O	1:A:3965:ARG:NH1	2.28	0.60
2:B:200:LEU:HD11	2:B:221:ILE:HB	1.82	0.60
5:G:176:LEU:HA	5:G:179:ARG:HD3	1.84	0.60
6:I:660:GLU:HG2	6:I:686:GLY:HA3	1.83	0.60
3:L:261:ILE:HA	3:L:366:ALA:HA	1.83	0.60
3:L:426:PHE:HB3	2:T:479:GLU:HA	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2803:ILE:O	1:S:2806:LYS:HG2	2.01	0.60
1:S:3767:LEU:HA	1:S:3770:VAL:HG22	1.82	0.60
1:A:2245:TRP:HB2	1:A:2249:LEU:HD11	1.82	0.60
1:A:2978:LYS:NZ	1:A:2980:ASP:OD1	2.34	0.60
1:S:1592:MET:N	1:S:1592:MET:SD	2.73	0.60
1:S:3239:LYS:HA	1:S:3242:MET:HE2	1.83	0.60
1:S:4121:TRP:HB3	1:S:4124:TRP:HB2	1.84	0.60
1:A:1388:ASP:HA	1:A:1392:MET:HG2	1.81	0.60
4:M:193:LYS:O	2:T:244:ARG:NH1	2.31	0.60
6:R:845:LEU:HB2	6:R:852:VAL:HG12	1.84	0.60
1:S:625:ASN:O	1:S:628:GLU:HG2	2.02	0.60
1:S:1820:VAL:HA	1:S:1824:LEU:HD23	1.84	0.60
1:S:3867:THR:HA	1:S:4118:GLY:HA2	1.83	0.60
1:A:28:ALA:O	1:A:32:HIS:ND1	2.34	0.60
1:A:1650:ALA:HA	1:A:1695:LEU:HD11	1.82	0.60
1:A:2512:ASP:N	1:A:2518:GLN:OE1	2.34	0.60
3:C:400:ARG:NH2	10:e:23:DT:O2	2.35	0.60
1:S:29:LEU:O	1:S:33:GLN:NE2	2.34	0.60
1:S:2287:PRO:HG2	1:S:2330:VAL:HA	1.84	0.60
1:A:196:LEU:HB3	1:A:200:PHE:CZ	2.37	0.60
1:A:2371:PHE:HD2	1:A:2374:LEU:HD23	1.67	0.60
1:A:3590:ASN:OD1	1:A:3593:ARG:NH2	2.35	0.60
3:C:524:THR:HA	3:C:527:GLN:HG2	1.83	0.60
5:G:148:ASN:ND2	5:H:144:LEU:O	2.34	0.60
1:S:295:GLU:OE1	1:S:299:LYS:NZ	2.35	0.60
1:S:493:LYS:HD2	1:S:524:TYR:HD1	1.66	0.60
1:S:3113:ASN:HB3	1:S:3128:LYS:HZ2	1.67	0.60
1:A:332:GLU:HB2	1:A:335:LYS:HD2	1.84	0.60
1:A:658:THR:OG1	1:A:659:ARG:NH1	2.35	0.60
2:B:59:PRO:HB3	2:B:205:LEU:HD23	1.84	0.60
2:B:86:VAL:HG22	2:B:104:VAL:HG23	1.84	0.60
3:C:643:ARG:NH1	3:C:656:ASN:OD1	2.30	0.60
3:L:688:LYS:HG3	3:L:695:SER:HA	1.83	0.60
1:S:1118:GLU:HG3	1:S:1121:LEU:HB2	1.84	0.60
1:A:3136:THR:HG23	1:A:3139:GLN:HE21	1.66	0.60
2:B:261:LEU:HA	2:B:345:LEU:HB2	1.84	0.60
6:R:693:PRO:HB2	6:R:718:HIS:CE1	2.36	0.60
1:S:801:LYS:HZ3	1:S:3125:ARG:HH12	1.49	0.60
1:S:955:ALA:C	1:S:957:PRO:HD3	2.27	0.60
1:S:1039:TRP:NE1	1:S:1043:GLN:OE1	2.33	0.60
1:S:1184:ARG:HH22	1:S:1265:GLU:HB3	1.67	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:420:LEU:HB3	2:B:424:LYS:HA	1.84	0.59
3:C:7:LYS:O	3:C:128:GLU:N	2.31	0.59
3:L:12:LEU:HD23	3:L:54:ILE:HD11	1.84	0.59
3:L:128:GLU:OE1	3:L:242:ARG:NH1	2.34	0.59
3:L:628:GLU:HG3	3:L:631:TYR:HB3	1.83	0.59
1:S:1299:GLU:O	1:S:1304:HIS:ND1	2.34	0.59
1:S:2495:SER:HA	1:S:2498:ILE:HD12	1.83	0.59
1:S:3686:TRP:HH2	1:S:3719:ILE:HG22	1.67	0.59
1:A:1369:MET:SD	1:A:1418:HIS:NE2	2.76	0.59
1:A:2310:VAL:HG21	1:A:2359:LYS:HD2	1.84	0.59
1:A:3675:LYS:NZ	1:A:3676:PRO:O	2.35	0.59
3:L:59:PHE:HB2	3:L:77:ILE:HG12	1.83	0.59
3:L:509:GLN:OE1	3:L:511:HIS:NE2	2.31	0.59
1:S:1413:ASP:OD1	1:S:1414:ILE:N	2.33	0.59
9:d:30:DT:C2	9:d:31:DT:C4	2.90	0.59
1:A:1017:ILE:HG23	1:A:1077:GLY:HA3	1.84	0.59
1:A:1357:LYS:O	1:A:1360:LYS:HB3	2.02	0.59
1:A:1583:MET:O	1:A:1586:SER:OG	2.21	0.59
1:A:2168:LEU:HD23	1:A:2171:LEU:HD12	1.84	0.59
1:A:4086:ASP:HA	1:A:4089:ILE:HG12	1.84	0.59
2:B:34:GLY:HA3	2:B:162:SER:HB3	1.83	0.59
2:B:353:LEU:HD23	2:B:395:ALA:HB2	1.84	0.59
3:L:613:SER:O	3:L:617:ILE:HG12	2.02	0.59
1:S:763:THR:HB	1:S:851:ILE:HG13	1.83	0.59
1:S:1646:LEU:HD23	1:S:1649:LEU:HD21	1.83	0.59
1:S:3874:ARG:HD3	1:S:4126:PRO:HB2	1.84	0.59
9:d:21:DA:H2"	9:d:22:DG:C8	2.36	0.59
1:A:326:MET:O	1:A:330:ASN:ND2	2.36	0.59
1:A:1675:TYR:HA	1:A:1678:LEU:HD12	1.83	0.59
1:A:1824:LEU:HD13	1:A:1827:LEU:HD21	1.83	0.59
5:Q:102:LYS:HD2	5:Q:103:ASP:HB2	1.85	0.59
1:S:76:ILE:O	1:S:79:ARG:N	2.34	0.59
1:S:114:VAL:HA	1:S:119:ARG:HH21	1.67	0.59
1:S:958:MET:O	1:S:962:TYR:N	2.34	0.59
1:A:225:LYS:HG2	1:A:274:LEU:HB2	1.84	0.59
1:A:635:PRO:HB3	1:A:672:ILE:HD11	1.85	0.59
1:A:863:GLY:HA3	1:A:3168:TYR:HB2	1.84	0.59
1:A:2348:GLN:OE1	1:A:2352:HIS:NE2	2.34	0.59
1:S:449:TYR:O	1:S:454:GLN:NE2	2.36	0.59
1:S:887:ASP:OD2	1:S:891:ARG:NE	2.34	0.59
1:A:420:VAL:O	1:A:424:LEU:N	2.33	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1840:PHE:O	1:A:1844:VAL:HG23	2.02	0.59
1:A:2211:LEU:HD23	1:A:2214:ARG:HH22	1.67	0.59
2:B:352:PRO:HA	2:B:394:VAL:HA	1.84	0.59
1:S:1412:LYS:O	1:S:1416:GLU:N	2.27	0.59
1:S:2161:ALA:HA	1:S:2164:TRP:HB2	1.84	0.59
2:T:76:ILE:HD13	2:T:247:ARG:HG3	1.84	0.59
1:A:1066:LEU:HD23	1:A:1078:ALA:HB2	1.83	0.59
1:A:1834:ASP:OD1	1:A:1835:ALA:N	2.36	0.59
2:B:94:LYS:HE2	2:B:104:VAL:HG13	1.83	0.59
1:S:898:PHE:HB2	1:S:901:MET:O	2.02	0.59
1:S:1101:PHE:HA	1:S:1104:LEU:HD12	1.85	0.59
1:S:2737:GLU:HB3	1:S:2740:SER:HB2	1.84	0.59
1:S:2940:ARG:HH22	1:S:3981:TYR:HB3	1.67	0.59
1:S:3311:ASN:HB2	1:S:3314:SER:HA	1.85	0.59
2:T:101:ASN:ND2	2:T:140:ASP:O	2.36	0.59
7:j:29:DG:H2"	7:j:30:DT:H5"	1.82	0.59
1:A:1083:ASN:O	1:A:1087:ARG:NH1	2.36	0.59
1:A:1178:ARG:HH21	1:A:1184:ARG:HA	1.68	0.59
1:A:1331:ASN:HA	1:A:1334:LYS:HE3	1.84	0.59
1:A:2574:ASN:O	1:A:2787:HIS:ND1	2.36	0.59
2:B:320:GLN:HG3	3:C:276:TRP:CE3	2.38	0.59
2:B:399:ARG:HG2	2:B:408:PRO:HB2	1.85	0.59
1:S:3930:VAL:HA	1:S:3937:VAL:HA	1.85	0.59
1:A:105:VAL:HG23	1:A:108:LYS:HE2	1.84	0.59
1:A:417:VAL:HA	1:A:420:VAL:HG12	1.85	0.59
1:A:901:MET:HG2	1:A:903:PRO:HD3	1.85	0.59
1:A:3736:LYS:HB2	1:A:3752:VAL:HB	1.84	0.59
1:S:1389:VAL:HG23	1:S:1391:VAL:HG22	1.85	0.59
1:A:1798:LEU:HD22	1:A:1827:LEU:HD13	1.85	0.59
2:B:302:THR:HG22	2:B:311:LEU:HD12	1.83	0.59
3:L:688:LYS:NZ	3:L:695:SER:OG	2.36	0.59
1:S:2986:PRO:O	1:S:2991:LYS:NZ	2.35	0.59
1:A:984:TYR:CD1	1:A:987:LEU:HD12	2.38	0.58
1:A:3820:MET:HE1	1:A:3825:LYS:HA	1.85	0.58
1:A:3949:ALA:HB1	1:A:3957:GLU:HB3	1.84	0.58
6:I:709:VAL:O	6:I:713:ILE:HG12	2.03	0.58
1:S:225:LYS:HG2	1:S:274:LEU:HB2	1.85	0.58
1:S:1693:VAL:HG13	1:S:1696:LEU:HD12	1.85	0.58
1:S:2466:SER:OG	1:S:2469:CYS:SG	2.61	0.58
1:A:958:MET:HB3	1:A:961:LEU:HB2	1.86	0.58
1:A:1238:GLN:HE21	1:A:1296:PHE:HZ	1.52	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1776:GLU:O	1:S:1779:GLN:NE2	2.37	0.58
1:S:3593:ARG:NH2	1:S:3661:ASP:OD1	2.36	0.58
2:T:126:GLN:HA	2:T:129:LYS:HE2	1.84	0.58
10:e:37:DT:H2'	10:e:38:DT:C5	2.38	0.58
1:A:2965:TYR:HB3	1:A:3001:CYS:HB2	1.86	0.58
2:B:397:LEU:HD22	3:C:463:LEU:HD12	1.85	0.58
5:G:121:GLU:HA	5:G:124:ARG:HE	1.67	0.58
6:I:812:MET:H	6:I:848:HIS:HB2	1.69	0.58
1:S:3575:LEU:HD13	1:S:3578:LEU:HD12	1.85	0.58
2:T:217:TYR:HA	2:T:220:ILE:HG22	1.86	0.58
2:T:348:MET:HE3	2:T:399:ARG:HB2	1.84	0.58
1:A:2824:LYS:O	1:A:2829:LYS:NZ	2.37	0.58
3:L:450:GLN:NE2	3:L:536:LEU:O	2.32	0.58
3:L:596:GLU:HA	3:L:599:ARG:HD2	1.85	0.58
1:S:793:LEU:HD21	1:S:866:ILE:HG22	1.84	0.58
1:S:2470:ARG:NH1	1:S:2513:GLU:OE2	2.27	0.58
1:A:1069:HIS:HD2	1:A:1074:LYS:HG2	1.68	0.58
2:B:170:THR:OG1	2:B:172:GLU:OE1	2.22	0.58
2:B:396:ALA:HB3	2:B:413:LEU:HB2	1.85	0.58
3:C:596:GLU:OE2	3:C:599:ARG:NH1	2.36	0.58
6:I:810:LEU:HD22	6:I:848:HIS:HD2	1.69	0.58
2:T:74:LYS:HD2	2:T:111:PRO:HG3	1.85	0.58
1:A:848:LEU:HD21	1:A:852:ARG:HH21	1.69	0.58
1:A:2090:ARG:NH2	1:A:2091:HIS:O	2.36	0.58
1:A:3510:GLN:HB3	1:A:3515:GLN:NE2	2.15	0.58
5:H:43:TRP:HD1	5:H:116:VAL:HG12	1.68	0.58
6:I:654:LYS:N	6:I:660:GLU:OE2	2.37	0.58
6:I:728:GLU:OE1	6:I:741:ARG:NH2	2.36	0.58
1:S:131:LEU:HB2	1:S:173:LYS:HD2	1.86	0.58
1:S:1538:LEU:N	1:S:1553:PHE:O	2.34	0.58
1:S:1583:MET:O	1:S:1586:SER:OG	2.22	0.58
1:A:3617:LEU:HA	1:A:3633:ILE:HG22	1.85	0.58
3:L:141:ARG:HH22	3:L:143:SER:HB3	1.69	0.58
1:S:933:LEU:HD13	1:S:2793:PRO:HB2	1.86	0.58
1:S:2322:VAL:O	1:S:2326:ILE:HG12	2.03	0.58
1:S:2330:VAL:HG13	1:S:2333:ARG:HH22	1.68	0.58
2:T:67:ILE:HA	2:T:70:VAL:HG22	1.85	0.58
1:A:71:LYS:O	1:A:72:SER:C	2.45	0.58
1:A:337:LYS:HG2	1:A:369:PHE:CZ	2.38	0.58
2:B:297:LYS:H	3:C:298:ASN:HB3	1.68	0.58
5:P:61:MET:HB2	5:P:65:LYS:HZ1	1.69	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:435:LEU:HA	1:S:438:LEU:HD12	1.86	0.58
1:S:1080:LEU:HB3	1:S:1126:GLN:HG3	1.84	0.58
1:S:1082:PHE:HA	1:S:1085:ILE:HG12	1.86	0.58
1:S:2350:LYS:HA	1:S:2354:ASN:OD1	2.04	0.58
1:S:3506:LEU:HD11	1:S:3554:PHE:HB3	1.86	0.58
1:A:24:ARG:NH1	1:A:25:CYS:HB3	2.19	0.58
2:B:258:ARG:NH1	10:e:33:DA:H3'	2.19	0.58
3:C:620:ILE:HD13	3:C:639:ILE:HD11	1.86	0.58
3:C:728:LEU:HD13	1:S:1917:LYS:HG2	1.85	0.58
3:L:129:LYS:NZ	3:L:130:ARG:O	2.36	0.58
1:S:2532:PRO:HD2	1:S:2538:ARG:HA	1.84	0.58
1:S:2806:LYS:HB2	1:S:2857:CYS:HB2	1.85	0.58
1:S:2819:GLU:O	1:S:2822:LYS:NZ	2.33	0.58
1:S:2999:LEU:HD22	1:S:3014:CYS:HA	1.86	0.58
2:T:230:ARG:HD3	2:T:232:HIS:H	1.69	0.58
1:A:723:ASP:C	1:A:725:LEU:H	2.12	0.58
1:A:2353:GLN:HB3	1:A:2360:PHE:HB2	1.84	0.58
2:B:447:PRO:HD3	3:C:243:HIS:HB2	1.86	0.58
3:C:595:ALA:HB1	3:C:599:ARG:HH22	1.69	0.58
1:S:275:PHE:HE2	1:S:319:PHE:HB2	1.69	0.58
1:S:582:THR:HG23	1:S:615:ALA:HB3	1.86	0.58
1:S:2452:ARG:HB2	1:S:2498:ILE:HD11	1.86	0.58
1:S:3254:LEU:HD23	1:S:3287:ARG:HH12	1.69	0.58
1:S:3628:PHE:HB2	1:S:3675:LYS:HB3	1.85	0.58
1:S:3793:VAL:HG23	1:S:3803:ILE:HG22	1.83	0.58
1:A:18:THR:O	1:A:22:ALA:N	2.34	0.57
1:A:305:ASN:O	1:A:308:LEU:N	2.36	0.57
1:A:983:LEU:HB3	1:A:2591:ILE:HD11	1.85	0.57
1:A:1322:THR:O	1:A:1326:GLU:N	2.37	0.57
1:A:2356:MET:HE1	1:A:2359:LYS:H	1.69	0.57
1:A:2928:LYS:O	1:A:2931:ARG:HD3	2.03	0.57
2:B:34:GLY:HA2	2:B:160:LYS:HG3	1.86	0.57
3:C:104:GLN:O	3:C:141:ARG:NH1	2.36	0.57
3:C:184:ARG:NH2	3:C:514:ASN:O	2.36	0.57
1:S:305:ASN:O	1:S:308:LEU:N	2.37	0.57
1:S:925:GLN:HA	1:S:2769:VAL:HG13	1.85	0.57
1:S:1231:GLN:HE21	1:S:1235:ILE:HD11	1.67	0.57
1:S:3580:ASN:H	1:S:3734:ARG:NH2	1.97	0.57
1:S:3870:SER:OG	1:S:4117:LEU:O	2.22	0.57
1:A:947:GLN:HB2	1:A:2577:PHE:HE1	1.69	0.57
2:B:458:GLN:HE21	2:B:528:LEU:HB3	1.68	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:507:THR:OG1	3:C:394:ARG:NH1	2.37	0.57
4:D:27:GLU:HA	4:D:37:PHE:HB2	1.86	0.57
1:S:248:ILE:HA	1:S:251:PHE:HD2	1.69	0.57
1:S:1249:SER:OG	1:S:1312:CYS:SG	2.58	0.57
1:S:1841:SER:HA	1:S:1844:VAL:HG13	1.86	0.57
1:S:2392:VAL:O	1:S:2395:THR:HB	2.04	0.57
1:A:649:PHE:CE2	1:A:653:LEU:HD11	2.39	0.57
1:A:2243:GLU:HA	1:A:2246:LYS:HE3	1.87	0.57
1:S:941:MET:HE1	1:S:962:TYR:HE1	1.69	0.57
1:S:1095:LEU:O	1:S:1099:PHE:N	2.35	0.57
1:S:2291:GLN:OE1	1:S:2291:GLN:N	2.37	0.57
1:S:2937:ASP:HB2	1:S:3979:LEU:HD23	1.86	0.57
1:A:955:ALA:O	1:A:957:PRO:HD3	2.04	0.57
1:A:1115:HIS:HD2	1:A:1182:GLU:HB3	1.70	0.57
1:A:1354:GLU:HB3	1:A:1357:LYS:HD3	1.85	0.57
1:A:2935:GLU:OE2	1:A:2936:TYR:N	2.38	0.57
1:A:3179:TRP:HB3	1:A:3242:MET:HE1	1.85	0.57
1:A:3723:ASP:HB2	1:A:3741:ARG:HB2	1.86	0.57
2:B:82:LEU:HB3	2:B:108:LEU:HD22	1.85	0.57
2:B:168:LEU:HG	2:B:202:LEU:HD13	1.85	0.57
3:L:65:ASP:HB3	3:L:78:THR:HG23	1.86	0.57
1:S:2326:ILE:O	1:S:2330:VAL:N	2.36	0.57
1:S:2577:PHE:HB2	1:S:2783:ILE:HB	1.86	0.57
1:S:2891:ARG:HH12	1:S:3897:PHE:HB3	1.70	0.57
1:A:105:VAL:O	1:A:108:LYS:HB3	2.05	0.57
1:A:3304:VAL:HG21	1:A:3333:THR:HG21	1.86	0.57
2:B:305:THR:HB	3:C:288:ASP:HA	1.85	0.57
3:L:6:ASN:N	3:L:128:GLU:OE1	2.37	0.57
1:S:888:ARG:HH12	1:S:3889:ARG:HG3	1.70	0.57
1:S:2225:HIS:HB3	1:S:2227:LYS:HE2	1.87	0.57
1:S:2234:ASN:HA	1:S:2237:ILE:HD12	1.85	0.57
2:T:82:LEU:HB3	2:T:108:LEU:HD22	1.86	0.57
2:T:304:ASN:OD1	2:T:305:THR:N	2.35	0.57
1:A:217:LEU:HB2	1:A:220:LEU:HB2	1.86	0.57
1:A:880:MET:HG2	1:A:3934:THR:HB	1.87	0.57
1:A:898:PHE:H	1:A:902:LYS:HE3	1.69	0.57
1:A:1147:LYS:HG3	1:A:1149:LYS:HG2	1.87	0.57
1:A:3444:ALA:HA	1:A:3482:LEU:HD11	1.85	0.57
1:A:3483:MET:HE2	1:A:3513:ALA:HB3	1.86	0.57
3:L:59:PHE:HA	3:L:77:ILE:HA	1.87	0.57
3:L:368:ARG:NH1	2:T:448:PHE:O	2.35	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:497:ARG:NH2	3:L:503:GLU:O	2.36	0.57
1:S:895:ALA:HA	1:S:904:VAL:HA	1.85	0.57
1:S:2460:GLU:OE1	1:S:2460:GLU:N	2.38	0.57
1:S:3170:ASP:HB3	1:S:3174:ASP:HB2	1.86	0.57
3:C:18:PHE:HB2	3:C:102:SER:HA	1.87	0.57
3:C:643:ARG:HD3	3:C:655:PHE:CD2	2.40	0.57
6:I:865:ILE:HG12	6:I:889:LEU:HD13	1.86	0.57
1:S:801:LYS:NZ	1:S:3114:TYR:O	2.37	0.57
1:S:1062:ARG:NH1	1:S:1065:SER:OG	2.37	0.57
1:S:1282:LEU:HD13	1:S:1359:LEU:HB3	1.85	0.57
1:A:857:GLN:CD	1:A:3139:GLN:HE22	2.12	0.57
6:I:693:PRO:HB2	6:I:718:HIS:CE1	2.40	0.57
3:L:293:THR:O	3:L:307:LYS:NZ	2.34	0.57
5:Q:183:VAL:O	5:Q:186:GLU:HG3	2.05	0.57
1:S:1849:ASP:OD1	1:S:1850:VAL:N	2.38	0.57
1:A:149:ILE:HD11	1:A:183:GLU:HB2	1.86	0.57
1:A:1458:LEU:HD13	1:A:1467:ILE:HG21	1.86	0.57
1:A:3227:ILE:HA	1:A:3230:LEU:HD12	1.86	0.57
2:B:484:GLN:OE1	2:B:488:ARG:NH1	2.38	0.57
6:I:782:LYS:NZ	6:I:783:ASN:O	2.38	0.57
3:L:325:LYS:HZ3	3:L:328:GLU:HB3	1.70	0.57
1:S:2158:ARG:HH21	1:S:2196:TRP:HB3	1.70	0.57
1:S:2531:LEU:HD22	1:S:2538:ARG:HG3	1.87	0.57
7:j:19:DA:H61	8:i:39:DA:H61	1.51	0.57
1:A:793:LEU:HB3	1:A:870:LEU:HA	1.87	0.57
1:A:1149:LYS:O	1:A:1151:ARG:NH1	2.38	0.57
6:I:665:CYS:HB2	6:I:697:THR:HG21	1.87	0.57
1:S:760:LEU:HD11	1:S:798:GLY:HA3	1.87	0.57
1:S:1709:GLU:HA	1:S:1712:ARG:HG2	1.87	0.57
1:S:1878:ASP:HB3	1:S:1947:CYS:HA	1.87	0.57
1:S:2367:VAL:O	1:S:2371:PHE:N	2.37	0.57
10:e:41:DT:H2"	10:e:42:DA:N7	2.19	0.57
1:A:720:GLN:OE1	1:A:720:GLN:N	2.36	0.56
1:A:3591:ASP:HB3	1:A:3609:MET:HE1	1.87	0.56
1:A:4006:VAL:HG11	1:A:4009:PRO:HB3	1.86	0.56
2:B:469:LEU:HD21	2:B:518:LEU:HG	1.86	0.56
1:S:18:THR:O	1:S:22:ALA:N	2.35	0.56
1:S:3617:LEU:HA	1:S:3633:ILE:HG22	1.87	0.56
2:T:39:ILE:HB	2:T:166:ILE:HG12	1.87	0.56
1:A:1440:ASP:HB2	1:A:1445:ARG:HH21	1.69	0.56
1:A:3609:MET:HA	1:A:3612:ARG:HE	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:P:21:GLN:NE2	5:P:35:THR:OG1	2.38	0.56
5:P:51:GLU:HG2	5:P:110:SER:HB3	1.87	0.56
1:S:541:MET:HE1	1:S:561:ASN:H	1.69	0.56
1:S:1570:GLU:HG3	1:S:1571:LEU:HD22	1.87	0.56
1:S:2261:SER:O	1:S:2270:ASN:ND2	2.32	0.56
1:S:2365:ASN:ND2	1:S:2399:GLU:OE2	2.27	0.56
1:S:3069:MET:HG3	1:S:3075:LYS:HD3	1.86	0.56
1:S:4087:HIS:C	1:S:4090:ARG:HD2	2.30	0.56
2:T:423:GLN:HG3	2:T:425:ILE:HG12	1.86	0.56
1:A:240:GLU:HB2	1:A:242:PRO:HD2	1.86	0.56
1:A:895:ALA:HA	1:A:904:VAL:HA	1.86	0.56
1:A:1058:SER:HA	1:A:1061:LYS:HE2	1.87	0.56
1:A:1568:ASN:HA	1:A:1600:MET:HE1	1.87	0.56
1:A:2215:LEU:HA	1:A:2218:PHE:HD2	1.71	0.56
1:A:2274:ILE:HD13	1:A:2319:ALA:HB2	1.87	0.56
1:A:3236:PHE:HE2	1:A:3269:ARG:HH12	1.53	0.56
2:B:488:ARG:HG3	2:B:501:GLU:HB3	1.87	0.56
3:C:468:GLU:O	3:C:469:LYS:HG2	2.05	0.56
6:I:814:ARG:N	6:I:849:GLY:HA2	2.20	0.56
5:Q:181:ILE:HG12	6:R:795:LEU:HD22	1.87	0.56
1:S:348:ILE:HG22	1:S:349:ILE:HG13	1.87	0.56
1:S:1626:TRP:HZ2	1:S:1674:THR:HG21	1.70	0.56
1:S:2234:ASN:O	1:S:2238:ILE:HG12	2.06	0.56
1:S:2830:ASN:OD1	1:S:2834:GLN:NE2	2.39	0.56
2:T:48:MET:SD	2:T:48:MET:N	2.70	0.56
2:T:121:GLN:O	2:T:130:ARG:NH1	2.39	0.56
1:A:345:PHE:HB3	1:A:366:TYR:CZ	2.40	0.56
1:A:979:VAL:HA	1:A:982:GLN:HG2	1.87	0.56
1:A:1583:MET:HE3	1:A:1625:HIS:O	2.06	0.56
1:A:1793:THR:O	1:A:1797:LEU:HG	2.05	0.56
1:A:3130:GLN:HB3	1:A:3178:ILE:HG12	1.87	0.56
1:A:3789:ARG:NH1	1:A:3936:GLY:O	2.38	0.56
2:B:444:ARG:NH2	3:C:268:LEU:O	2.36	0.56
1:S:1568:ASN:HA	1:S:1600:MET:HE1	1.87	0.56
1:S:1614:GLN:HA	1:S:1617:LYS:HE2	1.87	0.56
1:S:3472:ILE:HG12	1:S:3479:THR:HB	1.85	0.56
9:d:32:DT:H2"	9:d:33:DA:N7	2.20	0.56
1:A:436:GLU:HA	1:A:439:VAL:HG22	1.87	0.56
1:A:1095:LEU:O	1:A:1099:PHE:N	2.29	0.56
1:A:1104:LEU:HD13	1:A:1134:LEU:HD13	1.87	0.56
1:A:2304:VAL:O	1:A:2348:GLN:NE2	2.38	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2526:SER:O	1:A:2538:ARG:NH2	2.39	0.56
2:B:352:PRO:HD2	2:B:355:LEU:HD12	1.87	0.56
3:L:74:TYR:HB3	3:L:77:ILE:HD12	1.87	0.56
3:L:328:GLU:HA	3:L:331:MET:HG2	1.88	0.56
1:S:1782:PHE:HA	1:S:1785:ILE:HG12	1.87	0.56
1:S:2930:TYR:HB2	1:S:2939:LEU:HD21	1.88	0.56
2:T:45:SER:HB3	2:T:48:MET:HE1	1.88	0.56
7:j:15:DA:N3	7:j:16:DA:N6	2.54	0.56
1:A:650:SER:HA	1:A:653:LEU:HD12	1.88	0.56
1:A:1851:LEU:HB3	1:A:1852:LYS:HZ2	1.71	0.56
3:L:312:GLN:HB2	2:T:285:PRO:HB2	1.88	0.56
1:S:734:LEU:HA	1:S:776:TRP:HH2	1.70	0.56
1:S:1423:ILE:HG13	1:S:1425:ALA:H	1.71	0.56
1:S:1606:ARG:HA	1:S:1608:ARG:HH21	1.71	0.56
1:A:638:GLN:HG3	1:A:640:GLU:H	1.71	0.56
1:A:1108:MET:SD	1:A:1178:ARG:NH1	2.76	0.56
1:A:2495:SER:HA	1:A:2498:ILE:HD12	1.87	0.56
1:S:168:ASP:H	1:S:171:LEU:HD12	1.71	0.56
1:S:1205:ASN:HB3	1:S:1275:THR:HA	1.88	0.56
1:S:1649:LEU:HA	1:S:1652:ILE:HD12	1.88	0.56
1:S:2094:MET:HB2	1:S:2097:LEU:HD12	1.88	0.56
1:S:2283:ASN:HB3	1:S:2285:LEU:HG	1.87	0.56
1:S:2353:GLN:HA	1:S:2356:MET:HG3	1.87	0.56
1:A:117:LYS:NZ	3:C:302:GLU:OE1	2.39	0.56
1:A:337:LYS:O	1:A:342:MET:HE1	2.06	0.56
1:A:386:VAL:HG22	1:A:431:TYR:HE2	1.71	0.56
1:A:1684:LEU:O	1:A:1689:LYS:NZ	2.39	0.56
6:I:677:ASP:OD1	6:I:678:LEU:N	2.38	0.56
1:S:124:LYS:HZ1	7:j:22:DG:H3'	1.71	0.56
1:A:166:ILE:HG13	1:A:167:PRO:HD3	1.88	0.56
1:A:3756:GLU:N	1:A:3798:SER:O	2.39	0.56
1:S:2442:MET:HE1	1:S:2446:LEU:HD13	1.88	0.56
1:S:3912:CYS:HA	1:S:3915:HIS:CD2	2.41	0.56
1:A:938:VAL:HA	1:A:941:MET:HG3	1.88	0.56
1:A:2302:ALA:O	1:A:2306:ASN:ND2	2.39	0.56
2:B:217:TYR:O	2:B:221:ILE:N	2.28	0.56
2:B:534:TYR:OH	3:C:260:ARG:NH2	2.37	0.56
3:C:724:ASP:O	3:C:728:LEU:N	2.39	0.56
6:I:725:TRP:HA	6:I:741:ARG:HH22	1.70	0.56
3:L:9:ALA:HB3	3:L:130:ARG:HG3	1.87	0.56
6:R:860:VAL:HG22	6:R:862:HIS:H	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:880:MET:HG2	1:S:3934:THR:HB	1.87	0.56
1:S:1687:HIS:O	1:S:1745:LYS:NZ	2.39	0.56
1:A:770:LEU:HD23	1:A:773:LEU:HD21	1.88	0.55
2:B:44:ALA:O	2:B:138:GLY:N	2.38	0.55
3:C:9:ALA:N	3:C:129:LYS:O	2.38	0.55
5:G:44:THR:O	5:G:114:GLU:N	2.36	0.55
6:I:668:SER:HB3	6:I:702:ALA:HA	1.88	0.55
3:L:484:ASN:OD1	3:L:486:ARG:HG2	2.05	0.55
3:L:725:VAL:HG13	3:L:729:LEU:HD13	1.87	0.55
1:A:2227:LYS:O	1:A:2228:ARG:HG3	2.06	0.55
1:A:3550:LYS:O	1:A:3553:GLU:HG2	2.06	0.55
1:A:3967:PHE:O	1:A:3970:LEU:HD22	2.07	0.55
2:B:41:LEU:HB3	2:B:88:TYR:HE1	1.71	0.55
2:B:297:LYS:NZ	3:C:297:LEU:O	2.40	0.55
3:L:640:ARG:HH12	3:L:682:GLY:HA2	1.72	0.55
1:S:1338:VAL:O	1:S:1342:MET:HG2	2.06	0.55
1:S:1769:GLU:H	1:S:1772:HIS:CE1	2.24	0.55
1:S:3183:ILE:HG13	1:S:3242:MET:SD	2.46	0.55
1:A:163:LYS:HG2	2:B:301:ARG:HA	1.88	0.55
1:A:643:GLU:HG3	1:A:644:PRO:HD3	1.87	0.55
1:A:1034:ARG:HG3	1:A:1085:ILE:HA	1.87	0.55
1:A:1639:LEU:HA	1:A:1642:LYS:HD2	1.88	0.55
1:A:3259:LEU:O	1:A:3276:TRP:NE1	2.39	0.55
5:G:8:ILE:HD11	5:G:18:HIS:HB2	1.89	0.55
5:H:179:ARG:NH2	6:I:782:LYS:O	2.38	0.55
6:I:703:GLY:O	6:I:722:LYS:NZ	2.39	0.55
1:S:36:ARG:HD3	1:S:2426:HIS:CD2	2.40	0.55
1:S:2395:THR:HA	1:S:2398:LEU:HD12	1.87	0.55
1:S:2563:LEU:HD13	1:S:2795:GLN:HB3	1.87	0.55
1:A:1150:LYS:HA	1:A:1162:SER:HA	1.89	0.55
1:A:2981:TRP:HB2	1:A:2984:GLY:H	1.71	0.55
7:j:34:DT:H2"	7:j:35:DT:C5	2.41	0.55
1:A:3142:ILE:HA	1:A:3145:ILE:HG12	1.89	0.55
2:B:38:LEU:HD11	2:B:165:ARG:NH2	2.22	0.55
6:R:816:HIS:H	6:R:850:ALA:CA	2.20	0.55
1:S:1780:SER:HB2	1:S:1784:ARG:HH12	1.70	0.55
1:S:1840:PHE:CZ	1:S:1880:MET:HE2	2.42	0.55
1:S:2279:ILE:O	1:S:2283:ASN:ND2	2.39	0.55
1:A:128:LEU:HD21	1:A:170:VAL:HG23	1.89	0.55
1:A:616:LYS:NZ	1:A:2033:ASP:O	2.37	0.55
1:A:1662:ASN:OD1	1:A:1663:THR:N	2.39	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:160:LYS:NZ	2:B:161:MET:O	2.40	0.55
2:B:290:ARG:NH2	6:I:693:PRO:O	2.40	0.55
3:C:732:ILE:HA	1:S:1913:LYS:HZ2	1.71	0.55
6:R:812:MET:H	6:R:848:HIS:HB2	1.71	0.55
1:S:486:GLY:O	1:S:490:ILE:HG12	2.06	0.55
1:S:835:LYS:HA	1:S:838:LYS:HG2	1.88	0.55
1:S:2575:PRO:HA	1:S:2786:LYS:HA	1.89	0.55
1:S:4086:ASP:OD1	1:S:4087:HIS:N	2.39	0.55
1:A:1181:THR:HG22	1:A:1262:ALA:HB2	1.88	0.55
1:A:2331:MET:HE1	1:A:2337:LEU:HG	1.89	0.55
1:A:2547:SER:HB3	1:A:2550:ILE:HG12	1.89	0.55
1:A:4121:TRP:HD1	1:A:4123:GLY:H	1.55	0.55
5:G:99:LYS:HG2	5:G:108:LEU:HD13	1.89	0.55
3:L:619:HIS:HD1	3:L:620:ILE:HD13	1.70	0.55
3:L:643:ARG:HD2	3:L:655:PHE:HD2	1.72	0.55
5:P:150:ARG:NH1	5:P:154:ASP:OD2	2.39	0.55
1:S:958:MET:HB3	1:S:961:LEU:HB2	1.89	0.55
1:S:1048:GLN:OE1	1:S:1051:LYS:NZ	2.30	0.55
1:S:2287:PRO:HB3	1:S:2326:ILE:HD12	1.88	0.55
1:S:2313:LYS:NZ	7:j:16:DA:O5'	2.40	0.55
1:S:3048:LYS:HB3	1:S:3061:LEU:HD22	1.88	0.55
1:S:3369:ASP:HB3	1:S:3372:LYS:HG2	1.88	0.55
1:A:2532:PRO:O	1:A:2538:ARG:NH1	2.40	0.55
1:A:3072:GLU:HA	1:A:3075:LYS:HE2	1.89	0.55
1:A:3755:GLY:HA2	1:A:3799:ARG:HA	1.89	0.55
2:B:492:ALA:O	2:B:496:ASP:N	2.40	0.55
3:L:468:GLU:O	3:L:469:LYS:HG3	2.07	0.55
1:S:1296:PHE:O	1:S:1300:SER:N	2.39	0.55
1:S:2773:ARG:HG3	1:S:2789:SER:HB2	1.89	0.55
1:S:3259:LEU:HG	1:S:3276:TRP:CZ2	2.42	0.55
1:A:1457:GLN:HG3	1:A:1460:ARG:NH2	2.22	0.55
1:A:1663:THR:O	1:A:1665:HIS:ND1	2.39	0.55
1:A:2850:PHE:HB3	1:A:2883:SER:HB2	1.88	0.55
1:A:3321:LEU:HB3	1:A:3324:ARG:HH21	1.72	0.55
2:B:305:THR:OG1	3:C:290:GLN:HG3	2.07	0.55
3:C:327:ASP:OD1	3:C:328:GLU:N	2.40	0.55
3:L:643:ARG:HE	3:L:647:ILE:HD11	1.72	0.55
1:S:73:LEU:HG	1:S:75:SER:H	1.69	0.55
1:S:1406:LEU:HD11	1:S:1411:TYR:HB2	1.89	0.55
1:S:3898:LEU:HG	1:S:3901:ARG:HH21	1.71	0.55
2:T:45:SER:OG	2:T:46:LYS:N	2.40	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:346:MET:HB2	2:T:399:ARG:HB3	1.88	0.55
1:A:978:GLN:NE2	1:A:2596:ARG:O	2.40	0.55
1:A:1564:SER:O	1:A:1568:ASN:ND2	2.40	0.55
1:S:2330:VAL:HG22	1:S:2331:MET:HG3	1.88	0.55
1:S:3806:LEU:HD21	1:S:3938:ILE:HD12	1.88	0.55
2:T:363:ARG:HB3	2:T:436:PHE:CD2	2.42	0.55
1:A:1417:THR:O	1:A:1421:GLU:N	2.32	0.54
1:A:1570:GLU:HG3	1:A:1571:LEU:HD22	1.88	0.54
1:A:3516:HIS:O	1:A:3519:GLU:HG3	2.07	0.54
1:A:3806:LEU:HD22	1:A:3809:THR:HB	1.89	0.54
5:G:28:LEU:HB3	5:G:67:VAL:HG22	1.89	0.54
3:L:29:SER:HB3	3:L:32:GLU:HG2	1.89	0.54
3:L:486:ARG:HD2	2:T:407:PRO:HB3	1.89	0.54
4:M:10:THR:HG22	4:M:21:VAL:HG22	1.89	0.54
4:M:86:ALA:HB3	4:M:97:THR:HB	1.89	0.54
1:S:358:GLU:HA	1:S:361:ILE:HD12	1.89	0.54
1:S:3559:LYS:HA	1:S:3562:LEU:HG	1.89	0.54
1:A:1697:PRO:HA	1:A:1753:SER:HB3	1.89	0.54
1:A:3693:GLU:HG2	1:A:3695:LEU:H	1.72	0.54
6:I:812:MET:HE1	6:I:900:LYS:O	2.07	0.54
3:L:394:ARG:NH1	2:T:507:THR:OG1	2.39	0.54
1:S:414:LEU:HB2	1:S:460:ALA:HB1	1.89	0.54
1:A:1661:PHE:HD1	1:A:1665:HIS:HB2	1.72	0.54
1:A:2383:PHE:HB3	1:A:2418:LYS:HE3	1.89	0.54
1:A:3493:TRP:CZ3	1:A:3521:ILE:HA	2.42	0.54
3:C:287:GLU:OE1	3:C:287:GLU:N	2.40	0.54
5:G:28:LEU:HD21	5:G:70:LEU:HD23	1.89	0.54
6:I:706:ASN:O	6:I:710:LYS:NZ	2.40	0.54
1:S:169:THR:HA	1:S:172:GLU:HG2	1.89	0.54
1:S:3483:MET:HE1	1:S:3512:VAL:HG22	1.89	0.54
1:A:463:LYS:HB3	1:A:544:ILE:HD13	1.89	0.54
1:A:1117:ASP:OD1	1:A:1118:GLU:N	2.38	0.54
1:A:1368:LEU:HB2	1:A:1372:LEU:HD23	1.87	0.54
1:A:2253:TYR:H	1:A:2256:ILE:HD12	1.73	0.54
1:A:2261:SER:O	1:A:2270:ASN:ND2	2.39	0.54
1:A:2986:PRO:O	1:A:2991:LYS:NZ	2.39	0.54
1:A:3114:TYR:HB2	1:A:3128:LYS:HG2	1.90	0.54
6:I:902:GLU:OE1	6:I:904:GLN:NE2	2.41	0.54
3:L:656:ASN:CG	3:L:689:GLU:H	2.15	0.54
1:S:124:LYS:NZ	7:j:22:DG:OP1	2.34	0.54
1:S:1164:CYS:SG	1:S:1165:LEU:N	2.81	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2090:ARG:N	1:S:2180:GLU:OE1	2.41	0.54
1:S:2791:ILE:HA	1:S:2794:LEU:HD12	1.89	0.54
1:A:169:THR:HA	1:A:172:GLU:HG2	1.89	0.54
1:A:3657:SER:N	1:A:3660:ASN:OD1	2.41	0.54
1:A:3922:ASP:O	1:A:3959:MET:HE1	2.08	0.54
5:G:10:LEU:HD13	5:G:17:THR:HA	1.89	0.54
5:P:179:ARG:NH2	6:R:803:TYR:O	2.30	0.54
6:R:747:CYS:O	6:R:751:LYS:N	2.34	0.54
1:S:2162:LYS:HG3	1:S:2163:HIS:ND1	2.22	0.54
1:A:1868:THR:O	1:A:1871:MET:HB2	2.08	0.54
1:A:3604:LYS:NZ	1:A:3605:ASN:OD1	2.38	0.54
2:B:62:MET:HA	2:B:65:GLN:HG3	1.89	0.54
3:C:270:GLU:OE2	3:C:484:ASN:ND2	2.35	0.54
3:C:347:LYS:HB3	3:C:350:GLN:HG3	1.90	0.54
6:I:764:SER:OG	6:I:767:ILE:O	2.25	0.54
6:I:796:ILE:O	6:I:800:GLU:HG2	2.07	0.54
1:S:128:LEU:HD13	1:S:173:LYS:HZ1	1.73	0.54
1:S:1146:ASN:HB3	1:S:1199:PRO:HB3	1.89	0.54
1:S:1322:THR:O	1:S:1326:GLU:N	2.41	0.54
1:S:3580:ASN:ND2	1:S:3582:GLU:OE1	2.40	0.54
1:S:3666:LEU:HA	1:S:3669:LYS:HZ3	1.73	0.54
2:T:42:VAL:HA	2:T:169:PHE:HB2	1.89	0.54
9:d:15:DA:N3	9:d:16:DA:N6	2.55	0.54
1:A:888:ARG:HH21	1:A:3889:ARG:HB3	1.72	0.54
1:A:3110:PHE:CD2	1:A:3135:LEU:HD11	2.43	0.54
2:B:462:MET:HE3	2:B:525:PHE:CD1	2.43	0.54
2:B:469:LEU:HD11	2:B:518:LEU:HD11	1.90	0.54
6:I:814:ARG:H	6:I:849:GLY:HA2	1.71	0.54
6:R:889:LEU:HD13	6:R:905:GLU:H	1.72	0.54
