



## Full wwPDB EM Validation Report ⓘ

Dec 17, 2022 – 06:45 pm GMT

PDB ID : 6ZHE  
EMDB ID : EMD-11219  
Title : Cryo-EM structure of DNA-PK dimer  
Authors : Chaplin, A.K.; Hardwick, S.W.; Chirgadze, D.Y.; Blundell, T.L.  
Deposited on : 2020-06-23  
Resolution : 7.24 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](mailto: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>.

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

EMDB validation analysis : 0.0.1.dev43  
MolProbity : 4.02b-467  
Percentile statistics : 20191225.v01 (using entries in the PDB archive December 25th 2019)  
MapQ : 1.9.9  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.31.3

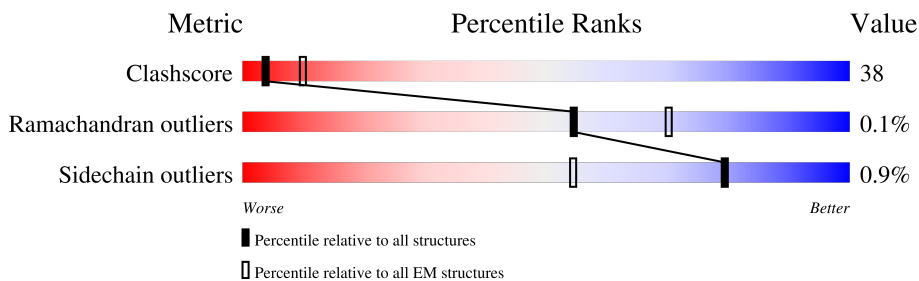
# 1 Overall quality at a glance i

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 7.24 Å.

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



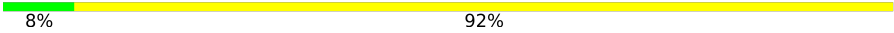

Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	158937	4297
Ramachandran outliers	154571	4023
Sidechain outliers	154315	3826

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

Mol	Chain	Length	Quality of chain
1	A	4156	35% (green), 55% (yellow), 9% (grey)
1	F	4156	35% (green), 55% (yellow), 10% (grey)
2	B	609	31% (green), 49% (yellow), 20% (grey)
2	G	609	35% (green), 44% (yellow), 20% (grey)
3	C	732	44% (green), 52% (yellow), 4% (grey)
3	H	732	44% (green), 52% (yellow), 4% (grey)
4	J	25	20% (green), 80% (yellow)
5	I	27	26% (green), 74% (yellow)

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Mol	Chain	Length	Quality of chain
6	D	26	 8% 92%
7	E	28	 18% 82%

## 2 Entry composition [i](#)

There are 7 unique types of molecules in this entry. The entry contains 78785 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,DNA-PKcs.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	3768	Total	C	N	O	S	0	0
			29018	18632	4914	5293	179		
1	F	3731	Total	C	N	O	S	0	0
			29012	18636	4896	5295	185		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	489	Total	C	N	O	S	0	0
			3789	2430	640	704	15		
2	G	489	Total	C	N	O	S	0	0
			3797	2434	640	708	15		

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

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
3	C	705	Total	C	N	O	S	0	0
			5490	3502	927	1037	24		
3	H	700	Total	C	N	O	S	0	0
			5517	3522	929	1041	25		

- Molecule 4 is a DNA chain called DNA (25-MER).

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

- Molecule 5 is a DNA chain called DNA (27-MER).

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

- Molecule 6 is a DNA chain called DNA (26-MER).

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

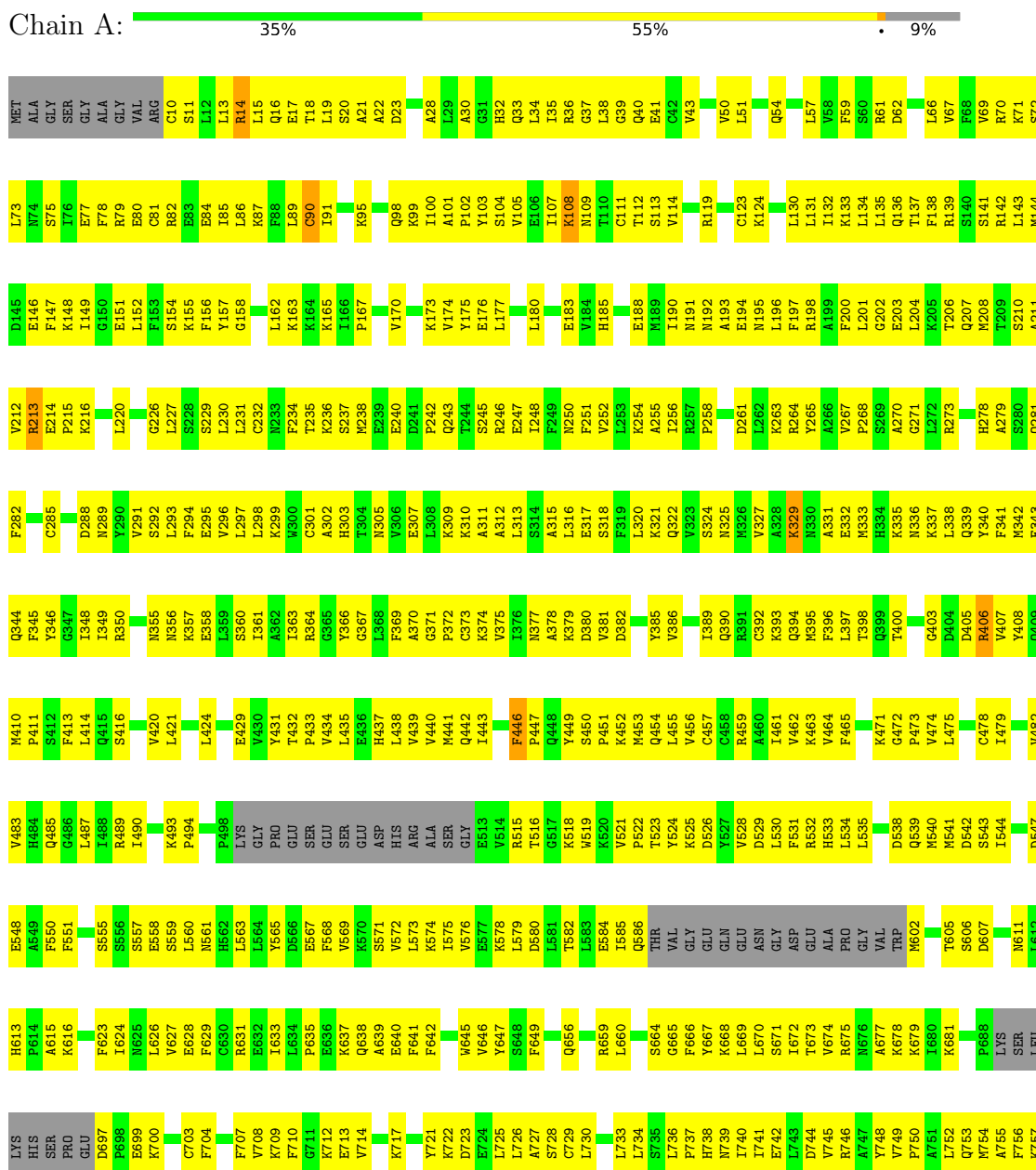
- Molecule 7 is a DNA chain called DNA (28-MER).

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

### 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,DNA-PKcs



L758	L760	L762	L767	L768	L770	L773	L776	L780	L781	L782	L783	L784	L785	L786	L787	L788	L789	L790	L793	L797	L798	L799	L800	L801	L804	LEU	SER	ASP	GLU	THR	LYS	ASN	ASN	TRP	E314	A817	R820	A821	Q823	F826	K828	B829	V830	L831																		
K832	H833	L834	K835	L836	L837	L838	A845	L848	E849	P912	E850	E851	R852	L853	R854	V855	V856	V857	M858	G860	Q862	L862	Q865	L866	N867	K868	N869	L870	L871	L872	S875	S876	D877	E878	M879	M880	PRO	K881	THR	GLU	S882	Y883	V884	A885	V886	D887	R888	E889	K890	R891	L892	L893	F894	A895	F898	R899	E900	M901				
K902	P903	V904	F905	L906	L907	D908	F909	F910	P911	P912	T915	A921	S922	D923	R924	V856	Q925	T926	A928	V929	A930	C931	E832	L933	L934	H935	V938	F1001	F940	M941	G943	K944	Q947	MET	PRO	GLU	GLY	GLY	GLN	GLY	P956	P957	K958	Y959	Q960	L961	Y962	K963	R964	T965	F966	P967	V968									
L969	L970	L971	L972	C974	D975	A976	D977	Q1043	T1045	Y979	T980	L983	Y984	L987	V988	K989	Q990	L991	H992	A928	V929	A930	E832	L933	L934	H935	V938	F1001	F940	M941	G943	K944	Q947	MET	PRO	GLU	GLY	GLY	GLN	GLY	P956	P957	K958	Y959	Q960	L961	Y962	K963	R964	T965	F966	P967	V968									
F1035	F1036	K1037	K1038	W1039	S1040	L1041	K1042	Q1043	T1045	Y979	T980	L983	Y984	L987	V988	K989	Q990	L991	H992	A928	V929	A930	E832	L933	L934	H935	V938	F1001	F940	M941	G943	K944	Q947	MET	PRO	GLU	GLY	GLY	GLN	GLY	P956	P957	K958	Y959	Q960	L961	Y962	K963	R964	T965	F966	P967	V968									
V1100	F1101	A1102	A1103	Q1104	V1105	L1106	Y1107	M1108	E1109	T1110	A1111	L1112	L1113	A1114	H1115	I1124	Q1125	Q1126	C1127	A1130	I1131	D1132	H1133	L1134	C1135	R1136	I1137	I1138	E1139	L1140	K1141	H1142	V1143	S1144	L1145	N1146	K1147	A1148	K1149	K1150	L1153	P1154	R1155	G1156	F1157	S1162	L1163	C1164	L1165	L1166	V1169	K1170	C1176									
G1177	R1178	P1179	Q1180	T1181	E1182	C1183	H1184	H1185	S1186	S1187	E1188	L1189	L1190	F1191	V1192	H1193	F1194	V1195	F1196	L1197	R1202	S1203	P1204	M1205	L1206	M1207	L1208	D1210	I1211	K1212	K1213	E1214	E1215	G1216	F1219	L1220	A1148	K1149	K1150	L1153	P1154	R1155	G1156	F1157	S1162	L1163	C1164	L1165	L1166	V1169	K1170	C1176										
L1257	D1258	L1259	Y1267	M1268	I1271	R1274	L1275	G1277	A1278	L1282	G1283	S1288	S1289	L1290	L1291	V1294	F1296	F1297	S1300	I1301	A1302	H1303	H1304	K1311	C1312	F1313	G1314	THR	GLY	ALA	ALA	G1319	T1322	S1323	P1324	Q1325	E1326	G1327	E1328	R1329	Y1330	M1331	L1241	L1242	L1243	L1244	K1334	C1335	T1336	V1337												
V1338	V1339	R1340	I1341	E1342	L1343	F1344	T1345	T1346	L1347	L1348	P1353	E1354	G1355	W1356	K1357	L1358	L1359	K1360	K1361	C1364	N1365	T1366	H1367	L1368	M1369	R1370	V1371	L1372	T1375	L1376	C1377	E1378	S1381	L1382	G1383	M1466	M1467	L1468	Q1471	L1483	L1484	H1485	M1486	M1487	L1475	H1476	V1479	L1483	L1484	H1485	M1486	M1487	L1468	Q1471	L1483	L1484	H1485	M1486	M1487	L1475	H1476	V1479
R1497	Q1498	C1499	D1504	L1505	S1506	C1507	K1508	L1509	L1510	A1511	S1512	G1513	L1514	W1515	K1516	S1517	L1518	F1519	A1520	F1521	L1524	C1525	E1526	R1527	G1599	M1600	L1601	D1602	Q1603	R1606	E1607	L1616	K1617	L1618	T1622	L1623	Q1624	H1625	V1626	K1627	V1658	I1651	H1652	D1630	S1654	H1655	Y1658	F1659	V1660	S1661	L1639	E1640	T1664	K1642	V1645							
I1567	M1568	T1569	E1570	K1573	D1576	L1577	A1578	V1579	L1580	E1581	L1582	M1583	Q1584	H1585	N1589	L1590	F1591	M1592	V1593	V1596	L1597	M1598	F1674	Y1675	G1676	A1677	L1678	Q1679	A1680	D1681	T1682	L1684	K1617	L1618	T1622	L1623	Q1624	H1625	V1626	K1627	V1658	I1651	H1652	D1630	S1654	H1655	Y1658	F1659	V1660	S1661	L1639	E1640	T1664	K1642	V1645							
L1646	I1647	A1650	K1651	L1652	Q1654	L1655	D1656	E1657	L1658	F1661	M1662	T1663	S1664	H1665	N1666	S1667	F1668	P1669	E1670	V1671	F1672	T1673	T1674	Y1675	G1676	A1677	L1678	Q1679	A1680	D1681	T1682	L1684	K1617	L1618	T1622	L1623	Q1624	H1625	V1626	K1627	V1658	I1651	H1652	D1630	S1654	H1655	Y1658	F1659	V1660	S1661	L1639	E1640	T1664	K1642	V1645							
I1718	V1719	F1722	P1723	M1724	Q1725	S1726	R1727	E1728	F1729	T1733	P1734	R1735	F1736	N1737	N1738	D1741	K1745	F1746	L1747	D1748	A1749	L1750	E1751	L1752	S1753	Q1754	S1755	P1756	L1759	M1762	T1763	V1765	L1766	L1767	Q1691	C1768	E1769	H1772	E1775	L1776	L1777	F1778	Q1779	S1780	L1851	K1852	S1853	L1854	F1855	L1785												
R1788	G1789	S1790	C1791	Q1794	V1795	E1799	S1800	R1801	Y1802	E1803	M1804	F1805	R1806	R1811	F1814	Q1817	S1818	F1819	V1820	D1821	R1822	S1823	L1824	L1825	T1826	L1827	L1828	H1829	H1830	C1831	D1834	A1835	L1836	R1837	E1838	F1839	F1840	I1843	V1844	D1846	A1847	L1848	D1849	R1850	L1851	K1852	S1853	L1854	F1855	L1785												

F2854	K2786	LEU	PRO	PHE	H2527	R2456	F2389	I2326	F2260	F2128	F1923	M1859
V2855	H2787	ARG	LEU	VAL	E2528	F2457	H2390	L2327	S2261	L2129	T1924	E1860
S2856	G2788	LEU	VAL	GLU	R2529	V2458	G2391	G2262	G2262	H2130	T1924	S1861
C2857	S2789	ARG	ASP	THR	R2530	V2459	V2392	Y2328	K2263	G2131	M1927	T1862
I2858	L2790	ARG	HIS	GLN	L2531	E2460	L2393	D2264	D2264	K2132	A1928	F1863
Q2859	I2791	ARG	THR	ALA	M2331	P2265	K2394	M2331	P2265	L2133	L1931	Q1866
N2860	T2792	PHE	SER	SER	N2395	H2464	T2395	E2332	M2266	G2134	M1931	I1867
L2861	P2793	MET	PRO	GLN	F2466	F2466	L2396	R2333	S2267	N2135	Q1932	I1867
S2862	L2794	ARG	SER	GLY	S2466	T2467	C2397	P2206	P2206	L2136	L1933	I1870
Q2863	Q2795	ASP	SER	THR	T2468	T2468	L2398	K2207	K2207	L2137	L1933	M1870
C2864	Q2796	GLN	ASP	THR	L2539	L2468	E2399	N2270	N2270	L2138	L1934	M1871
H2865	V2797	GLY	SER	GLN	C2469	C2469	L2337	E2209	E2209	L2139	R1936	G1872
A2798	A2798	LEU	LEU	THR	R2470	R2470	V2401	V2271	V2271	GLU	R1937	G1872
Q2799	Q2799	LEU	LEU	ARG	E2471	E2471	L2402	G2273	G2273	ALA	R1938	Y1874
L2868	R2800	SER	PHE	THR	Q2472	Q2472	C2403	I2274	I2274	ARG	L1939	R1875
L2869	D2801	LEU	ALA	GLN	M2473	M2473	R2404	N2213	N2213	GLU	Y1940	R1876
P2873	P2802	MET	HIS	GLU	Y2474	Y2474	L2405	L2276	L2276	ALA	L1877	L1877
L2804	L2804	GLY	GLY	GLY	N2475	N2475	E2406	L2215	L2215	ALA	C1942	L1878
A2805	A2805	ARG	ARG	SER	E2551	I2476	E2406	L2216	L2216	ASN	A1943	V1879
C2880	K2806	LYS	SER	LEU	M2479	M2479	L2411	L2219	L2219	ASP	M1946	S1882
L2881	Q2807	GLY	GLU	ALA	I2480	I2480	Y2412	M2220	M2220	ASP	C1947	R1883
A2882	L2808	VAL	LEU	ARG	H2481	H2481	Q2414	K2221	K2221	VAL	A1948	L1884
S2883	F2809	ALA	GLM	TRP	D2482	D2482	L2415	H2222	H2222	GLY	I1949	P1885
L2884	S2810	GLU	ARG	PRO	N2559	N2559	Q2351	P2286	P2286	LEU	C1954	K1886
Q2885	S2811	GLN	ALA	VAL	F2561	F2561	Q2352	P2287	P2287	LEU	D1887	D1887
Q2886	L2812	LYS	PRO	ALA	R2485	R2485	Q2353	Q2291	Q2291	SER	V1955	D1888
F2887	F2813	ARG	LEU	GLY	D2486	D2486	M2356	H2225	H2225	GLU	F1956	V1889
L2817	L2817	GLY	LYS	ILE	E2564	E2564	Q2422	P2226	P2226	MET	N1957	H1890
K2818	K2818	LEU	LYS	GLN	R2494	R2494	M2424	R2228	R2228	SER	E1958	A1891
E2819	E2819	ILE	GLY	ALA	E2497	E2497	H2426	A2299	A2299	LEU	L1959	K1892
N2820	N2820	SER	PRO	GLN	I2498	I2498	R2427	V2230	V2230	SER	F1961	E1893
E2894	E2894	ASP	PHE	GLN	F2499	F2499	D2428	F2231	F2231	LEU	P1971	S1894
L2826	L2826	LEU	GLY	GLN	K2500	K2500	D2429	H2233	H2233	ALA	E1972	K1896
S2827	S2827	MET	LYS	HIS	K2503	K2503	E2430	H2233	H2233	ASP	K1973	M1897
E2828	E2828	LYS	LYS	ASP	D2504	D2504	R2431	Q2301	Q2301	SER	E1972	Q1898
N2830	N2830	GLY	LEU	THR	V2505	V2505	Q2432	L2303	L2303	THR	M1974	F1899
L2831	L2831	GLN	LEU	THR	L2506	L2506	K2433	L2304	L2304	LEU	L1976	F1900
L2832	L2832	ASP	GLY	THR	L2507	L2507	C2435	M2305	M2305	SER	L1976	H1901
K2835	K2835	ASP	ASP	ALA	I2511	I2511	I2439	R2310	R2310	LEU	L1976	G1902
L2836	L2836	GLU	GLU	ASP	D2512	D2512	Y2440	R2311	R2311	GLU	I1977	S1903
L2837	L2837	VAL	VAL	GLY	E2513	E2513	K2441	Y2312	Y2312	GLU	F1978	F1903
Q2838	Q2838	ASP	ASP	ARG	N2514	N2514	D2376	K2313	K2313	GLU	E1979	C1904
D2839	D2839	ASN	ASN	SER	P2515	P2515	R2377	E2314	E2314	MET	M1980	I1905
F2840	F2840	LYS	LYS	SER	G2516	G2516	F2378	V2315	V2315	SER	L1981	T1906
M2841	M2841	VAL	VAL	PHE	L2517	L2517	M2379	V2316	V2316	THR	R1986	E1907
R2842	R2842	LYS	LYS	ASP	Q2518	Q2518	M2380	A2317	A2317	GLY	ARG	G1908
F2843	F2843	GLY	TRP	TRP	L2519	L2519	A2381	E2188	E2188	VAL	TYR	K1913
L2844	L2844	ALA	LEU	LEU	I2520	I2520	V2382	E2189	E2189	GLN	ASN	T1914
N2845	N2845	ALA	ALA	THR	T2521	T2521	F2384	R2254	R2254	SER	PHE	L1915
F2850	F2850	ARG	ARG	GLY	R2522	R2522	L2451	V2190	V2190	THR	VAL	L1915
F2851	F2851	THR	THR	SER	N2523	N2523	R2452	L2255	L2255	VAL	VAL	K1917
L2852	L2852	THR	THR	SER	F2524	F2524	E2453	I2256	I2256	GLU	GLU	L1918
L2785	L2785	LEU	LEU	ASP	W2526	W2526	L2455	F2257	F2257	VAL	SER	D1921
								K2259	K2259	GLN	PRO	A1922



A3931	V3852	T3790	A3720	K3558	Q3494	L3416	L3348	K3267	L3135	I3065	D2992
M3952	G3860	Y3791	G3721	K3559	F3495	A3417	A3349	T3268	T3136	D3066	W2923
E3933	A3854	S3792	F3722	S3560	I3496	D3418	E3350	R3269	E3137	K3067	W2924
T3934	Y3855	D3723	L3652	K3561	D3419	F3419	L3351	R3270	I3138	A3068	E2995
G3935	M3856	R3653	L3652	D3562	L3499	D3420	E3352	D3271	K3139	M3069	L2996
G3936	M3654	D3563	R3295	D3563	S3500	C3421	R3357	W3272	E3140	H3070	L2997
V3937	K3796	Q3564	V3726	Q3564	H3501	D3421	R3357	L3273	F3141	G3071	K2998
	K3797	G3565	T3727	G3565	M3502	R3425	R3358	V3274	I3142	C3072	L2999
H3944	G3861	S3798	T3728	G3566	L3505	E3429	I3389	S3275	S3143	L3073	D3000
A3945	A3862	R3799	M3729	V3567	L3360	A3429	I3389	W3276	F3144	K3074	Y2930
F3946	N3863	L3800	M3729	V3567	A3511	ALA	E3361	W3277	I3145	K3075	R2931
G3947	E3866	G3802	R3733	F3571	D3507	ALA	E3361	Q3278	K3146	A3076	G2934
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Q3951	T3869	M3805	R3737	A3574	A3513	ASP	E3368	L3283	W3008	W3008	W2938
F3952	S3870	L3806	K3669	L3575	A3514	SER	E3369	R3283	K3009	K3009	L2939
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	R3875	G3811	D3673	D3588	S3517	P3443	I3374	Q3291	K3158	L3086	F2943
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	R3887	L3817	E3682	E3595	N3524	K3452	R3380	L3298	K3165	L3092	
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● Molecule 1: DNA-dependent protein kinase catalytic subunit, DNA-PKcs



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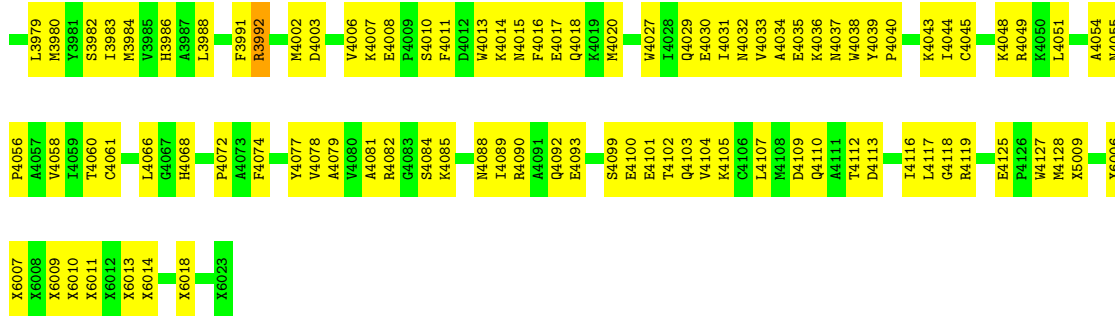
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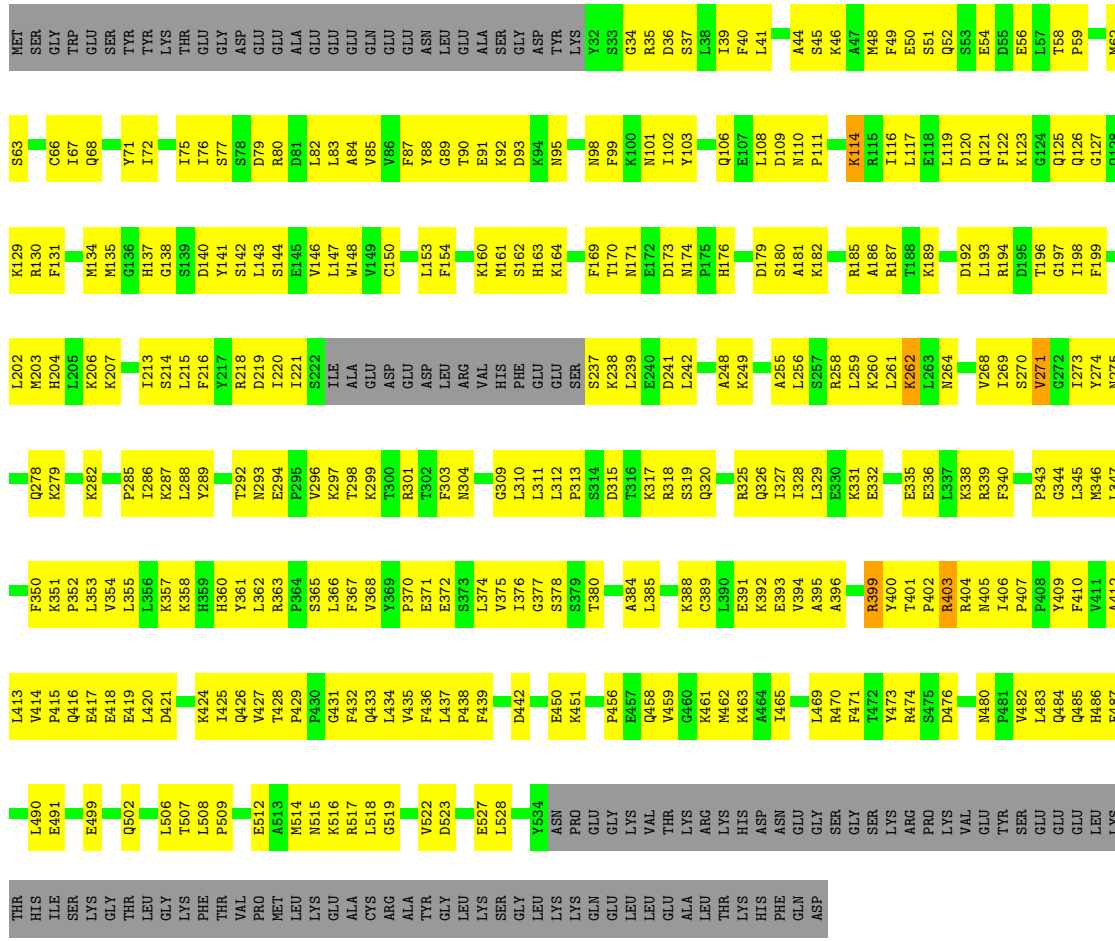
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Q2885	S2885	K2805	F2491	L2854	F2491	H2426	L2360	G2293	VAL	F2157	VAL	VAL	E1946
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P2887	S2887	L2812	N2493	L2856	N2493	D2429	K2366	G2295	GLU	P2158	GLU	PRO	C1947
V2888	S2888	S2814	S2494	L2857	S2494	D2429	V2367	S2297	GLU	Y2160	GLU	PRO	C1947
G2889	S2889	G2815	S2495	L2858	S2495	E2430	K2368	E2298	MET	A2161	MET	MET	V1951
L2890	S2890	L2816	E2497	L2859	E2497	Q2432	T2368	Y2299	SER	K2162	SER	SER	V1951
R2891	S2891	L2817	F2498	L2860	F2498	K2433	R2369	F2300	LEU	H2163	LEU	LEU	F1967
L2892	S2892	E2819	K2500	L2861	K2500	V2434	F2371	F2300	LEU	P2167	LEU	LEU	S1968
E2894	S2894	N2820	D2503	L2862	D2503	L2438	P2372	F2300	TYR	L2168	TYR	TYR	E1969
L2897	S2897	D2821	R2504	L2863	R2504	L2439	L2374	V2304	ALA	Q2170	ALA	ALA	K1970
P2902	S2902	F2823	V2505	L2864	V2505	M2442	A2375	L2303	THR	L2171	THR	THR	K1973
ALA	SER	F2824	L2506	L2865	L2506	M2443	D2376	V2310	THR	N2176	THR	THR	L1976
LEU	LEU	T2825	I2507	L2866	I2507	M2444	R2377	R2310	LEU	N2177	LEU	LEU	L1976
LEU	LEU	T2826	Q2508	L2867	Q2508	M2445	F2378	R2311	GLU	G2178	GLU	GLU	F1977
LEU	LEU	T2827	L2510	L2868	L2510	K2445	M2379	R2312	GLU	G2179	GLU	GLU	F1978
LEU	LEU	K2829	L2511	L2869	L2511	K2446	N2380	K2313	GLU	E2180	GLU	GLU	E1979
PRO	PRO	N2831	L2512	L2870	L2512	L2447	A2381	E2314	MET	H2104	MET	MET	N1980
ALA	ALA	K2835	E2513	L2871	E2513	K2448	V2382	Y2316	SER	H2105	SER	SER	L1981
ARG	ARG	D2839	N2514	L2872	N2514	P2448	F2383	A2317	PHE	R2106	PHE	PHE	D1982
ARG	ARG	D2839	L2517	L2873	L2517	V2449	F2384	A2318	ASP	S2107	ASP	ASP	D1983
ARG	ARG	N2845	Q2518	L2874	Q2518	V2450	F2385	A2319	ASP	E2115	ASP	ASP	K1985
GLY	GLY	F2886	L2521	L2875	L2521	L2451	L2386	A2320	SER	P2119	SER	SER	R1986
ALA	ALA	T2846	R2522	L2876	R2522	E2453	P2387	A2320	THR	R2119	THR	THR	ARG
						L2454	K2388	L2323	GLY	R2120	GLY	GLY	TYR
						L2455	F2389	G2524	VAL	D2121	VAL	VAL	ASN
						M2456	F2389	L2327	PHE	L2122	PHE	PHE	PHE
									SER		SER	SER	SER

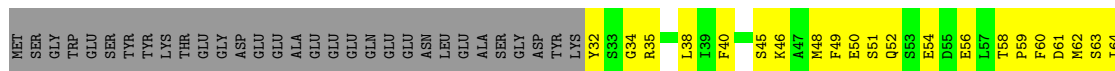
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A3909	A3634	F3768	D3706	D3641	I3572	W3498	K3426	S3343	E3261	E3194	Q3130	K3067	W2994	L2916
L3911	P3835	V3770	G3707	K3642	L3575	I3499	E3429	E3352	H3263	K3196	Q3133	A3088	L2996	L2919
C3912	Y3839	V3770	R3708	H3643	D3576	S3500	ASN	E3353	H3263	L3197	A3134	E3073	W2920	D2919
I3913	M3771	G3710	G3709	F3644	Q3577	M3502	ALA	D3354	K3264	L3135	L3135	L3072	L2921	V2920
S3914	W3842	G3713	K3710	G3645	L3578	H3501	SER	K3355	E3265	PRO	T3136	Q3074	R2922	R2922
H3915	G3743	P3711	P3711	V3503	S3579	V3503	VAL	A3356	S3266	LEU	E3137	K3075	Y3002	W2923
W3916	G3647	L3712	L3712	D3507	M3560	D3507	ILE	R3387	K3267	PRO	Q3138	K3076	W2924	W2924
L3917	P3713	P3713	P3713	K3583	L3583	L3583	ASP	L3360	T3268	GLU	Q3139	A3076	H3003	V2930
G3918	S3649	E3714	E3714	A3511	L3584	A3511	SER	E3361	R3269	ASN	F3140	L3077	H3004	E2935
K3919	K3650	L3651	L3651	K3584	L3584	K3584	ALA	E3360	R3270	ASP	F3141	L3078	L3005	E2935
I3920	R3653	L3652	L3652	F3585	K3585	F3585	LEU	G3364	D3271	SER	I3142	L3079	A3007	K2928
R3923	M3654	R3653	R3653	B3587	K3586	B3587	GLN	S3385	W3272	ASN	K3143	L3080	F3007	L2929
H3924	K3655	M3654	M3654	W3588	K3588	W3588	A3441	S3386	L3273	VAL	F3144	L3081	W3008	W2930
L3925	K3656	K3655	K3655	Y3442	Y3442	Y3442	ASP	S3375	V3274	ASP	I3145	Y3082	K3009	R2931
N3926	A3720	A3720	A3720	P3443	P3443	P3443	ASP	S3375	S3275	ASP	S3146	S3085	S3010	E2935
N3927	F3658	F3657	F3657	P3443	P3443	P3443	ASP	W3276	W3276	GLN	Q3147	L3086	L3011	E2935
F3928	F3659	L3724	L3724	V3446	V3446	V3446	ASP	V3373	V3277	ASP	Q3148	S3087	E3012	E2935
M3929	R3725	R3725	R3725	E3447	E3447	E3447	ASP	I3374	Q3278	GLY	G3149	L3088	W3018	V2938
V3930	A3594	A3594	A3594	Y3447	Y3447	Y3447	PRO	L3377	R3282	PRO	L3151	L3089	I3019	L2942
A3931	D3661	D3661	D3661	K3449	K3449	K3449	ASP	Y3378	SER	SER	S3152	Y3090	D3020	L2942
E3932	T3662	T3662	T3662	K3452	K3452	K3452	ASP	Q3379	L3283	ASP	S3153	L3091	F2943	F2943
V3934	M3664	N3664	N3664	K3453	K3453	K3453	ARG	F3382	R3287	ARG	Q3154	L3092	D3026	E2946
M3936	L3666	L3666	L3666	L3454	L3454	L3454	GLU	E3382	S3288	GLU	F3156	B3094	M3028	L2947
T3937	L3667	L3667	L3667	K3455	K3455	K3455	VAL	L3385	R3289	VAL	L3157	B3094	K3029	K2950
R3940	L3668	L3668	L3668	F3533	F3533	F3533	GLN	E3295	E3295	GLN	K3158	V3096	W3031	K2950
D3941	K3669	L3669	L3669	M3457	M3457	M3457	GLU	V3389	E3295	GLU	L3161	D3097	W3031	T2953
F3942	M3670	M3670	M3670	N3459	N3459	N3459	GLU	V3389	E3295	GLU	L3161	R3098	P3034	Q2954
R3944	K3671	N3671	N3671	E3461	E3461	E3461	GLU	A3391	L3298	GLU	W3164	A3099	K3034	Q2954
S3946	K3672	K3672	K3672	A3460	A3460	A3460	GLU	A3392	T3299	GLU	K3100	K3100	L2957	L2957
A3949	K3675	K3675	K3675	M3609	M3609	M3609	PRO	E3393	V3300	D3226	R3167	Y3101	Q3037	E2968
T3950	P3676	P3676	P3676	D3544	D3544	D3544	SER	E3393	L3301	S3228	R3167	Y3102	E3038	A2969
G3951	G3677	G3677	G3677	T3545	T3545	T3545	TRP	E3394	K3302	S3228	Y3102	Q3112	R2962	R2962
F3952	G3678	G3678	G3678	S3546	S3546	S3546	SER	E3395	T3303	S3228	P3168	Q3112	T3039	T2963
L3953	G3679	G3679	G3679	T3547	T3547	T3547	SER	E3396	T3303	S3228	P3169	Q3104	Y3040	S2963
V3954	G3680	G3680	G3680	G3548	G3548	G3548	TRP	A3396	V3304	R3232	D3170	N3105	L3041	D2964
L3955	G3681	G3681	G3681	H3549	H3549	H3549	TRP	GLN	V3305	R3232	A3171	G3106	L3042	Y2965
V3956	G3682	G3682	G3682	K3551	K3551	K3551	SER	PRO	Y3315	K3235	K3172	I3107	Y3043	E2966
E3957	G3683	G3683	G3683	H3551	H3551	H3551	TRP	PRO	Y3315	K3235	M3173	Q3108	M3044	E2966
L3958	G3684	G3684	G3684	E3553	E3553	E3553	SER	TRP	K3318	K3239	D3174	Q3108	I3045	A2968
R3962	G3685	G3685	G3685	V3554	V3554	V3554	SER	CYS	K3319	M3240	P3175	M3111	R3046	A2969
L3963	G3686	G3686	G3686	F3555	F3555	F3555	TRP	CYS	I3320	M3240	M3176	Q3112	S3047	K2970
T3964	G3687	G3687	G3687	R3556	R3556	R3556	GLY	GLY	L3321	K3241	M3177	N3113	K3048	Q2971
R3965	G3688	G3688	G3688	F3557	F3557	F3557	PRO	PRO	L3322	D3244	I3178	Y3114	L3049	L2976
Q3966	G3689	G3689	G3689	V3558	V3558	V3558	ASP	A3406	A3322	S3245	M3179	S3116	K3050	L2976
F3967	G3690	G3690	G3690	R3558	R3558	R3558	ASP	A3406	R3324	S3245	D3180	S3116	L3051	Q2979
L3968	G3691	G3691	G3691	K3559	K3559	K3559	ASP	PRO	R3324	R3247	D3181	I3117	L3052	Q2979
R3969	G3692	G3692	G3692	S3560	S3560	S3560	ASP	PRO	M3327	M3250	I3183	N3119	L3053	D2980
L3970	G3693	G3693	G3693	Q3564	Q3564	Q3564	ASP	PRO	T3333	M3250	T3184	L3120	Q3054	K2981
N3971	G3694	G3694	G3694	M3565	M3565	M3565	ASP	M3414	Y3333	M3251	M3185	L3121	G3055	V2862
L3972	G3695	G3695	G3695	G3566	G3566	G3566	ASP	F3419	T3333	F3252	R3186	H3122	E3056	D2983
M3973	G3696	G3696	G3696	F3567	F3567	F3567	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
P3974	G3697	G3697	G3697	I3568	I3568	I3568	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
S3975	G3698	G3698	G3698	G3568	G3568	G3568	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
K3976	G3699	G3699	G3699	F3569	F3569	F3569	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
L3977	G3700	G3700	G3700	D3569	D3569	D3569	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
M3978	G3701	G3701	G3701	G3570	G3570	G3570	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986
K3979	G3702	G3702	G3702	F3571	F3571	F3571	ASP	F3419	R3335	F3252	C3187	R3122	Q3059	P2986



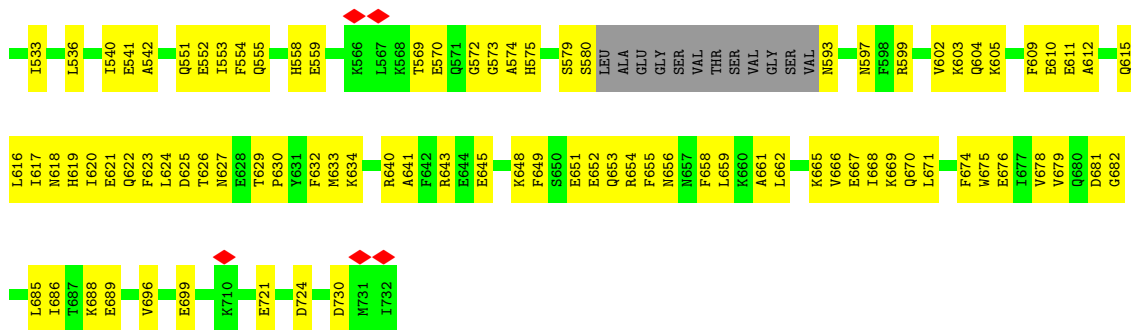
• Molecule 2: X-ray repair cross-complementing protein 6



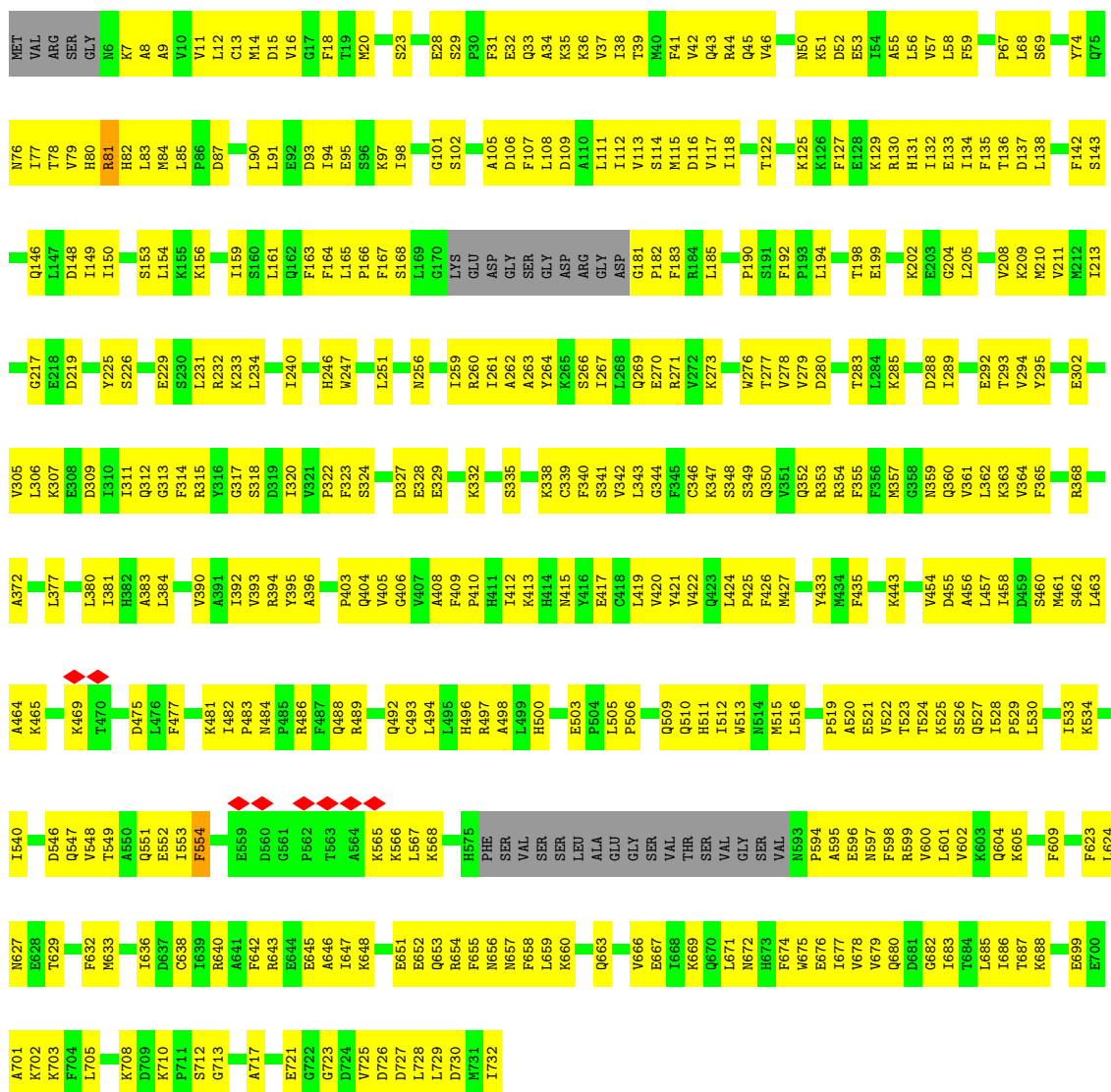
• Molecule 2: X-ray repair cross-complementing protein 6







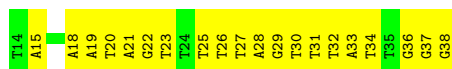
• Molecule 3: X-ray repair cross-complementing protein 5



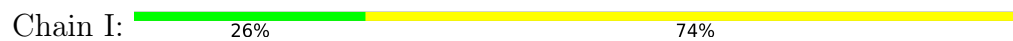
• Molecule 4: DNA (25-MER)







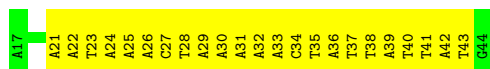
- Molecule 5: DNA (27-MER)



- Molecule 6: DNA (26-MER)



- Molecule 7: DNA (28-MER)



## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C1	Depositor
Number of particles used	10808	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 ( $e^-/\text{\AA}^2$ )	52.97	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.469	Depositor
Minimum map value	-0.111	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.020	Depositor
Recommended contour level	0.085	Depositor
Map size (Å)	588.0, 588.0, 588.0	wwPDB
Map dimensions	560, 560, 560	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.05, 1.05, 1.05	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	0.35	0/29462	0.54	1/39939 (0.0%)
1	F	0.33	0/29464	0.51	2/39913 (0.0%)
2	B	0.33	0/3864	0.56	0/5226
2	G	0.31	0/3871	0.55	0/5236
3	C	0.30	0/5595	0.49	0/7557
3	H	0.29	0/5625	0.50	0/7589
4	J	0.68	0/570	1.01	0/876
5	I	0.77	0/620	0.97	0/953
6	D	0.82	0/591	0.99	0/908
7	E	0.80	0/644	0.95	0/990
All	All	0.35	0/80306	0.55	3/109187 (0.0%)

There are no bond length outliers.

All (3) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
1	F	2259	LYS	CB-CG-CD	5.69	126.38	111.60
1	F	1721	HIS	C-N-CA	-5.38	108.24	121.70
1	A	2939	LEU	CB-CG-CD2	-5.16	102.23	111.00

There are no chirality outliers.

There are no planarity outliers.

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

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	29018	0	28461	2369	0
1	F	29012	0	28652	2188	0
2	B	3789	0	3721	347	0
2	G	3797	0	3734	318	0
3	C	5490	0	5397	391	0
3	H	5517	0	5468	380	0
4	J	509	0	271	33	0
5	I	552	0	301	35	0
6	D	528	0	282	49	0
7	E	573	0	312	48	0
All	All	78785	0	76599	5907	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 38.

All (5907) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3443:PRO:HB2	1:A:3478:GLU:CB	1.66	1.26
2:G:271:VAL:HG12	2:G:370:PRO:CA	1.72	1.20
1:A:446:PHE:H	1:A:447:PRO:CD	1.54	1.19
2:G:271:VAL:CG1	2:G:370:PRO:HA	1.72	1.17
2:G:273:ILE:CG1	2:G:368:VAL:HG22	1.75	1.13
1:F:3447:VAL:HG21	1:F:3478:GLU:O	1.51	1.10
2:G:273:ILE:HG13	2:G:368:VAL:HG22	1.10	1.10
1:A:1537:VAL:HG23	1:A:1553:PHE:O	1.53	1.07
2:B:271:VAL:HG12	2:B:370:PRO:HA	1.08	1.07
2:G:273:ILE:HG13	2:G:368:VAL:CG2	1.86	1.05
1:F:240:GLU:HG2	1:F:242:PRO:HD2	1.37	1.04
1:A:408:TYR:HD1	1:A:449:TYR:CZ	1.78	1.01
1:A:446:PHE:H	1:A:447:PRO:HD2	1.24	1.01
1:A:3315:TYR:HA	1:A:3318:LYS:HB3	1.45	0.98
3:H:671:LEU:HB2	3:H:674:PHE:HB3	1.46	0.97
1:A:1540:THR:HG1	1:A:1549:SER:N	1.61	0.97
2:G:271:VAL:HG12	2:G:370:PRO:HA	0.98	0.96
1:A:3514:VAL:O	1:A:3518:VAL:HG23	1.65	0.96
2:G:95:ASN:HD21	2:G:99:PHE:N	1.63	0.95
1:A:449:TYR:HD2	1:A:453:MET:CE	1.79	0.95
2:G:95:ASN:ND2	2:G:99:PHE:H	1.63	0.95
1:A:3026:ASP:HB2	1:A:3030:ILE:HD13	1.47	0.94
1:A:152:LEU:HA	1:A:155:LYS:HZ3	1.32	0.94
2:G:93:ASP:OD2	2:G:100:LYS:HA	1.68	0.93

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3008:TRP:HA	1:A:3011:LEU:HD13	1.46	0.93
1:A:449:TYR:HD2	1:A:453:MET:HE1	1.34	0.93
1:A:408:TYR:CD1	1:A:449:TYR:CZ	2.58	0.92
1:A:1400:VAL:HG11	1:A:1460:ARG:HG3	1.50	0.92
2:G:416:GLN:HB3	2:G:431:GLY:H	1.33	0.92
1:A:3163:THR:HG22	1:A:3167:ARG:HH12	1.32	0.92
1:A:3750:PHE:HA	1:A:3804:GLU:HA	1.53	0.91
1:A:3825:LYS:HA	1:A:3829:LEU:HB3	1.54	0.90
1:F:421:LEU:HD22	1:F:467:ALA:HB1	1.54	0.90
1:A:446:PHE:N	1:A:447:PRO:CD	2.33	0.90
6:D:28:DA:N1	7:E:28:DT:N3	2.20	0.89
1:A:483:VAL:HG21	1:A:568:PHE:HA	1.52	0.89
3:H:77:ILE:HD11	3:H:109:ASP:HB3	1.53	0.89
2:B:271:VAL:HG12	2:B:370:PRO:CA	1.99	0.89
1:A:2298:GLU:HA	1:A:2301:GLN:HG2	1.53	0.89
2:B:271:VAL:CG1	2:B:370:PRO:HA	2.00	0.89
1:A:793:LEU:HB3	1:A:870:LEU:HB3	1.54	0.89
6:D:32:DT:H3	7:E:24:DA:N6	1.70	0.89
1:A:1102:GLU:HA	1:A:1154:PRO:HB3	1.55	0.88
2:G:318:ARG:HB3	3:H:276:TRP:HB3	1.52	0.88
1:A:3361:GLU:HB2	1:A:3366:SER:HA	1.53	0.88
3:H:136:THR:HG22	3:H:138:LEU:H	1.36	0.88
1:A:3161:LEU:HA	1:A:3164:TRP:HE3	1.39	0.88
2:B:339:ARG:HG3	2:B:404:ARG:HG2	1.55	0.87
1:A:974:CYS:HA	1:A:1028:PHE:HE2	1.39	0.87
1:A:407:VAL:O	1:A:449:TYR:HE2	1.57	0.86
1:A:1092:GLU:HG3	1:A:1095:LEU:HB2	1.55	0.86
1:F:1827:LEU:HA	1:F:1830:HIS:HB3	1.57	0.86
1:F:2376:ASP:HA	1:F:2379:MET:HB2	1.58	0.86
1:F:2115:GLU:HA	1:F:2119:PRO:HA	1.57	0.86
4:J:22:DG:N1	5:I:34:DC:N3	2.24	0.86
1:A:4113:ASP:HB3	1:A:4116:ILE:HG22	1.58	0.85
1:A:656:GLN:HA	1:A:659:ARG:HB2	1.57	0.85
1:F:20:SER:HB2	1:F:69:VAL:HG11	1.57	0.85
1:F:1226:GLY:HA2	1:F:1231:GLN:HB2	1.56	0.85
2:B:416:GLN:HB3	2:B:431:GLY:H	1.41	0.85
1:A:386:VAL:HG12	1:A:390:GLN:HE22	1.41	0.85
6:D:33:DA:H2	7:E:24:DA:N1	1.75	0.85
1:F:326:MET:HA	1:F:329:LYS:HE2	1.57	0.84
1:A:1210:ASP:HA	1:A:1213:LYS:HD3	1.58	0.84
1:A:3072:GLU:HG3	1:A:3073:LEU:H	1.43	0.84

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:446:PHE:H	1:A:447:PRO:HD3	1.42	0.84
1:A:2534:ASN:HB3	1:A:2537:ASP:HB3	1.59	0.84
1:A:959:TYR:HA	1:A:962:TYR:HD2	1.40	0.83
1:A:2575:PRO:HB3	1:A:2784:GLN:HA	1.61	0.83
2:B:462:MET:HA	2:B:465:ILE:HG12	1.60	0.83
1:F:755:ALA:HB1	1:F:765:LEU:HD11	1.61	0.83
1:F:2851:PHE:HD2	1:F:2854:PHE:HB2	1.41	0.83
2:G:95:ASN:HD21	2:G:99:PHE:H	0.85	0.83
2:B:262:LYS:HE3	2:B:346:MET:HA	1.59	0.83
1:A:895:ALA:HA	1:A:904:VAL:HA	1.61	0.83
1:A:3451:LEU:HD13	1:A:3486:GLU:CB	2.07	0.82
6:D:33:DA:C2	7:E:24:DA:N1	2.47	0.82
1:A:2965:TYR:HB3	1:A:3001:CYS:HB2	1.60	0.82
1:F:925:GLN:HE22	1:F:2769:VAL:HA	1.44	0.82
3:H:56:LEU:HB3	3:H:81:ARG:HB3	1.61	0.82
1:A:408:TYR:CE1	1:A:449:TYR:CE1	2.68	0.82
1:F:3354:ASP:H	1:F:3357:ARG:HH21	1.24	0.82
1:A:1686:LEU:HA	1:A:1689:LYS:HE2	1.61	0.82
1:F:3630:ARG:HH21	1:F:3634:GLN:HB3	1.45	0.81
1:F:3710:LYS:NZ	1:F:3711:PRO:O	2.13	0.81
2:G:302:THR:HG21	2:G:311:LEU:HD23	1.61	0.81
1:A:2158:ARG:HH22	1:A:2196:TRP:HB3	1.46	0.81
1:A:3842:TRP:HA	1:A:3845:LYS:HE2	1.60	0.81
7:E:41:DT:H2''	7:E:42:DA:N7	1.95	0.81
2:B:95:ASN:HD22	2:B:102:ILE:HG21	1.45	0.81
1:F:1096:VAL:HG23	1:F:1141:LYS:HZ3	1.44	0.81
1:A:888:ARG:HE	1:A:3889:ARG:HG3	1.44	0.81
2:B:374:LEU:HB2	3:C:542:ALA:HB3	1.63	0.81
1:F:339:GLN:HE22	3:H:565:LYS:H	1.27	0.81
1:F:793:LEU:HD22	1:F:869:ASN:HB2	1.61	0.81
1:A:175:TYR:HB3	1:A:227:LEU:HD12	1.62	0.80
1:A:449:TYR:CD2	1:A:453:MET:CE	2.63	0.80
1:A:2945:SER:HB2	1:A:3975:LYS:HE3	1.62	0.80
1:A:736:LEU:HB3	1:A:740:ILE:HD11	1.64	0.80
1:A:3807:GLU:OE2	1:A:3808:ASN:ND2	2.14	0.80
1:F:2466:SER:HG	1:F:2469:CYS:HG	1.18	0.80
1:F:722:LYS:HA	1:F:726:LEU:HD23	1.64	0.80
2:B:304:ASN:HB3	2:B:311:LEU:HD21	1.63	0.80
3:H:46:VAL:HG11	3:H:91:LEU:HD11	1.62	0.80
1:A:1242:LEU:HD22	1:A:1311:LYS:HB2	1.63	0.80
1:F:145:ASP:HA	1:F:148:LYS:HE2	1.62	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3414:MET:SD	1:F:3464:LYS:NZ	2.54	0.80
1:F:3882:LEU:HA	1:F:3885:ARG:HE	1.46	0.79
2:G:38:LEU:HD11	2:G:167:MET:HG2	1.62	0.79
2:G:271:VAL:HA	2:G:371:GLU:H	1.47	0.79
1:A:79:ARG:HH21	1:A:124:LYS:H	1.30	0.79
1:A:3884:LYS:HE2	1:A:3970:LEU:HD23	1.64	0.79
1:F:13:LEU:HD22	1:F:59:PHE:HD1	1.47	0.79
1:A:1537:VAL:CG2	1:A:1553:PHE:O	2.29	0.79
1:A:2525:TRP:HB3	1:A:2561:PHE:HZ	1.46	0.79
1:F:2938:VAL:HG13	1:F:3979:LEU:HD21	1.63	0.79
3:H:552:GLU:HG3	3:H:553:ILE:H	1.47	0.79
1:F:1755:SER:OG	1:F:1757:MET:SD	2.40	0.79
1:A:892:LEU:HG	1:A:907:LEU:HD21	1.65	0.78
1:A:1958:GLU:HG3	1:A:1960:LYS:H	1.49	0.78
1:F:1915:LEU:HA	1:F:1918:LEU:HB2	1.64	0.78
2:G:386:LEU:HD13	2:G:430:PRO:HB2	1.63	0.78
1:F:1071:ASN:HB3	1:F:1074:LYS:HG2	1.64	0.78
1:F:1448:LEU:HD11	1:F:1514:LEU:HD21	1.66	0.78
3:C:365:PHE:HB2	3:C:368:ARG:HH12	1.47	0.78
1:A:2938:VAL:O	1:A:2942:ILE:HG22	1.83	0.78
2:B:84:ALA:HB2	2:B:108:LEU:HA	1.66	0.78
1:A:2540:LEU:HD13	1:A:2543:ASN:HD22	1.49	0.78
1:F:1742:CYS:HA	1:F:1745:LYS:HE2	1.66	0.78
1:F:2526:SER:HA	1:F:2531:LEU:HD12	1.66	0.78
1:A:393:LYS:HB2	1:A:397:LEU:HD23	1.64	0.78
1:F:3040:TYR:HA	1:F:3043:TYR:HD2	1.49	0.78
1:F:3822:GLN:HA	1:F:3825:LYS:HE2	1.66	0.77
1:A:637:LYS:NZ	1:A:638:GLN:O	2.17	0.77
1:F:3958:LEU:HD21	1:F:4081:ALA:HA	1.65	0.77
2:G:302:THR:CG2	2:G:311:LEU:HD23	2.13	0.77
1:A:2133:LEU:HD11	1:A:2171:LEU:HD21	1.66	0.77
1:F:1367:HIS:NE2	1:F:1371:VAL:HG11	2.00	0.77
1:A:741:ILE:HA	1:A:748:TYR:HE2	1.49	0.77
1:A:3379:GLN:HA	1:A:3382:PHE:HB2	1.64	0.77
1:F:2916:LEU:HD21	1:F:2987:THR:HG21	1.65	0.77
1:A:1630:ASP:HA	1:A:1633:TRP:HE1	1.50	0.76
1:F:3467:ARG:HH22	1:F:3471:ILE:HD12	1.50	0.76
1:F:2133:LEU:HD21	1:F:2171:LEU:HD13	1.67	0.76
2:B:421:ASP:HB2	2:B:425:ILE:HB	1.68	0.76
1:A:235:THR:HG23	1:A:236:LYS:HG2	1.67	0.76
1:A:3603:LYS:HE3	1:A:3652:LEU:HD13	1.68	0.76

