



## Full wwPDB EM Validation Report ⓘ

Oct 1, 2024 – 04:11 pm BST

PDB ID : 8RRU  
EMDB ID : EMD-19465  
Title : Structure of RyR1 reconstituted into lipid liposomes in primed state in complex with FKBP and Nb9657.  
Authors : Li, C.; Efremov, R.G.  
Deposited on : 2024-01-23  
Resolution : 4.70 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.dev113  
Mogul : 1.8.4, CSD as541be (2020)  
MolProbity : 4.02b-467  
buster-report : 1.1.7 (2018)  
Percentile statistics : 20231227.v01 (using entries in the PDB archive December 27th 2023)  
MapQ : 1.9.13  
Ideal geometry (proteins) : Engh & Huber (2001)  
Ideal geometry (DNA, RNA) : Parkinson et al. (1996)  
Validation Pipeline (wwPDB-VP) : 2.39

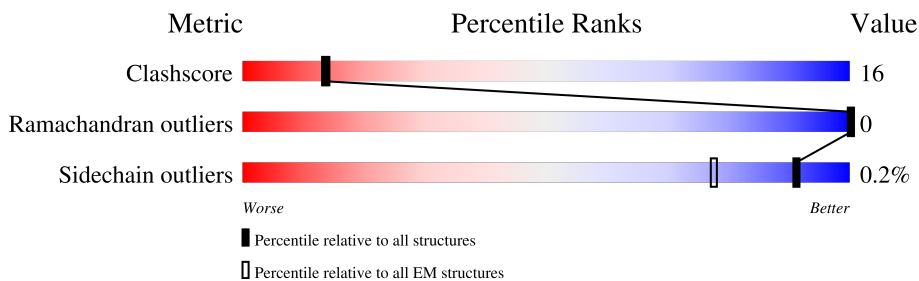
# 1 Overall quality at a glance

The following experimental techniques were used to determine the structure:

*ELECTRON MICROSCOPY*

The reported resolution of this entry is 4.70 Å.

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







Metric	Whole archive (#Entries)	EM structures (#Entries)
Clashscore	210492	15764
Ramachandran outliers	207382	16835
Sidechain outliers	206894	16415

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	107	
1	D	107	
1	H	107	
1	I	107	
2	B	5027	
2	E	5027	
2	G	5027	
2	J	5027	

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Mol	Chain	Length	Quality of chain
3	C	137	 48% 43% 8%
3	F	137	 46% 45% 8%
3	K	137	 47% 44% 8%
3	M	137	 47% 44% 8%

## 2 Entry composition i

There are 7 unique types of molecules in this entry. The entry contains 143907 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 Peptidyl-prolyl cis-trans isomerase FKBP1B.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	107	818	516	144	154	4	0	0
1	D	107	818	516	144	154	4	0	0
1	H	107	818	516	144	154	4	0	0
1	I	107	818	516	144	154	4	0	0

There are 4 discrepancies between the modelled and reference sequences:

Chain	Residue	Modelled	Actual	Comment	Reference
A	100	ASP	GLY	conflict	UNP Q8HYX6
D	100	ASP	GLY	conflict	UNP Q8HYX6
H	100	ASP	GLY	conflict	UNP Q8HYX6
I	100	ASP	GLY	conflict	UNP Q8HYX6

- Molecule 2 is a protein called Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	4319	34143	21748	5888	6283	224	1	0
2	E	4319	34143	21748	5888	6283	224	1	0
2	G	4319	34150	21752	5888	6285	225	1	0
2	J	4319	34143	21748	5888	6283	224	1	0

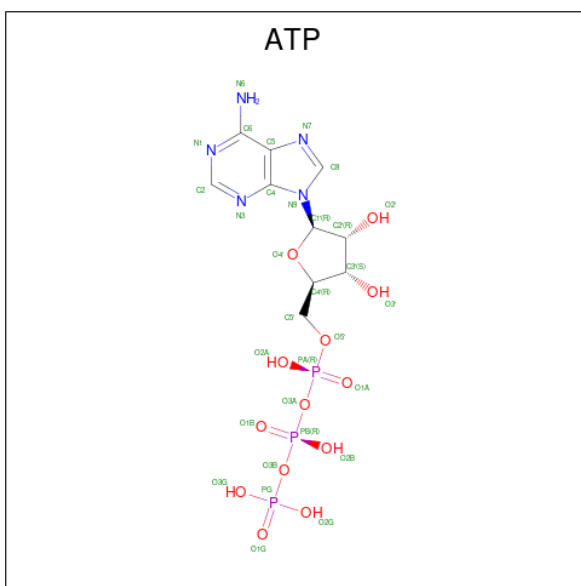
- Molecule 3 is a protein called Nanobody 9657.

Mol	Chain	Residues	Atoms					AltConf	Trace
3	C	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	F	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	K	126	Total	C	N	O	S	0	0
			967	597	170	195	5		
3	M	126	Total	C	N	O	S	0	0
			967	597	170	195	5		

- Molecule 4 is ZINC ION (three-letter code: ZN) (formula: Zn).

Mol	Chain	Residues	Atoms		AltConf
4	B	1	Total	Zn	0
			1	1	
4	E	1	Total	Zn	0
			1	1	
4	G	1	Total	Zn	0
			1	1	
4	J	1	Total	Zn	0
			1	1	

- Molecule 5 is ADENOSINE-5'-TRIPHOSPHATE (three-letter code: ATP) (formula: C<sub>10</sub>H<sub>16</sub>N<sub>5</sub>O<sub>13</sub>P<sub>3</sub>) (labeled as "Ligand of Interest" by depositor).



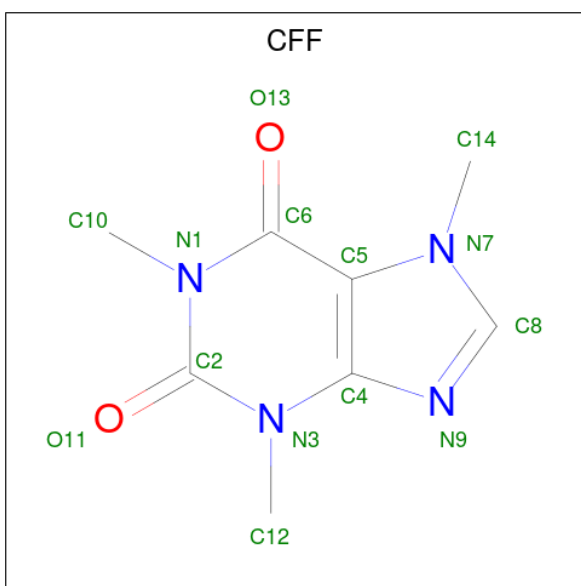
Mol	Chain	Residues	Atoms					AltConf
5	B	1	Total	C	N	O	P	0
			31	10	5	13	3	

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Mol	Chain	Residues	Atoms				AltConf	
			Total	C	N	O		P
5	E	1	Total 31	C 10	N 5	O 13	P 3	0
5	G	1	Total 31	C 10	N 5	O 13	P 3	0
5	J	1	Total 31	C 10	N 5	O 13	P 3	0

- Molecule 6 is CAFFEINE (three-letter code: CFF) (formula:  $C_8H_{10}N_4O_2$ ) (labeled as "Ligand of Interest" by depositor).



Mol	Chain	Residues	Atoms				AltConf
			Total	C	N	O	
6	B	1	Total 14	C 8	N 4	O 2	0
6	E	1	Total 14	C 8	N 4	O 2	0
6	G	1	Total 14	C 8	N 4	O 2	0
6	J	1	Total 14	C 8	N 4	O 2	0

- Molecule 7 is CALCIUM ION (three-letter code: CA) (formula: Ca) (labeled as "Ligand of Interest" by depositor).

Mol	Chain	Residues	Atoms		AltConf
7	B	1	Total 1	Ca 1	0

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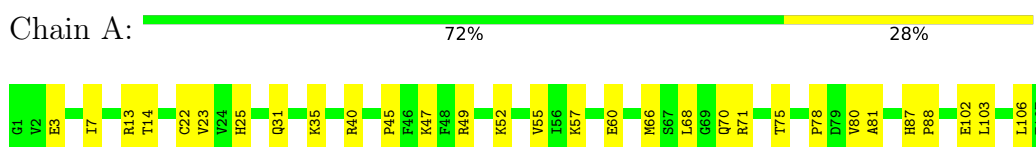
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<b>Mol</b>	<b>Chain</b>	<b>Residues</b>	<b>Atoms</b>		<b>AltConf</b>
7	E	1	Total 1	Ca 1	0
7	G	1	Total 1	Ca 1	0
7	J	1	Total 1	Ca 1	0

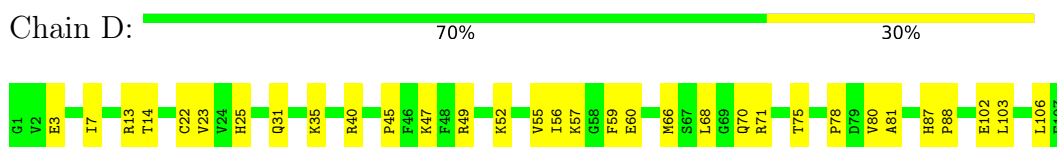
### 3 Residue-property plots

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.

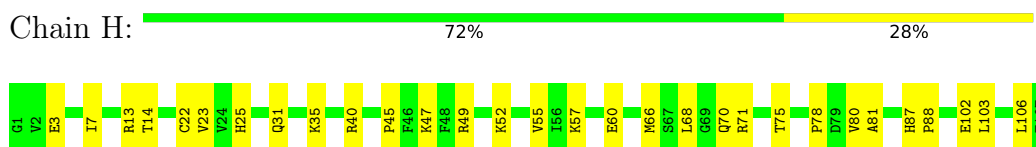
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



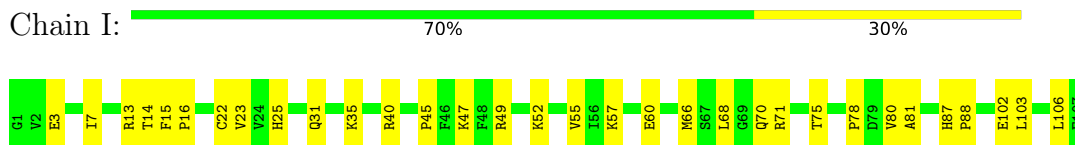
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



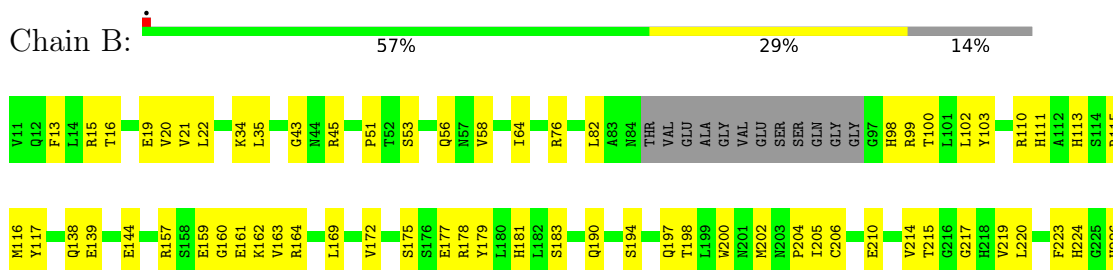
- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



- Molecule 1: Peptidyl-prolyl cis-trans isomerase FKBP1B



- Molecule 2: Ryanodine receptor 1





L1595	W1496	THR	L1272	M1065	I1161	L1496	L1272	M1065	I1161	W1496	THR	L1272	M1065	I1161	W1496	THR	L1272	M1065	I1161
Q1598	G1497	PRO	A1273	Q1066	F1162	A1273	A1273	Q1066	F1162	G1497	GLU	A1273	Q1066	F1162	G1497	GLU	A1273	Q1066	F1162
M1599	G1498	ALA	H1274	S1067	T1163	H1274	H1274	S1067	T1163	G1498	GLY	H1274	S1067	T1163	G1498	GLY	H1274	S1067	T1163
P1609	D1499	LEU	L1287	R1068	L1164	L1287	L1287	R1068	L1164	D1499	LYS	L1287	R1068	L1164	D1499	LYS	L1287	R1068	L1164
F1612	F1500	PRO	F1288	W1069	P979	F1288	F1288	W1069	P979	F1500	ARG	F1288	W1069	P979	F1500	ARG	F1288	W1069	P979
V1615	S1502	LEU	L1288	R1071	Q981	L1288	L1288	R1071	Q981	S1502	GLY	L1288	R1071	Q981	S1502	GLY	L1288	R1071	Q981
E1616	P1503	PRO	R1290	V1072	L984	R1290	R1290	V1072	L984	P1503	THR	R1290	V1072	L984	P1503	THR	R1290	V1072	L984
T1617	G1504	HIS	L1291	R1073	Y985	L1291	L1291	R1073	Y985	G1504	ASP	L1291	R1073	Y985	G1504	ASP	L1291	R1073	Y985
R1618	GLN	VAL	L1292	F1075	S1175	L1292	L1292	F1075	S1175	R1618	GLN	L1292	F1075	S1175	R1618	GLN	L1292	F1075	S1175
A1619	VAL	VAL	P1294	T1076	T1177	P1294	P1294	T1076	T1177	A1619	VAL	P1294	T1076	T1177	A1619	VAL	P1294	T1076	T1177
A1620	R1508	PRO	F1297	E1078	F1179	F1297	F1297	E1078	F1179	A1620	ALA	F1297	E1078	F1179	A1620	ALA	F1297	E1078	F1179
G1621	L1514	ASP	H1298	Y1081	E1180	H1298	H1298	Y1081	E1180	G1621	GLY	H1298	Y1081	E1180	G1621	GLY	H1298	Y1081	E1180
E1622	C1518	THR	Q1299	E1181	E1181	Q1299	Q1299	E1181	E1181	E1622	THR	Q1299	E1181	E1181	E1622	THR	Q1299	E1181	E1181
L1624	C1519	PRO	R1302	T1082	T1082	R1302	R1302	T1082	T1082	L1624	PRO	R1302	T1082	T1082	L1624	PRO	R1302	T1082	T1082
G1625	L1519	GLN	C1303	V1083	Y1007	C1303	C1303	V1083	Y1007	G1625	PRO	C1303	V1083	Y1007	G1625	PRO	C1303	V1083	Y1007
W1626	L1522	PRO	T1304	G1086	S1008	T1304	T1304	G1086	S1008	W1626	GLY	T1304	G1086	S1008	W1626	GLY	T1304	G1086	S1008
A1627	A1523	VAL	ALA	R1087	L1013	A1523	A1523	R1087	L1013	A1627	VAL	A1523	R1087	L1013	A1627	VAL	A1523	R1087	L1013
M1637	M1527	ALA	THR	F1092	R1016	M1527	M1527	F1092	R1016	M1637	ALA	M1527	F1092	R1016	M1637	ALA	M1527	F1092	R1016
A1638	S1536	PRO	ALA	C1192	R1017	S1536	S1536	C1192	R1017	A1638	PRO	S1536	C1192	R1017	A1638	PRO	S1536	C1192	R1017
H1640	K1547	VAL	GLY	F1190	R1018	K1547	K1547	F1190	R1018	H1640	VAL	K1547	F1190	R1018	H1640	VAL	K1547	F1190	R1018
L1641	L1548	ALA	ALA	P1191	C1191	L1548	L1548	P1191	C1191	L1641	ALA	L1548	P1191	C1191	L1641	ALA	L1548	P1191	C1191
P1642	F1549	GLU	THR	C1192	F1092	F1549	F1549	C1192	F1092	P1642	GLU	F1549	C1192	F1092	P1642	GLU	F1549	C1192	F1092
E1643	P1550	LEU	PRO	P1196	V1095	P1550	P1550	P1196	V1095	E1643	LEU	P1550	P1196	V1095	E1643	LEU	P1550	P1196	V1095
E1644	V1551	ASN	LEU	P1196	V1095	V1551	V1551	P1196	V1095	E1644	ASN	V1551	P1196	V1095	E1644	ASN	V1551	P1196	V1095
H1645	V1552	GLU	GLN	S1210	A1105	V1552	V1552	S1210	A1105	H1645	GLU	V1552	S1210	A1105	H1645	GLU	V1552	S1210	A1105
C1646	F1553	LYS	PRO	F1223	G1116	F1553	F1553	F1223	G1116	C1646	LYS	F1553	F1223	G1116	C1646	LYS	F1553	F1223	G1116
C1647	V1554	ASP	PRO	A1227	G1116	V1554	V1554	A1227	G1116	C1647	ASP	V1554	A1227	G1116	C1647	ASP	V1554	A1227	G1116
M1648	L1555	THR	GLU	A1227	G1116	L1555	L1555	A1227	G1116	M1648	THR	L1555	A1227	G1116	M1648	THR	L1555	A1227	G1116
E1652	P1556	THR	ASP	V1234	V1123	P1556	P1556	V1234	V1123	E1652	THR	P1556	V1234	V1123	E1652	THR	P1556	V1234	V1123
L1653	Q1559	GLU	GLU	V1234	V1123	Q1559	Q1559	V1234	V1123	L1653	GLU	Q1559	V1234	V1123	L1653	GLU	Q1559	V1234	V1123
R1656	M1560	LYS	ALA	W1237	M1125	M1560	M1560	W1237	M1125	R1656	LYS	M1560	W1237	M1125	R1656	LYS	M1560	W1237	M1125
Q1660	I1562	ASN	ALA	Q1244	R1128	I1562	I1562	Q1244	R1128	Q1660	ASN	I1562	Q1244	R1128	Q1660	ASN	I1562	Q1244	R1128
R1661	V1561	THR	ALA	F1245	Q1130	V1561	V1561	F1245	Q1130	R1661	THR	V1561	F1245	Q1130	R1661	THR	V1561	F1245	Q1130
F1662	I1562	THR	ALA	F1246	R1131	I1562	I1562	F1246	R1131	F1662	THR	I1562	F1246	R1131	F1662	THR	I1562	F1246	R1131
H1663	E1565	ARG	GLU	P1247	W1132	E1565	E1565	P1247	W1132	H1663	ARG	E1565	P1247	W1132	H1663	ARG	E1565	P1247	W1132
S1664	K1568	PHE	ASP	V1248	H1133	K1568	K1568	V1248	H1133	S1664	PHE	K1568	V1248	H1133	S1664	PHE	K1568	V1248	H1133
H1665	Q1569	PHE	ASP	P1249	P1138	Q1569	Q1569	P1249	P1138	H1665	PHE	Q1569	P1249	P1138	H1665	PHE	Q1569	P1249	P1138
Y1670	M1571	LYS	TYR	H1252	H1138	M1571	M1571	H1252	H1138	Y1670	LYS	M1571	H1252	H1138	Y1670	LYS	M1571	H1252	H1138
R1671	I1572	ALA	ASN	E1256	D1147	I1572	I1572	E1256	D1147	R1671	ALA	I1572	E1256	D1147	R1671	ALA	I1572	E1256	D1147
A1672	M1573	LYS	LEU	E1257	M1152	A1672	A1672	E1257	M1152	A1672	LYS	A1672	E1257	M1152	A1672	LYS	A1672	E1257	M1152
V1673	P1574	ALA	ARG	V1257	I1152	V1673	V1673	V1257	I1152	V1673	ALA	V1673	V1257	I1152	V1673	ALA	V1673	V1257	I1152
L1676	A1578	ALA	ARG	M1260	D1154	A1578	A1578	M1260	D1154	L1676	ALA	A1578	M1260	D1154	L1676	ALA	A1578	M1260	D1154
F1677	M1579	MET	SER	D1261	I1155	F1677	F1677	D1261	I1155	F1677	MET	F1677	D1261	I1155	F1677	MET	F1677	D1261	I1155
R1680	F1580	THR	GLY	P1268	E1157	R1680	R1680	P1268	E1157	R1680	THR	R1680	P1268	E1157	R1680	THR	R1680	P1268	E1157
H1683	R1584	GLN	TRP	C1269	C1269	H1683	H1683	C1269	C1269	H1683	GLN	H1683	C1269	C1269	H1683	GLN	H1683	C1269	C1269
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	V1495	ALA	GLU	R1271	I1160	V1495	V1495	R1271	I1160		ALA	V1495	R1271	I1160		ALA	V1495	R1271	I1160

L2894	H2902	L2905	V2906	D2909	T2910	L2911	T2912	A2913	K2914	E2915	K2916	R2920	Q2924	K2928	F2929	Y2935	R2939	GLY	LEU	LYS	PRO	ARG	GLN	THR	ALA	THR	GLN	TVR	ASP	PRO	ARG	GLU	GLY	V2855	N2856	F2857	Q2858	F2859	P2860	S2863	Q2864	L2867	S2868	R2869	E2870	L2871	L2878	A2879	E2880	N2881	S2970	I2869	Q2971	F2972	F2973	I2974	A2975	H2976
D2752	S2753	F2754	I2755	K2756	K2757	F2758	A2759	W2766	D2684	S2685	H2688	Y2691	E2694	L2695	Y2696	M2698	S2776	Y2777	G2778	E2779	N2780	W2781	D2782	E2783	K2786	T2787	H2788	P2789	W2790	L2791	R2792	F2793	Y2794	K2795	T2796	F2797	S2798	E2799	K2800	R2738	P2739	V2740	R2806	I2809	K2810	L2813	K2814	A2815	W2819	E2820	W2821							
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L2672	R2676	K2677	L2678	F2679	W2680	G2681	D2684	S2685	H2688	Y2691	E2694	L2695	Y2696	M2698	S2776	Y2777	G2778	E2779	N2780	W2781	D2782	E2783	K2786	T2787	H2788	P2789	W2790	L2791	R2792	F2793	Y2794	K2795	T2796	F2797	S2798	E2799	K2800	R2738	P2739	V2740	R2806	I2809	K2810	L2813	K2814	A2815	W2819	E2820	W2821									
E2824	K2825	A2826	R2827	E2828	G2829	E2830	GLU	GLU	ARG	THR	LYS	LYS	THR	ARG	LYS	ILE	SER	GLN	THR	ALA	THR	GLN	THR	TVR	ASP	PRO	ARG	GLU	GLY	V2855	N2856	F2857	Q2858	F2859	P2860	S2863	Q2864	L2867	S2868	R2869	E2870	L2871	L2878	A2879	E2880	N2881	S2970	I2869	Q2971	F2972	F2973	I2974	A2975	H2976				
L1698	R1808	D1809	K1810	M1814	L1815	G1816	Y1711	R1827	W1712	D1828	V1829	W1830	E1835	F1836	Q1837	F1838	V1839	F1840	V1841	M1750	L1751	S1732	E1733	Y1734	I1735	P1740	I1853	F1854	R1743	D1858	P1749	I1862	M1865	I1866	P1763	L1771	R1786	R1759	P1773	H1776	V1783	L1786	P1787	ALA	GLY	VAL	ALA	E1793	R1797	L1798	S1799	P1800	L1804					
GLU	GLU	ASP	GLU	GLU	GLU	GLU	LYS	GLU	GLU	ASP	ALA	GLU	LYS	GLU	GLU	GLU	GLU	ALA	PRO	PRO	GLU	GLY	GLU	LYS	GLU	ASP	L1922	I1853	F1854	R1743	D1858	P1749	I1862	M1865	I1866	P1763	L1771	R1786	R1759	P1773	H1776	V1783	L1786	P1787	ALA	GLY	VAL	ALA	E1793	R1797	L1798	S1799	P1800	L1804				
F2012	K2013	L2031	H2035	Q2036	L2039	A2040	G2045	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	GLU	PRO	PRO	GLU	GLY	GLU	LYS	GLU	ASP	L1922	I1853	F1854	R1743	D1858	P1749	I1862	M1865	I1866	P1763	L1771	R1786	R1759	P1773	H1776	V1783	L1786	P1787	ALA	GLY	VAL	ALA	E1793	R1797	L1798	S1799	P1800	L1804			
E2086	H2100	M2101	R2104	Q2107	E2108	D2109	Y2110	V2111	Q2112	S2113	F2114	V2117	F2121	S2122	L2123	L2124	H2125	R2126	Q2127	Y2128	E2133	L2134	L2135	R2136	A2137	L2138	P2139	R2140	L2144	V2149	T2152	L2156	E2157	R2163	L2166	L2167	V2168	Q2173	E2174	E2175	L2258	S2261	G2262	I2263	L2265													
I2182	I2185	M2186	K2189	Y2192	N2196	L2197	M2198	R2199	A2200	L2201	G2202	M2203	H2204	M2208	M2211	V2212	R2213	V2214	L2215	G2216	GLY	GLY	GLU	THR	LYS	GLU	I2223	T2230	R2234	Y2238	I2242	Q2245	N2246	Q2247	F2251	L2254	S2255	Y2256	L2258	S2261	G2262	I2263	L2265															
G2286	M2287	Q2288	P2272	L2273	A2277	S2279	L2286	A2287	L2288	Q2291	E2292	Q2293	K2297	V2298	V2299	A2303	G2304	C2305	G2306	L2307	L2313	Y2318	I2321	W2322	N2324	P2325	R2330	D2333	F2334	L2335	R2336	F2340	N2351	V2352	V2353	V2354	R2355	L2356	L2357	L2358	L2359	K2359	K2360	F2364														
A2367	L2368	S2374	R2375	L2376	L2377	I2380	E2381	E2382	A2383	L2384	R2385	P2395	VAL	ARG	ARG	ASP	ARG	ARG	GLU	HIS	PHE	GLY	GLU	GLU	PRO	PRO	GLU	M2414	L2418	G2419	H2420	A2421	I2422	M2423	Y2426	L2429	D2431	R2435	G2436	A2437	A2445	G2446	K2447	G2448	R2452													
I2453	R2454	A2455	I2456	L2457	R2458	S2459	L2460	G2468	I2469	L2470	S2471	L2472	P2473	L2474	P2477	T2478	L2479	D2482	L2485	K2489	A2492	S2493	F2494	V2495	P2496	D2497	H2498	K2499	S2501	M2502	R2508	V2509	Y2510	G2511	I2512	L2518	L2522	G2525	F2526	L2527	T2528	R2531	L2536	D2537	T2538	F2541												
S2542	T2543	T2544	E2545	M2546	L2550	L2554	C2555	L2559	T2563	I2577	M2578	M2582	T2585	R2588	G2592	L2595	Q2599	R2600	L2603	E2604	C2611	L2619	Q2620	H2621	L2623	R2624	R2625	L2626	V2627	M2639	P2640	L2641	K2642	L2643	T2644	T2645	R2650	Y2655	S2668	E2669																		
L2672	R2676	K2677	L2678	F2679	W2680	G2681	D2684	S2685	H2688	Y2691	E2694	L2695	Y2696	M2698	S2776	Y2777	G2778	E2779	N2780	W2781	D2782	E2783	K2786	T2787	H2788	P2789	W2790	L2791	R2792	F2793	Y2794	K2795	T2796	F2797	S2798	E2799	K2800	R2738	P2739	V2740	R2806	I2809	K2810	L2813	K2814	A2815	W2819	E2820	W2821									
E2824	K2825	A2826	R2827	E2828	G2829	E2830	GLU	GLU	ARG	THR	LYS	LYS	THR	ARG	LYS	ILE	SER	GLN	THR	ALA	THR	GLN	THR	TVR	ASP	PRO	ARG	GLU	GLY	V2855	N2856	F2857	Q2858	F2859	P2860	S2863	Q2864	L2867	S2868	R2869	E2870	L2871	L2878	A2879	E2880	N2881	S2970	I2869	Q2971	F2972	F2973	I2974	A2975	H2976				





V2214	H2125	V1841	M1730	G1621	R1508	ASP	LYS	R1290	D1070	L984	E876
L2215	R2126	L1731	L1731	E1622	R1514	VAL	GLU	L1291	R1071	Y985	M877
G2216	GLU	L1849	E1733	R1623	L1514	VAL	GLY	S1292	V1072		H878
GLY	THR	V1850	S1752	R1624	C1518	VAL	THR	L1293	R1073		H879
GLY	LEU	M1851	Y1734	G1625	C1518	ALA	PRO	P1294	F1074		R886
GLY	LEU	G1852	I1735	W1625	L1519	ASP	GLY	F1297	F1075		I887
THR	ARG	I1853	P1740	A1627	L1522	N1420	THR	H1297	R1076		
LYS	LEU	F1854	R1743	M1637	A1523	R1421	PRO	Q1299	A1077		W891
T2223	ARG	D1858	R1743	A1638	A1523	D1422	PRO	H1296	F1179		T892
	ARG	L1862	P1749	L1639	M1527	D1423	GLN	Q1304	E1181		Y893
T2230	LEU	I1862	P1749	H1640	K1547	E1425	PRO	T1082	Y1081		Y896
	LEU	M1865	R1758	I1641	L1548	I1426	VAL	V1083	T1082		G894
R2234	GLU	I1866	R1759	I1644	L1548		GLU	E1188	V1083		R897
Y2238	THR	F1871	R1759	M1645	F1549	T1431	ALA	L1189	G1086		
	VAL	F1871	P1763	R1646	P1550	T1432	THR	C1192	R1087		K901
T2242	ARG	F1871	P1763	R1646	A1551	T1433	GLN	C1192	G1086		R902
	LEU	F1871	P1763	R1646	V1552	Y1434	PRO	P1196	R1016		L903
Q2245	LEU	F1871	P1763	R1646	F1553	Y1434	VAL	P1196	R1017		H904
R2246	VAL	E1874	L1771	M1648	V1554	Y1435	ARG	V1199	M1018		P905
Q2247	LYS	GLU	R1772	E1652	V1554		ALA	G1200	L1021		C906
Q2247	LYS	GLU	R1773	L1653	L1555	V1439	ASN	G1200	V1022		L907
F2251	GLU	GLU	H1776	L1653	P1556	V1439	GLU	D1207	P1023		H911
L2254	GLU	GLU	H1776	R1656	Q1559	Q1443	LYS	D1207	P1023		L912
S2255	GLU	GLU	V1783	R1656	Q1559	C1447	ASP	S1210	L1026		L913
Y2256	GLU	GLU	L1786	R1661	V1561	V1448	ALA	S1210	L1027		
L2257	GLU	GLU	P1787	F1662	I1562	V1448	ALA	F1223	K1032		E917
L2258	LEU	GLU	ALA	H1663	E1565	W1450	THR	A1227	R1036		L929
N2176	LEU	GLU	GLY	S1664	E1565	G1451	GLU	A1227	R1036		
L2177	LEU	GLU	GLY	H1665	K1568	W1452	LYS	V1234	L1046		K930
M2177	ALA	GLU	VAL	R1670	Q1568	W1453	ASN	V1234	L1047		T931
L2179	GLU	GLU	ALA	R1671	L1570	P1455	LYS	W1237	L1048		L932
Q2180	GLU	GLU	E1793	R1671	I1570	P1455	LYS	W1237	G1048		G940
S2181	GLU	GLU	E1793	V1673	I1572	M1462	ARG	Q1244	A1042		
L2182	ASP	ASP	R1797	V1673	M1573	M1476	PHE	F1245	V1043		L933
Q2095	GLU	GLU	P1800	L1676	P1574	G1477	LEU	E1246	T1044		A934
E2096	GLU	GLU	P1800	L1676	L1575	G1477	PHE	P1247	L1046		C937
H2100	LYS	GLU	L1804	R1680	A1578	D1478	LYS	V1249	L1047		H938
K2101	GLU	GLU	L1804	L1694	M1579	M1482	ALA	P1249	Y1049		V939
Y2182	ASP	ASP	R1809	L1694	F1580	V1483	LYS	H1252	G1050		G940
Q2107	GLU	GLU	K1810	L1703	R1584	H1484	ALA	H1252	Y1051		E947
E2108	GLU	GLU	M1814	P1704	R1594	S1485	ALA	E1256	I1053		L950
R2109	LYS	GLU	L1815	P1704	L1594	C1489	MET	V1257	E1054		K951
A2040	LYS	GLU	G1816	R1708	L1596	M1494	GLY	V1257	P1056		Y959
Q2045	ASP	ASP	R1827	Y1711	Q1598	W1495	PRO	M1260	P1056		
G2202	LEU	ALA	D1828	Y1711	P1609	W1496	ALA	D1261	ASP		P969
H2204	GLU	GLU	V1830	D1713	F1612	G1497	THR	D1261	GLN		L970
M2208	GLU	GLU	E1835	L1715	F1612	G1497	ALA	P1268	GLU		D971
V2211	GLU	GLU	F1836	H1718	E1615	S1502	PRO	C1269	PRO		L972
S2212	GLU	GLU	Q1837	H1719	E1615	P1503	LEU	L1270	SER		R976
L2123	GLU	GLU	F1838	H1719	T1617	G1504	ARG	R1271	GLN		L977
N2213	PRO	PRO	P1840	R1727	R1618	G1504	LEU	L1272	VAL		R978
	GLU	PRO	P1840	R1727	R1619	GLN	PRO	L1274	GLU		R979
					A1620	GLY	ALA	L1289	GLY		A980
							HIS				Q981

C2304 L2595 K2489 K2305 C2306 L2307 L2313 Y2318 L2321 W2322 W2323 W2324 F2325 R2330 D2333 F2334 L2335 R2336 F2340 W2351 V2352 V2353 R2355 L2356 L2357 R2358 K2360 F2364 A2367 L2368 S2374 G2375 L2376 L2377 L2380 E2381 E2382 A2383 L2384 R2385 P2395 GLY VAL ARG ARG ASP ARG ARG	ARG GLU HIS PHE GLY GLU GLU PRO GLU GLU M2414 L2418 G2419 H2420 A2421 I2422 M2423 Y2426 L2429 I2430 D2431 R2435 C2436 V2434 A2437 G2445 A2446 K2447 G2448 R2452 I2453 R2454 A2456 I2456 L2457 R2458 S2459 L2460 G2468 I2469 I2470 S2471 L2472 F2473 L2474 P2477 T2478 L2479 D2482 L2485	K2489 A2492 S2493 F2494 V2495 P2496 D2497 H2498 K2499 A2500 S2501 R2508 V2509 A2510 G2511 I2512 L2518 L2522 G2525 F2526 L2527 R2531 L2536 D2537 I2538 F2541 S2542 T2543 T2544 E2545 M2546 L2550 C2555 L2559 T2563 M2562 H2564 T2565 R2568 Y2651 E2654 Y2696 H2688 Y2691 M2682 S2685 H2688 E2689 E2691 D2698 S2685 H2673 R2676 K2677 L2678 F2679 W2680 G2681 D2684 S2685 H2673 H2688 Y2691 E2694 Y2696 R2697 M2698 M2700 G2699	L2595 Q2599 R2600 L2603 E2604 C2611 G2610 L2619 H2621 L2622 L2623 R2624 L2625 L2626 W2627 M2639 P2640 L2641 K2642 L2643 L2645 R2650 Y2655 S2669 E2669 L2672 H2673 R2676 K2677 L2678 F2679 W2680 G2681 D2684 S2685 H2673 H2688 Y2691 E2694 Y2696 R2697 M2698 M2700	P2761 C2702 L2706 A2709 L2710 P2711 Y2714 W2715 E2724 K2725 LYS L2822 THR R2624 VAL S2798 ALA GLU W2734 P2737 R2738 P2739 V2740 L2746 L2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 L2755 K2756 K2757 A2759 W2766 A2767 F2768 D2769 K2770 L2771 Q2772 N2773 N2774 W2775 S2776 G2778 E2779 N2780	D2782 E2783 K2786 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 L2796 F2797 S2798 E2799 K2800 D2801 K2802 E2803 R2806 I2809 L2810 L2813 K2814 A2815 W2819 E2820 W2821 T2822 S2823 E2824 K2825 A2826 R2827 E2828 G2829 E2830 GLU GLU ARG THR GLU LYS LYS LYS THR ARG LYS ILE GLN THR ALA	GLN THR TYR ASP PRO ARG GLU GLY Y2855 H2856 Q2858 P2859 P2860 S2863 G2864 L2867 R2868 E2869 K2870 L2871 L2878 A2879 F2880 N2881 Y2882 N2884 R2888 K2891 Q2892 I2893 L2894 H2900 K2891 Q2892 E2893 L2894 H2902 L2905 V2906 D2909 T2910 L2911 T2912 A2913 K2914 E2915 K2916 R2920 Q2924 K2928 F2929 L2930	Q2931 Y2935 R2939 GLY LEU LYS ASP MET GLU L2946 S2950 K2953 R2954 F2955 A2956 F2957 G2958 F2959 L2960 Q2961 Q2962 L2963 L2964 R2965 V2966 K2967 I2968 S2970 E2971 F2973 L2974 A2975 H2976 L2977 E2978 V2980 V2981 R2985 K2986 L3003 P3004 N3007 C3014 L3015 L3018 P3021	A3022 K3023 Y3024 L3025 H3030 A3031 S3032 H3033 K3034 E3035 K3036 E3037 S3041 L3042 F3043 C3044 K3045 L3049 V3050 R3051 V3054 F3057 D3060 V3065 L3068 H3069 L3070 L3071 A3072 R3073 S3074 D3076 T3079 V3080 G3084 V3088 R3093 E3097 S3098 E3101 D3102 I3103 E3104 K3105 M3106	V3107 L3110 R3111 LEU GLY LYS VAL SER GLN ALA ARG THR GLN VAL LYS GLY VAL GLY G3127 Y3131 P3138 V3139 T3142 L3143 F3144 K3145 H3146 I3147 D3155 V3156 I3157 L3158 V3161 Y3166 L3169 I3172 Y3173 S3174 L3175 T3178 V3183 L3186 R3187 L3190 E3192	C3193 L3194 A3195 R3196 L3197 M3201 P3202 V3203 N3214 Y3219 K3222 S3223 P3224 R3225 E3226 R3227 A3228 I3229 L3230 G3231 L3232 S3235 M3239 C3240 L3243 P3244 V3245 L3246 D3247 R3248 L3249 M3250 A3251 D3252 I3253 L3256 A3261 R3262 E3265 M3266 P3267 H3268 V3269 I3270 P3275 C3278 R3283	W3284 P3289 A3295 L3296 P3297 P3303 F3304 T3305 L3312 K3313 S3314 L3315 L3316 V3324 L3327 G3328 I3329 W3334 K3335 R3336 R3337 F3341 A3342 Q3343 P3344 L3345 V3346 S3347 R3348 A3349 R3350 P3351 E3352 L3353 L3354 H3355 I3359 P3360 R3364 R3368 K3371 V3372 E3375 Q3378 L3379 R3380	L3381 K3384 A3385 E3386 A3387 G3390 E3391 L3392 L3393 V3394 R3396 D3396 E3397 V3400 R3403 D3404 L3405 Y3409 P3410 I3413 R3414 Y3415 V3416 W3423 P3427 N3428 A3429 M3430 F3442 W3445 H3449 K3452 E3455 Q3456 M3467 T3471 K3475 SER LYS MET ALA ALA GLY	L3509 L3510 W3511 A3512 F3513 L3514 K3515 K3516 K3517 L3518 M3524 C3525 L3533 K3537 T3538 R3539 Y3540 A3541 L3542 T3545 D3546 E3547 F3548 V3549 R3550 E3551 L3553 V3563 P3567 S3568
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S2685	L2554	L2376	Y2192	Q2107	Q2036	GLU	K1810	L1703	M1599	F1500	ALA
H2688	C2555	L2377	Q2193	E2108	L2039	GLU	M1814	P1704	P1609	V1501	LEU
Y2691	L2559	I2380	N2196	Y2109	A2040	GLU	L1815	R1708	P1609	S1502	PRO
E2694	L2470	E2381	L2197	Y2110	A2040	GLU	G1816	R1708	P1609	P1503	ARG
L2696	S2471	A2383	M2198	V2111	Q2045	LYS	R1827	Y1711	F1612	F1504	LEU
L2697	L2472	E2382	R2199	S2113	LEU	GLU	D1828	Y1712	V1615	GLN	PRO
M2698	P2473	A2384	A2200	S2114	GLY	ASP	P1829	D1713	E1616	GLY	HIS
M2699	L2474	R2385	M2201	E2115	ALA	ALA	L1830	L1714	T1617	GLY	ASP
F2700	P2395	P2386	G2202	E2116	GLU	LYS	R1835	L1715	R1618	R1508	VAL
C2702	GLY	H2204	H2204	V2117	GLU	GLU	E1836	L1718	R1620	L1514	PRO
I2706	VAL	M2208	M2208	F2121	GLU	GLU	F1836	H1719	A1620	C1518	ALA
A2709	ARG	K2297	K2297	S2122	PRO	GLU	Q1837	H1719	E1622	L1519	ASP
L2710	ARG	V2298	M2211	L2123	GLU	GLU	F1838	R1727	R1623	M1420	PRO
L2711	ASP	V2299	M2212	L2124	GLU	ALA	V1839	R1727	R1623	R1421	PRO
Y2714	ARG	A2303	N2213	H2125	GLU	PRO	G1840	M1730	L1522	D1422	PRO
V2715	ARG	G2304	V2214	R2126	THR	GLU	V1841	L1731	A1523	D1423	PRO
E2724	GLU	C2305	V2215	Q2127	THR	GLU	F1854	L1731	G1527	P1424	PRO
K2725	HIS	G2306	L2216	Y2128	LEU	GLU	L1849	E1733	M1527	E1425	PRO
L2619	PHE	L2307	GLY	E2133	SER	LYS	Y1739	Y1739	S1536	I1426	PRO
K2620	GLU	L2313	GLY	R2133	ARG	ASP	M1851	I1735	K1547	T1431	PRO
C2611	PRO	Y2318	THR	L2135	LEU	ASP	I1852	P1740	L1639	T1432	PRO
L2619	PRO	Y2318	GLU	R2136	LEU	ASP	I1853	P1740	L1640	Y1433	PRO
L2619	PRO	Y2318	GLU	A2137	ARG	ASP	F1854	R1743	I1641	Y1434	PRO
L2619	PRO	Y2318	GLU	L2138	LEU	ASP	D1888	R1743	P1642	Y1435	PRO
L2619	PRO	Y2318	GLU	L2139	LEU	ASP	I1862	P1749	E1643	V1439	PRO
L2619	PRO	Y2318	GLU	R2140	THR	ASP	M1865	R1758	I1645	G1451	PRO
L2619	PRO	Y2318	GLU	I2144	VAL	ASP	I1866	R1759	C1647	Y1452	PRO
L2619	PRO	Y2318	GLU	V2149	ARG	ASP	F1874	P1763	M1648	Y1453	PRO
L2619	PRO	Y2318	GLU	T2152	VAL	ASP	E1874	P1763	E1652	C1447	PRO
L2619	PRO	Y2318	GLU	L2156	LYS	ASP	GLU	L1771	M1560	V1448	PRO
L2619	PRO	Y2318	GLU	E2157	LYS	ASP	GLU	R1772	L1561	V1449	PRO
L2619	PRO	Y2318	GLU	R2163	LYS	ASP	GLU	P1773	I1562	Y1451	PRO
L2619	PRO	Y2318	GLU	V2168	LYS	ASP	GLU	H1776	F1662	T1454	PRO
L2619	PRO	Y2318	GLU	Q2173	LYS	ASP	GLU	V1783	H1663	P1485	PRO
L2619	PRO	Y2318	GLU	E2174	LYS	ASP	GLU	L1786	S1664	M1462	PRO
L2619	PRO	Y2318	GLU	M2175	LYS	ASP	GLU	P1787	H1665	Q1569	PRO
L2619	PRO	Y2318	GLU	N2176	LYS	ASP	GLU	ALA	T1666	K1570	PRO
L2619	PRO	Y2318	GLU	L2177	LYS	ASP	GLU	ALA	Y1670	G1477	PRO
L2619	PRO	Y2318	GLU	M2178	LYS	ASP	GLU	ALA	R1671	D1478	PRO
L2619	PRO	Y2318	GLU	L2179	LYS	ASP	GLU	ALA	A1672	M1452	PRO
L2619	PRO	Y2318	GLU	Q2180	LYS	ASP	GLU	ALA	V1673	V1463	PRO
L2619	PRO	Y2318	GLU	S2181	LYS	ASP	GLU	E1793	L1676	H1484	PRO
L2619	PRO	Y2318	GLU	I2182	LYS	ASP	GLU	ALA	A1578	S1485	PRO
L2619	PRO	Y2318	GLU	M2184	LYS	ASP	GLU	ALA	L1680	C1489	PRO
L2619	PRO	Y2318	GLU	R2185	LYS	ASP	GLU	ALA	R1680	M1579	PRO
L2619	PRO	Y2318	GLU	Q2288	LYS	ASP	GLU	ALA	H1683	F1580	PRO
L2619	PRO	Y2318	GLU	P2272	LYS	ASP	GLU	ALA	R1584	M1494	PRO
L2619	PRO	Y2318	GLU	G2375	LYS	ASP	GLU	ALA	L1694	Y1496	PRO
L2619	PRO	Y2318	GLU	L2273	LYS	ASP	GLU	ALA	L1694	G1497	PRO
L2619	PRO	Y2318	GLU	L2273	LYS	ASP	GLU	ALA	L1698	D1499	PRO

F3992	F3885	Q3766	PHE	R3550	K3475	H3268	T3178	P3004	T2912	THR	F2768
L3993	R3886	Q3767	ARG	E3551	SER	V3269	V3183	N3007	A2913	GLU	I2769
H5994	F3887	S3768	MET	F3552	LYS	I3270	V3183	N3007	K2914	LYS	K2770
F3996	F3888	R3769	P3640	L3553	ALA	P3275	L3186	C3014	E2915	THR	L2771
A3997	Q3888	L3770	ALA	V3563	LYS	C3278	R3187	L3015	K2916	THR	Q2772
H3998	L3890	H3771	R3648	P3567	GLY	P3188	E3189	L3018	R2920	ARG	Q2773
H3999	L3891	T3772	N3651	S3568	ALA	A3189	L3190	P3021	Q2924	LYS	W2774
M4000	C3892	R3773	M3652	L3569	ASP	G3191	G3191	A3022	K2928	SER	W2775
M4001	E3893	A3774	M3652	R3569	ALA	W3284	G3192	K3023	F2929	GLN	W2776
K4002	G3894	A3775	E3655	M3571	GLN	P3289	C3193	V3024	F2930	THR	Y2777
L4017	H3895	K3778	T3664	L3579	SER	A3295	L3194	L3025	L2931	ALA	Q2778
K4021	Q3900	V3779	I3674	P3580	GLY	E3386	A3195	L3025	Q2931	GLN	E2779
D4022	R3904	L3780	I3674	G3581	GLY	L3296	R3196	H3030	Y2935	THR	W2780
M4023	T3905	G3788	K3679	R3582	SER	P3297	L3197	A3031	Y2935	TYR	W2781
V4024	Q3906	E3789	K3679	R3582	ASP	P3297	M3201	S3032	R2939	PRO	I2782
V4025	Q3906	E3789	K3679	R3582	GLU	P3303	P3202	N3033	R2939	ARG	E2783
M4026	N3909	T3790	K3694	A3586	THR	G3804	V2303	K3034	GLY	GLU	K2786
L4027	N3909	I3802	P3695	P3589	THR	T3305	N3214	E3035	LYS	GLY	K2787
L4028	I3916	L3805	H3699	E3590	LYS	N3312	Y3219	K3036	ASP	GLY	H2788
M4040	V3920	L3805	Q3700	K3591	LYS	L3313	Y3219	E3037	ASP	GLY	H2789
A4041	D3921	G3807	L3701	V3592	LYS	L3314	K3222	S3041	ASP	GLY	K2790
M4042	G3807	G3807	L3701	V3593	ARG	S3314	K3222	L3042	GLU	GLY	L2791
L4042	G3808	G3808	K3713	R3594	ARG	L3315	P3224	F3043	P2859	THR	R2792
M4044	R3925	V3812	K3713	R3595	GLY	L3316	P3224	K3045	P2860	GLY	R2792
V4045	S3929	M3816	L3716	A3601	ASP	V3324	R3225	K3045	S2863	GLY	Y2794
D4046	N3929	M3816	D3717	V3602	TYR	V3324	R3225	L3049	G2864	GLY	K2795
M4047	Y3936	Q3833	L3716	A3602	TYR	L3327	E3226	V3050	P2955	GLY	T2796
L4048	Y3937	A3834	Y3720	L3603	L3603	G3828	A3228	R3051	F2957	GLY	T2797
V4049	Y3937	A3834	Y3720	L3604	L3604	I3329	L3229	V3054	F2957	GLY	S2798
V4055	K3940	M3836	M3723	H3605	L3605	W3334	L3230	V3054	G2958	GLY	E2799
L4059	R3949	M3836	A3724	E3607	P3410	M3335	L3232	L3068	F2959	GLY	K2800
K4060	R3950	T3837	Y3725	E3607	P3410	I3329	G3291	L3068	L2960	GLY	K2800
F4061	F3951	T3838	I3728	P3612	V3415	K3336	G3291	L3068	Q2961	GLY	I2801
F4062	M3955	L3842	L3728	T3612	V3415	R3337	M3239	L3068	L2966	GLY	K2802
D4063	M3955	D3843	K3731	L3616	K3516	R3337	C3240	L3068	R2966	GLY	E2803
M4064	V3961	L3844	S3732	K3516	M3517	F3341	T3243	H3069	N2881	GLY	R2806
F4065	F3962	N3845	L3735	L3518	M3517	Q3343	V3245	I3070	N2882	GLY	I2809
L4066	F3962	A3846	L3735	L3518	L3518	P3344	V3245	L2878	H2883	GLY	K2810
L4068	S3864	A3846	E3740	M3524	C3525	I3345	D3247	L2878	H2883	GLY	K2810
I4071	L3965	R3849	ASN	HIS	I3533	S3347	R3248	L2878	N2881	GLY	K2810
V4072	T3966	Q3850	GLY	LYS	I3533	R3348	L3249	L2878	N2881	GLY	K2810
V4081	E3967	N3851	GLU	LEU	K3537	A3349	M3250	A3072	N2882	GLY	K2810
V4081	Y3968	K3852	GLU	SER	T3538	A3349	M3250	R3073	H2883	GLY	K2810
L4087	Q3970	L3856	GLU	LYS	R3539	R3350	A3251	L3075	Q2892	GLY	K2810
L4088	N3976	V3865	E3747	GLN	Y3540	L3353	I3253	D3076	A2975	GLY	K2810
S4089	N3976	I3866	ARG	ARG	Y3540	L3354	I3256	T3079	H2976	GLY	K2810
K4090	R3984	N3867	ARG	ARG	K3452	H3355	L3256	V3080	L2977	GLY	K2810
M4097	L3985	R3868	ALA	ALA	A3261	I3359	A3261	G3084	V2980	GLY	K2810
F4103	W3886	G3871	E3755	VAL	Q3456	E455	I3172	V3088	V2981	GLY	K2810
	V3989	K3872	K3756	VAL	K3467	P3360	Y3173	V3088	V2906	GLY	K2810
		V3874	E3757	ALA	E3548	R3364	L3175	R3083	R2985	GLY	K2810
			M3758	CYS	V3549	R3368	P3257		L3003	GLY	K2810
										GLU	K2810
										GLU	K2810
										ARG	K2810

I4108	ALA	G4225	GLY	ALA	G4733	E4910	G6025
L4112	ARG	K4230	GLY	ALA	R4736	R4913	F5028
A4117	LEU	F4234	LEU	GLY	I4737	V4914	Y5032
E4121	ALA	V4235	TRP	MET	A4738	I4918	S5037
K4122	ALA	T4241	SER	GLY	M4743	L4928	
L4123	ARG	I4242	LEU	PHE	A4746	L4932	
P4135	ALA	F4243	GLY	GLY	E4749	D4945	
E4244	LEU	E4244	GLY	VAL	M4767	Q4949	
M4245	ARG	M4245	GLY	GLY	I4771	K4951	
I4139	GLY	Q4246	LEU	HIS	K4779	E4952	
N4142	LEU	A4248	VAL	VAL	F4780	D4953	
L4146	SER	I4251	GLY	ALA	I4783	T4956	
L4147	GLY	S4252	GLY	ALA	C4802	K4957	
L4147	TYR	E4253	LEU	VAL	M4806	F4958	
L4150	ARG	PRO	LEU	VAL	F4807	F4959	
S4151	ARG	GLU	LEU	VAL	F4808	C4961	
E4152	ARG	GLY	LEU	VAL	F4809	H4978	
H4153	ARG	ASP	LEU	VAL	F4812	E4982	
V4154	ARG	ASP	LEU	VAL	H4812	F4983	
L4160	GLU	GLY	LEU	VAL	V4846	M4984	
N4161	ALA	GLY	LEU	VAL	V4847	L4985	
R4162	ALA	ASP	LEU	VAL	V4848	Y4988	
F4163	LEU	ASP	LEU	VAL	Y4849	M4989	
L4164	THR	ASP	LEU	VAL	L4850	F4990	
E4165	THR	ASP	LEU	VAL	Y4851	F4991	
L4166	ALA	GLY	LEU	VAL	T4852	L4992	
L4167	ARG	GLY	LEU	VAL	V4853	F4993	
A4167	GLY	MET	LEU	VAL	V4854	Y4994	
L4171	GLY	GLY	LEU	VAL	R4860	L4996	
L4171	GLY	GLY	LEU	VAL	D4878	M4997	
I4181	ALA	ALA	LEU	VAL	M4879	H5003	
E4182	ALA	GLY	LEU	VAL	M4880	T5004	
F4183	ALA	GLY	LEU	VAL	T4881	E5007	
N4184	ALA	GLY	LEU	VAL	C4882	K5012	
R4189	GLU	ALA	LEU	VAL	R4860	R5013	
I4190	GLU	ALA	LEU	VAL	D4878	Y5014	
E4191	GLY	ALA	LEU	VAL	M4880	O5015	
R4192	ALA	ALA	LEU	VAL	T4882	E5016	
L4197	ALA	GLY	LEU	VAL	Y4883	R5017	
R4202	ALA	GLY	LEU	VAL	Y4888	G5018	
A4203	ALA	ALA	LEU	VAL	I4897	M5019	
Q4204	ALA	ALA	LEU	VAL	C4898	D5020	
M4207	GLY	ALA	LEU	VAL	I4899	L4725	
P4208	THR	ALA	LEU	VAL	E4900	L4726	
K4211	VAL	ALA	LEU	VAL	I4901	D4726	
K4214	ALA	ALA	LEU	VAL	P4904		
V4222	THR	ALA	LEU	VAL			

• Molecule 2: Ryanodine receptor 1



Y11	THR	L118	ASP
Q12	VAL	S119	THR
F13	GLU	G136	ALA
L14	GLY	L137	PRO
R15	GLY	Q138	LYS
T16	ARG	E139	ARG
E19	GLY	R144	ASP
V20	GLY	M150	VAL
V21	GLY	R157	GLU
L22	GLY	S158	GLY
K34	PRO	E159	PRO
L35	PRO	G160	PRO
R45	PRO	E161	E338
P51	PRO	K162	K340
T52	PRO	V163	Y341
S53	PRO	R164	C346
Q56	PRO	L169	F347
M57	PRO	V172	V348
V58	PRO	S175	Q349
I64	PRO	E176	G354
R76	PRO	R178	L355
L82	PRO	Y179	M356
A83	PRO	L180	S270
N84	PRO	H181	G271
THR	PRO	S194	S272
VAL	PRO	Q197	H273
GLU	PRO	T198	L274
ALA	PRO	L199	R275
GLY	PRO	W200	W276
VAL	PRO	M201	G277
SER	PRO	N202	L280
GLN	PRO	N203	H284
GLY	PRO	P204	T286
GLY	PRO	L205	A292
G97	PRO	C206	L293
H98	PRO	E210	L299
R99	PRO	V214	C305
T100	PRO	T215	H308
L101	PRO	G216	T312
L102	PRO	H218	S313
Y103	PRO	V219	F314
R110	PRO	L220	C315
H111	PRO	H113	F316
A112	PRO	S114	F223
H113	PRO	M115	H224
S114	PRO	M116	H226
R115	PRO	F421	
M116	PRO		
Y117	PRO		

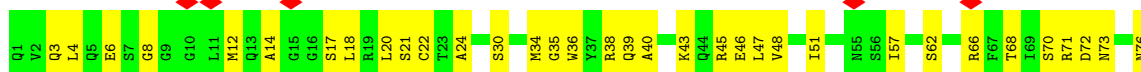
K424	K650	T657	D774	I878	H993	R1073	S1175	P1294	GLY	VAL	R1619	I1718	Q1837
P431	L551	T857	D774	H879	H993	I1074	E1176	GLY	PRO	A1620	A1620	H1719	F1838
L443	D552	G660	P779	R886	M996	F1075	A1178	THR	ALA	G1621	G1621	H1727	V1839
L449	R553	K661	S762	I887	R1000	A1077	F1179	THR	ASP	R1623	R1623	R1731	P1940
E453	L564	E662	F783	M891	W1005	E1078	R1180	PRO	R1421	L1624	G1625	L1731	V1941
Q460	E555	F663	S784	T892	S1006	Y1081	E1182	GLN	D1422	G1626	W1626	S1732	L1849
E463	L561	F664	F787	Y893	S1007	T1082	F1188	ALA	P1423	E1425	A1627	E1733	V1850
R469	L560	F665	K788	G894	Y1007	V1083	L1189	GLY	E1426	I1426	M1637	I1735	G1852
S470	L561	F666	V789	R897	S1008	G1086	C1192	ALA	T1431	A1638	A1638	P1740	G1853
L471	L561	F667	F791	K901	I1043	R1087	P1196	THR	T1432	GLY	H1639	P1740	F1854
R472	L561	F668	L792	R902	R1016	F1092	P1199	PRO	T1433	GLN	H1640	R1743	D1858
M473	L561	F669	L792	R903	R1017	V1095	G1200	LEU	Y1434	PRO	I1641	R1743	I1862
Q475	L561	F670	G795	H904	M1018	M1100	V1200	ALA	E1435	VAL	P1642	P1749	I1862
E480	L561	F671	H797	P905	L1021	R1101	D1207	ALA	A1551	ARG	E1644	R1758	M1865
E481	L561	F672	E799	C906	L1022	M1101	S1210	GLY	V1439	ALA	M1645	R1759	I1866
M483	L561	F673	F800	L907	P1023	W1104	F1223	ASN	Q1443	GLY	C1647	R1763	F1871
L486	L561	F674	K801	H911	L1026	L1115	A1227	GLY	C1447	LYS	E1652	L1771	E1874
V487	L561	F675	F802	S912	L1027	G1116	A1227	GLY	W1448	ASP	L1653	R1772	GLU
L491	L561	F676	Y808	L913	L1032	Y1122	V1234	THR	W1449	THR	L1653	P1773	GLU
D492	L561	F677	H812	L929	R1036	V1123	W1234	GLY	V1451	GLY	R1656	GLU	GLU
Y497	L561	F678	L821	R931	Q1041	F1124	W1237	GLY	W1452	LYS	Q1660	GLU	GLU
A501	L561	F679	L822	H932	Q1042	M1125	A1237	LYS	E1453	ASN	R1661	GLU	GLU
H502	L561	F680	L823	L933	V1043	R1128	Q1244	ARG	T1454	LYS	F1662	GLU	GLU
F503	L561	F681	E824	A934	R1044	G1129	F1246	GLY	P1455	ARG	H1663	GLU	GLU
E505	L561	F682	P825	C937	T1045	Q1130	E1246	GLY	M1462	GLY	S1664	GLU	GLU
W515	L561	F683	R835	H938	L1046	W1132	V1248	PHE	M1476	LEU	T1666	GLU	GLU
I530	L561	F684	L836	G940	Y1049	H1133	P1249	ALA	G1477	ALA	Y1670	GLU	GLU
R531	L561	F685	H838	G947	G1050	P1138	H1252	LYS	D1478	LYS	A1671	GLU	GLU
G532	L561	F686	L839	E947	Y1051	D1147	E1256	LYS	M1482	LYS	V1673	GLU	GLU
R534	L561	F687	V840	L950	I1053	M1152	V1257	ALA	V1483	ALA	L1676	GLU	GLU
A535	L561	F688	P842	K951	E1054	I1153	V1257	MET	S1485	MET	L1676	GLU	GLU
M536	L561	F689	T849	Y959	P1055	M1154	M1260	THR	C1489	THR	R1680	GLU	GLU
L539	L561	F690	L857	P969	P1056	D1154	D1261	THR	M1494	THR	L1694	GLU	GLU
F540	L561	F691	V852	L970	GLN	L1155	P1268	GLN	V1495	GLN	L1694	GLU	GLU
S541	L561	F692	L870	L971	GLU	T1156	C1269	PRO	W1496	PRO	L1698	GLU	GLU
D545	L561	F693	E872	L972	PRO	E1157	L1270	ALA	G1497	ALA	L1703	GLU	GLU
M546	L561	F694	L874	P979	SER	M1158	R1271	THR	G1498	THR	P1704	GLU	GLU
V547	L561	F695	A875	A980	VAL	I1160	H1274	PRO	D1499	PRO	M1804	GLU	GLU
S549	L561	F696	E876	Q981	GLU	I1161	L1287	ALA	F1500	ALA	L1804	GLU	GLU
	L561	F697	A876	L984	M1065	F1162	L1287	LYS	V1501	LYS	R1708	GLU	GLU
	L561	F698	E876	V985	Q1066	T1163	L1288	LEU	S1502	LEU	Y1711	GLU	GLU
	L561	F699	E876		S1067	L1164	L1289	ARG	F1503	ARG	Y1712	GLU	GLU
	L561	F700	E876		M1068	V1168	R1290	LEU	G1504	LEU	D1713	ALA	ALA
	L561	F701	E876		M1069	S1171	L1291	PRO	GLN	GLN	V1880	GLU	GLU
	L561	F702	E876		D1070		S1292	ALA	GLN	GLN	L1714	GLU	GLU
	L561	F703	E876		R1071		L1293	ASP	R1508	ASP	E1835	GLU	GLU
	L561	F704	E876		V1072			VAL		VAL	F1836	GLU	GLU







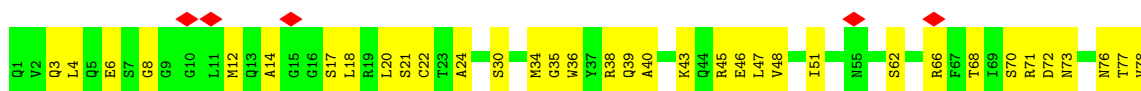
• Molecule 3: Nanobody 9657



• Molecule 3: Nanobody 9657

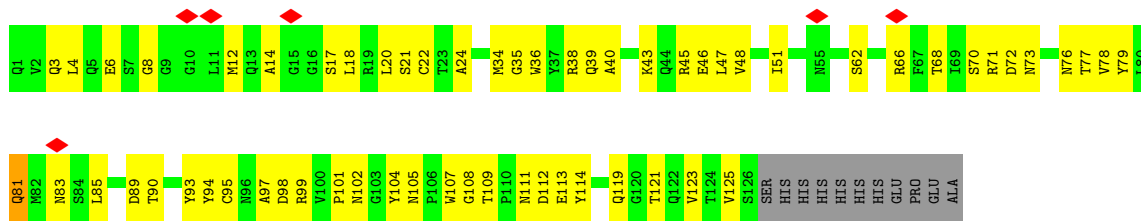


• Molecule 3: Nanobody 9657



• Molecule 3: Nanobody 9657







## 4 Experimental information

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, Not provided	
Number of particles used	16530	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	JEOL CRYO ARM 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ( $e^-/\text{\AA}^2$ )	60	Depositor
Minimum defocus (nm)	1500	Depositor
Maximum defocus (nm)	2500	Depositor
Magnification	Not provided	
Image detector	GATAN K3 (6k x 4k)	Depositor
Maximum map value	3.003	Depositor
Minimum map value	-0.117	Depositor
Average map value	0.044	Depositor
Map value standard deviation	0.094	Depositor
Recommended contour level	0.2	Depositor
Map size ( $\text{\AA}$ )	504.0, 504.0, 504.0	wwPDB
Map dimensions	336, 336, 336	wwPDB
Map angles ( $^\circ$ )	90.0, 90.0, 90.0	wwPDB
Pixel spacing ( $\text{\AA}$ )	1.5, 1.5, 1.5	Depositor

## 5 Model quality [i](#)

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

Bond lengths and bond angles in the following residue types are not validated in this section: ZN, CFF, CA, ATP

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	0.25	0/834	0.54	0/1123
1	D	0.25	0/834	0.54	0/1123
1	H	0.25	0/834	0.54	0/1123
1	I	0.25	0/834	0.54	0/1123
2	B	0.25	0/34916	0.51	1/47328 (0.0%)
2	E	0.25	0/34916	0.51	1/47328 (0.0%)
2	G	0.25	0/34923	0.51	1/47336 (0.0%)
2	J	0.25	0/34916	0.51	1/47328 (0.0%)
3	C	0.26	0/987	0.56	0/1340
3	F	0.26	0/987	0.56	0/1340
3	K	0.26	0/987	0.56	0/1340
3	M	0.26	0/987	0.56	0/1340
All	All	0.25	0/146955	0.51	4/199172 (0.0%)

There are no bond length outliers.

All (4) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
2	B	1503	PRO	N-CA-CB	5.77	110.23	103.30
2	E	1503	PRO	N-CA-CB	5.77	110.23	103.30
2	G	1503	PRO	N-CA-CB	5.77	110.23	103.30
2	J	1503	PRO	N-CA-CB	5.77	110.23	103.30

There are no chirality outliers.

There are no planarity outliers.

## 5.2 Too-close contacts

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	818	0	824	26	0
1	D	818	0	824	28	0
1	H	818	0	824	29	0
1	I	818	0	824	28	0
2	B	34143	0	33531	1049	0
2	E	34143	0	33531	1047	0
2	G	34150	0	33542	1050	0
2	J	34143	0	33531	1042	0
3	C	967	0	916	58	0
3	F	967	0	916	59	0
3	K	967	0	916	58	0
3	M	967	0	916	57	0
4	B	1	0	0	0	0
4	E	1	0	0	0	0
4	G	1	0	0	0	0
4	J	1	0	0	0	0
5	B	31	0	12	1	0
5	E	31	0	12	1	0
5	G	31	0	12	1	0
5	J	31	0	12	1	0
6	B	14	0	10	0	0
6	E	14	0	10	0	0
6	G	14	0	10	0	0
6	J	14	0	10	0	0
7	B	1	0	0	0	0
7	E	1	0	0	0	0
7	G	1	0	0	0	0
7	J	1	0	0	0	0
All	All	143907	0	141183	4467	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 16.

