Full wwPDB EM Validation Report (i)

Mar 19, 2024 – 02:03 PM JST

PDB ID	:	5GKY
EMDB ID	:	EMD-9518
Title	:	Structure of RyR1 in a closed state (C1 conformer)
Authors	:	Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.
Deposited on	:	2016-07-07
Resolution	:	3.80 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 (i) 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 (i)) were used in the production of this report:

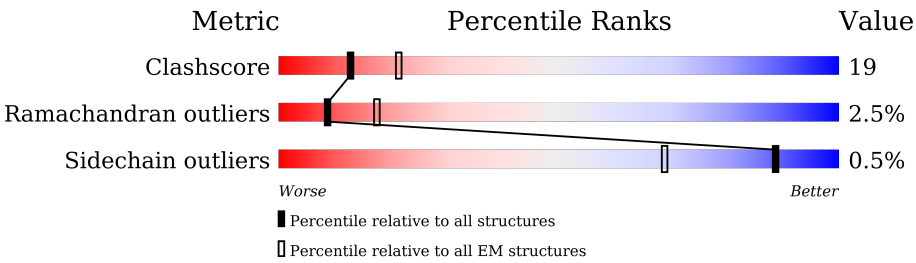
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 3.80 Å.

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



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

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

Mol	Chain	Length	Quality of chain
1	A	5037	18% 46% 26% • 27%
1	C	5037	18% 46% 26% • 27%
1	E	5037	18% 46% 26% • 27%
1	G	5037	18% 46% 25% • 27%
2	B	108	16% 56% 43% •
2	D	108	17% 56% 43% •
2	F	108	17% 56% 43% •
2	H	108	16% 56% 43% •

2 Entry composition (i)

There are 3 unique types of molecules in this entry. The entry contains 111036 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 Ryanodine receptor 1.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
1	A	3660	26926	17112	4683	4974	157	1	0
1	C	3660	26926	17112	4683	4974	157	1	0
1	E	3660	26926	17112	4683	4974	157	1	0
1	G	3660	26926	17112	4683	4974	157	1	0

- Molecule 2 is a protein called Peptidyl-prolyl cis-trans isomerase FKBP1A.

Mol	Chain	Residues	Atoms					AltConf	Trace
			Total	C	N	O	S		
2	B	107	832	527	146	155	4	0	0
2	D	107	832	527	146	155	4	0	0
2	F	107	832	527	146	155	4	0	0
2	H	107	832	527	146	155	4	0	0

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

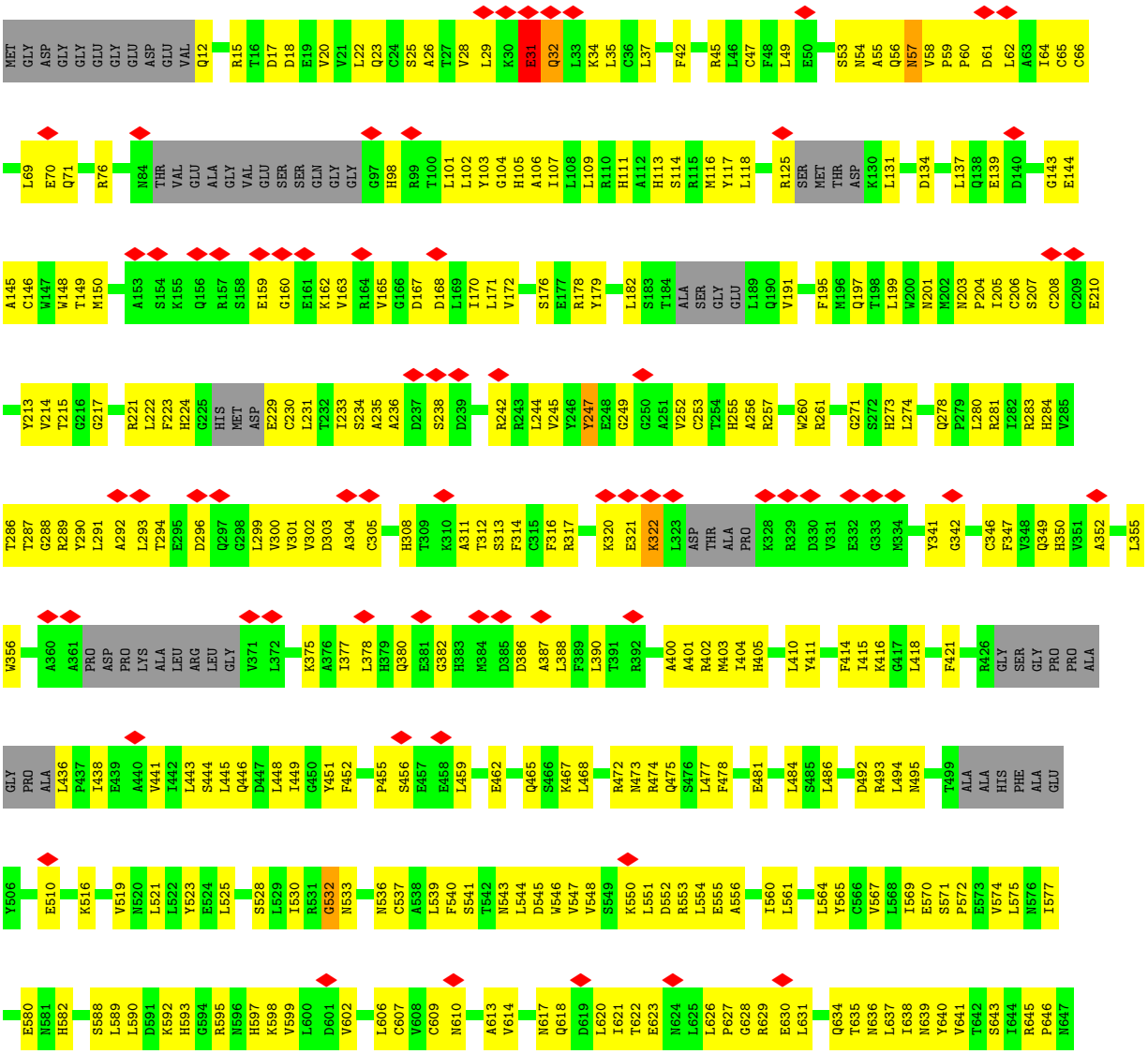
Mol	Chain	Residues	Atoms		AltConf
			Total	Zn	
3	A	1	1	1	0
3	C	1	1	1	0
3	E	1	1	1	0
3	G	1	1	1	0

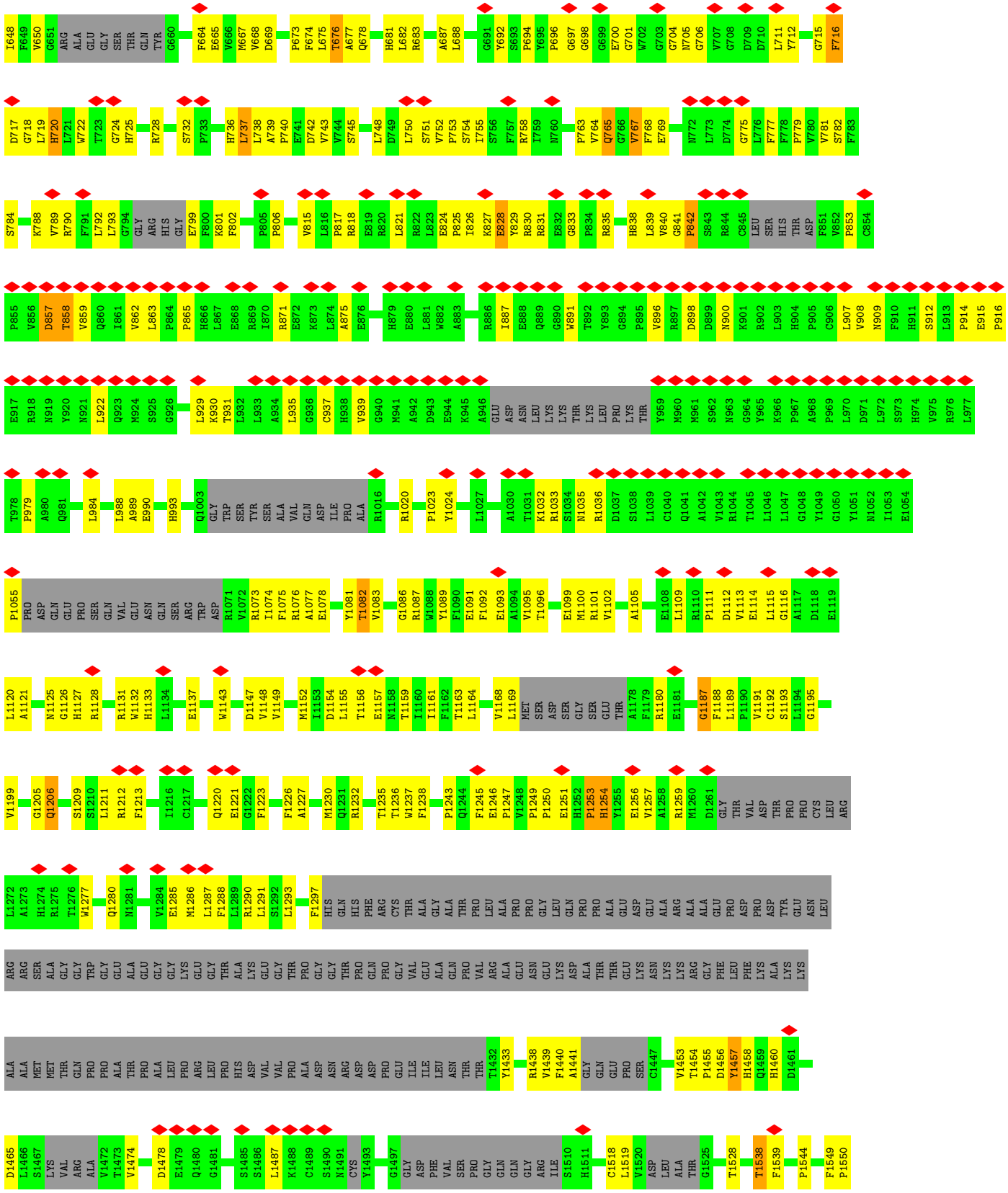
3 Residue-property plots (i)

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: Ryanodine receptor 1

Chain A:

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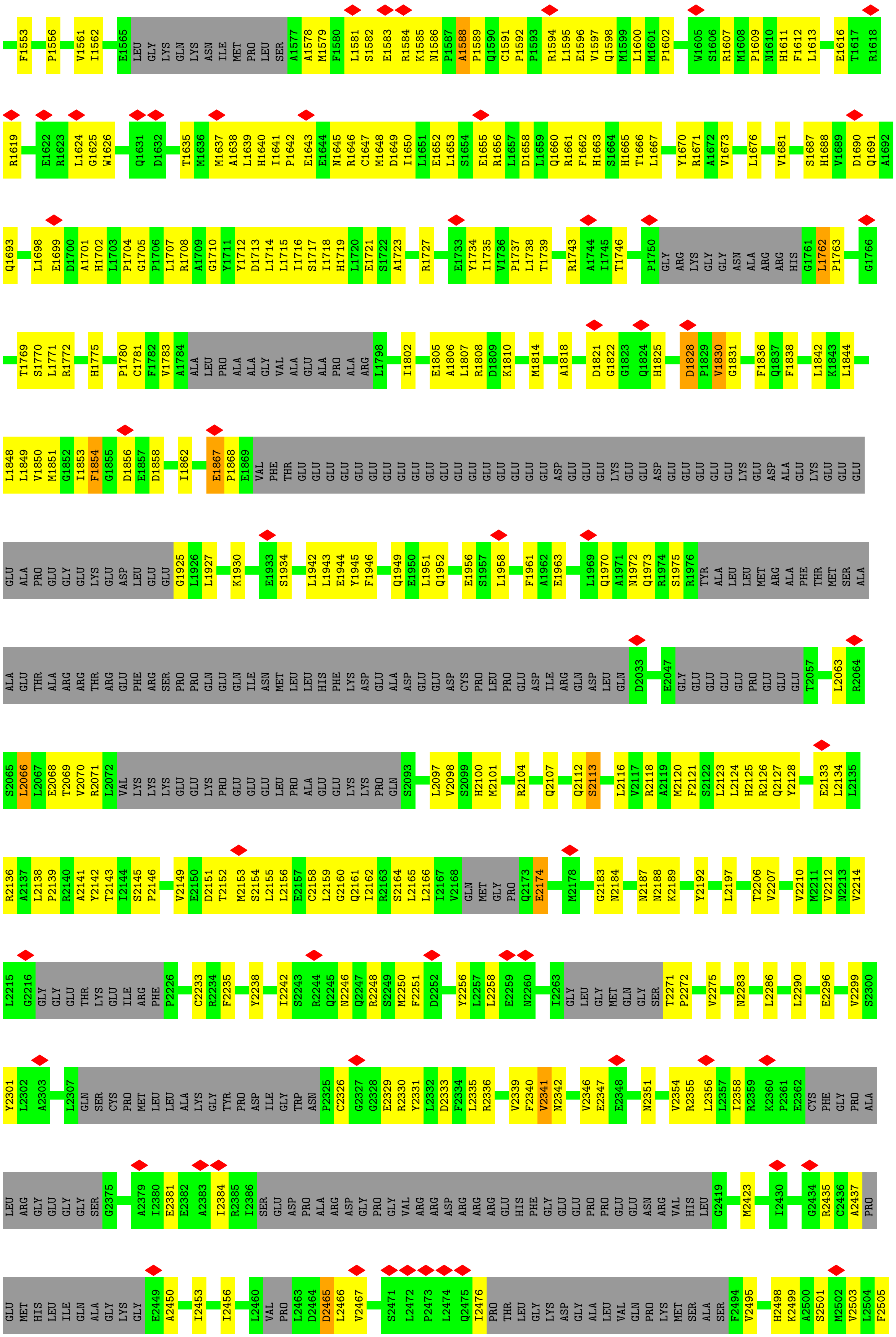
D717 G718 L719 H720 L721 W722 T723 G724 H725 R728 S732 P733 H736 L737 L738 A739 P740 E741 D742 V743 W744 S745 L748 D749 L750 S751 V752 P753 S754 I755 S756 F757 R758 I759 N760 P763 V764 Q765 G766 V767 F768 E769 N772 L773 D774 G775 L776 F777 F778 P779 V780 V781 S782 F783
S784 K788 V789 R790 F791 L792 L793 G794 GLY ARG HIS GLY E799 F800 K801 F802 P805 P806 V815 L816 P817 R818 E819 R820 L821 R822 L823 E824 P825 I826 K827 E828 Y829 R830 R831 E832 G833 P834 R835 H838 L839 V840 G841 P842 S843 R844 C845 LEU SER HIS THR ASP F851 V852 P853 C854
P855 V856 D857 T858 V859 Q860 I861 V862 L863 P864 P865 H866 L867 E868 R869 I870 R871 E872 K873 L874 A875 E876 H879 E880 L881 W882 A883 R886 I887 E888 Q889 G890 W891 T892 Y893 G894 P895 V896 R897 D898 D899 N900 K901 R902 L903 H904 P905 C906 L907 V908 N909 F910 H911 S912 L913 P914 E915 P916
E917 R918 N919 Y920 N921 L922 Q923 M924 S925 G926 L929 K930 T931 L932 L933 A934 L935 G936 C937 H938 V939 G940 M941 A942 D943 E944 K945 A946 GLU ASP ASN LEU LYS LYS THR LYS LEU PRO LYS THR Y959 M960 M961 S962 N963 G964 Y965 K966 P967 A968 P969 L970 D971 L972 S973 H974 V975 R976 L977
T978 P979 A980 Q981 L984 L988 A989 E990 H993 Q1003 GLY TRP SER TYR SER ALA VAL GLN ASP ILE PRO ALA R1016 R1020 P1023 Y1024 L1027 A1030 T1031 K1032 R1033 S1034 N1035 R1036 D1037 S1038 L1039 C1040 Q1041 A1042 V1043 R1044 T1045 L1046 L1047 G1048 Y1049 G1050 Y1051 N1052 I1053 E1054
P1055 PRO ASP GLN GLU PRO SER GLN VAL GLU ASN GLN SER ARG TRP ASP R1071 V1072 R1073 I1074 F1075 R1076 A1077 E1078 Y1081 T1082 V1083 G1086 R1087 W1088 Y1089 F1090 E1091 F1092 E1093 A1094 V1095 T1096 E1099 M1100 R1101 V1102 A1105 E1108 L1109 R1110 P1111 D1112 V1113 E1114 L1115 G1116 A1117 D1118 E1119
L1120 A1121 N1125 G1126 H1127 R1128 R1131 W1132 H1133 L1134 E1137 W1143 D1147 V1148 V1149 M1152 I1153 D1154 L1155 T1156 E1157 N1158 T1159 I1160 I1161 F1162 T1163 L1164 V1168 L1169 MET SER ASP SER GLY SER GLU THR A1178 F1179 R1180 E1181 G1187 F1188 L1189 P1190 V1191 C1192 S1193 L1194 G1195
V1199 G1205 Q1206 S1209 S1210 L1211 R1212 F1213 T1216 C1217 Q1220 E1221 G1222 F1223 F1226 A1227 M1230 Q1231 R1232 T1235 T1236 W1237 F1238 P1243 Q1244 F1245 E1246 P1247 V1248 P1249 P1250 E1251 H1252 P1253 H1254 Y1255 E1256 V1257 A1258 R1259 M1260 D1261 GLY THR VAL ASP THR PRO PRO CYS LEU ARG
L1272 A1273 H1274 R1275 T1276 W1277 Q1280 N1281 V1284 E1285 M1286 L1287 F1288 L1289 R1290 L1291 S1292 L1293 F1297 HIS GLN HIS PHE ARG CYS THR ALA GLY ALA THR PRO LEU ALA PRO PRO GLY LEU GLN PRO PRO ALA GLU ASP GLU ALA ARG ALA ALA GLU PRO ASP PRO PRO CYS LEU ARG
ARG ARG SER ALA GLY GLY TRP GLY GLU ALA GLU GLY GLY LYS GLU GLY THR ALA LYS GLU GLY THR PRO GLY GLY THR PRO GLN PRO GLY VAL GLU ALA GLN PRO VAL ARG ALA ALA GLU ASN GLU LYS ASP ALA THR THR GLU LYS ASN LYS LYS ARG GLY PHE LEU PHE LYS ALA ALA LYS LYS
ALA ALA MET MET THR GLN PRO PRO ALA THR PRO ALA LEU PRO ARG LEU PRO HIS ASP VAL VAL PRO ALA ASP ASN ARG ASP ASP PRO PRO GLU ILE ILE LEU ASN THR THR T1432 Y1433 R1438 V1439 F1440 A1441 GLY GLN GLU PRO SER C1447 V1453 T1454 P1455 D1456 Y1457 H1458 Q1459 H1460 D1461
D1465 L1466 S1467 LYS VAL ARG ALA V1472 T1473 V1474 D1478 E1479 Q1480 G1481 S1485 S1486 L1487 K1488 C1489 S1490 N1491 CYS Y1493 G1497 GLY ASP PHE VAL SER PRO GLY GLN GLN GLY ARG ILE S1510 H1511 C1518 L1519 V1520 ASP LEU ALA THR G1525 T1528 T1538 F1539 P1544 F1549 P1550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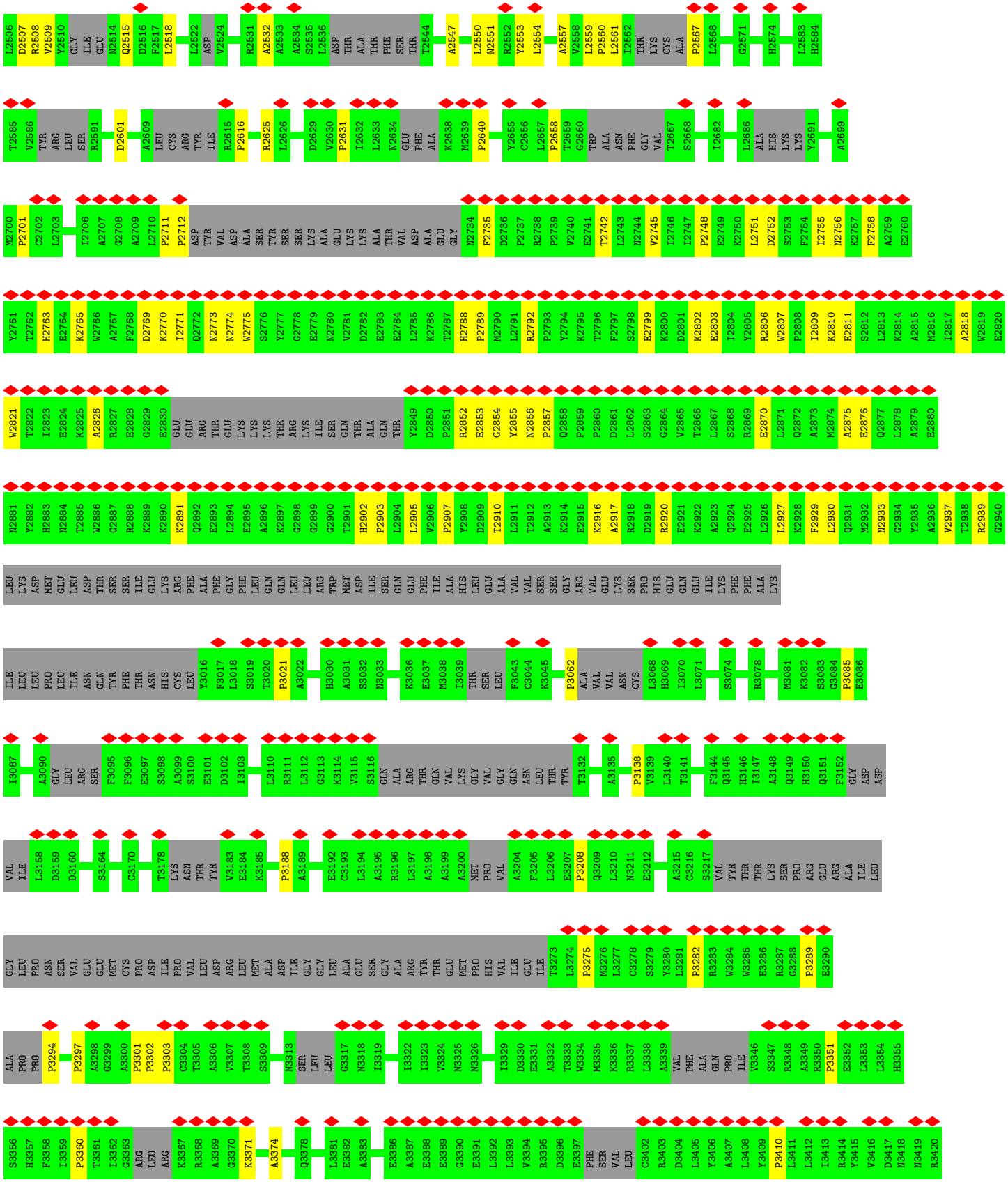
R1619 E1622 R1623 L1624 G1625 W1626 Q1631 D1632 T1635 M1636 M1637 A1638 L1639 H1640 I1641 P1642 E1643 E1644 N1645 R1646 C1647 M1648 D1649 I1650 L1651 E1652 L1653 S1654 E1655 R1656 L1657 D1658 L1659 Q1660 R1661 F1662 H1663 S1664 H1665 T1666 L1667 Y1670 R1671 A1672 V1673 L1676 V1681 S1687 H1688 V1689 D1690 Q1691 A1692
Q1693 L1698 E1699 D1700 A1701 H1702 L1703 P1704 G1705 P1706 L1707 R1708 A1709 G1710 Y1711 Y1712 D1713 L1714 L1715 I1716 S1717 I1718 H1719 L1720 E1721 S1722 A1723 R1727 E1733 Y1734 I1735 V1736 P1737 L1738 T1739 R1743 A1744 I1745 T1746 P1750 GLY ARG LYS GLY GLY ASN ALA ARG ARG HIS G1761 L1762 P1763 G1766
T1769 S1770 L1771 R1772 H1775 P1780 C1781 F1782 V1783 A1784 ALA LEU PRO ALA ALA GLY VAL ALA GLU ALA PRO ALA ARG L1798 I1802 E1805 A1806 L1807 R1808 D1809 K1810 M1814 A1818 D1821 G1822 G1823 Q1824 H1825 D1828 P1829 V1830 G1831 F1836 Q1837 F1838 L1842 K1843 L1844
L1848 L1849 V1850 M1851 G1852 I1853 F1854 G1855 D1856 E1857 D1858 I1862 E1867 P1868 E1869 VAL PHE THR GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU GLU ASP GLU GLU GLU LYS GLU GLU ASP GLU GLU GLU GLU GLU LYS GLU ASP ALA GLU LYS GLU GLU GLU
GLU ALA PRO GLU GLY GLU LYS GLU ASP LEU GLU GLU G1925 L1926 L1927 K1930 E1933 S1934 L1942 L1943 E1944 Y1945 F1946 Q1949 E1950 L1951 Q1952 E1956 S1957 L1958 F1961 A1962 E1963 L1969 Q1970 A1971 N1972 Q1973 R1974 S1975 R1976 TYR ALA LEU LEU MET ARG ALA PHE THR MET SER ALA
ALA GLU THR ALA ARG ARG THR ARG GLU PHE ARG SER PRO PRO GLN GLU GLN ILE ASN MET LEU LEU HIS PHE LYS ASP GLU ALA ASP GLU GLU ASP CYS PRO LEU PRO GLU ASP ILE ARG GLN ASP LEU GLN D2033 E2047 GLY GLU GLU GLU GLU PRO GLU GLU GLU T2057 L2063 R2064
S2065 L2066 L2067 E2068 T2069 V2070 R2071 L2072 VAL LYS LYS LYS GLU GLU LYS PRO GLU GLU GLU LEU PRO ALA GLU GLU LYS LYS PRO GLN S2093 L2097 V2098 S2099 H2100 M2101 R2104 Q2107 Q2112 S2113 L2116 V2117 R2118 A2119 M2120 F2121 S2122 L2123 L2124 H2125 R2126 Q2127 Y2128 E2133 L2134 L2135
R2136 A2137 L2138 P2139 R2140 A2141 Y2142 T2143 I2144 S2145 P2146 V2149 E2150 D2151 T2152 M2153 S2154 L2155 L2156 E2157 C2158 L2159 G2160 Q2161 I2162 R2163 S2164 L2165 L2166 I2167 V2168 GLN MET GLY PRO Q2173 E2174 M2178 G2183 N2184 N2187 N2188 K2189 Y2192 L2197 T2206 V2207 V2210 M2211 V2212 N2213 V2214
L2215 G2216 GLY GLY GLU THR LYS GLU ILE ARG PHE P2226 C2233 R2234 F2235 Y2238 I2242 S2243 R2244 Q2245 N2246 Q2247 R2248 S2249 M2250 F2251 D2252 Y2256 L2257 L2258 E2259 N2260 I2263 GLY LEU GLY MET GLN GLY SER T2271 P2272 V2275 N2283 L2286 L2290 E2296 V2299 S2300
Y2301 L2302 A2303 L2307 GLN SER CYS PRO MET LEU LEU ALA LYS GLY TYR PRO ASP ILE GLY TRP ASN P2325 C2326 G2327 G2328 E2329 R2330 Y2331 L2332 D2333 F2334 L2335 R2336 V2339 F2340 V2341 N2342 V2346 E2347 E2348 N2351 V2354 R2355 L2356 L2357 I2358 R2359 K2360 P2361 E2362 CYS PHE GLY PRO ALA
LEU ARG GLY GLU GLY GLY SER G2375 A2379 I2380 E2381 E2382 A2383 I2384 R2385 I2386 SER GLU ASP PRO ALA ARG ASP GLY PRO GLY VAL ARG ARG ASP ARG ARG GLU HIS PHE GLY GLU GLU PRO PRO GLU GLU ASN ARG VAL HIS LEU G2419 M2423 I2430 G2434 R2435 C2436 A2437 PRO
GLU MET HIS LEU ILE GLN ALA GLY LYS GLY E2449 A2450 I2453 I2456 L2460 VAL PRO L2463 D2464 D2465 L2466 V2467 S2471 L2472 P2473 L2474 Q2475 I2476 PRO THR LEU GLY LYS ASP GLY ALA LEU VAL GLN PRO LYS MET SER ALA SER F2494 V2495 H2498 K2499 A2500 S2501 M2502 V2503 L2504 F2505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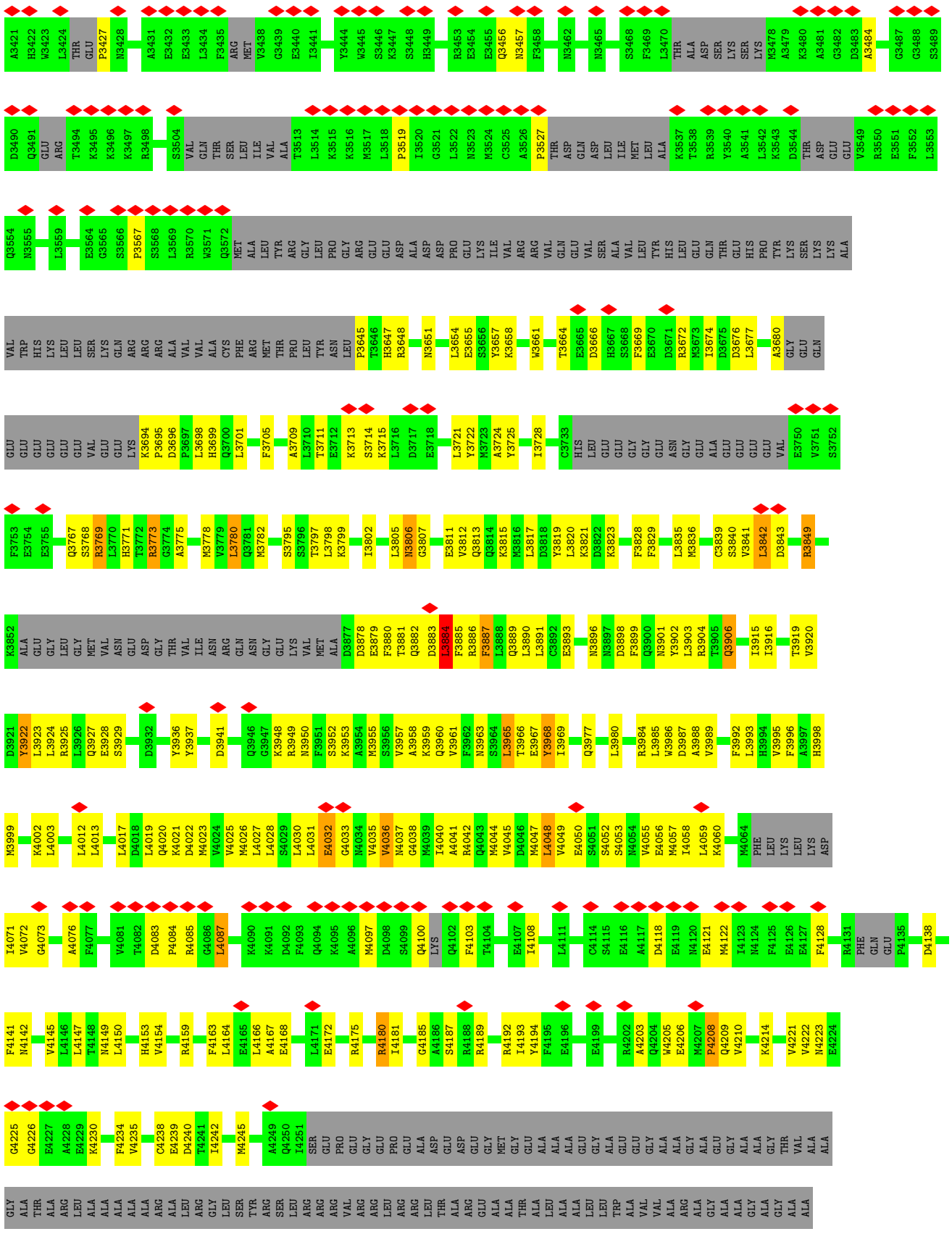
T2585 V2586 TYR ARG LEU SER R2591 D2601 A2609 LEU CYS ARG TYR ILE R2615 P2616 R2625 L2626 D2629 V2630 P2631 I2632 L2633 N2634 GLU PHE ALA K2638 M2639 P2640 Y2655 C2656 L2657 P2658 T2659 G2660 TRP ALA ASN PHE GLY VAL T2667 S2668 I2682 L2686 ALA HIS LYS LYS Y2691 A2699
M2700 P2701 C2702 L2703 I2706 A2707 G2708 A2709 L2710 P2711 P2712 ASP TYR VAL ASP ALA SER TYR SER SER LYS ALA GLU LYS LYS ALA THR VAL ASP ALA GLU GLY N2734 F2735 D2736 P2737 R2738 P2739 V2740 E2741 T2742 L2743 N2744 V2745 I2746 I2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 I2755 N2756 K2757 F2758 A2759 E2760
Y2761 T2762 H2763 E2764 K2765 W2766 A2767 F2768 D2769 K2770 I2771 Q2772 N2773 N2774 W2775 S2776 Y2777 G2778 E2779 N2780 V2781 D2782 E2783 E2784 L2785 K2786 T2787 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 T2796 F2797 S2798 E2799 K2800 D2801 K2802 E2803 I2804 Y2805 R2806 W2807 P2808 I2809 K2810 E2811 S2812 L2813 K2814 A2815 M2816 I2817 A2818 W2819 E2820
W2821 T2822 I2823 E2824 K2825 A2826 R2827 E2828 G2829 E2830 GLU GLU ARG THR GLU LYS LYS LYS THR ARG LYS ILE SER GLN THR ALA GLN THR Y2849 D2850 P2851 R2852 E2853 G2854 Y2855 N2856 P2857 Q2858 P2859 P2860 D2861 L2862 S2863 G2864 V2865 T2866 L2867 S2868 R2869 E2870 L2871 Q2872 A2873 M2874 A2875 E2876 Q2877 L2878 A2879 E2880
N2881 Y2882 H2883 N2884 T2885 W2886 G2887 R2888 K2889 K2890 K2891 Q2892 E2893 L2894 E2895 A2896 K2897 G2898 G2899 G2900 T2901 H2902 P2903 L2904 L2905 V2906 P2907 Y2908 D2909 T2910 L2911 T2912 A2913 K2914 E2915 K2916 A2917 R2918 D2919 R2920 E2921 K2922 A2923 Q2924 E2925 L2926 L2927 K2928 F2929 L2930 Q2931 M2932 N2933 G2934 Y2935 A2936 V2937 T2938 R2939 G2940
LEU LYS ASP MET GLU LEU ASP THR SER SER ILE GLU LYS ARG PHE ALA PHE GLY PHE LEU GLN GLN GLN LEU LEU ARG TRP MET ASP ILE SER GLN GLU PHE ILE ALA HIS LEU GLU ALA VAL VAL SER SER GLY ARG VAL GLU LYS SER PRO HIS GLU GLN GLU ILE LYS PHE PHE ALA LYS
ILE LEU LEU PRO LEU ILE ASN GLN TYR PHE THR ASN HIS CYS LEU Y3016 F3017 L3018 S3019 T3020 P3021 A3022 H3030 A3031 S3032 N3033 K3036 E3037 M3038 I3039 THR SER LEU F3043 C3044 K3045 P3062 ALA VAL VAL ASN CYS L3068 H3069 I3070 L3071 S3074 R3078 M3081 K3082 S3083 G3084 P3085 E3086
I3087 A3090 GLY LEU ARG SER F3095 F3096 E3097 S3098 A3099 S3100 E3101 D3102 I3103 L3110 R3111 L3112 G3113 K3114 V3115 S3116 GLN ALA ARG THR GLN VAL LYS GLY VAL GLY GLN ASN LEU THR TYR T3132 A3135 P3138 V3139 L3140 T3141 F3144 Q3145 H3146 I3147 A3148 Q3149 H3150 Q3151 F3152 GLY ASP ASP
VAL ILE L3158 D3159 D3160 S3164 G3170 T3178 LYS ASN THR TYR V3183 E3184 K3185 P3188 A3189 E3192 C3193 L3194 A3195 R3196 L3197 A3198 A3199 A3200 MET PRO VAL A3204 F3205 L3206 E3207 P3208 Q3209 L3210 N3211 E3212 A3215 C3216 S3217 VAL TYR THR LYS SER PRO ARG GLU ARG ALA ILE LEU
GLY LEU PRO ASN SER VAL GLU GLU MET CYS PRO ASP ILE PRO VAL LEU ASP ARG LEU MET ALA ASP ILE GLY GLY LEU ALA GLU SER GLY ALA ARG TYR THR GLU MET PRO HIS VAL ILE GLU ILE T3273 L3274 P3275 M3276 L3277 C3278 S3279 Y3280 L3281 P3282 R3283 W3284 W3285 E3286 R3287 G3288 P3289 E3290
ALA PRO PRO P3294 P3297 A3298 G3299 A3300 P3301 P3302 P3303 C3304 T3305 A3306 V3307 T3308 S3309 N3313 SER LEU LEU G3317 N3318 I3319 I3322 I3323 V3324 N3325 N3326 I3329 D3330 E3331 A3332 T3333 W3334 M3335 K3336 R3337 L3338 A3339 VAL PHE ALA GLN PRO ILE V3346 S3347 R3348 A3349 R3350 P3351 E3352 L3353 L3354 H3355
S3356 H3357 F3358 I3359 P3360 T3361 I3362 G3363 ARG LEU ARG K3367 R3368 A3369 G3370 K3371 A3374 Q3378 L3381 E3382 A3383 E3386 A3387 E3388 E3389 G3390 E3391 L3392 L3393 V3394 R3395 D3396 E3397 PHE SER VAL LEU C3402 R3403 D3404 L3405 Y3406 A3407 L3408 Y3409 P3410 L3411 L3412 I3413 R3414 Y3415 V3416 D3417 N3418 N3419 R3420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D3490 Q3491 GLU ARG T3494 K3495 K3496 K3497 R3498 S3504 VAL GLN THR SER LEU ILE VAL ALA T3513 L3514 K3515 K3516 M3517 L3518 P3519 I3520 G3521 L3522 N3523 M3524 C3525 A3526 P3527 THR ASP GLN ASP LEU ILE MET LEU ALA K3537 T3538 R3539 Y3540 A3541 L3542 K3543 D3544 THR ASP GLU GLU V3549 R3550 E3551 F3552 L3553
Q3554 N3555 L3559 E3564 G3565 S3566 P3567 S3568 L3569 R3570 W3571 Q3572 MET ALA LEU TYR ARG GLY LEU PRO GLY ARG GLU GLU ASP ALA ASP ASP PRO GLU LYS ILE VAL ARG ARG VAL GLN GLU VAL SER ALA VAL LEU TYR HIS LEU GLU GLN THR GLU HIS PRO TYR LYS SER LYS LYS ALA
VAL TRP HIS LYS LEU LEU SER LYS GLN ARG ARG ARG ALA VAL VAL ALA CYS PHE ARG MET THR PRO LEU LEU TYR ASN LEU P3645 T3646 H3647 R3648 N3651 L3654 E3655 S3656 Y3657 K3658 W3661 T3664 E3665 D3666 H3667 S3668 F3669 E3670 D3671 R3672 M3673 I3674 D3675 D3676 L3677 A3680 GLY GLU GLN
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D3921 Y3922 L3923 L3924 R3925 L3926 Q3927 E3928 S3929 D3932 Y3936 Y3937 D3941 Q3946 G3947 K3948 R3949 N3950 F3951 S3952 K3953 A3954 M3955 S3956 V3957 A3958 K3959 Q3960 V3961 F3962 N3963 S3964 L3965 T3966 E3967 Y3968 I3969 Q3977 L3980 R3984 L3985 W3986 D3987 A3988 V3989 F3992 L3993 H3994 V3995 F3996 A3997 H3998
M3999 K4002 L4003 L4012 L4013 L4017 D4018 L4019 Q4020 K4021 D4022 M4023 V4024 V4025 M4026 L4027 L4028 S4029 L4030 L4031 E4032 G4033 M4034 V4035 V4036 N4037 G4038 M4039 I4040 A4041 R4042 Q4043 M4044 V4045 D4046 M4047 L4048 V4049 E4050 S4051 S4052 S4053 N4054 V4055 E4056 M4057 I4058 L4059 K4060 M4064 PHE LEU LYS LEU LYS ASP
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G4225 G4226 E4227 A4228 E4229 K4230 F4234 V4235 C4238 E4239 D4240 T4241 I4242 M4245 A4249 Q4250 I4251 SER GLU PRO GLU GLY GLU PRO GLU ALA ASP GLU ASP GLU GLY MET GLY GLU ALA ALA ALA ALA GLU GLY ALA GLU GLU GLY ALA ALA ARG ALA GLY GLU ALA ALA GLY ALA GLU GLU GLY ALA ALA ALA GLY ALA GLY THR VAL ALA ALA
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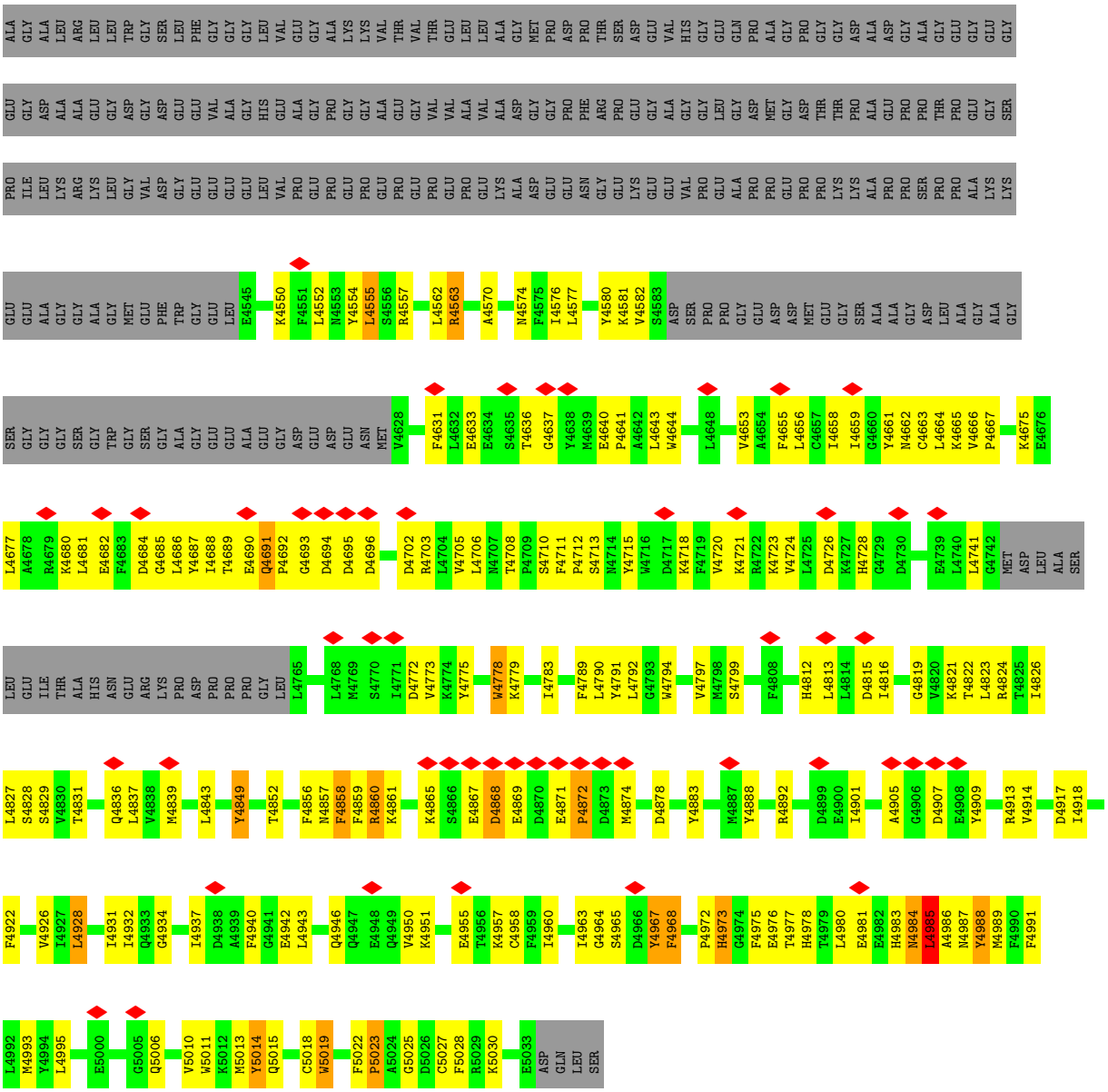
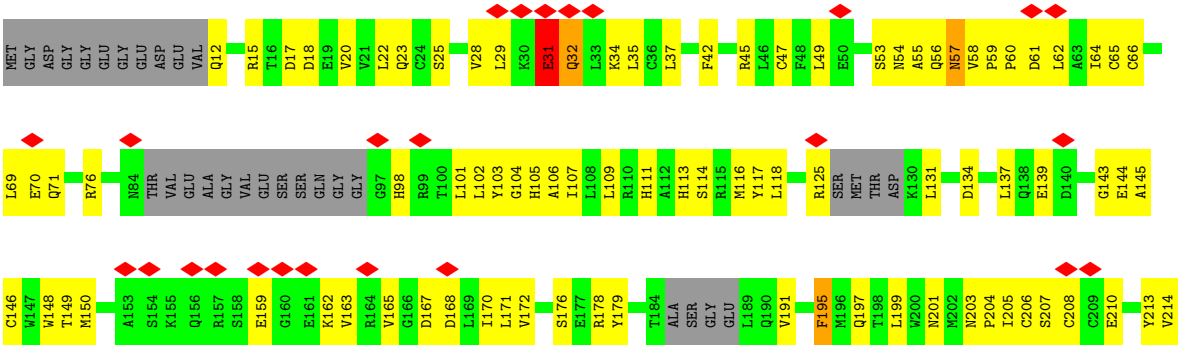
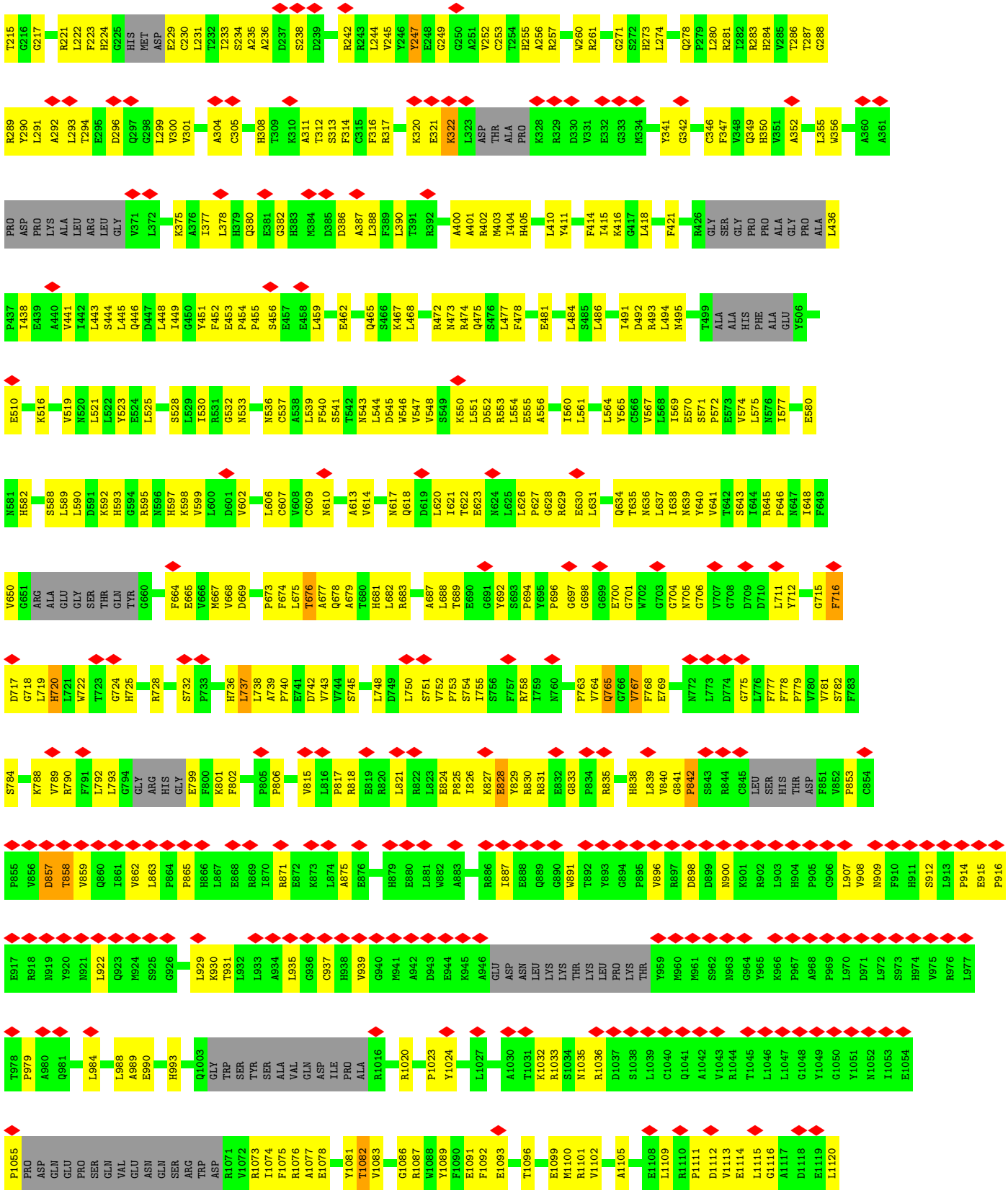


• Molecule 1: Ryanodine receptor 1

Chain C:

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E510 K516 V519 N520 L521 L522 Y523 E524 L525 S528 L529 I530 R531 G532 N533 N536 C537 A538 L539 F540 S541 T542 N543 L544 D545 W546 V547 V548 S549 K550 L551 D552 R553 L554 E555 A556 I560 L561 L564 Y565 C566 V567 L568 I569 E570 S571 P572 E573 V574 L575 N576 I577 E580
N581 H582 S588 L589 L590 D591 K592 H593 G594 R595 N596 H597 K598 V599 L600 D601 V602 L606 C607 V608 C609 N610 A613 V614 N617 Q618 D619 L620 I621 T622 E623 N624 L625 L626 P627 G628 R629 E630 L631 Q634 T635 N636 L637 I638 N639 Y640 V641 T642 S643 I644 R645 P646 N647 I648 F649
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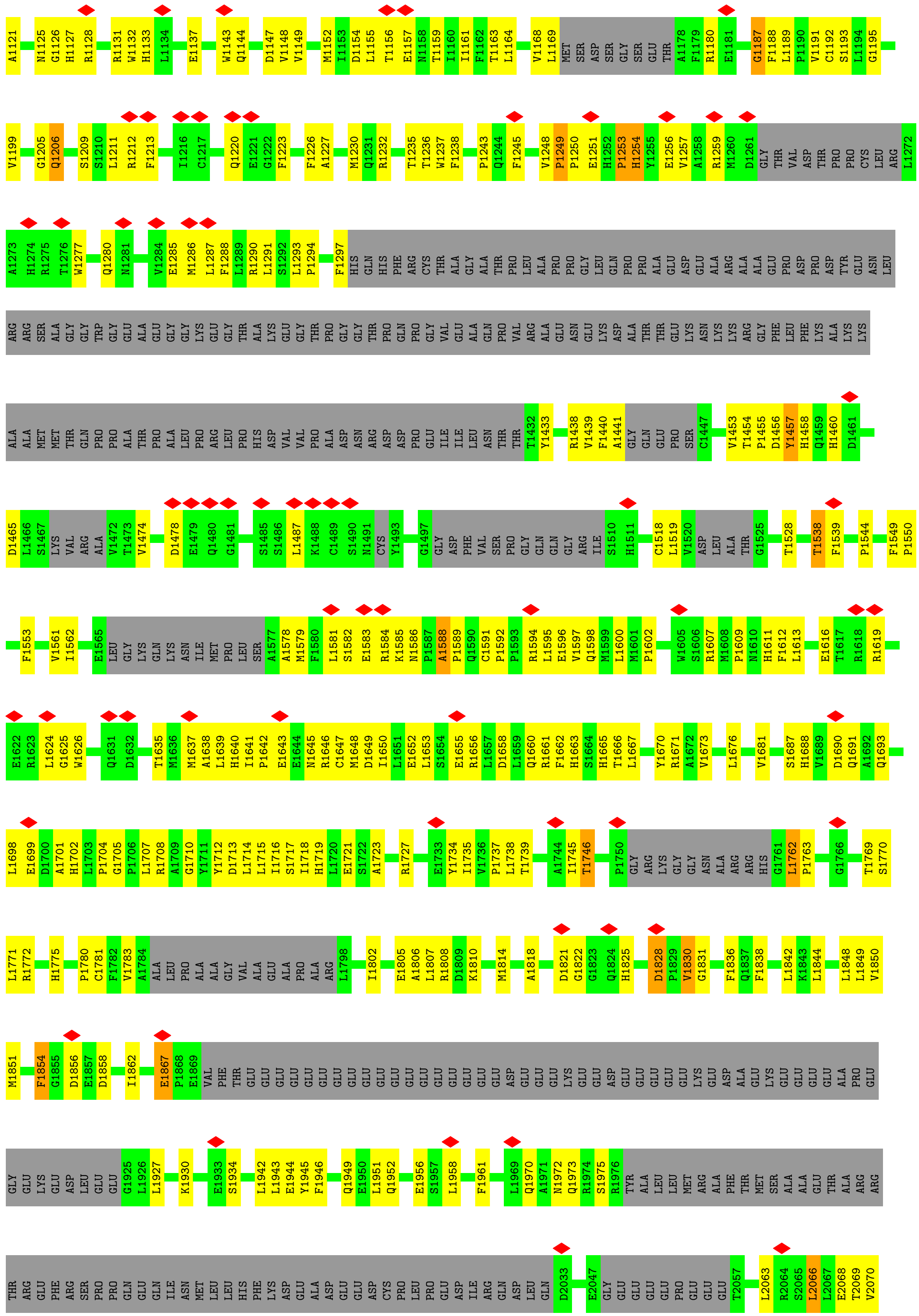
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ARG ARG SER ALA GLY GLY TRP GLY GLU ALA GLU GLY GLY LYS GLU GLY THR ALA LYS GLU GLY THR PRO GLY GLY THR PRO GLN PRO GLY VAL GLU ALA GLN PRO VAL ARG ALA GLU ASN GLU LYS ASP ALA THR THR GLU LYS ASN LYS LYS ARG GLY PHE LEU PHE LYS ALA LYS LYS
ALA ALA MET MET THR GLN PRO PRO ALA THR PRO ALA LEU PRO ARG LEU PRO HIS ASP VAL VAL PRO ALA ASP ASN ARG ASP ASP PRO GLU ILE ILE LEU ASN THR THR T1432 Y1433 R1438 V1439 F1440 A1441 GLY GLN GLU PRO SER C1447 V1453 T1454 P1455 D1456 Y1457 H1458 Q1459 H1460 D1461
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F1553 V1561 I1562 E1565 LEU GLY LYS GLN LYS ASN ILE MET PRO LEU SER A1577 A1578 M1579 F1580 L1581 S1582 E1583 R1584 K1585 N1586 P1587 A1588 P1589 Q1590 C1591 P1592 P1593 R1594 L1595 E1596 V1597 Q1598 M1599 L1600 M1601 P1602 W1605 S1606 R1607 M1608 P1609 N1610 H1611 F1612 L1613 E1616 T1617 R1618 R1619
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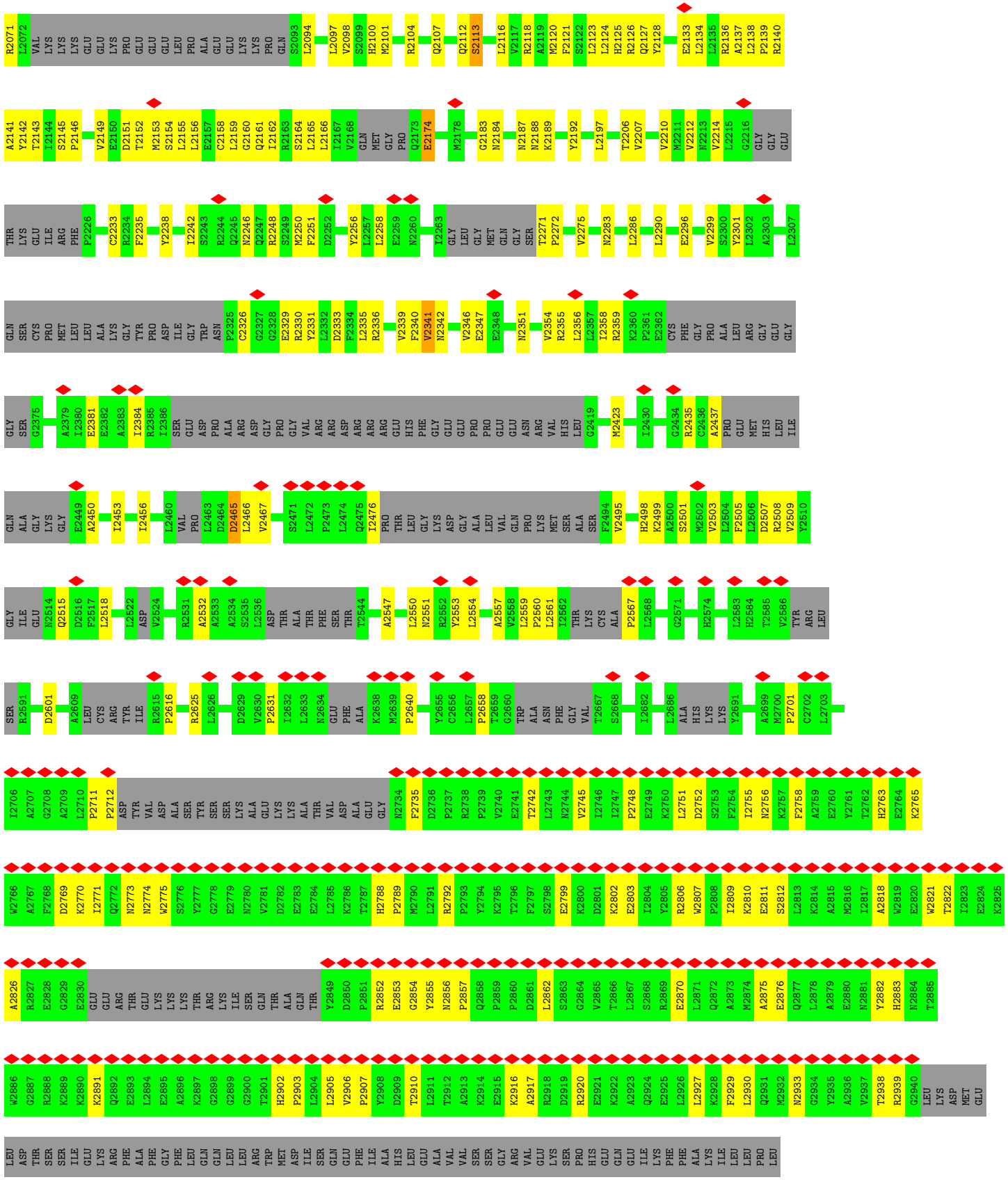
THR ARG GLU PHE ARG SER PRO PRO GLN GLU GLN ILE ASN MET LEU LEU HIS PHE LYS ASP GLU ALA ASP GLU GLU ASP CYS PRO LEU PRO GLU ASP ILE ARG GLN ASP LEU GLN D2033 E2047 GLY GLU GLU GLU GLU PRO GLU GLU GLU T2057 L2063 R2064 S2065 L2066 L2067 E2068 T2069 V2070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THR LYS GLU ILE ARG PHE P2226 C2233 R2234 F2235 Y2238 I2242 S2243 R2244 Q2245 N2246 Q2247 R2248 S2249 M2250 F2251 D2252 Y2256 L2257 L2258 E2259 N2260 I2263 GLY LEU GLY MET GLN GLY SER T2271 P2272 V2275 N2283 L2286 L2290 E2296 V2299 S2300 Y2301 L2302 A2303 L2307
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GLY SER G2375 A2379 I2380 E2381 E2382 A2383 I2384 R2385 I2386 SER GLU ASP PRO ALA ARG ASP GLY PRO GLY VAL ARG ARG ASP ARG ARG ARG GLU HIS PHE GLY GLU GLU PRO PRO GLU GLU ASN ARG VAL HIS LEU G2419 M2423 I2430 G2434 R2435 C2436 A2437 PRO GLU MET HIS LEU ILE
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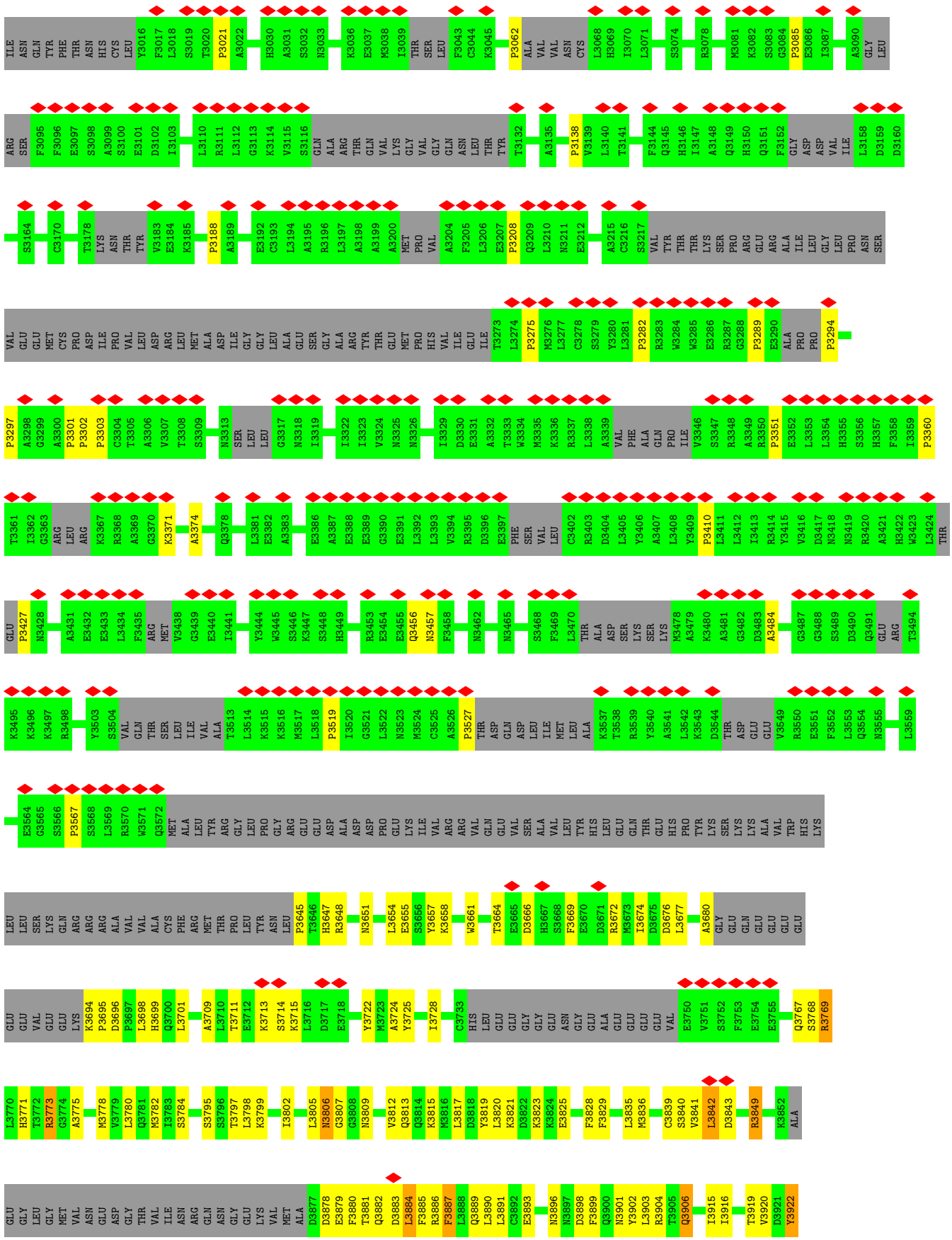
LEU ASP THR SER SER ILE GLU LYS ARG PHE ALA PHE GLY PHE LEU GLN GLN LEU LEU ARG TRP MET ASP ILE SER GLN GLU PHE ILE ALA HIS LEU GLU ALA VAL VAL SER SER GLY ARG VAL GLU LYS SER PRO HIS GLU GLN GLU ILE LYS PHE PHE ALA LYS ILE LEU LEU PRO LEU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T3361 I3362 G3363 ARG LEU ARG K3367 R3368 A3369 G3370 K3371 A3374 Q3378 L3381 E3382 A3383 E3386 A3387 E3388 E3389 G3390 E3391 L3392 L3393 V3394 R3395 D3396 E3397 PHE SER VAL LEU C3402 R3403 D3404 L3405 Y3406 A3407 L3408 Y3409 P3410 L3411 L3412 I3413 R3414 Y3415 V3416 D3417 N3418 N3419 R3420 A3421 H3422 W3423 L3424 THR
GLU P3427 N3428 A3431 E3432 E3433 L3434 P3435 ARG MET V3438 G3439 E3440 I3441 Y3444 W3445 S3446 K3447 S3448 H3449 R3453 E3454 E3455 Q3456 N3457 F3458 N3462 N3465 S3468 F3469 L3470 THR ALA ASP SER LYS SER LYS M3478 A3479 K3480 A3481 G3482 D3483 A3484 G3487 G3488 S3489 D3490 Q3491 GLU ARG T3494
K3495 K3496 K3497 R3498 Y3503 S3504 VAL GLN THR SER LEU ILE VAL ALA T3513 L3514 K3515 K3516 M3517 L3518 P3519 I3520 G3521 L3522 N3523 M3524 C3525 A3526 P3527 THR ASP GLN ASP LEU ILE MET LEU ALA K3537 T3538 R3539 Y3540 A3541 L3542 K3543 D3544 THR ASP GLU GLU V3549 R3550 E3551 F3552 L3553 Q3554 N3555 L3559
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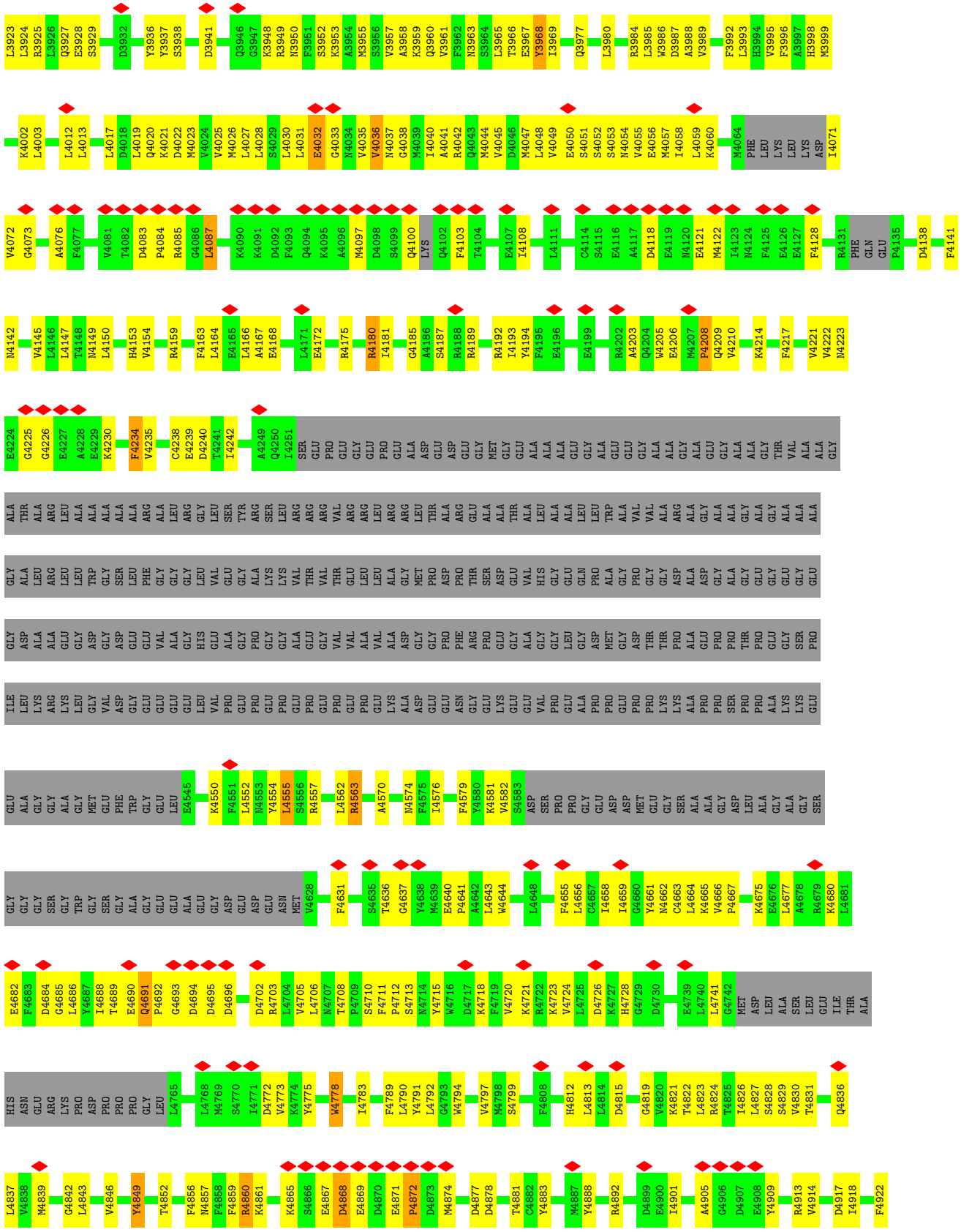
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E4224 G4225 G4226 E4227 A4228 E4229 K4230 F4234 V4235 C4238 E4239 D4240 T4241 I4242 A4249 Q4250 I4251 SER GLU PRO GLU GLY GLU PRO GLU ALA ASP GLU ASP GLU GLY MET GLY GLU ALA ALA GLU GLY ALA GLU GLU GLY ALA ALA ALA GLY ALA GLU GLY ALA ALA GLY THR VAL ALA ALA GLY
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GLY ASP ALA ALA GLU GLY ASP GLY ASP GLU GLU VAL ALA GLY HIS GLU ALA GLY PRO GLY GLY ALA GLU GLY VAL VAL ALA ALA ASP GLY GLY PRO PHE ARG PRO GLU GLY ALA GLY GLY LEU GLY ASP MET GLY ASP THR THR PRO ALA GLU PRO PRO THR PRO GLU GLY SER PRO
ILE LEU LYS ARG LYS LEU GLY VAL ASP GLY GLU GLU GLU GLU LEU VAL PRO GLU PRO GLU PRO GLU PRO GLU PRO GLU LYS ALA ASP ASP GLU GLU GLY GLU LYS LYS GLU GLU VAL PRO GLU ALA PRO PRO GLU PRO PRO LYS LYS ALA PRO PRO SER PRO PRO ALA LYS LYS GLU
GLU ALA GLY GLY ALA GLY PHE TRP GLY GLU LEU E4545 K4550 F4551 L4552 N4553 Y4554 L4555 S4556 R4557 L4562 R4563 A4570 N4574 F4575 I4576 F4579 Y4580 K4581 V4582 S4583 ASP SER PRO PRO GLY GLU ASP ASP MET GLU GLY SER ALA ALA GLY ASP LEU ALA GLY ALA GLY SER
GLY GLY GLY SER GLY TRP GLY SER GLY ALA GLY GLU GLU ALA GLU GLY ASP GLU ASP GLU ASN MET V4628 F4631 S4635 T4636 G4637 Y4638 M4639 E4640 P4641 A4642 L4643 W4644 L4648 F4655 L4656 C4657 I4658 I4659 G4660 Y4661 N4662 C4663 L4664 K4665 V4666 P4667 K4675 E4676 L4677 A4678 R4679 K4680 L4681
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HIS ASN GLU ARG LYS PRO ASP PRO PRO PRO GLY LEU L4765 L4768 M4769 S4770 I4771 D4772 V4773 K4774 Y4775 W4778 I4783 F4789 L4790 Y4791 L4792 G4793 W4794 V4797 M4798 S4799 F4808 H4812 L4813 L4814 D4815 G4819 V4820 K4821 T4822 L4823 R4824 T4825 I4826 L4827 S4828 S4829 V4830 T4831 Q4836
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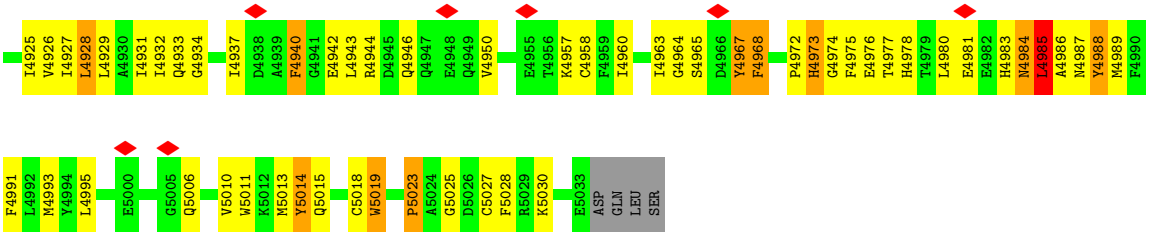
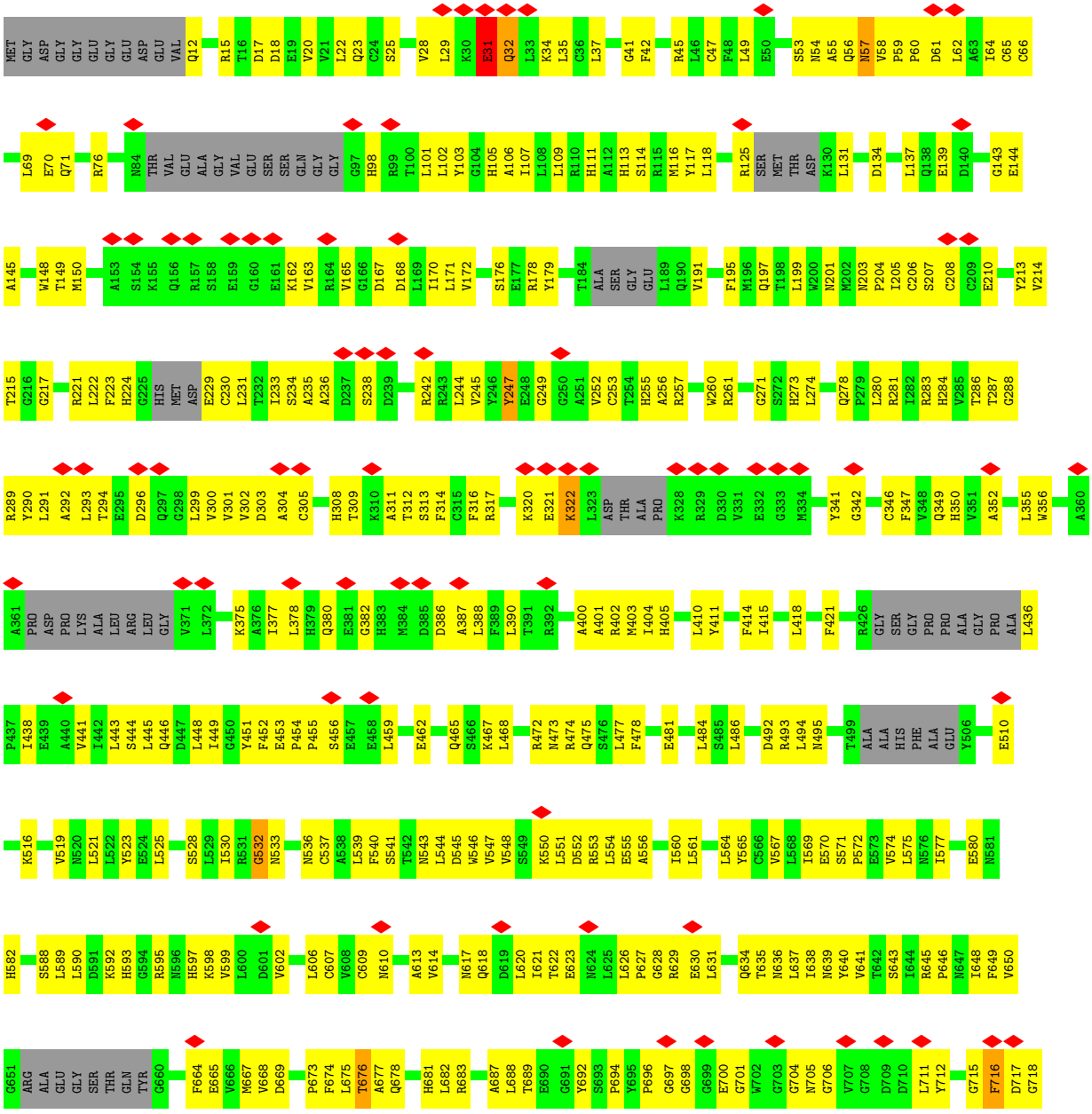
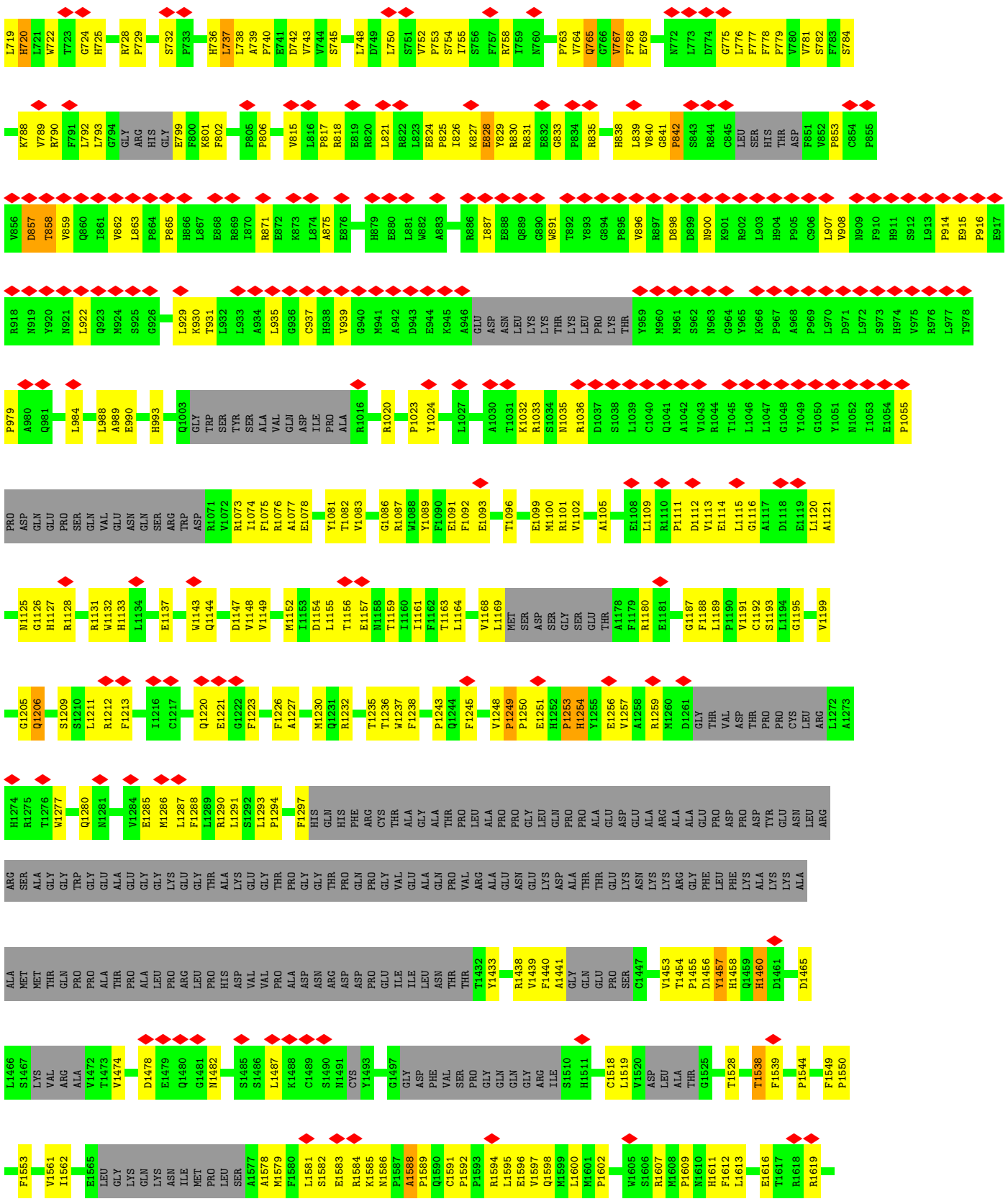


- Molecule 1: Ryanodine receptor 1

Chain E:

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K788 V789 R790 F791 L792 L793 G794 GLY ARG HIS GLY E799 F800 K801 F802 P805 P806 V815 L816 P817 R818 E819 R820 L821 R822 L823 E824 P825 I826 K827 E828 Y829 R830 R831 E832 G833 P834 R835 H838 L839 V840 G841 P842 S843 R844 C845 LEU SER HIS THR ASP F851 V852 P853 C854 P855
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ARG SER ALA GLY GLY TRP GLY GLU ALA GLY GLY GLY LYS GLU GLY THR ALA LYS GLU GLY THR PRO GLN PRO GLY GLY GLY THR PRO GLN PRO GLU ILE ILE LEU ASN THR THR T1432 Y1433 R1438 V1439 F1440 A1441 GLY GLN GLU PRO C1447 V1453 T1454 P1455 D1456 Y1457 H1458 Q1459 H1460 D1461 D1465
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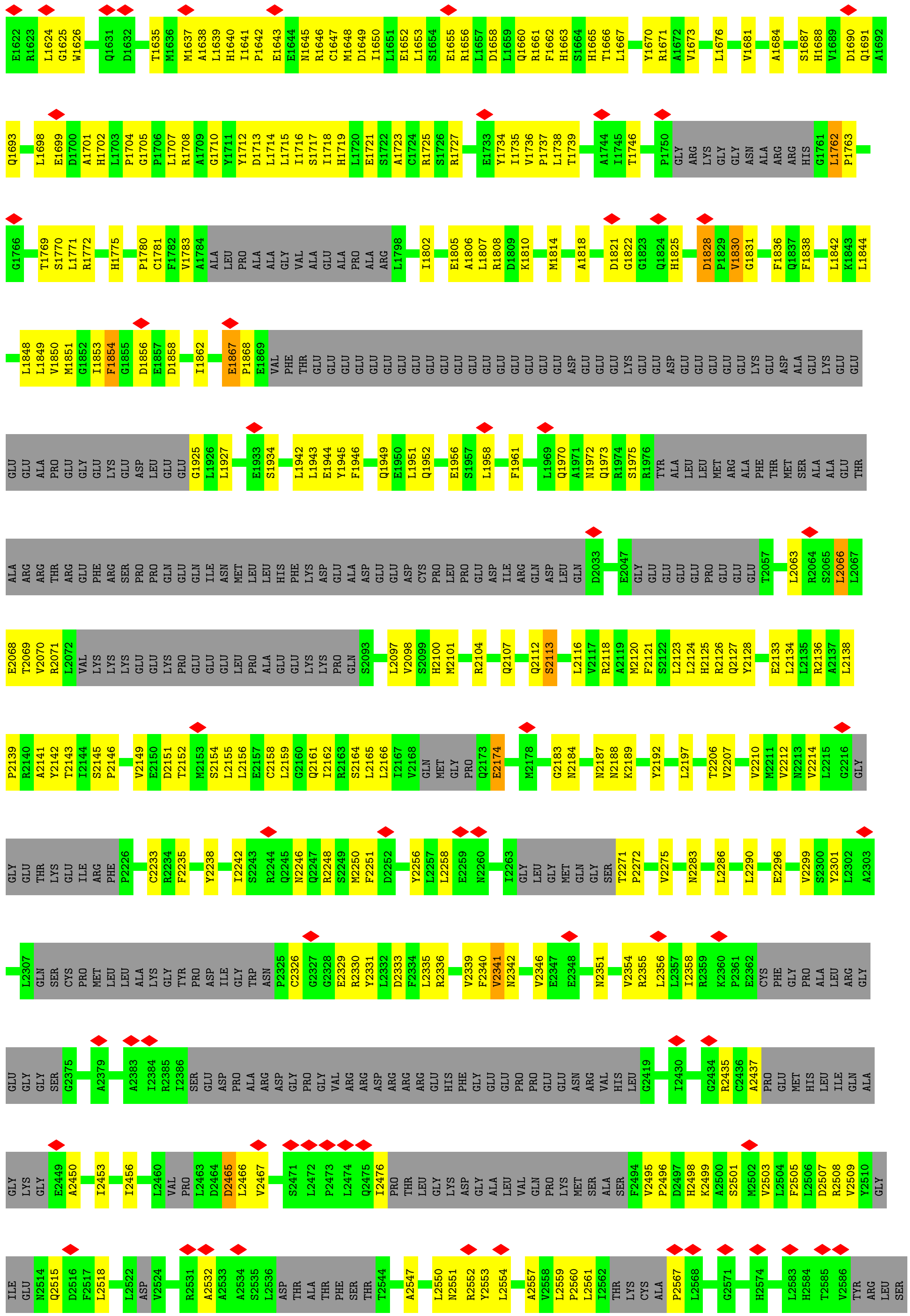
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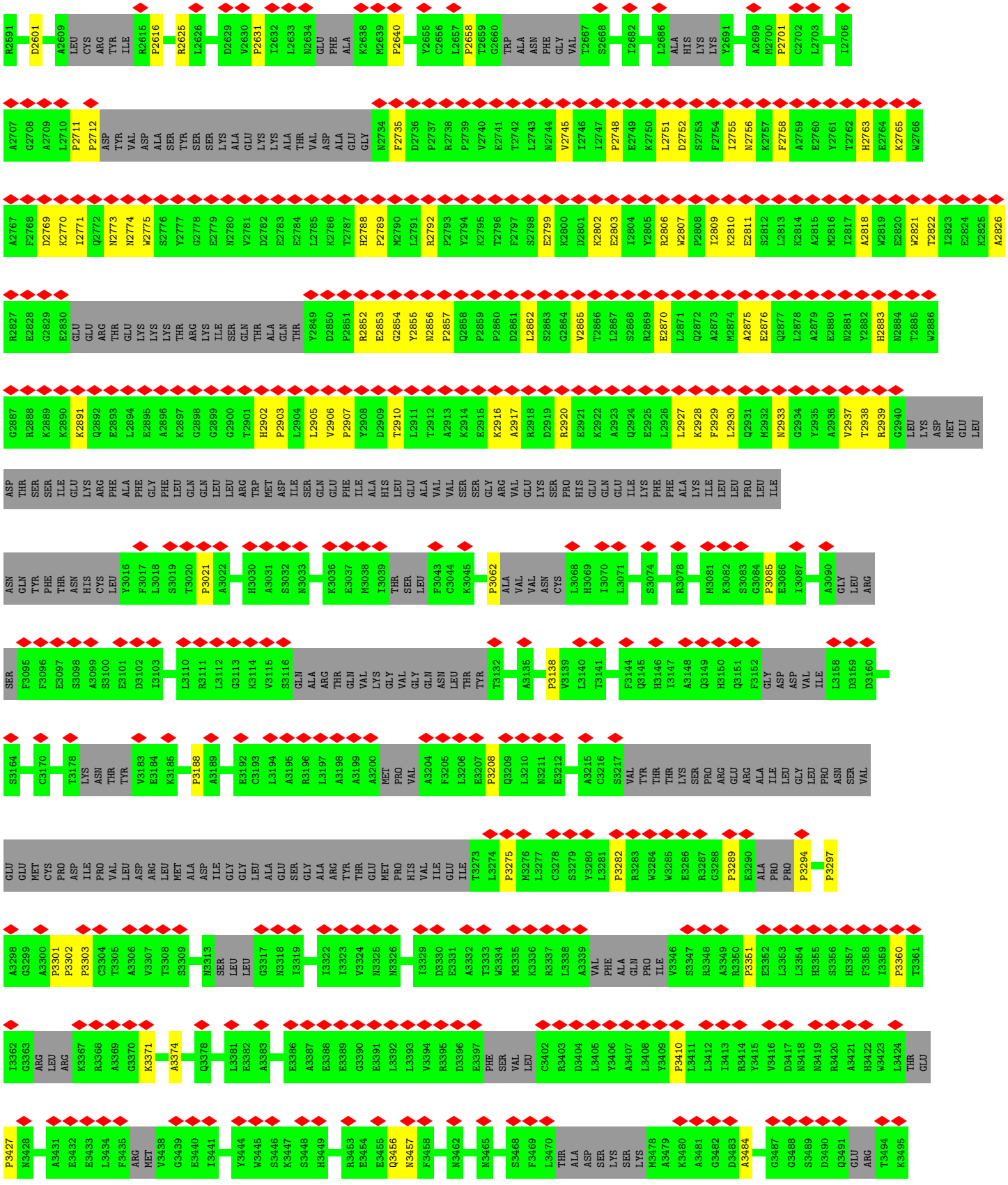
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ASP THR SER SER ILE GLU LYS ARG PHE ALA PHE GLY PHE LEU GLN GLN LEU LEU ARG TRP MET ASP ILE SER GLN GLU PHE ILE ILE ALA HIS LEU GLU ALA VAL VAL SER SER GLY ARG VAL GLU LYS SER PRO HIS GLU GLN GLU ILE LYS PHE PHE ALA LYS ILE LEU LEU PRO LEU ILE
ASN GLN TYR PHE THR ASN HIS CYS LEU Y3016 F3017 L3018 S3019 T3020 P3021 A3022 H3030 A3031 S3032 N3033 K3036 E3037 M3038 I3039 THR SER LEU F3043 C3044 K3045 P3062 ALA VAL VAL ASN CYS L3068 H3069 I3070 L3071 S3074 R3078 M3081 K3082 S3083 G3084 P3085 E3086 I3087 A3090 GLY LEU ARG
SER F3095 F3096 E3097 S3098 A3099 S3100 E3101 D3102 I3103 L3110 R3111 L3112 G3113 K3114 V3115 S3116 GLN ALA ARG THR GLN VAL LYS GLY VAL GLY GLN ASN LEU THR TYR T3132 A3135 P3138 V3139 L3140 T3141 F3144 Q3145 H3146 I3147 A3148 Q3149 H3150 Q3151 F3152 GLY ASP ASP VAL ILE L3158 D3159 D3160
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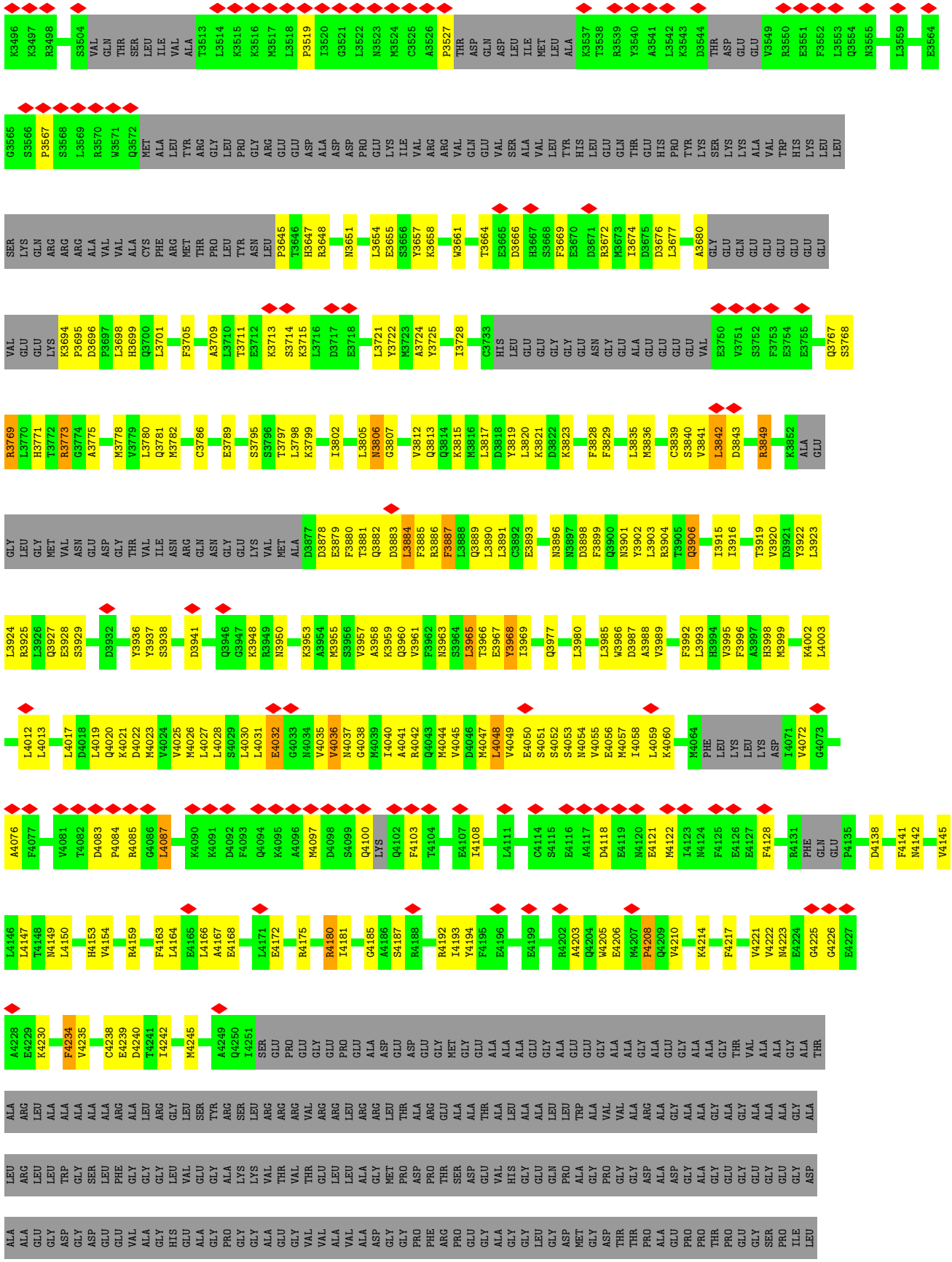
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SER LYS GLN ARG ARG ARG ALA VAL VAL ALA CYS PHE ARG MET THR PRO LEU TYR ASN LEU P3645 T3646 H3647 R3648 N3651 L3654 E3655 S3656 Y3657 K3658 W3661 T3664 E3665 D3666 H3667 S3668 F3669 E3670 D3671 R3672 M3673 I3674 D3675 D3676 L3677 A3680 GLY GLU GLN GLU GLU GLU GLU GLU GLU
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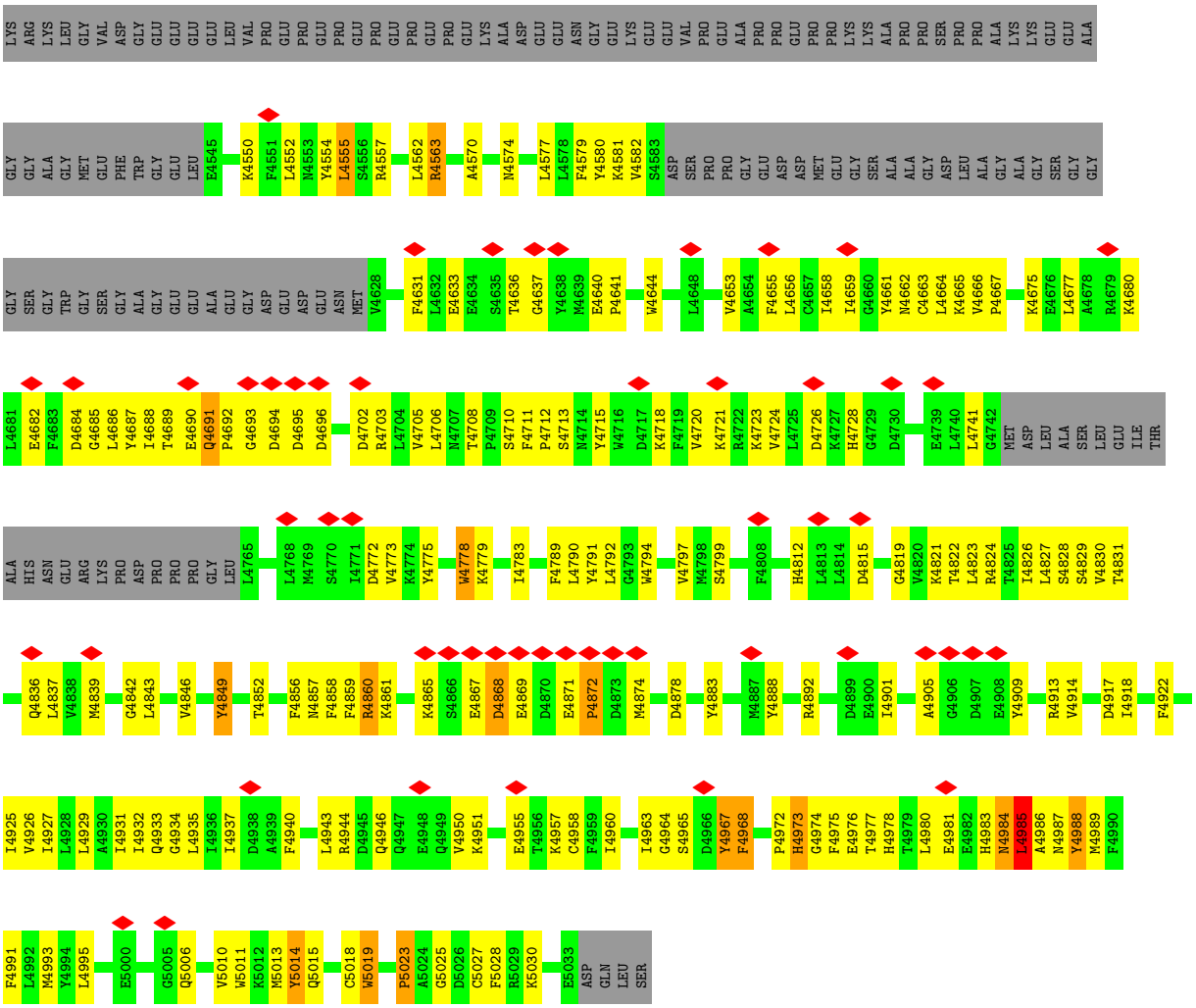

- Molecule 1: Ryanodine receptor 1

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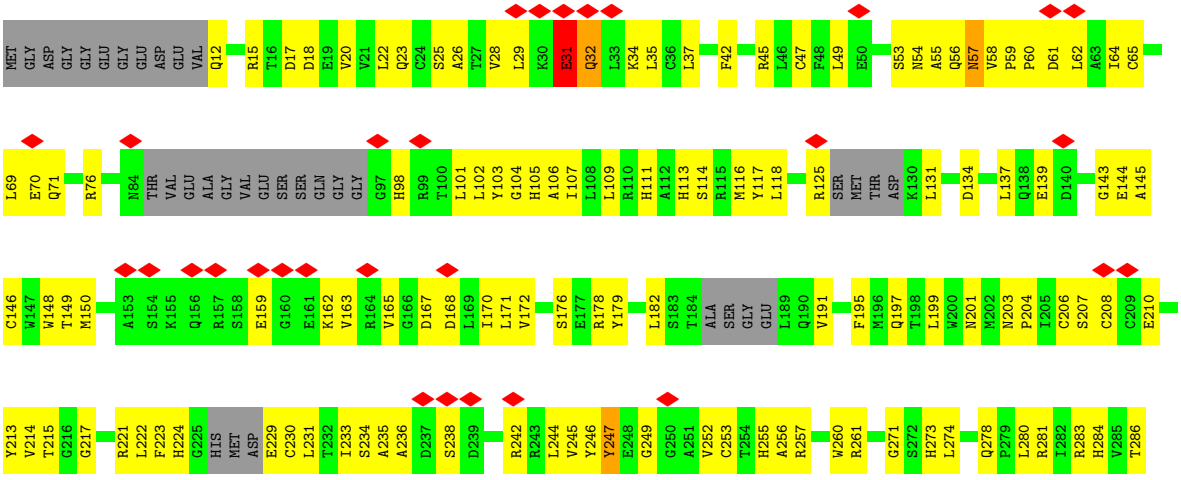

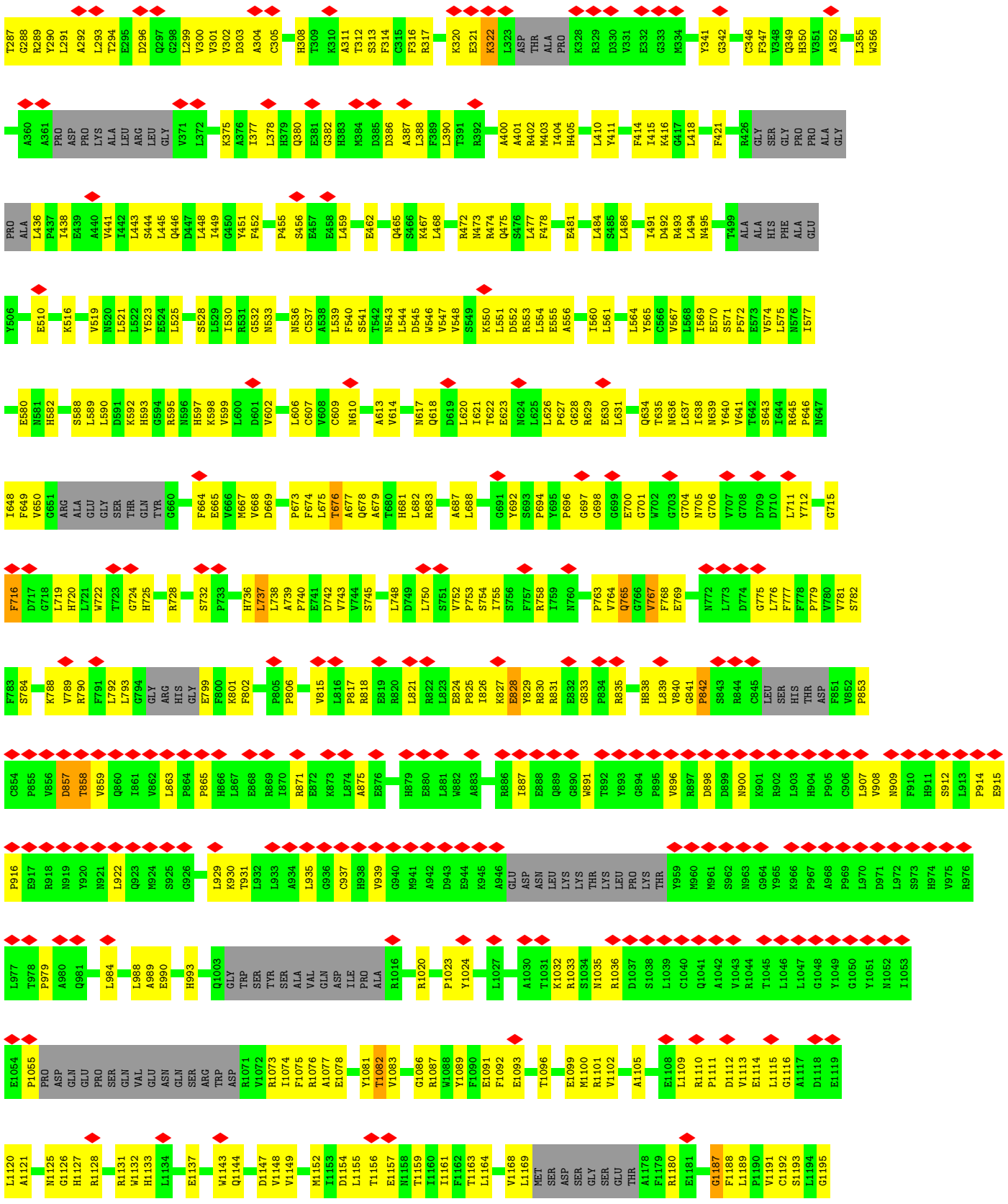
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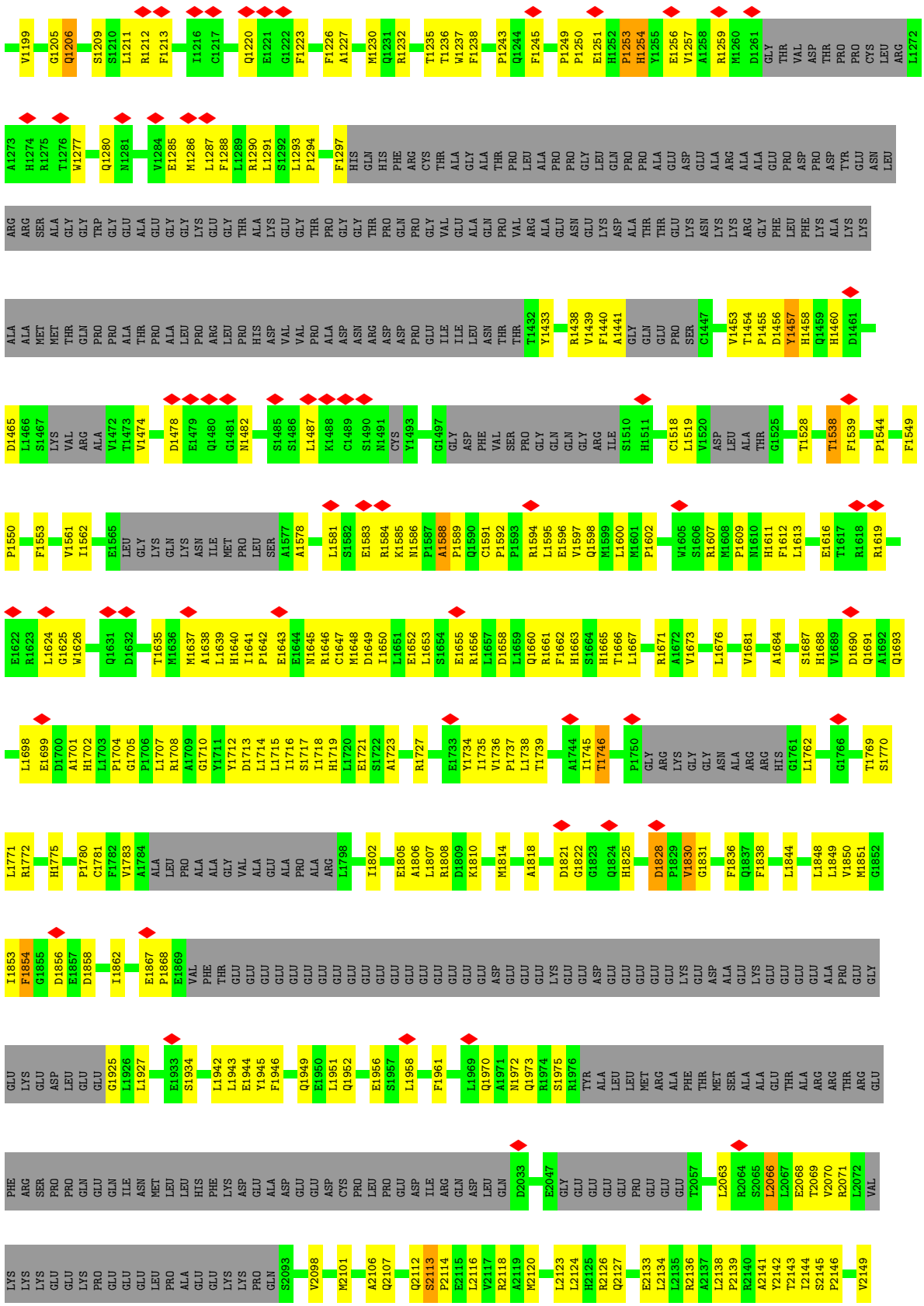
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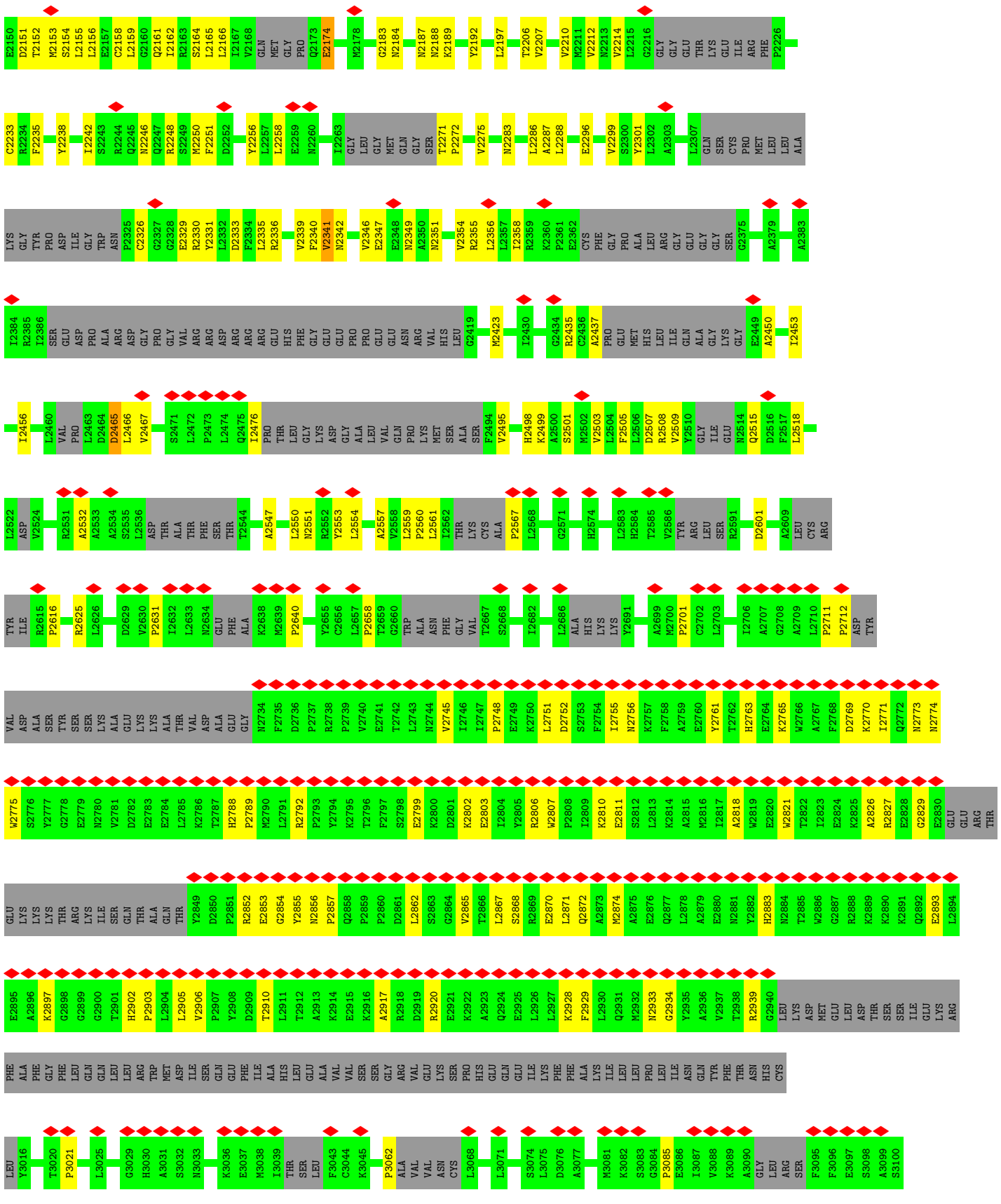
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C2233 R2234 F2235 Y2238 I2242 S2243 R2244 Q2245 N2246 Q2247 R2248 S2249 M2250 F2251 D2252 Y2256 L2257 L2258 E2259 N2260 I2263 GLY LEU GLY MET GLN GLY SER T2271 P2272 V2275 N2283 L2286 A2287 L2288 E2296 V2299 S2300 Y2301 L2302 A2303 L2307 GLN SER CYS PRO MET LEU LEU ALA
LYS GLY TYR PRO ASP ILE GLY TRP ASN P2325 C2326 G2327 G2328 E2329 R2330 Y2331 L2332 D2333 F2334 L2335 R2336 V2339 F2340 V2341 N2342 V2346 E2347 E2348 N2349 A2350 N2351 V2354 R2355 L2356 L2357 I2358 R2359 K2360 P2361 E2362 CYS PHE GLY PRO ALA LEU ARG GLY GLU GLY GLY SER G2375 A2379 A2383
I2384 R2385 I2386 SER GLU ASP PRO ALA ARG ASP GLY PRO GLY VAL ARG ARG ASP ARG ARG ARG GLU HIS PHE GLY GLU GLU PRO PRO GLU GLU ASN ARG VAL HIS LEU G2419 M2423 I2430 G2434 R2435 C2436 A2437 PRO GLU MET HIS LEU ILE GLN ALA GLY LYS GLY E2449 A2450 I2453
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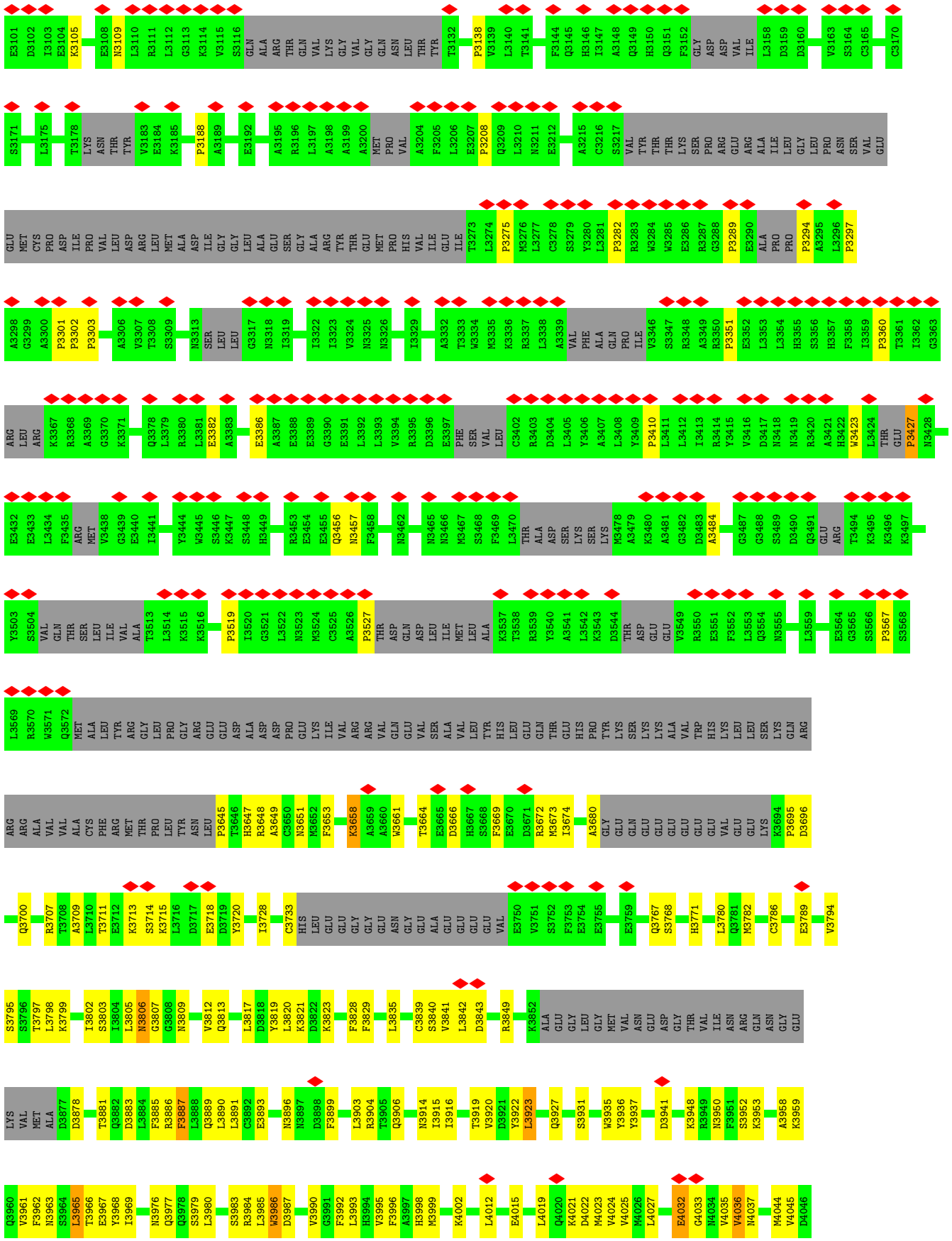
TYR ILE R2615 P2616 R2625 L2626 D2629 V2630 P2631 I2632 L2633 N2634 GLU PHE ALA K2638 M2639 P2640 Y2655 C2656 L2657 P2658 T2659 G2660 TRP ALA ASN PHE GLY VAL T2667 S2668 I2682 L2686 ALA HIS LYS LYS Y2691 A2699 M2700 P2701 C2702 L2703 I2706 A2707 G2708 A2709 L2710 P2711 P2712 ASP TYR
VAL ASP ALA SER TYR SER SER SER LYS ALA GLU LYS LYS ALA THR VAL ASP ALA GLU GLY W2734 F2735 D2736 P2737 R2738 P2739 V2740 E2741 T2742 L2743 N2744 V2745 I2746 I2747 P2748 E2749 K2750 L2751 D2752 S2753 F2754 I2755 N2756 K2757 F2758 A2759 E2760 Y2761 T2762 H2763 E2764 K2765 W2766 A2767 F2768 D2769 K2770 I2771 Q2772 N2773 N2774
W2775 S2776 Y2777 G2778 E2779 N2780 V2781 D2782 E2783 E2784 L2785 K2786 T2787 H2788 P2789 M2790 L2791 R2792 P2793 Y2794 K2795 T2796 F2797 S2798 E2799 K2800 D2801 K2802 E2803 I2804 Y2805 R2806 W2807 P2808 I2809 K2810 E2811 S2812 L2813 K2814 A2815 M2816 I2817 A2818 W2819 E2820 W2821 T2822 I2823 E2824 K2825 A2826 R2827 E2828 G2829 E2830 GLU GLU ARG THR
GLU LYS LYS LYS THR ARG LYS ILE SER GLN THR ALA GLN THR Y2849 D2850 P2851 R2852 E2853 G2854 Y2855 N2856 P2857 Q2858 P2859 P2860 D2861 L2862 S2863 G2864 V2865 T2866 L2867 S2868 R2869 E2870 L2871 Q2872 A2873 M2874 A2875 E2876 Q2877 L2878 A2879 E2880 N2881 Y2882 H2883 N2884 T2885 W2886 G2887 R2888 K2889 K2890 K2891 Q2892 E2893 L2894
E2895 A2896 K2897 G2898 G2899 G2900 T2901 H2902 P2903 L2904 L2905 V2906 P2907 Y2908 D2909 T2910 L2911 T2912 A2913 K2914 E2915 K2916 A2917 R2918 D2919 R2920 E2921 K2922 A2923 Q2924 E2925 L2926 L2927 K2928 F2929 L2930 Q2931 M2932 N2933 G2934 Y2935 A2936 V2937 T2938 R2939 G2940 LEU LYS ASP MET GLU LEU ASP THR SER SER ILE GLU LYS ARG
PHE ALA PHE GLY PHE LEU GLN GLN LEU LEU ARG TRP MET ASP ILE SER GLN GLU PHE ILE ALA HIS LEU GLU ALA VAL VAL SER SER GLY ARG VAL GLU LYS SER PRO HIS GLU GLN GLU ILE LYS PHE PHE ALA LYS ILE LEU LEU PRO LEU ILE ASN GLN TYR PHE THR ASN HIS CYS
LEU Y3016 T3020 P3021 L3025 G3029 H3030 A3031 S3032 N3033 K3036 E3037 M3038 I3039 THR SER LEU F3043 C3044 K3045 P3062 ALA VAL VAL ASN CYS L3068 L3071 S3074 L3075 D3076 A3077 M3081 K3082 S3083 G3084 P3085 E3086 I3087 V3088 K3089 A3090 GLY LEU ARG SER F3095 F3096 E3097 S3098 A3099 S3100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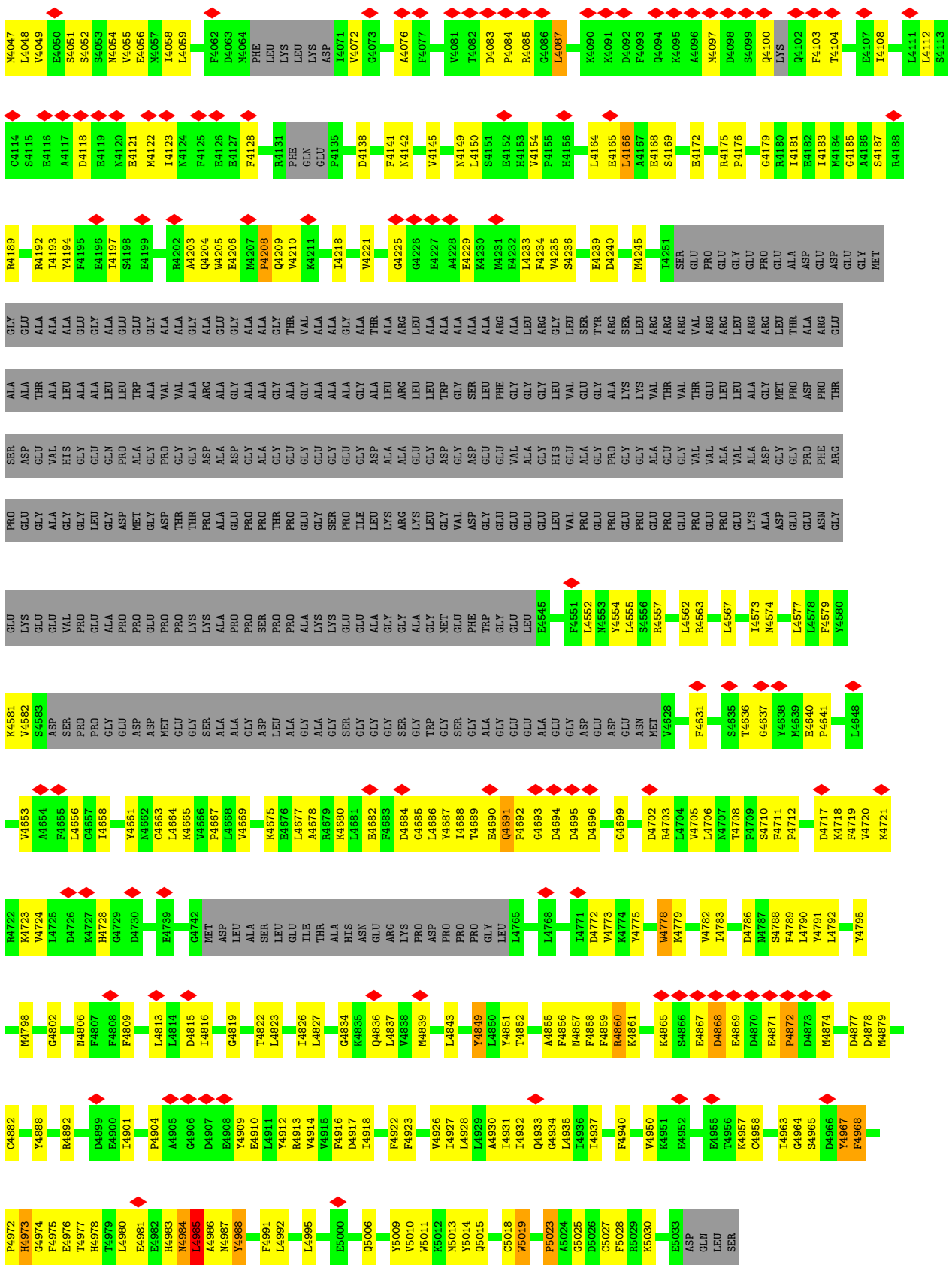
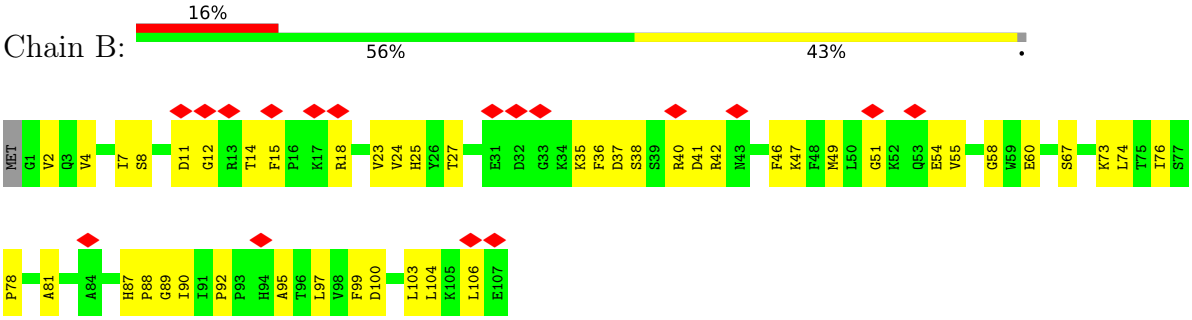
S3171 L3175 T3178 LYS ASN THR TYR V3183 E3184 K3185 P3188 A3189 E3192 A3195 R3196 L3197 A3198 A3199 A3200 MET PRO VAL A3204 F3205 L3206 E3207 P3208 Q3209 L3210 N3211 E3212 A3215 C3216 S3217 VAL TYR THR THR LYS SER PRO ARG GLU ARG ALA ILE LEU GLY LEU PRO ASN SER VAL GLU
GLU MET CYS PRO ASP ILE PRO VAL LEU ASP ARG LEU MET ALA ASP ILE GLY GLY LEU ALA GLU SER GLY ALA ARG TYR THR GLU MET PRO HIS VAL ILE GLU ILE T3273 L3274 P3275 M3276 L3277 C3278 S3279 Y3280 L3281 P3282 R3283 W3284 W3285 E3286 R3287 G3288 P3289 E3290 ALA PRO PRO P3294 A3295 L3296 P3297
A3298 G3299 A3300 P3301 P3302 P3303 A3306 V3307 T3308 S3309 N3313 SER LEU LEU G3317 N3318 I3319 I3322 I3323 V3324 N3325 N3326 I3329 A3332 T3333 W3334 M3335 K3336 R3337 L3338 A3339 VAL PHE ALA GLN PRO ILE V3346 S3347 R3348 A3349 R3350 P3351 E3352 L3353 L3354 H3355 S3356 H3357 F3358 I3359 P3360 T3361 I3362 G3363
ARG LEU ARG K3367 R3368 A3369 G3370 K3371 Q3378 L3379 R3380 L3381 E3382 A3383 E3386 A3387 E3388 E3389 G3390 E3391 L3392 L3393 V3394 R3395 D3396 E3397 PHE SER VAL LEU C3402 R3403 D3404 L3405 Y3406 A3407 L3408 Y3409 P3410 L3411 L3412 I3413 R3414 Y3415 V3416 D3417 N3418 N3419 R3420 A3421 H3422 W3423 L3424 THR GLU P3427 N3428
E3432 E3433 L3434 F3435 ARG MET V3438 G3439 E3440 I3441 Y3444 W3445 S3446 K3447 S3448 H3449 R3453 E3454 E3455 Q3456 N3457 F3458 N3462 N3465 N3466 M3467 S3468 F3469 L3470 THR ALA ASP SER LYS SER LYS M3478 A3479 K3480 A3481 G3482 D3483 A3484 G3487 G3488 S3489 D3490 Q3491 GLU ARG T3494 K3495 K3496 K3497
Y3503 S3504 VAL GLN THR SER LEU ILE VAL ALA T3513 L3514 K3515 K3516 P3519 I3520 G3521 L3522 N3523 M3524 C3525 A3526 P3527 THR ASP GLN ASP LEU ILE MET LEU ALA K3537 T3538 R3539 Y3540 A3541 L3542 K3543 D3544 THR ASP GLU GLU V3549 R3550 E3551 F3552 L3553 Q3554 N3555 L3559 E3564 G3565 S3566 P3567 S3568
L3569 R3570 W3571 Q3572 MET ALA LEU TYR ARG GLY LEU PRO GLY ARG GLU GLU ASP ALA ASP ASP PRO GLU LYS ILE VAL ARG ARG VAL GLN GLU VAL SER ALA VAL LEU TYR HIS LEU GLU GLN THR GLU HIS PRO TYR LYS SER LYS LYS ALA VAL TRP HIS LYS LEU LEU SER LYS GLN ARG
ARG ARG ALA VAL VAL ALA CYS PHE ARG MET THR PRO LEU TYR ASN LEU P3645 T3646 H3647 R3648 A3649 C3650 N3651 M3652 F3653 K3658 A3659 A3660 W3661 T3664 E3665 D3666 H3667 S3668 F3669 E3670 D3671 R3672 M3673 I3674 A3680 GLY GLU GLN GLU GLU GLU GLU GLU GLU VAL GLU GLU K3694 P3695 D3696
Q3700 R3707 T3708 A3709 L3710 T3711 E3712 K3713 S3714 K3715 L3716 D3717 E3718 D3719 Y3720 I3728 C3733 HIS LEU GLU GLU GLY GLY GLU ASN GLY GLU ALA GLU GLU GLU GLU VAL E3750 V3751 S3752 F3753 E3754 E3755 E3759 Q3767 S3768 H3771 L3780 Q3781 M3782 C3786 E3789 V3794
S3795 S3796 T3797 L3798 K3799 I3802 S3803 I3804 L3805 N3806 G3807 G3808 N3809 V3812 Q3813 L3817 D3818 Y3819 L3820 K3821 D3822 K3823 F3828 F3829 L3835 C3839 S3840 V3841 L3842 D3843 R3849 K3852 ALA GLU GLY LEU GLY MET VAL ASN GLU ASP GLY THR VAL ILE ASN ARG GLN ASN GLY GLU
LYS VAL MET ALA D3877 D3878 T3881 Q3882 D3883 L3884 F3885 R3886 F3887 L3888 Q3889 L3890 L3891 C3892 E3893 N3896 N3897 D3898 F3899 L3903 R3904 T3905 Q3906 N3914 I3915 I3916 T3919 V3920 D3921 Y3922 L3923 Q3927 S3931 W3935 Y3936 Y3937 D3941 K3948 R3949 N3950 F3951 S3952 K3953 A3958 K3959
Q3960 V3961 F3962 N3963 S3964 L3965 T3966 E3967 Y3968 I3969 N3976 Q3977 Q3978 S3979 L3980 S3983 R3984 L3985 W3986 D3987 V3990 G3991 F3992 L3993 H3994 V3995 F3996 A3997 H3998 M3999 K4002 L4012 E4015 L4019 Q4020 K4021 D4022 M4023 V4024 V4025 M4026 L4027 E4032 G4033 N4034 V4035 V4036 N4037 M4044 V4045 D4046



