Full wwPDB EM Validation Report ⓘ

Mar 19, 2024 – 10:49 PM JST

PDB ID	:	6JV2
EMDB ID	:	EMD-9889
Title	:	Structure of RyR2 (P/L-Ca2+/Ca2+-CaM dataset)
Authors	:	Gong, D.S.; Chi, X.M.; Zhou, G.W.; Huang, G.X.Y.; Lei, J.L.; Yan, N.
Deposited on	:	2019-04-15
Resolution	:	4.40 Å(reported)

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

We welcome your comments at *validation@mail.wwpdb.org*
A user guide is available at
https://www.wwpdb.org/validation/2017/EMValidationReportHelp
with specific help available everywhere you see the ⓘ symbol.

The types of validation reports are described at
http://www.wwpdb.org/validation/2017/FAQs#types.

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

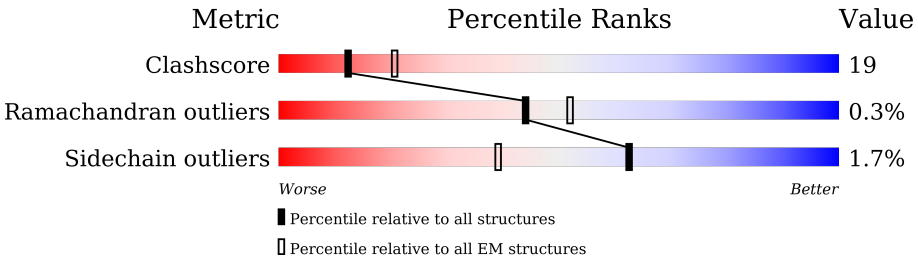
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance

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

The reported resolution of this entry is 4.40 Å.

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



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

The table below summarises the geometric issues observed across the polymeric chains and their fit to the map. The red, orange, yellow and green segments of the bar indicate the fraction of residues that contain outliers for >=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 <=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	4968	7% 42% 27% • 29%
1	C	4968	7% 42% 28% • 29%
1	E	4968	7% 42% 27% • 29%
1	G	4968	7% 42% 28% • 29%
2	B	149	55% 58% 30% 11%
2	D	149	55% 59% 30% 11%
2	F	149	55% 61% 28% 11%
2	H	149	55% 59% 30% 11%

2 Entry composition

There are 4 unique types of molecules in this entry. The entry contains 111080 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 RyR2.

Mol	Chain	Residues	Atoms					AltConf	Trace
1	A	3509	Total 26722	C 17028	N 4575	O 4961	S 158	0	0
1	C	3509	Total 26722	C 17028	N 4575	O 4961	S 158	0	0
1	E	3509	Total 26722	C 17028	N 4575	O 4961	S 158	0	0
1	G	3509	Total 26722	C 17028	N 4575	O 4961	S 158	0	0

- Molecule 2 is a protein called Calmodulin-1.

Mol	Chain	Residues	Atoms					AltConf	Trace
2	B	132	Total 1042	C 643	N 169	O 221	S 9	0	0
2	D	132	Total 1042	C 643	N 169	O 221	S 9	0	0
2	F	132	Total 1042	C 643	N 169	O 221	S 9	0	0
2	H	132	Total 1042	C 643	N 169	O 221	S 9	0	0

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

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

- Molecule 4 is CALCIUM ION (three-letter code: CA) (formula: Ca).

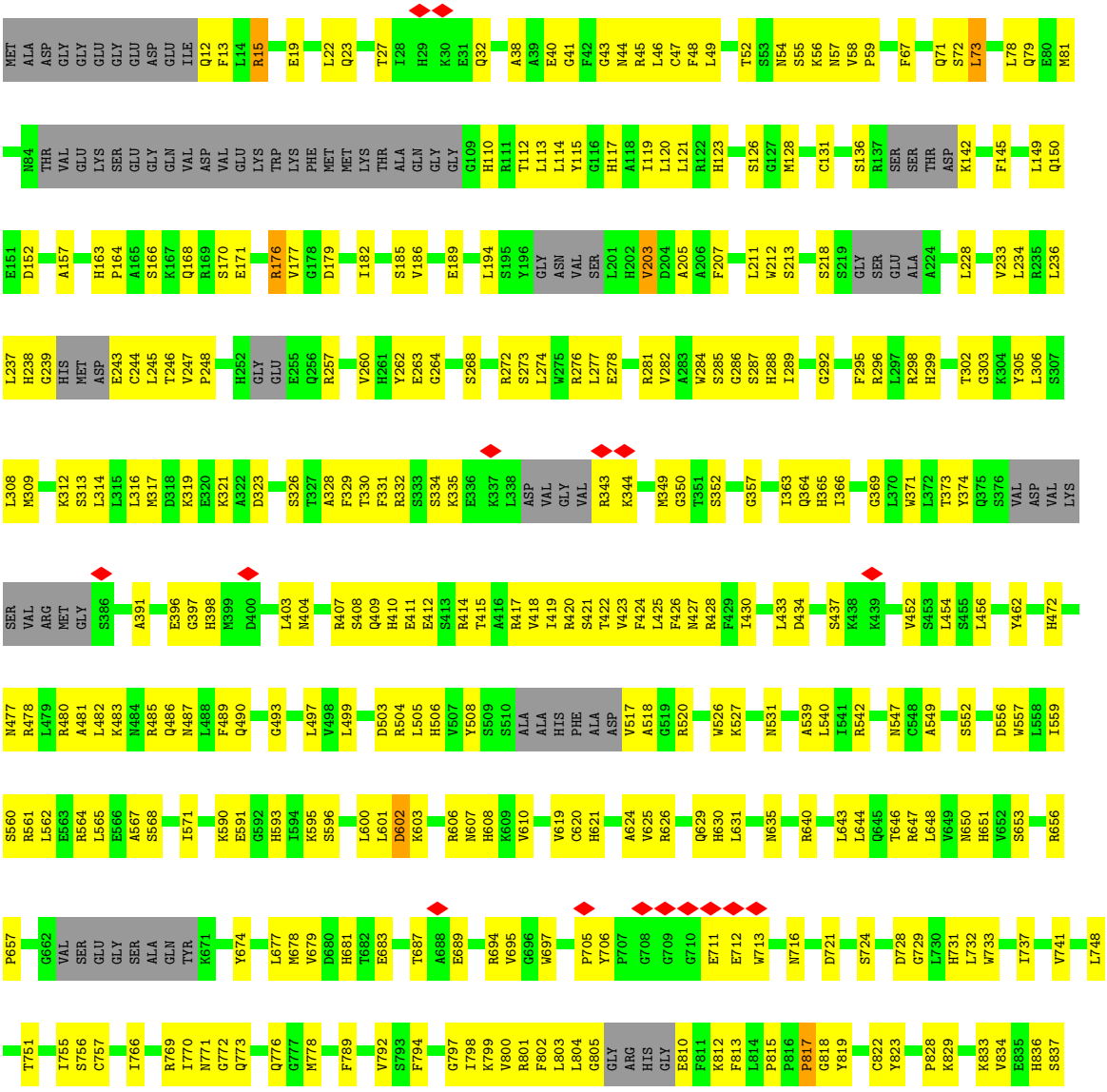
Mol	Chain	Residues	Atoms	AltConf
4	A	1	Total Ca 1 1	0
4	B	4	Total Ca 4 4	0
4	C	1	Total Ca 1 1	0
4	D	4	Total Ca 4 4	0
4	E	1	Total Ca 1 1	0
4	F	4	Total Ca 4 4	0
4	G	1	Total Ca 1 1	0
4	H	4	Total Ca 4 4	0

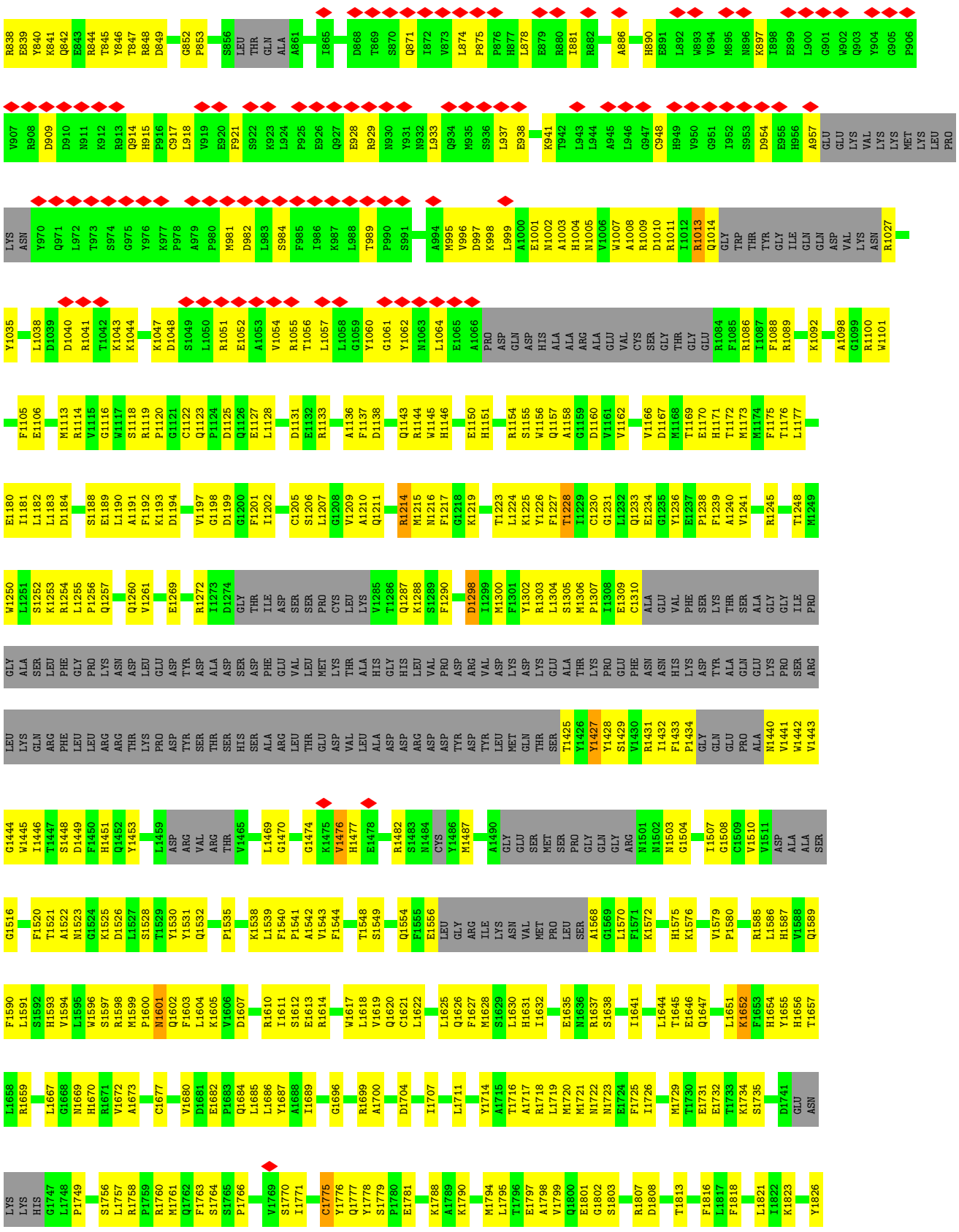
3 Residue-property plots (i)

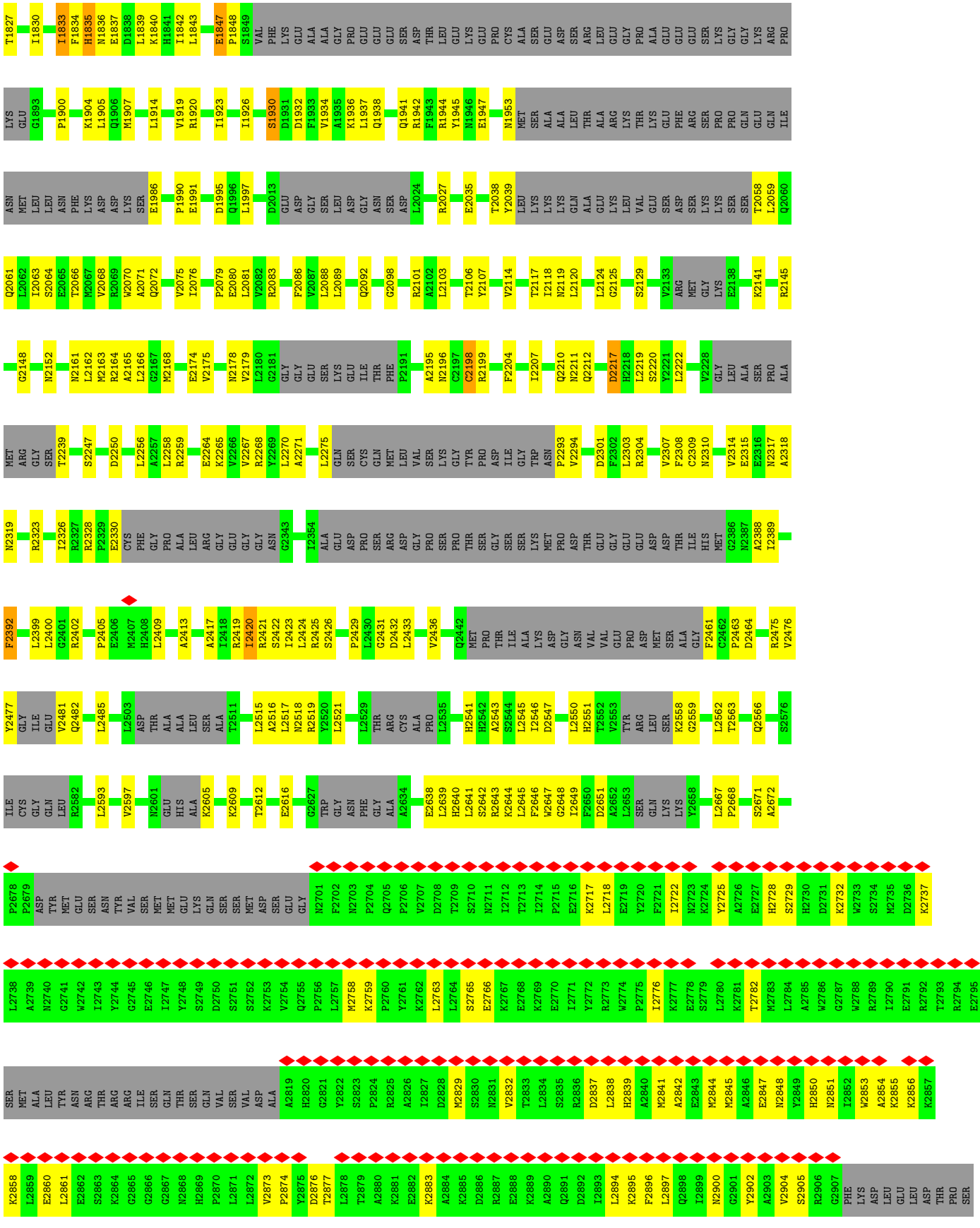
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

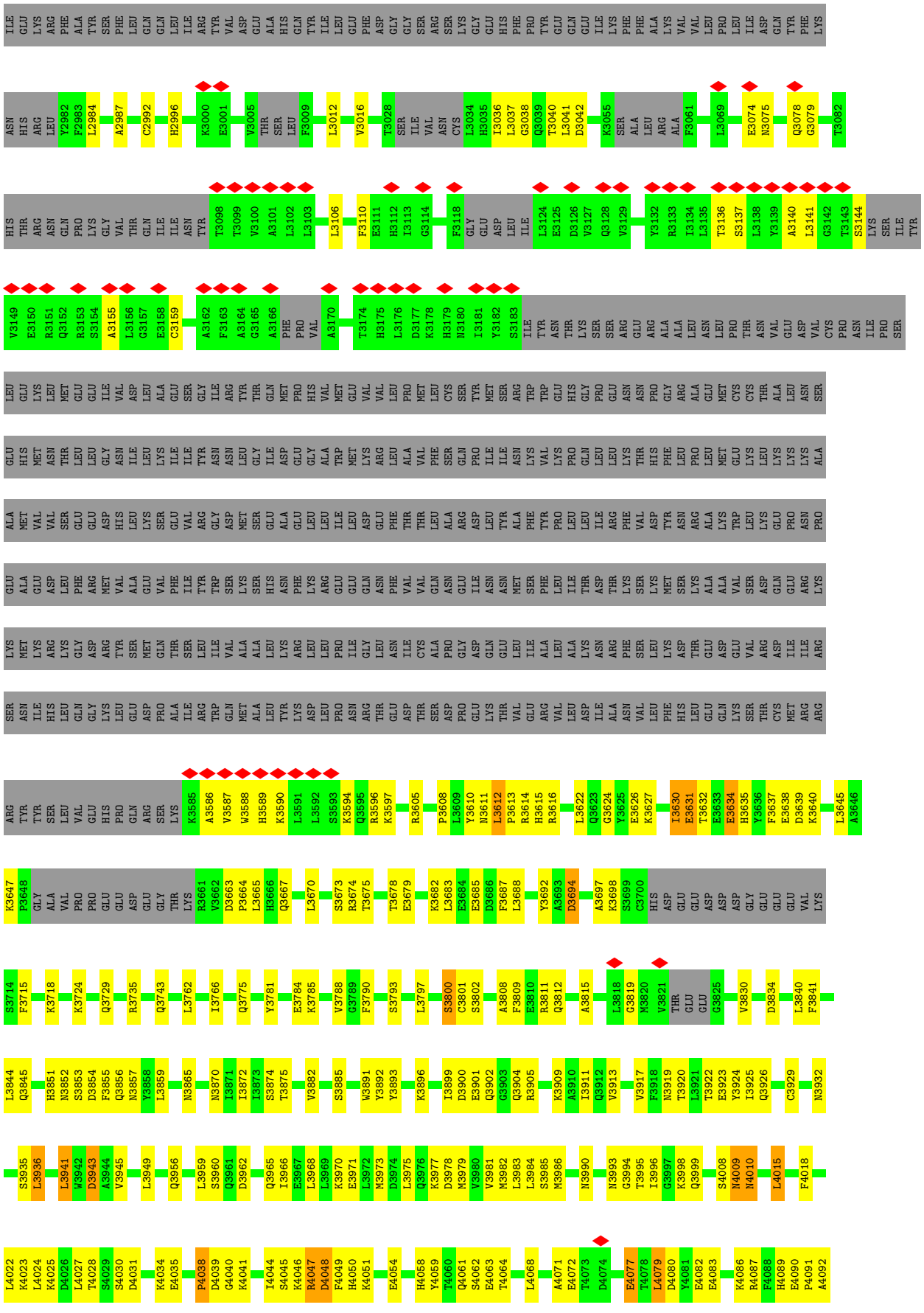
- Molecule 1: RyR2

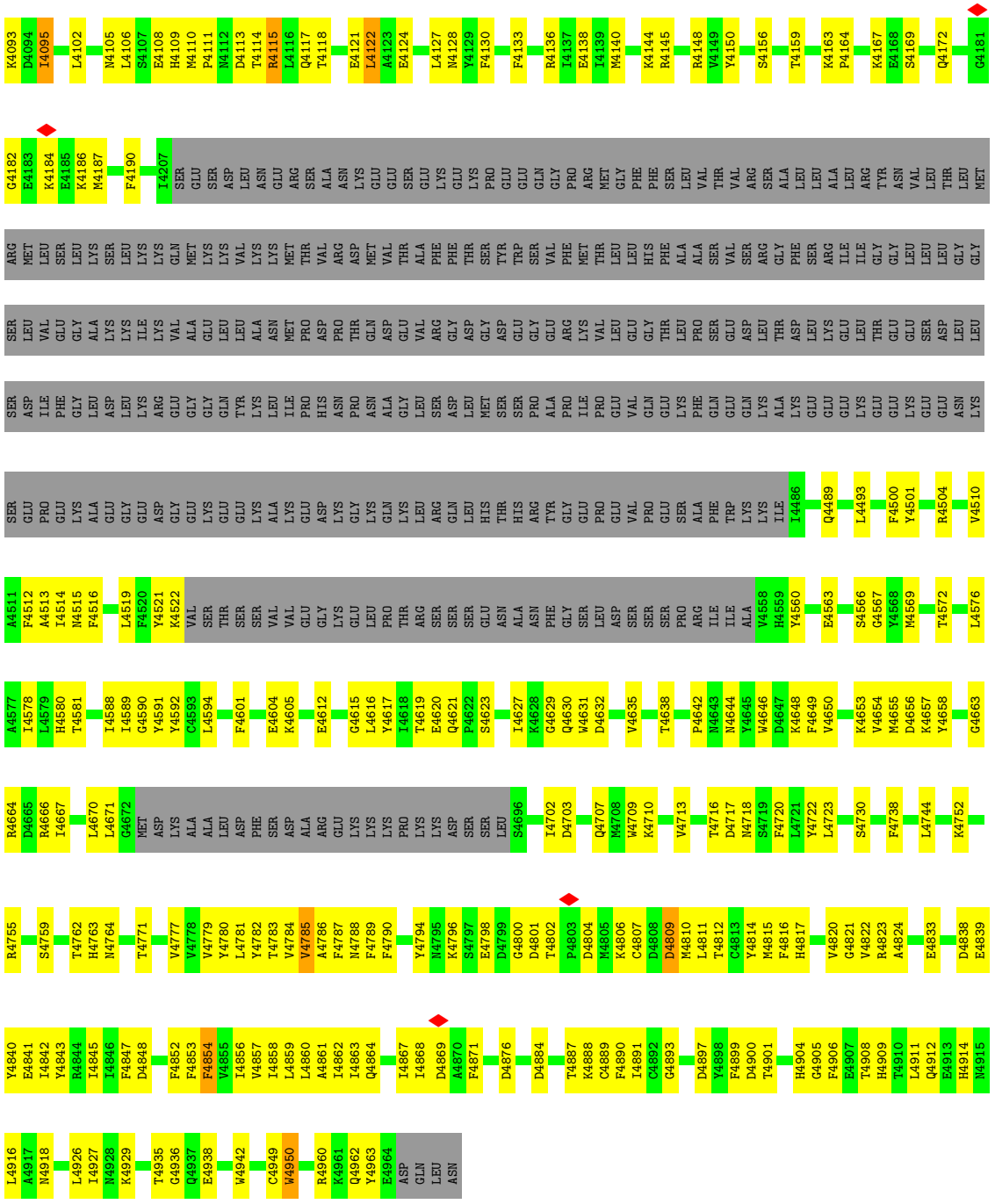
Chain A:





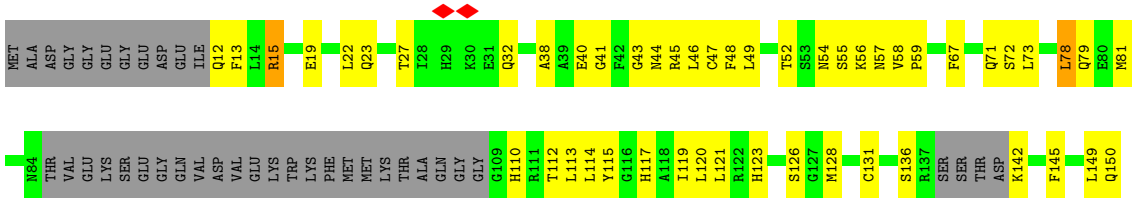


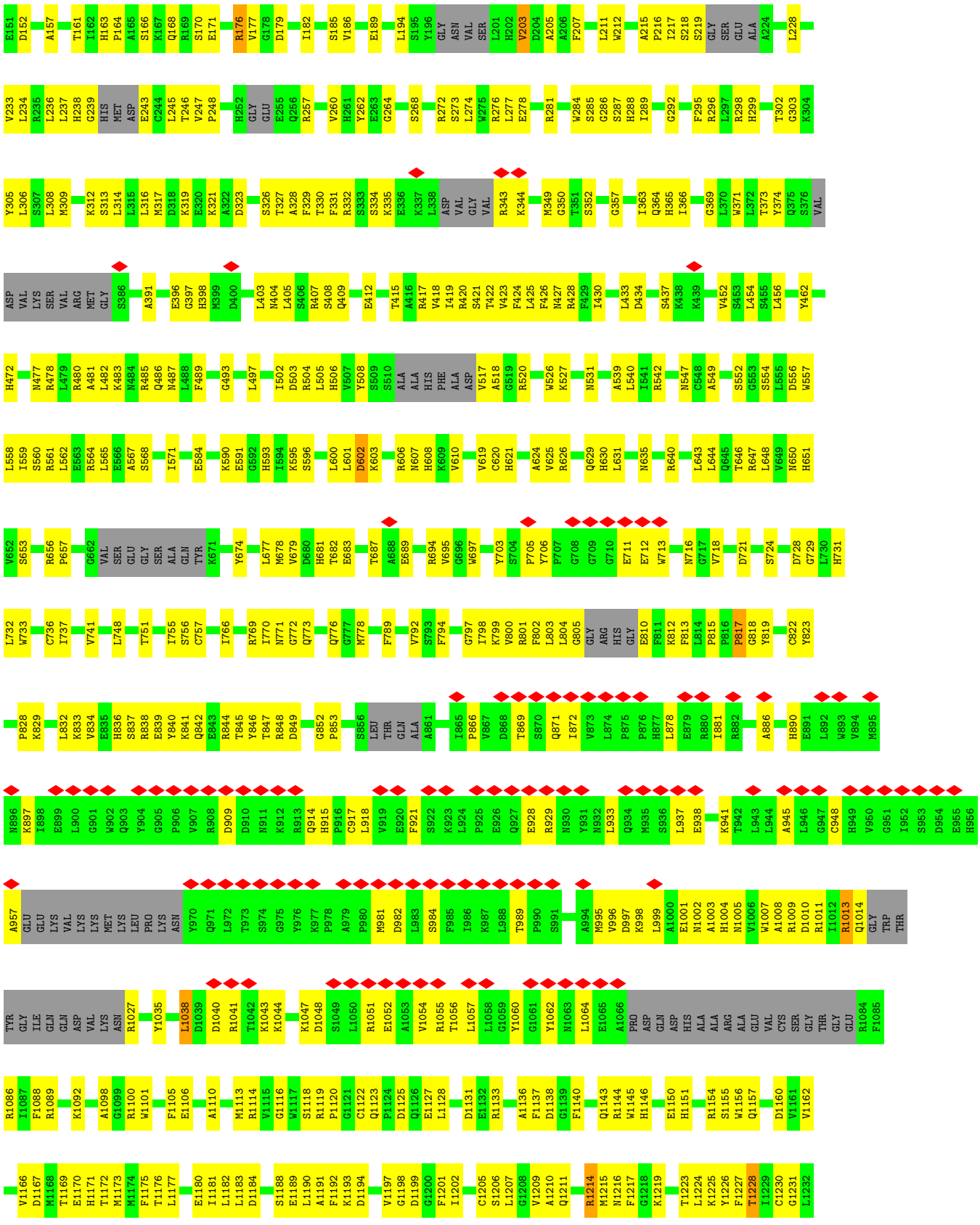


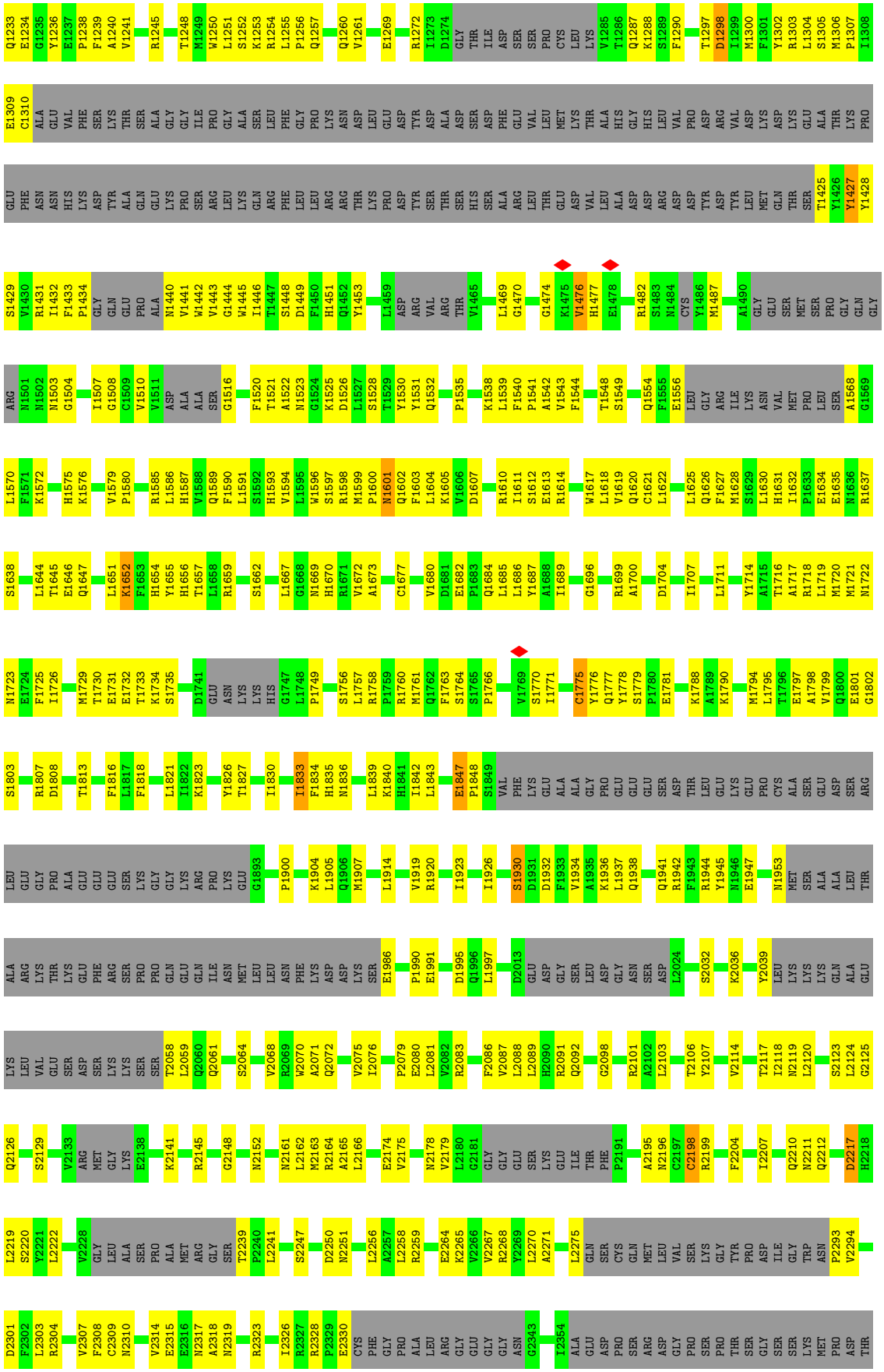


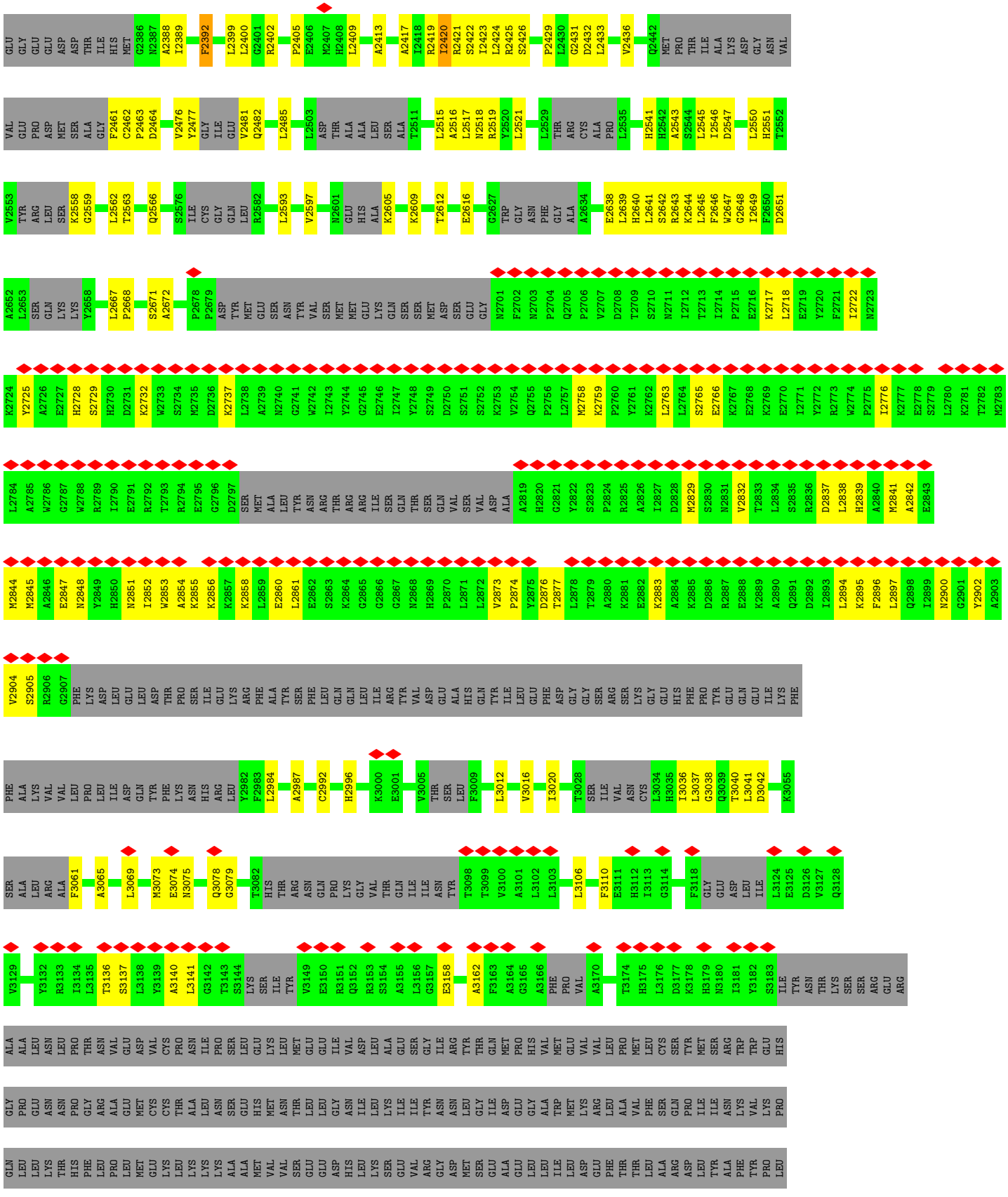
• Molecule 1: RyR2

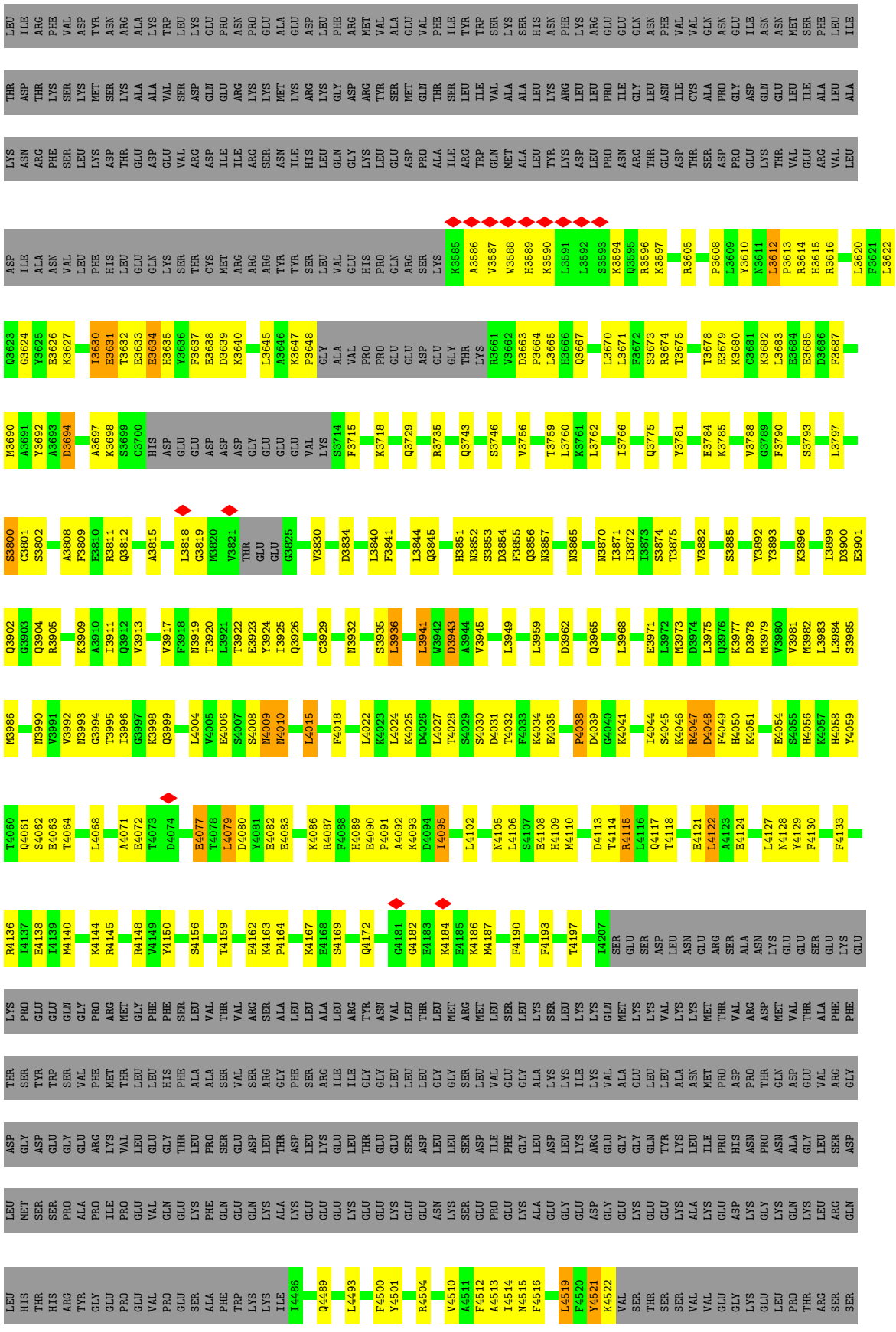
Chain C:

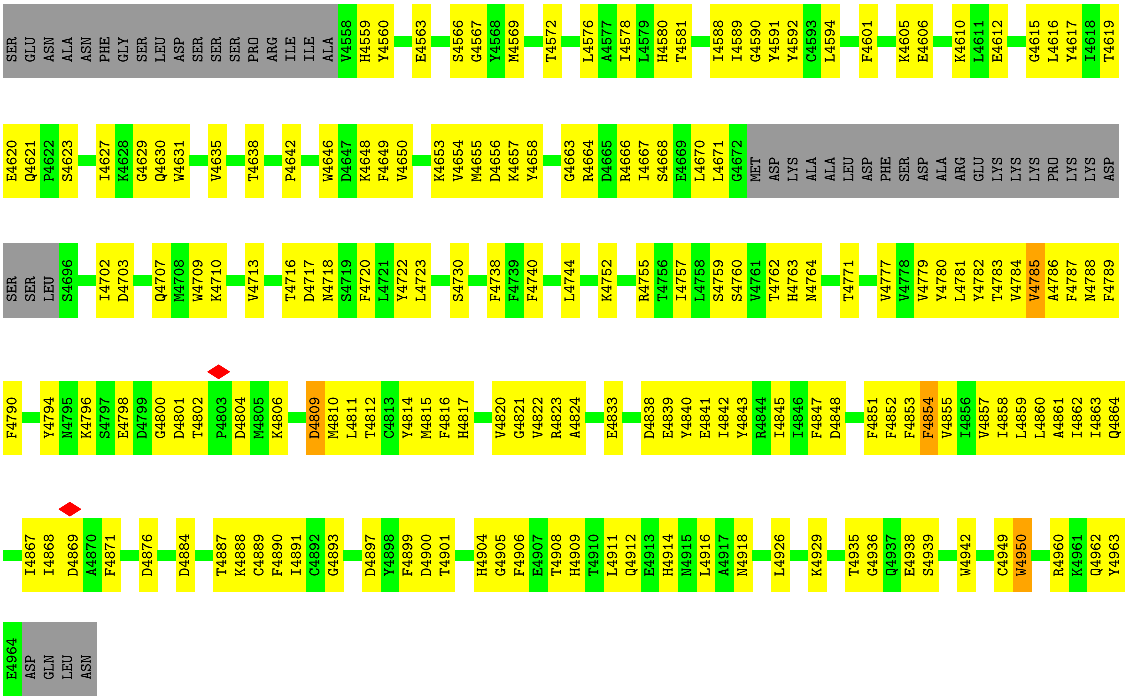






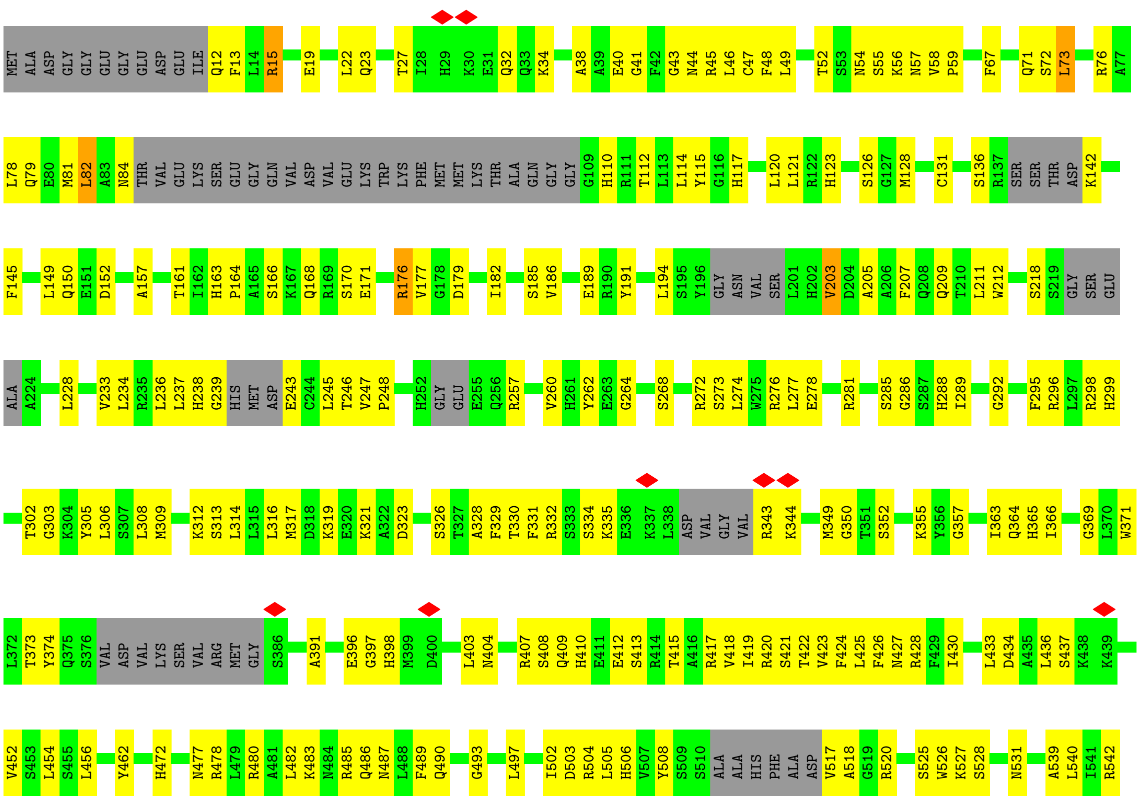




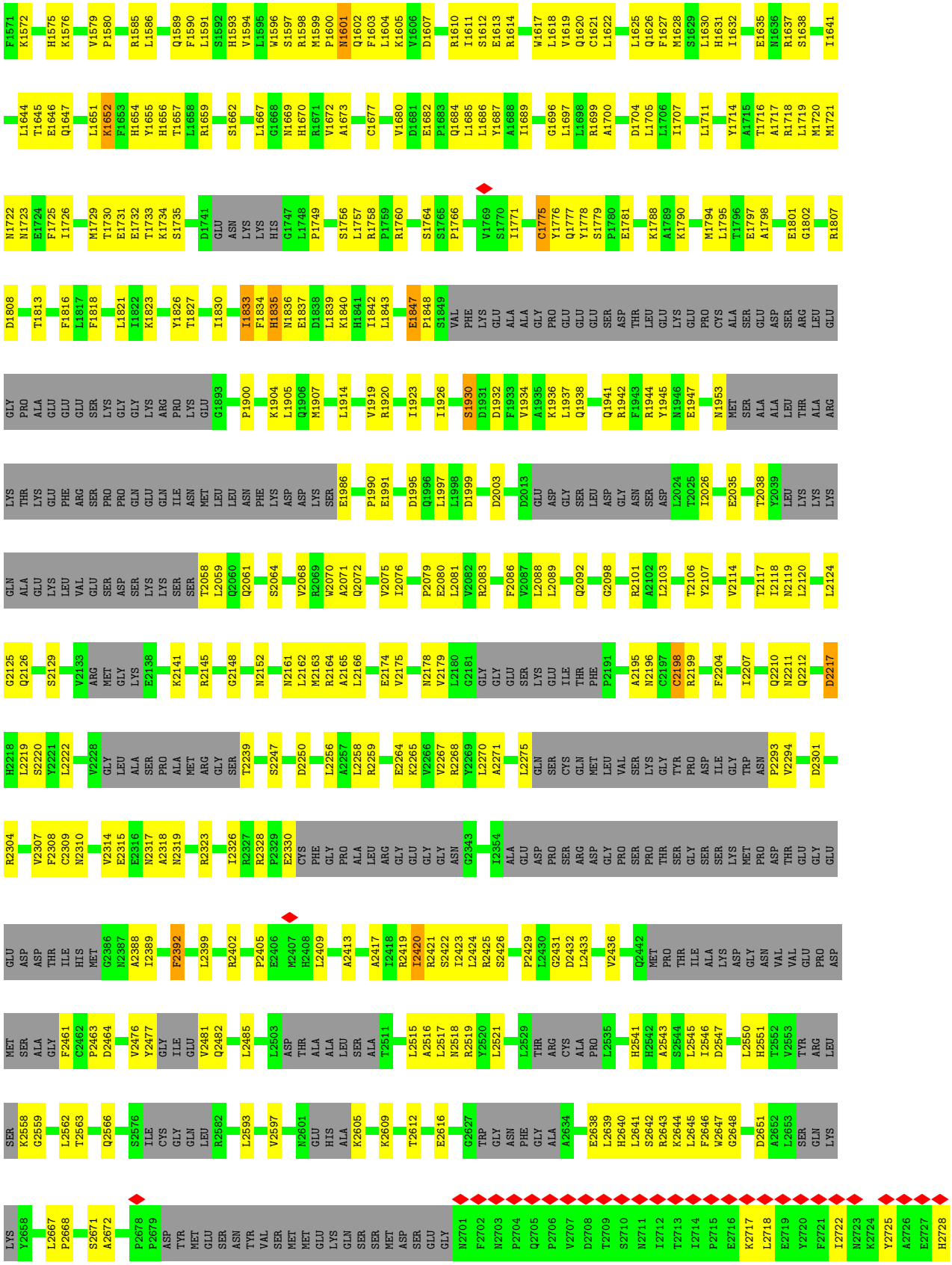


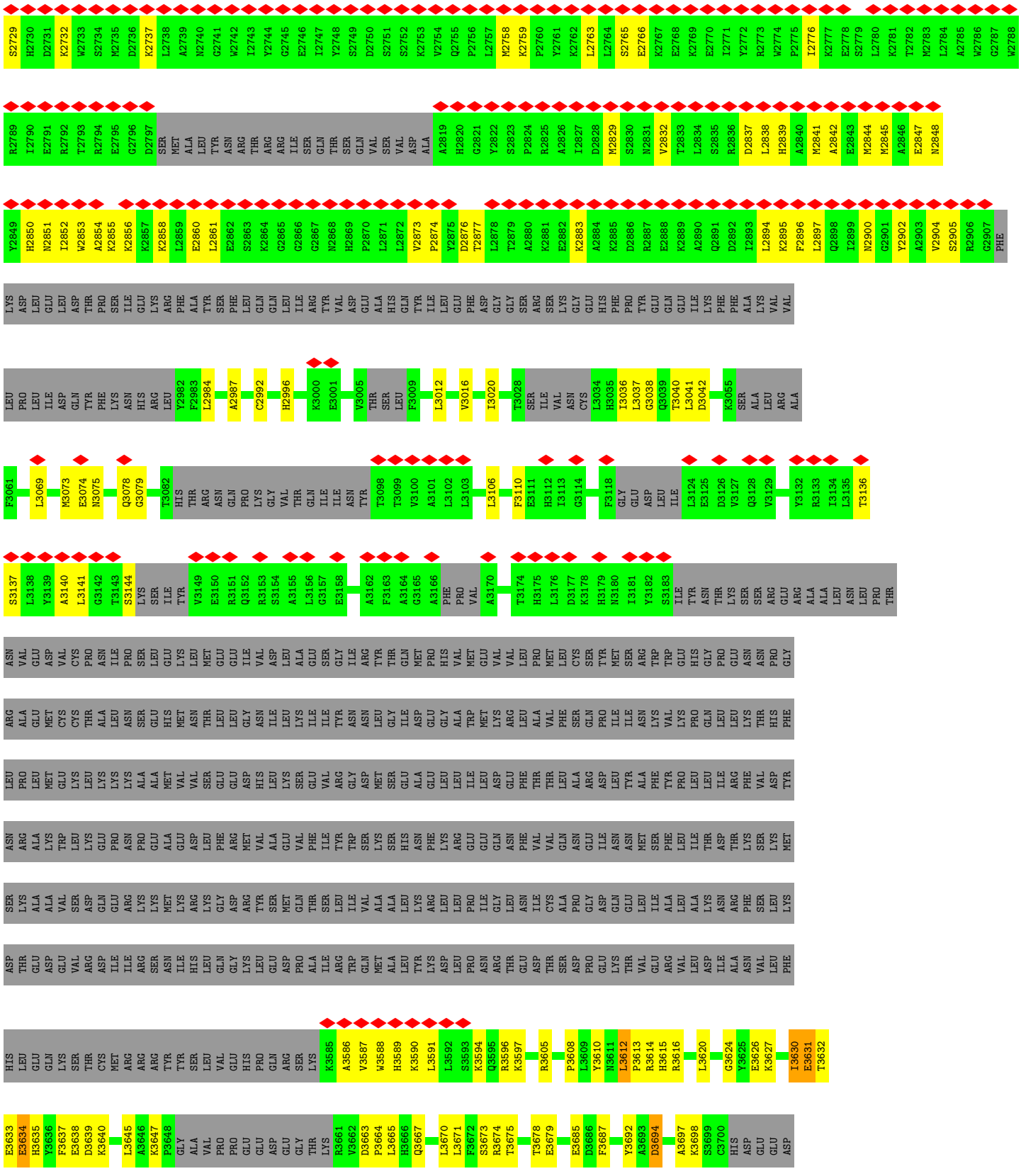
• Molecule 1: RyR2

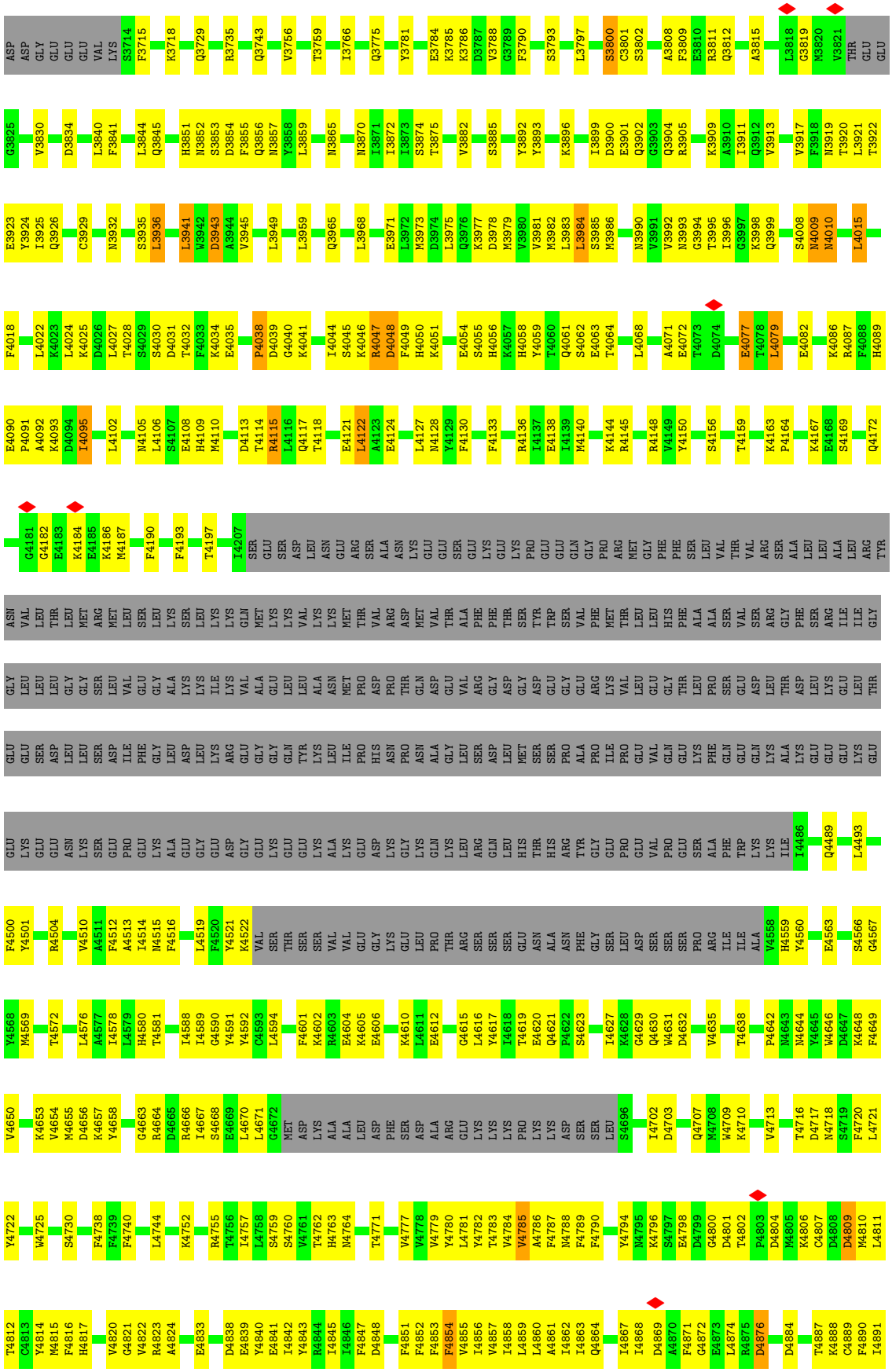
Chain E:




N547 C548 A549 S552 D556 W557 L558 I559 S560 R561 L562 E563 R564 L565 E566 A567 S568 I571 K590 E591 G592 H593 I594 K595 S596 L600 L601 D602 K603 R606 M607 H608 K609 V610 V619 C620 H621 A624 V625 R626 Q629 H630 L631 N635 R640 L643 L644
Q645 T646 R647 L648 V649 N650 H651 V652 S653 R656 P657 L661 G662 V687 A688 E689 R694 V695 G696 W697 P705 Y706 P707 G708 G709 G710 E711 E712 W713 N716 D721 S724
D728 G729 L730 H731 L732 W733 I737 V741 L748 T751 I755 S756 C757 P764 S765 I766 R769 I770 N771 G772 Q773 Q776 G777 M778 F779 E780 F788 F789 V792 S793 F794 G797 I798 K799 V800 R801 F802 L803 L804 G805 GLY ARG HIS GLY E810 F811 K812 F813 L814
P815 P816 P817 G818 Y819 C822 Y823 P828 K829 K833 V834 E835 H836 S837 R838 E839 Y840 K841 Q842 E843 R844 T845 Y846 T847 R848 D849 Q852 P853 S856 LEU THR GLN ALA A861 I865 P866 V867 D868 T869 S870 Q871 I872 V873 L874 P875 P876 H877 L878 E879 R880 I881 R882 A886
H890 E891 L892 W893 V894 M895 N896 K897 I898 E899 L900 G901 W902 Q903 Y904 G905 P906 V907 R908 D909 D910 N911 K912 R913 Q914 H915 P916 C917 L918 V919 E920 F921 S922 K923 L924 P925 E926 Q927 E928 R929 N930 Y931 N932 L933 Q934 M935 S936 L937 E938 K941 T942 L943 L944 A945 L946 G947 C948 H949
V950 G951 I952 S953 D954 E955 H956 A957 GLU GLU LYS VAL LYS LYS MET LYS LEU PRO LYS ASN Y970 Q971 L972 T973 S974 G975 Y976 K977 P978 A979 P980 M981 D982 L983 S984 F985 I986 K987 L988 T989 P990 A994 M995 V996 D997 K998 L999 A1000 E1001 N1002 A1003 H1004 N1005 V1006 W1007 A1008 R1009 D1010 R1011
I1012 R1013 Q1014 GLY TRP THR TYR GLY ILE GLN GLN ASP VAL LYS ASN R1027 Y1035 L1038 D1039 D1040 R1041 T1042 K1043 K1044 K1047 D1048 S1049 L1050 R1051 E1052 A1053 V1054 R1055 T1056 L1057 L1058 G1059 Y1060 G1061 Y1062 N1063 L1064 E1065 A1066 PRO ASP GLN ASP HIS ALA ALA ARG ALA GLU VAL CYS SER
GLY THR GLY GLU R1084 F1085 R1086 I1087 F1088 R1089 K1092 K1097 A1098 G1099 R1100 W1101 E1106 M1113 R1114 V1115 G1116 W1117 S1118 R1119 P1120 G1121 C1122 Q1123 P1124 D1125 Q1126 E1127 L1128 D1131 E1132 R1133 A1136 F1137 D1138 Q1143 R1144 W1145 H1146 E1150 H1151 R1154 S1155 W1156 Q1157 A1158 G1159
D1160 V1161 V1162 V1166 D1167 M1168 T1169 E1170 H1171 T1172 M1173 M1174 F1175 T1176 L1177 E1180 I1181 L1182 L1183 D1184 S1188 E1189 L1190 A1191 F1192 K1193 D1194 V1197 G1198 D1199 G1200 F1201 I1202 C1205 S1206 L1207 G1208 V1209 A1210 Q1211 R1214 M1215 N1216 F1217 G1218 K1219 T1223 L1224 K1225 Y1226 F1227 T1228 I1229
C1230 G1231 L1232 Q1233 E1234 G1235 Y1236 E1237 P1238 F1239 A1240 V1241 T1248 M1249 W1250 L1251 S1252 K1253 R1254 L1255 P1256 Q1257 F1258 L1259 Q1260 V1261 E1269 R1272 I1273 D1274 GLY THR ILE ASP SER SER PRO CYS LEU LYS V1285 T1286 Q1287 K1288 S1289 F1290 T1297 D1298 I1299 M1300 F1301 Y1302 R1303 L1304 S1305 M1306
P1307 I1308 E1309 C1310 ALA GLU VAL PHE SER LYS THR SER ALA GLY GLY ILE PRO GLY ALA SER LEU PHE GLY PRO LYS ASN ASP LEU GLU ASP TYR ASP ALA ASP SER ASP PHE GLU VAL LEU MET LYS THR ALA HIS GLY HIS LEU VAL PRO ASP ARG VAL ASP LYS ASP LYS LYS GLU ALA THR
LYS PRO GLU PHE ASN ASN HIS LYS ASP TYR ALA GLN GLU LYS PRO SER ARG LEU LYS GLN ARG PHE LEU LEU ARG ARG THR LYS PRO ASP TYR SER THR SER HIS SER ALA ARG LEU THR GLU ASP VAL LEU ALA ASP ASP ARG ASP ASP TYR ASP TYR LEU MET GLN THR SER T1425 Y1426
Y1427 Y1428 S1429 V1430 R1431 I1432 F1433 P1434 GLY GLN GLU PRO ALA N1440 V1441 W1442 V1443 G1444 W1445 I1446 H1451 Q1452 Y1453 L1459 ASP ARG VAL ARG THR V1465 L1469 G1470 G1474 K1475 V1476 H1477 E1478 R1482 S1483 N1484 CYS Y1486 M1487 A1490 GLY GLU SER MET SER PRO GLY GLN GLY ARG
N1501 N1502 N1503 G1504 I1507 G1508 C1509 V1510 V1511 ASP ALA ALA SER G1516 F1520 T1521 A1522 N1523 G1524 K1525 D1526 L1527 S1528 T1529 Y1530 Y1531 Q1532 P1535 K1538 L1539 F1540 P1541 A1542 V1543 F1544 T1548 S1549 Q1554 F1555 E1556 LEU GLY ARG ILE LYS ASN VAL MET PRO LEU SER A1568 G1569 L1570