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1759:LEU:HD13	1:F:1797:LEU:HD12	1.67	0.76
1:A:2254:ARG:HH12	1:A:2294:ILE:HG12	1.51	0.76
1:F:352:VAL:HG23	1:F:353:ASP:H	1.51	0.76
1:F:1743:MET:HA	1:F:1746:PHE:HD2	1.50	0.76
1:F:2328:ARG:HD2	1:F:2333:ARG:HD3	1.67	0.76
1:A:3357:ARG:HG3	1:A:3360:LEU:HD12	1.67	0.76
1:F:1208:LEU:HG	1:F:1212:LEU:HD23	1.67	0.76
1:F:2103:HIS:HA	1:F:2106:ARG:HB2	1.67	0.76
1:A:408:TYR:CD1	1:A:449:TYR:CE1	2.73	0.76
2:B:85:VAL:H	2:B:106:GLN:HB2	1.50	0.76
1:F:667:TYR:HB2	1:F:728:SER:HB2	1.64	0.76
1:F:959:TYR:HB2	1:F:1004:GLN:HE22	1.50	0.76
3:H:56:LEU:HG	3:H:80:HIS:HB3	1.67	0.76
1:F:877:ASP:HA	1:F:880:MET:HB2	1.68	0.75
1:A:2376:ASP:OD1	1:A:2377:ARG:NH1	2.19	0.75
1:A:3930:VAL:HG22	1:A:3937:VAL:HG12	1.66	0.75
1:F:2506:LEU:HB3	1:F:2525:TRP:HH2	1.51	0.75
3:H:484:ASN:HB3	3:H:486:ARG:HG2	1.67	0.75
1:A:1271:ILE:HD13	1:A:1278:ALA:H	1.51	0.75
1:F:1786:ALA:H	1:F:1830:HIS:CE1	2.03	0.75
1:F:3164:TRP:HB3	1:F:3186:ARG:HH21	1.50	0.75
1:A:472:GLY:HA2	1:A:475:LEU:HB2	1.68	0.75
1:A:585:ILE:HG23	1:A:611:ASN:HB3	1.66	0.75
1:A:2500:LYS:HA	1:A:2503:LYS:HE2	1.67	0.75
1:F:3969:ASN:HD22	1:F:3972:LEU:HD21	1.51	0.75
1:F:474:VAL:HA	1:F:477:ASN:HD21	1.50	0.75
2:B:271:VAL:HA	2:B:371:GLU:H	1.51	0.75
1:F:3187:CYS:HA	1:F:3190:LEU:HD12	1.67	0.75
2:G:320:GLN:HB2	2:G:327:ILE:HB	1.67	0.75
3:C:11:VAL:HG23	3:C:55:ALA:HB3	1.67	0.75
2:B:485:GLN:HE22	2:B:502:GLN:HA	1.52	0.75
1:F:3026:ASP:O	1:F:3031:TRP:NE1	2.20	0.75
2:G:421:ASP:HB2	2:G:425:ILE:HB	1.68	0.75
1:F:71:LYS:HG3	1:F:73:LEU:HD22	1.69	0.74
1:A:850:GLU:HA	1:A:853:ILE:HD12	1.66	0.74
1:F:10:CYS:SG	1:F:11:SER:N	2.59	0.74
1:F:3352:GLU:O	1:F:3357:ARG:NH2	2.20	0.74
1:F:3980:MET:HA	1:F:3983:ILE:HG22	1.69	0.74
2:G:128:GLN:OE1	2:G:132:GLN:NE2	2.20	0.74
1:A:585:ILE:HG22	1:A:586:GLN:HG3	1.69	0.74
1:A:2157:PHE:HB2	1:A:2160:TYR:HB2	1.69	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3589:SER:HB2	1:A:3593:ARG:HH12	1.52	0.74
1:F:36:ARG:NE	1:F:36:ARG:HA	2.01	0.74
1:A:1357:LYS:O	1:A:1361:LYS:NZ	2.21	0.74
1:A:3375:ALA:O	1:A:3379:GLN:NE2	2.20	0.74
3:C:342:VAL:HA	3:C:393:VAL:HA	1.67	0.74
1:F:2341:LEU:HD23	1:F:2344:LEU:HD12	1.70	0.74
1:F:3031:TRP:HB3	1:F:3041:LEU:HD11	1.70	0.74
1:F:708:VAL:HG12	1:F:712:LYS:HZ1	1.53	0.74
1:F:1848:ILE:O	1:F:1852:LYS:NZ	2.20	0.74
1:F:2346:ALA:O	1:F:2350:LYS:NZ	2.21	0.74
2:B:140:ASP:OD1	2:B:141:TYR:N	2.20	0.74
3:C:688:LYS:HB3	3:C:696:VAL:HB	1.69	0.74
1:A:1071:ASN:HB3	1:A:1074:LYS:HD3	1.69	0.74
1:A:3462:ARG:HH12	1:A:3708:ARG:HA	1.52	0.74
1:A:3869:THR:HG22	1:A:3872:ARG:HH12	1.53	0.74
2:B:363:ARG:NH2	3:C:359:ASN:O	2.21	0.74
1:F:738:HIS:HA	1:F:776:TRP:CD1	2.23	0.74
3:H:679:VAL:HG21	3:H:705:LEU:HD11	1.70	0.74
3:C:72:ASP:HA	3:C:75:GLN:HE21	1.52	0.74
1:F:1625:HIS:HA	1:F:1628:LYS:HZ3	1.52	0.74
1:F:2430:GLU:HA	1:F:2433:LYS:HE2	1.70	0.74
1:F:4045:CYS:HA	1:F:4048:LYS:HE2	1.68	0.74
1:A:240:GLU:HG2	1:A:242:PRO:HD2	1.70	0.73
2:B:170:THR:HG22	2:B:202:LEU:HD11	1.70	0.73
1:F:3046:ARG:HG2	1:F:3050:LYS:HZ2	1.52	0.73
2:G:339:ARG:HG3	2:G:404:ARG:HG3	1.70	0.73
1:A:3161:LEU:HA	1:A:3164:TRP:CE3	2.23	0.73
1:F:339:GLN:NE2	3:H:566:LYS:H	1.85	0.73
1:F:3095:ASP:HB3	1:F:3098:ARG:HH12	1.52	0.73
3:H:115:MET:HG2	3:H:153:SER:HB3	1.69	0.73
1:A:1840:PHE:HE2	1:A:1898:GLN:HB2	1.53	0.73
3:C:186:GLY:HA3	3:C:232:ARG:HG3	1.69	0.73
1:A:407:VAL:HB	1:A:449:TYR:OH	1.88	0.73
1:A:1392:MET:HA	1:A:1395:LEU:HG	1.70	0.73
2:B:376:ILE:HB	3:C:540:ILE:HG13	1.70	0.73
2:B:528:LEU:HD21	3:C:372:ALA:HB1	1.70	0.73
1:F:70:ARG:HE	1:F:82:ARG:HG3	1.52	0.73
1:F:1331:ASN:HA	1:F:1334:LYS:HZ3	1.51	0.73
1:A:81:CYS:HB2	1:A:82:ARG:HH11	1.53	0.73
1:A:370:ALA:HB2	1:A:420:VAL:HG12	1.69	0.73
1:F:1371:VAL:HA	1:F:1374:GLN:OE1	1.88	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3052:LEU:HA	1:F:3056:GLU:HB3	1.71	0.73
3:H:168:SER:H	3:H:192:PHE:HB2	1.52	0.73
1:A:1708:GLU:HB2	1:A:1712:ARG:HH12	1.51	0.73
1:A:3982:SER:O	1:A:3986:HIS:ND1	2.21	0.73
2:B:320:GLN:HB2	2:B:327:ILE:HB	1.69	0.73
2:B:358:LYS:HB3	3:C:409:PHE:HE2	1.53	0.73
1:A:82:ARG:H	1:A:82:ARG:HD2	1.54	0.73
2:B:470:ARG:HE	3:C:346:CYS:HA	1.54	0.73
1:F:2389:PHE:HB2	1:F:2394:LYS:HD3	1.70	0.73
2:G:128:GLN:O	2:G:132:GLN:NE2	2.21	0.73
1:A:3953:LEU:HD11	1:A:4027:TRP:HB2	1.69	0.73
2:B:484:GLN:HE22	2:B:485:GLN:HE21	1.34	0.73
1:F:1528:LEU:HD13	1:F:1531:LEU:HD12	1.71	0.73
4:J:36:DG:H2''	4:J:37:DG:H5''	1.70	0.73
1:A:180:LEU:HA	1:A:230:LEU:HD22	1.70	0.73
1:A:3282:ARG:HH12	1:A:3329:LEU:HD23	1.51	0.73
1:F:623:PHE:HE2	1:F:663:ILE:HG21	1.54	0.73
1:F:1743:MET:HA	1:F:1746:PHE:CD2	2.24	0.73
6:D:25:DT:H2''	6:D:26:DT:H5''	1.69	0.73
1:A:1391:VAL:HA	1:A:1394:HIS:HB3	1.69	0.72
1:A:2383:PHE:HA	1:A:2386:LEU:HD23	1.71	0.72
1:F:1795:VAL:HG13	1:F:1839:PHE:HB2	1.70	0.72
2:B:114:LYS:HA	2:B:117:LEU:HD12	1.68	0.72
1:F:3602:ASN:ND2	1:F:3651:LEU:O	2.22	0.72
1:A:19:LEU:HD12	1:A:34:LEU:HD23	1.70	0.72
1:A:1145:LEU:HB3	1:A:1165:LEU:HD21	1.71	0.72
2:B:343:PRO:HG3	2:B:403:ARG:HA	1.69	0.72
1:F:66:LEU:HD12	1:F:69:VAL:HB	1.70	0.72
1:F:864:GLY:HA3	1:F:3169:PRO:HA	1.70	0.72
3:H:280:ASP:HB2	3:H:283:THR:HG22	1.70	0.72
3:H:546:ASP:OD1	3:H:547:GLN:N	2.22	0.72
1:A:656:GLN:OE1	1:A:656:GLN:N	2.20	0.72
1:A:1153:LEU:HD11	1:A:1157:PHE:HB2	1.71	0.72
3:C:656:ASN:HA	3:C:659:LEU:HD12	1.71	0.72
1:F:1164:CYS:SG	1:F:1165:LEU:N	2.59	0.72
1:F:1653:LEU:HD21	1:F:1698:PHE:HB2	1.71	0.72
1:F:3588:TRP:HB2	1:F:3612:ARG:HH12	1.55	0.72
1:F:3812:LEU:HD22	1:F:3925:LEU:HD21	1.72	0.72
1:F:2257:PHE:HA	1:F:2260:PHE:CE2	2.24	0.72
1:A:4083:GLY:HA3	1:A:4088:ASN:HD22	1.54	0.72
1:F:1039:TRP:CD1	1:F:1042:LYS:HE3	2.25	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:438:LEU:O	1:A:442:GLN:NE2	2.23	0.72
1:A:3163:THR:HG22	1:A:3167:ARG:NH1	2.04	0.72
1:A:3554:PHE:HA	1:A:3557:ARG:HB3	1.72	0.72
1:F:2312:TYR:HD2	1:F:2315:VAL:HG23	1.55	0.72
1:F:3856:MET:SD	1:F:4077:TYR:OH	2.45	0.72
2:G:273:ILE:CG1	2:G:368:VAL:CG2	2.58	0.72
6:D:21:DA:N1	7:E:37:DT:N3	2.37	0.72
1:A:2205:VAL:HG13	1:A:2208:ASP:H	1.54	0.71
2:B:353:LEU:HB2	2:B:393:GLU:HG3	1.71	0.71
1:F:493:LYS:O	1:F:625:ASN:ND2	2.23	0.71
4:J:29:DG:H2''	4:J:30:DT:H5''	1.72	0.71
1:A:968:VAL:HA	1:A:971:ARG:HD3	1.71	0.71
1:A:1540:THR:OG1	1:A:1549:SER:N	2.22	0.71
1:A:2380:ASN:OD1	1:A:2381:ALA:N	2.22	0.71
1:A:4116:ILE:HA	1:A:4119:ARG:HB2	1.72	0.71
1:F:1374:GLN:O	1:F:1378:GLU:N	2.23	0.71
1:A:898:PHE:CE2	1:A:903:PRO:HD2	2.24	0.71
1:A:2810:SER:HA	1:A:2861:ILE:HD11	1.72	0.71
1:A:3629:ARG:HD2	1:A:3632:PHE:HD2	1.55	0.71
3:C:297:LEU:HB2	3:C:303:THR:HB	1.72	0.71
3:C:453:ALA:HB1	3:C:533:ILE:HG23	1.71	0.71
3:C:605:LYS:NZ	3:C:611:GLU:O	2.23	0.71
1:F:338:LEU:HD12	3:H:567:LEU:HB3	1.72	0.71
3:H:108:LEU:HA	3:H:111:LEU:HD12	1.72	0.71
1:A:1028:PHE:HA	1:A:1031:ARG:HD2	1.72	0.71
1:A:3471:ILE:HD13	1:A:3474:ARG:HD3	1.72	0.71
2:B:461:LYS:HD2	2:B:527:GLU:HB2	1.71	0.71
1:F:2414:GLN:HG3	2:G:148:TRP:HZ2	1.55	0.71
1:F:3507:ASP:HA	1:F:3540:TYR:HA	1.71	0.71
4:J:15:DA:H5'	5:I:42:DA:H2	1.54	0.71
1:F:188:GLU:O	1:F:192:ASN:ND2	2.22	0.71
1:F:3620:PRO:HB3	1:F:3630:ARG:HH12	1.55	0.71
1:A:2139:PRO:HD2	1:A:2142:ILE:HD12	1.71	0.71
1:A:3326:GLN:OE1	1:A:3326:GLN:N	2.23	0.71
2:G:528:LEU:HD21	3:H:372:ALA:HB1	1.72	0.71
3:C:381:ILE:HD13	3:C:417:GLU:HB2	1.70	0.71
1:F:888:ARG:O	1:F:3889:ARG:NH1	2.20	0.71
3:H:154:LEU:HD13	3:H:161:LEU:HD11	1.71	0.71
1:A:1202:ARG:NH2	1:A:1207:TRP:O	2.24	0.71
1:A:3593:ARG:NH2	1:A:3663:THR:OG1	2.23	0.71
1:A:3810:VAL:O	1:A:3930:VAL:N	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:208:MET:HA	1:A:211:ALA:HB3	1.73	0.71
1:A:208:MET:HE3	3:C:551:GLN:HB2	1.72	0.71
1:A:251:PHE:HZ	1:A:285:CYS:HB3	1.56	0.71
1:F:3746:ARG:NH1	1:F:3746:ARG:HA	2.04	0.71
2:G:82:LEU:HD21	2:G:108:LEU:HB3	1.71	0.71
1:A:1452:VAL:HA	1:A:1517:LEU:HD11	1.73	0.71
2:G:474:ARG:HE	2:G:476:ASP:H	1.39	0.71
1:A:336:ASN:OD1	1:A:337:LYS:N	2.24	0.70
2:B:45:SER:HA	2:B:138:GLY:HA2	1.71	0.70
2:B:194:ARG:HH12	2:B:199:PHE:HA	1.54	0.70
1:F:1695:LEU:HB3	1:F:1699:PHE:HE2	1.56	0.70
1:F:3154:GLN:HA	1:F:3157:LEU:HD13	1.73	0.70
1:A:75:SER:O	1:A:79:ARG:N	2.21	0.70
1:A:1205:ASN:OD1	1:A:1206:LEU:N	2.24	0.70
1:A:2421:VAL:HG23	1:A:2457:PRO:HG3	1.72	0.70
1:A:2574:ASN:O	1:A:2787:HIS:N	2.24	0.70
1:A:3765:GLU:O	1:A:3769:GLN:NE2	2.24	0.70
1:F:1735:ARG:NH1	1:F:1736:PHE:HB2	2.06	0.70
3:H:81:ARG:HH12	3:H:84:MET:HB2	1.54	0.70
1:A:529:ASP:OD1	1:A:530:LEU:N	2.25	0.70
1:A:531:PHE:HD2	1:A:633:ILE:HG21	1.56	0.70
1:A:1069:HIS:HB3	1:A:1074:LYS:HG2	1.72	0.70
1:A:2115:GLU:HB3	1:A:2118:VAL:HA	1.74	0.70
2:B:363:ARG:HB2	2:B:436:PHE:HE2	1.56	0.70
1:F:2140:LEU:HA	1:F:2143:ARG:HE	1.57	0.70
3:H:131:HIS:ND1	3:H:133:GLU:OE2	2.23	0.70
1:A:1831:CYS:O	1:A:1883:ARG:NH2	2.24	0.70
1:A:2443:MET:HE2	1:A:2479:TRP:CE3	2.27	0.70
2:B:193:LEU:HB2	2:B:198:ILE:HD13	1.73	0.70
1:F:410:MET:HA	1:F:413:PHE:HD2	1.56	0.70
1:F:2344:LEU:HA	1:F:2347:LYS:HE2	1.72	0.70
1:F:2919:ASP:OD1	1:F:2922:ARG:NH1	2.25	0.70
1:A:891:ARG:NH2	1:A:958:MET:SD	2.64	0.70
2:B:351:LYS:O	2:B:395:ALA:N	2.24	0.70
2:B:368:VAL:HB	2:B:432:PHE:HB2	1.74	0.70
1:F:1689:LYS:HG2	1:F:1717:LEU:HD21	1.73	0.70
1:F:2931:ARG:HB3	1:F:2939:LEU:HD21	1.72	0.70
3:H:9:ALA:HB3	3:H:130:ARG:HA	1.74	0.70
1:A:1775:GLU:O	1:A:1778:PHE:N	2.24	0.70
1:A:3751:LEU:N	1:A:3803:ILE:O	2.24	0.70
3:C:353:ARG:NH1	3:C:353:ARG:O	2.25	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3615:ALA:HA	1:F:3619:ASP:HB2	1.73	0.70
1:A:2481:HIS:O	1:A:2485:ARG:N	2.25	0.70
1:A:3099:ALA:HA	1:A:3102:TYR:CD2	2.27	0.70
1:F:3078:LEU:HD12	1:F:3082:TYR:HB2	1.73	0.70
1:F:3740:ILE:HB	1:F:3748:HIS:HB2	1.72	0.70
1:F:3781:CYS:O	1:F:3785:ALA:N	2.25	0.70
1:F:3085:GLU:OE1	1:F:3085:GLU:N	2.21	0.70
3:H:271:ARG:HH11	3:H:486:ARG:HH22	1.38	0.70
1:A:1406:LEU:HD22	1:A:1415:LEU:HD13	1.73	0.70
1:F:1626:TRP:HE1	1:F:1627:LYS:HZ3	1.39	0.70
1:A:173:LYS:HG3	1:A:176:GLU:HG3	1.74	0.70
1:A:408:TYR:HE1	1:A:449:TYR:CE1	2.09	0.70
1:A:637:LYS:NZ	1:A:640:GLU:OE1	2.23	0.70
1:A:3633:ILE:O	1:A:3637:GLY:N	2.22	0.70
1:A:3762:GLN:O	1:A:3765:GLU:HG2	1.92	0.70
1:F:2537:ASP:HA	1:F:2540:LEU:HD12	1.74	0.70
1:F:3580:ASN:HD21	1:F:3677:PRO:HD3	1.55	0.70
1:A:70:ARG:HH12	1:A:72:SER:HA	1.56	0.69
1:A:2918:PRO:HB2	1:A:2922:ARG:HH22	1.57	0.69
1:A:3319:ASN:O	1:A:3322:ALA:N	2.21	0.69
1:F:3973:PRO:O	1:F:3975:LYS:NZ	2.21	0.69
1:A:289:ASN:OD1	1:A:293:LEU:N	2.25	0.69
1:A:1085:ILE:HG22	1:A:1089:PHE:HB2	1.73	0.69
1:A:2122:LEU:HA	1:A:2126:MET:HE3	1.74	0.69
1:A:2357:GLU:O	1:A:2361:ILE:HD12	1.92	0.69
2:B:278:GLN:OE1	3:C:431:ARG:NH1	2.24	0.69
1:F:76:ILE:O	1:F:80:GLU:HG3	1.93	0.69
1:F:332:GLU:HG2	1:F:334:HIS:H	1.57	0.69
1:F:2806:LYS:HB2	1:F:2857:CYS:HB2	1.74	0.69
1:F:2935:GLU:OE1	1:F:2935:GLU:N	2.25	0.69
2:G:269:ILE:HA	2:G:375:VAL:HG11	1.75	0.69
1:A:2220:MET:O	1:A:2259:LYS:NZ	2.23	0.69
3:C:184:ARG:NH2	3:C:518:PRO:O	2.26	0.69
1:F:630:CYS:SG	1:F:631:ARG:N	2.65	0.69
1:F:1327:GLY:O	1:F:1331:ASN:N	2.23	0.69
1:F:1602:ASP:OD1	1:F:1603:GLN:N	2.25	0.69
1:F:1854:ARG:HB3	1:F:1863:PHE:HE1	1.55	0.69
1:F:3855:TYR:HA	1:F:3858:MET:HE2	1.73	0.69
1:F:115:TYR:HE1	1:F:127:ALA:HA	1.57	0.69
1:A:2514:ASN:HB3	1:A:2517:LEU:HG	1.73	0.69
2:B:318:ARG:HB3	3:C:276:TRP:HB3	1.74	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3813:LYS:HD3	1:F:3925:LEU:HD22	1.74	0.69
1:A:776:TRP:O	1:A:780:ILE:N	2.24	0.69
2:B:482:VAL:HG22	3:C:333:TYR:HD1	1.56	0.69
1:F:125:ILE:HA	1:F:128:LEU:HD13	1.74	0.69
1:F:2965:TYR:HB3	1:F:3001:CYS:HB2	1.74	0.69
1:F:3182:ILE:HG13	1:F:3183:ILE:HD12	1.75	0.69
1:A:1946:ASN:HA	1:A:1949:ILE:HD12	1.74	0.69
2:B:350:PHE:CD2	3:C:458:ILE:HA	2.28	0.69
1:F:87:LYS:HE2	1:F:830:VAL:HA	1.74	0.69
2:G:45:SER:HA	2:G:138:GLY:HA2	1.75	0.69
7:E:38:DT:H2''	7:E:39:DA:N7	2.08	0.69
1:A:256:ILE:HD11	3:C:551:GLN:HB3	1.74	0.69
1:A:407:VAL:HA	1:A:410:MET:HG2	1.73	0.69
1:A:2228:ARG:O	1:A:2232:ARG:N	2.22	0.69
1:A:2295:GLN:NE2	1:A:2297:SER:OG	2.21	0.69
1:A:2908:LYS:NZ	1:A:2911:ARG:O	2.25	0.69
1:F:1365:ASN:OD1	1:F:1370:ARG:NH2	2.26	0.69
1:F:2376:ASP:H	1:F:2404:ARG:NH2	1.91	0.69
1:F:3965:ARG:O	1:F:3969:ASN:N	2.25	0.69
2:G:32:TYR:N	2:G:253:LYS:O	2.24	0.69
2:G:40:PHE:HB2	2:G:85:VAL:HG12	1.72	0.69
2:G:412:ALA:O	2:G:435:VAL:N	2.25	0.69
3:H:674:PHE:HB2	3:H:675:TRP:CE3	2.28	0.69
1:A:3471:ILE:HA	1:A:3474:ARG:HG2	1.75	0.69
2:B:482:VAL:HG22	3:C:333:TYR:CD1	2.27	0.69
3:C:352:GLN:HG3	3:C:354:ARG:H	1.57	0.69
1:F:3037:GLN:HA	1:F:3040:TYR:HD2	1.56	0.69
3:H:247:TRP:HB3	3:H:263:ALA:HB3	1.72	0.69
1:A:2173:ALA:HA	1:A:2215:LEU:HD21	1.72	0.69
1:A:2940:ARG:HB3	1:A:2957:LEU:HD11	1.73	0.69
3:C:154:LEU:HD13	3:C:215:LEU:HB2	1.75	0.69
3:C:155:LYS:HE3	3:C:156:LYS:HE3	1.73	0.69
1:F:1298:LEU:HD23	1:F:1367:HIS:HD2	1.57	0.69
1:F:3859:TYR:O	1:F:4119:ARG:NH2	2.26	0.69
2:G:328:ILE:HD12	3:H:279:VAL:HG21	1.75	0.69
1:A:750:PRO:HA	1:A:753:GLN:HB2	1.74	0.68
1:A:3543:LYS:HB3	1:A:3548:GLY:HA3	1.75	0.68
1:F:2414:GLN:OE1	1:F:2414:GLN:N	2.20	0.68
1:F:2587:GLN:N	1:F:2777:HIS:O	2.22	0.68
1:A:878:GLU:O	1:A:882:SER:N	2.26	0.68
1:A:1112:ALA:O	1:A:1115:HIS:ND1	2.25	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2329:TYR:CE1	1:A:2332:GLU:HA	2.29	0.68
2:G:288:LEU:N	3:H:311:ILE:O	2.27	0.68
2:G:358:LYS:HE2	3:H:353:ARG:HH22	1.57	0.68
1:A:2430:GLU:HA	1:A:2433:LYS:HE3	1.75	0.68
1:A:2510:LEU:O	1:A:2518:GLN:NE2	2.26	0.68
3:C:456:ALA:HB3	3:C:533:ILE:HD11	1.74	0.68
1:F:1366:THR:O	1:F:1370:ARG:NH1	2.23	0.68
1:F:2555:LEU:HD21	1:F:2806:LYS:HB3	1.75	0.68
1:F:3722:PHE:HE1	1:F:3740:ILE:HG13	1.57	0.68
1:F:3750:PHE:HA	1:F:3805:TRP:H	1.58	0.68
3:H:165:LEU:H	3:H:226:SER:HA	1.57	0.68
3:H:717:ALA:HB3	3:H:723:GLY:HA2	1.75	0.68
1:F:3846:MET:HB2	1:F:3858:MET:HG3	1.74	0.68
3:H:653:GLN:OE1	3:H:657:ASN:ND2	2.26	0.68
1:A:99:LYS:NZ	1:A:141:SER:O	2.23	0.68
1:A:197:PHE:HE1	1:A:231:LEU:HD22	1.58	0.68
1:A:1215:GLU:O	1:A:1219:PHE:N	2.27	0.68
1:A:1496:GLU:OE1	1:A:1498:GLN:NE2	2.27	0.68
1:A:1756:PRO:HA	1:A:1759:LEU:HB3	1.75	0.68
3:C:57:VAL:HG12	3:C:79:VAL:HG12	1.76	0.68
3:C:197:ILE:HD12	3:C:201:GLN:HB2	1.76	0.68
3:C:618:ASN:OD1	3:C:619:HIS:ND1	2.25	0.68
5:I:41:DT:H2 <sup>?</sup>	5:I:42:DA:C8	2.29	0.68
1:A:628:GLU:O	1:A:631:ARG:HG3	1.94	0.68
1:A:2184:TYR:O	1:A:2187:VAL:N	2.26	0.68
1:A:2920:VAL:HA	1:A:2923:TRP:HB2	1.74	0.68
1:A:3101:TYR:HA	1:A:3104:GLN:HG2	1.76	0.68
1:A:3723:ASP:HB2	1:A:3739:ILE:HB	1.75	0.68
1:F:1497:ARG:NH2	1:F:1539:SER:O	2.27	0.68
1:F:3728:VAL:HG13	1:F:3736:LYS:HE3	1.75	0.68
1:A:785:MET:HA	1:A:788:TYR:HD2	1.58	0.68
1:F:3762:GLN:NE2	1:F:3793:VAL:O	2.27	0.68
1:A:2855:VAL:HG22	1:A:2859:GLN:HE22	1.58	0.68
1:A:183:GLU:HG2	1:A:185:HIS:H	1.59	0.68
1:F:935:HIS:O	1:F:938:VAL:HG12	1.94	0.68
1:F:3575:LEU:HB2	1:F:3800:LEU:HD21	1.76	0.68
3:H:67:PRO:HG2	3:H:117:VAL:HG12	1.75	0.68
1:A:4114:PRO:HA	1:A:4117:LEU:HB2	1.76	0.68
1:F:1600:MET:O	1:F:1603:GLN:NE2	2.24	0.68
1:F:2266:ASN:OD1	1:F:2311:ARG:NE	2.27	0.68
1:F:2506:LEU:HB3	1:F:2525:TRP:CH2	2.28	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:549:THR:O	3:H:551:GLN:N	2.27	0.68
7:E:36:DA:H2''	7:E:37:DT:H5''	1.75	0.68
1:A:82:ARG:HD2	1:A:82:ARG:N	2.09	0.67
1:A:358:GLU:O	1:A:361:ILE:N	2.27	0.67
1:A:449:TYR:CD2	1:A:453:MET:HE3	2.29	0.67
1:A:1576:ASP:OD1	1:A:1577:LEU:N	2.26	0.67
1:A:2796:ALA:O	1:A:2799:GLN:NE2	2.27	0.67
2:B:262:LYS:HB3	2:B:268:VAL:HG12	1.76	0.67
1:F:2169:LEU:HD23	1:F:2208:ASP:HB2	1.76	0.67
2:G:335:GLU:HA	2:G:338:LYS:HE2	1.74	0.67
1:A:2512:ASP:HB2	1:A:2517:LEU:HD12	1.75	0.67
1:F:2490:GLU:OE2	1:F:2495:SER:N	2.25	0.67
1:F:3765:GLU:HA	1:F:3768:PHE:HD2	1.59	0.67
3:H:165:LEU:HG	3:H:167:PHE:H	1.59	0.67
3:H:687:THR:HA	3:H:699:GLU:HG2	1.76	0.67
1:A:515:ARG:NH1	1:A:516:THR:O	2.27	0.67
1:A:1663:THR:O	1:A:1665:HIS:ND1	2.27	0.67
1:A:1915:LEU:HG	1:A:1918:LEU:HD12	1.76	0.67
3:C:485:PRO:HA	3:C:488:GLN:HE22	1.58	0.67
1:F:584:GLU:N	1:F:613:HIS:O	2.27	0.67
1:F:794:PRO:HA	1:F:870:LEU:HD12	1.76	0.67
3:H:11:VAL:HG12	3:H:132:ILE:HA	1.74	0.67
1:A:2371:PHE:HD2	1:A:2374:LEU:HB2	1.59	0.67
1:A:2801:ASP:OD2	1:A:2804:ILE:N	2.20	0.67
1:A:3849:LYS:HG2	1:A:3851:ASP:H	1.59	0.67
1:F:2304:VAL:HB	1:F:2348:GLN:HG3	1.77	0.67
1:F:2821:ASP:O	1:F:2829:LYS:NZ	2.28	0.67
3:H:13:CYS:HB3	3:H:134:ILE:HA	1.76	0.67
1:A:1729:PHE:HB3	1:A:1733:THR:HG21	1.75	0.67
3:C:316:TYR:N	3:C:319:ASP:O	2.20	0.67
1:F:399:GLN:OE1	1:F:399:GLN:N	2.27	0.67
1:F:1811:ARG:NH1	3:H:627:ASN:OD1	2.25	0.67
1:F:4116:ILE:HA	1:F:4119:ARG:HB2	1.77	0.67
2:G:362:LEU:HD12	2:G:436:PHE:HE2	1.60	0.67
1:A:1829:TRP:O	1:A:1883:ARG:NH1	2.27	0.67
1:A:2324:GLY:HA2	1:A:2327:LEU:HD12	1.76	0.67
1:A:2365:ASN:HB3	1:A:2366:LYS:NZ	2.09	0.67
1:F:893:SER:HA	1:F:906:PHE:HA	1.76	0.67
1:F:1713:VAL:O	1:F:1716:GLN:NE2	2.28	0.67
1:F:3454:LEU:HD21	1:F:3495:PHE:HZ	1.59	0.67
1:A:1445:ARG:HA	1:A:1448:LEU:HD12	1.77	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2330:VAL:HG23	1:A:2335:ASN:O	1.94	0.67
2:B:121:GLN:NE2	2:B:126:GLN:OE1	2.27	0.67
1:F:886:TRP:CD2	1:F:964:ARG:HD2	2.29	0.67
2:G:273:ILE:CB	2:G:368:VAL:HG22	2.24	0.67
1:F:326:MET:O	1:F:330:ASN:N	2.28	0.67
1:F:1892:LYS:O	1:F:1909:ASN:ND2	2.28	0.67
3:H:59:PHE:HB2	3:H:105:ALA:HB3	1.75	0.67
3:H:686:ILE:HG21	3:H:703:LYS:HB3	1.77	0.67
1:A:113:SER:HB2	3:C:300:ASP:HB2	1.77	0.67
1:A:2534:ASN:O	1:A:2538:ARG:N	2.22	0.67
1:A:2962:ARG:HD3	1:A:3989:ARG:HH22	1.60	0.67
1:F:1087:ARG:HA	1:F:1090:ARG:HE	1.59	0.67
1:F:1684:LEU:O	1:F:1689:LYS:NZ	2.28	0.67
1:F:2234:ASN:HA	1:F:2237:ILE:HD12	1.77	0.67
1:F:3950:THR:OG1	1:F:4068:HIS:ND1	2.28	0.67
1:A:3334:TYR:HE2	1:A:3384:HIS:CE1	2.14	0.67
1:F:2103:HIS:O	1:F:2107:SER:N	2.28	0.67
1:F:2543:ASN:ND2	1:F:2839:ASP:OD2	2.28	0.67
2:G:327:ILE:HG22	2:G:329:LEU:HD23	1.77	0.67
2:G:470:ARG:HE	3:H:346:CYS:HA	1.60	0.67
1:A:450:SER:O	1:A:453:MET:HG3	1.95	0.66
4:J:36:DG:N2	5:I:21:DA:OP1	2.24	0.66
1:A:1071:ASN:HD21	1:A:1073:PHE:HB2	1.60	0.66
1:F:926:THR:HG23	1:F:2800:ARG:HH21	1.59	0.66
1:F:2448:PRO:HA	1:F:2451:LEU:HD12	1.77	0.66
3:H:32:GLU:HA	3:H:35:LYS:HE3	1.77	0.66
6:D:32:DT:N3	7:E:24:DA:N6	2.32	0.66
1:A:403:GLY:O	1:A:406:ARG:NH2	2.28	0.66
1:A:3772:ASN:HD21	1:A:3788:LEU:HB3	1.61	0.66
1:F:1082:PHE:O	1:F:1086:TYR:N	2.28	0.66
3:H:81:ARG:NH1	3:H:82:HIS:O	2.28	0.66
1:A:66:LEU:O	1:A:70:ARG:HG2	1.95	0.66
1:A:1708:GLU:HB2	1:A:1712:ARG:NH1	2.11	0.66
1:A:2805:ALA:HA	1:A:2808:LEU:HD12	1.77	0.66
1:A:3190:LEU:HG	1:A:3231:ILE:HG23	1.77	0.66
2:B:450:GLU:HA	3:C:416:TYR:CE1	2.31	0.66
1:F:559:SER:O	1:F:562:HIS:ND1	2.29	0.66
3:H:342:VAL:HA	3:H:393:VAL:HA	1.77	0.66
1:A:20:SER:HB2	1:A:69:VAL:HG11	1.76	0.66
1:A:675:ARG:O	1:A:679:LYS:HG2	1.95	0.66
1:A:1108:MET:HA	1:A:1111:LEU:HD12	1.75	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1899:VAL:HB	1:A:1911:LEU:HB3	1.77	0.66
1:A:3066:ASP:O	1:A:3070:HIS:ND1	2.28	0.66
1:F:3831:ASP:HB3	1:F:3832:PRO:HD3	1.77	0.66
3:H:41:PHE:HA	3:H:44:ARG:NH1	2.10	0.66
3:H:497:ARG:NH1	3:H:503:GLU:O	2.28	0.66
1:A:548:GLU:OE1	1:A:550:PHE:N	2.27	0.66
1:A:2230:VAL:O	1:A:2234:ASN:N	2.22	0.66
1:A:3796:MET:H	1:A:3801:GLY:HA2	1.61	0.66
1:F:1976:LEU:HD23	1:F:2142:ILE:HG13	1.78	0.66
1:F:2532:PRO:HD2	1:F:2538:ARG:HA	1.76	0.66
1:F:2884:LEU:HA	1:F:2886:GLN:HE22	1.61	0.66
2:G:356:LEU:HD11	3:H:353:ARG:HE	1.61	0.66
1:A:4037:ASN:ND2	1:A:4066:LEU:O	2.29	0.66
3:C:144:LYS:HE3	3:C:207:ILE:HD11	1.77	0.66
1:F:339:GLN:HE21	3:H:566:LYS:H	1.43	0.66
1:F:1039:TRP:HA	1:F:1042:LYS:HB2	1.77	0.66
1:A:435:LEU:HD23	1:A:438:LEU:HD12	1.78	0.66
1:A:4012:ASP:OD1	1:A:4013:TRP:N	2.29	0.66
3:C:154:LEU:HB2	3:C:215:LEU:HD13	1.77	0.66
2:G:450:GLU:HG3	3:H:415:ASN:HB3	1.76	0.66
6:D:19:DA:N6	7:E:39:DA:N1	2.43	0.66
1:A:105:VAL:O	1:A:109:ASN:ND2	2.28	0.66
1:A:270:ALA:HA	1:A:273:ARG:HE	1.61	0.66
1:A:1366:THR:HG22	1:A:1367:HIS:HD2	1.61	0.66
1:A:3139:GLN:HA	1:A:3142:ILE:HD12	1.77	0.66
3:C:513:TRP:O	3:C:517:ASN:N	2.28	0.66
1:F:99:LYS:O	1:F:99:LYS:HD2	1.96	0.66
1:F:3681:LYS:HG2	1:F:3724:GLU:HA	1.78	0.66
1:A:2329:TYR:HE1	1:A:2332:GLU:HA	1.60	0.66
2:B:507:THR:HG23	2:B:508:LEU:HD12	1.77	0.66
1:F:970:LEU:HB3	1:F:1025:LEU:HD11	1.78	0.66
1:F:1404:LYS:HA	1:F:1407:LYS:HZ3	1.60	0.66
3:H:182:PRO:HD2	3:H:521:GLU:HG3	1.77	0.66
1:A:367:GLY:HA3	1:A:416:SER:HB3	1.77	0.65
1:A:1685:ASP:H	1:A:1688:LEU:HD12	1.61	0.65
1:A:2505:VAL:HA	1:A:2508:GLN:HB2	1.76	0.65
1:A:2974:GLU:O	1:A:2978:LYS:N	2.30	0.65
1:A:3176:MET:HE3	1:A:3179:TRP:HB3	1.77	0.65
1:F:4027:TRP:NE1	1:F:4030:GLU:OE1	2.28	0.65
1:A:91:ILE:HD11	1:A:831:LEU:HD23	1.77	0.65
1:A:822:ALA:HA	1:A:828:LYS:HD3	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1345:THR:HA	1:A:1348:LEU:HD12	1.78	0.65
1:A:3231:ILE:HG22	1:A:3235:LYS:NZ	2.11	0.65
1:A:3385:LEU:HB3	1:A:3416:LEU:HD22	1.78	0.65
1:F:1486:LEU:HA	1:F:1490:GLY:HA3	1.78	0.65
1:F:1892:LYS:NZ	1:F:1906:THR:O	2.28	0.65
1:F:3572:ILE:HG23	1:F:3800:LEU:HD23	1.79	0.65
1:F:3918:LEU:O	1:F:3946:PHE:N	2.27	0.65
2:G:75:ILE:HD13	2:G:116:ILE:HD11	1.77	0.65
3:H:312:GLN:O	3:H:323:PHE:N	2.22	0.65
3:H:329:GLU:HA	3:H:332:LYS:HE2	1.78	0.65
3:H:512:ILE:O	3:H:516:LEU:N	2.26	0.65
1:A:889:GLU:HB2	1:A:891:ARG:HH11	1.61	0.65
1:A:1045:THR:OG1	1:A:1047:GLN:NE2	2.29	0.65
1:A:1048:GLN:HA	1:A:1051:LYS:HD3	1.78	0.65
1:A:1147:LYS:NZ	1:A:1148:ALA:O	2.29	0.65
1:A:3046:ARG:HB3	1:A:3050:LYS:HZ1	1.59	0.65
2:B:425:ILE:HG22	2:B:427:VAL:HG13	1.79	0.65
2:B:450:GLU:OE2	3:C:413:LYS:NZ	2.27	0.65
1:F:1060:PHE:HA	1:F:1063:LEU:HD12	1.79	0.65
2:G:85:VAL:HG22	2:G:106:GLN:HE22	1.60	0.65
3:H:127:PHE:O	3:H:130:ARG:NH1	2.29	0.65
1:A:1799:GLU:HA	1:A:1802:TYR:HB3	1.78	0.65
2:B:297:LYS:HB3	3:C:298:ASN:HD21	1.61	0.65
1:F:313:LEU:HD21	1:F:357:LYS:NZ	2.12	0.65
1:F:1020:PRO:O	1:F:1026:ARG:NH2	2.29	0.65
1:F:3894:PRO:HA	1:F:3897:PHE:HB3	1.78	0.65
2:G:51:SER:HA	2:G:58:THR:HA	1.78	0.65
1:A:1131:ILE:HG23	1:A:1190:LEU:HD21	1.78	0.65
1:A:1407:LYS:HZ2	1:A:1412:LYS:HG2	1.62	0.65
1:A:2379:MET:HB3	1:A:2383:PHE:CE2	2.31	0.65
1:A:3903:HIS:ND1	1:A:3934:THR:O	2.30	0.65
1:F:708:VAL:HG12	1:F:712:LYS:NZ	2.11	0.65
1:F:1485:SER:O	1:F:1490:GLY:N	2.29	0.65
1:F:3051:LEU:HA	1:F:3054:GLN:HE22	1.62	0.65
1:F:3360:LEU:HD11	1:F:3377:LEU:HD11	1.77	0.65
1:F:3828:TYR:HE2	1:F:3879:PRO:HD3	1.61	0.65
2:G:204:HIS:CD2	2:G:213:ILE:HB	2.30	0.65
6:D:15:DA:H2	7:E:42:DA:H61	1.45	0.65
1:A:70:ARG:NH1	1:A:72:SER:HA	2.10	0.65
1:A:346:TYR:CZ	1:A:350:ARG:HD2	2.32	0.65
1:F:1804:MET:HA	1:F:1807:LYS:HG3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:446:PHE:N	1:A:447:PRO:HD2	2.01	0.65
1:A:586:GLN:HE21	1:A:602:MET:HA	1.62	0.65
1:A:1735:ARG:NH2	1:A:1738:ASN:OD1	2.28	0.65
1:A:3765:GLU:HA	1:A:3768:PHE:CD2	2.32	0.65
1:F:372:PRO:HA	1:F:375:VAL:HB	1.77	0.65
1:A:2291:GLN:HE22	1:A:2295:GLN:HA	1.60	0.65
1:A:2944:THR:HA	1:A:2948:GLY:HA3	1.77	0.65
1:F:104:SER:HA	1:F:107:ILE:HG12	1.77	0.65
1:F:1735:ARG:HA	1:F:1738:ASN:HD21	1.62	0.65
2:G:49:PHE:CE2	2:G:128:GLN:HB2	2.31	0.65
2:G:114:LYS:HA	2:G:117:LEU:HD12	1.77	0.65
2:G:286:ILE:O	3:H:313:GLY:N	2.29	0.65
3:H:15:ASP:HB2	3:H:20:MET:SD	2.36	0.65
3:H:57:VAL:HA	3:H:79:VAL:HA	1.79	0.65
6:D:16:DA:N6	7:E:42:DA:N1	2.45	0.65
1:A:449:TYR:HB2	1:A:453:MET:SD	2.37	0.65
1:A:3144:PHE:HA	1:A:3150:ASN:HD22	1.61	0.65
1:A:3950:THR:O	1:A:4068:HIS:ND1	2.30	0.65
2:B:288:LEU:N	3:C:311:ILE:O	2.29	0.65
3:C:80:HIS:O	3:C:81:ARG:NH1	2.29	0.65
1:F:832:LYS:O	1:F:833:HIS:ND1	2.30	0.65
1:F:1413:ASP:OD1	1:F:1414:ILE:HD12	1.96	0.65
1:F:1854:ARG:HH12	3:H:725:VAL:HG11	1.62	0.65
1:A:1427:SER:HA	1:A:1430:GLU:HB2	1.79	0.65
1:A:2480:ILE:HA	1:A:2483:ASN:HD21	1.61	0.65
1:A:3831:ASP:HA	1:A:3835:PRO:HD2	1.76	0.65
2:B:483:LEU:HG	2:B:487:PHE:HE2	1.60	0.65
3:C:9:ALA:N	3:C:129:LYS:O	2.28	0.65
1:F:850:GLU:HA	1:F:853:ILE:HD12	1.78	0.65
1:F:1169:VAL:HG21	1:F:1198:LEU:HD21	1.79	0.65
3:H:148:ASP:OD1	3:H:149:ILE:N	2.30	0.65
1:A:974:CYS:HA	1:A:1028:PHE:CE2	2.27	0.64
1:A:3654:MET:HG2	1:A:3659:PHE:HB2	1.79	0.64
1:F:313:LEU:HD11	1:F:357:LYS:HD3	1.79	0.64
1:F:958:MET:HG3	1:F:961:LEU:HD12	1.78	0.64
1:F:3585:PHE:HA	1:F:3613:MET:HE1	1.77	0.64
1:A:392:CYS:SG	1:A:393:LYS:N	2.70	0.64
1:A:1104:LEU:HD11	1:A:1134:LEU:HD21	1.79	0.64
1:A:3692:VAL:HA	1:A:3696:ARG:HH22	1.62	0.64
2:B:514:MET:HA	2:B:517:ARG:HB3	1.79	0.64
1:F:850:GLU:OE1	1:F:850:GLU:N	2.28	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1257:LEU:HD22	1:F:1337:VAL:HG21	1.78	0.64
1:F:3499:ILE:HG23	1:F:3529:ILE:HG12	1.79	0.64
2:G:403:ARG:HE	5:I:31:DA:H4'	1.62	0.64
2:G:425:ILE:HG22	2:G:427:VAL:HG13	1.78	0.64
1:A:22:ALA:O	1:A:33:GLN:NE2	2.31	0.64
1:A:1504:ASP:O	1:A:1508:LYS:N	2.28	0.64
1:A:1506:SER:HA	1:A:1509:GLN:HE21	1.62	0.64
1:A:2390:HIS:N	1:A:2394:LYS:HZ1	1.95	0.64
2:B:372:GLU:OE2	2:B:378:SER:N	2.30	0.64
1:F:1799:GLU:OE2	1:F:1806:ARG:NH2	2.24	0.64
1:F:2586:PHE:HB2	1:F:2776:ARG:HE	1.60	0.64
1:F:3001:CYS:HA	1:F:3004:HIS:HB2	1.78	0.64
1:A:741:ILE:HG22	1:A:745:VAL:HG12	1.79	0.64
1:A:1696:LEU:HA	1:A:1699:PHE:HB2	1.79	0.64
1:A:1776:GLU:HG3	1:A:1777:LEU:HD12	1.78	0.64
1:A:3496:ILE:HG21	1:A:3707:GLY:H	1.61	0.64
1:A:3931:ALA:N	1:A:3936:GLY:O	2.20	0.64
2:B:484:GLN:HA	2:B:487:PHE:HD2	1.61	0.64
1:F:387:GLU:HG3	1:F:388:LEU:HD12	1.79	0.64
1:F:1298:LEU:HG	1:F:1367:HIS:HB2	1.79	0.64
1:F:3462:ARG:O	1:F:3498:TRP:NE1	2.31	0.64
1:A:930:ALA:HA	1:A:933:LEU:HD12	1.79	0.64
2:B:270:SER:H	2:B:375:VAL:HB	1.62	0.64
1:F:1172:LEU:O	1:F:1176:CYS:N	2.31	0.64
1:F:1494:GLY:H	1:F:1538:LEU:HD11	1.62	0.64
1:A:1007:VAL:HA	1:A:1010:LEU:HD12	1.79	0.64
1:A:1893:GLU:HG2	1:A:1894:SER:H	1.62	0.64
1:A:3033:GLU:HG2	1:A:3034:PRO:HD3	1.79	0.64
1:A:3251:ASN:HD21	1:A:3254:LEU:HB3	1.62	0.64
1:A:3283:LEU:HD21	1:A:3287:ARG:HH21	1.62	0.64
1:F:180:LEU:HG	1:F:182:GLY:H	1.63	0.64
1:F:749:VAL:HA	1:F:752:LEU:HD12	1.80	0.64
1:F:771:ASN:OD1	1:F:854:ARG:NH2	2.31	0.64
1:F:2313:LYS:HA	1:F:2316:TYR:CZ	2.33	0.64
1:F:2464:HIS:HD2	1:F:2466:SER:HB3	1.61	0.64
3:H:16:VAL:HB	3:H:58:LEU:HD11	1.79	0.64
3:H:28:GLU:OE1	3:H:36:LYS:NZ	2.22	0.64
3:H:266:SER:OG	3:H:363:LYS:NZ	2.23	0.64
6:D:20:DT:H2''	6:D:21:DA:C5	2.33	0.64
1:A:305:ASN:HD21	1:A:307:GLU:HG2	1.61	0.64
1:A:1407:LYS:HD3	1:A:1412:LYS:HZ2	1.61	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2335:ASN:HD21	1:A:2337:LEU:HD12	1.63	0.64
1:A:3499:ILE:HG21	1:A:3529:ILE:HG23	1.79	0.64
1:A:78:PHE:O	1:A:82:ARG:NH1	2.30	0.64
1:A:2183:HIS:HB2	1:A:2185:MET:HG3	1.80	0.64
3:C:144:LYS:NZ	3:C:203:GLU:OE1	2.27	0.64
3:C:279:VAL:HG12	3:C:286:LYS:HD3	1.80	0.64
1:F:440:VAL:HA	1:F:443:ILE:HD12	1.79	0.64
1:F:3126:LEU:O	1:F:3129:LEU:N	2.31	0.64
2:G:422:ASP:OD1	2:G:423:GLN:N	2.30	0.64
1:A:3071:GLY:O	1:A:3074:GLN:NE2	2.31	0.64
1:F:892:LEU:HG	1:F:907:LEU:HB2	1.78	0.64
1:A:408:TYR:HA	1:A:449:TYR:CE2	2.33	0.64
1:A:2791:ILE:HG23	1:A:2794:LEU:HD22	1.78	0.64
3:C:272:VAL:HG12	3:C:274:LYS:H	1.62	0.64
3:C:652:GLU:HA	3:C:655:PHE:HB3	1.79	0.64
1:F:1574:ASN:ND2	1:F:1578:ALA:H	1.96	0.64
1:F:1829:TRP:HA	1:F:1883:ARG:HH12	1.63	0.64
3:H:12:LEU:HD12	3:H:56:LEU:HB2	1.78	0.64
1:A:449:TYR:CB	1:A:453:MET:SD	2.86	0.63
1:A:1684:LEU:HD11	1:A:1689:LYS:HB3	1.80	0.63
1:A:3311:ASN:ND2	1:A:3315:TYR:OH	2.28	0.63
1:A:3380:ARG:HA	1:A:3383:GLN:HG3	1.80	0.63
1:F:1500:LEU:HD12	1:F:1501:PRO:HD2	1.80	0.63
3:H:352:GLN:H	3:H:355:PHE:HD1	1.44	0.63
1:A:1623:LEU:HB3	1:A:1667:SER:HB2	1.78	0.63
1:A:3352:GLU:O	1:A:3357:ARG:NH2	2.31	0.63
3:C:688:LYS:NZ	3:C:699:GLU:OE1	2.31	0.63
1:F:891:ARG:HH21	1:F:960:GLN:HE22	1.44	0.63
1:F:1457:GLN:HB3	1:F:1460:ARG:HH21	1.62	0.63
1:A:1476:HIS:HB2	1:A:1524:LEU:HD11	1.80	0.63
1:A:2801:ASP:HB3	1:A:2804:ILE:HG12	1.79	0.63
1:A:3616:ALA:O	1:A:3633:ILE:HG22	1.98	0.63
1:A:3812:LEU:HG	1:A:3816:LEU:HG	1.80	0.63
1:F:1041:ILE:HD11	1:F:1046:PRO:HA	1.80	0.63
1:F:1468:LEU:HG	1:F:1470:SER:H	1.63	0.63
1:F:2133:LEU:HD23	1:F:2146:LEU:HD11	1.81	0.63
1:F:2373:PRO:HA	1:F:2404:ARG:CZ	2.29	0.63
1:F:3467:ARG:HH12	1:F:3471:ILE:HB	1.64	0.63
1:A:28:ALA:HA	1:A:77:GLU:OE2	1.98	0.63
1:A:1136:ARG:HG3	1:A:1140:LYS:HZ3	1.63	0.63
1:A:1413:ASP:OD1	1:A:1414:ILE:N	2.27	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1766:LEU:O	1:A:1822:ARG:NH1	2.32	0.63
2:B:126:GLN:O	2:B:130:ARG:HG3	1.99	0.63
1:F:1489:LYS:HD3	1:F:1492:ALA:HB3	1.80	0.63
1:F:1937:ARG:O	1:F:1941:HIS:ND1	2.30	0.63
1:F:3034:PRO:HB2	1:F:3037:GLN:HB2	1.80	0.63
1:F:3413:TYR:HD2	1:F:3453:ALA:HB2	1.63	0.63
1:A:81:CYS:HB2	1:A:82:ARG:NH1	2.13	0.63
1:A:1202:ARG:NH2	1:A:1210:ASP:HB2	2.13	0.63
1:A:3089:LEU:O	1:A:3093:GLN:N	2.28	0.63
1:F:90:CYS:SG	1:F:133:LYS:NZ	2.64	0.63
1:F:2866:ALA:HA	1:F:2869:LEU:HB2	1.80	0.63
1:F:3738:ILE:N	1:F:3750:PHE:O	2.21	0.63
1:F:3742:GLY:N	1:F:3746:ARG:O	2.32	0.63
3:H:679:VAL:HG11	3:H:705:LEU:HD21	1.80	0.63
1:A:214:GLU:O	1:A:216:LYS:HG2	1.98	0.63
1:A:1139:GLU:HB2	1:A:1140:LYS:HZ2	1.63	0.63
1:A:1483:LEU:HD11	1:A:1518:ALA:HB1	1.81	0.63
1:A:2155:GLU:HA	1:A:2158:ARG:HG2	1.79	0.63
3:C:296:CYS:HA	3:C:304:GLU:HA	1.80	0.63
1:F:2102:LYS:O	1:F:2106:ARG:HD3	1.98	0.63
1:F:2575:PRO:HA	1:F:2786:LYS:HA	1.79	0.63
1:F:2578:GLU:O	1:F:2784:GLN:NE2	2.28	0.63
2:G:400:TYR:N	2:G:409:TYR:O	2.30	0.63
1:A:452:LYS:HA	1:A:455:LEU:HD12	1.81	0.63
1:A:1519:PHE:CD1	1:A:1570:GLU:HG3	2.34	0.63
1:A:2573:PRO:HA	1:A:2786:LYS:HB3	1.81	0.63
1:A:2791:ILE:HA	1:A:2794:LEU:HD13	1.81	0.63
1:A:2939:LEU:O	1:A:2942:ILE:CG2	2.47	0.63
3:C:234:LEU:HG	3:C:237:PHE:HB2	1.80	0.63
1:F:1023:SER:HA	1:F:1026:ARG:HB2	1.80	0.63
1:F:3821:SER:HB3	1:F:3824:GLU:HB3	1.79	0.63
3:H:294:VAL:HA	3:H:307:LYS:HE3	1.80	0.63
1:A:61:ARG:NH1	1:A:62:ASP:OD1	2.31	0.63
1:A:1986:ARG:HA	1:A:2184:TYR:HD2	1.64	0.63
1:A:2453:GLU:OE1	1:A:2453:GLU:N	2.31	0.63
2:B:51:SER:HA	2:B:58:THR:HA	1.79	0.63
2:B:87:PHE:HB2	2:B:103:TYR:HB3	1.80	0.63
2:B:340:PHE:HB2	3:C:486:ARG:HH12	1.64	0.63
2:B:412:ALA:O	2:B:435:VAL:N	2.32	0.63
1:F:13:LEU:O	1:F:16:GLN:N	2.32	0.63
1:F:1298:LEU:HA	1:F:1367:HIS:CD2	2.34	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1423:ILE:HG13	1:F:1425:ALA:H	1.63	0.63
1:F:1444:ASP:OD1	1:F:1445:ARG:N	2.32	0.63
1:F:1786:ALA:H	1:F:1830:HIS:HE1	1.47	0.63
1:F:2193:ILE:HG22	1:F:2194:LEU:HD22	1.81	0.63
1:F:3593:ARG:NH1	1:F:3657:SER:OG	2.30	0.63
2:G:484:GLN:O	2:G:488:ARG:HG2	1.98	0.63
1:A:2351:GLN:HB3	1:A:2356:MET:HB2	1.81	0.63
1:A:2910:VAL:HA	1:A:2915:ARG:HD3	1.81	0.63
2:B:36:ASP:OD1	2:B:37:SER:N	2.32	0.63
1:F:2548:PRO:HG3	1:F:2846:THR:HG22	1.81	0.63
2:G:276:LEU:HD11	2:G:367:PHE:HB2	1.79	0.63
3:H:488:GLN:NE2	3:H:509:GLN:OE1	2.32	0.63
3:C:342:VAL:HG21	3:C:391:ALA:HB1	1.79	0.62
1:F:1115:HIS:CE1	1:F:1180:GLN:HB3	2.34	0.62
1:F:1459:HIS:HB2	1:F:1520:ALA:HB1	1.80	0.62
1:F:1703:THR:HG21	1:F:1707:LEU:HD21	1.81	0.62
1:F:2554:PHE:HD1	1:F:2557:LEU:HB2	1.64	0.62
1:F:3259:LEU:O	1:F:3276:TRP:NE1	2.26	0.62
1:A:1956:PHE:CE1	1:A:1958:GLU:HB3	2.34	0.62
1:A:3421:ASP:OD1	1:A:3425:ARG:NE	2.32	0.62
2:B:474:ARG:HE	2:B:476:ASP:H	1.47	0.62
1:F:3278:GLN:O	1:F:3282:ARG:HG2	1.99	0.62
1:F:3758:LEU:HB3	1:F:3762:GLN:HE22	1.64	0.62
2:G:289:TYR:HD2	2:G:292:THR:H	1.45	0.62
1:A:2573:PRO:O	1:A:2786:LYS:NZ	2.32	0.62
3:C:413:LYS:N	3:C:417:GLU:OE1	2.32	0.62
1:F:2125:TRP:O	1:F:2129:LEU:HG	1.98	0.62
2:G:362:LEU:HD12	2:G:436:PHE:CE2	2.34	0.62
3:H:377:LEU:HA	3:H:380:LEU:HD12	1.82	0.62
1:A:449:TYR:HB3	1:A:453:MET:CG	2.29	0.62
1:A:542:ASP:OD1	1:A:543:SER:N	2.30	0.62
1:A:2331:MET:N	1:A:2335:ASN:O	2.31	0.62
1:A:3270:ASP:OD1	1:A:3271:ASP:N	2.32	0.62
1:A:3413:TYR:HA	1:A:3449:LYS:NZ	2.14	0.62
2:B:297:LYS:HZ3	3:C:294:VAL:HG23	1.63	0.62
2:B:358:LYS:HB3	3:C:409:PHE:CE2	2.34	0.62
3:H:493:CYS:HB3	3:H:505:LEU:HD12	1.81	0.62
1:A:230:LEU:HD23	1:A:234:PHE:HZ	1.64	0.62
1:A:1329:ARG:HE	1:A:1332:TYR:HB3	1.63	0.62
1:A:2865:HIS:HB2	1:A:2868:LEU:HD13	1.81	0.62
3:C:282:LYS:HG3	3:C:283:THR:HG23	1.81	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:497:ARG:NH1	3:C:503:GLU:O	2.32	0.62
1:F:560:LEU:O	1:F:564:LEU:HG	2.00	0.62
1:F:2228:ARG:HA	1:F:2232:ARG:HH12	1.64	0.62
1:F:3590:ASN:HA	1:F:4031:ILE:HD12	1.81	0.62
1:A:132:ILE:HA	1:A:135:LEU:HD12	1.82	0.62
1:A:449:TYR:CD2	1:A:453:MET:HE1	2.26	0.62
1:A:2310:VAL:HG22	1:A:2311:ARG:H	1.64	0.62
1:A:2384:PHE:HD2	1:A:2385:LEU:HD22	1.62	0.62
1:A:3374:ILE:HA	1:A:3377:LEU:HD12	1.81	0.62
1:F:399:GLN:HB3	1:F:403:GLY:H	1.65	0.62
1:F:2122:LEU:HB3	1:F:2127:LYS:N	2.14	0.62
1:F:3150:ASN:HA	1:F:3156:PRO:HG2	1.81	0.62
1:F:3177:ASN:OD1	1:F:3178:ILE:N	2.32	0.62
1:F:3511:ALA:HB1	1:F:3514:VAL:HB	1.80	0.62
1:F:3607:GLU:HA	1:F:3610:TYR:CZ	2.35	0.62
2:G:296:VAL:HG11	3:H:305:VAL:HG11	1.80	0.62
3:H:363:LYS:HE2	3:H:365:PHE:HZ	1.65	0.62
1:A:2539:LEU:HD23	1:A:2543:ASN:HD21	1.64	0.62
1:A:3046:ARG:HA	1:A:3049:LEU:HD12	1.82	0.62
1:A:3302:LYS:HD3	1:A:3333:THR:HG21	1.80	0.62
2:B:352:PRO:HA	2:B:394:VAL:HA	1.82	0.62
3:C:256:ASN:OD1	3:C:257:LEU:N	2.32	0.62
1:F:736:LEU:HB3	1:F:740:ILE:HG21	1.80	0.62
1:F:2439:ILE:HA	1:F:2442:MET:HG3	1.82	0.62
3:H:510:GLN:HA	3:H:513:TRP:CE3	2.34	0.62
4:J:15:DA:H5'	5:I:42:DA:C2	2.35	0.62
1:A:1820:VAL:HA	1:A:1824:LEU:HB2	1.82	0.62
1:A:3461:ALA:HA	1:A:3464:LYS:HD3	1.80	0.62
3:C:297:LEU:N	3:C:303:THR:O	2.23	0.62
1:F:289:ASN:O	1:F:293:LEU:N	2.22	0.62
1:F:1584:GLN:O	1:F:1587:VAL:HG12	2.00	0.62
1:F:2098:THR:O	1:F:2102:LYS:NZ	2.33	0.62
1:F:2345:VAL:HA	1:F:2348:GLN:HG2	1.80	0.62
3:H:454:VAL:O	3:H:458:ILE:N	2.33	0.62
1:A:39:GLY:HA3	1:A:826:PHE:CE1	2.35	0.62
1:A:699:GLU:HG2	1:A:700:LYS:HD3	1.81	0.62
1:A:3665:MET:O	1:A:3669:LYS:NZ	2.31	0.62
2:B:144:SER:HA	2:B:189:LYS:NZ	2.14	0.62
1:F:793:LEU:O	1:F:795:CYS:N	2.30	0.62
1:F:2183:HIS:H	1:F:2186:VAL:HB	1.65	0.62
3:H:9:ALA:N	3:H:129:LYS:O	2.24	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:479:ILE:HA	1:A:482:VAL:HG22	1.82	0.62
1:A:1274:ARG:HA	1:A:1274:ARG:CZ	2.30	0.62
1:A:1563:PHE:HD2	1:A:1566:THR:HG21	1.64	0.62
1:A:1839:PHE:CE1	1:A:1843:ILE:HG21	2.35	0.62
2:B:275:ASN:HA	2:B:366:LEU:HD12	1.81	0.62
1:F:1533:LEU:HD13	1:F:1585:SER:HB2	1.80	0.62
1:F:2420:PHE:HZ	1:F:2435:CYS:HB3	1.64	0.62
1:F:3460:GLU:O	1:F:3464:LYS:HG2	2.00	0.62
1:F:3730:ALA:HA	1:F:3734:ARG:NE	2.15	0.62
2:G:132:GLN:OE1	2:G:137:HIS:HB2	2.00	0.62
2:G:273:ILE:HG23	2:G:368:VAL:CG2	2.30	0.62
2:G:348:MET:O	3:H:461:MET:HG2	2.00	0.62
2:G:388:LYS:HA	2:G:391:GLU:HG2	1.82	0.62
1:A:1887:ASP:OD1	1:A:1888:ASP:N	2.33	0.61
1:A:2177:ASN:ND2	1:A:2181:GLY:O	2.27	0.61
1:A:2586:PHE:CZ	1:A:2780:LEU:HB3	2.35	0.61
1:A:2881:LEU:HA	1:A:2886:GLN:HE21	1.65	0.61
1:A:3275:SER:HA	1:A:3278:GLN:HE21	1.65	0.61
1:A:3527:GLN:HE21	1:A:3697:ASN:HB2	1.64	0.61
2:B:34:GLY:HA2	2:B:160:LYS:HG3	1.80	0.61
2:B:407:PRO:HG3	3:C:486:ARG:HG3	1.81	0.61
3:C:455:ASP:HA	3:C:458:ILE:HD12	1.81	0.61
1:F:3737:ARG:HA	1:F:3751:LEU:HA	1.79	0.61
1:A:848:LEU:HG	1:A:851:ILE:HD12	1.82	0.61
1:A:1779:GLN:HA	1:A:1782:PHE:CD2	2.35	0.61
1:A:2154:GLU:HA	1:A:2157:PHE:CE1	2.35	0.61
1:F:1205:ASN:HA	1:F:1275:THR:HA	1.82	0.61
1:F:1454:ALA:HA	1:F:1457:GLN:HE21	1.65	0.61
1:F:1468:LEU:HD12	1:F:1469:PRO:HD2	1.80	0.61
1:A:1112:ALA:HA	1:A:1180:GLN:HG2	1.82	0.61
1:A:1391:VAL:O	1:A:1395:LEU:N	2.32	0.61
1:A:3856:MET:HB3	1:A:4072:PRO:HB2	1.82	0.61
2:B:459:VAL:HG12	2:B:463:LYS:HE2	1.82	0.61
1:F:23:ASP:HA	1:F:34:LEU:HD11	1.82	0.61
1:F:977:ASP:HB3	1:F:980:THR:HG23	1.81	0.61
1:F:2196:TRP:HB2	1:F:2199:LEU:HB2	1.82	0.61
1:F:2481:HIS:CE1	1:F:2485:ARG:HE	2.17	0.61
1:F:3680:LEU:HD22	1:F:3724:GLU:HG3	1.82	0.61
2:G:287:LYS:HA	3:H:312:GLN:HA	1.82	0.61
3:H:37:VAL:O	3:H:41:PHE:HD1	1.82	0.61
3:H:232:ARG:HA	3:H:515:MET:SD	2.40	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1202:ARG:NE	1:A:1210:ASP:OD2	2.33	0.61
1:A:1854:ARG:HH12	1:A:1863:PHE:HB2	1.64	0.61
1:A:3952:PHE:HD2	1:A:3953:LEU:HD22	1.66	0.61
2:B:399:ARG:HA	2:B:410:PHE:HA	1.81	0.61
1:F:1809:ASP:O	1:F:1816:ARG:NH2	2.33	0.61
1:F:2394:LYS:HB2	1:F:2431:ARG:HH12	1.65	0.61
1:F:3054:GLN:OE1	1:F:3054:GLN:N	2.32	0.61
1:A:2206:PRO:O	1:A:2210:VAL:N	2.25	0.61
1:A:2471:GLU:OE2	1:A:2472:GLN:NE2	2.33	0.61
1:A:2528:GLU:HA	1:A:2531:LEU:O	2.01	0.61
2:B:120:ASP:OD1	2:B:123:LYS:NZ	2.31	0.61
2:B:123:LYS:O	2:B:126:GLN:NE2	2.33	0.61
1:F:1511:ALA:HA	1:F:1514:LEU:HD12	1.82	0.61
1:F:2290:PRO:HG2	1:F:2293:GLY:H	1.64	0.61
1:F:2368:THR:HG21	1:F:2400:VAL:HG23	1.82	0.61
2:G:358:LYS:HE2	3:H:353:ARG:NH2	2.15	0.61
1:A:32:HIS:O	1:A:36:ARG:NH1	2.34	0.61
1:A:853:ILE:O	1:A:857:GLN:NE2	2.31	0.61
1:A:1622:ILE:O	1:A:1626:TRP:N	2.34	0.61
1:A:2880:CYS:O	1:A:2884:LEU:N	2.34	0.61
1:A:3326:GLN:HA	1:A:3329:LEU:HD12	1.83	0.61
1:A:3841:ASP:OD1	1:A:3842:TRP:N	2.33	0.61
1:A:3918:LEU:HD22	1:A:3920:ILE:HG13	1.82	0.61
3:C:357:MET:HE1	3:C:425:PRO:HA	1.81	0.61
3:C:645:GLU:O	3:C:649:PHE:N	2.33	0.61
1:F:925:GLN:HB2	1:F:2800:ARG:HH22	1.66	0.61
1:F:1886:LYS:O	1:F:1890:HIS:ND1	2.33	0.61
1:F:1927:MET:HG2	1:F:1929:GLY:H	1.65	0.61
1:F:3244:ASP:HA	1:F:3247:ARG:NH1	2.16	0.61
1:F:3833:ARG:HG3	1:F:3834:ALA:H	1.66	0.61
1:F:3965:ARG:HH21	1:F:3969:ASN:HA	1.65	0.61
1:A:447:PRO:HB3	1:A:526:ASP:HB3	1.83	0.61
1:A:1032:CYS:O	1:A:1036:PHE:N	2.27	0.61
1:A:2835:LYS:O	1:A:2838:GLN:NE2	2.33	0.61
1:A:3789:ARG:HH22	1:A:3791:TYR:H	1.49	0.61
3:C:485:PRO:HA	3:C:488:GLN:NE2	2.14	0.61
1:F:1610:ASN:OD1	1:F:1611:GLN:N	2.30	0.61
1:F:3005:LEU:HD21	1:F:3252:PHE:CZ	2.36	0.61
1:F:3532:PRO:HA	1:F:3535:ILE:HD12	1.82	0.61
2:G:282:LYS:NZ	2:G:483:LEU:HD13	2.16	0.61
1:A:1602:ASP:OD1	1:A:1603:GLN:N	2.32	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3034:PRO:HG2	1:A:3037:GLN:HB2	1.81	0.61
1:A:3231:ILE:HG22	1:A:3235:LYS:HZ2	1.65	0.61
1:A:3365:SER:HB3	1:A:3373:VAL:HA	1.82	0.61
1:A:3924:HIS:CD2	1:A:3926:ASN:HB2	2.36	0.61
1:F:2796:ALA:O	1:F:2799:GLN:NE2	2.34	0.61
1:F:3862:ALA:HB3	1:F:4119:ARG:HH21	1.64	0.61
2:G:351:LYS:O	2:G:395:ALA:N	2.32	0.61
3:H:137:ASP:HB3	3:H:166:PRO:HG2	1.82	0.61
1:A:1209:LYS:HE3	1:A:1276:VAL:HG13	1.83	0.61
1:A:1741:ASP:OD1	1:A:1745:LYS:NZ	2.33	0.61
1:A:2457:PRO:O	1:A:2460:GLU:HG2	2.00	0.61
2:B:89:GLY:HA2	2:B:101:ASN:HB3	1.82	0.61
2:B:439:PHE:HB3	3:C:483:PRO:HA	1.83	0.61
1:F:868:LYS:O	1:F:872:THR:N	2.25	0.61
1:F:960:GLN:OE1	1:F:960:GLN:N	2.29	0.61
1:F:1142:HIS:O	1:F:1146:ASN:N	2.33	0.61
1:F:2425:ARG:NH1	1:F:2460:GLU:OE1	2.33	0.61
1:F:4049:ARG:HH22	1:F:4058:VAL:HB	1.64	0.61
2:G:299:LYS:HG2	3:H:294:VAL:HG12	1.83	0.61
2:G:312:LEU:HD12	2:G:313:PRO:HD2	1.83	0.61
3:H:15:ASP:HB3	3:H:136:THR:HG23	1.82	0.61
1:A:163:LYS:HG2	2:B:313:PRO:HD3	1.82	0.61
1:A:251:PHE:HA	1:A:254:LYS:HG2	1.82	0.61
1:A:317:GLU:HA	1:A:320:LEU:HB2	1.83	0.61
1:A:1825:LEU:HD23	1:A:1828:LEU:HD21	1.82	0.61
1:F:1622:ILE:HA	1:F:1625:HIS:HB2	1.83	0.61
2:G:261:LEU:HG	2:G:271:VAL:HG21	1.83	0.61
1:A:523:THR:O	1:A:525:LYS:N	2.34	0.60
1:A:1414:ILE:HG22	1:A:1418:HIS:CE1	2.36	0.60
3:C:629:THR:HA	3:C:632:PHE:CE2	2.35	0.60
1:F:1131:ILE:HA	1:F:1134:LEU:HD12	1.82	0.60
1:F:3713:PRO:O	1:F:3716:HIS:NE2	2.34	0.60
1:A:2841:ASN:O	1:A:2845:ASN:ND2	2.34	0.60
1:A:3059:GLN:O	1:A:3063:THR:N	2.22	0.60
1:A:3729:MET:CE	1:A:3737:ARG:CB	2.79	0.60
1:A:3754:GLY:HA2	1:A:3800:LEU:HG	1.82	0.60
1:F:781:ASP:OD2	1:F:783:HIS:ND1	2.34	0.60
1:F:3457:ASN:ND2	1:F:3492:CYS:SG	2.74	0.60
1:F:4017:GLU:HG2	1:F:4033:VAL:HG12	1.83	0.60
1:A:984:TYR:O	1:A:988:VAL:N	2.33	0.60
2:B:147:LEU:HD12	2:B:189:LYS:HE2	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:459:VAL:HA	2:B:462:MET:HE2	1.82	0.60
3:C:497:ARG:NH2	3:C:501:PRO:O	2.34	0.60
1:F:2320:ALA:HB3	1:F:2366:LYS:HE3	1.83	0.60
1:F:2954:GLN:HA	1:F:2957:LEU:HD12	1.82	0.60
1:F:3176:MET:HA	1:F:3179:TRP:CD1	2.36	0.60
2:G:258:ARG:NH2	5:I:33:DA:OP1	2.35	0.60
1:A:528:VAL:HG13	1:A:532:ARG:HH22	1.65	0.60
1:A:1663:THR:H	1:A:1665:HIS:CE1	2.19	0.60
1:A:2447:LYS:HZ3	1:A:2449:VAL:H	1.49	0.60
1:A:2877:SER:HB2	1:A:2928:LYS:HE3	1.84	0.60
1:A:3665:MET:SD	1:A:3666:LEU:HD22	2.41	0.60
2:B:189:LYS:HA	2:B:192:ASP:HB2	1.82	0.60
2:B:458:GLN:O	2:B:461:LYS:HG2	2.01	0.60
1:F:1831:CYS:HB2	1:F:1836:LEU:HD11	1.83	0.60
2:G:286:ILE:N	3:H:313:GLY:O	2.33	0.60
2:G:484:GLN:HE22	2:G:485:GLN:HE21	1.49	0.60
3:H:234:LEU:HD13	3:H:481:LYS:NZ	2.16	0.60
1:A:247:GLU:HA	1:A:250:ASN:HB2	1.82	0.60
1:A:738:HIS:HA	1:A:776:TRP:HE1	1.66	0.60
1:A:1115:HIS:HB3	1:A:1180:GLN:HG3	1.84	0.60
1:A:2120:ARG:HB3	1:A:2122:LEU:HD23	1.83	0.60
1:A:2261:SER:HA	1:A:2306:ASN:HD21	1.66	0.60
1:A:3738:ILE:O	1:A:3749:PRO:HA	2.01	0.60
2:B:403:ARG:NH1	2:B:404:ARG:HB3	2.16	0.60
1:F:66:LEU:HG	1:F:70:ARG:NH1	2.15	0.60
1:F:162:LEU:HD11	2:G:299:LYS:HB2	1.83	0.60
1:F:1017:ILE:HA	1:F:1026:ARG:HG2	1.83	0.60
1:F:1123:THR:HA	1:F:1126:GLN:HE22	1.67	0.60
1:F:2950:LYS:HB2	1:F:2953:THR:HG23	1.82	0.60
1:F:2987:THR:OG1	1:F:2988:GLU:OE1	2.20	0.60
3:H:642:PHE:HA	3:H:645:GLU:HB2	1.84	0.60
1:A:1191:PHE:HA	1:A:1194:PHE:CD2	2.36	0.60
1:A:2852:PRO:HA	1:A:2855:VAL:HG12	1.83	0.60
1:A:3029:LYS:HZ3	1:A:3031:TRP:HD1	1.50	0.60
1:F:3653:ARG:HA	1:F:3656:LEU:HD12	1.82	0.60
1:F:3882:LEU:HB3	1:F:3885:ARG:HH21	1.66	0.60
3:H:229:GLU:O	3:H:233:LYS:N	2.34	0.60
1:A:408:TYR:HE1	1:A:449:TYR:HE1	1.50	0.60
1:A:1893:GLU:H	1:A:1895:LYS:NZ	2.00	0.60
1:A:2497:GLU:HA	1:A:2500:LYS:HG2	1.84	0.60
2:B:203:MET:HE1	2:B:239:LEU:H	1.65	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:266:SER:N	3:C:361:VAL:O	2.21	0.60
1:F:1202:ARG:HH22	1:F:1210:ASP:HB2	1.67	0.60
1:F:3288:SER:O	1:F:3992:ARG:NH2	2.33	0.60
1:A:1924:THR:HA	1:A:1971:PRO:HG3	1.82	0.60
1:A:1954:CYS:SG	1:A:1955:VAL:N	2.75	0.60
1:A:2446:LEU:HD12	1:A:2447:LYS:H	1.66	0.60
1:A:2909:ARG:HG3	1:A:2911:ARG:H	1.67	0.60
1:A:2962:ARG:NH2	1:A:4100:GLU:OE1	2.35	0.60
2:B:459:VAL:O	2:B:463:LYS:HG2	2.02	0.60
1:F:2270:ASN:O	1:F:2274:ILE:HD12	2.01	0.60
1:F:2447:LYS:HG3	1:F:2449:VAL:HG22	1.82	0.60
1:F:3817:LEU:O	1:F:3825:LYS:NZ	2.35	0.60
2:G:388:LYS:NZ	3:H:455:ASP:OD1	2.35	0.60
3:H:412:ILE:HG23	3:H:417:GLU:HB3	1.82	0.60
1:A:70:ARG:NH1	1:A:82:ARG:HH21	1.98	0.60
1:A:193:ALA:HA	1:A:196:LEU:HD12	1.84	0.60
1:A:606:SER:HB3	1:A:1023:SER:HB3	1.83	0.60
1:A:890:LYS:N	1:A:3889:ARG:HH22	2.00	0.60
1:A:1917:LYS:HE2	3:H:725:VAL:HG22	1.82	0.60
1:A:2915:ARG:NH1	1:A:2916:LEU:O	2.33	0.60
1:A:3357:ARG:HE	1:A:3358:ARG:HH12	1.48	0.60
1:F:363:ILE:HA	1:F:366:TYR:HB2	1.83	0.60
1:F:721:TYR:O	1:F:722:LYS:NZ	2.33	0.60
1:F:1071:ASN:ND2	1:F:1073:PHE:HB2	2.16	0.60
1:F:1427:SER:HA	1:F:1430:GLU:HB2	1.83	0.60
1:F:1560:TYR:OH	1:F:1599:GLY:HA3	2.02	0.60
1:F:3988:LEU:HD23	1:F:4100:GLU:HB2	1.84	0.60
7:E:35:DT:O4	7:E:36:DA:N6	2.34	0.60
1:A:1182:GLU:OE1	1:A:1182:GLU:N	2.32	0.60
1:A:1696:LEU:O	1:A:1699:PHE:N	2.34	0.60
1:A:1776:GLU:HA	1:A:1779:GLN:NE2	2.17	0.60
1:A:2908:LYS:O	1:A:2915:ARG:NH2	2.35	0.60
1:A:3036:TYR:HB3	1:A:3040:TYR:HE2	1.66	0.60
2:B:486:HIS:O	2:B:490:LEU:HG	2.01	0.60
1:F:888:ARG:HH11	1:F:3890:MET:HB3	1.66	0.60
1:F:1755:SER:HB3	1:F:1758:LEU:HD13	1.83	0.60
1:F:4013:TRP:HZ2	1:F:4034:ALA:H	1.50	0.60
3:H:81:ARG:NH2	3:H:85:LEU:O	2.35	0.60
1:A:462:VAL:HG21	1:A:540:MET:HG2	1.83	0.59
1:A:1340:ARG:NH1	1:A:1343:GLU:OE1	2.35	0.59
1:A:3387:GLU:O	1:A:3390:GLN:NE2	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3443:PRO:HG3	1:A:3475:TYR:CD1	2.37	0.59
1:A:3511:ALA:HB1	1:A:3514:VAL:HG22	1.84	0.59
1:F:242:PRO:O	1:F:246:ARG:HG2	2.01	0.59
1:F:1327:GLY:HA2	1:F:1330:TYR:HB3	1.84	0.59
1:F:1807:LYS:O	1:F:1816:ARG:NH1	2.30	0.59
1:F:3714:GLU:O	1:F:3718:ARG:NH2	2.31	0.59
1:F:3809:THR:HA	1:F:3931:ALA:HA	1.82	0.59
6:D:36:DG:H1	7:E:21:DA:H5'	1.67	0.59
1:A:369:PHE:HA	1:A:372:PRO:HG2	1.84	0.59
1:A:1933:LEU:HB3	1:A:1935:GLU:HG2	1.84	0.59
1:A:2574:ASN:HB2	1:A:2787:HIS:HD2	1.66	0.59
1:A:3033:GLU:OE1	1:A:3033:GLU:N	2.25	0.59
2:B:76:ILE:HD13	2:B:248:ALA:HA	1.84	0.59
2:B:299:LYS:HB3	3:C:294:VAL:O	2.01	0.59
3:C:352:GLN:HB3	3:C:355:PHE:HB2	1.84	0.59