All (4467) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3416:VAL:HG11	2:E:3516:LYS:HD3	1.51	0.93
2:E:248:GLU:HB2	2:E:373:LYS:HD2	1.51	0.92
2:B:248:GLU:HB2	2:B:373:LYS:HD2	1.52	0.91
2:J:3416:VAL:HG11	2:J:3516:LYS:HD3	1.51	0.91
2:B:3416:VAL:HG11	2:B:3516:LYS:HD3	1.51	0.91
2:G:3416:VAL:HG11	2:G:3516:LYS:HD3	1.51	0.90
2:J:3889:GLN:HB2	2:J:3967:GLU:HG3	1.54	0.90
2:G:3889:GLN:HB2	2:G:3967:GLU:HG3	1.56	0.88
2:J:248:GLU:HB2	2:J:373:LYS:HD2	1.55	0.87
2:E:3889:GLN:HB2	2:E:3967:GLU:HG3	1.56	0.86
2:B:3889:GLN:HB2	2:B:3967:GLU:HG3	1.55	0.86
2:J:3889:GLN:HB3	2:J:3964:SER:HA	1.58	0.84
2:G:360:ALA:HB2	2:G:377:ILE:HG21	1.60	0.83
2:G:2423:MET:HE1	2:G:2494:PHE:HA	1.61	0.83
2:B:3889:GLN:HB3	2:B:3964:SER:HA	1.60	0.83
3:K:105:ASN:HD21	3:K:111:ASN:HB2	1.43	0.83
3:F:105:ASN:HD21	3:F:111:ASN:HB2	1.44	0.83
2:J:2423:MET:HE1	2:J:2494:PHE:HA	1.61	0.82
2:G:3889:GLN:HB3	2:G:3964:SER:HA	1.60	0.82
3:M:105:ASN:HD21	3:M:111:ASN:HB2	1.44	0.82
3:F:34:MET:HG2	3:F:71:ARG:HG3	1.62	0.81
2:B:2423:MET:HE1	2:B:2494:PHE:HA	1.61	0.81
2:E:3889:GLN:HB3	2:E:3964:SER:HA	1.60	0.81
3:C:105:ASN:HD21	3:C:111:ASN:HB2	1.45	0.81
2:E:1160:ILE:HB	2:E:1179:PHE:HB2	1.63	0.81
2:B:1160:ILE:HB	2:B:1179:PHE:HB2	1.63	0.81
2:B:1008:SER:HB2	2:B:1017:ARG:HE	1.47	0.80
2:J:1160:ILE:HB	2:J:1179:PHE:HB2	1.63	0.80
2:E:665:GLU:HB3	2:E:792:LEU:HB2	1.64	0.80
2:J:665:GLU:HB3	2:J:792:LEU:HB2	1.64	0.79
3:K:34:MET:HG2	3:K:71:ARG:HG3	1.62	0.79
3:M:34:MET:HG2	3:M:71:ARG:HG3	1.63	0.79
2:G:1160:ILE:HB	2:G:1179:PHE:HB2	1.63	0.79
2:G:1476:MET:H	2:G:1485:SER:HB2	1.47	0.79
2:G:360:ALA:HA	2:G:377:ILE:HD13	1.64	0.79
3:K:111:ASN:HA	3:K:114:TYR:HD2	1.47	0.79
2:G:1008:SER:HB2	2:G:1017:ARG:HE	1.47	0.79
2:B:1476:MET:H	2:B:1485:SER:HB2	1.47	0.79
2:J:1008:SER:HB2	2:J:1017:ARG:HE	1.47	0.79
2:E:2423:MET:HE1	2:E:2494:PHE:HA	1.65	0.78
1:I:14:THR:HG22	1:I:106:LEU:HD23	1.65	0.78
2:E:246:TYR:HB2	2:E:373:LYS:HE3	1.64	0.78