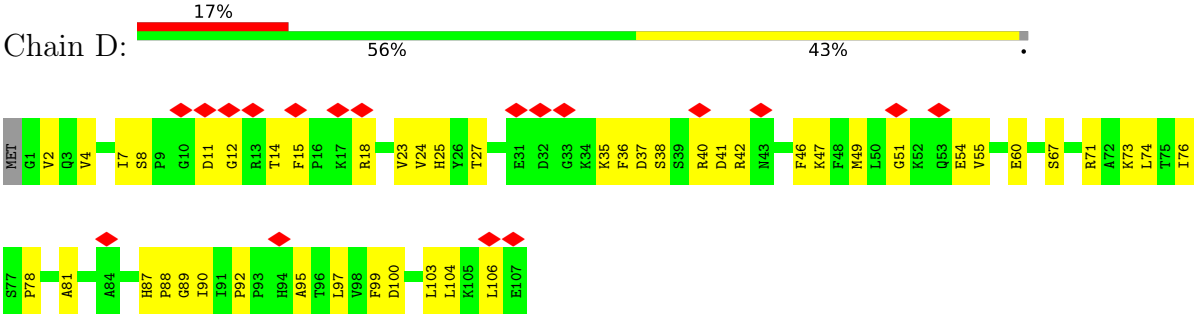
- Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain B:



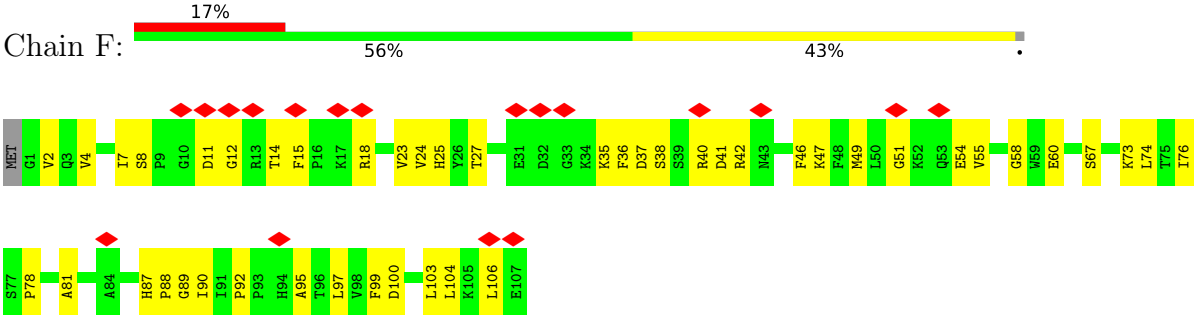
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain D:



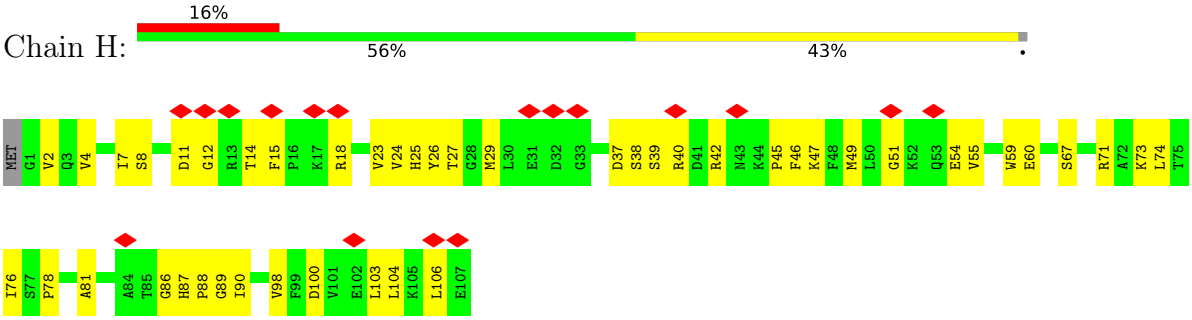
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain F:



• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain H:



4 Experimental information (i)

Property	Value	Source
EM reconstruction method	SINGLE PARTICLE	Depositor
Imposed symmetry	POINT, C4	Depositor
Number of particles used	119000	Depositor
Resolution determination method	FSC 0.143 CUT-OFF	Depositor
CTF correction method	PHASE FLIPPING AND AMPLITUDE CORRECTION	Depositor
Microscope	FEI POLARA 300	Depositor
Voltage (kV)	300	Depositor
Electron dose ($e^-/Å^2$)	40	Depositor
Minimum defocus (nm)	Not provided	
Maximum defocus (nm)	Not provided	
Magnification	Not provided	
Image detector	FEI FALCON II (4k x 4k)	Depositor
Maximum map value	0.382	Depositor
Minimum map value	-0.148	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.016	Depositor
Recommended contour level	0.085	Depositor
Map size (Å)	482.40002, 482.40002, 482.40002	wwPDB
Map dimensions	360, 360, 360	wwPDB
Map angles (°)	90.0, 90.0, 90.0	wwPDB
Pixel spacing (Å)	1.34, 1.34, 1.34	Depositor

5 Model quality (i)

5.1 Standard geometry (i)

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

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	0.85	25/27395 (0.1%)	0.86	68/37119 (0.2%)
1	C	0.85	27/27395 (0.1%)	0.86	64/37119 (0.2%)
1	E	0.85	24/27395 (0.1%)	0.86	63/37119 (0.2%)
1	G	0.84	26/27395 (0.1%)	0.85	59/37119 (0.2%)
2	B	0.64	0/851	0.68	0/1146
2	D	0.64	0/851	0.68	0/1146
2	F	0.64	0/851	0.68	0/1146
2	H	0.66	0/851	0.69	0/1146
All	All	0.84	102/112984 (0.1%)	0.85	254/153060 (0.2%)

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	17
1	C	0	17
1	E	0	17
1	G	0	16
All	All	0	67

All (102) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	2853	GLU	CD-OE1	17.93	1.45	1.25
1	E	2853	GLU	CD-OE1	17.88	1.45	1.25
1	G	2853	GLU	CD-OE1	17.49	1.44	1.25
1	C	2853	GLU	CD-OE1	17.32	1.44	1.25
1	G	4988	TYR	CG-CD1	-9.48	1.26	1.39
1	C	4968	PHE	CG-CD1	-8.69	1.25	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	4968	PHE	CG-CD1	-8.66	1.25	1.38
1	E	4968	PHE	CG-CD1	-8.65	1.25	1.38
1	G	4968	PHE	CG-CD1	-8.63	1.25	1.38
1	C	4988	TYR	CG-CD1	-8.52	1.28	1.39
1	G	2853	GLU	CG-CD	8.48	1.64	1.51
1	E	2853	GLU	CG-CD	8.45	1.64	1.51
1	A	2853	GLU	CG-CD	8.35	1.64	1.51
1	A	4988	TYR	CG-CD1	-8.32	1.28	1.39
1	E	4988	TYR	CG-CD1	-8.28	1.28	1.39
1	C	2853	GLU	CG-CD	8.10	1.64	1.51
1	G	4234	PHE	CG-CD1	-7.47	1.27	1.38
1	G	3922	TYR	CG-CD2	-7.26	1.29	1.39
1	A	3922	TYR	CG-CD2	-7.22	1.29	1.39
1	E	3922	TYR	CG-CD2	-7.20	1.29	1.39
1	G	4988	TYR	CE2-CZ	-7.19	1.29	1.38
1	C	3922	TYR	CG-CD2	-7.19	1.29	1.39
1	A	4988	TYR	CE2-CZ	-6.87	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.86	1.29	1.38
1	E	4988	TYR	CE2-CZ	-6.85	1.29	1.38
1	G	4967	TYR	CG-CD2	-6.77	1.30	1.39
1	C	4967	TYR	CG-CD2	-6.62	1.30	1.39
1	E	4967	TYR	CG-CD2	-6.61	1.30	1.39
1	A	4967	TYR	CG-CD2	-6.59	1.30	1.39
1	G	478	PHE	CG-CD1	-6.57	1.28	1.38
1	E	478	PHE	CG-CD1	-6.57	1.28	1.38
1	G	4194	TYR	CG-CD1	-6.55	1.30	1.39
1	A	478	PHE	CG-CD1	-6.53	1.28	1.38
1	C	478	PHE	CG-CD1	-6.50	1.28	1.38
1	A	5019	TRP	CE3-CZ3	-6.47	1.27	1.38
1	C	5019	TRP	CE3-CZ3	-6.42	1.27	1.38
1	C	3887	PHE	CG-CD1	6.42	1.48	1.38
1	E	3887	PHE	CG-CD1	6.42	1.48	1.38
1	A	3986	TRP	CB-CG	-6.40	1.38	1.50
1	E	5019	TRP	CE3-CZ3	-6.38	1.27	1.38
1	A	5014	TYR	CG-CD1	-6.37	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	C	4234	PHE	CG-CD1	-6.36	1.29	1.38
1	G	4778	TRP	CE3-CZ3	-6.36	1.27	1.38
1	E	3986	TRP	CB-CG	-6.35	1.38	1.50
1	C	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	E	5014	TYR	CG-CD1	-6.33	1.30	1.39
1	C	3986	TRP	CB-CG	-6.32	1.38	1.50

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4234	PHE	CG-CD1	-6.32	1.29	1.38
1	A	3887	PHE	CG-CD1	6.30	1.48	1.38
1	G	5019	TRP	CE3-CZ3	-6.23	1.27	1.38
1	C	4194	TYR	CG-CD1	-6.18	1.31	1.39
1	A	4194	TYR	CG-CD1	-6.15	1.31	1.39
1	A	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4778	TRP	CE3-CZ3	-6.11	1.28	1.38
1	E	4194	TYR	CG-CD1	-6.07	1.31	1.39
1	C	4778	TRP	CE3-CZ3	-6.04	1.28	1.38
1	A	314	PHE	CG-CD1	-6.03	1.29	1.38
1	C	4849	TYR	CG-CD1	-6.03	1.31	1.39
1	E	314	PHE	CG-CD1	-6.01	1.29	1.38
1	C	314	PHE	CG-CD1	-5.99	1.29	1.38
1	G	314	PHE	CG-CD1	-5.97	1.29	1.38
1	E	5014	TYR	CE2-CZ	-5.75	1.31	1.38
1	G	3986	TRP	CB-CG	-5.73	1.40	1.50
1	A	5014	TYR	CE2-CZ	-5.72	1.31	1.38
1	G	5014	TYR	CG-CD1	-5.70	1.31	1.39
1	C	5014	TYR	CE2-CZ	-5.70	1.31	1.38
1	C	478	PHE	CG-CD2	-5.65	1.30	1.38
1	G	5014	TYR	CE2-CZ	-5.64	1.31	1.38
1	A	478	PHE	CG-CD2	-5.63	1.30	1.38
1	G	478	PHE	CG-CD2	-5.57	1.30	1.38
1	E	478	PHE	CG-CD2	-5.56	1.30	1.38
1	G	3968	TYR	CD2-CE2	-5.56	1.31	1.39
1	G	5019	TRP	CB-CG	-5.51	1.40	1.50
1	G	247	TYR	CG-CD2	-5.44	1.32	1.39
1	A	4849	TYR	CG-CD1	-5.37	1.32	1.39
1	A	3968	TYR	CD2-CE2	-5.37	1.31	1.39
1	G	4849	TYR	CG-CD1	-5.35	1.32	1.39
1	C	3968	TYR	CD2-CE2	-5.35	1.31	1.39
1	E	247	TYR	CG-CD2	-5.35	1.32	1.39
1	E	3968	TYR	CD2-CE2	-5.34	1.31	1.39
1	A	247	TYR	CG-CD2	-5.31	1.32	1.39
1	C	2853	GLU	CD-OE2	-5.29	1.19	1.25
1	C	247	TYR	CG-CD2	-5.26	1.32	1.39
1	A	3725	TYR	CG-CD2	-5.25	1.32	1.39
1	C	3725	TYR	CG-CD2	-5.22	1.32	1.39
1	C	4940	PHE	CG-CD1	-5.22	1.30	1.38
1	E	117	TYR	CE1-CZ	-5.21	1.31	1.38
1	E	3725	TYR	CG-CD2	-5.20	1.32	1.39
1	G	3935	TRP	CG-CD1	-5.20	1.29	1.36

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	3968	TYR	CG-CD1	-5.19	1.32	1.39
1	C	5023	PRO	CA-C	-5.17	1.42	1.52
1	G	117	TYR	CE1-CZ	-5.17	1.31	1.38
1	C	117	TYR	CE1-CZ	-5.14	1.31	1.38
1	A	117	TYR	CE1-CZ	-5.12	1.31	1.38
1	E	5023	PRO	CA-C	-5.10	1.42	1.52
1	C	5019	TRP	CB-CG	-5.08	1.41	1.50
1	G	5023	PRO	CA-C	-5.04	1.42	1.52
1	A	5023	PRO	CA-C	-5.04	1.42	1.52
1	E	4849	TYR	CG-CD1	-5.01	1.32	1.39
1	G	246	TYR	CG-CD2	5.01	1.45	1.39
1	A	5019	TRP	CB-CG	-5.01	1.41	1.50

All (254) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	4032	GLU	OE1-CD-OE2	-7.83	113.91	123.30
1	G	4985	LEU	CB-CG-CD1	-7.61	98.06	111.00
1	G	2118	ARG	NE-CZ-NH2	-7.55	116.53	120.30
1	A	3773	ARG	NE-CZ-NH2	-7.54	116.53	120.30
1	G	4563	ARG	NE-CZ-NH2	7.46	124.03	120.30
1	A	1290	ARG	NE-CZ-NH2	-7.38	116.61	120.30
1	E	3773	ARG	NE-CZ-NH2	-7.37	116.61	120.30
1	C	3773	ARG	NE-CZ-NH2	-7.33	116.63	120.30
1	E	4032	GLU	OE1-CD-OE2	-7.30	114.53	123.30
1	A	4943	LEU	CB-CG-CD1	7.26	123.35	111.00
1	C	3360	PRO	N-CA-CB	7.25	111.99	103.30
1	A	4032	GLU	OE1-CD-OE2	-7.24	114.61	123.30
1	E	3360	PRO	N-CA-CB	7.23	111.97	103.30
1	E	1290	ARG	NE-CZ-NH2	-7.22	116.69	120.30
1	A	3360	PRO	N-CA-CB	7.21	111.95	103.30
1	E	4943	LEU	CB-CG-CD1	7.21	123.26	111.00
1	C	4032	GLU	OE1-CD-OE2	-7.16	114.70	123.30
1	C	1290	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	C	2118	ARG	NE-CZ-NH2	-7.14	116.73	120.30
1	A	2118	ARG	NE-CZ-NH2	-7.10	116.75	120.30
1	G	1290	ARG	NE-CZ-NH2	-7.06	116.77	120.30
1	A	3887	PHE	CB-CG-CD2	-7.05	115.86	120.80
1	C	3887	PHE	CB-CG-CD2	-7.04	115.87	120.80
1	E	3887	PHE	CB-CG-CD2	-7.01	115.90	120.80
1	E	2118	ARG	NE-CZ-NH2	-7.00	116.80	120.30
1	C	4943	LEU	CB-CG-CD1	6.90	122.72	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	4563	ARG	NE-CZ-NH2	6.83	123.72	120.30
1	G	3275	PRO	N-CA-CB	6.81	111.47	103.30
1	C	3275	PRO	N-CA-CB	6.80	111.46	103.30
1	G	3360	PRO	N-CA-CB	6.77	111.43	103.30
1	E	3275	PRO	N-CA-CB	6.73	111.38	103.30
1	A	3275	PRO	N-CA-CB	6.73	111.37	103.30
1	E	4563	ARG	NE-CZ-NH2	6.69	123.65	120.30
1	G	3887	PHE	CB-CG-CD2	-6.69	116.11	120.80
1	C	3289	PRO	N-CA-CB	6.67	111.30	103.30
1	G	4563	ARG	NE-CZ-NH1	-6.65	116.97	120.30
1	E	3289	PRO	N-CA-CB	6.62	111.25	103.30
1	A	3289	PRO	N-CA-CB	6.61	111.23	103.30
1	C	3303	PRO	N-CA-CB	6.60	111.22	103.30
1	A	3062	PRO	N-CA-CB	6.59	111.21	103.30
1	E	3303	PRO	N-CA-CB	6.58	111.20	103.30
1	E	3062	PRO	N-CA-CB	6.58	111.19	103.30
1	G	3289	PRO	N-CA-CB	6.57	111.18	103.30
1	C	3062	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4790	LEU	CA-CB-CG	6.54	130.35	115.30
1	A	3303	PRO	N-CA-CB	6.53	111.14	103.30
1	G	552	ASP	CB-CG-OD1	-6.53	112.43	118.30
1	A	2640	PRO	N-CA-CB	6.52	111.13	103.30
1	C	552	ASP	CB-CG-OD1	-6.52	112.44	118.30
1	E	2640	PRO	N-CA-CB	6.51	111.11	103.30
1	A	552	ASP	CB-CG-OD1	-6.49	112.46	118.30
1	C	2640	PRO	N-CA-CB	6.48	111.08	103.30
1	G	2640	PRO	N-CA-CB	6.47	111.07	103.30
1	E	3351	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3062	PRO	N-CA-CB	6.43	111.01	103.30
1	G	3965	LEU	CB-CG-CD2	-6.43	100.08	111.00
1	G	2701	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3351	PRO	N-CA-CB	6.42	111.00	103.30
1	C	3410	PRO	N-CA-CB	6.41	111.00	103.30
1	A	2701	PRO	N-CA-CB	6.41	110.99	103.30
1	A	3351	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3410	PRO	N-CA-CB	6.40	110.98	103.30
1	E	3567	PRO	N-CA-CB	6.40	110.98	103.30
1	A	3410	PRO	N-CA-CB	6.39	110.97	103.30
1	C	2701	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3138	PRO	N-CA-CB	6.39	110.97	103.30
1	E	3138	PRO	N-CA-CB	6.39	110.96	103.30
1	G	3021	PRO	N-CA-CB	6.37	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	2701	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3138	PRO	N-CA-CB	6.36	110.93	103.30
1	A	3297	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3567	PRO	N-CA-CB	6.34	110.91	103.30
1	C	3297	PRO	N-CA-CB	6.33	110.90	103.30
1	E	3188	PRO	N-CA-CB	6.32	110.89	103.30
1	C	3188	PRO	N-CA-CB	6.31	110.87	103.30
1	E	3297	PRO	N-CA-CB	6.31	110.87	103.30
1	C	3567	PRO	N-CA-CB	6.30	110.86	103.30
1	G	3297	PRO	N-CA-CB	6.29	110.85	103.30
1	E	1290	ARG	NE-CZ-NH1	6.27	123.43	120.30
1	G	3282	PRO	N-CA-CB	6.27	110.82	103.30
1	G	3303	PRO	N-CA-CB	6.25	110.80	103.30
1	A	3188	PRO	N-CA-CB	6.25	110.80	103.30
1	C	1290	ARG	NE-CZ-NH1	6.25	123.42	120.30
1	A	4563	ARG	NE-CZ-NH2	6.25	123.42	120.30
1	A	1290	ARG	NE-CZ-NH1	6.24	123.42	120.30
1	E	4985	LEU	CB-CG-CD1	-6.24	100.40	111.00
1	C	2711	PRO	N-CA-CB	6.23	110.77	103.30
1	A	2711	PRO	N-CA-CB	6.21	110.75	103.30
1	G	3302	PRO	N-CA-CB	6.20	110.74	103.30
1	E	4790	LEU	CA-CB-CG	6.19	129.54	115.30
1	A	858	THR	N-CA-CB	6.19	122.06	110.30
1	E	858	THR	N-CA-CB	6.18	122.04	110.30
1	C	858	THR	N-CA-CB	6.17	122.02	110.30
1	G	3527	PRO	N-CA-CB	6.17	110.70	103.30
1	A	4790	LEU	CA-CB-CG	6.17	129.49	115.30
1	C	4985	LEU	CB-CG-CD1	-6.17	100.52	111.00
1	E	2711	PRO	N-CA-CB	6.16	110.69	103.30
1	G	1290	ARG	NE-CZ-NH1	6.16	123.38	120.30
1	C	4790	LEU	CA-CB-CG	6.15	129.45	115.30
1	E	3302	PRO	N-CA-CB	6.15	110.68	103.30
1	G	858	THR	N-CA-CB	6.15	121.99	110.30
1	G	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	C	3282	PRO	N-CA-CB	6.15	110.68	103.30
1	A	3696	ASP	CB-CG-OD2	-6.15	112.77	118.30
1	A	4985	LEU	CB-CG-CD1	-6.14	100.56	111.00
1	A	3302	PRO	N-CA-CB	6.12	110.65	103.30
1	C	3294	PRO	N-CA-CB	6.12	110.64	103.30
1	E	552	ASP	CB-CG-OD1	-6.11	112.80	118.30
1	E	3282	PRO	N-CA-CB	6.11	110.63	103.30
1	A	3282	PRO	N-CA-CB	6.11	110.63	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3519	PRO	N-CA-CB	6.11	110.63	103.30
1	E	3294	PRO	N-CA-CB	6.11	110.63	103.30
1	C	3302	PRO	N-CA-CB	6.11	110.63	103.30
1	G	3138	PRO	N-CA-CB	6.10	110.62	103.30
1	G	3351	PRO	N-CA-CB	6.09	110.61	103.30
1	A	3294	PRO	N-CA-CB	6.09	110.61	103.30
1	E	3519	PRO	N-CA-CB	6.08	110.59	103.30
1	E	4995	LEU	CB-CG-CD1	-6.08	100.67	111.00
1	G	3188	PRO	N-CA-CB	6.07	110.58	103.30
1	C	3021	PRO	N-CA-CB	6.06	110.57	103.30
1	E	4555	LEU	CB-CG-CD2	-6.06	100.70	111.00
1	G	3410	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3208	PRO	N-CA-CB	6.05	110.57	103.30
1	C	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	A	3208	PRO	N-CA-CB	6.05	110.56	103.30
1	E	3527	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3294	PRO	N-CA-CB	6.04	110.55	103.30
1	E	3021	PRO	N-CA-CB	6.04	110.55	103.30
1	G	3696	ASP	CB-CG-OD2	-6.04	112.87	118.30
1	G	4995	LEU	CB-CG-CD1	-6.03	100.75	111.00
1	C	280	LEU	CB-CG-CD1	-6.03	100.76	111.00
1	A	3527	PRO	N-CA-CB	6.02	110.52	103.30
1	G	2711	PRO	N-CA-CB	6.02	110.52	103.30
1	A	4555	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	A	3021	PRO	N-CA-CB	6.00	110.50	103.30
1	A	280	LEU	CB-CG-CD1	-6.00	100.81	111.00
1	E	280	LEU	CB-CG-CD1	-5.99	100.81	111.00
1	C	3527	PRO	N-CA-CB	5.97	110.47	103.30
1	C	4995	LEU	CB-CG-CD1	-5.94	100.90	111.00
1	E	3696	ASP	CB-CG-OD2	-5.94	112.96	118.30
1	G	3567	PRO	N-CA-CB	5.93	110.42	103.30
1	G	280	LEU	CB-CG-CD1	-5.93	100.92	111.00
1	C	4555	LEU	CB-CG-CD2	-5.92	100.93	111.00
1	G	4985	LEU	CA-CB-CG	5.91	128.90	115.30
1	G	3085	PRO	N-CA-CB	5.88	110.35	103.30
1	A	4995	LEU	CB-CG-CD1	-5.87	101.03	111.00
1	G	3301	PRO	N-CA-CB	5.87	110.34	103.30
1	C	3301	PRO	N-CA-CB	5.84	110.31	103.30
1	A	3085	PRO	N-CA-CB	5.83	110.30	103.30
1	E	3301	PRO	N-CA-CB	5.83	110.29	103.30
1	C	3696	ASP	CB-CG-OD2	-5.82	113.06	118.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	3085	PRO	N-CA-CB	5.82	110.28	103.30
1	A	3301	PRO	N-CA-CB	5.80	110.27	103.30
1	C	3085	PRO	N-CA-CB	5.79	110.24	103.30
1	A	3769	ARG	NE-CZ-NH2	-5.74	117.43	120.30
1	C	2567	PRO	N-CA-CB	5.72	110.16	103.30
1	A	3925	ARG	NE-CZ-NH2	-5.71	117.45	120.30
1	E	3769	ARG	NE-CZ-NH2	-5.70	117.45	120.30
1	A	2567	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2616	PRO	N-CA-CB	5.68	110.12	103.30
1	E	2567	PRO	N-CA-CB	5.67	110.11	103.30
1	G	2616	PRO	N-CA-CB	5.64	110.07	103.30
1	G	3208	PRO	N-CA-CB	5.64	110.07	103.30
1	G	2567	PRO	N-CA-CB	5.63	110.05	103.30
1	C	2616	PRO	N-CA-CB	5.62	110.04	103.30
1	C	2631	PRO	N-CA-CB	5.61	110.03	103.30
1	A	2616	PRO	N-CA-CB	5.61	110.03	103.30
1	C	3925	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	E	4860	ARG	NE-CZ-NH2	-5.60	117.50	120.30
1	G	4860	ARG	NE-CZ-NH2	-5.58	117.51	120.30
1	A	2631	PRO	N-CA-CB	5.56	109.97	103.30
1	E	2631	PRO	N-CA-CB	5.55	109.96	103.30
1	G	2631	PRO	N-CA-CB	5.54	109.95	103.30
1	E	32	GLN	N-CA-CB	5.53	120.55	110.60
1	C	3769	ARG	NE-CZ-NH2	-5.52	117.54	120.30
1	A	32	GLN	N-CA-CB	5.51	120.52	110.60
1	C	3849	ARG	NE-CZ-NH1	5.49	123.04	120.30
1	C	32	GLN	N-CA-CB	5.48	120.47	110.60
1	E	2174	GLU	OE1-CD-OE2	-5.47	116.73	123.30
1	E	3925	ARG	NE-CZ-NH2	-5.47	117.57	120.30
1	G	32	GLN	N-CA-CB	5.47	120.44	110.60
1	G	3427	PRO	N-CA-CB	5.47	109.86	103.30
1	C	2658	PRO	N-CA-CB	5.43	109.82	103.30
1	G	4183	ILE	CG1-CB-CG2	-5.43	99.46	111.40
1	C	2712	PRO	N-CA-CB	5.42	109.81	103.30
1	G	2250	MET	CG-SD-CE	-5.42	91.53	100.20
1	E	2712	PRO	N-CA-CB	5.42	109.80	103.30
1	C	2174	GLU	OE1-CD-OE2	-5.41	116.81	123.30
1	A	4943	LEU	CB-CG-CD2	-5.41	101.80	111.00
1	G	2658	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2712	PRO	N-CA-CB	5.41	109.79	103.30
1	G	2174	GLU	OE1-CD-OE2	-5.40	116.82	123.30
1	C	4860	ARG	NE-CZ-NH2	-5.40	117.60	120.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	2712	PRO	N-CA-CB	5.39	109.77	103.30
1	A	2174	GLU	OE1-CD-OE2	-5.37	116.85	123.30
1	A	2658	PRO	N-CA-CB	5.37	109.74	103.30
1	A	3849	ARG	NE-CZ-NH1	5.36	122.98	120.30
1	E	2658	PRO	N-CA-CB	5.36	109.73	103.30
1	E	3849	ARG	NE-CZ-NH1	5.35	122.98	120.30
1	A	2250	MET	CG-SD-CE	-5.35	91.65	100.20
1	A	4860	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	C	2250	MET	CG-SD-CE	-5.34	91.65	100.20
1	C	2359	ARG	NE-CZ-NH2	-5.34	117.63	120.30
1	G	4166	LEU	CA-CB-CG	5.33	127.56	115.30
1	E	131	LEU	CA-CB-CG	5.31	127.52	115.30
1	E	2250	MET	CG-SD-CE	-5.31	91.71	100.20
1	G	3835	LEU	CB-CG-CD1	-5.31	101.98	111.00
1	A	131	LEU	CA-CB-CG	5.30	127.50	115.30
1	A	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	E	280	LEU	CB-CG-CD2	5.29	120.00	111.00
1	C	280	LEU	CB-CG-CD2	5.27	119.96	111.00
1	C	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	G	131	LEU	CA-CB-CG	5.25	127.39	115.30
1	E	4943	LEU	CB-CG-CD2	-5.21	102.14	111.00
1	A	3887	PHE	CG-CD2-CE2	-5.20	115.08	120.80
1	C	4563	ARG	NE-CZ-NH1	-5.20	117.70	120.30
1	E	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	G	1226	PHE	N-CA-CB	-5.19	101.26	110.60
1	E	2258	LEU	CB-CG-CD1	5.18	119.81	111.00
1	C	4180	ARG	NE-CZ-NH2	-5.18	117.71	120.30
1	C	1226	PHE	N-CA-CB	-5.17	101.30	110.60
1	G	3984	ARG	NE-CZ-NH1	-5.17	117.72	120.30
1	E	4180	ARG	NE-CZ-NH2	-5.17	117.72	120.30
1	C	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	E	3887	PHE	CG-CD2-CE2	-5.15	115.13	120.80
1	A	1226	PHE	N-CA-CB	-5.14	101.35	110.60
1	A	3427	PRO	N-CA-CB	5.14	109.47	103.30
1	A	3811	GLU	CA-CB-CG	5.14	124.71	113.40
1	A	3965	LEU	CB-CG-CD2	-5.14	102.27	111.00
1	E	4563	ARG	NE-CZ-NH1	-5.13	117.73	120.30
1	G	280	LEU	CB-CG-CD2	5.13	119.72	111.00
1	A	4180	ARG	NE-CZ-NH2	-5.13	117.73	120.30
1	C	3427	PRO	N-CA-CB	5.12	109.44	103.30
1	E	3427	PRO	N-CA-CB	5.11	109.43	103.30
1	C	4928	LEU	CB-CG-CD1	-5.11	102.31	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	2258	LEU	CB-CG-CD1	5.11	119.68	111.00
1	E	3965	LEU	CB-CG-CD2	-5.09	102.34	111.00
1	A	2258	LEU	CB-CG-CD1	5.09	119.66	111.00
1	A	4928	LEU	CB-CG-CD1	-5.09	102.34	111.00
1	G	1251	GLU	N-CA-C	5.08	124.73	111.00
1	A	4858	PHE	CB-CG-CD1	5.07	124.35	120.80
1	C	2258	LEU	CB-CG-CD1	5.06	119.61	111.00
1	E	4048	LEU	CB-CG-CD2	5.06	119.60	111.00
1	A	3884	LEU	CB-CG-CD1	5.06	119.60	111.00
1	A	1251	GLU	N-CA-C	5.06	124.65	111.00
1	A	4048	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	4943	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1251	GLU	N-CA-C	5.03	124.59	111.00
1	C	1251	GLU	N-CA-C	5.02	124.55	111.00
1	A	4563	ARG	NE-CZ-NH1	-5.01	117.79	120.30
1	C	195	PHE	CB-CG-CD2	-5.01	117.29	120.80
1	G	3923	LEU	CB-CG-CD1	-5.01	102.48	111.00
1	A	3780	LEU	CB-CG-CD2	-5.00	102.49	111.00

There are no chirality outliers.

All (67) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1187	GLY	Mainchain,Peptide
1	A	1250	PRO	Mainchain,Peptide
1	A	1253	PRO	Peptide
1	A	1588	ALA	Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	31	GLU	Mainchain,Peptide
1	A	322	LYS	Peptide
1	A	3694	LYS	Peptide
1	A	841	GLY	Mainchain,Peptide
1	A	857	ASP	Mainchain,Peptide
1	C	1187	GLY	Mainchain,Peptide
1	C	1250	PRO	Mainchain,Peptide
1	C	1253	PRO	Peptide
1	C	1588	ALA	Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	31	GLU	Mainchain,Peptide
1	C	322	LYS	Peptide

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Mol	Chain	Res	Type	Group
1	C	3694	LYS	Peptide
1	C	841	GLY	Mainchain,Peptide
1	C	857	ASP	Mainchain,Peptide
1	E	1187	GLY	Mainchain,Peptide
1	E	1250	PRO	Mainchain,Peptide
1	E	1253	PRO	Peptide
1	E	1588	ALA	Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	31	GLU	Mainchain,Peptide
1	E	322	LYS	Peptide
1	E	3694	LYS	Peptide
1	E	841	GLY	Mainchain,Peptide
1	E	857	ASP	Mainchain,Peptide
1	G	1187	GLY	Mainchain,Peptide
1	G	1250	PRO	Mainchain,Peptide
1	G	1253	PRO	Peptide
1	G	1588	ALA	Peptide
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	31	GLU	Mainchain,Peptide
1	G	322	LYS	Peptide
1	G	841	GLY	Mainchain,Peptide
1	G	857	ASP	Mainchain,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	26926	0	24467	1003	0
1	C	26926	0	24467	1022	0
1	E	26926	0	24467	1004	0
1	G	26926	0	24467	952	0
2	B	832	0	831	41	0
2	D	832	0	831	41	0
2	F	832	0	831	41	0
2	H	832	0	831	40	0
3	A	1	0	0	0	0

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Mol	Chain	Non-H	H(model)	H(added)	Clashes	Symm-Clashes
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111036	0	101192	3945	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 (3945) 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:G:1808:ARG:NH1	1:G:1858:ASP:OD2	1.79	1.16
1:E:1808:ARG:NH1	1:E:1858:ASP:OD2	1.79	1.16
1:C:1808:ARG:NH1	1:C:1858:ASP:OD2	1.79	1.15
1:A:1808:ARG:NH1	1:A:1858:ASP:OD2	1.79	1.14
1:A:1243:PRO:HD2	1:A:1458:HIS:HB3	1.20	1.10
1:G:1243:PRO:HD2	1:G:1458:HIS:CB	1.83	1.06
1:G:1243:PRO:CD	1:G:1458:HIS:HB3	1.85	1.05
1:C:1243:PRO:HD2	1:C:1458:HIS:HB3	1.10	1.04
1:A:683:ARG:NH1	1:A:705:ASN:O	1.97	0.97
1:C:1243:PRO:HD2	1:C:1458:HIS:CB	1.94	0.97
1:E:683:ARG:NH1	1:E:705:ASN:O	1.98	0.97
1:C:683:ARG:NH1	1:C:705:ASN:O	1.98	0.96
1:G:683:ARG:NH1	1:G:705:ASN:O	1.98	0.96
1:G:1243:PRO:HD2	1:G:1458:HIS:HB3	0.98	0.95
1:C:1243:PRO:CD	1:C:1458:HIS:HB3	1.96	0.95
1:E:1699:GLU:OE2	1:E:1810:LYS:NZ	2.01	0.94
1:C:1699:GLU:OE2	1:C:1810:LYS:NZ	2.01	0.93
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.50	0.93
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.51	0.92
1:G:1699:GLU:OE2	1:G:1810:LYS:NZ	2.01	0.92
1:A:1699:GLU:OE2	1:A:1810:LYS:NZ	2.01	0.92
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.52	0.90
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.51	0.89
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.56	0.88
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.56	0.88
1:E:4836:GLN:HB3	1:G:4826:ILE:HD11	1.56	0.87
1:A:1243:PRO:HD2	1:A:1458:HIS:CB	2.04	0.87
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.56	0.86
1:E:737:LEU:HD11	2:F:7:ILE:HG22	1.58	0.85
1:C:737:LEU:HD11	2:D:7:ILE:HG22	1.58	0.85

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:674:PHE:HB3	2:H:40:ARG:NH1	1.92	0.85
1:A:737:LEU:HD11	2:B:7:ILE:HG22	1.58	0.85
1:E:1243:PRO:HD2	1:E:1458:HIS:HB3	1.59	0.85
1:A:830:ARG:NH1	1:A:1616:GLU:OE2	2.10	0.85
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.58	0.85
1:A:4937:ILE:HD11	1:G:4934:GLY:CA	2.07	0.84
1:G:737:LEU:HD11	2:H:7:ILE:HG22	1.60	0.84
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.58	0.84
1:E:4839:MET:HG3	1:G:4822:THR:HG21	1.60	0.84
1:E:25:SER:OG	1:E:34:LYS:NZ	2.11	0.83
1:C:25:SER:OG	1:C:34:LYS:NZ	2.11	0.83
1:A:1243:PRO:CD	1:A:1458:HIS:HB3	2.05	0.83
1:E:830:ARG:NH1	1:E:1616:GLU:OE2	2.09	0.83
1:C:830:ARG:NH1	1:C:1616:GLU:OE2	2.10	0.83
1:G:830:ARG:NH1	1:G:1616:GLU:OE2	2.10	0.83
1:A:1024:TYR:O	1:A:1032:LYS:NZ	2.12	0.83
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.58	0.83
1:G:25:SER:OG	1:G:34:LYS:NZ	2.11	0.83
1:A:2358:ILE:HG23	1:G:195:PHE:CE1	2.14	0.82
1:A:25:SER:OG	1:A:34:LYS:NZ	2.11	0.82
1:C:1092:PHE:HB3	1:C:1149:VAL:HB	1.60	0.82
1:E:195:PHE:CE1	1:G:2358:ILE:HG23	2.14	0.82
1:G:1024:TYR:O	1:G:1032:LYS:NZ	2.12	0.82
1:G:1092:PHE:HB3	1:G:1149:VAL:HB	1.60	0.82
1:E:1024:TYR:O	1:E:1032:LYS:NZ	2.12	0.82
1:C:1024:TYR:O	1:C:1032:LYS:NZ	2.12	0.82
1:E:1092:PHE:HB3	1:E:1149:VAL:HB	1.60	0.82
1:C:195:PHE:CE1	1:E:2358:ILE:HG23	2.14	0.81
1:A:195:PHE:CE1	1:C:2358:ILE:HG23	2.14	0.81
1:C:674:PHE:HB3	2:D:40:ARG:NH1	1.94	0.81
1:E:76:ARG:NH1	1:G:3936:TYR:HA	1.96	0.81
1:E:674:PHE:HB3	2:F:40:ARG:NH1	1.94	0.81
1:A:674:PHE:HB3	2:B:40:ARG:NH1	1.95	0.81
1:A:1092:PHE:HB3	1:A:1149:VAL:HB	1.60	0.81
1:C:4056:GLU:HG3	1:C:4166:LEU:HD21	1.63	0.81
1:A:4056:GLU:HG3	1:A:4166:LEU:HD21	1.63	0.80
1:A:2358:ILE:HG23	1:G:195:PHE:CD1	2.17	0.80
1:G:4861:LYS:HZ1	1:G:4909:TYR:HD2	1.27	0.80
1:A:4934:GLY:HA3	1:C:4937:ILE:CD1	2.12	0.80
1:G:1780:PRO:HG2	2:H:42:ARG:HE	1.47	0.80
1:E:4056:GLU:HG3	1:E:4166:LEU:HD21	1.63	0.80

