Full wwPDB EM Validation Report ⓘ

Mar 7, 2026 – 04:08 AM UTC

PDB ID	:	6JV2 / pdb_00006jv2
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:

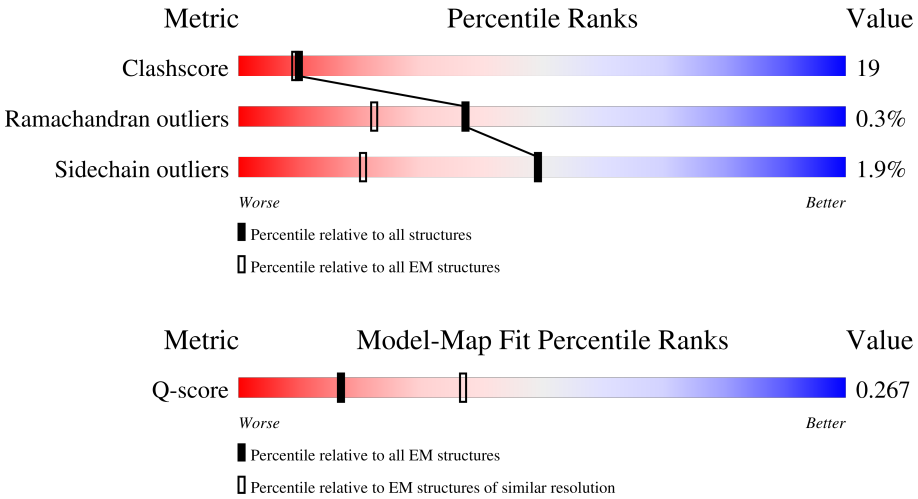
EMDB validation analysis	:	0.0.1.dev132
MolProbity	:	4-5-2 with Phenix2.0
Percentile statistics	:	20250101.v01 (using entries in the PDB archive January 1st 2025)
EM percentile statistics	:	202505.v01 (Using data in the EMDB archive up until May 2025)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh &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

1 Overall quality at a glance

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

The reported resolution of this entry is 4.40 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)	Similar EM resolution (#Entries, resolution range(Å))
Clashscore	229148	23984	-
Ramachandran outliers	224038	23583	-
Sidechain outliers	223484	23102	-
Q-score	-	25397	3132 (3.91 - 4.90)

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% 28% · 29%
1	C	4968	7% 41% 28% · 29%
1	E	4968	7% 42% 28% · 29%
1	G	4968	7% 41% 28% · 29%

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Mol	Chain	Length	Quality of chain
2	B	149	
2	D	149	
2	F	149	
2	H	149	

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 (CCD ID: 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 (CCD ID: CA) (formula: Ca).

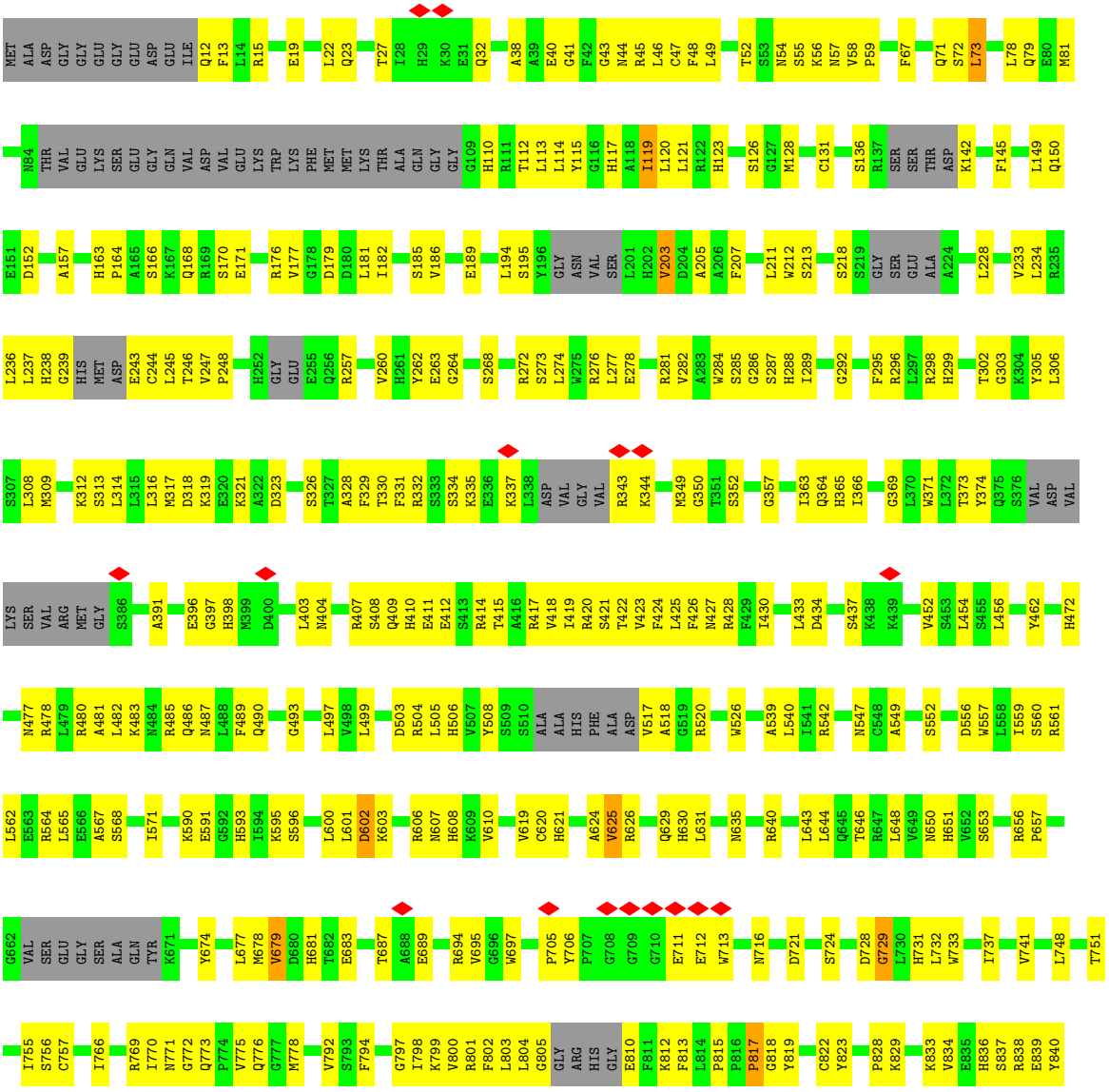
Mol	Chain	Residues	Atoms	AltConf
4	A	1	Total Ca 1 1	0
4	B	4	Total Ca 4 4	0
4	C	1	Total Ca 1 1	0
4	D	4	Total Ca 4 4	0
4	E	1	Total Ca 1 1	0
4	F	4	Total Ca 4 4	0
4	G	1	Total Ca 1 1	0
4	H	4	Total Ca 4 4	0

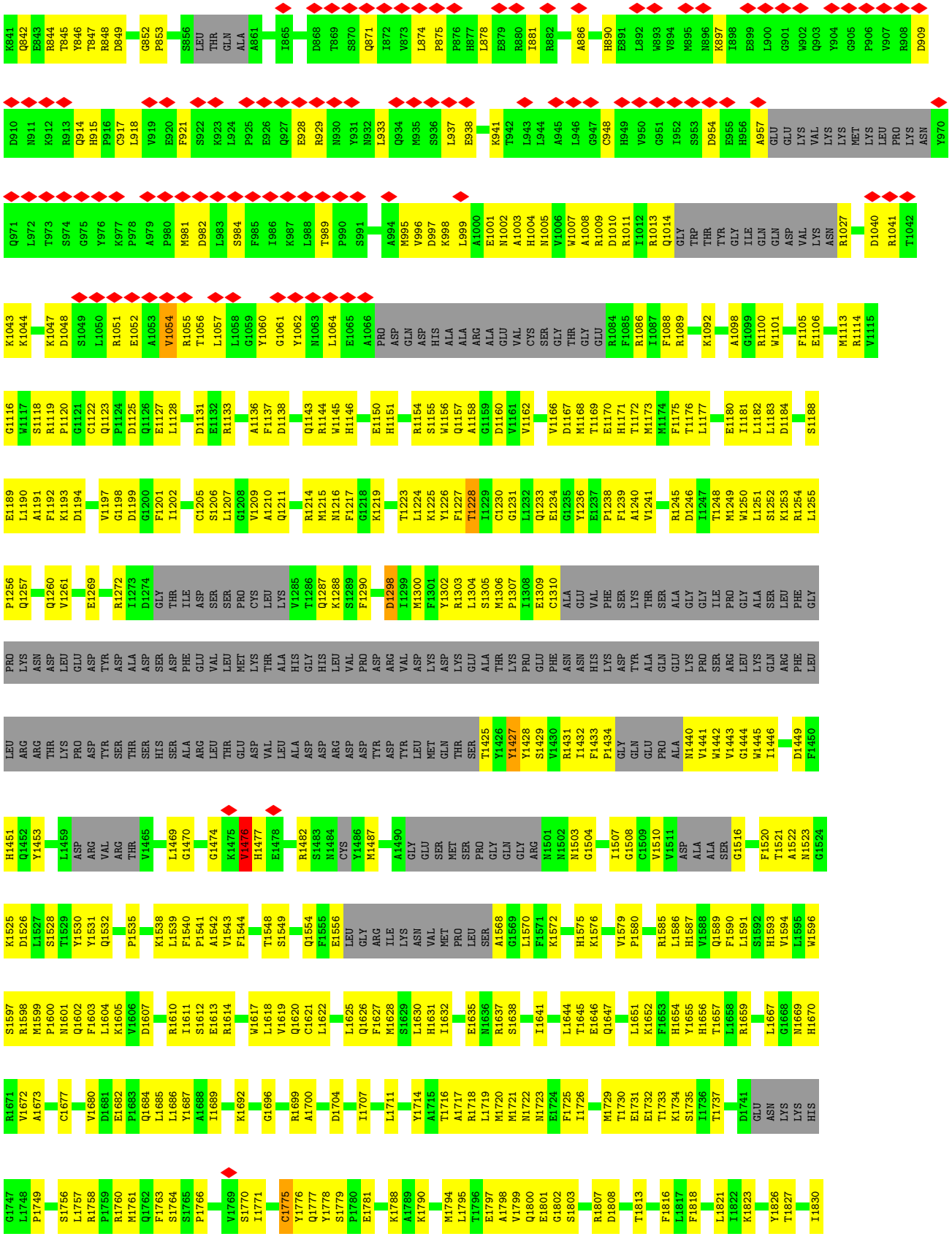
3 Residue-property plots (i)

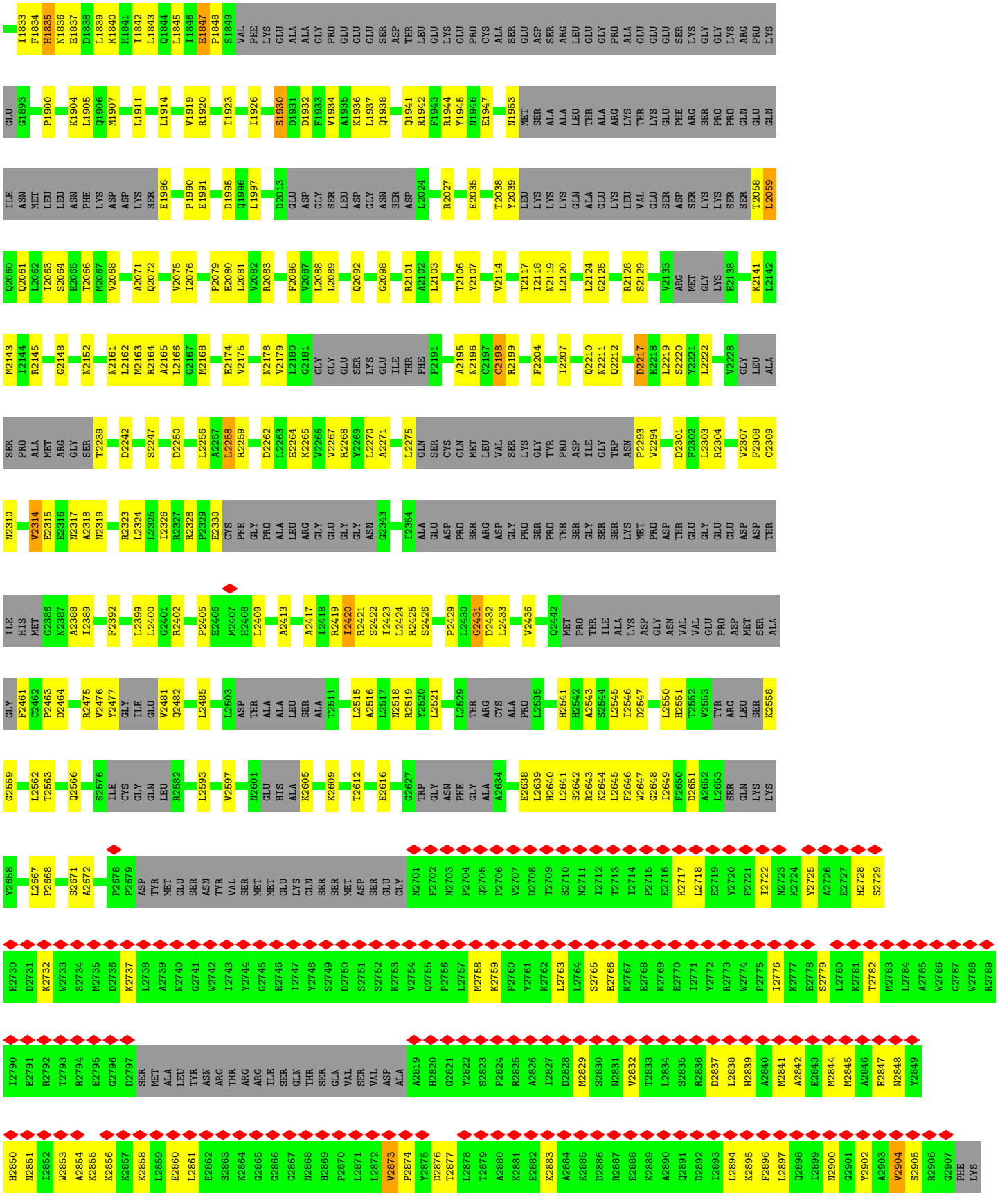
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion 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.

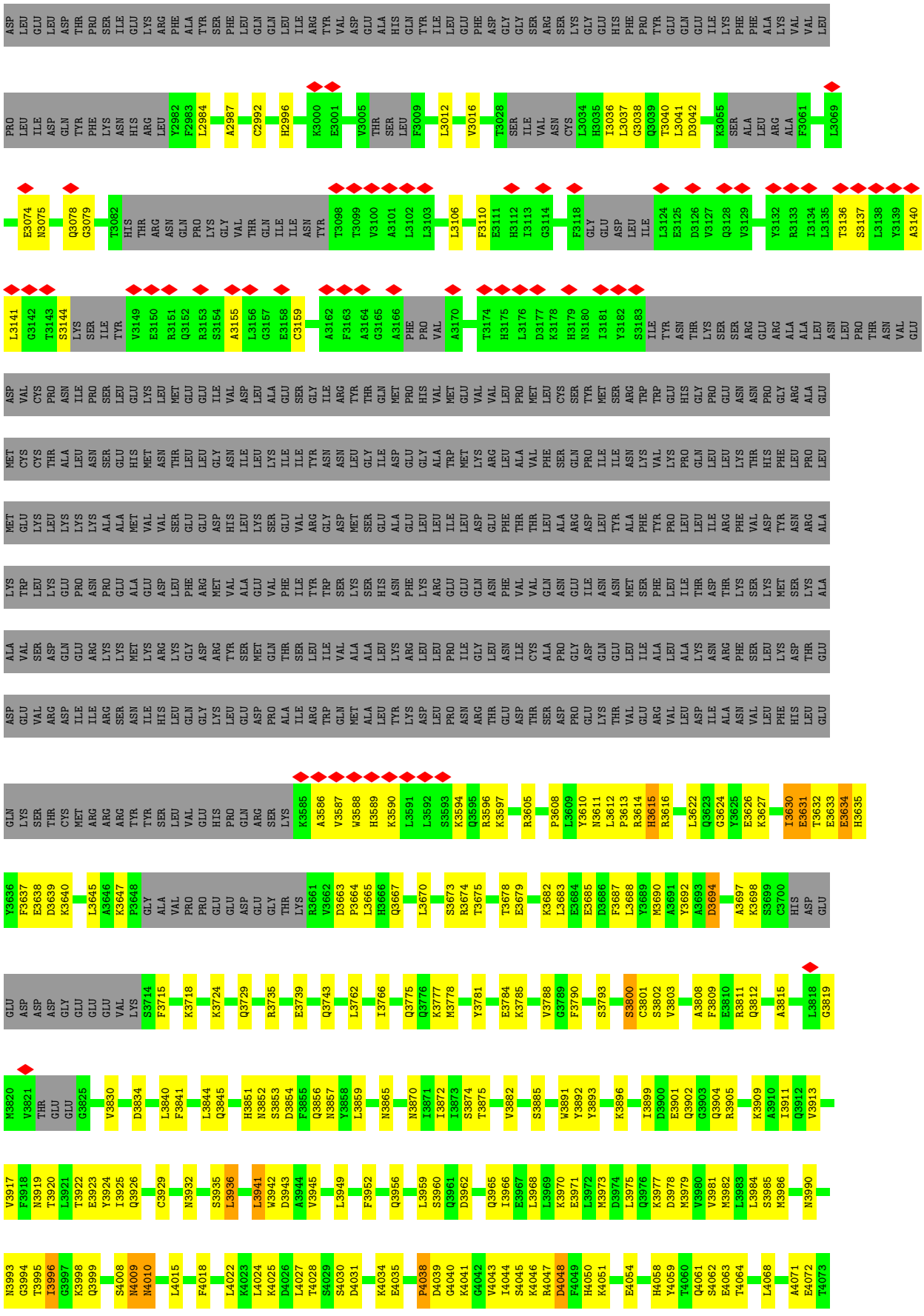
- Molecule 1: RyR2

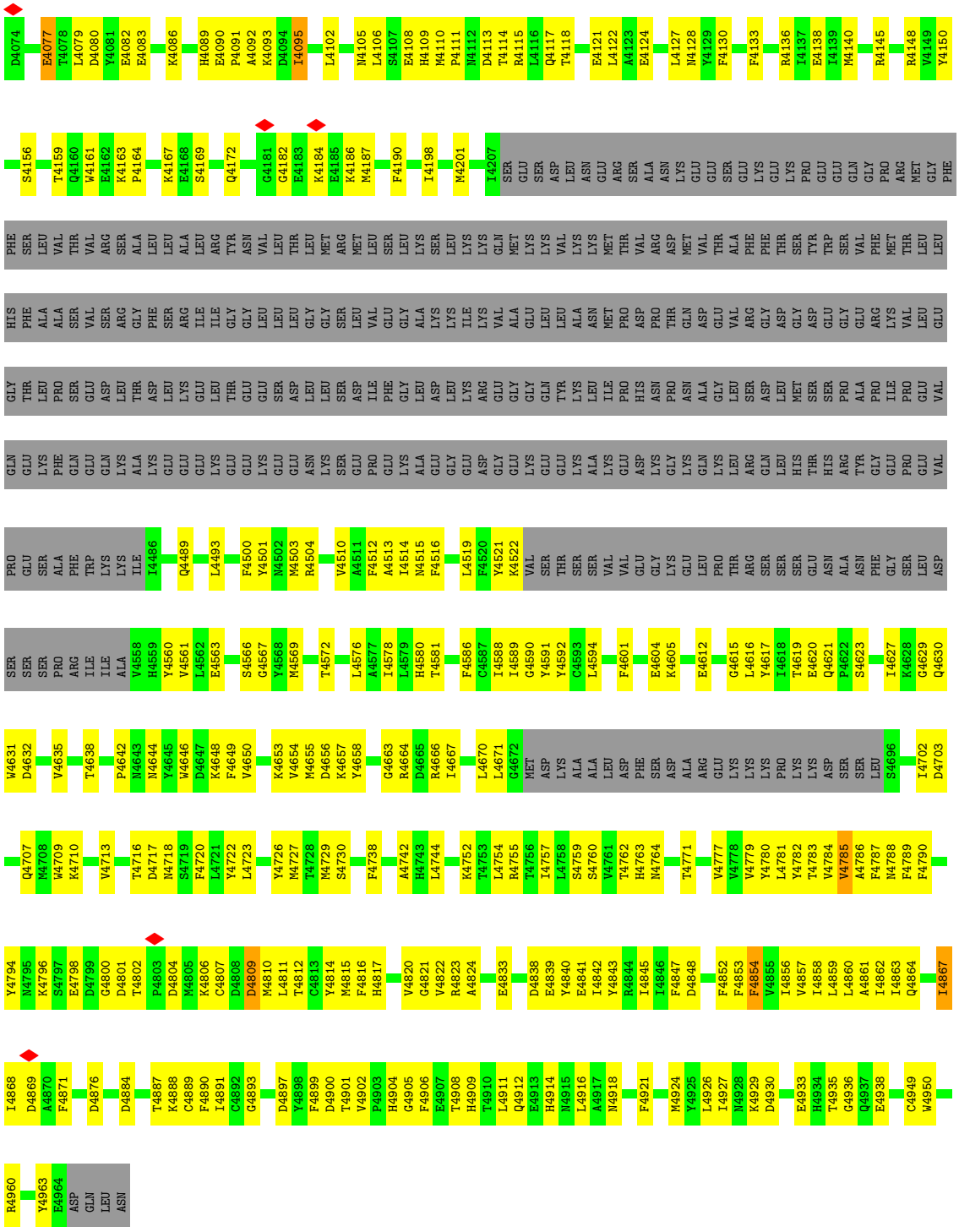
Chain A:





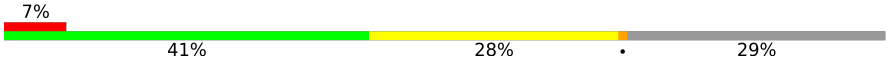

I1833 F1834 H1835 N1836 E1837 D1838 L1839 K1840 H1841 I1842 L1843 Q1844 L1845 I1846 E1847 P1848 S1849 VAL PHE LYS GLU ALA ALA GLY PRO GLU GLU GLU SER ASP THR LEU GLU LYS GLU PRO CYS ALA SER GLU ASP SER ARG LEU GLU GLU GLY PRO ALA GLU GLU GLU SER LYS GLY GLY LYS ARG PRO LYS
GLU G1893 P1900 K1904 L1905 Q1906 M1907 L1911 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 GLU GLN
ILE ASN MET LEU LEU ASN PHE LYS ASP ASP LYS SER E1986 P1990 E1991 D1995 Q1996 L1997 D2013 GLU ASP GLY SER LEU ASP GLY ASN SER ASP L2024 R2027 E2035 T2038 Y2039 LEU LYS LYS LYS GLN ALA GLU LYS LEU VAL GLU SER ASP SER LYS LYS SER SER T2058 L2069
Q2060 Q2061 L2062 I2063 S2064 E2065 T2066 M2067 V2068 A2071 Q2072 V2075 I2076 P2079 E2080 L2081 V2082 R2083 F2086 V2087 L2088 L2089 Q2092 G2098 R2101 A2102 L2103 T2106 Y2107 V2114 T2117 I2118 N2119 L2120 L2124 G2125 R2128 S2129 V2133 ARG MET GLY LYS E2138 K2141 L2142
M2143 I2144 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 Q2210 N2211 Q2212 D2217 H2218 L2219 S2220 Y2221 L2222 V2228 GLY LEU ALA
SER PRO ALA MET ARG GLY SER T2239 D2242 S2247 D2250 L2256 A2257 L2258 R2259 D2262 L2263 E2264 K2265 V2266 V2267 R2268 Y2269 L2270 A2271 L2275 GLN SER CYS GLN MET LEU 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 L2324 L2325 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 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 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 P2646 W2647 G2648 I2649 P2650 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 V2764 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 S2794 E2795 G2796 D2797 SER MET ALA LEU TYR ASN ARG THR ARG ARG ILE SER GLN THR SER GLN VAL SER VAL ASP 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

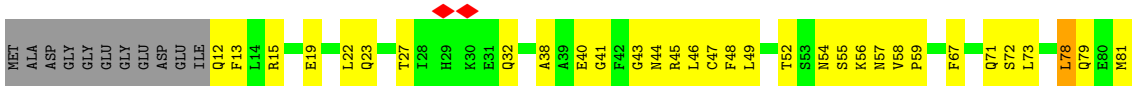


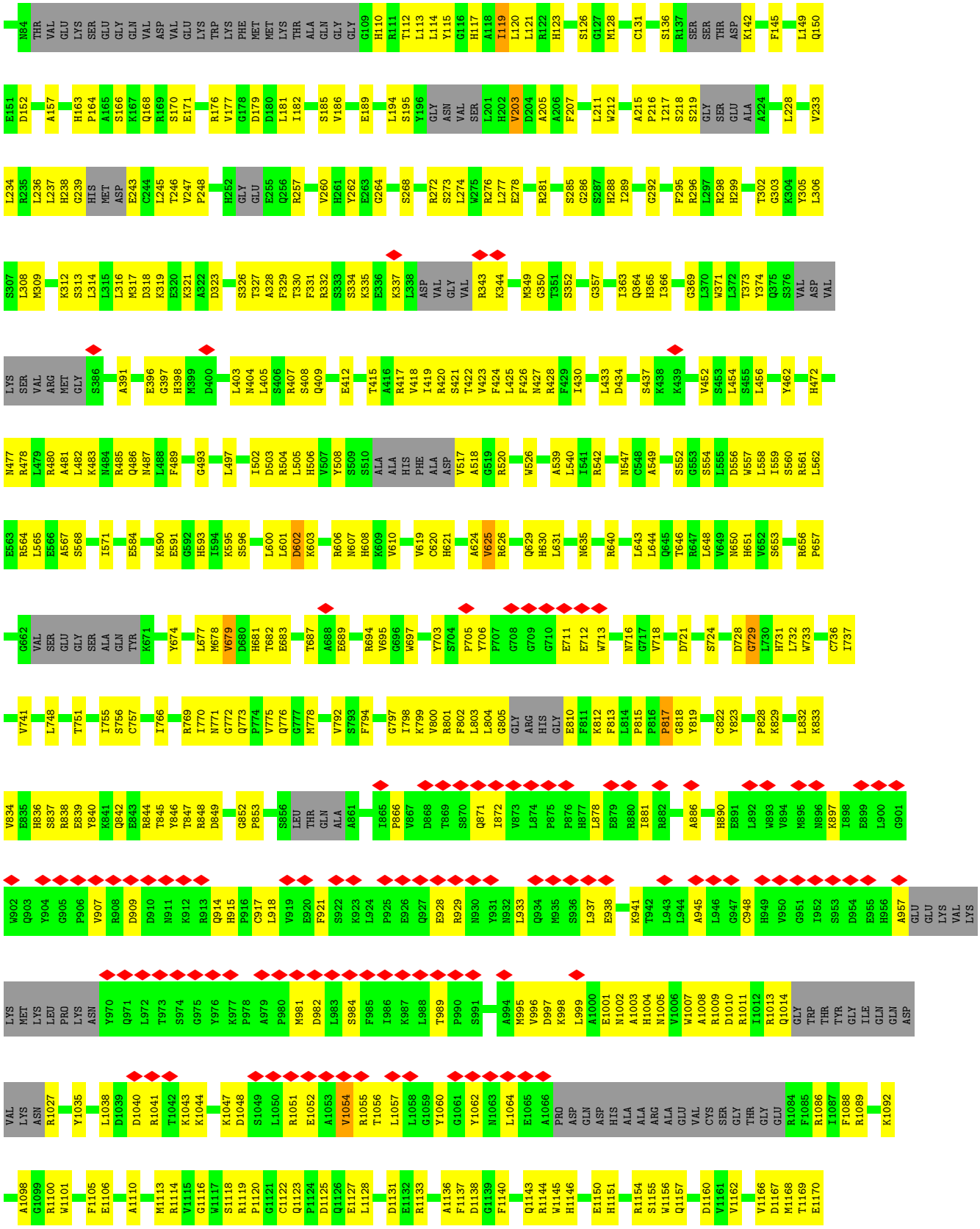


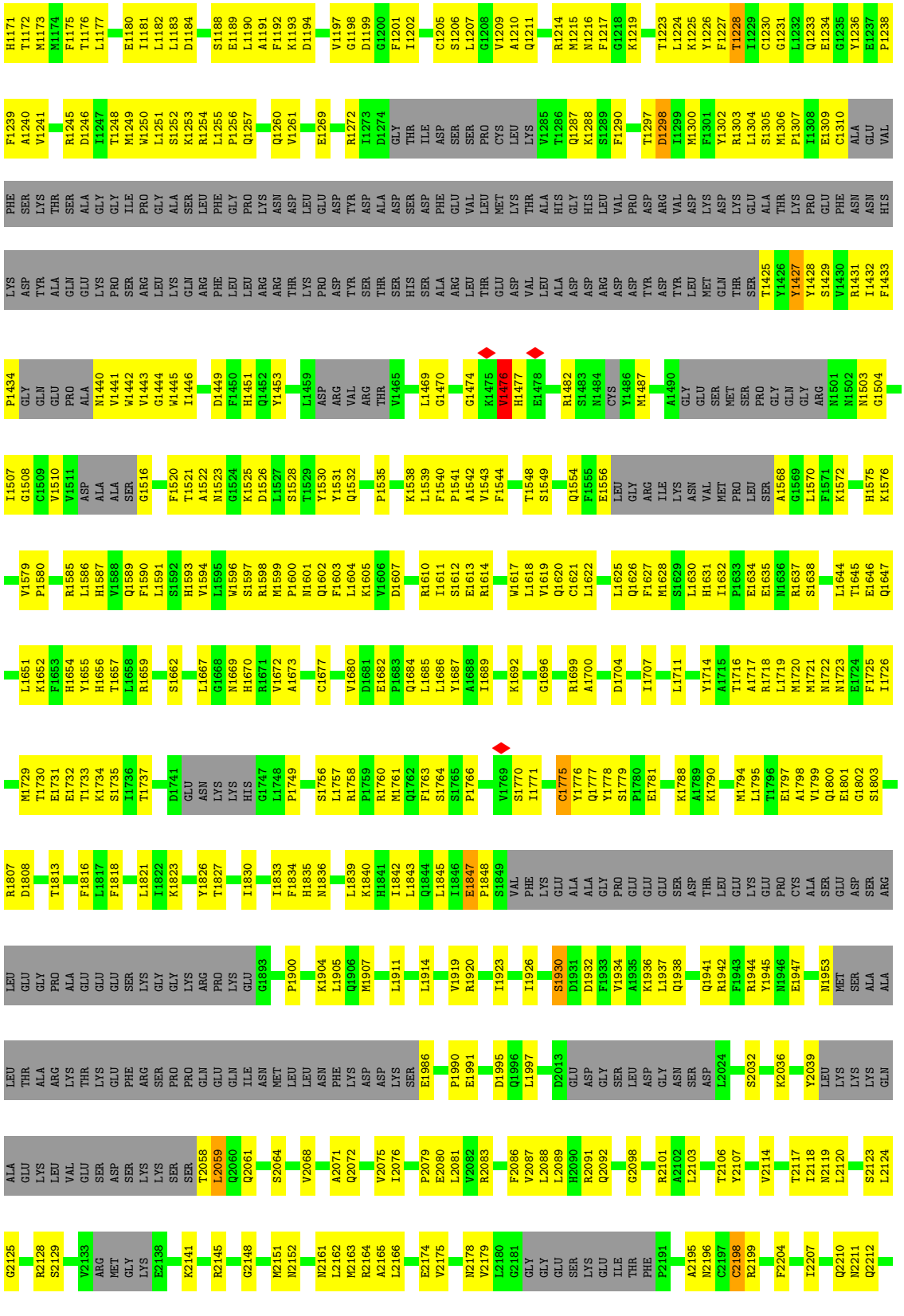
• Molecule 1: RyR2

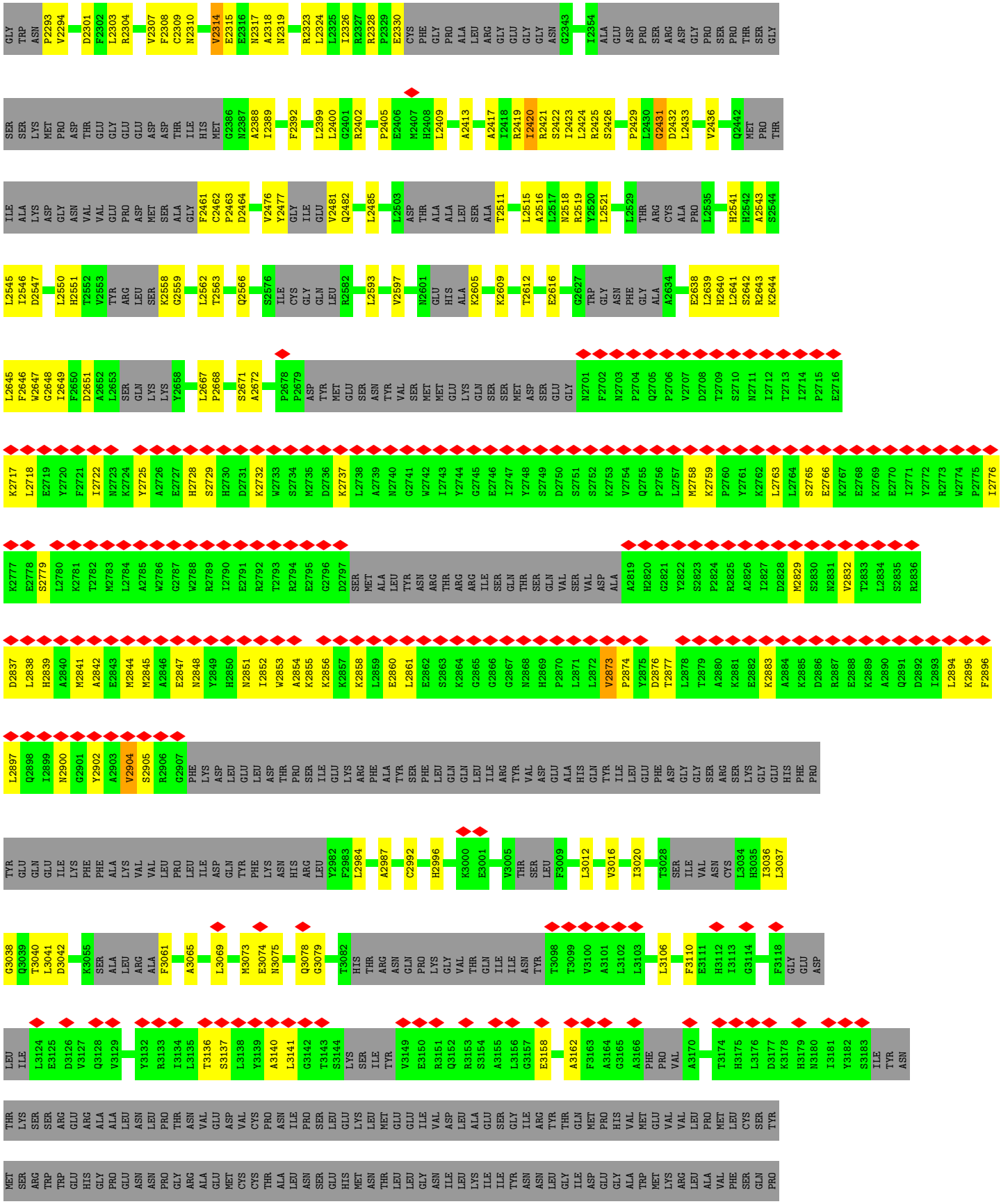
Chain C:

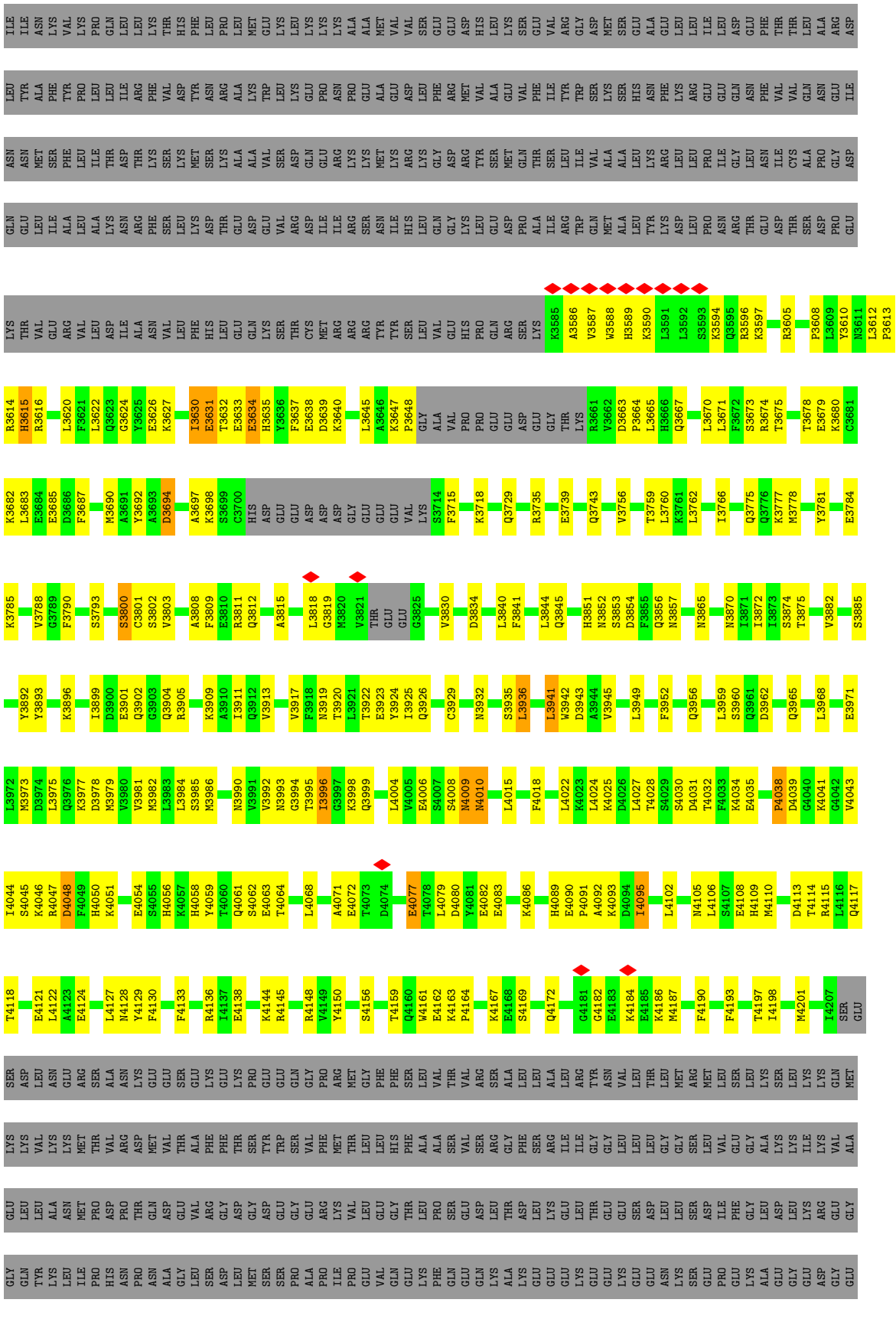


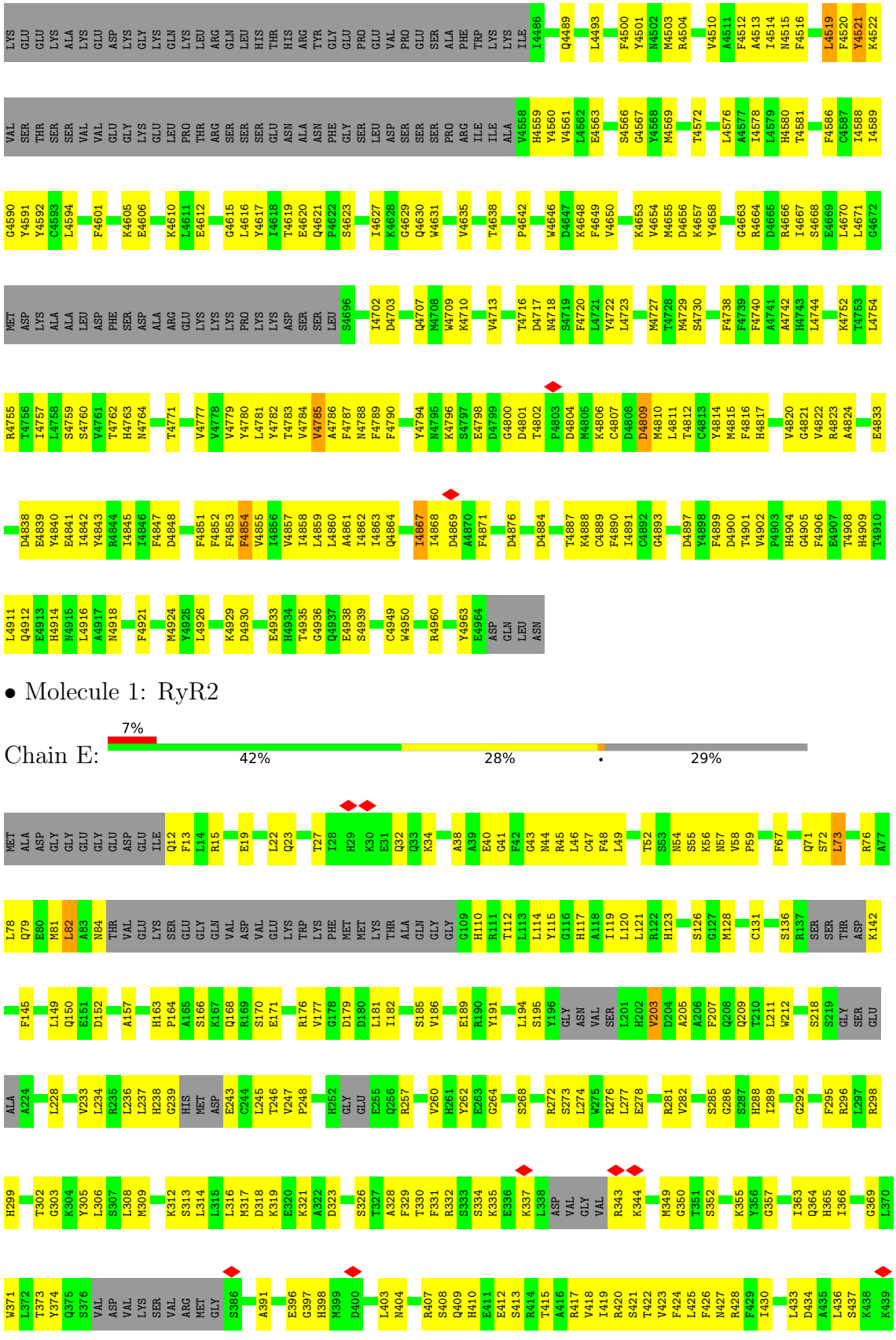




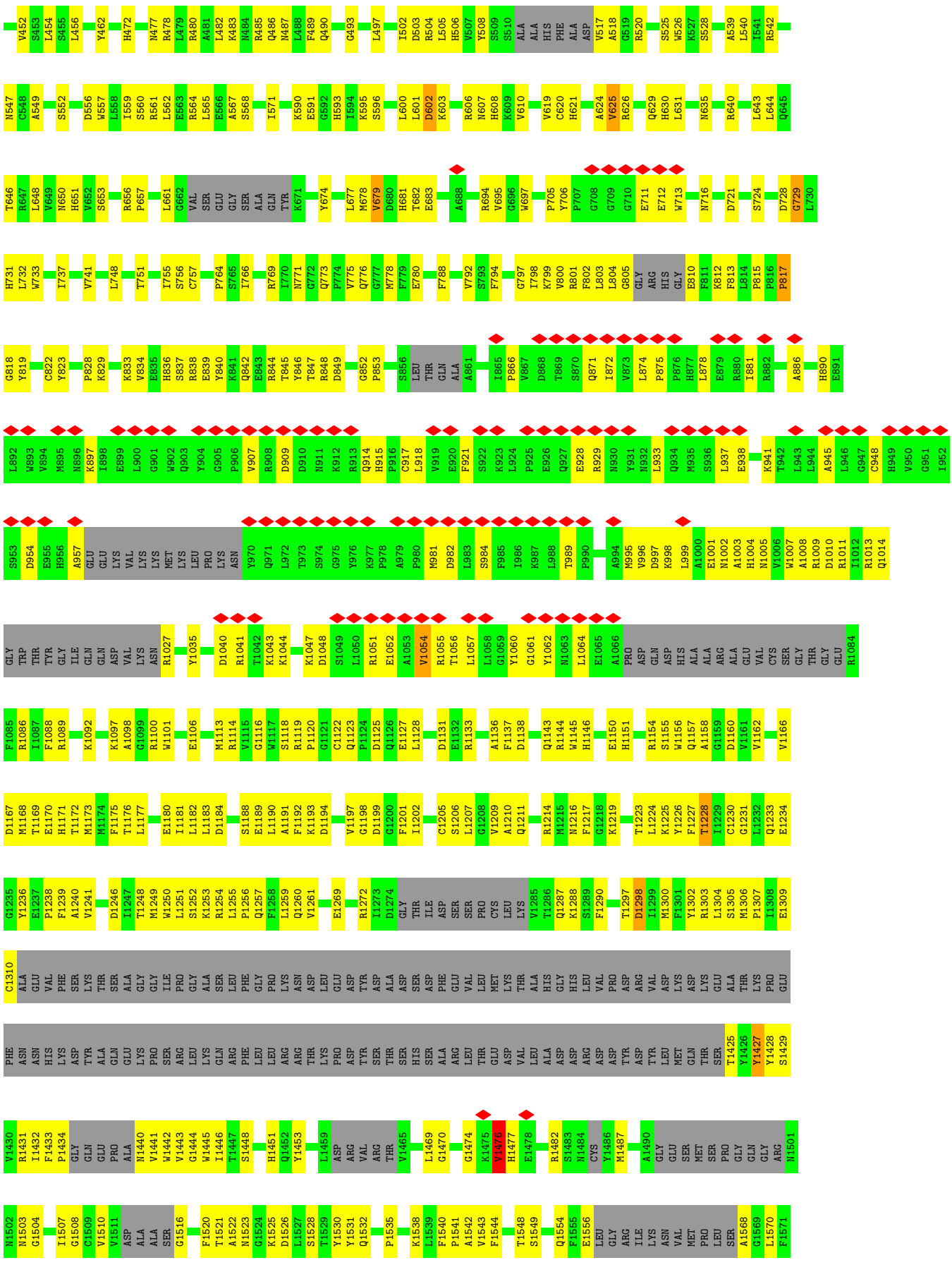








• Molecule 1: RyR2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N547 C548 A549 S552 D556 W557 L558 I559 S560 R561 L562 E563 R564 L565 E566 A567 S568 I571 K590 E591 G592 H593 I594 K595 S596 L600 L601 D602 K603 R606 N607 H608 K609 V610 V619 C620 H621 A624 V625 R626 Q629 H630 L631 N635 R640 L643 L644 Q645
T646 R647 L648 V649 N650 H651 V652 S653 R656 P657 L661 G662 VAL SER GLU GLY SER ALA GLN TYR K671 Y674 L677 M678 V679 D680 H681 T682 E683 A688 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 P774 V775 Q776 G777 M778 F779 E780 F788 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 G852 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 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 T1087 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
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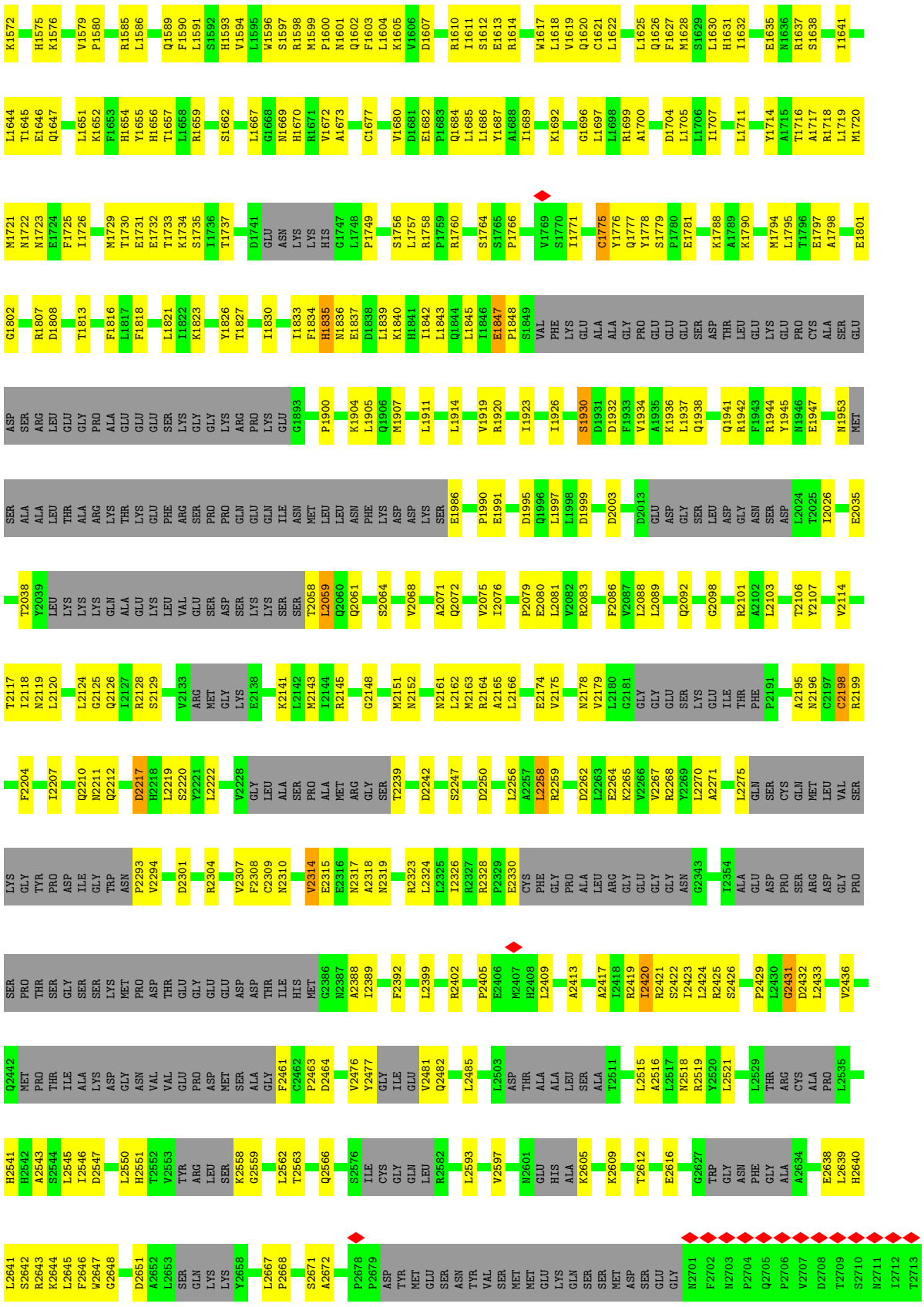
G1235 Y1236 E1237 P1238 F1239 A1240 V1241 D1246 I1247 T1248 M1249 W1250 L1251 S1252 K1253 R1254 L1255 P1256 Q1257 F1258 L1259 Q1260 V1261 E1269 R1272 I1273 D1274 GLY THR ILE ASP SER SER PRO CYS LEU LYS V1285 T1286 Q1287 K1288 S1289 F1290 T1297 D1298 I1299 M1300 F1301 Y1302 R1303 L1304 S1305 M1306 P1307 I1308 E1309
C1310 ALA GLU VAL PHE SER LYS THR SER ALA GLY GLY ILE PRO GLY ALA LYS GLY PRO SER ARG LEU LYS GLN ARG PHE LEU GLY PRO LYS ASN ASP LEU GLU ASP TYR SER ALA ASP ASP SER ASP PHE GLU GLY VAL LEU MET LYS THR ALA HIS GLY HIS LEU VAL PRO ASP ARG VAL ASP TYR LEU MET GLN THR SER T1425 Y1426 Y1427 Y1428 S1429
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
V1430 R1431 I1432 F1433 P1434 GLY GLN GLU PRO ALA N1440 V1441 W1442 V1443 G1444 W1445 I1446 T1447 S1448 H1451 Q1452 Y1453 L1459 ASP ARG VAL ARG THR V1465 L1469 G1470 G1474 K1475 Y1476 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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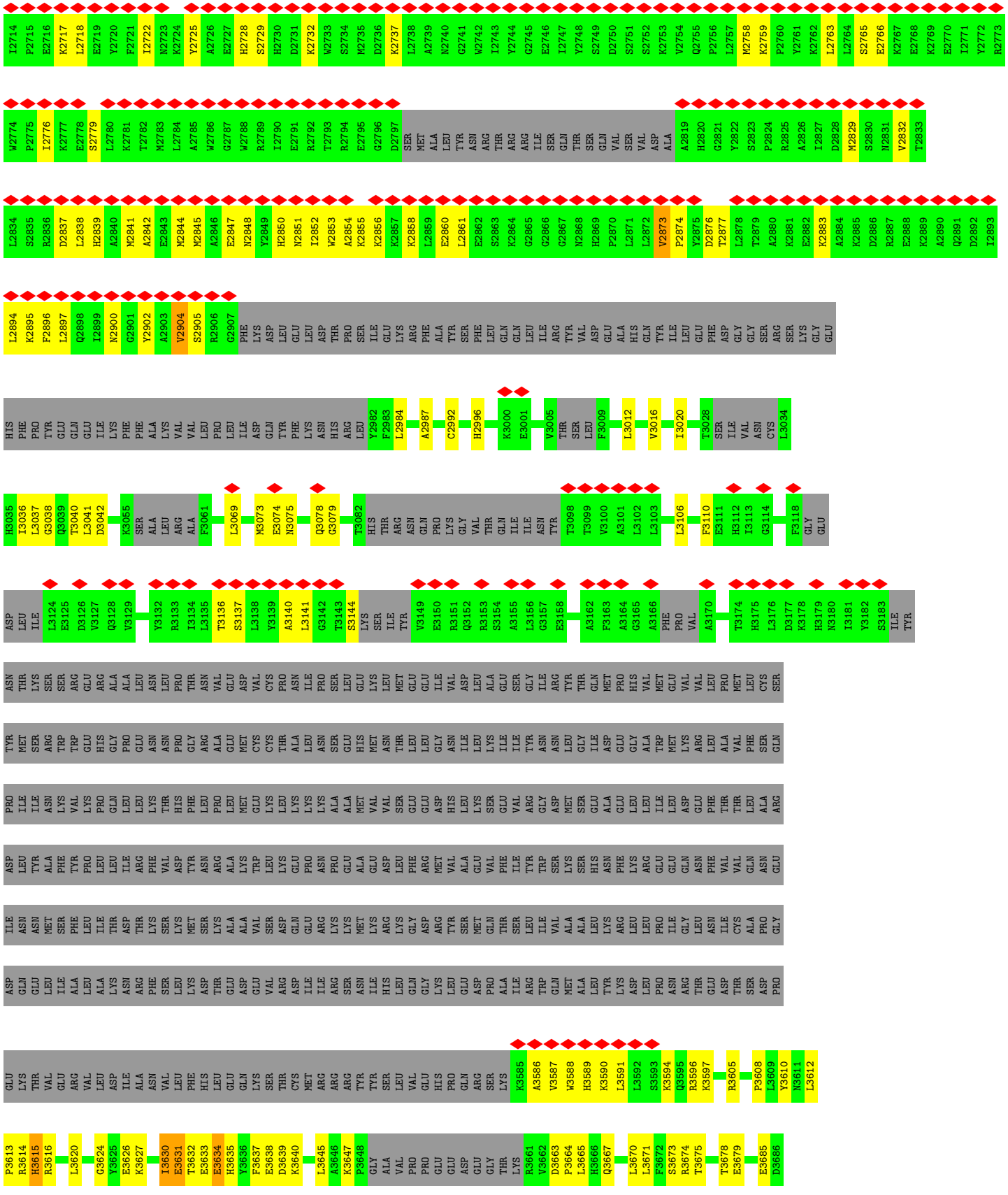
L1644 T1645 E1646 Q1647 L1651 K1652 F1653 H1654 Y1655 H1656 T1657 L1658 R1659 S1662 L1667 G1668 N1669 H1670 R1671 V1672 A1673 C1677 V1680 D1681 E1682 P1683 Q1684 L1685 L1686 Y1687 A1688 I1689 K1692 G1696 L1697 L1698 R1699 A1700 D1704 L1705 L1706 I1707 L1711 Y1714 A1715 T1716 A1717 R1718 L1719 M1720
M1721 N1722 N1723 E1724 F1725 I1726 M1729 T1730 E1731 E1732 T1733 K1734 S1735 I1736 T1737 D1741 GLU ASN LYS LYS HIS G1747 L1748 P1749 S1756 L1757 R1758 P1759 R1760 S1764 S1765 P1766 V1769 S1770 I1771 C1775 Y1776 Q1777 Y1778 S1779 P1780 E1781 K1788 A1789 K1790 M1794 L1795 T1796 E1797 A1798 E1801
G1802 R1807 D1808 T1813 F1816 L1817 F1818 L1821 I1822 K1823 Y1826 T1827 I1830 I1833 F1834 H1835 N1836 E1837 D1838 L1839 K1840 H1841 I1842 L1843 Q1844 L1845 I1846 E1847 P1848 S1849 VAL PHE LYS GLU GLU ALA ALA GLY PRO GLU GLU GLU SER ASP THR LEU GLU 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 L1911 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 GLU PHE ARG SER PRO PRO GLN GLU 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 E2035
T2038 Y2039 LEU LYS LYS LYS GLN ALA GLU LYS LEU VAL GLU SER ASP SER LYS LYS SER SER T2058 L2059 Q2060 Q2061 S2064 V2068 A2071 Q2072 V2075 I2076 P2079 E2080 L2081 V2082 R2083 F2086 V2087 L2088 L2089 Q2092 G2098 R2101 A2102 L2103 T2106 Y2107 V2114
T2117 I2118 N2119 L2120 L2124 G2125 Q2126 I2127 R2128 S2129 V2133 ARG MET GLY LYS E2138 K2141 L2142 M2143 I2144 R2145 G2148 M2151 N2152 N2161 L2162 M2163 R2164 A2165 L2166 E2174 V2175 N2178 V2179 L2180 G2181 GLY GLY GLU SER LYS GLU GLU ILE THR PHE P2191 A2195 N2196 C2197 C2198 R2199
F2204 I2207 Q2210 N2211 Q2212 D2217 H2218 L2219 S2220 Y2221 L2222 V2228 GLY LEU ALA SER PRO ALA MET ARG GLY SER T2239 D2242 S2247 D2250 L2256 A2257 L2258 R2259 D2262 L2263 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 R2304 V2307 F2308 C2309 N2310 V2314 E2315 E2316 N2317 A2318 N2319 R2323 L2324 L2325 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 R2402 P2405 E2406 M2407 H2408 L2409 A2413 A2417 I2418 R2419 I2420 R2421 S2422 I2423 L2424 R2425 S2426 P2429 L2430 G2431 D2432 L2433 V2436
Q2442 MET PRO THR ILE ALA LYS ASP GLY ASN VAL GLU PRO ASP MET SER ALA GLY F2461 C2462 P2463 D2464 V2476 Y2477 GLY ILE GLU V2481 Q2482 L2485 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 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 P2702 N2703 P2704 Q2705 P2706 V2707 D2708 T2709 S2710 N2711 I2712 T2713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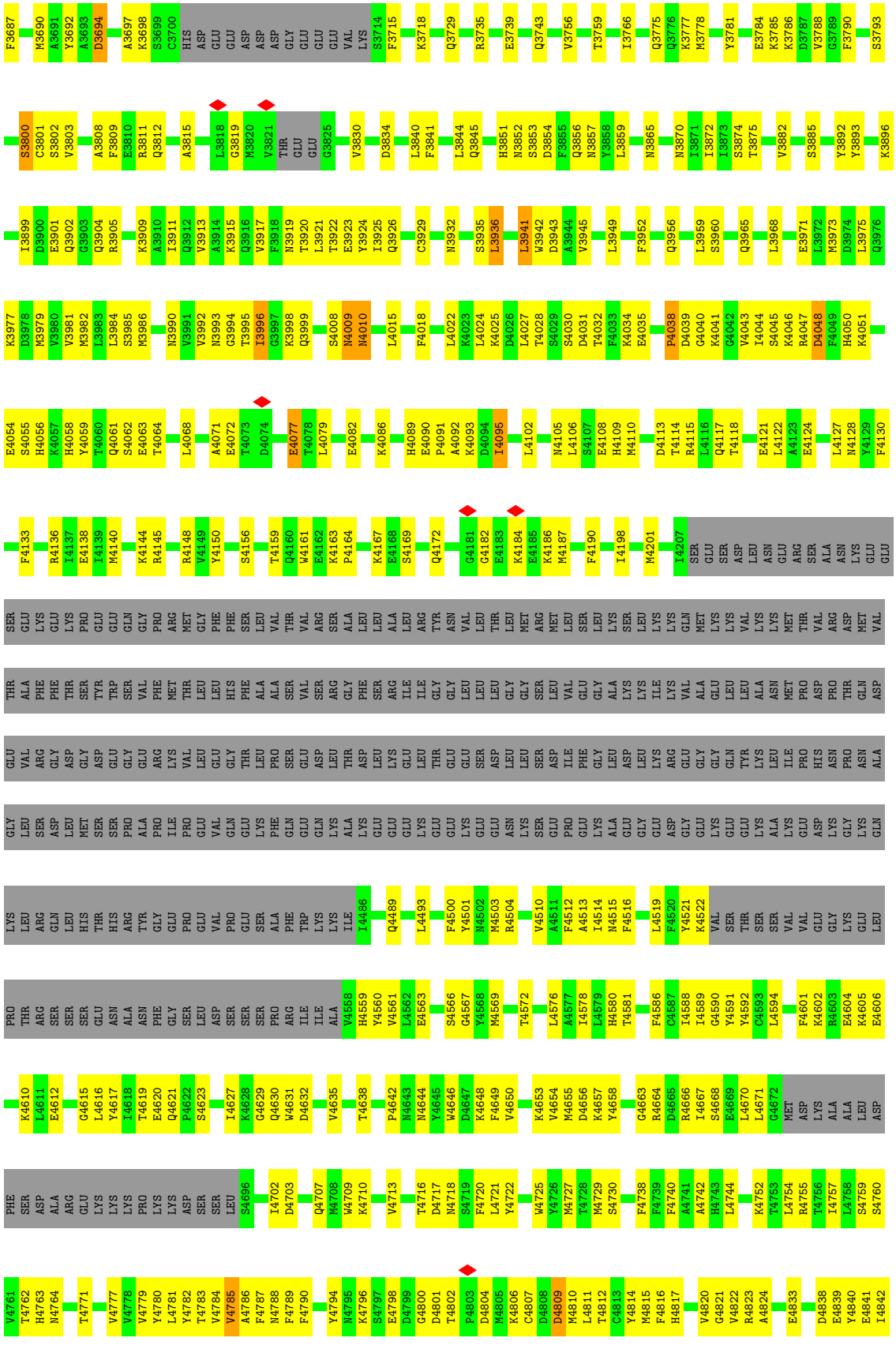
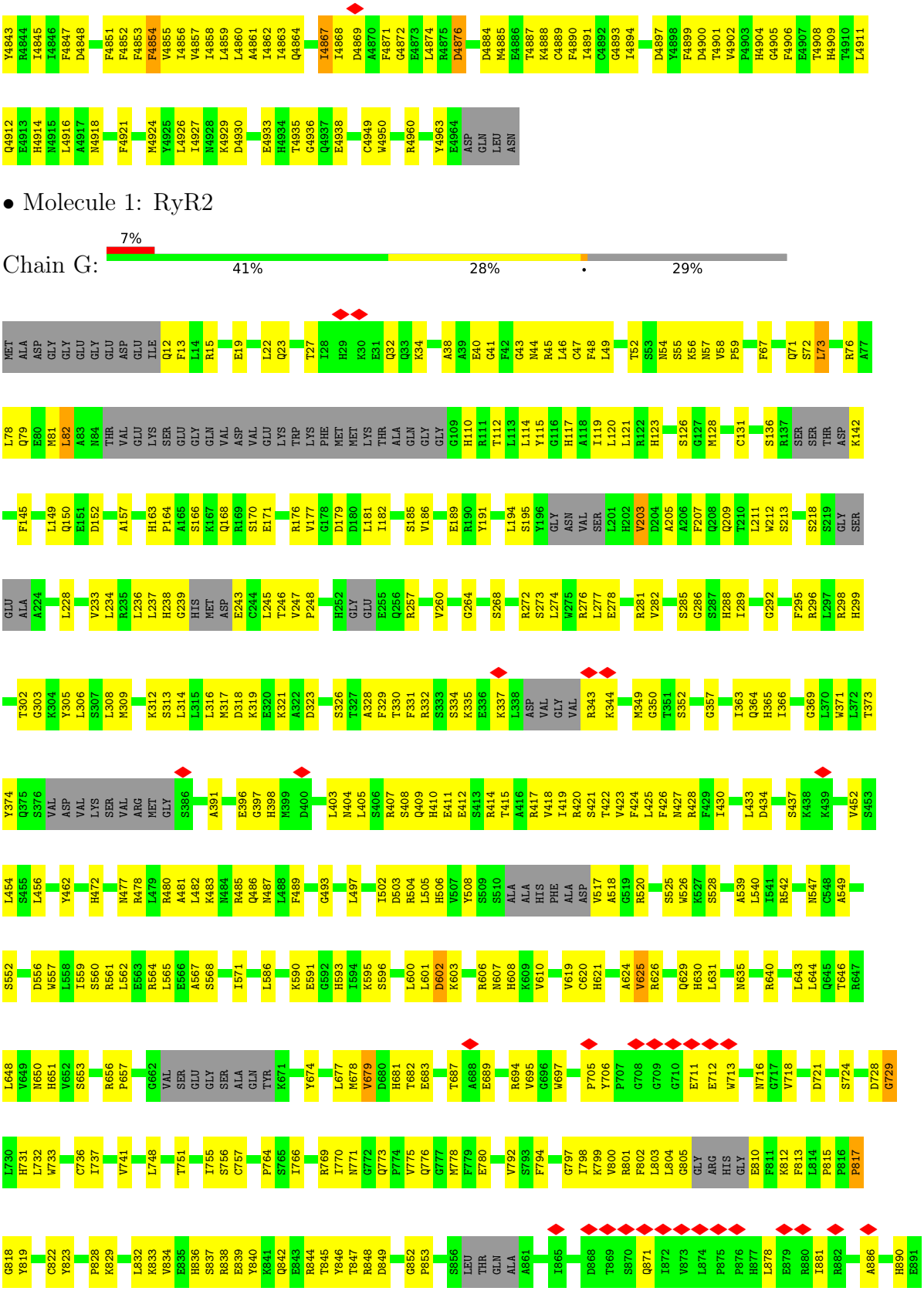
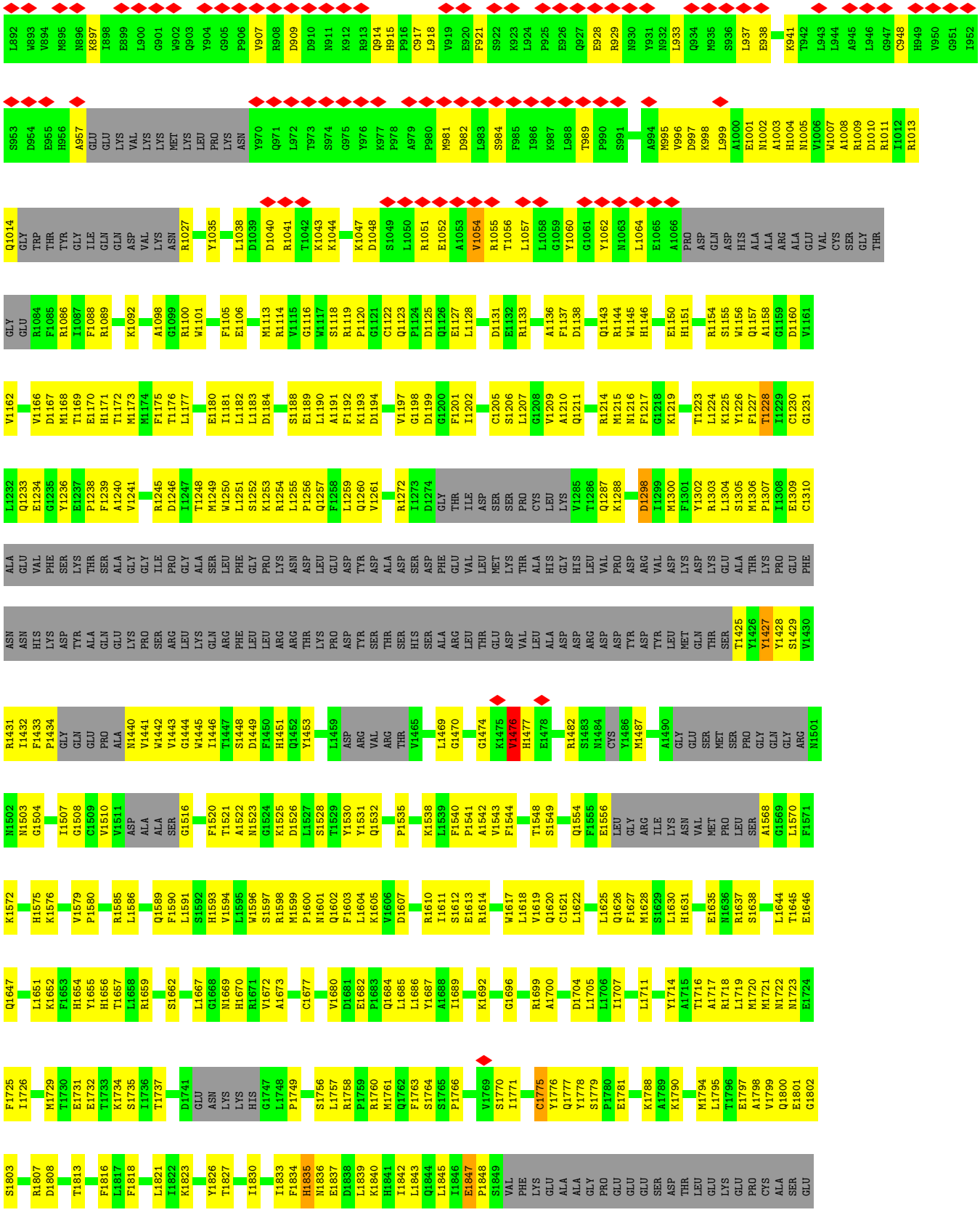
W2774 P2775 I2776 K2777 E2778 S2779 L2780 K2781 T2782 M2783 L2784 A2785 W2786 G2787 W2788 R2789 I2790 E2791 R2792 T2793 R2794 E2795 G2796 D2797 SER MET ALA LEU TYR ASN ARG THR ARG ARG ILE SER GLN THR SER GLN VAL SER VAL ASP ALA A2819 H2820 G2821 Y2822 S2823 P2824 R2825 A2826 I2827 D2828 M2829 S2830 N2831 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 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 V3016 I3020 T3028 SER ILE VAL ASN CYS L3034
H3035 I3036 L3037 G3038 Q3039 T3040 L3041 D3042 K3055 SER ALA LEU ARG ALA F3061 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 F3118 GLY GLU
ASP LEU ILE L3124 E3125 D3126 V3127 Q3128 V3129 Y3132 R3133 I3134 L3135 T3136 S3137 L3138 Y3139 A3140 L3141 G3142 T3143 S3144 LYS SER ILE TYR V3149 E3150 R3151 Q3152 R3153 S3154 A3155 L3156 G3157 E3158 A3162 F3163 A3164 G3165 A3166 PHE PRO VAL A3170 T3174 H3175 L3176 D3177 K3178 H3179 N3180 I3181 Y3182 S3183 ILE TYR
ASN THR LYS SER SER ARG GLU ARG ALA ALA LEU ASN LEU 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 GLN ASN ASN PRO GLY ARG ALA ALA GLU MET CYS CYS THR ALA LEU ASN SER GLU HIS MET ASN THR LEU LEU GLY ASN ILE 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 LEU LYS THR HIS PHE LEU PRO LEU MET GLU LYS LEU LYS LYS LYS ALA ALA MET VAL VAL SER GLU GLU 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 ILE ARG PHE VAL ASP TYR ASN ARG ALA LYS TRP LEU LYS GLU PRO ASN PRO GLU ALA GLU ASP LEU PHE ARG MET VAL ALA GLU VAL PHE ILE TYR TRP SER LYS SER HIS ASN PHE LYS ARG GLU 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 ARG LYS LYS MET LYS ARG LYS GLY ASP ARG TYR SER MET GLN THR SER LEU VAL ALA ALA LEU LYS ARG LEU LEU GLY ASP GLN GLY LEU ASN ILE CYS ALA PRO GLY
ASP GLN GLU LEU ILE ALA LEU 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 GLY LYS LEU GLU ASP PRO ALA ILE ARG TRP GLN MET ALA LEU TYR LYS ASP LEU PRO ASN ARG THR GLU ASP ASP PRO
GLU LYS THR VAL GLU ILE ALA ASN VAL LEU ASP ILE ARG PHE HIS LEU GLU GLN LYS SER THR CYS MET ARG ARG ARG TYR TYR SER LEU VAL GLU 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 L3671 F3672 S3673 R3674 T3675 T3678 E3679 E3685 D3686