1:F:1828:LEU:HB3	1:F:1879:VAL:HG11	1.84	0.59
1:F:1878:ASP:OD1	1:F:1879:VAL:N	2.35	0.59
1:F:3884:LYS:NZ	1:F:3969:ASN:O	2.32	0.59
2:G:318:ARG:HH21	3:H:278:VAL:HG22	1.66	0.59
3:H:7:LYS:HD2	3:H:125:LYS:HZ1	1.67	0.59
3:H:261:ILE:HD12	3:H:364:VAL:HG11	1.82	0.59
3:H:489:ARG:NH1	3:H:492:GLN:OE1	2.35	0.59
1:A:528:VAL:HG23	1:A:633:ILE:HG12	1.85	0.59
1:A:677:ALA:O	1:A:681:LYS:N	2.35	0.59
1:A:1801:VAL:O	1:A:1805:PHE:N	2.35	0.59
1:A:2154:GLU:OE1	1:A:2154:GLU:N	2.31	0.59
1:A:3797:THR:HG22	1:A:3798:SER:H	1.65	0.59
1:A:3825:LYS:O	1:A:3830:SER:N	2.27	0.59
1:A:3852:VAL:HA	1:A:3855:TYR:HE1	1.67	0.59
2:B:179:ASP:OD1	2:B:182:LYS:NZ	2.34	0.59
3:C:676:GLU:OE1	3:C:676:GLU:N	2.33	0.59
1:F:272:LEU:HD23	1:F:312:ALA:HA	1.83	0.59
1:F:1310:GLU:OE1	1:F:1310:GLU:N	2.34	0.59
1:F:3049:LEU:HA	1:F:3052:LEU:HD12	1.84	0.59
2:G:485:GLN:HE22	2:G:502:GLN:HA	1.68	0.59
1:A:959:TYR:HA	1:A:962:TYR:CD2	2.31	0.59
1:A:990:GLN:HE22	1:A:2779:ASP:HA	1.67	0.59
1:A:1202:ARG:HE	1:A:1207:TRP:HA	1.67	0.59
1:A:2528:GLU:OE1	1:A:2528:GLU:N	2.29	0.59
1:A:2939:LEU:HA	1:A:2942:ILE:CG2	2.32	0.59
1:A:3882:LEU:HD13	1:A:3885:ARG:HH21	1.68	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:491:CYS:O	1:F:625:ASN:ND2	2.35	0.59
1:F:1271:ILE:O	1:F:1274:ARG:NH1	2.35	0.59
1:F:1555:HIS:HB3	1:F:1559:PHE:CZ	2.37	0.59
1:F:2258:GLU:OE1	1:F:2259:LYS:HD3	2.02	0.59
1:F:3113:ASN:O	1:F:3117:ILE:HD12	2.02	0.59
3:H:655:PHE:HE2	3:H:688:LYS:HB3	1.67	0.59
4:J:37:DG:N1	5:I:20:DT:O2	2.20	0.59
6:D:35:DT:N3	7:E:21:DA:N1	2.48	0.59
1:A:675:ARG:O	1:A:678:LYS:HB3	2.02	0.59
1:A:899:ARG:HD2	1:A:2569:SER:HA	1.84	0.59
1:A:2277:LEU:HA	1:A:2280:VAL:HG12	1.84	0.59
1:A:2297:SER:O	1:A:2301:GLN:NE2	2.29	0.59
1:A:3815:LEU:O	1:A:3819:THR:OG1	2.20	0.59
1:F:1602:ASP:O	1:F:1606:ARG:N	2.33	0.59
1:F:1809:ASP:OD2	1:F:1811:ARG:NH2	2.35	0.59
1:F:3627:ALA:HA	1:F:3630:ARG:HB3	1.85	0.59
1:A:152:LEU:HD13	1:A:155:LYS:NZ	2.17	0.59
1:A:2826:LEU:HA	1:A:2829:LYS:HD2	1.85	0.59
1:F:397:LEU:HD11	1:F:438:LEU:HB3	1.83	0.59
1:F:493:LYS:NZ	1:F:523:THR:HA	2.17	0.59
1:F:1150:LYS:NZ	1:F:1161:ALA:O	2.30	0.59
1:F:2970:LYS:HE2	1:F:2970:LYS:HA	1.83	0.59
3:H:456:ALA:HB3	3:H:533:ILE:HD11	1.85	0.59
1:A:340:TYR:O	1:A:343:GLU:N	2.36	0.59
1:A:400:THR:HG22	1:A:6023:UNK:HA	1.83	0.59
1:A:741:ILE:HG23	1:A:748:TYR:HD2	1.67	0.59
1:A:1319:GLY:N	1:A:1322:THR:O	2.35	0.59
1:A:3298:LEU:HD13	1:A:3337:ILE:HA	1.85	0.59
1:A:3901:ARG:HH12	1:A:3970:LEU:HA	1.67	0.59
2:B:297:LYS:HE3	3:C:296:CYS:SG	2.43	0.59
1:F:170:VAL:HG12	1:F:216:LYS:HG3	1.82	0.59
1:F:485:GLN:HA	1:F:488:ILE:HD12	1.85	0.59
1:F:1102:GLU:HG2	1:F:1152:ARG:HG3	1.84	0.59
1:F:1182:GLU:HA	1:F:1185:HIS:HB2	1.85	0.59
2:G:416:GLN:OE1	3:H:354:ARG:NH2	2.36	0.59
3:H:352:GLN:OE1	3:H:354:ARG:NH2	2.29	0.59
4:J:28:DA:C2	5:I:29:DA:C2	2.90	0.59
1:A:1498:GLN:HA	1:A:1541:ALA:HB3	1.84	0.59
3:C:411:HIS:N	3:C:418:CYS:O	2.36	0.59
1:F:217:LEU:HA	1:F:220:LEU:HD12	1.85	0.59
1:F:1149:LYS:HB2	1:F:1151:ARG:NH1	2.18	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3554:PHE:O	1:F:3557:ARG:NH1	2.36	0.59
1:A:19:LEU:HD11	1:A:37:GLY:HA3	1.83	0.59
1:A:151:GLU:OE1	1:A:151:GLU:N	2.36	0.59
1:A:449:TYR:HB3	1:A:453:MET:HG2	1.85	0.59
1:A:2443:MET:HE1	1:A:2476:ILE:HA	1.85	0.59
1:F:135:LEU:HA	1:F:138:PHE:CD2	2.38	0.59
1:F:1191:PHE:HA	1:F:1194:PHE:CD2	2.37	0.59
1:F:1560:TYR:CZ	1:F:1596:VAL:HA	2.38	0.59
1:F:2825:THR:O	1:F:2829:LYS:HG3	2.02	0.59
3:H:16:VAL:HG22	3:H:101:GLY:H	1.67	0.59
1:A:111:CYS:HB2	1:A:130:LEU:HD22	1.84	0.59
1:A:188:GLU:HA	1:A:191:ASN:HB2	1.84	0.59
1:A:968:VAL:HA	1:A:971:ARG:HB2	1.85	0.59
1:A:1560:TYR:OH	1:A:1599:GLY:HA3	2.03	0.59
1:A:2794:LEU:HA	1:A:2797:VAL:HG12	1.85	0.59
1:A:2887:PRO:HG2	1:A:3895:GLU:HG3	1.84	0.59
1:A:4101:GLU:O	1:A:4104:VAL:HG22	2.02	0.59
2:B:269:ILE:HA	2:B:375:VAL:HG11	1.85	0.59
1:F:1238:GLN:HB2	1:F:1245:ARG:HH21	1.67	0.59
1:F:1735:ARG:HH12	1:F:1736:PHE:HB2	1.67	0.59
1:F:2098:THR:O	1:F:2102:LYS:HG2	2.03	0.59
1:F:2897:LEU:HD21	1:F:2923:TRP:CZ2	2.38	0.59
1:F:3086:LEU:HD12	1:F:3089:LEU:HD12	1.84	0.59
1:F:3735:PRO:HB2	1:F:3751:LEU:HD11	1.84	0.59
2:G:371:GLU:O	2:G:373:SER:N	2.35	0.59
2:G:429:PRO:HG3	3:H:435:PHE:HA	1.84	0.59
1:A:979:VAL:O	1:A:983:LEU:N	2.36	0.58
1:A:1820:VAL:HG23	1:A:1824:LEU:HB2	1.85	0.58
1:A:1921:ASP:OD1	1:A:1922:ALA:N	2.36	0.58
1:A:2357:GLU:HG2	1:A:2358:ASP:N	2.17	0.58
2:B:413:LEU:HD11	2:B:432:PHE:HB3	1.85	0.58
2:B:433:GLN:NE2	3:C:354:ARG:HG2	2.17	0.58
1:F:1171:TRP:O	1:F:1175:HIS:ND1	2.36	0.58
1:F:2452:ARG:HA	1:F:2455:LEU:HD12	1.84	0.58
1:F:2993:PHE:HA	1:F:2996:LEU:HD12	1.84	0.58
1:F:3059:GLN:O	1:F:3063:THR:N	2.28	0.58
1:F:3263:HIS:HB2	1:F:3276:TRP:CE2	2.38	0.58
1:F:3576:ASP:OD1	1:F:3579:SER:OG	2.21	0.58
2:G:111:PRO:O	3:H:318:SER:CB	2.51	0.58
2:G:125:GLN:O	2:G:128:GLN:HG3	2.03	0.58
1:A:770:LEU:O	1:A:773:LEU:HG	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3470:GLN:O	1:A:3474:ARG:HG2	2.03	0.58
2:B:83:LEU:N	2:B:109:ASP:O	2.31	0.58
3:C:280:ASP:OD1	3:C:281:ALA:N	2.36	0.58
1:F:1407:LYS:HA	1:F:1412:LYS:HB2	1.84	0.58
1:F:3354:ASP:H	1:F:3357:ARG:NH2	1.99	0.58
2:G:85:VAL:HG22	2:G:106:GLN:NE2	2.18	0.58
3:H:496:HIS:CE1	3:H:503:GLU:HB3	2.37	0.58
1:A:332:GLU:O	1:A:335:LYS:NZ	2.29	0.58
1:A:1499:CYS:HG	1:A:1549:SER:N	2.01	0.58
1:A:1734:PRO:HD2	3:C:580:SER:HB2	1.86	0.58
1:A:2117:SER:N	1:A:2120:ARG:O	2.36	0.58
1:A:3913:ILE:O	1:A:3917:ILE:HD12	2.03	0.58
1:F:246:ARG:HA	1:F:249:PHE:CD2	2.38	0.58
1:F:573:LEU:HD11	1:F:649:PHE:CD1	2.38	0.58
1:F:982:GLN:HE22	1:F:2592:ASP:H	1.51	0.58
1:F:1035:GLU:HA	1:F:1038:LYS:HG2	1.83	0.58
1:F:1220:LEU:HD13	1:F:1285:GLU:HG3	1.85	0.58
1:F:2300:PHE:HA	1:F:2303:LEU:HD12	1.85	0.58
1:F:2453:GLU:OE1	1:F:2453:GLU:N	2.35	0.58
1:F:3130:GLN:O	1:F:3133:GLN:NE2	2.35	0.58
1:F:3298:LEU:HD22	1:F:3337:ILE:HD11	1.83	0.58
6:D:15:DA:H5'	7:E:42:DA:H2	1.67	0.58
1:A:103:TYR:O	1:A:107:ILE:HG12	2.04	0.58
1:A:138:PHE:HE1	1:A:146:GLU:HA	1.67	0.58
1:A:1814:PHE:HA	1:A:1817:GLN:NE2	2.18	0.58
2:B:286:ILE:N	3:C:312:GLN:OE1	2.36	0.58
2:B:416:GLN:HB3	2:B:431:GLY:N	2.17	0.58
1:F:1135:CYS:HA	1:F:1138:ILE:HG22	1.86	0.58
1:F:1781:SER:HA	1:F:1784:ARG:HH12	1.68	0.58
1:F:2130:HIS:CD2	1:F:2167:PRO:HG3	2.39	0.58
1:F:2263:LYS:HG2	1:F:2309:PHE:HZ	1.69	0.58
1:F:2371:PHE:CZ	1:F:2373:PRO:HG2	2.38	0.58
1:F:3052:LEU:HD23	1:F:3056:GLU:HB3	1.85	0.58
2:G:297:LYS:O	3:H:295:TYR:HA	2.02	0.58
6:D:32:DT:H2''	6:D:33:DA:C8	2.39	0.58
1:A:99:LYS:HZ3	1:A:144:MET:H	1.51	0.58
1:A:268:PRO:O	1:A:271:GLY:N	2.37	0.58
1:A:483:VAL:O	1:A:487:LEU:HG	2.02	0.58
1:A:518:LYS:NZ	1:A:519:TRP:O	2.35	0.58
1:A:1087:ARG:HA	1:A:1090:ARG:HE	1.67	0.58
1:A:1686:LEU:HD23	1:A:1738:ASN:HB3	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2228:ARG:HA	1:A:2231:PHE:HB3	1.84	0.58
1:A:2771:LEU:HB3	1:A:2775:TYR:HE2	1.67	0.58
2:B:296:VAL:HB	3:C:296:CYS:O	2.04	0.58
2:B:469:LEU:HB3	2:B:518:LEU:HD12	1.86	0.58
3:C:384:LEU:HB2	3:C:389:MET:HB3	1.86	0.58
1:F:100:ILE:HG23	1:F:104:SER:HB3	1.86	0.58
1:F:1251:GLN:NE2	1:F:1255:CYS:SG	2.76	0.58
1:F:1293:ALA:HA	1:F:1296:PHE:CD2	2.38	0.58
1:F:1519:PHE:CD1	1:F:1570:GLU:HG2	2.39	0.58
1:F:1935:GLU:HA	1:F:1938:ARG:HG2	1.86	0.58
1:F:2310:VAL:HA	1:F:2316:TYR:CE2	2.39	0.58
1:F:3761:ASP:HA	1:F:3764:VAL:HG22	1.84	0.58
1:A:888:ARG:NH2	1:A:3889:ARG:O	2.32	0.58
1:A:1576:ASP:HA	1:A:1579:VAL:HG12	1.84	0.58
1:A:2295:GLN:HE21	1:A:2298:GLU:CD	2.06	0.58
1:A:2981:TRP:N	1:A:2985:GLU:OE2	2.37	0.58
1:A:3267:LYS:HA	1:A:3273:LEU:HD21	1.86	0.58
1:A:3884:LYS:NZ	1:A:3969:ASN:O	2.28	0.58
1:F:1912:THR:HA	1:F:1915:LEU:HD23	1.85	0.58
1:A:665:GLY:HA2	1:A:668:LYS:HE2	1.85	0.58
1:A:1063:LEU:HD11	1:A:1078:ALA:HA	1.85	0.58
1:A:1212:LEU:O	1:A:1216:GLY:N	2.37	0.58
1:A:1453:SER:O	1:A:1457:GLN:NE2	2.37	0.58
1:A:1526:GLU:OE1	1:A:1526:GLU:N	2.29	0.58
3:C:395:TYR:O	3:C:404:GLN:N	2.28	0.58
3:C:605:LYS:HZ3	3:C:611:GLU:HG2	1.68	0.58
1:F:1041:ILE:HA	1:F:1044:ILE:HB	1.86	0.58
1:F:1696:LEU:HA	1:F:1699:PHE:HD2	1.68	0.58
1:F:2421:VAL:O	1:F:2425:ARG:N	2.32	0.58
1:F:3335:ARG:HH21	1:F:3419:PHE:HA	1.69	0.58
2:G:412:ALA:N	2:G:435:VAL:O	2.36	0.58
1:A:833:HIS:HA	1:A:836:LYS:NZ	2.19	0.58
1:A:1444:ASP:HA	1:A:1447:ARG:HE	1.69	0.58
1:A:2287:PRO:HD3	1:A:2329:TYR:CZ	2.39	0.58
1:A:2405:VAL:HG21	1:A:2441:LYS:HB3	1.85	0.58
1:A:3901:ARG:NH2	1:A:3970:LEU:O	2.36	0.58
2:B:72:ILE:HA	2:B:75:ILE:HD12	1.86	0.58
2:B:429:PRO:HG3	3:C:435:PHE:H	1.68	0.58
3:C:395:TYR:CD1	3:C:404:GLN:HB2	2.39	0.58
1:F:146:GLU:HG3	1:F:147:PHE:CD2	2.39	0.58
1:F:1202:ARG:HB2	1:F:1207:TRP:HB2	1.84	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1629:CYS:O	1:F:1633:TRP:NE1	2.36	0.58
1:F:1971:PRO:O	1:F:1973:LYS:N	2.36	0.58
1:F:4085:LYS:NZ	1:F:4092:GLN:OE1	2.37	0.58
3:H:181:GLY:N	3:H:521:GLU:OE2	2.36	0.58
3:H:390:VAL:HG12	3:H:409:PHE:HE1	1.69	0.58
5:I:35:DT:O4	5:I:36:DA:N6	2.36	0.58
1:A:194:GLU:HG2	1:A:195:ASN:N	2.19	0.58
1:A:767:GLU:O	1:A:770:LEU:HB3	2.04	0.58
1:A:2300:PHE:HA	1:A:2303:LEU:HD12	1.85	0.58
1:A:3252:PHE:HA	1:A:3283:LEU:HD11	1.86	0.58
1:A:3729:MET:HE3	1:A:3737:ARG:CB	2.34	0.58
1:F:225:LYS:HD3	1:F:271:GLY:H	1.67	0.58
1:F:256:ILE:HG23	1:F:257:ARG:HG2	1.86	0.58
1:F:1696:LEU:O	1:F:1699:PHE:N	2.34	0.58
1:F:1894:SER:HB3	1:F:1911:LEU:HD11	1.86	0.58
3:H:341:SER:O	3:H:394:ARG:N	2.32	0.58
1:A:350:ARG:NE	3:C:579:SER:O	2.34	0.58
1:A:857:GLN:H	1:A:857:GLN:CD	2.07	0.58
1:A:1860:GLU:HG3	1:A:1862:THR:H	1.69	0.58
1:A:2273:GLY:O	1:A:2277:LEU:HG	2.03	0.58
1:A:2527:HIS:ND1	1:A:2529:THR:HG23	2.19	0.58
1:A:2935:GLU:O	1:A:2939:LEU:HG	2.03	0.58
1:A:3915:HIS:HA	1:A:3920:ILE:HD13	1.85	0.58
1:F:1326:GLU:HG3	1:F:1329:ARG:HH22	1.69	0.58
1:F:3018:SER:O	1:F:3037:GLN:NE2	2.36	0.58
3:H:53:GLU:HB2	3:H:83:LEU:HD12	1.86	0.58
4:J:19:DA:H1'	4:J:20:DT:H5'	1.85	0.58
1:A:242:PRO:O	1:A:246:ARG:HG3	2.04	0.57
1:F:435:LEU:O	1:F:439:VAL:HG23	2.04	0.57
1:F:718:MET:O	1:F:721:TYR:N	2.30	0.57
1:F:1039:TRP:HD1	1:F:1042:LYS:HB2	1.69	0.57
1:F:3463:LEU:HA	1:F:3498:TRP:HZ2	1.69	0.57
5:I:26:DA:H1'	5:I:27:DC:H5'	1.84	0.57
1:A:2219:LEU:O	1:A:2223:VAL:HG13	2.04	0.57
1:A:3063:THR:O	1:A:3067:LYS:HG2	2.04	0.57
2:B:91:GLU:HG3	2:B:135:MET:SD	2.45	0.57
1:F:1506:SER:O	1:F:1510:LEU:HG	2.04	0.57
1:F:3964:THR:HG22	1:F:3967:PHE:CD2	2.39	0.57
1:A:899:ARG:H	1:A:899:ARG:HD3	1.69	0.57
1:A:2850:PHE:HD2	1:A:2882:ALA:HB3	1.69	0.57
2:B:388:LYS:HD2	2:B:391:GLU:HG3	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1060:PHE:HD1	1:F:1063:LEU:HD12	1.68	0.57
1:F:2269:ASP:OD1	1:F:2270:ASN:N	2.37	0.57
2:G:419:GLU:HG2	2:G:427:VAL:HG23	1.85	0.57
3:H:295:TYR:CD2	3:H:307:LYS:HA	2.39	0.57
1:A:237:SER:O	1:A:243:GLN:HG2	2.04	0.57
1:A:310:LYS:HG3	1:A:311:ALA:H	1.69	0.57
1:A:2169:LEU:O	1:A:2173:ALA:HB2	2.04	0.57
1:A:3413:TYR:HA	1:A:3449:LYS:HZ3	1.68	0.57
1:A:3508:LYS:HZ1	1:A:3540:TYR:N	2.02	0.57
1:A:3533:PHE:O	1:A:3537:SER:N	2.37	0.57
1:A:3834:ALA:HB3	1:A:3835:PRO:HD3	1.87	0.57
1:F:19:LEU:HD22	1:F:34:LEU:HA	1.86	0.57
1:F:387:GLU:HB2	1:F:391:ARG:NH1	2.18	0.57
1:F:1142:HIS:CD2	1:F:1146:ASN:HD21	2.23	0.57
1:F:1574:ASN:OD1	1:F:1575:LEU:N	2.37	0.57
1:F:2497:GLU:HA	1:F:2500:LYS:HG2	1.86	0.57
1:F:4006:VAL:HG23	1:F:4011:PHE:HD2	1.70	0.57
3:H:93:ASP:HA	3:H:97:LYS:HE2	1.87	0.57
1:A:17:GLU:HA	1:A:20:SER:HG	1.69	0.57
1:A:36:ARG:O	1:A:40:GLN:NE2	2.37	0.57
1:A:1149:LYS:N	1:A:1163:LEU:O	2.36	0.57
1:A:3847:SER:HA	1:A:3857:LEU:HD22	1.86	0.57
3:C:279:VAL:HB	3:C:285:LYS:N	2.18	0.57
1:F:891:ARG:N	1:F:908:ASP:OD2	2.38	0.57
1:F:1087:ARG:HA	1:F:1090:ARG:NE	2.18	0.57
1:F:1637:SER:O	1:F:1642:LYS:NZ	2.37	0.57
1:F:2228:ARG:HA	1:F:2232:ARG:NH1	2.19	0.57
1:F:2414:GLN:O	1:F:2418:LYS:HG3	2.03	0.57
1:F:2845:ASN:OD1	1:F:2846:THR:N	2.37	0.57
2:G:487:PHE:O	2:G:491:GLU:HG3	2.03	0.57
3:H:41:PHE:O	3:H:44:ARG:HG2	2.05	0.57
3:H:651:GLU:OE2	3:H:654:ARG:NH1	2.38	0.57
1:A:1149:LYS:O	1:A:1163:LEU:N	2.33	0.57
1:A:1474:ASP:O	1:A:1476:HIS:ND1	2.37	0.57
1:A:1733:THR:HG23	1:A:1736:PHE:H	1.69	0.57
1:A:2202:PRO:HG3	1:A:2245:TRP:CE2	2.39	0.57
1:A:3781:CYS:O	1:A:3785:ALA:N	2.37	0.57
1:A:3781:CYS:SG	1:A:3786:LEU:HB2	2.44	0.57
1:A:3814:ASP:OD1	1:A:3815:LEU:N	2.36	0.57
1:A:4073:ALA:HB1	1:A:4076:ASP:HB2	1.87	0.57
1:F:303:HIS:HE1	1:F:308:LEU:HD13	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:888:ARG:HH22	1:F:3886:ALA:HA	1.70	0.57
1:F:3089:LEU:O	1:F:3093:GLN:NE2	2.38	0.57
2:G:343:PRO:HG3	2:G:403:ARG:HA	1.85	0.57
1:A:339:GLN:HE22	3:C:570:GLU:HA	1.69	0.57
1:A:339:GLN:NE2	3:C:570:GLU:OE1	2.38	0.57
1:A:749:VAL:O	1:A:752:LEU:HG	2.03	0.57
1:A:935:HIS:NE2	1:A:987:LEU:HD13	2.20	0.57
1:A:1278:ALA:O	1:A:1282:LEU:N	2.37	0.57
1:A:1356:TRP:NE1	1:A:1358:LEU:O	2.36	0.57
1:A:1424:THR:OG1	1:A:1427:SER:N	2.36	0.57
1:A:2574:ASN:H	1:A:2787:HIS:H	1.52	0.57
1:A:2912:GLY:HA3	1:A:2916:LEU:HG	1.85	0.57
1:A:3745:GLU:O	1:A:3746:ARG:NH1	2.37	0.57
1:A:3791:TYR:HB2	1:A:3804:GLU:OE2	2.05	0.57
1:A:4046:TYR:HB3	1:A:4050:LYS:NZ	2.19	0.57
1:A:4116:ILE:HD12	1:A:4119:ARG:HB2	1.85	0.57
2:B:75:ILE:HG12	2:B:111:PRO:HB3	1.87	0.57
2:B:90:THR:HB	2:B:103:TYR:HB2	1.86	0.57
3:C:138:LEU:HB3	3:C:201:GLN:HB3	1.86	0.57
1:F:475:LEU:HD22	1:F:476:ARG:HD2	1.87	0.57
1:F:554:ASN:C	1:F:554:ASN:HD22	2.06	0.57
1:F:924:ARG:H	1:F:927:LYS:HZ1	1.51	0.57
1:F:925:GLN:NE2	1:F:2768:GLN:O	2.37	0.57
1:F:2312:TYR:CD2	1:F:2315:VAL:HG23	2.38	0.57
1:F:2824:LYS:O	1:F:2829:LYS:NZ	2.38	0.57
1:A:386:VAL:HA	1:A:389:ILE:HD12	1.86	0.57
1:A:1358:LEU:HA	1:A:1361:LYS:HZ3	1.68	0.57
1:A:1845:VAL:HA	1:A:1848:ILE:HG12	1.87	0.57
1:A:1896:ILE:HA	1:A:1898:GLN:HE22	1.70	0.57
1:A:3410:ILE:HA	1:A:3413:TYR:HB2	1.86	0.57
1:A:3420:CYS:HB3	1:A:3446:VAL:HG12	1.86	0.57
2:B:299:LYS:HE3	2:B:301:ARG:HB2	1.86	0.57
1:F:265:TYR:HH	1:F:303:HIS:CG	2.22	0.57
1:F:340:TYR:HA	1:F:343:GLU:HG3	1.87	0.57
1:F:353:ASP:OD1	1:F:354:SER:N	2.36	0.57
1:F:993:HIS:ND1	1:F:2779:ASP:OD1	2.38	0.57
1:F:1574:ASN:HD21	1:F:1577:LEU:HB2	1.70	0.57
1:F:2394:LYS:HB2	1:F:2431:ARG:NH1	2.20	0.57
1:F:3833:ARG:HB2	1:F:4127:TRP:CZ2	2.40	0.57
2:G:63:SER:O	2:G:67:ILE:HG12	2.04	0.57
1:A:138:PHE:O	1:A:142:ARG:HD2	2.05	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:152:LEU:HB3	1:A:156:PHE:CE2	2.40	0.57
1:A:1241:LEU:HD21	1:A:1296:PHE:CE2	2.40	0.57
1:A:1564:SER:O	1:A:1568:ASN:ND2	2.38	0.57
1:A:3228:SER:HA	1:A:3231:ILE:HD12	1.87	0.57
1:F:397:LEU:HD13	1:F:441:MET:HE3	1.86	0.57
1:F:1304:HIS:CG	1:F:1309:ALA:HB2	2.40	0.57
1:F:2295:GLN:HG2	1:F:2298:GLU:OE2	2.05	0.57
1:F:2563:LEU:HD13	1:F:2795:GLN:HB3	1.85	0.57
2:G:125:GLN:O	2:G:129:LYS:HG3	2.05	0.57
2:G:484:GLN:HA	2:G:487:PHE:HD2	1.69	0.57
3:H:210:MET:HA	3:H:213:ILE:HG12	1.85	0.57
1:A:332:GLU:HG2	1:A:333:MET:SD	2.45	0.57
1:A:1205:ASN:O	1:A:1209:LYS:HG2	2.05	0.57
1:A:2202:PRO:HG3	1:A:2245:TRP:CD2	2.39	0.57
1:A:2285:LEU:HD12	1:A:2286:PRO:HD2	1.87	0.57
1:A:2446:LEU:HD12	1:A:2447:LYS:N	2.20	0.57
1:A:2967:GLU:O	1:A:2971:GLN:HG2	2.05	0.57
1:A:3269:ARG:HB2	1:A:3272:TRP:CD2	2.39	0.57
2:B:289:TYR:HD2	2:B:292:THR:H	1.52	0.57
1:F:528:VAL:HG12	1:F:629:PHE:CD1	2.40	0.57
1:F:1897:ASN:HD22	1:F:1911:LEU:HG	1.69	0.57
1:F:3829:LEU:HB3	1:F:3833:ARG:HH21	1.70	0.57
2:G:86:VAL:HG13	2:G:104:VAL:HA	1.87	0.57
2:G:206:LYS:HG2	2:G:207:LYS:H	1.70	0.57
2:G:270:SER:H	2:G:375:VAL:HB	1.70	0.57
2:G:302:THR:OG1	3:H:289:ILE:HG23	2.05	0.57
2:G:320:GLN:NE2	3:H:276:TRP:HA	2.19	0.57
2:G:362:LEU:HD22	2:G:363:ARG:HH22	1.70	0.57
3:H:602:VAL:HA	3:H:609:PHE:CD2	2.39	0.57
6:D:19:DA:C2	6:D:20:DT:C2	2.93	0.57
1:A:13:LEU:HD13	1:A:59:PHE:HD1	1.70	0.56
1:A:163:LYS:HB3	2:B:313:PRO:HB3	1.87	0.56
1:A:339:GLN:HB3	3:C:572:GLY:HA3	1.86	0.56
1:A:1359:LEU:H	1:A:1361:LYS:HZ2	1.53	0.56
1:A:1674:THR:O	1:A:1677:SER:OG	2.22	0.56
1:A:2881:LEU:HA	1:A:2886:GLN:NE2	2.20	0.56
1:A:2954:GLN:HA	1:A:2957:LEU:HB3	1.87	0.56
1:A:2973:ASP:OD1	1:A:2974:GLU:N	2.37	0.56
1:A:3315:TYR:O	1:A:3319:ASN:N	2.38	0.56
2:B:375:VAL:HG13	3:C:541:GLU:HG3	1.85	0.56
3:C:31:PHE:CE2	3:C:100:PRO:HD3	2.40	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:378:SER:O	3:C:382:HIS:ND1	2.38	0.56
1:F:153:PHE:HD1	1:F:178:LEU:HD11	1.69	0.56
1:F:293:LEU:O	1:F:297:LEU:HD23	2.05	0.56
1:F:663:ILE:HG22	1:F:665:GLY:H	1.70	0.56
1:F:2348:GLN:HA	1:F:2351:GLN:HG2	1.85	0.56
1:F:2586:PHE:CB	1:F:2776:ARG:HE	2.18	0.56
1:F:3005:LEU:HD23	1:F:3254:LEU:HD13	1.86	0.56
1:F:3125:ARG:O	1:F:3129:LEU:HG	2.05	0.56
1:F:3319:ASN:O	1:F:3322:ALA:N	2.38	0.56
2:G:459:VAL:HG12	2:G:463:LYS:HE2	1.87	0.56
3:H:408:ALA:HB1	3:H:419:LEU:HD12	1.87	0.56
1:A:386:VAL:O	1:A:390:GLN:NE2	2.38	0.56
1:A:734:LEU:HD13	1:A:768:VAL:HG23	1.87	0.56
3:C:381:ILE:HG21	3:C:417:GLU:HB2	1.86	0.56
1:F:1795:VAL:HA	1:F:1798:LEU:HG	1.87	0.56
1:F:1826:THR:O	1:F:1830:HIS:N	2.35	0.56
1:F:2258:GLU:O	1:F:2261:SER:OG	2.21	0.56
1:F:3530:VAL:O	1:F:3534:ILE:HG12	2.05	0.56
1:F:3859:TYR:HB3	1:F:4077:TYR:HE1	1.69	0.56
3:H:645:GLU:HA	3:H:648:LYS:HE2	1.87	0.56
4:J:21:DA:H1'	4:J:22:DG:C8	2.39	0.56
1:A:363:ILE:HA	1:A:366:TYR:HD2	1.69	0.56
1:A:454:GLN:HA	1:A:457:CYS:HB2	1.88	0.56
1:A:623:PHE:O	1:A:626:LEU:HG	2.06	0.56
1:A:703:CYS:HB2	1:A:707:PHE:CZ	2.40	0.56
1:A:957:PRO:HB3	1:A:1004:GLN:HG3	1.86	0.56
1:A:997:ASN:ND2	1:A:1000:LYS:H	2.02	0.56
1:A:1154:PRO:HG2	1:A:1157:PHE:HD2	1.69	0.56
1:A:1444:ASP:O	1:A:1447:ARG:HG2	2.05	0.56
1:A:3263:HIS:O	1:A:3267:LYS:N	2.38	0.56
1:A:3263:HIS:HA	1:A:3266:SER:HB3	1.87	0.56
1:A:3729:MET:O	1:A:3734:ARG:HA	2.06	0.56
1:A:3831:ASP:HB3	1:A:3835:PRO:HG2	1.87	0.56
3:C:59:PHE:HB3	3:C:110:ALA:HB2	1.87	0.56
3:C:496:HIS:CE1	3:C:506:PRO:HA	2.40	0.56
1:F:468:LEU:HD21	1:F:478:CYS:HB2	1.88	0.56
1:F:562:HIS:CE1	1:F:563:LEU:HG	2.41	0.56
1:F:1738:ASN:HA	1:F:1741:ASP:HB2	1.87	0.56
1:F:2324:GLY:HA2	1:F:2367:VAL:HG23	1.87	0.56
1:F:3360:LEU:O	1:F:3364:GLY:N	2.39	0.56
1:F:3658:ASP:OD1	1:F:3659:PHE:N	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:6009:UNK:O	1:F:6013:UNK:N	2.38	0.56
2:G:34:GLY:HA2	2:G:160:LYS:HG3	1.86	0.56
3:H:305:VAL:O	3:H:307:LYS:NZ	2.34	0.56
3:H:663:GLN:O	3:H:666:VAL:HG12	2.05	0.56
7:E:32:DA:H2''	7:E:33:DA:N7	2.20	0.56
7:E:34:DC:H2''	7:E:35:DT:C6	2.40	0.56
1:A:1338:VAL:HA	1:A:1341:ILE:HD12	1.87	0.56
1:A:1515:LEU:HD11	1:A:1566:THR:HB	1.86	0.56
1:A:2184:TYR:O	1:A:2187:VAL:HG22	2.06	0.56
1:A:2332:GLU:O	1:A:2334:LYS:N	2.37	0.56
1:F:360:SER:O	1:F:364:ARG:HG3	2.04	0.56
1:F:1056:THR:HA	1:F:1059:LEU:HD12	1.88	0.56
1:F:3904:PHE:CE1	1:F:3937:VAL:HB	2.41	0.56
1:F:4100:GLU:O	1:F:4104:VAL:HG23	2.06	0.56
2:G:273:ILE:N	2:G:273:ILE:HD12	2.20	0.56
3:H:118:ILE:O	3:H:122:THR:HG23	2.05	0.56
1:A:760:LEU:HD11	1:A:799:TYR:N	2.20	0.56
1:A:1142:HIS:O	1:A:1146:ASN:N	2.38	0.56
1:A:2190:VAL:HA	1:A:2193:ILE:HD12	1.87	0.56
1:A:3673:ASP:OD1	1:A:3673:ASP:N	2.37	0.56
1:A:3724:GLU:HB2	1:A:3741:ARG:HH22	1.71	0.56
1:A:6007:UNK:O	1:A:6011:UNK:N	2.39	0.56
3:C:655:PHE:CZ	3:C:659:LEU:HD11	2.40	0.56
1:F:238:MET:SD	1:F:282:PHE:HA	2.45	0.56
1:F:256:ILE:HD13	3:H:554:PHE:HA	1.87	0.56
1:F:493:LYS:HZ1	1:F:523:THR:HA	1.70	0.56
1:F:934:LEU:HA	1:F:937:MET:HE3	1.87	0.56
1:F:972:LEU:HB3	1:F:984:TYR:OH	2.05	0.56
1:F:2190:VAL:HA	1:F:2193:ILE:HD12	1.87	0.56
1:F:2429:ASP:OD1	1:F:2430:GLU:N	2.38	0.56
1:F:2887:PRO:HA	1:F:2890:ILE:HB	1.86	0.56
1:A:2434:VAL:O	1:A:2438:ILE:HG12	2.06	0.56
3:C:615:GLN:N	3:C:615:GLN:OE1	2.38	0.56
1:F:202:GLY:O	1:F:206:THR:OG1	2.22	0.56
1:F:1038:LYS:HB2	1:F:1042:LYS:HE2	1.88	0.56
1:F:1769:GLU:H	1:F:1772:HIS:CE1	2.23	0.56
1:F:2332:GLU:O	1:F:2333:ARG:HD2	2.06	0.56
1:F:2512:ASP:OD1	1:F:2513:GLU:N	2.38	0.56
1:F:2522:ARG:HA	1:F:2525:TRP:HD1	1.70	0.56
1:F:3189:PHE:CZ	1:F:3193:ILE:HD11	2.41	0.56
1:F:3594:ALA:HA	1:F:4032:ASN:HA	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:363:ARG:NH1	3:H:269:GLN:OE1	2.39	0.56
1:A:833:HIS:HE1	1:A:837:THR:HG23	1.70	0.56
1:A:1188:ILE:HG13	1:A:1189:GLU:N	2.20	0.56
1:A:2534:ASN:HB3	1:A:2537:ASP:CB	2.34	0.56
1:A:4102:THR:HA	1:A:4105:LYS:HE2	1.88	0.56
1:F:553:VAL:HG11	1:F:1550:VAL:HG22	1.88	0.56
1:F:878:GLU:HB2	1:F:883:TYR:CE1	2.40	0.56
1:F:1261:LEU:HD21	1:F:1337:VAL:HA	1.87	0.56
1:F:1825:LEU:HA	1:F:1828:LEU:HB2	1.87	0.56
1:F:2151:ILE:HD13	1:F:2188:GLU:HG3	1.87	0.56
1:F:2224:PHE:HD1	1:F:2231:PHE:CE1	2.24	0.56
1:F:3988:LEU:HA	1:F:3991:PHE:CD2	2.41	0.56
2:G:332:GLU:O	2:G:335:GLU:HG2	2.05	0.56
4:J:19:DA:N6	5:I:39:DA:N1	2.52	0.56
1:A:1107:TYR:CE2	1:A:1111:LEU:HD11	2.40	0.56
1:A:1401:ASN:HA	1:A:1404:LYS:HE3	1.87	0.56
1:A:2213:ASN:HA	1:A:2216:LEU:HD12	1.88	0.56
1:A:2447:LYS:HD2	1:A:2449:VAL:HG12	1.87	0.56
1:A:3247:ARG:HH12	1:A:3279:SER:HA	1.71	0.56
1:A:3534:ILE:HD13	1:A:3572:ILE:HD11	1.88	0.56
2:B:344:GLY:O	2:B:399:ARG:NH1	2.31	0.56
2:B:372:GLU:OE1	2:B:377:GLY:N	2.30	0.56
2:B:456:PRO:HA	2:B:459:VAL:HG23	1.86	0.56
1:F:3730:ALA:HA	1:F:3734:ARG:HE	1.70	0.56
3:H:489:ARG:NH2	3:H:493:CYS:SG	2.79	0.56
3:H:677:ILE:HA	3:H:680:GLN:HB3	1.88	0.56
1:A:862:LEU:HD22	1:A:867:ASN:HB3	1.87	0.56
1:A:921:ALA:H	1:A:927:LYS:NZ	2.04	0.56
1:A:1955:VAL:HG22	1:A:1956:PHE:H	1.71	0.56
1:A:2216:LEU:HA	1:A:2219:LEU:HD12	1.88	0.56
1:A:3844:THR:HG23	1:A:3850:HIS:CE1	2.41	0.56
2:B:238:LYS:HD2	2:B:241:ASP:HB2	1.88	0.56
1:F:17:GLU:HA	1:F:20:SER:OG	2.06	0.56
1:F:484:HIS:HD2	1:F:571:SER:HA	1.70	0.56
1:F:1346:THR:HG22	1:F:1402:LEU:HD13	1.87	0.56
1:F:1512:SER:HA	1:F:1563:PHE:HE2	1.71	0.56
1:F:1674:THR:O	1:F:1677:SER:OG	2.20	0.56
1:F:2821:ASP:HA	1:F:2829:LYS:HD3	1.87	0.56
1:F:2878:ALA:HA	1:F:2881:LEU:HD12	1.88	0.56
1:F:3915:HIS:O	1:F:3920:ILE:N	2.36	0.56
1:F:3963:LEU:HD11	1:F:3968:ILE:HD11	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:164:LYS:HG3	2:G:198:ILE:HG13	1.87	0.56
2:G:409:TYR:HB3	2:G:436:PHE:HE1	1.71	0.56
3:H:395:TYR:N	3:H:404:GLN:O	2.32	0.56
1:A:73:LEU:HD12	1:A:75:SER:H	1.71	0.56
1:A:305:ASN:O	1:A:309:LYS:NZ	2.38	0.56
1:A:1886:LYS:O	1:A:1889:VAL:HG12	2.06	0.56
1:A:2446:LEU:HD11	1:A:2450:GLU:HB2	1.87	0.56
1:A:2939:LEU:O	1:A:2942:ILE:HG23	2.05	0.56
1:A:3235:LYS:O	1:A:3239:LYS:HG2	2.06	0.56
1:A:3700:GLU:HA	1:A:3718:ARG:HA	1.88	0.56
1:F:22:ALA:HB3	1:F:34:LEU:HD21	1.88	0.56
1:F:888:ARG:NH1	1:F:3890:MET:HB3	2.21	0.56
1:F:892:LEU:N	1:F:908:ASP:OD2	2.38	0.56
1:F:1844:VAL:HB	1:F:1898:GLN:HB3	1.88	0.56
1:F:2470:ARG:HA	1:F:2473:MET:CE	2.36	0.56
2:G:504:VAL:HG13	2:G:508:LEU:HD13	1.86	0.56
3:H:663:GLN:HG2	3:H:702:LYS:HD3	1.88	0.56
1:A:1431:LEU:HB3	1:A:1448:LEU:HD21	1.88	0.55
1:A:2920:VAL:HA	1:A:2923:TRP:CD1	2.40	0.55
1:A:3154:GLN:O	1:A:3158:LYS:HG3	2.06	0.55
1:A:3525:TYR:OH	1:A:3711:PRO:HB3	2.06	0.55
1:F:214:GLU:HB2	1:F:217:LEU:HD11	1.88	0.55
1:F:573:LEU:HD11	1:F:649:PHE:HD1	1.70	0.55
1:F:1264:LEU:HD22	1:F:1340:ARG:HB3	1.88	0.55
1:F:1483:LEU:HD11	1:F:1518:ALA:HB1	1.87	0.55
1:F:1488:TYR:HA	1:F:1559:PHE:CZ	2.41	0.55
1:F:1574:ASN:HD21	1:F:1578:ALA:H	1.53	0.55
1:F:2387:PRO:HA	1:F:2394:LYS:HZ1	1.69	0.55
1:F:2425:ARG:CZ	1:F:2457:PRO:HB3	2.36	0.55
1:F:2492:ASP:OD1	1:F:2493:ASN:N	2.40	0.55
1:F:3096:VAL:HG13	1:F:3100:LYS:NZ	2.22	0.55
1:F:3097:ASP:N	1:F:3097:ASP:OD1	2.38	0.55
1:F:3495:PHE:HA	1:F:3498:TRP:CD1	2.41	0.55
1:F:3667:LEU:O	1:F:3671:ASN:ND2	2.39	0.55
2:G:270:SER:OG	2:G:378:SER:OG	2.23	0.55
3:H:57:VAL:HG12	3:H:79:VAL:HG13	1.87	0.55
1:A:356:ASN:HD21	1:A:406:ARG:HH11	1.54	0.55
1:A:1181:THR:O	1:A:1185:HIS:ND1	2.39	0.55
1:A:1899:VAL:HB	1:A:1911:LEU:HD12	1.88	0.55
1:A:2945:SER:O	1:A:3975:LYS:NZ	2.32	0.55
1:A:3061:LEU:O	1:A:3065:ILE:HG13	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:419:GLU:H	2:B:426:GLN:HE22	1.54	0.55
2:B:482:VAL:O	2:B:486:HIS:ND1	2.39	0.55
1:F:1291:LEU:HD13	1:F:1363:LEU:HB2	1.87	0.55
1:F:1407:LYS:HD3	1:F:1463:LEU:HD21	1.88	0.55
1:F:1735:ARG:HA	1:F:1738:ASN:ND2	2.20	0.55
1:F:2477:LEU:HD21	1:F:2505:VAL:HG23	1.88	0.55
1:F:3096:VAL:HG13	1:F:3100:LYS:HZ1	1.69	0.55
2:G:95:ASN:OD1	2:G:98:ASN:HA	2.06	0.55
3:H:384:LEU:HD23	3:H:410:PRO:HG3	1.87	0.55
3:H:647:ILE:HG23	3:H:652:GLU:HB3	1.87	0.55
1:A:923:ASP:O	1:A:926:THR:N	2.40	0.55
1:A:2327:LEU:HB3	1:A:2371:PHE:CG	2.42	0.55
1:A:3443:PRO:CB	1:A:3478:GLU:CB	2.61	0.55
1:A:3763:ARG:O	1:A:3767:LEU:HG	2.06	0.55
1:A:3920:ILE:HG23	1:A:3944:HIS:HD2	1.69	0.55
2:B:193:LEU:O	2:B:197:GLY:N	2.34	0.55
1:F:314:SER:HA	1:F:317:GLU:HG3	1.88	0.55
1:F:708:VAL:HG22	1:F:740:ILE:HG13	1.88	0.55
1:F:1597:LEU:O	1:F:1601:LEU:HG	2.06	0.55
1:F:1669:PRO:HA	1:F:1672:PHE:HB3	1.88	0.55
1:F:2254:ARG:HA	1:F:2257:PHE:HB3	1.88	0.55
1:F:2414:GLN:HG3	2:G:148:TRP:CZ2	2.40	0.55
1:F:3493:TRP:HB3	1:F:3525:TYR:CE2	2.41	0.55
1:F:4002:MET:O	1:F:4006:VAL:HG12	2.05	0.55
2:G:91:GLU:OE2	2:G:137:HIS:N	2.39	0.55
2:G:329:LEU:HB3	2:G:333:GLU:OE2	2.06	0.55
3:H:36:LYS:HZ1	3:H:231:LEU:HD21	1.72	0.55
1:A:925:GLN:HE22	1:A:2769:VAL:HA	1.70	0.55
1:A:1513:GLY:O	1:A:1517:LEU:HG	2.06	0.55
1:A:2120:ARG:NH2	1:A:2160:TYR:HA	2.22	0.55
1:A:2563:LEU:HD13	1:A:2795:GLN:HB2	1.88	0.55
1:A:3037:GLN:O	1:A:3041:LEU:HG	2.07	0.55
1:A:3357:ARG:HB3	1:A:3358:ARG:NH1	2.21	0.55
1:A:3739:ILE:H	1:A:3739:ILE:HD12	1.71	0.55
2:B:120:ASP:O	2:B:123:LYS:NZ	2.33	0.55
3:C:87:ASP:HB3	3:C:90:LEU:HD13	1.89	0.55
1:F:860:GLY:HA3	1:F:3136:THR:OG1	2.06	0.55
1:F:899:ARG:NH2	1:F:2533:SER:O	2.38	0.55
1:F:1100:VAL:HB	1:F:1138:ILE:HD12	1.89	0.55
1:F:1224:PHE:HZ	1:F:1281:VAL:HG13	1.71	0.55
1:F:1729:PHE:HB3	1:F:1735:ARG:NH1	2.20	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1984:LEU:HA	1:F:2178:GLY:HA3	1.88	0.55
1:F:2154:GLU:OE1	1:F:2154:GLU:N	2.39	0.55
1:F:2851:PHE:CE2	1:F:2853:PRO:HB2	2.41	0.55
1:F:3123:GLN:O	1:F:3127:THR:HG23	2.07	0.55
1:F:3327:ASN:HB2	1:F:3388:ALA:HB2	1.86	0.55
2:G:40:PHE:HB2	2:G:85:VAL:CG1	2.37	0.55
2:G:273:ILE:HG22	2:G:366:LEU:HG	1.88	0.55
2:G:457:GLU:OE2	2:G:458:GLN:NE2	2.38	0.55
1:A:565:TYR:HA	1:A:568:PHE:CD2	2.41	0.55
1:A:1690:GLY:O	1:A:1693:VAL:HG22	2.07	0.55
1:A:1891:ALA:O	1:A:1908:GLY:N	2.40	0.55
1:A:2158:ARG:NH2	1:A:2196:TRP:HB3	2.16	0.55
1:A:2295:GLN:NE2	1:A:2298:GLU:OE1	2.33	0.55
1:A:3029:LYS:HA	1:A:3031:TRP:CD1	2.42	0.55
1:A:3181:ASP:O	1:A:3184:THR:OG1	2.20	0.55
2:B:44:ALA:HB1	2:B:135:MET:HE1	1.89	0.55
3:C:617:ILE:HA	3:C:620:ILE:HD12	1.87	0.55
1:F:982:GLN:HE21	1:F:2591:ILE:HG23	1.72	0.55
1:F:1365:ASN:C	1:F:1370:ARG:HH12	2.10	0.55
1:F:1369:MET:O	1:F:1418:HIS:ND1	2.40	0.55
1:F:1576:ASP:HB2	1:F:1625:HIS:CE1	2.42	0.55
1:F:1946:ASN:HA	1:F:1949:ILE:HD12	1.89	0.55
1:F:2947:ILE:HD11	1:F:2989:ALA:HB3	1.88	0.55
1:F:2962:ARG:NE	1:F:2962:ARG:HA	2.22	0.55
1:F:3098:ARG:H	1:F:3098:ARG:HD3	1.69	0.55
2:G:420:LEU:HB2	2:G:426:GLN:NE2	2.21	0.55
1:A:997:ASN:O	1:A:1001:PHE:HB2	2.07	0.55
2:B:206:LYS:HG2	2:B:207:LYS:H	1.72	0.55
2:B:385:LEU:HA	2:B:388:LYS:HB3	1.88	0.55
3:C:105:ALA:O	3:C:140:SER:OG	2.20	0.55
3:C:437:SER:HB2	3:C:440:ASN:ND2	2.22	0.55
1:F:140:SER:O	1:F:142:ARG:NH1	2.40	0.55
1:F:316:LEU:HD23	1:F:320:LEU:HD23	1.89	0.55
1:F:803:SER:OG	1:F:852:ARG:NH2	2.39	0.55
1:F:1729:PHE:HB3	1:F:1735:ARG:HH12	1.72	0.55
1:F:2320:ALA:HA	1:F:2323:LEU:HD12	1.88	0.55
1:F:3040:TYR:HA	1:F:3043:TYR:CD2	2.37	0.55
1:F:3422:GLN:HE21	1:F:3423:GLN:NE2	2.03	0.55
1:F:3700:GLU:HA	1:F:3718:ARG:HG3	1.88	0.55
3:H:37:VAL:HB	3:H:41:PHE:HE1	1.72	0.55
3:H:106:ASP:HA	3:H:142:PHE:HA	1.88	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:234:LEU:HD13	3:H:481:LYS:HZ1	1.72	0.55
1:A:531:PHE:CD2	1:A:633:ILE:HD13	2.41	0.55
1:A:538:ASP:OD1	1:A:539:GLN:N	2.36	0.55
1:A:1353:PRO:O	1:A:1357:LYS:HA	2.07	0.55
1:A:2586:PHE:CZ	1:A:2782:ASP:HB3	2.42	0.55
1:A:2917:PRO:HB2	1:A:2920:VAL:HG22	1.89	0.55
2:B:95:ASN:HD22	2:B:102:ILE:CG2	2.18	0.55
2:B:420:LEU:HD21	2:B:424:LYS:HA	1.88	0.55
3:C:501:PRO:HD2	3:C:502:ARG:HH22	1.70	0.55
1:F:772:ALA:O	1:F:775:GLU:HB3	2.07	0.55
1:F:828:LYS:H	1:F:832:LYS:HZ1	1.54	0.55
1:F:1400:VAL:HA	1:F:1403:MET:HE3	1.88	0.55
1:F:1506:SER:HA	1:F:1509:GLN:HE21	1.71	0.55
1:F:1766:LEU:HG	1:F:1822:ARG:HE	1.72	0.55
2:G:514:MET:SD	2:G:515:ASN:N	2.79	0.55
3:H:232:ARG:HD2	3:H:477:PHE:HE1	1.72	0.55
1:A:435:LEU:HA	1:A:438:LEU:HD12	1.88	0.55
1:A:582:THR:OG1	1:A:615:ALA:N	2.38	0.55
1:A:894:PHE:O	1:A:905:ILE:HG12	2.06	0.55
1:A:1304:HIS:O	1:A:1330:TYR:OH	2.24	0.55
1:A:1444:ASP:N	1:A:1444:ASP:OD1	2.40	0.55
1:A:1492:ALA:HB3	1:A:1495:ASP:OD1	2.07	0.55
1:A:1972:GLU:OE1	1:A:1972:GLU:N	2.38	0.55
1:A:2851:PHE:HB3	1:A:2854:PHE:CB	2.36	0.55
1:A:4062:ASP:HA	1:A:4065:LEU:HB2	1.87	0.55
2:B:40:PHE:HB2	2:B:85:VAL:HG12	1.88	0.55
2:B:361:TYR:H	3:C:267:ILE:HG13	1.72	0.55
3:C:37:VAL:O	3:C:40:MET:HB3	2.07	0.55
3:C:181:GLY:N	3:C:188:HIS:HD1	2.05	0.55
1:F:1297:PHE:HB3	1:F:1367:HIS:CE1	2.42	0.55
1:F:2383:PHE:CD1	1:F:2418:LYS:HE3	2.42	0.55
1:F:2792:THR:O	1:F:2795:GLN:HG3	2.06	0.55
1:F:3557:ARG:HA	1:F:3560:SER:OG	2.07	0.55
1:A:13:LEU:O	1:A:16:GLN:N	2.40	0.55
1:A:407:VAL:O	1:A:449:TYR:CE2	2.49	0.55
1:A:1563:PHE:HB3	1:A:1566:THR:OG1	2.07	0.55
1:A:2230:VAL:HA	1:A:2233:HIS:HB3	1.89	0.55
1:A:2351:GLN:O	1:A:2356:MET:HB2	2.05	0.55
1:A:2886:GLN:HG3	1:A:2929:LEU:HD12	1.89	0.55
1:A:3664:ASN:HA	1:A:3667:LEU:HD12	1.89	0.55
1:A:3739:ILE:HD12	1:A:3739:ILE:N	2.21	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2394:LYS:O	1:F:2398:LEU:HG	2.07	0.55
1:F:2542:LEU:HA	1:F:2545:LEU:HB2	1.89	0.55
1:F:2884:LEU:HD13	1:F:2886:GLN:HE22	1.71	0.55
1:F:3678:GLY:HA3	1:F:3683:CYS:HB2	1.88	0.55
1:F:3700:GLU:HA	1:F:3718:ARG:HA	1.88	0.55
3:H:199:GLU:HA	3:H:202:LYS:HB2	1.89	0.55
1:A:32:HIS:O	1:A:35:ILE:HB	2.07	0.55
1:A:3834:ALA:HA	1:A:3838:GLU:OE2	2.07	0.55
3:C:404:GLN:HB3	3:C:421:TYR:OH	2.07	0.55
1:F:89:LEU:HD23	1:F:133:LYS:HD3	1.89	0.55
1:F:2886:GLN:CD	1:F:2886:GLN:H	2.11	0.55
1:F:3324:ARG:NE	1:F:3391:ALA:O	2.40	0.55
2:G:271:VAL:HG12	2:G:370:PRO:N	2.20	0.55
2:G:319:SER:N	3:H:277:THR:O	2.38	0.55
1:A:79:ARG:HH21	1:A:124:LYS:N	2.02	0.54
1:A:563:LEU:O	1:A:567:GLU:OE1	2.25	0.54
1:A:773:LEU:HA	1:A:776:TRP:CE3	2.41	0.54
1:A:889:GLU:C	1:A:3889:ARG:HH22	2.11	0.54
1:A:1656:ASP:OD1	1:A:1657:SER:N	2.40	0.54
1:A:1668:PHE:HB3	1:A:1669:PRO:HD3	1.89	0.54
1:A:2375:ALA:O	1:A:2378:PHE:N	2.25	0.54
1:A:2426:HIS:NE2	1:A:2428:ASP:HB2	2.22	0.54
1:A:2873:PRO:HB2	1:A:2925:GLU:HG3	1.88	0.54
1:A:3852:VAL:HA	1:A:3855:TYR:CE1	2.41	0.54
1:A:4071:ALA:O	1:A:4074:PHE:HB2	2.07	0.54
3:C:300:ASP:OD1	3:C:301:ASP:N	2.40	0.54
3:C:460:SER:O	3:C:461:MET:HE2	2.07	0.54
1:F:236:LYS:HE2	1:F:239:GLU:HB2	1.89	0.54
1:F:759:GLY:HA2	1:F:765:LEU:HD23	1.88	0.54
1:F:1232:PRO:HB2	1:F:3695:LEU:HD13	1.88	0.54
1:F:1664:SER:HA	1:F:1668:PHE:HD2	1.71	0.54
1:F:1675:TYR:CZ	1:F:1679:LEU:HD21	2.43	0.54
1:F:2852:PRO:HA	1:F:2855:VAL:HG22	1.89	0.54
1:F:2856:SER:HA	1:F:2859:GLN:NE2	2.21	0.54
1:F:3693:GLU:HG2	1:F:3696:ARG:HE	1.72	0.54
3:H:45:GLN:O	3:H:50:ASN:N	2.40	0.54
3:H:457:LEU:HA	3:H:460:SER:HB3	1.90	0.54
1:A:493:LYS:HD3	1:A:522:PRO:HB3	1.88	0.54
1:A:744:ASP:OD1	1:A:746:ARG:HG2	2.07	0.54
1:A:1359:LEU:H	1:A:1361:LYS:NZ	2.04	0.54
1:A:1718:ILE:HB	1:A:1722:PHE:CE2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2328:ARG:HB2	1:A:2370:SER:O	2.07	0.54
1:A:2395:THR:OG1	1:A:2431:ARG:NH2	2.40	0.54
1:A:3755:GLY:HA2	1:A:3799:ARG:HG2	1.89	0.54
1:A:3791:TYR:HB3	1:A:3806:LEU:HD11	1.88	0.54
2:B:237:SER:OG	2:B:238:LYS:N	2.38	0.54
2:B:273:ILE:HG22	2:B:366:LEU:HG	1.89	0.54
3:C:60:GLY:H	3:C:105:ALA:HB3	1.71	0.54
1:F:95:LYS:HE3	1:F:97:GLY:C	2.28	0.54
1:F:762:TYR:O	1:F:765:LEU:HB3	2.07	0.54
1:F:1058:SER:O	1:F:1062:ARG:HG2	2.07	0.54
1:F:1527:ARG:HH22	1:F:1531:LEU:HD21	1.73	0.54
1:F:1676:ILE:HA	1:F:1679:LEU:HD12	1.89	0.54
1:F:3269:ARG:HB3	1:F:3272:TRP:HE3	1.73	0.54
2:G:99:PHE:HB2	2:G:102:ILE:HD13	1.89	0.54
2:G:259:LEU:HG	2:G:260:LYS:H	1.72	0.54
1:A:1917:LYS:NZ	3:H:725:VAL:HA	2.22	0.54
1:A:2893:LEU:HD12	1:A:2926:LEU:HD13	1.89	0.54
1:A:2996:LEU:HA	1:A:2999:LEU:HD12	1.87	0.54
1:A:3603:LYS:HD2	1:A:3651:LEU:O	2.07	0.54
1:A:3844:THR:HA	1:A:3850:HIS:CD2	2.42	0.54
2:B:336:GLU:OE2	2:B:339:ARG:NH2	2.40	0.54
1:F:138:PHE:O	1:F:142:ARG:NH2	2.37	0.54
1:F:876:SER:O	1:F:880:MET:HG3	2.07	0.54
1:F:1770:GLN:HB2	1:F:1814:PHE:CZ	2.42	0.54
1:F:1774:MET:HB3	1:F:1777:LEU:HD23	1.89	0.54
1:F:1862:THR:O	1:F:1866:GLN:HG3	2.07	0.54
1:F:3457:ASN:HB2	1:F:3491:PRO:HG2	1.90	0.54
3:H:339:CYS:HB2	3:H:396:ALA:HB3	1.89	0.54
1:A:770:LEU:O	1:A:773:LEU:N	2.40	0.54
1:A:1834:ASP:HA	1:A:1837:ARG:HH12	1.71	0.54
1:A:1893:GLU:HG2	1:A:1894:SER:N	2.22	0.54
1:F:1767:CYS:HA	1:F:1822:ARG:NH2	2.23	0.54
1:F:3065:ILE:HD12	1:F:3068:ALA:HB3	1.90	0.54
1:F:3856:MET:HE3	1:F:4072:PRO:HD2	1.89	0.54
1:F:3924:HIS:HD2	1:F:3926:ASN:HB2	1.71	0.54
1:F:4039:TYR:HD2	1:F:4066:LEU:HG	1.72	0.54
1:A:148:LYS:O	1:A:152:LEU:HD23	2.06	0.54
1:A:3516:HIS:NE2	1:A:3520:GLU:OE2	2.41	0.54
2:B:287:LYS:HB2	3:C:310:ILE:HD11	1.90	0.54
3:C:411:HIS:HB3	3:C:418:CYS:HB3	1.90	0.54
1:F:194:GLU:HA	1:F:197:PHE:CD2	2.42	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2154:GLU:HA	1:F:2157:PHE:CE1	2.42	0.54
1:F:2332:GLU:O	1:F:2333:ARG:NH1	2.37	0.54
1:F:3090:TYR:HE2	1:F:3102:TYR:CD2	2.24	0.54
1:F:3123:GLN:HG2	1:F:3124:SER:N	2.23	0.54
2:G:397:LEU:HA	2:G:412:ALA:HA	1.90	0.54
2:G:471:PHE:HD2	3:H:344:GLY:HA3	1.71	0.54
2:G:473:TYR:HB2	3:H:346:CYS:HB3	1.90	0.54
1:A:386:VAL:HG12	1:A:390:GLN:NE2	2.16	0.54
1:A:857:GLN:O	1:A:861:SER:N	2.27	0.54
1:A:1039:TRP:CD1	1:A:1043:GLN:HB2	2.42	0.54
1:A:1801:VAL:HA	1:A:1804:MET:HB3	1.90	0.54
1:A:1803:GLU:HA	1:A:1806:ARG:NH1	2.23	0.54
1:A:2429:ASP:OD1	1:A:2430:GLU:N	2.41	0.54
1:A:2952:ILE:HG12	1:A:2972:TYR:CE1	2.43	0.54
1:A:3544:ASP:OD2	1:A:3546:SER:OG	2.26	0.54
2:B:214:SER:HB3	2:B:218:ARG:HG2	1.89	0.54
3:C:271:ARG:NH2	3:C:272:VAL:O	2.40	0.54
1:F:80:GLU:HA	1:F:83:GLU:HG2	1.89	0.54
1:F:307:GLU:HA	1:F:310:LYS:NZ	2.22	0.54
1:F:1358:LEU:HD13	1:F:1362:ASP:HB3	1.90	0.54
1:F:2353:GLN:HB3	1:F:2360:PHE:CD1	2.42	0.54
1:F:2499:PHE:CE1	1:F:2503:LYS:HE2	2.42	0.54
1:F:2522:ARG:HA	1:F:2525:TRP:CD1	2.43	0.54
1:F:3260:LYS:O	1:F:3264:LYS:NZ	2.34	0.54
1:F:3341:LEU:HD22	1:F:3374:ILE:HG21	1.89	0.54
2:G:482:VAL:HG12	2:G:486:HIS:HE1	1.72	0.54
3:H:552:GLU:HG3	3:H:553:ILE:N	2.21	0.54
1:A:105:VAL:HG13	1:A:108:LYS:HE3	1.88	0.54
1:A:886:TRP:CD2	1:A:964:ARG:HG3	2.43	0.54
1:A:1082:PHE:HA	1:A:1085:ILE:HD12	1.90	0.54
1:A:2525:TRP:HB3	1:A:2561:PHE:CZ	2.36	0.54
1:A:3507:ASP:OD2	1:A:3539:SER:OG	2.24	0.54
1:A:3793:VAL:HB	1:A:3802:LEU:O	2.08	0.54
1:A:3863:ASN:HB3	1:A:3866:GLU:HB3	1.90	0.54
1:F:2126:MET:HA	1:F:2129:LEU:HB2	1.89	0.54
1:F:3274:VAL:O	1:F:3277:VAL:N	2.41	0.54
1:F:3496:ILE:HD13	1:F:3707:GLY:HA2	1.89	0.54
2:G:50:GLU:O	2:G:59:PRO:HD2	2.08	0.54
2:G:193:LEU:O	2:G:197:GLY:N	2.38	0.54
1:A:147:PHE:CE2	1:A:148:LYS:HD3	2.43	0.54
1:A:318:SER:O	1:A:322:GLN:HG2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1638:PRO:HB2	1:A:1640:GLU:OE1	2.07	0.54
1:A:2206:PRO:HA	1:A:2209:GLU:HB3	1.89	0.54
1:A:2920:VAL:HA	1:A:2923:TRP:HD1	1.73	0.54
1:A:3963:LEU:HD12	1:A:3967:PHE:HD2	1.72	0.54
1:A:3989:ARG:HH11	1:A:3989:ARG:HG3	1.72	0.54
2:B:255:ALA:HB3	2:B:274:TYR:CD2	2.42	0.54
3:C:250:ARG:NE	3:C:252:THR:OG1	2.41	0.54
1:F:1685:ASP:OD1	1:F:1688:LEU:N	2.37	0.54
1:F:3588:TRP:HB2	1:F:3612:ARG:NH1	2.23	0.54
1:F:3641:ASP:C	1:F:3643:HIS:H	2.12	0.54
1:F:3863:ASN:HD21	1:F:3866:GLU:HB2	1.73	0.54
2:G:75:ILE:HG12	2:G:111:PRO:HB3	1.89	0.54
2:G:515:ASN:O	2:G:519:GLY:N	2.41	0.54
3:H:666:VAL:HG22	3:H:675:TRP:CE3	2.43	0.54
1:A:77:GLU:O	1:A:80:GLU:HG3	2.07	0.54
1:A:1696:LEU:HD13	1:A:1699:PHE:HB2	1.90	0.54
1:A:3037:GLN:OE1	1:A:3037:GLN:N	2.40	0.54
1:A:3123:GLN:HA	1:A:3126:LEU:HB3	1.90	0.54
1:F:42:CYS:O	1:F:46:SER:N	2.41	0.54
1:F:580:ASP:OD1	1:F:581:LEU:N	2.41	0.54
1:F:785:MET:HB3	1:F:789:TYR:CE1	2.43	0.54
1:F:1412:LYS:HA	1:F:1415:LEU:HD12	1.89	0.54
1:F:1418:HIS:ND1	1:F:1421:GLU:OE2	2.41	0.54
1:F:2257:PHE:HA	1:F:2260:PHE:HE2	1.71	0.54
1:F:2452:ARG:NH1	1:F:2497:GLU:OE2	2.41	0.54
2:G:273:ILE:CG2	2:G:368:VAL:HG22	2.38	0.54
1:A:389:ILE:HD13	1:A:431:TYR:CD2	2.43	0.54
1:A:977:ASP:HB3	1:A:980:THR:HG22	1.89	0.54
1:A:1394:HIS:CE1	1:A:1398:VAL:HB	2.42	0.54
1:A:2169:LEU:HD21	1:A:2208:ASP:HA	1.90	0.54
1:A:2245:TRP:O	1:A:2246:LYS:HG3	2.08	0.54
1:A:2481:HIS:CE1	1:A:2485:ARG:HD3	2.43	0.54
1:A:3772:ASN:ND2	1:A:3788:LEU:HB3	2.22	0.54
1:A:4012:ASP:HB3	1:A:4014:LYS:HG2	1.89	0.54
2:B:470:ARG:NH2	3:C:347:LYS:HG2	2.22	0.54
3:C:675:TRP:HA	3:C:678:VAL:HB	1.90	0.54
1:F:721:TYR:C	1:F:722:LYS:HZ3	2.11	0.54
1:F:1757:MET:SD	1:F:1757:MET:N	2.81	0.54
1:F:3253:SER:HA	1:F:3256:MET:HB2	1.89	0.54
1:F:3606:ILE:O	1:F:3609:MET:HG3	2.08	0.54
4:J:21:DA:H2''	4:J:22:DG:OP2	2.08	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
4:J:25:DT:H2''	4:J:26:DT:H5''	1.89	0.54
1:A:783:HIS:HA	1:A:786:GLN:HG2	1.90	0.53
1:A:854:ARG:HA	1:A:857:GLN:OE1	2.08	0.53
1:A:1512:SER:O	1:A:1515:LEU:HG	2.09	0.53
1:A:2455:LEU:HA	1:A:2458:VAL:HB	1.90	0.53
1:A:2851:PHE:CD2	1:A:2854:PHE:HB2	2.42	0.53
1:A:3099:ALA:O	1:A:3102:TYR:HB2	2.07	0.53
1:A:3472:ILE:HA	1:A:3479:THR:CB	2.39	0.53
2:B:261:LEU:HD23	2:B:271:VAL:HG21	1.89	0.53
1:F:852:ARG:O	1:F:856:VAL:HG23	2.09	0.53
1:F:925:GLN:HB2	1:F:2800:ARG:NH2	2.23	0.53
1:F:1118:GLU:HG3	1:F:1121:LEU:H	1.72	0.53
1:F:1369:MET:HG3	1:F:1418:HIS:CE1	2.43	0.53
1:F:2578:GLU:OE1	1:F:2578:GLU:N	2.41	0.53
1:F:3090:TYR:HB2	1:F:3099:ALA:HB2	1.90	0.53
2:G:91:GLU:H	2:G:135:MET:HE2	1.73	0.53
3:H:39:THR:HA	3:H:42:VAL:HG12	1.91	0.53
3:H:133:GLU:HB3	3:H:135:PHE:HE1	1.73	0.53
3:H:349:SER:OG	3:H:350:GLN:OE1	2.20	0.53
3:H:659:LEU:HB3	3:H:688:LYS:HZ3	1.71	0.53
6:D:23:DT:H2'	6:D:24:DT:H71	1.90	0.53
1:A:162:LEU:HD12	2:B:299:LYS:HD2	1.88	0.53
1:A:197:PHE:CE1	1:A:231:LEU:HD22	2.41	0.53
1:A:289:ASN:OD1	1:A:293:LEU:HG	2.08	0.53
1:A:299:LYS:HA	1:A:299:LYS:HE2	1.89	0.53
1:A:524:TYR:O	1:A:629:PHE:HE1	1.90	0.53
1:A:1108:MET:HG3	1:A:1111:LEU:HD12	1.89	0.53
1:A:1854:ARG:NH1	1:A:1863:PHE:HB2	2.23	0.53
1:A:2925:GLU:O	1:A:2928:LYS:HG3	2.09	0.53
1:A:3059:GLN:HB3	1:A:3063:THR:HG23	1.90	0.53
1:A:3629:ARG:HD2	1:A:3632:PHE:CD2	2.41	0.53
1:A:3825:LYS:HD2	1:A:3830:SER:N	2.24	0.53
1:A:3992:ARG:NH2	1:A:4052:ALA:O	2.41	0.53
2:B:384:ALA:HB1	3:C:451:LEU:HD23	1.91	0.53
3:C:512:ILE:HD13	3:C:515:MET:HE3	1.90	0.53
1:F:538:ASP:OD1	1:F:538:ASP:N	2.41	0.53
1:F:889:GLU:OE1	1:F:891:ARG:HG2	2.08	0.53
1:F:1017:ILE:O	1:F:1026:ARG:HD3	2.07	0.53
1:F:1025:LEU:HA	1:F:1028:PHE:HB3	1.90	0.53
1:F:2464:HIS:CD2	1:F:2466:SER:HB3	2.41	0.53
1:F:2981:TRP:HB3	1:F:2983:ASP:OD1	2.07	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:237:SER:OG	2:G:238:LYS:N	2.42	0.53
2:G:299:LYS:HG3	3:H:294:VAL:H	1.73	0.53
2:G:365:SER:HB2	2:G:435:VAL:HA	1.90	0.53
1:A:146:GLU:HB2	1:A:183:GLU:HB2	1.89	0.53
1:A:793:LEU:HD22	1:A:869:ASN:HD22	1.73	0.53
1:A:1335:CYS:SG	1:A:1382:ILE:HG13	2.48	0.53
1:A:1417:THR:HG22	1:A:1421:GLU:OE2	2.08	0.53
1:A:2521:ILE:O	1:A:2525:TRP:HB2	2.09	0.53
1:A:3113:ASN:O	1:A:3117:ILE:HG12	2.09	0.53
1:A:3180:ASP:OD1	1:A:3181:ASP:N	2.41	0.53
2:B:260:LYS:HD2	2:B:270:SER:HA	1.90	0.53
2:B:332:GLU:O	2:B:335:GLU:HG2	2.08	0.53
3:C:212:MET:HE1	3:C:220:GLY:HA2	1.90	0.53
3:C:454:VAL:HG12	3:C:458:ILE:HD11	1.90	0.53
3:C:651:GLU:HA	3:C:653:GLN:HE22	1.73	0.53
3:C:671:LEU:HB2	3:C:674:PHE:HE1	1.73	0.53
1:F:321:LYS:O	1:F:324:SER:OG	2.23	0.53
1:F:2268:LYS:HE3	1:F:2311:ARG:HH22	1.74	0.53
1:F:2287:PRO:HD3	1:F:2329:TYR:HD2	1.73	0.53
1:F:2521:ILE:HG13	1:F:2525:TRP:NE1	2.24	0.53
1:F:2524:PHE:O	1:F:2530:ARG:HD2	2.08	0.53
1:A:165:LYS:NZ	1:A:167:PRO:O	2.38	0.53
1:A:790:LYS:HA	1:A:869:ASN:HB3	1.90	0.53
1:A:1107:TYR:OH	1:A:1127:CYS:O	2.21	0.53
1:A:1876:ILE:HG13	1:A:1877:LEU:N	2.24	0.53
1:A:1935:GLU:O	1:A:1939:LEU:HD23	2.09	0.53
1:A:3227:ILE:O	1:A:3231:ILE:HG13	2.09	0.53
1:A:4061:CYS:SG	1:A:4078:VAL:HG23	2.48	0.53
3:C:12:LEU:N	3:C:55:ALA:O	2.30	0.53
3:C:675:TRP:O	3:C:679:VAL:HG22	2.09	0.53
3:C:686:ILE:HG13	3:C:688:LYS:HE3	1.89	0.53
1:F:629:PHE:CZ	1:F:633:ILE:HG13	2.43	0.53
1:F:977:ASP:O	1:F:981:ARG:HG2	2.09	0.53
1:F:1082:PHE:HA	1:F:1085:ILE:HG12	1.89	0.53
1:F:1336:THR:O	1:F:1340:ARG:HG2	2.08	0.53
1:F:2457:PRO:HA	1:F:2460:GLU:CD	2.29	0.53
1:F:2577:PHE:HB2	1:F:2783:ILE:HG13	1.91	0.53
1:F:2950:LYS:HZ2	1:F:2986:PRO:HG3	1.73	0.53
1:F:3580:ASN:HA	1:F:3628:PHE:HZ	1.72	0.53
2:G:304:ASN:HD21	2:G:309:GLY:N	2.06	0.53
3:H:246:HIS:HB2	3:H:262:ALA:HB1	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:18:DA:C5	7:E:39:DA:N1	2.77	0.53
1:A:86:LEU:HA	1:A:89:LEU:HB2	1.89	0.53
1:A:99:LYS:HD3	1:A:143:LEU:HG	1.90	0.53
1:A:979:VAL:HG13	1:A:2591:ILE:HG21	1.91	0.53
1:A:1580:LEU:HD13	1:A:1625:HIS:CE1	2.44	0.53
1:A:1765:VAL:O	1:A:1768:ARG:HG2	2.08	0.53
1:A:2381:ALA:O	1:A:2385:LEU:HD23	2.08	0.53
1:A:2394:LYS:HA	1:A:2397:CYS:HB2	1.90	0.53
1:A:3100:LYS:O	1:A:3104:GLN:NE2	2.39	0.53
1:A:3348:LEU:HD22	1:A:3351:ILE:HD11	1.90	0.53
1:A:3639:GLU:HG2	1:A:3642:LYS:HE2	1.91	0.53
2:B:297:LYS:HG2	3:C:296:CYS:H	1.74	0.53
3:C:253:ILE:HB	3:C:257:LEU:HD11	1.89	0.53
3:C:681:ASP:O	3:C:685:LEU:HG	2.08	0.53
1:F:641:PHE:O	1:F:644:PRO:HD2	2.09	0.53
1:F:847:SER:N	1:F:850:GLU:OE2	2.38	0.53
1:F:892:LEU:O	1:F:907:LEU:N	2.41	0.53
1:F:1769:GLU:H	1:F:1772:HIS:HE1	1.56	0.53
1:F:1867:ILE:HG13	1:F:1871:MET:HE3	1.90	0.53
1:F:2092:GLU:OE1	1:F:2092:GLU:N	2.29	0.53
1:F:2387:PRO:HG2	2:G:155:SER:O	2.07	0.53
1:F:2884:LEU:HA	1:F:2886:GLN:NE2	2.22	0.53
1:A:149:ILE:HD12	1:A:152:LEU:HB2	1.90	0.53
1:A:270:ALA:HA	1:A:273:ARG:NE	2.24	0.53
1:A:773:LEU:HA	1:A:776:TRP:HE3	1.74	0.53
1:A:865:GLN:OE1	1:A:3169:PRO:HA	2.08	0.53
2:B:187:ARG:HG2	2:B:221:ILE:HD11	1.90	0.53
1:F:180:LEU:O	1:F:185:HIS:NE2	2.41	0.53
1:F:640:GLU:OE1	1:F:640:GLU:N	2.40	0.53
1:F:1671:VAL:HA	1:F:1674:THR:HB	1.91	0.53
1:F:1708:GLU:OE1	1:F:1708:GLU:N	2.32	0.53
1:F:2873:PRO:HG2	1:F:2921:LEU:HG	1.89	0.53
1:F:3141:PHE:HA	1:F:3144:PHE:HB3	1.89	0.53
1:F:4038:TRP:CD1	1:F:4040:PRO:HD3	2.44	0.53
3:H:346:CYS:SG	3:H:347:LYS:N	2.79	0.53
1:A:1505:LEU:O	1:A:1509:GLN:HG3	2.09	0.53
1:A:2425:ARG:NH2	1:A:2426:HIS:HA	2.24	0.53
1:A:2836:LEU:HB3	1:A:2840:PHE:HE2	1.72	0.53
1:A:3275:SER:HA	1:A:3278:GLN:NE2	2.24	0.53
1:A:3795:PRO:HA	1:A:3801:GLY:HA2	1.90	0.53
1:A:3841:ASP:HA	1:A:3844:THR:HB	1.90	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:131:HIS:CD2	3:C:239:LYS:HG2	2.43	0.53
1:F:188:GLU:HA	1:F:191:ASN:HD21	1.72	0.53
1:F:307:GLU:HA	1:F:310:LYS:HZ3	1.74	0.53
1:F:337:LYS:HA	1:F:340:TYR:HB2	1.91	0.53
1:F:886:TRP:HA	1:F:964:ARG:CZ	2.39	0.53
1:F:1474:ASP:OD1	1:F:1474:ASP:N	2.42	0.53
1:F:2231:PHE:O	1:F:2235:LEU:HG	2.09	0.53
1:F:2379:MET:HG3	1:F:2383:PHE:HE2	1.72	0.53
1:F:3493:TRP:O	1:F:3525:TYR:OH	2.26	0.53
1:F:3835:PRO:HA	1:F:3839:TYR:HB2	1.90	0.53
1:A:95:LYS:HE2	1:A:98:GLN:HG2	1.90	0.53
1:A:408:TYR:CD1	1:A:449:TYR:OH	2.61	0.53
1:A:639:ALA:HB1	1:A:642:PHE:HB3	1.91	0.53
1:A:2371:PHE:CD2	1:A:2374:LEU:HB2	2.42	0.53
1:A:2939:LEU:O	1:A:2942:ILE:HG22	2.09	0.53
1:A:3003:ASN:OD1	1:A:3046:ARG:NH1	2.41	0.53
1:A:3274:VAL:O	1:A:3278:GLN:HG2	2.09	0.53
1:F:391:ARG:HA	1:F:394:GLN:HE21	1.73	0.53
1:F:989:MET:SD	1:F:990:GLN:N	2.82	0.53
1:F:1271:ILE:HD11	1:F:1352:SER:HB2	1.89	0.53
1:F:2232:ARG:O	1:F:2235:LEU:N	2.41	0.53
1:F:2380:ASN:HA	1:F:2383:PHE:HD2	1.73	0.53
1:F:2799:GLN:HE22	1:F:2800:ARG:HD3	1.73	0.53
1:F:2863:CYS:HA	1:F:2869:LEU:HD11	1.89	0.53
1:F:2873:PRO:HB3	1:F:2893:LEU:HD11	1.91	0.53
1:F:3120:LEU:HA	1:F:3122:HIS:NE2	2.24	0.53
1:F:3389:VAL:HG13	1:F:3413:TYR:CE1	2.44	0.53
1:F:3740:ILE:O	1:F:3748:HIS:N	2.42	0.53
1:A:70:ARG:NH1	1:A:71:LYS:O	2.41	0.53
1:A:86:LEU:O	1:A:90:CYS:N	2.41	0.53
1:A:111:CYS:CB	1:A:130:LEU:HD22	2.38	0.53
1:A:1214:GLU:OE1	1:A:1214:GLU:N	2.40	0.53
1:A:1291:LEU:HA	1:A:1294:VAL:HG22	1.91	0.53