1:S:1017:ILE:HG23	1:S:1077:GLY:HA3	1.90	0.54
1:S:1444:ASP:OD1	1:S:1445:ARG:N	2.40	0.54
1:S:2356:MET:HE1	1:S:2359:LYS:H	1.73	0.54
1:A:356:ASN:HB3	1:A:358:GLU:HG2	1.90	0.54
1:A:584:GLU:N	1:A:613:HIS:O	2.38	0.54
1:A:1257:LEU:HA	1:A:1260:LEU:HD12	1.88	0.54
1:A:2578:GLU:OE1	1:A:2578:GLU:N	2.41	0.54
1:A:2924:VAL:HG11	1:A:2989:ALA:HB1	1.90	0.54
1:A:3011:LEU:HD12	1:A:3050:LYS:HD2	1.90	0.54
2:B:37:SER:N	2:B:161:MET:HE1	2.22	0.54
3:C:260:ARG:NH2	3:C:370:ASP:OD2	2.41	0.54
1:S:196:LEU:HB3	1:S:200:PHE:CZ	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1379:PRO:O	1:S:1382:ILE:HG12	2.08	0.54
1:S:3312:VAL:O	1:S:3316:LEU:N	2.34	0.54
1:S:4086:ASP:HA	1:S:4089:ILE:HG12	1.89	0.54
1:A:928:VAL:HB	1:A:2769:VAL:HG11	1.88	0.54
1:A:984:TYR:HD1	1:A:987:LEU:HD12	1.73	0.54
1:A:1228:GLY:HA2	1:A:1256:TRP:NE1	2.17	0.54
1:A:2876:VAL:HG11	1:A:2892:LEU:HD11	1.90	0.54
1:A:3159:ARG:HG2	1:A:3230:LEU:HD13	1.89	0.54
2:B:120:ASP:HA	2:B:123:LYS:HB3	1.90	0.54
3:C:62:ASP:HA	3:C:103:GLN:HG2	1.90	0.54
3:C:643:ARG:HH21	3:C:685:LEU:HD22	1.73	0.54
1:S:635:PRO:HB3	1:S:672:ILE:HD11	1.89	0.54
1:S:864:GLY:HA3	1:S:3170:ASP:OD1	2.08	0.54
1:S:936:SER:HB2	1:S:2790:LEU:HD22	1.90	0.54
1:S:1603:GLN:OE1	1:S:1606:ARG:NH1	2.41	0.54
1:S:3506:LEU:O	1:S:3551:ASN:ND2	2.40	0.54
1:S:3614:TYR:O	1:S:3619:ASP:N	2.34	0.54
1:A:1690:GLY:HA2	1:A:1693:VAL:HG22	1.88	0.54
1:A:2228:ARG:NH2	10:e:44:DG:OP1	2.41	0.54
1:A:2388:LYS:NZ	2:B:154:PHE:O	2.41	0.54
1:S:541:MET:HE2	1:S:561:ASN:ND2	2.22	0.54
1:S:785:MET:HA	1:S:788:TYR:CZ	2.42	0.54
1:A:960:GLN:HA	1:A:963:LYS:HE2	1.90	0.53
1:A:1172:LEU:HD11	1:A:1187:SER:HB2	1.89	0.53
1:A:1231:GLN:H	1:A:1232:PRO:HD2	1.73	0.53
1:A:3190:LEU:HD21	1:A:3231:ILE:HD12	1.91	0.53
4:D:132:VAL:HG11	4:M:8:LEU:HD21	1.90	0.53
5:G:56:ALA:HB1	5:G:63:LYS:HE3	1.90	0.53
3:L:185:LEU:O	3:L:514:ASN:ND2	2.34	0.53
1:S:1029:CYS:HA	1:S:1032:CYS:SG	2.47	0.53
1:S:1331:ASN:HA	1:S:1334:LYS:HE3	1.90	0.53
1:S:2470:ARG:O	1:S:2473:MET:HG2	2.08	0.53
2:T:270:SER:HB3	2:T:374:LEU:HB2	1.89	0.53
2:T:465:ILE:HG12	2:T:518:LEU:HD22	1.90	0.53
1:A:67:VAL:O	1:A:68:PHE:C	2.52	0.53
1:A:702:SER:O	1:A:706:LEU:HG	2.08	0.53
1:A:2820:MET:HE2	1:A:2824:LYS:HG3	1.90	0.53
1:A:3938:ILE:HG13	1:A:3940:ILE:HD11	1.89	0.53
3:L:162:GLN:HG2	3:L:223:GLU:HB3	1.90	0.53
3:L:249:CYS:SG	3:L:250:ARG:N	2.72	0.53
3:L:462:SER:HA	2:T:350:PHE:HB2	1.89	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1426:GLN:NE2	1:S:1468:LEU:HD13	2.23	0.53
1:S:2195:SER:O	1:S:2722:ARG:NH1	2.42	0.53
1:S:2831:ASN:O	1:S:2835:LYS:HG2	2.08	0.53
1:S:2965:TYR:HD2	1:S:3253:SER:HB2	1.73	0.53
1:S:3158:LYS:HG3	1:S:3159:ARG:HD3	1.89	0.53
1:S:3450:MET:HG3	1:S:3468:LEU:HD11	1.90	0.53
1:S:3719:ILE:HA	1:S:3742:GLY:HA2	1.90	0.53
1:A:634:LEU:HD23	1:A:672:ILE:HG13	1.91	0.53
1:A:1164:CYS:SG	1:A:1165:LEU:N	2.81	0.53
1:A:3483:MET:HA	1:A:3486:GLU:HG3	1.90	0.53
2:B:234:GLU:OE1	2:B:234:GLU:N	2.40	0.53
3:L:277:THR:O	2:T:319:SER:N	2.34	0.53
3:L:524:THR:HA	3:L:527:GLN:HG2	1.91	0.53
3:L:686:ILE:HD12	3:L:702:LYS:HG3	1.91	0.53
6:R:737:PRO:O	6:R:739:GLN:NE2	2.41	0.53
1:S:670:LEU:HB2	1:S:732:PHE:HZ	1.73	0.53
1:S:1959:LEU:HD12	1:S:2123:PRO:HG2	1.90	0.53
1:S:4055:ASN:ND2	1:S:4091:ALA:O	2.42	0.53
2:T:239:LEU:HA	2:T:242:LEU:HD12	1.89	0.53
1:A:433:PRO:O	1:A:436:GLU:HG3	2.08	0.53
1:A:720:GLN:HE21	1:A:1122:GLY:N	2.07	0.53
1:A:850:GLU:HG3	1:A:854:ARG:HH22	1.72	0.53
1:A:978:GLN:NE2	1:A:2597:PHE:HA	2.24	0.53
1:A:1436:LEU:HD12	1:A:1445:ARG:HG2	1.89	0.53
1:A:2548:PRO:HB2	1:A:2848:PHE:CD1	2.44	0.53
1:A:2563:LEU:HD22	1:A:2795:GLN:HB3	1.91	0.53
2:B:165:ARG:HH22	4:D:188:PRO:HD3	1.74	0.53
2:B:525:PHE:HA	2:B:528:LEU:HB2	1.90	0.53
3:C:61:THR:OG1	3:C:63:GLY:O	2.27	0.53
3:L:23:SER:HB3	3:L:29:SER:HA	1.90	0.53
1:S:1115:HIS:NE2	1:S:1182:GLU:HB3	2.23	0.53
1:S:1673:THR:HA	1:S:1676:ILE:HD12	1.90	0.53
1:S:2482:ASP:HA	1:S:2485:ARG:CZ	2.39	0.53
1:S:2893:LEU:HD21	1:S:2922:ARG:HB2	1.91	0.53
1:S:3684:SER:HB3	1:S:3687:MET:HB2	1.90	0.53
1:A:13:LEU:HB2	1:A:59:PHE:CZ	2.43	0.53
1:A:1270:PHE:HB3	1:A:1276:VAL:HG12	1.91	0.53
1:A:1645:VAL:HA	1:A:1648:LEU:HG	1.91	0.53
1:A:3883:LEU:HD13	1:A:3966:GLN:HB3	1.91	0.53
1:S:1190:LEU:HA	1:S:1193:LYS:HG2	1.90	0.53
1:S:1686:LEU:HD11	1:S:1738:ASN:HB3	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3686:TRP:CH2	1:S:3719:ILE:HG22	2.44	0.53
1:S:4073:ALA:HB1	1:S:4076:ASP:HB3	1.90	0.53
1:A:3058:ASP:OD1	1:A:3059:GLN:N	2.41	0.53
1:A:3228:SER:HA	1:A:3231:ILE:HG12	1.91	0.53
3:C:400:ARG:HD3	9:d:34:DT:H4'	1.91	0.53
1:S:1420:ARG:HH22	1:S:1469:PRO:HD3	1.74	0.53
1:S:1754:GLN:HE21	1:S:1785:ILE:HG22	1.73	0.53
1:S:2824:LYS:HE3	1:S:2828:GLU:HB3	1.91	0.53
1:S:3236:PHE:HB3	1:S:3272:TRP:CH2	2.44	0.53
2:T:357:LYS:HB2	2:T:360:HIS:CG	2.44	0.53
1:A:3633:ILE:HG13	1:A:3634:GLN:H	1.73	0.53
1:A:4006:VAL:HB	1:A:4009:PRO:HD3	1.90	0.53
5:H:5:ILE:HG13	5:H:21:GLN:HB3	1.91	0.53
3:L:333:TYR:HD2	2:T:482:VAL:HG22	1.73	0.53
3:L:459:ASP:OD1	2:T:392:LYS:NZ	2.36	0.53
1:S:107:ILE:O	1:S:111:CYS:N	2.34	0.53
1:S:990:GLN:HG3	1:S:2779:ASP:C	2.34	0.53
1:A:450:SER:O	1:A:454:GLN:HG3	2.09	0.53
1:A:2361:ILE:HD11	1:A:2393:LEU:HD22	1.90	0.53
1:A:2532:PRO:HD2	1:A:2538:ARG:HA	1.90	0.53
2:B:363:ARG:NH1	2:B:364:PRO:O	2.42	0.53
5:G:99:LYS:HB2	5:G:108:LEU:HB2	1.91	0.53
1:S:304:THR:OG1	1:S:305:ASN:OD1	2.27	0.53
1:S:789:TYR:HD1	1:S:792:ILE:HD12	1.74	0.53
1:S:939:MET:HE2	1:S:939:MET:HA	1.90	0.53
1:S:1282:LEU:HB3	1:S:1359:LEU:HD22	1.91	0.53
1:S:1684:LEU:HB2	1:S:1689:LYS:HE3	1.89	0.53
1:S:2173:ALA:HB1	1:S:2214:ARG:HH12	1.74	0.53
1:S:2184:TYR:CZ	1:S:2734:ARG:HD2	2.43	0.53
1:S:2246:LYS:HZ3	1:S:2284:ASP:H	1.57	0.53
9:d:27:DT:H2''	9:d:28:DA:C8	2.44	0.53
1:A:67:VAL:HB	1:A:85:ILE:CD1	2.32	0.53
1:A:207:GLN:HB3	1:A:217:LEU:HD22	1.90	0.53
1:A:415:GLN:HA	1:A:463:LYS:HD2	1.90	0.53
1:A:1595:ALA:HA	1:A:1598:ASN:HD21	1.74	0.53
1:A:1871:MET:HE1	1:A:1940:TYR:N	2.24	0.53
1:A:2414:GLN:OE1	1:A:2414:GLN:N	2.40	0.53
1:A:2485:ARG:NH2	1:A:2529:THR:O	2.42	0.53
1:A:3699:LEU:HB2	1:A:3719:ILE:HD12	1.91	0.53
1:A:3974:MET:SD	1:A:3976:GLU:N	2.75	0.53
2:B:250:GLU:HG3	4:D:187:ASN:HD21	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:274:TYR:HB2	2:B:367:PHE:HD2	1.73	0.53
3:L:531:SER:HA	3:L:534:LYS:HG2	1.90	0.53
1:S:994:TRP:CD1	1:S:2581:LEU:HD21	2.44	0.53
1:S:1063:LEU:HG	1:S:1078:ALA:HB1	1.91	0.53
1:S:1769:GLU:O	1:S:1822:ARG:NH1	2.41	0.53
1:S:2897:LEU:HD23	1:S:3973:PRO:HG3	1.90	0.53
1:S:3676:PRO:HB3	1:S:3726:VAL:HG11	1.90	0.53
1:S:3924:HIS:CE1	1:S:3926:ASN:HB2	2.44	0.53
2:T:218:ARG:NH2	2:T:229:LEU:HA	2.23	0.53
1:A:348:ILE:HG21	1:A:362:ALA:HB2	1.91	0.53
1:A:1128:CYS:HA	1:A:1131:ILE:HG12	1.90	0.53
1:A:2260:PHE:HE1	1:A:2302:ALA:HB3	1.73	0.53
1:A:3008:TRP:CD1	1:A:3054:GLN:HE22	2.27	0.53
1:A:3718:ARG:H	1:A:3743:HIS:HB3	1.74	0.53
2:B:94:LYS:H	2:B:103:TYR:HA	1.73	0.53
6:I:889:LEU:HD23	6:I:904:GLN:HA	1.91	0.53
3:L:96:SER:O	3:L:99:GLN:NE2	2.38	0.53
1:S:831:LEU:HD12	1:S:833:HIS:H	1.73	0.53
1:S:1117:ASP:OD1	1:S:1118:GLU:N	2.40	0.53
1:A:741:ILE:HG22	1:A:745:VAL:HG12	1.90	0.52
1:A:914:VAL:O	1:A:918:ALA:N	2.34	0.52
1:A:1134:LEU:O	1:A:1138:ILE:HG12	2.09	0.52
1:A:1586:SER:HB2	1:A:1632:TRP:HH2	1.74	0.52
1:A:3496:ILE:HA	1:A:3499:ILE:HG23	1.91	0.52
2:B:350:PHE:CE2	3:C:458:ILE:HG12	2.44	0.52
3:C:328:GLU:O	3:C:332:LYS:N	2.42	0.52
1:S:1196:PRO:O	1:S:1202:ARG:NH1	2.42	0.52
1:S:3262:LEU:O	1:S:3266:SER:N	2.42	0.52
9:d:21:DA:N6	10:e:36:DA:H61	2.07	0.52
1:A:64:GLY:O	1:A:67:VAL:HG13	2.07	0.52
1:A:71:LYS:O	1:A:73:LEU:HB2	2.09	0.52
1:A:2408:MET:HE3	1:A:2441:LYS:HE2	1.90	0.52
1:A:2817:LEU:HD23	1:A:2865:HIS:CE1	2.44	0.52
1:A:3049:LEU:HD22	1:A:3085:GLU:HB2	1.91	0.52
1:A:3992:ARG:NH1	1:A:4051:LEU:O	2.43	0.52
2:B:422:ASP:N	2:B:422:ASP:OD1	2.42	0.52
5:G:21:GLN:HG2	5:G:21:GLN:O	2.09	0.52
1:S:986:PRO:HB3	1:S:2777:HIS:CD2	2.44	0.52
1:S:2371:PHE:HB3	1:S:2374:LEU:HD23	1.92	0.52
1:S:3125:ARG:O	1:S:3129:LEU:HG	2.10	0.52
1:S:3949:ALA:HB1	1:S:3957:GLU:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2830:ASN:OD1	1:A:2834:GLN:NE2	2.42	0.52
1:A:2865:HIS:HB2	1:A:2868:LEU:HG	1.91	0.52
1:A:3170:ASP:HB3	1:A:3174:ASP:HB2	1.90	0.52
3:C:265:LYS:HD2	3:C:268:LEU:HD21	1.92	0.52
6:I:725:TRP:NE1	6:I:736:VAL:O	2.40	0.52
1:S:928:VAL:HB	1:S:2769:VAL:HG11	1.91	0.52
1:A:1255:CYS:HA	1:A:1258:ASP:OD2	2.10	0.52
1:A:1949:ILE:HA	1:A:2100:LEU:HD11	1.90	0.52
2:B:271:VAL:HG12	2:B:370:PRO:HA	1.91	0.52
2:B:500:PRO:O	2:B:502:GLN:NE2	2.39	0.52
3:C:261:ILE:HA	3:C:366:ALA:HA	1.91	0.52
3:L:616:LEU:O	3:L:620:ILE:HG12	2.08	0.52
4:M:7:PRO:HB3	4:M:77:ARG:NE	2.23	0.52
1:S:943:GLY:O	1:S:946:THR:OG1	2.27	0.52
1:S:1366:THR:HB	1:S:1369:MET:HE3	1.91	0.52
1:S:2547:SER:HB3	1:S:2550:ILE:HG12	1.89	0.52
9:d:18:DA:H2'	9:d:18:DA:OP2	2.08	0.52
1:A:236:LYS:O	1:A:281:GLN:NE2	2.42	0.52
1:A:362:ALA:O	1:A:366:TYR:HD1	1.92	0.52
1:A:1963:GLN:HB2	1:A:2125:TRP:CE3	2.45	0.52
1:A:2405:VAL:HG22	1:A:2441:LYS:HD2	1.91	0.52
1:A:3173:MET:CE	1:A:3174:ASP:H	2.21	0.52
1:A:3796:MET:HE1	1:A:3802:LEU:HB2	1.92	0.52
2:B:107:GLU:O	2:B:115:ARG:NH2	2.42	0.52
5:H:87:ASN:ND2	5:H:96:PHE:O	2.34	0.52
6:I:878:PHE:O	6:I:881:THR:OG1	2.26	0.52
3:L:490:LEU:HA	2:T:337:LEU:HD23	1.92	0.52
6:R:665:CYS:HB2	6:R:697:THR:HG21	1.92	0.52
1:S:167:PRO:HA	1:S:171:LEU:HD12	1.92	0.52
1:S:392:CYS:HB2	1:S:438:LEU:HD22	1.92	0.52
1:S:2233:HIS:CE1	1:S:2728:LEU:HA	2.45	0.52
1:A:179:GLY:C	1:A:230:LEU:HD23	2.34	0.52
1:A:710:PHE:O	1:A:714:VAL:HG22	2.10	0.52
1:A:2920:VAL:HA	1:A:2923:TRP:HB2	1.92	0.52
1:A:3179:TRP:HZ3	1:A:3241:LYS:HB3	1.74	0.52
1:A:3240:MET:HE3	1:A:3272:TRP:HH2	1.75	0.52
2:B:102:ILE:HD12	2:B:146:VAL:HG12	1.91	0.52
3:C:679:VAL:HG21	3:C:705:LEU:HD21	1.90	0.52
5:G:152:LEU:HA	5:H:151:LEU:HD21	1.91	0.52
6:R:675:LYS:HA	6:R:678:LEU:HD12	1.90	0.52
1:S:417:VAL:HA	1:S:420:VAL:HG12	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:955:ALA:O	1:S:957:PRO:HD3	2.10	0.52
1:S:1426:GLN:HE22	1:S:1468:LEU:HD13	1.75	0.52
1:S:2349:LEU:O	1:S:2353:GLN:HB2	2.09	0.52
1:S:3040:TYR:HB2	1:S:3044:MET:HE1	1.90	0.52
2:T:458:GLN:HB3	2:T:525:PHE:HE1	1.75	0.52
1:A:786:GLN:HA	1:A:789:TYR:CE2	2.45	0.52
1:A:3337:ILE:HG21	1:A:3360:LEU:HD22	1.91	0.52
2:B:187:ARG:HH21	2:B:220:ILE:HD11	1.74	0.52
2:B:510:LYS:HB3	2:B:513:ALA:HB3	1.91	0.52
3:C:9:ALA:HB3	3:C:130:ARG:HG3	1.91	0.52
5:G:192:ARG:NH2	6:I:768:ASP:OD1	2.43	0.52
5:H:183:VAL:O	5:H:187:LYS:HG2	2.10	0.52
3:L:326:VAL:O	3:L:329:GLU:HG3	2.10	0.52
3:L:678:VAL:O	3:L:682:GLY:N	2.43	0.52
1:S:327:VAL:HA	1:S:330:ASN:HB2	1.92	0.52
1:S:420:VAL:O	1:S:424:LEU:N	2.39	0.52
1:S:956:PRO:HA	1:S:959:TYR:HB2	1.91	0.52
1:S:1098:GLN:OE1	1:S:1152:ARG:N	2.43	0.52
1:S:1447:ARG:HH12	1:S:1448:LEU:HG	1.75	0.52
1:S:2133:LEU:HG	1:S:2171:LEU:HD11	1.91	0.52
1:S:3306:LEU:O	1:S:3307:LEU:C	2.52	0.52
1:S:3720:ALA:HB3	1:S:3743:HIS:HA	1.92	0.52
2:T:214:SER:HB3	2:T:218:ARG:CZ	2.39	0.52
1:A:752:LEU:HD22	1:A:776:TRP:CZ3	2.45	0.52
1:A:2440:TYR:HA	1:A:2443:MET:CE	2.39	0.52
2:B:319:SER:N	3:C:277:THR:O	2.40	0.52
6:I:741:ARG:NH1	6:I:742:PHE:HB3	2.24	0.52
3:L:61:THR:HG21	3:L:78:THR:HB	1.91	0.52
3:L:418:CYS:SG	3:L:419:LEU:N	2.83	0.52
1:S:533:HIS:O	1:S:537:SER:OG	2.25	0.52
1:S:893:SER:HA	1:S:906:PHE:HA	1.92	0.52
1:S:3110:PHE:CD2	1:S:3135:LEU:HD11	2.45	0.52
1:S:3966:GLN:HA	1:S:3969:ASN:HB2	1.90	0.52
2:T:45:SER:HA	2:T:138:GLY:HA2	1.91	0.52
1:A:14:ARG:HH12	1:A:3070:HIS:HA	1.73	0.52
1:A:181:LEU:HB2	1:A:230:LEU:HD11	1.92	0.52
1:A:498:PRO:HG2	1:A:2596:ARG:HB2	1.92	0.52
1:A:939:MET:HE1	1:A:2783:ILE:HD13	1.90	0.52
1:A:1111:LEU:HD13	1:A:1186:LYS:HE3	1.92	0.52
1:A:1296:PHE:HA	1:A:1299:GLU:HG3	1.92	0.52
1:A:3278:GLN:HA	1:A:3281:CYS:SG	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3389:VAL:O	1:A:3393:GLU:HG3	2.08	0.52
1:A:3500:SER:HA	1:A:3503:VAL:HG12	1.92	0.52
1:A:3964:THR:HG22	1:A:3967:PHE:CD2	2.45	0.52
2:B:94:LYS:HB2	2:B:103:TYR:CD2	2.45	0.52
3:L:182:PRO:HG2	3:L:190:PRO:HD2	1.91	0.52
1:S:214:GLU:OE2	2:T:404:ARG:NH2	2.42	0.52
1:S:3718:ARG:H	1:S:3743:HIS:HB3	1.75	0.52
2:T:213:ILE:HG13	2:T:218:ARG:HH21	1.75	0.52
8:i:28:DT:H2'	8:i:29:DA:C8	2.45	0.52
1:A:993:HIS:NE2	1:A:1035:GLU:OE2	2.37	0.52
1:A:1452:VAL:O	1:A:1456:LYS:HG2	2.10	0.52
1:A:2394:LYS:HB2	1:A:2431:ARG:NH2	2.25	0.52
1:A:3490:VAL:HG23	1:A:3494:GLN:HG2	1.91	0.52
3:C:45:GLN:OE1	3:C:50:ASN:ND2	2.42	0.52
3:C:489:ARG:NH1	3:C:506:PRO:O	2.39	0.52
3:C:497:ARG:HD3	3:C:501:PRO:HA	1.90	0.52
3:L:272:VAL:HG12	3:L:274:LYS:H	1.75	0.52
3:L:731:MET:SD	3:L:731:MET:N	2.83	0.52
1:S:2464:HIS:O	1:S:2470:ARG:NE	2.43	0.52
2:T:235:GLU:OE1	2:T:235:GLU:N	2.43	0.52
1:A:934:LEU:HA	1:A:937:MET:HG2	1.91	0.51
1:A:1621:THR:O	1:A:1625:HIS:ND1	2.42	0.51
1:A:1693:VAL:HG21	1:A:1746:PHE:HE1	1.75	0.51
1:A:2429:ASP:OD1	1:A:2430:GLU:N	2.43	0.51
1:A:4085:LYS:O	1:A:4089:ILE:HG23	2.10	0.51
1:S:1096:VAL:O	1:S:1100:VAL:HG13	2.11	0.51
1:S:1306:ILE:HG13	1:S:1307:ILE:HG22	1.91	0.51
1:S:1589:ASN:HB3	1:S:1592:MET:SD	2.50	0.51
1:S:2305:ASN:O	1:S:2308:SER:OG	2.26	0.51
1:S:3359:ILE:HD12	1:S:3362:LEU:HB2	1.91	0.51
1:S:4038:TRP:HE3	1:S:4043:LYS:HE3	1.75	0.51
9:d:20:DT:H2''	9:d:21:DA:C5	2.45	0.51
1:A:542:ASP:OD1	1:A:543:SER:N	2.42	0.51
1:A:1062:ARG:HH22	1:A:3745:GLU:HB3	1.73	0.51
1:A:1923:PHE:HD1	1:A:1941:HIS:HB3	1.74	0.51
1:A:2090:ARG:NE	1:A:2092:GLU:OE2	2.37	0.51
1:A:2575:PRO:HA	1:A:2786:LYS:HA	1.93	0.51
2:B:165:ARG:NH2	4:D:188:PRO:HD3	2.25	0.51
3:C:510:GLN:HA	3:C:513:TRP:HD1	1.74	0.51
3:C:595:ALA:HA	3:C:598:PHE:CZ	2.45	0.51
3:C:687:THR:HG22	3:C:688:LYS:N	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1200:GLY:O	1:S:1202:ARG:NH2	2.41	0.51
1:S:3088:LEU:HD23	1:S:3138:ILE:HD12	1.92	0.51
1:A:342:MET:N	1:A:342:MET:SD	2.82	0.51
1:A:456:VAL:HA	1:A:459:ARG:HD2	1.93	0.51
1:A:895:ALA:HB2	1:A:904:VAL:HG22	1.92	0.51
1:A:2246:LYS:NZ	1:A:2284:ASP:OD1	2.37	0.51
1:A:3327:ASN:HB2	1:A:3388:ALA:HB2	1.92	0.51
1:A:3924:HIS:N	1:A:3927:ASN:OD1	2.33	0.51
3:C:138:LEU:HD22	3:C:204:GLY:HA3	1.91	0.51
3:C:251:LEU:HB2	3:C:261:ILE:HD13	1.91	0.51
6:R:665:CYS:HB3	6:R:700:VAL:HA	1.91	0.51
1:S:640:GLU:HA	1:S:643:GLU:HG3	1.92	0.51
1:S:3114:TYR:HB2	1:S:3128:LYS:HG2	1.92	0.51
2:T:90:THR:HA	2:T:137:HIS:HA	1.92	0.51
8:i:23:DT:H2"	8:i:24:DA:C5	2.46	0.51
8:i:41:DT:H2"	8:i:42:DA:H8	1.73	0.51
1:A:183:GLU:HG2	1:A:184:VAL:H	1.75	0.51
1:A:865:GLN:OE1	1:A:3171:ALA:N	2.43	0.51
1:A:919:LEU:C	1:A:927:LYS:HZ2	2.18	0.51
1:A:2281:MET:HE3	1:A:2326:ILE:HD13	1.92	0.51
1:A:2866:ALA:HA	1:A:2869:LEU:HD12	1.93	0.51
1:A:3828:TYR:HE2	1:A:3879:PRO:HD3	1.75	0.51
1:S:425:ASP:OD1	1:S:425:ASP:N	2.42	0.51
1:S:702:SER:O	1:S:706:LEU:HG	2.11	0.51
1:S:2155:GLU:CD	1:S:2155:GLU:H	2.16	0.51
1:S:3268:THR:OG1	1:S:3269:ARG:NH1	2.43	0.51
1:S:3496:ILE:HD12	1:S:3707:GLY:HA3	1.91	0.51
9:d:15:DA:H1'	9:d:16:DA:N7	2.25	0.51
1:A:3364:GLY:HA3	1:A:3373:VAL:HA	1.92	0.51
1:A:3588:TRP:NE1	1:A:3609:MET:O	2.34	0.51
1:A:3626:GLY:HA2	1:A:3677:PRO:HD3	1.92	0.51
3:C:640:ARG:HH12	3:C:685:LEU:HB2	1.75	0.51
6:I:743:MET:HG3	6:I:754:PHE:HE2	1.74	0.51
3:L:23:SER:HB3	3:L:30:PRO:HD3	1.93	0.51
3:L:76:ASN:HB2	3:L:105:ALA:HB2	1.92	0.51
1:S:681:LYS:NZ	1:S:739:ASN:OD1	2.44	0.51
1:S:2341:LEU:HD13	1:S:2344:LEU:HD12	1.92	0.51
1:S:3100:LYS:HA	1:S:3103:ILE:HG22	1.93	0.51
1:S:3570:ASP:HB3	1:S:3685:PRO:HG3	1.92	0.51
1:A:69:VAL:O	1:A:70:ARG:C	2.53	0.51
1:A:414:LEU:HB2	1:A:460:ALA:HB1	1.90	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:730:LEU:HA	1:A:733:LEU:HD12	1.93	0.51
1:A:2295:GLN:NE2	1:A:2298:GLU:HG2	2.25	0.51
3:L:197:ILE:HG13	3:L:202:LYS:HE2	1.93	0.51
1:S:360:SER:HB2	1:S:364:ARG:HH12	1.76	0.51
1:S:664:SER:HA	1:S:667:TYR:CD1	2.45	0.51
1:S:675:ARG:NH1	1:S:679:LYS:HB2	2.25	0.51
1:S:978:GLN:HA	1:S:981:ARG:HH21	1.76	0.51
1:S:2321:GLU:HA	1:S:2366:LYS:HD2	1.92	0.51
2:T:143:LEU:HA	2:T:146:VAL:HG22	1.92	0.51
1:A:528:VAL:HB	1:A:633:ILE:HD11	1.92	0.51
1:A:2197:THR:H	1:A:2722:ARG:NH2	2.09	0.51
1:A:2753:ARG:O	1:A:2756:GLU:HG3	2.10	0.51
1:A:2823:PHE:HD1	1:A:2824:LYS:HE3	1.76	0.51
1:A:3046:ARG:NE	1:A:3046:ARG:HA	2.26	0.51
6:R:740:PRO:HG2	6:R:762:GLY:HA2	1.92	0.51
1:S:385:TYR:HA	1:S:388:LEU:HD12	1.93	0.51
1:S:664:SER:HA	1:S:667:TYR:HD1	1.75	0.51
1:S:1837:ARG:NH2	1:S:1884:LEU:HB2	2.25	0.51
1:S:2430:GLU:HA	1:S:2433:LYS:HE2	1.92	0.51
1:S:2522:ARG:NH2	1:S:2564:GLU:HB2	2.26	0.51
2:T:62:MET:HE1	2:T:239:LEU:HD13	1.92	0.51
1:A:65:LEU:O	1:A:69:VAL:HG22	2.11	0.51
1:A:1296:PHE:O	1:A:1300:SER:N	2.44	0.51
1:A:1504:ASP:O	1:A:1508:LYS:N	2.39	0.51
1:A:2257:PHE:HA	1:A:2260:PHE:CE2	2.45	0.51
1:A:2791:ILE:HA	1:A:2794:LEU:HD12	1.92	0.51
1:A:2837:LEU:O	1:A:2841:ASN:ND2	2.44	0.51
1:A:3425:ARG:HH11	1:A:3996:GLY:HA3	1.75	0.51
1:A:3493:TRP:HZ3	1:A:3521:ILE:HA	1.76	0.51
5:Q:174:THR:HA	6:R:792:MET:HE2	1.93	0.51
1:S:631:ARG:NH1	1:S:632:GLU:HB3	2.26	0.51
1:S:2102:LYS:NZ	1:S:2155:GLU:OE2	2.44	0.51
1:S:3324:ARG:O	1:S:3328:ILE:HG12	2.10	0.51
1:S:3842:TRP:HB3	1:S:3855:TYR:CD1	2.45	0.51
1:S:3874:ARG:NH2	1:S:4117:LEU:O	2.44	0.51
2:T:91:GLU:HG2	2:T:137:HIS:H	1.75	0.51
10:e:38:DT:H2''	10:e:39:DA:N7	2.26	0.51
1:A:2382:VAL:O	1:A:2386:LEU:HG	2.11	0.51
3:C:59:PHE:HD2	3:C:105:ALA:HB3	1.75	0.51
5:G:158:VAL:HG21	5:H:155:TRP:NE1	2.26	0.51
1:S:994:TRP:CG	1:S:2581:LEU:HD21	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1297:PHE:HA	1:S:1301:ILE:HG12	1.93	0.51
1:S:1341:ILE:HD12	1:S:1368:LEU:HD21	1.93	0.51
1:S:2102:LYS:NZ	1:S:2152:ASN:O	2.44	0.51
1:S:2435:CYS:HA	1:S:2438:ILE:HD12	1.93	0.51
1:S:2572:TYR:HE1	1:S:2791:ILE:HD11	1.75	0.51
1:S:3123:GLN:CD	1:S:3123:GLN:H	2.19	0.51
1:S:3454:LEU:HD22	1:S:3461:ALA:HB1	1.92	0.51
1:S:3789:ARG:HE	1:S:3938:ILE:HD11	1.76	0.51
1:A:410:MET:HA	1:A:413:PHE:HD2	1.75	0.51
1:A:1294:VAL:O	1:A:1367:HIS:NE2	2.41	0.51
1:A:1558:TYR:O	1:A:1562:LEU:HG	2.10	0.51
1:A:1606:ARG:HA	1:A:1608:ARG:HH21	1.76	0.51
1:A:2572:TYR:HE1	1:A:2791:ILE:HD11	1.75	0.51
1:A:3144:PHE:HA	1:A:3147:LYS:HD3	1.93	0.51
1:A:4073:ALA:HB1	1:A:4076:ASP:HB3	1.92	0.51
2:B:480:ASN:HB2	3:C:426:PHE:CE2	2.45	0.51
3:C:155:LYS:HE2	3:C:215:LEU:HA	1.92	0.51
3:C:265:LYS:HE3	3:C:268:LEU:HD11	1.93	0.51
3:C:732:ILE:H	1:S:1913:LYS:HD3	1.75	0.51
5:G:151:LEU:HD12	5:H:148:ASN:OD1	2.11	0.51
6:I:658:ILE:HD11	6:I:734:SER:HA	1.93	0.51
3:L:412:ILE:HG23	3:L:417:GLU:HG2	1.93	0.51
3:L:440:ASN:O	3:L:442:LYS:NZ	2.33	0.51
1:S:73:LEU:HB3	1:S:78:PHE:CD2	2.46	0.51
1:S:73:LEU:N	1:S:82:ARG:HH22	2.01	0.51
1:S:129:ASP:HA	1:S:132:ILE:HG12	1.92	0.51
1:S:1124:ILE:HG13	1:S:1125:GLN:N	2.26	0.51
1:S:1157:PHE:H	1:S:1171:TRP:NE1	2.09	0.51
1:S:3034:PRO:O	1:S:3038:GLU:N	2.41	0.51
1:S:3171:ALA:HA	1:S:3179:TRP:HZ2	1.76	0.51
1:A:923:ASP:O	1:A:926:THR:N	2.42	0.50
1:A:3880:ALA:O	1:A:3885:ARG:NH2	2.40	0.50
3:C:211:VAL:HG12	3:C:212:MET:HE2	1.92	0.50
5:P:7:ARG:H	5:P:76:SER:HB2	1.76	0.50
6:R:725:TRP:NE1	6:R:736:VAL:O	2.42	0.50
1:S:356:ASN:HB3	1:S:358:GLU:HG2	1.93	0.50
1:S:941:MET:HE1	1:S:962:TYR:CE1	2.46	0.50
1:S:2414:GLN:OE1	1:S:2414:GLN:N	2.42	0.50
1:S:2508:GLN:NE2	1:S:2549:LYS:HE2	2.26	0.50
1:S:2737:GLU:O	1:S:2741:LEU:N	2.37	0.50
2:T:106:GLN:HB3	2:T:115:ARG:HH21	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
10:e:27:DC:H2''	10:e:28:DT:H5''	1.94	0.50
1:A:128:LEU:HA	1:A:173:LYS:NZ	2.25	0.50
1:A:2773:ARG:HH22	1:A:2785:ILE:HG21	1.75	0.50
1:A:3046:ARG:NH1	1:A:3085:GLU:OE2	2.43	0.50
1:A:3898:LEU:HD23	1:A:3901:ARG:HH12	1.76	0.50
1:A:4113:ASP:O	1:A:4117:LEU:HG	2.11	0.50
3:C:205:LEU:HG	3:C:209:LYS:HD2	1.92	0.50
3:C:656:ASN:CG	3:C:688:LYS:HA	2.37	0.50
1:S:923:ASP:O	1:S:926:THR:N	2.44	0.50
1:S:2244:CYS:HG	1:S:2245:TRP:CD1	2.29	0.50
1:S:2921:LEU:O	1:S:2925:GLU:HG3	2.10	0.50
1:S:3913:ILE:HD13	1:S:3987:ALA:HB3	1.92	0.50
1:A:1916:ILE:HG13	1:A:1917:LYS:N	2.27	0.50
1:A:2893:LEU:HB3	1:A:2926:LEU:HD13	1.92	0.50
1:A:3700:GLU:OE2	1:A:3716:HIS:ND1	2.45	0.50
5:G:21:GLN:HG2	5:G:33:VAL:HG13	1.92	0.50
5:G:158:VAL:HG21	5:H:155:TRP:HE1	1.77	0.50
3:L:434:MET:O	2:T:253:LYS:NZ	2.44	0.50
1:S:667:TYR:HA	1:S:732:PHE:CE2	2.46	0.50
1:S:726:LEU:HD12	1:S:729:CYS:HB2	1.93	0.50
1:S:1474:ASP:N	1:S:1474:ASP:OD1	2.44	0.50
1:S:1750:LEU:HD21	1:S:1759:LEU:HA	1.93	0.50
1:S:1827:LEU:O	1:S:1831:CYS:N	2.45	0.50
1:S:2133:LEU:HD22	1:S:2146:LEU:HB3	1.93	0.50
1:S:3239:LYS:HB3	1:S:3262:LEU:HD11	1.93	0.50
1:S:3420:CYS:HB2	1:S:3446:VAL:HG11	1.93	0.50
1:A:1171:TRP:O	1:A:1175:HIS:ND1	2.44	0.50
1:A:1675:TYR:O	1:A:1678:LEU:HB2	2.12	0.50
1:A:2090:ARG:HH21	1:A:2092:GLU:HG3	1.77	0.50
1:A:2271:SER:O	1:A:2274:ILE:HB	2.11	0.50
1:A:3912:CYS:HA	1:A:3915:HIS:NE2	2.26	0.50
3:C:197:ILE:O	3:C:202:LYS:NZ	2.44	0.50
5:G:148:ASN:ND2	5:H:148:ASN:HB2	2.26	0.50
3:L:656:ASN:HB3	3:L:688:LYS:HB2	1.94	0.50
5:P:176:LEU:HD23	6:R:805:TRP:CH2	2.46	0.50
5:Q:177:TYR:O	5:Q:181:ILE:HD12	2.11	0.50
6:R:746:MET:HG2	6:R:751:LYS:HG3	1.94	0.50
1:S:1326:GLU:HB3	1:S:1329:ARG:NE	2.26	0.50
2:T:59:PRO:HB3	2:T:205:LEU:HD11	1.93	0.50
1:A:1960:LYS:HZ2	1:A:2125:TRP:CD1	2.29	0.50
2:B:161:MET:HE3	2:B:163:HIS:H	1.75	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:405:VAL:O	3:C:423:GLN:NE2	2.44	0.50
6:I:722:LYS:HB2	6:I:742:PHE:HB2	1.93	0.50
1:S:432:THR:OG1	1:S:433:PRO:HD3	2.11	0.50
1:S:2209:GLU:HB2	1:S:2248:CYS:HB2	1.94	0.50
1:S:3940:ILE:HG22	1:S:3941:ASP:H	1.76	0.50
1:S:4121:TRP:CD1	1:S:4123:GLY:H	2.29	0.50
2:T:74:LYS:HE2	2:T:81:ASP:HB2	1.94	0.50
2:T:282:LYS:HD2	2:T:283:PRO:HD2	1.91	0.50
1:A:192:ASN:O	1:A:196:LEU:HG	2.12	0.50
1:A:409:GLN:HG2	1:A:413:PHE:CE2	2.46	0.50
1:A:1115:HIS:HB3	1:A:1180:GLN:HG3	1.93	0.50
2:B:295:PRO:O	3:C:298:ASN:ND2	2.45	0.50
3:C:654:ARG:HA	3:C:657:ASN:HD21	1.76	0.50
3:L:186:GLY:N	3:L:228:SER:OG	2.43	0.50
3:L:332:LYS:HZ2	3:L:334:LYS:HA	1.75	0.50
3:L:353:ARG:HA	3:L:356:PHE:CD2	2.46	0.50
3:L:363:LYS:NZ	3:L:416:TYR:OH	2.26	0.50
4:M:195:PRO:HG3	2:T:244:ARG:HD3	1.94	0.50
1:S:110:THR:O	1:S:114:VAL:N	2.36	0.50
1:S:897:PRO:HA	1:S:902:LYS:HE3	1.93	0.50
1:S:2254:ARG:NE	1:S:2294:ILE:HG13	2.21	0.50
1:A:1389:VAL:HG22	1:A:1390:GLN:H	1.77	0.50
1:A:2737:GLU:O	1:A:2741:LEU:N	2.41	0.50
3:C:496:HIS:CG	3:C:506:PRO:HD3	2.47	0.50
6:I:666:VAL:HG11	6:I:679:GLU:HG2	1.94	0.50
1:S:542:ASP:OD1	1:S:543:SER:N	2.42	0.50
1:S:573:LEU:HD21	1:S:649:PHE:HD1	1.75	0.50
1:S:861:SER:N	1:S:3136:THR:HG21	2.26	0.50
1:S:2207:LYS:HA	1:S:2210:VAL:HG12	1.94	0.50
1:S:3258:LEU:O	1:S:3261:GLU:HG3	2.12	0.50
1:A:125:ILE:H	1:A:125:ILE:HD12	1.77	0.50
1:A:887:ASP:HB2	1:A:961:LEU:HD21	1.92	0.50
1:A:1457:GLN:HG3	1:A:1460:ARG:HH21	1.77	0.50
1:A:2269:ASP:O	1:A:2272:VAL:HG22	2.12	0.50
1:A:2430:GLU:N	1:A:2430:GLU:OE1	2.45	0.50
1:A:2544:SER:HA	1:A:2842:ARG:HH12	1.77	0.50
1:A:3506:LEU:HG	1:A:3515:GLN:HG3	1.93	0.50
3:C:44:ARG:HH12	3:C:488:GLN:HG3	1.77	0.50
3:C:88:PHE:HA	3:C:91:LEU:HD12	1.94	0.50
3:L:599:ARG:O	3:L:603:LYS:NZ	2.31	0.50
3:L:725:VAL:O	3:L:729:LEU:N	2.43	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:722:LYS:HB2	6:R:742:PHE:HB2	1.94	0.50
1:S:360:SER:HB2	1:S:364:ARG:NH1	2.26	0.50
1:S:571:SER:O	1:S:574:LYS:HG2	2.12	0.50
1:S:1055:ASN:OD1	1:S:1058:SER:N	2.39	0.50
1:S:2196:TRP:HB2	1:S:2199:LEU:HD13	1.94	0.50
1:S:2257:PHE:HA	1:S:2260:PHE:CZ	2.46	0.50
1:S:3179:TRP:O	1:S:3183:ILE:HG12	2.11	0.50
1:S:3304:VAL:O	1:S:3305:SER:C	2.54	0.50
1:S:3467:ARG:HH22	1:S:3474:ARG:HH11	1.59	0.50
1:A:526:ASP:OD1	1:A:526:ASP:N	2.42	0.50
1:A:741:ILE:HA	1:A:748:TYR:HE2	1.77	0.50
1:A:1066:LEU:HA	1:A:1069:HIS:CD2	2.47	0.50
1:A:1948:ALA:HA	1:A:1951:VAL:HG22	1.93	0.50
1:S:541:MET:SD	1:S:560:LEU:HB2	2.52	0.50
1:S:985:GLU:HG2	1:S:986:PRO:HD3	1.94	0.50
1:S:1873:TYR:O	1:S:1877:LEU:HD23	2.12	0.50
2:T:103:TYR:CD2	2:T:135:MET:HE1	2.46	0.50
2:T:341:ASP:OD2	2:T:399:ARG:NH1	2.45	0.50
2:T:422:ASP:N	2:T:422:ASP:OD1	2.43	0.50
1:A:789:TYR:HD1	1:A:792:ILE:HD12	1.76	0.49
1:A:1413:ASP:O	1:A:1416:GLU:HB3	2.12	0.49
1:A:1876:ILE:HG13	1:A:1877:LEU:HD22	1.94	0.49