• Molecule 1: RyR2

Chain G: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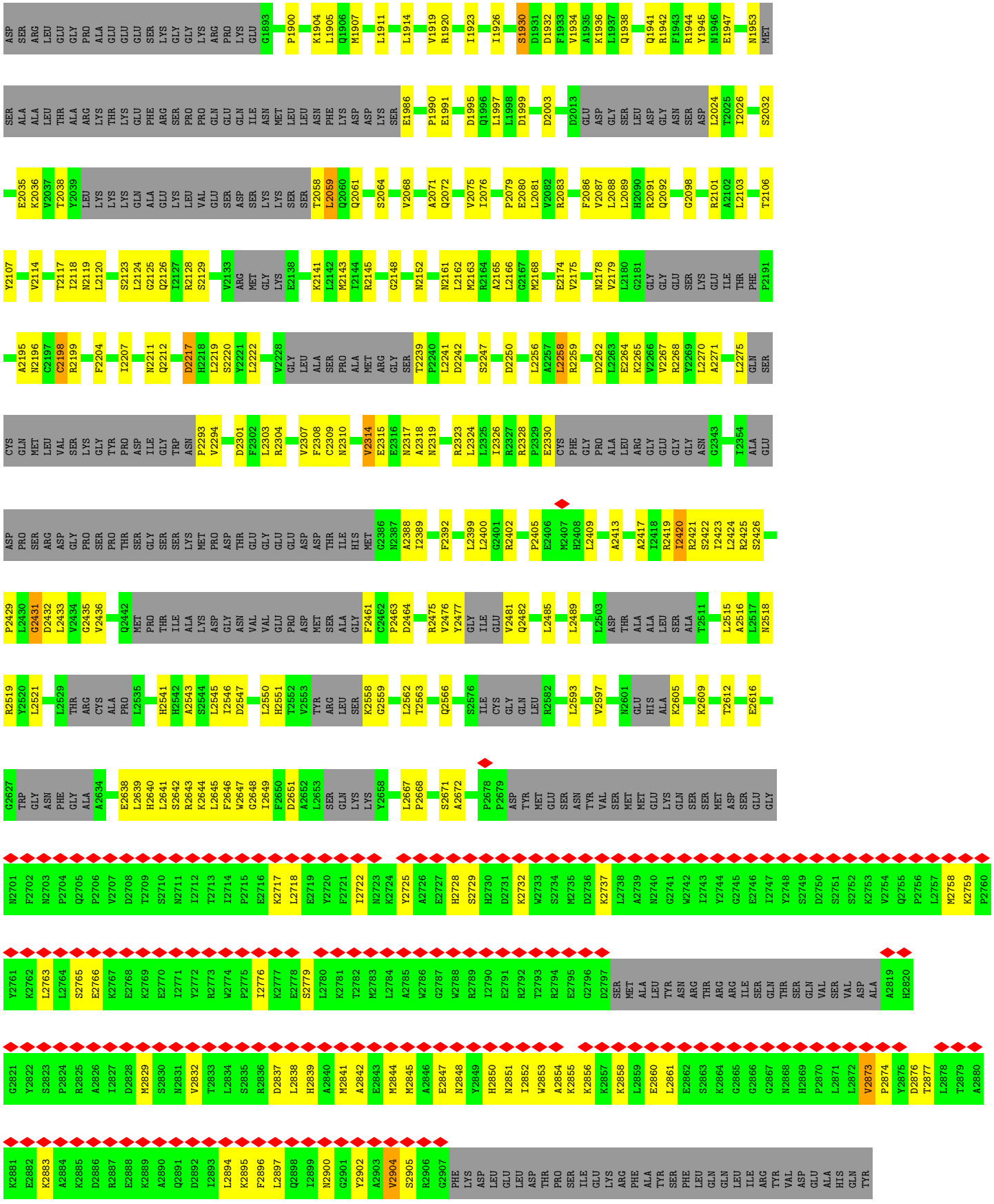
S953 D954 E955 H956 A957 GLU GLU LYS VAL LYS LYS MET LYS LEU PRO LYS ASN Y970 Q971 L972 T973 S974 G975 Y976 K977 P978 A979 P980 M981 D982 L983 S984 F985 I986 K987 L988 T989 P990 S991 A994 M995 V996 D997 K998 L999 A1000 E1001 N1002 A1003 H1004 N1005 V1006 W1007 A1008 R1009 D1010 R1011 I1012 R1013
Q1014 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 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 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 R1245 D1246 I1247 T1248 M1249 W1250 L1251 S1252 R1253 R1254 L1255 P1256 Q1257 F1258 L1259 Q1260 V1261 R1272 I1273 D1274 GLY THR ILE ASP SER SER PRO CYS LEU LYS V1285 T1286 Q1287 K1288 D1298 T1299 M1300 F1301 Y1302 R1303 L1304 S1305 M1306 P1307 T1308 I1309 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 ARG ASP LYS THR GLU ASP VAL LEU ALA ASP ASP ARG ASP ASP TYR 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 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 ARG ASP ARG ASP ASP TYR ASP TYR ASP ARG VAL ASP LYS ASP ARG ASP PHE GLU LEU LEU ASP ASP ASP


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 L1911 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 GLU PHE ARG SER PRO PRO GLN GLU GLU 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 LYS GLN ALA GLU LYS LEU VAL GLU SER ASP SER LYS LYS SER SER T2058 L2059 Q2060 Q2061 S2064 V2068 A2071 Q2072 V2075 I2076 P2079 E2080 L2081 V2082 R2083 F2086 V2087 L2088 L2089 H2090 R2091 Q2092 G2098 R2101 A2102 L2103 T2106
Y2107 V2114 T2117 I2118 N2119 L2120 S2123 L2124 G2125 Q2126 I2127 R2128 S2129 V2133 ARG MET GLY LYS E2138 K2141 L2142 M2143 I2144 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 D2242 S2247 D2250 L2256 A2257 L2258 R2259 D2262 L2263 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 L2324 L2325 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
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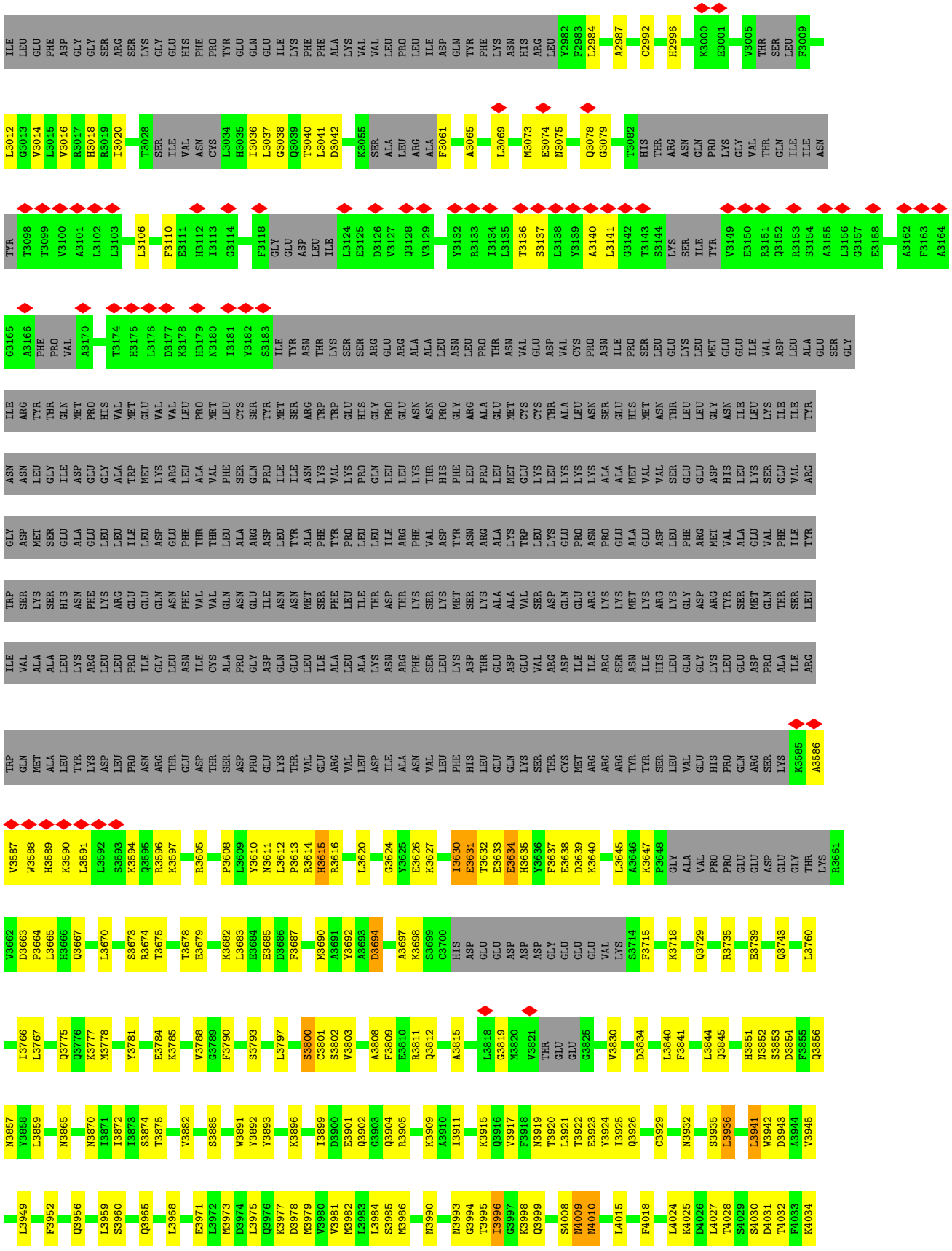
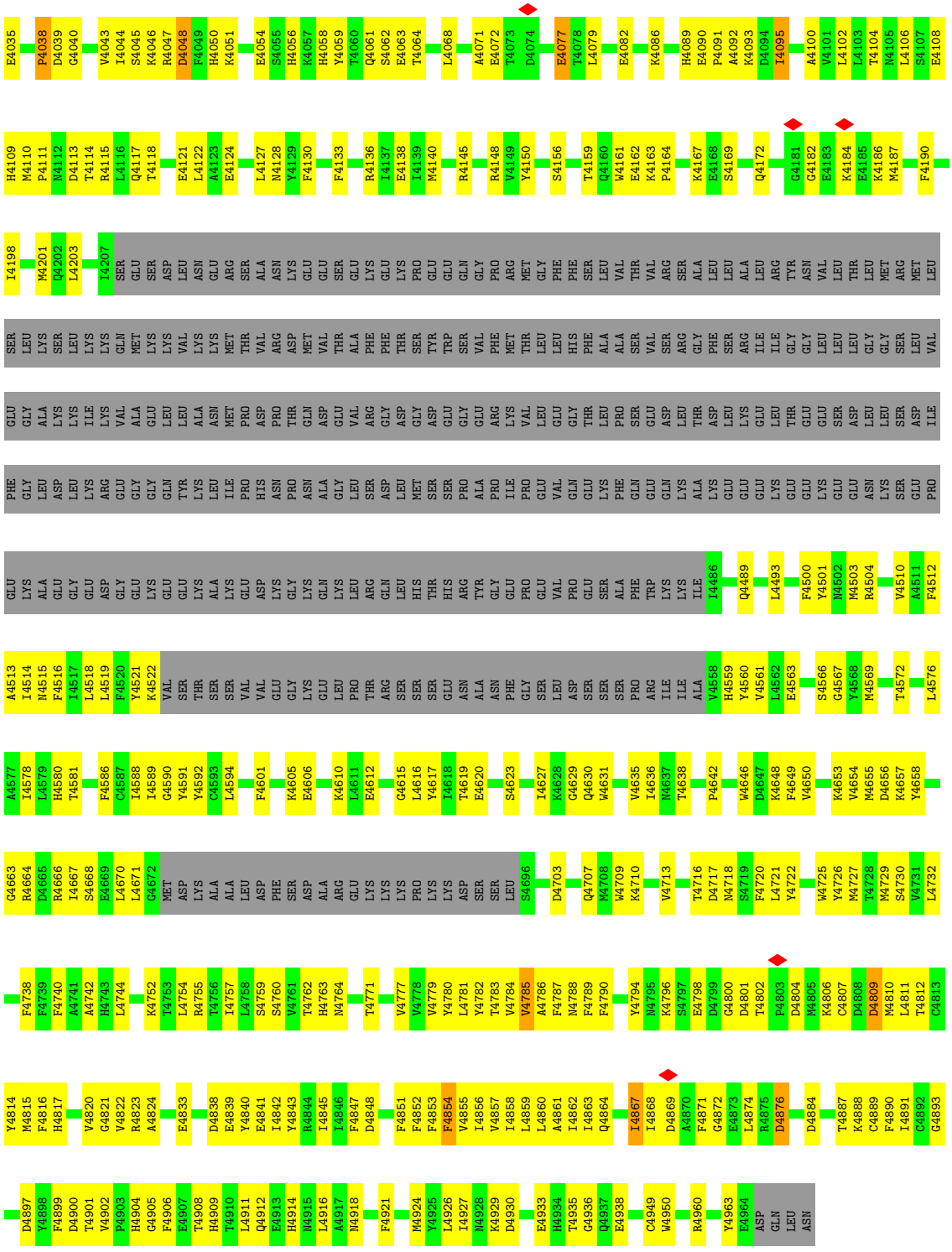
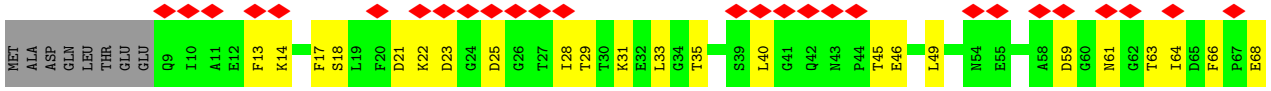
G2821 Y2822 S2823 P2824 R2825 A2826 I2827 D2828 M2829 S2830 N2831 V2832 T2833 L2834 S2835 R2836 D2837 L2838 H2839 A2840 M2841 A2842 E2843 M2844 M2845 A2846 E2847 N2848 Y2849 H2850 N2851 I2852 W2853 A2854 K2855 K2856 K2857 K2858 L2859 E2860 L2861 E2862 S2863 K2864 G2865 G2866 G2867 N2868 H2869 P2870 L2871 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