2:B:273:ILE:CG2	2:B:366:LEU:HG	2.39	0.53
1:F:483:VAL:O	1:F:487:LEU:HG	2.09	0.53
1:F:719:LYS:O	1:F:722:LYS:NZ	2.41	0.53
1:F:1708:GLU:H	1:F:1708:GLU:CD	2.12	0.53
1:F:1781:SER:HA	1:F:1784:ARG:NH1	2.23	0.53
1:F:3660:ASN:O	1:F:3663:THR:OG1	2.23	0.53
1:F:3931:ALA:HB3	1:F:3934:THR:HG22	1.91	0.53
3:H:725:VAL:O	3:H:729:LEU:HG	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:865:GLN:HB3	1:A:3169:PRO:HA	1.90	0.53
1:A:2296:SER:O	1:A:2300:PHE:HE1	1.91	0.53
1:A:3135:LEU:HA	1:A:3138:ILE:HD12	1.91	0.53
1:A:3421:ASP:O	1:A:3425:ARG:HG2	2.09	0.53
2:B:75:ILE:HD13	2:B:116:ILE:HD11	1.91	0.53
2:B:121:GLN:NE2	2:B:130:ARG:HD2	2.24	0.53
3:C:426:PHE:HB3	3:C:428:GLU:HG2	1.91	0.53
1:F:23:ASP:HA	1:F:34:LEU:CD1	2.38	0.53
1:F:632:GLU:CD	1:F:632:GLU:H	2.12	0.53
1:F:655:LEU:HG	1:F:659:ARG:HE	1.74	0.53
1:F:3601:VAL:HG13	1:F:3604:LYS:HG3	1.90	0.53
2:G:38:LEU:HA	2:G:165:ARG:O	2.09	0.53
3:H:14:MET:SD	3:H:58:LEU:HD13	2.49	0.53
3:H:267:ILE:HB	3:H:361:VAL:HB	1.90	0.53
1:A:67:VAL:HG23	1:A:70:ARG:NH2	2.25	0.52
1:A:152:LEU:HA	1:A:155:LYS:NZ	2.15	0.52
1:A:1065:SER:HA	1:A:1068:LEU:HD21	1.89	0.52
1:A:1747:LEU:HA	1:A:1750:LEU:HD12	1.90	0.52
1:A:2237:ILE:O	1:A:2241:LEU:HG	2.09	0.52
1:A:2313:LYS:HA	1:A:2316:TYR:CE2	2.44	0.52
1:A:3096:VAL:HG22	1:A:3100:LYS:HG3	1.89	0.52
1:A:3596:LEU:HD23	1:A:3596:LEU:H	1.73	0.52
1:F:629:PHE:CE2	1:F:633:ILE:HG13	2.44	0.52
1:F:1813:SER:HB2	1:F:1936:ARG:HH12	1.72	0.52
1:F:2428:ASP:O	1:F:2432:GLN:HG2	2.08	0.52
1:F:2524:PHE:O	1:F:2530:ARG:NH1	2.41	0.52
1:F:3144:PHE:CE1	1:F:3150:ASN:HB3	2.44	0.52
1:F:3748:HIS:HB3	1:F:3750:PHE:CE2	2.44	0.52
1:F:3925:LEU:HD12	1:F:3962:ARG:NH2	2.25	0.52
2:G:420:LEU:HA	2:G:426:GLN:HA	1.89	0.52
1:A:245:SER:HA	1:A:248:ILE:HD12	1.91	0.52
1:A:540:MET:O	1:A:544:ILE:HG12	2.09	0.52
1:A:1154:PRO:HG2	1:A:1157:PHE:CD2	2.43	0.52
1:A:1651:LYS:O	1:A:1655:ILE:HG23	2.09	0.52
1:A:2215:LEU:O	1:A:2219:LEU:HG	2.10	0.52
1:A:2232:ARG:O	1:A:2236:GLU:HG2	2.09	0.52
1:A:2271:SER:HA	1:A:2274:ILE:HD12	1.90	0.52
1:A:2991:LYS:HA	1:A:2994:TRP:CE3	2.44	0.52
1:A:3357:ARG:HB3	1:A:3358:ARG:HH11	1.74	0.52
1:A:3551:ASN:O	1:A:3555:VAL:HG23	2.09	0.52
1:A:3643:HIS:CD2	1:A:3666:LEU:HG	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:362:LEU:HB2	2:B:436:PHE:HB2	1.90	0.52
1:F:225:LYS:HD3	1:F:271:GLY:N	2.24	0.52
1:F:236:LYS:HZ1	1:F:239:GLU:H	1.56	0.52
1:F:1302:ALA:HB2	1:F:1382:ILE:HG22	1.90	0.52
1:F:1765:VAL:HA	1:F:1768:ARG:NE	2.23	0.52
1:F:2102:LYS:HB3	1:F:2106:ARG:CZ	2.39	0.52
2:G:164:LYS:HE3	2:G:196:THR:HG22	1.90	0.52
2:G:459:VAL:O	2:G:463:LYS:HG2	2.09	0.52
3:H:270:GLU:O	3:H:486:ARG:NH2	2.42	0.52
1:A:263:LYS:HZ1	1:A:264:ARG:HB3	1.73	0.52
1:A:580:ASP:OD2	1:A:616:LYS:NZ	2.42	0.52
1:A:1186:LYS:N	1:A:1186:LYS:HD3	2.25	0.52
1:A:1564:SER:HA	1:A:1567:ILE:HD13	1.91	0.52
1:A:1847:ALA:O	1:A:1851:LEU:HG	2.09	0.52
1:A:3019:ILE:HG21	1:A:3031:TRP:HZ3	1.74	0.52
1:A:3232:ARG:HA	1:A:3235:LYS:NZ	2.24	0.52
3:C:264:TYR:O	3:C:363:LYS:N	2.33	0.52
1:F:535:LEU:HD13	1:F:564:LEU:HD12	1.90	0.52
1:F:1240:THR:HA	1:F:1296:PHE:CE2	2.44	0.52
1:F:1389:VAL:HG23	1:F:1390:GLN:H	1.75	0.52
1:F:1667:SER:OG	1:F:1670:GLU:OE1	2.24	0.52
1:F:2284:ASP:OD1	1:F:2329:TYR:OH	2.28	0.52
1:F:2311:ARG:NH1	1:F:2312:TYR:HB2	2.25	0.52
1:F:2383:PHE:HD1	1:F:2418:LYS:HE3	1.74	0.52
1:F:3786:LEU:HD21	1:F:3910:LEU:HD22	1.92	0.52
2:G:440:ALA:HB2	3:H:481:LYS:O	2.08	0.52
7:E:22:DA:C6	7:E:23:DT:C4	2.97	0.52
1:A:247:GLU:O	1:A:251:PHE:N	2.33	0.52
1:A:363:ILE:HD12	1:A:413:PHE:HA	1.91	0.52
1:A:1087:ARG:HG2	1:A:1090:ARG:HH21	1.74	0.52
1:A:1818:SER:HA	1:A:1821:ASP:HB2	1.91	0.52
1:A:3602:ASN:O	1:A:3604:LYS:NZ	2.26	0.52
1:A:3963:LEU:HD12	1:A:3967:PHE:CD2	2.45	0.52
2:B:36:ASP:CG	2:B:163:HIS:HB3	2.30	0.52
2:B:410:PHE:HB3	2:B:437:LEU:HD21	1.92	0.52
3:C:405:VAL:H	3:C:423:GLN:NE2	2.08	0.52
1:F:583:LEU:HB2	1:F:613:HIS:O	2.09	0.52
1:F:1095:LEU:HA	1:F:1099:PHE:HD2	1.75	0.52
1:F:1147:LYS:HB2	1:F:1149:LYS:HZ3	1.75	0.52
1:F:1172:LEU:HD21	1:F:1187:SER:HA	1.92	0.52
1:F:2459:VAL:HA	1:F:2473:MET:SD	2.49	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3039:THR:O	1:F:3042:PRO:HD2	2.10	0.52
1:F:3192:LYS:HA	1:F:3195:GLU:OE2	2.10	0.52
1:F:3298:LEU:HD23	1:F:3302:LYS:HG2	1.89	0.52
1:F:3638:LYS:HE2	1:F:3642:LYS:HD3	1.90	0.52
1:F:4049:ARG:HH12	1:F:4058:VAL:HG12	1.73	0.52
3:H:315:ARG:HA	3:H:320:ILE:HG13	1.92	0.52
3:H:526:SER:O	3:H:529:PRO:HD2	2.10	0.52
5:I:40:DT:H2 <sup>?</sup>	5:I:41:DT:C5	2.44	0.52
1:A:82:ARG:H	1:A:82:ARG:CD	2.21	0.52
1:A:131:LEU:HD11	1:A:173:LYS:C	2.30	0.52
1:A:195:ASN:HA	1:A:198:ARG:HG3	1.92	0.52
1:A:667:TYR:HA	1:A:670:LEU:HD12	1.90	0.52
1:A:1069:HIS:CG	1:A:1070:PRO:HD2	2.44	0.52
1:A:1102:GLU:HG3	1:A:1154:PRO:HD3	1.92	0.52
1:A:1327:GLY:O	1:A:1330:TYR:HB3	2.09	0.52
1:A:3699:LEU:HD23	1:A:3719:ILE:HD13	1.90	0.52
2:B:52:GLN:HG3	2:B:171:ASN:CG	2.30	0.52
2:B:77:SER:HA	2:B:249:LYS:O	2.08	0.52
3:C:418:CYS:SG	3:C:419:LEU:N	2.82	0.52
1:F:43:VAL:HG11	1:F:829:VAL:HA	1.90	0.52
1:F:2275:GLN:O	1:F:2279:ILE:HG12	2.09	0.52
1:F:2890:ILE:HD13	1:F:2930:TYR:CE1	2.44	0.52
2:G:273:ILE:HG23	2:G:368:VAL:HG22	1.90	0.52
2:G:458:GLN:HE22	2:G:527:GLU:C	2.12	0.52
1:A:132:ILE:HG23	1:A:136:GLN:HE22	1.75	0.52
1:A:243:GLN:HG3	1:A:246:ARG:HH21	1.75	0.52
1:A:785:MET:HB3	1:A:789:TYR:CE1	2.44	0.52
1:A:1618:LEU:O	1:A:1622:ILE:HD12	2.09	0.52
2:B:122:PHE:O	2:B:127:GLY:HA3	2.09	0.52
2:B:400:TYR:N	2:B:409:TYR:O	2.43	0.52
3:C:104:GLN:HB2	3:C:141:ARG:NH1	2.25	0.52
1:F:115:TYR:CD2	1:F:118:ASP:HA	2.44	0.52
1:F:717:LYS:HA	1:F:720:GLN:HE22	1.74	0.52
1:F:982:GLN:NE2	1:F:2592:ASP:OD1	2.43	0.52
1:F:1131:ILE:HA	1:F:1134:LEU:HB2	1.92	0.52
1:F:1324:PRO:HA	1:F:1328:GLU:HB3	1.92	0.52
1:F:1611:GLN:HG3	1:F:1613:HIS:HB2	1.92	0.52
1:F:1810:PRO:O	1:F:1811:ARG:NH1	2.43	0.52
1:F:2801:ASP:OD2	1:F:2804:ILE:N	2.24	0.52
1:F:4113:ASP:OD1	1:F:4113:ASP:N	2.42	0.52
1:F:6007:UNK:O	1:F:6011:UNK:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:288:LEU:O	3:H:311:ILE:N	2.33	0.52
3:H:33:GLN:HA	3:H:36:LYS:HD3	1.91	0.52
3:H:251:LEU:HD11	3:H:259:ILE:HD12	1.92	0.52
3:H:667:GLU:HA	3:H:675:TRP:CH2	2.45	0.52
3:H:712:SER:OG	3:H:713:GLY:N	2.43	0.52
1:A:10:CYS:HA	1:A:13:LEU:HD23	1.91	0.52
1:A:54:GLN:OE1	1:A:54:GLN:N	2.31	0.52
1:A:229:SER:HA	1:A:278:HIS:CE1	2.44	0.52
1:A:1331:ASN:HA	1:A:1334:LYS:HD3	1.91	0.52
1:A:1904:CYS:SG	1:A:1911:LEU:HD21	2.50	0.52
1:A:2339:GLU:O	1:A:2342:CYS:N	2.42	0.52
1:A:2394:LYS:HD3	1:A:2394:LYS:N	2.24	0.52
1:A:2554:PHE:HB3	1:A:2854:PHE:CE1	2.45	0.52
1:A:3629:ARG:HA	1:A:3632:PHE:CD2	2.44	0.52
2:B:82:LEU:HD21	2:B:108:LEU:HB3	1.91	0.52
3:C:327:ASP:OD1	3:C:328:GLU:N	2.39	0.52
1:F:105:VAL:HA	1:F:108:LYS:NZ	2.25	0.52
1:F:1089:PHE:CE2	1:F:1096:VAL:HG12	2.44	0.52
1:F:1458:LEU:O	1:F:1462:GLY:N	2.26	0.52
1:F:1757:MET:HA	1:F:1760:GLU:HG3	1.91	0.52
1:F:1783:ARG:O	1:F:1830:HIS:NE2	2.43	0.52
1:F:2467:THR:HG22	1:F:2470:ARG:HH21	1.73	0.52
2:G:115:ARG:O	2:G:119:LEU:HG	2.09	0.52
1:A:741:ILE:HD13	1:A:776:TRP:HZ2	1.75	0.52
1:A:3586:LYS:HD2	1:A:3667:LEU:HD22	1.92	0.52
1:A:3921:GLY:H	1:A:3944:HIS:CD2	2.27	0.52
3:C:115:MET:HE3	3:C:150:ILE:HG22	1.91	0.52
3:C:135:PHE:HE1	3:C:164:PHE:HD2	1.57	0.52
3:C:359:ASN:OD1	3:C:360:GLN:N	2.43	0.52
3:C:626:THR:HA	3:C:632:PHE:HD2	1.74	0.52
1:F:1894:SER:HG	1:F:1909:ASN:HD22	1.58	0.52
1:F:2359:LYS:HD3	1:F:2363:CYS:SG	2.50	0.52
1:F:2893:LEU:HD12	1:F:2922:ARG:HB2	1.91	0.52
1:F:3059:GLN:HA	1:F:3062:LEU:HD13	1.92	0.52
1:F:3232:ARG:NH2	1:F:3268:THR:OG1	2.37	0.52
1:F:3423:GLN:HA	1:F:3426:LYS:HE2	1.92	0.52
1:F:3555:VAL:HG12	1:F:3559:LYS:NZ	2.25	0.52
1:F:3583:LEU:O	1:F:3586:LYS:HG3	2.10	0.52
3:H:500:HIS:HB3	3:H:503:GLU:HB2	1.91	0.52
1:A:77:GLU:HG3	1:A:78:PHE:HD1	1.74	0.52
1:A:91:ILE:HD11	1:A:831:LEU:CD2	2.39	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1563:PHE:O	1:A:1566:THR:N	2.43	0.52
1:A:1791:CYS:O	1:A:1795:VAL:HG23	2.09	0.52
1:A:1848:ILE:HB	1:A:1852:LYS:HZ1	1.75	0.52
1:A:2320:ALA:HB1	1:A:2366:LYS:HB2	1.92	0.52
1:A:2411:LEU:H	1:A:2411:LEU:HD12	1.75	0.52
1:A:3357:ARG:NE	1:A:3358:ARG:HH12	2.07	0.52
2:B:164:LYS:HE3	2:B:196:THR:HG22	1.91	0.52
3:C:454:VAL:O	3:C:458:ILE:HG13	2.10	0.52
1:F:46:SER:OG	1:F:827:ASN:ND2	2.43	0.52
1:F:131:LEU:O	1:F:177:LEU:HD11	2.10	0.52
1:F:925:GLN:HB2	1:F:2800:ARG:HH12	1.75	0.52
1:F:2228:ARG:HG2	1:F:2232:ARG:NH2	2.25	0.52
1:F:2252:PRO:O	1:F:2294:ILE:HD11	2.09	0.52
1:F:2420:PHE:CZ	1:F:2435:CYS:HB3	2.44	0.52
1:F:2459:VAL:HG21	1:F:2505:VAL:HG11	1.92	0.52
1:F:2801:ASP:OD2	1:F:2804:ILE:HG12	2.10	0.52
1:F:2813:PHE:CD2	1:F:2861:ILE:HG23	2.44	0.52
2:G:48:MET:HE3	2:G:60:PHE:HA	1.91	0.52
3:H:8:ALA:HB1	3:H:240:ILE:HD12	1.92	0.52
3:H:36:LYS:NZ	3:H:231:LEU:HD21	2.25	0.52
3:H:347:LYS:HG3	3:H:349:SER:H	1.75	0.52
1:A:344:GLN:HG2	1:A:345:PHE:N	2.24	0.52
1:A:461:ILE:HA	1:A:464:VAL:HG12	1.92	0.52
1:A:493:LYS:HZ2	1:A:522:PRO:HD3	1.75	0.52
1:A:907:LEU:HD23	1:A:907:LEU:H	1.75	0.52
1:A:932:GLU:OE2	1:A:2773:ARG:HD3	2.10	0.52
1:A:1195:VAL:HG22	1:A:1207:TRP:CZ3	2.45	0.52
1:A:1780:SER:O	1:A:1784:ARG:HG2	2.10	0.52
1:A:1821:ASP:HA	1:A:1825:LEU:HD12	1.91	0.52
1:A:1824:LEU:HD23	1:A:1827:LEU:HD12	1.91	0.52
2:B:414:VAL:HG12	2:B:433:GLN:HB3	1.91	0.52
1:F:131:LEU:HB2	1:F:177:LEU:HD21	1.92	0.52
1:F:275:PHE:HD2	1:F:315:ALA:HB1	1.74	0.52
1:F:683:PHE:CE1	1:F:700:LYS:HB3	2.45	0.52
1:F:1175:HIS:CG	1:F:1229:CYS:HA	2.45	0.52
1:F:1270:PHE:HB3	1:F:1281:VAL:HG21	1.91	0.52
1:F:1407:LYS:HD3	1:F:1463:LEU:HD11	1.91	0.52
1:F:2201:THR:HG22	1:F:2245:TRP:CD1	2.45	0.52
1:F:2964:ASP:OD1	1:F:2965:TYR:N	2.42	0.52
1:F:3477:GLU:HG2	1:F:3477:GLU:O	2.09	0.52
1:A:327:VAL:C	1:A:329:LYS:H	2.14	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:335:LYS:O	1:A:339:GLN:HG3	2.09	0.51
1:A:1105:VAL:HG11	1:A:1156:GLY:HA3	1.91	0.51
1:A:1180:GLN:O	1:A:1184:ARG:N	2.37	0.51
1:A:1268:ASN:OD1	1:A:1347:THR:HG21	2.10	0.51
1:A:2464:HIS:O	1:A:2466:SER:N	2.39	0.51
1:A:2482:ASP:HA	1:A:2485:ARG:HG2	1.92	0.51
1:A:3617:LEU:HD22	1:A:3636:PHE:HB3	1.92	0.51
1:A:3980:MET:N	1:A:3980:MET:SD	2.83	0.51
3:C:89:ASP:OD1	3:C:90:LEU:N	2.42	0.51
1:F:358:GLU:HG3	1:F:359:LEU:HD22	1.92	0.51
1:F:900:GLU:O	1:F:902:LYS:HD2	2.10	0.51
1:F:984:TYR:HA	1:F:987:LEU:HD12	1.91	0.51
1:F:1241:LEU:HD23	1:F:1256:TRP:HZ3	1.76	0.51
1:F:1519:PHE:HZ	1:F:1528:LEU:HG	1.76	0.51
1:F:1803:GLU:N	1:F:1806:ARG:HH21	2.08	0.51
1:F:2228:ARG:O	1:F:2228:ARG:HD3	2.10	0.51
1:F:2251:ILE:HG22	1:F:2253:TYR:H	1.75	0.51
1:F:3000:ASP:O	1:F:3004:HIS:N	2.43	0.51
1:F:3288:SER:H	1:F:3289:ARG:CZ	2.22	0.51
1:F:3303:THR:HG23	1:F:3304:VAL:HG13	1.91	0.51
1:F:3593:ARG:NH2	1:F:3664:ASN:OD1	2.30	0.51
2:G:345:LEU:HD11	2:G:400:TYR:HD1	1.75	0.51
1:A:23:ASP:N	1:A:23:ASP:OD1	2.43	0.51
1:A:410:MET:HB3	1:A:442:GLN:HG3	1.91	0.51
1:A:969:LEU:O	1:A:972:LEU:HG	2.10	0.51
1:A:1081:ALA:O	1:A:1085:ILE:HG13	2.10	0.51
1:A:1231:GLN:O	1:A:1231:GLN:HG2	2.09	0.51
1:A:1584:GLN:HA	1:A:1628:LYS:NZ	2.26	0.51
1:A:1630:ASP:HA	1:A:1633:TRP:NE1	2.20	0.51
1:A:2332:GLU:C	1:A:2334:LYS:H	2.14	0.51
1:A:2551:GLU:HB3	1:A:2854:PHE:CD2	2.45	0.51
1:A:3717:VAL:HA	1:A:3743:HIS:HE1	1.74	0.51
3:C:730:ASP:O	1:F:1908:GLY:HA2	2.10	0.51
1:F:274:LEU:O	1:F:278:HIS:N	2.43	0.51
1:F:704:PHE:O	1:F:708:VAL:HG23	2.10	0.51
1:F:2133:LEU:HD13	1:F:2143:ARG:HG2	1.91	0.51
1:F:2412:TYR:HA	1:F:2415:LEU:HD12	1.92	0.51
1:F:2558:ALA:HA	1:F:2561:PHE:CE2	2.45	0.51
1:F:3048:LYS:O	1:F:3052:LEU:HG	2.10	0.51
1:F:3554:PHE:O	1:F:3558:ILE:HG12	2.10	0.51
1:F:3954:PRO:HD3	1:F:4027:TRP:CZ3	2.44	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:146:GLN:NE2	3:H:150:ILE:HG21	2.25	0.51
1:A:727:ALA:HA	1:A:730:LEU:HD12	1.92	0.51
1:A:1328:GLU:HA	1:A:1331:ASN:HD22	1.76	0.51
2:B:63:SER:O	2:B:67:ILE:HG12	2.11	0.51
2:B:450:GLU:OE2	3:C:415:ASN:ND2	2.44	0.51
3:C:599:ARG:HH21	3:C:602:VAL:HG21	1.74	0.51
3:C:645:GLU:HA	3:C:648:LYS:HE3	1.92	0.51
1:F:36:ARG:HA	1:F:36:ARG:HE	1.75	0.51
1:F:66:LEU:HG	1:F:70:ARG:HH12	1.74	0.51
1:F:3101:TYR:HA	1:F:3104:GLN:OE1	2.10	0.51
1:F:3158:LYS:O	1:F:3161:LEU:HG	2.10	0.51
1:F:3388:ALA:O	1:F:3392:ALA:N	2.44	0.51
2:G:462:MET:HA	2:G:465:ILE:HG12	1.93	0.51
3:H:324:SER:N	3:H:327:ASP:OD2	2.43	0.51
3:H:360:GLN:HE22	3:H:421:TYR:HD2	1.58	0.51
3:H:363:LYS:HB3	3:H:420:VAL:HG12	1.93	0.51
3:H:701:ALA:O	3:H:705:LEU:N	2.43	0.51
1:A:194:GLU:HA	1:A:197:PHE:CD2	2.45	0.51
1:A:321:LYS:NZ	1:A:322:GLN:OE1	2.33	0.51
1:A:1015:ASP:HA	1:A:1018:VAL:HG12	1.91	0.51
1:A:2256:ILE:H	1:A:2256:ILE:HD12	1.75	0.51
1:A:2429:ASP:O	1:A:2432:GLN:HG2	2.10	0.51
1:A:2480:ILE:HA	1:A:2483:ASN:ND2	2.25	0.51
1:A:2510:LEU:C	1:A:2518:GLN:HE22	2.14	0.51
2:B:59:PRO:HA	2:B:62:MET:HG3	1.93	0.51
2:B:297:LYS:NZ	3:C:294:VAL:O	2.43	0.51
1:F:574:LYS:O	1:F:578:LYS:HD3	2.11	0.51
1:F:925:GLN:HA	1:F:928:VAL:HG22	1.93	0.51
1:F:1651:LYS:NZ	1:F:1654:GLN:OE1	2.24	0.51
1:F:1804:MET:HB3	1:F:1819:PHE:HE2	1.75	0.51
1:F:1813:SER:HB2	1:F:1868:THR:HG21	1.93	0.51
1:F:3005:LEU:HD22	1:F:3254:LEU:HB3	1.93	0.51
1:F:3174:ASP:OD1	1:F:3178:ILE:HB	2.11	0.51
2:G:115:ARG:NH2	2:G:118:GLU:OE2	2.43	0.51
2:G:274:TYR:HB2	2:G:367:PHE:HD2	1.76	0.51
2:G:274:TYR:N	2:G:367:PHE:O	2.42	0.51
2:G:389:CYS:SG	2:G:415:PRO:HB2	2.50	0.51
1:A:572:VAL:O	1:A:576:VAL:HG23	2.09	0.51
1:A:1891:ALA:HA	1:A:1895:LYS:HG2	1.91	0.51
1:A:2181:GLY:HA2	1:A:2222:HIS:ND1	2.26	0.51
1:A:2330:VAL:HG23	1:A:2331:MET:H	1.75	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2547:SER:H	1:A:2554:PHE:HE2	1.58	0.51
1:A:3946:PHE:O	1:A:3951:GLN:NE2	2.43	0.51
2:B:46:LYS:HA	2:B:137:HIS:NE2	2.25	0.51
3:C:593:ASN:HA	3:C:597:ASN:HB2	1.91	0.51
1:F:187:SER:O	1:F:191:ASN:ND2	2.43	0.51
1:F:969:LEU:O	1:F:973:ALA:N	2.38	0.51
1:F:1288:SER:HB2	1:F:1290:LEU:HD13	1.92	0.51
1:F:2447:LYS:HD3	1:F:2448:PRO:HD2	1.92	0.51
1:F:3086:LEU:HA	1:F:3089:LEU:HD12	1.93	0.51
1:F:3516:HIS:ND1	1:F:3520:GLU:OE2	2.44	0.51
2:G:476:ASP:HA	3:H:427:MET:SD	2.50	0.51
3:H:721:GLU:O	3:H:725:VAL:HG23	2.11	0.51
1:A:544:ILE:O	1:A:548:GLU:HG3	2.11	0.51
1:A:623:PHE:CZ	1:A:627:VAL:HG21	2.45	0.51
1:A:2230:VAL:O	1:A:2233:HIS:HB3	2.11	0.51
1:A:2468:THR:O	1:A:2471:GLU:HG3	2.10	0.51
1:A:2952:ILE:HG12	1:A:2972:TYR:HE1	1.74	0.51
1:A:3378:TYR:O	1:A:3382:PHE:N	2.41	0.51
1:A:3472:ILE:HG13	1:A:3479:THR:CB	2.40	0.51
1:F:570:LYS:HD3	1:F:1505:LEU:HD21	1.92	0.51
1:F:1834:ASP:HA	1:F:1837:ARG:NH1	2.26	0.51
1:F:2815:GLY:HA2	1:F:2818:LYS:HD3	1.92	0.51
1:F:3812:LEU:HB3	1:F:3925:LEU:HD23	1.93	0.51
1:F:6010:UNK:O	1:F:6014:UNK:N	2.44	0.51
2:G:106:GLN:HG3	2:G:115:ARG:NH1	2.25	0.51
2:G:302:THR:HG23	2:G:302:THR:O	2.10	0.51
2:G:413:LEU:HD21	2:G:432:PHE:CG	2.45	0.51
1:A:264:ARG:NH2	7:E:40:DT:H5 <sup>''</sup>	2.25	0.51
1:A:437:HIS:NE2	1:A:6015:UNK:HA	2.25	0.51
1:A:656:GLN:HG2	1:A:666:PHE:CE2	2.46	0.51
1:A:1142:HIS:CD2	1:A:1197:LEU:HD11	2.45	0.51
1:A:2205:VAL:HG22	1:A:2207:LYS:H	1.75	0.51
1:A:2428:ASP:HB3	1:A:2431:ARG:HG2	1.93	0.51
1:A:2519:LEU:O	1:A:2522:ARG:HB2	2.11	0.51
1:A:2559:THR:HA	1:A:2562:LEU:HD13	1.93	0.51
1:A:2851:PHE:HB3	1:A:2854:PHE:HB3	1.91	0.51
1:A:3031:TRP:O	1:A:3034:PRO:HD2	2.11	0.51
1:A:4013:TRP:HZ2	1:A:4036:LYS:HE2	1.76	0.51
2:B:450:GLU:HA	3:C:416:TYR:HE1	1.75	0.51
3:C:74:TYR:HD1	3:C:113:VAL:HG22	1.75	0.51
3:C:185:LEU:HB3	3:C:514:ASN:ND2	2.26	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:305:ASN:O	1:F:308:LEU:N	2.40	0.51
1:F:642:PHE:CE2	1:F:646:VAL:HG12	2.45	0.51
1:F:828:LYS:HG3	1:F:830:VAL:H	1.75	0.51
1:F:1854:ARG:HB3	1:F:1863:PHE:CE1	2.41	0.51
1:F:1887:ASP:OD1	1:F:1887:ASP:N	2.39	0.51
1:F:3374:ILE:HA	1:F:3377:LEU:HB2	1.92	0.51
1:F:3447:VAL:CG2	1:F:3478:GLU:O	2.41	0.51
1:F:3881:ASP:HA	1:F:3969:ASN:HB3	1.93	0.51
1:F:4040:PRO:HA	1:F:4043:LYS:HD2	1.93	0.51
2:G:273:ILE:CG2	2:G:366:LEU:HG	2.40	0.51
3:H:251:LEU:HD23	3:H:261:ILE:HD13	1.93	0.51
3:H:463:LEU:HD22	3:H:522:VAL:HG11	1.92	0.51
1:A:84:GLU:HA	1:A:87:LYS:HB3	1.91	0.51
1:A:301:CYS:SG	1:A:302:ALA:N	2.83	0.51
1:A:318:SER:O	1:A:321:LYS:HG2	2.11	0.51
1:A:465:PHE:HE1	1:A:482:VAL:HG21	1.76	0.51
1:A:471:LYS:HZ3	1:A:473:PRO:HG2	1.76	0.51
1:A:797:ASP:OD1	1:A:797:ASP:N	2.43	0.51
1:A:3616:ALA:O	1:A:3633:ILE:CG2	2.59	0.51
2:B:116:ILE:H	2:B:116:ILE:HD12	1.76	0.51
3:C:509:GLN:OE1	3:C:512:ILE:HG12	2.10	0.51
1:F:333:MET:SD	3:H:568:LYS:NZ	2.62	0.51
1:F:1145:LEU:HD13	1:F:1151:ARG:HH21	1.75	0.51
1:F:1190:LEU:HB3	1:F:1194:PHE:CZ	2.46	0.51
1:F:1304:HIS:HB3	1:F:1307:ILE:O	2.10	0.51
1:F:1658:SER:O	1:F:1662:ASN:ND2	2.44	0.51
1:F:1967:PHE:C	1:F:1969:GLU:H	2.12	0.51
1:F:2197:THR:HG23	1:F:5009:UNK:N	2.26	0.51
1:F:3064:PHE:O	1:F:3067:LYS:HB2	2.10	0.51
2:G:193:LEU:HB2	2:G:198:ILE:HD13	1.93	0.51
1:A:453:MET:HA	1:A:456:VAL:HG22	1.93	0.51
1:A:1017:ILE:HD12	1:A:1077:GLY:HA3	1.92	0.51
1:A:1124:ILE:HG13	1:A:1125:GLN:N	2.26	0.51
1:A:2323:LEU:O	1:A:2327:LEU:HG	2.10	0.51
2:B:362:LEU:HD12	2:B:436:PHE:HB3	1.92	0.51
2:B:392:LYS:NZ	3:C:458:ILE:HG21	2.26	0.51
1:F:960:GLN:HA	1:F:963:LYS:HE2	1.93	0.51
1:F:971:ARG:HH12	1:F:1025:LEU:HD13	1.75	0.51
1:F:1412:LYS:O	1:F:1415:LEU:HB2	2.10	0.51
1:F:1525:CYS:O	1:F:1529:VAL:HG23	2.11	0.51
1:F:1972:GLU:C	1:F:1973:LYS:HD2	2.31	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2196:TRP:HE1	1:F:2200:ALA:HB3	1.76	0.51
1:F:2430:GLU:N	1:F:2430:GLU:OE1	2.42	0.51
1:F:2435:CYS:O	1:F:2439:ILE:HG12	2.11	0.51
1:F:3361:GLU:HB3	1:F:3366:SER:HA	1.93	0.51
1:F:3759:ARG:HH22	1:F:4015:ASN:HB3	1.75	0.51
1:F:3871:PHE:HA	1:F:3874:ARG:HD3	1.92	0.51
2:G:93:ASP:CG	2:G:100:LYS:HA	2.31	0.51
2:G:459:VAL:HG13	3:H:383:ALA:HB2	1.93	0.51
1:A:704:PHE:O	1:A:708:VAL:HG23	2.11	0.51
1:A:1669:PRO:HA	1:A:1672:PHE:HB3	1.93	0.51
1:A:2127:LYS:O	1:A:2127:LYS:NZ	2.43	0.51
1:A:2821:ASP:HA	1:A:2829:LYS:HE2	1.92	0.51
1:A:2936:TYR:HA	1:A:2939:LEU:HD12	1.91	0.51
1:A:3768:PHE:HB3	1:A:3788:LEU:HD23	1.91	0.51
2:B:95:ASN:HB3	2:B:102:ILE:HG22	1.92	0.51
2:B:131:PHE:HA	2:B:134:MET:HG2	1.93	0.51
3:C:250:ARG:HA	3:C:260:ARG:HA	1.93	0.51
3:C:264:TYR:N	3:C:363:LYS:O	2.40	0.51
3:C:365:PHE:HB2	3:C:368:ARG:NH1	2.23	0.51
1:F:73:LEU:HD21	1:F:78:PHE:CD1	2.46	0.51
1:F:242:PRO:HA	1:F:245:SER:HB2	1.93	0.51
1:F:431:TYR:O	1:F:435:LEU:HG	2.11	0.51
1:F:456:VAL:HA	1:F:459:ARG:HE	1.75	0.51
1:F:1260:LEU:HD22	1:F:1337:VAL:HG13	1.93	0.51
1:F:2208:ASP:HA	1:F:2211:LEU:HD12	1.93	0.51
1:F:3090:TYR:CB	1:F:3099:ALA:HB2	2.40	0.51
1:F:3565:GLY:HA2	1:F:3569:GLN:OE1	2.10	0.51
1:F:3865:THR:O	1:F:3869:THR:HG23	2.11	0.51
2:G:264:ASN:HD21	3:H:534:LYS:HZ1	1.56	0.51
2:G:322:TYR:CE2	3:H:494:LEU:HD21	2.46	0.51
2:G:526:LYS:HD2	3:H:256:ASN:OD1	2.11	0.51
3:H:182:PRO:HB2	3:H:520:ALA:HB3	1.93	0.51
1:A:215:PRO:O	1:A:216:LYS:HD2	2.11	0.50
1:A:278:HIS:C	1:A:281:GLN:HE22	2.15	0.50
1:A:346:TYR:OH	1:A:350:ARG:NH1	2.44	0.50
1:A:966:PHE:O	1:A:969:LEU:HB3	2.11	0.50
1:A:1002:GLU:OE1	1:A:1002:GLU:N	2.44	0.50
1:A:1271:ILE:O	1:A:1274:ARG:NH1	2.39	0.50
1:A:1431:LEU:HD11	1:A:1447:ARG:CZ	2.41	0.50
1:A:1471:GLN:HE22	1:A:1476:HIS:CE1	2.28	0.50
1:A:1855:PHE:HA	1:A:1867:ILE:HD11	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1891:ALA:HB2	1:A:1896:ILE:H	1.75	0.50
1:A:2239:LYS:O	1:A:2242:VAL:HG12	2.10	0.50
1:A:2540:LEU:HA	1:A:2543:ASN:ND2	2.26	0.50
1:A:3050:LYS:O	1:A:3054:GLN:NE2	2.44	0.50
1:A:3766:GLN:O	1:A:3770:VAL:HG23	2.11	0.50
3:C:453:ALA:HB2	3:C:536:LEU:HD23	1.92	0.50
1:F:96:MET:HG3	1:F:99:LYS:HG3	1.93	0.50
1:F:306:VAL:HG12	1:F:309:LYS:HD2	1.93	0.50
1:F:1125:GLN:H	1:F:1125:GLN:CD	2.15	0.50
1:F:3544:ASP:OD2	1:F:3546:SER:OG	2.20	0.50
1:F:3781:CYS:HA	1:F:3784:ARG:HB2	1.94	0.50
2:G:46:LYS:HD2	2:G:137:HIS:NE2	2.26	0.50
2:G:173:ASP:HA	2:G:213:ILE:HG23	1.92	0.50
2:G:299:LYS:NZ	3:H:292:GLU:HG2	2.26	0.50
2:G:363:ARG:NH2	3:H:359:ASN:O	2.45	0.50
2:G:416:GLN:HB3	2:G:431:GLY:N	2.14	0.50
1:A:35:ILE:HG22	1:A:36:ARG:HD3	1.93	0.50
1:A:279:ALA:HB1	1:A:322:GLN:CD	2.32	0.50
1:A:1428:ILE:HG13	1:A:1429:GLU:N	2.26	0.50
1:A:2908:LYS:HD2	1:A:2909:ARG:O	2.11	0.50
1:A:2937:ASP:HB3	1:A:3979:LEU:HD13	1.93	0.50
1:A:3765:GLU:HA	1:A:3768:PHE:CE2	2.47	0.50
1:A:3810:VAL:N	1:A:3930:VAL:H	2.08	0.50
1:A:3949:ALA:HB1	1:A:3955:VAL:O	2.12	0.50
2:B:50:GLU:O	2:B:59:PRO:HD2	2.11	0.50
2:B:52:GLN:HG3	2:B:171:ASN:ND2	2.26	0.50
2:B:318:ARG:HH21	3:C:278:VAL:HA	1.75	0.50
1:F:320:LEU:HD13	1:F:368:LEU:HD13	1.92	0.50
1:F:616:LYS:NZ	1:F:618:LYS:HD2	2.26	0.50
1:F:639:ALA:HB1	1:F:642:PHE:HB3	1.93	0.50
1:F:1825:LEU:HA	1:F:1828:LEU:HD12	1.92	0.50
1:F:2470:ARG:HA	1:F:2473:MET:HE3	1.92	0.50
1:F:2897:LEU:HD13	1:F:2922:ARG:HD2	1.92	0.50
1:F:3352:GLU:OE2	1:F:3357:ARG:HG3	2.10	0.50
1:F:3869:THR:HG22	1:F:3872:ARG:HH12	1.76	0.50
1:F:3962:ARG:NH2	1:F:4125:GLU:HG2	2.26	0.50
5:I:42:DA:H8	5:I:42:DA:OP2	1.93	0.50
1:A:531:PHE:HA	1:A:534:LEU:HD12	1.94	0.50
1:A:741:ILE:HA	1:A:748:TYR:CE2	2.38	0.50
1:A:1878:ASP:OD1	1:A:1879:VAL:N	2.44	0.50
1:A:2312:TYR:O	1:A:2315:VAL:HG23	2.10	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2403:CYS:O	1:A:2404:ARG:NE	2.42	0.50
1:A:2959:ALA:HB2	1:A:2967:GLU:OE2	2.11	0.50
1:A:3960:PRO:HD3	1:A:4110:GLN:OE1	2.11	0.50
2:B:388:LYS:HE3	2:B:392:LYS:HB2	1.93	0.50
1:F:528:VAL:HG12	1:F:629:PHE:CE1	2.46	0.50
1:F:884:VAL:HG13	1:F:964:ARG:HH22	1.76	0.50
1:F:1624:GLN:O	1:F:1628:LYS:NZ	2.44	0.50
1:F:1667:SER:OG	1:F:1667:SER:O	2.29	0.50
1:F:1684:LEU:HB3	1:F:1688:LEU:HB2	1.94	0.50
1:F:2220:MET:HG2	1:F:2255:LEU:HD22	1.94	0.50
1:F:3471:ILE:O	1:F:3475:TYR:N	2.32	0.50
1:F:3956:PRO:HB3	1:F:4068:HIS:HE1	1.77	0.50
3:H:183:PHE:CE2	3:H:190:PRO:HD2	2.46	0.50
1:A:446:PHE:N	1:A:447:PRO:HD3	2.16	0.50
1:A:721:TYR:O	1:A:722:LYS:HD3	2.11	0.50
1:A:1834:ASP:HA	1:A:1837:ARG:NH1	2.26	0.50
1:A:2297:SER:HA	1:A:2300:PHE:CD1	2.47	0.50
1:A:2365:ASN:HB3	1:A:2366:LYS:HZ2	1.75	0.50
1:A:2981:TRP:CD1	1:A:2986:PRO:HD2	2.47	0.50
1:A:3111:MET:SD	1:A:3112:GLN:NE2	2.84	0.50
1:A:3663:THR:O	1:A:3667:LEU:HG	2.11	0.50
2:B:487:PHE:O	2:B:491:GLU:HG3	2.11	0.50
3:C:247:TRP:CH2	3:C:338:LYS:HE3	2.46	0.50
3:C:329:GLU:O	3:C:332:LYS:HE2	2.12	0.50
1:F:313:LEU:HD21	1:F:357:LYS:HZ2	1.76	0.50
1:F:320:LEU:HD21	1:F:364:ARG:NH2	2.27	0.50
1:F:463:LYS:NZ	1:F:544:ILE:HG23	2.26	0.50
1:F:977:ASP:OD1	1:F:978:GLN:N	2.44	0.50
1:F:1444:ASP:HA	1:F:1447:ARG:HH12	1.76	0.50
1:F:2950:LYS:HG3	1:F:2994:TRP:HZ2	1.76	0.50
1:F:3037:GLN:HA	1:F:3040:TYR:CD2	2.41	0.50
1:F:3631:LYS:HA	1:F:3634:GLN:HE21	1.76	0.50
2:G:194:ARG:HH12	2:G:199:PHE:HA	1.77	0.50
6:D:20:DT:C2	6:D:21:DA:N1	2.79	0.50
1:A:449:TYR:HB3	1:A:453:MET:SD	2.52	0.50
1:A:834:LEU:O	1:A:835:LYS:HG3	2.12	0.50
1:A:2400:VAL:HA	1:A:2403:CYS:SG	2.52	0.50
1:A:2434:VAL:O	1:A:2437:ASP:HB2	2.12	0.50
1:A:2951:GLN:HA	1:A:2954:GLN:NE2	2.27	0.50
1:A:3177:ASN:OD1	1:A:3178:ILE:N	2.44	0.50
1:A:3187:CYS:SG	1:A:3239:LYS:HE2	2.52	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:451:PRO:O	1:F:455:LEU:HG	2.11	0.50
1:F:484:HIS:O	1:F:487:LEU:HB2	2.11	0.50
1:F:1538:LEU:N	1:F:1553:PHE:O	2.44	0.50
1:F:1811:ARG:NH2	3:H:627:ASN:H	2.08	0.50
1:F:2387:PRO:HA	1:F:2394:LYS:NZ	2.27	0.50
1:F:2518:GLN:HA	1:F:2521:ILE:HG22	1.93	0.50
1:F:3421:ASP:OD1	1:F:3425:ARG:NH2	2.44	0.50
1:F:3568:ILE:O	1:F:3571:PHE:HB2	2.12	0.50
1:F:3717:VAL:HG12	1:F:3744:ASP:HB2	1.92	0.50
1:F:4049:ARG:HH21	1:F:4054:ALA:HB1	1.75	0.50
2:G:340:PHE:HB3	2:G:408:PRO:HD3	1.93	0.50
2:G:507:THR:HG23	2:G:508:LEU:HD12	1.92	0.50
1:A:131:LEU:HD11	1:A:174:VAL:N	2.25	0.50
1:A:1190:LEU:HB3	1:A:1194:PHE:CZ	2.47	0.50
1:A:1329:ARG:HE	1:A:1329:ARG:HA	1.77	0.50
1:A:1878:ASP:HB3	1:A:1947:CYS:HA	1.93	0.50
1:A:2129:LEU:HD11	1:A:2146:LEU:HD22	1.93	0.50
1:A:2952:ILE:HG13	1:A:2971:GLN:HB3	1.93	0.50
1:A:3090:TYR:O	1:A:3094:ASP:N	2.45	0.50
1:A:3154:GLN:O	1:A:3157:LEU:HB2	2.12	0.50
1:A:3195:GLU:HG3	1:A:3196:LYS:HG2	1.92	0.50
1:A:3369:ASP:OD2	1:A:3372:LYS:NZ	2.44	0.50
1:A:3496:ILE:HG12	1:A:3707:GLY:HA3	1.92	0.50
1:A:3644:PHE:HA	1:A:3653:ARG:NH2	2.27	0.50
1:A:3901:ARG:NH1	1:A:3970:LEU:HA	2.26	0.50
2:B:173:ASP:OD2	2:B:214:SER:N	2.44	0.50
2:B:512:GLU:O	2:B:516:LYS:HE2	2.12	0.50
1:F:83:GLU:HA	1:F:86:LEU:HD12	1.94	0.50
1:F:236:LYS:NZ	1:F:239:GLU:H	2.10	0.50
1:F:655:LEU:O	1:F:659:ARG:HG3	2.11	0.50
1:F:1242:LEU:O	1:F:1312:CYS:HB2	2.12	0.50
1:F:1568:ASN:HA	1:F:1600:MET:HE1	1.93	0.50
1:F:2850:PHE:O	1:F:2852:PRO:HD3	2.11	0.50
1:F:2967:GLU:OE2	1:F:2971:GLN:NE2	2.45	0.50
2:G:325:ARG:NE	3:H:498:ALA:O	2.44	0.50
2:G:418:GLU:OE2	2:G:430:PRO:HG3	2.11	0.50
4:J:20:DT:C2	4:J:21:DA:N1	2.79	0.50
7:E:37:DT:H2'	7:E:38:DT:C5	2.46	0.50
1:A:67:VAL:HA	1:A:70:ARG:CZ	2.42	0.50
1:A:229:SER:O	1:A:278:HIS:NE2	2.45	0.50
1:A:305:ASN:ND2	1:A:307:GLU:HG2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:530:LEU:O	1:A:534:LEU:HG	2.11	0.50
1:A:709:LYS:O	1:A:712:LYS:N	2.44	0.50
1:A:757:LYS:O	1:A:760:LEU:HB2	2.12	0.50
1:A:793:LEU:HD22	1:A:869:ASN:HB2	1.94	0.50
1:A:899:ARG:NH2	1:A:2565:MET:O	2.45	0.50
1:A:1627:LYS:O	1:A:1630:ASP:HB2	2.12	0.50
1:A:3090:TYR:HA	1:A:3093:GLN:HB2	1.94	0.50
1:A:3568:ILE:HD12	1:A:3571:PHE:HD2	1.77	0.50
2:B:320:GLN:OE1	3:C:276:TRP:HA	2.12	0.50
2:B:450:GLU:C	2:B:451:LYS:HD3	2.32	0.50
3:C:90:LEU:O	3:C:94:ILE:HG12	2.12	0.50
3:C:394:ARG:NH1	3:C:396:ALA:HB3	2.27	0.50
1:F:1828:LEU:O	1:F:1883:ARG:NH1	2.44	0.50
1:F:3052:LEU:HD11	1:F:3061:LEU:HD11	1.94	0.50
1:F:3610:TYR:CE1	1:F:3649:SER:HA	2.46	0.50
2:G:203:MET:HE2	2:G:239:LEU:N	2.26	0.50
5:I:33:DA:H1'	5:I:34:DC:H5'	1.94	0.50
1:A:440:VAL:O	1:A:443:ILE:HB	2.12	0.50
1:A:1107:TYR:OH	1:A:1130:ALA:HB3	2.11	0.50
1:A:2349:LEU:O	1:A:2360:PHE:HE1	1.95	0.50
1:A:2450:GLU:O	1:A:2454:LEU:HD23	2.12	0.50
1:A:2928:LYS:O	1:A:2931:ARG:HB2	2.12	0.50
1:A:3502:MET:HA	1:A:3505:LEU:HD13	1.92	0.50
1:A:3586:LYS:HZ3	1:A:3671:ASN:HB3	1.76	0.50
1:A:3811:THR:HG21	1:A:3926:ASN:HA	1.94	0.50
1:A:3999:THR:O	1:A:4002:MET:HG2	2.11	0.50
2:B:95:ASN:OD1	2:B:98:ASN:N	2.43	0.50
3:C:448:GLU:HA	3:C:451:LEU:HB2	1.93	0.50
1:F:1164:CYS:N	1:F:1167:ASP:OD2	2.44	0.50
1:F:1384:PHE:H	1:F:1386:ILE:HG23	1.77	0.50
1:F:1454:ALA:O	1:F:1457:GLN:NE2	2.45	0.50
1:F:2350:LYS:HZ2	1:F:2378:PHE:HE2	1.60	0.50
1:F:2552:VAL:HA	1:F:2851:PHE:CG	2.46	0.50
1:F:3940:ILE:HG22	1:F:3941:ASP:N	2.27	0.50
2:G:93:ASP:OD2	2:G:100:LYS:CA	2.50	0.50
2:G:189:LYS:HA	2:G:192:ASP:OD2	2.12	0.50
3:H:69:SER:O	3:H:74:TYR:HB2	2.12	0.50
3:H:107:PHE:CE2	3:H:111:LEU:HD11	2.46	0.50
3:H:363:LYS:HG3	3:H:365:PHE:CE1	2.47	0.50
3:H:629:THR:HA	3:H:632:PHE:CE2	2.47	0.50
5:I:21:DA:H1'	5:I:22:DA:C8	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:22:DG:O5'	6:D:22:DG:H8	1.95	0.50
6:D:31:DT:C2	7:E:26:DA:C2	3.00	0.50
1:A:100:ILE:HG13	1:A:103:TYR:HD2	1.77	0.50
1:A:230:LEU:HD23	1:A:234:PHE:CZ	2.46	0.50
1:A:1329:ARG:NE	1:A:1332:TYR:HB3	2.27	0.50
1:A:1559:PHE:HA	1:A:1562:LEU:HD12	1.94	0.50
1:A:2937:ASP:CG	1:A:3982:SER:HB3	2.32	0.50
1:A:3095:ASP:OD1	1:A:3095:ASP:N	2.43	0.50
2:B:71:TYR:O	2:B:75:ILE:HG13	2.12	0.50
2:B:289:TYR:H	2:B:294:GLU:N	2.10	0.50
3:C:337:GLY:H	3:C:399:LYS:HG2	1.76	0.50
3:C:629:THR:C	3:C:633:MET:HE2	2.33	0.50
1:F:471:LYS:HB3	1:F:474:VAL:HG22	1.93	0.50
1:F:1090:ARG:HG3	1:F:1091:GLU:OE1	2.12	0.50
1:F:1296:PHE:HA	1:F:1299:GLU:OE2	2.11	0.50
1:F:1374:GLN:HA	1:F:1377:CYS:SG	2.52	0.50
1:F:1608:ARG:HB2	1:F:1612:LYS:NZ	2.26	0.50
1:F:1921:ASP:OD1	1:F:1922:ALA:N	2.42	0.50
1:F:2158:ARG:HH21	1:F:2196:TRP:HB3	1.76	0.50
1:F:2268:LYS:HE3	1:F:2311:ARG:NH2	2.26	0.50
1:F:2409:THR:HG23	1:F:2445:LYS:HG2	1.94	0.50
1:F:2444:PRO:HA	1:F:2479:TRP:CZ2	2.47	0.50
1:F:2494:ASP:O	1:F:2497:GLU:HG2	2.12	0.50
1:F:2851:PHE:CD2	1:F:2854:PHE:HB2	2.34	0.50
1:F:3490:VAL:HG23	1:F:3494:GLN:OE1	2.12	0.50
1:F:3571:PHE:CD1	1:F:3686:TRP:HZ3	2.29	0.50
1:F:3923:ARG:HB2	1:F:3962:ARG:HB2	1.94	0.50
2:G:140:ASP:OD1	2:G:141:TYR:N	2.40	0.50
6:D:31:DT:N3	7:E:26:DA:C2	2.80	0.50
1:A:344:GLN:O	1:A:348:ILE:HG12	2.10	0.49
1:A:1400:VAL:O	1:A:1404:LYS:HG2	2.12	0.49
1:A:1464:LEU:HG	1:A:1521:PHE:CZ	2.46	0.49
1:A:2227:LYS:HE2	1:A:2230:VAL:HG22	1.94	0.49
1:A:2389:PHE:HB2	1:A:2394:LYS:HZ2	1.76	0.49
1:A:2911:ARG:NH2	1:A:2912:GLY:O	2.31	0.49
1:A:3193:ILE:HG13	1:A:3194:GLU:N	2.27	0.49
1:A:3237:SER:O	1:A:3240:MET:HB2	2.12	0.49
1:A:3675:LYS:HD3	1:A:3676:PRO:O	2.10	0.49
2:B:121:GLN:O	2:B:126:GLN:NE2	2.35	0.49
2:B:325:ARG:HH21	3:C:498:ALA:HA	1.76	0.49
2:B:458:GLN:O	2:B:462:MET:HG2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:108:LEU:O	3:C:112:ILE:HG13	2.11	0.49
1:F:418:ALA:HB2	1:F:464:VAL:HG12	1.94	0.49
1:F:783:HIS:O	1:F:786:GLN:HG2	2.11	0.49
1:F:1090:ARG:HA	1:F:1096:VAL:HG11	1.94	0.49
1:F:1122:GLY:HA2	1:F:1125:GLN:HE22	1.77	0.49
1:F:1453:SER:HA	1:F:1456:LYS:HZ3	1.77	0.49
1:F:1593:VAL:O	1:F:1597:LEU:HG	2.12	0.49
1:F:2330:VAL:HG13	1:F:2333:ARG:HH12	1.77	0.49
1:F:2514:ASN:HB3	1:F:2517:LEU:HG	1.94	0.49
1:F:3495:PHE:HB3	1:F:3498:TRP:HB2	1.93	0.49
1:F:3632:PHE:HE1	1:F:3675:LYS:HB3	1.77	0.49
1:F:3765:GLU:HA	1:F:3768:PHE:CD2	2.42	0.49
2:G:261:LEU:HD23	2:G:345:LEU:HG	1.94	0.49
6:D:19:DA:C5	6:D:20:DT:C4	2.99	0.49
1:A:57:LEU:HD21	1:A:100:ILE:HD11	1.94	0.49
1:A:109:ASN:O	1:A:112:THR:OG1	2.30	0.49
1:A:133:LYS:O	1:A:137:THR:HG23	2.12	0.49
1:A:263:LYS:NZ	1:A:264:ARG:HB3	2.27	0.49
1:A:568:PHE:O	1:A:572:VAL:HG23	2.11	0.49
1:A:739:ASN:HA	1:A:742:GLU:CD	2.32	0.49
1:A:1891:ALA:CB	1:A:1895:LYS:H	2.24	0.49
1:A:2102:LYS:HA	1:A:2105:HIS:HB3	1.93	0.49
1:A:2158:ARG:NH2	1:A:2195:SER:O	2.45	0.49
1:A:2159:PRO:HG2	1:A:2160:TYR:CE1	2.47	0.49
1:A:2291:GLN:NE2	1:A:2295:GLN:HA	2.26	0.49
1:A:2903:ALA:O	1:A:2904:GLU:HG2	2.11	0.49
1:A:3386:SER:HA	1:A:3389:VAL:HG12	1.94	0.49
2:B:299:LYS:O	3:C:293:THR:HA	2.12	0.49
3:C:247:TRP:NE1	3:C:249:CYS:HB2	2.27	0.49
1:F:76:ILE:HG13	1:F:80:GLU:HG2	1.94	0.49
1:F:251:PHE:HA	1:F:254:LYS:HG2	1.93	0.49
1:F:899:ARG:HB3	1:F:2570:PRO:HD2	1.94	0.49
1:F:1038:LYS:HE2	1:F:1042:LYS:NZ	2.27	0.49
1:F:1756:PRO:HA	1:F:1797:LEU:HD11	1.94	0.49
1:F:1851:LEU:C	1:F:1852:LYS:HD3	2.33	0.49
1:F:2271:SER:HA	1:F:2274:ILE:HD13	1.93	0.49
1:F:2481:HIS:CD2	1:F:2530:ARG:HE	2.29	0.49
1:F:2490:GLU:O	1:F:2496:GLN:NE2	2.40	0.49
1:F:3493:TRP:HD1	1:F:3521:ILE:HG13	1.76	0.49
1:F:3511:ALA:O	1:F:3515:GLN:N	2.32	0.49
2:G:116:ILE:H	2:G:116:ILE:HD12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:524:THR:O	3:H:527:GLN:NE2	2.44	0.49
1:A:82:ARG:O	1:A:86:LEU:HG	2.12	0.49
1:A:370:ALA:O	1:A:374:LYS:N	2.44	0.49
1:A:531:PHE:CD2	1:A:633:ILE:HG21	2.41	0.49
1:A:1283:GLY:HA3	1:A:1356:TRP:CZ2	2.47	0.49
1:A:1394:HIS:ND1	1:A:1394:HIS:O	2.45	0.49
1:A:1674:THR:O	1:A:1678:LEU:HG	2.12	0.49
1:A:1752:LEU:HA	1:A:1788:ARG:HH22	1.78	0.49
1:A:1871:MET:HA	1:A:1874:TYR:HD2	1.77	0.49
1:A:2189:ILE:O	1:A:2193:ILE:HG13	2.12	0.49
1:A:2398:LEU:HD12	1:A:2431:ARG:HB2	1.94	0.49
2:B:490:LEU:HD22	3:C:323:PHE:CE2	2.47	0.49
3:C:209:LYS:HA	3:C:212:MET:HG3	1.93	0.49
3:C:263:ALA:HA	3:C:364:VAL:HA	1.93	0.49
3:C:609:PHE:O	3:C:654:ARG:NH2	2.44	0.49
1:F:895:ALA:HA	1:F:904:VAL:HG22	1.93	0.49
1:F:1143:VAL:HA	1:F:1146:ASN:HD22	1.76	0.49
1:F:1505:LEU:O	1:F:1509:GLN:HG3	2.11	0.49
1:F:2402:LEU:HA	1:F:2438:ILE:HG12	1.94	0.49
1:F:2820:MET:HA	1:F:2823:PHE:CZ	2.46	0.49
1:F:3020:ASP:N	1:F:3020:ASP:OD1	2.44	0.49
3:H:522:VAL:HA	3:H:525:LYS:HG2	1.94	0.49
6:D:16:DA:C5	6:D:17:DT:C4	2.99	0.49
7:E:27:DC:H2'	7:E:28:DT:C6	2.46	0.49
1:A:282:PHE:HB3	1:A:285:CYS:HB2	1.95	0.49
1:A:291:VAL:O	1:A:294:PHE:N	2.43	0.49
1:A:571:SER:HA	1:A:574:LYS:HG2	1.94	0.49
1:A:845:ALA:HB1	1:A:851:ILE:HD11	1.93	0.49
1:A:1756:PRO:HA	1:A:1759:LEU:CB	2.40	0.49
1:A:2447:LYS:HD3	1:A:2449:VAL:H	1.77	0.49
1:A:3164:TRP:HB3	1:A:3186:ARG:HH11	1.77	0.49
1:A:3729:MET:HE1	1:A:3737:ARG:CB	2.42	0.49
2:B:51:SER:HB3	2:B:54:GLU:O	2.12	0.49
2:B:354:VAL:HG13	2:B:355:LEU:HD22	1.95	0.49
1:F:435:LEU:O	1:F:438:LEU:HG	2.12	0.49
1:F:1334:LYS:O	1:F:1338:VAL:HG23	2.13	0.49
1:F:2443:MET:HE3	1:F:2476:ILE:HG12	1.93	0.49
1:F:2503:LYS:HA	1:F:2506:LEU:HD12	1.93	0.49
1:F:3059:GLN:HA	1:F:3062:LEU:HB2	1.93	0.49
1:F:3120:LEU:HD12	1:F:3121:LEU:HD22	1.95	0.49
1:F:3319:ASN:ND2	1:F:3321:LEU:HB3	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:115:MET:O	3:H:115:MET:HE3	2.12	0.49
4:J:37:DG:H22	5:I:20:DT:H1'	1.76	0.49
1:A:289:ASN:OD1	1:A:292:SER:HB2	2.12	0.49
1:A:439:VAL:O	1:A:443:ILE:HG12	2.13	0.49
1:A:624:ILE:O	1:A:628:GLU:HG3	2.12	0.49
1:A:665:GLY:O	1:A:669:LEU:HG	2.12	0.49
1:A:871:LEU:HD23	1:A:872:THR:HG23	1.94	0.49
1:A:1070:PRO:HB2	1:A:3743:HIS:HA	1.94	0.49
1:A:1165:LEU:O	1:A:1169:VAL:HG23	2.13	0.49
1:A:1444:ASP:O	1:A:1448:LEU:HG	2.11	0.49
1:A:1836:LEU:H	1:A:1836:LEU:HD23	1.77	0.49
1:A:2572:TYR:O	1:A:2788:SER:N	2.46	0.49
1:A:2983:ASP:OD1	1:A:2983:ASP:N	2.46	0.49
1:A:3077:ILE:HA	1:A:3080:LEU:HG	1.94	0.49
1:A:3969:ASN:O	1:A:3972:LEU:HD23	2.12	0.49
3:C:721:GLU:HA	3:C:724:ASP:HB3	1.94	0.49
1:F:756:PHE:HB2	1:F:795:CYS:SG	2.53	0.49
1:F:1444:ASP:HA	1:F:1447:ARG:NH1	2.27	0.49
1:F:1597:LEU:O	1:F:1600:MET:HB2	2.12	0.49
1:F:2256:ILE:H	1:F:2256:ILE:HD12	1.76	0.49
1:F:2341:LEU:HA	1:F:2344:LEU:HD12	1.94	0.49
1:F:2479:TRP:HA	1:F:2482:ASP:OD2	2.12	0.49
1:F:3956:PRO:HB3	1:F:4068:HIS:CE1	2.48	0.49
3:H:74:TYR:CE1	3:H:109:ASP:HA	2.47	0.49
1:A:152:LEU:HD12	1:A:156:PHE:CZ	2.47	0.49
1:A:1468:LEU:HD13	1:A:1521:PHE:CE1	2.47	0.49
1:A:2831:ASN:O	1:A:2835:LYS:HG3	2.12	0.49
1:A:3020:ASP:N	1:A:3020:ASP:OD1	2.45	0.49
1:A:3029:LYS:HE3	1:A:3074:GLN:HG3	1.93	0.49
1:A:3042:PRO:O	1:A:3046:ARG:HG3	2.13	0.49
1:A:3096:VAL:HG13	1:A:3100:LYS:HZ2	1.78	0.49
1:A:3523:ASP:OD1	1:A:3561:LYS:HG2	2.12	0.49
1:A:3634:GLN:O	1:A:3638:LYS:HG3	2.12	0.49
3:C:674:PHE:CG	3:C:675:TRP:N	2.81	0.49
1:F:24:ARG:NH2	1:F:25:CYS:HA	2.28	0.49
1:F:54:GLN:HG2	1:F:55:THR:N	2.27	0.49
1:F:225:LYS:HZ3	1:F:268:PRO:HA	1.77	0.49
1:F:484:HIS:NE2	1:F:575:ILE:HG13	2.28	0.49
1:F:940:PHE:CE1	1:F:944:LYS:HE3	2.48	0.49
2:G:273:ILE:HG23	2:G:368:VAL:HG23	1.93	0.49
3:H:55:ALA:O	3:H:57:VAL:HG13	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:165:LEU:N	3:H:226:SER:HA	2.26	0.49
3:H:659:LEU:HD22	3:H:688:LYS:HZ1	1.77	0.49
7:E:21:DA:H2''	7:E:22:DA:C8	2.47	0.49
1:A:382:ASP:O	1:A:386:VAL:HG23	2.12	0.49
1:A:641:PHE:O	1:A:645:TRP:HZ3	1.96	0.49
1:A:737:PRO:O	1:A:740:ILE:HG12	2.13	0.49
1:A:858:MET:HA	1:A:861:SER:OG	2.12	0.49
1:A:877:ASP:HA	1:A:880:MET:SD	2.53	0.49
1:A:960:GLN:O	1:A:963:LYS:HG2	2.12	0.49
1:A:1104:LEU:HD13	1:A:1134:LEU:HD11	1.95	0.49
1:A:1235:ILE:H	1:A:1235:ILE:HD12	1.78	0.49
1:A:1361:LYS:HE3	1:A:1411:TYR:CE1	2.47	0.49
1:A:1606:ARG:NH1	1:A:1607:GLU:OE2	2.46	0.49
1:A:1692:ALA:HA	1:A:1695:LEU:HD13	1.95	0.49
1:A:1897:ASN:HB2	1:A:1911:LEU:HD23	1.94	0.49
1:A:2393:LEU:O	1:A:2396:LEU:HB2	2.12	0.49
1:A:2791:ILE:O	1:A:2794:LEU:HB2	2.12	0.49
1:A:3563:ASP:HB3	1:A:3566:GLY:HA3	1.95	0.49
1:A:3809:THR:HB	1:A:3931:ALA:HB2	1.95	0.49
2:B:304:ASN:OD1	2:B:309:GLY:N	2.46	0.49
3:C:182:PRO:O	3:C:189:GLY:HA2	2.12	0.49
1:F:42:CYS:HB2	1:F:88:PHE:CD1	2.48	0.49
1:F:203:GLU:OE1	1:F:203:GLU:HA	2.13	0.49
1:F:1220:LEU:HA	1:F:1223:THR:HG22	1.95	0.49
1:F:1256:TRP:HH2	1:F:1296:PHE:CD2	2.30	0.49
1:F:1295:ALA:O	1:F:1298:LEU:HB2	2.13	0.49
1:F:1428:ILE:HG13	1:F:1429:GLU:N	2.26	0.49
1:F:1476:HIS:H	1:F:1524:LEU:HD21	1.76	0.49
1:F:1776:GLU:OE1	1:F:1776:GLU:N	2.41	0.49
1:F:2215:LEU:O	1:F:2219:LEU:HG	2.12	0.49
1:F:2349:LEU:HD12	1:F:2378:PHE:CE1	2.47	0.49
1:F:3571:PHE:O	1:F:3575:LEU:HG	2.12	0.49
1:F:3814:ASP:OD1	1:F:3815:LEU:N	2.46	0.49
1:F:4006:VAL:HG23	1:F:4011:PHE:CD2	2.48	0.49
3:H:183:PHE:HE2	3:H:192:PHE:HE1	1.59	0.49
3:H:461:MET:HE1	3:H:523:THR:HG22	1.95	0.49
3:H:651:GLU:HB3	3:H:654:ARG:HB2	1.95	0.49
1:A:315:ALA:O	1:A:318:SER:OG	2.26	0.49
1:A:697:ASP:HB2	1:A:700:LYS:NZ	2.27	0.49
1:A:1354:GLU:OE2	1:A:1410:PRO:HD3	2.13	0.49
1:A:1663:THR:H	1:A:1665:HIS:HE1	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2125:TRP:CZ3	1:A:2126:MET:HB2	2.48	0.49
1:A:2429:ASP:HA	1:A:2432:GLN:NE2	2.27	0.49
1:A:2772:TYR:N	1:A:2775:TYR:OH	2.39	0.49
1:A:2803:ILE:O	1:A:2806:LYS:HG3	2.13	0.49
1:A:3160:LEU:HD12	1:A:3163:THR:HB	1.94	0.49
1:A:3391:ALA:HA	1:A:3394:GLU:OE2	2.13	0.49
1:A:3813:LYS:HA	1:A:3816:LEU:HD12	1.93	0.49
1:A:3898:LEU:HA	1:A:3901:ARG:HG3	1.94	0.49
1:A:3979:LEU:O	1:A:3983:ILE:HD12	2.12	0.49
1:A:4078:VAL:O	1:A:4082:ARG:HG3	2.12	0.49
2:B:273:ILE:HG23	2:B:367:PHE:O	2.13	0.49
1:F:374:LYS:NZ	1:F:423:TYR:O	2.30	0.49
1:F:1202:ARG:NH2	1:F:1210:ASP:HB2	2.27	0.49
1:F:2086:ASP:OD1	1:F:2184:TYR:OH	2.21	0.49
1:F:2311:ARG:HH12	1:F:2312:TYR:HB2	1.75	0.49
1:F:2550:ILE:O	1:F:2550:ILE:HG22	2.13	0.49
1:F:2850:PHE:HD2	1:F:2882:ALA:HB3	1.78	0.49
1:F:3232:ARG:HH22	1:F:3268:THR:HG1	1.59	0.49
1:F:3374:ILE:HA	1:F:3377:LEU:HD12	1.94	0.49
1:F:3812:LEU:HB3	1:F:3925:LEU:CD2	2.42	0.49
1:F:3815:LEU:O	1:F:3819:THR:HG23	2.13	0.49
2:G:158:GLN:OE1	2:G:158:GLN:N	2.45	0.49
2:G:473:TYR:HB2	3:H:346:CYS:CB	2.43	0.49
1:A:438:LEU:HA	1:A:441:MET:HE2	1.94	0.49
1:A:451:PRO:O	1:A:455:LEU:HG	2.13	0.49
1:A:797:ASP:HB2	1:A:801:LYS:HE2	1.94	0.49
1:A:1444:ASP:HA	1:A:1447:ARG:NE	2.28	0.49
1:A:1539:SER:HA	1:A:1552:HIS:ND1	2.27	0.49
1:A:1874:TYR:HB2	1:A:1943:ALA:HB1	1.94	0.49
1:A:2437:ASP:O	1:A:2441:LYS:HG2	2.13	0.49
1:A:2937:ASP:OD1	1:A:3979:LEU:HA	2.13	0.49
1:A:3258:LEU:HA	1:A:3261:GLU:OE2	2.13	0.49
1:A:3531:TYR:HA	1:A:3534:ILE:HD12	1.95	0.49
1:A:3707:GLY:C	1:A:3708:ARG:HD3	2.33	0.49
2:B:71:TYR:CE2	2:B:75:ILE:HD11	2.48	0.49
2:B:279:LYS:HZ2	3:C:357:MET:HB3	1.77	0.49
3:C:395:TYR:CE1	3:C:397:TYR:HB2	2.47	0.49
1:F:210:SER:O	1:F:212:VAL:N	2.44	0.49
1:F:429:GLU:O	1:F:432:THR:HG22	2.13	0.49
1:F:497:LEU:HD12	1:F:498:PRO:HD2	1.94	0.49
1:F:623:PHE:CE2	1:F:663:ILE:HG21	2.41	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:786:GLN:HA	1:F:789:TYR:CD2	2.48	0.49
1:F:826:PHE:CE2	1:F:836:LYS:HD2	2.47	0.49
1:F:1538:LEU:HB2	1:F:1555:HIS:CE1	2.48	0.49
1:F:1765:VAL:HA	1:F:1768:ARG:CZ	2.42	0.49
1:F:1766:LEU:HD11	1:F:1775:GLU:HG3	1.95	0.49
1:F:2897:LEU:HB2	1:F:2922:ARG:HD3	1.95	0.49
1:F:3147:LYS:HB3	1:F:3150:ASN:OD1	2.12	0.49
1:F:3549:HIS:HA	1:F:3552:LYS:HD2	1.93	0.49
1:F:3617:LEU:HD11	1:F:3636:PHE:HB2	1.95	0.49
2:G:470:ARG:NE	3:H:346:CYS:HA	2.28	0.49
3:H:8:ALA:HA	3:H:129:LYS:HB3	1.95	0.49
3:H:406:GLY:HA3	3:H:421:TYR:CE1	2.48	0.49
1:A:302:ALA:HA	1:A:309:LYS:HE3	1.94	0.49
1:A:1367:HIS:ND1	1:A:1370:ARG:HD3	2.27	0.49
1:A:1645:VAL:O	1:A:1649:LEU:HG	2.13	0.49
1:A:1848:ILE:HG22	1:A:1915:LEU:HD21	1.95	0.49
1:A:3034:PRO:HB2	1:A:3037:GLN:OE1	2.13	0.49
1:A:3045:ILE:O	1:A:3049:LEU:HG	2.12	0.49
1:A:3266:SER:HA	1:A:3272:TRP:HB3	1.93	0.49
1:A:3382:PHE:O	1:A:3385:LEU:HG	2.13	0.49
1:A:3681:LYS:HE2	1:A:3724:GLU:HA	1.95	0.49
1:A:3860:LYS:HD3	1:A:4073:ALA:H	1.76	0.49
1:A:3913:ILE:O	1:A:3916:TRP:N	2.45	0.49
2:B:147:LEU:HB2	2:B:189:LYS:HE2	1.94	0.49
3:C:264:TYR:HB2	3:C:363:LYS:HG3	1.95	0.49
3:C:407:VAL:HG12	3:C:424:LEU:HD21	1.95	0.49
1:F:132:ILE:HD12	1:F:135:LEU:HD12	1.94	0.49
1:F:848:LEU:HA	1:F:851:ILE:HD12	1.95	0.49
1:F:933:LEU:HD22	1:F:2794:LEU:HD23	1.95	0.49
1:F:1404:LYS:NZ	1:F:1460:ARG:O	2.45	0.49
1:F:1772:HIS:N	1:F:1775:GLU:OE2	2.45	0.49
1:F:1913:LYS:HA	1:F:1916:ILE:HD12	1.94	0.49
1:F:2253:TYR:O	1:F:2257:PHE:N	2.23	0.49
1:F:2361:ILE:HD12	1:F:2361:ILE:H	1.77	0.49
1:F:2397:CYS:O	1:F:2401:VAL:HG23	2.13	0.49
1:F:2462:VAL:O	1:F:2463:SER:OG	2.27	0.49
1:F:3769:GLN:HA	1:F:3772:ASN:HB2	1.95	0.49
2:G:87:PHE:HB2	2:G:103:TYR:HB3	1.95	0.49
2:G:410:PHE:HB3	2:G:437:LEU:HD21	1.93	0.49
3:H:232:ARG:C	3:H:233:LYS:HD2	2.33	0.49
1:A:99:LYS:C	1:A:101:ALA:H	2.16	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:243:GLN:HA	1:A:246:ARG:HE	1.78	0.48
1:A:1004:GLN:O	1:A:1007:VAL:HG22	2.13	0.48
1:A:1095:LEU:HD12	1:A:1099:PHE:HE2	1.78	0.48
1:A:1424:THR:HG1	1:A:1427:SER:N	2.11	0.48
1:A:2792:THR:O	1:A:2795:GLN:HB3	2.13	0.48
1:A:3450:MET:CE	1:A:3468:LEU:HD22	2.43	0.48
1:A:3796:MET:N	1:A:3801:GLY:HA2	2.28	0.48
2:B:119:LEU:HA	2:B:122:PHE:CE2	2.48	0.48
2:B:462:MET:HE3	3:C:380:LEU:HA	1.95	0.48
3:C:524:THR:HA	3:C:527:GLN:HG2	1.95	0.48
1:F:320:LEU:HB2	1:F:368:LEU:HD22	1.95	0.48
1:F:484:HIS:CD2	1:F:574:LYS:HD2	2.48	0.48
1:F:581:LEU:HD21	1:F:659:ARG:HH11	1.77	0.48
1:F:663:ILE:HB	1:F:666:PHE:CE2	2.48	0.48
1:F:678:LYS:NZ	1:F:683:PHE:H	2.10	0.48
1:F:801:LYS:O	1:F:3115:SER:HB2	2.13	0.48
1:F:1376:LEU:HD21	1:F:1457:GLN:HE22	1.78	0.48
1:F:1527:ARG:O	1:F:1530:SER:OG	2.22	0.48
1:F:1598:ASN:HA	1:F:1601:LEU:HD12	1.95	0.48
1:F:1729:PHE:HA	1:F:1735:ARG:HH22	1.78	0.48
1:F:2238:ILE:O	1:F:2242:VAL:HG13	2.13	0.48
3:H:271:ARG:HD3	3:H:486:ARG:HH22	1.78	0.48
3:H:348:SER:HA	3:H:390:VAL:HG13	1.94	0.48
3:H:595:ALA:HA	3:H:598:PHE:CE2	2.47	0.48
1:A:70:ARG:CZ	1:A:82:ARG:NH2	2.76	0.48
1:A:667:TYR:CD2	1:A:729:CYS:HB3	2.48	0.48
1:A:862:LEU:HD21	1:A:866:ILE:HB	1.95	0.48
1:A:1182:GLU:HA	1:A:1185:HIS:ND1	2.28	0.48
1:A:1368:LEU:O	1:A:1372:LEU:HG	2.13	0.48
1:A:2276:LEU:HA	1:A:2279:ILE:HD12	1.93	0.48
1:A:2936:TYR:HA	1:A:2939:LEU:CD1	2.43	0.48
1:A:3530:VAL:O	1:A:3534:ILE:HG13	2.14	0.48
1:A:3706:ASP:HB3	1:A:3708:ARG:CZ	2.43	0.48
1:A:3973:PRO:HG2	1:A:3974:MET:SD	2.53	0.48
2:B:471:PHE:HD2	3:C:344:GLY:HA2	1.77	0.48
3:C:573:GLY:C	3:C:575:HIS:H	2.16	0.48
3:C:640:ARG:O	3:C:643:ARG:NH1	2.46	0.48
1:F:172:GLU:HB2	1:F:219:VAL:HG12	1.95	0.48
1:F:210:SER:HB3	2:G:332:GLU:OE2	2.13	0.48
1:F:458:CYS:O	1:F:462:VAL:HG23	2.13	0.48
1:F:827:ASN:HB3	1:F:836:LYS:HE2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1495:ASP:OD1	1:F:1495:ASP:N	2.47	0.48
1:F:2340:SER:HA	1:F:2343:GLU:OE2	2.13	0.48
1:F:2356:MET:SD	1:F:2357:GLU:N	2.86	0.48
1:F:2987:THR:HG22	1:F:2990:GLU:OE1	2.13	0.48
1:F:3254:LEU:O	1:F:3258:LEU:HG	2.13	0.48
1:F:3353:GLU:HB3	1:F:3355:LYS:HE2	1.94	0.48
1:F:3766:GLN:HA	1:F:3769:GLN:NE2	2.27	0.48
1:F:3965:ARG:HA	1:F:3968:ILE:HB	1.95	0.48
1:F:4100:GLU:HG2	1:F:4101:GLU:N	2.28	0.48
1:F:4125:GLU:HA	1:F:4127:TRP:CZ3	2.48	0.48
2:G:59:PRO:HA	2:G:62:MET:HG2	1.95	0.48
1:A:214:GLU:HG2	2:B:403:ARG:HH22	1.78	0.48
1:A:535:LEU:HD22	1:A:637:LYS:HB2	1.96	0.48
1:A:672:ILE:HG13	1:A:673:THR:N	2.28	0.48
1:A:1101:PHE:O	1:A:1105:VAL:HG23	2.12	0.48
1:A:2343:GLU:HB3	1:A:2347:LYS:NZ	2.29	0.48
1:A:3820:MET:HE2	1:A:3821:SER:N	2.28	0.48
1:A:3967:PHE:HB3	1:A:3971:MET:HE1	1.94	0.48
2:B:403:ARG:HD3	2:B:404:ARG:N	2.29	0.48
1:F:151:GLU:O	1:F:154:SER:OG	2.22	0.48
1:F:363:ILE:HA	1:F:366:TYR:HD2	1.77	0.48
1:F:414:LEU:HD11	1:F:461:ILE:HG13	1.94	0.48
1:F:471:LYS:O	1:F:475:LEU:N	2.44	0.48
1:F:1058:SER:HA	1:F:1061:LYS:HE2	1.94	0.48
1:F:1155:ARG:HH22	1:F:3691:LYS:HB3	1.77	0.48
1:F:1224:PHE:CZ	1:F:1281:VAL:HG13	2.47	0.48
1:F:2549:LYS:HB3	1:F:2550:ILE:HD12	1.95	0.48
1:F:3374:ILE:HG22	1:F:3377:LEU:HD12	1.94	0.48
1:F:3593:ARG:NH2	1:F:3661:ASP:OD1	2.27	0.48
1:F:3681:LYS:O	1:F:3688:SER:OG	2.31	0.48
1:F:3706:ASP:HB3	1:F:3708:ARG:HH22	1.78	0.48
1:F:3813:LYS:NZ	1:F:3925:LEU:HB3	2.28	0.48
1:F:3816:LEU:CD1	1:F:3882:LEU:HD11	2.43	0.48
3:H:58:LEU:N	3:H:78:THR:O	2.46	0.48
1:A:471:LYS:NZ	1:A:473:PRO:HG2	2.28	0.48
1:A:848:LEU:HB3	1:A:852:ARG:NH1	2.29	0.48
1:A:2106:ARG:HA	1:A:2106:ARG:CZ	2.44	0.48
1:A:2233:HIS:O	1:A:2237:ILE:HD12	2.13	0.48
1:A:3098:ARG:HG2	1:A:3101:TYR:HB3	1.95	0.48
2:B:357:LYS:N	2:B:360:HIS:HE1	2.12	0.48
1:F:98:GLN:HE22	1:F:141:SER:N	2.11	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:387:GLU:HB2	1:F:391:ARG:HH11	1.77	0.48
1:F:457:CYS:O	1:F:461:ILE:HD12	2.12	0.48
1:F:1016:GLY:O	1:F:1026:ARG:HG2	2.13	0.48
1:F:2186:VAL:O	1:F:2190:VAL:HG23	2.13	0.48
1:F:2551:GLU:OE1	1:F:2551:GLU:N	2.46	0.48
1:F:3716:HIS:H	1:F:3718:ARG:NH1	2.12	0.48
2:G:238:LYS:O	2:G:242:LEU:N	2.38	0.48
2:G:267:ILE:HD13	3:H:534:LYS:HE2	1.94	0.48