1:A:2094:MET:HB2	1:A:2097:LEU:HD12	1.93	0.49
2:B:399:ARG:NH2	3:C:516:LEU:O	2.45	0.49
3:C:604:GLN:HE21	3:C:605:LYS:HZ3	1.60	0.49
5:Q:179:ARG:NH2	6:R:782:LYS:O	2.32	0.49
1:S:1868:THR:O	1:S:1871:MET:HB2	2.12	0.49
1:S:2357:GLU:HA	1:S:2360:PHE:HB3	1.94	0.49
1:A:672:ILE:O	1:A:676:ASN:ND2	2.44	0.49
1:A:1086:TYR:CE1	1:A:1133:HIS:HB3	2.47	0.49
1:A:1407:LYS:HG3	1:A:1412:LYS:HE3	1.94	0.49
1:A:2363:CYS:HA	1:A:2366:LYS:HE2	1.94	0.49
1:A:2988:GLU:HA	1:A:2991:LYS:HE2	1.93	0.49
1:A:3160:LEU:O	1:A:3167:ARG:NH2	2.44	0.49
1:A:3178:ILE:O	1:A:3182:ILE:HG12	2.12	0.49
3:C:605:LYS:HB2	3:C:609:PHE:HE2	1.76	0.49
3:L:677:ILE:HA	3:L:680:GLN:HG2	1.94	0.49
1:S:479:ILE:HA	1:S:482:VAL:HG22	1.94	0.49
1:S:1367:HIS:HB2	1:S:1370:ARG:HH22	1.76	0.49
1:S:1949:ILE:HG12	1:S:2100:LEU:HD22	1.94	0.49
1:S:2168:LEU:HA	1:S:2171:LEU:HD12	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3126:LEU:O	1:S:3130:GLN:NE2	2.45	0.49
1:S:3228:SER:HA	1:S:3231:ILE:HG12	1.94	0.49
1:S:3998:LEU:O	1:S:4002:MET:HG2	2.13	0.49
9:d:20:DT:H2''	9:d:21:DA:C4	2.47	0.49
9:d:28:DA:H2''	9:d:29:DG:C8	2.47	0.49
10:e:41:DT:H2''	10:e:42:DA:C8	2.48	0.49
1:A:418:ALA:HB2	1:A:464:VAL:HG12	1.93	0.49
1:A:989:MET:SD	1:A:990:GLN:HG3	2.52	0.49
1:A:1560:TYR:O	1:A:1564:SER:OG	2.20	0.49
1:A:2422:GLN:HA	1:A:2425:ARG:HG3	1.94	0.49
2:B:102:ILE:HG21	2:B:149:VAL:HG21	1.92	0.49
2:B:462:MET:HE3	2:B:525:PHE:CG	2.47	0.49
5:H:143:HIS:O	5:H:146:LYS:HG3	2.12	0.49
6:R:817:THR:H	6:R:851:LYS:HB2	1.78	0.49
1:S:296:VAL:HA	1:S:299:LYS:HG2	1.94	0.49
1:S:1740:VAL:HA	1:S:1743:MET:HG2	1.93	0.49
1:S:1844:VAL:HG23	1:S:1845:VAL:H	1.76	0.49
1:S:2724:ASP:OD1	1:S:2724:ASP:N	2.43	0.49
2:T:365:SER:HB2	2:T:435:VAL:HG12	1.94	0.49
2:T:531:PRO:HD2	2:T:534:TYR:HD2	1.78	0.49
8:i:32:DA:C6	8:i:33:DA:N6	2.80	0.49
1:A:345:PHE:HB3	1:A:366:TYR:CE1	2.48	0.49
1:A:762:TYR:CD2	1:A:764:PRO:HD2	2.47	0.49
1:A:2455:LEU:HD12	1:A:2458:VAL:HB	1.94	0.49
1:A:2745:ARG:HH21	10:e:44:DG:H2'	1.77	0.49
1:A:3264:LYS:O	1:A:3267:LYS:NZ	2.40	0.49
1:A:3962:ARG:HD2	1:A:4124:TRP:CZ2	2.47	0.49
1:S:2376:ASP:HA	1:S:2379:MET:HG2	1.94	0.49
1:S:2587:GLN:O	1:S:2777:HIS:N	2.46	0.49
1:S:3499:ILE:HA	1:S:3502:MET:SD	2.52	0.49
1:S:3842:TRP:HB3	1:S:3855:TYR:HD1	1.78	0.49
1:A:163:LYS:NZ	2:B:311:LEU:O	2.39	0.49
1:A:371:GLY:HA2	1:A:423:TYR:CE2	2.47	0.49
1:A:1256:TRP:CE2	1:A:1260:LEU:HD11	2.47	0.49
1:A:2402:LEU:HD12	1:A:2441:LYS:HD3	1.95	0.49
1:A:3811:THR:HB	1:A:3929:MET:HE1	1.94	0.49
2:B:388:LYS:O	2:B:392:LYS:HG2	2.12	0.49
3:L:68:LEU:HD13	3:L:113:VAL:HG22	1.94	0.49
3:L:594:PRO:HG2	3:L:619:HIS:HD2	1.78	0.49
1:S:80:GLU:O	1:S:83:GLU:HG3	2.12	0.49
1:S:540:MET:O	1:S:544:ILE:HG12	2.11	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1137:ILE:HG22	1:S:1140:LYS:HZ1	1.77	0.49
1:S:1447:ARG:NH1	1:S:1448:LEU:HG	2.27	0.49
1:S:1626:TRP:CZ2	1:S:1674:THR:HG21	2.47	0.49
1:S:1712:ARG:HA	1:S:1715:GLU:OE1	2.13	0.49
1:S:1754:GLN:HE22	1:S:1788:ARG:CZ	2.26	0.49
1:S:3245:SER:O	1:S:3249:GLN:NE2	2.45	0.49
1:A:2216:LEU:HD11	1:A:2249:LEU:HD22	1.95	0.49
1:A:3267:LYS:HA	1:A:3273:LEU:HD22	1.95	0.49
4:D:86:ALA:HB3	4:D:97:THR:HB	1.94	0.49
4:D:184:SER:OG	4:D:187:ASN:O	2.31	0.49
5:Q:36:LEU:HD11	5:Q:95:PHE:HB2	1.94	0.49
6:R:817:THR:N	6:R:851:LYS:HB2	2.27	0.49
6:R:864:ILE:HA	6:R:889:LEU:HD11	1.94	0.49
1:S:740:ILE:HG13	1:S:741:ILE:HG23	1.94	0.49
1:S:2244:CYS:HG	1:S:2245:TRP:CG	2.30	0.49
2:T:90:THR:OG1	2:T:135:MET:HE3	2.12	0.49
1:A:460:ALA:O	1:A:464:VAL:HG13	2.12	0.49
1:A:752:LEU:O	1:A:755:ALA:HB3	2.13	0.49
1:A:917:LEU:O	1:A:927:LYS:NZ	2.38	0.49
1:A:1016:GLY:O	1:A:1026:ARG:HG2	2.12	0.49
1:A:2379:MET:HA	1:A:2382:VAL:HG12	1.94	0.49
1:A:3173:MET:HE3	1:A:3174:ASP:N	2.23	0.49
1:A:3176:MET:HA	1:A:3176:MET:HE3	1.95	0.49
1:A:3496:ILE:O	1:A:3499:ILE:HG12	2.12	0.49
3:C:468:GLU:C	3:C:470:THR:H	2.20	0.49
3:L:344:GLY:HA3	2:T:471:PHE:CE1	2.47	0.49
3:L:492:GLN:HE21	3:L:506:PRO:HB2	1.77	0.49
1:S:297:LEU:HD13	1:S:316:LEU:HA	1.95	0.49
1:S:2512:ASP:HB2	1:S:2518:GLN:HG2	1.93	0.49
7:j:15:DA:H5'	8:i:42:DA:H2	1.78	0.49
9:d:21:DA:H2''	9:d:22:DG:H8	1.76	0.49
9:d:31:DT:C2	9:d:32:DT:C4	3.00	0.49
1:A:12:LEU:HA	1:A:41:GLU:OE2	2.12	0.49
1:A:785:MET:HA	1:A:788:TYR:CZ	2.48	0.49
1:A:3136:THR:HA	1:A:3139:GLN:HG3	1.94	0.49
1:A:4094:PRO:HB2	1:A:4098:LEU:HD13	1.94	0.49
3:C:645:GLU:HA	3:C:648:LYS:HE2	1.93	0.49
3:L:35:LYS:HA	3:L:38:ILE:HG12	1.94	0.49
3:L:322:PRO:HB3	2:T:288:LEU:HD11	1.94	0.49
1:S:71:LYS:HB3	1:S:82:ARG:NH2	2.23	0.49
1:S:392:CYS:HA	1:S:395:MET:HB3	1.94	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1419:LEU:HD21	1:S:1467:ILE:HB	1.94	0.49
1:S:2257:PHE:HA	1:S:2260:PHE:CE2	2.47	0.49
1:A:1864:ASP:OD1	1:A:1864:ASP:N	2.45	0.49
1:A:3064:PHE:HA	1:A:3067:LYS:HD2	1.94	0.49
1:A:3419:PHE:O	1:A:3423:GLN:HG2	2.13	0.49
1:A:3468:LEU:O	1:A:3472:ILE:HG12	2.12	0.49
1:A:3871:PHE:HB2	1:A:4117:LEU:HA	1.94	0.49
3:L:497:ARG:HH11	3:L:501:PRO:HA	1.77	0.49
1:S:938:VAL:HA	1:S:941:MET:HG3	1.95	0.49
1:S:1034:ARG:HB2	1:S:1085:ILE:HG22	1.95	0.49
1:S:1558:TYR:O	1:S:1562:LEU:HG	2.12	0.49
1:S:3314:SER:OG	1:S:3318:LYS:HG3	2.13	0.49
1:S:3964:THR:HG23	1:S:3966:GLN:H	1.77	0.49
1:A:19:LEU:HD22	1:A:34:LEU:HA	1.94	0.49
1:A:72:SER:HA	1:A:119:ARG:HH12	1.78	0.49
1:A:1379:PRO:O	1:A:1382:ILE:HG12	2.13	0.49
1:A:1614:GLN:O	1:A:1618:LEU:HD23	2.13	0.49
1:A:2212:ALA:O	1:A:2216:LEU:HG	2.12	0.49
1:A:2251:ILE:HD11	1:A:2285:LEU:HD13	1.93	0.49
1:A:2576:MET:HE3	1:A:2790:LEU:HD11	1.95	0.49
1:A:2752:LYS:HD3	1:A:2755:LYS:HE3	1.95	0.49
1:A:2856:SER:HB3	1:A:2885:GLN:HE21	1.78	0.49
1:A:2916:LEU:HD13	1:A:2946:GLU:OE1	2.13	0.49
2:B:250:GLU:O	2:B:250:GLU:HG2	2.13	0.49
2:B:411:VAL:HG12	2:B:436:PHE:HA	1.95	0.49
3:C:237:PHE:HA	3:C:240:ILE:HG12	1.95	0.49
5:G:7:ARG:H	5:G:76:SER:HB2	1.77	0.49
4:M:20:PHE:CD1	4:M:43:ASP:HB3	2.48	0.49
5:P:20:LEU:HD12	5:P:22:VAL:HG13	1.95	0.49
1:S:1935:GLU:O	1:S:1939:LEU:HG	2.13	0.49
1:S:3097:ASP:OD1	1:S:3098:ARG:N	2.39	0.49
1:S:4113:ASP:O	1:S:4117:LEU:HG	2.13	0.49
1:A:66:LEU:O	1:A:67:VAL:C	2.56	0.48
1:A:2328:ARG:HB2	1:A:2370:SER:O	2.13	0.48
1:A:2443:MET:SD	1:A:2444:PRO:HD3	2.53	0.48
1:A:3478:GLU:O	1:A:3482:LEU:HG	2.12	0.48
2:B:35:ARG:O	2:B:162:SER:OG	2.29	0.48
3:C:270:GLU:HG3	3:C:487:PHE:HE2	1.78	0.48
3:L:595:ALA:HA	3:L:598:PHE:CE2	2.48	0.48
1:S:114:VAL:O	1:S:119:ARG:HB2	2.13	0.48
1:S:149:ILE:O	1:S:153:PHE:N	2.38	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:172:GLU:HG3	1:S:220:LEU:HG	1.95	0.48
1:S:738:HIS:O	1:S:742:GLU:HG3	2.13	0.48
1:S:1779:GLN:O	1:S:1783:ARG:HG2	2.13	0.48
1:S:2822:LYS:HZ3	1:S:2823:PHE:HE2	1.61	0.48
1:S:3443:PRO:HA	1:S:3446:VAL:HG22	1.95	0.48
7:j:27:DT:H3	8:i:29:DA:H61	1.59	0.48
1:A:1348:LEU:O	1:A:1352:SER:OG	2.28	0.48
1:A:1725:GLN:NE2	1:A:1769:GLU:HB2	2.26	0.48
1:A:2164:TRP:O	1:A:2167:PRO:HD2	2.13	0.48
1:A:2180:GLU:HG3	1:A:2184:TYR:HD2	1.78	0.48
1:A:3496:ILE:HD12	1:A:3707:GLY:N	2.28	0.48
2:B:484:GLN:O	2:B:488:ARG:HD3	2.13	0.48
3:C:324:SER:OG	3:C:325:LYS:N	2.45	0.48
4:M:40:TYR:HD2	4:M:47:LEU:HD11	1.77	0.48
1:S:1015:ASP:OD1	1:S:1016:GLY:N	2.44	0.48
1:S:1630:ASP:HA	1:S:1633:TRP:CZ2	2.48	0.48
1:S:2151:ILE:HG12	1:S:2192:THR:HG21	1.95	0.48
1:S:2233:HIS:CE1	1:S:2237:ILE:HD11	2.48	0.48
1:S:2382:VAL:O	1:S:2386:LEU:HG	2.13	0.48
1:S:2497:GLU:HA	1:S:2500:LYS:HD2	1.94	0.48
1:S:2792:THR:OG1	1:S:2793:PRO:HD3	2.13	0.48
1:S:3771:MET:O	1:S:3775:LEU:HG	2.12	0.48
2:T:64:ILE:O	2:T:68:GLN:HG2	2.13	0.48
1:A:924:ARG:HH21	1:A:2766:ASP:HB3	1.78	0.48
1:A:2981:TRP:HD1	1:A:2984:GLY:HA2	1.77	0.48
1:A:3158:LYS:HG3	1:A:3159:ARG:HD3	1.94	0.48
2:B:460:GLY:HA2	2:B:463:LYS:HD2	1.95	0.48
3:C:674:PHE:HB2	3:C:675:TRP:CE3	2.48	0.48
1:S:782:ARG:HD2	1:S:786:GLN:HB2	1.95	0.48
1:S:1038:LYS:HG2	1:S:1042:LYS:HD3	1.95	0.48
1:S:1871:MET:HE1	1:S:1940:TYR:N	2.28	0.48
1:S:3165:THR:HA	1:S:3238:MET:HE1	1.95	0.48
10:e:24:DA:H1'	10:e:25:DA:H5'	1.95	0.48
1:A:1513:GLY:HA2	1:A:1516:GLU:OE2	2.14	0.48
1:A:2283:ASN:HB3	1:A:2285:LEU:HG	1.96	0.48
1:A:2987:THR:HG23	1:A:2990:GLU:H	1.77	0.48
2:B:434:LEU:HG	2:B:436:PHE:HE1	1.79	0.48
5:H:22:VAL:HG13	5:H:35:THR:H	1.79	0.48
6:R:813:PHE:HA	6:R:850:ALA:HB3	1.94	0.48
1:S:848:LEU:O	1:S:852:ARG:HG3	2.14	0.48
1:S:914:VAL:HA	1:S:917:LEU:HD12	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2256:ILE:H	1:S:2256:ILE:HD12	1.78	0.48
1:S:2745:ARG:NH2	8:i:44:DG:H3'	2.27	0.48
2:T:168:LEU:HD23	2:T:168:LEU:H	1.77	0.48
8:i:31:DA:C2	8:i:32:DA:C5	3.02	0.48
1:A:614:PRO:HB2	1:A:617:PRO:HG3	1.95	0.48
1:A:898:PHE:HB2	1:A:901:MET:O	2.12	0.48
1:A:1878:ASP:OD1	1:A:1879:VAL:N	2.47	0.48
1:A:2258:GLU:HA	1:A:2261:SER:OG	2.13	0.48
1:A:3048:LYS:O	1:A:3052:LEU:HD23	2.14	0.48
2:B:41:LEU:HB3	2:B:88:TYR:CE1	2.48	0.48
3:L:496:HIS:CD2	3:L:506:PRO:HD3	2.48	0.48
3:L:528:ILE:O	3:L:531:SER:OG	2.25	0.48
1:S:19:LEU:HD22	1:S:34:LEU:HA	1.94	0.48
1:S:358:GLU:HG3	1:S:359:LEU:HD12	1.96	0.48
1:S:898:PHE:O	1:S:902:LYS:NZ	2.36	0.48
1:S:960:GLN:O	1:S:964:ARG:HG2	2.13	0.48
1:S:1415:LEU:HA	1:S:1418:HIS:HB2	1.95	0.48
1:S:2257:PHE:HB2	1:S:2299:TYR:HE1	1.78	0.48
1:S:2378:PHE:O	1:S:2382:VAL:N	2.31	0.48
1:S:2531:LEU:HB3	1:S:2538:ARG:NE	2.29	0.48
1:S:3728:VAL:HG22	1:S:3736:LYS:HG3	1.95	0.48
2:T:288:LEU:HD13	2:T:293:ASN:HA	1.94	0.48
2:T:299:LYS:NZ	2:T:301:ARG:HD2	2.29	0.48
1:A:15:LEU:O	1:A:19:LEU:HG	2.14	0.48
1:A:578:LYS:HZ3	1:A:2036:LEU:HA	1.78	0.48
1:A:989:MET:HE2	1:A:993:HIS:CE1	2.48	0.48
1:A:1340:ARG:O	1:A:1343:GLU:HG2	2.14	0.48
1:A:1455:CYS:HA	1:A:1458:LEU:HD12	1.95	0.48
1:A:1731:PRO:HA	1:A:1736:PHE:CD2	2.49	0.48
1:A:2371:PHE:CD2	1:A:2374:LEU:HD23	2.48	0.48
1:A:3515:GLN:HA	1:A:3518:VAL:HG12	1.95	0.48
1:A:3588:TRP:HE1	1:A:3609:MET:C	2.18	0.48
2:B:313:PRO:O	2:B:316:THR:OG1	2.23	0.48
2:B:537:GLU:OE1	3:C:250:ARG:NH1	2.47	0.48
3:C:64:THR:HG1	3:C:76:ASN:H	1.60	0.48
3:C:411:HIS:N	3:C:418:CYS:O	2.43	0.48
3:L:493:CYS:HB2	2:T:337:LEU:HD21	1.96	0.48
5:Q:174:THR:HG23	6:R:792:MET:HG2	1.95	0.48
1:S:2167:PRO:O	1:S:2170:GLN:HG3	2.13	0.48
1:S:2187:VAL:HG23	1:S:2728:LEU:HD21	1.96	0.48
1:S:2368:THR:HG21	1:S:2400:VAL:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:343:GLU:HG2	1:A:344:GLN:N	2.28	0.48
1:A:2187:VAL:HA	1:A:2190:VAL:HG12	1.96	0.48
1:A:2439:ILE:HA	1:A:2442:MET:HG3	1.96	0.48
1:A:2452:ARG:NH1	1:A:2497:GLU:OE1	2.45	0.48
1:A:3126:LEU:O	1:A:3130:GLN:HG2	2.13	0.48
1:A:3172:LYS:NZ	1:A:3248:LYS:O	2.47	0.48
1:A:3181:ASP:O	1:A:3185:ASN:ND2	2.47	0.48
1:A:3263:HIS:HB2	1:A:3276:TRP:CE2	2.48	0.48
3:C:24:ILE:HB	3:C:27:ILE:HB	1.96	0.48
3:C:323:PHE:CE2	3:C:328:GLU:HB3	2.48	0.48
1:S:67:VAL:CB	1:S:71:LYS:HD3	2.41	0.48
1:S:1576:ASP:HA	1:S:1579:VAL:HB	1.94	0.48
1:S:1718:ILE:HA	1:S:1721:HIS:ND1	2.28	0.48
1:S:1747:LEU:HD21	1:S:1778:PHE:HD1	1.78	0.48
1:S:1778:PHE:CE2	1:S:1782:PHE:HE2	2.32	0.48
1:S:3736:LYS:HB2	1:S:3752:VAL:HG12	1.94	0.48
2:T:59:PRO:HA	2:T:62:MET:HG3	1.95	0.48
2:T:98:ASN:O	2:T:100:LYS:NZ	2.47	0.48
1:A:655:LEU:O	1:A:659:ARG:HG2	2.14	0.48
1:A:1755:SER:HB3	1:A:1758:LEU:HD12	1.96	0.48
1:A:2104:MET:HE3	1:A:2124:SER:HB3	1.95	0.48
1:A:3679:ASN:HA	1:A:3726:VAL:HG22	1.96	0.48
2:B:106:GLN:HB3	2:B:115:ARG:HH21	1.79	0.48
3:C:11:VAL:HG23	3:C:55:ALA:HB3	1.95	0.48
3:C:44:ARG:NH1	3:C:488:GLN:HG3	2.29	0.48
3:C:148:ASP:N	3:C:148:ASP:OD1	2.46	0.48
5:H:194:LEU:O	5:H:197:LYS:HG3	2.14	0.48
3:L:593:ASN:HB2	1:S:1723:PRO:HG3	1.95	0.48
1:S:910:PHE:CE1	1:S:2807:GLN:HG3	2.49	0.48
1:S:1227:GLY:O	1:S:1292:LYS:NZ	2.43	0.48
1:S:2484:TYR:C	1:S:2485:ARG:HD2	2.39	0.48
1:A:25:CYS:SG	1:A:26:GLY:N	2.85	0.48
1:A:899:ARG:HH12	1:A:2566:THR:HA	1.77	0.48
1:A:1783:ARG:HE	1:A:1830:HIS:CG	2.32	0.48
1:A:1840:PHE:CD1	1:A:1880:MET:HE2	2.47	0.48
1:A:3389:VAL:HG11	1:A:3449:LYS:HD3	1.96	0.48
3:C:64:THR:OG1	3:C:76:ASN:N	2.46	0.48
3:C:198:THR:HG22	3:C:200:GLN:H	1.79	0.48
3:C:348:SER:OG	3:C:388:ASP:O	2.31	0.48
3:C:431:ARG:HH21	3:C:433:TYR:HE2	1.62	0.48
3:C:528:ILE:O	3:C:532:LYS:HG3	2.14	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:360:GLN:HE22	3:L:362:LEU:HG	1.79	0.48
3:L:594:PRO:HG3	1:S:1724:MET:HE1	1.95	0.48
3:L:613:SER:O	3:L:616:LEU:HG	2.13	0.48
5:P:22:VAL:HA	5:P:32:PHE:HB2	1.96	0.48
1:S:22:ALA:HA	1:S:24:ARG:HH11	1.79	0.48
1:S:246:ARG:HA	1:S:249:PHE:HD2	1.78	0.48
1:S:847:SER:N	1:S:850:GLU:OE2	2.47	0.48
1:S:978:GLN:NE2	1:S:2597:PHE:HA	2.29	0.48
1:S:1102:GLU:HA	1:S:1154:PRO:HB3	1.95	0.48
1:S:1194:PHE:HA	1:S:1197:LEU:HD23	1.94	0.48
1:S:1416:GLU:O	1:S:1419:LEU:HB3	2.13	0.48
1:S:1878:ASP:OD1	1:S:1879:VAL:N	2.47	0.48
1:S:3831:ASP:HB3	1:S:3832:PRO:HD3	1.96	0.48
2:T:371:GLU:OE2	2:T:373:SER:OG	2.31	0.48
1:A:35:ILE:HD12	1:A:80:GLU:HB3	1.95	0.48
1:A:245:SER:O	1:A:249:PHE:HD1	1.96	0.48
1:A:1231:GLN:O	1:A:1235:ILE:N	2.37	0.48
1:A:1794:GLN:O	1:A:1798:LEU:HG	2.13	0.48
1:A:1935:GLU:O	1:A:1939:LEU:HG	2.14	0.48
1:A:3629:ARG:O	1:A:3633:ILE:HG12	2.14	0.48
2:B:343:PRO:HA	2:B:401:THR:HB	1.96	0.48
3:C:61:THR:N	3:C:76:ASN:O	2.40	0.48
3:C:189:GLY:HA2	3:C:519:PRO:HB3	1.96	0.48
3:C:347:LYS:HG3	3:C:349:SER:H	1.78	0.48
5:Q:175:ASP:HB3	5:Q:179:ARG:CZ	2.43	0.48
1:S:374:LYS:NZ	1:S:425:ASP:OD1	2.47	0.48
1:S:627:VAL:HG22	1:S:669:LEU:HD23	1.96	0.48
1:S:1000:LYS:HA	1:S:1004:GLN:NE2	2.29	0.48
1:S:1210:ASP:HA	1:S:1213:LYS:HD2	1.96	0.48
1:S:1867:ILE:HG12	1:S:1871:MET:HE2	1.95	0.48
1:S:2166:SER:OG	1:S:2167:PRO:HD3	2.13	0.48
1:S:2245:TRP:HE3	1:S:2249:LEU:HD21	1.79	0.48
1:S:2346:ALA:HA	1:S:2349:LEU:HD12	1.96	0.48
1:S:2938:VAL:O	1:S:2942:ILE:HG12	2.14	0.48
2:T:95:ASN:ND2	2:T:99:PHE:H	2.10	0.48
1:A:2402:LEU:HD13	1:A:2438:ILE:HG13	1.95	0.47
1:A:2799:GLN:OE1	1:A:2799:GLN:N	2.46	0.47
4:D:129:ALA:HA	4:M:128:LEU:HD22	1.96	0.47
6:I:713:ILE:HD13	6:I:720:VAL:HG21	1.96	0.47
3:L:40:MET:O	3:L:43:GLN:HG2	2.14	0.47
3:L:132:ILE:HG23	3:L:161:LEU:HG	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:837:ARG:HH21	6:R:840:ILE:HG21	1.79	0.47
1:S:1919:CYS:O	1:S:1922:ALA:HB3	2.14	0.47
1:S:2201:THR:HG23	1:S:2203:THR:HG22	1.96	0.47
1:S:2864:GLN:HG3	1:S:2865:HIS:CE1	2.49	0.47
1:A:409:GLN:HG2	1:A:413:PHE:HE2	1.79	0.47
1:A:1099:PHE:HD1	1:A:1152:ARG:HH21	1.63	0.47
1:A:2303:LEU:HA	1:A:2306:ASN:HD22	1.79	0.47
1:A:3634:GLN:HA	1:A:3638:LYS:NZ	2.28	0.47
2:B:411:VAL:HA	2:B:437:LEU:HG	1.96	0.47
2:B:482:VAL:HG13	3:C:333:TYR:HB3	1.95	0.47
1:S:200:PHE:CZ	1:S:227:LEU:HD13	2.49	0.47
1:S:1191:PHE:O	1:S:1195:VAL:HG23	2.14	0.47
1:S:1260:LEU:HD21	1:S:1293:ALA:HB2	1.95	0.47
1:S:1419:LEU:HG	1:S:1467:ILE:HD13	1.96	0.47
1:S:1783:ARG:HE	1:S:1830:HIS:HB2	1.79	0.47
1:S:1844:VAL:HG23	1:S:1845:VAL:N	2.30	0.47
1:S:2412:TYR:CZ	1:S:2450:GLU:HB2	2.49	0.47
1:S:2941:GLY:O	1:S:2944:THR:OG1	2.31	0.47
1:S:3925:LEU:HB2	1:S:3962:ARG:HH21	1.80	0.47
2:T:131:PHE:O	2:T:135:MET:HB3	2.14	0.47
9:d:19:DA:C5	9:d:20:DT:C4	3.01	0.47
1:A:1428:ILE:O	1:A:1432:CYS:N	2.46	0.47
1:A:2231:PHE:O	1:A:2235:LEU:HG	2.15	0.47
1:A:2354:ASN:ND2	1:A:2357:GLU:OE2	2.45	0.47
1:A:2801:ASP:HB3	1:A:2804:ILE:HG12	1.96	0.47
1:A:2923:TRP:O	1:A:2926:LEU:HB3	2.14	0.47
2:B:413:LEU:HD12	2:B:432:PHE:HB3	1.96	0.47
3:C:16:VAL:HG22	3:C:101:GLY:H	1.79	0.47
3:L:331:MET:SD	2:T:489:ASN:HB3	2.54	0.47
3:L:407:VAL:HB	3:L:424:LEU:HD11	1.95	0.47
3:L:674:PHE:HB2	3:L:675:TRP:CE3	2.50	0.47
1:S:850:GLU:HA	1:S:853:ILE:HG12	1.97	0.47
1:S:959:TYR:O	1:S:963:LYS:HG3	2.15	0.47
1:S:1406:LEU:HD12	1:S:1409:SER:HB3	1.96	0.47
1:S:1484:LEU:HB2	1:S:1531:LEU:HD13	1.95	0.47
1:S:2410:GLU:OE2	1:S:2413:PHE:N	2.33	0.47
1:S:2452:ARG:HE	1:S:2497:GLU:CD	2.22	0.47
1:S:2833:THR:HG21	1:S:2867:ALA:HB1	1.96	0.47
1:S:3666:LEU:HD23	1:S:3669:LYS:HZ3	1.78	0.47
1:S:3967:PHE:O	1:S:3970:LEU:HD22	2.14	0.47
1:A:124:LYS:NZ	9:d:23:DT:OP2	2.40	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:159:GLU:HA	2:B:301:ARG:HH12	1.80	0.47
1:A:1215:GLU:HB3	1:A:1218:SER:HB2	1.96	0.47
1:A:2340:SER:O	1:A:2344:LEU:HG	2.14	0.47
1:A:3008:TRP:HB2	1:A:3051:LEU:HD23	1.96	0.47
1:A:3564:GLN:NE2	1:A:3697:ASN:HB3	2.29	0.47
1:A:3915:HIS:HE1	1:A:3961:PHE:HA	1.78	0.47
1:A:4002:MET:SD	1:A:4044:ILE:HG22	2.54	0.47
3:C:43:GLN:NE2	3:C:491:PHE:O	2.40	0.47
3:C:605:LYS:HB2	3:C:609:PHE:CE2	2.49	0.47
5:H:179:ARG:HD3	6:I:781:ILE:HD12	1.95	0.47
1:S:382:ASP:HA	1:S:385:TYR:HB3	1.96	0.47
1:S:2231:PHE:O	1:S:2235:LEU:HG	2.14	0.47
1:S:3863:ASN:H	1:S:3866:GLU:HG3	1.78	0.47
1:S:4090:ARG:NH2	1:S:4106:CYS:HA	2.20	0.47
2:T:206:LYS:N	2:T:235:GLU:HB3	2.30	0.47
2:T:239:LEU:HD23	2:T:242:LEU:HD12	1.95	0.47
7:j:19:DA:H61	8:i:39:DA:N6	2.12	0.47
1:A:115:TYR:HB2	1:A:130:LEU:HD22	1.96	0.47
1:A:560:LEU:O	1:A:564:LEU:HG	2.14	0.47
1:A:1008:ALA:O	1:A:1011:GLU:HG2	2.14	0.47
1:A:1039:TRP:NE1	1:A:1043:GLN:OE1	2.44	0.47
1:A:1058:SER:O	1:A:1062:ARG:HG2	2.14	0.47
1:A:2141:ASN:O	1:A:2144:LEU:HG	2.14	0.47
1:A:2147:ALA:O	1:A:2151:ILE:HG13	2.14	0.47
1:A:3320:ILE:HG22	1:A:3391:ALA:HB1	1.95	0.47
1:A:4086:ASP:N	1:A:4086:ASP:OD1	2.47	0.47
2:B:203:MET:CE	2:B:239:LEU:HG	2.43	0.47
2:B:264:ASN:O	2:B:346:MET:HE1	2.15	0.47
3:L:93:ASP:HA	3:L:97:LYS:HD3	1.97	0.47
3:L:485:PRO:HG2	3:L:486:ARG:NH2	2.29	0.47
3:L:605:LYS:HB2	3:L:609:PHE:CZ	2.45	0.47
5:Q:21:GLN:HB2	5:Q:126:LEU:HD11	1.95	0.47
5:Q:179:ARG:HH11	6:R:778:PHE:HD1	1.61	0.47
1:S:326:MET:O	1:S:330:ASN:N	2.47	0.47
1:S:1715:GLU:HA	1:S:1718:ILE:HG12	1.96	0.47
1:S:2246:LYS:NZ	1:S:2284:ASP:OD1	2.41	0.47
1:S:2328:ARG:HG2	1:S:2329:TYR:CE1	2.50	0.47
1:S:2385:LEU:HD13	1:S:2389:PHE:HE2	1.79	0.47
1:S:2431:ARG:HA	1:S:2434:VAL:HG22	1.96	0.47
2:T:461:LYS:NZ	2:T:524:GLU:OE1	2.40	0.47
1:A:80:GLU:HA	1:A:83:GLU:OE1	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:103:TYR:O	1:A:106:GLU:HB2	2.14	0.47
1:A:981:ARG:O	1:A:984:TYR:N	2.44	0.47
1:A:1208:LEU:HD21	1:A:1276:VAL:HB	1.96	0.47
1:A:1740:VAL:HA	1:A:1743:MET:HG3	1.95	0.47
1:A:2235:LEU:HD13	1:A:2275:GLN:HG2	1.96	0.47
1:A:3814:ASP:OD1	1:A:3815:LEU:N	2.47	0.47
1:A:3985:VAL:HG12	1:A:3989:ARG:NE	2.29	0.47
2:B:338:LYS:HE2	3:C:486:ARG:NH2	2.30	0.47
3:C:83:LEU:HD12	3:C:121:GLU:HB2	1.95	0.47
3:C:496:HIS:NE2	3:C:504:PRO:O	2.47	0.47
3:L:17:GLY:HA2	3:L:103:GLN:O	2.14	0.47
3:L:58:LEU:O	3:L:78:THR:N	2.44	0.47
1:S:114:VAL:O	1:S:119:ARG:NE	2.45	0.47
1:S:220:LEU:HD12	1:S:220:LEU:H	1.79	0.47
1:S:2455:LEU:HD21	1:S:2498:ILE:HG12	1.97	0.47
1:S:3137:GLU:HA	1:S:3140:GLU:CD	2.40	0.47
1:S:3679:ASN:HA	1:S:3726:VAL:HG22	1.97	0.47
1:A:1420:ARG:NH2	1:A:1465:HIS:O	2.47	0.47
1:A:1468:LEU:HD12	1:A:1469:PRO:HD2	1.96	0.47
1:A:1601:LEU:HD23	1:A:1651:LYS:HB3	1.97	0.47
1:A:1872:GLY:HA2	1:A:1875:LYS:HG2	1.95	0.47
1:A:2154:GLU:HA	1:A:2157:PHE:CE1	2.50	0.47
1:A:2786:LYS:O	1:A:2789:SER:OG	2.29	0.47
1:A:2860:ASP:O	1:A:2864:GLN:HG3	2.15	0.47
1:A:2866:ALA:HB1	1:A:2899:ARG:HD2	1.96	0.47
1:A:3190:LEU:HD22	1:A:3235:LYS:HD2	1.96	0.47
1:A:3571:PHE:O	1:A:3575:LEU:HG	2.14	0.47
2:B:256:LEU:O	10:e:33:DA:H5"	2.14	0.47
2:B:357:LYS:HB2	2:B:360:HIS:CG	2.48	0.47
3:C:9:ALA:O	3:C:131:HIS:N	2.41	0.47
3:C:91:LEU:HD13	3:C:495:LEU:HD13	1.97	0.47
3:L:33:GLN:O	3:L:37:VAL:HG23	2.15	0.47
3:L:202:LYS:O	3:L:206:GLU:HG2	2.14	0.47
3:L:246:HIS:HB2	3:L:262:ALA:HB1	1.97	0.47
3:L:323:PHE:CE2	3:L:328:GLU:HB2	2.50	0.47
6:R:727:LEU:O	6:R:731:LYS:HG2	2.14	0.47
6:R:816:HIS:H	6:R:850:ALA:C	2.23	0.47
1:S:125:ILE:H	1:S:125:ILE:HD12	1.79	0.47
1:S:240:GLU:HG3	1:S:243:GLN:HG2	1.96	0.47
1:S:429:GLU:O	1:S:432:THR:OG1	2.30	0.47
1:S:649:PHE:O	1:S:653:LEU:HB2	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1102:GLU:H	1:S:1102:GLU:CD	2.21	0.47
1:S:1401:ASN:HA	1:S:1404:LYS:HE2	1.97	0.47
1:S:2122:LEU:HB2	1:S:2126:MET:CE	2.38	0.47
1:S:2817:LEU:HD22	1:S:2865:HIS:CD2	2.48	0.47
1:S:2860:ASP:HA	1:S:2863:CYS:SG	2.55	0.47
1:S:3311:ASN:HB3	1:S:3315:TYR:CZ	2.49	0.47
2:T:79:ASP:N	2:T:79:ASP:OD1	2.47	0.47
2:T:172:GLU:HG3	2:T:175:PRO:HD3	1.95	0.47
8:i:34:DC:H2''	8:i:35:DT:C6	2.50	0.47
1:A:1253:THR:O	1:A:1257:LEU:HG	2.14	0.47
1:A:2324:GLY:HA3	1:A:2370:SER:OG	2.15	0.47
1:A:2442:MET:HE1	1:A:2446:LEU:HD22	1.97	0.47
1:A:2470:ARG:O	1:A:2473:MET:HG2	2.15	0.47
1:A:2724:ASP:N	1:A:2724:ASP:OD1	2.47	0.47
1:A:2762:LYS:HA	1:A:2765:GLN:HE21	1.79	0.47
1:A:3231:ILE:HG13	1:A:3232:ARG:N	2.30	0.47
1:A:3483:MET:HA	1:A:3486:GLU:CG	2.45	0.47
1:A:3661:ASP:O	1:A:3665:MET:HE3	2.15	0.47
2:B:367:PHE:CE2	2:B:369:TYR:HB2	2.50	0.47
3:C:312:GLN:NE2	3:C:324:SER:O	2.34	0.47
3:C:377:LEU:O	3:C:381:ILE:HG12	2.14	0.47
3:L:61:THR:OG1	3:L:63:GLY:O	2.33	0.47
6:R:739:GLN:H	6:R:742:PHE:HE2	1.61	0.47
1:S:865:GLN:HE22	1:S:3170:ASP:HA	1.80	0.47
1:S:994:TRP:CZ2	1:S:1000:LYS:HD3	2.50	0.47
1:S:1399:CYS:O	1:S:1403:MET:HG2	2.15	0.47
1:S:1773:VAL:HG12	1:S:1773:VAL:O	2.14	0.47
1:S:1801:VAL:HA	1:S:1804:MET:HG3	1.96	0.47
1:S:2246:LYS:NZ	1:S:2284:ASP:H	2.12	0.47
1:S:2294:ILE:HD12	1:S:2294:ILE:H	1.80	0.47
1:S:2954:GLN:HA	1:S:2957:LEU:HD12	1.97	0.47
1:S:3525:TYR:OH	1:S:3712:LEU:N	2.36	0.47
2:T:487:PHE:O	2:T:490:LEU:N	2.48	0.47
8:i:23:DT:H2''	8:i:24:DA:N7	2.30	0.47
1:A:344:GLN:O	1:A:348:ILE:HG12	2.15	0.47
1:A:1729:PHE:HB3	1:A:1735:ARG:HG3	1.97	0.47
1:A:2365:ASN:HD21	1:A:2399:GLU:CD	2.22	0.47
1:A:3085:GLU:HA	1:A:3088:LEU:HD12	1.96	0.47
1:A:3761:ASP:HB3	1:A:3793:VAL:HG11	1.97	0.47
1:A:3909:ALA:HB1	1:A:3984:MET:HE3	1.97	0.47
1:A:3927:ASN:HB3	1:A:3941:ASP:HB2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:234:LEU:HD21	3:C:483:PRO:HB3	1.96	0.47
4:D:136:GLU:OE2	4:M:131:ARG:NH1	2.48	0.47
5:H:185:ASN:O	5:H:188:LYS:HG3	2.15	0.47
6:R:818:VAL:HG12	6:R:851:LYS:N	2.29	0.47
1:S:151:GLU:OE1	1:S:151:GLU:N	2.38	0.47
1:S:225:LYS:HE3	1:S:270:ALA:O	2.14	0.47
1:S:1631:SER:HG	1:S:1632:TRP:CD1	2.32	0.47
1:S:2139:PRO:O	1:S:2143:ARG:HG3	2.14	0.47
1:S:2443:MET:N	1:S:2444:PRO:HD2	2.30	0.47
1:S:2548:PRO:HB2	1:S:2848:PHE:CD1	2.49	0.47
1:S:3873:LYS:O	1:S:3877:LYS:N	2.46	0.47
2:T:146:VAL:HA	2:T:149:VAL:HG22	1.97	0.47
2:T:351:LYS:HE2	2:T:351:LYS:HB2	1.78	0.47
1:A:209:THR:O	1:A:212:VAL:HG22	2.14	0.47
1:A:1737:ASN:O	1:A:1740:VAL:HG22	2.15	0.47
1:A:2335:ASN:ND2	1:A:2337:LEU:HD23	2.31	0.47
1:A:2388:LYS:NZ	2:B:157:VAL:O	2.48	0.47
1:A:3075:LYS:O	1:A:3079:GLU:OE1	2.33	0.47
1:A:3793:VAL:HG23	1:A:3803:ILE:HG13	1.97	0.47
1:A:4041:ARG:O	1:A:4044:ILE:HG12	2.15	0.47
2:B:203:MET:CE	2:B:237:SER:HB2	2.45	0.47
2:B:212:ASP:HB3	2:B:215:LEU:HD22	1.97	0.47
3:C:450:GLN:HG2	3:C:536:LEU:HB3	1.97	0.47
3:C:595:ALA:HA	3:C:598:PHE:CE2	2.50	0.47
5:G:48:SER:OG	5:G:49:GLU:N	2.48	0.47
5:H:174:THR:HB	6:I:787:GLN:HE22	1.80	0.47
6:R:710:LYS:O	6:R:714:LEU:HG	2.14	0.47
1:S:127:ALA:O	1:S:131:LEU:HG	2.14	0.47
1:S:1128:CYS:HA	1:S:1131:ILE:HG12	1.97	0.47
1:S:1574:ASN:ND2	1:S:1578:ALA:H	2.13	0.47
1:S:2999:LEU:CD2	1:S:3014:CYS:HA	2.45	0.47
1:A:532:ARG:O	1:A:536:SER:N	2.48	0.46
1:A:584:GLU:C	1:A:613:HIS:HB3	2.40	0.46
1:A:1008:ALA:HA	1:A:1011:GLU:OE2	2.14	0.46
1:A:1504:ASP:HB3	1:A:1507:CYS:HB2	1.97	0.46
1:A:3870:SER:HA	1:A:3873:LYS:HE2	1.97	0.46
6:I:706:ASN:HB2	6:I:709:VAL:HG23	1.96	0.46
3:L:115:MET:HE1	3:L:153:SER:HB2	1.96	0.46
3:L:279:VAL:HG12	3:L:286:LYS:N	2.29	0.46
3:L:327:ASP:O	3:L:331:MET:HG2	2.15	0.46
6:R:759:ASP:N	6:R:759:ASP:OD1	2.46	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1177:GLY:H	1:S:1184:ARG:HG3	1.79	0.46
1:S:3887:PHE:HA	1:S:3890:MET:HE2	1.97	0.46
1:A:1625:HIS:HA	1:A:1628:LYS:HD3	1.97	0.46
1:A:1863:PHE:CD1	3:C:718:VAL:HG23	2.49	0.46
1:A:2735:ASP:N	1:A:2735:ASP:OD1	2.49	0.46
1:A:3422:GLN:N	1:A:3425:ARG:HH21	2.12	0.46
1:A:4084:SER:HB3	1:A:4085:LYS:HZ2	1.81	0.46
2:B:303:PHE:HE2	2:B:308:GLY:HA2	1.79	0.46
4:D:88:THR:OG1	4:D:95:SER:OG	2.24	0.46
1:S:156:PHE:O	1:S:159:GLU:HG2	2.15	0.46
1:S:1107:TYR:CD2	1:S:1134:LEU:HD11	2.43	0.46
1:S:3119:VAL:HG13	1:S:3120:LEU:HD23	1.96	0.46
1:S:3589:SER:HB3	1:S:3664:ASN:HD21	1.80	0.46
1:A:290:TYR:CE2	1:A:291:VAL:HG13	2.50	0.46
1:A:649:PHE:O	1:A:653:LEU:HG	2.16	0.46
1:A:1333:SER:O	1:A:1337:VAL:HG23	2.15	0.46
1:A:3420:CYS:SG	1:A:3446:VAL:HG11	2.56	0.46
1:A:3428:GLU:OE1	1:A:3474:ARG:NH1	2.49	0.46
