Full wwPDB EM Validation Report ⓘ

Mar 19, 2024 – 02:28 PM JST

PDB ID	:	5GL0
EMDB ID	:	EMD-9520
Title	:	Structure of RyR1 in a closed state (C4 conformer)
Authors	:	Bai, X.C.; Yan, Z.; Wu, J.P.; Yan, N.
Deposited on	:	2016-07-07
Resolution	:	4.20 Å(reported)

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

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

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

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

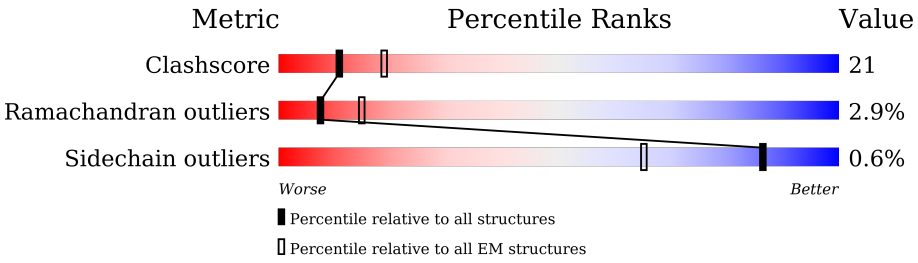
EMDB validation analysis	:	0.0.1.dev70
MolProbity	:	4.02b-467
Percentile statistics	:	20191225.v01 (using entries in the PDB archive December 25th 2019)
MapQ	:	1.9.13
Ideal geometry (proteins)	:	Engh & Huber (2001)
Ideal geometry (DNA, RNA)	:	Parkinson et al. (1996)
Validation Pipeline (wwPDB-VP)	:	2.36

1 Overall quality at a glance (i)

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

The reported resolution of this entry is 4.20 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	24% 44% 26% · 27%
1	C	5037	24% 44% 26% · 27%
1	E	5037	24% 44% 26% · 27%
1	G	5037	24% 44% 27% · 27%
2	B	108	36% 60% 38% ··
2	D	108	36% 61% 37% ··
2	F	108	36% 63% 35% ··
2	H	108	31% 64% 34% ··

2 Entry composition

There are 3 unique types of molecules in this entry. The entry contains 111000 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
1	A	3660	Total 26917	C 17107	N 4682	O 4971	S 157	0	0
1	C	3660	Total 26917	C 17107	N 4682	O 4971	S 157	0	0
1	E	3660	Total 26917	C 17107	N 4682	O 4971	S 157	0	0
1	G	3660	Total 26917	C 17107	N 4682	O 4971	S 157	0	0

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

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

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

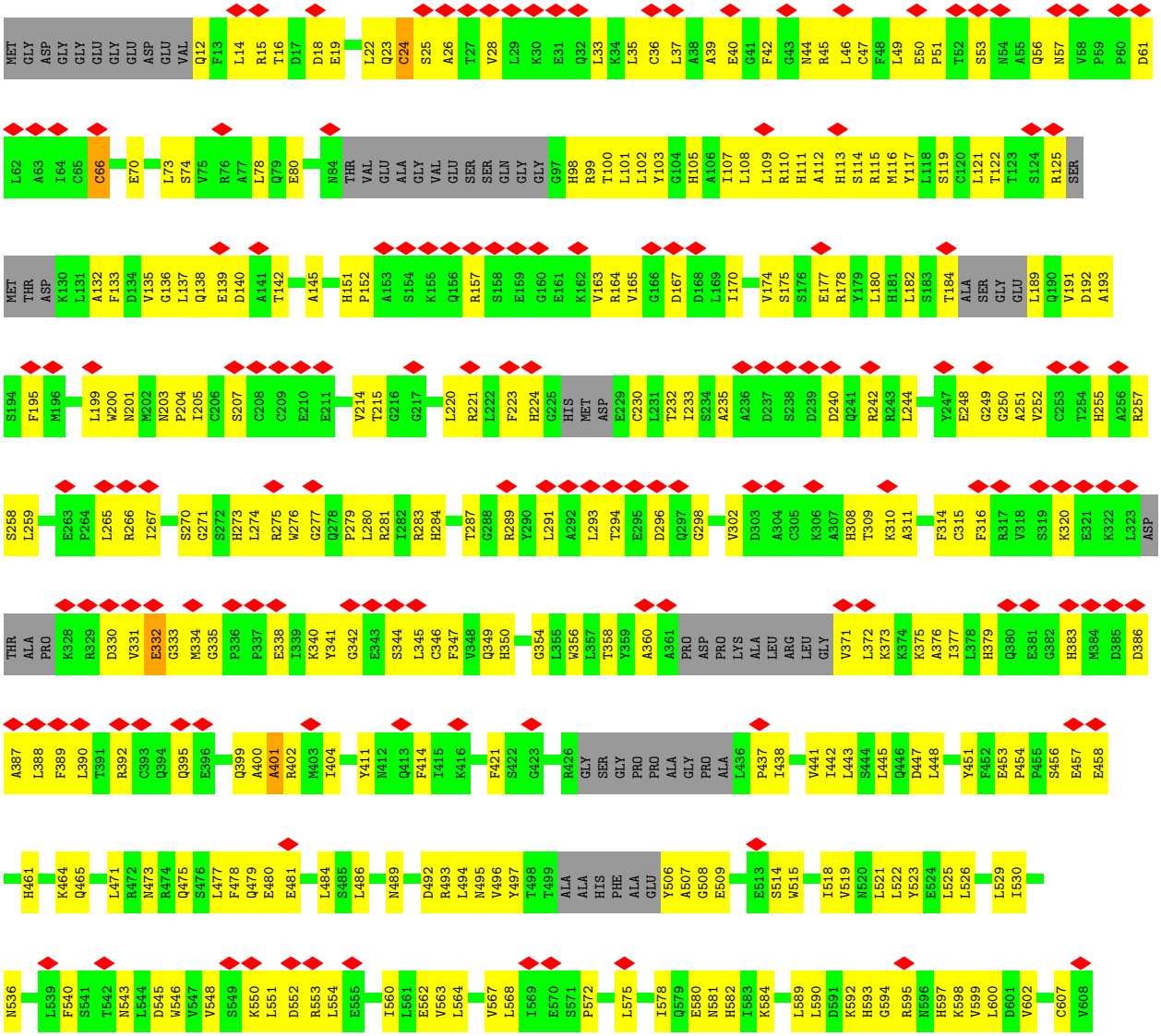
Mol	Chain	Residues	Atoms		AltConf
3	A	1	Total 1	Zn 1	0
3	C	1	Total 1	Zn 1	0
3	E	1	Total 1	Zn 1	0
3	G	1	Total 1	Zn 1	0

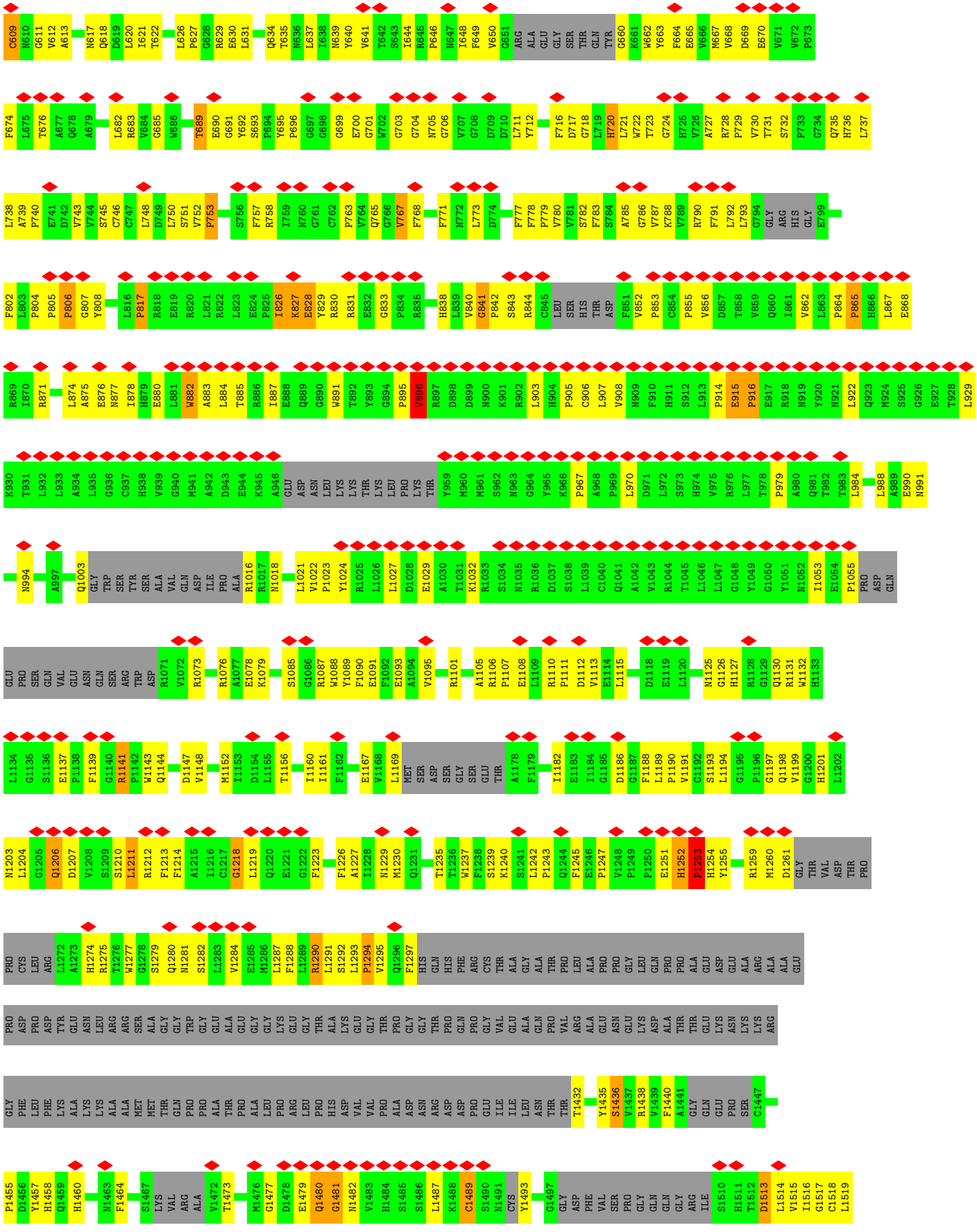
3 Residue-property plots (i)

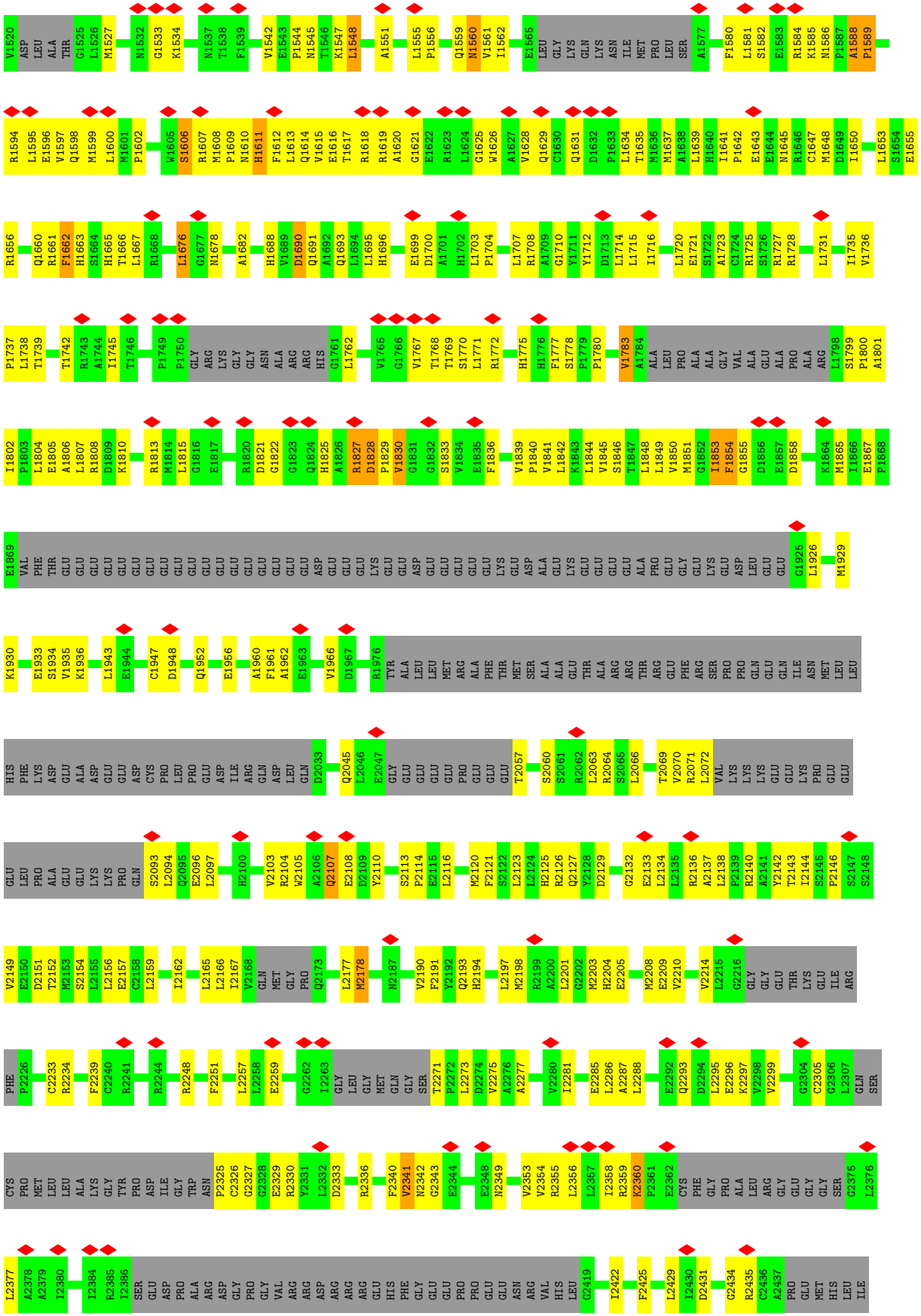
These plots are drawn for all protein, RNA, DNA and oligosaccharide chains in the entry. The first graphic for a chain summarises the proportions of the various outlier classes displayed in the second graphic. The second graphic shows the sequence view annotated by issues in geometry and atom inclusion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

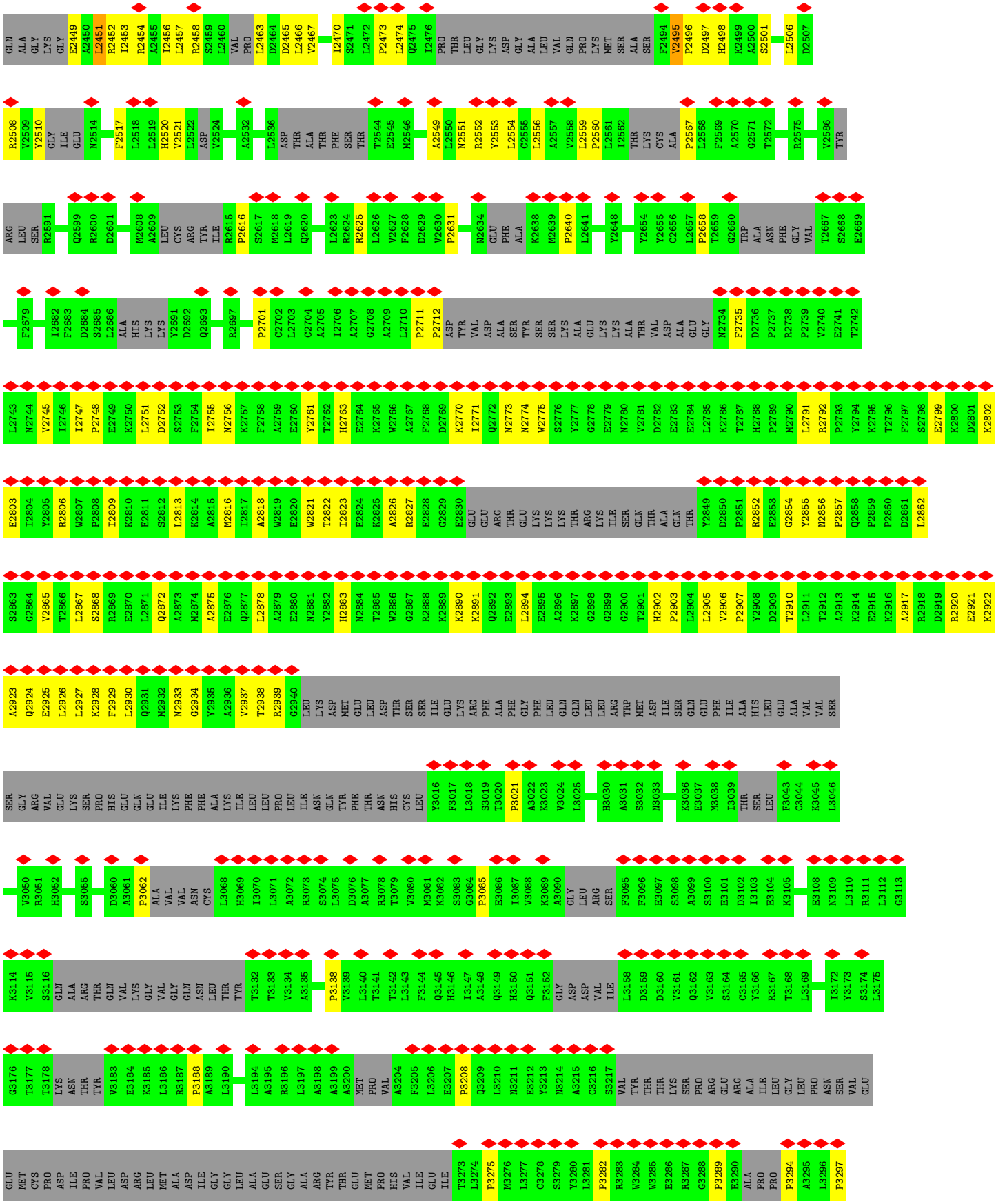
• Molecule 1: Ryanodine receptor 1

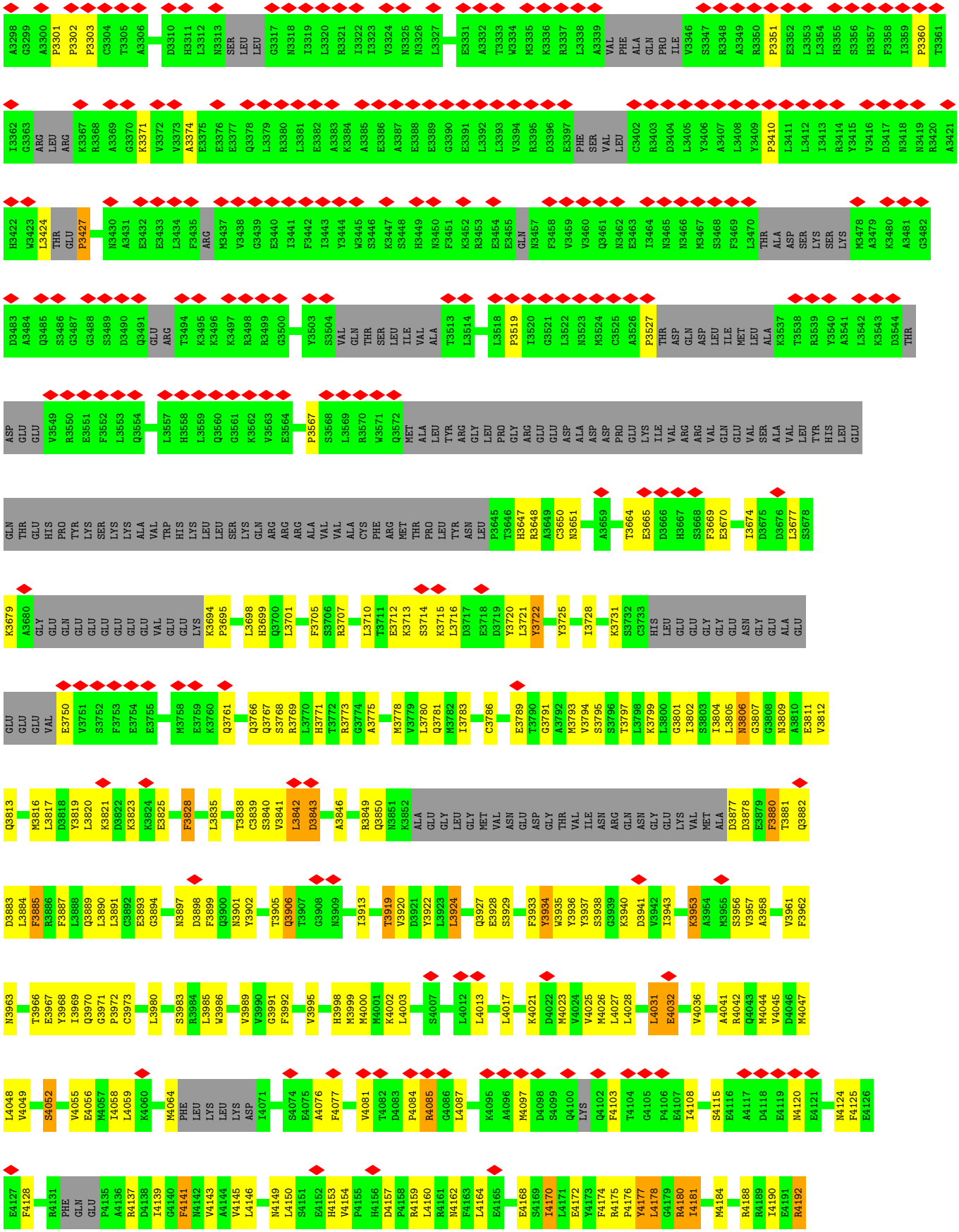
Chain A:

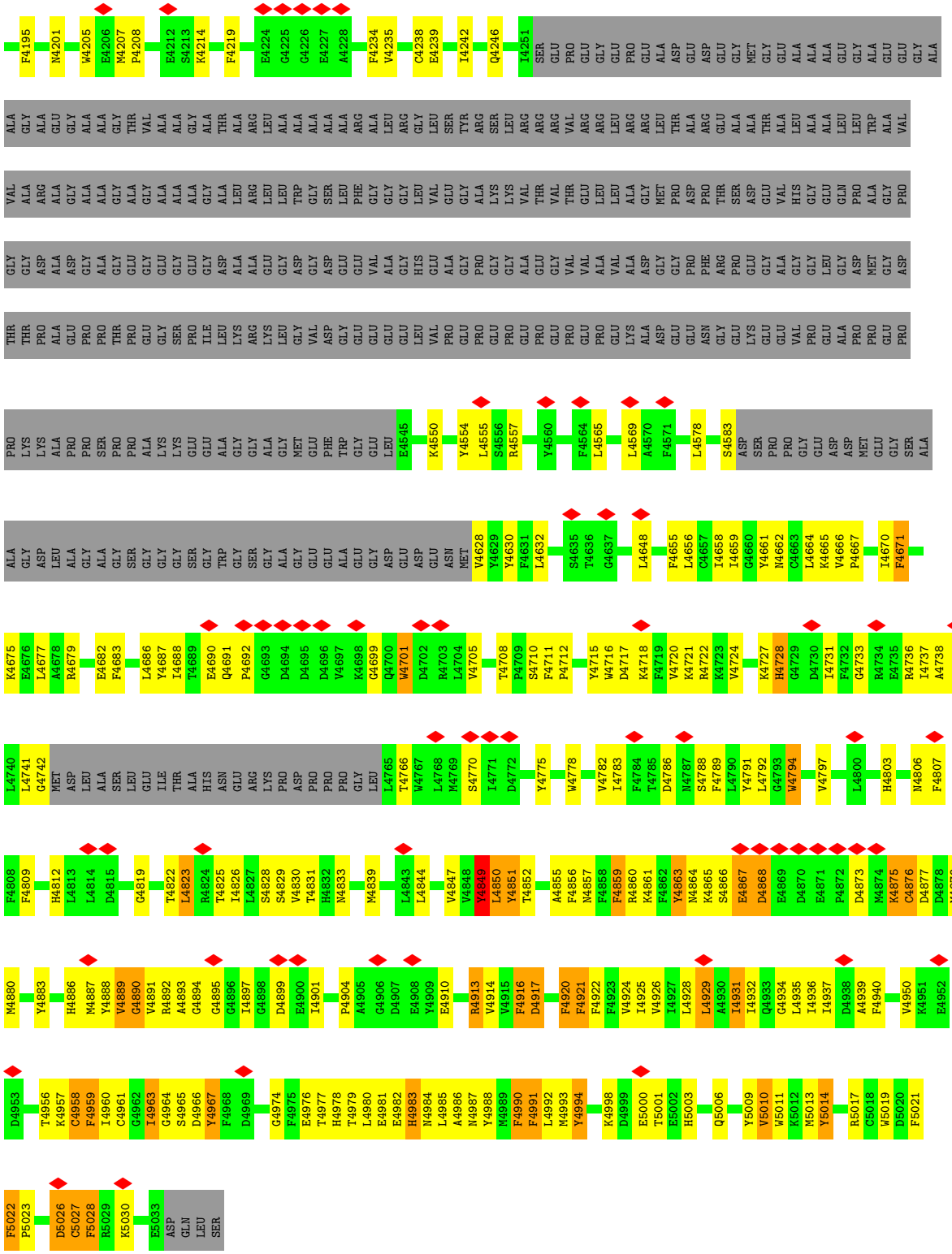






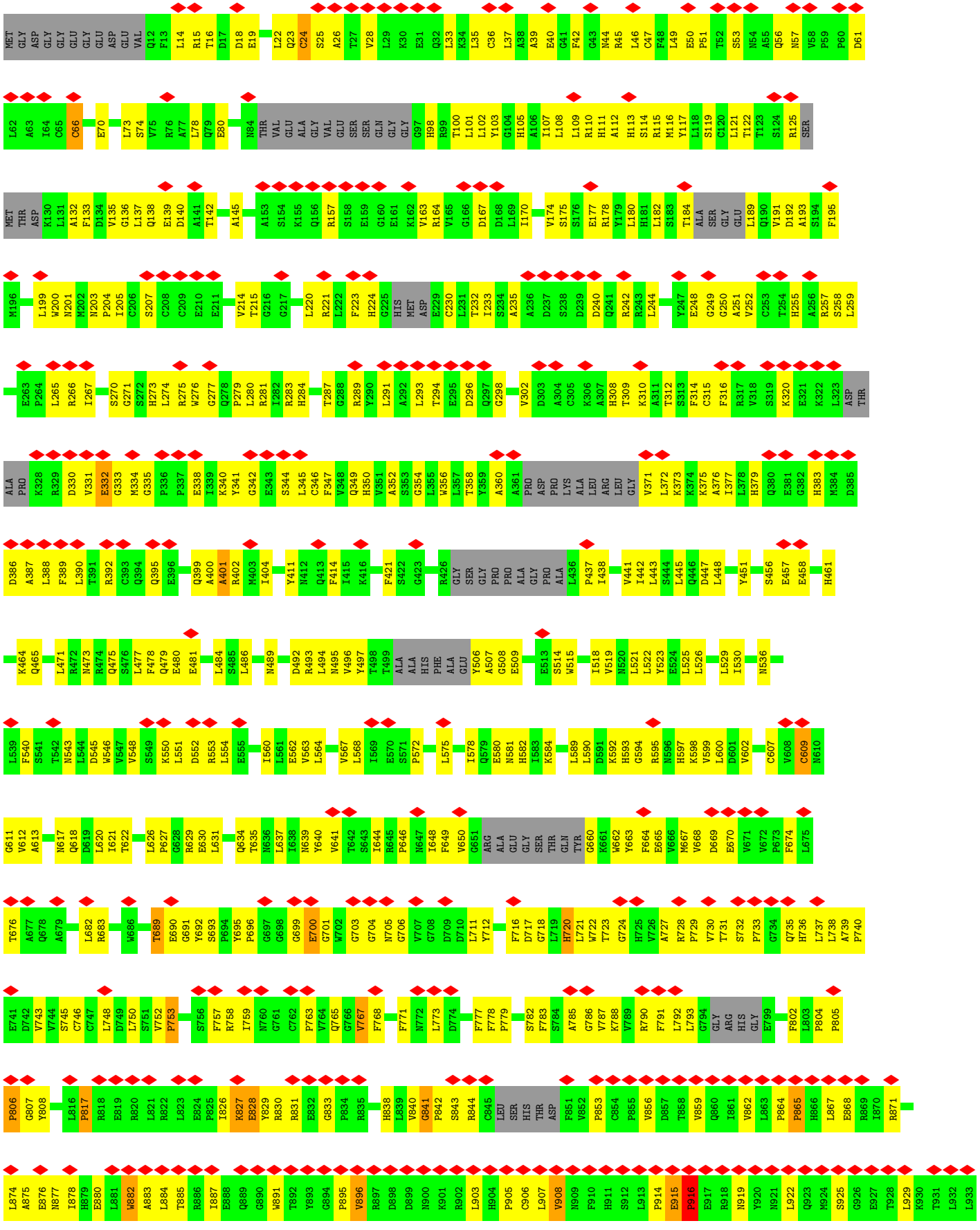


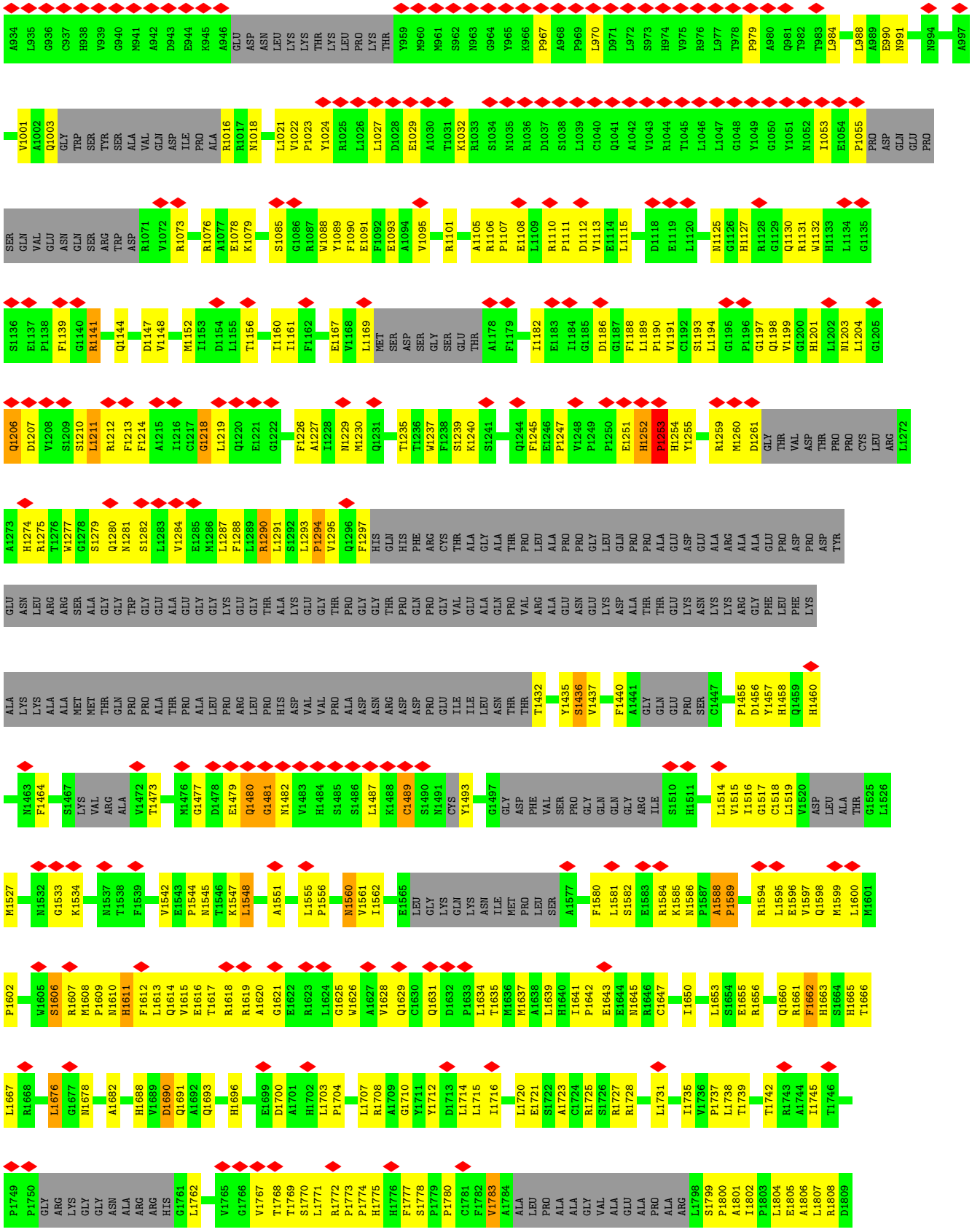




• Molecule 1: Ryanodine receptor 1

Chain C:

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V1001 A1002 Q1003 GLY TRP SER TYR SER ALA VAL GLN ASP ILE PRO ALA R1016 R1017 N1018 L1021 V1022 P1023 Y1024 R1025 L1026 L1027 D1028 E1029 A1030 T1031 K1032 R1033 S1034 N1035 R1036 D1037 S1038 L1039 C1040 Q1041 A1042 A1043 V1044 R1045 T1046 L1047 L1048 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 R1076 A1077 E1078 K1079 S1085 C1086 R1087 W1088 Y1089 F1090 E1091 F1092 E1093 A1094 V1095 R1101 A1105 R1106 P1107 E1108 L1109 R1110 P1111 D1112 V1113 E1114 L1115 D1118 E1119 L1120 N1125 G1126 H1127 R1128 G1129 Q1130 R1131 W1132 H1133 L1134 G1135
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Q1206 D1207 V1208 S1209 S1210 L1211 R1212 F1213 F1214 A1215 I1216 C1217 G1218 L1219 Q1220 E1221 G1222 F1226 A1227 I1228 N1229 M1230 Q1231 T1235 T1236 W1237 F1238 S1239 K1240 S1241 Q1244 F1245 E1246 P1247 V1248 P1249 P1250 E1251 H1252 P1253 H1254 Y1255 R1259 M1260 D1261 GLY THR VAL ASP THR PRO PRO CYS LEU ARG L1272
A1273 H1274 R1275 T1276 W1277 G1278 S1279 Q1280 N1281 S1282 L1283 V1284 E1285 M1286 L1287 F1288 L1289 R1290 L1291 S1292 L1293 P1294 V1295 Q1296 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 ASP TYR
GLU ASN LEU ARG ARG SER ALA GLY GLY GLY TRP GLY GLU ALA GLU GLY GLY LYS GLU GLY THR ALA LYS GLU GLY GLY THR GLY PRO GLY GLY THR PRO GLN PRO GLY GLY VAL GLU GLU ALA GLN PRO VAL ARG ALA GLU ASN GLU LYS ASP ALA THR THR GLU ILE 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 PRO ARG LEU PRO HIS ASP VAL VAL PRO ALA ASP ASN ARG ASP ASP PRO GLU ILE ILE LEU ASN THR THR T1432 Y1435 S1436 V1437 F1440 A1441 GLY GLN GLU PRO SER C1447 P1455 D1456 Y1457 H1458 Q1459 H1460
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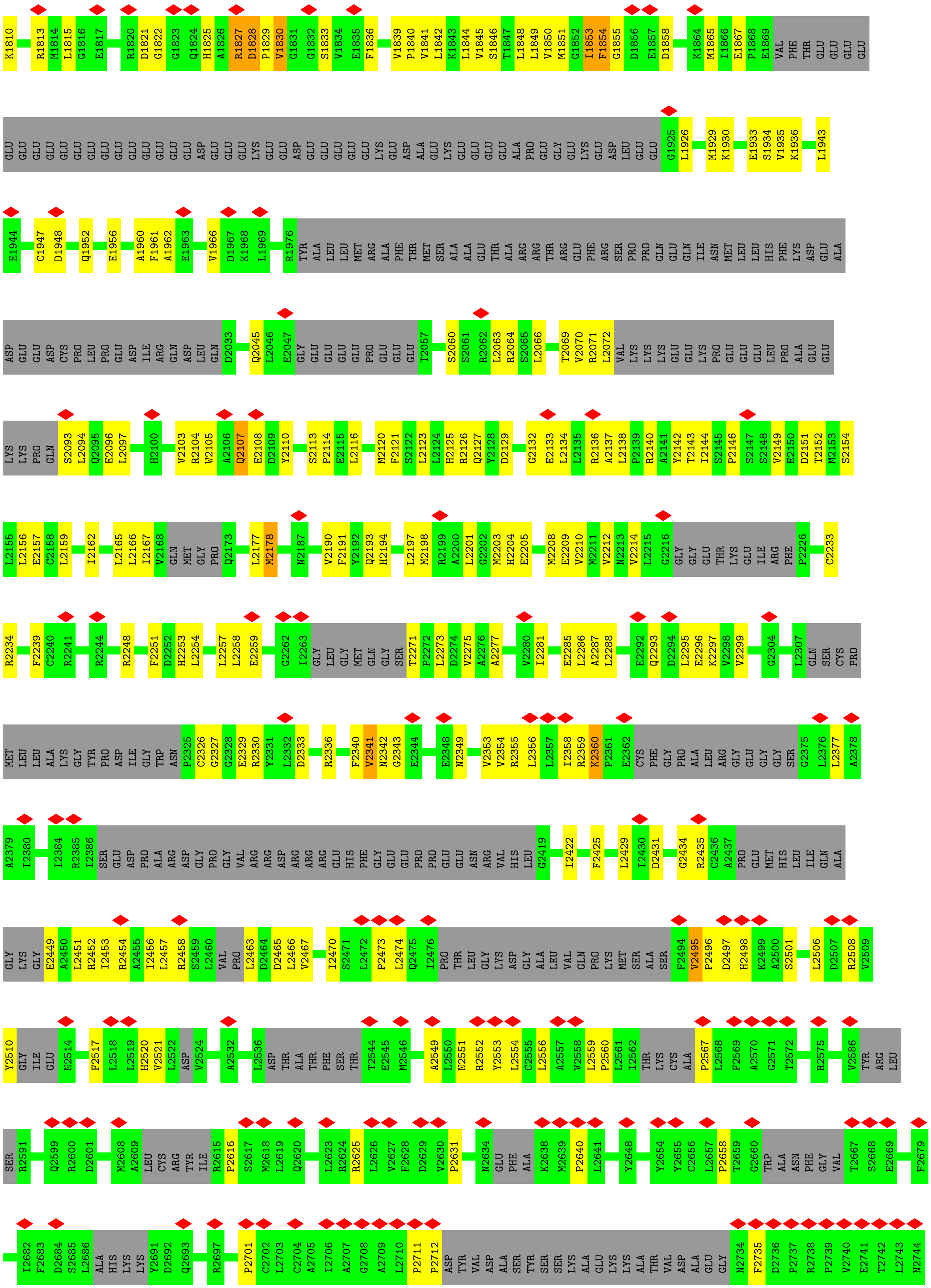
M1527 N1532 G1533 K1534 N1537 T1538 F1539 V1542 E1543 P1544 N1545 T1546 K1547 L1548 A1551 L1555 P1556 N1560 V1561 I1562 E1565 LEU GLY LYS GLN LYS ASN ILE MET PRO LEU SER A1577 F1580 L1581 S1582 E1583 R1584 K1585 N1586 P1587 A1588 P1589 R1594 L1595 E1596 V1597 Q1598 M1599 L1600 M1601
P1602 W1605 S1606 R1607 M1608 P1609 N1610 H1611 F1612 L1613 Q1614 V1615 E1616 T1617 R1618 R1619 A1620 G1621 E1622 R1623 L1624 G1625 W1626 A1627 V1628 Q1629 C1630 Q1631 D1632 P1633 L1634 T1635 M1636 M1637 A1638 L1639 H1640 I1641 P1642 E1643 E1644 N1645 R1646 C1647 I1650 L1653 S1654 E1655 R1656 Q1660 R1661 F1662 H1663 S1664 H1665 T1666
L1667 R1668 L1676 G1677 N1678 A1682 H1688 V1689 D1690 Q1691 A1692 Q1693 H1696 E1699 D1700 A1701 H1702 L1703 P1704 L1707 R1708 A1709 G1710 Y1711 Y1712 D1713 L1714 L1715 I1716 L1720 E1721 S1722 A1723 C1724 R1725 S1726 R1727 R1728 L1731 I1735 V1736 P1737 L1738 T1739 T1742 R1743 A1744 I1745 T1746
P1749 P1750 GLY ARG LYS GLY GLY ASN ALA ARG ARG HIS G1761 L1762 V1765 G1766 V1767 T1768 T1769 S1770 L1771 R1772 P1773 P1774 H1775 H1776 F1777 S1778 P1779 P1780 C1781 F1782 V1783 A1784 ALA LEU PRO ALA ALA GLY VAL ALA ALA GLU ALA PRO ALA ARG L1798 S1799 P1800 A1801 I1802 P1803 L1804 E1805 A1806 L1807 R1808 D1809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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 M1929 K1930 E1933 S1934 V1935 K1936 L1943
E1944 C1947 D1948 Q1952 E1956 A1960 F1961 A1962 E1963 V1966 D1967 K1968 L1969 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 Q2045 L2046 E2047 GLY GLU GLU GLU GLU PRO GLU GLU GLU T2057 S2060 S2061 R2062 L2063 R2064 S2065 L2066 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 L2094 Q2095 E2096 L2097 H2100 V2103 R2104 W2105 A2106 Q2107 E2108 D2109 Y2110 S2113 P2114 E2115 L2116 M2120 F2121 S2122 L2123 L2124 H2125 R2126 Q2127 Y2128 D2129 G2132 E2133 L2134 L2135 R2136 A2137 L2138 P2139 R2140 A2141 Y2142 T2143 I2144 S2145 P2146 S2147 S2148 V2149 E2150 D2151 T2152 M2153 S2154
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R2234 F2239 C2240 R2241 R2244 R2248 F2251 D2252 H2253 L2254 L2257 L2258 E2259 G2262 I2263 GLY LEU GLY MET GLN GLY SER T2271 P2272 L2273 D2274 V2275 A2276 A2277 V2280 I2281 E2285 L2286 A2287 L2288 E2292 Q2293 D2294 L2295 E2296 K2297 V2298 V2299 G2304 L2307 GLN SER CYS PRO
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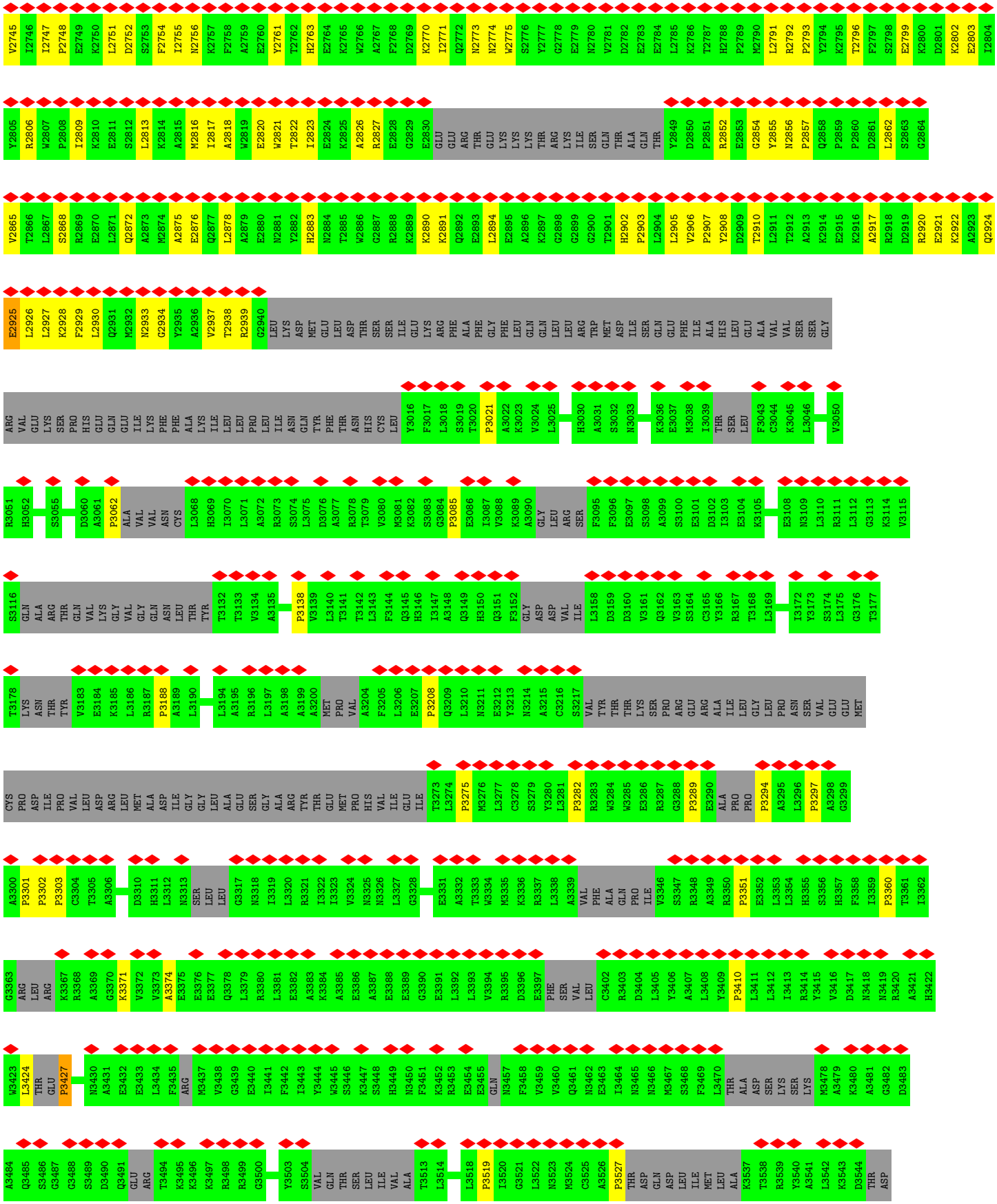
SER R2591 Q2599 R2600 D2601 M2608 A2609 LEU CYS ARG TYR ILE R2615 P2616 S2617 M2618 L2619 Q2620 L2623 R2624 R2625 L2626 V2627 F2628 D2629 V2630 P2631 N2634 GLU PHE ALA K2638 M2639 P2640 L2641 Y2648 Y2654 Y2655 C2656 L2657 P2658 T2659 G2660 TRP ALA ASN PHE GLY VAL T2667 S2668 E2669 F2679
I2682 F2683 D2684 S2685 L2686 ALA HIS LYS LYS Y2691 D2692 Q2693 R2697 P2701 C2702 L2703 C2704 A2705 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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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 F3017 L3018 S3019 T3020 P3021 A3022 K3023 V3024 L3025 H3030 A3031 S3032 N3033 K3036 E3037 M3038 I3039 THR SER LEU F3043 C3044 K3045 L3046 V3050
R3051 H3052 S3055 D3060 A3061 P3062 ALA VAL VAL ASN CYS L3068 H3069 I3070 L3071 A3072 R3073 S3074 L3075 D3076 A3077 R3078 T3079 V3080 M3081 K3082 S3083 G3084 P3085 E3086 I3087 V3088 K3089 A3090 GLY LEU ARG SER F3095 F3096 E3097 S3098 A3099 S3100 E3101 D3102 I3103 E3104 K3105 E3108 N3109 L3110 R3111 L3112 G3113 K3114 V3115
S3116 GLN ALA ARG THR GLN VAL LYS GLY VAL GLY GLN ASN LEU THR TYR T3132 T3133 V3134 A3135 P3138 V3139 L3140 T3141 T3142 L3143 F3144 Q3145 H3146 I3147 A3148 Q3149 H3150 Q3151 F3152 GLY ASP ASP VAL ILE L3158 D3159 D3160 V3161 Q3162 V3163 S3164 C3165 Y3166 R3167 T3168 L3169 T3172 Y3173 S3174 L3175 G3176 T3177
T3178 LYS ASN THR TYR V3183 E3184 K3185 L3186 R3187 P3188 A3189 L3190 L3194 A3195 R3196 L3197 A3198 A3199 A3200 MET PRO GLU PRO VAL A3204 F3205 L3206 E3207 P3208 Q3209 L3210 N3211 E3212 Y3213 N3214 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
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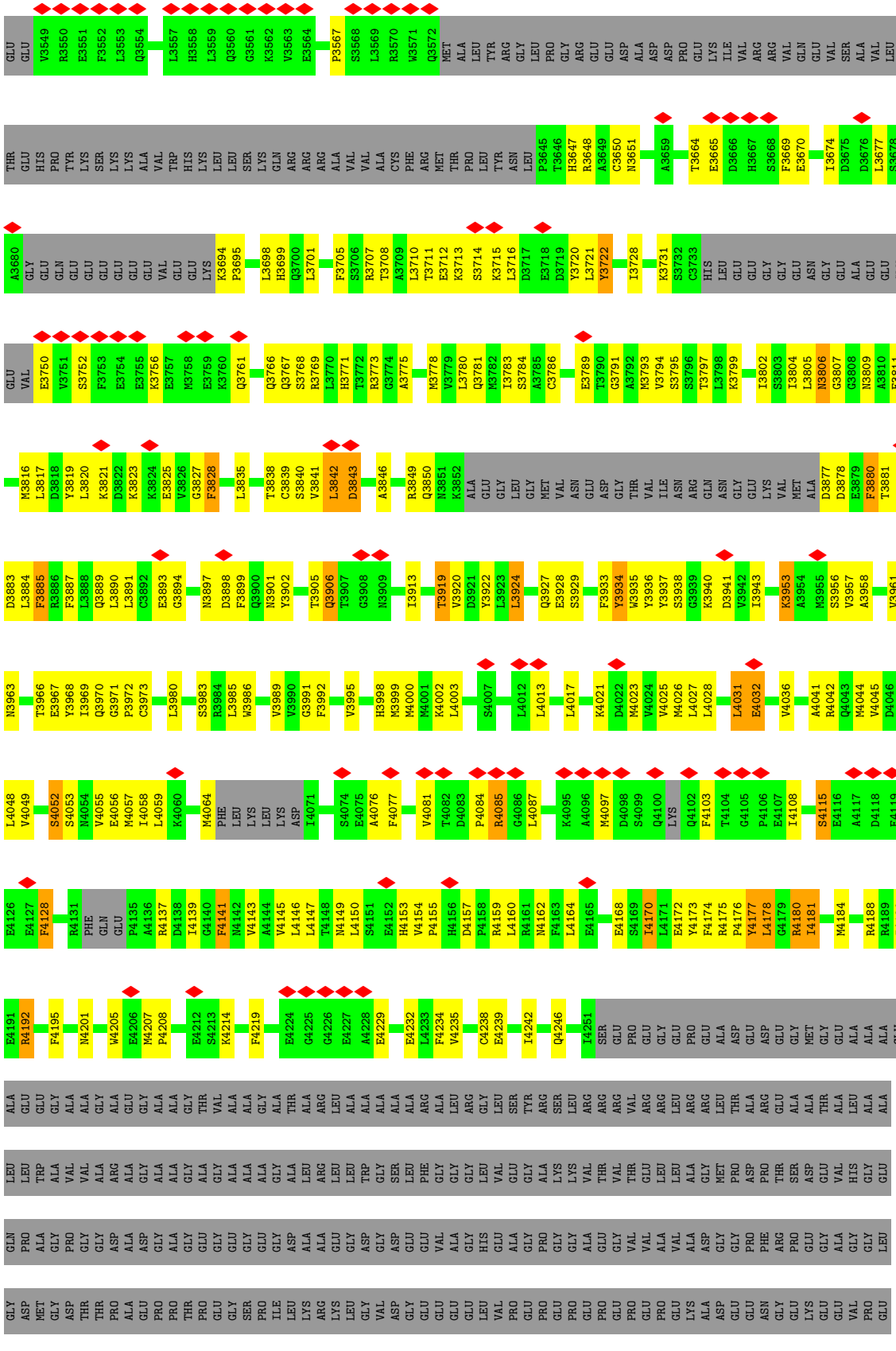
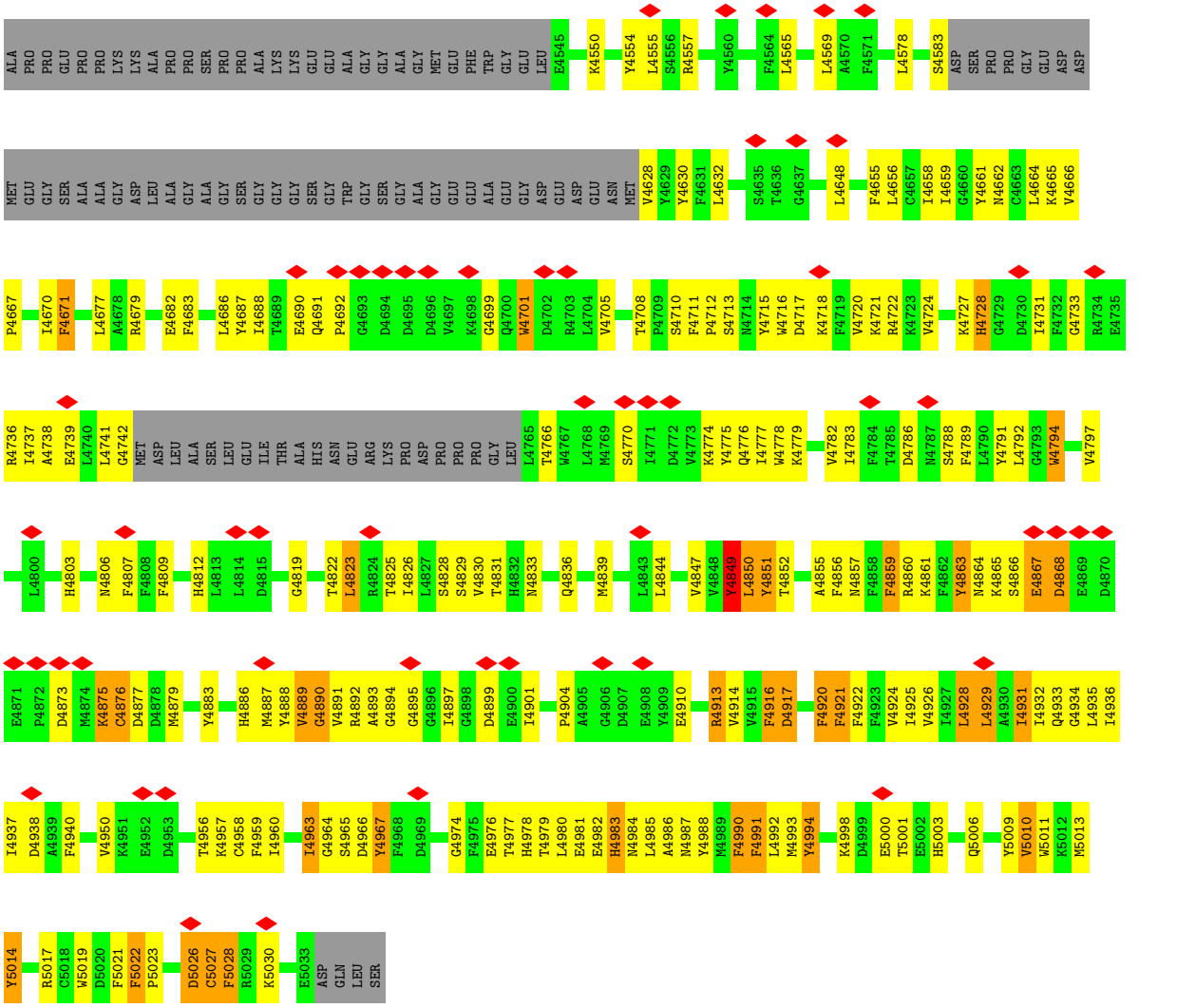
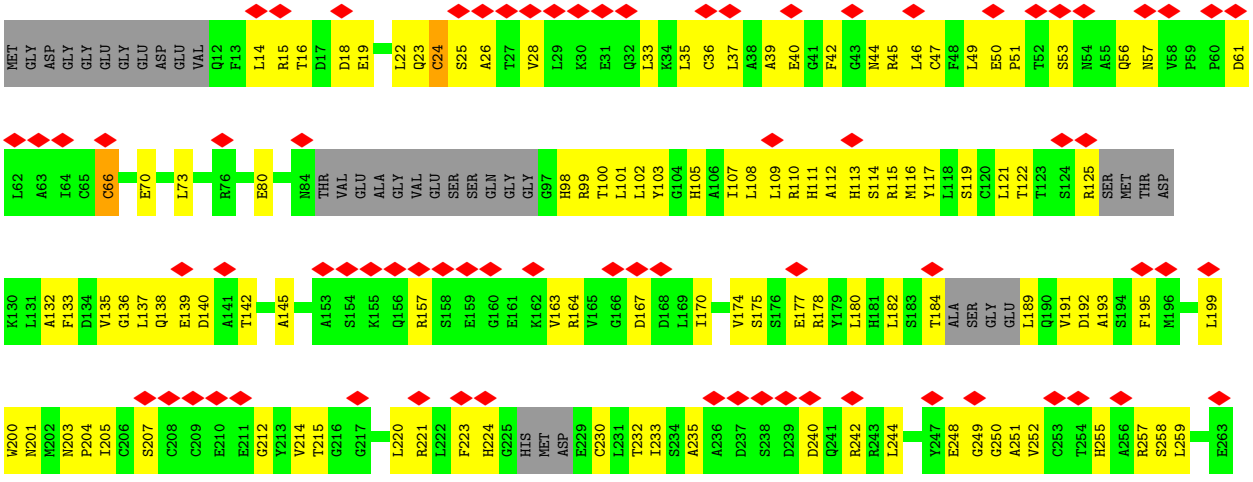
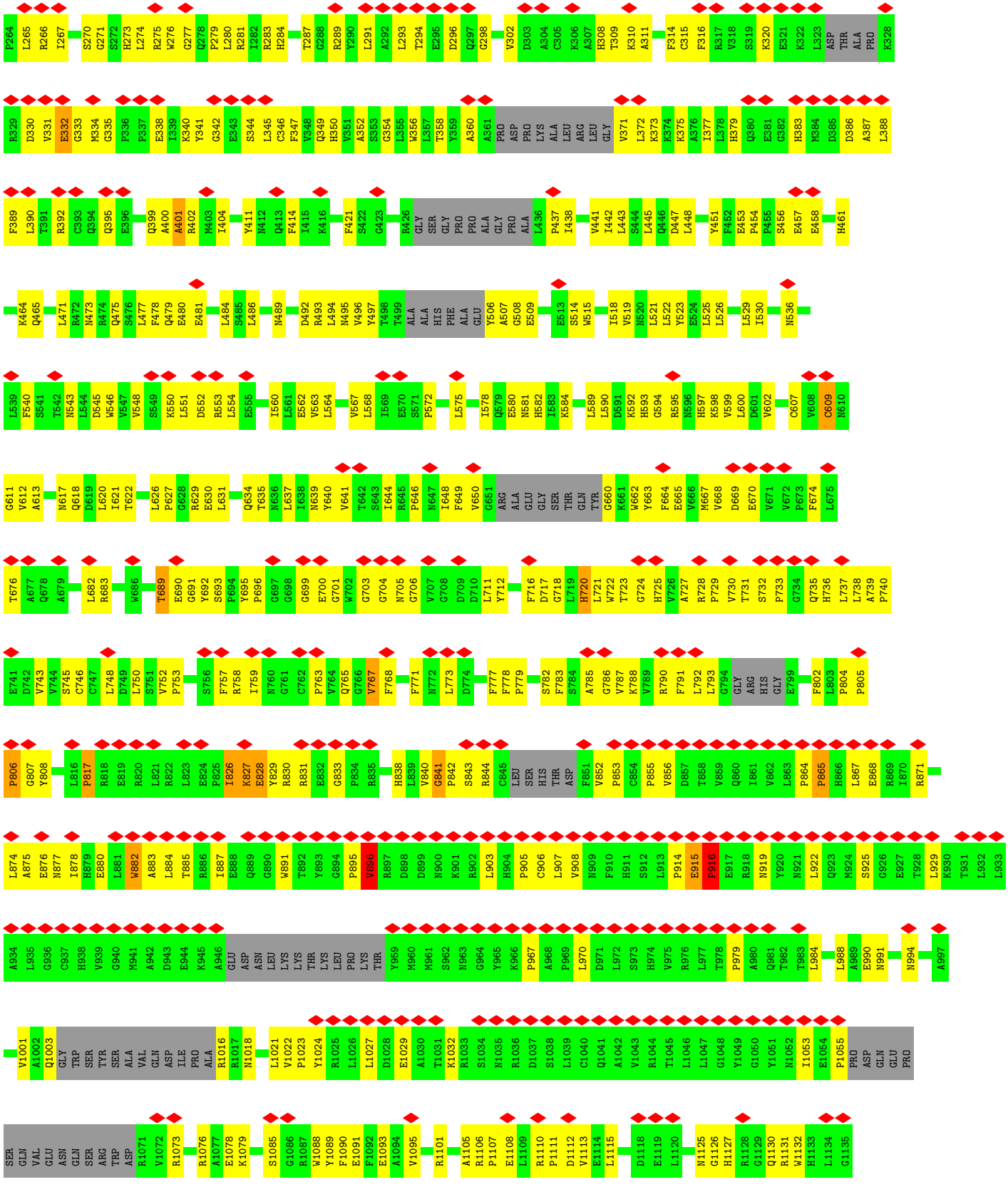




• Molecule 1: Ryanodine receptor 1

Chain E:

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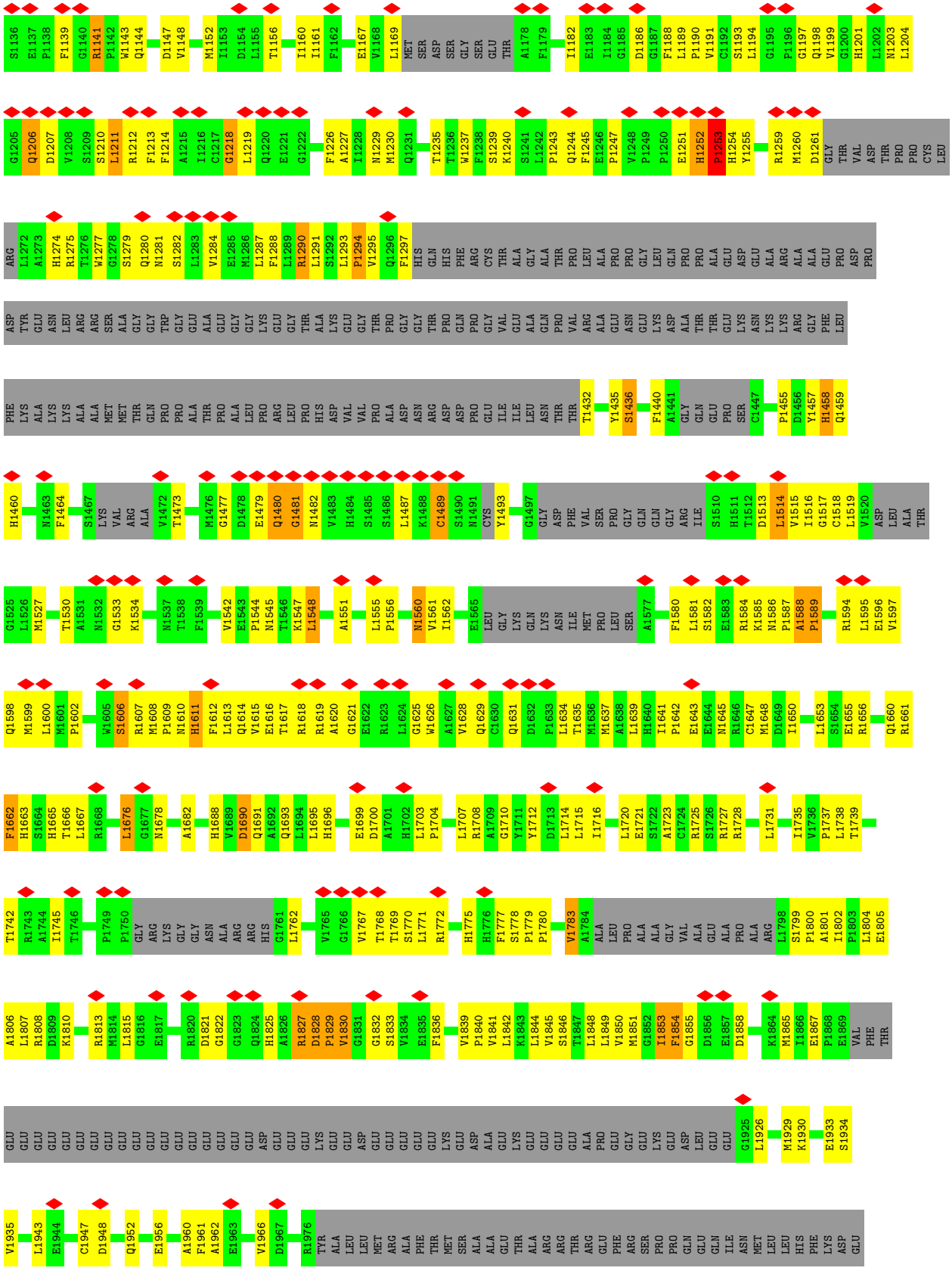
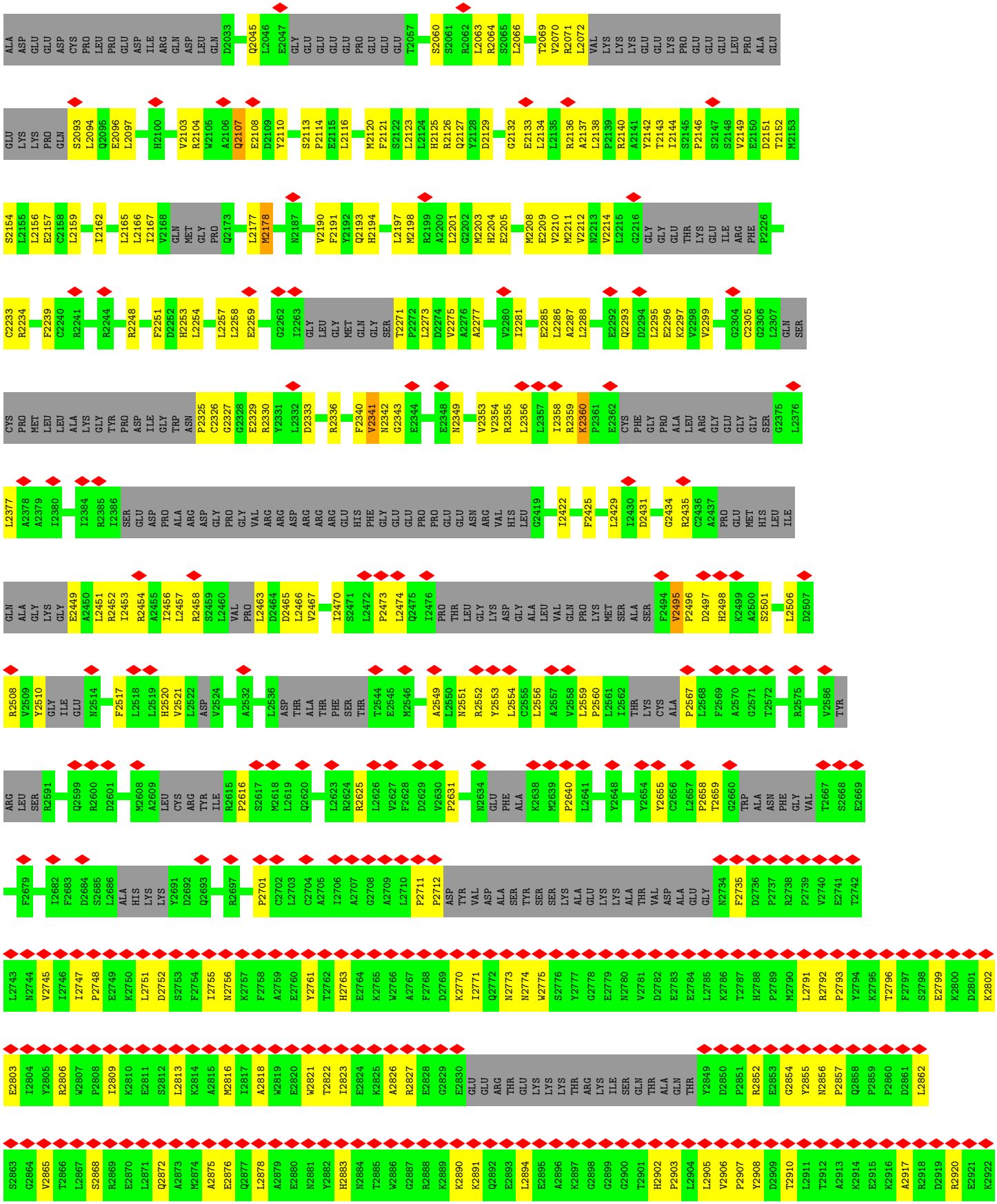
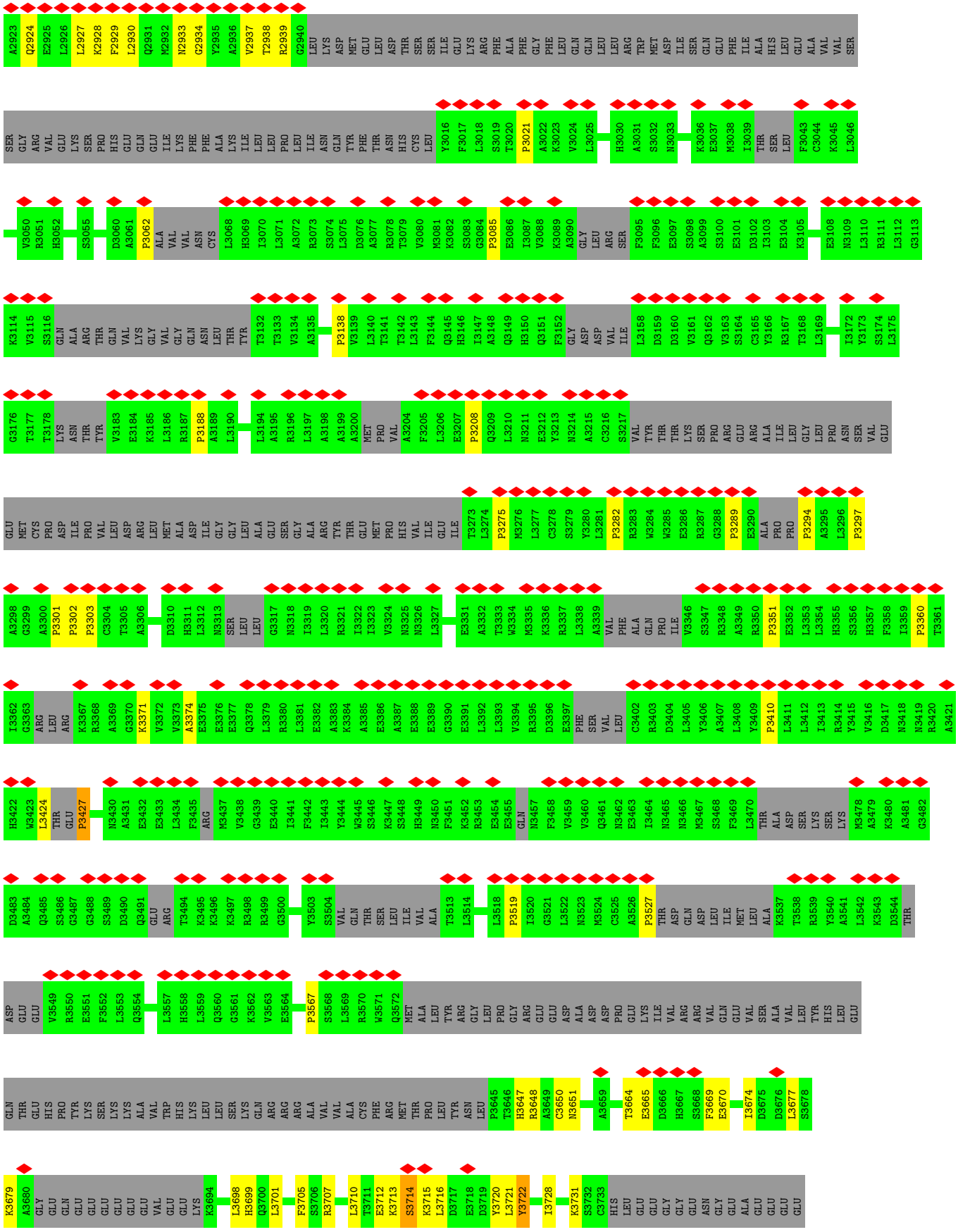
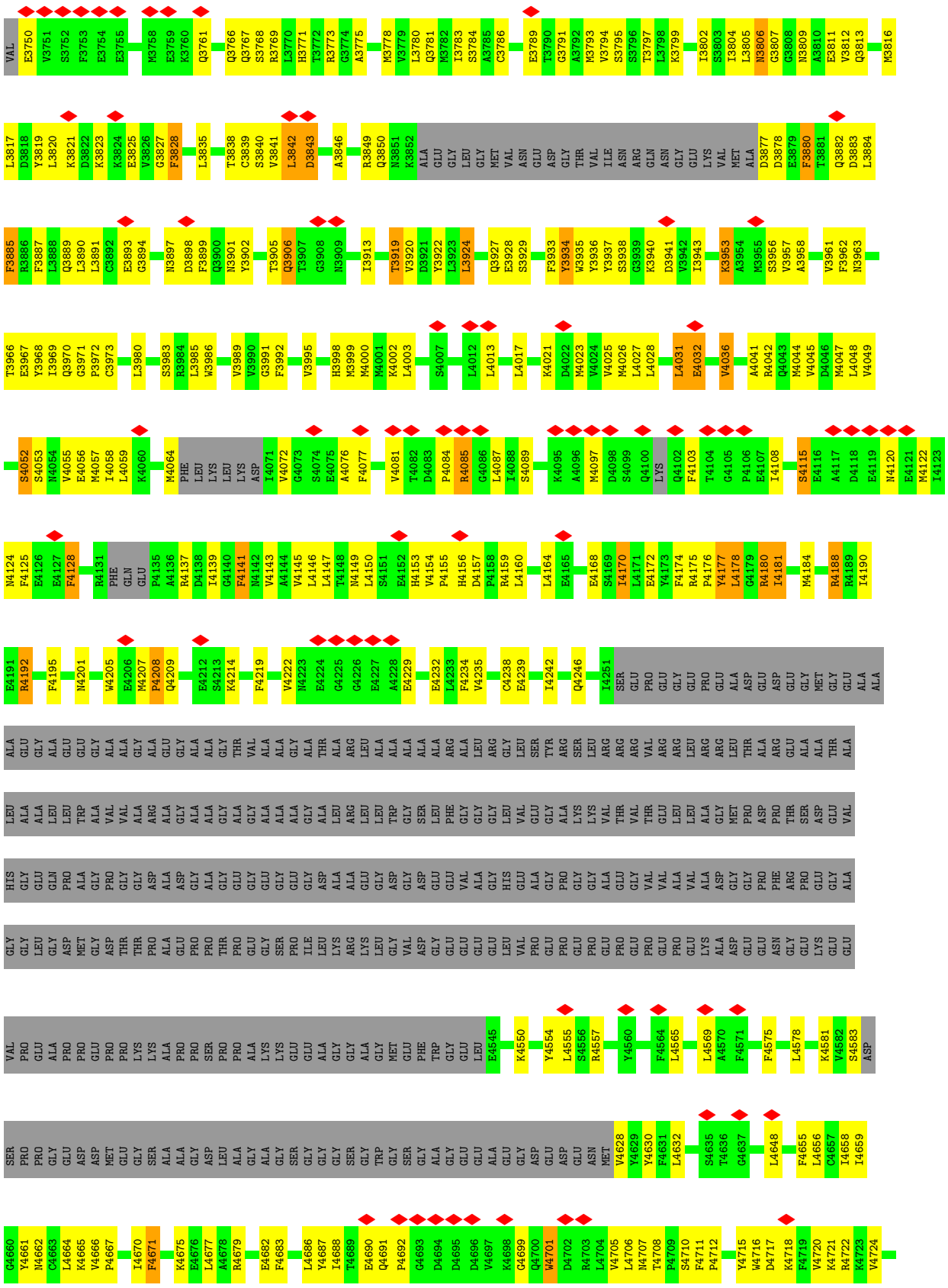
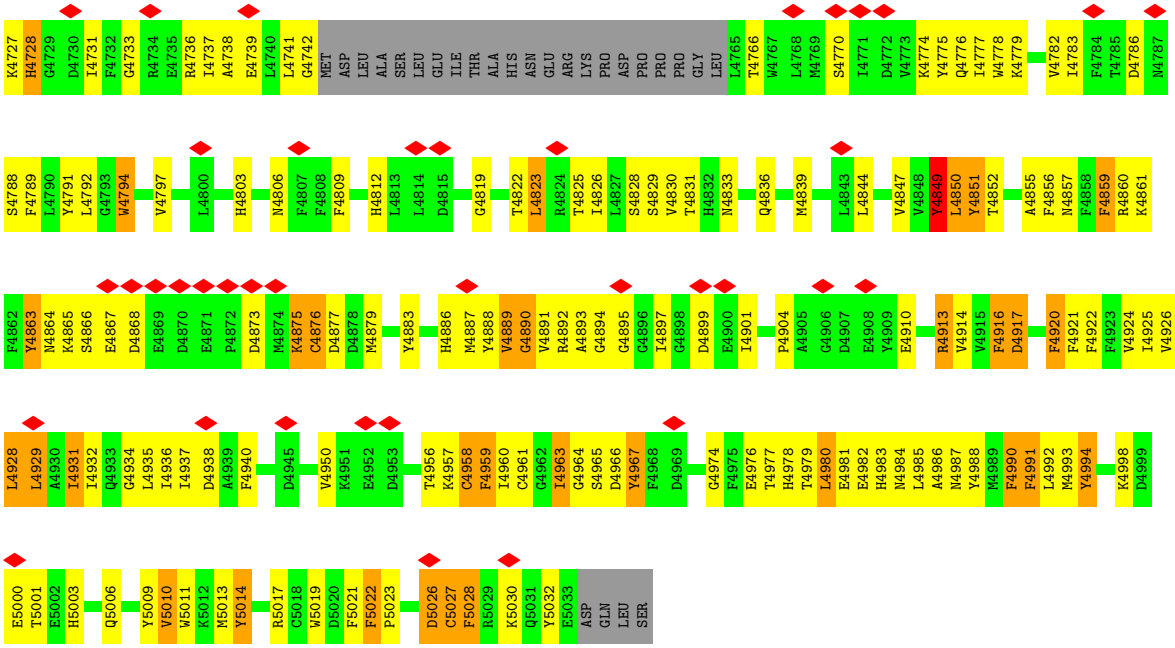