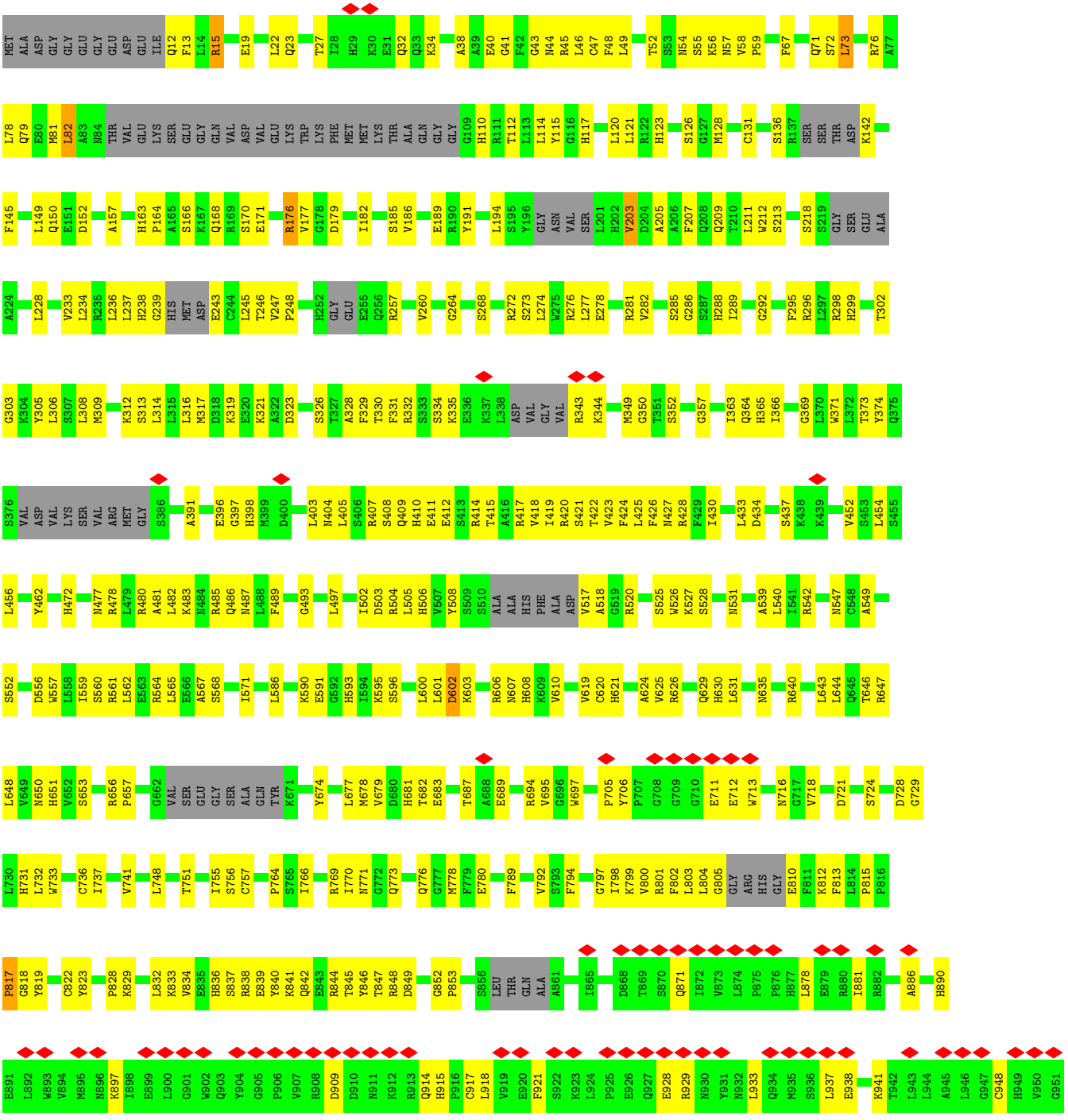


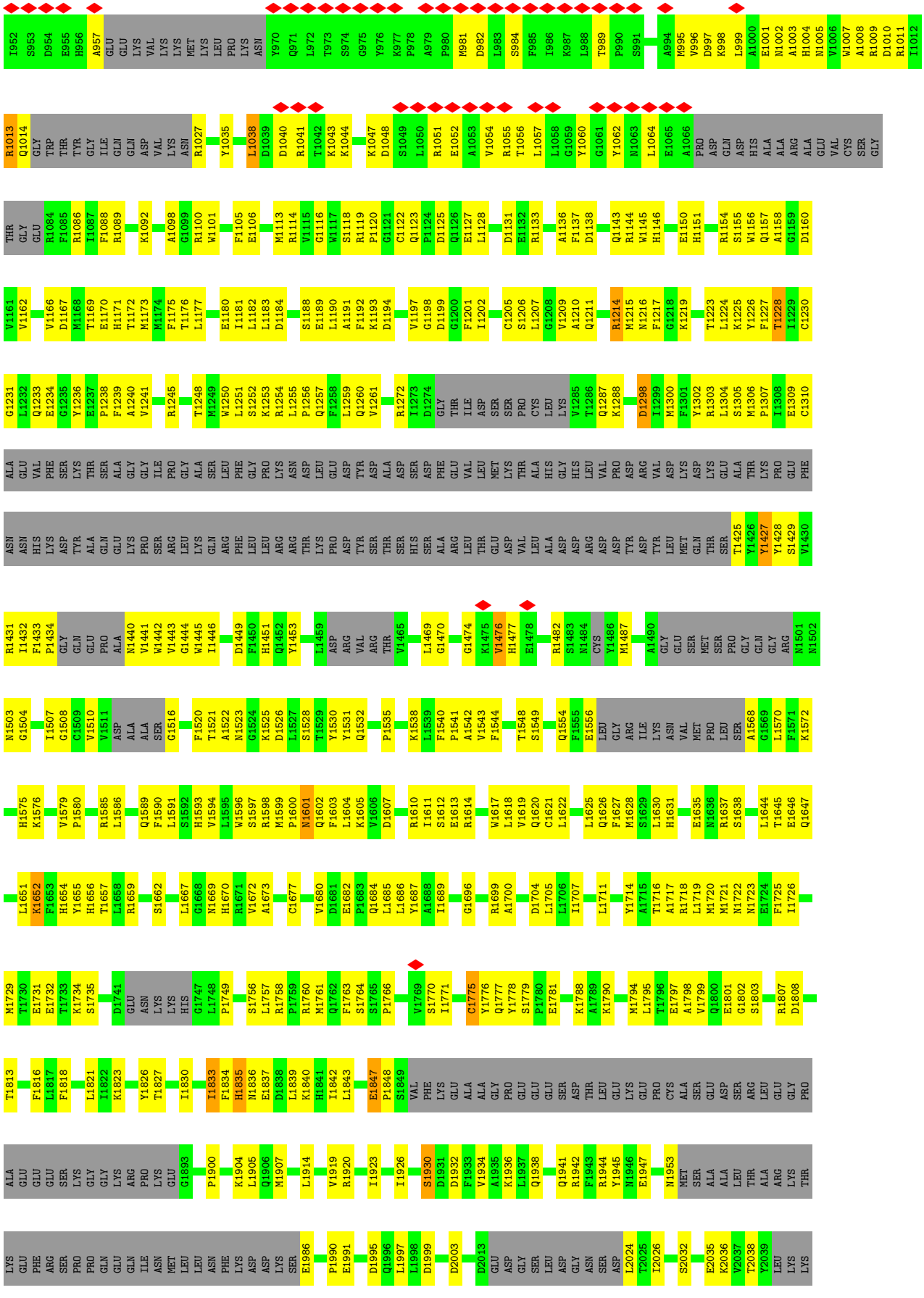




• Molecule 1: RyR2

Chain G:

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R1013 Q1014 GLY TRP THR TYR GLY ILE GLN GLN ASP VAL LYS ASN R1027 Y1035 L1038 D1039 D1040 R1041 T1042 K1043 K1044 K1047 D1048 S1049 L1050 R1051 E1052 A1053 V1054 R1055 T1056 L1057 L1058 G1059 Y1060 G1061 Y1062 N1063 L1064 E1065 A1066 PRO ASP GLN ASP HIS ALA ALA ARG ALA GLU VAL CYS SER GLY
THR GLY GLU R1084 F1085 R1086 I1087 F1088 R1089 K1092 A1098 G1099 R1100 W1101 F1105 E1106 M1113 R1114 V1115 G1116 W1117 S1118 R1119 P1120 G1121 C1122 Q1123 P1124 D1125 Q1126 E1127 L1128 D1131 E1132 R1133 A1136 F1137 D1138 Q1143 R1144 W1145 H1146 E1150 H1151 R1154 S1155 W1156 Q1157 A1158 G1159 D1160
V1161 V1162 V1166 D1167 H1168 T1169 E1170 H1171 T1172 M1173 W1174 F1175 T1176 L1177 E1180 I1181 L1182 L1183 D1184 S1188 E1189 L1190 A1191 F1192 K1193 D1194 V1197 G1198 D1199 G1200 F1201 I1202 C1205 S1206 L1207 G1208 V1209 A1210 Q1211 R1214 M1215 N1216 F1217 G1218 K1219 T1223 L1224 K1225 Y1226 F1227 T1228 I1229 C1230
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ALA GLU VAL PHE SER LYS THR SER ALA GLY GLY ILE PRO GLY ALA SER LEU PHE GLY PRO LYS ASN ASP LEU GLU ASP TYR ASP ALA ASP SER ASP THR LYS PRO ASP TYR SER THR SER HIS SER ALA ARG LEU THR GLU ASP VAL LEU ALA ASP ASP ARG ASP ASP TYR ASP TYR LEU MET GLN THR SER T1425 Y1426 Y1427 Y1428 S1429 V1430
ASN ASN HIS LYS ASP TYR ALA GLN GLU LYS PRO PRO SER ARG LEU LYS GLN ARG PHE LEU LEU ARG ARG THR LYS PRO ASP TYR SER THR SER HIS SER ALA ARG LEU THR GLU ASP VAL LEU ALA ASP ASP ARG ASP ASP TYR ASP TYR LEU MET GLN THR SER T1425 Y1426 Y1427 Y1428 S1429 V1430
R1431 I1432 F1433 P1434 GLY GLN GLU PRO ALA N1440 V1441 W1442 V1443 G1444 W1445 I1446 D1449 F1450 H1451 Q1452 Y1453 L1459 ASP ARG VAL ARG THR V1465 L1469 G1470 G1474 K1475 V1476 H1477 E1478 R1482 S1483 N1484 CYS Y1486 M1487 A1490 GLY GLU SER MET SER PRO GLY GLN GLY ARG N1501 N1502
N1503 G1504 I1507 G1508 C1509 V1510 V1511 ASP ALA ALA SER G1516 F1520 T1521 A1522 N1523 G1524 K1525 D1526 L1527 S1528 T1529 Y1530 Y1531 Q1532 P1535 K1538 L1539 F1540 P1541 A1542 V1543 F1544 T1548 S1549 Q1554 F1555 E1556 LEU GLY ARG ILE LYS ASN VAL MET PRO LEU SER A1568 G1569 L1570 F1571 K1572
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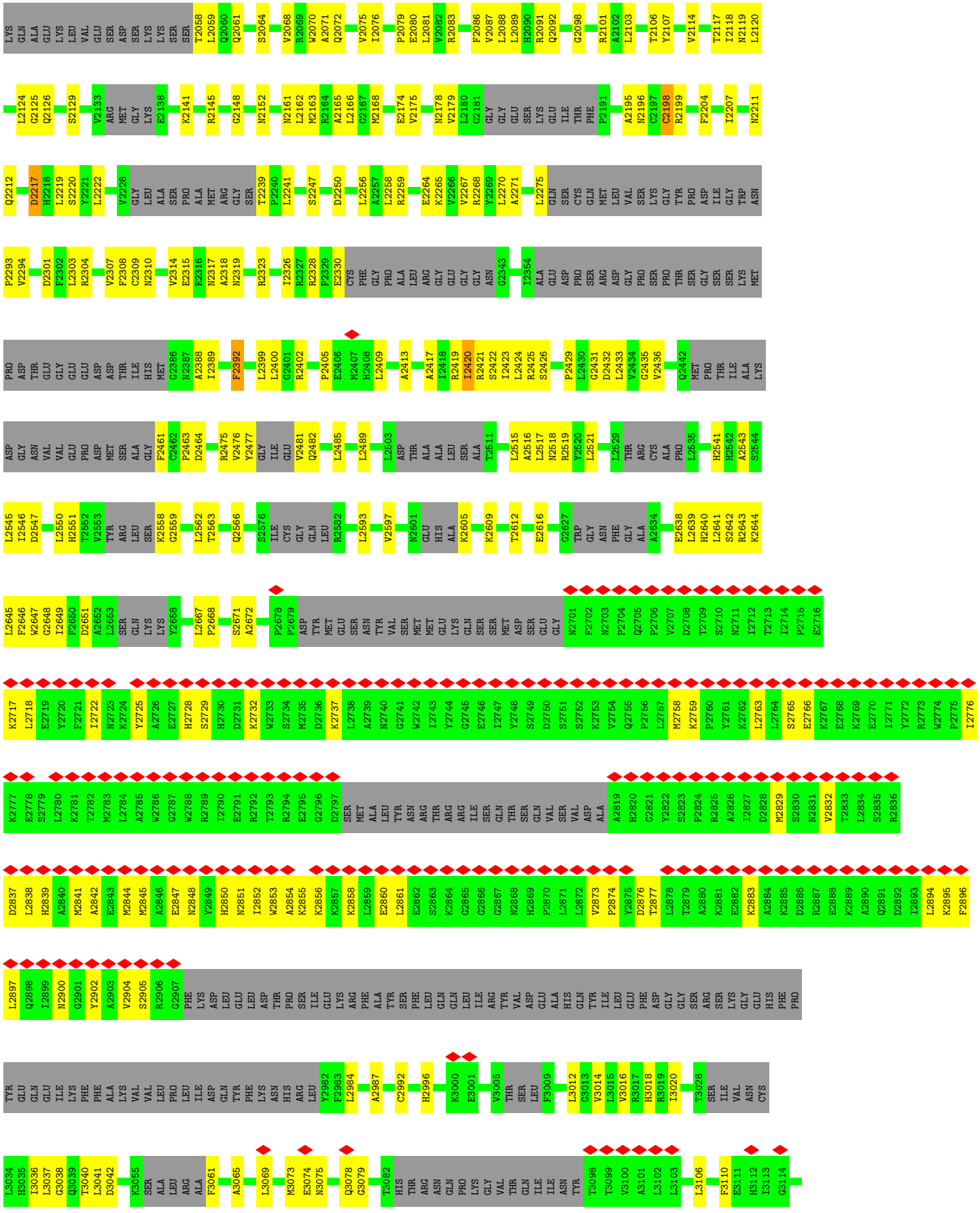
M1729 T1730 E1731 E1732 T1733 K1734 S1735 D1741 GLU ASN LYS LYS HIS G1747 L1748 P1749 S1756 L1757 R1758 P1759 R1760 M1761 Q1762 F1763 S1764 S1765 P1766 V1769 S1770 I1771 C1775 Y1776 Q1777 Y1778 S1779 P1780 E1781 K1788 A1789 K1790 M1794 L1795 T1796 E1797 A1798 V1799 Q1800 E1801 G1802 S1803 R1807 D1808
T1813 F1816 L1817 F1818 L1821 T1822 K1823 Y1826 T1827 I1830 I1833 F1834 H1835 N1836 E1837 D1838 L1839 K1840 H1841 I1842 L1843 E1847 P1848 S1849 VAL PHE LYS GLU ALA ALA GLY PRO GLU GLU SER ASP THR LEU GLU LYS GLU PRO CYS ALA SER GLU ASP SER ARG LEU GLU GLY PRO
ALA GLU GLU GLU SER LYS GLY GLY LYS ARG PRO LYS GLU G1893 P1900 K1904 L1905 Q1906 M1907 L1914 V1919 R1920 I1923 I1926 S1930 D1931 D1932 F1933 V1934 A1935 K1936 L1937 Q1938 Q1941 R1942 F1943 R1944 Y1945 N1946 E1947 N1953 MET SER ALA ALA LEU THR ALA ARG LYS THR
LYS GLU PHE ARG SER PRO PRO GLN GLN ILE ASN MET LEU LEU ASN PHE LYS ASP ASP LYS SER E1986 P1990 E1991 D1995 Q1996 L1997 L1998 D1999 D2003 D2013 GLU ASP GLY SER LEU ASP GLY ASN SER ASP L2024 T2025 I2026 S2032 E2035 K2036 V2037 T2038 Y2039 LEU LYS LYS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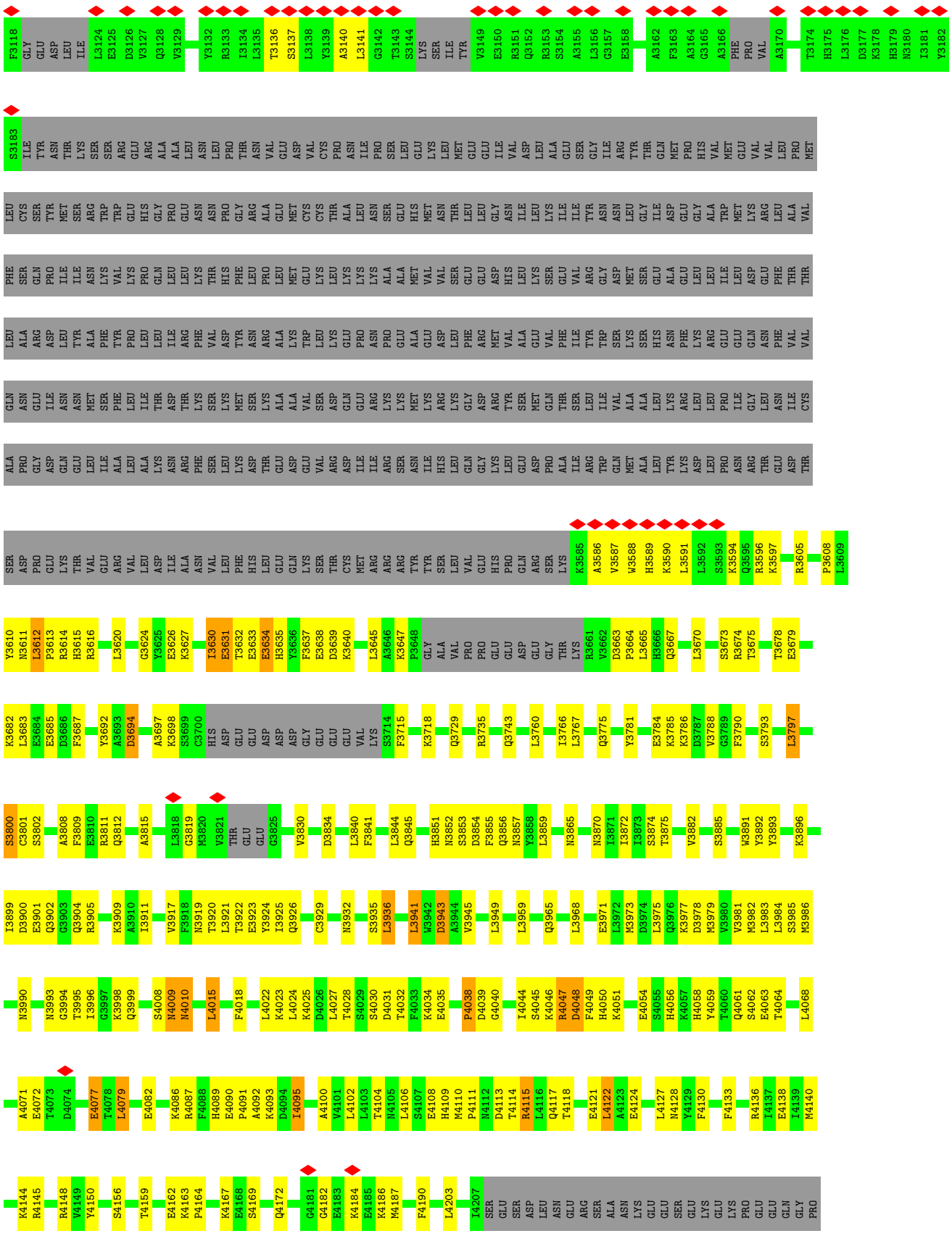
L2124 G2125 Q2126 S2129 V2133 ARG MET GLY LYS E2138 K2141 R2145 G2148 N2152 N2161 L2162 M2163 R2164 A2165 L2166 G2167 M2168 E2174 V2175 N2178 V2179 L2180 G2181 GLY GLY GLU SER LYS GLU ILE THR PHE P2191 A2195 N2196 C2197 C2198 R2199 F2204 I2207 N2211
Q2212 D2217 H2218 L2219 S2220 Y2221 L2222 V2228 GLY LEU ALA SER PRO ALA MET ARG GLY SER T2239 P2240 L2241 S2247 D2250 L2256 A2257 L2258 R2259 E2264 K2265 V2266 V2267 R2268 Y2269 L2270 A2271 L2275 GLN SER CYS GLN MET LEU VAL SER LYS GLY TYR PRO ASP ILE GLY TRP ASN
P2293 V2294 D2301 F2302 L2303 R2304 V2307 F2308 C2309 N2310 V2314 E2315 E2316 N2317 A2318 N2319 R2323 I2326 R2327 R2328 P2329 E2330 CYS PHE GLY PRO ALA LEU ARG GLY GLU GLY GLY ASN G2343 I2354 ALA GLU ASP PRO SER ARG ASP GLY PRO SER PRO THR SER GLY SER SER LYS MET
PRO ASP THR GLU GLY GLU GLU ASP ASP THR ILE HIS MET G2386 N2387 A2388 I2389 F2392 L2399 L2400 G2401 R2402 P2405 E2406 M2407 H2408 L2409 A2413 A2417 I2418 R2419 I2420 R2421 S2422 I2423 L2424 R2425 S2426 P2429 L2430 G2431 D2432 L2433 V2434 G2435 V2436 Q2442 MET PRO THR ILE ALA LYS
ASP GLY ASN VAL VAL GLU PRO ASP MET SER ALA GLY F2461 C2462 P2463 D2464 R2475 V2476 Y2477 GLY ILE GLU V2481 Q2482 L2485 L2489 L2503 ASP THR ALA ALA LEU SER ALA T2511 L2515 A2516 L2517 N2518 R2519 Y2520 L2521 L2529 THR ARG CYS ALA PRO L2535 H2541 H2542 A2543 S2544
L2545 I2546 D2547 L2550 H2551 T2552 V2553 TYR ARG LEU SER K2558 G2559 L2562 T2563 Q2566 S2576 ILE CYS GLY GLN LEU R2582 L2593 V2597 N2601 GLU HIS ALA K2605 K2609 T2612 E2616 G2627 TRP GLY ASN PHE GLY ALA A2634 E2638 L2639 H2640 L2641 S2642 R2643 K2644
L2645 F2646 W2647 G2648 I2649 F2650 D2651 A2652 L2653 SER GLN LYS LYS Y2658 L2667 P2668 S2671 A2672 P2678 P2679 ASP TYR MET GLU SER ASN TYR VAL SER MET MET GLU LYS GLN SER SER MET ASP SER GLU GLY N2701 F2702 N2703 P2704 Q2705 P2706 V2707 D2708 T2709 S2710 N2711 I2712 T2713 I2714 P2715 E2716
K2717 L2718 E2719 Y2720 F2721 I2722 N2723 K2724 Y2725 A2726 E2727 H2728 S2729 H2730 D2731 K2732 W2733 S2734 M2735 D2736 K2737 L2738 A2739 N2740 G2741 W2742 I2743 Y2744 G2745 E2746 I2747 Y2748 S2749 D2750 S2751 S2752 K2753 V2754 Q2755 P2756 L2757 M2758 K2759 P2760 Y2761 K2762 L2763 L2764 S2765 E2766 K2767 E2768 K2769 E2770 I2771 Y2772 R2773 W2774 P2775 I2776
K2777 E2778 S2779 L2780 K2781 T2782 M2783 L2784 A2785 W2786 G2787 W2788 R2789 I2790 E2791 R2792 T2793 R2794 E2795 G2796 D2797 SER MET ALA LEU TYR ASN ARG THR ARG ARG ILE SER GLN THR SER GLN VAL SER VAL ASP ALA A2819 H2820 G2821 Y2822 S2823 P2824 R2825 A2826 I2827 D2828 M2829 S2830 N2831 V2832 T2833 L2834 S2835 R2836
D2837 L2838 H2839 A2840 M2841 A2842 E2843 M2844 M2845 A2846 E2847 N2848 Y2849 H2850 N2851 I2852 W2853 A2854 K2855 K2856 K2857 K2858 L2859 E2860 L2861 E2862 S2863 K2864 G2865 G2866 G2867 N2868 H2869 P2870 L2871 L2872 V2873 P2874 Y2875 D2876 T2877 L2878 T2879 A2880 K2881 E2882 K2883 A2884 K2885 D2886 R2887 E2888 K2889 A2890 Q2891 D2892 I2893 L2894 K2895 F2896
L2897 Q2898 I2899 N2900 G2901 Y2902 A2903 V2904 S2905 R2906 G2907 PHE LYS ASP LEU GLU LEU ASP THR PRO SER ILE GLU LYS ARG PHE ALA TYR SER PHE LEU GLN GLN LEU ILE ARG TYR VAL ASP GLU ALA HIS GLN TYR ILE LEU GLU GLU PHE ASP GLY GLY SER ARG SER LYS GLY GLU HIS PHE PRO
TYR GLU GLN GLU ILE LYS PHE PHE ALA LYS VAL VAL LEU PRO LEU ILE ASP GLN TYR PHE LYS ASN HIS ARG LEU Y2982 F2983 L2984 A2987 C2992 H2996 K3000 E3001 V3005 THR SER LEU F3009 L3012 G3013 V3014 L3015 V3016 R3017 H3018 R3019 I3020 T3028 SER ILE VAL ASN CYS
L3034 H3035 I3036 L3037 G3038 Q3039 T3040 L3041 D3042 K3055 SER ALA LEU ARG ALA F3061 A3065 L3069 M3073 E3074 N3075 Q3078 G3079 T3082 HIS THR ARG ASN GLN PRO LYS GLY VAL THR GLN ILE ILE ASN TYR T3098 T3099 V3100 A3101 L3102 L3103 L3106 F3110 E3111 H3112 I3113 G3114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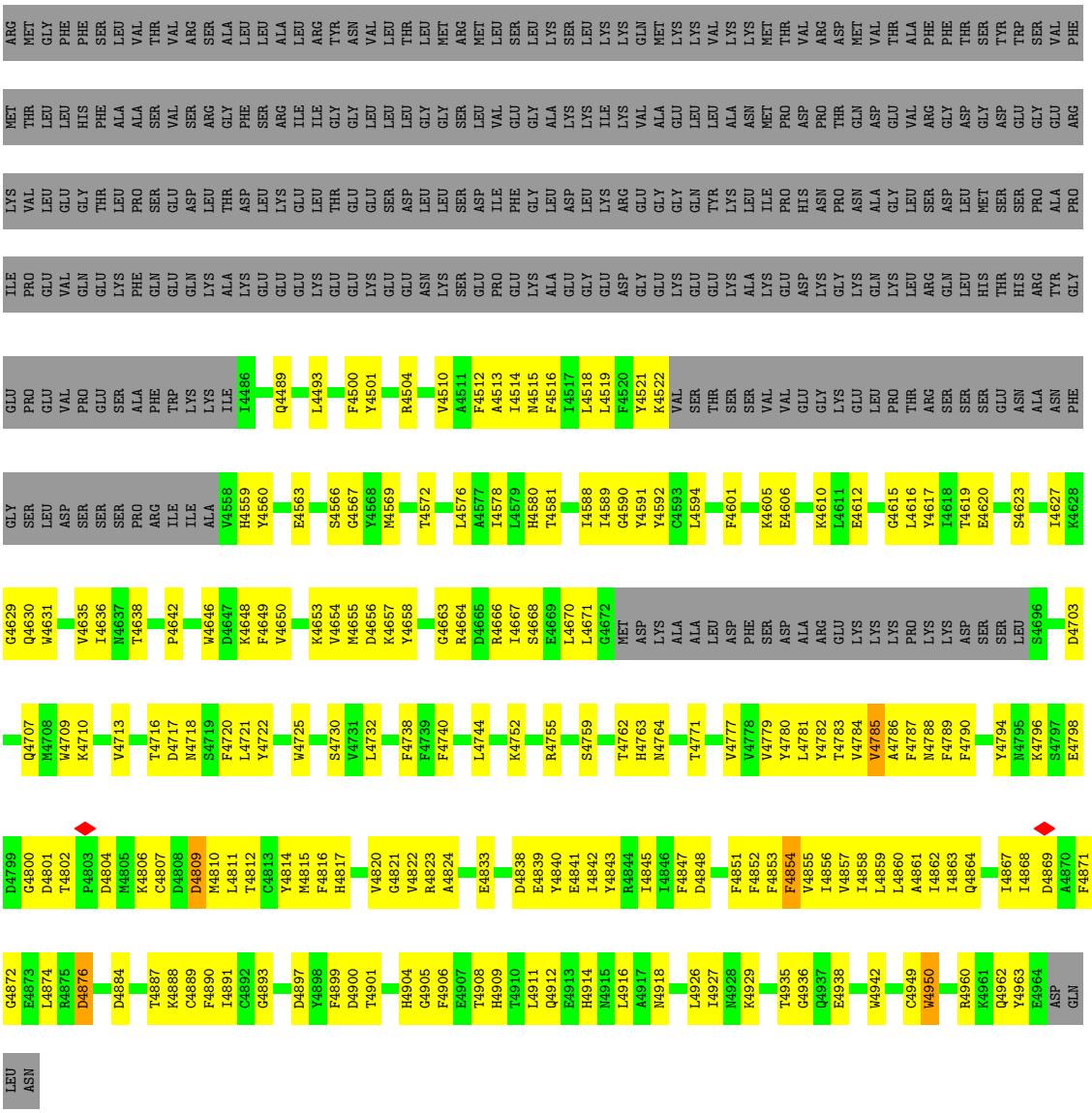
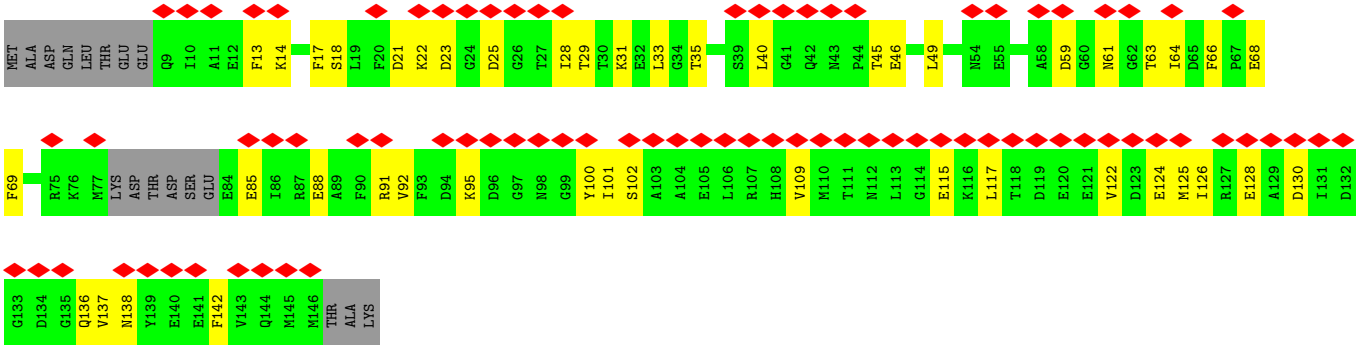
S3183 ILE TYR ASN THR LYS SER SER ARG GLU ARG ALA ALA LEU ASN LEU PRO PRO THR ASN VAL GLU ASP VAL CYS PRO ASN ILE PRO SER LEU GLU LYS LEU MET GLU GLU ILE VAL ASP LEU ALA GLU SER GLY ILE ARG TYR THR GLN MET PRO HIS VAL MET GLU VAL VAL LEU PRO MET
LEU CYS SER TYR MET SER ARG TRP TRP GLU HIS GLY PRO GLU ASN ASN PRO GLY ARG ALA GLU MET CYS CYS THR ALA LEU ASN SER GLU HIS MET ASN THR LEU LEU LEU LYS ILE ILE TYR ASN ASN LEU GLY ILE ASP GLU GLY ALA TRP MET LYS ARG LEU ALA VAL
PHE SER GLN PRO ILE ILE ASN LYS VAL LYS PRO GLN LEU LEU LYS THR HIS PHE LEU PRO LEU MET GLU LYS LEU LYS LYS LYS ALA ALA MET VAL VAL SER GLU GLU ASP HIS LEU LYS SER GLU VAL ARG GLY ASP MET SER GLU ALA GLU LEU LEU ILE LEU ASP GLU PHE THR THR
LEU ALA ARG ASP LEU TYR ALA PHE TYR PRO LEU LEU LEU ILE ARG PHE VAL ASP TYR ASN ARG ALA LYS TRP LEU LYS GLU PRO ASN PRO GLU ALA ALA GLU ASP LEU PHE ARG MET VAL ALA GLU VAL PHE ILE TYR TRP SER LYS SER LEU GLN GLU GLN ASN PHE VAL VAL
GLN ASN GLU ILE ASN ASN MET SER PHE LEU ILE THR ASP THR LYS SER LYS MET SER LYS ALA ALA VAL SER ASP GLN GLU GLN ARG LYS LYS MET LYS ARG TYR SER MET GLN THR SER LEU ILE VAL ALA ALA LEU LYS ARG LEU LEU PRO ILE GLY LEU ASN PHE VAL VAL
ALA PRO GLY ASP GLN GLU LEU ILE ALA LEU ALA ALA LYS ASN ARG PHE SER LEU LYS ASP THR GLU ASP GLU VAL ARG ASP ILE ILE ARG SER ASN ILE HIS LEU GLN GLN GLY LYS LEU GLU ASP PRO ALA ILE ARG TRP GLN MET ALA ALA LEU TYR LYS ASP LEU PRO GLN ASN ARG THR GLU ASP THR
SER ASP PRO GLU LYS THR VAL GLU LEU LEU ASP ILE ALA ASN VAL LEU PHE HIS LEU GLU GLN LYS SER THR CYS MET ARG ARG ARG TYR TYR SER LEU VAL GLU GLN HIS PRO GLN ARG SER LYS K3585 A3586 V3587 W3588 H3589 K3590 L3591 L3592 S3593 K3594 Q3595 R3596 K3597 R3605 P3608 L3609
Y3610 N3611 L3612 P3613 R3614 H3615 R3616 L3620 G3624 Y3625 E3626 K3627 I3630 E3631 T3632 E3633 E3634 H3635 Y3636 F3637 E3638 D3639 K3640 L3645 A3646 K3647 P3648 GLY ALA VAL PRO PRO GLU GLU ASP GLU GLY THR LYS R3661 V3662 D3663 P3664 L3665 H3666 Q3667 L3670 S3673 R3674 T3675 T3678 E3679
K3682 L3683 E3684 E3685 D3686 F3687 Y3692 A3693 D3694 A3697 K3698 S3699 C3700 HIS ASP GLU GLU ASP ASP ASP GLY GLU GLU GLU GLU VAL LYS S3714 F3715 K3718 Q3729 R3735 Q3743 L3760 I3766 L3767 Q3775 Y3781 E3784 K3785 K3786 D3787 V3788 G3789 F3790 S3793 L3797
S3800 C3801 S3802 A3808 F3809 E3810 R3811 Q3812 A3815 L3818 G3819 M3820 V3821 THR GLU GLU G3825 V3830 D3834 L3840 F3841 L3844 Q3845 H3851 N3852 S3853 D3854 F3855 Q3856 N3857 Y3858 L3859 N3865 N3870 I3871 I3872 I3873 S3874 T3875 V3882 S3885 W3891 Y3892 Y3893 K3896
I3899 D3900 E3901 Q3902 G3903 Q3904 R3905 K3909 A3910 I3911 V3917 F3918 N3919 T3920 L3921 T3922 E3923 Y3924 I3925 Q3926 C3929 N3932 S3935 L3936 L3941 W3942 D3943 A3944 V3945 L3949 L3959 Q3965 L3968 E3971 L3972 M3973 D3974 L3975 Q3976 K3977 D3978 M3979 V3980 V3981 M3982 L3983 L3984 S3985 M3986
N3990 N3993 G3994 T3995 I3996 G3997 K3998 Q3999 S4008 N4009 N4010 L4015 F4018 L4022 K4023 L4024 K4025 D4026 L4027 T4028 S4029 S4030 D4031 T4032 F4033 K4034 E4035 P4038 D4039 G4040 I4044 S4045 K4046 R4047 D4048 F4049 H4050 K4051 E4054 S4055 H4056 K4057 H4058 Y4059 T4060 Q4061 S4062 E4063 T4064 L4068
A4071 E4072 T4073 D4074 E4077 T4078 L4079 E4082 K4086 R4087 F4088 H4089 E4090 P4091 A4092 K4093 D4094 T4095 A4100 V4101 L4102 L4103 T4104 N4105 L4106 S4107 E4108 H4109 M4110 P4111 N4112 D4113 T4114 R4115 L4116 Q4117 T4118 E4121 L4122 A4123 E4124 L4127 N4128 Y4129 F4130 F4133 R4136 I4137 E4138 I4139 M4140
K4144 R4145 R4148 V4149 Y4150 S4156 T4159 E4162 K4163 P4164 K4167 E4168 S4169 Q4172 G4181 G4182 E4183 K4184 E4185 K4186 M4187 F4190 L4203 I4207 SER GLU SER ASP LEU ASN GLU ARG SER ALA ASN LYS GLU GLU SER GLU LYS PRO GLU GLU GLN GLY PRO



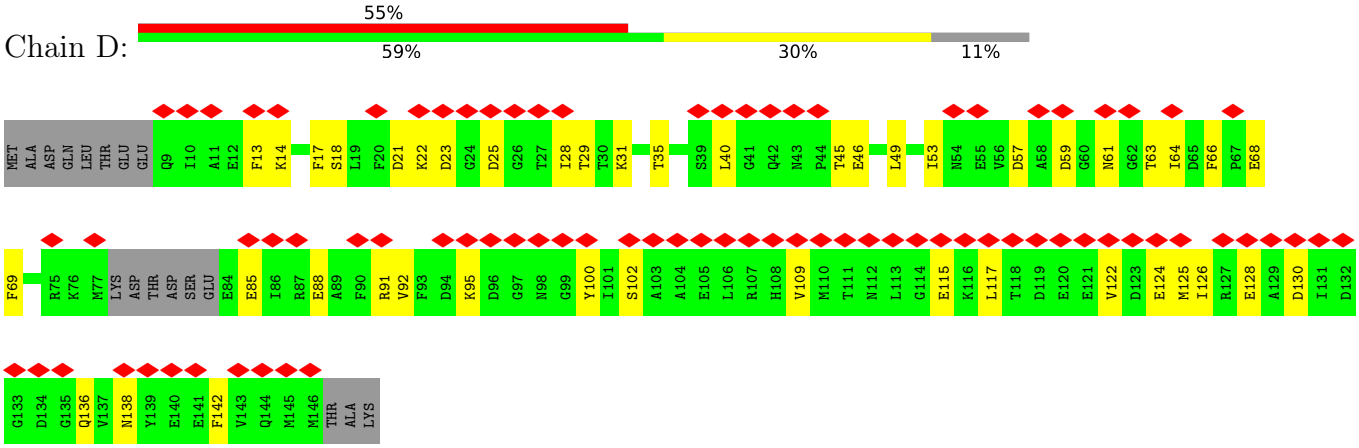
• Molecule 2: Calmodulin-1

Chain B:



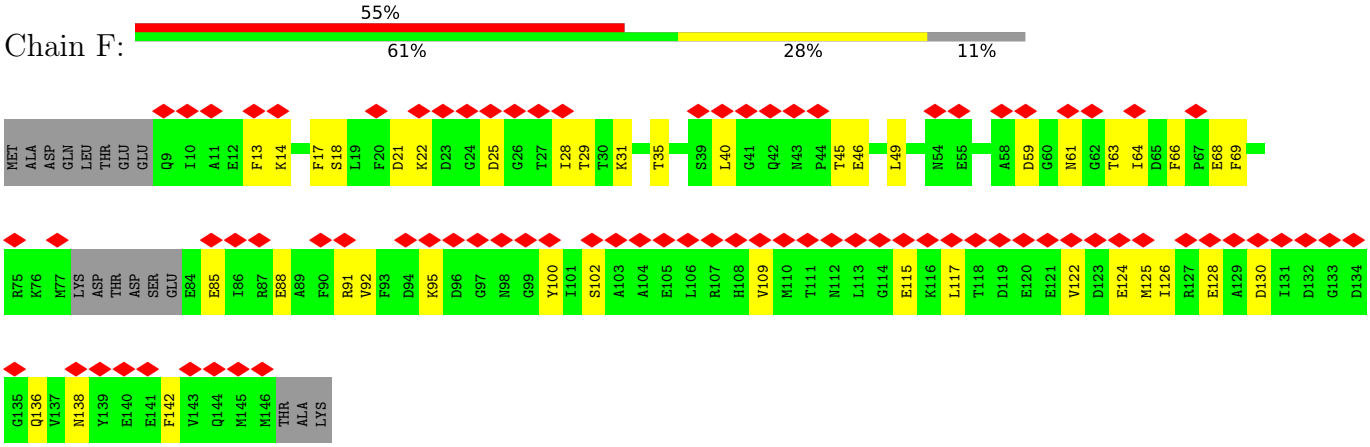
• Molecule 2: Calmodulin-1

Chain D:



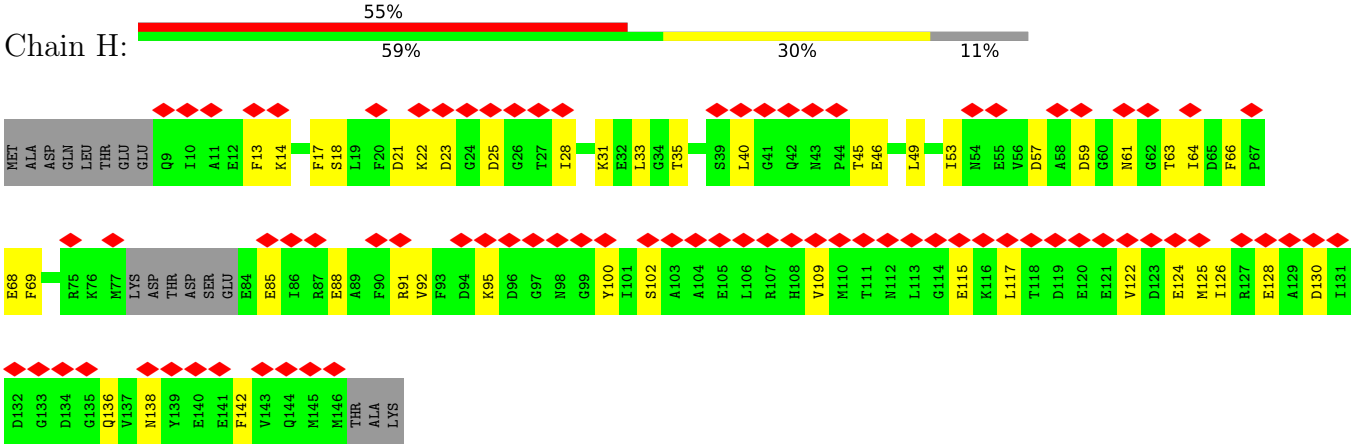
• Molecule 2: Calmodulin-1

Chain F:



• Molecule 2: Calmodulin-1

Chain H:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	22876	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI TITAN KRIOS	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	50	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	GATAN K2 SUMMIT (4k x 4k)	Depositor
Maximum map value	0.058	Depositor
Minimum map value	-0.016	Depositor
Average map value	0.001	Depositor
Map value standard deviation	0.004	Depositor
Recommended contour level	0.015	Depositor
Map size (Å)	436.4, 436.4, 436.4	wwPDB
Map dimensions	400, 400, 400	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.091, 1.091, 1.091	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, CA

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	0.56	2/27223 (0.0%)	0.69	7/36827 (0.0%)
1	C	0.56	2/27223 (0.0%)	0.69	8/36827 (0.0%)
1	E	0.56	2/27223 (0.0%)	0.69	8/36827 (0.0%)
1	G	0.56	2/27223 (0.0%)	0.69	7/36827 (0.0%)
2	B	0.33	0/1053	0.52	0/1411
2	D	0.33	0/1053	0.52	0/1411
2	F	0.33	0/1053	0.52	0/1411
2	H	0.33	0/1053	0.52	0/1411
All	All	0.56	8/113104 (0.0%)	0.69	30/152952 (0.0%)

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

Mol	Chain	#Chirality outliers	#Planarity outliers
1	A	0	33
1	C	0	33
1	E	0	33
1	G	0	33
All	All	0	132

All (8) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4950	TRP	CB-CG	-5.59	1.40	1.50
1	C	4950	TRP	CB-CG	-5.59	1.40	1.50
1	E	4950	TRP	CB-CG	-5.59	1.40	1.50
1	G	4950	TRP	CB-CG	-5.59	1.40	1.50
1	A	4942	TRP	CB-CG	-5.18	1.41	1.50
1	E	4942	TRP	CB-CG	-5.18	1.41	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4942	TRP	CB-CG	-5.15	1.41	1.50
1	C	4942	TRP	CB-CG	-5.15	1.41	1.50

All (30) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	4519	LEU	CB-CA-C	-9.78	91.61	110.20
1	A	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	C	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	E	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	G	3797	LEU	CA-CB-CG	-6.82	99.61	115.30
1	G	2517	LEU	CA-CB-CG	6.14	129.42	115.30
1	A	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	C	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	E	2517	LEU	CA-CB-CG	6.13	129.39	115.30
1	A	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	C	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	E	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	G	1833	ILE	CG1-CB-CG2	-6.08	98.03	111.40
1	A	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	C	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	G	1038	LEU	CA-CB-CG	5.84	128.73	115.30
1	E	1038	LEU	CA-CB-CG	5.83	128.72	115.30
1	A	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	C	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	E	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	G	3612	LEU	CA-CB-CG	5.82	128.70	115.30
1	E	4015	LEU	CA-CB-CG	-5.63	102.35	115.30
1	A	4015	LEU	CA-CB-CG	-5.62	102.38	115.30
1	C	4015	LEU	CA-CB-CG	-5.62	102.38	115.30
1	G	4015	LEU	CA-CB-CG	-5.60	102.42	115.30
1	E	4122	LEU	CA-CB-CG	5.33	127.56	115.30
1	G	4122	LEU	CA-CB-CG	5.32	127.53	115.30
1	A	4122	LEU	CA-CB-CG	5.31	127.52	115.30
1	C	4122	LEU	CA-CB-CG	5.30	127.49	115.30
1	E	3984	LEU	CA-CB-CG	-5.01	103.78	115.30

There are no chirality outliers.

All (132) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1127	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	A	1427	TYR	Peptide
1	A	1476	VAL	Peptide
1	A	1570	LEU	Peptide
1	A	1579	VAL	Peptide
1	A	1635	GLU	Peptide
1	A	1775	CYS	Peptide
1	A	1808	ASP	Peptide
1	A	1835	HIS	Peptide
1	A	1847	GLU	Peptide
1	A	2072	GLN	Peptide
1	A	2075	VAL	Peptide
1	A	2294	VAL	Peptide
1	A	3610	TYR	Peptide
1	A	3612	LEU	Peptide
1	A	3630	ILE	Peptide
1	A	3634	GLU	Peptide
1	A	3800	SER	Peptide
1	A	3802	SER	Peptide
1	A	4038	PRO	Peptide
1	A	4059	TYR	Peptide
1	A	4071	ALA	Peptide
1	A	4077	GLU	Peptide
1	A	4091	PRO	Peptide
1	A	4854	PHE	Peptide
1	A	729	GLY	Peptide
1	A	817	PRO	Peptide
1	A	818	GLY	Peptide
1	A	819	TYR	Peptide
1	A	829	LYS	Peptide
1	A	838	ARG	Peptide
1	A	852	GLY	Peptide
1	A	871	GLN	Peptide
1	C	1127	GLU	Peptide
1	C	1427	TYR	Peptide
1	C	1476	VAL	Peptide
1	C	1570	LEU	Peptide
1	C	1579	VAL	Peptide
1	C	1635	GLU	Peptide
1	C	1775	CYS	Peptide
1	C	1808	ASP	Peptide
1	C	1835	HIS	Peptide
1	C	1847	GLU	Peptide

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Mol	Chain	Res	Type	Group
1	C	2072	GLN	Peptide
1	C	2075	VAL	Peptide
1	C	2294	VAL	Peptide
1	C	3610	TYR	Peptide
1	C	3612	LEU	Peptide
1	C	3630	ILE	Peptide
1	C	3634	GLU	Peptide
1	C	3800	SER	Peptide
1	C	3802	SER	Peptide
1	C	4038	PRO	Peptide
1	C	4059	TYR	Peptide
1	C	4071	ALA	Peptide
1	C	4077	GLU	Peptide
1	C	4091	PRO	Peptide
1	C	4854	PHE	Peptide
1	C	729	GLY	Peptide
1	C	817	PRO	Peptide
1	C	818	GLY	Peptide
1	C	819	TYR	Peptide
1	C	829	LYS	Peptide
1	C	838	ARG	Peptide
1	C	852	GLY	Peptide
1	C	871	GLN	Peptide
1	E	1127	GLU	Peptide
1	E	1427	TYR	Peptide
1	E	1476	VAL	Peptide
1	E	1570	LEU	Peptide
1	E	1579	VAL	Peptide
1	E	1635	GLU	Peptide
1	E	1775	CYS	Peptide
1	E	1808	ASP	Peptide
1	E	1835	HIS	Peptide
1	E	1847	GLU	Peptide
1	E	2072	GLN	Peptide
1	E	2075	VAL	Peptide
1	E	2294	VAL	Peptide
1	E	3610	TYR	Peptide
1	E	3612	LEU	Peptide
1	E	3630	ILE	Peptide
1	E	3634	GLU	Peptide
1	E	3800	SER	Peptide
1	E	3802	SER	Peptide

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Mol	Chain	Res	Type	Group
1	E	4038	PRO	Peptide
1	E	4059	TYR	Peptide
1	E	4071	ALA	Peptide
1	E	4077	GLU	Peptide
1	E	4091	PRO	Peptide
1	E	4854	PHE	Peptide
1	E	729	GLY	Peptide
1	E	817	PRO	Peptide
1	E	818	GLY	Peptide
1	E	819	TYR	Peptide
1	E	829	LYS	Peptide
1	E	838	ARG	Peptide
1	E	852	GLY	Peptide
1	E	871	GLN	Peptide
1	G	1127	GLU	Peptide
1	G	1427	TYR	Peptide
1	G	1476	VAL	Peptide
1	G	1570	LEU	Peptide
1	G	1579	VAL	Peptide
1	G	1635	GLU	Peptide
1	G	1775	CYS	Peptide
1	G	1808	ASP	Peptide
1	G	1835	HIS	Peptide
1	G	1847	GLU	Peptide
1	G	2072	GLN	Peptide
1	G	2075	VAL	Peptide
1	G	2294	VAL	Peptide
1	G	3610	TYR	Peptide
1	G	3612	LEU	Peptide
1	G	3630	ILE	Peptide
1	G	3634	GLU	Peptide
1	G	3800	SER	Peptide
1	G	3802	SER	Peptide
1	G	4038	PRO	Peptide
1	G	4059	TYR	Peptide
1	G	4071	ALA	Peptide
1	G	4077	GLU	Peptide
1	G	4091	PRO	Peptide
1	G	4854	PHE	Peptide
1	G	729	GLY	Peptide
1	G	817	PRO	Peptide
1	G	818	GLY	Peptide

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Mol	Chain	Res	Type	Group
1	G	819	TYR	Peptide
1	G	829	LYS	Peptide
1	G	838	ARG	Peptide
1	G	852	GLY	Peptide
1	G	871	GLN	Peptide

5.2 Too-close contacts (i)

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

Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
1	A	26722	0	25168	1034	0
1	C	26722	0	25168	1062	0
1	E	26722	0	25168	1051	0
1	G	26722	0	25168	1057	0
2	B	1042	0	979	31	0
2	D	1042	0	979	31	0
2	F	1042	0	979	31	0
2	H	1042	0	979	33	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
4	A	1	0	0	0	0
4	B	4	0	0	0	0
4	C	1	0	0	0	0
4	D	4	0	0	0	0
4	E	1	0	0	0	0
4	F	4	0	0	0	0
4	G	1	0	0	0	0
4	H	4	0	0	0	0
All	All	111080	0	104588	4092	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 19.

All (4092) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4811:LEU:CD2	1:G:4519:LEU:HD13	1.75	1.15
1:A:4860:LEU:HD13	1:C:4863:ILE:HD12	1.29	1.11
1:A:4863:ILE:HD12	1:G:4860:LEU:HD13	1.29	1.11
1:E:4860:LEU:HD13	1:G:4863:ILE:HD12	1.29	1.10
1:C:4860:LEU:HD13	1:E:4863:ILE:HD12	1.29	1.09
1:E:4811:LEU:CD1	1:G:4519:LEU:HD22	1.84	1.07
1:A:4863:ILE:HD12	1:G:4860:LEU:CD1	1.85	1.07
1:C:4860:LEU:CD1	1:E:4863:ILE:HD12	1.85	1.07
1:A:4860:LEU:CD1	1:C:4863:ILE:HD12	1.85	1.06
1:E:4860:LEU:CD1	1:G:4863:ILE:HD12	1.84	1.06
1:E:4860:LEU:HD13	1:G:4863:ILE:CD1	1.91	1.00
1:E:4811:LEU:HD21	1:G:4519:LEU:HD13	1.36	0.99
1:A:4860:LEU:HD13	1:C:4863:ILE:CD1	1.91	0.99
1:A:4863:ILE:CD1	1:G:4860:LEU:HD13	1.91	0.99
1:C:4860:LEU:HD13	1:E:4863:ILE:CD1	1.92	0.98
1:A:4515:ASN:HB3	1:G:4780:TYR:OH	1.63	0.98
1:E:4811:LEU:O	1:E:4815:MET:SD	2.21	0.98
1:C:4780:TYR:OH	1:E:4515:ASN:HB3	1.63	0.97
1:E:4780:TYR:OH	1:G:4515:ASN:HB3	1.62	0.97
1:A:4861:ALA:HB2	1:C:4867:ILE:HG12	1.47	0.97
1:E:4861:ALA:HB2	1:G:4867:ILE:HG12	1.47	0.96
1:A:4861:ALA:N	1:C:4867:ILE:HD13	1.80	0.96
1:A:4867:ILE:HG12	1:G:4861:ALA:HB2	1.47	0.96
1:A:4780:TYR:OH	1:C:4515:ASN:HB3	1.63	0.96
1:C:4861:ALA:HB2	1:E:4867:ILE:HG12	1.47	0.95
1:A:4867:ILE:HD13	1:G:4861:ALA:N	1.81	0.94
1:C:4861:ALA:N	1:E:4867:ILE:HD13	1.81	0.94
1:E:4861:ALA:N	1:G:4867:ILE:HD13	1.80	0.94
1:E:4861:ALA:HA	1:G:4867:ILE:CG2	2.01	0.91
1:A:4861:ALA:HA	1:C:4867:ILE:CG2	2.01	0.91
1:A:4860:LEU:CD1	1:C:4863:ILE:CD1	2.49	0.90
1:A:4811:LEU:O	1:A:4815:MET:SD	2.29	0.90
1:A:4867:ILE:CG2	1:G:4861:ALA:HA	2.01	0.90
1:E:4811:LEU:HD13	1:G:4519:LEU:HD22	1.54	0.89
1:E:4811:LEU:HD11	1:G:4519:LEU:HD22	1.52	0.89
1:E:4860:LEU:CD1	1:G:4863:ILE:CD1	2.49	0.89
1:E:4788:ASN:ND2	1:G:4738:PHE:HB3	1.88	0.89
1:C:4861:ALA:HA	1:E:4867:ILE:CG2	2.01	0.89
1:A:4863:ILE:CD1	1:G:4860:LEU:CD1	2.49	0.88
1:A:4788:ASN:ND2	1:C:4738:PHE:HB3	1.89	0.87
1:C:4788:ASN:ND2	1:E:4738:PHE:HB3	1.89	0.86
1:A:4738:PHE:HB3	1:G:4788:ASN:ND2	1.89	0.86

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4811:LEU:HD22	1:G:4519:LEU:HD13	1.56	0.86
1:C:4860:LEU:CD1	1:E:4863:ILE:CD1	2.49	0.86
1:C:4788:ASN:HD21	1:E:4738:PHE:HB3	1.42	0.84
1:E:4788:ASN:HD21	1:G:4738:PHE:HB3	1.42	0.83
1:C:4852:PHE:CE2	1:E:4823:ARG:HA	2.13	0.83
1:A:4738:PHE:HB3	1:G:4788:ASN:HD21	1.42	0.83
1:A:4852:PHE:CE2	1:C:4823:ARG:HA	2.13	0.83
1:A:4823:ARG:HA	1:G:4852:PHE:CE2	2.13	0.83
1:A:4788:ASN:HD21	1:C:4738:PHE:HB3	1.43	0.82
1:G:1310:CYS:HG	1:G:1516:GLY:N	1.77	0.82
1:C:1310:CYS:HG	1:C:1516:GLY:N	1.78	0.82
1:E:1310:CYS:HG	1:E:1516:GLY:N	1.77	0.82
1:E:4852:PHE:CE2	1:G:4823:ARG:HA	2.14	0.82
1:G:4811:LEU:O	1:G:4815:MET:SD	2.39	0.81
1:A:1310:CYS:HG	1:A:1516:GLY:N	1.77	0.80
1:C:844:ARG:H	1:C:848:ARG:HG2	1.48	0.79
1:A:844:ARG:H	1:A:848:ARG:HG2	1.48	0.78
1:C:810:GLU:N	1:C:823:TYR:HH	1.81	0.78
1:A:4861:ALA:HA	1:C:4867:ILE:HG23	1.65	0.78
1:E:2198:CYS:HG	1:E:2239:THR:N	1.82	0.78
1:A:810:GLU:N	1:A:823:TYR:HH	1.82	0.78
1:E:844:ARG:H	1:E:848:ARG:HG2	1.48	0.78
1:A:4811:LEU:CD2	1:C:4519:LEU:HD13	2.14	0.78
1:A:4867:ILE:HG23	1:G:4861:ALA:HA	1.65	0.78
1:E:4861:ALA:HA	1:G:4867:ILE:HG23	1.65	0.77
1:E:82:LEU:HD12	1:E:82:LEU:O	1.83	0.77
1:A:2198:CYS:HG	1:A:2239:THR:N	1.82	0.77
1:G:844:ARG:H	1:G:848:ARG:HG2	1.48	0.77
1:C:2198:CYS:HG	1:C:2239:THR:N	1.82	0.77
1:G:810:GLU:N	1:G:823:TYR:HH	1.83	0.77
1:C:4861:ALA:HA	1:E:4867:ILE:HG23	1.65	0.76
1:G:2198:CYS:HG	1:G:2239:THR:N	1.83	0.76
1:E:810:GLU:N	1:E:823:TYR:HH	1.83	0.76
1:A:4811:LEU:CD1	1:C:4519:LEU:HD22	2.16	0.74
1:C:4811:LEU:O	1:C:4815:MET:SD	2.45	0.74
1:E:4860:LEU:C	1:G:4867:ILE:HD13	2.07	0.74
1:C:4811:LEU:HD13	1:E:4519:LEU:HB3	1.68	0.74
1:A:4811:LEU:HD21	1:C:4519:LEU:HD13	1.69	0.74
1:A:4519:LEU:HB3	1:G:4811:LEU:HD13	1.68	0.74
1:A:4811:LEU:HD13	1:C:4519:LEU:HB3	1.69	0.73
1:C:4860:LEU:C	1:E:4867:ILE:HD13	2.08	0.73