1:A:3834:ALA:HB1	1:A:3839:TYR:HE1	1.81	0.46
3:C:61:THR:HG21	3:C:78:THR:HB	1.96	0.46
3:C:528:ILE:HG22	3:C:532:LYS:HZ2	1.81	0.46
3:L:236:VAL:HG23	3:L:237:PHE:CD2	2.50	0.46
3:L:280:ASP:OD1	3:L:281:ALA:N	2.47	0.46
6:R:748:PRO:HA	6:R:751:LYS:HD2	1.97	0.46
1:S:117:LYS:HG2	1:S:118:ASP:H	1.80	0.46
1:S:2154:GLU:HA	1:S:2157:PHE:CE1	2.50	0.46
1:S:2347:LYS:O	1:S:2351:GLN:N	2.41	0.46
1:S:3454:LEU:HD11	1:S:3462:ARG:HA	1.97	0.46
1:A:1139:GLU:HA	1:A:1197:LEU:HD11	1.96	0.46
1:A:1406:LEU:O	1:A:1412:LYS:HB3	2.16	0.46
1:A:4054:ALA:HA	1:A:4096:SER:HA	1.97	0.46
2:B:363:ARG:HD3	2:B:436:PHE:CE2	2.50	0.46
2:B:482:VAL:HG22	3:C:333:TYR:CD2	2.50	0.46
3:C:132:ILE:O	3:C:161:LEU:HA	2.16	0.46
3:C:253:ILE:HB	3:C:257:LEU:HB2	1.97	0.46
3:C:336:GLU:H	3:C:336:GLU:CD	2.24	0.46
6:I:815:ARG:H	6:I:850:ALA:N	2.12	0.46
3:L:151:ILE:HD11	3:L:211:VAL:HG13	1.96	0.46
1:S:382:ASP:O	1:S:385:TYR:HB3	2.16	0.46
1:S:903:PRO:HB3	1:S:2819:GLU:HB2	1.96	0.46
1:S:1076:LEU:HB3	1:S:1123:THR:OG1	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1165:LEU:O	1:S:1169:VAL:HG23	2.15	0.46
1:S:1173:LEU:HB2	1:S:1191:PHE:CE1	2.51	0.46
1:S:1722:PHE:CE1	1:S:1739:TYR:HB3	2.49	0.46
1:S:2133:LEU:HD13	1:S:2146:LEU:HD22	1.96	0.46
1:S:2571:ASP:O	1:S:2787:HIS:ND1	2.48	0.46
1:S:2735:ASP:OD1	1:S:2735:ASP:N	2.46	0.46
1:S:3085:GLU:OE1	1:S:3085:GLU:N	2.41	0.46
1:S:3972:LEU:HB3	1:S:3973:PRO:HD3	1.98	0.46
1:A:391:ARG:NH1	1:A:1737:ASN:OD1	2.49	0.46
1:A:479:ILE:HA	1:A:482:VAL:HG22	1.97	0.46
1:A:1111:LEU:HD22	1:A:1186:LYS:HZ2	1.81	0.46
1:A:2344:LEU:HA	1:A:2347:LYS:HZ3	1.81	0.46
2:B:325:ARG:HB2	3:C:88:PHE:CE1	2.50	0.46
3:C:491:PHE:HD1	3:C:494:LEU:HD12	1.80	0.46
3:C:653:GLN:HA	3:C:656:ASN:ND2	2.30	0.46
5:G:160:GLY:O	5:G:164:LYS:HG2	2.16	0.46
3:L:188:HIS:CE1	3:L:478:PRO:HD2	2.44	0.46
6:R:754:PHE:HA	6:R:757:GLU:HG2	1.98	0.46
1:S:146:GLU:H	1:S:146:GLU:CD	2.24	0.46
1:S:244:THR:O	1:S:248:ILE:HG12	2.15	0.46
1:S:1279:LEU:HD22	1:S:1356:TRP:HE1	1.81	0.46
1:S:1611:GLN:HB2	1:S:1613:HIS:ND1	2.30	0.46
1:S:1737:ASN:HA	1:S:1740:VAL:HG22	1.98	0.46
1:S:1840:PHE:CE2	1:S:1844:VAL:HG12	2.50	0.46
1:S:2395:THR:O	1:S:2398:LEU:HB2	2.15	0.46
1:A:719:LYS:HZ1	1:A:1026:ARG:HH22	1.61	0.46
1:A:3165:THR:C	1:A:3238:MET:HE1	2.40	0.46
1:A:3749:PRO:HB2	1:A:3805:TRP:HB3	1.96	0.46
1:A:4040:PRO:O	1:A:4044:ILE:HG23	2.16	0.46
2:B:158:GLN:OE1	2:B:158:GLN:N	2.49	0.46
2:B:344:GLY:H	2:B:401:THR:HB	1.81	0.46
3:C:233:LYS:HE2	3:C:235:CYS:HB3	1.98	0.46
3:C:461:MET:CE	3:C:526:SER:HB3	2.46	0.46
3:C:528:ILE:O	3:C:531:SER:OG	2.24	0.46
1:S:1023:SER:HA	1:S:1026:ARG:NE	2.23	0.46
1:S:1135:CYS:HA	1:S:1138:ILE:HG22	1.96	0.46
1:S:2356:MET:SD	1:S:2357:GLU:N	2.89	0.46
1:S:3354:ASP:OD1	1:S:3354:ASP:N	2.46	0.46
10:e:43:DT:H2"	10:e:44:DG:C6	2.51	0.46
1:A:407:VAL:HB	1:A:410:MET:HE1	1.97	0.46
1:A:523:THR:OG1	1:A:524:TYR:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2356:MET:SD	1:A:2357:GLU:N	2.89	0.46
1:A:3036:TYR:O	1:A:3039:THR:OG1	2.27	0.46
1:A:3305:SER:OG	1:A:3309:GLU:OE2	2.24	0.46
1:A:3527:GLN:OE1	1:A:3697:ASN:ND2	2.49	0.46
1:A:3675:LYS:HA	1:A:3675:LYS:HD2	1.80	0.46
2:B:530:TYR:CZ	2:B:536:PRO:HB3	2.51	0.46
3:C:15:ASP:HB3	3:C:20:MET:HE3	1.97	0.46
3:C:460:SER:HA	3:C:525:LYS:HE2	1.98	0.46
3:L:342:VAL:HA	3:L:393:VAL:HA	1.97	0.46
3:L:368:ARG:HD2	3:L:368:ARG:HA	1.80	0.46
3:L:496:HIS:CG	3:L:506:PRO:HD3	2.50	0.46
5:Q:4:LYS:HA	5:Q:4:LYS:HD2	1.83	0.46
5:Q:188:LYS:HD2	5:Q:188:LYS:HA	1.70	0.46
1:S:790:LYS:HA	1:S:869:ASN:HB3	1.96	0.46
1:S:1031:ARG:NH1	1:S:1032:CYS:HB3	2.30	0.46
1:S:1357:LYS:HG3	1:S:1361:LYS:HZ3	1.81	0.46
1:S:1367:HIS:HB2	1:S:1370:ARG:HH12	1.80	0.46
1:S:2439:ILE:HA	1:S:2442:MET:HG3	1.98	0.46
1:S:2894:GLU:HG2	1:S:3973:PRO:HG2	1.98	0.46
1:S:3575:LEU:HD22	1:S:3681:LYS:NZ	2.31	0.46
1:S:3809:THR:OG1	1:S:3930:VAL:O	2.34	0.46
2:T:90:THR:HG23	2:T:92:LYS:O	2.16	0.46
2:T:176:HIS:CD2	2:T:182:LYS:HG2	2.51	0.46
9:d:33:DA:H1'	9:d:34:DT:O4'	2.15	0.46
1:A:828:LYS:HB2	1:A:830:VAL:HG22	1.97	0.46
1:A:1290:LEU:O	1:A:1294:VAL:HG23	2.15	0.46
1:A:2595:TRP:CE2	1:A:2762:LYS:HD2	2.50	0.46
1:A:2747:GLY:HA2	1:A:2750:GLU:OE1	2.16	0.46
2:B:318:ARG:HG2	3:C:276:TRP:HB3	1.98	0.46
3:C:16:VAL:O	3:C:101:GLY:N	2.48	0.46
5:H:3:ARG:HD3	5:H:21:GLN:HB2	1.98	0.46
3:L:335:SER:OG	3:L:399:LYS:O	2.34	0.46
5:P:172:LEU:HD13	6:R:809:PRO:HD2	1.98	0.46
6:R:787:GLN:HG3	6:R:791:GLU:OE2	2.16	0.46
1:S:894:PHE:HZ	1:S:2787:HIS:HD2	1.64	0.46
1:S:1075:ARG:NH2	1:S:1117:ASP:OD2	2.48	0.46
1:S:1605:PHE:HE2	1:S:2042:GLN:HA	1.79	0.46
1:S:2187:VAL:HA	1:S:2190:VAL:HG22	1.98	0.46
1:S:3589:SER:HB2	1:S:3593:ARG:CZ	2.45	0.46
1:S:3714:GLU:N	1:S:3714:GLU:OE1	2.49	0.46
2:T:48:MET:HA	2:T:59:PRO:HB2	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:151:ALA:HB2	2:T:193:LEU:HD11	1.98	0.46
1:A:300:TRP:CE3	1:A:308:LEU:HD21	2.51	0.46
1:A:389:ILE:HG22	1:A:393:LYS:NZ	2.31	0.46
1:A:923:ASP:O	1:A:926:THR:OG1	2.28	0.46
1:A:1148:ALA:O	1:A:1162:SER:OG	2.24	0.46
1:A:1261:LEU:HD23	1:A:1336:THR:HG22	1.98	0.46
1:A:1715:GLU:HA	1:A:1718:ILE:HG12	1.97	0.46
1:A:3554:PHE:O	1:A:3558:ILE:HG12	2.15	0.46
1:A:3732:LEU:HG	1:A:3733:ARG:HG2	1.97	0.46
1:A:3924:HIS:HD2	1:A:3926:ASN:H	1.64	0.46
1:A:4102:THR:HA	1:A:4105:LYS:HE2	1.97	0.46
2:B:64:ILE:O	2:B:68:GLN:HG2	2.15	0.46
3:C:247:TRP:HB3	3:C:263:ALA:HB3	1.98	0.46
5:G:185:ASN:O	5:G:189:THR:HG23	2.16	0.46
3:L:89:ASP:O	3:L:92:GLU:HG2	2.15	0.46
3:L:496:HIS:NE2	3:L:504:PRO:O	2.49	0.46
1:S:38:LEU:HD21	1:S:63:PHE:CE2	2.50	0.46
1:S:584:GLU:HB2	1:S:613:HIS:ND1	2.31	0.46
1:S:2880:CYS:HB2	1:S:2885:GLN:O	2.15	0.46
1:S:3364:GLY:HA3	1:S:3373:VAL:HA	1.97	0.46
2:T:413:LEU:HD12	2:T:432:PHE:HB3	1.98	0.46
1:A:14:ARG:HH22	1:A:3071:GLY:N	2.13	0.46
1:A:117:LYS:O	1:A:120:ALA:N	2.38	0.46
1:A:475:LEU:O	1:A:479:ILE:HG12	2.15	0.46
1:A:894:PHE:N	1:A:905:ILE:O	2.47	0.46
1:A:1202:ARG:HA	1:A:1202:ARG:HD3	1.76	0.46
1:A:1389:VAL:O	1:A:1392:MET:HG3	2.16	0.46
1:A:1780:SER:O	1:A:1784:ARG:HG3	2.15	0.46
1:A:2313:LYS:HA	1:A:2316:TYR:CZ	2.51	0.46
1:A:2474:TYR:O	1:A:2478:MET:HE3	2.16	0.46
1:A:2485:ARG:CZ	1:A:2529:THR:HG22	2.46	0.46
1:A:3150:ASN:HD21	1:A:3158:LYS:HE2	1.80	0.46
2:B:287:LYS:HA	3:C:312:GLN:HA	1.97	0.46
2:B:423:GLN:HB2	2:B:425:ILE:HG12	1.98	0.46
3:C:188:HIS:NE2	3:C:232:ARG:HD2	2.31	0.46
6:I:716:ASN:HA	6:I:745:HIS:CE1	2.50	0.46
3:L:250:ARG:HG2	3:L:260:ARG:HA	1.98	0.46
5:Q:118:ASN:HB3	5:Q:121:GLU:HB2	1.98	0.46
1:S:139:ARG:HH22	1:S:230:LEU:HD11	1.81	0.46
1:S:1209:LYS:O	1:S:1213:LYS:HG3	2.16	0.46
1:S:1331:ASN:OD1	1:S:1385:ASN:N	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1710:LEU:O	1:S:1714:LEU:HG	2.16	0.46
1:S:2232:ARG:HD2	1:S:2235:LEU:HD12	1.96	0.46
1:S:2936:TYR:HE1	1:S:2957:LEU:HB3	1.81	0.46
1:S:3063:THR:O	1:S:3067:LYS:HG2	2.16	0.46
2:T:462:MET:HE3	2:T:525:PHE:CD1	2.51	0.46
1:A:152:LEU:O	1:A:155:LYS:HG2	2.16	0.45
1:A:238:MET:HA	1:A:243:GLN:HG3	1.98	0.45
1:A:420:VAL:HG13	1:A:421:LEU:HD22	1.97	0.45
1:A:752:LEU:HD22	1:A:776:TRP:HZ3	1.81	0.45
1:A:1023:SER:HA	1:A:1026:ARG:HG3	1.97	0.45
1:A:1776:GLU:HA	1:A:1779:GLN:HG3	1.98	0.45
1:A:3444:ALA:HB2	1:A:3478:GLU:HG3	1.98	0.45
1:A:3585:PHE:CE2	1:A:3664:ASN:HA	2.48	0.45
2:B:399:ARG:HE	2:B:410:PHE:HE1	1.62	0.45
3:C:725:VAL:HG22	1:S:1917:LYS:HE2	1.98	0.45
3:L:127:PHE:O	3:L:130:ARG:NH1	2.49	0.45
3:L:328:GLU:O	3:L:332:LYS:N	2.49	0.45
5:P:188:LYS:HD2	6:R:768:ASP:OD1	2.16	0.45
1:S:560:LEU:O	1:S:564:LEU:HG	2.16	0.45
1:S:781:ASP:HB2	1:S:783:HIS:HD1	1.81	0.45
1:S:1731:PRO:HA	1:S:1736:PHE:CD2	2.51	0.45
1:S:2481:HIS:O	1:S:2485:ARG:NE	2.48	0.45
2:T:103:TYR:CG	2:T:135:MET:HE1	2.51	0.45
2:T:289:TYR:CE2	2:T:291:GLU:HB2	2.51	0.45
2:T:513:ALA:HB1	2:T:517:ARG:NH1	2.29	0.45
9:d:29:DG:C2	9:d:30:DT:C4	3.03	0.45
1:A:164:LYS:HE3	10:e:29:DA:H5"	1.97	0.45
1:A:865:GLN:HB2	1:A:3168:TYR:CG	2.52	0.45
1:A:2349:LEU:O	1:A:2353:GLN:HB2	2.16	0.45
1:A:3506:LEU:HA	1:A:3515:GLN:HE21	1.80	0.45
1:A:3772:ASN:OD1	1:A:3788:LEU:N	2.48	0.45
2:B:106:GLN:NE2	2:B:118:GLU:OE1	2.49	0.45
3:L:276:TRP:CE3	2:T:318:ARG:HB3	2.50	0.45
3:L:521:GLU:O	3:L:525:LYS:HG3	2.15	0.45
6:R:759:ASP:CG	6:R:763:ASP:HB3	2.41	0.45
1:S:1329:ARG:HA	1:S:1332:TYR:HB2	1.98	0.45
1:S:1574:ASN:HD21	1:S:1578:ALA:H	1.65	0.45
1:S:3778:ASP:HB3	1:S:3781:CYS:HB2	1.99	0.45
1:S:3964:THR:OG1	1:S:4127:TRP:O	2.35	0.45
1:S:4102:THR:O	1:S:4105:LYS:HG3	2.15	0.45
2:T:143:LEU:HG	2:T:176:HIS:CE1	2.52	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:182:LYS:HA	2:T:185:ARG:NE	2.31	0.45
2:T:321:ILE:HG13	2:T:326:GLN:HG3	1.98	0.45
9:d:36:DG:H5'	9:d:36:DG:C8	2.51	0.45
1:A:243:GLN:OE1	1:A:246:ARG:NH1	2.49	0.45
1:A:385:TYR:O	1:A:389:ILE:HG12	2.16	0.45
1:A:714:VAL:HG23	1:A:733:LEU:HD21	1.97	0.45
1:A:860:GLY:HA3	1:A:3136:THR:HB	1.98	0.45
1:A:1015:ASP:OD1	1:A:1016:GLY:N	2.45	0.45
1:A:3139:GLN:HA	1:A:3142:ILE:HG12	1.98	0.45
1:A:3588:TRP:NE1	1:A:3613:MET:HB2	2.32	0.45
2:B:348:MET:HE3	2:B:399:ARG:HB2	1.99	0.45
3:L:30:PRO:HB3	3:L:166:PRO:HB3	1.98	0.45
1:S:460:ALA:O	1:S:464:VAL:HG13	2.16	0.45
1:S:489:ARG:O	1:S:492:SER:OG	2.32	0.45
1:S:786:GLN:HA	1:S:789:TYR:CD2	2.51	0.45
1:S:1013:ILE:O	1:S:1017:ILE:HB	2.17	0.45
1:S:1663:THR:O	1:S:1665:HIS:ND1	2.49	0.45
1:S:1867:ILE:O	1:S:1871:MET:HG2	2.16	0.45
1:S:2354:ASN:HA	1:S:2357:GLU:HG2	1.98	0.45
1:S:3964:THR:H	1:S:3967:PHE:HD2	1.65	0.45
1:S:3971:MET:SD	1:S:3974:MET:HB2	2.56	0.45
10:e:34:DC:H2''	10:e:35:DT:O4'	2.16	0.45
1:A:130:LEU:HD23	1:A:134:LEU:HD23	1.97	0.45
1:A:326:MET:SD	1:A:327:VAL:HG23	2.57	0.45
1:A:628:GLU:HA	1:A:631:ARG:HG2	1.98	0.45
1:A:649:PHE:O	1:A:652:GLU:HG3	2.17	0.45
1:A:1862:THR:N	1:A:1864:ASP:OD1	2.49	0.45
1:A:2147:ALA:HA	1:A:2150:VAL:HG12	1.99	0.45
1:A:2216:LEU:HD23	1:A:2219:LEU:HD21	1.97	0.45
1:A:2311:ARG:NH1	1:A:2312:TYR:HB2	2.32	0.45
1:A:2464:HIS:O	1:A:2470:ARG:NE	2.49	0.45
1:A:2833:THR:HG21	1:A:2867:ALA:HB1	1.99	0.45
1:A:3129:LEU:HA	1:A:3132:VAL:HG22	1.97	0.45
1:A:3809:THR:OG1	1:A:3929:MET:HB3	2.16	0.45
3:C:56:LEU:HD23	3:C:80:HIS:CD2	2.52	0.45
3:C:59:PHE:HB2	3:C:77:ILE:HG12	1.98	0.45
3:C:531:SER:HA	3:C:534:LYS:HG2	1.98	0.45
5:G:176:LEU:O	5:G:179:ARG:HG2	2.17	0.45
3:L:343:LEU:HD11	3:L:394:ARG:HB2	1.98	0.45
3:L:463:LEU:HG	2:T:349:GLY:HA3	1.98	0.45
1:S:645:TRP:HB3	1:S:649:PHE:HB2	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:655:LEU:O	1:S:659:ARG:HG2	2.16	0.45
1:S:947:GLN:HB2	1:S:2577:PHE:CE2	2.51	0.45
1:S:2184:TYR:CE2	1:S:2734:ARG:HD2	2.51	0.45
1:S:2219:LEU:HD12	1:S:2220:MET:N	2.31	0.45
1:A:26:GLY:HA2	1:A:77:GLU:OE2	2.17	0.45
1:A:202:GLY:O	1:A:205:LYS:HG3	2.16	0.45
1:A:1565:GLU:HA	1:A:1568:ASN:HD22	1.81	0.45
1:A:2376:ASP:HB3	1:A:2404:ARG:HH22	1.81	0.45
1:A:2548:PRO:HB3	1:A:2847:THR:HA	1.98	0.45
1:A:3619:ASP:OD1	1:A:3619:ASP:N	2.49	0.45
2:B:191:GLY:HA2	2:B:194:ARG:HE	1.82	0.45
2:B:269:ILE:HA	2:B:375:VAL:HG11	1.99	0.45
3:C:30:PRO:HB3	3:C:166:PRO:HB3	1.99	0.45
3:C:89:ASP:O	3:C:92:GLU:HG2	2.16	0.45
6:I:659:PHE:CZ	6:I:729:CYS:HB3	2.51	0.45
1:S:153:PHE:CE1	1:S:189:MET:HG3	2.51	0.45
1:S:333:MET:HE2	1:S:375:VAL:HG11	1.99	0.45
1:S:858:MET:O	1:S:862:LEU:HG	2.17	0.45
1:S:894:PHE:O	1:S:905:ILE:N	2.38	0.45
1:S:986:PRO:HB3	1:S:2777:HIS:HD2	1.81	0.45
1:S:2751:GLN:O	1:S:2755:LYS:HG2	2.16	0.45
1:A:242:PRO:HB2	1:A:246:ARG:HH22	1.82	0.45
1:A:623:PHE:O	1:A:626:LEU:HG	2.17	0.45
1:A:985:GLU:HA	1:A:988:VAL:HG22	1.98	0.45
1:A:1574:ASN:ND2	1:A:1578:ALA:H	2.15	0.45
1:A:2896:ALA:HA	1:A:2899:ARG:HG2	1.99	0.45
1:A:3120:LEU:HA	1:A:3122:HIS:CE1	2.51	0.45
1:A:3259:LEU:HD12	1:A:3262:LEU:HD12	1.99	0.45
1:A:3274:VAL:O	1:A:3278:GLN:OE1	2.35	0.45
1:A:3416:LEU:HD21	1:A:3446:VAL:HG12	1.97	0.45
2:B:71:TYR:CE1	2:B:83:LEU:HD13	2.52	0.45
6:I:739:GLN:HG2	6:I:741:ARG:HD2	1.99	0.45
3:L:435:PHE:CD2	2:T:429:PRO:HB3	2.52	0.45
5:Q:87:ASN:HB2	5:Q:97:PHE:HA	1.98	0.45
1:S:583:LEU:HD21	1:S:662:LEU:HD11	1.98	0.45
1:S:1045:THR:OG1	1:S:1048:GLN:HG2	2.17	0.45
1:S:2817:LEU:HD13	1:S:2865:HIS:CE1	2.51	0.45
2:T:94:LYS:HE3	2:T:103:TYR:CE1	2.52	0.45
9:d:28:DA:H2"	9:d:29:DG:H8	1.81	0.45
1:A:236:LYS:HE3	1:A:246:ARG:NH2	2.32	0.45
1:A:947:GLN:HB2	1:A:2577:PHE:CE1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1330:TYR:CE2	1:A:1334:LYS:HE2	2.52	0.45
1:A:1418:HIS:O	1:A:1422:LYS:N	2.45	0.45
1:A:1580:LEU:O	1:A:1584:GLN:HG2	2.17	0.45
1:A:2167:PRO:O	1:A:2170:GLN:HG3	2.17	0.45
1:A:2264:ASP:HB3	1:A:2309:PHE:CE2	2.51	0.45
1:A:2748:VAL:O	1:A:2752:LYS:HG2	2.15	0.45
1:A:2782:ASP:OD1	1:A:2782:ASP:N	2.48	0.45
1:A:3184:THR:HA	1:A:3187:CYS:SG	2.57	0.45
1:A:3269:ARG:HG3	1:A:3272:TRP:HB3	1.99	0.45
1:A:3303:THR:HB	1:A:3307:LEU:HG	1.98	0.45
3:C:496:HIS:CD2	3:C:506:PRO:HD3	2.52	0.45
3:C:613:SER:O	3:C:616:LEU:HG	2.17	0.45
3:L:357:MET:HA	2:T:364:PRO:HG3	1.99	0.45
4:M:84:ALA:HB1	4:M:99:SER:HB2	1.98	0.45
5:Q:101:LEU:HD23	5:Q:101:LEU:H	1.82	0.45
6:R:659:PHE:HZ	6:R:729:CYS:HB3	1.81	0.45
1:S:296:VAL:HG22	1:S:300:TRP:CD1	2.52	0.45
1:S:475:LEU:O	1:S:479:ILE:HG12	2.17	0.45
1:S:989:MET:HE2	1:S:993:HIS:CE1	2.52	0.45
1:S:1221:ILE:HD12	1:S:1225:GLU:HA	1.98	0.45
1:S:1479:VAL:O	1:S:1483:LEU:HG	2.16	0.45
1:S:3126:LEU:O	1:S:3130:GLN:HG2	2.17	0.45
1:S:3277:VAL:HG22	1:S:3306:LEU:HD23	1.98	0.45
1:S:3294:SER:OG	1:S:3347:CYS:SG	2.70	0.45
1:S:3302:LYS:C	1:S:3304:VAL:H	2.24	0.45
1:S:4008:GLU:HG3	1:S:4011:PHE:HB2	1.98	0.45
2:T:48:MET:HG2	2:T:60:PHE:HB2	1.97	0.45
2:T:173:ASP:HB3	2:T:217:TYR:CE2	2.52	0.45
2:T:230:ARG:NH1	2:T:233:PHE:H	2.14	0.45
1:A:134:LEU:HD11	1:A:177:LEU:HD11	1.99	0.45
1:A:718:MET:HA	1:A:721:TYR:CD2	2.52	0.45
1:A:1131:ILE:HA	1:A:1134:LEU:HD12	1.99	0.45
1:A:1637:SER:HB2	1:A:1641:THR:OG1	2.16	0.45
1:A:1800:SER:O	1:A:1803:GLU:HG3	2.17	0.45
1:A:2253:TYR:CE1	1:A:2288:TYR:HA	2.52	0.45
1:A:2332:GLU:HB2	1:A:2334:LYS:NZ	2.32	0.45
1:A:2354:ASN:HA	1:A:2357:GLU:OE2	2.17	0.45
1:A:3075:LYS:O	1:A:3078:LEU:HB2	2.17	0.45
2:B:458:GLN:HB3	2:B:525:PHE:HE1	1.81	0.45
3:C:44:ARG:HG3	3:C:237:PHE:CZ	2.52	0.45
3:C:326:VAL:O	3:C:329:GLU:HG3	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:187:GLY:HA3	3:L:514:ASN:HB3	1.98	0.45
1:S:195:ASN:OD1	1:S:198:ARG:NH2	2.43	0.45
1:S:584:GLU:N	1:S:613:HIS:O	2.38	0.45
1:S:1864:ASP:N	1:S:1864:ASP:OD1	2.47	0.45
1:S:2321:GLU:HA	1:S:2366:LYS:CE	2.47	0.45
1:S:2438:ILE:O	1:S:2441:LYS:HG2	2.15	0.45
1:S:2466:SER:HG	1:S:2469:CYS:HG	1.61	0.45
1:S:3633:ILE:HG13	1:S:3634:GLN:N	2.30	0.45
1:S:3922:ASP:H	1:S:3959:MET:HE1	1.81	0.45
2:T:35:ARG:O	2:T:162:SER:N	2.38	0.45
1:A:529:ASP:O	1:A:532:ARG:HG2	2.16	0.45
1:A:653:LEU:HD22	1:A:669:LEU:HD13	1.99	0.45
1:A:1153:LEU:HD22	1:A:1160:SER:HB2	1.98	0.45
1:A:1205:ASN:OD1	1:A:1205:ASN:N	2.49	0.45
1:A:1271:ILE:O	1:A:1274:ARG:HD2	2.17	0.45
1:A:1431:LEU:HB3	1:A:1447:ARG:CZ	2.47	0.45
1:A:1576:ASP:OD1	1:A:1576:ASP:N	2.50	0.45
1:A:1649:LEU:HA	1:A:1652:ILE:HG12	1.97	0.45
1:A:2771:LEU:HD23	1:A:2771:LEU:H	1.81	0.45
1:A:4120:THR:HG21	1:A:4126:PRO:HB3	1.99	0.45
3:C:39:THR:HA	3:C:42:VAL:HG12	1.98	0.45
3:C:127:PHE:O	3:C:130:ARG:NH1	2.50	0.45
3:C:598:PHE:HA	3:C:601:LEU:HB3	1.99	0.45
5:G:72:LYS:HZ1	5:G:99:LYS:HE2	1.82	0.45
5:H:70:LEU:HD13	5:H:108:LEU:HD11	1.99	0.45
6:I:739:GLN:HA	6:I:758:TYR:CE2	2.52	0.45
6:I:741:ARG:HH11	6:I:742:PHE:HB3	1.81	0.45
3:L:65:ASP:N	3:L:77:ILE:O	2.40	0.45
3:L:162:GLN:NE2	3:L:235:CYS:O	2.43	0.45
3:L:466:LYS:NZ	3:L:471:ASP:O	2.47	0.45
3:L:722:GLY:O	3:L:726:ASP:N	2.39	0.45
5:P:6:SER:HB2	5:P:76:SER:HB2	1.98	0.45
1:S:1368:LEU:HA	1:S:1371:VAL:HG22	1.99	0.45
1:S:1538:LEU:HD13	1:S:1553:PHE:CZ	2.52	0.45
1:S:1756:PRO:HA	1:S:1759:LEU:HD12	1.99	0.45
1:S:2312:TYR:HD2	1:S:2314:GLU:HG3	1.81	0.45
1:S:2440:TYR:HD1	1:S:2476:ILE:HD13	1.81	0.45
1:S:3015:SER:HA	1:S:3044:MET:HG3	1.98	0.45
1:S:3890:MET:HE3	1:S:3900:LEU:HD21	1.98	0.45
2:T:60:PHE:O	2:T:64:ILE:HG12	2.16	0.45
2:T:526:LYS:O	2:T:530:TYR:N	2.50	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:245:SER:OG	1:A:246:ARG:N	2.50	0.45
1:A:395:MET:HE1	1:A:410:MET:HG3	1.99	0.45
1:A:710:PHE:O	1:A:713:GLU:HG3	2.17	0.45
1:A:865:GLN:HB2	1:A:3168:TYR:CD2	2.51	0.45
1:A:1506:SER:HA	1:A:1509:GLN:NE2	2.32	0.45
1:A:3150:ASN:ND2	1:A:3158:LYS:HE2	2.32	0.45
1:A:3983:ILE:HG22	1:A:3984:MET:HE2	1.98	0.45
2:B:364:PRO:HD3	3:C:358:GLY:O	2.16	0.45
3:C:6:ASN:OD1	3:C:126:LYS:NZ	2.36	0.45
3:C:600:VAL:O	3:C:604:GLN:HB3	2.17	0.45
1:S:32:HIS:O	1:S:36:ARG:HG2	2.17	0.45
1:S:200:PHE:CE2	1:S:227:LEU:HD22	2.51	0.45
1:S:447:PRO:HD3	1:S:527:TYR:CE1	2.52	0.45
1:S:910:PHE:O	1:S:914:VAL:HG12	2.16	0.45
1:S:985:GLU:HA	1:S:988:VAL:HG22	1.99	0.45
1:S:1672:PHE:O	1:S:1675:TYR:HB3	2.16	0.45
1:S:2215:LEU:HA	1:S:2218:PHE:CD2	2.52	0.45
1:S:2365:ASN:HD22	1:S:2396:LEU:HG	1.82	0.45
1:S:2936:TYR:CE1	1:S:2957:LEU:HB3	2.52	0.45
1:S:2962:ARG:HH11	1:S:3252:PHE:HD2	1.65	0.45
1:A:384:MET:O	1:A:387:GLU:HG3	2.17	0.44
1:A:1420:ARG:HH21	1:A:1466:ASN:C	2.25	0.44
1:A:1801:VAL:HA	1:A:1804:MET:HG3	1.99	0.44
1:A:2239:LYS:O	1:A:2240:THR:C	2.61	0.44
1:A:3075:LYS:HA	1:A:3078:LEU:HD12	1.99	0.44
1:A:3275:SER:HA	1:A:3278:GLN:OE1	2.16	0.44
3:C:326:VAL:O	3:C:330:GLN:HG3	2.17	0.44
5:G:166:VAL:O	5:G:169:LYS:NZ	2.48	0.44
3:L:353:ARG:HA	3:L:356:PHE:HD2	1.82	0.44
6:R:665:CYS:O	6:R:701:ILE:N	2.41	0.44
1:S:229:SER:HA	1:S:278:HIS:HE1	1.82	0.44
1:S:244:THR:O	1:S:247:GLU:HB3	2.17	0.44
1:S:1167:ASP:HA	1:S:1170:LYS:NZ	2.33	0.44
1:S:1536:ALA:O	1:S:1555:HIS:ND1	2.48	0.44
1:S:2866:ALA:HA	1:S:2869:LEU:HG	2.00	0.44
1:S:3114:TYR:CD1	1:S:3128:LYS:HG2	2.51	0.44
1:S:3176:MET:HE3	1:S:3246:ALA:HB2	1.99	0.44
1:S:3240:MET:HE3	1:S:3272:TRP:CH2	2.52	0.44
1:S:3578:LEU:HD11	1:S:3681:LYS:HD2	1.99	0.44
2:T:392:LYS:O	2:T:393:GLU:HG3	2.17	0.44
1:A:142:ARG:H	1:A:144:MET:HE1	1.81	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:241:ASP:N	1:A:242:PRO:HD2	2.33	0.44
1:A:655:LEU:O	1:A:658:THR:OG1	2.28	0.44
1:A:997:ASN:HA	1:A:1043:GLN:HE21	1.82	0.44
1:A:1401:ASN:HA	1:A:1404:LYS:HE2	2.00	0.44
1:A:2192:THR:O	1:A:2195:SER:OG	2.33	0.44
1:A:2225:HIS:CD2	1:A:2230:VAL:HG23	2.52	0.44
1:A:2820:MET:HE1	1:A:2829:LYS:HG2	1.99	0.44
1:A:3171:ALA:HA	1:A:3179:TRP:CZ2	2.45	0.44
1:A:3493:TRP:HZ3	1:A:3521:ILE:HG12	1.82	0.44
1:A:3812:LEU:HB2	1:A:3925:LEU:HD21	1.99	0.44
2:B:61:ASP:O	2:B:64:ILE:HG22	2.17	0.44
2:B:375:VAL:O	2:B:378:SER:OG	2.31	0.44
3:C:74:TYR:HD1	3:C:109:ASP:HB3	1.81	0.44
4:D:44:ALA:HB1	4:M:122:ARG:HB2	1.99	0.44
3:L:33:GLN:HA	3:L:36:LYS:HD2	1.99	0.44
3:L:135:PHE:HE1	3:L:164:PHE:CD1	2.34	0.44
1:S:541:MET:HE2	1:S:561:ASN:HD22	1.81	0.44
1:S:547:ASP:OD1	1:S:547:ASP:N	2.47	0.44
1:S:793:LEU:HD12	1:S:870:LEU:HB2	1.99	0.44
1:S:934:LEU:HD23	1:S:937:MET:SD	2.57	0.44
1:S:1528:LEU:O	1:S:1532:LEU:HD23	2.17	0.44
1:S:2287:PRO:HB3	1:S:2326:ILE:CD1	2.47	0.44
1:S:2402:LEU:HD11	1:S:2437:ASP:HB2	1.99	0.44
1:S:2472:GLN:O	1:S:2476:ILE:HG12	2.17	0.44
2:T:125:GLN:HA	2:T:128:GLN:HG2	2.00	0.44
7:j:18:DA:H2'	7:j:18:DA:OP2	2.17	0.44
1:A:294:PHE:CE2	1:A:298:LEU:HD11	2.53	0.44
1:A:486:GLY:O	1:A:490:ILE:HG12	2.17	0.44
1:A:1092:GLU:HG3	1:A:1095:LEU:HG	1.99	0.44
1:A:1428:ILE:HA	1:A:1431:LEU:HB2	1.99	0.44
1:A:1687:HIS:O	1:A:1745:LYS:NZ	2.50	0.44
1:A:2166:SER:OG	1:A:2167:PRO:HD3	2.17	0.44
1:A:2978:LYS:NZ	1:A:2980:ASP:O	2.50	0.44
1:A:3472:ILE:HA	1:A:3479:THR:HG21	1.98	0.44
2:B:350:PHE:N	3:C:461:MET:O	2.35	0.44
2:B:433:GLN:CD	3:C:354:ARG:HB3	2.43	0.44
3:C:7:LYS:H	3:C:128:GLU:HB2	1.83	0.44
3:C:496:HIS:CD2	3:C:505:LEU:HA	2.52	0.44
3:L:428:GLU:OE2	2:T:484:GLN:NE2	2.50	0.44
1:S:220:LEU:O	1:S:224:LEU:HG	2.17	0.44
1:S:314:SER:O	1:S:317:GLU:HG3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:364:ARG:HG3	1:S:415:GLN:NE2	2.31	0.44
1:S:395:MET:HG3	1:S:413:PHE:HE2	1.82	0.44
1:S:1255:CYS:HA	1:S:1258:ASP:OD2	2.17	0.44
1:S:1576:ASP:O	1:S:1580:LEU:N	2.36	0.44
1:S:1772:HIS:CE1	1:S:1773:VAL:HG23	2.52	0.44
1:S:2366:LYS:C	1:S:2366:LYS:HD3	2.41	0.44
1:S:3493:TRP:CD1	1:S:3521:ILE:HA	2.53	0.44
1:S:3771:MET:HA	1:S:3774:ILE:HD12	2.00	0.44
1:S:3974:MET:HG2	1:S:3976:GLU:H	1.81	0.44
2:T:527:GLU:OE1	2:T:532:PRO:HG3	2.18	0.44
7:j:37:DG:N2	8:i:21:DA:OP1	2.50	0.44
9:d:19:DA:H1'	9:d:20:DT:C5'	2.48	0.44
1:A:19:LEU:HD22	1:A:34:LEU:HD23	1.99	0.44
1:A:89:LEU:O	1:A:133:LYS:NZ	2.48	0.44
1:A:100:ILE:H	1:A:100:ILE:HD12	1.83	0.44
1:A:122:LYS:HZ2	1:A:126:PRO:HG2	1.83	0.44
1:A:225:LYS:HZ1	1:A:273:ARG:HE	1.66	0.44
1:A:1336:THR:HA	1:A:1339:VAL:HG12	1.99	0.44
1:A:1710:LEU:H	1:A:1710:LEU:HD12	1.83	0.44
1:A:1762:MET:HA	1:A:1765:VAL:HG22	1.99	0.44
1:A:2891:ARG:O	1:A:2894:GLU:HG3	2.17	0.44
1:A:3980:MET:HE3	1:A:3980:MET:H	1.82	0.44
2:B:256:LEU:HB2	2:B:273:ILE:HB	1.99	0.44
2:B:261:LEU:O	2:B:268:VAL:HA	2.17	0.44
2:B:505:ASP:OD2	3:C:394:ARG:NH1	2.35	0.44
3:C:200:GLN:O	3:C:203:GLU:HG2	2.17	0.44
5:G:3:ARG:NH2	5:G:126:LEU:HD22	2.33	0.44
3:L:256:ASN:ND2	2:T:522:VAL:HG21	2.32	0.44
3:L:327:ASP:HB3	3:L:331:MET:HE3	1.99	0.44
3:L:458:ILE:HA	2:T:350:PHE:CE2	2.52	0.44
5:Q:115:LYS:HA	5:Q:115:LYS:HD2	1.74	0.44
1:S:63:PHE:HA	1:S:66:LEU:CB	2.48	0.44
1:S:451:PRO:O	1:S:455:LEU:HG	2.17	0.44
1:S:682:TYR:O	1:S:700:LYS:NZ	2.50	0.44
1:S:932:GLU:O	1:S:2773:ARG:NH2	2.51	0.44
1:S:1279:LEU:HA	1:S:1282:LEU:HB2	2.00	0.44
1:S:2486:ASP:N	1:S:2486:ASP:OD1	2.47	0.44
1:S:3602:ASN:HA	1:S:3606:ILE:HG13	1.98	0.44
2:T:193:LEU:HD12	2:T:198:ILE:HG13	1.98	0.44
2:T:485:GLN:O	2:T:489:ASN:ND2	2.50	0.44
1:A:669:LEU:HA	1:A:672:ILE:HG22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2306:ASN:HA	1:A:2309:PHE:HB2	2.00	0.44
2:B:317:LYS:HD2	3:C:281:ALA:HA	2.00	0.44
3:C:646:ALA:HA	3:C:651:GLU:HG3	2.00	0.44
3:L:237:PHE:HD1	3:L:240:ILE:HD11	1.82	0.44
5:Q:172:LEU:O	5:Q:176:LEU:HG	2.18	0.44
6:R:706:ASN:O	6:R:710:LYS:HG2	2.17	0.44
1:S:460:ALA:HA	1:S:463:LYS:HD2	1.99	0.44
1:S:920:THR:HA	1:S:927:LYS:HZ1	1.81	0.44
1:S:1384:PHE:HB3	1:S:1386:ILE:HG12	2.00	0.44
1:S:1960:LYS:HD2	1:S:1960:LYS:O	2.18	0.44
1:S:3735:PRO:HB2	1:S:3751:LEU:HD23	1.99	0.44
1:S:3958:LEU:HD12	1:S:3958:LEU:O	2.17	0.44
1:S:3979:LEU:O	1:S:3983:ILE:HG12	2.18	0.44
2:T:468:LYS:HD2	2:T:468:LYS:HA	1.82	0.44
9:d:35:DT:H72	10:e:20:DT:H3	1.83	0.44
1:A:668:LYS:O	1:A:671:SER:OG	2.29	0.44
1:A:741:ILE:HA	1:A:748:TYR:CE2	2.53	0.44
1:A:890:LYS:HD3	1:A:890:LYS:HA	1.76	0.44
1:A:1922:ALA:HB1	1:A:1940:TYR:CE1	2.52	0.44
1:A:2220:MET:HE1	1:A:2255:LEU:HB2	1.98	0.44
1:A:3078:LEU:HA	1:A:3082:TYR:HD2	1.82	0.44
1:A:3577:GLN:OE1	1:A:3629:ARG:HB3	2.18	0.44
1:A:3729:MET:HB2	1:A:3735:PRO:HG2	2.00	0.44
2:B:463:LYS:HG2	3:C:387:LEU:HD21	1.99	0.44
3:C:8:ALA:HA	3:C:129:LYS:H	1.82	0.44
3:C:330:GLN:CD	3:C:331:MET:HG3	2.43	0.44
3:C:332:LYS:NZ	3:C:333:TYR:O	2.41	0.44
4:D:41:VAL:HG21	4:D:96:LEU:HD13	2.00	0.44
6:I:710:LYS:O	6:I:714:LEU:HG	2.18	0.44
6:I:757:GLU:HG3	6:I:758:TYR:CD2	2.53	0.44
6:R:746:MET:HB2	6:R:750:THR:HB	1.99	0.44
6:R:772:ASN:O	6:R:776:GLU:HG2	2.18	0.44
1:S:153:PHE:CZ	1:S:189:MET:HG3	2.53	0.44
1:S:710:PHE:O	1:S:713:GLU:HG3	2.17	0.44
1:S:2761:LEU:HA	1:S:2764:LYS:HE2	1.99	0.44
1:S:3581:PRO:HG3	1:S:3632:PHE:HD2	1.81	0.44
1:S:3588:TRP:HB2	1:S:3613:MET:SD	2.58	0.44
1:S:3622:ALA:HB2	1:S:3633:ILE:HD13	1.99	0.44
1:S:3750:PHE:HE1	1:S:3804:GLU:HG3	1.83	0.44
1:S:3771:MET:HE2	1:S:3991:PHE:CE1	2.52	0.44
1:S:4006:VAL:HG21	1:S:4009:PRO:HB3	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:131:PHE:CE1	2:T:135:MET:HG2	2.53	0.44
1:A:705:ALA:O	1:A:709:LYS:HD3	2.18	0.44
1:A:1356:TRP:O	1:A:1359:LEU:HB2	2.18	0.44
1:A:1611:GLN:HB2	1:A:1613:HIS:HD1	1.83	0.44
1:A:2173:ALA:HA	1:A:2215:LEU:HD21	1.99	0.44
1:A:2335:ASN:OD1	1:A:2336:ILE:N	2.50	0.44
1:A:3809:THR:HA	1:A:3931:ALA:HA	2.00	0.44
2:B:143:LEU:O	2:B:146:VAL:HG22	2.18	0.44
3:C:687:THR:HG21	3:C:698:ALA:C	2.43	0.44
5:G:194:LEU:O	5:G:197:LYS:HG3	2.18	0.44
5:P:176:LEU:HA	6:R:805:TRP:HH2	1.83	0.44
1:S:1023:SER:CA	1:S:1026:ARG:HE	2.24	0.44
1:S:1916:ILE:H	1:S:1916:ILE:HG13	1.64	0.44
1:S:3130:GLN:HB3	1:S:3178:ILE:HG21	2.00	0.44
1:A:23:ASP:OD1	1:A:23:ASP:N	2.50	0.44