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:14:THR:HG22	1:A:106:LEU:HD23	1.65	0.78
2:B:665:GLU:HB3	2:B:792:LEU:HB2	1.64	0.78
2:J:4024:VAL:HG11	2:J:4142:ASN:HB3	1.65	0.78
2:B:246:TYR:HB2	2:B:373:LYS:HE3	1.64	0.78
2:G:665:GLU:HB3	2:G:792:LEU:HB2	1.64	0.78
3:C:34:MET:HG2	3:C:71:ARG:HG3	1.63	0.78
2:G:748:LEU:HD13	2:G:755:ILE:HG12	1.66	0.78
3:C:111:ASN:HA	3:C:114:TYR:HD2	1.48	0.78
2:J:1476:MET:H	2:J:1485:SER:HB2	1.47	0.78
1:I:23:VAL:HG12	1:I:47:LYS:HG2	1.66	0.77
1:H:14:THR:HG22	1:H:106:LEU:HD23	1.65	0.77
2:E:226:HIS:HE1	2:E:229:GLU:HG2	1.50	0.77
2:E:1476:MET:H	2:E:1485:SER:HB2	1.47	0.77
1:I:88:PRO:HD2	2:J:1786:LEU:HB3	1.66	0.77
2:B:748:LEU:HD13	2:B:755:ILE:HG12	1.66	0.77
2:J:246:TYR:HB2	2:J:373:LYS:HE3	1.66	0.77
2:J:4904:PRO:HD3	2:J:4913:ARG:HH21	1.50	0.77
1:D:14:THR:HG22	1:D:106:LEU:HD23	1.65	0.77
2:G:226:HIS:HE1	2:G:229:GLU:HG2	1.50	0.77
1:A:23:VAL:HG12	1:A:47:LYS:HG2	1.66	0.77
2:B:4024:VAL:HG11	2:B:4142:ASN:HB3	1.67	0.77
2:E:1008:SER:HB2	2:E:1017:ARG:HE	1.47	0.77
1:D:23:VAL:HG12	1:D:47:LYS:HG2	1.66	0.76
2:J:748:LEU:HD13	2:J:755:ILE:HG12	1.66	0.76
3:F:111:ASN:HA	3:F:114:TYR:HD2	1.47	0.76
2:B:226:HIS:HE1	2:B:229:GLU:HG2	1.50	0.76
2:E:748:LEU:HD13	2:E:755:ILE:HG12	1.66	0.76
2:J:2277:ALA:HB2	2:J:2334:PHE:CE1	2.21	0.76
1:D:88:PRO:HD2	2:E:1786:LEU:HB3	1.68	0.76
2:G:2265:LEU:HD21	2:G:2272:PRO:HD2	1.68	0.76
2:G:4024:VAL:HG11	2:G:4142:ASN:HB3	1.67	0.76
2:J:2265:LEU:HD21	2:J:2272:PRO:HD2	1.68	0.76
2:E:2277:ALA:HB2	2:E:2334:PHE:CE1	2.21	0.76
1:H:23:VAL:HG12	1:H:47:LYS:HG2	1.66	0.76
2:B:2277:ALA:HB2	2:B:2334:PHE:CE1	2.21	0.76
2:B:2336:ARG:HB2	2:B:2435:ARG:HD3	1.68	0.76
2:E:2265:LEU:HD21	2:E:2272:PRO:HD2	1.68	0.76
2:E:4904:PRO:HD3	2:E:4913:ARG:HH21	1.50	0.76
3:M:111:ASN:HA	3:M:114:TYR:HD2	1.49	0.76
2:G:2277:ALA:HB2	2:G:2334:PHE:CE1	2.21	0.75
2:B:4904:PRO:HD3	2:B:4913:ARG:HH21	1.50	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:226:HIS:HE1	2:J:229:GLU:HG2	1.50	0.75
2:B:3514:LEU:HD22	2:B:3518:LEU:HD22	1.68	0.75
2:E:348:VAL:HB	2:E:357:LEU:HD22	1.69	0.75
2:G:4904:PRO:HD3	2:G:4913:ARG:HH21	1.50	0.75
2:G:2336:ARG:HB2	2:G:2435:ARG:HD3	1.68	0.75
2:G:3514:LEU:HD22	2:G:3518:LEU:HD22	1.68	0.75
2:B:2265:LEU:HD21	2:B:2272:PRO:HD2	1.68	0.75
2:E:4024:VAL:HG11	2:E:4142:ASN:HB3	1.67	0.75
2:B:4027:LEU:HD13	2:B:4146:LEU:HD13	1.69	0.75
1:A:88:PRO:HD2	2:B:1786:LEU:HB3	1.66	0.75
2:E:3514:LEU:HD22	2:E:3518:LEU:HD22	1.68	0.74
2:E:4027:LEU:HD13	2:E:4146:LEU:HD13	1.69	0.74
2:J:2336:ARG:HB2	2:J:2435:ARG:HD3	1.68	0.74
2:J:348:VAL:HB	2:J:357:LEU:HD22	1.69	0.74
2:G:4027:LEU:HD13	2:G:4146:LEU:HD13	1.69	0.74
2:B:348:VAL:HB	2:B:357:LEU:HD22	1.69	0.73
2:J:3514:LEU:HD22	2:J:3518:LEU:HD22	1.68	0.73
3:C:24:ALA:HB3	3:C:76:ASN:HB3	1.71	0.73
2:E:2336:ARG:HB2	2:E:2435:ARG:HD3	1.68	0.73
2:G:348:VAL:HB	2:G:357:LEU:HD22	1.69	0.73
2:J:2277:ALA:HB2	2:J:2334:PHE:HE1	1.54	0.73
2:B:2277:ALA:HB2	2:B:2334:PHE:HE1	1.54	0.73
2:B:940:GLY:H	2:B:1051:TYR:HA	1.54	0.73
2:G:913:LEU:HB3	2:G:917:GLU:HB2	1.71	0.73
3:K:24:ALA:HB3	3:K:76:ASN:HB3	1.71	0.72
3:M:24:ALA:HB3	3:M:76:ASN:HB3	1.71	0.72
2:B:3145:GLN:HA	2:B:3196:ARG:HH21	1.55	0.72
2:G:2277:ALA:HB2	2:G:2334:PHE:HE1	1.54	0.72
2:G:3145:GLN:HA	2:G:3196:ARG:HH21	1.55	0.72
2:J:1152:MET:HB3	2:J:1223:PHE:CE2	2.25	0.72
2:B:355:LEU:HB3	2:B:378:LEU:HB3	1.72	0.72
2:J:4027:LEU:HD13	2:J:4146:LEU:HD13	1.71	0.72
3:F:70:SER:HB3	3:F:79:TYR:HB2	1.71	0.72
2:J:1158:ASN:HB3	2:J:1182:ILE:H	1.54	0.72
2:E:940:GLY:H	2:E:1051:TYR:HA	1.54	0.72
2:E:1158:ASN:HB3	2:E:1182:ILE:H	1.54	0.72
2:G:247:TYR:HB2	2:G:374:LYS:HB2	1.72	0.72
2:E:1561:VAL:HG22	2:E:1562:ILE:HG23	1.72	0.71
2:E:3145:GLN:HA	2:E:3196:ARG:HH21	1.55	0.71
2:J:913:LEU:HB3	2:J:917:GLU:HB2	1.71	0.71
2:B:1152:MET:HB3	2:B:1223:PHE:CE2	2.24	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:C:70:SER:HB3	3:C:79:TYR:HB2	1.71	0.71
2:G:355:LEU:HB3	2:G:378:LEU:HB3	1.72	0.71
2:J:3145:GLN:HA	2:J:3196:ARG:HH21	1.55	0.71
3:K:70:SER:HB3	3:K:79:TYR:HB2	1.71	0.71
2:E:1152:MET:HB3	2:E:1223:PHE:CE2	2.25	0.71
2:G:940:GLY:H	2:G:1051:TYR:HA	1.54	0.71
2:B:234:SER:HB3	2:B:242:ARG:HA	1.73	0.71
2:E:35:LEU:HG	2:E:51:PRO:HA	1.73	0.71
3:C:39:GLN:HB2	3:C:45:ARG:HE	1.56	0.71
2:E:913:LEU:HB3	2:E:917:GLU:HB2	1.71	0.71
2:E:2277:ALA:HB2	2:E:2334:PHE:HE1	1.54	0.71
2:G:1152:MET:HB3	2:G:1223:PHE:CE2	2.25	0.71
2:G:1158:ASN:HB3	2:G:1182:ILE:H	1.54	0.71
2:J:234:SER:HB3	2:J:242:ARG:HA	1.73	0.71
2:J:4945:ASP:O	2:J:4949:GLN:NE2	2.23	0.71
3:F:39:GLN:HB2	3:F:45:ARG:HE	1.56	0.71
3:K:39:GLN:HB2	3:K:45:ARG:HE	1.56	0.71
2:B:35:LEU:HG	2:B:51:PRO:HA	1.73	0.71
2:B:1158:ASN:HB3	2:B:1182:ILE:H	1.54	0.71
2:G:214:VAL:HG13	2:G:274:LEU:HB3	1.73	0.71
2:G:234:SER:HB3	2:G:242:ARG:HA	1.73	0.71
3:F:24:ALA:HB3	3:F:76:ASN:HB3	1.71	0.71
1:H:88:PRO:HD2	2:G:1786:LEU:HB3	1.71	0.71
2:E:355:LEU:HB3	2:E:378:LEU:HB3	1.72	0.71
2:G:4945:ASP:O	2:G:4949:GLN:NE2	2.23	0.71
2:E:234:SER:HB3	2:E:242:ARG:HA	1.73	0.70
2:E:2288:LEU:O	2:E:3849:ARG:NH1	2.24	0.70
2:G:2288:LEU:O	2:G:3849:ARG:NH1	2.24	0.70
2:J:35:LEU:HG	2:J:51:PRO:HA	1.73	0.70
3:F:40:ALA:HB3	3:F:43:LYS:HB2	1.73	0.70
3:M:70:SER:HB3	3:M:79:TYR:HB2	1.71	0.70
2:B:1561:VAL:HG22	2:B:1562:ILE:HG23	1.72	0.70
2:B:2288:LEU:O	2:B:3849:ARG:NH1	2.24	0.70
2:E:551:LEU:HD13	2:E:589:LEU:HD11	1.73	0.70
2:J:214:VAL:HG13	2:J:274:LEU:HB3	1.73	0.70
2:J:1561:VAL:HG22	2:J:1562:ILE:HG23	1.72	0.70
2:J:940:GLY:H	2:J:1051:TYR:HA	1.54	0.70
2:B:913:LEU:HB3	2:B:917:GLU:HB2	1.71	0.70
2:B:4945:ASP:O	2:B:4949:GLN:NE2	2.23	0.70
2:J:551:LEU:HD13	2:J:589:LEU:HD11	1.73	0.70
2:J:4090:LYS:HE3	2:J:4117:ALA:HB2	1.74	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3270:ILE:HG22	2:B:3334:TRP:HZ3	1.57	0.70
2:E:4090:LYS:HG2	2:E:4123:ILE:HD11	1.74	0.70
2:J:355:LEU:HB3	2:J:378:LEU:HB3	1.72	0.70
2:J:2288:LEU:O	2:J:3849:ARG:NH1	2.24	0.70
2:J:4090:LYS:HG2	2:J:4123:ILE:HD11	1.74	0.70
2:B:3842:LEU:HB2	2:B:3929:SER:HB2	1.73	0.70
2:B:3769:ARG:O	2:B:3773:ARG:NH1	2.25	0.70
2:E:4945:ASP:O	2:E:4949:GLN:NE2	2.23	0.70
2:G:1561:VAL:HG22	2:G:1562:ILE:HG23	1.72	0.70
2:G:3270:ILE:HG22	2:G:3334:TRP:HZ3	1.57	0.70
2:J:3031:ALA:O	2:J:3036:LYS:NZ	2.24	0.70
2:B:5015:GLN:HA	2:B:5017:ARG:HH21	1.57	0.70
2:G:5015:GLN:HA	2:G:5017:ARG:HH21	1.57	0.70
2:J:3842:LEU:HB2	2:J:3929:SER:HB2	1.73	0.70
2:B:4090:LYS:HG2	2:B:4123:ILE:HD11	1.74	0.70
2:E:3270:ILE:HG22	2:E:3334:TRP:HZ3	1.57	0.70
2:G:35:LEU:HG	2:G:51:PRO:HA	1.73	0.70
2:G:3355:HIS:HA	2:G:3359:ILE:HD12	1.74	0.70
2:G:3986:TRP:NE1	2:G:4047:MET:HB3	2.07	0.70
3:M:39:GLN:HB2	3:M:45:ARG:HE	1.56	0.70
2:G:4090:LYS:HG2	2:G:4123:ILE:HD11	1.74	0.70
2:J:3355:HIS:HA	2:J:3359:ILE:HD12	1.74	0.70
2:G:3769:ARG:O	2:G:3773:ARG:NH1	2.25	0.69
2:J:3986:TRP:NE1	2:J:4047:MET:HB3	2.07	0.69
2:E:3842:LEU:HB2	2:E:3929:SER:HB2	1.73	0.69
2:G:3842:LEU:HB2	2:G:3929:SER:HB2	1.73	0.69
2:B:2359:ARG:HH22	2:G:177:GLU:HB2	1.56	0.69
2:B:3986:TRP:NE1	2:B:4047:MET:HB3	2.07	0.69
2:E:5015:GLN:HA	2:E:5017:ARG:HH21	1.57	0.69
2:G:4090:LYS:HE3	2:G:4117:ALA:HB2	1.74	0.69
2:J:226:HIS:CE1	2:J:229:GLU:HG2	2.28	0.69
2:J:2536:LEU:HD13	2:J:2541:PHE:HB3	1.75	0.69
3:K:40:ALA:HB3	3:K:43:LYS:HB2	1.73	0.69
2:B:177:GLU:HB2	2:E:2359:ARG:HH22	1.56	0.69
2:G:2536:LEU:HD13	2:G:2541:PHE:HB3	1.75	0.69
2:J:5015:GLN:HA	2:J:5017:ARG:HH21	1.57	0.69
3:C:40:ALA:HB3	3:C:43:LYS:HB2	1.73	0.69
2:E:214:VAL:HG13	2:E:274:LEU:HB3	1.73	0.69
2:B:4090:LYS:HE3	2:B:4117:ALA:HB2	1.74	0.69
2:E:3986:TRP:NE1	2:E:4047:MET:HB3	2.07	0.69
2:B:226:HIS:CE1	2:B:229:GLU:HG2	2.28	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2536:LEU:HD13	2:E:2541:PHE:HB3	1.75	0.69
2:G:551:LEU:HD13	2:G:589:LEU:HD11	1.73	0.69
2:J:3769:ARG:O	2:J:3773:ARG:NH1	2.25	0.69
2:B:2536:LEU:HD13	2:B:2541:PHE:HB3	1.75	0.69
2:E:226:HIS:CE1	2:E:229:GLU:HG2	2.28	0.69
2:E:4090:LYS:HE3	2:E:4117:ALA:HB2	1.74	0.69
3:M:40:ALA:HB3	3:M:43:LYS:HB2	1.73	0.69
2:B:551:LEU:HD13	2:B:589:LEU:HD11	1.73	0.68
2:G:2359:ARG:HH22	2:J:177:GLU:HB2	1.56	0.68
2:J:247:TYR:HB2	2:J:374:LYS:HB2	1.74	0.68
2:B:823:LEU:HD11	2:B:1626:TRP:HB3	1.75	0.68
2:B:3355:HIS:HA	2:B:3359:ILE:HD12	1.74	0.68
2:E:3355:HIS:HA	2:E:3359:ILE:HD12	1.74	0.68
2:E:3769:ARG:O	2:E:3773:ARG:NH1	2.25	0.68
2:E:4248:ALA:HA	2:E:4251:ILE:HG22	1.76	0.68
2:J:3270:ILE:HG22	2:J:3334:TRP:HZ3	1.57	0.68
2:B:214:VAL:HG13	2:B:274:LEU:HB3	1.73	0.68
2:E:247:TYR:HB2	2:E:374:LYS:HB2	1.75	0.68
2:G:226:HIS:CE1	2:G:229:GLU:HG2	2.28	0.68
2:G:358:THR:HG21	2:G:382:GLY:HA2	1.73	0.68
2:B:247:TYR:HB2	2:B:374:LYS:HB2	1.75	0.68
2:G:633:LEU:HB3	2:G:1639:LEU:HD11	1.76	0.68
2:E:177:GLU:HB2	2:J:2359:ARG:HH22	1.57	0.68
2:G:246:TYR:CD2	2:G:373:LYS:HE3	2.29	0.68
2:B:4248:ALA:HA	2:B:4251:ILE:HG22	1.76	0.68
2:E:2645:THR:HB	2:E:2702:CYS:HA	1.75	0.68
2:B:3031:ALA:O	2:B:3036:LYS:NZ	2.24	0.67
2:E:2624:ARG:NH2	2:E:2915:GLU:OE2	2.27	0.67
2:G:2645:THR:HB	2:G:2702:CYS:HA	1.75	0.67
2:B:917:GLU:OE1	3:C:101:PRO:HB2	1.95	0.67
2:G:840:VAL:HG12	2:G:1199:VAL:HG12	1.77	0.67
2:G:2624:ARG:NH2	2:G:2915:GLU:OE2	2.27	0.67
2:B:633:LEU:HB3	2:B:1639:LEU:HD11	1.76	0.67
2:G:248:GLU:HB2	2:G:373:LYS:CD	2.25	0.67
2:J:823:LEU:HD11	2:J:1626:TRP:HB3	1.75	0.67
2:J:2645:THR:HB	2:J:2702:CYS:HA	1.76	0.67
2:E:633:LEU:HB3	2:E:1639:LEU:HD11	1.76	0.67
2:G:917:GLU:OE1	3:M:101:PRO:HB2	1.94	0.67
2:G:2265:LEU:O	2:G:2268:GLN:HG3	1.94	0.67
2:J:4081:VAL:HG12	2:J:4088:ILE:HD13	1.76	0.67
2:B:2645:THR:HB	2:B:2702:CYS:HA	1.75	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2902:HIS:HB3	2:B:2905:LEU:HG	1.76	0.67
2:G:1733:GLU:HG2	2:G:2201:LEU:HD23	1.77	0.67
2:G:4081:VAL:HG12	2:G:4088:ILE:HD13	1.76	0.67
2:J:2196:ASN:OD1	2:J:2199:ARG:NH2	2.28	0.67
2:B:840:VAL:HG12	2:B:1199:VAL:HG12	1.77	0.67
2:B:2196:ASN:OD1	2:B:2199:ARG:NH2	2.28	0.67
2:E:2902:HIS:HB3	2:E:2905:LEU:HG	1.76	0.67
2:J:2265:LEU:O	2:J:2268:GLN:HG3	1.94	0.67
2:B:4081:VAL:HG12	2:B:4088:ILE:HD13	1.76	0.67
2:E:823:LEU:HD11	2:E:1626:TRP:HB3	1.75	0.67
2:E:2117:VAL:HG11	2:E:3700:GLN:HE22	1.60	0.67
2:E:2196:ASN:OD1	2:E:2199:ARG:NH2	2.28	0.67
2:G:823:LEU:HD11	2:G:1626:TRP:HB3	1.75	0.67
2:B:2117:VAL:HG11	2:B:3700:GLN:HE22	1.60	0.67
2:B:2265:LEU:O	2:B:2268:GLN:HG3	1.94	0.67
2:B:2624:ARG:NH2	2:B:2915:GLU:OE2	2.27	0.67
2:J:1733:GLU:HG2	2:J:2201:LEU:HD23	1.77	0.67
2:J:2624:ARG:NH2	2:J:2915:GLU:OE2	2.27	0.67
2:J:840:VAL:HG12	2:J:1199:VAL:HG12	1.77	0.67
2:B:1163:THR:HG22	2:B:1168:VAL:HA	1.76	0.66
2:E:2265:LEU:O	2:E:2268:GLN:HG3	1.94	0.66
2:G:1163:THR:HG22	2:G:1168:VAL:HA	1.76	0.66
2:G:4248:ALA:HA	2:G:4251:ILE:HG22	1.76	0.66
2:B:3995:VAL:HG23	2:B:3999:MET:HE1	1.77	0.66
2:J:1163:THR:HG22	2:J:1168:VAL:HA	1.76	0.66
2:E:840:VAL:HG12	2:E:1199:VAL:HG12	1.77	0.66
2:G:3031:ALA:O	2:G:3036:LYS:NZ	2.24	0.66
2:G:2196:ASN:OD1	2:G:2199:ARG:NH2	2.28	0.66
2:G:2970:SER:HA	2:G:2973:PHE:CE2	2.31	0.66
2:J:633:LEU:HB3	2:J:1639:LEU:HD11	1.76	0.66
1:A:71:ARG:HG3	1:A:102:GLU:HB2	1.78	0.66
1:H:71:ARG:HG3	1:H:102:GLU:HB2	1.78	0.66
2:B:2970:SER:HA	2:B:2973:PHE:CE2	2.31	0.66
2:J:2970:SER:HA	2:J:2973:PHE:CE2	2.31	0.66
2:B:3316:LEU:HD22	2:B:3346:VAL:HA	1.78	0.66
2:B:1733:GLU:HG2	2:B:2201:LEU:HD23	1.77	0.66
2:E:1291:LEU:HD13	2:E:1595:LEU:HD11	1.78	0.66
2:E:3316:LEU:HD22	2:E:3346:VAL:HA	1.78	0.66
2:J:1291:LEU:HD13	2:J:1595:LEU:HD11	1.78	0.66
1:I:71:ARG:HG3	1:I:102:GLU:HB2	1.78	0.66
2:E:3031:ALA:O	2:E:3036:LYS:NZ	2.24	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3936:TYR:HA	2:J:76:ARG:HH22	1.61	0.66
1:D:71:ARG:HG3	1:D:102:GLU:HB2	1.78	0.66
2:B:2321:ILE:HG21	2:B:2422:ILE:HD11	1.78	0.66
2:B:3334:TRP:CD1	2:B:3337:ARG:HB2	2.31	0.66
2:J:3316:LEU:HD22	2:J:3346:VAL:HA	1.78	0.66
2:E:1163:THR:HG22	2:E:1168:VAL:HA	1.76	0.65
2:E:2321:ILE:HG21	2:E:2422:ILE:HD11	1.78	0.65
2:G:2117:VAL:HG11	2:G:3700:GLN:HE22	1.60	0.65
2:G:2867:LEU:HD21	2:G:2871:LEU:HB3	1.78	0.65
2:G:3995:VAL:HG23	2:G:3999:MET:HE1	1.78	0.65
2:J:4248:ALA:HA	2:J:4251:ILE:HG22	1.76	0.65
2:G:2902:HIS:HB3	2:G:2905:LEU:HG	1.76	0.65
2:J:2902:HIS:HB3	2:J:2905:LEU:HG	1.76	0.65
2:J:917:GLU:OE1	3:K:101:PRO:HB2	1.96	0.65
2:J:2117:VAL:HG11	2:J:3700:GLN:HE22	1.60	0.65
2:E:1733:GLU:HG2	2:E:2201:LEU:HD23	1.77	0.65
2:J:2867:LEU:HD21	2:J:2871:LEU:HB3	1.78	0.65
2:E:917:GLU:OE1	3:F:101:PRO:HB2	1.96	0.65
2:E:4081:VAL:HG12	2:E:4088:ILE:HD13	1.76	0.65
2:B:1291:LEU:HD13	2:B:1595:LEU:HD11	1.78	0.65
2:J:2321:ILE:HG21	2:J:2422:ILE:HD11	1.79	0.65
2:E:76:ARG:HH22	2:J:3936:TYR:HA	1.61	0.65
2:E:2867:LEU:HD21	2:E:2871:LEU:HB3	1.78	0.65
2:B:1095:VAL:HB	2:B:1199:VAL:HG23	1.79	0.64
2:B:2305:CYS:HB2	2:B:2324:ASN:HB3	1.79	0.64
2:B:2867:LEU:HD21	2:B:2871:LEU:HB3	1.78	0.64
2:G:1291:LEU:HD13	2:G:1595:LEU:HD11	1.78	0.64
2:G:2321:ILE:HG21	2:G:2422:ILE:HD11	1.78	0.64
2:G:3334:TRP:CD1	2:G:3337:ARG:HB2	2.31	0.64
3:K:111:ASN:HA	3:K:114:TYR:CD2	2.31	0.64
2:B:76:ARG:HH22	2:E:3936:TYR:HA	1.62	0.64
2:E:3334:TRP:CD1	2:E:3337:ARG:HB2	2.31	0.64
2:G:3316:LEU:HD22	2:G:3346:VAL:HA	1.78	0.64
3:F:22:CYS:HB3	3:F:78:VAL:HB	1.79	0.64
3:K:22:CYS:HB3	3:K:78:VAL:HB	1.79	0.64
2:E:2970:SER:HA	2:E:2973:PHE:CE2	2.31	0.64
2:J:3334:TRP:CD1	2:J:3337:ARG:HB2	2.31	0.64
2:J:4151:SER:HA	2:J:4160:LEU:HD21	1.79	0.64
2:G:2305:CYS:HB2	2:G:2324:ASN:HB3	1.79	0.64
2:G:248:GLU:HB2	2:G:373:LYS:HD2	1.79	0.64
2:G:4151:SER:HA	2:G:4160:LEU:HD21	1.79	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:D:23:VAL:HB	1:D:45:PRO:HB2	1.80	0.64
2:B:3936:TYR:HA	2:G:76:ARG:HH22	1.61	0.64
2:G:1122:TYR:HE2	2:G:1182:ILE:HG12	1.63	0.64
3:F:111:ASN:HA	3:F:114:TYR:CD2	2.32	0.64
2:E:2305:CYS:HB2	2:E:2324:ASN:HB3	1.79	0.64
2:G:2827:ARG:NH2	2:G:2935:TYR:OH	2.32	0.63
2:J:3995:VAL:HG23	2:J:3999:MET:HE1	1.78	0.63
1:A:23:VAL:HB	1:A:45:PRO:HB2	1.80	0.63
2:B:2199:ARG:NH2	2:B:2245:GLN:OE1	2.31	0.63
2:E:2340:PHE:HB3	2:E:2435:ARG:HH21	1.63	0.63
2:G:4722:ARG:NH2	2:G:4726:ASP:OD1	2.31	0.63
2:J:1122:TYR:HE2	2:J:1182:ILE:HG12	1.63	0.63
2:J:2199:ARG:NH2	2:J:2245:GLN:OE1	2.32	0.63
2:B:870:ILE:HG13	2:B:873:LYS:HD2	1.80	0.63
2:B:2418:LEU:O	2:B:2422:ILE:HG12	1.99	0.63
2:J:2827:ARG:NH2	2:J:2935:TYR:OH	2.32	0.63
2:B:2364:PHE:HD1	2:B:2429:LEU:HD21	1.64	0.63
2:E:574:VAL:HA	2:E:577:ILE:HG22	1.81	0.63
2:E:870:ILE:HG13	2:E:873:LYS:HD2	1.80	0.63
2:E:1095:VAL:HB	2:E:1199:VAL:HG23	1.79	0.63
2:G:650:VAL:HB	2:G:750:LEU:HD11	1.80	0.63
2:J:4722:ARG:NH2	2:J:4726:ASP:OD1	2.31	0.63
3:C:111:ASN:HA	3:C:114:TYR:CD2	2.32	0.63
3:M:22:CYS:HB3	3:M:78:VAL:HB	1.79	0.63
2:E:1122:TYR:HE2	2:E:1182:ILE:HG12	1.63	0.63
2:J:1095:VAL:HB	2:J:1199:VAL:HG23	1.79	0.63
3:C:22:CYS:HB3	3:C:78:VAL:HB	1.79	0.63
2:B:1122:TYR:HE2	2:B:1182:ILE:HG12	1.63	0.63
2:E:2199:ARG:NH2	2:E:2245:GLN:OE1	2.31	0.63
2:E:2364:PHE:HD1	2:E:2429:LEU:HD21	1.64	0.63
2:E:4151:SER:HA	2:E:4160:LEU:HD21	1.79	0.63
2:G:2340:PHE:HB3	2:G:2435:ARG:HH21	1.63	0.63
1:H:23:VAL:HB	1:H:45:PRO:HB2	1.80	0.63
2:E:4152:GLU:OE1	2:E:4192:ARG:NH1	2.32	0.63
2:E:4722:ARG:NH2	2:E:4726:ASP:OD1	2.31	0.63
2:B:2340:PHE:HB3	2:B:2435:ARG:HH21	1.64	0.63
2:E:2177:LEU:HD13	2:E:2180:GLN:HE21	1.63	0.63
2:E:2418:LEU:O	2:E:2422:ILE:HG12	1.99	0.63
2:G:870:ILE:HG13	2:G:873:LYS:HD2	1.80	0.63
1:I:23:VAL:HB	1:I:45:PRO:HB2	1.80	0.63
2:G:1095:VAL:HB	2:G:1199:VAL:HG23	1.79	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2827:ARG:NH2	2:B:2935:TYR:OH	2.32	0.62
2:B:4152:GLU:OE1	2:B:4192:ARG:NH1	2.32	0.62
2:J:2305:CYS:HB2	2:J:2324:ASN:HB3	1.79	0.62
2:B:4151:SER:HA	2:B:4160:LEU:HD21	1.79	0.62
2:G:2199:ARG:NH2	2:G:2245:GLN:OE1	2.32	0.62
2:J:870:ILE:HG13	2:J:873:LYS:HD2	1.80	0.62
2:J:2368:LEU:HD11	2:J:2376:LEU:HD12	1.82	0.62
2:E:3227:ARG:HB3	2:E:3232:LEU:HB2	1.82	0.62
2:E:4087:LEU:HD12	2:E:4122:MET:HG3	1.81	0.62
2:G:2368:LEU:HD11	2:G:2376:LEU:HD12	1.82	0.62
2:G:2418:LEU:O	2:G:2422:ILE:HG12	1.99	0.62
2:J:3227:ARG:HB3	2:J:3232:LEU:HB2	1.81	0.62
2:B:2177:LEU:HD13	2:B:2180:GLN:HE21	1.63	0.62
2:E:2749:GLU:HG3	2:E:2752:ASP:HB2	1.81	0.62
2:E:3050:VAL:HG11	2:E:3068:LEU:HD11	1.82	0.62
2:G:574:VAL:HA	2:G:577:ILE:HG22	1.81	0.62
2:G:2177:LEU:HD13	2:G:2180:GLN:HE21	1.63	0.62
2:G:3050:VAL:HG11	2:G:3068:LEU:HD11	1.82	0.62
2:G:3227:ARG:HB3	2:G:3232:LEU:HB2	1.81	0.62
2:B:574:VAL:HA	2:B:577:ILE:HG22	1.81	0.62
2:B:2368:LEU:HD11	2:B:2376:LEU:HD12	1.82	0.62
2:B:2916:LYS:HD3	2:B:2920:ARG:HH21	1.64	0.62
2:G:2364:PHE:HD1	2:G:2429:LEU:HD21	1.64	0.62
2:J:894:GLY:HA3	2:J:903:LEU:HD13	1.82	0.62
2:B:650:VAL:HB	2:B:750:LEU:HD11	1.80	0.62
2:B:4722:ARG:NH2	2:B:4726:ASP:OD1	2.31	0.62
2:E:2368:LEU:HD11	2:E:2376:LEU:HD12	1.82	0.62
2:J:2418:LEU:O	2:J:2422:ILE:HG12	1.99	0.62
2:B:894:GLY:HA3	2:B:903:LEU:HD13	1.82	0.62
2:B:3227:ARG:HB3	2:B:3232:LEU:HB2	1.82	0.62
2:E:894:GLY:HA3	2:E:903:LEU:HD13	1.82	0.62
2:E:2827:ARG:NH2	2:E:2935:TYR:OH	2.32	0.62
2:G:246:TYR:HB2	2:G:373:LYS:HE3	1.80	0.62
2:G:365:LYS:HE2	2:G:369:LEU:HD11	1.81	0.62
2:J:360:ALA:HA	2:J:377:ILE:HD13	1.80	0.62
2:E:2163:ARG:NH2	2:E:2201:LEU:O	2.33	0.62
2:G:2163:ARG:NH2	2:G:2201:LEU:O	2.33	0.62
2:J:2177:LEU:HD13	2:J:2180:GLN:HE21	1.63	0.62
2:J:2749:GLU:HG3	2:J:2752:ASP:HB2	1.81	0.62
2:J:4087:LEU:HD12	2:J:4122:MET:HG3	1.81	0.62
3:M:111:ASN:HA	3:M:114:TYR:CD2	2.33	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2916:LYS:HD3	2:E:2920:ARG:HH21	1.64	0.62
2:G:894:GLY:HA3	2:G:903:LEU:HD13	1.82	0.62
2:J:22:LEU:HG	2:J:202:MET:HG3	1.82	0.62
2:E:22:LEU:HG	2:E:202:MET:HG3	1.82	0.61
2:G:22:LEU:HG	2:G:202:MET:HG3	1.82	0.61
2:G:4152:GLU:OE1	2:G:4192:ARG:NH1	2.32	0.61
2:J:650:VAL:HB	2:J:750:LEU:HD11	1.80	0.61
2:B:2163:ARG:NH2	2:B:2201:LEU:O	2.33	0.61
2:B:3050:VAL:HG11	2:B:3068:LEU:HD11	1.82	0.61
2:J:2340:PHE:HB3	2:J:2435:ARG:HH21	1.64	0.61
2:J:3050:VAL:HG11	2:J:3068:LEU:HD11	1.82	0.61
2:J:3343:GLN:NE2	2:J:3471:THR:OG1	2.33	0.61
2:J:4152:GLU:OE1	2:J:4192:ARG:NH1	2.32	0.61
2:B:792:LEU:HA	2:B:798:GLY:HA3	1.82	0.61
2:B:3965:LEU:HA	2:B:3968:TYR:CD2	2.35	0.61
2:G:2971:GLN:HA	2:G:2974:ILE:HG12	1.82	0.61
2:G:4071:ILE:HD13	2:G:4103:PHE:HE2	1.65	0.61
2:J:574:VAL:HA	2:J:577:ILE:HG22	1.81	0.61
2:J:2627:VAL:HG22	2:J:2678:LEU:HD21	1.82	0.61
2:B:252:VAL:HG21	2:B:257:ARG:HD3	1.83	0.61
2:B:3802:ILE:O	2:B:3806:ASN:ND2	2.33	0.61
2:B:4071:ILE:HD13	2:B:4103:PHE:HE2	1.65	0.61
2:E:2627:VAL:HG22	2:E:2678:LEU:HD21	1.82	0.61
2:G:2916:LYS:HD3	2:G:2920:ARG:HH21	1.64	0.61
2:G:3802:ILE:O	2:G:3806:ASN:ND2	2.33	0.61
2:G:4087:LEU:HD12	2:G:4122:MET:HG3	1.81	0.61
2:E:252:VAL:HG21	2:E:257:ARG:HD3	1.83	0.61
2:E:2578:MET:O	2:E:2582:MET:HG2	2.01	0.61
2:E:3965:LEU:HA	2:E:3968:TYR:CD2	2.35	0.61
2:B:22:LEU:HG	2:B:202:MET:HG3	1.82	0.61
2:E:650:VAL:HB	2:E:750:LEU:HD11	1.80	0.61
2:G:3065:VAL:O	2:G:3069:HIS:ND1	2.34	0.61
2:G:3343:GLN:NE2	2:G:3471:THR:OG1	2.33	0.61
2:J:747:CYS:SG	2:J:756:SER:HB2	2.41	0.61
2:J:2163:ARG:NH2	2:J:2201:LEU:O	2.33	0.61
2:J:2364:PHE:HD1	2:J:2429:LEU:HD21	1.64	0.61
2:J:4090:LYS:HB3	2:J:4112:LEU:HD11	1.82	0.61
2:E:747:CYS:SG	2:E:756:SER:HB2	2.41	0.61
2:E:3802:ILE:O	2:E:3806:ASN:ND2	2.33	0.61
2:J:252:VAL:HG21	2:J:257:ARG:HD3	1.83	0.61
3:C:4:LEU:HD21	3:C:97:ALA:HB2	1.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3965:LEU:HA	2:G:3968:TYR:CD2	2.35	0.61
2:J:2578:MET:O	2:J:2582:MET:HG2	2.01	0.61
2:J:3802:ILE:O	2:J:3806:ASN:ND2	2.33	0.61
2:B:2578:MET:O	2:B:2582:MET:HG2	2.01	0.61
2:E:1477:GLY:HA2	2:E:1483:VAL:HA	1.83	0.61
2:E:4071:ILE:HD13	2:E:4103:PHE:HE2	1.65	0.61
2:G:1619:ARG:HA	2:G:1626:TRP:HA	1.83	0.61
2:J:2916:LYS:HD3	2:J:2920:ARG:HH21	1.64	0.61
2:E:2971:GLN:HA	2:E:2974:ILE:HG12	1.82	0.61
2:E:3065:VAL:O	2:E:3069:HIS:ND1	2.34	0.61
2:G:252:VAL:HG21	2:G:257:ARG:HD3	1.83	0.61
2:G:2749:GLU:HG3	2:G:2752:ASP:HB2	1.81	0.61
2:J:792:LEU:HA	2:J:798:GLY:HA3	1.82	0.61
2:J:3065:VAL:O	2:J:3069:HIS:ND1	2.34	0.61
2:J:4071:ILE:HD13	2:J:4103:PHE:HE2	1.65	0.61
2:B:2971:GLN:HA	2:B:2974:ILE:HG12	1.82	0.60
2:B:3065:VAL:O	2:B:3069:HIS:ND1	2.34	0.60
2:B:3343:GLN:NE2	2:B:3471:THR:OG1	2.33	0.60
2:B:4087:LEU:HD12	2:B:4122:MET:HG3	1.81	0.60
2:G:172:VAL:HG22	2:G:179:TYR:HE1	1.66	0.60
3:F:4:LEU:HD21	3:F:97:ALA:HB2	1.84	0.60
2:B:2627:VAL:HG22	2:B:2678:LEU:HD21	1.82	0.60
2:E:3343:GLN:NE2	2:E:3471:THR:OG1	2.33	0.60
2:E:4090:LYS:HB3	2:E:4112:LEU:HD11	1.82	0.60
2:B:645:ARG:HE	2:B:824:GLU:HG3	1.67	0.60
2:G:792:LEU:HA	2:G:798:GLY:HA3	1.82	0.60
2:G:2627:VAL:HG22	2:G:2678:LEU:HD21	1.82	0.60
2:G:4090:LYS:HB3	2:G:4112:LEU:HD11	1.82	0.60
2:B:4090:LYS:HB3	2:B:4112:LEU:HD11	1.82	0.60
2:E:792:LEU:HA	2:E:798:GLY:HA3	1.82	0.60
2:G:2881:ASN:HA	2:G:2884:ASN:ND2	2.17	0.60
2:J:2971:GLN:HA	2:J:2974:ILE:HG12	1.82	0.60
2:B:3410:PRO:O	2:B:3414:ARG:NH1	2.34	0.60
2:E:2715:VAL:HG11	2:E:2950:SER:HB2	1.84	0.60
2:E:2881:ASN:HA	2:E:2884:ASN:ND2	2.17	0.60
2:G:233:ILE:HA	2:G:245:VAL:HG12	1.84	0.60
2:G:246:TYR:HB2	2:G:373:LYS:CE	2.31	0.60
2:G:3110:LEU:HD11	2:G:3186:LEU:HD23	1.83	0.60
2:J:1619:ARG:HA	2:J:1626:TRP:HA	1.83	0.60
2:B:1451:GLY:HA3	2:B:1494:MET:HA	1.84	0.60
2:B:2749:GLU:HG3	2:B:2752:ASP:HB2	1.81	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2967:MET:HG3	2:B:3045:LYS:HD3	1.84	0.60
2:E:172:VAL:HG22	2:E:179:TYR:HE1	1.66	0.60
2:E:574:VAL:O	2:E:578:ILE:HG12	2.02	0.60
2:E:1619:ARG:HA	2:E:1626:TRP:HA	1.83	0.60
2:E:3110:LEU:HD11	2:E:3186:LEU:HD23	1.83	0.60
2:E:4189:ARG:NH1	2:E:5032:TYR:OH	2.35	0.60
2:G:1451:GLY:HA3	2:G:1494:MET:HA	1.84	0.60
2:J:172:VAL:HG22	2:J:179:TYR:HE1	1.66	0.60
2:J:4189:ARG:NH1	2:J:5032:TYR:OH	2.35	0.60
3:M:51:ILE:HG12	3:M:71:ARG:NH2	2.17	0.60
2:B:747:CYS:SG	2:B:756:SER:HB2	2.41	0.60
2:E:233:ILE:HA	2:E:245:VAL:HG12	1.84	0.60
2:E:2437:ALA:HB3	2:E:2508:ARG:HG3	1.83	0.60
2:E:3410:PRO:O	2:E:3414:ARG:NH1	2.34	0.60
2:E:3713:LYS:HZ1	2:E:3716:LEU:HD12	1.67	0.60
2:G:1477:GLY:HA2	2:G:1483:VAL:HA	1.83	0.60
2:J:3312:LEU:HD11	2:J:3348:ARG:HB2	1.84	0.60
2:B:233:ILE:HA	2:B:245:VAL:HG12	1.84	0.60
2:J:233:ILE:HA	2:J:245:VAL:HG12	1.84	0.60
2:J:2881:ASN:HA	2:J:2884:ASN:ND2	2.17	0.60
3:C:51:ILE:HG12	3:C:71:ARG:NH2	2.17	0.60
3:K:4:LEU:HD21	3:K:97:ALA:HB2	1.83	0.60
2:B:985:VAL:HG22	2:B:1043:VAL:HG21	1.84	0.60
2:B:2715:VAL:HG11	2:B:2950:SER:HB2	1.84	0.60
2:G:2437:ALA:HB3	2:G:2508:ARG:HG3	1.83	0.60
3:M:4:LEU:HD21	3:M:97:ALA:HB2	1.83	0.60
2:B:937:CYS:HB3	2:B:1053:ILE:HB	1.84	0.59
2:B:1023:PRO:HD2	2:B:1026:LEU:HD12	1.84	0.59
2:B:1619:ARG:HA	2:B:1626:TRP:HA	1.83	0.59
2:E:3834:ALA:O	2:E:3838:THR:HG23	2.02	0.59
2:E:4978:HIS:ND1	2:E:4982:GLU:OE1	2.35	0.59
2:G:645:ARG:HE	2:G:824:GLU:HG3	1.67	0.59
2:G:747:CYS:SG	2:G:756:SER:HB2	2.41	0.59
2:G:2967:MET:HG3	2:G:3045:LYS:HD3	1.84	0.59
2:J:574:VAL:O	2:J:578:ILE:HG12	2.02	0.59
2:J:2967:MET:HG3	2:J:3045:LYS:HD3	1.84	0.59
3:F:51:ILE:HG12	3:F:71:ARG:NH2	2.17	0.59
2:E:277:GLY:HA2	2:E:315:CYS:HB2	1.84	0.59
2:E:985:VAL:HG22	2:E:1043:VAL:HG21	1.84	0.59
2:E:1979:LEU:HD23	2:E:1982:ARG:HH12	1.68	0.59
2:J:1154:ASP:OD2	2:J:1159:THR:OG1	2.20	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:172:VAL:HG22	2:B:179:TYR:HE1	1.66	0.59
2:B:1154:ASP:OD2	2:B:1159:THR:OG1	2.20	0.59
2:B:3256:LEU:HD22	2:B:3266:MET:HE2	1.83	0.59
2:E:3312:LEU:HD11	2:E:3348:ARG:HB2	1.84	0.59
2:G:1154:ASP:OD2	2:G:1159:THR:OG1	2.20	0.59
2:G:3410:PRO:O	2:G:3414:ARG:NH1	2.34	0.59
2:B:2437:ALA:HB3	2:B:2508:ARG:HG3	1.83	0.59
2:B:2881:ASN:HA	2:B:2884:ASN:ND2	2.17	0.59
2:B:3834:ALA:O	2:B:3838:THR:HG23	2.02	0.59
2:G:1023:PRO:HD2	2:G:1026:LEU:HD12	1.85	0.59
2:G:3312:LEU:HD11	2:G:3348:ARG:HB2	1.84	0.59
2:G:4189:ARG:NH1	2:G:5032:TYR:OH	2.35	0.59
2:E:940:GLY:O	2:E:1050:GLY:O	2.21	0.59
2:E:1154:ASP:OD2	2:E:1159:THR:OG1	2.20	0.59
2:E:3157:ILE:HG23	2:E:3161:VAL:HG12	1.85	0.59
2:G:246:TYR:CD1	2:G:375:LYS:HA	2.36	0.59
2:G:2578:MET:O	2:G:2582:MET:HG2	2.01	0.59
2:G:4953:ASP:HA	2:G:4956:THR:HG22	1.84	0.59
2:J:645:ARG:HE	2:J:824:GLU:HG3	1.67	0.59
2:J:1477:GLY:HA2	2:J:1483:VAL:HA	1.83	0.59
2:B:940:GLY:O	2:B:1050:GLY:O	2.21	0.59
2:B:4189:ARG:NH1	2:B:5032:TYR:OH	2.35	0.59
2:E:1257:VAL:HG13	2:E:1270:LEU:HD21	1.85	0.59
2:E:3110:LEU:HD13	2:E:3183:VAL:HG12	1.84	0.59
2:J:985:VAL:HG22	2:J:1043:VAL:HG21	1.84	0.59
2:J:2715:VAL:HG11	2:J:2950:SER:HB2	1.84	0.59
2:B:1477:GLY:HA2	2:B:1483:VAL:HA	1.83	0.59
2:B:2095:GLN:NE2	2:B:2127:GLN:O	2.36	0.59
2:B:3110:LEU:HD11	2:B:3186:LEU:HD23	1.83	0.59
2:E:2967:MET:HG3	2:E:3045:LYS:HD3	1.84	0.59
2:E:3256:LEU:HD22	2:E:3266:MET:HE2	1.85	0.59
2:G:172:VAL:HG22	2:G:179:TYR:CE1	2.38	0.59
2:J:2437:ALA:HB3	2:J:2508:ARG:HG3	1.83	0.59
2:J:3410:PRO:O	2:J:3414:ARG:NH1	2.34	0.59
2:B:277:GLY:HA2	2:B:315:CYS:HB2	1.84	0.59
2:B:1257:VAL:HG13	2:B:1270:LEU:HD21	1.85	0.59
2:E:1451:GLY:HA3	2:E:1494:MET:HA	1.84	0.59
2:G:277:GLY:HA2	2:G:315:CYS:HB2	1.84	0.59
2:J:3110:LEU:HD11	2:J:3186:LEU:HD23	1.83	0.59
2:B:1719:HIS:CD2	2:B:1800:PRO:HB2	2.38	0.59
2:E:2095:GLN:NE2	2:E:2127:GLN:O	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:597:HIS:HB3	2:G:1661:ARG:HH11	1.68	0.59
2:G:3043:PHE:HD1	2:G:3071:LEU:HB3	1.68	0.59
2:G:3157:ILE:HG23	2:G:3161:VAL:HG12	1.85	0.59
3:C:12:MET:HB3	3:C:18:LEU:HD11	1.85	0.59
3:K:51:ILE:HG12	3:K:71:ARG:NH2	2.17	0.59
2:B:635:THR:HB	2:B:1637:MET:SD	2.43	0.59
2:B:1871:PHE:HZ	2:B:2094:LEU:HD13	1.68	0.59
2:B:1979:LEU:HD23	2:B:1982:ARG:HH12	1.67	0.59
2:B:3157:ILE:HG23	2:B:3161:VAL:HG12	1.85	0.59
2:G:635:THR:HB	2:G:1637:MET:SD	2.43	0.59
2:G:985:VAL:HG22	2:G:1043:VAL:HG21	1.84	0.59
2:G:2095:GLN:NE2	2:G:2127:GLN:O	2.36	0.59
2:J:1979:LEU:HD23	2:J:1982:ARG:HH12	1.67	0.59
2:J:2095:GLN:NE2	2:J:2127:GLN:O	2.36	0.59
2:J:3043:PHE:HD1	2:J:3071:LEU:HB3	1.68	0.59
2:B:574:VAL:O	2:B:578:ILE:HG12	2.02	0.58
2:E:635:THR:HB	2:E:1637:MET:SD	2.43	0.58
2:J:597:HIS:HB3	2:J:1661:ARG:HH11	1.68	0.58
2:J:635:THR:HB	2:J:1637:MET:SD	2.43	0.58
2:J:1451:GLY:HA3	2:J:1494:MET:HA	1.84	0.58
2:J:2013:LYS:NZ	2:J:3664:THR:OG1	2.34	0.58
2:J:3110:LEU:HD13	2:J:3183:VAL:HG12	1.84	0.58
2:J:3157:ILE:HG23	2:J:3161:VAL:HG12	1.85	0.58
2:B:3110:LEU:HD13	2:B:3183:VAL:HG12	1.84	0.58
2:E:1269:CYS:HB3	2:E:1565:GLU:HG3	1.85	0.58
2:G:574:VAL:O	2:G:578:ILE:HG12	2.02	0.58
2:G:1260:MET:N	2:G:1260:MET:SD	2.76	0.58
2:G:1719:HIS:CD2	2:G:1800:PRO:HB2	2.38	0.58
2:J:277:GLY:HA2	2:J:315:CYS:HB2	1.85	0.58
2:J:1260:MET:N	2:J:1260:MET:SD	2.76	0.58
2:B:2321:ILE:HD13	2:B:2422:ILE:HD11	1.85	0.58
2:E:937:CYS:HB3	2:E:1053:ILE:HB	1.84	0.58
2:G:2321:ILE:HD13	2:G:2422:ILE:HD11	1.86	0.58
2:J:1269:CYS:HB3	2:J:1565:GLU:HG3	1.85	0.58
2:B:929:LEU:HA	2:B:932:LEU:HD12	1.85	0.58
2:E:1023:PRO:HD2	2:E:1026:LEU:HD12	1.85	0.58
2:G:248:GLU:HA	2:G:373:LYS:HA	1.85	0.58
2:G:2715:VAL:HG11	2:G:2950:SER:HB2	1.84	0.58
2:J:940:GLY:O	2:J:1050:GLY:O	2.21	0.58
2:J:3965:LEU:HA	2:J:3968:TYR:CD2	2.37	0.58
3:F:12:MET:HB3	3:F:18:LEU:HD11	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:12:MET:HB3	3:M:18:LEU:HD11	1.85	0.58
2:B:3768:SER:HA	2:B:3771:HIS:CD2	2.39	0.58
2:G:2175:GLU:HA	2:G:2178:MET:HE2	1.86	0.58
2:G:3110:LEU:HD13	2:G:3183:VAL:HG12	1.84	0.58
1:A:68:LEU:HD21	1:A:106:LEU:H	1.69	0.58
1:H:68:LEU:HD21	1:H:106:LEU:H	1.69	0.58
2:B:162:LYS:NZ	2:E:3984:ARG:HH12	2.02	0.58
2:B:600:LEU:HD11	2:B:1662:PHE:CE1	2.38	0.58
2:B:1260:MET:N	2:B:1260:MET:SD	2.76	0.58
2:E:600:LEU:HD11	2:E:1662:PHE:CE1	2.38	0.58
2:E:1260:MET:SD	2:E:1260:MET:N	2.76	0.58
2:E:1719:HIS:CD2	2:E:1800:PRO:HB2	2.38	0.58
2:E:3043:PHE:HD1	2:E:3071:LEU:HB3	1.68	0.58
2:G:600:LEU:HD11	2:G:1662:PHE:CE1	2.38	0.58
2:G:3768:SER:HA	2:G:3771:HIS:CD2	2.38	0.58
2:J:1023:PRO:HD2	2:J:1026:LEU:HD12	1.85	0.58
2:J:1041:GLN:OE1	2:J:1044:ARG:NH1	2.37	0.58
2:J:1871:PHE:HZ	2:J:2094:LEU:HD13	1.68	0.58
2:J:2247:GLN:HG3	2:J:2279:SER:HA	1.85	0.58
3:K:12:MET:HB3	3:K:18:LEU:HD11	1.85	0.58
1:D:49:ARG:HD2	1:D:52:LYS:HE3	1.86	0.58
2:B:223:PHE:O	2:B:388:LEU:HB2	2.04	0.58
2:B:597:HIS:HB3	2:B:1661:ARG:HH11	1.68	0.58
2:B:3041:SER:O	2:B:3045:LYS:HG3	2.04	0.58
2:B:4978:HIS:ND1	2:B:4982:GLU:OE1	2.35	0.58
2:E:223:PHE:O	2:E:388:LEU:HB2	2.04	0.58
2:E:2354:VAL:HG11	2:E:2453:ILE:HD12	1.86	0.58
2:G:937:CYS:HB3	2:G:1053:ILE:HB	1.84	0.58
2:G:940:GLY:O	2:G:1050:GLY:O	2.21	0.58
2:G:3834:ALA:O	2:G:3838:THR:HG23	2.02	0.58
2:J:1257:VAL:HG13	2:J:1270:LEU:HD21	1.85	0.58
2:J:2354:VAL:HG11	2:J:2453:ILE:HD12	1.86	0.58
2:J:2710:LEU:HD12	2:J:2711:PRO:HD2	1.86	0.58
2:J:3674:ILE:HG13	2:J:3732:SER:HB2	1.86	0.58
2:J:4953:ASP:HA	2:J:4956:THR:HG22	1.84	0.58
3:M:105:ASN:ND2	3:M:111:ASN:HB2	2.15	0.58
2:E:162:LYS:NZ	2:J:3984:ARG:HH12	2.02	0.58
2:E:2247:GLN:HG3	2:E:2279:SER:HA	1.85	0.58
2:E:3768:SER:HA	2:E:3771:HIS:CD2	2.39	0.58
2:G:2261:SER:HB2	2:G:2273:LEU:HD22	1.86	0.58
2:G:3256:LEU:HD22	2:G:3266:MET:HE2	1.85	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3514:LEU:HD21	2:G:3602:VAL:HG11	1.85	0.58
2:J:2273:LEU:HG	2:J:2334:PHE:CZ	2.39	0.58
1:I:49:ARG:HD2	1:I:52:LYS:HE3	1.86	0.58
2:B:1041:GLN:OE1	2:B:1044:ARG:NH1	2.37	0.58
2:B:1269:CYS:HB3	2:B:1565:GLU:HG3	1.85	0.58
2:B:2273:LEU:HG	2:B:2334:PHE:CZ	2.39	0.58
2:B:4953:ASP:HA	2:B:4956:THR:HG22	1.85	0.58
2:E:2710:LEU:HD12	2:E:2711:PRO:HD2	1.86	0.58
2:E:3674:ILE:HG13	2:E:3732:SER:HB2	1.86	0.58
2:G:246:TYR:HD1	2:G:375:LYS:HA	1.69	0.58
2:G:1979:LEU:HD23	2:G:1982:ARG:HH12	1.67	0.58
2:G:2291:GLN:HG2	2:G:2293:GLN:HG2	1.86	0.58
2:G:3041:SER:O	2:G:3045:LYS:HG3	2.04	0.58
2:G:4949:GLN:HA	2:G:4952:GLU:HG3	1.86	0.58
2:J:469:ARG:O	2:J:473:ASN:ND2	2.37	0.58
2:J:1005:TRP:HB3	2:J:1021:LEU:HD22	1.86	0.58
2:B:469:ARG:O	2:B:473:ASN:ND2	2.37	0.58
2:B:657:THR:HB	2:B:1007:TYR:H	1.69	0.58
2:B:2107:GLN:NE2	2:B:3679:LYS:O	2.37	0.58
2:B:3312:LEU:HD11	2:B:3348:ARG:HB2	1.84	0.58
2:B:3514:LEU:HD21	2:B:3602:VAL:HG11	1.85	0.58
2:E:657:THR:HB	2:E:1007:TYR:H	1.69	0.58
2:E:668:VAL:HG22	2:E:789:VAL:HG12	1.85	0.58
2:E:929:LEU:HA	2:E:932:LEU:HD12	1.85	0.58
2:E:3245:VAL:HG12	2:E:3248:ARG:HE	1.69	0.58
2:G:223:PHE:O	2:G:388:LEU:HB2	2.04	0.58
2:G:1257:VAL:HG13	2:G:1270:LEU:HD21	1.85	0.58
2:G:2175:GLU:O	2:G:2179:ILE:HG12	2.03	0.58
2:G:3937:TYR:O	2:G:4002:LYS:NZ	2.37	0.58
2:J:668:VAL:HG22	2:J:789:VAL:HG12	1.85	0.58
2:J:2420:HIS:HA	2:J:2423:MET:HG2	1.86	0.58
3:M:66:ARG:HD2	3:M:83:ASN:HB3	1.86	0.58
2:B:668:VAL:HG22	2:B:789:VAL:HG12	1.85	0.57
2:B:2354:VAL:HG11	2:B:2453:ILE:HD12	1.86	0.57
2:E:172:VAL:HG22	2:E:179:TYR:CE1	2.38	0.57
2:E:1871:PHE:HZ	2:E:2094:LEU:HD13	1.68	0.57
2:G:1871:PHE:HZ	2:G:2094:LEU:HD13	1.68	0.57
2:G:3984:ARG:HH12	2:J:162:LYS:NZ	2.01	0.57
2:J:1719:HIS:CD2	2:J:1800:PRO:HB2	2.38	0.57
2:J:3834:ALA:O	2:J:3838:THR:HG23	2.02	0.57
2:J:3937:TYR:O	2:J:4002:LYS:NZ	2.37	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:K:105:ASN:ND2	3:K:111:ASN:HB2	2.16	0.57
2:B:3713:LYS:HZ1	2:B:3716:LEU:HD12	1.69	0.57
2:E:645:ARG:HE	2:E:824:GLU:HG3	1.67	0.57
2:E:2420:HIS:HA	2:E:2423:MET:HG2	1.86	0.57
2:E:3041:SER:O	2:E:3045:LYS:HG3	2.04	0.57
2:G:1005:TRP:HB3	2:G:1021:LEU:HD22	1.86	0.57
2:G:1269:CYS:HB3	2:G:1565:GLU:HG3	1.85	0.57
2:G:2354:VAL:HG11	2:G:2453:ILE:HD12	1.86	0.57
2:G:3866:ILE:HD13	2:G:3868:ARG:HE	1.69	0.57
2:J:172:VAL:HG22	2:J:179:TYR:CE1	2.38	0.57
2:J:3245:VAL:HG12	2:J:3248:ARG:HE	1.69	0.57
1:I:68:LEU:HD21	1:I:106:LEU:H	1.69	0.57
2:B:1005:TRP:HB3	2:B:1021:LEU:HD22	1.86	0.57
2:B:2247:GLN:HG3	2:B:2279:SER:HA	1.85	0.57
2:B:3043:PHE:HD1	2:B:3071:LEU:HB3	1.68	0.57
2:B:3172:ILE:HD13	2:B:3194:LEU:HB2	1.86	0.57
2:E:2107:GLN:NE2	2:E:3679:LYS:O	2.37	0.57
2:E:3512:ALA:HA	2:E:3516:LYS:HG2	1.87	0.57
2:G:668:VAL:HG22	2:G:789:VAL:HG12	1.85	0.57
2:J:2175:GLU:O	2:J:2179:ILE:HG12	2.03	0.57
2:J:2623:LEU:O	2:J:2627:VAL:HG23	2.04	0.57
2:B:2261:SER:HB2	2:B:2273:LEU:HD22	1.86	0.57
2:B:3036:LYS:HD2	2:B:3079:THR:HG21	1.86	0.57
2:B:4949:GLN:HA	2:B:4952:GLU:HG3	1.86	0.57
2:E:248:GLU:CB	2:E:373:LYS:HD2	2.30	0.57
2:E:1455:PRO:HG3	2:E:1549:PHE:HE1	1.69	0.57
2:E:3937:TYR:O	2:E:4002:LYS:NZ	2.37	0.57
2:G:2623:LEU:O	2:G:2627:VAL:HG23	2.04	0.57
2:J:3768:SER:HA	2:J:3771:HIS:CD2	2.39	0.57
3:C:66:ARG:HD2	3:C:83:ASN:HB3	1.86	0.57
2:B:870:ILE:HD11	2:B:1049:TYR:HB3	1.87	0.57
2:B:1455:PRO:HG3	2:B:1549:PHE:HE1	1.69	0.57
2:B:1727:ARG:O	2:B:1731:LEU:HG	2.05	0.57
2:B:3245:VAL:HG12	2:B:3248:ARG:HE	1.69	0.57
2:E:2175:GLU:O	2:E:2179:ILE:HG12	2.03	0.57
2:E:3036:LYS:HD2	2:E:3079:THR:HG21	1.86	0.57
2:G:929:LEU:HA	2:G:932:LEU:HD12	1.85	0.57
2:G:3674:ILE:HG13	2:G:3732:SER:HB2	1.86	0.57
2:J:293:LEU:HD13	2:J:378:LEU:HD12	1.86	0.57
2:J:3866:ILE:HD13	2:J:3868:ARG:HE	1.69	0.57
2:B:2175:GLU:O	2:B:2179:ILE:HG12	2.03	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2710:LEU:HD12	2:B:2711:PRO:HD2	1.86	0.57
2:E:1041:GLN:OE1	2:E:1044:ARG:NH1	2.37	0.57
2:G:1041:GLN:OE1	2:G:1044:ARG:NH1	2.37	0.57
2:J:3041:SER:O	2:J:3045:LYS:HG3	2.04	0.57
2:J:3512:ALA:HA	2:J:3516:LYS:HG2	1.87	0.57
2:J:4949:GLN:HA	2:J:4952:GLU:HG3	1.86	0.57
1:A:49:ARG:HD2	1:A:52:LYS:HE3	1.86	0.57
1:D:68:LEU:HD21	1:D:106:LEU:H	1.69	0.57
1:H:49:ARG:HD2	1:H:52:LYS:HE3	1.86	0.57
2:B:2291:GLN:HG2	2:B:2293:GLN:HG2	1.86	0.57
2:B:3984:ARG:HH12	2:G:162:LYS:NZ	2.02	0.57
2:E:2273:LEU:HG	2:E:2334:PHE:CZ	2.39	0.57
2:E:2321:ILE:HD13	2:E:2422:ILE:HD11	1.85	0.57
2:E:3514:LEU:HD21	2:E:3602:VAL:HG11	1.85	0.57
2:G:2258:LEU:HD23	2:G:2297:LYS:HE3	1.87	0.57
2:G:2420:HIS:HA	2:G:2423:MET:HG2	1.86	0.57
2:G:2710:LEU:HD12	2:G:2711:PRO:HD2	1.86	0.57
2:G:3512:ALA:HA	2:G:3516:LYS:HG2	1.87	0.57
2:J:280:LEU:HD21	2:J:316:PHE:HE2	1.70	0.57
2:J:929:LEU:HA	2:J:932:LEU:HD12	1.85	0.57
2:J:937:CYS:HB3	2:J:1053:ILE:HB	1.84	0.57
2:J:2261:SER:HB2	2:J:2273:LEU:HD22	1.86	0.57
2:B:172:VAL:HG22	2:B:179:TYR:CE1	2.38	0.57
2:E:469:ARG:O	2:E:473:ASN:ND2	2.37	0.57
2:G:2273:LEU:HG	2:G:2334:PHE:CZ	2.39	0.57
2:G:3245:VAL:HG12	2:G:3248:ARG:HE	1.69	0.57
2:J:600:LEU:HD11	2:J:1662:PHE:CE1	2.38	0.57
2:J:3172:ILE:HD13	2:J:3194:LEU:HB2	1.86	0.57
2:E:597:HIS:HB3	2:E:1661:ARG:HH11	1.68	0.57
2:E:618:GLN:NE2	2:E:1672:ALA:O	2.38	0.57
2:E:1727:ARG:O	2:E:1731:LEU:HG	2.05	0.57
2:E:2013:LYS:NZ	2:E:3664:THR:OG1	2.34	0.57
2:G:280:LEU:HD21	2:G:316:PHE:HE2	1.70	0.57
2:G:657:THR:HB	2:G:1007:TYR:H	1.69	0.57
2:J:657:THR:HB	2:J:1007:TYR:H	1.69	0.57
2:J:2321:ILE:HD13	2:J:2422:ILE:HD11	1.85	0.57
2:J:3514:LEU:HD21	2:J:3602:VAL:HG11	1.85	0.57
1:H:78:PRO:HA	1:H:81:ALA:HB3	1.87	0.57
2:E:4953:ASP:HA	2:E:4956:THR:HG22	1.84	0.57
2:G:2122:SER:HA	2:G:2125:HIS:ND1	2.20	0.57
2:G:2470:ILE:HG22	2:G:2525:GLY:HA3	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2107:GLN:NE2	2:J:3679:LYS:O	2.37	0.57
3:M:51:ILE:O	3:M:71:ARG:NH2	2.35	0.57
2:B:293:LEU:HD13	2:B:378:LEU:HD12	1.86	0.56
2:B:2623:LEU:O	2:B:2627:VAL:HG23	2.05	0.56
2:B:3674:ILE:HG13	2:B:3732:SER:HB2	1.86	0.56
2:E:1005:TRP:HB3	2:E:1021:LEU:HD22	1.86	0.56
2:E:2623:LEU:O	2:E:2627:VAL:HG23	2.05	0.56
2:E:3843:ASP:H	2:E:3874:VAL:CG2	2.18	0.56
2:G:1727:ARG:O	2:G:1731:LEU:HG	2.05	0.56
2:G:3767:GLN:HE22	2:G:3806:ASN:HB2	1.70	0.56
2:G:3843:ASP:H	2:G:3874:VAL:CG2	2.18	0.56
2:J:2122:SER:HA	2:J:2125:HIS:ND1	2.20	0.56
2:J:2291:GLN:HG2	2:J:2293:GLN:HG2	1.86	0.56
3:K:51:ILE:O	3:K:71:ARG:NH2	2.35	0.56
2:B:3512:ALA:HA	2:B:3516:LYS:HG2	1.87	0.56
2:E:2470:ILE:HG22	2:E:2525:GLY:HA3	1.87	0.56
2:E:4679:ARG:NH1	2:E:4715:TYR:OH	2.38	0.56
2:G:870:ILE:HD11	2:G:1049:TYR:HB3	1.87	0.56
2:G:2107:GLN:NE2	2:G:3679:LYS:O	2.37	0.56
2:B:280:LEU:HD21	2:B:316:PHE:HE2	1.70	0.56
2:B:618:GLN:NE2	2:B:1672:ALA:O	2.38	0.56
2:B:1159:THR:HA	2:B:1180:ARG:HA	1.86	0.56
2:B:3524:MET:HA	2:B:3582:ARG:HH12	1.71	0.56
2:E:3866:ILE:HD13	2:E:3868:ARG:HE	1.69	0.56
2:E:4949:GLN:HA	2:E:4952:GLU:HG3	1.86	0.56
2:G:469:ARG:O	2:G:473:ASN:ND2	2.37	0.56
2:G:4978:HIS:ND1	2:G:4982:GLU:OE1	2.35	0.56
2:J:870:ILE:HD11	2:J:1049:TYR:HB3	1.87	0.56
2:J:2258:LEU:HD23	2:J:2297:LYS:HE3	1.87	0.56
2:J:3036:LYS:HD2	2:J:3079:THR:HG21	1.86	0.56
2:J:4978:HIS:ND1	2:J:4982:GLU:OE1	2.35	0.56
3:C:51:ILE:O	3:C:71:ARG:NH2	2.35	0.56
3:K:66:ARG:HD2	3:K:83:ASN:HB3	1.86	0.56
2:B:638:ILE:HG21	2:B:702:TRP:HE1	1.70	0.56
2:B:2470:ILE:HG22	2:B:2525:GLY:HA3	1.87	0.56
2:B:3866:ILE:HD13	2:B:3868:ARG:HE	1.69	0.56
2:E:280:LEU:HD21	2:E:316:PHE:HE2	1.70	0.56
2:E:2122:SER:HA	2:E:2125:HIS:ND1	2.20	0.56
2:E:3172:ILE:HD13	2:E:3194:LEU:HB2	1.86	0.56
2:G:618:GLN:NE2	2:G:1672:ALA:O	2.38	0.56
2:G:2247:GLN:HG3	2:G:2279:SER:HA	1.85	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:H:68:LEU:HG	1:H:103:LEU:HG	1.88	0.56
2:E:638:ILE:HG21	2:E:702:TRP:HE1	1.70	0.56
2:G:638:ILE:HG21	2:G:702:TRP:HE1	1.70	0.56
2:G:2013:LYS:NZ	2:G:3664:THR:OG1	2.34	0.56
2:J:223:PHE:O	2:J:388:LEU:HB2	2.04	0.56
2:J:1159:THR:HA	2:J:1180:ARG:HA	1.86	0.56
2:J:1455:PRO:HG3	2:J:1549:PHE:HE1	1.69	0.56
2:J:4147:LEU:HD21	2:J:4164:LEU:HA	1.88	0.56
2:J:4679:ARG:NH1	2:J:4715:TYR:OH	2.38	0.56
2:B:2258:LEU:HD23	2:B:2297:LYS:HE3	1.87	0.56
2:B:3843:ASP:H	2:B:3874:VAL:CG2	2.18	0.56
2:E:1159:THR:HA	2:E:1180:ARG:HA	1.86	0.56
2:G:293:LEU:HD13	2:G:378:LEU:HD12	1.86	0.56
2:G:3172:ILE:HD13	2:G:3194:LEU:HB2	1.86	0.56
2:G:3986:TRP:HE1	2:G:4047:MET:HB3	1.70	0.56
2:J:497:TYR:HB2	2:J:503:PHE:CZ	2.41	0.56
2:J:3843:ASP:H	2:J:3874:VAL:CG2	2.18	0.56
2:B:1005:TRP:HE1	2:B:1016:ARG:HH21	1.53	0.56
2:B:2420:HIS:HA	2:B:2423:MET:HG2	1.86	0.56
2:B:3036:LYS:HD3	2:B:3076:ASP:HB3	1.88	0.56
2:B:4147:LEU:HD21	2:B:4164:LEU:HA	1.88	0.56
2:E:497:TYR:HB2	2:E:503:PHE:CZ	2.41	0.56
2:E:783:PHE:HB2	2:E:787:VAL:HG21	1.88	0.56
2:G:372:LEU:O	2:G:374:LYS:HG3	2.05	0.56
2:B:2677:LYS:HE3	2:B:2909:ASP:HB2	1.87	0.56
2:B:3767:GLN:HE22	2:B:3806:ASN:HB2	1.70	0.56
2:B:4679:ARG:NH1	2:B:4715:TYR:OH	2.38	0.56
2:E:2291:GLN:HG2	2:E:2293:GLN:HG2	1.86	0.56
2:E:2423:MET:HE3	2:E:2494:PHE:CD2	2.41	0.56
2:G:1455:PRO:HG3	2:G:1549:PHE:HE1	1.69	0.56
2:J:3767:GLN:HE22	2:J:3806:ASN:HB2	1.70	0.56
3:C:38:ARG:HB3	3:C:93:TYR:CD1	2.41	0.56
3:M:47:LEU:O	3:M:62:SER:OG	2.24	0.56
2:B:497:TYR:HB2	2:B:503:PHE:CZ	2.41	0.56
2:B:3937:TYR:O	2:B:4002:LYS:NZ	2.37	0.56
2:E:2261:SER:HB2	2:E:2273:LEU:HD22	1.86	0.56
2:J:2470:ILE:HG22	2:J:2525:GLY:HA3	1.86	0.56
2:J:2677:LYS:HE3	2:J:2909:ASP:HB2	1.87	0.56
2:J:3036:LYS:HD3	2:J:3076:ASP:HB3	1.88	0.56
3:F:66:ARG:HD2	3:F:83:ASN:HB3	1.86	0.56
2:B:2794:TYR:HA	2:B:2797:PHE:HB3	1.88	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3590:GLU:O	2:B:3594:ARG:HG2	2.06	0.56
2:E:1005:TRP:HE1	2:E:1016:ARG:HH21	1.53	0.56
2:G:4679:ARG:NH1	2:G:4715:TYR:OH	2.38	0.56
2:J:618:GLN:NE2	2:J:1672:ALA:O	2.38	0.56
1:I:68:LEU:HG	1:I:103:LEU:HG	1.88	0.55
2:E:293:LEU:HD13	2:E:378:LEU:HD12	1.86	0.55
2:E:2258:LEU:HD23	2:E:2297:LYS:HE3	1.87	0.55
2:E:3524:MET:HA	2:E:3582:ARG:HH12	1.71	0.55
2:E:5004:THR:HG22	2:E:5007:GLU:HG2	1.88	0.55
2:G:232:THR:HG22	2:G:258:SER:HB3	1.88	0.55
2:G:1159:THR:HA	2:G:1180:ARG:HA	1.86	0.55
2:G:3524:MET:HA	2:G:3582:ARG:HH12	1.71	0.55
2:J:232:THR:HG22	2:J:258:SER:HB3	1.88	0.55
2:J:3245:VAL:HG12	2:J:3248:ARG:NE	2.21	0.55
1:A:78:PRO:HA	1:A:81:ALA:HB3	1.87	0.55
2:E:3397:GLU:HA	2:E:3400:VAL:HG12	1.88	0.55
2:G:636:ASN:HB3	2:G:702:TRP:HZ2	1.72	0.55
2:G:783:PHE:HB2	2:G:787:VAL:HG21	1.88	0.55
2:G:2724:GLU:HG3	2:G:2725:LYS:HG3	1.88	0.55
2:G:2794:TYR:HA	2:G:2797:PHE:HB3	1.88	0.55
2:G:3036:LYS:HD2	2:G:3079:THR:HG21	1.86	0.55
2:G:3904:ARG:NH1	2:G:3976:ASN:OD1	2.33	0.55
2:G:4147:LEU:HD21	2:G:4164:LEU:HA	1.88	0.55
2:J:2794:TYR:HA	2:J:2797:PHE:HB3	1.89	0.55
2:J:3805:LEU:HB3	2:J:3890:LEU:HD21	1.88	0.55
3:F:38:ARG:HB3	3:F:93:TYR:CD1	2.41	0.55
3:M:38:ARG:HB3	3:M:93:TYR:CD1	2.41	0.55
1:I:78:PRO:HA	1:I:81:ALA:HB3	1.87	0.55
2:E:360:ALA:HA	2:E:377:ILE:HD13	1.87	0.55
2:E:2794:TYR:HA	2:E:2797:PHE:HB3	1.89	0.55
2:E:3093:ARG:O	2:E:3097:GLU:HG2	2.07	0.55
2:G:103:TYR:HB2	2:G:160:GLY:H	1.72	0.55
2:G:1032:LYS:HB3	2:G:1036:ARG:HH22	1.71	0.55
2:J:1727:ARG:O	2:J:1731:LEU:HG	2.05	0.55
2:J:1740:PRO:HA	2:J:1743:ARG:HG2	1.89	0.55
2:B:636:ASN:HB3	2:B:702:TRP:HZ2	1.72	0.55
2:B:2585:THR:HA	2:B:2588:ARG:HD3	1.88	0.55
2:E:3843:ASP:H	2:E:3874:VAL:HG23	1.71	0.55
2:E:3904:ARG:NH1	2:E:3976:ASN:OD1	2.33	0.55
2:G:2677:LYS:HE3	2:G:2909:ASP:HB2	1.87	0.55
2:G:3093:ARG:O	2:G:3097:GLU:HG2	2.07	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:4211:LYS:NZ	5:G:5102:ATP:O3G	2.39	0.55
2:G:4241:THR:O	2:G:4245:MET:HG2	2.07	0.55
2:J:1005:TRP:HE1	2:J:1016:ARG:HH21	1.53	0.55
2:J:3397:GLU:HA	2:J:3400:VAL:HG12	1.89	0.55
2:J:3843:ASP:H	2:J:3874:VAL:HG23	1.71	0.55
2:J:3986:TRP:HE1	2:J:4047:MET:HB3	1.71	0.55
1:D:68:LEU:HG	1:D:103:LEU:HG	1.88	0.55
2:B:2122:SER:O	2:B:2125:HIS:ND1	2.40	0.55
2:B:2122:SER:HA	2:B:2125:HIS:ND1	2.20	0.55
2:B:3397:GLU:HA	2:B:3400:VAL:HG12	1.89	0.55
2:E:3036:LYS:HD3	2:E:3076:ASP:HB3	1.88	0.55
2:E:3590:GLU:O	2:E:3594:ARG:HG2	2.07	0.55
2:G:497:TYR:HB2	2:G:503:PHE:CZ	2.41	0.55
2:G:897:ARG:HD3	2:G:905:PRO:HD3	1.88	0.55
2:G:1740:PRO:HA	2:G:1743:ARG:HG2	1.89	0.55
2:G:3196:ARG:NH1	2:G:3196:ARG:HA	2.22	0.55
3:F:47:LEU:O	3:F:62:SER:OG	2.24	0.55
3:F:105:ASN:ND2	3:F:111:ASN:HB2	2.16	0.55
3:K:38:ARG:HB3	3:K:93:TYR:CD1	2.41	0.55
1:A:35:LYS:HE2	2:B:636:ASN:ND2	2.21	0.55
2:B:2724:GLU:HG3	2:B:2725:LYS:HG3	1.88	0.55
2:B:3093:ARG:O	2:B:3097:GLU:HG2	2.07	0.55
2:E:647:ASN:HD22	2:E:822:ARG:HG2	1.71	0.55
2:E:870:ILE:HD11	2:E:1049:TYR:HB3	1.87	0.55
2:E:897:ARG:HD3	2:E:905:PRO:HD3	1.88	0.55
2:E:3805:LEU:HB3	2:E:3890:LEU:HD21	1.88	0.55
2:G:2122:SER:O	2:G:2125:HIS:ND1	2.40	0.55
2:G:3036:LYS:HD3	2:G:3076:ASP:HB3	1.88	0.55
2:J:103:TYR:HB2	2:J:160:GLY:H	1.72	0.55
2:J:4241:THR:O	2:J:4245:MET:HG2	2.07	0.55
3:C:47:LEU:O	3:C:62:SER:OG	2.24	0.55
2:B:360:ALA:HA	2:B:377:ILE:HD13	1.88	0.55
2:B:1849:LEU:HG	2:B:1945:TYR:CE1	2.42	0.55
2:B:4241:THR:O	2:B:4245:MET:HG2	2.07	0.55
2:J:3256:LEU:HD22	2:J:3266:MET:HE2	1.88	0.55
2:J:3349:ALA:HB1	2:J:3353:LEU:HD22	1.89	0.55
2:B:3196:ARG:NH1	2:B:3196:ARG:HA	2.22	0.55
2:E:2711:PRO:HG2	2:E:2714:TYR:HB2	1.89	0.55
2:E:3196:ARG:NH1	2:E:3196:ARG:HA	2.22	0.55
2:E:3245:VAL:HG12	2:E:3248:ARG:NE	2.21	0.55
2:E:4241:THR:O	2:E:4245:MET:HG2	2.06	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2754:PHE:HE2	2:G:2813:LEU:HD11	1.72	0.55
2:G:3843:ASP:H	2:G:3874:VAL:HG23	1.71	0.55
2:J:636:ASN:HB3	2:J:702:TRP:HZ2	1.72	0.55
2:J:1032:LYS:HB3	2:J:1036:ARG:HH22	1.71	0.55
2:J:1518:CYS:HB3	2:J:1527:MET:HE1	1.89	0.55
2:J:3416:VAL:HG23	2:J:3423:TRP:HZ3	1.72	0.55
2:J:3961:VAL:O	2:J:3965:LEU:HG	2.06	0.55
3:C:111:ASN:O	3:C:114:TYR:HB2	2.07	0.55
3:F:111:ASN:O	3:F:114:TYR:HB2	2.07	0.55
3:K:47:LEU:O	3:K:62:SER:OG	2.24	0.55
2:B:783:PHE:HB2	2:B:787:VAL:HG21	1.88	0.55
2:B:2754:PHE:HE2	2:B:2813:LEU:HD11	1.72	0.55
2:B:3904:ARG:NH1	2:B:3976:ASN:OD1	2.33	0.55
2:B:3986:TRP:HE1	2:B:4047:MET:HB3	1.70	0.55
2:G:3805:LEU:HB3	2:G:3890:LEU:HD21	1.88	0.55
3:C:72:ASP:OD1	3:C:77:THR:OG1	2.25	0.55
2:B:2013:LYS:NZ	2:B:3664:THR:OG1	2.34	0.55
2:B:3843:ASP:H	2:B:3874:VAL:HG23	1.71	0.55
2:E:1849:LEU:HG	2:E:1945:TYR:CE1	2.42	0.55
2:E:2544:THR:HG22	2:E:2546:MET:H	1.72	0.55
2:G:3590:GLU:O	2:G:3594:ARG:HG2	2.07	0.55
2:J:647:ASN:HD22	2:J:822:ARG:HG2	1.71	0.55
2:J:2175:GLU:HA	2:J:2178:MET:HE2	1.89	0.55
2:J:5004:THR:HG22	2:J:5007:GLU:HG2	1.88	0.55
3:C:6:GLU:HG3	3:C:121:THR:HG23	1.88	0.55
3:C:34:MET:HE3	3:C:35:GLY:O	2.07	0.55
2:B:232:THR:HG22	2:B:258:SER:HB3	1.88	0.54
2:B:2544:THR:HG22	2:B:2546:MET:H	1.72	0.54
2:B:2711:PRO:HG2	2:B:2714:TYR:HB2	1.89	0.54
2:B:3416:VAL:HG23	2:B:3423:TRP:HZ3	1.72	0.54
2:E:103:TYR:HB2	2:E:160:GLY:H	1.72	0.54
2:E:316:PHE:HB3	2:E:346:CYS:HB2	1.90	0.54
2:E:2724:GLU:HG3	2:E:2725:LYS:HG3	1.88	0.54
2:E:3416:VAL:HG23	2:E:3423:TRP:HZ3	1.72	0.54
2:E:4147:LEU:HD21	2:E:4164:LEU:HA	1.88	0.54
2:G:1849:LEU:HG	2:G:1945:TYR:CE1	2.42	0.54
2:J:897:ARG:HD3	2:J:905:PRO:HD3	1.88	0.54
2:J:2585:THR:HA	2:J:2588:ARG:HD3	1.88	0.54
2:J:3196:ARG:NH1	2:J:3196:ARG:HA	2.22	0.54
3:K:34:MET:HE3	3:K:35:GLY:O	2.07	0.54
1:D:78:PRO:HA	1:D:81:ALA:HB3	1.87	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:365:LYS:HE2	2:B:369:LEU:HD11	1.89	0.54
2:B:647:ASN:HD22	2:B:822:ARG:HG2	1.71	0.54
2:B:3245:VAL:HG12	2:B:3248:ARG:NE	2.21	0.54
2:E:2677:LYS:HE3	2:E:2909:ASP:HB2	1.87	0.54
2:E:3986:TRP:HE1	2:E:4047:MET:HB3	1.70	0.54
2:G:2599:GLN:O	2:G:2603:ILE:HG12	2.07	0.54
2:G:3189:ALA:O	2:G:3192:GLU:HG2	2.07	0.54
2:G:3245:VAL:HG12	2:G:3248:ARG:NE	2.21	0.54
2:J:638:ILE:HG21	2:J:702:TRP:HE1	1.71	0.54
2:J:3107:VAL:HA	2:J:3175:LEU:HD21	1.89	0.54
2:J:3590:GLU:O	2:J:3594:ARG:HG2	2.07	0.54
3:C:71:ARG:HD2	3:C:72:ASP:N	2.23	0.54
2:B:897:ARG:HD3	2:B:905:PRO:HD3	1.88	0.54
2:B:1032:LYS:HB3	2:B:1036:ARG:HH22	1.71	0.54
2:B:2863:SER:HA	2:B:2928:LYS:HG3	1.90	0.54
2:B:3107:VAL:HA	2:B:3175:LEU:HD21	1.89	0.54
2:E:2122:SER:O	2:E:2125:HIS:ND1	2.40	0.54
2:E:2585:THR:HA	2:E:2588:ARG:HD3	1.89	0.54
2:E:3349:ALA:HB1	2:E:3353:LEU:HD22	1.89	0.54
3:K:6:GLU:HG3	3:K:121:THR:HG23	1.88	0.54
2:B:2599:GLN:O	2:B:2603:ILE:HG12	2.07	0.54
2:B:3805:LEU:HB3	2:B:3890:LEU:HD21	1.88	0.54
2:E:365:LYS:HE2	2:E:369:LEU:HD11	1.88	0.54
2:E:636:ASN:HB3	2:E:702:TRP:HZ2	1.72	0.54
2:E:2189:LYS:HA	2:E:2192:TYR:CZ	2.43	0.54
2:E:2685:SER:HA	2:E:2688:HIS:CD2	2.43	0.54
2:E:3767:GLN:HE22	2:E:3806:ASN:HB2	1.70	0.54
2:G:5004:THR:HG22	2:G:5007:GLU:HG2	1.88	0.54
2:J:3093:ARG:O	2:J:3097:GLU:HG2	2.07	0.54
3:M:111:ASN:O	3:M:114:TYR:HB2	2.07	0.54
1:D:35:LYS:HE2	2:E:636:ASN:ND2	2.23	0.54
2:B:316:PHE:HB3	2:B:346:CYS:HB2	1.90	0.54
2:E:1740:PRO:HA	2:E:1743:ARG:HG2	1.89	0.54
2:G:3397:GLU:HA	2:G:3400:VAL:HG12	1.89	0.54
2:J:2685:SER:HA	2:J:2688:HIS:CD2	2.42	0.54
2:J:2724:GLU:HG3	2:J:2725:LYS:HG3	1.88	0.54
3:F:71:ARG:HD2	3:F:72:ASP:N	2.23	0.54
3:K:71:ARG:HD2	3:K:72:ASP:N	2.23	0.54
3:K:72:ASP:OD1	3:K:77:THR:OG1	2.25	0.54
1:A:68:LEU:HG	1:A:103:LEU:HG	1.88	0.54
1:I:35:LYS:HE2	2:J:636:ASN:ND2	2.22	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:232:THR:HG22	2:E:258:SER:HB3	1.88	0.54
2:E:545:ASP:OD1	2:E:582:HIS:NE2	2.40	0.54
2:E:1032:LYS:HB3	2:E:1036:ARG:HH22	1.71	0.54
2:E:1771:LEU:HD11	2:E:2149:VAL:HG12	1.90	0.54
2:E:2863:SER:HA	2:E:2928:LYS:HG3	1.90	0.54
2:J:545:ASP:OD1	2:J:582:HIS:NE2	2.40	0.54
2:J:2189:LYS:HA	2:J:2192:TYR:CZ	2.43	0.54
3:C:105:ASN:ND2	3:C:111:ASN:HB2	2.17	0.54
3:F:6:GLU:HG3	3:F:121:THR:HG23	1.88	0.54
3:F:51:ILE:O	3:F:71:ARG:NH2	2.35	0.54
3:K:111:ASN:O	3:K:114:TYR:HB2	2.07	0.54
2:B:1740:PRO:HA	2:B:1743:ARG:HG2	1.89	0.54
2:B:2685:SER:HA	2:B:2688:HIS:CD2	2.42	0.54
2:B:3057:PHE:HB2	2:B:3060:ASP:HB2	1.90	0.54
2:E:875:ALA:O	2:E:879:HIS:ND1	2.41	0.54
2:G:647:ASN:HD22	2:G:822:ARG:HG2	1.71	0.54
2:G:1005:TRP:HE1	2:G:1016:ARG:HH21	1.53	0.54
2:G:2330:ARG:O	2:G:2334:PHE:HD2	1.90	0.54
2:J:394:GLN:HG2	2:J:396:GLU:H	1.73	0.54
2:J:783:PHE:HB2	2:J:787:VAL:HG21	1.88	0.54
2:J:2599:GLN:O	2:J:2603:ILE:HG12	2.07	0.54
3:C:36:TRP:HB3	3:C:48:VAL:HB	1.90	0.54
2:B:1130:GLN:HG2	2:B:1138:PRO:HA	1.90	0.54
2:B:4767:TRP:O	2:B:4771:ILE:HG12	2.08	0.54
2:E:2330:ARG:O	2:E:2334:PHE:HD2	1.90	0.54
2:E:2599:GLN:O	2:E:2603:ILE:HG12	2.07	0.54
2:E:3057:PHE:HB2	2:E:3060:ASP:HB2	1.90	0.54
2:G:2685:SER:HA	2:G:2688:HIS:CD2	2.43	0.54
2:G:3189:ALA:HA	2:G:3192:GLU:HG2	1.89	0.54
2:G:3416:VAL:HG23	2:G:3423:TRP:HZ3	1.72	0.54
2:G:4767:TRP:O	2:G:4771:ILE:HG12	2.08	0.54
2:J:875:ALA:O	2:J:879:HIS:ND1	2.41	0.54
2:J:2544:THR:HG22	2:J:2546:MET:H	1.72	0.54
2:J:2863:SER:HA	2:J:2928:LYS:HG3	1.90	0.54
2:J:3589:PRO:HA	2:J:3592:ILE:HD12	1.90	0.54
2:E:3589:PRO:HA	2:E:3592:ILE:HD12	1.90	0.54
2:G:2585:THR:HA	2:G:2588:ARG:HD3	1.89	0.54
2:J:2122:SER:O	2:J:2125:HIS:ND1	2.40	0.54
2:J:3197:LEU:O	2:J:3201:MET:HG2	2.08	0.54
2:J:3533:ILE:HG22	2:J:3537:LYS:NZ	2.23	0.54
2:B:2175:GLU:HA	2:B:2178:MET:HE2	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3533:ILE:HG22	2:B:3537:LYS:NZ	2.23	0.54
2:B:5004:THR:HG22	2:B:5007:GLU:HG2	1.88	0.54
2:E:867:LEU:O	2:E:871:ARG:HB3	2.08	0.54
2:E:1130:GLN:HG2	2:E:1138:PRO:HA	1.90	0.54
2:E:2258:LEU:HD21	2:E:2298:VAL:HG13	1.90	0.54
2:E:3547:GLU:O	2:E:3551:GLU:HG2	2.08	0.54
2:E:4767:TRP:O	2:E:4771:ILE:HG12	2.08	0.54
2:G:867:LEU:O	2:G:871:ARG:HB3	2.08	0.54
2:J:3524:MET:HA	2:J:3582:ARG:HH12	1.71	0.54
2:J:3865:VAL:HG12	2:J:3867:ASN:H	1.73	0.54
3:M:34:MET:HE3	3:M:35:GLY:O	2.08	0.54
2:B:1122:TYR:HD2	2:B:1160:ILE:HD12	1.73	0.53
2:B:1771:LEU:HD11	2:B:2149:VAL:HG12	1.90	0.53
2:B:2238:TYR:O	2:B:2242:ILE:HG12	2.08	0.53
2:B:2950:SER:HA	2:B:2953:LYS:HB2	1.90	0.53
2:E:1294:PRO:HB2	2:E:1547:LYS:HB2	1.91	0.53
2:G:875:ALA:O	2:G:879:HIS:ND1	2.41	0.53
2:G:1771:LEU:HD11	2:G:2149:VAL:HG12	1.90	0.53
2:G:2544:THR:HG22	2:G:2546:MET:H	1.72	0.53
2:G:3107:VAL:HA	2:G:3175:LEU:HD21	1.89	0.53
2:J:1849:LEU:HG	2:J:1945:TYR:CE1	2.42	0.53
2:J:2973:PHE:HA	2:J:2976:HIS:ND1	2.24	0.53
3:F:34:MET:HE3	3:F:35:GLY:O	2.07	0.53
2:B:545:ASP:OD1	2:B:582:HIS:NE2	2.40	0.53
2:B:1294:PRO:HB2	2:B:1547:LYS:HB2	1.91	0.53
2:B:1698:LEU:HG	2:B:1712:TYR:CZ	2.43	0.53
2:B:2189:LYS:HA	2:B:2192:TYR:CZ	2.43	0.53
2:B:3865:VAL:HG12	2:B:3867:ASN:H	1.73	0.53
2:E:3996:PHE:HA	2:E:3999:MET:HE2	1.90	0.53
2:G:1698:LEU:HG	2:G:1712:TYR:CZ	2.43	0.53
2:G:2950:SER:HA	2:G:2953:LYS:HB2	1.90	0.53
2:G:3197:LEU:O	2:G:3201:MET:HG2	2.08	0.53
2:G:4024:VAL:O	2:G:4027:LEU:HG	2.09	0.53
2:J:2258:LEU:HD21	2:J:2298:VAL:HG13	1.90	0.53
2:J:2330:ARG:O	2:J:2334:PHE:HD2	1.90	0.53
2:J:2711:PRO:HG2	2:J:2714:TYR:HB2	1.89	0.53
3:F:109:THR:HA	3:F:112:ASP:HB2	1.91	0.53
3:M:6:GLU:HG3	3:M:121:THR:HG23	1.88	0.53
2:B:224:HIS:HB2	2:B:226:HIS:CE1	2.43	0.53
2:B:2330:ARG:O	2:B:2334:PHE:HD2	1.90	0.53
2:B:3592:ILE:HG12	2:B:3595:ARG:HH21	1.73	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1122:TYR:HD2	2:E:1160:ILE:HD12	1.73	0.53
2:E:2973:PHE:HA	2:E:2976:HIS:ND1	2.24	0.53
2:G:224:HIS:HB2	2:G:226:HIS:CE1	2.43	0.53
2:G:1862:ILE:O	2:G:1866:ILE:HG12	2.09	0.53
2:G:2711:PRO:HG2	2:G:2714:TYR:HB2	1.89	0.53
2:G:3349:ALA:HB1	2:G:3353:LEU:HD22	1.89	0.53
2:G:3752:SER:HB2	2:G:3755:GLU:HG3	1.90	0.53
2:J:224:HIS:HB2	2:J:226:HIS:CE1	2.44	0.53
2:J:867:LEU:O	2:J:871:ARG:HB3	2.08	0.53
2:J:1862:ILE:O	2:J:1866:ILE:HG12	2.09	0.53
2:J:3547:GLU:O	2:J:3551:GLU:HG2	2.08	0.53
2:J:3592:ILE:HG12	2:J:3595:ARG:HH21	1.73	0.53
3:F:36:TRP:HB3	3:F:48:VAL:HB	1.90	0.53
3:M:38:ARG:HG3	3:M:46:GLU:HG3	1.91	0.53
2:E:3107:VAL:HA	2:E:3175:LEU:HD21	1.89	0.53
2:G:668:VAL:O	2:G:741:GLU:N	2.41	0.53
2:J:1698:LEU:HG	2:J:1712:TYR:CZ	2.43	0.53
2:J:1771:LEU:HD11	2:J:2149:VAL:HG12	1.90	0.53
2:B:668:VAL:O	2:B:741:GLU:N	2.41	0.53
2:B:3197:LEU:O	2:B:3201:MET:HG2	2.08	0.53
2:B:3349:ALA:HB1	2:B:3353:LEU:HD22	1.89	0.53
2:E:394:GLN:HG2	2:E:396:GLU:H	1.73	0.53
2:E:668:VAL:O	2:E:741:GLU:N	2.41	0.53
2:E:1518:CYS:HB3	2:E:1527:MET:HE1	1.91	0.53
2:E:2754:PHE:HE2	2:E:2813:LEU:HD11	1.72	0.53
2:G:316:PHE:HB3	2:G:346:CYS:HB2	1.90	0.53
2:G:394:GLN:HG2	2:G:396:GLU:H	1.73	0.53
2:G:1122:TYR:HD2	2:G:1160:ILE:HD12	1.73	0.53
2:G:3533:ILE:HG22	2:G:3537:LYS:NZ	2.23	0.53
2:G:3547:GLU:O	2:G:3551:GLU:HG2	2.08	0.53
2:J:316:PHE:HB3	2:J:346:CYS:HB2	1.90	0.53
2:J:668:VAL:O	2:J:741:GLU:N	2.41	0.53
2:J:3057:PHE:HB2	2:J:3060:ASP:HB2	1.90	0.53
2:J:4024:VAL:HA	2:J:4027:LEU:HG	1.91	0.53
2:J:4207:MET:HG2	2:J:4208:PRO:HD2	1.91	0.53
3:M:71:ARG:HD2	3:M:72:ASP:N	2.23	0.53
2:B:103:TYR:HB2	2:B:160:GLY:H	1.72	0.53
2:B:3589:PRO:HA	2:B:3592:ILE:HD12	1.90	0.53
2:B:4024:VAL:O	2:B:4027:LEU:HG	2.09	0.53
2:E:1087:ARG:HG2	2:E:1154:ASP:OD1	2.09	0.53