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3993:ASN:HD22	1:G:4110:MET:HG3	1.53	0.73
1:A:4867:ILE:HD13	1:G:4860:LEU:C	2.07	0.73
1:C:776:GLN:HB3	1:C:1470:GLY:HA3	1.70	0.73
1:A:4860:LEU:C	1:C:4867:ILE:HD13	2.07	0.73
1:C:4118:THR:O	1:C:4122:LEU:HB2	1.89	0.73
1:E:776:GLN:HB3	1:E:1470:GLY:HA3	1.70	0.73
1:A:776:GLN:HB3	1:A:1470:GLY:HA3	1.70	0.73
1:E:3993:ASN:HD22	1:E:4110:MET:HG3	1.53	0.73
1:G:4118:THR:O	1:G:4122:LEU:HB2	1.89	0.73
1:A:2897:LEU:HB3	1:A:2902:TYR:HB2	1.71	0.73
1:A:4118:THR:O	1:A:4122:LEU:HB2	1.89	0.73
1:C:3993:ASN:HD22	1:C:4110:MET:HG3	1.53	0.72
1:A:3993:ASN:HD22	1:A:4110:MET:HG3	1.53	0.72
1:C:2897:LEU:HB3	1:C:2902:TYR:HB2	1.71	0.72
1:G:776:GLN:HB3	1:G:1470:GLY:HA3	1.71	0.72
1:A:4810:MET:HA	1:C:4521:TYR:O	1.90	0.72
1:G:2897:LEU:HB3	1:G:2902:TYR:HB2	1.71	0.71
1:E:4118:THR:O	1:E:4122:LEU:HB2	1.89	0.71
1:A:4861:ALA:HA	1:C:4867:ILE:HG21	1.70	0.71
1:A:4867:ILE:HG21	1:G:4861:ALA:HA	1.71	0.71
1:C:1602:GLN:HG3	1:C:1604:LEU:H	1.56	0.71
1:E:4810:MET:HA	1:G:4521:TYR:O	1.89	0.71
1:E:4861:ALA:HA	1:G:4867:ILE:HG21	1.71	0.71
1:A:1602:GLN:HG3	1:A:1604:LEU:H	1.56	0.71
1:A:4867:ILE:HG12	1:G:4861:ALA:CB	2.21	0.71
1:G:1602:GLN:HG3	1:G:1604:LEU:H	1.56	0.71
1:E:2481:VAL:HG13	1:E:2482:GLN:HG3	1.73	0.70
1:G:1040:ASP:HA	1:G:1043:LYS:HD2	1.73	0.70
1:G:4010:ASN:OD1	1:G:4010:ASN:N	2.24	0.70
1:A:3943:ASP:N	1:A:3943:ASP:OD1	2.23	0.70
1:C:2481:VAL:HG13	1:C:2482:GLN:HG3	1.73	0.70
1:E:4010:ASN:OD1	1:E:4010:ASN:N	2.24	0.70
1:G:3911:ILE:HG21	1:G:3971:GLU:HB3	1.74	0.70
1:A:374:TYR:HA	1:A:391:ALA:HA	1.74	0.70
1:E:1602:GLN:HG3	1:E:1604:LEU:H	1.56	0.70
1:E:3943:ASP:OD1	1:E:3943:ASP:N	2.23	0.70
1:E:2897:LEU:HB3	1:E:2902:TYR:HB2	1.71	0.70
1:C:4861:ALA:HA	1:E:4867:ILE:HG21	1.71	0.70
1:E:3911:ILE:HG21	1:E:3971:GLU:HB3	1.74	0.70
1:G:601:LEU:HD11	1:G:607:ASN:H	1.57	0.70
1:A:4759:SER:HA	1:A:4762:THR:HG22	1.73	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:601:LEU:HD11	1:C:607:ASN:H	1.57	0.69
1:A:1040:ASP:HA	1:A:1043:LYS:HD2	1.73	0.69
1:C:4852:PHE:HE2	1:E:4822:VAL:O	1.75	0.69
1:G:2481:VAL:HG13	1:G:2482:GLN:HG3	1.73	0.69
1:A:601:LEU:HD11	1:A:607:ASN:H	1.57	0.69
1:C:4759:SER:HA	1:C:4762:THR:HG22	1.73	0.69
1:E:4852:PHE:HE2	1:G:4822:VAL:O	1.76	0.69
1:A:1089:ARG:HH21	1:A:1600:PRO:HG3	1.58	0.69
1:A:4010:ASN:N	1:A:4010:ASN:OD1	2.24	0.69
1:A:4822:VAL:O	1:G:4852:PHE:HE2	1.75	0.69
1:A:4852:PHE:CE2	1:C:4822:VAL:O	2.45	0.69
1:C:3943:ASP:N	1:C:3943:ASP:OD1	2.23	0.69
1:E:1040:ASP:HA	1:E:1043:LYS:HD2	1.73	0.69
1:G:1089:ARG:HH21	1:G:1600:PRO:HG3	1.58	0.69
1:G:4515:ASN:HD22	1:G:4744:LEU:HD23	1.58	0.69
1:C:3911:ILE:HG21	1:C:3971:GLU:HB3	1.74	0.69
1:E:601:LEU:HD11	1:E:607:ASN:H	1.57	0.69
1:A:4822:VAL:O	1:G:4852:PHE:CE2	2.46	0.69
1:A:4852:PHE:HE2	1:C:4822:VAL:O	1.75	0.69
1:C:4852:PHE:CE2	1:E:4822:VAL:O	2.46	0.69
1:E:374:TYR:HA	1:E:391:ALA:HA	1.74	0.69
1:E:4515:ASN:HD22	1:E:4744:LEU:HD23	1.58	0.69
1:E:4860:LEU:HD12	1:G:4863:ILE:HD12	1.76	0.69
1:C:1089:ARG:HH21	1:C:1600:PRO:HG3	1.58	0.68
1:C:4861:ALA:CB	1:E:4867:ILE:HG12	2.21	0.68
1:E:4852:PHE:CE2	1:G:4822:VAL:O	2.46	0.68
1:C:374:TYR:HA	1:C:391:ALA:HA	1.74	0.68
1:E:274:LEU:H	1:E:299:HIS:HE1	1.40	0.68
1:A:2481:VAL:HG13	1:A:2482:GLN:HG3	1.73	0.68
1:A:4521:TYR:O	1:G:4810:MET:HA	1.93	0.68
1:A:274:LEU:H	1:A:299:HIS:HE1	1.40	0.68
1:C:1040:ASP:HA	1:C:1043:LYS:HD2	1.73	0.68
1:G:374:TYR:HA	1:G:391:ALA:HA	1.74	0.68
1:C:4010:ASN:N	1:C:4010:ASN:OD1	2.24	0.68
1:E:1089:ARG:HH21	1:E:1600:PRO:HG3	1.58	0.68
1:G:4759:SER:HA	1:G:4762:THR:HG22	1.74	0.68
1:E:4759:SER:HA	1:E:4762:THR:HG22	1.73	0.68
1:A:4515:ASN:HD22	1:A:4744:LEU:HD23	1.58	0.68
1:A:4861:ALA:CB	1:C:4867:ILE:HG12	2.21	0.68
1:C:4515:ASN:HD22	1:C:4744:LEU:HD23	1.58	0.68
1:G:3943:ASP:OD1	1:G:3943:ASP:N	2.23	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1614:ARG:HH11	1:A:1617:TRP:HE1	1.42	0.67
1:E:3694:ASP:OD1	1:E:3694:ASP:N	2.23	0.67
1:E:4861:ALA:CB	1:G:4867:ILE:HG12	2.21	0.67
1:A:2425:ARG:HH21	1:A:2476:VAL:HG12	1.59	0.67
1:E:1614:ARG:HH11	1:E:1617:TRP:HE1	1.42	0.67
1:G:274:LEU:H	1:G:299:HIS:HE1	1.40	0.67
1:C:1614:ARG:HH11	1:C:1617:TRP:HE1	1.42	0.67
1:A:3911:ILE:HG21	1:A:3971:GLU:HB3	1.74	0.67
1:A:4863:ILE:HD12	1:G:4860:LEU:HD12	1.76	0.67
1:C:2515:LEU:HB3	1:C:2519:ARG:HH11	1.60	0.67
1:G:1614:ARG:HH11	1:G:1617:TRP:HE1	1.42	0.67
1:A:1176:THR:HA	1:A:1181:ILE:HA	1.76	0.67
1:C:1306:MET:SD	1:C:1575:HIS:NE2	2.67	0.67
1:C:4810:MET:HA	1:E:4521:TYR:O	1.93	0.67
1:C:4852:PHE:CZ	1:E:4823:ARG:HA	2.30	0.67
1:E:1184:ASP:HB2	1:E:1188:SER:H	1.60	0.67
1:G:23:GLN:NE2	1:G:52:THR:OG1	2.28	0.67
1:A:2163:MET:HA	1:A:2166:LEU:HD12	1.77	0.67
1:C:274:LEU:H	1:C:299:HIS:HE1	1.40	0.67
1:E:23:GLN:NE2	1:E:52:THR:OG1	2.28	0.67
1:C:4889:CYS:SG	1:C:4890:PHE:N	2.68	0.67
1:A:329:PHE:HB3	1:A:363:ILE:HD11	1.77	0.67
1:E:1176:THR:HA	1:E:1181:ILE:HA	1.76	0.67
1:C:23:GLN:NE2	1:C:52:THR:OG1	2.28	0.67
1:E:2163:MET:HA	1:E:2166:LEU:HD12	1.77	0.67
1:E:4852:PHE:CZ	1:G:4823:ARG:HA	2.30	0.67
1:A:4889:CYS:SG	1:A:4890:PHE:N	2.68	0.66
1:E:233:VAL:HG22	1:E:276:ARG:HG2	1.77	0.66
1:E:2515:LEU:HB3	1:E:2519:ARG:HH11	1.60	0.66
1:E:4811:LEU:HD13	1:G:4519:LEU:HB3	1.76	0.66
1:E:4811:LEU:HD13	1:G:4519:LEU:CD2	2.23	0.66
1:A:4852:PHE:CZ	1:C:4823:ARG:HA	2.29	0.66
1:C:303:GLY:H	1:C:420:ARG:HH11	1.43	0.66
1:C:2163:MET:HA	1:C:2166:LEU:HD12	1.77	0.66
1:C:2425:ARG:HH21	1:C:2476:VAL:HG12	1.59	0.66
1:G:1176:THR:HA	1:G:1181:ILE:HA	1.76	0.66
1:G:2425:ARG:HH21	1:G:2476:VAL:HG12	1.59	0.66
1:A:4806:LYS:NZ	1:A:4833:GLU:OE2	2.29	0.66
1:C:1184:ASP:HB2	1:C:1188:SER:H	1.60	0.66
1:G:2515:LEU:HB3	1:G:2519:ARG:HH11	1.60	0.66
1:C:233:VAL:HG22	1:C:276:ARG:HG2	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1272:ARG:NH2	1:E:1590:PHE:O	2.29	0.66
1:E:4889:CYS:SG	1:E:4890:PHE:N	2.68	0.66
1:A:233:VAL:HG22	1:A:276:ARG:HG2	1.77	0.66
1:C:3694:ASP:OD1	1:C:3694:ASP:N	2.23	0.66
1:E:4811:LEU:HD22	1:G:4519:LEU:CD1	2.25	0.66
1:G:303:GLY:H	1:G:420:ARG:HH11	1.43	0.66
1:G:329:PHE:HB3	1:G:363:ILE:HD11	1.77	0.66
1:G:2163:MET:HA	1:G:2166:LEU:HD12	1.77	0.66
1:A:2515:LEU:HB3	1:A:2519:ARG:HH11	1.60	0.66
1:A:4823:ARG:HA	1:G:4852:PHE:CZ	2.30	0.66
1:C:4860:LEU:HD12	1:E:4863:ILE:HD12	1.76	0.66
1:E:2425:ARG:HH21	1:E:2476:VAL:HG12	1.59	0.66
1:A:23:GLN:NE2	1:A:52:THR:OG1	2.28	0.66
1:A:1184:ASP:HB2	1:A:1188:SER:H	1.60	0.66
1:A:4780:TYR:CD1	1:C:4519:LEU:HD21	2.31	0.66
1:G:3929:CYS:SG	1:G:3932:ASN:ND2	2.69	0.66
1:E:1306:MET:SD	1:E:1575:HIS:NE2	2.67	0.66
1:A:1137:PHE:HA	1:A:1144:ARG:HA	1.79	0.65
1:A:1272:ARG:NH2	1:A:1590:PHE:O	2.29	0.65
1:A:2265:LYS:HD2	1:A:2268:ARG:HD2	1.79	0.65
1:C:2839:HIS:HD2	1:C:2842:ALA:HB3	1.61	0.65
1:C:3929:CYS:SG	1:C:3932:ASN:ND2	2.69	0.65
1:E:2265:LYS:HD2	1:E:2268:ARG:HD2	1.79	0.65
1:G:364:GLN:HE21	1:G:369:GLY:HA2	1.62	0.65
1:G:842:GLN:HG3	1:G:844:ARG:HH21	1.62	0.65
1:A:608:HIS:HB2	1:A:1656:HIS:HD2	1.61	0.65
1:A:3815:ALA:O	1:A:3819:GLY:N	2.30	0.65
1:E:608:HIS:HB2	1:E:1656:HIS:HD2	1.61	0.65
1:E:4806:LYS:NZ	1:E:4833:GLU:OE2	2.29	0.65
1:A:303:GLY:H	1:A:420:ARG:HH11	1.43	0.65
1:C:1176:THR:HA	1:C:1181:ILE:HA	1.76	0.65
1:G:2265:LYS:HD2	1:G:2268:ARG:HD2	1.79	0.65
1:G:4889:CYS:SG	1:G:4890:PHE:N	2.68	0.65
1:C:1272:ARG:NH2	1:C:1590:PHE:O	2.29	0.65
1:E:329:PHE:HB3	1:E:363:ILE:HD11	1.77	0.65
1:G:1272:ARG:NH2	1:G:1590:PHE:O	2.29	0.65
1:A:1905:LEU:HD12	1:A:2081:LEU:HB2	1.78	0.65
1:C:329:PHE:HB3	1:C:363:ILE:HD11	1.77	0.65
1:A:3929:CYS:SG	1:A:3932:ASN:ND2	2.69	0.65
1:C:608:HIS:HB2	1:C:1656:HIS:HD2	1.61	0.65
1:C:2265:LYS:HD2	1:C:2268:ARG:HD2	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4780:TYR:CD1	1:E:4519:LEU:HD21	2.32	0.65
1:C:4806:LYS:NZ	1:C:4833:GLU:OE2	2.29	0.65
1:G:1137:PHE:HA	1:G:1144:ARG:HA	1.79	0.65
1:E:2839:HIS:HD2	1:E:2842:ALA:HB3	1.61	0.65
1:G:1184:ASP:HB2	1:G:1188:SER:H	1.60	0.65
1:G:4806:LYS:NZ	1:G:4833:GLU:OE2	2.29	0.65
1:E:427:ASN:HA	1:E:430:ILE:HB	1.79	0.65
1:A:364:GLN:HE21	1:A:369:GLY:HA2	1.62	0.65
1:A:4519:LEU:HD22	1:G:4811:LEU:CD1	2.27	0.65
1:C:4623:SER:O	1:C:4630:GLN:NE2	2.30	0.65
1:E:4780:TYR:CD1	1:G:4519:LEU:HD21	2.32	0.65
1:A:2839:HIS:HD2	1:A:2842:ALA:HB3	1.61	0.65
1:A:4519:LEU:HD21	1:G:4780:TYR:CD1	2.31	0.65
1:C:1137:PHE:HA	1:C:1144:ARG:HA	1.79	0.65
1:E:303:GLY:H	1:E:420:ARG:HH11	1.43	0.65
1:E:842:GLN:HG3	1:E:844:ARG:HH21	1.62	0.64
1:E:1905:LEU:HD12	1:E:2081:LEU:HB2	1.78	0.64
1:E:3929:CYS:SG	1:E:3932:ASN:ND2	2.69	0.64
1:G:1669:ASN:HB3	1:G:1672:VAL:HB	1.80	0.64
1:A:842:GLN:HG3	1:A:844:ARG:HH21	1.62	0.64
1:A:1725:PHE:HB2	1:A:2106:THR:HG22	1.78	0.64
1:C:4908:THR:O	1:C:4912:GLN:N	2.31	0.64
1:E:1725:PHE:HB2	1:E:2106:THR:HG22	1.78	0.64
1:G:233:VAL:HG22	1:G:276:ARG:HG2	1.77	0.64
1:A:1758:ARG:O	1:A:1760:ARG:NH2	2.31	0.64
1:C:364:GLN:HE21	1:C:369:GLY:HA2	1.62	0.64
1:C:1775:CYS:SG	1:C:1776:TYR:N	2.71	0.64
1:E:364:GLN:HE21	1:E:369:GLY:HA2	1.62	0.64
1:E:657:PRO:HA	1:E:834:VAL:HA	1.80	0.64
1:E:2098:GLY:HA2	1:E:2101:ARG:HE	1.62	0.64
1:E:3815:ALA:O	1:E:3819:GLY:N	2.30	0.64
1:G:1725:PHE:HB2	1:G:2106:THR:HG22	1.78	0.64
1:C:1725:PHE:HB2	1:C:2106:THR:HG22	1.78	0.64
1:C:2098:GLY:HA2	1:C:2101:ARG:HE	1.62	0.64
1:G:1758:ARG:O	1:G:1760:ARG:NH2	2.31	0.64
1:A:2098:GLY:HA2	1:A:2101:ARG:HE	1.62	0.64
1:A:2423:ILE:HD11	1:G:189:GLU:OE1	1.98	0.64
1:A:4519:LEU:HD13	1:G:4811:LEU:CD2	2.27	0.64
1:G:608:HIS:HB2	1:G:1656:HIS:HD2	1.61	0.64
1:G:3815:ALA:O	1:G:3819:GLY:N	2.30	0.64
1:A:419:ILE:HG12	1:A:489:PHE:HE1	1.62	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:427:ASN:HA	1:A:430:ILE:HB	1.79	0.64
1:C:842:GLN:HG3	1:C:844:ARG:HH21	1.62	0.64
1:C:1143:GLN:HA	1:C:1151:HIS:HA	1.80	0.64
1:C:4072:GLU:HB2	1:C:4079:LEU:HA	1.80	0.64
1:G:657:PRO:HA	1:G:834:VAL:HA	1.80	0.64
1:G:1905:LEU:HD12	1:G:2081:LEU:HB2	1.78	0.64
1:G:2839:HIS:HD2	1:G:2842:ALA:HB3	1.61	0.64
1:G:3899:ILE:O	1:G:3904:GLN:NE2	2.31	0.64
1:A:1775:CYS:SG	1:A:1776:TYR:N	2.71	0.64
1:A:3899:ILE:O	1:A:3904:GLN:NE2	2.31	0.64
1:C:427:ASN:HA	1:C:430:ILE:HB	1.79	0.64
1:E:246:THR:OG1	1:E:272:ARG:NH1	2.31	0.64
1:G:2098:GLY:HA2	1:G:2101:ARG:HE	1.62	0.64
1:G:4623:SER:O	1:G:4630:GLN:NE2	2.30	0.64
1:A:728:ASP:HB2	1:A:748:LEU:HG	1.80	0.64
1:A:4623:SER:O	1:A:4630:GLN:NE2	2.30	0.64
1:C:189:GLU:OE1	1:E:2423:ILE:HD11	1.98	0.64
1:G:556:ASP:N	1:G:556:ASP:OD1	2.31	0.64
1:G:728:ASP:HB2	1:G:748:LEU:HG	1.80	0.64
1:G:1143:GLN:HA	1:G:1151:HIS:HA	1.80	0.64
1:A:4949:CYS:SG	1:A:4950:TRP:N	2.71	0.64
1:E:4949:CYS:SG	1:E:4950:TRP:N	2.71	0.64
1:G:4164:PRO:HA	1:G:4167:LYS:HB3	1.80	0.64
1:A:657:PRO:HA	1:A:834:VAL:HA	1.80	0.64
1:A:4072:GLU:HB2	1:A:4079:LEU:HA	1.80	0.64
1:C:1757:LEU:HD12	1:C:2118:ILE:HD11	1.80	0.64
1:C:3899:ILE:O	1:C:3904:GLN:NE2	2.31	0.64
1:E:419:ILE:HG12	1:E:489:PHE:HE1	1.62	0.64
1:G:419:ILE:HG12	1:G:489:PHE:HE1	1.62	0.64
1:A:694:ARG:HB3	1:A:724:SER:HB2	1.80	0.63
1:A:4860:LEU:HD12	1:C:4863:ILE:HD12	1.76	0.63
1:C:1905:LEU:HD12	1:C:2081:LEU:HB2	1.78	0.63
1:E:1137:PHE:HA	1:E:1144:ARG:HA	1.79	0.63
1:E:3899:ILE:O	1:E:3904:GLN:NE2	2.31	0.63
1:E:4891:ILE:HD13	1:E:4914:HIS:HB3	1.81	0.63
1:A:2421:ARG:HH12	1:A:2476:VAL:HA	1.64	0.63
1:C:2421:ARG:HH12	1:C:2476:VAL:HA	1.64	0.63
1:E:556:ASP:OD1	1:E:556:ASP:N	2.31	0.63
1:E:1143:GLN:HA	1:E:1151:HIS:HA	1.80	0.63
1:E:4623:SER:O	1:E:4630:GLN:NE2	2.30	0.63
1:G:246:THR:OG1	1:G:272:ARG:NH1	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:657:PRO:HA	1:C:834:VAL:HA	1.80	0.63
1:C:2855:LYS:HA	1:C:2858:LYS:HB2	1.81	0.63
1:E:1669:ASN:HB3	1:E:1672:VAL:HB	1.80	0.63
1:E:1758:ARG:O	1:E:1760:ARG:NH2	2.31	0.63
1:E:2855:LYS:HA	1:E:2858:LYS:HB2	1.81	0.63
1:G:2855:LYS:HA	1:G:2858:LYS:HB2	1.81	0.63
1:G:4891:ILE:HD13	1:G:4914:HIS:HB3	1.81	0.63
1:A:1306:MET:SD	1:A:1575:HIS:NE2	2.67	0.63
1:A:2326:ILE:HD12	1:G:207:PHE:HE1	1.64	0.63
1:G:1757:LEU:HD12	1:G:2118:ILE:HD11	1.80	0.63
1:A:246:THR:OG1	1:A:272:ARG:NH1	2.31	0.63
1:A:2855:LYS:HA	1:A:2858:LYS:HB2	1.81	0.63
1:C:4949:CYS:SG	1:C:4950:TRP:N	2.71	0.63
1:E:1775:CYS:SG	1:E:1776:TYR:N	2.71	0.63
1:E:3784:GLU:HG3	1:E:3785:LYS:HG3	1.81	0.63
1:G:2207:ILE:HG12	1:G:2211:ASN:HD22	1.64	0.63
1:A:3784:GLU:HG3	1:A:3785:LYS:HG3	1.81	0.63
1:A:4891:ILE:HD13	1:A:4914:HIS:HB3	1.81	0.63
1:C:694:ARG:HB3	1:C:724:SER:HB2	1.80	0.63
1:C:4164:PRO:HA	1:C:4167:LYS:HB3	1.80	0.63
1:E:3639:ASP:N	1:E:3639:ASP:OD1	2.30	0.63
1:E:4164:PRO:HA	1:E:4167:LYS:HB3	1.80	0.63
1:G:343:ARG:HH11	1:G:344:LYS:H	1.47	0.63
1:G:1775:CYS:SG	1:G:1776:TYR:N	2.71	0.63
1:A:1143:GLN:HA	1:A:1151:HIS:HA	1.80	0.63
1:A:2207:ILE:HG12	1:A:2211:ASN:HD22	1.64	0.63
1:C:246:THR:OG1	1:C:272:ARG:NH1	2.31	0.63
1:C:1669:ASN:HB3	1:C:1672:VAL:HB	1.80	0.63
1:C:1758:ARG:O	1:C:1760:ARG:NH2	2.31	0.63
1:C:3815:ALA:O	1:C:3819:GLY:N	2.30	0.63
1:G:2421:ARG:HH12	1:G:2476:VAL:HA	1.64	0.63
1:A:4136:ARG:H	1:A:4918:ASN:HD21	1.47	0.63
1:A:4811:LEU:HD11	1:C:4519:LEU:HD22	1.81	0.63
1:C:3784:GLU:HG3	1:C:3785:LYS:HG3	1.81	0.63
1:E:4908:THR:O	1:E:4912:GLN:N	2.31	0.63
1:G:4072:GLU:HB2	1:G:4079:LEU:HA	1.80	0.63
1:A:1669:ASN:HB3	1:A:1672:VAL:HB	1.80	0.63
1:A:3639:ASP:OD1	1:A:3639:ASP:N	2.30	0.63
1:C:4136:ARG:H	1:C:4918:ASN:HD21	1.47	0.63
1:C:4897:ASP:N	1:C:4897:ASP:OD1	2.31	0.63
1:E:4082:GLU:O	1:E:4086:LYS:N	2.31	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:407:ARG:NE	1:G:408:SER:O	2.30	0.63
1:A:556:ASP:N	1:A:556:ASP:OD1	2.31	0.62
1:A:1757:LEU:HD12	1:A:2118:ILE:HD11	1.80	0.62
1:C:2207:ILE:HG12	1:C:2211:ASN:HD22	1.64	0.62
1:E:4072:GLU:HB2	1:E:4079:LEU:HA	1.80	0.62
1:G:3784:GLU:HG3	1:G:3785:LYS:HG3	1.81	0.62
1:A:4897:ASP:OD1	1:A:4897:ASP:N	2.31	0.62
1:C:728:ASP:HB2	1:C:748:LEU:HG	1.80	0.62
1:E:503:ASP:HA	1:E:561:ARG:HH22	1.64	0.62
1:E:728:ASP:HB2	1:E:748:LEU:HG	1.80	0.62
1:E:1757:LEU:HD12	1:E:2118:ILE:HD11	1.80	0.62
1:G:4949:CYS:SG	1:G:4950:TRP:N	2.71	0.62
1:A:4082:GLU:O	1:A:4086:LYS:N	2.31	0.62
1:A:4519:LEU:HD13	1:G:4811:LEU:HD21	1.81	0.62
1:C:419:ILE:HG12	1:C:489:PHE:HE1	1.62	0.62
1:A:343:ARG:HH11	1:A:344:LYS:H	1.47	0.62
1:A:4164:PRO:HA	1:A:4167:LYS:HB3	1.80	0.62
1:C:207:PHE:HE1	1:E:2326:ILE:HD12	1.64	0.62
1:E:189:GLU:OE1	1:G:2423:ILE:HD11	1.99	0.62
1:E:694:ARG:HB3	1:E:724:SER:HB2	1.80	0.62
1:E:2207:ILE:HG12	1:E:2211:ASN:HD22	1.64	0.62
1:G:4136:ARG:H	1:G:4918:ASN:HD21	1.47	0.62
1:A:1655:TYR:OH	1:A:1659:ARG:NH2	2.33	0.62
1:A:4908:THR:O	1:A:4912:GLN:N	2.31	0.62
1:C:343:ARG:HH11	1:C:344:LYS:H	1.47	0.62
1:C:4891:ILE:HD13	1:C:4914:HIS:HB3	1.81	0.62
1:G:427:ASN:HA	1:G:430:ILE:HB	1.79	0.62
1:G:2860:GLU:HG2	1:G:2861:LEU:HD13	1.82	0.62
1:A:207:PHE:HE1	1:C:2326:ILE:HD12	1.64	0.62
1:C:2860:GLU:HG2	1:C:2861:LEU:HD13	1.82	0.62
1:A:3729:GLN:NE2	1:A:3766:ILE:O	2.33	0.62
1:C:302:THR:HG21	1:C:316:LEU:HD21	1.82	0.62
1:C:423:VAL:HA	1:C:426:PHE:HB2	1.82	0.62
1:C:4798:GLU:H	1:C:4802:THR:HG21	1.65	0.62
1:E:2860:GLU:HG2	1:E:2861:LEU:HD13	1.82	0.62
1:E:4136:ARG:H	1:E:4918:ASN:HD21	1.47	0.62
1:E:4798:GLU:H	1:E:4802:THR:HG21	1.65	0.62
1:A:4798:GLU:H	1:A:4802:THR:HG21	1.65	0.62
1:A:328:ALA:O	1:A:365:HIS:ND1	2.33	0.62
1:A:2860:GLU:HG2	1:A:2861:LEU:HD13	1.82	0.62
1:E:207:PHE:HE1	1:G:2326:ILE:HD12	1.65	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1655:TYR:OH	1:E:1659:ARG:NH2	2.33	0.62
1:E:2421:ARG:HH12	1:E:2476:VAL:HA	1.64	0.62
1:G:694:ARG:HB3	1:G:724:SER:HB2	1.80	0.62
1:G:4889:CYS:HB3	1:G:4893:GLY:H	1.65	0.62
1:E:343:ARG:HH11	1:E:344:LYS:H	1.47	0.61
1:G:4908:THR:O	1:G:4912:GLN:N	2.31	0.61
1:C:3981:VAL:HA	1:C:3984:LEU:HD12	1.82	0.61
1:A:1941:GLN:O	1:A:1945:TYR:N	2.33	0.61
1:G:1905:LEU:HB2	1:G:2081:LEU:HD12	1.82	0.61
1:G:4897:ASP:OD1	1:G:4897:ASP:N	2.31	0.61
1:A:602:ASP:O	1:A:1576:LYS:NZ	2.33	0.61
1:A:1250:TRP:HB3	1:A:1600:PRO:HB2	1.83	0.61
1:C:247:VAL:O	1:C:272:ARG:NH1	2.34	0.61
1:C:328:ALA:O	1:C:365:HIS:ND1	2.33	0.61
1:C:1052:GLU:HA	1:C:1055:ARG:HB2	1.82	0.61
1:C:1655:TYR:OH	1:C:1659:ARG:NH2	2.33	0.61
1:G:3639:ASP:N	1:G:3639:ASP:OD1	2.30	0.61
1:A:302:THR:HG21	1:A:316:LEU:HD21	1.82	0.61
1:A:1052:GLU:HA	1:A:1055:ARG:HB2	1.82	0.61
1:G:4859:LEU:HA	1:G:4862:ILE:HD12	1.83	0.61
1:A:1670:HIS:ND1	1:A:1778:TYR:O	2.34	0.61
1:C:556:ASP:OD1	1:C:556:ASP:N	2.31	0.61
1:C:3639:ASP:OD1	1:C:3639:ASP:N	2.30	0.61
1:E:4159:THR:O	1:E:4163:LYS:NZ	2.34	0.61
1:E:4859:LEU:HA	1:E:4862:ILE:HD12	1.83	0.61
1:G:1655:TYR:OH	1:G:1659:ARG:NH2	2.33	0.61
1:G:1729:MET:SD	1:G:3615:HIS:ND1	2.69	0.61
1:G:3729:GLN:NE2	1:G:3766:ILE:O	2.33	0.61
1:A:189:GLU:OE1	1:C:2423:ILE:HD11	2.00	0.61
1:A:848:ARG:NH1	1:A:1607:ASP:OD2	2.34	0.61
1:A:1228:THR:O	1:A:1233:GLN:NE2	2.34	0.61
1:C:2301:ASP:OD1	1:C:2304:ARG:NH2	2.34	0.61
1:E:3981:VAL:HA	1:E:3984:LEU:HD12	1.83	0.61
1:E:4897:ASP:N	1:E:4897:ASP:OD1	2.31	0.61
1:G:503:ASP:HA	1:G:561:ARG:HH22	1.64	0.61
1:G:1250:TRP:HB3	1:G:1600:PRO:HB2	1.83	0.61
1:G:1306:MET:SD	1:G:1575:HIS:NE2	2.67	0.61
1:G:2301:ASP:OD1	1:G:2304:ARG:NH2	2.34	0.61
1:A:247:VAL:O	1:A:272:ARG:NH1	2.34	0.61
1:A:503:ASP:HA	1:A:561:ARG:HH22	1.64	0.61
1:A:1905:LEU:HB2	1:A:2081:LEU:HD12	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2301:ASP:OD1	1:A:2304:ARG:NH2	2.34	0.61
1:C:55:SER:O	1:C:296:ARG:NH1	2.34	0.61
1:E:423:VAL:HA	1:E:426:PHE:HB2	1.82	0.61
1:E:3729:GLN:NE2	1:E:3766:ILE:O	2.33	0.61
1:G:247:VAL:O	1:G:272:ARG:NH1	2.34	0.61
1:G:423:VAL:HA	1:G:426:PHE:HB2	1.82	0.61
1:G:1052:GLU:HA	1:G:1055:ARG:HB2	1.82	0.61
1:G:1670:HIS:ND1	1:G:1778:TYR:O	2.34	0.61
1:G:2071:ALA:HB1	1:G:3664:PRO:HB3	1.83	0.61
1:A:3981:VAL:HA	1:A:3984:LEU:HD12	1.83	0.61
1:C:1670:HIS:ND1	1:C:1778:TYR:O	2.34	0.61
1:E:1905:LEU:HB2	1:E:2081:LEU:HD12	1.82	0.61
1:G:1119:ARG:HH12	1:G:1198:GLY:HA3	1.66	0.61
1:A:2071:ALA:HB1	1:A:3664:PRO:HB3	1.83	0.60
1:C:503:ASP:HA	1:C:561:ARG:HH22	1.64	0.60
1:C:1905:LEU:HB2	1:C:2081:LEU:HD12	1.82	0.60
1:C:1941:GLN:O	1:C:1945:TYR:N	2.33	0.60
1:C:3729:GLN:NE2	1:C:3766:ILE:O	2.33	0.60
1:E:1228:THR:O	1:E:1233:GLN:NE2	2.34	0.60
1:E:1670:HIS:ND1	1:E:1778:TYR:O	2.34	0.60
1:G:2258:LEU:O	1:G:2259:ARG:NH1	2.34	0.60
2:H:117:LEU:HD13	2:H:122:VAL:HG21	1.83	0.60
1:A:2258:LEU:O	1:A:2259:ARG:NH1	2.34	0.60
1:C:1256:PRO:HG3	1:C:1453:TYR:HB2	1.83	0.60
1:C:2071:ALA:HB1	1:C:3664:PRO:HB3	1.83	0.60
1:C:2258:LEU:O	1:C:2259:ARG:NH1	2.34	0.60
1:C:4780:TYR:HD1	1:E:4519:LEU:HD21	1.67	0.60
2:D:117:LEU:HD13	2:D:122:VAL:HG21	1.83	0.60
1:E:302:THR:HG21	1:E:316:LEU:HD21	1.82	0.60
1:A:1256:PRO:HG3	1:A:1453:TYR:HB2	1.83	0.60
1:A:4136:ARG:O	1:A:4918:ASN:ND2	2.35	0.60
1:C:248:PRO:O	1:C:257:ARG:NH2	2.35	0.60
1:C:1119:ARG:HH12	1:C:1198:GLY:HA3	1.66	0.60
1:C:1228:THR:O	1:C:1233:GLN:NE2	2.34	0.60
1:E:677:LEU:HB3	1:E:755:ILE:HD12	1.84	0.60
1:E:1052:GLU:HA	1:E:1055:ARG:HB2	1.82	0.60
1:E:2071:ALA:HB1	1:E:3664:PRO:HB3	1.83	0.60
1:E:2258:LEU:O	1:E:2259:ARG:NH1	2.34	0.60
1:E:2301:ASP:OD1	1:E:2304:ARG:NH2	2.34	0.60
1:G:848:ARG:NH1	1:G:1607:ASP:OD2	2.34	0.60
1:G:4703:ASP:O	1:G:4707:GLN:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:55:SER:O	1:A:296:ARG:NH1	2.34	0.60
1:A:1628:MET:HB2	1:A:1687:TYR:HE2	1.66	0.60
1:A:4811:LEU:HB2	1:C:4519:LEU:O	2.01	0.60
1:A:4859:LEU:HA	1:A:4862:ILE:HD12	1.83	0.60
1:A:4889:CYS:HB3	1:A:4893:GLY:H	1.65	0.60
1:C:602:ASP:O	1:C:1576:LYS:NZ	2.33	0.60
1:C:2162:LEU:O	1:C:2166:LEU:N	2.34	0.60
1:E:55:SER:O	1:E:296:ARG:NH1	2.34	0.60
1:E:247:VAL:O	1:E:272:ARG:NH1	2.34	0.60
1:E:1119:ARG:HH12	1:E:1198:GLY:HA3	1.66	0.60
1:E:4889:CYS:HB3	1:E:4893:GLY:H	1.65	0.60
2:F:117:LEU:HD13	2:F:122:VAL:HG21	1.83	0.60
1:G:677:LEU:HB3	1:G:755:ILE:HD12	1.84	0.60
1:G:1228:THR:O	1:G:1233:GLN:NE2	2.34	0.60
1:C:848:ARG:NH1	1:C:1607:ASP:OD2	2.34	0.60
1:C:1223:THR:O	1:C:1225:LYS:NZ	2.35	0.60
1:E:43:GLY:H	1:E:45:ARG:HH22	1.49	0.60
1:G:302:THR:HG21	1:G:316:LEU:HD21	1.82	0.60
1:G:4159:THR:O	1:G:4163:LYS:NZ	2.34	0.60
1:G:4804:ASP:N	1:G:4804:ASP:OD1	2.34	0.60
2:B:88:GLU:HA	2:B:91:ARG:HB2	1.84	0.60
1:C:1250:TRP:HB3	1:C:1600:PRO:HB2	1.83	0.60
1:C:1729:MET:SD	1:C:3615:HIS:ND1	2.69	0.60
2:D:88:GLU:HA	2:D:91:ARG:HB2	1.84	0.60
1:E:298:ARG:HA	1:E:305:TYR:HA	1.84	0.60
1:G:477:ASN:OD1	1:G:477:ASN:N	2.34	0.60
1:G:1128:LEU:HD13	1:G:1206:SER:HB2	1.84	0.60
1:G:2162:LEU:O	1:G:2166:LEU:N	2.34	0.60
1:A:248:PRO:O	1:A:257:ARG:NH2	2.35	0.60
1:A:407:ARG:NE	1:A:408:SER:O	2.30	0.60
1:A:423:VAL:HA	1:A:426:PHE:HB2	1.82	0.60
1:C:305:TYR:N	1:C:317:MET:O	2.34	0.60
1:E:848:ARG:NH1	1:E:1607:ASP:OD2	2.34	0.60
1:E:4136:ARG:O	1:E:4918:ASN:ND2	2.35	0.60
2:F:102:SER:HA	2:F:136:GLN:HG2	1.84	0.60
1:A:797:GLY:HA2	1:A:1622:LEU:HA	1.83	0.60
1:A:4703:ASP:O	1:A:4707:GLN:NE2	2.35	0.60
1:C:43:GLY:H	1:C:45:ARG:HH22	1.49	0.60
1:C:1628:MET:HB2	1:C:1687:TYR:HE2	1.66	0.60
1:C:4159:THR:O	1:C:4163:LYS:NZ	2.34	0.60
1:C:4703:ASP:O	1:C:4707:GLN:NE2	2.35	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4811:LEU:CD1	1:E:4519:LEU:HD22	2.32	0.60
1:C:4859:LEU:HA	1:C:4862:ILE:HD12	1.83	0.60
1:E:2204:PHE:O	1:E:2211:ASN:ND2	2.35	0.60
2:F:88:GLU:HA	2:F:91:ARG:HB2	1.84	0.60
1:G:4798:GLU:H	1:G:4802:THR:HG21	1.65	0.60
1:A:1128:LEU:HD13	1:A:1206:SER:HB2	1.84	0.60
1:A:3834:ASP:N	1:A:3834:ASP:OD1	2.34	0.60
1:C:797:GLY:HA2	1:C:1622:LEU:HA	1.83	0.60
1:C:4889:CYS:HB3	1:C:4893:GLY:H	1.65	0.60
1:E:797:GLY:HA2	1:E:1622:LEU:HA	1.83	0.60
1:E:1128:LEU:HD13	1:E:1206:SER:HB2	1.84	0.60
1:E:1256:PRO:HG3	1:E:1453:TYR:HB2	1.83	0.60
1:G:1256:PRO:HG3	1:G:1453:TYR:HB2	1.83	0.60
1:G:4136:ARG:O	1:G:4918:ASN:ND2	2.35	0.60
1:A:54:ASN:OD1	1:A:56:LYS:NZ	2.34	0.60
1:A:3694:ASP:OD1	1:A:3694:ASP:N	2.23	0.60
1:A:4519:LEU:HD21	1:G:4780:TYR:HD1	1.66	0.60
1:C:4136:ARG:O	1:C:4918:ASN:ND2	2.35	0.60
1:E:54:ASN:OD1	1:E:56:LYS:NZ	2.34	0.60
1:E:248:PRO:O	1:E:257:ARG:NH2	2.35	0.60
1:E:1177:LEU:N	1:E:1180:GLU:O	2.35	0.60
1:E:2464:ASP:OD1	1:E:2464:ASP:N	2.34	0.60
1:G:55:SER:O	1:G:296:ARG:NH1	2.34	0.60
1:G:3981:VAL:HA	1:G:3984:LEU:HD12	1.82	0.60
1:A:1177:LEU:N	1:A:1180:GLU:O	2.35	0.59
1:A:1572:LYS:HE2	1:A:1585:ARG:HB2	1.84	0.59
1:C:44:ASN:ND2	1:C:46:LEU:O	2.35	0.59
2:D:17:PHE:O	2:D:21:ASP:N	2.35	0.59
1:E:1250:TRP:HB3	1:E:1600:PRO:HB2	1.83	0.59
1:A:1119:ARG:HH12	1:A:1198:GLY:HA3	1.66	0.59
1:A:1223:THR:O	1:A:1225:LYS:NZ	2.35	0.59
1:A:2088:LEU:O	1:A:2092:GLN:N	2.35	0.59
1:A:2204:PHE:O	1:A:2211:ASN:ND2	2.35	0.59
1:A:2389:ILE:HA	1:A:2392:PHE:HB3	1.84	0.59
1:A:2558:LYS:O	1:A:2562:LEU:N	2.34	0.59
1:A:2855:LYS:HG2	1:A:2858:LYS:HD3	1.84	0.59
1:A:3924:TYR:O	1:A:3932:ASN:ND2	2.35	0.59
1:A:3994:GLY:O	1:A:3998:LYS:N	2.35	0.59
1:A:4780:TYR:HD1	1:C:4519:LEU:HD21	1.66	0.59
1:C:677:LEU:HB3	1:C:755:ILE:HD12	1.84	0.59
1:E:4811:LEU:CD2	1:G:4519:LEU:CD1	2.67	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:54:ASN:OD1	1:G:56:LYS:NZ	2.34	0.59
1:G:248:PRO:O	1:G:257:ARG:NH2	2.35	0.59
1:G:1628:MET:HB2	1:G:1687:TYR:HE2	1.66	0.59
1:G:3924:TYR:O	1:G:3932:ASN:ND2	2.35	0.59
1:C:1128:LEU:HD13	1:C:1206:SER:HB2	1.84	0.59
1:C:2204:PHE:O	1:C:2211:ASN:ND2	2.35	0.59
1:C:3924:TYR:O	1:C:3932:ASN:ND2	2.35	0.59
1:C:3994:GLY:O	1:C:3998:LYS:N	2.35	0.59
1:E:1720:MET:O	1:E:1723:ASN:ND2	2.36	0.59
1:E:2217:ASP:OD1	1:E:2217:ASP:N	2.35	0.59
1:E:2389:ILE:HA	1:E:2392:PHE:HB3	1.84	0.59
1:G:3841:PHE:HA	1:G:3844:LEU:HD12	1.84	0.59
1:G:4082:GLU:O	1:G:4086:LYS:N	2.31	0.59
2:H:88:GLU:HA	2:H:91:ARG:HB2	1.84	0.59
1:A:2162:LEU:O	1:A:2166:LEU:N	2.34	0.59
2:B:117:LEU:HD13	2:B:122:VAL:HG21	1.83	0.59
1:C:13:PHE:HA	1:C:176:ARG:HA	1.84	0.59
1:C:1720:MET:O	1:C:1723:ASN:ND2	2.36	0.59
1:C:2558:LYS:O	1:C:2562:LEU:N	2.34	0.59
1:E:239:GLY:O	1:E:243:GLU:N	2.36	0.59
1:E:305:TYR:N	1:E:317:MET:O	2.34	0.59
1:E:4780:TYR:HD1	1:G:4519:LEU:HD21	1.67	0.59
1:G:13:PHE:HA	1:G:176:ARG:HA	1.84	0.59
1:G:1572:LYS:HE2	1:G:1585:ARG:HB2	1.84	0.59
1:A:677:LEU:HB3	1:A:755:ILE:HD12	1.84	0.59
1:A:1442:TRP:HB2	1:A:1544:PHE:HB2	1.85	0.59
1:A:4159:THR:O	1:A:4163:LYS:NZ	2.34	0.59
1:C:298:ARG:HA	1:C:305:TYR:HA	1.84	0.59
1:C:1442:TRP:HB2	1:C:1544:PHE:HB2	1.85	0.59
1:C:1572:LYS:HE2	1:C:1585:ARG:HB2	1.84	0.59
1:C:2217:ASP:N	1:C:2217:ASP:OD1	2.35	0.59
1:C:2855:LYS:HG2	1:C:2858:LYS:HD3	1.84	0.59
1:E:44:ASN:ND2	1:E:46:LEU:O	2.35	0.59
1:E:1572:LYS:HE2	1:E:1585:ARG:HB2	1.84	0.59
1:E:1628:MET:HB2	1:E:1687:TYR:HE2	1.66	0.59
1:E:4612:GLU:O	1:E:4657:LYS:NZ	2.35	0.59
1:E:4703:ASP:O	1:E:4707:GLN:NE2	2.35	0.59
2:F:61:ASN:ND2	2:F:63:THR:OG1	2.36	0.59
1:G:328:ALA:O	1:G:365:HIS:ND1	2.33	0.59
1:G:1941:GLN:O	1:G:1945:TYR:N	2.33	0.59
1:G:4771:THR:HB	1:G:4862:ILE:HG12	1.84	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:102:SER:HA	2:H:136:GLN:HG2	1.84	0.59
1:A:3892:TYR:O	1:A:3896:LYS:NZ	2.36	0.59
1:A:3926:GLN:HE21	1:A:4936:GLY:H	1.51	0.59
2:B:102:SER:HA	2:B:136:GLN:HG2	1.84	0.59
1:C:2088:LEU:O	1:C:2092:GLN:N	2.35	0.59
2:D:61:ASN:ND2	2:D:63:THR:OG1	2.36	0.59
1:A:2161:ASN:O	1:A:2165:ALA:N	2.33	0.59
1:A:4612:GLU:O	1:A:4657:LYS:NZ	2.35	0.59
1:C:3841:PHE:HA	1:C:3844:LEU:HD12	1.84	0.59
1:C:4771:THR:HB	1:C:4862:ILE:HG12	1.84	0.59
1:E:328:ALA:O	1:E:365:HIS:ND1	2.33	0.59
1:E:2855:LYS:HG2	1:E:2858:LYS:HD3	1.84	0.59
1:G:3892:TYR:O	1:G:3896:LYS:NZ	2.36	0.59
1:G:3926:GLN:HE21	1:G:4936:GLY:H	1.51	0.59
1:A:3800:SER:OG	1:A:3801:CYS:N	2.36	0.59
2:B:61:ASN:ND2	2:B:63:THR:OG1	2.36	0.59
1:C:2389:ILE:HA	1:C:2392:PHE:HB3	1.84	0.59
2:D:102:SER:HA	2:D:136:GLN:HG2	1.84	0.59
1:E:1155:SER:O	1:E:1157:GLN:NE2	2.35	0.59
1:E:1223:THR:O	1:E:1225:LYS:NZ	2.35	0.59
1:E:1941:GLN:O	1:E:1945:TYR:N	2.33	0.59
1:G:409:GLN:N	1:G:412:GLU:OE1	2.36	0.59
1:G:1177:LEU:N	1:G:1180:GLU:O	2.35	0.59
1:A:13:PHE:HA	1:A:176:ARG:HA	1.84	0.59
1:A:44:ASN:ND2	1:A:46:LEU:O	2.35	0.59
1:C:1177:LEU:N	1:C:1180:GLU:O	2.35	0.59
1:C:3800:SER:OG	1:C:3801:CYS:N	2.36	0.59
1:G:797:GLY:HA2	1:G:1622:LEU:HA	1.83	0.59
1:G:2389:ILE:HA	1:G:2392:PHE:HB3	1.84	0.59
1:G:2853:TRP:HA	1:G:2856:LYS:HB2	1.85	0.59
1:A:239:GLY:O	1:A:243:GLU:N	2.36	0.59
1:A:3743:GLN:NE2	1:A:3781:TYR:OH	2.36	0.59
1:A:4861:ALA:N	1:C:4867:ILE:CD1	2.61	0.59
1:C:3834:ASP:OD1	1:C:3834:ASP:N	2.34	0.59
1:C:4612:GLU:O	1:C:4657:LYS:NZ	2.35	0.59
1:E:13:PHE:HA	1:E:176:ARG:HA	1.84	0.59
1:E:778:MET:N	1:E:778:MET:SD	2.76	0.59
1:E:3994:GLY:O	1:E:3998:LYS:N	2.35	0.59
2:H:100:TYR:HA	2:H:138:ASN:HA	1.85	0.59
1:A:2217:ASP:OD1	1:A:2217:ASP:N	2.35	0.58
2:B:17:PHE:O	2:B:21:ASP:N	2.35	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:239:GLY:O	1:C:243:GLU:N	2.36	0.58
1:C:2737:LYS:NZ	1:C:2758:MET:SD	2.76	0.58
1:E:67:PHE:HB3	1:E:121:LEU:HD11	1.85	0.58
1:E:3924:TYR:O	1:E:3932:ASN:ND2	2.35	0.58
1:E:4649:PHE:O	1:E:4653:LYS:N	2.36	0.58
1:G:298:ARG:HA	1:G:305:TYR:HA	1.84	0.58
1:G:305:TYR:N	1:G:317:MET:O	2.34	0.58
1:G:844:ARG:NH1	1:G:849:ASP:OD2	2.36	0.58
1:G:2204:PHE:O	1:G:2211:ASN:ND2	2.35	0.58
1:A:2422:SER:O	1:A:2426:SER:N	2.36	0.58
1:A:4771:THR:HB	1:A:4862:ILE:HG12	1.84	0.58
1:C:1272:ARG:HH11	1:C:1586:LEU:HB3	1.69	0.58
1:C:1446:ILE:N	1:C:1540:PHE:O	2.37	0.58
1:C:3743:GLN:NE2	1:C:3781:TYR:OH	2.36	0.58
1:C:4082:GLU:O	1:C:4086:LYS:N	2.31	0.58
1:E:1729:MET:SD	1:E:3615:HIS:ND1	2.69	0.58
1:E:3841:PHE:HA	1:E:3844:LEU:HD12	1.84	0.58
1:E:4804:ASP:N	1:E:4804:ASP:OD1	2.34	0.58
1:G:3743:GLN:NE2	1:G:3781:TYR:OH	2.36	0.58
1:A:298:ARG:HA	1:A:305:TYR:HA	1.84	0.58
1:A:4867:ILE:CD1	1:G:4861:ALA:N	2.61	0.58
2:B:100:TYR:HA	2:B:138:ASN:HA	1.85	0.58
1:C:3892:TYR:O	1:C:3896:LYS:NZ	2.36	0.58
1:C:4811:LEU:CD2	1:E:4519:LEU:HD13	2.33	0.58
2:D:100:TYR:HA	2:D:138:ASN:HA	1.85	0.58
1:E:844:ARG:NH1	1:E:849:ASP:OD2	2.36	0.58
1:E:1442:TRP:HB2	1:E:1544:PHE:HB2	1.85	0.58
1:G:239:GLY:O	1:G:243:GLU:N	2.36	0.58
1:G:1001:GLU:O	1:G:1005:ASN:ND2	2.37	0.58
1:G:2161:ASN:O	1:G:2165:ALA:N	2.33	0.58
1:G:2855:LYS:HG2	1:G:2858:LYS:HD3	1.84	0.58
1:G:3665:LEU:HD22	1:G:3735:ARG:HH11	1.69	0.58
1:G:3834:ASP:N	1:G:3834:ASP:OD1	2.34	0.58
1:A:43:GLY:H	1:A:45:ARG:HH22	1.49	0.58
1:A:2737:LYS:NZ	1:A:2758:MET:SD	2.76	0.58
1:A:3853:SER:O	1:A:3857:ASN:ND2	2.37	0.58
1:A:4841:GLU:O	1:A:4845:ILE:N	2.35	0.58
1:C:2068:VAL:HA	1:C:2071:ALA:HB3	1.85	0.58
1:C:2853:TRP:HA	1:C:2856:LYS:HB2	1.85	0.58
1:G:44:ASN:ND2	1:G:46:LEU:O	2.35	0.58
2:H:61:ASN:ND2	2:H:63:THR:OG1	2.36	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:778:MET:N	1:C:778:MET:SD	2.76	0.58
1:C:4800:GLY:HA2	1:C:4804:ASP:HB3	1.85	0.58
1:E:1001:GLU:O	1:E:1005:ASN:ND2	2.37	0.58
1:E:3853:SER:O	1:E:3857:ASN:ND2	2.37	0.58
1:A:409:GLN:N	1:A:412:GLU:OE1	2.36	0.58
1:A:778:MET:N	1:A:778:MET:SD	2.76	0.58
1:A:1256:PRO:HD2	1:A:1451:HIS:HB3	1.85	0.58
1:C:2464:ASP:OD1	1:C:2464:ASP:N	2.34	0.58
1:E:1272:ARG:HH11	1:E:1586:LEU:HB3	1.69	0.58
1:G:67:PHE:HB3	1:G:121:LEU:HD11	1.85	0.58
1:G:1442:TRP:HB2	1:G:1544:PHE:HB2	1.85	0.58
1:G:2217:ASP:OD1	1:G:2217:ASP:N	2.35	0.58
1:G:2558:LYS:O	1:G:2562:LEU:N	2.34	0.58
1:G:4612:GLU:O	1:G:4657:LYS:NZ	2.35	0.58
1:G:4841:GLU:O	1:G:4845:ILE:N	2.35	0.58
2:H:17:PHE:O	2:H:21:ASP:N	2.35	0.58
1:A:1425:THR:N	1:A:1510:VAL:O	2.37	0.58
1:A:1720:MET:O	1:A:1723:ASN:ND2	2.36	0.58
1:A:3665:LEU:HD22	1:A:3735:ARG:HH11	1.69	0.58
1:C:335:LYS:NZ	1:C:396:GLU:O	2.37	0.58
1:C:2722:ILE:HA	1:C:2725:TYR:HB3	1.85	0.58
1:C:3926:GLN:HE21	1:C:4936:GLY:H	1.51	0.58
1:C:4884:ASP:N	1:C:4884:ASP:OD2	2.35	0.58
1:E:2088:LEU:O	1:E:2092:GLN:N	2.35	0.58
1:E:3594:LYS:NZ	2:F:115:GLU:OE1	2.37	0.58
1:E:4771:THR:HB	1:E:4862:ILE:HG12	1.84	0.58
2:F:100:TYR:HA	2:F:138:ASN:HA	1.85	0.58
1:G:43:GLY:H	1:G:45:ARG:HH22	1.49	0.58
1:G:335:LYS:NZ	1:G:396:GLU:O	2.37	0.58
1:G:2722:ILE:HA	1:G:2725:TYR:HB3	1.85	0.58
1:G:3853:SER:O	1:G:3857:ASN:ND2	2.37	0.58
1:A:299:HIS:O	1:A:420:ARG:NH1	2.37	0.58
1:A:844:ARG:NH1	1:A:849:ASP:OD2	2.36	0.58
1:C:1425:THR:N	1:C:1510:VAL:O	2.37	0.58
1:C:2461:PHE:N	1:C:2464:ASP:OD1	2.37	0.58
1:C:3665:LEU:HD22	1:C:3735:ARG:HH11	1.69	0.58
1:C:4861:ALA:N	1:E:4867:ILE:CD1	2.62	0.58
1:E:1256:PRO:HD2	1:E:1451:HIS:HB3	1.85	0.58
1:E:2068:VAL:HA	1:E:2071:ALA:HB3	1.85	0.58
1:E:2162:LEU:O	1:E:2166:LEU:N	2.34	0.58
1:E:3638:GLU:HB2	1:E:3698:LYS:HD2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:518:ALA:O	1:G:520:ARG:NH1	2.37	0.58
1:G:3638:GLU:HB2	1:G:3698:LYS:HD2	1.86	0.58
1:G:4512:PHE:O	1:G:4516:PHE:N	2.37	0.58
1:A:67:PHE:HB3	1:A:121:LEU:HD11	1.85	0.58
1:A:897:LYS:HB3	1:A:918:LEU:HD21	1.86	0.58
1:A:1696:GLY:HA2	1:A:1699:ARG:HB3	1.86	0.58
1:A:3975:LEU:O	1:A:3979:MET:HB2	2.04	0.58
1:C:897:LYS:HB3	1:C:918:LEU:HD21	1.86	0.58
1:C:1696:GLY:HA2	1:C:1699:ARG:HB3	1.86	0.58
1:C:2086:PHE:HA	1:C:2089:LEU:HD12	1.86	0.58
1:C:4008:SER:OG	1:C:4009:ASN:OD1	2.22	0.58
1:E:4752:LYS:HA	1:E:4755:ARG:HG3	1.86	0.58
1:E:4841:GLU:O	1:E:4845:ILE:N	2.35	0.58
1:G:2737:LYS:NZ	1:G:2758:MET:SD	2.76	0.58
1:G:4649:PHE:O	1:G:4653:LYS:N	2.36	0.58
1:A:2086:PHE:HA	1:A:2089:LEU:HD12	1.86	0.58
1:A:4512:PHE:O	1:A:4516:PHE:N	2.37	0.58
1:C:844:ARG:NH1	1:C:849:ASP:OD2	2.36	0.58
1:C:3853:SER:O	1:C:3857:ASN:ND2	2.37	0.58
1:C:4811:LEU:HD21	1:E:4519:LEU:HD13	1.86	0.58
1:E:477:ASN:N	1:E:477:ASN:OD1	2.34	0.58
1:E:2161:ASN:O	1:E:2165:ALA:N	2.33	0.58
1:G:778:MET:SD	1:G:778:MET:N	2.76	0.58
1:G:1425:THR:N	1:G:1510:VAL:O	2.37	0.58
1:G:1720:MET:O	1:G:1723:ASN:ND2	2.36	0.58
1:G:3975:LEU:O	1:G:3979:MET:HB2	2.04	0.58
1:A:2068:VAL:HA	1:A:2071:ALA:HB3	1.85	0.57
1:E:1482:ARG:HB3	1:E:1531:TYR:HD1	1.69	0.57
1:E:1696:GLY:HA2	1:E:1699:ARG:HB3	1.86	0.57
1:E:3926:GLN:HE21	1:E:4936:GLY:H	1.51	0.57
1:E:4512:PHE:O	1:E:4516:PHE:N	2.37	0.57
1:G:1696:GLY:HA2	1:G:1699:ARG:HB3	1.86	0.57
1:G:4752:LYS:HA	1:G:4755:ARG:HG3	1.86	0.57
1:G:4800:GLY:HA2	1:G:4804:ASP:HB3	1.85	0.57
1:A:1272:ARG:HH11	1:A:1586:LEU:HB3	1.69	0.57
1:A:2461:PHE:N	1:A:2464:ASP:OD1	2.37	0.57
1:A:4169:SER:O	1:A:4172:GLN:NE2	2.37	0.57
1:A:4811:LEU:HD13	1:C:4519:LEU:HD22	1.84	0.57
1:C:299:HIS:O	1:C:420:ARG:NH1	2.37	0.57
1:C:836:HIS:HB2	1:C:839:GLU:HB2	1.86	0.57
1:C:1482:ARG:HB3	1:C:1531:TYR:HD1	1.69	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3975:LEU:O	1:C:3979:MET:HB2	2.04	0.57
1:E:518:ALA:O	1:E:520:ARG:NH1	2.37	0.57
1:E:3800:SER:OG	1:E:3801:CYS:N	2.36	0.57
1:E:3892:TYR:O	1:E:3896:LYS:NZ	2.36	0.57
1:E:4008:SER:OG	1:E:4009:ASN:OD1	2.22	0.57
2:F:17:PHE:O	2:F:21:ASP:N	2.35	0.57
1:G:836:HIS:HB2	1:G:839:GLU:HB2	1.86	0.57
1:G:1446:ILE:N	1:G:1540:PHE:O	2.37	0.57
1:G:1797:GLU:O	1:G:1801:GLU:N	2.35	0.57
1:G:3675:THR:O	1:G:3678:THR:OG1	2.22	0.57
1:A:1241:VAL:HB	1:A:1807:ARG:HH22	1.69	0.57
1:C:1726:ILE:HG13	1:C:1757:LEU:HD23	1.87	0.57
1:C:3594:LYS:NZ	2:D:115:GLU:OE1	2.37	0.57
1:G:1173:MET:O	1:G:1191:ALA:N	2.37	0.57
1:G:1223:THR:O	1:G:1225:LYS:NZ	2.35	0.57
1:G:2068:VAL:HA	1:G:2071:ALA:HB3	1.85	0.57
1:A:802:PHE:HB3	1:A:804:LEU:HG	1.87	0.57
1:A:3594:LYS:NZ	2:B:115:GLU:OE1	2.37	0.57
1:A:4800:GLY:HA2	1:A:4804:ASP:HB3	1.85	0.57
1:E:836:HIS:HB2	1:E:839:GLU:HB2	1.86	0.57
1:E:2853:TRP:HA	1:E:2856:LYS:HB2	1.85	0.57
1:E:3975:LEU:O	1:E:3979:MET:HB2	2.04	0.57
1:E:4884:ASP:OD2	1:E:4884:ASP:N	2.35	0.57
1:G:1043:LYS:O	1:G:1047:LYS:N	2.36	0.57
1:G:1256:PRO:HD2	1:G:1451:HIS:HB3	1.85	0.57
1:A:836:HIS:HB2	1:A:839:GLU:HB2	1.86	0.57
1:A:2838:LEU:HD23	1:A:2894:LEU:HB3	1.86	0.57
1:A:3841:PHE:HA	1:A:3844:LEU:HD12	1.84	0.57
1:A:4649:PHE:O	1:A:4653:LYS:N	2.36	0.57
1:C:1001:GLU:O	1:C:1005:ASN:ND2	2.37	0.57
1:C:4752:LYS:HA	1:C:4755:ARG:HG3	1.86	0.57
1:E:19:GLU:OE2	1:E:67:PHE:N	2.38	0.57
1:E:335:LYS:NZ	1:E:396:GLU:O	2.37	0.57
1:E:2461:PHE:N	1:E:2464:ASP:OD1	2.37	0.57
1:E:2896:PHE:O	1:E:2900:ASN:ND2	2.34	0.57
1:E:3743:GLN:NE2	1:E:3781:TYR:OH	2.36	0.57
1:E:3834:ASP:OD1	1:E:3834:ASP:N	2.34	0.57
1:G:2461:PHE:N	1:G:2464:ASP:OD1	2.37	0.57
1:G:3594:LYS:NZ	2:H:115:GLU:OE1	2.37	0.57
1:A:518:ALA:O	1:A:520:ARG:NH1	2.37	0.57
1:A:2722:ILE:HA	1:A:2725:TYR:HB3	1.85	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4008:SER:OG	1:A:4009:ASN:OD1	2.22	0.57
1:C:1003:ALA:O	1:C:1007:TRP:N	2.36	0.57
1:E:1926:ILE:O	1:E:1930:SER:OG	2.23	0.57
1:E:4785:VAL:O	1:E:4789:PHE:N	2.37	0.57
1:G:601:LEU:O	1:G:1589:GLN:NE2	2.38	0.57
1:G:1051:ARG:O	1:G:1055:ARG:N	2.38	0.57
1:G:1926:ILE:O	1:G:1930:SER:OG	2.23	0.57
1:G:3854:ASP:OD2	1:G:3854:ASP:N	2.38	0.57
1:G:4062:SER:OG	1:G:4063:GLU:OE2	2.22	0.57
1:A:335:LYS:NZ	1:A:396:GLU:O	2.37	0.57
1:A:799:LYS:HB3	1:A:1620:GLN:HB2	1.87	0.57
1:A:2853:TRP:HA	1:A:2856:LYS:HB2	1.85	0.57
1:C:54:ASN:OD1	1:C:56:LYS:NZ	2.35	0.57
1:E:57:ASN:HA	1:E:323:ASP:HA	1.87	0.57
1:E:1241:VAL:HB	1:E:1807:ARG:HH22	1.69	0.57
1:A:601:LEU:O	1:A:1589:GLN:NE2	2.38	0.57
1:A:1001:GLU:O	1:A:1005:ASN:ND2	2.37	0.57
1:A:1155:SER:O	1:A:1157:GLN:NE2	2.35	0.57
1:A:3638:GLU:HB2	1:A:3698:LYS:HD2	1.86	0.57
1:A:4062:SER:OG	1:A:4063:GLU:OE2	2.22	0.57
1:C:67:PHE:HB3	1:C:121:LEU:HD11	1.85	0.57
1:C:802:PHE:HB3	1:C:804:LEU:HG	1.87	0.57
1:C:1241:VAL:HB	1:C:1807:ARG:HH22	1.69	0.57
1:E:299:HIS:O	1:E:420:ARG:NH1	2.37	0.57
1:E:601:LEU:O	1:E:1589:GLN:NE2	2.38	0.57
1:E:799:LYS:HB3	1:E:1620:GLN:HB2	1.87	0.57
1:E:1173:MET:O	1:E:1191:ALA:N	2.37	0.57
1:E:4800:GLY:HA2	1:E:4804:ASP:HB3	1.85	0.57
1:G:82:LEU:HD12	1:G:82:LEU:O	2.05	0.57
1:G:1125:ASP:OD1	1:G:1597:SER:OG	2.23	0.57
1:A:1696:GLY:O	1:A:1700:ALA:N	2.36	0.57
1:A:2464:ASP:OD1	1:A:2464:ASP:N	2.34	0.57
1:A:2896:PHE:O	1:A:2900:ASN:ND2	2.34	0.57
1:A:4867:ILE:CG1	1:G:4861:ALA:HB2	2.31	0.57
1:C:565:LEU:HD11	1:C:603:LYS:HG2	1.87	0.57
1:E:1726:ILE:HG13	1:E:1757:LEU:HD23	1.87	0.57
1:E:2422:SER:O	1:E:2426:SER:N	2.36	0.57
1:E:4654:VAL:HA	1:E:4657:LYS:HB3	1.87	0.57
1:G:799:LYS:HB3	1:G:1620:GLN:HB2	1.87	0.57
1:G:2088:LEU:O	1:G:2092:GLN:N	2.35	0.57
1:A:2433:LEU:HA	1:A:2436:VAL:HB	1.87	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:518:ALA:O	1:C:520:ARG:NH1	2.37	0.57
1:C:799:LYS:HB3	1:C:1620:GLN:HB2	1.87	0.57
1:C:1167:ASP:OD1	1:C:1236:TYR:OH	2.23	0.57
1:C:4169:SER:O	1:C:4172:GLN:NE2	2.37	0.57
1:C:4654:VAL:HA	1:C:4657:LYS:HB3	1.87	0.57
1:E:815:PRO:HB2	1:E:817:PRO:HD3	1.87	0.57
1:E:1597:SER:OG	1:E:1598:ARG:N	2.38	0.57
1:A:1726:ILE:HG13	1:A:1757:LEU:HD23	1.87	0.56
1:C:407:ARG:NE	1:C:408:SER:O	2.30	0.56
1:C:477:ASN:N	1:C:477:ASN:OD1	2.34	0.56
1:C:1256:PRO:HD2	1:C:1451:HIS:HB3	1.85	0.56
1:C:4062:SER:OG	1:C:4063:GLU:OE2	2.22	0.56
1:C:4649:PHE:O	1:C:4653:LYS:N	2.36	0.56
1:E:1051:ARG:O	1:E:1055:ARG:N	2.38	0.56
1:E:2722:ILE:HA	1:E:2725:TYR:HB3	1.85	0.56
1:E:2737:LYS:NZ	1:E:2758:MET:SD	2.76	0.56
1:E:4124:GLU:HA	1:E:4127:LEU:HD13	1.87	0.56
1:G:1272:ARG:HH11	1:G:1586:LEU:HB3	1.69	0.56