2:G:282:LYS:HZ3	2:G:483:LEU:HD13	1.77	0.48
2:G:302:THR:HG23	2:G:311:LEU:HD23	1.94	0.48
2:G:372:GLU:OE2	2:G:376:ILE:HA	2.13	0.48
3:H:632:PHE:O	3:H:636:ILE:HG12	2.14	0.48
1:A:75:SER:HB3	1:A:78:PHE:CD1	2.49	0.48
1:A:155:LYS:O	1:A:158:GLY:N	2.46	0.48
1:A:210:SER:O	1:A:213:ARG:NH1	2.46	0.48
1:A:475:LEU:O	1:A:479:ILE:HG12	2.14	0.48
1:A:1069:HIS:CD2	1:A:1070:PRO:HD2	2.47	0.48
1:A:1215:GLU:C	1:A:1219:PHE:HB2	2.34	0.48
1:A:1333:SER:O	1:A:1336:THR:OG1	2.22	0.48
1:A:2804:ILE:HG13	1:A:2805:ALA:N	2.29	0.48
1:A:2937:ASP:OD2	1:A:3982:SER:HB3	2.12	0.48
1:A:4089:ILE:HA	1:A:4092:GLN:NE2	2.28	0.48
2:B:287:LYS:HE2	2:B:296:VAL:HG22	1.95	0.48
3:C:157:CYS:SG	3:C:159:ILE:HD11	2.54	0.48
3:C:249:CYS:HB3	3:C:261:ILE:HG13	1.94	0.48
3:C:501:PRO:HD2	3:C:502:ARG:NH2	2.29	0.48
3:C:661:ALA:O	3:C:665:LYS:HG2	2.12	0.48
3:C:667:GLU:HA	3:C:670:GLN:OE1	2.13	0.48
1:F:86:LEU:HB3	1:F:129:ASP:HB3	1.95	0.48
1:F:229:SER:HA	1:F:278:HIS:CE1	2.48	0.48
1:F:237:SER:OG	1:F:238:MET:N	2.44	0.48
1:F:1095:LEU:HA	1:F:1099:PHE:CD2	2.48	0.48
1:F:2250:SER:HA	1:F:2291:GLN:NE2	2.28	0.48
1:F:3241:LYS:HA	1:F:3244:ASP:OD2	2.14	0.48
1:F:3263:HIS:O	1:F:3267:LYS:HG3	2.12	0.48
1:F:3568:ILE:HA	1:F:3571:PHE:CD2	2.48	0.48
1:F:3739:ILE:HA	1:F:3749:PRO:HA	1.95	0.48
1:F:3817:LEU:HD21	1:F:3825:LYS:HD3	1.94	0.48
1:F:3869:THR:HA	1:F:3872:ARG:NH1	2.29	0.48
1:F:4102:THR:HA	1:F:4105:LYS:NZ	2.29	0.48
2:G:367:PHE:HE1	2:G:431:GLY:HA3	1.79	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:394:ARG:HH21	3:H:403:PRO:HB3	1.78	0.48
3:H:678:VAL:O	3:H:682:GLY:N	2.46	0.48
1:A:335:LYS:O	1:A:338:LEU:HG	2.14	0.48
1:A:738:HIS:HA	1:A:776:TRP:NE1	2.27	0.48
1:A:1183:CYS:HA	1:A:1186:LYS:HG2	1.96	0.48
1:A:2494:ASP:O	1:A:2498:ILE:HG12	2.13	0.48
1:A:2587:GLN:N	1:A:2587:GLN:OE1	2.46	0.48
1:A:3963:LEU:HA	1:A:3967:PHE:CE2	2.49	0.48
2:B:335:GLU:HA	2:B:338:LYS:HG2	1.96	0.48
2:B:471:PHE:CE1	2:B:506:LEU:HD21	2.48	0.48
3:C:509:GLN:NE2	3:C:511:HIS:HB3	2.29	0.48
3:C:612:ALA:H	3:C:615:GLN:HE22	1.60	0.48
1:F:12:LEU:HA	1:F:15:LEU:HD12	1.93	0.48
1:F:524:TYR:O	1:F:528:VAL:HG13	2.13	0.48
1:F:767:GLU:O	1:F:771:ASN:ND2	2.47	0.48
1:F:786:GLN:HA	1:F:789:TYR:CE2	2.47	0.48
1:F:1648:LEU:O	1:F:1652:ILE:HG12	2.13	0.48
1:F:1664:SER:HA	1:F:1669:PRO:HD3	1.96	0.48
1:F:1782:PHE:O	1:F:1785:ILE:HG12	2.13	0.48
1:F:3008:TRP:HD1	1:F:3011:LEU:HD22	1.78	0.48
1:F:3076:ALA:O	1:F:3080:LEU:HG	2.13	0.48
1:F:3120:LEU:HD21	1:F:3895:GLU:HB3	1.95	0.48
1:F:4113:ASP:O	1:F:4117:LEU:HG	2.14	0.48
3:H:464:ALA:HB2	3:H:475:ASP:HA	1.94	0.48
6:D:33:DA:H2	7:E:24:DA:C2	2.32	0.48
1:A:14:ARG:NH1	1:A:15:LEU:HG	2.28	0.48
1:A:389:ILE:HD13	1:A:431:TYR:HD2	1.78	0.48
1:A:434:VAL:O	1:A:438:LEU:HG	2.14	0.48
1:A:1041:ILE:HA	1:A:1044:ILE:HB	1.96	0.48
1:A:1071:ASN:ND2	1:A:1073:PHE:HB2	2.27	0.48
1:A:1110:SER:HA	1:A:1113:LEU:HD23	1.96	0.48
1:A:1377:CYS:SG	1:A:1378:GLU:N	2.87	0.48
1:A:1558:TYR:O	1:A:1562:LEU:HG	2.13	0.48
1:A:1897:ASN:O	1:A:1911:LEU:HG	2.13	0.48
1:A:2852:PRO:HG2	1:A:2853:PRO:HD3	1.96	0.48
1:A:3302:LYS:HD2	1:A:3305:SER:OG	2.13	0.48
1:A:3631:LYS:HZ1	1:A:3635:THR:HB	1.78	0.48
1:A:3700:GLU:OE2	1:A:3717:VAL:N	2.46	0.48
1:A:3988:LEU:HA	1:A:3991:PHE:CD2	2.49	0.48
1:A:4100:GLU:CD	1:A:4100:GLU:H	2.17	0.48
2:B:350:PHE:HB2	3:C:461:MET:O	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:216:GLU:HB3	3:C:219:ASP:HB3	1.95	0.48
1:F:295:GLU:OE2	1:F:296:VAL:HG13	2.13	0.48
1:F:305:ASN:OD1	1:F:307:GLU:HB3	2.13	0.48
1:F:926:THR:HG23	1:F:2800:ARG:NH2	2.25	0.48
1:F:1847:ALA:HA	1:F:1873:TYR:CD2	2.48	0.48
1:F:2314:GLU:OE2	1:F:2318:ALA:HB2	2.14	0.48
1:F:2586:PHE:HB2	1:F:2776:ARG:NE	2.28	0.48
1:F:3443:PRO:HG2	1:F:3475:TYR:CZ	2.49	0.48
1:F:3495:PHE:HA	1:F:3498:TRP:HD1	1.78	0.48
1:F:3797:THR:HB	1:F:3800:LEU:HB3	1.95	0.48
2:G:299:LYS:H	3:H:293:THR:HG23	1.78	0.48
3:H:313:GLY:CA	3:H:322:PRO:HA	2.43	0.48
1:A:143:LEU:HD12	1:A:144:MET:SD	2.54	0.48
1:A:459:ARG:NH1	1:A:540:MET:SD	2.87	0.48
1:A:746:ARG:HB3	1:A:788:TYR:CE1	2.48	0.48
1:A:895:ALA:N	1:A:904:VAL:HG23	2.28	0.48
1:A:1146:ASN:O	1:A:1164:CYS:HB2	2.14	0.48
1:A:1361:LYS:HE3	1:A:1411:TYR:CZ	2.48	0.48
1:A:1887:ASP:O	1:A:1890:HIS:NE2	2.46	0.48
1:A:2210:VAL:HG23	1:A:2211:LEU:HG	1.96	0.48
1:A:2543:ASN:ND2	1:A:2836:LEU:HD11	2.29	0.48
2:B:285:PRO:HB3	3:C:314:PHE:HE1	1.79	0.48
2:B:461:LYS:HB3	2:B:527:GLU:CD	2.33	0.48
1:F:410:MET:HA	1:F:413:PHE:CD2	2.42	0.48
1:F:678:LYS:NZ	1:F:683:PHE:O	2.45	0.48
1:F:741:ILE:HD11	1:F:776:TRP:CD1	2.49	0.48
1:F:1098:GLN:NE2	1:F:1151:ARG:HG3	2.28	0.48
1:F:1656:ASP:HB2	1:F:1660:SER:OG	2.14	0.48
1:F:2197:THR:H	1:F:5009:UNK:H2	1.60	0.48
1:F:2313:LYS:HA	1:F:2316:TYR:CE1	2.48	0.48
1:F:2324:GLY:CA	1:F:2367:VAL:HG23	2.43	0.48
1:F:2382:VAL:O	1:F:2386:LEU:N	2.47	0.48
1:F:2410:GLU:O	1:F:2414:GLN:NE2	2.46	0.48
1:F:3295:GLU:O	1:F:3299:THR:HG23	2.13	0.48
1:F:3443:PRO:HG2	1:F:3475:TYR:CE2	2.48	0.48
1:F:3940:ILE:HG22	1:F:3941:ASP:H	1.78	0.48
2:G:357:LYS:HG3	3:H:413:LYS:HZ1	1.79	0.48
3:H:232:ARG:HD2	3:H:477:PHE:CE1	2.49	0.48
3:H:600:VAL:O	3:H:604:GLN:HG2	2.13	0.48
3:H:708:LYS:HE3	3:H:710:LYS:HB2	1.96	0.48
1:A:211:ALA:CB	1:A:215:PRO:HB2	2.44	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:303:HIS:H	1:A:309:LYS:HE3	1.79	0.48
1:A:575:ILE:O	1:A:578:LYS:HB3	2.13	0.48
1:A:605:THR:HG2	1:A:607:ASP:H	1.77	0.48
1:A:752:LEU:HD12	1:A:753:GLN:N	2.28	0.48
1:A:890:LYS:HE2	1:A:906:PHE:CD2	2.48	0.48
1:A:898:PHE:HE2	1:A:903:PRO:HD2	1.77	0.48
1:A:1061:LYS:HA	1:A:1064:TYR:HD2	1.79	0.48
1:A:1935:GLU:HA	1:A:1938:ARG:HG2	1.95	0.48
1:A:2518:GLN:O	1:A:2522:ARG:N	2.32	0.48
1:A:2771:LEU:HB3	1:A:2775:TYR:CE2	2.48	0.48
1:A:3136:THR:O	1:A:3139:GLN:NE2	2.45	0.48
1:A:3321:LEU:O	1:A:3324:ARG:HG3	2.13	0.48
1:A:3823:GLU:HG2	1:A:3824:GLU:H	1.78	0.48
1:A:3971:MET:HG3	1:A:3974:MET:SD	2.53	0.48
3:C:64:THR:HB	3:C:76:ASN:N	2.29	0.48
3:C:442:LYS:HG3	3:C:443:LYS:HD3	1.95	0.48
1:F:638:GLN:HE22	1:F:640:GLU:HB3	1.79	0.48
1:F:683:PHE:HE1	1:F:700:LYS:HB3	1.77	0.48
1:F:892:LEU:HD13	1:F:944:LYS:HG3	1.96	0.48
1:F:1181:THR:OG1	1:F:1265:GLU:OE1	2.24	0.48
1:F:2155:GLU:HA	1:F:2158:ARG:HG2	1.96	0.48
1:F:3006:ALA:HA	1:F:3008:TRP:CH2	2.49	0.48
1:F:3103:ILE:O	1:F:3106:GLY:N	2.47	0.48
1:F:3531:TYR:HB2	1:F:3532:PRO:HD3	1.95	0.48
1:F:3644:PHE:HA	1:F:3653:ARG:NH1	2.29	0.48
1:F:3835:PRO:HA	1:F:3839:TYR:HD2	1.79	0.48
1:F:3862:ALA:HB3	1:F:4119:ARG:HE	1.78	0.48
1:F:4085:LYS:HG3	1:F:4092:GLN:HG2	1.96	0.48
2:G:72:ILE:HA	2:G:75:ILE:HD12	1.96	0.48
3:H:552:GLU:CG	3:H:553:ILE:H	2.22	0.48
1:A:213:ARG:HB3	1:A:214:GLU:OE1	2.14	0.48
1:A:373:CYS:SG	1:A:381:VAL:HG12	2.54	0.48
1:A:380:ASP:HB3	3:C:574:ALA:O	2.13	0.48
1:A:1745:LYS:HA	1:A:1748:ASP:OD2	2.13	0.48
1:A:2216:LEU:O	1:A:2219:LEU:HB2	2.14	0.48
1:A:2412:TYR:HE1	1:A:2454:LEU:HD21	1.78	0.48
1:A:2512:ASP:OD2	1:A:2518:GLN:HG2	2.13	0.48
1:A:2773:ARG:NH1	1:A:2775:TYR:HA	2.28	0.48
1:A:3005:LEU:HA	1:A:3254:LEU:HD13	1.96	0.48
1:A:3897:PHE:O	1:A:3901:ARG:HG2	2.14	0.48
2:B:332:GLU:HA	2:B:335:GLU:HG2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:483:LEU:HG	2:B:487:PHE:CE2	2.46	0.48
3:C:558:HIS:CD2	3:C:559:GLU:HG3	2.49	0.48
1:F:289:ASN:OD1	1:F:292:SER:HB2	2.14	0.48
1:F:746:ARG:HA	1:F:749:VAL:HG13	1.95	0.48
1:F:1225:GLU:CD	1:F:1234:GLY:HA3	2.34	0.48
1:F:1731:PRO:HA	1:F:1736:PHE:CD2	2.48	0.48
1:F:1801:VAL:HA	1:F:1804:MET:CE	2.43	0.48
1:F:2228:ARG:HG2	1:F:2232:ARG:HH22	1.77	0.48
1:F:3059:GLN:OE1	1:F:3063:THR:OG1	2.31	0.48
1:F:3148:GLN:O	1:F:3151:LEU:HG	2.14	0.48
1:F:3707:GLY:O	1:F:3708:ARG:NE	2.47	0.48
2:G:263:LEU:HD12	2:G:267:ILE:HD11	1.95	0.48
2:G:365:SER:HB2	2:G:435:VAL:HG12	1.95	0.48
3:H:11:VAL:HA	3:H:55:ALA:HB3	1.96	0.48
3:H:76:ASN:HB2	3:H:105:ALA:HB2	1.94	0.48
1:A:478:CYS:O	1:A:482:VAL:HG13	2.14	0.47
1:A:558:GLU:O	1:A:560:LEU:N	2.47	0.47
1:A:2105:HIS:ND1	1:A:2156:VAL:HG22	2.29	0.47
1:A:2174:SER:OG	1:A:2214:ARG:HG2	2.14	0.47
1:A:2225:HIS:HB2	1:A:2231:PHE:CB	2.45	0.47
1:A:2314:GLU:HA	1:A:2317:ALA:HB3	1.96	0.47
1:A:2808:LEU:O	1:A:2811:SER:OG	2.27	0.47
1:A:2851:PHE:HD2	1:A:2854:PHE:HB2	1.79	0.47
1:A:3007:GLU:OE2	1:A:3009:LYS:HB2	2.13	0.47
1:A:3031:TRP:O	1:A:3038:GLU:HG3	2.14	0.47
1:A:3083:SER:HA	1:A:3086:LEU:HB3	1.95	0.47
1:A:3103:ILE:O	1:A:3107:ILE:HG12	2.14	0.47
1:A:3530:VAL:HG22	1:A:3534:ILE:HD11	1.95	0.47
2:B:389:CYS:SG	2:B:415:PRO:HB2	2.54	0.47
3:C:131:HIS:NE2	3:C:239:LYS:HG2	2.29	0.47
3:C:262:ALA:N	3:C:365:PHE:O	2.33	0.47
3:C:612:ALA:H	3:C:615:GLN:NE2	2.12	0.47
1:F:738:HIS:HA	1:F:776:TRP:NE1	2.29	0.47
1:F:749:VAL:O	1:F:753:GLN:NE2	2.43	0.47
1:F:862:LEU:O	1:F:3167:ARG:NH2	2.47	0.47
1:F:1266:CYS:O	1:F:1269:THR:HG22	2.14	0.47
1:F:1367:HIS:CD2	1:F:1371:VAL:HG11	2.49	0.47
1:F:1785:ILE:N	1:F:1830:HIS:HE1	2.11	0.47
1:F:2149:LEU:O	1:F:2153:THR:N	2.47	0.47
1:F:2508:GLN:HA	1:F:2550:ILE:HD11	1.95	0.47
1:F:3232:ARG:NH2	1:F:3265:GLU:O	2.46	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3503:VAL:HG11	1:F:3532:PRO:HB3	1.95	0.47
1:F:3966:GLN:O	1:F:3969:ASN:HB2	2.14	0.47
2:G:376:ILE:HB	3:H:540:ILE:HG21	1.95	0.47
2:G:533:ASP:HA	3:H:260:ARG:CZ	2.44	0.47
3:H:39:THR:HG21	3:H:95:GLU:HB2	1.95	0.47
3:H:111:LEU:HD13	3:H:150:ILE:HD13	1.96	0.47
7:E:27:DC:H2'	7:E:28:DT:H6	1.78	0.47
1:A:360:SER:HA	1:A:363:ILE:HG12	1.96	0.47
1:A:378:ALA:O	1:A:381:VAL:HG22	2.14	0.47
1:A:565:TYR:HA	1:A:568:PHE:HD2	1.80	0.47
1:A:1066:LEU:O	1:A:1074:LYS:HB3	2.15	0.47
1:A:1244:LEU:HD11	1:A:1248:PHE:HA	1.96	0.47
1:A:1344:PHE:O	1:A:1347:THR:OG1	2.21	0.47
1:A:2803:ILE:H	1:A:2803:ILE:HD12	1.79	0.47
1:A:2804:ILE:O	1:A:2808:LEU:HG	2.14	0.47
1:A:2930:TYR:O	1:A:2934:GLY:N	2.44	0.47
1:A:3008:TRP:HB2	1:A:3051:LEU:HG	1.97	0.47
1:A:3820:MET:O	1:A:3822:GLN:N	2.46	0.47
2:B:297:LYS:NZ	3:C:294:VAL:HG23	2.27	0.47
2:B:301:ARG:HH21	2:B:310:LEU:HD11	1.79	0.47
2:B:413:LEU:HD21	2:B:432:PHE:HD1	1.79	0.47
3:C:131:HIS:CE1	3:C:239:LYS:HE3	2.49	0.47
3:C:168:SER:OG	3:C:226:SER:N	2.39	0.47
1:F:560:LEU:HA	1:F:563:LEU:HB2	1.96	0.47
1:F:649:PHE:CE2	1:F:673:THR:HG21	2.48	0.47
1:F:871:LEU:O	1:F:873:VAL:HG22	2.14	0.47
1:F:1337:VAL:O	1:F:1341:ILE:HG12	2.14	0.47
1:F:1367:HIS:CE1	1:F:1371:VAL:HG21	2.48	0.47
1:F:1837:ARG:NE	1:F:1888:ASP:OD2	2.46	0.47
1:F:2100:LEU:O	1:F:2104:MET:HG2	2.13	0.47
1:F:2412:TYR:HE2	1:F:2450:GLU:OE1	1.97	0.47
1:F:2527:HIS:HB3	1:F:2530:ARG:NH1	2.28	0.47
1:F:3139:GLN:HA	1:F:3142:ILE:HD12	1.95	0.47
1:F:3170:ASP:OD2	1:F:3173:MET:HG2	2.14	0.47
1:F:3652:LEU:HD12	1:F:3655:LYS:HZ3	1.79	0.47
1:F:3701:ILE:HG13	1:F:3719:ILE:HG13	1.96	0.47
1:F:3759:ARG:HG3	1:F:3760:GLN:H	1.78	0.47
1:F:3924:HIS:CD2	1:F:3926:ASN:HB2	2.49	0.47
1:F:4074:PHE:O	1:F:4078:VAL:HG23	2.13	0.47
2:G:410:PHE:HB2	2:G:439:PHE:HE1	1.79	0.47
2:G:416:GLN:CD	3:H:354:ARG:HH22	2.17	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:340:TYR:O	1:A:343:GLU:HG3	2.14	0.47
1:A:472:GLY:N	1:A:473:PRO:HD2	2.29	0.47
1:A:911:LEU:O	1:A:915:THR:HG23	2.15	0.47
1:A:1055:ASN:HD21	1:A:1057:LYS:HE2	1.80	0.47
1:A:1651:LYS:O	1:A:1654:GLN:N	2.47	0.47
1:A:3027:LEU:O	1:A:3064:PHE:HD1	1.97	0.47
1:A:3031:TRP:C	1:A:3034:PRO:HD2	2.35	0.47
1:A:3072:GLU:CG	1:A:3073:LEU:H	2.20	0.47
1:A:3572:ILE:HA	1:A:3575:LEU:HD12	1.96	0.47
1:A:3586:LYS:NZ	1:A:3671:ASN:HB3	2.29	0.47
1:A:3971:MET:HG2	1:A:3976:GLU:HA	1.96	0.47
3:C:450:GLN:O	3:C:454:VAL:HG23	2.14	0.47
3:C:605:LYS:HB3	3:C:609:PHE:CD2	2.49	0.47
1:F:292:SER:O	1:F:296:VAL:HG22	2.14	0.47
1:F:337:LYS:O	1:F:341:PHE:N	2.44	0.47
1:F:678:LYS:HE2	1:F:678:LYS:HA	1.96	0.47
1:F:855:VAL:O	1:F:859:LEU:HG	2.14	0.47
1:F:866:ILE:O	1:F:869:ASN:ND2	2.37	0.47
1:F:913:ARG:CZ	1:F:2803:ILE:HG21	2.44	0.47
1:F:1081:ALA:O	1:F:1085:ILE:HG12	2.14	0.47
1:F:1103:ALA:O	1:F:1106:ILE:HG22	2.15	0.47
1:F:1326:GLU:HG3	1:F:1329:ARG:NH2	2.28	0.47
1:F:1529:VAL:CG1	1:F:1581:GLU:HB2	2.44	0.47
1:F:1791:CYS:HB2	1:F:1835:ALA:HB2	1.97	0.47
1:F:2492:ASP:O	1:F:2496:GLN:NE2	2.47	0.47
1:F:2942:ILE:O	1:F:2946:GLU:N	2.31	0.47
1:F:2976:LEU:O	1:F:2979:GLN:NE2	2.48	0.47
1:F:3164:TRP:HB3	1:F:3186:ARG:NH2	2.25	0.47
1:F:3176:MET:HA	1:F:3179:TRP:HD1	1.76	0.47
1:F:3455:LYS:HA	1:F:3491:PRO:HD3	1.96	0.47
1:F:3772:ASN:OD1	1:F:3788:LEU:HB3	2.14	0.47
1:F:3929:MET:N	1:F:3929:MET:SD	2.87	0.47
1:F:4014:LYS:O	1:F:4018:GLN:HG2	2.14	0.47
2:G:273:ILE:HA	2:G:368:VAL:HA	1.97	0.47
2:G:350:PHE:CD2	3:H:458:ILE:HA	2.49	0.47
2:G:350:PHE:HD2	3:H:458:ILE:HA	1.79	0.47
3:H:481:LYS:O	3:H:481:LYS:HD3	2.14	0.47
3:H:647:ILE:HG12	3:H:652:GLU:HA	1.95	0.47
1:A:374:LYS:HZ1	1:A:424:LEU:HA	1.79	0.47
1:A:396:PHE:CZ	1:A:406:ARG:HB2	2.49	0.47
1:A:573:LEU:O	1:A:576:VAL:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1020:PRO:HA	1:A:1073:PHE:CD1	2.49	0.47
1:A:1425:ALA:HB2	1:A:1467:ILE:HG13	1.95	0.47
1:A:1886:LYS:HE3	1:A:1955:VAL:HG23	1.94	0.47
1:A:2471:GLU:HA	1:A:2474:TYR:CD2	2.49	0.47
1:A:3090:TYR:HB3	1:A:3099:ALA:HB2	1.96	0.47
1:A:3538:GLU:OE1	1:A:3538:GLU:N	2.48	0.47
2:B:289:TYR:HB3	2:B:293:ASN:H	1.79	0.47
1:F:849:GLU:O	1:F:853:ILE:HG13	2.14	0.47
1:F:1840:PHE:O	1:F:1844:VAL:HG23	2.15	0.47
1:F:2358:ASP:OD1	1:F:2358:ASP:N	2.48	0.47
1:F:2874:ALA:HA	1:F:2925:GLU:OE1	2.14	0.47
1:F:3301:LEU:O	1:F:3305:SER:N	2.47	0.47
1:F:3494:GLN:HB3	1:F:3709:GLY:HA2	1.95	0.47
1:F:3584:LEU:O	1:F:3612:ARG:NH1	2.46	0.47
1:F:4104:VAL:O	1:F:4107:LEU:HB2	2.14	0.47
2:G:322:TYR:HE2	3:H:494:LEU:HD21	1.79	0.47
3:H:509:GLN:NE2	3:H:511:HIS:HB2	2.29	0.47
1:A:61:ARG:HH11	1:A:62:ASP:CG	2.18	0.47
1:A:295:GLU:HA	1:A:298:LEU:HB3	1.95	0.47
1:A:568:PHE:O	1:A:571:SER:N	2.47	0.47
1:A:2159:PRO:HG2	1:A:2160:TYR:CD1	2.49	0.47
1:A:2587:GLN:O	1:A:2776:ARG:HG3	2.14	0.47
1:A:3036:TYR:HB3	1:A:3040:TYR:CE2	2.48	0.47
3:C:163:PHE:CE1	3:C:212:MET:HG2	2.49	0.47
3:C:271:ARG:HH21	3:C:273:LYS:HA	1.79	0.47
1:F:289:ASN:O	1:F:293:LEU:HG	2.14	0.47
1:F:327:VAL:HA	1:F:330:ASN:HB3	1.96	0.47
1:F:1711:ARG:HA	1:F:1714:LEU:HD12	1.95	0.47
1:F:1837:ARG:O	1:F:1841:SER:N	2.37	0.47
1:F:2211:LEU:HB3	1:F:2214:ARG:HH21	1.79	0.47
1:F:2588:GLU:CD	1:F:2776:ARG:HH22	2.18	0.47
1:F:2831:ASN:O	1:F:2835:LYS:HG2	2.14	0.47
1:F:3103:ILE:O	1:F:3107:ILE:HD12	2.12	0.47
1:F:3486:GLU:C	1:F:3488:SER:H	2.17	0.47
1:F:3751:LEU:HD22	1:F:3803:ILE:HD11	1.95	0.47
3:H:42:VAL:HG13	3:H:91:LEU:HD22	1.96	0.47
3:H:355:PHE:HD2	3:H:425:PRO:HG2	1.78	0.47
3:H:624:LEU:HD11	3:H:669:LYS:HE3	1.97	0.47
4:J:30:DT:H2'	4:J:31:DT:C4	2.50	0.47
4:J:38:DG:N2	5:I:19:DC:O4'	2.47	0.47
6:D:32:DT:O2	7:E:25:DA:C2	2.67	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:GLN:HA	1:A:207:GLN:NE2	2.30	0.47
1:A:288:ASP:N	1:A:288:ASP:OD1	2.46	0.47
1:A:642:PHE:HE1	1:A:649:PHE:CE2	2.32	0.47
1:A:887:ASP:CG	1:A:3889:ARG:HH21	2.17	0.47
1:A:1024:THR:HA	1:A:1027:ASP:HB2	1.96	0.47
1:A:1416:GLU:O	1:A:1419:LEU:HB3	2.15	0.47
1:A:2122:LEU:HA	1:A:2126:MET:CE	2.42	0.47
1:A:2350:LYS:HA	1:A:2360:PHE:CZ	2.50	0.47
1:A:2958:LEU:O	1:A:2962:ARG:N	2.36	0.47
1:A:3249:GLN:HE22	1:A:3780:ALA:HA	1.79	0.47
1:A:3677:PRO:HG3	1:A:3736:LYS:HE3	1.96	0.47
1:A:3838:GLU:HB3	1:A:3874:ARG:HD2	1.95	0.47
1:A:3849:LYS:HD2	1:A:3851:ASP:HB2	1.97	0.47
1:A:4007:LYS:HD3	1:A:4044:ILE:HG21	1.96	0.47
2:B:90:THR:H	2:B:101:ASN:HD22	1.62	0.47
2:B:262:LYS:HG3	2:B:345:LEU:O	2.15	0.47
2:B:412:ALA:N	2:B:435:VAL:O	2.47	0.47
1:F:242:PRO:HB3	1:F:246:ARG:NH2	2.28	0.47
1:F:428:PRO:HB2	1:F:430:VAL:HG12	1.95	0.47
1:F:655:LEU:HD21	1:F:659:ARG:HH21	1.78	0.47
1:F:753:GLN:H	1:F:753:GLN:CD	2.17	0.47
1:F:886:TRP:CE2	1:F:964:ARG:HD2	2.50	0.47
1:F:1049:GLN:O	1:F:1055:ASN:ND2	2.47	0.47
1:F:1064:TYR:CE1	1:F:1106:ILE:HG21	2.50	0.47
1:F:1482:GLU:OE1	1:F:1482:GLU:N	2.36	0.47
1:F:1978:PHE:O	1:F:1979:GLU:HG3	2.15	0.47
1:F:2392:VAL:O	1:F:2396:LEU:HG	2.15	0.47
1:F:2548:PRO:HB2	1:F:2847:THR:HA	1.96	0.47
1:F:2572:TYR:CZ	1:F:2788:SER:HA	2.49	0.47
3:H:605:LYS:HB3	3:H:609:PHE:HZ	1.79	0.47
3:H:623:PHE:CE1	3:H:627:ASN:HA	2.49	0.47
5:I:38:DT:H2 <sup>?</sup>	5:I:39:DA:N7	2.28	0.47
1:A:479:ILE:O	1:A:483:VAL:HG12	2.14	0.47
1:A:493:LYS:HG3	1:A:494:PRO:HD2	1.97	0.47
1:A:531:PHE:CE2	1:A:633:ILE:HD13	2.49	0.47
1:A:697:ASP:HB2	1:A:700:LYS:HZ3	1.79	0.47
1:A:921:ALA:H	1:A:927:LYS:HZ2	1.62	0.47
1:A:966:PHE:HA	1:A:969:LEU:HB3	1.96	0.47
1:A:1013:ILE:O	1:A:1017:ILE:HG12	2.15	0.47
1:A:1034:ARG:HG3	1:A:1088:GLU:HG2	1.96	0.47
1:A:1136:ARG:HG3	1:A:1140:LYS:NZ	2.30	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1212:LEU:HA	1:A:1219:PHE:CG	2.50	0.47
1:A:1235:ILE:HG13	1:A:1259:LEU:HB3	1.96	0.47
1:A:1371:VAL:O	1:A:1375:THR:HG23	2.13	0.47
1:A:1748:ASP:OD1	1:A:1749:ALA:N	2.47	0.47
1:A:1802:TYR:CD2	1:A:1806:ARG:NH1	2.82	0.47
1:A:2092:GLU:CD	1:A:2092:GLU:H	2.16	0.47
1:A:2420:PHE:HZ	1:A:2435:CYS:HB3	1.80	0.47
1:A:3002:TYR:HB3	1:A:3011:LEU:CD1	2.45	0.47
1:A:3075:LYS:HA	1:A:3078:LEU:HB2	1.96	0.47
1:A:3160:LEU:HG	1:A:3164:TRP:CZ3	2.50	0.47
1:A:3294:SER:O	1:A:3298:LEU:HG	2.15	0.47
1:A:3729:MET:SD	1:A:3735:PRO:HG2	2.55	0.47
1:A:3736:LYS:O	1:A:3751:LEU:HA	2.14	0.47
1:A:3768:PHE:HD2	1:A:3790:THR:HG21	1.78	0.47
1:A:4013:TRP:HB2	1:A:4038:TRP:CG	2.49	0.47
1:A:4089:ILE:HA	1:A:4092:GLN:HE22	1.78	0.47
1:A:4089:ILE:HD13	1:A:4092:GLN:HE22	1.79	0.47
2:B:317:LYS:NZ	2:B:328:ILE:O	2.47	0.47
3:C:56:LEU:HD23	3:C:80:HIS:HB3	1.97	0.47
3:C:616:LEU:HD13	3:C:619:HIS:CE1	2.49	0.47
1:F:111:CYS:O	1:F:115:TYR:HB2	2.15	0.47
1:F:483:VAL:HG21	1:F:567:GLU:HB2	1.97	0.47
1:F:540:MET:O	1:F:544:ILE:HG12	2.14	0.47
1:F:744:ASP:OD1	1:F:747:ALA:N	2.47	0.47
1:F:1374:GLN:HG3	1:F:1422:LYS:HE2	1.96	0.47
1:F:1565:GLU:OE1	1:F:1565:GLU:N	2.38	0.47
1:F:1614:GLN:O	1:F:1618:LEU:HD23	2.14	0.47
1:F:1850:VAL:HG22	1:F:1870:LYS:HG2	1.95	0.47
1:F:2216:LEU:HA	1:F:2219:LEU:HD12	1.96	0.47
1:F:2230:VAL:HA	1:F:2233:HIS:HB2	1.97	0.47
1:F:2243:GLU:OE1	1:F:2283:ASN:ND2	2.48	0.47
1:F:2376:ASP:N	1:F:2376:ASP:OD1	2.48	0.47
1:F:2494:ASP:HA	1:F:2497:GLU:OE2	2.13	0.47
1:F:2928:LYS:HA	1:F:2931:ARG:HG2	1.96	0.47
1:F:2938:VAL:O	1:F:2942:ILE:HG12	2.14	0.47
1:F:3081:HIS:HB2	1:F:3082:TYR:CZ	2.49	0.47
1:F:3954:PRO:HD3	1:F:4027:TRP:HZ3	1.80	0.47
1:F:4055:ASN:HB3	1:F:4058:VAL:HG23	1.96	0.47
1:F:4099:SER:O	1:F:4103:GLN:HG3	2.14	0.47
5:I:30:DA:C6	5:I:31:DA:N6	2.82	0.47
1:A:14:ARG:O	1:A:18:THR:HG23	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:410:MET:HA	1:A:413:PHE:HD2	1.78	0.47
1:A:750:PRO:O	1:A:754:MET:HG2	2.14	0.47
1:A:3772:ASN:O	1:A:3775:LEU:HB3	2.14	0.47
1:A:3775:LEU:HD21	1:A:3786:LEU:O	2.15	0.47
1:A:3789:ARG:HH22	1:A:3791:TYR:N	2.13	0.47
1:A:3913:ILE:HB	1:A:3984:MET:SD	2.55	0.47
1:A:4045:CYS:O	1:A:4049:ARG:HG2	2.15	0.47
2:B:85:VAL:HG22	2:B:106:GLN:HG3	1.97	0.47
2:B:350:PHE:CE2	3:C:458:ILE:HA	2.49	0.47
3:C:496:HIS:CE1	3:C:507:PRO:HD3	2.50	0.47
3:C:651:GLU:HB3	3:C:654:ARG:HG2	1.97	0.47
3:C:666:VAL:HG23	3:C:675:TRP:HD1	1.79	0.47
1:F:87:LYS:O	1:F:91:ILE:HG12	2.15	0.47
1:F:797:ASP:N	1:F:797:ASP:OD1	2.46	0.47
1:F:1515:LEU:HD12	1:F:1519:PHE:HE2	1.79	0.47
1:F:1772:HIS:CD2	1:F:1773:VAL:HG13	2.50	0.47
1:F:2299:TYR:O	1:F:2303:LEU:HG	2.15	0.47
1:F:3100:LYS:HA	1:F:3103:ILE:HD12	1.96	0.47
1:F:3123:GLN:O	1:F:3126:LEU:HB2	2.14	0.47
1:F:3465:PHE:HE2	1:F:3501:HIS:CB	2.28	0.47
1:F:3965:ARG:HG3	1:F:3969:ASN:OD1	2.15	0.47
1:A:175:TYR:HB3	1:A:227:LEU:CD1	2.41	0.47
1:A:243:GLN:CG	1:A:246:ARG:HH21	2.27	0.47
1:A:410:MET:HA	1:A:413:PHE:CD2	2.50	0.47
1:A:485:GLN:O	1:A:489:ARG:HG2	2.15	0.47
1:A:522:PRO:O	1:A:523:THR:OG1	2.31	0.47
1:A:710:PHE:HA	1:A:713:GLU:OE2	2.15	0.47
1:A:712:LYS:HE2	1:A:712:LYS:HA	1.97	0.47
1:A:785:MET:CB	1:A:789:TYR:HE1	2.27	0.47
1:A:1257:LEU:HD13	1:A:1333:SER:HB2	1.97	0.47
1:A:3001:CYS:HA	1:A:3004:HIS:HB2	1.96	0.47
1:A:3588:TRP:O	1:A:3592:VAL:HG23	2.15	0.47
1:A:3810:VAL:H	1:A:3930:VAL:H	1.61	0.47
1:A:3932:MET:SD	1:A:3932:MET:N	2.88	0.47
2:B:48:MET:HA	2:B:59:PRO:HG2	1.96	0.47
2:B:161:MET:CE	2:B:164:LYS:HB3	2.45	0.47
3:C:74:TYR:CD1	3:C:113:VAL:HG22	2.50	0.47
3:C:626:THR:HG23	3:C:632:PHE:CD2	2.50	0.47
1:F:105:VAL:HA	1:F:108:LYS:HZ3	1.80	0.47
1:F:249:PHE:O	1:F:252:VAL:HB	2.15	0.47
1:F:564:LEU:O	1:F:568:PHE:HD2	1.98	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:790:LYS:HA	1:F:869:ASN:HB3	1.95	0.47
1:F:925:GLN:HB2	1:F:2800:ARG:NH1	2.30	0.47
1:F:1582:LEU:HD12	1:F:1593:VAL:HG12	1.96	0.47
1:F:1732:GLY:HA2	1:F:1737:ASN:HD21	1.80	0.47
1:F:1848:ILE:HD13	1:F:1899:VAL:HG12	1.96	0.47
1:F:1922:ALA:HB1	1:F:1940:TYR:HE2	1.79	0.47
1:F:2402:LEU:HD12	1:F:2438:ILE:HG13	1.96	0.47
1:F:3759:ARG:NH2	1:F:4015:ASN:HB3	2.30	0.47
2:G:306:SER:N	3:H:288:ASP:OD1	2.48	0.47
3:H:234:LEU:HD11	3:H:483:PRO:HG3	1.97	0.47
1:A:193:ALA:HB1	1:A:197:PHE:CZ	2.50	0.47
1:A:331:ALA:O	1:A:335:LYS:N	2.48	0.47
1:A:456:VAL:HA	1:A:459:ARG:HG3	1.97	0.47
1:A:1089:PHE:CE2	1:A:1096:VAL:HG12	2.50	0.47
1:A:1090:ARG:HA	1:A:1137:ILE:HD11	1.96	0.47
1:A:1329:ARG:HA	1:A:1329:ARG:NE	2.30	0.47
1:A:1364:CYS:HA	1:A:1368:LEU:HD23	1.95	0.47
1:A:1890:HIS:O	1:A:1895:LYS:HB2	2.16	0.47
1:A:2092:GLU:OE1	1:A:2092:GLU:N	2.47	0.47
1:A:2102:LYS:O	1:A:2106:ARG:HG2	2.15	0.47
1:A:2300:PHE:O	1:A:2303:LEU:HB2	2.15	0.47
1:A:2530:ARG:HG3	1:A:2531:LEU:CD1	2.45	0.47
1:A:3693:GLU:OE2	1:A:3696:ARG:HD3	2.15	0.47
1:A:3737:ARG:CA	1:A:3751:LEU:HD13	2.45	0.47
1:A:3945:ALA:O	1:A:3947:GLY:N	2.48	0.47
1:A:3987:ALA:HB1	1:A:3991:PHE:CZ	2.50	0.47
1:A:4021:LEU:HD12	1:A:4022:LYS:N	2.30	0.47
2:B:238:LYS:O	2:B:242:LEU:HG	2.14	0.47
2:B:385:LEU:HD12	2:B:388:LYS:HB3	1.96	0.47
3:C:130:ARG:HB3	3:C:159:ILE:HG23	1.97	0.47
3:C:293:THR:HG22	3:C:295:TYR:HE1	1.79	0.47
3:C:413:LYS:HG2	3:C:414:HIS:N	2.30	0.47
1:F:763:THR:N	1:F:764:PRO:HD2	2.30	0.47
1:F:1104:LEU:O	1:F:1108:MET:HG2	2.15	0.47
1:F:1307:ILE:HG21	1:F:1311:LYS:HZ1	1.80	0.47
1:F:1558:TYR:CE2	1:F:1562:LEU:HD11	2.50	0.47
1:F:2157:PHE:O	1:F:2160:TYR:N	2.47	0.47
1:F:2406:GLU:OE1	1:F:2406:GLU:N	2.43	0.47
1:F:2578:GLU:C	1:F:2784:GLN:HE22	2.17	0.47
1:F:2803:ILE:H	1:F:2803:ILE:HD12	1.80	0.47
1:F:2889:GLY:O	1:F:2892:LEU:HB3	2.15	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3153:SER:O	1:F:3156:PRO:HD2	2.15	0.47
3:H:56:LEU:HD23	3:H:81:ARG:HB2	1.97	0.47
3:H:271:ARG:H	3:H:273:LYS:NZ	2.13	0.47
3:H:675:TRP:HA	3:H:678:VAL:HB	1.97	0.47
1:A:81:CYS:HA	1:A:84:GLU:OE2	2.15	0.46
1:A:81:CYS:O	1:A:85:ILE:HG12	2.16	0.46
1:A:101:ALA:O	1:A:104:SER:N	2.48	0.46
1:A:279:ALA:O	1:A:322:GLN:NE2	2.48	0.46
1:A:345:PHE:O	1:A:349:ILE:HG22	2.15	0.46
1:A:1107:TYR:CZ	1:A:1130:ALA:HB3	2.50	0.46
1:A:1142:HIS:CE1	1:A:1146:ASN:HD21	2.33	0.46
1:A:1311:LYS:HZ3	1:A:1313:PHE:HZ	1.63	0.46
1:A:1837:ARG:O	1:A:1840:PHE:HB3	2.15	0.46
1:A:1871:MET:HE1	1:A:1936:ARG:O	2.15	0.46
1:A:2196:TRP:HB2	1:A:2199:LEU:HB2	1.97	0.46
1:A:2273:GLY:O	1:A:2276:LEU:HB3	2.15	0.46
1:A:2776:ARG:HH21	1:A:2782:ASP:CG	2.18	0.46
1:A:3001:CYS:O	1:A:3005:LEU:N	2.48	0.46
1:A:4013:TRP:HB2	1:A:4038:TRP:CD2	2.50	0.46
3:C:335:SER:OG	3:C:398:ASP:O	2.29	0.46
1:F:216:LYS:HB3	1:F:219:VAL:HB	1.97	0.46
1:F:266:ALA:HB2	1:F:305:ASN:HD21	1.80	0.46
1:F:338:LEU:O	1:F:341:PHE:HB3	2.15	0.46
1:F:575:ILE:O	1:F:579:LEU:HD23	2.15	0.46
1:F:656:GLN:HA	1:F:659:ARG:HD2	1.98	0.46
1:F:1071:ASN:HD22	1:F:1074:LYS:NZ	2.12	0.46
1:F:1141:LYS:O	1:F:1141:LYS:HG3	2.14	0.46
1:F:1395:LEU:N	1:F:1396:PRO:HD3	2.30	0.46
1:F:1406:LEU:HD13	1:F:1415:LEU:HD21	1.96	0.46
1:F:2253:TYR:HE2	1:F:2289:ASP:H	1.62	0.46
1:F:2295:GLN:HG3	1:F:2297:SER:OG	2.14	0.46
1:F:2474:TYR:O	1:F:2478:MET:HG3	2.14	0.46
1:F:3749:PRO:O	1:F:3805:TRP:HB3	2.15	0.46
1:F:3771:MET:O	1:F:3775:LEU:HG	2.15	0.46
3:H:68:LEU:HD22	3:H:116:ASP:OD2	2.15	0.46
3:H:232:ARG:HH12	3:H:519:PRO:HD3	1.80	0.46
3:H:726:ASP:HA	3:H:729:LEU:HD12	1.97	0.46
1:A:254:LYS:O	1:A:258:PRO:HD3	2.15	0.46
1:A:465:PHE:CE1	1:A:482:VAL:HG21	2.50	0.46
1:A:740:ILE:HG13	1:A:741:ILE:N	2.30	0.46
1:A:785:MET:HB3	1:A:789:TYR:HE1	1.80	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:849:GLU:O	1:A:853:ILE:N	2.39	0.46
1:A:1653:LEU:HG	1:A:1698:PHE:HD2	1.80	0.46
1:A:2894:GLU:O	1:A:2898:LEU:HG	2.15	0.46
1:A:3190:LEU:O	1:A:3193:ILE:HG12	2.15	0.46
1:A:3559:LYS:HG2	1:A:3564:GLN:OE1	2.16	0.46
1:A:3667:LEU:O	1:A:3671:ASN:ND2	2.48	0.46
1:A:4047:ALA:HA	1:A:4050:LYS:HG2	1.96	0.46
1:F:13:LEU:O	1:F:16:GLN:HG3	2.16	0.46
1:F:449:TYR:HB3	1:F:453:MET:SD	2.55	0.46
1:F:915:THR:O	1:F:919:LEU:HG	2.15	0.46
1:F:1404:LYS:CA	1:F:1407:LYS:HZ3	2.26	0.46
1:F:2924:VAL:O	1:F:2928:LYS:HG2	2.15	0.46
1:F:3121:LEU:HB3	1:F:3124:SER:OG	2.15	0.46
1:F:3379:GLN:O	1:F:3382:PHE:HB3	2.15	0.46
1:F:3668:LEU:O	1:F:3672:LYS:NZ	2.41	0.46
2:G:130:ARG:NH2	2:G:133:ASP:OD2	2.47	0.46
3:H:23:SER:HB3	3:H:29:SER:HA	1.98	0.46
6:D:16:DA:C6	7:E:42:DA:N1	2.83	0.46
1:A:43:VAL:HG13	1:A:823:GLN:O	2.16	0.46
1:A:329:LYS:HG2	1:A:329:LYS:O	2.14	0.46
1:A:341:PHE:O	1:A:345:PHE:HB2	2.15	0.46
1:A:741:ILE:HD13	1:A:776:TRP:CZ2	2.50	0.46
1:A:817:ALA:HA	1:A:820:ARG:HE	1.79	0.46
1:A:1708:GLU:H	1:A:1708:GLU:CD	2.14	0.46
1:A:2105:HIS:CD2	1:A:2156:VAL:HG13	2.50	0.46
1:A:2414:GLN:HA	2:B:148:TRP:HZ2	1.81	0.46
1:A:2546:TYR:HA	1:A:2554:PHE:HZ	1.81	0.46
1:A:3263:HIS:O	1:A:3267:LYS:HG3	2.15	0.46
1:A:3310:ASN:ND2	1:A:3311:ASN:O	2.48	0.46
1:A:3467:ARG:HA	1:A:3470:GLN:NE2	2.31	0.46
2:B:325:ARG:NH2	2:B:326:GLN:O	2.48	0.46
2:B:365:SER:HB2	2:B:435:VAL:HA	1.96	0.46
3:C:164:PHE:HD1	3:C:225:TYR:H	1.62	0.46
3:C:643:ARG:HB2	3:C:655:PHE:CE1	2.50	0.46
3:C:651:GLU:HA	3:C:653:GLN:NE2	2.31	0.46
1:F:48:PRO:HB2	1:F:840:LEU:HD11	1.97	0.46
1:F:1539:SER:HA	1:F:1551:ILE:O	2.15	0.46
1:F:1646:LEU:HD13	1:F:1649:LEU:HD12	1.96	0.46
1:F:1881:TYR:HB2	1:F:1950:SER:CB	2.45	0.46
1:F:1900:PHE:HB2	1:F:1905:ILE:HG22	1.97	0.46
1:F:2182:ILE:HD12	1:F:2182:ILE:H	1.79	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2379:MET:O	1:F:2382:VAL:HG12	2.14	0.46
1:F:2389:PHE:H	1:F:2394:LYS:HZ3	1.63	0.46
1:F:3554:PHE:HD1	1:F:3557:ARG:NE	2.13	0.46
1:F:3556:ALA:HA	1:F:3559:LYS:NZ	2.29	0.46
1:F:3848:GLY:HA3	1:F:3858:MET:SD	2.55	0.46
2:G:410:PHE:CE2	3:H:482:ILE:HG13	2.49	0.46
3:H:659:LEU:HB3	3:H:688:LYS:NZ	2.31	0.46
1:A:119:ARG:O	1:A:123:CYS:N	2.48	0.46
1:A:789:TYR:CD2	1:A:866:ILE:HG21	2.51	0.46
1:A:965:THR:O	1:A:969:LEU:N	2.45	0.46
1:A:1050:GLU:OE2	1:A:1051:LYS:NZ	2.43	0.46
1:A:1676:ILE:HG12	1:A:1710:LEU:HD21	1.97	0.46
1:A:1931:ASN:CB	1:A:1937:ARG:HH21	2.28	0.46
1:A:2877:SER:HB2	1:A:2928:LYS:CE	2.43	0.46
1:A:2884:LEU:HA	1:A:2886:GLN:HE22	1.79	0.46
2:B:412:ALA:O	2:B:434:LEU:HD12	2.14	0.46
3:C:18:PHE:N	3:C:101:GLY:O	2.47	0.46
3:C:558:HIS:HD2	3:C:559:GLU:HG3	1.81	0.46
1:F:71:LYS:HG2	1:F:78:PHE:CE2	2.50	0.46
1:F:753:GLN:OE1	1:F:792:ILE:HG13	2.16	0.46
1:F:1225:GLU:OE2	1:F:1235:ILE:N	2.48	0.46
1:F:1776:GLU:HG2	1:F:1777:LEU:HD22	1.97	0.46
1:F:2466:SER:OG	1:F:2469:CYS:SG	2.43	0.46
1:F:2534:ASN:HB3	1:F:2537:ASP:CB	2.46	0.46
1:F:3288:SER:OG	1:F:3992:ARG:NH2	2.49	0.46
1:F:3315:TYR:HD1	1:F:3318:LYS:HB2	1.80	0.46
1:F:3603:LYS:HG2	1:F:3610:TYR:OH	2.15	0.46
1:F:3650:LYS:HZ1	1:F:3653:ARG:HD3	1.80	0.46
1:F:3750:PHE:HA	1:F:3805:TRP:N	2.25	0.46
3:H:623:PHE:CE1	3:H:632:PHE:HB3	2.50	0.46
1:A:75:SER:HB3	1:A:78:PHE:HB2	1.98	0.46
1:A:623:PHE:O	1:A:627:VAL:HG23	2.15	0.46
1:A:1301:ILE:HG22	1:A:1302:ALA:H	1.79	0.46
1:A:1361:LYS:HA	1:A:1364:CYS:SG	2.56	0.46
1:A:1973:LYS:HB2	1:A:2142:ILE:HD11	1.96	0.46
1:A:2213:ASN:O	1:A:2216:LEU:HB2	2.15	0.46
1:A:2840:PHE:HA	1:A:2843:PHE:CD2	2.50	0.46
1:A:3097:ASP:N	1:A:3097:ASP:OD1	2.44	0.46
1:A:3574:ALA:HB2	1:A:3686:TRP:CE3	2.50	0.46
1:A:3603:LYS:HD3	1:A:3654:MET:O	2.16	0.46
1:A:3913:ILE:HG12	1:A:3917:ILE:HD11	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:499:GLU:OE1	2:B:502:GLN:HB2	2.15	0.46
3:C:354:ARG:HG3	3:C:354:ARG:HH11	1.79	0.46
1:F:1613:HIS:HA	1:F:1616:LEU:HB2	1.96	0.46
1:F:1733:THR:HB	1:F:1735:ARG:NH1	2.31	0.46
1:F:2136:PRO:O	1:F:2143:ARG:NH1	2.48	0.46
1:F:2158:ARG:NH2	1:F:2196:TRP:HB3	2.30	0.46
1:F:2176:ASN:ND2	1:F:2179:GLY:O	2.44	0.46
1:F:2333:ARG:CZ	1:F:2333:ARG:HA	2.46	0.46
1:F:3962:ARG:HG3	1:F:3967:PHE:CE2	2.51	0.46
2:G:34:GLY:HA3	2:G:162:SER:HB3	1.98	0.46
2:G:119:LEU:HA	2:G:122:PHE:CE2	2.51	0.46
2:G:271:VAL:HG13	2:G:370:PRO:HA	1.85	0.46
1:A:111:CYS:SG	1:A:133:LYS:NZ	2.86	0.46
1:A:278:HIS:O	1:A:281:GLN:NE2	2.41	0.46
1:A:389:ILE:HG21	1:A:431:TYR:CD2	2.51	0.46
1:A:713:GLU:HG2	1:A:714:VAL:N	2.30	0.46
1:A:797:ASP:O	1:A:801:LYS:HG2	2.16	0.46
1:A:1746:PHE:O	1:A:1750:LEU:HG	2.15	0.46
1:A:1782:PHE:HA	1:A:1785:ILE:HG22	1.97	0.46
1:A:1862:THR:O	1:A:1866:GLN:HG2	2.15	0.46
1:A:1973:LYS:HD2	1:A:1976:LEU:HB3	1.98	0.46
1:A:2220:MET:C	1:A:2259:LYS:HZ2	2.14	0.46
1:A:2486:ASP:OD1	1:A:2486:ASP:N	2.49	0.46
1:A:3054:GLN:OE1	1:A:3054:GLN:N	2.48	0.46
2:B:59:PRO:HA	2:B:62:MET:CG	2.46	0.46
2:B:392:LYS:HZ2	3:C:458:ILE:HG21	1.81	0.46
2:B:474:ARG:NH2	2:B:476:ASP:OD2	2.49	0.46
3:C:9:ALA:HB2	3:C:127:PHE:CG	2.51	0.46
3:C:40:MET:O	3:C:43:GLN:HG2	2.16	0.46
1:F:1626:TRP:HE1	1:F:1627:LYS:NZ	2.12	0.46
1:F:1709:GLU:O	1:F:1713:VAL:HG13	2.15	0.46
1:F:1726:SER:HB2	1:F:1772:HIS:O	2.14	0.46
1:F:2231:PHE:HA	1:F:2234:ASN:ND2	2.29	0.46
1:F:2512:ASP:O	1:F:2518:GLN:NE2	2.42	0.46
1:F:3174:ASP:HB3	1:F:3179:TRP:NE1	2.31	0.46
1:F:3278:GLN:HG2	1:F:3279:SER:N	2.31	0.46
1:F:3809:THR:HG21	1:F:3929:MET:HG3	1.98	0.46
2:G:61:ASP:O	2:G:64:ILE:N	2.48	0.46
2:G:126:GLN:O	2:G:130:ARG:HG2	2.16	0.46
2:G:484:GLN:O	2:G:488:ARG:NH1	2.49	0.46
1:A:196:LEU:HB3	1:A:200:PHE:CZ	2.50	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:887:ASP:HB3	1:A:958:MET:CE	2.46	0.46
1:A:944:LYS:O	1:A:944:LYS:NZ	2.31	0.46
1:A:1138:ILE:HG23	1:A:1145:LEU:HD22	1.97	0.46
1:A:1403:MET:O	1:A:1407:LYS:N	2.49	0.46
1:A:1884:LEU:HD11	1:A:1888:ASP:OD2	2.15	0.46
1:A:1905:ILE:HD12	1:A:1911:LEU:HD22	1.97	0.46
1:A:2263:LYS:HZ1	1:A:2265:PRO:HA	1.81	0.46
1:A:2322:VAL:HA	1:A:2325:LEU:HD12	1.97	0.46
1:A:2415:LEU:HD22	1:A:2420:PHE:CD1	2.50	0.46
1:A:2430:GLU:N	1:A:2430:GLU:OE1	2.48	0.46
1:A:3469:LEU:CD1	1:A:3501:HIS:HB3	2.45	0.46
1:A:3496:ILE:HD13	1:A:3709:GLY:H	1.81	0.46
3:C:31:PHE:CZ	3:C:98:ILE:HG22	2.50	0.46
3:C:250:ARG:HD3	3:C:258:SER:HB2	1.98	0.46
3:C:324:SER:OG	3:C:325:LYS:N	2.49	0.46
1:F:1071:ASN:HD21	1:F:1073:PHE:HB2	1.81	0.46
1:F:1291:LEU:HD13	1:F:1363:LEU:HD12	1.97	0.46
1:F:2155:GLU:HA	1:F:2158:ARG:CG	2.46	0.46
1:F:2202:PRO:HD3	1:F:2245:TRP:CE2	2.50	0.46
1:F:2328:ARG:HB2	1:F:2370:SER:OG	2.15	0.46
1:F:3722:PHE:CE1	1:F:3740:ILE:HG13	2.46	0.46
1:F:3729:MET:HE1	1:F:3737:ARG:HB2	1.97	0.46
1:F:3806:LEU:HD21	1:F:3940:ILE:HD13	1.96	0.46
1:A:551:PHE:HE1	1:A:557:SER:H	1.64	0.46
1:A:721:TYR:HB2	1:A:726:LEU:HB2	1.98	0.46
1:A:756:PHE:O	1:A:760:LEU:HD23	2.16	0.46
1:A:1046:PRO:HA	1:A:1049:GLN:CD	2.35	0.46
1:A:1515:LEU:HD12	1:A:1516:GLU:N	2.31	0.46
1:A:1934:LEU:HA	1:A:1937:ARG:HG3	1.97	0.46
1:A:2398:LEU:HD13	1:A:2435:CYS:SG	2.56	0.46
1:A:2825:THR:O	1:A:2828:GLU:HG2	2.16	0.46
1:A:3616:ALA:HB1	1:A:3629:ARG:HH22	1.81	0.46
2:B:402:PRO:HG2	2:B:406:ILE:HG21	1.97	0.46
2:B:404:ARG:HD3	2:B:405:ASN:N	2.30	0.46
3:C:499:LEU:HD22	3:C:500:HIS:NE2	2.31	0.46
1:F:786:GLN:O	1:F:790:LYS:NZ	2.49	0.46
1:F:1413:ASP:OD1	1:F:1414:ILE:N	2.48	0.46
1:F:1419:LEU:HD21	1:F:1467:ILE:HD11	1.98	0.46
1:F:1948:ALA:O	1:F:1952:ILE:HG13	2.15	0.46
1:F:2345:VAL:O	1:F:2349:LEU:HG	2.15	0.46
1:F:2503:LYS:HD3	1:F:2506:LEU:HD12	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2877:SER:O	1:F:2881:LEU:HG	2.16	0.46
1:F:3120:LEU:HD13	1:F:3899:ALA:HB2	1.97	0.46
1:F:4100:GLU:OE1	1:F:4100:GLU:N	2.38	0.46
3:H:81:ARG:NH1	3:H:84:MET:HB2	2.27	0.46
6:D:14:DT:H1'	7:E:43:DT:O2	2.16	0.46
1:A:336:ASN:HB2	1:A:340:TYR:CE2	2.51	0.46
1:A:856:VAL:HB	1:A:857:GLN:NE2	2.31	0.46
1:A:1038:LYS:HG3	1:A:1039:TRP:CD2	2.51	0.46
1:A:1474:ASP:OD1	1:A:1474:ASP:N	2.48	0.46
1:A:1840:PHE:CE2	1:A:1898:GLN:HB2	2.42	0.46
1:A:1901:HIS:NE2	1:A:1904:CYS:HB3	2.31	0.46
1:A:2310:VAL:C	1:A:2312:TYR:H	2.19	0.46
1:A:2452:ARG:HH22	1:A:2494:ASP:CG	2.19	0.46
1:A:3045:ILE:HG22	1:A:3049:LEU:HD11	1.98	0.46
1:A:3195:GLU:OE2	1:A:3196:LYS:NZ	2.42	0.46
1:A:3574:ALA:HB2	1:A:3686:TRP:CZ3	2.51	0.46
1:A:3751:LEU:HB2	1:A:3803:ILE:HB	1.98	0.46
1:A:3831:ASP:N	1:A:3831:ASP:OD1	2.49	0.46
2:B:85:VAL:HG22	2:B:106:GLN:HB2	1.98	0.46
2:B:121:GLN:OE1	2:B:130:ARG:NE	2.48	0.46
3:C:232:ARG:HG2	3:C:515:MET:HA	1.98	0.46
1:F:317:GLU:HG2	1:F:364:ARG:HH12	1.80	0.46
1:F:654:ILE:O	1:F:658:THR:HG23	2.16	0.46
1:F:958:MET:HB2	1:F:962:TYR:CZ	2.51	0.46
1:F:1111:LEU:O	1:F:1115:HIS:HD2	1.99	0.46
1:F:1248:PHE:HD1	1:F:1313:PHE:HA	1.80	0.46
1:F:1418:HIS:O	1:F:1421:GLU:HG2	2.16	0.46
1:F:1621:THR:O	1:F:1625:HIS:N	2.48	0.46
1:F:1897:ASN:OD1	1:F:1902:GLY:N	2.45	0.46
1:F:2212:ALA:O	1:F:2216:LEU:HG	2.15	0.46
1:F:2213:ASN:HA	1:F:2216:LEU:HD12	1.97	0.46
1:F:2310:VAL:HG13	1:F:2316:TYR:CZ	2.50	0.46
1:F:2397:CYS:O	1:F:2400:VAL:HG12	2.15	0.46
1:F:4101:GLU:HG2	1:F:4102:THR:N	2.29	0.46
2:G:182:LYS:HA	2:G:185:ARG:NH2	2.31	0.46
2:G:347:LEU:HD11	2:G:396:ALA:HB1	1.98	0.46
2:G:375:VAL:HG13	3:H:540:ILE:O	2.16	0.46
3:H:12:LEU:HB2	3:H:56:LEU:HA	1.97	0.46
3:H:33:GLN:O	3:H:36:LYS:HG2	2.15	0.46
3:H:219:ASP:OD1	3:H:219:ASP:N	2.43	0.46
4:J:28:DA:N1	5:I:29:DA:C2	2.83	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
5:I:40:DT:H1'	5:I:41:DT:C2	2.51	0.46
1:A:99:LYS:NZ	1:A:144:MET:H	2.13	0.46
1:A:717:LYS:NZ	1:A:721:TYR:OH	2.31	0.46
1:A:1400:VAL:HG21	1:A:1460:ARG:HB3	1.97	0.46
1:A:1463:LEU:HB3	1:A:1466:ASN:OD1	2.16	0.46
1:A:1468:LEU:HD22	1:A:1521:PHE:HE1	1.81	0.46
1:A:1476:HIS:CD2	1:A:1521:PHE:CD1	3.04	0.46
1:A:1725:GLN:OE1	1:A:1727:ARG:HG2	2.16	0.46
1:A:1768:ARG:HD2	1:A:1768:ARG:HA	1.65	0.46
1:A:2470:ARG:O	1:A:2473:MET:HB3	2.16	0.46
2:B:187:ARG:NH2	2:B:216:PHE:HA	2.30	0.46
2:B:289:TYR:HB3	2:B:293:ASN:N	2.31	0.46
2:B:301:ARG:NH2	2:B:310:LEU:HD11	2.31	0.46
3:C:234:LEU:HA	3:C:237:PHE:HD2	1.79	0.46
3:C:599:ARG:O	3:C:603:LYS:HG2	2.16	0.46
1:F:24:ARG:HH21	1:F:25:CYS:HA	1.81	0.46
1:F:225:LYS:NZ	1:F:268:PRO:HA	2.31	0.46
1:F:256:ILE:HG13	1:F:257:ARG:HD3	1.97	0.46
1:F:432:THR:HA	1:F:435:LEU:HD12	1.98	0.46
1:F:971:ARG:NH1	1:F:1025:LEU:HD13	2.31	0.46
1:F:1082:PHE:CE2	1:F:1133:HIS:HB2	2.51	0.46
1:F:1095:LEU:O	1:F:1099:PHE:N	2.47	0.46
1:F:1982:ILE:O	1:F:2177:ASN:ND2	2.49	0.46
1:F:2102:LYS:HG2	1:F:2102:LYS:HZ3	1.58	0.46
1:F:2270:ASN:O	1:F:2273:GLY:N	2.50	0.46
1:F:3027:LEU:O	1:F:3067:LYS:NZ	2.37	0.46
1:F:3258:LEU:O	1:F:3262:LEU:HG	2.15	0.46
1:F:3982:SER:HB2	1:F:3986:HIS:HE1	1.81	0.46
1:F:4027:TRP:HA	1:F:4029:GLN:HE22	1.82	0.46
1:A:851:ILE:O	1:A:855:VAL:HG23	2.15	0.45
1:A:1090:ARG:HG3	1:A:1091:GLU:OE1	2.15	0.45
1:A:1136:ARG:HA	1:A:1139:GLU:OE1	2.16	0.45
1:A:1323:SER:OG	1:A:1324:PRO:HD3	2.16	0.45
1:A:1345:THR:O	1:A:1348:LEU:HB2	2.16	0.45
1:A:1775:GLU:CD	1:A:1775:GLU:H	2.20	0.45
1:A:1879:VAL:O	1:A:1882:SER:OG	2.21	0.45
1:A:2182:ILE:HD12	1:A:2225:HIS:HE1	1.81	0.45
1:A:2374:LEU:HD12	1:A:2377:ARG:HH22	1.81	0.45
1:A:3723:ASP:CB	1:A:3739:ILE:HB	2.46	0.45
2:B:273:ILE:N	2:B:273:ILE:HD12	2.31	0.45
2:B:303:PHE:N	3:C:290:GLN:O	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:8:ALA:HA	3:C:129:LYS:HB3	1.98	0.45
3:C:521:GLU:HG2	3:C:522:VAL:N	2.29	0.45
1:F:263:LYS:HE2	1:F:267:VAL:H	1.80	0.45
1:F:429:GLU:OE1	1:F:429:GLU:N	2.45	0.45
1:F:939:MET:O	1:F:942:LEU:HG	2.16	0.45
1:F:1083:ASN:HD21	1:F:1130:ALA:HB2	1.81	0.45
1:F:1085:ILE:O	1:F:1088:GLU:HG2	2.16	0.45
1:F:1568:ASN:O	1:F:1572:LEU:HD23	2.16	0.45
1:F:1672:PHE:CZ	1:F:1676:ILE:HD11	2.51	0.45
1:F:2340:SER:O	1:F:2344:LEU:HG	2.16	0.45
1:F:2383:PHE:HB3	1:F:2418:LYS:HE3	1.97	0.45
1:F:2469:CYS:SG	1:F:2470:ARG:HD3	2.56	0.45
1:F:2898:LEU:HD12	1:F:3973:PRO:HD3	1.96	0.45
1:F:3002:TYR:HB3	1:F:3011:LEU:HB2	1.97	0.45
1:F:3873:LYS:HG3	1:F:3877:LYS:NZ	2.31	0.45
2:G:111:PRO:HB2	3:H:317:GLY:HA2	1.98	0.45
2:G:269:ILE:HD13	2:G:382:PHE:HE1	1.81	0.45
6:D:33:DA:H2''	6:D:34:DT:C6	2.51	0.45
1:A:192:ASN:O	1:A:196:LEU:HG	2.16	0.45
1:A:390:GLN:HA	1:A:394:GLN:HE22	1.81	0.45
1:A:407:VAL:C	1:A:449:TYR:HE2	2.17	0.45
1:A:852:ARG:O	1:A:856:VAL:HG23	2.16	0.45
1:A:1983:ASP:HA	1:A:2184:TYR:OH	2.16	0.45
1:A:2102:LYS:O	1:A:2106:ARG:N	2.49	0.45
1:A:2931:ARG:HA	1:A:2931:ARG:NE	2.31	0.45
1:A:2964:ASP:OD1	1:A:2965:TYR:N	2.49	0.45
1:A:3361:GLU:HA	1:A:3373:VAL:HG21	1.97	0.45
1:A:3918:LEU:HB3	1:A:3920:ILE:CD1	2.46	0.45
1:A:3968:ILE:HD12	1:A:3971:MET:HB2	1.97	0.45
2:B:34:GLY:H	2:B:80:ARG:HH22	1.64	0.45
2:B:106:GLN:NE2	2:B:119:LEU:HD11	2.31	0.45
2:B:329:LEU:HD21	3:C:497:ARG:HG3	1.98	0.45
3:C:16:VAL:HB	3:C:58:LEU:HD12	1.98	0.45
1:F:324:SER:HB3	1:F:368:LEU:HD11	1.97	0.45
1:F:350:ARG:HB3	1:F:1733:THR:HG23	1.98	0.45
1:F:730:LEU:HD12	1:F:731:THR:N	2.31	0.45
1:F:756:PHE:CD1	1:F:796:LEU:HD21	2.51	0.45
1:F:1884:LEU:HD12	1:F:1888:ASP:OD2	2.16	0.45
1:F:3324:ARG:NH2	1:F:3394:GLU:HB2	2.31	0.45
1:F:3576:ASP:O	1:F:3579:SER:OG	2.35	0.45
2:G:341:ASP:OD2	2:G:408:PRO:HB3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:7:LYS:HA	3:H:51:LYS:HD2	1.97	0.45
3:H:134:ILE:HG13	3:H:163:PHE:HA	1.98	0.45
3:H:263:ALA:HA	3:H:364:VAL:HA	1.98	0.45
3:H:344:GLY:O	3:H:392:ILE:HG12	2.17	0.45
1:A:39:GLY:HA3	1:A:826:PHE:CD1	2.52	0.45
1:A:99:LYS:H	1:A:141:SER:HB2	1.81	0.45
1:A:459:ARG:O	1:A:463:LYS:HG3	2.17	0.45
1:A:726:LEU:HD12	1:A:729:CYS:SG	2.56	0.45
1:A:1570:GLU:OE2	1:A:1573:LYS:HE3	2.16	0.45
1:A:1718:ILE:HG13	1:A:1719:VAL:N	2.31	0.45
1:A:1752:LEU:HD13	1:A:1788:ARG:HH12	1.82	0.45
1:A:1848:ILE:O	1:A:1852:LYS:NZ	2.43	0.45
1:A:2130:HIS:ND1	1:A:2163:HIS:O	2.49	0.45
1:A:2182:ILE:HD12	1:A:2225:HIS:CE1	2.52	0.45
1:A:2392:VAL:O	1:A:2395:THR:HB	2.16	0.45
1:A:2806:LYS:HD3	1:A:2857:CYS:HB3	1.98	0.45
1:A:2980:ASP:N	1:A:2980:ASP:OD1	2.49	0.45
1:A:3700:GLU:OE1	1:A:3704:GLN:HB3	2.16	0.45
1:A:3955:VAL:HG21	1:A:4121:TRP:HB2	1.97	0.45
1:A:4008:GLU:OE2	1:A:4010:SER:N	2.44	0.45
2:B:279:LYS:HZ1	3:C:358:GLY:H	1.64	0.45
2:B:375:VAL:HG22	3:C:541:GLU:HG3	1.97	0.45
3:C:551:GLN:OE1	3:C:551:GLN:N	2.49	0.45
3:C:618:ASN:HA	3:C:621:GLU:CD	2.36	0.45
1:F:303:HIS:CE1	1:F:308:LEU:HD22	2.51	0.45
1:F:398:THR:N	1:F:399:GLN:OE1	2.50	0.45
1:F:486:GLY:O	1:F:490:ILE:HG12	2.16	0.45
1:F:1572:LEU:HD21	1:F:1603:GLN:NE2	2.32	0.45
1:F:1576:ASP:O	1:F:1580:LEU:N	2.47	0.45
1:F:1581:GLU:HA	1:F:1584:GLN:HE22	1.81	0.45
1:F:2939:LEU:HB3	1:F:2943:PHE:CZ	2.52	0.45
1:F:3900:LEU:HD12	1:F:3901:ARG:N	2.31	0.45
2:G:392:LYS:HG3	3:H:458:ILE:HD11	1.97	0.45
4:J:18:DA:H2''	4:J:19:DA:C8	2.51	0.45
6:D:18:DA:C2	6:D:19:DA:N6	2.84	0.45
1:A:295:GLU:O	1:A:299:LYS:N	2.42	0.45
1:A:782:ARG:CZ	1:A:783:HIS:CE1	2.99	0.45
1:A:957:PRO:CB	1:A:1004:GLN:HG3	2.47	0.45
1:A:1681:ASP:OD1	1:A:1683:LYS:N	2.49	0.45
1:A:1860:GLU:OE2	1:A:1861:SER:N	2.49	0.45
1:A:2365:ASN:CG	1:A:2400:VAL:HB	2.37	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3030:ILE:HG22	1:A:3030:ILE:O	2.16	0.45
1:A:3123:GLN:O	1:A:3127:THR:N	2.36	0.45
1:A:3144:PHE:CE1	1:A:3150:ASN:HB3	2.52	0.45
1:A:3235:LYS:HA	1:A:3238:MET:CE	2.46	0.45
1:A:4120:THR:HG21	1:A:4126:PRO:HG3	1.97	0.45
2:B:351:LYS:NZ	3:C:475:ASP:HA	2.31	0.45
3:C:244:SER:HB3	3:C:264:TYR:HB3	1.98	0.45
3:C:641:ALA:O	3:C:645:GLU:HG2	2.16	0.45
1:F:1369:MET:HG3	1:F:1418:HIS:NE2	2.30	0.45
1:F:1715:GLU:HA	1:F:1718:ILE:HG12	1.98	0.45
1:F:2336:ILE:HG13	1:F:2336:ILE:O	2.17	0.45
1:F:3142:ILE:O	1:F:3146:SER:HB3	2.16	0.45
1:F:3585:PHE:HA	1:F:3613:MET:CE	2.44	0.45
1:F:3811:THR:HG21	1:F:3926:ASN:HD22	1.80	0.45
1:F:3908:HIS:NE2	1:F:3912:CYS:SG	2.90	0.45
2:G:256:LEU:H	2:G:256:LEU:HD23	1.82	0.45
2:G:412:ALA:C	2:G:434:LEU:HD12	2.37	0.45
3:H:165:LEU:HD21	3:H:194:LEU:HB2	1.98	0.45
3:H:335:SER:OG	3:H:396:ALA:HB1	2.17	0.45
1:A:1220:LEU:HB3	1:A:1224:PHE:CE2	2.52	0.45
1:A:1893:GLU:H	1:A:1895:LYS:HZ1	1.65	0.45
1:A:2520:ILE:HD13	1:A:2523:ASN:OD1	2.17	0.45
1:A:2825:THR:N	1:A:2828:GLU:OE2	2.32	0.45
1:A:3001:CYS:SG	1:A:3002:TYR:N	2.90	0.45
1:A:3145:ILE:HD11	1:A:3196:LYS:HE2	1.98	0.45
1:A:3466:PRO:HB2	1:A:4004:VAL:HG11	1.97	0.45
1:A:3870:SER:O	1:A:3874:ARG:HG2	2.16	0.45
1:A:3886:ALA:O	1:A:3889:ARG:N	2.50	0.45
2:B:34:GLY:C	2:B:162:SER:HB3	2.37	0.45
2:B:318:ARG:N	2:B:329:LEU:O	2.49	0.45
2:B:380:THR:O	3:C:450:GLN:NE2	2.47	0.45
3:C:293:THR:HG22	3:C:295:TYR:CE1	2.51	0.45
3:C:599:ARG:HA	3:C:602:VAL:HG22	1.98	0.45
1:F:144:MET:SD	1:F:145:ASP:N	2.89	0.45
1:F:940:PHE:O	1:F:944:LYS:HG2	2.17	0.45
1:F:1622:ILE:O	1:F:1626:TRP:N	2.49	0.45
1:F:1775:GLU:OE1	1:F:1775:GLU:N	2.40	0.45
1:F:1812:LEU:HB3	1:F:1815:THR:HG23	1.97	0.45
1:F:1829:TRP:HA	1:F:1883:ARG:HH22	1.81	0.45
1:F:2338:GLU:OE1	1:F:2339:GLU:N	2.49	0.45
1:F:3269:ARG:HB3	1:F:3272:TRP:CE3	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3410:ILE:HG22	1:F:3453:ALA:HB1	1.98	0.45
1:F:3419:PHE:O	1:F:3422:GLN:HG3	2.16	0.45
1:F:3545:THR:HA	1:F:3549:HIS:HB2	1.98	0.45
1:F:3603:LYS:HE2	1:F:3651:LEU:HD21	1.97	0.45
1:F:3774:ILE:HG22	1:F:3778:ASP:OD2	2.16	0.45
2:G:356:LEU:HD11	3:H:353:ARG:HH21	1.80	0.45
3:H:43:GLN:HA	3:H:46:VAL:HG12	1.97	0.45
3:H:74:TYR:OH	3:H:112:ILE:HD12	2.17	0.45
1:A:248:ILE:O	1:A:252:VAL:HG23	2.17	0.45
1:A:327:VAL:C	1:A:329:LYS:N	2.70	0.45
1:A:584:GLU:O	1:A:613:HIS:N	2.47	0.45
1:A:721:TYR:HB2	1:A:726:LEU:HD13	1.98	0.45
1:A:910:PHE:CZ	1:A:2808:LEU:HD23	2.51	0.45
1:A:1212:LEU:HA	1:A:1219:PHE:CD2	2.51	0.45
1:A:1225:GLU:HB2	1:A:1236:LEU:HD22	1.99	0.45
1:A:1327:GLY:O	1:A:1331:ASN:ND2	2.50	0.45
1:A:1333:SER:O	1:A:1337:VAL:HG23	2.16	0.45
1:A:1747:LEU:O	1:A:1750:LEU:HB2	2.17	0.45
1:A:1855:PHE:HB3	1:A:1870:LYS:HZ3	1.82	0.45
1:A:1917:LYS:HD2	1:A:1917:LYS:N	2.32	0.45
1:A:2255:LEU:HA	1:A:2258:GLU:OE2	2.16	0.45
1:A:3810:VAL:HG22	1:A:3811:THR:H	1.80	0.45
1:A:3898:LEU:HD12	1:A:3899:ALA:N	2.31	0.45
2:B:319:SER:HA	2:B:327:ILE:O	2.17	0.45
2:B:471:PHE:HZ	2:B:517:ARG:NH2	2.15	0.45
3:C:682:GLY:O	3:C:686:ILE:N	2.49	0.45
1:F:51:LEU:O	1:F:54:GLN:NE2	2.50	0.45
1:F:582:THR:O	1:F:615:ALA:HB2	2.15	0.45
1:F:1091:GLU:OE1	1:F:1091:GLU:N	2.50	0.45
1:F:1404:LYS:HA	1:F:1407:LYS:NZ	2.30	0.45
1:F:2252:PRO:C	1:F:2254:ARG:H	2.19	0.45
1:F:2866:ALA:HA	1:F:2869:LEU:HD12	1.98	0.45
1:F:3134:ALA:O	1:F:3138:ILE:HG12	2.17	0.45
1:F:3172:LYS:O	1:F:3783:GLN:NE2	2.50	0.45
1:F:3252:PHE:O	1:F:3254:LEU:HD23	2.17	0.45
1:F:3259:LEU:HD11	1:F:3283:LEU:HD13	1.99	0.45
1:F:3273:LEU:O	1:F:3277:VAL:HG23	2.17	0.45
1:F:3577:GLN:NE2	1:F:3625:LEU:HA	2.32	0.45
1:F:3628:PHE:HA	1:F:3675:LYS:HD2	1.99	0.45
1:F:3671:ASN:OD1	1:F:3672:LYS:N	2.49	0.45
1:F:3918:LEU:HB2	1:F:3920:ILE:HG12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:3949:ALA:O	1:F:3953:LEU:HB2	2.15	0.45
2:G:478:PHE:CZ	3:H:424:LEU:HD22	2.52	0.45
3:H:629:THR:O	3:H:633:MET:HG2	2.16	0.45
3:H:640:ARG:HD2	3:H:685:LEU:HG	1.99	0.45
6:D:15:DA:H5'	7:E:42:DA:C2	2.49	0.45
1:A:1166:LEU:O	1:A:1170:LYS:HG2	2.16	0.45
1:A:2261:SER:O	1:A:2270:ASN:ND2	2.50	0.45
1:A:2481:HIS:CE1	1:A:2485:ARG:HB3	2.52	0.45
1:A:2818:LYS:HD3	1:A:2818:LYS:HA	1.74	0.45
1:A:2931:ARG:NH2	1:A:2939:LEU:HD11	2.32	0.45
1:A:3100:LYS:O	1:A:3104:GLN:HG2	2.16	0.45
1:A:3302:LYS:HA	1:A:3305:SER:HB3	1.99	0.45
1:A:3455:LYS:HA	1:A:3491:PRO:HG2	1.98	0.45
1:A:3828:TYR:O	1:A:3832:PRO:HG3	2.17	0.45
1:A:3995:PRO:O	1:A:3999:THR:HG23	2.16	0.45
1:A:4098:LEU:HB2	1:A:4103:GLN:NE2	2.32	0.45
2:B:350:PHE:HD2	3:C:458:ILE:HA	1.77	0.45
2:B:410:PHE:O	2:B:437:LEU:HG	2.16	0.45
1:F:560:LEU:O	1:F:563:LEU:N	2.49	0.45
1:F:667:TYR:HB2	1:F:728:SER:CB	2.42	0.45
1:F:1207:TRP:CZ3	1:F:1211:VAL:HG21	2.52	0.45
1:F:1820:VAL:HG23	1:F:1824:LEU:HD12	1.98	0.45
1:F:2512:ASP:HB3	1:F:2518:GLN:NE2	2.32	0.45
1:F:2565:MET:O	1:F:2568:MET:HG3	2.16	0.45
1:F:2862:SER:OG	1:F:2892:LEU:HD12	2.17	0.45
1:F:3008:TRP:HD1	1:F:3011:LEU:CD2	2.30	0.45