1:A:203:GLU:O	1:A:207:GLN:HG2	2.18	0.44
1:A:409:GLN:N	1:A:409:GLN:OE1	2.51	0.44
1:A:446:PHE:CG	1:A:530:LEU:HD22	2.53	0.44
1:A:478:CYS:SG	1:A:479:ILE:N	2.91	0.44
1:A:1189:GLU:HB3	1:A:1193:LYS:NZ	2.32	0.44
1:A:1354:GLU:HA	1:A:1357:LYS:HB3	2.00	0.44
1:A:1769:GLU:HB3	1:A:1772:HIS:HB3	1.99	0.44
1:A:2830:ASN:O	1:A:2834:GLN:HG2	2.18	0.44
1:A:2955:SER:O	1:A:2958:LEU:HG	2.18	0.44
1:A:3137:GLU:HG2	1:A:3189:PHE:HE2	1.83	0.44
1:A:3493:TRP:O	1:A:3709:GLY:N	2.42	0.44
1:A:3972:LEU:C	1:A:3974:MET:H	2.26	0.44
1:A:3980:MET:SD	1:A:3981:TYR:N	2.91	0.44
3:C:528:ILE:HB	3:C:529:PRO:HD3	1.99	0.44
6:I:682:ILE:HA	6:I:730:PHE:HZ	1.83	0.44
6:I:743:MET:CE	6:I:746:MET:HB3	2.48	0.44
1:S:764:PRO:O	1:S:768:VAL:HG22	2.17	0.44
1:S:1305:ASP:CG	1:S:1383:GLY:HA2	2.43	0.44
1:S:1949:ILE:HG23	1:S:2100:LEU:HD22	1.99	0.44
1:S:2313:LYS:NZ	7:j:16:DA:H3'	2.33	0.44
1:S:2892:LEU:HD13	1:S:2895:GLU:OE2	2.17	0.44
1:S:3509:ASP:N	1:S:3509:ASP:OD1	2.50	0.44
1:S:3915:HIS:HE1	1:S:3961:PHE:HA	1.83	0.44
9:d:22:DG:N2	10:e:35:DT:O2	2.51	0.44
1:A:389:ILE:HG22	1:A:393:LYS:HZ2	1.83	0.44
1:A:581:LEU:HA	1:A:620:PHE:CE1	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1169:VAL:O	1:A:1173:LEU:HG	2.17	0.44
1:A:2132:LYS:O	1:A:2135:ASN:ND2	2.51	0.44
1:A:3289:ARG:HG3	1:A:3290:SER:N	2.33	0.44
1:A:3410:ILE:O	1:A:3414:MET:HG2	2.18	0.44
1:A:3834:ALA:HB3	1:A:3835:PRO:HD3	1.99	0.44
2:B:89:GLY:O	2:B:139:SER:N	2.51	0.44
2:B:465:ILE:HG23	2:B:518:LEU:HD22	2.00	0.44
2:B:513:ALA:O	2:B:516:LYS:HG3	2.18	0.44
3:C:130:ARG:HB3	3:C:159:ILE:HG12	2.00	0.44
1:S:28:ALA:C	1:S:32:HIS:HD1	2.24	0.44
1:S:42:CYS:HA	1:S:88:PHE:CZ	2.53	0.44
1:S:1527:ARG:O	1:S:1530:SER:OG	2.28	0.44
1:S:1605:PHE:O	1:S:1608:ARG:NH2	2.50	0.44
1:S:2271:SER:O	1:S:2274:ILE:HB	2.18	0.44
1:S:3410:ILE:O	1:S:3414:MET:HG2	2.18	0.44
1:S:3588:TRP:CE2	1:S:3640:PHE:HZ	2.35	0.44
1:A:575:ILE:HG13	1:A:576:VAL:N	2.33	0.43
1:A:2196:TRP:NE1	1:A:2200:ALA:HB3	2.33	0.43
1:A:2362:VAL:HG12	1:A:2366:LYS:NZ	2.31	0.43
1:A:2363:CYS:O	1:A:2367:VAL:HG22	2.18	0.43
1:A:2831:ASN:O	1:A:2835:LYS:HG3	2.18	0.43
1:A:3127:THR:HA	1:A:3130:GLN:HG2	1.99	0.43
1:A:3289:ARG:HG3	1:A:3290:SER:H	1.83	0.43
1:A:3588:TRP:CZ3	1:A:3640:PHE:HZ	2.35	0.43
1:A:3657:SER:OG	1:A:3658:ASP:N	2.49	0.43
1:A:3733:ARG:NH2	1:A:3755:GLY:H	2.16	0.43
1:S:348:ILE:HG13	1:S:362:ALA:HB2	2.00	0.43
1:S:651:TYR:O	1:S:655:LEU:HG	2.18	0.43
1:S:832:LYS:C	1:S:834:LEU:H	2.26	0.43
1:S:935:HIS:HD2	1:S:987:LEU:HD11	1.83	0.43
1:S:1261:LEU:HD21	1:S:1337:VAL:HA	2.00	0.43
1:S:2164:TRP:O	1:S:2167:PRO:HD2	2.18	0.43
1:S:2406:GLU:H	1:S:2406:GLU:HG2	1.67	0.43
1:S:3305:SER:O	1:S:3306:LEU:C	2.61	0.43
1:S:3413:TYR:HD2	1:S:3453:ALA:HB2	1.82	0.43
1:S:3476:PRO:O	1:S:3480:LEU:HB2	2.17	0.43
1:S:3922:ASP:N	1:S:3959:MET:HE1	2.32	0.43
2:T:369:TYR:CG	2:T:370:PRO:HD2	2.52	0.43
1:A:746:ARG:O	1:A:750:PRO:HD3	2.18	0.43
1:A:893:SER:N	1:A:944:LYS:HZ2	2.16	0.43
1:A:2175:GLU:OE1	1:A:2182:ILE:HG23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2241:LEU:HA	1:A:2244:CYS:SG	2.58	0.43
1:A:2855:VAL:HG23	1:A:2885:GLN:HG3	2.00	0.43
1:A:3354:ASP:N	1:A:3354:ASP:OD1	2.52	0.43
1:A:3676:PRO:HG2	1:A:3726:VAL:HG21	1.99	0.43
2:B:190:ALA:O	2:B:193:LEU:HG	2.19	0.43
3:C:496:HIS:CE1	3:C:503:GLU:HB2	2.53	0.43
5:P:188:LYS:HA	5:P:191:ILE:HB	2.00	0.43
1:S:1131:ILE:HA	1:S:1134:LEU:HD12	2.00	0.43
1:S:2158:ARG:C	1:S:2160:TYR:H	2.26	0.43
1:S:2279:ILE:H	1:S:2279:ILE:HD12	1.83	0.43
1:S:2421:VAL:O	1:S:2425:ARG:HB2	2.18	0.43
1:S:3047:SER:O	1:S:3051:LEU:HG	2.18	0.43
1:S:3177:ASN:OD1	1:S:3178:ILE:N	2.47	0.43
1:S:4010:SER:H	1:S:4038:TRP:HE1	1.65	0.43
2:T:158:GLN:OE1	2:T:158:GLN:N	2.49	0.43
2:T:318:ARG:CB	2:T:329:LEU:O	2.54	0.43
8:i:30:DA:H2''	8:i:31:DA:C8	2.53	0.43
1:A:60:SER:O	1:A:64:GLY:N	2.51	0.43
1:A:935:HIS:CE1	1:A:2773:ARG:HH21	2.37	0.43
1:A:1021:VAL:O	1:A:1026:ARG:NH1	2.51	0.43
1:A:1428:ILE:HD12	1:A:1431:LEU:HD12	1.99	0.43
1:A:1771:GLN:HE22	1:A:1774:MET:HA	1.83	0.43
1:A:1819:PHE:O	1:A:1823:SER:OG	2.36	0.43
1:A:3113:ASN:C	1:A:3113:ASN:HD22	2.27	0.43
1:A:3122:HIS:O	1:A:3126:LEU:HG	2.18	0.43
1:A:3319:ASN:OD1	1:A:3322:ALA:N	2.49	0.43
1:A:3519:GLU:HA	1:A:3522:THR:HG22	1.99	0.43
1:A:3633:ILE:HG13	1:A:3634:GLN:N	2.33	0.43
2:B:230:ARG:HG3	2:B:232:HIS:N	2.27	0.43
3:C:595:ALA:HB1	3:C:599:ARG:NH2	2.33	0.43
5:H:28:LEU:HD13	5:H:71:ARG:HH12	1.84	0.43
5:P:179:ARG:HD3	6:R:805:TRP:CH2	2.53	0.43
1:S:714:VAL:HG12	1:S:717:LYS:NZ	2.33	0.43
1:S:758:LEU:O	1:S:761:SER:OG	2.29	0.43
1:S:1352:SER:HB3	1:S:1356:TRP:HB2	1.99	0.43
1:S:2522:ARG:HG3	1:S:2561:PHE:CE1	2.52	0.43
1:S:2745:ARG:HH21	8:i:44:DG:H3'	1.83	0.43
1:S:3050:LYS:HA	1:S:3050:LYS:HD3	1.76	0.43
1:S:3964:THR:HG22	1:S:3967:PHE:CD2	2.54	0.43
2:T:368:VAL:HG21	2:T:413:LEU:HD11	2.00	0.43
2:T:392:LYS:O	2:T:394:VAL:HG13	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:275:PHE:HE2	1:A:319:PHE:HB2	1.84	0.43
1:A:575:ILE:O	1:A:579:LEU:HG	2.17	0.43
1:A:974:CYS:HB2	1:A:1024:THR:HG22	2.00	0.43
1:A:1736:PHE:O	1:A:1740:VAL:HG13	2.18	0.43
1:A:1872:GLY:O	1:A:1876:ILE:HG12	2.18	0.43
1:A:2155:GLU:H	1:A:2155:GLU:CD	2.23	0.43
1:A:2581:LEU:HD23	1:A:2781:PRO:HD2	2.01	0.43
1:A:3244:ASP:OD1	1:A:3245:SER:N	2.51	0.43
1:A:3413:TYR:CB	1:A:3453:ALA:HB2	2.48	0.43
1:A:3503:VAL:HG13	1:A:3536:SER:HB3	2.00	0.43
1:A:3581:PRO:HG3	1:A:3629:ARG:HA	1.98	0.43
1:A:3772:ASN:HD21	1:A:3788:LEU:HB3	1.84	0.43
1:A:3829:LEU:HA	1:A:3833:ARG:HB2	2.00	0.43
2:B:338:LYS:HE2	3:C:486:ARG:HH22	1.82	0.43
2:B:445:LYS:HD3	2:B:445:LYS:HA	1.72	0.43
5:G:179:ARG:NH2	6:I:805:TRP:HB3	2.34	0.43
5:H:110:SER:O	5:H:110:SER:OG	2.37	0.43
3:L:226:SER:N	3:L:229:GLU:OE2	2.50	0.43
1:S:727:ALA:HB1	1:S:765:LEU:HD11	1.99	0.43
1:S:784:VAL:HG13	1:S:785:MET:SD	2.58	0.43
1:S:801:LYS:HZ3	1:S:3125:ARG:HH22	1.66	0.43
1:S:1780:SER:HB2	1:S:1784:ARG:NH1	2.32	0.43
1:S:2435:CYS:O	1:S:2439:ILE:HG12	2.18	0.43
1:S:2571:ASP:HA	1:S:2574:ASN:HB2	2.00	0.43
1:S:3122:HIS:O	1:S:3126:LEU:HG	2.19	0.43
1:A:32:HIS:O	1:A:35:ILE:HG22	2.19	0.43
1:A:473:PRO:HA	1:A:476:ARG:NE	2.34	0.43
1:A:925:GLN:HA	1:A:2769:VAL:HG13	1.99	0.43
1:A:1307:ILE:HG12	1:A:1311:LYS:HD2	2.00	0.43
1:A:1710:LEU:O	1:A:1714:LEU:HG	2.19	0.43
1:A:2255:LEU:HA	1:A:2258:GLU:OE2	2.18	0.43
1:A:2731:ARG:HD3	1:A:2731:ARG:HA	1.68	0.43
1:A:3718:ARG:H	1:A:3743:HIS:CB	2.31	0.43
2:B:440:ALA:HB2	3:C:481:LYS:C	2.43	0.43
3:C:342:VAL:HA	3:C:393:VAL:HG12	1.99	0.43
3:L:479:THR:HB	2:T:410:PHE:CD2	2.53	0.43
5:P:191:ILE:HG23	5:P:195:HIS:CE1	2.53	0.43
6:R:727:LEU:O	6:R:731:LYS:NZ	2.52	0.43
6:R:752:GLU:HG3	6:R:756:ARG:NH2	2.33	0.43
1:S:1400:VAL:HG11	1:S:1460:ARG:HB3	2.00	0.43
1:S:3035:PHE:HA	1:S:3038:GLU:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3263:HIS:HB2	1:S:3276:TRP:CZ2	2.54	0.43
1:S:3283:LEU:O	1:S:3287:ARG:HG3	2.19	0.43
2:T:485:GLN:HG3	2:T:489:ASN:HD21	1.83	0.43
1:A:1353:PRO:HD2	1:A:1356:TRP:CZ3	2.54	0.43
1:A:1513:GLY:HA2	1:A:1516:GLU:CD	2.44	0.43
1:A:1603:GLN:O	1:A:1603:GLN:NE2	2.52	0.43
1:A:1727:ARG:HH12	1:A:1772:HIS:CB	2.30	0.43
1:A:2310:VAL:HG13	1:A:2316:TYR:CE1	2.53	0.43
1:A:2967:GLU:O	1:A:2971:GLN:HG2	2.18	0.43
1:A:3511:ALA:O	1:A:3514:VAL:HG12	2.19	0.43
1:A:3519:GLU:O	1:A:3523:ASP:HB2	2.18	0.43
2:B:214:SER:HA	2:B:218:ARG:HG3	2.00	0.43
3:L:292:GLU:OE2	2:T:301:ARG:NH1	2.48	0.43
3:L:413:LYS:HD2	3:L:413:LYS:HA	1.88	0.43
3:L:510:GLN:HA	3:L:513:TRP:HD1	1.82	0.43
1:S:382:ASP:N	1:S:382:ASP:OD1	2.49	0.43
1:S:637:LYS:HE2	1:S:641:PHE:HE2	1.83	0.43
1:S:1626:TRP:CE2	1:S:1671:VAL:HG12	2.52	0.43
1:S:1693:VAL:HG11	1:S:1746:PHE:CE1	2.53	0.43
1:S:2090:ARG:HH21	1:S:2092:GLU:HG3	1.84	0.43
1:S:2206:PRO:HA	1:S:2209:GLU:CD	2.43	0.43
1:S:2295:GLN:HE21	1:S:2299:TYR:HA	1.83	0.43
1:S:2526:SER:HA	1:S:2531:LEU:HD12	2.00	0.43
1:S:2936:TYR:OH	1:S:2940:ARG:HB3	2.19	0.43
1:S:4127:TRP:CD1	1:S:4128:MET:H	2.35	0.43
7:j:28:DA:H2''	7:j:29:DG:C8	2.53	0.43
10:e:35:DT:H2'	10:e:36:DA:C8	2.52	0.43
1:A:709:LYS:HA	1:A:712:LYS:HZ3	1.83	0.43
1:A:785:MET:HA	1:A:788:TYR:OH	2.19	0.43
1:A:1361:LYS:HE3	1:A:1411:TYR:CZ	2.52	0.43
1:A:1386:ILE:HG13	1:A:1387:GLY:H	1.84	0.43
1:A:1802:TYR:O	1:A:1805:PHE:HB3	2.19	0.43
1:A:3326:GLN:O	1:A:3329:LEU:HG	2.19	0.43
5:G:121:GLU:HA	5:G:124:ARG:HG2	2.01	0.43
5:G:161:ARG:NH2	6:I:847:PHE:HB3	2.29	0.43
6:I:719:ASP:HA	6:I:746:MET:HA	2.01	0.43
3:L:76:ASN:ND2	3:L:104:GLN:O	2.50	0.43
6:R:721:VAL:HG13	6:R:742:PHE:CE1	2.54	0.43
1:S:384:MET:HA	1:S:387:GLU:HG3	2.01	0.43
1:S:678:LYS:NZ	1:S:735:SER:O	2.47	0.43
1:S:767:GLU:HA	1:S:770:LEU:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1379:PRO:HB3	1:S:1385:ASN:ND2	2.33	0.43
1:S:1936:ARG:HH11	1:S:1937:ARG:NH1	2.16	0.43
1:S:2223:VAL:HG22	1:S:2231:PHE:CE1	2.50	0.43
1:S:3580:ASN:ND2	1:S:3582:GLU:HB2	2.33	0.43
1:S:3591:ASP:O	1:S:3595:GLU:HG2	2.18	0.43
1:S:3834:ALA:HB3	1:S:3835:PRO:HD3	1.99	0.43
1:A:181:LEU:HD13	1:A:234:PHE:HZ	1.84	0.43
1:A:1111:LEU:HD12	1:A:1127:CYS:HB2	2.00	0.43
1:A:2295:GLN:HE21	1:A:2299:TYR:N	2.16	0.43
1:A:2474:TYR:C	1:A:2478:MET:HE3	2.44	0.43
1:A:3045:ILE:HG13	1:A:3046:ARG:NH1	2.33	0.43
1:A:3467:ARG:HD2	1:A:4000:ASN:ND2	2.33	0.43
2:B:90:THR:HG23	2:B:92:LYS:O	2.19	0.43
2:B:143:LEU:HG	2:B:176:HIS:CD2	2.53	0.43
2:B:410:PHE:HB3	2:B:437:LEU:HD12	2.00	0.43
2:B:421:ASP:OD1	2:B:425:ILE:N	2.34	0.43
2:B:466:VAL:O	2:B:470:ARG:HG3	2.18	0.43
3:C:234:LEU:HB3	3:C:237:PHE:HD2	1.84	0.43
5:H:32:PHE:CD1	5:H:74:LEU:HD11	2.54	0.43
6:I:743:MET:HE2	6:I:746:MET:HB3	2.01	0.43
6:I:753:HIS:O	6:I:757:GLU:HG2	2.17	0.43
3:L:129:LYS:HA	3:L:129:LYS:HD2	1.87	0.43
1:S:62:ASP:O	1:S:66:LEU:CB	2.66	0.43
1:S:265:TYR:C	1:S:268:PRO:HD2	2.44	0.43
1:S:913:ARG:NH1	1:S:917:LEU:HD11	2.34	0.43
1:S:1339:VAL:O	1:S:1343:GLU:OE1	2.37	0.43
1:S:1697:PRO:HG3	1:S:1749:ALA:O	2.18	0.43
1:S:2196:TRP:CD1	1:S:2199:LEU:HB2	2.54	0.43
1:S:2506:LEU:HB3	1:S:2525:TRP:HZ2	1.84	0.43
1:S:2806:LYS:NZ	1:S:2853:PRO:HA	2.33	0.43
1:S:2892:LEU:HA	1:S:2895:GLU:OE2	2.19	0.43
1:S:2991:LYS:HA	1:S:2994:TRP:CE3	2.54	0.43
1:S:3182:ILE:O	1:S:3186:ARG:HG2	2.18	0.43
1:S:3424:LEU:HD21	1:S:3443:PRO:HG3	2.00	0.43
2:T:441:ASP:N	2:T:441:ASP:OD1	2.52	0.43
7:j:23:DT:C2'	7:j:24:DT:H71	2.47	0.43
1:A:341:PHE:HB3	1:A:345:PHE:CE2	2.54	0.43
1:A:529:ASP:OD1	1:A:529:ASP:N	2.52	0.43
1:A:802:THR:HG1	1:A:852:ARG:NH2	2.17	0.43
1:A:3094:ASP:OD1	1:A:3192:LYS:NZ	2.36	0.43
1:A:3330:LEU:HD23	1:A:3384:HIS:CD2	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3881:ASP:O	1:A:3885:ARG:HG3	2.18	0.43
1:A:4089:ILE:O	1:A:4091:ALA:N	2.52	0.43
2:B:94:LYS:HD3	2:B:103:TYR:CZ	2.53	0.43
2:B:142:SER:HB3	2:B:145:GLU:HG2	2.01	0.43
3:C:497:ARG:HH11	3:C:501:PRO:HA	1.83	0.43
6:I:753:HIS:N	6:I:756:ARG:HH21	2.17	0.43
1:S:1596:VAL:O	1:S:1600:MET:HG2	2.19	0.43
1:S:1748:ASP:OD1	1:S:1749:ALA:N	2.52	0.43
1:S:1760:GLU:OE1	1:S:1804:MET:HG2	2.19	0.43
1:S:1876:ILE:HG13	1:S:1877:LEU:HD22	2.01	0.43
1:S:2121:ASP:HA	1:S:2127:LYS:HD3	2.01	0.43
1:S:2274:ILE:HD11	1:S:2306:ASN:ND2	2.34	0.43
1:S:2517:LEU:HA	1:S:2520:ILE:HG22	2.01	0.43
1:S:3037:GLN:O	1:S:3041:LEU:HG	2.18	0.43
2:T:176:HIS:CG	2:T:182:LYS:HE3	2.53	0.43
7:j:24:DT:H2'	7:j:25:DT:H71	2.00	0.43
1:A:307:GLU:HG2	1:A:308:LEU:N	2.33	0.43
1:A:888:ARG:NH2	1:A:3889:ARG:HH11	2.17	0.43
1:A:1016:GLY:HA3	1:A:1026:ARG:HA	2.01	0.43
1:A:1151:ARG:HH11	1:A:1163:LEU:HB2	1.84	0.43
1:A:1151:ARG:HB2	1:A:1163:LEU:HD12	2.01	0.43
1:A:2937:ASP:O	1:A:2940:ARG:HG2	2.19	0.43
1:A:3177:ASN:OD1	1:A:3177:ASN:N	2.52	0.43
1:A:3476:PRO:HA	1:A:3479:THR:OG1	2.19	0.43
1:A:3494:GLN:HB3	1:A:3709:GLY:N	2.34	0.43
1:A:3880:ALA:HB2	1:A:3965:ARG:NH2	2.34	0.43
2:B:118:GLU:O	2:B:121:GLN:HG2	2.17	0.43
4:D:183:GLU:OE2	4:D:189:GLY:N	2.52	0.43
6:I:654:LYS:HB2	6:I:684:GLU:O	2.19	0.43
3:L:457:LEU:HD13	3:L:529:PRO:HB2	2.00	0.43
3:L:631:TYR:O	3:L:635:SER:OG	2.28	0.43
5:P:162:PHE:HA	5:P:165:CYS:SG	2.59	0.43
1:S:125:ILE:N	1:S:126:PRO:HD2	2.34	0.43
1:S:851:ILE:O	1:S:855:VAL:HG23	2.18	0.43
1:S:972:LEU:HB3	1:S:984:TYR:CE2	2.54	0.43
1:S:1104:LEU:O	1:S:1108:MET:HG2	2.19	0.43
1:S:1267:TYR:CE1	1:S:1281:VAL:HG21	2.53	0.43
1:S:2273:GLY:O	1:S:2276:LEU:HB2	2.17	0.43
1:S:2405:VAL:HG22	1:S:2441:LYS:HE3	2.00	0.43
1:S:2451:LEU:HD23	1:S:2455:LEU:HD23	2.00	0.43
1:S:2923:TRP:CZ3	1:S:2942:ILE:HD12	2.54	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3275:SER:HA	1:S:3278:GLN:CD	2.44	0.43
1:A:529:ASP:HA	1:A:532:ARG:HG2	2.00	0.42
1:A:629:PHE:O	1:A:632:GLU:HG2	2.19	0.42
1:A:1294:VAL:HA	1:A:1297:PHE:CD2	2.54	0.42
1:A:1389:VAL:HG13	1:A:1391:VAL:HG12	2.00	0.42
1:A:2139:PRO:HB2	1:A:2142:ILE:HG12	2.01	0.42
1:A:3123:GLN:H	1:A:3123:GLN:CD	2.27	0.42
1:A:3718:ARG:O	1:A:3743:HIS:N	2.51	0.42
1:A:3971:MET:HE1	1:A:3974:MET:HB2	2.00	0.42
3:C:130:ARG:HB3	3:C:159:ILE:HG23	2.01	0.42
3:C:633:MET:HA	3:C:636:ILE:HG12	2.01	0.42
3:L:234:LEU:HD21	3:L:483:PRO:HB3	2.00	0.42
5:Q:180:PHE:HA	5:Q:183:VAL:HG12	2.01	0.42
1:S:110:THR:O	1:S:114:VAL:HG23	2.19	0.42
1:S:118:ASP:O	1:S:122:LYS:HG2	2.19	0.42
1:S:974:CYS:HB3	1:S:1028:PHE:CD2	2.49	0.42
1:S:976:VAL:O	1:S:976:VAL:HG13	2.19	0.42
1:S:1602:ASP:HB2	1:S:1606:ARG:HH21	1.83	0.42
1:S:1620:THR:O	1:S:1623:LEU:HB2	2.18	0.42
1:S:2220:MET:HE1	1:S:2255:LEU:HB3	2.01	0.42
1:S:2438:ILE:O	1:S:2442:MET:HG3	2.19	0.42
1:S:3036:TYR:O	1:S:3039:THR:OG1	2.30	0.42
1:S:3981:TYR:HE2	1:S:4105:LYS:HB3	1.84	0.42
7:j:30:DT:H2'	7:j:31:DT:C4	2.54	0.42
1:A:309:LYS:O	1:A:313:LEU:HG	2.19	0.42
1:A:408:TYR:N	1:A:409:GLN:OE1	2.52	0.42
1:A:648:SER:O	1:A:651:TYR:HB3	2.19	0.42
1:A:1238:GLN:HB2	1:A:1239:PRO:HD3	2.01	0.42
1:A:1278:ALA:O	1:A:1282:LEU:N	2.52	0.42
1:A:1539:SER:HA	1:A:1552:HIS:ND1	2.34	0.42
1:A:2750:GLU:HG3	1:A:2753:ARG:HH11	1.83	0.42
1:A:3007:GLU:O	1:A:3011:LEU:N	2.43	0.42
1:A:3014:CYS:SG	1:A:3043:TYR:HB3	2.59	0.42
1:A:3148:GLN:HE22	1:A:3150:ASN:HB2	1.83	0.42
1:A:3992:ARG:HD2	1:A:3992:ARG:HA	1.85	0.42
1:A:3992:ARG:HH12	1:A:4053:GLY:N	2.16	0.42
2:B:497:LEU:O	6:I:707:ILE:HG13	2.19	0.42
3:C:40:MET:HG2	3:C:44:ARG:NH1	2.34	0.42
3:C:632:PHE:O	3:C:636:ILE:HG23	2.19	0.42
3:C:642:PHE:HD2	3:C:655:PHE:CE1	2.36	0.42
3:L:279:VAL:HB	3:L:284:LEU:C	2.44	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:L:342:VAL:HA	3:L:393:VAL:HG12	2.01	0.42
3:L:481:LYS:C	2:T:440:ALA:HB2	2.44	0.42
3:L:655:PHE:HA	3:L:658:PHE:HB2	2.01	0.42
1:S:344:GLN:O	1:S:348:ILE:HG12	2.18	0.42
1:S:1184:ARG:HH22	1:S:1265:GLU:CB	2.29	0.42
1:S:1769:GLU:O	1:S:1772:HIS:ND1	2.52	0.42
1:S:2174:SER:O	1:S:2174:SER:OG	2.31	0.42
1:S:2405:VAL:O	1:S:2408:MET:HG2	2.20	0.42
1:S:3547:THR:HG23	1:S:3550:LYS:HD2	2.01	0.42
1:S:3981:TYR:CE2	1:S:4105:LYS:HB3	2.54	0.42
1:S:4089:ILE:C	1:S:4091:ALA:H	2.26	0.42
9:d:27:DT:C2	9:d:28:DA:C5	3.08	0.42
1:A:697:ASP:HB3	1:A:699:GLU:CD	2.44	0.42
1:A:1013:ILE:O	1:A:1017:ILE:HB	2.19	0.42
1:A:1403:MET:HA	1:A:1406:LEU:HD12	2.01	0.42
1:A:1405:ALA:HA	1:A:1408:MET:HE3	2.02	0.42
1:A:3090:TYR:HE2	1:A:3102:TYR:CE2	2.37	0.42
1:A:3090:TYR:O	1:A:3095:ASP:N	2.46	0.42
1:A:3443:PRO:HA	1:A:3446:VAL:HG22	2.01	0.42
1:A:3571:PHE:CE2	1:A:3575:LEU:HD11	2.55	0.42
1:A:3966:GLN:HA	1:A:3969:ASN:HB2	2.00	0.42
2:B:35:ARG:HG2	2:B:36:ASP:H	1.83	0.42
2:B:479:GLU:OE1	2:B:484:GLN:HG2	2.19	0.42
2:B:523:ASP:HA	2:B:526:LYS:HB3	2.01	0.42
3:C:406:GLY:HA3	3:C:421:TYR:CE2	2.55	0.42
5:G:122:VAL:O	5:G:126:LEU:HG	2.19	0.42
6:I:876:LYS:HA	6:I:876:LYS:HD3	1.82	0.42
3:L:479:THR:HG21	2:T:397:LEU:HD21	2.01	0.42
3:L:600:VAL:O	3:L:604:GLN:HB3	2.19	0.42
6:R:719:ASP:HB3	6:R:743:MET:HE1	2.00	0.42
1:S:117:LYS:O	1:S:120:ALA:N	2.39	0.42
1:S:229:SER:HA	1:S:278:HIS:CE1	2.54	0.42
1:S:914:VAL:HG13	1:S:934:LEU:HD21	2.00	0.42
1:S:1911:LEU:H	1:S:1911:LEU:HD12	1.84	0.42
1:S:2158:ARG:HD2	1:S:2158:ARG:HA	1.87	0.42
1:S:2748:VAL:O	1:S:2752:LYS:HG2	2.20	0.42
1:S:3563:ASP:C	1:S:3564:GLN:HG3	2.44	0.42
2:T:205:LEU:HD12	2:T:205:LEU:HA	1.86	0.42
1:A:225:LYS:HD2	1:A:270:ALA:HB1	2.00	0.42
1:A:410:MET:N	1:A:411:PRO:HD2	2.34	0.42
1:A:480:SER:HA	1:A:567:GLU:OE2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:637:LYS:HD2	1:A:637:LYS:HA	1.74	0.42
1:A:1168:LEU:HA	1:A:1171:TRP:HB3	2.02	0.42
1:A:1367:HIS:O	1:A:1370:ARG:HG2	2.18	0.42
1:A:1827:LEU:HD12	1:A:1828:LEU:N	2.35	0.42
1:A:2318:ALA:O	1:A:2321:GLU:HG2	2.19	0.42
1:A:3239:LYS:O	1:A:3242:MET:HB3	2.19	0.42
1:A:3911:ILE:O	1:A:3915:HIS:CD2	2.73	0.42
1:A:3995:PRO:HG3	1:A:4051:LEU:HB3	2.01	0.42
2:B:303:PHE:CE2	2:B:308:GLY:HA2	2.54	0.42
2:B:330:GLU:H	2:B:333:GLU:HB2	1.84	0.42
5:G:122:VAL:O	5:G:125:GLU:HG2	2.19	0.42
6:I:706:ASN:O	6:I:710:LYS:HG2	2.19	0.42
3:L:492:GLN:O	3:L:495:LEU:HG	2.19	0.42
1:S:23:ASP:HB3	1:S:34:LEU:HD11	2.01	0.42
1:S:53:LEU:O	1:S:57:LEU:HG	2.19	0.42
1:S:62:ASP:O	1:S:66:LEU:N	2.49	0.42
1:S:156:PHE:HA	1:S:159:GLU:CD	2.45	0.42
1:S:301:CYS:HA	1:S:309:LYS:HA	2.00	0.42
1:S:571:SER:O	1:S:575:ILE:HG12	2.19	0.42
1:S:913:ARG:HH11	1:S:917:LEU:HD11	1.84	0.42
1:S:2331:MET:C	1:S:2334:LYS:HZ2	2.27	0.42
1:S:3176:MET:HE1	1:S:3245:SER:OG	2.19	0.42
1:S:3487:ILE:HD11	1:S:3516:HIS:HB2	2.01	0.42
1:S:4091:ALA:C	1:S:4094:PRO:HD2	2.44	0.42
2:T:219:ASP:N	2:T:219:ASP:OD1	2.48	0.42
10:e:27:DC:C4	10:e:28:DT:C4	3.08	0.42
1:A:163:LYS:HZ2	2:B:312:LEU:HA	1.84	0.42
1:A:242:PRO:HB2	1:A:246:ARG:NH2	2.34	0.42
1:A:1418:HIS:HA	1:A:1421:GLU:HB3	2.00	0.42
1:A:1448:LEU:HD23	1:A:1448:LEU:HA	1.90	0.42
1:A:1611:GLN:HB2	1:A:1613:HIS:ND1	2.35	0.42
1:A:2090:ARG:HD2	1:A:2090:ARG:HA	1.79	0.42
1:A:2554:PHE:CD2	1:A:2854:PHE:HE1	2.36	0.42
1:A:2722:ARG:HD2	1:A:2722:ARG:N	2.35	0.42
1:A:3101:TYR:O	1:A:3104:GLN:NE2	2.53	0.42
2:B:94:LYS:N	2:B:103:TYR:HA	2.34	0.42
2:B:219:ASP:N	2:B:219:ASP:OD1	2.53	0.42
2:B:418:GLU:OE1	3:C:437:SER:HB2	2.19	0.42
3:L:37:VAL:O	3:L:40:MET:HG3	2.19	0.42
3:L:595:ALA:HA	3:L:598:PHE:CZ	2.53	0.42
1:S:385:TYR:O	1:S:388:LEU:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:452:LYS:HG3	1:S:453:MET:HE3	2.00	0.42
1:S:1087:ARG:HD3	1:S:1090:ARG:HH21	1.85	0.42
1:S:1671:VAL:O	1:S:1675:TYR:N	2.38	0.42
1:S:1823:SER:O	1:S:1826:THR:OG1	2.26	0.42
1:S:2145:PHE:O	1:S:2149:LEU:HD23	2.20	0.42
1:S:3059:GLN:HB3	1:S:3062:LEU:HD23	2.02	0.42
1:S:3078:LEU:HD23	1:S:3082:TYR:CD2	2.54	0.42
2:T:269:ILE:HG23	2:T:378:SER:HB3	2.00	0.42
1:A:338:LEU:HD12	1:A:339:GLN:HG3	2.01	0.42
1:A:397:LEU:O	1:A:399:GLN:NE2	2.53	0.42
1:A:455:LEU:HB3	1:A:459:ARG:HH21	1.84	0.42
1:A:525:LYS:O	1:A:528:VAL:HG22	2.19	0.42
1:A:736:LEU:HB3	1:A:740:ILE:CG2	2.49	0.42
1:A:1115:HIS:CE1	1:A:1180:GLN:HA	2.54	0.42
1:A:2142:ILE:HA	1:A:2145:PHE:CD2	2.54	0.42
1:A:2269:ASP:N	1:A:2269:ASP:OD1	2.51	0.42
1:A:2925:GLU:HA	1:A:2928:LYS:HG3	2.01	0.42
1:A:3589:SER:HA	1:A:3592:VAL:HG12	2.02	0.42
1:A:3603:LYS:HE3	1:A:3603:LYS:HB3	1.91	0.42
3:C:153:SER:O	3:C:156:LYS:HG2	2.19	0.42
3:L:205:LEU:HG	3:L:209:LYS:HD2	2.01	0.42
6:R:825:VAL:HG23	6:R:878:PHE:HZ	1.85	0.42
1:S:628:GLU:HA	1:S:631:ARG:CD	2.49	0.42
1:S:1233:SER:HA	1:S:1236:LEU:HB2	2.01	0.42
1:S:2306:ASN:HA	1:S:2309:PHE:CD2	2.55	0.42
1:S:3053:LEU:HD23	1:S:3092:LEU:HD22	2.00	0.42
1:S:3909:ALA:HB2	1:S:3980:MET:SD	2.59	0.42
9:d:36:DG:O6	10:e:21:DA:C4	2.72	0.42
1:A:160:LEU:HD11	1:A:178:LEU:HD21	2.02	0.42
1:A:461:ILE:O	1:A:464:VAL:HG22	2.20	0.42
1:A:720:GLN:HE21	1:A:1122:GLY:H	1.68	0.42
1:A:913:ARG:HA	1:A:916:GLU:OE2	2.19	0.42
1:A:1086:TYR:HA	1:A:1089:PHE:HB3	2.02	0.42
1:A:1877:LEU:HB3	1:A:1881:TYR:HE2	1.84	0.42
1:A:2182:ILE:O	1:A:2186:VAL:HG23	2.20	0.42
1:A:2247:ASP:OD1	1:A:2247:ASP:N	2.51	0.42
1:A:2376:ASP:HB3	1:A:2404:ARG:NH2	2.34	0.42
1:A:2531:LEU:HD23	1:A:2531:LEU:HA	1.89	0.42
1:A:3493:TRP:CZ3	1:A:3521:ILE:HG12	2.55	0.42
1:A:3867:THR:HG23	1:A:4118:GLY:N	2.35	0.42
2:B:38:LEU:HD11	2:B:165:ARG:HH21	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:288:LEU:HA	2:B:295:PRO:HA	2.02	0.42
2:B:388:LYS:HE3	3:C:451:LEU:HB3	2.01	0.42
3:C:347:LYS:NZ	3:C:388:ASP:HB3	2.35	0.42
3:C:461:MET:HE3	3:C:526:SER:HB3	2.01	0.42
3:C:493:CYS:HB3	3:C:505:LEU:HD22	2.01	0.42
5:G:183:VAL:HG21	6:I:805:TRP:CZ2	2.55	0.42
3:L:408:ALA:HB1	3:L:419:LEU:HD21	2.02	0.42
3:L:643:ARG:HD2	3:L:655:PHE:CD2	2.53	0.42
1:S:389:ILE:O	1:S:393:LYS:HG2	2.20	0.42
1:S:980:THR:O	1:S:983:LEU:HG	2.19	0.42
1:S:1782:PHE:HD1	1:S:1785:ILE:HD11	1.84	0.42
1:S:1961:PHE:HB2	1:S:2125:TRP:CZ2	2.54	0.42
1:S:2227:LYS:HE2	1:S:2227:LYS:HB2	1.90	0.42
1:S:2331:MET:HE2	1:S:2338:GLU:HG2	2.01	0.42
1:S:2825:THR:O	1:S:2829:LYS:HG3	2.19	0.42
1:S:3179:TRP:CE3	1:S:3242:MET:HG3	2.53	0.42
1:S:3235:LYS:HB3	1:S:3239:LYS:NZ	2.34	0.42
2:T:112:GLY:O	2:T:116:ILE:HG12	2.20	0.42
2:T:194:ARG:HA	2:T:198:ILE:O	2.19	0.42
2:T:332:GLU:HG2	2:T:333:GLU:N	2.34	0.42
8:i:30:DA:H2"	8:i:31:DA:H8	1.83	0.42
1:A:304:THR:OG1	1:A:305:ASN:N	2.52	0.42
1:A:571:SER:HA	1:A:574:LYS:HG2	2.02	0.42
1:A:629:PHE:O	1:A:633:ILE:HG12	2.20	0.42
1:A:1019:ASP:OD1	1:A:1019:ASP:N	2.52	0.42
1:A:1177:GLY:H	1:A:1184:ARG:HG3	1.85	0.42
1:A:1184:ARG:HH12	1:A:1265:GLU:HG3	1.84	0.42
1:A:2165:LEU:HD11	1:A:2200:ALA:HB1	2.00	0.42
1:A:2587:GLN:O	1:A:2777:HIS:N	2.52	0.42
1:A:2840:PHE:HA	1:A:2843:PHE:CD2	2.55	0.42
1:A:3137:GLU:O	1:A:3140:GLU:HG2	2.20	0.42
1:A:3574:ALA:O	1:A:3578:LEU:HG	2.19	0.42
2:B:490:LEU:HG	3:C:316:TYR:CE2	2.54	0.42
5:G:150:ARG:O	5:G:153:ARG:HG2	2.19	0.42
3:L:66:ASN:OD1	3:L:69:SER:HB2	2.20	0.42
6:R:754:PHE:O	6:R:758:TYR:N	2.43	0.42
1:S:87:LYS:HE2	1:S:91:ILE:HD13	2.00	0.42
1:S:446:PHE:CG	1:S:530:LEU:HD22	2.55	0.42
1:S:801:LYS:NZ	1:S:3125:ARG:HH12	2.17	0.42
1:S:887:ASP:OD1	1:S:960:GLN:NE2	2.52	0.42
1:S:890:LYS:HD3	1:S:890:LYS:HA	1.81	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1019:ASP:OD1	1:S:1026:ARG:HD2	2.19	0.42
1:S:1211:VAL:HG12	1:S:1219:PHE:HZ	1.84	0.42
1:S:1527:ARG:O	1:S:1531:LEU:HG	2.19	0.42
1:S:1750:LEU:HD13	1:S:1758:LEU:HB2	2.02	0.42
1:S:2120:ARG:HD3	1:S:2120:ARG:HA	1.79	0.42
1:S:2950:LYS:HB3	1:S:2952:ILE:HG22	2.01	0.42
1:S:3134:ALA:O	1:S:3138:ILE:HG22	2.20	0.42
1:S:3263:HIS:HB2	1:S:3276:TRP:CH2	2.54	0.42
2:T:60:PHE:O	2:T:63:SER:OG	2.31	0.42
2:T:174:ASN:O	2:T:177:GLY:N	2.53	0.42
2:T:264:ASN:OD1	2:T:265:LYS:N	2.48	0.42
10:e:39:DA:C5	10:e:40:DT:C4	3.08	0.42
1:A:1151:ARG:NH1	1:A:1163:LEU:O	2.48	0.42
1:A:1393:ALA:O	1:A:1396:PRO:HD2	2.19	0.42
1:A:1525:CYS:O	1:A:1528:LEU:HG	2.19	0.42
1:A:1835:ALA:HA	1:A:1838:GLU:OE2	2.20	0.42
1:A:1921:ASP:OD1	1:A:1921:ASP:N	2.50	0.42
1:A:2762:LYS:HA	1:A:2765:GLN:NE2	2.35	0.42
2:B:87:PHE:HE2	2:B:105:LEU:HD22	1.85	0.42
3:C:529:PRO:O	3:C:533:ILE:HG12	2.19	0.42
6:I:813:PHE:HA	6:I:850:ALA:H	1.85	0.42
3:L:98:ILE:O	3:L:99:GLN:NE2	2.53	0.42
6:R:797:ALA:HB1	6:R:801:TYR:CZ	2.54	0.42
1:S:90:CYS:SG	1:S:133:LYS:HB2	2.60	0.42
1:S:412:SER:O	1:S:415:GLN:HG3	2.20	0.42
1:S:526:ASP:N	1:S:526:ASP:OD1	2.52	0.42
1:S:1458:LEU:HD11	1:S:1466:ASN:HD21	1.85	0.42
1:S:2409:THR:OG1	1:S:2410:GLU:N	2.52	0.42
1:S:2555:LEU:HD11	1:S:2854:PHE:HD1	1.85	0.42
1:S:3299:THR:HG23	1:S:3299:THR:O	2.20	0.42
2:T:100:LYS:HA	2:T:100:LYS:HD3	1.86	0.42
9:d:25:DT:H2"	9:d:26:DT:C6	2.55	0.42
10:e:21:DA:H2"	10:e:22:DA:C8	2.55	0.42
1:A:749:VAL:O	1:A:753:GLN:HG2	2.20	0.42
1:A:801:LYS:HZ2	1:A:3115:SER:HA	1.85	0.42
1:A:1444:ASP:N	1:A:1444:ASP:OD1	2.51	0.42
1:A:1506:SER:HA	1:A:1509:GLN:HE21	1.85	0.42
1:A:1742:CYS:HA	1:A:1745:LYS:HD2	2.02	0.42
1:A:2466:SER:N	1:A:2470:ARG:HH21	2.18	0.42
1:A:2517:LEU:HA	1:A:2520:ILE:HG22	2.02	0.42
1:A:2863:CYS:HB2	1:A:2895:GLU:OE2	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3130:GLN:NE2	1:A:3174:ASP:OD1	2.41	0.42
1:A:3588:TRP:CD1	1:A:3613:MET:HB2	2.55	0.42
1:A:3620:PRO:HB3	1:A:3638:LYS:NZ	2.35	0.42
2:B:75:ILE:HG21	3:C:316:TYR:CE1	2.55	0.42
2:B:92:LYS:HE2	2:B:135:MET:SD	2.60	0.42
2:B:260:LYS:NZ	2:B:270:SER:HB3	2.35	0.42
3:C:639:ILE:HD13	3:C:639:ILE:HA	1.93	0.42
3:C:674:PHE:HD2	3:C:675:TRP:CD2	2.37	0.42
5:Q:3:ARG:NH1	5:Q:21:GLN:O	2.53	0.42
1:S:637:LYS:HD2	1:S:637:LYS:HA	1.86	0.42
1:S:669:LEU:HD12	1:S:670:LEU:N	2.35	0.42