1:A:1051:ARG:O	1:A:1055:ARG:N	2.38	0.56
1:A:1446:ILE:N	1:A:1540:PHE:O	2.37	0.56
1:A:1651:LEU:O	1:A:1655:TYR:N	2.38	0.56
1:A:4868:ILE:HD11	1:G:4864:GLN:HB3	1.87	0.56
1:C:409:GLN:N	1:C:412:GLU:OE1	2.36	0.56
1:C:815:PRO:HB2	1:C:817:PRO:HD3	1.87	0.56
1:C:2838:LEU:HD23	1:C:2894:LEU:HB3	1.86	0.56
1:C:3638:GLU:HB2	1:C:3698:LYS:HD2	1.86	0.56
1:C:4655:MET:O	1:C:4664:ARG:NH1	2.38	0.56
1:E:1307:PRO:HB2	1:E:1538:LYS:HB3	1.88	0.56
1:E:3665:LEU:HD22	1:E:3735:ARG:HH11	1.69	0.56
1:E:4062:SER:OG	1:E:4063:GLU:OE2	2.22	0.56
1:E:4861:ALA:HB2	1:G:4867:ILE:CG1	2.31	0.56
1:G:57:ASN:HA	1:G:323:ASP:HA	1.87	0.56
1:G:299:HIS:O	1:G:420:ARG:NH1	2.37	0.56
1:A:1007:TRP:O	1:A:1011:ARG:N	2.35	0.56
1:A:3675:THR:O	1:A:3678:THR:OG1	2.22	0.56
1:A:3809:PHE:O	1:A:3812:GLN:NE2	2.33	0.56
1:A:4124:GLU:HA	1:A:4127:LEU:HD13	1.87	0.56
1:A:4785:VAL:O	1:A:4789:PHE:N	2.37	0.56
1:C:166:SER:OG	1:C:168:GLN:OE1	2.24	0.56
1:C:1307:PRO:HB2	1:C:1538:LYS:HB3	1.88	0.56
1:C:3959:LEU:HD22	1:C:3965:GLN:HB3	1.87	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4124:GLU:HA	1:C:4127:LEU:HD13	1.87	0.56
1:C:4841:GLU:O	1:C:4845:ILE:N	2.35	0.56
1:E:802:PHE:HB3	1:E:804:LEU:HG	1.87	0.56
1:E:1425:THR:N	1:E:1510:VAL:O	2.37	0.56
1:E:3959:LEU:HD22	1:E:3965:GLN:HB3	1.87	0.56
1:G:40:GLU:H	1:G:44:ASN:HD22	1.53	0.56
1:G:295:PHE:HB2	1:G:329:PHE:HB2	1.88	0.56
1:G:815:PRO:HB2	1:G:817:PRO:HD3	1.87	0.56
1:G:1003:ALA:O	1:G:1007:TRP:N	2.36	0.56
1:G:2433:LEU:HA	1:G:2436:VAL:HB	1.87	0.56
1:G:4169:SER:O	1:G:4172:GLN:NE2	2.37	0.56
1:G:4655:MET:O	1:G:4664:ARG:NH1	2.38	0.56
1:G:4884:ASP:OD2	1:G:4884:ASP:N	2.35	0.56
1:A:19:GLU:OE2	1:A:67:PHE:N	2.38	0.56
1:A:756:SER:HB2	1:A:769:ARG:HB2	1.87	0.56
1:A:1003:ALA:O	1:A:1007:TRP:N	2.36	0.56
1:A:1482:ARG:HB3	1:A:1531:TYR:HD1	1.69	0.56
1:A:4655:MET:O	1:A:4664:ARG:NH1	2.38	0.56
1:A:4752:LYS:HA	1:A:4755:ARG:HG3	1.86	0.56
1:C:1900:PRO:O	1:C:1904:LYS:NZ	2.39	0.56
1:E:1167:ASP:OD1	1:E:1236:TYR:OH	2.23	0.56
1:E:2838:LEU:HD23	1:E:2894:LEU:HB3	1.86	0.56
1:E:3675:THR:O	1:E:3678:THR:OG1	2.22	0.56
1:E:4169:SER:O	1:E:4172:GLN:NE2	2.37	0.56
1:G:897:LYS:HB3	1:G:918:LEU:HD21	1.86	0.56
1:G:1482:ARG:HB3	1:G:1531:TYR:HD1	1.69	0.56
1:G:2086:PHE:HA	1:G:2089:LEU:HD12	1.86	0.56
1:G:3994:GLY:O	1:G:3998:LYS:N	2.35	0.56
1:G:4008:SER:OG	1:G:4009:ASN:OD1	2.22	0.56
1:G:4124:GLU:HA	1:G:4127:LEU:HD13	1.87	0.56
1:A:706:TYR:OH	1:A:1086:ARG:NH1	2.39	0.56
1:A:1035:TYR:O	1:A:1043:LYS:NZ	2.36	0.56
1:A:1307:PRO:HB2	1:A:1538:LYS:HB3	1.88	0.56
1:A:3808:ALA:HA	1:A:3811:ARG:HD3	1.88	0.56
1:C:601:LEU:O	1:C:1589:GLN:NE2	2.38	0.56
1:C:4601:PHE:O	1:C:4605:LYS:N	2.37	0.56
1:E:897:LYS:HB3	1:E:918:LEU:HD21	1.86	0.56
1:E:1797:GLU:O	1:E:1801:GLU:N	2.35	0.56
1:G:166:SER:OG	1:G:168:GLN:OE1	2.24	0.56
1:G:2876:ASP:OD1	1:G:2876:ASP:N	2.33	0.56
1:A:1173:MET:O	1:A:1191:ALA:N	2.37	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1611:ILE:O	1:A:1620:GLN:N	2.33	0.56
1:A:4884:ASP:OD2	1:A:4884:ASP:N	2.35	0.56
1:C:295:PHE:HB2	1:C:329:PHE:HB2	1.88	0.56
1:C:648:LEU:HD13	1:C:1626:GLN:HG2	1.88	0.56
1:C:706:TYR:OH	1:C:1086:ARG:NH1	2.39	0.56
1:C:4512:PHE:O	1:C:4516:PHE:N	2.37	0.56
1:C:4804:ASP:OD1	1:C:4804:ASP:N	2.34	0.56
1:C:4853:PHE:O	1:C:4857:VAL:N	2.30	0.56
1:E:565:LEU:HD11	1:E:603:LYS:HG2	1.87	0.56
1:E:1446:ILE:N	1:E:1540:PHE:O	2.36	0.56
1:E:2086:PHE:HA	1:E:2089:LEU:HD12	1.86	0.56
1:E:4581:THR:HG22	1:E:4730:SER:HB3	1.88	0.56
1:E:4864:GLN:HB3	1:G:4868:ILE:HD11	1.87	0.56
1:A:648:LEU:HD13	1:A:1626:GLN:HG2	1.88	0.56
1:A:1125:ASP:OD1	1:A:1597:SER:OG	2.23	0.56
1:A:3638:GLU:OE1	1:A:3638:GLU:N	2.38	0.56
1:A:3959:LEU:HD22	1:A:3965:GLN:HB3	1.87	0.56
1:A:4601:PHE:O	1:A:4605:LYS:N	2.37	0.56
1:C:4864:GLN:HB3	1:E:4868:ILE:HD11	1.87	0.56
1:E:2421:ARG:NH2	1:E:2476:VAL:O	2.38	0.56
1:E:4601:PHE:O	1:E:4605:LYS:N	2.37	0.56
1:G:1155:SER:O	1:G:1157:GLN:NE2	2.35	0.56
1:G:1167:ASP:OD1	1:G:1236:TYR:OH	2.23	0.56
1:G:1241:VAL:HB	1:G:1807:ARG:HH22	1.69	0.56
1:G:2642:SER:O	1:G:2646:PHE:N	2.39	0.56
1:G:2838:LEU:HD23	1:G:2894:LEU:HB3	1.86	0.56
1:G:3808:ALA:HA	1:G:3811:ARG:HD3	1.88	0.56
1:G:3959:LEU:HD22	1:G:3965:GLN:HB3	1.87	0.56
1:A:1900:PRO:O	1:A:1904:LYS:NZ	2.39	0.56
1:C:19:GLU:OE2	1:C:67:PHE:N	2.38	0.56
1:C:3638:GLU:N	1:C:3638:GLU:OE1	2.38	0.56
1:E:409:GLN:N	1:E:412:GLU:OE1	2.36	0.56
1:E:1428:TYR:HD2	1:E:1508:GLY:H	1.53	0.56
1:G:565:LEU:HD11	1:G:603:LYS:HG2	1.87	0.56
1:G:1726:ILE:HG13	1:G:1757:LEU:HD23	1.87	0.56
1:A:815:PRO:HB2	1:A:817:PRO:HD3	1.87	0.56
1:A:2642:SER:O	1:A:2646:PHE:N	2.39	0.56
1:C:40:GLU:H	1:C:44:ASN:HD22	1.53	0.56
1:C:57:ASN:HA	1:C:323:ASP:HA	1.87	0.56
1:C:1051:ARG:O	1:C:1055:ARG:N	2.38	0.56
1:C:1788:LYS:HZ1	1:C:1834:PHE:H	1.54	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2422:SER:O	1:C:2426:SER:N	2.36	0.56
1:E:2433:LEU:HA	1:E:2436:VAL:HB	1.87	0.56
1:E:3990:ASN:HB3	1:E:4109:HIS:CE1	2.41	0.56
1:E:4935:THR:H	1:E:4938:GLU:HB2	1.71	0.56
1:G:19:GLU:OE2	1:G:67:PHE:N	2.38	0.56
1:G:1900:PRO:O	1:G:1904:LYS:NZ	2.39	0.56
1:A:57:ASN:HA	1:A:323:ASP:HA	1.87	0.56
1:A:477:ASN:OD1	1:A:477:ASN:N	2.34	0.56
1:A:1597:SER:OG	1:A:1598:ARG:N	2.38	0.56
1:C:1597:SER:OG	1:C:1598:ARG:N	2.38	0.56
1:C:1926:ILE:O	1:C:1930:SER:OG	2.23	0.56
1:C:2421:ARG:NH2	1:C:2476:VAL:O	2.38	0.56
1:C:2896:PHE:O	1:C:2900:ASN:ND2	2.34	0.56
1:C:3675:THR:O	1:C:3678:THR:OG1	2.22	0.56
1:C:4581:THR:HG22	1:C:4730:SER:HB3	1.88	0.56
1:E:295:PHE:HB2	1:E:329:PHE:HB2	1.87	0.56
1:E:407:ARG:NE	1:E:408:SER:O	2.30	0.56
1:G:480:ARG:NH2	1:G:3679:GLU:OE2	2.39	0.56
1:G:1307:PRO:HB2	1:G:1538:LYS:HB3	1.88	0.56
1:A:1926:ILE:O	1:A:1930:SER:OG	2.23	0.55
1:A:4864:GLN:HB3	1:C:4868:ILE:HD11	1.88	0.55
1:C:1173:MET:O	1:C:1191:ALA:N	2.37	0.55
1:E:756:SER:HB2	1:E:769:ARG:HB2	1.87	0.55
1:E:1043:LYS:O	1:E:1047:LYS:N	2.36	0.55
1:E:1900:PRO:O	1:E:1904:LYS:NZ	2.39	0.55
1:E:4655:MET:O	1:E:4664:ARG:NH1	2.38	0.55
1:E:4713:VAL:O	1:E:4716:THR:OG1	2.24	0.55
1:G:756:SER:HB2	1:G:769:ARG:HB2	1.87	0.55
1:G:802:PHE:HB3	1:G:804:LEU:HG	1.87	0.55
1:G:4654:VAL:HA	1:G:4657:LYS:HB3	1.87	0.55
1:A:565:LEU:HD11	1:A:603:LYS:HG2	1.87	0.55
1:A:619:VAL:HG23	1:A:624:ALA:HB2	1.89	0.55
1:A:1613:GLU:HB3	1:A:1618:LEU:H	1.72	0.55
1:A:1654:HIS:O	1:A:1657:THR:OG1	2.22	0.55
1:A:4867:ILE:CG2	1:G:4864:GLN:HB2	2.36	0.55
1:C:2161:ASN:O	1:C:2165:ALA:N	2.33	0.55
1:G:1718:ARG:NH2	1:G:1758:ARG:O	2.32	0.55
1:G:2464:ASP:OD1	1:G:2464:ASP:N	2.34	0.55
1:A:257:ARG:HH22	1:A:272:ARG:HD3	1.72	0.55
1:A:1167:ASP:OD1	1:A:1236:TYR:OH	2.23	0.55
1:A:1428:TYR:HD2	1:A:1508:GLY:H	1.53	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3596:ARG:NH2	2:B:85:GLU:OE1	2.40	0.55
1:A:3990:ASN:HB3	1:A:4109:HIS:CE1	2.41	0.55
1:A:4654:VAL:HA	1:A:4657:LYS:HB3	1.87	0.55
1:A:4935:THR:H	1:A:4938:GLU:HB2	1.71	0.55
1:C:756:SER:HB2	1:C:769:ARG:HB2	1.87	0.55
1:C:3854:ASP:OD2	1:C:3854:ASP:N	2.38	0.55
1:C:3990:ASN:HB3	1:C:4109:HIS:CE1	2.41	0.55
1:E:257:ARG:HH22	1:E:272:ARG:HD3	1.72	0.55
1:E:648:LEU:HD13	1:E:1626:GLN:HG2	1.88	0.55
1:E:982:ASP:OD1	1:E:984:SER:OG	2.24	0.55
1:E:1125:ASP:OD1	1:E:1597:SER:OG	2.23	0.55
1:E:1932:ASP:O	1:E:1936:LYS:N	2.37	0.55
1:E:4861:ALA:N	1:G:4867:ILE:CD1	2.61	0.55
1:G:3800:SER:OG	1:G:3801:CYS:N	2.36	0.55
1:G:4782:TYR:OH	1:G:4847:PHE:O	2.24	0.55
1:A:305:TYR:N	1:A:317:MET:O	2.34	0.55
1:A:4738:PHE:CD1	1:G:4788:ASN:ND2	2.75	0.55
1:C:606:ARG:HH12	1:C:644:LEU:HD21	1.71	0.55
1:C:1428:TYR:HD2	1:C:1508:GLY:H	1.53	0.55
1:C:2433:LEU:HA	1:C:2436:VAL:HB	1.87	0.55
1:C:4864:GLN:O	1:C:4868:ILE:N	2.40	0.55
1:E:626:ARG:O	1:E:630:HIS:N	2.34	0.55
1:G:317:MET:HG3	1:G:321:LYS:HD3	1.89	0.55
1:G:706:TYR:OH	1:G:1086:ARG:NH1	2.39	0.55
1:G:3596:ARG:NH2	2:H:85:GLU:OE1	2.40	0.55
1:G:3638:GLU:OE1	1:G:3638:GLU:N	2.38	0.55
1:G:3990:ASN:HB3	1:G:4109:HIS:CE1	2.41	0.55
1:A:40:GLU:H	1:A:44:ASN:HD22	1.53	0.55
1:A:317:MET:HG3	1:A:321:LYS:HD3	1.89	0.55
1:A:1248:THR:OG1	1:A:1602:GLN:NE2	2.40	0.55
1:C:54:ASN:HA	1:C:56:LYS:HZ1	1.72	0.55
1:C:257:ARG:HH22	1:C:272:ARG:HD3	1.72	0.55
1:C:480:ARG:NH2	1:C:3679:GLU:OE2	2.39	0.55
1:C:1144:ARG:NH1	1:C:1150:GLU:OE1	2.40	0.55
1:C:4864:GLN:HB2	1:E:4867:ILE:CG2	2.37	0.55
1:C:4889:CYS:SG	1:C:4891:ILE:N	2.79	0.55
1:C:4935:THR:H	1:C:4938:GLU:HB2	1.71	0.55
1:E:40:GLU:H	1:E:44:ASN:HD22	1.53	0.55
1:E:4864:GLN:O	1:E:4868:ILE:N	2.40	0.55
1:G:648:LEU:HD13	1:G:1626:GLN:HG2	1.88	0.55
1:G:1696:GLY:O	1:G:1700:ALA:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1904:LYS:HA	1:G:1907:MET:HB3	1.88	0.55
1:A:2315:GLU:HA	1:A:2318:ALA:HB3	1.89	0.55
1:A:2841:MET:HE1	1:A:2904:VAL:HG13	1.89	0.55
1:C:1696:GLY:O	1:C:1700:ALA:N	2.36	0.55
1:E:166:SER:OG	1:E:168:GLN:OE1	2.24	0.55
1:E:334:SER:OG	1:E:335:LYS:N	2.40	0.55
1:E:480:ARG:NH2	1:E:3679:GLU:OE2	2.39	0.55
1:G:626:ARG:O	1:G:630:HIS:N	2.34	0.55
1:G:4581:THR:HG22	1:G:4730:SER:HB3	1.88	0.55
1:A:1718:ARG:NH2	1:A:1758:ARG:O	2.32	0.55
1:A:2847:GLU:O	1:A:2851:ASN:ND2	2.40	0.55
1:C:1797:GLU:O	1:C:1801:GLU:N	2.35	0.55
1:C:3596:ARG:NH2	2:D:85:GLU:OE1	2.40	0.55
1:E:1651:LEU:O	1:E:1655:TYR:N	2.38	0.55
1:G:257:ARG:HH22	1:G:272:ARG:HD3	1.72	0.55
1:G:602:ASP:O	1:G:1576:LYS:NZ	2.33	0.55
1:G:619:VAL:HG23	1:G:624:ALA:HB2	1.89	0.55
1:G:1252:SER:HB3	1:G:1598:ARG:HB3	1.89	0.55
1:G:2315:GLU:HA	1:G:2318:ALA:HB3	1.89	0.55
1:A:295:PHE:HB2	1:A:329:PHE:HB2	1.88	0.55
1:A:625:VAL:O	1:A:629:GLN:NE2	2.40	0.55
1:A:4864:GLN:HB2	1:C:4867:ILE:CG2	2.37	0.55
1:C:620:CYS:SG	1:C:621:HIS:N	2.80	0.55
1:C:2841:MET:HE1	1:C:2904:VAL:HG13	1.89	0.55
1:E:626:ARG:NH1	1:E:1667:LEU:O	2.40	0.55
1:E:1919:VAL:O	1:E:1923:ILE:N	2.39	0.55
1:E:2847:GLU:O	1:E:2851:ASN:ND2	2.40	0.55
1:E:3596:ARG:NH2	2:F:85:GLU:OE1	2.40	0.55
2:F:25:ASP:N	2:F:25:ASP:OD1	2.39	0.55
1:G:1172:THR:HG22	1:G:1193:LYS:HA	1.89	0.55
1:G:1597:SER:OG	1:G:1598:ARG:N	2.38	0.55
1:G:2114:VAL:O	1:G:2117:THR:OG1	2.25	0.55
1:G:3775:GLN:OE1	1:G:3852:ASN:ND2	2.40	0.55
1:G:4785:VAL:O	1:G:4789:PHE:N	2.37	0.55
1:A:115:TYR:HB3	1:A:164:PRO:HD3	1.89	0.55
1:A:166:SER:OG	1:A:168:GLN:OE1	2.24	0.55
1:A:480:ARG:NH2	1:A:3679:GLU:OE2	2.39	0.55
1:A:1788:LYS:HZ1	1:A:1834:PHE:H	1.54	0.55
1:A:2275:LEU:H	1:A:2293:PRO:HD3	1.72	0.55
1:C:619:VAL:HG23	1:C:624:ALA:HB2	1.89	0.55
1:C:1043:LYS:O	1:C:1047:LYS:N	2.36	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2275:LEU:H	1:C:2293:PRO:HD3	1.72	0.55
1:C:3808:ALA:HA	1:C:3811:ARG:HD3	1.88	0.55
1:C:3995:THR:OG1	1:C:3996:ILE:N	2.40	0.55
1:C:4801:ASP:OD1	1:C:4801:ASP:N	2.40	0.55
1:E:4801:ASP:N	1:E:4801:ASP:OD1	2.40	0.55
1:G:982:ASP:OD1	1:G:984:SER:OG	2.24	0.55
1:G:1686:LEU:HA	1:G:1689:ILE:HD12	1.89	0.55
1:G:2841:MET:HE1	1:G:2904:VAL:HG13	1.89	0.55
1:G:3995:THR:OG1	1:G:3996:ILE:N	2.40	0.55
1:A:1144:ARG:NH1	1:A:1150:GLU:OE1	2.40	0.55
1:A:1932:ASP:O	1:A:1936:LYS:N	2.37	0.55
1:A:4801:ASP:N	1:A:4801:ASP:OD1	2.40	0.55
1:C:4785:VAL:O	1:C:4789:PHE:N	2.37	0.55
1:E:646:THR:HA	1:E:1630:LEU:HA	1.89	0.55
1:G:3694:ASP:OD1	1:G:3694:ASP:N	2.23	0.55
2:H:126:ILE:O	2:H:130:ASP:N	2.40	0.55
1:A:1904:LYS:HA	1:A:1907:MET:HB3	1.88	0.54
1:A:4591:TYR:OH	1:A:4717:ASP:OD2	2.25	0.54
1:C:2837:ASP:HB3	1:C:2905:SER:HA	1.89	0.54
1:E:4864:GLN:HB2	1:G:4867:ILE:CG2	2.37	0.54
1:A:334:SER:OG	1:A:335:LYS:N	2.40	0.54
1:A:620:CYS:SG	1:A:621:HIS:N	2.80	0.54
1:A:626:ARG:NH1	1:A:1667:LEU:O	2.40	0.54
1:A:982:ASP:OD1	1:A:984:SER:OG	2.24	0.54
1:A:1686:LEU:HA	1:A:1689:ILE:HD12	1.89	0.54
1:A:3775:GLN:OE1	1:A:3852:ASN:ND2	2.40	0.54
1:C:288:HIS:N	1:C:349:MET:O	2.38	0.54
1:C:334:SER:OG	1:C:335:LYS:N	2.40	0.54
1:C:1125:ASP:OD1	1:C:1597:SER:OG	2.23	0.54
1:C:1172:THR:HG22	1:C:1193:LYS:HA	1.89	0.54
1:C:1613:GLU:HB3	1:C:1618:LEU:H	1.72	0.54
1:E:309:MET:O	1:E:313:SER:N	2.40	0.54
1:E:619:VAL:HG23	1:E:624:ALA:HB2	1.88	0.54
1:E:625:VAL:O	1:E:629:GLN:NE2	2.40	0.54
1:E:681:HIS:HB3	1:E:798:ILE:HA	1.90	0.54
1:E:706:TYR:OH	1:E:1086:ARG:NH1	2.39	0.54
1:E:2275:LEU:H	1:E:2293:PRO:HD3	1.72	0.54
1:E:3639:ASP:H	1:E:3698:LYS:HZ2	1.54	0.54
1:G:606:ARG:HH12	1:G:644:LEU:HD21	1.71	0.54
1:A:651:HIS:N	1:A:1625:LEU:O	2.37	0.54
1:A:1123:GLN:HB3	1:A:1125:ASP:HB3	1.90	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:681:HIS:HB3	1:C:798:ILE:HA	1.90	0.54
1:E:1100:ARG:NH1	1:E:1167:ASP:OD1	2.40	0.54
1:E:1172:THR:HG22	1:E:1193:LYS:HA	1.89	0.54
1:E:1904:LYS:HA	1:E:1907:MET:HB3	1.88	0.54
1:E:2841:MET:HE1	1:E:2904:VAL:HG13	1.89	0.54
1:G:1035:TYR:O	1:G:1043:LYS:NZ	2.36	0.54
1:G:2422:SER:O	1:G:2426:SER:N	2.36	0.54
1:C:1919:VAL:O	1:C:1923:ILE:N	2.39	0.54
1:C:2847:GLU:O	1:C:2851:ASN:ND2	2.40	0.54
1:C:3632:THR:O	1:C:3635:HIS:NE2	2.40	0.54
2:D:25:ASP:N	2:D:25:ASP:OD1	2.39	0.54
1:E:606:ARG:HH12	1:E:644:LEU:HD21	1.71	0.54
1:E:2558:LYS:O	1:E:2562:LEU:N	2.34	0.54
1:E:3808:ALA:HA	1:E:3811:ARG:HD3	1.88	0.54
2:B:126:ILE:O	2:B:130:ASP:N	2.40	0.54
1:C:309:MET:O	1:C:313:SER:N	2.40	0.54
1:C:625:VAL:O	1:C:629:GLN:NE2	2.40	0.54
1:C:1131:ASP:N	1:C:1131:ASP:OD1	2.41	0.54
1:C:1904:LYS:HA	1:C:1907:MET:HB3	1.88	0.54
1:C:2642:SER:O	1:C:2646:PHE:N	2.39	0.54
1:E:1686:LEU:HA	1:E:1689:ILE:HD12	1.89	0.54
1:E:2315:GLU:HA	1:E:2318:ALA:HB3	1.89	0.54
1:E:3632:THR:O	1:E:3635:HIS:NE2	2.40	0.54
1:E:4889:CYS:SG	1:E:4891:ILE:N	2.79	0.54
1:G:185:SER:OG	1:G:186:VAL:N	2.40	0.54
1:G:309:MET:O	1:G:313:SER:N	2.40	0.54
1:G:334:SER:OG	1:G:335:LYS:N	2.40	0.54
1:A:3639:ASP:OD1	1:A:3698:LYS:NZ	2.41	0.54
1:A:4581:THR:HG22	1:A:4730:SER:HB3	1.88	0.54
1:A:4713:VAL:O	1:A:4716:THR:OG1	2.24	0.54
1:E:620:CYS:SG	1:E:621:HIS:N	2.80	0.54
1:E:1611:ILE:O	1:E:1620:GLN:N	2.33	0.54
1:E:1718:ARG:NH2	1:E:1758:ARG:O	2.32	0.54
1:E:1764:SER:OG	1:E:1779:SER:O	2.21	0.54
1:E:3638:GLU:OE1	1:E:3638:GLU:N	2.38	0.54
1:E:4811:LEU:HD22	1:G:4519:LEU:HB3	1.88	0.54
1:E:4926:LEU:HA	1:E:4929:LYS:HB3	1.90	0.54
1:G:115:TYR:HB3	1:G:164:PRO:HD3	1.89	0.54
1:G:260:VAL:HG21	1:G:314:LEU:HB3	1.89	0.54
1:G:288:HIS:N	1:G:349:MET:O	2.38	0.54
1:G:1131:ASP:OD1	1:G:1131:ASP:N	2.41	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1428:TYR:HD2	1:G:1508:GLY:H	1.53	0.54
1:G:2847:GLU:O	1:G:2851:ASN:ND2	2.40	0.54
1:G:2896:PHE:O	1:G:2900:ASN:ND2	2.34	0.54
1:G:4935:THR:H	1:G:4938:GLU:HB2	1.71	0.54
1:A:260:VAL:HG21	1:A:314:LEU:HB3	1.89	0.54
1:A:681:HIS:HB3	1:A:798:ILE:HA	1.90	0.54
1:A:1144:ARG:N	1:A:1150:GLU:O	2.41	0.54
1:A:1254:ARG:O	1:A:1598:ARG:NH2	2.41	0.54
1:A:1677:CYS:HA	1:A:1680:VAL:HG12	1.90	0.54
1:A:4782:TYR:OH	1:A:4847:PHE:O	2.24	0.54
1:A:4887:THR:OG1	1:A:4888:LYS:NZ	2.40	0.54
1:C:330:THR:OG1	1:C:364:GLN:OE1	2.25	0.54
1:C:3986:MET:HG3	1:C:3996:ILE:HD11	1.90	0.54
1:E:1183:LEU:HA	1:E:1189:GLU:HA	1.89	0.54
1:E:1252:SER:HB3	1:E:1598:ARG:HB3	1.89	0.54
1:E:2837:ASP:HB3	1:E:2905:SER:HA	1.89	0.54
1:E:3106:LEU:O	1:E:3110:PHE:N	2.40	0.54
1:G:625:VAL:O	1:G:629:GLN:NE2	2.40	0.54
1:G:1100:ARG:NH1	1:G:1167:ASP:OD1	2.40	0.54
1:G:1254:ARG:O	1:G:1598:ARG:NH2	2.41	0.54
1:G:1613:GLU:HB3	1:G:1618:LEU:H	1.71	0.54
2:H:25:ASP:OD1	2:H:25:ASP:N	2.39	0.54
1:A:1101:TRP:N	1:A:1166:VAL:O	2.38	0.54
1:A:1252:SER:HB3	1:A:1598:ARG:HB3	1.89	0.54
1:C:1183:LEU:HA	1:C:1189:GLU:HA	1.89	0.54
1:C:1248:THR:OG1	1:C:1602:GLN:NE2	2.40	0.54
1:C:4591:TYR:OH	1:C:4717:ASP:OD2	2.25	0.54
2:D:126:ILE:O	2:D:130:ASP:N	2.40	0.54
1:E:1720:MET:N	1:E:1720:MET:SD	2.81	0.54
1:E:3986:MET:HG3	1:E:3996:ILE:HD11	1.90	0.54
1:G:1183:LEU:HA	1:G:1189:GLU:HA	1.89	0.54
1:G:1248:THR:OG1	1:G:1602:GLN:NE2	2.40	0.54
1:G:1611:ILE:O	1:G:1620:GLN:N	2.33	0.54
1:G:3632:THR:O	1:G:3635:HIS:NE2	2.40	0.54
1:A:309:MET:O	1:A:313:SER:N	2.40	0.54
1:A:606:ARG:HH12	1:A:644:LEU:HD21	1.71	0.54
1:A:1114:ARG:NH1	1:A:1128:LEU:O	2.41	0.54
1:A:1183:LEU:HA	1:A:1189:GLU:HA	1.89	0.54
1:A:2725:TYR:O	1:A:2729:SER:N	2.41	0.54
1:A:4738:PHE:CB	1:G:4788:ASN:HD21	2.16	0.54
1:A:4864:GLN:O	1:A:4868:ILE:N	2.40	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:260:VAL:HG21	1:C:314:LEU:HB3	1.89	0.54
1:C:317:MET:HG3	1:C:321:LYS:HD3	1.89	0.54
1:C:982:ASP:OD1	1:C:984:SER:OG	2.24	0.54
1:C:2543:ALA:HA	1:C:2873:VAL:HG11	1.90	0.54
1:C:4926:LEU:HA	1:C:4929:LYS:HB3	1.90	0.54
1:E:115:TYR:HB3	1:E:164:PRO:HD3	1.89	0.54
1:E:185:SER:OG	1:E:186:VAL:N	2.40	0.54
1:E:317:MET:HG3	1:E:321:LYS:HD3	1.89	0.54
1:G:646:THR:HA	1:G:1630:LEU:HA	1.89	0.54
1:G:681:HIS:HB3	1:G:798:ILE:HA	1.90	0.54
1:G:1788:LYS:HZ1	1:G:1834:PHE:H	1.54	0.54
1:G:2421:ARG:NH2	1:G:2476:VAL:O	2.38	0.54
1:G:3936:LEU:HD21	1:G:3941:LEU:HD13	1.90	0.54
1:G:4591:TYR:OH	1:G:4717:ASP:OD2	2.25	0.54
1:A:1004:HIS:O	1:A:1008:ALA:N	2.40	0.54
1:A:1100:ARG:NH1	1:A:1167:ASP:OD1	2.40	0.54
1:A:3639:ASP:H	1:A:3698:LYS:HZ2	1.56	0.54
1:C:115:TYR:HB3	1:C:164:PRO:HD3	1.89	0.54
1:E:260:VAL:HG21	1:E:314:LEU:HB3	1.89	0.54
1:E:694:ARG:NH1	1:E:716:ASN:O	2.40	0.54
1:E:1144:ARG:NH1	1:E:1150:GLU:OE1	2.40	0.54
1:E:3854:ASP:OD2	1:E:3854:ASP:N	2.38	0.54
1:E:3902:GLN:OE1	1:E:3905:ARG:NH2	2.41	0.54
1:G:1123:GLN:HB3	1:G:1125:ASP:HB3	1.90	0.54
1:G:1260:GLN:HA	1:G:1593:HIS:HA	1.90	0.54
1:G:1530:TYR:O	1:G:1532:GLN:N	2.41	0.54
1:G:3106:LEU:O	1:G:3110:PHE:N	2.40	0.54
1:G:3639:ASP:OD1	1:G:3698:LYS:NZ	2.41	0.54
1:G:4853:PHE:O	1:G:4857:VAL:N	2.30	0.54
1:A:646:THR:HA	1:A:1630:LEU:HA	1.89	0.53
1:A:1919:VAL:O	1:A:1923:ILE:N	2.39	0.53
1:A:4804:ASP:OD1	1:A:4804:ASP:N	2.34	0.53
1:C:1100:ARG:NH1	1:C:1167:ASP:OD1	2.40	0.53
1:C:1114:ARG:NH1	1:C:1128:LEU:O	2.41	0.53
1:C:1720:MET:SD	1:C:1720:MET:N	2.81	0.53
1:C:3775:GLN:OE1	1:C:3852:ASN:ND2	2.40	0.53
1:E:559:ILE:HD13	1:E:593:HIS:HB3	1.91	0.53
1:E:1248:THR:OG1	1:E:1602:GLN:NE2	2.40	0.53
1:E:3995:THR:OG1	1:E:3996:ILE:N	2.40	0.53
1:G:996:VAL:HA	1:G:999:LEU:HB2	1.90	0.53
1:A:41:GLY:H	1:A:44:ASN:HB3	1.74	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1172:THR:HG22	1:A:1193:LYS:HA	1.89	0.53
1:A:1699:ARG:HH22	1:A:1821:LEU:HD21	1.73	0.53
1:A:1729:MET:SD	1:A:3615:HIS:ND1	2.69	0.53
1:C:646:THR:HA	1:C:1630:LEU:HA	1.89	0.53
1:E:1696:GLY:O	1:E:1700:ALA:N	2.36	0.53
1:E:1788:LYS:HZ1	1:E:1834:PHE:H	1.54	0.53
1:G:626:ARG:NH1	1:G:1667:LEU:O	2.40	0.53
1:G:1114:ARG:NH1	1:G:1128:LEU:O	2.41	0.53
1:A:1146:HIS:HB2	1:A:1192:PHE:HE1	1.73	0.53
1:C:996:VAL:HA	1:C:999:LEU:HB2	1.90	0.53
1:C:1088:PHE:N	1:C:1205:CYS:O	2.38	0.53
1:C:1444:GLY:N	1:C:1542:ALA:O	2.40	0.53
1:C:1677:CYS:HA	1:C:1680:VAL:HG12	1.90	0.53
1:C:4782:TYR:OH	1:C:4847:PHE:O	2.24	0.53
1:E:1035:TYR:O	1:E:1043:LYS:NZ	2.36	0.53
1:G:1677:CYS:HA	1:G:1680:VAL:HG12	1.90	0.53
1:A:185:SER:OG	1:A:186:VAL:N	2.40	0.53
1:A:1797:GLU:O	1:A:1801:GLU:N	2.35	0.53
1:A:3854:ASP:N	1:A:3854:ASP:OD2	2.38	0.53
1:A:4566:SER:OG	1:A:4567:GLY:N	2.42	0.53
1:C:559:ILE:HD13	1:C:593:HIS:HB3	1.91	0.53
1:C:1651:LEU:O	1:C:1655:TYR:N	2.38	0.53
1:C:3902:GLN:OE1	1:C:3905:ARG:NH2	2.41	0.53
1:E:418:VAL:O	1:E:422:THR:N	2.41	0.53
1:E:1114:ARG:NH1	1:E:1128:LEU:O	2.41	0.53
1:E:3775:GLN:OE1	1:E:3852:ASN:ND2	2.40	0.53
1:E:4591:TYR:OH	1:E:4717:ASP:OD2	2.25	0.53
1:G:1720:MET:N	1:G:1720:MET:SD	2.81	0.53
1:G:2174:GLU:O	1:G:2178:ASN:N	2.38	0.53
1:G:4713:VAL:O	1:G:4716:THR:OG1	2.24	0.53
1:G:4887:THR:OG1	1:G:4888:LYS:NZ	2.40	0.53
1:A:2421:ARG:NH2	1:A:2476:VAL:O	2.38	0.53
1:A:3936:LEU:HD21	1:A:3941:LEU:HD13	1.90	0.53
1:C:41:GLY:H	1:C:44:ASN:HB3	1.74	0.53
1:C:1136:ALA:HB3	1:C:1145:TRP:HB2	1.91	0.53
1:C:1146:HIS:HB2	1:C:1192:PHE:HE1	1.73	0.53
1:C:1252:SER:HB3	1:C:1598:ARG:HB3	1.89	0.53
1:C:1260:GLN:HA	1:C:1593:HIS:HA	1.90	0.53
1:C:1680:VAL:O	1:C:1684:GLN:NE2	2.42	0.53
1:C:1699:ARG:HH22	1:C:1821:LEU:HD21	1.73	0.53
1:E:1254:ARG:O	1:E:1598:ARG:NH2	2.41	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1444:GLY:N	1:E:1542:ALA:O	2.40	0.53
1:E:1613:GLU:HB3	1:E:1618:LEU:H	1.72	0.53
1:G:1136:ALA:HB3	1:G:1145:TRP:HB2	1.91	0.53
1:G:1651:LEU:O	1:G:1655:TYR:N	2.38	0.53
1:G:2275:LEU:H	1:G:2293:PRO:HD3	1.72	0.53
1:G:3986:MET:HG3	1:G:3996:ILE:HD11	1.90	0.53
1:A:15:ARG:HG2	1:A:110:HIS:HB3	1.91	0.53
1:A:4926:LEU:HA	1:A:4929:LYS:HB3	1.90	0.53
1:C:626:ARG:NH1	1:C:1667:LEU:O	2.40	0.53
1:C:1254:ARG:O	1:C:1598:ARG:NH2	2.41	0.53
1:C:1654:HIS:O	1:C:1657:THR:OG1	2.22	0.53
1:C:1827:THR:HA	1:C:1830:ILE:HD12	1.91	0.53
1:C:2984:LEU:HA	1:C:2987:ALA:HB3	1.91	0.53
1:E:1123:GLN:HB3	1:E:1125:ASP:HB3	1.90	0.53
1:E:1530:TYR:O	1:E:1532:GLN:N	2.41	0.53
1:E:2543:ALA:HA	1:E:2873:VAL:HG11	1.90	0.53
1:E:2725:TYR:HE2	1:E:2776:ILE:HG21	1.74	0.53
1:E:3936:LEU:HD21	1:E:3941:LEU:HD13	1.90	0.53
2:F:126:ILE:O	2:F:130:ASP:N	2.40	0.53
1:G:2076:ILE:H	1:G:3667:GLN:HE22	1.57	0.53
1:G:2725:TYR:HE2	1:G:2776:ILE:HG21	1.73	0.53
1:A:1131:ASP:N	1:A:1131:ASP:OD1	2.41	0.53
1:A:1944:ARG:HA	1:A:1947:GLU:HG2	1.91	0.53
1:A:2174:GLU:O	1:A:2178:ASN:N	2.38	0.53
1:A:2837:ASP:HB3	1:A:2905:SER:HA	1.89	0.53
1:A:3986:MET:HG3	1:A:3996:ILE:HD11	1.90	0.53
1:C:3639:ASP:OD1	1:C:3698:LYS:NZ	2.41	0.53
1:C:3936:LEU:HD21	1:C:3941:LEU:HD13	1.90	0.53
1:E:115:TYR:OH	1:E:179:ASP:OD2	2.27	0.53
1:E:651:HIS:N	1:E:1625:LEU:O	2.37	0.53
1:E:996:VAL:HA	1:E:999:LEU:HB2	1.90	0.53
1:E:3639:ASP:OD1	1:E:3698:LYS:NZ	2.41	0.53
1:G:15:ARG:HG2	1:G:110:HIS:HB3	1.91	0.53
1:G:41:GLY:H	1:G:44:ASN:HB3	1.74	0.53
1:G:115:TYR:OH	1:G:179:ASP:OD2	2.27	0.53
1:G:1101:TRP:N	1:G:1166:VAL:O	2.38	0.53
1:A:559:ILE:HD13	1:A:593:HIS:HB3	1.91	0.53
1:A:1530:TYR:O	1:A:1532:GLN:N	2.41	0.53
1:A:2725:TYR:HE2	1:A:2776:ILE:HG21	1.74	0.53
1:C:1089:ARG:NH1	1:C:1120:PRO:O	2.42	0.53
1:E:1004:HIS:O	1:E:1008:ALA:N	2.40	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1089:ARG:NH1	1:E:1120:PRO:O	2.42	0.53
1:E:1654:HIS:O	1:E:1657:THR:OG1	2.22	0.53
1:E:2642:SER:O	1:E:2646:PHE:N	2.39	0.53
1:E:4853:PHE:O	1:E:4857:VAL:N	2.30	0.53
1:G:1620:GLN:HG2	1:G:1622:LEU:HG	1.91	0.53
1:G:1680:VAL:O	1:G:1684:GLN:NE2	2.42	0.53
1:G:2837:ASP:HB3	1:G:2905:SER:HA	1.89	0.53
1:G:4801:ASP:N	1:G:4801:ASP:OD1	2.40	0.53
1:A:115:TYR:OH	1:A:179:ASP:OD2	2.27	0.53
1:A:418:VAL:O	1:A:422:THR:N	2.41	0.53
1:A:1720:MET:N	1:A:1720:MET:SD	2.81	0.53
1:A:2546:ILE:O	1:A:2550:LEU:N	2.41	0.53
1:C:115:TYR:OH	1:C:179:ASP:OD2	2.27	0.53
1:C:418:VAL:O	1:C:422:THR:N	2.41	0.53
1:C:771:ASN:O	1:C:773:GLN:NE2	2.42	0.53
1:C:2315:GLU:HA	1:C:2318:ALA:HB3	1.89	0.53
1:E:917:CYS:HB2	1:E:928:GLU:HB3	1.91	0.53
1:E:1136:ALA:HB3	1:E:1145:TRP:HB2	1.91	0.53
1:E:1260:GLN:HA	1:E:1593:HIS:HA	1.90	0.53
1:E:1445:TRP:HA	1:E:1541:PRO:HA	1.91	0.53
1:E:2264:GLU:OE2	1:E:2268:ARG:NE	2.42	0.53
1:G:417:ARG:O	1:G:421:SER:OG	2.25	0.53
1:G:4926:LEU:HA	1:G:4929:LYS:HB3	1.90	0.53
1:G:4960:ARG:HD2	1:G:4963:TYR:HB2	1.91	0.53
1:A:771:ASN:O	1:A:773:GLN:NE2	2.42	0.53
1:A:1043:LYS:O	1:A:1047:LYS:N	2.36	0.53
1:A:1445:TRP:HA	1:A:1541:PRO:HA	1.91	0.53
1:C:4887:THR:OG1	1:C:4888:LYS:NZ	2.40	0.53
1:E:364:GLN:NE2	1:E:365:HIS:O	2.42	0.53
1:E:1088:PHE:N	1:E:1205:CYS:O	2.38	0.53
1:E:1131:ASP:OD1	1:E:1131:ASP:N	2.41	0.53
1:E:1620:GLN:HG2	1:E:1622:LEU:HG	1.91	0.53
1:E:1680:VAL:O	1:E:1684:GLN:NE2	2.42	0.53
1:G:332:ARG:HD2	1:G:371:TRP:HH2	1.74	0.53
1:G:620:CYS:SG	1:G:621:HIS:N	2.80	0.53
1:G:721:ASP:OD1	1:G:721:ASP:N	2.35	0.53
1:G:771:ASN:O	1:G:773:GLN:NE2	2.42	0.53
1:G:917:CYS:HB2	1:G:928:GLU:HB3	1.91	0.53
1:G:2984:LEU:HA	1:G:2987:ALA:HB3	1.91	0.53
1:G:4601:PHE:O	1:G:4605:LYS:N	2.37	0.53
1:A:1089:ARG:NH1	1:A:1120:PRO:O	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1827:THR:HA	1:A:1830:ILE:HD12	1.91	0.52
1:A:2543:ALA:HA	1:A:2873:VAL:HG11	1.90	0.52
1:A:3106:LEU:O	1:A:3110:PHE:N	2.40	0.52
1:C:562:LEU:HA	1:C:571:ILE:HG21	1.91	0.52
1:C:1686:LEU:HA	1:C:1689:ILE:HD12	1.89	0.52
1:C:2546:ILE:O	1:C:2550:LEU:N	2.41	0.52
1:C:4960:ARG:HD2	1:C:4963:TYR:HB2	1.91	0.52
1:E:41:GLY:H	1:E:44:ASN:HB3	1.74	0.52
1:E:288:HIS:N	1:E:349:MET:O	2.38	0.52
1:E:1144:ARG:N	1:E:1150:GLU:O	2.41	0.52
1:E:2076:ILE:H	1:E:3667:GLN:HE22	1.57	0.52
1:E:2725:TYR:O	1:E:2729:SER:N	2.41	0.52
1:E:4566:SER:OG	1:E:4567:GLY:N	2.42	0.52
1:G:847:THR:OG1	1:G:1216:ASN:OD1	2.22	0.52
1:G:1089:ARG:NH1	1:G:1120:PRO:O	2.42	0.52
1:G:1944:ARG:HA	1:G:1947:GLU:HG2	1.91	0.52
1:G:1953:ASN:O	1:G:1986:GLU:N	2.42	0.52
1:G:2725:TYR:O	1:G:2729:SER:N	2.41	0.52
1:G:3809:PHE:O	1:G:3812:GLN:NE2	2.33	0.52
1:A:1680:VAL:O	1:A:1684:GLN:NE2	2.42	0.52
1:A:1839:LEU:HA	1:A:1842:ILE:HB	1.91	0.52
1:A:2264:GLU:OE2	1:A:2268:ARG:NE	2.42	0.52
1:C:15:ARG:HG2	1:C:110:HIS:HB3	1.91	0.52
1:C:1156:TRP:HE3	1:C:1160:ASP:HB2	1.75	0.52
1:C:1944:ARG:HA	1:C:1947:GLU:HG2	1.91	0.52
1:C:2264:GLU:OE2	1:C:2268:ARG:NE	2.42	0.52
1:C:4812:THR:O	1:C:4816:PHE:N	2.39	0.52
1:E:1146:HIS:HB2	1:E:1192:PHE:HE1	1.73	0.52
1:E:3137:SER:O	1:E:3141:LEU:N	2.42	0.52
1:E:4588:ILE:O	1:E:4592:TYR:N	2.43	0.52
1:G:1146:HIS:HB2	1:G:1192:PHE:HE1	1.73	0.52
1:G:1156:TRP:HE3	1:G:1160:ASP:HB2	1.75	0.52
1:G:2079:PRO:O	1:G:2083:ARG:N	2.35	0.52
1:A:332:ARG:HD2	1:A:371:TRP:HH2	1.74	0.52
1:A:886:ALA:O	1:A:890:HIS:N	2.37	0.52
1:A:1156:TRP:HE3	1:A:1160:ASP:HB2	1.75	0.52
1:A:4519:LEU:HD22	1:G:4811:LEU:HD11	1.90	0.52
1:A:4522:LYS:C	1:G:4809:ASP:O	2.47	0.52
1:C:1445:TRP:HA	1:C:1541:PRO:HA	1.91	0.52
1:C:2725:TYR:HE2	1:C:2776:ILE:HG21	1.74	0.52
1:E:268:SER:O	1:E:273:SER:OG	2.27	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:886:ALA:O	1:E:890:HIS:N	2.37	0.52
1:E:1156:TRP:HE3	1:E:1160:ASP:HB2	1.75	0.52
1:G:54:ASN:HD21	1:G:57:ASN:HB2	1.74	0.52
1:G:559:ILE:HD13	1:G:593:HIS:HB3	1.91	0.52
1:A:489:PHE:O	1:A:493:GLY:N	2.43	0.52
1:A:1138:ASP:HB2	1:A:1145:TRP:HE1	1.75	0.52
1:A:1260:GLN:HA	1:A:1593:HIS:HA	1.90	0.52
1:A:1288:LYS:NZ	1:A:1556:GLU:O	2.43	0.52
1:C:54:ASN:HD21	1:C:57:ASN:HB2	1.74	0.52
1:C:364:GLN:NE2	1:C:365:HIS:O	2.42	0.52
1:E:332:ARG:HD2	1:E:371:TRP:HH2	1.74	0.52
1:E:1014:GLN:O	1:E:1027:ARG:N	2.43	0.52
1:E:1699:ARG:HH22	1:E:1821:LEU:HD21	1.73	0.52
1:E:1944:ARG:HA	1:E:1947:GLU:HG2	1.91	0.52
1:G:886:ALA:O	1:G:890:HIS:N	2.37	0.52
1:G:1699:ARG:HH22	1:G:1821:LEU:HD21	1.73	0.52
1:G:1827:THR:HA	1:G:1830:ILE:HD12	1.91	0.52
1:G:4566:SER:OG	1:G:4567:GLY:N	2.42	0.52
1:A:364:GLN:NE2	1:A:365:HIS:O	2.42	0.52
1:A:3902:GLN:OE1	1:A:3905:ARG:NH2	2.41	0.52
1:C:268:SER:O	1:C:273:SER:OG	2.27	0.52
1:C:1014:GLN:O	1:C:1027:ARG:N	2.43	0.52
1:C:1155:SER:O	1:C:1157:GLN:NE2	2.35	0.52
1:C:1522:ALA:N	1:C:1525:LYS:O	2.43	0.52
1:C:3790:PHE:O	1:C:3793:SER:OG	2.22	0.52
1:C:4566:SER:OG	1:C:4567:GLY:N	2.42	0.52
1:C:4617:TYR:OH	1:C:4629:GLY:O	2.28	0.52
1:C:4713:VAL:O	1:C:4716:THR:OG1	2.24	0.52
1:E:15:ARG:HG2	1:E:110:HIS:HB3	1.91	0.52
1:E:54:ASN:HD21	1:E:57:ASN:HB2	1.74	0.52
1:E:2984:LEU:HA	1:E:2987:ALA:HB3	1.91	0.52
1:G:694:ARG:NH1	1:G:716:ASN:O	2.40	0.52
1:G:1522:ALA:N	1:G:1525:LYS:O	2.43	0.52
1:G:2644:LYS:O	1:G:2648:GLY:N	2.42	0.52
1:G:3137:SER:O	1:G:3141:LEU:N	2.42	0.52
1:G:4864:GLN:O	1:G:4868:ILE:N	2.40	0.52
1:A:54:ASN:HD21	1:A:57:ASN:HB2	1.74	0.52
1:A:1086:ARG:HH12	1:A:1254:ARG:HG2	1.75	0.52
1:A:1136:ALA:HB3	1:A:1145:TRP:HB2	1.91	0.52
1:A:1620:GLN:HG2	1:A:1622:LEU:HG	1.91	0.52
1:A:1680:VAL:HG22	1:A:1685:LEU:HD11	1.92	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2399:LEU:HA	1:A:2402:ARG:HB2	1.92	0.52
1:C:1057:LEU:O	1:C:1062:TYR:N	2.43	0.52
1:C:1756:SER:HB2	1:C:1920:ARG:HH21	1.74	0.52
1:C:1997:LEU:HA	1:C:3605:ARG:HH12	1.75	0.52
1:C:3809:PHE:O	1:C:3812:GLN:NE2	2.33	0.52
1:E:602:ASP:O	1:E:1576:LYS:NZ	2.33	0.52
1:E:1677:CYS:HA	1:E:1680:VAL:HG12	1.90	0.52
1:G:364:GLN:NE2	1:G:365:HIS:O	2.42	0.52
1:G:2543:ALA:HA	1:G:2873:VAL:HG11	1.90	0.52
1:A:562:LEU:HA	1:A:571:ILE:HG21	1.91	0.52
1:A:2076:ILE:H	1:A:3667:GLN:HE22	1.57	0.52
1:A:2562:LEU:O	1:A:2566:GLN:N	2.43	0.52
1:A:2644:LYS:O	1:A:2648:GLY:N	2.42	0.52
1:A:3605:ARG:HG3	1:A:3608:PRO:HB2	1.92	0.52
1:A:4156:SER:O	1:A:4159:THR:OG1	2.22	0.52
1:C:185:SER:OG	1:C:186:VAL:N	2.40	0.52
1:C:626:ARG:O	1:C:630:HIS:N	2.34	0.52
1:C:1123:GLN:HB3	1:C:1125:ASP:HB3	1.90	0.52
1:C:1288:LYS:NZ	1:C:1556:GLU:O	2.43	0.52
1:C:2114:VAL:O	1:C:2117:THR:OG1	2.25	0.52
1:C:4156:SER:O	1:C:4159:THR:OG1	2.22	0.52
1:E:489:PHE:O	1:E:493:GLY:N	2.43	0.52
1:E:771:ASN:O	1:E:773:GLN:NE2	2.42	0.52
1:E:1839:LEU:HA	1:E:1842:ILE:HB	1.91	0.52
1:E:1953:ASN:O	1:E:1986:GLU:N	2.42	0.52
1:E:1997:LEU:HA	1:E:3605:ARG:HH12	1.75	0.52
1:E:2195:ALA:HA	1:E:2198:CYS:HB3	1.91	0.52
1:E:3990:ASN:HD21	1:E:3996:ILE:HG23	1.75	0.52
1:E:4667:ILE:O	1:E:4671:LEU:N	2.43	0.52
1:G:425:LEU:HA	1:G:428:ARG:HD2	1.92	0.52
1:G:489:PHE:O	1:G:493:GLY:N	2.43	0.52
1:G:1014:GLN:O	1:G:1027:ARG:N	2.43	0.52
1:G:1288:LYS:NZ	1:G:1556:GLU:O	2.43	0.52
1:G:1444:GLY:N	1:G:1542:ALA:O	2.40	0.52
1:G:1839:LEU:HA	1:G:1842:ILE:HB	1.91	0.52
1:G:1919:VAL:O	1:G:1923:ILE:N	2.39	0.52
1:G:2844:MET:O	1:G:2848:ASN:N	2.42	0.52
1:G:3605:ARG:HG3	1:G:3608:PRO:HB2	1.92	0.52
1:A:626:ARG:O	1:A:630:HIS:N	2.34	0.52
1:A:917:CYS:HB2	1:A:928:GLU:HB3	1.92	0.52
1:A:996:VAL:HA	1:A:999:LEU:HB2	1.90	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4820:VAL:O	1:A:4824:ALA:N	2.43	0.52
1:C:2421:ARG:HA	1:C:2424:LEU:HD12	1.92	0.52
1:C:3106:LEU:O	1:C:3110:PHE:N	2.40	0.52
1:E:1827:THR:HA	1:E:1830:ILE:HD12	1.91	0.52
1:E:2546:ILE:O	1:E:2550:LEU:N	2.41	0.52
1:E:4782:TYR:OH	1:E:4847:PHE:O	2.24	0.52
1:G:1680:VAL:HG22	1:G:1685:LEU:HD11	1.92	0.52
1:G:2195:ALA:HA	1:G:2198:CYS:HB3	1.91	0.52
1:A:27:THR:OG1	1:A:32:GLN:NE2	2.43	0.52
1:A:4616:LEU:HB2	1:A:4620:GLU:HB3	1.92	0.52
1:C:917:CYS:HB2	1:C:928:GLU:HB3	1.92	0.52
1:C:1620:GLN:HG2	1:C:1622:LEU:HG	1.91	0.52
1:C:1764:SER:OG	1:C:1779:SER:O	2.21	0.52
1:C:3137:SER:O	1:C:3141:LEU:N	2.42	0.52
1:E:170:SER:OG	1:E:171:GLU:N	2.43	0.52
1:E:1101:TRP:N	1:E:1166:VAL:O	2.38	0.52
1:E:1707:ILE:HG23	1:E:1711:LEU:HB2	1.91	0.52
1:G:268:SER:O	1:G:273:SER:OG	2.27	0.52
1:G:373:THR:HG21	1:G:397:GLY:HA3	1.92	0.52
1:G:462:TYR:O	1:G:485:ARG:NH1	2.43	0.52
1:G:1707:ILE:HG23	1:G:1711:LEU:HB2	1.91	0.52
1:G:2264:GLU:OE2	1:G:2268:ARG:NE	2.42	0.52
1:G:4500:PHE:O	1:G:4504:ARG:N	2.39	0.52
1:A:268:SER:O	1:A:273:SER:OG	2.27	0.52
1:A:425:LEU:HA	1:A:428:ARG:HD2	1.92	0.52
1:A:3137:SER:O	1:A:3141:LEU:N	2.42	0.52
1:A:3632:THR:O	1:A:3635:HIS:NE2	2.40	0.52
2:B:13:PHE:O	2:B:17:PHE:N	2.43	0.52
1:C:27:THR:OG1	1:C:32:GLN:NE2	2.43	0.52
1:C:1004:HIS:O	1:C:1008:ALA:N	2.40	0.52
1:C:1035:TYR:O	1:C:1043:LYS:NZ	2.36	0.52
1:C:2399:LEU:HA	1:C:2402:ARG:HB2	1.92	0.52
1:E:27:THR:OG1	1:E:32:GLN:NE2	2.43	0.52
1:E:607:ASN:HB3	1:E:610:VAL:HG22	1.92	0.52
1:E:2562:LEU:O	1:E:2566:GLN:N	2.43	0.52
1:E:3605:ARG:HG3	1:E:3608:PRO:HB2	1.92	0.52
1:E:4667:ILE:HA	1:E:4670:LEU:HB3	1.92	0.52
1:G:1445:TRP:HA	1:G:1541:PRO:HA	1.91	0.52
1:G:1764:SER:OG	1:G:1779:SER:O	2.21	0.52
1:G:2399:LEU:HA	1:G:2402:ARG:HB2	1.92	0.52
1:G:4653:LYS:O	1:G:4657:LYS:N	2.42	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:656:ARG:HG2	1:A:837:SER:HA	1.91	0.51
1:A:2326:ILE:CD1	1:G:207:PHE:HE1	2.24	0.51
1:A:2639:LEU:O	1:A:2643:ARG:N	2.41	0.51
1:A:3995:THR:OG1	1:A:3996:ILE:N	2.40	0.51
1:C:170:SER:OG	1:C:171:GLU:N	2.43	0.51
1:C:462:TYR:O	1:C:485:ARG:NH1	2.43	0.51
1:C:1839:LEU:HA	1:C:1842:ILE:HB	1.91	0.51
1:C:2079:PRO:O	1:C:2083:ARG:N	2.35	0.51
1:C:4899:PHE:HB2	1:C:4906:PHE:HD1	1.75	0.51
1:E:462:TYR:O	1:E:485:ARG:NH1	2.43	0.51
1:E:656:ARG:HG2	1:E:837:SER:HA	1.91	0.51
1:E:1086:ARG:HH12	1:E:1254:ARG:HG2	1.75	0.51
1:G:418:VAL:O	1:G:422:THR:N	2.41	0.51
1:G:1086:ARG:HH12	1:G:1254:ARG:HG2	1.75	0.51
1:G:2061:GLN:O	1:G:2064:SER:OG	2.26	0.51
1:G:3639:ASP:H	1:G:3698:LYS:HZ2	1.56	0.51
1:A:1088:PHE:N	1:A:1205:CYS:O	2.38	0.51
1:A:1522:ALA:N	1:A:1525:LYS:O	2.43	0.51
1:A:4960:ARG:HD2	1:A:4963:TYR:HB2	1.91	0.51
1:C:1086:ARG:HH12	1:C:1254:ARG:HG2	1.75	0.51
1:C:1707:ILE:HG23	1:C:1711:LEU:HB2	1.91	0.51
1:C:2076:ILE:H	1:C:3667:GLN:HE22	1.57	0.51
1:C:2195:ALA:HA	1:C:2198:CYS:HB3	1.91	0.51
1:C:2644:LYS:O	1:C:2648:GLY:N	2.42	0.51
1:C:2765:SER:OG	1:C:2766:GLU:N	2.44	0.51
1:C:4783:THR:HG21	1:C:4814:TYR:HB2	1.93	0.51
1:E:373:THR:HG21	1:E:397:GLY:HA3	1.92	0.51
1:E:1522:ALA:N	1:E:1525:LYS:O	2.43	0.51
1:E:4653:LYS:O	1:E:4657:LYS:N	2.42	0.51
1:G:651:HIS:N	1:G:1625:LEU:O	2.37	0.51
1:G:2250:ASP:OD2	1:G:2250:ASP:N	2.43	0.51
1:G:3990:ASN:HD21	1:G:3996:ILE:HG23	1.75	0.51
1:A:1444:GLY:N	1:A:1542:ALA:O	2.40	0.51
1:A:1953:ASN:O	1:A:1986:GLU:N	2.42	0.51
1:A:2195:ALA:HA	1:A:2198:CYS:HB3	1.91	0.51
1:A:2250:ASP:OD2	1:A:2250:ASP:N	2.43	0.51
1:A:4588:ILE:O	1:A:4592:TYR:N	2.43	0.51
1:A:4809:ASP:O	1:C:4522:LYS:C	2.49	0.51
1:C:332:ARG:HD2	1:C:371:TRP:HH2	1.74	0.51
1:C:1256:PRO:O	1:C:1451:HIS:ND1	2.39	0.51
1:C:1611:ILE:O	1:C:1620:GLN:N	2.33	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2725:TYR:O	1:C:2729:SER:N	2.41	0.51
2:D:31:LYS:O	2:D:31:LYS:NZ	2.43	0.51
1:E:562:LEU:HA	1:E:571:ILE:HG21	1.91	0.51
1:E:812:LYS:HD2	1:E:813:PHE:HB3	1.92	0.51
1:E:1138:ASP:HB2	1:E:1145:TRP:HE1	1.75	0.51
1:E:1288:LYS:NZ	1:E:1556:GLU:O	2.43	0.51
1:E:4820:VAL:O	1:E:4824:ALA:N	2.43	0.51
1:E:4960:ARG:HD2	1:E:4963:TYR:HB2	1.91	0.51
1:G:1004:HIS:O	1:G:1008:ALA:N	2.40	0.51
1:G:1756:SER:HB2	1:G:1920:ARG:HH21	1.74	0.51
2:H:13:PHE:O	2:H:17:PHE:N	2.43	0.51
1:A:812:LYS:HD2	1:A:813:PHE:HB3	1.92	0.51
1:A:2114:VAL:O	1:A:2117:THR:OG1	2.25	0.51
1:C:1953:ASN:O	1:C:1986:GLU:N	2.42	0.51
1:C:2148:GLY:O	1:C:2152:ASN:N	2.40	0.51
1:C:3605:ARG:HG3	1:C:3608:PRO:HB2	1.92	0.51
1:C:4590:GLY:O	1:C:4594:LEU:N	2.44	0.51
1:E:525:SER:HG	1:E:528:SER:HG	1.57	0.51
1:E:1057:LEU:O	1:E:1062:TYR:N	2.43	0.51
1:E:2644:LYS:O	1:E:2648:GLY:N	2.42	0.51
1:E:3809:PHE:O	1:E:3812:GLN:NE2	2.33	0.51
1:E:4718:ASN:O	1:E:4722:TYR:N	2.39	0.51
1:E:4783:THR:HG21	1:E:4814:TYR:HB2	1.93	0.51
2:F:31:LYS:O	2:F:31:LYS:NZ	2.43	0.51
1:G:2765:SER:OG	1:G:2766:GLU:N	2.43	0.51
1:G:4090:GLU:O	1:G:4092:ALA:N	2.44	0.51
1:G:4667:ILE:O	1:G:4671:LEU:N	2.43	0.51
1:G:4820:VAL:O	1:G:4824:ALA:N	2.43	0.51
1:A:590:LYS:H	1:A:593:HIS:CD2	2.29	0.51
1:A:1057:LEU:O	1:A:1062:TYR:N	2.43	0.51
1:A:4853:PHE:O	1:A:4857:VAL:N	2.30	0.51
1:A:4889:CYS:SG	1:A:4891:ILE:N	2.79	0.51
1:C:1007:TRP:O	1:C:1011:ARG:N	2.35	0.51
1:C:1530:TYR:O	1:C:1532:GLN:N	2.41	0.51
1:C:1991:GLU:O	1:C:1995:ASP:N	2.43	0.51
1:C:4090:GLU:O	1:C:4092:ALA:N	2.44	0.51
1:C:4115:ARG:O	1:C:4118:THR:OG1	2.21	0.51
1:C:4588:ILE:O	1:C:4592:TYR:N	2.43	0.51
1:C:4796:LYS:NZ	1:C:4806:LYS:O	2.43	0.51
1:C:4809:ASP:O	1:E:4522:LYS:C	2.48	0.51
1:E:2114:VAL:O	1:E:2117:THR:OG1	2.25	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2399:LEU:HA	1:E:2402:ARG:HB2	1.92	0.51
1:G:27:THR:OG1	1:G:32:GLN:NE2	2.43	0.51
1:G:607:ASN:HB3	1:G:610:VAL:HG22	1.92	0.51
1:G:4590:GLY:O	1:G:4594:LEU:N	2.44	0.51
1:G:4889:CYS:SG	1:G:4891:ILE:N	2.79	0.51
1:A:288:HIS:N	1:A:349:MET:O	2.38	0.51
1:A:462:TYR:O	1:A:485:ARG:NH1	2.43	0.51
1:A:1707:ILE:HG23	1:A:1711:LEU:HB2	1.91	0.51
1:A:1991:GLU:O	1:A:1995:ASP:N	2.43	0.51
1:A:2421:ARG:HA	1:A:2424:LEU:HD12	1.92	0.51
1:A:2984:LEU:HA	1:A:2987:ALA:HB3	1.91	0.51
1:A:4783:THR:HG21	1:A:4814:TYR:HB2	1.93	0.51
1:C:489:PHE:O	1:C:493:GLY:N	2.43	0.51
1:C:3639:ASP:H	1:C:3698:LYS:HZ2	1.57	0.51
1:C:3919:ASN:O	1:C:3922:THR:OG1	2.28	0.51
1:E:417:ARG:O	1:E:421:SER:OG	2.25	0.51
1:E:1756:SER:HB2	1:E:1920:ARG:HH21	1.74	0.51
1:E:4616:LEU:HB2	1:E:4620:GLU:HB3	1.92	0.51
1:E:4860:LEU:HB2	1:G:4867:ILE:CD1	2.41	0.51
1:G:1057:LEU:O	1:G:1062:TYR:N	2.43	0.51
1:G:1144:ARG:NH1	1:G:1150:GLU:OE1	2.40	0.51
1:G:1991:GLU:O	1:G:1995:ASP:N	2.43	0.51
1:G:4783:THR:HG21	1:G:4814:TYR:HB2	1.93	0.51
1:A:1056:THR:O	1:A:1060:TYR:N	2.41	0.51
1:A:4090:GLU:O	1:A:4092:ALA:N	2.44	0.51
2:B:31:LYS:NZ	2:B:31:LYS:O	2.43	0.51
1:C:607:ASN:HB3	1:C:610:VAL:HG22	1.92	0.51
1:C:656:ARG:HG2	1:C:837:SER:HA	1.91	0.51
1:C:1101:TRP:N	1:C:1166:VAL:O	2.38	0.51
1:C:1680:VAL:HG22	1:C:1685:LEU:HD11	1.92	0.51
1:E:1680:VAL:HG22	1:E:1685:LEU:HD11	1.92	0.51
1:E:1991:GLU:O	1:E:1995:ASP:N	2.43	0.51
1:E:3012:LEU:O	1:E:3016:VAL:N	2.44	0.51
1:G:812:LYS:HD2	1:G:813:PHE:HB3	1.92	0.51
1:G:4617:TYR:OH	1:G:4629:GLY:O	2.28	0.51
1:A:330:THR:OG1	1:A:364:GLN:OE1	2.25	0.51
1:A:1210:ALA:N	1:A:1211:GLN:OE1	2.44	0.51
1:A:1756:SER:HB2	1:A:1920:ARG:HH21	1.74	0.51
1:A:4617:TYR:OH	1:A:4629:GLY:O	2.28	0.51
1:A:4867:ILE:CD1	1:G:4860:LEU:HB2	2.41	0.51
2:B:25:ASP:OD1	2:B:25:ASP:N	2.39	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:207:PHE:HE1	1:E:2326:ILE:CD1	2.24	0.51
1:C:277:LEU:HD11	1:C:295:PHE:HB3	1.93	0.51
1:C:812:LYS:HD2	1:C:813:PHE:HB3	1.92	0.51
1:C:2876:ASP:OD1	1:C:2876:ASP:N	2.33	0.51
1:C:4667:ILE:HA	1:C:4670:LEU:HB3	1.92	0.51
1:C:4820:VAL:O	1:C:4824:ALA:N	2.43	0.51