1:F:3811:THR:HG22	1:F:3813:LYS:H	1.82	0.45
1:F:4035:GLU:OE2	1:F:4036:LYS:N	2.49	0.45
2:G:52:GLN:HG3	2:G:206:LYS:HG3	1.98	0.45
2:G:319:SER:O	3:H:277:THR:N	2.48	0.45
4:J:18:DA:C5	5:I:39:DA:N1	2.84	0.45
6:D:37:DG:C2	6:D:38:DG:C2	3.05	0.45
1:A:571:SER:HA	1:A:574:LYS:HZ2	1.80	0.45
1:A:793:LEU:HD22	1:A:869:ASN:ND2	2.31	0.45
1:A:1134:LEU:O	1:A:1137:ILE:HG22	2.17	0.45
1:A:1337:VAL:O	1:A:1341:ILE:HG13	2.17	0.45
1:A:1360:LYS:HE2	1:A:1360:LYS:HA	1.98	0.45
1:A:1635:LYS:HE2	1:A:1683:LYS:NZ	2.32	0.45
1:A:1811:ARG:NE	3:C:627:ASN:OD1	2.50	0.45
1:A:2100:LEU:HD12	1:A:2101:VAL:N	2.32	0.45
1:A:2135:ASN:O	1:A:2138:VAL:HG12	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2580:PRO:HB2	1:A:2582:SER:O	2.16	0.45
1:A:2586:PHE:HB3	1:A:2776:ARG:HD2	1.98	0.45
1:A:2789:SER:HA	1:A:2792:THR:OG1	2.16	0.45
1:A:3628:PHE:CG	1:A:3683:CYS:HA	2.51	0.45
1:A:3735:PRO:HB2	1:A:3751:LEU:HD12	1.98	0.45
1:A:3812:LEU:O	1:A:3816:LEU:N	2.38	0.45
2:B:343:PRO:HA	2:B:401:THR:OG1	2.17	0.45
3:C:232:ARG:HD2	3:C:515:MET:HA	1.98	0.45
3:C:629:THR:HA	3:C:632:PHE:CZ	2.52	0.45
1:F:649:PHE:CZ	1:F:653:LEU:HD11	2.52	0.45
1:F:990:GLN:CB	1:F:2781:PRO:HD3	2.46	0.45
1:F:1030:GLY:O	1:F:1033:ILE:HG22	2.17	0.45
1:F:1476:HIS:H	1:F:1524:LEU:CD2	2.30	0.45
1:F:1811:ARG:HH22	3:H:627:ASN:H	1.63	0.45
1:F:3164:TRP:HH2	1:F:3189:PHE:CZ	2.34	0.45
1:F:3167:ARG:HA	1:F:3167:ARG:HD2	1.63	0.45
1:F:3700:GLU:HG3	1:F:3717:VAL:O	2.17	0.45
1:F:3758:LEU:HD12	1:F:3794:VAL:C	2.37	0.45
3:H:16:VAL:O	3:H:101:GLY:N	2.50	0.45
3:H:548:VAL:O	3:H:548:VAL:HG12	2.17	0.45
6:D:21:DA:H2''	6:D:22:DG:C8	2.52	0.45
1:A:108:LYS:HA	1:A:111:CYS:SG	2.57	0.45
1:A:264:ARG:HG2	1:A:265:TYR:N	2.32	0.45
1:A:699:GLU:OE1	1:A:699:GLU:N	2.35	0.45
1:A:892:LEU:HD11	1:A:940:PHE:CE2	2.52	0.45
1:A:962:TYR:HB3	1:A:966:PHE:CE2	2.51	0.45
1:A:1558:TYR:CE2	1:A:1562:LEU:HD11	2.51	0.45
1:A:1980:ASN:O	1:A:1982:ILE:HG12	2.16	0.45
1:A:3136:THR:O	1:A:3140:GLU:HB2	2.16	0.45
1:A:3193:ILE:HD11	1:A:3231:ILE:HG12	1.99	0.45
1:A:3587:ASP:HA	1:A:3590:ASN:OD1	2.16	0.45
2:B:289:TYR:H	2:B:294:GLU:H	1.64	0.45
3:C:395:TYR:HD1	3:C:404:GLN:HB2	1.81	0.45
1:F:296:VAL:HB	1:F:300:TRP:CD1	2.52	0.45
1:F:432:THR:CG2	1:F:433:PRO:HD3	2.47	0.45
1:F:643:GLU:O	1:F:646:VAL:HG22	2.17	0.45
1:F:678:LYS:HZ1	1:F:683:PHE:H	1.65	0.45
1:F:878:GLU:HG3	1:F:879:MET:SD	2.57	0.45
1:F:1794:GLN:O	1:F:1798:LEU:HG	2.17	0.45
1:F:1872:GLY:HA2	1:F:1875:LYS:HE2	1.98	0.45
1:F:2097:LEU:O	1:F:2101:VAL:HG23	2.16	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2950:LYS:O	1:F:2953:THR:N	2.43	0.45
1:F:3460:GLU:HB2	1:F:3464:LYS:HE3	1.99	0.45
1:F:3580:ASN:HA	1:F:3628:PHE:CZ	2.51	0.45
2:G:51:SER:HB3	2:G:54:GLU:O	2.17	0.45
2:G:103:TYR:CE2	2:G:135:MET:HB3	2.52	0.45
3:H:52:ASP:N	3:H:52:ASP:OD1	2.50	0.45
3:H:496:HIS:CD2	3:H:506:PRO:HB3	2.52	0.45
1:A:107:ILE:HG22	1:A:133:LYS:HZ3	1.82	0.45
1:A:149:ILE:O	1:A:151:GLU:N	2.50	0.45
1:A:339:GLN:NE2	3:C:570:GLU:HA	2.32	0.45
1:A:575:ILE:O	1:A:579:LEU:HG	2.16	0.45
1:A:729:CYS:O	1:A:733:LEU:HG	2.17	0.45
1:A:741:ILE:HG23	1:A:748:TYR:CD2	2.49	0.45
1:A:899:ARG:NH1	1:A:2565:MET:O	2.44	0.45
1:A:1364:CYS:O	1:A:1368:LEU:HB2	2.17	0.45
1:A:1635:LYS:HE2	1:A:1683:LYS:HZ2	1.82	0.45
1:A:2326:ILE:HD12	1:A:2329:TYR:HB3	1.99	0.45
1:A:2346:ALA:O	1:A:2349:LEU:HG	2.16	0.45
1:A:2522:ARG:O	1:A:2526:SER:OG	2.23	0.45
1:A:2808:LEU:O	1:A:2812:LEU:HD23	2.17	0.45
1:A:2942:ILE:HG13	1:A:2942:ILE:O	2.17	0.45
1:A:3147:LYS:HD3	1:A:3149:GLY:N	2.31	0.45
1:A:3913:ILE:HD11	1:A:3991:PHE:HE2	1.81	0.45
2:B:174:ASN:HB2	2:B:215:LEU:HD23	1.98	0.45
2:B:176:HIS:CD2	2:B:180:SER:HA	2.52	0.45
3:C:659:LEU:HD22	3:C:688:LYS:HE2	1.99	0.45
1:F:1696:LEU:HD12	1:F:1699:PHE:HB2	1.99	0.45
1:F:1730:PRO:CD	1:F:1735:ARG:HH22	2.30	0.45
1:F:2464:HIS:O	1:F:2466:SER:N	2.50	0.45
1:F:2562:LEU:HA	1:F:2565:MET:HB3	1.99	0.45
1:F:3726:VAL:HG12	1:F:3728:VAL:HG23	1.98	0.45
1:F:4016:PHE:O	1:F:4020:MET:HG2	2.17	0.45
2:G:91:GLU:OE1	2:G:136:GLY:HA3	2.17	0.45
2:G:456:PRO:HA	2:G:459:VAL:HG23	1.98	0.45
3:H:138:LEU:HD21	3:H:204:GLY:HA3	1.99	0.45
3:H:306:LEU:HB3	3:H:309:ASP:HB2	1.99	0.45
1:A:17:GLU:HA	1:A:20:SER:OG	2.16	0.44
1:A:138:PHE:CE1	1:A:146:GLU:HA	2.51	0.44
1:A:823:GLN:HE22	1:A:831:LEU:HD11	1.82	0.44
1:A:887:ASP:HB3	1:A:958:MET:HE2	1.98	0.44
1:A:1419:LEU:HD21	1:A:1467:ILE:HB	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1767:CYS:HA	1:A:1822:ARG:CZ	2.47	0.44
1:A:2372:PRO:HG2	1:A:2373:PRO:HD3	1.98	0.44
1:A:2479:TRP:HA	1:A:2482:ASP:OD2	2.17	0.44
1:A:3027:LEU:HA	1:A:3031:TRP:HZ2	1.81	0.44
1:A:3048:LYS:HD3	1:A:3061:LEU:CB	2.47	0.44
1:A:3158:LYS:O	1:A:3161:LEU:HG	2.17	0.44
1:A:3159:ARG:HH11	1:A:3159:ARG:HA	1.82	0.44
1:A:3298:LEU:HD13	1:A:3337:ILE:HG12	1.99	0.44
1:A:3352:GLU:HB2	1:A:3357:ARG:CZ	2.47	0.44
1:A:3496:ILE:HD12	1:A:3496:ILE:H	1.82	0.44
1:A:4046:TYR:HB3	1:A:4050:LYS:HZ3	1.82	0.44
2:B:54:GLU:HB3	2:B:56:GLU:CD	2.38	0.44
3:C:16:VAL:HG23	3:C:99:GLN:O	2.16	0.44
3:C:146:GLN:O	3:C:150:ILE:HG23	2.17	0.44
3:C:696:VAL:HA	3:C:699:GLU:HB2	1.99	0.44
1:F:15:LEU:O	1:F:18:THR:OG1	2.30	0.44
1:F:752:LEU:HB3	1:F:756:PHE:HE2	1.82	0.44
1:F:826:PHE:CD2	1:F:836:LYS:HD2	2.52	0.44
1:F:1413:ASP:O	1:F:1417:THR:HG23	2.17	0.44
1:F:1560:TYR:OH	1:F:1596:VAL:HA	2.17	0.44
1:F:1770:GLN:HB2	1:F:1814:PHE:HZ	1.80	0.44
1:F:2121:ASP:N	1:F:2121:ASP:OD1	2.51	0.44
1:F:2396:LEU:O	1:F:2399:GLU:HG2	2.17	0.44
1:F:2522:ARG:HG3	1:F:2523:ASN:N	2.32	0.44
1:F:3459:ASN:O	1:F:3463:LEU:HG	2.17	0.44
1:F:3716:HIS:O	1:F:3718:ARG:NH1	2.50	0.44
1:F:3758:LEU:HB2	1:F:3795:PRO:HD3	2.00	0.44
2:G:49:PHE:HE2	2:G:132:GLN:HE22	1.63	0.44
2:G:325:ARG:NH2	2:G:326:GLN:O	2.50	0.44
2:G:334:THR:O	2:G:337:LEU:HB2	2.17	0.44
2:G:410:PHE:HE2	3:H:482:ILE:HG13	1.82	0.44
3:H:34:ALA:O	3:H:38:ILE:HG12	2.16	0.44
3:H:343:LEU:N	3:H:392:ILE:O	2.41	0.44
4:J:28:DA:H2'	4:J:28:DA:O5'	2.17	0.44
6:D:32:DT:O2	7:E:25:DA:H2	1.99	0.44
7:E:29:DA:C6	7:E:30:DA:C6	3.05	0.44
1:A:582:THR:HG21	1:A:615:ALA:HB3	2.00	0.44
1:A:755:ALA:O	1:A:759:GLY:N	2.39	0.44
1:A:1661:PHE:HA	1:A:1665:HIS:ND1	2.33	0.44
1:A:3251:ASN:OD1	1:A:3252:PHE:N	2.50	0.44
1:A:3258:LEU:HB3	1:A:3262:LEU:HD11	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3763:ARG:HA	1:A:3763:ARG:NE	2.32	0.44
2:B:186:ALA:HA	2:B:189:LYS:NZ	2.32	0.44
2:B:404:ARG:NH1	2:B:405:ASN:OD1	2.50	0.44
2:B:413:LEU:HD21	2:B:432:PHE:CD1	2.51	0.44
2:B:523:ASP:HA	3:C:256:ASN:ND2	2.31	0.44
3:C:250:ARG:HG2	3:C:260:ARG:HA	1.99	0.44
1:F:139:ARG:HA	1:F:139:ARG:NE	2.32	0.44
1:F:448:GLN:HE21	1:F:520:LYS:HB2	1.82	0.44
1:F:763:THR:HB	1:F:851:ILE:HD11	1.98	0.44
1:F:854:ARG:HG2	1:F:857:GLN:NE2	2.31	0.44
1:F:858:MET:O	1:F:862:LEU:N	2.49	0.44
1:F:1071:ASN:HD22	1:F:1074:LYS:HZ2	1.64	0.44
1:F:1268:ASN:HD21	1:F:1344:PHE:HB2	1.82	0.44
1:F:1326:GLU:HA	1:F:1329:ARG:NH1	2.33	0.44
1:F:1529:VAL:HG11	1:F:1581:GLU:HB2	1.99	0.44
1:F:1639:LEU:HB3	1:F:1643:MET:HE3	1.99	0.44
1:F:1710:LEU:O	1:F:1713:VAL:HG22	2.17	0.44
1:F:1814:PHE:HA	1:F:1817:GLN:HG3	1.99	0.44
1:F:1867:ILE:O	1:F:1871:MET:HG2	2.17	0.44
1:F:2351:GLN:N	1:F:2353:GLN:HG2	2.33	0.44
1:F:2512:ASP:C	1:F:2518:GLN:HE22	2.21	0.44
1:F:3846:MET:CB	1:F:3858:MET:HA	2.47	0.44
2:G:107:GLU:OE2	2:G:109:ASP:HB3	2.17	0.44
2:G:447:PRO:HG2	3:H:365:PHE:CZ	2.53	0.44
3:H:87:ASP:HB3	3:H:90:LEU:HG	1.98	0.44
1:A:99:LYS:H	1:A:141:SER:CB	2.31	0.44
1:A:474:VAL:HG22	1:A:478:CYS:N	2.32	0.44
1:A:474:VAL:HG22	1:A:478:CYS:H	1.82	0.44
1:A:541:MET:HA	1:A:544:ILE:HB	2.00	0.44
1:A:901:MET:CG	1:A:2819:GLU:HG2	2.48	0.44
1:A:1369:MET:HE1	1:A:1414:ILE:HB	1.99	0.44
1:A:1710:LEU:O	1:A:1714:LEU:HG	2.17	0.44
1:A:2433:LYS:HB3	1:A:2469:CYS:SG	2.58	0.44
1:A:2586:PHE:CD1	1:A:2778:GLY:HA3	2.52	0.44
1:A:2792:THR:OG1	1:A:2793:PRO:HD3	2.18	0.44
1:A:3537:SER:HA	1:A:3540:TYR:OH	2.17	0.44
1:A:3669:LYS:HG3	1:A:3670:MET:HG2	1.99	0.44
1:A:3701:ILE:HG13	1:A:3704:GLN:H	1.82	0.44
1:A:3863:ASN:HB3	1:A:3866:GLU:CB	2.47	0.44
1:A:4089:ILE:CD1	1:A:4092:GLN:HE22	2.31	0.44
3:C:76:ASN:HB2	3:C:105:ALA:HB2	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:482:ILE:HG21	3:C:516:LEU:HD21	1.98	0.44
3:C:610:GLU:OE1	3:C:654:ARG:NH2	2.50	0.44
1:F:193:ALA:HB1	1:F:197:PHE:CZ	2.52	0.44
1:F:583:LEU:HB2	1:F:614:PRO:HA	1.98	0.44
1:F:1045:THR:O	1:F:1048:GLN:HB2	2.17	0.44
1:F:1241:LEU:HB3	1:F:1256:TRP:CZ3	2.53	0.44
1:F:1307:ILE:HD13	1:F:1311:LYS:HZ2	1.82	0.44
1:F:1457:GLN:HB3	1:F:1460:ARG:NH2	2.31	0.44
1:F:1745:LYS:HA	1:F:1748:ASP:OD2	2.17	0.44
1:F:2196:TRP:HB2	1:F:2199:LEU:HD23	1.98	0.44
1:F:2217:ASN:HA	1:F:2220:MET:SD	2.57	0.44
1:F:2225:HIS:O	1:F:2227:LYS:N	2.49	0.44
1:F:2499:PHE:O	1:F:2503:LYS:NZ	2.41	0.44
1:F:3564:GLN:O	1:F:3569:GLN:NE2	2.38	0.44
1:F:4089:ILE:HA	1:F:4092:GLN:NE2	2.33	0.44
2:G:131:PHE:HA	2:G:134:MET:HG2	1.99	0.44
2:G:487:PHE:HB2	2:G:488:ARG:NH1	2.32	0.44
3:H:74:TYR:O	3:H:77:ILE:HD12	2.17	0.44
1:A:99:LYS:HD2	1:A:141:SER:HB2	1.99	0.44
1:A:135:LEU:HD23	1:A:177:LEU:HD13	1.99	0.44
1:A:251:PHE:CZ	1:A:285:CYS:HB3	2.45	0.44
1:A:313:LEU:O	1:A:316:LEU:N	2.49	0.44
1:A:338:LEU:HD12	1:A:339:GLN:N	2.33	0.44
1:A:357:LYS:HE3	1:A:408:TYR:HD2	1.83	0.44
1:A:457:CYS:O	1:A:461:ILE:HD12	2.17	0.44
1:A:1301:ILE:HG23	1:A:1330:TYR:CZ	2.52	0.44
1:A:2211:LEU:O	1:A:2215:LEU:HG	2.16	0.44
1:A:2572:TYR:CE1	1:A:2788:SER:HA	2.52	0.44
1:A:3067:LYS:HD3	1:A:3067:LYS:N	2.33	0.44
1:A:3365:SER:O	1:A:3373:VAL:HA	2.18	0.44
2:B:41:LEU:O	2:B:169:PHE:HD1	2.00	0.44
2:B:66:CYS:SG	2:B:67:ILE:N	2.91	0.44
2:B:82:LEU:C	2:B:83:LEU:HD12	2.37	0.44
2:B:350:PHE:HB3	2:B:394:VAL:HG22	1.98	0.44
2:B:473:TYR:CD2	3:C:350:GLN:HB3	2.52	0.44
3:C:348:SER:OG	3:C:390:VAL:HG13	2.17	0.44
3:C:618:ASN:OD1	3:C:619:HIS:N	2.47	0.44
1:F:163:LYS:HZ3	2:G:302:THR:HG22	1.82	0.44
1:F:708:VAL:HG22	1:F:740:ILE:CG1	2.47	0.44
1:F:828:LYS:NZ	1:F:830:VAL:HG22	2.32	0.44
1:F:1435:ASN:HB3	1:F:1440:ASP:OD2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1625:HIS:HA	1:F:1628:LYS:NZ	2.29	0.44
1:F:1685:ASP:OD1	1:F:1688:LEU:HG	2.16	0.44
1:F:1981:LEU:HD13	1:F:1981:LEU:HA	1.90	0.44
1:F:2223:VAL:HG22	1:F:2224:PHE:H	1.82	0.44
1:F:2312:TYR:CE2	1:F:2314:GLU:HB3	2.52	0.44
1:F:2330:VAL:HG11	1:F:2336:ILE:HG22	1.99	0.44
1:F:3275:SER:HA	1:F:3278:GLN:NE2	2.32	0.44
1:F:3567:VAL:O	1:F:3571:PHE:N	2.39	0.44
1:F:3592:VAL:O	1:F:3595:GLU:HG2	2.17	0.44
2:G:49:PHE:HA	2:G:60:PHE:HB2	1.99	0.44
2:G:482:VAL:O	2:G:486:HIS:ND1	2.49	0.44
3:H:510:GLN:HA	3:H:513:TRP:CZ3	2.53	0.44
3:H:524:THR:O	3:H:528:ILE:HG12	2.17	0.44
3:H:686:ILE:HG23	3:H:699:GLU:HG3	1.99	0.44
4:J:36:DG:H22	5:I:21:DA:P	2.39	0.44
1:A:721:TYR:O	1:A:726:LEU:HD22	2.17	0.44
1:A:737:PRO:O	1:A:741:ILE:HD12	2.18	0.44
1:A:1050:GLU:OE1	1:A:1050:GLU:N	2.27	0.44
1:A:1135:CYS:O	1:A:1139:GLU:HG3	2.17	0.44
1:A:1378:GLU:HG3	1:A:1381:SER:H	1.83	0.44
1:A:1424:THR:C	1:A:1426:GLN:H	2.20	0.44
1:A:1584:GLN:HA	1:A:1584:GLN:OE1	2.17	0.44
1:A:1724:MET:CE	3:C:622:GLN:HB2	2.48	0.44
1:A:1777:LEU:O	1:A:1780:SER:OG	2.29	0.44
1:A:3008:TRP:CE2	1:A:3050:LYS:HD2	2.53	0.44
1:A:3555:VAL:HG12	1:A:3559:LYS:HD3	1.98	0.44
1:A:3749:PRO:HG2	1:A:3805:TRP:HB3	1.99	0.44
1:A:3849:LYS:HE2	1:A:3854:ALA:HB2	1.99	0.44
2:B:126:GLN:HA	2:B:129:LYS:HD2	1.98	0.44
2:B:285:PRO:HA	3:C:314:PHE:CE1	2.53	0.44
2:B:412:ALA:C	2:B:434:LEU:HD12	2.38	0.44
3:C:206:GLU:HA	3:C:209:LYS:HE2	1.98	0.44
3:C:352:GLN:HG3	3:C:354:ARG:N	2.28	0.44
1:F:233:ASN:OD1	1:F:278:HIS:NE2	2.51	0.44
1:F:446:PHE:CD2	1:F:527:TYR:HA	2.52	0.44
1:F:1102:GLU:H	1:F:1102:GLU:CD	2.18	0.44
1:F:1122:GLY:HA2	1:F:1125:GLN:NE2	2.32	0.44
1:F:1220:LEU:HD22	1:F:1284:THR:HG23	2.00	0.44
1:F:1811:ARG:HD3	1:F:1811:ARG:HA	1.72	0.44
1:F:1831:CYS:SG	1:F:1883:ARG:HD2	2.57	0.44
1:F:1933:LEU:HD12	1:F:1933:LEU:HA	1.84	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2342:CYS:SG	1:F:2377:ARG:NH2	2.86	0.44
1:F:2363:CYS:HA	1:F:2366:LYS:HZ1	1.83	0.44
1:F:2373:PRO:HA	1:F:2404:ARG:NH1	2.33	0.44
1:F:2405:VAL:HG21	1:F:2442:MET:HA	2.00	0.44
1:F:2791:ILE:HG13	1:F:2792:THR:N	2.32	0.44
1:F:3568:ILE:O	1:F:3572:ILE:HG13	2.18	0.44
1:F:3873:LYS:O	1:F:3876:SER:HB2	2.17	0.44
1:F:3988:LEU:HD12	1:F:3991:PHE:HD2	1.83	0.44
1:F:4081:ALA:O	1:F:4110:GLN:NE2	2.43	0.44
2:G:334:THR:HA	2:G:337:LEU:HD12	1.99	0.44
3:H:153:SER:HA	3:H:156:LYS:NZ	2.33	0.44
3:H:263:ALA:HB1	3:H:362:LEU:HD11	2.00	0.44
3:H:462:SER:HB3	3:H:465:LYS:HG3	1.99	0.44
5:I:29:DA:H1'	5:I:30:DA:H5'	2.00	0.44
1:A:390:GLN:HA	1:A:394:GLN:NE2	2.32	0.44
1:A:1294:VAL:HA	1:A:1297:PHE:CE2	2.52	0.44
1:A:2428:ASP:OD2	1:A:2431:ARG:NE	2.48	0.44
1:A:2555:LEU:HD23	1:A:2809:PHE:HB3	1.99	0.44
1:A:3929:MET:O	1:A:3937:VAL:HA	2.17	0.44
1:A:4065:LEU:HD13	1:A:4074:PHE:CZ	2.52	0.44
1:A:6009:UNK:O	1:A:6013:UNK:N	2.51	0.44
2:B:274:TYR:O	2:B:367:PHE:N	2.50	0.44
2:B:318:ARG:NH1	2:B:331:LYS:HE3	2.32	0.44
2:B:461:LYS:HE3	2:B:527:GLU:H	1.83	0.44
3:C:357:MET:HB2	3:C:423:GLN:HB3	2.00	0.44
3:C:599:ARG:HH21	3:C:645:GLU:HG3	1.82	0.44
1:F:1710:LEU:O	1:F:1714:LEU:HG	2.17	0.44
1:F:2426:HIS:NE2	1:F:2428:ASP:OD2	2.49	0.44
1:F:2553:HIS:O	1:F:2555:LEU:N	2.51	0.44
1:F:2559:THR:O	1:F:2562:LEU:HG	2.18	0.44
1:F:3365:SER:OG	1:F:3373:VAL:HA	2.17	0.44
1:F:3555:VAL:HG12	1:F:3559:LYS:HZ1	1.81	0.44
1:F:3745:GLU:O	1:F:3746:ARG:HD2	2.18	0.44
1:F:3980:MET:HB2	1:F:3984:MET:HE1	1.98	0.44
2:G:122:PHE:O	2:G:127:GLY:HA3	2.17	0.44
2:G:140:ASP:CG	2:G:141:TYR:H	2.21	0.44
2:G:258:ARG:HD3	2:G:258:ARG:H	1.83	0.44
2:G:299:LYS:HE3	3:H:294:VAL:N	2.33	0.44
2:G:350:PHE:HB3	2:G:394:VAL:HG22	2.00	0.44
3:H:16:VAL:HA	3:H:31:PHE:HE2	1.82	0.44
6:D:20:DT:C4	7:E:37:DT:O4	2.70	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:21:DA:H2''	6:D:22:DG:H8	1.82	0.44
1:A:207:GLN:OE1	1:A:220:LEU:HD22	2.17	0.44
1:A:355:ASN:HD22	1:A:358:GLU:HB2	1.82	0.44
1:A:410:MET:N	1:A:411:PRO:HD2	2.32	0.44
1:A:414:LEU:HD23	1:A:414:LEU:H	1.83	0.44
1:A:529:ASP:O	1:A:533:HIS:ND1	2.51	0.44
1:A:664:SER:HB3	1:A:728:SER:CB	2.48	0.44
1:A:850:GLU:O	1:A:854:ARG:HD3	2.18	0.44
1:A:856:VAL:O	1:A:859:LEU:HB2	2.17	0.44
1:A:1141:LYS:HB2	1:A:1141:LYS:HE3	1.83	0.44
1:A:1754:GLN:HE22	1:A:1788:ARG:HH21	1.65	0.44
1:A:1762:MET:SD	1:A:1763:THR:N	2.91	0.44
1:A:1769:GLU:HG2	1:A:1772:HIS:HB2	2.00	0.44
1:A:1915:LEU:HA	1:A:1918:LEU:HD12	1.99	0.44
1:A:2120:ARG:HH22	1:A:2160:TYR:HA	1.81	0.44
1:A:2299:TYR:O	1:A:2303:LEU:HG	2.18	0.44
1:A:2353:GLN:N	1:A:2353:GLN:OE1	2.50	0.44
1:A:2438:ILE:HG22	1:A:2442:MET:HE3	1.99	0.44
1:A:2527:HIS:CE1	1:A:2529:THR:HG23	2.52	0.44
1:A:2864:GLN:HG3	1:A:2865:HIS:CD2	2.52	0.44
1:A:2981:TRP:HB2	1:A:2985:GLU:HA	2.00	0.44
1:A:3492:CYS:O	1:A:3494:GLN:HG2	2.17	0.44
2:B:301:ARG:N	3:C:292:GLU:O	2.45	0.44
3:C:166:PRO:HG2	3:C:167:PHE:CE2	2.53	0.44
3:C:427:MET:SD	3:C:428:GLU:N	2.91	0.44
1:F:383:PHE:HD2	1:F:384:MET:HE2	1.83	0.44
1:F:547:ASP:OD1	1:F:547:ASP:N	2.43	0.44
1:F:687:SER:H	1:F:701:TYR:HE1	1.64	0.44
1:F:996:THR:O	1:F:1044:ILE:HD11	2.18	0.44
1:F:1111:LEU:HD22	1:F:1124:ILE:HG13	1.99	0.44
1:F:1287:GLN:HE22	1:F:1289:SER:HA	1.82	0.44
1:F:1425:ALA:HB3	1:F:1467:ILE:HG23	2.00	0.44
1:F:2327:LEU:HG	1:F:2371:PHE:CG	2.53	0.44
1:F:2505:VAL:HA	1:F:2508:GLN:HB3	1.99	0.44
1:F:2817:LEU:HB3	1:F:2865:HIS:CE1	2.52	0.44
1:F:3012:GLU:HG2	1:F:3048:LYS:HZ1	1.82	0.44
1:F:3101:TYR:HA	1:F:3104:GLN:CD	2.38	0.44
1:F:3495:PHE:HD1	1:F:3498:TRP:HD1	1.64	0.44
1:F:3593:ARG:HA	1:F:3596:LEU:HD23	1.99	0.44
1:F:3879:PRO:HG2	1:F:3882:LEU:HD23	2.00	0.44
1:F:4112:THR:HA	1:F:4117:LEU:HD11	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:204:HIS:NE2	2:G:213:ILE:HB	2.33	0.44
2:G:341:ASP:OD1	2:G:341:ASP:N	2.51	0.44
1:A:151:GLU:HG2	1:A:152:LEU:HD22	2.00	0.44
1:A:238:MET:HG2	1:A:281:GLN:C	2.38	0.44
1:A:528:VAL:HG13	1:A:532:ARG:NH2	2.32	0.44
1:A:992:ILE:O	1:A:996:THR:HG23	2.18	0.44
1:A:1909:ASN:HB3	1:A:1913:LYS:HE3	2.00	0.44
1:A:1916:ILE:HB	3:H:728:LEU:HD12	1.99	0.44
1:A:2142:ILE:O	1:A:2146:LEU:HG	2.17	0.44
1:A:2263:LYS:NZ	1:A:2265:PRO:HA	2.33	0.44
1:A:2330:VAL:HB	1:A:2336:ILE:HG13	1.98	0.44
1:A:2357:GLU:O	1:A:2360:PHE:N	2.51	0.44
1:A:2388:LYS:O	1:A:2388:LYS:HD3	2.18	0.44
1:A:3292:GLY:HA2	1:A:3295:GLU:OE2	2.18	0.44
1:A:3367:SER:CB	1:A:3372:LYS:HB2	2.47	0.44
1:A:3494:GLN:HB2	1:A:3495:PHE:CD2	2.52	0.44
1:A:3626:GLY:O	1:A:3630:ARG:N	2.30	0.44
1:A:3632:PHE:O	1:A:3635:THR:HG22	2.18	0.44
1:A:3692:VAL:HA	1:A:3696:ARG:NH2	2.32	0.44
1:A:3815:LEU:HA	1:A:3818:ASN:HB2	2.00	0.44
2:B:221:ILE:H	2:B:221:ILE:HD12	1.82	0.44
2:B:298:THR:HA	3:C:295:TYR:CD1	2.53	0.44
3:C:85:LEU:HD12	3:C:86:PRO:HD2	2.00	0.44
3:C:194:LEU:HD22	3:C:205:LEU:HD11	1.99	0.44
1:F:266:ALA:HB2	1:F:305:ASN:ND2	2.32	0.44
1:F:1298:LEU:HD23	1:F:1367:HIS:CD2	2.46	0.44
1:F:2196:TRP:CB	1:F:2199:LEU:HB2	2.46	0.44
1:F:3029:LYS:HG3	1:F:3074:GLN:CD	2.39	0.44
1:F:3519:GLU:OE2	1:F:3557:ARG:NE	2.50	0.44
1:F:3572:ILE:HA	1:F:3575:LEU:HD12	1.99	0.44
1:F:3719:ILE:HD12	1:F:3719:ILE:H	1.83	0.44
1:F:4084:SER:H	1:F:4088:ASN:HB2	1.82	0.44
2:G:271:VAL:CG1	2:G:370:PRO:CA	2.57	0.44
6:D:32:DT:H6	6:D:32:DT:H2'	1.65	0.44
7:E:36:DA:C8	7:E:37:DT:H71	2.53	0.44
1:A:67:VAL:HA	1:A:70:ARG:NH2	2.33	0.44
1:A:154:SER:O	1:A:157:TYR:HB3	2.17	0.44
1:A:675:ARG:O	1:A:679:LYS:N	2.47	0.44
1:A:944:LYS:HA	1:A:944:LYS:HD2	1.73	0.44
1:A:1436:LEU:HD11	1:A:1490:GLY:O	2.17	0.44
1:A:2576:MET:HE1	1:A:2790:LEU:HD22	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2944:THR:HG23	1:A:2944:THR:O	2.17	0.44
1:A:2966:SER:O	1:A:2970:LYS:HG2	2.17	0.44
1:A:2993:PHE:O	1:A:2996:LEU:HG	2.18	0.44
1:A:3147:LYS:HD3	1:A:3149:GLY:H	1.83	0.44
1:A:3660:ASN:O	1:A:3663:THR:OG1	2.32	0.44
1:A:3784:ARG:NE	1:A:3784:ARG:HA	2.33	0.44
1:A:4049:ARG:HA	1:A:4052:ALA:HB3	1.99	0.44
2:B:88:TYR:HB2	2:B:146:VAL:HG22	2.00	0.44
2:B:350:PHE:O	3:C:462:SER:HA	2.17	0.44
2:B:514:MET:HA	2:B:517:ARG:CB	2.48	0.44
3:C:35:LYS:HE3	3:C:95:GLU:HA	1.98	0.44
3:C:406:GLY:HA3	3:C:422:VAL:O	2.18	0.44
3:C:492:GLN:O	3:C:496:HIS:HB2	2.18	0.44
3:C:496:HIS:O	3:C:500:HIS:HB2	2.18	0.44
3:C:640:ARG:HG3	3:C:685:LEU:HD11	1.99	0.44
1:F:294:PHE:O	1:F:298:LEU:HD23	2.18	0.44
1:F:397:LEU:O	1:F:437:HIS:NE2	2.42	0.44
1:F:430:VAL:O	1:F:433:PRO:HD2	2.17	0.44
1:F:554:ASN:C	1:F:554:ASN:ND2	2.70	0.44
1:F:781:ASP:OD1	1:F:784:VAL:HG12	2.18	0.44
1:F:867:ASN:OD1	1:F:868:LYS:N	2.51	0.44
1:F:1071:ASN:HB3	1:F:1074:LYS:CG	2.40	0.44
1:F:1082:PHE:HA	1:F:1085:ILE:CG1	2.47	0.44
1:F:1155:ARG:NH2	1:F:3690:PHE:O	2.50	0.44
1:F:1247:PRO:HA	1:F:1314:GLY:HA2	2.00	0.44
1:F:1528:LEU:O	1:F:1532:LEU:HG	2.17	0.44
1:F:1986:ARG:HA	1:F:2184:TYR:HB3	1.99	0.44
1:F:2782:ASP:CG	1:F:2785:ILE:HD11	2.38	0.44
1:F:3264:LYS:HA	1:F:3267:LYS:HE2	2.00	0.44
1:F:3385:LEU:O	1:F:3389:VAL:HG23	2.18	0.44
1:F:3758:LEU:H	1:F:3795:PRO:HB3	1.83	0.44
1:F:3770:VAL:O	1:F:3774:ILE:HG13	2.18	0.44
1:F:3818:ASN:HA	1:F:3825:LYS:NZ	2.32	0.44
1:F:3970:LEU:HD12	1:F:3971:MET:N	2.33	0.44
3:H:527:GLN:HA	3:H:530:LEU:HB3	1.99	0.44
7:E:39:DA:H2'	7:E:40:DT:H71	2.00	0.44
1:A:207:GLN:HA	1:A:207:GLN:HE21	1.83	0.43
1:A:721:TYR:C	1:A:726:LEU:HB2	2.38	0.43
1:A:1057:LYS:HG2	1:A:1061:LYS:NZ	2.33	0.43
1:A:1176:CYS:C	1:A:1178:ARG:H	2.21	0.43
1:A:1324:PRO:HG2	1:A:1325:GLN:OE1	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1563:PHE:HB3	1:A:1566:THR:HG1	1.83	0.43
1:A:2093:CYS:C	1:A:2096:PRO:HD2	2.38	0.43
1:A:2576:MET:HB2	1:A:2783:ILE:HG22	2.00	0.43
1:A:3327:ASN:HD21	1:A:3387:GLU:HG2	1.83	0.43
1:A:3349:ALA:O	1:A:3357:ARG:NH1	2.51	0.43
1:A:3499:ILE:H	1:A:3499:ILE:HD12	1.83	0.43
1:A:3710:LYS:NZ	1:A:3713:PRO:HG3	2.32	0.43
1:A:4079:ALA:O	1:A:4083:GLY:N	2.51	0.43
1:A:4101:GLU:HA	1:A:4104:VAL:HG22	2.00	0.43
2:B:46:LYS:O	2:B:48:MET:N	2.51	0.43
3:C:233:LYS:HD3	3:C:478:PRO:HG2	2.00	0.43
1:F:78:PHE:HB3	1:F:82:ARG:NH1	2.33	0.43
1:F:726:LEU:HA	1:F:729:CYS:SG	2.58	0.43
1:F:933:LEU:HD11	1:F:2797:VAL:HG11	1.99	0.43
1:F:990:GLN:HA	1:F:2779:ASP:O	2.18	0.43
1:F:1070:PRO:HG3	1:F:3720:ALA:O	2.18	0.43
1:F:1292:LYS:HG3	1:F:1296:PHE:CZ	2.53	0.43
1:F:1366:THR:H	1:F:1369:MET:CE	2.31	0.43
1:F:1487:VAL:HG22	1:F:1559:PHE:CD1	2.53	0.43
1:F:1488:TYR:HA	1:F:1559:PHE:HZ	1.82	0.43
1:F:1590:THR:HG22	1:F:1632:TRP:CZ2	2.53	0.43
1:F:1725:GLN:HG3	1:F:1728:GLU:H	1.82	0.43
1:F:2091:HIS:O	1:F:2094:MET:HE3	2.18	0.43
1:F:2286:PRO:HG2	1:F:2289:ASP:HB2	2.00	0.43
1:F:2451:LEU:O	1:F:2455:LEU:HG	2.17	0.43
1:F:3810:VAL:HG11	1:F:3815:LEU:HD22	2.00	0.43
2:G:461:LYS:HG2	2:G:525:PHE:HB3	1.99	0.43
3:H:11:VAL:N	3:H:133:GLU:OE1	2.43	0.43
3:H:168:SER:O	3:H:194:LEU:HB3	2.18	0.43
3:H:674:PHE:CD1	3:H:676:GLU:HG2	2.53	0.43
1:A:201:LEU:HD12	1:A:202:GLY:N	2.33	0.43
1:A:899:ARG:NH2	1:A:2568:MET:HB3	2.33	0.43
1:A:939:MET:HA	1:A:942:LEU:HD12	2.00	0.43
1:A:1297:PHE:HA	1:A:1300:SER:CB	2.48	0.43
1:A:1497:ARG:NH2	1:A:1541:ALA:HB2	2.33	0.43
1:A:1589:ASN:ND2	1:A:1593:VAL:HG13	2.33	0.43
1:A:1616:LEU:HD12	1:A:1617:LYS:N	2.32	0.43
1:A:1715:GLU:O	1:A:1719:VAL:HG22	2.18	0.43
1:A:1850:VAL:CG1	1:A:1870:LYS:HG2	2.48	0.43
1:A:2368:THR:OG1	1:A:2400:VAL:HG23	2.18	0.43
1:A:2432:GLN:O	1:A:2436:LEU:HD23	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2900:LEU:HD23	1:A:2900:LEU:H	1.82	0.43
1:A:3951:GLN:OE1	1:A:3951:GLN:N	2.52	0.43
2:B:328:ILE:HD12	3:C:279:VAL:HG21	1.99	0.43
1:F:393:LYS:HA	1:F:397:LEU:HD23	2.00	0.43
1:F:451:PRO:O	1:F:455:LEU:N	2.51	0.43
1:F:566:ASP:O	1:F:570:LYS:HG2	2.18	0.43
1:F:572:VAL:O	1:F:576:VAL:HG23	2.18	0.43
1:F:723:ASP:C	1:F:725:LEU:H	2.21	0.43
1:F:746:ARG:O	1:F:749:VAL:HG22	2.18	0.43
1:F:1594:SER:O	1:F:1598:ASN:ND2	2.52	0.43
1:F:1922:ALA:O	1:F:1925:GLU:HB2	2.18	0.43
1:F:1925:GLU:OE2	1:F:1927:MET:HB2	2.18	0.43
1:F:2424:MET:HA	1:F:2432:GLN:HE22	1.83	0.43
1:F:2428:ASP:C	1:F:2432:GLN:HG2	2.38	0.43
1:F:2452:ARG:HB3	1:F:2498:ILE:CG1	2.48	0.43
1:F:2453:GLU:HG2	1:F:2454:LEU:HD22	1.99	0.43
1:F:2467:THR:HA	1:F:2470:ARG:HH21	1.82	0.43
1:F:2507:ILE:HG23	1:F:2547:SER:HB2	2.01	0.43
1:F:2820:MET:SD	1:F:2829:LYS:HG2	2.58	0.43
1:F:3252:PHE:O	1:F:3255:ALA:N	2.49	0.43
1:F:3256:MET:SD	1:F:3283:LEU:HD22	2.57	0.43
1:F:3875:GLU:HA	1:F:3878:VAL:HB	1.99	0.43
1:F:3925:LEU:HD23	1:F:3925:LEU:O	2.18	0.43
2:G:48:MET:O	2:G:60:PHE:N	2.51	0.43
2:G:351:LYS:N	2:G:395:ALA:O	2.34	0.43
2:G:415:PRO:HA	2:G:432:PHE:HD1	1.81	0.43
3:H:114:SER:HA	3:H:117:VAL:HG22	2.00	0.43
3:H:405:VAL:HG22	3:H:426:PHE:CZ	2.53	0.43
1:A:938:VAL:O	1:A:942:LEU:HG	2.18	0.43
1:A:1010:LEU:O	1:A:1014:LEU:HG	2.18	0.43
1:A:1866:GLN:O	1:A:1870:LYS:HG3	2.18	0.43
1:A:1892:LYS:O	1:A:1907:GLU:HA	2.18	0.43
1:A:2267:SER:OG	1:A:2268:LYS:N	2.50	0.43
1:A:2363:CYS:SG	1:A:2364:LEU:N	2.90	0.43
1:A:2440:TYR:HB2	1:A:2476:ILE:HD11	2.00	0.43
1:A:2572:TYR:HB3	1:A:2573:PRO:HD3	2.00	0.43
1:A:2944:THR:HA	1:A:2948:GLY:CA	2.45	0.43
1:A:3111:MET:SD	1:A:3112:GLN:N	2.91	0.43
1:A:3192:LYS:O	1:A:3196:LYS:NZ	2.52	0.43
1:A:3681:LYS:NZ	1:A:3726:VAL:HG13	2.32	0.43
1:A:3924:HIS:HD2	1:A:3926:ASN:HB2	1.79	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:363:ARG:HB2	2:B:436:PHE:CE2	2.45	0.43
3:C:395:TYR:HB3	3:C:404:GLN:HB2	1.99	0.43
1:F:344:GLN:O	1:F:346:TYR:N	2.51	0.43
1:F:669:LEU:O	1:F:673:THR:HG23	2.18	0.43
1:F:1048:GLN:O	1:F:1052:SER:OG	2.27	0.43
1:F:1282:LEU:HD23	1:F:1282:LEU:H	1.83	0.43
1:F:1634:ALA:N	1:F:1637:SER:OG	2.45	0.43
1:F:1877:LEU:HD12	1:F:1878:ASP:N	2.34	0.43
1:F:2140:LEU:HD12	1:F:2141:ASN:N	2.33	0.43
1:F:3065:ILE:HG12	1:F:3086:LEU:HD11	2.01	0.43
1:F:3571:PHE:HD1	1:F:3686:TRP:HZ3	1.66	0.43
1:F:3575:LEU:HD22	1:F:3752:VAL:HG21	2.00	0.43
1:F:3755:GLY:HA2	1:F:3799:ARG:C	2.38	0.43
1:F:4037:ASN:HB3	1:F:4039:TYR:CE2	2.53	0.43
2:G:372:GLU:OE1	2:G:377:GLY:N	2.43	0.43
2:G:417:GLU:N	2:G:417:GLU:OE1	2.51	0.43
3:H:164:PHE:CE1	3:H:225:TYR:HB3	2.53	0.43
3:H:213:ILE:O	3:H:217:GLY:HA2	2.18	0.43
6:D:18:DA:C4	7:E:39:DA:N1	2.86	0.43
1:A:162:LEU:HD12	2:B:299:LYS:CD	2.48	0.43
1:A:216:LYS:HA	1:A:216:LYS:HE3	2.00	0.43
1:A:394:GLN:HA	1:A:398:THR:HG21	2.00	0.43
1:A:710:PHE:O	1:A:714:VAL:HG22	2.19	0.43
1:A:933:LEU:CD2	1:A:2793:PRO:HB2	2.49	0.43
1:A:1394:HIS:HE1	1:A:1398:VAL:HB	1.83	0.43
1:A:1534:ASN:OD1	1:A:1534:ASN:N	2.51	0.43
1:A:1672:PHE:HD1	1:A:1699:PHE:CE1	2.36	0.43
1:A:1858:LEU:HD11	1:A:1932:GLN:OE1	2.18	0.43
1:A:2097:LEU:HD22	1:A:2149:LEU:HD22	2.00	0.43
1:A:2128:PHE:O	1:A:2132:LYS:HG3	2.19	0.43
1:A:3165:THR:HA	1:A:3168:TYR:CE2	2.54	0.43
1:A:3314:SER:OG	1:A:3317:SER:OG	2.26	0.43
1:A:3369:ASP:OD1	1:A:3369:ASP:N	2.51	0.43
1:A:3591:ASP:HA	1:A:3594:ALA:HB3	2.00	0.43
1:A:3915:HIS:O	1:A:3919:GLY:N	2.50	0.43
1:A:3931:ALA:O	1:A:3935:GLY:N	2.51	0.43
2:B:142:SER:O	2:B:146:VAL:HG23	2.19	0.43
3:C:58:LEU:O	3:C:77:ILE:HA	2.17	0.43
1:F:13:LEU:HD22	1:F:59:PHE:CD1	2.39	0.43
1:F:374:LYS:O	1:F:378:ALA:HB2	2.18	0.43
1:F:1560:TYR:CE1	1:F:1596:VAL:HG12	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1893:GLU:OE2	1:F:1895:LYS:NZ	2.42	0.43
1:F:2147:ALA:HB2	1:F:2171:LEU:HD21	2.00	0.43
1:F:2185:MET:HA	1:F:2188:GLU:HG2	2.01	0.43
1:F:2514:ASN:OD1	1:F:2517:LEU:HG	2.19	0.43
1:F:2553:HIS:CE1	1:F:2557:LEU:HD11	2.54	0.43
1:F:3123:GLN:HA	1:F:3126:LEU:HD13	1.99	0.43
1:F:3340:ALA:O	1:F:3343:SER:OG	2.28	0.43
1:F:3500:SER:HA	1:F:3503:VAL:HG12	2.00	0.43
1:F:3669:LYS:HG3	1:F:3670:MET:SD	2.58	0.43
1:F:3913:ILE:HB	1:F:3984:MET:HG3	1.99	0.43
1:F:4089:ILE:O	1:F:4093:GLU:HG2	2.18	0.43
2:G:161:MET:HE1	2:G:164:LYS:HB3	2.00	0.43
2:G:239:LEU:HA	2:G:242:LEU:HD22	1.99	0.43
2:G:285:PRO:HB3	3:H:312:GLN:HB3	2.00	0.43
2:G:306:SER:HB3	3:H:288:ASP:OD2	2.18	0.43
2:G:339:ARG:HD3	2:G:340:PHE:N	2.33	0.43
3:H:233:LYS:HA	3:H:481:LYS:NZ	2.33	0.43
3:H:529:PRO:O	3:H:533:ILE:HD12	2.18	0.43
4:J:21:DA:C6	5:I:36:DA:N6	2.87	0.43
1:A:173:LYS:O	1:A:176:GLU:HB2	2.19	0.43
1:A:270:ALA:O	1:A:273:ARG:HG2	2.19	0.43
1:A:829:VAL:HG23	1:A:830:VAL:HG23	2.00	0.43
1:A:881:LYS:HG2	1:A:883:TYR:HB2	2.00	0.43
1:A:886:TRP:HZ3	1:A:911:LEU:HB3	1.82	0.43
1:A:1202:ARG:O	1:A:1207:TRP:HB2	2.18	0.43
1:A:2087:GLU:OE1	1:A:2090:ARG:HD3	2.19	0.43
1:A:3236:PHE:CE2	1:A:3272:TRP:HA	2.53	0.43
1:A:3480:LEU:C	1:A:3482:LEU:H	2.21	0.43
1:A:3511:ALA:HB1	1:A:3514:VAL:CG2	2.48	0.43
1:A:3513:ALA:C	1:A:3515:GLN:N	2.70	0.43
1:A:3860:LYS:HD3	1:A:4073:ALA:N	2.34	0.43
1:A:3951:GLN:NE2	1:A:4063:GLU:OE2	2.52	0.43
1:A:4089:ILE:HG23	1:A:4092:GLN:NE2	2.34	0.43
3:C:250:ARG:HH11	3:C:260:ARG:HH12	1.65	0.43
3:C:411:HIS:O	3:C:417:GLU:HB3	2.19	0.43
1:F:188:GLU:HG2	1:F:189:MET:SD	2.58	0.43
1:F:291:VAL:HG13	1:F:344:GLN:NE2	2.34	0.43
1:F:535:LEU:HB3	1:F:637:LYS:HE3	1.99	0.43
1:F:1579:VAL:O	1:F:1583:MET:HB2	2.18	0.43
1:F:1608:ARG:HE	1:F:1608:ARG:HB3	1.65	0.43
1:F:2328:ARG:CD	1:F:2333:ARG:HD3	2.44	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2824:LYS:HA	1:F:2824:LYS:HD3	1.65	0.43
1:F:3559:LYS:HB2	1:F:3564:GLN:NE2	2.33	0.43
1:F:3766:GLN:O	1:F:3770:VAL:HG23	2.17	0.43
1:F:3822:GLN:HG2	1:F:3823:GLU:N	2.34	0.43
1:F:3982:SER:HB2	1:F:3986:HIS:CE1	2.54	0.43
1:F:4048:LYS:HA	1:F:4051:LEU:HG	2.00	0.43
2:G:76:ILE:HD13	2:G:248:ALA:HA	2.00	0.43
2:G:82:LEU:HD11	2:G:108:LEU:C	2.38	0.43
2:G:468:LYS:HG2	2:G:518:LEU:O	2.19	0.43
3:H:106:ASP:CG	3:H:143:SER:H	2.22	0.43
1:A:101:ALA:N	1:A:102:PRO:HD2	2.34	0.43
1:A:211:ALA:HB1	1:A:215:PRO:O	2.18	0.43
1:A:307:GLU:O	1:A:310:LYS:HE2	2.17	0.43
1:A:312:ALA:O	1:A:316:LEU:HG	2.18	0.43
1:A:377:ASN:HB3	1:A:380:ASP:OD2	2.18	0.43
1:A:452:LYS:O	1:A:455:LEU:HB2	2.18	0.43
1:A:1372:LEU:O	1:A:1375:THR:OG1	2.24	0.43
1:A:1901:HIS:ND1	1:A:1903:SER:OG	2.47	0.43
1:A:1938:ARG:HA	1:A:1941:HIS:ND1	2.33	0.43
1:A:2238:ILE:HA	1:A:2241:LEU:HB2	2.01	0.43
1:A:2258:GLU:HA	1:A:2261:SER:CB	2.49	0.43
1:A:2306:ASN:HA	1:A:2309:PHE:CZ	2.54	0.43
1:A:2918:PRO:O	1:A:2921:LEU:HB3	2.19	0.43
1:A:3531:TYR:OH	1:A:3568:ILE:HD11	2.18	0.43
1:A:3762:GLN:HG2	1:A:3795:PRO:HD3	2.00	0.43
2:B:239:LEU:HA	2:B:242:LEU:HD12	2.00	0.43
2:B:256:LEU:HD23	2:B:256:LEU:H	1.83	0.43
3:C:70:GLY:HA3	3:C:74:TYR:CE2	2.53	0.43
3:C:312:GLN:O	3:C:323:PHE:HB2	2.17	0.43
3:C:626:THR:HG23	3:C:632:PHE:CE2	2.54	0.43
1:F:22:ALA:CB	1:F:34:LEU:HD21	2.49	0.43
1:F:152:LEU:HD13	1:F:155:LYS:HE3	2.00	0.43
1:F:726:LEU:O	1:F:729:CYS:HB2	2.18	0.43
1:F:854:ARG:HA	1:F:857:GLN:NE2	2.33	0.43
1:F:886:TRP:HE1	1:F:912:PRO:HB3	1.84	0.43
1:F:894:PHE:HB2	1:F:940:PHE:CE2	2.53	0.43
1:F:932:GLU:O	1:F:936:SER:N	2.49	0.43
1:F:1102:GLU:HG2	1:F:1152:ARG:CG	2.47	0.43
1:F:1157:PHE:CD1	1:F:1159:PRO:HD2	2.54	0.43
1:F:1333:SER:O	1:F:1337:VAL:HG23	2.18	0.43
1:F:1377:CYS:SG	1:F:1378:GLU:N	2.92	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1489:LYS:HD2	1:F:1495:ASP:HB3	1.99	0.43
1:F:2139:PRO:O	1:F:2143:ARG:HG3	2.18	0.43
1:F:2203:THR:HB	1:F:2248:CYS:SG	2.58	0.43
1:F:2560:ASN:ND2	1:F:2795:GLN:HB2	2.34	0.43
1:F:2991:LYS:HA	1:F:2994:TRP:CD2	2.54	0.43
1:F:3060:SER:O	1:F:3063:THR:HB	2.17	0.43
1:F:3613:MET:HB3	1:F:3640:PHE:HE1	1.83	0.43
1:F:3830:SER:HA	1:F:3833:ARG:NH1	2.34	0.43
2:G:77:SER:HA	2:G:249:LYS:O	2.17	0.43
2:G:214:SER:HB3	2:G:218:ARG:HG2	1.99	0.43
2:G:413:LEU:HD11	2:G:432:PHE:HB3	2.01	0.43
1:A:131:LEU:HD21	1:A:173:LYS:HG2	2.00	0.43
1:A:183:GLU:OE2	1:A:185:HIS:HA	2.18	0.43
1:A:230:LEU:HB3	1:A:234:PHE:CZ	2.54	0.43
1:A:723:ASP:C	1:A:725:LEU:H	2.22	0.43
1:A:900:GLU:O	1:A:902:LYS:HD3	2.19	0.43
1:A:939:MET:HE2	1:A:2783:ILE:HG12	2.00	0.43
1:A:1009:LEU:HA	1:A:1012:ALA:HB3	2.01	0.43
1:A:1208:LEU:O	1:A:1211:VAL:HG22	2.18	0.43
1:A:1334:LYS:HE2	1:A:1383:GLY:H	1.84	0.43
1:A:1835:ALA:HA	1:A:1838:GLU:OE2	2.19	0.43
1:A:1891:ALA:HB1	1:A:1895:LYS:H	1.83	0.43
1:A:2368:THR:HA	1:A:2371:PHE:O	2.19	0.43
1:A:2494:ASP:O	1:A:2497:GLU:HG3	2.19	0.43
1:A:2540:LEU:HD13	1:A:2543:ASN:ND2	2.26	0.43
1:A:2780:LEU:HD12	1:A:2781:PRO:HD2	2.01	0.43
1:A:2952:ILE:CG1	1:A:2971:GLN:HB3	2.49	0.43
1:A:3008:TRP:O	1:A:3011:LEU:N	2.52	0.43
1:A:3126:LEU:O	1:A:3129:LEU:HB3	2.18	0.43
1:A:3769:GLN:OE1	1:A:3790:THR:HB	2.18	0.43
1:A:3835:PRO:HG3	1:A:4127:TRP:HZ2	1.84	0.43
1:A:3963:LEU:HA	1:A:3967:PHE:HE2	1.84	0.43
2:B:82:LEU:HD11	2:B:108:LEU:C	2.39	0.43
2:B:414:VAL:CG1	2:B:433:GLN:HB3	2.48	0.43
3:C:104:GLN:O	3:C:141:ARG:NH2	2.51	0.43
3:C:166:PRO:HA	3:C:227:PHE:H	1.84	0.43
3:C:484:ASN:HB3	3:C:487:PHE:CD2	2.54	0.43
3:C:569:THR:O	3:C:570:GLU:HB2	2.18	0.43
3:C:689:GLU:O	3:C:696:VAL:HG21	2.18	0.43
1:F:73:LEU:O	1:F:75:SER:N	2.43	0.43
1:F:317:GLU:CG	1:F:364:ARG:HH22	2.32	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:854:ARG:HA	1:F:857:GLN:HG2	2.00	0.43
1:F:1093:GLU:HA	1:F:1096:VAL:HG22	2.01	0.43
1:F:1305:ASP:OD1	1:F:1305:ASP:N	2.51	0.43
1:F:1418:HIS:HA	1:F:1421:GLU:HG2	2.01	0.43
1:F:1577:LEU:O	1:F:1580:LEU:N	2.52	0.43
1:F:1673:THR:HA	1:F:1676:ILE:HD12	2.01	0.43
1:F:1700:THR:HG21	1:F:1757:MET:SD	2.58	0.43
1:F:1971:PRO:C	1:F:1973:LYS:H	2.20	0.43
1:F:2459:VAL:HG21	1:F:2505:VAL:CG1	2.49	0.43
1:F:3076:ALA:HA	1:F:3079:GLU:HG3	2.00	0.43
1:F:3081:HIS:HB2	1:F:3082:TYR:CE2	2.54	0.43
1:F:3828:TYR:CE2	1:F:3879:PRO:HD3	2.48	0.43
2:G:239:LEU:O	2:G:242:LEU:HB2	2.19	0.43
3:H:81:ARG:HD3	3:H:82:HIS:O	2.19	0.43
3:H:599:ARG:HD2	3:H:638:CYS:HB2	2.01	0.43
3:H:656:ASN:HA	3:H:688:LYS:NZ	2.34	0.43
4:J:25:DT:H2"	4:J:26:DT:C6	2.53	0.43
6:D:22:DG:C2	7:E:35:DT:O2	2.72	0.43
1:A:292:SER:HA	1:A:295:GLU:OE2	2.18	0.43
1:A:371:GLY:O	1:A:375:VAL:HG12	2.17	0.43
1:A:397:LEU:HB2	1:A:441:MET:HE3	2.01	0.43
1:A:490:ILE:HD12	1:A:629:PHE:CE2	2.54	0.43
1:A:793:LEU:HB3	1:A:870:LEU:CB	2.39	0.43
1:A:1821:ASP:HA	1:A:1825:LEU:CD1	2.49	0.43
1:A:2402:LEU:HD22	1:A:2434:VAL:HB	2.01	0.43
1:A:2939:LEU:CA	1:A:2942:ILE:HG22	2.49	0.43
1:A:3499:ILE:HG21	1:A:3529:ILE:HD12	2.01	0.43
1:A:3681:LYS:HZ1	1:A:3726:VAL:H	1.66	0.43
1:A:4014:LYS:HA	1:A:4017:GLU:OE1	2.18	0.43
1:A:4069:GLU:N	1:A:4069:GLU:OE1	2.51	0.43
2:B:58:THR:O	2:B:62:MET:HG3	2.19	0.43
2:B:274:TYR:HB2	2:B:367:PHE:HD2	1.83	0.43
2:B:415:PRO:HB3	2:B:432:PHE:CE1	2.54	0.43
3:C:262:ALA:HB3	3:C:368:ARG:NH1	2.34	0.43
3:C:294:VAL:O	3:C:295:TYR:HD1	2.02	0.43
3:C:528:ILE:HB	3:C:529:PRO:HD3	2.00	0.43
3:C:658:PHE:O	3:C:662:LEU:HG	2.19	0.43
1:F:67:VAL:HA	1:F:70:ARG:CZ	2.49	0.43
1:F:135:LEU:HD23	1:F:138:PHE:CD2	2.53	0.43
1:F:186:PRO:HG2	1:F:188:GLU:OE2	2.18	0.43
1:F:292:SER:HA	1:F:295:GLU:HG3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:352:VAL:HG12	1:F:1731:PRO:O	2.19	0.43
1:F:665:GLY:O	1:F:669:LEU:HG	2.19	0.43
1:F:764:PRO:O	1:F:768:VAL:HG22	2.18	0.43
1:F:888:ARG:NH2	1:F:3819:THR:HG22	2.34	0.43
1:F:901:MET:N	1:F:901:MET:SD	2.92	0.43
1:F:1645:VAL:O	1:F:1649:LEU:HG	2.19	0.43
1:F:1718:ILE:O	1:F:1722:PHE:HD1	2.02	0.43
1:F:2161:ALA:HB1	1:F:2196:TRP:CZ2	2.54	0.43
1:F:2353:GLN:HA	1:F:2356:MET:HG3	2.00	0.43
1:F:2466:SER:C	1:F:2468:THR:H	2.22	0.43
1:F:2536:LEU:HA	1:F:2539:LEU:HD13	2.00	0.43
1:F:2791:ILE:HA	1:F:2794:LEU:CD1	2.49	0.43
1:F:2859:GLN:HE21	1:F:2888:VAL:HG13	1.84	0.43
1:F:3154:GLN:O	1:F:3157:LEU:HB2	2.19	0.43
1:F:3486:GLU:C	1:F:3488:SER:N	2.71	0.43
1:F:3931:ALA:HB1	1:F:3933:GLU:CD	2.39	0.43
5:I:35:DT:C2'	5:I:36:DA:H5'	2.48	0.43
5:I:37:DT:H2'	5:I:38:DT:C4	2.53	0.43
1:A:170:VAL:HG23	6:D:21:DA:H5'	2.01	0.43
1:A:309:LYS:HD3	1:A:309:LYS:N	2.34	0.43
1:A:407:VAL:C	1:A:449:TYR:CE2	2.91	0.43
1:A:850:GLU:O	1:A:853:ILE:HB	2.18	0.43
1:A:881:LYS:NZ	1:A:884:VAL:HA	2.34	0.43
1:A:901:MET:N	1:A:901:MET:SD	2.91	0.43
1:A:934:LEU:O	1:A:938:VAL:HG13	2.19	0.43
1:A:1058:SER:HA	1:A:1061:LYS:NZ	2.34	0.43
1:A:1105:VAL:CG1	1:A:1156:GLY:HA3	2.48	0.43
1:A:1202:ARG:CZ	1:A:1207:TRP:CD1	3.02	0.43
1:A:1526:GLU:HG2	1:A:1527:ARG:N	2.34	0.43
1:A:2100:LEU:HA	1:A:2103:HIS:HB3	2.01	0.43
1:A:2213:ASN:HD21	1:A:2249:LEU:HA	1.84	0.43
1:A:2396:LEU:O	1:A:2400:VAL:HG12	2.18	0.43
1:A:2405:VAL:HG13	1:A:2406:GLU:HG2	2.01	0.43
1:A:2919:ASP:O	1:A:2922:ARG:HG2	2.18	0.43
1:A:3047:SER:O	1:A:3051:LEU:HB2	2.19	0.43
1:A:3183:ILE:HD13	1:A:3186:ARG:HH21	1.83	0.43
1:A:3247:ARG:NH1	1:A:3282:ARG:HB2	2.34	0.43
1:A:3513:ALA:C	1:A:3515:GLN:H	2.22	0.43
1:A:3863:ASN:O	1:A:3867:THR:HG23	2.19	0.43
1:A:3889:ARG:HD2	1:A:3889:ARG:HA	1.78	0.43
1:A:3918:LEU:HB3	1:A:3920:ILE:HD12	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4007:LYS:HA	1:A:4007:LYS:HE3	2.00	0.43
3:C:72:ASP:O	3:C:75:GLN:HG2	2.19	0.43
3:C:280:ASP:OD2	3:C:282:LYS:NZ	2.44	0.43
3:C:668:ILE:HG13	3:C:669:LYS:H	1.84	0.43
1:F:264:ARG:NH1	5:I:39:DA:H4'	2.33	0.43
1:F:848:LEU:HD23	1:F:848:LEU:H	1.84	0.43
1:F:1172:LEU:HD11	1:F:1187:SER:HB2	2.00	0.43
1:F:3361:GLU:OE1	1:F:3367:SER:N	2.37	0.43
1:F:3389:VAL:HG13	1:F:3413:TYR:HE1	1.83	0.43
3:H:45:GLN:HA	3:H:50:ASN:OD1	2.18	0.43
1:A:461:ILE:HG23	1:A:465:PHE:CE2	2.54	0.43
1:A:901:MET:HG3	1:A:2819:GLU:HG2	2.00	0.43
1:A:1065:SER:O	1:A:1068:LEU:HG	2.18	0.43
1:A:1348:LEU:HB3	1:A:1359:LEU:HD13	2.00	0.43
1:A:2295:GLN:NE2	1:A:2298:GLU:H	2.17	0.43
1:A:2319:ALA:O	1:A:2323:LEU:HD23	2.18	0.43
1:A:2575:PRO:O	1:A:2787:HIS:NE2	2.52	0.43
1:A:2851:PHE:HB3	1:A:2854:PHE:HB2	2.01	0.43
1:A:3059:GLN:HA	1:A:3062:LEU:HB3	2.00	0.43
1:A:3098:ARG:HD3	1:A:3102:TYR:CE1	2.53	0.43
1:A:3263:HIS:HB2	1:A:3276:TRP:NE1	2.34	0.43
1:A:3912:CYS:HB3	1:A:3961:PHE:CD2	2.54	0.43
2:B:312:LEU:HB2	2:B:315:ASP:CG	2.40	0.43
2:B:347:LEU:HD11	2:B:396:ALA:HB1	2.01	0.43
2:B:365:SER:OG	2:B:366:LEU:N	2.51	0.43
2:B:480:ASN:ND2	2:B:483:LEU:HB2	2.33	0.43
3:C:64:THR:HB	3:C:76:ASN:H	1.84	0.43
3:C:109:ASP:O	3:C:113:VAL:HG23	2.18	0.43
3:C:357:MET:CE	3:C:425:PRO:HA	2.48	0.43
3:C:553:ILE:HG23	3:C:555:GLN:O	2.19	0.43
1:F:225:LYS:HD2	1:F:270:ALA:HB3	2.00	0.43
1:F:897:PRO:HG3	1:F:2787:HIS:CD2	2.54	0.43
1:F:930:ALA:HA	1:F:933:LEU:HD12	2.00	0.43
1:F:932:GLU:CG	1:F:2773:ARG:HH21	2.32	0.43
1:F:1614:GLN:H	1:F:1614:GLN:CD	2.21	0.43
1:F:2214:ARG:HH12	1:F:2215:LEU:CD2	2.31	0.43
1:F:2295:GLN:CB	1:F:2298:GLU:HG2	2.49	0.43
1:F:2886:GLN:O	1:F:2890:ILE:N	2.41	0.43
1:F:3149:GLY:O	1:F:3152:SER:OG	2.27	0.43
1:F:3527:GLN:NE2	1:F:3705:TYR:OH	2.52	0.43
2:G:203:MET:HE2	2:G:239:LEU:H	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:H:247:TRP:NE1	3:H:338:LYS:HD2	2.34	0.43
3:H:679:VAL:O	3:H:683:ILE:HG12	2.19	0.43
5:I:18:DG:N2	5:I:19:DC:N3	2.67	0.43
1:A:309:LYS:HA	1:A:312:ALA:HB3	2.01	0.42
1:A:730:LEU:O	1:A:733:LEU:HB2	2.18	0.42
1:A:994:TRP:HZ3	1:A:2582:SER:HB2	1.84	0.42
1:A:1148:ALA:HB1	1:A:1162:SER:HB3	2.01	0.42
1:A:1150:LYS:NZ	1:A:1162:SER:HB2	2.34	0.42
1:A:1236:LEU:O	1:A:1239:PRO:HD3	2.18	0.42
1:A:1711:ARG:HG3	1:A:1712:ARG:N	2.33	0.42
1:A:1983:ASP:OD2	1:A:2183:HIS:ND1	2.52	0.42
1:A:2091:HIS:CE1	1:A:2094:MET:N	2.87	0.42
1:A:2442:MET:SD	1:A:2442:MET:N	2.92	0.42
1:A:2803:ILE:HG23	1:A:2807:GLN:HE22	1.83	0.42
1:A:2828:GLU:O	1:A:2832:ILE:HG13	2.19	0.42
1:A:2850:PHE:CD2	1:A:2882:ALA:HB3	2.53	0.42
1:A:3185:ASN:HB3	1:A:3189:PHE:CZ	2.54	0.42
1:A:4006:VAL:HG13	1:A:4007:LYS:HD2	2.01	0.42
2:B:303:PHE:O	3:C:290:GLN:N	2.52	0.42
2:B:399:ARG:HB3	2:B:410:PHE:HD1	1.84	0.42
2:B:400:TYR:OH	2:B:402:PRO:HA	2.18	0.42
3:C:194:LEU:O	3:C:202:LYS:HG2	2.18	0.42
3:C:437:SER:HB2	3:C:440:ASN:HD21	1.84	0.42
3:C:671:LEU:HB2	3:C:674:PHE:CE1	2.53	0.42
1:F:261:ASP:N	1:F:261:ASP:OD1	2.50	0.42
1:F:304:THR:HA	1:F:309:LYS:NZ	2.34	0.42
1:F:1039:TRP:HB3	1:F:1043:GLN:NE2	2.34	0.42
1:F:1268:ASN:OD1	1:F:1344:PHE:HA	2.19	0.42
1:F:2382:VAL:HA	1:F:2385:LEU:HG	2.01	0.42
1:F:2409:THR:HA	1:F:2445:LYS:HE3	2.01	0.42
1:F:2819:GLU:HA	1:F:2822:LYS:NZ	2.34	0.42
1:F:3270:ASP:HA	1:F:3273:LEU:HB3	2.01	0.42
1:F:3319:ASN:OD1	1:F:3322:ALA:N	2.51	0.42
1:F:3496:ILE:HD12	1:F:3496:ILE:H	1.84	0.42
1:F:3550:LYS:HE2	1:F:3550:LYS:HB2	1.83	0.42
1:F:3602:ASN:HB2	1:F:3651:LEU:HD13	2.01	0.42
1:F:3693:GLU:HG3	1:F:3695:LEU:H	1.84	0.42
1:F:3917:ILE:HD12	1:F:3917:ILE:HA	1.90	0.42
1:F:3953:LEU:HD11	1:F:4027:TRP:HB2	2.01	0.42
2:G:409:TYR:HB3	2:G:436:PHE:CE1	2.54	0.42
3:H:594:PRO:HA	3:H:597:ASN:ND2	2.34	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
7:E:28:DT:H2'	7:E:29:DA:C8	2.54	0.42
1:A:235:THR:OG1	1:A:236:LYS:N	2.52	0.42
1:A:322:GLN:C	1:A:324:SER:H	2.21	0.42
1:A:531:PHE:N	1:A:531:PHE:CD1	2.84	0.42
1:A:568:PHE:C	1:A:572:VAL:HG23	2.39	0.42
1:A:898:PHE:C	1:A:902:LYS:HZ2	2.22	0.42
1:A:963:LYS:HG3	1:A:964:ARG:HD2	2.02	0.42
1:A:1220:LEU:HD22	1:A:1224:PHE:CZ	2.54	0.42
1:A:1820:VAL:O	1:A:1825:LEU:HG	2.19	0.42
1:A:1884:LEU:HD12	1:A:1885:PRO:HD2	1.99	0.42
1:A:1959:LEU:HA	1:A:1961:PHE:CE2	2.54	0.42
1:A:2106:ARG:HA	1:A:2106:ARG:NH1	2.34	0.42
1:A:2136:PRO:HG2	1:A:2137:ILE:HD12	2.01	0.42
1:A:2538:ARG:HG2	1:A:2565:MET:SD	2.59	0.42
1:A:3026:ASP:OD1	1:A:3026:ASP:N	2.51	0.42
1:A:3271:ASP:N	1:A:3271:ASP:OD1	2.49	0.42
1:A:3822:GLN:HA	1:A:3825:LYS:HB3	2.01	0.42
2:B:182:LYS:HG2	2:B:185:ARG:NH2	2.34	0.42
3:C:523:THR:O	3:C:527:GLN:HG2	2.20	0.42
1:F:70:ARG:HB2	1:F:78:PHE:CD2	2.54	0.42
1:F:332:GLU:CD	1:F:334:HIS:HA	2.40	0.42
1:F:338:LEU:HB2	3:H:567:LEU:HD23	2.00	0.42
1:F:632:GLU:OE1	1:F:632:GLU:N	2.46	0.42
1:F:1023:SER:O	1:F:1027:ASP:N	2.51	0.42
1:F:1047:GLN:HA	1:F:1050:GLU:OE1	2.19	0.42
1:F:1147:LYS:HB2	1:F:1149:LYS:NZ	2.34	0.42
1:F:1172:LEU:HG	1:F:1176:CYS:SG	2.59	0.42
1:F:1418:HIS:HA	1:F:1421:GLU:CD	2.40	0.42
1:F:2146:LEU:HA	1:F:2149:LEU:HD12	2.00	0.42
1:F:3012:GLU:HG2	1:F:3048:LYS:NZ	2.34	0.42
1:F:3298:LEU:HD21	1:F:3333:THR:OG1	2.18	0.42
1:F:3315:TYR:HA	1:F:3318:LYS:HB2	2.00	0.42
1:F:3614:TYR:HB2	1:F:3648:GLY:HA3	2.00	0.42
1:F:3646:LYS:HG3	1:F:3650:LYS:HZ1	1.85	0.42
1:F:3878:VAL:HG21	1:F:4127:TRP:O	2.19	0.42
1:F:3952:PHE:CE2	1:F:4036:LYS:HB2	2.54	0.42
2:G:49:PHE:HB2	2:G:137:HIS:CE1	2.54	0.42
3:H:646:ALA:HB1	3:H:651:GLU:HB2	2.01	0.42
4:J:22:DG:N2	4:J:23:DT:C2	2.87	0.42
4:J:32:DT:H6	4:J:32:DT:H2'	1.58	0.42
6:D:16:DA:C6	7:E:42:DA:C2	3.07	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
6:D:19:DA:C6	6:D:20:DT:N3	2.87	0.42
1:A:493:LYS:NZ	1:A:522:PRO:HD3	2.33	0.42
1:A:1139:GLU:HB2	1:A:1140:LYS:NZ	2.31	0.42
1:A:1301:ILE:HG23	1:A:1330:TYR:OH	2.18	0.42
1:A:1661:PHE:HA	1:A:1665:HIS:HD1	1.85	0.42
1:A:1766:LEU:HG	1:A:1822:ARG:HD2	2.01	0.42
1:A:1886:LYS:HD2	1:A:1954:CYS:O	2.19	0.42
1:A:2228:ARG:HG2	1:A:2231:PHE:HD2	1.84	0.42
1:A:2420:PHE:O	1:A:2423:VAL:HB	2.19	0.42
1:A:2931:ARG:HH22	1:A:2939:LEU:HD11	1.84	0.42
1:A:3809:THR:HA	1:A:3930:VAL:O	2.20	0.42
1:A:3960:PRO:HG2	1:A:3961:PHE:CE2	2.54	0.42
2:B:259:LEU:HG	2:B:260:LYS:H	1.83	0.42
3:C:167:PHE:CZ	3:C:197:ILE:HD13	2.55	0.42
1:F:385:TYR:HD2	1:F:420:VAL:HG22	1.84	0.42
1:F:433:PRO:HB3	1:F:6018:UNK:HA	2.01	0.42
1:F:748:TYR:O	1:F:752:LEU:HG	2.19	0.42
1:F:992:ILE:HG23	1:F:1036:PHE:HD1	1.85	0.42
1:F:1448:LEU:O	1:F:1452:VAL:HG23	2.18	0.42
1:F:1554:SER:N	1:F:1557:GLU:OE2	2.39	0.42
1:F:1642:LYS:O	1:F:1646:LEU:HD23	2.19	0.42
1:F:1708:GLU:O	1:F:1712:ARG:HG2	2.19	0.42
1:F:2425:ARG:HA	1:F:2425:ARG:HD3	1.77	0.42
1:F:2511:ILE:HD11	1:F:2550:ILE:HG23	2.00	0.42
1:F:2567:SER:HA	1:F:2572:TYR:CG	2.54	0.42
1:F:2848:PHE:CG	1:F:2849:SER:N	2.87	0.42
1:F:3176:MET:HE1	1:F:3245:SER:HB2	2.01	0.42
1:F:3246:ALA:O	1:F:3250:ASN:N	2.51	0.42
1:F:3263:HIS:HB2	1:F:3276:TRP:CZ2	2.54	0.42
1:F:3287:ARG:HA	1:F:3289:ARG:NH1	2.34	0.42
1:F:3495:PHE:HD1	1:F:3498:TRP:CD1	2.35	0.42
1:F:3791:TYR:HB2	1:F:3804:GLU:HG2	2.01	0.42
1:F:3964:THR:HG22	1:F:3967:PHE:CE2	2.54	0.42
1:F:4109:ASP:HA	1:F:4112:THR:HG22	2.02	0.42
2:G:254:ARG:N	3:H:433:TYR:HE2	2.18	0.42
2:G:330:GLU:CD	2:G:332:GLU:H	2.22	0.42
2:G:415:PRO:HA	2:G:432:PHE:CD1	2.54	0.42
2:G:471:PHE:CE1	2:G:506:LEU:HD21	2.54	0.42
1:A:606:SER:HB2	1:A:1080:LEU:HD11	2.00	0.42
1:A:671:SER:O	1:A:674:VAL:HG12	2.18	0.42
1:A:1149:LYS:H	1:A:1163:LEU:N	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1188:ILE:HG13	1:A:1189:GLU:H	1.84	0.42
1:A:1331:ASN:OD1	1:A:1334:LYS:NZ	2.52	0.42
1:A:1468:LEU:HD13	1:A:1521:PHE:CZ	2.54	0.42
1:A:1640:GLU:OE1	1:A:1640:GLU:N	2.39	0.42
1:A:1840:PHE:CE1	1:A:1896:ILE:HG23	2.54	0.42
1:A:2234:ASN:O	1:A:2238:ILE:HD12	2.20	0.42
1:A:2269:ASP:C	1:A:2271:SER:H	2.22	0.42
1:A:2372:PRO:HB3	1:A:2404:ARG:CZ	2.49	0.42
1:A:2466:SER:C	1:A:2468:THR:H	2.23	0.42
1:A:2954:GLN:HA	1:A:2957:LEU:CB	2.48	0.42
1:A:3190:LEU:HD23	1:A:3235:LYS:HG2	2.01	0.42
1:A:3228:SER:O	1:A:3232:ARG:HG3	2.20	0.42
1:A:3315:TYR:CE1	1:A:3323:PHE:HD1	2.37	0.42
1:A:4007:LYS:HZ3	1:A:4044:ILE:HD13	1.84	0.42
3:C:165:LEU:HD22	3:C:205:LEU:HD12	2.01	0.42
1:F:164:LYS:HD3	5:I:29:DA:H3'	1.99	0.42
1:F:341:PHE:O	1:F:345:PHE:N	2.52	0.42
1:F:1150:LYS:HD2	1:F:1150:LYS:HA	1.84	0.42
1:F:1407:LYS:NZ	1:F:1463:LEU:HD21	2.34	0.42
1:F:1560:TYR:HA	1:F:1567:ILE:HD12	2.01	0.42
1:F:1563:PHE:HB3	1:F:1566:THR:OG1	2.20	0.42
1:F:1684:LEU:HD12	1:F:1684:LEU:H	1.85	0.42
1:F:2499:PHE:O	1:F:2503:LYS:HG2	2.18	0.42
1:F:3077:ILE:HA	1:F:3080:LEU:HG	2.02	0.42
1:F:3088:LEU:O	1:F:3091:LEU:HB3	2.19	0.42
1:F:3107:ILE:HD12	1:F:3107:ILE:H	1.83	0.42
1:F:3264:LYS:HA	1:F:3267:LYS:HZ3	1.85	0.42
1:F:3588:TRP:HE1	1:F:3610:TYR:HA	1.84	0.42
1:F:3924:HIS:N	1:F:3927:ASN:OD1	2.52	0.42
3:H:130:ARG:HB3	3:H:159:ILE:HG23	2.00	0.42
3:H:596:GLU:OE1	3:H:600:VAL:HG13	2.19	0.42
1:A:30:ALA:O	1:A:33:GLN:HG2	2.20	0.42
1:A:50:VAL:HG12	1:A:51:LEU:CD2	2.49	0.42
1:A:338:LEU:O	1:A:342:MET:HG2	2.18	0.42
1:A:656:GLN:HG2	1:A:666:PHE:HE2	1.84	0.42
1:A:1206:LEU:HA	1:A:1209:LYS:HG2	2.00	0.42
1:A:1224:PHE:CD2	1:A:1267:TYR:HE1	2.38	0.42
1:A:1239:PRO:HA	1:A:1256:TRP:CH2	2.55	0.42
1:A:1388:ASP:N	1:A:1388:ASP:OD1	2.52	0.42
1:A:1560:TYR:OH	1:A:1596:VAL:HA	2.20	0.42
1:A:2228:ARG:O	1:A:2228:ARG:HD2	2.18	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2251:ILE:HB	1:A:2253:TYR:CE2	2.54	0.42
1:A:2362:VAL:HG12	1:A:2396:LEU:HG	2.02	0.42
1:A:3130:GLN:NE2	1:A:3175:PRO:HD2	2.33	0.42
1:A:3480:LEU:C	1:A:3482:LEU:N	2.73	0.42
1:A:3493:TRP:HB3	1:A:3711:PRO:HD3	2.01	0.42