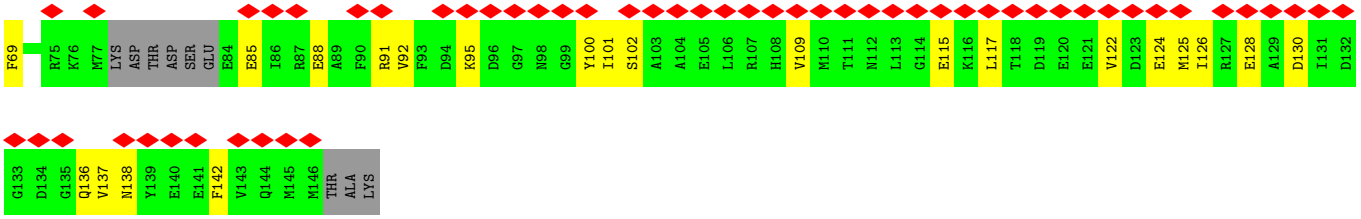




• Molecule 2: Calmodulin-1

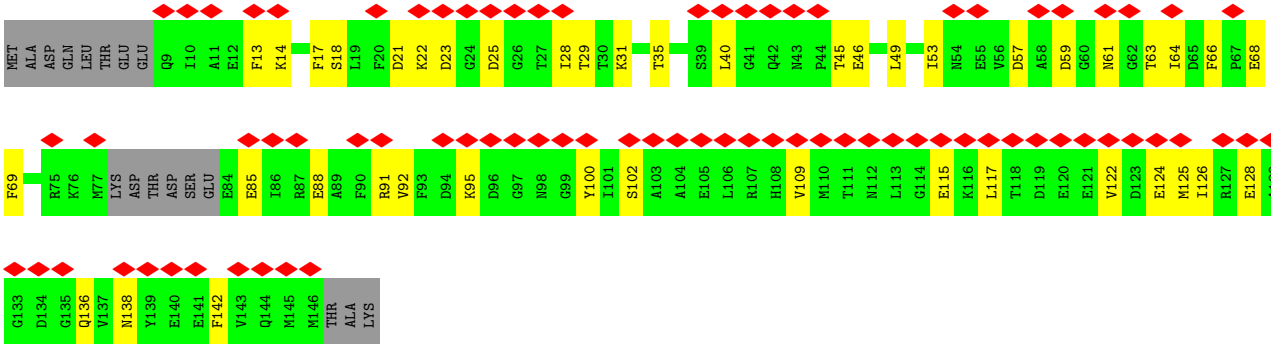
Chain B:





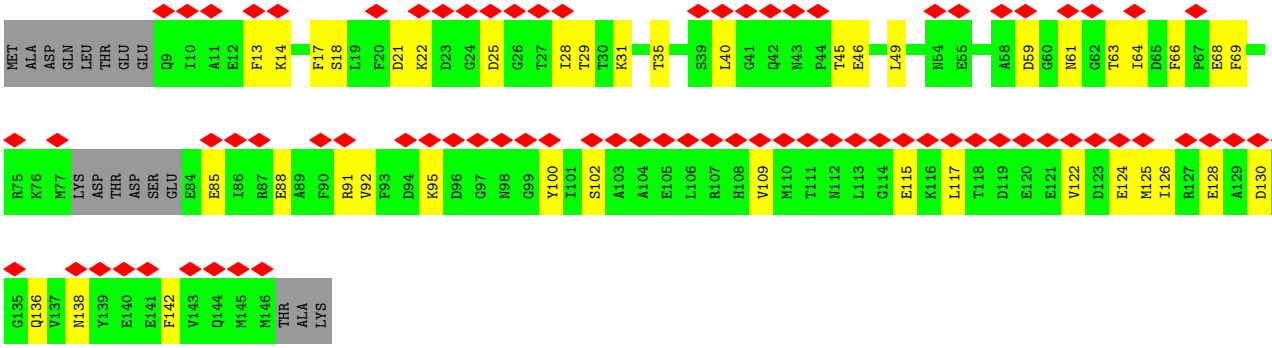
• Molecule 2: Calmodulin-1

Chain D:



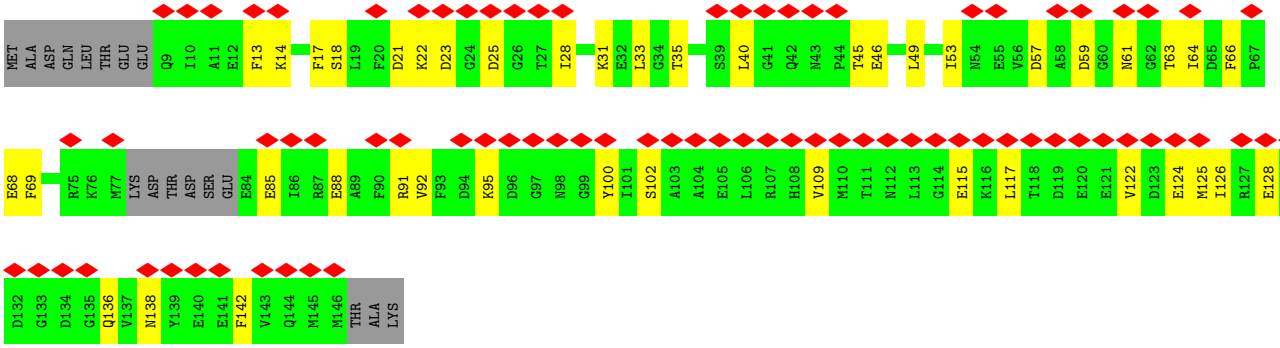
• Molecule 2: Calmodulin-1

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

5.1 Standard geometry

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

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	1/27223 (0.0%)	0.76	7/36827 (0.0%)
1	C	0.56	1/27223 (0.0%)	0.77	10/36827 (0.0%)
1	E	0.56	1/27223 (0.0%)	0.76	7/36827 (0.0%)
1	G	0.56	1/27223 (0.0%)	0.76	7/36827 (0.0%)
2	B	0.26	0/1053	0.52	0/1411
2	D	0.26	0/1053	0.52	0/1411
2	F	0.26	0/1053	0.52	0/1411
2	H	0.26	0/1053	0.52	0/1411
All	All	0.56	4/113104 (0.0%)	0.76	31/152952 (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 (4) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	1692	LYS	CA-C	-5.40	1.45	1.52
1	C	1692	LYS	CA-C	-5.40	1.45	1.52
1	E	1692	LYS	CA-C	-5.40	1.45	1.52
1	G	1692	LYS	CA-C	-5.40	1.45	1.52

All (31) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	4519	LEU	CB-CA-C	-10.79	91.61	110.72
1	C	4520	PHE	N-CA-C	-8.11	101.44	113.61
1	C	2431	GLY	CA-C-N	5.82	131.81	120.99
1	C	2431	GLY	C-N-CA	5.82	131.81	120.99
1	A	2431	GLY	CA-C-N	5.81	131.80	120.99
1	A	2431	GLY	C-N-CA	5.81	131.80	120.99
1	E	2431	GLY	CA-C-N	5.81	131.80	120.99
1	E	2431	GLY	C-N-CA	5.81	131.80	120.99
1	G	2431	GLY	CA-C-N	5.81	131.80	120.99
1	G	2431	GLY	C-N-CA	5.81	131.80	120.99
1	G	4867	ILE	CA-C-N	-5.38	117.45	123.16
1	G	4867	ILE	C-N-CA	-5.38	117.45	123.16
1	A	1737	THR	CA-C-N	5.38	131.82	121.54
1	A	1737	THR	C-N-CA	5.38	131.82	121.54
1	A	4867	ILE	CA-C-N	-5.38	117.46	123.16
1	A	4867	ILE	C-N-CA	-5.38	117.46	123.16
1	C	1737	THR	CA-C-N	5.38	131.82	121.54
1	C	1737	THR	C-N-CA	5.38	131.82	121.54
1	E	1737	THR	CA-C-N	5.38	131.82	121.54
1	E	1737	THR	C-N-CA	5.38	131.82	121.54
1	E	4867	ILE	CA-C-N	-5.38	117.46	123.16
1	E	4867	ILE	C-N-CA	-5.38	117.46	123.16
1	G	1737	THR	CA-C-N	5.38	131.82	121.54
1	G	1737	THR	C-N-CA	5.38	131.82	121.54
1	C	4867	ILE	CA-C-N	-5.38	117.46	123.16
1	C	4867	ILE	C-N-CA	-5.38	117.46	123.16
1	C	4520	PHE	N-CA-CB	5.31	118.71	110.80
1	A	729	GLY	N-CA-C	-5.11	101.07	113.18
1	C	729	GLY	N-CA-C	-5.11	101.07	113.18
1	E	729	GLY	N-CA-C	-5.11	101.07	113.18
1	G	729	GLY	N-CA-C	-5.11	101.07	113.18

There are no chirality outliers.

All (132) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1127	GLU	Peptide
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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