1:G:1138:ASP:HB2	1:G:1145:TRP:HE1	1.75	0.51
1:G:1654:HIS:O	1:G:1657:THR:OG1	2.22	0.51
1:G:2421:ARG:HA	1:G:2424:LEU:HD12	1.92	0.51
1:G:2728:HIS:NE2	1:G:2829:MET:SD	2.77	0.51
1:G:3037:LEU:O	1:G:3041:LEU:N	2.41	0.51
1:G:3902:GLN:OE1	1:G:3905:ARG:NH2	2.41	0.51
2:H:31:LYS:O	2:H:31:LYS:NZ	2.43	0.51
1:A:309:MET:HG2	1:A:312:LYS:H	1.76	0.51
1:A:694:ARG:NH1	1:A:716:ASN:O	2.40	0.51
1:A:1997:LEU:HA	1:A:3605:ARG:HH12	1.75	0.51
1:A:2844:MET:O	1:A:2848:ASN:N	2.42	0.51
1:A:3917:VAL:O	1:A:3920:THR:OG1	2.23	0.51
1:A:3990:ASN:HD21	1:A:3996:ILE:HG23	1.75	0.51
1:C:425:LEU:HA	1:C:428:ARG:HD2	1.92	0.51
1:C:1144:ARG:N	1:C:1150:GLU:O	2.41	0.51
1:C:2061:GLN:O	1:C:2064:SER:OG	2.26	0.51
1:E:591:GLU:OE2	1:E:635:ASN:ND2	2.44	0.51
1:E:2148:GLY:O	1:E:2152:ASN:N	2.40	0.51
1:E:4617:TYR:OH	1:E:4629:GLY:O	2.28	0.51
1:E:4899:PHE:HB2	1:E:4906:PHE:HD1	1.75	0.51
1:G:562:LEU:HA	1:G:571:ILE:HG21	1.91	0.51
1:G:656:ARG:HG2	1:G:837:SER:HA	1.91	0.51
1:G:4616:LEU:HB2	1:G:4620:GLU:HB3	1.92	0.51
1:A:207:PHE:HE1	1:C:2326:ILE:CD1	2.24	0.51
1:A:373:THR:HG21	1:A:397:GLY:HA3	1.92	0.51
1:A:833:LYS:HG2	1:A:1614:ARG:HH12	1.76	0.51
1:A:2148:GLY:O	1:A:2152:ASN:N	2.40	0.51
1:A:4650:VAL:HA	1:A:4653:LYS:HB2	1.93	0.51
1:A:4860:LEU:HB2	1:C:4867:ILE:CD1	2.41	0.51
1:C:2250:ASP:N	1:C:2250:ASP:OD2	2.43	0.51
1:C:2409:LEU:O	1:C:2413:ALA:N	2.43	0.51
1:C:2844:MET:O	1:C:2848:ASN:N	2.42	0.51
1:C:4616:LEU:HB2	1:C:4620:GLU:HB3	1.92	0.51
1:C:4860:LEU:HB2	1:E:4867:ILE:CD1	2.41	0.51
1:E:1003:ALA:O	1:E:1007:TRP:N	2.36	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2844:MET:O	1:E:2848:ASN:N	2.42	0.51
1:E:4115:ARG:O	1:E:4118:THR:OG1	2.21	0.51
1:G:590:LYS:H	1:G:593:HIS:CD2	2.29	0.51
1:G:591:GLU:OE2	1:G:635:ASN:ND2	2.44	0.51
1:G:1997:LEU:HA	1:G:3605:ARG:HH12	1.75	0.51
1:G:4667:ILE:HA	1:G:4670:LEU:HB3	1.92	0.51
1:A:937:LEU:O	1:A:941:LYS:N	2.44	0.50
1:A:1645:THR:OG1	1:A:1646:GLU:OE1	2.29	0.50
1:A:3851:HIS:HA	1:A:3856:GLN:HE22	1.76	0.50
1:C:373:THR:HG21	1:C:397:GLY:HA3	1.92	0.50
1:C:833:LYS:HG2	1:C:1614:ARG:HH12	1.76	0.50
1:C:2562:LEU:O	1:C:2566:GLN:N	2.43	0.50
1:C:3990:ASN:HD21	1:C:3996:ILE:HG23	1.75	0.50
1:E:288:HIS:ND1	1:E:349:MET:O	2.44	0.50
1:E:626:ARG:HA	1:E:629:GLN:HG2	1.93	0.50
1:E:833:LYS:HG2	1:E:1614:ARG:HH12	1.76	0.50
1:E:2765:SER:OG	1:E:2766:GLU:N	2.44	0.50
1:G:170:SER:OG	1:G:171:GLU:N	2.43	0.50
1:G:833:LYS:HG2	1:G:1614:ARG:HH12	1.76	0.50
1:A:1014:GLN:O	1:A:1027:ARG:N	2.43	0.50
1:A:1048:ASP:HA	1:A:1051:ARG:HD2	1.92	0.50
1:A:1716:THR:HA	1:A:1719:LEU:HD12	1.94	0.50
1:A:4838:ASP:OD1	1:A:4839:GLU:N	2.45	0.50
1:A:4863:ILE:HD11	1:G:4860:LEU:HD13	1.90	0.50
1:C:1118:SER:O	1:C:1202:ILE:N	2.38	0.50
1:C:1645:THR:OG1	1:C:1646:GLU:OE1	2.29	0.50
1:C:3037:LEU:O	1:C:3041:LEU:N	2.41	0.50
1:C:4064:THR:O	1:C:4068:LEU:N	2.40	0.50
1:C:4838:ASP:OD1	1:C:4839:GLU:N	2.45	0.50
1:E:805:GLY:H	1:E:810:GLU:HB2	1.77	0.50
1:E:2250:ASP:OD2	1:E:2250:ASP:N	2.43	0.50
1:E:2267:VAL:O	1:E:2271:ALA:N	2.45	0.50
1:E:2421:ARG:HA	1:E:2424:LEU:HD12	1.92	0.50
1:E:2432:ASP:OD1	1:E:2432:ASP:N	2.43	0.50
1:E:4838:ASP:OD1	1:E:4839:GLU:N	2.45	0.50
1:G:1088:PHE:N	1:G:1205:CYS:O	2.38	0.50
1:G:1716:THR:HA	1:G:1719:LEU:HD12	1.94	0.50
1:G:2267:VAL:O	1:G:2271:ALA:N	2.45	0.50
1:G:2546:ILE:O	1:G:2550:LEU:N	2.41	0.50
1:G:3012:LEU:O	1:G:3016:VAL:N	2.44	0.50
1:A:4590:GLY:O	1:A:4594:LEU:N	2.44	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4811:LEU:HD22	1:C:4519:LEU:HD13	1.93	0.50
1:A:4864:GLN:HB2	1:C:4867:ILE:HG21	1.93	0.50
1:A:4899:PHE:HB2	1:A:4906:PHE:HD1	1.75	0.50
1:E:1086:ARG:N	1:E:1207:LEU:O	2.45	0.50
1:E:1771:ILE:O	1:E:1775:CYS:N	2.37	0.50
1:E:2419:ARG:O	1:E:2422:SER:OG	2.29	0.50
1:E:4650:VAL:HA	1:E:4653:LYS:HB2	1.93	0.50
1:G:352:SER:O	1:G:352:SER:OG	2.28	0.50
1:A:45:ARG:HG2	1:A:454:LEU:HD21	1.94	0.50
1:A:277:LEU:HD11	1:A:295:PHE:HB3	1.93	0.50
1:A:607:ASN:HB3	1:A:610:VAL:HG22	1.92	0.50
1:A:626:ARG:HA	1:A:629:GLN:HG2	1.93	0.50
1:A:805:GLY:H	1:A:810:GLU:HB2	1.77	0.50
1:A:1086:ARG:N	1:A:1207:LEU:O	2.45	0.50
1:A:4788:ASN:HD21	1:C:4738:PHE:CB	2.18	0.50
1:C:1086:ARG:N	1:C:1207:LEU:O	2.45	0.50
1:C:1138:ASP:HB2	1:C:1145:TRP:HE1	1.75	0.50
1:C:1932:ASP:O	1:C:1936:LYS:N	2.37	0.50
1:E:425:LEU:HA	1:E:428:ARG:HD2	1.92	0.50
1:E:957:ALA:HB1	1:E:981:MET:HG3	1.94	0.50
1:E:1007:TRP:O	1:E:1011:ARG:N	2.35	0.50
1:E:2854:ALA:O	1:E:2858:LYS:N	2.43	0.50
1:E:4590:GLY:O	1:E:4594:LEU:N	2.44	0.50
1:G:556:ASP:O	1:G:560:SER:N	2.39	0.50
1:G:1086:ARG:N	1:G:1207:LEU:O	2.45	0.50
1:G:1932:ASP:O	1:G:1936:LYS:N	2.37	0.50
1:G:2419:ARG:O	1:G:2422:SER:OG	2.29	0.50
1:G:2612:THR:O	1:G:2616:GLU:N	2.45	0.50
1:A:234:LEU:HB2	1:A:407:ARG:HA	1.94	0.50
1:A:303:GLY:N	1:A:420:ARG:HH11	2.10	0.50
1:A:1224:LEU:HB3	1:A:1227:PHE:HB3	1.94	0.50
1:A:3037:LEU:O	1:A:3041:LEU:N	2.41	0.50
1:C:2315:GLU:O	1:C:2319:ASN:N	2.45	0.50
1:C:2319:ASN:OD1	1:C:2323:ARG:NH1	2.36	0.50
1:C:2482:GLN:HA	1:C:2485:LEU:HD13	1.94	0.50
1:E:3074:GLU:O	1:E:3078:GLN:N	2.42	0.50
1:E:4090:GLU:O	1:E:4092:ALA:N	2.44	0.50
1:E:4788:ASN:HD21	1:G:4738:PHE:CB	2.17	0.50
1:G:45:ARG:HG2	1:G:454:LEU:HD21	1.94	0.50
1:G:123:HIS:CD2	1:G:126:SER:H	2.30	0.50
1:G:150:GLN:NE2	1:G:152:ASP:O	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1048:ASP:HA	1:G:1051:ARG:HD2	1.92	0.50
1:G:1224:LEU:HB3	1:G:1227:PHE:HB3	1.94	0.50
1:A:150:GLN:NE2	1:A:152:ASP:O	2.45	0.50
1:A:1790:LYS:O	1:A:1794:MET:N	2.44	0.50
1:A:2765:SER:OG	1:A:2766:GLU:N	2.43	0.50
1:A:2842:ALA:HA	1:A:2845:MET:HB2	1.94	0.50
1:A:3982:MET:O	1:A:3985:SER:OG	2.22	0.50
1:C:694:ARG:NH1	1:C:716:ASN:O	2.40	0.50
1:C:1224:LEU:HB3	1:C:1227:PHE:HB3	1.94	0.50
1:C:1716:THR:HA	1:C:1719:LEU:HD12	1.94	0.50
1:C:2612:THR:O	1:C:2616:GLU:N	2.45	0.50
1:C:3074:GLU:O	1:C:3078:GLN:N	2.42	0.50
1:E:1645:THR:OG1	1:E:1646:GLU:OE1	2.29	0.50
1:E:2315:GLU:O	1:E:2319:ASN:N	2.45	0.50
1:G:288:HIS:ND1	1:G:349:MET:O	2.44	0.50
1:G:1749:PRO:HG3	1:G:1914:LEU:HD21	1.94	0.50
1:G:3074:GLU:O	1:G:3078:GLN:N	2.42	0.50
1:G:3851:HIS:HA	1:G:3856:GLN:HE22	1.76	0.50
1:A:957:ALA:HB1	1:A:981:MET:HG3	1.94	0.50
1:A:1442:TRP:N	1:A:1544:PHE:O	2.42	0.50
1:A:1749:PRO:HG3	1:A:1914:LEU:HD21	1.94	0.50
1:A:1818:PHE:HA	1:A:1821:LEU:HD12	1.94	0.50
2:B:92:VAL:O	2:B:95:LYS:NZ	2.38	0.50
1:C:281:ARG:O	1:C:285:SER:OG	2.30	0.50
1:C:590:LYS:H	1:C:593:HIS:CD2	2.29	0.50
1:C:957:ALA:HB1	1:C:981:MET:HG3	1.94	0.50
1:C:1210:ALA:N	1:C:1211:GLN:OE1	2.44	0.50
1:C:1732:GLU:O	1:C:1735:SER:OG	2.29	0.50
1:E:590:LYS:H	1:E:593:HIS:CD2	2.29	0.50
1:E:1716:THR:HA	1:E:1719:LEU:HD12	1.94	0.50
1:E:1818:PHE:HA	1:E:1821:LEU:HD12	1.94	0.50
1:E:4811:LEU:HD13	1:G:4519:LEU:CB	2.41	0.50
1:G:2432:ASP:OD1	1:G:2432:ASP:N	2.43	0.50
1:G:3038:GLY:O	1:G:3042:ASP:N	2.41	0.50
1:G:4899:PHE:HB2	1:G:4906:PHE:HD1	1.75	0.50
1:A:847:THR:OG1	1:A:1216:ASN:OD1	2.22	0.50
1:A:4667:ILE:HA	1:A:4670:LEU:HB3	1.92	0.50
2:B:59:ASP:N	2:B:68:GLU:OE2	2.45	0.50
1:C:2125:GLY:O	1:C:2129:SER:N	2.45	0.50
2:D:13:PHE:O	2:D:17:PHE:N	2.43	0.50
1:E:309:MET:HG2	1:E:312:LYS:H	1.76	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1116:GLY:HA2	1:E:1175:PHE:HZ	1.77	0.50
1:E:1224:LEU:HB3	1:E:1227:PHE:HB3	1.94	0.50
1:E:2061:GLN:O	1:E:2064:SER:OG	2.26	0.50
1:E:3851:HIS:HA	1:E:3856:GLN:HE22	1.76	0.50
2:F:13:PHE:O	2:F:17:PHE:N	2.43	0.50
1:G:15:ARG:HA	1:G:112:THR:HA	1.94	0.50
1:G:1310:CYS:SG	1:G:1516:GLY:N	2.84	0.50
1:G:1645:THR:OG1	1:G:1646:GLU:OE1	2.29	0.50
1:G:2148:GLY:O	1:G:2152:ASN:N	2.40	0.50
1:G:2854:ALA:O	1:G:2858:LYS:N	2.43	0.50
1:G:2874:PRO:O	1:G:2877:THR:OG1	2.30	0.50
1:A:1116:GLY:HA2	1:A:1175:PHE:HZ	1.77	0.50
1:A:3012:LEU:O	1:A:3016:VAL:N	2.44	0.50
1:C:45:ARG:HG2	1:C:454:LEU:HD21	1.94	0.50
1:C:288:HIS:ND1	1:C:349:MET:O	2.44	0.50
1:C:1048:ASP:HA	1:C:1051:ARG:HD2	1.92	0.50
1:C:1184:ASP:N	1:C:1188:SER:O	2.45	0.50
1:C:4788:ASN:HD21	1:E:4738:PHE:CB	2.17	0.50
1:E:1210:ALA:N	1:E:1211:GLN:OE1	2.44	0.50
1:E:2605:LYS:O	1:E:2609:LYS:N	2.45	0.50
1:E:4045:SER:OG	1:E:4046:LYS:N	2.45	0.50
1:E:4796:LYS:NZ	1:E:4806:LYS:O	2.43	0.50
2:F:59:ASP:N	2:F:68:GLU:OE2	2.45	0.50
1:G:234:LEU:HB2	1:G:407:ARG:HA	1.94	0.50
1:G:309:MET:HG2	1:G:312:LYS:H	1.76	0.50
1:A:123:HIS:CD2	1:A:126:SER:H	2.30	0.49
1:A:281:ARG:O	1:A:285:SER:OG	2.30	0.49
1:A:1184:ASP:N	1:A:1188:SER:O	2.45	0.49
1:A:1732:GLU:O	1:A:1735:SER:OG	2.29	0.49
1:A:2605:LYS:O	1:A:2609:LYS:N	2.45	0.49
1:A:2612:THR:O	1:A:2616:GLU:N	2.45	0.49
1:A:2728:HIS:NE2	1:A:2829:MET:SD	2.77	0.49
1:A:4045:SER:OG	1:A:4046:LYS:N	2.45	0.49
1:C:234:LEU:HB2	1:C:407:ARG:HA	1.94	0.49
1:C:486:GLN:NE2	1:C:539:ALA:O	2.35	0.49
1:C:1162:VAL:O	1:C:1176:THR:OG1	2.24	0.49
1:C:1790:LYS:O	1:C:1794:MET:N	2.43	0.49
1:C:2842:ALA:HA	1:C:2845:MET:HB2	1.94	0.49
1:C:4522:LYS:HD3	1:C:4560:TYR:HB3	1.94	0.49
1:C:4627:ILE:O	1:C:4631:TRP:N	2.43	0.49
1:E:556:ASP:O	1:E:560:SER:N	2.39	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2612:THR:O	1:E:2616:GLU:N	2.45	0.49
1:E:4522:LYS:HD3	1:E:4560:TYR:HB3	1.94	0.49
1:G:486:GLN:NE2	1:G:539:ALA:O	2.35	0.49
1:G:1669:ASN:O	1:G:1673:ALA:N	2.35	0.49
1:A:170:SER:OG	1:A:171:GLU:N	2.43	0.49
1:A:957:ALA:H	1:A:1060:TYR:HA	1.78	0.49
1:A:1764:SER:OG	1:A:1779:SER:O	2.21	0.49
1:A:2432:ASP:N	1:A:2432:ASP:OD1	2.43	0.49
1:A:2645:LEU:O	1:A:2649:ILE:N	2.43	0.49
1:A:3919:ASN:O	1:A:3922:THR:OG1	2.28	0.49
2:B:124:GLU:O	2:B:128:GLU:N	2.39	0.49
1:C:123:HIS:CD2	1:C:126:SER:H	2.30	0.49
1:C:150:GLN:NE2	1:C:152:ASP:O	2.45	0.49
1:C:626:ARG:HA	1:C:629:GLN:HG2	1.93	0.49
1:E:150:GLN:NE2	1:E:152:ASP:O	2.45	0.49
1:E:803:LEU:HD13	1:E:812:LYS:HB3	1.94	0.49
1:E:1118:SER:O	1:E:1202:ILE:N	2.38	0.49
1:E:1610:ARG:HA	1:E:1621:CYS:HA	1.94	0.49
1:E:2874:PRO:O	1:E:2877:THR:OG1	2.30	0.49
1:G:1210:ALA:N	1:G:1211:GLN:OE1	2.44	0.49
1:A:591:GLU:OE2	1:A:635:ASN:ND2	2.44	0.49
1:A:3597:LYS:HB3	2:B:40:LEU:HD11	1.94	0.49
1:A:4635:VAL:O	1:A:4638:THR:OG1	2.29	0.49
1:A:4867:ILE:HG21	1:G:4864:GLN:HB2	1.93	0.49
1:C:15:ARG:HA	1:C:112:THR:HA	1.94	0.49
1:C:1749:PRO:HG3	1:C:1914:LEU:HD21	1.94	0.49
1:C:4500:PHE:O	1:C:4504:ARG:N	2.39	0.49
1:E:1749:PRO:HG3	1:E:1914:LEU:HD21	1.94	0.49
1:E:3919:ASN:O	1:E:3922:THR:OG1	2.28	0.49
1:G:330:THR:OG1	1:G:364:GLN:OE1	2.25	0.49
1:G:1162:VAL:O	1:G:1176:THR:OG1	2.24	0.49
1:G:2605:LYS:O	1:G:2609:LYS:N	2.45	0.49
1:G:4030:SER:O	1:G:4034:LYS:N	2.45	0.49
2:H:59:ASP:N	2:H:68:GLU:OE2	2.45	0.49
2:H:92:VAL:O	2:H:95:LYS:NZ	2.38	0.49
1:A:236:LEU:HB3	1:A:245:LEU:HD22	1.95	0.49
1:A:2267:VAL:O	1:A:2271:ALA:N	2.45	0.49
1:A:2315:GLU:O	1:A:2319:ASN:N	2.45	0.49
1:C:309:MET:HG2	1:C:312:LYS:H	1.76	0.49
1:C:591:GLU:OE2	1:C:635:ASN:ND2	2.44	0.49
1:C:2267:VAL:O	1:C:2271:ALA:N	2.45	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3851:HIS:HA	1:C:3856:GLN:HE22	1.76	0.49
1:C:3917:VAL:O	1:C:3920:THR:OG1	2.23	0.49
1:E:234:LEU:HB2	1:E:407:ARG:HA	1.94	0.49
1:E:281:ARG:O	1:E:285:SER:OG	2.30	0.49
1:E:847:THR:OG1	1:E:1216:ASN:OD1	2.22	0.49
1:E:1048:ASP:HA	1:E:1051:ARG:HD2	1.92	0.49
1:E:2079:PRO:O	1:E:2083:ARG:N	2.36	0.49
1:E:4864:GLN:HB2	1:G:4867:ILE:HG21	1.93	0.49
1:G:626:ARG:HA	1:G:629:GLN:HG2	1.93	0.49
1:G:937:LEU:O	1:G:941:LYS:N	2.44	0.49
1:G:1219:LYS:H	1:G:1240:ALA:HB3	1.77	0.49
1:G:1602:GLN:HE21	1:G:1603:PHE:H	1.59	0.49
1:A:218:SER:OG	1:A:286:GLY:O	2.30	0.49
1:A:1219:LYS:H	1:A:1240:ALA:HB3	1.77	0.49
1:A:2482:GLN:HA	1:A:2485:LEU:HD13	1.94	0.49
1:A:4519:LEU:HD22	1:G:4811:LEU:HD13	1.95	0.49
1:C:805:GLY:H	1:C:810:GLU:HB2	1.77	0.49
1:C:1818:PHE:HA	1:C:1821:LEU:HD12	1.94	0.49
1:C:4718:ASN:O	1:C:4722:TYR:N	2.39	0.49
1:E:45:ARG:HG2	1:E:454:LEU:HD21	1.94	0.49
1:E:1056:THR:O	1:E:1060:TYR:N	2.41	0.49
1:E:1443:VAL:HA	1:E:1543:VAL:HA	1.95	0.49
1:E:1602:GLN:HE21	1:E:1603:PHE:H	1.59	0.49
1:E:4780:TYR:OH	1:G:4515:ASN:O	2.24	0.49
1:G:277:LEU:HD11	1:G:295:PHE:HB3	1.93	0.49
1:G:1256:PRO:O	1:G:1451:HIS:ND1	2.39	0.49
1:G:1818:PHE:HA	1:G:1821:LEU:HD12	1.94	0.49
1:G:2482:GLN:HA	1:G:2485:LEU:HD13	1.94	0.49
1:G:4650:VAL:HA	1:G:4653:LYS:HB2	1.93	0.49
1:A:47:CYS:SG	1:A:48:PHE:N	2.86	0.49
1:A:288:HIS:ND1	1:A:349:MET:O	2.44	0.49
1:A:308:LEU:N	1:A:326:SER:O	2.44	0.49
1:A:1602:GLN:HE21	1:A:1603:PHE:H	1.59	0.49
1:A:1610:ARG:HA	1:A:1621:CYS:HA	1.94	0.49
1:C:236:LEU:HB3	1:C:245:LEU:HD22	1.95	0.49
1:C:308:LEU:N	1:C:326:SER:O	2.44	0.49
1:C:957:ALA:H	1:C:1060:TYR:HA	1.77	0.49
1:C:4045:SER:OG	1:C:4046:LYS:N	2.45	0.49
1:E:2482:GLN:HA	1:E:2485:LEU:HD13	1.94	0.49
1:E:3597:LYS:HB3	2:F:40:LEU:HD11	1.94	0.49
1:G:303:GLY:N	1:G:420:ARG:HH11	2.10	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:957:ALA:HB1	1:G:981:MET:HG3	1.94	0.49
1:G:1116:GLY:HA2	1:G:1175:PHE:HZ	1.77	0.49
1:G:2409:LEU:O	1:G:2413:ALA:N	2.43	0.49
1:G:3919:ASN:O	1:G:3922:THR:OG1	2.28	0.49
1:G:4838:ASP:HB3	1:G:4841:GLU:H	1.78	0.49
1:C:805:GLY:O	1:C:810:GLU:N	2.46	0.49
1:C:1443:VAL:HA	1:C:1543:VAL:HA	1.95	0.49
1:C:4667:ILE:O	1:C:4671:LEU:N	2.43	0.49
1:E:47:CYS:SG	1:E:48:PHE:N	2.86	0.49
1:E:123:HIS:CD2	1:E:126:SER:H	2.30	0.49
1:E:486:GLN:NE2	1:E:539:ALA:O	2.35	0.49
1:E:1253:LYS:HB3	1:E:1255:LEU:H	1.78	0.49
1:E:1310:CYS:SG	1:E:1516:GLY:N	2.84	0.49
1:E:4784:VAL:HA	1:E:4787:PHE:HB3	1.94	0.49
1:E:4887:THR:OG1	1:E:4888:LYS:NZ	2.40	0.49
1:G:236:LEU:HB3	1:G:245:LEU:HD22	1.95	0.49
1:G:805:GLY:H	1:G:810:GLU:HB2	1.77	0.49
1:G:1144:ARG:N	1:G:1150:GLU:O	2.41	0.49
1:G:2639:LEU:O	1:G:2643:ARG:N	2.41	0.49
1:G:4838:ASP:OD1	1:G:4839:GLU:N	2.45	0.49
1:A:40:GLU:HB3	1:A:44:ASN:HD22	1.78	0.49
1:A:357:GLY:O	1:A:404:ASN:ND2	2.37	0.49
1:A:2061:GLN:O	1:A:2064:SER:OG	2.26	0.49
1:A:2419:ARG:O	1:A:2422:SER:OG	2.29	0.49
1:C:2419:ARG:O	1:C:2422:SER:OG	2.30	0.49
1:C:2759:LYS:HD3	1:C:2763:LEU:HD23	1.95	0.49
1:C:4864:GLN:HB2	1:E:4867:ILE:HG21	1.94	0.49
1:E:236:LEU:HB3	1:E:245:LEU:HD22	1.95	0.49
1:E:410:HIS:O	1:E:413:SER:OG	2.28	0.49
1:E:1219:LYS:H	1:E:1240:ALA:HB3	1.77	0.49
1:E:2125:GLY:O	1:E:2129:SER:N	2.45	0.49
1:E:2759:LYS:HD3	1:E:2763:LEU:HD23	1.95	0.49
1:E:2842:ALA:HA	1:E:2845:MET:HB2	1.94	0.49
1:E:4809:ASP:O	1:G:4522:LYS:C	2.51	0.49
1:G:805:GLY:O	1:G:810:GLU:N	2.46	0.49
1:G:1007:TRP:O	1:G:1011:ARG:N	2.35	0.49
1:G:1184:ASP:N	1:G:1188:SER:O	2.45	0.49
1:G:3036:ILE:O	1:G:3040:THR:N	2.46	0.49
1:A:2641:LEU:O	1:A:2645:LEU:N	2.42	0.49
1:A:3790:PHE:O	1:A:3793:SER:OG	2.22	0.49
1:A:4024:LEU:O	1:A:4028:THR:HB	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4030:SER:O	1:A:4034:LYS:N	2.45	0.49
1:A:4794:TYR:H	1:A:4806:LYS:HZ2	1.60	0.49
2:B:66:PHE:HA	2:B:69:PHE:HB3	1.95	0.49
1:C:803:LEU:HD13	1:C:812:LYS:HB3	1.94	0.49
1:C:4861:ALA:HB2	1:E:4867:ILE:CG1	2.31	0.49
1:E:957:ALA:H	1:E:1060:TYR:HA	1.78	0.49
1:E:3038:GLY:O	1:E:3042:ASP:N	2.41	0.49
2:F:124:GLU:O	2:F:128:GLU:N	2.39	0.49
1:G:957:ALA:H	1:G:1060:TYR:HA	1.78	0.49
1:G:1118:SER:O	1:G:1202:ILE:N	2.38	0.49
1:A:805:GLY:O	1:A:810:GLU:N	2.46	0.49
1:A:1469:LEU:N	1:A:1477:HIS:O	2.41	0.49
1:A:3074:GLU:O	1:A:3078:GLN:N	2.42	0.49
1:A:4627:ILE:O	1:A:4631:TRP:N	2.42	0.49
1:A:4631:TRP:NE1	1:A:4709:TRP:O	2.44	0.49
1:A:4784:VAL:HA	1:A:4787:PHE:HB3	1.94	0.49
1:C:1116:GLY:HA2	1:C:1175:PHE:HZ	1.77	0.49
1:C:1602:GLN:HE21	1:C:1603:PHE:H	1.59	0.49
1:C:2605:LYS:O	1:C:2609:LYS:N	2.45	0.49
2:D:59:ASP:N	2:D:68:GLU:OE2	2.45	0.49
1:E:207:PHE:HE1	1:G:2326:ILE:CD1	2.26	0.49
2:F:46:GLU:HA	2:F:49:LEU:HB2	1.95	0.49
1:G:2315:GLU:O	1:G:2319:ASN:N	2.45	0.49
1:A:1443:VAL:HA	1:A:1543:VAL:HA	1.95	0.48
1:C:47:CYS:SG	1:C:48:PHE:N	2.85	0.48
1:C:948:CYS:HB3	1:C:1064:LEU:HB3	1.95	0.48
1:C:2267:VAL:HA	1:C:2270:LEU:HD12	1.95	0.48
1:C:4030:SER:O	1:C:4034:LYS:N	2.46	0.48
1:C:4784:VAL:HA	1:C:4787:PHE:HB3	1.95	0.48
1:C:4811:LEU:HD11	1:E:4519:LEU:HD22	1.95	0.48
2:D:46:GLU:HA	2:D:49:LEU:HB2	1.95	0.48
1:E:15:ARG:HA	1:E:112:THR:HA	1.94	0.48
1:E:452:VAL:O	1:E:456:LEU:N	2.44	0.48
1:E:4024:LEU:O	1:E:4028:THR:HB	2.13	0.48
1:G:47:CYS:SG	1:G:48:PHE:N	2.86	0.48
1:G:236:LEU:HD11	1:G:403:LEU:HB2	1.95	0.48
1:G:281:ARG:O	1:G:285:SER:OG	2.30	0.48
1:G:1253:LYS:HB3	1:G:1255:LEU:H	1.78	0.48
1:G:2267:VAL:HA	1:G:2270:LEU:HD12	1.95	0.48
1:G:4784:VAL:HA	1:G:4787:PHE:HB3	1.94	0.48
2:H:66:PHE:HA	2:H:69:PHE:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2409:LEU:O	1:A:2413:ALA:N	2.43	0.48
1:A:4522:LYS:HD3	1:A:4560:TYR:HB3	1.94	0.48
1:A:4848:ASP:O	1:A:4852:PHE:N	2.47	0.48
1:C:1257:GLN:N	1:C:1596:TRP:O	2.46	0.48
1:C:4024:LEU:O	1:C:4028:THR:HB	2.13	0.48
1:C:4650:VAL:HA	1:C:4653:LYS:HB2	1.93	0.48
1:C:4656:ASP:HA	1:C:4664:ARG:HH12	1.79	0.48
1:E:236:LEU:HD11	1:E:403:LEU:HB2	1.95	0.48
1:E:277:LEU:HD11	1:E:295:PHE:HB3	1.93	0.48
1:E:805:GLY:O	1:E:810:GLU:N	2.46	0.48
2:F:66:PHE:HA	2:F:69:PHE:HB3	1.95	0.48
1:G:1442:TRP:N	1:G:1544:PHE:O	2.42	0.48
1:G:1443:VAL:HA	1:G:1543:VAL:HA	1.95	0.48
1:G:4848:ASP:O	1:G:4852:PHE:N	2.46	0.48
1:A:1253:LYS:HB3	1:A:1255:LEU:H	1.78	0.48
1:C:1219:LYS:H	1:C:1240:ALA:HB3	1.77	0.48
1:C:1610:ARG:HA	1:C:1621:CYS:HA	1.94	0.48
1:C:4653:LYS:O	1:C:4657:LYS:N	2.42	0.48
1:E:2728:HIS:NE2	1:E:2829:MET:SD	2.77	0.48
1:E:4500:PHE:O	1:E:4504:ARG:N	2.39	0.48
1:E:4569:MET:O	1:E:4572:THR:OG1	2.25	0.48
2:F:92:VAL:O	2:F:95:LYS:NZ	2.38	0.48
1:G:1227:PHE:HE2	1:G:1238:PRO:HG3	1.79	0.48
1:G:2125:GLY:O	1:G:2129:SER:N	2.45	0.48
1:G:4588:ILE:O	1:G:4592:TYR:N	2.43	0.48
1:A:15:ARG:HA	1:A:112:THR:HA	1.94	0.48
1:A:803:LEU:HD13	1:A:812:LYS:HB3	1.94	0.48
1:A:1257:GLN:HG2	1:A:1451:HIS:HE1	1.78	0.48
1:A:1449:ASP:N	1:A:1449:ASP:OD1	2.47	0.48
1:A:2267:VAL:HA	1:A:2270:LEU:HD12	1.95	0.48
1:A:4718:ASN:O	1:A:4722:TYR:N	2.39	0.48
1:A:4861:ALA:HB2	1:C:4867:ILE:CG1	2.30	0.48
1:C:128:MET:HB2	1:C:149:LEU:HD13	1.95	0.48
1:C:277:LEU:HD23	1:C:289:ILE:HD13	1.96	0.48
1:C:478:ARG:O	1:C:482:LEU:N	2.45	0.48
1:C:1470:GLY:HA2	1:C:1474:GLY:HA2	1.96	0.48
1:C:2543:ALA:HB1	1:C:2873:VAL:HG21	1.95	0.48
1:C:4615:GLY:O	1:C:4619:THR:N	2.40	0.48
1:E:3613:PRO:HB2	1:E:3616:ARG:HB2	1.96	0.48
1:E:3984:LEU:HD21	1:E:4102:LEU:HB2	1.95	0.48
1:G:434:ASP:OD1	1:G:504:ARG:NE	2.46	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1040:ASP:OD1	1:G:1040:ASP:N	2.44	0.48
1:G:1610:ARG:HA	1:G:1621:CYS:HA	1.94	0.48
1:G:2645:LEU:O	1:G:2649:ILE:N	2.43	0.48
2:H:46:GLU:HA	2:H:49:LEU:HB2	1.95	0.48
1:A:417:ARG:O	1:A:421:SER:OG	2.25	0.48
1:A:1118:SER:O	1:A:1202:ILE:N	2.38	0.48
1:A:1227:PHE:HE2	1:A:1238:PRO:HG3	1.79	0.48
1:A:1669:ASN:O	1:A:1673:ALA:N	2.35	0.48
1:A:1771:ILE:O	1:A:1775:CYS:N	2.37	0.48
1:A:2125:GLY:O	1:A:2129:SER:N	2.45	0.48
1:A:4604:GLU:OE2	1:A:4644:ASN:N	2.45	0.48
2:B:18:SER:HA	2:B:21:ASP:HB3	1.96	0.48
1:C:40:GLU:HB3	1:C:44:ASN:HD22	1.78	0.48
1:C:1431:ARG:HG2	1:C:1554:GLN:HB3	1.96	0.48
1:C:1718:ARG:NH2	1:C:1758:ARG:O	2.32	0.48
1:C:4838:ASP:HB3	1:C:4841:GLU:H	1.78	0.48
1:E:712:GLU:HG2	1:E:1638:SER:HB2	1.95	0.48
1:E:3790:PHE:O	1:E:3793:SER:OG	2.22	0.48
1:E:4030:SER:O	1:E:4034:LYS:N	2.46	0.48
1:E:4812:THR:O	1:E:4816:PHE:N	2.39	0.48
1:G:1707:ILE:HG12	1:G:1711:LEU:HD12	1.96	0.48
1:G:2217:ASP:O	1:G:2220:SER:OG	2.31	0.48
1:G:2842:ALA:HA	1:G:2845:MET:HB2	1.94	0.48
1:G:3984:LEU:HD21	1:G:4102:LEU:HB2	1.95	0.48
1:A:277:LEU:HD23	1:A:289:ILE:HD13	1.96	0.48
1:A:1707:ILE:HG12	1:A:1711:LEU:HD12	1.96	0.48
1:A:1731:GLU:HA	1:A:1734:LYS:HD2	1.96	0.48
1:A:2217:ASP:O	1:A:2220:SER:OG	2.31	0.48
1:A:4615:GLY:O	1:A:4619:THR:N	2.40	0.48
1:A:4838:ASP:HB3	1:A:4841:GLU:H	1.78	0.48
1:C:591:GLU:HB2	1:C:631:LEU:HD11	1.96	0.48
1:C:608:HIS:HB2	1:C:1656:HIS:CD2	2.47	0.48
1:C:2039:TYR:OH	1:C:3634:GLU:OE2	2.25	0.48
1:C:3613:PRO:HB2	1:C:3616:ARG:HB2	1.96	0.48
1:C:4124:GLU:HG3	1:C:4128:ASN:HD21	1.79	0.48
1:E:1257:GLN:HG2	1:E:1451:HIS:HE1	1.78	0.48
1:E:1707:ILE:HG12	1:E:1711:LEU:HD12	1.96	0.48
1:E:1843:LEU:O	1:E:1847:GLU:N	2.41	0.48
1:E:2267:VAL:HA	1:E:2270:LEU:HD12	1.95	0.48
1:E:4627:ILE:HA	1:E:4630:GLN:HB2	1.96	0.48
1:G:40:GLU:HB3	1:G:44:ASN:HD22	1.78	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:308:LEU:N	1:G:326:SER:O	2.44	0.48
1:G:1449:ASP:OD1	1:G:1449:ASP:N	2.47	0.48
1:G:2559:GLY:O	1:G:2563:THR:N	2.46	0.48
1:A:712:GLU:HG2	1:A:1638:SER:HB2	1.95	0.48
1:A:995:MET:O	1:A:999:LEU:N	2.44	0.48
1:A:1470:GLY:HA2	1:A:1474:GLY:HA2	1.96	0.48
1:A:3038:GLY:O	1:A:3042:ASP:N	2.41	0.48
1:A:3870:ASN:HD21	1:A:3872:ILE:HB	1.79	0.48
1:A:4031:ASP:HB3	1:A:4035:GLU:HB2	1.96	0.48
1:A:4656:ASP:HA	1:A:4664:ARG:HH12	1.78	0.48
2:B:46:GLU:HA	2:B:49:LEU:HB2	1.95	0.48
1:C:218:SER:OG	1:C:286:GLY:O	2.30	0.48
1:C:433:LEU:O	1:C:437:SER:N	2.47	0.48
1:C:1257:GLN:HG2	1:C:1451:HIS:HE1	1.78	0.48
1:C:2732:LYS:HG2	1:C:2829:MET:HB2	1.96	0.48
1:C:3597:LYS:HB3	2:D:40:LEU:HD11	1.94	0.48
1:C:4627:ILE:HA	1:C:4630:GLN:HB2	1.96	0.48
1:E:2308:PHE:O	1:E:2310:ASN:N	2.46	0.48
1:E:2732:LYS:HG2	1:E:2829:MET:HB2	1.96	0.48
1:E:4156:SER:O	1:E:4159:THR:OG1	2.22	0.48
1:G:803:LEU:HD13	1:G:812:LYS:HB3	1.94	0.48
1:G:1257:GLN:N	1:G:1596:TRP:O	2.46	0.48
1:G:1576:LYS:NZ	1:G:1589:GLN:OE1	2.36	0.48
1:G:1813:THR:OG1	1:G:1816:PHE:N	2.32	0.48
1:G:3597:LYS:HB3	2:H:40:LEU:HD11	1.94	0.48
1:G:3990:ASN:O	1:G:4145:ARG:NH2	2.47	0.48
1:G:4024:LEU:O	1:G:4028:THR:HB	2.13	0.48
1:G:4522:LYS:HD3	1:G:4560:TYR:HB3	1.94	0.48
1:G:4812:THR:O	1:G:4816:PHE:N	2.39	0.48
1:A:948:CYS:HB3	1:A:1064:LEU:HB3	1.95	0.48
1:A:2541:HIS:O	1:A:2545:LEU:N	2.47	0.48
1:A:2874:PRO:O	1:A:2877:THR:OG1	2.30	0.48
1:A:4777:VAL:HA	1:A:4780:TYR:HB3	1.96	0.48
1:C:49:LEU:HD21	1:C:203:VAL:HG11	1.96	0.48
1:C:434:ASP:OD1	1:C:504:ARG:NE	2.46	0.48
1:C:556:ASP:O	1:C:560:SER:N	2.39	0.48
1:C:1227:PHE:HE2	1:C:1238:PRO:HG3	1.79	0.48
1:C:1731:GLU:HA	1:C:1734:LYS:HD2	1.96	0.48
1:C:2432:ASP:N	1:C:2432:ASP:OD1	2.43	0.48
1:C:3990:ASN:O	1:C:4145:ARG:NH2	2.47	0.48
2:D:18:SER:HA	2:D:21:ASP:HB3	1.96	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:128:MET:HB2	1:E:149:LEU:HD13	1.95	0.48
1:E:608:HIS:HB2	1:E:1656:HIS:CD2	2.47	0.48
1:E:1520:PHE:H	1:E:1528:SER:HB2	1.79	0.48
1:E:1775:CYS:O	1:E:1777:GLN:N	2.47	0.48
1:E:1790:LYS:O	1:E:1794:MET:N	2.44	0.48
1:E:2541:HIS:O	1:E:2545:LEU:N	2.47	0.48
1:E:2543:ALA:HB1	1:E:2873:VAL:HG21	1.95	0.48
1:E:4118:THR:O	1:E:4122:LEU:CB	2.61	0.48
1:E:4514:ILE:HD11	1:E:4576:LEU:HB3	1.96	0.48
1:G:1106:GLU:N	1:G:1214:ARG:O	2.47	0.48
1:G:1154:ARG:H	1:G:1182:LEU:HD22	1.79	0.48
1:G:1257:GLN:HG2	1:G:1451:HIS:HE1	1.78	0.48
1:G:4031:ASP:HB3	1:G:4035:GLU:HB2	1.96	0.48
1:G:4045:SER:OG	1:G:4046:LYS:N	2.45	0.48
1:A:49:LEU:HD21	1:A:203:VAL:HG11	1.96	0.48
1:A:540:LEU:O	1:A:547:ASN:ND2	2.47	0.48
1:C:417:ARG:O	1:C:421:SER:OG	2.25	0.48
1:C:540:LEU:O	1:C:547:ASN:ND2	2.47	0.48
1:C:1520:PHE:H	1:C:1528:SER:HB2	1.79	0.48
1:C:1707:ILE:HG12	1:C:1711:LEU:HD12	1.96	0.48
1:E:591:GLU:HB2	1:E:631:LEU:HD11	1.96	0.48
1:E:948:CYS:HB3	1:E:1064:LEU:HB3	1.95	0.48
1:E:1154:ARG:H	1:E:1182:LEU:HD22	1.79	0.48
1:E:3990:ASN:O	1:E:4145:ARG:NH2	2.47	0.48
1:G:328:ALA:HB1	1:G:366:ILE:HD12	1.96	0.48
1:A:1256:PRO:O	1:A:1451:HIS:ND1	2.39	0.48
1:C:1253:LYS:HB3	1:C:1255:LEU:H	1.78	0.48
1:C:2058:THR:OG1	1:C:2059:LEU:N	2.47	0.48
1:C:2217:ASP:O	1:C:2220:SER:OG	2.31	0.48
1:C:2641:LEU:O	1:C:2645:LEU:N	2.42	0.48
1:C:4514:ILE:HD11	1:C:4576:LEU:HB3	1.96	0.48
1:C:4777:VAL:HA	1:C:4780:TYR:HB3	1.96	0.48
1:E:277:LEU:HD23	1:E:289:ILE:HD13	1.96	0.48
1:E:1227:PHE:HE2	1:E:1238:PRO:HG3	1.79	0.48
1:E:1731:GLU:HA	1:E:1734:LYS:HD2	1.96	0.48
1:E:2058:THR:OG1	1:E:2059:LEU:N	2.47	0.48
1:E:4656:ASP:HA	1:E:4664:ARG:HH12	1.78	0.48
1:E:4757:ILE:O	1:E:4760:SER:OG	2.22	0.48
1:E:4838:ASP:HB3	1:E:4841:GLU:H	1.78	0.48
1:E:4891:ILE:HD11	1:E:4916:LEU:HD13	1.96	0.48
1:G:433:LEU:O	1:G:437:SER:N	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1469:LEU:N	1:G:1477:HIS:O	2.41	0.48
1:G:2647:TRP:O	1:G:2651:ASP:N	2.47	0.48
1:G:4891:ILE:HD11	1:G:4916:LEU:HD13	1.96	0.48
2:H:18:SER:HA	2:H:21:ASP:HB3	1.96	0.48
1:A:128:MET:HB2	1:A:149:LEU:HD13	1.95	0.47
1:A:412:GLU:O	1:A:415:THR:OG1	2.32	0.47
1:A:1520:PHE:H	1:A:1528:SER:HB2	1.79	0.47
1:A:3587:VAL:HA	1:A:3590:LYS:HE2	1.96	0.47
1:C:1310:CYS:SG	1:C:1516:GLY:N	2.84	0.47
1:C:2854:ALA:O	1:C:2858:LYS:N	2.43	0.47
1:E:4124:GLU:HG3	1:E:4128:ASN:HD21	1.79	0.47
1:G:948:CYS:HB3	1:G:1064:LEU:HB3	1.95	0.47
1:G:1775:CYS:O	1:G:1777:GLN:N	2.47	0.47
1:G:2640:HIS:O	1:G:2644:LYS:N	2.43	0.47
1:A:1257:GLN:N	1:A:1596:TRP:O	2.46	0.47
1:A:2080:GLU:HA	1:A:2083:ARG:HB3	1.96	0.47
1:A:3984:LEU:HD21	1:A:4102:LEU:HB2	1.95	0.47
1:A:4861:ALA:CA	1:C:4867:ILE:HD13	2.42	0.47
1:C:303:GLY:N	1:C:420:ARG:HH11	2.10	0.47
1:C:452:VAL:O	1:C:456:LEU:N	2.44	0.47
1:C:651:HIS:N	1:C:1625:LEU:O	2.37	0.47
1:C:1106:GLU:N	1:C:1214:ARG:O	2.47	0.47
1:C:1798:ALA:O	1:C:1802:GLY:N	2.41	0.47
1:C:1843:LEU:O	1:C:1847:GLU:N	2.41	0.47
1:C:2425:ARG:HH22	1:C:2477:TYR:HA	1.79	0.47
1:C:4035:GLU:HG3	1:C:4039:ASP:HA	1.96	0.47
1:C:4616:LEU:HA	1:C:4620:GLU:H	1.79	0.47
1:C:4631:TRP:NE1	1:C:4709:TRP:O	2.44	0.47
1:C:4794:TYR:H	1:C:4806:LYS:HZ2	1.62	0.47
1:E:49:LEU:HD21	1:E:203:VAL:HG11	1.96	0.47
1:E:330:THR:OG1	1:E:364:GLN:OE1	2.25	0.47
1:E:412:GLU:O	1:E:415:THR:OG1	2.32	0.47
1:E:1106:GLU:N	1:E:1214:ARG:O	2.47	0.47
1:E:1257:GLN:N	1:E:1596:TRP:O	2.46	0.47
1:E:4811:LEU:O	1:E:4811:LEU:HG	2.14	0.47
1:G:71:GLN:NE2	1:G:73:LEU:HD21	2.30	0.47
1:G:540:LEU:O	1:G:547:ASN:ND2	2.47	0.47
1:G:1520:PHE:H	1:G:1528:SER:HB2	1.79	0.47
1:G:1771:ILE:O	1:G:1775:CYS:N	2.37	0.47
1:G:1790:LYS:O	1:G:1794:MET:N	2.44	0.47
1:G:3682:LYS:NZ	1:G:3683:LEU:O	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4794:TYR:H	1:G:4806:LYS:HZ2	1.61	0.47
1:A:433:LEU:O	1:A:437:SER:N	2.47	0.47
1:A:434:ASP:OD1	1:A:504:ARG:NE	2.46	0.47
1:A:1209:VAL:N	1:A:1211:GLN:OE1	2.48	0.47
1:A:1310:CYS:SG	1:A:1516:GLY:N	2.84	0.47
1:A:1775:CYS:O	1:A:1777:GLN:N	2.47	0.47
1:A:2420:ILE:HA	1:A:2423:ILE:HD12	1.96	0.47
1:C:243:GLU:HA	1:C:264:GLY:HA2	1.96	0.47
1:C:284:TRP:O	1:C:287:SER:OG	2.31	0.47
1:C:1154:ARG:H	1:C:1182:LEU:HD22	1.79	0.47
1:C:3984:LEU:HD21	1:C:4102:LEU:HB2	1.95	0.47
1:C:4891:ILE:HD11	1:C:4916:LEU:HD13	1.96	0.47
1:E:602:ASP:N	1:E:602:ASP:OD1	2.47	0.47
1:E:845:THR:OG1	1:E:846:TYR:N	2.48	0.47
2:F:31:LYS:HA	2:F:31:LYS:HD2	1.76	0.47
1:G:49:LEU:HD21	1:G:203:VAL:HG11	1.96	0.47
1:G:277:LEU:HD23	1:G:289:ILE:HD13	1.96	0.47
1:G:3670:LEU:O	1:G:3673:SER:OG	2.32	0.47
1:A:236:LEU:HD11	1:A:403:LEU:HB2	1.95	0.47
1:A:4616:LEU:HA	1:A:4620:GLU:H	1.79	0.47
1:A:4812:THR:O	1:A:4816:PHE:N	2.39	0.47
1:C:236:LEU:HD11	1:C:403:LEU:HB2	1.95	0.47
1:C:292:GLY:N	1:C:331:PHE:O	2.48	0.47
1:C:712:GLU:HG2	1:C:1638:SER:HB2	1.95	0.47
1:C:2728:HIS:NE2	1:C:2829:MET:SD	2.77	0.47
1:C:3012:LEU:O	1:C:3016:VAL:N	2.44	0.47
1:C:4118:THR:O	1:C:4122:LEU:CB	2.61	0.47
1:E:243:GLU:HA	1:E:264:GLY:HA2	1.96	0.47
1:E:1184:ASP:N	1:E:1188:SER:O	2.45	0.47
1:E:1594:VAL:HB	1:E:1596:TRP:CE2	2.49	0.47
1:E:1669:ASN:O	1:E:1673:ALA:N	2.35	0.47
1:G:357:GLY:O	1:G:404:ASN:ND2	2.37	0.47
1:G:1470:GLY:HA2	1:G:1474:GLY:HA2	1.96	0.47
1:G:2759:LYS:HD3	1:G:2763:LEU:HD23	1.95	0.47
1:G:3870:ASN:HD21	1:G:3872:ILE:HB	1.79	0.47
1:G:4627:ILE:O	1:G:4631:TRP:N	2.43	0.47
1:A:1431:ARG:HG2	1:A:1554:GLN:HB3	1.96	0.47
1:A:2759:LYS:HD3	1:A:2763:LEU:HD23	1.95	0.47
1:C:1209:VAL:N	1:C:1211:GLN:OE1	2.48	0.47
1:C:1309:GLU:OE2	1:C:1538:LYS:NZ	2.47	0.47
1:C:1449:ASP:OD1	1:C:1449:ASP:N	2.47	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1775:CYS:O	1:C:1777:GLN:N	2.47	0.47
1:C:3870:ASN:HD21	1:C:3872:ILE:HB	1.79	0.47
1:C:4108:GLU:OE2	1:C:4150:TYR:OH	2.33	0.47
1:C:4780:TYR:OH	1:E:4515:ASN:O	2.25	0.47
1:E:40:GLU:HB3	1:E:44:ASN:HD22	1.78	0.47
1:E:434:ASP:OD1	1:E:504:ARG:NE	2.46	0.47
1:E:540:LEU:O	1:E:547:ASN:ND2	2.47	0.47
1:E:2196:ASN:OD1	1:E:2199:ARG:NH2	2.38	0.47
1:E:3037:LEU:O	1:E:3041:LEU:N	2.41	0.47
1:E:4035:GLU:HG3	1:E:4039:ASP:HA	1.96	0.47
1:G:292:GLY:N	1:G:331:PHE:O	2.48	0.47
1:G:452:VAL:O	1:G:456:LEU:N	2.44	0.47
1:G:4064:THR:O	1:G:4068:LEU:N	2.40	0.47
1:G:4627:ILE:HA	1:G:4630:GLN:HB2	1.96	0.47
1:G:4796:LYS:NZ	1:G:4806:LYS:O	2.43	0.47
1:A:434:ASP:O	1:A:437:SER:OG	2.28	0.47
1:A:591:GLU:HB2	1:A:631:LEU:HD11	1.96	0.47
1:A:2425:ARG:HH22	1:A:2477:TYR:HA	1.79	0.47
1:A:3613:PRO:HB2	1:A:3616:ARG:HB2	1.96	0.47
1:C:886:ALA:O	1:C:890:HIS:N	2.37	0.47
1:C:1539:LEU:HD12	1:C:1539:LEU:HA	1.74	0.47
1:C:1938:GLN:HE21	1:C:1942:ARG:HH11	1.63	0.47
1:C:2420:ILE:HA	1:C:2423:ILE:HD12	1.96	0.47
1:C:2547:ASP:O	1:C:2551:HIS:N	2.46	0.47
1:C:3036:ILE:O	1:C:3040:THR:N	2.46	0.47
1:E:328:ALA:HB1	1:E:366:ILE:HD12	1.96	0.47
1:E:1469:LEU:N	1:E:1477:HIS:O	2.41	0.47
1:E:2080:GLU:HA	1:E:2083:ARG:HB3	1.96	0.47
1:E:2217:ASP:O	1:E:2220:SER:OG	2.31	0.47
1:E:2319:ASN:OD1	1:E:2323:ARG:NH1	2.36	0.47
1:E:4114:THR:OG1	1:E:4115:ARG:N	2.48	0.47
1:E:4848:ASP:O	1:E:4852:PHE:N	2.47	0.47
1:G:1731:GLU:HA	1:G:1734:LYS:HD2	1.96	0.47
1:G:2420:ILE:HA	1:G:2423:ILE:HD12	1.96	0.47
1:G:2641:LEU:O	1:G:2645:LEU:N	2.42	0.47
1:G:2732:LYS:HG2	1:G:2829:MET:HB2	1.96	0.47
1:G:3587:VAL:HA	1:G:3590:LYS:HE2	1.96	0.47
1:G:4514:ILE:HD11	1:G:4576:LEU:HB3	1.96	0.47
1:A:243:GLU:HA	1:A:264:GLY:HA2	1.96	0.47
1:A:1154:ARG:H	1:A:1182:LEU:HD22	1.79	0.47
1:A:2593:LEU:O	1:A:2597:VAL:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3990:ASN:O	1:A:4145:ARG:NH2	2.47	0.47
1:A:4124:GLU:HG3	1:A:4128:ASN:HD21	1.79	0.47
1:A:4654:VAL:O	1:A:4658:TYR:N	2.48	0.47
1:A:4667:ILE:O	1:A:4671:LEU:N	2.43	0.47
1:A:4867:ILE:CD1	1:G:4860:LEU:CB	2.93	0.47
1:C:182:ILE:HD11	1:C:211:LEU:HD13	1.97	0.47
1:C:595:LYS:HZ3	1:C:635:ASN:HB3	1.80	0.47
1:C:1594:VAL:HB	1:C:1596:TRP:CE2	2.49	0.47
1:C:1730:THR:O	1:C:1733:THR:OG1	2.26	0.47
1:C:2080:GLU:HA	1:C:2083:ARG:HB3	1.96	0.47
1:C:2647:TRP:O	1:C:2651:ASP:N	2.47	0.47
1:C:2874:PRO:O	1:C:2877:THR:OG1	2.30	0.47
1:C:3670:LEU:O	1:C:3673:SER:OG	2.32	0.47
1:C:4031:ASP:HB3	1:C:4035:GLU:HB2	1.96	0.47
1:C:4047:ARG:HA	1:C:4050:HIS:HB3	1.97	0.47
1:C:4616:LEU:O	1:C:4621:GLN:N	2.35	0.47
2:D:66:PHE:HA	2:D:69:PHE:HB3	1.95	0.47
1:E:38:ALA:O	1:E:48:PHE:N	2.47	0.47
1:E:71:GLN:NE2	1:E:73:LEU:HD21	2.29	0.47
1:E:433:LEU:O	1:E:437:SER:N	2.47	0.47
1:E:567:ALA:O	1:E:571:ILE:N	2.47	0.47
1:E:591:GLU:HG3	1:E:631:LEU:HD21	1.96	0.47
1:E:1197:VAL:HA	1:E:1201:PHE:HE2	1.79	0.47
1:E:1938:GLN:HE21	1:E:1942:ARG:HH11	1.63	0.47
1:E:2425:ARG:HH22	1:E:2477:TYR:HA	1.79	0.47
1:E:2638:GLU:O	1:E:2642:SER:N	2.44	0.47
1:E:2639:LEU:O	1:E:2643:ARG:N	2.41	0.47
1:E:3627:LYS:HB2	1:E:3627:LYS:HE2	1.72	0.47
1:E:3870:ASN:HD21	1:E:3872:ILE:HB	1.79	0.47
1:E:4047:ARG:HA	1:E:4050:HIS:HB3	1.97	0.47
2:F:28:ILE:HB	2:F:64:ILE:HB	1.97	0.47
1:G:591:GLU:HB2	1:G:631:LEU:HD11	1.96	0.47
1:G:608:HIS:HB2	1:G:1656:HIS:CD2	2.47	0.47
1:G:712:GLU:HG2	1:G:1638:SER:HB2	1.95	0.47
1:G:1209:VAL:N	1:G:1211:GLN:OE1	2.48	0.47
1:G:1309:GLU:OE2	1:G:1538:LYS:NZ	2.47	0.47
1:G:2593:LEU:O	1:G:2597:VAL:N	2.48	0.47
1:G:3917:VAL:O	1:G:3920:THR:OG1	2.23	0.47
1:G:4047:ARG:HA	1:G:4050:HIS:HB3	1.97	0.47
1:G:4842:ILE:HA	1:G:4845:ILE:HD12	1.96	0.47
1:A:721:ASP:OD1	1:A:721:ASP:N	2.35	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:845:THR:OG1	1:A:846:TYR:N	2.48	0.47
1:A:4114:THR:OG1	1:A:4115:ARG:N	2.48	0.47
1:G:478:ARG:O	1:G:482:LEU:N	2.45	0.47
1:G:1504:GLY:HA2	1:G:1523:ASN:HD22	1.80	0.47
1:G:2425:ARG:HH22	1:G:2477:TYR:HA	1.79	0.47
1:G:3613:PRO:HB2	1:G:3616:ARG:HB2	1.96	0.47
1:G:4124:GLU:HG3	1:G:4128:ASN:HD21	1.79	0.47
1:G:4563:GLU:OE2	1:G:4569:MET:N	2.41	0.47
1:G:4631:TRP:NE1	1:G:4709:TRP:O	2.44	0.47
1:G:4654:VAL:O	1:G:4658:TYR:N	2.48	0.47
1:A:328:ALA:HB1	1:A:366:ILE:HD12	1.96	0.47
1:A:2732:LYS:HG2	1:A:2829:MET:HB2	1.96	0.47
1:A:4627:ILE:HA	1:A:4630:GLN:HB2	1.96	0.47
1:C:278:GLU:O	1:C:296:ARG:N	2.47	0.47
1:C:1199:ASP:N	1:C:1199:ASP:OD1	2.48	0.47
1:C:1487:MET:HB3	1:C:1520:PHE:HZ	1.80	0.47
1:C:1669:ASN:O	1:C:1673:ALA:N	2.35	0.47
1:C:3624:GLY:HA2	1:C:3627:LYS:HE2	1.97	0.47
1:C:4848:ASP:O	1:C:4852:PHE:N	2.47	0.47
1:C:4860:LEU:CB	1:E:4867:ILE:CD1	2.93	0.47
1:C:4911:LEU:HA	1:C:4911:LEU:HD23	1.78	0.47
1:E:292:GLY:N	1:E:331:PHE:O	2.48	0.47
1:E:1309:GLU:OE2	1:E:1538:LYS:NZ	2.47	0.47
1:E:2409:LEU:O	1:E:2413:ALA:N	2.43	0.47
1:E:4108:GLU:OE2	1:E:4150:TYR:OH	2.33	0.47
1:E:4788:ASN:ND2	1:G:4738:PHE:CD1	2.83	0.47
1:E:4794:TYR:H	1:E:4806:LYS:HZ2	1.62	0.47
1:E:4842:ILE:HA	1:E:4845:ILE:HD12	1.96	0.47
1:E:4860:LEU:HD13	1:G:4863:ILE:HD11	1.90	0.47
1:G:525:SER:HG	1:G:528:SER:HG	1.55	0.47
1:G:845:THR:OG1	1:G:846:TYR:N	2.48	0.47
1:G:1197:VAL:HA	1:G:1201:PHE:HE2	1.79	0.47
1:G:1431:ARG:HG2	1:G:1554:GLN:HB3	1.96	0.47
1:G:2562:LEU:O	1:G:2566:GLN:N	2.43	0.47
2:H:28:ILE:HB	2:H:64:ILE:HB	1.97	0.47
1:A:182:ILE:HD11	1:A:211:LEU:HD13	1.97	0.47
1:A:292:GLY:N	1:A:331:PHE:O	2.48	0.47
1:A:1594:VAL:HB	1:A:1596:TRP:CE2	2.49	0.47
1:A:4500:PHE:O	1:A:4504:ARG:N	2.39	0.47
2:B:28:ILE:HB	2:B:64:ILE:HB	1.97	0.47
1:C:845:THR:OG1	1:C:846:TYR:N	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2308:PHE:O	1:C:2310:ASN:N	2.46	0.47
1:C:2541:HIS:O	1:C:2545:LEU:N	2.47	0.47
1:C:4162:GLU:H	1:C:4162:GLU:HG3	1.52	0.47
1:C:4861:ALA:CA	1:E:4867:ILE:HD13	2.43	0.47
1:E:1209:VAL:N	1:E:1211:GLN:OE1	2.48	0.47
1:E:1442:TRP:N	1:E:1544:PHE:O	2.42	0.47
1:E:1470:GLY:HA2	1:E:1474:GLY:HA2	1.96	0.47
1:E:1732:GLU:O	1:E:1735:SER:OG	2.29	0.47
1:E:2264:GLU:O	1:E:2268:ARG:N	2.45	0.47
1:E:2425:ARG:NH2	1:E:2476:VAL:HG12	2.29	0.47
1:E:2640:HIS:O	1:E:2644:LYS:N	2.43	0.47
1:E:2641:LEU:O	1:E:2645:LEU:N	2.42	0.47
2:F:18:SER:HA	2:F:21:ASP:HB3	1.96	0.47
1:G:1764:SER:HB3	1:G:1778:TYR:HD2	1.80	0.47
1:G:2058:THR:OG1	1:G:2059:LEU:N	2.47	0.47
1:A:452:VAL:O	1:A:456:LEU:N	2.44	0.46
1:A:591:GLU:HG3	1:A:631:LEU:HD21	1.96	0.46
1:A:2058:THR:OG1	1:A:2059:LEU:N	2.47	0.46
1:A:2543:ALA:HB1	1:A:2873:VAL:HG21	1.95	0.46
1:A:2854:ALA:O	1:A:2858:LYS:N	2.43	0.46
1:A:4025:LYS:HA	1:A:4089:HIS:CE1	2.50	0.46
1:A:4047:ARG:HA	1:A:4050:HIS:HB3	1.97	0.46
1:A:4514:ILE:HD11	1:A:4576:LEU:HB3	1.96	0.46
1:A:4868:ILE:HD11	1:G:4864:GLN:C	2.36	0.46
1:C:847:THR:OG1	1:C:1216:ASN:OD1	2.22	0.46
1:C:3587:VAL:HA	1:C:3590:LYS:HE2	1.96	0.46
1:C:4559:HIS:CG	1:C:4738:PHE:HZ	2.33	0.46
1:C:4654:VAL:O	1:C:4658:TYR:N	2.48	0.46
1:C:4788:ASN:ND2	1:E:4738:PHE:CD1	2.83	0.46
2:D:28:ILE:HB	2:D:64:ILE:HB	1.97	0.46
1:E:76:ARG:CB	1:G:3891:TRP:CB	2.93	0.46
1:E:2420:ILE:HA	1:E:2423:ILE:HD12	1.96	0.46
1:E:3587:VAL:HA	1:E:3590:LYS:HE2	1.96	0.46
1:E:4031:ASP:HB3	1:E:4035:GLU:HB2	1.96	0.46
1:E:4840:TYR:HA	1:E:4843:TYR:HD2	1.80	0.46
1:G:1594:VAL:HB	1:G:1596:TRP:CE2	2.49	0.46
1:G:4025:LYS:HA	1:G:4089:HIS:CE1	2.50	0.46
1:G:4035:GLU:HG3	1:G:4039:ASP:HA	1.96	0.46
1:G:4718:ASN:O	1:G:4722:TYR:N	2.39	0.46
1:G:4777:VAL:HA	1:G:4780:TYR:HB3	1.96	0.46
1:A:556:ASP:O	1:A:560:SER:N	2.39	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1487:MET:HB3	1:A:1520:PHE:HZ	1.80	0.46
1:A:1539:LEU:HD12	1:A:1539:LEU:HA	1.74	0.46
1:A:2647:TRP:O	1:A:2651:ASP:N	2.47	0.46
1:A:4035:GLU:HG3	1:A:4039:ASP:HA	1.96	0.46
1:A:4891:ILE:HD11	1:A:4916:LEU:HD13	1.96	0.46
1:C:2256:LEU:O	1:C:3811:ARG:NH2	2.48	0.46
1:C:4121:GLU:HA	1:C:4124:GLU:HB2	1.97	0.46
1:E:308:LEU:HD23	1:E:365:HIS:CD2	2.50	0.46
1:E:1040:ASP:N	1:E:1040:ASP:OD1	2.44	0.46
1:E:1431:ARG:HG2	1:E:1554:GLN:HB3	1.96	0.46
1:E:2647:TRP:O	1:E:2651:ASP:N	2.47	0.46
1:E:4777:VAL:HA	1:E:4780:TYR:HB3	1.96	0.46
1:E:4860:LEU:CB	1:G:4867:ILE:CD1	2.93	0.46
1:G:128:MET:HB2	1:G:149:LEU:HD13	1.95	0.46
1:G:411:GLU:H	1:G:411:GLU:HG3	1.57	0.46
1:G:591:GLU:HG3	1:G:631:LEU:HD21	1.96	0.46
1:G:674:TYR:HE1	1:G:757:CYS:H	1.63	0.46
1:G:678:MET:N	1:G:801:ARG:O	2.48	0.46
1:G:995:MET:O	1:G:999:LEU:N	2.44	0.46
1:G:2429:PRO:HG2	1:G:2431:GLY:HA3	1.98	0.46
1:G:2543:ALA:HB1	1:G:2873:VAL:HG21	1.95	0.46
1:G:4656:ASP:HA	1:G:4664:ARG:HH12	1.78	0.46
1:A:731:HIS:HA	1:A:741:VAL:HB	1.98	0.46
1:A:4108:GLU:OE2	1:A:4150:TYR:OH	2.33	0.46
1:A:4860:LEU:CB	1:C:4867:ILE:CD1	2.94	0.46
1:C:640:ARG:HA	1:C:643:LEU:HD21	1.97	0.46
1:C:1442:TRP:N	1:C:1544:PHE:O	2.42	0.46
1:C:2328:ARG:NH2	1:C:2330:GLU:OE1	2.48	0.46
1:C:2992:CYS:O	1:C:2996:HIS:N	2.48	0.46
1:E:721:ASP:OD1	1:E:721:ASP:N	2.35	0.46
1:E:1256:PRO:O	1:E:1451:HIS:ND1	2.39	0.46
1:E:2593:LEU:O	1:E:2597:VAL:N	2.48	0.46
1:E:3624:GLY:HA2	1:E:3627:LYS:HE2	1.97	0.46
1:E:4121:GLU:HA	1:E:4124:GLU:HB2	1.98	0.46
1:E:4811:LEU:HD22	1:G:4519:LEU:CB	2.45	0.46
1:E:4861:ALA:CA	1:G:4867:ILE:HD13	2.43	0.46
1:G:182:ILE:HD11	1:G:211:LEU:HD13	1.97	0.46
1:G:2212:GLN:O	1:G:2247:SER:OG	2.33	0.46