1:S:723:ASP:C	1:S:725:LEU:H	2.28	0.42
1:S:1651:LYS:O	1:S:1654:GLN:HG3	2.20	0.42
1:S:2327:LEU:HG	1:S:2371:PHE:CG	2.55	0.42
1:S:2372:PRO:HB3	1:S:2403:CYS:O	2.20	0.42
1:S:2534:ASN:HB3	1:S:2537:ASP:HB2	2.02	0.42
1:S:3137:GLU:HA	1:S:3140:GLU:OE2	2.19	0.42
1:S:3413:TYR:CD1	1:S:3449:LYS:HB3	2.55	0.42
1:S:3956:PRO:HG2	1:S:4121:TRP:HB2	2.02	0.42
2:T:174:ASN:N	2:T:175:PRO:HD3	2.35	0.42
1:A:31:GLY:HA3	1:A:77:GLU:HB2	2.01	0.41
1:A:740:ILE:HG22	1:A:741:ILE:HD12	2.02	0.41
1:A:1479:VAL:HG21	1:A:1518:ALA:HA	2.01	0.41
1:A:1803:GLU:HA	1:A:1806:ARG:CZ	2.49	0.41
1:A:2158:ARG:C	1:A:2160:TYR:H	2.28	0.41
1:A:3150:ASN:ND2	1:A:3197:LEU:HD13	2.35	0.41
1:A:3568:ILE:H	1:A:3568:ILE:HD12	1.85	0.41
2:B:57:LEU:HB3	2:B:61:ASP:CB	2.50	0.41
2:B:211:PHE:N	2:B:231:VAL:O	2.53	0.41
5:G:20:LEU:HD13	5:G:34:ILE:HD13	2.02	0.41
5:H:21:GLN:HE21	5:H:126:LEU:HG	1.85	0.41
5:H:175:ASP:CG	6:I:784:SER:H	2.27	0.41
6:I:810:LEU:HB3	6:I:848:HIS:HB3	2.02	0.41
3:L:461:MET:HA	3:L:522:VAL:HG13	2.01	0.41
3:L:686:ILE:HD11	3:L:703:LYS:HA	2.02	0.41
1:S:116:THR:HG21	1:S:155:LYS:HZ3	1.84	0.41
1:S:286:LEU:HD13	1:S:319:PHE:CE1	2.55	0.41
1:S:1092:GLU:OE2	1:S:1094:SER:OG	2.38	0.41
1:S:1280:GLN:O	1:S:1284:THR:HB	2.20	0.41
1:S:1780:SER:CB	1:S:1784:ARG:HH12	2.33	0.41
1:S:2169:LEU:HD21	1:S:2211:LEU:HB2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:2514:ASN:HB3	1:S:2517:LEU:HD12	2.01	0.41
1:S:3232:ARG:HA	1:S:3235:LYS:HE2	2.02	0.41
1:S:3300:VAL:HG13	1:S:3300:VAL:O	2.20	0.41
1:S:3575:LEU:HD12	1:S:3752:VAL:HG11	2.02	0.41
1:A:40:GLN:OE1	1:A:2427:ARG:NE	2.47	0.41
1:A:655:LEU:O	1:A:659:ARG:NH1	2.52	0.41
1:A:1438:GLY:O	1:A:1445:ARG:NH2	2.33	0.41
1:A:2168:LEU:HB3	1:A:2193:ILE:HD11	2.01	0.41
1:A:2237:ILE:HD13	1:A:2237:ILE:HA	1.90	0.41
1:A:2358:ASP:O	1:A:2362:VAL:HG23	2.20	0.41
1:A:2414:GLN:O	1:A:2417:SER:OG	2.35	0.41
1:A:2750:GLU:O	1:A:2753:ARG:HG2	2.21	0.41
1:A:2964:ASP:CG	1:A:2967:GLU:HB3	2.45	0.41
1:A:3052:LEU:HD21	1:A:3058:ASP:OD1	2.21	0.41
1:A:3997:LEU:HA	1:A:4000:ASN:HD22	1.84	0.41
2:B:166:ILE:HD13	2:B:166:ILE:HA	1.92	0.41
2:B:288:LEU:N	3:C:311:ILE:O	2.44	0.41
2:B:341:ASP:OD1	2:B:341:ASP:N	2.52	0.41
2:B:355:LEU:HD11	3:C:473:LEU:HB3	2.01	0.41
3:C:374:ALA:O	3:C:377:LEU:HG	2.20	0.41
4:D:7:PRO:HB3	4:D:77:ARG:HG3	2.02	0.41
5:H:181:ILE:HD13	5:H:181:ILE:HA	1.95	0.41
3:L:12:LEU:HD12	3:L:14:MET:HE3	2.02	0.41
3:L:291:LYS:HE2	2:T:302:THR:HG22	2.02	0.41
3:L:446:PRO:HB3	2:T:384:ALA:HB2	2.03	0.41
3:L:457:LEU:HD11	3:L:530:LEU:HG	2.01	0.41
5:P:97:PHE:HZ	5:P:108:LEU:HD22	1.85	0.41
1:S:58:VAL:HG21	1:S:3098:ARG:HE	1.85	0.41
1:S:461:ILE:O	1:S:464:VAL:HG22	2.20	0.41
1:S:614:PRO:HB3	1:S:620:PHE:CE1	2.55	0.41
1:S:1133:HIS:O	1:S:1137:ILE:HG12	2.20	0.41
1:S:1298:LEU:HG	1:S:1367:HIS:CE1	2.55	0.41
1:S:1452:VAL:HA	1:S:1517:LEU:HD11	2.03	0.41
1:S:1611:GLN:HB2	1:S:1613:HIS:HD1	1.85	0.41
1:S:2122:LEU:C	1:S:2124:SER:H	2.27	0.41
1:S:3277:VAL:HG22	1:S:3306:LEU:CD2	2.50	0.41
1:S:3300:VAL:HG13	1:S:3303:THR:HA	2.02	0.41
1:S:3988:LEU:HA	1:S:3991:PHE:CD2	2.55	0.41
2:T:202:LEU:HD11	2:T:211:PHE:HE1	1.85	0.41
7:j:17:DT:C4	8:i:40:DT:C4	3.08	0.41
7:j:33:DA:C8	7:j:34:DT:C4	3.08	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:168:ASP:OD2	1:A:170:VAL:HG22	2.20	0.41
1:A:1787:ARG:HE	1:A:1830:HIS:HE1	1.68	0.41
1:A:2442:MET:C	1:A:2444:PRO:HD2	2.45	0.41
1:A:2570:PRO:O	1:A:2573:PRO:HD2	2.20	0.41
1:A:3088:LEU:HD23	1:A:3138:ILE:HD12	2.02	0.41
1:A:3090:TYR:O	1:A:3094:ASP:N	2.53	0.41
1:A:3100:LYS:HA	1:A:3103:ILE:HG22	2.02	0.41
1:A:3103:ILE:HD11	1:A:3135:LEU:HA	2.03	0.41
1:A:3183:ILE:HD12	1:A:3238:MET:HB3	2.01	0.41
1:A:3457:ASN:N	1:A:3457:ASN:OD1	2.53	0.41
1:A:3483:MET:SD	1:A:3511:ALA:HB1	2.60	0.41
1:A:3875:GLU:HB2	1:A:3965:ARG:HE	1.84	0.41
1:A:3998:LEU:HD21	1:A:4051:LEU:HG	2.02	0.41
2:B:154:PHE:O	2:B:157:VAL:HG12	2.19	0.41
2:B:403:ARG:HG2	2:B:406:ILE:HD12	2.01	0.41
3:C:94:ILE:HA	3:C:98:ILE:HD13	2.01	0.41
3:C:142:PHE:HZ	3:C:203:GLU:HG3	1.85	0.41
6:I:722:LYS:HD2	6:I:722:LYS:HA	1.86	0.41
6:I:810:LEU:HD13	6:I:847:PHE:CE2	2.55	0.41
3:L:169:LEU:HD22	3:L:224:ILE:O	2.19	0.41
1:S:697:ASP:HB2	1:S:700:LYS:HG3	2.03	0.41
1:S:893:SER:H	1:S:944:LYS:NZ	2.18	0.41
1:S:966:PHE:HB2	1:S:1011:GLU:OE1	2.21	0.41
1:S:1793:THR:O	1:S:1797:LEU:HD13	2.20	0.41
1:S:2121:ASP:OD1	1:S:2121:ASP:N	2.53	0.41
1:S:2138:VAL:HG13	1:S:2143:ARG:HG2	2.01	0.41
1:S:2206:PRO:HA	1:S:2209:GLU:OE2	2.20	0.41
1:S:2379:MET:HA	1:S:2382:VAL:HG12	2.02	0.41
1:S:2569:SER:HB3	1:S:2572:TYR:HB2	2.01	0.41
1:S:2760:GLU:HG2	1:S:2761:LEU:N	2.35	0.41
1:S:2881:LEU:HA	1:S:2886:GLN:OE1	2.19	0.41
1:S:3530:VAL:HG12	1:S:3562:LEU:HD22	2.02	0.41
2:T:71:TYR:CD1	2:T:83:LEU:HD13	2.55	0.41
7:j:32:DT:H6	7:j:32:DT:H2'	1.62	0.41
9:d:36:DG:H1'	9:d:37:DG:H5'	2.03	0.41
1:A:709:LYS:HA	1:A:712:LYS:NZ	2.36	0.41
1:A:737:PRO:O	1:A:740:ILE:HG22	2.21	0.41
1:A:860:GLY:HA3	1:A:3136:THR:CB	2.51	0.41
1:A:903:PRO:HG3	1:A:2816:ILE:HD13	2.02	0.41
1:A:1307:ILE:HD12	1:A:1307:ILE:HA	1.91	0.41
1:A:1728:GLU:HG3	1:A:1729:PHE:CD1	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1759:LEU:HD12	1:A:1797:LEU:HD22	2.01	0.41
1:A:2304:VAL:O	1:A:2307:MET:HB2	2.19	0.41
1:A:2736:GLN:H	1:A:2736:GLN:CD	2.29	0.41
1:A:3392:ALA:HB1	1:A:3409:VAL:HA	2.01	0.41
1:A:3508:LYS:O	1:A:3551:ASN:ND2	2.54	0.41
2:B:289:TYR:HD2	2:B:292:THR:H	1.68	0.41
2:B:463:LYS:HA	3:C:387:LEU:HD11	2.02	0.41
3:C:43:GLN:HE21	3:C:495:LEU:HB2	1.84	0.41
3:L:327:ASP:O	3:L:330:GLN:HG3	2.20	0.41
3:L:603:LYS:NZ	3:L:645:GLU:OE2	2.51	0.41
3:L:640:ARG:NH1	3:L:682:GLY:HA2	2.35	0.41
4:M:42:THR:HB	4:M:47:LEU:HD12	2.01	0.41
6:R:812:MET:O	6:R:850:ALA:HB3	2.20	0.41
1:S:386:VAL:HG13	1:S:431:TYR:OH	2.21	0.41
1:S:1069:HIS:CE1	1:S:3745:GLU:HG2	2.56	0.41
1:S:1172:LEU:HD11	1:S:1187:SER:HB2	2.02	0.41
1:S:1489:LYS:HD2	1:S:1492:ALA:HB3	2.02	0.41
1:S:1565:GLU:HG2	1:S:1566:THR:N	2.36	0.41
1:S:3811:THR:HA	1:S:3929:MET:HA	2.02	0.41
1:A:38:LEU:HD11	1:A:85:ILE:CG1	2.46	0.41
1:A:451:PRO:HA	1:A:454:GLN:NE2	2.36	0.41
1:A:893:SER:H	1:A:944:LYS:HZ2	1.68	0.41
1:A:1115:HIS:CD2	1:A:1182:GLU:H	2.38	0.41
1:A:1357:LYS:HG3	1:A:1411:TYR:OH	2.21	0.41
1:A:1761:LEU:O	1:A:1764:GLU:HG3	2.21	0.41
1:A:3275:SER:HA	1:A:3278:GLN:CD	2.45	0.41
1:A:3620:PRO:HB3	1:A:3638:LYS:HZ2	1.85	0.41
2:B:109:ASP:OD1	2:B:110:ASN:N	2.53	0.41
2:B:318:ARG:HB3	3:C:276:TRP:CE3	2.55	0.41
2:B:525:PHE:HA	2:B:528:LEU:HD12	2.03	0.41
3:C:297:LEU:HB3	3:C:299:ASP:OD1	2.19	0.41
3:C:365:PHE:CE2	3:C:418:CYS:HB3	2.55	0.41
3:C:443:LYS:HE3	3:C:443:LYS:HB2	1.90	0.41
4:D:194:LYS:HD3	4:D:195:PRO:O	2.20	0.41
5:G:183:VAL:HG21	6:I:805:TRP:HZ2	1.86	0.41
6:I:668:SER:O	6:I:703:GLY:N	2.53	0.41
6:I:841:LYS:HD3	6:I:867:GLU:H	1.84	0.41
5:P:61:MET:HB2	5:P:65:LYS:NZ	2.35	0.41
1:S:157:TYR:O	1:S:160:LEU:HG	2.21	0.41
1:S:682:TYR:CZ	1:S:700:LYS:HG2	2.55	0.41
1:S:709:LYS:HB2	1:S:709:LYS:HE3	1.89	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1184:ARG:HH21	1:S:1262:ALA:HA	1.84	0.41
1:S:1278:ALA:HB3	1:S:1356:TRP:CD1	2.55	0.41
1:S:1761:LEU:O	1:S:1764:GLU:HG3	2.20	0.41
1:S:1844:VAL:O	1:S:1848:ILE:HG13	2.21	0.41
1:S:2168:LEU:O	1:S:2172:ALA:N	2.39	0.41
1:S:2505:VAL:O	1:S:2509:GLY:N	2.49	0.41
1:S:3838:GLU:O	1:S:3842:TRP:HB2	2.20	0.41
8:i:33:DA:C4	8:i:34:DC:C4	3.09	0.41
1:A:327:VAL:HG13	1:A:333:MET:HB2	2.02	0.41
1:A:741:ILE:HG23	1:A:748:TYR:CD2	2.47	0.41
1:A:924:ARG:NH2	1:A:2766:ASP:O	2.53	0.41
1:A:1133:HIS:O	1:A:1137:ILE:HG12	2.20	0.41
1:A:1816:ARG:NE	3:C:625:ASP:OD1	2.51	0.41
1:A:2233:HIS:CE1	1:A:2728:LEU:HA	2.56	0.41
1:A:2339:GLU:HA	1:A:2342:CYS:SG	2.60	0.41
1:A:2750:GLU:HA	1:A:2753:ARG:HG2	2.02	0.41
1:A:2981:TRP:CD1	1:A:2984:GLY:HA2	2.54	0.41
1:A:3665:MET:HB3	1:A:3665:MET:HE2	1.82	0.41
1:A:4083:GLY:HA3	1:A:4088:ASN:HB3	2.02	0.41
1:A:4125:GLU:HG3	1:A:4128:MET:HB2	2.03	0.41
3:C:45:GLN:HA	3:C:50:ASN:ND2	2.35	0.41
3:C:477:PHE:CE1	3:C:518:PRO:HA	2.56	0.41
3:C:633:MET:O	3:C:636:ILE:HG12	2.20	0.41
5:G:159:GLN:OE1	5:H:158:VAL:HG21	2.21	0.41
3:L:523:THR:HG22	3:L:527:GLN:NE2	2.35	0.41
1:S:112:THR:OG1	1:S:155:LYS:NZ	2.53	0.41
1:S:907:LEU:HA	1:S:910:PHE:HD2	1.85	0.41
1:S:1106:ILE:O	1:S:1109:GLU:HG3	2.21	0.41
1:S:1253:THR:O	1:S:1257:LEU:HG	2.20	0.41
1:S:1601:LEU:HD13	1:S:1651:LYS:HB3	2.02	0.41
1:S:2106:ARG:HA	1:S:2106:ARG:CZ	2.50	0.41
1:S:2427:ARG:HH21	1:S:2464:HIS:CE1	2.38	0.41
1:S:3078:LEU:HD23	1:S:3082:TYR:HD2	1.85	0.41
1:S:3104:GLN:NE2	1:S:3105:ASN:OD1	2.53	0.41
1:S:3118:ASP:OD1	1:S:3119:VAL:N	2.54	0.41
1:S:3380:ARG:O	1:S:3384:HIS:ND1	2.54	0.41
1:S:3744:ASP:N	1:S:3744:ASP:OD1	2.49	0.41
1:S:4010:SER:H	1:S:4038:TRP:NE1	2.18	0.41
2:T:165:ARG:HA	2:T:199:PHE:O	2.20	0.41
1:A:984:TYR:O	1:A:988:VAL:HG13	2.21	0.41
1:A:996:THR:HG23	1:A:1043:GLN:NE2	2.36	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1166:LEU:O	1:A:1170:LYS:HG2	2.21	0.41
1:A:1226:GLY:C	1:A:1229:CYS:H	2.28	0.41
1:A:1827:LEU:O	1:A:1831:CYS:N	2.53	0.41
1:A:1839:PHE:CE2	1:A:1843:ILE:HD13	2.56	0.41
1:A:2377:ARG:HB2	1:A:2378:PHE:CE2	2.55	0.41
1:A:2930:TYR:HB2	1:A:2939:LEU:HD21	2.02	0.41
1:A:3151:LEU:H	1:A:3151:LEU:HD23	1.86	0.41
1:A:3234:CYS:O	1:A:3238:MET:HG2	2.21	0.41
1:A:3321:LEU:HA	1:A:3324:ARG:HE	1.84	0.41
1:A:3390:GLN:O	1:A:3394:GLU:HG2	2.20	0.41
1:A:3552:LYS:HA	1:A:3552:LYS:HD3	1.88	0.41
1:A:3959:MET:CE	1:A:4124:TRP:HE1	2.33	0.41
2:B:203:MET:SD	2:B:239:LEU:HG	2.61	0.41
2:B:234:GLU:HG2	2:B:236:SER:H	1.85	0.41
2:B:303:PHE:HB2	2:B:309:GLY:O	2.20	0.41
5:G:70:LEU:HD12	5:G:70:LEU:HA	1.88	0.41
3:L:333:TYR:OH	2:T:505:ASP:OD2	2.35	0.41
1:S:104:SER:O	1:S:108:LYS:N	2.38	0.41
1:S:1582:LEU:HD12	1:S:1593:VAL:HG12	2.02	0.41
1:S:2168:LEU:HB3	1:S:2193:ILE:HD11	2.02	0.41
1:S:2927:ALA:O	1:S:2931:ARG:HG2	2.21	0.41
2:T:152:ASN:C	2:T:152:ASN:HD22	2.28	0.41
2:T:468:LYS:HE2	2:T:517:ARG:HB3	2.02	0.41
2:T:469:LEU:HG	2:T:514:MET:SD	2.61	0.41
1:A:586:GLN:HB2	1:A:613:HIS:ND1	2.36	0.41
1:A:990:GLN:HB3	1:A:2781:PRO:CD	2.47	0.41
1:A:1537:VAL:HA	1:A:1554:SER:HA	2.01	0.41
1:A:1638:PRO:O	1:A:1641:THR:OG1	2.30	0.41
1:A:1711:ARG:O	1:A:1714:LEU:HB2	2.20	0.41
1:A:1770:GLN:NE2	1:A:1775:GLU:OE2	2.53	0.41
1:A:2185:MET:O	1:A:2189:ILE:HG12	2.20	0.41
1:A:3603:LYS:NZ	1:A:3647:GLY:H	2.18	0.41
1:A:3763:ARG:NH1	1:A:4007:LYS:HA	2.36	0.41
2:B:131:PHE:O	2:B:135:MET:N	2.52	0.41
3:C:280:ASP:CG	3:C:282:LYS:H	2.29	0.41
3:C:282:LYS:HB2	3:C:282:LYS:HE2	1.88	0.41
6:I:729:CYS:SG	6:I:736:VAL:N	2.87	0.41
3:L:207:ILE:O	3:L:211:VAL:HG23	2.21	0.41
3:L:332:LYS:HG2	2:T:486:HIS:HE1	1.85	0.41
3:L:343:LEU:N	3:L:392:ILE:O	2.43	0.41
3:L:625:ASP:CG	1:S:1816:ARG:HE	2.28	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:R:731:LYS:HA	6:R:731:LYS:HD3	1.93	0.41
1:S:297:LEU:HB3	1:S:316:LEU:HD12	2.02	0.41
1:S:384:MET:O	1:S:387:GLU:HG3	2.21	0.41
1:S:853:ILE:HG13	1:S:854:ARG:N	2.36	0.41
1:S:1081:ALA:O	1:S:1085:ILE:HG23	2.20	0.41
1:S:1121:LEU:HG	1:S:1123:THR:H	1.86	0.41
1:S:1374:GLN:HA	1:S:1377:CYS:SG	2.61	0.41
1:S:1665:HIS:H	1:S:1668:PHE:HB3	1.85	0.41
1:S:2185:MET:O	1:S:2189:ILE:HG12	2.20	0.41
1:S:2349:LEU:HB3	1:S:2360:PHE:CE2	2.56	0.41
1:S:2548:PRO:HB2	1:S:2848:PHE:HD1	1.86	0.41
1:S:2572:TYR:CE1	1:S:2791:ILE:HD11	2.53	0.41
1:S:2576:MET:HB2	1:S:2783:ILE:HG22	2.03	0.41
1:S:2928:LYS:HG2	1:S:2931:ARG:NH2	2.36	0.41
1:S:2940:ARG:O	1:S:2944:THR:HG23	2.20	0.41
1:S:3101:TYR:O	1:S:3104:GLN:HG3	2.21	0.41
1:S:3167:ARG:N	1:S:3167:ARG:HD2	2.35	0.41
1:S:3472:ILE:HA	1:S:3479:THR:HG21	2.02	0.41
2:T:230:ARG:HH22	2:T:233:PHE:HD2	1.69	0.41
1:A:377:ASN:HB3	1:A:380:ASP:HB2	2.02	0.41
1:A:717:LYS:HD2	1:A:717:LYS:HA	1.79	0.41
1:A:770:LEU:O	1:A:773:LEU:HG	2.20	0.41
1:A:840:LEU:H	1:A:840:LEU:HD23	1.85	0.41
1:A:910:PHE:O	1:A:914:VAL:HG12	2.20	0.41
1:A:1049:GLN:O	1:A:1055:ASN:HB3	2.20	0.41
1:A:1086:TYR:CD1	1:A:1133:HIS:HB3	2.56	0.41
1:A:1118:GLU:HG2	1:A:1120:SER:H	1.86	0.41
1:A:1256:TRP:CZ2	1:A:1260:LEU:HD11	2.55	0.41
1:A:1913:LYS:HB3	3:L:730:ASP:HA	2.02	0.41
1:A:1948:ALA:O	1:A:1952:ILE:HG12	2.20	0.41
1:A:2105:HIS:ND1	1:A:2156:VAL:HG23	2.36	0.41
1:A:2126:MET:HE1	1:A:2160:TYR:CZ	2.56	0.41
1:A:2167:PRO:O	1:A:2171:LEU:HG	2.20	0.41
1:A:2174:SER:O	1:A:2174:SER:OG	2.34	0.41
1:A:2303:LEU:HD13	1:A:2323:LEU:HD21	2.03	0.41
1:A:2920:VAL:O	1:A:2923:TRP:HB2	2.21	0.41
1:A:2969:ALA:HB2	1:A:3001:CYS:SG	2.60	0.41
1:A:3762:GLN:NE2	1:A:3795:PRO:HD2	2.35	0.41
1:A:3789:ARG:HH12	1:A:3931:ALA:HB3	1.86	0.41
1:A:3820:MET:SD	1:A:3824:GLU:HB3	2.61	0.41
2:B:250:GLU:CG	4:D:187:ASN:HD21	2.33	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:353:LEU:HB2	2:B:393:GLU:OE2	2.21	0.41
3:C:497:ARG:NH2	3:C:503:GLU:O	2.49	0.41
5:H:135:ALA:O	5:H:138:GLN:HG3	2.20	0.41
6:I:682:ILE:HA	6:I:730:PHE:CZ	2.56	0.41
6:I:721:VAL:HG13	6:I:742:PHE:CD2	2.55	0.41
6:I:746:MET:HE3	6:I:751:LYS:HG2	2.02	0.41
6:I:816:HIS:HA	6:I:851:LYS:HB2	2.02	0.41
6:I:902:GLU:HB3	6:I:904:GLN:HE21	1.86	0.41
3:L:458:ILE:HA	2:T:350:PHE:HE2	1.85	0.41
3:L:653:GLN:HA	3:L:656:ASN:HB2	2.02	0.41
3:L:724:ASP:O	3:L:728:LEU:N	2.52	0.41
5:P:135:ALA:HA	5:P:138:GLN:HG2	2.02	0.41
6:R:748:PRO:HA	6:R:751:LYS:HB2	2.03	0.41
1:S:184:VAL:HG23	1:S:186:PRO:HD3	2.02	0.41
1:S:294:PHE:CE2	1:S:298:LEU:HD11	2.55	0.41
1:S:703:CYS:HB3	1:S:707:PHE:CE2	2.55	0.41
1:S:802:THR:HG21	1:S:922:SER:H	1.86	0.41
1:S:881:LYS:HZ3	1:S:881:LYS:HG3	1.63	0.41
1:S:883:TYR:CE1	1:S:3120:LEU:HD22	2.56	0.41
1:S:1062:ARG:HH12	1:S:3745:GLU:HG3	1.86	0.41
1:S:1466:ASN:OD1	1:S:1466:ASN:N	2.53	0.41
1:S:1513:GLY:O	1:S:1517:LEU:HG	2.21	0.41
1:S:1884:LEU:HD22	1:S:1885:PRO:HD2	2.02	0.41
1:S:1921:ASP:OD1	1:S:1921:ASP:N	2.54	0.41
1:S:2137:ILE:O	1:S:2137:ILE:HG23	2.21	0.41
1:S:2276:LEU:O	1:S:2280:VAL:HG23	2.21	0.41
1:S:2328:ARG:HB2	1:S:2370:SER:O	2.21	0.41
1:S:2757:ILE:HA	1:S:2760:GLU:OE1	2.21	0.41
1:S:3005:LEU:HD13	1:S:3253:SER:HB3	2.03	0.41
1:S:3061:LEU:O	1:S:3065:ILE:HG12	2.21	0.41
1:S:3106:GLY:O	1:S:3110:PHE:HD2	2.03	0.41
1:S:3291:GLN:O	1:S:3291:GLN:HG3	2.21	0.41
1:S:3347:CYS:O	1:S:3351:ILE:HG13	2.21	0.41
1:S:3442:TYR:O	1:S:3446:VAL:HG13	2.20	0.41
1:S:3480:LEU:HA	1:S:3483:MET:HB2	2.03	0.41
1:S:3792:SER:OG	1:S:3804:GLU:OE1	2.35	0.41
1:S:3893:SER:H	1:S:3896:ALA:HB3	1.86	0.41
1:S:3962:ARG:NH2	1:S:4125:GLU:OE1	2.53	0.41
2:T:109:ASP:O	2:T:115:ARG:NH1	2.54	0.41
2:T:159:PHE:HB2	2:T:161:MET:HE3	2.03	0.41
2:T:230:ARG:HD3	2:T:232:HIS:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:T:420:LEU:HB3	2:T:424:LYS:HA	2.02	0.41
7:j:15:DA:H2	8:i:42:DA:H61	1.68	0.41
8:i:20:DT:H2"	8:i:21:DA:OP1	2.20	0.41
1:A:81:CYS:O	1:A:85:ILE:HG13	2.20	0.41
1:A:153:PHE:HZ	1:A:192:ASN:HB2	1.85	0.41
1:A:207:GLN:HG3	1:A:217:LEU:HB3	2.03	0.41
1:A:296:VAL:HA	1:A:299:LYS:HG2	2.02	0.41
1:A:745:VAL:O	1:A:749:VAL:HG23	2.21	0.41
1:A:1454:ALA:HA	1:A:1457:GLN:OE1	2.20	0.41
1:A:1723:PRO:HG3	3:C:594:PRO:HD3	2.02	0.41
1:A:2481:HIS:ND1	1:A:2499:PHE:HE1	2.18	0.41
1:A:2525:TRP:CZ3	1:A:2545:LEU:HD21	2.56	0.41
1:A:2741:LEU:HD22	10:e:44:DG:C6	2.56	0.41
1:A:3742:GLY:N	1:A:3746:ARG:O	2.53	0.41
1:A:3837:CYS:SG	1:A:3873:LYS:HG2	2.61	0.41
2:B:182:LYS:HA	2:B:185:ARG:HG2	2.03	0.41
2:B:326:GLN:HE21	2:B:328:ILE:HD11	1.86	0.41
4:D:122:ARG:HE	4:M:45:ALA:HB2	1.86	0.41
5:H:3:ARG:NH1	5:H:21:GLN:OE1	2.54	0.41
3:L:371:GLU:HG3	2:T:452:ILE:HD13	2.02	0.41
3:L:395:TYR:HB3	3:L:404:GLN:HG2	2.01	0.41
5:Q:128:CYS:O	5:Q:131:LEU:HG	2.21	0.41
6:R:707:ILE:HA	6:R:710:LYS:HG2	2.02	0.41
1:S:217:LEU:O	1:S:217:LEU:HD12	2.21	0.41
1:S:247:GLU:HG2	1:S:251:PHE:CE2	2.56	0.41
1:S:573:LEU:HD11	1:S:645:TRP:CD1	2.56	0.41
1:S:851:ILE:O	1:S:854:ARG:HG2	2.21	0.41
1:S:1741:ASP:O	1:S:1744:LYS:HG2	2.21	0.41
1:S:2365:ASN:O	1:S:2368:THR:HG22	2.21	0.41
1:S:2746:LYS:O	1:S:2749:ALA:HB3	2.21	0.41
1:S:3169:PRO:O	1:S:3170:ASP:HB2	2.21	0.41
1:S:3455:LYS:HA	1:S:3490:VAL:HG23	2.02	0.41
1:S:3898:LEU:HG	1:S:3901:ARG:NH2	2.35	0.41
1:S:4038:TRP:CH2	1:S:4040:PRO:HG3	2.56	0.41
9:d:29:DG:C4	9:d:30:DT:C5	3.09	0.41
1:A:295:GLU:OE1	1:A:299:LYS:NZ	2.35	0.40
1:A:1100:VAL:HG23	1:A:1101:PHE:N	2.36	0.40
1:A:1183:CYS:O	1:A:1186:LYS:HG2	2.21	0.40
1:A:1528:LEU:O	1:A:1532:LEU:HG	2.21	0.40
1:A:1851:LEU:HB3	1:A:1852:LYS:NZ	2.35	0.40
1:A:2145:PHE:O	1:A:2149:LEU:HD23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3369:ASP:HB3	1:A:3372:LYS:HG2	2.04	0.40
1:A:3535:ILE:HD12	1:A:3535:ILE:HA	1.91	0.40
2:B:70:VAL:HG13	4:D:186:ILE:HD11	2.04	0.40
3:C:267:ILE:HB	3:C:361:VAL:HB	2.03	0.40
5:G:73:ALA:HB1	5:G:86:PHE:HZ	1.86	0.40
6:I:663:GLU:HA	6:I:688:TYR:HB2	2.02	0.40
6:I:863:VAL:HG11	6:I:886:PHE:HA	2.02	0.40
3:L:9:ALA:HB2	3:L:127:PHE:CG	2.57	0.40
3:L:300:ASP:O	3:L:303:THR:OG1	2.39	0.40
1:S:627:VAL:HG11	1:S:665:GLY:HA2	2.03	0.40
1:S:887:ASP:HB2	1:S:961:LEU:HD21	2.03	0.40
1:S:985:GLU:HG2	1:S:986:PRO:CD	2.51	0.40
1:S:1017:ILE:HD12	1:S:1017:ILE:H	1.85	0.40
1:S:1881:TYR:CE1	1:S:1951:VAL:HA	2.55	0.40
1:S:2175:GLU:OE1	1:S:2182:ILE:HG23	2.21	0.40
1:S:2510:LEU:HA	1:S:2521:ILE:HD13	2.03	0.40
1:S:2835:LYS:HA	1:S:2835:LYS:HD3	1.90	0.40
1:S:2965:TYR:CD2	1:S:3253:SER:HB2	2.54	0.40
1:S:3097:ASP:O	1:S:3100:LYS:HG3	2.21	0.40
1:S:3120:LEU:HD12	1:S:3895:GLU:HB2	2.04	0.40
7:j:22:DG:C6	8:i:36:DA:N6	2.89	0.40
1:A:28:ALA:C	1:A:32:HIS:HD1	2.29	0.40
1:A:528:VAL:HG11	1:A:632:GLU:OE2	2.20	0.40
1:A:528:VAL:HG23	1:A:529:ASP:N	2.36	0.40
1:A:914:VAL:HA	1:A:917:LEU:HB2	2.03	0.40
1:A:994:TRP:CZ3	1:A:2582:SER:HB2	2.56	0.40
1:A:1071:ASN:HD22	1:A:1074:LYS:NZ	2.19	0.40
1:A:1081:ALA:O	1:A:1085:ILE:HG23	2.21	0.40
1:A:1787:ARG:NE	1:A:1830:HIS:HE1	2.19	0.40
1:A:2485:ARG:HH22	1:A:2530:ARG:HA	1.87	0.40
1:A:2940:ARG:O	1:A:2944:THR:HG23	2.21	0.40
1:A:3154:GLN:OE1	1:A:3227:ILE:HG13	2.21	0.40
1:A:3263:HIS:HB2	1:A:3276:TRP:CZ2	2.57	0.40
1:A:3292:GLY:O	1:A:3296:GLN:HB2	2.21	0.40
1:A:3293:CYS:SG	1:A:3340:ALA:HB1	2.62	0.40
1:A:3981:TYR:O	1:A:3985:VAL:HG23	2.21	0.40
1:A:4055:ASN:ND2	1:A:4091:ALA:O	2.53	0.40
2:B:498:MET:N	2:B:498:MET:HE2	2.37	0.40
3:C:20:MET:O	3:C:30:PRO:HD2	2.21	0.40
3:C:35:LYS:HA	3:C:38:ILE:HG12	2.03	0.40
3:C:138:LEU:HB3	3:C:201:GLN:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:331:MET:HE1	6:I:707:ILE:HG23	2.03	0.40
3:C:352:GLN:HB2	3:C:355:PHE:CE2	2.57	0.40
3:C:598:PHE:CE2	3:C:616:LEU:HB3	2.56	0.40
3:C:663:GLN:HG3	3:C:667:GLU:OE1	2.21	0.40
6:I:657:ASN:HA	6:I:660:GLU:HG3	2.03	0.40
3:L:34:ALA:HB1	3:L:135:PHE:HD2	1.86	0.40
3:L:420:VAL:HG21	2:T:359:HIS:HB3	2.02	0.40
3:L:497:ARG:HH21	3:L:505:LEU:HD23	1.86	0.40
6:R:712:ILE:HD13	6:R:712:ILE:HA	1.98	0.40
1:S:197:PHE:O	1:S:201:LEU:HG	2.22	0.40
1:S:237:SER:HA	1:S:281:GLN:HG3	2.03	0.40
1:S:670:LEU:HB2	1:S:732:PHE:CZ	2.55	0.40
1:S:1417:THR:O	1:S:1421:GLU:N	2.45	0.40
1:S:1641:THR:O	1:S:1645:VAL:HG13	2.21	0.40
1:S:1881:TYR:OH	1:S:1954:CYS:HB3	2.21	0.40
1:S:2408:MET:HE3	1:S:2441:LYS:HE2	2.03	0.40
1:S:2921:LEU:O	1:S:2924:VAL:HG12	2.22	0.40
1:S:3234:CYS:O	1:S:3238:MET:HG2	2.21	0.40
1:S:4009:PRO:HA	1:S:4038:TRP:HZ2	1.86	0.40
1:S:4101:GLU:HG2	1:S:4102:THR:N	2.36	0.40
2:T:266:ASP:C	2:T:268:VAL:HG23	2.47	0.40
7:j:37:DG:H22	8:i:20:DT:H2"	1.87	0.40
1:A:49:ALA:O	1:A:53:LEU:HG	2.21	0.40
1:A:163:LYS:HE2	2:B:302:THR:H	1.87	0.40
1:A:283:SER:C	1:A:285:CYS:H	2.30	0.40
1:A:1149:LYS:HB2	1:A:1151:ARG:NH2	2.37	0.40
1:A:1261:LEU:HD21	1:A:1337:VAL:HA	2.03	0.40
1:A:1784:ARG:HA	1:A:1787:ARG:NE	2.36	0.40
1:A:2260:PHE:C	1:A:2270:ASN:HB2	2.46	0.40
1:A:2295:GLN:HE21	1:A:2298:GLU:C	2.28	0.40
1:A:2817:LEU:HD23	1:A:2865:HIS:NE2	2.36	0.40
1:A:3416:LEU:HD22	1:A:3449:LYS:HD2	2.02	0.40
1:A:3912:CYS:HA	1:A:3915:HIS:CD2	2.56	0.40
1:A:4055:ASN:O	1:A:4059:ILE:HG12	2.21	0.40
2:B:69:SER:OG	2:B:243:LEU:HA	2.22	0.40
2:B:79:ASP:N	2:B:79:ASP:OD1	2.54	0.40
2:B:196:THR:OG1	2:B:198:ILE:HG12	2.21	0.40
2:B:214:SER:HA	2:B:218:ARG:CG	2.52	0.40
2:B:270:SER:O	2:B:371:GLU:HG2	2.21	0.40
2:B:490:LEU:O	2:B:493:LEU:HG	2.20	0.40
3:C:285:LYS:HB3	3:C:287:GLU:OE1	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:G:176:LEU:HD23	5:G:179:ARG:HD3	2.03	0.40
5:H:43:TRP:NE1	5:H:119:PRO:HB3	2.36	0.40
5:P:28:LEU:HD23	5:P:70:LEU:HB3	2.03	0.40
5:Q:38:ASP:N	5:Q:38:ASP:OD1	2.53	0.40
1:S:208:MET:O	1:S:208:MET:HE3	2.21	0.40
1:S:320:LEU:HA	1:S:323:VAL:HG22	2.03	0.40
1:S:493:LYS:HE3	1:S:522:PRO:O	2.21	0.40
1:S:737:PRO:HG2	1:S:740:ILE:HG12	2.02	0.40
1:S:1171:TRP:O	1:S:1175:HIS:ND1	2.54	0.40
1:S:1714:LEU:HD13	1:S:1758:LEU:HD21	2.02	0.40
1:S:2172:ALA:C	1:S:2215:LEU:HD21	2.47	0.40
1:S:2238:ILE:HA	1:S:2241:LEU:HG	2.02	0.40
1:S:2273:GLY:HA2	1:S:2276:LEU:HD12	2.02	0.40
1:S:2531:LEU:HD23	1:S:2531:LEU:HA	1.88	0.40
1:S:3389:VAL:O	1:S:3393:GLU:HG3	2.21	0.40
1:S:3772:ASN:OD1	1:S:3788:LEU:HB3	2.21	0.40
2:T:78:SER:HB2	2:T:250:GLU:OE2	2.22	0.40
2:T:102:ILE:HD12	2:T:146:VAL:HG12	2.02	0.40
2:T:176:HIS:O	2:T:183:ALA:HB2	2.22	0.40
8:i:33:DA:C5	8:i:34:DC:N4	2.89	0.40
1:A:207:GLN:O	1:A:215:PRO:HA	2.21	0.40
1:A:221:ALA:O	1:A:224:LEU:HG	2.20	0.40
1:A:232:CYS:SG	1:A:281:GLN:HG3	2.61	0.40
1:A:446:PHE:CZ	1:A:530:LEU:HB2	2.57	0.40
1:A:472:GLY:O	1:A:475:LEU:HB3	2.21	0.40
1:A:849:GLU:HG2	1:A:850:GLU:N	2.36	0.40
1:A:1000:LYS:HA	1:A:1000:LYS:HD3	1.95	0.40
1:A:1009:LEU:HD12	1:A:1010:LEU:N	2.37	0.40
1:A:1012:ALA:HA	1:A:1015:ASP:OD2	2.21	0.40
1:A:2493:ASN:OD1	1:A:2494:ASP:N	2.54	0.40
1:A:2500:LYS:HA	1:A:2503:LYS:NZ	2.37	0.40
1:A:3604:LYS:HG3	1:A:3605:ASN:H	1.85	0.40
1:A:3988:LEU:HD23	1:A:4100:GLU:HA	2.03	0.40
2:B:381:LEU:HD11	3:C:537:PHE:HB3	2.03	0.40
3:L:380:LEU:O	3:L:384:LEU:HD23	2.21	0.40
3:L:540:ILE:HD11	2:T:376:ILE:HD13	2.03	0.40
4:M:187:ASN:HB3	4:M:190:PHE:CD1	2.57	0.40
5:Q:66:TYR:HE1	5:Q:108:LEU:HA	1.86	0.40
1:S:860:GLY:HA3	1:S:3136:THR:OG1	2.22	0.40
1:S:983:LEU:O	1:S:986:PRO:HD2	2.21	0.40
1:S:990:GLN:HG2	1:S:2781:PRO:HD3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:1685:ASP:HB3	1:S:1688:LEU:HG	2.02	0.40
1:S:1713:VAL:HA	1:S:1716:GLN:HG2	2.04	0.40
1:S:1715:GLU:O	1:S:1719:VAL:HG23	2.21	0.40
1:S:2044:ASP:O	1:S:2048:GLY:N	2.55	0.40
1:S:2427:ARG:HE	1:S:2464:HIS:HE2	1.68	0.40
1:S:2471:GLU:HB3	1:S:2517:LEU:HD21	2.01	0.40
1:S:2892:LEU:O	1:S:2895:GLU:HG2	2.21	0.40
1:S:3419:PHE:O	1:S:3423:GLN:HG2	2.22	0.40
7:j:19:DA:N6	8:i:39:DA:H61	2.18	0.40
10:e:42:DA:H1'	10:e:43:DT:H5'	2.04	0.40
1:A:106:GLU:O	1:A:110:THR:HG23	2.22	0.40
1:A:313:LEU:HD23	1:A:316:LEU:HD12	2.04	0.40
1:A:487:LEU:HD13	1:A:575:ILE:HD13	2.03	0.40
1:A:733:LEU:O	1:A:736:LEU:HD23	2.22	0.40
1:A:851:ILE:O	1:A:855:VAL:HG23	2.21	0.40
1:A:891:ARG:O	1:A:944:LYS:NZ	2.45	0.40
1:A:1420:ARG:HG2	1:A:1467:ILE:HD12	2.02	0.40
1:A:2318:ALA:HA	1:A:2321:GLU:HG2	2.04	0.40
1:A:2739:LEU:HD12	1:A:2740:SER:N	2.37	0.40
1:A:2745:ARG:NH2	10:e:44:DG:H2'	2.37	0.40
1:A:2950:LYS:HB3	1:A:2952:ILE:HG22	2.03	0.40
1:A:3513:ALA:HA	1:A:3516:HIS:ND1	2.36	0.40
2:B:357:LYS:HB2	2:B:360:HIS:CD2	2.57	0.40
3:L:247:TRP:HB3	3:L:263:ALA:HB3	2.03	0.40
3:L:444:TYR:CD1	2:T:379:SER:HB3	2.56	0.40
3:L:653:GLN:H	3:L:653:GLN:CD	2.28	0.40
1:S:217:LEU:HD13	1:S:221:ALA:HB3	2.03	0.40
1:S:225:LYS:HD3	1:S:225:LYS:C	2.46	0.40
1:S:243:GLN:HA	1:S:246:ARG:HH11	1.86	0.40
1:S:300:TRP:HE3	1:S:308:LEU:HD21	1.87	0.40
1:S:738:HIS:HB2	1:S:780:ILE:HD11	2.04	0.40
1:S:781:ASP:HB2	1:S:783:HIS:ND1	2.37	0.40
1:S:913:ARG:O	1:S:916:GLU:HG3	2.22	0.40
1:S:939:MET:HE2	1:S:942:LEU:HD21	2.03	0.40
1:S:1038:LYS:HB3	1:S:1038:LYS:HE2	1.73	0.40
1:S:1347:THR:O	1:S:1351:THR:OG1	2.33	0.40
1:S:1627:LYS:NZ	1:S:1670:GLU:HB2	2.36	0.40
1:S:1881:TYR:OH	1:S:1955:VAL:HG23	2.21	0.40
1:S:2216:LEU:O	1:S:2219:LEU:HG	2.22	0.40
1:S:2801:ASP:OD2	1:S:2804:ILE:HG12	2.21	0.40
1:S:3119:VAL:HA	1:S:3125:ARG:NE	2.32	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:S:3131:SER:O	1:S:3135:LEU:HG	2.22	0.40
1:S:3483:MET:HE2	1:S:3511:ALA:HA	2.03	0.40
1:S:3781:CYS:O	1:S:3785:ALA:N	2.55	0.40
2:T:372:GLU:OE1	2:T:378:SER:N	2.55	0.40
2:T:525:PHE:HA	2:T:528:LEU:HD12	2.04	0.40
7:j:16:DA:H1'	7:j:17:DT:C2	2.56	0.40