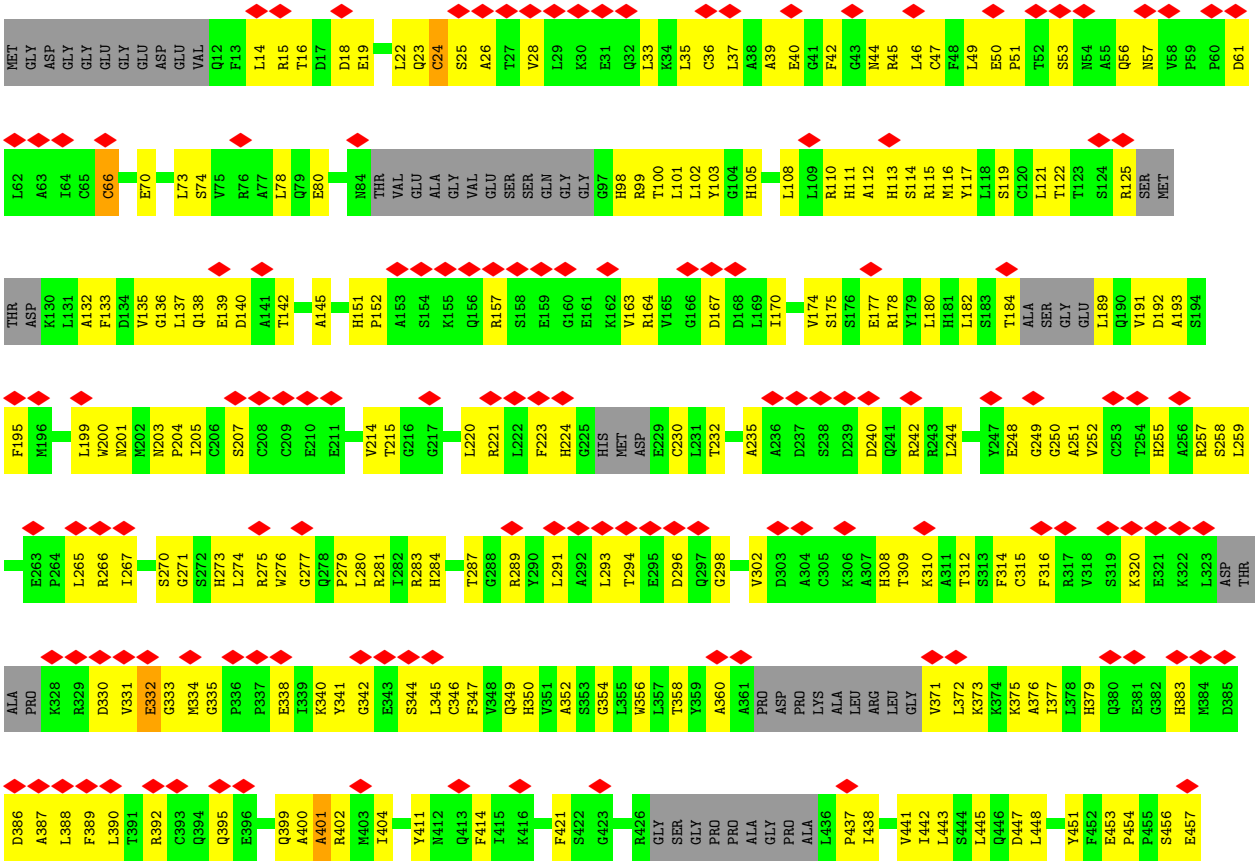


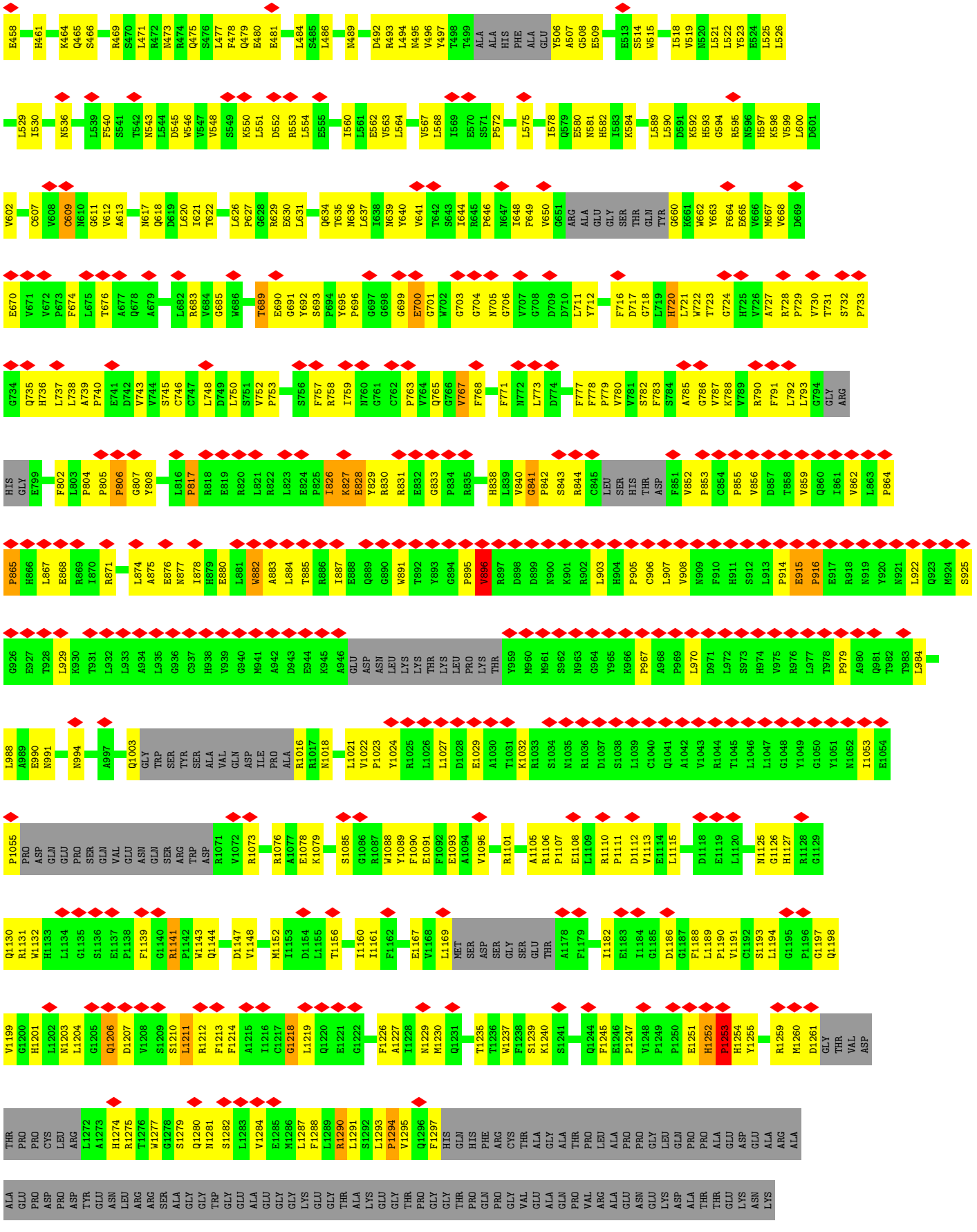






• Molecule 1: Ryanodine receptor 1

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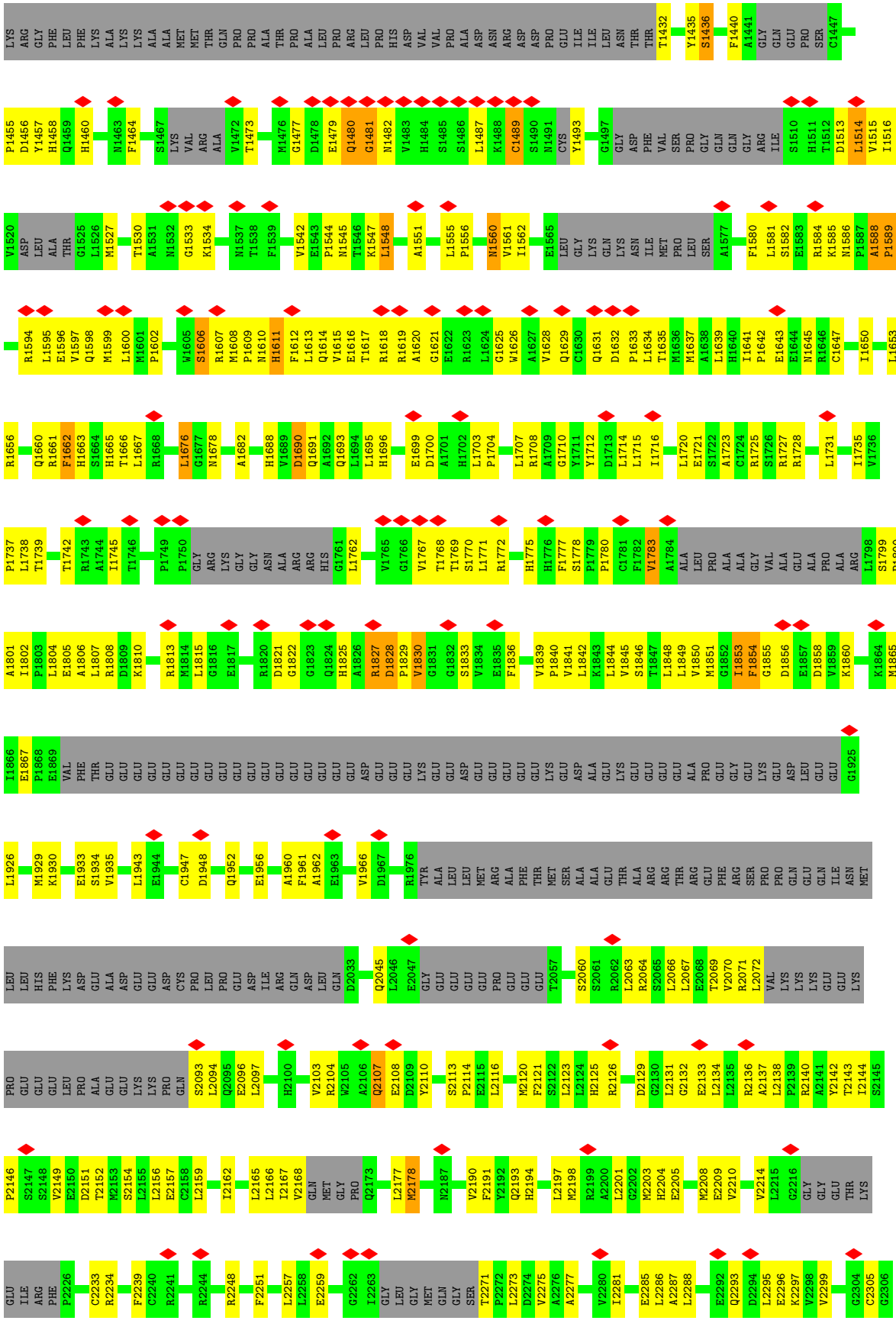

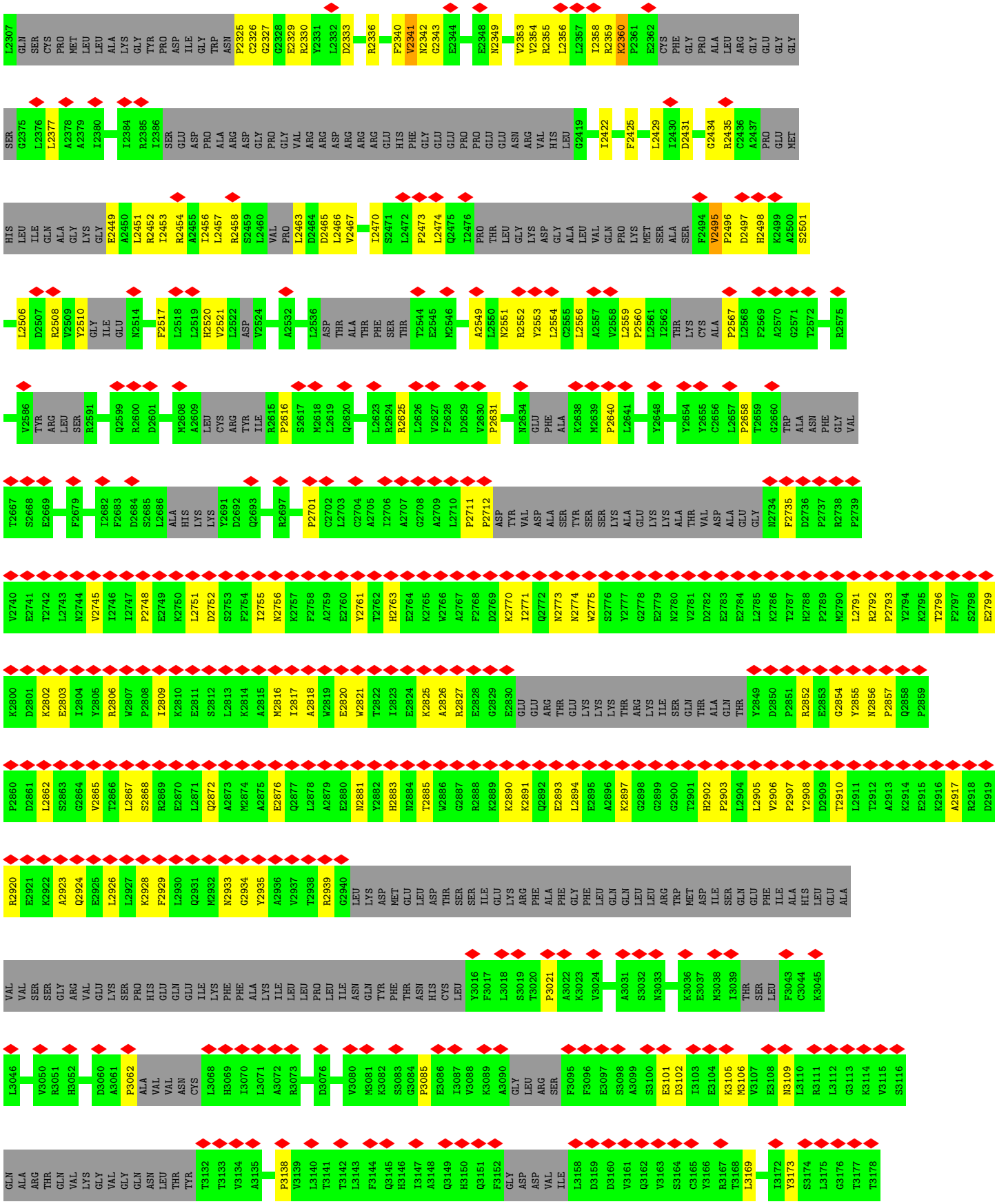
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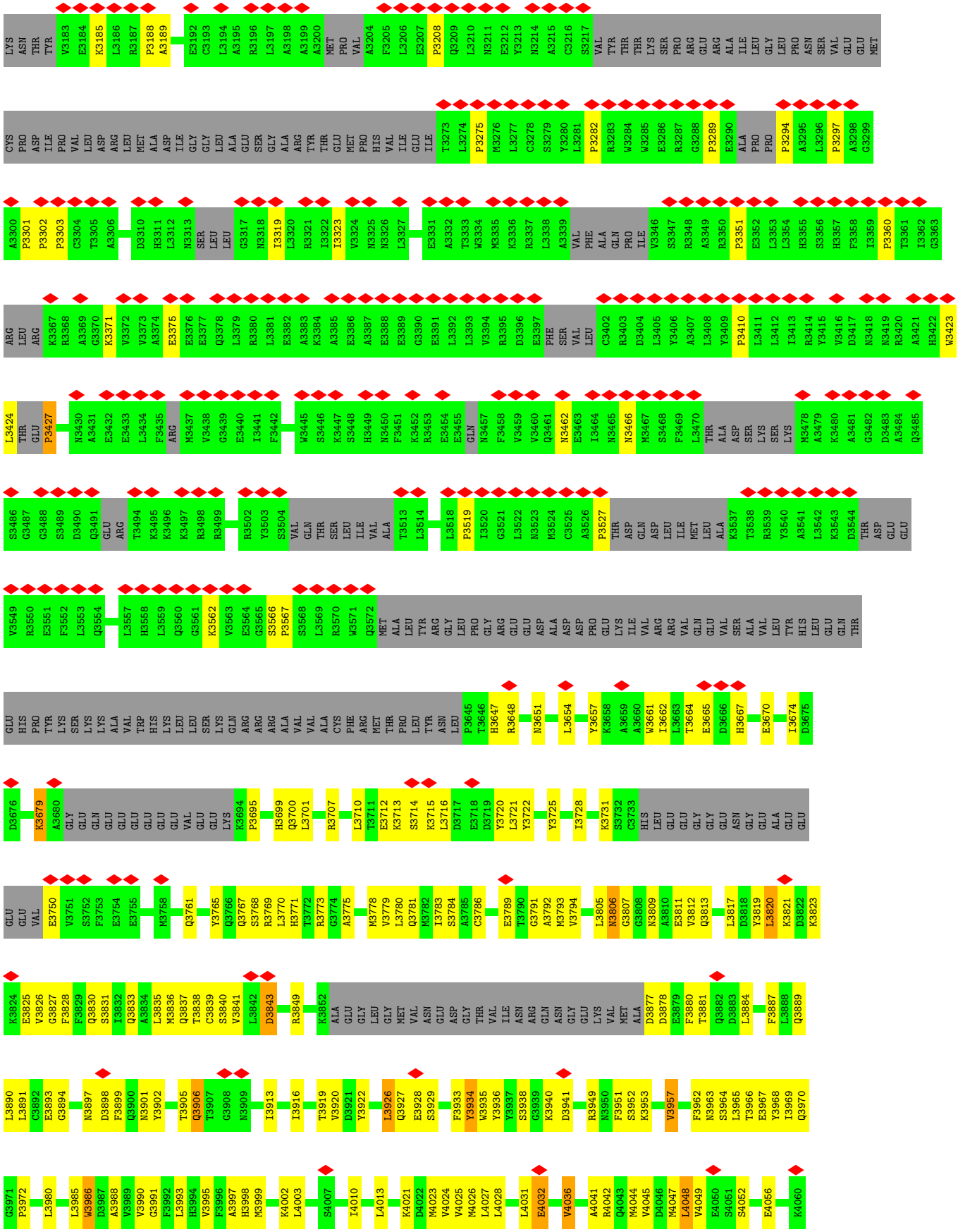
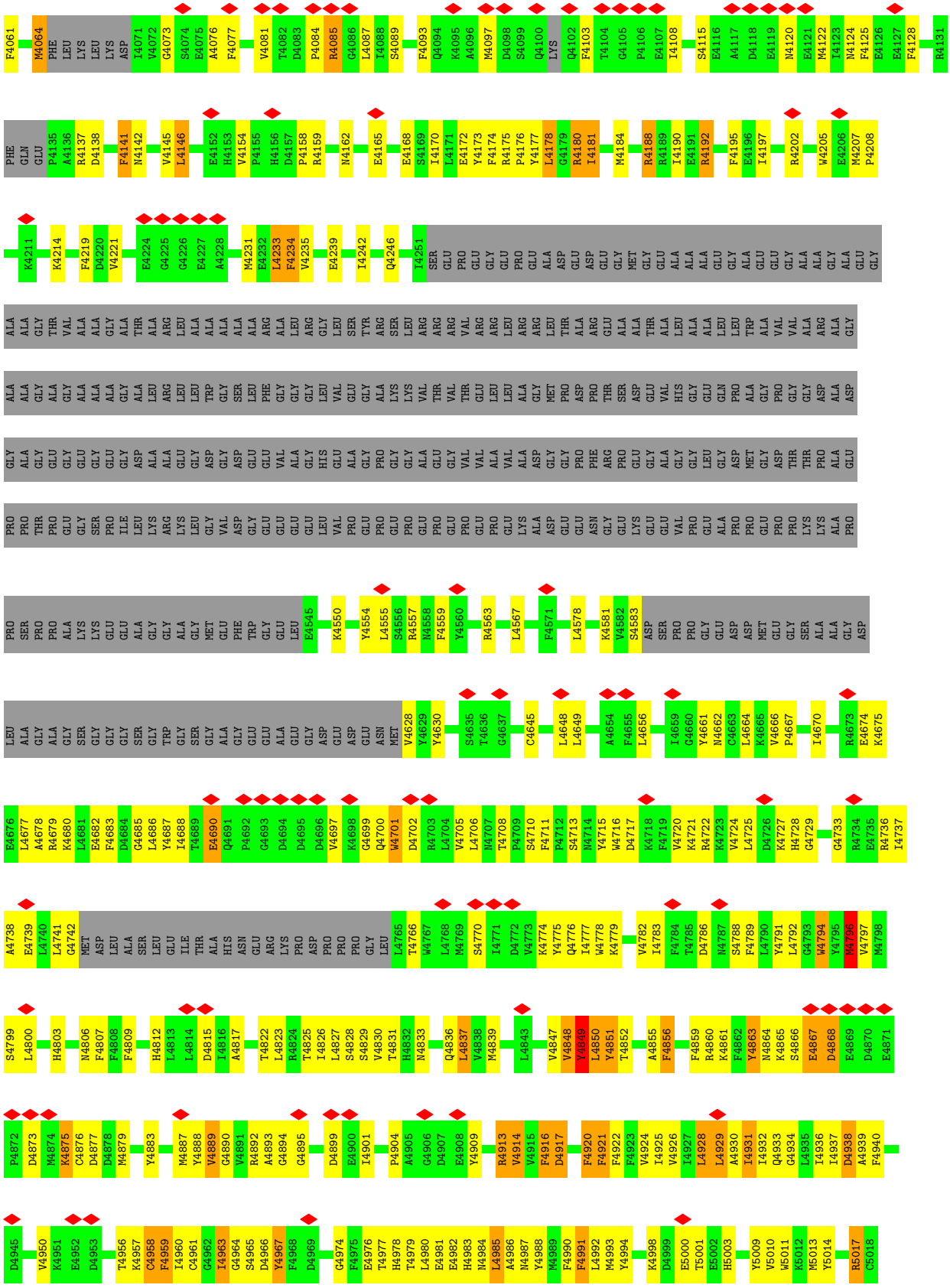
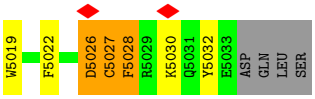
GLN ALA ARG THR GLN VAL LYS GLY VAL GLY GLN ASN LEU THR TYR T3132 T3133 V3134 A3135 P3138 V3139 L3140 T3141 T3142 L3143 F3144 Q3145 H3146 I3147 A3148 Q3149 H3150 Q3151 F3152 GLY ASP ASP VAL ILE L3158 D3159 D3160 V3161 Q3162 V3163 S3164 C3165 Y3166 R3167 T3168 L3169 I3172 Y3173 S3174 L3175 G3176 T3177 T3178

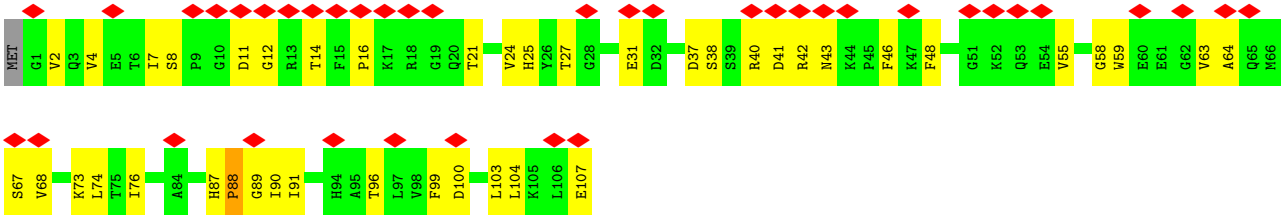






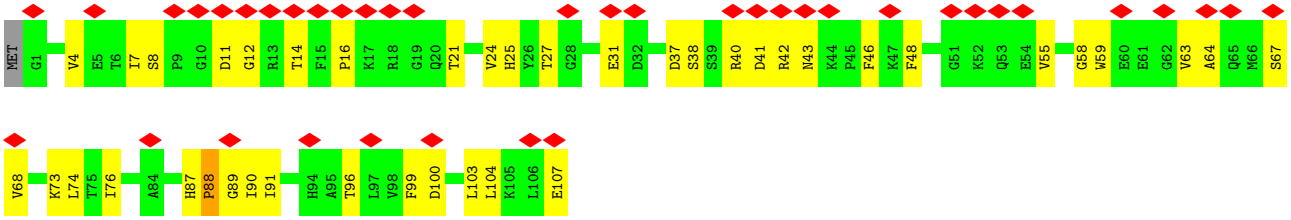
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain B:



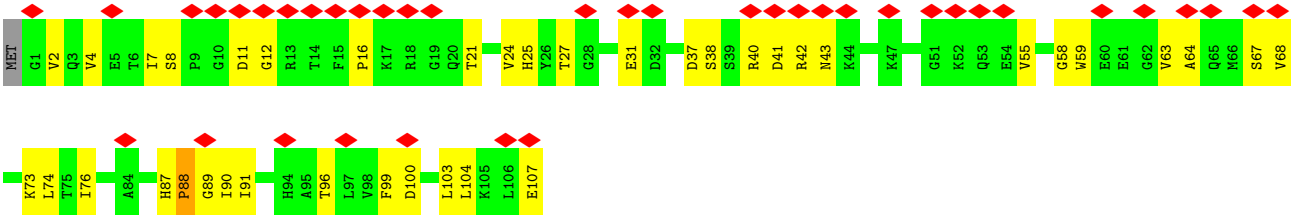
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

Chain D:



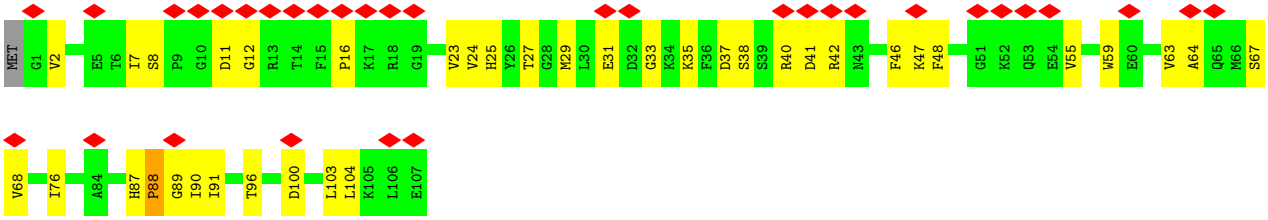
• Molecule 2: Peptidyl-prolyl cis-trans isomerase FKBP1A

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, Not provided	
Number of particles used	47000	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	0.324	Depositor
Minimum map value	-0.144	Depositor
Average map value	0.000	Depositor
Map value standard deviation	0.016	Depositor
Recommended contour level	0.09	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

5.1 Standard geometry

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	0.93	55/27385 (0.2%)	0.86	90/37104 (0.2%)
1	C	0.93	56/27385 (0.2%)	0.87	92/37104 (0.2%)
1	E	0.93	53/27385 (0.2%)	0.86	91/37104 (0.2%)
1	G	0.93	55/27385 (0.2%)	0.85	90/37104 (0.2%)
2	B	0.58	0/851	0.67	0/1146
2	D	0.58	0/851	0.67	0/1146
2	F	0.58	0/851	0.67	0/1146
2	H	0.60	0/851	0.67	0/1146
All	All	0.92	219/112944 (0.2%)	0.86	363/153000 (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	19
1	C	0	19
1	E	0	19
1	G	0	19
All	All	0	76

All (219) bond length outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	4988	TYR	CG-CD2	-12.12	1.23	1.39
1	A	5014	TYR	CG-CD1	-11.55	1.24	1.39
1	E	5014	TYR	CG-CD1	-11.43	1.24	1.39
1	C	3922	TYR	CE1-CZ	-11.19	1.24	1.38
1	E	3922	TYR	CE1-CZ	-11.12	1.24	1.38
1	A	3922	TYR	CE1-CZ	-11.12	1.24	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	5014	TYR	CG-CD1	-11.10	1.24	1.39
1	G	5014	TYR	CG-CD1	-11.09	1.24	1.39
1	E	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	C	4988	TYR	CG-CD2	-11.06	1.24	1.39
1	A	4988	TYR	CG-CD2	-11.03	1.24	1.39
1	A	5014	TYR	CE2-CZ	-10.02	1.25	1.38
1	E	5014	TYR	CE2-CZ	-9.80	1.25	1.38
1	C	5014	TYR	CE2-CZ	-9.74	1.25	1.38
1	G	5014	TYR	CE2-CZ	-9.68	1.25	1.38
1	C	3922	TYR	CG-CD1	-9.47	1.26	1.39
1	E	3922	TYR	CG-CD1	-9.45	1.26	1.39
1	A	4849	TYR	CG-CD1	-9.43	1.26	1.39
1	G	4988	TYR	CE1-CZ	-9.38	1.26	1.38
1	A	3922	TYR	CG-CD1	-9.33	1.27	1.39
1	G	4851	TYR	CE2-CZ	-9.23	1.26	1.38
1	E	4849	TYR	CG-CD1	-9.14	1.27	1.39
1	C	4849	TYR	CG-CD1	-9.07	1.27	1.39
1	E	3922	TYR	CG-CD2	-8.82	1.27	1.39
1	C	3922	TYR	CG-CD2	-8.81	1.27	1.39
1	A	3922	TYR	CG-CD2	-8.80	1.27	1.39
1	G	4849	TYR	CG-CD1	-8.75	1.27	1.39
1	E	4851	TYR	CE1-CZ	-8.56	1.27	1.38
1	C	4851	TYR	CE1-CZ	-8.54	1.27	1.38
1	A	5009	TYR	CG-CD2	-8.53	1.28	1.39
1	G	5009	TYR	CG-CD2	-8.50	1.28	1.39
1	A	4851	TYR	CE1-CZ	-8.48	1.27	1.38
1	G	4851	TYR	CG-CD1	-8.48	1.28	1.39
1	E	5009	TYR	CG-CD2	-8.43	1.28	1.39
1	C	5009	TYR	CG-CD2	-8.42	1.28	1.39
1	G	3922	TYR	CG-CD1	-8.10	1.28	1.39
1	G	3922	TYR	CE1-CZ	-7.78	1.28	1.38
1	C	4987	ASN	N-CA	-7.70	1.30	1.46
1	A	4987	ASN	N-CA	-7.65	1.31	1.46
1	E	4987	ASN	N-CA	-7.61	1.31	1.46
1	G	5022	PHE	CG-CD2	-7.35	1.27	1.38
1	G	4234	PHE	CG-CD1	-7.32	1.27	1.38
1	A	5022	PHE	CG-CD2	-7.30	1.27	1.38
1	C	5022	PHE	CG-CD2	-7.29	1.27	1.38
1	E	5022	PHE	CG-CD2	-7.26	1.27	1.38
1	G	4988	TYR	CG-CD1	-7.25	1.29	1.39
1	E	4032	GLU	CD-OE2	-7.08	1.17	1.25
1	A	4032	GLU	CD-OE2	-7.02	1.18	1.25

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4032	GLU	CD-OE2	-7.00	1.18	1.25
1	G	4032	GLU	CD-OE2	-6.98	1.18	1.25
1	E	4991	PHE	CG-CD1	-6.98	1.28	1.38
1	C	5009	TYR	CG-CD1	-6.96	1.30	1.39
1	A	5009	TYR	CG-CD1	-6.91	1.30	1.39
1	A	4991	PHE	CG-CD1	-6.85	1.28	1.38
1	C	4991	PHE	CG-CD1	-6.83	1.28	1.38
1	E	5009	TYR	CG-CD1	-6.76	1.30	1.39
1	E	3722	TYR	CE1-CZ	-6.70	1.29	1.38
1	G	3922	TYR	CG-CD2	-6.65	1.30	1.39
1	G	4181	ILE	CA-CB	-6.64	1.39	1.54
1	E	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	C	4234	PHE	CG-CD1	-6.63	1.28	1.38
1	A	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	C	3722	TYR	CE1-CZ	-6.62	1.29	1.38
1	G	4988	TYR	CE2-CZ	-6.61	1.29	1.38
1	G	3968	TYR	CG-CD1	-6.61	1.30	1.39
1	G	4987	ASN	N-CA	-6.60	1.33	1.46
1	G	4991	PHE	CG-CD1	-6.57	1.28	1.38
1	E	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	C	4851	TYR	CG-CD2	-6.56	1.30	1.39
1	A	4234	PHE	CG-CD1	-6.56	1.28	1.38
1	G	3722	TYR	CE1-CZ	-6.55	1.30	1.38
1	C	5009	TYR	CE2-CZ	-6.52	1.30	1.38
1	A	5009	TYR	CE2-CZ	-6.50	1.30	1.38
1	E	4181	ILE	CA-CB	-6.49	1.40	1.54
1	A	4991	PHE	CG-CD2	-6.46	1.29	1.38
1	A	4181	ILE	CA-CB	-6.45	1.40	1.54
1	C	4181	ILE	CA-CB	-6.44	1.40	1.54
1	G	4940	PHE	CG-CD2	-6.41	1.29	1.38
1	G	5009	TYR	CG-CD1	-6.38	1.30	1.39
1	C	4988	TYR	CE1-CZ	-6.37	1.30	1.38
1	E	5009	TYR	CE2-CZ	-6.37	1.30	1.38
1	E	4988	TYR	CE1-CZ	-6.32	1.30	1.38
1	C	4994	TYR	CG-CD1	-6.25	1.31	1.39
1	A	4794	TRP	CE3-CZ3	-6.25	1.27	1.38
1	A	3968	TYR	CG-CD1	-6.24	1.31	1.39
1	A	4851	TYR	CG-CD2	-6.24	1.31	1.39
1	E	4994	TYR	CG-CD1	-6.23	1.31	1.39
1	E	4794	TRP	CE3-CZ3	-6.22	1.27	1.38
1	C	4794	TRP	CE3-CZ3	-6.21	1.27	1.38
1	A	4988	TYR	CE1-CZ	-6.19	1.30	1.38

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	E	4988	TYR	CE2-CZ	-6.18	1.30	1.38
1	C	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	3968	TYR	CG-CD1	-6.18	1.31	1.39
1	E	4991	PHE	CG-CD2	-6.18	1.29	1.38
1	C	4863	TYR	CE1-CZ	-6.17	1.30	1.38
1	C	4991	PHE	CG-CD2	-6.17	1.29	1.38
1	C	4988	TYR	CE2-CZ	-6.15	1.30	1.38
1	G	4991	PHE	CG-CD2	-6.14	1.29	1.38
1	G	3986	TRP	CB-CG	-6.14	1.39	1.50
1	A	4994	TYR	CG-CD1	-6.13	1.31	1.39
1	E	4988	TYR	CG-CD1	-6.13	1.31	1.39
1	E	5011	TRP	CG-CD1	-6.11	1.28	1.36
1	A	4988	TYR	CE2-CZ	-6.07	1.30	1.38
1	A	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	C	5011	TRP	CG-CD1	-6.06	1.28	1.36
1	G	5011	TRP	CG-CD1	-6.04	1.28	1.36
1	C	4988	TYR	CG-CD1	-6.04	1.31	1.39
1	A	5014	TYR	CG-CD2	-5.98	1.31	1.39
1	G	5009	TYR	CE2-CZ	-5.93	1.30	1.38
1	A	3986	TRP	CB-CG	-5.93	1.39	1.50
1	C	3986	TRP	CB-CG	-5.93	1.39	1.50
1	G	4859	PHE	CG-CD2	-5.92	1.29	1.38
1	G	3951	PHE	CG-CD1	-5.91	1.29	1.38
1	G	4856	PHE	CB-CG	-5.91	1.41	1.51
1	E	3986	TRP	CB-CG	-5.89	1.39	1.50
1	G	4940	PHE	CB-CG	-5.88	1.41	1.51
1	A	4988	TYR	CG-CD1	-5.88	1.31	1.39
1	A	4863	TYR	CE1-CZ	-5.86	1.30	1.38
1	G	4863	TYR	CE1-CZ	-5.85	1.30	1.38
1	C	4856	PHE	CB-CG	-5.84	1.41	1.51
1	A	4856	PHE	CB-CG	-5.84	1.41	1.51
1	E	4856	PHE	CB-CG	-5.82	1.41	1.51
1	E	4863	TYR	CE1-CZ	-5.80	1.31	1.38
1	G	4836	GLN	CG-CD	5.80	1.64	1.51
1	E	4701	TRP	CB-CG	-5.79	1.39	1.50
1	A	4701	TRP	CB-CG	-5.77	1.39	1.50
1	E	5014	TYR	CG-CD2	-5.71	1.31	1.39
1	A	4180	ARG	C-O	-5.69	1.12	1.23
1	E	4180	ARG	C-O	-5.69	1.12	1.23
1	G	4920	PHE	CG-CD1	-5.69	1.30	1.38
1	C	4701	TRP	CB-CG	-5.68	1.40	1.50
1	C	5014	TYR	CG-CD2	-5.65	1.31	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	C	4180	ARG	C-O	-5.64	1.12	1.23
1	E	4671	PHE	CG-CD2	-5.63	1.30	1.38
1	G	4990	PHE	CB-CG	-5.63	1.41	1.51
1	E	4851	TYR	CG-CD1	-5.62	1.31	1.39
1	C	4851	TYR	CG-CD1	-5.59	1.31	1.39
1	A	4671	PHE	CG-CD2	-5.58	1.30	1.38
1	G	3968	TYR	CE1-CZ	-5.56	1.31	1.38
1	A	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	E	4192	ARG	CZ-NH2	-5.55	1.25	1.33
1	C	4192	ARG	CZ-NH2	-5.51	1.25	1.33
1	E	4859	PHE	CG-CD2	-5.49	1.30	1.38
1	E	3828	PHE	CG-CD2	-5.48	1.30	1.38
1	C	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	A	4851	TYR	CG-CD1	-5.46	1.32	1.39
1	A	4921	PHE	CG-CD1	-5.46	1.30	1.38
1	C	4859	PHE	CG-CD2	-5.46	1.30	1.38
1	A	4177	TYR	CB-CG	-5.45	1.43	1.51
1	A	3828	PHE	CG-CD2	-5.45	1.30	1.38
1	G	4701	TRP	CB-CG	-5.44	1.40	1.50
1	E	4921	PHE	CG-CD1	-5.44	1.30	1.38
1	C	4671	PHE	CG-CD2	-5.44	1.30	1.38
1	E	4177	TYR	CB-CG	-5.43	1.43	1.51
1	A	4859	PHE	CG-CD2	-5.43	1.30	1.38
1	C	3828	PHE	CG-CD2	-5.43	1.30	1.38
1	G	5014	TYR	CG-CD2	-5.43	1.32	1.39
1	A	3919	THR	CB-CG2	-5.40	1.34	1.52
1	E	4836	GLN	CG-CD	5.40	1.63	1.51
1	C	4177	TYR	CB-CG	-5.38	1.43	1.51
1	A	5028	PHE	CG-CD2	-5.34	1.30	1.38
1	E	3919	THR	CB-CG2	-5.33	1.34	1.52
1	G	4173	TYR	CG-CD1	-5.33	1.32	1.39
1	E	4990	PHE	CG-CD2	-5.32	1.30	1.38
1	A	4178	LEU	C-O	-5.32	1.13	1.23
1	G	3922	TYR	CE2-CZ	-5.31	1.31	1.38
1	C	4178	LEU	C-O	-5.28	1.13	1.23
1	C	5028	PHE	CG-CD2	-5.28	1.30	1.38
1	E	4991	PHE	CD1-CE1	-5.28	1.28	1.39
1	C	3919	THR	CB-CG2	-5.27	1.34	1.52
1	G	4794	TRP	CE3-CZ3	-5.27	1.29	1.38
1	G	4921	PHE	CG-CD1	-5.26	1.30	1.38
1	A	4991	PHE	CD1-CE1	-5.23	1.28	1.39
1	G	3964	SER	CA-CB	-5.22	1.45	1.52

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	A	5011	TRP	CD2-CE2	-5.20	1.35	1.41
1	C	4990	PHE	CG-CD2	-5.20	1.30	1.38
1	C	5011	TRP	CD2-CE2	-5.19	1.35	1.41
1	G	1662	PHE	CG-CD2	-5.19	1.30	1.38
1	A	4990	PHE	CG-CD2	-5.18	1.30	1.38
1	E	5028	PHE	CG-CD2	-5.18	1.30	1.38
1	C	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	4178	LEU	C-O	-5.17	1.13	1.23
1	G	4141	PHE	CG-CD2	-5.17	1.30	1.38
1	C	4836	GLN	CG-CD	5.17	1.62	1.51
1	A	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	E	1662	PHE	CG-CD2	-5.17	1.30	1.38
1	C	3922	TYR	CE2-CZ	-5.16	1.31	1.38
1	C	4991	PHE	CD1-CE1	-5.16	1.28	1.39
1	G	4848	VAL	CB-CG2	-5.16	1.42	1.52
1	E	4920	PHE	CA-CB	-5.15	1.42	1.53
1	E	3922	TYR	CE2-CZ	-5.15	1.31	1.38
1	A	4920	PHE	CA-CB	-5.15	1.42	1.53
1	G	4180	ARG	C-O	-5.15	1.13	1.23
1	E	5011	TRP	CD2-CE2	-5.14	1.35	1.41
1	G	4178	LEU	C-O	-5.14	1.13	1.23
1	G	5028	PHE	CG-CD2	-5.14	1.31	1.38
1	G	4192	ARG	CZ-NH2	-5.13	1.26	1.33
1	C	3934	TYR	CB-CG	-5.12	1.44	1.51
1	C	4983	HIS	CB-CG	-5.12	1.40	1.50
1	A	3968	TYR	CE1-CZ	-5.11	1.31	1.38
1	G	3934	TYR	CB-CG	-5.11	1.44	1.51
1	G	4967	TYR	CE1-CZ	-5.08	1.31	1.38
1	G	3957	VAL	CB-CG1	-5.08	1.42	1.52
1	A	3934	TYR	CB-CG	-5.07	1.44	1.51
1	C	4920	PHE	CA-CB	-5.07	1.42	1.53
1	C	4967	TYR	CE1-CZ	-5.07	1.31	1.38
1	E	4141	PHE	CG-CD2	-5.07	1.31	1.38
1	A	4988	TYR	CA-CB	-5.05	1.42	1.53
1	A	5009	TYR	CE1-CZ	-5.04	1.31	1.38
1	A	4141	PHE	CG-CD2	-5.04	1.31	1.38
1	C	5009	TYR	CE1-CZ	-5.03	1.32	1.38
1	E	4967	TYR	CE1-CZ	-5.03	1.32	1.38
1	C	4141	PHE	CG-CD2	-5.03	1.31	1.38
1	E	3934	TYR	CB-CG	-5.01	1.44	1.51
1	A	4983	HIS	CB-CG	-5.01	1.41	1.50
1	C	4173	TYR	CG-CD1	-5.01	1.32	1.39

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Mol	Chain	Res	Type	Atoms	Z	Observed(Å)	Ideal(Å)
1	G	5011	TRP	CD2-CE2	-5.01	1.35	1.41
1	A	3922	TYR	CE2-CZ	-5.00	1.32	1.38
1	G	4988	TYR	CA-CB	-5.00	1.43	1.53

All (363) bond angle outliers are listed below:

Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	4128	PHE	CB-CG-CD2	-10.00	113.80	120.80
1	E	4128	PHE	CB-CG-CD2	-9.73	113.99	120.80
1	C	4128	PHE	CB-CG-CD2	-9.69	114.02	120.80
1	A	4128	PHE	CB-CG-CD2	-9.62	114.07	120.80
1	E	4064	MET	CG-SD-CE	8.87	114.39	100.20
1	A	4064	MET	CG-SD-CE	8.86	114.38	100.20
1	C	4064	MET	CG-SD-CE	8.84	114.34	100.20
1	C	4931	ILE	CG1-CB-CG2	-8.53	92.64	111.40
1	E	4931	ILE	CG1-CB-CG2	-8.51	92.68	111.40
1	G	4967	TYR	CB-CG-CD1	-7.83	116.30	121.00
1	G	4913	ARG	NE-CZ-NH2	-7.68	116.46	120.30
1	C	4849	TYR	CB-CG-CD1	-7.61	116.43	121.00
1	E	4849	TYR	CB-CG-CD1	-7.59	116.45	121.00
1	A	4849	TYR	CB-CG-CD1	-7.52	116.49	121.00
1	E	4967	TYR	CB-CG-CD1	-7.48	116.51	121.00
1	A	4967	TYR	CB-CG-CD1	-7.47	116.52	121.00
1	A	4850	LEU	CB-CG-CD1	7.43	123.64	111.00
1	A	4913	ARG	NE-CZ-NH2	-7.42	116.59	120.30
1	C	4967	TYR	CB-CG-CD1	-7.42	116.55	121.00
1	A	66	CYS	CA-CB-SG	7.40	127.33	114.00
1	C	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	G	4850	LEU	CB-CG-CD1	7.37	123.53	111.00
1	C	4929	LEU	CB-CG-CD2	7.34	123.49	111.00
1	E	4032	GLU	OE1-CD-OE2	-7.28	114.56	123.30
1	G	4931	ILE	CG1-CB-CG2	-7.28	95.39	111.40
1	A	4032	GLU	OE1-CD-OE2	-7.25	114.59	123.30
1	C	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	G	2616	PRO	N-CA-CB	7.25	112.00	103.30
1	A	4931	ILE	CG1-CB-CG2	-7.22	95.52	111.40
1	C	4032	GLU	OE1-CD-OE2	-7.20	114.66	123.30
1	E	2616	PRO	N-CA-CB	7.19	111.93	103.30
1	A	2616	PRO	N-CA-CB	7.08	111.80	103.30
1	C	4913	ARG	NE-CZ-NH2	-7.07	116.76	120.30
1	E	4850	LEU	CB-CG-CD1	7.06	123.00	111.00
1	G	4916	PHE	CB-CG-CD1	-7.04	115.87	120.80

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	C	4988	TYR	CB-CG-CD2	-7.03	116.78	121.00
1	A	4916	PHE	CB-CG-CD1	-7.01	115.89	120.80
1	E	4988	TYR	CB-CG-CD2	-7.00	116.80	121.00
1	A	4988	TYR	CB-CG-CD2	-6.99	116.81	121.00
1	E	4916	PHE	CB-CG-CD1	-6.99	115.91	120.80
1	G	66	CYS	CA-CB-SG	6.97	126.55	114.00
1	E	4929	LEU	CB-CG-CD2	6.97	122.84	111.00
1	C	1827	ARG	NE-CZ-NH1	6.93	123.77	120.30
1	E	4913	ARG	NE-CZ-NH2	-6.91	116.85	120.30
1	G	4924	VAL	CG1-CB-CG2	-6.91	99.85	110.90
1	G	1827	ARG	NE-CZ-NH1	6.88	123.74	120.30
1	A	3360	PRO	N-CA-CB	6.87	111.54	103.30
1	G	73	LEU	CB-CG-CD2	6.87	122.67	111.00
1	C	3360	PRO	N-CA-CB	6.86	111.53	103.30
1	E	3138	PRO	N-CA-CB	6.86	111.53	103.30
1	E	1827	ARG	NE-CZ-NH1	6.85	123.72	120.30
1	G	4938	ASP	CB-CG-OD2	6.84	124.46	118.30
1	C	3138	PRO	N-CA-CB	6.83	111.50	103.30
1	E	3360	PRO	N-CA-CB	6.82	111.49	103.30
1	A	3138	PRO	N-CA-CB	6.80	111.46	103.30
1	E	3567	PRO	N-CA-CB	6.77	111.43	103.30
1	A	3567	PRO	N-CA-CB	6.76	111.41	103.30
1	C	3567	PRO	N-CA-CB	6.75	111.40	103.30
1	C	4916	PHE	CB-CG-CD1	-6.74	116.08	120.80
1	G	4849	TYR	CB-CG-CD1	-6.74	116.96	121.00
1	C	73	LEU	CB-CG-CD2	6.71	122.40	111.00
1	G	3360	PRO	N-CA-CB	6.68	111.32	103.30
1	C	66	CYS	CA-CB-SG	6.68	126.02	114.00
1	G	3926	LEU	CB-CG-CD2	-6.66	99.69	111.00
1	G	3351	PRO	N-CA-CB	6.65	111.28	103.30
1	E	2451	LEU	CB-CG-CD1	6.64	122.29	111.00
1	A	2451	LEU	CB-CG-CD1	6.63	122.27	111.00
1	G	2451	LEU	CB-CG-CD1	6.62	122.26	111.00
1	C	4924	VAL	CG1-CB-CG2	-6.62	100.31	110.90
1	C	2451	LEU	CB-CG-CD1	6.61	122.24	111.00
1	E	4924	VAL	CG1-CB-CG2	-6.61	100.33	110.90
1	A	1827	ARG	NE-CZ-NH1	6.60	123.60	120.30
1	A	3351	PRO	N-CA-CB	6.59	111.21	103.30
1	A	4924	VAL	CG1-CB-CG2	-6.58	100.37	110.90
1	E	3351	PRO	N-CA-CB	6.58	111.19	103.30
1	C	3351	PRO	N-CA-CB	6.57	111.18	103.30
1	E	66	CYS	CA-CB-SG	6.56	125.81	114.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	73	LEU	CB-CG-CD2	6.56	122.15	111.00
1	G	3303	PRO	N-CA-CB	6.55	111.16	103.30
1	G	4064	MET	CG-SD-CE	6.53	110.66	100.20
1	G	3289	PRO	N-CA-CB	6.53	111.14	103.30
1	G	4992	LEU	CB-CG-CD1	-6.53	99.90	111.00
1	E	3527	PRO	N-CA-CB	6.53	111.13	103.30
1	G	3297	PRO	N-CA-CB	6.52	111.12	103.30
1	A	3527	PRO	N-CA-CB	6.52	111.12	103.30
1	C	3527	PRO	N-CA-CB	6.51	111.11	103.30
1	C	4889	VAL	CG1-CB-CG2	-6.51	100.49	110.90
1	G	3567	PRO	N-CA-CB	6.49	111.09	103.30
1	A	3297	PRO	N-CA-CB	6.49	111.08	103.30
1	E	3275	PRO	N-CA-CB	6.49	111.08	103.30
1	A	3275	PRO	N-CA-CB	6.48	111.07	103.30
1	E	3297	PRO	N-CA-CB	6.47	111.06	103.30
1	E	3303	PRO	N-CA-CB	6.46	111.05	103.30
1	C	2701	PRO	N-CA-CB	6.45	111.04	103.30
1	E	2701	PRO	N-CA-CB	6.44	111.03	103.30
1	C	3297	PRO	N-CA-CB	6.43	111.02	103.30
1	C	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	C	3275	PRO	N-CA-CB	6.43	111.02	103.30
1	E	2640	PRO	N-CA-CB	6.43	111.02	103.30
1	G	3301	PRO	N-CA-CB	6.43	111.01	103.30
1	A	3303	PRO	N-CA-CB	6.42	111.01	103.30
1	G	2631	PRO	N-CA-CB	6.42	111.01	103.30
1	A	2640	PRO	N-CA-CB	6.42	111.00	103.30
1	G	4928	LEU	CB-CG-CD1	-6.42	100.09	111.00
1	A	2701	PRO	N-CA-CB	6.41	111.00	103.30
1	C	3303	PRO	N-CA-CB	6.41	110.99	103.30
1	G	4856	PHE	CB-CG-CD2	-6.41	116.31	120.80
1	A	2631	PRO	N-CA-CB	6.40	110.98	103.30
1	A	4889	VAL	CG1-CB-CG2	-6.39	100.67	110.90
1	E	2631	PRO	N-CA-CB	6.39	110.97	103.30
1	C	3021	PRO	N-CA-CB	6.38	110.96	103.30
1	A	3021	PRO	N-CA-CB	6.38	110.95	103.30
1	G	3138	PRO	N-CA-CB	6.38	110.95	103.30
1	C	2631	PRO	N-CA-CB	6.38	110.95	103.30
1	G	2640	PRO	N-CA-CB	6.37	110.95	103.30
1	G	4796	MET	CG-SD-CE	6.37	110.39	100.20
1	C	2658	PRO	N-CA-CB	6.36	110.94	103.30
1	E	4889	VAL	CG1-CB-CG2	-6.36	100.72	110.90
1	G	2658	PRO	N-CA-CB	6.36	110.94	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	3289	PRO	N-CA-CB	6.36	110.93	103.30
1	E	3021	PRO	N-CA-CB	6.36	110.93	103.30
1	C	4988	TYR	CB-CG-CD1	6.35	124.81	121.00
1	G	4188	ARG	NE-CZ-NH1	6.35	123.48	120.30
1	E	2658	PRO	N-CA-CB	6.35	110.92	103.30
1	A	4992	LEU	CB-CG-CD1	-6.35	100.21	111.00
1	C	3289	PRO	N-CA-CB	6.35	110.92	103.30
1	A	2658	PRO	N-CA-CB	6.34	110.91	103.30
1	A	3289	PRO	N-CA-CB	6.34	110.91	103.30
1	G	3527	PRO	N-CA-CB	6.31	110.88	103.30
1	A	1211	LEU	CA-CB-CG	6.30	129.80	115.30
1	G	1211	LEU	CA-CB-CG	6.30	129.79	115.30
1	E	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	1211	LEU	CA-CB-CG	6.29	129.77	115.30
1	C	4992	LEU	CB-CG-CD1	-6.29	100.31	111.00
1	G	3282	PRO	N-CA-CB	6.29	110.84	103.30
1	G	2701	PRO	N-CA-CB	6.28	110.84	103.30
1	E	3816	MET	CG-SD-CE	6.28	110.24	100.20
1	A	4929	LEU	CB-CG-CD2	6.27	121.66	111.00
1	A	3816	MET	CG-SD-CE	6.26	110.21	100.20
1	G	3021	PRO	N-CA-CB	6.26	110.81	103.30
1	C	3816	MET	CG-SD-CE	6.25	110.20	100.20
1	E	4988	TYR	CB-CG-CD1	6.25	124.75	121.00
1	G	3188	PRO	N-CA-CB	6.22	110.76	103.30
1	G	4889	VAL	CG1-CB-CG2	-6.19	100.99	110.90
1	C	3519	PRO	N-CA-CB	6.19	110.73	103.30
1	C	3282	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3519	PRO	N-CA-CB	6.18	110.72	103.30
1	E	3188	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3282	PRO	N-CA-CB	6.16	110.69	103.30
1	A	3519	PRO	N-CA-CB	6.15	110.68	103.30
1	A	4988	TYR	CB-CG-CD1	6.15	124.69	121.00
1	C	3188	PRO	N-CA-CB	6.14	110.67	103.30
1	E	3282	PRO	N-CA-CB	6.13	110.66	103.30
1	A	3188	PRO	N-CA-CB	6.13	110.66	103.30
1	C	3820	LEU	CB-CG-CD2	-6.13	100.58	111.00
1	C	3301	PRO	N-CA-CB	6.12	110.64	103.30
1	E	3820	LEU	CB-CG-CD2	-6.11	100.61	111.00
1	A	2429	LEU	CB-CG-CD1	6.11	121.39	111.00
1	A	3820	LEU	CB-CG-CD2	-6.10	100.63	111.00
1	G	2429	LEU	CB-CG-CD1	6.09	121.36	111.00
1	E	3301	PRO	N-CA-CB	6.09	110.61	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	4917	ASP	CB-CG-OD1	-6.07	112.83	118.30
1	C	3427	PRO	N-CA-CB	6.07	110.58	103.30
1	A	3301	PRO	N-CA-CB	6.06	110.57	103.30
1	E	3427	PRO	N-CA-CB	6.05	110.56	103.30
1	E	4887	MET	CA-CB-CG	6.05	123.58	113.30
1	E	2429	LEU	CB-CG-CD1	6.04	121.27	111.00
1	G	4128	PHE	CB-CG-CD1	6.04	125.03	120.80
1	C	2429	LEU	CB-CG-CD1	6.03	121.25	111.00
1	A	4917	ASP	CB-CG-OD1	-6.03	112.88	118.30
1	A	3427	PRO	N-CA-CB	6.02	110.53	103.30
1	G	1943	LEU	CB-CG-CD2	-6.01	100.78	111.00
1	E	4929	LEU	CB-CG-CD1	-6.01	100.78	111.00
1	E	2711	PRO	N-CA-CB	6.01	110.51	103.30
1	G	3275	PRO	N-CA-CB	6.01	110.51	103.30
1	C	2711	PRO	N-CA-CB	6.00	110.50	103.30
1	G	4170	ILE	CG1-CB-CG2	-6.00	98.19	111.40
1	C	3302	PRO	N-CA-CB	6.00	110.49	103.30
1	A	2711	PRO	N-CA-CB	5.99	110.49	103.30
1	A	3302	PRO	N-CA-CB	5.98	110.48	103.30
1	E	3302	PRO	N-CA-CB	5.97	110.47	103.30
1	E	4992	LEU	CB-CG-CD1	-5.97	100.85	111.00
1	G	4929	LEU	CB-CG-CD2	5.97	121.14	111.00
1	G	5017	ARG	NE-CZ-NH2	-5.96	117.32	120.30
1	G	2711	PRO	N-CA-CB	5.95	110.44	103.30
1	G	3410	PRO	N-CA-CB	5.93	110.41	103.30
1	E	1290	ARG	NE-CZ-NH1	5.92	123.26	120.30
1	G	4032	GLU	OE1-CD-OE2	-5.91	116.21	123.30
1	G	1290	ARG	NE-CZ-NH1	5.91	123.25	120.30
1	C	4887	MET	CA-CB-CG	5.90	123.33	113.30
1	A	1943	LEU	CB-CG-CD2	-5.89	100.99	111.00
1	E	4184	MET	CG-SD-CE	5.89	109.62	100.20
1	E	1290	ARG	NE-CZ-NH2	-5.88	117.36	120.30
1	A	4823	LEU	CB-CG-CD2	-5.87	101.02	111.00
1	C	3410	PRO	N-CA-CB	5.87	110.34	103.30
1	C	4184	MET	CG-SD-CE	5.87	109.59	100.20
1	A	73	LEU	CB-CG-CD2	5.86	120.97	111.00
1	A	4887	MET	CA-CB-CG	5.86	123.25	113.30
1	E	4028	LEU	CB-CG-CD2	5.84	120.93	111.00
1	E	4823	LEU	CB-CG-CD2	-5.84	101.07	111.00
1	C	4188	ARG	NE-CZ-NH1	5.83	123.21	120.30
1	G	4231	MET	CG-SD-CE	-5.82	90.89	100.20
1	E	3410	PRO	N-CA-CB	5.80	110.26	103.30

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	G	4184	MET	CG-SD-CE	5.79	109.47	100.20
1	E	551	LEU	CB-CG-CD1	5.79	120.84	111.00
1	A	3410	PRO	N-CA-CB	5.79	110.24	103.30
1	G	1290	ARG	NE-CZ-NH2	-5.78	117.41	120.30
1	E	1943	LEU	CB-CG-CD2	-5.77	101.19	111.00
1	A	4929	LEU	CB-CG-CD1	-5.76	101.20	111.00
1	C	4917	ASP	CB-CG-OD1	-5.76	113.12	118.30
1	C	1290	ARG	NE-CZ-NH1	5.75	123.18	120.30
1	C	1290	ARG	NE-CZ-NH2	-5.75	117.43	120.30
1	A	4028	LEU	CB-CG-CD2	5.74	120.76	111.00
1	C	4929	LEU	CB-CG-CD1	-5.74	101.24	111.00
1	C	551	LEU	CB-CG-CD1	5.74	120.75	111.00
1	C	4128	PHE	CB-CG-CD1	5.74	124.81	120.80
1	E	5021	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	G	3519	PRO	N-CA-CB	5.73	110.18	103.30
1	G	3208	PRO	N-CA-CB	5.73	110.18	103.30
1	A	3885	PHE	CB-CG-CD2	-5.73	116.79	120.80
1	E	3885	PHE	CB-CG-CD2	-5.70	116.81	120.80
1	A	1290	ARG	NE-CZ-NH1	5.69	123.14	120.30
1	C	3085	PRO	N-CA-CB	5.69	110.13	103.30
1	C	3208	PRO	N-CA-CB	5.69	110.12	103.30
1	C	4823	LEU	CB-CG-CD2	-5.69	101.33	111.00
1	A	551	LEU	CB-CG-CD1	5.69	120.67	111.00
1	A	1290	ARG	NE-CZ-NH2	-5.68	117.46	120.30
1	A	3085	PRO	N-CA-CB	5.68	110.12	103.30
1	G	3062	PRO	N-CA-CB	5.68	110.11	103.30
1	A	3208	PRO	N-CA-CB	5.68	110.11	103.30
1	E	4170	ILE	CG1-CB-CG2	-5.68	98.91	111.40
1	E	3208	PRO	N-CA-CB	5.67	110.11	103.30
1	E	4868	ASP	N-CA-C	5.67	126.32	111.00
1	A	1493	TYR	N-CA-CB	5.67	120.81	110.60
1	C	4028	LEU	CB-CG-CD2	5.67	120.64	111.00
1	E	1493	TYR	N-CA-CB	5.66	120.79	110.60
1	E	3085	PRO	N-CA-CB	5.66	110.09	103.30
1	A	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	C	1943	LEU	CB-CG-CD2	-5.66	101.39	111.00
1	C	4170	ILE	CG1-CB-CG2	-5.66	98.96	111.40
1	A	4868	ASP	N-CA-C	5.65	126.25	111.00
1	G	4868	ASP	N-CA-C	5.64	126.23	111.00
1	G	3302	PRO	N-CA-CB	5.63	110.06	103.30
1	G	4847	VAL	CG1-CB-CG2	-5.63	101.89	110.90
1	C	4868	ASP	N-CA-C	5.62	126.17	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	4128	PHE	CB-CG-CD1	5.62	124.73	120.80
1	A	4128	PHE	CB-CG-CD1	5.61	124.73	120.80
1	C	3885	PHE	CB-CG-CD2	-5.61	116.87	120.80
1	E	4856	PHE	CB-CG-CD2	-5.59	116.89	120.80
1	G	3085	PRO	N-CA-CB	5.59	110.01	103.30
1	A	4184	MET	CG-SD-CE	5.59	109.14	100.20
1	G	2712	PRO	N-CA-CB	5.58	110.00	103.30
1	C	4847	VAL	CG1-CB-CG2	-5.57	101.99	110.90
1	E	4188	ARG	NE-CZ-NH1	5.57	123.08	120.30
1	A	4856	PHE	CB-CG-CD2	-5.56	116.91	120.80
1	A	4847	VAL	CG1-CB-CG2	-5.56	102.01	110.90
1	E	631	LEU	CB-CG-CD2	-5.55	101.56	111.00
1	A	4188	ARG	NE-CZ-NH1	5.55	123.08	120.30
1	C	4856	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4929	LEU	CB-CG-CD1	-5.54	101.58	111.00
1	G	551	LEU	CB-CG-CD1	5.54	120.42	111.00
1	C	5021	PHE	CB-CG-CD2	-5.54	116.92	120.80
1	G	4914	VAL	CG1-CB-CG2	5.53	119.75	110.90
1	G	3427	PRO	N-CA-CB	5.53	109.93	103.30
1	C	4928	LEU	CB-CG-CD1	-5.52	101.62	111.00
1	A	631	LEU	CB-CG-CD2	-5.50	101.64	111.00
1	A	5021	PHE	CB-CG-CD2	-5.50	116.95	120.80
1	C	3842	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	E	3062	PRO	N-CA-CB	5.50	109.89	103.30
1	G	631	LEU	CB-CG-CD2	-5.50	101.66	111.00
1	A	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	C	2925	GLU	N-CA-C	-5.49	96.18	111.00
1	E	2712	PRO	N-CA-CB	5.49	109.89	103.30
1	A	3062	PRO	N-CA-CB	5.49	109.88	103.30
1	C	631	LEU	CB-CG-CD2	-5.48	101.68	111.00
1	C	1493	TYR	N-CA-CB	5.48	120.46	110.60
1	C	3294	PRO	N-CA-CB	5.47	109.87	103.30
1	A	3842	LEU	CB-CG-CD2	-5.47	101.70	111.00
1	E	3294	PRO	N-CA-CB	5.47	109.86	103.30
1	G	1493	TYR	N-CA-CB	5.47	120.44	110.60
1	E	3842	LEU	CB-CG-CD2	-5.46	101.71	111.00
1	A	3294	PRO	N-CA-CB	5.46	109.86	103.30
1	C	2712	PRO	N-CA-CB	5.46	109.86	103.30
1	G	4963	ILE	CG1-CB-CG2	-5.46	99.39	111.40
1	G	3294	PRO	N-CA-CB	5.46	109.85	103.30
1	E	4847	VAL	CG1-CB-CG2	-5.45	102.17	110.90
1	G	3820	LEU	CB-CG-CD2	-5.44	101.75	111.00

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	E	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	G	5026	ASP	CB-CG-OD2	5.43	123.19	118.30
1	C	3062	PRO	N-CA-CB	5.41	109.79	103.30
1	G	4967	TYR	CB-CG-CD2	5.40	124.24	121.00
1	E	4928	LEU	CB-CG-CD1	-5.39	101.83	111.00
1	G	4837	LEU	CB-CG-CD1	-5.38	101.86	111.00
1	G	4887	MET	CA-CB-CG	5.35	122.40	113.30
1	G	3769	ARG	NE-CZ-NH2	-5.35	117.62	120.30
1	C	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	A	3953	LYS	CD-CE-NZ	5.32	123.94	111.70
1	E	3953	LYS	CD-CE-NZ	5.31	123.91	111.70
1	A	3924	LEU	CB-CG-CD2	-5.31	101.98	111.00
1	E	4963	ILE	CG1-CB-CG2	-5.30	99.74	111.40
1	C	3880	PHE	CB-CG-CD1	-5.29	117.10	120.80
1	A	4880	MET	CG-SD-CE	5.29	108.66	100.20
1	G	4917	ASP	CB-CG-OD1	-5.28	113.54	118.30
1	A	3880	PHE	CB-CG-CD1	-5.28	117.10	120.80
1	C	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	E	2473	PRO	N-CA-CB	5.28	109.64	103.30
1	A	2473	PRO	N-CA-CB	5.28	109.63	103.30
1	G	4146	LEU	CB-CG-CD1	-5.27	102.03	111.00
1	G	2473	PRO	N-CA-CB	5.27	109.63	103.30
1	E	3992	PHE	CB-CG-CD2	-5.27	117.11	120.80
1	G	4988	TYR	CB-CG-CD1	5.25	124.15	121.00
1	A	3992	PHE	CB-CG-CD2	-5.25	117.12	120.80
1	E	3924	LEU	CB-CG-CD2	-5.24	102.09	111.00
1	C	3924	LEU	CB-CG-CD2	-5.23	102.11	111.00
1	G	1284	VAL	N-CA-C	5.22	125.10	111.00
1	E	3880	PHE	CB-CG-CD1	-5.22	117.14	120.80
1	A	1284	VAL	N-CA-C	5.22	125.10	111.00
1	C	3992	PHE	CB-CG-CD2	-5.21	117.15	120.80
1	C	1284	VAL	N-CA-C	5.21	125.07	111.00
1	A	5026	ASP	CB-CG-OD2	5.21	122.98	118.30
1	E	1284	VAL	N-CA-C	5.21	125.05	111.00
1	E	4178	LEU	CB-CG-CD1	-5.20	102.16	111.00
1	A	915	GLU	C-N-CA	5.19	143.81	122.00
1	G	915	GLU	C-N-CA	5.18	143.77	122.00
1	C	915	GLU	C-N-CA	5.16	143.69	122.00
1	C	5026	ASP	CB-CG-OD2	5.16	122.95	118.30
1	E	915	GLU	C-N-CA	5.16	143.65	122.00
1	A	4963	ILE	CG1-CB-CG2	-5.15	100.07	111.40
1	E	1481	GLY	N-CA-C	5.14	125.96	113.10

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Mol	Chain	Res	Type	Atoms	Z	Observed(^{o})	Ideal(^{o})
1	A	4178	LEU	CB-CG-CD1	-5.14	102.26	111.00
1	C	4963	ILE	CG1-CB-CG2	-5.14	100.08	111.40
1	C	1481	GLY	N-CA-C	5.14	125.94	113.10
1	E	4967	TYR	CB-CG-CD2	5.14	124.08	121.00
1	G	1481	GLY	N-CA-C	5.13	125.93	113.10
1	A	2178	MET	CG-SD-CE	-5.13	91.99	100.20
1	E	4980	LEU	CB-CG-CD2	-5.12	102.30	111.00
1	A	2567	PRO	N-CA-CB	5.12	109.44	103.30
1	A	1481	GLY	N-CA-C	5.11	125.88	113.10
1	C	4178	LEU	CB-CG-CD1	-5.11	102.31	111.00
1	C	4967	TYR	CB-CG-CD2	5.11	124.07	121.00
1	G	2567	PRO	N-CA-CB	5.11	109.43	103.30
1	C	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	E	2178	MET	CG-SD-CE	-5.10	92.05	100.20
1	C	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	2567	PRO	N-CA-CB	5.08	109.39	103.30
1	E	5010	VAL	CG1-CB-CG2	-5.07	102.79	110.90
1	A	1548	LEU	CA-CB-CG	5.06	126.93	115.30
1	C	5010	VAL	CG1-CB-CG2	-5.05	102.82	110.90
1	E	551	LEU	CB-CG-CD2	-5.05	102.42	111.00
1	C	4928	LEU	CB-CG-CD2	5.04	119.58	111.00
1	C	551	LEU	CB-CG-CD2	-5.04	102.43	111.00
1	E	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	1548	LEU	CA-CB-CG	5.04	126.89	115.30
1	G	2178	MET	CG-SD-CE	-5.04	92.14	100.20
1	G	2168	VAL	CG1-CB-CG2	5.03	118.95	110.90
1	A	4967	TYR	CB-CG-CD2	5.03	124.02	121.00
1	C	1548	LEU	CA-CB-CG	5.03	126.87	115.30
1	G	4048	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	A	551	LEU	CB-CG-CD2	-5.03	102.45	111.00
1	G	3965	LEU	CB-CG-CD1	-5.03	102.45	111.00
1	G	4563	ARG	NE-CZ-NH2	-5.01	117.80	120.30
1	G	551	LEU	CB-CG-CD2	-5.00	102.50	111.00
1	A	5010	VAL	CG1-CB-CG2	-5.00	102.90	110.90

There are no chirality outliers.