2:E:4024:VAL:O	2:E:4027:LEU:HG	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:2863:SER:HA	2:G:2928:LYS:HG3	1.90	0.53
2:G:4961:CYS:HA	2:G:5025:GLY:H	1.74	0.53
2:J:248:GLU:CB	2:J:373:LYS:HD2	2.32	0.53
2:J:2754:PHE:HE2	2:J:2813:LEU:HD11	1.72	0.53
2:E:224:HIS:HB2	2:E:226:HIS:CE1	2.43	0.53
2:J:1087:ARG:HG2	2:J:1154:ASP:OD1	2.09	0.53
2:J:3904:ARG:NH1	2:J:3976:ASN:OD1	2.33	0.53
2:J:4767:TRP:O	2:J:4771:ILE:HG12	2.08	0.53
3:K:109:THR:HA	3:K:112:ASP:HB2	1.90	0.53
3:M:36:TRP:HB3	3:M:48:VAL:HB	1.90	0.53
2:B:394:GLN:HG2	2:B:396:GLU:H	1.73	0.53
2:B:1087:ARG:HG2	2:B:1154:ASP:OD1	2.09	0.53
2:B:2751:LEU:O	2:B:2755:ILE:HG12	2.09	0.53
2:B:3752:SER:HB2	2:B:3755:GLU:HG3	1.90	0.53
2:B:4211:LYS:NZ	5:B:5102:ATP:O3G	2.39	0.53
2:E:3197:LEU:O	2:E:3201:MET:HG2	2.08	0.53
2:E:3533:ILE:HG22	2:E:3537:LYS:NZ	2.23	0.53
2:G:530:ILE:HD11	2:G:563:VAL:HG23	1.91	0.53
2:G:663:TYR:HD1	2:G:747:CYS:HB3	1.74	0.53
2:G:1294:PRO:HB2	2:G:1547:LYS:HB2	1.90	0.53
2:G:2189:LYS:HA	2:G:2192:TYR:CZ	2.43	0.53
2:G:2973:PHE:HA	2:G:2976:HIS:ND1	2.24	0.53
2:J:4024:VAL:O	2:J:4027:LEU:HG	2.09	0.53
2:B:530:ILE:HD11	2:B:563:VAL:HG23	1.91	0.53
2:B:2230:THR:HG22	2:B:2234:ARG:HH11	1.74	0.53
2:B:4680:LYS:HB3	2:B:4686:LEU:HD22	1.91	0.53
2:E:663:TYR:HD1	2:E:747:CYS:HB3	1.74	0.53
2:E:1698:LEU:HG	2:E:1712:TYR:CZ	2.43	0.53
2:E:3865:VAL:HG12	2:E:3867:ASN:H	1.73	0.53
2:G:210:GLU:HG2	2:G:273:HIS:HE2	1.74	0.53
2:G:1130:GLN:HG2	2:G:1138:PRO:HA	1.90	0.53
2:G:1763:PRO:HB3	2:G:1950:GLU:HG2	1.91	0.53
2:G:2238:TYR:O	2:G:2242:ILE:HG12	2.08	0.53
2:J:1294:PRO:HB2	2:J:1547:LYS:HB2	1.90	0.53
2:J:2751:LEU:O	2:J:2755:ILE:HG12	2.09	0.53
1:D:22:CYS:SG	1:D:106:LEU:HD13	2.49	0.53
2:B:722:TRP:CE2	2:B:727:ALA:HB2	2.44	0.53
2:B:875:ALA:O	2:B:879:HIS:ND1	2.41	0.53
2:B:1862:ILE:O	2:B:1866:ILE:HG12	2.09	0.53
2:B:4626:ASN:N	2:B:4629:TYR:HH	2.08	0.53
2:E:2152:THR:O	2:E:2156:LEU:HG	2.09	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:722:TRP:CE2	2:G:727:ALA:HB2	2.44	0.53
2:G:4207:MET:HG2	2:G:4208:PRO:HD2	1.91	0.53
2:G:4680:LYS:HB3	2:G:4686:LEU:HD22	1.91	0.53
2:J:663:TYR:HD1	2:J:747:CYS:HB3	1.74	0.53
2:J:2123:LEU:O	2:J:2127:GLN:HG2	2.09	0.53
2:J:2152:THR:O	2:J:2156:LEU:HG	2.09	0.53
2:J:2238:TYR:O	2:J:2242:ILE:HG12	2.08	0.53
2:J:2950:SER:HA	2:J:2953:LYS:HB2	1.90	0.53
2:B:248:GLU:CB	2:B:373:LYS:HD2	2.31	0.52
2:B:3961:VAL:O	2:B:3965:LEU:HG	2.09	0.52
2:E:2230:THR:HG22	2:E:2234:ARG:HH11	1.74	0.52
2:E:2238:TYR:O	2:E:2242:ILE:HG12	2.08	0.52
2:E:3752:SER:HB2	2:E:3755:GLU:HG3	1.90	0.52
2:E:4211:LYS:NZ	5:E:5102:ATP:O3G	2.39	0.52
2:G:753:PRO:O	2:G:769:GLU:HA	2.09	0.52
2:G:3592:ILE:HG12	2:G:3595:ARG:HH21	1.73	0.52
2:J:4809:PHE:HA	2:J:4812:HIS:HD2	1.74	0.52
3:C:38:ARG:HG3	3:C:46:GLU:HG3	1.91	0.52
2:B:2258:LEU:HD21	2:B:2298:VAL:HG13	1.90	0.52
2:E:578:ILE:HG13	2:E:606:LEU:HD22	1.91	0.52
2:E:2175:GLU:HA	2:E:2178:MET:HE2	1.92	0.52
2:E:3775:ALA:HA	2:E:3778:MET:HG3	1.92	0.52
2:G:545:ASP:OD1	2:G:582:HIS:NE2	2.40	0.52
2:G:2152:THR:O	2:G:2156:LEU:HG	2.09	0.52
2:G:3057:PHE:HB2	2:G:3060:ASP:HB2	1.90	0.52
2:J:421:PHE:HB3	2:J:431:PRO:HB3	1.91	0.52
2:J:753:PRO:O	2:J:769:GLU:HA	2.09	0.52
2:J:1130:GLN:HG2	2:J:1138:PRO:HA	1.90	0.52
2:J:3752:SER:HB2	2:J:3755:GLU:HG3	1.90	0.52
2:J:4211:LYS:NZ	5:J:5102:ATP:O3G	2.39	0.52
3:M:89:ASP:HB2	3:M:125:VAL:HG21	1.92	0.52
1:A:22:CYS:SG	1:A:106:LEU:HD13	2.49	0.52
2:B:2123:LEU:O	2:B:2127:GLN:HG2	2.09	0.52
2:B:2323:TRP:CZ2	2:B:2422:ILE:HG23	2.44	0.52
2:B:3003:LEU:HB2	2:B:3004:PRO:HD3	1.92	0.52
2:B:3547:GLU:O	2:B:3551:GLU:HG2	2.08	0.52
2:B:4961:CYS:HA	2:B:5025:GLY:H	1.73	0.52
2:E:349:GLN:HE21	2:E:354:GLY:HA2	1.75	0.52
2:E:753:PRO:O	2:E:769:GLU:HA	2.09	0.52
2:E:951:LYS:HD2	2:E:970:LEU:HD22	1.91	0.52
2:E:4207:MET:HG2	2:E:4208:PRO:HD2	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:349:GLN:HE21	2:G:354:GLY:HA2	1.75	0.52
2:G:3589:PRO:HA	2:G:3592:ILE:HD12	1.90	0.52
2:J:578:ILE:HG13	2:J:606:LEU:HD22	1.91	0.52
2:J:2626:LEU:HD22	2:J:2640:PRO:HB3	1.92	0.52
2:J:2781:VAL:HA	2:J:2789:PRO:HB2	1.92	0.52
2:J:4961:CYS:HA	2:J:5025:GLY:H	1.73	0.52
3:F:72:ASP:OD1	3:F:77:THR:OG1	2.25	0.52
2:B:1763:PRO:HB3	2:B:1950:GLU:HG2	1.91	0.52
2:E:1104:TRP:HB3	2:E:1188:PHE:HB3	1.91	0.52
2:E:1862:ILE:O	2:E:1866:ILE:HG12	2.09	0.52
2:E:2323:TRP:CZ2	2:E:2422:ILE:HG23	2.44	0.52
2:E:3003:LEU:HB2	2:E:3004:PRO:HD3	1.92	0.52
2:E:4626:ASN:N	2:E:4629:TYR:HH	2.08	0.52
2:G:1122:TYR:CE2	2:G:1182:ILE:HG12	2.45	0.52
2:G:2781:VAL:HA	2:G:2789:PRO:HB2	1.92	0.52
2:J:642:THR:HG21	2:J:1615:VAL:HG21	1.92	0.52
2:J:951:LYS:HD2	2:J:970:LEU:HD22	1.91	0.52
3:C:102:ASN:HB2	3:C:104:TYR:CE2	2.44	0.52
3:K:36:TRP:HB3	3:K:48:VAL:HB	1.90	0.52
3:K:38:ARG:HG3	3:K:46:GLU:HG3	1.91	0.52
1:I:22:CYS:SG	1:I:106:LEU:HD13	2.49	0.52
2:B:246:TYR:HB2	2:B:373:LYS:CE	2.39	0.52
2:B:2973:PHE:HA	2:B:2976:HIS:ND1	2.24	0.52
2:E:1763:PRO:HB3	2:E:1950:GLU:HG2	1.91	0.52
2:E:2123:LEU:O	2:E:2127:GLN:HG2	2.09	0.52
2:E:3166:TYR:OH	2:E:3240:CYS:HB2	2.10	0.52
2:E:3592:ILE:HG12	2:E:3595:ARG:HH21	1.73	0.52
2:G:553:ARG:HA	2:G:553:ARG:NH1	2.25	0.52
2:G:2751:LEU:O	2:G:2755:ILE:HG12	2.09	0.52
2:G:3713:LYS:HZ1	2:G:3716:LEU:HD12	1.74	0.52
2:J:553:ARG:NH1	2:J:553:ARG:HA	2.25	0.52
2:J:1122:TYR:HD2	2:J:1160:ILE:HD12	1.73	0.52
2:J:3166:TYR:OH	2:J:3240:CYS:HB2	2.10	0.52
2:J:4017:LEU:HD12	2:J:4135:PRO:HB2	1.92	0.52
2:J:4626:ASN:N	2:J:4629:TYR:HH	2.08	0.52
3:K:89:ASP:HB2	3:K:125:VAL:HG21	1.92	0.52
2:B:578:ILE:HG13	2:B:606:LEU:HD22	1.91	0.52
2:B:663:TYR:HD1	2:B:747:CYS:HB3	1.74	0.52
2:B:867:LEU:O	2:B:871:ARG:HB3	2.08	0.52
2:B:2330:ARG:O	2:B:2334:PHE:CD2	2.63	0.52
2:E:981:GLN:O	2:E:985:VAL:HG23	2.10	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1453:VAL:HG22	2:E:1551:ALA:HB2	1.91	0.52
2:E:2950:SER:HA	2:E:2953:LYS:HB2	1.90	0.52
2:E:3961:VAL:O	2:E:3965:LEU:HG	2.09	0.52
2:E:4666:VAL:O	2:E:4670:ILE:HG12	2.10	0.52
2:G:421:PHE:HB3	2:G:431:PRO:HB3	1.91	0.52
2:G:981:GLN:O	2:G:985:VAL:HG23	2.10	0.52
2:G:2258:LEU:HD21	2:G:2298:VAL:HG13	1.90	0.52
2:G:3455:GLU:OE1	2:G:3456:GLN:NE2	2.43	0.52
2:G:3961:VAL:O	2:G:3965:LEU:HG	2.10	0.52
2:G:4017:LEU:HD12	2:G:4135:PRO:HB2	1.92	0.52
2:J:349:GLN:HE21	2:J:354:GLY:HA2	1.75	0.52
2:J:1453:VAL:HG22	2:J:1551:ALA:HB2	1.91	0.52
2:J:2175:GLU:HA	2:J:2178:MET:CE	2.39	0.52
2:J:2230:THR:HG22	2:J:2234:ARG:HH11	1.74	0.52
3:M:102:ASN:HB2	3:M:104:TYR:CE2	2.44	0.52
2:B:753:PRO:O	2:B:769:GLU:HA	2.09	0.52
2:B:1453:VAL:HG22	2:B:1551:ALA:HB2	1.91	0.52
2:B:2175:GLU:HA	2:B:2178:MET:CE	2.39	0.52
2:B:3586:ALA:HA	2:B:3591:LYS:HD2	1.92	0.52
2:E:972:LEU:HB2	2:E:1044:ARG:HE	1.74	0.52
2:E:2751:LEU:O	2:E:2755:ILE:HG12	2.09	0.52
2:E:3455:GLU:OE1	2:E:3456:GLN:NE2	2.43	0.52
2:G:660:GLY:HA2	2:G:750:LEU:HB2	1.92	0.52
2:G:1087:ARG:HG2	2:G:1154:ASP:OD1	2.09	0.52
2:G:2230:THR:HG22	2:G:2234:ARG:HH11	1.74	0.52
2:G:2330:ARG:O	2:G:2334:PHE:CD2	2.63	0.52
2:G:2626:LEU:HD22	2:G:2640:PRO:HB3	1.91	0.52
2:G:2888:ARG:NH1	2:G:2892:GLN:OE1	2.43	0.52
2:G:3166:TYR:OH	2:G:3240:CYS:HB2	2.10	0.52
2:J:1763:PRO:HB3	2:J:1950:GLU:HG2	1.91	0.52
2:J:2611:CYS:O	2:J:2650:ARG:NH1	2.43	0.52
3:F:21:SER:HA	3:F:78:VAL:O	2.10	0.52
1:H:35:LYS:HE2	2:G:636:ASN:ND2	2.24	0.52
2:B:951:LYS:HD2	2:B:970:LEU:HD22	1.91	0.52
2:B:3346:VAL:HG11	2:B:3414:ARG:HE	1.75	0.52
2:B:3775:ALA:HA	2:B:3778:MET:HG3	1.92	0.52
2:E:210:GLU:HG2	2:E:273:HIS:HE2	1.74	0.52
2:E:3467:MET:HA	2:E:3467:MET:HE3	1.92	0.52
2:E:4680:LYS:HB3	2:E:4686:LEU:HD22	1.91	0.52
2:E:4878:ASP:OD1	2:E:4880:MET:HG3	2.10	0.52
2:G:3865:VAL:HG12	2:G:3867:ASN:H	1.73	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:4878:ASP:OD1	2:G:4880:MET:HG3	2.10	0.52
2:J:246:TYR:CD1	2:J:375:LYS:HA	2.45	0.52
2:J:950:LEU:HD22	2:J:969:PRO:HB2	1.92	0.52
2:J:1498:GLY:HA2	2:J:1501:VAL:HG12	1.92	0.52
2:J:2323:TRP:CZ2	2:J:2422:ILE:HG23	2.44	0.52
2:J:3003:LEU:HB2	2:J:3004:PRO:HD3	1.92	0.52
2:J:3467:MET:HE3	2:J:3467:MET:HA	1.92	0.52
3:K:102:ASN:HB2	3:K:104:TYR:CE2	2.45	0.52
1:H:87:HIS:NE2	2:G:1786:LEU:HB2	2.25	0.52
2:B:349:GLN:HE21	2:B:354:GLY:HA2	1.75	0.52
2:B:972:LEU:HB2	2:B:1044:ARG:HE	1.75	0.52
2:E:248:GLU:HA	2:E:372:LEU:C	2.30	0.52
2:E:596:ASN:ND2	2:E:599:VAL:HG23	2.25	0.52
2:E:660:GLY:HA2	2:E:750:LEU:HB2	1.92	0.52
2:E:1008:SER:HB2	2:E:1017:ARG:NE	2.22	0.52
2:E:2175:GLU:HA	2:E:2178:MET:CE	2.39	0.52
2:E:4809:PHE:HA	2:E:4812:HIS:HD2	1.74	0.52
2:G:972:LEU:HB2	2:G:1044:ARG:HE	1.74	0.52
2:G:2123:LEU:O	2:G:2127:GLN:HG2	2.09	0.52
2:G:3346:VAL:HG11	2:G:3414:ARG:HE	1.75	0.52
2:J:660:GLY:HA2	2:J:750:LEU:HB2	1.92	0.52
2:J:1104:TRP:HB3	2:J:1188:PHE:HB3	1.91	0.52
2:J:1663:HIS:HE2	2:J:1711:TYR:HE1	1.58	0.52
3:C:21:SER:HA	3:C:78:VAL:O	2.10	0.52
3:C:109:THR:HA	3:C:112:ASP:HB2	1.92	0.52
2:B:553:ARG:NH1	2:B:553:ARG:HA	2.25	0.52
2:B:660:GLY:HA2	2:B:750:LEU:HB2	1.92	0.52
2:B:790:ARG:HG2	2:B:1624:LEU:O	2.10	0.52
2:B:1104:TRP:HB3	2:B:1188:PHE:HB3	1.91	0.52
2:B:1447:CYS:HB3	2:B:1555:LEU:HB3	1.91	0.52
2:B:3455:GLU:OE1	2:B:3456:GLN:NE2	2.43	0.52
2:E:421:PHE:HB3	2:E:431:PRO:HB3	1.91	0.52
2:E:1042:ALA:O	2:E:1046:LEU:HG	2.11	0.52
2:E:2888:ARG:NH1	2:E:2892:GLN:OE1	2.43	0.52
2:E:3368:ARG:O	2:E:3372:VAL:HG23	2.10	0.52
2:E:4961:CYS:HA	2:E:5025:GLY:H	1.74	0.52
2:G:548:VAL:HG21	2:G:582:HIS:CD2	2.45	0.52
2:G:1975:SER:O	2:G:1979:LEU:HG	2.10	0.52
2:G:3003:LEU:HB2	2:G:3004:PRO:HD3	1.92	0.52
2:G:4809:PHE:HA	2:G:4812:HIS:HD2	1.74	0.52
2:J:548:VAL:HG21	2:J:582:HIS:CD2	2.45	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:722:TRP:CE2	2:J:727:ALA:HB2	2.44	0.52
1:H:22:CYS:SG	1:H:106:LEU:HD13	2.49	0.51
2:B:206:CYS:SG	2:B:271:GLY:N	2.79	0.51
2:B:421:PHE:HB3	2:B:431:PRO:HB3	1.91	0.51
2:B:3166:TYR:OH	2:B:3240:CYS:HB2	2.10	0.51
2:B:4207:MET:HG2	2:B:4208:PRO:HD2	1.91	0.51
2:E:553:ARG:NH1	2:E:553:ARG:HA	2.25	0.51
2:E:722:TRP:CE2	2:E:727:ALA:HB2	2.44	0.51
2:E:2299:VAL:HG12	2:E:2360:LYS:HD2	1.92	0.51
2:E:3586:ALA:HA	2:E:3591:LYS:HD2	1.92	0.51
2:G:596:ASN:ND2	2:G:599:VAL:HG23	2.25	0.51
2:G:642:THR:HG21	2:G:1615:VAL:HG21	1.92	0.51
2:G:858:THR:HG21	2:G:931:THR:HG22	1.92	0.51
2:G:950:LEU:HD22	2:G:969:PRO:HB2	1.92	0.51
2:G:1008:SER:HB2	2:G:1017:ARG:NE	2.22	0.51
2:G:1453:VAL:HG22	2:G:1551:ALA:HB2	1.91	0.51
2:G:1519:LEU:HD11	2:G:1572:ILE:HD13	1.93	0.51
2:G:4626:ASN:N	2:G:4629:TYR:HH	2.08	0.51
2:J:1042:ALA:O	2:J:1046:LEU:HG	2.11	0.51
2:J:4666:VAL:O	2:J:4670:ILE:HG12	2.10	0.51
2:B:100:THR:HG21	2:B:162:LYS:HD3	1.92	0.51
2:B:904:HIS:CD2	2:B:907:LEU:H	2.29	0.51
2:B:1245:PHE:HB2	2:B:1290:ARG:HH21	1.76	0.51
2:B:1519:LEU:HD11	2:B:1572:ILE:HD13	1.93	0.51
2:B:2152:THR:O	2:B:2156:LEU:HG	2.09	0.51
2:B:2792:ARG:H	2:B:2797:PHE:HD1	1.59	0.51
2:B:2888:ARG:NH1	2:B:2892:GLN:OE1	2.43	0.51
2:E:1749:PRO:HG2	2:E:1759:ARG:HD2	1.92	0.51
2:E:2626:LEU:HD22	2:E:2640:PRO:HB3	1.91	0.51
2:E:3313:ASN:OD1	2:E:3353:LEU:HD21	2.11	0.51
2:G:100:THR:HG21	2:G:162:LYS:HD3	1.92	0.51
2:G:645:ARG:HD3	2:G:826:ILE:HD13	1.93	0.51
2:G:1498:GLY:HA2	2:G:1501:VAL:HG12	1.92	0.51
2:J:530:ILE:HD11	2:J:563:VAL:HG23	1.91	0.51
2:J:981:GLN:O	2:J:985:VAL:HG23	2.10	0.51
2:J:1749:PRO:HG2	2:J:1759:ARG:HD2	1.92	0.51
2:J:3324:VAL:O	2:J:3327:LEU:HD22	2.11	0.51
2:J:3455:GLU:OE1	2:J:3456:GLN:NE2	2.43	0.51
2:J:4680:LYS:HB3	2:J:4686:LEU:HD22	1.91	0.51
3:F:38:ARG:HG3	3:F:46:GLU:HG3	1.91	0.51
2:B:981:GLN:O	2:B:985:VAL:HG23	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4017:LEU:HD12	2:B:4135:PRO:HB2	1.92	0.51
2:B:4878:ASP:OD1	2:B:4880:MET:HG3	2.10	0.51
2:E:100:THR:HG21	2:E:162:LYS:HD3	1.92	0.51
2:E:645:ARG:HD3	2:E:826:ILE:HD13	1.93	0.51
2:E:1694:LEU:HD13	2:E:1715:LEU:HG	1.92	0.51
2:G:1663:HIS:HE2	2:G:1711:TYR:HE1	1.58	0.51
2:G:2323:TRP:CZ2	2:G:2422:ILE:HG23	2.44	0.51
2:G:3250:MET:HA	2:G:3253:ILE:HG22	1.92	0.51
2:G:3313:ASN:OD1	2:G:3353:LEU:HD21	2.11	0.51
2:G:4666:VAL:O	2:G:4670:ILE:HG12	2.10	0.51
2:J:1676:LEU:HD23	2:J:2168:VAL:HG22	1.93	0.51
3:F:102:ASN:HB2	3:F:104:TYR:CE2	2.45	0.51
2:B:219:VAL:HG12	2:B:261:ARG:HB2	1.93	0.51
2:B:2611:CYS:O	2:B:2650:ARG:NH1	2.43	0.51
2:B:3767:GLN:NE2	2:B:3806:ASN:HB2	2.26	0.51
2:E:1245:PHE:HB2	2:E:1290:ARG:HH21	1.76	0.51
2:E:3250:MET:HA	2:E:3253:ILE:HG22	1.92	0.51
2:G:790:ARG:HG2	2:G:1624:LEU:O	2.10	0.51
2:G:904:HIS:CD2	2:G:907:LEU:H	2.29	0.51
2:G:1749:PRO:HG2	2:G:1759:ARG:HD2	1.92	0.51
2:G:2974:ILE:HD13	2:G:3049:LEU:HD13	1.93	0.51
2:J:100:THR:HG21	2:J:162:LYS:HD3	1.92	0.51
2:J:2299:VAL:HG12	2:J:2360:LYS:HD2	1.92	0.51
2:J:2974:ILE:HD13	2:J:3049:LEU:HD13	1.93	0.51
2:J:3368:ARG:O	2:J:3372:VAL:HG23	2.10	0.51
2:J:3887:PHE:O	2:J:3891:LEU:HG	2.11	0.51
3:K:21:SER:HA	3:K:78:VAL:O	2.10	0.51
1:H:3:GLU:HB3	1:H:75:THR:HG22	1.93	0.51
2:B:645:ARG:HD3	2:B:826:ILE:HD13	1.93	0.51
2:B:1676:LEU:HD23	2:B:2168:VAL:HG22	1.93	0.51
2:B:1749:PRO:HG2	2:B:1759:ARG:HD2	1.92	0.51
2:B:3546:ASP:OD1	2:B:3547:GLU:N	2.44	0.51
2:B:4809:PHE:HA	2:B:4812:HIS:HD2	1.74	0.51
2:E:219:VAL:HG12	2:E:261:ARG:HB2	1.93	0.51
2:E:1676:LEU:HD23	2:E:2168:VAL:HG22	1.93	0.51
2:G:1708:ARG:HH12	2:G:1841:VAL:HG23	1.76	0.51
2:G:2175:GLU:HA	2:G:2178:MET:CE	2.39	0.51
2:G:2299:VAL:HG12	2:G:2360:LYS:HD2	1.92	0.51
2:G:3335:MET:HB3	2:G:3403:ARG:HD2	1.93	0.51
2:G:4846:VAL:O	2:G:4850:LEU:HG	2.11	0.51
2:J:1975:SER:O	2:J:1979:LEU:HG	2.10	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3335:MET:HB3	2:J:3403:ARG:HD2	1.93	0.51
2:J:4846:VAL:O	2:J:4850:LEU:HG	2.11	0.51
2:B:2299:VAL:HG12	2:B:2360:LYS:HD2	1.92	0.51
2:E:530:ILE:HD11	2:E:563:VAL:HG23	1.91	0.51
2:E:1519:LEU:HD11	2:E:1572:ILE:HD13	1.93	0.51
2:E:3346:VAL:HG11	2:E:3414:ARG:HE	1.75	0.51
2:E:3887:PHE:O	2:E:3891:LEU:HG	2.11	0.51
2:G:578:ILE:HG13	2:G:606:LEU:HD22	1.91	0.51
2:G:1013:ILE:H	2:G:1013:ILE:HD12	1.76	0.51
2:G:1104:TRP:HB3	2:G:1188:PHE:HB3	1.91	0.51
2:G:1245:PHE:HB2	2:G:1290:ARG:HH21	1.76	0.51
2:G:1694:LEU:HD13	2:G:1715:LEU:HG	1.92	0.51
2:G:3586:ALA:HA	2:G:3591:LYS:HD2	1.92	0.51
2:G:3767:GLN:NE2	2:G:3806:ASN:HB2	2.26	0.51
2:G:3775:ALA:HA	2:G:3778:MET:HG3	1.92	0.51
2:G:3967:GLU:O	2:G:3970:GLN:HG2	2.11	0.51
2:J:169:LEU:HB2	2:J:202:MET:HE3	1.93	0.51
2:J:470:SER:HA	2:J:473:ASN:HD21	1.76	0.51
2:J:1447:CYS:HB3	2:J:1555:LEU:HB3	1.91	0.51
2:J:2012:PHE:CZ	2:J:2031:LEU:HD23	2.46	0.51
2:J:2888:ARG:NH1	2:J:2892:GLN:OE1	2.43	0.51
2:J:3250:MET:HA	2:J:3253:ILE:HG22	1.92	0.51
2:J:3360:PRO:O	2:J:3364:ARG:HG2	2.11	0.51
2:J:3775:ALA:HA	2:J:3778:MET:HG3	1.92	0.51
2:J:4878:ASP:OD1	2:J:4880:MET:HG3	2.10	0.51
3:C:89:ASP:HB2	3:C:125:VAL:HG21	1.92	0.51
2:B:111:HIS:CE1	2:B:113:HIS:HB3	2.46	0.51
2:B:642:THR:HG21	2:B:1615:VAL:HG21	1.92	0.51
2:B:1663:HIS:HE2	2:B:1711:TYR:HE1	1.58	0.51
2:B:2323:TRP:HZ2	2:B:2422:ILE:HG23	1.75	0.51
2:B:2781:VAL:HA	2:B:2789:PRO:HB2	1.92	0.51
2:B:3368:ARG:O	2:B:3372:VAL:HG23	2.10	0.51
2:B:4666:VAL:O	2:B:4670:ILE:HG12	2.10	0.51
2:E:246:TYR:CD1	2:E:375:LYS:HA	2.46	0.51
2:E:276:TRP:CE2	2:E:339:ILE:HG12	2.46	0.51
2:E:2330:ARG:O	2:E:2334:PHE:CD2	2.63	0.51
2:E:2757:LYS:HZ2	2:E:2929:PHE:HZ	1.59	0.51
2:E:2974:ILE:HD13	2:E:3049:LEU:HD13	1.93	0.51
2:E:4852:THR:HG21	2:E:4883:TYR:HA	1.93	0.51
2:G:111:HIS:CE1	2:G:113:HIS:HB3	2.46	0.51
2:G:470:SER:HA	2:G:473:ASN:HD21	1.76	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3324:VAL:O	2:G:3327:LEU:HD22	2.11	0.51
2:J:904:HIS:CD2	2:J:907:LEU:H	2.29	0.51
2:J:972:LEU:HB2	2:J:1044:ARG:HE	1.75	0.51
2:J:1245:PHE:HB2	2:J:1290:ARG:HH21	1.76	0.51
2:J:1448:VAL:HG12	2:J:1554:VAL:HG23	1.93	0.51
2:J:4780:PHE:HA	2:J:4783:ILE:HG22	1.93	0.51
3:C:17:SER:HA	3:C:83:ASN:HA	1.93	0.51
3:C:71:ARG:HH11	3:C:73:ASN:N	2.09	0.51
2:B:210:GLU:HG2	2:B:273:HIS:NE2	2.26	0.51
2:B:596:ASN:ND2	2:B:599:VAL:HG23	2.25	0.51
2:B:1013:ILE:H	2:B:1013:ILE:HD12	1.76	0.51
2:B:3313:ASN:OD1	2:B:3353:LEU:HD21	2.11	0.51
2:B:3514:LEU:O	2:B:3518:LEU:HB3	2.11	0.51
2:E:206:CYS:SG	2:E:271:GLY:N	2.79	0.51
2:E:858:THR:HG21	2:E:931:THR:HG22	1.92	0.51
2:E:1447:CYS:HB3	2:E:1555:LEU:HB3	1.91	0.51
2:E:2781:VAL:HA	2:E:2789:PRO:HB2	1.92	0.51
2:E:2792:ARG:H	2:E:2797:PHE:HD1	1.59	0.51
2:E:4846:VAL:O	2:E:4850:LEU:HG	2.11	0.51
2:G:219:VAL:HG12	2:G:261:ARG:HB2	1.93	0.51
2:G:951:LYS:HD2	2:G:970:LEU:HD22	1.91	0.51
2:G:1042:ALA:O	2:G:1046:LEU:HG	2.11	0.51
2:J:276:TRP:CE2	2:J:339:ILE:HG12	2.46	0.51
2:J:645:ARG:HD3	2:J:826:ILE:HD13	1.93	0.51
2:J:2330:ARG:O	2:J:2334:PHE:CD2	2.63	0.51
2:J:2799:GLU:O	2:J:2803:GLU:HG2	2.11	0.51
2:J:3313:ASN:OD1	2:J:3353:LEU:HD21	2.11	0.51
2:J:3384:LYS:HG2	2:J:3386:GLU:H	1.76	0.51
2:J:3713:LYS:HZ1	2:J:3717:ASP:H	1.59	0.51
3:F:8:GLY:HA3	3:F:20:LEU:HA	1.93	0.51
3:F:71:ARG:HH11	3:F:73:ASN:N	2.09	0.51
2:B:2626:LEU:HD22	2:B:2640:PRO:HB3	1.92	0.51
2:B:3250:MET:HA	2:B:3253:ILE:HG22	1.92	0.51
2:B:3335:MET:HB3	2:B:3403:ARG:HD2	1.92	0.51
2:B:3887:PHE:O	2:B:3891:LEU:HG	2.11	0.51
2:E:229:GLU:OE2	2:E:374:LYS:HD2	2.11	0.51
2:E:1498:GLY:HA2	2:E:1501:VAL:HG12	1.92	0.51
2:E:2611:CYS:O	2:E:2650:ARG:NH1	2.43	0.51
2:E:4017:LEU:HD12	2:E:4135:PRO:HB2	1.92	0.51
2:G:229:GLU:OE2	2:G:374:LYS:HD2	2.11	0.51
2:G:2012:PHE:CZ	2:G:2031:LEU:HD23	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3368:ARG:O	2:G:3372:VAL:HG23	2.10	0.51
2:G:3467:MET:HE3	2:G:3467:MET:HA	1.93	0.51
2:G:4204:GLN:HE21	2:G:4248:ALA:HB3	1.76	0.51
2:J:229:GLU:OE2	2:J:374:LYS:HD2	2.11	0.51
2:J:596:ASN:HD22	2:J:599:VAL:HG23	1.76	0.51
2:J:1694:LEU:HB3	2:J:1715:LEU:HD12	1.93	0.51
2:J:3080:VAL:O	2:J:3084:GLY:HA3	2.11	0.51
2:J:3346:VAL:HG11	2:J:3414:ARG:HE	1.75	0.51
2:J:3546:ASP:OD1	2:J:3547:GLU:N	2.44	0.51
2:J:3553:LEU:HB3	2:J:3593:VAL:HG12	1.92	0.51
3:M:21:SER:HA	3:M:78:VAL:O	2.10	0.51
1:H:68:LEU:HA	1:H:103:LEU:HB3	1.93	0.51
2:B:229:GLU:OE2	2:B:374:LYS:HD2	2.10	0.51
2:B:470:SER:HA	2:B:473:ASN:HD21	1.76	0.51
2:B:596:ASN:HD22	2:B:599:VAL:HG23	1.76	0.51
2:B:858:THR:HG21	2:B:931:THR:HG22	1.92	0.51
2:B:2974:ILE:HD13	2:B:3049:LEU:HD13	1.93	0.51
2:B:3967:GLU:O	2:B:3970:GLN:HG2	2.11	0.51
2:B:3984:ARG:HH12	2:G:162:LYS:HZ2	1.57	0.51
2:E:470:SER:HA	2:E:473:ASN:HD21	1.76	0.51
2:E:904:HIS:CD2	2:E:907:LEU:H	2.29	0.51
2:E:1013:ILE:HD12	2:E:1013:ILE:H	1.76	0.51
2:E:1708:ARG:HH12	2:E:1841:VAL:HG23	1.76	0.51
2:G:2323:TRP:HZ2	2:G:2422:ILE:HG23	1.76	0.51
2:G:2792:ARG:H	2:G:2797:PHE:HD1	1.59	0.51
2:G:3360:PRO:O	2:G:3364:ARG:HG2	2.11	0.51
2:J:210:GLU:HG2	2:J:273:HIS:NE2	2.26	0.51
2:J:1519:LEU:HD11	2:J:1572:ILE:HD13	1.93	0.51
1:D:3:GLU:HB3	1:D:75:THR:HG22	1.93	0.50
2:B:276:TRP:CE2	2:B:339:ILE:HG12	2.46	0.50
2:B:1042:ALA:O	2:B:1046:LEU:HG	2.11	0.50
2:B:1975:SER:O	2:B:1979:LEU:HG	2.10	0.50
2:B:4852:THR:HG21	2:B:4883:TYR:HA	1.93	0.50
2:E:950:LEU:HD22	2:E:969:PRO:HB2	1.92	0.50
2:E:1694:LEU:HB3	2:E:1715:LEU:HD12	1.93	0.50
2:E:2355:ARG:O	2:E:2359:ARG:HG2	2.12	0.50
2:E:2799:GLU:O	2:E:2803:GLU:HG2	2.11	0.50
2:E:3360:PRO:O	2:E:3364:ARG:HG2	2.11	0.50
2:G:596:ASN:HD22	2:G:599:VAL:HG23	1.76	0.50
2:G:2380:ILE:O	2:G:2384:ILE:HG13	2.11	0.50
2:G:3887:PHE:O	2:G:3891:LEU:HG	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:492:ASP:OD1	2:J:546:TRP:NE1	2.40	0.50
2:J:2380:ILE:O	2:J:2384:ILE:HG13	2.11	0.50
2:J:2757:LYS:HZ2	2:J:2929:PHE:HZ	1.60	0.50
3:C:8:GLY:HA3	3:C:20:LEU:HA	1.93	0.50
3:F:89:ASP:HB2	3:F:125:VAL:HG21	1.92	0.50
1:D:68:LEU:HA	1:D:103:LEU:HB3	1.94	0.50
2:B:548:VAL:HG21	2:B:582:HIS:CD2	2.45	0.50
2:B:2012:PHE:CZ	2:B:2031:LEU:HD23	2.46	0.50
2:B:2136:ARG:O	2:B:2139:PRO:HD2	2.11	0.50
2:B:3080:VAL:O	2:B:3084:GLY:HA3	2.11	0.50
2:E:790:ARG:HG2	2:E:1624:LEU:O	2.11	0.50
2:E:2012:PHE:CZ	2:E:2031:LEU:HD23	2.46	0.50
2:E:2136:ARG:O	2:E:2139:PRO:HD2	2.11	0.50
2:E:3051:ARG:NH2	2:E:3101:GLU:OE2	2.45	0.50
2:E:3080:VAL:O	2:E:3084:GLY:HA3	2.11	0.50
2:E:3324:VAL:O	2:E:3327:LEU:HD22	2.11	0.50
2:G:1447:CYS:HB3	2:G:1555:LEU:HB3	1.91	0.50
2:G:3051:ARG:NH2	2:G:3101:GLU:OE2	2.45	0.50
2:J:1708:ARG:HH12	2:J:1841:VAL:HG23	1.76	0.50
2:J:2323:TRP:HZ2	2:J:2422:ILE:HG23	1.75	0.50
2:J:2382:GLU:O	2:J:2385:ARG:HG2	2.12	0.50
2:J:3586:ALA:HA	2:J:3591:LYS:HD2	1.92	0.50
1:I:3:GLU:HB3	1:I:75:THR:HG22	1.93	0.50
2:B:758:ARG:HH22	2:B:802:PHE:HB2	1.77	0.50
2:B:1708:ARG:HH12	2:B:1841:VAL:HG23	1.76	0.50
2:B:3051:ARG:NH2	2:B:3101:GLU:OE2	2.45	0.50
2:B:4904:PRO:HB2	2:B:4910:GLU:HA	1.94	0.50
2:E:58:VAL:HG12	2:E:305:CYS:HA	1.93	0.50
2:E:103:TYR:HB2	2:E:159:GLU:HA	1.93	0.50
2:E:111:HIS:CE1	2:E:113:HIS:HB3	2.46	0.50
2:E:1448:VAL:HG12	2:E:1554:VAL:HG23	1.93	0.50
2:E:3553:LEU:HB3	2:E:3593:VAL:HG12	1.92	0.50
2:E:3767:GLN:NE2	2:E:3806:ASN:HB2	2.26	0.50
2:E:3967:GLU:O	2:E:3970:GLN:HG2	2.11	0.50
2:E:4780:PHE:HA	2:E:4783:ILE:HG22	1.93	0.50
2:G:2924:GLN:O	2:G:2928:LYS:HG2	2.12	0.50
2:G:3788:GLY:HA3	2:G:3834:ALA:HB3	1.93	0.50
2:J:219:VAL:HG12	2:J:261:ARG:HB2	1.93	0.50
2:J:1694:LEU:HD13	2:J:1715:LEU:HG	1.92	0.50
2:J:4204:GLN:HE21	2:J:4248:ALA:HB3	1.76	0.50
3:K:68:THR:HG1	3:K:81:GLN:HB3	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
3:M:71:ARG:HH11	3:M:73:ASN:N	2.09	0.50
2:B:246:TYR:CD1	2:B:375:LYS:HA	2.46	0.50
2:B:248:GLU:HA	2:B:372:LEU:C	2.31	0.50
2:B:3788:GLY:HA3	2:B:3834:ALA:HB3	1.94	0.50
2:E:642:THR:HG21	2:E:1615:VAL:HG21	1.92	0.50
2:E:2323:TRP:HZ2	2:E:2422:ILE:HG23	1.75	0.50
2:E:3514:LEU:O	2:E:3518:LEU:HB3	2.11	0.50
2:E:4904:PRO:HB2	2:E:4910:GLU:HA	1.94	0.50
2:G:2382:GLU:O	2:G:2385:ARG:HG2	2.12	0.50
2:G:3514:LEU:O	2:G:3518:LEU:HB3	2.11	0.50
2:G:3553:LEU:HB3	2:G:3593:VAL:HG12	1.92	0.50
2:G:3906:GLN:HB3	2:G:3909:ASN:HD22	1.77	0.50
2:G:4780:PHE:HA	2:G:4783:ILE:HG22	1.93	0.50
2:J:1013:ILE:H	2:J:1013:ILE:HD12	1.76	0.50
2:J:2792:ARG:H	2:J:2797:PHE:HD1	1.59	0.50
2:J:4044:MET:O	2:J:4048:LEU:HG	2.12	0.50
2:B:58:VAL:HG12	2:B:305:CYS:HA	1.93	0.50
2:B:280:LEU:HD21	2:B:316:PHE:CE2	2.47	0.50
2:B:950:LEU:HD22	2:B:969:PRO:HB2	1.92	0.50
2:B:1735:ILE:HD11	2:B:2156:LEU:HD11	1.93	0.50
2:B:3324:VAL:O	2:B:3327:LEU:HD22	2.11	0.50
2:B:3906:GLN:HB3	2:B:3909:ASN:HD22	1.77	0.50
2:B:4204:GLN:HE21	2:B:4248:ALA:HB3	1.76	0.50
2:E:548:VAL:HG21	2:E:582:HIS:CD2	2.45	0.50
2:E:592:LYS:HG2	2:E:1580:PHE:CE1	2.47	0.50
2:E:1177:THR:OG1	2:E:1180:ARG:NH2	2.45	0.50
2:E:2124:LEU:HG	2:E:2128:TYR:CE2	2.47	0.50
2:G:1676:LEU:HD23	2:G:2168:VAL:HG22	1.93	0.50
2:G:1694:LEU:HB3	2:G:1715:LEU:HD12	1.93	0.50
2:G:4852:THR:HG21	2:G:4883:TYR:HA	1.93	0.50
2:J:596:ASN:ND2	2:J:599:VAL:HG23	2.25	0.50
2:J:1122:TYR:CE2	2:J:1182:ILE:HG12	2.44	0.50
2:J:3767:GLN:NE2	2:J:3806:ASN:HB2	2.26	0.50
1:A:68:LEU:HA	1:A:103:LEU:HB3	1.94	0.50
1:I:68:LEU:HA	1:I:103:LEU:HB3	1.93	0.50
2:B:2382:GLU:O	2:B:2385:ARG:HG2	2.12	0.50
2:B:3540:TYR:HB3	2:B:3604:TYR:CD2	2.47	0.50
2:E:169:LEU:HB2	2:E:202:MET:HE3	1.94	0.50
2:E:2382:GLU:O	2:E:2385:ARG:HG2	2.12	0.50
2:G:103:TYR:HB2	2:G:159:GLU:HA	1.93	0.50
2:G:276:TRP:CE2	2:G:339:ILE:HG12	2.46	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:993:HIS:CE1	2:G:1027:LEU:HD11	2.47	0.50
2:G:1448:VAL:HG12	2:G:1554:VAL:HG23	1.93	0.50
2:G:1653:LEU:HA	2:G:1656:ARG:HB2	1.94	0.50
2:J:592:LYS:HG2	2:J:1580:PHE:CE1	2.47	0.50
2:J:3261:ALA:HB1	2:J:3265:GLU:HB2	1.94	0.50
3:F:68:THR:HG1	3:F:81:GLN:HB3	1.76	0.50
3:K:8:GLY:HA3	3:K:20:LEU:HA	1.93	0.50
3:K:17:SER:HA	3:K:83:ASN:HA	1.93	0.50
3:K:71:ARG:HH11	3:K:73:ASN:N	2.09	0.50
2:B:1008:SER:HB2	2:B:1017:ARG:NE	2.22	0.50
2:B:1694:LEU:HB3	2:B:1715:LEU:HD12	1.93	0.50
2:B:1694:LEU:HD13	2:B:1715:LEU:HG	1.92	0.50
2:B:2124:LEU:HG	2:B:2128:TYR:CE2	2.47	0.50
2:B:3378:GLN:HA	2:B:3381:LEU:HD23	1.94	0.50
2:B:3553:LEU:HB3	2:B:3593:VAL:HG12	1.92	0.50
2:E:1975:SER:O	2:E:1979:LEU:HG	2.10	0.50
2:E:3261:ALA:HB1	2:E:3265:GLU:HB2	1.94	0.50
2:G:210:GLU:HG2	2:G:273:HIS:NE2	2.26	0.50
2:G:1578:ALA:HA	2:G:1584:ARG:HH12	1.77	0.50
2:G:3547:GLU:HA	2:G:3550:ARG:HD2	1.94	0.50
2:J:111:HIS:CE1	2:J:113:HIS:HB3	2.46	0.50
2:J:758:ARG:HH22	2:J:802:PHE:HB2	1.77	0.50
2:J:2669:GLU:HA	2:J:2672:LEU:HD13	1.94	0.50
2:J:3051:ARG:NH2	2:J:3101:GLU:OE2	2.45	0.50
1:D:25:HIS:CE1	1:D:45:PRO:HB3	2.47	0.50
2:B:169:LEU:HB2	2:B:202:MET:HE3	1.94	0.50
2:B:1177:THR:OG1	2:B:1180:ARG:NH2	2.45	0.50
2:B:2924:GLN:O	2:B:2928:LYS:HG2	2.12	0.50
2:B:3360:PRO:O	2:B:3364:ARG:HG2	2.11	0.50
2:B:3467:MET:HA	2:B:3467:MET:HE3	1.93	0.50
2:E:210:GLU:HG2	2:E:273:HIS:NE2	2.26	0.50
2:E:3442:PHE:HB2	2:E:3513:THR:HG21	1.94	0.50
2:E:4097:MET:HE2	2:E:4108:ILE:HG23	1.94	0.50
2:E:4204:GLN:HE21	2:E:4248:ALA:HB3	1.76	0.50
2:J:790:ARG:HG2	2:J:1624:LEU:O	2.11	0.50
2:J:3514:LEU:O	2:J:3518:LEU:HB3	2.11	0.50
2:J:3906:GLN:HB3	2:J:3909:ASN:HD22	1.77	0.50
3:F:71:ARG:HA	3:F:77:THR:O	2.12	0.50
1:A:25:HIS:CE1	1:A:45:PRO:HB3	2.47	0.50
2:B:1498:GLY:HA2	2:B:1501:VAL:HG12	1.92	0.50
2:B:3900:GLN:HB3	2:B:3976:ASN:ND2	2.27	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4780:PHE:HA	2:B:4783:ILE:HG22	1.93	0.50
2:B:4846:VAL:O	2:B:4850:LEU:HG	2.11	0.50
2:E:246:TYR:CB	2:E:373:LYS:HE3	2.39	0.50
2:G:58:VAL:HG12	2:G:305:CYS:HA	1.93	0.50
2:G:206:CYS:SG	2:G:271:GLY:N	2.79	0.50
2:G:214:VAL:HA	2:G:341:TYR:HD1	1.76	0.50
2:G:2124:LEU:HG	2:G:2128:TYR:CE2	2.47	0.50
2:G:3080:VAL:O	2:G:3084:GLY:HA3	2.11	0.50
2:G:3384:LYS:HG2	2:G:3386:GLU:H	1.76	0.50
2:G:3900:GLN:HB3	2:G:3976:ASN:ND2	2.27	0.50
2:J:745:SER:HB2	2:J:758:ARG:HB3	1.94	0.50
2:J:993:HIS:CE1	2:J:1027:LEU:HD11	2.47	0.50
2:J:1177:THR:OG1	2:J:1180:ARG:NH2	2.45	0.50
2:J:1653:LEU:HA	2:J:1656:ARG:HB2	1.94	0.50
2:J:1680:ARG:HA	2:J:1797:ARG:HD3	1.94	0.50
3:M:17:SER:HA	3:M:83:ASN:HA	1.93	0.50
3:M:38:ARG:HH21	3:M:62:SER:HB2	1.76	0.50
3:M:71:ARG:HA	3:M:77:THR:O	2.12	0.50
3:M:72:ASP:OD1	3:M:77:THR:OG1	2.25	0.50
2:B:993:HIS:CE1	2:B:1027:LEU:HD11	2.47	0.49
2:B:4044:MET:O	2:B:4048:LEU:HG	2.12	0.49
2:E:1663:HIS:HE2	2:E:1711:TYR:HE1	1.58	0.49
2:E:2619:LEU:O	2:E:2623:LEU:HG	2.12	0.49
2:E:3378:GLN:HA	2:E:3381:LEU:HD23	1.94	0.49
2:E:3540:TYR:HB3	2:E:3604:TYR:CD2	2.47	0.49
2:G:2355:ARG:O	2:G:2359:ARG:HG2	2.11	0.49
2:G:2611:CYS:O	2:G:2650:ARG:NH1	2.43	0.49
2:G:3546:ASP:OD1	2:G:3547:GLU:N	2.44	0.49
2:G:4904:PRO:HB2	2:G:4910:GLU:HA	1.94	0.49
2:J:15:ARG:HB3	2:J:98:HIS:HB3	1.94	0.49
2:J:858:THR:HG21	2:J:931:THR:HG22	1.92	0.49
2:J:2355:ARG:O	2:J:2359:ARG:HG2	2.11	0.49
3:M:109:THR:HA	3:M:112:ASP:HB2	1.94	0.49
1:H:25:HIS:CE1	1:H:45:PRO:HB3	2.47	0.49
2:B:2355:ARG:O	2:B:2359:ARG:HG2	2.12	0.49
2:B:2619:LEU:O	2:B:2623:LEU:HG	2.12	0.49
2:E:280:LEU:HD21	2:E:316:PHE:CE2	2.47	0.49
2:E:3335:MET:HB3	2:E:3403:ARG:HD2	1.93	0.49
2:E:3788:GLY:HA3	2:E:3834:ALA:HB3	1.94	0.49
2:G:886:ARG:HB3	2:G:891:TRP:HB3	1.95	0.49
2:J:1578:ALA:HA	2:J:1584:ARG:HH12	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3442:PHE:HB2	2:J:3513:THR:HG21	1.94	0.49
3:M:68:THR:HG1	3:M:81:GLN:HB3	1.77	0.49
2:B:15:ARG:HB3	2:B:98:HIS:HB3	1.94	0.49
2:B:2799:GLU:O	2:B:2803:GLU:HG2	2.11	0.49
2:B:4024:VAL:HA	2:B:4027:LEU:HG	1.94	0.49
2:B:4577:LEU:HD21	2:B:4806:ASN:HB3	1.94	0.49
2:E:596:ASN:HD22	2:E:599:VAL:HG23	1.76	0.49
2:E:842:PRO:HD3	2:E:1073:ARG:HB2	1.93	0.49
2:G:758:ARG:HH22	2:G:802:PHE:HB2	1.77	0.49
2:G:3540:TYR:HB3	2:G:3604:TYR:CD2	2.47	0.49
2:J:58:VAL:HG12	2:J:305:CYS:HA	1.93	0.49
2:J:842:PRO:HD3	2:J:1073:ARG:HB2	1.93	0.49
2:J:1431:THR:HG21	2:J:1523:ALA:HB2	1.94	0.49
2:J:2124:LEU:HG	2:J:2128:TYR:CE2	2.47	0.49
2:J:4055:VAL:O	2:J:4059:LEU:HG	2.12	0.49
2:J:4090:LYS:HB2	2:J:4121:GLU:HG2	1.95	0.49
2:J:4852:THR:HG21	2:J:4883:TYR:HA	1.93	0.49
2:J:4904:PRO:HB2	2:J:4910:GLU:HA	1.94	0.49
3:C:38:ARG:HH21	3:C:62:SER:HB2	1.77	0.49
3:C:71:ARG:HA	3:C:77:THR:O	2.12	0.49
1:D:40:ARG:HD2	2:E:677:ALA:O	2.12	0.49
2:B:842:PRO:HD3	2:B:1073:ARG:HB2	1.93	0.49
2:B:3007:ASN:OD1	2:B:3070:ILE:HG13	2.13	0.49
2:B:3384:LYS:HG2	2:B:3386:GLU:H	1.76	0.49
2:B:4055:VAL:O	2:B:4059:LEU:HG	2.12	0.49
2:E:19:GLU:HB3	2:E:205:ILE:HB	1.94	0.49
2:E:947:GLU:HA	2:E:950:LEU:HD12	1.94	0.49
2:E:2380:ILE:O	2:E:2384:ILE:HG13	2.11	0.49
2:G:1431:THR:HG21	2:G:1523:ALA:HB2	1.94	0.49
2:G:1680:ARG:HA	2:G:1797:ARG:HD3	1.94	0.49
2:G:2136:ARG:O	2:G:2139:PRO:HD2	2.11	0.49
2:G:4055:VAL:O	2:G:4059:LEU:HG	2.12	0.49
2:G:4090:LYS:HB2	2:G:4121:GLU:HG2	1.95	0.49
2:J:206:CYS:SG	2:J:271:GLY:N	2.79	0.49
2:J:1735:ILE:HD11	2:J:2156:LEU:HD11	1.93	0.49
2:J:3967:GLU:O	2:J:3970:GLN:HG2	2.12	0.49
3:F:38:ARG:HH21	3:F:62:SER:HB2	1.77	0.49
3:M:8:GLY:HA3	3:M:20:LEU:HA	1.93	0.49
2:B:1448:VAL:HG12	2:B:1554:VAL:HG23	1.93	0.49
2:B:1680:ARG:HA	2:B:1797:ARG:HD3	1.94	0.49
2:B:2527:LEU:HD11	2:B:2531:ARG:HE	1.77	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2739:PRO:HG3	2:B:2888:ARG:HG2	1.94	0.49
2:E:252:VAL:HA	2:E:255:HIS:ND1	2.28	0.49
2:E:993:HIS:CE1	2:E:1027:LEU:HD11	2.47	0.49
2:E:3384:LYS:HG2	2:E:3386:GLU:H	1.77	0.49
2:E:4021:LYS:O	2:E:4025:VAL:HG23	2.13	0.49
2:G:19:GLU:HB3	2:G:205:ILE:HB	1.94	0.49
2:G:592:LYS:HG2	2:G:1580:PHE:CE1	2.47	0.49
2:G:1735:ILE:HD11	2:G:2156:LEU:HD11	1.93	0.49
2:G:3525:CYS:HA	2:G:3595:ARG:NH1	2.27	0.49
2:G:4024:VAL:HA	2:G:4027:LEU:HG	1.94	0.49
2:J:2924:GLN:O	2:J:2928:LYS:HG2	2.12	0.49
2:J:3547:GLU:HA	2:J:3550:ARG:HD2	1.94	0.49
3:F:17:SER:HA	3:F:83:ASN:HA	1.93	0.49
1:I:25:HIS:CE1	1:I:45:PRO:HB3	2.47	0.49
2:B:103:TYR:HB2	2:B:159:GLU:HA	1.93	0.49
2:B:1518:CYS:HB3	2:B:1527:MET:HE1	1.95	0.49
2:B:2960:LEU:HD23	2:B:2963:LEU:HD12	1.95	0.49
2:B:3261:ALA:HB1	2:B:3265:GLU:HB2	1.94	0.49
2:B:3547:GLU:HA	2:B:3550:ARG:HD2	1.94	0.49
2:B:4090:LYS:HB2	2:B:4121:GLU:HG2	1.95	0.49
2:E:886:ARG:HB3	2:E:891:TRP:HB3	1.95	0.49
2:E:1680:ARG:HA	2:E:1797:ARG:HD3	1.94	0.49
2:E:1735:ILE:HD11	2:E:2156:LEU:HD11	1.93	0.49
2:E:2739:PRO:HG3	2:E:2888:ARG:HG2	1.94	0.49
2:E:2924:GLN:O	2:E:2928:LYS:HG2	2.12	0.49
2:E:3546:ASP:OD1	2:E:3547:GLU:N	2.44	0.49
2:E:3900:GLN:HB3	2:E:3976:ASN:ND2	2.27	0.49
2:E:4901:ILE:HB	2:E:4913:ARG:NH1	2.27	0.49
2:G:947:GLU:HA	2:G:950:LEU:HD12	1.94	0.49
2:G:1703:LEU:HD12	2:G:1704:PRO:HD2	1.95	0.49
2:G:2183:GLY:HA2	2:G:2186:MET:HE1	1.94	0.49
2:G:2757:LYS:HZ2	2:G:2929:PHE:HZ	1.60	0.49
2:G:3261:ALA:HB1	2:G:3265:GLU:HB2	1.94	0.49
2:G:3378:GLN:HA	2:G:3381:LEU:HD23	1.94	0.49
2:J:365:LYS:HE2	2:J:369:LEU:HD11	1.94	0.49
2:J:2136:ARG:O	2:J:2139:PRO:HD2	2.11	0.49
2:J:2458:ARG:HG2	2:J:2510:TYR:CE1	2.48	0.49
2:J:3378:GLN:HA	2:J:3381:LEU:HD23	1.94	0.49
2:J:3540:TYR:HB3	2:J:3604:TYR:CD2	2.47	0.49
3:K:71:ARG:HA	3:K:77:THR:O	2.12	0.49
1:A:3:GLU:HB3	1:A:75:THR:HG22	1.93	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:745:SER:HB2	2:B:758:ARG:HB3	1.94	0.49
2:B:3788:GLY:HA2	2:B:3835:LEU:HG	1.95	0.49
2:E:745:SER:HB2	2:E:758:ARG:HB3	1.94	0.49
2:E:3547:GLU:HA	2:E:3550:ARG:HD2	1.94	0.49
2:G:2134:LEU:O	2:G:2138:LEU:HG	2.13	0.49
2:G:2303:ALA:O	2:G:2307:LEU:HG	2.12	0.49
2:G:2527:LEU:HD22	2:G:2582:MET:HE2	1.94	0.49
2:G:2799:GLU:O	2:G:2803:GLU:HG2	2.11	0.49
2:G:4901:ILE:HB	2:G:4913:ARG:NH1	2.27	0.49
2:J:103:TYR:HB2	2:J:159:GLU:HA	1.93	0.49
2:J:886:ARG:HB3	2:J:891:TRP:HB3	1.95	0.49
2:J:2204:HIS:O	2:J:2208:MET:HG2	2.13	0.49
2:J:3753:PHE:O	2:J:3757:GLU:HG2	2.13	0.49
2:J:3788:GLY:HA3	2:J:3834:ALA:HB3	1.94	0.49
2:J:4021:LYS:O	2:J:4025:VAL:HG23	2.12	0.49
3:K:38:ARG:HH21	3:K:62:SER:HB2	1.76	0.49
1:A:87:HIS:NE2	2:B:1786:LEU:HB2	2.28	0.49
2:B:214:VAL:HA	2:B:341:TYR:HD1	1.76	0.49
2:B:2494:PHE:HE1	2:B:2499:LYS:HG3	1.78	0.49
2:B:3525:CYS:HA	2:B:3595:ARG:NH1	2.27	0.49
2:B:4904:PRO:HG3	2:B:4913:ARG:HB3	1.95	0.49
2:E:758:ARG:HH22	2:E:802:PHE:HB2	1.77	0.49
2:E:1431:THR:HG21	2:E:1523:ALA:HB2	1.94	0.49
2:E:3906:GLN:HB3	2:E:3909:ASN:HD22	1.77	0.49
2:E:4044:MET:O	2:E:4048:LEU:HG	2.12	0.49
2:G:2888:ARG:HH11	2:G:2891:LYS:NZ	2.11	0.49
2:G:4044:MET:O	2:G:4048:LEU:HG	2.12	0.49
2:G:4577:LEU:HD21	2:G:4806:ASN:HB3	1.95	0.49
2:G:4904:PRO:HG3	2:G:4913:ARG:HB3	1.95	0.49
2:J:2423:MET:HE3	2:J:2494:PHE:CD2	2.47	0.49
2:J:2595:LEU:HB2	2:J:2600:ARG:HG3	1.95	0.49
2:B:592:LYS:HG2	2:B:1580:PHE:CE1	2.47	0.49
2:B:947:GLU:HA	2:B:950:LEU:HD12	1.94	0.49
2:B:1653:LEU:HA	2:B:1656:ARG:HB2	1.94	0.49
2:B:2303:ALA:O	2:B:2307:LEU:HG	2.12	0.49
2:B:2522:LEU:HA	2:B:2526:PHE:HB2	1.95	0.49
2:B:4062:PHE:O	2:B:4066:LEU:HG	2.13	0.49
2:B:4901:ILE:HB	2:B:4913:ARG:NH1	2.27	0.49
2:E:15:ARG:HB3	2:E:98:HIS:HB3	1.94	0.49
2:E:2204:HIS:O	2:E:2208:MET:HG2	2.13	0.49
2:E:4090:LYS:HB2	2:E:4121:GLU:HG2	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:169:LEU:HB2	2:G:202:MET:HE3	1.95	0.49
2:G:2364:PHE:CD1	2:G:2429:LEU:HD21	2.47	0.49
2:G:2619:LEU:O	2:G:2623:LEU:HG	2.12	0.49
2:G:2960:LEU:HD23	2:G:2963:LEU:HD12	1.95	0.49
2:G:3007:ASN:OD1	2:G:3070:ILE:HG13	2.13	0.49
2:G:3788:GLY:HA2	2:G:3835:LEU:HG	1.95	0.49
2:J:1703:LEU:HD12	2:J:1704:PRO:HD2	1.95	0.49
2:J:2619:LEU:O	2:J:2623:LEU:HG	2.13	0.49
2:J:2739:PRO:HG3	2:J:2888:ARG:HG2	1.94	0.49
2:J:4914:VAL:O	2:J:4918:ILE:HG12	2.13	0.49
2:B:1122:TYR:CE2	2:B:1182:ILE:HG12	2.45	0.49
2:B:2380:ILE:O	2:B:2384:ILE:HG13	2.11	0.49
2:E:2960:LEU:HD23	2:E:2963:LEU:HD12	1.95	0.49
2:E:3007:ASN:OD1	2:E:3070:ILE:HG13	2.13	0.49
2:E:3525:CYS:HA	2:E:3595:ARG:NH1	2.28	0.49
2:E:3601:ALA:O	2:E:3605:HIS:ND1	2.46	0.49
2:E:4024:VAL:HA	2:E:4027:LEU:HG	1.95	0.49
2:G:842:PRO:HD3	2:G:1073:ARG:HB2	1.93	0.49
2:G:2669:GLU:HA	2:G:2672:LEU:HD13	1.94	0.49
2:G:4680:LYS:O	2:G:4685:GLY:N	2.43	0.49
2:J:248:GLU:HB2	2:J:373:LYS:CD	2.37	0.49
2:J:252:VAL:HA	2:J:255:HIS:ND1	2.28	0.49
3:C:68:THR:HG1	3:C:81:GLN:HB3	1.78	0.49
3:M:38:ARG:HE	3:M:62:SER:HB2	1.78	0.49
2:B:661:LYS:HB3	2:B:808:TYR:HA	1.94	0.48
2:B:886:ARG:HB3	2:B:891:TRP:HB3	1.95	0.48
2:B:3442:PHE:HB2	2:B:3513:THR:HG21	1.94	0.48
2:B:4021:LYS:O	2:B:4025:VAL:HG23	2.13	0.48
2:B:4040:ILE:HD11	2:B:4044:MET:HE3	1.95	0.48
2:E:1122:TYR:CE2	2:E:1182:ILE:HG12	2.45	0.48
2:G:2177:LEU:HD13	2:G:2180:GLN:NE2	2.28	0.48
2:G:2522:LEU:HA	2:G:2526:PHE:HB2	1.95	0.48
2:G:3753:PHE:O	2:G:3757:GLU:HG2	2.13	0.48
2:G:4040:ILE:HD11	2:G:4044:MET:HE3	1.94	0.48
2:J:2134:LEU:O	2:J:2138:LEU:HG	2.13	0.48
2:J:2303:ALA:O	2:J:2307:LEU:HG	2.12	0.48
2:J:2881:ASN:HA	2:J:2884:ASN:HD21	1.78	0.48
2:J:3900:GLN:HB3	2:J:3976:ASN:ND2	2.27	0.48
1:H:40:ARG:HD2	2:G:677:ALA:O	2.13	0.48
1:I:40:ARG:HD2	2:J:677:ALA:O	2.14	0.48
2:B:1578:ALA:HA	2:B:1584:ARG:HH12	1.77	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3516:LYS:HG3	2:B:3517:MET:N	2.29	0.48
2:E:1758:ARG:HH22	2:E:2036:GLN:HG3	1.79	0.48
2:E:2881:ASN:HA	2:E:2884:ASN:HD21	1.78	0.48
2:E:2888:ARG:HH11	2:E:2891:LYS:NZ	2.11	0.48
2:G:280:LEU:HD21	2:G:316:PHE:CE2	2.47	0.48
2:G:661:LYS:HB3	2:G:808:TYR:HA	1.95	0.48
2:G:3072:ALA:HB1	2:G:3143:LEU:HD13	1.95	0.48
2:G:3442:PHE:HB2	2:G:3513:THR:HG21	1.94	0.48
2:G:3601:ALA:O	2:G:3605:HIS:ND1	2.46	0.48
2:G:4914:VAL:O	2:G:4918:ILE:HG12	2.13	0.48
2:J:246:TYR:HB2	2:J:373:LYS:CE	2.40	0.48
2:J:268:SER:HB3	2:J:269:TRP:HE3	1.78	0.48
2:J:3007:ASN:OD1	2:J:3070:ILE:HG13	2.13	0.48
2:J:3790:THR:OG1	2:J:3838:THR:OG1	2.21	0.48
2:J:4062:PHE:O	2:J:4066:LEU:HG	2.13	0.48
2:B:252:VAL:HA	2:B:255:HIS:ND1	2.28	0.48
2:B:2134:LEU:O	2:B:2138:LEU:HG	2.13	0.48
2:B:3780:LEU:HD11	2:B:3816:MET:HB2	1.95	0.48
2:E:214:VAL:HA	2:E:341:TYR:HD1	1.76	0.48
2:E:1256:GLU:OE1	2:E:1271:ARG:NH2	2.46	0.48
2:E:1653:LEU:HA	2:E:1656:ARG:HB2	1.94	0.48
2:E:2303:ALA:O	2:E:2307:LEU:HG	2.12	0.48
2:E:3753:PHE:O	2:E:3757:GLU:HG2	2.13	0.48
2:E:4062:PHE:O	2:E:4066:LEU:HG	2.13	0.48
2:G:3651:ASN:O	2:G:3655:GLU:HG2	2.14	0.48
2:J:110:ARG:HD2	2:J:115:ARG:HH21	1.79	0.48
2:J:214:VAL:HA	2:J:341:TYR:HD1	1.76	0.48
2:J:3525:CYS:HA	2:J:3595:ARG:NH1	2.27	0.48
2:J:3651:ASN:O	2:J:3655:GLU:HG2	2.14	0.48
2:J:4040:ILE:HD11	2:J:4044:MET:HE3	1.95	0.48
2:J:4097:MET:HE2	2:J:4108:ILE:HG23	1.95	0.48
3:C:68:THR:OG1	3:C:81:GLN:HB3	2.14	0.48
3:F:38:ARG:HE	3:F:62:SER:HB2	1.78	0.48
3:M:68:THR:OG1	3:M:81:GLN:HB3	2.14	0.48
3:M:99:ARG:HD3	3:M:114:TYR:CD2	2.48	0.48
2:B:268:SER:HB3	2:B:269:TRP:HE3	1.78	0.48
2:B:2669:GLU:HA	2:B:2672:LEU:HD13	1.94	0.48
2:B:2747:ILE:HD12	2:B:2748:PRO:HD2	1.95	0.48
2:B:2757:LYS:HZ2	2:B:2929:PHE:HZ	1.61	0.48
2:B:3753:PHE:O	2:B:3757:GLU:HG2	2.13	0.48
2:E:661:LYS:HB3	2:E:808:TYR:HA	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1835:GLU:HG2	2:E:1836:PHE:N	2.29	0.48
2:E:2747:ILE:HD12	2:E:2748:PRO:HD2	1.95	0.48
2:E:3780:LEU:HD11	2:E:3816:MET:HB2	1.96	0.48
2:G:1177:THR:OG1	2:G:1180:ARG:NH2	2.45	0.48
2:G:2204:HIS:O	2:G:2208:MET:HG2	2.13	0.48
2:G:2458:ARG:HG2	2:G:2510:TYR:CE1	2.48	0.48
2:G:2624:ARG:HH22	2:G:2912:THR:HG22	1.78	0.48
2:G:2739:PRO:HG3	2:G:2888:ARG:HG2	1.94	0.48
2:J:947:GLU:HA	2:J:950:LEU:HD12	1.94	0.48
2:J:2489:LYS:HB3	2:J:2492:ALA:HB3	1.95	0.48
2:J:2522:LEU:HA	2:J:2526:PHE:HB2	1.95	0.48
2:J:4901:ILE:HB	2:J:4913:ARG:NH1	2.27	0.48
3:K:4:LEU:HD22	3:K:95:CYS:O	2.14	0.48
1:D:87:HIS:NE2	2:E:1786:LEU:HB2	2.27	0.48
2:B:597:HIS:HB2	2:B:1665:HIS:CE1	2.49	0.48
2:B:2323:TRP:CZ2	2:B:2422:ILE:HD12	2.49	0.48
2:B:2888:ARG:HH11	2:B:2891:LYS:NZ	2.11	0.48
2:B:3072:ALA:HB1	2:B:3143:LEU:HD13	1.95	0.48
2:B:4680:LYS:O	2:B:4685:GLY:N	2.43	0.48
2:E:1703:LEU:HD12	2:E:1704:PRO:HD2	1.95	0.48
2:E:2527:LEU:HD11	2:E:2531:ARG:HE	1.77	0.48
2:G:45:ARG:HH22	2:G:443:LEU:HD21	1.79	0.48
2:G:2489:LYS:HB3	2:G:2492:ALA:HB3	1.95	0.48
2:G:2759:ALA:HB2	2:G:2810:LYS:HZ1	1.79	0.48
2:J:1835:GLU:HG2	2:J:1836:PHE:N	2.29	0.48
2:J:2960:LEU:HD23	2:J:2963:LEU:HD12	1.95	0.48
2:J:3788:GLY:HA2	2:J:3835:LEU:HG	1.95	0.48
3:F:68:THR:OG1	3:F:81:GLN:HB3	2.14	0.48
3:K:99:ARG:HD3	3:K:114:TYR:CD2	2.49	0.48
1:I:87:HIS:NE2	2:J:1786:LEU:HB2	2.28	0.48
2:B:19:GLU:HB3	2:B:205:ILE:HB	1.94	0.48
2:B:217:GLY:N	2:B:262:LEU:O	2.46	0.48
2:B:1927:LEU:O	2:B:2104:ARG:NH2	2.42	0.48
2:B:2458:ARG:HG2	2:B:2510:TYR:CE1	2.48	0.48
2:E:2494:PHE:HE1	2:E:2499:LYS:HG3	1.78	0.48
2:E:2522:LEU:HA	2:E:2526:PHE:HB2	1.95	0.48
2:E:2595:LEU:HB2	2:E:2600:ARG:HG3	1.95	0.48
2:G:2376:LEU:O	2:G:2380:ILE:HG12	2.14	0.48
2:G:2494:PHE:HE1	2:G:2499:LYS:HG3	1.78	0.48
2:G:3173:TYR:CD2	2:G:3243:ILE:HG12	2.49	0.48
2:J:246:TYR:CB	2:J:373:LYS:HE3	2.40	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2177:LEU:HD13	2:J:2180:GLN:NE2	2.28	0.48
2:J:2527:LEU:HD11	2:J:2531:ARG:HE	1.77	0.48
2:J:4211:LYS:O	2:J:4214:LYS:HG3	2.14	0.48
2:B:1703:LEU:HD12	2:B:1704:PRO:HD2	1.95	0.48
2:B:3731:LYS:O	2:B:3735:LEU:HG	2.14	0.48
2:B:4914:VAL:O	2:B:4918:ILE:HG12	2.13	0.48
2:E:2458:ARG:HG2	2:E:2510:TYR:CE1	2.48	0.48
2:E:3516:LYS:HG3	2:E:3517:MET:N	2.28	0.48
2:E:3651:ASN:O	2:E:3655:GLU:HG2	2.14	0.48
2:E:4914:VAL:O	2:E:4918:ILE:HG12	2.13	0.48
2:E:4958:CYS:SG	2:E:4959:PHE:N	2.87	0.48
2:G:3516:LYS:HG3	2:G:3517:MET:N	2.29	0.48
2:G:3984:ARG:HH12	2:J:162:LYS:HZ2	1.59	0.48
2:G:3992:PHE:HA	2:G:3995:VAL:HG22	1.96	0.48
2:G:4021:LYS:O	2:G:4025:VAL:HG23	2.13	0.48
2:J:3731:LYS:O	2:J:3735:LEU:HG	2.14	0.48
2:J:3780:LEU:HD11	2:J:3816:MET:HB2	1.95	0.48
3:K:68:THR:OG1	3:K:81:GLN:HB3	2.14	0.48
1:A:40:ARG:HD2	2:B:677:ALA:O	2.13	0.48
2:B:246:TYR:CB	2:B:373:LYS:HE3	2.39	0.48
2:B:3601:ALA:O	2:B:3605:HIS:ND1	2.46	0.48
2:B:3651:ASN:O	2:B:3655:GLU:HG2	2.14	0.48
2:B:3752:SER:O	2:B:3756:LYS:HG3	2.14	0.48
2:B:4992:LEU:O	2:B:4996:ILE:HG13	2.14	0.48
2:E:2177:LEU:HD13	2:E:2180:GLN:NE2	2.28	0.48
2:E:3103:ILE:O	2:E:3107:VAL:HG13	2.14	0.48
2:E:3995:VAL:HG23	2:E:3999:MET:HE1	1.94	0.48
2:E:4055:VAL:O	2:E:4059:LEU:HG	2.12	0.48
2:G:217:GLY:N	2:G:262:LEU:O	2.47	0.48
2:G:252:VAL:HA	2:G:255:HIS:ND1	2.28	0.48
2:G:1274:HIS:N	2:G:1559:GLN:O	2.47	0.48
2:G:1518:CYS:HB3	2:G:1527:MET:HE1	1.96	0.48
2:G:2881:ASN:HA	2:G:2884:ASN:HD21	1.78	0.48
2:G:3445:TRP:CE2	2:G:3509:LEU:HG	2.49	0.48
2:G:3752:SER:O	2:G:3756:LYS:HG3	2.14	0.48
2:G:4062:PHE:O	2:G:4066:LEU:HG	2.13	0.48
2:J:1758:ARG:HH22	2:J:2036:GLN:HG3	1.78	0.48
2:J:2968:ASP:HA	2:J:2971:GLN:HG2	1.96	0.48
2:J:3072:ALA:HB1	2:J:3143:LEU:HD13	1.95	0.48
2:J:3601:ALA:O	2:J:3605:HIS:ND1	2.46	0.48
2:J:3850:GLN:NE2	2:J:3872:GLU:OE1	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4577:LEU:HD21	2:J:4806:ASN:HB3	1.95	0.48
3:C:4:LEU:HD22	3:C:95:CYS:O	2.14	0.48
3:C:99:ARG:HD3	3:C:114:TYR:CD2	2.48	0.48
1:I:55:VAL:HG23	2:J:1783:VAL:HB	1.96	0.48
2:B:1431:THR:HG21	2:B:1523:ALA:HB2	1.94	0.48
2:B:2364:PHE:CD1	2:B:2429:LEU:HD21	2.47	0.48
2:B:3312:LEU:HB2	2:B:3345:ILE:HD11	1.96	0.48
2:B:3992:PHE:HA	2:B:3995:VAL:HG22	1.96	0.48
2:E:823:LEU:HB2	2:E:1617:THR:HB	1.96	0.48
2:E:2377:LEU:HD22	2:E:2468:GLY:HA3	1.96	0.48
2:E:2489:LYS:HB3	2:E:2492:ALA:HB3	1.95	0.48
2:E:2669:GLU:HA	2:E:2672:LEU:HD13	1.94	0.48
2:G:360:ALA:O	2:G:361:ALA:C	2.52	0.48
2:G:2109:ASP:HA	2:G:3694:LYS:HD2	1.96	0.48
2:G:2313:LEU:HG	2:G:2318:TYR:HB2	1.96	0.48
2:G:4000:MET:SD	2:G:4001:MET:N	2.87	0.48
2:G:4992:LEU:O	2:G:4996:ILE:HG13	2.14	0.48
2:J:45:ARG:HH22	2:J:443:LEU:HD21	1.79	0.48
2:J:280:LEU:HD21	2:J:316:PHE:CE2	2.47	0.48
2:J:661:LYS:HB3	2:J:808:TYR:HA	1.95	0.48
2:J:2109:ASP:HA	2:J:3694:LYS:HD2	1.96	0.48
2:J:2376:LEU:O	2:J:2380:ILE:HG12	2.14	0.48
2:J:2888:ARG:HH11	2:J:2891:LYS:NZ	2.11	0.48
2:J:3992:PHE:HA	2:J:3995:VAL:HG22	1.96	0.48
3:K:38:ARG:HE	3:K:62:SER:HB2	1.78	0.48
2:B:1641:ILE:HB	2:B:1644:GLU:HB2	1.96	0.48
2:B:4958:CYS:SG	2:B:4959:PHE:N	2.87	0.48
2:B:5014:TYR:HD1	2:B:5019:TRP:HZ3	1.62	0.48
2:E:3445:TRP:CE2	2:E:3509:LEU:HG	2.49	0.48
2:E:5014:TYR:HD1	2:E:5019:TRP:HZ3	1.62	0.48
2:G:268:SER:HB3	2:G:269:TRP:HE3	1.78	0.48
2:G:535:ALA:O	2:G:539:LEU:HG	2.14	0.48
2:G:2323:TRP:CZ2	2:G:2422:ILE:HD12	2.49	0.48
2:G:2527:LEU:HD11	2:G:2531:ARG:HE	1.77	0.48
2:G:2595:LEU:HB2	2:G:2600:ARG:HG3	1.95	0.48
2:G:3951:PHE:HB3	2:G:3955:MET:HE1	1.96	0.48
2:G:4211:LYS:O	2:G:4214:LYS:HG3	2.14	0.48
2:J:823:LEU:HB2	2:J:1617:THR:HB	1.96	0.48
2:J:939:VAL:HA	2:J:1051:TYR:HB3	1.96	0.48
2:J:2313:LEU:HG	2:J:2318:TYR:HB2	1.96	0.48
2:J:2323:TRP:CZ2	2:J:2422:ILE:HD12	2.49	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4000:MET:SD	2:J:4001:MET:N	2.87	0.48
2:J:4680:LYS:O	2:J:4685:GLY:N	2.43	0.48
2:J:5014:TYR:HD1	2:J:5019:TRP:HZ3	1.62	0.48
3:F:4:LEU:HD22	3:F:95:CYS:O	2.14	0.48
3:F:99:ARG:HD3	3:F:114:TYR:CD2	2.49	0.48
2:B:1081:TYR:CZ	2:B:1234:VAL:HG13	2.49	0.47
2:B:2377:LEU:HD22	2:B:2468:GLY:HA3	1.96	0.47
2:B:3173:TYR:CD2	2:B:3243:ILE:HG12	2.49	0.47
2:B:3445:TRP:CE2	2:B:3509:LEU:HG	2.49	0.47
2:E:3278:CYS:SG	2:E:3341:PHE:HB3	2.54	0.47
2:E:3731:LYS:O	2:E:3735:LEU:HG	2.14	0.47
2:E:4040:ILE:HD11	2:E:4044:MET:HE3	1.96	0.47
2:G:15:ARG:HB3	2:G:98:HIS:HB3	1.94	0.47
2:G:758:ARG:HH11	2:G:761:GLY:HA2	1.79	0.47
2:G:2679:PHE:HB2	2:G:2706:ILE:HG21	1.96	0.47
2:G:3780:LEU:HD11	2:G:3816:MET:HB2	1.96	0.47
2:G:5014:TYR:HD1	2:G:5019:TRP:HZ3	1.62	0.47
2:J:1274:HIS:N	2:J:1559:GLN:O	2.47	0.47
2:J:2624:ARG:HH22	2:J:2912:THR:HG22	1.78	0.47
2:J:2747:ILE:HD12	2:J:2748:PRO:HD2	1.95	0.47
2:J:3103:ILE:O	2:J:3107:VAL:HG13	2.14	0.47
2:J:3413:ILE:HA	2:J:3516:LYS:HZ1	1.77	0.47
2:B:1274:HIS:N	2:B:1559:GLN:O	2.47	0.47
2:B:2527:LEU:HB2	2:B:2582:MET:HE1	1.95	0.47
2:B:3850:GLN:NE2	2:B:3872:GLU:OE1	2.47	0.47
2:E:110:ARG:HD2	2:E:115:ARG:HH21	1.79	0.47
2:E:246:TYR:HB2	2:E:373:LYS:CE	2.39	0.47
2:E:2538:THR:O	2:E:2542:SER:N	2.47	0.47
2:E:3072:ALA:HB1	2:E:3143:LEU:HD13	1.95	0.47
2:E:3725:TYR:HA	2:E:3728:ILE:HG12	1.96	0.47
2:E:3788:GLY:HA2	2:E:3835:LEU:HG	1.95	0.47
2:E:4000:MET:SD	2:E:4001:MET:N	2.87	0.47
2:E:4577:LEU:HD21	2:E:4806:ASN:HB3	1.95	0.47
2:E:4992:LEU:O	2:E:4996:ILE:HG13	2.14	0.47
2:G:664:PHE:CZ	2:G:779:PRO:HB3	2.50	0.47
2:G:745:SER:HB2	2:G:758:ARG:HB3	1.94	0.47
2:G:1081:TYR:CZ	2:G:1234:VAL:HG13	2.49	0.47
2:G:2747:ILE:HD12	2:G:2748:PRO:HD2	1.95	0.47
2:G:3850:GLN:NE2	2:G:3872:GLU:OE1	2.47	0.47
2:G:4222:VAL:HG11	2:G:4950:VAL:HA	1.96	0.47
2:J:535:ALA:O	2:J:539:LEU:HG	2.14	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:1641:ILE:HB	2:J:1644:GLU:HB2	1.96	0.47
2:J:2203:MET:SD	2:J:2204:HIS:N	2.87	0.47
2:J:3173:TYR:CD2	2:J:3243:ILE:HG12	2.49	0.47
3:M:4:LEU:HD22	3:M:95:CYS:O	2.14	0.47
2:B:1078:GLU:HB3	2:B:1081:TYR:CD2	2.50	0.47
2:B:2204:HIS:O	2:B:2208:MET:HG2	2.13	0.47
2:B:2376:LEU:O	2:B:2380:ILE:HG12	2.14	0.47
2:E:1578:ALA:HA	2:E:1584:ARG:HH12	1.77	0.47
2:E:2474:LEU:HD21	2:E:2494:PHE:CD1	2.50	0.47
2:E:2624:ARG:HH22	2:E:2912:THR:HG22	1.78	0.47
2:E:3173:TYR:CD2	2:E:3243:ILE:HG12	2.49	0.47
2:G:3312:LEU:HB2	2:G:3345:ILE:HD11	1.96	0.47
2:J:901:LYS:HD3	2:J:903:LEU:HD11	1.97	0.47
2:J:2494:PHE:HE1	2:J:2499:LYS:HG3	1.78	0.47
2:J:2668:SER:O	2:J:2672:LEU:HD12	2.15	0.47
2:J:2869:ARG:NH2	2:J:2870[B]:GLU:HG3	2.30	0.47
2:J:3278:CYS:SG	2:J:3341:PHE:HB3	2.54	0.47
2:J:3445:TRP:CE2	2:J:3509:LEU:HG	2.49	0.47
3:C:38:ARG:HE	3:C:62:SER:HB2	1.78	0.47
2:B:758:ARG:HH11	2:B:761:GLY:HA2	1.79	0.47
2:B:2177:LEU:HD13	2:B:2180:GLN:NE2	2.28	0.47
2:B:2321:ILE:HD11	2:B:2418:LEU:HB2	1.97	0.47
2:B:2474:LEU:HD21	2:B:2494:PHE:CD1	2.50	0.47
2:B:2869:ARG:NH2	2:B:2870[B]:GLU:HG3	2.30	0.47
2:E:597:HIS:HB2	2:E:1665:HIS:CE1	2.49	0.47
2:E:1274:HIS:N	2:E:1559:GLN:O	2.47	0.47
2:E:2134:LEU:O	2:E:2138:LEU:HG	2.13	0.47
2:E:2376:LEU:O	2:E:2380:ILE:HG12	2.14	0.47
2:E:2668:SER:O	2:E:2672:LEU:HD12	2.15	0.47
2:E:3512:ALA:HA	2:E:3516:LYS:HE3	1.97	0.47
2:G:1641:ILE:HB	2:G:1644:GLU:HB2	1.96	0.47
2:G:2474:LEU:HD21	2:G:2494:PHE:CD1	2.50	0.47
2:J:217:GLY:N	2:J:262:LEU:O	2.46	0.47
2:J:597:HIS:HB2	2:J:1665:HIS:CE1	2.49	0.47
2:J:1256:GLU:OE1	2:J:1271:ARG:NH2	2.46	0.47
1:A:68:LEU:C	1:A:70:GLN:H	2.18	0.47
2:B:308:HIS:O	2:B:312:THR:OG1	2.25	0.47
2:B:1808:ARG:HD3	2:B:1854:PHE:HA	1.96	0.47
2:B:2959:PHE:O	2:B:2963:LEU:HG	2.15	0.47
2:B:3103:ILE:O	2:B:3107:VAL:HG13	2.14	0.47
2:E:460:GLN:HB2	2:E:463:GLU:HG2	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:669:ASP:O	2:E:740:PRO:HB3	2.15	0.47
2:E:939:VAL:HA	2:E:1051:TYR:HB3	1.96	0.47
2:E:2203:MET:SD	2:E:2204:HIS:N	2.87	0.47
2:E:2968:ASP:HA	2:E:2971:GLN:HG2	1.96	0.47
2:E:3514:LEU:HA	2:E:3518:LEU:HB2	1.97	0.47
2:G:110:ARG:HD2	2:G:115:ARG:HH21	1.79	0.47
2:G:2512:ILE:HG21	2:G:2518:LEU:HB2	1.96	0.47
2:G:2538:THR:O	2:G:2542:SER:N	2.47	0.47
2:J:2321:ILE:HD11	2:J:2418:LEU:HB2	1.97	0.47
2:J:2474:LEU:HD21	2:J:2494:PHE:CD1	2.50	0.47
2:J:3178:THR:O	2:J:3187:ARG:NH2	2.48	0.47
2:J:4992:LEU:O	2:J:4996:ILE:HG13	2.14	0.47
1:A:55:VAL:HG23	2:B:1783:VAL:HB	1.95	0.47
1:D:68:LEU:C	1:D:70:GLN:H	2.18	0.47
2:B:1835:GLU:HG2	2:B:1836:PHE:N	2.29	0.47
2:B:2624:ARG:HH22	2:B:2912:THR:HG22	1.78	0.47
2:B:4000:MET:SD	2:B:4001:MET:N	2.87	0.47
2:B:4097:MET:HE2	2:B:4108:ILE:HG23	1.97	0.47
2:B:4222:VAL:HG11	2:B:4950:VAL:HA	1.97	0.47
2:E:501:ALA:O	2:E:505:GLU:HG2	2.15	0.47
2:E:1078:GLU:HB3	2:E:1081:TYR:CD2	2.50	0.47
2:E:2323:TRP:CZ2	2:E:2422:ILE:HD12	2.49	0.47
2:E:3289:PRO:HG3	2:E:3303:PRO:HG2	1.97	0.47
2:E:4211:LYS:O	2:E:4214:LYS:HG3	2.14	0.47
2:G:102:LEU:HD13	2:G:160:GLY:HA2	1.97	0.47
2:G:460:GLN:HB2	2:G:463:GLU:HG2	1.96	0.47
2:G:823:LEU:HB2	2:G:1617:THR:HB	1.96	0.47
2:G:901:LYS:HD3	2:G:903:LEU:HD11	1.97	0.47
2:G:939:VAL:HA	2:G:1051:TYR:HB3	1.97	0.47
2:G:1758:ARG:NH2	2:G:2040:ALA:HB2	2.30	0.47
2:G:1758:ARG:HH22	2:G:2036:GLN:HG3	1.78	0.47
2:G:1835:GLU:HG2	2:G:1836:PHE:N	2.29	0.47
2:G:2203:MET:SD	2:G:2204:HIS:N	2.87	0.47
2:G:2740:VAL:HG21	2:G:2819:TRP:HE1	1.80	0.47
2:G:2959:PHE:O	2:G:2963:LEU:HG	2.15	0.47
2:G:2960:LEU:O	2:G:2964:LEU:HG	2.15	0.47
2:G:3278:CYS:SG	2:G:3341:PHE:HB3	2.54	0.47
2:J:669:ASP:O	2:J:740:PRO:HB3	2.15	0.47
2:J:2679:PHE:HB2	2:J:2706:ILE:HG21	1.96	0.47
2:J:2960:LEU:O	2:J:2964:LEU:HG	2.15	0.47
2:J:4904:PRO:HG3	2:J:4913:ARG:HB3	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:45:ARG:HH22	2:B:443:LEU:HD21	1.79	0.47
2:B:460:GLN:HB2	2:B:463:GLU:HG2	1.96	0.47
2:B:664:PHE:CZ	2:B:779:PRO:HB3	2.50	0.47
2:B:1158:ASN:HB3	2:B:1182:ILE:N	2.28	0.47
2:B:2203:MET:SD	2:B:2204:HIS:N	2.87	0.47
2:B:2595:LEU:HB2	2:B:2600:ARG:HG3	1.95	0.47
2:B:2960:LEU:O	2:B:2964:LEU:HG	2.15	0.47
2:B:3155:ASP:O	2:B:3158:LEU:HD22	2.15	0.47
2:B:3172:ILE:HG23	2:B:3194:LEU:HD12	1.97	0.47
2:B:3512:ALA:HA	2:B:3516:LYS:HE3	1.97	0.47
2:B:4184:MET:HA	2:B:4190:ILE:HD13	1.97	0.47
2:B:4640:GLU:HB3	2:B:4641:PRO:HD3	1.97	0.47
2:B:4960:ILE:HG13	2:B:4983:HIS:HB3	1.97	0.47
2:E:45:ARG:HH22	2:E:443:LEU:HD21	1.79	0.47
2:E:144:GLU:HG3	2:E:175:SER:HB2	1.97	0.47
2:E:268:SER:HB3	2:E:269:TRP:HE3	1.78	0.47
2:E:492:ASP:OD1	2:E:546:TRP:NE1	2.40	0.47
2:E:595:ARG:HB3	2:E:1662:PHE:CE1	2.50	0.47
2:E:1081:TYR:CZ	2:E:1234:VAL:HG13	2.49	0.47
2:E:1289:LEU:HB2	2:E:1552:VAL:HG23	1.97	0.47
2:E:1808:ARG:HD3	2:E:1854:PHE:HA	1.96	0.47
2:E:1927:LEU:O	2:E:2104:ARG:NH2	2.42	0.47
2:E:2313:LEU:HG	2:E:2318:TYR:HB2	1.96	0.47
2:E:2527:LEU:HB2	2:E:2582:MET:HE1	1.96	0.47
2:E:2821:TRP:HD1	2:E:2939:ARG:HA	1.79	0.47
2:E:2879:ALA:HA	2:E:2882:TYR:CD2	2.50	0.47
2:E:2888:ARG:HH11	2:E:2891:LYS:HZ1	1.61	0.47
2:E:2960:LEU:O	2:E:2964:LEU:HG	2.15	0.47
2:E:4904:PRO:HG3	2:E:4913:ARG:HB3	1.95	0.47
2:G:492:ASP:OD1	2:G:546:TRP:NE1	2.40	0.47
2:G:597:HIS:HB2	2:G:1665:HIS:CE1	2.49	0.47
2:G:1951:LEU:HD11	2:G:2134:LEU:HA	1.97	0.47
2:G:2321:ILE:HD11	2:G:2418:LEU:HB2	1.97	0.47
2:G:2668:SER:O	2:G:2672:LEU:HD12	2.15	0.47
2:G:2869:ARG:NH2	2:G:2870[B]:GLU:HG3	2.30	0.47
2:G:3103:ILE:O	2:G:3107:VAL:HG13	2.14	0.47
2:G:3178:THR:O	2:G:3187:ARG:NH2	2.48	0.47
2:G:3262:ARG:HG2	2:G:3329:ILE:HD11	1.97	0.47
2:G:4184:MET:HA	2:G:4190:ILE:HD13	1.97	0.47
2:G:4192:ARG:HB2	2:G:5028:PHE:CZ	2.49	0.47
2:J:102:LEU:HD13	2:J:160:GLY:HA2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:341:TYR:CE2	2:J:392:ARG:HB2	2.50	0.47
2:J:595:ARG:HB3	2:J:1662:PHE:CE1	2.50	0.47
2:J:1927:LEU:O	2:J:2104:ARG:NH2	2.42	0.47
2:J:2959:PHE:O	2:J:2963:LEU:HG	2.15	0.47
2:J:3514:LEU:HA	2:J:3518:LEU:HB2	1.97	0.47
2:J:3752:SER:O	2:J:3756:LYS:HG3	2.14	0.47
3:C:6:GLU:OE1	3:C:22:CYS:HB2	2.15	0.47
2:B:492:ASP:OD1	2:B:546:TRP:NE1	2.40	0.47
2:B:1758:ARG:HH22	2:B:2036:GLN:HG3	1.78	0.47
2:B:2423:MET:HE3	2:B:2494:PHE:CD2	2.50	0.47
2:B:2676:ARG:HH12	2:B:2955:PHE:HB2	1.80	0.47
2:B:2740:VAL:HG21	2:B:2819:TRP:HE1	1.80	0.47
2:B:2881:ASN:HA	2:B:2884:ASN:HD21	1.78	0.47
2:B:2968:ASP:HA	2:B:2971:GLN:HG2	1.96	0.47
2:B:3278:CYS:SG	2:B:3341:PHE:HB3	2.54	0.47
2:B:3725:TYR:HA	2:B:3728:ILE:HG12	1.96	0.47
2:B:4192:ARG:HB2	2:B:5028:PHE:CZ	2.50	0.47
2:E:341:TYR:CE2	2:E:392:ARG:HB2	2.50	0.47
2:E:2512:ILE:HG21	2:E:2518:LEU:HB2	1.96	0.47
2:E:2679:PHE:HB2	2:E:2706:ILE:HG21	1.96	0.47
2:E:3850:GLN:NE2	2:E:3872:GLU:OE1	2.47	0.47
2:G:341:TYR:CE2	2:G:392:ARG:HB2	2.50	0.47
2:G:2423:MET:HE3	2:G:2494:PHE:CD2	2.50	0.47
2:G:4640:GLU:HB3	2:G:4641:PRO:HD3	1.97	0.47
2:G:4960:ILE:HG13	2:G:4983:HIS:HB3	1.97	0.47
2:J:13:PHE:HA	2:J:164:ARG:HA	1.97	0.47
2:J:1261:ASP:HA	2:J:1268:PRO:HA	1.97	0.47
2:J:2512:ILE:HG21	2:J:2518:LEU:HB2	1.96	0.47
2:J:2527:LEU:HD22	2:J:2582:MET:HE2	1.97	0.47
2:J:4640:GLU:HB3	2:J:4641:PRO:HD3	1.97	0.47
2:B:102:LEU:HD13	2:B:160:GLY:HA2	1.97	0.47
2:B:181:HIS:HA	2:B:198:THR:HB	1.97	0.47
2:B:535:ALA:O	2:B:539:LEU:HG	2.14	0.47
2:B:669:ASP:O	2:B:740:PRO:HB3	2.15	0.47
2:B:901:LYS:HD3	2:B:903:LEU:HD11	1.97	0.47
2:B:1619:ARG:NH2	2:B:1621:GLY:O	2.48	0.47
2:B:1951:LEU:HD11	2:B:2134:LEU:HA	1.97	0.47
2:B:3699:HIS:CD2	2:B:3773:ARG:HG2	2.50	0.47
2:E:246:TYR:HD1	2:E:375:LYS:HA	1.80	0.47
2:E:369:LEU:HB2	2:E:371:VAL:HG23	1.97	0.47
2:E:758:ARG:HH11	2:E:761:GLY:HA2	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2211:MET:HA	2:E:2214:VAL:HG12	1.97	0.47
2:E:3102:ASP:HA	2:E:3105:LYS:HE2	1.97	0.47
2:E:3172:ILE:HG23	2:E:3194:LEU:HD12	1.97	0.47
2:E:4182:GLU:HG2	2:E:5028:PHE:HE2	1.80	0.47