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:76:ARG:NH1	1:C:3936:TYR:HA	1.97	0.80
2:B:14:THR:HG22	2:B:106:LEU:HD12	1.64	0.80
1:C:195:PHE:CD1	1:E:2358:ILE:HG23	2.17	0.80
1:A:3936:TYR:HA	1:G:76:ARG:NH1	1.97	0.80
1:A:195:PHE:CD1	1:C:2358:ILE:HG23	2.16	0.80
1:A:1780:PRO:HG2	2:B:42:ARG:HE	1.47	0.79
1:C:706:GLY:H	1:C:711:LEU:HD13	1.47	0.79
2:F:14:THR:HG22	2:F:106:LEU:HD12	1.64	0.79
1:G:103:TYR:OH	1:G:167:ASP:OD2	2.00	0.79
1:C:76:ARG:NH1	1:E:3936:TYR:HA	1.98	0.79
1:E:4843:LEU:HD11	1:G:4827:LEU:HD11	1.65	0.79
1:G:2893:GLU:OE2	1:G:2897:LYS:NZ	2.15	0.79
1:A:706:GLY:H	1:A:711:LEU:HD13	1.47	0.79
1:E:103:TYR:OH	1:E:167:ASP:OD2	2.01	0.79
1:A:103:TYR:OH	1:A:167:ASP:OD2	2.00	0.78
1:E:195:PHE:CD1	1:G:2358:ILE:HG23	2.17	0.78
2:D:14:THR:HG22	2:D:106:LEU:HD12	1.64	0.78
1:E:2128:TYR:OH	1:E:3676:ASP:OD2	2.00	0.78
1:C:1780:PRO:HG2	2:D:42:ARG:HE	1.47	0.78
1:E:706:GLY:H	1:E:711:LEU:HD13	1.48	0.78
1:E:3903:LEU:HD22	1:E:3915:ILE:HD12	1.66	0.78
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.63	0.78
1:C:103:TYR:OH	1:C:167:ASP:OD2	2.00	0.77
1:G:1781:CYS:HG	2:H:46:PHE:HE1	1.30	0.77
1:A:3903:LEU:HD22	1:A:3915:ILE:HD12	1.66	0.77
1:G:706:GLY:H	1:G:711:LEU:HD13	1.48	0.77
1:G:4027:LEU:HD22	1:G:4044:MET:HE1	1.66	0.77
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.67	0.77
1:G:465:GLN:HE21	1:G:3711:THR:HA	1.50	0.77
1:G:3903:LEU:HD22	1:G:3915:ILE:HD12	1.67	0.77
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.67	0.76
1:C:2128:TYR:OH	1:C:3676:ASP:OD2	2.02	0.76
1:E:1780:PRO:HG2	2:F:42:ARG:HE	1.47	0.76
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.67	0.76
1:E:4849:TYR:OH	1:G:4574:ASN:HB3	1.86	0.76
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.68	0.76
1:C:3903:LEU:HD22	1:C:3915:ILE:HD12	1.66	0.75
1:C:4861:LYS:HZ1	1:C:4909:TYR:HD2	1.31	0.75
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.68	0.75
1:C:4934:GLY:HA2	1:E:4937:ILE:HD12	1.67	0.75
1:C:3948:LYS:HG3	1:C:4012:LEU:HD22	1.69	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2128:TYR:OH	1:A:3676:ASP:OD2	2.04	0.75
1:C:3958:ALA:HB3	1:C:4019:LEU:HD11	1.68	0.75
1:A:3948:LYS:HG3	1:A:4012:LEU:HD22	1.69	0.75
1:E:45:ARG:HG2	1:E:443:LEU:HD21	1.69	0.75
1:E:1115:LEU:HD12	1:E:1193:SER:HB2	1.69	0.75
1:A:3885:PHE:HE1	1:A:3919:THR:HG23	1.52	0.74
1:A:4839:MET:HG3	1:C:4822:THR:HG21	1.67	0.74
1:A:667:MET:SD	1:A:801:LYS:NZ	2.60	0.74
1:G:45:ARG:HG2	1:G:443:LEU:HD21	1.69	0.74
1:A:3958:ALA:HB3	1:A:4019:LEU:HD11	1.68	0.74
1:E:3948:LYS:HG3	1:E:4012:LEU:HD22	1.69	0.74
1:E:3958:ALA:HB3	1:E:4019:LEU:HD11	1.68	0.74
1:C:1115:LEU:HD12	1:C:1193:SER:HB2	1.69	0.74
1:C:3885:PHE:HE1	1:C:3919:THR:HG23	1.52	0.74
1:G:1115:LEU:HD12	1:G:1193:SER:HB2	1.69	0.74
1:A:1115:LEU:HD12	1:A:1193:SER:HB2	1.69	0.73
1:C:667:MET:SD	1:C:801:LYS:NZ	2.61	0.73
1:C:4138:ASP:O	1:C:4142:ASN:ND2	2.21	0.73
1:C:4839:MET:HG3	1:E:4822:THR:HG21	1.68	0.73
1:A:3996:PHE:HZ	1:A:4019:LEU:HD22	1.54	0.73
1:A:4934:GLY:HA2	1:C:4937:ILE:HD12	1.68	0.73
1:E:54:ASN:HB3	1:E:57:ASN:HB2	1.71	0.73
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.21	0.73
1:A:4138:ASP:O	1:A:4142:ASN:ND2	2.21	0.73
1:E:3996:PHE:HZ	1:E:4019:LEU:HD22	1.53	0.73
1:E:4138:ASP:O	1:E:4142:ASN:ND2	2.21	0.73
1:A:3936:TYR:HD1	1:G:76:ARG:HH22	1.37	0.73
1:C:3996:PHE:HZ	1:C:4019:LEU:HD22	1.53	0.73
1:A:4861:LYS:HZ1	1:A:4909:TYR:HD2	1.35	0.73
1:C:1927:LEU:HD11	1:C:2101:MET:HG2	1.71	0.73
1:G:3839:CYS:SG	1:G:3840:SER:N	2.60	0.73
2:H:14:THR:HG22	2:H:106:LEU:HD12	1.70	0.73
1:A:1927:LEU:HD11	1:A:2101:MET:HG2	1.71	0.73
1:A:54:ASN:HB3	1:A:57:ASN:HB2	1.70	0.73
1:G:172:VAL:HG22	1:G:179:TYR:HD1	1.54	0.73
1:A:45:ARG:HG2	1:A:443:LEU:HD21	1.69	0.72
1:C:45:ARG:HG2	1:C:443:LEU:HD21	1.69	0.72
1:E:76:ARG:HH22	1:G:3936:TYR:HD1	1.36	0.72
1:E:1723:ALA:HB1	1:E:1775:HIS:HD2	1.54	0.72
1:A:4934:GLY:CA	1:C:4937:ILE:HD12	2.19	0.72
1:C:54:ASN:HB3	1:C:57:ASN:HB2	1.71	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4226:GLY:HA2	1:C:4230:LYS:HD3	1.71	0.72
1:E:667:MET:SD	1:E:801:LYS:NZ	2.60	0.72
1:A:76:ARG:HH22	1:C:3936:TYR:HD1	1.37	0.72
1:C:76:ARG:HH22	1:E:3936:TYR:HD1	1.37	0.72
1:E:172:VAL:HG22	1:E:179:TYR:HD1	1.55	0.72
1:G:1927:LEU:HD11	1:G:2101:MET:HG2	1.71	0.72
1:A:4888:TYR:CE1	1:G:4917:ASP:OD2	2.43	0.72
1:C:3839:CYS:SG	1:C:3840:SER:N	2.63	0.72
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.55	0.72
1:E:1927:LEU:HD11	1:E:2101:MET:HG2	1.71	0.72
1:G:4983:HIS:HD1	1:G:4988:TYR:HH	1.34	0.72
1:A:1723:ALA:HB1	1:A:1775:HIS:HD2	1.55	0.71
1:C:313:SER:O	1:C:350:HIS:ND1	2.23	0.71
1:C:1723:ALA:HB1	1:C:1775:HIS:HD2	1.55	0.71
1:C:4983:HIS:HD1	1:C:4988:TYR:HH	1.34	0.71
1:A:317:ARG:NH1	1:A:349:GLN:OE1	2.23	0.71
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.23	0.71
1:E:2233:CYS:HG	1:E:2271:THR:N	1.87	0.71
1:E:3885:PHE:HE1	1:E:3919:THR:HG23	1.52	0.71
1:A:235:ALA:O	1:A:238:SER:OG	2.07	0.71
1:E:1715:LEU:HD22	1:E:1844:LEU:HD11	1.72	0.71
1:G:235:ALA:O	1:G:238:SER:OG	2.07	0.71
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.56	0.71
1:C:317:ARG:NH1	1:C:349:GLN:OE1	2.23	0.71
1:A:313:SER:O	1:A:350:HIS:ND1	2.23	0.71
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.55	0.71
1:C:172:VAL:HG22	1:C:179:TYR:HD1	1.55	0.71
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.23	0.71
1:E:313:SER:O	1:E:350:HIS:ND1	2.23	0.71
1:G:4658:ILE:HG22	1:G:4792:LEU:HB3	1.73	0.71
1:A:1715:LEU:HD22	1:A:1844:LEU:HD11	1.73	0.71
1:C:1715:LEU:HD22	1:C:1844:LEU:HD11	1.72	0.71
1:E:317:ARG:NH1	1:E:349:GLN:OE1	2.23	0.71
1:G:2233:CYS:HG	1:G:2271:THR:N	1.89	0.71
1:G:4984:ASN:O	1:G:4986:ALA:N	2.22	0.71
1:A:172:VAL:HG22	1:A:179:TYR:HD1	1.54	0.71
1:E:829:TYR:OH	1:E:1612:PHE:O	2.07	0.71
1:E:4226:GLY:HA2	1:E:4230:LYS:HD3	1.71	0.71
1:G:317:ARG:NH1	1:G:349:GLN:OE1	2.23	0.71
1:G:835:ARG:HH12	1:G:1211:LEU:HD21	1.56	0.71
1:A:3839:CYS:SG	1:A:3840:SER:N	2.63	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:106:ALA:HA	1:C:149:THR:HA	1.73	0.70
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.73	0.70
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.37	0.70
1:E:3839:CYS:SG	1:E:3840:SER:N	2.63	0.70
1:G:1715:LEU:HD22	1:G:1844:LEU:HD11	1.72	0.70
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.24	0.70
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.73	0.70
1:E:697:GLY:HA3	1:E:1613:LEU:HD11	1.73	0.70
1:G:54:ASN:HB3	1:G:57:ASN:HB2	1.71	0.70
1:G:667:MET:SD	1:G:801:LYS:NZ	2.61	0.70
1:G:4837:LEU:HD11	1:G:4932:ILE:HG23	1.72	0.70
1:G:1704:PRO:HG2	1:G:1707:LEU:HD12	1.73	0.70
1:E:4861:LYS:HZ1	1:E:4909:TYR:HD2	1.38	0.70
1:A:4226:GLY:HA2	1:A:4230:LYS:HD3	1.71	0.70
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.56	0.70
1:C:4555:LEU:HD11	1:C:4656:LEU:HB2	1.73	0.70
1:A:4555:LEU:HD11	1:A:4656:LEU:HB2	1.73	0.70
1:C:3901:ASN:OD1	1:C:3904:ARG:NH1	2.17	0.70
1:E:106:ALA:HA	1:E:149:THR:HA	1.72	0.70
1:G:106:ALA:HA	1:G:149:THR:HA	1.73	0.70
1:E:835:ARG:HH12	1:E:1211:LEU:HD21	1.57	0.70
1:G:1723:ALA:HB1	1:G:1775:HIS:HD2	1.55	0.70
1:E:1802:ILE:HD12	1:E:1807:LEU:HD13	1.74	0.69
1:E:4860:ARG:NH2	1:G:4582:VAL:HB	2.07	0.69
1:A:465:GLN:HE21	1:A:3711:THR:HA	1.57	0.69
1:C:697:GLY:HA3	1:C:1613:LEU:HD11	1.72	0.69
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.73	0.69
1:C:835:ARG:HH12	1:C:1211:LEU:HD21	1.57	0.69
1:G:1154:ASP:HB2	1:G:1159:THR:HB	1.74	0.69
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.74	0.69
1:A:835:ARG:HH12	1:A:1211:LEU:HD21	1.57	0.69
1:A:4937:ILE:HD11	1:G:4934:GLY:HA3	1.72	0.69
1:E:235:ALA:O	1:E:238:SER:OG	2.07	0.69
1:A:697:GLY:HA3	1:A:1613:LEU:HD11	1.73	0.69
1:A:1154:ASP:HB2	1:A:1159:THR:HB	1.74	0.69
1:A:2233:CYS:HG	1:A:2271:THR:N	1.89	0.69
1:C:2166:LEU:HD12	1:C:2206:THR:HG23	1.74	0.69
1:E:4555:LEU:HD11	1:E:4656:LEU:HB2	1.73	0.69
1:G:313:SER:O	1:G:350:HIS:ND1	2.23	0.69
1:G:1637:MET:HG3	1:G:1650:ILE:HD12	1.74	0.69
1:C:4934:GLY:CA	1:E:4937:ILE:CD1	2.69	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3835:LEU:HD11	1:E:3884:LEU:HD13	1.75	0.69
1:G:2158:CYS:SG	1:G:2184:ASN:ND2	2.63	0.69
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.75	0.69
1:C:595:ARG:NH2	1:C:631:LEU:O	2.25	0.69
1:G:697:GLY:HA3	1:G:1613:LEU:HD11	1.73	0.69
1:A:106:ALA:HA	1:A:149:THR:HA	1.73	0.69
1:A:168:ASP:OD1	1:A:201:ASN:ND2	2.25	0.69
1:A:215:THR:HG22	1:A:273:HIS:HA	1.75	0.69
1:A:1673:VAL:HG12	1:A:1681:VAL:HG11	1.75	0.69
1:C:235:ALA:O	1:C:238:SER:OG	2.07	0.69
1:E:4708:THR:HG22	1:E:4710:SER:H	1.58	0.69
1:G:634:GLN:HB3	1:G:1640:HIS:CE1	2.28	0.69
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.75	0.69
1:G:3980:LEU:HD21	1:G:3985:LEU:HD22	1.75	0.69
1:G:4682:GLU:OE2	1:G:4723:LYS:NZ	2.25	0.69
1:G:4708:THR:O	1:G:4721:LYS:NZ	2.26	0.69
1:A:825:PRO:HD3	1:A:1619:ARG:HH11	1.58	0.69
1:C:825:PRO:HD3	1:C:1619:ARG:HH11	1.58	0.69
1:C:829:TYR:OH	1:C:1612:PHE:O	2.07	0.69
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.75	0.69
1:E:1154:ASP:HB2	1:E:1159:THR:HB	1.74	0.69
1:A:143:GLY:O	1:A:145:ALA:N	2.26	0.69
1:A:634:GLN:HB3	1:A:1640:HIS:CE1	2.28	0.69
1:A:3835:LEU:HD11	1:A:3884:LEU:HD13	1.74	0.69
1:E:825:PRO:HD3	1:E:1619:ARG:HH11	1.58	0.69
1:E:4984:ASN:O	1:E:4986:ALA:N	2.26	0.69
1:G:168:ASP:OD1	1:G:201:ASN:ND2	2.25	0.69
1:G:595:ARG:NH2	1:G:631:LEU:O	2.26	0.69
1:G:825:PRO:HD3	1:G:1619:ARG:HH11	1.58	0.69
1:G:1673:VAL:HG12	1:G:1681:VAL:HG11	1.75	0.69
1:G:1802:ILE:HD12	1:G:1807:LEU:HD13	1.74	0.69
1:A:495:ASN:O	1:A:553:ARG:NH1	2.26	0.68
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.58	0.68
1:E:215:THR:HG22	1:E:273:HIS:HA	1.75	0.68
1:E:465:GLN:HE21	1:E:3711:THR:HA	1.57	0.68
1:A:3901:ASN:OD1	1:A:3904:ARG:NH1	2.16	0.68
1:A:4860:ARG:NH2	1:C:4582:VAL:HB	2.09	0.68
1:A:4934:GLY:CA	1:C:4937:ILE:CD1	2.70	0.68
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.76	0.68
1:C:168:ASP:OD1	1:C:201:ASN:ND2	2.25	0.68
1:C:215:THR:HG22	1:C:273:HIS:HA	1.75	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1673:VAL:HG12	1:C:1681:VAL:HG11	1.76	0.68
1:C:4983:HIS:ND1	1:C:4988:TYR:OH	2.26	0.68
1:E:595:ARG:NH2	1:E:631:LEU:O	2.26	0.68
1:E:634:GLN:HB3	1:E:1640:HIS:CE1	2.28	0.68
1:A:595:ARG:NH2	1:A:631:LEU:O	2.26	0.68
1:C:143:GLY:O	1:C:145:ALA:N	2.26	0.68
1:C:634:GLN:HB3	1:C:1640:HIS:CE1	2.28	0.68
1:G:215:THR:HG22	1:G:273:HIS:HA	1.75	0.68
1:G:2166:LEU:HD12	1:G:2206:THR:HG23	1.75	0.68
1:A:4708:THR:HG22	1:A:4710:SER:H	1.59	0.68
1:C:1802:ILE:HD12	1:C:1807:LEU:HD13	1.75	0.68
1:A:1802:ILE:HD12	1:A:1807:LEU:HD13	1.75	0.68
1:A:4937:ILE:HD11	1:G:4934:GLY:HA2	1.76	0.68
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.75	0.68
1:E:3817:LEU:HD11	1:E:3821:LYS:NZ	2.08	0.68
1:A:829:TYR:OH	1:A:1612:PHE:O	2.07	0.68
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.09	0.68
1:A:4983:HIS:HD1	1:A:4988:TYR:HH	1.41	0.68
1:C:465:GLN:HE21	1:C:3711:THR:HA	1.57	0.68
1:E:1673:VAL:HG12	1:E:1681:VAL:HG11	1.75	0.68
1:G:4983:HIS:ND1	1:G:4988:TYR:OH	2.25	0.68
1:C:495:ASN:O	1:C:553:ARG:NH1	2.27	0.68
1:E:1704:PRO:HG2	1:E:1707:LEU:HD12	1.76	0.68
1:E:2158:CYS:SG	1:E:2184:ASN:ND2	2.64	0.68
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.75	0.68
1:G:495:ASN:O	1:G:553:ARG:NH1	2.27	0.68
1:C:1154:ASP:HB2	1:C:1159:THR:HB	1.74	0.68
1:C:4934:GLY:HA3	1:E:4937:ILE:CD1	2.24	0.68
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.75	0.68
1:A:2166:LEU:HD12	1:A:2206:THR:HG23	1.75	0.68
1:G:3948:LYS:HG3	1:G:4012:LEU:HD22	1.76	0.68
1:E:495:ASN:O	1:E:553:ARG:NH1	2.27	0.67
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.59	0.67
1:G:143:GLY:O	1:G:145:ALA:N	2.26	0.67
1:A:3817:LEU:HD11	1:A:3821:LYS:NZ	2.08	0.67
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.58	0.67
1:A:4984:ASN:O	1:A:4986:ALA:N	2.26	0.67
1:C:3817:LEU:HD11	1:C:3821:LYS:NZ	2.08	0.67
1:C:4837:LEU:HD11	1:C:4932:ILE:HG23	1.76	0.67
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.09	0.67
1:C:4984:ASN:O	1:C:4986:ALA:N	2.26	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4708:THR:HG22	1:G:4710:SER:H	1.60	0.67
1:A:4878:ASP:HA	1:C:4581:LYS:HB3	1.76	0.67
1:C:2233:CYS:HG	1:C:2271:THR:N	1.93	0.67
1:E:2166:LEU:HD12	1:E:2206:THR:HG23	1.75	0.67
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.10	0.67
1:A:320:LYS:NZ	1:A:382:GLY:O	2.27	0.67
1:C:1637:MET:HG3	1:C:1650:ILE:HD12	1.77	0.67
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.59	0.67
1:E:4983:HIS:ND1	1:E:4988:TYR:OH	2.26	0.67
1:G:320:LYS:NZ	1:G:382:GLY:O	2.27	0.67
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.77	0.67
1:E:1637:MET:HG3	1:E:1650:ILE:HD12	1.77	0.66
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.77	0.66
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.77	0.66
1:A:1704:PRO:HG2	1:A:1707:LEU:HD12	1.76	0.66
1:A:4582:VAL:HB	1:G:4860:ARG:NH2	2.10	0.66
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.60	0.66
1:A:23:GLN:HE21	1:A:34:LYS:HB3	1.61	0.66
1:A:2499:LYS:HD2	1:A:2553:TYR:HE1	1.61	0.66
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.10	0.66
1:E:3901:ASN:OD1	1:E:3904:ARG:NH1	2.17	0.66
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.61	0.66
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.77	0.66
1:C:320:LYS:NZ	1:C:382:GLY:O	2.27	0.66
1:C:4708:THR:HG22	1:C:4710:SER:H	1.59	0.66
1:C:4860:ARG:NH2	1:E:4582:VAL:HB	2.11	0.66
1:G:743:VAL:HG21	1:G:801:LYS:HD2	1.77	0.66
1:C:23:GLN:HE21	1:C:34:LYS:HB3	1.61	0.66
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.78	0.66
1:C:2499:LYS:HD2	1:C:2553:TYR:HE1	1.61	0.66
1:E:168:ASP:OD1	1:E:201:ASN:ND2	2.25	0.66
1:G:829:TYR:OH	1:G:1612:PHE:O	2.07	0.66
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.61	0.66
1:E:4914:VAL:HG13	1:G:4888:TYR:HD1	1.60	0.66
1:E:4983:HIS:HD1	1:E:4988:TYR:HH	1.40	0.66
1:G:4913:ARG:NH1	1:G:4917:ASP:HB2	2.09	0.66
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.77	0.66
1:G:595:ARG:HG2	1:G:1662:PHE:CZ	2.31	0.66
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.78	0.66
1:C:1704:PRO:HG2	1:C:1707:LEU:HD12	1.76	0.66
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.77	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4878:ASP:HA	1:G:4581:LYS:HB3	1.77	0.66
1:C:4656:LEU:HA	1:C:4659:ILE:HG22	1.78	0.66
1:E:2499:LYS:HD2	1:E:2553:TYR:HE1	1.61	0.66
1:E:4843:LEU:CD1	1:G:4827:LEU:HD11	2.26	0.66
1:E:143:GLY:O	1:E:145:ALA:N	2.26	0.65
1:E:320:LYS:NZ	1:E:382:GLY:O	2.27	0.65
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.60	0.65
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.78	0.65
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.78	0.65
1:G:4856:PHE:O	1:G:4860:ARG:NE	2.28	0.65
1:A:743:VAL:HG21	1:A:801:LYS:HD2	1.77	0.65
1:C:743:VAL:HG21	1:C:801:LYS:HD2	1.77	0.65
1:C:1648:MET:SD	1:C:1656:ARG:NH2	2.69	0.65
1:E:3893:GLU:HA	1:E:3967:GLU:OE2	1.96	0.65
1:G:3958:ALA:HB3	1:G:4019:LEU:HD11	1.77	0.65
1:A:595:ARG:HG2	1:A:1662:PHE:CZ	2.31	0.65
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.77	0.65
1:A:4837:LEU:HD11	1:A:4932:ILE:HG23	1.77	0.65
1:E:595:ARG:HG2	1:E:1662:PHE:CZ	2.31	0.65
1:E:4656:LEU:HA	1:E:4659:ILE:HG22	1.79	0.65
1:G:3423:TRP:O	1:G:3427:PRO:N	2.29	0.65
1:G:3817:LEU:HD11	1:G:3821:LYS:NZ	2.12	0.65
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.78	0.65
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.14	0.65
1:A:2158:CYS:SG	1:A:2184:ASN:ND2	2.64	0.65
1:A:4861:LYS:NZ	1:A:4909:TYR:HD2	1.94	0.65
1:C:627:PRO:HG3	2:D:89:GLY:C	2.17	0.65
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.77	0.65
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.77	0.65
1:C:3950:ASN:HA	1:C:3953:LYS:HD3	1.79	0.65
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.78	0.65
1:E:4917:ASP:OD2	1:G:4892:ARG:CZ	2.45	0.65
1:A:1455:PRO:HA	1:A:1549:PHE:HE2	1.61	0.65
1:A:3893:GLU:HA	1:A:3967:GLU:OE2	1.96	0.65
1:E:743:VAL:HG21	1:E:801:LYS:HD2	1.78	0.65
1:G:1648:MET:SD	1:G:1656:ARG:NH2	2.70	0.65
1:A:1637:MET:HG3	1:A:1650:ILE:HD12	1.77	0.65
1:A:1648:MET:SD	1:A:1656:ARG:NH2	2.69	0.65
1:C:1455:PRO:HA	1:C:1549:PHE:HE2	1.60	0.65
1:A:4656:LEU:HA	1:A:4659:ILE:HG22	1.79	0.65
1:E:3950:ASN:HA	1:E:3953:LYS:HD3	1.79	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:728:ARG:NH2	1:G:1487:LEU:O	2.30	0.65
1:G:2499:LYS:HD2	1:G:2553:TYR:HE1	1.61	0.65
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.78	0.65
1:A:3878:ASP:OD2	1:A:3953:LYS:HB3	1.97	0.64
1:C:4878:ASP:HA	1:E:4581:LYS:HB3	1.79	0.64
1:E:475:GLN:NE2	1:E:528:SER:O	2.30	0.64
1:C:3835:LEU:HD11	1:C:3884:LEU:HD13	1.77	0.64
1:C:3893:GLU:HA	1:C:3967:GLU:OE2	1.96	0.64
1:G:736:HIS:HE2	1:G:739:ALA:HB2	1.62	0.64
1:C:728:ARG:NH2	1:C:1487:LEU:O	2.30	0.64
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.78	0.64
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.77	0.64
1:E:4861:LYS:NZ	1:E:4909:TYR:HD2	1.95	0.64
1:C:595:ARG:HG2	1:C:1662:PHE:CZ	2.31	0.64
1:E:539:LEU:O	1:E:543:ASN:ND2	2.31	0.64
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.78	0.64
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.79	0.64
1:G:4172:GLU:HA	1:G:4175:ARG:NH1	2.12	0.64
1:A:3950:ASN:HA	1:A:3953:LYS:HD3	1.79	0.64
1:C:162:LYS:NZ	1:E:4050:GLU:OE2	2.31	0.64
1:C:539:LEU:O	1:C:543:ASN:ND2	2.29	0.64
1:C:4821:LYS:HD2	1:C:4824:ARG:HH21	1.63	0.64
1:C:4861:LYS:NZ	1:C:4909:TYR:HD2	1.95	0.64
1:E:627:PRO:HG3	2:F:89:GLY:C	2.18	0.64
1:E:1648:MET:SD	1:E:1656:ARG:NH2	2.70	0.64
1:G:4913:ARG:HH12	1:G:4917:ASP:HB2	1.63	0.64
1:E:728:ARG:NH2	1:E:1487:LEU:O	2.30	0.64
1:G:627:PRO:HG3	2:H:89:GLY:C	2.18	0.64
1:A:539:LEU:O	1:A:543:ASN:ND2	2.30	0.64
1:C:2158:CYS:SG	1:C:2184:ASN:ND2	2.63	0.64
1:E:4837:LEU:HD11	1:E:4932:ILE:HG23	1.79	0.64
1:G:23:GLN:HE21	1:G:34:LYS:HB3	1.61	0.64
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.30	0.64
1:E:23:GLN:HE21	1:E:34:LYS:HB3	1.61	0.64
1:G:1455:PRO:HA	1:G:1549:PHE:HE2	1.61	0.64
1:G:1667:LEU:HD23	1:G:1710:GLY:HA3	1.80	0.64
1:E:4934:GLY:HA2	1:G:4937:ILE:HD12	1.80	0.63
1:G:1075:PHE:HB2	1:G:1192:CYS:HB3	1.80	0.63
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.80	0.63
1:A:1667:LEU:HD23	1:A:1710:GLY:HA3	1.80	0.63
1:E:1243:PRO:HD2	1:E:1458:HIS:CB	2.25	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1235:THR:HA	1:G:1612:PHE:HE1	1.63	0.63
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.78	0.63
1:A:627:PRO:HG3	2:B:89:GLY:C	2.18	0.63
1:A:1235:THR:HA	1:A:1612:PHE:HE1	1.63	0.63
1:C:993:HIS:HE1	1:C:1020:ARG:HB3	1.62	0.63
1:C:1077:ALA:HB3	1:C:1189:LEU:HB3	1.80	0.63
1:G:1115:LEU:O	1:G:1132:TRP:NE1	2.31	0.63
1:G:3893:GLU:HA	1:G:3967:GLU:OE2	1.99	0.63
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.78	0.63
1:G:669:ASP:OD2	1:G:790:ARG:HG2	1.98	0.63
1:G:3885:PHE:CE1	1:G:3919:THR:HG23	2.33	0.63
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.80	0.63
1:C:4680:LYS:HD3	1:C:4686:LEU:HD21	1.81	0.63
1:E:3878:ASP:OD2	1:E:3953:LYS:HB3	1.98	0.63
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.81	0.63
1:A:475:GLN:NE2	1:A:528:SER:O	2.30	0.63
1:A:669:ASP:OD2	1:A:790:ARG:HG2	1.98	0.63
1:A:1089:TYR:HD1	1:A:1152:MET:HG2	1.64	0.63
1:A:4691:GLN:HB2	1:A:4703:ARG:HH22	1.63	0.63
1:C:475:GLN:NE2	1:C:528:SER:O	2.31	0.63
1:G:4868:ASP:OD1	1:G:4869:GLU:N	2.31	0.63
1:A:1075:PHE:HB2	1:A:1192:CYS:HB3	1.81	0.63
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.64	0.63
1:C:1667:LEU:HD23	1:C:1710:GLY:HA3	1.80	0.63
2:D:23:VAL:HG22	2:D:47:LYS:HG2	1.80	0.63
1:G:274:LEU:HD12	1:G:278:GLN:HE21	1.64	0.63
1:G:475:GLN:NE2	1:G:528:SER:O	2.31	0.63
1:G:569:ILE:HG23	1:G:570:GLU:HG2	1.81	0.63
1:A:569:ILE:HG23	1:A:570:GLU:HG2	1.81	0.63
1:C:4917:ASP:OD2	1:E:4892:ARG:CZ	2.46	0.63
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.32	0.63
1:G:168:ASP:HB3	1:G:199:LEU:HD22	1.80	0.63
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.64	0.63
1:A:168:ASP:HB3	1:A:199:LEU:HD22	1.81	0.63
1:A:728:ARG:NH2	1:A:1487:LEU:O	2.30	0.63
1:C:4691:GLN:HB2	1:C:4703:ARG:HH22	1.63	0.63
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.80	0.63
1:E:4680:LYS:HD3	1:E:4686:LEU:HD21	1.81	0.63
1:E:4914:VAL:HG13	1:G:4888:TYR:CD1	2.34	0.63
1:A:993:HIS:HE1	1:A:1020:ARG:HB3	1.63	0.62
1:E:4868:ASP:OD1	1:E:4869:GLU:N	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:B:23:VAL:HG22	2:B:47:LYS:HG2	1.81	0.62
1:E:274:LEU:HD12	1:E:278:GLN:HE21	1.64	0.62
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.32	0.62
1:A:1077:ALA:HB3	1:A:1189:LEU:HB3	1.81	0.62
1:C:1235:THR:HA	1:C:1612:PHE:HE1	1.64	0.62
1:C:3878:ASP:OD2	1:C:3953:LYS:HB3	1.98	0.62
1:E:168:ASP:HB3	1:E:199:LEU:HD22	1.80	0.62
1:E:669:ASP:OD2	1:E:790:ARG:HG2	1.98	0.62
1:E:1235:THR:HA	1:E:1612:PHE:HE1	1.63	0.62
1:G:993:HIS:HE1	1:G:1020:ARG:HB3	1.62	0.62
1:G:3813:GLN:OE1	1:G:3896:ASN:ND2	2.32	0.62
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.80	0.62
1:A:4983:HIS:ND1	1:A:4988:TYR:OH	2.26	0.62
1:C:4934:GLY:HA2	1:E:4937:ILE:CD1	2.27	0.62
1:E:1455:PRO:HA	1:E:1549:PHE:HE2	1.62	0.62
1:G:1077:ALA:HB3	1:G:1189:LEU:HB3	1.80	0.62
1:A:4843:LEU:HD11	1:C:4827:LEU:HD11	1.82	0.62
1:C:1089:TYR:HD1	1:C:1152:MET:HG2	1.64	0.62
1:C:4239:GLU:HA	1:C:4242:ILE:HD12	1.82	0.62
1:E:993:HIS:HE1	1:E:1020:ARG:HB3	1.63	0.62
1:G:284:HIS:NE2	1:G:286:THR:OG1	2.32	0.62
1:A:4680:LYS:HD3	1:A:4686:LEU:HD21	1.81	0.62
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.81	0.62
1:E:284:HIS:NE2	1:E:286:THR:OG1	2.32	0.62
1:E:1115:LEU:O	1:E:1132:TRP:NE1	2.31	0.62
1:E:1667:LEU:HD23	1:E:1710:GLY:HA3	1.81	0.62
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.32	0.62
1:C:669:ASP:OD2	1:C:790:ARG:HG2	1.99	0.62
1:C:1115:LEU:O	1:C:1132:TRP:NE1	2.31	0.62
1:A:1109:LEU:HA	1:A:1120:LEU:HD13	1.82	0.62
1:E:1075:PHE:HB2	1:E:1192:CYS:HB3	1.81	0.62
1:E:4821:LYS:HD2	1:E:4824:ARG:HH21	1.62	0.62
1:G:539:LEU:O	1:G:543:ASN:ND2	2.30	0.62
1:A:274:LEU:HD12	1:A:278:GLN:HE21	1.63	0.62
1:A:1111:PRO:HB2	1:A:1607:ARG:HG3	1.82	0.62
1:C:172:VAL:HG22	1:C:179:TYR:CD1	2.34	0.62
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.33	0.62
1:C:4083:ASP:O	1:C:4085:ARG:N	2.33	0.62
1:E:69:LEU:HD13	1:E:101:LEU:HD11	1.82	0.62
1:G:1943:LEU:HD11	1:G:2098:VAL:HG22	1.81	0.62
1:A:1115:LEU:O	1:A:1132:TRP:NE1	2.31	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4239:GLU:HA	1:A:4242:ILE:HD12	1.82	0.61
1:C:284:HIS:NE2	1:C:286:THR:OG1	2.32	0.61
1:E:1077:ALA:HB3	1:E:1189:LEU:HB3	1.80	0.61
1:E:2133:GLU:HA	1:E:2136:ARG:HE	1.65	0.61
1:G:69:LEU:HD13	1:G:101:LEU:HD11	1.82	0.61
1:A:284:HIS:NE2	1:A:286:THR:OG1	2.32	0.61
1:A:3769:ARG:O	1:A:3773:ARG:NH1	2.33	0.61
1:A:3992:PHE:O	1:A:3996:PHE:N	2.30	0.61
1:C:623:GLU:OE2	2:D:89:GLY:N	2.33	0.61
1:E:1089:TYR:HD1	1:E:1152:MET:HG2	1.64	0.61
1:G:1089:TYR:HD1	1:G:1152:MET:HG2	1.64	0.61
1:C:168:ASP:HB3	1:C:199:LEU:HD22	1.80	0.61
1:E:623:GLU:OE2	2:F:89:GLY:N	2.34	0.61
1:E:4839:MET:O	1:G:4823:LEU:HD21	2.01	0.61
2:F:23:VAL:HG22	2:F:47:LYS:HG2	1.81	0.61
1:C:569:ILE:HG23	1:C:570:GLU:HG2	1.81	0.61
1:E:569:ILE:HG23	1:E:570:GLU:HG2	1.81	0.61
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.64	0.61
1:E:4083:ASP:O	1:E:4085:ARG:N	2.33	0.61
1:A:172:VAL:HG22	1:A:179:TYR:CD1	2.34	0.61
1:A:2358:ILE:CG2	1:G:195:PHE:CD1	2.83	0.61
1:A:4083:ASP:O	1:A:4085:ARG:N	2.33	0.61
1:C:1075:PHE:HB2	1:C:1192:CYS:HB3	1.81	0.61
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.39	0.61
1:C:274:LEU:HD12	1:C:278:GLN:HE21	1.64	0.61
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.64	0.61
1:C:4934:GLY:CA	1:E:4937:ILE:HD12	2.30	0.61
1:C:1111:PRO:HB2	1:C:1607:ARG:HG3	1.83	0.61
1:E:4691:GLN:HB2	1:E:4703:ARG:HH22	1.64	0.61
1:G:4083:ASP:O	1:G:4085:ARG:N	2.33	0.61
1:E:23:GLN:OE1	1:E:203:ASN:ND2	2.33	0.61
1:E:2248:ARG:HA	1:E:2251:PHE:HB3	1.83	0.61
1:G:4087:LEU:HG	1:G:4122:MET:HA	1.83	0.61
1:A:23:GLN:OE1	1:A:203:ASN:ND2	2.34	0.61
1:A:3767:GLN:HE22	1:A:3806:ASN:HB3	1.65	0.61
1:E:3769:ARG:O	1:E:3773:ARG:NH1	2.33	0.61
1:E:4239:GLU:HA	1:E:4242:ILE:HD12	1.82	0.61
1:A:688:LEU:HB2	1:A:775:GLY:HA3	1.83	0.61
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.36	0.61
1:C:69:LEU:HD13	1:C:101:LEU:HD11	1.82	0.61
1:C:195:PHE:CD1	1:E:2358:ILE:CG2	2.83	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3767:GLN:HE22	1:C:3806:ASN:HB3	1.64	0.61
1:C:3769:ARG:O	1:C:3773:ARG:NH1	2.32	0.61
1:E:347:PHE:HE1	1:E:387:ALA:HB2	1.65	0.61
1:G:1111:PRO:HB2	1:G:1607:ARG:HG3	1.83	0.61
1:G:2248:ARG:HA	1:G:2251:PHE:HB3	1.83	0.61
1:A:69:LEU:HD13	1:A:101:LEU:HD11	1.82	0.60
1:A:607:CYS:SG	1:A:1673:VAL:HA	2.41	0.60
1:E:1943:LEU:HD11	1:E:2098:VAL:HG22	1.83	0.60
1:A:2547:ALA:O	1:A:2550:LEU:HG	2.01	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.36	0.60
1:E:2547:ALA:O	1:E:2550:LEU:HG	2.02	0.60
1:G:172:VAL:HG22	1:G:179:TYR:CD1	2.34	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HB2	1.65	0.60
1:A:4867:GLU:HB2	1:A:4872:PRO:HG2	1.84	0.60
1:E:3767:GLN:HE22	1:E:3806:ASN:HB3	1.67	0.60
1:G:688:LEU:HB2	1:G:775:GLY:HA3	1.83	0.60
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.36	0.60
1:G:3878:ASP:OD2	1:G:3953:LYS:HB3	1.99	0.60
1:G:4112:LEU:HD22	1:G:4123:ILE:HD13	1.82	0.60
1:G:4867:GLU:HB2	1:G:4872:PRO:HG2	1.83	0.60
1:A:22:LEU:HD12	1:A:37:LEU:HD23	1.84	0.60
1:A:4050:GLU:OE2	1:G:162:LYS:NZ	2.31	0.60
1:A:4868:ASP:OD1	1:A:4869:GLU:N	2.31	0.60
1:C:607:CYS:SG	1:C:1673:VAL:HA	2.41	0.60
1:C:1943:LEU:HD11	1:C:2098:VAL:HG22	1.83	0.60
1:C:2547:ALA:O	1:C:2550:LEU:HG	2.02	0.60
1:E:172:VAL:HG22	1:E:179:TYR:CD1	2.34	0.60
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.36	0.60
1:E:4867:GLU:HB2	1:E:4872:PRO:HG2	1.84	0.60
1:G:2547:ALA:O	1:G:2550:LEU:HG	2.02	0.60
1:G:4861:LYS:NZ	1:G:4909:TYR:HD2	1.98	0.60
1:A:244:LEU:HD22	1:A:375:LYS:HZ1	1.67	0.60
1:C:76:ARG:CZ	1:E:3936:TYR:HA	2.32	0.60
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.83	0.60
1:E:317:ARG:HH22	1:E:322:LYS:HA	1.67	0.60
1:G:623:GLU:OE2	2:H:89:GLY:N	2.34	0.60
1:G:2450:ALA:O	1:G:2453:ILE:HG22	2.02	0.60
1:A:4856:PHE:O	1:A:4860:ARG:NE	2.33	0.60
1:C:22:LEU:HD12	1:C:37:LEU:HD23	1.84	0.60
1:C:768:PHE:HA	1:C:1474:VAL:HA	1.83	0.60
1:C:4843:LEU:HD11	1:E:4827:LEU:HD11	1.83	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1109:LEU:HA	1:G:1120:LEU:HD13	1.82	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HB2	1.65	0.60
1:A:623:GLU:OE2	2:B:89:GLY:N	2.34	0.60
1:C:317:ARG:HH22	1:C:322:LYS:HA	1.67	0.60
1:C:2450:ALA:O	1:C:2453:ILE:HG22	2.02	0.60
1:E:768:PHE:HA	1:E:1474:VAL:HA	1.83	0.60
1:G:23:GLN:OE1	1:G:203:ASN:ND2	2.34	0.60
1:G:607:CYS:SG	1:G:1673:VAL:HA	2.41	0.60
1:C:176:SER:HB2	1:C:178:ARG:HH21	1.67	0.60
1:C:1109:LEU:HA	1:C:1120:LEU:HD13	1.83	0.60
1:C:2248:ARG:HA	1:C:2251:PHE:HB3	1.83	0.60
1:E:607:CYS:SG	1:E:1673:VAL:HA	2.41	0.60
1:E:1083:VAL:O	1:E:1188:PHE:N	2.33	0.60
1:E:4909:TYR:O	1:E:4913:ARG:N	2.33	0.60
1:A:76:ARG:CZ	1:C:3936:TYR:HA	2.31	0.60
1:A:3936:TYR:HA	1:G:76:ARG:CZ	2.31	0.60
1:A:4917:ASP:OD2	1:C:4892:ARG:CZ	2.49	0.60
1:G:2136:ARG:HH11	1:G:3720:TYR:HE2	1.48	0.60
1:C:347:PHE:HE1	1:C:387:ALA:HB2	1.65	0.60
1:C:4839:MET:O	1:E:4823:LEU:HD21	2.02	0.60
1:C:4868:ASP:OD1	1:C:4869:GLU:N	2.32	0.60
1:E:1111:PRO:HB2	1:E:1607:ARG:HG3	1.83	0.60
1:E:2450:ALA:O	1:E:2453:ILE:HG22	2.02	0.60
1:G:176:SER:HB2	1:G:178:ARG:HH21	1.67	0.60
1:A:1083:VAL:O	1:A:1188:PHE:N	2.33	0.59
1:A:2248:ARG:HA	1:A:2251:PHE:HB3	1.83	0.59
1:A:4570:ALA:O	1:A:4574:ASN:ND2	2.33	0.59
1:E:22:LEU:HD12	1:E:37:LEU:HD23	1.83	0.59
1:A:1781:CYS:HG	2:B:46:PHE:HE1	1.43	0.59
1:A:3709:ALA:HB2	1:A:3782:MET:SD	2.42	0.59
1:A:4581:LYS:HB3	1:G:4878:ASP:HA	1.83	0.59
1:C:1808:ARG:HA	1:C:1848:LEU:HD21	1.84	0.59
1:G:768:PHE:HA	1:G:1474:VAL:HA	1.83	0.59
1:G:3914:ASN:ND2	1:G:3979:SER:OG	2.32	0.59
1:A:195:PHE:CD1	1:C:2358:ILE:CG2	2.84	0.59
1:A:4839:MET:O	1:C:4823:LEU:HD21	2.01	0.59
1:C:23:GLN:OE1	1:C:203:ASN:ND2	2.34	0.59
1:C:4867:GLU:HB2	1:C:4872:PRO:HG2	1.84	0.59
1:C:4871:GLU:HB2	1:C:4872:PRO:HD3	1.84	0.59
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.85	0.59
1:G:4815:ASP:O	1:G:4819:GLY:N	2.35	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1455:PRO:HA	1:A:1549:PHE:CE2	2.37	0.59
1:A:1943:LEU:HD11	1:A:2098:VAL:HG22	1.83	0.59
1:A:4871:GLU:HB2	1:A:4872:PRO:HD3	1.84	0.59
1:E:317:ARG:NH2	1:E:321:GLU:O	2.36	0.59
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.83	0.59
1:G:677:ALA:HA	2:H:40:ARG:HB3	1.83	0.59
1:G:830:ARG:HD3	1:G:1616:GLU:OE2	2.02	0.59
1:G:1257:VAL:HG12	1:G:1277:TRP:CH2	2.38	0.59
1:G:1781:CYS:SG	2:H:46:PHE:HE1	2.25	0.59
1:A:162:LYS:NZ	1:C:4050:GLU:OE2	2.33	0.59
1:A:4821:LYS:HD2	1:A:4824:ARG:HH21	1.66	0.59
1:C:317:ARG:NH2	1:C:321:GLU:O	2.36	0.59
1:E:4871:GLU:HB2	1:E:4872:PRO:HD3	1.85	0.59
1:A:317:ARG:NH2	1:A:321:GLU:O	2.36	0.59
1:A:2450:ALA:O	1:A:2453:ILE:HG22	2.02	0.59
1:A:4823:LEU:HD21	1:G:4839:MET:C	2.22	0.59
1:C:1083:VAL:O	1:C:1188:PHE:N	2.33	0.59
1:E:176:SER:HB2	1:E:178:ARG:HH21	1.67	0.59
1:E:195:PHE:CD1	1:G:2358:ILE:CG2	2.84	0.59
1:E:688:LEU:HB2	1:E:775:GLY:HA3	1.83	0.59
1:E:1220:GLN:NE2	1:G:3484:ALA:HB1	2.18	0.59
1:G:22:LEU:HD12	1:G:37:LEU:HD23	1.84	0.59
1:G:3995:VAL:HG13	1:G:3999:MET:HG3	1.85	0.59
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.85	0.59
1:C:533:ASN:HB3	1:C:536:ASN:HD22	1.68	0.59
1:C:821:LEU:O	1:C:1626:TRP:NE1	2.36	0.59
1:C:1220:GLN:NE2	1:E:3484:ALA:HB1	2.18	0.59
1:E:244:LEU:HD22	1:E:375:LYS:HZ1	1.68	0.59
1:E:4856:PHE:O	1:E:4860:ARG:NE	2.33	0.59
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.68	0.59
1:A:176:SER:HB2	1:A:178:ARG:HH21	1.67	0.59
1:A:317:ARG:HH22	1:A:322:LYS:HA	1.67	0.59
1:C:4035:VAL:HG12	1:C:4036:VAL:H	1.68	0.59
1:E:830:ARG:HD3	1:E:1616:GLU:OE2	2.03	0.59
1:E:1808:ARG:HA	1:E:1848:LEU:HD21	1.85	0.59
1:G:1808:ARG:HA	1:G:1848:LEU:HD21	1.85	0.59
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.30	0.59
1:A:4822:THR:HG21	1:G:4839:MET:HG3	1.83	0.59
1:C:688:LEU:HB2	1:C:775:GLY:HA3	1.83	0.59
1:C:830:ARG:HD3	1:C:1616:GLU:OE2	2.02	0.59
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.85	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4035:VAL:HG12	1:E:4036:VAL:H	1.67	0.59
1:G:4871:GLU:HB2	1:G:4872:PRO:HD3	1.85	0.59
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.12	0.59
1:C:1257:VAL:HG12	1:C:1277:TRP:CH2	2.38	0.59
1:C:3709:ALA:HB2	1:C:3782:MET:SD	2.42	0.59
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.85	0.58
1:A:636:ASN:OD1	1:A:637:LEU:N	2.36	0.58
1:A:4185:GLY:O	1:A:4187:SER:N	2.34	0.58
1:C:1455:PRO:HA	1:C:1549:PHE:CE2	2.37	0.58
1:G:2870:GLU:OE2	1:G:2939:ARG:NE	2.35	0.58
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.68	0.58
1:A:830:ARG:HD3	1:A:1616:GLU:OE2	2.02	0.58
1:A:1257:VAL:HG12	1:A:1277:TRP:CH2	2.38	0.58
1:C:617:ASN:O	1:C:621:ILE:HG12	2.03	0.58
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.36	0.58
1:C:4708:THR:HG22	1:C:4710:SER:N	2.18	0.58
1:E:636:ASN:OD1	1:E:637:LEU:N	2.36	0.58
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.58
1:G:636:ASN:OD1	1:G:637:LEU:N	2.36	0.58
1:G:1716:ILE:O	1:G:1721:GLU:N	2.36	0.58
1:A:1159:THR:HG23	1:A:1180:ARG:HG2	1.86	0.58
1:A:3885:PHE:CE1	1:A:3919:THR:HG23	2.36	0.58
1:C:636:ASN:OD1	1:C:637:LEU:N	2.37	0.58
1:E:3709:ALA:HB2	1:E:3782:MET:SD	2.42	0.58
1:E:4708:THR:HG23	1:E:4772:ASP:OD2	2.04	0.58
1:G:1455:PRO:HA	1:G:1549:PHE:CE2	2.37	0.58
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.84	0.58
1:A:3937:TYR:O	1:A:4002:LYS:NZ	2.36	0.58
1:E:4185:GLY:O	1:E:4187:SER:N	2.34	0.58
1:G:410:LEU:HD21	1:G:441:VAL:HA	1.86	0.58
1:G:533:ASN:HB3	1:G:536:ASN:HD22	1.68	0.58
1:A:233:ILE:O	1:A:257:ARG:NH2	2.37	0.58
1:A:410:LEU:HD21	1:A:441:VAL:HA	1.86	0.58
1:A:1220:GLN:NE2	1:C:3484:ALA:HB1	2.18	0.58
1:A:1808:ARG:HA	1:A:1848:LEU:HD21	1.85	0.58
1:A:3484:ALA:HB1	1:G:1220:GLN:NE2	2.18	0.58
1:C:410:LEU:HD21	1:C:441:VAL:HA	1.86	0.58
1:C:3927:GLN:HB3	1:C:3992:PHE:CE2	2.39	0.58
1:C:3937:TYR:O	1:C:4002:LYS:NZ	2.37	0.58
1:C:4856:PHE:O	1:C:4860:ARG:NE	2.32	0.58
1:E:533:ASN:HB3	1:E:536:ASN:HD22	1.68	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1109:LEU:HA	1:E:1120:LEU:HD13	1.84	0.58
1:E:1257:VAL:HG12	1:E:1277:TRP:CH2	2.38	0.58
1:G:4035:VAL:HG12	1:G:4036:VAL:H	1.69	0.58
1:A:768:PHE:HA	1:A:1474:VAL:HA	1.83	0.58
1:E:1206:GLN:O	1:E:1209:SER:OG	2.18	0.58
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.86	0.58
1:G:1159:THR:HG23	1:G:1180:ARG:HG2	1.86	0.58
1:G:1238:PHE:HE2	1:G:1612:PHE:HA	1.69	0.58
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.36	0.58
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.58
1:A:635:THR:HA	1:A:1639:LEU:HA	1.86	0.58
1:A:4035:VAL:HG12	1:A:4036:VAL:H	1.67	0.58
1:C:541:SER:HA	1:C:574:VAL:HG22	1.85	0.58
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.68	0.58
1:C:1238:PHE:HE2	1:C:1612:PHE:HA	1.69	0.58
1:E:617:ASN:O	1:E:621:ILE:HG12	2.03	0.58
1:E:1716:ILE:O	1:E:1721:GLU:N	2.37	0.58
1:E:4708:THR:HG22	1:E:4710:SER:N	2.18	0.58
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	1.84	0.58
1:C:831:ARG:HG3	1:C:840:VAL:HG21	1.86	0.58
1:C:1781:CYS:SG	2:D:46:PHE:CE1	2.97	0.58
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.04	0.58
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.68	0.58
1:E:1164:LEU:HG	1:E:1169:LEU:HD11	1.84	0.58
1:E:1236:THR:H	1:E:1612:PHE:HD1	1.52	0.58
1:G:4185:GLY:O	1:G:4187:SER:N	2.34	0.58
1:A:821:LEU:O	1:A:1626:TRP:NE1	2.37	0.58
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.37	0.58
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	1.85	0.58
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	1.85	0.58
1:G:317:ARG:HH22	1:G:322:LYS:HA	1.66	0.58
1:G:2063:LEU:HD13	1:G:3661:TRP:CH2	2.39	0.58
1:E:677:ALA:HA	2:F:40:ARG:HB3	1.86	0.58
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.86	0.58
1:G:317:ARG:NH2	1:G:321:GLU:O	2.36	0.58
1:G:3767:GLN:OE1	1:G:3809:ASN:ND2	2.36	0.58
1:C:635:THR:HA	1:C:1639:LEU:HA	1.86	0.57
1:E:635:THR:HA	1:E:1639:LEU:HA	1.86	0.57
1:E:1455:PRO:HA	1:E:1549:PHE:CE2	2.38	0.57
1:G:1164:LEU:HG	1:G:1169:LEU:HD11	1.85	0.57
1:A:4708:THR:HG23	1:A:4772:ASP:OD2	2.04	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:233:ILE:O	1:C:257:ARG:NH2	2.38	0.57
1:A:677:ALA:HA	2:B:40:ARG:HB3	1.86	0.57
1:A:1716:ILE:O	1:A:1721:GLU:N	2.37	0.57
1:C:2870:GLU:OE2	1:C:2939:ARG:NE	2.38	0.57
1:E:76:ARG:CZ	1:G:3936:TYR:HA	2.34	0.57
1:E:1159:THR:HG23	1:E:1180:ARG:HG2	1.86	0.57
1:G:831:ARG:HG3	1:G:840:VAL:HG21	1.86	0.57
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.39	0.57
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.04	0.57
1:A:831:ARG:HG3	1:A:840:VAL:HG21	1.87	0.57
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.86	0.57
1:C:677:ALA:HA	2:D:40:ARG:HB3	1.86	0.57
1:C:1612:PHE:O	1:C:1613:LEU:HB2	2.05	0.57
1:C:2161:GLN:O	1:C:2164:SER:OG	2.16	0.57
1:C:3992:PHE:O	1:C:3996:PHE:N	2.30	0.57
1:E:233:ILE:O	1:E:257:ARG:NH2	2.37	0.57
1:E:4917:ASP:OD2	1:G:4888:TYR:CE1	2.57	0.57
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.86	0.57
1:G:247:TYR:HE2	1:G:388:LEU:HD21	1.70	0.57
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.18	0.57
1:G:4708:THR:HG22	1:G:4710:SER:N	2.19	0.57
1:A:247:TYR:HE2	1:A:388:LEU:HD21	1.69	0.57
1:A:4708:THR:HG22	1:A:4710:SER:N	2.17	0.57
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.87	0.57
2:B:7:ILE:HD11	2:B:73:LYS:HB2	1.86	0.57
1:E:410:LEU:HD21	1:E:441:VAL:HA	1.86	0.57
1:E:541:SER:HA	1:E:574:VAL:HG22	1.86	0.57
1:E:821:LEU:O	1:E:1626:TRP:NE1	2.38	0.57
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.86	0.57
1:G:1236:THR:H	1:G:1612:PHE:HD1	1.53	0.57
1:G:3805:LEU:O	1:G:3807:GLY:N	2.37	0.57
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.04	0.57
1:A:533:ASN:HB3	1:A:536:ASN:HD22	1.68	0.57
1:A:1238:PHE:HE2	1:A:1612:PHE:HA	1.69	0.57
1:A:2149:VAL:O	1:A:2152:THR:OG1	2.16	0.57
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.86	0.57
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.37	0.57
1:C:4708:THR:HG23	1:C:4772:ASP:OD2	2.05	0.57
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.86	0.57
1:E:831:ARG:HG3	1:E:840:VAL:HG21	1.87	0.57
1:E:1781:CYS:SG	2:F:46:PHE:CE1	2.97	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.36	0.57
1:G:821:LEU:O	1:G:1626:TRP:NE1	2.37	0.57
1:G:3780:LEU:HD21	1:G:3820:LEU:HG	1.85	0.57
1:A:4027:LEU:HD22	1:A:4044:MET:HE1	1.87	0.57
1:A:4849:TYR:HA	1:A:4852:THR:HG22	1.86	0.57
1:C:247:TYR:HE2	1:C:388:LEU:HD21	1.69	0.57
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.86	0.57
1:C:4235:VAL:HG21	1:C:5019:TRP:CZ3	2.40	0.57
1:E:3885:PHE:CE1	1:E:3919:THR:HG23	2.37	0.57
1:E:3927:GLN:HB3	1:E:3992:PHE:CE2	2.39	0.57
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.04	0.57
1:E:4235:VAL:HG21	1:E:5019:TRP:CZ3	2.40	0.57
1:G:1083:VAL:O	1:G:1188:PHE:N	2.33	0.57
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.36	0.57
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.87	0.57
1:C:4027:LEU:HD22	1:C:4044:MET:HE1	1.87	0.57
1:E:3992:PHE:O	1:E:3996:PHE:N	2.30	0.57
1:G:635:THR:HA	1:G:1639:LEU:HA	1.87	0.57
1:G:1769:THR:OG1	1:G:1956:GLU:OE2	2.23	0.57
1:A:4235:VAL:HG21	1:A:5019:TRP:CZ3	2.40	0.57
1:C:1159:THR:HG23	1:C:1180:ARG:HG2	1.86	0.57
1:C:1716:ILE:O	1:C:1721:GLU:N	2.37	0.57
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.87	0.57
1:E:1705:GLY:HA3	1:E:1836:PHE:CD2	2.40	0.57
1:A:234:SER:OG	1:A:242:ARG:HA	2.05	0.57
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.87	0.57
1:C:495:ASN:CA	1:C:553:ARG:HH12	2.18	0.57
1:C:1164:LEU:HG	1:C:1169:LEU:HD11	1.85	0.57
1:G:541:SER:HA	1:G:574:VAL:HG22	1.86	0.57
1:G:825:PRO:HD3	1:G:1619:ARG:NH1	2.20	0.57
1:G:4032:GLU:O	1:G:5006:GLN:NE2	2.38	0.57
1:A:541:SER:HA	1:A:574:VAL:HG22	1.87	0.56
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.87	0.56
1:A:4240:ASP:OD1	1:A:4675:LYS:NZ	2.38	0.56
1:A:4914:VAL:HG13	1:C:4888:TYR:HD1	1.69	0.56
1:A:4917:ASP:OD2	1:C:4888:TYR:CE1	2.58	0.56
1:C:1236:THR:H	1:C:1612:PHE:HD1	1.53	0.56
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.19	0.56
1:G:233:ILE:O	1:G:257:ARG:NH2	2.38	0.56
1:G:750:LEU:O	1:G:752:VAL:N	2.38	0.56
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:455:PRO:HB3	1:A:467:LYS:HD2	1.87	0.56
1:A:495:ASN:CA	1:A:553:ARG:HH12	2.19	0.56
1:A:1164:LEU:HG	1:A:1169:LEU:HD11	1.85	0.56
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.70	0.56
1:C:234:SER:OG	1:C:242:ARG:HA	2.05	0.56
1:C:2301:TYR:HB3	1:C:2331:TYR:CE2	2.41	0.56
1:C:4027:LEU:HD22	1:C:4044:MET:CE	2.35	0.56
1:E:3937:TYR:O	1:E:4002:LYS:NZ	2.36	0.56
1:G:4059:LEU:HD11	1:G:4166:LEU:HD23	1.87	0.56
1:A:530:ILE:HG23	1:A:537:CYS:SG	2.45	0.56
1:A:1236:THR:H	1:A:1612:PHE:HD1	1.52	0.56
1:A:1781:CYS:SG	2:B:46:PHE:CE1	2.97	0.56
1:A:3927:GLN:HB3	1:A:3992:PHE:CE2	2.39	0.56
1:A:4027:LEU:HD22	1:A:4044:MET:CE	2.36	0.56
1:A:4222:VAL:HG11	1:A:4950:VAL:HA	1.86	0.56
1:A:4839:MET:C	1:C:4823:LEU:HD21	2.26	0.56
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.05	0.56
1:C:3835:LEU:HD11	1:C:3884:LEU:CD1	2.35	0.56
1:C:3885:PHE:CE1	1:C:3919:THR:HG23	2.37	0.56
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.86	0.56
1:C:4839:MET:C	1:E:4823:LEU:HD21	2.25	0.56
1:E:825:PRO:HD3	1:E:1619:ARG:NH1	2.20	0.56
1:E:1238:PHE:HE2	1:E:1612:PHE:HA	1.69	0.56
1:G:1781:CYS:SG	2:H:46:PHE:CE1	2.98	0.56
1:G:2296:GLU:HA	1:G:2299:VAL:HG22	1.87	0.56
1:G:2301:TYR:HB3	1:G:2331:TYR:CE2	2.40	0.56
1:G:3937:TYR:O	1:G:4002:LYS:NZ	2.37	0.56
1:A:2125:HIS:NE2	1:A:3724:ALA:HB1	2.21	0.56
1:A:2499:LYS:HD2	1:A:2553:TYR:CE1	2.41	0.56
1:C:4222:VAL:HG11	1:C:4950:VAL:HA	1.87	0.56
1:E:247:TYR:HE2	1:E:388:LEU:HD21	1.70	0.56
1:E:1612:PHE:O	1:E:1613:LEU:HB2	2.05	0.56
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.05	0.56
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.36	0.56
1:G:4680:LYS:HD3	1:G:4686:LEU:HD21	1.87	0.56
1:A:221:ARG:NE	1:A:253:CYS:O	2.39	0.56
1:A:750:LEU:O	1:A:752:VAL:N	2.38	0.56
1:E:234:SER:OG	1:E:242:ARG:HA	2.05	0.56
1:E:1131:ARG:NH2	1:E:1137:GLU:OE1	2.39	0.56
1:E:2301:TYR:HB3	1:E:2331:TYR:CE2	2.40	0.56
1:E:4934:GLY:CA	1:G:4937:ILE:HD12	2.35	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:530:ILE:HG23	1:G:537:CYS:SG	2.45	0.56
1:G:674:PHE:CB	2:H:40:ARG:NH1	2.68	0.56
2:H:23:VAL:HG22	2:H:47:LYS:HG2	1.86	0.56
1:A:3949:ARG:O	1:A:3952:SER:OG	2.20	0.56
1:C:692:TYR:CE1	1:C:711:LEU:HD21	2.41	0.56
1:C:1705:GLY:HA3	1:C:1836:PHE:CD2	2.41	0.56
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.86	0.56
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.21	0.56
1:E:4087:LEU:HG	1:E:4122:MET:HA	1.88	0.56
1:E:4172:GLU:HA	1:E:4175:ARG:NH1	2.20	0.56
1:G:3105:LYS:O	1:G:3109:ASN:N	2.39	0.56
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.21	0.56
1:A:3995:VAL:O	1:A:3999:MET:HB2	2.05	0.56
1:E:4240:ASP:OD1	1:E:4675:LYS:NZ	2.39	0.56
1:A:825:PRO:HD3	1:A:1619:ARG:NH1	2.20	0.56
1:C:732:SER:HB3	1:C:764:VAL:HG13	1.88	0.56
1:C:984:LEU:O	1:C:988:LEU:HG	2.06	0.56
1:C:1131:ARG:NH2	1:C:1137:GLU:OE1	2.39	0.56
1:C:2149:VAL:O	1:C:2152:THR:OG1	2.16	0.56
1:C:2499:LYS:HD2	1:C:2553:TYR:CE1	2.41	0.56
1:C:4849:TYR:HA	1:C:4852:THR:HG22	1.86	0.56
2:D:7:ILE:HD11	2:D:73:LYS:HB2	1.86	0.56
1:E:530:ILE:HG23	1:E:537:CYS:SG	2.45	0.56
1:E:1825:HIS:ND1	1:E:1825:HIS:O	2.39	0.56
1:E:3829:PHE:HD2	1:E:3915:ILE:HD11	1.71	0.56
1:G:495:ASN:CA	1:G:553:ARG:HH12	2.18	0.56
1:G:638:ILE:HG23	1:G:678:GLN:HE22	1.70	0.56
1:G:984:LEU:O	1:G:988:LEU:HG	2.06	0.56
1:A:2301:TYR:HB3	1:A:2331:TYR:CE2	2.41	0.56
1:A:4172:GLU:HA	1:A:4175:ARG:NH1	2.20	0.56
1:A:4682:GLU:OE2	1:A:4723:LYS:NZ	2.39	0.56
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.86	0.56
1:C:28:VAL:HG12	1:C:29:LEU:HG	1.88	0.56
1:C:221:ARG:NE	1:C:253:CYS:O	2.38	0.56
1:C:287:THR:HB	1:C:289:ARG:NH1	2.21	0.56
1:C:455:PRO:HB3	1:C:467:LYS:HD2	1.88	0.56
1:C:530:ILE:HG23	1:C:537:CYS:SG	2.45	0.56
1:C:2765:LYS:NZ	1:C:2769:ASP:OD2	2.37	0.56
1:C:4087:LEU:HG	1:C:4122:MET:HA	1.88	0.56
1:C:4172:GLU:HA	1:C:4175:ARG:NH1	2.20	0.56
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.70	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:745:SER:HB3	1:E:758:ARG:HB2	1.88	0.56
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.88	0.56
1:E:2125:HIS:NE2	1:E:3724:ALA:HB1	2.20	0.56
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.87	0.56
1:G:2123:LEU:O	1:G:2127:GLN:HG2	2.06	0.56
1:G:3647:HIS:O	1:G:3651:ASN:ND2	2.39	0.56
1:G:3950:ASN:HA	1:G:3953:LYS:HD3	1.88	0.56
1:A:1131:ARG:NH2	1:A:1137:GLU:OE1	2.39	0.56
1:A:1612:PHE:O	1:A:1613:LEU:HB2	2.05	0.56
1:A:3980:LEU:HD21	1:A:3985:LEU:HD22	1.88	0.56
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.05	0.56
1:A:4909:TYR:O	1:A:4913:ARG:N	2.34	0.56
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.87	0.56
1:C:2125:HIS:NE2	1:C:3724:ALA:HB1	2.21	0.56
1:E:28:VAL:HG12	1:E:29:LEU:HG	1.88	0.56
1:E:4580:TYR:CE1	1:E:4631:PHE:HB2	2.41	0.56
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.21	0.56
1:G:745:SER:HB3	1:G:758:ARG:HB2	1.88	0.56
1:G:2765:LYS:NZ	1:G:2769:ASP:OD2	2.36	0.56
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.06	0.55
1:C:1089:TYR:HB2	1:C:1223:PHE:HB3	1.88	0.55
1:C:4914:VAL:HG13	1:E:4888:TYR:HD1	1.69	0.55
1:E:287:THR:HB	1:E:289:ARG:NH1	2.22	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.12	0.55
1:G:287:THR:HB	1:G:289:ARG:NH1	2.21	0.55
1:G:1101:ARG:H	1:G:1193:SER:HB3	1.71	0.55
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.70	0.55
1:A:2296:GLU:HA	1:A:2299:VAL:HG22	1.88	0.55
1:A:4580:TYR:CE1	1:A:4631:PHE:HB2	2.41	0.55
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.88	0.55
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.07	0.55
1:E:1089:TYR:HB2	1:E:1223:PHE:HB3	1.88	0.55
1:E:1101:ARG:H	1:E:1193:SER:HB3	1.71	0.55
1:E:3995:VAL:O	1:E:3999:MET:HB2	2.05	0.55
1:E:4839:MET:HG3	1:G:4822:THR:CG2	2.33	0.55
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.70	0.55
1:G:1131:ARG:NH2	1:G:1137:GLU:OE1	2.39	0.55
1:G:4236:SER:O	1:G:4675:LYS:NZ	2.39	0.55
1:A:692:TYR:CE1	1:A:711:LEU:HD21	2.42	0.55
1:A:842:PRO:HD2	1:A:1195:GLY:O	2.06	0.55
1:C:2112:GLN:O	1:C:2113:SER:OG	2.25	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4849:TYR:OH	1:E:4574:ASN:HB3	2.05	0.55
1:E:221:ARG:NE	1:E:253:CYS:O	2.39	0.55
1:E:1099:GLU:OE1	1:E:1127:HIS:NE2	2.40	0.55
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	1.87	0.55
1:G:244:LEU:HD22	1:G:375:LYS:HZ1	1.71	0.55
1:G:842:PRO:HD2	1:G:1195:GLY:O	2.06	0.55
1:G:1089:TYR:HB2	1:G:1223:PHE:HB3	1.88	0.55
1:G:1433:TYR:HD2	1:G:1519:LEU:HD23	1.72	0.55
1:G:2112:GLN:O	1:G:2113:SER:OG	2.25	0.55
1:G:2499:LYS:HD2	1:G:2553:TYR:CE1	2.41	0.55
1:A:3813:GLN:OE1	1:A:3896:ASN:ND2	2.39	0.55
1:C:750:LEU:O	1:C:752:VAL:N	2.39	0.55
1:C:3995:VAL:O	1:C:3999:MET:HB2	2.05	0.55
1:C:4240:ASP:OD1	1:C:4675:LYS:NZ	2.38	0.55
1:E:2870:GLU:OE2	1:E:2939:ARG:NE	2.38	0.55
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.87	0.55
1:G:234:SER:OG	1:G:242:ARG:HA	2.05	0.55
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.89	0.55
1:G:1806:ALA:O	1:G:1810:LYS:HG3	2.06	0.55
1:G:4686:LEU:HD13	1:G:4692:PRO:HD3	1.89	0.55
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.87	0.55
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.06	0.55
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.21	0.55
1:C:825:PRO:HD3	1:C:1619:ARG:NH1	2.20	0.55
1:C:1099:GLU:OE1	1:C:1127:HIS:NE2	2.39	0.55
1:C:1825:HIS:ND1	1:C:1825:HIS:O	2.39	0.55
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.88	0.55
1:E:750:LEU:O	1:E:752:VAL:N	2.38	0.55
1:E:828:GLU:HG3	1:E:830:ARG:H	1.72	0.55
1:E:1433:TYR:HD2	1:E:1519:LEU:HD23	1.72	0.55
1:E:3835:LEU:HD11	1:E:3884:LEU:CD1	2.36	0.55
1:E:3916:ILE:HG23	1:E:3980:LEU:HD12	1.89	0.55
1:E:4027:LEU:HD22	1:E:4044:MET:CE	2.35	0.55
2:F:7:ILE:HD11	2:F:73:LYS:HB2	1.86	0.55
1:G:1033:ARG:HA	1:G:1036:ARG:HG2	1.89	0.55
1:G:4879:MET:HA	1:G:4882:CYS:HB3	1.88	0.55
1:A:1705:GLY:HA3	1:A:1836:PHE:CD2	2.41	0.55
1:A:4087:LEU:HG	1:A:4122:MET:HA	1.88	0.55
1:C:4562:LEU:HD21	1:C:4656:LEU:HD12	1.89	0.55
1:E:4708:THR:O	1:E:4721:LYS:NZ	2.39	0.55
1:A:828:GLU:HG3	1:A:830:ARG:H	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:984:LEU:O	1:A:988:LEU:HG	2.06	0.55
1:A:1101:ARG:H	1:A:1193:SER:HB3	1.71	0.55
1:C:842:PRO:HD2	1:C:1195:GLY:O	2.06	0.55
1:C:4682:GLU:OE2	1:C:4723:LYS:NZ	2.39	0.55
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.88	0.55
1:G:221:ARG:NE	1:G:253:CYS:O	2.39	0.55
1:G:455:PRO:HB3	1:G:467:LYS:HD2	1.88	0.55
1:G:3709:ALA:HB2	1:G:3782:MET:SD	2.47	0.55
1:G:4708:THR:HG23	1:G:4772:ASP:OD2	2.06	0.55
1:G:4712:PRO:HG2	1:G:4718:LYS:HD2	1.88	0.55
1:A:28:VAL:HG12	1:A:29:LEU:HG	1.88	0.55
1:A:1099:GLU:OE1	1:A:1127:HIS:NE2	2.39	0.55
1:A:4562:LEU:HD21	1:A:4656:LEU:HD12	1.89	0.55
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.89	0.55
1:E:4570:ALA:O	1:E:4574:ASN:ND2	2.32	0.55
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.88	0.55
1:G:4235:VAL:HG21	1:G:5019:TRP:CZ3	2.42	0.55
1:A:732:SER:HB3	1:A:764:VAL:HG13	1.89	0.55
1:A:2870:GLU:OE2	1:A:2939:ARG:NE	2.37	0.55
1:A:4708:THR:O	1:A:4721:LYS:NZ	2.39	0.55
1:C:3829:PHE:HD2	1:C:3915:ILE:HD11	1.71	0.55
1:C:4570:ALA:O	1:C:4574:ASN:ND2	2.32	0.55
1:E:162:LYS:NZ	1:G:3987:ASP:OD1	2.37	0.55
1:E:567:VAL:O	1:E:571:SER:OG	2.21	0.55
1:E:842:PRO:HD2	1:E:1195:GLY:O	2.07	0.55
1:E:1033:ARG:HA	1:E:1036:ARG:HG2	1.89	0.55
1:E:2499:LYS:HD2	1:E:2553:TYR:CE1	2.41	0.55
1:E:3938:SER:HA	1:E:4002:LYS:HZ2	1.72	0.55
1:E:3980:LEU:HD21	1:E:3985:LEU:HD22	1.88	0.55
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.89	0.55
1:G:28:VAL:HG12	1:G:29:LEU:HG	1.88	0.55
1:G:561:LEU:HD11	1:G:599:VAL:HG22	1.89	0.55
1:G:692:TYR:CE1	1:G:711:LEU:HD21	2.41	0.55
1:G:828:GLU:HG3	1:G:830:ARG:H	1.72	0.55
1:G:2136:ARG:NH1	1:G:3720:TYR:HE2	2.04	0.55
1:G:3891:LEU:HD23	1:G:3899:PHE:CZ	2.42	0.55
1:A:287:THR:HB	1:A:289:ARG:NH1	2.21	0.55
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.55
1:A:1456:ASP:O	1:A:1457:TYR:HB2	2.07	0.55
1:A:1806:ALA:O	1:A:1810:LYS:HG3	2.06	0.55
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.72	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3780:LEU:HD21	1:A:3820:LEU:HG	1.89	0.55
1:C:244:LEU:HD22	1:C:375:LYS:HZ1	1.72	0.55
1:C:1101:ARG:H	1:C:1193:SER:HB3	1.71	0.55
1:E:495:ASN:CA	1:E:553:ARG:HH12	2.18	0.55
1:E:4849:TYR:HA	1:E:4852:THR:HG22	1.89	0.55
1:G:1612:PHE:O	1:G:1613:LEU:HB2	2.05	0.55
1:A:1089:TYR:HB2	1:A:1223:PHE:HB3	1.88	0.54
1:A:1433:TYR:HD2	1:A:1519:LEU:HD23	1.72	0.54
1:A:1585:LYS:NZ	1:A:1596:GLU:HB2	2.23	0.54
1:A:1825:HIS:ND1	1:A:1825:HIS:O	2.39	0.54
1:C:828:GLU:HG3	1:C:830:ARG:H	1.72	0.54
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.72	0.54
1:C:4708:THR:O	1:C:4721:LYS:NZ	2.40	0.54
1:E:1806:ALA:O	1:E:1810:LYS:HG3	2.06	0.54
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.72	0.54
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.06	0.54
1:G:706:GLY:N	1:G:711:LEU:HD13	2.21	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.43	0.54
1:G:3923:LEU:HD12	1:G:3961:VAL:HG12	1.89	0.54
1:A:1770:SER:OG	1:A:1771:LEU:N	2.40	0.54
1:A:3829:PHE:HD2	1:A:3915:ILE:HD11	1.71	0.54
1:C:441:VAL:O	1:C:444:SER:OG	2.16	0.54
1:C:1585:LYS:NZ	1:C:1596:GLU:HB2	2.23	0.54
1:C:1770:SER:OG	1:C:1771:LEU:N	2.40	0.54
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.43	0.54
1:E:1238:PHE:CE2	1:E:1612:PHE:HA	2.42	0.54
1:E:3780:LEU:HD21	1:E:3820:LEU:HG	1.89	0.54
1:E:4682:GLU:OE2	1:E:4723:LYS:NZ	2.39	0.54
1:A:745:SER:HB3	1:A:758:ARG:HB2	1.88	0.54
1:A:2161:GLN:O	1:A:2164:SER:OG	2.16	0.54
1:A:3916:ILE:HG23	1:A:3980:LEU:HD12	1.89	0.54
1:C:1781:CYS:SG	2:D:46:PHE:HE1	2.30	0.54
1:C:3916:ILE:HG23	1:C:3980:LEU:HD12	1.89	0.54
1:C:4856:PHE:CE2	1:C:4860:ARG:NH1	2.76	0.54
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.89	0.54
1:G:641:VAL:HG11	1:G:704:GLY:HA2	1.89	0.54
1:G:732:SER:HB3	1:G:764:VAL:HG13	1.88	0.54
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.72	0.54
1:G:3904:ARG:HD3	1:G:3976:ASN:HA	1.88	0.54
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.76	0.54
1:A:1033:ARG:HA	1:A:1036:ARG:HG2	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1235:THR:HG21	1:A:1702:HIS:CE1	2.43	0.54
1:A:1238:PHE:CE2	1:A:1612:PHE:HA	2.42	0.54
1:A:1781:CYS:SG	2:B:46:PHE:HE1	2.30	0.54
1:A:1850:VAL:HA	1:A:1945:TYR:CE1	2.43	0.54
1:A:2133:GLU:HA	1:A:2136:ARG:HE	1.72	0.54
1:C:1235:THR:HG21	1:C:1702:HIS:CE1	2.42	0.54
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.54
1:E:706:GLY:N	1:E:711:LEU:HD13	2.21	0.54
1:G:1825:HIS:ND1	1:G:1825:HIS:O	2.39	0.54
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.89	0.54
1:G:4056:GLU:HG3	1:G:4166:LEU:HD21	1.88	0.54
2:H:4:VAL:HG22	2:H:74:LEU:HG	1.88	0.54
1:C:641:VAL:HG11	1:C:704:GLY:HA2	1.89	0.54
1:C:1033:ARG:HA	1:C:1036:ARG:HG2	1.89	0.54
1:C:1806:ALA:O	1:C:1810:LYS:HG3	2.06	0.54
1:C:3780:LEU:HD21	1:C:3820:LEU:HG	1.89	0.54
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.89	0.54
1:C:4917:ASP:OD2	1:E:4888:TYR:CE1	2.60	0.54
1:E:641:VAL:HG11	1:E:704:GLY:HA2	1.90	0.54
1:E:1781:CYS:SG	2:F:46:PHE:HE1	2.30	0.54
1:E:4027:LEU:HD22	1:E:4044:MET:HE1	1.89	0.54
1:E:4562:LEU:HD21	1:E:4656:LEU:HD12	1.89	0.54
2:F:4:VAL:HG22	2:F:74:LEU:HG	1.89	0.54
2:F:37:ASP:OD1	2:F:38:SER:N	2.41	0.54
2:H:7:ILE:HD11	2:H:73:LYS:HB2	1.89	0.54
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.90	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.23	0.54
2:D:2:VAL:HG23	2:D:76:ILE:HA	1.90	0.54
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.54
1:E:984:LEU:O	1:E:988:LEU:HG	2.06	0.54
1:G:287:THR:HB	1:G:289:ARG:HH11	1.73	0.54
1:G:1099:GLU:OE1	1:G:1127:HIS:NE2	2.39	0.54
1:G:1850:VAL:HA	1:G:1945:TYR:CE1	2.43	0.54
1:C:745:SER:HB3	1:C:758:ARG:HB2	1.88	0.54
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.76	0.54
1:E:111:HIS:HD2	1:E:114:SER:H	1.56	0.54
1:E:455:PRO:HB3	1:E:467:LYS:HD2	1.89	0.54
1:G:37:LEU:HD11	1:G:47:CYS:HB3	1.90	0.54
1:G:451:TYR:CZ	1:G:474:ARG:HD2	2.43	0.54
1:G:1705:GLY:HA3	1:G:1836:PHE:CD2	2.43	0.54
1:G:1808:ARG:HB2	1:G:1854:PHE:CE1	2.43	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:5027:CYS:SG	1:A:5030:LYS:HG2	2.48	0.54
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.89	0.54
1:E:692:TYR:CE1	1:E:711:LEU:HD21	2.41	0.54
1:E:1808:ARG:HB2	1:E:1854:PHE:CE1	2.43	0.54
1:E:2112:GLN:O	1:E:2113:SER:OG	2.24	0.54
1:G:2355:ARG:HA	1:G:2358:ILE:HD12	1.90	0.54
1:G:5027:CYS:SG	1:G:5030:LYS:HG2	2.48	0.54
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.88	0.54
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.76	0.54
2:B:2:VAL:HG23	2:B:76:ILE:HA	1.90	0.54
1:C:2296:GLU:HA	1:C:2299:VAL:HG22	1.88	0.54
1:C:2355:ARG:HA	1:C:2358:ILE:HD12	1.90	0.54
1:E:561:LEU:HD11	1:E:599:VAL:HG22	1.90	0.54
1:E:732:SER:HB3	1:E:764:VAL:HG13	1.90	0.54
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.89	0.54
1:E:1235:THR:HG21	1:E:1702:HIS:CE1	2.43	0.54
1:E:2296:GLU:HA	1:E:2299:VAL:HG22	1.88	0.54
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.23	0.54
1:E:4193:ILE:HG22	1:E:5006:GLN:OE1	2.08	0.54
1:G:1291:LEU:HB3	1:G:1550:PRO:HG2	1.89	0.54
1:G:4980:LEU:HA	1:G:4984:ASN:HB3	1.90	0.54
1:A:111:HIS:HD2	1:A:114:SER:H	1.56	0.54
1:C:561:LEU:HD11	1:C:599:VAL:HG22	1.90	0.54
1:C:790:ARG:HH21	1:C:1625:GLY:HA3	1.73	0.54
1:C:1206:GLN:O	1:C:1209:SER:OG	2.18	0.54
1:C:1291:LEU:HB3	1:C:1550:PRO:HG2	1.90	0.54
1:C:1433:TYR:HD2	1:C:1519:LEU:HD23	1.72	0.54
1:C:2063:LEU:HD13	1:C:3661:TRP:CH2	2.43	0.54
1:C:5027:CYS:SG	1:C:5030:LYS:HG2	2.48	0.54
1:E:293:LEU:HD13	1:E:378:LEU:HD12	1.90	0.54
1:G:293:LEU:HD13	1:G:378:LEU:HD12	1.90	0.54
1:A:1245:PHE:CZ	1:A:1646:ARG:NH1	2.77	0.53
1:C:402:ARG:NH1	1:C:405:HIS:CD2	2.76	0.53
1:C:3813:GLN:OE1	1:C:3896:ASN:ND2	2.41	0.53
1:C:4193:ILE:HG22	1:C:5006:GLN:OE1	2.08	0.53
1:E:1585:LYS:NZ	1:E:1596:GLU:HB2	2.23	0.53
1:E:2139:PRO:HG3	1:E:3658:LYS:NZ	2.23	0.53
1:E:3813:GLN:OE1	1:E:3896:ASN:ND2	2.41	0.53
1:E:3996:PHE:CZ	1:E:4019:LEU:HD22	2.41	0.53
1:G:111:HIS:HD2	1:G:114:SER:H	1.56	0.53
1:G:1235:THR:HG21	1:G:1702:HIS:CE1	2.43	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3839:CYS:SG	1:G:3881:THR:HB	2.48	0.53
1:G:3969:ILE:HG23	1:G:3977:GLN:HG2	1.88	0.53
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.89	0.53
1:A:1808:ARG:HB2	1:A:1854:PHE:CE1	2.43	0.53
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.89	0.53
1:E:451:TYR:CZ	1:E:474:ARG:HD2	2.43	0.53
1:E:790:ARG:HH21	1:E:1625:GLY:HA3	1.74	0.53
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.90	0.53
1:E:5027:CYS:SG	1:E:5030:LYS:HG2	2.48	0.53
1:C:1238:PHE:CE2	1:C:1612:PHE:HA	2.42	0.53
1:C:1653:LEU:HD23	1:C:1707:LEU:HD11	1.90	0.53
1:E:2149:VAL:O	1:E:2152:THR:OG1	2.16	0.53
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ1	1.72	0.53
1:A:4843:LEU:CD1	1:C:4827:LEU:HD11	2.38	0.53
1:C:1245:PHE:CZ	1:C:1646:ARG:NH1	2.77	0.53
1:C:1456:ASP:O	1:C:1457:TYR:HB2	2.08	0.53
1:C:1781:CYS:HG	2:D:46:PHE:HE1	1.50	0.53
1:C:1808:ARG:HB2	1:C:1854:PHE:CE1	2.43	0.53
1:E:402:ARG:NH1	1:E:405:HIS:CD2	2.77	0.53
1:E:2063:LEU:HD13	1:E:3661:TRP:CH2	2.43	0.53
1:E:4980:LEU:HA	1:E:4984:ASN:HB3	1.91	0.53
1:G:402:ARG:NH1	1:G:405:HIS:CD2	2.76	0.53
1:G:768:PHE:HB3	1:G:1474:VAL:HG22	1.90	0.53
1:A:641:VAL:HG11	1:A:704:GLY:HA2	1.89	0.53
1:A:768:PHE:HB3	1:A:1474:VAL:HG22	1.90	0.53
1:A:2063:LEU:HD13	1:A:3661:TRP:CH2	2.43	0.53
1:C:1850:VAL:HA	1:C:1945:TYR:CE1	2.43	0.53
1:C:4933:GLN:O	1:C:4937:ILE:HG12	2.08	0.53
1:E:2355:ARG:HA	1:E:2358:ILE:HD12	1.90	0.53
1:G:1238:PHE:CE2	1:G:1612:PHE:HA	2.43	0.53
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.91	0.53
1:A:561:LEU:HD11	1:A:599:VAL:HG22	1.90	0.53
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.19	0.53
1:C:451:TYR:CZ	1:C:474:ARG:HD2	2.43	0.53
1:C:1143:TRP:HB2	1:C:1147:ASP:HB2	1.90	0.53
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.12	0.53
1:C:4980:LEU:HA	1:C:4984:ASN:HB3	1.91	0.53
1:E:4839:MET:C	1:G:4823:LEU:HD21	2.29	0.53
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.21	0.53
1:G:441:VAL:O	1:G:444:SER:OG	2.16	0.53
1:G:3927:GLN:HB3	1:G:3992:PHE:CE2	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.08	0.53
2:H:88:PRO:O	2:H:90:ILE:HD12	2.09	0.53
1:A:3835:LEU:HD11	1:A:3884:LEU:CD1	2.36	0.53
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	1.90	0.53
2:B:4:VAL:HG22	2:B:74:LEU:HG	1.89	0.53
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.89	0.53
1:E:1850:VAL:HA	1:E:1945:TYR:CE1	2.43	0.53
1:E:1972:ASN:O	1:E:1975:SER:OG	2.26	0.53
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.09	0.53
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ2	1.74	0.53
1:G:1143:TRP:HB2	1:G:1147:ASP:HB2	1.90	0.53
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.08	0.53
1:A:37:LEU:HD11	1:A:47:CYS:HB3	1.89	0.53
1:A:287:THR:HB	1:A:289:ARG:HH11	1.73	0.53
1:A:451:TYR:CZ	1:A:474:ARG:HD2	2.43	0.53
1:A:2876:GLU:OE2	1:A:2916:LYS:HD3	2.09	0.53
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.91	0.53
1:C:4702:ASP:HA	1:C:4778:TRP:HE1	1.74	0.53
2:D:88:PRO:O	2:D:90:ILE:HD12	2.09	0.53
1:E:217:GLY:O	1:E:261:ARG:NH1	2.42	0.53
1:E:1143:TRP:HB2	1:E:1147:ASP:HB2	1.90	0.53
1:E:2765:LYS:NZ	1:E:2769:ASP:OD2	2.37	0.53
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	1.90	0.53
1:G:1245:PHE:CZ	1:G:1646:ARG:NH1	2.77	0.53
1:G:4118:ASP:HB2	1:G:4122:MET:HB2	1.89	0.53
1:A:1691:GLN:HE22	1:A:1802:ILE:HA	1.74	0.53
1:C:293:LEU:HD13	1:C:378:LEU:HD12	1.90	0.53
1:C:842:PRO:HA	1:C:1073:ARG:HH12	1.74	0.53
1:C:2341:VAL:HG11	1:C:2346:VAL:HG13	1.91	0.53
1:C:4185:GLY:O	1:C:4187:SER:N	2.36	0.53
2:D:4:VAL:HG22	2:D:74:LEU:HG	1.90	0.53
1:E:639:ASN:OD1	1:E:640:TYR:N	2.42	0.53
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.18	0.53
1:E:3878:ASP:O	1:E:3881:THR:HG22	2.09	0.53
1:G:790:ARG:HH21	1:G:1625:GLY:HA3	1.74	0.53
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.53
1:G:3786:CYS:O	1:G:3789:GLU:HG2	2.08	0.53
2:H:2:VAL:HG23	2:H:76:ILE:HA	1.90	0.53
1:A:706:GLY:N	1:A:711:LEU:HD13	2.21	0.53
1:A:1291:LEU:HB3	1:A:1550:PRO:HG2	1.90	0.53
1:A:2341:VAL:HG11	1:A:2346:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.90	0.53
1:C:768:PHE:HB3	1:C:1474:VAL:HG22	1.90	0.53
1:E:287:THR:HB	1:E:289:ARG:HH11	1.74	0.53
1:E:1291:LEU:HB3	1:E:1550:PRO:HG2	1.89	0.53
2:F:2:VAL:HG23	2:F:76:ILE:HA	1.89	0.53
1:G:833:GLY:HA3	1:G:838:HIS:CD2	2.44	0.53
1:A:639:ASN:OD1	1:A:640:TYR:N	2.42	0.52
1:A:833:GLY:HA3	1:A:838:HIS:CD2	2.45	0.52
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:2355:ARG:HA	1:A:2358:ILE:HD12	1.91	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:A:4702:ASP:HA	1:A:4778:TRP:HE1	1.74	0.52
1:A:4980:LEU:HA	1:A:4984:ASN:HB3	1.91	0.52
1:C:111:HIS:HD2	1:C:114:SER:H	1.56	0.52
1:C:3920:VAL:HG22	1:C:3965:LEU:HD21	1.90	0.52
1:E:1781:CYS:HG	2:F:46:PHE:HE1	1.51	0.52
1:E:4055:VAL:HG13	1:E:4058:ILE:HD11	1.91	0.52
1:E:4702:ASP:HA	1:E:4778:TRP:HE1	1.75	0.52
1:G:1770:SER:OG	1:G:1771:LEU:N	2.40	0.52
1:A:1143:TRP:HB2	1:A:1147:ASP:HB2	1.90	0.52
1:A:4815:ASP:O	1:A:4819:GLY:N	2.40	0.52
1:A:4849:TYR:OH	1:C:4574:ASN:HB3	2.08	0.52
2:B:88:PRO:O	2:B:90:ILE:HD12	2.10	0.52
1:C:1769:THR:OG1	1:C:1956:GLU:OE2	2.26	0.52
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.09	0.52
1:C:2876:GLU:OE2	1:C:2916:LYS:HD3	2.09	0.52
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ1	1.74	0.52
1:E:768:PHE:HB3	1:E:1474:VAL:HG22	1.90	0.52
1:E:1245:PHE:CZ	1:E:1646:ARG:NH1	2.77	0.52
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.91	0.52
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.91	0.52
1:A:293:LEU:HD13	1:A:378:LEU:HD12	1.91	0.52
1:A:790:ARG:HH21	1:A:1625:GLY:HA3	1.73	0.52
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.91	0.52
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.23	0.52
1:A:4849:TYR:O	1:A:4852:THR:HG22	2.10	0.52
1:C:217:GLY:O	1:C:261:ARG:NH1	2.42	0.52
1:C:590:LEU:HB2	1:C:599:VAL:HG11	1.91	0.52
1:C:833:GLY:HA3	1:C:838:HIS:CD2	2.45	0.52
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.52
1:E:1584:ARG:HH11	1:E:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.91	0.52
1:G:567:VAL:HG12	1:G:574:VAL:HG11	1.92	0.52
1:G:4909:TYR:O	1:G:4913:ARG:N	2.40	0.52
1:A:217:GLY:O	1:A:261:ARG:NH1	2.42	0.52
1:A:402:ARG:NH1	1:A:405:HIS:CD2	2.77	0.52
1:A:441:VAL:O	1:A:444:SER:OG	2.16	0.52
1:A:1769:THR:OG1	1:A:1956:GLU:OE2	2.25	0.52
1:A:1805:GLU:O	1:A:1808:ARG:HG2	2.10	0.52
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.92	0.52
1:E:37:LEU:HD11	1:E:47:CYS:HB3	1.91	0.52
1:G:664:PHE:CE2	1:G:779:PRO:HB3	2.45	0.52
1:G:1585:LYS:NZ	1:G:1596:GLU:HB2	2.24	0.52
1:G:3885:PHE:HE1	1:G:3919:THR:HG23	1.73	0.52
1:A:231:LEU:HD11	1:A:245:VAL:HG13	1.91	0.52
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.92	0.52
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.09	0.52
1:A:4193:ILE:HG22	1:A:5006:GLN:OE1	2.09	0.52
1:A:4555:LEU:HD21	1:A:4656:LEU:O	2.10	0.52
1:A:4686:LEU:HD13	1:A:4692:PRO:HD3	1.91	0.52
1:A:4914:VAL:HG13	1:C:4888:TYR:CD1	2.45	0.52
1:A:4934:GLY:HA3	1:C:4937:ILE:HD13	1.88	0.52
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.75	0.52
1:C:706:GLY:N	1:C:711:LEU:HD13	2.21	0.52
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.92	0.52
1:C:1584:ARG:HH11	1:C:1643:GLU:HG3	1.75	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.10	0.52
1:C:3878:ASP:O	1:C:3881:THR:HG22	2.09	0.52
1:C:4055:VAL:HG13	1:C:4058:ILE:HD11	1.92	0.52
1:C:4914:VAL:HG13	1:E:4888:TYR:CD1	2.45	0.52
1:E:567:VAL:HG12	1:E:574:VAL:HG11	1.91	0.52
1:E:664:PHE:CE2	1:E:779:PRO:HB3	2.45	0.52
1:E:2453:ILE:HA	1:E:2456:ILE:HD12	1.92	0.52
1:E:3920:VAL:HG22	1:E:3965:LEU:HD21	1.90	0.52
1:E:3963:ASN:HA	1:E:3966:THR:HG22	1.92	0.52
1:G:590:LEU:HB2	1:G:599:VAL:HG11	1.92	0.52
1:G:1687:SER:CB	2:H:90:ILE:HG12	2.40	0.52
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.74	0.52
1:G:2151:ASP:O	1:G:2154:SER:OG	2.19	0.52
1:G:4076:ALA:HB2	1:G:4100:GLN:HB3	1.91	0.52
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.09	0.52
1:A:1584:ARG:HH11	1:A:1643:GLU:HG3	1.75	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:287:THR:HB	1:C:289:ARG:HH11	1.73	0.52
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.91	0.52
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.75	0.52
1:C:3980:LEU:HD21	1:C:3985:LEU:HD22	1.91	0.52
1:C:4909:TYR:O	1:C:4913:ARG:N	2.34	0.52
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.52
1:E:4914:VAL:O	1:E:4918:ILE:HG12	2.10	0.52
1:E:4917:ASP:OD2	1:G:4892:ARG:NE	2.43	0.52