All (76) planarity outliers are listed below:

Mol	Chain	Res	Type	Group
1	A	1252	HIS	Peptide
1	A	1253	PRO	Peptide
1	A	1464	PHE	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	A	1480	GLN	Peptide
1	A	1588	ALA	Mainchain,Peptide
1	A	1783	VAL	Mainchain,Peptide
1	A	1828	ASP	Mainchain,Peptide
1	A	1867	GLU	Peptide
1	A	332	GLU	Mainchain,Peptide
1	A	4157	ASP	Peptide
1	A	4849	TYR	Sidechain
1	A	4867	GLU	Mainchain,Peptide
1	A	841	GLY	Peptide
1	C	1252	HIS	Peptide
1	C	1253	PRO	Peptide
1	C	1464	PHE	Mainchain,Peptide
1	C	1480	GLN	Peptide
1	C	1588	ALA	Mainchain,Peptide
1	C	1783	VAL	Mainchain,Peptide
1	C	1828	ASP	Mainchain,Peptide
1	C	1867	GLU	Peptide
1	C	332	GLU	Mainchain,Peptide
1	C	4157	ASP	Peptide
1	C	4849	TYR	Sidechain
1	C	4867	GLU	Mainchain,Peptide
1	C	841	GLY	Peptide
1	E	1252	HIS	Peptide
1	E	1253	PRO	Peptide
1	E	1464	PHE	Mainchain,Peptide
1	E	1480	GLN	Peptide
1	E	1588	ALA	Mainchain,Peptide
1	E	1783	VAL	Mainchain,Peptide
1	E	1828	ASP	Mainchain,Peptide
1	E	1867	GLU	Peptide
1	E	332	GLU	Mainchain,Peptide
1	E	4157	ASP	Peptide
1	E	4849	TYR	Sidechain
1	E	4867	GLU	Mainchain,Peptide
1	E	841	GLY	Peptide
1	G	1252	HIS	Peptide
1	G	1253	PRO	Peptide
1	G	1464	PHE	Mainchain,Peptide
1	G	1480	GLN	Peptide
1	G	1588	ALA	Mainchain,Peptide
1	G	1783	VAL	Mainchain,Peptide

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Mol	Chain	Res	Type	Group
1	G	1828	ASP	Mainchain,Peptide
1	G	1867	GLU	Peptide
1	G	332	GLU	Mainchain,Peptide
1	G	4690	GLU	Peptide
1	G	4849	TYR	Sidechain
1	G	4867	GLU	Mainchain,Peptide
1	G	841	GLY	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	26917	0	24461	1094	0
1	C	26917	0	24461	1105	0
1	E	26917	0	24461	1108	0
1	G	26917	0	24461	1100	0
2	B	832	0	831	38	0
2	D	832	0	831	37	0
2	F	832	0	831	36	0
2	H	832	0	831	34	0
3	A	1	0	0	0	0
3	C	1	0	0	0	0
3	E	1	0	0	0	0
3	G	1	0	0	0	0
All	All	111000	0	101168	4395	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 21.

All (4395) close contacts within the same asymmetric unit are listed below, sorted by their clash magnitude.

Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4826:ILE:CG2	1:G:4931:ILE:HD11	1.79	1.10
1:A:4879:MET:SD	1:G:4578:LEU:HA	1.92	1.10
1:A:4826:ILE:CG2	1:C:4931:ILE:HD11	1.86	1.05
1:E:4578:LEU:HA	1:G:4879:MET:SD	1.99	1.03

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4826:ILE:CG2	1:E:4931:ILE:HD11	1.91	1.00
1:C:4578:LEU:HA	1:E:4879:MET:SD	2.02	0.98
1:A:4578:LEU:HA	1:C:4879:MET:SD	2.03	0.98
1:G:3936:TYR:O	1:G:3940:LYS:NZ	1.96	0.97
1:G:1585:LYS:NZ	1:G:1596:GLU:OE1	2.00	0.94
1:C:1585:LYS:NZ	1:C:1596:GLU:OE1	2.00	0.93
1:E:1585:LYS:NZ	1:E:1596:GLU:OE1	2.00	0.93
1:C:2924:GLN:O	1:C:2928:LYS:HB2	1.68	0.93
1:E:2865:VAL:O	1:E:2928:LYS:NZ	2.01	0.93
1:A:1585:LYS:NZ	1:A:1596:GLU:OE1	2.00	0.93
1:A:265:LEU:HD12	1:A:279:PRO:HB2	1.52	0.92
1:A:1206:GLN:H	1:A:1227:ALA:HB3	1.34	0.92
1:G:693:SER:OG	1:G:827:LYS:NZ	2.03	0.92
1:E:693:SER:OG	1:E:827:LYS:NZ	2.02	0.92
1:C:693:SER:OG	1:C:827:LYS:NZ	2.03	0.91
1:G:265:LEU:HD12	1:G:279:PRO:HB2	1.52	0.91
1:E:265:LEU:HD12	1:E:279:PRO:HB2	1.52	0.91
1:A:3936:TYR:O	1:A:3940:LYS:NZ	2.03	0.91
1:G:1027:LEU:O	1:G:1032:LYS:NZ	2.04	0.91
1:C:2865:VAL:O	1:C:2928:LYS:NZ	2.03	0.90
1:C:3936:TYR:O	1:C:3940:LYS:NZ	2.04	0.90
1:E:3936:TYR:O	1:E:3940:LYS:NZ	2.04	0.90
1:C:265:LEU:HD12	1:C:279:PRO:HB2	1.52	0.90
1:A:693:SER:OG	1:A:827:LYS:NZ	2.03	0.90
1:A:1027:LEU:O	1:A:1032:LYS:NZ	2.04	0.90
1:E:4826:ILE:HG22	1:G:4931:ILE:HD11	1.54	0.90
1:A:2865:VAL:O	1:A:2928:LYS:NZ	2.03	0.89
1:C:552:ASP:O	1:C:1594:ARG:NH1	2.05	0.89
1:C:2924:GLN:O	1:C:2928:LYS:CB	2.20	0.89
1:E:552:ASP:O	1:E:1594:ARG:NH1	2.06	0.89
1:C:1027:LEU:O	1:C:1032:LYS:NZ	2.05	0.89
1:G:1206:GLN:H	1:G:1227:ALA:HB3	1.36	0.89
1:E:1027:LEU:O	1:E:1032:LYS:NZ	2.04	0.88
1:A:1708:ARG:NH1	1:A:1836:PHE:O	2.07	0.88
1:C:1206:GLN:H	1:C:1227:ALA:HB3	1.36	0.88
1:A:552:ASP:O	1:A:1594:ARG:NH1	2.06	0.88
1:E:1206:GLN:H	1:E:1227:ALA:HB3	1.36	0.88
1:C:4786:ASP:OD2	1:C:4789:PHE:N	2.07	0.88
1:E:4786:ASP:OD2	1:E:4789:PHE:N	2.07	0.88
1:A:4786:ASP:OD2	1:A:4789:PHE:N	2.07	0.88
1:G:552:ASP:O	1:G:1594:ARG:NH1	2.06	0.88

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1708:ARG:NH1	1:G:1836:PHE:O	2.07	0.87
1:C:1708:ARG:NH1	1:C:1836:PHE:O	2.07	0.87
1:A:281:ARG:NH1	1:A:309:THR:OG1	2.07	0.87
1:E:1708:ARG:NH1	1:E:1836:PHE:O	2.06	0.87
1:G:281:ARG:NH1	1:G:309:THR:OG1	2.08	0.87
1:E:281:ARG:NH1	1:E:309:THR:OG1	2.08	0.87
1:C:4892:ARG:NH1	1:E:4895:GLY:O	2.08	0.86
1:E:1243:PRO:O	1:E:1458:HIS:ND1	2.07	0.86
1:C:281:ARG:NH1	1:C:309:THR:OG1	2.08	0.86
1:A:1259:ARG:HH12	1:A:1597:VAL:HA	1.41	0.86
1:A:4895:GLY:O	1:G:4892:ARG:NH1	2.09	0.86
1:G:2924:GLN:O	1:G:2928:LYS:HB2	1.76	0.85
1:E:2463:LEU:N	1:E:2510:TYR:HH	1.75	0.85
1:E:1259:ARG:HH12	1:E:1597:VAL:HA	1.41	0.84
1:G:4786:ASP:OD2	1:G:4789:PHE:N	2.09	0.84
1:C:1259:ARG:HH12	1:C:1597:VAL:HA	1.41	0.84
1:G:1259:ARG:HH12	1:G:1597:VAL:HA	1.42	0.84
1:A:2924:GLN:O	1:A:2928:LYS:N	2.11	0.83
1:G:1291:LEU:HD23	1:G:1293:LEU:H	1.43	0.83
1:G:2463:LEU:N	1:G:2510:TYR:HH	1.76	0.83
1:E:4578:LEU:O	1:G:4879:MET:HB3	1.78	0.83
1:C:1456:ASP:O	1:C:1458:HIS:CD2	2.31	0.83
1:A:4892:ARG:NH1	1:C:4895:GLY:O	2.11	0.83
1:A:1291:LEU:HD23	1:A:1293:LEU:H	1.43	0.83
1:G:5017:ARG:HH11	1:G:5019:TRP:HH2	1.25	0.83
1:E:1291:LEU:HD23	1:E:1293:LEU:H	1.44	0.83
1:E:61:ASP:OD2	1:E:402:ARG:NH2	2.12	0.83
1:A:1727:ARG:HH12	1:A:1775:HIS:HD2	1.26	0.83
1:G:61:ASP:OD2	1:G:402:ARG:NH2	2.12	0.83
1:G:4984:ASN:O	1:G:4986:ALA:N	2.11	0.82
1:A:61:ASP:OD2	1:A:402:ARG:NH2	2.11	0.82
1:C:61:ASP:OD2	1:C:402:ARG:NH2	2.12	0.82
1:C:1291:LEU:HD23	1:C:1293:LEU:H	1.43	0.82
1:E:1727:ARG:HH12	1:E:1775:HIS:HD2	1.26	0.81
1:G:111:HIS:HD2	1:G:114:SER:H	1.28	0.81
1:C:706:GLY:HA2	1:C:711:LEU:HD22	1.62	0.81
1:A:111:HIS:HD2	1:A:114:SER:H	1.28	0.81
1:E:4892:ARG:HH12	1:G:4899:ASP:N	1.78	0.81
1:G:4708:THR:HG21	1:G:4775:TYR:HB2	1.60	0.81
1:A:1555:LEU:HD12	1:A:1556:PRO:HD2	1.63	0.81
1:A:4899:ASP:N	1:G:4892:ARG:HH12	1.78	0.81

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4892:ARG:HH12	1:E:4899:ASP:N	1.79	0.81
1:C:622:THR:HG23	1:C:626:LEU:HD12	1.63	0.80
1:G:2865:VAL:O	1:G:2928:LYS:NZ	2.12	0.80
1:G:4180:ARG:NH1	1:G:4981:GLU:OE1	2.15	0.80
1:A:622:THR:HG23	1:A:626:LEU:HD12	1.63	0.80
1:A:706:GLY:HA2	1:A:711:LEU:HD22	1.62	0.80
1:E:706:GLY:HA2	1:E:711:LEU:HD22	1.62	0.80
1:G:2924:GLN:O	1:G:2928:LYS:CB	2.29	0.80
1:C:4708:THR:HG21	1:C:4775:TYR:HB2	1.64	0.80
1:E:1555:LEU:HD12	1:E:1556:PRO:HD2	1.63	0.80
1:C:111:HIS:HD2	1:C:114:SER:H	1.27	0.79
1:A:1435:TYR:H	1:A:1516:ILE:CG1	1.93	0.79
1:C:1727:ARG:HH12	1:C:1775:HIS:HD2	1.26	0.79
1:G:1727:ARG:HH12	1:G:1775:HIS:HD2	1.26	0.79
1:G:706:GLY:HA2	1:G:711:LEU:HD22	1.62	0.79
1:A:4879:MET:HB3	1:G:4578:LEU:O	1.82	0.79
1:C:1555:LEU:HD12	1:C:1556:PRO:HD2	1.64	0.79
1:E:622:THR:HG23	1:E:626:LEU:HD12	1.63	0.79
1:A:4708:THR:HG21	1:A:4775:TYR:HB2	1.64	0.79
1:G:3927:GLN:HE21	1:G:3991:GLY:HA3	1.48	0.79
1:C:2463:LEU:N	1:C:2510:TYR:HH	1.81	0.79
1:G:622:THR:HG23	1:G:626:LEU:HD12	1.63	0.79
1:A:4892:ARG:HH12	1:C:4899:ASP:N	1.80	0.78
1:G:316:PHE:HB3	1:G:346:CYS:HB3	1.65	0.78
1:G:840:VAL:O	1:G:1073:ARG:NH1	2.17	0.78
1:G:1555:LEU:HD12	1:G:1556:PRO:HD2	1.65	0.78
1:G:1780:PRO:O	2:H:42:ARG:NH2	2.16	0.78
1:E:4892:ARG:NH1	1:G:4895:GLY:O	2.16	0.78
1:E:4578:LEU:O	1:G:4879:MET:HG2	1.83	0.78
1:A:316:PHE:HB3	1:A:346:CYS:HB3	1.65	0.78
1:E:111:HIS:HD2	1:E:114:SER:H	1.28	0.78
1:A:5017:ARG:HH11	1:A:5019:TRP:HH2	1.32	0.78
1:E:479:GLN:NE2	1:E:536:ASN:OD1	2.13	0.78
1:A:840:VAL:O	1:A:1073:ARG:NH1	2.17	0.78
1:E:4708:THR:HG21	1:E:4775:TYR:HB2	1.64	0.78
1:G:580:GLU:HA	1:G:620:LEU:HD11	1.67	0.77
1:C:840:VAL:HG12	1:C:1199:VAL:HG13	1.67	0.77
1:E:840:VAL:O	1:E:1073:ARG:NH1	2.17	0.77
1:C:612:VAL:HA	1:C:2167:ILE:HG23	1.65	0.77
1:E:316:PHE:HB3	1:E:346:CYS:HB3	1.65	0.77
1:A:4578:LEU:O	1:C:4879:MET:HG2	1.85	0.77

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:840:VAL:HG12	1:A:1199:VAL:HG13	1.67	0.77
1:A:4895:GLY:O	1:G:4892:ARG:CZ	2.33	0.77
1:A:4957:LYS:HA	1:A:4964:GLY:HA2	1.67	0.77
1:A:612:VAL:HA	1:A:2167:ILE:HG23	1.65	0.77
1:A:2625:ARG:HA	1:A:2910:THR:HG22	1.66	0.77
1:A:479:GLN:NE2	1:A:536:ASN:OD1	2.14	0.76
1:A:4931:ILE:HD11	1:G:4826:ILE:HG23	1.66	0.76
1:E:731:THR:OG1	1:E:765:GLN:NE2	2.19	0.76
1:G:607:CYS:O	1:G:618:GLN:NE2	2.19	0.76
1:G:731:THR:OG1	1:G:765:GLN:NE2	2.19	0.76
1:G:3889:GLN:HG3	1:G:3967:GLU:HG3	1.67	0.76
1:G:4957:LYS:HA	1:G:4964:GLY:HA2	1.66	0.76
1:A:2463:LEU:N	1:A:2510:TYR:HH	1.83	0.76
1:G:3966:THR:O	1:G:3970:GLN:N	2.18	0.76
1:C:316:PHE:HB3	1:C:346:CYS:HB3	1.65	0.76
1:E:2625:ARG:HA	1:E:2910:THR:HG22	1.67	0.76
1:C:840:VAL:O	1:C:1073:ARG:NH1	2.17	0.76
1:C:1716:ILE:HD11	1:C:1844:LEU:HA	1.68	0.76
1:E:612:VAL:HA	1:E:2167:ILE:HG23	1.65	0.76
1:E:580:GLU:HA	1:E:620:LEU:HD11	1.67	0.76
1:A:180:LEU:O	1:A:200:TRP:NE1	2.18	0.76
1:C:4578:LEU:O	1:E:4879:MET:HG2	1.86	0.76
1:E:1637:MET:HG2	1:E:1650:ILE:HD12	1.68	0.76
1:C:4957:LYS:HA	1:C:4964:GLY:HA2	1.67	0.76
1:G:1808:ARG:NH2	1:G:1858:ASP:OD2	2.18	0.76
1:E:1716:ILE:HD11	1:E:1844:LEU:HA	1.68	0.76
1:G:612:VAL:HA	1:G:2167:ILE:HG23	1.66	0.76
1:A:1808:ARG:NH2	1:A:1858:ASP:OD2	2.18	0.76
1:A:4826:ILE:HG22	1:C:4931:ILE:HD11	1.66	0.76
1:C:180:LEU:O	1:C:200:TRP:NE1	2.18	0.76
1:E:703:GLY:N	1:E:1647:CYS:SG	2.58	0.76
1:E:840:VAL:HG12	1:E:1199:VAL:HG13	1.67	0.76
1:C:607:CYS:O	1:C:618:GLN:NE2	2.19	0.75
1:C:640:TYR:HE1	1:C:1613:LEU:HD23	1.51	0.75
1:C:1637:MET:HG2	1:C:1650:ILE:HD12	1.68	0.75
1:C:1808:ARG:NH2	1:C:1858:ASP:OD2	2.18	0.75
1:C:5017:ARG:HH11	1:C:5019:TRP:HH2	1.32	0.75
1:G:1731:LEU:HA	1:G:1772:ARG:HE	1.52	0.75
1:A:1716:ILE:HD11	1:A:1844:LEU:HA	1.68	0.75
1:C:731:THR:OG1	1:C:765:GLN:NE2	2.19	0.75
1:A:580:GLU:HA	1:A:620:LEU:HD11	1.67	0.75

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:703:GLY:N	1:A:1647:CYS:SG	2.58	0.75
1:C:2625:ARG:HA	1:C:2910:THR:HG22	1.67	0.75
1:G:700:GLU:OE2	1:G:1458:HIS:NE2	2.19	0.75
1:G:2924:GLN:HB3	1:G:2928:LYS:HE2	1.68	0.75
1:G:1190:PRO:HG3	1:G:1226:PHE:HE2	1.51	0.75
1:G:1435:TYR:H	1:G:1516:ILE:CG1	1.99	0.75
1:G:1716:ILE:HD11	1:G:1844:LEU:HA	1.68	0.75
1:E:1808:ARG:NH2	1:E:1858:ASP:OD2	2.19	0.75
1:C:1190:PRO:HG3	1:C:1226:PHE:HE2	1.51	0.75
1:E:5017:ARG:HH11	1:E:5019:TRP:HH2	1.32	0.75
1:G:1637:MET:HG2	1:G:1650:ILE:HD12	1.68	0.75
1:G:1805:GLU:OE2	1:G:1808:ARG:NH1	2.20	0.75
1:A:731:THR:OG1	1:A:765:GLN:NE2	2.19	0.75
1:A:1731:LEU:HA	1:A:1772:ARG:HE	1.52	0.75
1:E:1190:PRO:HG3	1:E:1226:PHE:HE2	1.51	0.75
1:E:1731:LEU:HA	1:E:1772:ARG:HE	1.52	0.75
1:A:2452:ARG:NH2	1:C:177:GLU:HG3	2.02	0.75
1:C:2922:LYS:HA	1:C:2925:GLU:OE1	1.86	0.75
1:G:840:VAL:HG12	1:G:1199:VAL:HG13	1.67	0.75
1:E:640:TYR:HE1	1:E:1613:LEU:HD23	1.52	0.75
1:C:1805:GLU:OE2	1:C:1808:ARG:NH1	2.20	0.74
1:E:1805:GLU:OE2	1:E:1808:ARG:NH1	2.20	0.74
1:A:607:CYS:O	1:A:618:GLN:NE2	2.19	0.74
1:C:2771:ILE:HG23	1:C:2852:ARG:HB2	1.70	0.74
1:C:703:GLY:N	1:C:1647:CYS:SG	2.59	0.74
1:A:1805:GLU:OE2	1:A:1808:ARG:NH1	2.20	0.74
1:C:479:GLN:NE2	1:C:536:ASN:OD1	2.14	0.74
1:E:4957:LYS:HA	1:E:4964:GLY:HA2	1.68	0.74
1:A:640:TYR:HE1	1:A:1613:LEU:HD23	1.52	0.74
1:A:717:ASP:O	1:A:720:HIS:NE2	2.21	0.74
1:A:3969:ILE:HD11	1:A:3980:LEU:HD13	1.70	0.74
1:C:580:GLU:HA	1:C:620:LEU:HD11	1.67	0.74
1:E:607:CYS:O	1:E:618:GLN:NE2	2.19	0.74
1:E:3969:ILE:HD11	1:E:3980:LEU:HD13	1.69	0.74
1:G:717:ASP:O	1:G:720:HIS:NE2	2.21	0.74
1:G:1641:ILE:HD12	1:G:1642:PRO:HD2	1.69	0.74
1:G:2159:LEU:HD11	1:G:2201:LEU:HD13	1.69	0.74
1:E:1582:SER:OG	1:E:1589:PRO:O	2.05	0.74
1:G:640:TYR:HE1	1:G:1613:LEU:HD23	1.51	0.74
1:C:1582:SER:OG	1:C:1589:PRO:O	2.04	0.74
1:C:3969:ILE:HD11	1:C:3980:LEU:HD13	1.70	0.74

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:2452:ARG:NH2	1:E:177:GLU:HG3	2.03	0.74
1:C:2497:ASP:OD1	1:C:2552:ARG:NE	2.21	0.74
1:E:180:LEU:O	1:E:200:TRP:NE1	2.18	0.74
1:A:1637:MET:HG2	1:A:1650:ILE:HD12	1.68	0.74
1:G:479:GLN:NE2	1:G:536:ASN:OD1	2.13	0.74
1:E:1780:PRO:O	2:F:42:ARG:NH2	2.21	0.73
1:G:15:ARG:NH1	1:G:100:THR:OG1	2.21	0.73
1:G:180:LEU:O	1:G:200:TRP:NE1	2.18	0.73
1:A:2771:ILE:HG23	1:A:2852:ARG:HB2	1.70	0.73
1:A:3839:CYS:SG	1:A:3840:SER:N	2.61	0.73
1:E:2159:LEU:HD11	1:E:2201:LEU:HD13	1.69	0.73
1:G:2924:GLN:O	1:G:2928:LYS:CG	2.36	0.73
1:A:1436:SER:H	1:A:1516:ILE:CG1	2.00	0.73
1:C:717:ASP:O	1:C:720:HIS:NE2	2.20	0.73
1:E:717:ASP:O	1:E:720:HIS:NE2	2.21	0.73
1:E:2452:ARG:NH2	1:G:177:GLU:HG3	2.02	0.73
1:E:2497:ASP:OD1	1:E:2552:ARG:NE	2.21	0.73
1:E:2771:ILE:HG23	1:E:2852:ARG:HB2	1.70	0.73
1:A:195:PHE:CE2	1:G:2358:ILE:HG23	2.24	0.73
1:C:1780:PRO:O	2:D:42:ARG:NH2	2.22	0.73
1:A:2159:LEU:HD11	1:A:2201:LEU:HD13	1.69	0.73
1:C:1731:LEU:HA	1:C:1772:ARG:HE	1.52	0.73
1:G:1582:SER:OG	1:G:1589:PRO:O	2.04	0.73
1:G:2497:ASP:OD1	1:G:2552:ARG:NE	2.21	0.73
1:A:1780:PRO:O	2:B:42:ARG:NH2	2.22	0.73
1:C:2159:LEU:HD11	1:C:2201:LEU:HD13	1.69	0.73
1:C:2358:ILE:HG23	1:E:195:PHE:CE2	2.24	0.73
1:G:1456:ASP:O	1:G:1458:HIS:CD2	2.42	0.73
1:G:1948:ASP:OD1	1:G:2126:ARG:NH2	2.21	0.73
1:C:595:ARG:HH22	1:C:1641:ILE:HD11	1.54	0.73
1:G:2771:ILE:HG23	1:G:2852:ARG:HB2	1.70	0.73
1:C:1641:ILE:HD12	1:C:1642:PRO:HD2	1.69	0.72
1:C:2924:GLN:O	1:C:2928:LYS:CG	2.37	0.72
1:E:3839:CYS:SG	1:E:3840:SER:N	2.61	0.72
1:A:177:GLU:HG3	1:G:2452:ARG:NH2	2.04	0.72
1:E:595:ARG:HH22	1:E:1641:ILE:HD11	1.54	0.72
1:G:2827:ARG:HB2	1:G:2934:GLY:HA3	1.70	0.72
1:E:33:LEU:HD11	1:E:51:PRO:HB3	1.72	0.72
1:G:252:VAL:HG23	1:G:257:ARG:HG3	1.72	0.72
1:G:331:VAL:HG12	1:G:333:GLY:HA3	1.71	0.72
1:G:703:GLY:N	1:G:1647:CYS:SG	2.60	0.72

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:15:ARG:NH1	1:E:100:THR:OG1	2.21	0.72
1:E:1810:LYS:HA	1:E:1813:ARG:HH12	1.54	0.72
1:G:39:ALA:HB2	1:G:47:CYS:HA	1.71	0.72
1:G:1810:LYS:HA	1:G:1813:ARG:HH12	1.54	0.72
1:A:331:VAL:HG12	1:A:333:GLY:HA3	1.72	0.72
1:C:15:ARG:NH1	1:C:100:THR:OG1	2.21	0.72
1:E:613:ALA:HB1	1:E:618:GLN:HE22	1.55	0.72
1:E:2136:ARG:NH1	1:E:3720:TYR:OH	2.23	0.72
1:A:2358:ILE:HG23	1:C:195:PHE:CE2	2.24	0.72
1:C:33:LEU:HD11	1:C:51:PRO:HB3	1.72	0.72
1:C:2921:GLU:O	1:C:2925:GLU:HB2	1.90	0.72
1:C:4826:ILE:HG22	1:E:4931:ILE:HD11	1.71	0.72
1:E:252:VAL:HG23	1:E:257:ARG:HG3	1.72	0.72
1:E:331:VAL:HG12	1:E:333:GLY:HA3	1.71	0.72
1:A:2136:ARG:NH1	1:A:3720:TYR:OH	2.23	0.72
1:C:331:VAL:HG12	1:C:333:GLY:HA3	1.72	0.72
1:E:28:VAL:HG21	1:E:189:LEU:HD11	1.72	0.72
2:F:24:VAL:HG12	2:F:103:LEU:HA	1.71	0.72
1:G:613:ALA:HB1	1:G:618:GLN:HE22	1.55	0.72
1:A:1641:ILE:HD12	1:A:1642:PRO:HD2	1.71	0.72
1:A:2497:ASP:OD1	1:A:2552:ARG:NE	2.21	0.72
1:C:700:GLU:OE2	1:C:1458:HIS:NE2	2.20	0.72
1:G:595:ARG:HH22	1:G:1641:ILE:HD11	1.54	0.72
1:G:786:GLY:HA2	1:G:1631:GLN:HA	1.71	0.72
2:D:24:VAL:HG12	2:D:103:LEU:HA	1.71	0.72
1:A:1112:ASP:HA	1:A:1607:ARG:HB2	1.72	0.71
1:C:2136:ARG:NH1	1:C:3720:TYR:OH	2.23	0.71
1:G:4235:VAL:HG21	1:G:5019:TRP:NE1	2.04	0.71
1:A:1436:SER:H	1:A:1516:ILE:HA	1.54	0.71
2:B:24:VAL:HG12	2:B:103:LEU:HA	1.71	0.71
1:C:613:ALA:HB1	1:C:618:GLN:HE22	1.55	0.71
1:C:786:GLY:HA2	1:C:1631:GLN:HA	1.71	0.71
1:C:4892:ARG:CZ	1:E:4895:GLY:O	2.38	0.71
1:G:33:LEU:HD11	1:G:51:PRO:HB3	1.72	0.71
1:G:2625:ARG:HA	1:G:2910:THR:HG22	1.70	0.71
1:A:786:GLY:HA2	1:A:1631:GLN:HA	1.71	0.71
1:E:786:GLY:HA2	1:E:1631:GLN:HA	1.71	0.71
1:E:4892:ARG:O	1:G:4895:GLY:HA2	1.91	0.71
1:A:252:VAL:HG23	1:A:257:ARG:HG3	1.71	0.71
1:C:28:VAL:HG21	1:C:189:LEU:HD11	1.72	0.71
1:E:1641:ILE:HD12	1:E:1642:PRO:HD2	1.71	0.71

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:613:ALA:HB1	1:A:618:GLN:HE22	1.55	0.71
1:E:2358:ILE:HG23	1:G:195:PHE:CE2	2.25	0.71
1:A:1190:PRO:HG3	1:A:1226:PHE:HE2	1.54	0.71
1:A:2921:GLU:O	1:A:2925:GLU:HG3	1.91	0.71
1:C:1245:PHE:HB2	1:C:1602:PRO:HB2	1.73	0.71
1:E:349:GLN:HE21	1:E:354:GLY:HA2	1.56	0.71
1:A:33:LEU:HD11	1:A:51:PRO:HB3	1.72	0.71
1:A:1810:LYS:HA	1:A:1813:ARG:NH1	2.06	0.71
1:A:4892:ARG:O	1:C:4895:GLY:HA2	1.91	0.71
1:E:717:ASP:OD2	1:E:737:LEU:HD12	1.91	0.71
1:E:2287:ALA:O	1:E:2349:ASN:ND2	2.24	0.71
1:G:349:GLN:HE21	1:G:354:GLY:HA2	1.56	0.71
1:A:15:ARG:NH1	1:A:100:THR:OG1	2.22	0.71
1:A:595:ARG:HH22	1:A:1641:ILE:HD11	1.55	0.71
1:C:39:ALA:HB2	1:C:47:CYS:HA	1.71	0.71
1:C:1810:LYS:HA	1:C:1813:ARG:NH1	2.06	0.71
1:C:1948:ASP:OD1	1:C:2126:ARG:NH2	2.24	0.71
1:E:39:ALA:HB2	1:E:47:CYS:HA	1.71	0.71
1:G:717:ASP:OD2	1:G:737:LEU:HD12	1.90	0.71
1:G:1245:PHE:HB2	1:G:1602:PRO:HB2	1.72	0.71
1:G:4817:ALA:HB1	1:G:4827:LEU:HD11	1.73	0.71
1:C:4180:ARG:NH1	1:C:4981:GLU:OE1	2.24	0.70
1:E:1245:PHE:HB2	1:E:1602:PRO:HB2	1.73	0.70
1:G:2924:GLN:O	1:G:2928:LYS:HG3	1.91	0.70
1:G:1112:ASP:HA	1:G:1607:ARG:HB2	1.72	0.70
1:A:1582:SER:OG	1:A:1589:PRO:O	2.05	0.70
1:C:252:VAL:HG23	1:C:257:ARG:HG3	1.72	0.70
1:C:1111:PRO:HG3	1:C:1609:PRO:HD3	1.73	0.70
1:C:4044:MET:HA	1:C:4047:MET:HG2	1.73	0.70
1:G:28:VAL:HG21	1:G:189:LEU:HD11	1.72	0.70
1:E:1029:GLU:HA	1:E:1032:LYS:HD3	1.73	0.70
1:A:39:ALA:HB2	1:A:47:CYS:HA	1.72	0.70
1:A:717:ASP:OD2	1:A:737:LEU:HD12	1.91	0.70
1:A:1810:LYS:HA	1:A:1813:ARG:HH12	1.54	0.70
1:A:2287:ALA:O	1:A:2349:ASN:ND2	2.24	0.70
1:E:1810:LYS:HA	1:E:1813:ARG:NH1	2.06	0.70
1:E:1948:ASP:OD1	1:E:2126:ARG:NH2	2.24	0.70
2:H:24:VAL:HG12	2:H:103:LEU:HA	1.73	0.70
1:A:1252:HIS:O	1:A:1255:TYR:N	2.24	0.70
1:C:717:ASP:OD2	1:C:737:LEU:HD12	1.91	0.70
1:C:3839:CYS:SG	1:C:3840:SER:N	2.61	0.70

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1112:ASP:HA	1:E:1607:ARG:HB2	1.72	0.70
1:E:4044:MET:HA	1:E:4047:MET:HG2	1.73	0.70
1:E:4578:LEU:O	1:G:4879:MET:CG	2.39	0.70
1:G:2136:ARG:NH1	1:G:3720:TYR:OH	2.24	0.70
1:A:28:VAL:HG21	1:A:189:LEU:HD11	1.72	0.70
1:C:2287:ALA:O	1:C:2349:ASN:ND2	2.23	0.70
1:A:1436:SER:N	1:A:1516:ILE:CG1	2.54	0.70
1:C:584:LYS:NZ	1:C:1586:ASN:HD21	1.90	0.70
1:E:1703:LEU:HD12	1:E:1704:PRO:HD2	1.73	0.70
1:E:4892:ARG:NE	1:G:4917:ASP:OD2	2.25	0.70
1:G:1810:LYS:HA	1:G:1813:ARG:NH1	2.06	0.70
1:A:349:GLN:HE21	1:A:354:GLY:HA2	1.56	0.70
1:A:4865:LYS:N	1:A:4873:ASP:OD2	2.25	0.70
1:C:349:GLN:HE21	1:C:354:GLY:HA2	1.56	0.70
1:C:1112:ASP:HA	1:C:1607:ARG:HB2	1.72	0.70
1:C:4865:LYS:N	1:C:4873:ASP:OD2	2.25	0.70
1:E:1111:PRO:HG3	1:E:1609:PRO:HD3	1.73	0.70
1:E:1294:PRO:HD2	1:E:1584:ARG:HH11	1.56	0.70
1:G:1703:LEU:HD12	1:G:1704:PRO:HD2	1.74	0.70
1:A:783:PHE:HB2	1:A:787:VAL:HG21	1.74	0.69
1:C:1029:GLU:HA	1:C:1032:LYS:HD3	1.74	0.69
1:C:1252:HIS:O	1:C:1255:TYR:N	2.23	0.69
1:E:783:PHE:HB2	1:E:787:VAL:HG21	1.74	0.69
1:E:4865:LYS:N	1:E:4873:ASP:OD2	2.25	0.69
1:G:783:PHE:HB2	1:G:787:VAL:HG21	1.74	0.69
1:G:1252:HIS:O	1:G:1255:TYR:N	2.24	0.69
1:A:1245:PHE:HB2	1:A:1602:PRO:HB2	1.74	0.69
1:A:4180:ARG:NH1	1:A:4981:GLU:OE1	2.24	0.69
1:E:737:LEU:HD13	2:F:8:SER:HB3	1.74	0.69
1:E:1691:GLN:HE22	1:E:1802:ILE:HG22	1.58	0.69
1:G:1821:ASP:OD1	1:G:1822:GLY:N	2.25	0.69
1:A:1727:ARG:HH12	1:A:1775:HIS:CD2	2.10	0.69
1:A:1821:ASP:OD1	1:A:1822:GLY:N	2.25	0.69
1:A:3891:LEU:HD23	1:A:3899:PHE:HZ	1.57	0.69
1:A:4235:VAL:HG21	1:A:5019:TRP:NE1	2.07	0.69
1:C:1810:LYS:HA	1:C:1813:ARG:HH12	1.54	0.69
1:E:3768:SER:HA	1:E:3771:HIS:HB3	1.74	0.69
1:E:4180:ARG:NH1	1:E:4981:GLU:OE1	2.25	0.69
1:A:1029:GLU:HA	1:A:1032:LYS:HD3	1.74	0.69
1:C:4578:LEU:O	1:E:4879:MET:HB3	1.93	0.69
1:E:584:LYS:NZ	1:E:1586:ASN:HD21	1.91	0.69

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:F:87:HIS:HD2	2:F:88:PRO:HD2	1.58	0.69
1:A:584:LYS:NZ	1:A:1586:ASN:HD21	1.91	0.69
1:A:4044:MET:HA	1:A:4047:MET:HG2	1.73	0.69
1:G:1691:GLN:HE22	1:G:1802:ILE:HG22	1.58	0.69
1:C:1294:PRO:HD2	1:C:1584:ARG:HH11	1.56	0.69
1:E:1810:LYS:HD2	1:E:1813:ARG:HH12	1.58	0.69
1:G:1294:PRO:HD2	1:G:1584:ARG:HH11	1.56	0.69
1:A:737:LEU:HD13	2:B:8:SER:HB3	1.74	0.69
1:A:1211:LEU:HD23	1:A:1212:ARG:H	1.57	0.69
1:A:1294:PRO:HD2	1:A:1584:ARG:HH11	1.56	0.69
1:C:4235:VAL:HG21	1:C:5019:TRP:NE1	2.08	0.69
1:A:252:VAL:HG22	1:A:258:SER:HB3	1.75	0.69
1:C:3891:LEU:HB3	1:C:3899:PHE:CE2	2.28	0.69
1:C:4892:ARG:O	1:E:4895:GLY:HA2	1.92	0.69
2:D:87:HIS:HD2	2:D:88:PRO:HD2	1.58	0.69
1:E:1211:LEU:HD23	1:E:1212:ARG:H	1.57	0.69
1:G:584:LYS:NZ	1:G:1586:ASN:HD21	1.90	0.69
1:G:4865:LYS:N	1:G:4873:ASP:OD2	2.26	0.69
1:A:1641:ILE:HG13	1:A:1643:GLU:HG2	1.75	0.69
1:A:1810:LYS:HD2	1:A:1813:ARG:HH12	1.58	0.69
1:C:783:PHE:HB2	1:C:787:VAL:HG21	1.74	0.69
1:C:1211:LEU:HD23	1:C:1212:ARG:H	1.57	0.69
1:C:4892:ARG:NE	1:E:4917:ASP:OD2	2.26	0.69
1:E:3891:LEU:HB3	1:E:3899:PHE:CE2	2.28	0.69
1:E:4235:VAL:HG21	1:E:5019:TRP:NE1	2.08	0.69
1:A:1206:GLN:N	1:A:1227:ALA:HB3	2.08	0.69
1:A:1259:ARG:NH1	1:A:1597:VAL:HA	2.07	0.69
1:C:1821:ASP:OD1	1:C:1822:GLY:N	2.25	0.69
1:G:24:CYS:SG	1:G:25:SER:N	2.67	0.69
1:G:2929:PHE:O	1:G:2933:ASN:ND2	2.26	0.69
2:H:87:HIS:HD2	2:H:88:PRO:HD2	1.58	0.69
1:C:1810:LYS:HD2	1:C:1813:ARG:HH12	1.58	0.68
1:E:1821:ASP:OD1	1:E:1822:GLY:N	2.25	0.68
1:C:2924:GLN:O	1:C:2928:LYS:HG3	1.92	0.68
1:E:4892:ARG:CZ	1:G:4895:GLY:O	2.42	0.68
1:G:252:VAL:HG22	1:G:258:SER:HB3	1.75	0.68
1:A:1111:PRO:HG3	1:A:1609:PRO:HD3	1.73	0.68
1:A:2822:THR:HG1	1:A:2938:THR:HG1	1.41	0.68
1:A:3786:CYS:SG	1:A:3794:VAL:HG22	2.33	0.68
1:E:1259:ARG:NH1	1:E:1597:VAL:HA	2.07	0.68
1:G:1111:PRO:HG3	1:G:1609:PRO:HD3	1.74	0.68

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1703:LEU:HD12	1:A:1704:PRO:HD2	1.74	0.68
1:C:1691:GLN:HE22	1:C:1802:ILE:HG22	1.58	0.68
1:C:1703:LEU:HD12	1:C:1704:PRO:HD2	1.73	0.68
1:C:1727:ARG:NH1	1:C:1775:HIS:HD2	1.92	0.68
1:G:1211:LEU:HD23	1:G:1212:ARG:H	1.57	0.68
1:G:4190:ILE:HD11	1:G:5026:ASP:HB3	1.74	0.68
1:A:1727:ARG:NH1	1:A:1775:HIS:HD2	1.92	0.68
1:C:1727:ARG:HH12	1:C:1775:HIS:CD2	2.10	0.68
1:C:3768:SER:HA	1:C:3771:HIS:HB3	1.74	0.68
1:G:1029:GLU:HA	1:G:1032:LYS:HD3	1.74	0.68
1:G:1616:GLU:HG3	1:G:1617:THR:H	1.58	0.68
1:C:1616:GLU:HG3	1:C:1617:THR:H	1.58	0.68
1:E:4875:LYS:O	1:E:4877:ASP:N	2.27	0.68
1:G:1727:ARG:HH12	1:G:1775:HIS:CD2	2.10	0.68
1:G:4172:GLU:HG2	1:G:4175:ARG:HH22	1.59	0.68
1:A:24:CYS:SG	1:A:25:SER:N	2.66	0.68
1:A:2452:ARG:HH22	1:C:177:GLU:HG3	1.58	0.68
1:A:3768:SER:HA	1:A:3771:HIS:HB3	1.74	0.68
1:C:1259:ARG:NH1	1:C:1597:VAL:HA	2.07	0.68
1:E:24:CYS:SG	1:E:25:SER:N	2.66	0.68
1:E:1252:HIS:O	1:E:1255:TYR:N	2.24	0.68
1:E:3786:CYS:SG	1:E:3794:VAL:HG22	2.33	0.68
1:G:1727:ARG:NH1	1:G:1775:HIS:HD2	1.92	0.68
1:G:2891:LYS:HG3	1:G:2905:LEU:HD22	1.76	0.68
1:A:1691:GLN:HE22	1:A:1802:ILE:HG22	1.58	0.68
1:A:3891:LEU:HB3	1:A:3899:PHE:CE2	2.28	0.68
1:A:4578:LEU:O	1:C:4879:MET:HB3	1.93	0.68
2:B:87:HIS:HD2	2:B:88:PRO:HD2	1.58	0.68
2:D:27:THR:HG22	2:D:100:ASP:HB3	1.76	0.68
1:E:683:ARG:HD2	1:E:705:ASN:HB3	1.76	0.68
1:G:1259:ARG:NH1	1:G:1597:VAL:HA	2.08	0.68
1:G:1783:VAL:HG21	2:H:55:VAL:HG12	1.76	0.68
1:A:1473:THR:HG22	1:A:1489:CYS:HA	1.76	0.68
1:A:1948:ASP:OD1	1:A:2126:ARG:NH2	2.24	0.68
1:C:3891:LEU:HD23	1:C:3899:PHE:HZ	1.58	0.68
1:C:4085:ARG:HB3	1:C:4087:LEU:HD13	1.76	0.67
1:E:589:LEU:HG	1:E:593:HIS:HD2	1.59	0.67
1:E:1727:ARG:NH1	1:E:1775:HIS:HD2	1.92	0.67
1:G:1810:LYS:HD2	1:G:1813:ARG:HH12	1.58	0.67
1:C:737:LEU:HD13	2:D:8:SER:HB3	1.74	0.67
1:C:24:CYS:SG	1:C:25:SER:N	2.67	0.67

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1435:TYR:H	1:E:1516:ILE:CG1	2.06	0.67
1:G:2154:SER:O	1:G:2157:GLU:HG2	1.95	0.67
1:A:1229:ASN:OD1	1:A:1827:ARG:NH2	2.27	0.67
1:A:4892:ARG:NE	1:C:4917:ASP:OD2	2.26	0.67
1:C:1473:THR:HG22	1:C:1489:CYS:HA	1.76	0.67
1:E:2154:SER:O	1:E:2157:GLU:HG2	1.95	0.67
2:B:27:THR:HG22	2:B:100:ASP:HB3	1.76	0.67
1:C:164:ARG:HB3	1:C:167:ASP:OD2	1.95	0.67
1:C:1229:ASN:OD1	1:C:1827:ARG:NH2	2.28	0.67
1:E:345:LEU:HD23	1:E:389:PHE:HB3	1.76	0.67
1:E:2927:LEU:HD23	1:E:2930:LEU:HD12	1.76	0.67
1:E:4555:LEU:HD11	1:E:4656:LEU:HG	1.76	0.67
2:F:27:THR:HG22	2:F:100:ASP:HB3	1.76	0.67
1:A:2154:SER:O	1:A:2157:GLU:HG2	1.95	0.67
1:C:683:ARG:HD2	1:C:705:ASN:HB3	1.76	0.67
1:G:1229:ASN:OD1	1:G:1827:ARG:NH2	2.28	0.67
1:G:3891:LEU:HB3	1:G:3899:PHE:CE2	2.30	0.67
1:A:164:ARG:HB3	1:A:167:ASP:OD2	1.95	0.67
1:A:3806:ASN:H	1:A:3890:LEU:HD23	1.60	0.67
1:A:4085:ARG:HB3	1:A:4087:LEU:HD13	1.77	0.67
1:C:589:LEU:HG	1:C:593:HIS:HD2	1.60	0.67
1:G:356:TRP:N	1:G:379:HIS:O	2.27	0.67
1:G:683:ARG:HD2	1:G:705:ASN:HB3	1.76	0.67
1:A:3893:GLU:OE2	1:A:5001:THR:HG22	1.95	0.67
1:A:4892:ARG:CZ	1:C:4895:GLY:O	2.42	0.67
1:A:4917:ASP:OD2	1:G:4892:ARG:NE	2.28	0.67
1:E:356:TRP:N	1:E:379:HIS:O	2.27	0.67
1:E:3891:LEU:HD23	1:E:3899:PHE:HZ	1.58	0.67
1:A:356:TRP:N	1:A:379:HIS:O	2.27	0.67
1:A:683:ARG:HD2	1:A:705:ASN:HB3	1.76	0.67
1:C:277:GLY:N	1:C:315:CYS:SG	2.68	0.67
1:C:4578:LEU:O	1:E:4879:MET:CG	2.43	0.67
1:E:1727:ARG:HH12	1:E:1775:HIS:CD2	2.11	0.67
1:G:277:GLY:N	1:G:315:CYS:SG	2.68	0.67
1:A:1616:GLU:HG3	1:A:1617:THR:H	1.58	0.67
1:A:4895:GLY:HA2	1:G:4892:ARG:O	1.95	0.67
1:C:2154:SER:O	1:C:2157:GLU:HG2	1.95	0.67
1:E:1616:GLU:HG3	1:E:1617:THR:H	1.58	0.67
1:A:4875:LYS:O	1:A:4877:ASP:N	2.27	0.66
1:C:3806:ASN:H	1:C:3890:LEU:HD23	1.60	0.66
1:E:164:ARG:HB3	1:E:167:ASP:OD2	1.95	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3771:HIS:HE1	1:E:3811:GLU:HB3	1.61	0.66
1:A:177:GLU:HG3	1:G:2452:ARG:HH22	1.59	0.66
1:A:589:LEU:HG	1:A:593:HIS:HD2	1.60	0.66
1:A:1783:VAL:HG21	2:B:55:VAL:HG12	1.76	0.66
1:C:252:VAL:HG22	1:C:258:SER:HB3	1.77	0.66
1:C:3786:CYS:SG	1:C:3794:VAL:HG22	2.35	0.66
1:C:3893:GLU:OE2	1:C:5001:THR:HG22	1.95	0.66
1:C:4555:LEU:HD11	1:C:4656:LEU:HG	1.76	0.66
1:A:1767:VAL:O	1:A:1769:THR:N	2.28	0.66
1:A:4849:TYR:O	1:A:4852:THR:HG22	1.95	0.66
1:C:2452:ARG:HH22	1:E:177:GLU:HG3	1.59	0.66
1:E:252:VAL:HG22	1:E:258:SER:HB3	1.76	0.66
1:E:1076:ARG:O	1:E:1237:TRP:N	2.27	0.66
1:G:345:LEU:HD23	1:G:389:PHE:HB3	1.77	0.66
1:G:4875:LYS:O	1:G:4877:ASP:N	2.28	0.66
1:A:526:LEU:HD11	1:A:540:PHE:HZ	1.60	0.66
1:C:1641:ILE:HG13	1:C:1643:GLU:HG2	1.77	0.66
1:C:3771:HIS:HE1	1:C:3811:GLU:HB3	1.61	0.66
1:E:1473:THR:HG22	1:E:1489:CYS:HA	1.76	0.66
1:E:3893:GLU:OE2	1:E:5001:THR:HG22	1.95	0.66
1:G:589:LEU:HG	1:G:593:HIS:HD2	1.59	0.66
1:C:1815:LEU:HD11	1:C:1845:VAL:HG21	1.77	0.66
1:C:4940:PHE:CD2	1:E:4938:ASP:OD2	2.47	0.66
1:E:1229:ASN:OD1	1:E:1827:ARG:NH2	2.28	0.66
1:E:1767:VAL:O	1:E:1769:THR:N	2.28	0.66
1:E:3841:VAL:HG12	1:E:3843:ASP:H	1.61	0.66
1:A:4578:LEU:O	1:C:4879:MET:CG	2.43	0.66
1:A:4937:ILE:HG12	1:C:4934:GLY:HA3	1.77	0.66
1:C:4875:LYS:O	1:C:4877:ASP:N	2.27	0.66
1:E:526:LEU:HD11	1:E:540:PHE:HZ	1.59	0.66
1:E:1641:ILE:HG13	1:E:1643:GLU:HG2	1.76	0.66
1:E:4849:TYR:O	1:E:4852:THR:HG22	1.95	0.66
1:G:1473:THR:HG22	1:G:1489:CYS:HA	1.76	0.66
1:G:1641:ILE:HG13	1:G:1643:GLU:HG2	1.77	0.66
1:A:45:ARG:NH1	1:A:443:LEU:HD11	2.11	0.66
1:A:345:LEU:HD23	1:A:389:PHE:HB3	1.77	0.66
1:A:3841:VAL:HG12	1:A:3843:ASP:H	1.61	0.66
1:A:4190:ILE:HD11	1:A:5026:ASP:HB3	1.78	0.66
1:E:277:GLY:N	1:E:315:CYS:SG	2.68	0.66
1:E:3806:ASN:H	1:E:3890:LEU:HD23	1.60	0.66
1:E:4190:ILE:HD11	1:E:5026:ASP:HB3	1.78	0.66

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:648:ILE:HG23	1:G:649:PHE:HD2	1.61	0.66
1:G:1767:VAL:O	1:G:1769:THR:N	2.28	0.66
1:G:2287:ALA:O	1:G:2349:ASN:ND2	2.24	0.66
1:C:4849:TYR:O	1:C:4852:THR:HG22	1.95	0.66
1:E:4688:ILE:HD12	1:E:4737:ILE:HD12	1.77	0.66
1:A:572:PRO:HB3	1:A:609:CYS:HB3	1.78	0.66
2:B:31:GLU:HG2	2:B:96:THR:HB	1.78	0.66
1:C:1767:VAL:O	1:C:1769:THR:N	2.28	0.66
1:C:2799:GLU:OE1	1:C:2806:ARG:NH2	2.29	0.66
1:E:2883:HIS:NE2	1:E:2906:VAL:O	2.28	0.66
1:G:164:ARG:HB3	1:G:167:ASP:OD2	1.95	0.66
1:G:2862:LEU:HD21	1:G:2929:PHE:HD1	1.61	0.66
1:G:3893:GLU:OE2	1:G:5001:THR:HG22	1.96	0.66
1:A:277:GLY:N	1:A:315:CYS:SG	2.68	0.66
1:A:4555:LEU:HD11	1:A:4656:LEU:HG	1.76	0.66
1:A:4976:GLU:O	1:A:4979:THR:OG1	2.14	0.66
1:C:526:LEU:HD11	1:C:540:PHE:HZ	1.59	0.66
1:C:4830:VAL:HG22	1:C:4936:ILE:HD12	1.78	0.66
1:E:2452:ARG:HH22	1:G:177:GLU:HG3	1.59	0.66
1:E:4085:ARG:HB3	1:E:4087:LEU:HD13	1.76	0.66
1:A:3835:LEU:HD22	1:A:3884:LEU:HD13	1.77	0.65
1:C:45:ARG:NH1	1:C:443:LEU:HD11	2.11	0.65
1:C:3835:LEU:HD22	1:C:3884:LEU:HD13	1.77	0.65
1:C:345:LEU:HD23	1:C:389:PHE:HB3	1.76	0.65
1:C:2822:THR:HG1	1:C:2938:THR:HG1	1.44	0.65
1:C:2883:HIS:NE2	1:C:2906:VAL:O	2.28	0.65
1:C:3841:VAL:HG12	1:C:3843:ASP:H	1.61	0.65
1:C:4172:GLU:HG2	1:C:4175:ARG:HH22	1.61	0.65
1:E:3835:LEU:HD22	1:E:3884:LEU:HD13	1.78	0.65
1:A:1252:HIS:O	1:A:1254:HIS:N	2.30	0.65
1:C:356:TRP:N	1:C:379:HIS:O	2.27	0.65
1:E:2799:GLU:OE1	1:E:2806:ARG:NH2	2.29	0.65
1:G:526:LEU:HD11	1:G:540:PHE:HZ	1.59	0.65
1:C:572:PRO:HB3	1:C:609:CYS:HB3	1.78	0.65
1:C:1090:PHE:HB2	1:C:1204:LEU:HD22	1.79	0.65
1:C:4976:GLU:O	1:C:4979:THR:OG1	2.14	0.65
1:E:1112:ASP:OD1	1:E:1606:SER:OG	2.14	0.65
1:E:1252:HIS:O	1:E:1254:HIS:N	2.30	0.65
1:G:4688:ILE:HG21	1:G:4728:HIS:HB3	1.77	0.65
1:G:4822:THR:O	1:G:4825:THR:OG1	2.14	0.65
2:H:31:GLU:HG2	2:H:96:THR:HB	1.78	0.65

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
2:D:31:GLU:HG2	2:D:96:THR:HB	1.79	0.65
1:E:2854:GLY:O	1:E:2856:ASN:ND2	2.30	0.65
1:E:4097:MET:HB3	1:E:4108:ILE:HD12	1.79	0.65
1:G:45:ARG:NH1	1:G:443:LEU:HD11	2.11	0.65
1:G:1252:HIS:O	1:G:1254:HIS:N	2.30	0.65
1:G:2883:HIS:NE2	1:G:2906:VAL:O	2.28	0.65
1:A:2891:LYS:HG3	1:A:2905:LEU:HD22	1.79	0.65
1:A:4658:ILE:HG22	1:A:4792:LEU:HB3	1.79	0.65
1:A:4688:ILE:HD12	1:A:4737:ILE:HD12	1.77	0.65
1:C:4190:ILE:HD11	1:C:5026:ASP:HB3	1.78	0.65
1:E:1090:PHE:HB2	1:E:1204:LEU:HD22	1.79	0.65
1:E:1783:VAL:HG21	2:F:55:VAL:HG12	1.77	0.65
2:F:31:GLU:HG2	2:F:96:THR:HB	1.79	0.65
1:G:2799:GLU:OE1	1:G:2806:ARG:NH2	2.29	0.65
1:A:2799:GLU:OE1	1:A:2806:ARG:NH2	2.29	0.65
1:E:4578:LEU:O	1:G:4879:MET:CB	2.43	0.65
1:E:4830:VAL:HG22	1:E:4936:ILE:HD12	1.79	0.65
1:A:648:ILE:HG23	1:A:649:PHE:HD2	1.61	0.65
1:A:1815:LEU:HD11	1:A:1845:VAL:HG21	1.77	0.65
1:A:2854:GLY:O	1:A:2856:ASN:ND2	2.29	0.65
1:C:648:ILE:HG23	1:C:649:PHE:HD2	1.61	0.65
1:C:3889:GLN:HG3	1:C:3967:GLU:HG3	1.79	0.65
1:E:2745:VAL:HG21	1:E:2818:ALA:HB2	1.79	0.65
1:E:3889:GLN:HG3	1:E:3967:GLU:HG3	1.79	0.65
1:C:1783:VAL:HG21	2:D:55:VAL:HG12	1.78	0.65
1:C:4688:ILE:HD12	1:C:4737:ILE:HD12	1.77	0.65
1:E:1457:TYR:O	1:E:1458:HIS:CG	2.50	0.65
1:E:4172:GLU:HG2	1:E:4175:ARG:HH22	1.61	0.65
1:G:572:PRO:HB3	1:G:609:CYS:HB3	1.78	0.65
1:G:1076:ARG:O	1:G:1237:TRP:N	2.27	0.65
1:G:1815:LEU:HD11	1:G:1845:VAL:HG21	1.78	0.65
1:G:3791:GLY:O	1:G:3793:MET:N	2.30	0.65
1:G:3969:ILE:HD11	1:G:3980:LEU:HD13	1.77	0.65
1:G:4085:ARG:HB3	1:G:4087:LEU:HD13	1.77	0.65
1:C:1436:SER:H	1:C:1516:ILE:HA	1.61	0.65
1:E:4658:ILE:HG22	1:E:4792:LEU:HB3	1.79	0.65
1:G:2854:GLY:O	1:G:2856:ASN:ND2	2.30	0.65
1:A:4554:TYR:HA	1:A:4557:ARG:NH1	2.12	0.64
1:C:224:HIS:HA	1:C:388:LEU:HD23	1.79	0.64
1:E:4823:LEU:HD11	1:G:4839:MET:HB3	1.79	0.64
1:C:2854:GLY:O	1:C:2856:ASN:ND2	2.29	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:529:LEU:O	1:E:536:ASN:ND2	2.31	0.64
1:E:4554:TYR:HA	1:E:4557:ARG:NH1	2.12	0.64
1:A:3771:HIS:HE1	1:A:3811:GLU:HB3	1.62	0.64
2:B:25:HIS:CG	2:B:40:ARG:HE	2.15	0.64
2:D:25:HIS:CG	2:D:40:ARG:HE	2.16	0.64
1:E:1435:TYR:HB3	1:E:1517:GLY:H	1.61	0.64
1:G:737:LEU:HD13	2:H:8:SER:HB3	1.80	0.64
1:A:1076:ARG:O	1:A:1237:TRP:N	2.26	0.64
1:E:224:HIS:HA	1:E:388:LEU:HD23	1.79	0.64
1:E:4976:GLU:O	1:E:4979:THR:OG1	2.14	0.64
1:G:856:VAL:O	1:G:991:ASN:ND2	2.31	0.64
1:G:1090:PHE:HB2	1:G:1204:LEU:HD22	1.79	0.64
1:A:2929:PHE:O	1:A:2933:ASN:ND2	2.31	0.64
1:C:2891:LYS:HG3	1:C:2905:LEU:HD22	1.79	0.64
1:A:4172:GLU:HG2	1:A:4175:ARG:HH22	1.62	0.64
1:C:145:ALA:HA	1:C:175:SER:HB3	1.80	0.64
1:C:1252:HIS:O	1:C:1254:HIS:N	2.30	0.64
1:C:1435:TYR:HB3	1:C:1517:GLY:H	1.63	0.64
1:E:572:PRO:HB3	1:E:609:CYS:HB3	1.78	0.64
1:E:1206:GLN:N	1:E:1227:ALA:HB3	2.12	0.64
2:F:25:HIS:CG	2:F:40:ARG:HE	2.16	0.64
1:G:23:GLN:HG3	1:G:203:ASN:HD22	1.63	0.64
1:G:529:LEU:O	1:G:536:ASN:ND2	2.31	0.64
1:G:4052:SER:O	1:G:4056:GLU:HG2	1.98	0.64
1:A:3889:GLN:HG3	1:A:3967:GLU:HG3	1.79	0.64
1:C:2745:VAL:HG21	1:C:2818:ALA:HB2	1.79	0.64
1:C:4658:ILE:HG22	1:C:4792:LEU:HB3	1.79	0.64
1:E:648:ILE:HG23	1:E:649:PHE:HD2	1.61	0.64
1:E:1810:LYS:HE3	1:E:1813:ARG:HH22	1.63	0.64
1:E:1815:LEU:HD11	1:E:1845:VAL:HG21	1.78	0.64
1:A:145:ALA:HA	1:A:175:SER:HB3	1.80	0.64
1:A:266:ARG:HH12	1:A:330:ASP:HA	1.63	0.64
1:E:856:VAL:O	1:E:991:ASN:ND2	2.31	0.64
1:G:1436:SER:H	1:G:1516:ILE:HA	1.63	0.64
1:G:3771:HIS:HE1	1:G:3811:GLU:HB3	1.62	0.64
1:G:4077:PHE:CD2	1:G:4125:PHE:HB3	2.33	0.64
1:C:266:ARG:HH12	1:C:330:ASP:HA	1.63	0.64
1:C:1810:LYS:HE3	1:C:1813:ARG:HH22	1.63	0.64
1:C:4097:MET:HB3	1:C:4108:ILE:HD12	1.80	0.64
1:E:145:ALA:HA	1:E:175:SER:HB3	1.80	0.64
1:E:2178:MET:SD	1:E:2210:VAL:HG11	2.38	0.64

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:457:GLU:HG3	1:G:464:LYS:NZ	2.13	0.64
1:G:1810:LYS:HE3	1:G:1813:ARG:HH22	1.63	0.64
1:G:1828:ASP:HB3	1:G:1830:VAL:H	1.63	0.64
1:A:1090:PHE:HB2	1:A:1204:LEU:HD22	1.80	0.64
1:E:45:ARG:NH1	1:E:443:LEU:HD11	2.12	0.64
1:E:457:GLU:HG3	1:E:464:LYS:NZ	2.12	0.64
1:G:1112:ASP:OD1	1:G:1606:SER:OG	2.15	0.64
1:A:1828:ASP:HB3	1:A:1830:VAL:H	1.63	0.63
1:C:1112:ASP:OD1	1:C:1606:SER:OG	2.15	0.63
1:E:2891:LYS:HG3	1:E:2905:LEU:HD22	1.79	0.63
1:A:184:THR:HA	1:A:189:LEU:HD23	1.79	0.63
1:A:529:LEU:O	1:A:536:ASN:ND2	2.31	0.63
1:A:1160:ILE:HD11	1:A:1182:ILE:HD13	1.81	0.63
1:C:457:GLU:HG3	1:C:464:LYS:NZ	2.12	0.63
1:C:2349:ASN:OD1	1:C:3849:ARG:NH1	2.21	0.63
1:G:3423:TRP:O	1:G:3427:PRO:N	2.31	0.63
1:G:4688:ILE:HD12	1:G:4737:ILE:HD12	1.80	0.63
1:A:274:LEU:HD11	1:A:280:LEU:HD22	1.80	0.63
1:A:2178:MET:SD	1:A:2210:VAL:HG11	2.39	0.63
1:A:4097:MET:HB3	1:A:4108:ILE:HD12	1.80	0.63
1:E:320:LYS:NZ	1:E:383:HIS:O	2.28	0.63
1:G:3817:LEU:HD11	1:G:3821:LYS:HE2	1.80	0.63
2:H:25:HIS:CG	2:H:40:ARG:HE	2.17	0.63
1:A:1275:ARG:NH2	1:A:1599:MET:O	2.32	0.63
1:C:4667:PRO:HA	1:C:4670:ILE:HG22	1.80	0.63
1:E:184:THR:HA	1:E:189:LEU:HD23	1.79	0.63
1:E:2924:GLN:O	1:E:2928:LYS:N	2.25	0.63
1:G:266:ARG:HH12	1:G:330:ASP:HA	1.63	0.63
1:A:4940:PHE:CD2	1:C:4938:ASP:OD2	2.52	0.63
1:C:2178:MET:SD	1:C:2210:VAL:HG11	2.39	0.63
1:C:4554:TYR:HA	1:C:4557:ARG:NH1	2.12	0.63
1:E:1295:VAL:HG22	1:E:1548:LEU:H	1.63	0.63
1:E:1828:ASP:HB3	1:E:1830:VAL:H	1.63	0.63
1:A:23:GLN:HG3	1:A:203:ASN:HD22	1.63	0.63
1:A:224:HIS:HA	1:A:388:LEU:HD23	1.79	0.63
1:A:856:VAL:O	1:A:991:ASN:ND2	2.31	0.63
1:C:184:THR:HA	1:C:189:LEU:HD23	1.79	0.63
1:C:529:LEU:O	1:C:536:ASN:ND2	2.31	0.63
1:C:2146:PRO:HA	1:C:2149:VAL:HG13	1.81	0.63
1:G:2178:MET:SD	1:G:2210:VAL:HG11	2.38	0.63
1:A:1810:LYS:HE3	1:A:1813:ARG:HH22	1.63	0.63

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4823:LEU:HD11	1:C:4839:MET:HB3	1.81	0.63
1:C:1295:VAL:HG22	1:C:1548:LEU:H	1.63	0.63
1:C:1828:ASP:HB3	1:C:1830:VAL:H	1.63	0.63
1:E:274:LEU:HD11	1:E:280:LEU:HD22	1.79	0.63
1:G:224:HIS:HA	1:G:388:LEU:HD23	1.79	0.63
1:G:4677:LEU:HD22	1:G:4711:PHE:CZ	2.34	0.63
1:C:887:ILE:HG12	1:C:907:LEU:HD13	1.81	0.63
1:E:266:ARG:HH12	1:E:330:ASP:HA	1.63	0.63
1:E:4828:SER:HA	1:E:4831:THR:HG22	1.80	0.63
1:E:1561:VAL:HG13	1:E:1562:ILE:HG22	1.81	0.63
1:G:184:THR:HA	1:G:189:LEU:HD23	1.79	0.63
1:G:1275:ARG:NH2	1:G:1599:MET:O	2.32	0.63
1:G:4686:LEU:HB2	1:G:4690:GLU:HB2	1.81	0.63
1:A:3924:LEU:O	1:A:3927:GLN:HB3	1.99	0.62
1:A:4667:PRO:HA	1:A:4670:ILE:HG22	1.81	0.62
1:C:274:LEU:HD11	1:C:280:LEU:HD22	1.79	0.62
1:C:3924:LEU:O	1:C:3927:GLN:HB3	1.99	0.62
1:E:2146:PRO:HA	1:E:2149:VAL:HG13	1.81	0.62
1:E:2822:THR:HG1	1:E:2938:THR:HG1	1.43	0.62
1:A:221:ARG:NE	1:A:258:SER:OG	2.32	0.62
1:A:457:GLU:HG3	1:A:464:LYS:NZ	2.13	0.62
1:C:320:LYS:NZ	1:C:383:HIS:O	2.29	0.62
1:C:856:VAL:O	1:C:991:ASN:ND2	2.31	0.62
1:E:3817:LEU:HD11	1:E:3821:LYS:HE2	1.81	0.62
1:E:4667:PRO:HA	1:E:4670:ILE:HG22	1.81	0.62
1:G:221:ARG:NE	1:G:258:SER:OG	2.32	0.62
1:G:1561:VAL:HG13	1:G:1562:ILE:HG22	1.81	0.62
1:A:1112:ASP:OD1	1:A:1606:SER:OG	2.14	0.62
1:A:1561:VAL:HG13	1:A:1562:ILE:HG22	1.81	0.62
1:A:2146:PRO:HA	1:A:2149:VAL:HG13	1.80	0.62
1:A:2883:HIS:NE2	1:A:2906:VAL:O	2.28	0.62
1:C:4137:ARG:NH2	1:C:4177:TYR:OH	2.33	0.62
1:E:23:GLN:HG3	1:E:203:ASN:HD22	1.63	0.62
1:G:4889:VAL:H	1:G:4892:ARG:HD3	1.62	0.62
1:A:4677:LEU:HD22	1:A:4711:PHE:CZ	2.34	0.62
1:C:1160:ILE:HD11	1:C:1182:ILE:HD13	1.81	0.62
1:C:4823:LEU:HD11	1:E:4839:MET:HB3	1.82	0.62
1:E:4052:SER:O	1:E:4056:GLU:HG2	2.00	0.62
1:G:145:ALA:HA	1:G:175:SER:HB3	1.80	0.62
1:G:1160:ILE:HD11	1:G:1182:ILE:HD13	1.81	0.62
1:G:4137:ARG:NH2	1:G:4177:TYR:OH	2.32	0.62