2:E:4184:MET:HA	2:E:4190:ILE:HD13	1.97	0.47
2:G:1808:ARG:HD3	2:G:1854:PHE:HA	1.96	0.47
2:G:2968:ASP:HA	2:G:2971:GLN:HG2	1.96	0.47
2:G:3155:ASP:O	2:G:3158:LEU:HD22	2.15	0.47
2:G:3731:LYS:O	2:G:3735:LEU:HG	2.14	0.47
2:G:4582:VAL:HG11	2:J:4860:ARG:NH1	2.30	0.47
2:J:19:GLU:HB3	2:J:205:ILE:HB	1.94	0.47
2:J:790:ARG:HD3	2:J:1627:ALA:HB2	1.97	0.47
2:J:1289:LEU:HB2	2:J:1552:VAL:HG23	1.97	0.47
2:J:4234:PHE:CE1	2:J:4985:LEU:HD23	2.50	0.47
3:F:6:GLU:OE1	3:F:22:CYS:HB2	2.15	0.47
2:B:178:ARG:HH11	2:B:194:SER:HA	1.80	0.47
2:B:2888:ARG:O	2:B:2892:GLN:HG2	2.15	0.47
2:B:3790:THR:OG1	2:B:3838:THR:OG1	2.21	0.47
2:B:4211:LYS:O	2:B:4214:LYS:HG3	2.14	0.47
2:E:664:PHE:CZ	2:E:779:PRO:HB3	2.50	0.47
2:E:1641:ILE:HB	2:E:1644:GLU:HB2	1.96	0.47
2:E:2321:ILE:HD11	2:E:2418:LEU:HB2	1.97	0.47
2:E:4640:GLU:HB3	2:E:4641:PRO:HD3	1.97	0.47
2:E:4673:ARG:NH2	2:E:4702:ASP:OD1	2.47	0.47
2:E:4860:ARG:NH1	2:J:4582:VAL:HG11	2.30	0.47
2:G:1237:TRP:CH2	2:G:1652:GLU:HG3	2.50	0.47
2:G:1287:LEU:HG	2:G:1289:LEU:HG	1.97	0.47
2:G:2676:ARG:HH12	2:G:2955:PHE:HB2	1.80	0.47
2:G:2888:ARG:O	2:G:2892:GLN:HG2	2.15	0.47
2:G:3102:ASP:HA	2:G:3105:LYS:HE2	1.97	0.47
2:G:3514:LEU:HA	2:G:3518:LEU:HB2	1.97	0.47
2:G:3699:HIS:CD2	2:G:3773:ARG:HG2	2.50	0.47
2:J:215:THR:HG22	2:J:273:HIS:HA	1.97	0.47
2:J:664:PHE:CZ	2:J:779:PRO:HB3	2.50	0.47
2:J:1808:ARG:HD3	2:J:1854:PHE:HA	1.96	0.47
2:J:3246:LEU:HA	2:J:3249:LEU:HD12	1.97	0.47
2:J:3516:LYS:HG3	2:J:3517:MET:N	2.28	0.47
2:J:3989:VAL:HA	2:J:3992:PHE:HD2	1.80	0.47
1:I:68:LEU:C	1:I:70:GLN:H	2.18	0.46
2:B:823:LEU:HB2	2:B:1617:THR:HB	1.96	0.46
2:B:1758:ARG:NH2	2:B:2040:ALA:HB2	2.30	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1849:LEU:HG	2:B:1945:TYR:CZ	2.51	0.46
2:B:2313:LEU:HG	2:B:2318:TYR:HB2	1.96	0.46
2:B:2489:LYS:HB3	2:B:2492:ALA:HB3	1.96	0.46
2:B:2821:TRP:HD1	2:B:2939:ARG:HA	1.80	0.46
2:B:3172:ILE:HG13	2:B:3175:LEU:HD12	1.97	0.46
2:E:3155:ASP:O	2:E:3158:LEU:HD22	2.15	0.46
2:E:3752:SER:O	2:E:3756:LYS:HG3	2.14	0.46
2:G:13:PHE:HA	2:G:164:ARG:HA	1.97	0.46
2:G:1289:LEU:HB2	2:G:1552:VAL:HG23	1.97	0.46
2:G:2291:GLN:OE1	2:G:2291:GLN:N	2.40	0.46
2:J:116:MET:HB2	2:J:139:GLU:HA	1.97	0.46
2:J:1078:GLU:HB3	2:J:1081:TYR:CD2	2.50	0.46
2:J:2479:LEU:HA	2:J:2485:LEU:HA	1.97	0.46
2:J:3312:LEU:HB2	2:J:3345:ILE:HD11	1.96	0.46
2:J:4182:GLU:HG2	2:J:5028:PHE:HE2	1.80	0.46
2:B:144:GLU:HG3	2:B:175:SER:HB2	1.97	0.46
2:B:299:LEU:HD11	2:B:376:ALA:HB3	1.97	0.46
2:B:642:THR:O	2:B:782:SER:HA	2.15	0.46
2:B:1000:ARG:HH12	3:C:114:TYR:HA	1.80	0.46
2:B:1287:LEU:HG	2:B:1289:LEU:HG	1.98	0.46
2:B:2109:ASP:HA	2:B:3694:LYS:HD2	1.96	0.46
2:B:2512:ILE:HG21	2:B:2518:LEU:HB2	1.96	0.46
2:B:2668:SER:O	2:B:2672:LEU:HD12	2.15	0.46
2:B:3102:ASP:HA	2:B:3105:LYS:HE2	1.97	0.46
2:E:535:ALA:O	2:E:539:LEU:HG	2.14	0.46
2:E:940:GLY:N	2:E:1051:TYR:HA	2.28	0.46
2:E:2869:ARG:NH2	2:E:2870[B]:GLU:HG3	2.29	0.46
2:E:3992:PHE:HA	2:E:3995:VAL:HG22	1.96	0.46
2:G:1849:LEU:HG	2:G:1945:TYR:CZ	2.51	0.46
2:G:2377:LEU:HD22	2:G:2468:GLY:HA3	1.96	0.46
2:G:4234:PHE:CE1	2:G:4985:LEU:HD23	2.50	0.46
2:J:181:HIS:HA	2:J:198:THR:HB	1.97	0.46
2:J:501:ALA:O	2:J:505:GLU:HG2	2.15	0.46
2:J:758:ARG:HH11	2:J:761:GLY:HA2	1.80	0.46
2:J:1158:ASN:HB3	2:J:1182:ILE:N	2.28	0.46
2:J:2740:VAL:HG21	2:J:2819:TRP:HE1	1.80	0.46
2:J:3155:ASP:O	2:J:3158:LEU:HD22	2.15	0.46
2:J:3289:PRO:HG3	2:J:3303:PRO:HG2	1.97	0.46
2:B:110:ARG:HD2	2:B:115:ARG:HH21	1.79	0.46
2:B:341:TYR:CE2	2:B:392:ARG:HB2	2.50	0.46
2:B:2479:LEU:HA	2:B:2485:LEU:HA	1.97	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3289:PRO:HG3	2:B:3303:PRO:HG2	1.97	0.46
2:B:4649:LEU:O	2:B:4653:VAL:HG23	2.16	0.46
2:E:116:MET:HB2	2:E:139:GLU:HA	1.97	0.46
2:E:2109:ASP:HA	2:E:3694:LYS:HD2	1.96	0.46
2:E:2777:TYR:HB2	2:E:2791:LEU:O	2.16	0.46
2:E:3246:LEU:HA	2:E:3249:LEU:HD12	1.97	0.46
2:E:3312:LEU:HB2	2:E:3345:ILE:HD11	1.96	0.46
2:E:4192:ARG:HB2	2:E:5028:PHE:CZ	2.50	0.46
2:E:4222:VAL:HG11	2:E:4950:VAL:HA	1.97	0.46
2:E:4546:VAL:HA	2:E:4549:VAL:HG22	1.97	0.46
2:E:4680:LYS:O	2:E:4685:GLY:N	2.43	0.46
2:G:790:ARG:HD3	2:G:1627:ALA:HB2	1.97	0.46
2:G:3989:VAL:HA	2:G:3992:PHE:HD2	1.80	0.46
2:G:4551:PHE:HZ	2:G:4656:LEU:HD22	1.81	0.46
2:J:178:ARG:HH11	2:J:194:SER:HA	1.80	0.46
2:J:3512:ALA:HA	2:J:3516:LYS:HE3	1.97	0.46
1:I:31:GLN:NE2	2:J:1299:GLN:HB3	2.31	0.46
2:B:595:ARG:HB3	2:B:1662:PHE:CE1	2.50	0.46
2:B:939:VAL:HA	2:B:1051:TYR:HB3	1.97	0.46
2:B:1289:LEU:HB2	2:B:1552:VAL:HG23	1.96	0.46
2:B:2538:THR:O	2:B:2542:SER:N	2.47	0.46
2:B:2679:PHE:HB2	2:B:2706:ILE:HG21	1.96	0.46
2:B:4546:VAL:HA	2:B:4549:VAL:HG22	1.97	0.46
2:E:102:LEU:HD13	2:E:160:GLY:HA2	1.97	0.46
2:E:215:THR:HG22	2:E:273:HIS:HA	1.97	0.46
2:E:217:GLY:N	2:E:262:LEU:O	2.47	0.46
2:E:1758:ARG:NH2	2:E:2040:ALA:HB2	2.30	0.46
2:E:1830:VAL:HB	2:E:1837:GLN:HG3	1.98	0.46
2:E:3639:THR:N	2:E:3640:PRO:HD2	2.31	0.46
2:G:3172:ILE:HG23	2:G:3194:LEU:HD12	1.97	0.46
2:G:3639:THR:N	2:G:3640:PRO:HD2	2.31	0.46
2:G:4649:LEU:O	2:G:4653:VAL:HG23	2.15	0.46
2:J:1830:VAL:HB	2:J:1837:GLN:HG3	1.98	0.46
2:J:3725:TYR:HA	2:J:3728:ILE:HG12	1.96	0.46
2:J:4958:CYS:SG	2:J:4959:PHE:N	2.87	0.46
2:B:661:LYS:HA	2:B:749:ASP:HA	1.97	0.46
2:B:790:ARG:HD3	2:B:1627:ALA:HB2	1.97	0.46
2:B:1092:PHE:CZ	2:B:1200:GLY:HA3	2.51	0.46
2:B:1122:TYR:CE1	2:B:1133:HIS:CD2	3.04	0.46
2:B:1237:TRP:CH2	2:B:1652:GLU:HG3	2.50	0.46
2:B:2181:SER:O	2:B:2185:ILE:HG12	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2777:TYR:HB2	2:B:2791:LEU:O	2.16	0.46
2:B:3178:THR:O	2:B:3187:ARG:NH2	2.48	0.46
2:E:901:LYS:HD3	2:E:903:LEU:HD11	1.96	0.46
2:E:2527:LEU:HD22	2:E:2582:MET:HE2	1.98	0.46
2:E:3699:HIS:CD2	2:E:3773:ARG:HG2	2.50	0.46
2:G:501:ALA:O	2:G:505:GLU:HG2	2.15	0.46
2:G:835:ARG:HB3	2:G:838:HIS:HE1	1.81	0.46
2:G:3852:LYS:O	2:G:3856:LEU:HG	2.15	0.46
2:G:3998:HIS:O	2:G:4001:MET:HG2	2.16	0.46
2:J:1116:GLY:HA3	2:J:1132:TRP:HB3	1.98	0.46
2:J:2211:MET:HA	2:J:2214:VAL:HG12	1.98	0.46
2:J:2777:TYR:HB2	2:J:2791:LEU:O	2.16	0.46
2:J:2788:HIS:HB3	2:J:2791:LEU:HD13	1.98	0.46
2:J:3962:PHE:O	2:J:3966:THR:HG23	2.15	0.46
2:J:4192:ARG:HB2	2:J:5028:PHE:CZ	2.50	0.46
2:J:4551:PHE:HZ	2:J:4656:LEU:HD22	1.81	0.46
2:J:4649:LEU:O	2:J:4653:VAL:HG23	2.16	0.46
3:M:6:GLU:OE1	3:M:22:CYS:HB2	2.15	0.46
2:B:292:ALA:HB2	2:B:312:THR:HG22	1.98	0.46
2:B:2788:HIS:HB3	2:B:2791:LEU:HD13	1.98	0.46
2:B:2879:ALA:HA	2:B:2882:TYR:CD2	2.50	0.46
2:B:3262:ARG:HG2	2:B:3329:ILE:HD11	1.97	0.46
2:B:3852:LYS:O	2:B:3856:LEU:HG	2.15	0.46
2:E:308:HIS:O	2:E:312:THR:OG1	2.25	0.46
2:E:642:THR:O	2:E:782:SER:HA	2.15	0.46
2:E:1619:ARG:NH2	2:E:1621:GLY:O	2.48	0.46
2:E:1849:LEU:HG	2:E:1945:TYR:CZ	2.51	0.46
2:E:2759:ALA:HB2	2:E:2810:LYS:HZ1	1.80	0.46
2:E:2788:HIS:HB3	2:E:2791:LEU:HD13	1.98	0.46
2:G:181:HIS:HA	2:G:198:THR:HB	1.97	0.46
2:G:583:ILE:HD13	2:G:621:ILE:HG13	1.98	0.46
2:G:669:ASP:O	2:G:740:PRO:HB3	2.15	0.46
2:G:1078:GLU:HB3	2:G:1081:TYR:CD2	2.50	0.46
2:G:1158:ASN:HB3	2:G:1182:ILE:N	2.28	0.46
2:G:1261:ASP:HA	2:G:1268:PRO:HA	1.97	0.46
2:G:1758:ARG:HH12	2:G:2036:GLN:HG3	1.81	0.46
2:J:1081:TYR:CZ	2:J:1234:VAL:HG13	2.49	0.46
2:J:1237:TRP:CH2	2:J:1652:GLU:HG3	2.50	0.46
2:J:1287:LEU:HG	2:J:1289:LEU:HG	1.98	0.46
2:J:1758:ARG:HH12	2:J:2036:GLN:HG3	1.81	0.46
2:J:2538:THR:O	2:J:2542:SER:N	2.47	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4184:MET:HA	2:J:4190:ILE:HD13	1.97	0.46
2:B:1478:ASP:OD1	2:B:1482:ASN:N	2.48	0.46
2:B:1622:GLU:OE2	2:B:1623:ARG:NH1	2.47	0.46
2:B:1830:VAL:HB	2:B:1837:GLN:HG3	1.98	0.46
2:B:2538:THR:HG23	2:B:2541:PHE:H	1.81	0.46
2:B:3021:PRO:HG3	2:B:3036:LYS:HZ1	1.80	0.46
2:B:3041:SER:HB3	2:B:3088:VAL:HG22	1.98	0.46
2:B:3989:VAL:HA	2:B:3992:PHE:HD2	1.80	0.46
2:B:4182:GLU:HG2	2:B:5028:PHE:HE2	1.80	0.46
2:B:4897:ILE:O	2:B:4901:ILE:HG13	2.15	0.46
2:E:178:ARG:HH11	2:E:194:SER:HA	1.81	0.46
2:E:636:ASN:HB3	2:E:702:TRP:CZ2	2.50	0.46
2:E:1758:ARG:HH12	2:E:2036:GLN:HG3	1.81	0.46
2:E:1951:LEU:HD11	2:E:2134:LEU:HA	1.97	0.46
2:E:2676:ARG:HH12	2:E:2955:PHE:HB2	1.80	0.46
2:E:3178:THR:O	2:E:3187:ARG:NH2	2.48	0.46
2:G:595:ARG:HB3	2:G:1662:PHE:CE1	2.50	0.46
2:G:1619:ARG:NH2	2:G:1621:GLY:O	2.48	0.46
2:G:2181:SER:O	2:G:2185:ILE:HG12	2.16	0.46
2:G:2788:HIS:HB3	2:G:2791:LEU:HD13	1.98	0.46
2:G:3375:GLU:HA	2:G:3378:GLN:OE1	2.16	0.46
2:G:3725:TYR:HA	2:G:3728:ILE:HG12	1.96	0.46
2:G:4061:PHE:CE2	2:G:4065:PHE:HE2	2.33	0.46
2:G:4897:ILE:O	2:G:4901:ILE:HG13	2.15	0.46
2:J:248:GLU:HA	2:J:372:LEU:C	2.36	0.46
2:J:292:ALA:HB2	2:J:312:THR:HG22	1.98	0.46
2:J:1008:SER:HB2	2:J:1017:ARG:NE	2.22	0.46
2:J:1092:PHE:CZ	2:J:1200:GLY:HA3	2.51	0.46
2:J:1619:ARG:NH2	2:J:1621:GLY:O	2.48	0.46
2:J:1951:LEU:HD11	2:J:2134:LEU:HA	1.97	0.46
2:J:2377:LEU:HD22	2:J:2468:GLY:HA3	1.96	0.46
2:J:2676:ARG:NH1	2:J:2955:PHE:HB2	2.31	0.46
2:J:2821:TRP:HD1	2:J:2939:ARG:HA	1.79	0.46
2:J:2879:ALA:HA	2:J:2882:TYR:CD2	2.50	0.46
2:J:3041:SER:HB3	2:J:3088:VAL:HG22	1.98	0.46
2:B:246:TYR:HD1	2:B:375:LYS:HA	1.80	0.46
2:B:3413:ILE:HA	2:B:3516:LYS:HZ1	1.80	0.46
2:B:3514:LEU:HA	2:B:3518:LEU:HB2	1.97	0.46
2:E:181:HIS:HA	2:E:198:THR:HB	1.97	0.46
2:E:347:PHE:CE1	2:E:387:ALA:HB2	2.51	0.46
2:E:2559:LEU:O	2:E:2563:THR:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2676:ARG:NH1	2:E:2955:PHE:HB2	2.31	0.46
2:E:2888:ARG:O	2:E:2892:GLN:HG2	2.15	0.46
2:E:2959:PHE:O	2:E:2963:LEU:HG	2.15	0.46
2:E:3175:LEU:HD13	2:E:3190:LEU:HD13	1.98	0.46
2:E:3937:TYR:HA	2:E:3940:LYS:HD3	1.98	0.46
2:E:3989:VAL:O	2:E:3993:LEU:HG	2.16	0.46
2:E:4061:PHE:CE2	2:E:4065:PHE:HE2	2.33	0.46
2:E:4234:PHE:CE1	2:E:4985:LEU:HD23	2.50	0.46
2:E:4551:PHE:HZ	2:E:4656:LEU:HD22	1.81	0.46
2:G:1122:TYR:CE1	2:G:1133:HIS:CD2	3.04	0.46
2:G:1830:VAL:HB	2:G:1837:GLN:HG3	1.98	0.46
2:G:2538:THR:HG23	2:G:2541:PHE:H	1.81	0.46
2:G:2879:ALA:HA	2:G:2882:TYR:CD2	2.50	0.46
2:G:3512:ALA:HA	2:G:3516:LYS:HE3	1.97	0.46
2:J:969:PRO:HG2	2:J:971:ASP:HB2	1.98	0.46
2:J:2559:LEU:O	2:J:2563:THR:HG23	2.16	0.46
2:J:3102:ASP:HA	2:J:3105:LYS:HE2	1.97	0.46
2:J:3219:TYR:O	2:J:3227:ARG:NH2	2.49	0.46
2:J:3808:GLY:HA3	2:J:3893:GLU:HB3	1.97	0.46
2:J:3833:GLN:O	2:J:3837:GLN:HG2	2.16	0.46
3:M:34:MET:HE1	3:M:95:CYS:SG	2.56	0.46
2:B:13:PHE:HA	2:B:164:ARG:HA	1.97	0.46
2:B:501:ALA:O	2:B:505:GLU:HG2	2.15	0.46
2:B:1261:ASP:HA	2:B:1268:PRO:HA	1.97	0.46
2:B:3639:THR:N	2:B:3640:PRO:HD2	2.31	0.46
2:B:3937:TYR:HA	2:B:3940:LYS:HD3	1.98	0.46
2:B:3989:VAL:O	2:B:3993:LEU:HG	2.16	0.46
2:B:4234:PHE:CE1	2:B:4985:LEU:HD23	2.50	0.46
2:E:1116:GLY:HA3	2:E:1132:TRP:HB3	1.98	0.46
2:E:1156:THR:OG1	2:E:1157:GLU:OE1	2.34	0.46
2:E:3034:LYS:HA	2:E:3037:GLU:HG3	1.98	0.46
2:E:3041:SER:HB3	2:E:3088:VAL:HG22	1.98	0.46
2:E:3262:ARG:HG2	2:E:3329:ILE:HD11	1.97	0.46
2:E:3833:GLN:O	2:E:3837:GLN:HG2	2.16	0.46
2:E:3989:VAL:HA	2:E:3992:PHE:HD2	1.80	0.46
2:G:116:MET:HB2	2:G:139:GLU:HA	1.97	0.46
2:G:178:ARG:HH11	2:G:194:SER:HA	1.80	0.46
2:G:642:THR:O	2:G:782:SER:HA	2.15	0.46
2:G:2431:ASP:HB2	2:G:2501:SER:HB2	1.98	0.46
2:G:2809:ILE:H	2:G:2809:ILE:HD12	1.81	0.46
2:G:3034:LYS:HA	2:G:3037:GLU:HG3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3041:SER:HB3	2:G:3088:VAL:HG22	1.98	0.46
2:G:3219:TYR:O	2:G:3227:ARG:NH2	2.49	0.46
2:G:4958:CYS:SG	2:G:4959:PHE:N	2.87	0.46
2:J:722:TRP:CZ2	2:J:727:ALA:HB2	2.51	0.46
2:J:1433:TYR:CZ	2:J:1578:ALA:HB2	2.51	0.46
2:J:3262:ARG:HG2	2:J:3329:ILE:HD11	1.97	0.46
2:J:3852:LYS:O	2:J:3856:LEU:HG	2.15	0.46
2:J:4222:VAL:HG11	2:J:4950:VAL:HA	1.96	0.46
3:M:98:ASP:N	3:M:98:ASP:OD1	2.49	0.46
1:H:68:LEU:C	1:H:70:GLN:H	2.18	0.46
2:B:116:MET:HB2	2:B:139:GLU:HA	1.97	0.46
2:B:347:PHE:CE1	2:B:387:ALA:HB2	2.51	0.46
2:B:2809:ILE:H	2:B:2809:ILE:HD12	1.81	0.46
2:B:3175:LEU:HD13	2:B:3190:LEU:HD13	1.98	0.46
2:B:5003:HIS:HA	2:B:5007:GLU:OE2	2.16	0.46
2:E:13:PHE:HA	2:E:164:ARG:HA	1.97	0.46
2:E:360:ALA:O	2:E:361:ALA:C	2.54	0.46
2:E:1237:TRP:CH2	2:E:1652:GLU:HG3	2.50	0.46
2:E:1297:PHE:CD2	2:E:1522:LEU:HA	2.51	0.46
2:E:1435:TYR:CE1	2:E:1518:CYS:HB2	2.52	0.46
2:E:2740:VAL:HG21	2:E:2819:TRP:HE1	1.80	0.46
2:E:4720:VAL:O	2:E:4724:VAL:HG23	2.16	0.46
2:E:4897:ILE:O	2:E:4901:ILE:HG13	2.15	0.46
2:G:551:LEU:HB3	2:G:589:LEU:HD21	1.98	0.46
2:G:661:LYS:HA	2:G:749:ASP:HA	1.97	0.46
2:G:1433:TYR:CZ	2:G:1578:ALA:HB2	2.51	0.46
2:G:1500:PHE:HE1	2:G:1536:SER:HG	1.64	0.46
2:G:3102:ASP:O	2:G:3106:MET:HG2	2.16	0.46
2:G:3226:GLU:HA	2:G:3229:ILE:HG22	1.99	0.46
2:G:4182:GLU:HG2	2:G:5028:PHE:HE2	1.80	0.46
2:G:4738:ALA:HA	2:G:4743:MET:SD	2.56	0.46
2:J:144:GLU:HG3	2:J:175:SER:HB2	1.97	0.46
2:J:347:PHE:CE1	2:J:387:ALA:HB2	2.51	0.46
2:J:363:ASP:HB3	2:J:366:ALA:HB3	1.98	0.46
2:J:460:GLN:HB2	2:J:463:GLU:HG2	1.96	0.46
2:J:583:ILE:HD13	2:J:621:ILE:HG13	1.98	0.46
2:J:1006:SER:OG	2:J:1017:ARG:NH2	2.49	0.46
2:J:3172:ILE:HG13	2:J:3175:LEU:HD12	1.97	0.46
2:J:3713:LYS:HZ1	2:J:3716:LEU:HD12	1.81	0.46
2:J:4738:ALA:HA	2:J:4743:MET:SD	2.56	0.46
2:J:4897:ILE:O	2:J:4901:ILE:HG13	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:215:THR:HG22	2:B:273:HIS:HA	1.97	0.45
2:B:541:SER:HA	2:B:574:VAL:HG12	1.98	0.45
2:B:551:LEU:HB3	2:B:589:LEU:HD21	1.98	0.45
2:B:583:ILE:HD13	2:B:621:ILE:HG13	1.98	0.45
2:B:1116:GLY:HA3	2:B:1132:TRP:HB3	1.98	0.45
2:B:2121:PHE:CE1	2:B:3701:LEU:HD22	2.51	0.45
2:B:2211:MET:HA	2:B:2214:VAL:HG12	1.97	0.45
2:B:2559:LEU:O	2:B:2563:THR:HG23	2.16	0.45
2:B:3219:TYR:O	2:B:3227:ARG:NH2	2.49	0.45
2:B:3545:THR:HG23	2:B:3548:GLU:H	1.81	0.45
2:B:3808:GLY:HA3	2:B:3893:GLU:HB3	1.97	0.45
2:B:4061:PHE:CE2	2:B:4065:PHE:HE2	2.33	0.45
2:B:4551:PHE:HZ	2:B:4656:LEU:HD22	1.81	0.45
2:B:4582:VAL:HG11	2:G:4860:ARG:NH1	2.31	0.45
2:E:583:ILE:HD13	2:E:621:ILE:HG13	1.98	0.45
2:E:1006:SER:OG	2:E:1017:ARG:NH2	2.49	0.45
2:E:1287:LEU:HG	2:E:1289:LEU:HG	1.98	0.45
2:E:2197:LEU:O	2:E:2201:LEU:HG	2.16	0.45
2:G:215:THR:HG22	2:G:273:HIS:HA	1.97	0.45
2:G:347:PHE:CE1	2:G:387:ALA:HB2	2.51	0.45
2:G:497:TYR:HB2	2:G:503:PHE:CE1	2.52	0.45
2:G:722:TRP:CZ2	2:G:727:ALA:HB2	2.51	0.45
2:G:1000:ARG:HH12	3:M:114:TYR:HA	1.81	0.45
2:G:2138:LEU:HB2	2:G:2139:PRO:HD3	1.99	0.45
2:J:246:TYR:HD1	2:J:375:LYS:HA	1.81	0.45
2:J:1156:THR:OG1	2:J:1157:GLU:OE1	2.34	0.45
2:J:2676:ARG:HH12	2:J:2955:PHE:HB2	1.80	0.45
2:J:3410:PRO:HA	2:J:3413:ILE:HD12	1.99	0.45
2:J:3639:THR:N	2:J:3640:PRO:HD2	2.31	0.45
2:J:3699:HIS:CD2	2:J:3773:ARG:HG2	2.50	0.45
2:J:4061:PHE:CE2	2:J:4065:PHE:HE2	2.33	0.45
2:B:497:TYR:HB2	2:B:503:PHE:CE1	2.52	0.45
2:E:1261:ASP:HA	2:E:1268:PRO:HA	1.97	0.45
2:E:2035:HIS:O	2:E:2039:LEU:HG	2.17	0.45
2:E:3226:GLU:HA	2:E:3229:ILE:HG22	1.98	0.45
2:E:3802:ILE:HD11	2:E:3887:PHE:HB2	1.98	0.45
2:E:4960:ILE:HG13	2:E:4983:HIS:HB3	1.97	0.45
2:G:1297:PHE:CD2	2:G:1522:LEU:HA	2.51	0.45
2:G:2035:HIS:O	2:G:2039:LEU:HG	2.17	0.45
2:G:2680:TRP:HZ3	2:G:2962:GLN:HG3	1.82	0.45
2:G:3289:PRO:HG3	2:G:3303:PRO:HG2	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3713:LYS:HZ1	2:G:3717:ASP:H	1.64	0.45
2:G:3790:THR:OG1	2:G:3838:THR:OG1	2.21	0.45
2:G:3802:ILE:HD11	2:G:3887:PHE:HB2	1.98	0.45
2:J:835:ARG:HB3	2:J:838:HIS:HE1	1.81	0.45
2:J:1758:ARG:NH2	2:J:2040:ALA:HB2	2.30	0.45
2:J:1804:LEU:HB3	2:J:1853:ILE:HG21	1.99	0.45
2:J:2121:PHE:CE1	2:J:3701:LEU:HD22	2.51	0.45
2:J:2197:LEU:O	2:J:2201:LEU:HG	2.16	0.45
2:J:2381:GLU:HB3	2:J:2385:ARG:HH21	1.81	0.45
2:J:2527:LEU:HB2	2:J:2582:MET:HE1	1.97	0.45
2:J:4960:ILE:HG13	2:J:4983:HIS:HB3	1.97	0.45
3:C:98:ASP:N	3:C:98:ASP:OD1	2.49	0.45
3:F:71:ARG:CG	3:F:78:VAL:HG22	2.46	0.45
3:F:98:ASP:OD1	3:F:98:ASP:N	2.49	0.45
2:B:20:VAL:HA	2:B:204:PRO:HA	1.98	0.45
2:B:369:LEU:HB2	2:B:371:VAL:HG23	1.99	0.45
2:B:636:ASN:HB3	2:B:702:TRP:CZ2	2.50	0.45
2:B:993:HIS:CE1	2:B:1027:LEU:HD21	2.52	0.45
2:B:2138:LEU:HB2	2:B:2139:PRO:HD3	1.98	0.45
2:B:2182:ILE:HG22	2:B:2186:MET:HE1	1.98	0.45
2:B:2431:ASP:HB2	2:B:2501:SER:HB2	1.98	0.45
2:B:2676:ARG:NH1	2:B:2955:PHE:HB2	2.31	0.45
2:B:4738:ALA:HA	2:B:4743:MET:SD	2.56	0.45
2:E:34:LYS:H	2:E:53:SER:HB2	1.82	0.45
2:E:969:PRO:HG2	2:E:971:ASP:HB2	1.98	0.45
2:E:2479:LEU:HA	2:E:2485:LEU:HA	1.97	0.45
2:E:3852:LYS:O	2:E:3856:LEU:HG	2.15	0.45
2:E:4649:LEU:O	2:E:4653:VAL:HG23	2.16	0.45
2:G:363:ASP:HB3	2:G:366:ALA:HB3	1.97	0.45
2:G:993:HIS:CE1	2:G:1027:LEU:HD21	2.52	0.45
2:G:1116:GLY:HA3	2:G:1132:TRP:HB3	1.98	0.45
2:G:2381:GLU:HB3	2:G:2385:ARG:HH21	1.81	0.45
2:G:2479:LEU:HA	2:G:2485:LEU:HA	1.97	0.45
2:G:3410:PRO:HA	2:G:3413:ILE:HD12	1.99	0.45
2:G:3808:GLY:HA3	2:G:3893:GLU:HB3	1.97	0.45
2:G:3833:GLN:O	2:G:3837:GLN:HG2	2.16	0.45
2:J:1101:ARG:HG3	2:J:1125:ASN:HB2	1.99	0.45
2:J:3102:ASP:O	2:J:3106:MET:HG2	2.16	0.45
3:F:66:ARG:HH11	3:F:83:ASN:HB3	1.81	0.45
1:A:31:GLN:NE2	2:B:1299:GLN:HB3	2.31	0.45
2:B:280:LEU:O	2:B:313:SER:HA	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:940:GLY:N	2:B:1051:TYR:HA	2.28	0.45
2:B:1006:SER:OG	2:B:1017:ARG:NH2	2.49	0.45
2:B:1433:TYR:CZ	2:B:1578:ALA:HB2	2.51	0.45
2:B:2101:MET:SD	2:B:2104:ARG:NH2	2.89	0.45
2:B:2197:LEU:O	2:B:2201:LEU:HG	2.16	0.45
2:B:3246:LEU:HA	2:B:3249:LEU:HD12	1.97	0.45
2:B:3375:GLU:HA	2:B:3378:GLN:OE1	2.16	0.45
2:B:3563:VAL:HG12	2:B:3569:LEU:HG	1.99	0.45
2:E:268:SER:HB3	2:E:269:TRP:CE3	2.52	0.45
2:E:299:LEU:HD11	2:E:376:ALA:HB3	1.97	0.45
2:E:1122:TYR:CE1	2:E:1133:HIS:CD2	3.04	0.45
2:E:1478:ASP:OD1	2:E:1482:ASN:N	2.48	0.45
2:E:1622:GLU:OE2	2:E:1623:ARG:NH1	2.47	0.45
2:E:2126:ARG:NH2	2:E:2133:GLU:OE2	2.48	0.45
2:E:2354:VAL:HA	2:E:2357:LEU:HG	1.99	0.45
2:E:2364:PHE:CD1	2:E:2429:LEU:HD21	2.47	0.45
2:E:3563:VAL:HG12	2:E:3569:LEU:HG	1.99	0.45
2:E:5003:HIS:HA	2:E:5007:GLU:OE2	2.16	0.45
2:G:636:ASN:HB3	2:G:702:TRP:CZ2	2.50	0.45
2:G:1104:TRP:CE2	2:G:1153:ILE:HB	2.51	0.45
2:G:3246:LEU:HA	2:G:3249:LEU:HD12	1.97	0.45
2:G:3989:VAL:O	2:G:3993:LEU:HG	2.16	0.45
2:J:20:VAL:HA	2:J:204:PRO:HA	1.98	0.45
2:J:661:LYS:HA	2:J:749:ASP:HA	1.97	0.45
2:J:1297:PHE:CD2	2:J:1522:LEU:HA	2.51	0.45
2:J:2035:HIS:O	2:J:2039:LEU:HG	2.17	0.45
2:J:2431:ASP:HB2	2:J:2501:SER:HB2	1.98	0.45
2:J:2680:TRP:HZ3	2:J:2962:GLN:HG3	1.82	0.45
2:J:2888:ARG:O	2:J:2892:GLN:HG2	2.15	0.45
2:J:3172:ILE:HG23	2:J:3194:LEU:HD12	1.97	0.45
2:J:3989:VAL:O	2:J:3993:LEU:HG	2.16	0.45
3:M:107:TRP:HE3	3:M:111:ASN:HD21	1.64	0.45
2:B:550:LYS:HA	2:B:553:ARG:HG2	1.99	0.45
2:B:1086:GLY:H	2:B:1156:THR:HG23	1.82	0.45
2:B:1758:ARG:HH12	2:B:2036:GLN:HG3	1.81	0.45
2:B:2680:TRP:HZ3	2:B:2962:GLN:HG3	1.82	0.45
2:B:3051:ARG:HH22	2:B:3102:ASP:HB2	1.82	0.45
2:B:3068:LEU:HD13	2:B:3139:VAL:HG21	1.99	0.45
2:B:3538:THR:O	2:B:3542:LEU:HG	2.17	0.45
2:B:4694:ASP:N	2:B:4694:ASP:OD1	2.50	0.45
2:E:292:ALA:HB2	2:E:312:THR:HG22	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:497:TYR:HB2	2:E:503:PHE:CE1	2.52	0.45
2:E:551:LEU:HB3	2:E:589:LEU:HD21	1.98	0.45
2:E:661:LYS:HA	2:E:749:ASP:HA	1.97	0.45
2:E:790:ARG:HD3	2:E:1627:ALA:HB2	1.97	0.45
2:E:993:HIS:CE1	2:E:1027:LEU:HD21	2.52	0.45
2:E:1101:ARG:HG3	2:E:1125:ASN:HB2	1.99	0.45
2:E:1433:TYR:CZ	2:E:1578:ALA:HB2	2.51	0.45
2:E:2181:SER:O	2:E:2185:ILE:HG12	2.16	0.45
2:E:2604:GLU:HG2	2:E:2639:MET:HG2	1.99	0.45
2:E:3051:ARG:HH22	2:E:3102:ASP:HB2	1.82	0.45
2:E:3192:GLU:O	2:E:3196:ARG:HG2	2.17	0.45
2:E:3808:GLY:HA3	2:E:3893:GLU:HB3	1.97	0.45
2:G:308:HIS:O	2:G:312:THR:OG1	2.25	0.45
2:G:541:SER:HA	2:G:574:VAL:HG12	1.98	0.45
2:G:795:GLY:HA3	2:G:812:HIS:CE1	2.51	0.45
2:G:1256:GLU:OE1	2:G:1271:ARG:NH2	2.46	0.45
2:G:2448:GLY:O	2:G:2452:ARG:HG2	2.17	0.45
2:G:2676:ARG:NH1	2:G:2955:PHE:HB2	2.31	0.45
2:G:2777:TYR:HB2	2:G:2791:LEU:O	2.16	0.45
2:G:2821:TRP:HD1	2:G:2939:ARG:HA	1.80	0.45
2:G:3538:THR:O	2:G:3542:LEU:HG	2.17	0.45
2:G:3545:THR:HG23	2:G:3548:GLU:H	1.81	0.45
2:G:3766:GLN:HG2	2:G:3769:ARG:NH2	2.32	0.45
2:G:4546:VAL:HA	2:G:4549:VAL:HG22	1.97	0.45
2:J:360:ALA:O	2:J:361:ALA:C	2.53	0.45
2:J:551:LEU:HB3	2:J:589:LEU:HD21	1.98	0.45
2:J:636:ASN:HB3	2:J:702:TRP:CZ2	2.50	0.45
2:J:642:THR:O	2:J:782:SER:HA	2.15	0.45
2:J:1104:TRP:CE2	2:J:1153:ILE:HB	2.51	0.45
2:J:1122:TYR:CE1	2:J:1133:HIS:CD2	3.04	0.45
2:J:1849:LEU:HG	2:J:1945:TYR:CZ	2.51	0.45
2:J:2181:SER:O	2:J:2185:ILE:HG12	2.16	0.45
2:J:3563:VAL:HG12	2:J:3569:LEU:HG	1.99	0.45
2:J:3766:GLN:HG2	2:J:3769:ARG:NH2	2.32	0.45
2:J:3951:PHE:HB3	2:J:3955:MET:HE1	1.99	0.45
2:B:268:SER:HB3	2:B:269:TRP:CE3	2.52	0.45
2:B:877:ASN:HD22	2:B:1045:THR:HG23	1.82	0.45
2:B:1101:ARG:HG3	2:B:1125:ASN:HB2	1.99	0.45
2:B:2112:GLN:O	2:B:2114:PRO:HD3	2.17	0.45
2:B:3102:ASP:O	2:B:3106:MET:HG2	2.16	0.45
2:B:3192:GLU:O	2:B:3196:ARG:HG2	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:3833:GLN:O	2:B:3837:GLN:HG2	2.16	0.45
2:B:4720:VAL:O	2:B:4724:VAL:HG23	2.16	0.45
2:E:1758:ARG:NH2	2:E:2036:GLN:HG3	2.31	0.45
2:E:2138:LEU:HB2	2:E:2139:PRO:HD3	1.99	0.45
2:E:2381:GLU:HB3	2:E:2385:ARG:HH21	1.81	0.45
2:E:2809:ILE:H	2:E:2809:ILE:HD12	1.81	0.45
2:G:144:GLU:HG3	2:G:175:SER:HB2	1.97	0.45
2:G:1092:PHE:CZ	2:G:1200:GLY:HA3	2.51	0.45
2:G:2112:GLN:O	2:G:2114:PRO:HD3	2.17	0.45
2:G:2211:MET:HA	2:G:2214:VAL:HG12	1.97	0.45
2:G:2559:LEU:O	2:G:2563:THR:HG23	2.16	0.45
2:G:5003:HIS:HA	2:G:5007:GLU:OE2	2.16	0.45
2:J:2112:GLN:O	2:J:2114:PRO:HD3	2.17	0.45
2:J:2138:LEU:HB2	2:J:2139:PRO:HD3	1.99	0.45
2:J:3034:LYS:HA	2:J:3037:GLU:HG3	1.98	0.45
2:J:4546:VAL:HA	2:J:4549:VAL:HG22	1.97	0.45
2:J:4675:LYS:O	2:J:4679:ARG:HG2	2.17	0.45
2:B:2354:VAL:HA	2:B:2357:LEU:HG	1.99	0.45
2:B:3226:GLU:HA	2:B:3229:ILE:HG22	1.99	0.45
2:B:3802:ILE:HD11	2:B:3887:PHE:HB2	1.98	0.45
2:E:1104:TRP:CE2	2:E:1153:ILE:HB	2.51	0.45
2:E:2431:ASP:HB2	2:E:2501:SER:HB2	1.98	0.45
2:E:2538:THR:HG23	2:E:2541:PHE:H	1.81	0.45
2:G:550:LYS:HA	2:G:553:ARG:HG2	1.99	0.45
2:G:1006:SER:OG	2:G:1017:ARG:NH2	2.49	0.45
2:G:1478:ASP:OD1	2:G:1482:ASN:N	2.48	0.45
2:G:4694:ASP:OD1	2:G:4694:ASP:N	2.50	0.45
2:G:4733:GLY:HA3	2:G:4736:ARG:HH11	1.82	0.45
2:J:280:LEU:O	2:J:313:SER:HA	2.17	0.45
2:J:497:TYR:HB2	2:J:503:PHE:CE1	2.52	0.45
2:J:550:LYS:HA	2:J:553:ARG:HG2	1.99	0.45
2:J:1435:TYR:CE1	2:J:1518:CYS:HB2	2.52	0.45
3:K:6:GLU:OE1	3:K:22:CYS:HB2	2.15	0.45
3:K:71:ARG:CG	3:K:78:VAL:HG22	2.46	0.45
2:B:34:LYS:H	2:B:53:SER:HB2	1.82	0.45
2:B:835:ARG:HB3	2:B:838:HIS:HE1	1.81	0.45
2:B:1758:ARG:NH2	2:B:2036:GLN:HG3	2.31	0.45
2:B:2291:GLN:OE1	2:B:2291:GLN:N	2.40	0.45
2:B:2604:GLU:HG2	2:B:2639:MET:HG2	1.99	0.45
2:B:3900:GLN:HB3	2:B:3976:ASN:HD21	1.82	0.45
2:E:483:MET:O	2:E:486:LEU:HG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:541:SER:HA	2:E:574:VAL:HG12	1.98	0.45
2:E:722:TRP:CZ2	2:E:727:ALA:HB2	2.51	0.45
2:E:1730:MET:HE2	2:E:1773:PRO:HD2	1.98	0.45
2:E:1810:LYS:O	2:E:1814:MET:HG2	2.17	0.45
2:E:3014:CYS:SG	2:E:3074:SER:HB3	2.57	0.45
2:E:3375:GLU:HA	2:E:3378:GLN:OE1	2.16	0.45
2:E:3410:PRO:HA	2:E:3413:ILE:HD12	1.99	0.45
2:G:181:HIS:ND1	2:G:198:THR:OG1	2.50	0.45
2:G:877:ASN:HD22	2:G:1045:THR:HG23	1.82	0.45
2:G:3014:CYS:SG	2:G:3074:SER:HB3	2.57	0.45
2:G:3018:LEU:HB2	2:G:3074:SER:HA	1.99	0.45
2:G:3568:SER:HA	2:G:3571:TRP:CD1	2.52	0.45
2:J:795:GLY:HA3	2:J:812:HIS:CE1	2.51	0.45
2:J:1227:ALA:HA	2:J:1827:ARG:HH22	1.82	0.45
2:J:2759:ALA:HB2	2:J:2810:LYS:HZ1	1.81	0.45
2:J:3014:CYS:SG	2:J:3074:SER:HB3	2.57	0.45
2:J:3051:ARG:HH22	2:J:3102:ASP:HB2	1.82	0.45
2:J:4720:VAL:O	2:J:4724:VAL:HG23	2.16	0.45
2:J:5003:HIS:HA	2:J:5007:GLU:OE2	2.16	0.45
3:C:66:ARG:HH11	3:C:83:ASN:HB3	1.82	0.45
1:H:7:ILE:O	2:G:719:LEU:HD11	2.17	0.45
2:B:722:TRP:CZ2	2:B:727:ALA:HB2	2.51	0.45
2:B:795:GLY:HA3	2:B:812:HIS:CE1	2.51	0.45
2:B:984:LEU:HB2	2:B:1055:PRO:HG3	1.99	0.45
2:B:1104:TRP:CE2	2:B:1153:ILE:HB	2.51	0.45
2:B:1733:GLU:HG2	2:B:2201:LEU:HA	1.99	0.45
2:B:2738:ARG:NH2	2:B:2888:ARG:HH21	2.15	0.45
2:B:3014:CYS:SG	2:B:3074:SER:HB3	2.57	0.45
2:E:20:VAL:HA	2:E:204:PRO:HA	1.98	0.45
2:E:533:ASN:HB3	2:E:536:ASN:HB2	1.99	0.45
2:E:893:TYR:HA	2:E:904:HIS:H	1.82	0.45
2:E:1086:GLY:H	2:E:1156:THR:HG23	1.82	0.45
2:E:2448:GLY:O	2:E:2452:ARG:HG2	2.17	0.45
2:E:3219:TYR:O	2:E:3227:ARG:NH2	2.49	0.45
2:E:3538:THR:O	2:E:3542:LEU:HG	2.17	0.45
2:E:3790:THR:OG1	2:E:3838:THR:OG1	2.21	0.45
2:E:4071:ILE:HD13	2:E:4103:PHE:CE2	2.50	0.45
2:G:280:LEU:O	2:G:313:SER:HA	2.17	0.45
2:G:893:TYR:HA	2:G:904:HIS:H	1.82	0.45
2:G:1431:THR:O	2:G:1431:THR:HG22	2.17	0.45
2:G:1622:GLU:OE2	2:G:1623:ARG:NH1	2.47	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1804:LEU:HB3	2:G:1853:ILE:HG21	1.99	0.45
2:G:2121:PHE:CE1	2:G:3701:LEU:HD22	2.51	0.45
2:G:2261:SER:HA	2:G:2265:LEU:HD23	1.99	0.45
2:G:2956:ALA:O	2:G:2960:LEU:HG	2.17	0.45
2:G:3051:ARG:HH22	2:G:3102:ASP:HB2	1.82	0.45
2:G:3175:LEU:HD13	2:G:3190:LEU:HD13	1.98	0.45
2:G:3563:VAL:HG12	2:G:3569:LEU:HG	1.99	0.45
2:J:893:TYR:HA	2:J:904:HIS:H	1.82	0.45
2:J:1071:ARG:HB3	2:J:1196:PRO:HG3	1.99	0.45
2:J:1431:THR:O	2:J:1431:THR:HG22	2.17	0.45
2:J:1622:GLU:OE2	2:J:1623:ARG:NH1	2.47	0.45
2:J:1758:ARG:NH2	2:J:2036:GLN:HG3	2.31	0.45
2:J:2809:ILE:H	2:J:2809:ILE:HD12	1.81	0.45
2:J:3226:GLU:HA	2:J:3229:ILE:HG22	1.99	0.45
2:J:3516:LYS:HG3	2:J:3517:MET:H	1.82	0.45
2:J:3937:TYR:HA	2:J:3940:LYS:HD3	1.98	0.45
1:H:55:VAL:HG23	2:G:1783:VAL:HB	1.99	0.45
2:B:533:ASN:HB3	2:B:536:ASN:HB2	1.99	0.45
2:B:766:GLY:HA3	2:B:1476:MET:HE1	1.99	0.45
2:B:893:TYR:HA	2:B:904:HIS:H	1.82	0.45
2:B:969:PRO:HG2	2:B:971:ASP:HB2	1.98	0.45
2:B:1018:ASN:HB3	2:B:1021:LEU:HD23	1.99	0.45
2:B:1156:THR:OG1	2:B:1157:GLU:OE1	2.34	0.45
2:B:2759:ALA:HB2	2:B:2810:LYS:HZ1	1.82	0.45
2:B:3514:LEU:HD12	2:B:3606:LEU:HD22	1.99	0.45
2:E:280:LEU:O	2:E:313:SER:HA	2.17	0.45
2:E:550:LYS:HA	2:E:553:ARG:HG2	1.99	0.45
2:E:877:ASN:HD22	2:E:1045:THR:HG23	1.82	0.45
2:E:2642:LYS:HA	2:E:2645:THR:HG22	1.99	0.45
2:E:3018:LEU:HB2	2:E:3074:SER:HA	1.99	0.45
2:E:3350:ARG:HB2	2:E:3353:LEU:HD13	1.99	0.45
2:G:483:MET:O	2:G:486:LEU:HG	2.17	0.45
2:G:969:PRO:HG2	2:G:971:ASP:HB2	1.98	0.45
2:G:1101:ARG:HG3	2:G:1125:ASN:HB2	1.99	0.45
2:G:1420:ASN:HB2	2:G:1570:LYS:HD2	1.99	0.45
2:G:1435:TYR:CE1	2:G:1518:CYS:HB2	2.52	0.45
2:G:3350:ARG:HB2	2:G:3353:LEU:HD13	1.99	0.45
2:J:34:LYS:H	2:J:53:SER:HB2	1.82	0.45
2:J:1171:SER:OG	2:J:1175:SER:N	2.50	0.45
2:J:1730:MET:CE	2:J:1773:PRO:HD2	2.47	0.45
2:J:2912:THR:HG23	2:J:2914:LYS:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2957:PHE:O	2:J:2961:GLN:HG3	2.17	0.45
2:J:3375:GLU:HA	2:J:3378:GLN:OE1	2.16	0.45
3:C:51:ILE:HG23	3:C:71:ARG:HE	1.82	0.45
3:M:71:ARG:CG	3:M:78:VAL:HG22	2.46	0.45
1:A:13:ARG:HG3	1:A:14:THR:N	2.33	0.44
2:B:1065:ASN:ND2	2:B:1462:MET:HG3	2.33	0.44
2:B:1431:THR:O	2:B:1431:THR:HG22	2.17	0.44
2:B:1435:TYR:CE1	2:B:1518:CYS:HB2	2.52	0.44
2:B:2035:HIS:O	2:B:2039:LEU:HG	2.17	0.44
2:B:3034:LYS:HA	2:B:3037:GLU:HG3	1.98	0.44
2:B:4675:LYS:O	2:B:4679:ARG:HG2	2.17	0.44
2:B:4860:ARG:NH1	2:E:4582:VAL:HG11	2.31	0.44
2:E:215:THR:HB	2:E:271:GLY:O	2.17	0.44
2:E:1092:PHE:CZ	2:E:1200:GLY:HA3	2.51	0.44
2:E:1804:LEU:HB3	2:E:1853:ILE:HG21	1.99	0.44
2:E:2261:SER:HA	2:E:2265:LEU:HD23	1.99	0.44
2:E:3172:ILE:HG13	2:E:3175:LEU:HD12	1.97	0.44
2:E:4738:ALA:HA	2:E:4743:MET:SD	2.56	0.44
2:E:4746:ALA:O	2:E:4749:GLU:HG2	2.18	0.44
2:G:1730:MET:CE	2:G:1773:PRO:HD2	2.47	0.44
2:G:2751:LEU:HD23	2:G:2751:LEU:H	1.83	0.44
2:G:3172:ILE:HG13	2:G:3175:LEU:HD12	1.97	0.44
2:G:3313:ASN:HD21	2:G:3353:LEU:HD11	1.82	0.44
2:G:3514:LEU:HD12	2:G:3606:LEU:HD22	1.99	0.44
2:J:1086:GLY:H	2:J:1156:THR:HG23	1.82	0.44
2:J:2261:SER:HA	2:J:2265:LEU:HD23	1.99	0.44
2:J:2538:THR:HG23	2:J:2541:PHE:H	1.81	0.44
2:J:3068:LEU:HD13	2:J:3139:VAL:HG21	1.99	0.44
2:J:4694:ASP:N	2:J:4694:ASP:OD1	2.50	0.44
3:M:51:ILE:HG23	3:M:71:ARG:HE	1.82	0.44
3:M:66:ARG:HH11	3:M:83:ASN:HB3	1.81	0.44
1:H:13:ARG:HG3	1:H:14:THR:H	1.83	0.44
1:H:31:GLN:NE2	2:G:1299:GLN:HB3	2.32	0.44
2:B:2448:GLY:O	2:B:2452:ARG:HG2	2.17	0.44
2:B:2621:HIS:O	2:B:2624:ARG:HG2	2.17	0.44
2:B:3018:LEU:HB2	2:B:3074:SER:HA	1.99	0.44
2:B:3350:ARG:HB2	2:B:3353:LEU:HD13	1.99	0.44
2:B:3766:GLN:HG2	2:B:3769:ARG:NH2	2.32	0.44
2:B:4071:ILE:HD13	2:B:4103:PHE:CE2	2.50	0.44
2:E:1065:ASN:ND2	2:E:1462:MET:HG3	2.33	0.44
2:E:2964:LEU:O	2:E:2967:MET:HB3	2.18	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2965:ARG:HA	2:E:2968:ASP:OD2	2.17	0.44
2:E:3102:ASP:O	2:E:3106:MET:HG2	2.16	0.44
2:E:3604:TYR:O	2:E:3607:GLU:HG3	2.18	0.44
2:E:4184:MET:HG3	2:E:5021:PHE:HA	1.99	0.44
2:G:268:SER:HB3	2:G:269:TRP:CE3	2.52	0.44
2:G:1730:MET:HE2	2:G:1773:PRO:HD2	1.99	0.44
2:G:2261:SER:HB3	2:G:2273:LEU:HB2	1.99	0.44
2:G:3192:GLU:O	2:G:3196:ARG:HG2	2.17	0.44
2:G:3229:ILE:HG23	2:G:3230:LEU:HD22	2.00	0.44
2:G:3516:LYS:HG3	2:G:3517:MET:SD	2.58	0.44
2:G:3900:GLN:HB3	2:G:3976:ASN:HD21	1.82	0.44
2:G:4235:VAL:HG11	2:G:5019:TRP:CH2	2.52	0.44
2:J:560:ILE:HA	2:J:563:VAL:HG12	2.00	0.44
2:J:2965:ARG:HA	2:J:2968:ASP:OD2	2.17	0.44
2:J:3192:GLU:O	2:J:3196:ARG:HG2	2.17	0.44
2:J:3313:ASN:HD21	2:J:3353:LEU:HD11	1.82	0.44
2:J:3538:THR:O	2:J:3542:LEU:HG	2.16	0.44
2:J:4063:ASP:O	2:J:4067:LYS:HG3	2.17	0.44
1:A:66:MET:SD	1:A:103:LEU:HB2	2.58	0.44
1:H:13:ARG:HG3	1:H:14:THR:N	2.33	0.44
2:B:183:SER:N	2:B:190:GLN:O	2.45	0.44
2:B:1730:MET:HE2	2:B:1773:PRO:HD2	1.98	0.44
2:B:2352:VAL:O	2:B:2356:LEU:HG	2.18	0.44
2:B:2367:ALA:HB3	2:B:2426:TYR:CE1	2.53	0.44
2:B:2956:ALA:O	2:B:2960:LEU:HG	2.17	0.44
2:B:2957:PHE:O	2:B:2961:GLN:HG3	2.17	0.44
2:B:2981:VAL:HA	2:B:2985:ARG:HD2	2.00	0.44
2:B:3223:SER:HB3	2:B:3225:ARG:NH1	2.33	0.44
2:B:4184:MET:HG3	2:B:5021:PHE:HA	1.99	0.44
2:E:984:LEU:HB2	2:E:1055:PRO:HG3	1.99	0.44
2:E:3313:ASN:HD21	2:E:3353:LEU:HD11	1.82	0.44
2:E:3545:THR:HG23	2:E:3548:GLU:H	1.81	0.44
2:G:2122:SER:O	2:G:2126:ARG:HG3	2.18	0.44
2:G:3068:LEU:HD13	2:G:3139:VAL:HG21	1.99	0.44
2:G:3648:ARG:O	2:G:3652:MET:HG2	2.18	0.44
2:G:3937:TYR:HA	2:G:3940:LYS:HD3	1.98	0.44
2:G:4675:LYS:O	2:G:4679:ARG:HG2	2.17	0.44
2:J:215:THR:HB	2:J:271:GLY:O	2.17	0.44
2:J:1661:ARG:O	2:J:1665:HIS:HD2	2.01	0.44
2:J:2981:VAL:HA	2:J:2985:ARG:HD2	2.00	0.44
2:J:3175:LEU:HD13	2:J:3190:LEU:HD13	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3350:ARG:HB2	2:J:3353:LEU:HD13	1.99	0.44
2:J:3516:LYS:HG3	2:J:3517:MET:SD	2.58	0.44
2:J:4848:VAL:O	2:J:4852:THR:HG23	2.18	0.44
3:K:66:ARG:HH11	3:K:83:ASN:HB3	1.81	0.44
2:B:483:MET:O	2:B:486:LEU:HG	2.17	0.44
2:B:1644:GLU:HB3	2:B:1646:ARG:HG2	1.99	0.44
2:B:1683:HIS:NE2	2:B:1798:LEU:O	2.43	0.44
2:B:2261:SER:HA	2:B:2265:LEU:HD23	1.99	0.44
2:B:2299:VAL:HG11	2:B:2356:LEU:HB3	1.99	0.44
2:B:2965:ARG:HA	2:B:2968:ASP:OD2	2.17	0.44
2:B:3070:ILE:HD13	2:B:3073:ARG:NH1	2.33	0.44
2:B:3410:PRO:HA	2:B:3413:ILE:HD12	1.99	0.44
2:B:3579:LEU:HD12	2:B:3580:PRO:HD2	2.00	0.44
2:B:4688:ILE:HG22	2:B:4689:THR:HG23	2.00	0.44
2:B:4733:GLY:HA3	2:B:4736:ARG:HH11	1.82	0.44
2:E:2121:PHE:CE1	2:E:3701:LEU:HD22	2.51	0.44
2:E:2482:ASP:N	2:E:2482:ASP:OD1	2.51	0.44
2:E:3068:LEU:HD13	2:E:3139:VAL:HG21	1.99	0.44
2:E:4235:VAL:HG11	2:E:5019:TRP:CH2	2.52	0.44
2:G:547:VAL:O	2:G:551:LEU:HG	2.18	0.44
2:G:1171:SER:OG	2:G:1175:SER:N	2.50	0.44
2:G:1758:ARG:NH2	2:G:2036:GLN:HG3	2.31	0.44
2:G:1810:LYS:O	2:G:1814:MET:HG2	2.17	0.44
2:J:683:ARG:HG2	2:J:717:ASP:HB3	2.00	0.44
2:J:1776:HIS:NE2	2:J:2157:GLU:OE2	2.46	0.44
2:J:1810:LYS:O	2:J:1814:MET:HG2	2.17	0.44
2:J:2126:ARG:NH2	2:J:2133:GLU:OE2	2.48	0.44
2:J:2261:SER:HB3	2:J:2273:LEU:HB2	2.00	0.44
2:J:2325:PRO:CG	2:J:2422:ILE:HD13	2.48	0.44
2:J:2367:ALA:HB3	2:J:2426:TYR:CE1	2.53	0.44
2:J:2642:LYS:HA	2:J:2645:THR:HG22	1.99	0.44
2:J:3405:LEU:HG	2:J:3409:TYR:CE1	2.53	0.44
2:J:3802:ILE:HD11	2:J:3887:PHE:HB2	1.98	0.44
2:J:4046:ASP:O	2:J:4049:VAL:HG22	2.18	0.44
2:J:4688:ILE:HG22	2:J:4689:THR:HG23	2.00	0.44
1:I:66:MET:SD	1:I:103:LEU:HB2	2.58	0.44
2:B:683:ARG:HG2	2:B:717:ASP:HB3	2.00	0.44
2:B:1071:ARG:HB3	2:B:1196:PRO:HG3	1.99	0.44
2:B:1256:GLU:OE1	2:B:1271:ARG:NH2	2.46	0.44
2:B:1297:PHE:CD2	2:B:1522:LEU:HA	2.51	0.44
2:E:2291:GLN:CG	2:E:2293:GLN:HG2	2.47	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2738:ARG:NH2	2:E:2888:ARG:HH21	2.15	0.44
2:E:2956:ALA:O	2:E:2960:LEU:HG	2.17	0.44
2:E:2957:PHE:O	2:E:2961:GLN:HG3	2.17	0.44
2:E:2981:VAL:HA	2:E:2985:ARG:HD2	2.00	0.44
2:E:3579:LEU:HD12	2:E:3580:PRO:HD2	1.99	0.44
2:E:4541:TRP:CE3	2:E:4544:LEU:HD21	2.53	0.44
2:E:4675:LYS:O	2:E:4679:ARG:HG2	2.17	0.44
2:E:4733:GLY:HA3	2:E:4736:ARG:HH11	1.82	0.44
2:G:292:ALA:HB2	2:G:312:THR:HG22	1.97	0.44
2:G:1443:GLN:HE22	2:G:1556:PRO:HA	1.82	0.44
2:G:1568:LYS:HE2	2:G:1574:PRO:HD3	1.99	0.44
2:G:2621:HIS:O	2:G:2624:ARG:HG2	2.17	0.44
2:G:3512:ALA:HB1	2:G:3517:MET:HE1	2.00	0.44
2:G:3516:LYS:HG3	2:G:3517:MET:H	1.82	0.44
2:G:4063:ASP:O	2:G:4067:LYS:HG3	2.17	0.44
2:J:993:HIS:CE1	2:J:1027:LEU:HD21	2.52	0.44
2:J:1423:ASP:OD2	2:J:1426:ILE:HG12	2.18	0.44
2:J:2964:LEU:O	2:J:2967:MET:HB3	2.18	0.44
2:J:3354:LEU:HD22	2:J:3423:TRP:CZ2	2.52	0.44
2:J:3604:TYR:O	2:J:3607:GLU:HG3	2.18	0.44
2:J:3648:ARG:O	2:J:3652:MET:HG2	2.18	0.44
2:J:4541:TRP:CE3	2:J:4544:LEU:HD21	2.53	0.44
3:C:71:ARG:CG	3:C:78:VAL:HG22	2.46	0.44
2:B:1227:ALA:HA	2:B:1827:ARG:HH22	1.82	0.44
2:B:1420:ASN:HB2	2:B:1570:LYS:HD2	1.99	0.44
2:B:1449:TRP:HB2	2:B:1553:PHE:HB2	1.99	0.44
2:B:2482:ASP:N	2:B:2482:ASP:OD1	2.51	0.44
2:B:2595:LEU:CB	2:B:2600:ARG:HG3	2.48	0.44
2:B:3313:ASN:HD21	2:B:3353:LEU:HD11	1.82	0.44
2:B:4848:VAL:O	2:B:4852:THR:HG23	2.18	0.44
2:E:560:ILE:HA	2:E:563:VAL:HG12	2.00	0.44
2:E:683:ARG:HG2	2:E:717:ASP:HB3	2.00	0.44
2:E:835:ARG:HB3	2:E:838:HIS:HE1	1.81	0.44
2:E:1431:THR:O	2:E:1431:THR:HG22	2.17	0.44
2:E:3512:ALA:HB1	2:E:3517:MET:HE1	2.00	0.44
2:E:3648:ARG:O	2:E:3652:MET:HG2	2.18	0.44
2:E:3766:GLN:HG2	2:E:3769:ARG:NH2	2.32	0.44
2:E:3900:GLN:HB3	2:E:3976:ASN:HD21	1.82	0.44
2:E:3921:ASP:O	2:E:3925:ARG:HG3	2.18	0.44
2:E:4046:ASP:O	2:E:4049:VAL:HG22	2.18	0.44
2:G:20:VAL:HA	2:G:204:PRO:HA	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:533:ASN:HB3	2:G:536:ASN:HB2	1.99	0.44
2:G:683:ARG:HG2	2:G:717:ASP:HB3	2.00	0.44
2:G:1071:ARG:HB3	2:G:1196:PRO:HG3	1.99	0.44
2:G:1086:GLY:H	2:G:1156:THR:HG23	1.82	0.44
2:G:2197:LEU:O	2:G:2201:LEU:HG	2.16	0.44
2:G:2738:ARG:NH2	2:G:2888:ARG:HH21	2.15	0.44
2:G:2912:THR:HG23	2:G:2914:LYS:HG3	1.99	0.44
2:G:3533:ILE:HG22	2:G:3537:LYS:HZ3	1.83	0.44
2:J:533:ASN:HB3	2:J:536:ASN:HB2	1.99	0.44
2:J:2354:VAL:HA	2:J:2357:LEU:HG	1.99	0.44
2:J:2469:ILE:HD12	2:J:2472:LEU:HD12	1.99	0.44
2:B:2469:ILE:HD12	2:B:2472:LEU:HD12	1.99	0.44
2:B:2697:ARG:NH2	2:B:2698:MET:HB3	2.33	0.44
2:B:2965:ARG:O	2:B:2969:ILE:HG13	2.18	0.44
2:B:4541:TRP:CE3	2:B:4544:LEU:HD21	2.53	0.44
2:B:4746:ALA:O	2:B:4749:GLU:HG2	2.18	0.44
2:E:363:ASP:HB3	2:E:366:ALA:HB3	1.99	0.44
2:E:795:GLY:HA3	2:E:812:HIS:CE1	2.51	0.44
2:E:1071:ARG:HB3	2:E:1196:PRO:HG3	1.99	0.44
2:E:1423:ASP:OD2	2:E:1426:ILE:HG12	2.18	0.44
2:E:2367:ALA:HB3	2:E:2426:TYR:CE1	2.53	0.44
2:E:3169:LEU:HA	2:E:3172:ILE:HG22	2.00	0.44
2:E:3516:LYS:HG3	2:E:3517:MET:SD	2.58	0.44
2:E:4063:ASP:O	2:E:4067:LYS:HG3	2.17	0.44
2:E:4688:ILE:HG22	2:E:4689:THR:HG23	2.00	0.44
2:E:4694:ASP:N	2:E:4694:ASP:OD1	2.50	0.44
2:G:1156:THR:OG1	2:G:1157:GLU:OE1	2.34	0.44
2:G:1714:LEU:O	2:G:1718:ILE:HG12	2.18	0.44
2:G:2595:LEU:CB	2:G:2600:ARG:HG3	2.48	0.44
2:G:2697:ARG:NH2	2:G:2698:MET:HB3	2.33	0.44
2:G:2957:PHE:O	2:G:2961:GLN:HG3	2.17	0.44
2:G:3223:SER:HB3	2:G:3225:ARG:NH1	2.33	0.44
2:G:3604:TYR:O	2:G:3607:GLU:HG3	2.18	0.44
2:J:547:VAL:O	2:J:551:LEU:HG	2.18	0.44
2:J:1065:ASN:ND2	2:J:1462:MET:HG3	2.33	0.44
2:J:1161:ILE:HG13	2:J:1177:THR:HG22	2.00	0.44
2:J:1478:ASP:OD1	2:J:1482:ASN:N	2.48	0.44
2:J:1714:LEU:O	2:J:1718:ILE:HG12	2.18	0.44
2:J:1733:GLU:HG2	2:J:2201:LEU:HA	1.99	0.44
2:J:3018:LEU:HB2	2:J:3074:SER:HA	1.99	0.44
2:J:3229:ILE:HG23	2:J:3230:LEU:HD22	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:3579:LEU:HD12	2:J:3580:PRO:HD2	1.99	0.44
2:J:4202:ARG:HA	2:J:4990:PHE:HZ	1.83	0.44
2:J:4235:VAL:HG11	2:J:5019:TRP:CH2	2.52	0.44
2:B:214:VAL:HA	2:B:341:TYR:CD1	2.53	0.44
2:B:1623:ARG:HD3	2:B:1623:ARG:H	1.83	0.44
2:B:2325:PRO:CG	2:B:2422:ILE:HD13	2.48	0.44
2:B:2423:MET:HE2	2:B:2498:HIS:CD2	2.53	0.44
2:B:3405:LEU:HG	2:B:3409:TYR:CE1	2.53	0.44
2:B:3512:ALA:HB1	2:B:3517:MET:HE1	2.00	0.44
2:B:3648:ARG:O	2:B:3652:MET:HG2	2.18	0.44
2:B:4913:ARG:NH2	2:E:4888:TYR:OH	2.51	0.44
2:E:2112:GLN:O	2:E:2114:PRO:HD3	2.17	0.44
2:E:2469:ILE:HD12	2:E:2472:LEU:HD12	1.99	0.44
2:E:3042:LEU:HA	2:E:3045:LYS:HD2	2.00	0.44
2:E:3354:LEU:HD22	2:E:3423:TRP:CZ2	2.52	0.44
2:E:3568:SER:HA	2:E:3571:TRP:CD1	2.52	0.44
2:E:4027:LEU:HD12	2:E:4028:LEU:N	2.33	0.44
2:G:34:LYS:H	2:G:53:SER:HB2	1.82	0.44
2:G:977:LEU:HD11	2:G:1044:ARG:HG2	2.00	0.44
2:G:1065:ASN:ND2	2:G:1462:MET:HG3	2.33	0.44
2:G:1077:ALA:HB3	2:G:1189:LEU:HD22	2.00	0.44
2:G:1839:VAL:HG21	2:G:1934:SER:HB2	2.00	0.44
2:G:2352:VAL:O	2:G:2356:LEU:HG	2.18	0.44
2:G:2759:ALA:HA	2:G:2809:ILE:HG12	2.00	0.44
2:G:3405:LEU:HG	2:G:3409:TYR:CE1	2.53	0.44
2:G:3579:LEU:HD12	2:G:3580:PRO:HD2	1.99	0.44
2:G:4541:TRP:CE3	2:G:4544:LEU:HD21	2.53	0.44
2:J:483:MET:O	2:J:486:LEU:HG	2.17	0.44
2:J:541:SER:HA	2:J:574:VAL:HG12	1.98	0.44
2:J:877:ASN:HD22	2:J:1045:THR:HG23	1.82	0.44
2:J:977:LEU:HD11	2:J:1044:ARG:HG2	2.00	0.44
2:J:1018:ASN:HB3	2:J:1021:LEU:HD23	1.99	0.44
2:J:2595:LEU:CB	2:J:2600:ARG:HG3	2.48	0.44
2:J:2604:GLU:HG2	2:J:2639:MET:HG2	1.99	0.44
2:J:2738:ARG:HH22	2:J:2888:ARG:HH21	1.66	0.44
2:J:3514:LEU:HD12	2:J:3606:LEU:HD22	1.99	0.44
2:J:3568:SER:HA	2:J:3571:TRP:CD1	2.52	0.44
2:J:3900:GLN:HB3	2:J:3976:ASN:HD21	1.82	0.44
3:C:3:GLN:HE21	3:C:119:GLN:HE22	1.66	0.44
3:K:51:ILE:HG23	3:K:71:ARG:HE	1.82	0.44
3:M:3:GLN:HE21	3:M:119:GLN:HE22	1.66	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3:GLU:HB3	1:A:75:THR:CG2	2.48	0.44
1:H:3:GLU:HB3	1:H:75:THR:CG2	2.48	0.44
1:I:13:ARG:HG3	1:I:14:THR:H	1.83	0.44
2:B:181:HIS:ND1	2:B:198:THR:OG1	2.50	0.44
2:B:977:LEU:HD11	2:B:1044:ARG:HG2	2.00	0.44
2:B:1810:LYS:O	2:B:1814:MET:HG2	2.17	0.44
2:B:2381:GLU:HB3	2:B:2385:ARG:HH21	1.82	0.44
2:B:2642:LYS:HA	2:B:2645:THR:HG22	1.99	0.44
2:B:2759:ALA:HA	2:B:2809:ILE:HG12	2.00	0.44
2:B:3375:GLU:O	2:B:3379:LEU:HD23	2.18	0.44
2:E:82:LEU:HD11	2:E:144:GLU:HB3	2.00	0.44
2:E:214:VAL:HA	2:E:341:TYR:CD1	2.53	0.44
2:E:977:LEU:HD11	2:E:1044:ARG:HG2	2.00	0.44
2:E:1227:ALA:HA	2:E:1827:ARG:HH22	1.82	0.44
2:E:1443:GLN:HE22	2:E:1556:PRO:HA	1.82	0.44
2:E:1644:GLU:HB3	2:E:1646:ARG:HG2	1.99	0.44
2:E:1730:MET:CE	2:E:1773:PRO:HD2	2.47	0.44
2:E:2680:TRP:HZ3	2:E:2962:GLN:HG3	1.82	0.44
2:E:3070:ILE:HD13	2:E:3073:ARG:NH1	2.33	0.44
2:E:3405:LEU:HG	2:E:3409:TYR:CE1	2.53	0.44
2:E:3533:ILE:HG22	2:E:3537:LYS:HZ3	1.82	0.44
2:E:4848:VAL:O	2:E:4852:THR:HG23	2.18	0.44
2:G:1927:LEU:O	2:G:2104:ARG:NH2	2.42	0.44
2:G:2354:VAL:HA	2:G:2357:LEU:HG	1.99	0.44
2:G:2367:ALA:HB3	2:G:2426:TYR:CE1	2.53	0.44
2:G:2604:GLU:HG2	2:G:2639:MET:HG2	1.99	0.44
2:G:2965:ARG:O	2:G:2969:ILE:HG13	2.18	0.44
2:G:2981:VAL:HA	2:G:2985:ARG:HD2	2.00	0.44
2:G:3070:ILE:HD13	2:G:3073:ARG:NH1	2.33	0.44
2:G:3413:ILE:HG12	2:G:3516:LYS:HZ1	1.83	0.44
2:G:4097:MET:HE3	2:G:4108:ILE:HA	2.00	0.44
2:G:4097:MET:HE2	2:G:4108:ILE:HG23	2.00	0.44
2:G:4184:MET:HG3	2:G:5021:PHE:HA	1.99	0.44
2:G:4720:VAL:O	2:G:4724:VAL:HG23	2.16	0.44
2:G:4848:VAL:O	2:G:4852:THR:HG23	2.18	0.44
2:G:4904:PRO:HD3	2:G:4913:ARG:NH2	2.28	0.44
2:J:1077:ALA:HB3	2:J:1189:LEU:HD22	2.00	0.44
2:J:1839:VAL:HG21	2:J:1934:SER:HB2	2.00	0.44
2:J:2122:SER:O	2:J:2126:ARG:HG3	2.18	0.44
2:J:2448:GLY:O	2:J:2452:ARG:HG2	2.17	0.44
2:J:2621:HIS:O	2:J:2624:ARG:HG2	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2738:ARG:NH2	2:J:2888:ARG:HH21	2.15	0.44
2:J:3169:LEU:HA	2:J:3172:ILE:HG22	2.00	0.44
2:J:3545:THR:HG23	2:J:3548:GLU:H	1.81	0.44
3:M:105:ASN:ND2	3:M:108:GLY:O	2.51	0.44
1:D:3:GLU:HB3	1:D:75:THR:CG2	2.48	0.43
1:H:7:ILE:HB	1:H:71:ARG:O	2.18	0.43
2:B:215:THR:HB	2:B:271:GLY:O	2.17	0.43
2:B:1661:ARG:O	2:B:1665:HIS:HD2	2.01	0.43
2:B:1804:LEU:HB3	2:B:1853:ILE:HG21	1.99	0.43
2:B:3042:LEU:HA	2:B:3045:LYS:HD2	2.00	0.43
2:B:3354:LEU:HD22	2:B:3423:TRP:CZ2	2.52	0.43
2:E:1077:ALA:HB3	2:E:1189:LEU:HD22	2.00	0.43
2:E:1171:SER:OG	2:E:1175:SER:N	2.50	0.43
2:E:1244:GLN:OE1	2:E:1646:ARG:NH1	2.51	0.43
2:E:1568:LYS:HE2	2:E:1574:PRO:HD3	1.99	0.43
2:E:1661:ARG:O	2:E:1665:HIS:HD2	2.00	0.43
2:E:1758:ARG:NH1	2:E:2036:GLN:HG3	2.34	0.43
2:E:3021:PRO:HG3	2:E:3036:LYS:HZ1	1.83	0.43
2:E:3391:GLU:HA	2:E:3394:VAL:HG22	2.00	0.43
2:G:680:THR:HG23	2:G:784:SER:HB2	2.00	0.43
2:G:1161:ILE:HG13	2:G:1177:THR:HG22	2.00	0.43
2:G:1227:ALA:HA	2:G:1827:ARG:HH22	1.82	0.43
2:G:2423:MET:HE2	2:G:2498:HIS:CD2	2.53	0.43
2:G:2469:ILE:HD12	2:G:2472:LEU:HD12	1.99	0.43
2:G:2496:PRO:HB3	2:G:2550:LEU:HD23	2.00	0.43
2:G:2965:ARG:HA	2:G:2968:ASP:OD2	2.17	0.43
2:G:3354:LEU:HD22	2:G:3423:TRP:CZ2	2.53	0.43
2:J:1302:ARG:H	2:J:1302:ARG:HG2	1.68	0.43
2:J:2352:VAL:O	2:J:2356:LEU:HG	2.18	0.43
2:J:2477:PRO:HG2	2:J:2536:LEU:HD11	2.00	0.43
2:J:2482:ASP:N	2:J:2482:ASP:OD1	2.51	0.43
2:J:2956:ALA:O	2:J:2960:LEU:HG	2.17	0.43
2:J:3921:ASP:O	2:J:3925:ARG:HG3	2.18	0.43
3:K:36:TRP:NE1	3:K:93:TYR:HB3	2.33	0.43
1:D:13:ARG:HG3	1:D:14:THR:H	1.83	0.43
2:B:64:ILE:C	2:B:111:HIS:HE2	2.22	0.43
2:B:111:HIS:HE1	2:B:113:HIS:HB3	1.83	0.43
2:B:363:ASP:HB3	2:B:366:ALA:HB3	1.99	0.43
2:B:560:ILE:HA	2:B:563:VAL:HG12	2.00	0.43
2:B:1077:ALA:HB3	2:B:1189:LEU:HD22	2.00	0.43
2:B:1171:SER:OG	2:B:1175:SER:N	2.50	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1647:CYS:O	2:B:1648:MET:SD	2.77	0.43
2:B:2964:LEU:O	2:B:2967:MET:HB3	2.18	0.43
2:B:3229:ILE:HG23	2:B:3230:LEU:HD22	2.00	0.43
2:B:3516:LYS:HG3	2:B:3517:MET:SD	2.58	0.43
2:B:3568:SER:HA	2:B:3571:TRP:CD1	2.52	0.43
2:B:3921:ASP:O	2:B:3925:ARG:HG3	2.18	0.43
2:B:4673:ARG:NH2	2:B:4702:ASP:OD1	2.47	0.43
2:E:21:VAL:HB	2:E:205:ILE:HD11	2.00	0.43
2:E:111:HIS:HE1	2:E:113:HIS:HB3	1.83	0.43
2:E:2299:VAL:HG11	2:E:2356:LEU:HB3	1.99	0.43
2:E:2577:ILE:HG13	2:E:2578:MET:N	2.33	0.43
2:E:2621:HIS:O	2:E:2624:ARG:HG2	2.17	0.43
2:E:2738:ARG:HH22	2:E:2888:ARG:HH21	1.66	0.43
2:E:4243:PHE:O	2:E:4247:ILE:HG12	2.18	0.43
2:E:4998:LYS:HB2	2:E:4998:LYS:HE3	1.82	0.43
2:G:214:VAL:HA	2:G:341:TYR:CD1	2.53	0.43
2:G:1423:ASP:OD2	2:G:1426:ILE:HG12	2.18	0.43
2:G:2101:MET:SD	2:G:2104:ARG:NH2	2.89	0.43
2:G:2477:PRO:HG2	2:G:2536:LEU:HD11	2.00	0.43
2:G:2577:ILE:HG13	2:G:2578:MET:N	2.33	0.43
2:G:2642:LYS:HA	2:G:2645:THR:HG22	1.99	0.43
2:G:2768:PHE:HB2	2:G:2857:PRO:HD2	2.00	0.43
2:G:3145:GLN:HA	2:G:3196:ARG:NH2	2.30	0.43
2:G:4202:ARG:HA	2:G:4990:PHE:HZ	1.83	0.43
2:J:2496:PRO:HB3	2:J:2550:LEU:HD23	2.00	0.43
3:K:51:ILE:C	3:K:71:ARG:HH21	2.20	0.43
1:A:7:ILE:HB	1:A:71:ARG:O	2.19	0.43
1:D:66:MET:SD	1:D:103:LEU:HB2	2.58	0.43
2:B:1808:ARG:HG3	2:B:1854:PHE:CE1	2.53	0.43
2:B:2122:SER:O	2:B:2126:ARG:HG3	2.18	0.43
2:B:2577:ILE:HG13	2:B:2578:MET:N	2.33	0.43
2:B:2912:THR:HG23	2:B:2914:LYS:HG3	1.99	0.43
2:B:3145:GLN:HA	2:B:3196:ARG:NH2	2.30	0.43
2:B:3604:TYR:O	2:B:3607:GLU:HG3	2.18	0.43
2:B:4063:ASP:O	2:B:4067:LYS:HG3	2.17	0.43
2:B:4202:ARG:HA	2:B:4990:PHE:HZ	1.83	0.43
2:B:4235:VAL:HG11	2:B:5019:TRP:CH2	2.52	0.43
2:B:4555:LEU:HD22	2:B:4562:LEU:HD11	2.01	0.43
2:E:547:VAL:O	2:E:551:LEU:HG	2.18	0.43
2:E:590:LEU:HG	2:E:599:VAL:HG11	2.01	0.43
2:E:680:THR:HG23	2:E:784:SER:HB2	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:887:ILE:HD13	2:E:959:TYR:HB3	2.00	0.43
2:E:1623:ARG:HD3	2:E:1623:ARG:H	1.83	0.43
2:E:1733:GLU:HG2	2:E:2201:LEU:HA	1.99	0.43
2:E:1808:ARG:HG3	2:E:1854:PHE:CE1	2.53	0.43
2:E:2352:VAL:O	2:E:2356:LEU:HG	2.18	0.43
2:E:3223:SER:HB3	2:E:3225:ARG:NH1	2.33	0.43
2:E:3445:TRP:CE2	2:E:3452:LYS:HG2	2.53	0.43
2:E:3514:LEU:HD12	2:E:3606:LEU:HD22	1.99	0.43
2:E:3516:LYS:HG3	2:E:3517:MET:H	1.82	0.43
2:E:3951:PHE:HB3	2:E:3955:MET:HE1	2.00	0.43
2:E:3962:PHE:O	2:E:3966:THR:HG23	2.19	0.43
2:E:4202:ARG:HA	2:E:4990:PHE:HZ	1.83	0.43
2:G:82:LEU:HD11	2:G:144:GLU:HB3	2.00	0.43
2:G:1644:GLU:HB3	2:G:1646:ARG:HG2	1.99	0.43
2:G:2964:LEU:O	2:G:2967:MET:HB3	2.18	0.43
2:G:3042:LEU:HA	2:G:3045:LYS:HD2	2.00	0.43
2:G:4027:LEU:HD12	2:G:4028:LEU:N	2.33	0.43
2:G:4046:ASP:O	2:G:4049:VAL:HG22	2.18	0.43
2:G:4688:ILE:HG22	2:G:4689:THR:HG23	2.00	0.43
2:J:682:LEU:HD22	2:J:738:LEU:HD22	2.01	0.43
2:J:984:LEU:HB2	2:J:1055:PRO:HG3	1.99	0.43
2:J:2888:ARG:HH11	2:J:2891:LYS:HZ1	1.65	0.43
2:J:3512:ALA:HB1	2:J:3517:MET:HE1	2.00	0.43
2:J:3533:ILE:HG22	2:J:3537:LYS:HZ3	1.83	0.43
2:J:4546:VAL:HG22	2:J:4550:LYS:HE3	2.00	0.43
3:F:3:GLN:HE21	3:F:119:GLN:HE22	1.66	0.43
3:K:3:GLN:HE21	3:K:119:GLN:HE22	1.66	0.43
1:A:13:ARG:HG3	1:A:14:THR:H	1.83	0.43
1:H:66:MET:SD	1:H:103:LEU:HB2	2.58	0.43
1:I:13:ARG:HG3	1:I:14:THR:N	2.33	0.43
2:B:680:THR:HG23	2:B:784:SER:HB2	2.00	0.43
2:B:1154:ASP:O	2:B:1158:ASN:N	2.52	0.43
2:B:1244:GLN:OE1	2:B:1646:ARG:NH1	2.51	0.43
2:B:1248:VAL:HG22	2:B:1599:MET:HE3	2.01	0.43
2:B:2454:ARG:O	2:B:2458:ARG:HG3	2.19	0.43
2:B:3098:SER:O	2:B:3101:GLU:HG3	2.19	0.43
2:B:3516:LYS:HG3	2:B:3517:MET:H	1.82	0.43
2:B:3720:TYR:O	2:B:3723:MET:HG3	2.19	0.43
2:E:1420:ASN:HB2	2:E:1570:LYS:HD2	1.99	0.43
2:E:2325:PRO:CG	2:E:2422:ILE:HD13	2.48	0.43
2:E:2555:CYS:SG	2:E:2599:GLN:HG2	2.59	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:2694:GLU:CD	2:E:2697:ARG:HH21	2.22	0.43
2:E:2751:LEU:H	2:E:2751:LEU:HD23	1.83	0.43
2:E:3203:VAL:HG23	2:E:3214:ASN:HD22	1.84	0.43
2:E:3895:HIS:H	2:E:3970:GLN:NE2	2.17	0.43
2:E:4049:VAL:HG12	2:E:4163:PHE:CZ	2.54	0.43
2:E:4802:GLY:HA2	2:E:4808:PHE:HB2	2.01	0.43
2:G:590:LEU:HG	2:G:599:VAL:HG11	2.01	0.43
2:G:2299:VAL:HG11	2:G:2356:LEU:HB3	1.99	0.43
2:G:2325:PRO:CG	2:G:2422:ILE:HD13	2.48	0.43
2:G:4746:ALA:O	2:G:4749:GLU:HG2	2.18	0.43
2:J:181:HIS:ND1	2:J:198:THR:OG1	2.50	0.43
2:J:268:SER:HB3	2:J:269:TRP:CE3	2.52	0.43
2:J:688:LEU:HD11	2:J:774:ASP:O	2.19	0.43
2:J:1244:GLN:OE1	2:J:1646:ARG:NH1	2.51	0.43
2:J:1443:GLN:HE22	2:J:1556:PRO:HA	1.82	0.43
2:J:1449:TRP:HB2	2:J:1553:PHE:HB2	1.99	0.43
2:J:1647:CYS:O	2:J:1648:MET:SD	2.77	0.43
2:J:2291:GLN:CG	2:J:2293:GLN:HG2	2.48	0.43
2:J:2299:VAL:HG11	2:J:2356:LEU:HB3	1.99	0.43
2:J:2555:CYS:SG	2:J:2599:GLN:HG2	2.59	0.43
2:J:2751:LEU:HD23	2:J:2751:LEU:H	1.83	0.43
2:J:3042:LEU:HA	2:J:3045:LYS:HD2	2.00	0.43
2:J:3070:ILE:HD13	2:J:3073:ARG:NH1	2.33	0.43
2:J:3203:VAL:HG23	2:J:3214:ASN:HD22	1.84	0.43
2:J:3223:SER:HB3	2:J:3225:ARG:NH1	2.33	0.43
1:I:7:ILE:HB	1:I:71:ARG:O	2.18	0.43
2:B:547:VAL:O	2:B:551:LEU:HG	2.18	0.43
2:B:590:LEU:HG	2:B:599:VAL:HG11	2.01	0.43
2:B:598:LYS:O	2:B:602:VAL:HG23	2.19	0.43
2:B:1443:GLN:HE22	2:B:1556:PRO:HA	1.82	0.43
2:B:1568:LYS:HE2	2:B:1574:PRO:HD3	1.99	0.43
2:B:1714:LEU:O	2:B:1718:ILE:HG12	2.18	0.43
2:B:1730:MET:CE	2:B:1773:PRO:HD2	2.47	0.43
2:B:2291:GLN:CG	2:B:2293:GLN:HG2	2.48	0.43
2:B:2738:ARG:HH22	2:B:2888:ARG:HH21	1.66	0.43
2:B:2768:PHE:HB2	2:B:2857:PRO:HD2	2.00	0.43
2:B:3187:ARG:NH2	2:B:3268:HIS:HB2	2.34	0.43
2:B:3895:HIS:H	2:B:3970:GLN:NE2	2.17	0.43
2:B:4049:VAL:HG12	2:B:4163:PHE:CZ	2.54	0.43
2:E:682:LEU:HD22	2:E:738:LEU:HD22	2.01	0.43
2:E:1647:CYS:O	2:E:1648:MET:SD	2.76	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1839:VAL:HG21	2:E:1934:SER:HB2	2.00	0.43
2:E:2122:SER:O	2:E:2126:ARG:HG3	2.18	0.43
2:E:2912:THR:HG23	2:E:2914:LYS:HG3	1.99	0.43
2:G:1609:PRO:HB2	2:G:1612:PHE:CZ	2.54	0.43
2:G:2291:GLN:CG	2:G:2293:GLN:HG2	2.48	0.43
2:G:2555:CYS:SG	2:G:2599:GLN:HG2	2.59	0.43
2:G:3428:ASN:HD21	2:G:3430:ASN:HB2	1.83	0.43
2:G:4243:PHE:O	2:G:4247:ILE:HG12	2.18	0.43
2:J:64:ILE:C	2:J:111:HIS:HE2	2.22	0.43
2:J:1609:PRO:HB2	2:J:1612:PHE:CZ	2.54	0.43
2:J:2680:TRP:CZ3	2:J:2962:GLN:HG3	2.54	0.43
2:J:3187:ARG:NH2	2:J:3268:HIS:HB2	2.34	0.43
2:J:4184:MET:HG3	2:J:5021:PHE:HA	1.99	0.43
2:J:4584:ASP:HA	2:J:4628:VAL:HA	2.01	0.43
2:J:4746:ALA:O	2:J:4749:GLU:HG2	2.18	0.43
2:B:1087:ARG:HG2	2:B:1154:ASP:HA	2.01	0.43
2:B:1609:PRO:HB2	2:B:1612:PHE:CZ	2.54	0.43
2:B:2680:TRP:CZ3	2:B:2962:GLN:HG3	2.54	0.43
2:E:22:LEU:HB3	2:E:200:TRP:CE3	2.54	0.43
2:E:64:ILE:C	2:E:111:HIS:HE2	2.22	0.43
2:E:157:ARG:HH21	2:E:161:GLU:HB3	1.83	0.43
2:E:284:HIS:CE1	2:E:286:THR:HB	2.54	0.43
2:E:598:LYS:O	2:E:602:VAL:HG23	2.19	0.43
2:E:1449:TRP:HB2	2:E:1553:PHE:HB2	1.99	0.43
2:E:1609:PRO:HB2	2:E:1612:PHE:CZ	2.54	0.43
2:E:1714:LEU:O	2:E:1718:ILE:HG12	2.18	0.43
2:E:2920:ARG:O	2:E:2924:GLN:HG2	2.19	0.43
2:E:3098:SER:O	2:E:3101:GLU:HG3	2.19	0.43
2:E:4181:ILE:HG13	2:E:4182:GLU:N	2.34	0.43
2:E:4584:ASP:HA	2:E:4628:VAL:HA	2.01	0.43
2:G:157:ARG:HH21	2:G:161:GLU:HB3	1.83	0.43
2:G:284:HIS:HE1	2:G:286:THR:HB	1.84	0.43
2:G:911:HIS:HB2	2:G:913:LEU:HG	2.01	0.43
2:G:1018:ASN:HB3	2:G:1021:LEU:HD23	1.99	0.43
2:G:1075:PHE:HB2	2:G:1192:CYS:SG	2.59	0.43
2:G:1421:ARG:O	2:G:1570:LYS:NZ	2.52	0.43
2:G:1776:HIS:NE2	2:G:2157:GLU:OE2	2.46	0.43
2:G:3098:SER:O	2:G:3101:GLU:HG3	2.19	0.43
2:J:220:LEU:CD1	2:J:390:LEU:HB3	2.49	0.43
2:J:680:THR:HG23	2:J:784:SER:HB2	2.00	0.43
2:J:1644:GLU:HB3	2:J:1646:ARG:HG2	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:2101:MET:SD	2:J:2104:ARG:NH2	2.89	0.43
2:J:3145:GLN:HA	2:J:3196:ARG:NH2	2.30	0.43
2:J:3391:GLU:HA	2:J:3394:VAL:HG22	2.00	0.43
2:J:3428:ASN:HD21	2:J:3430:ASN:HB2	1.84	0.43
2:J:4576:ILE:HG21	2:J:4643:LEU:HB2	2.01	0.43
2:J:4928:LEU:O	2:J:4932:ILE:HG12	2.19	0.43
3:C:36:TRP:NE1	3:C:93:TYR:HB3	2.33	0.43
3:C:107:TRP:HE3	3:C:111:ASN:HD21	1.66	0.43
3:F:36:TRP:NE1	3:F:93:TYR:HB3	2.33	0.43
2:B:117:TYR:N	2:B:138:GLN:O	2.52	0.43
2:B:284:HIS:CE1	2:B:286:THR:HB	2.54	0.43
2:B:688:LEU:HD11	2:B:774:ASP:O	2.19	0.43
2:B:1423:ASP:OD2	2:B:1426:ILE:HG12	2.18	0.43
2:B:1575:LEU:O	2:B:1579:MET:HG2	2.19	0.43
2:B:2261:SER:HB3	2:B:2273:LEU:HB2	1.99	0.43
2:B:3391:GLU:HA	2:B:3394:VAL:HG22	2.00	0.43
2:B:4552:LEU:HD22	2:B:4663:CYS:SG	2.59	0.43
2:B:4802:GLY:HA2	2:B:4808:PHE:HB2	2.01	0.43
2:B:4928:LEU:O	2:B:4932:ILE:HG12	2.19	0.43
2:E:688:LEU:HD11	2:E:774:ASP:O	2.19	0.43
2:E:1018:ASN:HB3	2:E:1021:LEU:HD23	1.99	0.43
2:E:1249:PRO:HG2	2:E:1252:HIS:HB2	2.01	0.43
2:E:3368:ARG:HA	2:E:3371:LYS:HG2	2.00	0.43
2:E:4576:ILE:HG21	2:E:4643:LEU:HB2	2.01	0.43
2:G:984:LEU:HB2	2:G:1055:PRO:HG3	1.99	0.43
2:G:1733:GLU:HG2	2:G:2201:LEU:HA	1.99	0.43
2:G:2920:ARG:O	2:G:2924:GLN:HG2	2.19	0.43
2:G:3203:VAL:HG23	2:G:3214:ASN:HD22	1.84	0.43
2:G:3962:PHE:O	2:G:3966:THR:HG23	2.19	0.43
2:G:4552:LEU:HD22	2:G:4663:CYS:SG	2.59	0.43
2:J:887:ILE:HD13	2:J:959:TYR:HB3	2.00	0.43
2:J:1249:PRO:HG2	2:J:1252:HIS:HB2	2.01	0.43
2:J:1730:MET:HE2	2:J:1773:PRO:HD2	2.01	0.43
2:J:1758:ARG:NH1	2:J:2036:GLN:HG3	2.33	0.43
2:J:2364:PHE:CD1	2:J:2429:LEU:HD21	2.47	0.43
2:J:3302:PRO:HA	2:J:3303:PRO:HD3	1.93	0.43
2:J:4733:GLY:HA3	2:J:4736:ARG:HH11	1.82	0.43
3:F:36:TRP:CZ3	3:F:78:VAL:HG11	2.54	0.43
3:M:36:TRP:NE1	3:M:93:TYR:HB3	2.33	0.43
1:D:13:ARG:HG3	1:D:14:THR:N	2.33	0.43
2:B:82:LEU:HD11	2:B:144:GLU:HB3	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:531:ARG:NH2	2:B:562:GLU:OE2	2.50	0.43
2:B:1249:PRO:HG2	2:B:1252:HIS:HB2	2.01	0.43
2:B:1421:ARG:O	2:B:1570:LYS:NZ	2.52	0.43
2:B:2496:PRO:HB3	2:B:2550:LEU:HD23	2.00	0.43
2:B:2555:CYS:SG	2:B:2599:GLN:HG2	2.59	0.43
2:B:3166:TYR:HE2	2:B:3239:MET:HG3	1.84	0.43
2:B:3169:LEU:HA	2:B:3172:ILE:HG22	2.00	0.43
2:B:3592:ILE:HG12	2:B:3595:ARG:NH2	2.34	0.43