1:G:4115:ARG:O	1:G:4118:THR:OG1	2.21	0.46
1:A:1764:SER:HB3	1:A:1778:TYR:HD2	1.80	0.46
1:A:2429:PRO:HG2	1:A:2431:GLY:HA3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2667:LEU:O	1:A:2671:SER:N	2.45	0.46
1:C:731:HIS:HA	1:C:741:VAL:HB	1.98	0.46
1:C:1197:VAL:HA	1:C:1201:PHE:HE2	1.79	0.46
1:C:1226:TYR:O	1:C:1230:CYS:N	2.48	0.46
1:C:1504:GLY:HA2	1:C:1523:ASN:HD22	1.80	0.46
1:C:1521:THR:HA	1:C:1526:ASP:HA	1.98	0.46
2:D:31:LYS:O	2:D:35:THR:OG1	2.26	0.46
1:E:182:ILE:HD11	1:E:211:LEU:HD13	1.97	0.46
1:E:674:TYR:HE1	1:E:757:CYS:H	1.63	0.46
1:E:937:LEU:O	1:E:941:LYS:N	2.44	0.46
1:E:1162:VAL:O	1:E:1176:THR:OG1	2.24	0.46
1:E:1764:SER:HB3	1:E:1778:TYR:HD2	1.80	0.46
1:E:4817:HIS:O	1:E:4821:GLY:N	2.49	0.46
1:G:426:PHE:O	1:G:430:ILE:N	2.48	0.46
1:G:711:GLU:HA	1:G:1637:ARG:HB2	1.98	0.46
1:G:1798:ALA:O	1:G:1802:GLY:N	2.41	0.46
1:G:1938:GLN:HE21	1:G:1942:ARG:HH11	1.63	0.46
1:G:2080:GLU:HA	1:G:2083:ARG:HB3	1.96	0.46
1:G:2992:CYS:O	1:G:2996:HIS:N	2.48	0.46
1:G:4796:LYS:NZ	1:G:4807:CYS:SG	2.73	0.46
1:A:308:LEU:HD23	1:A:365:HIS:CD2	2.50	0.46
1:A:1197:VAL:HA	1:A:1201:PHE:HE2	1.79	0.46
1:A:1225:LYS:O	1:A:1228:THR:OG1	2.34	0.46
1:C:207:PHE:CE1	1:E:2326:ILE:HD12	2.48	0.46
1:C:308:LEU:HD23	1:C:365:HIS:CD2	2.50	0.46
1:C:591:GLU:HG3	1:C:631:LEU:HD21	1.96	0.46
1:C:2461:PHE:HB3	1:C:2462:CYS:H	1.56	0.46
2:D:92:VAL:HG12	2:D:109:VAL:HG13	1.98	0.46
1:E:1576:LYS:NZ	1:E:1589:GLN:OE1	2.36	0.46
1:E:2212:GLN:O	1:E:2247:SER:OG	2.33	0.46
1:E:4616:LEU:HA	1:E:4620:GLU:H	1.79	0.46
1:E:4616:LEU:O	1:E:4621:GLN:N	2.35	0.46
1:G:640:ARG:HA	1:G:643:LEU:HD21	1.97	0.46
1:G:3627:LYS:HE2	1:G:3627:LYS:HB2	1.72	0.46
1:G:4114:THR:OG1	1:G:4115:ARG:N	2.48	0.46
1:G:4121:GLU:HA	1:G:4124:GLU:HB2	1.97	0.46
1:A:228:LEU:HD23	1:A:228:LEU:HA	1.83	0.46
1:A:1843:LEU:O	1:A:1847:GLU:N	2.41	0.46
1:A:1938:GLN:HE21	1:A:1942:ARG:HH11	1.63	0.46
1:A:2547:ASP:O	1:A:2551:HIS:N	2.46	0.46
1:A:4569:MET:O	1:A:4572:THR:OG1	2.25	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4653:LYS:O	1:A:4657:LYS:N	2.42	0.46
1:A:4864:GLN:C	1:C:4868:ILE:HD11	2.35	0.46
1:C:38:ALA:O	1:C:48:PHE:N	2.47	0.46
1:C:703:TYR:OH	1:C:706:TYR:O	2.30	0.46
1:C:1225:LYS:O	1:C:1228:THR:OG1	2.34	0.46
1:C:2433:LEU:H	1:C:2433:LEU:HG	1.55	0.46
1:C:3685:GLU:OE1	1:C:3687:PHE:N	2.49	0.46
1:E:434:ASP:O	1:E:437:SER:OG	2.28	0.46
1:E:651:HIS:HA	1:E:1627:PHE:CZ	2.51	0.46
1:E:995:MET:O	1:E:999:LEU:N	2.44	0.46
1:E:1226:TYR:O	1:E:1230:CYS:N	2.48	0.46
1:E:2992:CYS:O	1:E:2996:HIS:N	2.48	0.46
1:E:4606:GLU:O	1:E:4610:LYS:N	2.48	0.46
1:G:131:CYS:HB2	1:G:157:ALA:HB1	1.97	0.46
1:G:2126:GLN:O	1:G:2129:SER:OG	2.24	0.46
1:G:2328:ARG:NH2	1:G:2330:GLU:OE1	2.48	0.46
1:G:2405:PRO:HB3	1:G:2417:ALA:HB1	1.98	0.46
1:G:4108:GLU:OE2	1:G:4150:TYR:OH	2.33	0.46
1:G:4559:HIS:CG	1:G:4738:PHE:HZ	2.33	0.46
2:H:92:VAL:HG12	2:H:109:VAL:HG13	1.98	0.46
1:A:508:TYR:CG	1:A:517:VAL:HG13	2.51	0.46
1:A:1521:THR:HA	1:A:1526:ASP:HA	1.98	0.46
1:A:2079:PRO:O	1:A:2083:ARG:N	2.35	0.46
1:A:2405:PRO:HB3	1:A:2417:ALA:HB1	1.98	0.46
1:A:2638:GLU:O	1:A:2642:SER:N	2.44	0.46
2:B:92:VAL:HG12	2:B:109:VAL:HG13	1.98	0.46
1:C:328:ALA:HB1	1:C:366:ILE:HD12	1.96	0.46
1:C:651:HIS:HA	1:C:1627:PHE:CZ	2.51	0.46
1:C:2086:PHE:O	1:C:3692:TYR:OH	2.25	0.46
1:E:131:CYS:HB2	1:E:157:ALA:HB1	1.97	0.46
1:E:303:GLY:N	1:E:420:ARG:HH11	2.10	0.46
1:E:1217:PHE:HB3	1:E:1239:PHE:HB2	1.98	0.46
1:E:2559:GLY:O	1:E:2563:THR:N	2.46	0.46
1:E:4025:LYS:HA	1:E:4089:HIS:CE1	2.50	0.46
1:E:4864:GLN:C	1:G:4868:ILE:HD11	2.35	0.46
1:G:243:GLU:HA	1:G:264:GLY:HA2	1.96	0.46
1:G:472:HIS:CD2	1:G:3674:ARG:HH21	2.34	0.46
1:G:602:ASP:N	1:G:602:ASP:OD1	2.47	0.46
1:G:2541:HIS:O	1:G:2545:LEU:N	2.47	0.46
1:G:4817:HIS:O	1:G:4821:GLY:N	2.49	0.46
1:G:4889:CYS:HB3	1:G:4893:GLY:N	2.31	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1298:ASP:OD1	1:A:1298:ASP:N	2.49	0.46
1:A:1836:ASN:O	1:A:1840:LYS:N	2.49	0.46
1:A:3624:GLY:HA2	1:A:3627:LYS:HE2	1.97	0.46
1:A:4118:THR:O	1:A:4122:LEU:CB	2.61	0.46
1:A:4717:ASP:OD2	1:A:4720:PHE:N	2.37	0.46
1:A:4842:ILE:HA	1:A:4845:ILE:HD12	1.96	0.46
1:A:4867:ILE:HD13	1:G:4861:ALA:CA	2.43	0.46
1:C:207:PHE:HD1	1:E:2326:ILE:HG23	1.81	0.46
1:C:239:GLY:H	1:C:243:GLU:HB3	1.81	0.46
1:C:2212:GLN:O	1:C:2247:SER:OG	2.33	0.46
1:E:277:LEU:HD12	1:E:277:LEU:HA	1.82	0.46
1:E:640:ARG:HA	1:E:643:LEU:HD21	1.97	0.46
1:E:938:GLU:HA	1:E:941:LYS:HB2	1.97	0.46
1:E:2256:LEU:O	1:E:3811:ARG:NH2	2.48	0.46
1:E:4559:HIS:CG	1:E:4738:PHE:HZ	2.33	0.46
1:G:2163:MET:N	1:G:2163:MET:SD	2.89	0.46
1:G:3685:GLU:OE1	1:G:3687:PHE:N	2.49	0.46
1:G:3760:LEU:HD23	1:G:3760:LEU:HA	1.79	0.46
1:G:4840:TYR:HA	1:G:4843:TYR:HD2	1.80	0.46
1:A:163:HIS:O	1:A:182:ILE:N	2.49	0.46
1:A:651:HIS:HA	1:A:1627:PHE:CZ	2.51	0.46
1:A:1054:VAL:HA	1:A:1057:LEU:HG	1.98	0.46
1:A:1504:GLY:HA2	1:A:1523:ASN:HD22	1.80	0.46
1:A:4115:ARG:O	1:A:4118:THR:OG1	2.21	0.46
1:A:4121:GLU:HA	1:A:4124:GLU:HB2	1.97	0.46
1:C:1056:THR:O	1:C:1060:TYR:N	2.41	0.46
1:C:2832:VAL:HB	1:C:2895:LYS:HB2	1.98	0.46
1:C:3038:GLY:O	1:C:3042:ASP:N	2.41	0.46
1:C:4193:PHE:O	1:C:4197:THR:OG1	2.27	0.46
1:C:4842:ILE:HA	1:C:4845:ILE:HD12	1.96	0.46
1:C:4864:GLN:C	1:E:4868:ILE:HD11	2.36	0.46
1:E:136:SER:OG	1:E:142:LYS:O	2.32	0.46
1:E:218:SER:OG	1:E:286:GLY:O	2.30	0.46
1:E:593:HIS:O	1:E:596:SER:OG	2.24	0.46
1:E:3685:GLU:OE1	1:E:3687:PHE:N	2.49	0.46
1:E:4510:VAL:HG11	1:E:4580:HIS:HB2	1.98	0.46
1:G:22:LEU:HD22	1:G:212:TRP:HB3	1.98	0.46
1:G:2264:GLU:O	1:G:2268:ARG:N	2.45	0.46
1:G:3932:ASN:O	1:G:3935:SER:OG	2.33	0.46
1:G:4510:VAL:HG11	1:G:4580:HIS:HB2	1.98	0.46
2:H:14:LYS:HD2	2:H:17:PHE:HB3	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PHE:HD1	1:C:2326:ILE:HG23	1.80	0.46
1:A:472:HIS:CD2	1:A:3674:ARG:HH21	2.34	0.46
1:A:2425:ARG:NH2	1:A:2476:VAL:HG12	2.29	0.46
1:A:2992:CYS:O	1:A:2996:HIS:N	2.48	0.46
1:A:3968:LEU:HA	1:A:3971:GLU:HG2	1.98	0.46
1:A:4796:LYS:NZ	1:A:4807:CYS:SG	2.73	0.46
1:C:136:SER:OG	1:C:142:LYS:O	2.32	0.46
1:C:3968:LEU:HA	1:C:3971:GLU:HG2	1.98	0.46
1:E:2126:GLN:O	1:E:2129:SER:OG	2.24	0.46
1:E:3917:VAL:O	1:E:3920:THR:OG1	2.23	0.46
1:E:4015:LEU:HD23	1:E:4015:LEU:HA	1.75	0.46
2:F:92:VAL:HG12	2:F:109:VAL:HG13	1.98	0.46
1:G:308:LEU:HD23	1:G:365:HIS:CD2	2.50	0.46
1:G:1732:GLU:O	1:G:1735:SER:OG	2.29	0.46
1:G:3973:MET:HE3	1:G:4092:ALA:HA	1.98	0.46
1:G:4616:LEU:HA	1:G:4620:GLU:H	1.79	0.46
1:G:4779:VAL:HG13	1:G:4814:TYR:HE1	1.81	0.46
1:A:1217:PHE:HB3	1:A:1239:PHE:HB2	1.98	0.45
1:A:1813:THR:OG1	1:A:1816:PHE:N	2.32	0.45
1:A:2163:MET:SD	1:A:2163:MET:N	2.89	0.45
1:A:3685:GLU:OE1	1:A:3687:PHE:N	2.49	0.45
1:C:22:LEU:HD22	1:C:212:TRP:HB3	1.98	0.45
1:C:131:CYS:HB2	1:C:157:ALA:HB1	1.97	0.45
1:C:246:THR:OG1	1:C:247:VAL:N	2.49	0.45
1:C:508:TYR:CG	1:C:517:VAL:HG13	2.51	0.45
1:C:711:GLU:HA	1:C:1637:ARG:HB2	1.98	0.45
1:C:2429:PRO:HG2	1:C:2431:GLY:HA3	1.98	0.45
1:C:3682:LYS:NZ	1:C:3683:LEU:O	2.39	0.45
1:C:4025:LYS:HA	1:C:4089:HIS:CE1	2.50	0.45
1:E:595:LYS:HZ3	1:E:635:ASN:HB3	1.80	0.45
1:E:1154:ARG:NH2	1:E:1180:GLU:OE1	2.42	0.45
1:E:1521:THR:HA	1:E:1526:ASP:HA	1.98	0.45
1:E:1836:ASN:O	1:E:1840:LYS:N	2.49	0.45
1:E:2547:ASP:O	1:E:2551:HIS:N	2.46	0.45
1:E:3932:ASN:O	1:E:3935:SER:OG	2.33	0.45
1:G:278:GLU:O	1:G:296:ARG:N	2.47	0.45
1:G:2402:ARG:HA	1:G:2402:ARG:HD3	1.63	0.45
1:G:3694:ASP:HA	1:G:3697:ALA:HB3	1.98	0.45
1:A:239:GLY:H	1:A:243:GLU:HB3	1.81	0.45
1:A:602:ASP:OD1	1:A:602:ASP:N	2.47	0.45
1:A:640:ARG:HA	1:A:643:LEU:HD21	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1591:LEU:HD23	1:A:1591:LEU:HA	1.83	0.45
1:A:2308:PHE:O	1:A:2310:ASN:N	2.46	0.45
1:A:4015:LEU:HD23	1:A:4015:LEU:HA	1.75	0.45
1:A:4106:LEU:O	1:A:4110:MET:N	2.50	0.45
1:A:4788:ASN:ND2	1:C:4738:PHE:CD1	2.83	0.45
1:C:357:GLY:O	1:C:404:ASN:ND2	2.37	0.45
1:C:938:GLU:HA	1:C:941:LYS:HB2	1.97	0.45
1:C:1054:VAL:HA	1:C:1057:LEU:HG	1.98	0.45
1:C:1764:SER:HB3	1:C:1778:TYR:HD2	1.80	0.45
1:E:22:LEU:HD22	1:E:212:TRP:HB3	1.98	0.45
1:E:653:SER:OG	1:E:794:PHE:O	2.32	0.45
1:E:1487:MET:HB3	1:E:1520:PHE:HZ	1.80	0.45
1:E:1714:TYR:HA	1:E:1717:ALA:HB3	1.97	0.45
1:E:2429:PRO:HG2	1:E:2431:GLY:HA3	1.98	0.45
1:E:2463:PRO:HB3	1:E:2516:ALA:HB2	1.99	0.45
1:E:4889:CYS:HB3	1:E:4893:GLY:N	2.31	0.45
1:G:508:TYR:CG	1:G:517:VAL:HG13	2.51	0.45
1:G:1154:ARG:NH2	1:G:1180:GLU:OE1	2.42	0.45
1:G:3830:VAL:HG21	1:G:3909:LYS:HD2	1.98	0.45
1:G:4022:LEU:HD23	1:G:4023:LYS:HZ2	1.80	0.45
1:A:22:LEU:HD22	1:A:212:TRP:HB3	1.98	0.45
1:A:417:ARG:HD2	1:A:417:ARG:HA	1.76	0.45
1:A:486:GLN:NE2	1:A:539:ALA:O	2.35	0.45
1:A:595:LYS:HZ3	1:A:635:ASN:HB3	1.81	0.45
1:A:601:LEU:HD12	1:A:601:LEU:HA	1.66	0.45
1:A:711:GLU:HA	1:A:1637:ARG:HB2	1.98	0.45
1:A:1040:ASP:OD1	1:A:1040:ASP:N	2.44	0.45
1:A:2212:GLN:O	1:A:2247:SER:OG	2.33	0.45
1:A:2326:ILE:HG23	1:G:207:PHE:HD1	1.80	0.45
1:A:2433:LEU:H	1:A:2433:LEU:HG	1.55	0.45
1:A:3830:VAL:HG21	1:A:3909:LYS:HD2	1.98	0.45
1:A:4763:HIS:CE1	1:A:4764:ASN:HB2	2.51	0.45
1:C:4840:TYR:HA	1:C:4843:TYR:HD2	1.80	0.45
1:E:1504:GLY:HA2	1:E:1523:ASN:HD22	1.80	0.45
1:E:1826:TYR:CZ	1:E:1830:ILE:HD11	2.52	0.45
1:E:2103:LEU:HD13	1:E:3626:GLU:HB2	1.99	0.45
1:E:2163:MET:N	1:E:2163:MET:SD	2.89	0.45
1:E:2405:PRO:HB3	1:E:2417:ALA:HB1	1.98	0.45
1:E:3634:GLU:H	1:E:3635:HIS:CE1	2.35	0.45
1:E:3973:MET:HE3	1:E:4092:ALA:HA	1.98	0.45
1:G:218:SER:OG	1:G:286:GLY:O	2.30	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1714:TYR:HA	1:G:1717:ALA:HB3	1.97	0.45
1:G:2256:LEU:O	1:G:3811:ARG:NH2	2.48	0.45
1:G:2463:PRO:HB3	1:G:2516:ALA:HB2	1.99	0.45
1:G:4763:HIS:CE1	1:G:4764:ASN:HB2	2.51	0.45
1:A:38:ALA:O	1:A:48:PHE:N	2.47	0.45
1:A:131:CYS:HB2	1:A:157:ALA:HB1	1.97	0.45
1:A:207:PHE:CE1	1:C:2326:ILE:HD12	2.48	0.45
1:A:674:TYR:HE1	1:A:757:CYS:H	1.63	0.45
1:A:1309:GLU:OE2	1:A:1538:LYS:NZ	2.47	0.45
1:A:2400:LEU:HD23	1:A:2400:LEU:HA	1.83	0.45
1:A:3036:ILE:O	1:A:3040:THR:N	2.46	0.45
1:A:4510:VAL:HG11	1:A:4580:HIS:HB2	1.98	0.45
2:B:14:LYS:HD2	2:B:17:PHE:HB3	1.98	0.45
1:C:915:HIS:CE1	1:C:917:CYS:HB3	2.52	0.45
1:C:2593:LEU:O	1:C:2597:VAL:N	2.48	0.45
1:C:3075:ASN:O	1:C:3079:GLY:N	2.49	0.45
1:C:4114:THR:OG1	1:C:4115:ARG:N	2.48	0.45
1:C:4510:VAL:HG11	1:C:4580:HIS:HB2	1.98	0.45
1:E:12:GLN:O	1:E:177:VAL:N	2.50	0.45
1:E:426:PHE:O	1:E:430:ILE:N	2.48	0.45
1:E:3036:ILE:O	1:E:3040:THR:N	2.46	0.45
1:E:3845:GLN:HG3	1:E:3923:GLU:HG3	1.99	0.45
1:E:4193:PHE:O	1:E:4197:THR:OG1	2.27	0.45
2:F:22:LYS:HB2	2:F:22:LYS:HE2	1.77	0.45
1:G:239:GLY:H	1:G:243:GLU:HB3	1.81	0.45
1:G:374:TYR:O	1:G:398:HIS:NE2	2.47	0.45
1:G:650:ASN:HA	1:G:1626:GLN:HA	1.98	0.45
1:G:915:HIS:CE1	1:G:917:CYS:HB3	2.52	0.45
1:G:2103:LEU:HD13	1:G:3626:GLU:HB2	1.98	0.45
1:G:2141:LYS:O	1:G:2145:ARG:NH2	2.48	0.45
1:G:2219:LEU:HA	1:G:2222:LEU:HB3	1.99	0.45
1:G:3075:ASN:O	1:G:3079:GLY:N	2.49	0.45
1:G:3624:GLY:HA2	1:G:3627:LYS:HE2	1.97	0.45
1:A:1714:TYR:HA	1:A:1717:ALA:HB3	1.97	0.45
1:C:412:GLU:O	1:C:415:THR:OG1	2.32	0.45
1:C:472:HIS:CD2	1:C:3674:ARG:HH21	2.34	0.45
1:C:1113:MET:HG3	1:C:1156:TRP:HE1	1.82	0.45
1:C:1826:TYR:CZ	1:C:1830:ILE:HD11	2.52	0.45
1:C:2163:MET:N	1:C:2163:MET:SD	2.89	0.45
1:C:2425:ARG:NH2	1:C:2476:VAL:HG12	2.29	0.45
1:C:3845:GLN:HG3	1:C:3923:GLU:HG3	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3973:MET:HE3	1:C:4092:ALA:HA	1.98	0.45
1:E:246:THR:OG1	1:E:247:VAL:N	2.49	0.45
1:E:308:LEU:N	1:E:326:SER:O	2.44	0.45
1:E:508:TYR:CG	1:E:517:VAL:HG13	2.51	0.45
1:E:732:LEU:HD23	1:E:741:VAL:HG21	1.98	0.45
1:E:915:HIS:CE1	1:E:917:CYS:HB3	2.52	0.45
1:E:2897:LEU:O	1:E:2902:TYR:N	2.37	0.45
1:E:4044:ILE:HG13	1:E:4045:SER:H	1.82	0.45
1:G:601:LEU:HA	1:G:601:LEU:HD12	1.66	0.45
1:G:1225:LYS:O	1:G:1228:THR:OG1	2.34	0.45
1:G:1521:THR:HA	1:G:1526:ASP:HA	1.98	0.45
1:G:2388:ALA:O	1:G:2392:PHE:N	2.48	0.45
1:G:4589:ILE:HA	1:G:4592:TYR:HB3	1.99	0.45
1:G:4906:PHE:HA	1:G:4909:HIS:HB3	1.99	0.45
1:A:246:THR:OG1	1:A:247:VAL:N	2.49	0.45
1:A:915:HIS:CE1	1:A:917:CYS:HB3	2.52	0.45
1:A:2256:LEU:O	1:A:3811:ARG:NH2	2.48	0.45
1:A:3075:ASN:O	1:A:3079:GLY:N	2.49	0.45
1:A:3694:ASP:HA	1:A:3697:ALA:HB3	1.98	0.45
1:A:4064:THR:O	1:A:4068:LEU:N	2.40	0.45
1:C:721:ASP:OD1	1:C:721:ASP:N	2.35	0.45
1:C:1714:TYR:HA	1:C:1717:ALA:HB3	1.97	0.45
1:C:1823:LYS:HB3	1:C:1823:LYS:HE2	1.79	0.45
1:C:2405:PRO:HB3	1:C:2417:ALA:HB1	1.98	0.45
1:C:2463:PRO:HB3	1:C:2516:ALA:HB2	1.99	0.45
1:C:2559:GLY:O	1:C:2563:THR:N	2.46	0.45
1:C:3136:THR:O	1:C:3140:ALA:N	2.50	0.45
1:C:4763:HIS:CE1	1:C:4764:ASN:HB2	2.51	0.45
1:E:278:GLU:O	1:E:296:ARG:N	2.47	0.45
1:E:2219:LEU:HA	1:E:2222:LEU:HB3	1.99	0.45
1:G:282:VAL:O	1:G:285:SER:OG	2.28	0.45
1:G:412:GLU:O	1:G:415:THR:OG1	2.33	0.45
1:G:595:LYS:HZ3	1:G:635:ASN:HB3	1.81	0.45
1:G:651:HIS:HA	1:G:1627:PHE:CZ	2.51	0.45
1:G:1054:VAL:HA	1:G:1057:LEU:HG	1.98	0.45
1:G:1217:PHE:HB3	1:G:1239:PHE:HB2	1.98	0.45
1:G:1487:MET:HB3	1:G:1520:PHE:HZ	1.80	0.45
1:G:1770:SER:O	1:G:1770:SER:OG	2.32	0.45
1:G:3634:GLU:H	1:G:3635:HIS:CE1	2.35	0.45
1:G:4044:ILE:HG13	1:G:4045:SER:H	1.82	0.45
1:A:352:SER:O	1:A:352:SER:OG	2.28	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:477:ASN:O	1:A:481:ALA:N	2.41	0.45
1:A:650:ASN:HA	1:A:1626:GLN:HA	1.98	0.45
1:A:732:LEU:HD23	1:A:741:VAL:HG21	1.98	0.45
1:A:2463:PRO:HB3	1:A:2516:ALA:HB2	1.99	0.45
1:A:2668:PRO:O	1:A:2672:ALA:N	2.48	0.45
1:A:3845:GLN:HG3	1:A:3923:GLU:HG3	1.99	0.45
1:A:4616:LEU:O	1:A:4621:GLN:N	2.35	0.45
1:A:4840:TYR:HA	1:A:4843:TYR:HD2	1.80	0.45
1:C:650:ASN:HA	1:C:1626:GLN:HA	1.98	0.45
1:C:1611:ILE:N	1:C:1620:GLN:O	2.49	0.45
1:C:4044:ILE:HG13	1:C:4045:SER:H	1.82	0.45
1:C:4779:VAL:HG13	1:C:4814:TYR:HE1	1.81	0.45
1:C:4817:HIS:O	1:C:4821:GLY:N	2.49	0.45
1:E:207:PHE:HD1	1:G:2326:ILE:HG23	1.81	0.45
1:E:1630:LEU:O	1:E:1638:SER:OG	2.24	0.45
1:E:2402:ARG:HD3	1:E:2402:ARG:HA	1.63	0.45
1:E:4717:ASP:OD2	1:E:4720:PHE:N	2.37	0.45
1:G:12:GLN:O	1:G:177:VAL:N	2.50	0.45
1:G:163:HIS:O	1:G:182:ILE:N	2.49	0.45
1:G:562:LEU:HG	1:G:600:LEU:HD21	1.99	0.45
1:G:653:SER:OG	1:G:794:PHE:O	2.32	0.45
1:G:2086:PHE:O	1:G:3692:TYR:OH	2.25	0.45
1:G:3790:PHE:O	1:G:3793:SER:OG	2.22	0.45
1:G:4156:SER:O	1:G:4159:THR:OG1	2.22	0.45
1:G:4786:ALA:HA	1:G:4790:PHE:HD2	1.82	0.45
1:A:59:PRO:HB3	1:A:296:ARG:CZ	2.47	0.45
1:A:1098:ALA:O	1:A:1101:TRP:NE1	2.38	0.45
1:A:1305:SER:HB3	1:A:1591:LEU:HB2	1.99	0.45
1:A:2035:GLU:O	1:A:2038:THR:OG1	2.30	0.45
1:A:2640:HIS:O	1:A:2644:LYS:N	2.43	0.45
1:C:2668:PRO:O	1:C:2672:ALA:N	2.48	0.45
1:C:3830:VAL:HG21	1:C:3909:LYS:HD2	1.98	0.45
1:C:4707:GLN:HA	1:C:4710:LYS:HE3	1.99	0.45
1:E:478:ARG:O	1:E:482:LEU:N	2.45	0.45
1:E:731:HIS:HA	1:E:741:VAL:HB	1.98	0.45
1:E:1225:LYS:O	1:E:1228:THR:OG1	2.34	0.45
1:E:1757:LEU:HD13	1:E:1757:LEU:HA	1.76	0.45
1:E:3921:LEU:HA	1:E:3921:LEU:HD23	1.83	0.45
1:E:3996:ILE:HA	1:E:3999:GLN:HG2	1.98	0.45
1:E:4721:LEU:O	1:E:4725:TRP:N	2.39	0.45
2:F:14:LYS:HD2	2:F:17:PHE:HB3	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:246:THR:OG1	1:G:247:VAL:N	2.50	0.45
1:G:1056:THR:O	1:G:1060:TYR:N	2.41	0.45
1:G:3136:THR:O	1:G:3140:ALA:N	2.50	0.45
2:H:23:ASP:OD1	2:H:23:ASP:N	2.50	0.45
1:A:878:LEU:HA	1:A:881:ILE:HB	1.99	0.45
1:A:1113:MET:HG3	1:A:1156:TRP:HE1	1.82	0.45
1:A:2832:VAL:HB	1:A:2895:LYS:HB2	1.98	0.45
1:A:3136:THR:O	1:A:3140:ALA:N	2.50	0.45
1:A:3682:LYS:NZ	1:A:3683:LEU:O	2.39	0.45
1:A:3973:MET:HE3	1:A:4092:ALA:HA	1.98	0.45
1:A:4707:GLN:HA	1:A:4710:LYS:HE3	1.99	0.45
1:A:4779:VAL:HG13	1:A:4814:TYR:HE1	1.81	0.45
1:A:4786:ALA:HA	1:A:4790:PHE:HD2	1.82	0.45
1:A:4796:LYS:NZ	1:A:4806:LYS:O	2.43	0.45
1:A:4906:PHE:HA	1:A:4909:HIS:HB3	1.99	0.45
1:C:1287:GLN:HB3	1:C:1554:GLN:NE2	2.32	0.45
1:C:1469:LEU:N	1:C:1477:HIS:O	2.41	0.45
1:C:4038:PRO:HG3	1:C:4044:ILE:HG22	1.99	0.45
1:E:59:PRO:HB3	1:E:296:ARG:CZ	2.47	0.45
1:E:2732:LYS:HE3	1:E:2829:MET:H	1.82	0.45
1:E:2832:VAL:HB	1:E:2895:LYS:HB2	1.98	0.45
1:E:3075:ASN:O	1:E:3079:GLY:N	2.49	0.45
1:E:4093:LYS:HE3	1:E:4093:LYS:HB2	1.79	0.45
1:G:417:ARG:HA	1:G:417:ARG:HD2	1.76	0.45
1:G:1305:SER:HB3	1:G:1591:LEU:HB2	1.99	0.45
1:G:2832:VAL:HB	1:G:2895:LYS:HB2	1.98	0.45
1:G:3845:GLN:HG3	1:G:3923:GLU:HG3	1.99	0.45
1:G:3982:MET:O	1:G:3985:SER:OG	2.22	0.45
1:G:3996:ILE:HA	1:G:3999:GLN:HG2	1.98	0.45
1:G:4038:PRO:HG3	1:G:4044:ILE:HG22	1.99	0.45
1:A:1287:GLN:HB3	1:A:1554:GLN:NE2	2.32	0.45
1:A:3882:VAL:O	1:A:3885:SER:OG	2.31	0.45
1:A:4038:PRO:HG3	1:A:4044:ILE:HG22	1.99	0.45
1:A:4563:GLU:OE2	1:A:4569:MET:N	2.41	0.45
1:C:674:TYR:HE1	1:C:757:CYS:H	1.63	0.45
1:C:937:LEU:O	1:C:941:LYS:N	2.44	0.45
1:C:1009:ARG:O	1:C:1013:ARG:NH1	2.50	0.45
1:C:3996:ILE:HA	1:C:3999:GLN:HG2	1.98	0.45
2:D:22:LYS:HE2	2:D:22:LYS:HB2	1.77	0.45
2:D:92:VAL:O	2:D:95:LYS:NZ	2.38	0.45
1:E:472:HIS:CD2	1:E:3674:ARG:HH21	2.34	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:502:ILE:H	1:E:502:ILE:HG13	1.63	0.45
1:E:1098:ALA:O	1:E:1101:TRP:NE1	2.38	0.45
1:E:1113:MET:HG3	1:E:1156:TRP:HE1	1.82	0.45
1:E:3968:LEU:HA	1:E:3971:GLU:HG2	1.98	0.45
1:E:4113:ASP:O	1:E:4117:GLN:NE2	2.48	0.45
1:E:4627:ILE:O	1:E:4631:TRP:N	2.42	0.45
1:G:120:LEU:HD12	1:G:120:LEU:HA	1.85	0.45
1:G:731:HIS:HA	1:G:741:VAL:HB	1.98	0.45
1:G:938:GLU:HA	1:G:941:LYS:HB2	1.97	0.45
1:G:1843:LEU:O	1:G:1847:GLU:N	2.41	0.45
2:H:124:GLU:O	2:H:128:GLU:N	2.39	0.45
1:A:12:GLN:O	1:A:177:VAL:N	2.50	0.44
1:A:426:PHE:O	1:A:430:ILE:N	2.48	0.44
1:A:1009:ARG:O	1:A:1013:ARG:NH1	2.50	0.44
1:A:1823:LYS:HE2	1:A:1823:LYS:HB3	1.79	0.44
1:A:4935:THR:N	1:A:4938:GLU:HB2	2.32	0.44
1:C:2732:LYS:HE3	1:C:2829:MET:H	1.82	0.44
1:C:3694:ASP:HA	1:C:3697:ALA:HB3	1.98	0.44
1:C:4093:LYS:NZ	1:C:4129:TYR:OH	2.36	0.44
1:E:418:VAL:O	1:E:422:THR:OG1	2.35	0.44
1:E:506:HIS:CE1	1:E:564:ARG:HG2	2.53	0.44
1:E:562:LEU:HG	1:E:600:LEU:HD21	1.99	0.44
1:E:711:GLU:HA	1:E:1637:ARG:HB2	1.98	0.44
1:E:2174:GLU:O	1:E:2178:ASN:N	2.38	0.44
1:E:3756:VAL:O	1:E:3759:THR:OG1	2.32	0.44
1:E:3874:SER:OG	1:E:3875:THR:N	2.50	0.44
1:E:4027:LEU:HD21	1:E:4058:HIS:ND1	2.33	0.44
1:E:4589:ILE:HA	1:E:4592:TYR:HB3	1.99	0.44
1:E:4763:HIS:CE1	1:E:4764:ASN:HB2	2.52	0.44
1:E:4779:VAL:HG13	1:E:4814:TYR:HE1	1.81	0.44
1:G:59:PRO:HB3	1:G:296:ARG:CZ	2.47	0.44
1:G:593:HIS:O	1:G:596:SER:OG	2.24	0.44
1:G:1138:ASP:HB2	1:G:1145:TRP:NE1	2.33	0.44
1:G:1226:TYR:O	1:G:1230:CYS:N	2.48	0.44
1:G:2308:PHE:O	1:G:2310:ASN:N	2.46	0.44
2:H:33:LEU:HD12	2:H:33:LEU:HA	1.85	0.44
1:A:506:HIS:CE1	1:A:564:ARG:HG2	2.53	0.44
1:A:562:LEU:HG	1:A:600:LEU:HD21	1.99	0.44
1:C:12:GLN:O	1:C:177:VAL:N	2.50	0.44
1:C:602:ASP:OD1	1:C:602:ASP:N	2.47	0.44
1:C:995:MET:O	1:C:999:LEU:N	2.44	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1757:LEU:HA	1:C:1757:LEU:HD13	1.76	0.44
1:C:1771:ILE:O	1:C:1775:CYS:N	2.37	0.44
1:C:4589:ILE:HA	1:C:4592:TYR:HB3	1.99	0.44
1:E:239:GLY:H	1:E:243:GLU:HB3	1.81	0.44
1:E:4038:PRO:HG3	1:E:4044:ILE:HG22	1.99	0.44
1:E:4654:VAL:O	1:E:4658:TYR:N	2.48	0.44
1:G:1113:MET:HG3	1:G:1156:TRP:HE1	1.82	0.44
1:G:1644:LEU:HD12	1:G:1647:GLN:HB2	1.99	0.44
1:G:2196:ASN:OD1	1:G:2199:ARG:NH2	2.38	0.44
1:G:2547:ASP:O	1:G:2551:HIS:N	2.46	0.44
1:G:3968:LEU:HA	1:G:3971:GLU:HG2	1.98	0.44
1:G:4027:LEU:HD21	1:G:4058:HIS:ND1	2.33	0.44
1:G:4140:MET:HE3	1:G:4144:LYS:HA	2.00	0.44
1:A:938:GLU:HA	1:A:941:LYS:HB2	1.97	0.44
1:A:1304:LEU:HD13	1:A:1304:LEU:HA	1.87	0.44
1:A:2219:LEU:HA	1:A:2222:LEU:HB3	1.99	0.44
1:A:3634:GLU:H	1:A:3635:HIS:CE1	2.35	0.44
1:A:3891:TRP:CB	1:G:76:ARG:CB	2.95	0.44
1:C:506:HIS:CE1	1:C:564:ARG:HG2	2.53	0.44
1:C:681:HIS:HA	1:C:751:THR:HG22	2.00	0.44
1:C:732:LEU:HD23	1:C:741:VAL:HG21	1.98	0.44
1:C:1469:LEU:HD12	1:C:1477:HIS:HA	2.00	0.44
1:C:2103:LEU:HD13	1:C:3626:GLU:HB2	1.99	0.44
1:C:4606:GLU:O	1:C:4610:LYS:N	2.48	0.44
1:C:4717:ASP:OD2	1:C:4720:PHE:N	2.37	0.44
1:G:506:HIS:CE1	1:G:564:ARG:HG2	2.53	0.44
1:G:681:HIS:HA	1:G:751:THR:HG22	2.00	0.44
1:G:1721:MET:N	1:G:1721:MET:SD	2.91	0.44
1:G:1826:TYR:CZ	1:G:1830:ILE:HD11	2.52	0.44
1:A:1644:LEU:HD12	1:A:1647:GLN:HB2	2.00	0.44
1:A:4027:LEU:HD21	1:A:4058:HIS:ND1	2.33	0.44
1:C:417:ARG:HD2	1:C:417:ARG:HA	1.76	0.44
1:C:678:MET:N	1:C:801:ARG:O	2.48	0.44
1:C:1659:ARG:O	1:C:1662:SER:OG	2.32	0.44
1:C:1721:MET:N	1:C:1721:MET:SD	2.91	0.44
1:C:4889:CYS:HB3	1:C:4893:GLY:N	2.31	0.44
2:D:14:LYS:HD2	2:D:17:PHE:HB3	1.98	0.44
1:E:163:HIS:O	1:E:182:ILE:N	2.49	0.44
1:E:1009:ARG:O	1:E:1013:ARG:NH1	2.50	0.44
1:E:1721:MET:N	1:E:1721:MET:SD	2.91	0.44
1:E:3136:THR:O	1:E:3140:ALA:N	2.50	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3694:ASP:HA	1:E:3697:ALA:HB3	1.98	0.44
1:E:4064:THR:O	1:E:4068:LEU:N	2.40	0.44
1:E:4906:PHE:HA	1:E:4909:HIS:HB3	1.99	0.44
1:G:486:GLN:HE22	1:G:542:ARG:H	1.66	0.44
1:G:732:LEU:HD23	1:G:741:VAL:HG21	1.98	0.44
1:G:1287:GLN:HB3	1:G:1554:GLN:NE2	2.32	0.44
1:G:1757:LEU:HD13	1:G:1757:LEU:HA	1.76	0.44
1:G:3859:LEU:HD23	1:G:3859:LEU:HA	1.82	0.44
1:G:4106:LEU:O	1:G:4110:MET:N	2.50	0.44
1:G:4935:THR:N	1:G:4938:GLU:HB2	2.32	0.44
1:A:713:TRP:HZ3	1:A:1627:PHE:HB2	1.83	0.44
1:A:4044:ILE:HG13	1:A:4045:SER:H	1.82	0.44
1:A:4817:HIS:O	1:A:4821:GLY:N	2.49	0.44
1:C:163:HIS:O	1:C:182:ILE:N	2.49	0.44
1:C:713:TRP:HZ3	1:C:1627:PHE:HB2	1.83	0.44
1:C:3663:ASP:OD1	1:C:3735:ARG:NH1	2.51	0.44
1:C:4047:ARG:HE	1:C:4047:ARG:HB2	1.56	0.44
1:E:681:HIS:HA	1:E:751:THR:HG22	2.00	0.44
1:E:878:LEU:HA	1:E:881:ILE:HB	1.99	0.44
1:E:1054:VAL:HA	1:E:1057:LEU:HG	1.98	0.44
1:E:1123:GLN:HG3	1:E:1133:ARG:HH12	1.83	0.44
1:G:878:LEU:HA	1:G:881:ILE:HB	1.99	0.44
1:G:1098:ALA:O	1:G:1101:TRP:NE1	2.38	0.44
1:G:1630:LEU:O	1:G:1638:SER:OG	2.24	0.44
1:G:2638:GLU:O	1:G:2642:SER:N	2.44	0.44
1:A:593:HIS:O	1:A:596:SER:OG	2.24	0.44
1:A:804:LEU:HB3	1:A:822:CYS:SG	2.58	0.44
1:A:1010:ASP:HA	1:A:1013:ARG:HH22	1.83	0.44
1:A:2103:LEU:HD13	1:A:3626:GLU:HB2	1.99	0.44
1:A:4854:PHE:HA	1:A:4858:ILE:HG12	2.00	0.44
1:C:78:LEU:HD22	1:C:78:LEU:HA	1.82	0.44
1:C:1217:PHE:HB3	1:C:1239:PHE:HB2	1.98	0.44
1:C:1305:SER:HB3	1:C:1591:LEU:HB2	1.99	0.44
1:E:1160:ASP:HB3	1:E:1177:LEU:HD11	2.00	0.44
1:E:1612:SER:HA	1:E:1619:VAL:HA	2.00	0.44
1:E:2035:GLU:O	1:E:2038:THR:OG1	2.30	0.44
1:E:4047:ARG:HE	1:E:4047:ARG:HB2	1.56	0.44
1:E:4615:GLY:O	1:E:4619:THR:N	2.40	0.44
1:E:4635:VAL:O	1:E:4638:THR:OG1	2.29	0.44
1:G:1718:ARG:O	1:G:1722:ASN:ND2	2.51	0.44
1:G:2117:THR:OG1	1:G:2118:ILE:N	2.51	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4501:TYR:HA	1:G:4504:ARG:HB3	1.99	0.44
1:G:4854:PHE:HA	1:G:4858:ILE:HG12	2.00	0.44
1:A:1106:GLU:N	1:A:1214:ARG:O	2.47	0.44
1:A:1162:VAL:O	1:A:1176:THR:OG1	2.24	0.44
1:A:2303:LEU:HD23	1:A:2303:LEU:HA	1.82	0.44
1:A:2876:ASP:OD1	1:A:2876:ASP:N	2.33	0.44
1:A:3663:ASP:OD1	1:A:3735:ARG:NH1	2.51	0.44
1:C:207:PHE:CD1	1:E:2326:ILE:HG23	2.53	0.44
1:C:274:LEU:HD23	1:C:274:LEU:HA	1.81	0.44
1:C:562:LEU:HG	1:C:600:LEU:HD21	1.99	0.44
1:C:1297:THR:O	1:C:1297:THR:OG1	2.30	0.44
1:C:2120:LEU:O	1:C:2124:LEU:N	2.51	0.44
1:C:2639:LEU:O	1:C:2643:ARG:N	2.41	0.44
1:C:4786:ALA:HA	1:C:4790:PHE:HD2	1.82	0.44
1:E:525:SER:OG	1:E:528:SER:OG	2.30	0.44
1:E:650:ASN:HA	1:E:1626:GLN:HA	1.98	0.44
1:E:695:VAL:HG13	1:E:792:VAL:HG12	1.99	0.44
1:E:1177:LEU:HD12	1:E:1177:LEU:HA	1.81	0.44
1:E:1798:ALA:O	1:E:1802:GLY:N	2.41	0.44
1:E:2117:THR:OG1	1:E:2118:ILE:N	2.51	0.44
1:G:73:LEU:HA	1:G:117:HIS:CE1	2.53	0.44
1:G:2400:LEU:HD23	1:G:2400:LEU:HA	1.83	0.44
1:G:3620:LEU:HD23	1:G:3620:LEU:HA	1.86	0.44
1:G:3797:LEU:HD23	1:G:3797:LEU:HA	1.86	0.44
1:G:4707:GLN:HA	1:G:4710:LYS:HE3	1.99	0.44
1:A:486:GLN:HE22	1:A:542:ARG:H	1.66	0.44
1:A:1611:ILE:N	1:A:1620:GLN:O	2.49	0.44
1:A:1826:TYR:CZ	1:A:1830:ILE:HD11	2.52	0.44
1:A:2559:GLY:O	1:A:2563:THR:N	2.46	0.44
1:A:3996:ILE:HA	1:A:3999:GLN:HG2	1.98	0.44
1:C:59:PRO:HB3	1:C:296:ARG:CZ	2.47	0.44
1:C:2175:VAL:O	1:C:2179:VAL:N	2.51	0.44
1:C:4015:LEU:HD23	1:C:4015:LEU:HA	1.75	0.44
1:C:4027:LEU:HD21	1:C:4058:HIS:ND1	2.33	0.44
1:C:4569:MET:O	1:C:4572:THR:OG1	2.25	0.44
1:E:1305:SER:HB3	1:E:1591:LEU:HB2	1.99	0.44
1:E:1622:LEU:HA	1:E:1622:LEU:HD23	1.86	0.44
1:E:1682:GLU:HA	1:E:1685:LEU:HD13	2.00	0.44
1:E:1718:ARG:O	1:E:1722:ASN:ND2	2.51	0.44
1:E:4106:LEU:O	1:E:4110:MET:N	2.50	0.44
1:E:4578:ILE:O	1:E:4581:THR:OG1	2.35	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:31:LYS:O	2:F:35:THR:OG1	2.26	0.44
1:G:410:HIS:O	1:G:414:ARG:N	2.47	0.44
1:G:2433:LEU:H	1:G:2433:LEU:HG	1.55	0.44
1:G:3715:PHE:HA	1:G:3718:LYS:HE3	1.99	0.44
1:G:4118:THR:O	1:G:4122:LEU:CB	2.61	0.44
1:A:1469:LEU:HD12	1:A:1477:HIS:HA	2.00	0.44
1:A:2039:TYR:OH	1:A:3634:GLU:OE2	2.25	0.44
1:A:2307:VAL:HG12	1:A:2317:ASN:HB3	2.00	0.44
1:C:327:THR:O	1:C:327:THR:OG1	2.34	0.44
1:C:426:PHE:O	1:C:430:ILE:N	2.48	0.44
1:C:567:ALA:O	1:C:571:ILE:N	2.47	0.44
1:C:878:LEU:HA	1:C:881:ILE:HB	1.99	0.44
1:C:1160:ASP:HB3	1:C:1177:LEU:HD11	2.00	0.44
1:C:1836:ASN:O	1:C:1840:LYS:N	2.49	0.44
1:C:2174:GLU:O	1:C:2178:ASN:N	2.38	0.44
1:C:4906:PHE:HA	1:C:4909:HIS:HB3	1.99	0.44
1:E:678:MET:N	1:E:801:ARG:O	2.48	0.44
1:E:1287:GLN:HB3	1:E:1554:GLN:NE2	2.32	0.44
1:E:1823:LYS:HB3	1:E:1823:LYS:HE2	1.79	0.44
1:E:3663:ASP:OD1	1:E:3735:ARG:NH1	2.51	0.44
1:E:3830:VAL:HG21	1:E:3909:LYS:HD2	1.98	0.44
1:E:4786:ALA:HA	1:E:4790:PHE:HD2	1.82	0.44
1:E:4935:THR:N	1:E:4938:GLU:HB2	2.32	0.44
1:G:1009:ARG:O	1:G:1013:ARG:NH1	2.50	0.44
1:G:1010:ASP:HA	1:G:1013:ARG:HH22	1.83	0.44
1:G:1836:ASN:O	1:G:1840:LYS:N	2.49	0.44
1:G:2120:LEU:O	1:G:2124:LEU:N	2.51	0.44
1:G:2732:LYS:HE3	1:G:2829:MET:H	1.82	0.44
1:G:3069:LEU:O	1:G:3073:MET:N	2.51	0.44
1:G:4663:GLY:H	1:G:4666:ARG:NE	2.16	0.44
1:A:486:GLN:HE22	1:A:542:ARG:N	2.16	0.43
1:A:1138:ASP:HB2	1:A:1145:TRP:NE1	2.33	0.43
1:A:1231:GLY:H	1:A:1234:GLU:HG3	1.83	0.43
1:A:2061:GLN:H	1:A:2061:GLN:HG3	1.63	0.43
1:A:2117:THR:OG1	1:A:2118:ILE:N	2.51	0.43
1:A:4113:ASP:O	1:A:4117:GLN:NE2	2.48	0.43
1:A:4663:GLY:H	1:A:4666:ARG:NE	2.16	0.43
1:C:120:LEU:HD12	1:C:120:LEU:HA	1.85	0.43
1:C:238:HIS:N	1:C:243:GLU:O	2.50	0.43
1:C:306:LEU:HA	1:C:316:LEU:HA	2.00	0.43
1:C:557:TRP:O	1:C:560:SER:OG	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:733:TRP:HA	1:C:737:ILE:O	2.18	0.43
1:C:1089:ARG:NH1	1:C:1122:CYS:O	2.51	0.43
1:C:1503:ASN:O	1:C:1523:ASN:ND2	2.52	0.43
1:C:2219:LEU:HA	1:C:2222:LEU:HB3	1.99	0.43
1:C:2640:HIS:O	1:C:2644:LYS:N	2.43	0.43
1:C:4144:LYS:HE2	1:C:4144:LYS:HB2	1.82	0.43
1:E:486:GLN:HE22	1:E:542:ARG:H	1.66	0.43
1:E:1440:ASN:OD1	1:E:1440:ASN:N	2.51	0.43
1:E:2388:ALA:O	1:E:2392:PHE:N	2.48	0.43
1:E:4604:GLU:OE2	1:E:4644:ASN:N	2.45	0.43
1:E:4707:GLN:HA	1:E:4710:LYS:HE3	1.99	0.43
1:G:2489:LEU:HD23	1:G:2489:LEU:HA	1.87	0.43
1:G:3874:SER:OG	1:G:3875:THR:N	2.50	0.43
1:G:3978:ASP:OD1	1:G:3978:ASP:N	2.50	0.43
1:G:4015:LEU:HA	1:G:4015:LEU:HD23	1.75	0.43
1:G:4018:PHE:HZ	1:G:4095:ILE:HB	1.83	0.43
1:A:681:HIS:HA	1:A:751:THR:HG22	2.00	0.43
1:A:929:ARG:O	1:A:933:LEU:N	2.48	0.43
1:A:1440:ASN:N	1:A:1440:ASN:OD1	2.51	0.43
1:A:1770:SER:O	1:A:1770:SER:OG	2.32	0.43
1:A:2326:ILE:HG23	1:G:207:PHE:CD1	2.53	0.43
1:A:3956:GLN:O	1:A:3960:SER:OG	2.30	0.43
1:A:4811:LEU:HD13	1:C:4519:LEU:CB	2.45	0.43
1:C:477:ASN:O	1:C:481:ALA:N	2.41	0.43
1:C:601:LEU:HD12	1:C:601:LEU:HA	1.66	0.43
1:C:653:SER:OG	1:C:794:PHE:O	2.32	0.43
1:C:695:VAL:HG13	1:C:792:VAL:HG12	1.99	0.43
1:C:1040:ASP:OD1	1:C:1040:ASP:N	2.44	0.43
1:C:1138:ASP:HB2	1:C:1145:TRP:NE1	2.33	0.43
1:C:1718:ARG:O	1:C:1722:ASN:ND2	2.51	0.43
1:C:3634:GLU:H	1:C:3635:HIS:CE1	2.35	0.43
1:E:306:LEU:HA	1:E:316:LEU:HA	2.00	0.43
1:E:804:LEU:HB3	1:E:822:CYS:SG	2.58	0.43
1:E:1469:LEU:HD12	1:E:1477:HIS:HA	2.00	0.43
1:E:1503:ASN:O	1:E:1523:ASN:ND2	2.52	0.43
1:G:1298:ASP:OD1	1:G:1298:ASP:N	2.49	0.43
1:G:1304:LEU:HD13	1:G:1304:LEU:HA	1.87	0.43
1:G:3882:VAL:O	1:G:3885:SER:OG	2.31	0.43
1:G:3945:VAL:O	1:G:3949:LEU:HG	2.19	0.43
1:G:4032:THR:O	1:G:4056:HIS:NE2	2.51	0.43
1:G:4578:ILE:O	1:G:4581:THR:OG1	2.35	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:207:PHE:CD1	1:C:2326:ILE:HG23	2.52	0.43
1:A:411:GLU:H	1:A:411:GLU:HG3	1.57	0.43
1:A:733:TRP:HA	1:A:737:ILE:O	2.18	0.43
1:A:2120:LEU:O	1:A:2124:LEU:N	2.51	0.43
1:A:2196:ASN:OD1	1:A:2199:ARG:NH2	2.38	0.43
1:A:2402:ARG:HD3	1:A:2402:ARG:HA	1.63	0.43
1:A:3715:PHE:HA	1:A:3718:LYS:HE3	1.99	0.43
1:A:4869:ASP:OD2	1:C:4871:PHE:HD1	2.01	0.43
2:B:122:VAL:HA	2:B:125:MET:HB2	2.01	0.43
1:C:527:LYS:HZ2	1:C:531:ASN:HD21	1.66	0.43
1:C:1231:GLY:H	1:C:1234:GLU:HG3	1.83	0.43
1:C:1622:LEU:HA	1:C:1622:LEU:HD23	1.86	0.43
1:C:1644:LEU:HD12	1:C:1647:GLN:HB2	1.99	0.43
1:C:1682:GLU:HA	1:C:1685:LEU:HD13	2.00	0.43
1:C:2196:ASN:OD1	1:C:2199:ARG:NH2	2.38	0.43
1:C:3945:VAL:O	1:C:3949:LEU:HG	2.19	0.43
1:C:4663:GLY:H	1:C:4666:ARG:NE	2.16	0.43
2:D:23:ASP:N	2:D:23:ASP:OD1	2.50	0.43
1:E:890:HIS:HB3	1:E:921:PHE:HB2	2.00	0.43
1:E:1251:LEU:O	1:E:1601:ASN:N	2.48	0.43
1:E:3715:PHE:HA	1:E:3718:LYS:HE3	1.99	0.43
1:E:4187:MET:HA	1:E:4190:PHE:HB3	2.00	0.43
1:E:4663:GLY:H	1:E:4666:ARG:NE	2.16	0.43
1:G:486:GLN:HE22	1:G:542:ARG:N	2.16	0.43
1:G:713:TRP:HZ3	1:G:1627:PHE:HB2	1.83	0.43
1:G:804:LEU:HB3	1:G:822:CYS:SG	2.58	0.43
1:G:1611:ILE:N	1:G:1620:GLN:O	2.49	0.43
1:A:1652:LYS:HA	1:A:1655:TYR:HB3	2.01	0.43
1:A:2319:ASN:OD1	1:A:2323:ARG:NH1	2.36	0.43
1:A:4138:GLU:HA	1:A:4148:ARG:HA	2.01	0.43
1:A:4501:TYR:HA	1:A:4504:ARG:HB3	1.99	0.43
1:C:1298:ASP:N	1:C:1298:ASP:OD1	2.49	0.43
1:C:1612:SER:HA	1:C:1619:VAL:HA	2.00	0.43
1:C:1631:HIS:HA	1:C:1638:SER:HA	2.01	0.43
1:C:3762:LEU:HD12	1:C:3762:LEU:HA	1.82	0.43
1:C:4113:ASP:O	1:C:4117:GLN:NE2	2.48	0.43
1:C:4563:GLU:OE2	1:C:4569:MET:N	2.41	0.43
1:E:462:TYR:CZ	1:E:485:ARG:HD2	2.54	0.43
1:E:1652:LYS:HA	1:E:1655:TYR:HB3	2.01	0.43
1:E:2141:LYS:O	1:E:2145:ARG:NH2	2.48	0.43
1:E:2258:LEU:H	1:E:2258:LEU:HG	1.63	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:801:ARG:NH2	1:G:810:GLU:OE1	2.43	0.43
1:G:1652:LYS:HA	1:G:1655:TYR:HB3	2.01	0.43
2:H:122:VAL:HA	2:H:125:MET:HB2	2.01	0.43
1:A:238:HIS:N	1:A:243:GLU:O	2.50	0.43
1:A:306:LEU:HA	1:A:316:LEU:HA	2.00	0.43
1:A:1718:ARG:O	1:A:1722:ASN:ND2	2.51	0.43
1:C:929:ARG:O	1:C:933:LEU:N	2.48	0.43
1:C:1443:VAL:HG22	1:C:1543:VAL:HG22	2.01	0.43
1:C:1937:LEU:HD12	1:C:1937:LEU:HA	1.82	0.43
1:C:3715:PHE:HA	1:C:3718:LYS:HE3	1.99	0.43
1:E:557:TRP:O	1:E:560:SER:OG	2.34	0.43
1:E:1089:ARG:NH1	1:E:1122:CYS:O	2.51	0.43
1:E:1704:ASP:HA	1:E:1707:ILE:HD12	2.01	0.43
1:E:2328:ARG:NH2	1:E:2330:GLU:OE1	2.48	0.43
1:E:4501:TYR:HA	1:E:4504:ARG:HB3	1.99	0.43
1:E:4779:VAL:O	1:E:4783:THR:N	2.51	0.43
1:G:38:ALA:O	1:G:48:PHE:N	2.47	0.43
1:G:2307:VAL:HG12	1:G:2317:ASN:HB3	2.00	0.43
1:G:2314:VAL:HG13	1:G:2317:ASN:HB2	2.01	0.43
1:G:4615:GLY:O	1:G:4619:THR:N	2.40	0.43
2:H:22:LYS:HB2	2:H:22:LYS:HE2	1.77	0.43
1:A:278:GLU:O	1:A:296:ARG:N	2.47	0.43
1:A:1757:LEU:HA	1:A:1757:LEU:HD13	1.76	0.43
1:A:2119:ASN:OD1	1:A:2120:LEU:N	2.49	0.43
1:A:2168:MET:H	1:A:2168:MET:HG3	1.56	0.43
1:A:2264:GLU:O	1:A:2268:ARG:N	2.45	0.43
1:A:2732:LYS:HE3	1:A:2829:MET:H	1.82	0.43
1:A:3670:LEU:O	1:A:3673:SER:OG	2.32	0.43
1:A:3874:SER:OG	1:A:3875:THR:N	2.50	0.43
1:A:4589:ILE:HA	1:A:4592:TYR:HB3	1.99	0.43
1:A:4871:PHE:HD1	1:G:4869:ASP:OD2	2.01	0.43
1:A:4927:ILE:HD13	1:A:4927:ILE:HA	1.84	0.43
1:C:1652:LYS:HA	1:C:1655:TYR:HB3	2.01	0.43
1:C:2314:VAL:HG13	1:C:2317:ASN:HB2	2.01	0.43
1:C:3901:GLU:OE1	1:C:3905:ARG:NH1	2.52	0.43
1:C:4935:THR:N	1:C:4938:GLU:HB2	2.32	0.43
2:D:122:VAL:HA	2:D:125:MET:HB2	2.01	0.43
1:E:352:SER:O	1:E:352:SER:OG	2.28	0.43
1:E:1138:ASP:HB2	1:E:1145:TRP:NE1	2.33	0.43
1:E:2717:LYS:HG3	1:E:2718:LEU:HG	2.01	0.43
1:E:4018:PHE:HZ	1:E:4095:ILE:HB	1.83	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:122:VAL:HA	2:F:125:MET:HB2	2.01	0.43
1:G:228:LEU:HD23	1:G:228:LEU:HA	1.83	0.43
1:G:462:TYR:CZ	1:G:485:ARG:HD2	2.54	0.43
1:G:1231:GLY:H	1:G:1234:GLU:HG3	1.83	0.43
1:G:1303:ARG:NH1	1:G:1304:LEU:H	2.17	0.43
1:G:1631:HIS:HA	1:G:1638:SER:HA	2.01	0.43
1:G:2175:VAL:O	1:G:2179:VAL:N	2.51	0.43
2:H:45:THR:O	2:H:49:LEU:N	2.46	0.43
1:A:136:SER:OG	1:A:142:LYS:O	2.32	0.43
1:A:1089:ARG:NH1	1:A:1122:CYS:O	2.51	0.43
1:A:1245:ARG:HD3	1:A:1245:ARG:HA	1.89	0.43
1:A:1621:CYS:SG	1:A:1622:LEU:N	2.92	0.43
1:A:2175:VAL:O	1:A:2179:VAL:N	2.51	0.43
1:A:3945:VAL:O	1:A:3949:LEU:HG	2.19	0.43
1:A:4779:VAL:O	1:A:4783:THR:N	2.51	0.43
2:B:101:ILE:N	2:B:137:VAL:O	2.43	0.43
1:C:804:LEU:HB3	1:C:822:CYS:SG	2.58	0.43
1:C:1010:ASP:HA	1:C:1013:ARG:HH22	1.83	0.43
1:C:2126:GLN:O	1:C:2129:SER:OG	2.24	0.43
1:E:82:LEU:HD12	1:E:82:LEU:C	2.38	0.43
1:E:713:TRP:HZ3	1:E:1627:PHE:HB2	1.83	0.43
1:E:874:LEU:HA	1:E:875:PRO:HD3	1.91	0.43
1:E:1298:ASP:OD1	1:E:1298:ASP:N	2.49	0.43
1:E:1591:LEU:HD23	1:E:1591:LEU:HA	1.83	0.43
1:E:1659:ARG:O	1:E:1662:SER:OG	2.32	0.43
1:E:3069:LEU:O	1:E:3073:MET:N	2.51	0.43
1:E:3945:VAL:O	1:E:3949:LEU:HG	2.19	0.43
1:G:72:SER:O	1:G:117:HIS:ND1	2.52	0.43
1:G:194:LEU:HA	1:G:203:VAL:HG12	2.01	0.43
1:G:1469:LEU:HD12	1:G:1477:HIS:HA	2.00	0.43
1:G:1503:ASN:O	1:G:1523:ASN:ND2	2.52	0.43
1:G:4138:GLU:HA	1:G:4148:ARG:HA	2.01	0.43
1:A:653:SER:OG	1:A:794:PHE:O	2.32	0.43
1:A:1303:ARG:NH1	1:A:1304:LEU:H	2.17	0.43
1:A:1631:HIS:HA	1:A:1638:SER:HA	2.01	0.43
1:A:2842:ALA:HB2	1:A:2894:LEU:HD12	2.01	0.43
1:A:3630:ILE:H	1:A:3631:GLU:HG3	1.84	0.43
1:A:3901:GLU:OE1	1:A:3905:ARG:NH1	2.52	0.43
1:C:486:GLN:HE22	1:C:542:ARG:H	1.66	0.43
1:C:909:ASP:HB2	1:C:914:GLN:HB2	2.01	0.43
1:C:1004:HIS:HA	1:C:1007:TRP:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2307:VAL:HG12	1:C:2317:ASN:HB3	2.00	0.43
1:C:2388:ALA:O	1:C:2392:PHE:N	2.48	0.43
1:C:4041:LYS:HD3	1:C:4041:LYS:HA	1.88	0.43
1:C:4501:TYR:HA	1:C:4504:ARG:HB3	1.99	0.43
1:C:4723:LEU:HD13	1:C:4723:LEU:HA	1.85	0.43
1:C:4869:ASP:OD2	1:E:4871:PHE:HD1	2.01	0.43
1:E:527:LYS:HZ2	1:E:531:ASN:HD21	1.66	0.43
1:E:681:HIS:CE1	1:E:683:GLU:HG3	2.54	0.43
1:E:733:TRP:HA	1:E:737:ILE:O	2.18	0.43
1:E:1644:LEU:HD12	1:E:1647:GLN:HB2	1.99	0.43
1:E:4869:ASP:OD2	1:G:4871:PHE:HD1	2.01	0.43
1:G:335:LYS:HD3	1:G:396:GLU:HA	2.01	0.43
1:G:733:TRP:HA	1:G:737:ILE:O	2.18	0.43
1:G:1440:ASN:N	1:G:1440:ASN:OD1	2.52	0.43
1:G:1548:THR:OG1	1:G:1549:SER:N	2.52	0.43
1:G:4911:LEU:HD23	1:G:4911:LEU:HA	1.78	0.43
2:H:31:LYS:HD2	2:H:31:LYS:HA	1.76	0.43
1:A:194:LEU:HA	1:A:203:VAL:HG12	2.01	0.43
1:A:483:LYS:O	1:A:487:ASN:N	2.52	0.43
1:A:695:VAL:HG13	1:A:792:VAL:HG12	1.99	0.43
1:A:1443:VAL:HG22	1:A:1543:VAL:HG22	2.01	0.43
1:A:1612:SER:HA	1:A:1619:VAL:HA	2.00	0.43
1:A:2314:VAL:HG13	1:A:2317:ASN:HB2	2.01	0.43
1:A:2326:ILE:HD12	1:G:207:PHE:CE1	2.47	0.43
1:C:462:TYR:CZ	1:C:485:ARG:HD2	2.54	0.43
1:C:869:THR:O	1:C:869:THR:OG1	2.36	0.43
1:C:1634:GLU:H	1:C:1634:GLU:HG2	1.55	0.43
1:C:3158:GLU:O	1:C:3162:ALA:N	2.43	0.43
1:C:3627:LYS:HE2	1:C:3627:LYS:HB2	1.72	0.43
1:C:3882:VAL:O	1:C:3885:SER:OG	2.31	0.43
1:C:4032:THR:O	1:C:4056:HIS:NE2	2.51	0.43
1:C:4138:GLU:HA	1:C:4148:ARG:HA	2.01	0.43
1:C:4642:PRO:HG2	1:C:4648:LYS:HG3	2.01	0.43
1:C:4936:GLY:O	1:C:4939:SER:OG	2.35	0.43
1:E:2314:VAL:HG13	1:E:2317:ASN:HB2	2.01	0.43
1:E:2668:PRO:O	1:E:2672:ALA:N	2.48	0.43
1:E:4631:TRP:NE1	1:E:4709:TRP:O	2.44	0.43
2:F:91:ARG:HD3	2:F:91:ARG:HA	1.84	0.43
1:G:288:HIS:ND1	1:G:350:GLY:O	2.52	0.43
1:G:770:ILE:HD13	1:G:770:ILE:HA	1.80	0.43
1:G:909:ASP:HB2	1:G:914:GLN:HB2	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1123:GLN:HG3	1:G:1133:ARG:HH12	1.83	0.43
1:G:1682:GLU:HA	1:G:1685:LEU:HD13	2.00	0.43
1:G:1823:LYS:HE2	1:G:1823:LYS:HB3	1.79	0.43
1:G:3663:ASP:OD1	1:G:3735:ARG:NH1	2.51	0.43
1:A:288:HIS:ND1	1:A:350:GLY:O	2.52	0.43
1:A:1432:ILE:HD13	1:A:1441:VAL:HG21	2.01	0.43
1:A:1503:ASN:O	1:A:1523:ASN:ND2	2.52	0.43
1:A:1603:PHE:HD2	1:A:1605:LYS:HA	1.84	0.43
1:A:1833:ILE:HG22	1:A:1834:PHE:H	1.84	0.43
1:C:194:LEU:HA	1:C:203:VAL:HG12	2.01	0.43
1:C:215:ALA:HA	1:C:216:PRO:HD3	1.91	0.43
1:C:552:SER:OG	1:C:584:GLU:OE2	2.29	0.43
1:C:593:HIS:O	1:C:596:SER:OG	2.24	0.43
1:C:3586:ALA:HA	1:C:3589:HIS:CD2	2.54	0.43
1:C:3874:SER:OG	1:C:3875:THR:N	2.50	0.43
1:C:3925:ILE:HD11	1:C:3936:LEU:HD13	2.00	0.43
1:C:4578:ILE:O	1:C:4581:THR:OG1	2.35	0.43
1:C:4779:VAL:O	1:C:4783:THR:N	2.51	0.43
1:E:897:LYS:HG2	1:E:918:LEU:HD11	2.01	0.43
1:E:1004:HIS:HA	1:E:1007:TRP:HB3	2.01	0.43
1:E:1231:GLY:H	1:E:1234:GLU:HG3	1.83	0.43
1:E:3670:LEU:O	1:E:3673:SER:OG	2.32	0.43
1:E:3925:ILE:HD11	1:E:3936:LEU:HD13	2.00	0.43