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4866:SER:N	1:G:4873:ASP:OD2	2.33	0.62
1:C:1275:ARG:NH2	1:C:1599:MET:O	2.32	0.62
1:E:887:ILE:HG12	1:E:907:LEU:HD13	1.82	0.62
1:E:3924:LEU:O	1:E:3927:GLN:HB3	2.00	0.62
1:G:4727:LYS:O	1:G:4729:GLY:N	2.32	0.62
1:A:1295:VAL:HG22	1:A:1548:LEU:H	1.63	0.62
1:C:23:GLN:HG3	1:C:203:ASN:HD22	1.63	0.62
1:C:626:LEU:HB3	1:C:1688:HIS:CE1	2.35	0.62
1:C:1663:HIS:O	1:C:1666:THR:OG1	2.14	0.62
1:E:626:LEU:HB3	1:E:1688:HIS:CE1	2.35	0.62
1:E:2929:PHE:O	1:E:2933:ASN:ND2	2.31	0.62
1:A:4137:ARG:NH2	1:A:4177:TYR:OH	2.33	0.62
1:E:1275:ARG:NH2	1:E:1599:MET:O	2.32	0.62
1:E:1615:VAL:HG12	1:E:1634:LEU:HD13	1.82	0.62
1:E:3813:GLN:NE2	1:E:3891:LEU:O	2.33	0.62
1:G:2354:VAL:HG11	1:G:2457:LEU:HD11	1.82	0.62
1:A:2745:VAL:HG21	1:A:2818:ALA:HB2	1.80	0.62
1:C:1076:ARG:O	1:C:1237:TRP:N	2.27	0.62
1:C:2354:VAL:HG11	1:C:2457:LEU:HD11	1.81	0.62
1:E:3791:GLY:O	1:E:3793:MET:N	2.32	0.62
1:E:4137:ARG:NH2	1:E:4177:TYR:OH	2.33	0.62
1:A:4708:THR:HG22	1:A:4710:SER:H	1.65	0.62
1:C:2929:PHE:O	1:C:2933:ASN:ND2	2.31	0.62
1:E:1230:MET:HG2	1:E:1828:ASP:HA	1.82	0.62
1:E:4866:SER:N	1:E:4873:ASP:OD2	2.33	0.62
1:G:1230:MET:HG2	1:G:1828:ASP:HA	1.82	0.62
1:G:2146:PRO:HA	1:G:2149:VAL:HG13	1.80	0.62
1:A:705:ASN:OD1	1:A:706:GLY:N	2.33	0.61
1:A:2868:SER:O	1:A:2872:GLN:N	2.32	0.61
1:C:829:TYR:HA	1:C:1073:ARG:NH1	2.15	0.61
1:C:1615:VAL:HG12	1:C:1634:LEU:HD13	1.82	0.61
1:C:3817:LEU:HD11	1:C:3821:LYS:HE2	1.81	0.61
1:C:4052:SER:O	1:C:4056:GLU:HG2	2.00	0.61
1:C:4866:SER:N	1:C:4873:ASP:OD2	2.33	0.61
1:E:111:HIS:CD2	1:E:114:SER:H	2.16	0.61
1:E:135:VAL:HG23	1:E:192:ASP:HA	1.82	0.61
1:E:4664:LEU:O	1:E:4667:PRO:HD2	2.01	0.61
1:A:340:LYS:HB2	1:A:344:SER:HB2	1.82	0.61
1:C:340:LYS:HB2	1:C:344:SER:HB2	1.82	0.61
1:C:644:ILE:HD11	1:C:1619:ARG:HD2	1.82	0.61
1:C:1230:MET:HG2	1:C:1828:ASP:HA	1.82	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1436:SER:H	1:E:1516:ILE:HA	1.65	0.61
1:E:2341:VAL:HG22	1:E:2342:ASN:H	1.65	0.61
1:E:4708:THR:HG22	1:E:4710:SER:H	1.65	0.61
1:G:1663:HIS:O	1:G:1666:THR:OG1	2.14	0.61
1:G:4708:THR:HG22	1:G:4710:SER:H	1.64	0.61
1:A:650:VAL:O	1:A:777:PHE:N	2.30	0.61
1:A:1243:PRO:O	1:A:1458:HIS:ND1	2.32	0.61
1:A:3817:LEU:HD11	1:A:3821:LYS:HE2	1.81	0.61
1:A:4686:LEU:HB2	1:A:4690:GLU:HB2	1.82	0.61
1:A:4828:SER:HA	1:A:4831:THR:HG22	1.82	0.61
1:E:4677:LEU:HD22	1:E:4711:PHE:CZ	2.35	0.61
1:E:4686:LEU:HB2	1:E:4690:GLU:HB2	1.82	0.61
1:G:4828:SER:HA	1:G:4831:THR:HG22	1.83	0.61
1:A:135:VAL:HG23	1:A:192:ASP:HA	1.82	0.61
1:A:887:ILE:HG12	1:A:907:LEU:HD13	1.81	0.61
1:C:135:VAL:HG23	1:C:192:ASP:HA	1.82	0.61
1:C:1457:TYR:O	1:C:1458:HIS:CG	2.53	0.61
1:C:4828:SER:HA	1:C:4831:THR:HG22	1.81	0.61
1:G:584:LYS:HZ3	1:G:1586:ASN:HD21	1.48	0.61
1:G:674:PHE:HZ	2:H:100:ASP:OD2	1.83	0.61
1:G:817:PRO:HB3	1:G:1022:VAL:HG11	1.82	0.61
1:A:626:LEU:HB3	1:A:1688:HIS:CE1	2.35	0.61
1:C:4677:LEU:HD22	1:C:4711:PHE:CZ	2.34	0.61
1:E:221:ARG:NE	1:E:258:SER:OG	2.32	0.61
1:G:274:LEU:HD11	1:G:280:LEU:HD22	1.80	0.61
1:G:829:TYR:HA	1:G:1073:ARG:NH1	2.15	0.61
1:G:3891:LEU:HB3	1:G:3899:PHE:HE2	1.63	0.61
1:A:717:ASP:HB2	1:A:737:LEU:HA	1.83	0.61
1:A:829:TYR:HA	1:A:1073:ARG:NH1	2.15	0.61
1:A:2341:VAL:HG22	1:A:2342:ASN:H	1.65	0.61
1:A:4052:SER:O	1:A:4056:GLU:HG2	2.00	0.61
1:A:4077:PHE:CD2	1:A:4125:PHE:HB3	2.35	0.61
1:A:4866:SER:N	1:A:4873:ASP:OD2	2.33	0.61
1:C:1561:VAL:HG13	1:C:1562:ILE:HG22	1.81	0.61
1:C:2868:SER:O	1:C:2872:GLN:N	2.32	0.61
1:C:3813:GLN:NE2	1:C:3891:LEU:O	2.33	0.61
1:E:1160:ILE:HD11	1:E:1182:ILE:HD13	1.81	0.61
1:G:1295:VAL:HG22	1:G:1548:LEU:H	1.64	0.61
1:C:3791:GLY:O	1:C:3793:MET:N	2.32	0.61
1:G:135:VAL:HG23	1:G:192:ASP:HA	1.82	0.61
1:G:2745:VAL:HG21	1:G:2818:ALA:HB2	1.80	0.61

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:723:THR:OG1	1:C:728:ARG:NH1	2.34	0.61
1:C:1436:SER:HA	1:C:1515:VAL:O	1.99	0.61
1:E:717:ASP:HB2	1:E:737:LEU:HA	1.82	0.61
1:G:887:ILE:HG12	1:G:907:LEU:HD13	1.82	0.61
1:A:80:GLU:OE1	1:G:3935:TRP:HE3	1.83	0.61
1:A:817:PRO:HB3	1:A:1022:VAL:HG11	1.82	0.61
1:A:3813:GLN:NE2	1:A:3891:LEU:O	2.34	0.61
1:C:4664:LEU:O	1:C:4667:PRO:HD2	2.01	0.61
2:F:11:ASP:OD2	2:F:68:VAL:HB	2.01	0.61
1:G:626:LEU:HB3	1:G:1688:HIS:CE1	2.35	0.61
1:G:4044:MET:HA	1:G:4047:MET:HG2	1.83	0.61
1:A:717:ASP:OD1	1:A:718:GLY:N	2.34	0.61
1:C:347:PHE:HE1	1:C:387:ALA:HA	1.66	0.61
1:E:4687:TYR:OH	1:E:4699:GLY:O	2.19	0.61
1:E:4979:THR:O	1:E:4984:ASN:N	2.32	0.61
1:A:102:LEU:HB2	1:A:105:HIS:CD2	2.36	0.60
1:A:2354:VAL:HG11	1:A:2457:LEU:HD11	1.82	0.60
1:A:4826:ILE:HG23	1:C:4931:ILE:HD11	1.79	0.60
1:C:584:LYS:HZ3	1:C:1586:ASN:HD21	1.48	0.60
1:C:4077:PHE:CD2	1:C:4125:PHE:HB3	2.35	0.60
1:E:347:PHE:HE1	1:E:387:ALA:HA	1.66	0.60
1:E:817:PRO:HB3	1:E:1022:VAL:HG11	1.82	0.60
1:E:829:TYR:HA	1:E:1073:ARG:NH1	2.15	0.60
1:E:1088:TRP:HZ3	1:E:1229:ASN:HD21	1.49	0.60
1:E:2349:ASN:OD1	1:E:3849:ARG:NH1	2.21	0.60
1:E:2354:VAL:HG11	1:E:2457:LEU:HD11	1.82	0.60
1:E:4077:PHE:CD2	1:E:4125:PHE:HB3	2.35	0.60
1:G:1739:THR:O	1:G:1742:THR:OG1	2.16	0.60
1:G:4027:LEU:HD22	1:G:4146:LEU:HD11	1.82	0.60
1:C:2355:ARG:O	1:C:2359:ARG:NE	2.33	0.60
1:E:644:ILE:HD11	1:E:1619:ARG:HD2	1.82	0.60
1:G:3806:ASN:H	1:G:3890:LEU:HD23	1.66	0.60
1:G:4686:LEU:O	1:G:4690:GLU:N	2.33	0.60
1:A:495:ASN:HD22	1:A:550:LYS:HD2	1.66	0.60
1:A:3962:PHE:O	1:A:3966:THR:HG23	2.01	0.60
1:E:495:ASN:HD22	1:E:550:LYS:HD2	1.66	0.60
1:E:717:ASP:OD2	2:F:7:ILE:O	2.19	0.60
1:E:3937:TYR:HA	1:E:3940:LYS:HZ3	1.66	0.60
1:G:347:PHE:HE1	1:G:387:ALA:HA	1.66	0.60
1:G:717:ASP:OD1	1:G:718:GLY:N	2.34	0.60
1:A:1615:VAL:HG12	1:A:1634:LEU:HD13	1.82	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:717:ASP:OD2	2:D:7:ILE:O	2.20	0.60
1:E:445:LEU:HD21	1:E:522:LEU:HG	1.84	0.60
1:E:717:ASP:OD1	1:E:718:GLY:N	2.34	0.60
1:E:723:THR:OG1	1:E:728:ARG:NH1	2.33	0.60
1:G:102:LEU:HB2	1:G:105:HIS:CD2	2.37	0.60
1:G:495:ASN:HD22	1:G:550:LYS:HD2	1.66	0.60
1:G:644:ILE:HD11	1:G:1619:ARG:HD2	1.82	0.60
1:G:2924:GLN:HB3	1:G:2928:LYS:CE	2.31	0.60
1:A:717:ASP:OD2	2:B:7:ILE:O	2.19	0.60
1:A:1547:LYS:NZ	1:A:1645:ASN:HB2	2.16	0.60
1:C:717:ASP:HB2	1:C:737:LEU:HA	1.82	0.60
1:C:4686:LEU:HB2	1:C:4690:GLU:HB2	1.82	0.60
1:C:4809:PHE:O	1:C:4812:HIS:ND1	2.28	0.60
1:E:1547:LYS:NZ	1:E:1645:ASN:HB2	2.15	0.60
1:G:639:ASN:HA	1:G:1635:THR:HG22	1.83	0.60
1:G:705:ASN:OD1	1:G:706:GLY:N	2.33	0.60
1:G:1088:TRP:HZ3	1:G:1229:ASN:HD21	1.50	0.60
1:G:4664:LEU:O	1:G:4667:PRO:HD2	2.01	0.60
1:A:445:LEU:HD21	1:A:522:LEU:HG	1.84	0.60
1:C:445:LEU:HD21	1:C:522:LEU:HG	1.84	0.60
1:C:1435:TYR:H	1:C:1516:ILE:CG1	2.14	0.60
1:C:1961:PHE:CD1	1:C:2066:LEU:HD13	2.37	0.60
1:C:3962:PHE:O	1:C:3966:THR:HG23	2.02	0.60
2:D:11:ASP:OD2	2:D:68:VAL:HB	2.02	0.60
1:G:2868:SER:O	1:G:2872:GLN:N	2.32	0.60
1:C:2356:LEU:HD23	1:C:2359:ARG:NH1	2.17	0.60
1:C:4708:THR:HG22	1:C:4710:SER:H	1.65	0.60
1:G:320:LYS:NZ	1:G:383:HIS:O	2.29	0.60
1:G:1547:LYS:NZ	1:G:1645:ASN:HB2	2.17	0.60
1:G:1615:VAL:HG12	1:G:1634:LEU:HD13	1.82	0.60
1:G:2356:LEU:HD23	1:G:2359:ARG:NH1	2.17	0.60
1:A:2356:LEU:HD23	1:A:2359:ARG:NH1	2.17	0.60
1:C:705:ASN:OD1	1:C:706:GLY:N	2.33	0.60
1:C:717:ASP:OD1	1:C:718:GLY:N	2.34	0.60
1:C:1088:TRP:HZ3	1:C:1229:ASN:HD21	1.49	0.60
1:G:2066:LEU:O	1:G:2069:THR:OG1	2.17	0.60
1:A:1230:MET:HG2	1:A:1828:ASP:HA	1.84	0.60
1:A:2517:PHE:HA	1:A:2520:HIS:CE1	2.37	0.60
1:A:4830:VAL:HG22	1:A:4936:ILE:HD12	1.84	0.60
1:G:2341:VAL:HG22	1:G:2342:ASN:H	1.66	0.60
1:G:4667:PRO:HA	1:G:4670:ILE:HG22	1.84	0.60

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:119:SER:HB2	1:A:145:ALA:HB1	1.84	0.60
1:A:644:ILE:HD11	1:A:1619:ARG:HD2	1.82	0.60
1:C:221:ARG:NE	1:C:258:SER:OG	2.32	0.60
1:C:2341:VAL:HG22	1:C:2342:ASN:H	1.66	0.60
1:C:4687:TYR:OH	1:C:4699:GLY:O	2.19	0.60
1:E:340:LYS:HB2	1:E:344:SER:HB2	1.82	0.60
1:E:2496:PRO:HG3	1:E:2549:ALA:HB1	1.84	0.60
1:E:3962:PHE:O	1:E:3966:THR:HG23	2.01	0.60
1:A:347:PHE:HE1	1:A:387:ALA:HA	1.66	0.59
1:A:3791:GLY:O	1:A:3793:MET:N	2.32	0.59
1:C:639:ASN:HA	1:C:1635:THR:HG22	1.83	0.59
1:C:1739:THR:O	1:C:1742:THR:OG1	2.17	0.59
1:C:2517:PHE:HA	1:C:2520:HIS:CE1	2.37	0.59
1:E:2356:LEU:HD23	1:E:2359:ARG:NH1	2.17	0.59
1:E:4806:ASN:O	1:E:4809:PHE:HB3	2.01	0.59
1:G:445:LEU:HD21	1:G:522:LEU:HG	1.84	0.59
1:G:2496:PRO:HG3	1:G:2549:ALA:HB1	1.84	0.59
1:G:2517:PHE:HA	1:G:2520:HIS:CE1	2.37	0.59
1:C:102:LEU:HB2	1:C:105:HIS:CD2	2.37	0.59
1:C:1547:LYS:NZ	1:C:1645:ASN:HB2	2.16	0.59
1:E:705:ASN:OD1	1:E:706:GLY:N	2.33	0.59
1:G:340:LYS:HB2	1:G:344:SER:HB2	1.83	0.59
1:C:495:ASN:HD22	1:C:550:LYS:HD2	1.66	0.59
1:G:250:GLY:O	1:G:252:VAL:N	2.35	0.59
1:A:1739:THR:O	1:A:1742:THR:OG1	2.17	0.59
1:A:2927:LEU:HD23	1:A:2930:LEU:HD12	1.85	0.59
2:B:11:ASP:OD2	2:B:68:VAL:HB	2.01	0.59
1:C:2927:LEU:HD23	1:C:2930:LEU:HD12	1.84	0.59
1:E:494:LEU:HB3	1:E:515:TRP:HE1	1.68	0.59
1:E:635:THR:HG23	1:E:1693:GLN:HE22	1.68	0.59
1:E:4928:LEU:O	1:E:4931:ILE:HG22	2.02	0.59
1:G:2355:ARG:O	1:G:2359:ARG:NE	2.33	0.59
1:A:350:HIS:O	1:A:354:GLY:N	2.28	0.59
1:E:617:ASN:O	1:E:621:ILE:HG12	2.02	0.59
1:E:639:ASN:HA	1:E:1635:THR:HG22	1.84	0.59
1:G:1105:ALA:HB3	1:G:1191:VAL:HG21	1.84	0.59
1:A:293:LEU:HD13	1:A:350:HIS:CD2	2.38	0.59
1:C:627:PRO:HG3	2:D:89:GLY:C	2.23	0.59
1:C:1206:GLN:N	1:C:1227:ALA:HB3	2.12	0.59
1:E:119:SER:HB2	1:E:145:ALA:HB1	1.85	0.59
1:E:2205:GLU:O	1:E:2209:GLU:N	2.36	0.59

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4904:PRO:HB2	1:E:4910:GLU:HG2	1.85	0.59
1:G:717:ASP:OD2	2:H:7:ILE:O	2.19	0.59
1:G:1620:ALA:N	1:G:1629:GLN:O	2.33	0.59
1:G:1961:PHE:CD1	1:G:2066:LEU:HD13	2.37	0.59
1:G:2205:GLU:O	1:G:2209:GLU:N	2.36	0.59
1:G:4554:TYR:HA	1:G:4557:ARG:NH1	2.17	0.59
2:H:11:ASP:OD2	2:H:68:VAL:HB	2.03	0.59
1:A:1105:ALA:HB3	1:A:1191:VAL:HG21	1.84	0.59
1:C:1598:GLN:O	1:C:1600:LEU:N	2.34	0.59
1:E:1457:TYR:O	1:E:1458:HIS:CD2	2.56	0.59
1:G:4097:MET:HB3	1:G:4108:ILE:HD12	1.84	0.59
1:G:4928:LEU:HA	1:G:4931:ILE:HG22	1.85	0.59
1:A:1961:PHE:CD1	1:A:2066:LEU:HD13	2.37	0.59
1:A:2349:ASN:OD1	1:A:3849:ARG:NH1	2.21	0.59
1:G:635:THR:HG23	1:G:1693:GLN:HE22	1.68	0.59
1:G:4705:VAL:HG22	1:G:4711:PHE:HD1	1.68	0.59
1:A:617:ASN:O	1:A:621:ILE:HG12	2.03	0.59
1:C:119:SER:HB2	1:C:145:ALA:HB1	1.85	0.59
1:C:293:LEU:HD13	1:C:350:HIS:CD2	2.38	0.59
1:C:617:ASN:O	1:C:621:ILE:HG12	2.02	0.59
1:C:817:PRO:HB3	1:C:1022:VAL:HG11	1.82	0.59
1:C:4904:PRO:HB2	1:C:4910:GLU:HG2	1.85	0.59
1:G:717:ASP:HB2	1:G:737:LEU:HA	1.85	0.59
1:A:2496:PRO:HG3	1:A:2549:ALA:HB1	1.85	0.59
1:C:57:ASN:HD22	1:C:308:HIS:HB2	1.67	0.59
1:C:650:VAL:O	1:C:777:PHE:N	2.30	0.59
1:C:2496:PRO:HG3	1:C:2549:ALA:HB1	1.85	0.59
1:C:4239:GLU:OE2	1:C:5014:TYR:OH	2.18	0.59
1:E:57:ASN:HD22	1:E:308:HIS:HB2	1.67	0.59
1:E:102:LEU:HB2	1:E:105:HIS:CD2	2.37	0.59
1:E:1961:PHE:CD1	1:E:2066:LEU:HD13	2.38	0.59
1:G:617:ASN:O	1:G:621:ILE:HG12	2.02	0.59
1:G:723:THR:OG1	1:G:728:ARG:NH1	2.34	0.59
1:A:4664:LEU:O	1:A:4667:PRO:HD2	2.01	0.58
1:A:4931:ILE:HD11	1:G:4826:ILE:CG2	2.33	0.58
1:C:2125:HIS:HD2	1:C:3728:ILE:HD11	1.67	0.58
1:E:249:GLY:H	1:E:372:LEU:HD11	1.68	0.58
1:G:494:LEU:HB3	1:G:515:TRP:HE1	1.68	0.58
1:A:737:LEU:CD1	2:B:8:SER:HB3	2.33	0.58
1:A:2233:CYS:HG	1:A:2271:THR:N	2.01	0.58
1:A:4904:PRO:HB2	1:A:4910:GLU:HG2	1.86	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:358:THR:HA	1:C:386:ASP:OD2	2.04	0.58
1:C:737:LEU:CD1	2:D:8:SER:HB3	2.34	0.58
1:C:1105:ALA:HB3	1:C:1191:VAL:HG21	1.84	0.58
1:C:1437:VAL:N	1:C:1515:VAL:O	2.35	0.58
1:C:2233:CYS:HG	1:C:2271:THR:N	2.01	0.58
1:C:4979:THR:O	1:C:4984:ASN:N	2.31	0.58
1:E:293:LEU:HD13	1:E:350:HIS:CD2	2.38	0.58
1:E:737:LEU:CD1	2:F:8:SER:HB3	2.33	0.58
1:E:1105:ALA:HB3	1:E:1191:VAL:HG21	1.84	0.58
1:E:2517:PHE:HA	1:E:2520:HIS:CE1	2.37	0.58
1:E:2890:LYS:HE3	1:E:2894:LEU:HD11	1.85	0.58
1:G:293:LEU:HD13	1:G:350:HIS:CD2	2.38	0.58
1:G:1435:TYR:HB3	1:G:1517:GLY:H	1.68	0.58
1:G:2126:ARG:HB2	1:G:2133:GLU:OE1	2.03	0.58
1:A:358:THR:HA	1:A:386:ASP:OD2	2.03	0.58
1:A:723:THR:OG1	1:A:728:ARG:NH1	2.34	0.58
1:E:1091:GLU:HG2	1:E:1213:PHE:HB2	1.85	0.58
1:E:2233:CYS:HG	1:E:2271:THR:N	2.01	0.58
1:G:119:SER:HB2	1:G:145:ALA:HB1	1.85	0.58
1:G:1206:GLN:N	1:G:1227:ALA:HB3	2.12	0.58
1:A:4687:TYR:OH	1:A:4699:GLY:O	2.20	0.58
1:E:404:ILE:HD13	1:E:481:GLU:HG3	1.85	0.58
1:A:250:GLY:O	1:A:252:VAL:N	2.36	0.58
1:A:494:LEU:HB3	1:A:515:TRP:HE1	1.68	0.58
1:A:2125:HIS:HD2	1:A:3728:ILE:HD11	1.68	0.58
1:E:1598:GLN:O	1:E:1600:LEU:N	2.33	0.58
1:G:3839:CYS:SG	1:G:3881:THR:HG22	2.44	0.58
1:A:635:THR:HG23	1:A:1693:GLN:HE22	1.68	0.58
1:A:4839:MET:HB3	1:G:4823:LEU:HD11	1.85	0.58
1:C:15:ARG:N	1:C:18:ASP:OD2	2.37	0.58
1:C:404:ILE:HD13	1:C:481:GLU:HG3	1.86	0.58
1:C:635:THR:HG23	1:C:1693:GLN:HE22	1.68	0.58
1:C:864:PRO:O	1:C:868:GLU:N	2.32	0.58
1:C:1190:PRO:HG3	1:C:1226:PHE:CE2	2.36	0.58
1:C:1745:ILE:HD11	1:C:1769:THR:HG21	1.86	0.58
1:G:3768:SER:HA	1:G:3771:HIS:HB3	1.84	0.58
1:G:3780:LEU:HD21	1:G:3820:LEU:HD21	1.85	0.58
1:A:639:ASN:HA	1:A:1635:THR:HG22	1.84	0.58
1:A:1933:GLU:HB3	1:A:2116:LEU:HD21	1.86	0.58
1:A:2355:ARG:O	1:A:2359:ARG:NE	2.33	0.58
1:C:4806:ASN:O	1:C:4809:PHE:HB3	2.04	0.58

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:2233:CYS:HG	1:G:2271:THR:N	2.01	0.58
1:G:2349:ASN:OD1	1:G:3849:ARG:NH1	2.26	0.58
1:G:4727:LYS:HZ2	1:G:4728:HIS:CE1	2.22	0.58
1:A:57:ASN:HD22	1:A:308:HIS:HB2	1.67	0.58
1:A:1745:ILE:HD11	1:A:1769:THR:HG21	1.86	0.58
1:A:4786:ASP:OD2	1:A:4788:SER:OG	2.07	0.58
1:C:2205:GLU:O	1:C:2209:GLU:N	2.36	0.58
1:C:2890:LYS:HE3	1:C:2894:LEU:HD11	1.84	0.58
1:E:15:ARG:N	1:E:18:ASP:OD2	2.36	0.58
1:E:2868:SER:O	1:E:2872:GLN:N	2.32	0.58
1:E:3821:LYS:HZ3	1:E:3902:TYR:HD1	1.50	0.58
1:G:640:TYR:CE1	1:G:1613:LEU:HD23	2.37	0.58
1:G:737:LEU:CD1	2:H:8:SER:HB3	2.33	0.58
1:G:1091:GLU:HG2	1:G:1213:PHE:HB2	1.85	0.58
1:A:195:PHE:CD2	1:G:2358:ILE:HG23	2.39	0.58
1:A:249:GLY:H	1:A:372:LEU:HD11	1.68	0.58
1:A:1620:ALA:N	1:A:1629:GLN:O	2.33	0.58
1:C:1091:GLU:HG2	1:C:1213:PHE:HB2	1.85	0.58
1:C:2358:ILE:HG23	1:E:195:PHE:CD2	2.39	0.58
1:E:1585:LYS:HZ3	1:E:1596:GLU:CD	2.05	0.58
1:E:1933:GLU:HB3	1:E:2116:LEU:HD21	1.86	0.58
1:E:2125:HIS:HD2	1:E:3728:ILE:HD11	1.68	0.58
1:E:2756:ASN:OD1	1:E:2806:ARG:NH2	2.37	0.58
1:G:249:GLY:H	1:G:372:LEU:HD11	1.68	0.58
1:G:358:THR:HA	1:G:386:ASP:OD2	2.03	0.58
1:G:1933:GLU:HB3	1:G:2116:LEU:HD21	1.86	0.58
1:G:4855:ALA:HB1	1:G:4863:TYR:CE2	2.39	0.58
1:A:111:HIS:HD2	1:A:114:SER:N	2.00	0.58
1:A:2358:ILE:HG23	1:C:195:PHE:CD2	2.39	0.58
1:A:4806:ASN:O	1:A:4809:PHE:HB3	2.04	0.58
1:C:1620:ALA:N	1:C:1629:GLN:O	2.33	0.58
1:E:358:THR:HA	1:E:386:ASP:OD2	2.03	0.58
1:E:627:PRO:HG3	2:F:89:GLY:C	2.24	0.58
1:G:650:VAL:O	1:G:777:PHE:N	2.30	0.58
1:G:3169:LEU:O	1:G:3173:TYR:N	2.36	0.58
1:A:320:LYS:NZ	1:A:383:HIS:O	2.29	0.57
1:A:1436:SER:N	1:A:1516:ILE:HA	2.19	0.57
1:E:1243:PRO:O	1:E:1458:HIS:CE1	2.57	0.57
1:G:111:HIS:HD2	1:G:114:SER:N	2.00	0.57
1:G:2890:LYS:HE3	1:G:2894:LEU:HD11	1.85	0.57
1:A:421:PHE:CD1	1:A:507:ALA:HB2	2.39	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1663:HIS:O	1:A:1666:THR:OG1	2.13	0.57
1:A:2756:ASN:OD1	1:A:2806:ARG:NH2	2.37	0.57
1:A:3805:LEU:O	1:A:3807:GLY:N	2.37	0.57
2:D:87:HIS:HB3	2:D:91:ILE:H	1.69	0.57
1:E:421:PHE:CD1	1:E:507:ALA:HB2	2.39	0.57
1:G:57:ASN:HD22	1:G:308:HIS:HB2	1.67	0.57
1:G:461:HIS:O	1:G:465:GLN:HG2	2.04	0.57
1:G:2259:GLU:HG2	1:G:2297:LYS:HE2	1.86	0.57
1:G:2454:ARG:O	1:G:2458:ARG:HG3	2.04	0.57
1:G:4830:VAL:HG22	1:G:4936:ILE:HD12	1.86	0.57
1:A:627:PRO:HG3	2:B:89:GLY:C	2.24	0.57
1:A:2890:LYS:HE3	1:A:2894:LEU:HD11	1.85	0.57
1:C:250:GLY:O	1:C:252:VAL:N	2.38	0.57
1:C:1933:GLU:HB3	1:C:2116:LEU:HD21	1.86	0.57
1:C:2066:LEU:O	1:C:2069:THR:OG1	2.20	0.57
1:E:864:PRO:O	1:E:868:GLU:N	2.33	0.57
1:E:1480:GLN:N	1:E:1481:GLY:HA2	2.19	0.57
2:F:87:HIS:HB3	2:F:91:ILE:H	1.69	0.57
1:G:2125:HIS:HD2	1:G:3728:ILE:HD11	1.69	0.57
1:A:15:ARG:N	1:A:18:ASP:OD2	2.37	0.57
1:A:3835:LEU:HD21	1:A:3880:PHE:CE2	2.40	0.57
1:A:4077:PHE:O	1:A:4081:VAL:N	2.37	0.57
1:E:250:GLY:O	1:E:252:VAL:N	2.38	0.57
1:E:4027:LEU:HD22	1:E:4146:LEU:HD11	1.86	0.57
1:G:1745:ILE:HD11	1:G:1769:THR:HG21	1.86	0.57
2:H:87:HIS:HB3	2:H:91:ILE:H	1.68	0.57
1:A:2205:GLU:O	1:A:2209:GLU:N	2.36	0.57
1:C:2126:ARG:HB2	1:C:2133:GLU:OE1	2.05	0.57
1:C:2756:ASN:OD1	1:C:2806:ARG:NH2	2.37	0.57
1:C:3805:LEU:O	1:C:3807:GLY:N	2.37	0.57
1:E:1745:ILE:HD11	1:E:1769:THR:HG21	1.86	0.57
1:E:2771:ILE:HD11	1:E:2857:PRO:HD2	1.87	0.57
1:E:4786:ASP:OD2	1:E:4788:SER:OG	2.07	0.57
1:G:768:PHE:HB3	1:G:771:PHE:HE1	1.69	0.57
1:G:3897:ASN:O	1:G:3901:ASN:ND2	2.36	0.57
1:A:16:THR:HB	1:A:98:HIS:HA	1.87	0.57
1:A:170:ILE:HD11	1:A:199:LEU:HD23	1.85	0.57
1:A:649:PHE:CE1	1:A:689:THR:HG22	2.40	0.57
1:A:1480:GLN:N	1:A:1481:GLY:HA2	2.19	0.57
1:C:350:HIS:O	1:C:354:GLY:N	2.27	0.57
1:G:170:ILE:HD11	1:G:199:LEU:HD23	1.86	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:627:PRO:HG3	2:H:89:GLY:C	2.23	0.57
1:G:1436:SER:H	1:G:1516:ILE:CG1	2.17	0.57
1:G:4026:MET:HG3	1:G:4027:LEU:N	2.19	0.57
1:A:495:ASN:HB3	1:A:553:ARG:NH2	2.20	0.57
1:A:1731:LEU:HD21	1:A:1948:ASP:HB3	1.87	0.57
1:A:2771:ILE:HD11	1:A:2857:PRO:HD2	1.87	0.57
1:C:494:LEU:HB3	1:C:515:TRP:HE1	1.69	0.57
1:C:523:TYR:CD1	1:C:560:ILE:HG12	2.40	0.57
1:C:1480:GLN:N	1:C:1481:GLY:HA2	2.19	0.57
1:E:170:ILE:HD11	1:E:199:LEU:HD23	1.86	0.57
1:E:2454:ARG:O	1:E:2458:ARG:HG3	2.04	0.57
1:G:15:ARG:N	1:G:18:ASP:OD2	2.36	0.57
1:G:421:PHE:CD1	1:G:507:ALA:HB2	2.40	0.57
1:G:4047:MET:HG3	1:G:4048:LEU:N	2.18	0.57
1:A:4205:TRP:CZ2	1:A:4986:ALA:HB2	2.40	0.57
1:A:4928:LEU:O	1:A:4931:ILE:HG22	2.04	0.57
1:C:768:PHE:HB3	1:C:771:PHE:HE1	1.69	0.57
1:C:2259:GLU:HG2	1:C:2297:LYS:HE2	1.87	0.57
1:C:2922:LYS:HA	1:C:2925:GLU:CD	2.23	0.57
1:G:1480:GLN:N	1:G:1481:GLY:HA2	2.19	0.57
1:G:2551:ASN:O	1:G:2554:LEU:HG	2.05	0.57
1:A:1833:SER:HB2	1:A:1836:PHE:HD2	1.70	0.57
1:A:2454:ARG:O	1:A:2458:ARG:HG3	2.04	0.57
1:C:249:GLY:H	1:C:372:LEU:HD11	1.69	0.57
1:C:421:PHE:CD1	1:C:507:ALA:HB2	2.39	0.57
1:C:2556:LEU:HA	1:C:2559:LEU:HD13	1.87	0.57
1:C:2771:ILE:HD11	1:C:2857:PRO:HD2	1.87	0.57
1:C:3835:LEU:HD21	1:C:3880:PHE:CE2	2.39	0.57
1:E:16:THR:HB	1:E:98:HIS:HA	1.87	0.57
1:E:495:ASN:HB3	1:E:553:ARG:NH2	2.20	0.57
1:E:523:TYR:CD1	1:E:560:ILE:HG12	2.40	0.57
1:E:649:PHE:CE1	1:E:689:THR:HG22	2.40	0.57
1:E:1739:THR:O	1:E:1742:THR:OG1	2.17	0.57
1:E:3835:LEU:HD21	1:E:3880:PHE:CE2	2.40	0.57
1:G:649:PHE:CE1	1:G:689:THR:HG22	2.40	0.57
1:A:232:THR:OG1	1:A:252:VAL:HG21	2.05	0.57
1:C:4077:PHE:O	1:C:4081:VAL:N	2.37	0.57
1:E:584:LYS:HZ3	1:E:1586:ASN:HD21	1.51	0.57
1:E:2259:GLU:HG2	1:E:2297:LYS:HE2	1.87	0.57
1:E:2355:ARG:O	1:E:2359:ARG:NE	2.33	0.57
1:E:4826:ILE:HG23	1:G:4931:ILE:HD11	1.80	0.57

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:257:ARG:O	1:G:284:HIS:HE1	1.88	0.57
1:G:523:TYR:CD1	1:G:560:ILE:HG12	2.40	0.57
1:G:1731:LEU:HD21	1:G:1948:ASP:HB3	1.85	0.57
1:G:4994:TYR:O	1:G:4998:LYS:HG2	2.05	0.57
1:A:257:ARG:O	1:A:284:HIS:HE1	1.88	0.56
1:A:1598:GLN:O	1:A:1600:LEU:N	2.33	0.56
1:A:2862:LEU:HD21	1:A:2929:PHE:HD1	1.70	0.56
1:C:495:ASN:HB3	1:C:553:ARG:NH2	2.20	0.56
1:E:1288:PHE:HE2	1:E:1460:HIS:HA	1.70	0.56
1:G:1190:PRO:HG3	1:G:1226:PHE:CE2	2.36	0.56
1:A:1190:PRO:HG3	1:A:1226:PHE:CE2	2.37	0.56
1:A:2902:HIS:HB3	1:A:2905:LEU:HG	1.87	0.56
1:A:4861:LYS:O	1:A:4875:LYS:NZ	2.39	0.56
1:C:4205:TRP:CZ2	1:C:4986:ALA:HB2	2.40	0.56
1:E:257:ARG:O	1:E:284:HIS:HE1	1.88	0.56
1:E:1616:GLU:HG3	1:E:1617:THR:N	2.20	0.56
1:E:1663:HIS:O	1:E:1666:THR:OG1	2.14	0.56
1:E:4205:TRP:CZ2	1:E:4986:ALA:HB2	2.40	0.56
1:G:2771:ILE:HD11	1:G:2857:PRO:HD2	1.87	0.56
1:G:4077:PHE:O	1:G:4081:VAL:N	2.38	0.56
1:A:110:ARG:NH1	1:A:115:ARG:HE	2.03	0.56
1:A:4686:LEU:O	1:A:4690:GLU:N	2.39	0.56
2:B:87:HIS:HB3	2:B:91:ILE:H	1.69	0.56
1:C:170:ILE:HD11	1:C:199:LEU:HD23	1.86	0.56
1:C:649:PHE:CE1	1:C:689:THR:HG22	2.40	0.56
1:C:2454:ARG:O	1:C:2458:ARG:HG3	2.04	0.56
1:E:650:VAL:O	1:E:777:PHE:N	2.30	0.56
1:E:2827:ARG:HB2	1:E:2934:GLY:HA3	1.87	0.56
1:E:4809:PHE:O	1:E:4812:HIS:ND1	2.28	0.56
1:G:37:LEU:HD13	1:G:191:VAL:HG21	1.87	0.56
1:G:110:ARG:NH1	1:G:115:ARG:HE	2.03	0.56
1:G:3805:LEU:O	1:G:3807:GLY:N	2.38	0.56
1:G:4848:VAL:HG23	1:G:4920:PHE:HE1	1.71	0.56
1:A:768:PHE:HB3	1:A:771:PHE:HE1	1.70	0.56
1:A:2259:GLU:HG2	1:A:2297:LYS:HE2	1.87	0.56
1:C:1616:GLU:HG3	1:C:1617:THR:N	2.20	0.56
1:C:3885:PHE:HE1	1:C:3919:THR:HG1	1.52	0.56
1:E:2126:ARG:HB2	1:E:2133:GLU:OE1	2.05	0.56
1:E:2551:ASN:O	1:E:2554:LEU:HG	2.05	0.56
1:E:4077:PHE:O	1:E:4081:VAL:N	2.38	0.56
1:G:1616:GLU:HG3	1:G:1617:THR:N	2.20	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:461:HIS:O	1:C:465:GLN:HG2	2.06	0.56
1:C:1731:LEU:HD21	1:C:1948:ASP:HB3	1.86	0.56
1:E:896:VAL:HG13	1:E:903:LEU:HB3	1.88	0.56
1:G:404:ILE:HD13	1:G:481:GLU:HG3	1.86	0.56
1:G:1003:GLN:O	1:G:1016:ARG:N	2.39	0.56
1:G:3786:CYS:SG	1:G:3794:VAL:HG22	2.45	0.56
1:A:2551:ASN:O	1:A:2554:LEU:HG	2.05	0.56
1:A:2827:ARG:HB2	1:A:2934:GLY:HA3	1.87	0.56
1:A:4031:LEU:HD13	1:A:4044:MET:HE3	1.87	0.56
1:C:111:HIS:CD2	1:C:114:SER:H	2.16	0.56
1:C:257:ARG:O	1:C:284:HIS:HE1	1.88	0.56
1:E:461:HIS:O	1:E:465:GLN:HG2	2.06	0.56
1:E:670:GLU:HB3	1:E:788:LYS:HB3	1.87	0.56
1:E:2875:ALA:HB2	1:E:2927:LEU:HD12	1.87	0.56
1:E:4164:LEU:HD23	1:E:4168:GLU:OE2	2.06	0.56
1:G:232:THR:OG1	1:G:252:VAL:HG21	2.05	0.56
1:G:4956:THR:O	1:G:4965:SER:N	2.38	0.56
1:A:404:ILE:HD13	1:A:481:GLU:HG3	1.86	0.56
1:A:1616:GLU:HG3	1:A:1617:THR:N	2.20	0.56
1:A:2126:ARG:HB2	1:A:2133:GLU:OE1	2.05	0.56
1:A:2248:ARG:NH1	1:A:2285:GLU:OE2	2.39	0.56
1:A:2556:LEU:HA	1:A:2559:LEU:HD13	1.87	0.56
1:A:4013:LEU:O	1:A:4017:LEU:HG	2.06	0.56
1:C:4705:VAL:HG22	1:C:4711:PHE:HD1	1.70	0.56
1:C:4826:ILE:HG23	1:E:4931:ILE:HD11	1.83	0.56
1:E:640:TYR:CE1	1:E:1613:LEU:HD23	2.37	0.56
1:E:768:PHE:HB3	1:E:771:PHE:HE1	1.69	0.56
1:E:1003:GLN:O	1:E:1016:ARG:N	2.39	0.56
1:E:1214:PHE:O	1:E:1218:GLY:N	2.37	0.56
1:E:1833:SER:HB2	1:E:1836:PHE:HD2	1.70	0.56
1:E:2358:ILE:HG23	1:G:195:PHE:CD2	2.40	0.56
1:G:16:THR:HB	1:G:98:HIS:HA	1.87	0.56
1:G:4205:TRP:CZ2	1:G:4986:ALA:HB2	2.41	0.56
1:A:523:TYR:CD1	1:A:560:ILE:HG12	2.40	0.56
1:A:1237:TRP:HD1	1:A:1611:HIS:HA	1.71	0.56
1:A:2143:THR:OG1	1:A:3651:ASN:ND2	2.39	0.56
1:C:896:VAL:HG23	1:C:903:LEU:HB3	1.88	0.56
1:C:2827:ARG:HB2	1:C:2934:GLY:HA3	1.88	0.56
1:E:1240:LYS:HG3	1:E:1610:ASN:HD22	1.71	0.56
1:E:1620:ALA:N	1:E:1629:GLN:O	2.33	0.56
1:E:4683:PHE:CE2	1:E:5017:ARG:HD2	2.41	0.56

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4904:PRO:HG3	1:E:4913:ARG:HH11	1.71	0.56
1:G:3840:SER:HB2	1:G:3877:ASP:OD2	2.06	0.56
1:C:1833:SER:HB2	1:C:1836:PHE:HD2	1.70	0.56
1:C:2143:THR:OG1	1:C:3651:ASN:ND2	2.39	0.56
1:C:2862:LEU:HD21	1:C:2929:PHE:HD1	1.71	0.56
1:C:4027:LEU:HD22	1:C:4146:LEU:HD11	1.87	0.56
1:C:4888:TYR:CD1	1:E:4914:VAL:HG23	2.41	0.56
1:E:1190:PRO:HG3	1:E:1226:PHE:CE2	2.36	0.56
1:E:2862:LEU:HD21	1:E:2929:PHE:HD1	1.71	0.56
1:E:4013:LEU:O	1:E:4017:LEU:HG	2.06	0.56
1:G:2756:ASN:OD1	1:G:2806:ARG:NH2	2.38	0.56
1:A:1091:GLU:HG2	1:A:1213:PHE:HB2	1.86	0.56
1:A:4979:THR:O	1:A:4984:ASN:N	2.31	0.56
1:C:670:GLU:HB3	1:C:788:LYS:HB3	1.87	0.56
1:E:4047:MET:HG3	1:E:4048:LEU:N	2.21	0.56
1:E:4705:VAL:HG22	1:E:4711:PHE:HD1	1.71	0.56
1:G:1240:LYS:HG3	1:G:1610:ASN:HD22	1.71	0.56
1:G:4181:ILE:HG23	1:G:4195:PHE:HE1	1.71	0.56
2:H:27:THR:HG22	2:H:100:ASP:HB3	1.88	0.56
1:A:4705:VAL:HG22	1:A:4711:PHE:HD1	1.71	0.55
1:C:111:HIS:HD2	1:C:114:SER:N	2.01	0.55
1:C:1237:TRP:HD1	1:C:1611:HIS:HA	1.71	0.55
1:C:4578:LEU:O	1:E:4879:MET:CB	2.54	0.55
1:E:2763:HIS:NE2	1:E:2792:ARG:O	2.32	0.55
1:G:641:VAL:HG21	1:G:704:GLY:N	2.21	0.55
1:G:1598:GLN:O	1:G:1600:LEU:N	2.33	0.55
1:A:670:GLU:HB3	1:A:788:LYS:HB3	1.87	0.55
1:C:37:LEU:HD13	1:C:191:VAL:HG21	1.87	0.55
1:C:232:THR:OG1	1:C:252:VAL:HG21	2.05	0.55
1:C:640:TYR:CE1	1:C:1613:LEU:HD23	2.37	0.55
1:C:2551:ASN:O	1:C:2554:LEU:HG	2.05	0.55
1:C:2902:HIS:HB3	1:C:2905:LEU:HG	1.86	0.55
1:C:4786:ASP:OD2	1:C:4788:SER:OG	2.07	0.55
1:C:4928:LEU:O	1:C:4931:ILE:HG22	2.06	0.55
1:E:1237:TRP:HD1	1:E:1611:HIS:HA	1.71	0.55
1:E:2556:LEU:HA	1:E:2559:LEU:HD13	1.88	0.55
1:G:103:TYR:CE2	1:G:163:VAL:HA	2.42	0.55
1:G:495:ASN:HB3	1:G:553:ARG:NH2	2.20	0.55
1:A:864:PRO:O	1:A:868:GLU:N	2.33	0.55
1:A:2066:LEU:O	1:A:2069:THR:OG1	2.20	0.55
1:E:4181:ILE:HG23	1:E:4195:PHE:HE1	1.71	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1288:PHE:HE2	1:G:1460:HIS:HA	1.71	0.55
1:G:1833:SER:HB2	1:G:1836:PHE:HD2	1.70	0.55
1:A:294:THR:HG22	1:A:296:ASP:H	1.71	0.55
1:A:2763:HIS:NE2	1:A:2792:ARG:O	2.32	0.55
1:C:16:THR:HB	1:C:98:HIS:HA	1.87	0.55
1:C:641:VAL:HG21	1:C:704:GLY:N	2.21	0.55
1:C:758:ARG:HH12	1:C:763:PRO:HG3	1.72	0.55
1:C:1003:GLN:O	1:C:1016:ARG:N	2.39	0.55
1:E:37:LEU:HD13	1:E:191:VAL:HG21	1.88	0.55
1:E:103:TYR:CE2	1:E:163:VAL:HA	2.41	0.55
1:E:375:LYS:HZ1	1:E:377:ILE:HG22	1.71	0.55
1:E:1237:TRP:CD1	1:E:1611:HIS:HA	2.42	0.55
1:E:2143:THR:OG1	1:E:3651:ASN:ND2	2.39	0.55
1:E:2248:ARG:NH1	1:E:2285:GLU:OE2	2.39	0.55
1:E:2902:HIS:CG	1:E:2903:PRO:HD2	2.41	0.55
1:E:2902:HIS:HB3	1:E:2905:LEU:HG	1.86	0.55
1:G:220:LEU:HD11	1:G:390:LEU:HD22	1.87	0.55
1:G:1201:HIS:CE1	1:G:1203:ASN:HD21	2.24	0.55
1:G:3750:GLU:OE2	1:G:4716:TRP:HA	2.07	0.55
1:A:220:LEU:HD11	1:A:390:LEU:HD22	1.88	0.55
1:A:1088:TRP:HZ3	1:A:1229:ASN:HD21	1.54	0.55
1:A:3891:LEU:HD23	1:A:3899:PHE:CZ	2.41	0.55
1:C:4031:LEU:HD13	1:C:4044:MET:HE3	1.87	0.55
1:C:4164:LEU:HD23	1:C:4168:GLU:OE2	2.06	0.55
1:C:4956:THR:O	1:C:4965:SER:N	2.39	0.55
1:E:294:THR:HG22	1:E:296:ASP:H	1.71	0.55
1:E:1731:LEU:HD21	1:E:1948:ASP:HB3	1.87	0.55
1:E:2094:LEU:O	1:E:2097:LEU:HG	2.07	0.55
1:E:3805:LEU:O	1:E:3807:GLY:N	2.38	0.55
1:E:4889:VAL:H	1:E:4892:ARG:HD3	1.71	0.55
1:G:294:THR:HG22	1:G:296:ASP:H	1.72	0.55
1:G:350:HIS:O	1:G:354:GLY:N	2.28	0.55
1:G:2902:HIS:CG	1:G:2903:PRO:HD2	2.41	0.55
1:G:3767:GLN:NE2	1:G:3805:LEU:O	2.39	0.55
1:C:2151:ASP:OD2	1:C:2190:VAL:HG23	2.07	0.55
1:C:2922:LYS:O	1:C:2925:GLU:HB3	2.07	0.55
1:C:4683:PHE:CE2	1:C:5017:ARG:HD2	2.41	0.55
1:G:1585:LYS:HZ3	1:G:1596:GLU:CD	2.04	0.55
1:G:4861:LYS:O	1:G:4875:LYS:NZ	2.39	0.55
1:A:461:HIS:O	1:A:465:GLN:HG2	2.06	0.55
1:A:4027:LEU:HD22	1:A:4146:LEU:HD11	1.87	0.55

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4956:THR:O	1:A:4965:SER:N	2.40	0.55
1:C:1237:TRP:CD1	1:C:1611:HIS:HA	2.42	0.55
1:C:2902:HIS:CG	1:C:2903:PRO:HD2	2.41	0.55
1:C:4013:LEU:O	1:C:4017:LEU:HG	2.06	0.55
1:E:232:THR:OG1	1:E:252:VAL:HG21	2.05	0.55
1:E:592:LYS:HA	1:E:1585:LYS:HE2	1.88	0.55
1:E:595:ARG:HH12	1:E:1641:ILE:CD1	2.20	0.55
1:E:4686:LEU:O	1:E:4690:GLU:N	2.39	0.55
1:G:1639:LEU:HD23	1:G:1650:ILE:HG12	1.89	0.55
1:G:3821:LYS:HZ3	1:G:3902:TYR:HD1	1.54	0.55
1:A:584:LYS:HZ3	1:A:1586:ASN:HD21	1.54	0.55
1:A:773:LEU:HA	1:A:777:PHE:HZ	1.72	0.55
1:C:4686:LEU:O	1:C:4690:GLU:N	2.39	0.55
1:E:4239:GLU:OE2	1:E:5014:TYR:OH	2.18	0.55
1:A:1003:GLN:O	1:A:1016:ARG:N	2.39	0.55
1:C:294:THR:HG22	1:C:296:ASP:H	1.72	0.55
1:C:2770:LYS:HG3	1:C:2791:LEU:HD21	1.89	0.55
1:C:4181:ILE:HG23	1:C:4195:PHE:HE1	1.71	0.55
1:E:220:LEU:HD11	1:E:390:LEU:HD22	1.88	0.55
1:E:4031:LEU:HD13	1:E:4044:MET:HE3	1.87	0.55
1:G:670:GLU:HB3	1:G:788:LYS:HB3	1.88	0.55
1:G:4192:ARG:NH1	1:G:5028:PHE:CD2	2.75	0.55
2:H:87:HIS:CD2	2:H:88:PRO:HD2	2.41	0.55
1:C:103:TYR:CE2	1:C:163:VAL:HA	2.41	0.55
1:C:273:HIS:N	1:C:334:MET:O	2.27	0.55
1:C:4904:PRO:HG3	1:C:4913:ARG:HH11	1.71	0.55
1:E:758:ARG:HH12	1:E:763:PRO:HG3	1.72	0.55
1:G:592:LYS:HA	1:G:1585:LYS:HE2	1.88	0.55
1:A:758:ARG:HH12	1:A:763:PRO:HG3	1.72	0.54
1:A:4181:ILE:HG23	1:A:4195:PHE:HE1	1.71	0.54
1:C:1201:HIS:CE1	1:C:1203:ASN:HD21	2.24	0.54
1:C:2257:LEU:HD21	1:C:2275:VAL:HB	1.90	0.54
1:E:1676:LEU:HD12	1:E:1725:ARG:HH11	1.73	0.54
1:E:2770:LYS:HG3	1:E:2791:LEU:HD21	1.89	0.54
1:G:1783:VAL:CG2	2:H:55:VAL:HG12	2.36	0.54
1:G:2556:LEU:HA	1:G:2559:LEU:HD13	1.88	0.54
1:G:3927:GLN:OE1	1:G:3988:ALA:HA	2.07	0.54
1:A:4047:MET:HG3	1:A:4048:LEU:N	2.22	0.54
1:A:4164:LEU:HD23	1:A:4168:GLU:OE2	2.06	0.54
1:C:220:LEU:HD11	1:C:390:LEU:HD22	1.88	0.54
1:C:1639:LEU:HD23	1:C:1650:ILE:HG12	1.89	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1783:VAL:CG2	2:D:55:VAL:HG12	2.37	0.54
1:E:773:LEU:HA	1:E:777:PHE:HZ	1.72	0.54
1:G:2151:ASP:OD2	1:G:2190:VAL:HG23	2.07	0.54
1:G:2257:LEU:HD21	1:G:2275:VAL:HB	1.89	0.54
1:A:103:TYR:CE2	1:A:163:VAL:HA	2.42	0.54
1:A:2902:HIS:CG	1:A:2903:PRO:HD2	2.41	0.54
1:C:492:ASP:OD1	1:C:546:TRP:NE1	2.40	0.54
1:C:2094:LEU:O	1:C:2097:LEU:HG	2.07	0.54
1:E:442:ILE:HD11	1:E:514:SER:HB3	1.89	0.54
1:E:641:VAL:HG21	1:E:704:GLY:N	2.22	0.54
1:E:699:GLY:H	1:E:703:GLY:HA2	1.72	0.54
1:E:3424:LEU:O	1:E:3427:PRO:N	2.41	0.54
1:E:3972:PRO:HA	1:E:4032:GLU:OE2	2.08	0.54
1:G:442:ILE:HD11	1:G:514:SER:HB3	1.89	0.54
1:A:640:TYR:CE1	1:A:1613:LEU:HD23	2.37	0.54
1:A:641:VAL:HG21	1:A:704:GLY:N	2.22	0.54
1:A:699:GLY:H	1:A:703:GLY:HA2	1.72	0.54
1:A:790:ARG:HD3	1:A:792:LEU:HD21	1.90	0.54
1:A:1240:LYS:HG3	1:A:1610:ASN:HD22	1.71	0.54
1:A:1676:LEU:HD12	1:A:1725:ARG:HH11	1.72	0.54
1:A:1783:VAL:CG2	2:B:55:VAL:HG12	2.37	0.54
1:A:2094:LEU:O	1:A:2097:LEU:HG	2.07	0.54
1:A:4578:LEU:O	1:C:4879:MET:CB	2.55	0.54
1:C:2248:ARG:NH1	1:C:2285:GLU:OE2	2.39	0.54
1:C:3424:LEU:O	1:C:3427:PRO:N	2.40	0.54
1:C:3972:PRO:HA	1:C:4032:GLU:OE2	2.07	0.54
1:E:3920:VAL:HG11	1:E:3983:SER:OG	2.07	0.54
1:G:896:VAL:HG13	1:G:903:LEU:HB3	1.88	0.54
1:G:1237:TRP:CD1	1:G:1611:HIS:HA	2.42	0.54
1:A:37:LEU:HD13	1:A:191:VAL:HG21	1.88	0.54
1:A:2134:LEU:O	1:A:2138:LEU:HG	2.08	0.54
1:A:4888:TYR:CD1	1:C:4914:VAL:HG23	2.42	0.54
1:A:4904:PRO:HG3	1:A:4913:ARG:HH11	1.72	0.54
1:C:215:THR:HG22	1:C:273:HIS:HD2	1.73	0.54
1:C:773:LEU:HA	1:C:777:PHE:HZ	1.73	0.54
1:C:887:ILE:HD11	1:C:907:LEU:HB3	1.90	0.54
1:C:1457:TYR:O	1:C:1458:HIS:ND1	2.41	0.54
1:C:1653:LEU:HA	1:C:1656:ARG:HB2	1.90	0.54
1:C:2277:ALA:O	1:C:2281:ILE:HG13	2.08	0.54
1:C:3920:VAL:HG11	1:C:3983:SER:OG	2.08	0.54
1:C:3937:TYR:HA	1:C:3940:LYS:HZ3	1.73	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:554:LEU:HG	1:E:593:HIS:CE1	2.43	0.54
1:E:1201:HIS:CE1	1:E:1203:ASN:HD21	2.25	0.54
1:E:1650:ILE:HG23	1:E:1653:LEU:HD12	1.89	0.54
1:E:1783:VAL:CG2	2:F:55:VAL:HG12	2.37	0.54
1:E:2257:LEU:HD21	1:E:2275:VAL:HB	1.89	0.54
1:G:773:LEU:HA	1:G:777:PHE:HZ	1.73	0.54
1:G:4049:VAL:HG21	1:G:4159:ARG:HD2	1.88	0.54
1:G:4786:ASP:OD2	1:G:4788:SER:OG	2.08	0.54
1:A:1237:TRP:CD1	1:A:1611:HIS:HA	2.42	0.54
1:A:2151:ASP:OD2	1:A:2190:VAL:HG23	2.07	0.54
1:A:2257:LEU:HD21	1:A:2275:VAL:HB	1.90	0.54
1:A:3920:VAL:HG11	1:A:3983:SER:OG	2.08	0.54
1:C:1650:ILE:HG23	1:C:1653:LEU:HD12	1.89	0.54
1:E:1079:LYS:HG3	1:E:1237:TRP:CZ3	2.43	0.54
1:E:1639:LEU:HD23	1:E:1650:ILE:HG12	1.89	0.54
1:E:2151:ASP:OD2	1:E:2190:VAL:HG23	2.07	0.54
1:E:4956:THR:O	1:E:4965:SER:N	2.40	0.54
1:G:595:ARG:HH12	1:G:1641:ILE:CD1	2.20	0.54
1:G:3699:HIS:HD2	1:G:3773:ARG:HA	1.72	0.54
1:G:3878:ASP:OD2	1:G:3953:LYS:HG2	2.07	0.54
1:A:1079:LYS:HG3	1:A:1237:TRP:CZ3	2.43	0.54
1:C:595:ARG:HH12	1:C:1641:ILE:CD1	2.20	0.54
1:C:1240:LYS:HG3	1:C:1610:ASN:HD22	1.72	0.54
1:C:3882:GLN:HB2	1:C:3957:VAL:HG22	1.90	0.54
1:G:1237:TRP:HD1	1:G:1611:HIS:HA	1.71	0.54
1:G:1961:PHE:HZ	1:G:2063:LEU:HD23	1.72	0.54
1:G:4979:THR:O	1:G:4984:ASN:N	2.40	0.54
1:A:3897:ASN:O	1:A:3901:ASN:ND2	2.40	0.54
1:A:3972:PRO:HA	1:A:4032:GLU:OE2	2.08	0.54
1:C:592:LYS:HA	1:C:1585:LYS:HE2	1.88	0.54
1:E:1288:PHE:CE2	1:E:1460:HIS:HA	2.42	0.54
1:E:1295:VAL:HG22	1:E:1548:LEU:N	2.23	0.54
1:E:2803:GLU:HA	1:E:2806:ARG:HB2	1.90	0.54
1:E:4860:ARG:HB2	1:E:4877:ASP:OD1	2.08	0.54
1:E:4861:LYS:O	1:E:4875:LYS:NZ	2.40	0.54
1:G:1288:PHE:CE2	1:G:1460:HIS:HA	2.43	0.54
1:G:4974:GLY:O	1:G:4977:THR:OG1	2.22	0.54
1:A:102:LEU:HD12	1:A:105:HIS:HE2	1.72	0.54
1:A:375:LYS:NZ	1:A:376:ALA:O	2.35	0.54
1:A:1255:TYR:HD1	1:A:1279:SER:HB3	1.73	0.54
1:C:711:LEU:HD23	1:C:712:TYR:N	2.23	0.54

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:884:LEU:HB2	1:C:967:PRO:HG2	1.90	0.54
1:C:1295:VAL:HG22	1:C:1548:LEU:N	2.23	0.54
1:C:1676:LEU:HD12	1:C:1725:ARG:HH11	1.73	0.54
1:C:1815:LEU:HD11	1:C:1845:VAL:HG11	1.90	0.54
1:C:3767:GLN:NE2	1:C:3805:LEU:O	2.41	0.54
1:E:350:HIS:O	1:E:354:GLY:N	2.28	0.54
1:E:4844:LEU:HD21	1:E:4891:VAL:HG21	1.89	0.54
1:G:554:LEU:HG	1:G:593:HIS:CE1	2.43	0.54
1:G:874:LEU:O	1:G:878:ILE:N	2.38	0.54
1:G:2094:LEU:O	1:G:2097:LEU:HG	2.07	0.54
1:G:4661:TYR:OH	1:G:4788:SER:OG	2.24	0.54
1:A:554:LEU:HG	1:A:593:HIS:CE1	2.43	0.54
1:A:1201:HIS:CE1	1:A:1203:ASN:HD21	2.26	0.54
1:A:1929:MET:HG3	1:A:1930:LYS:O	2.08	0.54
1:A:2922:LYS:HA	1:A:2925:GLU:OE1	2.08	0.54
1:A:3971:GLY:O	1:A:3973:CYS:N	2.38	0.54
1:A:4026:MET:HG3	1:A:4027:LEU:N	2.23	0.54
2:B:87:HIS:CD2	2:B:88:PRO:HD2	2.41	0.54
1:C:1252:HIS:ND1	1:C:1253:PRO:HD2	2.23	0.54
1:C:4047:MET:HG3	1:C:4048:LEU:N	2.22	0.54
1:E:674:PHE:HZ	2:F:100:ASP:OD2	1.91	0.54
1:G:2333:ASP:O	1:G:2336:ARG:HB3	2.08	0.54
1:G:4138:ASP:O	1:G:4142:ASN:ND2	2.38	0.54
1:A:442:ILE:HD11	1:A:514:SER:HB3	1.89	0.53
1:A:896:VAL:HG13	1:A:903:LEU:HB3	1.88	0.53
1:A:3424:LEU:O	1:A:3427:PRO:N	2.41	0.53
1:A:4683:PHE:CE2	1:A:5017:ARG:HD2	2.42	0.53
2:B:37:ASP:OD1	2:B:38:SER:N	2.42	0.53
1:C:110:ARG:NH1	1:C:115:ARG:HE	2.05	0.53
1:C:790:ARG:HD3	1:C:792:LEU:HD21	1.90	0.53
1:C:3878:ASP:OD2	1:C:3953:LYS:HG2	2.08	0.53
1:E:33:LEU:HA	1:E:53:SER:HB3	1.90	0.53
1:E:215:THR:HG22	1:E:273:HIS:HD2	1.72	0.53
1:E:492:ASP:OD1	1:E:546:TRP:NE1	2.40	0.53
1:E:3775:ALA:O	1:E:3778:MET:HG2	2.08	0.53
1:G:111:HIS:CD2	1:G:113:HIS:HB3	2.43	0.53
1:G:1815:LEU:HD11	1:G:1845:VAL:HG11	1.89	0.53
1:G:1929:MET:HG3	1:G:1930:LYS:O	2.08	0.53
1:G:4825:THR:O	1:G:4829:SER:N	2.40	0.53
1:A:674:PHE:HZ	2:B:100:ASP:OD2	1.90	0.53
1:A:711:LEU:HD23	1:A:712:TYR:N	2.23	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:720:HIS:HB3	1:A:729:PRO:HA	1.90	0.53
1:E:1653:LEU:HA	1:E:1656:ARG:HB2	1.90	0.53
1:E:2277:ALA:O	1:E:2281:ILE:HG13	2.08	0.53
1:G:887:ILE:HD11	1:G:907:LEU:HB3	1.89	0.53
1:G:3371:LYS:O	1:G:3375:GLU:N	2.41	0.53
1:G:3647:HIS:CE1	1:G:3648:ARG:HG3	2.43	0.53
1:A:111:HIS:CD2	1:A:113:HIS:HB3	2.43	0.53
1:A:266:ARG:NH1	1:A:330:ASP:HA	2.23	0.53
1:A:592:LYS:HA	1:A:1585:LYS:HE2	1.88	0.53
1:A:887:ILE:HD11	1:A:907:LEU:HB3	1.91	0.53
1:A:1130:GLN:HA	1:A:1139:PHE:HB3	1.91	0.53
1:A:1295:VAL:HG22	1:A:1548:LEU:N	2.23	0.53
1:A:1712:TYR:HD2	1:A:1840:PRO:HB2	1.74	0.53
1:C:284:HIS:HD2	1:C:287:THR:H	1.56	0.53
1:C:1079:LYS:HG3	1:C:1237:TRP:CZ3	2.43	0.53
2:D:37:ASP:OD1	2:D:38:SER:N	2.41	0.53
1:E:711:LEU:HD23	1:E:712:TYR:N	2.23	0.53
1:E:720:HIS:HB3	1:E:729:PRO:HA	1.90	0.53
1:E:3971:GLY:O	1:E:3973:CYS:N	2.38	0.53
1:E:4852:THR:HG21	1:E:4883:TYR:HB2	1.90	0.53
1:G:36:CYS:HB2	1:G:50:GLU:HB3	1.91	0.53
1:G:214:VAL:HG22	1:G:341:TYR:CZ	2.44	0.53
1:G:1079:LYS:HG3	1:G:1237:TRP:CZ3	2.43	0.53
1:A:595:ARG:HH12	1:A:1641:ILE:CD1	2.21	0.53
1:A:1637:MET:HB2	1:A:1696:HIS:CD2	2.44	0.53
1:A:1650:ILE:HG23	1:A:1653:LEU:HD12	1.89	0.53
1:A:2770:LYS:HB3	1:A:2775:TRP:HB2	1.91	0.53
1:A:4192:ARG:NH1	1:A:5028:PHE:CD2	2.77	0.53
1:C:1637:MET:HB2	1:C:1696:HIS:CD2	2.44	0.53
1:C:3775:ALA:O	1:C:3778:MET:HG2	2.08	0.53
1:C:3906:GLN:NE2	1:C:3913:ILE:O	2.40	0.53
1:E:110:ARG:NH1	1:E:115:ARG:HE	2.06	0.53
1:E:1815:LEU:HD11	1:E:1845:VAL:HG11	1.90	0.53
1:E:1848:LEU:O	1:E:1851:MET:HB3	2.09	0.53
1:E:3897:ASN:O	1:E:3901:ASN:ND2	2.40	0.53
1:G:1255:TYR:HD1	1:G:1279:SER:HB3	1.74	0.53
1:G:2248:ARG:NH1	1:G:2285:GLU:OE2	2.39	0.53
1:G:2902:HIS:HB3	1:G:2905:LEU:HG	1.89	0.53
2:H:37:ASP:OD1	2:H:38:SER:N	2.41	0.53
1:A:492:ASP:OD1	1:A:546:TRP:NE1	2.40	0.53
1:A:721:LEU:HD22	1:A:767:VAL:HG13	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:831:ARG:O	1:A:838:HIS:ND1	2.36	0.53
1:A:2770:LYS:HG3	1:A:2791:LEU:HD21	1.90	0.53
1:A:2803:GLU:HA	1:A:2806:ARG:HB2	1.90	0.53
1:A:4809:PHE:O	1:A:4812:HIS:ND1	2.27	0.53
1:C:4192:ARG:NH1	1:C:5028:PHE:CD2	2.77	0.53
1:E:284:HIS:HD2	1:E:287:THR:H	1.55	0.53
1:E:887:ILE:HD11	1:E:907:LEU:HB3	1.90	0.53
1:E:2134:LEU:O	1:E:2138:LEU:HG	2.08	0.53
1:E:2142:TYR:CD2	1:E:2197:LEU:HB2	2.44	0.53
1:E:2333:ASP:O	1:E:2336:ARG:HB3	2.09	0.53
1:E:3842:LEU:HD21	1:E:3933:PHE:CD1	2.44	0.53
2:F:87:HIS:CD2	2:F:88:PRO:HD2	2.41	0.53
1:G:1457:TYR:O	1:G:1458:HIS:CG	2.62	0.53
1:G:1650:ILE:HG23	1:G:1653:LEU:HD12	1.90	0.53
1:G:1712:TYR:HD2	1:G:1840:PRO:HB2	1.73	0.53
1:G:2134:LEU:O	1:G:2138:LEU:HG	2.09	0.53
1:A:33:LEU:HA	1:A:53:SER:HB3	1.91	0.53
1:A:66:CYS:HB2	1:A:112:ALA:HB2	1.90	0.53
1:A:3771:HIS:CG	1:A:3812:VAL:HG22	2.44	0.53
1:C:1772:ARG:NH1	1:C:1952:GLN:NE2	2.57	0.53
1:C:2134:LEU:O	1:C:2138:LEU:HG	2.08	0.53
1:C:2803:GLU:HA	1:C:2806:ARG:HB2	1.90	0.53
1:E:283:ARG:HG2	1:E:284:HIS:O	2.09	0.53
1:E:1929:MET:HG3	1:E:1930:LYS:O	2.08	0.53
1:E:3767:GLN:NE2	1:E:3805:LEU:O	2.41	0.53
1:E:3891:LEU:HD23	1:E:3899:PHE:CZ	2.42	0.53
1:G:1214:PHE:O	1:G:1218:GLY:N	2.37	0.53
1:G:1295:VAL:HG22	1:G:1548:LEU:N	2.23	0.53
1:G:1676:LEU:HD12	1:G:1725:ARG:HH11	1.73	0.53
1:G:2774:ASN:HA	1:G:2852:ARG:HG2	1.90	0.53
1:G:2803:GLU:HA	1:G:2806:ARG:HB2	1.89	0.53
1:A:1024:TYR:HA	1:A:1027:LEU:HG	1.91	0.53
1:A:1252:HIS:ND1	1:A:1253:PRO:HD2	2.23	0.53
1:A:1815:LEU:HD11	1:A:1845:VAL:HG11	1.90	0.53
1:A:2114:PRO:HD3	1:A:3707:ARG:NH1	2.23	0.53
1:A:2277:ALA:O	1:A:2281:ILE:HG13	2.08	0.53
1:A:3882:GLN:HB2	1:A:3957:VAL:HG22	1.91	0.53
1:C:33:LEU:HA	1:C:53:SER:HB3	1.91	0.53
1:C:554:LEU:HG	1:C:593:HIS:CE1	2.43	0.53
1:C:3842:LEU:HD21	1:C:3933:PHE:CD1	2.44	0.53
1:E:111:HIS:CD2	1:E:113:HIS:HB3	2.44	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1252:HIS:ND1	1:E:1253:PRO:HD2	2.24	0.53
1:E:1806:ALA:O	1:E:1810:LYS:HG2	2.09	0.53
2:F:37:ASP:OD1	2:F:38:SER:N	2.42	0.53
1:G:284:HIS:HD2	1:G:287:THR:H	1.56	0.53
1:G:650:VAL:N	1:G:777:PHE:O	2.42	0.53
1:G:758:ARG:HH12	1:G:763:PRO:HG3	1.73	0.53
1:A:1214:PHE:CZ	1:A:1219:LEU:HB2	2.43	0.53
1:A:1772:ARG:NH1	1:A:1952:GLN:NE2	2.56	0.53
1:A:3842:LEU:HB3	1:A:3929:SER:OG	2.09	0.53
1:C:1130:GLN:HA	1:C:1139:PHE:HB3	1.91	0.53
1:C:1737:PRO:HB3	1:C:2149:VAL:HG11	1.91	0.53
1:C:1848:LEU:O	1:C:1851:MET:HB3	2.09	0.53
1:C:3771:HIS:CG	1:C:3812:VAL:HG22	2.44	0.53
1:C:4026:MET:HG3	1:C:4027:LEU:N	2.23	0.53
1:E:102:LEU:HD12	1:E:105:HIS:HE2	1.74	0.53
1:E:266:ARG:NH1	1:E:330:ASP:HA	2.23	0.53
1:E:448:LEU:HD12	1:E:525:LEU:HD11	1.91	0.53
1:E:1961:PHE:HZ	1:E:2063:LEU:HD23	1.74	0.53
1:E:3878:ASP:OD2	1:E:3953:LYS:HG2	2.08	0.53
1:G:1772:ARG:NH1	1:G:1952:GLN:NE2	2.56	0.53
1:G:1806:ALA:O	1:G:1810:LYS:HG2	2.09	0.53
1:G:2277:ALA:O	1:G:2281:ILE:HG13	2.08	0.53
1:G:3993:LEU:O	1:G:3997:ALA:N	2.40	0.53
1:A:284:HIS:HD2	1:A:287:THR:H	1.56	0.53
1:A:895:PRO:HA	1:A:905:PRO:HB3	1.91	0.53
1:A:3767:GLN:NE2	1:A:3805:LEU:O	2.41	0.53
1:A:3842:LEU:HD21	1:A:3933:PHE:CD1	2.44	0.53
1:C:111:HIS:CD2	1:C:113:HIS:HB3	2.44	0.53
1:C:448:LEU:HD12	1:C:525:LEU:HD11	1.91	0.53
1:C:1024:TYR:HA	1:C:1027:LEU:HG	1.91	0.53
1:C:1255:TYR:HD1	1:C:1279:SER:HB3	1.74	0.53
1:C:3891:LEU:HD23	1:C:3899:PHE:CZ	2.42	0.53
1:C:4124:ASN:OD1	1:C:4125:PHE:N	2.42	0.53
1:C:4679:ARG:HA	1:C:4682:GLU:HG2	1.91	0.53
1:E:650:VAL:N	1:E:777:PHE:O	2.42	0.53
1:E:1024:TYR:HA	1:E:1027:LEU:HG	1.91	0.53
1:E:1076:ARG:HH12	1:E:1111:PRO:HB3	1.74	0.53
1:E:1252:HIS:CG	1:E:1253:PRO:HD2	2.44	0.53
1:E:1255:TYR:HD1	1:E:1279:SER:HB3	1.74	0.53
1:E:3795:SER:O	1:E:3799:LYS:HG2	2.09	0.53
1:E:4679:ARG:HA	1:E:4682:GLU:HG2	1.91	0.53