1:G:635:THR:OG1	1:G:1693:GLN:NE2	2.42	0.52
1:G:4901:ILE:HG21	1:G:4913:ARG:HH21	1.75	0.52
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.91	0.52
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.92	0.52
1:A:3920:VAL:HG22	1:A:3965:LEU:HD21	1.90	0.52
2:B:37:ASP:OD1	2:B:38:SER:N	2.41	0.52
1:E:833:GLY:HA3	1:E:838:HIS:CD2	2.45	0.52
1:E:2876:GLU:OE2	1:E:2916:LYS:HD3	2.09	0.52
1:E:4555:LEU:HD21	1:E:4656:LEU:O	2.10	0.52
1:G:1584:ARG:HH11	1:G:1643:GLU:HG3	1.74	0.52
1:G:1805:GLU:O	1:G:1808:ARG:HG2	2.09	0.52
1:C:231:LEU:HD11	1:C:245:VAL:HG13	1.92	0.52
1:C:639:ASN:OD1	1:C:640:TYR:N	2.42	0.52
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.92	0.52
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	1.89	0.52
1:E:842:PRO:HA	1:E:1073:ARG:HH12	1.74	0.52
1:E:3698:LEU:HD23	1:E:3773:ARG:HD2	1.91	0.52
1:G:217:GLY:O	1:G:261:ARG:NH1	2.42	0.52
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.09	0.52
1:G:3817:LEU:HD11	1:G:3821:LYS:HZ1	1.74	0.52
1:C:547:VAL:HG12	1:C:564:LEU:HD12	1.92	0.52
1:C:664:PHE:CE2	1:C:779:PRO:HB3	2.45	0.52
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.92	0.52
1:C:2453:ILE:HA	1:C:2456:ILE:HD12	1.92	0.52
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.75	0.52
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.92	0.52
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.52
1:G:639:ASN:OD1	1:G:640:TYR:N	2.42	0.52
1:G:1127:HIS:ND1	1:G:1128:ARG:HG2	2.25	0.52
1:G:2149:VAL:O	1:G:2152:THR:OG1	2.16	0.52
1:A:2143:THR:N	1:A:3651:ASN:OD1	2.43	0.52
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.10	0.52
1:C:37:LEU:HD11	1:C:47:CYS:HB3	1.91	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:638:ILE:HG23	1:C:678:GLN:HE22	1.75	0.52
1:C:2143:THR:N	1:C:3651:ASN:OD1	2.43	0.52
1:C:4686:LEU:HD13	1:C:4692:PRO:HD3	1.91	0.52
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.92	0.52
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.45	0.52
2:F:49:MET:N	2:F:54:GLU:OE2	2.43	0.52
1:G:674:PHE:O	2:H:40:ARG:NH1	2.42	0.52
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.91	0.52
1:A:567:VAL:HG12	1:A:574:VAL:HG11	1.92	0.51
1:A:863:LEU:H	1:A:930:LYS:HE3	1.75	0.51
1:A:3878:ASP:O	1:A:3881:THR:HG22	2.10	0.51
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.10	0.51
2:B:49:MET:N	2:B:54:GLU:OE2	2.43	0.51
1:C:1972:ASN:O	1:C:1975:SER:OG	2.26	0.51
1:C:3996:PHE:CZ	1:C:4019:LEU:HD22	2.41	0.51
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.91	0.51
1:E:629:ARG:NH1	1:E:1688:HIS:CD2	2.78	0.51
1:E:1653:LEU:HD23	1:E:1707:LEU:HD11	1.91	0.51
1:E:1691:GLN:HE22	1:E:1802:ILE:HA	1.74	0.51
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.11	0.51
1:E:4849:TYR:O	1:E:4852:THR:HG22	2.10	0.51
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.92	0.51
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.75	0.51
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.75	0.51
1:A:629:ARG:NH1	1:A:1688:HIS:CD2	2.78	0.51
1:A:842:PRO:HA	1:A:1073:ARG:HH12	1.74	0.51
1:A:4574:ASN:HB3	1:G:4849:TYR:OH	2.10	0.51
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.91	0.51
1:C:3879:GLU:OE2	1:C:3883:ASP:OD2	2.28	0.51
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.92	0.51
1:E:1127:HIS:ND1	1:E:1128:ARG:HG2	2.26	0.51
1:G:12:GLN:O	1:G:165:VAL:HG23	2.10	0.51
1:G:231:LEU:HD11	1:G:245:VAL:HG13	1.92	0.51
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.93	0.51
1:G:2453:ILE:HA	1:G:2456:ILE:HD12	1.92	0.51
1:A:664:PHE:CE2	1:A:779:PRO:HB3	2.45	0.51
1:A:2755:ILE:HD13	1:A:2810:LYS:HG2	1.93	0.51
1:A:3963:ASN:HA	1:A:3966:THR:HG22	1.92	0.51
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.45	0.51
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.43	0.51
1:C:753:PRO:HB2	1:C:769:GLU:O	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.76	0.51
2:D:49:MET:N	2:D:54:GLU:OE2	2.43	0.51
1:E:646:PRO:HD2	1:E:779:PRO:HG2	1.92	0.51
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.75	0.51
1:E:1805:GLU:O	1:E:1808:ARG:HG2	2.10	0.51
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.10	0.51
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.78	0.51
1:G:629:ARG:NH1	1:G:1688:HIS:CD2	2.78	0.51
1:A:547:VAL:HG12	1:A:564:LEU:HD12	1.92	0.51
1:A:638:ILE:HG23	1:A:678:GLN:HE22	1.76	0.51
1:A:646:PRO:HD2	1:A:779:PRO:HG2	1.92	0.51
1:A:1127:HIS:ND1	1:A:1128:ARG:HG2	2.26	0.51
1:A:2112:GLN:O	1:A:2113:SER:OG	2.24	0.51
1:A:2453:ILE:HA	1:A:2456:ILE:HD12	1.93	0.51
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.91	0.51
1:C:1805:GLU:O	1:C:1808:ARG:HG2	2.10	0.51
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.45	0.51
1:E:1849:LEU:HG	1:E:1945:TYR:CE2	2.46	0.51
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.91	0.51
1:G:634:GLN:HB3	1:G:1640:HIS:HE1	1.74	0.51
1:G:4033:GLY:O	1:G:4189:ARG:NH2	2.29	0.51
1:G:4691:GLN:HB2	1:G:4703:ARG:HH22	1.75	0.51
1:A:590:LEU:HB2	1:A:599:VAL:HG11	1.91	0.51
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.92	0.51
1:A:4055:VAL:HG13	1:A:4058:ILE:HD11	1.91	0.51
1:C:835:ARG:NH2	1:C:1093:GLU:OE2	2.43	0.51
1:C:3698:LEU:HD23	1:C:3773:ARG:HD2	1.91	0.51
1:C:3963:ASN:HA	1:C:3966:THR:HG22	1.92	0.51
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.10	0.51
1:C:4576:ILE:HG22	1:C:4643:LEU:HD12	1.92	0.51
1:E:638:ILE:HG23	1:E:678:GLN:HE22	1.76	0.51
1:E:989:ALA:HB1	1:E:1035:ASN:HB3	1.93	0.51
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.44	0.51
1:E:2755:ILE:HD13	1:E:2810:LYS:HG2	1.93	0.51
1:E:3879:GLU:OE2	1:E:3883:ASP:OD2	2.28	0.51
2:F:88:PRO:O	2:F:90:ILE:HD12	2.09	0.51
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.93	0.51
1:G:835:ARG:NH2	1:G:1093:GLU:OE2	2.43	0.51
1:G:842:PRO:HA	1:G:1073:ARG:HH12	1.74	0.51
1:G:4712:PRO:HD3	1:G:4721:LYS:HE3	1.93	0.51
1:A:256:ALA:HB3	1:A:481:GLU:OE2	2.11	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2807:TRP:O	1:A:2811:GLU:HG2	2.11	0.51
1:A:3698:LEU:HD23	1:A:3773:ARG:HD2	1.92	0.51
1:A:3965:LEU:HA	1:A:3968:TYR:CD2	2.46	0.51
1:A:4205:TRP:HZ2	1:A:4214:LYS:HE2	1.76	0.51
1:C:863:LEU:H	1:C:930:LYS:HE3	1.76	0.51
1:C:1691:GLN:HE22	1:C:1802:ILE:HA	1.75	0.51
1:C:3965:LEU:HA	1:C:3968:TYR:CD2	2.46	0.51
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.75	0.51
1:G:1972:ASN:O	1:G:1975:SER:OG	2.27	0.51
1:G:4555:LEU:HD21	1:G:4656:LEU:O	2.11	0.51
1:A:635:THR:OG1	1:A:1693:GLN:NE2	2.43	0.51
1:A:2476:ILE:HA	1:A:2495:VAL:HG21	1.92	0.51
1:C:12:GLN:O	1:C:165:VAL:HG23	2.11	0.51
1:C:1127:HIS:ND1	1:C:1128:ARG:HG2	2.26	0.51
1:C:2907:PRO:O	1:C:2910:THR:OG1	2.16	0.51
1:E:590:LEU:HB2	1:E:599:VAL:HG11	1.92	0.51
1:E:753:PRO:HB2	1:E:769:GLU:O	2.11	0.51
1:E:3965:LEU:HA	1:E:3968:TYR:CD2	2.46	0.51
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.75	0.51
1:A:1653:LEU:HD23	1:A:1707:LEU:HD11	1.91	0.51
1:A:1658:ASP:OD1	1:A:1661:ARG:NH2	2.44	0.51
1:A:3879:GLU:OE2	1:A:3883:ASP:OD2	2.28	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
2:B:25:HIS:CG	2:B:40:ARG:HE	2.29	0.51
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.92	0.51
1:C:1101:ARG:N	1:C:1193:SER:HB3	2.25	0.51
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.92	0.51
1:C:4849:TYR:O	1:C:4852:THR:HG22	2.10	0.51
1:E:1658:ASP:OD1	1:E:1661:ARG:NH2	2.44	0.51
1:E:4878:ASP:HA	1:G:4581:LYS:CB	2.40	0.51
2:F:25:HIS:CG	2:F:40:ARG:HE	2.29	0.51
1:G:1653:LEU:HD23	1:G:1707:LEU:HD11	1.92	0.51
1:G:1691:GLN:HE22	1:G:1802:ILE:HA	1.75	0.51
1:A:1849:LEU:HG	1:A:1945:TYR:CE2	2.46	0.51
1:C:635:THR:OG1	1:C:1693:GLN:NE2	2.43	0.51
1:C:674:PHE:O	2:D:40:ARG:NH1	2.44	0.51
1:C:1849:LEU:HG	1:C:1945:TYR:CE2	2.46	0.51
1:C:2807:TRP:O	1:C:2811:GLU:HG2	2.11	0.51
1:C:4555:LEU:HD21	1:C:4656:LEU:O	2.10	0.51
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.75	0.51
1:E:668:VAL:HA	1:E:789:VAL:HG12	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1769:THR:OG1	1:E:1956:GLU:OE2	2.25	0.51
1:E:2341:VAL:HG11	1:E:2346:VAL:HG13	1.92	0.51
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.44	0.51
1:G:2063:LEU:HD13	1:G:3661:TRP:HH2	1.76	0.51
1:G:2341:VAL:HG11	1:G:2346:VAL:HG13	1.91	0.51
1:G:2476:ILE:HA	1:G:2495:VAL:HG21	1.93	0.51
1:G:2561:LEU:HD11	1:G:2601:ASP:HA	1.93	0.51
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.92	0.51
1:A:403:MET:HE1	1:A:448:LEU:HD23	1.92	0.51
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.44	0.51
1:A:668:VAL:HA	1:A:789:VAL:HG12	1.93	0.51
1:A:4030:LEU:HD21	1:A:4040:ILE:HG12	1.93	0.51
1:C:668:VAL:HA	1:C:789:VAL:HG12	1.93	0.51
1:C:1658:ASP:OD1	1:C:1661:ARG:NH2	2.44	0.51
1:C:4843:LEU:CD1	1:E:4827:LEU:HD11	2.39	0.51
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.43	0.51
1:E:669:ASP:HB2	1:E:788:LYS:HG3	1.93	0.51
1:E:1113:VAL:HG12	1:E:1114:GLU:O	2.11	0.51
1:E:2143:THR:N	1:E:3651:ASN:OD1	2.43	0.51
1:E:4983:HIS:O	1:E:4985:LEU:N	2.44	0.51
1:G:1671:ARG:NH1	1:G:1713:ASP:OD2	2.43	0.51
1:G:3878:ASP:O	1:G:3881:THR:HG22	2.11	0.51
1:G:4055:VAL:HG13	1:G:4058:ILE:HD11	1.92	0.51
1:A:753:PRO:HB2	1:A:769:GLU:O	2.11	0.50
1:C:629:ARG:NH1	1:C:1688:HIS:CD2	2.78	0.50
1:C:3661:TRP:O	1:C:3664:THR:HG23	2.11	0.50
1:C:4684:ASP:OD2	1:C:4686:LEU:HD23	2.11	0.50
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.92	0.50
1:E:446:GLN:HG3	1:E:521:LEU:HD21	1.93	0.50
1:E:635:THR:OG1	1:E:1693:GLN:NE2	2.43	0.50
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.50
1:E:4686:LEU:HD13	1:E:4692:PRO:HD3	1.92	0.50
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.75	0.50
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.93	0.50
1:G:1113:VAL:HG12	1:G:1114:GLU:O	2.11	0.50
1:G:1698:LEU:HG	1:G:1712:TYR:CE1	2.46	0.50
1:G:4221:VAL:O	1:G:4225:GLY:N	2.37	0.50
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.76	0.50
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.11	0.50
1:G:4856:PHE:CE2	1:G:4860:ARG:NH1	2.79	0.50
1:A:1113:VAL:HG12	1:A:1114:GLU:O	2.11	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:548:VAL:O	1:C:551:LEU:HB3	2.12	0.50
1:C:646:PRO:HD2	1:C:779:PRO:HG2	1.92	0.50
1:C:1698:LEU:HG	1:C:1712:TYR:CE1	2.46	0.50
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.11	0.50
1:E:547:VAL:HG12	1:E:564:LEU:HD12	1.92	0.50
1:E:1698:LEU:HG	1:E:1712:TYR:CE1	2.46	0.50
1:E:2161:GLN:O	1:E:2164:SER:OG	2.16	0.50
1:E:4049:VAL:HG21	1:E:4159:ARG:HD3	1.93	0.50
1:G:1849:LEU:HG	1:G:1945:TYR:CE2	2.46	0.50
1:A:1101:ARG:N	1:A:1193:SER:HB3	2.25	0.50
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.47	0.50
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.93	0.50
1:C:4030:LEU:HD21	1:C:4040:ILE:HG12	1.93	0.50
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.12	0.50
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.47	0.50
1:E:634:GLN:HB3	1:E:1640:HIS:HE1	1.74	0.50
1:E:1775:HIS:NE2	1:E:1851:MET:HG3	2.25	0.50
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.92	0.50
1:E:3661:TRP:O	1:E:3664:THR:HG23	2.11	0.50
1:G:1101:ARG:N	1:G:1193:SER:HB3	2.25	0.50
1:G:1285:GLU:HG2	1:G:1286:MET:HG2	1.93	0.50
1:G:4193:ILE:HG22	1:G:5006:GLN:OE1	2.11	0.50
1:A:839:LEU:HD22	1:A:1075:PHE:CE1	2.47	0.50
1:A:1087:ARG:HB3	1:A:1223:PHE:CD1	2.47	0.50
1:A:4937:ILE:CD1	1:G:4934:GLY:CA	2.87	0.50
1:A:4984:ASN:HD21	1:A:4987:ASN:ND2	2.10	0.50
1:C:567:VAL:HG12	1:C:574:VAL:HG11	1.92	0.50
1:C:839:LEU:HD22	1:C:1075:PHE:CE1	2.47	0.50
1:C:4983:HIS:HE1	1:C:5023:PRO:HG2	1.76	0.50
1:E:20:VAL:HG12	1:E:204:PRO:HA	1.94	0.50
1:E:674:PHE:O	2:F:40:ARG:NH1	2.44	0.50
1:G:668:VAL:HA	1:G:789:VAL:HG12	1.94	0.50
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.92	0.50
1:G:989:ALA:HB1	1:G:1035:ASN:HB3	1.93	0.50
1:G:1293:LEU:HD11	1:G:1598:GLN:HG2	1.94	0.50
1:G:4240:ASP:OD1	1:G:4675:LYS:NZ	2.36	0.50
1:G:4640:GLU:HB3	1:G:4641:PRO:HD3	1.93	0.50
1:A:989:ALA:HB1	1:A:1035:ASN:HB3	1.92	0.50
1:A:1089:TYR:HE2	1:A:1091:GLU:OE2	1.95	0.50
1:A:1687:SER:CB	2:B:90:ILE:HG12	2.42	0.50
1:A:1698:LEU:HG	1:A:1712:TYR:CE1	2.47	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4983:HIS:O	1:A:4985:LEU:N	2.44	0.50
1:C:495:ASN:CB	1:C:553:ARG:HH12	2.25	0.50
1:C:1113:VAL:HG12	1:C:1114:GLU:O	2.11	0.50
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.11	0.50
1:E:231:LEU:HD11	1:E:245:VAL:HG13	1.91	0.50
1:E:863:LEU:H	1:E:930:LYS:HE3	1.75	0.50
1:E:1285:GLU:HG2	1:E:1286:MET:HG2	1.92	0.50
1:E:2807:TRP:O	1:E:2811:GLU:HG2	2.12	0.50
1:G:495:ASN:CB	1:G:553:ARG:HH12	2.25	0.50
1:G:547:VAL:HG12	1:G:564:LEU:HD12	1.92	0.50
1:G:753:PRO:HB2	1:G:769:GLU:O	2.11	0.50
1:G:1658:ASP:OD1	1:G:1661:ARG:NH2	2.44	0.50
1:G:2107:GLN:NE2	1:G:3680:ALA:O	2.44	0.50
1:G:4579:PHE:HB2	1:G:4631:PHE:CE1	2.47	0.50
1:A:15:ARG:N	1:A:18:ASP:OD2	2.45	0.50
1:A:222:LEU:HD22	1:A:231:LEU:HD23	1.94	0.50
1:A:3661:TRP:O	1:A:3664:THR:HG23	2.11	0.50
1:A:3977:GLN:NE2	1:A:4032:GLU:OE2	2.44	0.50
1:A:4878:ASP:HA	1:C:4581:LYS:CB	2.41	0.50
1:A:4983:HIS:HE1	1:A:5023:PRO:HG2	1.76	0.50
1:C:1598:GLN:NE2	1:C:1643:GLU:OE2	2.45	0.50
1:C:2755:ILE:HD13	1:C:2810:LYS:HG2	1.93	0.50
1:E:835:ARG:NH2	1:E:1093:GLU:OE2	2.44	0.50
1:E:1101:ARG:N	1:E:1193:SER:HB3	2.26	0.50
1:E:3771:HIS:HE1	1:E:3815:LYS:HB3	1.76	0.50
1:E:4205:TRP:HZ2	1:E:4214:LYS:HE2	1.76	0.50
1:E:4221:VAL:O	1:E:4225:GLY:N	2.43	0.50
1:G:548:VAL:O	1:G:551:LEU:HB3	2.12	0.50
1:G:669:ASP:HB2	1:G:788:LYS:HG3	1.94	0.50
1:G:1775:HIS:NE2	1:G:1851:MET:HG3	2.26	0.50
1:G:4859:PHE:HZ	1:G:4912:TYR:HB3	1.76	0.50
1:A:1227:ALA:HA	1:A:1230:MET:HB2	1.94	0.50
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.44	0.50
1:A:3989:VAL:HG12	1:A:4047:MET:HE1	1.93	0.50
1:C:634:GLN:HB3	1:C:1640:HIS:HE1	1.74	0.50
1:C:669:ASP:HB2	1:C:788:LYS:HG3	1.93	0.50
1:E:828:GLU:O	1:E:840:VAL:HG23	2.12	0.50
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.19	0.50
1:G:446:GLN:HG3	1:G:521:LEU:HD21	1.94	0.50
1:G:839:LEU:HD22	1:G:1075:PHE:CE1	2.47	0.50
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.94	0.50
1:G:3927:GLN:O	1:G:3931:SER:N	2.34	0.50
1:G:4851:TYR:O	1:G:4855:ALA:N	2.44	0.50
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.94	0.50
1:A:1285:GLU:HG2	1:A:1286:MET:HG2	1.92	0.50
1:A:1775:HIS:NE2	1:A:1851:MET:HG3	2.26	0.50
1:A:2561:LEU:HD11	1:A:2601:ASP:HA	1.93	0.50
1:C:3771:HIS:CE1	1:C:3812:VAL:HA	2.47	0.50
1:C:3771:HIS:HE1	1:C:3815:LYS:HB3	1.77	0.50
2:D:25:HIS:CG	2:D:40:ARG:HE	2.29	0.50
1:E:839:LEU:HD22	1:E:1075:PHE:CE1	2.47	0.50
1:E:1687:SER:CB	2:F:90:ILE:HG12	2.42	0.50
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.11	0.50
1:E:2326:CYS:O	1:E:2330:ARG:HG2	2.12	0.50
1:E:3902:TYR:O	1:E:3906:GLN:N	2.45	0.50
1:G:4145:VAL:O	1:G:4149:ASN:N	2.40	0.50
1:G:4555:LEU:HD11	1:G:4656:LEU:HB2	1.92	0.50
1:G:4661:TYR:CE1	1:G:4665:LYS:HB2	2.46	0.50
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.93	0.50
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.76	0.50
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.77	0.50
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.11	0.50
1:A:3713:LYS:O	1:A:3715:LYS:N	2.45	0.50
1:A:3839:CYS:SG	1:A:3881:THR:HB	2.52	0.50
1:A:4684:ASP:OD2	1:A:4686:LEU:HD23	2.11	0.50
1:C:1087:ARG:HB3	1:C:1223:PHE:CD1	2.47	0.50
1:C:1089:TYR:HE2	1:C:1091:GLU:OE2	1.95	0.50
1:C:2326:CYS:O	1:C:2330:ARG:HG2	2.12	0.50
1:C:2476:ILE:HA	1:C:2495:VAL:HG21	1.93	0.50
1:C:3958:ALA:CB	1:C:4019:LEU:HD11	2.40	0.50
1:C:3977:GLN:NE2	1:C:4032:GLU:OE2	2.44	0.50
1:C:4984:ASN:HD21	1:C:4987:ASN:ND2	2.09	0.50
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.47	0.50
1:G:2155:LEU:HD13	1:G:2188:ASN:HD22	1.77	0.50
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.93	0.50
1:A:446:GLN:HG3	1:A:521:LEU:HD21	1.93	0.49
1:A:634:GLN:HB3	1:A:1640:HIS:HE1	1.74	0.49
1:A:716:PHE:H	1:A:738:LEU:HD13	1.77	0.49
1:A:2561:LEU:HD21	1:A:2601:ASP:HA	1.94	0.49
1:A:3882:GLN:OE1	1:A:3957:VAL:HA	2.12	0.49
1:A:4856:PHE:CE2	1:A:4860:ARG:NH1	2.80	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:716:PHE:H	1:C:738:LEU:HD13	1.77	0.49
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.44	0.49
1:C:2561:LEU:HD11	1:C:2601:ASP:HA	1.93	0.49
1:C:3805:LEU:O	1:C:3807:GLY:N	2.45	0.49
1:E:15:ARG:N	1:E:18:ASP:OD2	2.45	0.49
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.93	0.49
1:E:2476:ILE:HA	1:E:2495:VAL:HG21	1.93	0.49
1:E:2561:LEU:HD11	1:E:2601:ASP:HA	1.93	0.49
1:E:3835:LEU:CD1	1:E:3884:LEU:HD13	2.42	0.49
1:E:3977:GLN:NE2	1:E:4032:GLU:OE2	2.45	0.49
1:E:4967:TYR:HD2	1:E:4968:PHE:CE1	2.30	0.49
1:G:1163:THR:HG22	1:G:1168:VAL:HA	1.94	0.49
1:G:2532:ALA:HA	1:G:2550:LEU:HD22	1.94	0.49
1:G:4661:TYR:OH	1:G:4788:SER:HB3	2.12	0.49
1:A:2532:ALA:HA	1:A:2550:LEU:HD22	1.94	0.49
1:A:3996:PHE:CZ	1:A:4019:LEU:HD22	2.41	0.49
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.12	0.49
1:C:1775:HIS:NE2	1:C:1851:MET:HG3	2.28	0.49
1:C:4049:VAL:HG21	1:C:4159:ARG:HD3	1.93	0.49
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.77	0.49
1:E:2561:LEU:HD21	1:E:2601:ASP:HA	1.93	0.49
1:E:4118:ASP:HB2	1:E:4122:MET:HB2	1.94	0.49
1:E:4684:ASP:OD2	1:E:4686:LEU:HD23	2.12	0.49
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.94	0.49
1:E:4984:ASN:HD21	1:E:4987:ASN:ND2	2.09	0.49
1:G:1087:ARG:HB3	1:G:1223:PHE:CD1	2.47	0.49
1:G:2326:CYS:O	1:G:2330:ARG:HG2	2.12	0.49
1:G:3733:CYS:HB2	1:G:3803:SER:OG	2.11	0.49
1:G:3886:ARG:O	1:G:3890:LEU:HD13	2.11	0.49
1:G:4035:VAL:HG12	1:G:4036:VAL:N	2.27	0.49
1:A:495:ASN:CB	1:A:553:ARG:HH12	2.25	0.49
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.19	0.49
1:A:3771:HIS:HE1	1:A:3815:LYS:HB3	1.77	0.49
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.78	0.49
1:C:674:PHE:CB	2:D:40:ARG:NH1	2.72	0.49
1:C:1293:LEU:HD11	1:C:1598:GLN:HG2	1.94	0.49
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.94	0.49
1:E:1089:TYR:HE2	1:E:1091:GLU:OE2	1.95	0.49
1:E:1723:ALA:HB1	1:E:1775:HIS:CD2	2.43	0.49
1:E:3817:LEU:HD11	1:E:3821:LYS:HZ1	1.77	0.49
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.47	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4983:HIS:HE1	1:E:5023:PRO:HG2	1.76	0.49
1:G:462:GLU:HG3	1:G:3823:LYS:HZ3	1.77	0.49
1:G:646:PRO:HD2	1:G:779:PRO:HG2	1.92	0.49
1:G:1457:TYR:OH	1:G:1553:PHE:CE1	2.60	0.49
1:G:1970:GLN:HE22	1:G:3645:PRO:HD2	1.77	0.49
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.93	0.49
1:A:54:ASN:O	1:A:56:GLN:N	2.46	0.49
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.46	0.49
1:A:2124:LEU:HD21	1:A:3677:LEU:HD21	1.95	0.49
1:A:2155:LEU:HD13	1:A:2188:ASN:HD22	1.78	0.49
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.94	0.49
1:C:1078:GLU:HB3	1:C:1081:TYR:CD2	2.48	0.49
1:C:4118:ASP:HB2	1:C:4122:MET:HB2	1.94	0.49
1:C:4983:HIS:O	1:C:4985:LEU:N	2.44	0.49
1:E:597:HIS:HB2	1:E:1665:HIS:CD2	2.48	0.49
1:E:712:TYR:HB3	1:E:768:PHE:CE1	2.48	0.49
1:E:1163:THR:HG22	1:E:1168:VAL:HA	1.94	0.49
1:G:597:HIS:HB2	1:G:1665:HIS:CD2	2.47	0.49
1:G:828:GLU:O	1:G:840:VAL:HG23	2.12	0.49
1:G:863:LEU:H	1:G:930:LYS:HE3	1.76	0.49
1:G:1206:GLN:O	1:G:1209:SER:OG	2.18	0.49
1:A:415:ILE:HG23	1:A:493:ARG:HD2	1.95	0.49
1:A:548:VAL:O	1:A:551:LEU:HB3	2.12	0.49
1:A:1163:THR:HG22	1:A:1168:VAL:HA	1.94	0.49
1:C:20:VAL:HG12	1:C:204:PRO:HA	1.95	0.49
1:C:54:ASN:O	1:C:56:GLN:N	2.46	0.49
1:C:256:ALA:HB3	1:C:481:GLU:OE2	2.13	0.49
1:C:1285:GLU:HG2	1:C:1286:MET:HG2	1.93	0.49
1:C:2561:LEU:HD21	1:C:2601:ASP:HA	1.94	0.49
1:C:3798:LEU:HD11	1:C:3884:LEU:HD12	1.94	0.49
1:C:3839:CYS:SG	1:C:3881:THR:HB	2.52	0.49
1:C:4205:TRP:HZ2	1:C:4214:LYS:HE2	1.76	0.49
1:C:4973:HIS:HD2	1:C:4977:THR:HG23	1.77	0.49
1:E:495:ASN:CB	1:E:553:ARG:HH12	2.25	0.49
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.77	0.49
1:E:2155:LEU:HD13	1:E:2188:ASN:HD22	1.77	0.49
1:E:3669:PHE:O	1:E:3672:ARG:HG2	2.13	0.49
1:E:4030:LEU:HD21	1:E:4040:ILE:HG12	1.93	0.49
1:E:4888:TYR:O	1:E:4892:ARG:HD3	2.12	0.49
1:G:54:ASN:O	1:G:56:GLN:N	2.46	0.49
1:G:494:LEU:HB3	1:G:519:VAL:HG22	1.95	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4240:ASP:CG	1:G:4675:LYS:HZ3	2.15	0.49
1:A:2139:PRO:HG3	1:A:3658:LYS:NZ	2.27	0.49
1:C:403:MET:HE2	1:C:448:LEU:HD23	1.94	0.49
1:C:712:TYR:HB3	1:C:768:PHE:CE1	2.47	0.49
1:C:989:ALA:HB1	1:C:1035:ASN:HB3	1.93	0.49
1:C:4878:ASP:HA	1:E:4581:LYS:CB	2.43	0.49
1:E:1227:ALA:HA	1:E:1230:MET:HB2	1.95	0.49
1:G:716:PHE:H	1:G:738:LEU:HD13	1.77	0.49
1:G:1598:GLN:NE2	1:G:1643:GLU:OE2	2.45	0.49
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.12	0.49
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.12	0.49
1:G:4574:ASN:HA	1:G:4577:LEU:HB2	1.92	0.49
1:A:462:GLU:HG3	1:A:3823:LYS:NZ	2.27	0.49
1:A:669:ASP:HB2	1:A:788:LYS:HG3	1.94	0.49
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.48	0.49
1:A:3647:HIS:O	1:A:3651:ASN:ND2	2.46	0.49
1:A:3771:HIS:CE1	1:A:3812:VAL:HA	2.47	0.49
1:C:446:GLN:HG3	1:C:521:LEU:HD21	1.93	0.49
1:C:1163:THR:HG22	1:C:1168:VAL:HA	1.94	0.49
1:C:1687:SER:CB	2:D:90:ILE:HG12	2.42	0.49
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.78	0.49
1:C:3882:GLN:OE1	1:C:3957:VAL:HA	2.12	0.49
1:C:4032:GLU:HB2	1:C:5006:GLN:CD	2.32	0.49
1:E:441:VAL:O	1:E:444:SER:OG	2.16	0.49
1:E:462:GLU:HG3	1:E:3823:LYS:NZ	2.28	0.49
1:E:4856:PHE:CE2	1:E:4860:ARG:NH1	2.81	0.49
1:E:4973:HIS:HD2	1:E:4977:THR:HG23	1.77	0.49
1:G:495:ASN:HB3	1:G:553:ARG:HH12	1.77	0.49
1:G:4032:GLU:HB2	1:G:5006:GLN:CD	2.33	0.49
1:G:4904:PRO:HB2	1:G:4910:GLU:HG3	1.93	0.49
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.78	0.49
1:A:291:LEU:HA	1:A:301:VAL:HA	1.95	0.49
1:A:1078:GLU:HB3	1:A:1081:TYR:CD2	2.48	0.49
1:A:1598:GLN:NE2	1:A:1643:GLU:OE2	2.45	0.49
1:C:49:LEU:HD21	1:C:191:VAL:HG23	1.95	0.49
1:C:4147:LEU:HD21	1:C:4163:PHE:HE2	1.78	0.49
1:E:495:ASN:HB3	1:E:553:ARG:HH12	1.77	0.49
1:E:1598:GLN:NE2	1:E:1643:GLU:OE2	2.45	0.49
1:E:4032:GLU:HB2	1:E:5006:GLN:CD	2.32	0.49
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.28	0.49
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:49:LEU:HD21	1:G:191:VAL:HG23	1.95	0.49
1:G:2561:LEU:HD21	1:G:2601:ASP:HA	1.94	0.49
1:G:4977:THR:O	1:G:4981:GLU:N	2.45	0.49
1:G:5013:MET:HG3	1:G:5018:CYS:HB2	1.94	0.49
1:A:49:LEU:HD21	1:A:191:VAL:HG23	1.95	0.49
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.78	0.49
1:A:4967:TYR:HD2	1:A:4968:PHE:CE1	2.30	0.49
1:C:494:LEU:HB3	1:C:519:VAL:HG22	1.95	0.49
1:C:540:PHE:HA	1:C:543:ASN:HB2	1.94	0.49
1:C:1253:PRO:O	1:C:1254:HIS:HB2	2.13	0.49
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.78	0.49
1:C:2532:ALA:HA	1:C:2550:LEU:HD22	1.94	0.49
1:C:3780:LEU:HD12	1:C:3828:PHE:CE1	2.48	0.49
1:C:4680:LYS:O	1:C:4685:GLY:N	2.44	0.49
1:C:4967:TYR:HD2	1:C:4968:PHE:CE1	2.30	0.49
1:E:494:LEU:HB3	1:E:519:VAL:HG22	1.95	0.49
1:E:1456:ASP:O	1:E:1457:TYR:HB2	2.13	0.49
1:E:3969:ILE:HG23	1:E:3977:GLN:HG2	1.95	0.49
1:G:1227:ALA:HA	1:G:1230:MET:HB2	1.94	0.49
1:G:4849:TYR:HA	1:G:4852:THR:HG22	1.95	0.49
1:A:274:LEU:HD12	1:A:278:GLN:NE2	2.27	0.49
1:A:283:ARG:HD2	1:A:290:TYR:CZ	2.48	0.49
1:A:701:GLY:O	1:A:1647:CYS:HB3	2.13	0.49
1:A:712:TYR:HB3	1:A:768:PHE:CE1	2.48	0.49
1:A:2326:CYS:O	1:A:2330:ARG:HG2	2.12	0.49
1:C:215:THR:CG2	1:C:273:HIS:HD2	2.26	0.49
1:C:828:GLU:O	1:C:840:VAL:HG23	2.12	0.49
1:C:931:THR:CB	1:C:988:LEU:HD22	2.43	0.49
1:C:2107:GLN:NE2	1:C:3680:ALA:O	2.46	0.49
1:C:2139:PRO:HG3	1:C:3658:LYS:NZ	2.28	0.49
1:C:3959:LYS:HG3	1:C:4022:ASP:OD2	2.13	0.49
1:C:4640:GLU:HB3	1:C:4641:PRO:HD3	1.93	0.49
1:C:4712:PRO:HG2	1:C:4718:LYS:HD2	1.95	0.49
1:C:4977:THR:O	1:C:4981:GLU:N	2.46	0.49
1:E:54:ASN:O	1:E:56:GLN:N	2.46	0.49
1:E:548:VAL:O	1:E:551:LEU:HB3	2.12	0.49
1:E:716:PHE:H	1:E:738:LEU:HD13	1.77	0.49
1:E:1087:ARG:HB3	1:E:1223:PHE:CD1	2.47	0.49
1:E:1253:PRO:O	1:E:1254:HIS:HB2	2.13	0.49
1:E:2107:GLN:NE2	1:E:3680:ALA:O	2.46	0.49
1:E:3805:LEU:O	1:E:3807:GLY:N	2.46	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3882:GLN:OE1	1:E:3957:VAL:HA	2.12	0.49
1:E:4147:LEU:HD21	1:E:4163:PHE:HE2	1.77	0.49
1:G:701:GLY:O	1:G:1647:CYS:HB3	2.13	0.49
1:G:1078:GLU:HB3	1:G:1081:TYR:CD2	2.47	0.49
1:G:1456:ASP:O	1:G:1457:TYR:HB2	2.12	0.49
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.48	0.49
1:A:828:GLU:O	1:A:840:VAL:HG23	2.12	0.48
1:A:931:THR:CB	1:A:988:LEU:HD22	2.43	0.48
1:A:2765:LYS:NZ	1:A:2769:ASP:OD2	2.37	0.48
1:A:3767:GLN:NE2	1:A:3806:ASN:HB3	2.27	0.48
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.47	0.48
1:A:4032:GLU:HB2	1:A:5006:GLN:CD	2.32	0.48
1:C:291:LEU:HA	1:C:301:VAL:HA	1.94	0.48
1:C:701:GLY:O	1:C:1647:CYS:HB3	2.13	0.48
1:C:2068:GLU:OE1	1:C:2068:GLU:N	2.46	0.48
1:C:3835:LEU:HD12	1:C:3836:MET:N	2.28	0.48
1:E:49:LEU:HD21	1:E:191:VAL:HG23	1.95	0.48
1:E:222:LEU:HD22	1:E:231:LEU:HD23	1.94	0.48
1:E:3647:HIS:O	1:E:3651:ASN:ND2	2.46	0.48
1:E:3771:HIS:CE1	1:E:3812:VAL:HA	2.48	0.48
1:E:3959:LYS:HG3	1:E:4022:ASP:OD2	2.13	0.48
1:E:4035:VAL:HG12	1:E:4036:VAL:N	2.28	0.48
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.47	0.48
1:G:2807:TRP:O	1:G:2811:GLU:HG2	2.13	0.48
1:G:4967:TYR:HD2	1:G:4968:PHE:CE1	2.31	0.48
1:A:495:ASN:HB3	1:A:553:ARG:HH12	1.77	0.48
1:A:3780:LEU:HD12	1:A:3828:PHE:CE1	2.48	0.48
1:A:4049:VAL:HG21	1:A:4159:ARG:HD3	1.94	0.48
1:A:4973:HIS:HD2	1:A:4977:THR:HG23	1.78	0.48
1:C:274:LEU:HD12	1:C:278:GLN:NE2	2.27	0.48
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.94	0.48
1:C:3713:LYS:O	1:C:3715:LYS:N	2.46	0.48
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.48
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.48	0.48
1:E:283:ARG:HD2	1:E:290:TYR:CZ	2.48	0.48
1:E:2532:ALA:HA	1:E:2550:LEU:HD22	1.94	0.48
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.12	0.48
1:E:4713:SER:OG	1:E:4775:TYR:OH	2.31	0.48
1:G:4983:HIS:O	1:G:4985:LEU:N	2.46	0.48
1:A:597:HIS:NE2	1:A:598:LYS:NZ	2.61	0.48
1:A:2063:LEU:HD13	1:A:3661:TRP:CZ3	2.48	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4147:LEU:HD21	1:A:4163:PHE:HE2	1.77	0.48
1:A:4977:THR:O	1:A:4981:GLU:N	2.46	0.48
1:C:546:TRP:O	1:C:550:LYS:HG2	2.13	0.48
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.94	0.48
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.95	0.48
1:E:1951:LEU:HD22	1:E:2133:GLU:HG2	1.96	0.48
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.48	0.48
1:E:4680:LYS:O	1:E:4685:GLY:N	2.43	0.48
1:G:256:ALA:HB3	1:G:481:GLU:OE2	2.13	0.48
1:G:299:LEU:HD22	1:G:378:LEU:HG	1.95	0.48
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.46	0.48
1:G:1089:TYR:HE2	1:G:1091:GLU:OE2	1.95	0.48
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.95	0.48
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.13	0.48
1:A:530:ILE:HG22	1:A:530:ILE:O	2.14	0.48
1:A:674:PHE:O	2:B:40:ARG:NH1	2.45	0.48
1:A:1293:LEU:HD11	1:A:1598:GLN:HG2	1.94	0.48
1:A:3987:ASP:OD1	1:G:162:LYS:NZ	2.46	0.48
1:C:3669:PHE:O	1:C:3672:ARG:HG2	2.14	0.48
1:C:3835:LEU:CD1	1:C:3884:LEU:HD13	2.42	0.48
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.13	0.48
1:E:102:LEU:HB2	1:E:105:HIS:CE1	2.49	0.48
1:E:291:LEU:HA	1:E:301:VAL:HA	1.94	0.48
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.27	0.48
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.96	0.48
1:E:1849:LEU:HD13	1:E:1854:PHE:CD2	2.48	0.48
1:G:283:ARG:HD2	1:G:290:TYR:CZ	2.48	0.48
1:G:291:LEU:O	1:G:312:THR:OG1	2.23	0.48
1:G:2143:THR:N	1:G:3651:ASN:OD1	2.47	0.48
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.49	0.48
2:H:37:ASP:OD1	2:H:38:SER:N	2.45	0.48
1:A:291:LEU:O	1:A:312:THR:OG1	2.23	0.48
1:A:3959:LYS:HG3	1:A:4022:ASP:OD2	2.13	0.48
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.28	0.48
1:A:4827:LEU:HD11	1:G:4843:LEU:HD11	1.93	0.48
1:C:283:ARG:HD2	1:C:290:TYR:CZ	2.48	0.48
1:C:597:HIS:HB2	1:C:1665:HIS:CD2	2.47	0.48
1:C:2063:LEU:HD13	1:C:3661:TRP:CZ3	2.49	0.48
1:E:256:ALA:HB3	1:E:481:GLU:OE2	2.14	0.48
1:E:1293:LEU:HD11	1:E:1598:GLN:HG2	1.94	0.48
1:E:3839:CYS:SG	1:E:3881:THR:HB	2.52	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4640:GLU:HB3	1:E:4641:PRO:HD3	1.95	0.48
1:G:931:THR:CB	1:G:988:LEU:HD22	2.43	0.48
1:G:1457:TYR:CZ	1:G:1553:PHE:CE1	3.02	0.48
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.13	0.48
1:G:3969:ILE:O	1:G:3969:ILE:HG22	2.13	0.48
1:G:4562:LEU:HD21	1:G:4656:LEU:HD12	1.95	0.48
1:A:42:PHE:CE1	1:A:114:SER:HB2	2.49	0.48
1:A:3835:LEU:CD1	1:A:3884:LEU:HD13	2.42	0.48
1:A:3958:ALA:CB	1:A:4019:LEU:HD11	2.40	0.48
1:A:4680:LYS:O	1:A:4685:GLY:N	2.43	0.48
1:A:4713:SER:OG	1:A:4775:TYR:OH	2.31	0.48
1:C:222:LEU:HD22	1:C:231:LEU:HD23	1.95	0.48
1:C:2124:LEU:HD21	1:C:3677:LEU:HD21	1.96	0.48
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.14	0.48
1:C:3969:ILE:HG23	1:C:3977:GLN:HG2	1.94	0.48
1:E:546:TRP:O	1:E:550:LYS:HG2	2.13	0.48
1:E:597:HIS:NE2	1:E:598:LYS:NZ	2.61	0.48
1:E:931:THR:CB	1:E:988:LEU:HD22	2.43	0.48
1:E:1243:PRO:CD	1:E:1458:HIS:HB3	2.38	0.48
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.14	0.48
1:E:4933:GLN:O	1:E:4937:ILE:HG12	2.14	0.48
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.78	0.48
1:G:215:THR:CG2	1:G:273:HIS:HD2	2.27	0.48
1:G:222:LEU:HD22	1:G:231:LEU:HD23	1.95	0.48
1:G:274:LEU:HD12	1:G:278:GLN:NE2	2.27	0.48
1:G:645:ARG:NH1	1:G:824:GLU:OE2	2.47	0.48
1:G:712:TYR:HB3	1:G:768:PHE:CE1	2.48	0.48
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.77	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.95	0.48
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.77	0.48
2:H:25:HIS:CG	2:H:40:ARG:HE	2.30	0.48
1:A:20:VAL:HG12	1:A:204:PRO:HA	1.94	0.48
1:A:3969:ILE:HG23	1:A:3977:GLN:HG2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HB3	2.14	0.48
1:A:4235:VAL:HG11	1:A:5019:TRP:HH2	1.79	0.48
1:C:224:HIS:HE1	1:C:386:ASP:HA	1.79	0.48
1:C:308:HIS:CE1	1:C:311:ALA:HB2	2.49	0.48
1:C:495:ASN:HB3	1:C:553:ARG:HH12	1.77	0.48
1:C:530:ILE:HG22	1:C:530:ILE:O	2.13	0.48
1:C:1227:ALA:HA	1:C:1230:MET:HB2	1.94	0.48
1:C:1671:ARG:NH1	1:C:1713:ASP:OD2	2.47	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1951:LEU:HD22	1:C:2133:GLU:HG2	1.95	0.48
1:C:2155:LEU:HD13	1:C:2188:ASN:HD22	1.77	0.48
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.47	0.48
1:C:3767:GLN:NE2	1:C:3806:ASN:HB3	2.28	0.48
1:C:4041:ALA:O	1:C:4044:MET:HB3	2.14	0.48
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.95	0.48
1:E:3780:LEU:HD12	1:E:3828:PHE:CE1	2.48	0.48
1:E:4703:ARG:O	1:E:4706:LEU:HG	2.14	0.48
1:E:4977:THR:O	1:E:4981:GLU:N	2.45	0.48
1:G:20:VAL:HG12	1:G:204:PRO:HA	1.95	0.48
1:G:415:ILE:HG23	1:G:493:ARG:HD2	1.96	0.48
1:G:1253:PRO:O	1:G:1254:HIS:HB2	2.14	0.48
1:G:4973:HIS:HD2	1:G:4977:THR:HG23	1.78	0.48
1:A:76:ARG:NH2	1:C:3936:TYR:HD1	2.10	0.48
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.49	0.48
1:A:456:SER:HB2	1:A:459:LEU:HD13	1.95	0.48
1:A:2068:GLU:O	1:A:2071:ARG:HB2	2.14	0.48
1:A:2272:PRO:O	1:A:2275:VAL:HB	2.14	0.48
1:A:3805:LEU:O	1:A:3807:GLY:N	2.47	0.48
1:A:3936:TYR:HD1	1:G:76:ARG:NH2	2.10	0.48
1:C:42:PHE:CE1	1:C:114:SER:HB2	2.49	0.48
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.79	0.48
1:C:3949:ARG:O	1:C:3952:SER:OG	2.20	0.48
1:C:4772:ASP:OD1	1:C:4773:VAL:N	2.47	0.48
1:E:215:THR:CG2	1:E:273:HIS:HD2	2.26	0.48
1:E:667:MET:HG3	1:E:743:VAL:HG22	1.95	0.48
1:E:701:GLY:O	1:E:1647:CYS:HB3	2.13	0.48
1:E:1958:LEU:HD11	1:E:3657:TYR:HE2	1.78	0.48
1:E:2498:HIS:O	1:E:2501:SER:OG	2.30	0.48
1:G:2068:GLU:O	1:G:2071:ARG:HB2	2.13	0.48
1:G:2161:GLN:O	1:G:2164:SER:OG	2.16	0.48
1:G:2272:PRO:O	1:G:2275:VAL:HB	2.14	0.48
1:G:3998:HIS:O	1:G:4002:LYS:HG2	2.13	0.48
1:G:4791:TYR:O	1:G:4795:TYR:N	2.45	0.48
1:G:4857:ASN:O	1:G:4859:PHE:N	2.46	0.48
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.21	0.48
1:A:1723:ALA:HB1	1:A:1775:HIS:CD2	2.43	0.48
1:A:1958:LEU:HD11	1:A:3657:TYR:HE2	1.79	0.48
1:A:2354:VAL:O	1:A:2358:ILE:HG13	2.14	0.48
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.95	0.48
1:A:3674:ILE:HD11	1:A:3728:ILE:HG22	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.79	0.48
1:A:3902:TYR:O	1:A:3906:GLN:N	2.46	0.48
1:A:4640:GLU:HB3	1:A:4641:PRO:HD3	1.94	0.48
1:C:2068:GLU:O	1:C:2071:ARG:HB2	2.14	0.48
1:C:4033:GLY:O	1:C:4189:ARG:NH2	2.37	0.48
1:E:299:LEU:HD22	1:E:378:LEU:HG	1.95	0.48
1:E:540:PHE:HA	1:E:543:ASN:HB2	1.96	0.48
1:E:1078:GLU:HB3	1:E:1081:TYR:CD2	2.48	0.48
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.79	0.48
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.95	0.48
1:E:3835:LEU:HD12	1:E:3836:MET:N	2.28	0.48
1:E:4934:GLY:HA3	1:G:4937:ILE:CD1	2.44	0.48
1:G:546:TRP:O	1:G:550:LYS:HG2	2.14	0.48
1:G:4051:SER:OG	1:G:4054:ASN:HB3	2.14	0.48
1:G:5011:TRP:O	1:G:5015:GLN:HG2	2.14	0.48
1:A:150:MET:HG2	1:A:171:LEU:CD2	2.44	0.48
1:A:236:ALA:HA	1:A:242:ARG:HH11	1.79	0.48
1:A:597:HIS:HB2	1:A:1665:HIS:CD2	2.48	0.48
1:A:2107:GLN:NE2	1:A:3680:ALA:O	2.46	0.48
1:A:4118:ASP:HB2	1:A:4122:MET:HB2	1.94	0.48
1:C:556:ALA:HB3	1:C:560:ILE:HD11	1.96	0.48
1:C:1723:ALA:HB1	1:C:1775:HIS:CD2	2.43	0.48
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.95	0.48
1:C:3722:TYR:CZ	1:C:3782:MET:HG3	2.49	0.48
2:D:38:SER:HB3	2:D:41:ASP:OD2	2.14	0.48
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.49	0.48
1:E:415:ILE:HG23	1:E:493:ARG:HD2	1.96	0.48
1:E:2354:VAL:O	1:E:2358:ILE:HG13	2.14	0.48
1:E:2907:PRO:O	1:E:2910:THR:OG1	2.16	0.48
1:E:3958:ALA:CB	1:E:4019:LEU:HD11	2.40	0.48
1:G:15:ARG:N	1:G:18:ASP:OD2	2.47	0.48
1:G:291:LEU:HA	1:G:301:VAL:HA	1.95	0.48
1:G:597:HIS:NE2	1:G:598:LYS:NZ	2.61	0.48
1:G:1100:MET:O	1:G:1125:ASN:HA	2.14	0.48
1:A:494:LEU:HB3	1:A:519:VAL:HG22	1.96	0.47
1:A:835:ARG:NH2	1:A:1093:GLU:OE2	2.43	0.47
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.14	0.47
1:A:3923:LEU:HD12	1:A:3961:VAL:HG12	1.96	0.47
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.14	0.47
2:B:38:SER:HB3	2:B:41:ASP:OD2	2.14	0.47
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.29	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:597:HIS:NE2	1:C:598:LYS:NZ	2.61	0.47
1:C:645:ARG:NH1	1:C:824:GLU:OE2	2.47	0.47
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.14	0.47
1:C:3835:LEU:HD12	1:C:3835:LEU:C	2.35	0.47
1:C:3902:TYR:O	1:C:3906:GLN:N	2.46	0.47
1:C:3923:LEU:HD12	1:C:3961:VAL:HG12	1.95	0.47
1:E:17:ASP:HB2	1:E:98:HIS:CE1	2.49	0.47
1:G:2183:GLY:O	1:G:2187:ASN:ND2	2.47	0.47
1:G:4901:ILE:HG21	1:G:4913:ARG:NH2	2.29	0.47
1:A:1972:ASN:O	1:A:1975:SER:OG	2.27	0.47
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.14	0.47
1:A:3989:VAL:O	1:A:3993:LEU:HG	2.14	0.47
1:C:3989:VAL:O	1:C:3993:LEU:HG	2.14	0.47
1:C:4035:VAL:HG12	1:C:4036:VAL:N	2.28	0.47
1:E:12:GLN:O	1:E:165:VAL:HG23	2.14	0.47
1:E:530:ILE:O	1:E:530:ILE:HG22	2.13	0.47
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.14	0.47
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.79	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.45	0.47
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.78	0.47
1:E:4772:ASP:OD1	1:E:4773:VAL:N	2.47	0.47
1:G:224:HIS:HE1	1:G:386:ASP:HA	1.79	0.47
1:G:2145:SER:HB3	1:G:3647:HIS:CD2	2.49	0.47
1:G:4984:ASN:HD21	1:G:4987:ASN:ND2	2.12	0.47
1:A:350:HIS:NE2	1:A:352:ALA:HB3	2.29	0.47
1:A:567:VAL:O	1:A:571:SER:OG	2.21	0.47
1:A:2068:GLU:OE1	1:A:2068:GLU:N	2.45	0.47
1:A:4695:ASP:OD1	1:A:4696:ASP:N	2.47	0.47
1:C:15:ARG:N	1:C:18:ASP:OD2	2.47	0.47
1:C:76:ARG:NH2	1:E:3936:TYR:HD1	2.10	0.47
1:C:415:ILE:HG23	1:C:493:ARG:HD2	1.97	0.47
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.79	0.47
1:C:2748:PRO:HD2	1:C:2751:LEU:HD12	1.97	0.47
1:C:3647:HIS:O	1:C:3651:ASN:ND2	2.46	0.47
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.97	0.47
1:E:2063:LEU:HD13	1:E:3661:TRP:CZ3	2.49	0.47
1:E:2272:PRO:O	1:E:2275:VAL:HB	2.14	0.47
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.35	0.47
1:G:17:ASP:HB2	1:G:98:HIS:CE1	2.49	0.47
1:G:462:GLU:HG3	1:G:3823:LYS:NZ	2.29	0.47
1:G:667:MET:HG3	1:G:743:VAL:HG22	1.95	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:215:THR:CG2	1:A:273:HIS:HD2	2.27	0.47
1:A:224:HIS:HE1	1:A:386:ASP:HA	1.79	0.47
1:A:516:LYS:HG3	1:A:555:GLU:OE2	2.14	0.47
1:A:1253:PRO:O	1:A:1254:HIS:HB2	2.14	0.47
1:A:1586:ASN:O	1:A:1588:ALA:N	2.46	0.47
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.96	0.47
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.96	0.47
1:A:3722:TYR:CZ	1:A:3782:MET:HG3	2.49	0.47
1:A:3835:LEU:HD12	1:A:3836:MET:N	2.29	0.47
1:C:299:LEU:HD22	1:C:378:LEU:HG	1.95	0.47
1:C:3992:PHE:HB3	1:C:3996:PHE:CE2	2.49	0.47
1:E:274:LEU:HD12	1:E:278:GLN:NE2	2.27	0.47
1:E:2124:LEU:HD21	1:E:3677:LEU:HD21	1.97	0.47
1:E:2354:VAL:HB	1:E:2453:ILE:HD11	1.97	0.47
1:E:3989:VAL:HG12	1:E:4047:MET:HE1	1.96	0.47
1:E:4041:ALA:O	1:E:4044:MET:HB3	2.14	0.47
1:G:308:HIS:CE1	1:G:311:ALA:HB2	2.49	0.47
1:G:530:ILE:O	1:G:530:ILE:HG22	2.13	0.47
1:G:1586:ASN:O	1:G:1588:ALA:N	2.46	0.47
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.48	0.47
1:G:3993:LEU:HA	1:G:3996:PHE:HB2	1.96	0.47
1:G:4164:LEU:HD23	1:G:4168:GLU:OE2	2.14	0.47
1:G:4702:ASP:HA	1:G:4778:TRP:HE1	1.79	0.47
1:A:645:ARG:NH1	1:A:824:GLU:OE2	2.47	0.47
1:A:1100:MET:O	1:A:1125:ASN:HA	2.14	0.47
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.15	0.47
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.50	0.47
1:A:3992:PHE:HB3	1:A:3996:PHE:CE2	2.49	0.47
1:A:4703:ARG:O	1:A:4706:LEU:HG	2.14	0.47
1:C:572:PRO:HG3	1:C:609:CYS:SG	2.55	0.47
1:C:1100:MET:O	1:C:1125:ASN:HA	2.14	0.47
1:C:1958:LEU:HD11	1:C:3657:TYR:HE2	1.79	0.47
1:C:4242:ILE:HG12	1:C:4993:MET:SD	2.54	0.47
1:E:149:THR:OG1	1:E:172:VAL:HB	2.15	0.47
1:E:1100:MET:O	1:E:1125:ASN:HA	2.14	0.47
1:E:2068:GLU:OE1	1:E:2068:GLU:N	2.45	0.47
1:E:4235:VAL:HG11	1:E:5019:TRP:HH2	1.79	0.47
1:G:1254:HIS:HD2	1:G:1280:GLN:N	2.13	0.47
1:G:2868:SER:O	1:G:2872:GLN:N	2.38	0.47
1:G:4695:ASP:OD1	1:G:4696:ASP:N	2.46	0.47
2:H:25:HIS:CE1	2:H:45:PRO:HG3	2.49	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:H:49:MET:N	2:H:54:GLU:OE2	2.48	0.47
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.50	0.47
1:A:2437:ALA:HB3	1:A:2508:ARG:HH21	1.80	0.47
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	1.97	0.47
1:A:4712:PRO:HG2	1:A:4718:LYS:HD2	1.97	0.47
1:C:17:ASP:HB2	1:C:98:HIS:CE1	2.49	0.47
1:C:667:MET:HG3	1:C:743:VAL:HG22	1.95	0.47
1:C:1717:SER:HA	1:C:1721:GLU:HB2	1.97	0.47
1:C:4235:VAL:HG11	1:C:5019:TRP:HH2	1.80	0.47
1:C:4695:ASP:OD1	1:C:4696:ASP:N	2.47	0.47
1:E:645:ARG:NH1	1:E:824:GLU:OE2	2.47	0.47
1:E:1438:ARG:HE	1:E:1440:PHE:HE1	1.63	0.47
1:E:3992:PHE:HB3	1:E:3996:PHE:CE2	2.49	0.47
1:G:572:PRO:HG3	1:G:609:CYS:SG	2.55	0.47
1:G:650:VAL:N	1:G:777:PHE:O	2.47	0.47
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.15	0.47
1:G:4049:VAL:HA	1:G:4052:SER:HB3	1.95	0.47
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.50	0.47
1:A:421:PHE:HE2	1:A:436:LEU:HD21	1.79	0.47
1:A:667:MET:HG3	1:A:743:VAL:HG22	1.95	0.47
1:A:1254:HIS:HD2	1:A:1280:GLN:N	2.13	0.47
1:A:3669:PHE:O	1:A:3672:ARG:HG2	2.15	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:4035:VAL:HG12	1:A:4036:VAL:N	2.28	0.47
1:A:4580:TYR:HE1	1:A:4631:PHE:HB2	1.80	0.47
1:A:4940:PHE:HZ	1:G:4931:ILE:HG23	1.80	0.47
1:C:150:MET:HG2	1:C:171:LEU:CD2	2.44	0.47
1:C:206:CYS:HB3	1:C:271:GLY:HA3	1.97	0.47
1:C:898:ASP:OD2	1:C:900:ASN:HB2	2.15	0.47
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.97	0.47
1:C:2165:LEU:HD13	1:C:2174:GLU:HB2	1.97	0.47
1:C:2272:PRO:O	1:C:2275:VAL:HB	2.14	0.47
1:C:2354:VAL:HB	1:C:2453:ILE:HD11	1.97	0.47
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.29	0.47
1:C:4703:ARG:O	1:C:4706:LEU:HG	2.14	0.47
1:C:4934:GLY:HA3	1:E:4937:ILE:HD13	1.94	0.47
1:C:4942:GLU:HG3	1:E:4944:ARG:HD2	1.97	0.47
1:E:421:PHE:HE2	1:E:436:LEU:HD21	1.80	0.47
1:E:516:LYS:HG3	1:E:555:GLU:OE2	2.14	0.47
1:E:1293:LEU:HB3	1:E:1584:ARG:HG2	1.95	0.47
1:E:3674:ILE:HD11	1:E:3728:ILE:HG22	1.96	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3829:PHE:CD2	1:E:3915:ILE:HD11	2.50	0.47
1:E:3989:VAL:O	1:E:3993:LEU:HG	2.14	0.47
1:G:236:ALA:HA	1:G:242:ARG:HH11	1.79	0.47
1:G:516:LYS:HG3	1:G:555:GLU:OE2	2.14	0.47
1:G:1076:ARG:HG2	1:G:1077:ALA:O	2.15	0.47
1:G:1453:VAL:HG12	1:G:1454:THR:O	2.15	0.47
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.95	0.47
1:G:2862:LEU:HD21	1:G:2929:PHE:HB2	1.96	0.47
1:G:3661:TRP:O	1:G:3664:THR:HG23	2.14	0.47
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.96	0.47
1:G:4235:VAL:HG22	1:G:4992:LEU:HD11	1.97	0.47
1:G:4834:GLY:HA2	1:G:4837:LEU:HB3	1.97	0.47
1:G:4931:ILE:O	1:G:4935:LEU:N	2.45	0.47
1:A:195:PHE:HD1	1:C:2358:ILE:CG2	2.27	0.47
1:A:2498:HIS:O	1:A:2501:SER:OG	2.30	0.47
1:A:2557:ALA:C	1:A:2560:PRO:HD2	2.35	0.47
1:C:421:PHE:HE2	1:C:436:LEU:HD21	1.80	0.47
1:C:462:GLU:HG3	1:C:3823:LYS:NZ	2.28	0.47
1:C:567:VAL:O	1:C:571:SER:OG	2.21	0.47
1:C:3829:PHE:CD2	1:C:3915:ILE:HD11	2.50	0.47
1:C:3938:SER:HA	1:C:4002:LYS:HZ3	1.80	0.47
1:C:4044:MET:HG3	1:C:4150:LEU:HD11	1.96	0.47
1:C:4713:SER:OG	1:C:4775:TYR:OH	2.32	0.47
1:E:214:VAL:HG21	1:E:390:LEU:HD12	1.97	0.47
1:E:224:HIS:HE1	1:E:386:ASP:HA	1.79	0.47
1:E:556:ALA:HB3	1:E:560:ILE:HD11	1.97	0.47
1:E:3722:TYR:CZ	1:E:3782:MET:HG3	2.49	0.47
1:E:4044:MET:HG3	1:E:4150:LEU:HD11	1.96	0.47
1:G:4923:PHE:O	1:G:4928:LEU:HG	2.15	0.47
1:G:4968:PHE:CE2	1:G:4978:HIS:CD2	3.03	0.47
1:A:149:THR:OG1	1:A:172:VAL:HB	2.14	0.47
1:A:540:PHE:HA	1:A:543:ASN:HB2	1.96	0.47
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.79	0.47
1:A:2902:HIS:H	1:A:2905:LEU:HD12	1.80	0.47
1:A:3998:HIS:O	1:A:4002:LYS:HG2	2.15	0.47
1:A:4242:ILE:HG12	1:A:4993:MET:SD	2.54	0.47
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.19	0.47
1:C:4036:VAL:HG12	1:C:4037:ASN:N	2.30	0.47
1:E:150:MET:HG2	1:E:171:LEU:CD2	2.45	0.47
1:E:3923:LEU:HD12	1:E:3961:VAL:HG12	1.96	0.47
1:E:4712:PRO:HG2	1:E:4718:LYS:HD2	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:38:SER:HB3	2:F:41:ASP:OD2	2.14	0.47
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.29	0.47
1:G:2755:ILE:HD13	1:G:2810:LYS:HG2	1.97	0.47
1:G:4684:ASP:OD2	1:G:4686:LEU:HD23	2.14	0.47
1:A:299:LEU:HD22	1:A:378:LEU:HG	1.96	0.47
1:A:556:ALA:HB3	1:A:560:ILE:HD11	1.97	0.47
1:A:1076:ARG:HG2	1:A:1077:ALA:O	2.15	0.47
1:A:1717:SER:HA	1:A:1721:GLU:HB2	1.97	0.47
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.97	0.47
1:A:1951:LEU:HD22	1:A:2133:GLU:HG2	1.96	0.47
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.79	0.47
1:A:2189:LYS:HD2	1:A:2192:TYR:HD2	1.79	0.47
1:A:2358:ILE:CG2	1:G:195:PHE:HD1	2.27	0.47
1:C:456:SER:HB2	1:C:459:LEU:HD13	1.95	0.47
1:E:42:PHE:CE1	1:E:114:SER:HB2	2.49	0.47
1:E:1717:SER:HA	1:E:1721:GLU:HB2	1.97	0.47
1:E:3835:LEU:HD12	1:E:3835:LEU:C	2.35	0.47
1:G:58:VAL:HG22	1:G:305:CYS:HA	1.96	0.47
1:G:150:MET:HG2	1:G:171:LEU:CD2	2.45	0.47
1:G:668:VAL:HG12	1:G:740:PRO:HA	1.97	0.47
1:G:1293:LEU:HB3	1:G:1584:ARG:HG2	1.96	0.47
1:G:1961:PHE:CZ	1:G:2063:LEU:HD23	2.50	0.47
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.50	0.47
1:A:58:VAL:HG22	1:A:305:CYS:HA	1.97	0.46
1:A:572:PRO:HG3	1:A:609:CYS:SG	2.55	0.46
1:A:2238:TYR:O	1:A:2242:ILE:HG23	2.15	0.46
1:A:2354:VAL:HB	1:A:2453:ILE:HD11	1.97	0.46
1:C:58:VAL:HG22	1:C:305:CYS:HA	1.97	0.46
1:C:102:LEU:HB2	1:C:105:HIS:CE1	2.50	0.46
1:C:149:THR:OG1	1:C:172:VAL:HB	2.14	0.46
1:C:236:ALA:HA	1:C:242:ARG:HH11	1.79	0.46
1:C:1093:GLU:HA	1:C:1148:VAL:HG22	1.97	0.46
1:C:1100:MET:HB3	1:C:1102:VAL:HG23	1.97	0.46
1:C:1230:MET:SD	1:C:1828:ASP:HA	2.55	0.46
1:C:1438:ARG:HE	1:C:1440:PHE:HE1	1.63	0.46
1:C:4661:TYR:CE1	1:C:4665:LYS:HB2	2.50	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.21	0.46
1:E:898:ASP:OD2	1:E:900:ASN:HB2	2.15	0.46
1:E:1433:TYR:CE1	1:E:1578:ALA:HB3	2.51	0.46
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.50	0.46
1:G:149:THR:OG1	1:G:172:VAL:HB	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2354:VAL:O	1:G:2358:ILE:HG13	2.14	0.46
1:G:2557:ALA:C	1:G:2560:PRO:HD2	2.35	0.46
1:G:3980:LEU:O	1:G:3983:SER:OG	2.27	0.46
1:G:4150:LEU:O	1:G:4154:VAL:HG12	2.15	0.46
1:G:4957:LYS:HG2	1:G:4958:CYS:O	2.15	0.46
1:A:17:ASP:HB2	1:A:98:HIS:CE1	2.49	0.46
1:A:1671:ARG:NH1	1:A:1713:ASP:OD2	2.48	0.46
1:A:2742:THR:OG1	1:A:2811:GLU:OE1	2.28	0.46
1:A:3802:ILE:HD12	1:A:3886:ARG:HG3	1.97	0.46
1:E:1100:MET:HB3	1:E:1102:VAL:HG23	1.98	0.46
1:E:1687:SER:HB3	2:F:90:ILE:HG12	1.97	0.46
1:E:1770:SER:OG	1:E:1771:LEU:N	2.40	0.46
1:E:4661:TYR:CE1	1:E:4665:LYS:HB2	2.51	0.46
1:G:102:LEU:HB2	1:G:105:HIS:CE1	2.50	0.46
1:G:170:ILE:HD12	1:G:197:GLN:HB2	1.97	0.46
1:G:421:PHE:HE2	1:G:436:LEU:HD21	1.80	0.46
1:G:839:LEU:HD13	1:G:1075:PHE:CG	2.51	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.98	0.46
1:G:4172:GLU:HA	1:G:4175:ARG:HH12	1.79	0.46
1:G:4653:VAL:HA	1:G:4656:LEU:HG	1.97	0.46
1:A:546:TRP:O	1:A:550:LYS:HG2	2.14	0.46
1:A:4036:VAL:HG12	1:A:4037:ASN:N	2.30	0.46
1:C:34:LYS:N	1:C:53:SER:OG	2.48	0.46
1:C:681:HIS:H	1:C:784:SER:HB3	1.81	0.46
1:C:2354:VAL:O	1:C:2358:ILE:HG13	2.15	0.46
1:C:2557:ALA:C	1:C:2560:PRO:HD2	2.36	0.46
1:C:3998:HIS:O	1:C:4002:LYS:HG2	2.16	0.46
1:E:283:ARG:NE	1:E:288:GLY:O	2.48	0.46
1:E:456:SER:HB2	1:E:459:LEU:HD13	1.96	0.46
1:E:839:LEU:HD13	1:E:1075:PHE:CG	2.51	0.46
1:E:1439:VAL:HG12	1:E:1441:ALA:H	1.80	0.46
1:E:2165:LEU:HD13	1:E:2174:GLU:HB2	1.97	0.46
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.79	0.46
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.50	0.46
1:E:3798:LEU:HD11	1:E:3884:LEU:HD12	1.97	0.46
1:E:3998:HIS:O	1:E:4002:LYS:HG2	2.15	0.46
1:E:4036:VAL:HG12	1:E:4037:ASN:N	2.30	0.46
1:E:5013:MET:HG3	1:E:5018:CYS:HB2	1.97	0.46
1:G:42:PHE:CE1	1:G:114:SER:HB2	2.49	0.46
1:G:556:ALA:HB3	1:G:560:ILE:HD11	1.97	0.46
1:G:993:HIS:CE1	1:G:1020:ARG:HB3	2.48	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2165:LEU:HD13	1:G:2174:GLU:HB2	1.97	0.46
1:G:2189:LYS:HD2	1:G:2192:TYR:HD2	1.80	0.46
1:G:2498:HIS:O	1:G:2501:SER:OG	2.30	0.46
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.51	0.46
1:G:4682:GLU:CD	1:G:4723:LYS:NZ	2.68	0.46
1:A:283:ARG:NE	1:A:288:GLY:O	2.49	0.46
1:A:462:GLU:HG3	1:A:3823:LYS:HZ3	1.78	0.46
1:A:1230:MET:SD	1:A:1828:ASP:HA	2.55	0.46
1:A:2165:LEU:HD13	1:A:2174:GLU:HB2	1.97	0.46
1:A:4772:ASP:OD1	1:A:4773:VAL:N	2.47	0.46
1:C:162:LYS:NZ	1:E:3987:ASP:OD1	2.46	0.46
1:C:588:SER:O	1:C:592:LYS:HG3	2.16	0.46
1:C:1076:ARG:HG2	1:C:1077:ALA:O	2.15	0.46
1:C:1453:VAL:HG12	1:C:1454:THR:O	2.15	0.46
1:C:2133:GLU:HA	1:C:2136:ARG:HE	1.80	0.46
1:E:1230:MET:SD	1:E:1828:ASP:HA	2.55	0.46
1:E:1671:ARG:NH1	1:E:1713:ASP:OD2	2.48	0.46
1:E:2238:TYR:O	1:E:2242:ILE:HG23	2.15	0.46
2:F:55:VAL:HG23	2:F:60:GLU:HB2	1.98	0.46
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.30	0.46
1:A:34:LYS:N	1:A:53:SER:OG	2.48	0.46
1:A:162:LYS:NZ	1:C:3987:ASP:OD1	2.49	0.46
1:A:473:ASN:O	1:A:477:LEU:HG	2.16	0.46
1:A:1206:GLN:O	1:A:1209:SER:OG	2.18	0.46
1:A:3835:LEU:HD12	1:A:3835:LEU:C	2.36	0.46
1:A:4968:PHE:CE2	1:A:4978:HIS:CD2	3.03	0.46
1:C:125:ARG:HG2	1:C:134:ASP:OD2	2.16	0.46
1:C:214:VAL:HG21	1:C:390:LEU:HD12	1.97	0.46
1:C:3674:ILE:HD11	1:C:3728:ILE:HG22	1.96	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:HD2	1.98	0.46
1:E:58:VAL:HG22	1:E:305:CYS:HA	1.97	0.46
1:E:206:CYS:HB3	1:E:271:GLY:HA3	1.97	0.46
1:E:2068:GLU:O	1:E:2071:ARG:HB2	2.14	0.46
1:E:2145:SER:HB3	1:E:3647:HIS:CD2	2.51	0.46
1:E:2437:ALA:HB3	1:E:2508:ARG:HH21	1.79	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:HD2	1.99	0.46
1:E:4242:ILE:HG12	1:E:4993:MET:SD	2.55	0.46
1:E:4968:PHE:CE2	1:E:4978:HIS:CD2	3.03	0.46
2:F:27:THR:HA	2:F:38:SER:HA	1.97	0.46
1:G:473:ASN:O	1:G:477:LEU:HG	2.16	0.46
1:G:540:PHE:HA	1:G:543:ASN:HB2	1.96	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1093:GLU:HA	1:G:1148:VAL:HG22	1.97	0.46
1:G:2238:TYR:O	1:G:2242:ILE:HG23	2.15	0.46
1:G:2437:ALA:HB3	1:G:2508:ARG:HH21	1.80	0.46
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.96	0.46
1:G:3713:LYS:O	1:G:3715:LYS:N	2.47	0.46
1:G:4772:ASP:OD1	1:G:4773:VAL:N	2.48	0.46
1:A:400:ALA:O	1:A:404:ILE:HG13	2.16	0.46
1:A:650:VAL:N	1:A:777:PHE:O	2.47	0.46
1:A:692:TYR:CD1	1:A:711:LEU:HD21	2.51	0.46
1:A:839:LEU:HD13	1:A:1075:PHE:CG	2.51	0.46
1:A:1453:VAL:HG12	1:A:1454:THR:O	2.15	0.46
1:A:2788:HIS:CG	1:A:2789:PRO:HD2	2.51	0.46
1:A:4044:MET:HG3	1:A:4150:LEU:HD11	1.97	0.46
1:C:839:LEU:HD13	1:C:1075:PHE:CG	2.51	0.46
1:C:1433:TYR:CE1	1:C:1578:ALA:HB3	2.51	0.46
1:E:31:GLU:HA	1:E:32:GLN:HA	1.71	0.46
1:E:572:PRO:HG3	1:E:609:CYS:SG	2.55	0.46
1:E:681:HIS:H	1:E:784:SER:HB3	1.81	0.46
1:E:1453:VAL:HG12	1:E:1454:THR:O	2.15	0.46
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.96	0.46
1:E:4815:ASP:O	1:E:4819:GLY:N	2.46	0.46
1:G:1438:ARG:HE	1:G:1440:PHE:HE1	1.63	0.46
1:G:1717:SER:HA	1:G:1721:GLU:HB2	1.98	0.46
1:G:2354:VAL:HB	1:G:2453:ILE:HD11	1.97	0.46
1:G:4165:GLU:HA	1:G:4168:GLU:HG2	1.97	0.46
1:A:125:ARG:HG2	1:A:134:ASP:OD2	2.16	0.46
1:A:1438:ARG:HE	1:A:1440:PHE:HE1	1.63	0.46
1:A:2183:GLY:O	1:A:2187:ASN:ND2	2.49	0.46
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.50	0.46
1:C:2189:LYS:HD2	1:C:2192:TYR:HD2	1.80	0.46
1:C:2437:ALA:HB3	1:C:2508:ARG:HH21	1.80	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.51	0.46
1:E:1121:ALA:O	1:E:1133:HIS:ND1	2.49	0.46
1:E:3645:PRO:HB2	1:E:3648:ARG:HB3	1.98	0.46
1:E:4957:LYS:HG2	1:E:4958:CYS:O	2.16	0.46
1:G:283:ARG:NE	1:G:288:GLY:O	2.48	0.46
1:G:356:TRP:O	1:G:378:LEU:HA	2.16	0.46
1:G:1641:ILE:O	1:G:1645:ASN:N	2.49	0.46
1:G:1951:LEU:HD22	1:G:2133:GLU:HG2	1.98	0.46
1:A:170:ILE:HD12	1:A:197:GLN:HB2	1.98	0.46
1:A:606:LEU:HB3	1:A:617:ASN:HD21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.51	0.46
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	1.98	0.46
2:B:92:PRO:HG2	2:B:95:ALA:HB2	1.98	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.51	0.46
1:C:452:PHE:HB3	1:C:528:SER:HB3	1.98	0.46
1:C:692:TYR:CD1	1:C:711:LEU:HD21	2.51	0.46
1:C:2145:SER:HB3	1:C:3647:HIS:CD2	2.51	0.46
1:C:2238:TYR:O	1:C:2242:ILE:HG23	2.15	0.46
1:C:4684:ASP:OD2	1:C:4686:LEU:HB3	2.15	0.46
1:E:125:ARG:HG2	1:E:134:ASP:OD2	2.16	0.46
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.51	0.46
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.16	0.46
1:E:2183:GLY:O	1:E:2187:ASN:ND2	2.49	0.46
1:E:2557:ALA:C	1:E:2560:PRO:HD2	2.36	0.46
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	1.97	0.46
1:E:4154:VAL:HG13	1:E:4154:VAL:O	2.16	0.46
1:G:403:MET:HE2	1:G:448:LEU:HD23	1.96	0.46
1:G:588:SER:O	1:G:592:LYS:HG3	2.16	0.46
1:G:1121:ALA:O	1:G:1133:HIS:ND1	2.49	0.46
1:G:1687:SER:HB3	2:H:90:ILE:HG12	1.96	0.46
1:G:2139:PRO:HG3	1:G:3658:LYS:NZ	2.31	0.46
1:G:4686:LEU:O	1:G:4691:GLN:N	2.41	0.46
1:A:102:LEU:HB2	1:A:105:HIS:CE1	2.50	0.46
1:A:588:SER:O	1:A:592:LYS:HG3	2.16	0.46
1:A:1121:ALA:O	1:A:1133:HIS:ND1	2.49	0.46
1:A:1439:VAL:HG12	1:A:1441:ALA:H	1.80	0.46
1:A:1687:SER:HB3	2:B:90:ILE:HG12	1.97	0.46
1:A:3829:PHE:CD2	1:A:3915:ILE:HD11	2.50	0.46
1:A:4675:LYS:HG3	1:A:4715:TYR:HE1	1.81	0.46
1:A:5013:MET:HG3	1:A:5018:CYS:HB2	1.98	0.46
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.51	0.46
1:C:1439:VAL:HG12	1:C:1441:ALA:H	1.80	0.46
1:C:2742:THR:OG1	1:C:2811:GLU:OE1	2.28	0.46
1:C:2788:HIS:CG	1:C:2789:PRO:HD2	2.51	0.46
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.50	0.46
1:C:4023:MET:O	1:C:4026:MET:HG2	2.16	0.46
1:E:34:LYS:N	1:E:53:SER:OG	2.48	0.46
1:E:170:ILE:HD12	1:E:197:GLN:HB2	1.98	0.46
1:E:291:LEU:O	1:E:312:THR:OG1	2.23	0.46
1:E:403:MET:HE2	1:E:448:LEU:HD23	1.96	0.46
1:E:4901:ILE:HG21	1:E:4913:ARG:HH21	1.81	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:456:SER:HB2	1:G:459:LEU:HD13	1.97	0.46
1:G:1230:MET:SD	1:G:1828:ASP:HA	2.55	0.46
1:G:1433:TYR:CE1	1:G:1578:ALA:HB3	2.51	0.46
1:G:3889:GLN:O	1:G:3893:GLU:HG3	2.16	0.46
1:A:736:HIS:NE2	1:A:739:ALA:HB2	2.31	0.46
1:A:737:LEU:HB3	1:A:738:LEU:H	1.46	0.46
1:C:231:LEU:HD11	1:C:245:VAL:CG1	2.46	0.46
1:C:516:LYS:HG3	1:C:555:GLU:OE2	2.15	0.46
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.81	0.46
1:C:1687:SER:HB3	2:D:90:ILE:HG12	1.98	0.46
1:C:3891:LEU:HB3	1:C:3899:PHE:HE2	1.81	0.46
1:C:4154:VAL:HG13	1:C:4154:VAL:O	2.16	0.46
1:C:4221:VAL:O	1:C:4225:GLY:N	2.43	0.46
1:C:4675:LYS:HG3	1:C:4715:TYR:HE1	1.81	0.46
1:E:356:TRP:O	1:E:378:LEU:HA	2.16	0.46
1:E:1076:ARG:HG2	1:E:1077:ALA:O	2.15	0.46
1:E:1093:GLU:HA	1:E:1148:VAL:HG22	1.97	0.46
1:E:4181:ILE:HD11	1:E:4193:ILE:HD11	1.98	0.46
1:G:206:CYS:HB3	1:G:271:GLY:HA3	1.97	0.46
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.51	0.46
1:G:909:ASN:O	1:G:912:SER:OG	2.28	0.46
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.81	0.46
1:G:2068:GLU:OE1	1:G:2068:GLU:N	2.46	0.46
1:G:2106:ALA:HB1	1:G:3700:GLN:HG3	1.96	0.46
1:A:356:TRP:O	1:A:378:LEU:HA	2.16	0.45
1:A:1100:MET:HB3	1:A:1102:VAL:HG23	1.98	0.45
1:A:1433:TYR:CE1	1:A:1578:ALA:HB3	2.51	0.45
1:A:3645:PRO:HB2	1:A:3648:ARG:HB3	1.98	0.45
1:A:3817:LEU:HD11	1:A:3821:LYS:HZ2	1.79	0.45
1:A:4023:MET:O	1:A:4026:MET:HG2	2.16	0.45
1:A:4149:ASN:OD1	1:A:4153:HIS:HD2	1.98	0.45
1:A:4661:TYR:CE1	1:A:4665:LYS:HB2	2.50	0.45
1:A:4684:ASP:OD2	1:A:4686:LEU:HB3	2.16	0.45
1:A:4888:TYR:HD1	1:G:4914:VAL:HG13	1.81	0.45
1:C:650:VAL:N	1:C:777:PHE:O	2.47	0.45
1:C:1641:ILE:O	1:C:1645:ASN:N	2.49	0.45
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.16	0.45
1:C:2183:GLY:O	1:C:2187:ASN:ND2	2.49	0.45
1:E:1518:CYS:SG	1:E:1528:THR:N	2.85	0.45
1:E:2189:LYS:HD2	1:E:2192:TYR:HD2	1.80	0.45
1:G:231:LEU:HD11	1:G:245:VAL:CG1	2.46	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:606:LEU:HB3	1:G:617:ASN:HD21	1.82	0.45
1:G:681:HIS:H	1:G:784:SER:HB3	1.80	0.45
1:G:1100:MET:HB3	1:G:1102:VAL:HG23	1.98	0.45
1:G:1116:GLY:HA3	1:G:1132:TRP:CD1	2.51	0.45
1:G:1701:ALA:HB1	1:G:1830:VAL:HG13	1.98	0.45
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.16	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.51	0.45
1:A:636:ASN:HD21	2:B:35:LYS:NZ	2.15	0.45
1:A:681:HIS:H	1:A:784:SER:HB3	1.81	0.45
1:A:1112:ASP:HA	1:A:1607:ARG:HH11	1.82	0.45
1:A:1641:ILE:O	1:A:1645:ASN:N	2.50	0.45
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.17	0.45
1:A:4837:LEU:CD1	1:A:4932:ILE:HG23	2.45	0.45
1:A:4931:ILE:HG23	1:C:4940:PHE:HZ	1.79	0.45
1:C:170:ILE:HD12	1:C:197:GLN:HB2	1.98	0.45
1:C:195:PHE:HD1	1:E:2358:ILE:CG2	2.27	0.45
1:C:291:LEU:O	1:C:312:THR:OG1	2.23	0.45
1:C:675:LEU:HD23	1:C:676:THR:HG23	1.99	0.45
1:C:4968:PHE:CE2	1:C:4978:HIS:CD2	3.03	0.45
1:E:195:PHE:HD1	1:G:2358:ILE:CG2	2.28	0.45
1:E:236:ALA:HA	1:E:242:ARG:HH11	1.80	0.45
1:E:294:THR:HG22	1:E:296:ASP:H	1.81	0.45
1:E:452:PHE:HB3	1:E:528:SER:HB3	1.98	0.45
1:E:692:TYR:CD1	1:E:711:LEU:HD21	2.51	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:H	1.64	0.45
1:E:1943:LEU:HD22	1:E:2123:LEU:HD13	1.98	0.45
1:G:125:ARG:HG2	1:G:134:ASP:OD2	2.16	0.45
1:G:607:CYS:SG	1:G:618:GLN:HG2	2.56	0.45
1:G:1581:LEU:HD11	1:G:1595:LEU:HD23	1.98	0.45
1:G:4554:TYR:HA	1:G:4557:ARG:CZ	2.46	0.45
1:G:4678:ALA:HB1	1:G:4720:VAL:HG11	1.97	0.45
1:G:4983:HIS:HE1	1:G:5023:PRO:HG2	1.81	0.45
2:H:54:GLU:HG3	2:H:55:VAL:HG13	1.98	0.45
1:A:206:CYS:HB3	1:A:271:GLY:HA3	1.97	0.45
1:A:452:PHE:HB3	1:A:528:SER:HB3	1.98	0.45
1:A:1116:GLY:HA3	1:A:1132:TRP:CD1	2.51	0.45
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.82	0.45
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.17	0.45
1:A:2758:PHE:HD2	1:A:2809:ILE:HD13	1.81	0.45
1:A:3798:LEU:HD11	1:A:3884:LEU:HD12	1.97	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:283:ARG:NE	1:C:288:GLY:O	2.49	0.45
1:C:473:ASN:O	1:C:477:LEU:HG	2.15	0.45
1:C:1116:GLY:HA2	1:C:1121:ALA:HB3	1.99	0.45
1:C:1121:ALA:O	1:C:1133:HIS:ND1	2.49	0.45
1:C:2498:HIS:O	1:C:2501:SER:OG	2.30	0.45
1:E:606:LEU:HB3	1:E:617:ASN:HD21	1.81	0.45
1:E:674:PHE:CB	2:F:40:ARG:NH1	2.73	0.45
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	1.99	0.45
1:E:1152:MET:HB2	1:E:1161:ILE:HB	1.98	0.45
1:E:1641:ILE:O	1:E:1645:ASN:N	2.49	0.45
1:E:4023:MET:O	1:E:4026:MET:HG2	2.16	0.45
1:E:4223:ASN:HD21	1:E:4946:GLN:NE2	2.14	0.45
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.17	0.45
1:C:668:VAL:HG12	1:C:740:PRO:HA	1.98	0.45
1:C:4837:LEU:CD1	1:C:4932:ILE:HG23	2.44	0.45
1:E:231:LEU:HD11	1:E:245:VAL:CG1	2.47	0.45
1:E:588:SER:O	1:E:592:LYS:HG3	2.16	0.45
1:E:675:LEU:HD23	1:E:676:THR:HG23	1.99	0.45
1:E:2788:HIS:CG	1:E:2789:PRO:HD2	2.52	0.45
1:E:3767:GLN:NE2	1:E:3806:ASN:HB3	2.29	0.45
1:E:4857:ASN:O	1:E:4859:PHE:N	2.48	0.45
1:G:400:ALA:O	1:G:404:ILE:HG13	2.17	0.45
1:G:692:TYR:CD1	1:G:711:LEU:HD21	2.51	0.45
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	1.98	0.45
1:G:1439:VAL:HG12	1:G:1441:ALA:H	1.80	0.45
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.52	0.45
1:G:3802:ILE:O	1:G:3806:ASN:N	2.50	0.45
1:A:1093:GLU:HA	1:A:1148:VAL:HG22	1.97	0.45
1:A:1293:LEU:HB3	1:A:1584:ARG:HG2	1.97	0.45
1:A:2347:GLU:O	1:A:2351:ASN:ND2	2.40	0.45
1:A:4836:GLN:HB3	1:C:4826:ILE:HD11	1.98	0.45
1:A:4965:SER:HA	1:A:4975:PHE:CD1	2.52	0.45
1:C:606:LEU:HB3	1:C:617:ASN:HD21	1.82	0.45
1:C:2151:ASP:O	1:C:2154:SER:OG	2.19	0.45
1:C:2758:PHE:HD2	1:C:2809:ILE:HD13	1.81	0.45
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.51	0.45
2:D:92:PRO:HG2	2:D:95:ALA:HB2	1.98	0.45
1:E:400:ALA:O	1:E:404:ILE:HG13	2.17	0.45
1:E:1254:HIS:HD2	1:E:1280:GLN:N	2.13	0.45
1:E:1701:ALA:HB1	1:E:1830:VAL:HG13	1.98	0.45
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.51	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4861:LYS:NZ	1:E:4909:TYR:CD2	2.79	0.45
1:E:4901:ILE:HG21	1:E:4913:ARG:NH2	2.31	0.45
1:G:34:LYS:N	1:G:53:SER:OG	2.49	0.45
1:G:214:VAL:HG21	1:G:390:LEU:HD12	1.97	0.45
1:G:294:THR:HG22	1:G:296:ASP:H	1.81	0.45
1:G:452:PHE:HB3	1:G:528:SER:HB3	1.99	0.45
1:G:1943:LEU:HD22	1:G:2123:LEU:HD13	1.98	0.45
1:G:1970:GLN:HA	1:G:1973:GLN:HG2	1.98	0.45
1:G:4661:TYR:CE2	1:G:4789:PHE:HB2	2.51	0.45
1:A:214:VAL:HG21	1:A:390:LEU:HD12	1.97	0.45
1:A:1701:ALA:HB1	1:A:1830:VAL:HG13	1.98	0.45
1:A:1818:ALA:HB1	1:A:1838:PHE:CE1	2.52	0.45
1:A:3780:LEU:HD23	1:A:3819:TYR:CD2	2.52	0.45
1:A:3891:LEU:HB3	1:A:3899:PHE:HE2	1.81	0.45
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.81	0.45
1:C:4888:TYR:O	1:C:4892:ARG:HD3	2.17	0.45
1:C:4965:SER:HA	1:C:4975:PHE:CD1	2.52	0.45
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.81	0.45
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.16	0.45
1:E:2499:LYS:O	1:E:2503:VAL:HG23	2.17	0.45
1:G:15:ARG:HB2	1:G:18:ASP:OD2	2.16	0.45
1:G:675:LEU:HD23	1:G:676:THR:HG23	1.99	0.45
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.51	0.45
1:G:3887:PHE:O	1:G:3891:LEU:HD13	2.17	0.45
1:A:294:THR:HG22	1:A:296:ASP:H	1.82	0.45
1:A:1152:MET:HB2	1:A:1161:ILE:HB	1.98	0.45
1:A:3886:ARG:O	1:A:3890:LEU:HD13	2.17	0.45
1:C:537:CYS:HB3	1:C:571:SER:HB3	1.98	0.45
1:C:736:HIS:NE2	1:C:739:ALA:HB2	2.31	0.45
1:C:1152:MET:HB2	1:C:1161:ILE:HB	1.98	0.45
1:C:1518:CYS:SG	1:C:1528:THR:N	2.85	0.45
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.35	0.45
1:C:2902:HIS:H	1:C:2905:LEU:HD12	1.82	0.45
1:C:3817:LEU:HD11	1:C:3821:LYS:HZ2	1.78	0.45
1:C:4677:LEU:HD22	1:C:4711:PHE:CE1	2.52	0.45
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.81	0.45
1:C:4836:GLN:HB3	1:E:4826:ILE:HD11	1.99	0.45
1:C:4857:ASN:O	1:C:4859:PHE:N	2.49	0.45
1:C:4928:LEU:HD23	1:C:4931:ILE:HD12	1.97	0.45
1:E:473:ASN:O	1:E:477:LEU:HG	2.16	0.45
1:E:668:VAL:HG12	1:E:740:PRO:HA	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1116:GLY:HA2	1:E:1121:ALA:HB3	1.99	0.45
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.50	0.45
1:E:3802:ILE:HD12	1:E:3886:ARG:HG3	1.98	0.45
1:E:4684:ASP:OD2	1:E:4686:LEU:HB3	2.16	0.45
1:G:1518:CYS:SG	1:G:1528:THR:N	2.85	0.45
1:G:1734:TYR:HB2	1:G:2141:ALA:HB2	1.98	0.45
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.16	0.45
1:G:2788:HIS:CG	1:G:2789:PRO:HD2	2.51	0.45
1:A:1579:MET:O	1:A:1582:SER:OG	2.24	0.45
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.99	0.45
1:A:4957:LYS:HG2	1:A:4958:CYS:O	2.16	0.45
2:B:27:THR:HA	2:B:38:SER:HA	1.97	0.45
1:C:70:GLU:O	1:C:71:GLN:HG3	2.17	0.45
1:C:356:TRP:O	1:C:378:LEU:HA	2.16	0.45
1:C:1930:LYS:HA	1:C:1930:LYS:HD2	1.82	0.45
1:C:2503:VAL:HG12	1:C:2559:LEU:HD12	1.99	0.45
1:C:3989:VAL:HG12	1:C:4047:MET:HE1	1.99	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.99	0.45
1:E:70:GLU:O	1:E:71:GLN:HG3	2.17	0.45
1:E:595:ARG:HG2	1:E:1662:PHE:CE1	2.52	0.45
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	1.98	0.45
1:E:3887:PHE:CZ	1:E:3891:LEU:HD11	2.51	0.45
1:E:4675:LYS:HG3	1:E:4715:TYR:HE1	1.81	0.45
1:G:3771:HIS:CE1	1:G:3812:VAL:HA	2.51	0.45
1:G:4044:MET:HG3	1:G:4150:LEU:HD11	1.99	0.45
1:G:4685:GLY:O	1:G:4689:THR:N	2.50	0.45
2:H:78:PRO:HA	2:H:81:ALA:HB3	1.98	0.45
1:A:1930:LYS:HD2	1:A:1930:LYS:HA	1.82	0.45
1:A:1943:LEU:HD22	1:A:2123:LEU:HD13	1.98	0.45
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	1.98	0.45
1:A:4581:LYS:HA	1:G:4856:PHE:CZ	2.51	0.45
1:A:4857:ASN:O	1:A:4859:PHE:N	2.50	0.45
1:A:4861:LYS:NZ	1:A:4909:TYR:CD2	2.79	0.45
1:C:687:ALA:HB2	1:C:711:LEU:HD23	1.99	0.45
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	1.99	0.45
1:C:1116:GLY:HA3	1:C:1132:TRP:CD1	2.52	0.45
1:C:1701:ALA:HB1	1:C:1830:VAL:HG13	1.98	0.45
1:C:2347:GLU:O	1:C:2351:ASN:ND2	2.40	0.45
1:C:5013:MET:HG3	1:C:5018:CYS:HB2	1.98	0.45
2:D:27:THR:HA	2:D:38:SER:HA	1.97	0.45
1:E:69:LEU:HD23	1:E:109:LEU:HD23	1.99	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.99	0.45
1:G:1152:MET:HB2	1:G:1161:ILE:HB	1.98	0.45
1:G:1254:HIS:HD2	1:G:1280:GLN:H	1.64	0.45
1:G:1942:LEU:HG	1:G:1946:PHE:HE2	1.81	0.45
1:G:1958:LEU:HD13	1:G:2134:LEU:HD11	1.99	0.45
1:G:3977:GLN:NE2	1:G:4032:GLU:OE2	2.50	0.45
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.97	0.45
1:A:12:GLN:O	1:A:165:VAL:HG23	2.17	0.45
1:A:70:GLU:O	1:A:71:GLN:HG3	2.17	0.45
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.51	0.45
1:A:1581:LEU:HD11	1:A:1595:LEU:HD23	1.99	0.45
1:A:1719:HIS:CD2	1:A:1802:ILE:HG23	2.52	0.45
1:A:2499:LYS:O	1:A:2503:VAL:HG23	2.17	0.45
1:A:4723:LYS:HA	1:A:4726:ASP:HB2	1.99	0.45
2:B:36:PHE:CZ	2:B:97:LEU:HD22	2.52	0.45
1:C:1254:HIS:HD2	1:C:1280:GLN:N	2.13	0.45
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.16	0.45
1:C:3802:ILE:HD12	1:C:3886:ARG:HG3	1.98	0.45
1:C:3886:ARG:O	1:C:3890:LEU:HD13	2.16	0.45
1:C:3927:GLN:NE2	1:C:3988:ALA:HA	2.32	0.45
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.99	0.45
1:C:4901:ILE:HG21	1:C:4913:ARG:NH2	2.32	0.45
1:E:15:ARG:HB2	1:E:18:ASP:OD2	2.17	0.45
1:E:736:HIS:HD2	1:E:742:ASP:OD2	2.00	0.45
1:E:736:HIS:NE2	1:E:739:ALA:HB2	2.31	0.45