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Mol	Chain	Res	Type	Group
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
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	1062	0
1	C	26722	0	25168	1084	0
1	E	26722	0	25168	1080	0
1	G	26722	0	25168	1089	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	4204	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 (4204) 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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:1310:CYS:HG	1:A:1516:GLY:N	1.78	0.81
1:G:4811:LEU:O	1:G:4815:MET:SD	2.39	0.81
1:E:4860:LEU:C	1:G:4867:ILE:HD13	2.07	0.79
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:A:4861:ALA:HA	1:C:4867:ILE:HG23	1.65	0.78
1:C:4860:LEU:C	1:E:4867:ILE:HD13	2.08	0.78
1:E:2198:CYS:HG	1:E:2239:THR:N	1.82	0.78
1:A:2198:CYS:HG	1:A:2239:THR:N	1.82	0.78
1:C:2198:CYS:HG	1:C:2239:THR:N	1.82	0.78
1:E:844:ARG:H	1:E:848:ARG:HG2	1.48	0.78
1:A:4867:ILE:HD13	1:G:4860:LEU:C	2.07	0.78
1:G:2198:CYS:HG	1:G:2239:THR:N	1.82	0.78
1:A:4811:LEU:CD2	1:C:4519:LEU:HD13	2.14	0.78
1:A:4860:LEU:C	1:C:4867:ILE:HD13	2.07	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:G:844:ARG:H	1:G:848:ARG:HG2	1.48	0.77
1:C:4861:ALA:HA	1:E:4867:ILE:HG23	1.65	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:G:810:GLU:N	1:G:823:TYR:HH	1.85	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:G:3993:ASN:HD22	1:G:4110:MET:HG3	1.53	0.73
1:C:776:GLN:HB3	1:C:1470:GLY:HA3	1.70	0.73
1:C:4118:THR:O	1:C:4122:LEU:HB2	1.89	0.73
1:C:810:GLU:N	1:C:823:TYR:HH	1.85	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:810:GLU:N	1:E:823:TYR:HH	1.87	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:810:GLU:N	1:A:823:TYR:HH	1.87	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:G:3973:MET:HE3	1:G:4095:ILE:HD11	1.77	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:3973:MET:HE3	1:A:4095:ILE:HD11	1.77	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:C:4889:CYS:SG	1:C:4890:PHE:N	2.68	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:E:3973:MET:HE3	1:E:4095:ILE:HD11	1.77	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: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:C:3973:MET:HE3	1:C:4095:ILE:HD11	1.77	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
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:E:4806:LYS:NZ	1:E:4833:GLU:OE2	2.29	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:C:3998:LYS:HE2	1:C:4110:MET:HE1	1.80	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:G:3998:LYS:HE2	1:G:4110:MET:HE1	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:A:3998:LYS:HE2	1:A:4110:MET:HE1	1.80	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:3998:LYS:HE2	1:E:4110:MET:HE1	1.80	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4082:GLU:O	1:E:4086:LYS:N	2.31	0.63
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:C:4729:MET:HE2	1:C:4742:ALA:HB3	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:4729:MET:HE2	1:E:4742:ALA:HB3	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:A:4729:MET:HE2	1:A:4742:ALA:HB3	1.82	0.61
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:1249:MET:HE1	1:G:1251:LEU:HB3	1.82	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:G:4729:MET:HE2	1:G:4742:ALA:HB3	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:54:ASN:OD1	1:G:56:LYS:NZ	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
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:A:1249:MET:HE1	1:A:1251:LEU:HB3	1.82	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:E:2779:SER:HB2	1:E:2845:MET:HE1	1.83	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
1:A:54:ASN:OD1	1:A:56:LYS:NZ	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:2779:SER:HB2	1:A:2845:MET:HE1	1.83	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:1249:MET:HE1	1:E:1251:LEU:HB3	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:54:ASN:OD1	1:C:56:LYS:NZ	2.35	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
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:1249:MET:HE1	1:C:1251:LEU:HB3	1.82	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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
1:C:2779:SER:HB2	1:C:2845:MET:HE1	1.83	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:1775:CYS:SG	1:A:1776:TYR:N	2.71	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:G:2779:SER:HB2	1:G:2845:MET:HE1	1.83	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:C:778:MET:N	1:C:778:MET:SD	2.76	0.58
1:C:1035:TYR:O	1:C:1043:LYS:NZ	2.36	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:E:3936:LEU:HB3	1:E:3986:MET:HE1	1.86	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:A:3936:LEU:HB3	1:A:3986:MET:HE1	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:4008:SER:OG	1:G:4009:ASN:OD1	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2737:LYS:NZ	1:E:2758:MET:SD	2.76	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:A:4522:LYS:C	1:G:4809:ASP:O	2.47	0.57
1:C:3936:LEU:HB3	1:C:3986:MET:HE1	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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: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
1:A:1611:ILE:O	1:A:1620:GLN:N	2.33	0.56
1:A:4809:ASP:O	1:C:4522:LYS:C	2.49	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:A:4757:ILE:O	1:A:4760:SER:OG	2.22	0.56
1:C:4864:GLN:HB3	1:E:4868:ILE:HD11	1.87	0.56
1:E:1597:SER:OG	1:E:1598:ARG:N	2.38	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3936:LEU:HB3	1:G:3986:MET:HE1	1.86	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:C:4809:ASP:O	1:E:4522:LYS:C	2.48	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:G:3917:VAL:O	1:G:3920:THR:OG1	2.23	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: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:1788:LYS:HZ1	1:G:1834:PHE:H	1.53	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:1035:TYR:O	1:G:1043:LYS:NZ	2.36	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:C:4713:VAL:O	1:C:4716:THR:OG1	2.24	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:1788:LYS:HZ1	1:C:1834:PHE:H	1.54	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:G:1904:LYS:HA	1:G:1907:MET:HB3	1.88	0.55
1:G:3982:MET:O	1:G:3985:SER:OG	2.22	0.55
1:A:2315:GLU:HA	1:A:2318:ALA:HB3	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:E:4887:THR:OG1	1:E:4888:LYS:NZ	2.40	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:417:ARG:O	1:A:421:SER:OG	2.25	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:417:ARG:O	1:C:421:SER:OG	2.25	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:E:3917:VAL:O	1:E:3920:THR:OG1	2.23	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: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: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
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: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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:C:4503:MET:HE1	1:C:4586:PHE:HB2	1.89	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: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
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: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
1:A:1788:LYS:HZ1	1:A:1834:PHE:H	1.55	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
2:F:92:VAL:O	2:F:95:LYS:NZ	2.38	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
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:3917:VAL:O	1:C:3920:THR:OG1	2.23	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4503:MET:HE1	1:A:4586:PHE:HB2	1.89	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:4809:ASP:O	1:G:4522:LYS:C	2.51	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:334:SER:OG	1:C:335:LYS:N	2.40	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
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: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:A:4115:ARG:O	1:A:4118:THR:OG1	2.21	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:E:4115:ARG:O	1:E:4118:THR:OG1	2.21	0.53
1:G:1677:CYS:HA	1:G:1680:VAL:HG12	1.90	0.53
1:A:1797:GLU:O	1:A:1801:GLU:N	2.35	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3675:THR:O	1:A:3678:THR:OG1	2.22	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:C:4801:ASP:OD1	1:C:4801:ASP:N	2.40	0.53
2:D:92:VAL:O	2:D:95:LYS:NZ	2.38	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:A:4156:SER:O	1:A:4159:THR:OG1	2.22	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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: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:G:4503:MET:HE1	1:G:4586:PHE:HB2	1.89	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
1:E:1089:ARG:NH1	1:E:1120:PRO:O	2.42	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:185:SER:OG	1:A:186:VAL:N	2.40	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: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: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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:3682:LYS:NZ	1:A:3683:LEU:O	2.39	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: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
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:E:1788:LYS:HZ1	1:E:1834:PHE:H	1.57	0.52
1:E:4503:MET:HE1	1:E:4586:PHE:HB2	1.89	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:1131:ASP:OD1	1:E:1131:ASP:N	2.41	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1827:THR:HA	1:G:1830:ILE:HD12	1.91	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:3682:LYS:NZ	1:C:3683:LEU:O	2.39	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: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:1131:ASP:N	1:A:1131:ASP:OD1	2.41	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
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:1654:HIS:O	1:E:1657:THR:OG1	2.22	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:620:CYS:SG	1:G:621:HIS:N	2.80	0.52
1:G:2543:ALA:HA	1:G:2873:VAL:HG11	1.90	0.52
1:G:4757:ILE:O	1:G:4760:SER:OG	2.22	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3605:ARG:HG3	1:A:3608:PRO:HB2	1.92	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: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
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:C:4156:SER:O	1:C:4159:THR:OG1	2.22	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:A:337:LYS:NZ	1:A:369:GLY:O	2.39	0.51
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3639:ASP:H	1:G:3698:LYS:HZ2	1.56	0.51
1:G:4156:SER:O	1:G:4159:THR:OG1	2.22	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: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
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
1:G:4566:SER:OG	1:G:4567:GLY:N	2.42	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:E:2114:VAL:O	1:E:2117:THR:OG1	2.25	0.51
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:3919:ASN:O	1:G:3922:THR:OG1	2.28	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:A:4868:ILE:HD11	1:G:4864:GLN:C	2.36	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3639:ASP:H	1:E:3698:LYS:HZ2	1.58	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
1:A:4796:LYS:NZ	1:A:4807:CYS:SG	2.73	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:A:4801:ASP:N	1:A:4801:ASP:OD1	2.40	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:1654:HIS:O	1:C:1657:THR:OG1	2.22	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:3639:ASP:OD1	1:E:3698:LYS:NZ	2.41	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:1305:SER:HB3	1:A:1593:HIS:HE2	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:1305:SER:HB3	1:C:1593:HIS:HE2	1.76	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
1:E:2844:MET:O	1:E:2848:ASN:N	2.42	0.51
1:E:4864:GLN:C	1:G:4868:ILE:HD11	2.35	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:1305:SER:HB3	1:G:1593:HIS:HE2	1.76	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:337:LYS:NZ	1:E:369:GLY:O	2.39	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: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:C:4864:GLN:C	1:E:4868:ILE:HD11	2.36	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:170:SER:OG	1:G:171:GLU:N	2.43	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:A:4864:GLN:C	1:C:4868:ILE:HD11	2.35	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:434:ASP:O	1:C:437:SER:OG	2.28	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
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:G:1630:LEU:O	1:G:1638:SER:OG	2.24	0.50
1:A:150:GLN:NE2	1:A:152:ASP:O	2.45	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1654:HIS:O	1:G:1657:THR:OG1	2.22	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:3777:LYS:HB3	1:A:3778:MET:HE2	1.94	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:337:LYS:NZ	1:C:369:GLY:O	2.39	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:1305:SER:HB3	1:E:1593:HIS:HE2	1.76	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
2:H:92:VAL:O	2:H:95:LYS:NZ	2.38	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:556:ASP:O	1:E:560:SER:N	2.39	0.49
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:G:4569:MET:O	1:G:4572:THR:OG1	2.25	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:C:4794:TYR:H	1:C:4806:LYS:HZ3	1.60	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2267:VAL:O	1:C:2271:ALA:N	2.45	0.49
1:C:3851:HIS:HA	1:C:3856:GLN:HE22	1.76	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:1730:THR:O	1:E:1733:THR:OG1	2.26	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: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:3942:TRP:CD1	1:C:3942:TRP:H	2.31	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: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:E:3956:GLN:O	1:E:3960:SER:OG	2.30	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:303:GLY:N	1:G:420:ARG:HH11	2.10	0.49
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:3777:LYS:HB3	1:G:3778:MET:HE2	1.94	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:2874:PRO:O	1:C:2877:THR:OG1	2.30	0.49
1:C:3777:LYS:HB3	1:C:3778:MET:HE2	1.94	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: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:G:337:LYS:NZ	1:G:369:GLY:O	2.39	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:A:4030:SER:O	1:A:4034:LYS:N	2.45	0.49
1:A:4794:TYR:H	1:A:4806:LYS:HZ3	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:1721:MET:HE1	1:C:2128:ARG:HD2	1.95	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:1721:MET:HE1	1:E:2128:ARG:HD2	1.95	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:170:SER:OG	1:C:171:GLU:N	2.43	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:3942:TRP:CD1	1:E:3942:TRP:H	2.31	0.48
1:E:4024:LEU:O	1:E:4028:THR:HB	2.13	0.48
1:G:236:LEU:HD11	1:G:403:LEU:HB2	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3942:TRP:CD1	1:G:3942:TRP:H	2.31	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
1:A:47:CYS:SG	1:A:48:PHE:N	2.86	0.48
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:352:SER:O	1:C:352:SER:OG	2.28	0.48
1:C:1257:GLN:N	1:C:1596:TRP:O	2.46	0.48
1:C:1630:LEU:O	1:C:1638:SER:OG	2.24	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:C:4796:LYS:NZ	1:C:4807:CYS:SG	2.73	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:A:1721:MET:HE1	1:A:2128:ARG:HD2	1.95	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:4794:TYR:H	1:E:4806:LYS:HZ3	1.60	0.48
1:G:434:ASP:OD1	1:G:504:ARG:NE	2.46	0.48
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: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:47:CYS:SG	1:G:48:PHE:N	2.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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
2:H:31:LYS:O	2:H:35:THR:OG1	2.26	0.48
1:A:948:CYS:HB3	1:A:1064:LEU:HB3	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
1:C:3995:THR:OG1	1:C:3996:ILE:N	2.40	0.48
2:D:18:SER:HA	2:D:21:ASP:HB3	1.96	0.48
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:3777:LYS:HB3	1:E:3778:MET:HE2	1.94	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:E:4566:SER:OG	1:E:4567:GLY:N	2.42	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:2114:VAL:O	1:G:2117:THR:OG1	2.25	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:A:3942:TRP:H	1:A:3942:TRP:CD1	2.31	0.48
1:C:540:LEU:O	1:C:547:ASN:ND2	2.47	0.48
1:C:595:LYS:HZ3	1:C:635:ASN:HB3	1.79	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:C:3956:GLN:O	1:C:3960:SER:OG	2.30	0.48
1:E:82:LEU:HD12	1:E:82:LEU:C	2.38	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2841:MET:HE1	1:C:2904:VAL:HG13	1.96	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
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:2841:MET:HE1	1:A:2904:VAL:HG13	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1721:MET:HE1	1:G:2128:ARG:HD2	1.95	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
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: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:G:3882:VAL:O	1:G:3885:SER:OG	2.31	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:4796:LYS:NZ	1:E:4807:CYS:SG	2.73	0.47
1:G:357:GLY:O	1:G:404:ASN:ND2	2.37	0.47
1:G:595:LYS:HZ3	1:G:635:ASN:HB3	1.79	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
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: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:218:SER:OG	1:A:286:GLY:O	2.30	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:C:4115:ARG:O	1:C:4118:THR:OG1	2.21	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: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:G:4794:TYR:H	1:G:4806:LYS:HZ3	1.60	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:1732:GLU:O	1:A:1735:SER:OG	2.29	0.47
1:A:2593:LEU:O	1:A:2597:VAL:N	2.48	0.47
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: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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3956:GLN:O	1:G:3960:SER:OG	2.30	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
1:E:2841:MET:HE1	1:E:2904:VAL:HG13	1.96	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:595:LYS:HZ3	1:A:635:ASN:HB3	1.79	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:OD1	1:C:1199:ASP:N	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2151:MET:HE3	1:E:2151:MET:HB3	1.74	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: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: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
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:G:2841:MET:HE1	1:G:2904:VAL:HG13	1.96	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:595:LYS:HZ3	1:E:635:ASN:HB3	1.79	0.46
1:E:1813:THR:HG1	1:E:1816:PHE:H	1.59	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
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:1730:THR:O	1:A:1733:THR:OG1	2.26	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:OD1	1:E:1040:ASP:N	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:412:GLU:O	1:G:415:THR:OG1	2.33	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:352:SER:O	1:A:352:SER:OG	2.28	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:845:THR:OG1	1:A:846:TYR:N	2.48	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
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:775:VAL:HG23	1:C:778:MET:HE1	1.97	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:711:GLU:HA	1:G:1637:ARG:HB2	1.98	0.46
1:G:845:THR:OG1	1:G:846:TYR:N	2.48	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:4198:ILE:HG12	1:G:4924:MET:HE2	1.98	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: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:775:VAL:HG23	1:E:778:MET:HE1	1.97	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:4198:ILE:HG12	1:E:4924:MET:HE2	1.98	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:4198:ILE:HG12	1:A:4924:MET:HE2	1.98	0.46
1:A:4569:MET:O	1:A:4572:THR:OG1	2.25	0.46
1:A:4653:LYS:O	1:A:4657:LYS:N	2.42	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:218:SER:OG	1:C:286:GLY:O	2.30	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: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:OD1	1:G:602:ASP:N	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
1:G:4921:PHE:HA	1:G:4924:MET:HE3	1.98	0.46
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:4114:THR:OG1	1:A:4115:ARG:N	2.48	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:4921:PHE:HA	1:E:4924:MET:HE3	1.98	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: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: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:4114:THR:OG1	1:E:4115:ARG:N	2.48	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
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: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:C:4198:ILE:HG12	1:C:4924:MET:HE2	1.98	0.46
1:E:2126:GLN:O	1:E:2129:SER:OG	2.24	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:308:LEU:HD23	1:G:365:HIS:CD2	2.50	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:4025:LYS:HA	1:C:4089:HIS:CE1	2.50	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:2086:PHE:O	1:E:3692:TYR:OH	2.25	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
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:3739:GLU:HG3	1:A:3778:MET:HE1	1.99	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2143:MET:HE2	1:G:2143:MET:HB3	1.85	0.45
1:G:3790:PHE:O	1:G:3793:SER:OG	2.22	0.45
1:G:3830:VAL:HG21	1:G:3909:LYS:HD2	1.98	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: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:G:218:SER:OG	1:G:286:GLY:O	2.30	0.45
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3739:GLU:HG3	1:E:3778:MET:HE1	1.99	0.45
1:E:3845:GLN:HG3	1:E:3923:GLU:HG3	1.99	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:2119:ASN:O	1:G:2123:SER:OG	2.33	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:G:3739:GLU:HG3	1:G:3778:MET:HE1	1.99	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
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:E:4727:MET:HE3	1:E:4727:MET:HB3	1.90	0.45
1:G:601:LEU:HA	1:G:601:LEU:HD12	1.66	0.45
1:G:775:VAL:HG23	1:G:778:MET:HE1	1.97	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:775:VAL:HG23	1:A:778:MET:HE1	1.97	0.45
1:A:915:HIS:CE1	1:A:917:CYS:HB3	2.52	0.45
1:A:1225:LYS:O	1:A:1228:THR:OG1	2.34	0.45
1:A:1800:GLN:O	1:A:1803:SER:OG	2.28	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:3690:MET:HE3	1:C:3690:MET:HB3	1.80	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: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: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:1800:GLN:O	1:C:1803:SER:OG	2.28	0.45
1:C:3739:GLU:HG3	1:C:3778:MET:HE1	1.99	0.45
1:C:4044:ILE:HG13	1:C:4045:SER:H	1.82	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:A:4921:PHE:HA	1:A:4924:MET:HE3	1.98	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: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
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:1162:VAL:O	1:G:1176:THR:OG1	2.24	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:1630:LEU:O	1:A:1638:SER:OG	2.24	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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
1:C:4921:PHE:HA	1:C:4924:MET:HE3	1.98	0.45
2:D:22:LYS:HE2	2:D:22:LYS:HB2	1.77	0.45
1:E:472:HIS:CD2	1:E:3674:ARG:HH21	2.34	0.45
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1732:GLU:O	1:G:1735:SER:OG	2.29	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2143:MET:HE2	1:A:2143:MET:HB3	1.85	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:1225:LYS:O	1:C:1228:THR:OG1	2.34	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1168:MET:HE1	1:G:1201:PHE:HD2	1.83	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
1:G:3690:MET:HE3	1:G:3690:MET:HB3	1.80	0.44
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:G:4727:MET:HE3	1:G:4727:MET:HB3	1.90	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:3925:ILE:HD12	1:E:3982:MET:HE1	2.00	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
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:A:4161:TRP:HD1	1:A:4201:MET:HE1	1.83	0.44
1:C:327:THR:O	1:C:327:THR:OG1	2.34	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:OD1	1:A:1440:ASN:N	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:3925:ILE:HD12	1:G:3982:MET:HE1	2.00	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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1168:MET:HE1	1:C:1201:PHE:HD2	1.83	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1089:ARG:NH1	1:E:1122:CYS:O	2.51	0.43
1:E:1168:MET:HE1	1:E:1201:PHE:HD2	1.83	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:4161:TRP:HD1	1:G:4201:MET:HE1	1.83	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:4161:TRP:HD1	1:C:4201:MET:HE1	1.83	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:2117:THR:OG1	1:A:2118:ILE:N	2.51	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
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: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:1225:LYS:O	1:E:1228:THR:OG1	2.34	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1225:LYS:O	1:G:1228:THR:OG1	2.34	0.43
1:G:1440:ASN:N	1:G:1440:ASN:OD1	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:309:MET:SD	1:C:312:LYS:NZ	2.83	0.43
1:C:462:TYR:CZ	1:C:485:ARG:HD2	2.54	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
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:1168:MET:HE1	1:A:1201:PHE:HD2	1.83	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1833:ILE:HG22	1:A:1834:PHE:H	1.84	0.43
1:A:3690:MET:HB3	1:A:3690:MET:HE3	1.80	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: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:711:GLU:OE2	1:G:1448:SER:OG	2.31	0.43
1:G:1251:LEU:O	1:G:1601:ASN:N	2.48	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:2151:MET:HE3	1:C:2151:MET:HB3	1.74	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3925:ILE:HD12	1:C:3982:MET:HE1	2.00	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:E:4161:TRP:HD1	1:E:4201:MET:HE1	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3925:ILE:HD12	1:A:3982:MET:HE1	2.00	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: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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1173:MET:HE3	1:E:1173:MET:HB2	1.87	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:711:GLU:OE2	1:E:1448:SER:OG	2.31	0.42
1:E:1199:ASP:OD1	1:E:1199:ASP:N	2.48	0.42
1:E:1249:MET:HE2	1:E:1249:MET:HB2	1.86	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
1:E:4184:LYS:CB	1:G:4904:HIS:ND1	2.83	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:3978:ASP:OD1	1:G:3978:ASP:N	2.50	0.42
1:G:4182:GLY:O	1:G:4186:LYS:N	2.53	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:1038:LEU:O	1:C:1043:LYS:NZ	2.52	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:OD1	1:C:3978:ASP:N	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: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: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
1:G:4904:HIS:O	1:G:4904:HIS:CG	2.72	0.42
1:A:23:GLN:N	1:A:213:SER:O	2.53	0.42
1:A:282:VAL:O	1:A:285:SER:OG	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1097:LYS:NZ	1:E:1198:GLY:O	2.36	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: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:1224:LEU:O	1:A:1228:THR:OG1	2.38	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:4727:MET:HE3	1:A:4727:MET:HB3	1.90	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: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
1:G:697:TRP:HB2	1:G:766:ILE:HD13	2.01	0.41
1:G:1224:LEU:O	1:G:1228:THR:OG1	2.38	0.41
1:G:1249:MET:HE2	1:G:1249:MET:HB2	1.86	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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: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:2143:MET:HE2	1:E:2143:MET:HB3	1.85	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: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:3952:PHE:HE2	1:A:3979:MET:HE2	1.85	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
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:C:4904:HIS:O	1:C:4904:HIS:CG	2.72	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:E:4904:HIS:O	1:E:4904:HIS:CG	2.72	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: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:A:4726:TYR:O	1:A:4730:SER:OG	2.36	0.41
1:C:19:GLU:O	1:C:217:ILE:N	2.47	0.41
1:C:288:HIS:CD2	1:C:352:SER:HA	2.56	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:1253:LYS:HZ1	1:C:1599:MET:HB2	1.86	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:1224:LEU:O	1:E:1228:THR:OG1	2.38	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4161:TRP:CD1	1:A:4201:MET:HE1	2.56	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: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:4140:MET:HE2	1:E:4140:MET:HB3	1.88	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:810:GLU:N	1:G:823:TYR:OH	2.50	0.41
1:G:1173:MET:HE3	1:G:1173:MET:HB2	1.87	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
1:E:4054:GLU:HG3	1:E:4061:GLN:HE21	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:3915:LYS:HZ1	1:G:3975:LEU:N	2.19	0.41
1:G:4140:MET:HE2	1:G:4140:MET:HB3	1.88	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:4140:MET:HE2	1:A:4140:MET:HB3	1.88	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:317:MET:HE3	1:E:318:ASP:H	1.85	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:3690:MET:HB3	1:E:3690:MET:HE3	1.80	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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: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: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: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:G:4726:TYR:O	1:G:4730:SER:OG	2.36	0.41
1:A:427:ASN:OD1	1:A:427:ASN:N	2.53	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:1249:MET:HB2	1:C:1249:MET:HE2	1.86	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:3952:PHE:HE2	1:C:3979:MET:HE2	1.85	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: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:3633:GLU:CD	1:E:3635:HIS:H	2.29	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:282:VAL:O	1:G:285:SER:OG	2.28	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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
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:415:THR:O	1:C:419:ILE:HG13	2.21	0.41
1:C:1224:LEU:O	1:C:1228:THR:OG1	2.38	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:3633:GLU:CD	1:C:3635:HIS:H	2.29	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:4513:ALA:HA	1:C:4516:PHE:HB3	2.02	0.41
1:C:4727:MET:HE3	1:C:4727:MET:HB3	1.90	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:3915:LYS:HZ1	1:E:3975:LEU:N	2.19	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:4161:TRP:CD1	1:E:4201:MET:HE1	2.56	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:2126:GLN:O	1:G:2129:SER:OG	2.24	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1253:LYS:HZ1	1:A:1599:MET:HB2	1.86	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:317:MET:HE3	1:C:318:ASP:H	1.85	0.40
1:C:590:LYS:H	1:C:593:HIS:HD2	1.69	0.40
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: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: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
1:G:3952:PHE:HE2	1:G:3979:MET:HE2	1.85	0.40
1:A:317:MET:HE3	1:A:318:ASP:H	1.85	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:3633:GLU:CD	1:A:3635:HIS:H	2.29	0.40
1:A:3909:LYS:O	1:A:3913:VAL:HG23	2.21	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:2260:GLU:H	1:C:2260:GLU:CD	2.29	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
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:317:MET:HE3	1:G:318:ASP:H	1.85	0.40
1:G:352:SER:O	1:G:352:SER:OG	2.28	0.40
1:G:718:VAL:HA	1:G:736:CYS:H	1.86	0.40
1:G:1548:THR:OG1	1:G:1549:SER:N	2.52	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:2035:GLU:O	1:G:2038:THR:OG1	2.30	0.40
1:G:3016:VAL:O	1:G:3020:ILE:N	2.54	0.40
1:G:3633:GLU:CD	1:G:3635:HIS:H	2.29	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:A:4930:ASP:CG	1:A:4933:GLU:H	2.30	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:4161:TRP:CD1	1:C:4201:MET:HE1	2.56	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:4897:ASP:O	1:E:4901:THR:N	2.54	0.40
1:E:4930:ASP:CG	1:E:4933:GLU:H	2.30	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
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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:C:4930:ASP:CG	1:C:4933:GLU:H	2.30	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:282:VAL:O	1:E:285:SER:OG	2.28	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:3952:PHE:HE2	1:E:3979:MET:HE2	1.85	0.40
1:E:4885:MET:HE2	1:E:4885:MET:HB2	1.91	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:1169:THR:OG1	1:G:1170:GLU:N	2.53	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:G:4930:ASP:CG	1:G:4933:GLU:H	2.30	0.40
1:A:228:LEU:HD22	1:A:289:ILE:HD12	2.04	0.40
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: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
1:C:2511:THR:O	1:C:2511:THR:OG1	2.40	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

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
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:1800:GLN:O	1:G:1803:SER:OG	2.28	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%)	36	71
1	C	3387/4968 (68%)	2917 (86%)	460 (14%)	10 (0%)	36	71
1	E	3387/4968 (68%)	2921 (86%)	457 (14%)	9 (0%)	36	71
1	G	3387/4968 (68%)	2920 (86%)	458 (14%)	9 (0%)	36	71
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

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles
All	All	14060/20468 (69%)	12157 (86%)	1866 (13%)	37 (0%)	37 71

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
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%)	2623 (98%)	52 (2%)	50 66
1	C	2675/4355 (61%)	2622 (98%)	53 (2%)	48 66
1	E	2676/4355 (61%)	2621 (98%)	55 (2%)	47 65
1	G	2675/4355 (61%)	2621 (98%)	54 (2%)	48 66
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%)	10935 (98%)	214 (2%)	49 66

All (214) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	73	LEU
1	A	78	LEU
1	A	79	GLN
1	A	81	MET
1	A	119	ILE
1	A	181	LEU
1	A	195	SER
1	A	203	VAL
1	A	237	LEU
1	A	602	ASP
1	A	625	VAL
1	A	679	VAL
1	A	989	THR
1	A	1054	VAL
1	A	1228	THR
1	A	1246	ASP
1	A	1298	ASP
1	A	1476	VAL
1	A	1845	LEU

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Mol	Chain	Res	Type
1	A	1911	LEU
1	A	1930	SER
1	A	2059	LEU
1	A	2198	CYS
1	A	2217	ASP
1	A	2242	ASP
1	A	2258	LEU
1	A	2262	ASP
1	A	2314	VAL
1	A	2324	LEU
1	A	2420	ILE
1	A	2873	VAL
1	A	2904	VAL
1	A	3615	HIS
1	A	3694	ASP
1	A	3803	VAL
1	A	3840	LEU
1	A	3893	TYR
1	A	3936	LEU
1	A	3941	LEU
1	A	3996	ILE
1	A	4009	ASN
1	A	4010	ASN
1	A	4043	VAL
1	A	4048	ASP
1	A	4095	ILE
1	A	4561	VAL
1	A	4754	LEU
1	A	4781	LEU
1	A	4785	VAL
1	A	4809	ASP
1	A	4876	ASP
1	A	4902	VAL
1	C	73	LEU
1	C	78	LEU
1	C	79	GLN
1	C	81	MET
1	C	119	ILE
1	C	181	LEU
1	C	195	SER
1	C	203	VAL
1	C	237	LEU