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:35:LEU:HD21	1:G:182:LEU:HD11	1.91	0.53
1:G:492:ASP:OD1	1:G:546:TRP:NE1	2.40	0.53
1:G:843:SER:OG	1:G:844:ARG:N	2.41	0.53
1:G:1252:HIS:CG	1:G:1253:PRO:HD2	2.44	0.53
1:G:3775:ALA:HA	1:G:3778:MET:HG2	1.91	0.53
1:A:1961:PHE:CG	1:A:2066:LEU:HD13	2.44	0.53
1:A:3775:ALA:O	1:A:3778:MET:HG2	2.09	0.53
1:C:720:HIS:HB3	1:C:729:PRO:HA	1.90	0.53
1:C:1214:PHE:O	1:C:1218:GLY:N	2.37	0.53
1:C:1805:GLU:CD	1:C:1808:ARG:HH11	2.13	0.53
1:C:1961:PHE:CG	1:C:2066:LEU:HD13	2.44	0.53
1:C:2114:PRO:HD3	1:C:3707:ARG:NH1	2.24	0.53
1:E:35:LEU:HD21	1:E:182:LEU:HD11	1.91	0.53
1:G:790:ARG:HD3	1:G:792:LEU:HD21	1.90	0.53
1:G:895:PRO:HA	1:G:905:PRO:HB3	1.91	0.53
1:G:1252:HIS:ND1	1:G:1253:PRO:HD2	2.24	0.53
1:G:1547:LYS:HZ3	1:G:1645:ASN:HB2	1.73	0.53
1:G:2763:HIS:NE2	1:G:2792:ARG:O	2.34	0.53
1:G:4806:ASN:O	1:G:4809:PHE:HB3	2.08	0.53
1:A:884:LEU:HB2	1:A:967:PRO:HG2	1.91	0.52
1:A:1436:SER:HA	1:A:1516:ILE:HA	1.92	0.52
1:A:1639:LEU:HD23	1:A:1650:ILE:HG12	1.89	0.52
1:C:1806:ALA:O	1:C:1810:LYS:HG2	2.09	0.52
1:C:1929:MET:HG3	1:C:1930:LYS:O	2.08	0.52
1:E:842:PRO:O	1:E:1197:GLY:N	2.43	0.52
1:E:895:PRO:HA	1:E:905:PRO:HB3	1.91	0.52
1:E:1637:MET:HB2	1:E:1696:HIS:CD2	2.44	0.52
1:E:1961:PHE:CG	1:E:2066:LEU:HD13	2.44	0.52
1:E:2340:PHE:HB2	1:E:2435:ARG:HD3	1.92	0.52
1:E:3771:HIS:CG	1:E:3812:VAL:HG22	2.44	0.52
1:G:711:LEU:HD23	1:G:712:TYR:N	2.23	0.52
1:G:1637:MET:HB2	1:G:1696:HIS:CD2	2.44	0.52
1:G:1653:LEU:HA	1:G:1656:ARG:HB2	1.90	0.52
1:A:1252:HIS:CG	1:A:1253:PRO:HD2	2.44	0.52
1:A:4852:THR:HG21	1:A:4883:TYR:HB2	1.91	0.52
1:C:842:PRO:O	1:C:1197:GLY:N	2.43	0.52
1:C:1252:HIS:CG	1:C:1253:PRO:HD2	2.44	0.52
1:C:2774:ASN:HA	1:C:2852:ARG:HG2	1.91	0.52
1:C:4860:ARG:HB2	1:C:4877:ASP:OD1	2.08	0.52
1:E:1712:TYR:HD2	1:E:1840:PRO:HB2	1.73	0.52
1:E:4026:MET:HG3	1:E:4027:LEU:N	2.23	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4192:ARG:NH1	1:E:5028:PHE:CD2	2.76	0.52
1:G:2114:PRO:HD3	1:G:3707:ARG:NH1	2.24	0.52
1:G:2770:LYS:HB3	1:G:2775:TRP:HB2	1.92	0.52
1:G:3827:GLY:HA2	1:G:3830:GLN:HB3	1.90	0.52
1:G:4674:GLU:O	1:G:4678:ALA:N	2.35	0.52
1:A:215:THR:HG22	1:A:273:HIS:HD2	1.75	0.52
1:A:283:ARG:HG2	1:A:284:HIS:O	2.09	0.52
1:A:842:PRO:O	1:A:1197:GLY:N	2.43	0.52
1:A:1806:ALA:O	1:A:1810:LYS:HG2	2.09	0.52
1:A:1848:LEU:O	1:A:1851:MET:HB3	2.09	0.52
1:A:4124:ASN:OD1	1:A:4125:PHE:N	2.42	0.52
1:A:4860:ARG:HB2	1:A:4877:ASP:OD1	2.09	0.52
1:A:4889:VAL:H	1:A:4892:ARG:HD3	1.74	0.52
1:A:4914:VAL:HG23	1:G:4888:TYR:CD1	2.45	0.52
1:C:721:LEU:HD22	1:C:767:VAL:HG13	1.91	0.52
1:C:1961:PHE:HZ	1:C:2063:LEU:HD23	1.74	0.52
1:C:4852:THR:HG21	1:C:4883:TYR:HB2	1.92	0.52
1:G:33:LEU:HA	1:G:53:SER:HB3	1.91	0.52
1:G:448:LEU:HD12	1:G:525:LEU:HD11	1.91	0.52
1:G:864:PRO:O	1:G:868:GLU:N	2.32	0.52
1:G:1024:TYR:HA	1:G:1027:LEU:HG	1.91	0.52
1:A:214:VAL:HG22	1:A:341:TYR:CZ	2.44	0.52
1:C:36:CYS:HB2	1:C:50:GLU:HB3	1.91	0.52
1:C:442:ILE:HD11	1:C:514:SER:HB3	1.91	0.52
1:C:674:PHE:HZ	2:D:100:ASP:OD2	1.91	0.52
1:C:2123:LEU:HA	1:C:2126:ARG:HG2	1.91	0.52
1:C:2333:ASP:O	1:C:2336:ARG:HB3	2.09	0.52
1:C:2770:LYS:HB3	1:C:2775:TRP:HB2	1.91	0.52
1:E:705:ASN:ND2	1:E:782:SER:OG	2.43	0.52
1:E:790:ARG:HD3	1:E:792:LEU:HD21	1.90	0.52
1:E:2114:PRO:HD3	1:E:3707:ARG:NH1	2.24	0.52
1:E:4124:ASN:OD1	1:E:4125:PHE:N	2.42	0.52
1:G:1076:ARG:HH12	1:G:1111:PRO:HB3	1.74	0.52
1:G:1130:GLN:HA	1:G:1139:PHE:HB3	1.91	0.52
1:G:1947:CYS:SG	1:G:2126:ARG:NE	2.83	0.52
1:G:2137:ALA:HA	1:G:2140:ARG:HH21	1.75	0.52
1:A:3795:SER:O	1:A:3799:LYS:HG2	2.09	0.52
1:A:4899:ASP:H	1:G:4892:ARG:HH12	1.52	0.52
1:C:283:ARG:HG2	1:C:284:HIS:O	2.09	0.52
1:C:445:LEU:HD23	1:C:521:LEU:HB2	1.92	0.52
1:C:805:PRO:O	1:C:807:GLY:N	2.43	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:895:PRO:HA	1:C:905:PRO:HB3	1.92	0.52
1:C:3897:ASN:O	1:C:3901:ASN:ND2	2.40	0.52
1:C:4721:LYS:HD3	1:C:4741:LEU:HB3	1.92	0.52
1:E:4655:PHE:O	1:E:4658:ILE:HG13	2.10	0.52
1:G:842:PRO:O	1:G:1197:GLY:N	2.43	0.52
1:G:2142:TYR:CD2	1:G:2197:LEU:HB2	2.44	0.52
1:G:2340:PHE:HB2	1:G:2435:ARG:HD3	1.92	0.52
1:G:2770:LYS:HG3	1:G:2791:LEU:HD21	1.90	0.52
1:G:4687:TYR:OH	1:G:4699:GLY:O	2.27	0.52
1:A:4721:LYS:HD3	1:A:4741:LEU:HB3	1.92	0.52
1:C:3842:LEU:HB3	1:C:3929:SER:OG	2.09	0.52
1:C:3971:GLY:O	1:C:3973:CYS:N	2.38	0.52
1:C:4994:TYR:O	1:C:4998:LYS:HG2	2.10	0.52
1:E:332:GLU:N	1:E:333:GLY:HA3	2.24	0.52
1:E:884:LEU:HB2	1:E:967:PRO:HG2	1.91	0.52
1:E:2924:GLN:O	1:E:2928:LYS:HB2	2.10	0.52
1:E:4994:TYR:O	1:E:4998:LYS:HG2	2.10	0.52
1:G:102:LEU:HD12	1:G:105:HIS:HE2	1.74	0.52
1:G:721:LEU:HD22	1:G:767:VAL:HG13	1.91	0.52
1:A:36:CYS:HB2	1:A:50:GLU:HB3	1.92	0.52
1:A:1596:GLU:HB2	1:A:1599:MET:HG2	1.92	0.52
1:A:1653:LEU:HA	1:A:1656:ARG:HB2	1.90	0.52
1:A:3878:ASP:OD2	1:A:3953:LYS:HG2	2.09	0.52
1:C:266:ARG:NH1	1:C:330:ASP:HA	2.23	0.52
1:C:1108:GLU:HG3	1:C:1186:ASP:OD2	2.10	0.52
1:C:2129:ASP:OD1	1:C:2132:GLY:N	2.42	0.52
1:C:4794:TRP:HA	1:C:4797:VAL:HG12	1.91	0.52
1:E:1130:GLN:HA	1:E:1139:PHE:HB3	1.91	0.52
1:E:3842:LEU:HB3	1:E:3929:SER:OG	2.09	0.52
1:G:215:THR:HG22	1:G:273:HIS:HD2	1.75	0.52
1:G:705:ASN:ND2	1:G:782:SER:OG	2.43	0.52
1:G:884:LEU:HB2	1:G:967:PRO:HG2	1.91	0.52
1:G:3770:LEU:O	1:G:3775:ALA:HB3	2.10	0.52
1:A:1131:ARG:HD3	1:A:1139:PHE:CD1	2.45	0.52
1:A:2123:LEU:HA	1:A:2126:ARG:HG2	1.90	0.52
1:A:3963:ASN:O	1:A:3966:THR:OG1	2.24	0.52
1:A:4679:ARG:HA	1:A:4682:GLU:HG2	1.91	0.52
1:C:332:GLU:N	1:C:333:GLY:HA3	2.24	0.52
1:C:699:GLY:H	1:C:703:GLY:HA2	1.74	0.52
1:C:1207:ASP:O	1:C:1210:SER:OG	2.21	0.52
1:C:2142:TYR:CD2	1:C:2197:LEU:HB2	2.44	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3750:GLU:OE2	1:C:4716:TRP:HA	2.10	0.52
1:C:4889:VAL:H	1:C:4892:ARG:HD3	1.74	0.52
1:C:4979:THR:OG1	1:C:4980:LEU:N	2.43	0.52
1:E:23:GLN:HE22	1:E:267:ILE:HG21	1.75	0.52
1:E:214:VAL:HG22	1:E:341:TYR:CZ	2.44	0.52
1:E:4794:TRP:HA	1:E:4797:VAL:HG12	1.91	0.52
1:G:157:ARG:NE	1:G:167:ASP:OD2	2.43	0.52
1:G:489:ASN:HB3	1:G:493:ARG:NH1	2.25	0.52
1:G:720:HIS:HB3	1:G:729:PRO:HA	1.91	0.52
1:G:1805:GLU:CD	1:G:1808:ARG:HH11	2.13	0.52
1:G:2891:LYS:HG2	1:G:2905:LEU:HD13	1.92	0.52
1:A:23:GLN:HE22	1:A:267:ILE:HG21	1.75	0.52
1:A:843:SER:OG	1:A:844:ARG:N	2.41	0.52
1:A:1737:PRO:HB3	1:A:2149:VAL:HG11	1.91	0.52
1:A:2142:TYR:CD2	1:A:2197:LEU:HB2	2.44	0.52
1:A:3821:LYS:HZ3	1:A:3902:TYR:HD1	1.57	0.52
1:C:1131:ARG:HD3	1:C:1139:PHE:CD1	2.45	0.52
1:C:2340:PHE:HB2	1:C:2435:ARG:HD3	1.91	0.52
1:C:3795:SER:O	1:C:3799:LYS:HG2	2.09	0.52
1:E:445:LEU:HD23	1:E:521:LEU:HB2	1.92	0.52
1:E:1772:ARG:NH1	1:E:1952:GLN:NE2	2.56	0.52
1:E:1805:GLU:CD	1:E:1808:ARG:HH11	2.13	0.52
1:E:2123:LEU:HA	1:E:2126:ARG:HG2	1.90	0.52
1:E:4721:LYS:HD3	1:E:4741:LEU:HB3	1.92	0.52
1:G:283:ARG:HG2	1:G:284:HIS:O	2.10	0.52
1:G:864:PRO:HG2	1:G:867:LEU:HB2	1.92	0.52
1:G:1629:GLN:HE21	1:G:1631:GLN:HG3	1.75	0.52
1:G:1848:LEU:O	1:G:1851:MET:HB3	2.09	0.52
1:G:3835:LEU:HD22	1:G:3884:LEU:HD13	1.92	0.52
1:G:3878:ASP:HA	1:G:3881:THR:HG23	1.92	0.52
1:A:111:HIS:CD2	1:A:114:SER:H	2.17	0.52
1:A:332:GLU:N	1:A:333:GLY:HA3	2.24	0.52
1:A:445:LEU:HD23	1:A:521:LEU:HB2	1.92	0.52
1:A:1108:GLU:HG3	1:A:1186:ASP:OD2	2.10	0.52
1:A:1242:LEU:HD22	1:A:1458:HIS:HB3	1.91	0.52
1:A:1802:ILE:HG13	1:A:1804:LEU:HD12	1.92	0.52
1:A:2333:ASP:O	1:A:2336:ARG:HB3	2.09	0.52
1:A:2340:PHE:HB2	1:A:2435:ARG:HD3	1.91	0.52
1:A:4994:TYR:O	1:A:4998:LYS:HG2	2.10	0.52
1:C:650:VAL:N	1:C:777:PHE:O	2.42	0.52
1:C:1076:ARG:HH12	1:C:1111:PRO:HB3	1.74	0.52

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1620:ALA:O	1:E:1629:GLN:N	2.35	0.52
1:E:3750:GLU:OE2	1:E:4716:TRP:HA	2.10	0.52
1:E:3882:GLN:HB2	1:E:3957:VAL:HG22	1.91	0.52
1:G:2143:THR:OG1	1:G:3651:ASN:ND2	2.43	0.52
1:A:1076:ARG:HH12	1:A:1111:PRO:HB3	1.74	0.51
1:A:1961:PHE:HZ	1:A:2063:LEU:HD23	1.74	0.51
1:A:4738:ALA:O	1:A:4742:GLY:N	2.43	0.51
1:C:35:LEU:HD21	1:C:182:LEU:HD11	1.91	0.51
1:C:102:LEU:HD12	1:C:105:HIS:HE2	1.74	0.51
1:C:157:ARG:NE	1:C:167:ASP:OD2	2.43	0.51
1:C:375:LYS:HZ1	1:C:377:ILE:HG22	1.74	0.51
1:C:4655:PHE:O	1:C:4658:ILE:HG13	2.10	0.51
1:C:4807:PHE:HB3	1:E:4857:ASN:HD21	1.75	0.51
1:C:4864:ASN:HA	1:C:4875:LYS:HG2	1.92	0.51
1:E:437:PRO:O	1:E:441:VAL:HG23	2.10	0.51
1:E:2066:LEU:O	1:E:2069:THR:OG1	2.20	0.51
1:E:2162:ILE:HD13	1:E:2178:MET:HG3	1.92	0.51
1:G:111:HIS:CD2	1:G:114:SER:H	2.17	0.51
1:G:1436:SER:N	1:G:1516:ILE:CG1	2.73	0.51
1:G:3972:PRO:HA	1:G:4032:GLU:OE2	2.10	0.51
1:A:35:LEU:HD21	1:A:182:LEU:HD11	1.91	0.51
1:A:448:LEU:HD12	1:A:525:LEU:HD11	1.91	0.51
1:A:650:VAL:N	1:A:777:PHE:O	2.42	0.51
1:A:2774:ASN:HA	1:A:2852:ARG:HG2	1.91	0.51
1:A:3934:TYR:OH	1:A:3998:HIS:HB3	2.10	0.51
1:A:4794:TRP:HA	1:A:4797:VAL:HG12	1.91	0.51
1:A:4823:LEU:CD1	1:C:4839:MET:HB3	2.39	0.51
1:C:4738:ALA:O	1:C:4742:GLY:N	2.43	0.51
1:E:721:LEU:HD22	1:E:767:VAL:HG13	1.91	0.51
1:E:2770:LYS:HB3	1:E:2775:TRP:HB2	1.91	0.51
1:E:2774:ASN:HA	1:E:2852:ARG:HG2	1.91	0.51
1:G:23:GLN:HE22	1:G:267:ILE:HG21	1.75	0.51
1:G:445:LEU:HD23	1:G:521:LEU:HB2	1.92	0.51
1:G:699:GLY:H	1:G:703:GLY:HA2	1.74	0.51
1:G:3781:GLN:O	1:G:3784:SER:OG	2.19	0.51
1:G:3934:TYR:OH	1:G:3998:HIS:HB3	2.10	0.51
1:G:4697:VAL:O	1:G:4701:TRP:N	2.42	0.51
1:A:4655:PHE:O	1:A:4658:ILE:HG13	2.10	0.51
1:C:663:TYR:HB3	1:C:808:TYR:CD1	2.46	0.51
1:C:3934:TYR:OH	1:C:3998:HIS:HB3	2.10	0.51
1:E:594:GLY:H	1:E:1598:GLN:CG	2.24	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:805:PRO:O	1:E:807:GLY:N	2.44	0.51
1:E:1108:GLU:HG3	1:E:1186:ASP:OD2	2.10	0.51
1:E:3647:HIS:CE1	1:E:3648:ARG:HG3	2.46	0.51
1:E:3794:VAL:O	1:E:3797:THR:OG1	2.25	0.51
1:G:4727:LYS:NZ	1:G:4728:HIS:CE1	2.79	0.51
1:G:4849:TYR:O	1:G:4852:THR:HG22	2.09	0.51
1:A:663:TYR:HB3	1:A:808:TYR:CD1	2.46	0.51
1:A:4239:GLU:OE2	1:A:5014:TYR:OH	2.18	0.51
1:C:214:VAL:HG22	1:C:341:TYR:CZ	2.45	0.51
1:C:1596:GLU:HB2	1:C:1599:MET:HG2	1.93	0.51
1:E:157:ARG:NE	1:E:167:ASP:OD2	2.43	0.51
1:E:1802:ILE:HG13	1:E:1804:LEU:HD12	1.92	0.51
1:G:1737:PRO:HB3	1:G:2149:VAL:HG11	1.91	0.51
1:G:1802:ILE:HG13	1:G:1804:LEU:HD12	1.93	0.51
1:G:2123:LEU:HA	1:G:2126:ARG:HG2	1.91	0.51
1:G:2146:PRO:O	1:G:2149:VAL:HG22	2.11	0.51
1:G:2162:ILE:HD13	1:G:2178:MET:HG3	1.92	0.51
1:G:2862:LEU:HD21	1:G:2929:PHE:CD1	2.44	0.51
1:A:2162:ILE:HD13	1:A:2178:MET:HG3	1.92	0.51
1:A:2752:ASP:HA	1:A:2755:ILE:HD12	1.93	0.51
1:A:3750:GLU:OE2	1:A:4716:TRP:HA	2.10	0.51
1:A:4864:ASN:HA	1:A:4875:LYS:HG2	1.92	0.51
1:C:23:GLN:HE22	1:C:267:ILE:HG21	1.75	0.51
1:C:140:ASP:OD2	1:C:142:THR:OG1	2.28	0.51
1:C:887:ILE:HA	1:C:891:TRP:HB2	1.93	0.51
1:C:1629:GLN:HE21	1:C:1631:GLN:HG3	1.76	0.51
1:C:1712:TYR:HD2	1:C:1840:PRO:HB2	1.73	0.51
1:E:831:ARG:O	1:E:838:HIS:ND1	2.35	0.51
1:E:1715:LEU:HD21	1:E:1807:LEU:HD21	1.92	0.51
1:E:4738:ALA:O	1:E:4742:GLY:N	2.43	0.51
1:G:437:PRO:O	1:G:441:VAL:HG23	2.11	0.51
1:G:1108:GLU:HG3	1:G:1186:ASP:OD2	2.10	0.51
1:A:437:PRO:O	1:A:441:VAL:HG23	2.11	0.51
1:A:705:ASN:ND2	1:A:782:SER:OG	2.43	0.51
1:A:1805:GLU:CD	1:A:1808:ARG:HH11	2.13	0.51
1:A:2146:PRO:O	1:A:2149:VAL:HG22	2.11	0.51
1:A:4822:THR:O	1:A:4825:THR:OG1	2.23	0.51
1:C:705:ASN:ND2	1:C:782:SER:OG	2.43	0.51
1:C:1715:LEU:HD21	1:C:1807:LEU:HD21	1.93	0.51
1:C:2752:ASP:HA	1:C:2755:ILE:HD12	1.93	0.51
1:C:4844:LEU:HD21	1:C:4891:VAL:HG21	1.93	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:457:GLU:HG3	1:E:464:LYS:HZ1	1.73	0.51
1:E:489:ASN:HB3	1:E:493:ARG:NH1	2.25	0.51
1:E:750:LEU:O	1:E:752:VAL:N	2.43	0.51
1:E:4889:VAL:HG22	1:E:4892:ARG:HH21	1.75	0.51
1:G:66:CYS:HB2	1:G:112:ALA:HB2	1.91	0.51
1:G:140:ASP:OD2	1:G:142:THR:OG1	2.28	0.51
1:G:805:PRO:O	1:G:807:GLY:N	2.43	0.51
1:G:1715:LEU:HD21	1:G:1807:LEU:HD21	1.92	0.51
1:A:874:LEU:O	1:A:878:ILE:N	2.38	0.51
1:A:1629:GLN:HE21	1:A:1631:GLN:HG3	1.75	0.51
1:A:2137:ALA:HA	1:A:2140:ARG:HH21	1.76	0.51
1:A:2923:ALA:O	1:A:2926:LEU:HB3	2.11	0.51
1:A:4103:PHE:HB2	1:A:4108:ILE:HD11	1.93	0.51
1:C:4861:LYS:O	1:C:4875:LYS:NZ	2.40	0.51
1:C:4892:ARG:NH1	1:E:4899:ASP:N	2.56	0.51
2:D:87:HIS:CD2	2:D:88:PRO:HD2	2.41	0.51
1:E:36:CYS:HB2	1:E:50:GLU:HB3	1.91	0.51
1:E:111:HIS:HD2	1:E:114:SER:N	2.02	0.51
1:E:1629:GLN:HE21	1:E:1631:GLN:HG3	1.75	0.51
1:E:3699:HIS:HD2	1:E:3773:ARG:HA	1.76	0.51
1:E:3934:TYR:OH	1:E:3998:HIS:HB3	2.11	0.51
1:E:4979:THR:OG1	1:E:4980:LEU:N	2.44	0.51
1:G:831:ARG:O	1:G:838:HIS:ND1	2.36	0.51
1:G:1131:ARG:HD3	1:G:1139:PHE:CD1	2.45	0.51
1:G:1961:PHE:CG	1:G:2066:LEU:HD13	2.45	0.51
1:G:2121:PHE:CD1	1:G:3701:LEU:HD12	2.46	0.51
1:A:157:ARG:NE	1:A:167:ASP:OD2	2.44	0.51
1:A:805:PRO:O	1:A:807:GLY:N	2.43	0.51
1:A:864:PRO:HG2	1:A:867:LEU:HB2	1.93	0.51
1:A:4736:ARG:O	1:A:4739:GLU:HG2	2.11	0.51
1:A:4844:LEU:HD21	1:A:4891:VAL:HG21	1.93	0.51
1:C:445:LEU:HD23	1:C:521:LEU:CB	2.41	0.51
1:C:3647:HIS:CE1	1:C:3648:ARG:HG3	2.46	0.51
1:E:445:LEU:HD23	1:E:521:LEU:CB	2.41	0.51
1:E:1144:GLN:N	1:E:1147:ASP:OD2	2.34	0.51
1:G:266:ARG:NH1	1:G:330:ASP:HA	2.24	0.51
1:G:594:GLY:H	1:G:1598:GLN:CG	2.24	0.51
1:G:1182:ILE:HD12	1:G:1188:PHE:HE2	1.75	0.51
1:A:375:LYS:HZ1	1:A:377:ILE:HG22	1.76	0.51
1:A:750:LEU:O	1:A:752:VAL:N	2.43	0.51
1:A:4701:TRP:HB3	1:A:4778:TRP:CD1	2.46	0.51

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4979:THR:OG1	1:A:4980:LEU:N	2.43	0.51
1:C:864:PRO:HG2	1:C:867:LEU:HB2	1.92	0.51
1:C:1182:ILE:HD12	1:C:1188:PHE:HE2	1.75	0.51
1:E:663:TYR:HB3	1:E:808:TYR:CD1	2.46	0.51
1:E:1596:GLU:HB2	1:E:1599:MET:HG2	1.92	0.51
1:E:2146:PRO:O	1:E:2149:VAL:HG22	2.11	0.51
1:E:4103:PHE:HB2	1:E:4108:ILE:HD11	1.93	0.51
1:E:4736:ARG:O	1:E:4739:GLU:HG2	2.11	0.51
1:E:4864:ASN:HA	1:E:4875:LYS:HG2	1.92	0.51
1:G:332:GLU:N	1:G:333:GLY:HA3	2.25	0.51
1:G:750:LEU:O	1:G:752:VAL:N	2.43	0.51
1:G:3713:LYS:O	1:G:3715:LYS:N	2.43	0.51
1:G:4991:PHE:HE2	1:G:5010:VAL:HG11	1.75	0.51
1:A:630:GLU:HA	1:A:1642:PRO:HG3	1.93	0.51
1:C:489:ASN:HB3	1:C:493:ARG:NH1	2.25	0.51
1:C:874:LEU:O	1:C:878:ILE:N	2.38	0.51
1:C:2763:HIS:NE2	1:C:2792:ARG:O	2.32	0.51
1:E:695:TYR:HB2	1:E:1240:LYS:NZ	2.26	0.51
1:E:887:ILE:HA	1:E:891:TRP:HB2	1.93	0.51
1:E:1244:GLN:HG2	1:E:1458:HIS:HE1	1.75	0.51
1:E:2137:ALA:HA	1:E:2140:ARG:HH21	1.76	0.51
1:E:2752:ASP:HA	1:E:2755:ILE:HD12	1.93	0.51
1:E:4205:TRP:CH2	1:E:4986:ALA:HB2	2.46	0.51
1:G:1700:ASP:OD2	1:G:1703:LEU:HB2	2.11	0.51
1:G:3101:GLU:O	1:G:3105:LYS:N	2.39	0.51
1:G:3878:ASP:HB2	1:G:3957:VAL:HG21	1.93	0.51
1:A:887:ILE:HA	1:A:891:TRP:HB2	1.92	0.50
1:A:1585:LYS:HZ3	1:A:1596:GLU:CD	2.06	0.50
1:A:2875:ALA:HB2	1:A:2927:LEU:HD12	1.93	0.50
1:C:2449:GLU:O	1:C:2452:ARG:HB3	2.11	0.50
1:C:3699:HIS:HD2	1:C:3773:ARG:HA	1.76	0.50
1:C:4205:TRP:CH2	1:C:4986:ALA:HB2	2.46	0.50
1:C:4701:TRP:HB3	1:C:4778:TRP:CD1	2.46	0.50
1:C:4736:ARG:O	1:C:4739:GLU:HG2	2.11	0.50
1:C:4823:LEU:CD1	1:E:4839:MET:HB3	2.40	0.50
1:E:1131:ARG:HD3	1:E:1139:PHE:CD1	2.45	0.50
1:G:375:LYS:NZ	1:G:376:ALA:O	2.35	0.50
1:G:445:LEU:HD23	1:G:521:LEU:CB	2.41	0.50
1:G:3916:ILE:HA	1:G:3919:THR:HG22	1.92	0.50
1:G:3962:PHE:O	1:G:3966:THR:HG23	2.12	0.50
2:H:87:HIS:HB3	2:H:90:ILE:HB	1.93	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:489:ASN:HB3	1:A:493:ARG:NH1	2.25	0.50
1:C:594:GLY:H	1:C:1598:GLN:CG	2.23	0.50
1:E:441:VAL:O	1:E:445:LEU:HD13	2.11	0.50
1:G:3813:GLN:NE2	1:G:3891:LEU:O	2.43	0.50
1:G:4010:ILE:HA	1:G:4013:LEU:HB3	1.93	0.50
1:A:445:LEU:HD23	1:A:521:LEU:CB	2.41	0.50
1:A:1182:ILE:HD12	1:A:1188:PHE:HE2	1.75	0.50
1:A:1288:PHE:HE2	1:A:1460:HIS:HA	1.75	0.50
1:A:2924:GLN:O	1:A:2928:LYS:CB	2.60	0.50
1:A:4879:MET:CB	1:G:4578:LEU:O	2.55	0.50
1:C:507:ALA:O	1:C:509:GLU:N	2.44	0.50
1:C:630:GLU:HA	1:C:1642:PRO:HG3	1.93	0.50
1:C:695:TYR:HB2	1:C:1240:LYS:NZ	2.27	0.50
2:D:58:GLY:HA3	2:D:76:ILE:HG23	1.94	0.50
1:E:35:LEU:HD13	1:E:49:LEU:HD22	1.93	0.50
1:E:1182:ILE:HD12	1:E:1188:PHE:HE2	1.75	0.50
1:E:4017:LEU:HA	1:E:4139:ILE:HD11	1.93	0.50
1:G:663:TYR:HB3	1:G:808:TYR:CD1	2.46	0.50
1:G:1596:GLU:HB2	1:G:1599:MET:HG2	1.92	0.50
1:G:1620:ALA:O	1:G:1629:GLN:N	2.35	0.50
1:A:2498:HIS:O	1:A:2501:SER:OG	2.20	0.50
1:A:2806:ARG:HA	1:A:2809:ILE:HD12	1.93	0.50
1:A:3647:HIS:CE1	1:A:3648:ARG:HG3	2.46	0.50
1:A:4205:TRP:CH2	1:A:4986:ALA:HB2	2.46	0.50
1:A:4717:ASP:O	1:A:4720:VAL:HG23	2.12	0.50
1:A:4892:ARG:NH1	1:C:4899:ASP:N	2.56	0.50
1:C:706:GLY:O	1:C:724:GLY:N	2.45	0.50
1:C:1802:ILE:HG13	1:C:1804:LEU:HD12	1.93	0.50
1:C:4103:PHE:HB2	1:C:4108:ILE:HD11	1.93	0.50
1:E:1737:PRO:HB3	1:E:2149:VAL:HG11	1.92	0.50
1:E:3846:ALA:O	1:E:3850:GLN:N	2.45	0.50
1:E:4701:TRP:HB3	1:E:4778:TRP:CD1	2.46	0.50
2:F:25:HIS:CD2	2:F:104:LEU:HD11	2.47	0.50
1:G:1245:PHE:HD2	1:G:1290:ARG:HE	1.60	0.50
1:G:2288:LEU:O	1:G:3849:ARG:HD3	2.11	0.50
1:A:178:ARG:HG2	1:A:195:PHE:CE1	2.47	0.50
1:A:1700:ASP:OD2	1:A:1703:LEU:HB2	2.11	0.50
1:A:2129:ASP:OD1	1:A:2132:GLY:N	2.43	0.50
1:A:3677:LEU:HB3	1:A:3698:LEU:HB2	1.94	0.50
1:A:3958:ALA:HA	1:A:3961:VAL:HG12	1.94	0.50
1:C:375:LYS:NZ	1:C:376:ALA:O	2.35	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:437:PRO:O	1:C:441:VAL:HG23	2.11	0.50
1:C:441:VAL:O	1:C:445:LEU:HD13	2.11	0.50
1:A:1207:ASP:O	1:A:1210:SER:OG	2.21	0.50
1:A:3699:HIS:HD2	1:A:3773:ARG:HA	1.76	0.50
1:A:4727:LYS:O	1:A:4728:HIS:HB2	2.12	0.50
1:A:4934:GLY:HA3	1:G:4937:ILE:HG12	1.94	0.50
2:B:87:HIS:HB3	2:B:90:ILE:HB	1.94	0.50
1:C:40:GLU:OE2	1:C:402:ARG:HG3	2.12	0.50
1:C:1288:PHE:HE2	1:C:1460:HIS:HA	1.76	0.50
1:C:2146:PRO:O	1:C:2149:VAL:HG22	2.11	0.50
2:D:25:HIS:CD2	2:D:104:LEU:HD11	2.47	0.50
1:E:178:ARG:HG2	1:E:195:PHE:CE1	2.47	0.50
1:E:838:HIS:HD2	1:E:1095:VAL:HG21	1.77	0.50
1:E:843:SER:OG	1:E:844:ARG:N	2.41	0.50
1:E:874:LEU:O	1:E:878:ILE:N	2.38	0.50
1:E:1125:ASN:HB3	1:E:1127:HIS:O	2.12	0.50
1:G:291:LEU:O	1:G:312:THR:OG1	2.21	0.50
1:G:2066:LEU:O	1:G:2070:VAL:HG23	2.12	0.50
1:G:4860:ARG:HB2	1:G:4877:ASP:OD1	2.11	0.50
1:G:4922:PHE:HA	1:G:4926:VAL:HB	1.92	0.50
1:A:613:ALA:HB1	1:A:618:GLN:NE2	2.26	0.50
1:A:2449:GLU:O	1:A:2452:ARG:HB3	2.11	0.50
1:C:110:ARG:HA	1:C:117:TYR:HD1	1.77	0.50
1:E:1076:ARG:HD2	1:E:1189:LEU:HD13	1.94	0.50
1:E:3958:ALA:HA	1:E:3961:VAL:HG12	1.94	0.50
1:E:4717:ASP:O	1:E:4720:VAL:HG23	2.12	0.50
1:E:4892:ARG:HH12	1:G:4899:ASP:H	1.53	0.50
2:F:58:GLY:HA3	2:F:76:ILE:HG23	1.94	0.50
1:G:2752:ASP:HA	1:G:2755:ILE:HD12	1.92	0.50
1:A:40:GLU:OE2	1:A:402:ARG:HG3	2.12	0.50
1:A:3937:TYR:HA	1:A:3940:LYS:NZ	2.27	0.50
1:C:178:ARG:HG2	1:C:195:PHE:CE1	2.47	0.50
1:C:3958:ALA:HA	1:C:3961:VAL:HG12	1.94	0.50
1:C:4682:GLU:HG3	1:C:4683:PHE:CE2	2.47	0.50
1:E:871:ARG:HB2	1:E:929:LEU:HD13	1.92	0.50
1:E:4682:GLU:HG3	1:E:4683:PHE:CE2	2.47	0.50
1:G:695:TYR:HB2	1:G:1240:LYS:NZ	2.27	0.50
1:G:1144:GLN:N	1:G:1147:ASP:OD2	2.34	0.50
1:G:4864:ASN:HA	1:G:4875:LYS:HG2	1.94	0.50
1:G:4934:GLY:HA2	1:G:4937:ILE:HD12	1.94	0.50
1:A:110:ARG:HA	1:A:117:TYR:HD1	1.77	0.50

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:507:ALA:O	1:A:509:GLU:N	2.45	0.50
1:A:594:GLY:H	1:A:1598:GLN:CG	2.24	0.50
1:A:1715:LEU:HD21	1:A:1807:LEU:HD21	1.93	0.50
1:A:3664:THR:HB	1:A:3665:GLU:OE1	2.12	0.50
1:A:3906:GLN:NE2	1:A:3913:ILE:O	2.39	0.50
1:A:4925:ILE:HG23	1:A:4929:LEU:HD12	1.93	0.50
1:A:4991:PHE:HE2	1:A:5010:VAL:HG11	1.77	0.50
1:C:457:GLU:HG3	1:C:464:LYS:HZ1	1.76	0.50
1:C:2875:ALA:HB2	1:C:2927:LEU:HD12	1.93	0.50
1:C:4717:ASP:O	1:C:4720:VAL:HG23	2.11	0.50
1:E:597:HIS:CE1	1:E:1661:ARG:HB3	2.47	0.50
1:E:864:PRO:HG2	1:E:867:LEU:HB2	1.92	0.50
1:E:1245:PHE:HD2	1:E:1290:ARG:HE	1.60	0.50
1:E:2449:GLU:O	1:E:2452:ARG:HB3	2.12	0.50
1:E:4991:PHE:HE2	1:E:5010:VAL:HG11	1.77	0.50
1:G:375:LYS:HZ1	1:G:377:ILE:HG22	1.75	0.50
1:G:871:ARG:HB2	1:G:929:LEU:HD13	1.93	0.50
1:G:887:ILE:HA	1:G:891:TRP:HB2	1.93	0.50
1:G:4003:LEU:HB2	1:G:4013:LEU:HD13	1.93	0.50
1:A:1254:HIS:HD2	1:A:1281:ASN:H	1.60	0.49
1:A:1288:PHE:CE2	1:A:1460:HIS:HA	2.47	0.49
1:A:1586:ASN:O	1:A:1588:ALA:N	2.43	0.49
1:A:1639:LEU:HD21	1:A:1653:LEU:HD11	1.94	0.49
1:A:4928:LEU:O	1:A:4932:ILE:HD12	2.12	0.49
2:B:25:HIS:CD2	2:B:104:LEU:HD11	2.46	0.49
1:C:35:LEU:HD13	1:C:49:LEU:HD22	1.93	0.49
1:C:1245:PHE:HD2	1:C:1290:ARG:HE	1.60	0.49
1:C:1745:ILE:HD13	1:C:1956:GLU:HG2	1.94	0.49
1:C:5027:CYS:SG	1:C:5028:PHE:N	2.85	0.49
1:E:2806:ARG:HA	1:E:2809:ILE:HD12	1.94	0.49
1:E:3928:GLU:HG3	1:E:3929:SER:N	2.27	0.49
1:G:441:VAL:O	1:G:445:LEU:HD13	2.11	0.49
1:G:457:GLU:HG3	1:G:464:LYS:HZ1	1.73	0.49
1:G:2449:GLU:O	1:G:2452:ARG:HB3	2.11	0.49
1:G:2855:TYR:CD2	1:G:2857:PRO:HD3	2.47	0.49
1:G:4766:THR:O	1:G:4770:SER:N	2.45	0.49
1:A:110:ARG:HH11	1:A:115:ARG:HE	1.61	0.49
1:A:140:ASP:OD2	1:A:142:THR:OG1	2.28	0.49
1:A:871:ARG:HB2	1:A:929:LEU:HD13	1.93	0.49
1:E:2793:PRO:O	1:E:2796:THR:OG1	2.19	0.49
1:E:4727:LYS:O	1:E:4728:HIS:HB2	2.12	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:597:HIS:CE1	1:G:1661:ARG:HB3	2.47	0.49
1:G:1125:ASN:HB3	1:G:1127:HIS:O	2.12	0.49
1:G:1237:TRP:CH2	1:G:1655:GLU:HB3	2.47	0.49
1:G:2825:LYS:HD2	1:G:2935:TYR:HE1	1.78	0.49
1:G:4239:GLU:OE1	1:G:4675:LYS:HD2	2.11	0.49
1:G:4979:THR:OG1	1:G:4980:LEU:N	2.45	0.49
1:A:35:LEU:HD13	1:A:49:LEU:HD22	1.94	0.49
1:A:4682:GLU:HG3	1:A:4683:PHE:CE2	2.47	0.49
2:B:58:GLY:HA3	2:B:76:ILE:HG23	1.94	0.49
1:C:871:ARG:HB2	1:C:929:LEU:HD13	1.93	0.49
1:C:1585:LYS:HZ3	1:C:1596:GLU:CD	2.05	0.49
1:C:1728:ARG:HH21	1:C:1850:VAL:HG11	1.77	0.49
1:C:2924:GLN:O	1:C:2928:LYS:N	2.40	0.49
1:C:3794:VAL:O	1:C:3797:THR:OG1	2.25	0.49
1:C:4017:LEU:HA	1:C:4139:ILE:HD11	1.93	0.49
1:E:507:ALA:O	1:E:509:GLU:N	2.45	0.49
1:E:706:GLY:O	1:E:724:GLY:N	2.45	0.49
1:E:1745:ILE:HD13	1:E:1956:GLU:HG2	1.94	0.49
1:E:2162:ILE:HD11	1:E:2210:VAL:HG21	1.94	0.49
1:G:178:ARG:HG2	1:G:195:PHE:CE1	2.47	0.49
1:G:3963:ASN:O	1:G:3966:THR:OG1	2.29	0.49
1:G:5027:CYS:SG	1:G:5028:PHE:N	2.84	0.49
1:A:341:TYR:CE1	1:A:392:ARG:HB3	2.48	0.49
1:A:597:HIS:CE1	1:A:1661:ARG:HB3	2.47	0.49
1:A:2773:ASN:HB3	1:A:2775:TRP:CD1	2.48	0.49
1:A:3846:ALA:O	1:A:3850:GLN:N	2.45	0.49
1:A:4017:LEU:HA	1:A:4139:ILE:HD11	1.93	0.49
1:A:4807:PHE:HB3	1:C:4857:ASN:HD21	1.76	0.49
1:C:597:HIS:CE1	1:C:1661:ARG:HB3	2.47	0.49
1:C:750:LEU:O	1:C:752:VAL:N	2.43	0.49
1:C:2162:ILE:HD13	1:C:2178:MET:HG3	1.92	0.49
1:E:1728:ARG:HH21	1:E:1850:VAL:HG11	1.77	0.49
1:E:3677:LEU:HB3	1:E:3698:LEU:HB2	1.93	0.49
1:E:3906:GLN:NE2	1:E:3913:ILE:O	2.39	0.49
1:G:35:LEU:HD13	1:G:49:LEU:HD22	1.93	0.49
1:G:706:GLY:O	1:G:724:GLY:N	2.45	0.49
1:G:838:HIS:HD2	1:G:1095:VAL:HG21	1.77	0.49
1:G:1076:ARG:HD2	1:G:1189:LEU:HD13	1.94	0.49
1:G:1207:ASP:HA	1:G:1210:SER:HB3	1.95	0.49
1:G:3670:GLU:OE1	1:G:3731:LYS:HB2	2.12	0.49
1:A:695:TYR:HB2	1:A:1240:LYS:NZ	2.27	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:838:HIS:HD2	1:A:1095:VAL:HG21	1.77	0.49
1:A:1842:LEU:HD21	1:A:1926:LEU:HD21	1.95	0.49
1:C:2162:ILE:HD11	1:C:2210:VAL:HG21	1.94	0.49
1:C:2806:ARG:HA	1:C:2809:ILE:HD12	1.93	0.49
1:C:4844:LEU:HD21	1:C:4891:VAL:CG2	2.43	0.49
1:C:4928:LEU:HA	1:C:4931:ILE:HG22	1.93	0.49
1:E:110:ARG:HA	1:E:117:TYR:HD1	1.77	0.49
1:E:1207:ASP:HA	1:E:1210:SER:HB3	1.95	0.49
1:E:1237:TRP:CH2	1:E:1655:GLU:HB3	2.47	0.49
1:E:3664:THR:HB	1:E:3665:GLU:OE1	2.13	0.49
1:E:4721:LYS:NZ	1:E:4741:LEU:HD22	2.28	0.49
2:F:87:HIS:HB3	2:F:90:ILE:HB	1.93	0.49
1:G:273:HIS:ND1	1:G:335:GLY:O	2.46	0.49
1:G:276:TRP:HB2	1:G:316:PHE:O	2.13	0.49
1:G:341:TYR:CE1	1:G:392:ARG:HB3	2.47	0.49
1:G:3817:LEU:HD13	1:G:3899:PHE:HD1	1.76	0.49
1:A:441:VAL:O	1:A:445:LEU:HD13	2.11	0.49
1:A:1125:ASN:HB3	1:A:1127:HIS:O	2.12	0.49
1:C:1237:TRP:CH2	1:C:1655:GLU:HB3	2.47	0.49
1:C:1288:PHE:CE2	1:C:1460:HIS:HA	2.48	0.49
1:C:3664:THR:HB	1:C:3665:GLU:OE1	2.13	0.49
1:C:3928:GLU:HG3	1:C:3929:SER:N	2.27	0.49
1:E:3804:ILE:HG22	1:E:3812:VAL:HG11	1.95	0.49
1:E:4728:HIS:HA	1:E:4731:ILE:HD12	1.95	0.49
1:G:411:TYR:HB2	1:G:486:LEU:HD21	1.95	0.49
1:G:4976:GLU:O	1:G:4979:THR:OG1	2.22	0.49
1:A:4844:LEU:HD21	1:A:4891:VAL:CG2	2.43	0.49
1:C:668:VAL:HB	1:C:740:PRO:HA	1.95	0.49
1:C:838:HIS:HD2	1:C:1095:VAL:HG21	1.77	0.49
1:C:1254:HIS:HE2	1:C:1280:GLN:HB3	1.78	0.49
1:C:2137:ALA:HA	1:C:2140:ARG:HH21	1.76	0.49
1:C:3966:THR:O	1:C:3970:GLN:HG3	2.12	0.49
1:E:2498:HIS:O	1:E:2501:SER:OG	2.21	0.49
1:G:223:PHE:HD1	1:G:230:CYS:HB3	1.78	0.49
1:G:507:ALA:O	1:G:509:GLU:N	2.45	0.49
1:G:2773:ASN:HB3	1:G:2775:TRP:CD1	2.48	0.49
1:G:4864:ASN:CG	1:G:4875:LYS:HZ3	2.15	0.49
2:H:76:ILE:O	2:H:96:THR:HG23	2.13	0.49
1:A:273:HIS:N	1:A:334:MET:O	2.27	0.49
1:A:706:GLY:O	1:A:724:GLY:N	2.45	0.49
1:A:1245:PHE:HD2	1:A:1290:ARG:HE	1.60	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1438:ARG:HA	1:A:1513:ASP:O	2.13	0.49
1:A:2190:VAL:HA	1:A:2193:GLN:HB2	1.94	0.49
1:C:240:ASP:OD2	1:C:244:LEU:HD12	2.12	0.49
1:C:1254:HIS:HD2	1:C:1281:ASN:H	1.60	0.49
1:C:1700:ASP:OD2	1:C:1703:LEU:HB2	2.11	0.49
1:C:1846:SER:O	1:C:1850:VAL:HG23	2.13	0.49
1:C:2855:TYR:CD2	1:C:2857:PRO:HD3	2.48	0.49
1:C:3677:LEU:HB3	1:C:3698:LEU:HB2	1.93	0.49
1:C:3804:ILE:HG22	1:C:3812:VAL:HG11	1.95	0.49
1:C:3938:SER:HA	1:C:4002:LYS:HE3	1.95	0.49
2:D:38:SER:HB3	2:D:41:ASP:CG	2.33	0.49
1:E:5027:CYS:SG	1:E:5028:PHE:N	2.85	0.49
1:G:1728:ARG:HH21	1:G:1850:VAL:HG11	1.76	0.49
1:G:1846:SER:O	1:G:1850:VAL:HG23	2.13	0.49
1:G:2735:PHE:HE1	1:G:2907:PRO:HG3	1.78	0.49
1:G:3674:ILE:HD11	1:G:3728:ILE:HG22	1.94	0.49
1:G:4567:LEU:HD13	1:G:4815:ASP:HB3	1.95	0.49
1:G:4682:GLU:HG3	1:G:4683:PHE:CD2	2.47	0.49
1:A:276:TRP:HB2	1:A:316:PHE:O	2.13	0.49
1:A:4666:VAL:HG13	1:A:4783:ILE:HG12	1.94	0.49
1:A:4839:MET:HB3	1:G:4823:LEU:CD1	2.42	0.49
1:C:696:PRO:HB2	1:C:1613:LEU:HD22	1.94	0.49
1:C:1078:GLU:OE1	1:C:1235:THR:OG1	2.31	0.49
1:C:1125:ASN:HB3	1:C:1127:HIS:O	2.12	0.49
1:C:4991:PHE:HE2	1:C:5010:VAL:HG11	1.77	0.49
2:D:87:HIS:HB3	2:D:90:ILE:HB	1.94	0.49
1:E:40:GLU:OE2	1:E:402:ARG:HG3	2.12	0.49
1:E:3938:SER:HA	1:E:4002:LYS:HE3	1.95	0.49
2:F:76:ILE:O	2:F:96:THR:HG23	2.13	0.49
1:G:110:ARG:HA	1:G:117:TYR:HD1	1.76	0.49
1:G:841:GLY:HA3	1:G:1073:ARG:NH1	2.28	0.49
1:G:1078:GLU:OE1	1:G:1235:THR:OG1	2.31	0.49
1:G:1842:LEU:HD21	1:G:1926:LEU:HD21	1.95	0.49
1:G:3841:VAL:HG12	1:G:3843:ASP:H	1.77	0.49
1:G:4680:LYS:HD3	1:G:4686:LEU:HD23	1.95	0.49
1:G:4736:ARG:O	1:G:4739:GLU:HG2	2.13	0.49
1:A:273:HIS:ND1	1:A:335:GLY:O	2.45	0.49
1:A:696:PRO:HB2	1:A:1613:LEU:HD22	1.95	0.49
1:A:1078:GLU:OE1	1:A:1235:THR:OG1	2.31	0.49
1:A:3928:GLU:HG3	1:A:3929:SER:N	2.27	0.49
1:C:276:TRP:HB2	1:C:316:PHE:O	2.13	0.49

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:701:GLY:HA2	1:C:1645:ASN:HD21	1.77	0.49
1:C:1617:THR:O	1:C:1618:ARG:NH2	2.37	0.49
1:C:2924:GLN:HB3	1:C:2928:LYS:HE2	1.95	0.49
1:C:4721:LYS:NZ	1:C:4741:LEU:HD22	2.27	0.49
1:E:276:TRP:HB2	1:E:316:PHE:O	2.13	0.49
1:E:411:TYR:HB2	1:E:486:LEU:HD21	1.95	0.49
1:E:526:LEU:HD11	1:E:540:PHE:CZ	2.45	0.49
1:E:630:GLU:HA	1:E:1642:PRO:HG3	1.93	0.49
1:E:2129:ASP:OD1	1:E:2132:GLY:N	2.43	0.49
1:E:4041:ALA:O	1:E:4044:MET:HG2	2.13	0.49
1:E:4666:VAL:HG13	1:E:4783:ILE:HG12	1.95	0.49
1:E:4721:LYS:HZ3	1:E:4741:LEU:HD22	1.78	0.49
1:G:802:PHE:CE2	1:G:804:PRO:HG3	2.48	0.49
1:G:1639:LEU:HD21	1:G:1653:LEU:HD11	1.95	0.49
1:G:1676:LEU:HG	1:G:1721:GLU:OE2	2.13	0.49
1:G:4219:PHE:HD1	1:G:4950:VAL:HG21	1.77	0.49
1:A:223:PHE:HD1	1:A:230:CYS:HB3	1.78	0.48
1:A:411:TYR:HB2	1:A:486:LEU:HD21	1.95	0.48
1:A:1745:ILE:HD13	1:A:1956:GLU:HG2	1.94	0.48
1:C:223:PHE:HD1	1:C:230:CYS:HB3	1.78	0.48
1:C:843:SER:OG	1:C:844:ARG:N	2.41	0.48
1:C:1144:GLN:N	1:C:1147:ASP:OD2	2.34	0.48
1:C:2498:HIS:O	1:C:2501:SER:OG	2.20	0.48
1:E:240:ASP:OD2	1:E:244:LEU:HD12	2.13	0.48
1:E:841:GLY:HA3	1:E:1073:ARG:NH1	2.28	0.48
1:E:1676:LEU:HG	1:E:1721:GLU:OE2	2.13	0.48
1:E:2773:ASN:HB3	1:E:2775:TRP:CD1	2.48	0.48
1:E:3840:SER:HB2	1:E:3877:ASP:OD2	2.14	0.48
1:E:3966:THR:O	1:E:3970:GLN:HG3	2.12	0.48
1:E:4826:ILE:HG22	1:G:4931:ILE:CD1	2.36	0.48
1:E:4940:PHE:CD2	1:G:4938:ASP:OD2	2.66	0.48
1:G:630:GLU:HA	1:G:1642:PRO:HG3	1.94	0.48
1:A:595:ARG:NH2	1:A:1643:GLU:OE2	2.47	0.48
1:A:1214:PHE:O	1:A:1218:GLY:N	2.38	0.48
1:A:1237:TRP:CH2	1:A:1655:GLU:HB3	2.48	0.48
1:A:1728:ARG:HH21	1:A:1850:VAL:HG11	1.77	0.48
1:A:1846:SER:O	1:A:1850:VAL:HG23	2.13	0.48
1:C:273:HIS:ND1	1:C:335:GLY:O	2.45	0.48
1:E:1254:HIS:HE2	1:E:1280:GLN:HB3	1.78	0.48
1:E:2855:TYR:CD2	1:E:2857:PRO:HD3	2.48	0.48
1:E:3805:LEU:HB2	1:E:3890:LEU:HD23	1.95	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4833:ASN:HB3	1:E:4935:LEU:HD21	1.95	0.48
1:G:701:GLY:HA2	1:G:1645:ASN:HD21	1.77	0.48
1:G:3664:THR:HB	1:G:3665:GLU:OE1	2.13	0.48
1:A:1738:LEU:HD11	1:A:2143:THR:HB	1.96	0.48
1:A:2816:MET:HG2	1:A:2878:LEU:HD21	1.96	0.48
1:A:3804:ILE:HG22	1:A:3812:VAL:HG11	1.95	0.48
1:A:3966:THR:O	1:A:3970:GLN:HG3	2.13	0.48
2:B:38:SER:HB3	2:B:41:ASP:CG	2.33	0.48
1:C:341:TYR:CE1	1:C:392:ARG:HB3	2.48	0.48
1:C:831:ARG:O	1:C:838:HIS:ND1	2.36	0.48
1:C:2773:ASN:HB3	1:C:2775:TRP:CD1	2.48	0.48
1:C:3708:THR:O	1:C:3711:THR:OG1	2.29	0.48
1:C:3840:SER:HB2	1:C:3877:ASP:OD2	2.13	0.48
1:E:341:TYR:CE1	1:E:392:ARG:HB3	2.48	0.48
1:E:595:ARG:NH2	1:E:1641:ILE:HD11	2.26	0.48
1:E:595:ARG:NH2	1:E:1643:GLU:OE2	2.46	0.48
1:E:1639:LEU:HD21	1:E:1653:LEU:HD11	1.94	0.48
1:E:2190:VAL:HA	1:E:2193:GLN:HB2	1.95	0.48
2:F:11:ASP:OD1	2:F:12:GLY:N	2.47	0.48
1:G:273:HIS:N	1:G:334:MET:O	2.27	0.48
1:G:2190:VAL:HA	1:G:2193:GLN:HB2	1.94	0.48
1:G:4042:ARG:O	1:G:4045:VAL:HB	2.13	0.48
1:A:457:GLU:HG3	1:A:464:LYS:HZ1	1.77	0.48
1:A:1281:ASN:OD1	1:A:1282:SER:N	2.47	0.48
1:A:2288:LEU:O	1:A:3849:ARG:HD3	2.13	0.48
1:A:4728:HIS:HA	1:A:4731:ILE:HD12	1.96	0.48
2:B:76:ILE:O	2:B:96:THR:HG23	2.13	0.48
1:C:280:LEU:HD12	1:C:280:LEU:O	2.13	0.48
1:C:1085:SER:O	1:C:1088:TRP:NE1	2.39	0.48
1:C:1207:ASP:HA	1:C:1210:SER:HB3	1.95	0.48
1:C:3963:ASN:O	1:C:3966:THR:OG1	2.24	0.48
1:E:473:ASN:O	1:E:477:LEU:HG	2.14	0.48
1:E:1738:LEU:HD11	1:E:2143:THR:HB	1.96	0.48
1:E:2288:LEU:O	1:E:3849:ARG:HD3	2.13	0.48
1:E:2470:ILE:O	1:E:2474:LEU:N	2.40	0.48
1:G:473:ASN:O	1:G:477:LEU:HG	2.14	0.48
1:G:526:LEU:HD11	1:G:540:PHE:CZ	2.46	0.48
1:G:2748:PRO:HD2	1:G:2751:LEU:HD12	1.94	0.48
1:A:214:VAL:HG22	1:A:341:TYR:CE1	2.49	0.48
1:A:877:ASN:O	1:A:880:GLU:HB2	2.14	0.48
1:A:1617:THR:O	1:A:1618:ARG:NH2	2.37	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1676:LEU:HG	1:A:1721:GLU:OE2	2.13	0.48
1:A:2045:GLN:O	1:A:2064:ARG:NH2	2.40	0.48
1:A:2114:PRO:HD3	1:A:3707:ARG:HH11	1.78	0.48
1:A:2924:GLN:O	1:A:2928:LYS:HG3	2.14	0.48
1:A:3713:LYS:O	1:A:3715:LYS:N	2.47	0.48
1:A:4833:ASN:HB3	1:A:4935:LEU:HD21	1.95	0.48
1:C:2190:VAL:HA	1:C:2193:GLN:HB2	1.94	0.48
1:E:1254:HIS:HD2	1:E:1281:ASN:H	1.60	0.48
1:E:1617:THR:O	1:E:1618:ARG:NH2	2.37	0.48
1:E:1842:LEU:HD21	1:E:1926:LEU:HD21	1.94	0.48
1:E:1846:SER:O	1:E:1850:VAL:HG23	2.13	0.48
1:G:110:ARG:NH1	1:G:115:ARG:HB3	2.29	0.48
1:G:178:ARG:HB2	1:G:193:ALA:HB1	1.96	0.48
1:G:696:PRO:HB2	1:G:1613:LEU:HD22	1.94	0.48
1:A:280:LEU:HD12	1:A:280:LEU:O	2.13	0.48
1:A:3938:SER:HA	1:A:4002:LYS:HE3	1.94	0.48
1:C:1620:ALA:O	1:C:1629:GLN:N	2.35	0.48
1:C:1842:LEU:HD21	1:C:1926:LEU:HD21	1.95	0.48
1:C:3937:TYR:HA	1:C:3940:LYS:NZ	2.27	0.48
1:C:4728:HIS:HA	1:C:4731:ILE:HD12	1.96	0.48
1:C:4863:TYR:CD1	1:C:4901:ILE:HD12	2.49	0.48
2:D:11:ASP:OD1	2:D:12:GLY:N	2.47	0.48
2:D:55:VAL:HG21	2:D:59:TRP:HD1	1.79	0.48
1:E:223:PHE:HD1	1:E:230:CYS:HB3	1.77	0.48
1:E:1700:ASP:OD2	1:E:1703:LEU:HB2	2.12	0.48
1:E:1723:ALA:HB1	1:E:1851:MET:HG3	1.96	0.48
1:G:110:ARG:HH11	1:G:115:ARG:HE	1.61	0.48
1:G:526:LEU:HG	1:G:530:ILE:HD11	1.96	0.48
1:G:877:ASN:O	1:G:880:GLU:HB2	2.14	0.48
1:G:2129:ASP:OD1	1:G:2132:GLY:N	2.44	0.48
1:G:4865:LYS:NZ	1:G:4876:CYS:N	2.61	0.48
1:A:526:LEU:HG	1:A:530:ILE:HD11	1.96	0.48
1:A:692:TYR:CD1	1:A:711:LEU:HD12	2.49	0.48
1:A:802:PHE:CE2	1:A:804:PRO:HG3	2.48	0.48
1:A:841:GLY:HA3	1:A:1073:ARG:NH1	2.28	0.48
1:A:1022:VAL:HG23	1:A:1027:LEU:HB3	1.95	0.48
1:A:4766:THR:O	1:A:4770:SER:N	2.46	0.48
1:C:291:LEU:O	1:C:312:THR:OG1	2.21	0.48
1:C:720:HIS:HA	1:C:730:VAL:H	1.79	0.48
1:C:802:PHE:CE2	1:C:804:PRO:HG3	2.48	0.48
1:C:1076:ARG:HD2	1:C:1189:LEU:HD13	1.94	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1095:VAL:HB	1:C:1199:VAL:HG12	1.96	0.48
1:C:3821:LYS:HZ3	1:C:3902:TYR:HD1	1.59	0.48
1:E:1078:GLU:OE1	1:E:1235:THR:OG1	2.31	0.48
1:E:3817:LEU:HD22	1:E:3899:PHE:HB2	1.96	0.48
1:E:3835:LEU:HD11	1:E:3880:PHE:HZ	1.79	0.48
1:E:4195:PHE:CE1	1:E:4991:PHE:HB2	2.48	0.48
1:E:4925:ILE:HG23	1:E:4929:LEU:HD12	1.95	0.48
2:F:38:SER:HB3	2:F:41:ASP:CG	2.33	0.48
2:F:87:HIS:O	2:F:90:ILE:N	2.39	0.48
1:G:636:ASN:HD22	2:H:35:LYS:HD3	1.79	0.48
1:G:640:TYR:CD2	1:G:1634:LEU:HD12	2.49	0.48
1:G:720:HIS:HA	1:G:730:VAL:H	1.78	0.48
1:G:2123:LEU:HD23	1:G:2126:ARG:HD3	1.95	0.48
1:G:2162:ILE:HD11	1:G:2210:VAL:HG21	1.95	0.48
1:A:178:ARG:HB2	1:A:193:ALA:HB1	1.96	0.48
1:A:720:HIS:HA	1:A:730:VAL:H	1.79	0.48
1:A:1076:ARG:HD2	1:A:1189:LEU:HD13	1.94	0.48
1:A:2855:TYR:CD2	1:A:2857:PRO:HD3	2.48	0.48
1:A:4195:PHE:CE1	1:A:4991:PHE:HB2	2.49	0.48
1:A:4863:TYR:CD1	1:A:4901:ILE:HD12	2.49	0.48
2:B:55:VAL:HG21	2:B:59:TRP:HD1	1.79	0.48
1:C:119:SER:HB3	1:C:138:GLN:HG2	1.96	0.48
1:C:411:TYR:HB2	1:C:486:LEU:HD21	1.95	0.48
1:C:1281:ASN:OD1	1:C:1282:SER:N	2.47	0.48
1:C:2121:PHE:CD1	1:C:3701:LEU:HD12	2.49	0.48
1:E:119:SER:HB3	1:E:138:GLN:HG2	1.96	0.48
1:E:178:ARG:HB2	1:E:193:ALA:HB1	1.96	0.48
1:E:280:LEU:HD12	1:E:280:LEU:O	2.13	0.48
1:E:613:ALA:HB1	1:E:618:GLN:NE2	2.26	0.48
1:E:696:PRO:HB2	1:E:1613:LEU:HD22	1.95	0.48
1:E:4863:TYR:CD1	1:E:4901:ILE:HD12	2.49	0.48
1:E:4960:ILE:HD13	1:E:4983:HIS:HB3	1.96	0.48
1:G:214:VAL:HG22	1:G:341:TYR:CE1	2.49	0.48
1:G:563:VAL:O	1:G:567:VAL:HG23	2.14	0.48
1:G:1457:TYR:O	1:G:1458:HIS:ND1	2.46	0.48
1:G:2920:ARG:O	1:G:2924:GLN:HG3	2.14	0.48
1:A:640:TYR:CD2	1:A:1634:LEU:HD12	2.48	0.48
1:A:668:VAL:HB	1:A:740:PRO:HA	1.94	0.48
1:A:2162:ILE:HD11	1:A:2210:VAL:HG21	1.95	0.48
1:A:3817:LEU:HD22	1:A:3899:PHE:HB2	1.95	0.48
1:A:4041:ALA:O	1:A:4044:MET:HG2	2.13	0.48