1:E:1818:ALA:HB1	1:E:1838:PHE:CE1	2.52	0.45
1:E:4677:LEU:HD22	1:E:4711:PHE:CE1	2.52	0.45
1:G:1254:HIS:CE1	1:G:1256:GLU:HB2	2.52	0.45
1:G:4181:ILE:HD11	1:G:4193:ILE:HD11	1.99	0.45
1:A:675:LEU:HD23	1:A:676:THR:HG23	1.98	0.44
1:A:898:ASP:OD2	1:A:900:ASN:HB2	2.16	0.44
1:A:1205:GLY:HA3	1:A:1227:ALA:HB3	1.98	0.44
1:A:2145:SER:HB3	1:A:3647:HIS:CD2	2.51	0.44
1:A:4045:VAL:HG21	1:A:4154:VAL:HG11	1.99	0.44
1:A:4154:VAL:O	1:A:4154:VAL:HG13	2.16	0.44
1:A:4555:LEU:HD11	1:A:4656:LEU:HD13	1.99	0.44
1:C:1112:ASP:HA	1:C:1607:ARG:HH11	1.82	0.44
1:C:1293:LEU:HB3	1:C:1584:ARG:HG2	1.97	0.44
1:C:1719:HIS:CD2	1:C:1802:ILE:HG23	2.52	0.44
1:C:4931:ILE:HG23	1:E:4940:PHE:HZ	1.81	0.44
1:E:687:ALA:HB2	1:E:711:LEU:HD23	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:728:ARG:HA	1:E:729:PRO:HD3	1.85	0.44
1:E:993:HIS:CE1	1:E:1020:ARG:HB3	2.48	0.44
1:E:1116:GLY:HA3	1:E:1132:TRP:CD1	2.52	0.44
1:E:1288:PHE:CD1	1:E:1553:PHE:HD1	2.35	0.44
1:E:1942:LEU:HG	1:E:1946:PHE:HE2	1.82	0.44
1:E:2212:VAL:HG21	1:E:2256:TYR:CZ	2.52	0.44
1:E:4045:VAL:HG21	1:E:4154:VAL:HG11	1.98	0.44
1:E:4935:LEU:HB2	1:G:4940:PHE:HE2	1.82	0.44
1:G:69:LEU:HD23	1:G:109:LEU:HD23	1.99	0.44
1:G:70:GLU:O	1:G:71:GLN:HG3	2.17	0.44
1:G:705:ASN:OD1	1:G:706:GLY:N	2.51	0.44
1:G:898:ASP:OD2	1:G:900:ASN:HB2	2.17	0.44
1:G:1719:HIS:CD2	1:G:1802:ILE:HG23	2.52	0.44
1:A:252:VAL:HA	1:A:255:HIS:ND1	2.33	0.44
1:A:495:ASN:C	1:A:553:ARG:HH12	2.21	0.44
1:A:668:VAL:HG12	1:A:740:PRO:HA	1.98	0.44
1:A:692:TYR:CZ	1:A:694:PRO:HG3	2.52	0.44
1:A:1254:HIS:HD2	1:A:1280:GLN:H	1.64	0.44
1:A:2143:THR:HG23	1:A:3654:LEU:HD11	1.99	0.44
1:A:3722:TYR:OH	1:A:3782:MET:HG3	2.18	0.44
1:A:4181:ILE:HD11	1:A:4193:ILE:HD11	1.99	0.44
1:A:4839:MET:HG3	1:C:4822:THR:CG2	2.40	0.44
1:C:62:LEU:HA	1:C:65:CYS:SG	2.57	0.44
1:C:260:TRP:CZ3	1:C:284:HIS:HB2	2.53	0.44
1:C:400:ALA:O	1:C:404:ILE:HG13	2.17	0.44
1:C:595:ARG:HG2	1:C:1662:PHE:CE1	2.52	0.44
1:C:1288:PHE:CD1	1:C:1553:PHE:HD1	2.35	0.44
1:C:1805:GLU:HA	1:C:1808:ARG:HG2	2.00	0.44
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	1.99	0.44
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.17	0.44
1:C:2499:LYS:O	1:C:2503:VAL:HG23	2.17	0.44
1:C:3645:PRO:HB2	1:C:3648:ARG:HB3	1.98	0.44
1:C:3722:TYR:OH	1:C:3782:MET:HG3	2.17	0.44
1:C:3887:PHE:CZ	1:C:3891:LEU:HD11	2.52	0.44
1:C:4861:LYS:NZ	1:C:4909:TYR:CD2	2.79	0.44
1:C:4957:LYS:HG2	1:C:4958:CYS:O	2.16	0.44
1:E:445:LEU:HD23	1:E:521:LEU:HB3	1.99	0.44
1:E:1684:ALA:O	1:E:1687:SER:OG	2.16	0.44
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.17	0.44
1:E:2758:PHE:HD2	1:E:2809:ILE:HD13	1.81	0.44
1:G:403:MET:CE	1:G:448:LEU:HD23	2.48	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:595:ARG:HG2	1:G:1662:PHE:CE1	2.52	0.44
1:G:758:ARG:HG2	1:G:763:PRO:HA	1.99	0.44
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.18	0.44
1:A:60:PRO:HD2	1:A:281:ARG:NH2	2.32	0.44
1:A:445:LEU:HD23	1:A:521:LEU:HB3	1.99	0.44
1:A:537:CYS:HB3	1:A:571:SER:HB3	1.99	0.44
1:A:758:ARG:HG2	1:A:763:PRO:HA	2.00	0.44
1:A:1518:CYS:SG	1:A:1528:THR:N	2.85	0.44
1:A:1942:LEU:HG	1:A:1946:PHE:HE2	1.81	0.44
1:C:1942:LEU:HG	1:C:1946:PHE:HE2	1.81	0.44
1:C:1943:LEU:HD22	1:C:2123:LEU:HD13	1.98	0.44
1:C:2812:SER:HG	1:C:2882:TYR:HH	1.63	0.44
2:D:55:VAL:HG23	2:D:60:GLU:HB2	1.98	0.44
1:E:401:ALA:O	1:E:404:ILE:HB	2.18	0.44
1:E:1970:GLN:HA	1:E:1973:GLN:HG2	1.99	0.44
1:E:3886:ARG:O	1:E:3890:LEU:HD13	2.17	0.44
1:E:3889:GLN:O	1:E:3893:GLU:HG3	2.18	0.44
1:E:4695:ASP:OD1	1:E:4696:ASP:N	2.47	0.44
1:E:4965:SER:HA	1:E:4975:PHE:CD1	2.52	0.44
1:G:1112:ASP:HA	1:G:1607:ARG:HH11	1.82	0.44
1:G:1456:ASP:O	1:G:1457:TYR:CB	2.65	0.44
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.38	0.44
1:G:2114:PRO:HB3	1:G:3707:ARG:HD3	1.99	0.44
1:G:4229:GLU:HB3	1:G:4233:LEU:HG	1.98	0.44
1:G:4934:GLY:HA2	1:G:4937:ILE:HG12	2.00	0.44
2:H:55:VAL:HG23	2:H:60:GLU:HB2	2.00	0.44
1:A:401:ALA:O	1:A:404:ILE:HB	2.18	0.44
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	1.98	0.44
1:A:2503:VAL:HG12	1:A:2559:LEU:HD12	1.98	0.44
1:A:4677:LEU:HD22	1:A:4711:PHE:CE1	2.52	0.44
1:A:4888:TYR:HE1	1:G:4917:ASP:CB	2.31	0.44
1:A:4901:ILE:HG21	1:A:4913:ARG:NH2	2.32	0.44
2:B:55:VAL:HG23	2:B:60:GLU:HB2	1.98	0.44
1:C:554:LEU:HD22	1:C:1596:GLU:HG2	2.00	0.44
1:C:607:CYS:SG	1:C:618:GLN:HG2	2.58	0.44
1:C:736:HIS:HD2	1:C:742:ASP:OD2	2.00	0.44
1:C:2143:THR:HG23	1:C:3654:LEU:HD11	1.99	0.44
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.99	0.44
1:C:3965:LEU:HA	1:C:3968:TYR:HD2	1.83	0.44
1:E:62:LEU:HA	1:E:65:CYS:SG	2.57	0.44
1:E:537:CYS:HB3	1:E:571:SER:HB3	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.99	0.44
1:E:2902:HIS:H	1:E:2905:LEU:HD12	1.81	0.44
1:E:4059:LEU:HD22	1:E:4167:ALA:HB2	1.99	0.44
1:G:104:GLY:HA3	1:G:159:GLU:HG2	2.00	0.44
1:G:445:LEU:HD23	1:G:521:LEU:HB3	1.98	0.44
1:G:687:ALA:HB2	1:G:711:LEU:HD23	1.99	0.44
1:G:737:LEU:HD11	2:H:7:ILE:CG2	2.38	0.44
1:G:1660:GLN:NE2	1:G:1704:PRO:HB2	2.32	0.44
1:G:4024:VAL:HA	1:G:4027:LEU:HD12	1.99	0.44
1:G:4045:VAL:HG21	1:G:4154:VAL:HG11	1.99	0.44
1:A:595:ARG:HG2	1:A:1662:PHE:CE1	2.52	0.44
1:A:674:PHE:CB	2:B:40:ARG:NH1	2.72	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:CD2	2.48	0.44
1:A:3889:GLN:O	1:A:3893:GLU:HG3	2.17	0.44
1:C:15:ARG:HB2	1:C:18:ASP:OD2	2.16	0.44
1:C:1254:HIS:HD2	1:C:1280:GLN:H	1.65	0.44
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.38	0.44
2:D:36:PHE:CZ	2:D:97:LEU:HD22	2.52	0.44
1:E:342:GLY:N	1:E:390:LEU:O	2.50	0.44
1:E:403:MET:CE	1:E:448:LEU:HD23	2.48	0.44
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.38	0.44
1:E:1581:LEU:HD11	1:E:1595:LEU:HD23	1.99	0.44
1:E:2151:ASP:O	1:E:2154:SER:OG	2.19	0.44
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.17	0.44
1:E:3780:LEU:HD23	1:E:3819:TYR:CD2	2.52	0.44
1:E:4934:GLY:CA	1:G:4937:ILE:CD1	2.95	0.44
1:E:5011:TRP:O	1:E:5015:GLN:HG2	2.18	0.44
2:F:92:PRO:HG2	2:F:95:ALA:HB2	1.98	0.44
1:G:293:LEU:HB2	1:G:378:LEU:HD12	2.00	0.44
1:G:1288:PHE:CD1	1:G:1553:PHE:HD1	2.35	0.44
1:G:1723:ALA:HB1	1:G:1775:HIS:CD2	2.43	0.44
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.51	0.44
1:A:519:VAL:HG12	1:A:523:TYR:HE2	1.83	0.44
1:A:705:ASN:OD1	1:A:706:GLY:N	2.51	0.44
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.53	0.44
1:A:3798:LEU:HD12	1:A:3880:PHE:CE1	2.53	0.44
1:A:3927:GLN:NE2	1:A:3988:ALA:HA	2.32	0.44
1:C:118:LEU:HA	1:C:137:LEU:HD23	2.00	0.44
1:C:1579:MET:O	1:C:1582:SER:OG	2.25	0.44
1:C:1970:GLN:HA	1:C:1973:GLN:HG2	1.99	0.44
1:C:2066:LEU:O	1:C:2070:VAL:HG23	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:692:TYR:CZ	1:E:694:PRO:HG3	2.52	0.44
1:E:1254:HIS:CD2	1:E:1280:GLN:HB3	2.53	0.44
1:E:2351:ASN:O	1:E:2355:ARG:HG2	2.18	0.44
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.99	0.44
1:E:3722:TYR:OH	1:E:3782:MET:HG3	2.17	0.44
1:E:3927:GLN:HG3	1:E:3928:GLU:N	2.32	0.44
1:E:4057:MET:HA	1:E:4060:LYS:HG2	2.00	0.44
2:F:15:PHE:HE1	2:F:67:SER:HB3	1.83	0.44
1:G:260:TRP:CZ3	1:G:284:HIS:HB2	2.52	0.44
1:G:537:CYS:HB3	1:G:571:SER:HB3	1.99	0.44
1:G:764:VAL:O	1:G:764:VAL:HG12	2.18	0.44
1:G:1254:HIS:CD2	1:G:1280:GLN:HB3	2.53	0.44
1:G:2212:VAL:HG21	1:G:2256:TYR:CZ	2.53	0.44
1:G:2499:LYS:O	1:G:2503:VAL:HG23	2.17	0.44
1:G:2827:ARG:HB2	1:G:2934:GLY:CA	2.47	0.44
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.99	0.44
1:G:3798:LEU:O	1:G:3802:ILE:HG12	2.18	0.44
1:G:3829:PHE:HD2	1:G:3915:ILE:HD11	1.82	0.44
1:A:59:PRO:HD2	1:A:304:ALA:HB1	2.00	0.44
1:A:231:LEU:HD11	1:A:245:VAL:CG1	2.47	0.44
1:A:260:TRP:CZ3	1:A:284:HIS:HB2	2.52	0.44
1:A:342:GLY:N	1:A:390:LEU:O	2.50	0.44
1:A:736:HIS:HD2	1:A:742:ASP:OD2	2.00	0.44
1:A:871:ARG:HB2	1:A:929:LEU:HD12	2.00	0.44
1:A:1714:LEU:O	1:A:1718:ILE:HG12	2.17	0.44
1:A:1734:TYR:HB2	1:A:2141:ALA:HB2	2.00	0.44
1:A:1805:GLU:HA	1:A:1808:ARG:HG2	2.00	0.44
1:A:2151:ASP:O	1:A:2154:SER:OG	2.19	0.44
1:A:3840:SER:O	1:A:3922:TYR:OH	2.22	0.44
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.81	0.44
1:A:4963:ILE:HD11	1:A:5025:GLY:O	2.18	0.44
1:C:342:GLY:N	1:C:390:LEU:O	2.50	0.44
1:C:519:VAL:HG12	1:C:523:TYR:HE2	1.83	0.44
1:C:1205:GLY:HA3	1:C:1227:ALA:HB3	2.00	0.44
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.44
1:C:4963:ILE:HD11	1:C:5025:GLY:O	2.18	0.44
1:E:60:PRO:HD2	1:E:281:ARG:NH2	2.32	0.44
1:E:565:TYR:HB2	1:E:602:VAL:HG22	2.00	0.44
1:E:614:VAL:HG13	1:E:617:ASN:HB3	2.00	0.44
1:E:758:ARG:HG2	1:E:763:PRO:HA	1.99	0.44
1:G:59:PRO:HD2	1:G:304:ALA:HB1	1.99	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:60:PRO:HD2	1:G:281:ARG:NH2	2.32	0.44
1:G:692:TYR:CZ	1:G:694:PRO:HG3	2.52	0.44
1:G:1818:ALA:HB1	1:G:1838:PHE:CE1	2.52	0.44
1:G:2829:GLY:HA2	1:G:2933:ASN:HA	2.00	0.44
1:G:3952:SER:HB2	1:G:4015:GLU:OE1	2.18	0.44
1:G:4573:ILE:HG22	1:G:4577:LEU:CD1	2.48	0.44
1:G:4798:MET:O	1:G:4802:GLY:N	2.50	0.44
2:H:15:PHE:HE1	2:H:67:SER:HB3	1.83	0.44
1:A:116:MET:HE1	1:A:139:GLU:OE2	2.18	0.44
1:A:210:GLU:HG2	1:A:273:HIS:HE1	1.83	0.44
1:A:1288:PHE:CD1	1:A:1553:PHE:HD1	2.35	0.44
1:A:1858:ASP:O	1:A:1862:ILE:HG12	2.18	0.44
1:A:3887:PHE:CZ	1:A:3891:LEU:HD11	2.52	0.44
1:A:4550:LYS:HB2	1:A:4550:LYS:HE3	1.85	0.44
1:C:403:MET:CE	1:C:448:LEU:HD23	2.48	0.44
1:C:495:ASN:C	1:C:553:ARG:HH12	2.22	0.44
1:C:2207:VAL:HG11	1:C:2235:PHE:CD2	2.53	0.44
1:C:5011:TRP:O	1:C:5015:GLN:HG2	2.18	0.44
1:E:118:LEU:HA	1:E:137:LEU:HD23	2.00	0.44
1:E:519:VAL:HG12	1:E:523:TYR:HE2	1.83	0.44
1:E:1714:LEU:O	1:E:1718:ILE:HG12	2.18	0.44
1:E:1719:HIS:CD2	1:E:1802:ILE:HG23	2.52	0.44
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.44
1:G:244:LEU:HD23	1:G:300:VAL:HG12	2.00	0.44
1:G:554:LEU:HD22	1:G:1596:GLU:HG2	2.00	0.44
1:G:1715:LEU:HD21	1:G:1807:LEU:HD11	1.99	0.44
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.51	0.44
1:G:3963:ASN:HA	1:G:3966:THR:HG22	2.00	0.44
1:A:554:LEU:HD22	1:A:1596:GLU:HG2	2.00	0.44
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.44
1:A:2207:VAL:HG11	1:A:2235:PHE:CD2	2.53	0.44
1:A:4033:GLY:O	1:A:4189:ARG:NH2	2.40	0.44
1:A:4581:LYS:CB	1:G:4878:ASP:HA	2.48	0.44
2:B:15:PHE:HE1	2:B:67:SER:HB3	1.83	0.44
1:C:445:LEU:HD23	1:C:521:LEU:HB3	1.99	0.44
1:C:758:ARG:HG2	1:C:763:PRO:HA	1.99	0.44
1:C:909:ASN:O	1:C:912:SER:OG	2.28	0.44
1:C:1087:ARG:HB3	1:C:1223:PHE:HD1	1.82	0.44
1:C:1581:LEU:HD11	1:C:1595:LEU:HD23	1.99	0.44
1:C:1717:SER:HA	1:C:1721:GLU:CB	2.48	0.44
1:C:3780:LEU:HD23	1:C:3819:TYR:CD2	2.52	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3889:GLN:O	1:C:3893:GLU:HG3	2.18	0.44
1:C:4045:VAL:HG21	1:C:4154:VAL:HG11	1.99	0.44
1:C:4181:ILE:HD11	1:C:4193:ILE:HD11	1.98	0.44
1:C:4555:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.44
1:C:4901:ILE:HG21	1:C:4913:ARG:HH21	1.82	0.44
1:E:484:LEU:HD11	1:E:536:ASN:OD1	2.18	0.44
1:E:705:ASN:OD1	1:E:706:GLY:N	2.51	0.44
1:E:1579:MET:O	1:E:1582:SER:OG	2.25	0.44
1:E:1586:ASN:O	1:E:1588:ALA:N	2.46	0.44
1:E:1717:SER:HA	1:E:1721:GLU:CB	2.48	0.44
1:E:3965:LEU:HA	1:E:3968:TYR:HD2	1.83	0.44
1:E:4205:TRP:CZ2	1:E:4214:LYS:HE2	2.53	0.44
1:E:4580:TYR:HE1	1:E:4631:PHE:HB2	1.80	0.44
2:F:36:PHE:CZ	2:F:97:LEU:HD22	2.52	0.44
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.53	0.44
1:G:207:SER:OG	1:G:208:CYS:N	2.51	0.44
1:G:210:GLU:HG2	1:G:273:HIS:HE1	1.83	0.44
1:G:342:GLY:N	1:G:390:LEU:O	2.51	0.44
1:G:1858:ASP:O	1:G:1862:ILE:HG12	2.18	0.44
1:G:2503:VAL:HG12	1:G:2559:LEU:HD12	1.99	0.44
1:G:2902:HIS:H	1:G:2905:LEU:HD12	1.82	0.44
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.83	0.44
1:A:755:ILE:O	1:A:767:VAL:HG22	2.18	0.43
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1667:LEU:HD23	1:A:1710:GLY:CA	2.47	0.43
1:A:3666:ASP:O	1:A:3669:PHE:HD2	2.01	0.43
1:C:614:VAL:HG13	1:C:617:ASN:HB3	2.00	0.43
1:C:692:TYR:CZ	1:C:694:PRO:HG3	2.52	0.43
1:C:1653:LEU:HD23	1:C:1707:LEU:CD1	2.48	0.43
1:C:1818:ALA:HB1	1:C:1838:PHE:CE1	2.52	0.43
1:C:1858:ASP:O	1:C:1862:ILE:HG12	2.18	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	1.99	0.43
1:C:3798:LEU:HD12	1:C:3880:PHE:CE1	2.53	0.43
1:C:4180:ARG:NH2	1:C:4981:GLU:OE1	2.50	0.43
1:C:4579:PHE:HB2	1:C:4631:PHE:CE1	2.53	0.43
1:C:4821:LYS:HD3	1:C:4824:ARG:HE	1.83	0.43
1:E:49:LEU:HA	1:E:49:LEU:HD23	1.76	0.43
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.88	0.43
1:E:2503:VAL:HG12	1:E:2559:LEU:HD12	1.99	0.43
1:E:4180:ARG:NH2	1:E:4981:GLU:OE1	2.51	0.43
1:G:565:TYR:HB2	1:G:602:VAL:HG22	2.00	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	2.00	0.43
1:G:1805:GLU:HA	1:G:1808:ARG:HG2	1.99	0.43
1:G:2351:ASN:O	1:G:2355:ARG:HG2	2.18	0.43
1:G:3780:LEU:HD12	1:G:3828:PHE:CE1	2.53	0.43
1:A:118:LEU:HA	1:A:137:LEU:HD23	2.00	0.43
1:A:607:CYS:SG	1:A:618:GLN:HG2	2.57	0.43
1:A:687:ALA:HB2	1:A:711:LEU:HD23	1.99	0.43
1:A:764:VAL:O	1:A:764:VAL:HG12	2.18	0.43
1:A:1970:GLN:HA	1:A:1973:GLN:HG2	1.99	0.43
1:A:2773:ASN:HD22	1:A:2775:TRP:HE1	1.65	0.43
1:C:60:PRO:HD2	1:C:281:ARG:NH2	2.32	0.43
1:C:755:ILE:O	1:C:767:VAL:HG22	2.18	0.43
1:C:1155:LEU:O	1:C:1157:GLU:N	2.51	0.43
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.50	0.43
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.53	0.43
1:C:2773:ASN:HD22	1:C:2775:TRP:HE1	1.65	0.43
1:C:4721:LYS:HB2	1:C:4741:LEU:HD13	2.00	0.43
1:C:4815:ASP:O	1:C:4819:GLY:N	2.47	0.43
1:C:4823:LEU:HA	1:C:4823:LEU:HD23	1.86	0.43
2:D:54:GLU:HG3	2:D:55:VAL:HG13	1.99	0.43
1:E:260:TRP:CZ3	1:E:284:HIS:HB2	2.53	0.43
1:E:293:LEU:HB2	1:E:378:LEU:HD12	2.00	0.43
1:E:764:VAL:O	1:E:764:VAL:HG12	2.18	0.43
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	2.00	0.43
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.82	0.43
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	2.00	0.43
1:G:614:VAL:HG13	1:G:617:ASN:HB3	2.00	0.43
1:G:871:ARG:HB2	1:G:929:LEU:HD12	2.00	0.43
1:G:2207:VAL:HG11	1:G:2235:PHE:CD2	2.54	0.43
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.53	0.43
1:G:4552:LEU:HD21	1:G:4663:CYS:SG	2.59	0.43
1:A:35:LEU:HD13	1:A:49:LEU:HD22	2.00	0.43
1:A:69:LEU:HD23	1:A:109:LEU:HD23	1.99	0.43
1:A:403:MET:CE	1:A:448:LEU:HD23	2.48	0.43
1:A:1591:CYS:N	1:A:1592:PRO:HD2	2.34	0.43
1:A:1762:LEU:HA	1:A:1763:PRO:HD2	1.92	0.43
1:A:1849:LEU:HG	1:A:1945:TYR:CD2	2.53	0.43
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.99	0.43
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	2.00	0.43
1:A:4192:ARG:HH11	1:A:5028:PHE:HB3	1.84	0.43
1:C:401:ALA:O	1:C:404:ILE:HB	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:993:HIS:CE1	1:C:1020:ARG:HB3	2.48	0.43
1:C:1598:GLN:O	1:C:1600:LEU:N	2.49	0.43
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.18	0.43
1:C:4059:LEU:HD22	1:C:4167:ALA:HB2	1.99	0.43
1:C:4192:ARG:HH11	1:C:5028:PHE:HB3	1.83	0.43
1:C:4205:TRP:CZ2	1:C:4214:LYS:HE2	2.53	0.43
2:D:15:PHE:HE1	2:D:67:SER:HB3	1.84	0.43
1:E:554:LEU:HD22	1:E:1596:GLU:HG2	2.00	0.43
1:E:755:ILE:O	1:E:767:VAL:HG22	2.18	0.43
1:E:1762:LEU:HA	1:E:1763:PRO:HD2	1.92	0.43
1:E:2159:LEU:HA	1:E:2162:ILE:HG22	1.99	0.43
1:E:2242:ILE:HD11	1:E:2246:ASN:ND2	2.33	0.43
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.19	0.43
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.65	0.43
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.54	0.43
1:E:4555:LEU:HD11	1:E:4656:LEU:HD13	1.99	0.43
1:E:4823:LEU:HD23	1:E:4823:LEU:HA	1.86	0.43
1:G:2159:LEU:HA	1:G:2162:ILE:HG22	1.99	0.43
1:A:1738:LEU:HD11	1:A:2143:THR:HB	2.01	0.43
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.18	0.43
1:C:69:LEU:HD23	1:C:109:LEU:HD23	1.99	0.43
1:C:449:ILE:HG12	1:C:525:LEU:HA	2.01	0.43
1:C:705:ASN:OD1	1:C:706:GLY:N	2.51	0.43
1:C:871:ARG:HB2	1:C:929:LEU:HD12	2.00	0.43
1:C:1232:ARG:HG3	1:C:1828:ASP:OD2	2.18	0.43
1:C:1254:HIS:CD2	1:C:1280:GLN:HB3	2.52	0.43
1:C:1254:HIS:CE1	1:C:1256:GLU:HB2	2.52	0.43
1:C:2212:VAL:HG21	1:C:2256:TYR:CZ	2.53	0.43
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.19	0.43
1:E:101:LEU:HD22	1:E:107:ILE:HG21	2.01	0.43
1:E:636:ASN:HD21	2:F:35:LYS:NZ	2.16	0.43
1:E:1849:LEU:HG	1:E:1945:TYR:CD2	2.54	0.43
1:E:3927:GLN:NE2	1:E:3988:ALA:HA	2.32	0.43
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.19	0.43
1:E:4842:GLY:O	1:E:4846:VAL:HG23	2.18	0.43
1:G:252:VAL:HA	1:G:255:HIS:ND1	2.33	0.43
1:G:519:VAL:HG12	1:G:523:TYR:HE2	1.83	0.43
1:G:681:HIS:O	1:G:682:LEU:HD12	2.19	0.43
1:G:3382:GLU:O	1:G:3386:GLU:N	2.48	0.43
1:G:3795:SER:O	1:G:3799:LYS:HG2	2.17	0.43
1:G:4717:ASP:OD1	1:G:4719:PHE:HB2	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:293:LEU:HB2	1:A:378:LEU:HD12	2.00	0.43
1:A:1254:HIS:CE1	1:A:1256:GLU:HB2	2.53	0.43
1:A:1638:ALA:HA	1:A:1649:ASP:HA	2.01	0.43
1:A:2212:VAL:HG21	1:A:2256:TYR:CZ	2.53	0.43
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.19	0.43
1:A:3969:ILE:HG22	1:A:3969:ILE:O	2.18	0.43
1:A:4221:VAL:O	1:A:4225:GLY:N	2.43	0.43
1:A:4693:GLY:O	1:A:4695:ASP:N	2.52	0.43
1:A:4901:ILE:HG21	1:A:4913:ARG:HH21	1.83	0.43
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	2.00	0.43
1:C:207:SER:OG	1:C:208:CYS:N	2.51	0.43
1:C:3927:GLN:HG3	1:C:3928:GLU:N	2.32	0.43
1:C:4051:SER:HG	1:C:4054:ASN:HB3	1.84	0.43
1:E:252:VAL:HA	1:E:255:HIS:ND1	2.34	0.43
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.43
1:E:1254:HIS:CE1	1:E:1256:GLU:HB2	2.53	0.43
1:E:1653:LEU:HD23	1:E:1707:LEU:CD1	2.49	0.43
1:E:4686:LEU:O	1:E:4691:GLN:N	2.40	0.43
1:E:4723:LYS:HA	1:E:4726:ASP:HB2	1.99	0.43
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.01	0.43
1:G:736:HIS:HD2	1:G:742:ASP:OD2	2.00	0.43
1:G:1717:SER:HA	1:G:1721:GLU:CB	2.48	0.43
1:G:2773:ASN:HD22	1:G:2775:TRP:HE1	1.65	0.43
1:A:62:LEU:HA	1:A:65:CYS:SG	2.58	0.43
1:A:244:LEU:HD23	1:A:300:VAL:HG12	2.01	0.43
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.01	0.43
1:A:614:VAL:HG13	1:A:617:ASN:HB3	2.00	0.43
1:A:1087:ARG:HB3	1:A:1223:PHE:HD1	1.82	0.43
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	2.00	0.43
1:A:2139:PRO:HG3	1:A:3658:LYS:HZ2	1.82	0.43
1:A:2242:ILE:HD11	1:A:2246:ASN:ND2	2.33	0.43
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.19	0.43
1:A:4892:ARG:HD2	1:G:4918:ILE:HD13	2.00	0.43
1:A:4942:GLU:HG3	1:C:4944:ARG:HD2	2.01	0.43
1:C:252:VAL:HA	1:C:255:HIS:ND1	2.33	0.43
1:C:1714:LEU:O	1:C:1718:ILE:HG12	2.18	0.43
1:C:2515:GLN:O	1:C:2518:LEU:HB3	2.19	0.43
1:E:871:ARG:HB2	1:E:929:LEU:HD12	2.00	0.43
1:E:1638:ALA:HA	1:E:1649:ASP:HA	2.01	0.43
1:E:1961:PHE:CZ	1:E:2063:LEU:HD23	2.54	0.43
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.53	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:31:GLU:HA	1:G:32:GLN:HA	1.71	0.43
1:G:118:LEU:HA	1:G:137:LEU:HD23	2.00	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.18	0.43
1:G:495:ASN:C	1:G:553:ARG:HH12	2.22	0.43
1:G:667:MET:HG2	1:G:668:VAL:O	2.19	0.43
1:G:2283:ASN:HB2	1:G:2286:LEU:HB3	2.00	0.43
1:G:2515:GLN:O	1:G:2518:LEU:HB3	2.19	0.43
1:G:4179:GLY:HA3	1:G:4197:ILE:HD11	2.01	0.43
1:G:4208:PRO:HG2	1:G:4210:VAL:HG23	2.00	0.43
1:G:4686:LEU:HA	1:G:4690:GLU:H	1.82	0.43
1:A:667:MET:HG2	1:A:668:VAL:O	2.19	0.43
1:A:1155:LEU:O	1:A:1157:GLU:N	2.52	0.43
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.38	0.43
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.83	0.43
1:A:4552:LEU:HD21	1:A:4663:CYS:SG	2.59	0.43
1:C:347:PHE:CE1	1:C:387:ALA:HB2	2.51	0.43
1:C:833:GLY:HA3	1:C:838:HIS:HD2	1.84	0.43
1:C:875:ALA:CB	1:C:922:LEU:HA	2.49	0.43
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.84	0.43
1:C:1293:LEU:HD23	1:C:1584:ARG:HG2	2.01	0.43
1:C:1591:CYS:N	1:C:1592:PRO:HD2	2.33	0.43
1:C:1745:ILE:O	1:C:1746:THR:OG1	2.35	0.43
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	2.00	0.43
1:C:3969:ILE:O	1:C:3969:ILE:HG22	2.18	0.43
1:E:210:GLU:HG2	1:E:273:HIS:HE1	1.83	0.43
1:E:545:ASP:OD1	1:E:546:TRP:N	2.52	0.43
1:E:1663:HIS:O	1:E:1667:LEU:HD13	2.19	0.43
1:E:1781:CYS:SG	1:E:1783:VAL:HG22	2.59	0.43
1:E:2143:THR:HG23	1:E:3654:LEU:HD11	1.99	0.43
1:E:3798:LEU:HD12	1:E:3880:PHE:CE1	2.53	0.43
1:E:3969:ILE:O	1:E:3969:ILE:HG22	2.18	0.43
1:E:4205:TRP:HB2	1:E:4245:MET:HE1	2.00	0.43
2:F:74:LEU:HB2	2:F:99:PHE:HB2	2.01	0.43
1:G:62:LEU:HA	1:G:65:CYS:SG	2.58	0.43
1:G:229:GLU:HA	1:G:249:GLY:HA2	2.00	0.43
1:G:755:ILE:O	1:G:767:VAL:HG22	2.18	0.43
1:G:2242:ILE:HD11	1:G:2246:ASN:ND2	2.33	0.43
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.19	0.43
1:G:3649:ALA:O	1:G:3653:PHE:N	2.43	0.43
1:G:4677:LEU:CD1	1:G:4702:ASP:HB3	2.48	0.43
1:A:15:ARG:HB2	1:A:18:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1232:ARG:HG3	1:A:1828:ASP:OD2	2.18	0.43
1:A:1254:HIS:CD2	1:A:1280:GLN:HB3	2.52	0.43
1:A:1433:TYR:HE1	1:A:1578:ALA:HB3	1.83	0.43
1:A:2515:GLN:O	1:A:2518:LEU:HB3	2.19	0.43
1:A:4059:LEU:HD22	1:A:4167:ALA:HB2	1.99	0.43
1:A:4562:LEU:HD11	1:A:4656:LEU:HD13	2.00	0.43
1:A:4822:THR:CG2	1:G:4839:MET:HG3	2.47	0.43
1:A:4928:LEU:HD23	1:A:4931:ILE:HD12	2.00	0.43
1:A:4973:HIS:NE2	1:A:4976:GLU:HB3	2.34	0.43
1:C:35:LEU:HD13	1:C:49:LEU:HD22	2.00	0.43
1:C:116:MET:HE1	1:C:139:GLU:OE2	2.18	0.43
1:C:626:LEU:HB2	1:C:627:PRO:HD3	2.01	0.43
1:C:764:VAL:O	1:C:764:VAL:HG12	2.17	0.43
1:C:2242:ILE:HD11	1:C:2246:ASN:ND2	2.33	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.17	0.43
1:C:3666:ASP:O	1:C:3669:PHE:HD2	2.01	0.43
1:C:4723:LYS:HA	1:C:4726:ASP:HB2	1.99	0.43
1:C:4917:ASP:OD2	1:E:4892:ARG:NE	2.52	0.43
1:E:449:ILE:HG12	1:E:525:LEU:HA	2.00	0.43
1:E:1858:ASP:O	1:E:1862:ILE:HG12	2.18	0.43
1:E:2207:VAL:HG11	1:E:2235:PHE:CD2	2.54	0.43
1:E:3666:ASP:O	1:E:3669:PHE:HD2	2.01	0.43
1:E:3891:LEU:HB3	1:E:3899:PHE:HE2	1.81	0.43
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.84	0.43
1:E:4721:LYS:HB2	1:E:4741:LEU:HD13	2.00	0.43
1:E:4934:GLY:HA2	1:E:4937:ILE:HG12	2.01	0.43
1:G:669:ASP:CG	1:G:790:ARG:HG2	2.39	0.43
1:G:696:PRO:HG2	1:G:1613:LEU:HD22	2.01	0.43
1:G:1087:ARG:HB3	1:G:1223:PHE:HD1	1.82	0.43
1:G:1433:TYR:HE1	1:G:1578:ALA:HB3	1.83	0.43
1:G:1667:LEU:HD23	1:G:1710:GLY:CA	2.48	0.43
1:G:2124:LEU:HG	1:G:3673:MET:HE3	1.99	0.43
1:G:4204:GLN:CG	1:G:4245:MET:HG2	2.49	0.43
1:G:4724:VAL:HG13	1:G:4728:HIS:HD2	1.83	0.43
1:G:4927:ILE:O	1:G:4931:ILE:N	2.50	0.43
2:H:27:THR:HA	2:H:38:SER:HA	2.00	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.00	0.43
1:A:565:TYR:HB2	1:A:602:VAL:HG22	2.00	0.43
1:A:1663:HIS:O	1:A:1667:LEU:HD13	2.19	0.43
1:A:1781:CYS:SG	1:A:1783:VAL:HG22	2.59	0.43
1:A:2351:ASN:O	1:A:2355:ARG:HG2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3927:GLN:HG3	1:A:3928:GLU:N	2.32	0.43
1:A:4205:TRP:CZ2	1:A:4214:LYS:HE2	2.53	0.43
1:A:4208:PRO:HB2	1:A:4209:GLN:H	1.70	0.43
1:A:4813:LEU:O	1:A:4816:ILE:HG22	2.19	0.43
1:A:4869:GLU:O	1:A:4871:GLU:N	2.44	0.43
1:C:294:THR:HG22	1:C:296:ASP:H	1.84	0.43
1:C:565:TYR:HB2	1:C:602:VAL:HG22	2.00	0.43
1:C:669:ASP:CG	1:C:790:ARG:HG2	2.39	0.43
1:C:4914:VAL:O	1:C:4918:ILE:HG12	2.19	0.43
1:E:650:VAL:N	1:E:777:PHE:O	2.47	0.43
1:E:669:ASP:CG	1:E:790:ARG:HG2	2.39	0.43
1:E:781:VAL:HG11	1:E:789:VAL:HG21	2.01	0.43
1:E:1591:CYS:N	1:E:1592:PRO:HD2	2.34	0.43
1:E:1598:GLN:O	1:E:1600:LEU:N	2.50	0.43
1:E:2515:GLN:O	1:E:2518:LEU:HB3	2.19	0.43
1:E:3887:PHE:O	1:E:3891:LEU:HD13	2.19	0.43
1:E:4552:LEU:HD21	1:E:4663:CYS:SG	2.59	0.43
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	2.01	0.43
1:G:281:ARG:HG2	1:G:312:THR:HG23	2.01	0.43
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.18	0.43
1:G:4027:LEU:HB3	1:G:4044:MET:HE3	2.01	0.43
1:G:4204:GLN:HG2	1:G:4245:MET:HG2	2.01	0.43
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.17	0.43
1:G:4963:ILE:HD11	1:G:5025:GLY:O	2.18	0.43
1:A:281:ARG:HG2	1:A:312:THR:HG23	2.01	0.43
1:A:347:PHE:CE1	1:A:387:ALA:HB2	2.51	0.43
1:A:449:ILE:HG12	1:A:525:LEU:HA	2.01	0.43
1:A:575:LEU:HD22	1:A:606:LEU:HA	2.01	0.43
1:A:622:THR:HG21	1:A:1681:VAL:HG13	2.00	0.43
1:A:1660:GLN:NE2	1:A:1704:PRO:HB2	2.33	0.43
1:A:1961:PHE:CZ	1:A:2063:LEU:HD23	2.54	0.43
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.53	0.43
1:A:4826:ILE:HD11	1:G:4836:GLN:OE1	2.19	0.43
1:A:4888:TYR:CZ	1:G:4917:ASP:OD2	2.71	0.43
2:B:54:GLU:HG3	2:B:55:VAL:HG13	2.00	0.43
1:C:4239:GLU:OE1	1:C:4675:LYS:HD2	2.18	0.43
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.84	0.43
1:C:4839:MET:HG3	1:E:4822:THR:CG2	2.41	0.43
1:C:4869:GLU:O	1:C:4871:GLU:N	2.44	0.43
1:E:495:ASN:C	1:E:553:ARG:HH12	2.21	0.43
1:E:607:CYS:SG	1:E:618:GLN:HG2	2.58	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1087:ARG:HB3	1:E:1223:PHE:HD1	1.82	0.43
1:E:1126:GLY:HA2	1:E:1143:TRP:HE1	1.84	0.43
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.83	0.43
1:E:3798:LEU:O	1:E:3802:ILE:HG12	2.19	0.43
1:E:4963:ILE:HD11	1:E:5025:GLY:O	2.18	0.43
1:G:622:THR:HG21	1:G:1681:VAL:HG13	2.01	0.43
1:G:1591:CYS:N	1:G:1592:PRO:HD2	2.34	0.43
1:G:1638:ALA:HA	1:G:1649:ASP:HA	2.01	0.43
1:G:2347:GLU:O	1:G:2351:ASN:ND2	2.40	0.43
1:G:4036:VAL:HG12	1:G:4037:ASN:N	2.34	0.43
1:G:4185:GLY:HA2	1:G:5009:TYR:CE2	2.54	0.43
1:G:4928:LEU:HD23	1:G:4931:ILE:HD12	2.01	0.43
1:G:4965:SER:HA	1:G:4975:PHE:CD1	2.53	0.43
1:A:715:GLY:HA2	1:A:719:LEU:HA	2.01	0.42
1:A:1116:GLY:HA2	1:A:1121:ALA:HB3	2.00	0.42
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.00	0.42
1:A:1653:LEU:HD23	1:A:1707:LEU:CD1	2.49	0.42
1:A:1717:SER:HA	1:A:1721:GLU:CB	2.49	0.42
1:A:2505:PHE:CE1	1:A:2509:VAL:HG21	2.54	0.42
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.18	0.42
1:A:4223:ASN:HD21	1:A:4946:GLN:NE2	2.17	0.42
1:A:4914:VAL:O	1:A:4918:ILE:HG12	2.19	0.42
2:B:74:LEU:HB2	2:B:99:PHE:HB2	2.01	0.42
1:C:59:PRO:HD2	1:C:304:ALA:HB1	2.01	0.42
1:C:104:GLY:HA3	1:C:159:GLU:HG2	2.00	0.42
1:C:1660:GLN:NE2	1:C:1704:PRO:HB2	2.33	0.42
1:C:2799:GLU:O	1:C:2803:GLU:HG2	2.19	0.42
1:C:3784:SER:OG	1:C:3825:GLU:OE1	2.28	0.42
1:C:3840:SER:O	1:C:3922:TYR:OH	2.22	0.42
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	2.00	0.42
2:D:78:PRO:HA	2:D:81:ALA:HB3	2.01	0.42
1:E:59:PRO:HD2	1:E:304:ALA:HB1	2.00	0.42
1:E:628:GLY:C	1:E:630:GLU:H	2.23	0.42
1:E:2290:LEU:O	1:E:3849:ARG:NH1	2.52	0.42
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.19	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:CG2	2.49	0.42
1:E:4693:GLY:O	1:E:4695:ASP:N	2.52	0.42
1:G:575:LEU:HD22	1:G:606:LEU:HA	2.01	0.42
1:G:1116:GLY:HA2	1:G:1121:ALA:HB3	2.00	0.42
1:G:1126:GLY:HA2	1:G:1143:TRP:HE1	1.84	0.42
1:G:1714:LEU:O	1:G:1718:ILE:HG12	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2799:GLU:O	1:G:2803:GLU:HG2	2.19	0.42
1:G:4684:ASP:OD2	1:G:4686:LEU:HB3	2.18	0.42
1:A:545:ASP:OD1	1:A:546:TRP:N	2.52	0.42
1:A:628:GLY:C	1:A:630:GLU:H	2.23	0.42
1:A:669:ASP:CG	1:A:790:ARG:HG2	2.39	0.42
1:A:2124:LEU:HD11	1:A:2128:TYR:HE2	1.85	0.42
1:A:2335:LEU:O	1:A:2339:VAL:HG22	2.19	0.42
1:A:2339:VAL:HG23	1:A:2340:PHE:N	2.34	0.42
1:A:2799:GLU:O	1:A:2803:GLU:HG2	2.20	0.42
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.53	0.42
1:C:293:LEU:HB2	1:C:378:LEU:HD12	2.00	0.42
1:C:462:GLU:HG3	1:C:3823:LYS:HZ3	1.83	0.42
1:C:545:ASP:OD1	1:C:546:TRP:N	2.52	0.42
1:C:646:PRO:HB3	1:C:793:LEU:HD11	2.01	0.42
1:C:1638:ALA:HA	1:C:1649:ASP:HA	2.01	0.42
1:C:1738:LEU:HD11	1:C:2143:THR:HB	2.01	0.42
1:C:1849:LEU:HD13	1:C:1854:PHE:CD2	2.48	0.42
1:C:1849:LEU:HG	1:C:1945:TYR:CD2	2.54	0.42
1:C:4552:LEU:HD21	1:C:4663:CYS:SG	2.58	0.42
1:C:4562:LEU:HD11	1:C:4656:LEU:HD13	2.00	0.42
1:C:4685:GLY:O	1:C:4689:THR:N	2.53	0.42
1:E:35:LEU:HD13	1:E:49:LEU:HD22	2.00	0.42
1:E:462:GLU:HG3	1:E:3823:LYS:HZ3	1.83	0.42
1:E:1738:LEU:HD11	1:E:2143:THR:HB	2.01	0.42
1:E:1805:GLU:HA	1:E:1808:ARG:HG2	1.99	0.42
1:E:4577:LEU:HG	1:E:4580:TYR:HE2	1.84	0.42
1:E:4860:ARG:HD3	1:G:4582:VAL:HG11	2.02	0.42
1:E:4865:LYS:HB2	1:E:4874:MET:HB3	2.00	0.42
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.53	0.42
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.00	0.42
1:G:1598:GLN:O	1:G:1600:LEU:N	2.50	0.42
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.20	0.42
1:G:4181:ILE:HB	1:G:4988:TYR:CE1	2.54	0.42
1:G:4665:LYS:O	1:G:4669:VAL:HG23	2.20	0.42
1:A:229:GLU:HA	1:A:249:GLY:HA2	2.00	0.42
1:A:665:GLU:HB2	1:A:792:LEU:HB2	2.02	0.42
1:A:1715:LEU:HD21	1:A:1807:LEU:HD11	2.01	0.42
1:A:2283:ASN:HB2	1:A:2286:LEU:HB3	2.01	0.42
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.50	0.42
1:C:244:LEU:HD23	1:C:300:VAL:HG12	2.01	0.42
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:453:GLU:HA	1:C:454:PRO:HD3	1.88	0.42
1:C:622:THR:HG21	1:C:1681:VAL:HG13	2.01	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.54	0.42
1:C:1667:LEU:HD23	1:C:1710:GLY:CA	2.47	0.42
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.84	0.42
1:C:2339:VAL:HG23	1:C:2340:PHE:N	2.34	0.42
1:C:3798:LEU:O	1:C:3802:ILE:HG12	2.19	0.42
1:C:3924:LEU:O	1:C:3928:GLU:HG3	2.19	0.42
1:C:4057:MET:HA	1:C:4060:LYS:HG2	2.00	0.42
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.54	0.42
1:E:244:LEU:HD23	1:E:300:VAL:HG12	2.02	0.42
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.42
1:E:935:LEU:HB2	1:E:937:CYS:SG	2.59	0.42
1:E:1112:ASP:HA	1:E:1607:ARG:HH11	1.82	0.42
1:E:1433:TYR:HE1	1:E:1578:ALA:HB3	1.83	0.42
1:E:1831:GLY:HA3	1:E:1836:PHE:HB2	2.01	0.42
1:E:3919:THR:HG22	1:E:3965:LEU:HD11	2.02	0.42
1:E:4076:ALA:HB2	1:E:4100:GLN:HB3	2.00	0.42
2:F:78:PRO:HA	2:F:81:ALA:HB3	2.02	0.42
1:G:712:TYR:HB3	1:G:768:PHE:CZ	2.55	0.42
1:G:875:ALA:CB	1:G:922:LEU:HA	2.49	0.42
1:G:1155:LEU:O	1:G:1157:GLU:N	2.51	0.42
1:G:1205:GLY:HA3	1:G:1227:ALA:HB3	2.01	0.42
1:G:1254:HIS:CD2	1:G:1280:GLN:H	2.37	0.42
1:G:1736:VAL:HA	1:G:1737:PRO:HD2	1.87	0.42
1:A:833:GLY:HA3	1:A:838:HIS:HD2	1.85	0.42
1:A:993:HIS:CE1	1:A:1020:ARG:HB3	2.49	0.42
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.54	0.42
1:A:3798:LEU:O	1:A:3802:ILE:HG12	2.19	0.42
1:A:5011:TRP:O	1:A:5015:GLN:HG2	2.18	0.42
1:C:681:HIS:O	1:C:682:LEU:HD12	2.19	0.42
1:C:1781:CYS:SG	1:C:1783:VAL:HG22	2.59	0.42
1:C:2212:VAL:HG21	1:C:2256:TYR:CE2	2.55	0.42
1:C:2335:LEU:O	1:C:2339:VAL:HG22	2.19	0.42
1:C:4028:LEU:HA	1:C:4028:LEU:HD23	1.79	0.42
1:E:107:ILE:HG13	1:E:148:TRP:O	2.20	0.42
1:E:229:GLU:HA	1:E:249:GLY:HA2	2.01	0.42
1:E:347:PHE:CE1	1:E:387:ALA:HB2	2.51	0.42
1:E:1254:HIS:CD2	1:E:1280:GLN:H	2.38	0.42
1:E:2283:ASN:HB2	1:E:2286:LEU:HB3	2.01	0.42
1:E:2505:PHE:CE1	1:E:2509:VAL:HG21	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.19	0.42
1:E:4028:LEU:HA	1:E:4028:LEU:HD23	1.79	0.42
1:E:4038:GLY:O	1:E:4042:ARG:HG2	2.19	0.42
1:E:4051:SER:HG	1:E:4054:ASN:HB3	1.84	0.42
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	2.02	0.42
1:G:736:HIS:NE2	1:G:739:ALA:HB2	2.30	0.42
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.01	0.42
1:G:4192:ARG:HH11	1:G:5028:PHE:HB3	1.83	0.42
1:G:4567:LEU:HD11	1:G:4816:ILE:HA	2.01	0.42
2:H:24:VAL:HG21	2:H:59:TRP:HZ2	1.83	0.42
1:A:909:ASN:O	1:A:912:SER:OG	2.28	0.42
1:A:935:LEU:HB2	1:A:937:CYS:SG	2.60	0.42
1:A:1254:HIS:CD2	1:A:1280:GLN:H	2.37	0.42
1:A:4053:SER:HA	1:A:4056:GLU:HB3	2.01	0.42
1:A:4057:MET:HA	1:A:4060:LYS:HG2	1.99	0.42
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	2.01	0.42
1:C:792:LEU:HD22	1:C:799:GLU:O	2.20	0.42
1:C:2505:PHE:CE1	1:C:2509:VAL:HG21	2.54	0.42
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.20	0.42
1:C:3915:ILE:HG21	1:C:3915:ILE:HD13	1.75	0.42
1:C:4038:GLY:O	1:C:4042:ARG:HG2	2.19	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:HG23	2.02	0.42
1:C:5027:CYS:H	1:C:5030:LYS:HB2	1.85	0.42
1:E:281:ARG:HG2	1:E:312:THR:HG23	2.01	0.42
1:E:626:LEU:HB2	1:E:627:PRO:HD3	2.01	0.42
1:E:1074:ILE:O	1:E:1238:PHE:HA	2.20	0.42
1:E:1155:LEU:O	1:E:1157:GLU:N	2.52	0.42
1:E:1660:GLN:NE2	1:E:1704:PRO:HB2	2.35	0.42
1:E:2212:VAL:HG21	1:E:2256:TYR:CE2	2.55	0.42
1:G:545:ASP:OD1	1:G:546:TRP:N	2.53	0.42
1:G:781:VAL:HG11	1:G:789:VAL:HG21	2.01	0.42
1:G:935:LEU:HB2	1:G:937:CYS:SG	2.59	0.42
1:G:1868:PRO:HD3	1:G:1925:GLY:HA3	2.01	0.42
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.19	0.42
1:G:2465:ASP:O	1:G:2467:VAL:N	2.52	0.42
1:G:2867:LEU:HD22	1:G:2871:LEU:HB3	2.02	0.42
1:G:4205:TRP:CE3	1:G:4205:TRP:O	2.72	0.42
1:G:4888:TYR:O	1:G:4892:ARG:NH2	2.43	0.42
1:A:107:ILE:HG13	1:A:148:TRP:O	2.19	0.42
1:A:468:LEU:O	1:A:472:ARG:HG2	2.20	0.42
1:A:875:ALA:CB	1:A:922:LEU:HA	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1126:GLY:HA2	1:A:1143:TRP:HE1	1.83	0.42
1:A:1637:MET:O	1:A:1650:ILE:N	2.36	0.42
1:A:3965:LEU:HA	1:A:3968:TYR:HD2	1.82	0.42
1:A:4205:TRP:HB2	1:A:4245:MET:HE1	2.01	0.42
1:C:210:GLU:HG2	1:C:273:HIS:HE1	1.83	0.42
1:C:229:GLU:HA	1:C:249:GLY:HA2	2.00	0.42
1:C:281:ARG:HG2	1:C:312:THR:HG23	2.02	0.42
1:C:541:SER:HB2	1:C:577:ILE:HD12	2.01	0.42
1:C:1663:HIS:O	1:C:1667:LEU:HD13	2.19	0.42
1:C:1727:ARG:HD2	1:C:1772:ARG:HD3	2.02	0.42
1:C:2283:ASN:HB2	1:C:2286:LEU:HB3	2.01	0.42
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.18	0.42
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.53	0.42
1:E:667:MET:HG2	1:E:668:VAL:O	2.19	0.42
1:E:681:HIS:O	1:E:682:LEU:HD12	2.20	0.42
1:E:712:TYR:HB3	1:E:768:PHE:CZ	2.55	0.42
1:E:1205:GLY:HA3	1:E:1227:ALA:HB3	2.00	0.42
1:E:1232:ARG:HG3	1:E:1828:ASP:OD2	2.19	0.42
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.19	0.42
1:E:3915:ILE:HG21	1:E:3915:ILE:HD13	1.75	0.42
1:E:3924:LEU:O	1:E:3928:GLU:HG3	2.20	0.42
1:E:4799:SER:HA	1:E:4812:HIS:CE1	2.55	0.42
1:G:107:ILE:HG13	1:G:148:TRP:O	2.20	0.42
1:G:1211:LEU:O	1:G:1213:PHE:N	2.53	0.42
1:G:2505:PHE:CE1	1:G:2509:VAL:HG21	2.54	0.42
1:A:1246:GLU:HA	1:A:1247:PRO:HD3	1.87	0.42
1:A:1528:THR:HG22	1:A:1538:THR:H	1.85	0.42
1:A:1598:GLN:O	1:A:1600:LEU:N	2.49	0.42
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.19	0.42
1:A:4030:LEU:HD23	1:A:4031:LEU:HD12	2.02	0.42
1:A:4076:ALA:HB2	1:A:4100:GLN:HB3	2.00	0.42
1:A:5027:CYS:H	1:A:5030:LYS:HB2	1.85	0.42
1:C:468:LEU:O	1:C:472:ARG:HG2	2.20	0.42
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.42
1:C:667:MET:HA	1:C:743:VAL:HA	2.01	0.42
1:C:1077:ALA:O	1:C:1189:LEU:HD13	2.20	0.42
1:C:1187:GLY:HA2	1:C:1188:PHE:HA	1.91	0.42
1:C:1456:ASP:O	1:C:1457:TYR:CB	2.67	0.42
1:C:1699:GLU:CD	1:C:1810:LYS:HZ3	2.17	0.42
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.20	0.42
1:C:3887:PHE:O	1:C:3891:LEU:HD13	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3919:THR:HG22	1:C:3965:LEU:HD11	2.02	0.42
1:C:4223:ASN:HD21	1:C:4946:GLN:NE2	2.16	0.42
1:C:4973:HIS:NE2	1:C:4976:GLU:HB3	2.35	0.42
1:E:1211:LEU:O	1:E:1213:PHE:N	2.53	0.42
1:E:1734:TYR:HB2	1:E:2141:ALA:HB2	2.01	0.42
1:E:1769:THR:OG1	1:E:1770:SER:N	2.53	0.42
1:E:2339:VAL:HG23	1:E:2340:PHE:N	2.35	0.42
1:G:35:LEU:HD13	1:G:49:LEU:HD22	2.00	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.55	0.42
1:G:347:PHE:CE1	1:G:387:ALA:HB2	2.51	0.42
1:G:646:PRO:HB3	1:G:793:LEU:HD11	2.02	0.42
1:G:1849:LEU:HG	1:G:1945:TYR:CD2	2.54	0.42
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.38	0.42
1:G:2340:PHE:CG	1:G:2435:ARG:NH1	2.88	0.42
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.54	0.42
1:G:2868:SER:OG	1:G:2871:LEU:HD13	2.19	0.42
1:G:4661:TYR:OH	1:G:4786:ASP:OD2	2.36	0.42
1:G:4888:TYR:O	1:G:4892:ARG:HD3	2.20	0.42
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.84	0.42
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.20	0.42
1:A:792:LEU:HD22	1:A:799:GLU:O	2.20	0.42
1:A:1297:PHE:CE1	1:A:1519:LEU:HD11	2.55	0.42
1:A:2212:VAL:HG21	1:A:2256:TYR:CE2	2.55	0.42
1:A:2735:PHE:CD2	1:A:2891:LYS:HD2	2.55	0.42
1:A:3887:PHE:O	1:A:3891:LEU:HD13	2.19	0.42
1:A:4038:GLY:O	1:A:4042:ARG:HG2	2.19	0.42
1:A:4821:LYS:HD3	1:A:4824:ARG:HE	1.84	0.42
1:A:4913:ARG:NH1	1:A:4917:ASP:HB2	2.35	0.42
1:A:4963:ILE:HG23	1:A:4963:ILE:HD12	1.81	0.42
2:B:78:PRO:HA	2:B:81:ALA:HB3	2.02	0.42
1:C:639:ASN:HA	1:C:1635:THR:HG22	2.01	0.42
1:C:696:PRO:HG2	1:C:1613:LEU:HD22	2.01	0.42
1:C:781:VAL:HG11	1:C:789:VAL:HG21	2.01	0.42
1:C:1093:GLU:HA	1:C:1148:VAL:HG13	2.02	0.42
1:C:1211:LEU:O	1:C:1213:PHE:N	2.53	0.42
1:C:2290:LEU:O	1:C:3849:ARG:NH1	2.52	0.42
1:C:2465:ASP:O	1:C:2467:VAL:N	2.52	0.42
1:C:2507:ASP:CG	1:C:2559:LEU:HD22	2.40	0.42
1:C:4097:MET:HG3	1:C:4108:ILE:CG2	2.50	0.42
1:C:4562:LEU:HD21	1:C:4656:LEU:CD1	2.49	0.42
1:C:4576:ILE:CG2	1:C:4643:LEU:HD12	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4856:PHE:CZ	1:E:4581:LYS:HA	2.54	0.42
2:D:74:LEU:HB2	2:D:99:PHE:HB2	2.01	0.42
1:E:575:LEU:HD22	1:E:606:LEU:HA	2.01	0.42
1:E:646:PRO:HB3	1:E:793:LEU:HD11	2.02	0.42
1:E:875:ALA:CB	1:E:922:LEU:HA	2.49	0.42
1:E:1077:ALA:O	1:E:1189:LEU:HD13	2.20	0.42
1:E:4562:LEU:HD11	1:E:4656:LEU:HD13	2.01	0.42
1:E:4917:ASP:CB	1:G:4888:TYR:HE1	2.32	0.42
1:E:5027:CYS:H	1:E:5030:LYS:HB2	1.85	0.42
2:F:54:GLU:HG3	2:F:55:VAL:HG13	2.00	0.42
1:G:715:GLY:HA2	1:G:719:LEU:HA	2.01	0.42
1:G:1684:ALA:O	1:G:1687:SER:OG	2.17	0.42
1:G:1727:ARG:HD2	1:G:1772:ARG:HD3	2.02	0.42
1:G:1849:LEU:HD13	1:G:1854:PHE:CD2	2.48	0.42
1:G:2212:VAL:HG21	1:G:2256:TYR:CE2	2.55	0.42
1:A:646:PRO:HB3	1:A:793:LEU:HD11	2.01	0.42
1:A:737:LEU:HD11	2:B:7:ILE:CG2	2.39	0.42
1:A:781:VAL:HG11	1:A:789:VAL:HG21	2.01	0.42
1:A:1670:TYR:HB2	1:A:1714:LEU:HD21	2.02	0.42
1:A:3919:THR:HG22	1:A:3965:LEU:HD11	2.01	0.42
1:A:4097:MET:HG3	1:A:4108:ILE:CG2	2.50	0.42
1:C:667:MET:HG2	1:C:668:VAL:O	2.19	0.42
1:C:1074:ILE:O	1:C:1238:PHE:HA	2.20	0.42
1:C:1254:HIS:CD2	1:C:1280:GLN:H	2.38	0.42
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	2.01	0.42
1:C:2340:PHE:CG	1:C:2435:ARG:NH1	2.87	0.42
1:E:207:SER:OG	1:E:208:CYS:N	2.51	0.42
1:E:414:PHE:O	1:E:418:LEU:HD13	2.20	0.42
1:E:468:LEU:O	1:E:472:ARG:HG2	2.20	0.42
1:E:495:ASN:HB3	1:E:553:ARG:HH22	1.85	0.42
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.54	0.42
1:E:2335:LEU:O	1:E:2339:VAL:HG22	2.19	0.42
1:E:2465:ASP:O	1:E:2467:VAL:N	2.52	0.42
1:E:2735:PHE:CD2	1:E:2891:LYS:HD2	2.55	0.42
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.20	0.42
1:E:4097:MET:HG3	1:E:4108:ILE:HG23	2.02	0.42
1:E:4973:HIS:NE2	1:E:4976:GLU:HB3	2.34	0.42
1:G:484:LEU:HD11	1:G:536:ASN:OD1	2.20	0.42
1:G:1663:HIS:O	1:G:1667:LEU:HD13	2.19	0.42
1:G:3923:LEU:HD12	1:G:3961:VAL:CG1	2.50	0.42
1:A:104:GLY:HA3	1:A:159:GLU:HG2	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:643:SER:HA	1:A:782:SER:HA	2.02	0.42
1:A:1077:ALA:O	1:A:1189:LEU:HD13	2.20	0.42
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.55	0.42
1:A:4576:ILE:HG22	1:A:4643:LEU:HD12	2.02	0.42
1:A:4641:PRO:O	1:A:4644:TRP:HB3	2.20	0.42
1:A:4865:LYS:HB2	1:A:4874:MET:HB3	2.01	0.42
1:C:935:LEU:HB2	1:C:937:CYS:SG	2.60	0.42
1:C:1433:TYR:HE1	1:C:1578:ALA:HB3	1.83	0.42
1:C:4076:ALA:HB2	1:C:4100:GLN:HB3	2.01	0.42
1:C:4989:MET:O	1:C:4993:MET:HG2	2.20	0.42
1:E:544:LEU:O	1:E:548:VAL:HG23	2.20	0.42
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.85	0.42
1:E:715:GLY:HA2	1:E:719:LEU:HA	2.01	0.42
1:E:1727:ARG:HD2	1:E:1772:ARG:HD3	2.02	0.42
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.55	0.42
1:E:2507:ASP:CG	1:E:2559:LEU:HD22	2.40	0.42
1:E:4181:ILE:HB	1:E:4988:TYR:CE1	2.55	0.42
1:G:102:LEU:HD12	1:G:105:HIS:CE1	2.55	0.42
1:G:544:LEU:O	1:G:548:VAL:HG23	2.20	0.42
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.84	0.42
1:G:628:GLY:C	1:G:630:GLU:H	2.23	0.42
1:G:643:SER:HA	1:G:782:SER:HA	2.01	0.42
1:G:716:PHE:HD2	1:G:722:TRP:CH2	2.38	0.42
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.42
1:G:1187:GLY:HA2	1:G:1188:PHE:HA	1.91	0.42
1:G:2339:VAL:HG23	1:G:2340:PHE:N	2.35	0.42
1:G:2507:ASP:CG	1:G:2559:LEU:HD22	2.40	0.42
2:H:11:ASP:OD1	2:H:12:GLY:N	2.53	0.42
1:A:441:VAL:HG12	1:A:445:LEU:HD13	2.02	0.41
1:A:1074:ILE:O	1:A:1238:PHE:HA	2.20	0.41
1:A:2290:LEU:O	1:A:3849:ARG:NH1	2.53	0.41
1:A:3996:PHE:HB3	1:A:4020:GLN:OE1	2.20	0.41
1:A:4097:MET:HG3	1:A:4108:ILE:HG23	2.02	0.41
1:A:4721:LYS:HB2	1:A:4741:LEU:HD13	2.01	0.41
1:A:4779:LYS:O	1:A:4783:ILE:HG13	2.21	0.41
1:C:107:ILE:HG13	1:C:148:TRP:O	2.20	0.41
1:C:111:HIS:CD2	1:C:113:HIS:H	2.38	0.41
1:C:441:VAL:HG12	1:C:445:LEU:HD13	2.02	0.41
1:C:495:ASN:HB3	1:C:553:ARG:HH22	1.85	0.41
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.85	0.41
1:C:857:ASP:HA	1:C:859:VAL:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1810:LYS:O	1:C:1814:MET:HG2	2.20	0.41
1:C:1831:GLY:HA3	1:C:1836:PHE:HB2	2.02	0.41
1:C:2351:ASN:O	1:C:2355:ARG:HG2	2.18	0.41
1:C:3996:PHE:HB3	1:C:4020:GLN:OE1	2.20	0.41
1:C:4799:SER:HA	1:C:4812:HIS:CE1	2.55	0.41
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	2.01	0.41
1:E:1667:LEU:HD23	1:E:1710:GLY:CA	2.48	0.41
1:E:2340:PHE:CG	1:E:2435:ARG:NH1	2.87	0.41
1:E:4053:SER:HA	1:E:4056:GLU:HB3	2.01	0.41
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.20	0.41
1:G:1232:ARG:HG3	1:G:1828:ASP:OD2	2.19	0.41
1:A:207:SER:OG	1:A:208:CYS:N	2.51	0.41
1:A:541:SER:HB2	1:A:577:ILE:HD12	2.02	0.41
1:A:696:PRO:HG2	1:A:1613:LEU:HD22	2.02	0.41
1:A:718:GLY:H	1:A:737:LEU:HG	1.85	0.41
1:A:765:GLN:NE2	1:A:1478:ASP:HA	2.35	0.41
1:A:1074:ILE:HG23	1:A:1115:LEU:HD11	2.03	0.41
1:A:1087:ARG:NH1	1:A:1221:GLU:O	2.49	0.41
1:A:1944:GLU:HG3	1:A:2126:ARG:NH1	2.35	0.41
1:A:2507:ASP:CG	1:A:2559:LEU:HD22	2.40	0.41
1:A:4653:VAL:HA	1:A:4656:LEU:HG	2.02	0.41
1:A:4685:GLY:O	1:A:4689:THR:N	2.53	0.41
1:C:628:GLY:C	1:C:630:GLU:H	2.23	0.41
1:C:643:SER:HA	1:C:782:SER:HA	2.02	0.41
1:C:712:TYR:HB3	1:C:768:PHE:CZ	2.55	0.41
1:C:1089:TYR:CB	1:C:1223:PHE:HB3	2.50	0.41
1:C:1297:PHE:CE1	1:C:1519:LEU:HD11	2.55	0.41
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.55	0.41
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.83	0.41
1:C:4641:PRO:O	1:C:4644:TRP:HB3	2.20	0.41
1:E:530:ILE:O	1:E:530:ILE:CG2	2.68	0.41
1:E:1074:ILE:HG23	1:E:1115:LEU:HD11	2.02	0.41
1:E:1868:PRO:HD3	1:E:1925:GLY:HA3	2.02	0.41
2:F:25:HIS:HD2	2:F:104:LEU:HD21	1.85	0.41
2:F:58:GLY:HA3	2:F:76:ILE:HG23	2.02	0.41
1:G:116:MET:HE1	1:G:139:GLU:OE2	2.21	0.41
1:G:449:ILE:HG12	1:G:525:LEU:HA	2.01	0.41
1:G:626:LEU:HB2	1:G:627:PRO:HD3	2.01	0.41
1:G:765:GLN:NE2	1:G:1478:ASP:HA	2.35	0.41
1:G:792:LEU:HD22	1:G:799:GLU:O	2.20	0.41
1:G:1074:ILE:O	1:G:1238:PHE:HA	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1433:TYR:CD2	1:G:1583:GLU:HB2	2.55	0.41
1:G:1944:GLU:HG3	1:G:2126:ARG:NH1	2.35	0.41
1:G:2144:ILE:HD11	1:G:2197:LEU:HD11	2.02	0.41
1:G:2335:LEU:O	1:G:2339:VAL:HG22	2.19	0.41
1:G:3645:PRO:HB2	1:G:3648:ARG:HB3	2.02	0.41
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.53	0.41
1:A:3886:ARG:HD3	1:A:3960:GLN:HE22	1.86	0.41
1:A:3915:ILE:HD13	1:A:3915:ILE:HG21	1.75	0.41
1:A:4562:LEU:HD21	1:A:4656:LEU:CD1	2.49	0.41
1:A:4631:PHE:CE2	1:A:4633:GLU:HB3	2.55	0.41
1:A:4951:LYS:O	1:A:4955:GLU:HG2	2.20	0.41
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.96	0.41
1:C:530:ILE:O	1:C:530:ILE:CG2	2.69	0.41
1:C:665:GLU:HB2	1:C:792:LEU:HB2	2.02	0.41
1:C:3767:GLN:OE1	1:C:3809:ASN:ND2	2.42	0.41
1:C:4693:GLY:O	1:C:4695:ASP:N	2.52	0.41
1:C:4865:LYS:HB2	1:C:4874:MET:HB3	2.00	0.41
1:C:4913:ARG:NH1	1:C:4917:ASP:HB2	2.36	0.41
1:E:111:HIS:CD2	1:E:113:HIS:H	2.39	0.41
1:E:1293:LEU:HD23	1:E:1584:ARG:HG2	2.01	0.41
1:E:1528:THR:HG22	1:E:1538:THR:H	1.85	0.41
1:E:1715:LEU:HD21	1:E:1807:LEU:HD11	2.01	0.41
1:G:667:MET:HA	1:G:743:VAL:HA	2.02	0.41
1:G:1652:GLU:OE2	1:G:1655:GLU:OE2	2.38	0.41
1:G:1853:ILE:O	1:G:1854:PHE:HB2	2.21	0.41
1:G:3666:ASP:O	1:G:3669:PHE:HD2	2.02	0.41
1:G:4154:VAL:O	1:G:4154:VAL:HG13	2.21	0.41
1:G:4235:VAL:HG21	1:G:5019:TRP:CH2	2.55	0.41
2:H:29:MET:HG2	2:H:98:VAL:O	2.20	0.41
1:A:64:ILE:O	1:A:111:HIS:HE1	2.04	0.41
1:A:101:LEU:HD22	1:A:107:ILE:HG21	2.01	0.41
1:A:712:TYR:HB3	1:A:768:PHE:CZ	2.55	0.41
1:A:1211:LEU:O	1:A:1213:PHE:N	2.53	0.41
1:A:3924:LEU:O	1:A:3928:GLU:HG3	2.20	0.41
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.84	0.41
2:B:18:ARG:NH1	2:B:51:GLY:HA3	2.36	0.41
1:C:101:LEU:HD22	1:C:107:ILE:HG21	2.02	0.41
1:C:1528:THR:HG22	1:C:1538:THR:H	1.85	0.41
1:C:1734:TYR:HB2	1:C:2141:ALA:HB2	2.01	0.41
1:C:1944:GLU:HG3	1:C:2126:ARG:NH1	2.35	0.41
1:E:717:ASP:O	1:E:720:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:792:LEU:HD22	1:E:799:GLU:O	2.20	0.41
1:E:857:ASP:HA	1:E:859:VAL:H	1.86	0.41
1:E:3996:PHE:HB3	1:E:4020:GLN:OE1	2.20	0.41
1:E:4631:PHE:CE2	1:E:4633:GLU:HB3	2.55	0.41
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.20	0.41
1:G:468:LEU:O	1:G:472:ARG:HG2	2.20	0.41
1:G:1110:ARG:HA	1:G:1111:PRO:HD2	1.84	0.41
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.84	0.41
1:G:1294:PRO:HD3	1:G:1549:PHE:CE1	2.56	0.41
1:G:3990:VAL:HG13	1:G:4051:SER:HB2	2.02	0.41
1:G:4023:MET:O	1:G:4027:LEU:HG	2.19	0.41
1:G:4779:LYS:O	1:G:4783:ILE:HG13	2.21	0.41
1:A:102:LEU:HD22	1:A:160:GLY:O	2.20	0.41
1:A:667:MET:HA	1:A:743:VAL:HA	2.01	0.41
1:A:840:VAL:HG12	1:A:1199:VAL:HG22	2.03	0.41
1:A:1187:GLY:HA2	1:A:1188:PHE:HA	1.91	0.41
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.54	0.41
1:A:2907:PRO:O	1:A:2910:THR:OG1	2.16	0.41
1:A:3955:MET:O	1:A:4019:LEU:HD12	2.21	0.41
1:A:4989:MET:O	1:A:4993:MET:HG2	2.20	0.41
1:C:414:PHE:O	1:C:418:LEU:HD13	2.20	0.41
1:C:575:LEU:HD22	1:C:606:LEU:HA	2.02	0.41
1:C:597:HIS:CE1	1:C:1661:ARG:HH12	2.39	0.41
1:C:1074:ILE:HG23	1:C:1115:LEU:HD11	2.02	0.41
1:C:3651:ASN:O	1:C:3655:GLU:HG2	2.21	0.41
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	2.01	0.41
1:C:4813:LEU:HD23	1:C:4813:LEU:HA	1.89	0.41
1:C:4826:ILE:O	1:C:4830:VAL:HG23	2.21	0.41
1:E:64:ILE:O	1:E:111:HIS:HE1	2.04	0.41
1:E:622:THR:HG21	1:E:1681:VAL:HG13	2.00	0.41
1:E:765:GLN:NE2	1:E:1478:ASP:HA	2.35	0.41
1:E:1297:PHE:CE1	1:E:1519:LEU:HD11	2.55	0.41
1:E:1736:VAL:HA	1:E:1737:PRO:HD2	1.85	0.41
1:E:2799:GLU:O	1:E:2803:GLU:HG2	2.19	0.41
1:E:4172:GLU:HA	1:E:4175:ARG:HH12	1.85	0.41
1:E:4579:PHE:HB2	1:E:4631:PHE:CE1	2.55	0.41
1:G:292:ALA:O	1:G:299:LEU:HD12	2.21	0.41
1:G:495:ASN:HB3	1:G:553:ARG:HH22	1.85	0.41
1:G:1769:THR:OG1	1:G:1770:SER:N	2.53	0.41
1:G:1831:GLY:HA3	1:G:1836:PHE:HB2	2.02	0.41
1:G:3959:LYS:HG3	1:G:4022:ASP:OD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4693:GLY:O	1:G:4695:ASP:N	2.53	0.41
1:G:4703:ARG:O	1:G:4706:LEU:HG	2.20	0.41
1:A:111:HIS:CD2	1:A:113:HIS:H	2.39	0.41
1:A:416:LYS:N	1:A:416:LYS:HD2	2.36	0.41
1:A:495:ASN:HB3	1:A:553:ARG:HH22	1.86	0.41
1:A:4028:LEU:HD23	1:A:4028:LEU:HA	1.80	0.41
1:A:4861:LYS:HE2	1:A:4907:ASP:OD2	2.21	0.41
1:C:484:LEU:HD11	1:C:536:ASN:OD1	2.20	0.41
1:C:715:GLY:HA2	1:C:719:LEU:HA	2.01	0.41
1:C:1075:PHE:CE1	1:C:1238:PHE:HB3	2.56	0.41
1:C:1086:GLY:O	1:C:1155:LEU:HD12	2.21	0.41
1:C:1433:TYR:CD2	1:C:1583:GLU:HB2	2.55	0.41
1:C:2862:LEU:HD21	1:C:2929:PHE:HB2	2.02	0.41
1:C:3775:ALA:O	1:C:3778:MET:HB3	2.21	0.41
1:C:3955:MET:O	1:C:4019:LEU:HD12	2.21	0.41
1:C:4208:PRO:HB2	1:C:4209:GLN:H	1.70	0.41
1:C:4856:PHE:HE1	1:C:4877:ASP:O	2.04	0.41
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.55	0.41
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.56	0.41
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.20	0.41
1:E:840:VAL:HG12	1:E:1199:VAL:HG22	2.03	0.41
1:E:2100:HIS:HB3	1:E:2104:ARG:NH1	2.36	0.41
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.56	0.41
1:E:4550:LYS:HE3	1:E:4550:LYS:HB2	1.85	0.41
1:E:4685:GLY:O	1:E:4689:THR:N	2.53	0.41
1:E:4686:LEU:HA	1:E:4690:GLU:H	1.86	0.41
1:E:4826:ILE:O	1:E:4830:VAL:HG23	2.21	0.41
1:E:4989:MET:O	1:E:4993:MET:HG2	2.20	0.41
1:G:491:ILE:HG22	1:G:495:ASN:ND2	2.36	0.41
1:G:597:HIS:CE1	1:G:1661:ARG:HH12	2.39	0.41
1:G:639:ASN:HA	1:G:1635:THR:HG22	2.02	0.41
1:G:752:VAL:HG12	1:G:754:SER:H	1.85	0.41
1:G:1528:THR:HG22	1:G:1538:THR:H	1.85	0.41
1:G:2340:PHE:CD1	1:G:2435:ARG:NH1	2.81	0.41
1:G:4097:MET:HG3	1:G:4108:ILE:CG2	2.51	0.41
1:G:4218:ILE:HG22	1:G:4950:VAL:HG13	2.02	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.04	0.41
2:H:18:ARG:NH1	2:H:51:GLY:HA3	2.35	0.41
1:A:102:LEU:HD12	1:A:105:HIS:CE1	2.55	0.41
1:A:639:ASN:HA	1:A:1635:THR:HG22	2.02	0.41
1:A:717:ASP:O	1:A:720:HIS:NE2	2.54	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:857:ASP:HA	1:A:859:VAL:H	1.85	0.41
1:A:1727:ARG:HD2	1:A:1772:ARG:HD3	2.02	0.41
1:A:1867:GLU:HG2	1:A:2097:LEU:HD22	2.03	0.41
1:A:2149:VAL:O	1:A:2153:MET:HG2	2.21	0.41
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.54	0.41
1:A:4577:LEU:HG	1:A:4580:TYR:HE2	1.84	0.41
1:C:102:LEU:HD12	1:C:105:HIS:CE1	2.55	0.41
1:C:292:ALA:O	1:C:299:LEU:HD12	2.21	0.41
1:C:544:LEU:O	1:C:548:VAL:HG23	2.21	0.41
1:C:718:GLY:H	1:C:737:LEU:HG	1.85	0.41
1:C:1082:THR:HG22	1:C:1189:LEU:HG	2.03	0.41
1:C:1126:GLY:HA2	1:C:1143:TRP:HE1	1.84	0.41
1:C:1586:ASN:O	1:C:1588:ALA:N	2.46	0.41
1:C:2100:HIS:HB3	1:C:2104:ARG:NH1	2.36	0.41
1:C:4563:ARG:NH1	1:C:4791:TYR:HE2	2.19	0.41
1:C:4661:TYR:CE2	1:C:4789:PHE:HB2	2.56	0.41
2:D:18:ARG:NH1	2:D:51:GLY:HA3	2.36	0.41
1:E:116:MET:HE1	1:E:139:GLU:OE2	2.20	0.41
1:E:1086:GLY:O	1:E:1155:LEU:HD12	2.21	0.41
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.84	0.41
1:E:1944:GLU:HG3	1:E:2126:ARG:NH1	2.35	0.41
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.53	0.41
1:E:2862:LEU:HD21	1:E:2929:PHE:HB2	2.02	0.41
1:E:3705:PHE:HZ	1:E:3721:LEU:HD23	1.85	0.41
1:E:3955:MET:O	1:E:4019:LEU:HD12	2.21	0.41
1:E:4562:LEU:HD21	1:E:4656:LEU:CD1	2.49	0.41
2:F:18:ARG:NH1	2:F:51:GLY:HA3	2.36	0.41
1:G:49:LEU:HA	1:G:49:LEU:HD23	1.76	0.41
1:G:64:ILE:O	1:G:111:HIS:HE1	2.04	0.41
1:G:416:LYS:HD2	1:G:416:LYS:N	2.36	0.41
1:G:1074:ILE:HG23	1:G:1115:LEU:HD11	2.03	0.41
1:G:1297:PHE:CE1	1:G:1519:LEU:HD11	2.55	0.41
1:G:4813:LEU:O	1:G:4816:ILE:HG22	2.20	0.41
1:G:4973:HIS:NE2	1:G:4976:GLU:HB3	2.35	0.41
1:A:414:PHE:O	1:A:418:LEU:HD13	2.20	0.41
1:A:544:LEU:O	1:A:548:VAL:HG23	2.20	0.41
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.56	0.41
1:A:1093:GLU:HA	1:A:1148:VAL:HG13	2.02	0.41
1:A:1652:GLU:OE2	1:A:1655:GLU:OE2	2.39	0.41
1:A:4053:SER:O	1:A:4056:GLU:HB3	2.21	0.41
1:A:4180:ARG:NH2	1:A:4981:GLU:OE1	2.50	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4799:SER:HA	1:A:4812:HIS:CE1	2.55	0.41
1:A:4823:LEU:HD21	1:G:4839:MET:O	2.20	0.41
1:C:31:GLU:HA	1:C:32:GLN:HA	1.71	0.41
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.53	0.41
1:C:64:ILE:O	1:C:111:HIS:HE1	2.04	0.41
1:C:118:LEU:O	1:C:146:CYS:HA	2.21	0.41
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.56	0.41
1:C:636:ASN:HD21	2:D:35:LYS:NZ	2.19	0.41
1:C:737:LEU:HB3	1:C:738:LEU:H	1.46	0.41
1:C:765:GLN:NE2	1:C:1478:ASP:HA	2.35	0.41
1:C:2735:PHE:CD2	1:C:2891:LYS:HD2	2.56	0.41
1:C:2758:PHE:CD2	1:C:2809:ILE:HD13	2.55	0.41
1:C:4053:SER:HA	1:C:4056:GLU:HB3	2.01	0.41
1:C:4686:LEU:HA	1:C:4690:GLU:H	1.86	0.41
1:E:643:SER:HA	1:E:782:SER:HA	2.01	0.41
1:E:649:PHE:CE1	1:E:776:LEU:HD23	2.56	0.41
1:E:696:PRO:HG2	1:E:1613:LEU:HD22	2.01	0.41
1:E:718:GLY:H	1:E:737:LEU:HG	1.85	0.41
1:E:1433:TYR:CD2	1:E:1583:GLU:HB2	2.55	0.41
1:E:1652:GLU:OE2	1:E:1655:GLU:OE2	2.39	0.41
1:E:4053:SER:O	1:E:4056:GLU:HB3	2.21	0.41
1:E:4563:ARG:NH1	1:E:4791:TYR:HE2	2.19	0.41
1:G:548:VAL:HG11	1:G:582:HIS:HA	2.03	0.41
1:G:840:VAL:HG12	1:G:1199:VAL:HG22	2.03	0.41
1:G:1286:MET:O	1:G:1287:LEU:HD12	2.21	0.41
1:G:3780:LEU:HD23	1:G:3819:TYR:CD2	2.56	0.41
1:G:3920:VAL:HG22	1:G:3965:LEU:HD21	2.02	0.41
1:A:484:LEU:HD11	1:A:536:ASN:OD1	2.20	0.41
1:A:548:VAL:HG11	1:A:582:HIS:HA	2.02	0.41
1:A:716:PHE:HD2	1:A:722:TRP:CH2	2.39	0.41
1:A:750:LEU:C	1:A:751:SER:HG	2.22	0.41
1:A:1086:GLY:O	1:A:1155:LEU:HD12	2.21	0.41
1:A:1433:TYR:CD2	1:A:1583:GLU:HB2	2.55	0.41
1:A:1810:LYS:O	1:A:1814:MET:HG2	2.21	0.41
1:A:1831:GLY:HA3	1:A:1836:PHE:HB2	2.02	0.41
1:A:1838:PHE:HB3	1:A:1842:LEU:HD13	2.03	0.41
1:A:1853:ILE:O	1:A:1854:PHE:HB2	2.21	0.41
1:A:1949:GLN:O	1:A:1952:GLN:HB3	2.21	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.52	0.41
1:A:2758:PHE:CD2	1:A:2809:ILE:HD13	2.55	0.41
1:A:2930:LEU:HD13	1:A:2937:VAL:HG21	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3775:ALA:O	1:A:3778:MET:HB3	2.21	0.41
1:A:4071:ILE:O	1:A:4073:GLY:N	2.54	0.41
1:A:4181:ILE:HB	1:A:4988:TYR:CE1	2.56	0.41
1:A:4682:GLU:CD	1:A:4723:LYS:NZ	2.74	0.41
1:A:4888:TYR:O	1:A:4892:ARG:HD3	2.21	0.41
2:B:11:ASP:OD1	2:B:12:GLY:N	2.54	0.41
1:C:66:CYS:SG	1:C:205:ILE:HG13	2.61	0.41
1:C:416:LYS:N	1:C:416:LYS:HD2	2.36	0.41
1:C:491:ILE:HG22	1:C:495:ASN:ND2	2.36	0.41
1:C:648:ILE:CD1	1:C:815:VAL:HA	2.51	0.41
1:C:750:LEU:C	1:C:751:SER:HG	2.23	0.41
1:C:1715:LEU:HD21	1:C:1807:LEU:HD11	2.01	0.41
1:C:1734:TYR:CE2	1:C:2137:ALA:HB1	2.56	0.41
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.54	0.41
1:C:2381:GLU:HA	1:C:2384:ILE:HD12	2.03	0.41
1:C:4071:ILE:O	1:C:4073:GLY:N	2.54	0.41
1:C:4842:GLY:O	1:C:4846:VAL:HG23	2.21	0.41
2:D:11:ASP:OD1	2:D:12:GLY:N	2.54	0.41
2:D:25:HIS:HD2	2:D:104:LEU:HD21	1.86	0.41
1:E:667:MET:HA	1:E:743:VAL:HA	2.01	0.41
1:E:737:LEU:HD11	2:F:7:ILE:CG2	2.39	0.41
1:E:1143:TRP:HE3	1:E:1144:GLN:O	2.04	0.41
1:E:1286:MET:O	1:E:1287:LEU:HD12	2.21	0.41
1:E:1670:TYR:HB2	1:E:1714:LEU:HD21	2.02	0.41
1:E:1867:GLU:HG2	1:E:2097:LEU:HD22	2.02	0.41
1:E:3781:GLN:NE2	1:E:3819:TYR:OH	2.35	0.41
1:E:3886:ARG:HD3	1:E:3960:GLN:HE22	1.85	0.41
1:E:4017:LEU:O	1:E:4020:GLN:HB3	2.21	0.41
1:E:4192:ARG:HH11	1:E:5028:PHE:HB3	1.86	0.41
1:E:4217:PHE:CZ	1:E:4234:PHE:HA	2.56	0.41
1:E:4821:LYS:HD3	1:E:4824:ARG:HE	1.85	0.41
1:E:4951:LYS:O	1:E:4955:GLU:HG2	2.20	0.41
1:G:302:VAL:HG22	1:G:303:ASP:N	2.36	0.41
1:G:414:PHE:O	1:G:418:LEU:HD13	2.20	0.41
1:G:541:SER:HB2	1:G:577:ILE:HD12	2.03	0.41
1:G:679:ALA:CB	2:H:71:ARG:HH22	2.34	0.41
1:G:857:ASP:HA	1:G:859:VAL:H	1.85	0.41
1:G:1082:THR:HG22	1:G:1189:LEU:HG	2.03	0.41
1:G:1089:TYR:CD1	1:G:1152:MET:HG2	2.50	0.41
1:G:2149:VAL:O	1:G:2153:MET:HG2	2.21	0.41
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.85	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2870:GLU:O	1:G:2874:MET:HG3	2.21	0.41
1:G:3669:PHE:HA	1:G:3672:ARG:HG2	2.02	0.41
1:G:3794:VAL:O	1:G:3797:THR:OG1	2.26	0.41
1:G:3799:LYS:HD3	1:G:3883:ASP:OD2	2.21	0.41
1:G:4104:THR:O	1:G:4108:ILE:HG12	2.21	0.41
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.52	0.41
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.38	0.41
1:G:5027:CYS:H	1:G:5030:LYS:HB2	1.86	0.41
2:H:26:TYR:H	2:H:39:SER:HG	1.64	0.41
1:A:31:GLU:HA	1:A:32:GLN:HA	1.71	0.41
1:A:292:ALA:O	1:A:299:LEU:HD12	2.21	0.41
1:A:681:HIS:O	1:A:682:LEU:HD12	2.20	0.41
1:A:1075:PHE:CE1	1:A:1238:PHE:HB3	2.56	0.41
1:A:1082:THR:HG22	1:A:1189:LEU:HG	2.03	0.41
1:A:4563:ARG:NH1	1:A:4791:TYR:HE2	2.19	0.41
1:A:4661:TYR:CE2	1:A:4789:PHE:HB2	2.56	0.41
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.21	0.41
1:C:1286:MET:O	1:C:1287:LEU:HD12	2.21	0.41
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.54	0.41
1:C:3886:ARG:HD3	1:C:3960:GLN:HE22	1.86	0.41
1:C:4017:LEU:O	1:C:4020:GLN:HB3	2.21	0.41
1:E:41:GLY:HA2	1:E:137:LEU:HD12	2.02	0.41
1:E:541:SER:HB2	1:E:577:ILE:HD12	2.02	0.41
1:E:648:ILE:CD1	1:E:815:VAL:HA	2.51	0.41
1:E:1082:THR:HG22	1:E:1189:LEU:HG	2.03	0.41
1:E:1641:ILE:HA	1:E:1642:PRO:HD2	1.95	0.41
1:E:1725:ARG:HA	1:E:1725:ARG:HD3	1.93	0.41
1:E:3775:ALA:O	1:E:3778:MET:HB3	2.20	0.41
1:E:3782:MET:HB3	1:E:3797:THR:HG21	2.03	0.41
1:E:3899:PHE:O	1:E:3903:LEU:HG	2.21	0.41
1:E:4030:LEU:HD23	1:E:4031:LEU:HD12	2.02	0.41
1:E:4208:PRO:HG2	1:E:4210:VAL:HG23	2.03	0.41
1:E:4641:PRO:O	1:E:4644:TRP:HB3	2.20	0.41
1:E:4661:TYR:CE2	1:E:4789:PHE:HB2	2.55	0.41
1:G:118:LEU:O	1:G:146:CYS:HA	2.21	0.41
1:G:1810:LYS:O	1:G:1814:MET:HG2	2.20	0.41
1:G:4027:LEU:HD22	1:G:4044:MET:CE	2.45	0.41
1:G:4865:LYS:HB2	1:G:4874:MET:HB3	2.02	0.41
1:A:66:CYS:SG	1:A:205:ILE:HG13	2.61	0.40
1:A:244:LEU:HD22	1:A:375:LYS:NZ	2.36	0.40
1:A:1868:PRO:HD3	1:A:1925:GLY:HA3	2.02	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:3782:MET:HB3	1:A:3797:THR:HG21	2.03	0.40
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.55	0.40
1:A:4017:LEU:O	1:A:4020:GLN:HB3	2.21	0.40
1:A:4686:LEU:HA	1:A:4690:GLU:H	1.86	0.40
1:A:4826:ILE:HD11	1:G:4836:GLN:HB3	2.03	0.40
2:B:58:GLY:HA3	2:B:76:ILE:HG23	2.03	0.40
1:C:752:VAL:HG12	1:C:754:SER:H	1.85	0.40
1:C:840:VAL:HG12	1:C:1199:VAL:HG22	2.03	0.40
1:C:2149:VAL:O	1:C:2153:MET:HG2	2.21	0.40
1:C:2423:MET:HG3	1:C:2498:HIS:ND1	2.36	0.40
1:C:3782:MET:HB3	1:C:3797:THR:HG21	2.03	0.40
1:E:62:LEU:HD12	1:E:65:CYS:HB2	2.03	0.40
1:E:292:ALA:O	1:E:299:LEU:HD12	2.21	0.40
1:E:548:VAL:HG11	1:E:582:HIS:HA	2.03	0.40
1:E:716:PHE:HD2	1:E:722:TRP:CH2	2.39	0.40
1:E:1087:ARG:NH1	1:E:1221:GLU:O	2.47	0.40
1:E:1093:GLU:HA	1:E:1148:VAL:HG13	2.02	0.40
1:E:1810:LYS:O	1:E:1814:MET:HG2	2.20	0.40
1:E:1838:PHE:HB3	1:E:1842:LEU:HD13	2.03	0.40
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.38	0.40
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.55	0.40
1:G:1086:GLY:O	1:G:1155:LEU:HD12	2.21	0.40
1:G:1089:TYR:CB	1:G:1223:PHE:HB3	2.51	0.40
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.41	0.40
1:G:4813:LEU:HA	1:G:4813:LEU:HD23	1.90	0.40
1:G:4869:GLU:O	1:G:4871:GLU:N	2.44	0.40
1:A:26:ALA:HB2	1:A:182:LEU:HD21	2.03	0.40
1:A:302:VAL:HG22	1:A:303:ASP:N	2.36	0.40
1:A:472:ARG:NE	1:A:532:GLY:HA3	2.36	0.40
1:A:1286:MET:O	1:A:1287:LEU:HD12	2.21	0.40
1:A:3899:PHE:O	1:A:3903:LEU:HG	2.21	0.40
1:C:679:ALA:CB	2:D:71:ARG:HH22	2.35	0.40
1:C:717:ASP:O	1:C:720:HIS:NE2	2.54	0.40
1:C:790:ARG:HH21	1:C:1625:GLY:CA	2.34	0.40
1:C:1670:TYR:HB2	1:C:1714:LEU:HD21	2.02	0.40
1:C:1762:LEU:HA	1:C:1763:PRO:HD2	1.92	0.40
1:C:2094:LEU:HA	1:C:2097:LEU:HG	2.04	0.40
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.54	0.40
1:C:4208:PRO:HG2	1:C:4210:VAL:HG23	2.03	0.40
1:C:4217:PHE:CZ	1:C:4234:PHE:HA	2.56	0.40
1:E:66:CYS:SG	1:E:205:ILE:HG13	2.61	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:441:VAL:HG12	1:E:445:LEU:HD13	2.02	0.40
1:E:639:ASN:HA	1:E:1635:THR:HG22	2.02	0.40
1:E:2496:PRO:HB2	1:E:2552:ARG:HD2	2.03	0.40
1:G:111:HIS:CD2	1:G:113:HIS:H	2.38	0.40
1:G:441:VAL:HG12	1:G:445:LEU:HD13	2.02	0.40
1:G:1143:TRP:HE3	1:G:1144:GLN:O	2.04	0.40
1:G:1781:CYS:SG	1:G:1783:VAL:HG22	2.62	0.40
1:G:4175:ARG:HB3	1:G:4176:PRO:HD3	2.03	0.40
1:G:4208:PRO:HB2	1:G:4209:GLN:H	1.72	0.40
1:A:118:LEU:O	1:A:146:CYS:HA	2.21	0.40
1:A:648:ILE:CD1	1:A:815:VAL:HA	2.52	0.40
1:A:752:VAL:HG12	1:A:754:SER:H	1.85	0.40
1:A:1287:LEU:HD22	1:A:1556:PRO:HG3	2.03	0.40
1:A:3927:GLN:CD	1:A:3988:ALA:HA	2.42	0.40
1:A:3984:ARG:HH21	1:A:3984:ARG:HD2	1.70	0.40
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.40
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.57	0.40
1:C:716:PHE:HD2	1:C:722:TRP:CH2	2.39	0.40
1:C:1248:VAL:HA	1:C:1249:PRO:HD3	1.88	0.40
1:C:1838:PHE:HB3	1:C:1842:LEU:HD13	2.04	0.40
1:C:1958:LEU:HD13	1:C:2134:LEU:HD11	2.03	0.40
1:C:2160:GLY:O	1:C:2164:SER:N	2.51	0.40
1:C:3984:ARG:HH21	1:C:3984:ARG:HD2	1.72	0.40
1:C:4550:LYS:HB2	1:C:4550:LYS:HE3	1.84	0.40
1:C:4913:ARG:HH12	1:C:4917:ASP:HB2	1.86	0.40
1:C:4934:GLY:HA2	1:C:4937:ILE:HG12	2.03	0.40
1:E:102:LEU:HD12	1:E:105:HIS:CE1	2.57	0.40
1:E:752:VAL:HG12	1:E:754:SER:H	1.85	0.40
1:E:1248:VAL:HA	1:E:1249:PRO:HD3	1.89	0.40
1:E:1853:ILE:O	1:E:1854:PHE:HB2	2.21	0.40
1:E:1949:GLN:O	1:E:1952:GLN:HB3	2.22	0.40
1:E:3651:ASN:O	1:E:3655:GLU:HG2	2.21	0.40
1:E:4653:VAL:HA	1:E:4656:LEU:HG	2.02	0.40
1:E:4682:GLU:CD	1:E:4723:LYS:NZ	2.75	0.40
1:G:26:ALA:HB2	1:G:182:LEU:HD21	2.03	0.40
1:G:649:PHE:CE1	1:G:776:LEU:HD23	2.57	0.40
1:G:1075:PHE:CE1	1:G:1238:PHE:HB3	2.56	0.40
1:G:1077:ALA:O	1:G:1189:LEU:HD13	2.20	0.40
1:G:2133:GLU:HG3	1:G:2136:ARG:HH21	1.87	0.40
1:G:2495:VAL:HG12	1:G:2553:TYR:OH	2.22	0.40
1:A:530:ILE:O	1:A:530:ILE:CG2	2.68	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:626:LEU:HB2	1:A:627:PRO:HD3	2.01	0.40
1:A:1691:GLN:NE2	1:A:1802:ILE:HA	2.37	0.40
1:A:2100:HIS:HB3	1:A:2104:ARG:NH1	2.36	0.40
1:A:2124:LEU:CD2	1:A:3677:LEU:HD21	2.52	0.40
1:A:2381:GLU:HA	1:A:2384:ILE:HD12	2.03	0.40
1:A:2423:MET:HG3	1:A:2498:HIS:ND1	2.36	0.40
1:A:3651:ASN:O	1:A:3655:GLU:HG2	2.22	0.40
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	2.03	0.40
1:C:737:LEU:HD11	2:D:7:ILE:CG2	2.39	0.40
1:C:1143:TRP:HE3	1:C:1144:GLN:O	2.04	0.40
1:C:1294:PRO:HD3	1:C:1549:PHE:CE1	2.57	0.40
1:C:1652:GLU:OE2	1:C:1655:GLU:OE2	2.38	0.40
1:C:1867:GLU:HG2	1:C:2097:LEU:HD22	2.03	0.40
1:C:1949:GLN:O	1:C:1952:GLN:HB3	2.21	0.40
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.56	0.40
1:C:4172:GLU:HA	1:C:4175:ARG:HH12	1.85	0.40
1:C:4686:LEU:O	1:C:4691:GLN:N	2.41	0.40
1:C:4878:ASP:O	1:C:4881:THR:OG1	2.31	0.40
1:E:56:GLN:HA	1:E:309:THR:OG1	2.22	0.40
1:E:302:VAL:HG22	1:E:303:ASP:N	2.36	0.40
1:E:665:GLU:HB2	1:E:792:LEU:HB2	2.02	0.40
1:E:689:THR:HA	1:E:778:PHE:HE1	1.86	0.40
1:E:1089:TYR:CB	1:E:1223:PHE:HB3	2.51	0.40
1:E:1294:PRO:HD3	1:E:1549:PHE:CE1	2.57	0.40
1:E:2139:PRO:HG3	1:E:3658:LYS:HZ3	1.86	0.40
1:E:2930:LEU:HD13	1:E:2937:VAL:HG21	2.03	0.40
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.55	0.40
1:E:4235:VAL:HG11	1:E:5019:TRP:CH2	2.56	0.40
2:F:11:ASP:OD1	2:F:12:GLY:N	2.54	0.40
1:G:1093:GLU:HA	1:G:1148:VAL:HG13	2.02	0.40
1:G:1671:ARG:HD2	1:G:1713:ASP:HB3	2.04	0.40
1:G:1745:ILE:O	1:G:1746:THR:OG1	2.35	0.40
1:G:2423:MET:HG3	1:G:2498:HIS:ND1	2.36	0.40
1:A:597:HIS:CE1	1:A:1661:ARG:HH12	2.39	0.40
1:A:1743:ARG:NH1	1:A:1963:GLU:HG3	2.37	0.40
1:A:2160:GLY:O	1:A:2164:SER:N	2.51	0.40
1:A:3705:PHE:HZ	1:A:3721:LEU:HD23	1.85	0.40
1:A:4208:PRO:HG2	1:A:4210:VAL:HG23	2.03	0.40
1:A:4681:LEU:HD21	1:A:4687:TYR:HB2	2.03	0.40
2:B:25:HIS:HD2	2:B:104:LEU:HD21	1.86	0.40
1:C:62:LEU:HD12	1:C:65:CYS:HB2	2.04	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:689:THR:HA	1:C:778:PHE:HE1	1.87	0.40
1:C:1089:TYR:CD1	1:C:1152:MET:HG2	2.50	0.40
1:C:1637:MET:O	1:C:1650:ILE:N	2.36	0.40
1:C:2124:LEU:HD11	1:C:2128:TYR:HE2	1.86	0.40
1:C:2495:VAL:HG12	1:C:2553:TYR:OH	2.22	0.40
1:C:4030:LEU:HD23	1:C:4031:LEU:HD12	2.02	0.40
1:C:4053:SER:O	1:C:4056:GLU:HB3	2.21	0.40
1:C:4181:ILE:HB	1:C:4988:TYR:CE1	2.56	0.40
1:C:4922:PHE:O	1:C:4927:ILE:HG12	2.22	0.40
1:E:472:ARG:NE	1:E:532:GLY:HA3	2.37	0.40
1:E:3780:LEU:HD23	1:E:3819:TYR:HD2	1.87	0.40
1:E:3786:CYS:O	1:E:3789:GLU:HG2	2.22	0.40
1:E:4686:LEU:HD12	1:E:4687:TYR:N	2.37	0.40
1:E:4927:ILE:O	1:E:4931:ILE:HG13	2.21	0.40
1:G:648:ILE:CD1	1:G:815:VAL:HA	2.51	0.40
1:G:665:GLU:HB2	1:G:792:LEU:HB2	2.02	0.40
1:G:1949:GLN:O	1:G:1952:GLN:HB3	2.21	0.40
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.20	0.40
1:G:3914:ASN:OD1	1:G:3916:ILE:HB	2.21	0.40
1:G:4930:ALA:HA	1:G:4933:GLN:HG2	2.02	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	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5 36
1	C	3499/5037 (70%)	3211 (92%)	201 (6%)	87 (2%)	5 36
1	E	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5 36
1	G	3499/5037 (70%)	3211 (92%)	199 (6%)	89 (2%)	5 36