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Mol	Chain	Res	Type
1	C	602	ASP
1	C	625	VAL
1	C	679	VAL
1	C	907	VAL
1	C	989	THR
1	C	1054	VAL
1	C	1228	THR
1	C	1246	ASP
1	C	1298	ASP
1	C	1476	VAL
1	C	1845	LEU
1	C	1911	LEU
1	C	1930	SER
1	C	2059	LEU
1	C	2198	CYS
1	C	2217	ASP
1	C	2242	ASP
1	C	2258	LEU
1	C	2262	ASP
1	C	2314	VAL
1	C	2324	LEU
1	C	2420	ILE
1	C	2873	VAL
1	C	2904	VAL
1	C	3615	HIS
1	C	3694	ASP
1	C	3803	VAL
1	C	3840	LEU
1	C	3893	TYR
1	C	3936	LEU
1	C	3941	LEU
1	C	3996	ILE
1	C	4009	ASN
1	C	4010	ASN
1	C	4043	VAL
1	C	4048	ASP
1	C	4095	ILE
1	C	4561	VAL
1	C	4754	LEU
1	C	4781	LEU
1	C	4785	VAL
1	C	4809	ASP

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Mol	Chain	Res	Type
1	C	4876	ASP
1	C	4902	VAL
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	119	ILE
1	E	181	LEU
1	E	195	SER
1	E	203	VAL
1	E	237	LEU
1	E	602	ASP
1	E	625	VAL
1	E	679	VAL
1	E	907	VAL
1	E	989	THR
1	E	1054	VAL
1	E	1228	THR
1	E	1246	ASP
1	E	1298	ASP
1	E	1476	VAL
1	E	1845	LEU
1	E	1911	LEU
1	E	1930	SER
1	E	2059	LEU
1	E	2198	CYS
1	E	2217	ASP
1	E	2242	ASP
1	E	2258	LEU
1	E	2262	ASP
1	E	2314	VAL
1	E	2324	LEU
1	E	2420	ILE
1	E	2873	VAL
1	E	2904	VAL
1	E	3615	HIS
1	E	3694	ASP
1	E	3803	VAL
1	E	3840	LEU
1	E	3893	TYR

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Mol	Chain	Res	Type
1	E	3936	LEU
1	E	3941	LEU
1	E	3996	ILE
1	E	4009	ASN
1	E	4010	ASN
1	E	4043	VAL
1	E	4048	ASP
1	E	4095	ILE
1	E	4561	VAL
1	E	4754	LEU
1	E	4781	LEU
1	E	4785	VAL
1	E	4809	ASP
1	E	4876	ASP
1	E	4902	VAL
1	G	73	LEU
1	G	78	LEU
1	G	79	GLN
1	G	81	MET
1	G	82	LEU
1	G	119	ILE
1	G	181	LEU
1	G	195	SER
1	G	203	VAL
1	G	237	LEU
1	G	602	ASP
1	G	625	VAL
1	G	679	VAL
1	G	907	VAL
1	G	989	THR
1	G	1054	VAL
1	G	1228	THR
1	G	1246	ASP
1	G	1298	ASP
1	G	1476	VAL
1	G	1845	LEU
1	G	1911	LEU
1	G	1930	SER
1	G	2059	LEU
1	G	2198	CYS
1	G	2217	ASP
1	G	2242	ASP

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Mol	Chain	Res	Type
1	G	2258	LEU
1	G	2262	ASP
1	G	2314	VAL
1	G	2324	LEU
1	G	2420	ILE
1	G	2873	VAL
1	G	2904	VAL
1	G	3615	HIS
1	G	3694	ASP
1	G	3803	VAL
1	G	3840	LEU
1	G	3893	TYR
1	G	3936	LEU
1	G	3941	LEU
1	G	3996	ILE
1	G	4009	ASN
1	G	4010	ASN
1	G	4043	VAL
1	G	4048	ASP
1	G	4095	ILE
1	G	4561	VAL
1	G	4754	LEU
1	G	4781	LEU
1	G	4785	VAL
1	G	4809	ASP
1	G	4876	ASP
1	G	4902	VAL

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (260) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	29	HIS
1	A	32	GLN
1	A	57	ASN
1	A	71	GLN
1	A	84	ASN
1	A	123	HIS
1	A	388	GLN
1	A	394	HIS
1	A	476	GLN
1	A	531	ASN

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Mol	Chain	Res	Type
1	A	593	HIS
1	A	628	ASN
1	A	635	ASN
1	A	681	HIS
1	A	915	HIS
1	A	1123	GLN
1	A	1265	HIS
1	A	1523	ASN
1	A	1601	ASN
1	A	1602	GLN
1	A	1654	HIS
1	A	1656	HIS
1	A	1684	GLN
1	A	1722	ASN
1	A	1836	ASN
1	A	1906	GLN
1	A	1938	GLN
1	A	1940	ASN
1	A	2153	ASN
1	A	2159	HIS
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	3623	GLN
1	A	3723	GLN
1	A	3729	GLN
1	A	3743	GLN
1	A	3792	GLN
1	A	3906	ASN
1	A	3916	GLN
1	A	3926	GLN
1	A	3932	ASN
1	A	3961	GLN
1	A	3976	GLN
1	A	3990	ASN
1	A	3993	ASN
1	A	4098	ASN
1	A	4117	GLN
1	A	4128	ASN

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Mol	Chain	Res	Type
1	A	4131	GLN
1	A	4160	GLN
1	A	4179	ASN
1	A	4499	ASN
1	A	4515	ASN
1	A	4643	ASN
1	A	4700	ASN
1	A	4737	ASN
1	A	4763	HIS
1	A	4788	ASN
1	A	4918	ASN
1	C	12	GLN
1	C	23	GLN
1	C	29	HIS
1	C	32	GLN
1	C	57	ASN
1	C	71	GLN
1	C	84	ASN
1	C	123	HIS
1	C	388	GLN
1	C	394	HIS
1	C	410	HIS
1	C	476	GLN
1	C	531	ASN
1	C	593	HIS
1	C	628	ASN
1	C	635	ASN
1	C	681	HIS
1	C	836	HIS
1	C	915	HIS
1	C	1123	GLN
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	1684	GLN
1	C	1722	ASN
1	C	1836	ASN
1	C	1906	GLN

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Mol	Chain	Res	Type
1	C	1938	GLN
1	C	1940	ASN
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	3623	GLN
1	C	3667	GLN
1	C	3723	GLN
1	C	3729	GLN
1	C	3743	GLN
1	C	3792	GLN
1	C	3906	ASN
1	C	3916	GLN
1	C	3926	GLN
1	C	3932	ASN
1	C	3961	GLN
1	C	3976	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
1	C	4160	GLN
1	C	4179	ASN
1	C	4499	ASN
1	C	4515	ASN
1	C	4643	ASN
1	C	4700	ASN
1	C	4737	ASN
1	C	4763	HIS
1	C	4788	ASN
1	C	4896	ASN
1	C	4918	ASN
1	E	23	GLN
1	E	29	HIS
1	E	32	GLN
1	E	57	ASN
1	E	84	ASN

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Mol	Chain	Res	Type
1	E	123	HIS
1	E	388	GLN
1	E	394	HIS
1	E	476	GLN
1	E	531	ASN
1	E	593	HIS
1	E	628	ASN
1	E	635	ASN
1	E	651	HIS
1	E	681	HIS
1	E	836	HIS
1	E	915	HIS
1	E	1123	GLN
1	E	1233	GLN
1	E	1265	HIS
1	E	1523	ASN
1	E	1601	ASN
1	E	1602	GLN
1	E	1654	HIS
1	E	1656	HIS
1	E	1684	GLN
1	E	1722	ASN
1	E	1836	ASN
1	E	1906	GLN
1	E	1938	GLN
1	E	1940	ASN
1	E	2153	ASN
1	E	2211	ASN
1	E	2251	ASN
1	E	2317	ASN
1	E	2831	ASN
1	E	2839	HIS
1	E	3623	GLN
1	E	3667	GLN
1	E	3723	GLN
1	E	3729	GLN
1	E	3743	GLN
1	E	3792	GLN
1	E	3906	ASN
1	E	3916	GLN
1	E	3926	GLN
1	E	3932	ASN

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Mol	Chain	Res	Type
1	E	3961	GLN
1	E	3976	GLN
1	E	3990	ASN
1	E	3993	ASN
1	E	4098	ASN
1	E	4117	GLN
1	E	4128	ASN
1	E	4131	GLN
1	E	4160	GLN
1	E	4179	ASN
1	E	4499	ASN
1	E	4515	ASN
1	E	4643	ASN
1	E	4700	ASN
1	E	4737	ASN
1	E	4763	HIS
1	E	4918	ASN
1	G	23	GLN
1	G	29	HIS
1	G	32	GLN
1	G	57	ASN
1	G	71	GLN
1	G	84	ASN
1	G	123	HIS
1	G	388	GLN
1	G	394	HIS
1	G	476	GLN
1	G	531	ASN
1	G	593	HIS
1	G	628	ASN
1	G	635	ASN
1	G	681	HIS
1	G	836	HIS
1	G	915	HIS
1	G	1123	GLN
1	G	1265	HIS
1	G	1523	ASN
1	G	1601	ASN
1	G	1602	GLN
1	G	1654	HIS
1	G	1656	HIS
1	G	1684	GLN

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Mol	Chain	Res	Type
1	G	1722	ASN
1	G	1836	ASN
1	G	1906	GLN
1	G	1938	GLN
1	G	1940	ASN
1	G	2153	ASN
1	G	2211	ASN
1	G	2251	ASN
1	G	2317	ASN
1	G	2442	GLN
1	G	2831	ASN
1	G	2839	HIS
1	G	3623	GLN
1	G	3667	GLN
1	G	3723	GLN
1	G	3729	GLN
1	G	3743	GLN
1	G	3792	GLN
1	G	3906	ASN
1	G	3916	GLN
1	G	3926	GLN
1	G	3932	ASN
1	G	3961	GLN
1	G	3976	GLN
1	G	3990	ASN
1	G	3993	ASN
1	G	4098	ASN
1	G	4117	GLN
1	G	4128	ASN
1	G	4131	GLN
1	G	4160	GLN
1	G	4179	ASN
1	G	4499	ASN
1	G	4515	ASN
1	G	4643	ASN
1	G	4700	ASN
1	G	4737	ASN
1	G	4763	HIS
1	G	4918	ASN

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no oligosaccharides in this entry.

5.6 Ligand geometry

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.

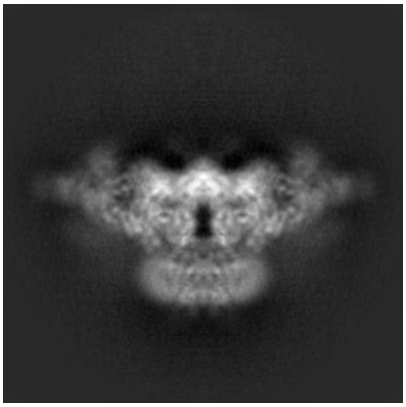
6 Map visualisation

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.

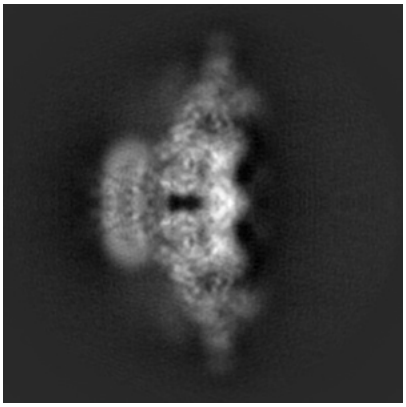
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

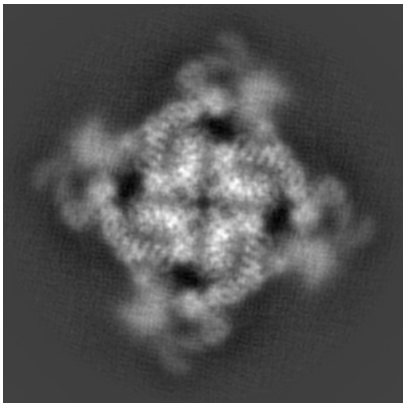
6.1.1 Primary map



X



Y

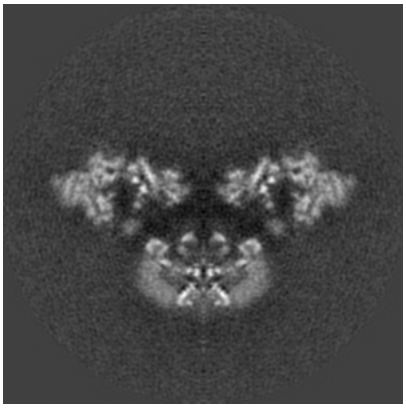


Z

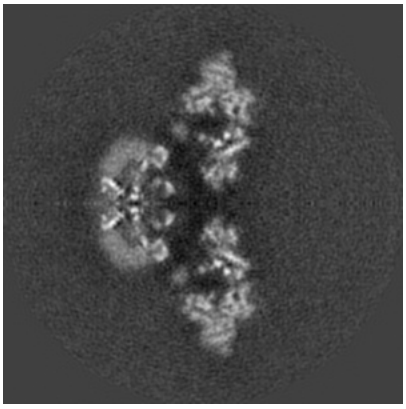
The images above show the map projected in three orthogonal directions.

6.2 Central slices

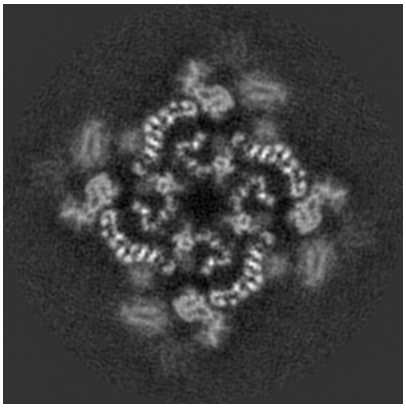
6.2.1 Primary map



X Index: 200



Y Index: 200

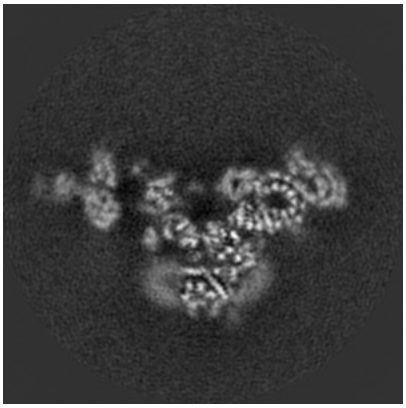


Z Index: 200

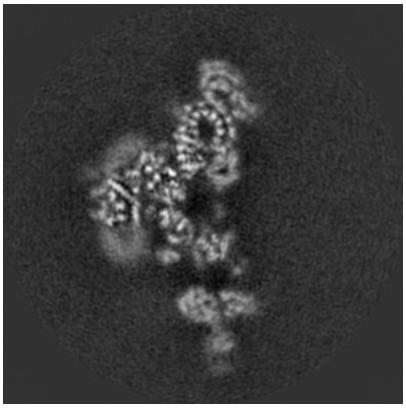
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

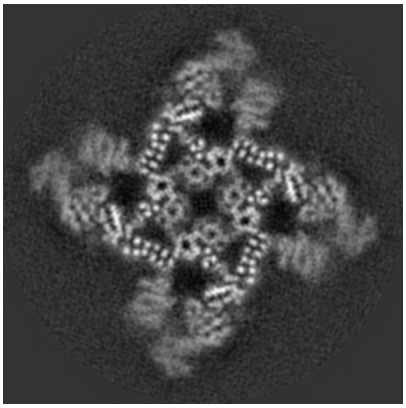
6.3.1 Primary map



X Index: 187



Y Index: 213

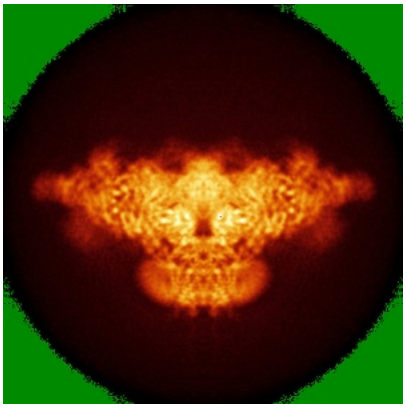


Z Index: 211

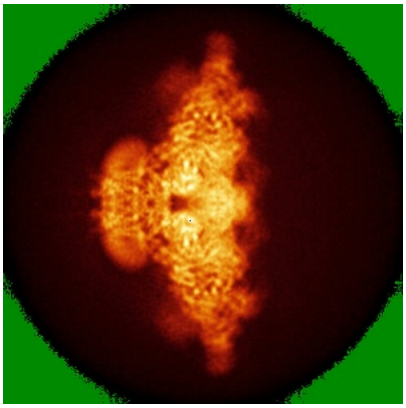
The images above show the largest variance slices of the map in three orthogonal directions.

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

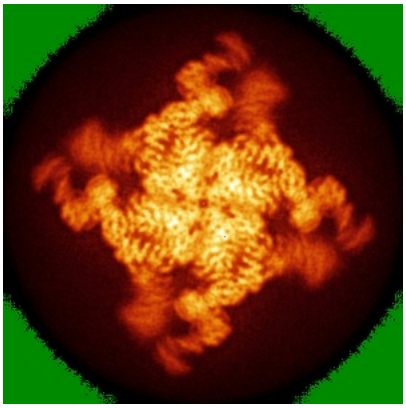
6.4.1 Primary map



X



Y

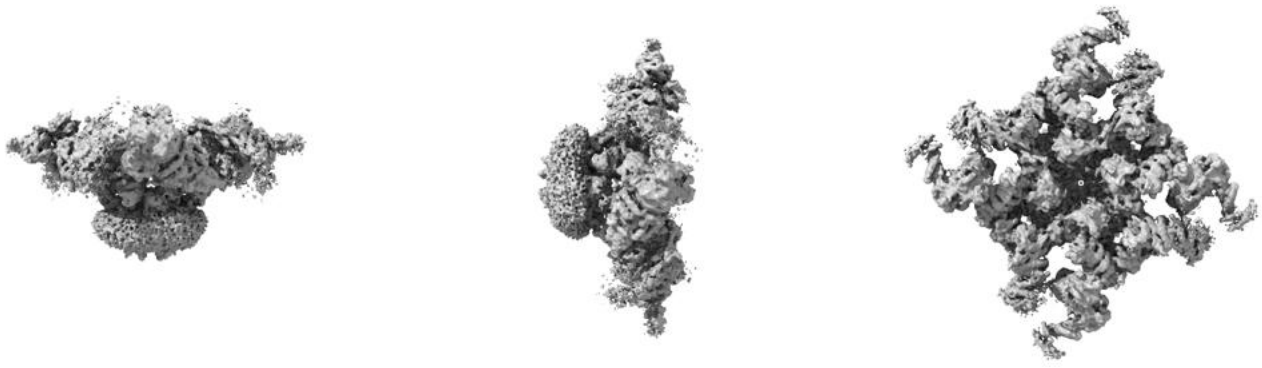


Z

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.