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:613:ALA:HB1	1:C:618:GLN:NE2	2.26	0.48
1:C:1676:LEU:HG	1:C:1721:GLU:OE2	2.13	0.48
1:C:2431:ASP:O	1:C:2435:ARG:HG3	2.14	0.48
1:C:3846:ALA:O	1:C:3850:GLN:N	2.45	0.48
1:C:4195:PHE:CE1	1:C:4991:PHE:HB2	2.49	0.48
1:C:4727:LYS:O	1:C:4728:HIS:HB2	2.12	0.48
1:C:4766:THR:O	1:C:4770:SER:N	2.46	0.48
2:D:76:ILE:O	2:D:96:THR:HG23	2.13	0.48
1:E:640:TYR:CD2	1:E:1634:LEU:HD12	2.48	0.48
1:E:833:GLY:HA3	1:E:838:HIS:HE1	1.79	0.48
1:E:1139:PHE:CE2	1:E:1169:LEU:HD21	2.49	0.48
1:G:489:ASN:HB3	1:G:493:ARG:HH12	1.79	0.48
1:G:692:TYR:CD1	1:G:711:LEU:HD12	2.49	0.48
1:G:1085:SER:O	1:G:1088:TRP:NE1	2.39	0.48
1:G:1281:ASN:OD1	1:G:1282:SER:N	2.47	0.48
1:G:1667:LEU:HD23	1:G:1710:GLY:C	2.34	0.48
1:G:2498:HIS:O	1:G:2501:SER:OG	2.20	0.48
1:G:2821:TRP:CD1	1:G:2939:ARG:HA	2.49	0.48
1:G:4715:TYR:OH	1:G:5017:ARG:NH2	2.45	0.48
1:G:4823:LEU:HA	1:G:4826:ILE:HD12	1.95	0.48
1:A:110:ARG:NH1	1:A:115:ARG:HB3	2.29	0.48
1:A:1254:HIS:HE2	1:A:1280:GLN:HB3	1.78	0.48
1:A:4003:LEU:HB2	1:A:4013:LEU:HD13	1.96	0.48
1:C:1723:ALA:HB1	1:C:1851:MET:HG3	1.96	0.48
1:E:1095:VAL:HB	1:E:1199:VAL:HG12	1.96	0.48
1:E:3885:PHE:HE1	1:E:3919:THR:HG1	1.61	0.48
1:E:4059:LEU:HD22	1:E:4170:ILE:HD13	1.96	0.48
1:E:4661:TYR:HE2	1:E:4789:PHE:HB2	1.79	0.48
1:E:4844:LEU:HD21	1:E:4891:VAL:CG2	2.43	0.48
1:G:1745:ILE:HD13	1:G:1956:GLU:HG2	1.95	0.48
1:G:2806:ARG:HA	1:G:2809:ILE:HD12	1.96	0.48
1:G:4124:ASN:OD1	1:G:4125:PHE:N	2.47	0.48
1:G:4738:ALA:O	1:G:4742:GLY:N	2.46	0.48
1:A:473:ASN:O	1:A:477:LEU:HG	2.13	0.47
1:A:4721:LYS:NZ	1:A:4741:LEU:HD22	2.28	0.47
1:C:877:ASN:O	1:C:880:GLU:HB2	2.14	0.47
1:C:1022:VAL:HG23	1:C:1027:LEU:HB3	1.96	0.47
1:C:1778:SER:N	1:C:1799:SER:O	2.36	0.47
1:C:4003:LEU:HB2	1:C:4013:LEU:HD13	1.96	0.47
1:C:4139:ILE:O	1:C:4143:VAL:HG23	2.14	0.47
2:D:87:HIS:O	2:D:90:ILE:N	2.39	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2816:MET:HG2	1:E:2878:LEU:HD21	1.96	0.47
1:E:2930:LEU:HB3	1:E:2937:VAL:HG21	1.96	0.47
1:G:240:ASP:OD2	1:G:244:LEU:HD12	2.13	0.47
1:G:595:ARG:NH2	1:G:1643:GLU:OE2	2.47	0.47
1:G:1254:HIS:HE2	1:G:1280:GLN:HB3	1.78	0.47
1:G:1254:HIS:HD2	1:G:1281:ASN:H	1.60	0.47
1:G:4242:ILE:O	1:G:4246:GLN:HG2	2.14	0.47
1:G:4680:LYS:O	1:G:4685:GLY:N	2.42	0.47
1:G:4683:PHE:CE2	1:G:5017:ARG:HD2	2.49	0.47
1:A:119:SER:HB3	1:A:138:GLN:HG2	1.96	0.47
1:A:240:ASP:OD2	1:A:244:LEU:HD12	2.14	0.47
1:A:1144:GLN:N	1:A:1147:ASP:OD2	2.34	0.47
1:A:2431:ASP:O	1:A:2435:ARG:HG3	2.14	0.47
1:A:3937:TYR:HA	1:A:3940:LYS:HZ3	1.78	0.47
1:C:640:TYR:CD2	1:C:1634:LEU:HD12	2.48	0.47
1:C:1239:SER:HA	1:C:1608:MET:O	2.14	0.47
1:C:1639:LEU:HD21	1:C:1653:LEU:HD11	1.95	0.47
1:C:1667:LEU:HD23	1:C:1710:GLY:C	2.34	0.47
1:E:668:VAL:HB	1:E:740:PRO:HA	1.95	0.47
1:E:720:HIS:HA	1:E:730:VAL:H	1.79	0.47
1:E:4766:THR:O	1:E:4770:SER:N	2.46	0.47
1:G:40:GLU:OE2	1:G:402:ARG:HG3	2.12	0.47
1:G:466:SER:HA	1:G:469:ARG:HE	1.79	0.47
1:G:4174:PHE:O	1:G:4178:LEU:N	2.45	0.47
1:G:4904:PRO:HG3	1:G:4913:ARG:HD3	1.96	0.47
1:A:563:VAL:O	1:A:567:VAL:HG23	2.14	0.47
1:A:1815:LEU:HB3	1:A:1865:MET:SD	2.54	0.47
1:C:293:LEU:HG	1:C:298:GLY:HA2	1.97	0.47
1:C:595:ARG:NH2	1:C:1643:GLU:OE2	2.47	0.47
1:C:1139:PHE:CE2	1:C:1169:LEU:HD21	2.49	0.47
1:C:2288:LEU:O	1:C:3849:ARG:HD3	2.13	0.47
1:C:4041:ALA:O	1:C:4044:MET:HG2	2.13	0.47
1:C:4565:LEU:O	1:C:4569:LEU:HG	2.15	0.47
1:E:140:ASP:OD2	1:E:142:THR:OG1	2.29	0.47
1:E:1667:LEU:HD23	1:E:1710:GLY:C	2.35	0.47
1:G:119:SER:HB3	1:G:138:GLN:HG2	1.96	0.47
1:G:280:LEU:HD12	1:G:280:LEU:O	2.13	0.47
1:G:4021:LYS:O	1:G:4025:VAL:HG23	2.14	0.47
1:G:4701:TRP:HB3	1:G:4778:TRP:CD1	2.48	0.47
1:A:291:LEU:HG	1:A:314:PHE:HE2	1.79	0.47
1:A:495:ASN:HB3	1:A:553:ARG:HH21	1.79	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1547:LYS:HZ3	1:A:1645:ASN:HB2	1.77	0.47
1:A:1723:ALA:HB1	1:A:1851:MET:HG3	1.96	0.47
1:A:4000:MET:HE2	1:A:4058:ILE:HG22	1.97	0.47
1:A:4059:LEU:HD22	1:A:4170:ILE:HD13	1.96	0.47
1:A:4682:GLU:HG3	1:A:4683:PHE:CD2	2.50	0.47
1:C:473:ASN:O	1:C:477:LEU:HG	2.14	0.47
1:C:526:LEU:HG	1:C:530:ILE:HD11	1.96	0.47
1:C:833:GLY:HA3	1:C:838:HIS:HE1	1.79	0.47
1:C:1738:LEU:HD11	1:C:2143:THR:HB	1.96	0.47
1:C:2816:MET:HG2	1:C:2878:LEU:HD21	1.95	0.47
1:C:3713:LYS:O	1:C:3715:LYS:N	2.47	0.47
1:C:3805:LEU:HB2	1:C:3890:LEU:HD23	1.95	0.47
1:C:3817:LEU:HD22	1:C:3899:PHE:HB2	1.96	0.47
1:C:4666:VAL:HG13	1:C:4783:ILE:HG12	1.95	0.47
1:C:4727:LYS:O	1:C:4728:HIS:CB	2.62	0.47
1:C:4864:ASN:CG	1:C:4875:LYS:HZ2	2.16	0.47
1:E:273:HIS:ND1	1:E:335:GLY:O	2.46	0.47
1:E:526:LEU:HG	1:E:530:ILE:HD11	1.96	0.47
1:G:883:ALA:O	1:G:887:ILE:HD12	2.15	0.47
1:G:1139:PHE:CE2	1:G:1169:LEU:HD21	2.49	0.47
1:G:4064:MET:O	1:G:4073:GLY:N	2.48	0.47
1:G:4242:ILE:HG12	1:G:4993:MET:HG2	1.96	0.47
1:G:4682:GLU:HG3	1:G:4683:PHE:CE2	2.49	0.47
1:G:4930:ALA:O	1:G:4934:GLY:N	2.33	0.47
1:A:5027:CYS:SG	1:A:5028:PHE:N	2.86	0.47
1:C:178:ARG:HB2	1:C:193:ALA:HB1	1.96	0.47
1:C:563:VAL:O	1:C:567:VAL:HG23	2.13	0.47
1:C:4059:LEU:HD22	1:C:4170:ILE:HD13	1.97	0.47
1:E:111:HIS:NE2	1:E:113:HIS:HB3	2.30	0.47
1:E:1281:ASN:OD1	1:E:1282:SER:N	2.47	0.47
1:E:2496:PRO:HB3	1:E:2553:TYR:CZ	2.49	0.47
1:E:4928:LEU:O	1:E:4932:ILE:HD12	2.12	0.47
1:G:613:ALA:HB1	1:G:618:GLN:NE2	2.26	0.47
1:G:1095:VAL:HB	1:G:1199:VAL:HG12	1.96	0.47
1:G:4783:ILE:HG22	1:G:4789:PHE:CD2	2.50	0.47
2:H:11:ASP:OD1	2:H:12:GLY:N	2.47	0.47
1:A:50:GLU:OE2	1:A:61:ASP:N	2.36	0.47
1:A:1095:VAL:HB	1:A:1199:VAL:HG12	1.97	0.47
1:A:4139:ILE:O	1:A:4143:VAL:HG23	2.14	0.47
1:C:495:ASN:HB3	1:C:553:ARG:HH21	1.79	0.47
1:E:465:GLN:NE2	1:E:3712:GLU:OE1	2.48	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:563:VAL:O	1:E:567:VAL:HG23	2.14	0.47
1:E:831:ARG:CZ	1:E:840:VAL:HG11	2.45	0.47
1:E:1022:VAL:HG23	1:E:1027:LEU:HB3	1.95	0.47
1:E:1239:SER:HA	1:E:1608:MET:O	2.14	0.47
1:E:3713:LYS:O	1:E:3715:LYS:N	2.47	0.47
1:G:2495:VAL:HA	1:G:2498:HIS:HD2	1.80	0.47
1:A:584:LYS:HZ1	1:A:1586:ASN:HD21	1.60	0.47
1:A:1139:PHE:CE2	1:A:1169:LEU:HD21	2.49	0.47
1:A:1207:ASP:HA	1:A:1210:SER:HB3	1.97	0.47
1:A:1480:GLN:H	1:A:1481:GLY:HA2	1.80	0.47
1:A:2121:PHE:CD1	1:A:3701:LEU:HD12	2.50	0.47
1:A:4727:LYS:O	1:A:4728:HIS:CB	2.62	0.47
2:B:11:ASP:OD1	2:B:12:GLY:N	2.47	0.47
1:C:111:HIS:NE2	1:C:113:HIS:HB3	2.30	0.47
1:C:692:TYR:CD1	1:C:711:LEU:HD12	2.49	0.47
1:C:841:GLY:HA3	1:C:1073:ARG:NH1	2.28	0.47
1:C:1947:CYS:SG	1:C:2126:ARG:NE	2.88	0.47
1:C:4928:LEU:O	1:C:4932:ILE:HD12	2.14	0.47
1:E:589:LEU:HG	1:E:593:HIS:CD2	2.47	0.47
1:E:877:ASN:O	1:E:880:GLU:HB2	2.14	0.47
1:E:883:ALA:O	1:E:887:ILE:HD12	2.15	0.47
1:E:1226:PHE:O	1:E:1229:ASN:HB2	2.15	0.47
1:E:1947:CYS:SG	1:E:2126:ARG:NE	2.87	0.47
1:E:2121:PHE:CD1	1:E:3701:LEU:HD12	2.50	0.47
1:E:3935:TRP:HE3	1:G:80:GLU:OE1	1.98	0.47
1:E:3937:TYR:HA	1:E:3940:LYS:NZ	2.28	0.47
1:E:4139:ILE:O	1:E:4143:VAL:HG23	2.14	0.47
1:E:4682:GLU:HG3	1:E:4683:PHE:CD2	2.50	0.47
1:G:121:LEU:O	1:G:133:PHE:HB3	2.15	0.47
1:G:291:LEU:HG	1:G:314:PHE:HE2	1.79	0.47
1:G:495:ASN:HB3	1:G:553:ARG:HH21	1.79	0.47
1:G:562:GLU:OE2	1:G:598:LYS:HD3	2.15	0.47
1:G:689:THR:HA	1:G:778:PHE:HE2	1.80	0.47
1:G:831:ARG:CZ	1:G:840:VAL:HG11	2.45	0.47
1:G:1022:VAL:HG23	1:G:1027:LEU:HB3	1.96	0.47
1:G:1245:PHE:H	1:G:1290:ARG:HH21	1.63	0.47
1:G:1723:ALA:HB1	1:G:1851:MET:HG3	1.96	0.47
1:G:2121:PHE:O	1:G:3725:TYR:OH	2.27	0.47
1:G:2204:HIS:O	1:G:2208:MET:N	2.42	0.47
1:G:3105:LYS:O	1:G:3109:ASN:N	2.41	0.47
1:G:4089:SER:HA	1:G:4122:MET:HA	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4158:PRO:O	1:G:4162:ASN:N	2.41	0.47
1:G:4721:LYS:HG3	1:G:4741:LEU:HD22	1.96	0.47
1:A:1239:SER:HA	1:A:1608:MET:O	2.14	0.47
1:A:2166:LEU:HG	1:A:2209:GLU:OE1	2.15	0.47
1:A:3805:LEU:HB2	1:A:3890:LEU:HD23	1.96	0.47
1:A:3840:SER:HB2	1:A:3877:ASP:OD2	2.14	0.47
1:A:4242:ILE:O	1:A:4246:GLN:HG2	2.15	0.47
1:A:4661:TYR:HE2	1:A:4789:PHE:HB2	1.79	0.47
1:C:562:GLU:OE2	1:C:598:LYS:HD3	2.15	0.47
1:C:1815:LEU:HB3	1:C:1865:MET:SD	2.54	0.47
1:C:2735:PHE:HE1	1:C:2907:PRO:HG3	1.80	0.47
1:C:2774:ASN:OD1	1:C:2852:ARG:NE	2.48	0.47
1:C:3835:LEU:HD11	1:C:3880:PHE:HZ	1.79	0.47
1:C:4682:GLU:HG3	1:C:4683:PHE:CD2	2.50	0.47
1:E:14:LEU:HB3	1:E:101:LEU:HD12	1.97	0.47
1:E:689:THR:HA	1:E:778:PHE:HE2	1.80	0.47
1:E:692:TYR:CD1	1:E:711:LEU:HD12	2.49	0.47
1:E:802:PHE:CE2	1:E:804:PRO:HG3	2.48	0.47
1:E:1815:LEU:HB3	1:E:1865:MET:SD	2.54	0.47
1:E:2735:PHE:HE1	1:E:2907:PRO:HG3	1.80	0.47
2:F:55:VAL:HG21	2:F:59:TRP:HD1	1.79	0.47
1:G:14:LEU:HB3	1:G:101:LEU:HD12	1.97	0.47
1:G:50:GLU:OE2	1:G:61:ASP:N	2.36	0.47
1:G:568:LEU:HD12	1:G:602:VAL:HG13	1.97	0.47
1:G:1815:LEU:HB3	1:G:1865:MET:SD	2.54	0.47
1:G:3651:ASN:HA	1:G:3654:LEU:HD12	1.97	0.47
1:G:4583:SER:H	1:G:4628:VAL:HB	1.79	0.47
1:A:831:ARG:CZ	1:A:840:VAL:HG11	2.45	0.47
1:A:853:PRO:HB3	1:A:1023:PRO:HB3	1.97	0.47
1:A:2495:VAL:HA	1:A:2498:HIS:HD2	1.79	0.47
1:A:2930:LEU:HB3	1:A:2937:VAL:HG21	1.96	0.47
1:A:4565:LEU:O	1:A:4569:LEU:HG	2.15	0.47
1:C:831:ARG:CZ	1:C:840:VAL:HG11	2.45	0.47
1:C:2891:LYS:HG2	1:C:2905:LEU:HD13	1.97	0.47
1:C:4150:LEU:O	1:C:4154:VAL:N	2.29	0.47
1:C:4661:TYR:HE2	1:C:4789:PHE:HB2	1.79	0.47
1:E:828:GLU:HG3	1:E:830:ARG:H	1.79	0.47
1:E:1245:PHE:H	1:E:1290:ARG:HH21	1.63	0.47
1:E:2431:ASP:O	1:E:2435:ARG:HG3	2.14	0.47
1:E:4021:LYS:O	1:E:4025:VAL:HG23	2.15	0.47
1:E:4662:ASN:HA	1:E:4666:VAL:HG21	1.97	0.47

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4966:ASP:OD1	1:E:4967:TYR:N	2.47	0.47
1:G:853:PRO:HB3	1:G:1023:PRO:HB3	1.97	0.47
1:G:1239:SER:HA	1:G:1608:MET:O	2.14	0.47
1:G:4661:TYR:HE2	1:G:4789:PHE:HB2	1.80	0.47
1:G:5000:GLU:HA	1:G:5003:HIS:CE1	2.50	0.47
2:H:87:HIS:O	2:H:90:ILE:N	2.39	0.47
1:A:523:TYR:CE1	1:A:560:ILE:HG12	2.50	0.47
1:A:689:THR:HA	1:A:778:PHE:HE2	1.80	0.47
1:A:1808:ARG:NH2	1:A:1855:GLY:H	2.13	0.47
1:A:1947:CYS:SG	1:A:2126:ARG:NE	2.88	0.47
1:A:3835:LEU:HD11	1:A:3880:PHE:HZ	1.79	0.47
1:C:330:ASP:OD2	1:C:332:GLU:OE2	2.33	0.47
1:C:790:ARG:HG3	1:C:1625:GLY:O	2.15	0.47
1:C:2166:LEU:HG	1:C:2209:GLU:OE1	2.15	0.47
1:C:2299:VAL:HG21	1:C:2356:LEU:HB3	1.98	0.47
1:C:2470:ILE:O	1:C:2474:LEU:N	2.40	0.47
1:C:2930:LEU:HB3	1:C:2937:VAL:HG21	1.96	0.47
1:C:4691:GLN:HB2	1:C:4692:PRO:HD2	1.97	0.47
1:E:4003:LEU:HB2	1:E:4013:LEU:HD13	1.96	0.47
1:G:284:HIS:HB3	1:G:287:THR:OG1	2.15	0.47
1:G:1480:GLN:H	1:G:1481:GLY:HA2	1.80	0.47
1:G:2045:GLN:O	1:G:2064:ARG:NH2	2.40	0.47
1:G:2166:LEU:HG	1:G:2209:GLU:OE1	2.15	0.47
1:G:2867:LEU:HG	1:G:2928:LYS:NZ	2.30	0.47
1:A:465:GLN:NE2	1:A:3712:GLU:OE1	2.48	0.46
1:A:489:ASN:HB3	1:A:493:ARG:HH12	1.79	0.46
1:A:1435:TYR:HB3	1:A:1517:GLY:H	1.80	0.46
1:A:2821:TRP:CD1	1:A:2939:ARG:HA	2.50	0.46
1:A:4662:ASN:HA	1:A:4666:VAL:HG21	1.98	0.46
1:C:284:HIS:CD2	1:C:287:THR:H	2.32	0.46
1:C:465:GLN:NE2	1:C:3712:GLU:OE1	2.48	0.46
1:C:489:ASN:HB3	1:C:493:ARG:HH12	1.80	0.46
1:C:4960:ILE:HD13	1:C:4983:HIS:HB3	1.97	0.46
1:E:293:LEU:HG	1:E:298:GLY:HA2	1.97	0.46
1:E:495:ASN:HB3	1:E:553:ARG:HH21	1.79	0.46
1:E:562:GLU:OE2	1:E:598:LYS:HD3	2.15	0.46
1:E:3989:VAL:HG13	1:E:4023:MET:HE2	1.96	0.46
1:E:4049:VAL:HG21	1:E:4159:ARG:HD2	1.97	0.46
1:E:4892:ARG:NH1	1:G:4899:ASP:N	2.57	0.46
1:G:833:GLY:HA3	1:G:838:HIS:HE1	1.79	0.46
1:G:1226:PHE:O	1:G:1229:ASN:HB2	2.14	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:3424:LEU:O	1:G:3427:PRO:N	2.48	0.46
1:G:4234:PHE:CE1	1:G:4985:LEU:HD11	2.50	0.46
1:A:121:LEU:O	1:A:133:PHE:HB3	2.15	0.46
1:A:1226:PHE:O	1:A:1229:ASN:HB2	2.16	0.46
1:A:1245:PHE:H	1:A:1290:ARG:HH21	1.63	0.46
1:A:2422:ILE:O	1:A:2425:PHE:HB3	2.16	0.46
1:A:4021:LYS:O	1:A:4025:VAL:HG23	2.15	0.46
1:C:291:LEU:HG	1:C:314:PHE:HE2	1.79	0.46
1:C:883:ALA:O	1:C:887:ILE:HD12	2.15	0.46
1:C:1667:LEU:HG	1:C:1714:LEU:HD11	1.98	0.46
1:C:2114:PRO:HD3	1:C:3707:ARG:HH11	1.79	0.46
1:C:4867:GLU:HA	1:C:4868:ASP:HA	1.80	0.46
1:E:479:GLN:HE22	1:E:484:LEU:HD22	1.80	0.46
1:E:489:ASN:HB3	1:E:493:ARG:HH12	1.80	0.46
1:E:2114:PRO:HD3	1:E:3707:ARG:HH11	1.79	0.46
1:E:2142:TYR:HB3	1:E:2197:LEU:HD12	1.98	0.46
1:E:2165:LEU:HD21	1:E:2177:LEU:HB2	1.97	0.46
1:G:14:LEU:HD21	1:G:204:PRO:HD3	1.97	0.46
1:G:293:LEU:HG	1:G:298:GLY:HA2	1.97	0.46
1:G:330:ASP:OD2	1:G:332:GLU:OE2	2.33	0.46
1:G:3906:GLN:NE2	1:G:3913:ILE:O	2.46	0.46
1:G:4195:PHE:CE1	1:G:4991:PHE:HB2	2.50	0.46
1:G:4961:CYS:SG	1:G:4983:HIS:CE1	3.03	0.46
1:A:562:GLU:OE2	1:A:598:LYS:HD3	2.15	0.46
1:A:883:ALA:O	1:A:887:ILE:HD12	2.15	0.46
1:A:1079:LYS:HG3	1:A:1237:TRP:HZ3	1.80	0.46
1:A:1667:LEU:HD23	1:A:1710:GLY:C	2.35	0.46
1:A:2299:VAL:HG11	1:A:2356:LEU:HB2	1.98	0.46
1:A:2517:PHE:O	1:A:2521:VAL:HG23	2.16	0.46
1:A:3885:PHE:HE1	1:A:3919:THR:HG1	1.59	0.46
1:A:3935:TRP:HE3	1:C:80:GLU:OE1	1.99	0.46
1:A:4032:GLU:O	1:A:5006:GLN:NE2	2.49	0.46
1:A:4691:GLN:HB2	1:A:4692:PRO:HD2	1.97	0.46
1:A:4960:ILE:HD13	1:A:4983:HIS:HB3	1.98	0.46
1:C:110:ARG:HG2	1:C:111:HIS:O	2.15	0.46
1:C:828:GLU:HG3	1:C:830:ARG:H	1.80	0.46
1:C:1245:PHE:H	1:C:1290:ARG:HH21	1.64	0.46
1:C:2517:PHE:O	1:C:2521:VAL:HG23	2.16	0.46
1:C:3935:TRP:HE3	1:E:80:GLU:OE1	1.99	0.46
1:E:395:GLN:NE2	1:E:399:GLN:HB2	2.31	0.46
1:E:4242:ILE:O	1:E:4246:GLN:HG2	2.15	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4565:LEU:O	1:E:4569:LEU:HG	2.15	0.46
1:G:2299:VAL:HG21	1:G:2356:LEU:HB3	1.97	0.46
1:G:2431:ASP:O	1:G:2435:ARG:HG3	2.14	0.46
1:G:4774:LYS:HA	1:G:4777:ILE:HG22	1.96	0.46
1:G:4796:MET:HG3	1:G:4797:VAL:N	2.29	0.46
1:G:4966:ASP:OD1	1:G:4967:TYR:N	2.46	0.46
1:A:14:LEU:HB3	1:A:101:LEU:HD12	1.96	0.46
1:A:110:ARG:HG2	1:A:111:HIS:O	2.16	0.46
1:A:828:GLU:HG3	1:A:830:ARG:H	1.79	0.46
1:A:2299:VAL:HG21	1:A:2356:LEU:HB3	1.98	0.46
2:B:87:HIS:O	2:B:90:ILE:N	2.39	0.46
1:C:214:VAL:HG22	1:C:341:TYR:CE1	2.50	0.46
1:C:568:LEU:HD12	1:C:602:VAL:HG13	1.98	0.46
1:C:667:MET:HG2	1:C:743:VAL:HG22	1.98	0.46
1:C:1621:GLY:HA2	1:C:1628:VAL:HA	1.98	0.46
1:C:2142:TYR:HB3	1:C:2197:LEU:HD12	1.98	0.46
1:C:2821:TRP:CD1	1:C:2939:ARG:HA	2.50	0.46
1:C:4000:MET:HE2	1:C:4058:ILE:HG22	1.97	0.46
1:C:4021:LYS:O	1:C:4025:VAL:HG23	2.15	0.46
1:C:4648:LEU:HD23	1:C:4803:HIS:NE2	2.30	0.46
1:C:4662:ASN:HA	1:C:4666:VAL:HG21	1.97	0.46
1:C:4974:GLY:O	1:C:4977:THR:OG1	2.27	0.46
1:E:14:LEU:HD21	1:E:204:PRO:HD3	1.98	0.46
1:E:523:TYR:CE1	1:E:560:ILE:HG12	2.50	0.46
1:E:667:MET:HG2	1:E:743:VAL:HG22	1.98	0.46
1:E:2891:LYS:HG2	1:E:2905:LEU:HD13	1.98	0.46
1:E:4032:GLU:O	1:E:5006:GLN:NE2	2.49	0.46
1:G:110:ARG:HG2	1:G:111:HIS:O	2.15	0.46
1:G:523:TYR:CE1	1:G:560:ILE:HG12	2.50	0.46
1:G:2165:LEU:HD21	1:G:2177:LEU:HB2	1.97	0.46
1:G:3980:LEU:HD21	1:G:3985:LEU:HD13	1.98	0.46
1:A:453:GLU:HA	1:A:454:PRO:HD3	1.85	0.46
1:A:667:MET:HG2	1:A:743:VAL:HG22	1.98	0.46
1:A:1962:ALA:O	1:A:1966:VAL:HG23	2.16	0.46
1:A:3898:ASP:OD1	1:A:3899:PHE:N	2.49	0.46
1:A:4648:LEU:HD23	1:A:4803:HIS:NE2	2.31	0.46
1:C:345:LEU:HD22	1:C:387:ALA:HB1	1.97	0.46
1:C:580:GLU:HG3	1:C:620:LEU:HD12	1.98	0.46
1:C:2326:CYS:O	1:C:2329:GLU:HG2	2.16	0.46
1:C:4922:PHE:HA	1:C:4926:VAL:HB	1.97	0.46
1:E:1962:ALA:O	1:E:1966:VAL:HG23	2.16	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:2774:ASN:OD1	1:E:2852:ARG:NE	2.49	0.46
1:G:74:SER:O	1:G:78:LEU:N	2.40	0.46
1:G:526:LEU:O	1:G:530:ILE:HG13	2.16	0.46
1:G:1739:THR:OG1	1:G:1742:THR:HG23	2.15	0.46
1:G:2422:ILE:O	1:G:2425:PHE:HB3	2.16	0.46
1:G:2821:TRP:CE2	1:G:2939:ARG:HG2	2.51	0.46
1:A:289:ARG:HB3	1:A:302:VAL:O	2.16	0.46
1:A:345:LEU:HD22	1:A:387:ALA:HB1	1.97	0.46
1:A:568:LEU:HD12	1:A:602:VAL:HG13	1.98	0.46
1:A:716:PHE:N	1:A:738:LEU:HD13	2.31	0.46
1:A:790:ARG:HG3	1:A:1625:GLY:O	2.15	0.46
1:A:1739:THR:OG1	1:A:1742:THR:HG23	2.16	0.46
1:A:2867:LEU:HD12	1:A:2924:GLN:HG2	1.96	0.46
1:A:4149:ASN:OD1	1:A:4153:HIS:ND1	2.48	0.46
1:C:110:ARG:HH11	1:C:115:ARG:HE	1.64	0.46
1:C:4149:ASN:OD1	1:C:4153:HIS:ND1	2.49	0.46
1:E:121:LEU:O	1:E:133:PHE:HB3	2.15	0.46
1:E:580:GLU:HG3	1:E:620:LEU:HD12	1.97	0.46
1:E:701:GLY:HA2	1:E:1645:ASN:HD21	1.81	0.46
1:E:853:PRO:HB3	1:E:1023:PRO:HB3	1.97	0.46
1:E:1457:TYR:CZ	1:E:1459:GLN:HB2	2.50	0.46
1:E:2093:SER:HA	1:E:2096:GLU:OE2	2.15	0.46
1:E:2299:VAL:HG21	1:E:2356:LEU:HB3	1.97	0.46
1:E:2422:ILE:O	1:E:2425:PHE:HB3	2.15	0.46
1:E:4149:ASN:OD1	1:E:4153:HIS:ND1	2.48	0.46
1:G:790:ARG:HG3	1:G:1625:GLY:O	2.15	0.46
1:G:828:GLU:HG3	1:G:830:ARG:H	1.79	0.46
1:G:1079:LYS:HG3	1:G:1237:TRP:HZ3	1.80	0.46
1:G:1676:LEU:CD1	1:G:1725:ARG:HH11	2.29	0.46
1:G:1738:LEU:HB2	1:G:2146:PRO:HD3	1.97	0.46
1:G:2434:GLY:O	1:G:2508:ARG:HG3	2.16	0.46
1:A:284:HIS:CD2	1:A:287:THR:H	2.33	0.46
1:A:833:GLY:HA3	1:A:838:HIS:HE1	1.80	0.46
1:A:2093:SER:HA	1:A:2096:GLU:OE2	2.16	0.46
1:A:2862:LEU:HD21	1:A:2929:PHE:CD1	2.49	0.46
1:A:4978:HIS:HA	1:A:4982:GLU:CG	2.46	0.46
1:C:395:GLN:NE2	1:C:399:GLN:HB2	2.31	0.46
1:E:110:ARG:NH1	1:E:115:ARG:HB3	2.31	0.46
1:E:221:ARG:HG3	1:E:259:LEU:HD23	1.98	0.46
1:E:330:ASP:OD2	1:E:332:GLU:OE2	2.33	0.46
1:E:568:LEU:HD12	1:E:602:VAL:HG13	1.98	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:716:PHE:N	1:E:738:LEU:HD13	2.31	0.46
1:E:4727:LYS:O	1:E:4728:HIS:CB	2.62	0.46
1:G:1586:ASN:O	1:G:1588:ALA:N	2.44	0.46
1:G:2774:ASN:OD1	1:G:2852:ARG:NE	2.48	0.46
1:A:330:ASP:OD2	1:A:332:GLU:OE2	2.33	0.46
1:A:526:LEU:O	1:A:530:ILE:HG13	2.16	0.46
1:A:1621:GLY:HA2	1:A:1628:VAL:HA	1.98	0.46
1:C:265:LEU:HD21	1:C:281:ARG:HG2	1.98	0.46
1:C:853:PRO:HB3	1:C:1023:PRO:HB3	1.97	0.46
1:C:1676:LEU:CD1	1:C:1725:ARG:HH11	2.29	0.46
1:C:1721:GLU:O	1:C:1725:ARG:HG2	2.16	0.46
1:C:3995:VAL:O	1:C:3999:MET:HB3	2.16	0.46
1:E:214:VAL:HG22	1:E:341:TYR:CE1	2.50	0.46
1:E:265:LEU:HD21	1:E:281:ARG:HG2	1.98	0.46
1:E:575:LEU:O	1:E:578:ILE:HG22	2.16	0.46
1:E:723:THR:HG1	1:E:728:ARG:HH12	1.60	0.46
1:E:1141:ARG:NH1	1:E:1167:GLU:OE1	2.48	0.46
1:E:1480:GLN:H	1:E:1481:GLY:HA2	1.80	0.46
1:E:1586:ASN:O	1:E:1588:ALA:N	2.43	0.46
1:E:1621:GLY:HA2	1:E:1628:VAL:HA	1.98	0.46
1:E:1676:LEU:CD1	1:E:1725:ARG:HH11	2.29	0.46
1:E:1739:THR:OG1	1:E:1742:THR:HG23	2.15	0.46
1:E:2349:ASN:O	1:E:2353:VAL:HG23	2.16	0.46
1:E:3898:ASP:OD1	1:E:3899:PHE:N	2.49	0.46
1:G:265:LEU:HD21	1:G:281:ARG:HG2	1.98	0.46
1:G:345:LEU:HD22	1:G:387:ALA:HB1	1.97	0.46
1:G:1617:THR:O	1:G:1618:ARG:NH2	2.36	0.46
1:G:2143:THR:HG23	1:G:3654:LEU:HD11	1.98	0.46
1:G:3929:SER:O	1:G:3933:PHE:N	2.46	0.46
1:A:265:LEU:HD21	1:A:281:ARG:HG2	1.98	0.46
1:A:1139:PHE:CE1	1:A:1169:LEU:HD11	2.51	0.46
1:A:1676:LEU:CD1	1:A:1725:ARG:HH11	2.29	0.46
1:A:1721:GLU:O	1:A:1725:ARG:HG2	2.16	0.46
1:A:2142:TYR:HB3	1:A:2197:LEU:HD12	1.98	0.46
1:A:2774:ASN:OD1	1:A:2852:ARG:NE	2.48	0.46
1:A:4966:ASP:OD1	1:A:4967:TYR:N	2.47	0.46
1:C:1690:ASP:OD1	1:C:1691:GLN:N	2.49	0.46
1:C:1848:LEU:HD11	1:C:1853:ILE:HD12	1.98	0.46
1:C:2761:TYR:CE2	1:C:2862:LEU:HD22	2.51	0.46
1:C:4931:ILE:HD13	1:C:4931:ILE:HG21	1.74	0.46
1:E:273:HIS:N	1:E:334:MET:O	2.27	0.46

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3825:GLU:OE2	1:E:3828:PHE:HB2	2.16	0.46
1:E:5017:ARG:HB3	1:E:5019:TRP:CZ3	2.51	0.46
1:G:221:ARG:HG3	1:G:259:LEU:HD23	1.98	0.46
1:G:758:ARG:NH1	1:G:763:PRO:HG3	2.31	0.46
1:G:1690:ASP:OD1	1:G:1691:GLN:N	2.49	0.46
1:G:1962:ALA:O	1:G:1966:VAL:HG23	2.16	0.46
1:G:3185:LYS:O	1:G:3189:ALA:N	2.46	0.46
1:G:3825:GLU:O	1:G:3827:GLY:N	2.45	0.46
1:G:3928:GLU:HG3	1:G:3929:SER:N	2.31	0.46
1:G:4958:CYS:SG	1:G:4959:PHE:N	2.89	0.46
1:A:2434:GLY:O	1:A:2508:ARG:HG3	2.16	0.46
1:A:4778:TRP:O	1:A:4782:VAL:HG23	2.16	0.46
1:A:4934:GLY:CA	1:G:4937:ILE:HG12	2.46	0.46
1:C:50:GLU:OE2	1:C:61:ASP:N	2.36	0.46
1:C:121:LEU:O	1:C:133:PHE:HB3	2.15	0.46
1:C:1141:ARG:NH1	1:C:1167:GLU:OE1	2.48	0.46
1:C:2495:VAL:HA	1:C:2498:HIS:HD2	1.80	0.46
1:C:2496:PRO:HB3	1:C:2553:TYR:CZ	2.51	0.46
1:C:4978:HIS:HA	1:C:4982:GLU:CG	2.46	0.46
1:E:235:ALA:HB2	1:E:257:ARG:NH1	2.31	0.46
1:E:284:HIS:CD2	1:E:287:THR:H	2.32	0.46
1:E:526:LEU:O	1:E:530:ILE:HG13	2.16	0.46
1:E:2761:TYR:CE2	1:E:2862:LEU:HD22	2.51	0.46
1:E:2821:TRP:CD1	1:E:2939:ARG:HA	2.50	0.46
1:E:2862:LEU:HD21	1:E:2929:PHE:CD1	2.49	0.46
1:E:4778:TRP:O	1:E:4782:VAL:HG23	2.16	0.46
1:E:4940:PHE:CE2	1:G:4938:ASP:OD2	2.69	0.46
1:G:595:ARG:HH12	1:G:1641:ILE:HD13	1.80	0.46
1:G:1152:MET:HB3	1:G:1161:ILE:O	2.16	0.46
1:G:3780:LEU:HD22	1:G:3819:TYR:CD2	2.51	0.46
1:G:3831:SER:O	1:G:3835:LEU:HB2	2.17	0.46
1:G:4863:TYR:CD1	1:G:4901:ILE:HD12	2.51	0.46
1:A:479:GLN:HE22	1:A:484:LEU:HD22	1.80	0.45
1:A:1690:ASP:OD1	1:A:1691:GLN:N	2.49	0.45
1:A:3995:VAL:O	1:A:3999:MET:HB3	2.16	0.45
1:C:66:CYS:HB2	1:C:112:ALA:HB2	1.99	0.45
1:C:1024:TYR:CZ	1:C:1032:LYS:HG3	2.51	0.45
1:C:1226:PHE:O	1:C:1229:ASN:HB2	2.15	0.45
1:C:2299:VAL:HG11	1:C:2356:LEU:HB2	1.98	0.45
1:C:2422:ILE:O	1:C:2425:PHE:HB3	2.16	0.45
1:C:4925:ILE:HG23	1:C:4929:LEU:HD12	1.98	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:284:HIS:HB3	1:E:287:THR:OG1	2.16	0.45
1:E:790:ARG:HG3	1:E:1625:GLY:O	2.15	0.45
1:E:876:GLU:O	1:E:880:GLU:HG3	2.16	0.45
1:E:1667:LEU:HG	1:E:1714:LEU:HD11	1.98	0.45
1:E:1690:ASP:OD1	1:E:1691:GLN:N	2.49	0.45
1:E:4648:LEU:HD23	1:E:4803:HIS:NE2	2.31	0.45
1:E:4691:GLN:HB2	1:E:4692:PRO:HD2	1.97	0.45
1:E:4963:ILE:HD12	1:E:5027:CYS:HB3	1.97	0.45
1:G:1139:PHE:CE1	1:G:1169:LEU:HD11	2.51	0.45
1:G:1808:ARG:NH2	1:G:1855:GLY:H	2.14	0.45
1:G:4221:VAL:HG22	1:G:4233:LEU:HD22	1.98	0.45
1:A:110:ARG:HH11	1:A:115:ARG:HB3	1.81	0.45
1:A:1738:LEU:HB2	1:A:2146:PRO:HD3	1.98	0.45
1:A:2165:LEU:HD21	1:A:2177:LEU:HB2	1.97	0.45
1:A:2326:CYS:O	1:A:2329:GLU:HG2	2.16	0.45
1:A:2349:ASN:O	1:A:2353:VAL:HG23	2.16	0.45
1:C:14:LEU:HD21	1:C:204:PRO:HD3	1.97	0.45
1:C:255:HIS:NE2	1:C:480:GLU:OE2	2.49	0.45
1:C:1139:PHE:CE1	1:C:1169:LEU:HD11	2.51	0.45
1:C:1770:SER:OG	1:C:1771:LEU:N	2.49	0.45
1:C:1808:ARG:NH2	1:C:1855:GLY:H	2.14	0.45
1:C:2093:SER:HA	1:C:2096:GLU:OE2	2.15	0.45
1:C:3898:ASP:OD1	1:C:3899:PHE:N	2.49	0.45
1:C:4032:GLU:O	1:C:5006:GLN:NE2	2.49	0.45
1:C:4242:ILE:O	1:C:4246:GLN:HG2	2.15	0.45
1:E:24:CYS:SG	1:E:182:LEU:HD13	2.56	0.45
1:E:110:ARG:HG2	1:E:111:HIS:O	2.15	0.45
1:E:255:HIS:NE2	1:E:480:GLU:OE2	2.49	0.45
1:E:289:ARG:HB3	1:E:302:VAL:O	2.16	0.45
1:E:291:LEU:HG	1:E:314:PHE:HE2	1.79	0.45
1:E:629:ARG:HB3	1:E:634:GLN:OE1	2.17	0.45
1:E:1848:LEU:HD11	1:E:1853:ILE:HD12	1.98	0.45
1:E:2326:CYS:O	1:E:2329:GLU:HG2	2.17	0.45
1:G:111:HIS:NE2	1:G:113:HIS:HB3	2.31	0.45
1:G:289:ARG:HB3	1:G:302:VAL:O	2.16	0.45
1:G:479:GLN:HE22	1:G:484:LEU:HD22	1.80	0.45
1:G:1297:PHE:CD2	1:G:1545:ASN:HA	2.51	0.45
1:G:2299:VAL:HG11	1:G:2356:LEU:HB2	1.98	0.45
1:G:2923:ALA:HA	1:G:2926:LEU:HB3	1.97	0.45
1:A:639:ASN:OD1	1:A:640:TYR:N	2.50	0.45
1:A:876:GLU:O	1:A:880:GLU:HG3	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1690:ASP:OD1	2:B:41:ASP:HB3	2.17	0.45
1:A:1848:LEU:HD11	1:A:1853:ILE:HD12	1.98	0.45
1:A:2761:TYR:CE2	1:A:2862:LEU:HD22	2.51	0.45
1:A:4049:VAL:HG21	1:A:4159:ARG:HD2	1.98	0.45
1:A:4963:ILE:HD12	1:A:5027:CYS:HB3	1.97	0.45
1:C:14:LEU:HB3	1:C:101:LEU:HD12	1.97	0.45
1:C:284:HIS:HB3	1:C:287:THR:OG1	2.16	0.45
1:C:289:ARG:HB3	1:C:302:VAL:O	2.16	0.45
1:C:523:TYR:CE1	1:C:560:ILE:HG12	2.50	0.45
1:C:1739:THR:OG1	1:C:1742:THR:HG23	2.16	0.45
1:C:4049:VAL:HG21	1:C:4159:ARG:HD2	1.98	0.45
1:E:345:LEU:HD22	1:E:387:ALA:HB1	1.97	0.45
1:E:2166:LEU:HG	1:E:2209:GLU:OE1	2.15	0.45
1:G:1735:ILE:HD11	1:G:2156:LEU:HD11	1.98	0.45
1:G:2093:SER:HA	1:G:2096:GLU:OE2	2.16	0.45
1:G:2142:TYR:HB3	1:G:2197:LEU:HD12	1.97	0.45
1:G:2496:PRO:HB3	1:G:2553:TYR:CZ	2.51	0.45
1:G:2517:PHE:O	1:G:2521:VAL:HG23	2.16	0.45
1:G:3319:ILE:O	1:G:3323:ILE:N	2.48	0.45
1:G:3986:TRP:O	1:G:3990:VAL:HG23	2.17	0.45
1:G:4833:ASN:HD22	1:G:4939:ALA:HB2	1.80	0.45
1:G:4963:ILE:HD12	1:G:5027:CYS:HB3	1.97	0.45
1:A:284:HIS:HB3	1:A:287:THR:OG1	2.16	0.45
1:A:308:HIS:CE1	1:A:310:LYS:HB2	2.51	0.45
1:A:1226:PHE:HA	1:A:1229:ASN:HD22	1.82	0.45
1:A:1261:ASP:HB2	1:A:1595:LEU:HD13	1.98	0.45
1:A:2891:LYS:HG2	1:A:2905:LEU:HD13	1.98	0.45
1:A:5017:ARG:HB3	1:A:5019:TRP:CZ3	2.51	0.45
1:C:595:ARG:HH12	1:C:1641:ILE:HD13	1.80	0.45
1:C:689:THR:HA	1:C:778:PHE:HE2	1.80	0.45
1:C:758:ARG:NH1	1:C:763:PRO:HG3	2.30	0.45
1:C:1079:LYS:HG3	1:C:1237:TRP:HZ3	1.80	0.45
1:C:1152:MET:HB3	1:C:1161:ILE:O	2.16	0.45
1:C:1226:PHE:HA	1:C:1229:ASN:HD22	1.81	0.45
1:C:1480:GLN:H	1:C:1481:GLY:HA2	1.80	0.45
1:C:1712:TYR:O	1:C:1716:ILE:HG12	2.17	0.45
1:C:2060:SER:HA	1:C:2063:LEU:HD12	1.98	0.45
1:C:2165:LEU:HD21	1:C:2177:LEU:HB2	1.97	0.45
1:C:2434:GLY:O	1:C:2508:ARG:HG3	2.16	0.45
1:C:5000:GLU:HA	1:C:5003:HIS:CE1	2.52	0.45
1:E:595:ARG:HH12	1:E:1641:ILE:HD13	1.80	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:639:ASN:OD1	1:E:640:TYR:N	2.50	0.45
1:E:758:ARG:NH1	1:E:763:PRO:HG3	2.31	0.45
1:E:1297:PHE:CD2	1:E:1545:ASN:HA	2.51	0.45
1:E:2517:PHE:O	1:E:2521:VAL:HG23	2.16	0.45
1:G:24:CYS:SG	1:G:182:LEU:HD13	2.56	0.45
1:G:284:HIS:CD2	1:G:287:THR:H	2.32	0.45
1:G:395:GLN:NE2	1:G:399:GLN:HB2	2.31	0.45
1:G:404:ILE:HG12	1:G:478:PHE:CE1	2.52	0.45
1:G:575:LEU:O	1:G:578:ILE:HG22	2.16	0.45
1:G:876:GLU:O	1:G:880:GLU:HG3	2.16	0.45
1:G:1024:TYR:CZ	1:G:1032:LYS:HG3	2.52	0.45
1:G:1091:GLU:HG2	1:G:1213:PHE:CD1	2.52	0.45
1:G:2349:ASN:O	1:G:2353:VAL:HG23	2.16	0.45
1:A:235:ALA:HB2	1:A:257:ARG:NH1	2.31	0.45
1:A:293:LEU:HG	1:A:298:GLY:HA2	1.97	0.45
1:A:371:VAL:HG22	1:A:373:LYS:H	1.81	0.45
1:A:575:LEU:O	1:A:578:ILE:HG22	2.16	0.45
1:A:580:GLU:HG3	1:A:620:LEU:HD12	1.98	0.45
1:A:629:ARG:HB3	1:A:634:GLN:OE1	2.17	0.45
1:A:1093:GLU:HG3	1:A:1148:VAL:HG22	1.98	0.45
1:A:1211:LEU:HB3	1:A:1213:PHE:CE2	2.51	0.45
1:A:3793:MET:O	1:A:3797:THR:HG23	2.16	0.45
1:A:4655:PHE:O	1:A:4659:ILE:HG12	2.16	0.45
1:C:110:ARG:NH1	1:C:115:ARG:HB3	2.32	0.45
1:C:2248:ARG:O	1:C:2251:PHE:HB3	2.17	0.45
1:C:4720:VAL:O	1:C:4724:VAL:HG23	2.17	0.45
1:E:371:VAL:HG22	1:E:373:LYS:H	1.81	0.45
1:E:791:PHE:HB2	1:E:1626:TRP:HB3	1.99	0.45
1:E:1152:MET:HB3	1:E:1161:ILE:O	2.16	0.45
1:E:1808:ARG:NH2	1:E:1855:GLY:H	2.14	0.45
1:E:2434:GLY:O	1:E:2508:ARG:HG3	2.16	0.45
1:E:2802:LYS:O	1:E:2806:ARG:HG3	2.17	0.45
1:E:4583:SER:H	1:E:4628:VAL:HB	1.81	0.45
1:E:5000:GLU:HA	1:E:5003:HIS:CE1	2.52	0.45
1:G:255:HIS:NE2	1:G:480:GLU:OE2	2.49	0.45
1:G:1141:ARG:NH1	1:G:1167:GLU:OE1	2.48	0.45
1:G:1770:SER:OG	1:G:1771:LEU:N	2.49	0.45
1:G:3771:HIS:CG	1:G:3812:VAL:HG22	2.51	0.45
1:G:4103:PHE:HB2	1:G:4108:ILE:HD11	1.98	0.45
1:G:4666:VAL:HB	1:G:4667:PRO:HD3	1.98	0.45
1:G:4717:ASP:O	1:G:4720:VAL:HG23	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4991:PHE:CE2	1:G:5010:VAL:HG11	2.51	0.45
1:A:14:LEU:HD21	1:A:204:PRO:HD3	1.98	0.45
1:A:221:ARG:HG3	1:A:259:LEU:HD23	1.98	0.45
1:A:1547:LYS:O	1:A:1548:LEU:HD12	2.17	0.45
1:A:1667:LEU:HG	1:A:1714:LEU:HD11	1.98	0.45
1:A:1738:LEU:N	1:A:2144:ILE:O	2.48	0.45
1:A:2071:ARG:O	1:A:2072:LEU:HG	2.17	0.45
1:A:4235:VAL:HG21	1:A:5019:TRP:HE1	1.80	0.45
1:A:4892:ARG:HH12	1:C:4899:ASP:H	1.61	0.45
1:A:4913:ARG:O	1:A:4916:PHE:HB3	2.17	0.45
1:C:24:CYS:SG	1:C:182:LEU:HD13	2.56	0.45
1:C:575:LEU:O	1:C:578:ILE:HG22	2.16	0.45
1:C:791:PHE:HB2	1:C:1626:TRP:HB3	1.99	0.45
1:C:1457:TYR:C	1:C:1458:HIS:CG	2.90	0.45
1:C:3793:MET:O	1:C:3797:THR:HG23	2.16	0.45
1:C:3817:LEU:HD13	1:C:3899:PHE:HD1	1.82	0.45
1:C:3825:GLU:OE2	1:C:3828:PHE:HB2	2.16	0.45
1:C:4963:ILE:HD12	1:C:5027:CYS:HB3	1.97	0.45
1:C:5017:ARG:HB3	1:C:5019:TRP:CZ3	2.51	0.45
1:E:404:ILE:HG12	1:E:478:PHE:CE1	2.52	0.45
1:E:765:GLN:HG3	1:E:1479:GLU:N	2.32	0.45
1:E:1261:ASP:HB2	1:E:1595:LEU:HD13	1.98	0.45
1:E:2071:ARG:O	1:E:2072:LEU:HG	2.16	0.45
1:E:4655:PHE:O	1:E:4659:ILE:HG12	2.16	0.45
1:E:4922:PHE:HA	1:E:4926:VAL:HB	1.98	0.45
1:G:1211:LEU:HB3	1:G:1213:PHE:CE2	2.52	0.45
1:G:1721:GLU:O	1:G:1725:ARG:HG2	2.16	0.45
1:G:2917:ALA:HA	1:G:2920:ARG:HB3	1.99	0.45
1:G:4175:ARG:N	1:G:4176:PRO:CD	2.80	0.45
1:A:111:HIS:NE2	1:A:113:HIS:HB3	2.32	0.45
1:A:1091:GLU:HG2	1:A:1213:PHE:CD1	2.52	0.45
1:A:1712:TYR:O	1:A:1716:ILE:HG12	2.17	0.45
1:A:1737:PRO:HB2	1:A:1739:THR:HG23	1.98	0.45
1:A:4583:SER:H	1:A:4628:VAL:HB	1.82	0.45
1:A:4826:ILE:O	1:A:4829:SER:HB2	2.17	0.45
1:C:221:ARG:HG3	1:C:259:LEU:HD23	1.98	0.45
1:C:308:HIS:CE1	1:C:310:LYS:HB2	2.51	0.45
1:C:479:GLN:HE22	1:C:484:LEU:HD22	1.81	0.45
1:C:1211:LEU:HB3	1:C:1213:PHE:CE2	2.52	0.45
1:C:1295:VAL:HG12	1:C:1580:PHE:HE1	1.82	0.45
1:C:2862:LEU:HD21	1:C:2929:PHE:CD1	2.49	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:1547:LYS:HZ3	1:E:1645:ASN:HB2	1.81	0.45
1:E:2299:VAL:HG11	1:E:2356:LEU:HB2	1.98	0.45
1:G:1089:TYR:CE2	1:G:1091:GLU:OE2	2.70	0.45
1:G:1547:LYS:O	1:G:1548:LEU:HD12	2.17	0.45
1:G:1667:LEU:HG	1:G:1714:LEU:HD11	1.98	0.45
1:G:1690:ASP:OD1	2:H:41:ASP:HB3	2.17	0.45
1:G:4648:LEU:HD23	1:G:4803:HIS:NE2	2.32	0.45
1:A:404:ILE:HG12	1:A:478:PHE:CE1	2.52	0.45
1:A:758:ARG:NH1	1:A:763:PRO:HG3	2.31	0.45
1:A:1152:MET:HB3	1:A:1161:ILE:O	2.17	0.45
1:A:2359:ARG:C	1:A:2360:LYS:HG3	2.37	0.45
1:C:404:ILE:HG12	1:C:478:PHE:CE1	2.52	0.45
1:C:639:ASN:OD1	1:C:640:TYR:N	2.49	0.45
1:C:716:PHE:N	1:C:738:LEU:HD13	2.32	0.45
1:C:1297:PHE:CD2	1:C:1545:ASN:HA	2.51	0.45
1:C:2071:ARG:O	1:C:2072:LEU:HG	2.16	0.45
1:C:2349:ASN:O	1:C:2353:VAL:HG23	2.16	0.45
1:C:2452:ARG:NH2	1:E:174:VAL:O	2.48	0.45
1:C:4205:TRP:HZ2	1:C:4214:LYS:HD3	1.82	0.45
1:C:4583:SER:H	1:C:4628:VAL:HB	1.81	0.45
1:E:1079:LYS:HG3	1:E:1237:TRP:HZ3	1.80	0.45
1:E:2204:HIS:O	1:E:2208:MET:N	2.42	0.45
1:E:3793:MET:O	1:E:3797:THR:HG23	2.16	0.45
1:G:215:THR:HA	1:G:273:HIS:HA	1.99	0.45
1:G:235:ALA:HB2	1:G:257:ARG:NH1	2.31	0.45
1:G:667:MET:HG2	1:G:743:VAL:HG22	1.99	0.45
1:G:1621:GLY:HA2	1:G:1628:VAL:HA	1.98	0.45
1:G:2761:TYR:CE2	1:G:2862:LEU:HD22	2.52	0.45
1:G:4826:ILE:O	1:G:4829:SER:HB2	2.16	0.45
1:A:1089:TYR:CE2	1:A:1091:GLU:OE2	2.70	0.45
1:A:1297:PHE:CD2	1:A:1545:ASN:HA	2.52	0.45
1:A:1728:ARG:O	1:A:1731:LEU:HB3	2.17	0.45
1:A:1778:SER:N	1:A:1799:SER:O	2.36	0.45
1:A:2066:LEU:O	1:A:2070:VAL:HG23	2.17	0.45
1:A:2735:PHE:HE1	1:A:2907:PRO:HG3	1.80	0.45
1:A:4238:CYS:O	1:A:4242:ILE:HG13	2.17	0.45
1:C:178:ARG:HG2	1:C:195:PHE:CD1	2.52	0.45
1:C:526:LEU:O	1:C:530:ILE:HG13	2.16	0.45
1:C:669:ASP:OD2	1:C:790:ARG:HB2	2.17	0.45
1:C:876:GLU:O	1:C:880:GLU:HG3	2.16	0.45
1:C:1101:ARG:HB2	1:C:1193:SER:OG	2.17	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:42:PHE:HA	1:E:447:ASP:OD2	2.16	0.45
1:E:584:LYS:HZ1	1:E:1586:ASN:HD21	1.63	0.45
1:E:600:LEU:HD21	1:E:1666:THR:HG22	1.99	0.45
1:E:1211:LEU:HB3	1:E:1213:PHE:CE2	2.52	0.45
1:E:1690:ASP:OD1	2:F:41:ASP:HB3	2.16	0.45
1:E:1712:TYR:O	1:E:1716:ILE:HG12	2.17	0.45
1:E:2495:VAL:HA	1:E:2498:HIS:HD2	1.81	0.45
1:E:4826:ILE:HG21	1:G:4931:ILE:HD11	1.86	0.45
1:E:4889:VAL:HG22	1:E:4892:ARG:NH2	2.31	0.45
1:G:42:PHE:HA	1:G:447:ASP:OD2	2.17	0.45
1:G:639:ASN:OD1	1:G:640:TYR:N	2.49	0.45
1:G:830:ARG:NH1	1:G:1612:PHE:CE2	2.85	0.45
1:G:1616:GLU:O	1:G:1634:LEU:HD11	2.17	0.45
1:G:1848:LEU:HD11	1:G:1853:ILE:HD12	1.98	0.45
1:G:2071:ARG:O	1:G:2072:LEU:HG	2.16	0.45
1:G:3102:ASP:O	1:G:3106:MET:N	2.49	0.45
1:G:3695:PRO:HB2	1:G:3700:GLN:HE21	1.82	0.45
1:G:4721:LYS:HZ3	1:G:4741:LEU:HD22	1.82	0.45
1:A:255:HIS:NE2	1:A:480:GLU:OE2	2.50	0.45
1:A:1255:TYR:CE1	1:A:1287:LEU:HD11	2.52	0.45
1:A:1770:SER:OG	1:A:1771:LEU:N	2.49	0.45
1:A:2867:LEU:CD1	1:A:2924:GLN:HG2	2.47	0.45
1:C:277:GLY:H	1:C:315:CYS:HG	1.63	0.45
1:C:622:THR:O	1:C:627:PRO:HD3	2.17	0.45
1:C:629:ARG:HB3	1:C:634:GLN:OE1	2.17	0.45
1:C:1089:TYR:CE2	1:C:1091:GLU:OE2	2.70	0.45
1:C:4154:VAL:HA	1:C:4155:PRO:HD2	1.82	0.45
1:C:4778:TRP:O	1:C:4782:VAL:HG23	2.16	0.45
1:C:4913:ARG:O	1:C:4916:PHE:HB3	2.17	0.45
2:D:67:SER:O	2:D:103:LEU:HD23	2.17	0.45
1:E:178:ARG:HG2	1:E:195:PHE:CD1	2.52	0.45
1:E:689:THR:OG1	1:E:690:GLU:N	2.50	0.45
1:E:3995:VAL:O	1:E:3999:MET:HB3	2.16	0.45
1:E:4205:TRP:HZ2	1:E:4214:LYS:HD3	1.82	0.45
1:E:4826:ILE:O	1:E:4829:SER:HB2	2.17	0.45
1:E:4865:LYS:NZ	1:E:4876:CYS:N	2.65	0.45
1:G:110:ARG:HH11	1:G:115:ARG:HB3	1.82	0.45
1:G:716:PHE:N	1:G:738:LEU:HD13	2.32	0.45
1:G:1182:ILE:HD12	1:G:1188:PHE:CE2	2.51	0.45
1:G:1255:TYR:CE1	1:G:1287:LEU:HD11	2.52	0.45
1:G:1533:GLY:C	1:G:1534:LYS:HD2	2.38	0.45

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1662:PHE:O	1:G:1666:THR:HG23	2.17	0.45
1:G:2116:LEU:O	1:G:2120:MET:HG3	2.17	0.45
1:G:4666:VAL:HG13	1:G:4783:ILE:HG12	1.99	0.45
1:G:4799:SER:OG	1:G:4812:HIS:NE2	2.31	0.45
1:G:4978:HIS:HA	1:G:4982:GLU:CG	2.46	0.45
2:H:38:SER:HB3	2:H:41:ASP:CG	2.37	0.45
1:A:42:PHE:HA	1:A:447:ASP:OD2	2.17	0.44
1:A:552:ASP:HB3	1:A:1594:ARG:NH1	2.32	0.44
1:A:568:LEU:HD22	1:A:575:LEU:HD23	2.00	0.44
1:A:1107:PRO:HB2	1:A:1186:ASP:OD2	2.17	0.44
1:A:1292:SER:OG	1:A:1598:GLN:O	2.23	0.44
1:A:2248:ARG:O	1:A:2251:PHE:HB3	2.17	0.44
1:A:4720:VAL:O	1:A:4724:VAL:HG23	2.17	0.44
1:A:4974:GLY:O	1:A:4977:THR:OG1	2.27	0.44
1:C:235:ALA:HB2	1:C:257:ARG:NH1	2.32	0.44
1:C:552:ASP:HB3	1:C:1594:ARG:NH1	2.32	0.44
1:C:765:GLN:HG3	1:C:1479:GLU:N	2.32	0.44
1:C:1662:PHE:O	1:C:1666:THR:HG23	2.17	0.44
1:C:1728:ARG:O	1:C:1731:LEU:HB3	2.17	0.44
1:C:1962:ALA:O	1:C:1966:VAL:HG23	2.16	0.44
1:C:3775:ALA:HA	1:C:3778:MET:HG2	1.99	0.44
1:C:4937:ILE:HG12	1:E:4934:GLY:HA3	1.97	0.44
1:E:19:GLU:HB2	1:E:205:ILE:HB	1.99	0.44
1:E:215:THR:HA	1:E:273:HIS:HA	1.99	0.44
1:E:649:PHE:HE1	1:E:689:THR:HG22	1.82	0.44
1:E:830:ARG:NH1	1:E:1612:PHE:CE2	2.85	0.44
1:E:1139:PHE:CE1	1:E:1169:LEU:HD11	2.51	0.44
1:E:1226:PHE:HA	1:E:1229:ASN:HD22	1.81	0.44
1:E:1616:GLU:O	1:E:1634:LEU:HD11	2.17	0.44
1:E:1721:GLU:O	1:E:1725:ARG:HG2	2.16	0.44
1:E:1738:LEU:HB2	1:E:2146:PRO:HD3	1.98	0.44
1:E:2248:ARG:O	1:E:2251:PHE:HB3	2.17	0.44
1:E:3958:ALA:O	1:E:3961:VAL:HG12	2.17	0.44
1:G:668:VAL:HB	1:G:740:PRO:HA	1.99	0.44
1:G:689:THR:OG1	1:G:690:GLU:N	2.50	0.44
1:G:1107:PRO:HB2	1:G:1186:ASP:OD2	2.18	0.44
1:G:4197:ILE:HD13	1:G:4202:ARG:HD3	1.99	0.44
1:G:4555:LEU:HD11	1:G:4656:LEU:HG	1.99	0.44
1:A:215:THR:HA	1:A:273:HIS:HA	1.99	0.44
1:A:495:ASN:ND2	1:A:550:LYS:HD2	2.32	0.44
1:A:622:THR:O	1:A:627:PRO:HD3	2.17	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:830:ARG:NH1	1:A:1612:PHE:CE2	2.85	0.44
1:A:1295:VAL:HG12	1:A:1580:PHE:HE1	1.82	0.44
1:A:1616:GLU:O	1:A:1634:LEU:HD11	2.17	0.44
1:A:1735:ILE:HD11	1:A:2156:LEU:HD11	1.99	0.44
1:A:2802:LYS:O	1:A:2806:ARG:HG3	2.17	0.44
1:A:3825:GLU:OE2	1:A:3828:PHE:HB2	2.17	0.44
1:A:4175:ARG:N	1:A:4176:PRO:CD	2.80	0.44
2:B:67:SER:O	2:B:103:LEU:HD23	2.17	0.44
1:C:26:ALA:O	1:C:33:LEU:N	2.50	0.44
1:C:66:CYS:HB2	1:C:112:ALA:CB	2.47	0.44
1:C:215:THR:HA	1:C:273:HIS:HA	2.00	0.44
1:C:521:LEU:O	1:C:525:LEU:N	2.46	0.44
1:C:1091:GLU:HG2	1:C:1213:PHE:CD1	2.52	0.44
1:C:1261:ASP:HB2	1:C:1595:LEU:HD13	1.98	0.44
1:C:2735:PHE:HD2	1:C:2891:LYS:HD2	1.82	0.44
1:E:308:HIS:CE1	1:E:310:LYS:HB2	2.52	0.44
1:E:1255:TYR:CE1	1:E:1287:LEU:HD11	2.52	0.44
1:E:3963:ASN:O	1:E:3966:THR:OG1	2.24	0.44
1:E:4150:LEU:O	1:E:4154:VAL:N	2.29	0.44
1:E:4978:HIS:HA	1:E:4982:GLU:CG	2.46	0.44
1:G:265:LEU:HD22	1:G:281:ARG:NH2	2.33	0.44
1:G:622:THR:O	1:G:627:PRO:HD3	2.17	0.44
1:G:1712:TYR:O	1:G:1716:ILE:HG12	2.17	0.44
1:G:2359:ARG:C	1:G:2360:LYS:HG3	2.37	0.44
1:G:3778:MET:HG3	1:G:3779:VAL:N	2.32	0.44
1:G:3780:LEU:HG	1:G:3828:PHE:CE1	2.51	0.44
1:G:4909:TYR:O	1:G:4913:ARG:N	2.51	0.44
2:H:25:HIS:CD2	2:H:104:LEU:HD11	2.52	0.44
1:A:1018:ASN:O	1:A:1021:LEU:HG	2.18	0.44
1:A:1024:TYR:CZ	1:A:1032:LYS:HG3	2.52	0.44
1:A:4666:VAL:HB	1:A:4667:PRO:HD3	1.99	0.44
1:C:649:PHE:HE1	1:C:689:THR:HG22	1.81	0.44
1:C:2802:LYS:O	1:C:2806:ARG:HG3	2.17	0.44
1:C:2927:LEU:HD22	1:C:2937:VAL:HG11	1.99	0.44
1:C:3781:GLN:O	1:C:3784:SER:OG	2.21	0.44
1:C:4175:ARG:N	1:C:4176:PRO:CD	2.81	0.44
1:E:265:LEU:HD22	1:E:281:ARG:NH2	2.32	0.44
1:E:874:LEU:HA	1:E:877:ASN:HB3	1.99	0.44
1:E:1662:PHE:O	1:E:1666:THR:HG23	2.17	0.44
1:E:2359:ARG:C	1:E:2360:LYS:HG3	2.37	0.44
1:E:3882:GLN:HE22	1:E:3956:SER:HB3	1.82	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4967:TYR:OH	1:E:5030:LYS:HA	2.18	0.44
1:G:580:GLU:HG3	1:G:620:LEU:HD12	1.98	0.44
1:G:589:LEU:HG	1:G:593:HIS:CD2	2.47	0.44
1:G:1018:ASN:O	1:G:1021:LEU:HG	2.18	0.44
1:G:1738:LEU:N	1:G:2144:ILE:O	2.47	0.44
1:G:3805:LEU:HB2	1:G:3890:LEU:HD23	1.99	0.44
1:A:595:ARG:HH12	1:A:1641:ILE:HD13	1.82	0.44
1:A:597:HIS:HB3	1:A:1665:HIS:CD2	2.53	0.44
1:A:1101:ARG:HB2	1:A:1193:SER:OG	2.17	0.44
1:C:371:VAL:HG22	1:C:373:LYS:H	1.81	0.44
1:C:497:TYR:HB2	1:C:506:TYR:CE1	2.53	0.44
1:C:3958:ALA:O	1:C:3961:VAL:HG12	2.17	0.44
2:D:16:PRO:HG2	2:D:63:VAL:HG12	2.00	0.44
1:E:622:THR:O	1:E:627:PRO:HD3	2.18	0.44
1:E:1547:LYS:HZ1	1:E:1645:ASN:HB2	1.82	0.44
1:E:4175:ARG:N	1:E:4176:PRO:CD	2.81	0.44
1:E:4666:VAL:HB	1:E:4667:PRO:HD3	1.99	0.44
1:G:1226:PHE:HA	1:G:1229:ASN:HD22	1.81	0.44
1:G:1295:VAL:HG12	1:G:1580:PHE:HE1	1.82	0.44
1:G:2103:VAL:O	1:G:2107:GLN:HG3	2.17	0.44
1:G:2326:CYS:O	1:G:2329:GLU:HG2	2.16	0.44
1:G:2893:GLU:HG2	1:G:2897:LYS:NZ	2.32	0.44
1:A:26:ALA:O	1:A:33:LEU:N	2.50	0.44
1:A:669:ASP:OD2	1:A:790:ARG:HB2	2.17	0.44
1:A:791:PHE:HB2	1:A:1626:TRP:HB3	1.99	0.44
1:A:1849:LEU:HD13	1:A:1854:PHE:HD2	1.83	0.44
1:A:2116:LEU:O	1:A:2120:MET:HG3	2.18	0.44
1:A:3980:LEU:HD21	1:A:3985:LEU:HD13	2.00	0.44
1:A:5000:GLU:HA	1:A:5003:HIS:CE1	2.52	0.44
1:C:874:LEU:HA	1:C:877:ASN:HB3	1.99	0.44
1:C:4655:PHE:O	1:C:4659:ILE:HG12	2.16	0.44
1:C:4671:PHE:HE1	1:C:4715:TYR:HA	1.83	0.44
1:C:4967:TYR:OH	1:C:5030:LYS:HA	2.18	0.44
1:E:66:CYS:HB2	1:E:112:ALA:CB	2.48	0.44
1:E:765:GLN:HB3	1:E:1477:GLY:H	1.83	0.44
1:E:1024:TYR:CZ	1:E:1032:LYS:HG3	2.52	0.44
1:E:1182:ILE:HD12	1:E:1188:PHE:CE2	2.51	0.44
1:E:1737:PRO:HB2	1:E:1739:THR:HG23	1.99	0.44
1:E:2152:THR:HG22	1:E:2190:VAL:HG11	2.00	0.44
1:E:3781:GLN:O	1:E:3784:SER:OG	2.21	0.44
2:F:27:THR:HA	2:F:38:SER:HA	2.00	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:178:ARG:HG2	1:G:195:PHE:CD1	2.52	0.44
1:G:308:HIS:CE1	1:G:310:LYS:HB2	2.51	0.44
1:G:371:VAL:HG22	1:G:373:LYS:H	1.81	0.44
1:G:552:ASP:HB3	1:G:1594:ARG:NH1	2.32	0.44
1:G:629:ARG:HB3	1:G:634:GLN:OE1	2.17	0.44
1:G:1101:ARG:HB2	1:G:1193:SER:OG	2.17	0.44
1:G:1214:PHE:CZ	1:G:1219:LEU:HB2	2.53	0.44
1:G:1261:ASP:HB2	1:G:1595:LEU:HD13	1.98	0.44
1:G:3835:LEU:HD21	1:G:3880:PHE:CZ	2.53	0.44
1:G:4024:VAL:O	1:G:4028:LEU:N	2.37	0.44
1:A:22:LEU:HB3	1:A:200:TRP:CE3	2.53	0.44
1:A:24:CYS:SG	1:A:182:LEU:HD13	2.57	0.44
1:A:205:ILE:HG22	1:A:271:GLY:HA3	1.99	0.44
1:A:242:ARG:HE	1:A:287:THR:HG22	1.82	0.44
1:A:689:THR:OG1	1:A:690:GLU:N	2.50	0.44
1:A:2452:ARG:NH2	1:C:174:VAL:O	2.49	0.44
1:A:3761:GLN:CD	1:A:4722:ARG:HH12	2.20	0.44
1:A:3780:LEU:HD22	1:A:3819:TYR:CD2	2.53	0.44
1:A:3882:GLN:HE22	1:A:3956:SER:HB3	1.82	0.44
1:A:4205:TRP:HZ2	1:A:4214:LYS:HD3	1.82	0.44
1:C:242:ARG:HE	1:C:287:THR:HG22	1.83	0.44
1:C:265:LEU:HD22	1:C:281:ARG:NH2	2.33	0.44
1:C:1214:PHE:CZ	1:C:1219:LEU:HB2	2.53	0.44
1:C:1738:LEU:HB2	1:C:2146:PRO:HD3	1.98	0.44
1:C:2114:PRO:O	1:C:2116:LEU:N	2.45	0.44
1:C:2359:ARG:C	1:C:2360:LYS:HG3	2.37	0.44
1:C:4826:ILE:O	1:C:4829:SER:HB2	2.18	0.44
2:D:21:THR:HB	2:D:107:GLU:HB2	2.00	0.44
1:E:242:ARG:HE	1:E:287:THR:HG22	1.83	0.44
1:E:495:ASN:ND2	1:E:550:LYS:HD2	2.32	0.44
1:E:497:TYR:HB2	1:E:506:TYR:CE1	2.53	0.44
1:E:552:ASP:HB3	1:E:1594:ARG:NH1	2.32	0.44
1:E:1089:TYR:CE2	1:E:1091:GLU:OE2	2.70	0.44
1:E:2060:SER:HA	1:E:2063:LEU:HD12	1.98	0.44
1:E:4720:VAL:O	1:E:4724:VAL:HG23	2.17	0.44
1:E:4928:LEU:HA	1:E:4931:ILE:HG22	1.99	0.44
1:G:438:ILE:HG23	1:G:518:ILE:HD11	2.00	0.44
1:G:568:LEU:HD22	1:G:575:LEU:HD23	2.00	0.44
1:G:597:HIS:HB3	1:G:1665:HIS:CD2	2.53	0.44
1:G:791:PHE:HB2	1:G:1626:TRP:HB3	1.99	0.44
1:G:2060:SER:HA	1:G:2063:LEU:HD12	1.98	0.44