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Mol	Chain	Analysed	Favoured	Allowed	Outliers	Percentiles	
2	B	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	D	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	F	105/108 (97%)	97 (92%)	8 (8%)	0	100	100
2	H	105/108 (97%)	97 (92%)	7 (7%)	1 (1%)	15	52
All	All	14416/20580 (70%)	13232 (92%)	829 (6%)	355 (2%)	9	36

All (355) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	55	ALA
1	A	737	LEU
1	A	858	THR
1	A	896	VAL
1	A	916	PRO
1	A	1254	HIS
1	A	1457	TYR
1	A	2465	ASP
1	A	3806	ASN
1	A	4084	PRO
1	A	4121	GLU
1	A	4691	GLN
1	A	4868	ASP
1	A	4984	ASN
1	A	4985	LEU
1	C	55	ALA
1	C	737	LEU
1	C	858	THR
1	C	896	VAL
1	C	916	PRO
1	C	1254	HIS
1	C	1457	TYR
1	C	2465	ASP
1	C	3806	ASN
1	C	4084	PRO
1	C	4121	GLU
1	C	4691	GLN
1	C	4868	ASP
1	C	4984	ASN
1	C	4985	LEU
1	E	55	ALA
1	E	737	LEU

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Mol	Chain	Res	Type
1	E	858	THR
1	E	896	VAL
1	E	916	PRO
1	E	1254	HIS
1	E	2465	ASP
1	E	3806	ASN
1	E	4084	PRO
1	E	4121	GLU
1	E	4691	GLN
1	E	4868	ASP
1	E	4984	ASN
1	E	4985	LEU
1	G	55	ALA
1	G	737	LEU
1	G	858	THR
1	G	896	VAL
1	G	916	PRO
1	G	1254	HIS
1	G	1457	TYR
1	G	2465	ASP
1	G	3806	ASN
1	G	4084	PRO
1	G	4691	GLN
1	G	4868	ASP
1	G	4984	ASN
1	G	4985	LEU
1	A	610	ASN
1	A	673	PRO
1	A	698	GLY
1	A	817	PRO
1	A	939	VAL
1	A	1249	PRO
1	A	1465	ASP
1	A	1676	LEU
1	A	1746	THR
1	A	2341	VAL
1	A	4036	VAL
1	A	4128	PHE
1	A	4206	GLU
1	C	610	ASN
1	C	673	PRO
1	C	698	GLY