1:A:3572:ILE:O	1:A:3575:LEU:HB2	2.20	0.42
1:A:3690:PHE:HE2	1:A:3721:GLY:HA2	1.83	0.42
1:A:3699:LEU:O	1:A:3719:ILE:HG12	2.20	0.42
1:A:3965:ARG:O	1:A:3968:ILE:HG22	2.19	0.42
1:A:4085:LYS:NZ	1:A:4092:GLN:HB2	2.34	0.42
2:B:71:TYR:CE2	2:B:116:ILE:HG13	2.54	0.42
3:C:297:LEU:O	3:C:302:GLU:HA	2.20	0.42
3:C:459:ASP:OD1	3:C:460:SER:N	2.53	0.42
1:F:175:TYR:O	1:F:227:LEU:HD21	2.19	0.42
1:F:542:ASP:N	1:F:542:ASP:OD1	2.51	0.42
1:F:622:ALA:O	1:F:625:ASN:HB2	2.19	0.42
1:F:913:ARG:NH1	1:F:2803:ILE:HG21	2.34	0.42
1:F:1086:TYR:HE1	1:F:1137:ILE:HG13	1.84	0.42
1:F:1476:HIS:ND1	1:F:1522:GLY:O	2.51	0.42
1:F:3108:GLN:O	1:F:3111:MET:N	2.53	0.42
1:F:3577:GLN:HE21	1:F:3625:LEU:HA	1.84	0.42
1:F:3750:PHE:CD1	1:F:3804:GLU:HA	2.55	0.42
1:F:3872:ARG:HA	1:F:3875:GLU:OE1	2.19	0.42
1:F:3874:ARG:HH22	1:F:4118:GLY:HA2	1.84	0.42
1:F:4078:VAL:HG12	1:F:4082:ARG:HH21	1.84	0.42
2:G:126:GLN:HG2	2:G:130:ARG:NH1	2.34	0.42
2:G:161:MET:HE2	2:G:164:LYS:HD3	2.01	0.42
2:G:261:LEU:CG	2:G:271:VAL:HG21	2.49	0.42
2:G:441:ASP:OD2	3:H:484:ASN:ND2	2.44	0.42
3:H:269:GLN:OE1	3:H:271:ARG:NH2	2.44	0.42
1:A:200:PHE:O	1:A:204:LEU:HD23	2.20	0.42
1:A:555:SER:OG	1:A:557:SER:OG	2.24	0.42
1:A:855:VAL:O	1:A:858:MET:HG3	2.18	0.42
1:A:991:LEU:O	1:A:994:TRP:HB3	2.20	0.42
1:A:1407:LYS:HA	1:A:1407:LYS:HD2	1.81	0.42
1:A:1593:VAL:HA	1:A:1596:VAL:HG22	2.01	0.42
1:A:1639:LEU:HD23	1:A:1640:GLU:OE1	2.20	0.42
1:A:1710:LEU:O	1:A:1713:VAL:HG22	2.20	0.42
1:A:2365:ASN:HB3	1:A:2366:LYS:HZ3	1.81	0.42
1:A:2448:PRO:HG3	1:A:2484:TYR:OH	2.20	0.42
1:A:2974:GLU:OE2	1:A:2978:LYS:HB2	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3069:MET:SD	1:A:3070:HIS:N	2.92	0.42
1:A:3538:GLU:HG3	1:A:3798:SER:HB3	2.01	0.42
1:A:3562:LEU:HD23	1:A:3562:LEU:H	1.85	0.42
1:A:3817:LEU:O	1:A:3822:GLN:HB3	2.19	0.42
2:B:67:ILE:HG13	2:B:68:GLN:N	2.34	0.42
3:C:490:LEU:O	3:C:494:LEU:HG	2.19	0.42
3:C:599:ARG:HE	3:C:602:VAL:HG21	1.85	0.42
1:F:22:ALA:HB3	1:F:34:LEU:CD2	2.49	0.42
1:F:70:ARG:HH21	1:F:82:ARG:CG	2.32	0.42
1:F:153:PHE:CD1	1:F:178:LEU:HD11	2.51	0.42
1:F:209:THR:HG23	2:G:332:GLU:OE2	2.19	0.42
1:F:998:ASN:HA	1:F:1001:PHE:HB2	2.02	0.42
1:F:1000:LYS:HE2	1:F:1004:GLN:HB3	2.02	0.42
1:F:1006:THR:HA	1:F:1009:LEU:HD12	2.00	0.42
1:F:1202:ARG:NH1	1:F:1210:ASP:OD2	2.53	0.42
1:F:1327:GLY:O	1:F:1330:TYR:HB3	2.19	0.42
1:F:1718:ILE:HG13	1:F:1719:VAL:N	2.35	0.42
1:F:2231:PHE:HA	1:F:2234:ASN:HD21	1.84	0.42
1:F:2485:ARG:HA	1:F:2499:PHE:CE1	2.54	0.42
1:F:2928:LYS:HA	1:F:2928:LYS:HD3	1.82	0.42
1:F:2992:ASP:O	1:F:2996:LEU:HG	2.19	0.42
1:F:3263:HIS:HA	1:F:3266:SER:HB3	2.01	0.42
1:F:3572:ILE:HG12	1:F:3796:MET:HG3	2.00	0.42
1:F:3630:ARG:NH2	1:F:3633:ILE:HG13	2.35	0.42
1:F:3763:ARG:O	1:F:3767:LEU:HG	2.18	0.42
2:G:288:LEU:CB	3:H:322:PRO:HB3	2.49	0.42
3:H:106:ASP:HB3	3:H:109:ASP:CG	2.39	0.42
3:H:328:GLU:O	3:H:332:LYS:HG2	2.19	0.42
1:A:730:LEU:O	1:A:734:LEU:HG	2.20	0.42
1:A:746:ARG:HA	1:A:749:VAL:HG23	2.01	0.42
1:A:993:HIS:CD2	1:A:993:HIS:N	2.86	0.42
1:A:1071:ASN:OD1	1:A:1072:ALA:N	2.52	0.42
1:A:2102:LYS:NZ	1:A:2106:ARG:HD2	2.35	0.42
1:A:2225:HIS:HB2	1:A:2231:PHE:HB2	2.01	0.42
1:A:2472:GLN:O	1:A:2475:ASN:HB2	2.19	0.42
1:A:2862:SER:HA	1:A:2868:LEU:HD22	2.01	0.42
1:A:2896:ALA:O	1:A:2900:LEU:HB3	2.19	0.42
1:A:2970:LYS:HA	1:A:2973:ASP:OD2	2.19	0.42
1:A:3053:LEU:HG	1:A:3092:LEU:HD11	2.01	0.42
1:A:3471:ILE:HA	1:A:3474:ARG:CG	2.47	0.42
1:A:3699:LEU:HB3	1:A:3719:ILE:CD1	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4103:GLN:O	1:A:4106:CYS:HB2	2.19	0.42
2:B:79:ASP:OD1	2:B:110:ASN:HB2	2.19	0.42
2:B:91:GLU:H	2:B:135:MET:HG2	1.84	0.42
2:B:214:SER:HB3	2:B:218:ARG:CG	2.49	0.42
2:B:297:LYS:CB	3:C:298:ASN:HD21	2.29	0.42
3:C:30:PRO:HB3	3:C:227:PHE:CD2	2.55	0.42
1:F:79:ARG:HA	1:F:79:ARG:HD3	1.70	0.42
1:F:159:GLU:HA	1:F:162:LEU:HD23	2.02	0.42
1:F:1090:ARG:HB3	1:F:1137:ILE:HG21	2.02	0.42
1:F:1097:GLU:O	1:F:1151:ARG:NH2	2.53	0.42
1:F:1189:GLU:O	1:F:1192:TYR:HB3	2.20	0.42
1:F:1388:ASP:HA	1:F:1391:VAL:HG12	2.01	0.42
1:F:1410:PRO:HG2	1:F:1411:TYR:CE2	2.55	0.42
1:F:1557:GLU:HB3	1:F:1592:MET:SD	2.59	0.42
1:F:1662:ASN:OD1	1:F:1702:LEU:HD23	2.19	0.42
1:F:1781:SER:O	1:F:1784:ARG:NH1	2.52	0.42
1:F:1913:LYS:HA	1:F:1916:ILE:CD1	2.50	0.42
1:F:2224:PHE:HA	1:F:2231:PHE:CE1	2.54	0.42
1:F:2363:CYS:O	1:F:2367:VAL:HG12	2.19	0.42
1:F:2389:PHE:HB2	1:F:2394:LYS:CD	2.44	0.42
1:F:2571:ASP:O	1:F:2787:HIS:HD2	2.02	0.42
1:F:3001:CYS:SG	1:F:3002:TYR:N	2.92	0.42
1:F:3148:GLN:OE1	1:F:3148:GLN:N	2.53	0.42
1:F:3167:ARG:HH11	1:F:3168:TYR:N	2.18	0.42
1:F:3360:LEU:HG	1:F:3373:VAL:HG21	2.00	0.42
1:F:3530:VAL:O	1:F:3534:ILE:N	2.47	0.42
3:H:381:ILE:HG23	3:H:410:PRO:HB3	2.02	0.42
1:A:139:ARG:O	1:A:139:ARG:NE	2.53	0.42
1:A:212:VAL:HG22	3:C:551:GLN:O	2.19	0.42
1:A:226:GLY:O	1:A:229:SER:OG	2.27	0.42
1:A:569:VAL:HA	1:A:572:VAL:HB	2.02	0.42
1:A:704:PHE:HA	1:A:707:PHE:CD2	2.53	0.42
1:A:1011:GLU:HA	1:A:1014:LEU:HB2	2.02	0.42
1:A:1094:SER:O	1:A:1097:GLU:N	2.41	0.42
1:A:1344:PHE:O	1:A:1348:LEU:HG	2.20	0.42
1:A:1358:LEU:HG	1:A:1360:LYS:HD2	2.00	0.42
1:A:1406:LEU:O	1:A:1406:LEU:HD23	2.20	0.42
1:A:1533:LEU:HD12	1:A:1592:MET:HB3	2.01	0.42
1:A:1708:GLU:HA	1:A:1711:ARG:HH11	1.84	0.42
1:A:1723:PRO:HG2	1:A:1729:PHE:CE2	2.55	0.42
1:A:2097:LEU:O	1:A:2100:LEU:HG	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2104:MET:HE3	1:A:2104:MET:HB3	1.90	0.42
1:A:2450:GLU:OE1	1:A:2450:GLU:N	2.48	0.42
1:A:2923:TRP:CE3	1:A:2942:ILE:HD11	2.55	0.42
1:A:2939:LEU:C	1:A:2942:ILE:HG22	2.39	0.42
1:A:3096:VAL:HG13	1:A:3100:LYS:NZ	2.35	0.42
1:A:3383:GLN:O	1:A:3386:SER:OG	2.29	0.42
1:A:3542:PHE:CE2	1:A:3552:LYS:HD2	2.55	0.42
1:A:3571:PHE:CD2	1:A:3699:LEU:HD22	2.55	0.42
1:A:4018:GLN:O	1:A:4021:LEU:HG	2.19	0.42
1:A:4107:LEU:HA	1:A:4107:LEU:HD23	1.83	0.42
2:B:150:CYS:O	2:B:153:LEU:HB2	2.20	0.42
2:B:384:ALA:HB2	3:C:450:GLN:HG3	2.02	0.42
2:B:404:ARG:HH11	2:B:405:ASN:HD21	1.67	0.42
3:C:7:LYS:HB3	3:C:128:GLU:HB2	2.02	0.42
3:C:306:LEU:HG	3:C:308:GLU:HG3	2.02	0.42
1:F:186:PRO:O	1:F:188:GLU:N	2.53	0.42
1:F:712:LYS:HD3	1:F:712:LYS:N	2.35	0.42
1:F:1452:VAL:HG12	1:F:1456:LYS:HZ1	1.84	0.42
1:F:1646:LEU:HA	1:F:1649:LEU:HD12	2.02	0.42
1:F:1938:ARG:HA	1:F:1941:HIS:HD1	1.85	0.42
1:F:2125:TRP:CD1	1:F:2126:MET:N	2.88	0.42
1:F:2180:GLU:HB3	1:F:2225:HIS:CE1	2.55	0.42
1:F:3029:LYS:NZ	1:F:3073:LEU:HD21	2.35	0.42
1:F:3095:ASP:HB3	1:F:3098:ARG:NH1	2.27	0.42
1:F:3176:MET:CE	1:F:3245:SER:HB2	2.50	0.42
1:F:3288:SER:H	1:F:3289:ARG:NH2	2.17	0.42
1:F:3449:LYS:HA	1:F:3452:LYS:HG2	2.01	0.42
2:G:34:GLY:O	2:G:35:ARG:NH2	2.53	0.42
2:G:121:GLN:HB2	2:G:126:GLN:HE22	1.83	0.42
2:G:327:ILE:HG21	3:H:494:LEU:HD12	2.02	0.42
3:H:8:ALA:HB3	3:H:240:ILE:HG23	2.01	0.42
3:H:9:ALA:HA	3:H:53:GLU:HG2	2.00	0.42
3:H:18:PHE:HD1	3:H:102:SER:HA	1.85	0.42
3:H:496:HIS:O	3:H:500:HIS:HB2	2.20	0.42
3:H:624:LEU:HA	3:H:624:LEU:HD23	1.78	0.42
7:E:30:DA:H2''	7:E:31:DA:C8	2.55	0.42
1:A:114:VAL:HG13	1:A:130:LEU:HD11	2.01	0.42
1:A:346:TYR:HA	1:A:366:TYR:OH	2.20	0.42
1:A:438:LEU:C	1:A:442:GLN:HE22	2.22	0.42
1:A:459:ARG:NH1	1:A:543:SER:OG	2.30	0.42
1:A:667:TYR:HD1	1:A:670:LEU:HD12	1.85	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1153:LEU:HD12	1:A:1154:PRO:HD2	2.00	0.42
1:A:1591:LYS:HE2	1:A:1592:MET:SD	2.60	0.42
1:A:1846:ASP:O	1:A:1850:VAL:HG23	2.20	0.42
1:A:2260:PHE:O	1:A:2306:ASN:ND2	2.53	0.42
1:A:2575:PRO:HA	1:A:2785:ILE:O	2.19	0.42
1:A:2931:ARG:HH22	1:A:2939:LEU:CD1	2.32	0.42
1:A:3290:SER:O	1:A:3294:SER:N	2.51	0.42
1:A:3633:ILE:HA	1:A:3636:PHE:HB2	2.02	0.42
1:A:3863:ASN:O	1:A:3867:THR:N	2.36	0.42
1:A:3961:PHE:HE1	1:A:3963:LEU:HD22	1.85	0.42
1:A:4013:TRP:CZ2	1:A:4036:LYS:HE2	2.53	0.42
2:B:39:ILE:HD12	2:B:84:ALA:HB3	2.02	0.42
3:C:623:PHE:CZ	3:C:634:LYS:HB2	2.55	0.42
1:F:79:ARG:O	1:F:82:ARG:HB2	2.20	0.42
1:F:130:LEU:HD23	1:F:130:LEU:HA	1.81	0.42
1:F:313:LEU:HD21	1:F:357:LYS:HZ3	1.85	0.42
1:F:479:ILE:O	1:F:483:VAL:HG22	2.20	0.42
1:F:898:PHE:HB3	1:F:900:GLU:H	1.84	0.42
1:F:1168:LEU:HA	1:F:1171:TRP:HB3	2.00	0.42
1:F:1445:ARG:HA	1:F:1448:LEU:HB3	2.01	0.42
1:F:1920:TYR:O	1:F:1924:THR:OG1	2.26	0.42
1:F:2383:PHE:HB3	1:F:2418:LYS:NZ	2.35	0.42
1:F:2547:SER:O	1:F:2549:LYS:N	2.48	0.42
1:F:2554:PHE:HA	1:F:2557:LEU:HD13	2.01	0.42
1:F:3352:GLU:HB2	1:F:3355:LYS:HG2	2.02	0.42
1:F:3668:LEU:HA	1:F:3671:ASN:HD21	1.85	0.42
2:G:183:ALA:HB1	2:G:216:PHE:CZ	2.54	0.42
2:G:343:PRO:HA	2:G:401:THR:OG1	2.19	0.42
2:G:420:LEU:HD23	2:G:421:ASP:O	2.20	0.42
3:H:56:LEU:O	3:H:80:HIS:N	2.52	0.42
5:I:35:DT:C4	5:I:36:DA:C6	3.07	0.42
6:D:28:DA:OP2	6:D:28:DA:H8	2.02	0.42
6:D:28:DA:H2''	6:D:29:DG:C8	2.55	0.42
6:D:37:DG:C5	6:D:38:DG:C6	3.08	0.42
1:A:374:LYS:NZ	1:A:424:LEU:HA	2.35	0.42
1:A:635:PRO:HG3	1:A:672:ILE:HB	2.01	0.42
1:A:758:LEU:O	1:A:762:TYR:N	2.53	0.42
1:A:1100:VAL:O	1:A:1104:LEU:HD23	2.20	0.42
1:A:1593:VAL:O	1:A:1597:LEU:HG	2.20	0.42
1:A:1671:VAL:O	1:A:1675:TYR:N	2.39	0.42
1:A:2094:MET:HE2	1:A:2145:PHE:CZ	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2384:PHE:HE1	2:B:154:PHE:HB2	1.84	0.42
1:A:2512:ASP:OD2	1:A:2515:PRO:HA	2.20	0.42
1:A:2908:LYS:HZ1	1:A:2916:LEU:HB2	1.85	0.42
1:A:3700:GLU:HG2	1:A:3717:VAL:C	2.40	0.42
1:A:3920:ILE:HD12	1:A:3920:ILE:H	1.85	0.42
2:B:49:PHE:HB2	2:B:137:HIS:NE2	2.35	0.42
2:B:420:LEU:HB2	2:B:426:GLN:OE1	2.20	0.42
2:B:463:LYS:NZ	3:C:386:ASP:OD1	2.53	0.42
3:C:234:LEU:HA	3:C:237:PHE:CD2	2.55	0.42
3:C:645:GLU:HA	3:C:648:LYS:HG2	2.02	0.42
1:F:980:THR:O	1:F:983:LEU:HG	2.20	0.42
1:F:1102:GLU:OE2	1:F:1151:ARG:HB3	2.19	0.42
1:F:1675:TYR:O	1:F:1679:LEU:HG	2.20	0.42
1:F:2185:MET:O	1:F:2188:GLU:HG2	2.20	0.42
1:F:2254:ARG:HD2	1:F:2294:ILE:HG23	2.02	0.42
1:F:2296:SER:O	1:F:2300:PHE:HE2	2.03	0.42
1:F:2559:THR:O	1:F:2563:LEU:HG	2.19	0.42
1:F:3180:ASP:O	1:F:3184:THR:HG23	2.20	0.42
1:F:3716:HIS:H	1:F:3718:ARG:HH12	1.66	0.42
2:G:193:LEU:HA	2:G:196:THR:HB	2.00	0.42
2:G:360:HIS:CD2	2:G:438:PRO:HD3	2.55	0.42
3:H:264:TYR:OH	3:H:368:ARG:NH1	2.48	0.42
6:D:29:DG:H2"	6:D:30:DT:C6	2.55	0.42
1:A:385:TYR:CD2	1:A:424:LEU:HG	2.55	0.41
1:A:524:TYR:CD1	1:A:629:PHE:HD1	2.37	0.41
1:A:699:GLU:CD	1:A:700:LYS:HZ3	2.23	0.41
1:A:997:ASN:HD22	1:A:999:LYS:HE2	1.84	0.41
1:A:1209:LYS:HA	1:A:1212:LEU:HG	2.01	0.41
1:A:2151:ILE:HD13	1:A:2188:GLU:HB3	2.02	0.41
1:A:2304:VAL:O	1:A:2307:MET:HG3	2.20	0.41
1:A:2359:LYS:HD3	1:A:2359:LYS:N	2.34	0.41
1:A:2393:LEU:HB2	1:A:2394:LYS:NZ	2.35	0.41
1:A:2995:GLU:O	1:A:2999:LEU:HG	2.20	0.41
1:A:3086:LEU:O	1:A:3090:TYR:HD1	2.03	0.41
1:A:3161:LEU:O	1:A:3165:THR:OG1	2.29	0.41
1:A:3443:PRO:HG3	1:A:3475:TYR:CG	2.55	0.41
1:A:3737:ARG:HA	1:A:3751:LEU:HD13	2.02	0.41
1:A:3745:GLU:O	1:A:3745:GLU:HG3	2.20	0.41
1:A:6006:UNK:O	1:A:6010:UNK:N	2.53	0.41
2:B:71:TYR:CZ	2:B:75:ILE:HD11	2.55	0.41
2:B:339:ARG:HD2	2:B:340:PHE:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:348:SER:O	3:C:351:VAL:HG22	2.20	0.41
1:F:131:LEU:HD12	1:F:132:ILE:N	2.34	0.41
1:F:452:LYS:O	1:F:455:LEU:HB2	2.20	0.41
1:F:484:HIS:HD2	1:F:571:SER:CA	2.32	0.41
1:F:651:TYR:O	1:F:654:ILE:HG22	2.19	0.41
1:F:1477:HIS:HB3	1:F:1481:THR:HG23	2.02	0.41
1:F:1769:GLU:O	1:F:1772:HIS:ND1	2.49	0.41
1:F:1900:PHE:O	1:F:1904:CYS:N	2.53	0.41
1:F:2195:SER:O	1:F:5009:UNK:N	2.53	0.41
1:F:2224:PHE:HA	1:F:2231:PHE:HE1	1.84	0.41
1:F:2228:ARG:H	1:F:2231:PHE:CB	2.32	0.41
1:F:3920:ILE:HG21	1:F:3942:PHE:CD1	2.55	0.41
1:F:3962:ARG:HG3	1:F:3967:PHE:HE2	1.83	0.41
1:F:3980:MET:HA	1:F:3983:ILE:CG2	2.45	0.41
2:G:376:ILE:HB	3:H:540:ILE:CG2	2.50	0.41
2:G:534:TYR:H	3:H:260:ARG:NH2	2.18	0.41
3:H:56:LEU:HD22	3:H:94:ILE:HG12	2.02	0.41
3:H:283:THR:HG23	3:H:285:LYS:H	1.85	0.41
3:H:357:MET:O	3:H:422:VAL:HG13	2.20	0.41
1:A:138:PHE:HZ	1:A:183:GLU:HB3	1.85	0.41
1:A:243:GLN:CD	1:A:246:ARG:HH21	2.23	0.41
1:A:379:LYS:HG3	1:A:380:ASP:OD1	2.19	0.41
1:A:485:GLN:HE21	1:A:6014:UNK:CB	2.34	0.41
1:A:521:VAL:N	1:A:522:PRO:HD2	2.35	0.41
1:A:899:ARG:CZ	1:A:2568:MET:HB3	2.50	0.41
1:A:909:VAL:O	1:A:912:PRO:HD2	2.20	0.41
1:A:1143:VAL:HA	1:A:1146:ASN:ND2	2.35	0.41
1:A:1511:ALA:HA	1:A:1514:LEU:HD12	2.01	0.41
1:A:1676:ILE:O	1:A:1680:ALA:N	2.49	0.41
1:A:1870:LYS:O	1:A:1873:TYR:HB2	2.19	0.41
1:A:1891:ALA:HB1	1:A:1894:SER:HA	2.02	0.41
1:A:2129:LEU:HA	1:A:2132:LYS:NZ	2.36	0.41
1:A:2203:THR:HB	1:A:2248:CYS:SG	2.60	0.41
1:A:2238:ILE:HD12	1:A:2238:ILE:H	1.85	0.41
1:A:2443:MET:HE2	1:A:2479:TRP:HE3	1.77	0.41
1:A:2499:PHE:O	1:A:2503:LYS:HG3	2.20	0.41
1:A:2546:TYR:HA	1:A:2554:PHE:CZ	2.55	0.41
1:A:2918:PRO:HB2	1:A:2922:ARG:NH2	2.28	0.41
1:A:2970:LYS:HA	1:A:2970:LYS:HD3	1.90	0.41
1:A:3008:TRP:CZ2	1:A:3050:LYS:HD2	2.55	0.41
1:A:3190:LEU:HD21	1:A:3234:CYS:SG	2.61	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3315:TYR:O	1:A:3320:ILE:N	2.52	0.41
1:A:3604:LYS:HA	1:A:3604:LYS:HD3	1.85	0.41
1:A:3750:PHE:CE2	1:A:3804:GLU:HB3	2.54	0.41
1:A:3967:PHE:O	1:A:3970:LEU:HB2	2.20	0.41
1:A:4055:ASN:CB	1:A:4095:GLU:HA	2.50	0.41
1:A:4064:LEU:O	1:A:4068:HIS:N	2.52	0.41
2:B:114:LYS:O	2:B:117:LEU:HB2	2.21	0.41
2:B:351:LYS:N	2:B:395:ALA:O	2.50	0.41
2:B:400:TYR:CZ	2:B:402:PRO:HA	2.54	0.41
3:C:624:LEU:HD12	3:C:632:PHE:HB2	2.01	0.41
1:F:152:LEU:HD13	1:F:155:LYS:CE	2.50	0.41
1:F:386:VAL:O	1:F:389:ILE:HG22	2.20	0.41
1:F:441:MET:HA	1:F:444:ASP:OD2	2.20	0.41
1:F:1029:CYS:SG	1:F:1030:GLY:N	2.94	0.41
1:F:1583:MET:O	1:F:1586:SER:OG	2.29	0.41
1:F:1722:PHE:HE2	1:F:1742:CYS:SG	2.43	0.41
1:F:1747:LEU:O	1:F:1750:LEU:N	2.52	0.41
1:F:2145:PHE:O	1:F:2149:LEU:HG	2.20	0.41
1:F:2224:PHE:HD1	1:F:2231:PHE:HE1	1.65	0.41
1:F:2507:ILE:HA	1:F:2510:LEU:HD23	2.02	0.41
1:F:3320:ILE:O	1:F:3323:PHE:HB3	2.20	0.41
1:F:3521:ILE:O	1:F:3525:TYR:N	2.37	0.41
1:F:3734:ARG:O	1:F:3736:LYS:NZ	2.52	0.41
1:F:3813:LYS:CD	1:F:3925:LEU:HD22	2.48	0.41
1:F:3816:LEU:HD11	1:F:3882:LEU:HD11	2.01	0.41
1:F:3835:PRO:HA	1:F:3839:TYR:CD2	2.55	0.41
1:F:4089:ILE:HD12	1:F:4092:GLN:HB2	2.01	0.41
2:G:46:LYS:HA	2:G:137:HIS:NE2	2.35	0.41
2:G:122:PHE:C	2:G:127:GLY:HA3	2.41	0.41
2:G:147:LEU:C	2:G:189:LYS:HE2	2.41	0.41
2:G:259:LEU:O	2:G:271:VAL:O	2.38	0.41
3:H:488:GLN:HE22	3:H:489:ARG:HD2	1.85	0.41
3:H:496:HIS:NE2	3:H:503:GLU:OE1	2.53	0.41
5:I:37:DT:H2'	5:I:38:DT:C5	2.55	0.41
1:A:255:ALA:O	1:A:258:PRO:HD2	2.20	0.41
1:A:559:SER:O	1:A:561:ASN:N	2.53	0.41
1:A:638:GLN:H	1:A:638:GLN:CD	2.20	0.41
1:A:871:LEU:HD22	1:A:3122:HIS:CE1	2.54	0.41
1:A:924:ARG:O	1:A:928:VAL:HG22	2.20	0.41
1:A:1038:LYS:HG3	1:A:1039:TRP:CE3	2.56	0.41
1:A:1202:ARG:HG3	1:A:1207:TRP:HD1	1.84	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1288:SER:HB2	1:A:1290:LEU:HD13	2.02	0.41
1:A:1324:PRO:HA	1:A:1328:GLU:OE2	2.20	0.41
1:A:1506:SER:OG	1:A:1507:CYS:N	2.53	0.41
1:A:1910:GLU:HG2	3:H:732:ILE:HG23	2.01	0.41
1:A:2253:TYR:H	1:A:2256:ILE:HD13	1.85	0.41
1:A:2539:LEU:HD23	1:A:2543:ASN:ND2	2.34	0.41
1:A:2805:ALA:O	1:A:2808:LEU:HB2	2.19	0.41
1:A:2832:ILE:HA	1:A:2835:LYS:HE2	2.02	0.41
1:A:2936:TYR:HD1	1:A:2940:ARG:HH12	1.69	0.41
1:A:3839:TYR:HA	1:A:3842:TRP:HB3	2.02	0.41
2:B:75:ILE:HG23	2:B:111:PRO:HB2	2.01	0.41
3:C:185:LEU:HB3	3:C:514:ASN:HD22	1.85	0.41
3:C:273:LYS:NZ	3:C:274:LYS:HE2	2.36	0.41
1:F:477:ASN:O	1:F:481:THR:HG23	2.21	0.41
1:F:571:SER:O	1:F:575:ILE:HG13	2.20	0.41
1:F:1212:LEU:CD1	1:F:1213:LYS:HG3	2.50	0.41
1:F:1601:LEU:O	1:F:1604:SER:OG	2.37	0.41
1:F:2388:LYS:H	1:F:2394:LYS:NZ	2.18	0.41
1:F:2584:CYS:SG	1:F:2780:LEU:HB2	2.60	0.41
1:F:3130:GLN:HA	1:F:3133:GLN:HE22	1.86	0.41
1:F:3232:ARG:O	1:F:3235:LYS:HG3	2.20	0.41
1:F:3239:LYS:HE2	1:F:3262:LEU:HD11	2.03	0.41
1:F:3341:LEU:HD22	1:F:3374:ILE:HD13	2.02	0.41
1:F:3683:CYS:O	1:F:3685:PRO:HD3	2.20	0.41
1:F:3733:ARG:HB2	1:F:3753:LYS:CE	2.50	0.41
2:G:461:LYS:NZ	2:G:525:PHE:HB3	2.35	0.41
2:G:482:VAL:HG12	2:G:486:HIS:CE1	2.53	0.41
3:H:185:LEU:HD22	3:H:510:GLN:OE1	2.20	0.41
3:H:656:ASN:O	3:H:660:LYS:HG2	2.19	0.41
4:J:29:DG:C5	4:J:30:DT:C4	3.09	0.41
7:E:28:DT:C4	7:E:29:DA:N6	2.88	0.41
1:A:332:GLU:HA	1:A:335:LYS:HG3	2.02	0.41
1:A:411:PRO:O	1:A:414:LEU:HD23	2.21	0.41
1:A:656:GLN:O	1:A:660:LEU:N	2.43	0.41
1:A:1601:LEU:HB3	1:A:1651:LYS:HG2	2.01	0.41
1:A:1878:ASP:OD1	1:A:1879:VAL:HG23	2.19	0.41
1:A:3033:GLU:CG	1:A:3034:PRO:HD3	2.48	0.41
1:A:3390:GLN:H	1:A:3390:GLN:HG3	1.73	0.41
1:A:3496:ILE:HG21	1:A:3707:GLY:N	2.30	0.41
1:A:4017:GLU:OE2	1:A:4036:LYS:NZ	2.53	0.41
2:B:125:GLN:O	2:B:129:LYS:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:115:MET:HA	3:C:118:ILE:HG22	2.02	0.41
3:C:314:PHE:HB2	3:C:323:PHE:CE2	2.56	0.41
3:C:599:ARG:NH2	3:C:645:GLU:HG3	2.35	0.41
3:C:610:GLU:HA	3:C:654:ARG:HH12	1.84	0.41
1:F:722:LYS:CA	1:F:726:LEU:HD23	2.44	0.41
1:F:1005:ASP:O	1:F:1009:LEU:HG	2.20	0.41
1:F:1145:LEU:HB3	1:F:1165:LEU:HD21	2.02	0.41
1:F:1214:GLU:HG3	1:F:1215:GLU:H	1.85	0.41
1:F:1374:GLN:CG	1:F:1422:LYS:HE2	2.51	0.41
1:F:1419:LEU:HD11	1:F:1458:LEU:HD11	2.02	0.41
1:F:1760:GLU:O	1:F:1763:THR:N	2.54	0.41
1:F:2142:ILE:H	1:F:2142:ILE:HD12	1.85	0.41
1:F:2201:THR:HA	1:F:2245:TRP:NE1	2.35	0.41
1:F:2916:LEU:HD13	1:F:2920:VAL:HG11	2.02	0.41
1:F:3064:PHE:HA	1:F:3067:LYS:HD2	2.02	0.41
1:F:3107:ILE:HD11	1:F:3135:LEU:HD21	2.01	0.41
1:F:3737:ARG:HD2	1:F:3738:ILE:N	2.34	0.41
1:F:3758:LEU:CB	1:F:3762:GLN:HE22	2.32	0.41
1:F:4003:ASP:O	1:F:4007:LYS:HG2	2.21	0.41
2:G:125:GLN:HA	2:G:128:GLN:HG3	2.03	0.41
2:G:176:HIS:NE2	2:G:180:SER:HA	2.34	0.41
3:H:37:VAL:HB	3:H:41:PHE:CE1	2.54	0.41
3:H:198:THR:O	3:H:202:LYS:N	2.49	0.41
3:H:205:LEU:HA	3:H:208:VAL:HG22	2.03	0.41
3:H:640:ARG:HH21	3:H:682:GLY:HA2	1.85	0.41
6:D:22:DG:N2	6:D:23:DT:C2	2.88	0.41
7:E:33:DA:H5'	7:E:33:DA:C8	2.54	0.41
1:A:212:VAL:C	1:A:213:ARG:HD3	2.41	0.41
1:A:297:LEU:O	1:A:301:CYS:N	2.53	0.41
1:A:635:PRO:HG3	1:A:672:ILE:HD12	2.01	0.41
1:A:726:LEU:O	1:A:730:LEU:HG	2.20	0.41
1:A:855:VAL:O	1:A:859:LEU:HG	2.20	0.41
1:A:857:GLN:CD	1:A:857:GLN:N	2.72	0.41
1:A:1147:LYS:HD3	1:A:1149:LYS:HD3	2.01	0.41
1:A:1223:THR:C	1:A:1225:GLU:H	2.22	0.41
1:A:1973:LYS:HZ1	1:A:1978:PHE:HB2	1.86	0.41
1:A:1977:ILE:HG21	1:A:2090:ARG:HH21	1.86	0.41
1:A:2195:SER:HB2	1:A:2196:TRP:CE3	2.55	0.41
1:A:2257:PHE:HA	1:A:2260:PHE:CE2	2.56	0.41
1:A:2574:ASN:HB2	1:A:2787:HIS:CD2	2.51	0.41
1:A:2813:PHE:O	1:A:2817:LEU:HD23	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2897:LEU:HD22	1:A:2923:TRP:CE2	2.55	0.41
1:A:3290:SER:OG	1:A:3293:CYS:HB3	2.21	0.41
1:A:3646:LYS:HD3	1:A:3653:ARG:HB2	2.02	0.41
1:A:3952:PHE:HE1	1:A:4036:LYS:HZ1	1.68	0.41
2:B:298:THR:HA	3:C:295:TYR:CE1	2.55	0.41
2:B:410:PHE:HZ	3:C:516:LEU:HD22	1.86	0.41
3:C:142:PHE:CE1	3:C:200:GLN:HA	2.56	0.41
3:C:668:ILE:HG13	3:C:669:LYS:N	2.36	0.41
1:F:173:LYS:HD3	1:F:173:LYS:N	2.35	0.41
1:F:176:GLU:OE2	1:F:226:GLY:HA3	2.20	0.41
1:F:275:PHE:HE2	1:F:319:PHE:HB2	1.85	0.41
1:F:719:LYS:HE3	1:F:719:LYS:HB3	1.87	0.41
1:F:1297:PHE:HA	1:F:1300:SER:HG	1.85	0.41
1:F:1395:LEU:HD23	1:F:1396:PRO:HD3	2.02	0.41
1:F:1538:LEU:H	1:F:1553:PHE:H	1.67	0.41
1:F:1854:ARG:HH12	3:H:725:VAL:CG1	2.31	0.41
1:F:2307:MET:SD	1:F:2319:ALA:HB3	2.61	0.41
1:F:2791:ILE:HA	1:F:2794:LEU:HD12	2.02	0.41
1:F:2797:VAL:HG13	1:F:2804:ILE:HG21	2.02	0.41
1:F:2891:ARG:HA	1:F:2894:GLU:OE1	2.20	0.41
1:F:3117:ILE:HG22	1:F:3118:ASP:O	2.21	0.41
1:F:3468:LEU:HA	1:F:3471:ILE:HG22	2.02	0.41
1:F:3772:ASN:HA	1:F:3775:LEU:HD12	2.02	0.41
1:F:4061:CYS:HB2	1:F:4078:VAL:HG13	2.02	0.41
1:F:6006:UNK:O	1:F:6010:UNK:N	2.53	0.41
2:G:54:GLU:HB3	2:G:56:GLU:CD	2.41	0.41
2:G:90:THR:HA	2:G:135:MET:HE3	2.03	0.41
2:G:126:GLN:O	2:G:130:ARG:NH1	2.54	0.41
2:G:190:ALA:O	2:G:193:LEU:HG	2.20	0.41
3:H:57:VAL:HG12	3:H:79:VAL:HG22	2.03	0.41
3:H:443:LYS:H	3:H:443:LYS:HG2	1.69	0.41
4:J:21:DA:H1'	4:J:22:DG:H8	1.85	0.41
1:A:70:ARG:NH1	1:A:82:ARG:NH2	2.68	0.41
1:A:146:GLU:HB2	1:A:183:GLU:HA	2.01	0.41
1:A:421:LEU:HD12	1:A:424:LEU:HB2	2.02	0.41
1:A:646:VAL:HG23	1:A:647:TYR:N	2.35	0.41
1:A:835:LYS:HD2	1:A:835:LYS:O	2.20	0.41
1:A:1069:HIS:CG	1:A:1074:LYS:HE2	2.55	0.41
1:A:1126:GLN:OE1	1:A:1126:GLN:N	2.46	0.41
1:A:1244:LEU:HD21	1:A:1312:CYS:SG	2.60	0.41
1:A:1578:ALA:O	1:A:1582:LEU:HG	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1978:PHE:CG	1:A:1979:GLU:N	2.89	0.41
1:A:2892:LEU:HD23	1:A:2892:LEU:HA	1.92	0.41
1:A:2908:LYS:HE3	1:A:2915:ARG:NH1	2.36	0.41
1:A:3090:TYR:CE1	1:A:3102:TYR:HE2	2.38	0.41
1:A:3114:TYR:HA	1:A:3117:ILE:HG12	2.01	0.41
1:A:3328:ILE:HD11	1:A:3412:ALA:HB2	2.03	0.41
1:A:3421:ASP:OD2	1:A:3467:ARG:HG2	2.20	0.41
1:A:3450:MET:HE1	1:A:3468:LEU:HD22	2.01	0.41
1:A:3533:PHE:O	1:A:3537:SER:OG	2.34	0.41
1:A:3533:PHE:HA	1:A:3536:SER:HB3	2.03	0.41
2:B:143:LEU:HA	2:B:146:VAL:HB	2.03	0.41
2:B:186:ALA:HA	2:B:189:LYS:HZ1	1.86	0.41
2:B:238:LYS:O	2:B:242:LEU:N	2.44	0.41
2:B:403:ARG:HH11	2:B:404:ARG:HB3	1.84	0.41
3:C:493:CYS:HB3	3:C:506:PRO:HG3	2.02	0.41
1:F:262:LEU:HD13	4:J:20:DT:OP1	2.20	0.41
1:F:859:LEU:O	1:F:862:LEU:HB3	2.20	0.41
1:F:1297:PHE:HA	1:F:1301:ILE:HG12	2.02	0.41
1:F:1529:VAL:HG11	1:F:1581:GLU:OE1	2.20	0.41
1:F:1769:GLU:OE2	1:F:1770:GLN:N	2.50	0.41
1:F:1812:LEU:N	1:F:1815:THR:OG1	2.54	0.41
1:F:2180:GLU:OE2	1:F:2222:HIS:ND1	2.41	0.41
1:F:2421:VAL:HG23	1:F:2457:PRO:HG3	2.03	0.41
1:F:3046:ARG:HG2	1:F:3050:LYS:NZ	2.29	0.41
1:F:3072:GLU:HG2	1:F:3073:LEU:N	2.35	0.41
1:F:3617:LEU:HB3	1:F:3640:PHE:CD1	2.56	0.41
1:F:3629:ARG:O	1:F:3633:ILE:HG23	2.21	0.41
1:F:3842:TRP:HB3	1:F:3858:MET:HG2	2.01	0.41
1:F:3980:MET:O	1:F:3983:ILE:HG22	2.20	0.41
1:F:4079:ALA:HA	1:F:4082:ARG:NH1	2.35	0.41
1:F:4082:ARG:O	1:F:4090:ARG:HG3	2.20	0.41
3:H:134:ILE:O	3:H:164:PHE:HD2	2.02	0.41
3:H:295:TYR:H	3:H:307:LYS:HE3	1.86	0.41
3:H:601:LEU:HA	3:H:604:GLN:HG2	2.02	0.41
4:J:29:DG:C2	4:J:30:DT:C2	3.09	0.41
1:A:30:ALA:HA	1:A:33:GLN:NE2	2.35	0.41
1:A:232:CYS:HB2	1:A:278:HIS:CD2	2.56	0.41
1:A:295:GLU:HG2	1:A:296:VAL:N	2.36	0.41
1:A:364:ARG:HA	1:A:416:SER:OG	2.20	0.41
1:A:429:GLU:HA	1:A:432:THR:HG23	2.01	0.41
1:A:649:PHE:N	1:A:649:PHE:CD1	2.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:800:LEU:HD21	1:A:855:VAL:HG11	2.01	0.41
1:A:893:SER:HB3	1:A:905:ILE:O	2.20	0.41
1:A:894:PHE:HB3	1:A:905:ILE:HD11	2.03	0.41
1:A:1033:ILE:O	1:A:1037:LEU:N	2.35	0.41
1:A:1086:TYR:CD2	1:A:1133:HIS:CE1	3.09	0.41
1:A:1102:GLU:OE1	1:A:1102:GLU:N	2.34	0.41
1:A:1274:ARG:HA	1:A:1274:ARG:NE	2.34	0.41
1:A:1685:ASP:OD2	1:A:1687:HIS:NE2	2.53	0.41
1:A:1971:PRO:HA	1:A:1974:ASN:OD1	2.21	0.41
1:A:2152:ASN:OD1	1:A:2153:THR:HG23	2.20	0.41
1:A:2175:GLU:HG3	1:A:2176:ASN:N	2.35	0.41
1:A:2190:VAL:HG21	1:A:2241:LEU:HD11	2.02	0.41
1:A:2510:LEU:CD1	1:A:2521:ILE:HG21	2.50	0.41
1:A:2554:PHE:HB3	1:A:2854:PHE:HE1	1.85	0.41
1:A:2787:HIS:O	1:A:2790:LEU:HB3	2.20	0.41
1:A:2939:LEU:O	1:A:2943:PHE:N	2.51	0.41
1:A:3134:ALA:O	1:A:3138:ILE:HG13	2.20	0.41
1:A:3389:VAL:HA	1:A:3392:ALA:HB3	2.02	0.41
1:A:3646:LYS:HD3	1:A:3650:LYS:HA	2.03	0.41
1:A:4034:ALA:HA	1:A:4036:LYS:NZ	2.36	0.41
2:B:35:ARG:HG2	2:B:80:ARG:NH1	2.35	0.41
2:B:296:VAL:HG23	3:C:295:TYR:HB3	2.02	0.41
3:C:112:ILE:HG13	3:C:112:ILE:H	1.75	0.41
3:C:496:HIS:NE2	3:C:506:PRO:HA	2.35	0.41
3:C:526:SER:O	3:C:529:PRO:HD2	2.21	0.41
1:F:138:PHE:HE2	1:F:177:LEU:HD13	1.86	0.41
1:F:148:LYS:O	1:F:152:LEU:HD23	2.21	0.41
1:F:229:SER:O	1:F:233:ASN:ND2	2.49	0.41
1:F:259:GLN:OE1	1:F:261:ASP:HB3	2.21	0.41
1:F:671:SER:HB3	1:F:732:PHE:HA	2.02	0.41
1:F:866:ILE:H	1:F:866:ILE:HD12	1.86	0.41
1:F:1465:HIS:HA	1:F:1468:LEU:HB2	2.02	0.41
1:F:2490:GLU:HG2	1:F:2495:SER:HB2	2.03	0.41
1:F:2991:LYS:HG2	1:F:2994:TRP:CZ3	2.55	0.41
1:F:3963:LEU:HA	1:F:3967:PHE:HD2	1.86	0.41
2:G:451:LYS:HG3	2:G:452:ILE:H	1.86	0.41
3:H:98:ILE:HD12	3:H:98:ILE:HA	1.94	0.41
3:H:113:VAL:O	3:H:117:VAL:HG13	2.20	0.41
3:H:202:LYS:O	3:H:205:LEU:HG	2.21	0.41
3:H:509:GLN:OE1	3:H:512:ILE:HG23	2.20	0.41
4:J:27:DT:H2"	4:J:28:DA:N7	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:544:ILE:HA	1:A:547:ASP:OD2	2.21	0.41
1:A:1274:ARG:HA	1:A:1274:ARG:NH1	2.36	0.41
1:A:1900:PHE:HD2	1:A:1904:CYS:HG	1.66	0.41
1:A:2253:TYR:N	1:A:2256:ILE:HD13	2.35	0.41
1:A:2300:PHE:HB2	1:A:2301:GLN:NE2	2.35	0.41
1:A:2503:LYS:O	1:A:2507:ILE:HG12	2.21	0.41
1:A:2796:ALA:C	1:A:2799:GLN:HE22	2.22	0.41
1:A:3141:PHE:O	1:A:3145:ILE:HG22	2.21	0.41
1:A:3231:ILE:O	1:A:3235:LYS:HG3	2.20	0.41
1:A:3264:LYS:HA	1:A:3267:LYS:HD2	2.03	0.41
1:A:3274:VAL:HG11	1:A:3318:LYS:HE3	2.03	0.41
1:A:3368:GLU:OE1	1:A:3368:GLU:N	2.50	0.41
1:A:3695:LEU:O	1:A:3695:LEU:HD23	2.21	0.41
1:A:3727:THR:O	1:A:3737:ARG:N	2.53	0.41
1:A:3846:MET:HE2	1:A:3862:ALA:HA	2.02	0.41
2:B:164:LYS:HD2	2:B:198:ILE:HG13	2.02	0.41
2:B:420:LEU:HA	2:B:426:GLN:HA	2.02	0.41
2:B:438:PRO:O	3:C:480:THR:HA	2.21	0.41
3:C:315:ARG:HA	3:C:320:ILE:HD13	2.02	0.41
3:C:512:ILE:O	3:C:515:MET:HG2	2.21	0.41
1:F:211:ALA:HB1	3:H:548:VAL:HA	2.02	0.41
1:F:583:LEU:HA	1:F:615:ALA:H	1.85	0.41
1:F:677:ALA:O	1:F:680:ILE:HG22	2.20	0.41
1:F:833:HIS:O	1:F:833:HIS:CG	2.73	0.41
1:F:1146:ASN:OD1	1:F:1165:LEU:HD12	2.21	0.41
1:F:1241:LEU:HB3	1:F:1256:TRP:CE3	2.55	0.41
1:F:1709:GLU:H	1:F:1709:GLU:CD	2.24	0.41
1:F:2353:GLN:HA	1:F:2356:MET:CG	2.50	0.41
1:F:2472:GLN:HA	1:F:2475:ASN:OD1	2.21	0.41
1:F:3182:ILE:HG13	1:F:3183:ILE:N	2.36	0.41
1:F:3315:TYR:HD2	1:F:3323:PHE:CA	2.34	0.41
1:F:3548:GLY:H	1:F:3550:LYS:NZ	2.18	0.41
1:F:3564:GLN:O	1:F:3568:ILE:HD11	2.20	0.41
2:G:299:LYS:O	3:H:293:THR:HA	2.19	0.41
2:G:413:LEU:HA	2:G:434:LEU:HA	2.02	0.41
3:H:513:TRP:HA	3:H:516:LEU:HB3	2.02	0.41
5:I:35:DT:C4	5:I:36:DA:N6	2.89	0.41
6:D:16:DA:N6	7:E:42:DA:C6	2.89	0.41
1:A:39:GLY:O	1:A:43:VAL:HG23	2.21	0.41
1:A:321:LYS:O	1:A:324:SER:CB	2.68	0.41
1:A:337:LYS:HE2	1:A:337:LYS:HB3	1.73	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:339:GLN:HE22	3:C:570:GLU:CD	2.23	0.41
1:A:349:ILE:HD12	1:A:349:ILE:HA	1.93	0.41
1:A:848:LEU:O	1:A:851:ILE:HB	2.19	0.41
1:A:990:GLN:HG3	1:A:2781:PRO:HG3	2.02	0.41
1:A:1013:ILE:HD12	1:A:1033:ILE:HD11	2.03	0.41
1:A:1145:LEU:O	1:A:1165:LEU:HG	2.20	0.41
1:A:1301:ILE:HD12	1:A:1330:TYR:OH	2.21	0.41
1:A:1322:THR:OG1	1:A:1325:GLN:NE2	2.54	0.41
1:A:1365:ASN:OD1	1:A:1366:THR:N	2.54	0.41
1:A:1412:LYS:HD2	1:A:1415:LEU:HD22	2.03	0.41
1:A:1479:VAL:HG23	1:A:1524:LEU:HD21	2.03	0.41
1:A:1492:ALA:CB	1:A:1555:HIS:HE1	2.34	0.41
1:A:1576:ASP:OD1	1:A:1577:LEU:HD22	2.20	0.41
1:A:1584:GLN:HA	1:A:1628:LYS:HZ2	1.86	0.41
1:A:1667:SER:O	1:A:1671:VAL:HG22	2.21	0.41
1:A:1860:GLU:O	1:A:1863:PHE:HB3	2.20	0.41
1:A:2102:LYS:HD2	1:A:2105:HIS:HB3	2.01	0.41
1:A:2127:LYS:HA	1:A:2127:LYS:HD2	1.84	0.41
1:A:2151:ILE:HG12	1:A:2188:GLU:HG2	2.02	0.41
1:A:2234:ASN:HA	1:A:2237:ILE:HD13	2.03	0.41
1:A:2320:ALA:CB	1:A:2366:LYS:HB2	2.51	0.41
1:A:2357:GLU:OE1	1:A:2357:GLU:N	2.53	0.41
1:A:2455:LEU:O	1:A:2459:VAL:HG22	2.21	0.41
1:A:2455:LEU:O	1:A:2459:VAL:N	2.33	0.41
1:A:2530:ARG:HG3	1:A:2531:LEU:HD13	2.03	0.41
1:A:3147:LYS:HD2	1:A:3150:ASN:OD1	2.21	0.41
1:A:3160:LEU:O	1:A:3163:THR:HB	2.21	0.41
1:A:3283:LEU:CD2	1:A:3287:ARG:HH21	2.30	0.41
1:A:3415:THR:O	1:A:3418:ASP:HB3	2.20	0.41
1:A:3549:HIS:O	1:A:3552:LYS:N	2.54	0.41
1:A:3588:TRP:CZ2	1:A:3613:MET:CB	3.04	0.41
1:A:3689:ASP:O	1:A:3691:LYS:HE2	2.21	0.41
1:A:3753:LYS:NZ	1:A:3756:GLU:O	2.54	0.41
1:A:3758:LEU:O	1:A:3762:GLN:N	2.34	0.41
1:A:3867:THR:HA	1:A:3870:SER:HG	1.86	0.41
1:A:3968:ILE:HD13	1:A:3976:GLU:HB2	2.03	0.41
1:A:3981:TYR:O	1:A:3985:VAL:HG23	2.21	0.41
1:A:4016:PHE:O	1:A:4020:MET:N	2.53	0.41
1:A:4021:LEU:HA	1:A:4027:TRP:CD1	2.55	0.41
2:B:185:ARG:O	2:B:189:LYS:HG2	2.21	0.41
2:B:404:ARG:HH11	2:B:405:ASN:ND2	2.19	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:7:LYS:HB2	3:C:7:LYS:HE3	1.76	0.41
3:C:19:THR:OG1	3:C:104:GLN:OE1	2.39	0.41
3:C:81:ARG:NE	3:C:81:ARG:HA	2.35	0.41
3:C:167:PHE:HZ	3:C:197:ILE:HG21	1.86	0.41
3:C:347:LYS:HD3	3:C:389:MET:SD	2.61	0.41
3:C:447:THR:O	3:C:450:GLN:HG2	2.21	0.41
3:C:552:GLU:HG3	3:C:553:ILE:N	2.36	0.41
3:C:629:THR:N	3:C:630:PRO:HD2	2.35	0.41
3:C:674:PHE:O	3:C:678:VAL:HG23	2.21	0.41
1:F:116:THR:OG1	3:H:302:GLU:HG2	2.20	0.41
1:F:392:CYS:O	1:F:397:LEU:HD23	2.21	0.41
1:F:736:LEU:HB3	1:F:740:ILE:CG2	2.48	0.41
1:F:981:ARG:HG2	1:F:981:ARG:H	1.65	0.41
1:F:1172:LEU:HD23	1:F:1194:PHE:HE2	1.86	0.41
1:F:1194:PHE:O	1:F:1198:LEU:HG	2.21	0.41
1:F:1260:LEU:HD21	1:F:1341:ILE:HD11	2.02	0.41
1:F:1264:LEU:HG	1:F:1344:PHE:HB2	2.01	0.41
1:F:1299:GLU:OE1	1:F:1299:GLU:N	2.53	0.41
1:F:1456:LYS:HG3	1:F:1460:ARG:HH22	1.86	0.41
1:F:1558:TYR:O	1:F:1562:LEU:HG	2.20	0.41
1:F:1573:LYS:H	1:F:1573:LYS:HD2	1.86	0.41
1:F:1684:LEU:C	1:F:1689:LYS:HZ3	2.24	0.41
1:F:2140:LEU:N	1:F:2143:ARG:HH21	2.18	0.41
1:F:2150:VAL:O	1:F:2154:GLU:HB3	2.21	0.41
1:F:2224:PHE:O	1:F:2224:PHE:CG	2.74	0.41
1:F:2264:ASP:OD2	1:F:2269:ASP:N	2.54	0.41
1:F:2426:HIS:CG	1:F:2427:ARG:N	2.88	0.41
1:F:2878:ALA:O	1:F:2881:LEU:HB2	2.21	0.41
1:F:2897:LEU:HD21	1:F:2923:TRP:CH2	2.55	0.41
1:F:3009:LYS:HD2	1:F:3051:LEU:HD21	2.02	0.41
1:F:3099:ALA:O	1:F:3103:ILE:HG13	2.21	0.41
1:F:3352:GLU:OE1	1:F:3356:ALA:N	2.54	0.41
1:F:3666:LEU:HD12	1:F:3666:LEU:HA	1.89	0.41
1:F:3669:LYS:HG3	1:F:3670:MET:HE2	2.03	0.41
1:F:3823:GLU:H	1:F:3823:GLU:CD	2.24	0.41
2:G:283:PRO:O	3:H:314:PHE:HE2	2.04	0.41
2:G:486:HIS:O	2:G:490:LEU:HG	2.20	0.41
3:H:163:PHE:O	3:H:225:TYR:HB2	2.21	0.41
3:H:469:LYS:HA	3:H:469:LYS:HD3	1.95	0.41
1:A:190:ILE:O	1:A:193:ALA:N	2.54	0.41
1:A:203:GLU:OE2	1:A:206:THR:HB	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:247:GLU:HB3	1:A:251:PHE:CE2	2.55	0.41
1:A:264:ARG:HG2	1:A:265:TYR:H	1.86	0.41
1:A:429:GLU:OE1	1:A:429:GLU:N	2.31	0.41
1:A:647:TYR:CD2	1:A:703:CYS:HB3	2.56	0.41
1:A:1465:HIS:HA	1:A:1468:LEU:HB3	2.03	0.41
1:A:1642:LYS:O	1:A:1646:LEU:HG	2.21	0.41
1:A:1855:PHE:HA	1:A:1863:PHE:HE1	1.86	0.41
1:A:1871:MET:HA	1:A:1874:TYR:CD2	2.56	0.41
1:A:2316:TYR:OH	1:A:2359:LYS:HD2	2.21	0.41
1:A:2421:VAL:CG2	1:A:2457:PRO:HG3	2.44	0.41
1:A:2510:LEU:HD13	1:A:2521:ILE:HG21	2.03	0.41
1:A:2965:TYR:HB2	1:A:3005:LEU:HD21	2.03	0.41
1:A:3008:TRP:HD1	1:A:3011:LEU:HD22	1.86	0.41
1:A:3054:GLN:HB2	1:A:3056:GLU:OE2	2.21	0.41
1:A:3085:GLU:O	1:A:3088:LEU:HB3	2.21	0.41
1:A:3252:PHE:HB2	1:A:3256:MET:HE1	2.03	0.41
1:A:3546:SER:C	1:A:3549:HIS:HD1	2.24	0.41
1:A:3822:GLN:NE2	1:A:3823:GLU:OE1	2.53	0.41
1:A:3989:ARG:HG3	1:A:3989:ARG:NH1	2.36	0.41
1:A:4012:ASP:N	1:A:4015:ASN:OD1	2.54	0.41
2:B:181:ALA:O	2:B:185:ARG:HG3	2.21	0.41
2:B:413:LEU:HA	2:B:434:LEU:HA	2.03	0.41
2:B:418:GLU:OE2	3:C:437:SER:HB3	2.21	0.41
3:C:165:LEU:O	3:C:227:PHE:N	2.54	0.41
3:C:184:ARG:HB3	3:C:187:GLY:H	1.86	0.41
3:C:405:VAL:N	3:C:421:TYR:OH	2.54	0.41
3:C:602:VAL:HG23	3:C:603:LYS:HZ2	1.86	0.41
3:C:651:GLU:HG2	3:C:654:ARG:NH2	2.36	0.41
1:F:38:LEU:HD21	1:F:85:ILE:HG13	2.03	0.41
1:F:151:GLU:HG2	1:F:152:LEU:HD22	2.03	0.41
1:F:199:ALA:HA	2:G:312:LEU:HD21	2.02	0.41
1:F:454:GLN:HA	1:F:457:CYS:HB2	2.02	0.41
1:F:959:TYR:HD1	1:F:1004:GLN:OE1	2.04	0.41
1:F:962:TYR:HB3	1:F:966:PHE:CE2	2.56	0.41
1:F:1082:PHE:HE2	1:F:1133:HIS:HB2	1.85	0.41
1:F:1311:LYS:HD3	1:F:1311:LYS:HA	1.90	0.41
1:F:1601:LEU:HB3	1:F:1651:LYS:HG2	2.03	0.41
1:F:1608:ARG:HB2	1:F:1612:LYS:HZ2	1.86	0.41
1:F:1611:GLN:HB2	1:F:1613:HIS:ND1	2.36	0.41
1:F:1727:ARG:NE	1:F:1772:HIS:HA	2.36	0.41
1:F:1743:MET:O	1:F:1747:LEU:HG	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:1809:ASP:OD1	3:H:672:ASN:ND2	2.54	0.41
1:F:3019:ILE:HD13	1:F:3037:GLN:HE22	1.86	0.41
1:F:3228:SER:HA	1:F:3231:ILE:HG12	2.03	0.41
1:F:3498:TRP:HE3	1:F:3501:HIS:CE1	2.39	0.41
1:F:3750:PHE:HD1	1:F:3804:GLU:HA	1.85	0.41
1:F:3813:LYS:HG3	1:F:3926:ASN:ND2	2.36	0.41
1:F:3873:LYS:HA	1:F:3873:LYS:HD2	1.91	0.41
2:G:95:ASN:CG	2:G:98:ASN:H	2.23	0.41
3:H:90:LEU:O	3:H:94:ILE:HG13	2.21	0.41
3:H:340:PHE:CE2	3:H:393:VAL:HG21	2.56	0.41
3:H:510:GLN:HA	3:H:513:TRP:HE3	1.79	0.41
4:J:22:DG:C2	5:I:35:DT:N3	2.89	0.41
1:A:432:THR:OG1	1:A:433:PRO:HD3	2.20	0.40
1:A:785:MET:HA	1:A:788:TYR:CD2	2.46	0.40
1:A:975:ASP:HB3	1:A:980:THR:HG21	2.03	0.40
1:A:1311:LYS:HA	1:A:1311:LYS:HD3	1.69	0.40
1:A:1665:HIS:H	1:A:1668:PHE:HB3	1.85	0.40
1:A:1803:GLU:OE2	1:A:1806:ARG:NH2	2.54	0.40
1:A:1811:ARG:NH2	3:C:625:ASP:HB3	2.37	0.40
1:A:2316:TYR:HA	1:A:2319:ALA:HB3	2.03	0.40
1:A:2357:GLU:HG2	1:A:2358:ASP:H	1.83	0.40
1:A:3235:LYS:O	1:A:3238:MET:HG2	2.21	0.40
1:A:3251:ASN:ND2	1:A:3254:LEU:HB3	2.32	0.40
1:A:3272:TRP:N	1:A:3272:TRP:CD1	2.87	0.40
1:A:3466:PRO:O	1:A:3469:LEU:N	2.54	0.40
1:A:3543:LYS:HB3	1:A:3548:GLY:CA	2.48	0.40
1:A:3603:LYS:HB2	1:A:3604:LYS:NZ	2.36	0.40
1:A:3809:THR:OG1	1:A:3929:MET:HB3	2.21	0.40
1:A:3822:GLN:H	1:A:3822:GLN:HG3	1.65	0.40
1:A:3904:PHE:HA	1:A:3907:SER:OG	2.21	0.40
1:A:4075:ARG:HA	1:A:4078:VAL:HG12	2.04	0.40
2:B:262:LYS:HD3	2:B:264:ASN:O	2.20	0.40
2:B:384:ALA:HA	3:C:446:PRO:HB3	2.02	0.40
2:B:419:GLU:OE2	2:B:428:THR:HB	2.21	0.40
2:B:450:GLU:HA	3:C:416:TYR:CD1	2.55	0.40
2:B:482:VAL:HG13	3:C:333:TYR:O	2.21	0.40
3:C:326:VAL:O	3:C:330:GLN:HG2	2.20	0.40
1:F:87:LYS:HZ2	1:F:91:ILE:HG21	1.86	0.40
1:F:257:ARG:NH2	3:H:552:GLU:HB3	2.36	0.40
1:F:357:LYS:HG2	1:F:357:LYS:O	2.21	0.40
1:F:360:SER:O	1:F:363:ILE:HG22	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:393:LYS:HB3	1:F:393:LYS:HE3	1.80	0.40
1:F:536:SER:HB2	1:F:539:GLN:HE22	1.87	0.40
1:F:613:HIS:ND1	1:F:614:PRO:O	2.53	0.40
1:F:991:LEU:HB3	1:F:995:PHE:CZ	2.56	0.40
1:F:1000:LYS:HD2	1:F:1000:LYS:HA	1.86	0.40
1:F:1097:GLU:HA	1:F:1145:LEU:HD21	2.02	0.40
1:F:1123:THR:HA	1:F:1126:GLN:NE2	2.34	0.40
1:F:1282:LEU:HD12	1:F:1359:LEU:O	2.20	0.40
1:F:1915:LEU:HD22	1:F:1918:LEU:HD12	2.03	0.40
1:F:2503:LYS:HA	1:F:2503:LYS:HD3	1.84	0.40
1:F:2574:ASN:N	1:F:2786:LYS:HG3	2.36	0.40
1:F:3029:LYS:HA	1:F:3074:GLN:OE1	2.21	0.40
1:F:3061:LEU:HD23	1:F:3061:LEU:H	1.86	0.40
1:F:3182:ILE:O	1:F:3186:ARG:HG3	2.21	0.40
1:F:3420:CYS:HB2	1:F:3446:VAL:HG11	2.01	0.40
1:F:3554:PHE:HD1	1:F:3557:ARG:HE	1.69	0.40
1:F:3820:MET:CE	1:F:3882:LEU:HB2	2.51	0.40
1:F:3849:LYS:H	1:F:3854:ALA:CB	2.34	0.40
1:F:4008:GLU:OE2	1:F:4010:SER:HB3	2.21	0.40
1:F:4110:GLN:O	1:F:4116:ILE:HD11	2.22	0.40
2:G:325:ARG:HB3	2:G:327:ILE:HD11	2.03	0.40
2:G:400:TYR:O	2:G:409:TYR:N	2.50	0.40
2:G:418:GLU:HB3	2:G:426:GLN:HE22	1.85	0.40
3:H:133:GLU:OE1	3:H:133:GLU:N	2.54	0.40
4:J:33:DA:C8	4:J:34:DT:C4	3.10	0.40
1:A:17:GLU:O	1:A:21:ALA:N	2.54	0.40
1:A:134:LEU:HD23	1:A:134:LEU:HA	1.90	0.40
1:A:173:LYS:HE2	1:A:173:LYS:HB2	1.86	0.40
1:A:519:TRP:HB3	1:A:521:VAL:HG23	2.03	0.40
1:A:579:LEU:HD23	1:A:579:LEU:HA	1.91	0.40
1:A:585:ILE:HA	1:A:611:ASN:O	2.22	0.40
1:A:789:TYR:HB3	1:A:793:LEU:HD13	2.03	0.40
1:A:798:GLY:HA2	1:A:801:LYS:HG2	2.03	0.40
1:A:890:LYS:HE2	1:A:906:PHE:CG	2.57	0.40
1:A:1039:TRP:HA	1:A:1043:GLN:H	1.86	0.40
1:A:1149:LYS:HD2	1:A:1149:LYS:HA	1.88	0.40
1:A:1209:LYS:HZ1	1:A:1276:VAL:HA	1.85	0.40
1:A:1873:TYR:O	1:A:1877:LEU:HD23	2.21	0.40
1:A:2162:LYS:C	1:A:2164:TRP:H	2.24	0.40
1:A:2397:CYS:O	1:A:2401:VAL:HG23	2.22	0.40
1:A:3036:TYR:O	1:A:3039:THR:HB	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3413:TYR:HB3	1:A:3453:ALA:CB	2.51	0.40
1:A:3474:ARG:NH1	1:A:3474:ARG:HB2	2.36	0.40
1:A:3602:ASN:OD1	1:A:3602:ASN:N	2.54	0.40
1:A:3820:MET:HE1	1:A:3825:LYS:HB2	2.02	0.40
1:A:3883:LEU:HG	1:A:3884:LYS:HD3	2.03	0.40
1:A:3967:PHE:O	1:A:3970:LEU:N	2.55	0.40
1:A:4000:ASN:O	1:A:4004:VAL:HG22	2.21	0.40
2:B:49:PHE:HZ	2:B:131:PHE:HB3	1.86	0.40
2:B:219:ASP:CG	2:B:220:ILE:H	2.23	0.40
2:B:325:ARG:NH2	2:B:327:ILE:HD13	2.36	0.40
3:C:553:ILE:HG13	3:C:554:PHE:H	1.86	0.40
1:F:11:SER:O	1:F:14:ARG:HG3	2.22	0.40
1:F:132:ILE:HA	1:F:135:LEU:HD12	2.03	0.40
1:F:254:LYS:CE	1:F:268:PRO:HB3	2.52	0.40
1:F:391:ARG:O	1:F:395:MET:HG2	2.22	0.40
1:F:422:LEU:HD21	1:F:548:GLU:HG3	2.03	0.40
1:F:457:CYS:O	1:F:460:ALA:N	2.54	0.40
1:F:539:GLN:OE1	1:F:539:GLN:N	2.45	0.40
1:F:632:GLU:O	1:F:635:PRO:HD2	2.22	0.40
1:F:971:ARG:CZ	1:F:971:ARG:HA	2.50	0.40
1:F:1000:LYS:HZ3	1:F:1004:GLN:HB3	1.87	0.40
1:F:1447:ARG:HH11	1:F:1447:ARG:HB2	1.86	0.40
1:F:1504:ASP:O	1:F:1508:LYS:N	2.46	0.40
1:F:1924:THR:HG22	1:F:1924:THR:O	2.21	0.40
1:F:2216:LEU:O	1:F:2219:LEU:HB2	2.21	0.40
1:F:2287:PRO:HD3	1:F:2329:TYR:CD2	2.55	0.40
1:F:2541:ALA:O	1:F:2544:SER:OG	2.34	0.40
1:F:2555:LEU:HD13	1:F:2854:PHE:HD1	1.86	0.40
1:F:2950:LYS:HE2	1:F:2950:LYS:HB3	1.93	0.40
1:F:3269:ARG:HH11	1:F:3270:ASP:H	1.70	0.40
1:F:3333:THR:O	1:F:3337:ILE:HG12	2.21	0.40
1:F:3686:TRP:O	1:F:3690:PHE:HB2	2.21	0.40
1:F:3952:PHE:O	1:F:3953:LEU:HD22	2.21	0.40
3:H:363:LYS:HA	3:H:419:LEU:O	2.20	0.40
1:A:100:ILE:C	1:A:102:PRO:HD2	2.41	0.40
1:A:261:ASP:CG	3:C:551:GLN:HE22	2.25	0.40
1:A:346:TYR:CE2	1:A:350:ARG:HD2	2.56	0.40
1:A:939:MET:O	1:A:942:LEU:HB2	2.21	0.40
1:A:1204:PRO:O	1:A:1208:LEU:HG	2.21	0.40
1:A:1294:VAL:HA	1:A:1297:PHE:CD2	2.57	0.40
1:A:1686:LEU:O	1:A:1689:LYS:HG2	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1956:PHE:O	1:A:1956:PHE:CG	2.75	0.40
1:A:2201:THR:OG1	1:A:2203:THR:HG22	2.21	0.40
1:A:2457:PRO:HA	1:A:2460:GLU:CD	2.42	0.40
1:A:2869:LEU:HD21	1:A:2895:GLU:C	2.42	0.40
1:A:2941:GLY:HA3	1:A:3978:GLY:HA2	2.02	0.40
1:A:3144:PHE:HA	1:A:3150:ASN:ND2	2.34	0.40
1:A:3635:THR:HA	1:A:3638:LYS:HD2	2.02	0.40
2:B:204:HIS:NE2	2:B:213:ILE:HB	2.36	0.40
2:B:296:VAL:HG12	3:C:297:LEU:HA	2.03	0.40
2:B:509:PRO:HA	2:B:514:MET:SD	2.61	0.40
3:C:77:ILE:HG21	3:C:113:VAL:HG21	2.02	0.40
3:C:604:GLN:O	3:C:604:GLN:HG3	2.22	0.40
1:F:200:PHE:HB3	1:F:224:LEU:HD21	2.04	0.40
1:F:278:HIS:CD2	1:F:281:GLN:HG3	2.57	0.40
1:F:339:GLN:O	1:F:343:GLU:HG3	2.22	0.40
1:F:352:VAL:O	1:F:353:ASP:HB2	2.21	0.40
1:F:1195:VAL:HA	1:F:1198:LEU:HD12	2.03	0.40
1:F:1330:TYR:O	1:F:1334:LYS:HG3	2.21	0.40
1:F:1762:MET:HA	1:F:1765:VAL:HG12	2.03	0.40
1:F:1801:VAL:HA	1:F:1804:MET:HE2	2.02	0.40
1:F:2372:PRO:O	1:F:2374:LEU:N	2.51	0.40
1:F:2443:MET:CE	1:F:2476:ILE:HG12	2.51	0.40
1:F:2479:TRP:O	1:F:2482:ASP:HB2	2.21	0.40
1:F:2532:PRO:HB2	1:F:2537:ASP:HB3	2.02	0.40
1:F:2812:LEU:O	1:F:2816:ILE:HG12	2.21	0.40
1:F:2969:ALA:HB2	1:F:3001:CYS:SG	2.61	0.40
1:F:3006:ALA:HA	1:F:3008:TRP:CZ3	2.56	0.40
1:F:3096:VAL:HA	1:F:3099:ALA:HB3	2.04	0.40
1:F:3275:SER:HA	1:F:3278:GLN:HE22	1.86	0.40
1:F:3641:ASP:O	1:F:3642:LYS:HG2	2.21	0.40
1:F:3746:ARG:HA	1:F:3746:ARG:HH11	1.80	0.40
1:F:3813:LYS:HZ2	1:F:3925:LEU:HB3	1.85	0.40
1:F:3820:MET:HB3	1:F:3824:GLU:OE1	2.20	0.40
2:G:433:GLN:HA	2:G:433:GLN:OE1	2.20	0.40
3:H:269:GLN:NE2	3:H:359:ASN:O	2.54	0.40
1:A:11:SER:HA	1:A:14:ARG:NE	2.36	0.40
1:A:152:LEU:HD13	1:A:155:LYS:HZ3	1.86	0.40
1:A:238:MET:SD	1:A:243:GLN:HB3	2.61	0.40
1:A:267:VAL:N	1:A:268:PRO:HD2	2.37	0.40
1:A:322:GLN:C	1:A:324:SER:N	2.75	0.40
1:A:405:ASP:HB2	1:A:406:ARG:HH11	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1783:ARG:HG2	1:A:1830:HIS:NE2	2.36	0.40
1:A:1789:GLY:C	1:A:1794:GLN:HE22	2.24	0.40
1:A:1848:ILE:HA	1:A:1851:LEU:HD12	2.03	0.40
1:A:1927:MET:SD	1:A:1928:ALA:N	2.95	0.40
1:A:2840:PHE:O	1:A:2844:LEU:HD23	2.21	0.40
1:A:3037:GLN:HA	1:A:3040:TYR:HD2	1.87	0.40
1:A:3244:ASP:OD1	1:A:3247:ARG:NH2	2.55	0.40
1:A:3258:LEU:O	1:A:3262:LEU:HG	2.21	0.40
1:A:3307:LEU:O	1:A:3308:ASP:HB2	2.22	0.40
1:A:3646:LYS:HE3	1:A:3651:LEU:H	1.87	0.40
1:A:3671:ASN:N	1:A:3671:ASN:OD1	2.55	0.40
1:A:3884:LYS:HZ3	1:A:3901:ARG:HH12	1.69	0.40
1:A:4113:ASP:O	1:A:4117:LEU:HG	2.21	0.40
2:B:50:GLU:O	2:B:52:GLN:HG2	2.20	0.40
2:B:95:ASN:HD21	2:B:99:PHE:H	1.70	0.40
2:B:259:LEU:HG	2:B:260:LYS:N	2.37	0.40
2:B:385:LEU:HD23	2:B:432:PHE:CE1	2.56	0.40
2:B:417:GLU:OE1	2:B:417:GLU:N	2.54	0.40
2:B:420:LEU:CD2	2:B:424:LYS:HA	2.52	0.40
2:B:442:ASP:OD2	3:C:267:ILE:HD12	2.21	0.40
3:C:20:MET:HA	3:C:137:ASP:OD1	2.21	0.40
3:C:89:ASP:OD1	3:C:90:LEU:HD12	2.21	0.40
3:C:346:CYS:SG	3:C:347:LYS:N	2.94	0.40
3:C:366:ALA:O	3:C:368:ARG:NH1	2.52	0.40
3:C:448:GLU:HA	3:C:451:LEU:HD12	2.04	0.40
1:F:163:LYS:HZ3	2:G:311:LEU:HB3	1.86	0.40
1:F:646:VAL:HG23	1:F:647:TYR:N	2.36	0.40
1:F:852:ARG:HA	1:F:855:VAL:HB	2.02	0.40
1:F:909:VAL:HB	1:F:910:PHE:CE2	2.56	0.40
1:F:1001:PHE:HB3	1:F:1002:GLU:OE1	2.22	0.40
1:F:1096:VAL:HG23	1:F:1141:LYS:NZ	2.25	0.40
1:F:1483:LEU:O	1:F:1487:VAL:HG12	2.21	0.40
1:F:1700:THR:HA	1:F:1707:LEU:HD21	2.04	0.40
1:F:1845:VAL:HG13	1:F:1846:ASP:N	2.37	0.40
1:F:2105:HIS:HB2	1:F:2156:VAL:HG23	2.02	0.40
1:F:2162:LYS:HG3	1:F:2163:HIS:N	2.36	0.40
1:F:2169:LEU:CD2	1:F:2208:ASP:HB2	2.50	0.40
1:F:2207:LYS:HD2	1:F:2208:ASP:N	2.36	0.40
1:F:2383:PHE:HB3	1:F:2418:LYS:CE	2.51	0.40
1:F:2439:ILE:HA	1:F:2442:MET:CG	2.48	0.40
1:F:2484:TYR:CD1	1:F:2495:SER:HB3	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:F:2534:ASN:HB3	1:F:2537:ASP:HB3	2.04	0.40
1:F:2554:PHE:CD1	1:F:2557:LEU:HB2	2.50	0.40
1:F:2560:ASN:HA	1:F:2563:LEU:HD12	2.03	0.40
1:F:2852:PRO:HG3	1:F:2883:SER:HA	2.02	0.40
1:F:2887:PRO:HG2	1:F:3895:GLU:OE2	2.21	0.40
1:F:3044:MET:O	1:F:3047:SER:OG	2.32	0.40
1:F:3090:TYR:CE2	1:F:3098:ARG:HG2	2.57	0.40
1:F:3147:LYS:HD3	1:F:3150:ASN:H	1.86	0.40
1:F:3641:ASP:OD1	1:F:3642:LYS:N	2.49	0.40
1:F:3652:LEU:HD12	1:F:3652:LEU:HA	1.86	0.40
1:F:3717:VAL:HA	1:F:3743:HIS:CE1	2.56	0.40
1:F:3856:MET:O	1:F:3860:LYS:HG3	2.21	0.40
1:F:4044:ILE:HG13	1:F:4045:CYS:N	2.36	0.40
1:F:4102:THR:HA	1:F:4105:LYS:HZ2	1.86	0.40
1:F:4103:GLN:O	1:F:4107:LEU:HG	2.21	0.40
2:G:59:PRO:HB3	2:G:205:LEU:HD12	2.04	0.40
2:G:386:LEU:HD23	2:G:386:LEU:HA	1.95	0.40
3:H:208:VAL:O	3:H:211:VAL:HB	2.21	0.40
3:H:456:ALA:HB1	3:H:529:PRO:HB3	2.04	0.40
3:H:520:ALA:O	3:H:524:THR:HG23	2.21	0.40
3:H:727:ASP:HA	3:H:730:ASP:OD2	2.20	0.40
6:D:22:DG:C6	7:E:34:DC:C4	3.09	0.40
1:A:38:LEU:HA	1:A:41:GLU:OE1	2.22	0.40
1:A:99:LYS:HD2	1:A:99:LYS:HA	1.82	0.40
1:A:251:PHE:HD1	1:A:254:LYS:HD2	1.86	0.40
1:A:363:ILE:HG13	1:A:364:ARG:N	2.36	0.40
1:A:392:CYS:O	1:A:395:MET:HG2	2.22	0.40
1:A:960:GLN:HA	1:A:963:LYS:HZ2	1.86	0.40
1:A:1107:TYR:HE2	1:A:1131:ILE:CD1	2.34	0.40
1:A:1850:VAL:HG12	1:A:1870:LYS:HG2	2.04	0.40
1:A:2386:LEU:HD13	1:A:2397:CYS:HB3	2.03	0.40
1:A:2887:PRO:HA	1:A:2890:ILE:HD12	2.04	0.40
1:A:3124:SER:OG	1:A:3125:ARG:N	2.55	0.40
1:A:3753:LYS:NZ	1:A:3756:GLU:HB2	2.36	0.40
1:A:3953:LEU:CD1	1:A:4027:TRP:HB2	2.47	0.40
1:A:3968:ILE:HD13	1:A:3976:GLU:OE1	2.21	0.40
2:B:35:ARG:HB2	2:B:160:LYS:O	2.21	0.40
2:B:262:LYS:CB	2:B:268:VAL:HG12	2.47	0.40
2:B:282:LYS:HE3	7:E:26:DA:OP2	2.22	0.40
2:B:288:LEU:HD12	3:C:322:PRO:HA	2.04	0.40
2:B:325:ARG:HD2	2:B:325:ARG:HA	1.95	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:519:GLY:O	2:B:522:VAL:HG12	2.21	0.40
3:C:384:LEU:HD12	3:C:389:MET:O	2.21	0.40
3:C:616:LEU:HA	3:C:619:HIS:HD1	1.86	0.40
1:F:54:GLN:O	1:F:58:VAL:HG22	2.21	0.40
1:F:647:TYR:CD1	1:F:699:GLU:HB2	2.55	0.40
1:F:678:LYS:HZ1	1:F:683:PHE:HB2	1.86	0.40
1:F:1145:LEU:CD1	1:F:1151:ARG:HH21	2.34	0.40
1:F:1453:SER:HA	1:F:1456:LYS:NZ	2.36	0.40
1:F:2347:LYS:HA	1:F:2350:LYS:NZ	2.36	0.40
1:F:3034:PRO:O	1:F:3038:GLU:HG3	2.21	0.40
1:F:3049:LEU:HD23	1:F:3052:LEU:HD12	2.03	0.40
1:F:3076:ALA:O	1:F:3079:GLU:HG3	2.21	0.40
1:F:3810:VAL:N	1:F:3930:VAL:O	2.44	0.40
1:F:4056:PRO:O	1:F:4060:THR:HG23	2.22	0.40
1:F:4125:GLU:OE1	1:F:4125:GLU:N	2.54	0.40
2:G:173:ASP:OD2	2:G:214:SER:N	2.55	0.40
2:G:351:LYS:NZ	3:H:463:LEU:HB3	2.37	0.40
3:H:413:LYS:HD3	3:H:413:LYS:HA	1.96	0.40
3:H:654:ARG:HE	3:H:658:PHE:HZ	1.69	0.40
7:E:40:DT:H4'	7:E:41:DT:OP1	2.20	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	3714/4156 (89%)	3263 (88%)	446 (12%)	5 (0%)	51 86
1	F	3675/4156 (88%)	3257 (89%)	416 (11%)	2 (0%)	51 86
2	B	485/609 (80%)	422 (87%)	63 (13%)	0	100 100
2	G	485/609 (80%)	428 (88%)	56 (12%)	1 (0%)	47 81