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4041:ALA:O	1:G:4044:MET:HG2	2.17	0.44
1:G:4645:CYS:O	1:G:4649:LEU:N	2.46	0.44
1:G:4791:TYR:HD2	1:G:4792:LEU:HD12	1.83	0.44
1:A:178:ARG:HG2	1:A:195:PHE:CD1	2.52	0.44
1:A:294:THR:O	1:A:298:GLY:N	2.51	0.44
1:A:395:GLN:NE2	1:A:399:GLN:HB2	2.32	0.44
1:A:589:LEU:HG	1:A:593:HIS:CD2	2.47	0.44
1:A:600:LEU:HD21	1:A:1666:THR:HG22	1.99	0.44
1:A:3817:LEU:HD13	1:A:3899:PHE:HD1	1.83	0.44
1:C:830:ARG:NH1	1:C:1612:PHE:CE2	2.85	0.44
1:C:1255:TYR:CE1	1:C:1287:LEU:HD11	2.52	0.44
1:C:1716:ILE:HD13	1:C:1720:LEU:HD12	2.00	0.44
1:C:1737:PRO:HB2	1:C:1739:THR:HG23	1.99	0.44
1:C:2920:ARG:O	1:C:2924:GLN:HG3	2.18	0.44
1:C:4045:VAL:HG22	1:C:4160:LEU:HD22	2.00	0.44
1:C:4666:VAL:HB	1:C:4667:PRO:HD3	2.00	0.44
1:C:4865:LYS:NZ	1:C:4876:CYS:N	2.66	0.44
1:C:5013:MET:O	1:C:5017:ARG:N	2.51	0.44
1:E:706:GLY:CA	1:E:711:LEU:HD22	2.42	0.44
1:E:1738:LEU:N	1:E:2144:ILE:O	2.48	0.44
1:E:2116:LEU:O	1:E:2120:MET:HG3	2.17	0.44
1:E:2735:PHE:HD2	1:E:2891:LYS:HD2	1.82	0.44
1:E:3838:THR:OG1	1:E:3839:CYS:N	2.51	0.44
1:E:4913:ARG:O	1:E:4916:PHE:HB3	2.17	0.44
1:E:5013:MET:O	1:E:5017:ARG:N	2.51	0.44
2:F:16:PRO:HG2	2:F:63:VAL:HG12	2.00	0.44
1:G:66:CYS:HB2	1:G:112:ALA:CB	2.47	0.44
1:G:465:GLN:NE2	1:G:3712:GLU:OE1	2.50	0.44
1:G:497:TYR:HB2	1:G:506:TYR:CE1	2.53	0.44
1:G:1728:ARG:O	1:G:1731:LEU:HB3	2.17	0.44
1:G:2107:GLN:HE21	1:G:3679:LYS:HB2	1.83	0.44
1:G:2470:ILE:O	1:G:2474:LEU:N	2.40	0.44
1:A:19:GLU:HB2	1:A:205:ILE:HB	1.99	0.44
1:A:265:LEU:HD22	1:A:281:ARG:NH2	2.32	0.44
1:A:497:TYR:HB2	1:A:506:TYR:CE1	2.53	0.44
1:A:1436:SER:CA	1:A:1516:ILE:HA	2.48	0.44
1:A:1457:TYR:O	1:A:1458:HIS:CG	2.70	0.44
1:A:4864:ASN:CG	1:A:4875:LYS:HZ2	2.21	0.44
1:C:1182:ILE:HD12	1:C:1188:PHE:CE2	2.51	0.44
1:C:1586:ASN:O	1:C:1588:ALA:N	2.43	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:C:2748:PRO:HD2	1:C:2751:LEU:HD12	2.00	0.44
1:C:3780:LEU:HD22	1:C:3819:TYR:CD2	2.53	0.44
1:E:568:LEU:HD22	1:E:575:LEU:HD23	2.00	0.44
1:E:1091:GLU:HG2	1:E:1213:PHE:CD1	2.52	0.44
1:E:1101:ARG:HB2	1:E:1193:SER:OG	2.17	0.44
1:E:1214:PHE:CZ	1:E:1219:LEU:HB2	2.53	0.44
1:E:1728:ARG:O	1:E:1731:LEU:HB3	2.17	0.44
1:G:19:GLU:HB2	1:G:205:ILE:HB	1.99	0.44
1:G:543:ASN:O	1:G:546:TRP:HB3	2.18	0.44
1:G:745:SER:OG	1:G:758:ARG:HB2	2.18	0.44
1:G:765:GLN:HG3	1:G:1479:GLU:N	2.32	0.44
1:G:3710:LEU:HD23	1:G:3710:LEU:HA	1.83	0.44
1:G:3825:GLU:C	1:G:3827:GLY:H	2.19	0.44
1:A:438:ILE:HG23	1:A:518:ILE:HD11	2.00	0.44
1:A:745:SER:OG	1:A:758:ARG:HB2	2.18	0.44
1:A:827:LYS:HG2	1:A:1073:ARG:NH2	2.33	0.44
1:A:2121:PHE:O	1:A:3725:TYR:OH	2.27	0.44
1:A:2735:PHE:HD2	1:A:2891:LYS:HD2	1.82	0.44
1:A:2917:ALA:HA	1:A:2920:ARG:HB3	2.00	0.44
1:A:3775:ALA:HA	1:A:3778:MET:HG2	2.00	0.44
1:A:5022:PHE:HA	1:A:5023:PRO:HD3	1.87	0.44
1:C:294:THR:O	1:C:298:GLY:N	2.51	0.44
1:C:597:HIS:HB3	1:C:1665:HIS:CD2	2.53	0.44
1:C:1690:ASP:OD1	2:D:41:ASP:HB3	2.17	0.44
2:D:27:THR:HA	2:D:38:SER:HA	2.00	0.44
1:E:275:ARG:HB2	1:E:338:GLU:OE1	2.18	0.44
1:E:706:GLY:O	1:E:725:HIS:N	2.37	0.44
1:E:765:GLN:HG3	1:E:1479:GLU:H	1.83	0.44
1:E:1295:VAL:HG12	1:E:1580:PHE:HE1	1.82	0.44
1:E:2045:GLN:O	1:E:2064:ARG:NH2	2.40	0.44
1:E:4855:ALA:HB1	1:E:4863:TYR:CE2	2.53	0.44
1:G:22:LEU:HB3	1:G:200:TRP:CE3	2.53	0.44
1:G:600:LEU:HD21	1:G:1666:THR:HG22	1.99	0.44
1:G:639:ASN:HD21	1:G:785:ALA:HB2	1.83	0.44
1:G:874:LEU:HA	1:G:877:ASN:HB3	1.99	0.44
1:G:1660:GLN:HG3	1:G:1707:LEU:HD11	2.00	0.44
2:H:67:SER:O	2:H:103:LEU:HD23	2.18	0.44
1:A:66:CYS:HB2	1:A:112:ALA:CB	2.48	0.43
1:A:1182:ILE:HD12	1:A:1188:PHE:CE2	2.51	0.43
1:A:3761:GLN:NE2	1:A:4722:ARG:HH22	2.16	0.43
1:A:3958:ALA:O	1:A:3961:VAL:HG12	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4865:LYS:NZ	1:A:4876:CYS:N	2.66	0.43
1:C:205:ILE:HG22	1:C:271:GLY:HA3	2.00	0.43
1:C:1106:ARG:HG2	1:C:1188:PHE:CD1	2.53	0.43
1:C:2251:PHE:CG	1:C:2286:LEU:HD22	2.53	0.43
1:C:2917:ALA:HA	1:C:2920:ARG:HB3	2.00	0.43
1:C:3371:LYS:HA	1:C:3374:ALA:HB3	2.00	0.43
1:C:4238:CYS:O	1:C:4242:ILE:HG13	2.17	0.43
1:C:4710:SER:O	1:C:4713:SER:OG	2.28	0.43
1:E:548:VAL:HG21	1:E:582:HIS:HB3	2.00	0.43
1:E:1849:LEU:HD13	1:E:1854:PHE:HD2	1.83	0.43
1:E:2066:LEU:O	1:E:2070:VAL:HG23	2.17	0.43
1:E:4188:ARG:HD3	1:E:4188:ARG:HA	1.86	0.43
1:E:4208:PRO:HB2	1:E:4209:GLN:H	1.59	0.43
1:E:4235:VAL:HG21	1:E:5019:TRP:HE1	1.81	0.43
1:E:4822:THR:O	1:E:4825:THR:OG1	2.26	0.43
1:G:1440:PHE:HD2	1:G:1560:ASN:HB3	1.83	0.43
1:G:1710:GLY:O	1:G:1714:LEU:HG	2.18	0.43
1:G:2251:PHE:CG	1:G:2286:LEU:HD22	2.53	0.43
1:G:4928:LEU:O	1:G:4931:ILE:HG22	2.18	0.43
1:A:275:ARG:HB2	1:A:338:GLU:OE1	2.18	0.43
1:A:543:ASN:O	1:A:546:TRP:HB3	2.19	0.43
1:A:649:PHE:HE1	1:A:689:THR:HG22	1.81	0.43
1:A:2142:TYR:HD2	1:A:2197:LEU:HD12	1.83	0.43
1:A:3817:LEU:HD13	1:A:3899:PHE:CD1	2.53	0.43
1:A:4715:TYR:CD2	1:A:4717:ASP:HB3	2.53	0.43
1:A:4879:MET:HG2	1:G:4578:LEU:O	2.17	0.43
1:A:4922:PHE:HA	1:A:4926:VAL:HB	1.99	0.43
2:B:21:THR:HB	2:B:107:GLU:HB2	2.00	0.43
1:C:42:PHE:HA	1:C:447:ASP:OD2	2.17	0.43
1:C:1455:PRO:HG2	1:C:1547:LYS:HE3	2.00	0.43
1:C:1966:VAL:HG21	1:C:3650:CYS:SG	2.58	0.43
1:C:3761:GLN:CD	1:C:4722:ARG:HH12	2.20	0.43
1:C:3882:GLN:HE22	1:C:3956:SER:HB3	1.82	0.43
1:E:22:LEU:HB3	1:E:200:TRP:CE3	2.53	0.43
1:E:294:THR:O	1:E:298:GLY:N	2.51	0.43
1:E:1018:ASN:O	1:E:1021:LEU:HG	2.17	0.43
1:E:1252:HIS:HD2	1:E:1255:TYR:HD2	1.66	0.43
1:E:1547:LYS:O	1:E:1548:LEU:HD12	2.17	0.43
1:E:2917:ALA:HA	1:E:2920:ARG:HB3	2.00	0.43
1:E:2924:GLN:HG2	1:E:2928:LYS:HE2	2.00	0.43
1:E:4238:CYS:O	1:E:4242:ILE:HG13	2.17	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1737:PRO:HB2	1:G:1739:THR:HG23	1.99	0.43
1:G:2152:THR:HG22	1:G:2190:VAL:HG11	2.00	0.43
1:G:2248:ARG:O	1:G:2251:PHE:HB3	2.17	0.43
1:A:1115:LEU:HD11	1:A:1191:VAL:HG11	2.00	0.43
1:A:1254:HIS:NE2	1:A:1280:GLN:HB3	2.34	0.43
1:A:2060:SER:HA	1:A:2063:LEU:HD12	1.99	0.43
1:A:3716:LEU:HB3	1:A:3789:GLU:OE1	2.18	0.43
1:C:116:MET:HE2	1:C:139:GLU:HG2	1.99	0.43
1:C:438:ILE:HG23	1:C:518:ILE:HD11	2.00	0.43
1:C:1018:ASN:O	1:C:1021:LEU:HG	2.18	0.43
1:C:1735:ILE:HD11	1:C:2156:LEU:HD11	1.99	0.43
1:E:24:CYS:HB2	1:E:200:TRP:CZ3	2.54	0.43
1:E:110:ARG:HH11	1:E:115:ARG:HE	1.65	0.43
1:E:827:LYS:HG2	1:E:1073:ARG:NH2	2.33	0.43
1:E:1440:PHE:HD2	1:E:1560:ASN:HB3	1.83	0.43
1:E:1710:GLY:O	1:E:1714:LEU:HG	2.18	0.43
1:E:4055:VAL:O	1:E:4058:ILE:HG13	2.18	0.43
2:F:21:THR:HB	2:F:107:GLU:HB2	2.00	0.43
1:G:26:ALA:O	1:G:33:LEU:N	2.50	0.43
1:G:829:TYR:HA	1:G:1073:ARG:HH12	1.82	0.43
1:G:875:ALA:HB1	1:G:922:LEU:HB2	2.00	0.43
1:G:1110:ARG:HD2	1:G:1113:VAL:HG23	2.00	0.43
1:G:4697:VAL:C	1:G:4700:GLN:H	2.21	0.43
1:G:4721:LYS:NZ	1:G:4741:LEU:HD22	2.33	0.43
1:A:882:TRP:HH2	1:A:906:CYS:HB2	1.83	0.43
1:A:4931:ILE:CD1	1:G:4826:ILE:CG2	2.97	0.43
1:C:495:ASN:ND2	1:C:550:LYS:HD2	2.32	0.43
1:C:568:LEU:HD22	1:C:575:LEU:HD23	2.00	0.43
1:C:2152:THR:HG22	1:C:2190:VAL:HG11	2.00	0.43
1:C:4822:THR:O	1:C:4825:THR:OG1	2.23	0.43
1:E:26:ALA:O	1:E:33:LEU:N	2.51	0.43
1:E:102:LEU:HB2	1:E:105:HIS:HD2	1.83	0.43
1:E:2452:ARG:NH2	1:G:174:VAL:O	2.51	0.43
1:E:3716:LEU:HB3	1:E:3789:GLU:OE1	2.18	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:CD1	2.53	0.43
1:G:132:ALA:HB1	1:G:193:ALA:O	2.19	0.43
1:G:736:HIS:HE1	1:G:739:ALA:HB3	1.83	0.43
1:G:2114:PRO:O	1:G:2116:LEU:N	2.43	0.43
1:G:2816:MET:O	1:G:2820:GLU:N	2.51	0.43
1:G:4928:LEU:O	1:G:4932:ILE:HD12	2.17	0.43
1:A:521:LEU:O	1:A:525:LEU:N	2.46	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2496:PRO:HB3	1:A:2553:TYR:CZ	2.53	0.43
1:A:2927:LEU:HD22	1:A:2937:VAL:HG11	2.00	0.43
1:A:4967:TYR:OH	1:A:5030:LYS:HA	2.18	0.43
2:B:73:LYS:HA	2:B:99:PHE:O	2.18	0.43
1:C:548:VAL:HG21	1:C:582:HIS:HB3	2.01	0.43
1:C:564:LEU:O	1:C:568:LEU:HG	2.19	0.43
1:C:827:LYS:HG2	1:C:1073:ARG:NH2	2.33	0.43
1:C:1247:PRO:HB3	1:C:1600:LEU:HD13	2.00	0.43
1:C:1547:LYS:O	1:C:1548:LEU:HD12	2.17	0.43
1:C:1616:GLU:O	1:C:1634:LEU:HD11	2.17	0.43
1:C:1710:GLY:O	1:C:1714:LEU:HG	2.18	0.43
1:C:2116:LEU:O	1:C:2120:MET:HG3	2.18	0.43
1:C:2295:LEU:HD13	1:C:2353:VAL:HG22	2.01	0.43
1:C:3817:LEU:HD13	1:C:3899:PHE:CD1	2.53	0.43
1:E:132:ALA:HB1	1:E:193:ALA:O	2.19	0.43
1:E:669:ASP:OD2	1:E:790:ARG:HB2	2.18	0.43
1:E:882:TRP:HH2	1:E:906:CYS:HB2	1.83	0.43
1:E:2251:PHE:CG	1:E:2286:LEU:HD22	2.53	0.43
1:E:4688:ILE:HG21	1:E:4728:HIS:HB3	2.01	0.43
1:G:205:ILE:HG22	1:G:271:GLY:HA3	2.00	0.43
1:G:220:LEU:CD1	1:G:390:LEU:HD22	2.48	0.43
1:G:706:GLY:CA	1:G:711:LEU:HD22	2.42	0.43
1:G:827:LYS:HG2	1:G:1073:ARG:NH2	2.33	0.43
1:G:1254:HIS:NE2	1:G:1280:GLN:HB3	2.34	0.43
1:G:1849:LEU:HD13	1:G:1854:PHE:HD2	1.83	0.43
1:G:2129:ASP:OD2	1:G:3667:HIS:ND1	2.48	0.43
1:G:2802:LYS:O	1:G:2806:ARG:HG3	2.19	0.43
1:G:4003:LEU:HD13	1:G:4013:LEU:HA	2.01	0.43
1:G:4710:SER:O	1:G:4713:SER:OG	2.28	0.43
1:G:4851:TYR:HD2	1:G:4916:PHE:CE1	2.36	0.43
1:A:874:LEU:HA	1:A:877:ASN:HB3	1.99	0.43
1:A:1662:PHE:O	1:A:1666:THR:HG23	2.18	0.43
1:A:1853:ILE:HG22	1:A:1854:PHE:N	2.34	0.43
1:A:2924:GLN:O	1:A:2928:LYS:HB2	2.18	0.43
1:A:3670:GLU:OE1	1:A:3731:LYS:HB2	2.19	0.43
1:A:3878:ASP:HB2	1:A:3957:VAL:HG21	2.01	0.43
1:A:4826:ILE:HG21	1:C:4931:ILE:HD11	1.91	0.43
1:C:223:PHE:CD1	1:C:230:CYS:HB3	2.54	0.43
1:C:765:GLN:HG3	1:C:1479:GLU:H	1.83	0.43
1:C:2142:TYR:HD2	1:C:2197:LEU:HD12	1.84	0.43
1:C:3980:LEU:HD21	1:C:3985:LEU:HD13	1.99	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:4855:ALA:HB1	1:C:4863:TYR:CE2	2.53	0.43
1:E:597:HIS:HB3	1:E:1665:HIS:CD2	2.53	0.43
1:E:1716:ILE:HD13	1:E:1720:LEU:HD12	2.00	0.43
1:E:2103:VAL:O	1:E:2107:GLN:HG3	2.19	0.43
1:E:4671:PHE:HE1	1:E:4715:TYR:HA	1.84	0.43
2:F:67:SER:O	2:F:103:LEU:HD23	2.17	0.43
1:G:1252:HIS:HD2	1:G:1255:TYR:HD2	1.67	0.43
1:G:3920:VAL:HG22	1:G:3985:LEU:HD12	2.00	0.43
1:G:4214:LYS:HD2	1:G:4985:LEU:HD23	2.00	0.43
1:G:4720:VAL:O	1:G:4724:VAL:HG23	2.17	0.43
1:G:4922:PHE:HD1	1:G:4926:VAL:HG21	1.84	0.43
1:G:4967:TYR:OH	1:G:5030:LYS:HA	2.18	0.43
1:A:103:TYR:CZ	1:A:163:VAL:HG13	2.54	0.43
1:A:265:LEU:HD21	1:A:281:ARG:H	1.84	0.43
1:A:548:VAL:HG21	1:A:582:HIS:HB3	2.01	0.43
1:A:639:ASN:HD21	1:A:785:ALA:HB2	1.84	0.43
1:A:765:GLN:HG3	1:A:1479:GLU:N	2.32	0.43
1:A:1027:LEU:HD12	1:A:1032:LYS:HD2	2.01	0.43
1:A:1260:MET:HB3	1:A:1274:HIS:HE1	1.84	0.43
1:A:1660:GLN:HG3	1:A:1707:LEU:HD11	2.01	0.43
1:A:4859:PHE:CE1	1:A:4913:ARG:HB2	2.54	0.43
1:A:4867:GLU:HA	1:A:4868:ASP:HA	1.79	0.43
2:B:16:PRO:HD2	2:B:64:ALA:HA	2.01	0.43
1:C:705:ASN:HD22	1:C:782:SER:CB	2.31	0.43
1:C:1079:LYS:NZ	1:C:1107:PRO:HB3	2.34	0.43
1:C:1660:GLN:HG3	1:C:1707:LEU:HD11	2.01	0.43
1:C:3937:TYR:CE2	1:C:3943:ILE:HG23	2.54	0.43
1:C:4889:VAL:HG22	1:C:4892:ARG:NH2	2.34	0.43
1:E:745:SER:OG	1:E:758:ARG:HB2	2.18	0.43
1:E:768:PHE:HB3	1:E:771:PHE:CE1	2.53	0.43
1:E:1093:GLU:HG3	1:E:1148:VAL:HG22	2.01	0.43
1:E:1260:MET:HB3	1:E:1274:HIS:HE1	1.84	0.43
1:E:1515:VAL:HA	1:E:1530:THR:O	2.18	0.43
1:E:2748:PRO:HD2	1:E:2751:LEU:HD12	2.01	0.43
1:E:3761:GLN:CD	1:E:4722:ARG:HH12	2.20	0.43
1:E:3780:LEU:HD22	1:E:3819:TYR:CD2	2.53	0.43
1:E:3817:LEU:HD13	1:E:3899:PHE:HD1	1.82	0.43
1:E:3980:LEU:HD21	1:E:3985:LEU:HD13	2.00	0.43
1:G:116:MET:HE2	1:G:139:GLU:HG2	2.00	0.43
1:G:265:LEU:HD21	1:G:281:ARG:H	1.83	0.43
1:G:548:VAL:HG21	1:G:582:HIS:HB3	2.01	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:765:GLN:HB3	1:G:1477:GLY:H	1.83	0.43
1:A:736:HIS:HE1	1:A:739:ALA:HB3	1.84	0.43
1:A:1106:ARG:HG2	1:A:1188:PHE:CD1	2.53	0.43
1:A:1141:ARG:NH1	1:A:1167:GLU:OE1	2.48	0.43
1:A:1839:VAL:HG23	1:A:1935:VAL:HG22	2.00	0.43
1:A:2103:VAL:O	1:A:2107:GLN:HG3	2.19	0.43
1:A:3794:VAL:O	1:A:3797:THR:OG1	2.25	0.43
1:A:4045:VAL:HG22	1:A:4160:LEU:HD22	2.00	0.43
2:B:16:PRO:HG2	2:B:63:VAL:HG12	2.00	0.43
1:C:19:GLU:HB2	1:C:205:ILE:HB	2.00	0.43
1:C:22:LEU:HB3	1:C:200:TRP:CE3	2.53	0.43
1:C:401:ALA:HA	1:C:404:ILE:HD12	2.00	0.43
1:C:745:SER:OG	1:C:758:ARG:HB2	2.18	0.43
1:C:1093:GLU:HG3	1:C:1148:VAL:HG22	2.01	0.43
1:C:1440:PHE:HD2	1:C:1560:ASN:HB3	1.83	0.43
1:C:3716:LEU:HB3	1:C:3789:GLU:OE1	2.19	0.43
1:E:66:CYS:HB2	1:E:112:ALA:HB2	2.00	0.43
1:E:438:ILE:HG23	1:E:518:ILE:HD11	2.00	0.43
1:E:543:ASN:O	1:E:546:TRP:HB3	2.18	0.43
1:E:990:GLU:HG3	1:E:1024:TYR:HB3	2.01	0.43
1:E:1106:ARG:HG2	1:E:1188:PHE:CD1	2.53	0.43
1:E:1110:ARG:HD2	1:E:1113:VAL:HG23	2.00	0.43
1:E:2761:TYR:CZ	1:E:2862:LEU:HD13	2.54	0.43
1:E:2803:GLU:OE2	1:E:2806:ARG:NH1	2.51	0.43
1:E:4000:MET:HE2	1:E:4058:ILE:HG22	2.00	0.43
1:E:4823:LEU:CD1	1:G:4839:MET:HB3	2.45	0.43
1:E:4937:ILE:HG12	1:G:4934:GLY:HA3	2.00	0.43
1:G:24:CYS:HB2	1:G:200:TRP:CZ3	2.54	0.43
1:G:242:ARG:HH21	1:G:287:THR:HG22	1.84	0.43
1:G:275:ARG:HB2	1:G:338:GLU:OE1	2.18	0.43
1:G:495:ASN:ND2	1:G:550:LYS:HD2	2.32	0.43
1:G:765:GLN:HG3	1:G:1479:GLU:H	1.83	0.43
1:G:1455:PRO:HG2	1:G:1547:LYS:HE3	2.01	0.43
1:G:3817:LEU:HD13	1:G:3899:PHE:CD1	2.54	0.43
1:G:3833:GLN:O	1:G:3837:GLN:HG2	2.19	0.43
2:H:55:VAL:HG21	2:H:59:TRP:HD1	1.84	0.43
1:A:35:LEU:HD12	1:A:35:LEU:O	2.19	0.43
1:A:121:LEU:HD12	1:A:136:GLY:HA3	2.00	0.43
1:A:122:THR:HG23	1:A:133:PHE:CE1	2.54	0.43
1:A:242:ARG:HH21	1:A:287:THR:HG22	1.83	0.43
1:A:665:GLU:OE2	1:A:802:PHE:HB3	2.19	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:752:VAL:HA	1:A:753:PRO:HD3	1.79	0.43
1:A:1533:GLY:C	1:A:1534:LYS:HD2	2.39	0.43
1:A:2295:LEU:HD13	1:A:2353:VAL:HG22	2.01	0.43
1:A:3804:ILE:CG2	1:A:3812:VAL:HG11	2.49	0.43
1:A:3989:VAL:HA	1:A:4023:MET:CE	2.49	0.43
1:A:4141:PHE:O	1:A:4145:VAL:HG23	2.19	0.43
1:A:4791:TYR:HD2	1:A:4792:LEU:HD12	1.83	0.43
1:C:600:LEU:HD21	1:C:1666:THR:HG22	1.99	0.43
1:C:639:ASN:HD21	1:C:785:ALA:HB2	1.83	0.43
1:C:765:GLN:HB3	1:C:1477:GLY:H	1.83	0.43
1:C:882:TRP:HH2	1:C:906:CYS:HB2	1.83	0.43
1:C:1260:MET:HB3	1:C:1274:HIS:HE1	1.84	0.43
1:C:1533:GLY:C	1:C:1534:LYS:HD2	2.39	0.43
1:C:1853:ILE:HG22	1:C:1854:PHE:N	2.34	0.43
1:C:3710:LEU:HD23	1:C:3710:LEU:HA	1.89	0.43
1:C:4688:ILE:HG21	1:C:4728:HIS:HB3	2.01	0.43
1:C:4715:TYR:CD2	1:C:4717:ASP:HB3	2.54	0.43
1:E:121:LEU:HD12	1:E:136:GLY:HA3	2.00	0.43
1:E:564:LEU:O	1:E:568:LEU:HG	2.19	0.43
1:E:639:ASN:HD21	1:E:785:ALA:HB2	1.84	0.43
1:E:1027:LEU:HD12	1:E:1032:LYS:HD2	2.00	0.43
1:E:3371:LYS:HA	1:E:3374:ALA:HB3	2.01	0.43
1:E:4141:PHE:O	1:E:4145:VAL:HG23	2.19	0.43
1:E:4961:CYS:SG	1:E:4983:HIS:CE1	3.06	0.43
1:G:242:ARG:HE	1:G:287:THR:HG22	1.83	0.43
1:G:294:THR:O	1:G:298:GLY:N	2.52	0.43
1:G:723:THR:HG1	1:G:728:ARG:HH12	1.64	0.43
1:G:3761:GLN:O	1:G:3765:TYR:N	2.41	0.43
1:G:3891:LEU:HD23	1:G:3899:PHE:HZ	1.83	0.43
1:G:4849:TYR:HD1	1:G:4883:TYR:CE1	2.37	0.43
1:A:23:GLN:N	1:A:201:ASN:O	2.52	0.43
1:A:74:SER:O	1:A:78:LEU:N	2.40	0.43
1:A:232:THR:HG21	1:A:248:GLU:CB	2.49	0.43
1:A:1966:VAL:HG21	1:A:3650:CYS:SG	2.58	0.43
1:A:5013:MET:O	1:A:5017:ARG:N	2.51	0.43
2:B:27:THR:HA	2:B:38:SER:HA	2.00	0.43
1:C:14:LEU:HD12	1:C:163:VAL:HG12	2.01	0.43
1:C:275:ARG:HB2	1:C:338:GLU:OE1	2.18	0.43
1:C:545:ASP:OD1	1:C:582:HIS:NE2	2.52	0.43
1:C:665:GLU:OE2	1:C:802:PHE:HB3	2.19	0.43
1:C:1107:PRO:HB2	1:C:1186:ASP:OD2	2.18	0.43

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1849:LEU:HD13	1:C:1854:PHE:HD2	1.83	0.43
1:C:2822:THR:OG1	1:C:2938:THR:OG1	2.19	0.43
1:C:4791:TYR:HD2	1:C:4792:LEU:HD12	1.83	0.43
1:E:14:LEU:HD12	1:E:163:VAL:HG12	2.01	0.43
1:E:35:LEU:HD12	1:E:35:LEU:O	2.19	0.43
1:E:232:THR:HG21	1:E:248:GLU:CB	2.49	0.43
1:E:265:LEU:HD21	1:E:281:ARG:H	1.83	0.43
1:E:284:HIS:HD2	1:E:287:THR:HG23	1.84	0.43
1:E:456:SER:OG	1:E:458:GLU:HG2	2.19	0.43
1:E:545:ASP:OD1	1:E:582:HIS:NE2	2.52	0.43
1:E:1455:PRO:HG2	1:E:1547:LYS:HE3	2.01	0.43
1:E:1966:VAL:HG21	1:E:3650:CYS:SG	2.58	0.43
1:E:2114:PRO:O	1:E:2116:LEU:N	2.47	0.43
1:E:2453:ILE:HA	1:E:2456:ILE:HG22	2.00	0.43
1:E:3761:GLN:NE2	1:E:4722:ARG:HH22	2.16	0.43
1:E:3927:GLN:HE21	1:E:3991:GLY:HA3	1.84	0.43
1:G:14:LEU:HD12	1:G:163:VAL:HG12	2.01	0.43
1:G:122:THR:HG23	1:G:133:PHE:CE1	2.54	0.43
1:G:401:ALA:O	1:G:404:ILE:HB	2.19	0.43
1:G:665:GLU:OE2	1:G:802:PHE:HB3	2.19	0.43
1:G:882:TRP:HH2	1:G:906:CYS:HB2	1.82	0.43
1:G:1260:MET:HB3	1:G:1274:HIS:HE1	1.84	0.43
1:G:2114:PRO:HD3	1:G:3707:ARG:HH11	1.83	0.43
1:G:2453:ILE:HA	1:G:2456:ILE:HG22	2.00	0.43
1:G:4141:PHE:O	1:G:4145:VAL:HG23	2.19	0.43
1:A:116:MET:HE2	1:A:139:GLU:HG2	2.00	0.42
1:A:174:VAL:O	1:G:2452:ARG:NH2	2.50	0.42
1:A:590:LEU:HB2	1:A:599:VAL:HG11	2.01	0.42
1:A:722:TRP:NE1	1:A:727:ALA:HB2	2.34	0.42
1:A:757:PHE:HE2	1:A:768:PHE:HE2	1.67	0.42
1:A:1455:PRO:HG2	1:A:1547:LYS:HE3	2.01	0.42
1:A:2152:THR:HG22	1:A:2190:VAL:HG11	2.00	0.42
1:A:2251:PHE:CG	1:A:2286:LEU:HD22	2.53	0.42
1:A:2453:ILE:HA	1:A:2456:ILE:HG22	2.00	0.42
1:A:4671:PHE:HE1	1:A:4715:TYR:HA	1.83	0.42
1:C:132:ALA:HB1	1:C:193:ALA:O	2.19	0.42
1:C:242:ARG:HH21	1:C:287:THR:HG22	1.83	0.42
1:C:284:HIS:HD2	1:C:287:THR:HG23	1.84	0.42
1:C:594:GLY:H	1:C:1598:GLN:HG3	1.84	0.42
1:C:4833:ASN:HB3	1:C:4935:LEU:HD21	2.01	0.42
1:C:4897:ILE:O	1:C:4901:ILE:HG22	2.19	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:220:LEU:CD1	1:E:390:LEU:HD22	2.48	0.42
1:E:242:ARG:HH21	1:E:287:THR:HG22	1.84	0.42
1:E:266:ARG:O	1:E:270:SER:HB3	2.19	0.42
1:E:401:ALA:HA	1:E:404:ILE:HD12	2.01	0.42
1:E:736:HIS:HE1	1:E:739:ALA:HB3	1.84	0.42
1:E:1660:GLN:HG3	1:E:1707:LEU:HD11	2.01	0.42
1:E:1735:ILE:HD11	1:E:2156:LEU:HD11	1.99	0.42
1:E:1853:ILE:HG22	1:E:1854:PHE:N	2.34	0.42
1:E:3775:ALA:HA	1:E:3778:MET:HG2	1.99	0.42
1:E:4575:PHE:O	1:E:4578:LEU:HG	2.19	0.42
1:G:232:THR:HG21	1:G:248:GLU:CB	2.49	0.42
1:G:564:LEU:O	1:G:568:LEU:HG	2.19	0.42
1:G:1093:GLU:HG3	1:G:1148:VAL:HG22	2.01	0.42
1:G:1802:ILE:O	1:G:1804:LEU:HD12	2.20	0.42
1:G:3783:ILE:HA	1:G:3786:CYS:SG	2.58	0.42
1:G:3840:SER:HB3	1:G:3881:THR:HG21	2.00	0.42
1:G:4061:PHE:O	1:G:4064:MET:HG2	2.19	0.42
1:G:4677:LEU:HD11	1:G:4702:ASP:HB3	2.01	0.42
1:A:345:LEU:HD13	1:A:387:ALA:HB1	2.01	0.42
1:A:401:ALA:O	1:A:404:ILE:HB	2.19	0.42
1:A:401:ALA:HA	1:A:404:ILE:HD12	2.00	0.42
1:A:519:VAL:HG22	1:A:523:TYR:CE2	2.55	0.42
1:A:765:GLN:HG3	1:A:1479:GLU:H	1.83	0.42
1:A:1079:LYS:NZ	1:A:1107:PRO:HB3	2.34	0.42
1:A:1110:ARG:HD2	1:A:1113:VAL:HG23	2.01	0.42
1:A:1247:PRO:HB3	1:A:1600:LEU:HD13	2.00	0.42
1:A:2273:LEU:HD23	1:A:2330:ARG:HG2	2.02	0.42
1:A:2761:TYR:CZ	1:A:2862:LEU:HD13	2.54	0.42
1:A:3371:LYS:HA	1:A:3374:ALA:HB3	2.02	0.42
1:A:3937:TYR:CE2	1:A:3943:ILE:HG23	2.54	0.42
1:A:3989:VAL:HG13	1:A:4023:MET:CE	2.49	0.42
1:C:24:CYS:HB2	1:C:200:TRP:CZ3	2.54	0.42
1:C:265:LEU:HD21	1:C:281:ARG:H	1.83	0.42
1:C:543:ASN:O	1:C:546:TRP:HB3	2.18	0.42
1:C:595:ARG:NH2	1:C:1641:ILE:HD11	2.27	0.42
1:C:732:SER:HB2	1:C:735:GLN:HG2	2.02	0.42
1:C:1110:ARG:HD2	1:C:1113:VAL:HG23	2.00	0.42
1:C:2453:ILE:HA	1:C:2456:ILE:HG22	2.00	0.42
1:C:2793:PRO:O	1:C:2796:THR:OG1	2.20	0.42
1:C:3804:ILE:CG2	1:C:3812:VAL:HG11	2.49	0.42
1:C:3819:TYR:CZ	1:C:3823:LYS:HG3	2.54	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3989:VAL:HA	1:C:4023:MET:CE	2.49	0.42
1:E:1737:PRO:HG2	1:E:1742:THR:HG21	2.01	0.42
1:E:2104:ARG:HD2	1:E:2107:GLN:OE1	2.19	0.42
1:G:519:VAL:HG22	1:G:523:TYR:CE2	2.55	0.42
1:G:757:PHE:HE2	1:G:768:PHE:HE2	1.66	0.42
1:G:1106:ARG:HG2	1:G:1188:PHE:CD1	2.54	0.42
1:G:1853:ILE:HG22	1:G:1854:PHE:N	2.34	0.42
1:G:3651:ASN:O	1:G:3654:LEU:HB2	2.18	0.42
1:G:3771:HIS:CE1	1:G:3811:GLU:HB3	2.48	0.42
1:G:3836:MET:HA	1:G:3839:CYS:HB2	2.01	0.42
1:G:3838:THR:OG1	1:G:3839:CYS:N	2.44	0.42
1:G:3949:ARG:O	1:G:3952:SER:OG	2.23	0.42
1:G:4837:LEU:HD22	1:G:4936:ILE:HD11	2.01	0.42
1:G:4930:ALA:HA	1:G:4933:GLN:HB2	2.01	0.42
1:A:765:GLN:HB3	1:A:1477:GLY:H	1.83	0.42
1:A:990:GLU:HG3	1:A:1024:TYR:HB3	2.00	0.42
1:A:1277:TRP:HB2	1:A:1562:ILE:O	2.20	0.42
1:A:1710:GLY:O	1:A:1714:LEU:HG	2.18	0.42
1:A:2495:VAL:H	1:A:2496:PRO:HD2	1.84	0.42
1:A:3674:ILE:CG2	1:A:3769:ARG:HD3	2.49	0.42
1:A:4899:ASP:H	1:G:4892:ARG:NH1	2.17	0.42
1:C:456:SER:OG	1:C:458:GLU:HG2	2.19	0.42
1:C:618:GLN:OE1	1:C:1678:ASN:ND2	2.52	0.42
1:C:736:HIS:HE1	1:C:739:ALA:HB3	1.84	0.42
1:C:1115:LEU:HD11	1:C:1191:VAL:HG11	2.01	0.42
1:C:1581:LEU:HD13	1:C:1594:ARG:C	2.40	0.42
1:C:2162:ILE:O	1:C:2166:LEU:N	2.53	0.42
1:C:2234:ARG:HH12	1:C:2271:THR:N	2.17	0.42
1:C:3674:ILE:CG2	1:C:3769:ARG:HD3	2.49	0.42
1:C:3761:GLN:NE2	1:C:4722:ARG:HH22	2.16	0.42
2:D:73:LYS:HA	2:D:99:PHE:O	2.18	0.42
1:E:23:GLN:N	1:E:201:ASN:O	2.52	0.42
1:E:70:GLU:HB2	1:E:108:LEU:HB3	2.02	0.42
1:E:1107:PRO:HB2	1:E:1186:ASP:OD2	2.18	0.42
1:E:1533:GLY:C	1:E:1534:LYS:HD2	2.39	0.42
1:E:1839:VAL:HG23	1:E:1935:VAL:HG22	2.01	0.42
1:E:2273:LEU:HD23	1:E:2330:ARG:HG2	2.02	0.42
1:E:3674:ILE:CG2	1:E:3769:ARG:HD3	2.49	0.42
1:E:3804:ILE:CG2	1:E:3812:VAL:HG11	2.49	0.42
1:E:3989:VAL:HG13	1:E:4023:MET:CE	2.49	0.42
1:E:3989:VAL:HA	1:E:4023:MET:CE	2.49	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4147:LEU:HA	1:E:4147:LEU:HD23	1.85	0.42
1:E:4715:TYR:CD2	1:E:4717:ASP:HB3	2.53	0.42
1:E:4791:TYR:HD2	1:E:4792:LEU:HD12	1.83	0.42
2:F:73:LYS:HA	2:F:99:PHE:O	2.18	0.42
1:G:23:GLN:N	1:G:201:ASN:O	2.52	0.42
1:G:252:VAL:HA	1:G:255:HIS:HB2	2.01	0.42
1:G:266:ARG:O	1:G:270:SER:HB3	2.19	0.42
1:G:284:HIS:HD2	1:G:287:THR:HG23	1.84	0.42
1:G:401:ALA:HA	1:G:404:ILE:HD12	2.00	0.42
1:G:2295:LEU:HD13	1:G:2353:VAL:HG22	2.01	0.42
1:G:4093:PHE:O	1:G:4097:MET:HG2	2.19	0.42
1:G:4960:ILE:HD13	1:G:4983:HIS:HB3	2.01	0.42
1:A:223:PHE:CD1	1:A:230:CYS:HB3	2.54	0.42
1:A:526:LEU:HD11	1:A:540:PHE:CZ	2.46	0.42
1:A:732:SER:HB2	1:A:735:GLN:HG2	2.02	0.42
1:A:829:TYR:HA	1:A:1073:ARG:HH12	1.82	0.42
1:A:875:ALA:HB1	1:A:922:LEU:HB2	2.01	0.42
1:A:1089:TYR:OH	1:A:1213:PHE:O	2.27	0.42
1:A:1252:HIS:HD2	1:A:1255:TYR:HD2	1.67	0.42
1:A:4630:TYR:CE2	1:A:4632:LEU:HA	2.54	0.42
1:A:4889:VAL:HG22	1:A:4892:ARG:NH2	2.35	0.42
1:C:266:ARG:O	1:C:270:SER:HB3	2.19	0.42
1:C:663:TYR:HA	1:C:746:CYS:O	2.20	0.42
1:C:3878:ASP:HB2	1:C:3957:VAL:HG21	2.01	0.42
1:C:4141:PHE:O	1:C:4145:VAL:HG23	2.20	0.42
1:E:113:HIS:CE1	1:E:402:ARG:HB3	2.55	0.42
1:E:205:ILE:HG22	1:E:271:GLY:HA3	2.00	0.42
1:E:594:GLY:H	1:E:1598:GLN:HG3	1.85	0.42
1:E:1778:SER:N	1:E:1799:SER:O	2.36	0.42
1:E:2142:TYR:HD2	1:E:2197:LEU:HD12	1.83	0.42
1:E:2162:ILE:O	1:E:2166:LEU:N	2.53	0.42
1:E:3878:ASP:HB2	1:E:3957:VAL:HG21	2.01	0.42
1:E:4974:GLY:O	1:E:4977:THR:OG1	2.27	0.42
1:G:121:LEU:HD12	1:G:136:GLY:HA3	2.01	0.42
1:G:223:PHE:CD1	1:G:230:CYS:HB3	2.54	0.42
1:G:1115:LEU:HD11	1:G:1191:VAL:HG11	2.01	0.42
1:G:2067:LEU:CD1	1:G:3661:TRP:HB3	2.50	0.42
1:G:2131:LEU:HD11	1:G:3662:ILE:HD12	2.00	0.42
1:G:2142:TYR:HD2	1:G:2197:LEU:HD12	1.83	0.42
1:G:2210:VAL:O	1:G:2214:VAL:HG23	2.19	0.42
1:G:2865:VAL:HB	1:G:2928:LYS:HD3	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:4188:ARG:HD3	1:G:4188:ARG:HA	1.85	0.42
1:G:4235:VAL:HG21	1:G:5019:TRP:HE1	1.81	0.42
1:A:132:ALA:HB1	1:A:193:ALA:O	2.19	0.42
1:A:266:ARG:O	1:A:270:SER:HB3	2.19	0.42
1:A:1440:PHE:HD2	1:A:1560:ASN:HB3	1.83	0.42
1:A:1676:LEU:HG	1:A:1725:ARG:HE	1.85	0.42
1:A:1716:ILE:HD13	1:A:1720:LEU:HD12	2.00	0.42
1:A:2162:ILE:O	1:A:2166:LEU:N	2.53	0.42
1:C:35:LEU:HD12	1:C:35:LEU:O	2.19	0.42
1:C:103:TYR:CZ	1:C:163:VAL:HG13	2.54	0.42
1:C:768:PHE:HB3	1:C:771:PHE:CE1	2.53	0.42
1:C:875:ALA:HB1	1:C:922:LEU:HB2	2.01	0.42
1:C:1547:LYS:HZ3	1:C:1645:ASN:HB2	1.81	0.42
1:C:2103:VAL:O	1:C:2107:GLN:HG3	2.19	0.42
1:C:3802:ILE:HD11	1:C:3883:ASP:O	2.20	0.42
1:C:3825:GLU:O	1:C:3827:GLY:N	2.48	0.42
1:C:4055:VAL:O	1:C:4058:ILE:HG13	2.19	0.42
1:C:4966:ASP:OD1	1:C:4967:TYR:N	2.47	0.42
2:D:16:PRO:HD2	2:D:64:ALA:HA	2.01	0.42
1:E:284:HIS:CD2	1:E:287:THR:HG23	2.55	0.42
1:E:401:ALA:O	1:E:404:ILE:HB	2.20	0.42
1:E:595:ARG:HH12	1:E:1641:ILE:HD11	1.85	0.42
1:E:682:LEU:HD22	1:E:738:LEU:HD23	2.02	0.42
1:E:705:ASN:HD22	1:E:782:SER:CB	2.31	0.42
1:E:1079:LYS:HZ3	1:E:1107:PRO:HB3	1.84	0.42
1:E:1247:PRO:HB3	1:E:1600:LEU:HD13	2.01	0.42
1:E:4154:VAL:HA	1:E:4155:PRO:HD2	1.79	0.42
1:G:400:ALA:HB2	1:G:451:TYR:OH	2.20	0.42
1:G:663:TYR:HA	1:G:746:CYS:O	2.20	0.42
1:G:2104:ARG:O	1:G:2108:GLU:HG2	2.20	0.42
1:G:2162:ILE:O	1:G:2166:LEU:N	2.53	0.42
1:G:4778:TRP:O	1:G:4782:VAL:HG23	2.20	0.42
1:A:233:ILE:HD12	1:A:242:ARG:HG2	2.01	0.42
1:A:663:TYR:HA	1:A:746:CYS:O	2.20	0.42
1:A:705:ASN:HD22	1:A:782:SER:CB	2.31	0.42
1:A:2748:PRO:HD2	1:A:2751:LEU:HD12	2.02	0.42
1:A:4055:VAL:O	1:A:4058:ILE:HG13	2.19	0.42
1:A:4855:ALA:HB1	1:A:4863:TYR:CE2	2.54	0.42
1:A:4961:CYS:SG	1:A:4983:HIS:CE1	3.06	0.42
1:C:723:THR:HG1	1:C:728:ARG:HH12	1.65	0.42
1:C:1277:TRP:HB2	1:C:1562:ILE:O	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3838:THR:OG1	1:C:3839:CYS:N	2.51	0.42
1:C:3989:VAL:HG13	1:C:4023:MET:CE	2.50	0.42
1:C:4859:PHE:CE1	1:C:4913:ARG:HB2	2.54	0.42
1:E:103:TYR:CZ	1:E:163:VAL:HG13	2.54	0.42
1:E:414:PHE:CD1	1:E:441:VAL:HG21	2.55	0.42
1:E:493:ARG:HA	1:E:496:VAL:HG23	2.02	0.42
1:E:2295:LEU:HD13	1:E:2353:VAL:HG22	2.01	0.42
1:E:3937:TYR:CE2	1:E:3943:ILE:HG23	2.55	0.42
1:G:35:LEU:HD12	1:G:35:LEU:O	2.19	0.42
1:G:103:TYR:CZ	1:G:163:VAL:HG13	2.54	0.42
1:G:3898:ASP:OD1	1:G:3899:PHE:N	2.52	0.42
1:A:24:CYS:HB2	1:A:200:TRP:CZ3	2.54	0.42
1:A:1745:ILE:HD12	1:A:1960:ALA:HB2	2.02	0.42
1:A:2057:THR:O	1:A:2060:SER:OG	2.30	0.42
1:A:2495:VAL:H	1:A:2496:PRO:CD	2.33	0.42
1:A:2799:GLU:HA	1:A:2802:LYS:HD2	2.01	0.42
1:A:3819:TYR:CZ	1:A:3823:LYS:HG3	2.55	0.42
1:C:23:GLN:N	1:C:201:ASN:O	2.52	0.42
1:C:220:LEU:CD1	1:C:390:LEU:HD22	2.48	0.42
1:C:401:ALA:O	1:C:404:ILE:HB	2.20	0.42
1:C:519:VAL:HG22	1:C:523:TYR:CE2	2.54	0.42
1:C:664:PHE:CE1	1:C:779:PRO:HB3	2.55	0.42
1:C:1078:GLU:HG3	1:C:1237:TRP:CZ2	2.55	0.42
1:C:1802:ILE:O	1:C:1804:LEU:HD12	2.20	0.42
1:C:1839:VAL:HG23	1:C:1935:VAL:HG22	2.01	0.42
1:C:2045:GLN:O	1:C:2064:ARG:NH2	2.40	0.42
1:C:2104:ARG:HD2	1:C:2107:GLN:OE1	2.20	0.42
1:C:3670:GLU:OE1	1:C:3731:LYS:HB2	2.19	0.42
1:C:4174:PHE:O	1:C:4178:LEU:N	2.49	0.42
1:C:4892:ARG:HH12	1:E:4899:ASP:H	1.61	0.42
1:E:664:PHE:CE1	1:E:779:PRO:HB3	2.55	0.42
1:E:665:GLU:OE2	1:E:802:PHE:HB3	2.19	0.42
1:E:1079:LYS:NZ	1:E:1107:PRO:HB3	2.34	0.42
1:E:2104:ARG:O	1:E:2108:GLU:HG2	2.20	0.42
1:E:3670:GLU:OE1	1:E:3731:LYS:HB2	2.19	0.42
1:E:3819:TYR:CZ	1:E:3823:LYS:HG3	2.55	0.42
1:E:5022:PHE:HA	1:E:5023:PRO:HD3	1.87	0.42
1:G:113:HIS:HE1	1:G:399:GLN:O	2.03	0.42
1:G:493:ARG:HA	1:G:496:VAL:HG23	2.02	0.42
1:G:590:LEU:HB2	1:G:599:VAL:HG11	2.02	0.42
1:G:732:SER:HB2	1:G:735:GLN:HG2	2.02	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1716:ILE:HD13	1:G:1720:LEU:HD12	2.00	0.42
1:G:3781:GLN:HG2	1:G:3819:TYR:OH	2.18	0.42
1:G:3897:ASN:OD1	1:G:3901:ASN:ND2	2.52	0.42
1:G:3938:SER:HA	1:G:4002:LYS:HE3	2.02	0.42
1:G:3999:MET:O	1:G:4003:LEU:HG	2.20	0.42
1:G:4036:VAL:HG23	1:G:5032:TYR:CD2	2.55	0.42
1:G:4867:GLU:HA	1:G:4868:ASP:HA	1.79	0.42
1:A:284:HIS:HD2	1:A:287:THR:HG23	1.85	0.42
1:A:564:LEU:O	1:A:568:LEU:HG	2.19	0.42
1:A:2123:LEU:O	1:A:2127:GLN:HG2	2.20	0.42
1:C:108:LEU:HD11	1:C:117:TYR:CG	2.55	0.42
1:C:121:LEU:HD12	1:C:136:GLY:HA3	2.01	0.42
1:C:122:THR:HG23	1:C:133:PHE:CE1	2.54	0.42
1:C:689:THR:OG1	1:C:690:GLU:N	2.50	0.42
1:C:829:TYR:HA	1:C:1073:ARG:HH12	1.83	0.42
1:C:1252:HIS:HD2	1:C:1255:TYR:HD2	1.67	0.42
1:C:2126:ARG:CZ	1:C:2133:GLU:OE2	2.68	0.42
1:C:2273:LEU:HD23	1:C:2330:ARG:HG2	2.01	0.42
1:C:2506:LEU:HD21	1:C:2517:PHE:HE2	1.85	0.42
1:C:3927:GLN:HE21	1:C:3991:GLY:HA3	1.85	0.42
1:E:116:MET:HE2	1:E:139:GLU:HG2	2.01	0.42
1:E:400:ALA:HB2	1:E:451:TYR:OH	2.20	0.42
1:E:875:ALA:HB1	1:E:922:LEU:HB2	2.00	0.42
1:E:1085:SER:O	1:E:1088:TRP:NE1	2.39	0.42
1:E:1514:LEU:O	1:E:1515:VAL:HG22	2.20	0.42
1:E:1802:ILE:O	1:E:1804:LEU:HD12	2.20	0.42
1:E:2506:LEU:HD21	1:E:2517:PHE:HE2	1.85	0.42
1:E:4174:PHE:O	1:E:4178:LEU:N	2.50	0.42
1:E:4712:PRO:HG2	1:E:4718:LYS:HA	2.01	0.42
1:E:4859:PHE:CE1	1:E:4913:ARG:HB2	2.54	0.42
1:E:4957:LYS:HB2	1:E:4957:LYS:HE3	1.91	0.42
1:G:545:ASP:OD1	1:G:582:HIS:NE2	2.52	0.42
1:G:618:GLN:OE1	1:G:1678:ASN:ND2	2.52	0.42
1:G:664:PHE:CE1	1:G:779:PRO:HB3	2.55	0.42
1:G:1027:LEU:HD12	1:G:1032:LYS:HD2	2.01	0.42
1:G:1277:TRP:HB2	1:G:1562:ILE:O	2.20	0.42
1:G:1515:VAL:HA	1:G:1530:THR:O	2.20	0.42
1:G:1682:ALA:HB3	1:G:1800:PRO:HG2	2.01	0.42
1:G:2234:ARG:HH12	1:G:2271:THR:N	2.18	0.42
1:G:2327:GLY:O	1:G:2330:ARG:HB3	2.20	0.42
1:G:3916:ILE:O	1:G:3920:VAL:HG23	2.20	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:594:GLY:H	1:A:1598:GLN:HG3	1.84	0.42
1:A:720:HIS:HA	1:A:728:ARG:O	2.20	0.42
1:A:1079:LYS:NZ	1:A:1107:PRO:O	2.53	0.42
1:A:2121:PHE:CG	1:A:3701:LEU:HD12	2.55	0.42
1:A:2210:VAL:O	1:A:2214:VAL:HG23	2.20	0.42
1:A:2234:ARG:HH12	1:A:2271:THR:N	2.17	0.42
1:A:3927:GLN:HE21	1:A:3991:GLY:HA3	1.84	0.42
1:A:4042:ARG:O	1:A:4045:VAL:HB	2.20	0.42
1:A:4150:LEU:O	1:A:4154:VAL:N	2.29	0.42
1:A:4829:SER:O	1:A:4939:ALA:HB1	2.20	0.42
1:A:4897:ILE:O	1:A:4901:ILE:HG22	2.19	0.42
1:C:232:THR:HG21	1:C:248:GLU:CB	2.50	0.42
1:C:526:LEU:HD11	1:C:540:PHE:CZ	2.46	0.42
1:C:916:PRO:O	1:C:919:ASN:HB2	2.20	0.42
1:C:1936:LYS:NZ	1:C:2105:TRP:CG	2.83	0.42
1:C:2495:VAL:H	1:C:2496:PRO:CD	2.33	0.42
1:C:3783:ILE:HA	1:C:3786:CYS:SG	2.60	0.42
1:C:3989:VAL:HG13	1:C:4023:MET:HE2	2.01	0.42
1:C:4042:ARG:O	1:C:4045:VAL:HB	2.20	0.42
1:C:4712:PRO:HG2	1:C:4718:LYS:HA	2.02	0.42
1:C:4889:VAL:HG22	1:C:4892:ARG:HH21	1.85	0.42
1:C:5022:PHE:HA	1:C:5023:PRO:HD3	1.87	0.42
1:E:223:PHE:CD1	1:E:230:CYS:HB3	2.54	0.42
1:E:637:LEU:HD23	1:E:1693:GLN:HA	2.02	0.42
1:E:1254:HIS:NE2	1:E:1280:GLN:HB3	2.34	0.42
1:E:1682:ALA:HB3	1:E:1800:PRO:HG2	2.01	0.42
1:E:2234:ARG:HH12	1:E:2271:THR:N	2.17	0.42
1:E:3802:ILE:HD11	1:E:3883:ASP:O	2.20	0.42
1:E:4958:CYS:SG	1:E:4959:PHE:N	2.93	0.42
1:G:1581:LEU:HD13	1:G:1594:ARG:C	2.40	0.42
1:G:4165:GLU:O	1:G:4168:GLU:HG2	2.19	0.42
1:G:4706:LEU:O	1:G:4721:LYS:NZ	2.53	0.42
2:H:16:PRO:HG2	2:H:63:VAL:HG12	2.01	0.42
1:A:113:HIS:HE1	1:A:399:GLN:O	2.02	0.42
1:A:618:GLN:OE1	1:A:1678:ASN:ND2	2.52	0.42
1:A:1682:ALA:HB3	1:A:1800:PRO:HG2	2.01	0.42
1:A:1771:LEU:HD23	1:A:1771:LEU:HA	1.94	0.42
1:A:2470:ILE:O	1:A:2474:LEU:N	2.40	0.42
1:A:4664:LEU:HG	1:A:4665:LYS:HG3	2.02	0.42
1:A:4688:ILE:HG21	1:A:4728:HIS:HB3	2.01	0.42
1:A:4712:PRO:HG2	1:A:4718:LYS:HA	2.01	0.42

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:4857:ASN:HD21	1:G:4807:PHE:HB3	1.85	0.42
1:C:350:HIS:NE2	1:C:352:ALA:HB3	2.35	0.42
1:C:471:LEU:O	1:C:475:GLN:HG3	2.20	0.42
1:C:493:ARG:HA	1:C:496:VAL:HG23	2.02	0.42
1:C:682:LEU:HD22	1:C:738:LEU:HD23	2.02	0.42
1:C:906:CYS:O	1:C:908:VAL:N	2.52	0.42
1:C:1745:ILE:HD12	1:C:1960:ALA:HB2	2.02	0.42
1:C:2194:HIS:O	1:C:2198:MET:HG2	2.20	0.42
1:C:2327:GLY:O	1:C:2330:ARG:HB3	2.20	0.42
1:C:2747:ILE:HG22	1:C:2748:PRO:O	2.20	0.42
1:C:2799:GLU:HA	1:C:2802:LYS:HD2	2.01	0.42
1:C:4892:ARG:CD	1:E:4917:ASP:OD2	2.68	0.42
1:C:4934:GLY:HA2	1:C:4937:ILE:HB	2.02	0.42
1:E:350:HIS:NE2	1:E:352:ALA:HB3	2.35	0.42
1:E:618:GLN:OE1	1:E:1678:ASN:ND2	2.52	0.42
1:E:641:VAL:HG21	1:E:704:GLY:H	1.85	0.42
1:E:2121:PHE:CG	1:E:3701:LEU:HD12	2.55	0.42
1:E:2210:VAL:O	1:E:2214:VAL:HG23	2.20	0.42
1:E:2927:LEU:HD22	1:E:2937:VAL:HG11	2.02	0.42
1:E:4042:ARG:O	1:E:4045:VAL:HB	2.20	0.42
1:E:4045:VAL:HG22	1:E:4160:LEU:HD22	2.01	0.42
1:G:116:MET:HB2	1:G:137:LEU:HD13	2.02	0.42
1:G:1079:LYS:NZ	1:G:1107:PRO:HB3	2.34	0.42
1:G:2273:LEU:HD23	1:G:2330:ARG:HG2	2.02	0.42
1:G:2881:ASN:OD1	1:G:2885:THR:OG1	2.37	0.42
1:G:3716:LEU:HB3	1:G:3789:GLU:OE1	2.20	0.42
1:A:70:GLU:HB2	1:A:108:LEU:HB3	2.02	0.41
1:A:456:SER:OG	1:A:458:GLU:HG2	2.19	0.41
1:A:682:LEU:HD22	1:A:738:LEU:HD23	2.01	0.41
1:A:2104:ARG:O	1:A:2108:GLU:HG2	2.20	0.41
1:A:2126:ARG:CZ	1:A:2133:GLU:OE2	2.68	0.41
1:A:4027:LEU:O	1:A:4027:LEU:HD23	2.20	0.41
1:A:4917:ASP:OD2	1:G:4892:ARG:CD	2.67	0.41
1:C:70:GLU:HB2	1:C:108:LEU:HB3	2.02	0.41
1:C:102:LEU:HB2	1:C:105:HIS:HD2	1.83	0.41
1:C:116:MET:HB3	1:C:138:GLN:O	2.20	0.41
1:C:589:LEU:HG	1:C:593:HIS:CD2	2.48	0.41
1:C:590:LEU:HB2	1:C:599:VAL:HG11	2.01	0.41
1:C:1027:LEU:HD12	1:C:1032:LYS:HD2	2.00	0.41
1:C:1079:LYS:NZ	1:C:1107:PRO:O	2.54	0.41
1:C:1777:PHE:CD1	1:C:1801:ALA:HA	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:1841:VAL:O	1:C:1845:VAL:HG23	2.20	0.41
1:C:2123:LEU:O	1:C:2127:GLN:HG2	2.20	0.41
1:C:2761:TYR:CZ	1:C:2862:LEU:HD13	2.54	0.41
1:C:3825:GLU:C	1:C:3827:GLY:H	2.24	0.41
1:C:4921:PHE:O	1:C:4926:VAL:HG23	2.19	0.41
1:E:252:VAL:HA	1:E:255:HIS:HB2	2.01	0.41
1:E:277:GLY:H	1:E:315:CYS:HG	1.66	0.41
1:E:720:HIS:HA	1:E:728:ARG:O	2.20	0.41
1:E:1514:LEU:C	1:E:1515:VAL:CG2	2.88	0.41
1:E:2327:GLY:O	1:E:2330:ARG:HB3	2.20	0.41
1:E:3713:LYS:O	1:E:3714:SER:OG	2.38	0.41
1:E:4027:LEU:HD23	1:E:4027:LEU:O	2.20	0.41
1:E:4630:TYR:CE2	1:E:4632:LEU:HA	2.55	0.41
1:G:151:HIS:HA	1:G:152:PRO:HD2	1.95	0.41
1:G:345:LEU:HD13	1:G:387:ALA:HB1	2.01	0.41
1:G:453:GLU:HA	1:G:454:PRO:HD3	1.85	0.41
1:G:705:ASN:HD22	1:G:782:SER:CB	2.32	0.41
1:G:736:HIS:ND1	1:G:737:LEU:O	2.50	0.41
1:G:990:GLU:HG3	1:G:1024:TYR:HB3	2.01	0.41
1:G:2465:ASP:O	1:G:2467:VAL:N	2.53	0.41
1:G:4675:LYS:O	1:G:4679:ARG:HG2	2.19	0.41
2:H:46:PHE:CE2	2:H:48:PHE:CD1	3.08	0.41
1:A:545:ASP:OD1	1:A:582:HIS:NE2	2.52	0.41
1:A:750:LEU:O	1:A:751:SER:OG	2.35	0.41
1:A:1078:GLU:HG3	1:A:1237:TRP:CZ2	2.55	0.41
1:A:1581:LEU:HD13	1:A:1594:ARG:C	2.40	0.41
1:A:1936:LYS:NZ	1:A:2105:TRP:CG	2.84	0.41
1:A:3838:THR:OG1	1:A:3839:CYS:N	2.51	0.41
1:A:4159:ARG:O	1:A:4162:ASN:HB3	2.20	0.41
1:C:116:MET:HB2	1:C:137:LEU:HD13	2.03	0.41
1:C:641:VAL:HG21	1:C:704:GLY:H	1.85	0.41
1:C:722:TRP:NE1	1:C:727:ALA:HB2	2.35	0.41
1:C:757:PHE:HE2	1:C:768:PHE:HE2	1.67	0.41
1:C:1432:THR:N	1:C:1518:CYS:SG	2.93	0.41
1:C:4147:LEU:HA	1:C:4147:LEU:HD23	1.85	0.41
1:E:732:SER:HB2	1:E:735:GLN:HG2	2.02	0.41
1:E:1115:LEU:HD11	1:E:1191:VAL:HG11	2.01	0.41
1:E:1125:ASN:OD1	1:E:1132:TRP:HZ3	2.03	0.41
1:E:1290:ARG:HG2	1:E:1551:ALA:HB2	2.02	0.41
1:E:1432:THR:N	1:E:1518:CYS:SG	2.93	0.41
1:E:2799:GLU:HA	1:E:2802:LYS:HD2	2.02	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4897:ILE:O	1:E:4901:ILE:HG22	2.20	0.41
2:F:16:PRO:HD2	2:F:64:ALA:HA	2.01	0.41
1:G:456:SER:OG	1:G:458:GLU:HG2	2.20	0.41
1:G:830:ARG:CZ	1:G:1616:GLU:OE2	2.68	0.41
1:G:1290:ARG:HG2	1:G:1551:ALA:HB2	2.02	0.41
1:G:4559:PHE:CE1	1:G:4661:TYR:HB2	2.55	0.41
2:H:29:MET:HB2	2:H:33:GLY:C	2.41	0.41
1:A:116:MET:HB3	1:A:138:GLN:O	2.20	0.41
1:A:220:LEU:CD1	1:A:390:LEU:HD22	2.48	0.41
1:A:493:ARG:HA	1:A:496:VAL:HG23	2.02	0.41
1:A:660:GLY:O	1:A:662:TRP:HD1	2.04	0.41
1:A:701:GLY:HA2	1:A:1645:ASN:HD21	1.86	0.41
1:A:2465:ASP:O	1:A:2467:VAL:N	2.53	0.41
1:A:3694:LYS:HA	1:A:3695:PRO:HD3	1.79	0.41
1:A:3710:LEU:HD11	1:A:3781:GLN:NE2	2.36	0.41
1:A:3989:VAL:HG13	1:A:4023:MET:HE2	2.01	0.41
1:A:4715:TYR:O	1:A:4716:TRP:CG	2.73	0.41
1:A:4892:ARG:CD	1:C:4917:ASP:OD2	2.68	0.41
1:C:113:HIS:CE1	1:C:402:ARG:HB3	2.54	0.41
1:C:660:GLY:O	1:C:662:TRP:HD1	2.04	0.41
1:C:990:GLU:HG3	1:C:1024:TYR:HB3	2.01	0.41
1:C:1254:HIS:NE2	1:C:1280:GLN:HB3	2.34	0.41
1:C:1676:LEU:HG	1:C:1725:ARG:HE	1.85	0.41
1:C:1682:ALA:HB3	1:C:1800:PRO:HG2	2.01	0.41
1:C:1737:PRO:HG2	1:C:1742:THR:HG21	2.02	0.41
1:C:2204:HIS:O	1:C:2208:MET:N	2.42	0.41
1:E:663:TYR:HA	1:E:746:CYS:O	2.20	0.41
1:E:757:PHE:HE2	1:E:768:PHE:HE2	1.67	0.41
1:E:1079:LYS:NZ	1:E:1107:PRO:O	2.53	0.41
1:E:1211:LEU:CD2	1:E:1212:ARG:H	2.31	0.41
1:E:2123:LEU:HD23	1:E:2126:ARG:HD3	2.02	0.41
1:E:2924:GLN:HB3	1:E:2928:LYS:HD2	2.01	0.41
1:E:4774:LYS:HA	1:E:4777:ILE:HG22	2.03	0.41
1:G:116:MET:HB3	1:G:138:GLN:O	2.20	0.41
1:G:637:LEU:HD23	1:G:1693:GLN:HA	2.02	0.41
1:G:722:TRP:NE1	1:G:727:ALA:HB2	2.36	0.41
1:G:984:LEU:O	1:G:988:LEU:HG	2.20	0.41
1:G:1432:THR:N	1:G:1518:CYS:SG	2.93	0.41
1:G:3664:THR:HB	1:G:3665:GLU:H	1.68	0.41
1:G:4722:ARG:O	1:G:4725:LEU:HG	2.19	0.41
1:G:5017:ARG:HB3	1:G:5019:TRP:CZ3	2.55	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:108:LEU:HD11	1:A:117:TYR:CG	2.55	0.41
1:A:113:HIS:CE1	1:A:402:ARG:HB3	2.55	0.41
1:A:116:MET:HB2	1:A:137:LEU:HD13	2.02	0.41
1:A:830:ARG:CZ	1:A:1616:GLU:OE2	2.69	0.41
1:A:1087:ARG:NH1	1:A:1223:PHE:CE2	2.89	0.41
1:A:1125:ASN:OD1	1:A:1132:TRP:HZ3	2.03	0.41
1:A:1519:LEU:HD13	1:A:1527:MET:HG2	2.02	0.41
1:A:1736:VAL:HA	1:A:1737:PRO:HD2	1.84	0.41
1:A:1802:ILE:O	1:A:1804:LEU:HD12	2.20	0.41
1:A:2165:LEU:HD21	1:A:2177:LEU:CB	2.51	0.41
1:A:2305:CYS:O	1:A:2325:PRO:HG2	2.20	0.41
1:A:4235:VAL:HG21	1:A:5019:TRP:CD1	2.55	0.41
1:C:284:HIS:CD2	1:C:287:THR:HG23	2.55	0.41
1:C:414:PHE:CD1	1:C:441:VAL:HG21	2.55	0.41
1:C:637:LEU:HD23	1:C:1693:GLN:HA	2.02	0.41
1:C:1194:LEU:HD22	1:C:1198:GLN:O	2.21	0.41
1:C:1773:PRO:HA	1:C:1774:PRO:HD3	1.96	0.41
1:C:4027:LEU:HD23	1:C:4027:LEU:O	2.21	0.41
1:C:4159:ARG:O	1:C:4162:ASN:HB3	2.20	0.41
1:C:4630:TYR:CE2	1:C:4632:LEU:HA	2.54	0.41
1:E:233:ILE:HD12	1:E:242:ARG:HG2	2.02	0.41
1:E:699:GLY:O	1:E:701:GLY:N	2.53	0.41
1:E:722:TRP:NE1	1:E:727:ALA:HB2	2.35	0.41
1:E:855:PRO:HD3	1:E:994:ASN:HB3	2.03	0.41
1:E:1297:PHE:CZ	1:E:1519:LEU:HD21	2.55	0.41
1:E:1770:SER:OG	1:E:1771:LEU:N	2.49	0.41
1:E:2123:LEU:O	1:E:2127:GLN:HG2	2.20	0.41
1:E:2747:ILE:HG22	1:E:2748:PRO:O	2.20	0.41
1:E:3783:ILE:HA	1:E:3786:CYS:SG	2.61	0.41
1:G:113:HIS:CE1	1:G:402:ARG:HB3	2.55	0.41
1:G:284:HIS:CD2	1:G:287:THR:HG23	2.55	0.41
1:G:414:PHE:CD1	1:G:441:VAL:HG21	2.55	0.41
1:G:748:LEU:HD21	1:G:777:PHE:HD2	1.85	0.41
1:G:1778:SER:N	1:G:1799:SER:O	2.36	0.41
1:G:1841:VAL:O	1:G:1845:VAL:HG23	2.21	0.41
1:G:2305:CYS:O	1:G:2325:PRO:HG2	2.20	0.41
1:G:2495:VAL:H	1:G:2496:PRO:CD	2.33	0.41
1:G:3819:TYR:CZ	1:G:3823:LYS:HG3	2.56	0.41
1:A:14:LEU:HD12	1:A:163:VAL:HG12	2.03	0.41
1:A:414:PHE:CD1	1:A:441:VAL:HG21	2.55	0.41
1:A:1620:ALA:O	1:A:1629:GLN:N	2.35	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1737:PRO:HG2	1:A:1742:THR:HG21	2.02	0.41
1:A:1841:VAL:O	1:A:1845:VAL:HG23	2.20	0.41
1:A:2104:ARG:HD2	1:A:2107:GLN:OE1	2.19	0.41
1:A:2327:GLY:O	1:A:2330:ARG:HB3	2.20	0.41
1:A:2506:LEU:HD21	1:A:2517:PHE:HE2	1.85	0.41
1:A:2747:ILE:HG22	1:A:2748:PRO:O	2.20	0.41
1:A:3783:ILE:HA	1:A:3786:CYS:SG	2.61	0.41
1:A:3802:ILE:HD11	1:A:3883:ASP:O	2.20	0.41
1:C:252:VAL:HA	1:C:255:HIS:HB2	2.02	0.41
1:C:1125:ASN:OD1	1:C:1132:TRP:HZ3	2.03	0.41
1:C:2210:VAL:O	1:C:2214:VAL:HG23	2.20	0.41
1:C:4201:ASN:HB3	1:C:4990:PHE:CE1	2.55	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:CD1	2.55	0.41
1:C:4715:TYR:O	1:C:4716:TRP:CG	2.73	0.41
1:E:108:LEU:HD11	1:E:117:TYR:CG	2.55	0.41
1:E:122:THR:HG23	1:E:133:PHE:CE1	2.54	0.41
1:E:471:LEU:O	1:E:475:GLN:HG3	2.20	0.41
1:E:519:VAL:HG22	1:E:523:TYR:CE2	2.55	0.41
1:E:826:ILE:O	1:E:828:GLU:N	2.54	0.41
1:E:829:TYR:HA	1:E:1073:ARG:HH12	1.83	0.41
1:E:984:LEU:O	1:E:988:LEU:HG	2.20	0.41
1:E:1275:ARG:HG3	1:E:1277:TRP:HE1	1.86	0.41
1:E:1277:TRP:HB2	1:E:1562:ILE:O	2.20	0.41
1:E:1695:LEU:O	1:E:1699:GLU:HG3	2.21	0.41
1:E:1779:PRO:HA	1:E:1780:PRO:HD3	1.91	0.41
1:E:2465:ASP:O	1:E:2467:VAL:N	2.53	0.41
1:E:3825:GLU:C	1:E:3827:GLY:H	2.23	0.41
1:E:4664:LEU:HG	1:E:4665:LYS:HG3	2.03	0.41
1:G:108:LEU:HD11	1:G:117:TYR:CG	2.55	0.41
1:G:646:PRO:HB2	1:G:793:LEU:HD11	2.03	0.41
1:G:1745:ILE:HD12	1:G:1960:ALA:HB2	2.02	0.41
1:G:1777:PHE:CD1	1:G:1801:ALA:HA	2.56	0.41
1:G:1839:VAL:HG23	1:G:1935:VAL:HG22	2.01	0.41
1:G:2817:ILE:C	1:G:2820:GLU:H	2.23	0.41
1:G:2867:LEU:HD11	1:G:2924:GLN:HA	2.03	0.41
1:G:3657:TYR:CE2	1:G:3662:ILE:HD11	2.55	0.41
1:G:4856:PHE:HE1	1:G:4877:ASP:O	2.03	0.41
2:H:2:VAL:HG23	2:H:76:ILE:HA	2.02	0.41
1:A:80:GLU:OE1	1:G:3935:TRP:CE3	2.70	0.41
1:A:252:VAL:HA	1:A:255:HIS:HB2	2.01	0.41
1:A:400:ALA:HB2	1:A:451:TYR:OH	2.20	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:1290:ARG:HA	1:A:1551:ALA:CB	2.51	0.41
1:A:1432:THR:N	1:A:1518:CYS:SG	2.93	0.41
1:A:2191:PHE:HZ	1:A:2239:PHE:HD1	1.69	0.41
1:C:595:ARG:HH12	1:C:1641:ILE:HD11	1.86	0.41
1:C:1519:LEU:HD13	1:C:1527:MET:HG2	2.02	0.41
1:C:1738:LEU:N	1:C:2144:ILE:O	2.48	0.41
1:C:2165:LEU:HD21	1:C:2177:LEU:CB	2.51	0.41
1:C:2813:LEU:HD22	1:C:2823:ILE:HD13	2.02	0.41
1:C:4940:PHE:CE2	1:E:4938:ASP:OD2	2.72	0.41
1:E:50:GLU:OE2	1:E:61:ASP:N	2.36	0.41
1:E:375:LYS:NZ	1:E:377:ILE:HG22	2.36	0.41
1:E:1775:HIS:CE1	1:E:1777:PHE:CE2	3.09	0.41
1:E:3766:GLN:O	1:E:3769:ARG:HB3	2.20	0.41
1:E:4049:VAL:HG21	1:E:4159:ARG:CD	2.51	0.41
1:G:16:THR:N	1:G:99:ARG:O	2.46	0.41
1:G:471:LEU:O	1:G:475:GLN:HG3	2.20	0.41
1:G:594:GLY:H	1:G:1598:GLN:HG3	1.85	0.41
1:G:660:GLY:O	1:G:662:TRP:HD1	2.04	0.41
1:G:855:PRO:HD3	1:G:994:ASN:HB3	2.03	0.41
1:G:1436:SER:HA	1:G:1516:ILE:HA	2.02	0.41
2:H:23:VAL:HG13	2:H:47:LYS:HG2	2.01	0.41
1:A:46:LEU:HD13	1:A:125:ARG:HH22	1.86	0.41
1:A:471:LEU:O	1:A:475:GLN:HG3	2.21	0.41
1:A:664:PHE:CE1	1:A:779:PRO:HB3	2.55	0.41
1:A:826:ILE:O	1:A:828:GLU:N	2.54	0.41
1:A:1775:HIS:CE1	1:A:1777:PHE:CE2	3.08	0.41
1:A:2142:TYR:CD2	1:A:2197:LEU:HD12	2.56	0.41
1:A:2194:HIS:O	1:A:2198:MET:HG2	2.20	0.41
1:A:4921:PHE:O	1:A:4926:VAL:HG23	2.20	0.41
1:A:4957:LYS:HE3	1:A:4957:LYS:HB2	1.93	0.41
1:C:706:GLY:CA	1:C:711:LEU:HD22	2.42	0.41
1:C:925:SER:O	1:C:929:LEU:HG	2.21	0.41
1:C:2142:TYR:CD2	1:C:2197:LEU:HD12	2.56	0.41
1:C:4235:VAL:HG21	1:C:5019:TRP:HE1	1.81	0.41
1:C:4933:GLN:O	1:C:4937:ILE:HG13	2.19	0.41
1:E:116:MET:HB2	1:E:137:LEU:HD13	2.03	0.41
1:E:660:GLY:O	1:E:662:TRP:HD1	2.04	0.41
1:E:1078:GLU:HG3	1:E:1237:TRP:CZ2	2.55	0.41
1:E:2655:TYR:O	1:E:2659:THR:N	2.54	0.41
1:E:4235:VAL:HG21	1:E:5019:TRP:CD1	2.55	0.41
1:E:4776:GLN:HA	1:E:4779:LYS:HG2	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:350:HIS:NE2	1:G:352:ALA:HB3	2.35	0.41
1:G:733:PRO:HD2	1:G:759:ILE:HD12	2.03	0.41
1:G:1247:PRO:HB3	1:G:1600:LEU:HD13	2.01	0.41
1:G:1290:ARG:HA	1:G:1551:ALA:CB	2.50	0.41
1:G:1676:LEU:HG	1:G:1725:ARG:HE	1.85	0.41
1:G:2191:PHE:HZ	1:G:2239:PHE:HD1	1.69	0.41
1:G:2876:GLU:OE2	1:G:2908:TYR:CE2	2.74	0.41
1:G:3701:LEU:HD11	1:G:3725:TYR:CE1	2.56	0.41
1:G:5013:MET:O	1:G:5017:ARG:N	2.53	0.41
1:A:699:GLY:O	1:A:701:GLY:N	2.54	0.41
1:A:1194:LEU:HD22	1:A:1198:GLN:O	2.20	0.41
1:A:2129:ASP:HB2	1:A:3669:PHE:CE1	2.56	0.41
1:A:3705:PHE:CD1	1:A:3722:TYR:HD1	2.39	0.41
1:A:3839:CYS:SG	1:A:3881:THR:HG21	2.61	0.41
1:A:4239:GLU:OE1	1:A:4675:LYS:HD2	2.21	0.41
2:B:2:VAL:HG23	2:B:76:ILE:HA	2.03	0.41
1:C:375:LYS:NZ	1:C:377:ILE:HG22	2.36	0.41
1:C:733:PRO:HD2	1:C:759:ILE:HD12	2.02	0.41
1:C:830:ARG:CZ	1:C:1616:GLU:OE2	2.69	0.41
1:C:4671:PHE:CE1	1:C:4715:TYR:HA	2.56	0.41
1:C:4807:PHE:HB3	1:E:4857:ASN:ND2	2.36	0.41
1:C:4957:LYS:HB2	1:C:4957:LYS:HE3	1.94	0.41
1:E:590:LEU:HB2	1:E:599:VAL:HG11	2.01	0.41
2:F:40:ARG:C	2:F:43:ASN:H	2.24	0.41
2:F:87:HIS:CE1	2:F:90:ILE:HD13	2.55	0.41
1:G:70:GLU:HB2	1:G:108:LEU:HB3	2.02	0.41
1:G:1079:LYS:NZ	1:G:1107:PRO:O	2.53	0.41
1:G:1737:PRO:HG2	1:G:1742:THR:HG21	2.03	0.41
1:G:2165:LEU:HD21	1:G:2177:LEU:CB	2.51	0.41
1:G:3780:LEU:HD22	1:G:3819:TYR:HD2	1.86	0.41
1:G:3962:PHE:CE1	1:G:4023:MET:HG3	2.55	0.41
1:G:4581:LYS:O	1:G:4630:TYR:N	2.51	0.41
2:H:87:HIS:CE1	2:H:90:ILE:HD13	2.56	0.41
1:A:685:GLY:O	1:A:780:VAL:HB	2.21	0.41
1:A:748:LEU:HD21	1:A:777:PHE:HD2	1.86	0.41
1:A:1106:ARG:HA	1:A:1107:PRO:HD3	1.94	0.41
1:A:1514:LEU:C	1:A:1515:VAL:CG2	2.89	0.41
1:A:1648:MET:HE3	1:A:1656:ARG:HG3	2.03	0.41
1:A:1777:PHE:CD1	1:A:1801:ALA:HA	2.56	0.41
1:A:2123:LEU:HD23	1:A:2126:ARG:HD3	2.03	0.41
1:A:2159:LEU:HA	1:A:2162:ILE:HG22	2.03	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:2204:HIS:O	1:A:2208:MET:N	2.42	0.41
1:A:3801:GLY:O	1:A:3805:LEU:HG	2.21	0.41
1:A:4851:TYR:CE1	1:A:4920:PHE:HB2	2.56	0.41
1:A:4886:HIS:O	1:A:4890:GLY:HA3	2.21	0.41
1:A:4889:VAL:HG22	1:A:4892:ARG:HH21	1.86	0.41
2:B:14:THR:HB	2:B:68:VAL:HG23	2.03	0.41
1:C:280:LEU:HG	1:C:314:PHE:O	2.21	0.41
1:C:345:LEU:HD13	1:C:387:ALA:HB1	2.02	0.41
1:C:554:LEU:HG	1:C:593:HIS:HE1	1.86	0.41
1:C:646:PRO:HB2	1:C:793:LEU:HD11	2.03	0.41
1:C:748:LEU:HD21	1:C:777:PHE:HD2	1.86	0.41
1:C:984:LEU:O	1:C:988:LEU:HG	2.21	0.41
1:C:1211:LEU:CD2	1:C:1212:ARG:H	2.31	0.41
1:C:1290:ARG:HA	1:C:1551:ALA:CB	2.51	0.41
1:C:1297:PHE:CZ	1:C:1519:LEU:HD21	2.56	0.41
1:C:1432:THR:N	1:C:1518:CYS:HG	2.19	0.41
1:C:1775:HIS:CE1	1:C:1777:PHE:CE2	3.09	0.41
1:C:2104:ARG:O	1:C:2108:GLU:HG2	2.19	0.41
1:C:2465:ASP:O	1:C:2467:VAL:N	2.53	0.41
1:C:2495:VAL:N	1:C:2496:PRO:HD2	2.36	0.41
1:C:2755:ILE:HG23	1:C:2809:ILE:HG21	2.03	0.41
1:C:2817:ILE:C	1:C:2820:GLU:H	2.24	0.41
1:C:3694:LYS:HA	1:C:3695:PRO:HD3	1.80	0.41
1:C:4049:VAL:HG21	1:C:4159:ARG:CD	2.51	0.41
1:C:4664:LEU:HG	1:C:4665:LYS:HG3	2.03	0.41
2:D:4:VAL:HG22	2:D:74:LEU:HG	2.02	0.41
2:D:14:THR:HB	2:D:68:VAL:HG23	2.02	0.41
2:D:40:ARG:C	2:D:43:ASN:H	2.24	0.41
2:D:87:HIS:CE1	2:D:90:ILE:HD13	2.55	0.41
1:E:116:MET:HB3	1:E:138:GLN:O	2.20	0.41
1:E:212:GLY:O	1:E:341:TYR:N	2.45	0.41
1:E:521:LEU:O	1:E:525:LEU:N	2.46	0.41
1:E:733:PRO:HD2	1:E:759:ILE:HD12	2.02	0.41
1:E:748:LEU:HD21	1:E:777:PHE:HD2	1.86	0.41
1:E:830:ARG:CZ	1:E:1616:GLU:OE2	2.68	0.41
1:E:1194:LEU:HD22	1:E:1198:GLN:O	2.21	0.41
1:E:2209:GLU:O	1:E:2212:VAL:HB	2.21	0.41
1:E:2293:GLN:O	1:E:2296:GLU:HB2	2.21	0.41
1:E:3710:LEU:HD11	1:E:3781:GLN:NE2	2.35	0.41
1:E:3825:GLU:O	1:E:3827:GLY:N	2.48	0.41
1:E:4239:GLU:OE1	1:E:4675:LYS:HD2	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:4715:TYR:O	1:E:4716:TRP:CG	2.73	0.41
1:E:4724:VAL:O	1:E:4727:LYS:O	2.39	0.41
1:E:4891:VAL:HG12	1:G:4921:PHE:CE2	2.56	0.41
1:G:46:LEU:HD13	1:G:125:ARG:HH22	1.86	0.41
1:G:826:ILE:O	1:G:828:GLU:N	2.54	0.41
1:G:1297:PHE:CZ	1:G:1519:LEU:HD21	2.56	0.41
1:G:1695:LEU:O	1:G:1699:GLU:HG3	2.21	0.41
1:G:1775:HIS:CE1	1:G:1777:PHE:CE2	3.09	0.41
1:G:2506:LEU:HD21	1:G:2517:PHE:HE2	1.85	0.41
1:G:2735:PHE:HD2	1:G:2891:LYS:HD2	1.86	0.41
1:G:2755:ILE:HG23	1:G:2809:ILE:HG21	2.02	0.41
1:G:4776:GLN:HA	1:G:4779:LYS:HG2	2.02	0.41
1:G:4931:ILE:HG21	1:G:4931:ILE:HD13	1.75	0.41
1:A:595:ARG:NH2	1:A:1641:ILE:HD11	2.27	0.41
1:A:1660:GLN:HE22	1:A:1704:PRO:HB2	1.86	0.41
1:A:2495:VAL:N	1:A:2496:PRO:HD2	2.35	0.41
1:A:3766:GLN:O	1:A:3769:ARG:HB3	2.21	0.41
1:A:4201:ASN:HB3	1:A:4990:PHE:CE1	2.55	0.41
1:A:4242:ILE:HG12	1:A:4993:MET:HG2	2.03	0.41
1:A:4724:VAL:O	1:A:4727:LYS:O	2.39	0.41
1:A:4978:HIS:HA	1:A:4982:GLU:HB2	2.03	0.41
1:C:46:LEU:HD13	1:C:125:ARG:HH22	1.86	0.41
1:C:107:ILE:HD12	1:C:109:LEU:HD21	2.03	0.41
1:C:400:ALA:HB2	1:C:451:TYR:OH	2.20	0.41
1:C:882:TRP:CZ3	1:C:907:LEU:HD23	2.56	0.41
1:C:1275:ARG:HG3	1:C:1277:TRP:HE1	1.86	0.41
1:C:1290:ARG:HG2	1:C:1551:ALA:HB2	2.02	0.41
1:C:2876:GLU:OE2	1:C:2908:TYR:HE2	2.04	0.41
1:C:3766:GLN:O	1:C:3769:ARG:HB3	2.21	0.41
1:C:4219:PHE:CD1	1:C:4950:VAL:HG21	2.57	0.41
1:C:4242:ILE:HG12	1:C:4993:MET:HG2	2.03	0.41
1:C:4886:HIS:O	1:C:4890:GLY:HA3	2.22	0.41
1:E:347:PHE:CE1	1:E:387:ALA:HA	2.52	0.41
1:E:1581:LEU:HD13	1:E:1594:ARG:C	2.40	0.41
1:E:1648:MET:HE3	1:E:1656:ARG:HG3	2.03	0.41
1:E:2165:LEU:HD21	1:E:2177:LEU:CB	2.51	0.41
1:E:2254:LEU:O	1:E:2258:LEU:HG	2.21	0.41
1:G:882:TRP:CZ3	1:G:907:LEU:HD23	2.56	0.41
1:G:1125:ASN:OD1	1:G:1132:TRP:HZ3	2.03	0.41
1:G:1126:GLY:HA3	1:G:1143:TRP:CE2	2.56	0.41
1:G:1194:LEU:HD22	1:G:1198:GLN:O	2.21	0.41