1:E:3978:ASP:N	1:E:3978:ASP:OD1	2.50	0.43
1:E:4642:PRO:HG2	1:E:4648:LYS:HG3	2.01	0.43
1:E:4664:ARG:O	1:E:4668:SER:N	2.46	0.43
1:G:34:LYS:HE3	1:G:34:LYS:HB3	1.86	0.43
1:G:527:LYS:HZ2	1:G:531:ASN:HD21	1.66	0.43
1:G:1251:LEU:O	1:G:1601:ASN:N	2.48	0.43
1:G:2035:GLU:O	1:G:2038:THR:OG1	2.30	0.43
1:G:2119:ASN:OD1	1:G:2120:LEU:N	2.49	0.43
1:G:2241:LEU:HD13	1:G:2241:LEU:HA	1.90	0.43
1:G:2402:ARG:O	1:G:2475:ARG:NH2	2.52	0.43
1:G:3630:ILE:H	1:G:3631:GLU:HG3	1.84	0.43
1:G:4093:LYS:HB2	1:G:4093:LYS:HE3	1.79	0.43
1:G:4927:ILE:HD13	1:G:4927:ILE:HA	1.84	0.43
1:A:145:PHE:HB2	1:A:205:ALA:HB3	2.01	0.42
1:A:426:PHE:HB3	1:A:497:LEU:HD11	2.01	0.42
1:A:567:ALA:O	1:A:571:ILE:N	2.47	0.42
1:A:1160:ASP:HB3	1:A:1177:LEU:HD11	2.00	0.42
1:A:1199:ASP:OD1	1:A:1199:ASP:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1433:PHE:CE2	1:A:1554:GLN:HB2	2.54	0.42
1:A:1721:MET:SD	1:A:1721:MET:N	2.91	0.42
1:A:1942:ARG:HA	1:A:1945:TYR:HB3	2.01	0.42
1:A:2027:ARG:H	1:A:2027:ARG:HG3	1.55	0.42
1:A:2141:LYS:O	1:A:2145:ARG:NH2	2.48	0.42
1:A:3932:ASN:O	1:A:3935:SER:OG	2.33	0.42
1:A:4642:PRO:HG2	1:A:4648:LYS:HG3	2.01	0.42
1:A:4899:PHE:O	1:A:4906:PHE:N	2.52	0.42
1:A:4904:HIS:O	1:A:4904:HIS:CG	2.72	0.42
2:B:22:LYS:HE2	2:B:22:LYS:HB2	1.77	0.42
1:C:486:GLN:HE22	1:C:542:ARG:N	2.16	0.42
1:C:681:HIS:CE1	1:C:683:GLU:HG3	2.54	0.42
1:C:997:ASP:HA	1:C:1047:LYS:HG2	2.01	0.42
1:C:1123:GLN:HG3	1:C:1133:ARG:HH12	1.83	0.42
1:C:1261:VAL:HA	1:C:1596:TRP:HH2	1.84	0.42
1:C:3645:LEU:HB3	1:C:3665:LEU:HB2	2.01	0.42
1:C:4854:PHE:HA	1:C:4858:ILE:HG12	2.00	0.42
1:E:335:LYS:HD3	1:E:396:GLU:HA	2.01	0.42
1:E:374:TYR:O	1:E:398:HIS:NE2	2.46	0.42
1:E:482:LEU:HA	1:E:485:ARG:HH21	1.84	0.42
1:E:1190:LEU:HB2	1:E:1193:LYS:HE3	2.01	0.42
1:E:1631:HIS:HA	1:E:1638:SER:HA	2.01	0.42
1:E:2120:LEU:O	1:E:2124:LEU:N	2.51	0.42
1:E:3645:LEU:HB3	1:E:3665:LEU:HB2	2.01	0.42
1:E:4854:PHE:HA	1:E:4858:ILE:HG12	2.00	0.42
1:E:4864:GLN:HB2	1:G:4867:ILE:HG22	2.01	0.42
1:G:306:LEU:HA	1:G:316:LEU:HA	2.00	0.42
1:G:897:LYS:HG2	1:G:918:LEU:HD11	2.01	0.42
1:G:1089:ARG:NH1	1:G:1122:CYS:O	2.51	0.42
1:G:1704:ASP:HA	1:G:1707:ILE:HD12	2.01	0.42
1:G:2668:PRO:O	1:G:2672:ALA:N	2.48	0.42
1:G:2717:LYS:HG3	1:G:2718:LEU:HG	2.01	0.42
1:G:3640:LYS:HE3	1:G:3640:LYS:HB3	1.79	0.42
1:G:3901:GLU:OE1	1:G:3905:ARG:NH1	2.52	0.42
1:G:3984:LEU:HD23	1:G:3984:LEU:HA	1.84	0.42
1:G:4642:PRO:HG2	1:G:4648:LYS:HG3	2.01	0.42
1:G:4664:ARG:O	1:G:4668:SER:N	2.46	0.42
1:G:4721:LEU:O	1:G:4725:TRP:N	2.39	0.42
1:A:1041:ARG:HA	1:A:1044:LYS:HD2	2.01	0.42
1:A:1123:GLN:HG3	1:A:1133:ARG:HH12	1.83	0.42
1:A:1548:THR:OG1	1:A:1549:SER:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3140:ALA:O	1:A:3144:SER:N	2.40	0.42
1:A:4702:ILE:HD12	1:A:4702:ILE:HA	1.90	0.42
1:A:4889:CYS:HB3	1:A:4893:GLY:N	2.31	0.42
2:B:33:LEU:HA	2:B:33:LEU:HD12	1.85	0.42
1:C:1645:THR:H	1:C:1645:THR:HG23	1.55	0.42
1:C:1833:ILE:HG22	1:C:1834:PHE:H	1.84	0.42
1:C:2883:LYS:HA	1:C:2883:LYS:HD2	1.90	0.42
1:C:3922:THR:HG22	1:C:3982:MET:HA	2.01	0.42
1:C:4022:LEU:HD12	1:C:4022:LEU:HA	1.83	0.42
1:E:238:HIS:N	1:E:243:GLU:O	2.50	0.42
1:E:357:GLY:O	1:E:404:ASN:ND2	2.37	0.42
1:E:601:LEU:HD12	1:E:601:LEU:HA	1.66	0.42
1:E:997:ASP:HA	1:E:1047:LYS:HG2	2.01	0.42
1:E:1010:ASP:HA	1:E:1013:ARG:HH22	1.83	0.42
1:G:136:SER:OG	1:G:142:LYS:O	2.32	0.42
1:G:567:ALA:O	1:G:571:ILE:N	2.47	0.42
1:G:695:VAL:HG13	1:G:792:VAL:HG12	1.99	0.42
1:G:812:LYS:HB3	1:G:812:LYS:HE3	1.86	0.42
1:G:1999:ASP:O	1:G:2003:ASP:N	2.42	0.42
1:G:4899:PHE:O	1:G:4906:PHE:N	2.52	0.42
1:A:410:HIS:O	1:A:414:ARG:N	2.47	0.42
1:A:424:PHE:HB3	1:A:428:ARG:NH2	2.34	0.42
1:A:462:TYR:CZ	1:A:485:ARG:HD2	2.54	0.42
1:A:564:ARG:HD3	1:A:564:ARG:HA	1.88	0.42
1:A:678:MET:N	1:A:801:ARG:O	2.48	0.42
1:A:909:ASP:HB2	1:A:914:GLN:HB2	2.01	0.42
1:A:1429:SER:HA	1:A:1507:ILE:HG12	2.01	0.42
1:A:1795:LEU:HD21	1:A:1821:LEU:HB3	2.02	0.42
1:A:2326:ILE:O	1:G:207:PHE:HB3	2.19	0.42
1:A:4093:LYS:HB2	1:A:4093:LYS:HE3	1.79	0.42
1:C:145:PHE:HB2	1:C:205:ALA:HB3	2.01	0.42
1:C:335:LYS:HD3	1:C:396:GLU:HA	2.01	0.42
1:C:711:GLU:OE2	1:C:1448:SER:OG	2.31	0.42
1:C:1041:ARG:HA	1:C:1044:LYS:HD2	2.01	0.42
1:C:1154:ARG:NH2	1:C:1180:GLU:OE1	2.43	0.42
1:C:1427:TYR:HE1	1:C:1568:ALA:HB1	1.85	0.42
1:C:1548:THR:OG1	1:C:1549:SER:N	2.52	0.42
1:C:1942:ARG:HA	1:C:1945:TYR:HB3	2.01	0.42
1:C:2119:ASN:OD1	1:C:2120:LEU:N	2.49	0.42
1:C:2717:LYS:HG3	1:C:2718:LEU:HG	2.01	0.42
1:C:4106:LEU:O	1:C:4110:MET:N	2.50	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4642:PRO:HG2	1:C:4648:LYS:HA	2.01	0.42
1:C:4900:ASP:OD1	1:C:4905:GLY:N	2.53	0.42
2:D:53:ILE:O	2:D:57:ASP:N	2.49	0.42
1:E:145:PHE:HB2	1:E:205:ALA:HB3	2.01	0.42
1:E:194:LEU:HA	1:E:203:VAL:HG12	2.01	0.42
1:E:486:GLN:HE22	1:E:542:ARG:N	2.16	0.42
1:E:1429:SER:HA	1:E:1507:ILE:HG12	2.01	0.42
1:E:3586:ALA:HA	1:E:3589:HIS:CD2	2.54	0.42
1:G:482:LEU:HA	1:G:485:ARG:HH21	1.84	0.42
1:G:890:HIS:HB3	1:G:921:PHE:HB2	2.00	0.42
1:G:1160:ASP:HB3	1:G:1177:LEU:HD11	2.00	0.42
1:G:1429:SER:HA	1:G:1507:ILE:HG12	2.01	0.42
1:G:1432:ILE:HD13	1:G:1441:VAL:HG21	2.01	0.42
1:G:1443:VAL:HG22	1:G:1543:VAL:HG22	2.01	0.42
1:G:2842:ALA:HB2	1:G:2894:LEU:HD12	2.01	0.42
1:G:3586:ALA:HA	1:G:3589:HIS:CD2	2.54	0.42
1:A:182:ILE:HD13	1:A:182:ILE:HA	1.86	0.42
1:A:335:LYS:HD3	1:A:396:GLU:HA	2.01	0.42
1:A:608:HIS:HB2	1:A:1656:HIS:CD2	2.47	0.42
1:A:697:TRP:HB2	1:A:766:ILE:HD13	2.01	0.42
1:A:997:ASP:HA	1:A:1047:LYS:HG2	2.01	0.42
1:A:1177:LEU:HD12	1:A:1177:LEU:HA	1.81	0.42
1:A:1766:PRO:HD3	1:A:1781:GLU:H	1.85	0.42
1:A:2328:ARG:NH2	1:A:2330:GLU:OE1	2.48	0.42
1:A:4018:PHE:HZ	1:A:4095:ILE:HB	1.83	0.42
1:A:4041:LYS:HD3	1:A:4041:LYS:HA	1.88	0.42
1:A:4785:VAL:H	1:A:4785:VAL:HG12	1.58	0.42
1:C:207:PHE:HB3	1:E:2326:ILE:O	2.19	0.42
1:C:238:HIS:HA	1:C:403:LEU:HD22	2.01	0.42
1:C:405:LEU:HD13	1:C:405:LEU:HA	1.92	0.42
1:C:549:ALA:O	1:C:552:SER:OG	2.38	0.42
1:C:770:ILE:HD13	1:C:770:ILE:HA	1.80	0.42
1:C:1098:ALA:O	1:C:1101:TRP:NE1	2.38	0.42
1:C:1440:ASN:OD1	1:C:1440:ASN:N	2.51	0.42
1:C:2667:LEU:O	1:C:2671:SER:N	2.45	0.42
1:C:3977:LYS:HA	1:C:4095:ILE:HG23	2.02	0.42
1:C:4187:MET:HA	1:C:4190:PHE:HB3	2.00	0.42
1:C:4899:PHE:O	1:C:4906:PHE:N	2.52	0.42
1:C:4904:HIS:CG	1:C:4904:HIS:O	2.72	0.42
1:E:72:SER:O	1:E:117:HIS:ND1	2.52	0.42
1:E:207:PHE:CE1	1:G:2326:ILE:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1041:ARG:HA	1:E:1044:LYS:HD2	2.01	0.42
1:E:1432:ILE:HG22	1:E:1434:PRO:HD2	2.00	0.42
1:E:3901:GLU:OE1	1:E:3905:ARG:NH1	2.52	0.42
1:E:4899:PHE:O	1:E:4906:PHE:N	2.52	0.42
1:G:426:PHE:HB3	1:G:497:LEU:HD11	2.01	0.42
1:G:681:HIS:CE1	1:G:683:GLU:HG3	2.54	0.42
1:G:1177:LEU:HD12	1:G:1177:LEU:HA	1.81	0.42
1:G:1621:CYS:SG	1:G:1622:LEU:N	2.92	0.42
1:G:2258:LEU:H	1:G:2258:LEU:HG	1.63	0.42
1:G:2264:GLU:HA	1:G:2267:VAL:HG22	2.01	0.42
1:G:3925:ILE:HD11	1:G:3936:LEU:HD13	2.00	0.42
1:G:4732:LEU:HD13	1:G:4732:LEU:HA	1.87	0.42
1:A:112:THR:HG23	1:A:114:LEU:HD21	2.02	0.42
1:A:207:PHE:HB3	1:C:2326:ILE:O	2.19	0.42
1:A:527:LYS:HZ2	1:A:531:ASN:HD21	1.67	0.42
1:A:1226:TYR:O	1:A:1230:CYS:N	2.48	0.42
1:A:1427:TYR:HE1	1:A:1568:ALA:HB1	1.85	0.42
1:A:1798:ALA:O	1:A:1802:GLY:N	2.41	0.42
1:A:3586:ALA:HA	1:A:3589:HIS:CD2	2.54	0.42
1:A:3925:ILE:HD11	1:A:3936:LEU:HD13	2.00	0.42
1:A:4900:ASP:OD1	1:A:4905:GLY:N	2.53	0.42
2:B:45:THR:O	2:B:49:LEU:N	2.46	0.42
1:C:374:TYR:O	1:C:398:HIS:NE2	2.46	0.42
1:C:769:ARG:NH1	1:C:772:GLY:O	2.44	0.42
1:C:1432:ILE:HG22	1:C:1434:PRO:HD2	2.00	0.42
1:C:1433:PHE:CE2	1:C:1554:GLN:HB2	2.54	0.42
1:C:3647:LYS:N	1:C:3663:ASP:OD2	2.53	0.42
1:C:4851:PHE:O	1:C:4855:VAL:N	2.50	0.42
1:E:483:LYS:O	1:E:487:ASN:N	2.52	0.42
1:E:1433:PHE:CE2	1:E:1554:GLN:HB2	2.54	0.42
1:E:1937:LEU:HD12	1:E:1937:LEU:HA	1.82	0.42
1:E:1938:GLN:HE21	1:E:1942:ARG:HE	1.68	0.42
1:E:3647:LYS:N	1:E:3663:ASP:OD2	2.53	0.42
1:E:3882:VAL:O	1:E:3885:SER:OG	2.31	0.42
1:E:4632:ASP:OD1	1:E:4709:TRP:NE1	2.46	0.42
1:E:4642:PRO:HG2	1:E:4648:LYS:HA	2.01	0.42
1:G:145:PHE:HB2	1:G:205:ALA:HB3	2.01	0.42
1:G:998:LYS:O	1:G:1002:ASN:N	2.53	0.42
1:G:2168:MET:H	1:G:2168:MET:HG3	1.56	0.42
1:G:4048:ASP:HA	1:G:4051:LYS:HG2	2.02	0.42
1:G:4606:GLU:O	1:G:4610:LYS:N	2.48	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4897:ASP:O	1:G:4901:THR:OG1	2.33	0.42
1:A:897:LYS:HG2	1:A:918:LEU:HD11	2.01	0.42
1:A:1261:VAL:HA	1:A:1596:TRP:HH2	1.84	0.42
1:A:1432:ILE:HG22	1:A:1434:PRO:HD2	2.00	0.42
1:A:2717:LYS:HG3	1:A:2718:LEU:HG	2.01	0.42
1:A:3647:LYS:N	1:A:3663:ASP:OD2	2.53	0.42
1:A:3977:LYS:HA	1:A:4095:ILE:HG23	2.02	0.42
1:A:4048:ASP:HA	1:A:4051:LYS:HG2	2.02	0.42
1:A:4187:MET:HA	1:A:4190:PHE:HB3	2.00	0.42
2:B:23:ASP:OD1	2:B:23:ASP:N	2.50	0.42
1:C:424:PHE:HB3	1:C:428:ARG:NH2	2.34	0.42
1:C:426:PHE:HB3	1:C:497:LEU:HD11	2.01	0.42
1:C:890:HIS:HB3	1:C:921:PHE:HB2	2.00	0.42
1:C:1303:ARG:NH1	1:C:1304:LEU:H	2.17	0.42
1:C:1766:PRO:HD3	1:C:1781:GLU:H	1.85	0.42
1:C:2402:ARG:HD3	1:C:2402:ARG:HA	1.63	0.42
1:C:2842:ALA:HB2	1:C:2894:LEU:HD12	2.01	0.42
1:C:2897:LEU:O	1:C:2902:TYR:N	2.38	0.42
2:D:124:GLU:O	2:D:128:GLU:N	2.39	0.42
1:E:207:PHE:CD1	1:G:2326:ILE:HG23	2.54	0.42
1:E:288:HIS:ND1	1:E:350:GLY:O	2.52	0.42
1:E:424:PHE:HB3	1:E:428:ARG:NH2	2.34	0.42
1:E:426:PHE:HB3	1:E:497:LEU:HD11	2.01	0.42
1:E:549:ALA:O	1:E:552:SER:OG	2.38	0.42
1:E:679:VAL:HA	1:E:800:VAL:HG23	2.01	0.42
1:E:909:ASP:HB2	1:E:914:GLN:HB2	2.01	0.42
1:E:998:LYS:O	1:E:1002:ASN:N	2.53	0.42
1:E:1548:THR:OG1	1:E:1549:SER:N	2.52	0.42
1:E:1705:LEU:HD23	1:E:1705:LEU:HA	1.89	0.42
1:E:2307:VAL:HG12	1:E:2317:ASN:HB3	2.00	0.42
1:E:2433:LEU:H	1:E:2433:LEU:HG	1.55	0.42
1:E:3982:MET:O	1:E:3985:SER:OG	2.22	0.42
1:E:4851:PHE:O	1:E:4855:VAL:N	2.50	0.42
1:G:1041:ARG:HA	1:G:1044:LYS:HD2	2.01	0.42
1:G:1432:ILE:HG22	1:G:1434:PRO:HD2	2.00	0.42
1:G:1603:PHE:HD2	1:G:1605:LYS:HA	1.84	0.42
1:G:1938:GLN:HE21	1:G:1942:ARG:HE	1.68	0.42
1:G:2308:PHE:CG	1:G:2402:ARG:HD2	2.55	0.42
1:G:4513:ALA:HA	1:G:4516:PHE:HB3	2.02	0.42
1:G:4717:ASP:OD2	1:G:4720:PHE:N	2.37	0.42
1:A:238:HIS:HA	1:A:403:LEU:HD22	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:284:TRP:O	1:A:287:SER:OG	2.31	0.42
1:A:681:HIS:CE1	1:A:683:GLU:HG3	2.54	0.42
1:A:890:HIS:HB3	1:A:921:PHE:HB2	2.00	0.42
1:A:1253:LYS:HZ1	1:A:1599:MET:HB2	1.85	0.42
1:A:1682:GLU:HA	1:A:1685:LEU:HD13	2.00	0.42
1:C:998:LYS:O	1:C:1002:ASN:N	2.53	0.42
1:C:1429:SER:HA	1:C:1507:ILE:HG12	2.01	0.42
1:C:1576:LYS:NZ	1:C:1589:GLN:OE1	2.36	0.42
1:C:1704:ASP:HA	1:C:1707:ILE:HD12	2.01	0.42
1:C:2264:GLU:HA	1:C:2267:VAL:HG22	2.01	0.42
1:C:3671:LEU:O	1:C:3675:THR:OG1	2.28	0.42
1:C:3932:ASN:O	1:C:3935:SER:OG	2.33	0.42
1:C:4046:LYS:HD3	1:C:4077:GLU:HB3	2.02	0.42
1:C:4184:LYS:CB	1:E:4904:HIS:ND1	2.83	0.42
1:C:4860:LEU:HD13	1:E:4863:ILE:HD11	1.90	0.42
1:E:1476:VAL:HG13	1:E:1477:HIS:H	1.85	0.42
1:E:4046:LYS:HD3	1:E:4077:GLU:HB3	2.02	0.42
1:E:4702:ILE:HD12	1:E:4702:ILE:HA	1.90	0.42
1:E:4900:ASP:OD1	1:E:4905:GLY:N	2.53	0.42
1:G:483:LYS:O	1:G:487:ASN:N	2.52	0.42
1:G:1092:LYS:HA	1:G:1202:ILE:HD11	2.02	0.42
1:G:1190:LEU:HB2	1:G:1193:LYS:HE3	2.01	0.42
1:G:1433:PHE:CE2	1:G:1554:GLN:HB2	2.54	0.42
1:G:1833:ILE:HG22	1:G:1834:PHE:H	1.84	0.42
1:G:1938:GLN:NE2	1:G:3611:ASN:O	2.50	0.42
1:G:2256:LEU:HD23	1:G:2256:LEU:HA	1.89	0.42
1:G:4518:LEU:HD12	1:G:4518:LEU:HA	1.82	0.42
1:G:4569:MET:O	1:G:4572:THR:OG1	2.25	0.42
1:A:244:CYS:N	1:A:263:GLU:O	2.47	0.42
1:A:1707:ILE:H	1:A:1707:ILE:HG13	1.69	0.42
1:A:3922:THR:HG22	1:A:3982:MET:HA	2.01	0.42
1:A:3962:ASP:OD2	1:A:3965:GLN:NE2	2.48	0.42
1:C:2117:THR:OG1	1:C:2118:ILE:N	2.51	0.42
1:C:2251:ASN:HD22	1:C:2251:ASN:HA	1.65	0.42
1:C:2638:GLU:O	1:C:2642:SER:N	2.44	0.42
1:C:4018:PHE:HZ	1:C:4095:ILE:HB	1.83	0.42
1:C:4864:GLN:HB2	1:E:4867:ILE:HG22	2.01	0.42
1:E:1199:ASP:OD1	1:E:1199:ASP:N	2.48	0.42
1:E:1766:PRO:HD3	1:E:1781:GLU:H	1.85	0.42
1:E:1813:THR:OG1	1:E:1816:PHE:N	2.32	0.42
1:E:2876:ASP:OD1	1:E:2876:ASP:N	2.33	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4184:LYS:CB	1:G:4904:HIS:ND1	2.83	0.42
1:E:4796:LYS:NZ	1:E:4807:CYS:SG	2.73	0.42
1:E:4904:HIS:O	1:E:4904:HIS:CG	2.72	0.42
1:G:1612:SER:HA	1:G:1619:VAL:HA	2.00	0.42
1:G:2032:SER:O	1:G:2036:LYS:N	2.52	0.42
1:G:2119:ASN:OD1	1:G:2119:ASN:N	2.53	0.42
1:G:3921:LEU:HA	1:G:3921:LEU:HD23	1.83	0.42
1:G:4182:GLY:O	1:G:4186:LYS:N	2.53	0.42
1:G:4187:MET:HA	1:G:4190:PHE:HB3	2.00	0.42
1:A:679:VAL:HA	1:A:800:VAL:HG23	2.01	0.42
1:A:998:LYS:O	1:A:1002:ASN:N	2.53	0.42
1:A:1169:THR:OG1	1:A:1170:GLU:N	2.53	0.42
1:A:1938:GLN:HE21	1:A:1942:ARG:HE	1.68	0.42
1:A:2308:PHE:CG	1:A:2402:ARG:HD2	2.55	0.42
1:A:2765:SER:OG	1:A:2766:GLU:OE2	2.38	0.42
1:A:3724:LYS:HD3	1:A:3724:LYS:HA	1.82	0.42
1:A:3762:LEU:HD12	1:A:3762:LEU:HA	1.82	0.42
1:A:4022:LEU:HD23	1:A:4023:LYS:HZ2	1.85	0.42
1:A:4642:PRO:HG2	1:A:4648:LYS:HA	2.01	0.42
1:C:482:LEU:HA	1:C:485:ARG:HH21	1.84	0.42
1:C:682:THR:HG23	1:C:751:THR:HG23	2.02	0.42
1:C:812:LYS:HB3	1:C:812:LYS:HE3	1.86	0.42
1:C:1621:CYS:SG	1:C:1622:LEU:N	2.92	0.42
1:C:2141:LYS:O	1:C:2145:ARG:NH2	2.48	0.42
1:C:2308:PHE:CG	1:C:2402:ARG:HD2	2.55	0.42
1:C:3630:ILE:H	1:C:3631:GLU:HG3	1.84	0.42
1:C:3978:ASP:N	1:C:3978:ASP:OD1	2.50	0.42
1:C:3982:MET:O	1:C:3985:SER:OG	2.22	0.42
2:D:29:THR:HA	2:D:63:THR:HG22	2.02	0.42
1:E:915:HIS:ND1	1:E:918:LEU:HG	2.35	0.42
1:E:1097:LYS:NZ	1:E:1198:GLY:O	2.36	0.42
1:E:1169:THR:OG1	1:E:1170:GLU:N	2.53	0.42
1:E:1432:ILE:HD13	1:E:1441:VAL:HG21	2.01	0.42
1:E:2086:PHE:O	1:E:3692:TYR:OH	2.25	0.42
1:E:4138:GLU:HA	1:E:4148:ARG:HA	2.01	0.42
1:G:915:HIS:ND1	1:G:918:LEU:HG	2.35	0.42
1:G:1004:HIS:HA	1:G:1007:TRP:HB3	2.01	0.42
1:G:4113:ASP:O	1:G:4117:GLN:NE2	2.48	0.42
1:G:4130:PHE:HA	1:G:4133:PHE:HD2	1.85	0.42
1:G:4642:PRO:HG2	1:G:4648:LYS:HA	2.01	0.42
1:G:4900:ASP:OD1	1:G:4905:GLY:N	2.52	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4904:HIS:CG	1:G:4904:HIS:O	2.72	0.42
1:A:23:GLN:N	1:A:213:SER:O	2.53	0.42
1:A:1004:HIS:HA	1:A:1007:TRP:HB3	2.01	0.42
1:A:1190:LEU:HB2	1:A:1193:LYS:HE3	2.01	0.42
1:A:2264:GLU:HA	1:A:2267:VAL:HG22	2.01	0.42
1:A:4513:ALA:HA	1:A:4516:PHE:HB3	2.02	0.42
1:A:4723:LEU:HD13	1:A:4723:LEU:HA	1.85	0.42
1:C:1795:LEU:HD21	1:C:1821:LEU:HB3	2.02	0.42
1:C:1938:GLN:HE21	1:C:1942:ARG:HE	1.68	0.42
1:C:3620:LEU:HA	1:C:3620:LEU:HD23	1.86	0.42
1:C:4811:LEU:HD13	1:E:4519:LEU:HD22	2.00	0.42
1:E:355:LYS:HE3	1:E:355:LYS:HB3	1.91	0.42
1:E:1261:VAL:HA	1:E:1596:TRP:HH2	1.84	0.42
1:E:1303:ARG:NH1	1:E:1304:LEU:H	2.17	0.42
1:E:1427:TYR:HE1	1:E:1568:ALA:HB1	1.85	0.42
1:E:1621:CYS:SG	1:E:1622:LEU:N	2.92	0.42
1:E:1730:THR:O	1:E:1733:THR:OG1	2.26	0.42
1:E:3637:PHE:N	1:E:3638:GLU:OE1	2.53	0.42
1:G:1766:PRO:HD3	1:G:1781:GLU:H	1.85	0.42
1:G:3788:VAL:N	1:G:3865:ASN:OD1	2.53	0.42
1:A:71:GLN:NE2	1:A:73:LEU:HD21	2.35	0.41
1:A:482:LEU:HA	1:A:485:ARG:HH21	1.84	0.41
1:A:1476:VAL:HG13	1:A:1477:HIS:H	1.85	0.41
1:A:1934:VAL:HG23	1:A:3614:ARG:HH12	1.85	0.41
1:A:3978:ASP:N	1:A:3978:ASP:OD1	2.50	0.41
1:A:4904:HIS:ND1	1:G:4184:LYS:CB	2.83	0.41
1:C:72:SER:CB	1:C:113:LEU:HG	2.50	0.41
1:C:502:ILE:H	1:C:502:ILE:HG13	1.63	0.41
1:C:897:LYS:HG2	1:C:918:LEU:HD11	2.01	0.41
1:C:1171:HIS:O	1:C:1194:ASP:N	2.53	0.41
1:C:1253:LYS:HZ1	1:C:1599:MET:HB2	1.85	0.41
1:C:1603:PHE:HD2	1:C:1605:LYS:HA	1.84	0.41
1:C:2032:SER:O	1:C:2036:LYS:N	2.52	0.41
1:C:2241:LEU:HD13	1:C:2241:LEU:HA	1.90	0.41
1:E:112:THR:HG23	1:E:114:LEU:HD21	2.02	0.41
1:E:417:ARG:HA	1:E:417:ARG:HD2	1.76	0.41
1:E:1092:LYS:HA	1:E:1202:ILE:HD11	2.02	0.41
1:E:1934:VAL:HG23	1:E:3614:ARG:HH12	1.85	0.41
1:E:3630:ILE:H	1:E:3631:GLU:HG3	1.84	0.41
1:E:3788:VAL:N	1:E:3865:ASN:OD1	2.53	0.41
1:E:4114:THR:HA	1:E:4117:GLN:HG2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:697:TRP:HB2	1:G:766:ILE:HD13	2.01	0.41
1:G:1304:LEU:HG	1:G:1541:PRO:HG2	2.02	0.41
1:G:1427:TYR:HE1	1:G:1568:ALA:HB1	1.85	0.41
1:G:1659:ARG:O	1:G:1662:SER:OG	2.32	0.41
1:G:4489:GLN:O	1:G:4493:LEU:N	2.53	0.41
1:A:274:LEU:HD23	1:A:274:LEU:HA	1.81	0.41
1:A:568:SER:HA	1:A:571:ILE:HB	2.02	0.41
1:A:1304:LEU:HG	1:A:1541:PRO:HG2	2.03	0.41
1:A:3622:LEU:HD13	1:A:3622:LEU:HA	1.92	0.41
1:A:3859:LEU:HA	1:A:3859:LEU:HD23	1.82	0.41
1:A:4182:GLY:O	1:A:4186:LYS:N	2.53	0.41
1:C:288:HIS:ND1	1:C:350:GLY:O	2.52	0.41
1:C:352:SER:O	1:C:352:SER:OG	2.28	0.41
1:C:483:LYS:O	1:C:487:ASN:N	2.52	0.41
1:C:2645:LEU:O	1:C:2649:ILE:N	2.43	0.41
1:C:3680:LYS:HA	1:C:3680:LYS:HD3	1.83	0.41
1:C:3784:GLU:H	1:C:3784:GLU:HG2	1.61	0.41
1:C:4757:ILE:O	1:C:4760:SER:OG	2.22	0.41
1:E:2256:LEU:HD23	1:E:2256:LEU:HA	1.90	0.41
1:E:3591:LEU:HD11	2:F:109:VAL:HG12	2.02	0.41
1:E:4032:THR:O	1:E:4056:HIS:NE2	2.51	0.41
1:G:238:HIS:HA	1:G:403:LEU:HD22	2.01	0.41
1:G:505:LEU:HA	1:G:505:LEU:HD23	1.79	0.41
1:G:1171:HIS:O	1:G:1194:ASP:N	2.53	0.41
1:G:1645:THR:HG1	1:G:1646:GLU:N	2.17	0.41
1:G:1795:LEU:HD21	1:G:1821:LEU:HB3	2.02	0.41
1:G:1934:VAL:HG23	1:G:3614:ARG:HH12	1.85	0.41
1:G:2883:LYS:HA	1:G:2883:LYS:HD2	1.90	0.41
1:G:4054:GLU:HG3	1:G:4061:GLN:HE21	1.85	0.41
1:G:4162:GLU:H	1:G:4162:GLU:HG3	1.52	0.41
1:A:72:SER:CB	1:A:113:LEU:HG	2.50	0.41
1:A:120:LEU:HD12	1:A:120:LEU:HA	1.85	0.41
1:A:374:TYR:O	1:A:398:HIS:NE2	2.46	0.41
1:A:1092:LYS:HA	1:A:1202:ILE:HD11	2.02	0.41
1:A:1630:LEU:HD22	1:A:1641:ILE:HD13	2.02	0.41
1:A:1704:ASP:HA	1:A:1707:ILE:HD12	2.01	0.41
1:A:4068:LEU:HD23	1:A:4068:LEU:HA	1.93	0.41
1:A:4578:ILE:O	1:A:4581:THR:OG1	2.35	0.41
1:C:58:VAL:HG13	1:C:319:LYS:HB2	2.03	0.41
1:C:72:SER:O	1:C:117:HIS:ND1	2.53	0.41
1:C:1813:THR:OG1	1:C:1816:PHE:N	2.32	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2119:ASN:OD1	1:C:2119:ASN:N	2.53	0.41
1:C:2852:ILE:O	1:C:2856:LYS:N	2.54	0.41
1:C:3647:LYS:HA	1:C:3648:PRO:HD3	1.93	0.41
1:E:238:HIS:HA	1:E:403:LEU:HD22	2.01	0.41
1:E:415:THR:O	1:E:419:ILE:HG13	2.20	0.41
1:E:682:THR:HG23	1:E:751:THR:HG23	2.02	0.41
1:E:1300:MET:HB3	1:E:1302:TYR:CZ	2.56	0.41
1:E:1833:ILE:HG22	1:E:1834:PHE:H	1.84	0.41
1:E:2026:ILE:H	1:E:2026:ILE:HG13	1.71	0.41
1:E:3640:LYS:HE3	1:E:3640:LYS:HB3	1.79	0.41
1:E:4048:ASP:HA	1:E:4051:LYS:HG2	2.02	0.41
1:E:4874:LEU:HD12	1:E:4874:LEU:HA	1.89	0.41
1:G:1245:ARG:HA	1:G:1245:ARG:HD3	1.89	0.41
1:G:3637:PHE:N	1:G:3638:GLU:OE1	2.53	0.41
1:G:3645:LEU:HB3	1:G:3665:LEU:HB2	2.01	0.41
1:G:3647:LYS:N	1:G:3663:ASP:OD2	2.53	0.41
1:G:4114:THR:HA	1:G:4117:GLN:HG2	2.02	0.41
1:A:282:VAL:O	1:A:285:SER:OG	2.28	0.41
1:A:288:HIS:CD2	1:A:352:SER:HA	2.56	0.41
1:A:1171:HIS:O	1:A:1194:ASP:N	2.53	0.41
1:A:1938:GLN:NE2	1:A:3611:ASN:O	2.50	0.41
1:A:2402:ARG:O	1:A:2475:ARG:NH2	2.52	0.41
1:A:3788:VAL:N	1:A:3865:ASN:OD1	2.53	0.41
1:A:4184:LYS:CB	1:C:4904:HIS:ND1	2.83	0.41
1:C:19:GLU:O	1:C:217:ILE:N	2.47	0.41
1:C:161:THR:HG1	1:C:163:HIS:CE1	2.38	0.41
1:C:288:HIS:CD2	1:C:352:SER:HA	2.56	0.41
1:C:434:ASP:O	1:C:437:SER:OG	2.28	0.41
1:C:568:SER:HA	1:C:571:ILE:HB	2.02	0.41
1:C:1092:LYS:HA	1:C:1202:ILE:HD11	2.02	0.41
1:C:1432:ILE:HD13	1:C:1441:VAL:HG21	2.01	0.41
1:C:1934:VAL:HG23	1:C:3614:ARG:HH12	1.85	0.41
1:C:2518:ASN:HA	1:C:2521:LEU:HG	2.03	0.41
1:C:3788:VAL:N	1:C:3865:ASN:OD1	2.53	0.41
1:C:4054:GLU:HG3	1:C:4061:GLN:HE21	1.85	0.41
1:C:4664:ARG:O	1:C:4668:SER:N	2.46	0.41
1:E:58:VAL:HG13	1:E:319:LYS:HB2	2.03	0.41
1:E:274:LEU:HA	1:E:274:LEU:HD23	1.81	0.41
1:E:1253:LYS:HZ1	1:E:1599:MET:HB2	1.85	0.41
1:E:2308:PHE:CG	1:E:2402:ARG:HD2	2.55	0.41
1:E:2765:SER:OG	1:E:2766:GLU:OE2	2.38	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2852:ILE:O	1:E:2856:LYS:N	2.54	0.41
1:E:4927:ILE:HD13	1:E:4927:ILE:HA	1.84	0.41
1:G:424:PHE:HB3	1:G:428:ARG:NH2	2.34	0.41
1:G:997:ASP:HA	1:G:1047:LYS:HG2	2.01	0.41
1:G:1038:LEU:O	1:G:1043:LYS:NZ	2.52	0.41
1:G:1048:ASP:HA	1:G:1051:ARG:HB2	2.03	0.41
1:G:1253:LYS:HZ1	1:G:1599:MET:HB2	1.85	0.41
1:G:1942:ARG:HA	1:G:1945:TYR:HB3	2.01	0.41
1:G:2319:ASN:OD1	1:G:2323:ARG:NH1	2.36	0.41
1:A:59:PRO:HG3	1:A:296:ARG:HD2	2.03	0.41
1:A:415:THR:O	1:A:419:ILE:HG13	2.21	0.41
1:A:687:THR:HB	1:A:689:GLU:HB3	2.02	0.41
1:A:2518:ASN:HA	1:A:2521:LEU:HG	2.03	0.41
1:A:4632:ASP:OD1	1:A:4709:TRP:NE1	2.46	0.41
1:C:687:THR:HB	1:C:689:GLU:HB3	2.02	0.41
1:C:1731:GLU:H	1:C:1731:GLU:HG3	1.57	0.41
1:C:2264:GLU:O	1:C:2268:ARG:N	2.45	0.41
1:C:3640:LYS:HB3	1:C:3640:LYS:HE3	1.79	0.41
1:C:4093:LYS:HB2	1:C:4093:LYS:HE3	1.79	0.41
1:E:161:THR:HG1	1:E:163:HIS:CE1	2.38	0.41
1:E:1443:VAL:HG22	1:E:1543:VAL:HG22	2.01	0.41
1:E:1942:ARG:HA	1:E:1945:TYR:HB3	2.01	0.41
1:E:1999:ASP:O	1:E:2003:ASP:N	2.42	0.41
1:E:2119:ASN:OD1	1:E:2119:ASN:N	2.53	0.41
1:E:4489:GLN:O	1:E:4493:LEU:N	2.53	0.41
1:G:477:ASN:O	1:G:481:ALA:N	2.41	0.41
1:G:2850:HIS:HB2	1:G:2883:LYS:HE2	2.03	0.41
1:G:2852:ILE:O	1:G:2856:LYS:N	2.54	0.41
1:G:3591:LEU:HD11	2:H:109:VAL:HG12	2.02	0.41
1:A:1048:ASP:HA	1:A:1051:ARG:HB2	2.03	0.41
1:A:3984:LEU:HA	1:A:3984:LEU:HD23	1.84	0.41
1:A:4022:LEU:HA	1:A:4022:LEU:HD12	1.83	0.41
1:C:71:GLN:O	1:C:119:ILE:HB	2.20	0.41
1:C:679:VAL:HA	1:C:800:VAL:HG23	2.01	0.41
1:C:1190:LEU:HB2	1:C:1193:LYS:HE3	2.01	0.41
1:C:4182:GLY:O	1:C:4186:LYS:N	2.53	0.41
1:C:4702:ILE:HD12	1:C:4702:ILE:HA	1.90	0.41
1:E:929:ARG:O	1:E:933:LEU:N	2.48	0.41
1:E:2175:VAL:O	1:E:2179:VAL:N	2.51	0.41
1:E:2842:ALA:HB2	1:E:2894:LEU:HD12	2.01	0.41
1:E:2850:HIS:HB2	1:E:2883:LYS:HE2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4054:GLU:HG3	1:E:4061:GLN:HE21	1.85	0.41
1:E:4853:PHE:HA	1:E:4856:ILE:HB	2.02	0.41
1:G:321:LYS:O	1:G:323:ASP:N	2.52	0.41
1:G:549:ALA:O	1:G:552:SER:OG	2.38	0.41
1:G:705:PRO:HG2	1:G:840:TYR:HB3	2.03	0.41
1:G:2303:LEU:HD23	1:G:2303:LEU:HA	1.82	0.41
1:G:4874:LEU:HD12	1:G:4874:LEU:HA	1.89	0.41
2:H:53:ILE:O	2:H:57:ASP:N	2.49	0.41
1:A:71:GLN:O	1:A:119:ILE:HB	2.20	0.41
1:A:549:ALA:O	1:A:552:SER:OG	2.38	0.41
1:A:874:LEU:HA	1:A:875:PRO:HD3	1.91	0.41
1:A:915:HIS:ND1	1:A:918:LEU:HG	2.35	0.41
1:A:1300:MET:HB3	1:A:1302:TYR:CZ	2.56	0.41
1:A:2119:ASN:OD1	1:A:2119:ASN:N	2.53	0.41
1:A:2850:HIS:HB2	1:A:2883:LYS:HE2	2.03	0.41
1:A:3640:LYS:HE3	1:A:3640:LYS:HB3	1.79	0.41
1:A:4046:LYS:HD3	1:A:4077:GLU:HB3	2.02	0.41
1:A:4853:PHE:HA	1:A:4856:ILE:HB	2.02	0.41
1:A:4867:ILE:HG22	1:G:4864:GLN:HB2	2.01	0.41
1:A:4897:ASP:O	1:A:4901:THR:N	2.54	0.41
2:B:29:THR:HA	2:B:63:THR:HG22	2.02	0.41
1:C:112:THR:HG23	1:C:114:LEU:HD21	2.01	0.41
1:C:219:SER:O	1:C:219:SER:OG	2.35	0.41
1:C:505:LEU:HD22	1:C:526:TRP:CD1	2.56	0.41
1:C:1169:THR:OG1	1:C:1170:GLU:N	2.53	0.41
1:C:1591:LEU:HD23	1:C:1591:LEU:HA	1.83	0.41
1:C:2107:TYR:CG	1:C:2162:LEU:HD12	2.56	0.41
1:C:2256:LEU:HD23	1:C:2256:LEU:HA	1.90	0.41
1:C:3588:TRP:HZ3	2:D:142:PHE:HD1	1.67	0.41
1:C:3637:PHE:N	1:C:3638:GLU:OE1	2.53	0.41
1:C:4114:THR:HA	1:C:4117:GLN:HG2	2.02	0.41
1:C:4897:ASP:O	1:C:4901:THR:N	2.54	0.41
1:E:1630:LEU:HD22	1:E:1641:ILE:HD13	2.02	0.41
1:E:2667:LEU:O	1:E:2671:SER:N	2.45	0.41
1:E:3922:THR:HG22	1:E:3982:MET:HA	2.01	0.41
1:E:4785:VAL:H	1:E:4785:VAL:HG12	1.58	0.41
2:F:29:THR:HA	2:F:63:THR:HG22	2.02	0.41
1:G:58:VAL:HG13	1:G:319:LYS:HB2	2.02	0.41
1:G:112:THR:HG23	1:G:114:LEU:HD21	2.02	0.41
1:G:415:THR:O	1:G:419:ILE:HG13	2.21	0.41
1:G:564:ARG:HD3	1:G:564:ARG:HA	1.88	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:679:VAL:HA	1:G:800:VAL:HG23	2.01	0.41
1:G:1476:VAL:HG13	1:G:1477:HIS:H	1.85	0.41
1:G:3588:TRP:HZ3	2:H:142:PHE:HD1	1.67	0.41
1:G:3786:LYS:HZ2	1:G:3786:LYS:HG2	1.66	0.41
1:G:4203:LEU:HD13	1:G:4203:LEU:HA	1.89	0.41
1:G:4636:ILE:H	1:G:4636:ILE:HG12	1.70	0.41
1:G:4779:VAL:O	1:G:4783:THR:N	2.51	0.41
1:A:505:LEU:HD23	1:A:505:LEU:HA	1.79	0.41
1:A:557:TRP:O	1:A:560:SER:OG	2.34	0.41
1:A:711:GLU:OE2	1:A:1448:SER:OG	2.31	0.41
1:A:770:ILE:HD13	1:A:770:ILE:HA	1.80	0.41
1:A:1100:ARG:HB3	1:A:1236:TYR:CZ	2.56	0.41
1:A:1269:GLU:O	1:A:1290:PHE:HA	2.21	0.41
1:A:1576:LYS:NZ	1:A:1589:GLN:OE1	2.36	0.41
1:A:2782:THR:O	1:A:2782:THR:OG1	2.39	0.41
1:A:4114:THR:HA	1:A:4117:GLN:HG2	2.02	0.41
1:A:4130:PHE:HA	1:A:4133:PHE:HD2	1.85	0.41
1:A:4140:MET:HE3	1:A:4144:LYS:HA	2.03	0.41
1:A:4911:LEU:HA	1:A:4911:LEU:HD23	1.78	0.41
1:C:59:PRO:HG3	1:C:296:ARG:HD2	2.03	0.41
1:C:1269:GLU:O	1:C:1290:PHE:HA	2.21	0.41
1:C:3760:LEU:HD23	1:C:3760:LEU:HA	1.79	0.41
1:C:4048:ASP:HA	1:C:4051:LYS:HG2	2.02	0.41
1:C:4489:GLN:O	1:C:4493:LEU:N	2.53	0.41
1:C:4512:PHE:HD1	1:C:4512:PHE:HA	1.74	0.41
1:E:59:PRO:HG3	1:E:296:ARG:HD2	2.03	0.41
1:E:697:TRP:HB2	1:E:766:ILE:HD13	2.01	0.41
1:E:1603:PHE:HD2	1:E:1605:LYS:HA	1.84	0.41
1:E:2119:ASN:OD1	1:E:2120:LEU:N	2.49	0.41
1:E:2264:GLU:HA	1:E:2267:VAL:HG22	2.01	0.41
1:E:4038:PRO:HG2	1:E:4040:GLY:HA2	2.03	0.41
1:E:4182:GLY:O	1:E:4186:LYS:N	2.53	0.41
1:G:59:PRO:HG3	1:G:296:ARG:HD2	2.03	0.41
1:G:1300:MET:HB3	1:G:1302:TYR:CZ	2.56	0.41
1:G:1599:MET:O	1:G:1601:ASN:ND2	2.54	0.41
1:G:2518:ASN:HA	1:G:2521:LEU:HG	2.03	0.41
1:G:3977:LYS:HA	1:G:4095:ILE:HG23	2.02	0.41
1:G:3993:ASN:ND2	1:G:4111:PRO:HD2	2.36	0.41
1:A:427:ASN:OD1	1:A:427:ASN:N	2.53	0.41
1:A:505:LEU:HD22	1:A:526:TRP:CD1	2.56	0.41
1:A:695:VAL:HG22	1:A:792:VAL:HA	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1105:PHE:CD1	1:A:1215:MET:HG2	2.56	0.41
1:A:1154:ARG:NH2	1:A:1180:GLU:OE1	2.43	0.41
1:A:1599:MET:O	1:A:1601:ASN:ND2	2.54	0.41
1:A:2063:ILE:O	1:A:2066:THR:OG1	2.39	0.41
1:A:2164:ARG:NH2	1:A:2210:GLN:OE1	2.54	0.41
1:A:3645:LEU:HB3	1:A:3665:LEU:HB2	2.01	0.41
1:A:4054:GLU:HG3	1:A:4061:GLN:HE21	1.85	0.41
1:C:697:TRP:HB2	1:C:766:ILE:HD13	2.01	0.41
1:C:1048:ASP:HA	1:C:1051:ARG:HB2	2.03	0.41
1:C:1105:PHE:CD1	1:C:1215:MET:HG2	2.56	0.41
1:C:1652:LYS:HB3	1:C:1652:LYS:HE3	1.87	0.41
1:C:2400:LEU:HD23	1:C:2400:LEU:HA	1.83	0.41
1:C:3016:VAL:O	1:C:3020:ILE:N	2.54	0.41
1:C:4006:GLU:H	1:C:4006:GLU:HG2	1.67	0.41
1:C:4635:VAL:O	1:C:4638:THR:OG1	2.29	0.41
1:C:4730:SER:HA	1:C:4740:PHE:HE1	1.86	0.41
1:E:321:LYS:O	1:E:323:ASP:N	2.52	0.41
1:E:687:THR:OG1	1:E:689:GLU:O	2.37	0.41
1:E:872:ILE:HD12	1:E:945:ALA:HB2	2.03	0.41
1:E:1171:HIS:O	1:E:1194:ASP:N	2.53	0.41
1:E:1304:LEU:HG	1:E:1541:PRO:HG2	2.03	0.41
1:E:1795:LEU:HD21	1:E:1821:LEU:HB3	2.02	0.41
1:E:2518:ASN:HA	1:E:2521:LEU:HG	2.03	0.41
1:E:3977:LYS:HA	1:E:4095:ILE:HG23	2.02	0.41
1:E:4130:PHE:HA	1:E:4133:PHE:HD2	1.85	0.41
2:F:45:THR:O	2:F:49:LEU:N	2.46	0.41
1:G:23:GLN:N	1:G:213:SER:O	2.53	0.41
1:G:288:HIS:CD2	1:G:352:SER:HA	2.56	0.41
1:G:505:LEU:HD22	1:G:526:TRP:CD1	2.56	0.41
1:G:568:SER:HA	1:G:571:ILE:HB	2.02	0.41
1:G:929:ARG:O	1:G:933:LEU:N	2.48	0.41
1:G:1156:TRP:CZ3	1:G:1158:ALA:HA	2.56	0.41
1:G:1199:ASP:N	1:G:1199:ASP:OD1	2.48	0.41
1:G:2087:VAL:O	1:G:2091:ARG:N	2.43	0.41
1:G:2432:ASP:O	1:G:2435:GLY:N	2.46	0.41
1:G:3922:THR:HG22	1:G:3982:MET:HA	2.01	0.41
1:G:4038:PRO:HG2	1:G:4040:GLY:HA2	2.03	0.41
1:G:4100:ALA:O	1:G:4104:THR:OG1	2.29	0.41
1:G:4730:SER:HA	1:G:4740:PHE:HE1	1.86	0.41
1:G:4897:ASP:O	1:G:4901:THR:N	2.54	0.41
1:A:72:SER:O	1:A:117:HIS:ND1	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1156:TRP:CZ3	1:A:1158:ALA:HA	2.56	0.41
1:A:1632:ILE:HG12	1:A:1637:ARG:HG2	2.03	0.41
1:A:2388:ALA:O	1:A:2392:PHE:N	2.48	0.41
1:A:3627:LYS:HE2	1:A:3627:LYS:HB2	1.72	0.41
1:A:3637:PHE:N	1:A:3638:GLU:OE1	2.53	0.41
1:A:3993:ASN:ND2	1:A:4111:PRO:HD2	2.36	0.41
1:A:4489:GLN:O	1:A:4493:LEU:N	2.53	0.41
1:A:4864:GLN:HB2	1:C:4867:ILE:HG22	2.01	0.41
1:C:246:THR:HG1	1:C:272:ARG:NH1	2.18	0.41
1:C:415:THR:O	1:C:419:ILE:HG13	2.21	0.41
1:C:1245:ARG:HA	1:C:1245:ARG:HD3	1.89	0.41
1:C:1476:VAL:HG13	1:C:1477:HIS:H	1.85	0.41
1:C:2303:LEU:HA	1:C:2303:LEU:HD23	1.82	0.41
1:C:3909:LYS:O	1:C:3913:VAL:HG23	2.21	0.41
1:C:4004:LEU:HD13	1:C:4004:LEU:HA	1.87	0.41
1:C:4140:MET:HE3	1:C:4144:LYS:HA	2.03	0.41
1:C:4513:ALA:HA	1:C:4516:PHE:HB3	2.02	0.41
1:E:120:LEU:HD12	1:E:120:LEU:HA	1.85	0.41
1:E:810:GLU:N	1:E:823:TYR:OH	2.50	0.41
1:E:954:ASP:HB3	1:E:1061:GLY:HA3	2.03	0.41
1:E:1156:TRP:CZ3	1:E:1158:ALA:HA	2.56	0.41
1:E:1697:LEU:HD23	1:E:1697:LEU:HA	1.94	0.41
1:E:1835:HIS:O	1:E:1837:GLU:N	2.54	0.41
1:E:3140:ALA:O	1:E:3144:SER:N	2.40	0.41
1:E:3588:TRP:HZ3	2:F:142:PHE:HD1	1.67	0.41
1:E:3784:GLU:H	1:E:3784:GLU:HG2	1.61	0.41
1:E:3992:VAL:HG23	1:E:3993:ASN:H	1.86	0.41
1:E:4041:LYS:HA	1:E:4041:LYS:HD3	1.88	0.41
1:E:4897:ASP:O	1:E:4901:THR:OG1	2.33	0.41
1:G:502:ILE:H	1:G:502:ILE:HG13	1.63	0.41
1:G:695:VAL:HG22	1:G:792:VAL:HA	2.03	0.41
1:G:1591:LEU:HD23	1:G:1591:LEU:HA	1.83	0.41
1:G:4794:TYR:HB3	1:G:4807:CYS:SG	2.61	0.41
1:A:499:LEU:HD12	1:A:499:LEU:HA	1.95	0.40
1:A:705:PRO:HG2	1:A:840:TYR:HB3	2.02	0.40
1:A:1835:HIS:O	1:A:1837:GLU:N	2.54	0.40
1:A:4038:PRO:HG2	1:A:4040:GLY:HA2	2.03	0.40
1:A:4080:ASP:HB3	1:A:4083:GLU:HB3	2.04	0.40
1:A:4738:PHE:HD1	1:G:4788:ASN:HD21	1.66	0.40
1:A:4794:TYR:HB3	1:A:4807:CYS:SG	2.61	0.40
1:C:590:LYS:H	1:C:593:HIS:HD2	1.69	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:705:PRO:HG2	1:C:840:TYR:HB3	2.02	0.40
1:C:1300:MET:HB3	1:C:1302:TYR:CZ	2.56	0.40
1:C:1632:ILE:HG12	1:C:1637:ARG:HG2	2.03	0.40
1:C:3069:LEU:O	1:C:3073:MET:N	2.51	0.40
1:C:3871:ILE:O	1:C:3874:SER:OG	2.26	0.40
1:C:3962:ASP:OD2	1:C:3965:GLN:NE2	2.48	0.40
1:C:3992:VAL:HG23	1:C:3993:ASN:H	1.86	0.40
1:C:3996:ILE:H	1:C:3996:ILE:HG22	1.63	0.40
1:E:191:TYR:CD2	1:E:209:GLN:HG2	2.56	0.40
1:E:288:HIS:CD2	1:E:352:SER:HA	2.56	0.40
1:E:436:LEU:HD23	1:E:436:LEU:HA	1.94	0.40
1:E:568:SER:HA	1:E:571:ILE:HB	2.02	0.40
1:E:705:PRO:HG2	1:E:840:TYR:HB3	2.02	0.40
1:E:866:PRO:HB3	1:E:1002:ASN:O	2.22	0.40
1:E:3620:LEU:HA	1:E:3620:LEU:HD23	1.86	0.40
1:E:4022:LEU:HA	1:E:4022:LEU:HD12	1.83	0.40
1:E:4513:ALA:HA	1:E:4516:PHE:HB3	2.02	0.40
1:E:4563:GLU:OE2	1:E:4569:MET:N	2.41	0.40
1:G:191:TYR:CD2	1:G:209:GLN:HG2	2.56	0.40
1:G:682:THR:HG23	1:G:751:THR:HG23	2.02	0.40
1:G:832:LEU:HD22	1:G:1617:TRP:CE2	2.56	0.40
1:G:1169:THR:OG1	1:G:1170:GLU:N	2.53	0.40
1:G:3587:VAL:HG21	2:H:122:VAL:HG13	2.03	0.40
1:G:3767:LEU:HA	1:G:3767:LEU:HD23	1.93	0.40
2:H:31:LYS:O	2:H:35:THR:OG1	2.26	0.40
1:A:478:ARG:O	1:A:482:LEU:N	2.45	0.40
1:A:490:GLN:O	1:A:490:GLN:NE2	2.55	0.40
1:A:1799:VAL:O	1:A:1803:SER:N	2.54	0.40
1:A:3588:TRP:HZ3	2:B:142:PHE:HD1	1.67	0.40
1:A:3909:LYS:O	1:A:3913:VAL:HG23	2.21	0.40
1:A:4105:ASN:O	1:A:4109:HIS:CB	2.69	0.40
2:B:31:LYS:O	2:B:35:THR:OG1	2.26	0.40
1:C:22:LEU:HA	1:C:22:LEU:HD23	1.89	0.40
1:C:262:TYR:HE2	1:C:374:TYR:HB3	1.87	0.40
1:C:801:ARG:NH2	1:C:810:GLU:OE1	2.43	0.40
1:C:915:HIS:ND1	1:C:918:LEU:HG	2.35	0.40
1:C:1100:ARG:HB3	1:C:1236:TYR:CZ	2.56	0.40
1:C:1110:ALA:HB1	1:C:1140:PHE:CZ	2.57	0.40
1:C:1304:LEU:HG	1:C:1541:PRO:HG2	2.03	0.40
1:C:2765:SER:OG	1:C:2766:GLU:OE2	2.38	0.40
1:C:3622:LEU:HD13	1:C:3622:LEU:HA	1.92	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4105:ASN:O	1:C:4109:HIS:CB	2.69	0.40
1:E:34:LYS:HE3	1:E:34:LYS:HB3	1.86	0.40
1:E:207:PHE:HB3	1:G:2326:ILE:O	2.21	0.40
1:E:490:GLN:O	1:E:490:GLN:NE2	2.55	0.40
1:E:1048:ASP:HA	1:E:1051:ARG:HB2	2.03	0.40
1:E:1224:LEU:HA	1:E:1224:LEU:HD23	1.88	0.40
1:E:3671:LEU:O	1:E:3675:THR:OG1	2.28	0.40
1:E:3909:LYS:O	1:E:3913:VAL:HG23	2.21	0.40
1:E:4602:LYS:HB3	1:E:4602:LYS:HE2	1.84	0.40
1:E:4894:ILE:HD13	1:E:4894:ILE:HA	1.90	0.40
1:G:277:LEU:HD12	1:G:277:LEU:HA	1.82	0.40
1:G:718:VAL:HA	1:G:736:CYS:H	1.86	0.40
1:G:1705:LEU:HD23	1:G:1705:LEU:HA	1.89	0.40
1:G:2024:LEU:HA	1:G:2024:LEU:HD23	1.90	0.40
1:G:3016:VAL:O	1:G:3020:ILE:N	2.54	0.40
1:G:3633:GLU:HA	1:G:3635:HIS:CD2	2.57	0.40
1:G:4635:VAL:O	1:G:4638:THR:OG1	2.29	0.40
1:G:4851:PHE:O	1:G:4855:VAL:N	2.50	0.40
1:A:262:TYR:HE2	1:A:374:TYR:HB3	1.87	0.40
1:A:277:LEU:HD12	1:A:277:LEU:HA	1.82	0.40
1:A:1587:HIS:HB2	1:A:1590:PHE:HD2	1.87	0.40
1:A:1761:MET:HB3	1:A:1763:PHE:CZ	2.57	0.40
1:A:1937:LEU:HA	1:A:1937:LEU:HD12	1.82	0.40
1:C:872:ILE:HD12	1:C:945:ALA:HB2	2.03	0.40
1:C:1587:HIS:HB2	1:C:1590:PHE:HD2	1.87	0.40
1:C:1799:VAL:O	1:C:1803:SER:N	2.54	0.40
1:C:3061:PHE:O	1:C:3065:ALA:N	2.55	0.40
1:C:3587:VAL:HG21	2:D:122:VAL:HG13	2.03	0.40
1:C:3633:GLU:HA	1:C:3635:HIS:CD2	2.57	0.40
1:C:3690:MET:HE3	1:C:3690:MET:HB3	1.96	0.40
1:C:3743:GLN:O	1:C:3746:SER:OG	2.37	0.40
1:E:73:LEU:HA	1:E:117:HIS:CE1	2.56	0.40
1:E:505:LEU:HD22	1:E:526:TRP:CD1	2.56	0.40
1:E:1100:ARG:HB3	1:E:1236:TYR:CZ	2.56	0.40
1:E:3016:VAL:O	1:E:3020:ILE:N	2.54	0.40
1:E:4140:MET:HE3	1:E:4144:LYS:HA	2.03	0.40
1:E:4897:ASP:O	1:E:4901:THR:N	2.54	0.40
1:G:238:HIS:N	1:G:243:GLU:O	2.50	0.40
1:G:405:LEU:HD13	1:G:405:LEU:HA	1.92	0.40
1:G:427:ASN:N	1:G:427:ASN:OD1	2.53	0.40
1:G:557:TRP:O	1:G:560:SER:OG	2.34	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:586:LEU:H	1:G:586:LEU:HG	1.67	0.40
1:G:1644:LEU:HD12	1:G:1644:LEU:HA	1.92	0.40
1:G:1799:VAL:O	1:G:1803:SER:N	2.54	0.40
1:G:2107:TYR:CG	1:G:2162:LEU:HD12	2.56	0.40
1:G:2765:SER:OG	1:G:2766:GLU:OE2	2.38	0.40
1:G:4046:LYS:HD3	1:G:4077:GLU:HB3	2.02	0.40
1:A:58:VAL:HG13	1:A:319:LYS:HB2	2.03	0.40
1:A:769:ARG:NH1	1:A:772:GLY:O	2.44	0.40
1:A:954:ASP:HB3	1:A:1061:GLY:HA3	2.03	0.40
1:A:2086:PHE:O	1:A:3692:TYR:OH	2.25	0.40
1:A:2107:TYR:CG	1:A:2162:LEU:HD12	2.56	0.40
1:A:2883:LYS:HA	1:A:2883:LYS:HD2	1.90	0.40
1:A:3155:ALA:O	1:A:3159:CYS:N	2.40	0.40
1:A:3688:LEU:H	1:A:3688:LEU:HD23	1.87	0.40
1:C:228:LEU:HD22	1:C:289:ILE:HD12	2.04	0.40
1:C:718:VAL:HA	1:C:736:CYS:H	1.87	0.40
1:C:832:LEU:HD22	1:C:1617:TRP:CE2	2.56	0.40
1:C:866:PRO:HB3	1:C:1002:ASN:O	2.22	0.40
1:C:918:LEU:HA	1:C:918:LEU:HD23	1.89	0.40
1:C:1761:MET:HB3	1:C:1763:PHE:CZ	2.57	0.40
1:C:1770:SER:O	1:C:1770:SER:OG	2.32	0.40
1:C:2119:ASN:O	1:C:2123:SER:OG	2.33	0.40
1:C:3756:VAL:O	1:C:3759:THR:OG1	2.32	0.40
1:C:3815:ALA:HA	1:C:3818:LEU:HG	2.04	0.40
1:C:4080:ASP:HB3	1:C:4083:GLU:HB3	2.04	0.40
1:C:4130:PHE:HA	1:C:4133:PHE:HD2	1.85	0.40
1:E:228:LEU:HD22	1:E:289:ILE:HD12	2.04	0.40
1:E:262:TYR:HE2	1:E:374:TYR:HB3	1.87	0.40
1:E:764:PRO:O	1:E:780:GLU:HA	2.21	0.40
1:E:1259:LEU:HA	1:E:1259:LEU:HD12	1.90	0.40
1:E:1269:GLU:O	1:E:1290:PHE:HA	2.21	0.40
1:E:2107:TYR:CG	1:E:2162:LEU:HD12	2.56	0.40
1:E:3859:LEU:HD23	1:E:3859:LEU:HA	1.82	0.40
1:E:4911:LEU:HD23	1:E:4911:LEU:HA	1.78	0.40
1:G:764:PRO:O	1:G:780:GLU:HA	2.21	0.40
1:G:1105:PHE:CD1	1:G:1215:MET:HG2	2.56	0.40
1:G:1259:LEU:HA	1:G:1259:LEU:HD12	1.90	0.40
1:G:1835:HIS:O	1:G:1837:GLU:N	2.54	0.40
1:G:2026:ILE:H	1:G:2026:ILE:HG13	1.70	0.40
1:G:3061:PHE:O	1:G:3065:ALA:N	2.55	0.40
1:A:228:LEU:HD22	1:A:289:ILE:HD12	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3966:ILE:O	1:A:3970:LYS:HG2	2.22	0.40
1:C:554:SER:O	1:C:558:LEU:HD12	2.22	0.40
1:C:1038:LEU:O	1:C:1043:LYS:NZ	2.52	0.40
1:C:1251:LEU:O	1:C:1601:ASN:N	2.48	0.40
1:C:1599:MET:O	1:C:1601:ASN:ND2	2.54	0.40
1:C:2087:VAL:O	1:C:2091:ARG:N	2.43	0.40
1:C:2164:ARG:NH2	1:C:2210:GLN:OE1	2.54	0.40
2:D:45:THR:O	2:D:49:LEU:N	2.46	0.40
1:E:661:LEU:O	1:E:788:PHE:N	2.55	0.40
1:E:812:LYS:HB3	1:E:812:LYS:HE3	1.86	0.40
1:E:1297:THR:O	1:E:1297:THR:OG1	2.30	0.40
1:E:1303:ARG:NH2	1:E:1304:LEU:O	2.55	0.40
1:E:1599:MET:O	1:E:1601:ASN:ND2	2.54	0.40
1:E:1632:ILE:HG12	1:E:1637:ARG:HG2	2.03	0.40
1:E:2164:ARG:NH2	1:E:2210:GLN:OE1	2.54	0.40
1:E:3633:GLU:HA	1:E:3635:HIS:CD2	2.57	0.40
1:E:3786:LYS:HE3	1:E:3786:LYS:HB3	1.97	0.40
1:E:4051:LYS:O	1:E:4055:SER:CB	2.70	0.40
1:E:4105:ASN:O	1:E:4109:HIS:CB	2.69	0.40
1:E:4144:LYS:HE2	1:E:4144:LYS:HB2	1.82	0.40
1:E:4730:SER:HA	1:E:4740:PHE:HE1	1.86	0.40
1:E:4872:GLY:O	1:E:4876:ASP:N	2.51	0.40
1:G:228:LEU:HD22	1:G:289:ILE:HD12	2.04	0.40
1:G:434:ASP:O	1:G:437:SER:OG	2.28	0.40
1:G:687:THR:HB	1:G:689:GLU:HB3	2.02	0.40
1:G:1100:ARG:HB3	1:G:1236:TYR:CZ	2.56	0.40
1:G:1261:VAL:HA	1:G:1596:TRP:HH2	1.84	0.40
1:G:1761:MET:HB3	1:G:1763:PHE:CZ	2.57	0.40
1:G:2667:LEU:O	1:G:2671:SER:N	2.45	0.40
1:G:3014:VAL:O	1:G:3018:HIS:N	2.54	0.40
1:G:4853:PHE:HA	1:G:4856:ILE:HB	2.02	0.40
1:G:4872:GLY:O	1:G:4876:ASP:N	2.51	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	3387/4968 (68%)	2919 (86%)	459 (14%)	9 (0%)	41	76
1	C	3387/4968 (68%)	2917 (86%)	460 (14%)	10 (0%)	41	76
1	E	3387/4968 (68%)	2921 (86%)	457 (14%)	9 (0%)	41	76
1	G	3387/4968 (68%)	2920 (86%)	458 (14%)	9 (0%)	41	76
2	B	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	D	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	F	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
2	H	128/149 (86%)	120 (94%)	8 (6%)	0	100	100
All	All	14060/20468 (69%)	12157 (86%)	1866 (13%)	37 (0%)	44	76