2:B:4027:LEU:HD12	2:B:4028:LEU:N	2.33	0.43
2:E:1154:ASP:O	2:E:1158:ASN:N	2.52	0.43
2:E:2261:SER:HB3	2:E:2273:LEU:HB2	1.99	0.43
2:E:2357:LEU:HD13	2:E:2364:PHE:HZ	1.84	0.43
2:E:2454:ARG:O	2:E:2458:ARG:HG3	2.19	0.43
2:E:2759:ALA:HA	2:E:2809:ILE:HG12	2.00	0.43
2:E:3015:LEU:HD23	2:E:3025:LEU:HD11	2.01	0.43
2:E:3229:ILE:HG23	2:E:3230:LEU:HD22	2.00	0.43
2:E:4546:VAL:HG22	2:E:4550:LYS:HE3	2.00	0.43
2:G:22:LEU:HB3	2:G:200:TRP:CE3	2.54	0.43
2:G:215:THR:HB	2:G:271:GLY:O	2.17	0.43
2:G:551:LEU:HD23	2:G:560:ILE:HG13	2.01	0.43
2:G:560:ILE:HA	2:G:563:VAL:HG12	2.00	0.43
2:G:1449:TRP:HB2	2:G:1553:PHE:HB2	1.99	0.43
2:G:2527:LEU:HB2	2:G:2582:MET:HE1	2.00	0.43
2:G:2738:ARG:HH22	2:G:2888:ARG:HH21	1.66	0.43
2:J:911:HIS:HB2	2:J:913:LEU:HG	2.01	0.43
2:J:1420:ASN:HB2	2:J:1570:LYS:HD2	1.99	0.43
2:J:2694:GLU:CD	2:J:2697:ARG:HH21	2.22	0.43
2:J:2697:ARG:NH2	2:J:2698:MET:HB3	2.33	0.43
2:J:2920:ARG:O	2:J:2924:GLN:HG2	2.19	0.43
2:J:3098:SER:O	2:J:3101:GLU:HG3	2.19	0.43
3:F:51:ILE:C	3:F:71:ARG:HH21	2.19	0.43
1:I:3:GLU:HB3	1:I:75:THR:CG2	2.48	0.43
2:B:220:LEU:CD1	2:B:390:LEU:HB3	2.49	0.43
2:B:284:HIS:HE1	2:B:286:THR:HB	1.84	0.43
2:B:360:ALA:O	2:B:361:ALA:C	2.54	0.43
2:B:835:ARG:HB3	2:B:838:HIS:CE1	2.54	0.43
2:B:1758:ARG:NH1	2:B:2036:GLN:HG3	2.34	0.43
2:B:2691:TYR:HA	2:B:2696:TYR:CE1	2.54	0.43
2:B:2920:ARG:O	2:B:2924:GLN:HG2	2.19	0.43
2:B:3368:ARG:HA	2:B:3371:LYS:HG2	2.00	0.43
2:B:3886:ARG:HD2	2:B:3889:GLN:HE21	1.84	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:1575:LEU:O	2:E:1579:MET:HG2	2.19	0.43
2:E:2251:PHE:CE1	2:E:2254:LEU:HD22	2.54	0.43
2:E:2273:LEU:HG	2:E:2334:PHE:CE2	2.54	0.43
2:E:2691:TYR:HA	2:E:2696:TYR:CE1	2.54	0.43
2:E:2965:ARG:O	2:E:2969:ILE:HG13	2.18	0.43
2:E:3166:TYR:HE2	2:E:3239:MET:HG3	1.84	0.43
2:E:4928:LEU:O	2:E:4932:ILE:HG12	2.19	0.43
2:G:64:ILE:C	2:G:111:HIS:HE2	2.22	0.43
2:G:598:LYS:O	2:G:602:VAL:HG23	2.19	0.43
2:G:887:ILE:HD13	2:G:959:TYR:HB3	2.00	0.43
2:G:1647:CYS:O	2:G:1648:MET:SD	2.77	0.43
2:G:2454:ARG:O	2:G:2458:ARG:HG3	2.19	0.43
2:G:2680:TRP:CZ3	2:G:2962:GLN:HG3	2.54	0.43
2:G:2691:TYR:HA	2:G:2696:TYR:CE1	2.54	0.43
2:G:3886:ARG:HD2	2:G:3889:GLN:HE21	1.84	0.43
2:G:4576:ILE:HG21	2:G:4643:LEU:HB2	2.01	0.43
2:G:4802:GLY:HA2	2:G:4808:PHE:HB2	2.01	0.43
2:G:4928:LEU:O	2:G:4932:ILE:HG12	2.19	0.43
2:J:590:LEU:HG	2:J:599:VAL:HG11	2.01	0.43
2:J:1568:LYS:HE2	2:J:1574:PRO:HD3	1.99	0.43
2:J:2768:PHE:HB2	2:J:2857:PRO:HD2	2.00	0.43
2:J:3368:ARG:HA	2:J:3371:LYS:HG2	2.00	0.43
2:J:3445:TRP:CE2	2:J:3452:LYS:HG2	2.53	0.43
2:J:3592:ILE:HG12	2:J:3595:ARG:NH2	2.34	0.43
2:J:4181:ILE:HG13	2:J:4182:GLU:N	2.34	0.43
2:J:4225:GLY:O	2:J:4230:LYS:NZ	2.52	0.43
2:J:4552:LEU:HD22	2:J:4663:CYS:SG	2.59	0.43
3:F:51:ILE:HG23	3:F:71:ARG:HE	1.82	0.43
2:B:1161:ILE:HG13	2:B:1177:THR:HG22	2.00	0.43
2:B:1207:ASP:OD1	2:B:1210:SER:HB3	2.19	0.43
2:B:2477:PRO:HG2	2:B:2536:LEU:HD11	2.00	0.43
2:B:4888:TYR:OH	2:G:4913:ARG:NH2	2.52	0.43
2:E:220:LEU:CD1	2:E:390:LEU:HB3	2.49	0.43
2:E:360:ALA:HA	2:E:377:ILE:CD1	2.48	0.43
2:E:766:GLY:HA3	2:E:1476:MET:HE1	2.01	0.43
2:E:2595:LEU:CB	2:E:2600:ARG:HG3	2.48	0.43
2:E:2754:PHE:HB2	2:E:2935:TYR:OH	2.19	0.43
2:E:3023:LYS:HZ3	2:E:3025:LEU:HB2	1.84	0.43
2:E:3144:PHE:HA	2:E:3147:ILE:HG12	2.00	0.43
2:E:3449:HIS:HA	2:E:3452:LYS:HE2	2.01	0.43
2:E:3720:TYR:O	2:E:3723:MET:HG3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3886:ARG:HD2	2:E:3889:GLN:HE21	1.84	0.43
2:E:4552:LEU:HD22	2:E:4663:CYS:SG	2.59	0.43
2:G:682:LEU:HD22	2:G:738:LEU:HD22	2.01	0.43
2:G:688:LEU:HD11	2:G:774:ASP:O	2.19	0.43
2:G:835:ARG:HB3	2:G:838:HIS:CE1	2.54	0.43
2:G:1249:PRO:HG2	2:G:1252:HIS:HB2	2.01	0.43
2:G:1758:ARG:NH1	2:G:2036:GLN:HG3	2.33	0.43
2:G:1808:ARG:HG3	2:G:1854:PHE:CE1	2.53	0.43
2:G:3169:LEU:HA	2:G:3172:ILE:HG22	2.00	0.43
2:G:3375:GLU:O	2:G:3379:LEU:HD23	2.18	0.43
2:G:3866:ILE:HG23	2:G:3868:ARG:HG3	2.01	0.43
2:G:4150:LEU:O	2:G:4154:VAL:HG12	2.19	0.43
2:J:22:LEU:HB3	2:J:200:TRP:CE3	2.54	0.43
2:J:1000:ARG:HH12	3:K:114:TYR:HA	1.83	0.43
2:J:2212:VAL:HG22	2:J:2256:TYR:CZ	2.54	0.43
2:J:2336:ARG:HB2	2:J:2435:ARG:CD	2.45	0.43
2:J:3015:LEU:HD23	2:J:3025:LEU:HD11	2.01	0.43
2:J:3144:PHE:HA	2:J:3147:ILE:HG12	2.00	0.43
2:J:3362:ILE:HD12	2:J:3362:ILE:HA	1.91	0.43
2:J:4802:GLY:HA2	2:J:4808:PHE:HB2	2.01	0.43
3:K:36:TRP:CZ3	3:K:78:VAL:HG11	2.54	0.43
3:K:98:ASP:N	3:K:98:ASP:OD1	2.49	0.43
1:D:55:VAL:HG23	2:E:1783:VAL:HB	2.00	0.42
2:B:21:VAL:HB	2:B:205:ILE:HD11	2.00	0.42
2:B:887:ILE:HD13	2:B:959:TYR:HB3	2.00	0.42
2:B:3069:HIS:HD2	2:B:3142:THR:HB	1.84	0.42
2:B:3203:VAL:HG23	2:B:3214:ASN:HD22	1.84	0.42
2:B:3445:TRP:CE2	2:B:3452:LYS:HG2	2.53	0.42
2:B:4225:GLY:O	2:B:4230:LYS:NZ	2.52	0.42
2:B:4243:PHE:O	2:B:4247:ILE:HG12	2.18	0.42
2:E:551:LEU:HD23	2:E:560:ILE:HG13	2.01	0.42
2:E:790:ARG:HA	2:E:1626:TRP:O	2.19	0.42
2:E:1421:ARG:O	2:E:1570:LYS:NZ	2.52	0.42
2:E:2212:VAL:HG22	2:E:2256:TYR:CZ	2.54	0.42
2:E:2496:PRO:HB3	2:E:2550:LEU:HD23	2.00	0.42
2:E:3428:ASN:HD21	2:E:3430:ASN:HB2	1.83	0.42
2:E:4661:TYR:HA	2:E:4664:LEU:HD23	2.01	0.42
2:E:5012:LYS:O	2:E:5016:GLU:HG2	2.19	0.42
2:G:21:VAL:HB	2:G:205:ILE:HD11	2.00	0.42
2:G:220:LEU:CD1	2:G:390:LEU:HB3	2.49	0.42
2:G:284:HIS:CE1	2:G:286:THR:HB	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:1207:ASP:OD1	2:G:1210:SER:HB3	2.19	0.42
2:G:1439:VAL:HB	2:G:1514:LEU:HB2	2.01	0.42
2:G:1575:LEU:O	2:G:1579:MET:HG2	2.19	0.42
2:G:2189:LYS:NZ	2:G:2193:GLN:OE1	2.33	0.42
2:G:2482:ASP:N	2:G:2482:ASP:OD1	2.51	0.42
2:G:3166:TYR:HE2	2:G:3239:MET:HG3	1.84	0.42
2:G:3187:ARG:NH2	2:G:3268:HIS:HB2	2.34	0.42
2:G:3413:ILE:HA	2:G:3516:LYS:NZ	2.34	0.42
2:G:3895:HIS:H	2:G:3970:GLN:NE2	2.16	0.42
2:G:3921:ASP:O	2:G:3925:ARG:HG3	2.18	0.42
2:J:214:VAL:HA	2:J:341:TYR:CD1	2.53	0.42
2:J:551:LEU:HD23	2:J:560:ILE:HG13	2.01	0.42
2:J:2173:GLN:O	2:J:2177:LEU:HD23	2.19	0.42
2:J:2577:ILE:HG13	2:J:2578:MET:N	2.33	0.42
2:J:2621:HIS:HA	2:J:2624:ARG:HD3	2.02	0.42
2:J:3375:GLU:O	2:J:3379:LEU:HD23	2.18	0.42
2:J:3713:LYS:NZ	2:J:3717:ASP:OD1	2.52	0.42
2:J:3886:ARG:HD2	2:J:3889:GLN:HE21	1.84	0.42
2:J:4150:LEU:O	2:J:4154:VAL:HG12	2.19	0.42
2:B:22:LEU:HB3	2:B:200:TRP:CE3	2.54	0.42
2:B:790:ARG:HA	2:B:1626:TRP:O	2.19	0.42
2:B:1776:HIS:NE2	2:B:2157:GLU:OE2	2.46	0.42
2:B:3962:PHE:O	2:B:3966:THR:HG23	2.18	0.42
2:B:4546:VAL:HG22	2:B:4550:LYS:HE3	2.00	0.42
2:E:1207:ASP:OD1	2:E:1210:SER:HB3	2.19	0.42
2:E:2101:MET:SD	2:E:2104:ARG:NH2	2.89	0.42
2:E:3375:GLU:O	2:E:3379:LEU:HD23	2.18	0.42
2:E:3390:GLY:O	2:E:3394:VAL:HG13	2.20	0.42
2:E:4068:LEU:O	2:E:4072:VAL:HG23	2.20	0.42
2:E:4225:GLY:O	2:E:4230:LYS:NZ	2.52	0.42
2:G:480:GLU:OE2	2:G:481:GLU:HG2	2.19	0.42
2:G:1623:ARG:H	2:G:1623:ARG:HD3	1.83	0.42
2:G:2621:HIS:HA	2:G:2624:ARG:HD3	2.02	0.42
2:G:2954:ARG:NH1	2:G:3030:HIS:O	2.52	0.42
2:G:3341:PHE:O	2:G:3344:PRO:HD2	2.19	0.42
2:G:3391:GLU:HA	2:G:3394:VAL:HG22	2.00	0.42
2:G:3713:LYS:NZ	2:G:3717:ASP:OD1	2.52	0.42
2:G:4147:LEU:HD23	2:G:4171:LEU:CD2	2.50	0.42
2:J:284:HIS:CE1	2:J:286:THR:HB	2.54	0.42
2:J:365:LYS:O	2:J:369:LEU:HG	2.19	0.42
2:J:598:LYS:O	2:J:602:VAL:HG23	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:1808:ARG:HG3	2:J:1854:PHE:CE1	2.53	0.42
2:J:2691:TYR:HA	2:J:2696:TYR:CE1	2.54	0.42
2:J:3449:HIS:HA	2:J:3452:LYS:HE2	2.01	0.42
2:J:3720:TYR:O	2:J:3723:MET:HG3	2.19	0.42
2:J:4147:LEU:HD23	2:J:4171:LEU:CD2	2.49	0.42
2:J:4243:PHE:O	2:J:4247:ILE:HG12	2.18	0.42
2:B:157:ARG:HH21	2:B:161:GLU:HB3	1.83	0.42
2:B:972:LEU:HB2	2:B:1044:ARG:HH21	1.85	0.42
2:B:1866:ILE:HD12	2:B:1939:MET:SD	2.59	0.42
2:B:2751:LEU:HD23	2:B:2751:LEU:H	1.83	0.42
2:B:3054:VAL:HG21	2:B:3131:TYR:HB2	2.02	0.42
2:B:3341:PHE:O	2:B:3344:PRO:HD2	2.19	0.42
2:B:4068:LEU:O	2:B:4072:VAL:HG23	2.20	0.42
2:E:365:LYS:O	2:E:369:LEU:HG	2.19	0.42
2:E:1087:ARG:HG2	2:E:1154:ASP:HA	2.01	0.42
2:E:1158:ASN:HB3	2:E:1182:ILE:N	2.28	0.42
2:E:2697:ARG:NH2	2:E:2698:MET:HB3	2.33	0.42
2:E:2996:LYS:HD3	2:E:2996:LYS:HA	1.84	0.42
2:E:3187:ARG:NH2	2:E:3268:HIS:HB2	2.34	0.42
2:E:3252:ASP:O	2:E:3256:LEU:HG	2.19	0.42
2:E:3341:PHE:O	2:E:3344:PRO:HD2	2.19	0.42
2:E:3379:LEU:HD12	2:E:3387:ALA:HA	2.01	0.42
2:E:4147:LEU:HD23	2:E:4171:LEU:CD2	2.49	0.42
2:G:111:HIS:HE1	2:G:113:HIS:HB3	1.83	0.42
2:G:1244:GLN:OE1	2:G:1646:ARG:NH1	2.51	0.42
2:G:2212:VAL:HG22	2:G:2256:TYR:CZ	2.54	0.42
2:G:2775:TRP:CE2	2:G:2786:LYS:HE2	2.54	0.42
2:G:4049:VAL:HG12	2:G:4163:PHE:CZ	2.54	0.42
2:G:4181:ILE:HG13	2:G:4182:GLU:N	2.34	0.42
2:G:4555:LEU:HD22	2:G:4562:LEU:HD11	2.00	0.42
2:J:21:VAL:HB	2:J:205:ILE:HD11	2.00	0.42
2:J:82:LEU:HD11	2:J:144:GLU:HB3	2.00	0.42
2:J:1083:VAL:HG23	2:J:1155:LEU:HD11	2.01	0.42
2:J:1087:ARG:HG2	2:J:1154:ASP:HA	2.01	0.42
2:J:1293:LEU:HD11	2:J:1594:ARG:HG2	2.01	0.42
2:J:1500:PHE:HE1	2:J:1536:SER:HG	1.67	0.42
2:J:1623:ARG:HD3	2:J:1623:ARG:H	1.83	0.42
2:J:3886:ARG:HA	2:J:3889:GLN:HE21	1.84	0.42
2:J:4049:VAL:HG12	2:J:4163:PHE:CZ	2.54	0.42
1:D:7:ILE:HB	1:D:71:ARG:O	2.18	0.42
2:B:911:HIS:HB2	2:B:913:LEU:HG	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1075:PHE:HB2	2:B:1192:CYS:SG	2.59	0.42
2:B:1839:VAL:HG21	2:B:1934:SER:HB2	2.00	0.42
2:B:2694:GLU:OE2	2:B:2697:ARG:NH2	2.52	0.42
2:B:2754:PHE:HB2	2:B:2935:TYR:OH	2.19	0.42
2:B:2954:ARG:NH1	2:B:3030:HIS:O	2.52	0.42
2:B:3428:ASN:HD21	2:B:3430:ASN:HB2	1.84	0.42
2:B:3754:GLU:O	2:B:3758:MET:HG2	2.19	0.42
2:B:3886:ARG:HA	2:B:3889:GLN:HE21	1.84	0.42
2:B:4046:ASP:O	2:B:4049:VAL:HG22	2.18	0.42
2:E:480:GLU:OE2	2:E:481:GLU:HG2	2.19	0.42
2:E:911:HIS:HB2	2:E:913:LEU:HG	2.01	0.42
2:E:1161:ILE:HG13	2:E:1177:THR:HG22	2.00	0.42
2:E:2694:GLU:OE2	2:E:2697:ARG:NH2	2.52	0.42
2:E:2775:TRP:CE2	2:E:2786:LYS:HE2	2.54	0.42
2:E:2954:ARG:NH1	2:E:3030:HIS:O	2.52	0.42
2:E:3069:HIS:HD2	2:E:3142:THR:HB	1.84	0.42
2:E:4555:LEU:HD22	2:E:4562:LEU:HD11	2.00	0.42
2:G:358:THR:O	2:G:377:ILE:HG12	2.19	0.42
2:G:766:GLY:HA3	2:G:1476:MET:HE1	2.01	0.42
2:G:1083:VAL:HG23	2:G:1155:LEU:HD11	2.01	0.42
2:G:1293:LEU:HD11	2:G:1594:ARG:HG2	2.01	0.42
2:G:2173:GLN:O	2:G:2177:LEU:HD23	2.19	0.42
2:G:2251:PHE:CE1	2:G:2254:LEU:HD22	2.54	0.42
2:G:3069:HIS:HD2	2:G:3142:THR:HB	1.84	0.42
2:G:3144:PHE:HA	2:G:3147:ILE:HG12	2.00	0.42
2:G:3449:HIS:HA	2:G:3452:LYS:HE2	2.02	0.42
2:G:3720:TYR:O	2:G:3723:MET:HG3	2.19	0.42
2:G:4682:GLU:HA	2:G:4724:VAL:HG22	2.02	0.42
2:J:531:ARG:NH2	2:J:562:GLU:OE2	2.50	0.42
2:J:849:THR:O	2:J:852:VAL:HG22	2.20	0.42
2:J:1727:ARG:NH1	2:J:1851:MET:O	2.52	0.42
2:J:1816:GLY:HA2	2:J:1865:MET:CE	2.50	0.42
2:J:2137:ALA:O	2:J:2140:ARG:HG2	2.20	0.42
2:J:2273:LEU:HG	2:J:2334:PHE:CE2	2.54	0.42
2:J:2694:GLU:OE2	2:J:2697:ARG:NH2	2.52	0.42
2:J:2759:ALA:HA	2:J:2809:ILE:HG12	2.00	0.42
2:J:2954:ARG:NH1	2:J:3030:HIS:O	2.52	0.42
2:J:3195:ALA:HB2	2:J:3275:PRO:HB3	2.02	0.42
2:J:3284:TRP:HB3	2:J:3305:THR:HG21	2.02	0.42
2:J:4068:LEU:O	2:J:4072:VAL:HG23	2.20	0.42
2:J:4147:LEU:HD22	2:J:4167:ALA:HB3	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:360:ALA:HA	2:B:377:ILE:CD1	2.49	0.42
2:B:480:GLU:OE2	2:B:481:GLU:HG2	2.19	0.42
2:B:2126:ARG:NH2	2:B:2133:GLU:OE2	2.48	0.42
2:B:2527:LEU:HD22	2:B:2582:MET:HE2	1.99	0.42
2:B:4147:LEU:HD22	2:B:4167:ALA:HB3	2.02	0.42
2:B:4994:TYR:O	2:B:4998:LYS:HG2	2.20	0.42
2:E:181:HIS:ND1	2:E:198:THR:OG1	2.50	0.42
2:E:849:THR:O	2:E:852:VAL:HG22	2.20	0.42
2:E:1727:ARG:NH1	2:E:1851:MET:O	2.52	0.42
2:E:2173:GLN:O	2:E:2177:LEU:HD23	2.19	0.42
2:E:3413:ILE:HG12	2:E:3516:LYS:HZ1	1.84	0.42
2:E:3885:PHE:O	2:E:3889:GLN:HG2	2.20	0.42
2:G:849:THR:O	2:G:852:VAL:HG22	2.20	0.42
2:G:1128:ARG:HH21	2:G:1132:TRP:HZ2	1.67	0.42
2:G:1661:ARG:O	2:G:1665:HIS:HD2	2.00	0.42
2:G:1670:TYR:HA	2:G:1673:VAL:HG22	2.01	0.42
2:G:1727:ARG:NH1	2:G:1851:MET:O	2.53	0.42
2:G:2137:ALA:O	2:G:2140:ARG:HG2	2.20	0.42
2:G:2357:LEU:HD13	2:G:2364:PHE:HZ	1.84	0.42
2:G:2374:SER:OG	2:G:2375:GLY:N	2.53	0.42
2:G:3445:TRP:CE2	2:G:3452:LYS:HG2	2.53	0.42
2:G:3553:LEU:HD23	2:G:3593:VAL:HA	2.01	0.42
2:G:4147:LEU:HD22	2:G:4167:ALA:HB3	2.02	0.42
2:G:4225:GLY:O	2:G:4230:LYS:NZ	2.52	0.42
2:J:284:HIS:HE1	2:J:286:THR:HB	1.84	0.42
2:J:972:LEU:HB2	2:J:1044:ARG:HH21	1.85	0.42
2:J:1075:PHE:HB2	2:J:1192:CYS:SG	2.59	0.42
2:J:1154:ASP:O	2:J:1158:ASN:N	2.52	0.42
2:J:1207:ASP:OD1	2:J:1210:SER:HB3	2.19	0.42
2:J:1421:ARG:O	2:J:1570:LYS:NZ	2.52	0.42
2:J:2454:ARG:O	2:J:2458:ARG:HG3	2.19	0.42
2:J:4181:ILE:HG13	2:J:4182:GLU:H	1.84	0.42
3:F:14:ALA:HA	3:F:85:LEU:HB2	2.02	0.42
2:B:551:LEU:HD23	2:B:560:ILE:HG13	2.01	0.42
2:B:682:LEU:HD22	2:B:738:LEU:HD22	2.01	0.42
2:B:1854:PHE:HD1	2:B:1858:ASP:HB3	1.85	0.42
2:B:3284:TRP:HB3	2:B:3305:THR:HG21	2.02	0.42
2:B:3449:HIS:HA	2:B:3452:LYS:HE2	2.01	0.42
2:B:4147:LEU:HD23	2:B:4171:LEU:CD2	2.49	0.42
2:B:5012:LYS:O	2:B:5016:GLU:HG2	2.19	0.42
2:E:103:TYR:CZ	2:E:163:VAL:HG12	2.55	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:341:TYR:HE2	2:E:392:ARG:HB2	1.85	0.42
2:E:472:ARG:NH1	2:E:475:GLN:OE1	2.53	0.42
2:E:1075:PHE:HB2	2:E:1192:CYS:SG	2.59	0.42
2:E:1816:GLY:HA2	2:E:1865:MET:CE	2.50	0.42
2:E:2182:ILE:HG22	2:E:2186:MET:HE1	2.02	0.42
2:E:2477:PRO:HG2	2:E:2536:LEU:HD11	2.00	0.42
2:E:2878:LEU:HG	2:E:2882:TYR:CZ	2.54	0.42
2:E:3413:ILE:HA	2:E:3516:LYS:NZ	2.34	0.42
2:E:3592:ILE:HG12	2:E:3595:ARG:NH2	2.34	0.42
2:E:4204:GLN:NE2	2:E:4248:ALA:HB3	2.35	0.42
2:E:4682:GLU:HA	2:E:4724:VAL:HG22	2.02	0.42
2:G:790:ARG:HA	2:G:1626:TRP:O	2.19	0.42
2:G:972:LEU:HB2	2:G:1044:ARG:HH21	1.85	0.42
2:G:1066:GLN:HA	2:G:1069:TRP:CH2	2.55	0.42
2:G:2754:PHE:HB2	2:G:2935:TYR:OH	2.19	0.42
2:G:2878:LEU:HG	2:G:2882:TYR:CZ	2.54	0.42
2:G:3023:LYS:HZ3	2:G:3025:LEU:HB2	1.84	0.42
2:G:3054:VAL:HG21	2:G:3131:TYR:HB2	2.02	0.42
2:G:3368:ARG:HA	2:G:3371:LYS:HG2	2.00	0.42
2:G:3962:PHE:HA	2:G:3965:LEU:HD12	2.01	0.42
2:G:4546:VAL:HG22	2:G:4550:LYS:HE3	2.00	0.42
2:J:157:ARG:HH21	2:J:161:GLU:HB3	1.83	0.42
2:J:835:ARG:HB3	2:J:838:HIS:CE1	2.54	0.42
2:J:1439:VAL:HB	2:J:1514:LEU:HB2	2.01	0.42
2:J:1575:LEU:O	2:J:1579:MET:HG2	2.19	0.42
2:J:2747:ILE:HD13	2:J:2814:LYS:HA	2.02	0.42
2:J:2754:PHE:HB2	2:J:2935:TYR:OH	2.19	0.42
2:J:2775:TRP:CE2	2:J:2786:LYS:HE2	2.54	0.42
2:J:2965:ARG:O	2:J:2969:ILE:HG13	2.18	0.42
2:J:3054:VAL:HG21	2:J:3131:TYR:HB2	2.02	0.42
2:J:3252:ASP:O	2:J:3256:LEU:HG	2.19	0.42
2:J:4555:LEU:HD22	2:J:4562:LEU:HD11	2.00	0.42
2:J:4682:GLU:HA	2:J:4724:VAL:HG22	2.02	0.42
1:D:31:GLN:NE2	2:E:1299:GLN:HB3	2.34	0.42
2:B:365:LYS:O	2:B:369:LEU:HG	2.19	0.42
2:B:515:TRP:CZ3	2:B:555:GLU:HG2	2.55	0.42
2:B:1157:GLU:O	2:B:1159:THR:HG23	2.20	0.42
2:B:1771:LEU:HD12	2:B:2144:ILE:HD11	2.02	0.42
2:B:2374:SER:OG	2:B:2375:GLY:N	2.53	0.42
2:B:2431:ASP:O	2:B:2435:ARG:HG2	2.20	0.42
2:B:2747:ILE:HD13	2:B:2814:LYS:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:2815:ALA:HB1	2:B:2881:ASN:ND2	2.35	0.42
2:B:3015:LEU:HD23	2:B:3025:LEU:HD11	2.01	0.42
2:B:3144:PHE:HA	2:B:3147:ILE:HG12	2.00	0.42
2:B:3187:ARG:NH1	2:B:3267:PRO:HB2	2.35	0.42
2:B:3866:ILE:HG23	2:B:3868:ARG:HG3	2.00	0.42
2:B:3885:PHE:O	2:B:3889:GLN:HG2	2.20	0.42
2:B:3951:PHE:HB3	2:B:3955:MET:HE1	2.02	0.42
2:B:4154:VAL:O	2:B:4154:VAL:HG13	2.20	0.42
2:B:4181:ILE:HG13	2:B:4182:GLU:N	2.34	0.42
2:B:4682:GLU:HA	2:B:4724:VAL:HG22	2.02	0.42
2:E:972:LEU:HB2	2:E:1044:ARG:HH21	1.85	0.42
2:E:1293:LEU:HD11	2:E:1594:ARG:HG2	2.01	0.42
2:E:1866:ILE:HD12	2:E:1939:MET:SD	2.59	0.42
2:E:2137:ALA:O	2:E:2140:ARG:HG2	2.20	0.42
2:E:2815:ALA:HB1	2:E:2881:ASN:ND2	2.35	0.42
2:E:3886:ARG:HA	2:E:3889:GLN:HE21	1.84	0.42
2:G:246:TYR:HD2	2:G:373:LYS:HE3	1.78	0.42
2:G:487:VAL:O	2:G:491:ILE:HG13	2.20	0.42
2:G:595:ARG:HH22	2:G:1641:ILE:HG23	1.85	0.42
2:G:1154:ASP:O	2:G:1158:ASN:N	2.52	0.42
2:G:3195:ALA:HB2	2:G:3275:PRO:HB3	2.02	0.42
2:G:4584:ASP:HA	2:G:4628:VAL:HA	2.01	0.42
2:G:4994:TYR:O	2:G:4998:LYS:HG2	2.20	0.42
2:J:299:LEU:HD11	2:J:376:ALA:HB3	2.01	0.42
2:J:487:VAL:O	2:J:491:ILE:HG13	2.20	0.42
2:J:790:ARG:HA	2:J:1626:TRP:O	2.19	0.42
2:J:1854:PHE:HD1	2:J:1858:ASP:HB3	1.85	0.42
2:J:2263:ILE:O	2:J:2267:MET:HG2	2.20	0.42
2:J:3144:PHE:CE2	2:J:3197:LEU:HB3	2.54	0.42
2:J:3390:GLY:O	2:J:3394:VAL:HG13	2.20	0.42
2:J:4071:ILE:HD13	2:J:4103:PHE:CE2	2.50	0.42
2:J:4661:TYR:HA	2:J:4664:LEU:HD23	2.01	0.42
3:C:105:ASN:ND2	3:C:108:GLY:O	2.52	0.42
2:B:2251:PHE:CE1	2:B:2254:LEU:HD22	2.54	0.42
2:B:2273:LEU:HG	2:B:2334:PHE:CE2	2.54	0.42
2:B:2694:GLU:CD	2:B:2697:ARG:HH21	2.22	0.42
2:B:3413:ILE:HA	2:B:3516:LYS:NZ	2.34	0.42
2:E:583:ILE:O	2:E:587:ILE:HG13	2.20	0.42
2:E:1000:ARG:HH12	3:F:114:TYR:HA	1.84	0.42
2:E:2431:ASP:O	2:E:2435:ARG:HG2	2.20	0.42
2:E:2747:ILE:HD13	2:E:2814:LYS:HA	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:117:TYR:N	2:G:138:GLN:O	2.51	0.42
2:G:515:TRP:CZ3	2:G:555:GLU:HG2	2.55	0.42
2:G:548:VAL:HA	2:G:551:LEU:HG	2.02	0.42
2:G:1100:MET:CE	2:G:1192:CYS:HB2	2.50	0.42
2:G:1432:THR:OG1	2:G:1519:LEU:HG	2.20	0.42
2:G:1496:TRP:CZ2	2:G:1498:GLY:HA3	2.55	0.42
2:G:1771:LEU:HD12	2:G:2144:ILE:HD11	2.02	0.42
2:G:2977:LEU:HA	2:G:2980:VAL:HG22	2.02	0.42
2:G:3284:TRP:HB3	2:G:3305:THR:HG21	2.02	0.42
2:G:3754:GLU:O	2:G:3758:MET:HG2	2.19	0.42
2:G:3885:PHE:O	2:G:3889:GLN:HG2	2.20	0.42
2:G:4068:LEU:O	2:G:4072:VAL:HG23	2.20	0.42
2:G:4197:ILE:HG21	2:G:4202:ARG:HH11	1.85	0.42
2:J:111:HIS:HE1	2:J:113:HIS:HB3	1.83	0.42
2:J:647:ASN:ND2	2:J:822:ARG:HG2	2.35	0.42
2:J:2878:LEU:HG	2:J:2882:TYR:CZ	2.54	0.42
2:J:3166:TYR:HE2	2:J:3239:MET:HG3	1.84	0.42
2:J:3341:PHE:O	2:J:3344:PRO:HD2	2.19	0.42
2:J:3413:ILE:HA	2:J:3516:LYS:NZ	2.34	0.42
2:J:3553:LEU:HD23	2:J:3593:VAL:HA	2.01	0.42
2:J:3713:LYS:NZ	2:J:3716:LEU:HD12	2.35	0.42
3:C:14:ALA:HA	3:C:85:LEU:HB2	2.02	0.42
3:C:36:TRP:CZ3	3:C:78:VAL:HG11	2.54	0.42
3:M:36:TRP:CZ3	3:M:78:VAL:HG11	2.54	0.42
2:B:583:ILE:O	2:B:587:ILE:HG13	2.20	0.42
2:B:2110:TYR:HB2	2:B:3695:PRO:HD2	2.02	0.42
2:B:2212:VAL:HG22	2:B:2256:TYR:CZ	2.54	0.42
2:B:2445:ALA:HB1	2:B:2447:LYS:HE2	2.02	0.42
2:B:2621:HIS:HA	2:B:2624:ARG:HD3	2.02	0.42
2:B:2775:TRP:CE2	2:B:2786:LYS:HE2	2.54	0.42
2:B:2977:LEU:HA	2:B:2980:VAL:HG22	2.02	0.42
2:B:3023:LYS:HZ3	2:B:3025:LEU:HB2	1.84	0.42
2:B:3144:PHE:CE2	2:B:3197:LEU:HB3	2.54	0.42
2:E:835:ARG:HB3	2:E:838:HIS:CE1	2.54	0.42
2:E:1435:TYR:HE1	2:E:1452:TRP:CZ2	2.38	0.42
2:E:1698:LEU:HG	2:E:1712:TYR:CE1	2.55	0.42
2:E:1733:GLU:OE2	2:E:2163:ARG:NH2	2.53	0.42
2:E:1854:PHE:HD1	2:E:1858:ASP:HB3	1.85	0.42
2:E:1965:TYR:O	2:E:1969:LEU:HD23	2.20	0.42
2:E:2700:MET:CE	2:E:3004:PRO:HB2	2.50	0.42
2:E:2737:PRO:HB2	2:E:2884:ASN:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:4150:LEU:O	2:E:4154:VAL:HG12	2.19	0.42
2:E:4879:MET:HE1	2:J:4580:TYR:HB2	2.02	0.42
2:G:103:TYR:CZ	2:G:163:VAL:HG12	2.55	0.42
2:G:210:GLU:HG2	2:G:273:HIS:CD2	2.55	0.42
2:G:664:PHE:HA	2:G:800:PHE:HE1	1.85	0.42
2:G:1854:PHE:HD1	2:G:1858:ASP:HB3	1.85	0.42
2:G:1866:ILE:HD12	2:G:1939:MET:SD	2.59	0.42
2:G:2747:ILE:HD13	2:G:2814:LYS:HA	2.02	0.42
2:G:2911:LEU:HD13	2:G:2915:GLU:HG3	2.02	0.42
2:G:3015:LEU:HD23	2:G:3025:LEU:HD11	2.01	0.42
2:G:3510:ILE:HG21	2:G:3606:LEU:HD22	2.02	0.42
2:G:3886:ARG:HA	2:G:3889:GLN:HE21	1.84	0.42
2:G:3892:CYS:O	2:G:3970:GLN:NE2	2.53	0.42
2:G:4071:ILE:HD13	2:G:4103:PHE:CE2	2.50	0.42
2:G:4154:VAL:O	2:G:4154:VAL:HG13	2.20	0.42
2:G:4181:ILE:HG13	2:G:4182:GLU:H	1.84	0.42
2:J:372:LEU:O	2:J:374:LYS:HG3	2.20	0.42
2:J:548:VAL:HA	2:J:551:LEU:HG	2.02	0.42
2:J:1866:ILE:HD12	2:J:1939:MET:SD	2.59	0.42
2:J:2183:GLY:HA2	2:J:2186:MET:HE1	2.01	0.42
2:J:2423:MET:HE2	2:J:2498:HIS:CD2	2.55	0.42
2:J:2815:ALA:HB1	2:J:2881:ASN:ND2	2.35	0.42
2:J:2911:LEU:HD13	2:J:2915:GLU:HG3	2.01	0.42
2:J:3069:HIS:HD2	2:J:3142:THR:HB	1.84	0.42
2:J:3379:LEU:HD12	2:J:3387:ALA:HA	2.02	0.42
2:J:3866:ILE:HG23	2:J:3868:ARG:HG3	2.00	0.42
2:J:4027:LEU:HD12	2:J:4028:LEU:N	2.34	0.42
2:B:424:LYS:HE2	2:B:424:LYS:HB2	1.90	0.42
2:B:548:VAL:HA	2:B:551:LEU:HG	2.02	0.42
2:B:1147:ASP:HB3	2:B:1164:LEU:HD11	2.02	0.42
2:B:1432:THR:OG1	2:B:1519:LEU:HG	2.20	0.42
2:B:1727:ARG:NH1	2:B:1851:MET:O	2.52	0.42
2:B:3195:ALA:HB2	2:B:3275:PRO:HB3	2.02	0.42
2:B:3252:ASP:O	2:B:3256:LEU:HG	2.19	0.42
2:B:4851:TYR:HA	2:B:4854:VAL:HG22	2.01	0.42
2:E:223:PHE:CD2	2:E:230:CYS:HB3	2.55	0.42
2:E:647:ASN:ND2	2:E:822:ARG:HG2	2.35	0.42
2:E:2223:ILE:HD12	2:E:2223:ILE:HA	1.94	0.42
2:E:2230:THR:O	2:E:2234:ARG:HG3	2.20	0.42
2:E:2263:ILE:O	2:E:2267:MET:HG2	2.20	0.42
2:E:2977:LEU:HA	2:E:2980:VAL:HG22	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3054:VAL:HG21	2:E:3131:TYR:HB2	2.02	0.42
2:E:3195:ALA:HB2	2:E:3275:PRO:HB3	2.02	0.42
2:E:3284:TRP:HB3	2:E:3305:THR:HG21	2.02	0.42
2:E:3510:ILE:HG21	2:E:3606:LEU:HD22	2.02	0.42
2:E:3579:LEU:HD23	2:E:3582:ARG:HA	2.02	0.42
2:G:1071:ARG:HA	2:G:1071:ARG:HD3	1.83	0.42
2:G:1087:ARG:HG2	2:G:1154:ASP:HA	2.01	0.42
2:G:1157:GLU:O	2:G:1159:THR:HG23	2.20	0.42
2:G:1423:ASP:OD2	2:G:1425:GLU:HG2	2.20	0.42
2:G:1963:GLU:HA	2:G:1966:VAL:HG12	2.02	0.42
2:G:2456:ILE:O	2:G:2460:LEU:HD23	2.20	0.42
2:G:4062:PHE:CZ	2:G:4139:ILE:HG23	2.54	0.42
2:J:515:TRP:CZ3	2:J:555:GLU:HG2	2.55	0.42
2:J:1698:LEU:HG	2:J:1712:TYR:CE1	2.55	0.42
2:J:4062:PHE:CZ	2:J:4139:ILE:HG23	2.54	0.42
2:J:4154:VAL:HG13	2:J:4154:VAL:O	2.20	0.42
2:J:4998:LYS:HB2	2:J:4998:LYS:HE3	1.82	0.42
2:B:103:TYR:CZ	2:B:163:VAL:HG12	2.55	0.41
2:B:1083:VAL:HG23	2:B:1155:LEU:HD11	2.01	0.41
2:B:1496:TRP:CZ2	2:B:1498:GLY:HA3	2.55	0.41
2:B:1670:TYR:HA	2:B:1673:VAL:HG22	2.01	0.41
2:B:1733:GLU:OE2	2:B:2163:ARG:NH2	2.53	0.41
2:B:1943:LEU:HA	2:B:1946:PHE:CD2	2.55	0.41
2:B:1978:ALA:O	2:B:1981:MET:HG2	2.20	0.41
2:B:2003:GLN:H	2:B:2003:GLN:CD	2.24	0.41
2:B:2137:ALA:O	2:B:2140:ARG:HG2	2.20	0.41
2:B:2173:GLN:O	2:B:2177:LEU:HD23	2.19	0.41
2:B:2962:GLN:OE1	2:B:2965:ARG:HD3	2.20	0.41
2:B:3510:ILE:HG21	2:B:3606:LEU:HD22	2.02	0.41
2:B:3553:LEU:HD23	2:B:3593:VAL:HA	2.01	0.41
2:B:3962:PHE:HA	2:B:3965:LEU:HD12	2.01	0.41
2:B:4097:MET:HE3	2:B:4108:ILE:HA	2.02	0.41
2:B:4181:ILE:HD11	2:B:4988:TYR:CD2	2.55	0.41
2:B:4230:LYS:HB2	2:B:4230:LYS:HZ3	1.85	0.41
2:E:515:TRP:CZ3	2:E:555:GLU:HG2	2.55	0.41
2:E:728:ARG:NH2	2:E:1489:CYS:SG	2.93	0.41
2:E:744:VAL:HG22	2:E:759:ILE:HD12	2.02	0.41
2:E:1066:GLN:HA	2:E:1069:TRP:CH2	2.55	0.41
2:E:2351:ASN:O	2:E:2355:ARG:HD3	2.20	0.41
2:E:2906:VAL:HG23	2:E:2911:LEU:HB3	2.02	0.41
2:E:3144:PHE:CE2	2:E:3197:LEU:HB3	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3866:ILE:HG23	2:E:3868:ARG:HG3	2.00	0.41
2:E:4994:TYR:O	2:E:4998:LYS:HG2	2.20	0.41
2:G:583:ILE:O	2:G:587:ILE:HG13	2.20	0.41
2:G:2273:LEU:HG	2:G:2334:PHE:CE2	2.54	0.41
2:G:2815:ALA:HB1	2:G:2881:ASN:ND2	2.35	0.41
2:G:3187:ARG:NH1	2:G:3267:PRO:HB2	2.35	0.41
2:G:4181:ILE:HD11	2:G:4988:TYR:CD2	2.55	0.41
2:J:103:TYR:CZ	2:J:163:VAL:HG12	2.55	0.41
2:J:1733:GLU:OE2	2:J:2163:ARG:NH2	2.53	0.41
2:J:1965:TYR:O	2:J:1969:LEU:HD23	2.20	0.41
2:J:2906:VAL:HG23	2:J:2911:LEU:HB3	2.02	0.41
2:J:2978:GLU:HA	2:J:2981:VAL:HG12	2.02	0.41
2:J:3187:ARG:NH1	2:J:3267:PRO:HB2	2.35	0.41
2:J:3510:ILE:HG21	2:J:3606:LEU:HD22	2.02	0.41
2:J:3885:PHE:O	2:J:3889:GLN:HG2	2.20	0.41
2:J:4197:ILE:HG21	2:J:4202:ARG:HH11	1.85	0.41
3:M:51:ILE:C	3:M:71:ARG:HH21	2.19	0.41
1:A:55:VAL:HG13	1:A:60:GLU:HB2	2.02	0.41
2:B:595:ARG:HH22	2:B:1641:ILE:HG23	1.85	0.41
2:B:728:ARG:NH2	2:B:1489:CYS:SG	2.93	0.41
2:B:891:TRP:HA	2:B:902:ARG:HB3	2.01	0.41
2:B:1698:LEU:HG	2:B:1712:TYR:CE1	2.55	0.41
2:B:1816:GLY:HA2	2:B:1865:MET:CE	2.50	0.41
2:B:2351:ASN:O	2:B:2355:ARG:HD3	2.20	0.41
2:B:4576:ILE:HG21	2:B:4643:LEU:HB2	2.01	0.41
2:B:4661:TYR:HA	2:B:4664:LEU:HD23	2.01	0.41
2:E:733:PRO:HB2	2:E:762:CYS:SG	2.60	0.41
2:E:1147:ASP:HB3	2:E:1164:LEU:HD11	2.02	0.41
2:E:1423:ASP:OD2	2:E:1425:GLU:HG2	2.20	0.41
2:E:1943:LEU:HA	2:E:1946:PHE:CD2	2.55	0.41
2:E:2768:PHE:HB2	2:E:2857:PRO:HD2	2.00	0.41
2:E:3187:ARG:NH1	2:E:3267:PRO:HB2	2.35	0.41
2:E:3335:MET:CB	2:E:3403:ARG:HD2	2.50	0.41
2:E:4779:LYS:HB2	2:E:4779:LYS:HE3	1.88	0.41
2:E:4851:TYR:HA	2:E:4854:VAL:HG22	2.01	0.41
2:G:449:ILE:O	2:G:453:GLU:HG3	2.21	0.41
2:G:1248:VAL:HG22	2:G:1599:MET:HE3	2.01	0.41
2:G:2110:TYR:HB2	2:G:3695:PRO:HD2	2.02	0.41
2:G:2126:ARG:NH2	2:G:2133:GLU:OE2	2.48	0.41
2:G:2737:PRO:HB2	2:G:2884:ASN:O	2.20	0.41
2:G:3335:MET:CB	2:G:3403:ARG:HD2	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3592:ILE:HG12	2:G:3595:ARG:NH2	2.34	0.41
2:G:4162:ASN:O	2:G:4166:LEU:HG	2.20	0.41
2:G:4899:ASP:OD1	2:G:4899:ASP:N	2.54	0.41
2:G:4998:LYS:HB2	2:G:4998:LYS:HE3	1.82	0.41
2:J:733:PRO:HB2	2:J:762:CYS:SG	2.60	0.41
2:J:1100:MET:CE	2:J:1192:CYS:HB2	2.50	0.41
2:J:1435:TYR:HE1	2:J:1452:TRP:CZ2	2.38	0.41
2:J:2251:PHE:CE1	2:J:2254:LEU:HD22	2.54	0.41
2:J:2445:ALA:HB1	2:J:2447:LYS:HE2	2.02	0.41
2:J:3579:LEU:HD23	2:J:3582:ARG:HA	2.02	0.41
2:J:4097:MET:HE3	2:J:4108:ILE:HA	2.02	0.41
3:C:34:MET:HE1	3:C:95:CYS:SG	2.60	0.41
3:C:51:ILE:C	3:C:71:ARG:HH21	2.19	0.41
1:D:7:ILE:O	2:E:736:HIS:HA	2.20	0.41
1:I:57:LYS:HD2	1:I:80:VAL:HG12	2.03	0.41
2:B:210:GLU:HG2	2:B:273:HIS:CD2	2.55	0.41
2:B:472:ARG:HA	2:B:472:ARG:HD3	1.93	0.41
2:B:472:ARG:NH1	2:B:475:GLN:OE1	2.53	0.41
2:B:487:VAL:O	2:B:491:ILE:HG13	2.20	0.41
2:B:1175:SER:HB2	2:B:1180:ARG:NH2	2.36	0.41
2:B:1500:PHE:HE1	2:B:1536:SER:HG	1.68	0.41
2:B:1561:VAL:HG13	2:B:1562:ILE:N	2.35	0.41
2:B:2611:CYS:SG	2:B:2643:LEU:HD11	2.61	0.41
2:B:2700:MET:CE	2:B:3004:PRO:HB2	2.50	0.41
2:B:2878:LEU:HG	2:B:2882:TYR:CZ	2.54	0.41
2:B:4150:LEU:O	2:B:4154:VAL:HG12	2.19	0.41
2:B:4204:GLN:NE2	2:B:4248:ALA:HB3	2.35	0.41
2:E:16:THR:HG23	2:E:99:ARG:O	2.21	0.41
2:E:487:VAL:O	2:E:491:ILE:HG13	2.20	0.41
2:E:548:VAL:HA	2:E:551:LEU:HG	2.02	0.41
2:E:2110:TYR:HB2	2:E:3695:PRO:HD2	2.02	0.41
2:E:2374:SER:OG	2:E:2375:GLY:N	2.53	0.41
2:E:2537:ASP:OD2	2:E:2592:GLY:HA3	2.21	0.41
2:E:2621:HIS:HA	2:E:2624:ARG:HD3	2.01	0.41
2:E:4147:LEU:HD22	2:E:4167:ALA:HB3	2.02	0.41
2:E:4154:VAL:HG13	2:E:4154:VAL:O	2.20	0.41
2:G:363:ASP:HA	2:G:364:PRO:HD2	1.96	0.41
2:G:1175:SER:HB2	2:G:1180:ARG:NH2	2.35	0.41
2:G:2351:ASN:O	2:G:2355:ARG:HD3	2.20	0.41
2:G:2694:GLU:OE2	2:G:2697:ARG:NH2	2.52	0.41
2:G:2906:VAL:HG23	2:G:2911:LEU:HB3	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3400:VAL:HG23	2:G:3403:ARG:HE	1.86	0.41
2:J:472:ARG:NH1	2:J:475:GLN:OE1	2.53	0.41
2:J:480:GLU:OE2	2:J:481:GLU:HG2	2.19	0.41
2:J:728:ARG:NH2	2:J:1489:CYS:SG	2.93	0.41
2:J:766:GLY:HA3	2:J:1476:MET:HE1	2.02	0.41
2:J:1071:ARG:HA	2:J:1071:ARG:HD3	1.83	0.41
2:J:1561:VAL:HG13	2:J:1562:ILE:N	2.35	0.41
2:J:2977:LEU:HA	2:J:2980:VAL:HG22	2.02	0.41
2:J:2996:LYS:HD3	2:J:2996:LYS:HA	1.84	0.41
2:J:3805:LEU:HD23	2:J:3812:VAL:HG23	2.03	0.41
2:B:16:THR:HG23	2:B:99:ARG:O	2.20	0.41
2:B:1043:VAL:O	2:B:1047:LEU:HG	2.21	0.41
2:B:1066:GLN:HA	2:B:1069:TRP:CH2	2.55	0.41
2:B:1293:LEU:HD11	2:B:1594:ARG:HG2	2.01	0.41
2:B:1466:LEU:HD12	2:B:1466:LEU:HA	1.94	0.41
2:B:2230:THR:O	2:B:2234:ARG:HG3	2.20	0.41
2:B:2263:ILE:O	2:B:2267:MET:HG2	2.20	0.41
2:B:2456:ILE:O	2:B:2460:LEU:HD23	2.20	0.41
2:B:2906:VAL:HG23	2:B:2911:LEU:HB3	2.02	0.41
2:B:3427:PRO:HG3	2:B:3579:LEU:HD21	2.02	0.41
2:B:4062:PHE:CZ	2:B:4139:ILE:HG23	2.54	0.41
2:B:4181:ILE:HG13	2:B:4182:GLU:H	1.84	0.41
2:B:4197:ILE:HG21	2:B:4202:ARG:HH11	1.85	0.41
2:B:4584:ASP:HA	2:B:4628:VAL:HA	2.01	0.41
2:E:1043:VAL:HA	2:E:1046:LEU:HG	2.03	0.41
2:E:1043:VAL:O	2:E:1047:LEU:HG	2.21	0.41
2:E:1175:SER:HB2	2:E:1180:ARG:NH2	2.35	0.41
2:E:2445:ALA:HB1	2:E:2447:LYS:HE2	2.02	0.41
2:E:2978:GLU:HA	2:E:2981:VAL:HG12	2.02	0.41
2:E:3413:ILE:HA	2:E:3516:LYS:HZ1	1.85	0.41
2:E:4062:PHE:CZ	2:E:4139:ILE:HG23	2.54	0.41
2:E:4087:LEU:HB3	2:E:4122:MET:SD	2.60	0.41
2:E:4958:CYS:N	2:E:4975:PHE:HE1	2.19	0.41
2:G:472:ARG:NH1	2:G:475:GLN:OE1	2.53	0.41
2:G:839:LEU:HD13	2:G:1075:PHE:CG	2.56	0.41
2:G:1435:TYR:HE1	2:G:1452:TRP:CZ2	2.38	0.41
2:G:2445:ALA:HB1	2:G:2447:LYS:HE2	2.02	0.41
2:G:2694:GLU:CD	2:G:2697:ARG:HH21	2.22	0.41
2:G:3144:PHE:CE2	2:G:3197:LEU:HB3	2.54	0.41
2:G:3593:VAL:HG23	2:G:3594:ARG:HE	1.85	0.41
2:G:3805:LEU:HD23	2:G:3812:VAL:HG23	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:4661:TYR:HA	2:G:4664:LEU:HD23	2.01	0.41
2:J:872:GLU:O	2:J:876:GLU:HG2	2.21	0.41
2:J:1128:ARG:HH21	2:J:1132:TRP:HZ2	1.67	0.41
2:J:2251:PHE:CG	2:J:2286:LEU:HD22	2.56	0.41
2:J:3335:MET:CB	2:J:3403:ARG:HD2	2.50	0.41
2:J:5012:LYS:O	2:J:5016:GLU:HG2	2.19	0.41
1:A:57:LYS:HD2	1:A:80:VAL:HG12	2.03	0.41
1:D:55:VAL:HG13	1:D:60:GLU:HB2	2.02	0.41
1:D:57:LYS:HD2	1:D:80:VAL:HG12	2.03	0.41
2:B:277:GLY:N	2:B:316:PHE:O	2.44	0.41
2:B:358:THR:HG21	2:B:382:GLY:HA2	2.03	0.41
2:B:733:PRO:HB2	2:B:762:CYS:SG	2.60	0.41
2:B:1439:VAL:HB	2:B:1514:LEU:HB2	2.01	0.41
2:B:1963:GLU:HA	2:B:1966:VAL:HG12	2.02	0.41
2:B:1965:TYR:O	2:B:1969:LEU:HD23	2.20	0.41
2:B:2336:ARG:HB2	2:B:2435:ARG:CD	2.45	0.41
2:B:2357:LEU:HD13	2:B:2364:PHE:HZ	1.84	0.41
2:B:3843:ASP:HB3	2:B:3846:ALA:HB3	2.02	0.41
2:E:839:LEU:HD13	2:E:1075:PHE:CG	2.56	0.41
2:E:891:TRP:HA	2:E:902:ARG:HB3	2.01	0.41
2:E:3427:PRO:HG3	2:E:3579:LEU:HD21	2.02	0.41
2:E:4181:ILE:HG13	2:E:4182:GLU:H	1.84	0.41
2:G:16:THR:HG23	2:G:99:ARG:O	2.21	0.41
2:G:657:THR:O	2:G:1007:TYR:N	2.54	0.41
2:G:1067:SER:HA	2:G:1070:ASP:HB2	2.03	0.41
2:G:1122:TYR:HE1	2:G:1133:HIS:CD2	2.39	0.41
2:G:1561:VAL:HG13	2:G:1562:ILE:N	2.36	0.41
2:G:1816:GLY:HA2	2:G:1865:MET:CE	2.50	0.41
2:G:1943:LEU:HA	2:G:1946:PHE:CD2	2.56	0.41
2:G:1978:ALA:O	2:G:1981:MET:HG2	2.20	0.41
2:G:2336:ARG:HB2	2:G:2435:ARG:CD	2.45	0.41
2:G:4888:TYR:OH	2:J:4913:ARG:NH2	2.53	0.41
2:G:4945:ASP:HB3	2:G:4949:GLN:HE22	1.86	0.41
2:J:308:HIS:O	2:J:312:THR:OG1	2.25	0.41
2:J:1147:ASP:HB3	2:J:1164:LEU:HD11	2.02	0.41
2:J:1175:SER:HB2	2:J:1180:ARG:NH2	2.35	0.41
2:J:1248:VAL:HG22	2:J:1599:MET:HE3	2.03	0.41
2:J:1496:TRP:CZ2	2:J:1498:GLY:HA3	2.55	0.41
2:J:1639:LEU:HD23	2:J:1653:LEU:HD11	2.02	0.41
2:J:2357:LEU:HD13	2:J:2364:PHE:HZ	1.84	0.41
2:J:2426:TYR:O	2:J:2430:ILE:HG12	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4204:GLN:NE2	2:J:4248:ALA:HB3	2.35	0.41
3:F:105:ASN:ND2	3:F:108:GLY:O	2.54	0.41
2:B:657:THR:O	2:B:1007:TYR:N	2.54	0.41
2:B:664:PHE:HA	2:B:800:PHE:HE1	1.85	0.41
2:B:744:VAL:HG22	2:B:759:ILE:HD12	2.02	0.41
2:B:872:GLU:O	2:B:876:GLU:HG2	2.21	0.41
2:E:548:VAL:HG21	2:E:582:HIS:HD2	1.86	0.41
2:E:664:PHE:HA	2:E:800:PHE:HE1	1.85	0.41
2:E:1496:TRP:CZ2	2:E:1498:GLY:HA3	2.55	0.41
2:E:1561:VAL:HG13	2:E:1562:ILE:N	2.35	0.41
2:E:2456:ILE:O	2:E:2460:LEU:HD23	2.20	0.41
2:E:3892:CYS:O	2:E:3970:GLN:NE2	2.54	0.41
2:E:3986:TRP:CZ3	2:E:3989:VAL:HG11	2.56	0.41
2:E:4197:ILE:HG21	2:E:4202:ARG:HH11	1.85	0.41
2:G:1698:LEU:HG	2:G:1712:TYR:CE1	2.55	0.41
2:G:3427:PRO:HG3	2:G:3579:LEU:HD21	2.02	0.41
2:G:4580:TYR:HB2	2:J:4879:MET:HE1	2.02	0.41
2:J:223:PHE:CD2	2:J:230:CYS:HB3	2.55	0.41
2:J:646:PRO:O	2:J:821:LEU:HD11	2.21	0.41
2:J:839:LEU:HD13	2:J:1075:PHE:CG	2.56	0.41
2:J:2431:ASP:O	2:J:2435:ARG:HG2	2.20	0.41
2:J:4088:ILE:HG23	2:J:4123:ILE:HB	2.03	0.41
3:F:107:TRP:HE3	3:F:111:ASN:HD21	1.68	0.41
3:K:14:ALA:HA	3:K:85:LEU:HB2	2.02	0.41
2:B:248:GLU:HB2	2:B:373:LYS:CD	2.37	0.41
2:B:341:TYR:HE2	2:B:392:ARG:HB2	1.85	0.41
2:B:615:ARG:HH12	2:B:1676:LEU:HB2	1.86	0.41
2:B:849:THR:O	2:B:852:VAL:HG22	2.20	0.41
2:B:1100:MET:CE	2:B:1192:CYS:HB2	2.50	0.41
2:B:2333:ASP:HA	2:B:2336:ARG:NE	2.36	0.41
2:B:2537:ASP:OD2	2:B:2592:GLY:HA3	2.21	0.41
2:B:3032:SER:HB2	2:B:3035:GLU:HG3	2.03	0.41
2:B:3986:TRP:CZ3	2:B:3989:VAL:HG11	2.56	0.41
2:E:872:GLU:O	2:E:876:GLU:HG2	2.21	0.41
2:E:1128:ARG:HH21	2:E:1132:TRP:HZ2	1.67	0.41
2:E:1154:ASP:HB2	2:E:1159:THR:H	1.86	0.41
2:E:1272:LEU:HD22	2:E:1289:LEU:HD11	2.03	0.41
2:E:2251:PHE:CG	2:E:2286:LEU:HD22	2.56	0.41
2:E:2680:TRP:CZ3	2:E:2962:GLN:HG3	2.54	0.41
2:E:2911:LEU:HD13	2:E:2915:GLU:HG3	2.02	0.41
2:E:3051:ARG:HA	2:E:3131:TYR:OH	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3754:GLU:O	2:E:3758:MET:HG2	2.19	0.41
2:E:3962:PHE:HA	2:E:3965:LEU:HD12	2.01	0.41
2:E:4162:ASN:O	2:E:4166:LEU:HG	2.20	0.41
2:E:4181:ILE:HD11	2:E:4988:TYR:CD2	2.55	0.41
2:E:4880:MET:SD	2:E:4881:THR:N	2.94	0.41
2:E:4913:ARG:NH2	2:J:4888:TYR:OH	2.53	0.41
2:G:299:LEU:HD11	2:G:376:ALA:HB3	2.02	0.41
2:G:1043:VAL:O	2:G:1047:LEU:HG	2.21	0.41
2:G:1965:TYR:O	2:G:1969:LEU:HD23	2.20	0.41
2:G:2431:ASP:O	2:G:2435:ARG:HG2	2.20	0.41
2:G:2755:ILE:HD12	2:G:2813:LEU:HG	2.02	0.41
2:G:3252:ASP:O	2:G:3256:LEU:HG	2.19	0.41
2:G:3302:PRO:HA	2:G:3303:PRO:HD3	1.94	0.41
2:G:3567:PRO:O	2:G:3570:ARG:HB3	2.21	0.41
2:J:210:GLU:HG2	2:J:273:HIS:CD2	2.55	0.41
2:J:220:LEU:HD12	2:J:390:LEU:HB3	2.03	0.41
2:J:1653:LEU:HD23	2:J:1660:GLN:HB2	2.03	0.41
2:J:1771:LEU:HD12	2:J:2144:ILE:HD11	2.02	0.41
2:J:2333:ASP:HA	2:J:2336:ARG:NE	2.36	0.41
2:J:2456:ILE:O	2:J:2460:LEU:HD23	2.20	0.41
2:J:2655:TYR:HB2	2:J:2709:ALA:O	2.21	0.41
2:J:2962:GLN:OE1	2:J:2965:ARG:HD3	2.20	0.41
2:J:3051:ARG:HA	2:J:3131:TYR:OH	2.21	0.41
2:J:3315:LEU:HD22	2:J:3345:ILE:HG12	2.02	0.41
2:J:4548:ARG:O	2:J:4552:LEU:HG	2.21	0.41
3:M:14:ALA:HA	3:M:85:LEU:HB2	2.02	0.41
1:I:15:PHE:HA	1:I:16:PRO:HD3	1.95	0.41
2:B:223:PHE:CD2	2:B:230:CYS:HB3	2.55	0.41
2:B:372:LEU:O	2:B:374:LYS:HG3	2.21	0.41
2:B:870:ILE:O	2:B:874:LEU:HG	2.20	0.41
2:B:1639:LEU:HD23	2:B:1653:LEU:HD11	2.03	0.41
2:B:1653:LEU:HD23	2:B:1660:GLN:HB2	2.03	0.41
2:B:2655:TYR:HB2	2:B:2709:ALA:O	2.21	0.41
2:B:2962:GLN:HA	2:B:2965:ARG:HG2	2.03	0.41
2:B:3392:LEU:HA	2:B:3395:ARG:HD2	2.02	0.41
2:B:3400:VAL:HG23	2:B:3403:ARG:HE	1.85	0.41
2:B:3428:ASN:ND2	2:B:3430:ASN:HB2	2.36	0.41
2:B:3713:LYS:NZ	2:B:3716:LEU:HD12	2.35	0.41
2:B:3805:LEU:HD23	2:B:3812:VAL:HG23	2.03	0.41
2:B:4880:MET:SD	2:B:4881:THR:N	2.94	0.41
2:E:43:GLY:H	2:E:443:LEU:HD23	1.86	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:615:ARG:HH12	2:E:1676:LEU:HB2	1.86	0.41
2:E:646:PRO:O	2:E:821:LEU:HD11	2.21	0.41
2:E:1067:SER:HA	2:E:1070:ASP:HB2	2.03	0.41
2:E:1247:PRO:HA	2:E:1598:GLN:HA	2.03	0.41
2:E:1443:GLN:HG2	2:E:1561:VAL:HG23	2.03	0.41
2:E:1771:LEU:HD12	2:E:2144:ILE:HD11	2.02	0.41
2:E:1776:HIS:NE2	2:E:2157:GLU:OE2	2.46	0.41
2:E:1978:ALA:O	2:E:1981:MET:HG2	2.20	0.41
2:E:2655:TYR:HB2	2:E:2709:ALA:O	2.21	0.41
2:E:2673:HIS:NE2	2:E:2677:LYS:HE2	2.36	0.41
2:E:2858:GLN:HB2	2:E:2859:PRO:HD3	2.02	0.41
2:E:2962:GLN:OE1	2:E:2965:ARG:HD3	2.20	0.41
2:E:3553:LEU:HD23	2:E:3593:VAL:HA	2.01	0.41
2:E:3674:ILE:HD13	2:E:3674:ILE:HA	1.95	0.41
2:E:3843:ASP:HB3	2:E:3846:ALA:HB3	2.02	0.41
2:E:3951:PHE:O	2:E:3955:MET:HE2	2.21	0.41
2:G:733:PRO:HB2	2:G:762:CYS:SG	2.60	0.41
2:G:2700:MET:CE	2:G:3004:PRO:HB2	2.50	0.41
2:G:3032:SER:HB2	2:G:3035:GLU:HG3	2.03	0.41
2:G:3051:ARG:HA	2:G:3131:TYR:OH	2.21	0.41
2:G:3428:ASN:ND2	2:G:3430:ASN:HB2	2.36	0.41
2:G:3579:LEU:HD23	2:G:3582:ARG:HA	2.02	0.41
2:G:4204:GLN:NE2	2:G:4248:ALA:HB3	2.35	0.41
2:G:5012:LYS:O	2:G:5016:GLU:HG2	2.19	0.41
2:J:595:ARG:HH22	2:J:1641:ILE:HG23	1.85	0.41
2:J:870:ILE:O	2:J:874:LEU:HG	2.20	0.41
2:J:1066:GLN:HA	2:J:1069:TRP:CH2	2.55	0.41
2:J:1157:GLU:O	2:J:1159:THR:HG23	2.20	0.41
2:J:1423:ASP:OD2	2:J:1425:GLU:HG2	2.20	0.41
2:J:1443:GLN:HG2	2:J:1561:VAL:HG23	2.03	0.41
2:J:2223:ILE:HD12	2:J:2223:ILE:HA	1.94	0.41
2:J:2374:SER:OG	2:J:2375:GLY:N	2.53	0.41
2:J:2537:ASP:OD2	2:J:2592:GLY:HA3	2.21	0.41
2:J:2611:CYS:SG	2:J:2643:LEU:HD11	2.60	0.41
2:J:3593:VAL:HG23	2:J:3594:ARG:HE	1.85	0.41
2:J:4087:LEU:HB3	2:J:4122:MET:SD	2.61	0.41
2:J:4181:ILE:HD11	2:J:4988:TYR:CD2	2.55	0.41
2:J:4945:ASP:HB3	2:J:4949:GLN:HE22	1.86	0.41
3:K:85:LEU:HD23	3:K:85:LEU:HA	1.90	0.41
1:I:40:ARG:H	1:I:40:ARG:HG2	1.73	0.41
2:B:449:ILE:O	2:B:453:GLU:HG3	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:687:ALA:HB2	2:B:780:VAL:HG11	2.03	0.41
2:B:1302:ARG:H	2:B:1302:ARG:HG2	1.68	0.41
2:B:1435:TYR:HE1	2:B:1452:TRP:CZ2	2.38	0.41
2:B:2001:PRO:HA	2:B:2002:PRO:HD3	1.99	0.41
2:B:2251:PHE:CG	2:B:2286:LEU:HD22	2.56	0.41
2:B:2737:PRO:HB2	2:B:2884:ASN:O	2.20	0.41
2:B:2911:LEU:HD13	2:B:2915:GLU:HG3	2.02	0.41
2:B:3315:LEU:HD22	2:B:3345:ILE:HG12	2.02	0.41
2:B:3335:MET:CB	2:B:3403:ARG:HD2	2.50	0.41
2:B:3352:GLU:HA	2:B:3355:HIS:NE2	2.36	0.41
2:B:3379:LEU:HD12	2:B:3387:ALA:HA	2.02	0.41
2:B:3390:GLY:O	2:B:3394:VAL:HG13	2.20	0.41
2:B:3413:ILE:HG12	2:B:3516:LYS:HZ1	1.86	0.41
2:B:3892:CYS:O	2:B:3970:GLN:NE2	2.53	0.41
2:B:4049:VAL:HG12	2:B:4163:PHE:CE2	2.56	0.41
2:E:220:LEU:HD12	2:E:390:LEU:HB3	2.03	0.41
2:E:284:HIS:HE1	2:E:286:THR:HB	1.84	0.41
2:E:592:LYS:HE2	2:E:592:LYS:HB3	1.92	0.41
2:E:595:ARG:HH22	2:E:1641:ILE:HG23	1.85	0.41
2:E:870:ILE:O	2:E:874:LEU:HG	2.20	0.41
2:E:1083:VAL:HG23	2:E:1155:LEU:HD11	2.01	0.41
2:E:1100:MET:CE	2:E:1192:CYS:HB2	2.50	0.41
2:E:1157:GLU:O	2:E:1159:THR:HG23	2.20	0.41
2:E:1439:VAL:HB	2:E:1514:LEU:HB2	2.01	0.41
2:E:1670:TYR:HA	2:E:1673:VAL:HG22	2.01	0.41
2:E:1963:GLU:HA	2:E:1966:VAL:HG12	2.02	0.41
2:E:2333:ASP:HA	2:E:2336:ARG:NE	2.36	0.41
2:E:3137:LEU:HB3	2:E:3138:PRO:HD3	2.03	0.41
2:E:3871:GLY:O	2:E:3949:ARG:NH2	2.54	0.41
2:E:4548:ARG:O	2:E:4552:LEU:HG	2.21	0.41
2:G:223:PHE:CD2	2:G:230:CYS:HB3	2.55	0.41
2:G:424:LYS:HE2	2:G:424:LYS:HB2	1.90	0.41
2:G:531:ARG:NH2	2:G:562:GLU:OE2	2.50	0.41
2:G:728:ARG:NH2	2:G:1489:CYS:SG	2.93	0.41
2:G:891:TRP:HA	2:G:902:ARG:HB3	2.01	0.41
2:G:996:TRP:HZ2	3:M:113:GLU:HG3	1.86	0.41
2:G:1093:GLU:HB2	2:G:1148:VAL:HG12	2.03	0.41
2:G:1547:LYS:NZ	2:G:1642:PRO:O	2.54	0.41
2:G:2263:ILE:O	2:G:2267:MET:HG2	2.20	0.41
2:G:2655:TYR:HB2	2:G:2709:ALA:O	2.21	0.41
2:G:2888:ARG:HH11	2:G:2891:LYS:HZ1	1.68	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:G:3137:LEU:HB3	2:G:3138:PRO:HD3	2.02	0.41
2:G:3202:PRO:HA	2:G:3283:ARG:NH2	2.36	0.41
2:G:3379:LEU:HD12	2:G:3387:ALA:HA	2.02	0.41
2:G:3392:LEU:HA	2:G:3395:ARG:HD2	2.02	0.41
2:G:3713:LYS:NZ	2:G:3716:LEU:HD12	2.35	0.41
2:G:3871:GLY:O	2:G:3949:ARG:NH2	2.54	0.41
2:G:3992:PHE:O	2:G:3996:PHE:HD1	2.04	0.41
2:G:4049:VAL:HG12	2:G:4163:PHE:CE2	2.56	0.41
2:G:4779:LYS:HB2	2:G:4779:LYS:HE3	1.88	0.41
2:G:4904:PRO:HG3	2:G:4913:ARG:HE	1.85	0.41
2:J:16:THR:HG23	2:J:99:ARG:O	2.20	0.41
2:J:664:PHE:HA	2:J:800:PHE:HE1	1.85	0.41
2:J:744:VAL:HG22	2:J:759:ILE:HD12	2.03	0.41
2:J:1067:SER:HA	2:J:1070:ASP:HB2	2.03	0.41
2:J:1154:ASP:HB2	2:J:1159:THR:H	1.86	0.41
2:J:1670:TYR:HA	2:J:1673:VAL:HG22	2.01	0.41
2:J:1808:ARG:HD2	2:J:1858:ASP:OD2	2.21	0.41
2:J:1943:LEU:HA	2:J:1946:PHE:CD2	2.56	0.41
2:J:1963:GLU:HA	2:J:1966:VAL:HG12	2.02	0.41
2:J:2096:GLU:HB3	2:J:2100:HIS:CE1	2.56	0.41
2:J:2230:THR:O	2:J:2234:ARG:HG3	2.20	0.41
2:J:3706:SER:OG	2:J:3778:MET:HB3	2.21	0.41
2:J:3871:GLY:O	2:J:3949:ARG:NH2	2.54	0.41
2:J:3986:TRP:CZ3	2:J:3989:VAL:HG11	2.56	0.41
2:J:4162:ASN:O	2:J:4166:LEU:HG	2.20	0.41
2:J:4851:TYR:HA	2:J:4854:VAL:HG22	2.01	0.41
2:J:4958:CYS:N	2:J:4975:PHE:HE1	2.19	0.41
3:K:81:GLN:HB3	3:K:81:GLN:HE21	1.73	0.41
2:B:646:PRO:O	2:B:821:LEU:HD11	2.21	0.41
2:B:839:LEU:HD13	2:B:1075:PHE:CG	2.56	0.41
2:B:1423:ASP:OD2	2:B:1425:GLU:HG2	2.20	0.41
2:B:1443:GLN:HG2	2:B:1561:VAL:HG23	2.03	0.41
2:B:2096:GLU:HB3	2:B:2100:HIS:CE1	2.56	0.41
2:B:2681:GLY:HA2	2:B:2684:ASP:OD2	2.21	0.41
2:B:2858:GLN:HB2	2:B:2859:PRO:HD3	2.02	0.41
2:B:3137:LEU:HB3	2:B:3138:PRO:HD3	2.02	0.41
2:B:4899:ASP:N	2:B:4899:ASP:OD1	2.54	0.41
2:E:657:THR:O	2:E:1007:TYR:N	2.54	0.41
2:E:2755:ILE:HD12	2:E:2813:LEU:HG	2.02	0.41
2:E:3593:VAL:HG23	2:E:3594:ARG:HE	1.85	0.41
2:E:3845:ASN:OD1	2:E:3846:ALA:N	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:E:3986:TRP:CD1	2:E:4047:MET:HB3	2.56	0.41
2:G:56:GLN:O	2:G:308:HIS:HA	2.21	0.41
2:G:1115:LEU:HB3	2:G:1123:VAL:HG11	2.03	0.41
2:G:1154:ASP:HB2	2:G:1159:THR:H	1.86	0.41
2:G:2096:GLU:HB3	2:G:2100:HIS:CE1	2.56	0.41
2:G:2230:THR:O	2:G:2234:ARG:HG3	2.20	0.41
2:G:2962:GLN:HA	2:G:2965:ARG:HG2	2.03	0.41
2:G:2962:GLN:OE1	2:G:2965:ARG:HD3	2.20	0.41
2:G:3843:ASP:HB3	2:G:3846:ALA:HB3	2.02	0.41
2:G:4548:ARG:O	2:G:4552:LEU:HG	2.21	0.41
2:G:4880:MET:SD	2:G:4881:THR:N	2.94	0.41
2:J:117:TYR:N	2:J:138:GLN:O	2.52	0.41
2:J:615:ARG:HH12	2:J:1676:LEU:HB2	1.86	0.41
2:J:891:TRP:HA	2:J:902:ARG:HB3	2.01	0.41
2:J:996:TRP:HZ2	3:K:113:GLU:HG3	1.86	0.41
2:J:1432:THR:OG1	2:J:1519:LEU:HG	2.20	0.41
2:J:1730:MET:HE2	2:J:1772:ARG:HD2	2.03	0.41
2:J:1978:ALA:O	2:J:1981:MET:HG2	2.20	0.41
2:J:2737:PRO:HB2	2:J:2884:ASN:O	2.20	0.41
2:J:2768:PHE:HA	2:J:2771:ILE:HG22	2.03	0.41
2:J:3023:LYS:HZ3	2:J:3025:LEU:HB2	1.85	0.41
2:J:3427:PRO:HG3	2:J:3579:LEU:HD21	2.02	0.41
2:J:3567:PRO:O	2:J:3570:ARG:HB3	2.21	0.41
2:J:3754:GLU:O	2:J:3758:MET:HG2	2.19	0.41
2:J:3986:TRP:CD1	2:J:4047:MET:HB3	2.56	0.41
2:J:4898:GLY:HA2	2:J:4913:ARG:HH12	1.86	0.41
2:J:4994:TYR:O	2:J:4998:LYS:HG2	2.20	0.41
3:C:22:CYS:O	3:C:77:THR:HA	2.21	0.41
3:C:57:ILE:HD12	3:C:57:ILE:HA	1.93	0.41
3:F:30:SER:HB3	3:F:99:ARG:HB3	2.03	0.41
3:F:57:ILE:HD12	3:F:57:ILE:HA	1.93	0.41
3:K:22:CYS:O	3:K:77:THR:HA	2.21	0.41
3:K:105:ASN:ND2	3:K:108:GLY:O	2.54	0.41
3:M:39:GLN:HB3	3:M:94:TYR:HE2	1.86	0.41
1:H:57:LYS:HD2	1:H:80:VAL:HG12	2.03	0.40
1:I:55:VAL:HG13	1:I:60:GLU:HB2	2.02	0.40
2:B:56:GLN:O	2:B:308:HIS:HA	2.21	0.40
2:B:179:TYR:CD2	2:B:197:GLN:HB3	2.56	0.40
2:B:375:LYS:HE2	2:B:375:LYS:HB2	1.95	0.40
2:B:871:ARG:NH1	2:B:922:LEU:HB3	2.36	0.40
2:B:1104:TRP:CZ2	2:B:1153:ILE:HB	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1128:ARG:HH21	2:B:1132:TRP:HZ2	1.67	0.40
2:B:2163:ARG:HA	2:B:2166:LEU:HG	2.03	0.40
2:B:2810:LYS:HB3	2:B:2814:LYS:NZ	2.37	0.40
2:B:2978:GLU:HA	2:B:2981:VAL:HG12	2.02	0.40
2:B:2996:LYS:HA	2:B:2996:LYS:HD3	1.84	0.40
2:B:3337:ARG:O	2:B:3340:VAL:HB	2.22	0.40
2:B:3713:LYS:HZ1	2:B:3717:ASP:H	1.69	0.40
2:B:3833:GLN:O	2:B:3836:MET:HG3	2.22	0.40
2:B:4087:LEU:HB3	2:B:4122:MET:SD	2.61	0.40
2:B:4162:ASN:O	2:B:4166:LEU:HG	2.20	0.40
2:E:320:LYS:HE2	2:E:347:PHE:CE2	2.56	0.40
2:E:358:THR:HG21	2:E:382:GLY:HA2	2.03	0.40
2:E:897:ARG:HH12	3:F:104:TYR:HB3	1.86	0.40
2:E:937:CYS:HB3	2:E:1053:ILE:CB	2.51	0.40
2:E:2096:GLU:HB3	2:E:2100:HIS:CE1	2.56	0.40
2:E:3713:LYS:NZ	2:E:3717:ASP:OD1	2.52	0.40
2:E:3962:PHE:CD1	2:E:3965:LEU:HD12	2.56	0.40
2:E:4041:ALA:O	2:E:4045:VAL:HG23	2.22	0.40
2:E:4097:MET:HE3	2:E:4108:ILE:HA	2.03	0.40
2:G:341:TYR:HE2	2:G:392:ARG:HB2	1.85	0.40
2:G:646:PRO:O	2:G:821:LEU:HD11	2.21	0.40
2:G:870:ILE:O	2:G:874:LEU:HG	2.20	0.40
2:G:1443:GLN:HG2	2:G:1561:VAL:HG23	2.03	0.40
2:G:1808:ARG:HD2	2:G:1858:ASP:OD2	2.21	0.40
2:G:1828:ASP:OD1	2:G:1828:ASP:N	2.54	0.40
2:G:3021:PRO:HG3	2:G:3036:LYS:HZ1	1.86	0.40
2:G:3390:GLY:O	2:G:3394:VAL:HG13	2.20	0.40
2:G:3962:PHE:CD1	2:G:3965:LEU:HD12	2.56	0.40
2:G:4023:MET:N	2:G:4023:MET:HE2	2.37	0.40
2:G:4087:LEU:HB3	2:G:4122:MET:SD	2.61	0.40
2:J:103:TYR:HA	2:J:150:MET:HG3	2.03	0.40
2:J:1115:LEU:HB3	2:J:1123:VAL:HG11	2.03	0.40
2:J:1122:TYR:HE1	2:J:1133:HIS:CD2	2.39	0.40
2:J:2673:HIS:NE2	2:J:2677:LYS:HE2	2.36	0.40
2:J:2700:MET:CE	2:J:3004:PRO:HB2	2.50	0.40
2:J:2755:ILE:HD12	2:J:2813:LEU:HG	2.02	0.40
2:J:4904:PRO:HG3	2:J:4913:ARG:HE	1.85	0.40
3:C:39:GLN:HB3	3:C:94:TYR:HE2	1.86	0.40
3:M:39:GLN:OE1	3:M:45:ARG:HB2	2.21	0.40
2:B:162:LYS:HZ2	2:E:3984:ARG:HH12	1.66	0.40
2:B:220:LEU:HD12	2:B:390:LEU:HB3	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:667:MET:HE3	2:B:790:ARG:HE	1.85	0.40
2:B:1105:ALA:HB2	2:B:1191:VAL:HG11	2.04	0.40
2:B:3202:PRO:HA	2:B:3283:ARG:NH2	2.36	0.40
2:B:3567:PRO:O	2:B:3570:ARG:HB3	2.21	0.40
2:B:3579:LEU:HD23	2:B:3582:ARG:HA	2.02	0.40
2:E:210:GLU:HG2	2:E:273:HIS:CD2	2.55	0.40
2:E:1980:LEU:HD22	2:E:1998:PHE:CG	2.56	0.40
2:E:2611:CYS:SG	2:E:2643:LEU:HD11	2.61	0.40
2:E:3316:LEU:HB2	2:E:3345:ILE:HG23	2.03	0.40
2:E:3567:PRO:O	2:E:3570:ARG:HB3	2.21	0.40
2:E:3805:LEU:HD23	2:E:3812:VAL:HG23	2.03	0.40
2:E:4899:ASP:OD1	2:E:4899:ASP:N	2.54	0.40
2:E:4991:PHE:HE2	2:E:5010:VAL:HG11	1.86	0.40
2:G:181:HIS:HB2	2:G:196:MET:O	2.22	0.40
2:G:320:LYS:HE2	2:G:347:PHE:CE2	2.56	0.40
2:G:1043:VAL:HA	2:G:1046:LEU:HG	2.03	0.40
2:G:1147:ASP:HB3	2:G:1164:LEU:HD11	2.02	0.40
2:G:1247:PRO:HA	2:G:1598:GLN:HA	2.03	0.40
2:G:4041:ALA:O	2:G:4045:VAL:HG23	2.22	0.40
2:G:4851:TYR:HA	2:G:4854:VAL:HG22	2.01	0.40
2:J:56:GLN:O	2:J:308:HIS:HA	2.21	0.40
2:J:583:ILE:O	2:J:587:ILE:HG13	2.20	0.40
2:J:937:CYS:HB3	2:J:1053:ILE:CB	2.51	0.40
2:J:1104:TRP:CZ2	2:J:1153:ILE:HB	2.56	0.40
2:J:3428:ASN:ND2	2:J:3430:ASN:HB2	2.36	0.40
2:J:4059:LEU:HD13	2:J:4167:ALA:HB2	2.04	0.40
2:J:4880:MET:SD	2:J:4881:THR:N	2.94	0.40
3:F:39:GLN:HB3	3:F:94:TYR:HE2	1.86	0.40
3:F:90:THR:HG23	3:F:124:THR:HA	2.03	0.40
3:K:30:SER:HB3	3:K:99:ARG:HB3	2.03	0.40
3:K:39:GLN:HB3	3:K:94:TYR:HE2	1.86	0.40
1:D:56:ILE:HG13	1:D:59:PHE:H	1.87	0.40
1:H:55:VAL:HG13	1:H:60:GLU:HB2	2.02	0.40
2:B:43:GLY:H	2:B:443:LEU:HD23	1.86	0.40
2:B:647:ASN:ND2	2:B:822:ARG:HG2	2.35	0.40
2:B:1043:VAL:HA	2:B:1046:LEU:HG	2.03	0.40
2:B:1115:LEU:HB3	2:B:1123:VAL:HG11	2.03	0.40
2:B:1247:PRO:HA	2:B:1598:GLN:HA	2.03	0.40
2:B:1828:ASP:OD1	2:B:1828:ASP:N	2.54	0.40
2:B:3511:VAL:O	2:B:3515:LYS:HB3	2.22	0.40
2:B:3992:PHE:O	2:B:3996:PHE:HD1	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:4088:ILE:HG23	2:B:4123:ILE:HB	2.03	0.40
2:E:117:TYR:N	2:E:138:GLN:O	2.52	0.40
2:E:372:LEU:O	2:E:374:LYS:HG3	2.21	0.40
2:E:449:ILE:O	2:E:453:GLU:HG3	2.21	0.40
2:E:1432:THR:OG1	2:E:1519:LEU:HG	2.20	0.40
2:E:2426:TYR:O	2:E:2430:ILE:HG12	2.21	0.40
2:E:2681:GLY:HA2	2:E:2684:ASP:OD2	2.21	0.40
2:E:2962:GLN:HA	2:E:2965:ARG:HG2	2.03	0.40
2:E:3202:PRO:HA	2:E:3283:ARG:NH2	2.36	0.40
2:E:3352:GLU:HA	2:E:3355:HIS:NE2	2.36	0.40
2:E:3384:LYS:NZ	2:E:3386:GLU:HB3	2.36	0.40
2:E:3706:SER:OG	2:E:3778:MET:HB3	2.21	0.40
2:E:3833:GLN:O	2:E:3836:MET:HG3	2.22	0.40
2:E:4945:ASP:HB3	2:E:4949:GLN:HE22	1.86	0.40
2:G:544:LEU:HD21	2:G:578:ILE:HD13	2.04	0.40
2:G:647:ASN:ND2	2:G:822:ARG:HG2	2.35	0.40
2:G:872:GLU:O	2:G:876:GLU:HG2	2.21	0.40
2:G:1269:CYS:SG	2:G:1563:GLN:NE2	2.95	0.40
2:G:1272:LEU:HD22	2:G:1289:LEU:HD11	2.03	0.40
2:G:1639:LEU:HD23	2:G:1653:LEU:HD11	2.02	0.40
2:G:1683:HIS:NE2	2:G:1798:LEU:O	2.43	0.40
2:G:2113:SER:HB3	2:G:2116:LEU:HB3	2.04	0.40
2:G:2251:PHE:CG	2:G:2286:LEU:HD22	2.56	0.40
2:G:2333:ASP:HA	2:G:2336:ARG:NE	2.36	0.40
2:G:2550:LEU:O	2:G:2554:LEU:HG	2.22	0.40
2:G:2611:CYS:SG	2:G:2643:LEU:HD11	2.60	0.40
2:G:2858:GLN:HB2	2:G:2859:PRO:HD3	2.02	0.40
2:G:3845:ASN:OD1	2:G:3846:ALA:N	2.55	0.40
2:G:3916:ILE:O	2:G:3920:VAL:HG23	2.22	0.40
2:G:4898:GLY:HA2	2:G:4913:ARG:HH12	1.86	0.40
2:J:341:TYR:HE2	2:J:392:ARG:HB2	1.85	0.40
2:J:424:LYS:HB2	2:J:424:LYS:HE2	1.90	0.40
2:J:657:THR:O	2:J:1007:TYR:N	2.54	0.40
2:J:2110:TYR:HB2	2:J:3695:PRO:HD2	2.02	0.40
2:J:2113:SER:HB3	2:J:2116:LEU:HB3	2.04	0.40
2:J:3032:SER:HB2	2:J:3035:GLU:HG3	2.03	0.40
2:J:3316:LEU:HB2	2:J:3345:ILE:HG23	2.03	0.40
2:J:3336:LYS:O	2:J:3340:VAL:HG23	2.22	0.40
2:J:3400:VAL:HG23	2:J:3403:ARG:HE	1.86	0.40
2:J:3843:ASP:HB3	2:J:3846:ALA:HB3	2.02	0.40
2:J:3951:PHE:O	2:J:3955:MET:HE2	2.22	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:J:4049:VAL:HG12	2:J:4163:PHE:CE2	2.56	0.40
3:C:30:SER:HB3	3:C:99:ARG:HB3	2.04	0.40
1:H:7:ILE:O	2:G:736:HIS:HA	2.22	0.40
1:H:7:ILE:HA	2:G:719:LEU:HD11	2.03	0.40
2:B:320:LYS:HE2	2:B:347:PHE:CE2	2.56	0.40
2:B:1272:LEU:HD22	2:B:1289:LEU:HD11	2.03	0.40
2:B:2469:ILE:HG13	2:B:2502:MET:HE3	2.03	0.40
2:B:3343:GLN:OE1	2:B:3414:ARG:NH1	2.55	0.40
2:B:3593:VAL:HG23	2:B:3594:ARG:HE	1.85	0.40
2:B:3845:ASN:OD1	2:B:3846:ALA:N	2.54	0.40
2:B:3871:GLY:O	2:B:3949:ARG:NH2	2.54	0.40
2:B:3996:PHE:HA	2:B:3999:MET:HG2	2.04	0.40
2:B:4904:PRO:HG3	2:B:4913:ARG:HE	1.85	0.40
2:E:150:MET:HB2	2:E:169:LEU:HD13	2.03	0.40
2:E:424:LYS:HB2	2:E:424:LYS:HE2	1.90	0.40
2:E:453:GLU:HA	2:E:454:PRO:HD3	1.97	0.40
2:E:1639:LEU:HD23	2:E:1653:LEU:HD11	2.02	0.40
2:E:1828:ASP:OD1	2:E:1828:ASP:N	2.54	0.40
2:E:2495:VAL:HG22	2:E:2498:HIS:CD2	2.57	0.40
2:E:3392:LEU:HA	2:E:3395:ARG:HD2	2.02	0.40
2:E:3992:PHE:O	2:E:3996:PHE:HD1	2.04	0.40
2:E:4013:LEU:O	2:E:4017:LEU:HG	2.21	0.40
2:E:4088:ILE:HG23	2:E:4123:ILE:HB	2.03	0.40
2:G:365:LYS:O	2:G:369:LEU:HG	2.21	0.40
2:G:687:ALA:HB2	2:G:780:VAL:HG11	2.03	0.40
2:G:744:VAL:HG22	2:G:759:ILE:HD12	2.02	0.40
2:G:1105:ALA:HB2	2:G:1191:VAL:HG11	2.04	0.40
2:G:1662:PHE:O	2:G:1666:THR:HG23	2.22	0.40
2:J:119:SER:N	2:J:136:GLY:O	2.48	0.40
2:J:179:TYR:CD2	2:J:197:GLN:HB3	2.56	0.40
2:J:449:ILE:O	2:J:453:GLU:HG3	2.21	0.40
2:J:1247:PRO:HA	2:J:1598:GLN:HA	2.03	0.40
2:J:2495:VAL:HG22	2:J:2498:HIS:CD2	2.56	0.40
2:J:2681:GLY:HA2	2:J:2684:ASP:OD2	2.21	0.40
2:J:3137:LEU:HB3	2:J:3138:PRO:HD3	2.02	0.40
2:J:3833:GLN:O	2:J:3836:MET:HG3	2.22	0.40
2:J:3895:HIS:H	2:J:3970:GLN:NE2	2.19	0.40
2:J:4991:PHE:HE2	2:J:5010:VAL:HG11	1.86	0.40
3:F:22:CYS:O	3:F:77:THR:HA	2.21	0.40
3:F:90:THR:HA	3:F:123:VAL:O	2.22	0.40
3:K:90:THR:HG23	3:K:124:THR:HA	2.03	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:1067:SER:HA	2:B:1070:ASP:HB2	2.03	0.40
2:B:1547:LYS:NZ	2:B:1642:PRO:O	2.54	0.40
2:B:2470:ILE:HD13	2:B:2526:PHE:HE1	1.87	0.40
2:B:2550:LEU:O	2:B:2554:LEU:HG	2.22	0.40
2:B:3051:ARG:HA	2:B:3131:TYR:OH	2.21	0.40
2:B:3384:LYS:NZ	2:B:3386:GLU:HB3	2.36	0.40
2:B:3951:PHE:O	2:B:3955:MET:HE2	2.21	0.40
2:B:4059:LEU:HD13	2:B:4167:ALA:HB2	2.04	0.40
2:E:531:ARG:NH2	2:E:562:GLU:OE2	2.50	0.40
2:E:996:TRP:CZ3	2:E:1021:LEU:HA	2.57	0.40
2:E:1093:GLU:HB2	2:E:1148:VAL:HG12	2.03	0.40
2:E:1422:ASP:OD1	2:E:1422:ASP:N	2.49	0.40
2:E:2583:LEU:HD13	2:E:2619:LEU:HD23	2.03	0.40
2:E:3032:SER:HB2	2:E:3035:GLU:HG3	2.03	0.40
2:E:3315:LEU:HD22	2:E:3345:ILE:HG12	2.03	0.40
2:E:3713:LYS:NZ	2:E:3716:LEU:HD12	2.35	0.40
2:E:3791:GLY:H	2:E:3794:VAL:HG12	1.87	0.40
2:E:4049:VAL:HG12	2:E:4163:PHE:CE2	2.56	0.40
2:E:4898:GLY:HA2	2:E:4913:ARG:HH12	1.86	0.40
2:E:4904:PRO:HD3	2:E:4913:ARG:NH2	2.28	0.40
2:G:103:TYR:HA	2:G:150:MET:HG3	2.03	0.40
2:G:179:TYR:CD2	2:G:197:GLN:HB3	2.56	0.40
2:G:220:LEU:HD12	2:G:390:LEU:HB3	2.03	0.40
2:G:552:ASP:OD1	2:G:592:LYS:NZ	2.46	0.40
2:G:3315:LEU:HD22	2:G:3345:ILE:HG12	2.02	0.40
2:G:3986:TRP:CD1	2:G:4047:MET:HB3	2.56	0.40
2:J:320:LYS:HE2	2:J:347:PHE:CE2	2.57	0.40
2:J:1043:VAL:HA	2:J:1046:LEU:HG	2.03	0.40
2:J:1547:LYS:NZ	2:J:1642:PRO:O	2.54	0.40
2:J:1662:PHE:O	2:J:1666:THR:HG23	2.22	0.40
2:J:2762:THR:HA	2:J:2765:LYS:NZ	2.37	0.40
2:J:3511:VAL:O	2:J:3515:LYS:HB3	2.22	0.40
2:J:3845:ASN:OD1	2:J:3846:ALA:N	2.54	0.40
2:J:3992:PHE:O	2:J:3996:PHE:HD1	2.04	0.40
2:J:3996:PHE:HA	2:J:3999:MET:HG2	2.04	0.40
2:J:4968:PHE:O	2:J:4974:GLY:HA3	2.22	0.40
3:C:39:GLN:OE1	3:C:45:ARG:HB2	2.22	0.40
3:M:90:THR:HA	3:M:123:VAL:O	2.22	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	105/107 (98%)	101 (96%)	4 (4%)	0	100	100
1	D	105/107 (98%)	100 (95%)	5 (5%)	0	100	100
1	H	105/107 (98%)	100 (95%)	5 (5%)	0	100	100
1	I	105/107 (98%)	101 (96%)	4 (4%)	0	100	100
2	B	4280/5027 (85%)	4144 (97%)	136 (3%)	0	100	100
2	E	4280/5027 (85%)	4142 (97%)	138 (3%)	0	100	100
2	G	4280/5027 (85%)	4142 (97%)	138 (3%)	0	100	100
2	J	4280/5027 (85%)	4140 (97%)	140 (3%)	0	100	100
3	C	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	F	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	K	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
3	M	124/137 (90%)	116 (94%)	8 (6%)	0	100	100
All	All	18036/21084 (86%)	17434 (97%)	602 (3%)	0	100	100