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1660:GLN:HE22	1:G:1704:PRO:HB2	1.86	0.41
1:G:2142:TYR:CD2	1:G:2197:LEU:HD12	2.56	0.41
1:G:2194:HIS:O	1:G:2198:MET:HG2	2.20	0.41
1:G:2293:GLN:O	1:G:2296:GLU:HB2	2.21	0.41
1:G:4797:VAL:O	1:G:4800:LEU:HB2	2.20	0.41
1:G:4925:ILE:HG23	1:G:4929:LEU:HD12	2.02	0.41
1:A:16:THR:N	1:A:99:ARG:O	2.46	0.40
1:A:151:HIS:HA	1:A:152:PRO:HD2	1.95	0.40
1:A:284:HIS:CD2	1:A:287:THR:HG23	2.56	0.40
1:A:984:LEU:O	1:A:988:LEU:HG	2.21	0.40
1:A:1130:GLN:HB2	1:A:1137:GLU:O	2.21	0.40
1:A:1297:PHE:CZ	1:A:1519:LEU:HD21	2.56	0.40
1:A:3884:LEU:O	1:A:3887:PHE:HB3	2.21	0.40
1:A:4219:PHE:CD1	1:A:4950:VAL:HG21	2.56	0.40
2:B:4:VAL:HG22	2:B:74:LEU:HG	2.02	0.40
2:B:40:ARG:C	2:B:43:ASN:H	2.24	0.40
1:C:720:HIS:HA	1:C:728:ARG:O	2.21	0.40
1:C:1436:SER:N	1:C:1516:ILE:HA	2.33	0.40
1:C:1660:GLN:HE22	1:C:1704:PRO:HB2	1.86	0.40
1:C:2209:GLU:O	1:C:2212:VAL:HB	2.21	0.40
1:C:2254:LEU:O	1:C:2258:LEU:HG	2.22	0.40
1:C:3710:LEU:HD11	1:C:3781:GLN:NE2	2.36	0.40
1:C:3839:CYS:SG	1:C:3881:THR:HG21	2.61	0.40
1:C:4724:VAL:O	1:C:4727:LYS:O	2.39	0.40
1:E:453:GLU:HA	1:E:454:PRO:HD3	1.86	0.40
1:E:1126:GLY:HA3	1:E:1143:TRP:CE2	2.56	0.40
1:E:2191:PHE:HZ	1:E:2239:PHE:HD1	1.69	0.40
1:E:2205:GLU:OE1	1:E:2253:HIS:NE2	2.55	0.40
1:E:2305:CYS:O	1:E:2325:PRO:HG2	2.20	0.40
1:E:2876:GLU:OE2	1:E:2908:TYR:HE2	2.04	0.40
1:E:4201:ASN:HB3	1:E:4990:PHE:CE1	2.55	0.40
1:E:4219:PHE:CD1	1:E:4950:VAL:HG21	2.56	0.40
1:E:4581:LYS:O	1:E:4630:TYR:N	2.45	0.40
1:E:4888:TYR:CD1	1:G:4914:VAL:HG23	2.56	0.40
2:F:4:VAL:HG22	2:F:74:LEU:HG	2.02	0.40
1:G:203:ASN:HA	1:G:204:PRO:HD2	1.95	0.40
1:G:595:ARG:HH12	1:G:1641:ILE:HD11	1.86	0.40
1:G:925:SER:O	1:G:929:LEU:HG	2.21	0.40
1:G:2495:VAL:H	1:G:2496:PRO:HD2	1.85	0.40
1:G:2799:GLU:HA	1:G:2802:LYS:HD2	2.02	0.40
1:G:4715:TYR:HD2	1:G:4717:ASP:HB3	1.86	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:A:12:GLN:O	1:A:165:VAL:HG23	2.21	0.40
1:A:646:PRO:HB2	1:A:793:LEU:HD11	2.03	0.40
1:A:1126:GLY:HA3	1:A:1143:TRP:CE2	2.56	0.40
1:A:1290:ARG:HG2	1:A:1551:ALA:HB2	2.02	0.40
1:A:1293:LEU:HD23	1:A:1584:ARG:HG2	2.03	0.40
1:A:4174:PHE:O	1:A:4178:LEU:N	2.50	0.40
2:B:46:PHE:CE2	2:B:48:PHE:CD1	3.09	0.40
1:C:2191:PHE:HZ	1:C:2239:PHE:HD1	1.69	0.40
1:C:3884:LEU:O	1:C:3887:PHE:HB3	2.21	0.40
1:C:4053:SER:O	1:C:4057:MET:HG2	2.21	0.40
1:E:16:THR:N	1:E:99:ARG:O	2.46	0.40
1:E:232:THR:OG1	1:E:233:ILE:N	2.55	0.40
1:E:646:PRO:HB2	1:E:793:LEU:HD11	2.03	0.40
1:E:1106:ARG:HA	1:E:1107:PRO:HD3	1.94	0.40
1:E:1676:LEU:HG	1:E:1725:ARG:HE	1.85	0.40
1:E:1777:PHE:CD1	1:E:1801:ALA:HA	2.56	0.40
1:E:2194:HIS:O	1:E:2198:MET:HG2	2.20	0.40
1:E:2341:VAL:HG22	1:E:2342:ASN:N	2.34	0.40
1:E:4115:SER:HA	1:E:4128:PHE:CD1	2.57	0.40
1:E:4706:LEU:HD12	1:E:4707:ASN:N	2.36	0.40
1:E:4851:TYR:CE1	1:E:4920:PHE:HB2	2.57	0.40
1:E:4886:HIS:O	1:E:4890:GLY:HA3	2.21	0.40
2:F:2:VAL:HG23	2:F:76:ILE:HA	2.03	0.40
1:G:1078:GLU:HG3	1:G:1237:TRP:CZ2	2.55	0.40
1:G:1293:LEU:HD23	1:G:1584:ARG:HG2	2.04	0.40
1:G:1632:ASP:HA	1:G:1633:PRO:HD2	1.94	0.40
1:G:2104:ARG:HD2	1:G:2107:GLN:OE1	2.21	0.40
1:G:3562:LYS:O	1:G:3566:SER:N	2.53	0.40
1:A:600:LEU:HD23	1:A:1666:THR:HA	2.03	0.40
1:A:637:LEU:HD23	1:A:1693:GLN:HA	2.02	0.40
1:A:882:TRP:CZ3	1:A:907:LEU:HD23	2.57	0.40
1:A:3878:ASP:OD2	1:A:3953:LYS:HE3	2.22	0.40
1:A:4958:CYS:SG	1:A:4959:PHE:N	2.94	0.40
1:C:74:SER:O	1:C:78:LEU:N	2.41	0.40
1:C:233:ILE:HD12	1:C:242:ARG:HG2	2.02	0.40
1:C:752:VAL:HA	1:C:753:PRO:HD3	1.80	0.40
1:C:1961:PHE:CZ	1:C:2063:LEU:HD23	2.55	0.40
1:C:2129:ASP:HB2	1:C:3669:PHE:CE1	2.56	0.40
1:C:2159:LEU:HA	1:C:2162:ILE:HG22	2.03	0.40
1:C:2293:GLN:O	1:C:2296:GLU:HB2	2.21	0.40
1:C:2754:PHE:CZ	1:C:2930:LEU:HD23	2.57	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:C:3705:PHE:CD1	1:C:3722:TYR:HD1	2.39	0.40
1:C:4115:SER:HA	1:C:4128:PHE:CD1	2.57	0.40
1:C:4229:GLU:O	1:C:4232:GLU:HB3	2.21	0.40
1:C:4774:LYS:HA	1:C:4777:ILE:HG22	2.03	0.40
1:C:4851:TYR:CE1	1:C:4920:PHE:HB2	2.56	0.40
1:E:46:LEU:HD13	1:E:125:ARG:HH22	1.86	0.40
1:E:882:TRP:CZ3	1:E:907:LEU:HD23	2.56	0.40
1:E:1519:LEU:HD13	1:E:1527:MET:HG2	2.02	0.40
1:E:2126:ARG:CZ	1:E:2133:GLU:OE2	2.69	0.40
1:E:2773:ASN:HD22	1:E:2775:TRP:HE1	1.69	0.40
1:E:4036:VAL:HG23	1:E:5032:TYR:CD2	2.57	0.40
1:E:4053:SER:O	1:E:4057:MET:HG2	2.21	0.40
1:E:4089:SER:HA	1:E:4122:MET:HA	2.04	0.40
1:E:4242:ILE:HG12	1:E:4993:MET:HG2	2.04	0.40
1:E:4931:ILE:HD13	1:E:4931:ILE:HG21	1.74	0.40
1:G:554:LEU:HG	1:G:593:HIS:HE1	1.86	0.40
1:G:2793:PRO:O	1:G:2796:THR:OG1	2.19	0.40
1:G:3995:VAL:O	1:G:3999:MET:HB3	2.22	0.40
1:G:4794:TRP:O	1:G:4797:VAL:HG12	2.21	0.40
1:G:4833:ASN:O	1:G:4837:LEU:N	2.54	0.40
2:H:16:PRO:HD2	2:H:64:ALA:HA	2.04	0.40
1:A:107:ILE:HD12	1:A:109:LEU:HD21	2.03	0.40
1:A:308:HIS:CE1	1:A:311:ALA:HB2	2.56	0.40
1:A:375:LYS:NZ	1:A:377:ILE:HG22	2.36	0.40
1:A:1085:SER:O	1:A:1088:TRP:NE1	2.40	0.40
1:A:1280:GLN:O	1:A:1559:GLN:NE2	2.54	0.40
1:A:3710:LEU:HD23	1:A:3710:LEU:HA	1.90	0.40
1:A:4937:ILE:HG12	1:C:4934:GLY:CA	2.49	0.40
2:B:87:HIS:CE1	2:B:90:ILE:HD13	2.56	0.40
1:C:2121:PHE:CG	1:C:3701:LEU:HD12	2.56	0.40
1:C:2205:GLU:OE1	1:C:2253:HIS:NE2	2.54	0.40
1:C:3752:SER:O	1:C:3756:LYS:HB2	2.21	0.40
1:C:4779:LYS:O	1:C:4783:ILE:HG13	2.21	0.40
1:E:308:HIS:CE1	1:E:311:ALA:HB2	2.57	0.40
1:E:345:LEU:HD13	1:E:387:ALA:HB1	2.02	0.40
1:E:925:SER:O	1:E:929:LEU:HG	2.21	0.40
1:E:1745:ILE:HD12	1:E:1960:ALA:HB2	2.02	0.40
1:E:1829:PRO:HD2	1:E:1832:GLY:HA2	2.03	0.40
1:E:1841:VAL:O	1:E:1845:VAL:HG23	2.21	0.40
1:E:2129:ASP:HB2	1:E:3669:PHE:CE1	2.56	0.40
1:E:2142:TYR:CD2	1:E:2197:LEU:HD12	2.56	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:E:3884:LEU:O	1:E:3887:PHE:HB3	2.21	0.40
1:E:4156:HIS:O	1:E:4156:HIS:ND1	2.54	0.40
1:E:4229:GLU:O	1:E:4232:GLU:HB3	2.21	0.40
1:E:4779:LYS:O	1:E:4783:ILE:HG13	2.21	0.40
1:G:649:PHE:HE1	1:G:689:THR:HG22	1.82	0.40
1:G:1436:SER:N	1:G:1516:ILE:HA	2.31	0.40
1:G:1519:LEU:HD13	1:G:1527:MET:HG2	2.02	0.40
1:G:1856:ASP:O	1:G:1860:LYS:HG3	2.22	0.40
1:G:2495:VAL:N	1:G:2496:PRO:HD2	2.36	0.40
1:G:4154:VAL:O	1:G:4154:VAL:HG13	2.22	0.40
1:G:4662:ASN:HA	1:G:4666:VAL:HG21	2.03	0.40
1:G:4809:PHE:O	1:G:4812:HIS:ND1	2.38	0.40
1:A:855:PRO:HD3	1:A:994:ASN:HB3	2.03	0.40
1:A:1126:GLY:HA2	1:A:1143:TRP:NE1	2.36	0.40
1:A:1695:LEU:O	1:A:1699:GLU:HG3	2.21	0.40
1:A:2293:GLN:O	1:A:2296:GLU:HB2	2.21	0.40
1:A:2451:LEU:O	1:A:2454:ARG:HB3	2.22	0.40
1:A:2813:LEU:HD22	1:A:2823:ILE:HD13	2.03	0.40
1:A:4671:PHE:CE1	1:A:4715:TYR:HA	2.57	0.40
1:A:4879:MET:CG	1:G:4578:LEU:HA	2.50	0.40
1:A:4940:PHE:HD2	1:C:4938:ASP:OD2	2.02	0.40
1:C:135:VAL:HG21	1:C:191:VAL:HG12	2.03	0.40
1:C:4776:GLN:HA	1:C:4779:LYS:HG2	2.03	0.40
2:D:46:PHE:CE2	2:D:48:PHE:CD1	3.09	0.40
1:E:107:ILE:HD12	1:E:109:LEU:HD21	2.03	0.40
1:E:916:PRO:O	1:E:919:ASN:HB2	2.21	0.40
1:E:1514:LEU:HD12	1:E:1533:GLY:HA3	2.03	0.40
1:E:1585:LYS:CB	1:E:1587:PRO:HD2	2.51	0.40
1:E:2208:MET:O	1:E:2212:VAL:HG23	2.22	0.40
1:E:2208:MET:O	1:E:2211:MET:HB3	2.22	0.40
1:E:2813:LEU:HD22	1:E:2823:ILE:HD13	2.03	0.40
1:E:3705:PHE:CD1	1:E:3722:TYR:HD1	2.39	0.40
1:E:3878:ASP:OD2	1:E:3953:LYS:HE3	2.22	0.40
1:E:4222:VAL:HG11	1:E:4950:VAL:HA	2.04	0.40
1:E:4667:PRO:O	1:E:4670:ILE:HG22	2.22	0.40
1:G:135:VAL:HG21	1:G:191:VAL:HG12	2.03	0.40
1:G:404:ILE:HG12	1:G:478:PHE:CD1	2.57	0.40
1:G:521:LEU:O	1:G:525:LEU:N	2.46	0.40
1:G:685:GLY:O	1:G:780:VAL:HB	2.21	0.40
1:G:1024:TYR:CE1	1:G:1032:LYS:HG3	2.57	0.40
1:G:1126:GLY:HA2	1:G:1143:TRP:NE1	2.37	0.40

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Atom-1	Atom-2	Interatomic distance (Å)	Clash overlap (Å)
1:G:1514:LEU:C	1:G:1515:VAL:CG2	2.89	0.40
1:G:3462:ASN:O	1:G:3466:ASN:N	2.50	0.40
1:G:3884:LEU:O	1:G:3887:PHE:HB3	2.22	0.40
1:G:4715:TYR:CD2	1:G:4717:ASP:HB3	2.57	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	3496/5037 (69%)	3173 (91%)	220 (6%)	103 (3%)	4	32
1	C	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	4	32
1	E	3496/5037 (69%)	3169 (91%)	223 (6%)	104 (3%)	4	32
1	G	3496/5037 (69%)	3169 (91%)	226 (6%)	101 (3%)	4	32
2	B	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	D	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	F	105/108 (97%)	92 (88%)	12 (11%)	1 (1%)	15	54
2	H	105/108 (97%)	89 (85%)	15 (14%)	1 (1%)	15	54
All	All	14404/20580 (70%)	13045 (91%)	943 (6%)	416 (3%)	7	32

All (416) Ramachandran outliers are listed below:

Mol	Chain	Res	Type
1	A	689	THR
1	A	720	HIS
1	A	806	PRO
1	A	916	PRO
1	A	1253	PRO
1	A	1589	PRO

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Mol	Chain	Res	Type
1	A	1768	THR
1	A	1853	ILE
1	A	2203	MET
1	A	2466	LEU
1	A	4084	PRO
1	A	4958	CYS
1	C	689	THR
1	C	720	HIS
1	C	806	PRO
1	C	916	PRO
1	C	1253	PRO
1	C	1589	PRO
1	C	1768	THR
1	C	1853	ILE
1	C	2203	MET
1	C	2466	LEU
1	C	4084	PRO
1	C	4958	CYS
1	E	689	THR
1	E	720	HIS
1	E	806	PRO
1	E	916	PRO
1	E	1253	PRO
1	E	1589	PRO
1	E	1768	THR
1	E	1853	ILE
1	E	2203	MET
1	E	2466	LEU
1	E	4084	PRO
1	E	4958	CYS
1	G	689	THR
1	G	720	HIS
1	G	806	PRO
1	G	916	PRO
1	G	1253	PRO
1	G	1589	PRO
1	G	1768	THR
1	G	1853	ILE
1	G	2203	MET
1	G	2466	LEU
1	G	3679	LYS
1	G	3843	ASP

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Mol	Chain	Res	Type
1	G	4084	PRO
1	G	4115	SER
1	G	4958	CYS
1	G	4985	LEU
1	A	207	SER
1	A	251	ALA
1	A	508	GLY
1	A	581	ASN
1	A	817	PRO
1	A	882	TRP
1	A	1542	VAL
1	A	1544	PRO
1	A	1854	PHE
1	A	2110	TYR
1	A	2341	VAL
1	A	2560	PRO
1	A	3679	LYS
1	A	3714	SER
1	A	3843	ASP
1	A	3894	GLY
1	A	3906	GLN
1	A	4031	LEU
1	A	4076	ALA
1	A	4085	ARG
1	A	4115	SER
1	A	4207	MET
1	A	4208	PRO
1	A	4733	GLY
1	A	4875	LYS
1	A	4893	ALA
1	A	4894	GLY
1	A	5027	CYS
2	B	88	PRO
1	C	251	ALA
1	C	508	GLY
1	C	581	ASN
1	C	817	PRO
1	C	882	TRP
1	C	1542	VAL
1	C	1544	PRO
1	C	1854	PHE
1	C	2110	TYR

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Mol	Chain	Res	Type
1	C	2341	VAL
1	C	2560	PRO
1	C	3679	LYS
1	C	3714	SER
1	C	3843	ASP
1	C	3894	GLY
1	C	3906	GLN
1	C	4031	LEU
1	C	4076	ALA
1	C	4085	ARG
1	C	4115	SER
1	C	4207	MET
1	C	4208	PRO
1	C	4733	GLY
1	C	4875	LYS
1	C	4894	GLY
1	C	5027	CYS
2	D	88	PRO
1	E	251	ALA
1	E	508	GLY
1	E	581	ASN
1	E	817	PRO
1	E	882	TRP
1	E	1542	VAL
1	E	1544	PRO
1	E	1854	PHE
1	E	2110	TYR
1	E	2341	VAL
1	E	2560	PRO
1	E	3679	LYS
1	E	3714	SER
1	E	3843	ASP
1	E	3894	GLY
1	E	3906	GLN
1	E	4031	LEU
1	E	4076	ALA
1	E	4085	ARG
1	E	4115	SER
1	E	4207	MET
1	E	4208	PRO
1	E	4733	GLY
1	E	4875	LYS

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Mol	Chain	Res	Type
1	E	4893	ALA
1	E	4894	GLY
1	E	5027	CYS
2	F	88	PRO
1	G	207	SER
1	G	251	ALA
1	G	508	GLY
1	G	581	ASN
1	G	817	PRO
1	G	882	TRP
1	G	1542	VAL
1	G	1544	PRO
1	G	1854	PHE
1	G	2110	TYR
1	G	2341	VAL
1	G	2560	PRO
1	G	3714	SER
1	G	3806	ASN
1	G	3894	GLY
1	G	3906	GLN
1	G	4031	LEU
1	G	4076	ALA
1	G	4085	ARG
1	G	4207	MET
1	G	4208	PRO
1	G	4733	GLY
1	G	4875	LYS
1	G	4890	GLY
1	G	4894	GLY
1	G	5027	CYS
2	H	88	PRO
1	A	401	ALA
1	A	609	CYS
1	A	676	THR
1	A	753	PRO
1	A	767	VAL
1	A	827	LYS
1	A	828	GLU
1	A	908	VAL
1	A	970	LEU
1	A	1156	THR
1	A	1294	PRO

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Mol	Chain	Res	Type
1	A	1436	SER
1	A	1489	CYS
1	A	1560	ASN
1	A	1606	SER
1	A	1611	HIS
1	A	1676	LEU
1	A	1690	ASP
1	A	1825	HIS
1	A	2360	LYS
1	A	2826	ALA
1	A	3721	LEU
1	A	3806	ASN
1	A	3809	ASN
1	A	4036	VAL
1	A	4120	ASN
1	A	4550	LYS
1	A	4728	HIS
1	A	4959	PHE
1	A	4985	LEU
1	C	44	ASN
1	C	207	SER
1	C	401	ALA
1	C	609	CYS
1	C	676	THR
1	C	753	PRO
1	C	767	VAL
1	C	827	LYS
1	C	828	GLU
1	C	908	VAL
1	C	970	LEU
1	C	1156	THR
1	C	1294	PRO
1	C	1436	SER
1	C	1489	CYS
1	C	1560	ASN
1	C	1606	SER
1	C	1611	HIS
1	C	1676	LEU
1	C	1690	ASP
1	C	1825	HIS
1	C	2360	LYS
1	C	2826	ALA

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Mol	Chain	Res	Type
1	C	3721	LEU
1	C	3806	ASN
1	C	3809	ASN
1	C	4036	VAL
1	C	4120	ASN
1	C	4550	LYS
1	C	4728	HIS
1	C	4893	ALA
1	C	4959	PHE
1	C	4985	LEU
1	E	44	ASN
1	E	207	SER
1	E	401	ALA
1	E	609	CYS
1	E	676	THR
1	E	753	PRO
1	E	767	VAL
1	E	827	LYS
1	E	828	GLU
1	E	908	VAL
1	E	970	LEU
1	E	1156	THR
1	E	1294	PRO
1	E	1436	SER
1	E	1458	HIS
1	E	1489	CYS
1	E	1560	ASN
1	E	1606	SER
1	E	1611	HIS
1	E	1676	LEU
1	E	1690	ASP
1	E	1825	HIS
1	E	2360	LYS
1	E	2826	ALA
1	E	3721	LEU
1	E	3806	ASN
1	E	3809	ASN
1	E	4036	VAL
1	E	4120	ASN
1	E	4550	LYS
1	E	4728	HIS
1	E	4959	PHE

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Mol	Chain	Res	Type
1	E	4985	LEU
1	G	44	ASN
1	G	401	ALA
1	G	609	CYS
1	G	676	THR
1	G	753	PRO
1	G	767	VAL
1	G	827	LYS
1	G	828	GLU
1	G	908	VAL
1	G	970	LEU
1	G	1156	THR
1	G	1294	PRO
1	G	1436	SER
1	G	1489	CYS
1	G	1560	ASN
1	G	1606	SER
1	G	1611	HIS
1	G	1676	LEU
1	G	1690	ASP
1	G	1825	HIS
1	G	2360	LYS
1	G	3721	LEU
1	G	3809	ASN
1	G	4120	ASN
1	G	4550	LYS
1	G	4959	PHE
1	A	24	CYS
1	A	44	ASN
1	A	56	GLN
1	A	342	GLY
1	A	700	GLU
1	A	826	ILE
1	A	915	GLU
1	A	1206	GLN
1	A	1251	GLU
1	A	1482	ASN
1	A	1487	LEU
1	A	1614	GLN
1	A	2107	GLN
1	A	2113	SER
1	A	4052	SER

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Mol	Chain	Res	Type
1	C	24	CYS
1	C	56	GLN
1	C	342	GLY
1	C	700	GLU
1	C	826	ILE
1	C	915	GLU
1	C	1206	GLN
1	C	1251	GLU
1	C	1482	ASN
1	C	1487	LEU
1	C	1614	GLN
1	C	2107	GLN
1	C	2113	SER
1	C	4052	SER
1	E	24	CYS
1	E	56	GLN
1	E	342	GLY
1	E	700	GLU
1	E	826	ILE
1	E	915	GLU
1	E	1206	GLN
1	E	1251	GLU
1	E	1482	ASN
1	E	1487	LEU
1	E	1614	GLN
1	E	2107	GLN
1	E	2113	SER
1	E	3941	ASP
1	E	4052	SER
1	G	24	CYS
1	G	56	GLN
1	G	342	GLY
1	G	700	GLU
1	G	826	ILE
1	G	915	GLU
1	G	1206	GLN
1	G	1251	GLU
1	G	1482	ASN
1	G	1487	LEU
1	G	1614	GLN
1	G	2107	GLN
1	G	2113	SER

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Mol	Chain	Res	Type
1	G	2826	ALA
1	G	3792	ALA
1	G	3941	ASP
1	G	4893	ALA
1	A	360	ALA
1	A	611	GLY
1	A	1830	VAL
1	A	2377	LEU
1	A	2495	VAL
1	A	3905	THR
1	A	3941	ASP
1	A	4876	CYS
1	C	360	ALA
1	C	611	GLY
1	C	1218	GLY
1	C	1830	VAL
1	C	2377	LEU
1	C	2495	VAL
1	C	2926	LEU
1	C	3905	THR
1	C	3941	ASP
1	C	4876	CYS
1	E	360	ALA
1	E	611	GLY
1	E	1218	GLY
1	E	1830	VAL
1	E	2377	LEU
1	E	3905	THR
1	E	4876	CYS
1	G	360	ALA
1	G	611	GLY
1	G	1218	GLY
1	G	1830	VAL
1	G	2377	LEU
1	G	2495	VAL
1	G	3905	THR
1	A	691	GLY
1	A	1218	GLY
1	A	4819	GLY
1	A	4890	GLY
1	C	691	GLY
1	C	4819	GLY

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Mol	Chain	Res	Type
1	E	691	GLY
1	E	2495	VAL
1	E	4819	GLY
1	G	691	GLY
1	A	865	PRO
1	A	1762	LEU
1	C	865	PRO
1	C	896	VAL
1	C	1762	LEU
1	C	4890	GLY
1	E	865	PRO
1	E	1762	LEU
1	E	4890	GLY
1	G	865	PRO
1	G	1762	LEU
1	A	896	VAL
1	A	1141	ARG
1	A	2343	GLY
1	C	1141	ARG
1	C	2343	GLY
1	E	896	VAL
1	E	1141	ARG
1	E	2343	GLY
1	G	896	VAL
1	G	1141	ARG
1	G	2343	GLY
1	G	3826	VAL
1	C	1053	ILE
1	E	1053	ILE
1	G	1053	ILE
1	A	1053	ILE
1	G	4036	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	2500/4276 (58%)	2486 (99%)	14 (1%)	86 92
1	C	2501/4276 (58%)	2487 (99%)	14 (1%)	86 92
1	E	2502/4276 (58%)	2486 (99%)	16 (1%)	86 92
1	G	2501/4276 (58%)	2482 (99%)	19 (1%)	81 89
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	10360/17464 (59%)	10297 (99%)	63 (1%)	86 92

All (63) residues with a non-rotameric sidechain are listed below:

Mol	Chain	Res	Type
1	A	806	PRO
1	A	852	VAL
1	A	862	VAL
1	A	865	PRO
1	A	885	THR
1	A	896	VAL
1	A	914	PRO
1	A	916	PRO
1	A	979	PRO
1	A	1055	PRO
1	A	1513	ASP
1	A	1829	PRO
1	A	1934	SER
1	A	4850	LEU
1	C	806	PRO
1	C	859	VAL
1	C	862	VAL
1	C	865	PRO
1	C	885	THR
1	C	914	PRO
1	C	916	PRO
1	C	979	PRO
1	C	1001	VAL
1	C	1055	PRO
1	C	1514	LEU
1	C	1829	PRO
1	C	1934	SER

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Mol	Chain	Res	Type
1	C	4850	LEU
1	E	806	PRO
1	E	852	VAL
1	E	865	PRO
1	E	885	THR
1	E	896	VAL
1	E	914	PRO
1	E	916	PRO
1	E	979	PRO
1	E	1001	VAL
1	E	1055	PRO
1	E	1513	ASP
1	E	1514	LEU
1	E	1829	PRO
1	E	1934	SER
1	E	4072	VAL
1	E	4850	LEU
1	G	806	PRO
1	G	852	VAL
1	G	859	VAL
1	G	862	VAL
1	G	865	PRO
1	G	885	THR
1	G	896	VAL
1	G	914	PRO
1	G	916	PRO
1	G	979	PRO
1	G	1055	PRO
1	G	1513	ASP
1	G	1514	LEU
1	G	1829	PRO
1	G	1934	SER
1	G	3926	LEU
1	G	4233	LEU
1	G	4796	MET
1	G	4850	LEU

Sometimes sidechains can be flipped to improve hydrogen bonding and reduce clashes. All (152) such sidechains are listed below:

Mol	Chain	Res	Type
1	A	57	ASN
1	A	111	HIS

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Mol	Chain	Res	Type
1	A	113	HIS
1	A	203	ASN
1	A	349	GLN
1	A	379	HIS
1	A	395	GLN
1	A	465	GLN
1	A	495	ASN
1	A	593	HIS
1	A	765	GLN
1	A	1127	HIS
1	A	1203	ASN
1	A	1252	HIS
1	A	1274	HIS
1	A	1460	HIS
1	A	1586	ASN
1	A	1610	ASN
1	A	1629	GLN
1	A	1631	GLN
1	A	1645	ASN
1	A	1663	HIS
1	A	1691	GLN
1	A	1693	GLN
1	A	1775	HIS
1	A	1949	GLN
1	A	1952	GLN
1	A	2127	GLN
1	A	2247	GLN
1	A	2420	HIS
1	A	2856	ASN
1	A	3699	HIS
1	A	3700	GLN
1	A	3771	HIS
1	A	3813	GLN
1	A	4806	ASN
1	A	5031	GLN
2	B	87	HIS
1	C	57	ASN
1	C	111	HIS
1	C	113	HIS
1	C	203	ASN
1	C	349	GLN
1	C	379	HIS

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Mol	Chain	Res	Type
1	C	395	GLN
1	C	465	GLN
1	C	495	ASN
1	C	593	HIS
1	C	765	GLN
1	C	1127	HIS
1	C	1203	ASN
1	C	1252	HIS
1	C	1274	HIS
1	C	1586	ASN
1	C	1629	GLN
1	C	1631	GLN
1	C	1645	ASN
1	C	1663	HIS
1	C	1691	GLN
1	C	1693	GLN
1	C	1775	HIS
1	C	1949	GLN
1	C	1952	GLN
1	C	2127	GLN
1	C	2247	GLN
1	C	2420	HIS
1	C	2856	ASN
1	C	3699	HIS
1	C	3700	GLN
1	C	3771	HIS
1	C	3813	GLN
1	C	4806	ASN
1	C	5031	GLN
2	D	87	HIS
1	E	57	ASN
1	E	111	HIS
1	E	113	HIS
1	E	203	ASN
1	E	349	GLN
1	E	379	HIS
1	E	395	GLN
1	E	465	GLN
1	E	495	ASN
1	E	593	HIS
1	E	765	GLN
1	E	1127	HIS

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Mol	Chain	Res	Type
1	E	1203	ASN
1	E	1252	HIS
1	E	1274	HIS
1	E	1586	ASN
1	E	1610	ASN
1	E	1629	GLN
1	E	1631	GLN
1	E	1645	ASN
1	E	1663	HIS
1	E	1691	GLN
1	E	1693	GLN
1	E	1775	HIS
1	E	1949	GLN
1	E	1952	GLN
1	E	2127	GLN
1	E	2246	ASN
1	E	2247	GLN
1	E	2420	HIS
1	E	2856	ASN
1	E	3699	HIS
1	E	3700	GLN
1	E	3771	HIS
1	E	3813	GLN
1	E	4806	ASN
1	E	5031	GLN
2	F	87	HIS
1	G	57	ASN
1	G	111	HIS
1	G	113	HIS
1	G	203	ASN
1	G	349	GLN
1	G	379	HIS
1	G	395	GLN
1	G	465	GLN
1	G	495	ASN
1	G	593	HIS
1	G	765	GLN
1	G	1127	HIS
1	G	1203	ASN
1	G	1252	HIS
1	G	1274	HIS
1	G	1586	ASN

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Mol	Chain	Res	Type
1	G	1610	ASN
1	G	1629	GLN
1	G	1631	GLN
1	G	1645	ASN
1	G	1663	HIS
1	G	1691	GLN
1	G	1693	GLN
1	G	1775	HIS
1	G	1949	GLN
1	G	1952	GLN
1	G	2125	HIS
1	G	2127	GLN
1	G	2247	GLN
1	G	2420	HIS
1	G	2856	ASN
1	G	3699	HIS
1	G	3700	GLN
1	G	3767	GLN
1	G	3771	HIS
1	G	4806	ASN
1	G	4833	ASN
1	G	4984	ASN
1	G	5031	GLN
2	H	87	HIS

5.3.3 RNA

There are no RNA molecules in this entry.

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

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

5.5 Carbohydrates

There are no monosaccharides in this entry.

5.6 Ligand geometry

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.

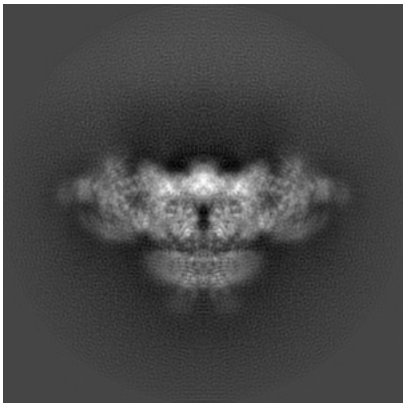
6 Map visualisation

This section contains visualisations of the EMDB entry EMD-9520. These allow visual inspection of the internal detail of the map and identification of artifacts.

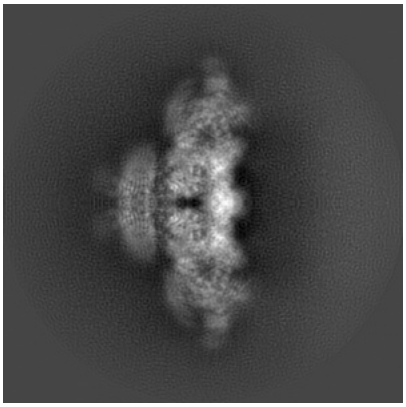
No raw map or half-maps were deposited for this entry and therefore no images, graphs, etc. pertaining to the raw map can be shown.

6.1 Orthogonal projections

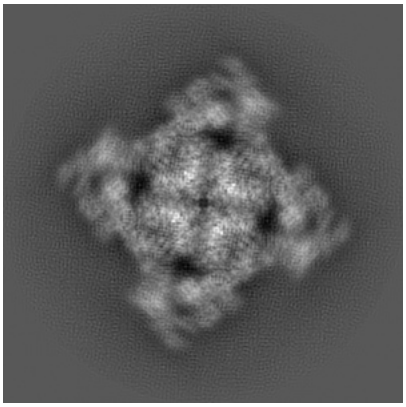
6.1.1 Primary map



X



Y

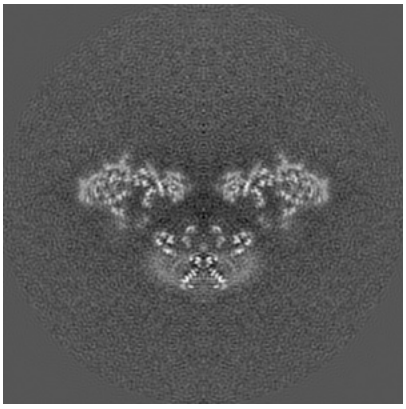


Z

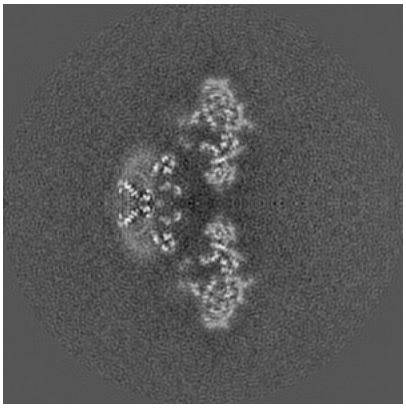
The images above show the map projected in three orthogonal directions.

6.2 Central slices

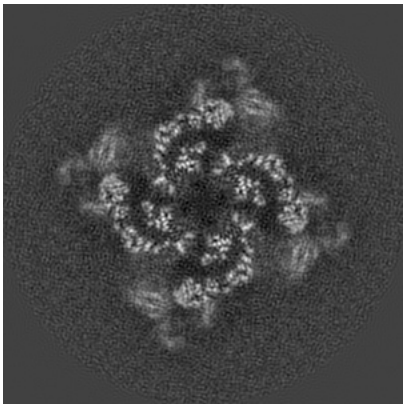
6.2.1 Primary map



X Index: 180



Y Index: 180

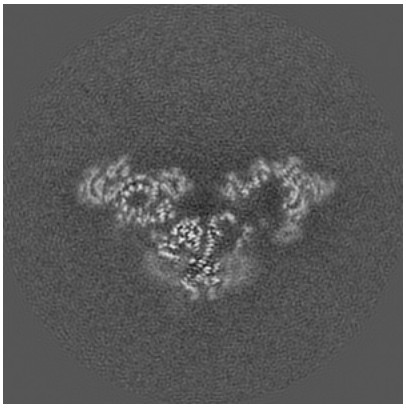


Z Index: 180

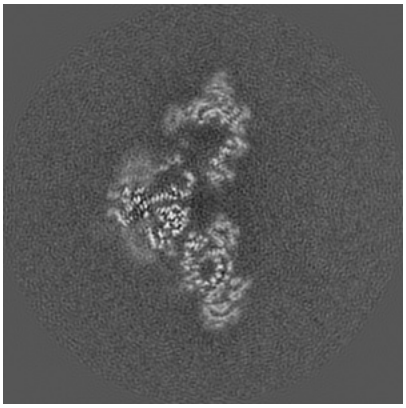
The images above show central slices of the map in three orthogonal directions.

6.3 Largest variance slices (i)

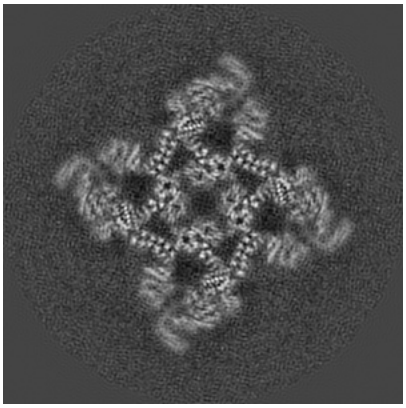
6.3.1 Primary map



X Index: 187



Y Index: 173

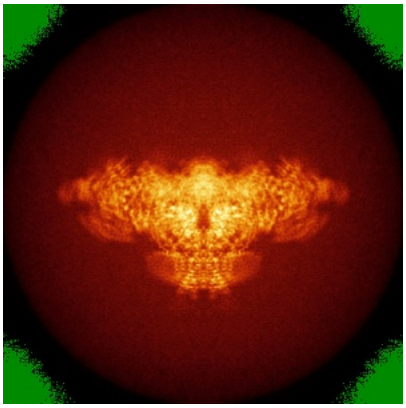


Z Index: 191

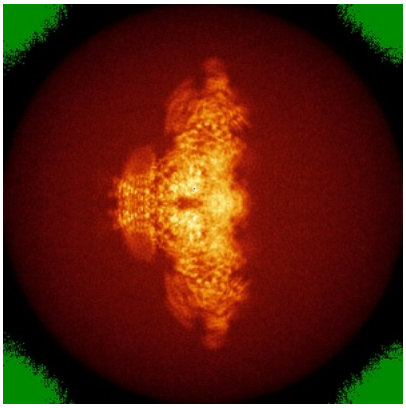
The images above show the largest variance slices of the map in three orthogonal directions.

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

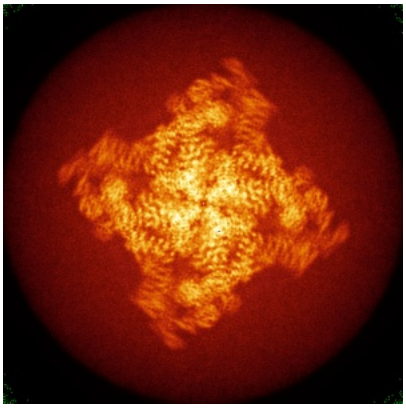
6.4.1 Primary map



X



Y

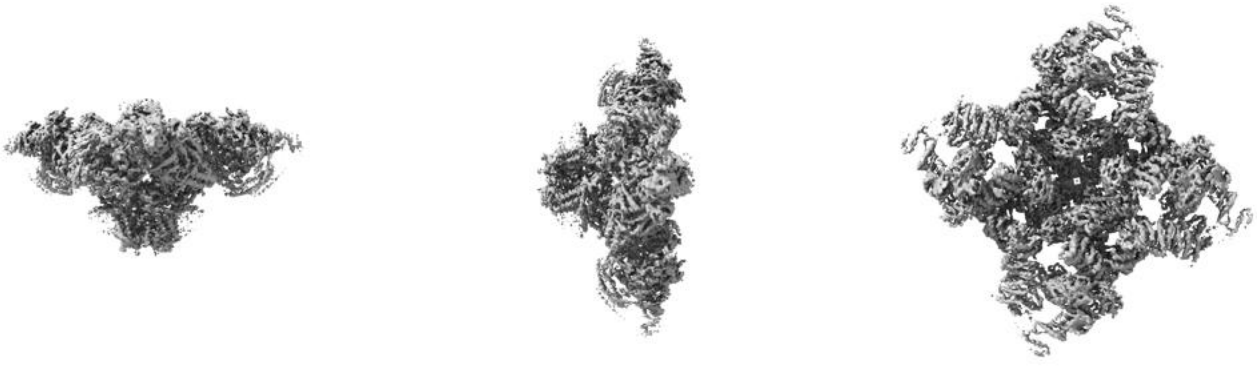


Z

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

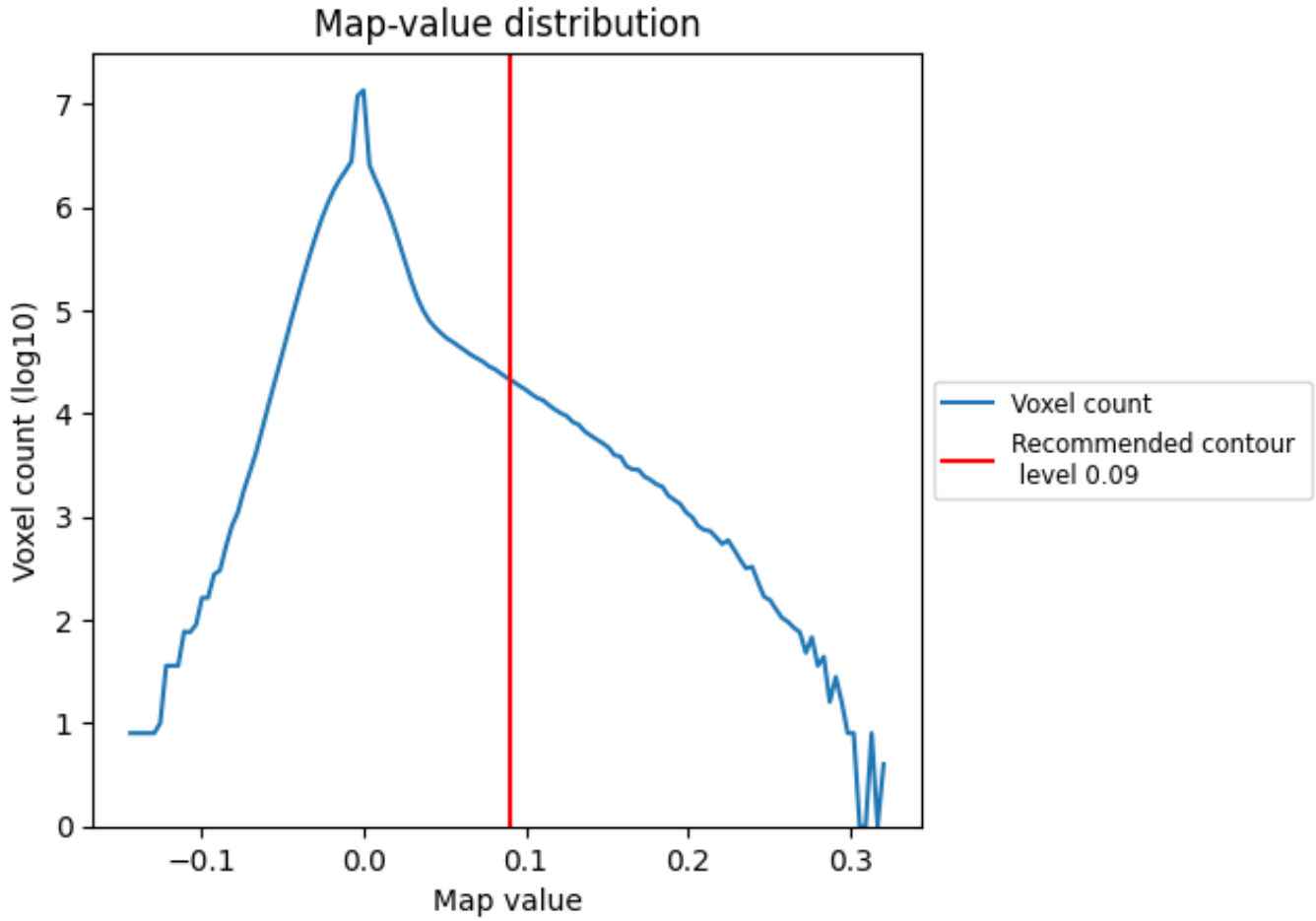
6.6 Mask visualisation (i)

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

7 Map analysis

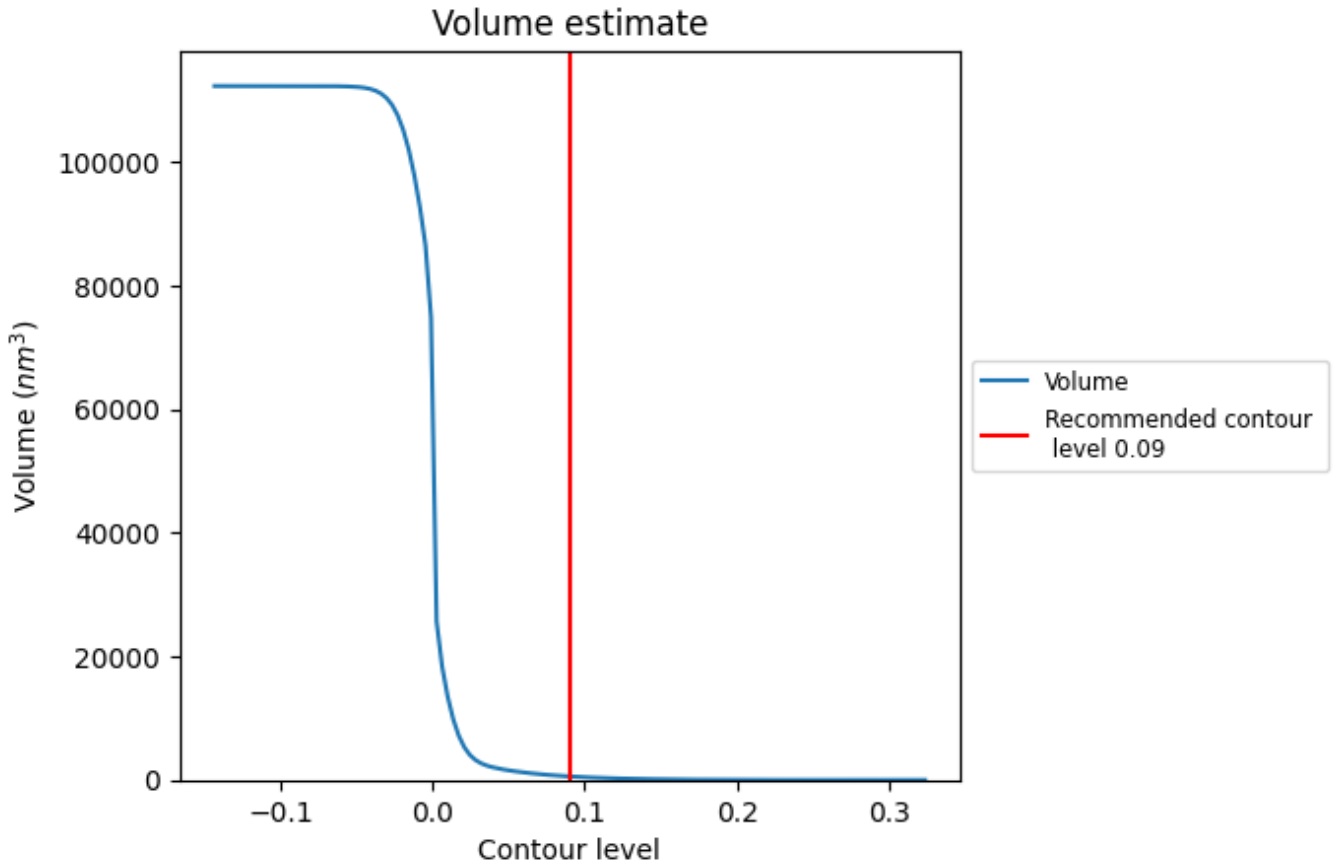
This section contains the results of statistical analysis of the map.

7.1 Map-value distribution



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

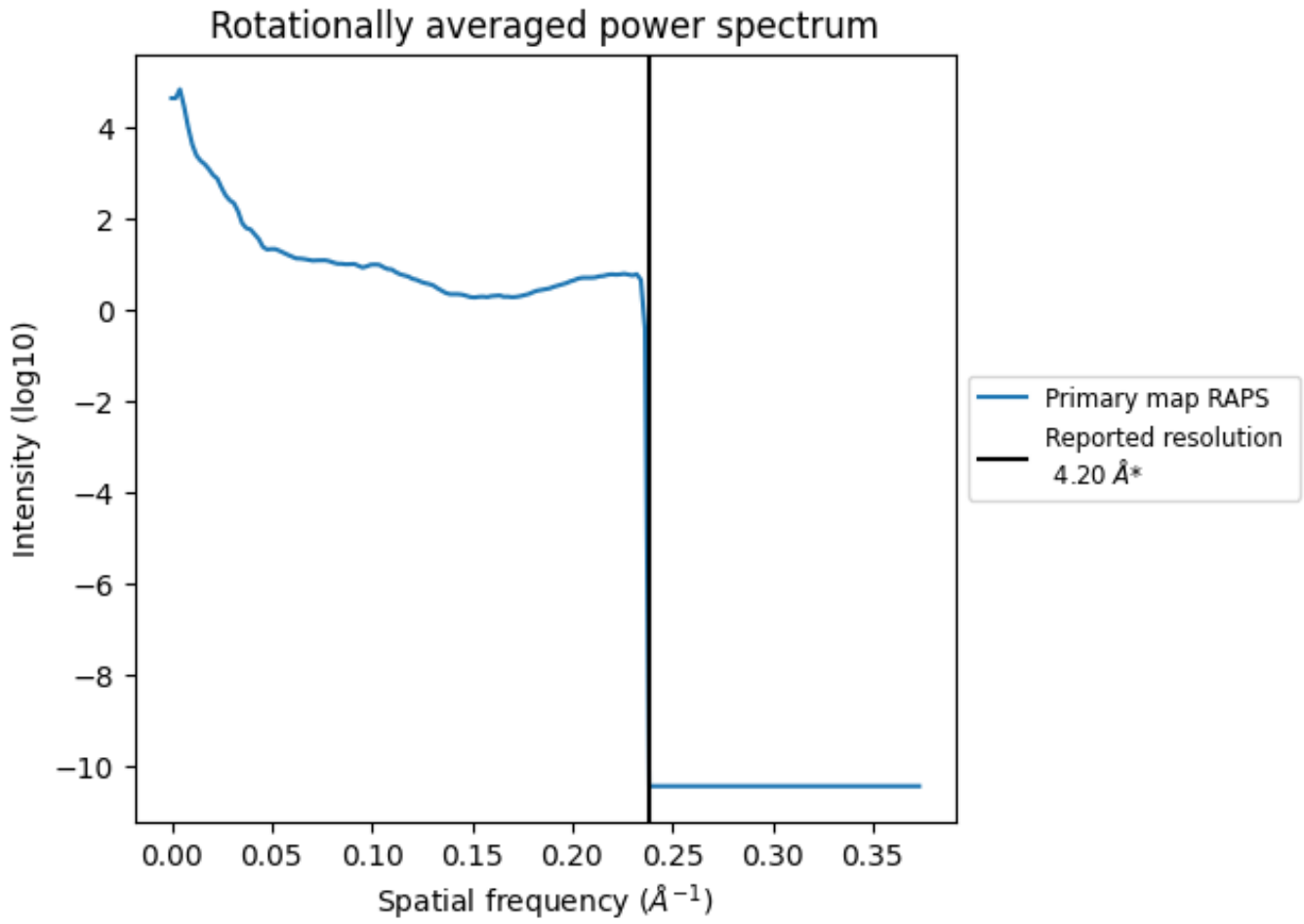
7.2 Volume estimate



The volume at the recommended contour level is 572 nm^3; this corresponds to an approximate mass of 517 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 0.238 Å^{-1}

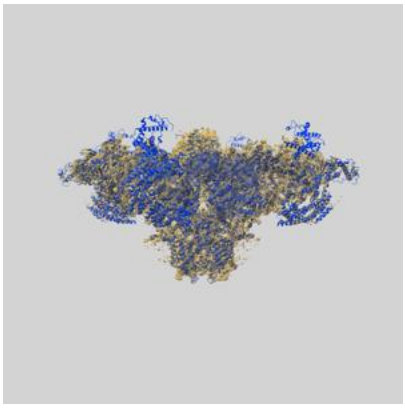
8 Fourier-Shell correlation

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

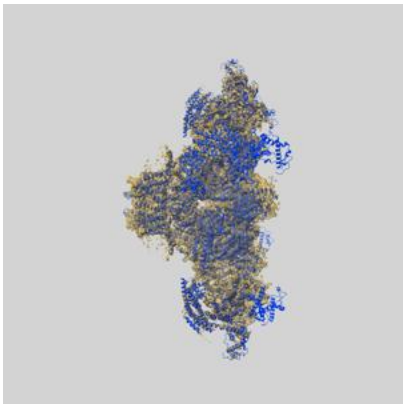
9 Map-model fit

This section contains information regarding the fit between EMDB map EMD-9520 and PDB model 5GL0. Per-residue inclusion information can be found in section 3 on page 4.

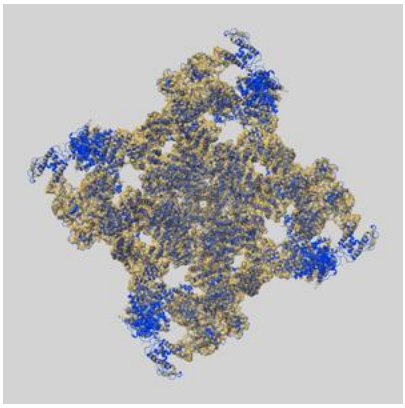
9.1 Map-model overlay



X



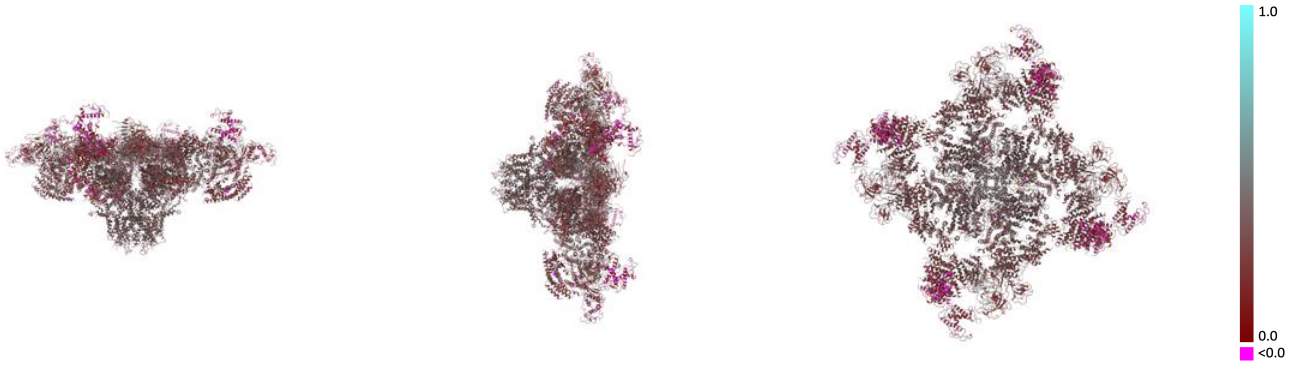
Y



Z

The images above show the 3D surface view of the map at the recommended contour level 0.09 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.

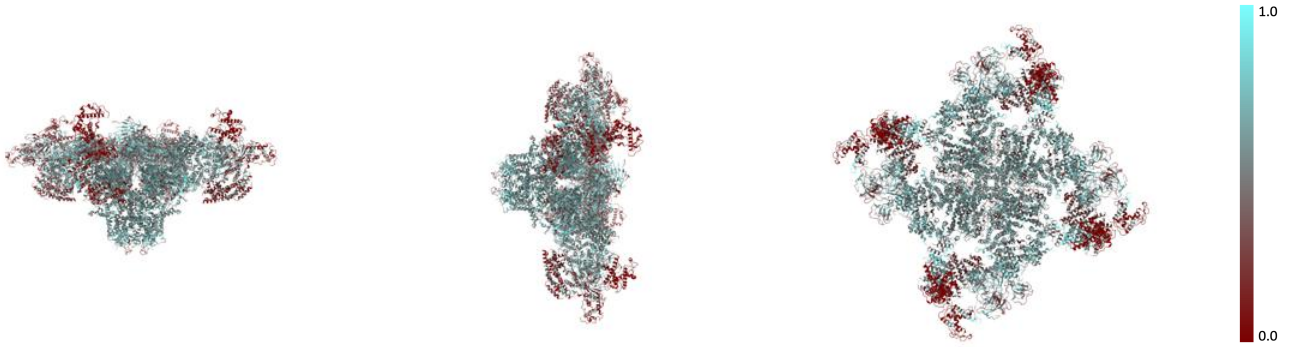
9.2 Q-score mapped to coordinate model (i)



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.

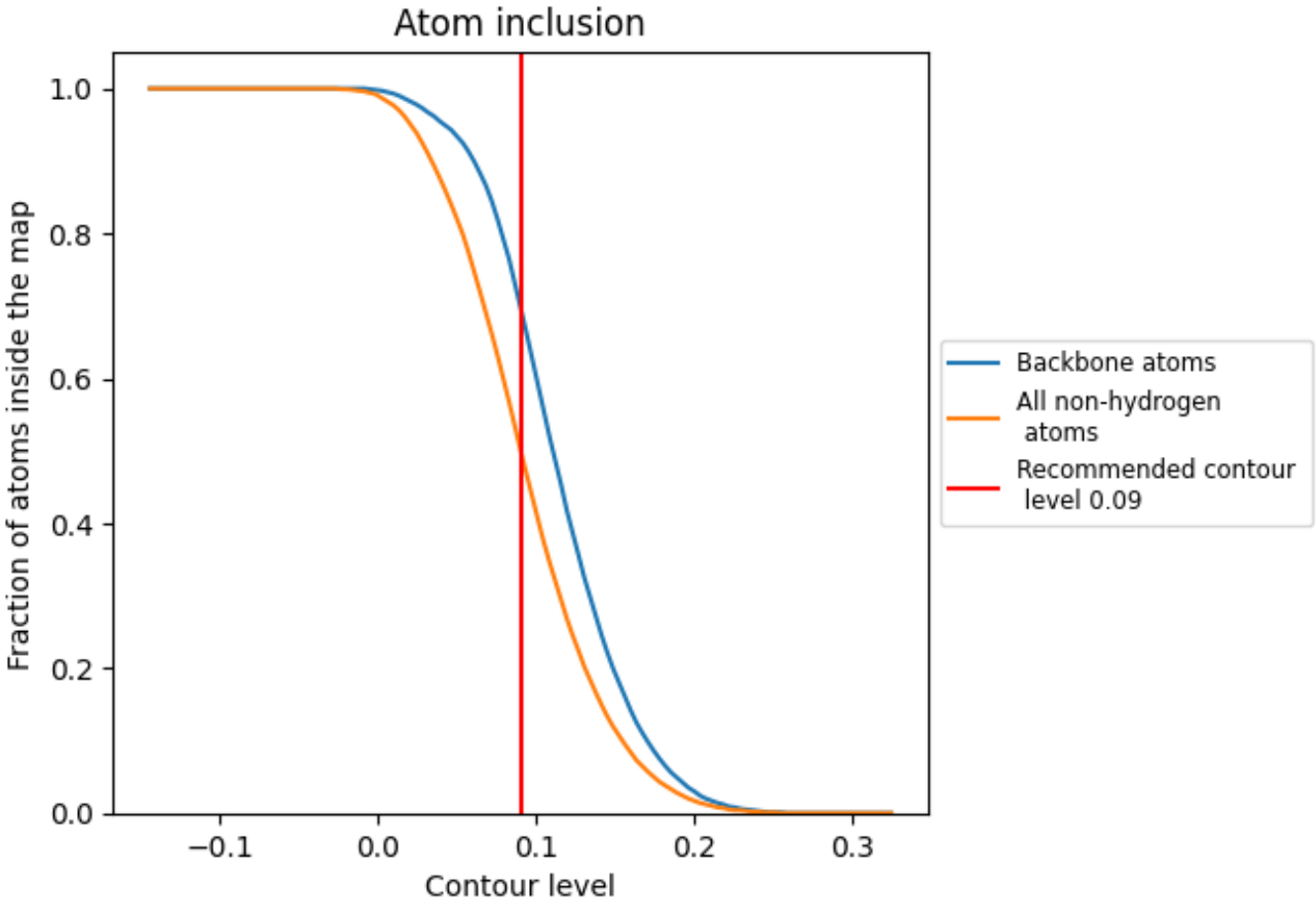
9.3 Atom inclusion mapped to coordinate model (i)



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 (0.09).

9.4 Atom inclusion (i)



At the recommended contour level, 70% of all backbone atoms, 50% of all non-hydrogen atoms, are inside the map.

9.5 Map-model fit summary

The table lists the average atom inclusion at the recommended contour level (0.09) and Q-score for the entire model and for each chain.

Chain	Atom inclusion	Q-score
All	0.5020	0.3090
A	0.5030	0.3090
B	0.4670	0.3060
C	0.5020	0.3090
D	0.4670	0.3070
E	0.5030	0.3090
F	0.4660	0.3010
G	0.5040	0.3100
H	0.4710	0.3070