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
3	C	699/732 (96%)	633 (91%)	66 (9%)	0	100	100
3	H	694/732 (95%)	625 (90%)	69 (10%)	0	100	100
All	All	9752/10994 (89%)	8628 (88%)	1116 (11%)	8 (0%)	54	86

All (8) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	446	PHE
1	A	3487	ILE
2	G	372	GLU
1	F	2257	PHE
1	A	2333	ARG
1	A	2945	SER
1	F	3479	THR
1	A	3320	ILE

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

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	A	3033/3671 (83%)	3004 (99%)	29 (1%)	76	86
1	F	3087/3671 (84%)	3063 (99%)	24 (1%)	81	89
2	B	400/548 (73%)	391 (98%)	9 (2%)	50	70
2	G	402/548 (73%)	395 (98%)	7 (2%)	60	78
3	C	591/649 (91%)	590 (100%)	1 (0%)	93	96
3	H	601/649 (93%)	597 (99%)	4 (1%)	84	90
All	All	8114/9736 (83%)	8040 (99%)	74 (1%)	79	87

All (74) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	14	ARG
1	A	90	CYS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	108	LYS
1	A	213	ARG
1	A	325	ASN
1	A	329	LYS
1	A	406	ARG
1	A	782	ARG
1	A	835	LYS
1	A	868	LYS
1	A	899	ARG
1	A	1193	LYS
1	A	1357	LYS
1	A	1418	HIS
1	A	1551	ILE
1	A	1573	LYS
1	A	1806	ARG
1	A	1837	ARG
1	A	2246	LYS
1	A	2425	ARG
1	A	2806	LYS
1	A	2928	LYS
1	A	2946	GLU
1	A	3098	ARG
1	A	3614	TYR
1	A	3733	ARG
1	A	3734	ARG
1	A	3739	ILE
1	A	3789	ARG
2	B	92	LYS
2	B	93	ASP
2	B	114	LYS
2	B	258	ARG
2	B	262	LYS
2	B	271	VAL
2	B	399	ARG
2	B	403	ARG
2	B	515	ASN
3	C	325	LYS
1	F	24	ARG
1	F	61	ARG
1	F	96	MET
1	F	99	LYS
1	F	205	LYS

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Mol	Chain	Res	Type
1	F	299	LYS
1	F	554	ASN
1	F	1170	LYS
1	F	1735	ARG
1	F	1784	ARG
1	F	2207	LYS
1	F	2228	ARG
1	F	2470	ARG
1	F	2806	LYS
1	F	3098	ARG
1	F	3235	LYS
1	F	3477	GLU
1	F	3557	ARG
1	F	3586	LYS
1	F	3696	ARG
1	F	3799	ARG
1	F	3901	ARG
1	F	3992	ARG
1	F	4128	MET
2	G	258	ARG
2	G	262	LYS
2	G	271	VAL
2	G	299	LYS
2	G	304	ASN
2	G	515	ASN
2	G	534	TYR
3	H	81	ARG
3	H	209	LYS
3	H	554	PHE
3	H	643	ARG

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (71) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	339	GLN
1	A	390	GLN
1	A	442	GLN
1	A	586	GLN
1	A	869	ASN
1	A	1047	GLN
1	A	1084	ASN
1	A	1367	HIS

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
1	A	1457	GLN
1	A	1509	GLN
1	A	1625	HIS
1	A	1794	GLN
1	A	2217	ASN
1	A	2295	GLN
1	A	2306	ASN
1	A	2483	ASN
1	A	2543	ASN
1	A	3074	GLN
1	A	3263	HIS
1	A	3278	GLN
1	A	3383	GLN
1	A	3743	HIS
1	A	3787	GLN
1	A	3808	ASN
1	A	3850	HIS
2	B	101	ASN
2	B	171	ASN
2	B	485	GLN
3	C	75	GLN
3	C	298	ASN
3	C	402	ASN
3	C	514	ASN
1	F	98	GLN
1	F	191	ASN
1	F	192	ASN
1	F	339	GLN
1	F	477	ASN
1	F	857	GLN
1	F	925	GLN
1	F	982	GLN
1	F	1004	GLN
1	F	1083	ASN
1	F	1115	HIS
1	F	1146	ASN
1	F	1180	GLN
1	F	1251	GLN
1	F	1367	HIS
1	F	1457	GLN
1	F	1477	HIS
1	F	1509	GLN

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Mol	Chain	Res	Type
1	F	1625	HIS
1	F	1830	HIS
1	F	1909	ASN
1	F	2130	HIS
1	F	2432	GLN
1	F	2523	ASN
1	F	3074	GLN
1	F	3093	GLN
1	F	3133	GLN
1	F	3249	GLN
1	F	3422	GLN
1	F	3457	ASN
1	F	3470	GLN
1	F	3590	ASN
2	G	95	ASN
2	G	126	GLN
2	G	132	GLN
2	G	458	GLN
2	G	484	GLN
2	G	485	GLN
2	G	515	ASN

### 5.3.3 RNA [i](#)

There are no RNA molecules in this entry.

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

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

### 5.5 Carbohydrates [i](#)

There are no monosaccharides in this entry.

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

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](#)

The following chains have linkage breaks:

Mol	Chain	Number of breaks
1	F	2
1	A	2

All chain breaks are listed below:

Model	Chain	Residue-1	Atom-1	Residue-2	Atom-2	Distance (Å)
1	F	4128:MET	C	5009:UNK	N	96.98
1	A	4128:MET	C	5009:UNK	N	96.43
1	A	5016:UNK	C	6004:UNK	N	49.12
1	F	5016:UNK	C	6004:UNK	N	48.83

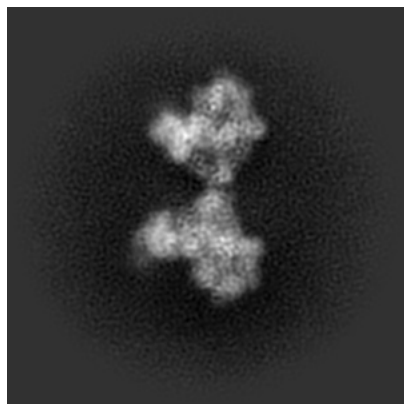
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-11219. These allow visual inspection of the internal detail of the map and identification of artifacts.

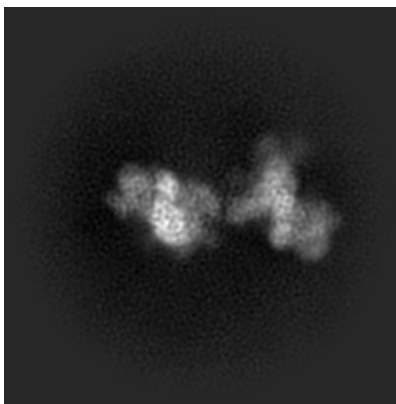
Images derived from a raw map, generated by summing the deposited half-maps, are presented below the corresponding image components of the primary map to allow further visual inspection and comparison with those of the primary map.

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

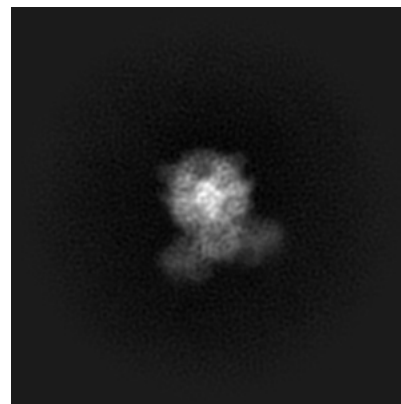
#### 6.1.1 Primary map



X

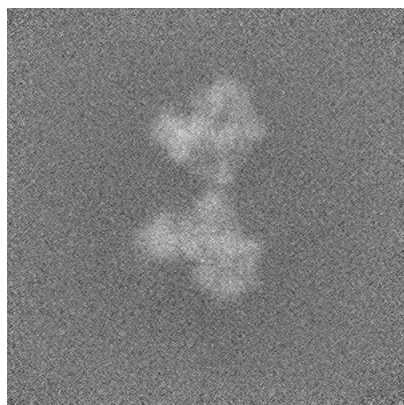


Y

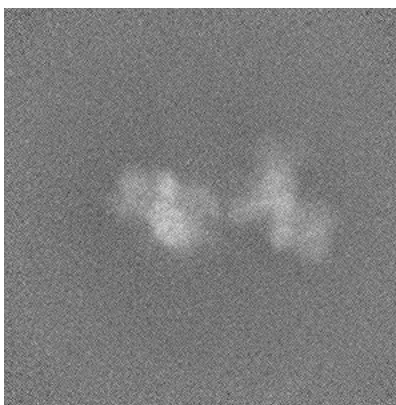


Z

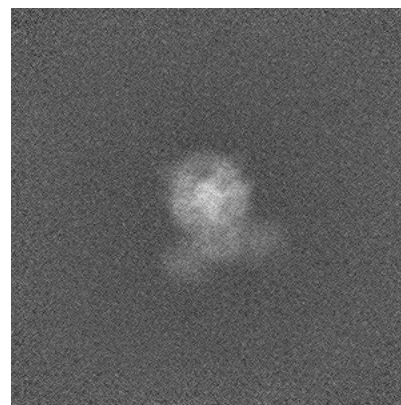
#### 6.1.2 Raw map



X



Y

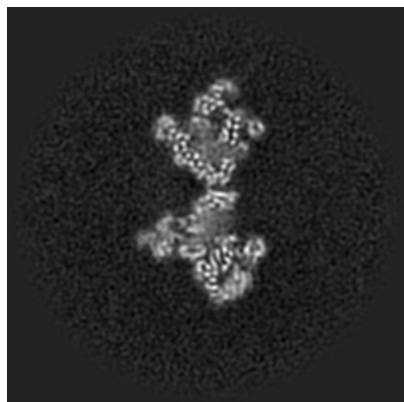


Z

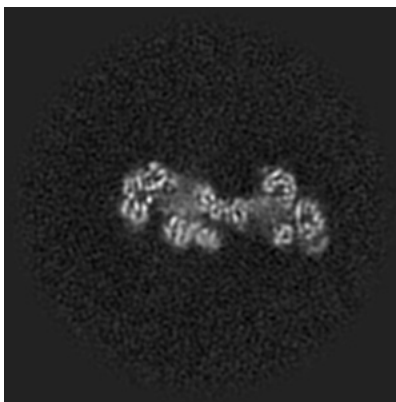
The images above show the map projected in three orthogonal directions.

## 6.2 Central slices [i](#)

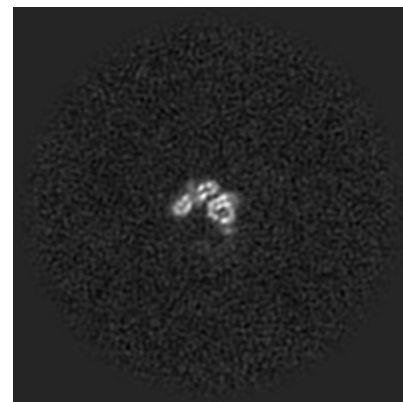
### 6.2.1 Primary map



X Index: 280

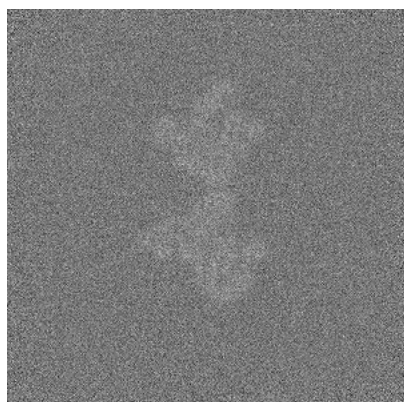


Y Index: 280

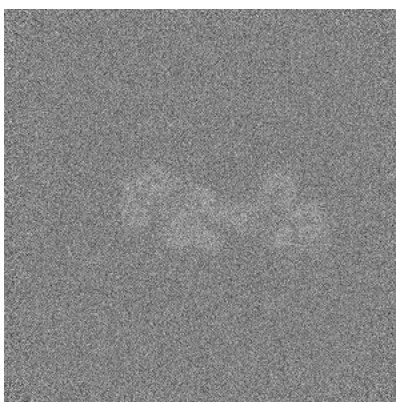


Z Index: 280

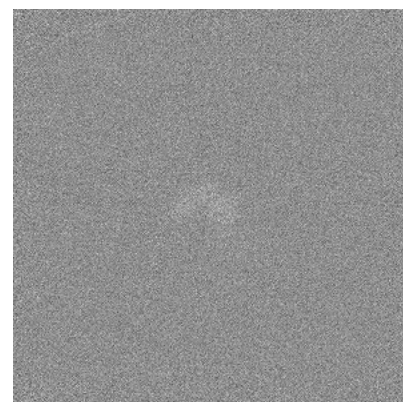
### 6.2.2 Raw map



X Index: 280



Y Index: 280



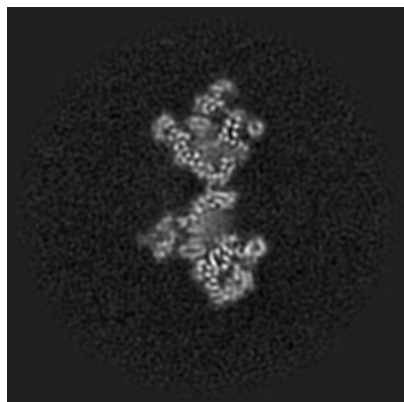
Z Index: 280

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

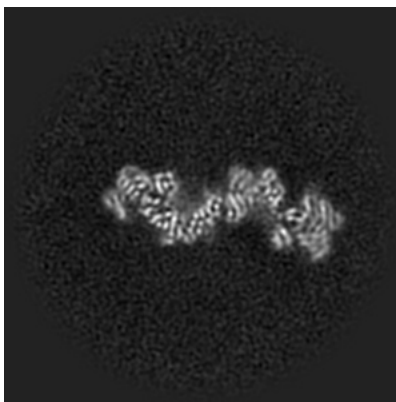


## 6.3 Largest variance slices [i](#)

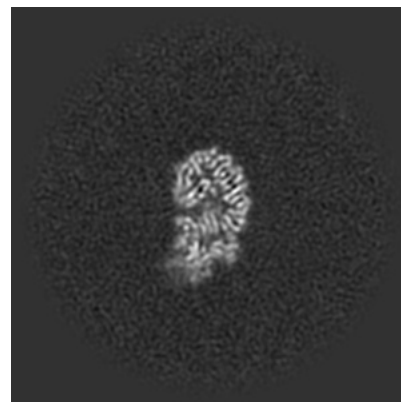
### 6.3.1 Primary map



X Index: 282

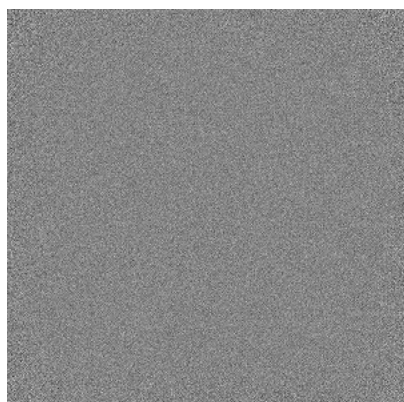


Y Index: 299

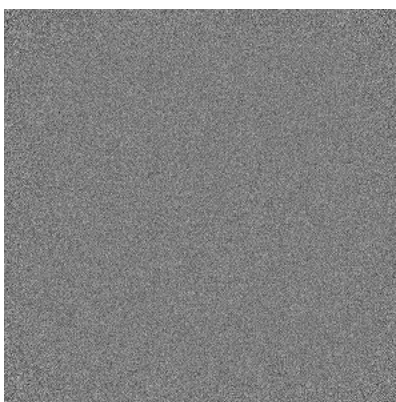


Z Index: 225

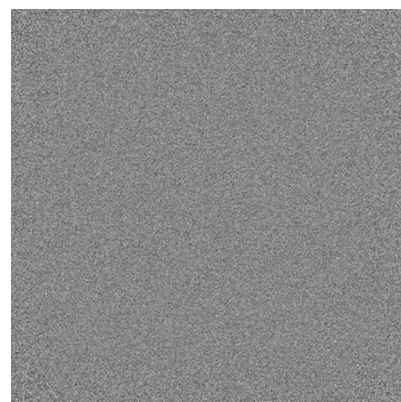
### 6.3.2 Raw map



X Index: 0



Y Index: 0



Z Index: 0

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

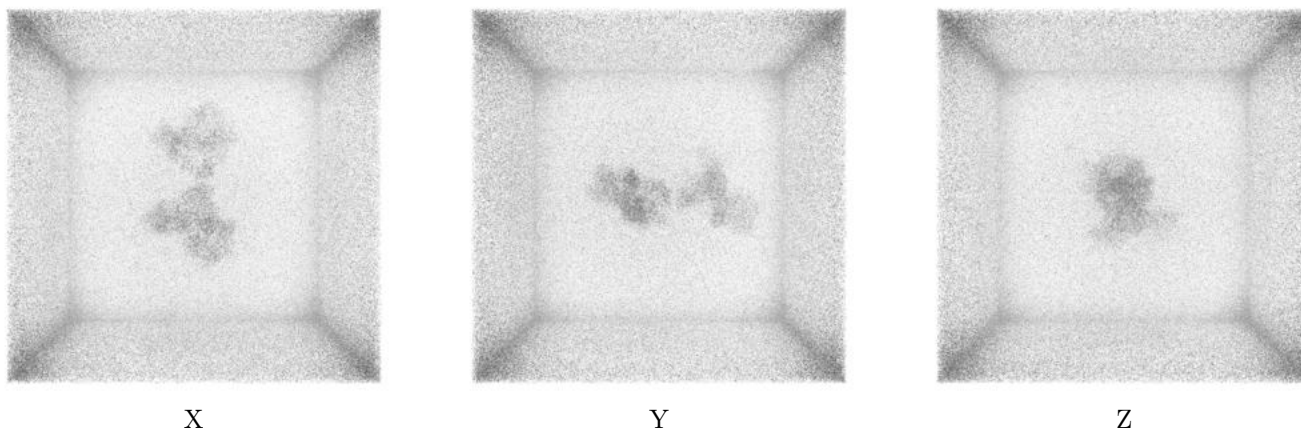
## 6.4 Orthogonal surface views [i](#)

### 6.4.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.085. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

### 6.4.2 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.

## 6.5 Mask visualisation [i](#)

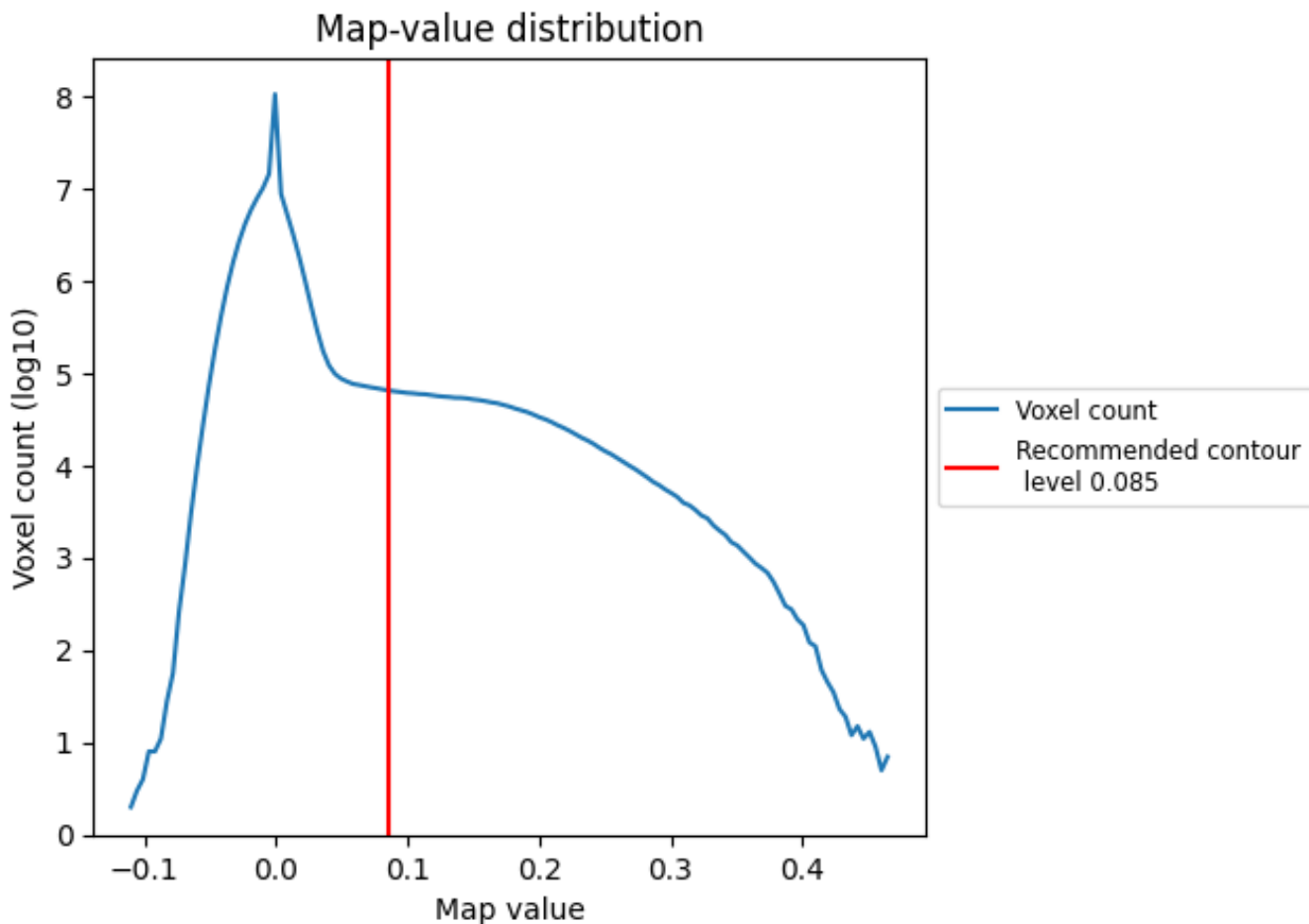
This section was not generated. No masks/segmentation were deposited.



## 7 Map analysis [i](#)

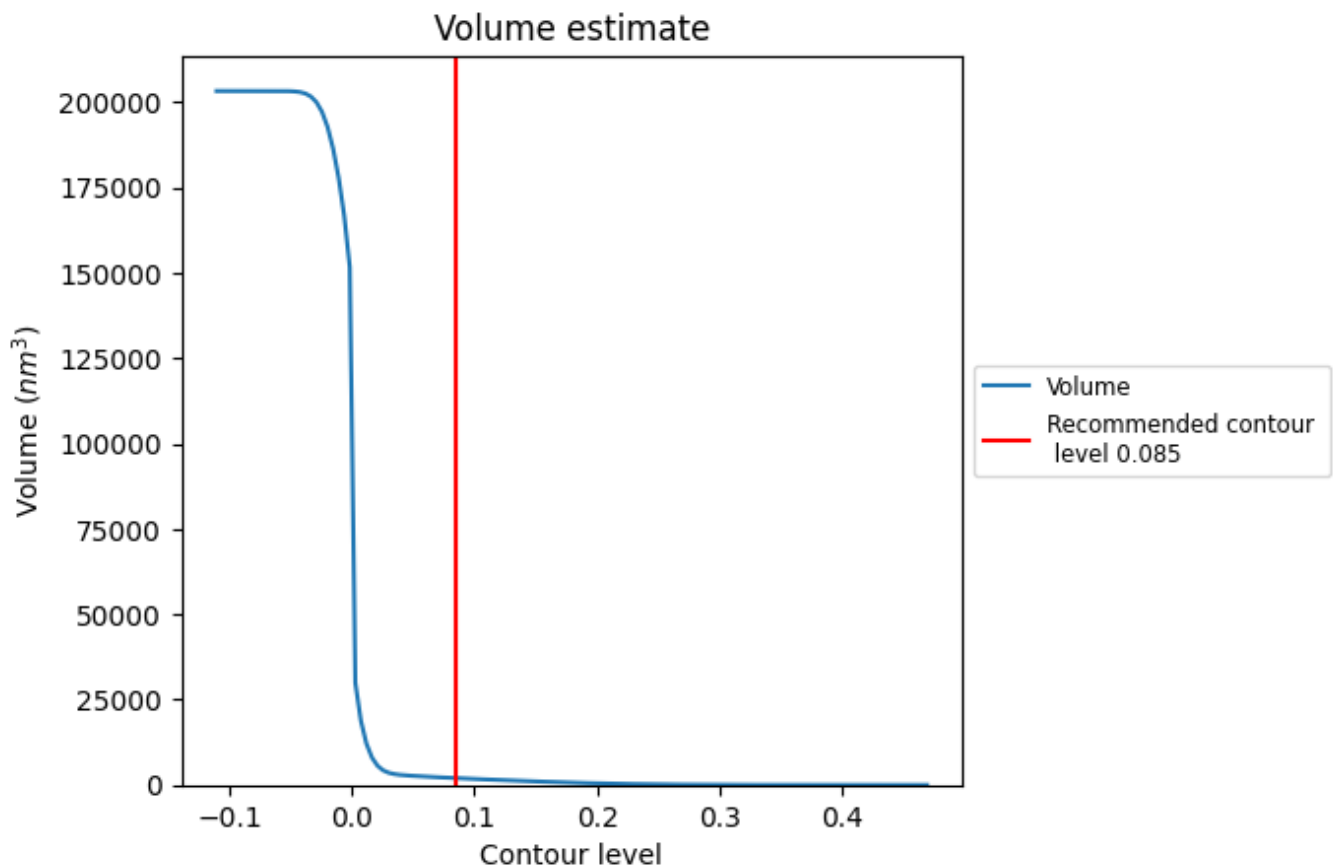
This section contains the results of statistical analysis of the map.

### 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.

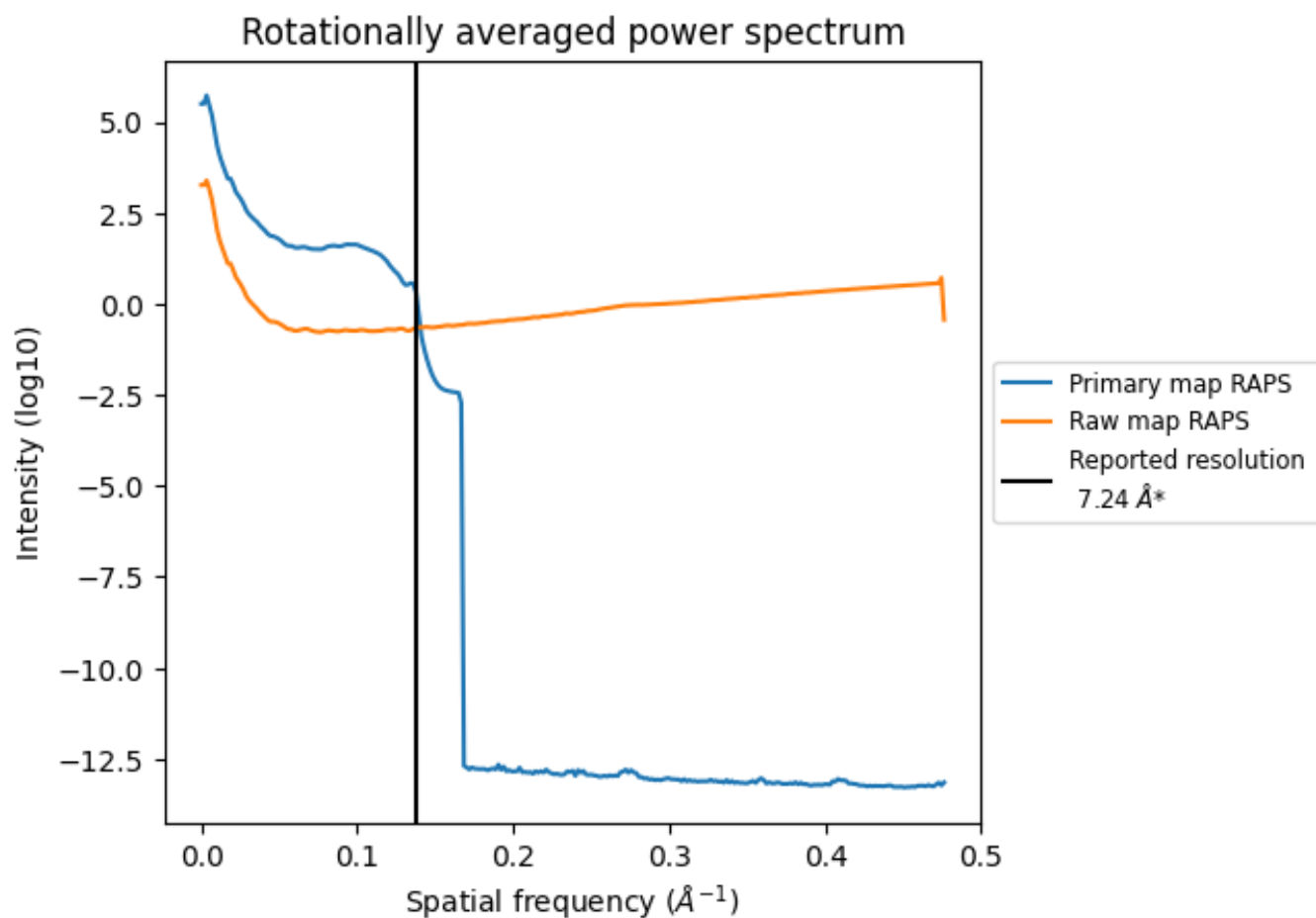
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is 1998 nm<sup>3</sup>; this corresponds to an approximate mass of 1805 kDa.

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

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

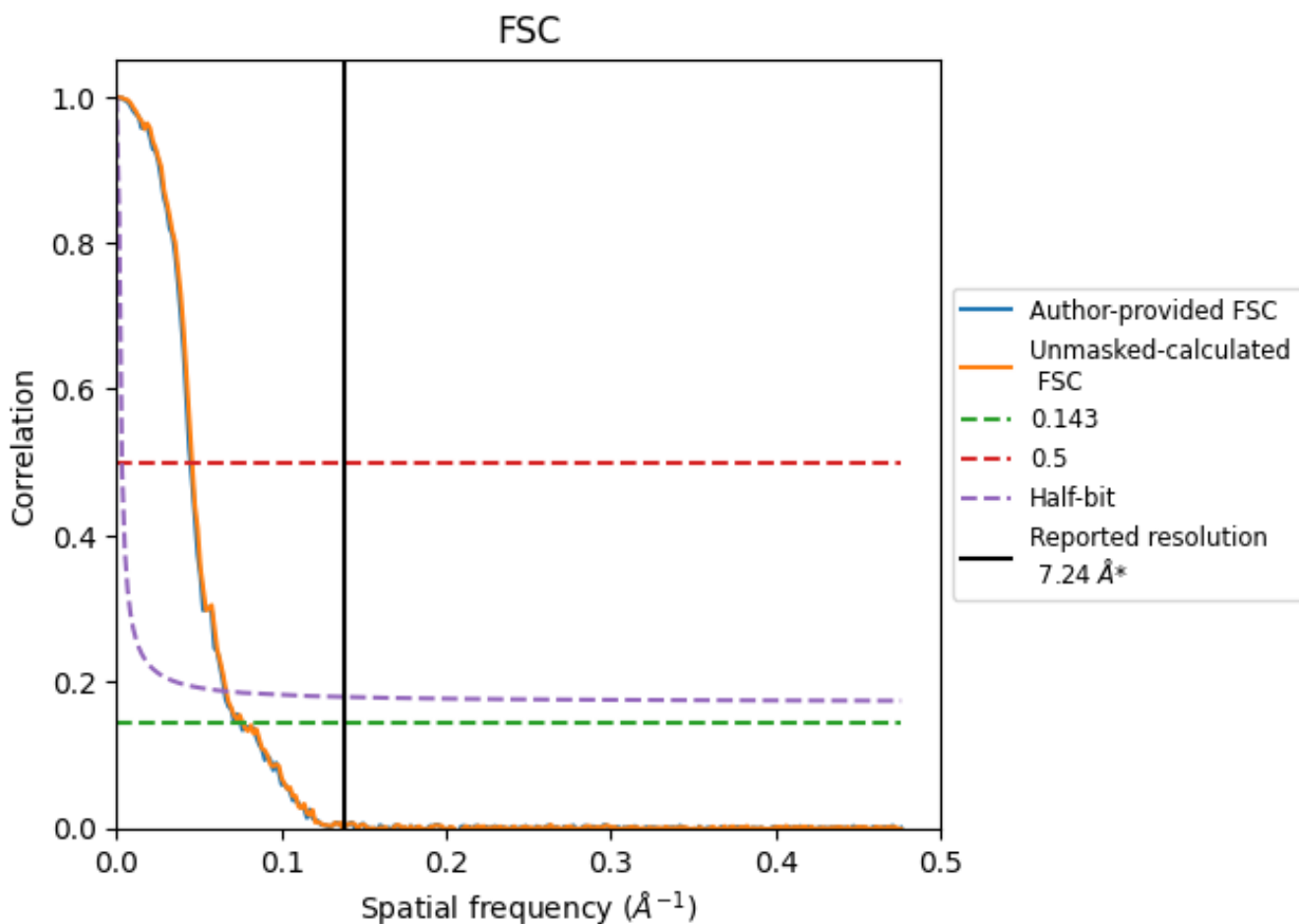


\*Reported resolution corresponds to spatial frequency of 0.138 Å<sup>-1</sup>

## 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 0.138 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	7.24	-	-
Author-provided FSC curve	13.23	22.27	15.24
Unmasked-calculated*	13.02	21.74	14.99

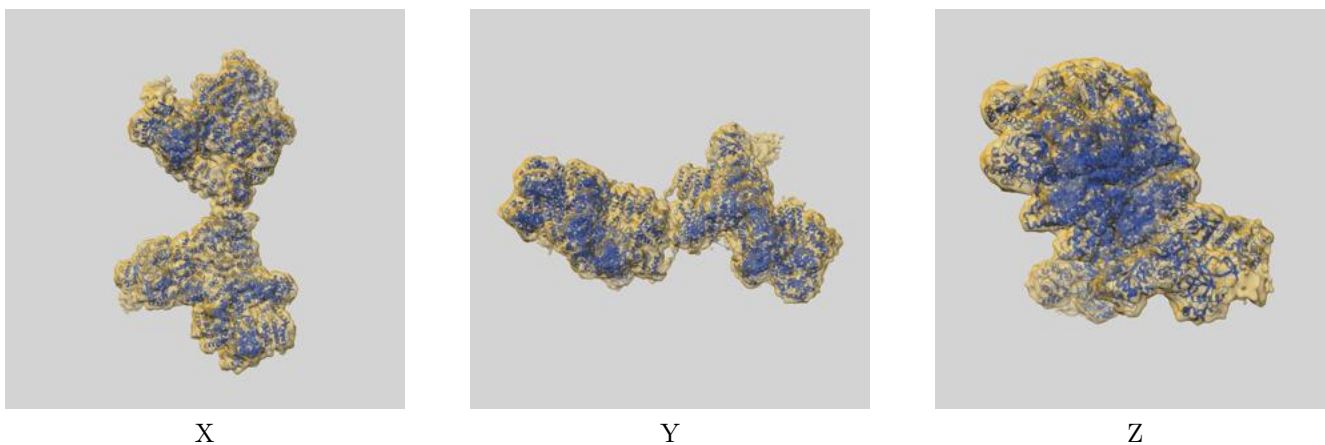
\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps. The value from author-provided FSC intersecting FSC 0.143 CUT-OFF 13.23 differs from the reported value 7.24 by more than 10 %

The value from deposited half-maps intersecting FSC 0.143 CUT-OFF 13.02 differs from the reported value 7.24 by more than 10 %

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

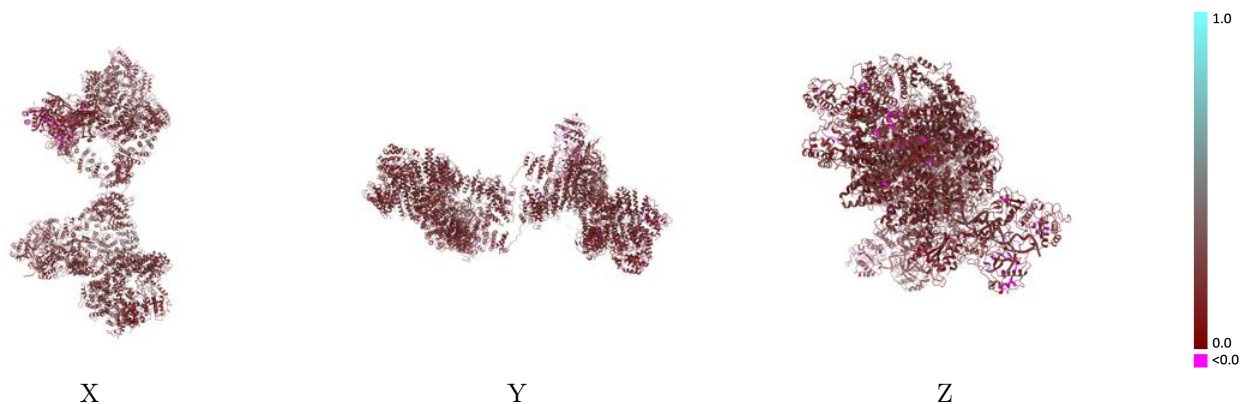
This section contains information regarding the fit between EMDB map EMD-11219 and PDB model 6ZHE. Per-residue inclusion information can be found in section 3 on page 6.

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



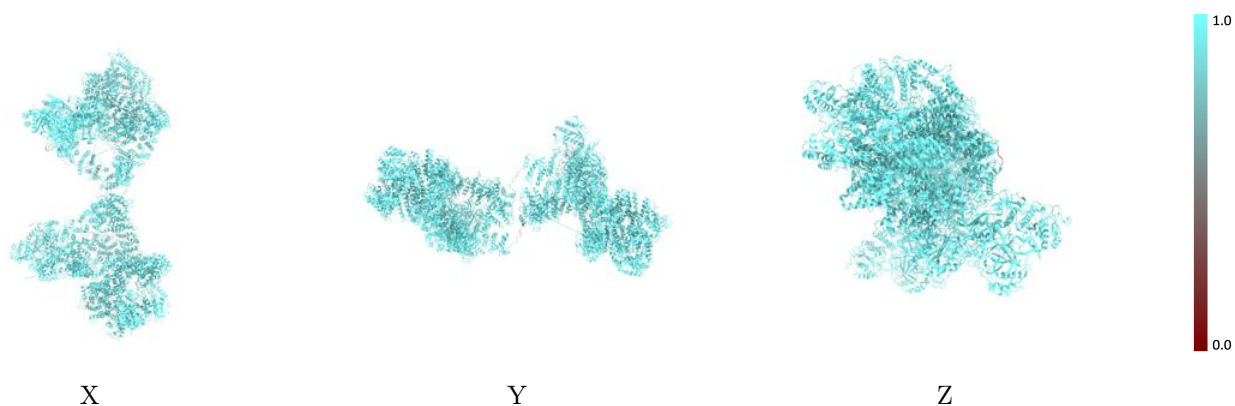
The images above show the 3D surface view of the map at the recommended contour level 0.085 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 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.

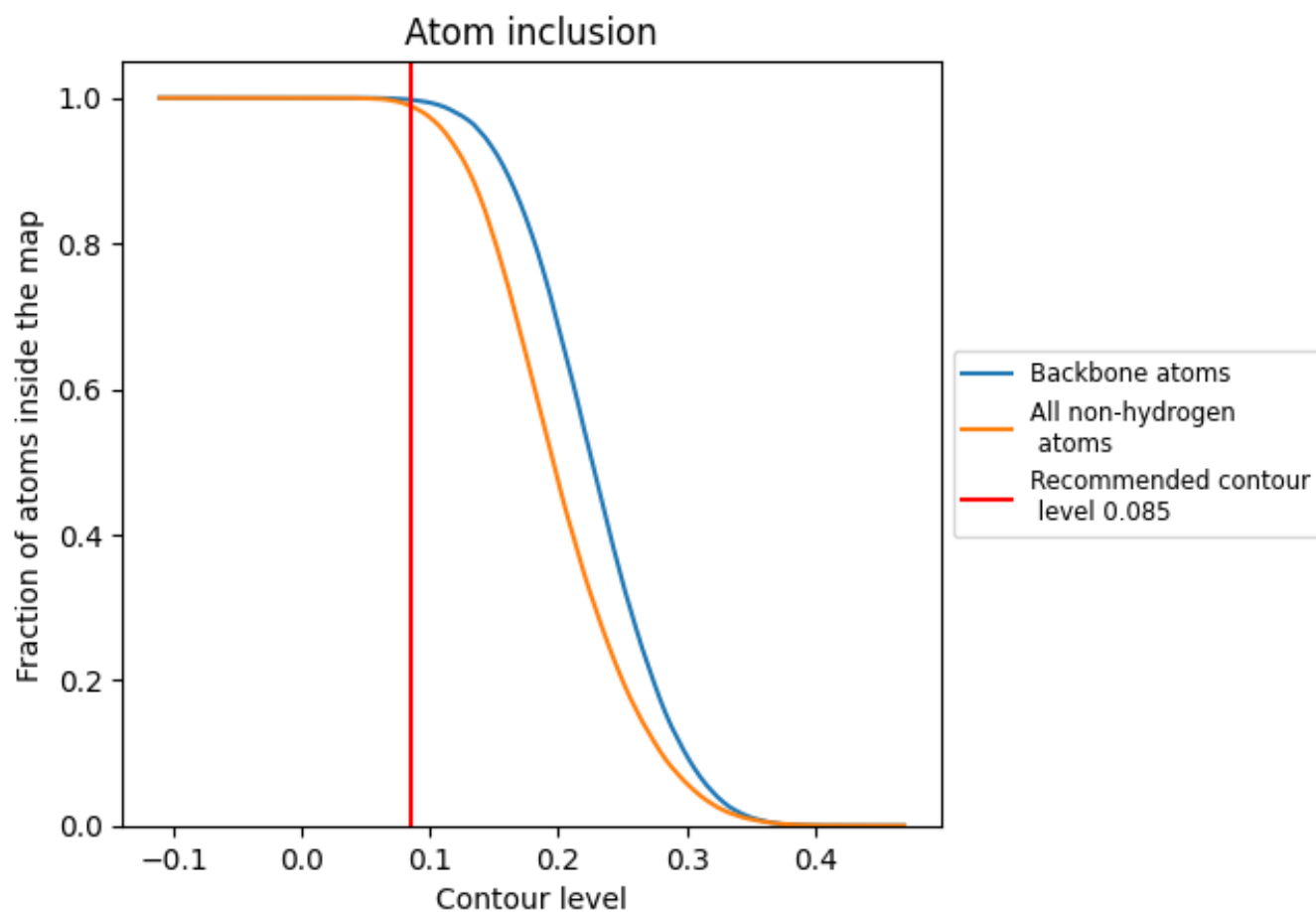
## 9.3 Atom inclusion mapped to coordinate model [i](#)



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 (0.085).

























## 9.4 Atom inclusion [i](#)



At the recommended contour level, 100% of all backbone atoms, 99% 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 (0.085) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9888	 0.1950
A	 0.9906	 0.2070
B	 0.9949	 0.1870
C	 0.9840	 0.1740
D	 1.0000	 0.2510
E	 1.0000	 0.2500
F	 0.9892	 0.1970
G	 0.9896	 0.1600
H	 0.9732	 0.1600
I	 1.0000	 0.2540
J	 1.0000	 0.2430