There are no Ramachandran outliers to report.

### 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	88/88 (100%)	88 (100%)	0	100	100
1	D	88/88 (100%)	88 (100%)	0	100	100

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	H	88/88 (100%)	88 (100%)	0	100	100
1	I	88/88 (100%)	88 (100%)	0	100	100
2	B	3672/4270 (86%)	3665 (100%)	7 (0%)	92	94
2	E	3672/4270 (86%)	3665 (100%)	7 (0%)	92	94
2	G	3674/4270 (86%)	3667 (100%)	7 (0%)	92	94
2	J	3672/4270 (86%)	3665 (100%)	7 (0%)	92	94
3	C	104/114 (91%)	103 (99%)	1 (1%)	73	82
3	F	104/114 (91%)	103 (99%)	1 (1%)	73	82
3	K	104/114 (91%)	103 (99%)	1 (1%)	73	82
3	M	104/114 (91%)	103 (99%)	1 (1%)	73	82
All	All	15458/17888 (86%)	15426 (100%)	32 (0%)	91	94

All (32) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
2	B	796	ARG
2	B	1623	ARG
2	B	2806	ARG
2	B	2827	ARG
2	B	2914	LYS
2	B	3262	ARG
2	B	4214	LYS
2	E	796	ARG
2	E	1623	ARG
2	E	2806	ARG
2	E	2827	ARG
2	E	2914	LYS
2	E	3262	ARG
2	E	4214	LYS
2	G	796	ARG
2	G	1623	ARG
2	G	2806	ARG
2	G	2827	ARG
2	G	2914	LYS
2	G	3262	ARG
2	G	4214	LYS
2	J	796	ARG
2	J	1623	ARG

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Mol	Chain	Res	Type
2	J	2806	ARG
2	J	2827	ARG
2	J	2914	LYS
2	J	3262	ARG
2	J	4214	LYS
3	C	81	GLN
3	F	81	GLN
3	K	81	GLN
3	M	81	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (79) such sidechains are listed below:

Mol	Chain	Res	Type
2	B	473	ASN
2	B	993	HIS
2	B	2180	GLN
2	B	2498	HIS
2	B	2688	HIS
2	B	3343	GLN
2	B	3700	GLN
2	B	3767	GLN
2	B	3806	ASN
2	B	3889	GLN
2	B	3960	GLN
2	B	3970	GLN
2	B	4009	GLN
2	B	4204	GLN
2	B	4949	GLN
2	E	399	GLN
2	E	473	ASN
2	E	647	ASN
2	E	993	HIS
2	E	2180	GLN
2	E	2498	HIS
2	E	3343	GLN
2	E	3700	GLN
2	E	3806	ASN
2	E	3889	GLN
2	E	3960	GLN
2	E	3970	GLN
2	E	4009	GLN
2	E	4204	GLN

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<b>Mol</b>	<b>Chain</b>	<b>Res</b>	<b>Type</b>
2	E	4949	GLN
2	G	473	ASN
2	G	647	ASN
2	G	993	HIS
2	G	1563	GLN
2	G	2180	GLN
2	G	2498	HIS
2	G	3146	HIS
2	G	3343	GLN
2	G	3700	GLN
2	G	3806	ASN
2	G	3889	GLN
2	G	3960	GLN
2	G	3970	GLN
2	G	4009	GLN
2	G	4204	GLN
2	G	4949	GLN
2	J	399	GLN
2	J	473	ASN
2	J	647	ASN
2	J	877	ASN
2	J	993	HIS
2	J	2180	GLN
2	J	2498	HIS
2	J	2688	HIS
2	J	3343	GLN
2	J	3700	GLN
2	J	3806	ASN
2	J	3889	GLN
2	J	3960	GLN
2	J	3970	GLN
2	J	4009	GLN
2	J	4204	GLN
2	J	4949	GLN
3	C	3	GLN
3	C	5	GLN
3	C	73	ASN
3	C	111	ASN
3	F	3	GLN
3	F	5	GLN
3	F	73	ASN
3	F	111	ASN

*Continued on next page...*

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Mol	Chain	Res	Type
3	K	3	GLN
3	K	5	GLN
3	K	73	ASN
3	K	111	ASN
3	M	3	GLN
3	M	5	GLN
3	M	73	ASN
3	M	111	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 oligosaccharides in this entry.

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

Of 16 ligands modelled in this entry, 8 are monoatomic - leaving 8 for Mogul analysis.

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

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	$\# Z  > 2$	Counts	RMSZ	$\# Z  > 2$
5	ATP	E	5102	-	26,33,33	0.60	0	31,52,52	0.79	2 (6%)
6	CFF	B	5103	-	8,15,15	1.02	0	8,23,23	2.44	2 (25%)
5	ATP	J	5102	-	26,33,33	0.60	0	31,52,52	0.80	2 (6%)
6	CFF	J	5103	-	8,15,15	1.01	0	8,23,23	2.43	2 (25%)
5	ATP	G	5102	-	26,33,33	0.60	0	31,52,52	0.79	2 (6%)

Mol	Type	Chain	Res	Link	Bond lengths			Bond angles		
					Counts	RMSZ	# Z  > 2	Counts	RMSZ	# Z  > 2
5	ATP	B	5102	-	26,33,33	0.60	0	31,52,52	0.79	2 (6%)
6	CFF	G	5103	-	8,15,15	1.03	0	8,23,23	2.43	2 (25%)
6	CFF	E	5103	-	8,15,15	1.03	0	8,23,23	2.42	2 (25%)

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

Mol	Type	Chain	Res	Link	Chirals	Torsions	Rings
5	ATP	E	5102	-	-	5/18/38/38	0/3/3/3
6	CFF	B	5103	-	-	-	0/2/2/2
5	ATP	J	5102	-	-	5/18/38/38	0/3/3/3
6	CFF	J	5103	-	-	-	0/2/2/2
5	ATP	G	5102	-	-	5/18/38/38	0/3/3/3
5	ATP	B	5102	-	-	5/18/38/38	0/3/3/3
6	CFF	G	5103	-	-	-	0/2/2/2
6	CFF	E	5103	-	-	-	0/2/2/2

There are no bond length outliers.