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Mol	Chain	Res	Type
1	C	817	PRO
1	C	939	VAL
1	C	1465	ASP
1	C	1676	LEU
1	C	1746	THR
1	C	2341	VAL
1	C	4036	VAL
1	C	4128	PHE
1	C	4206	GLU
1	E	610	ASN
1	E	673	PRO
1	E	698	GLY
1	E	939	VAL
1	E	1249	PRO
1	E	1457	TYR
1	E	1465	ASP
1	E	1676	LEU
1	E	1746	THR
1	E	2341	VAL
1	E	4036	VAL
1	E	4128	PHE
1	E	4206	GLU
1	G	610	ASN
1	G	673	PRO
1	G	698	GLY
1	G	939	VAL
1	G	1249	PRO
1	G	1465	ASP
1	G	1676	LEU
1	G	1746	THR
1	G	2341	VAL
1	G	3457	ASN
1	G	4036	VAL
1	G	4128	PHE
1	A	31	GLU
1	A	57	ASN
1	A	144	GLU
1	A	213	TYR
1	A	700	GLU
1	A	716	PHE
1	A	725	HIS
1	A	826	ILE

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Mol	Chain	Res	Type
1	A	827	LYS
1	A	1156	THR
1	A	1212	ARG
1	A	1539	PHE
1	A	1544	PRO
1	A	1854	PHE
1	A	1856	ASP
1	A	1934	SER
1	A	2466	LEU
1	A	2826	ALA
1	A	3456	GLN
1	A	3457	ASN
1	A	3714	SER
1	A	3842	LEU
1	A	3906	GLN
1	A	3941	ASP
1	A	4052	SER
1	A	4203	ALA
1	A	4208	PRO
1	A	4694	ASP
1	A	4973	HIS
1	C	31	GLU
1	C	144	GLU
1	C	213	TYR
1	C	700	GLU
1	C	716	PHE
1	C	725	HIS
1	C	826	ILE
1	C	827	LYS
1	C	1156	THR
1	C	1212	ARG
1	C	1249	PRO
1	C	1539	PHE
1	C	1544	PRO
1	C	1854	PHE
1	C	1856	ASP
1	C	1934	SER
1	C	2466	LEU
1	C	2826	ALA
1	C	3456	GLN
1	C	3457	ASN
1	C	3714	SER

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Mol	Chain	Res	Type
1	C	3842	LEU
1	C	3906	GLN
1	C	3941	ASP
1	C	4052	SER
1	C	4203	ALA
1	C	4208	PRO
1	C	4694	ASP
1	C	4973	HIS
1	E	31	GLU
1	E	144	GLU
1	E	213	TYR
1	E	700	GLU
1	E	716	PHE
1	E	725	HIS
1	E	817	PRO
1	E	826	ILE
1	E	827	LYS
1	E	1156	THR
1	E	1212	ARG
1	E	1539	PHE
1	E	1544	PRO
1	E	1854	PHE
1	E	1856	ASP
1	E	1934	SER
1	E	2466	LEU
1	E	2826	ALA
1	E	3456	GLN
1	E	3457	ASN
1	E	3714	SER
1	E	3842	LEU
1	E	3906	GLN
1	E	3941	ASP
1	E	4052	SER
1	E	4203	ALA
1	E	4208	PRO
1	E	4694	ASP
1	E	4973	HIS
1	G	31	GLU
1	G	57	ASN
1	G	144	GLU
1	G	213	TYR
1	G	700	GLU

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Mol	Chain	Res	Type
1	G	716	PHE
1	G	725	HIS
1	G	817	PRO
1	G	826	ILE
1	G	827	LYS
1	G	1156	THR
1	G	1212	ARG
1	G	1539	PHE
1	G	1544	PRO
1	G	1854	PHE
1	G	1856	ASP
1	G	1934	SER
1	G	2466	LEU
1	G	3658	LYS
1	G	3714	SER
1	G	3842	LEU
1	G	3843	ASP
1	G	3906	GLN
1	G	3941	ASP
1	G	4121	GLU
1	G	4203	ALA
1	G	4208	PRO
1	G	4694	ASP
1	G	4973	HIS
1	A	355	LEU
1	A	720	HIS
1	A	765	GLN
1	A	828	GLU
1	A	1624	LEU
1	A	1690	ASP
1	A	3695	PRO
1	A	3843	ASP
1	A	4087	LEU
1	A	4636	THR
1	A	4905	ALA
1	C	57	ASN
1	C	355	LEU
1	C	720	HIS
1	C	765	GLN
1	C	828	GLU
1	C	1624	LEU
1	C	1690	ASP

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Mol	Chain	Res	Type
1	C	3695	PRO
1	C	3843	ASP
1	C	4087	LEU
1	C	4636	THR
1	C	4905	ALA
1	E	57	ASN
1	E	355	LEU
1	E	720	HIS
1	E	765	GLN
1	E	828	GLU
1	E	1460	HIS
1	E	1624	LEU
1	E	1690	ASP
1	E	3695	PRO
1	E	3843	ASP
1	E	4087	LEU
1	E	4636	THR
1	E	4905	ALA
1	G	355	LEU
1	G	720	HIS
1	G	765	GLN
1	G	828	GLU
1	G	1624	LEU
1	G	1690	ASP
1	G	2826	ALA
1	G	3695	PRO
1	G	4087	LEU
1	G	4206	GLU
1	G	4636	THR
1	G	4637	GLY
1	G	4858	PHE
1	A	676	THR
1	A	818	ARG
1	A	1206	GLN
1	A	1538	THR
1	A	1589	PRO
1	A	1762	LEU
1	A	4637	GLY
1	C	676	THR
1	C	818	ARG
1	C	1206	GLN
1	C	1538	THR

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Mol	Chain	Res	Type
1	C	1589	PRO
1	C	1762	LEU
1	C	4637	GLY
1	E	676	THR
1	E	818	ARG
1	E	1538	THR
1	E	1589	PRO
1	E	1762	LEU
1	E	4637	GLY
1	G	676	THR
1	G	818	ARG
1	G	1206	GLN
1	G	1538	THR
1	G	1589	PRO
1	G	1762	LEU
1	G	3456	GLN
1	G	3718	GLU
1	G	3841	VAL
1	A	1082	THR
1	A	4858	PHE
1	C	724	GLY
1	C	1082	THR
1	E	724	GLY
1	E	1206	GLN
1	E	1482	ASN
1	E	4858	PHE
1	G	724	GLY
1	G	1082	THR
1	G	1482	ASN
1	G	1830	VAL
1	A	915	GLU
1	A	1830	VAL
1	A	2113	SER
1	A	3841	VAL
1	C	1830	VAL
1	C	2113	SER
1	C	3841	VAL
1	E	915	GLU
1	E	1830	VAL
1	E	2113	SER
1	G	915	GLU
1	G	2113	SER

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Mol	Chain	Res	Type
1	A	438	ILE
1	A	724	GLY
1	A	767	VAL
1	A	4872	PRO
1	C	438	ILE
1	C	767	VAL
1	C	915	GLU
1	C	4872	PRO
1	E	438	ILE
1	E	767	VAL
1	E	3841	VAL
1	E	4872	PRO
1	G	438	ILE
1	G	532	GLY
1	G	4072	VAL
1	A	532	GLY
1	C	532	GLY
1	C	842	PRO
1	E	532	GLY
1	G	767	VAL
1	G	842	PRO
1	G	4872	PRO
1	A	842	PRO
1	A	4072	VAL
1	C	4072	VAL
1	E	842	PRO
1	E	4072	VAL
2	H	86	GLY
1	A	1095	VAL

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	2503/4276 (58%)	2489 (99%)	14 (1%)	86 92
1	C	2504/4276 (59%)	2490 (99%)	14 (1%)	86 92

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Mol	Chain	Analysed	Rotameric	Outliers	Percentiles	
1	E	2504/4276 (59%)	2490 (99%)	14 (1%)	86	92
1	G	2502/4276 (58%)	2489 (100%)	13 (0%)	88	94
2	B	89/90 (99%)	89 (100%)	0	100	100
2	D	89/90 (99%)	89 (100%)	0	100	100
2	F	89/90 (99%)	89 (100%)	0	100	100
2	H	89/90 (99%)	89 (100%)	0	100	100
All	All	10369/17464 (59%)	10314 (100%)	55 (0%)	89	94

All (55) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	377	ILE
1	A	380	GLN
1	A	510	GLU
1	A	806	PRO
1	A	862	VAL
1	A	865	PRO
1	A	908	VAL
1	A	914	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1096	THR
1	A	2066	LEU
1	A	3884	LEU
1	A	4972	PRO
1	C	377	ILE
1	C	380	GLN
1	C	510	GLU
1	C	806	PRO
1	C	862	VAL
1	C	865	PRO
1	C	908	VAL
1	C	914	PRO
1	C	979	PRO
1	C	1055	PRO
1	C	1096	THR
1	C	2066	LEU
1	C	3884	LEU
1	C	4972	PRO
1	E	377	ILE

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Mol	Chain	Res	Type
1	E	380	GLN
1	E	510	GLU
1	E	806	PRO
1	E	862	VAL
1	E	865	PRO
1	E	908	VAL
1	E	914	PRO
1	E	979	PRO
1	E	1055	PRO
1	E	1096	THR
1	E	2066	LEU
1	E	3884	LEU
1	E	4972	PRO
1	G	377	ILE
1	G	380	GLN
1	G	510	GLU
1	G	806	PRO
1	G	865	PRO
1	G	908	VAL
1	G	914	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1096	THR
1	G	2066	LEU
1	G	4169	SER
1	G	4972	PRO

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (169) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	23	GLN
1	A	105	HIS
1	A	111	HIS
1	A	113	HIS
1	A	203	ASN
1	A	273	HIS
1	A	405	HIS
1	A	465	GLN
1	A	495	ASN
1	A	582	HIS
1	A	593	HIS
1	A	617	ASN

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Mol	Chain	Res	Type
1	A	681	HIS
1	A	1203	ASN
1	A	1254	HIS
1	A	1281	ASN
1	A	1640	HIS
1	A	1663	HIS
1	A	1665	HIS
1	A	1679	ASN
1	A	1691	GLN
1	A	1693	GLN
1	A	1719	HIS
1	A	1775	HIS
1	A	1953	HIS
1	A	2188	ASN
1	A	2196	ASN
1	A	2245	GLN
1	A	2856	ASN
1	A	3699	HIS
1	A	3771	HIS
1	A	3960	GLN
1	A	3970	GLN
1	A	3982	HIS
1	A	3998	HIS
1	A	4153	HIS
1	A	4223	ASN
1	A	4987	ASN
1	A	5006	GLN
2	B	25	HIS
2	B	87	HIS
1	C	23	GLN
1	C	105	HIS
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	273	HIS
1	C	405	HIS
1	C	465	GLN
1	C	495	ASN
1	C	582	HIS
1	C	593	HIS
1	C	617	ASN
1	C	681	HIS

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Mol	Chain	Res	Type
1	C	1203	ASN
1	C	1254	HIS
1	C	1281	ASN
1	C	1640	HIS
1	C	1663	HIS
1	C	1665	HIS
1	C	1679	ASN
1	C	1691	GLN
1	C	1693	GLN
1	C	1719	HIS
1	C	1775	HIS
1	C	2188	ASN
1	C	2196	ASN
1	C	2245	GLN
1	C	2260	ASN
1	C	2856	ASN
1	C	3699	HIS
1	C	3771	HIS
1	C	3960	GLN
1	C	3970	GLN
1	C	3982	HIS
1	C	3998	HIS
1	C	4153	HIS
1	C	4223	ASN
1	C	4650	HIS
1	C	4987	ASN
1	C	5006	GLN
2	D	25	HIS
2	D	87	HIS
1	E	23	GLN
1	E	105	HIS
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	218	HIS
1	E	273	HIS
1	E	405	HIS
1	E	465	GLN
1	E	495	ASN
1	E	582	HIS
1	E	593	HIS
1	E	617	ASN

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Mol	Chain	Res	Type
1	E	681	HIS
1	E	1203	ASN
1	E	1254	HIS
1	E	1281	ASN
1	E	1663	HIS
1	E	1665	HIS
1	E	1679	ASN
1	E	1691	GLN
1	E	1693	GLN
1	E	1719	HIS
1	E	1775	HIS
1	E	1953	HIS
1	E	2188	ASN
1	E	2196	ASN
1	E	2245	GLN
1	E	2856	ASN
1	E	3699	HIS
1	E	3771	HIS
1	E	3896	ASN
1	E	3960	GLN
1	E	3970	GLN
1	E	3982	HIS
1	E	3998	HIS
1	E	4153	HIS
1	E	4223	ASN
1	E	4650	HIS
1	E	4987	ASN
1	E	5006	GLN
2	F	25	HIS
2	F	87	HIS
1	G	23	GLN
1	G	105	HIS
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	273	HIS
1	G	405	HIS
1	G	461	HIS
1	G	465	GLN
1	G	495	ASN
1	G	582	HIS
1	G	593	HIS

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Mol	Chain	Res	Type
1	G	617	ASN
1	G	681	HIS
1	G	1203	ASN
1	G	1254	HIS
1	G	1281	ASN
1	G	1640	HIS
1	G	1663	HIS
1	G	1665	HIS
1	G	1679	ASN
1	G	1691	GLN
1	G	1693	GLN
1	G	1719	HIS
1	G	1775	HIS
1	G	1970	GLN
1	G	2188	ASN
1	G	2260	ASN
1	G	2856	ASN
1	G	3699	HIS
1	G	3851	ASN
1	G	3900	GLN
1	G	3960	GLN
1	G	3977	GLN
1	G	3994	HIS
1	G	3998	HIS
1	G	4153	HIS
1	G	4223	ASN
1	G	4707	ASN
1	G	4812	HIS
1	G	4987	ASN
2	H	25	HIS
2	H	87	HIS

5.3.3 RNA (i)

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates (i)

There are no monosaccharides in this entry.

5.6 Ligand geometry (i)

Of 4 ligands modelled in this entry, 4 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 (i)

There are no such residues in this entry.

5.8 Polymer linkage issues (i)

There are no chain breaks in this entry.

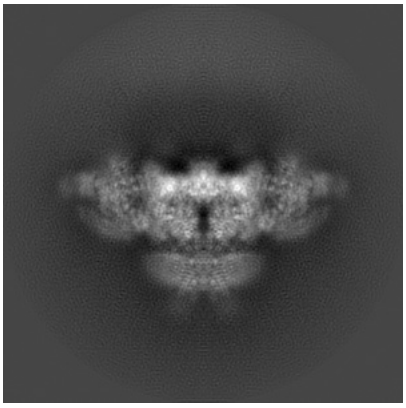
6 Map visualisation (i)

This section contains visualisations of the EMDB entry EMD-9518. These allow visual inspection of the internal detail of the map and identification of artifacts.

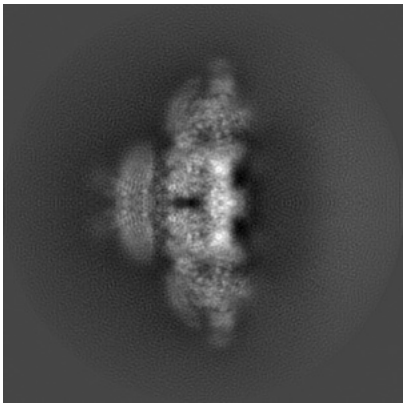
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections (i)

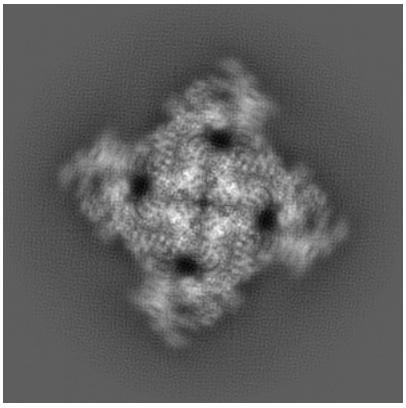
6.1.1 Primary map



X



Y

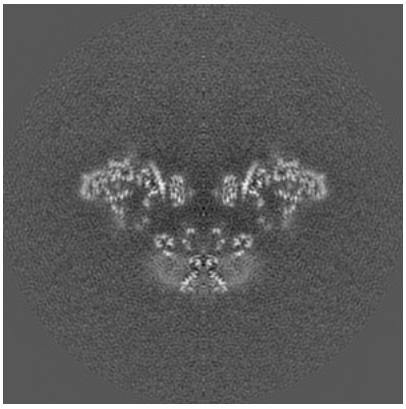


Z

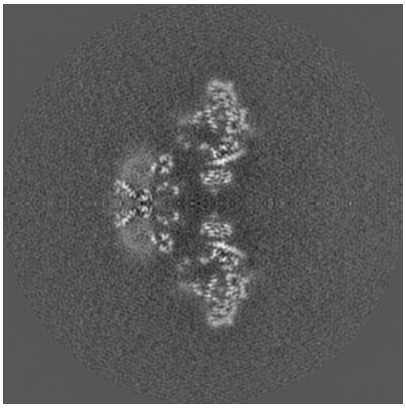
The images above show the map projected in three orthogonal directions.

6.2 Central slices (i)

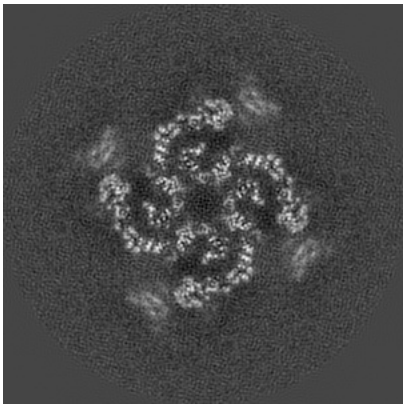
6.2.1 Primary map



X Index: 180



Y Index: 180

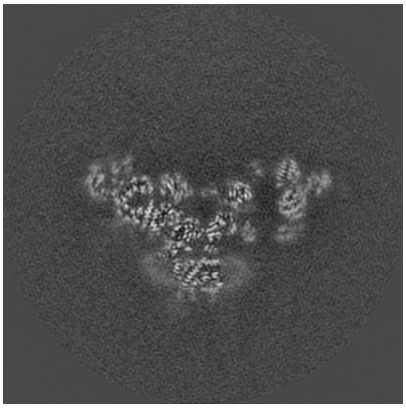


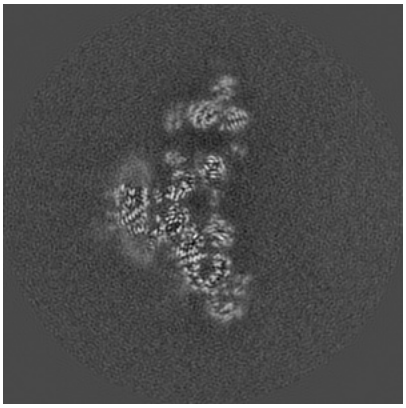
Z Index: 180

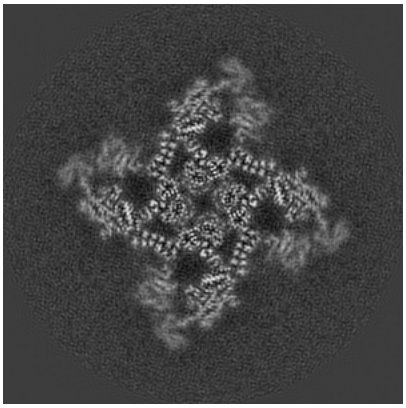
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

6.3.1 Primary map


X Index: 191

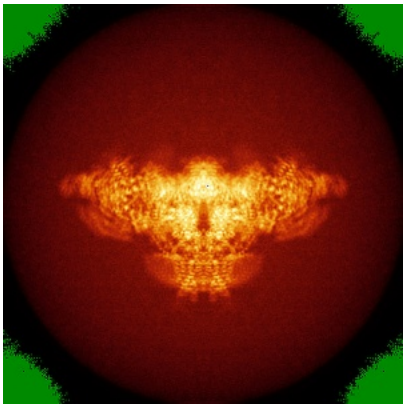

Y Index: 169

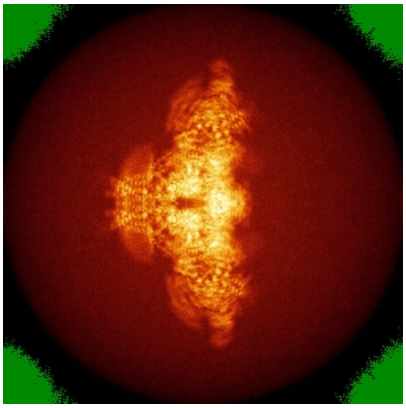

Z Index: 190

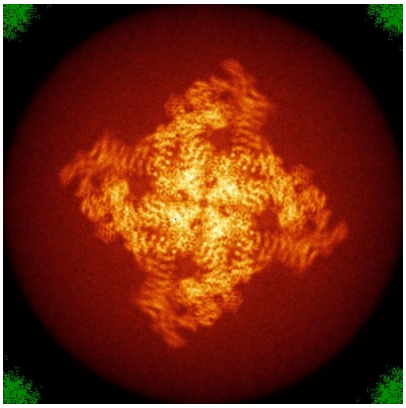
The images above show the largest variance slices of the map in three orthogonal directions.

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

6.4.1 Primary map


X

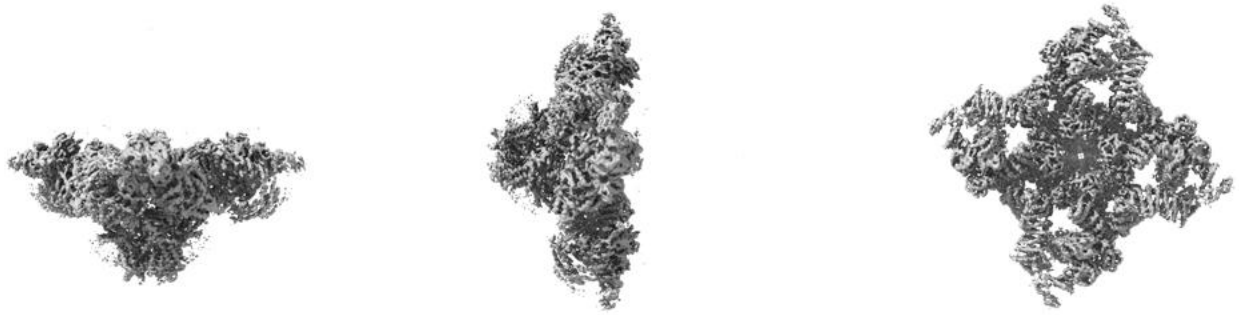

Y


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 0.085. These images, in conjunction with the slice images, may facilitate assessment of whether an appropriate contour level has been provided.

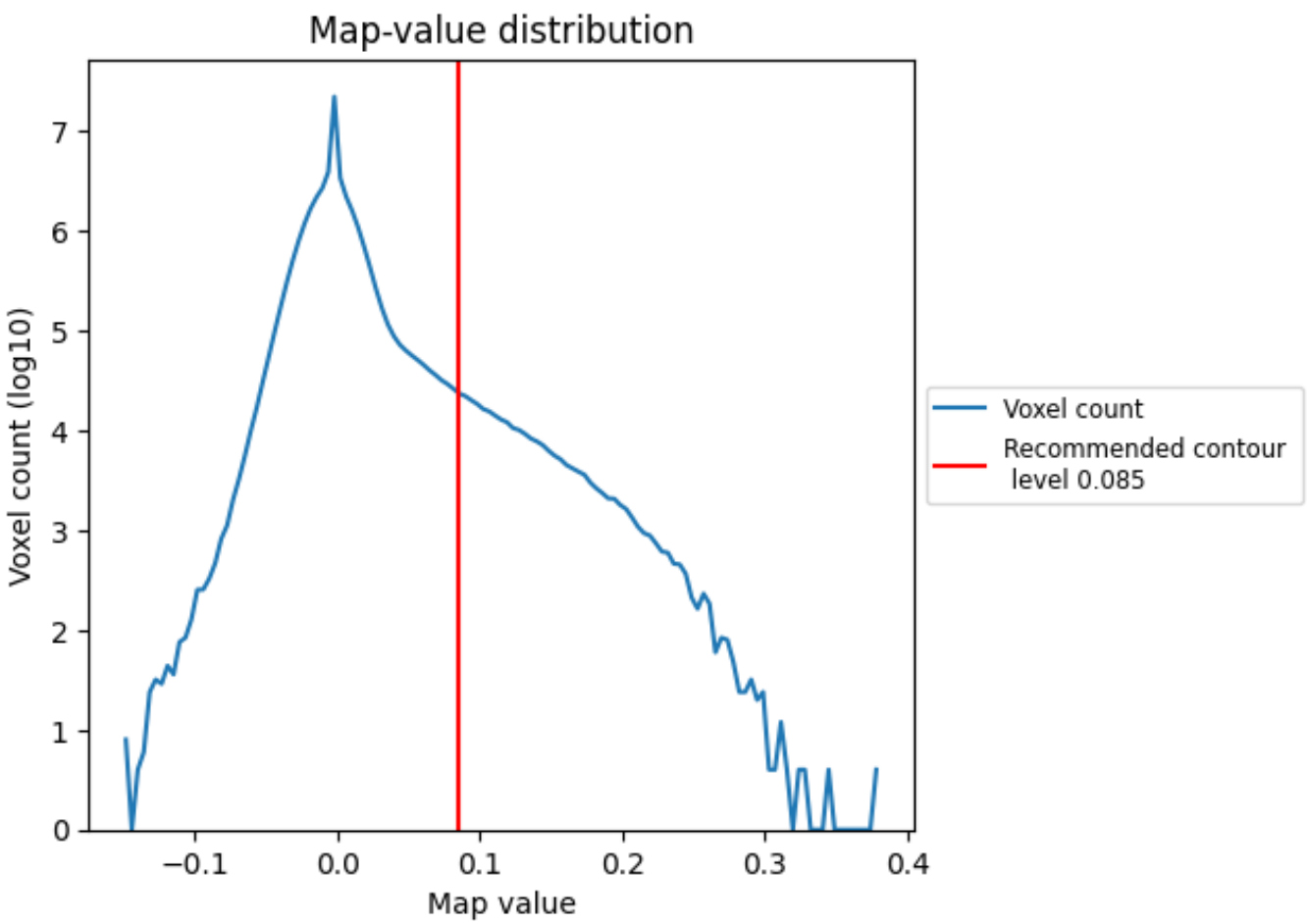
6.6 Mask visualisation (i)

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

7 Map analysis (i)

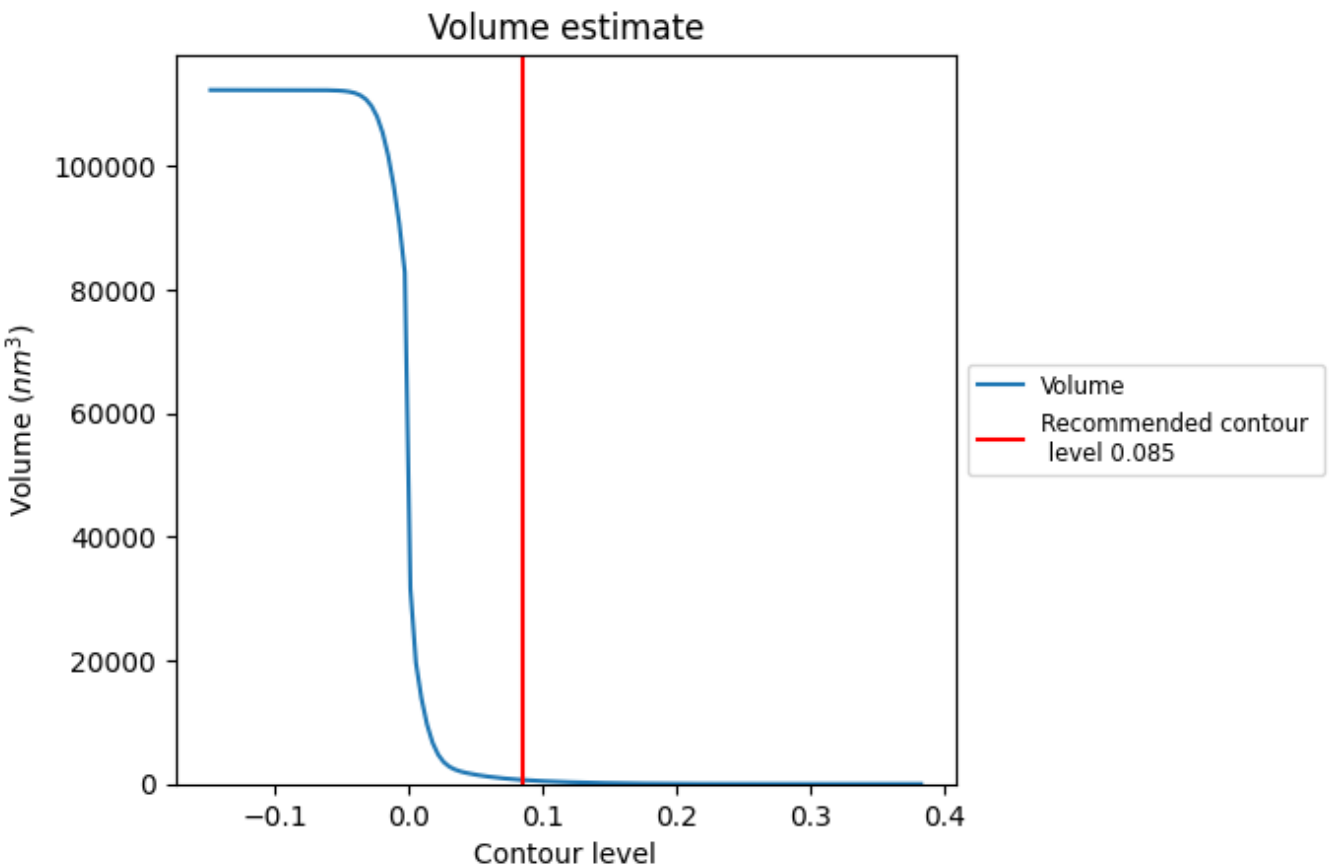
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution (i)



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

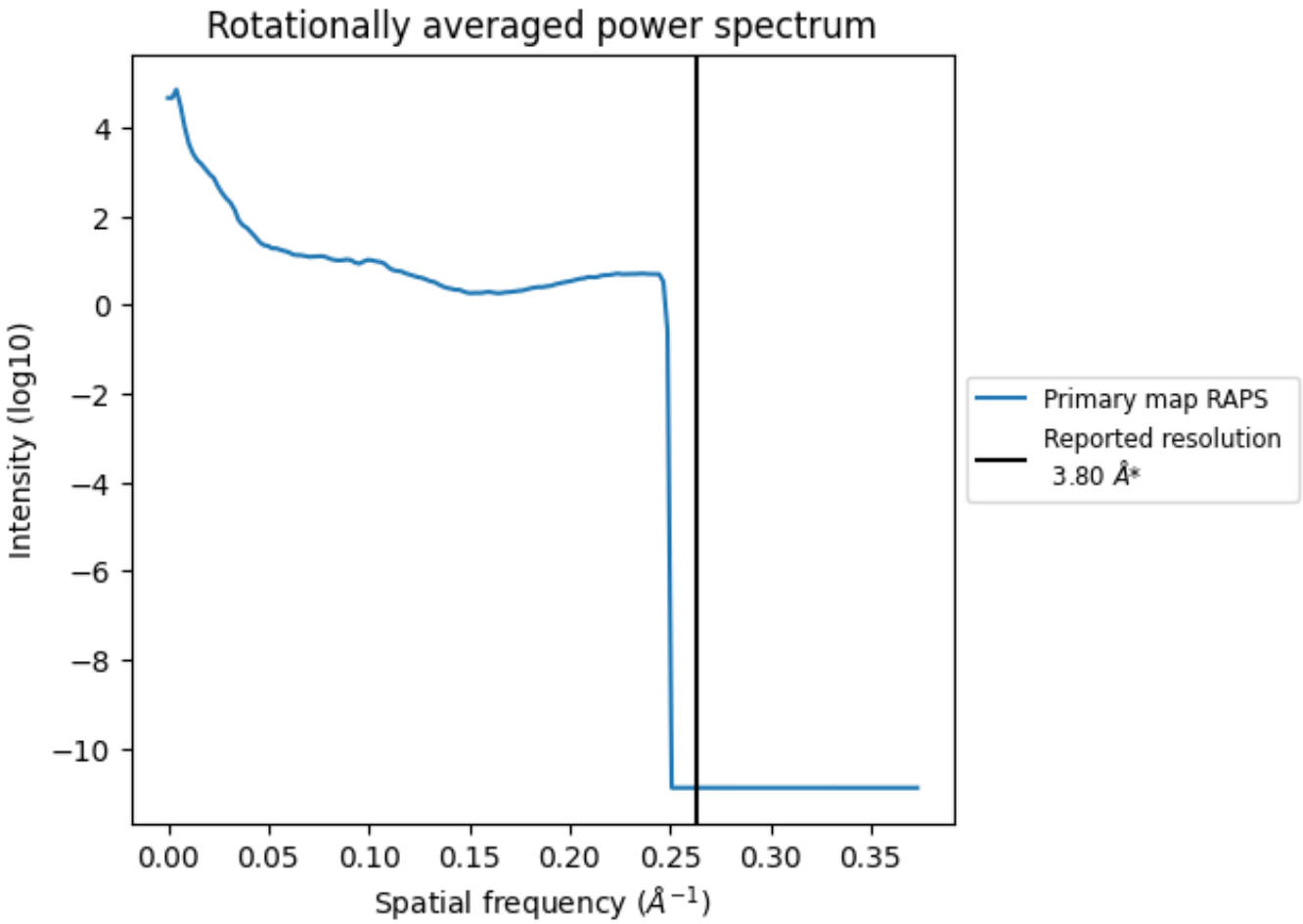
7.2 Volume estimate (i)



The volume at the recommended contour level is 655 nm^3; this corresponds to an approximate mass of 591 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 0.263 Å^{-1}

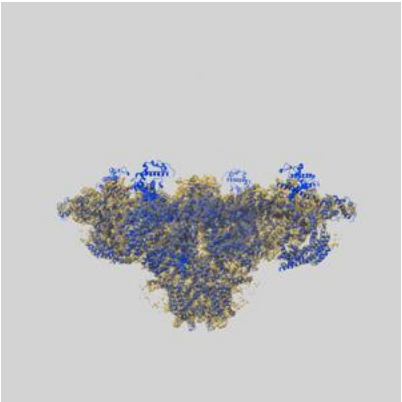
8 Fourier-Shell correlation (i)

This section was not generated. No FSC curve or half-maps provided.

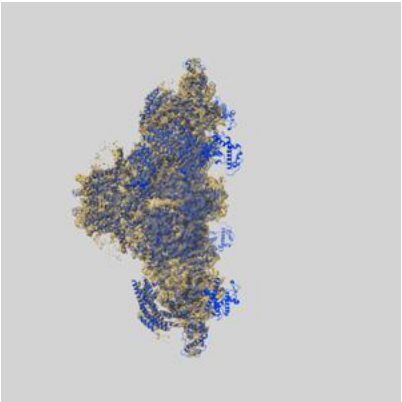
9 Map-model fit (i)

This section contains information regarding the fit between EMDB map EMD-9518 and PDB model 5GKY. Per-residue inclusion information can be found in section 3 on page 4.

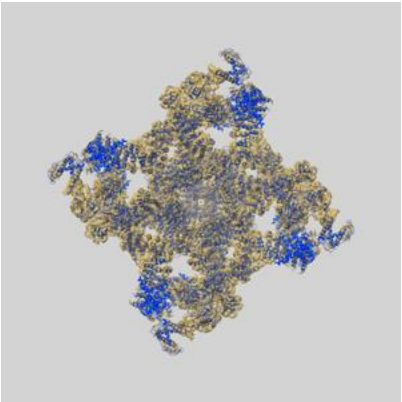
9.1 Map-model overlay (i)



X



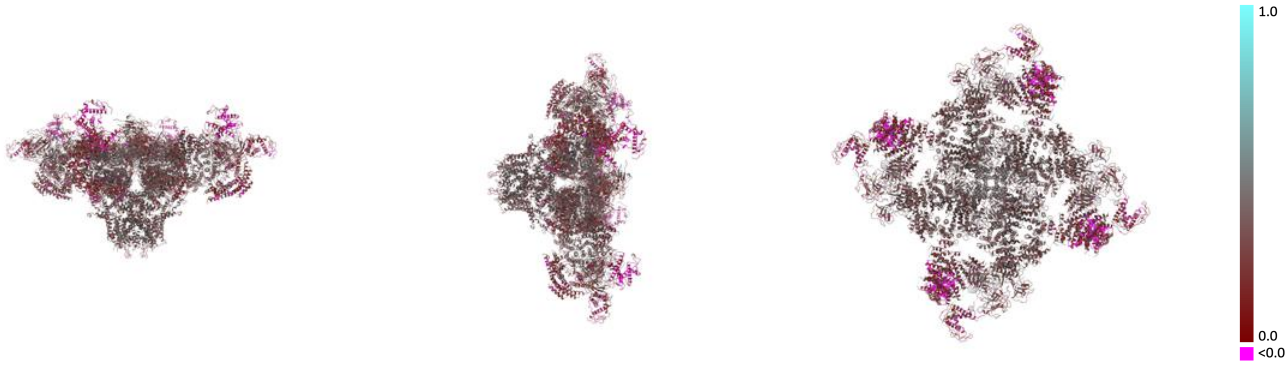
Y



Z

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

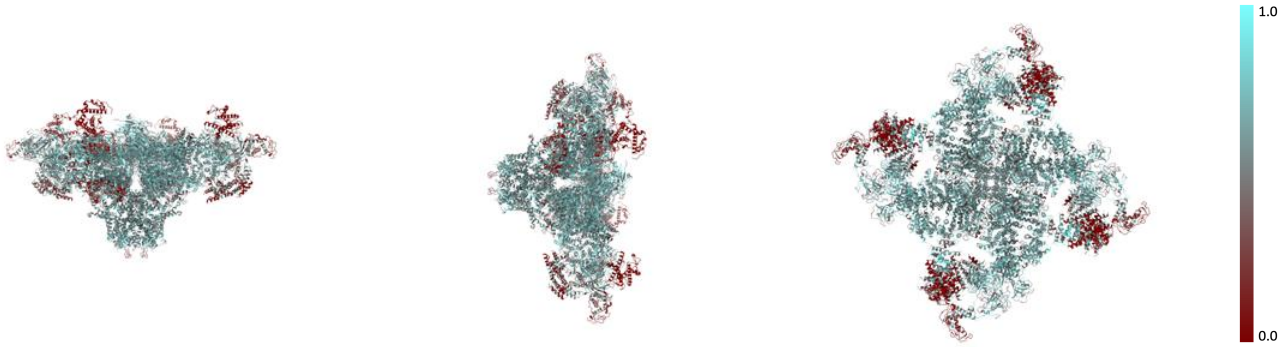
9.2 Q-score mapped to coordinate model (i)



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.

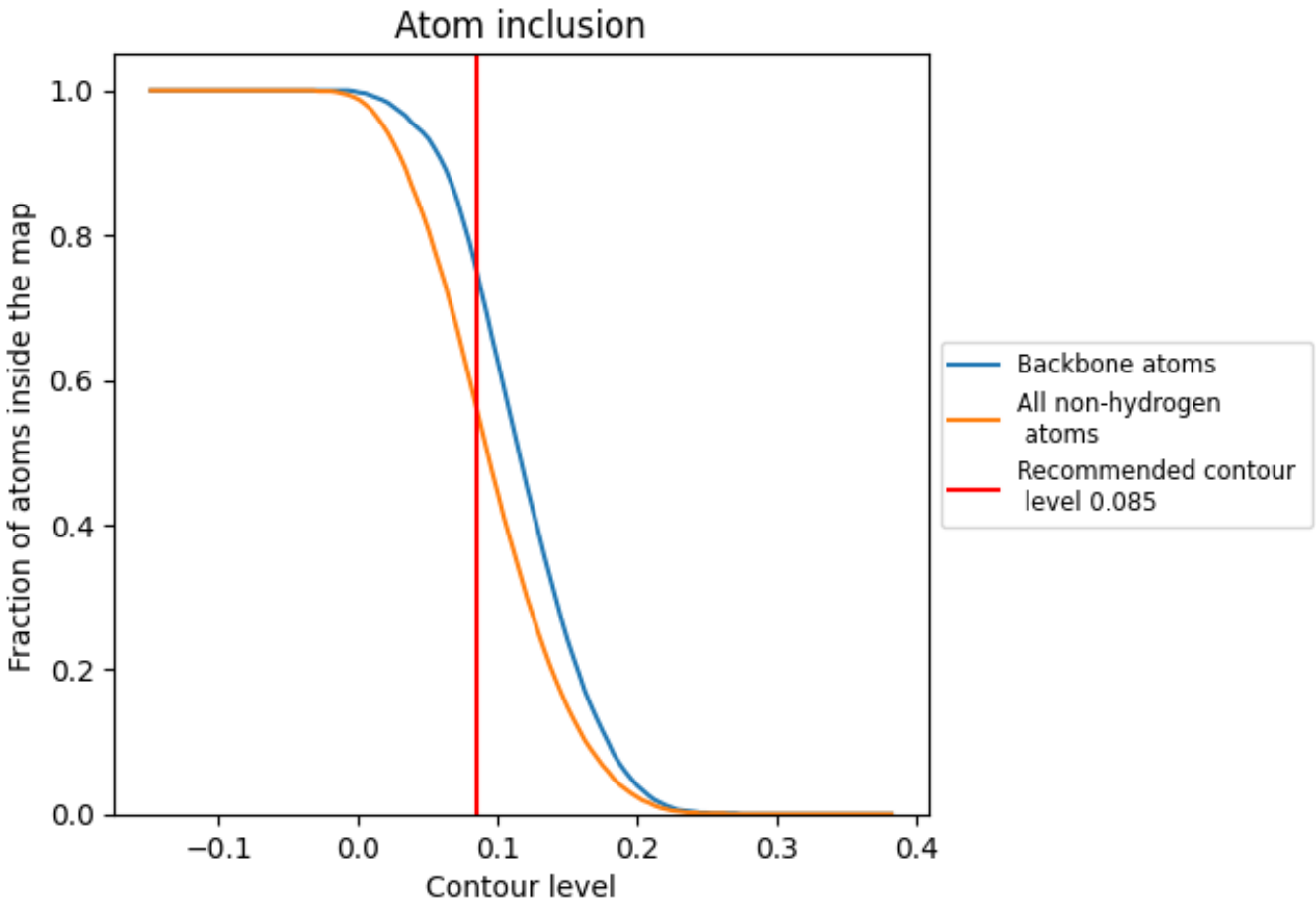
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.085).

9.4 Atom inclusion (i)



At the recommended contour level, 75% of all backbone atoms, 56% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary (i)

The table lists the average atom inclusion at the recommended contour level (0.085) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5630	0.3170
A	0.5630	0.3160
B	0.5760	0.3340
C	0.5630	0.3160
D	0.5760	0.3310
E	0.5630	0.3160
F	0.5740	0.3290
G	0.5630	0.3170
H	0.5740	0.3370