All (37) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	C	4521	TYR
1	A	853	PRO
1	A	1580	PRO
1	A	2309	CYS
1	C	853	PRO
1	C	1580	PRO
1	C	2309	CYS
1	E	853	PRO
1	E	1580	PRO
1	E	2309	CYS
1	G	853	PRO
1	G	1580	PRO
1	G	2309	CYS
1	A	3631	GLU
1	C	3631	GLU
1	E	3631	GLU
1	G	3631	GLU
1	A	828	PRO
1	A	1990	PRO
1	A	4646	TRP
1	C	828	PRO
1	C	1990	PRO
1	C	4646	TRP

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Mol	Chain	Res	Type
1	E	828	PRO
1	E	1990	PRO
1	E	4646	TRP
1	G	828	PRO
1	G	1990	PRO
1	G	4646	TRP
1	A	1848	PRO
1	C	1848	PRO
1	E	1848	PRO
1	G	1848	PRO
1	A	1535	PRO
1	C	1535	PRO
1	E	1535	PRO
1	G	1535	PRO

5.3.2 Protein sidechains (i)

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

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

Mol	Chain	Analysed	Rotameric	Outliers	Percentiles
1	A	2675/4355 (61%)	2627 (98%)	48 (2%)	59 77
1	C	2675/4355 (61%)	2627 (98%)	48 (2%)	59 77
1	E	2676/4355 (61%)	2626 (98%)	50 (2%)	57 75
1	G	2675/4355 (61%)	2626 (98%)	49 (2%)	59 77
2	B	112/127 (88%)	112 (100%)	0	100 100
2	D	112/127 (88%)	112 (100%)	0	100 100
2	F	112/127 (88%)	112 (100%)	0	100 100
2	H	112/127 (88%)	112 (100%)	0	100 100
All	All	11149/17928 (62%)	10954 (98%)	195 (2%)	62 78

All (195) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	15	ARG

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Mol	Chain	Res	Type
1	A	73	LEU
1	A	78	LEU
1	A	79	GLN
1	A	81	MET
1	A	176	ARG
1	A	203	VAL
1	A	237	LEU
1	A	602	ASP
1	A	647	ARG
1	A	789	PHE
1	A	841	LYS
1	A	989	THR
1	A	1013	ARG
1	A	1214	ARG
1	A	1228	THR
1	A	1298	ASP
1	A	1601	ASN
1	A	1652	LYS
1	A	1930	SER
1	A	2070	TRP
1	A	2198	CYS
1	A	2217	ASP
1	A	2392	PHE
1	A	2420	ILE
1	A	3694	ASP
1	A	3840	LEU
1	A	3855	PHE
1	A	3893	TYR
1	A	3900	ASP
1	A	3936	LEU
1	A	3941	LEU
1	A	3943	ASP
1	A	3983	LEU
1	A	4009	ASN
1	A	4010	ASN
1	A	4047	ARG
1	A	4048	ASP
1	A	4049	PHE
1	A	4079	LEU
1	A	4087	ARG
1	A	4095	ILE
1	A	4115	ARG

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Mol	Chain	Res	Type
1	A	4781	LEU
1	A	4785	VAL
1	A	4809	ASP
1	A	4876	ASP
1	A	4962	GLN
1	C	15	ARG
1	C	73	LEU
1	C	78	LEU
1	C	79	GLN
1	C	81	MET
1	C	176	ARG
1	C	203	VAL
1	C	237	LEU
1	C	602	ASP
1	C	647	ARG
1	C	789	PHE
1	C	841	LYS
1	C	989	THR
1	C	1013	ARG
1	C	1214	ARG
1	C	1228	THR
1	C	1298	ASP
1	C	1601	ASN
1	C	1652	LYS
1	C	1930	SER
1	C	2070	TRP
1	C	2198	CYS
1	C	2217	ASP
1	C	2392	PHE
1	C	2420	ILE
1	C	3694	ASP
1	C	3840	LEU
1	C	3855	PHE
1	C	3893	TYR
1	C	3900	ASP
1	C	3936	LEU
1	C	3941	LEU
1	C	3943	ASP
1	C	3983	LEU
1	C	4009	ASN
1	C	4010	ASN
1	C	4047	ARG

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Mol	Chain	Res	Type
1	C	4048	ASP
1	C	4049	PHE
1	C	4079	LEU
1	C	4087	ARG
1	C	4095	ILE
1	C	4115	ARG
1	C	4781	LEU
1	C	4785	VAL
1	C	4809	ASP
1	C	4876	ASP
1	C	4962	GLN
1	E	15	ARG
1	E	73	LEU
1	E	78	LEU
1	E	79	GLN
1	E	81	MET
1	E	82	LEU
1	E	84	ASN
1	E	176	ARG
1	E	203	VAL
1	E	237	LEU
1	E	602	ASP
1	E	647	ARG
1	E	789	PHE
1	E	841	LYS
1	E	989	THR
1	E	1013	ARG
1	E	1214	ARG
1	E	1228	THR
1	E	1298	ASP
1	E	1601	ASN
1	E	1652	LYS
1	E	1930	SER
1	E	2070	TRP
1	E	2198	CYS
1	E	2217	ASP
1	E	2392	PHE
1	E	2420	ILE
1	E	3694	ASP
1	E	3840	LEU
1	E	3855	PHE
1	E	3893	TYR

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Mol	Chain	Res	Type
1	E	3900	ASP
1	E	3936	LEU
1	E	3941	LEU
1	E	3943	ASP
1	E	3983	LEU
1	E	4009	ASN
1	E	4010	ASN
1	E	4047	ARG
1	E	4048	ASP
1	E	4049	PHE
1	E	4079	LEU
1	E	4087	ARG
1	E	4095	ILE
1	E	4115	ARG
1	E	4781	LEU
1	E	4785	VAL
1	E	4809	ASP
1	E	4876	ASP
1	E	4962	GLN
1	G	15	ARG
1	G	73	LEU
1	G	78	LEU
1	G	79	GLN
1	G	81	MET
1	G	82	LEU
1	G	176	ARG
1	G	203	VAL
1	G	237	LEU
1	G	602	ASP
1	G	647	ARG
1	G	789	PHE
1	G	841	LYS
1	G	989	THR
1	G	1013	ARG
1	G	1214	ARG
1	G	1228	THR
1	G	1298	ASP
1	G	1601	ASN
1	G	1652	LYS
1	G	1930	SER
1	G	2070	TRP
1	G	2198	CYS

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Mol	Chain	Res	Type
1	G	2217	ASP
1	G	2392	PHE
1	G	2420	ILE
1	G	3694	ASP
1	G	3840	LEU
1	G	3855	PHE
1	G	3893	TYR
1	G	3900	ASP
1	G	3936	LEU
1	G	3941	LEU
1	G	3943	ASP
1	G	3983	LEU
1	G	4009	ASN
1	G	4010	ASN
1	G	4047	ARG
1	G	4048	ASP
1	G	4049	PHE
1	G	4079	LEU
1	G	4087	ARG
1	G	4095	ILE
1	G	4115	ARG
1	G	4781	LEU
1	G	4785	VAL
1	G	4809	ASP
1	G	4876	ASP
1	G	4962	GLN

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (202) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	32	GLN
1	A	57	ASN
1	A	84	ASN
1	A	123	HIS
1	A	394	HIS
1	A	476	GLN
1	A	531	ASN
1	A	593	HIS
1	A	628	ASN
1	A	681	HIS
1	A	836	HIS

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Mol	Chain	Res	Type
1	A	1149	ASN
1	A	1265	HIS
1	A	1440	ASN
1	A	1523	ASN
1	A	1601	ASN
1	A	1602	GLN
1	A	1654	HIS
1	A	1656	HIS
1	A	1722	ASN
1	A	1906	GLN
1	A	1938	GLN
1	A	1940	ASN
1	A	1941	GLN
1	A	2211	ASN
1	A	2251	ASN
1	A	2317	ASN
1	A	2442	GLN
1	A	2831	ASN
1	A	2839	HIS
1	A	3729	GLN
1	A	3743	GLN
1	A	3776	GLN
1	A	3856	GLN
1	A	3906	ASN
1	A	3916	GLN
1	A	3926	GLN
1	A	3932	ASN
1	A	3961	GLN
1	A	3990	ASN
1	A	3993	ASN
1	A	4098	ASN
1	A	4128	ASN
1	A	4179	ASN
1	A	4499	ASN
1	A	4515	ASN
1	A	4643	ASN
1	A	4763	HIS
1	A	4918	ASN
1	C	23	GLN
1	C	32	GLN
1	C	57	ASN
1	C	84	ASN

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Mol	Chain	Res	Type
1	C	123	HIS
1	C	394	HIS
1	C	476	GLN
1	C	531	ASN
1	C	593	HIS
1	C	628	ASN
1	C	681	HIS
1	C	836	HIS
1	C	1149	ASN
1	C	1265	HIS
1	C	1440	ASN
1	C	1523	ASN
1	C	1601	ASN
1	C	1602	GLN
1	C	1654	HIS
1	C	1656	HIS
1	C	1722	ASN
1	C	1906	GLN
1	C	1938	GLN
1	C	1940	ASN
1	C	1941	GLN
1	C	2211	ASN
1	C	2251	ASN
1	C	2317	ASN
1	C	2442	GLN
1	C	2831	ASN
1	C	2839	HIS
1	C	3729	GLN
1	C	3743	GLN
1	C	3776	GLN
1	C	3856	GLN
1	C	3906	ASN
1	C	3916	GLN
1	C	3926	GLN
1	C	3932	ASN
1	C	3961	GLN
1	C	3990	ASN
1	C	3993	ASN
1	C	4098	ASN
1	C	4117	GLN
1	C	4128	ASN
1	C	4131	GLN

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Mol	Chain	Res	Type
1	C	4179	ASN
1	C	4499	ASN
1	C	4515	ASN
1	C	4643	ASN
1	C	4763	HIS
1	C	4918	ASN
1	E	23	GLN
1	E	32	GLN
1	E	57	ASN
1	E	84	ASN
1	E	123	HIS
1	E	394	HIS
1	E	476	GLN
1	E	531	ASN
1	E	593	HIS
1	E	628	ASN
1	E	681	HIS
1	E	836	HIS
1	E	1149	ASN
1	E	1265	HIS
1	E	1440	ASN
1	E	1523	ASN
1	E	1601	ASN
1	E	1602	GLN
1	E	1654	HIS
1	E	1656	HIS
1	E	1722	ASN
1	E	1906	GLN
1	E	1938	GLN
1	E	1940	ASN
1	E	1941	GLN
1	E	2211	ASN
1	E	2251	ASN
1	E	2317	ASN
1	E	2442	GLN
1	E	2831	ASN
1	E	2839	HIS
1	E	3729	GLN
1	E	3743	GLN
1	E	3776	GLN
1	E	3856	GLN
1	E	3906	ASN

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Mol	Chain	Res	Type
1	E	3916	GLN
1	E	3926	GLN
1	E	3932	ASN
1	E	3961	GLN
1	E	3990	ASN
1	E	3993	ASN
1	E	4098	ASN
1	E	4128	ASN
1	E	4179	ASN
1	E	4499	ASN
1	E	4515	ASN
1	E	4643	ASN
1	E	4763	HIS
1	E	4918	ASN
1	G	23	GLN
1	G	32	GLN
1	G	57	ASN
1	G	84	ASN
1	G	123	HIS
1	G	394	HIS
1	G	476	GLN
1	G	531	ASN
1	G	593	HIS
1	G	628	ASN
1	G	681	HIS
1	G	836	HIS
1	G	1149	ASN
1	G	1265	HIS
1	G	1440	ASN
1	G	1523	ASN
1	G	1601	ASN
1	G	1602	GLN
1	G	1654	HIS
1	G	1656	HIS
1	G	1722	ASN
1	G	1906	GLN
1	G	1938	GLN
1	G	1940	ASN
1	G	1941	GLN
1	G	2211	ASN
1	G	2251	ASN
1	G	2317	ASN

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Mol	Chain	Res	Type
1	G	2442	GLN
1	G	2831	ASN
1	G	2839	HIS
1	G	3729	GLN
1	G	3743	GLN
1	G	3776	GLN
1	G	3856	GLN
1	G	3906	ASN
1	G	3916	GLN
1	G	3926	GLN
1	G	3932	ASN
1	G	3961	GLN
1	G	3990	ASN
1	G	3993	ASN
1	G	4098	ASN
1	G	4128	ASN
1	G	4179	ASN
1	G	4499	ASN
1	G	4515	ASN
1	G	4643	ASN
1	G	4763	HIS
1	G	4918	ASN

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 24 ligands modelled in this entry, 24 are monoatomic - leaving 0 for Mogul analysis.

There are no bond length outliers.

There are no bond angle outliers.

There are no chirality outliers.

There are no torsion outliers.

There are no ring outliers.

No monomer is involved in short contacts.

5.7 Other polymers

There are no such residues in this entry.

5.8 Polymer linkage issues

There are no chain breaks in this entry.

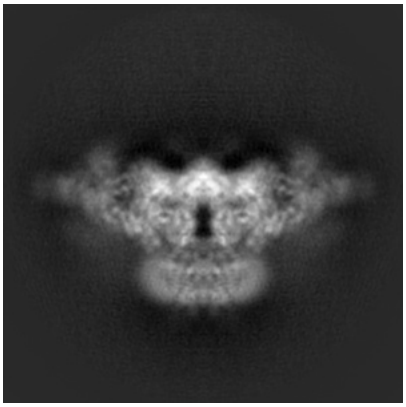
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-9889. These allow visual inspection of the internal detail of the map and identification of artifacts.

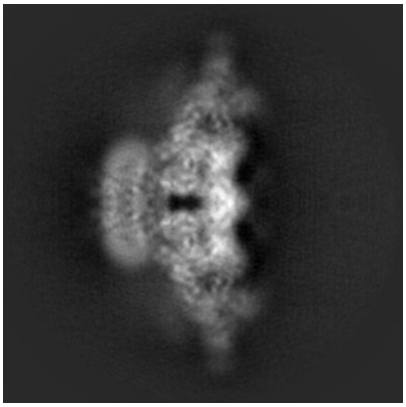
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

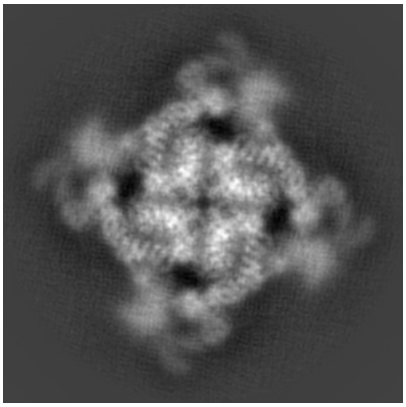
6.1.1 Primary map



X



Y

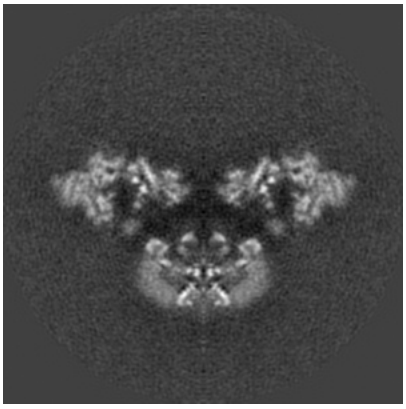


Z

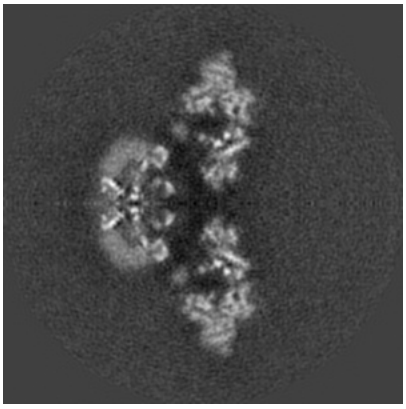
The images above show the map projected in three orthogonal directions.

6.2 Central slices

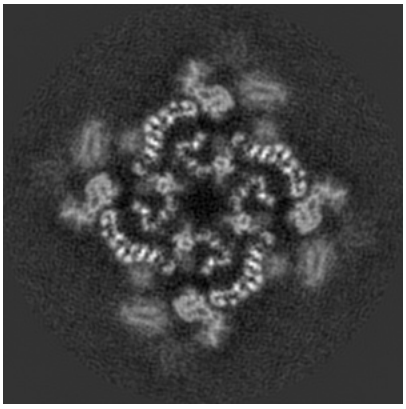
6.2.1 Primary map



X Index: 200



Y Index: 200

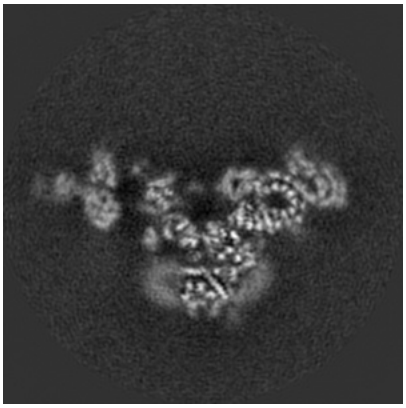


Z Index: 200

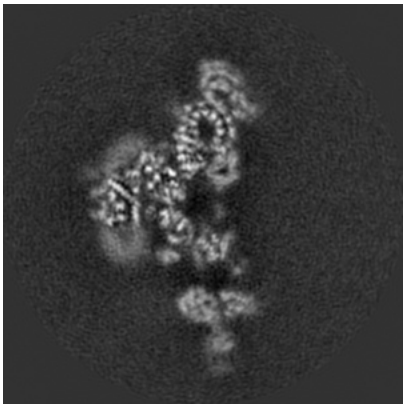
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

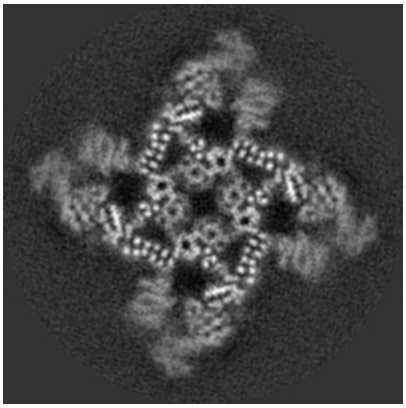
6.3.1 Primary map



X Index: 187



Y Index: 213

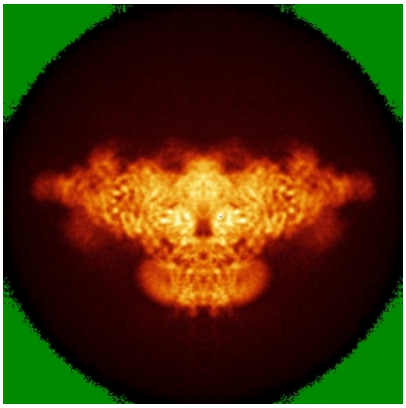


Z Index: 211

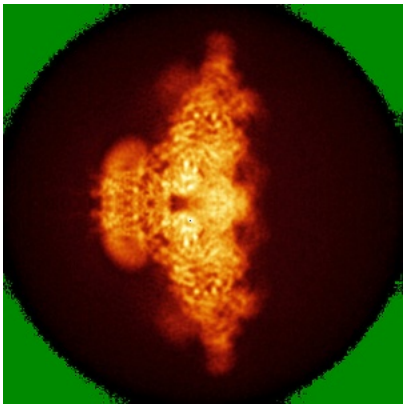
The images above show the largest variance slices of the map in three orthogonal directions.

6.4 Orthogonal standard-deviation projections (False-color) (i)

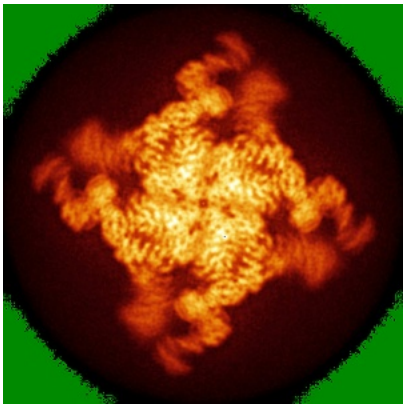
6.4.1 Primary map



X



Y

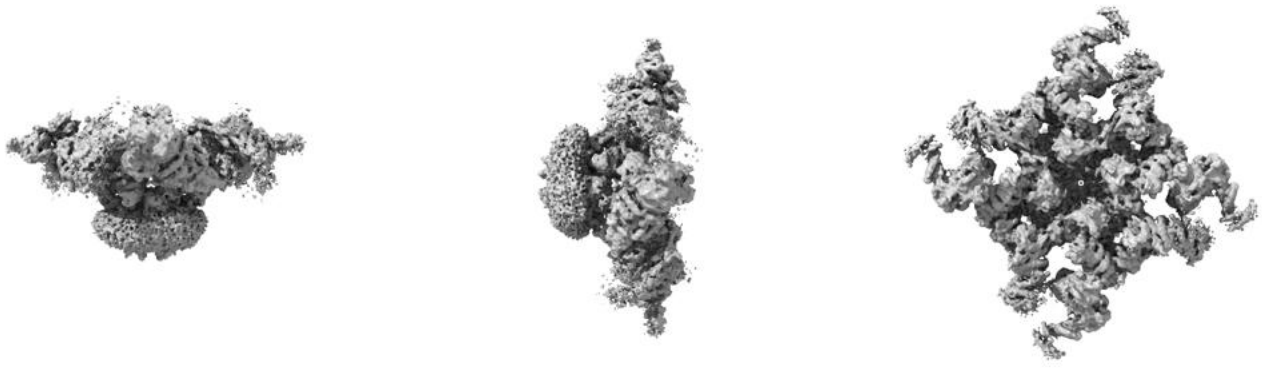


Z

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



X Y Z

The images above show the 3D surface view of the map at the recommended contour level 0.015. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

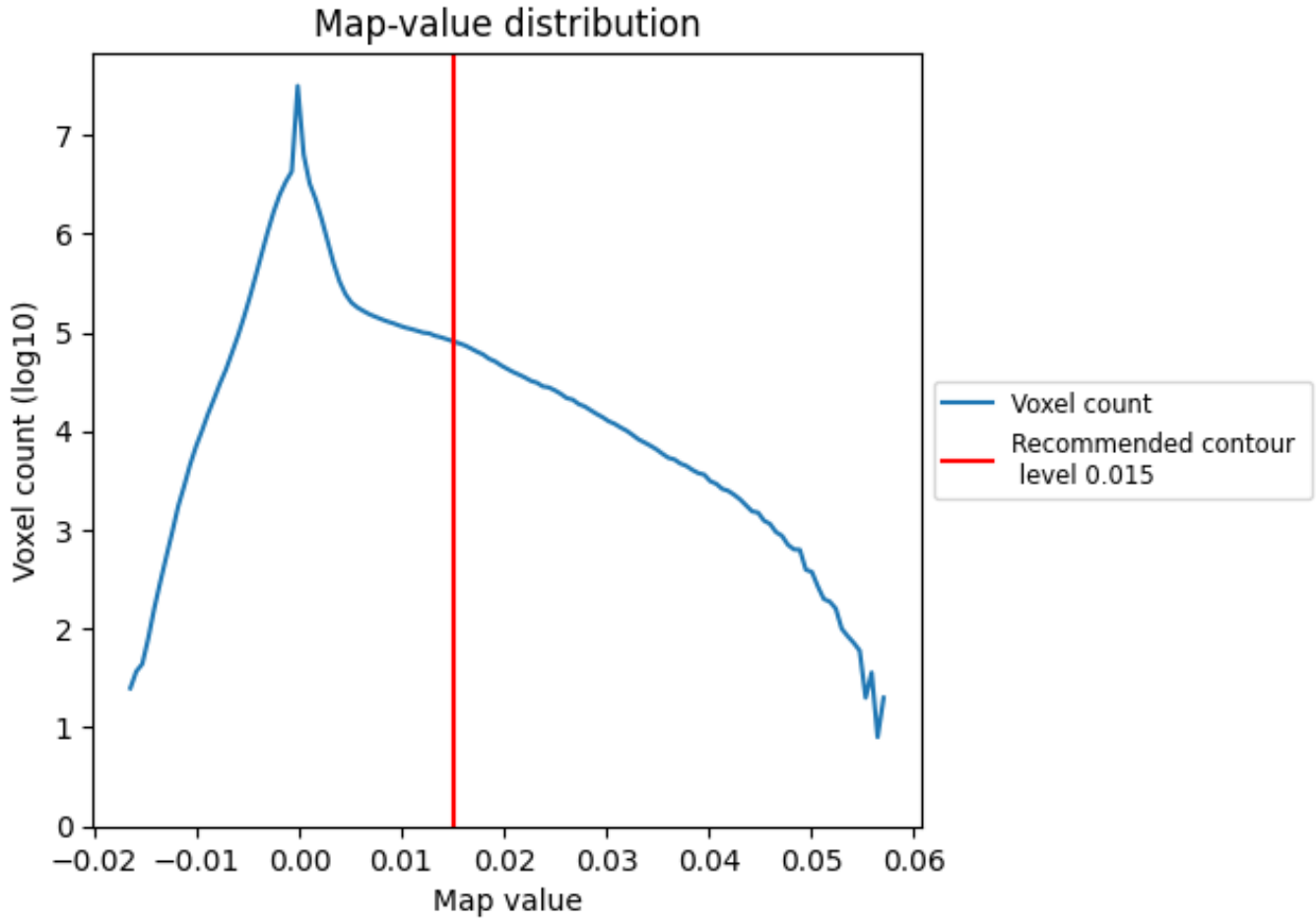
6.6 Mask visualisation (i)

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

7 Map analysis

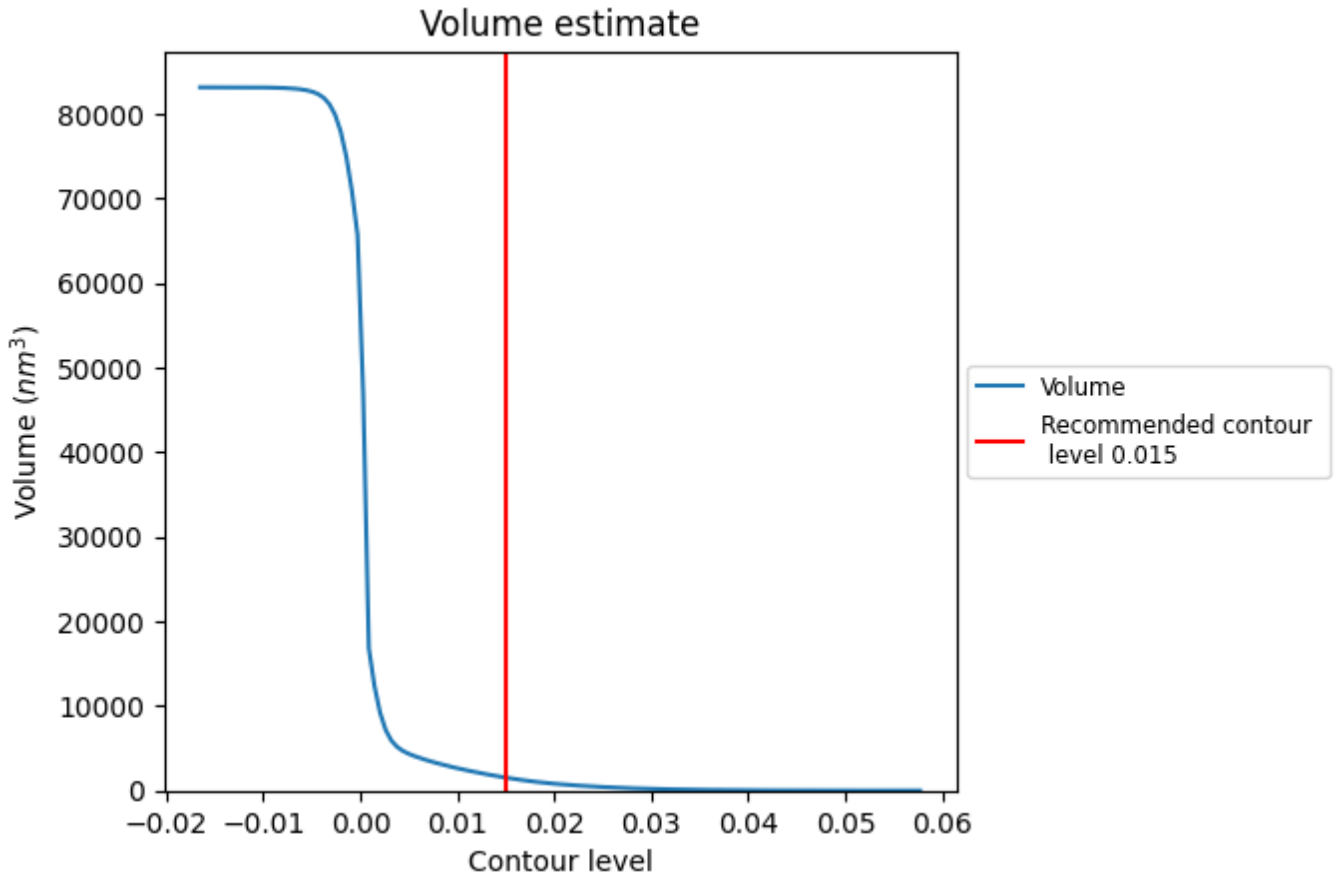
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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.

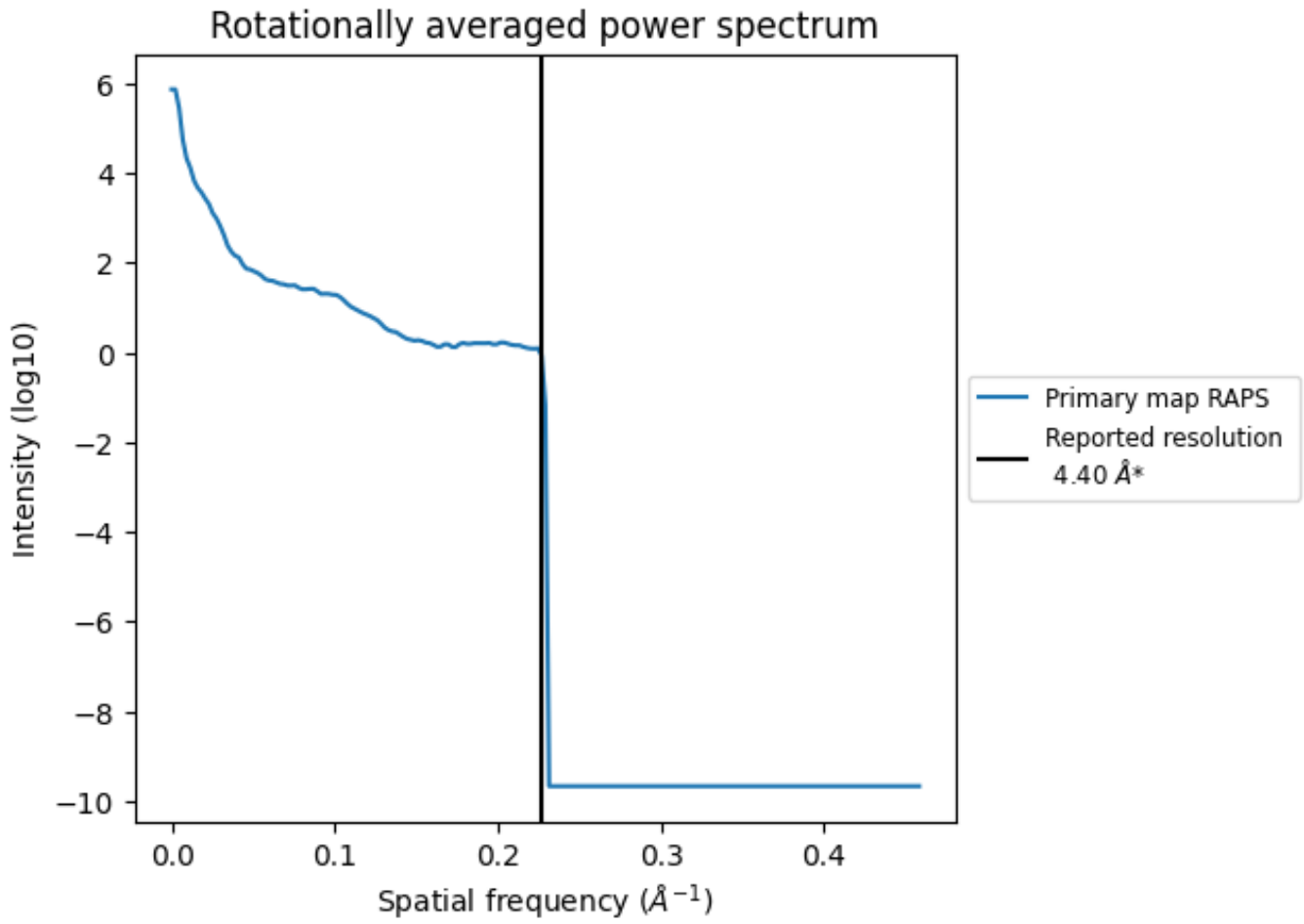
7.2 Volume estimate



The volume at the recommended contour level is 1535 nm^3; this corresponds to an approximate mass of 1386 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)

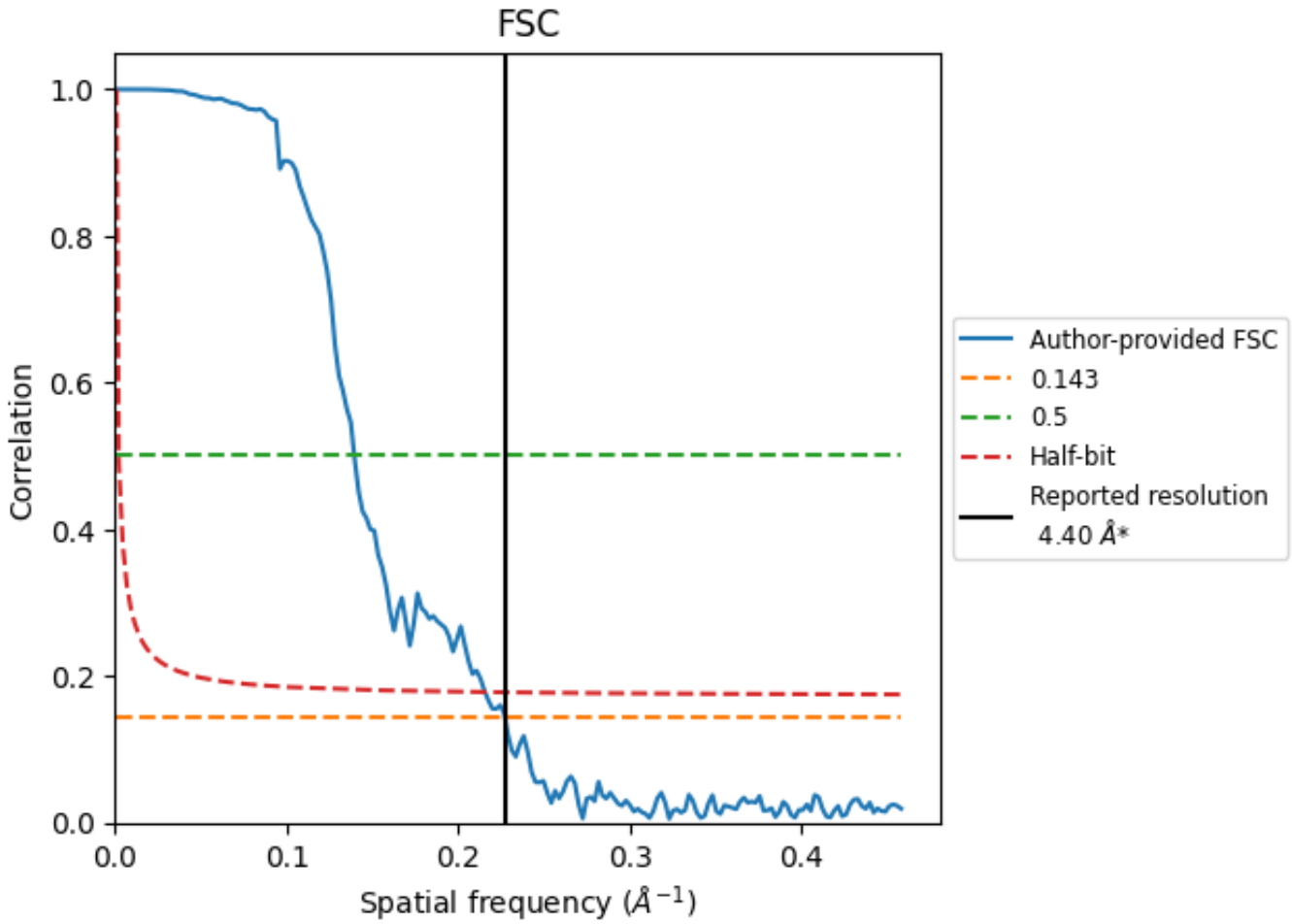


*Reported resolution corresponds to spatial frequency of 0.227 Å^{-1}

8 Fourier-Shell correlation

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



*Reported resolution corresponds to spatial frequency of 0.227 Å^{-1}

8.2 Resolution estimates (i)

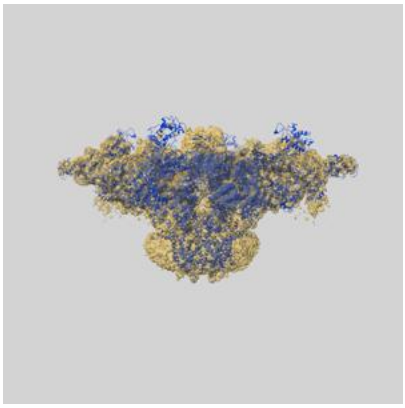
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.40	-	-
Author-provided FSC curve	4.40	7.17	4.64
Unmasked-calculated*	-	-	-

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

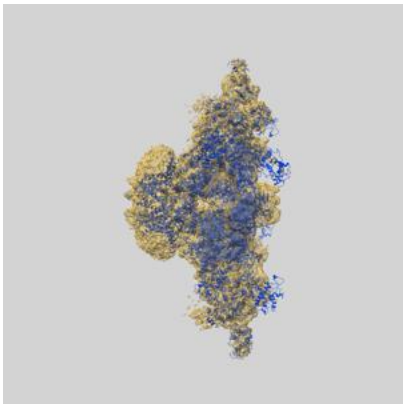
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-9889 and PDB model 6JV2. Per-residue inclusion information can be found in section 3 on page 5.

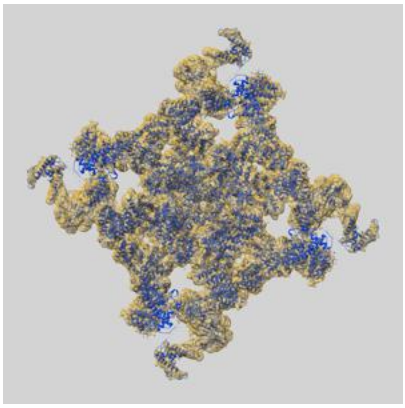
9.1 Map-model overlay



X



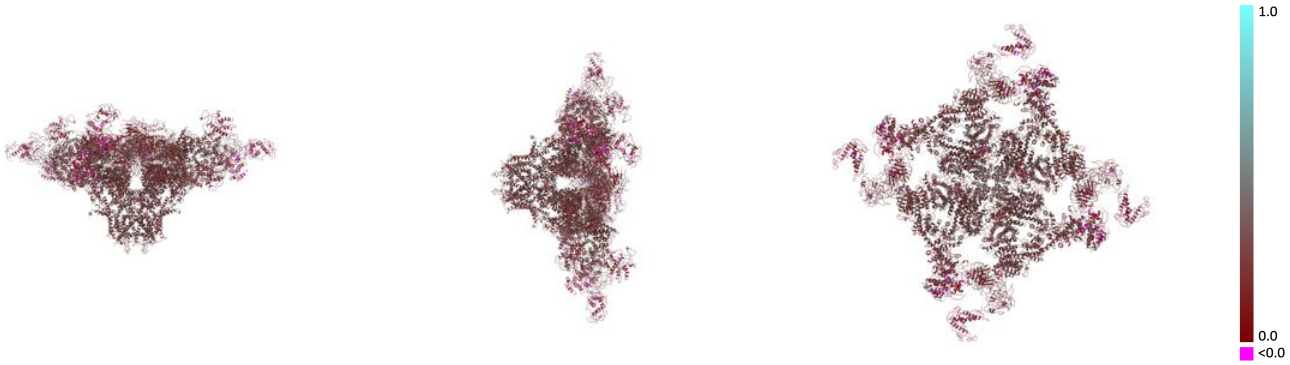
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.015 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.

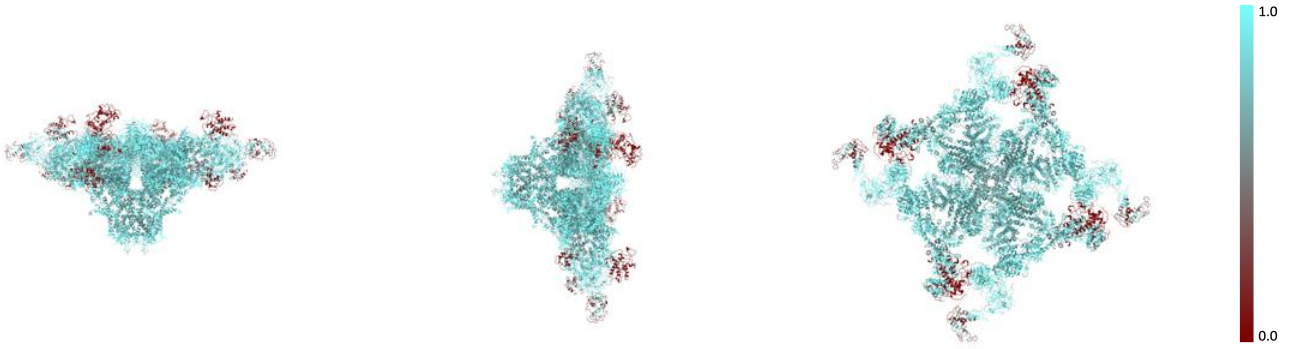
9.2 Q-score mapped to coordinate model (i)



X Y Z

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

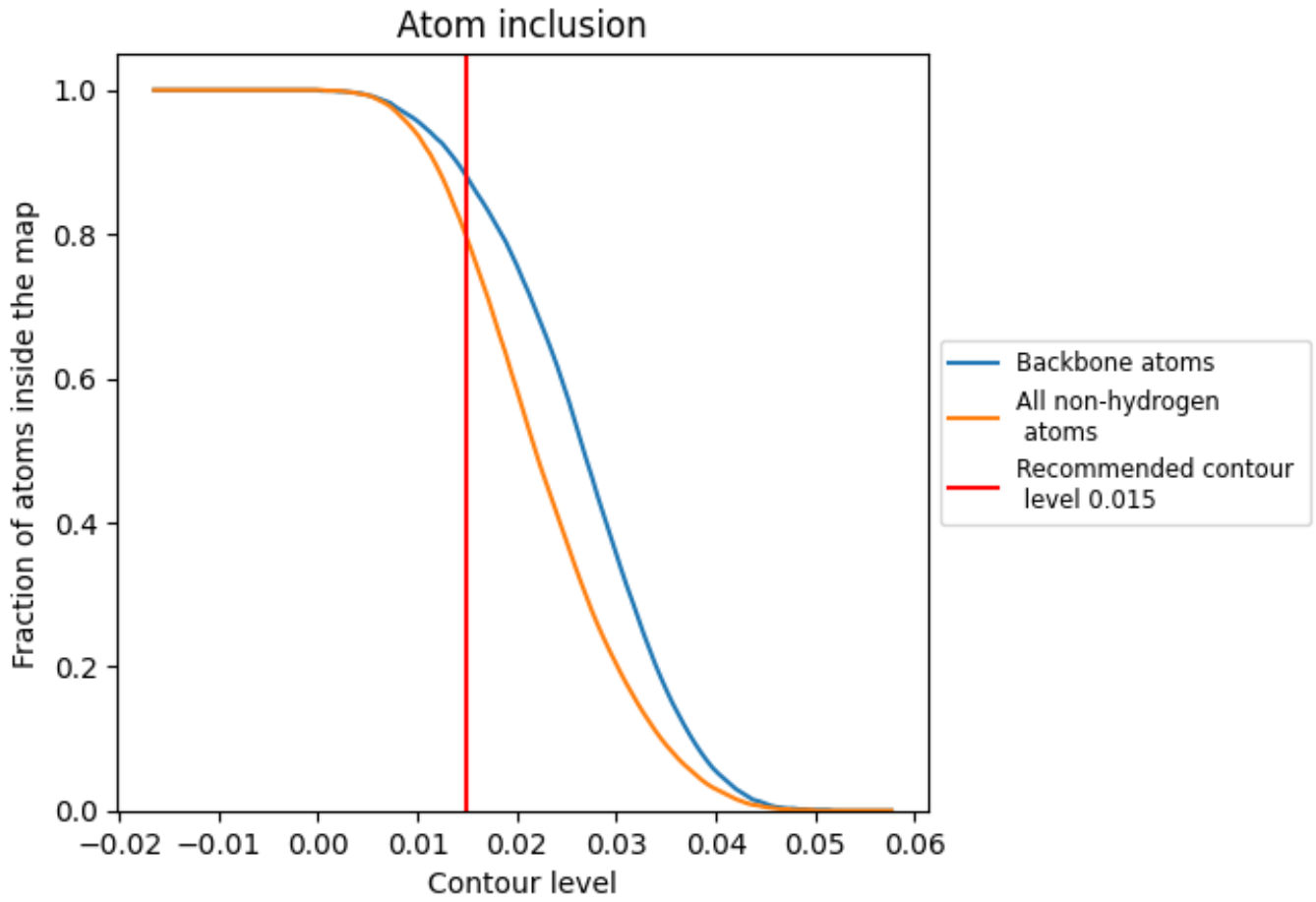
9.3 Atom inclusion mapped to coordinate model (i)



X Y Z

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 (0.015).

9.4 Atom inclusion (i)



At the recommended contour level, 88% of all backbone atoms, 79% 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 (0.015) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.7940	0.2670
A	0.8120	0.2680
B	0.3300	0.2230
C	0.8130	0.2690
D	0.3290	0.2250
E	0.8130	0.2680
F	0.3300	0.2220
G	0.8120	0.2680
H	0.3290	0.2210