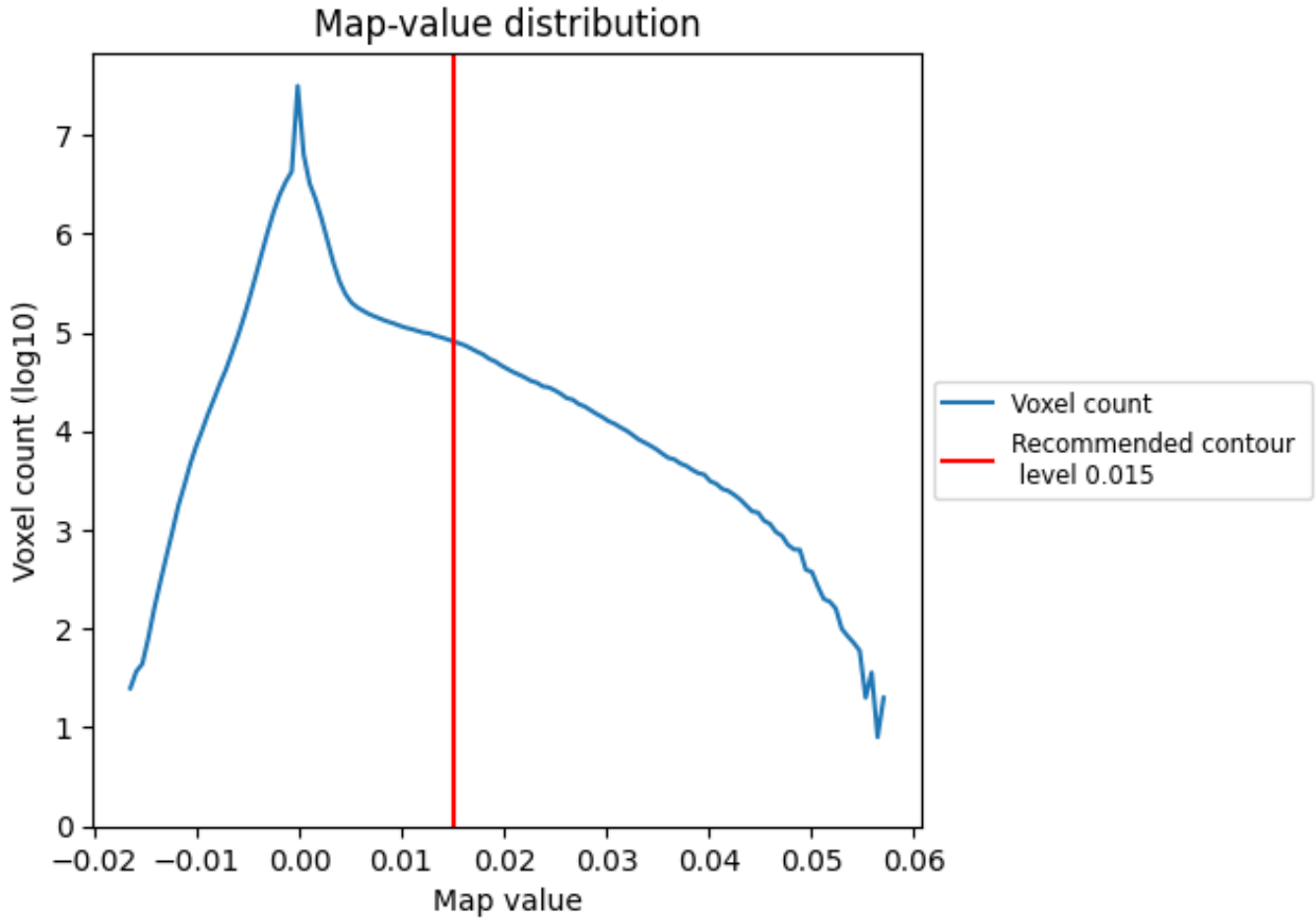
6.6 Mask visualisation (i)

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

7 Map analysis

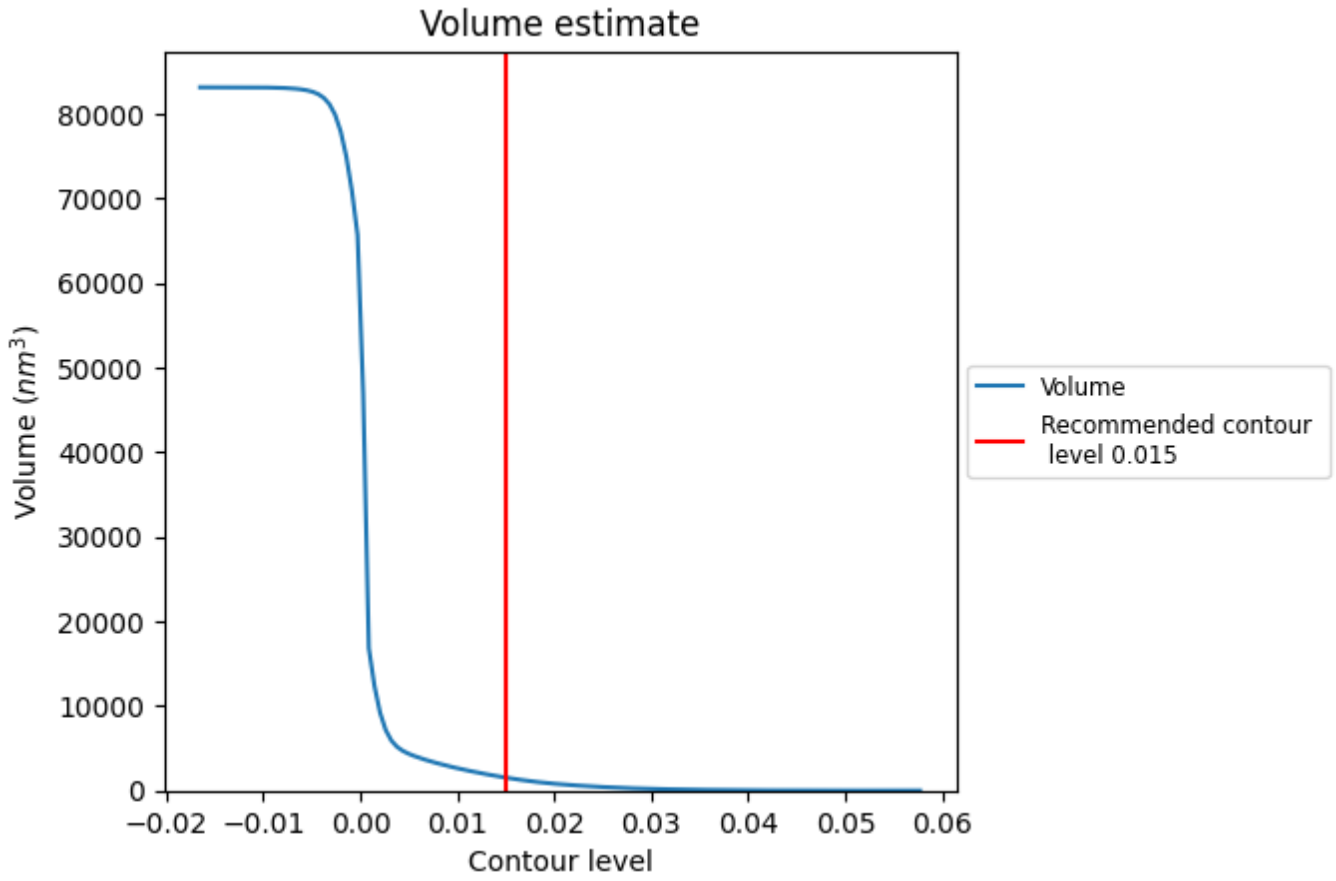
This section contains the results of statistical analysis of the map.

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.

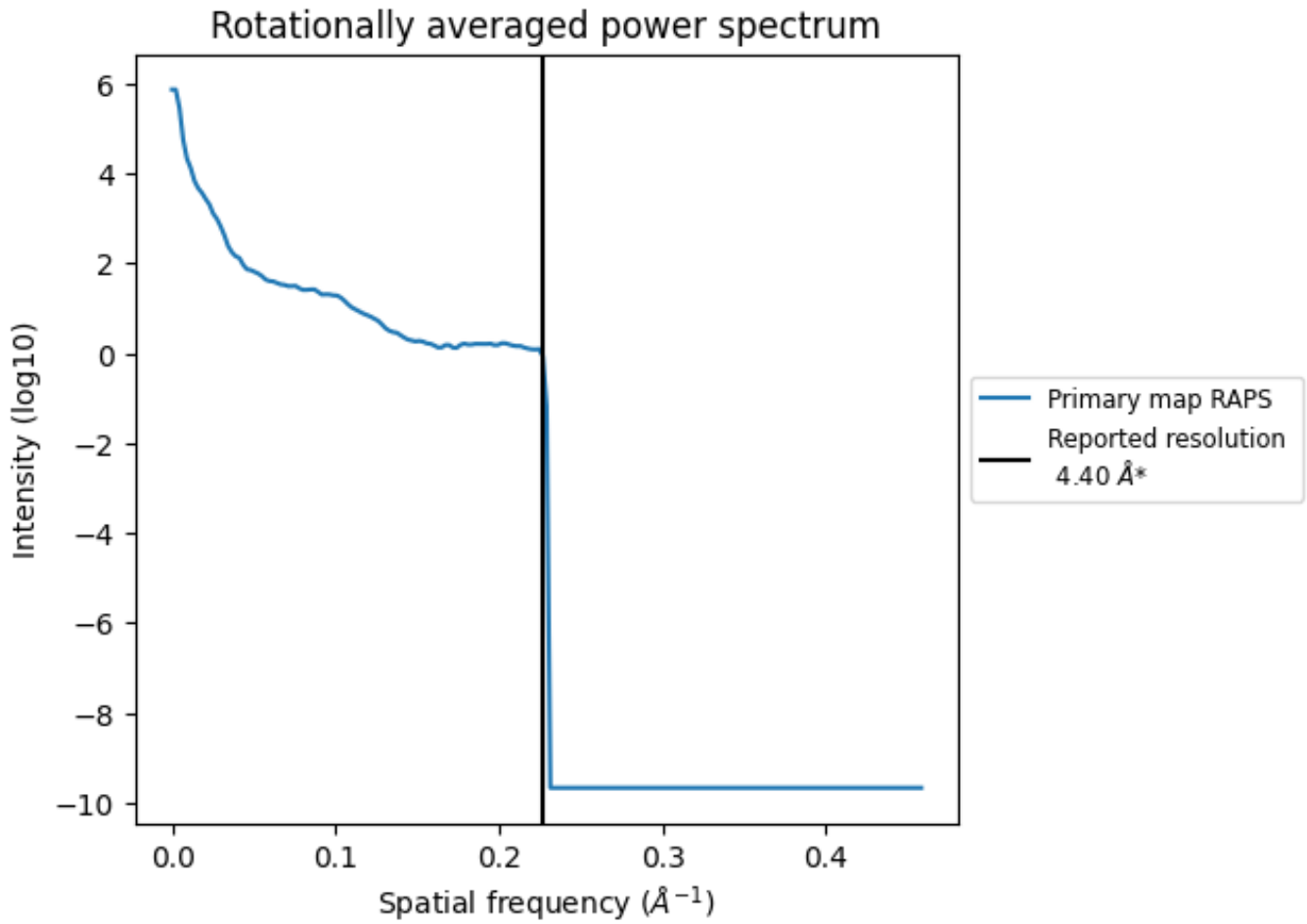
7.2 Volume estimate



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)

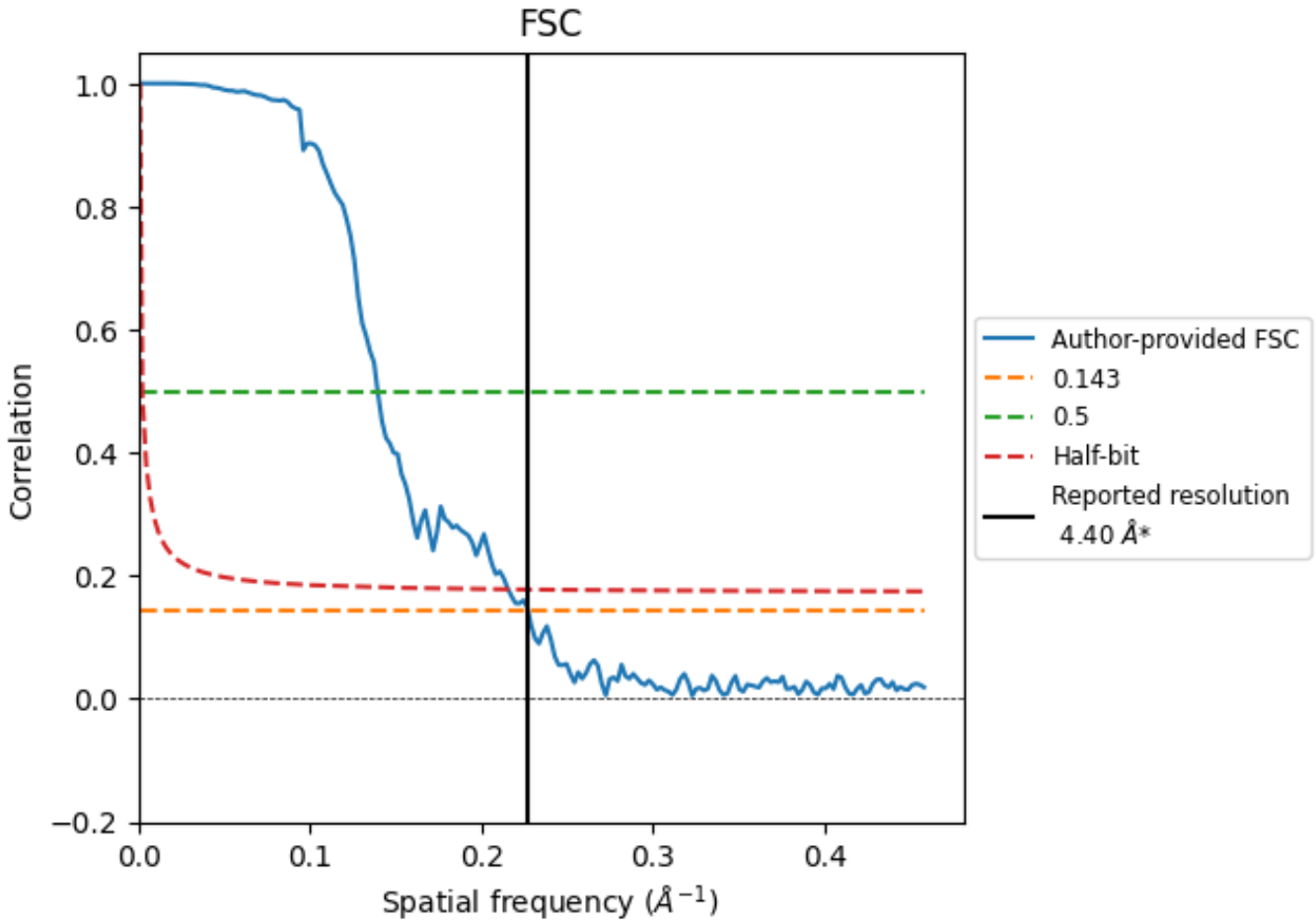


*Reported resolution corresponds to spatial frequency of 0.227 Å^{-1}

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)

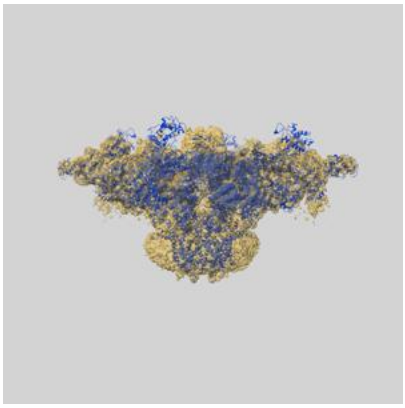
Resolution estimate (Å)	Estimation criterion (FSC cut-off)		
	0.143	0.5	Half-bit
Reported by author	4.40	-	-
Author-provided FSC curve	4.40	7.17	4.64
Unmasked-calculated*	-	-	-

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

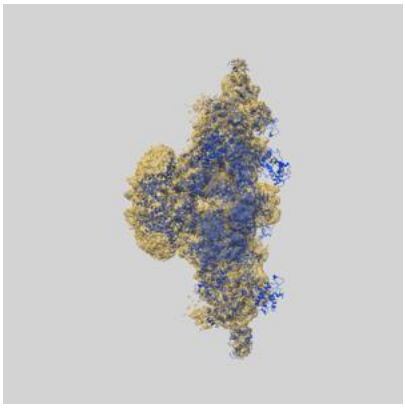
9 Map-model fit

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 6.

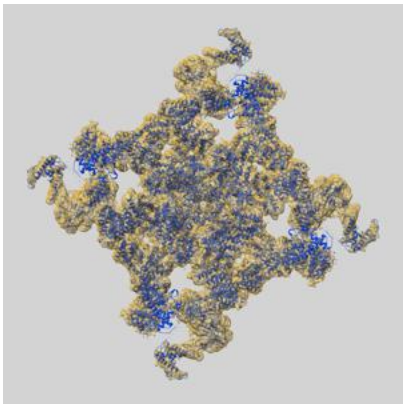
9.1 Map-model overlay



X



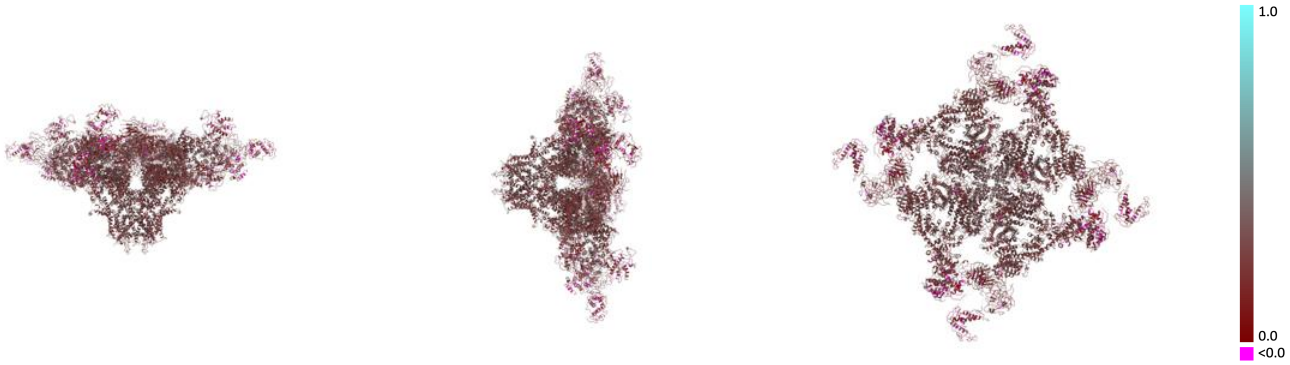
Y



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.

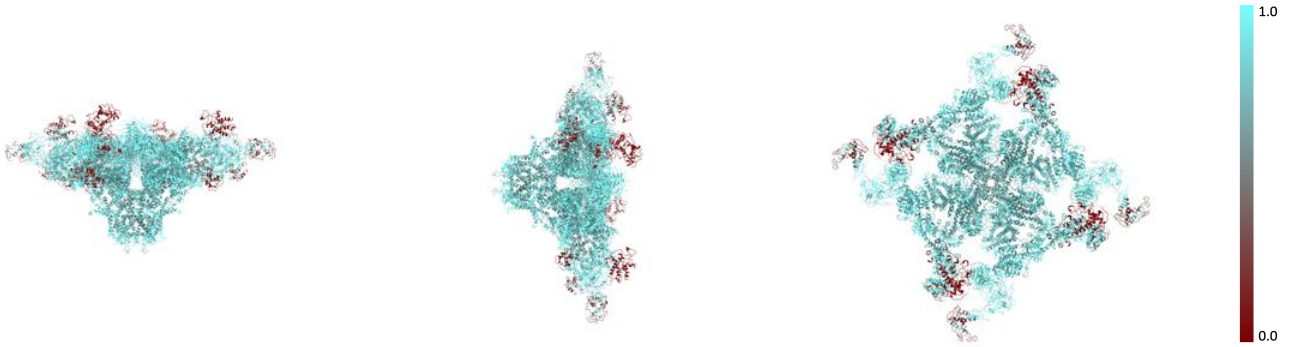
9.2 Q-score mapped to coordinate model (i)



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.

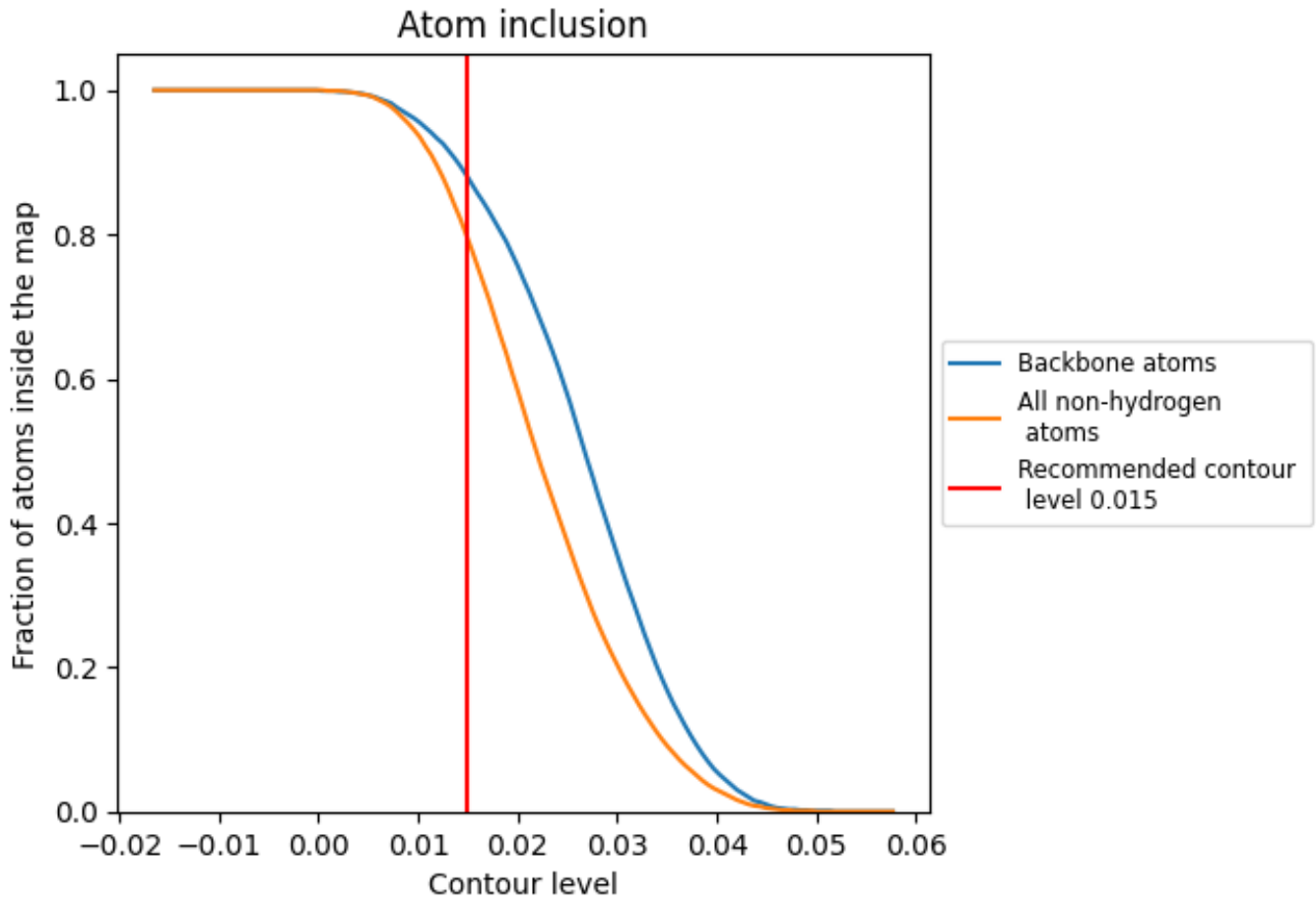
9.3 Atom inclusion mapped to coordinate model (i)



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