There are no symmetry-related clashes.

5.3 Torsion angles [i](#)

5.3.1 Protein backbone [i](#)

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

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

Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
1	A	3476/4128 (84%)	3213 (92%)	259 (8%)	4 (0%)	48	83
1	S	3464/4128 (84%)	3210 (93%)	252 (7%)	2 (0%)	48	83
2	B	505/609 (83%)	471 (93%)	34 (7%)	0	100	100
2	T	498/609 (82%)	470 (94%)	28 (6%)	0	100	100
3	C	660/732 (90%)	619 (94%)	41 (6%)	0	100	100
3	L	644/732 (88%)	615 (96%)	29 (4%)	0	100	100
4	D	139/204 (68%)	137 (99%)	2 (1%)	0	100	100
4	M	160/204 (78%)	160 (100%)	0	0	100	100
5	G	199/336 (59%)	195 (98%)	4 (2%)	0	100	100
5	H	190/336 (56%)	188 (99%)	2 (1%)	0	100	100
5	P	199/336 (59%)	196 (98%)	3 (2%)	0	100	100
5	Q	190/336 (56%)	188 (99%)	2 (1%)	0	100	100
6	I	242/911 (27%)	219 (90%)	23 (10%)	0	100	100
6	R	242/911 (27%)	216 (89%)	26 (11%)	0	100	100
All	All	10808/14512 (74%)	10097 (93%)	705 (6%)	6 (0%)	49	83

All (6) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	72	SER
1	S	3304	VAL
1	A	68	PHE
1	A	1231	GLN
1	A	66	LEU
1	S	956	PRO

5.3.2 Protein sidechains ⓘ

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	2999/3671 (82%)	2998 (100%)	1 (0%)	100	100
1	S	3045/3671 (83%)	3042 (100%)	3 (0%)	88	88
2	B	443/548 (81%)	443 (100%)	0	100	100
2	T	446/548 (81%)	446 (100%)	0	100	100
3	C	581/649 (90%)	581 (100%)	0	100	100
3	L	570/649 (88%)	570 (100%)	0	100	100
4	D	110/160 (69%)	110 (100%)	0	100	100
4	M	120/160 (75%)	120 (100%)	0	100	100
5	G	180/303 (59%)	180 (100%)	0	100	100
5	H	177/303 (58%)	177 (100%)	0	100	100
5	P	180/303 (59%)	180 (100%)	0	100	100
5	Q	177/303 (58%)	177 (100%)	0	100	100
6	I	218/808 (27%)	218 (100%)	0	100	100
6	R	217/808 (27%)	217 (100%)	0	100	100
All	All	9463/12884 (73%)	9459 (100%)	4 (0%)	100	100

All (4) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	67	VAL
1	S	67	VAL
1	S	3301	LEU
1	S	3306	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (99) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	136	GLN
1	A	233	ASN
1	A	330	ASN
1	A	339	GLN
1	A	454	GLN
1	A	839	ASN
1	A	867	ASN
1	A	982	GLN
1	A	1047	GLN
1	A	1069	HIS
1	A	1146	ASN
1	A	1185	HIS
1	A	1238	GLN
1	A	1598	ASN
1	A	1611	GLN
1	A	1665	HIS
1	A	1725	GLN
1	A	1771	GLN
1	A	2105	HIS
1	A	2170	GLN
1	A	2291	GLN
1	A	2295	GLN
1	A	2306	ASN
1	A	2365	ASN
1	A	2390	HIS
1	A	2553	HIS
1	A	2768	GLN
1	A	2834	GLN
1	A	3105	ASN
1	A	3122	HIS
1	A	3139	GLN
1	A	3515	GLN
1	A	3602	ASN
1	A	3743	HIS
1	A	3915	HIS

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Mol	Chain	Res	Type
1	A	3924	HIS
1	A	4000	ASN
1	A	4042	GLN
2	B	95	ASN
2	B	176	HIS
2	B	489	ASN
3	C	22	ASN
3	C	43	GLN
3	C	152	HIS
3	C	201	GLN
3	C	330	GLN
3	C	352	GLN
3	C	496	HIS
3	C	604	GLN
3	C	614	ASN
4	D	187	ASN
5	G	148	ASN
6	I	753	HIS
6	I	772	ASN
6	I	783	ASN
6	I	848	HIS
6	I	904	GLN
3	L	80	HIS
3	L	188	HIS
5	P	21	GLN
5	P	100	ASN
5	Q	156	ASN
1	S	136	GLN
1	S	415	GLN
1	S	437	HIS
1	S	676	ASN
1	S	753	GLN
1	S	990	GLN
1	S	1385	ASN
1	S	1401	ASN
1	S	1442	GLN
1	S	1654	GLN
1	S	1738	ASN
1	S	1754	GLN
1	S	2152	ASN
1	S	2213	ASN
1	S	2234	ASN

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Mol	Chain	Res	Type
1	S	2275	GLN
1	S	2390	HIS
1	S	2587	GLN
1	S	2777	HIS
1	S	2841	ASN
1	S	2865	HIS
1	S	2951	GLN
1	S	3037	GLN
1	S	3054	GLN
1	S	3104	GLN
1	S	3113	ASN
1	S	3122	HIS
1	S	3130	GLN
1	S	3166	ASN
1	S	3569	GLN
1	S	3664	ASN
1	S	3762	GLN
1	S	3915	HIS
1	S	3966	GLN
1	S	3969	ASN
2	T	152	ASN
2	T	484	GLN

5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates [i](#)

There are no oligosaccharides in this entry.

5.6 Ligand geometry [i](#)

There are no ligands in this entry.

5.7 Other polymers [i](#)

There are no such residues in this entry.

5.8 Polymer linkage issues [i](#)

There are no chain breaks in this entry.

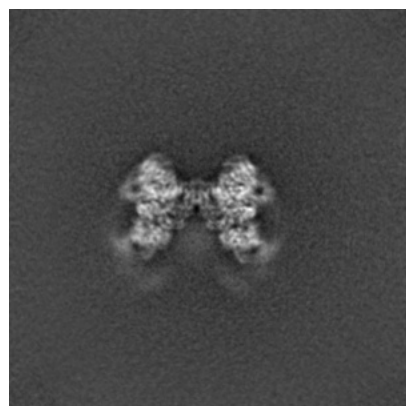
6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-16044. These allow visual inspection of the internal detail of the map and identification of artifacts.