All (16) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(°)	Ideal(°)
6	G	5103	CFF	C5-C6-N1	-5.77	112.05	118.20
6	B	5103	CFF	C5-C6-N1	-5.76	112.06	118.20
6	J	5103	CFF	C5-C6-N1	-5.76	112.06	118.20
6	E	5103	CFF	C5-C6-N1	-5.75	112.07	118.20
6	B	5103	CFF	C4-C5-C6	3.53	122.22	119.96
6	G	5103	CFF	C4-C5-C6	3.45	122.18	119.96
6	J	5103	CFF	C4-C5-C6	3.45	122.18	119.96
6	E	5103	CFF	C4-C5-C6	3.42	122.16	119.96
5	J	5102	ATP	C5-C6-N6	2.34	123.91	120.35
5	E	5102	ATP	C5-C6-N6	2.32	123.88	120.35
5	B	5102	ATP	C5-C6-N6	2.31	123.86	120.35
5	G	5102	ATP	C5-C6-N6	2.28	123.81	120.35
5	B	5102	ATP	PB-O3B-PG	2.05	139.87	132.83
5	E	5102	ATP	PB-O3B-PG	2.04	139.83	132.83
5	G	5102	ATP	PB-O3B-PG	2.04	139.83	132.83
5	J	5102	ATP	PB-O3B-PG	2.04	139.83	132.83

There are no chirality outliers.

All (20) torsion outliers are listed below:

Mol	Chain	Res	Type	Atoms
5	B	5102	ATP	C5'-O5'-PA-O1A
5	B	5102	ATP	C5'-O5'-PA-O2A
5	E	5102	ATP	C5'-O5'-PA-O1A
5	E	5102	ATP	C5'-O5'-PA-O2A
5	G	5102	ATP	C5'-O5'-PA-O1A
5	G	5102	ATP	C5'-O5'-PA-O2A
5	J	5102	ATP	C5'-O5'-PA-O1A
5	J	5102	ATP	C5'-O5'-PA-O2A
5	B	5102	ATP	C4'-C5'-O5'-PA
5	E	5102	ATP	C4'-C5'-O5'-PA
5	G	5102	ATP	C4'-C5'-O5'-PA
5	J	5102	ATP	C4'-C5'-O5'-PA
5	B	5102	ATP	O4'-C4'-C5'-O5'
5	E	5102	ATP	O4'-C4'-C5'-O5'
5	G	5102	ATP	O4'-C4'-C5'-O5'
5	J	5102	ATP	O4'-C4'-C5'-O5'
5	B	5102	ATP	C5'-O5'-PA-O3A
5	E	5102	ATP	C5'-O5'-PA-O3A
5	G	5102	ATP	C5'-O5'-PA-O3A
5	J	5102	ATP	C5'-O5'-PA-O3A

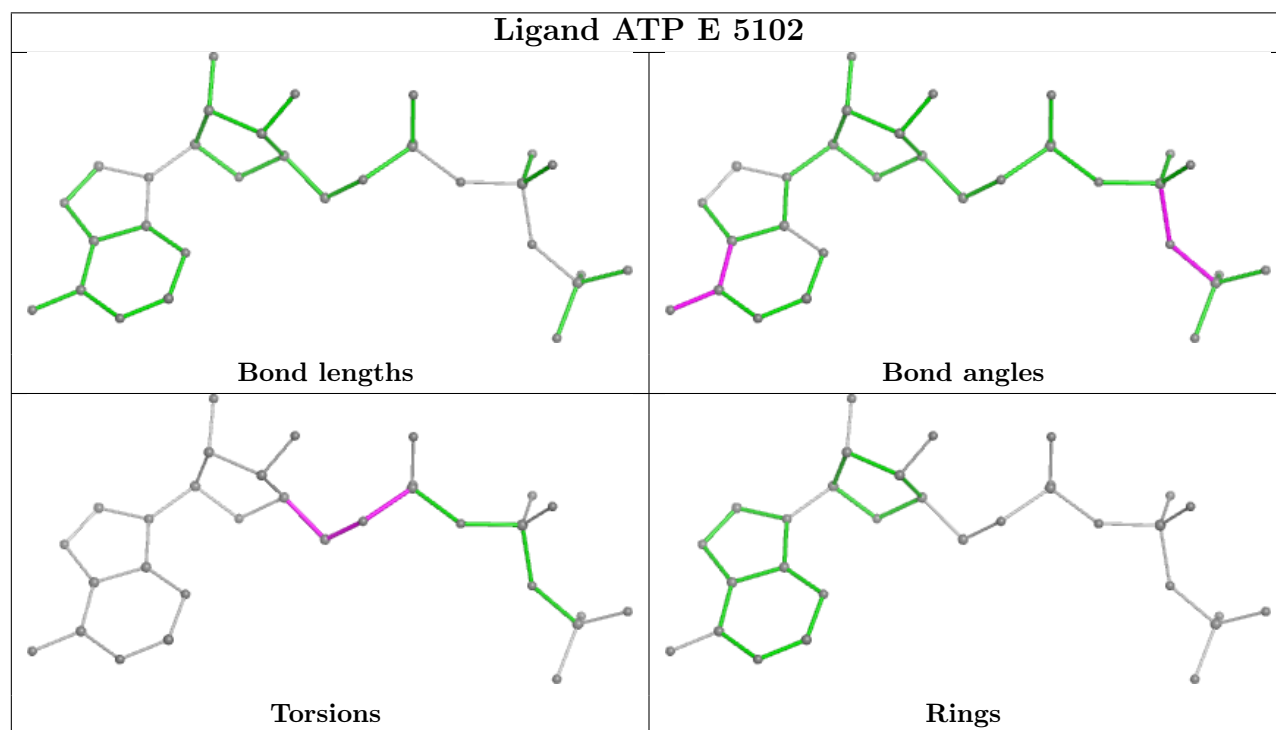
There are no ring outliers.

4 monomers are involved in 4 short contacts:

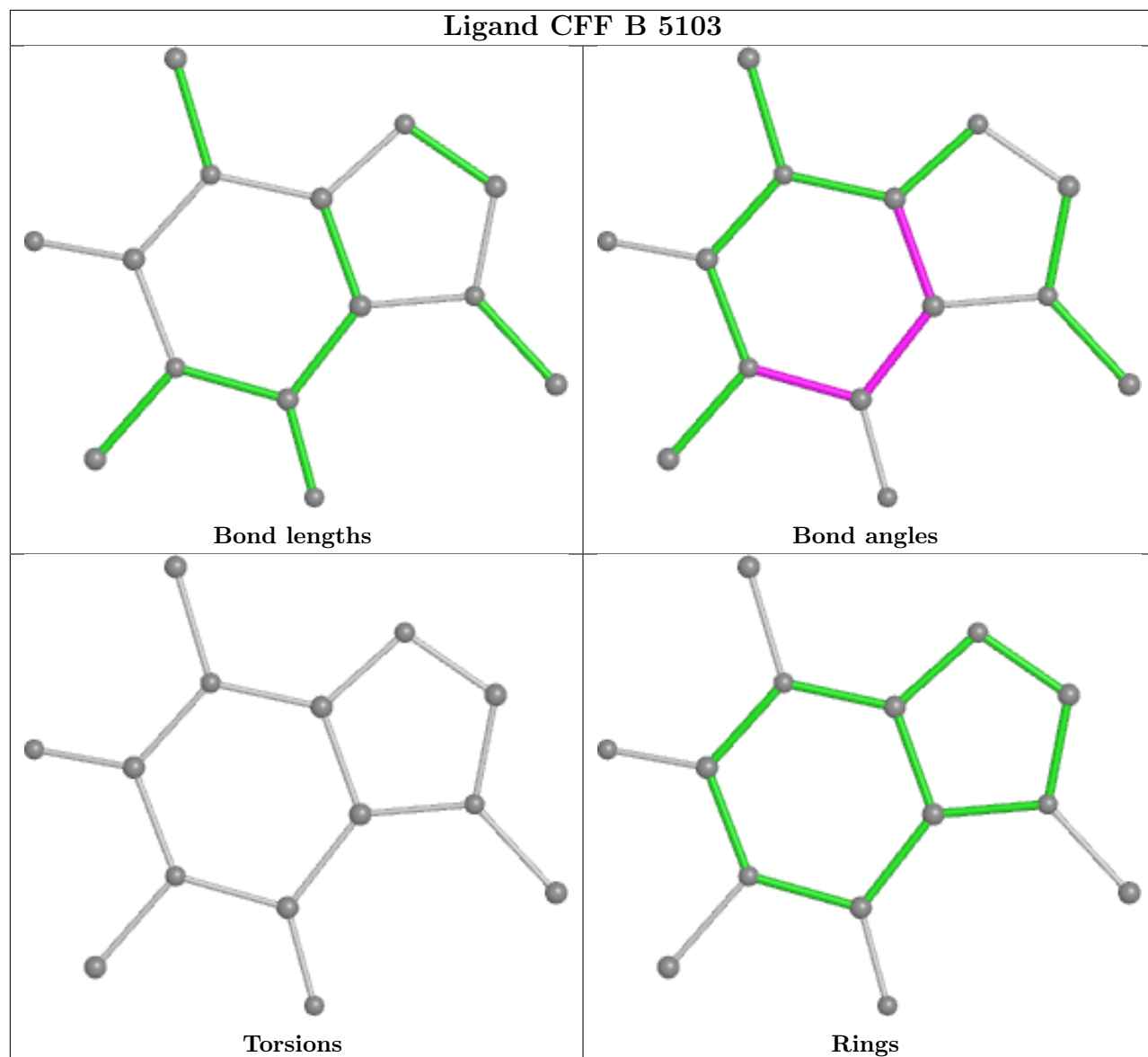
Mol	Chain	Res	Type	Clashes	Symm-Clashes
5	E	5102	ATP	1	0
5	J	5102	ATP	1	0
5	G	5102	ATP	1	0
5	B	5102	ATP	1	0

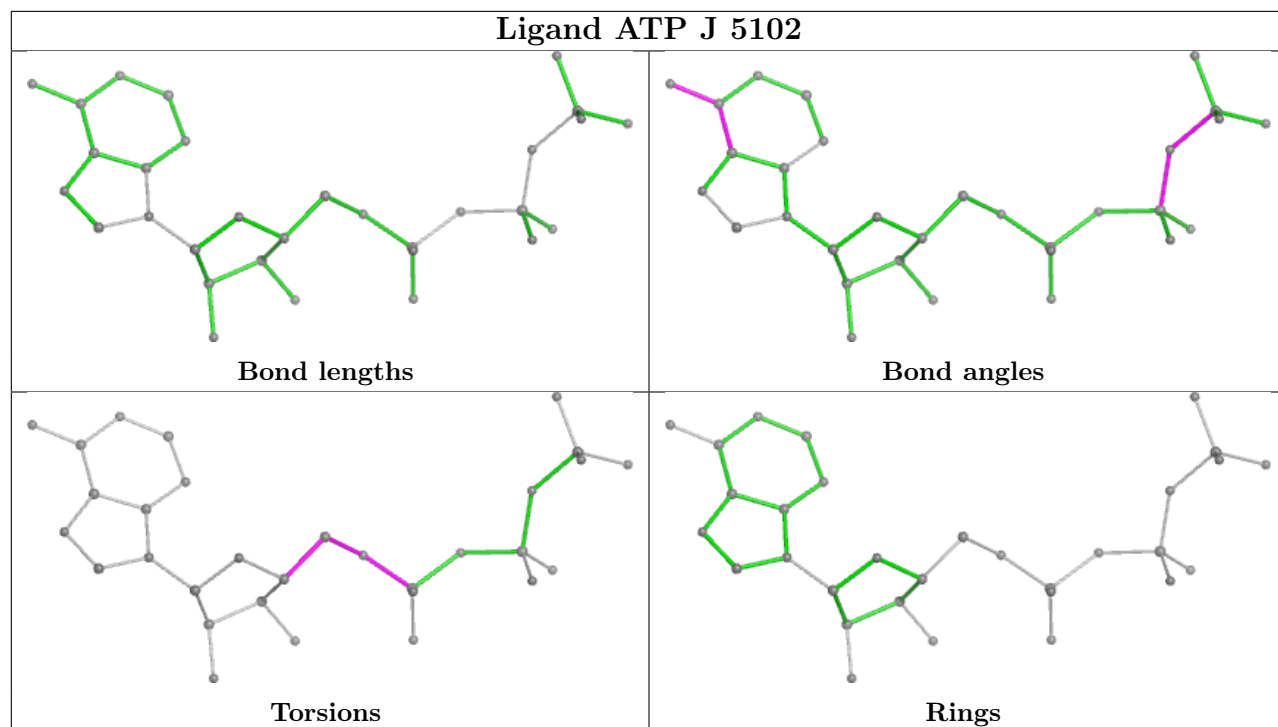
The following is a two-dimensional graphical depiction of Mogul quality analysis of bond lengths, bond angles, torsion angles, and ring geometry for all instances of the Ligand of Interest. In addition, ligands with molecular weight > 250 and outliers as shown on the validation Tables will also be included. For torsion angles, if less than 5% of the Mogul distribution of torsion angles is within 10 degrees of the torsion angle in question, then that torsion angle is considered an outlier. Any bond that is central to one or more torsion angles identified as an outlier by Mogul will be highlighted in the graph. For rings, the root-mean-square deviation (RMSD) between the ring in question and similar rings identified by Mogul is calculated over all ring torsion angles. If the average RMSD is greater than 60 degrees and the minimal RMSD between the ring in question and any Mogul-identified rings is also greater than 60 degrees, then that ring is considered an outlier.

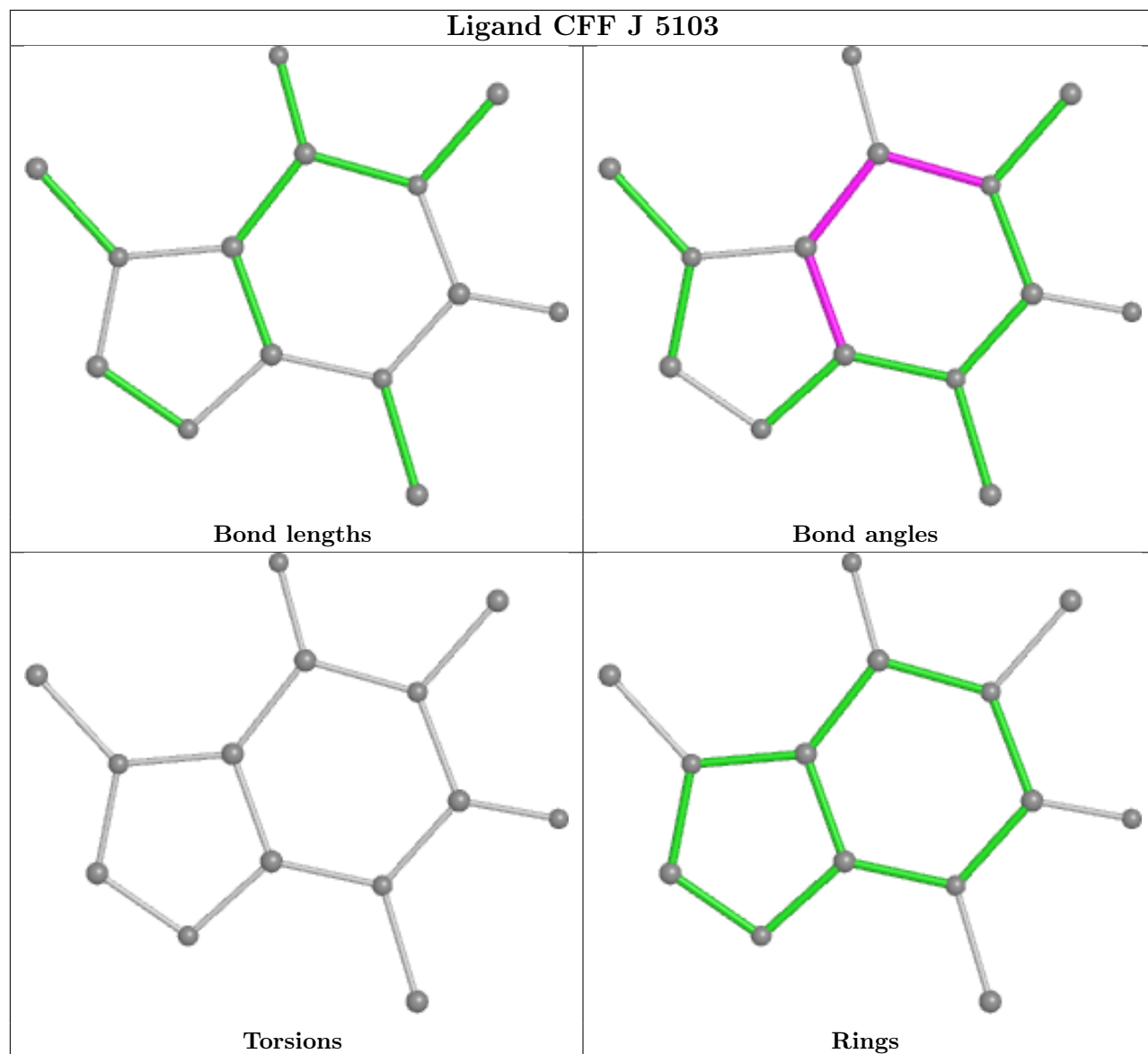
The outliers are highlighted in purple. The color gray indicates Mogul did not find sufficient equivalents in the CSD to analyse the geometry.

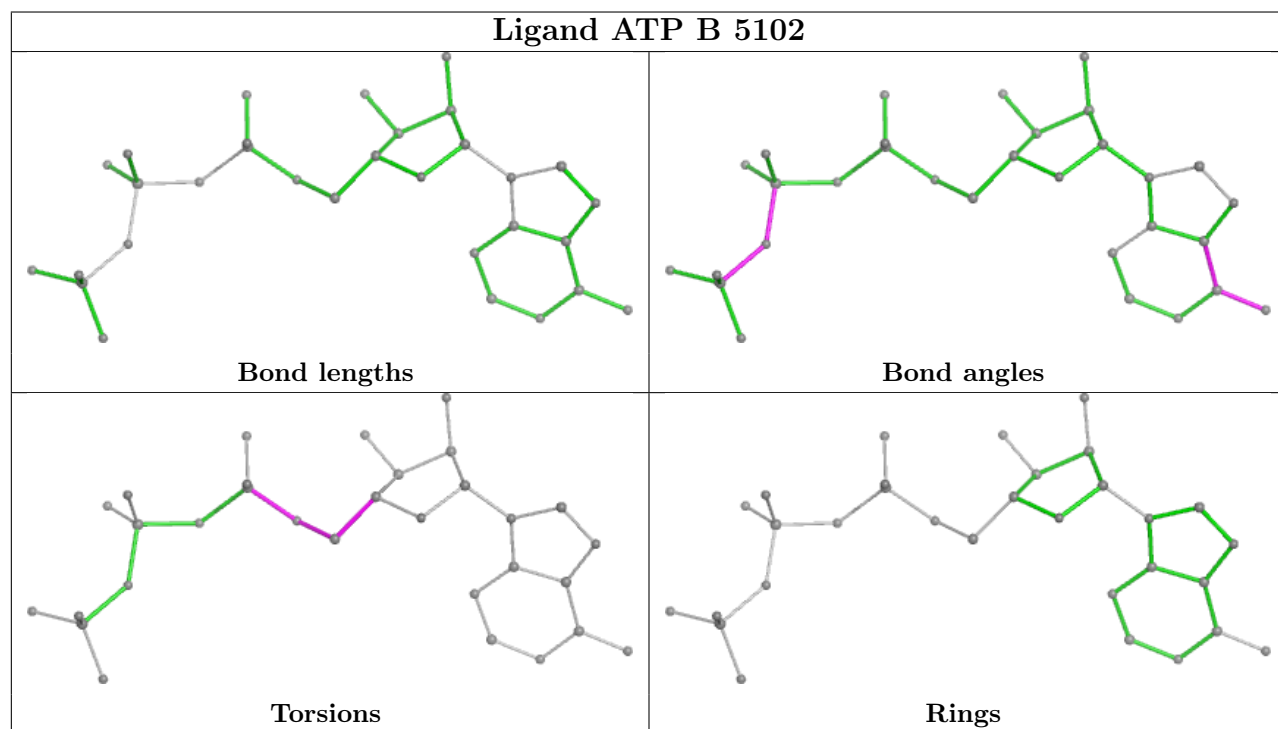
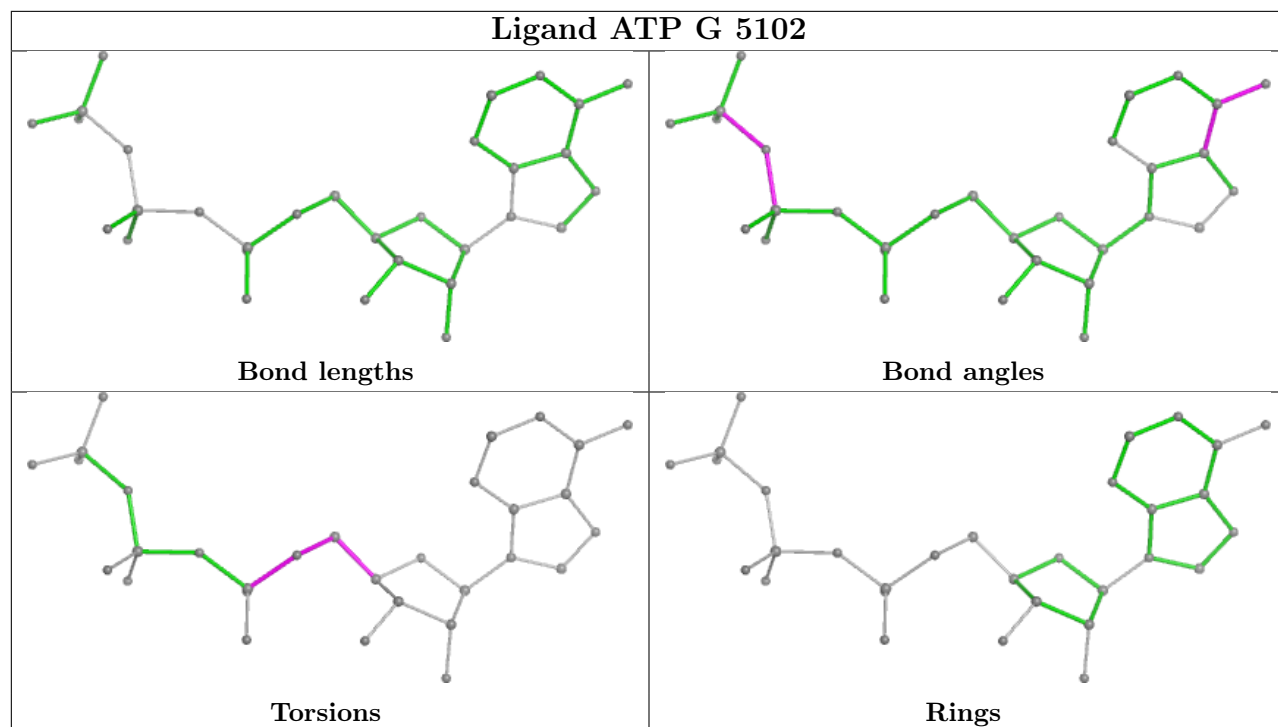


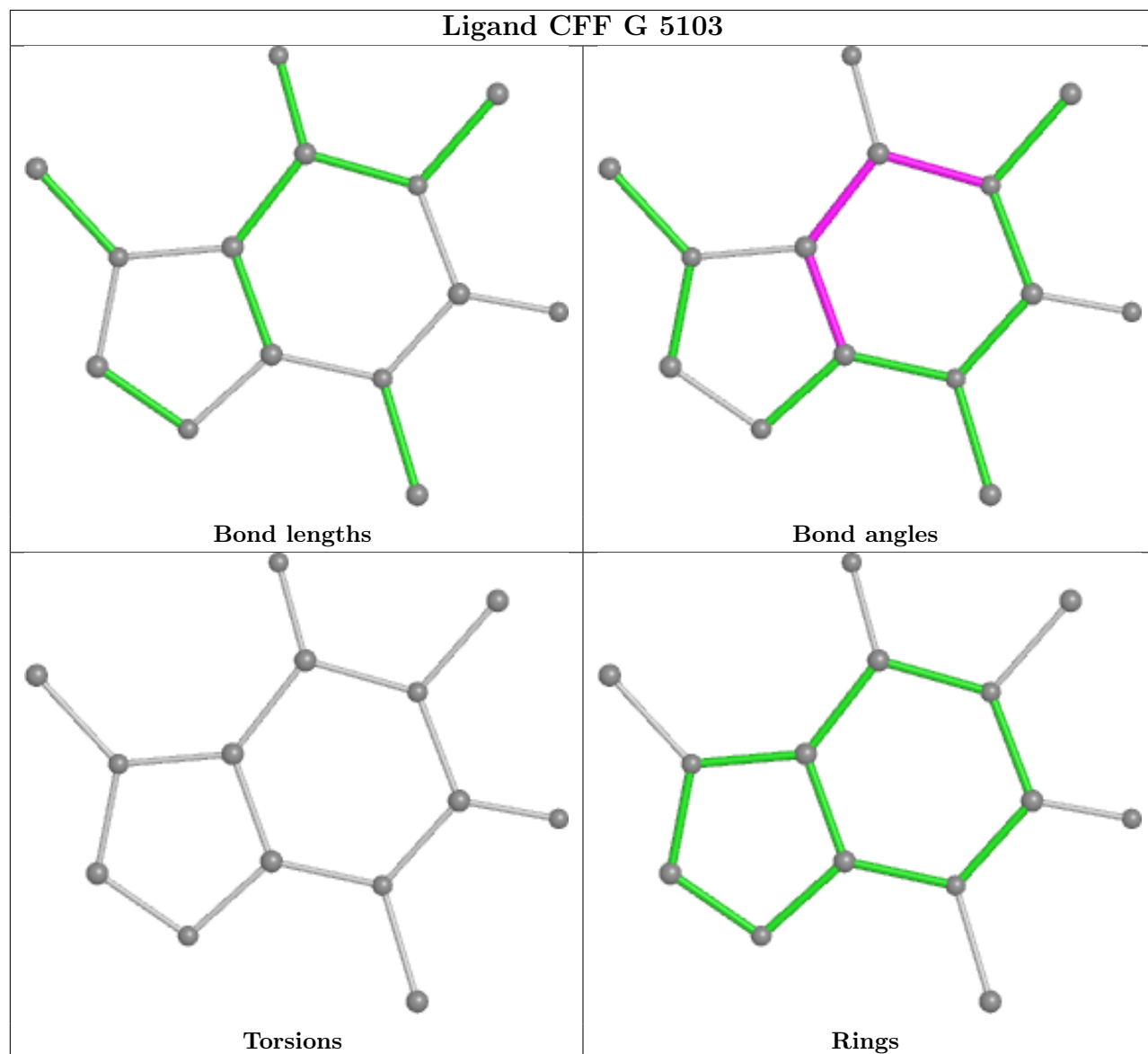


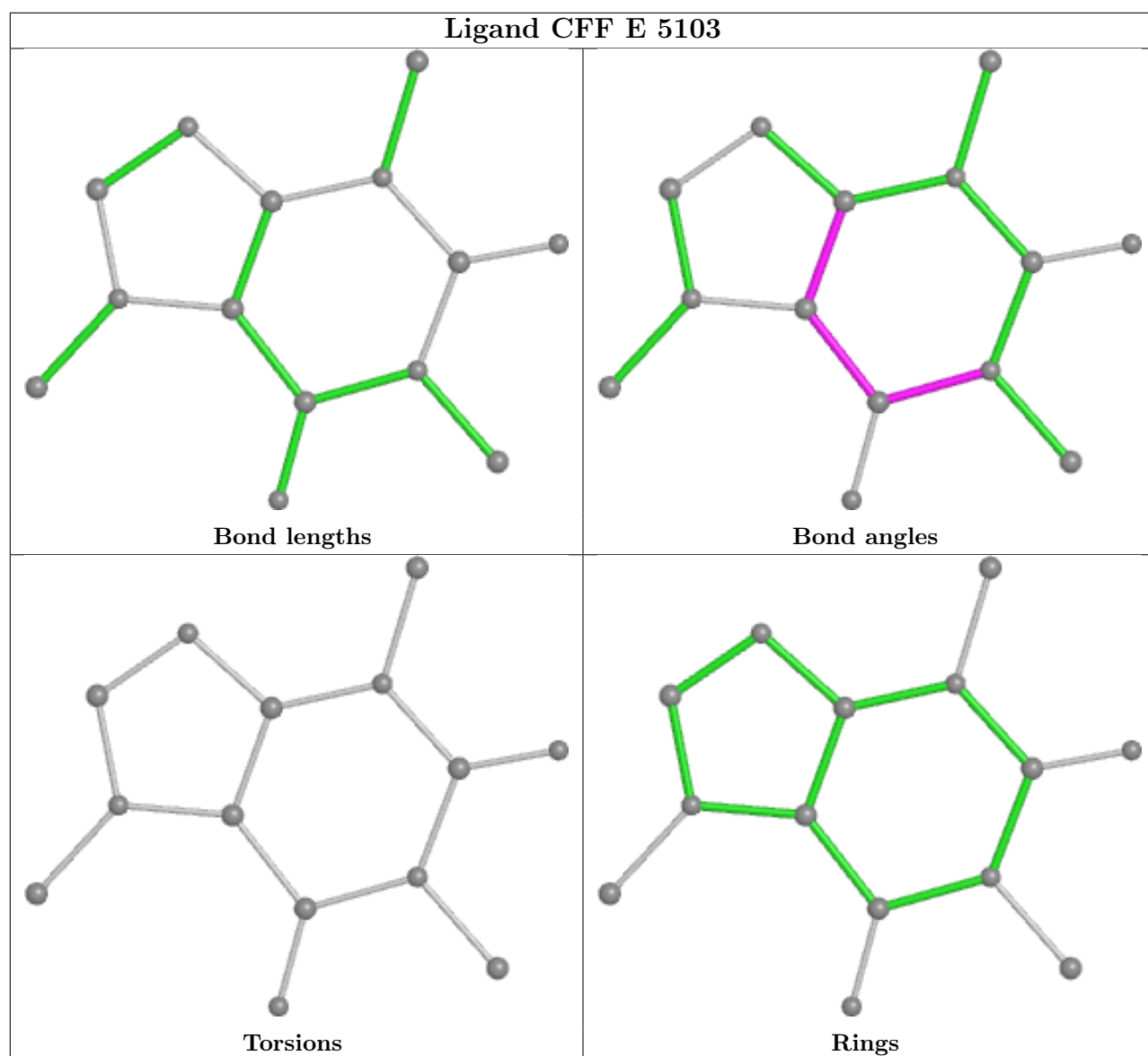












## 5.7 Other polymers [i](#)

There are no such residues in this entry.

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

There are no chain breaks in this entry.

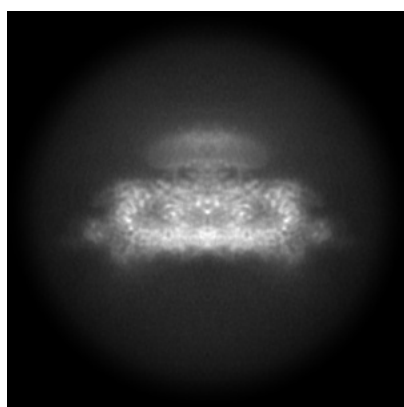
## 6 Map visualisation [i](#)

This section contains visualisations of the EMDB entry EMD-19465. These allow visual inspection of the internal detail of the map and identification of artifacts.

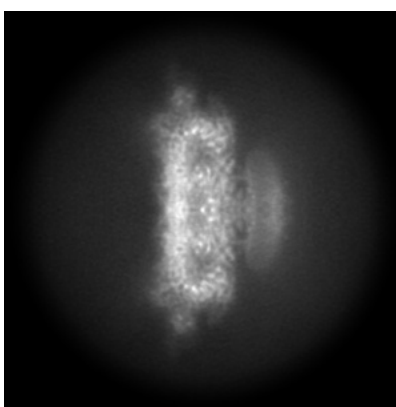
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

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

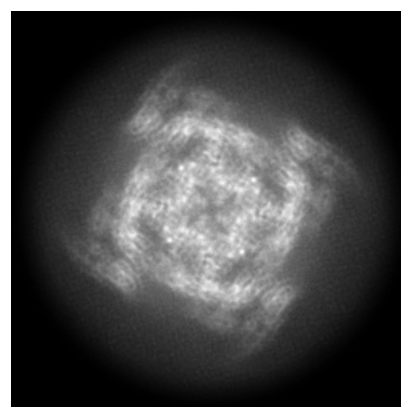
#### 6.1.1 Primary map



X



Y

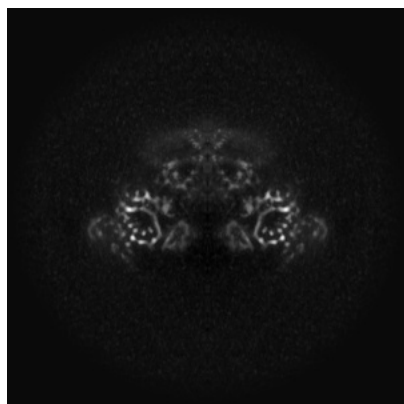


Z

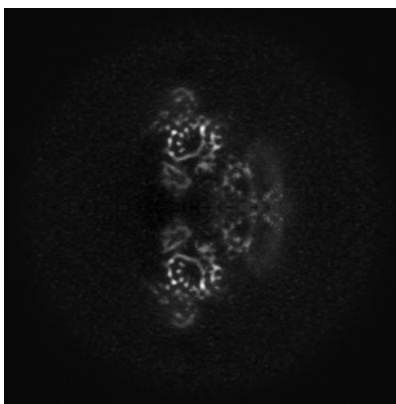
The images above show the map projected in three orthogonal directions.

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

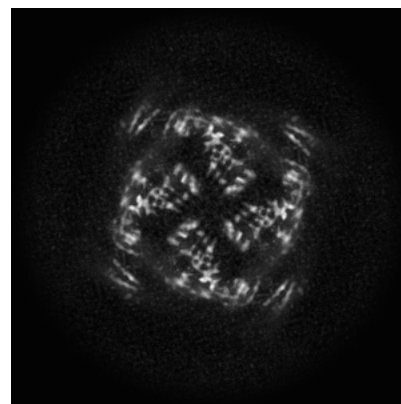
#### 6.2.1 Primary map



X Index: 168



Y Index: 168

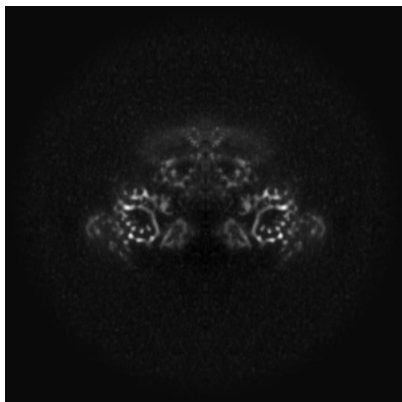


Z Index: 168

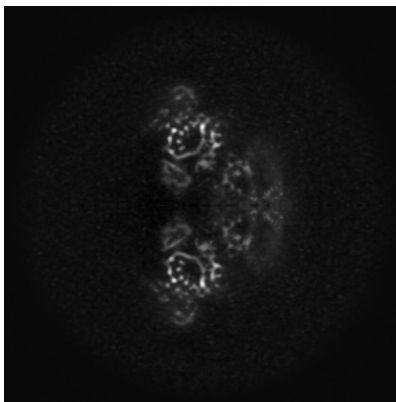
The images above show central slices of the map in three orthogonal directions.

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

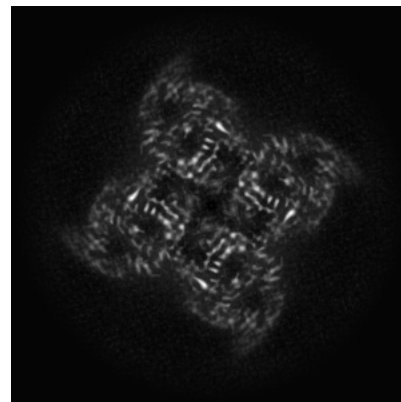
### 6.3.1 Primary map



X Index: 168



Y Index: 168

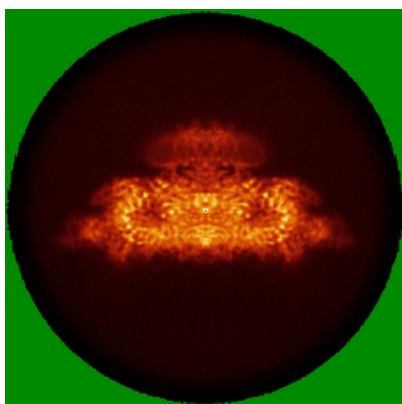


Z Index: 145

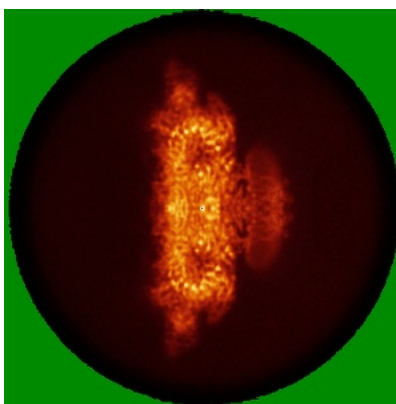
The images above show the largest variance slices of the map in three orthogonal directions.

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

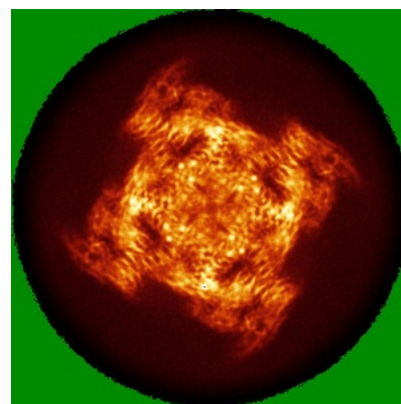
### 6.4.1 Primary map



X



Y



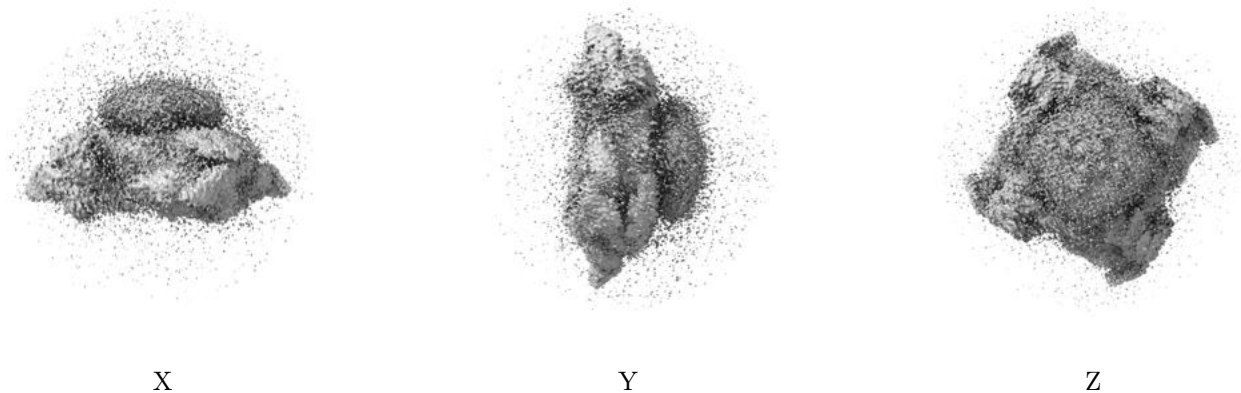
Z

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



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

### 6.5.1 Primary map



The images above show the 3D surface view of the map at the recommended contour level 0.2. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

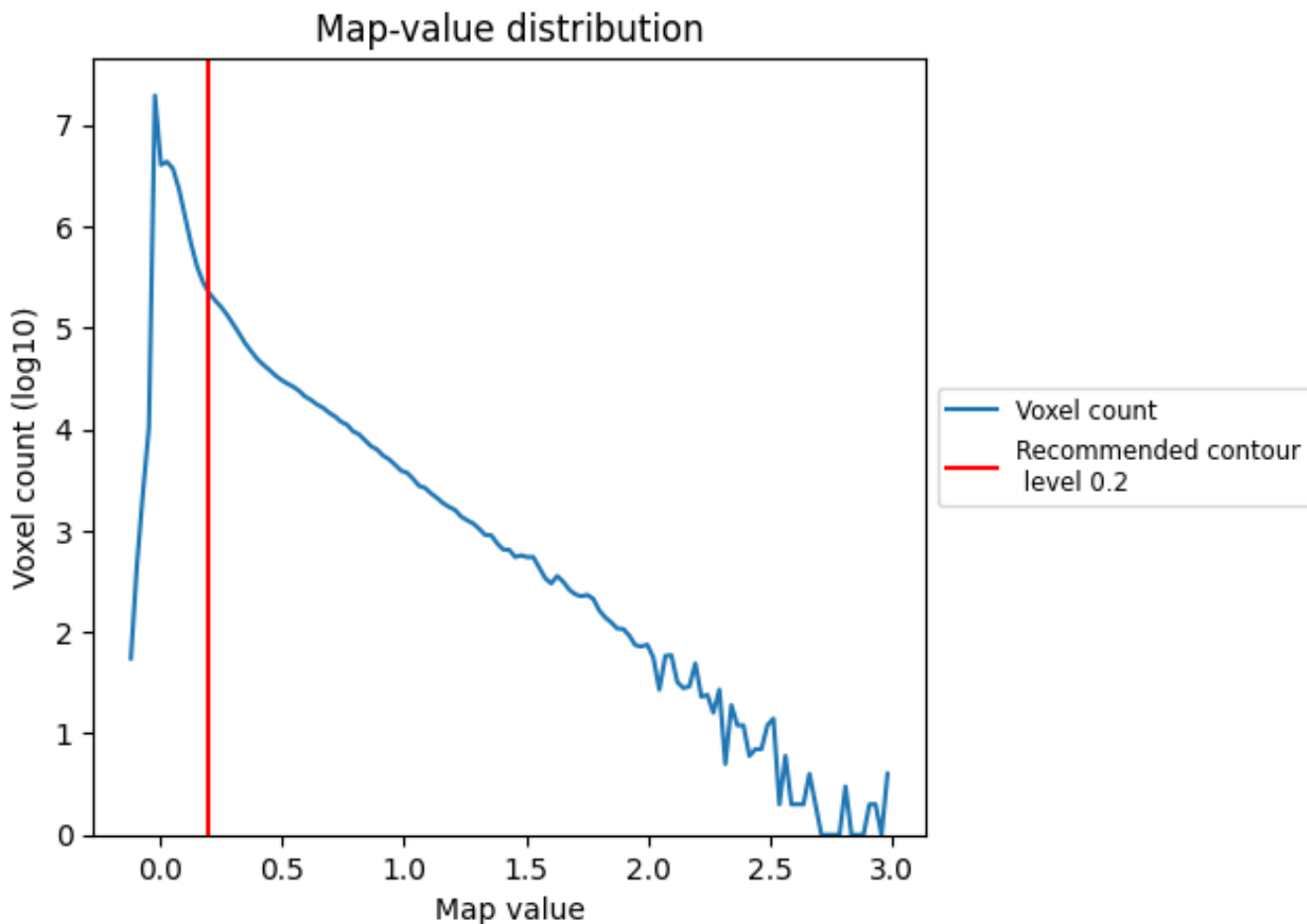
## 6.6 Mask visualisation [i](#)

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

## 7 Map analysis [i](#)

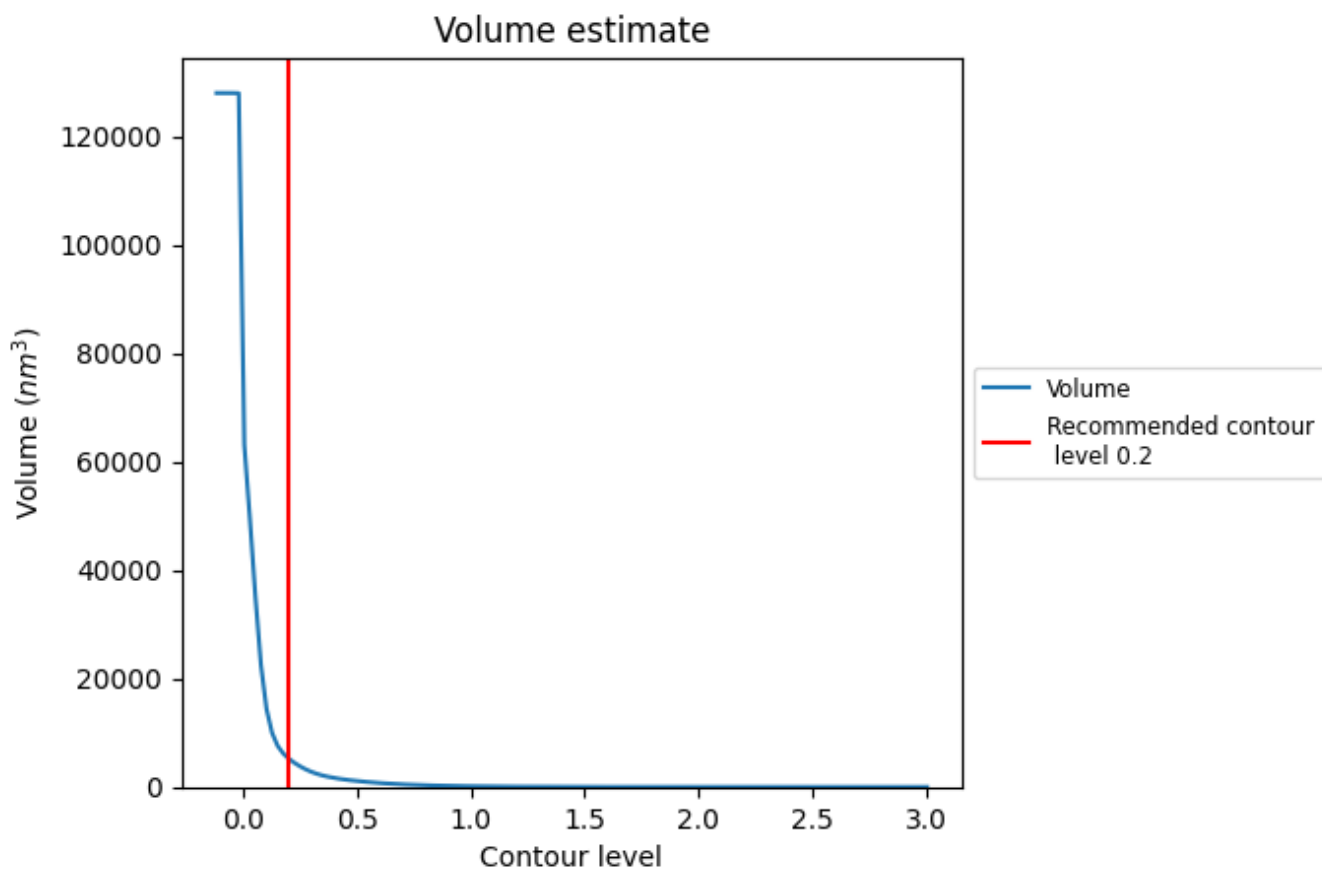
This section contains the results of statistical analysis of the map.

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



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

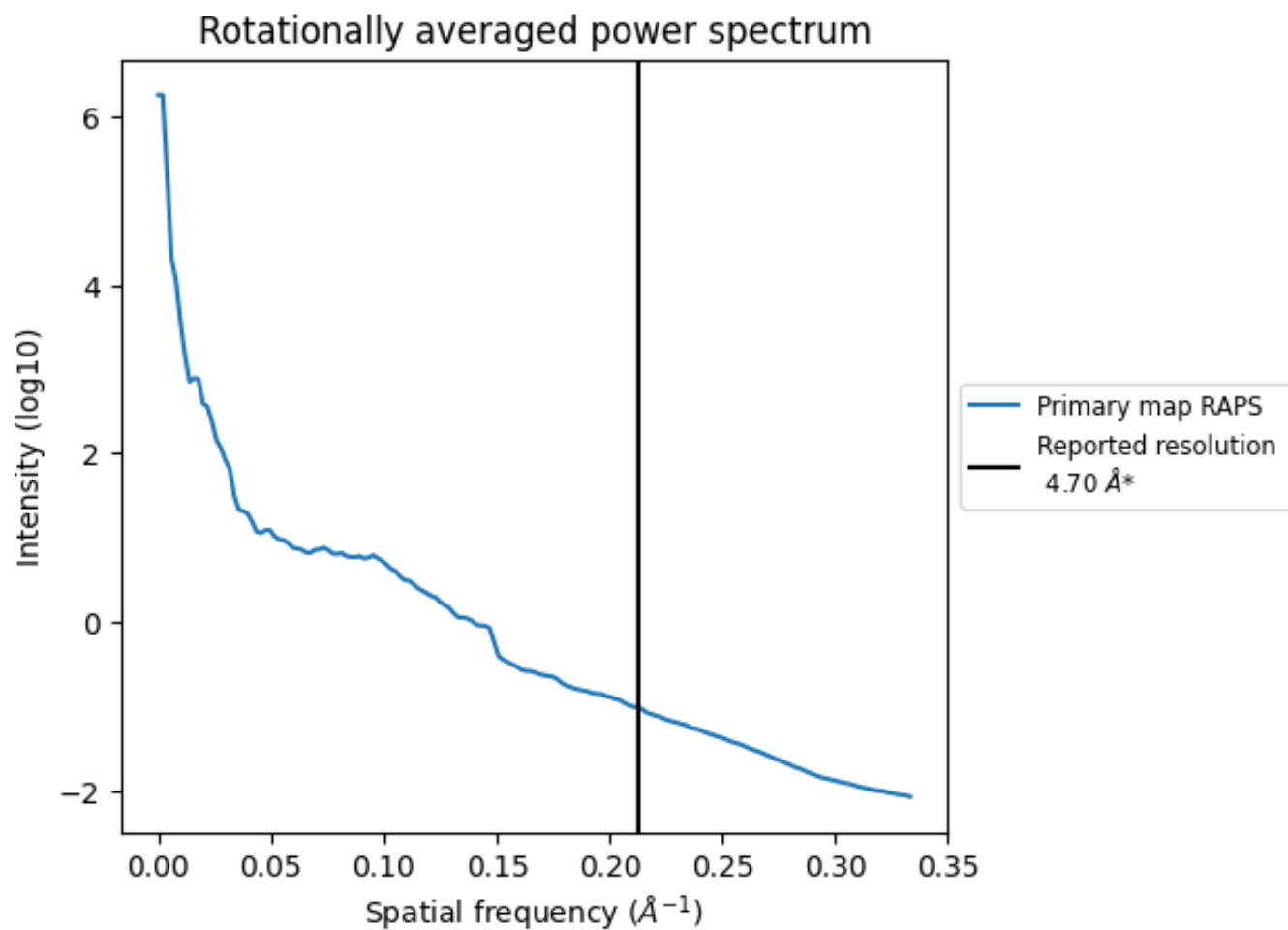
## 7.2 Volume estimate [i](#)



The volume at the recommended contour level is  $5220 \text{ nm}^3$ ; this corresponds to an approximate mass of 4715 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](#)

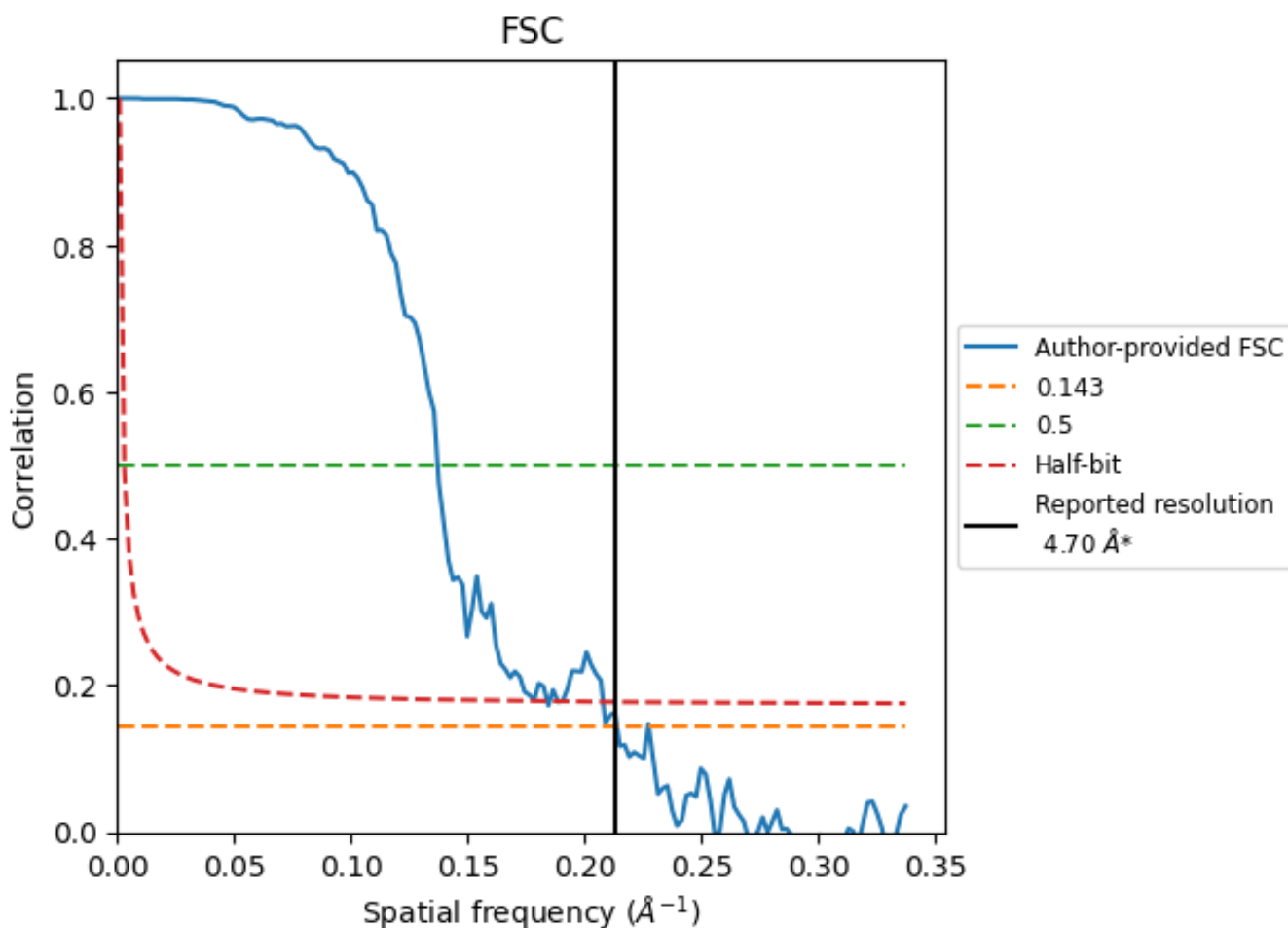


\*Reported resolution corresponds to spatial frequency of 0.213 Å<sup>-1</sup>

## 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 0.213 Å<sup>-1</sup>

## 8.2 Resolution estimates [i](#)

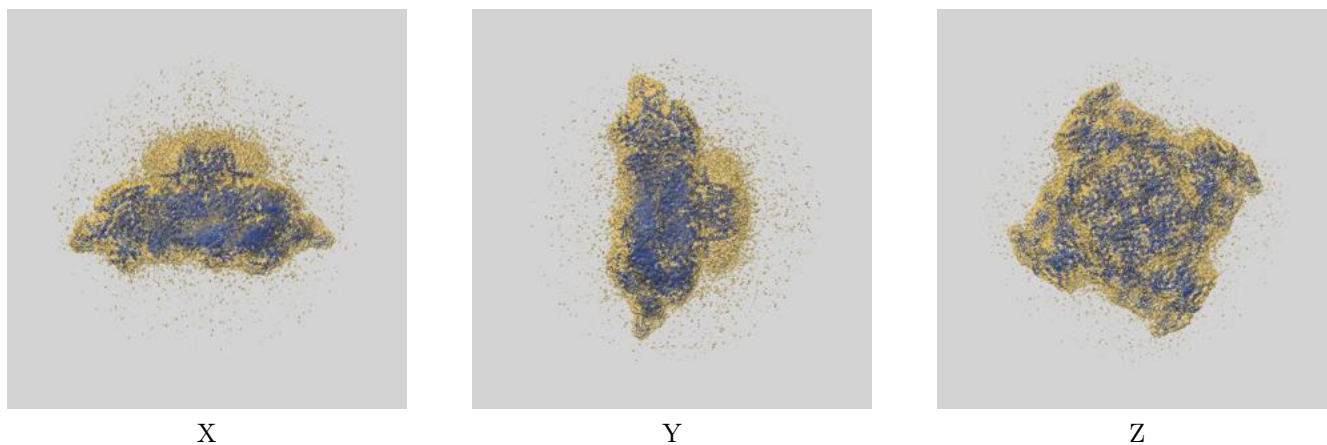
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.70	-	-
Author-provided FSC curve	4.68	7.29	5.43
Unmasked-calculated*	-	-	-

\*Resolution estimate based on FSC curve calculated by comparison of deposited half-maps.

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

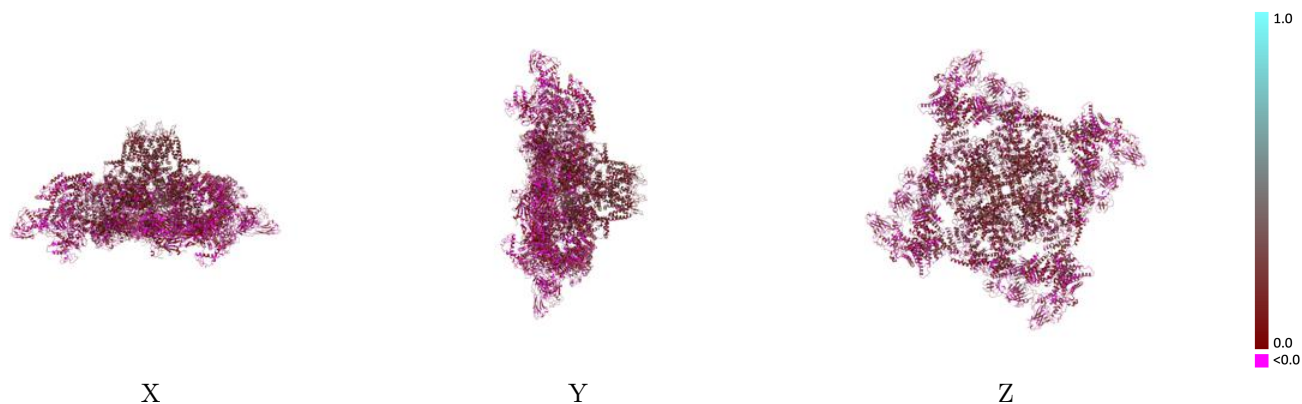
This section contains information regarding the fit between EMDB map EMD-19465 and PDB model 8RRU. Per-residue inclusion information can be found in section 3 on page 8.

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



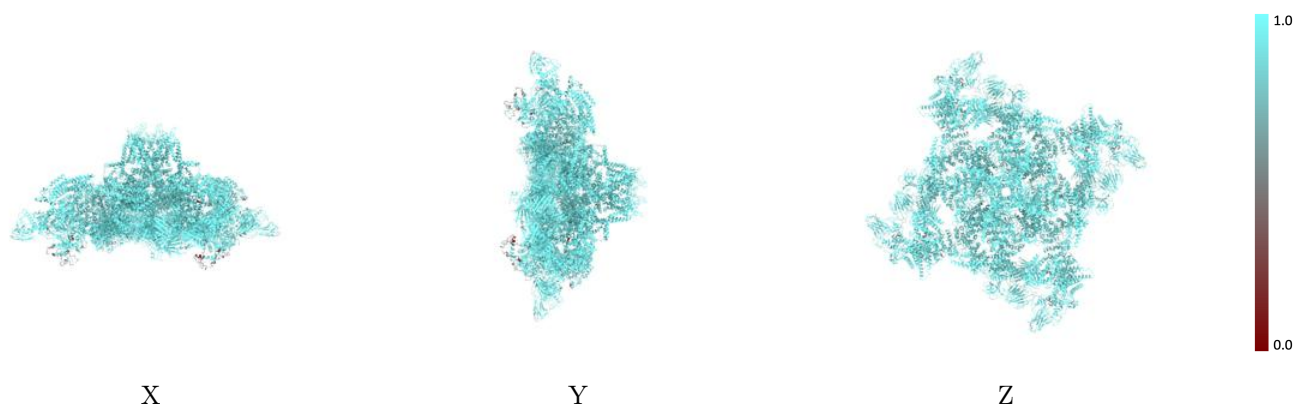
The images above show the 3D surface view of the map at the recommended contour level 0.2 at 50% transparency in yellow overlaid with a ribbon representation of the model coloured in blue. These images allow for the visual assessment of the quality of fit between the atomic model and the map.

## 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.

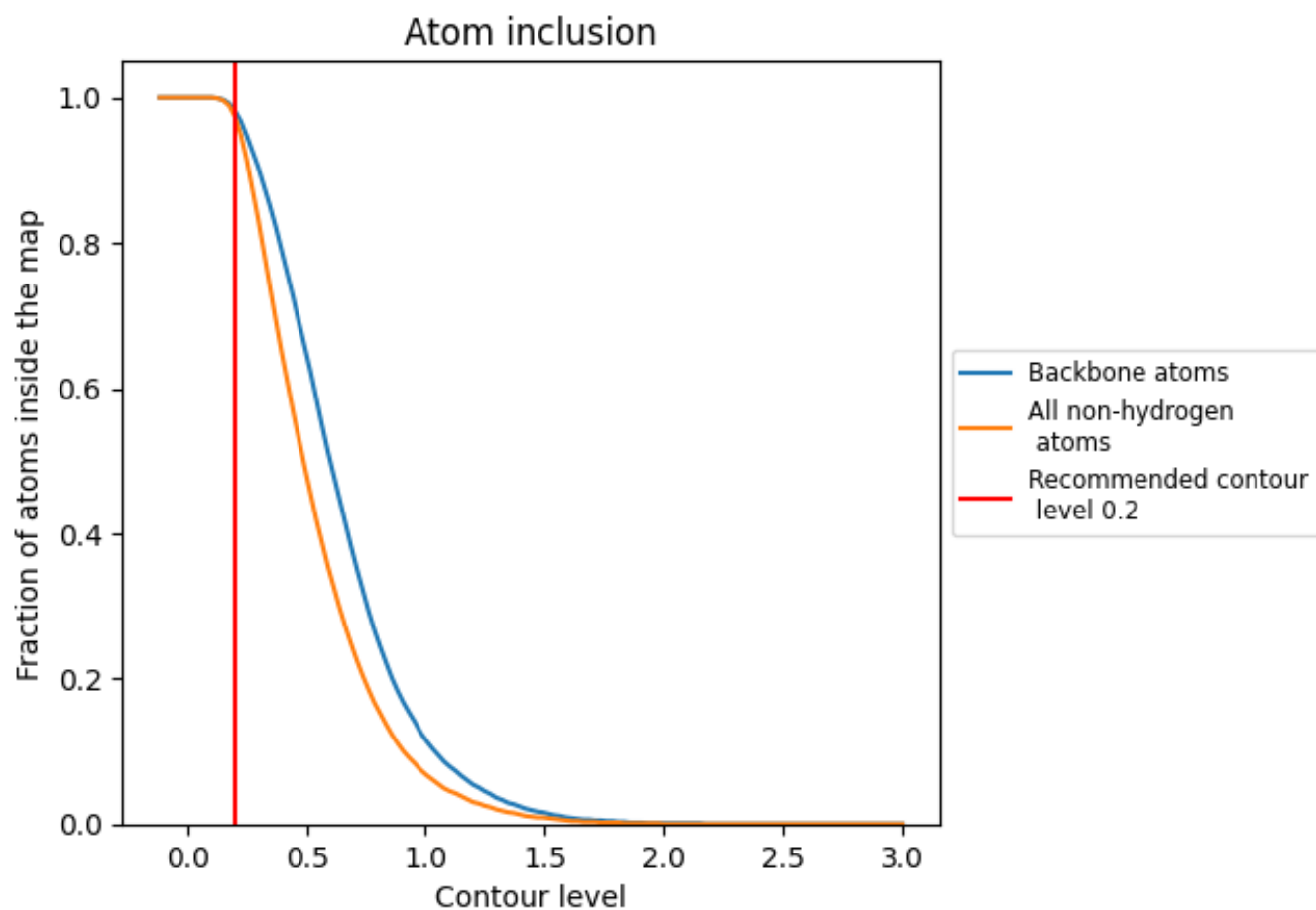
## 9.3 Atom inclusion mapped to coordinate model [i](#)



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 (0.2).





























## 9.4 Atom inclusion [i](#)



At the recommended contour level, 98% of all backbone atoms, 97% 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 (0.2) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	 0.9740	 0.1100
A	 0.9860	 0.0460
B	 0.9760	 0.1140
C	 0.9180	 0.0580
D	 0.9860	 0.0440
E	 0.9760	 0.1130
F	 0.9190	 0.0590
G	 0.9760	 0.1140
H	 0.9880	 0.0460
I	 0.9850	 0.0440
J	 0.9760	 0.1140
K	 0.9160	 0.0570
M	 0.9270	 0.0610