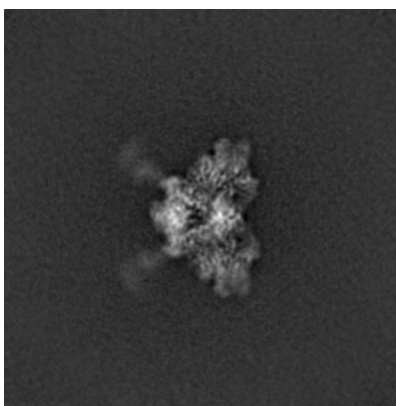
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

6.1 Orthogonal projections [i](#)

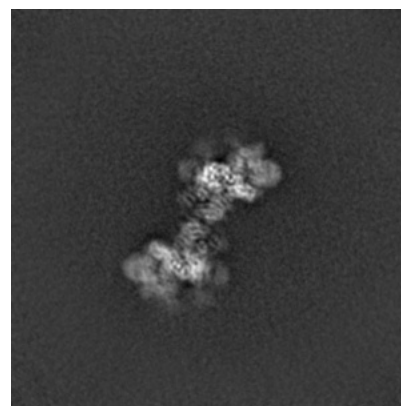
6.1.1 Primary map



X

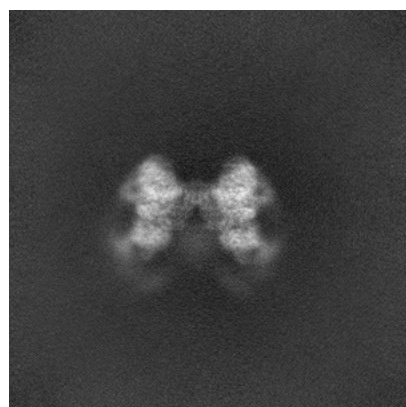


Y

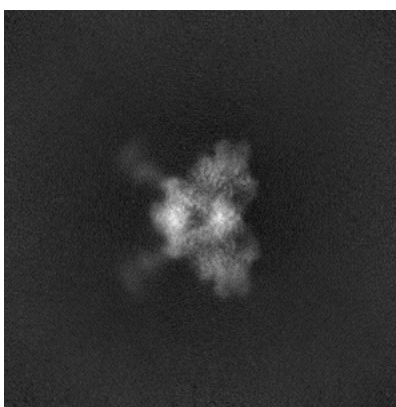


Z

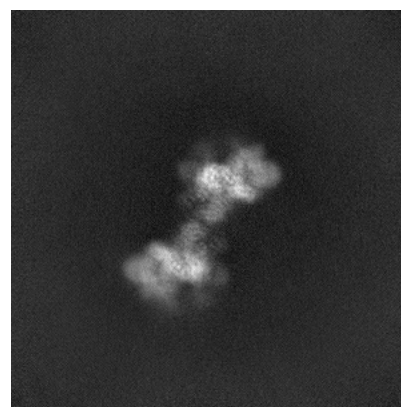
6.1.2 Raw map



X



Y

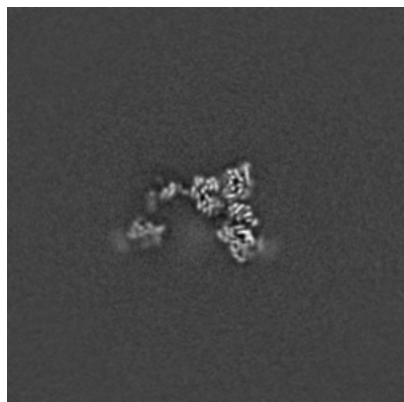


Z

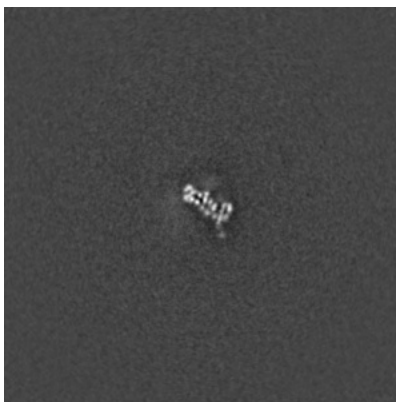
The images above show the map projected in three orthogonal directions.

6.2 Central slices [i](#)

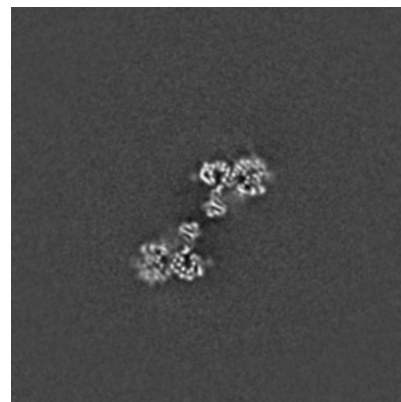
6.2.1 Primary map



X Index: 270



Y Index: 270



Z Index: 270

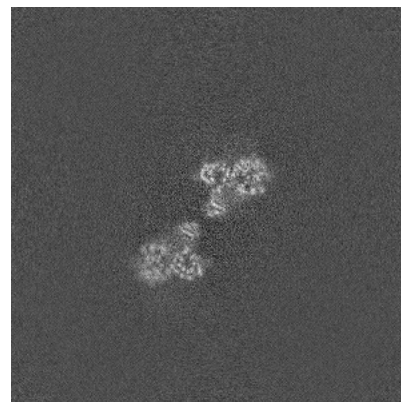
6.2.2 Raw map



X Index: 270



Y Index: 270



Z Index: 270

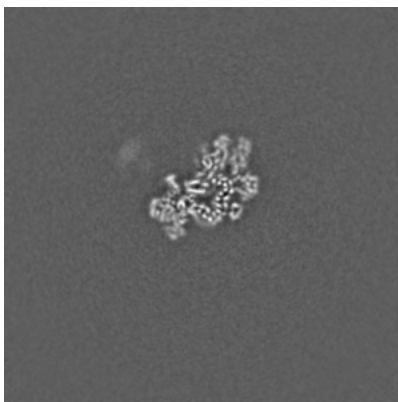
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices [i](#)

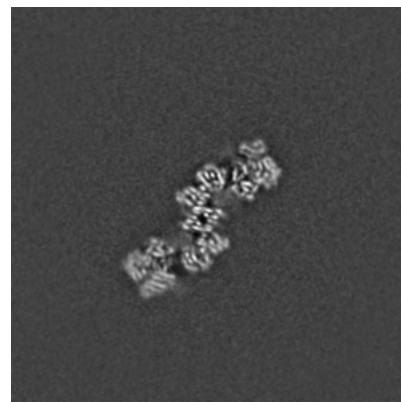
6.3.1 Primary map



X Index: 263

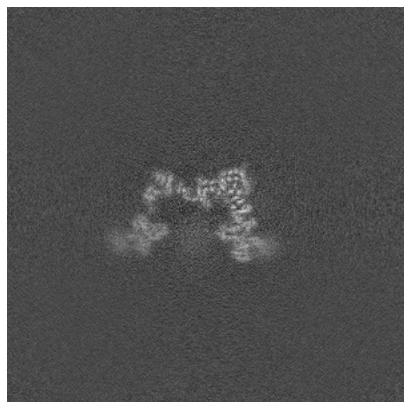


Y Index: 312

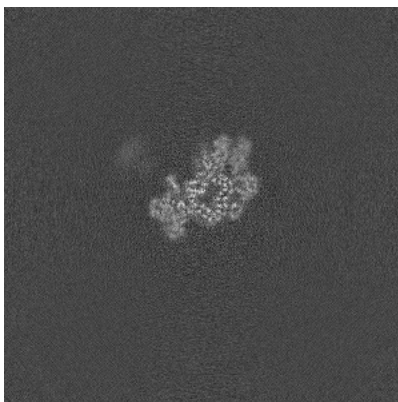


Z Index: 289

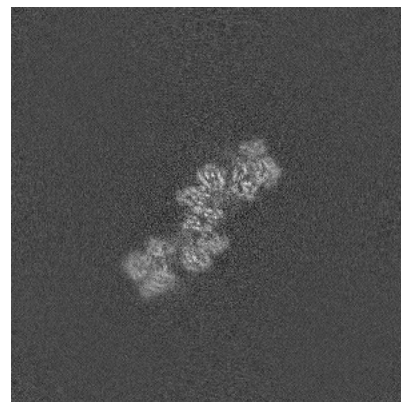
6.3.2 Raw map



X Index: 263



Y Index: 313

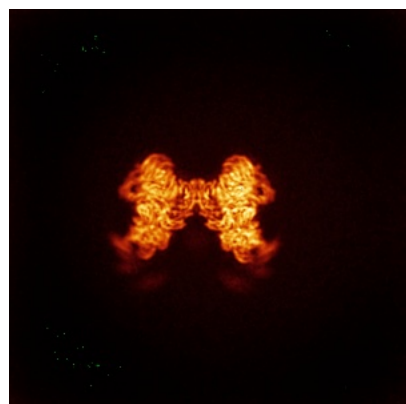


Z Index: 289

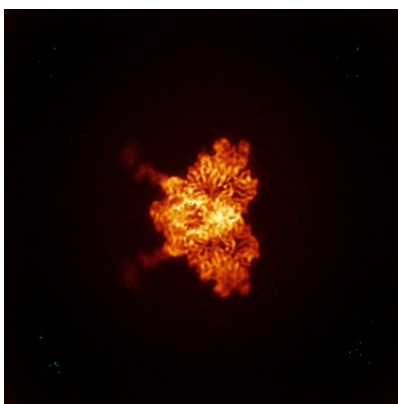
The images above show the largest variance slices of the map in three orthogonal directions.

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

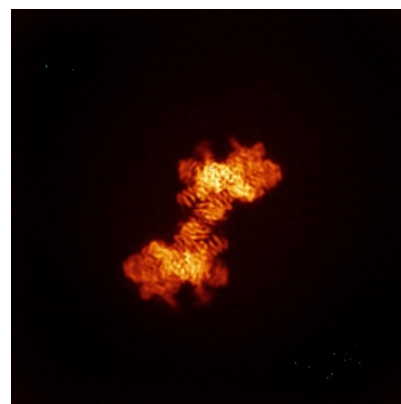
6.4.1 Primary map



X

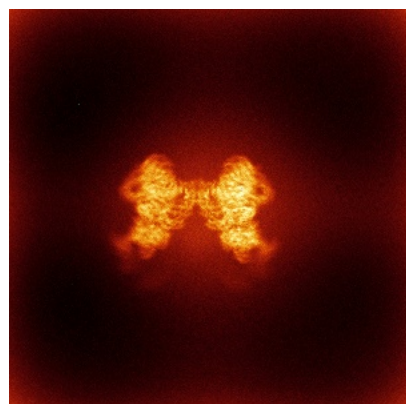


Y

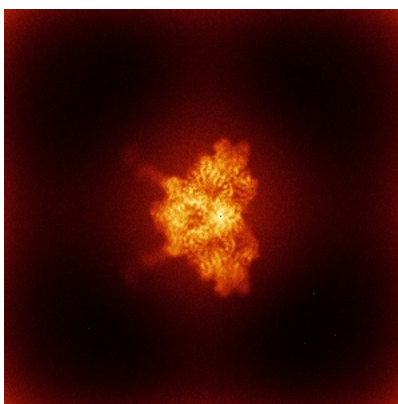


Z

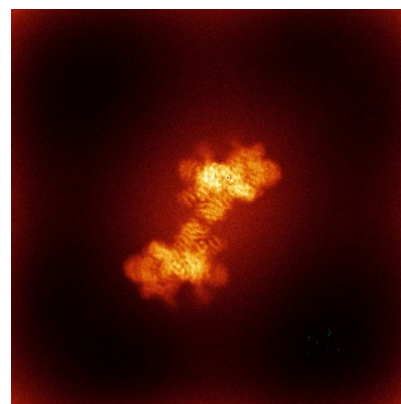
6.4.2 Raw map



X



Y

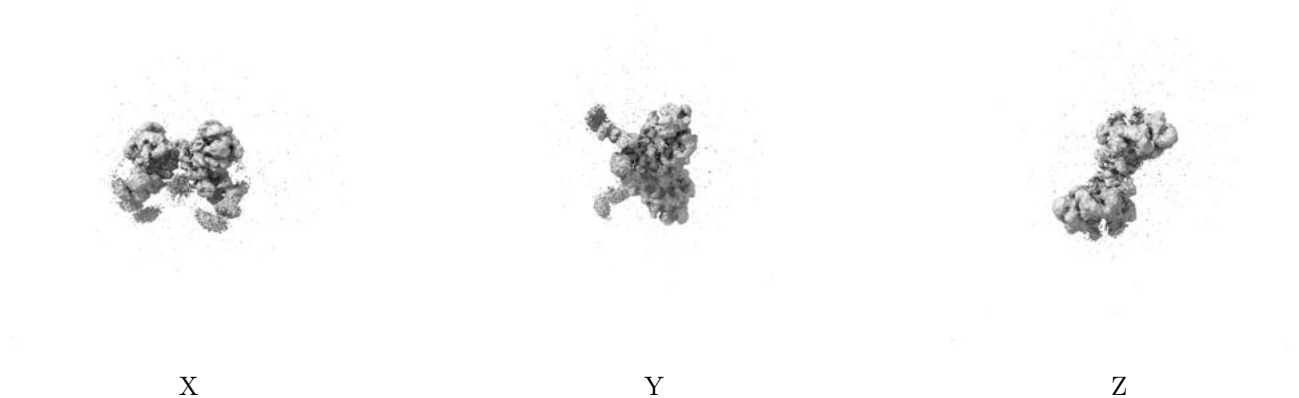


Z

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.

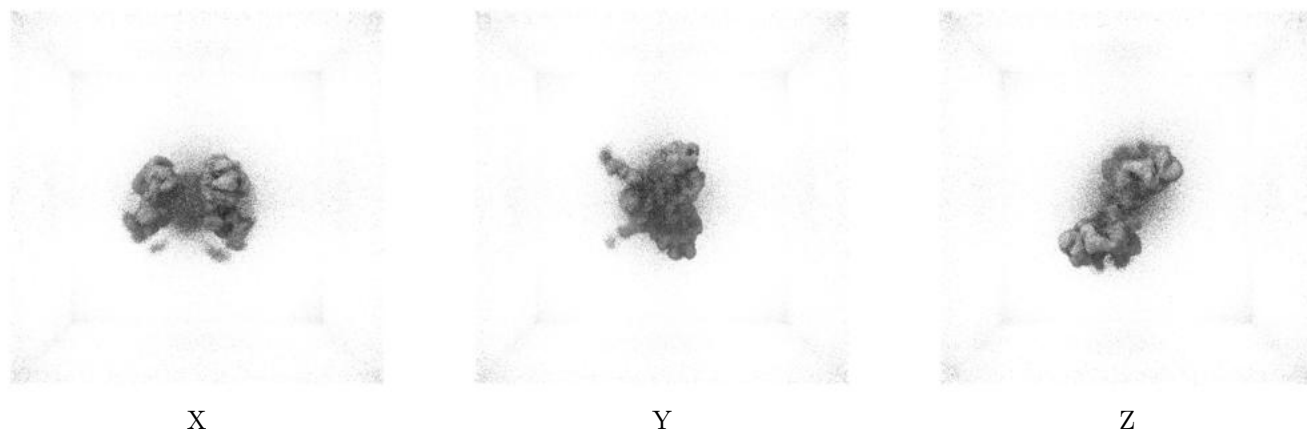
6.5 Orthogonal surface views [i](#)

6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.061. 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.

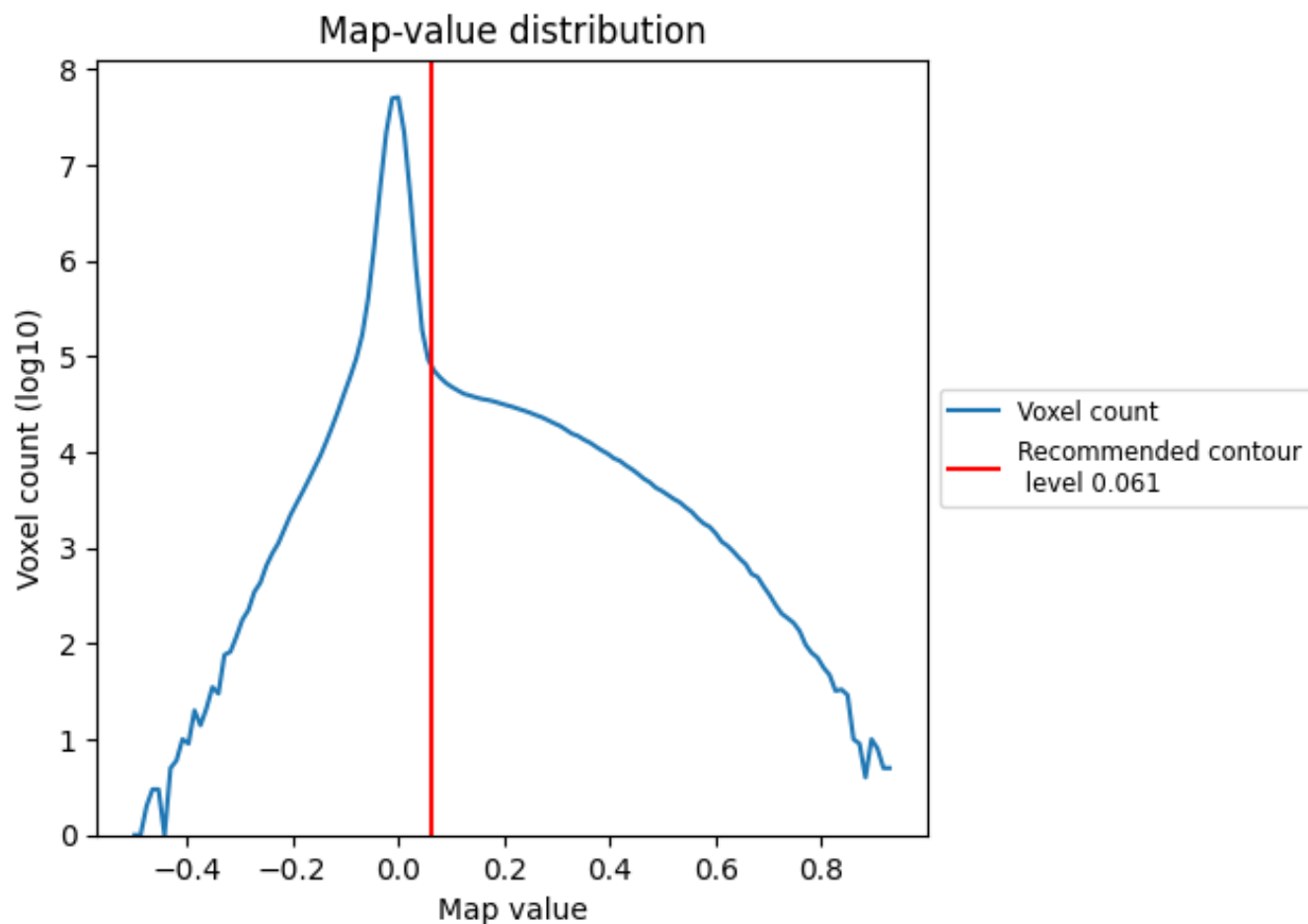
6.6 Mask visualisation [i](#)

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

7 Map analysis [i](#)

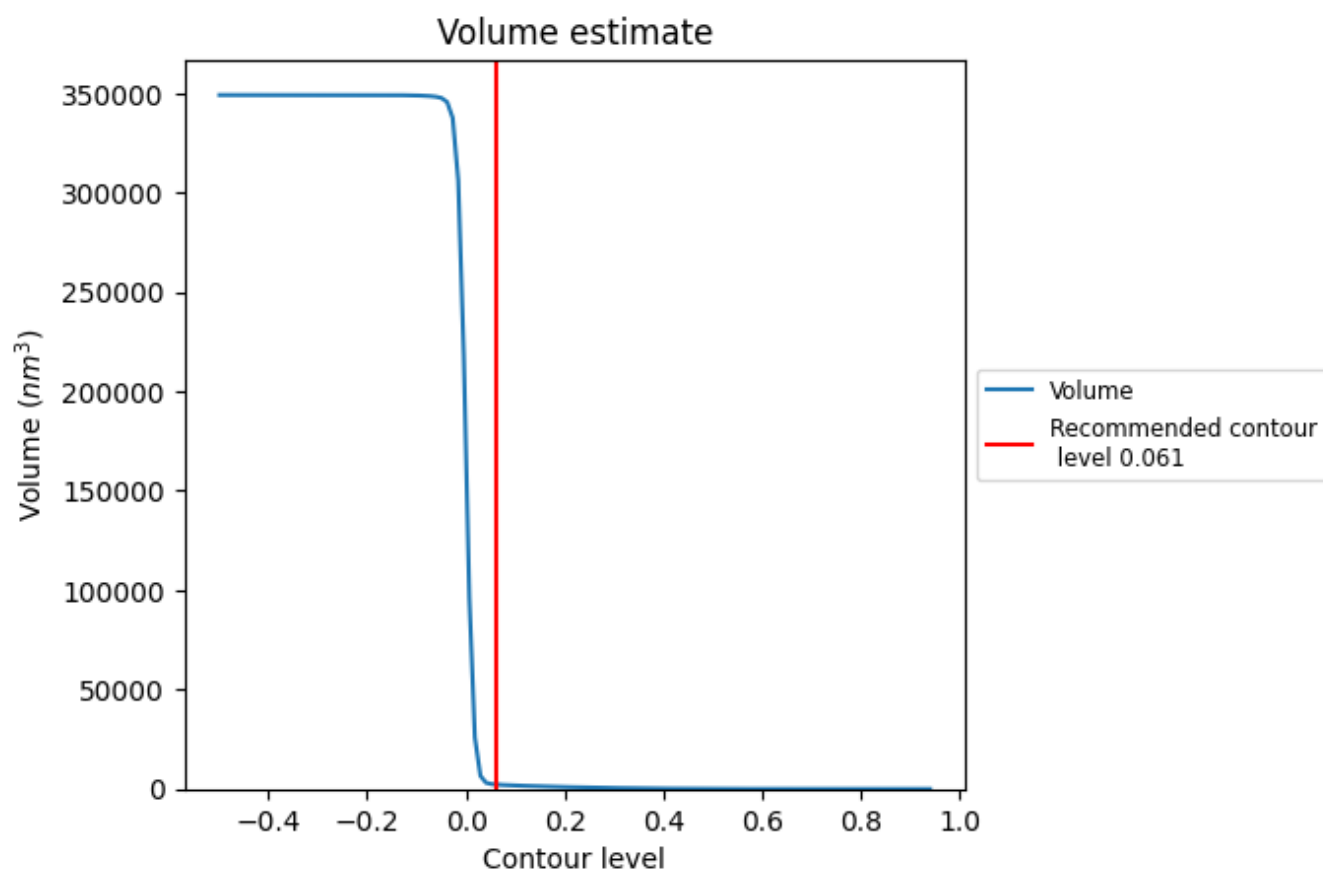
This section contains the results of statistical analysis of the map.

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.

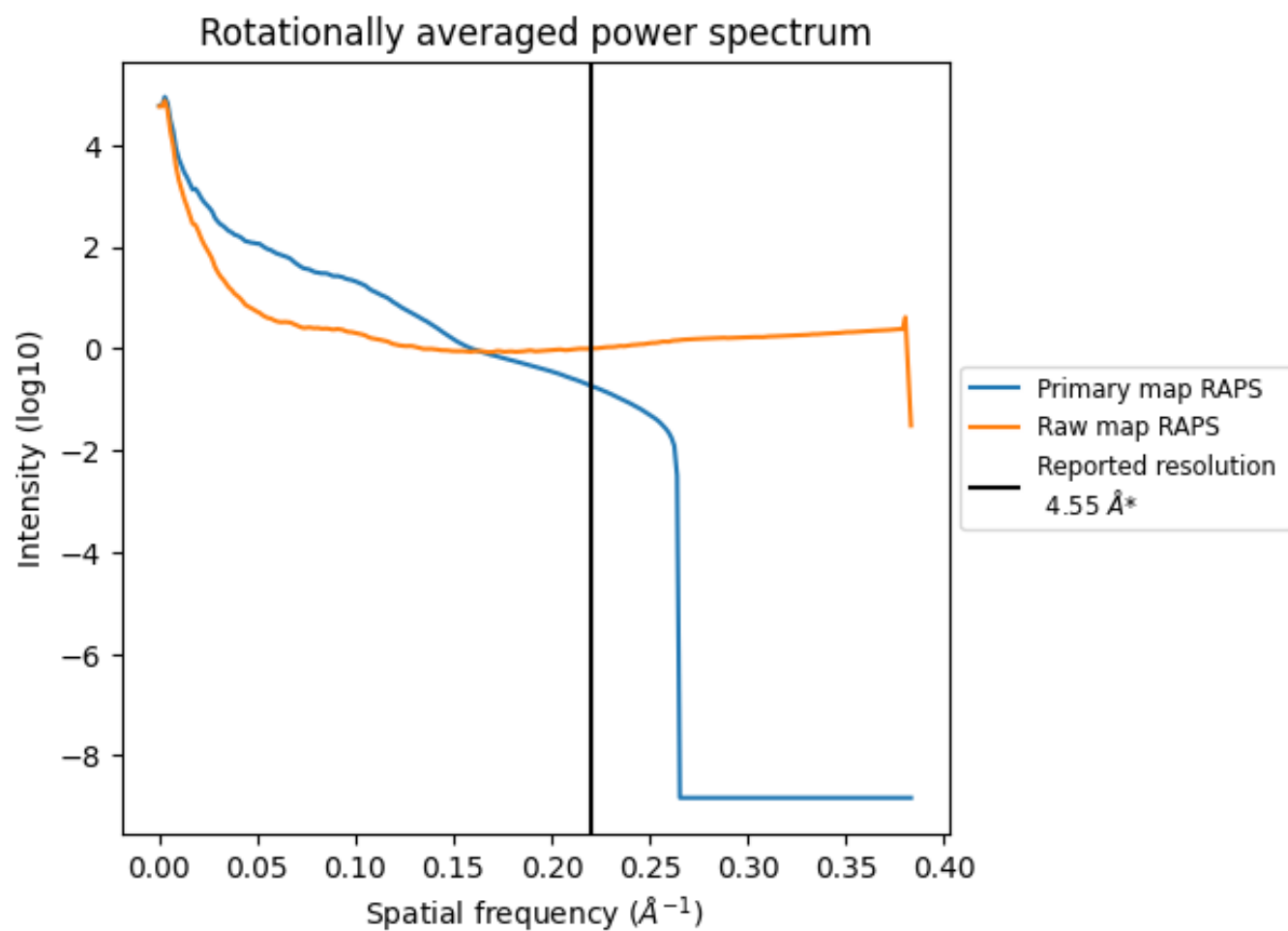
7.2 Volume estimate [i](#)



The volume at the recommended contour level is 2251 nm^3 ; this corresponds to an approximate mass of 2033 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 ⓘ

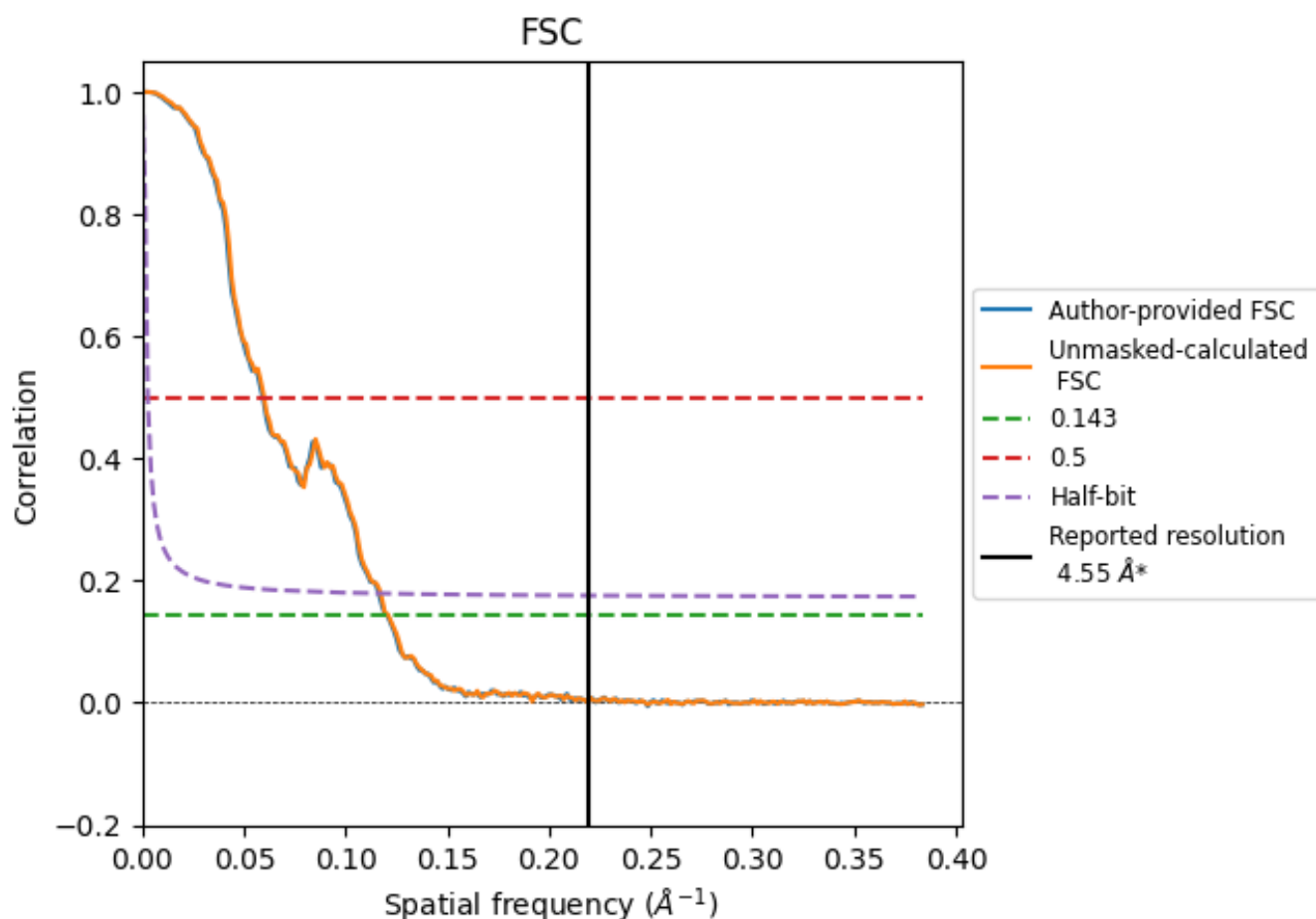


*Reported resolution corresponds to spatial frequency of 0.220 Å⁻¹

8 Fourier-Shell correlation [i](#)

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

8.1 FSC [i](#)



*Reported resolution corresponds to spatial frequency of 0.220 Å⁻¹

8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.55	-	-
Author-provided FSC curve	8.33	16.86	8.61
Unmasked-calculated*	8.27	16.69	8.54

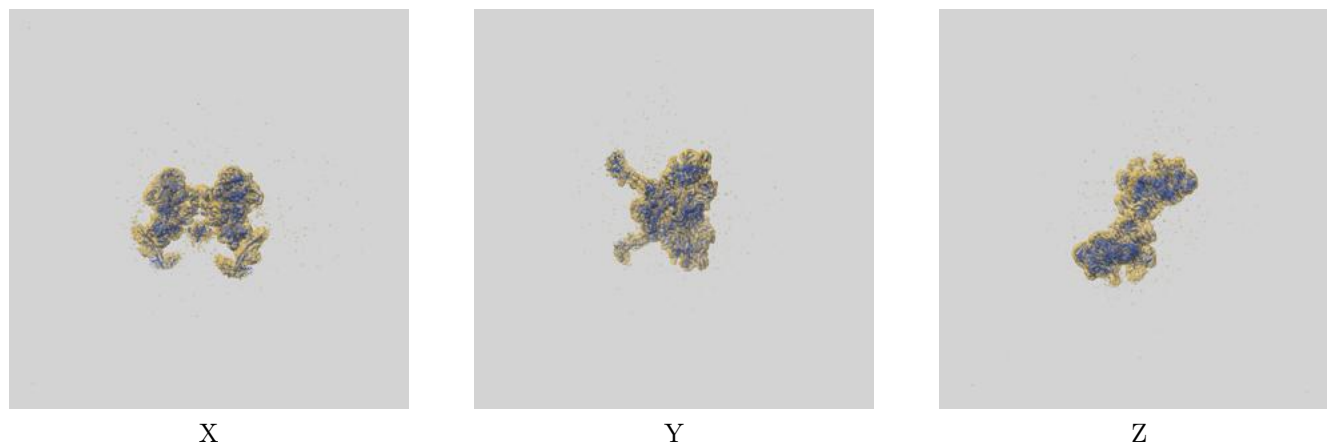
*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 8.33 differs from the reported value 4.55 by more than 10 %

The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 8.27 differs from the reported value 4.55 by more than 10 %

9 Map-model fit [i](#)

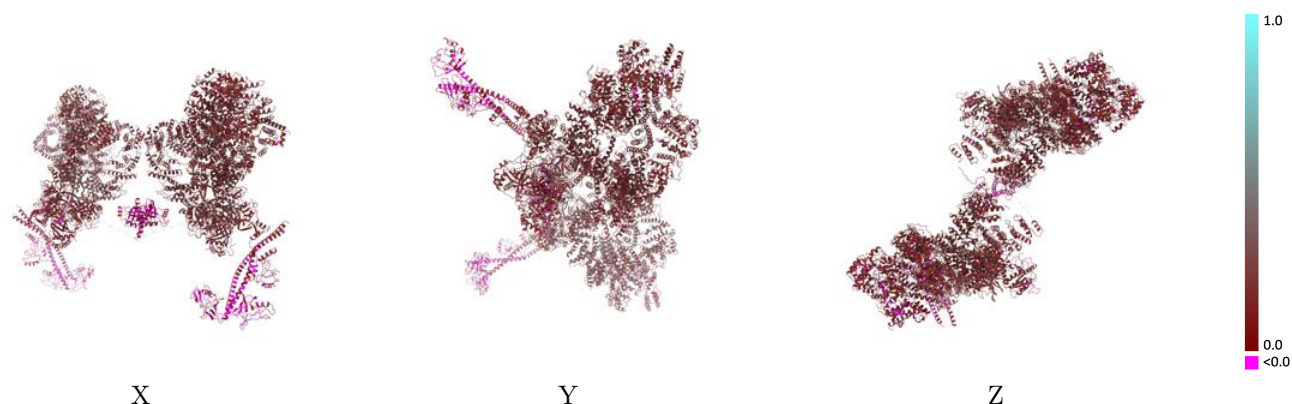
This section contains information regarding the fit between EMDB map EMD-16044 and PDB model 8BH3. Per-residue inclusion information can be found in [section 3](#) on [page 6](#).

9.1 Map-model overlay [i](#)



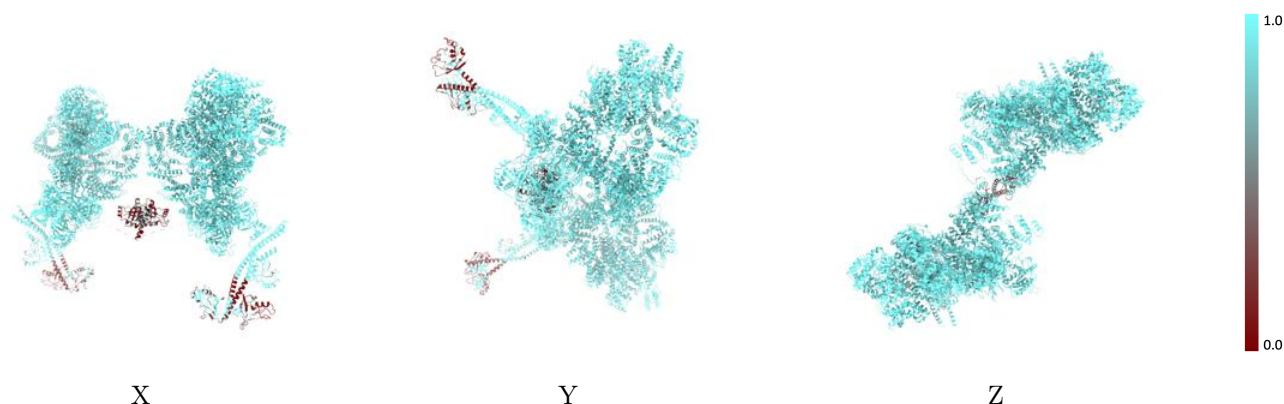
The images above show the 3D surface view of the map at the recommended contour level 0.061 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

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



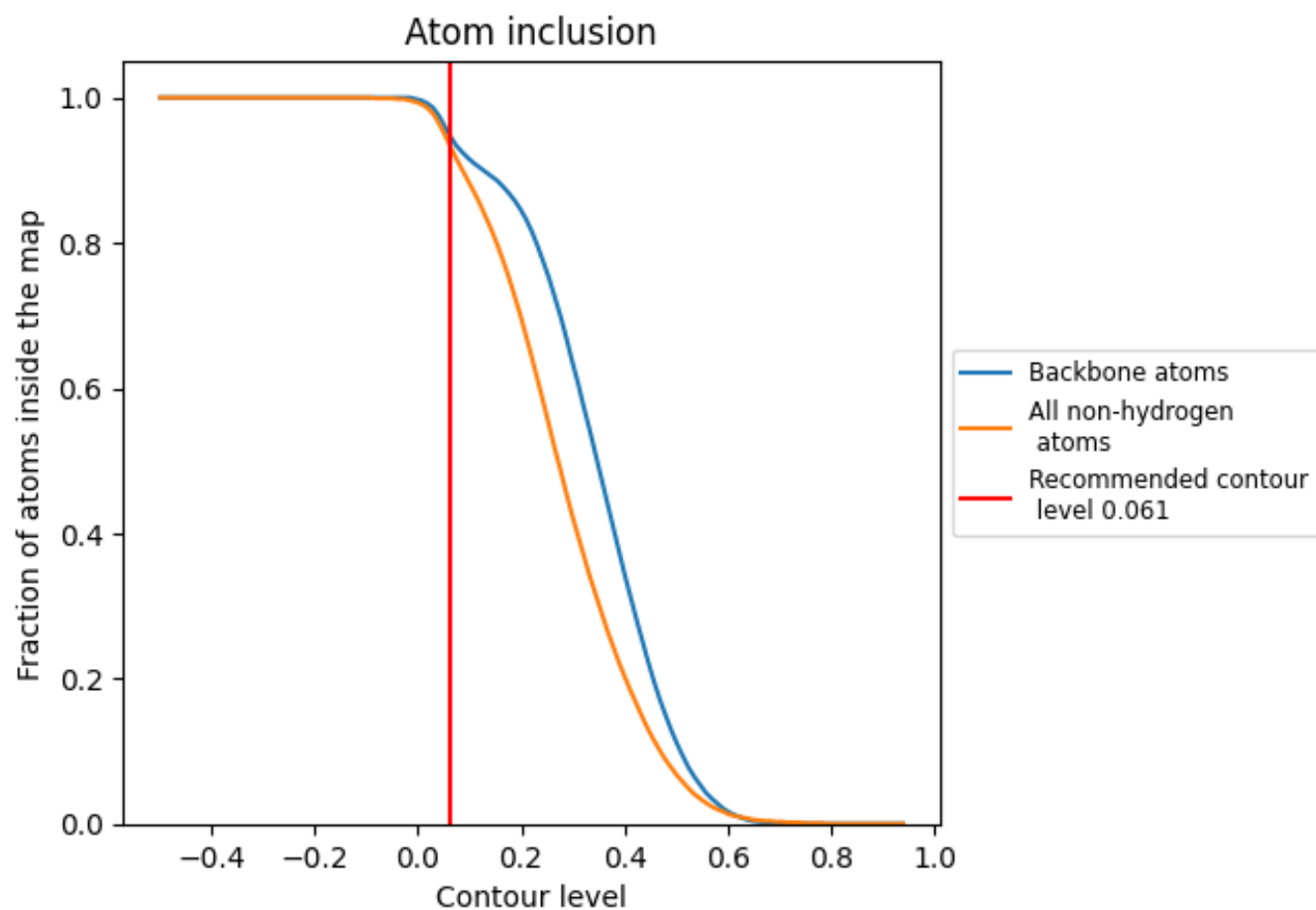
The images above show the model with each residue coloured according to its Q-score. This shows their resolvability in the map with higher Q-score values reflecting better resolvability. Please note: Q-score is calculating the resolvability of atoms, and thus high values are only expected at resolutions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

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



The images above show the model with each residue coloured according to its atom inclusion. This shows to what extent they are inside the map at the recommended contour level (0.061).

9.4 Atom inclusion [i](#)



At the recommended contour level, 95% of all backbone atoms, 94% 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 (0.061) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9360	 0.1850
A	 0.9770	 0.2080
B	 0.9830	 0.2240
C	 0.9910	 0.2020
D	 0.3570	 0.0660
G	 0.6710	 0.0690
H	 0.5320	 0.0630
I	 0.9650	 0.1450
L	 0.9950	 0.1760
M	 0.3810	 0.0790
P	 0.5560	 0.0560
Q	 0.5170	 0.0730
R	 0.9550	 0.1280
S	 0.9800	 0.1910
T	 0.9870	 0.1920
d	 0.9920	 0.2600
e	 0.9970	 0.2720
i	 1.0000	 0.2550
j	 0.9900	 0.2460

